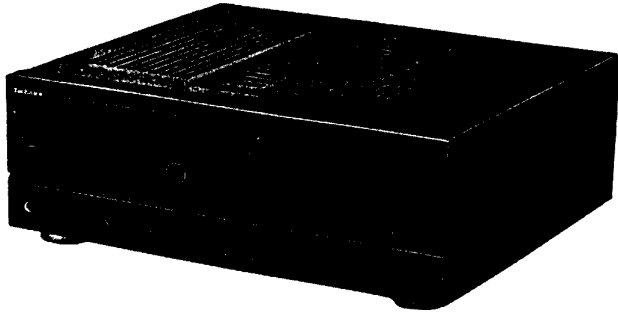


Service Manual

Stereo Integrated Amplifier

Amplifier

SU-VX800



Color

(K) Black Type

Areas

Country Code	Area	Color
(E)	Continental Europe	(K)
(EB)	Great Britain	
(EG)	F.R. Germany and Italy	
(GC)	Asia, Latin America, Middle Near East and Africa	
(GN)	Oceania	
(PX)	Far East-PX	

SPECIFICATIONS (DIN 45 500)

■ MAIN AMP. SECTION

(EXTENDED DIRECT DRIVE Input)

20 Hz~20 kHz continuous power output both channels driven	2 × 110 W (8Ω)
1 kHz continuous power output both channels driven (THD 1%)	2 × 130 W (8 Ω) 2 × 180 W (4 Ω)
63 Hz~12.5 kHz continuous power output both channels driven (THD: 0.7%)	2 × 120 W (8 Ω) 2 × 160 W (4 Ω)
Total harmonic distortion	
rated power at 20 Hz~20 kHz	0.007% (8 Ω)
half power at 20 Hz~20 kHz	0.005% (8 Ω)
half power at 1 kHz	0.003% (8 Ω)
Intermodulation distortion (50 Hz: 7 kHz = 4:1, SMPTE)	
rated power	0.009% (8 Ω)
Residual hum and noise	0.02 mV
Damping factor	80 (8 Ω), 40 (4 Ω)
Headphones output level/impedance	735 mV/330 Ω
Load impedance	
A or B, BI-WIRING	4~16 Ω
A and B	8~16 Ω

■ PRE AMP. SECTION

Input sensitivity/impedance	
PHONO MM	2.5 mV/47 kΩ
MC	250 μV/220 Ω
TUNER, CD, AUX, TAPE 1, TAPE 2/DAT, ADAPTOR	150 mV/22 kΩ
EXTENDED DIRECT DRIVE	
UNBALANCE	1 V/10 kΩ
BALANCE	1 V/20 kΩ
Phono maximum input voltage (1 kHz, RMS)	
MM	170 mV
MC	15 mV

S/N (Rated power 4 Ω)

PHONO MM	79 dB (86 dB, IHF '66)
MC	67 dB (S = 250 μV, 68 dB, IHF '66)

TUNER, CD, AUX, TAPE 1, TAPE 2/DAT, ADAPTOR

100 dB (103 dB, IHF '66)

EXTENDED DIRECT DRIVE

UNBALANCE	106 dB (112 dB, IHF '66)
BALANCE	99 dB (107 dB, IHF '66)

S/N at -26 dB power (4 Ω)

PHONO MM	78 dB
MC	67 dB

TUNER, CD, AUX, TAPE 1, TAPE 2/DAT, ADAPTOR

88 dB

EXTENDED DIRECT DRIVE

UNBALANCE	102 dB
BALANCE	98 dB

S/N at 50 mW power (4 Ω)

PHONO MM	75 dB
MC	67 dB

TUNER, CD, AUX, TAPE 1, TAPE 2/DAT, ADAPTOR

86 dB

EXTENDED DIRECT DRIVE

UNBALANCE	95 dB
BALANCE	95 dB

Frequency response

PHONO MM	RIAA standard curve ±0.8 dB (30 Hz~15 kHz)
----------	-----------------------------------------------

TUNER, CD, AUX, TAPE 1, TAPE 2/DAT, ADAPTOR

4 Hz~150 kHz (+0, -3 dB)
+0 dB, -0.2 dB (20 Hz~20 kHz)

EXTENDED DIRECT DRIVE

4 Hz~170 kHz (+0, -3 dB)
+0 dB, -0.2 dB (20 Hz~20 kHz)

Tone controls

BASS	50 Hz, +10~-10 dB
TREBLE	20 kHz +10~-10 dB

Muting

-20 dB

Subsonic filter

20 Hz, -12 dB/oct

Loudness control (volume at -30 dB)

50 Hz, +10 dB

Technics

Output voltage/impedance
TAPE 1, TAPE 2/DAT REC OUT 150 mV
Channel balance (AUX 250 Hz~6.3 kHz) ±1 dB
Channel separation (AUX 1 kHz) 50 dB

Dimensions (W × H × D) 430 × 158 × 429 mm
 (16-15/16" × 6-7/32" × 16-29/32")
Weight 17.0 kg (37.4 lb.)

■ **GENERAL**

Power consumption 870 W
Power supply
For Great Britain and Oceania: AC 50/60 Hz, 230/240 V
For F.R. Germany, Italy and Continental Europe: AC 50/60 Hz, 230 V
For Others: AC 50/60 Hz, 110 V/127 V/220 V/240 V

Notes:

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

■ **CONTENTS**

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BEFORE REPAIR AND ADJUSTMENT	2	SCHEMATIC DIAGRAM	13~19
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■ **BEFORE REPAIR AND ADJUSTMENT**

- Turn off the power supply. Using a 10Ω, 10 W resistor, shortcircuit both ends of power supply capacitors (C601, C602, C607 and C608) in order to discharge the voltage.
- Before turning on the power switch of the unit.
 - Connect the voltage controller to the primary side.
 - Connect the AC ampere meter to the primary side or connect the DC voltage meter to the "±B" circuit of the secondary side.
 - Turn the VR of ICQ (VR401, VR402, VR403 and VR404) to minimum (counterclockwise).
 - 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.
 - 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 110 V	AC 120 V	AC 220 V/230 V	AC 240 V	AC 240 V (GC, PX)
Consumed current	50 Hz	300~900 mA	270~810 mA	150~450 mA	140~430 mA	135~405 mA
	60 Hz	—	—	—	—	—

■ **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.

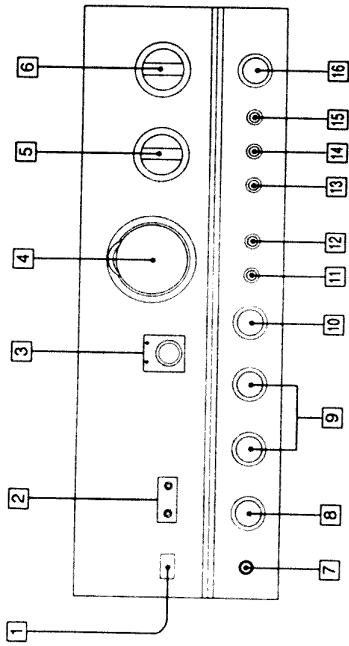
If this occurs, follow the procedure outlined below:

- Turn off the power.
- Determine the cause of the problem and correct it.
- 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.

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 Extended direct drive selector/indicator (EXTENDED DIRECT DRIVE)

This selector is used to listen to the sound from a component connected to the "EXTENDED DIRECT DRIVE" terminals. Each time this selector is pressed, the mode changes from E.D.OFF → "UNBALANCE" → "BALANCE".

When this selector is set to the "BALANCE" position or "UNBALANCE" position, a superior level of tone quality can be obtained, because the signals from the component connected to the "EXTENDED DIRECT DRIVE" terminals are sent directly to the variable gain amplifier and ODB power amplifier section of this unit.

The tone control circuit, balance control, loudness switch, muting switch, mode selector and adaptor switch are bypassed.

4 Volume control/indicator (VOLUME)

There are two types of volume scale indications: one for when the extended direct drive selector (for SU-VX800) or the power amplifier direct switch (for SU-VX700) 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 Headphones jack (PHONES)

8 Speaker selector (SPEAKERS)

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

A: No sound will 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.

9 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.

10 Balance control (BALANCE)

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

11 Tone control switch (TONE CONTROL)

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

12 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.

13 Muting switch (MUTING)

This switch is used to temporarily reduce the volume level (approx. 1/10). The effect activates when setting this switch to the "ON" position.

14 Mode selector (MODE)

This selector is used to select stereo or monaural operation.

15 Adaptor switch (ADAPTOR)

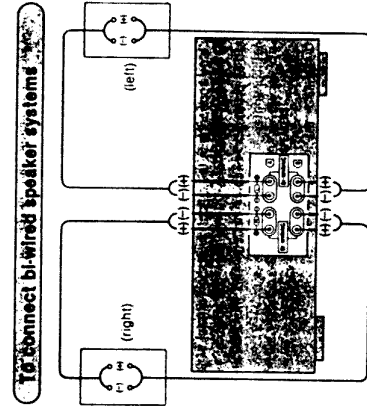
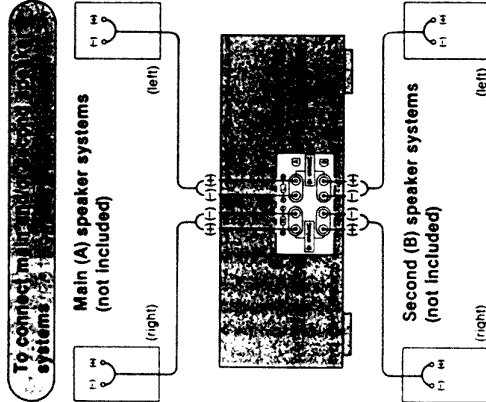
This switch is used when enjoying music by changing the sound quality with the graphic equalizer, etc.

16 Phono cartridge selector (PHONO SELECTOR)

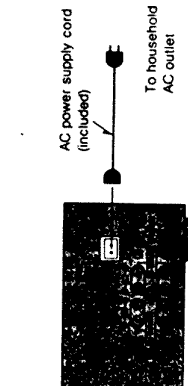
This selector should be set to the position which corresponds to the type of cartridge used on the turntable. The "SUBSONIC" position is used to eliminate ultra low-frequency noise such as motor "rumble" and unusual vibration of the woofer cone caused by a warped disc, etc.

CONNECTIONS

Connection to speaker systems

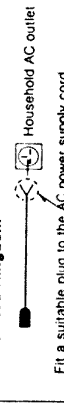


To connect the AC power supply cord (included)



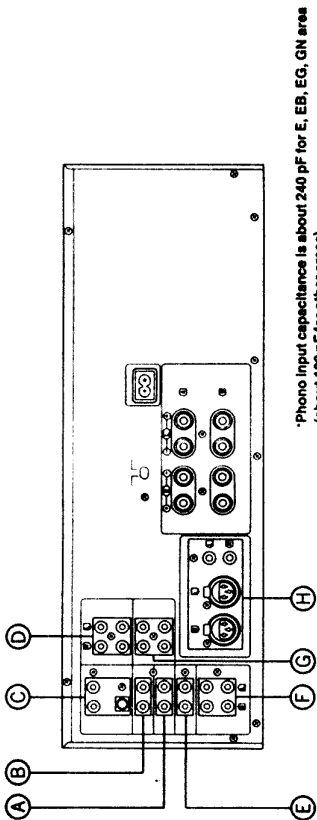
- Notes:**
- Connect the AC power supply cord (included) after all other cables and cords are connected.
 - The configuration of the AC outlet and AC power supply cord differs according to area.

For United Kingdom



To connect to each terminal

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

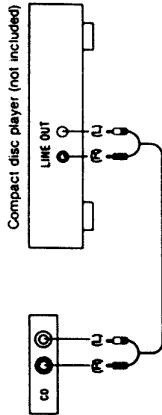


Stereo connection cable
White (L) —
Red (R) —

*Phono input capacitance is about 240 pF for E, EB, EG, GN area (about 120 pF for other areas).

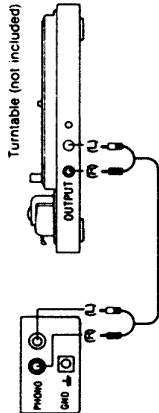
(A) "CD" terminals

Connect a compact disc player.



(C) "PHONO" terminals

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



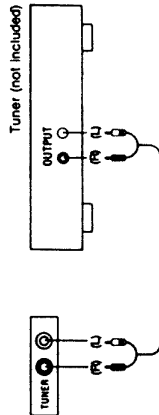
(GND) terminal

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

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.

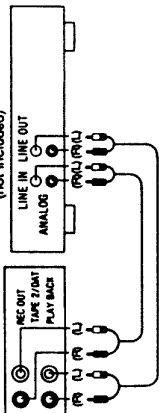
(B) "TUNER" terminals

Connect a tuner.



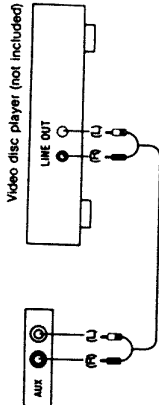
(D) "TAPE 1" terminals

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



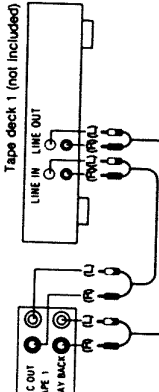
(E) "VIDEO" terminals

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



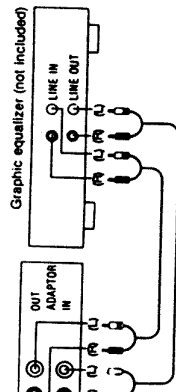
(F) "TAPE 1" terminals

Connect a first tape deck.



(G) "ADAPTOR" terminals

Connect a graphic equalizer.

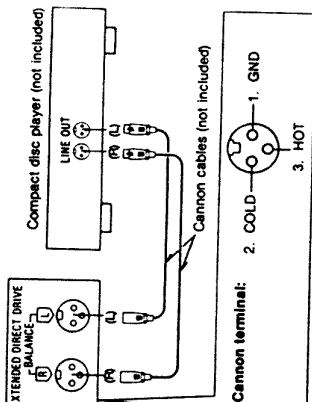


(H) "EXTENDED DIRECT DRIVE" terminals

Connect a compact disc player, a digital audio tape deck, or a D/A converter.
A superior level of tone quality can be obtained, because the signal from these terminals are sent directly to the variable gain amplifier and ODB power amplifier section of this unit.
The sounds from a component connected to these terminals cannot be recorded.

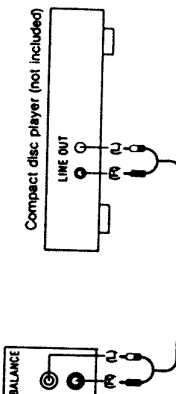
BALANCE

Connect to a compact disc player, a digital audio tape deck, or a D/A converter that has a cannon type output terminal (balanced output).



UNBALANCE

Connect to a compact disc player, a digital audio tape deck, or a D/A converter that has RCA type output terminal.



ACCESSORIES

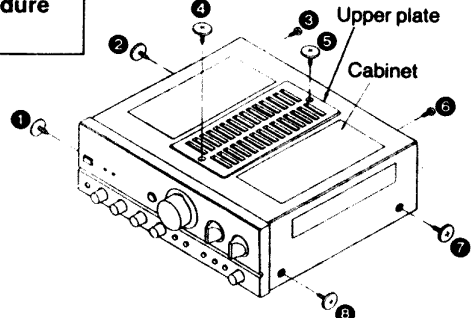
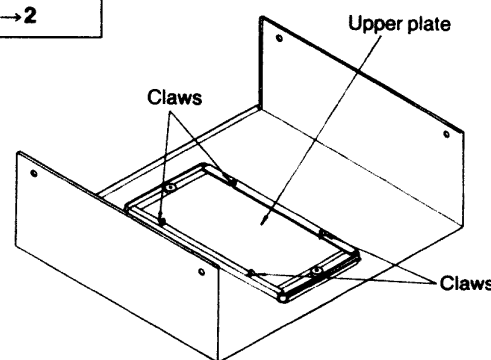
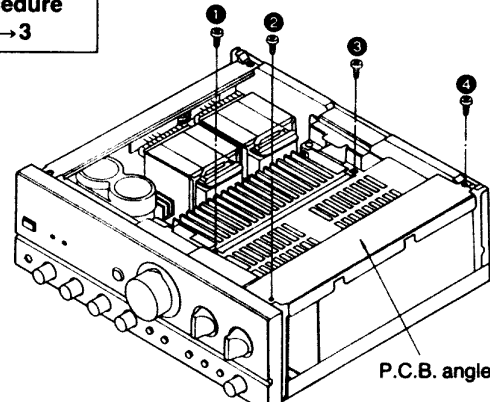
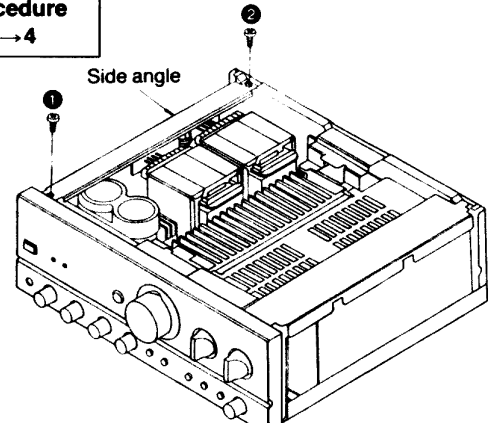
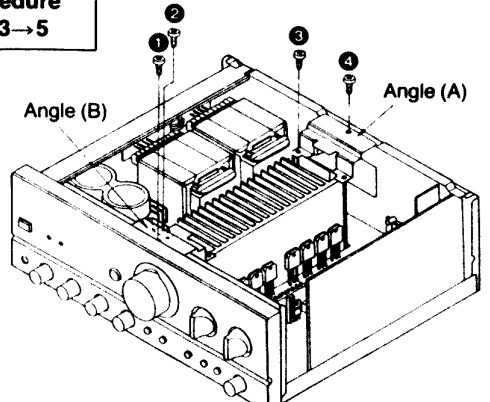
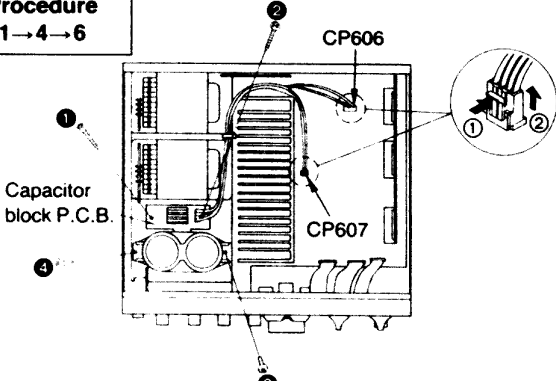


- AC Power supply cord
<SFDAC06E03> For (E), (EG) areas.
<SJA183> For (EB) area only.
<RJA0004> For (GC), (PX) areas.
<SJA173> For (GN) area only.
- AC Plug adaptor
<SJPg215> For (GC), (PX) areas.

DISASSEMBLY INSTRUCTIONS

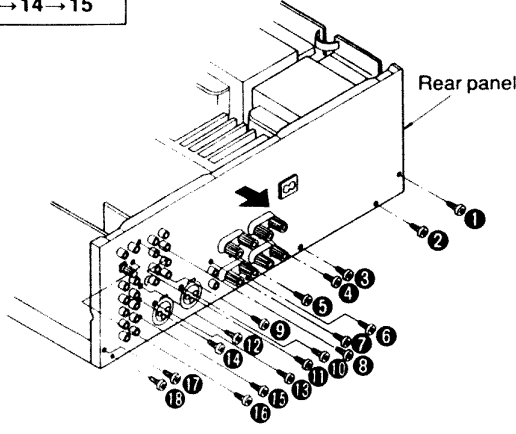
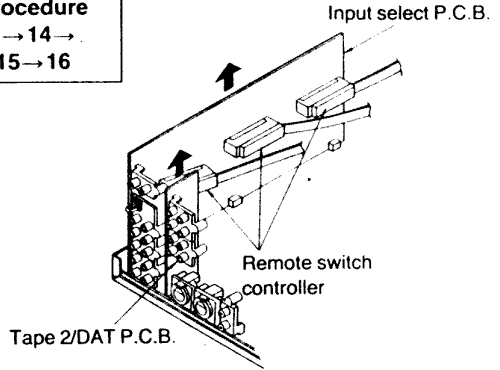
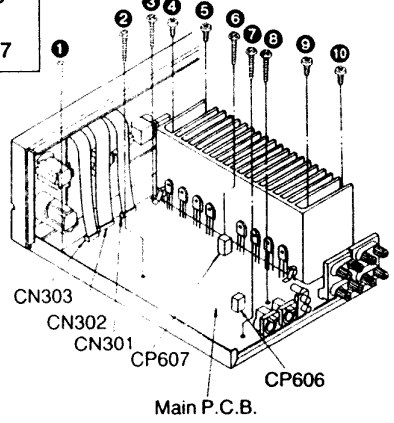
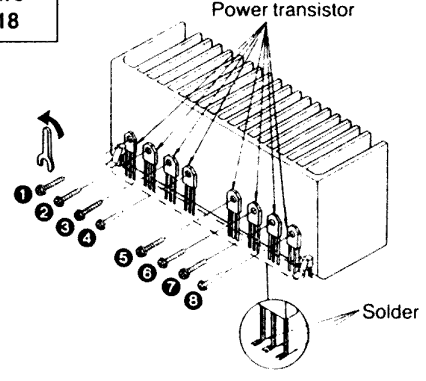
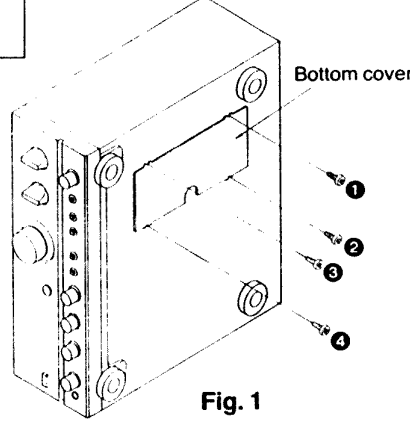
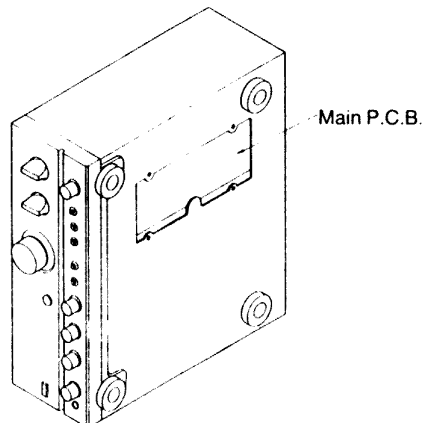
"ATTENTION SERVICER"

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 Upper Plate</p>
<p>Procedure 1</p>	 <p>●Remove the 8 screws (1-8).</p> <p>Attention: When removing the cabinet from the unit, please don't forget to remove the 2 screws (4, 5) of the upper plate. Unless you remove the 2 screws (4, 5), it may change shape of the cabinet.</p>	<p>Procedure 1-2</p>	 <p>●Release the 4 claws.</p>
<p>Ref. No. 3</p>	<p>Removal of the P.C.B. angle</p>	<p>Ref. No. 4</p>	<p>Removal of the side angle</p>
<p>Procedure 1-3</p>	 <p>●Remove the 4 screws (1-4).</p>	<p>Procedure 1-4</p>	 <p>●Remove the 2 screws (1, 2).</p>
<p>Ref. No. 5</p>	<p>Removal of the angle (A) and angle (B)</p>	<p>Ref. No. 6</p>	<p>Removal of the capacitor block P.C.B.</p>
<p>Procedure 1-3-5</p>	 <p>●Remove the 4 screws (1-4).</p>	<p>Procedure 1-4-6</p>	 <p>1. Remove the 2 connectors (CP606, CP607).</p> <p>2. Remove the 4 screws (1-4).</p>

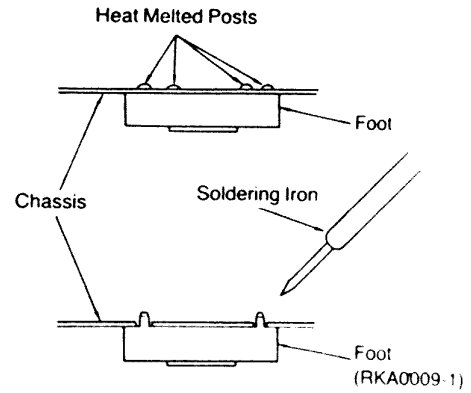
<p>Ref. No. 7</p>	<p>Removal of the power transformer (1), (2)</p>	<p>Ref. No. 8</p>	<p>Removal of the front panel ass'y</p>
<p>Procedure 1→4→7</p>	<p>Power transformer (1)</p> <p>Power transformer (2)</p> <p>● Remove the 8 screws (1~8).</p>	<p>Procedure 1→3→4→ 5→8</p>	<p>Remote switch controller</p> <p>CN501 CN401 CN201</p>
<p>■ Removal of the remote switch controller</p> <p>● Remove the 4 claws.</p> <p>S101 (PHONO) Claws Remote switch controller</p> <p>S102, S103 (REC, INPUT) Claws Remote switch controller</p> <p>■ Replacing of the remote switch controller</p> <p>1. Turn the selector knobs to the arrows.</p> <p>2. Put the switch slider of switch to end and put in the remote switch controller.</p> <p>Rec selector knob Input selector knob Phono selector knob</p> <p>Remote switch controller Lever Slider Switch</p>		<p>1. Remove the remote switch controller.</p> <p>2. Remove the 3 flat cables (CN201, CN401, CN501).</p> <p>Front panel ass'y</p> <p>3. Remove the 4 screws (1~4).</p> <p>4. Remove the front panel ass'y in the direction of arrow.</p>	
<p>Ref. No. 9</p>	<p>Removal of the power switch/ headphones jack P.C.B.</p>	<p>Ref. No. 10</p>	<p>Removal of the volume P.C.B.</p>
<p>Procedure 1→3→4→ 5→8→9</p>	<p>Power switch/ headphones jack P.C.B.</p> <p>CN502</p> <p>1. Remove the 1 connector (CN502).</p> <p>2. Remove the 2 screws (1, 2).</p>	<p>Procedure 1→3→4→ 5→8→9</p>	<p>Volume knob</p> <p>Nut</p> <p>Claw</p> <p>Volume P.C.B.</p> <p>1. Pull out the volume knob.</p> <p>2. Remove the nut.</p> <p>3. Release the 1 claw.</p>

<p>Ref. No. 11</p>	<p>Removal of the remote switch controller</p>	<div style="display: flex; justify-content: space-between;"> <div data-bbox="358 184 737 583"> <p>Nuts</p> <p>Knobs</p> <p>Nut</p> </div> <div data-bbox="862 128 1154 590"> <p>Remote switch controller (REC)</p> <p>Remote switch controller (INPUT)</p> <p>Remote switch controller (PHONO)</p> </div> <div data-bbox="1219 174 1446 562"> <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> </div> </div> <div data-bbox="201 611 412 659"> <ol style="list-style-type: none"> 1. Pull out the 3 knobs. 2. Remove the 3 nuts. </div> <div data-bbox="850 617 1419 642"> <ol style="list-style-type: none"> 3. Remove the remote switch controller in the direction of arrow. </div>	
<p>Ref. No. 12</p>	<p>Removal of the operation P.C.B.</p>	<div style="display: flex; justify-content: space-between;"> <div data-bbox="302 806 748 1157"> <p>Nuts</p> <p>Knobs</p> <p>Nuts</p> </div> <div data-bbox="894 772 1398 1150"> <p>Operation P.C.B.</p> </div> </div> <div data-bbox="212 1226 412 1274"> <ol style="list-style-type: none"> 1. Pull out the 4 knobs. 2. Remove the 4 nuts. </div> <div data-bbox="850 1220 1365 1268"> <ol style="list-style-type: none"> 3. Remove the 8 screws (①~⑧). 4. Remove the operation P.C.B. in the direction of arrow. </div>	
<p>Ref. No. 13</p>	<p>Removal of the switch P.C.B.</p>	<p>Ref. No. 14</p>	<p>Removal of the AC INLET/VOLT ADJ. P.C.B.</p>
<p>Procedure 1→3→4→ 5→8→9→ 10→12→13</p>	<div data-bbox="289 1423 656 1751"> <p>Switch P.C.B.</p> <p>Claw</p> </div> <div data-bbox="201 1843 461 1892"> <ol style="list-style-type: none"> 1. Remove the 1 screw (①). 2. Remove the 1 claw. </div>	<p>Procedure 1→14</p>	<div data-bbox="889 1457 1435 1766"> <p>Claws</p> <p>AC inlet cover</p> <p>AC INLET/VOLT ADJ. P.C.B.</p> </div> <div data-bbox="867 1843 1240 1892"> <ol style="list-style-type: none"> 1. Remove the 1 screw (①). 2. Release the 2 claws of AC inlet cover. </div>

<p>Ref. No. 15</p>	<p>Removal of the rear panel</p>	<p>Ref. No. 16</p>	<p>Removal of the input select P.C.B. and tape 2/DAT P.C.B.</p>
<p>Procedure 1→14→15</p>	 <p>1. Remove the 18 screws (1~18). 2. Remove the rear panel in the direction of arrow.</p>	<p>Procedure 1→14→15→16</p>	 <p>■ Input select P.C.B. 1. Remove the remote switch controller. 2. Remove the input select P.C.B. in the direction of arrow.</p> <p>■ Tape 2/DAT P.C.B. ● Remove the tape 2/DAT P.C.B. in the direction of arrow.</p>
<p>Ref. No. 17</p>	<p>Removal of the main P.C.B.</p>	<p>Ref. No. 18</p>	<p>Removal of the power transistor</p>
<p>Procedure 1→14→15→16→17</p>	 <p>1. Remove the 3-flat cables (CN301, CN302, CN303). 2. Remove the 2 connectors (CP606, CP607). 3. Remove the 10 screws (1~10).</p>	<p>Procedure 1→3→18</p>	 <p>1. Unsolder the power transistor. 2. Remove the 8 screws (1~8). ● When mounting the power transistor, apply silicon thermal compound (SZZ0L15) to the rear of the power transistor.</p>
<p>Ref. No. 19</p>	<p>Check of the main P.C.B.</p>	 <p>1. Remove the 4 screws (1~4).</p>  <p>2. When checking the soldered surface of the digital P.C.B. and replacing the parts, do as shown in the Fig. 2.</p>	

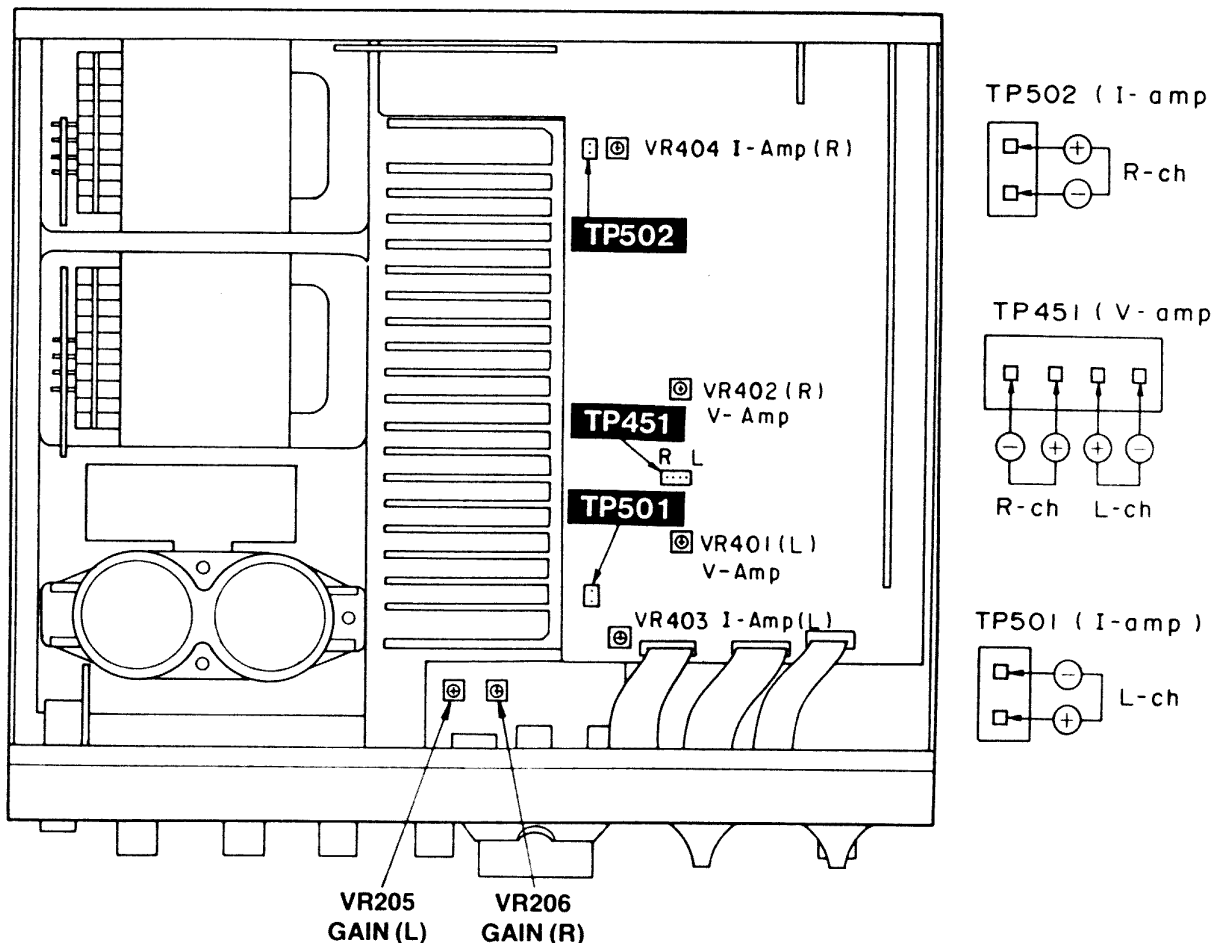
● Replacement of the Foot.

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.



■ MEASUREMENTS AND ADJUSTMENTS

● ADJUSTMENT POINTS



●ADJUSTMENT

Control positions and equipment used.

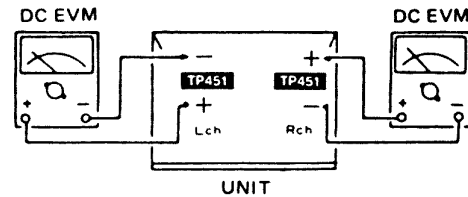
- Volume knob ∞ (Minimum)
- Speaker selector off

- Oscillator
- 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 (VR401, VR402) counter-clockwise.
3. Turn ON the set when it is cold, and about 5 ~ 7 sec. later, adjust VR401 and VR402 so that the voltage is 25mV.

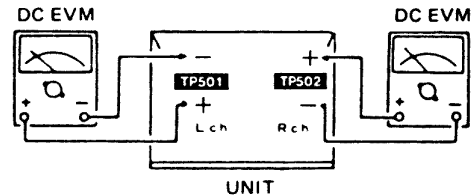
Also, check that the voltage is 25 ~ 30mV (standard: 27mV) after lapse of 10 ~ 15 minutes. (Below 50mV after lapse of 20min.).



(2) CURRENT DRIVE (I) AMP. IDLING (ICQ) ADJUSTMENT

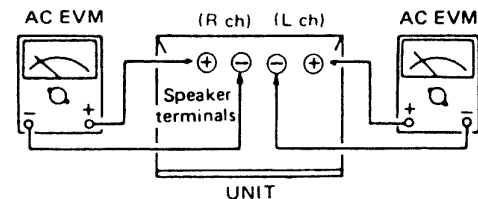
1. Test equipment connection is shown in figure. (Connect the DC EVM on both channels.)
2. Completely turn the (I) amp. adjusting volumes (VR403, VR404) counter-clockwise.
3. Turn ON the set when it is cold, and the "VOLTAGE CONTROL (V) AMP. IDLING (ICQ) ADJUSTMENT" later, adjust VR403 and VR404 so that the voltage is 3mV.

Also, check that the voltage is 4 ~ 7mV (standard: 5mV) after lapse of 10 ~ 15 minutes. (Below 15mV after lapse of 20 min.).



(3) AMP. GAIN ADJUSTMENT

1. Test equipment connection is shown in figure. (Connect the AC EVM on both channels.)
2. Set the input selector to the "CD".
3. Connect the CD terminal of this unit to the Oscillator.
4. Set the Oscillator voltage to 150 mV.
5. Set the speaker systems to the "A" or "B".
6. Place the volume control scale to the "0 dB".
7. Adjust VR205 (Lch) [VR206 (Rch)] so that the voltage is 30 ± 0.5 V.



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)		Q505, 506	2SA1535AQRS	TRANSISTOR	
				Q507, 508	2SC3182R	TRANSISTOR	
				Q509, 510	2SA1265R	TRANSISTOR	
IC101, 102	UPC4570C	I. C. PHONO/EQ. AMP.		Q511, 512	2SB1036R	TRANSISTOR	
IC105	NJM5532DD	I. C. BUFFER AMP.		Q513	2SA992EFPTA	TRANSISTOR	
IC201	UPC4570C	I. C. TONE AMP.		Q515, 516	2SC3182R	TRANSISTOR	
IC251	NJM5532DD	I. C. BUFFER AMP.		Q517, 518	2SA1265R	TRANSISTOR	
IC401, 402	M5218AP	I. C. ACTIVE SERVO		Q651	2SC3944AQRS	TRANSISTOR	
IC501	AN7073	I. C. POWER AMP.		Q652	2SA1535AQRS	TRANSISTOR	
IC651	M5218AP	I. C. BUFFER AMP.		Q653	2SC3944AQRS	TRANSISTOR	
IC701, 702	SVITC4013BAP	I. C. VOLTAGE AMP.		Q654	2SA1535AQRS	TRANSISTOR	
IC703	AN78L05TA	I. C. REGULATOR		Q701, 702	UN4115	TRANSISTOR	
		TRANSISTOR(S)		Q703, 704	2SC3311A-Q	TRANSISTOR	
				Q705, 706	2SC1845EFTA	TRANSISTOR	
						DIODE(S)	
Q101-104	2SK369GR	TRANSISTOR		D101, 102	MA165	DIODE	
Q201, 202	2SK389BG	TRANSISTOR		D151, 152	MA165	DIODE	
Q203-206	2SC3311A-Q	TRANSISTOR		D153, 154	MA4120	DIODE	
Q301, 302	2SA1123RSTTA	TRANSISTOR		D201, 202	MA4043M	DIODE	
Q303-308	2SA1309A-R	TRANSISTOR		D251	MA165	DIODE	
Q309-312	2SC2631RSTTA	TRANSISTOR		D252	MA4120	DIODE	
Q313, 314	2SK389BG	TRANSISTOR		D301-314	MA29WA	DIODE	
Q317, 318	2SC2631RSTTA	TRANSISTOR		D315, 316	MA4082MTA	DIODE	
Q319, 320	2SA1123RSTTA	TRANSISTOR		D352	LN018304P	L. E. D.	
Q321, 322	2SC3311A-Q	TRANSISTOR		D353	LN018304P	L. E. D.	
Q323, 324	2SA1309A-R	TRANSISTOR		D354	MA4030MTA	DIODE	
Q325, 326	2SA1123RSTTA	TRANSISTOR		D401-404	MA165	DIODE	
Q327, 328	2SC2631RSTTA	TRANSISTOR		D405-408	MA29WA	DIODE	
Q329, 330	2SC3311A-Q	TRANSISTOR		D409-412	MA4082MTA	DIODE	
Q331, 332	2SC2631RSTTA	TRANSISTOR		D413-416	MA165	DIODE	
Q333, 334	2SA1123RSTTA	TRANSISTOR		D501, 502	MA167	DIODE	
Q335, 336	2SC2631RSTTA	TRANSISTOR		D503	MA4160M	DIODE	
Q337, 338	2SA1123RSTTA	TRANSISTOR		D504	MA167	DIODE	
Q401, 402	2SA1123RSTTA	TRANSISTOR		D505	MA165	DIODE	
Q403-406	2SC2631RSTTA	TRANSISTOR		D507, 508	MA165	DIODE	
Q407-410	2SA1123RSTTA	TRANSISTOR		D601	SVDS10VB20F	DIODE	Δ
Q411-414	2SC2631RSTTA	TRANSISTOR		D602	1SR35200TB	DIODE	Δ
Q415, 416	2SA1123RSTTA	TRANSISTOR		D651, 652	MA4180-M	DIODE	
Q417, 418	2SD1761EF	TRANSISTOR		D653	MA165	DIODE	
Q419, 420	2SC3311A-Q	TRANSISTOR		D701, 702	MA165	DIODE	
Q421, 422	2SA1309A-R	TRANSISTOR		D705	1SS291TA	DIODE	
Q423, 424	2SC2631RSTTA	TRANSISTOR		D706, 707	MA165	DIODE	
Q425, 426	2SA1123RSTTA	TRANSISTOR		D708-710	LN018304P	L. E. D.	
Q427, 428	2SC3944AQRS	TRANSISTOR		D711	MA165	DIODE	
Q429, 430	2SA1535AQRS	TRANSISTOR		D713	MA4043M	DIODE	
Q501, 502	2SC1815BG	TRANSISTOR					
Q503, 504	2SC3944AQRS	TRANSISTOR					

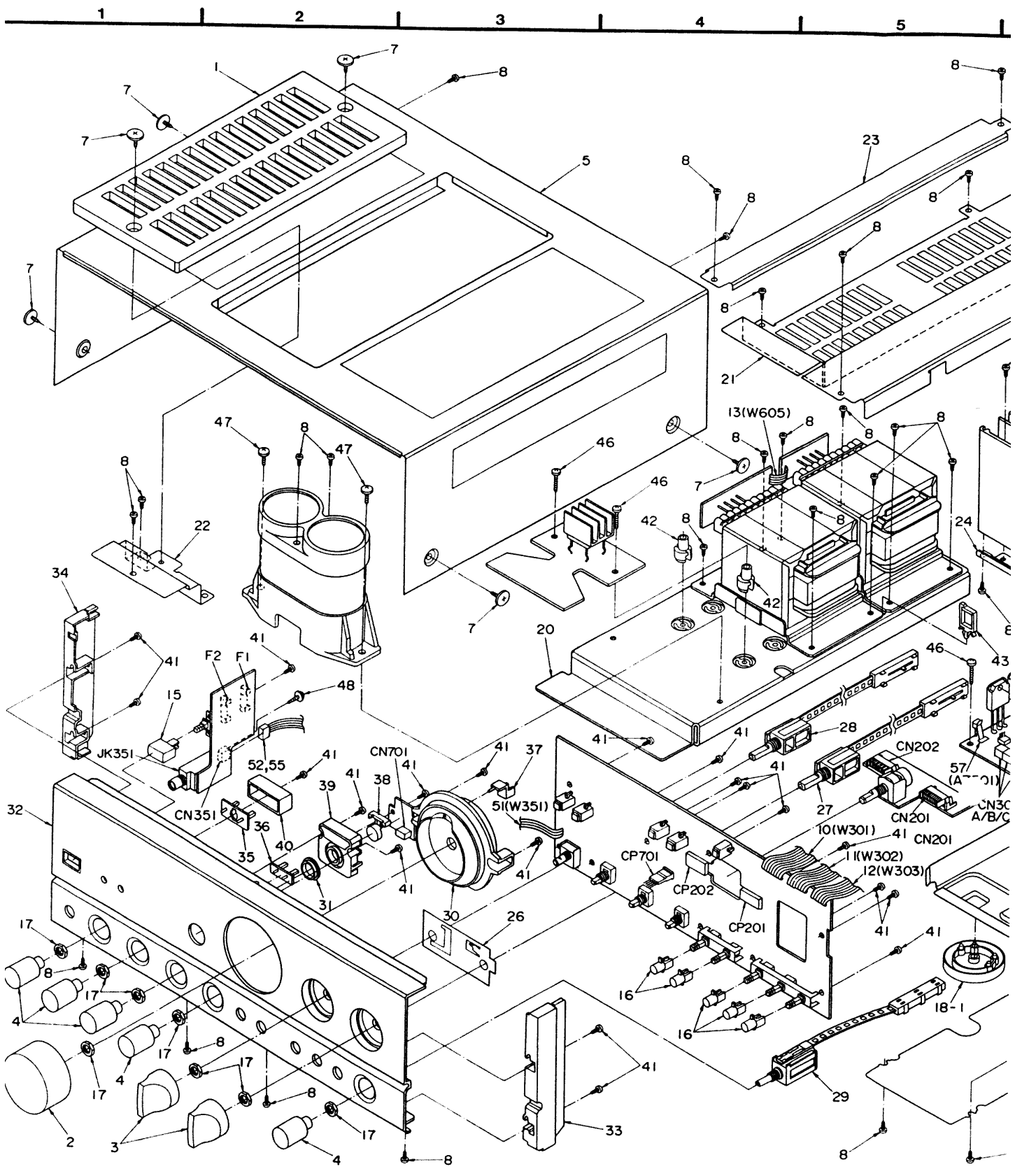
Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		VARIABLE RESISTOR(S)		CN301A	RJS1A1704	SOCKET (4P)	
				CN302A	RJS1A1704	SOCKET (4P)	
				CN303A	RJS1A1705	CONNECTOR (5P)	
VR201	RRV18J02A	V. R. VOLUME CONTROL		CN301B	RJS1A1704	SOCKET (4P)	
VR202	EVJ02QFA2G15	V. R. BALANCE		CN302B	RJS1A1704	SOCKET (4P)	
VR203, 204	EVJYA1FA2C15	V. R. BASS/TREBLE CONT.		CN303B	RJS1A1705	CONNECTOR (5P)	
VR205, 206	EVNDXAA00B33	V. R. GAIN ADJ.		CN301C	RJS1A1704	SOCKET (4P)	
VR401-404	EVNDXAA00B52	V. R. ICQ ADJ.		CP101	RJT057W009	CONNECTOR (9P)	
		THERMISTOR(S)		CP102, 103	RJT057W004	CONNECTOR (4P)	
				CP104, 105	RJT057W007	CONNECTOR (7P)	
				CP201, 202	RJT003K009M	CONNECTOR (9P)	
TH501, 502	ERTD2ZHL104T	THERMISTOR		CP351	RJP3G9YA	CONNECTOR (3P)	
		COIL (S)		CP606	RJPIA4103	CONNECTOR (3P)	
				CP607	RJPLA3202	CONNECTOR (2P)	
L1	SLQZ650MH49	COIL	△ (E, EB, EG, GN)	CP701	SJSS0581BB	SOCKET (5P)	
L101, 102	SLM1Z33	COIL	(E, EB, EG, GN)			FUSE HOLDER(S)	
L501, 502	SLQY07G-40	COIL					
L503, 504	SLQY18G-10	COIL		FC1-4	EYF52BC	FUSE HOLDER	
L551-554	SLQY07G-40	COIL				RELAY (S)	
		TRANSFORMER (S)					
				RL101, 102	RSYG5A237P12	RELAY	
T1, 2	RTP1P5E003-W	POWER TRANSFORMER	△ (E, EB, EG, GN)	RL201	RSYG5A237P12	RELAY	
T1	RTP1R5E004-W	POWER TRANSFORMER	△ (GC, PX)	RL501, 502	SSY134	RELAY	
		FUSE (S)		RL503	RSY0009-0	RELAY	
F1, 2	XBA2C20T80	FUSE, 250V T2A	△ (E, EB, EG, GN)				
F1, 2	XBA2C40T80	FUSE, 250V T4A	△ (GC, PX)	JK1	SJS9231-1B	AC INLET	△ (E, EB, EG, GC, PX)
		SWITCH(ES)		JK1	SJS9234B	AC INLET	△ (GN)
				JK2, 3, 4	SJS9233B	AC OUTLET	△ (GC, PX)
				JK101	SJF3068N	PHONO JACK	
S1	ESB8249V	SW, POWER	△ (E, EB, EG, GN)	JK102	SJF3067N	TUNER/CD JACK	
S1	ESB8279V	SW, POWER	△ (GC, PX)	JK103	SJF3068N	AUX JACK	
S2	ESD26200A	SW, VOLTAGE SELECTOR	△ (E, EB, EG, GN)	JK104	SJF3069N	TAPE1 JACK	
S2	ESE37263	SW, VOLTAGE SELECTOR	△ (GC, PX)	JK105	SJF3069N	TAPE2 JACK	
S101	RSS4F001-A	SW, PHONO SELECTOR		JK106	SJF3069N	ADAPT JACK	
S102	RSS6D001	SW, REC SELECTOR		JK107	SJF3068N	EDD JACK (UNBALANCE)	
S103	RSS6B001	SW, INPUT SELECTOR		JK109	RJS1A7904	EDD JACK (BALANCE)	
S201	ESB68131	SW, MUTING/MODE		JK110	RJS1A7904	EDD JACK (BALANCE)	
S202	ESB68130	SW, LOUDNESS/TONE		JK351	QJAD455ZC-A	HEADPHONES JACK	
S351	RSR4B004-A	SW, SPEAKER SELECTOR		JK501	RJH4801-1	SPEAKER TERMINAL	
S701	EVQ21405R	SW, EXTENDED DIRECT DRIVE					
		CONNECTOR (S)					
CN101	RJU057W009	SOCKET (9P)					
CN102, 103	RJU057W004	SOCKET (4P)					
CN104, 105	RJU057W007	SOCKET (7P)					
CN201, 202	RJU003K009M	SOCKET (9P)					
CN701	SJT305488B1	CONNECTOR (5P)					

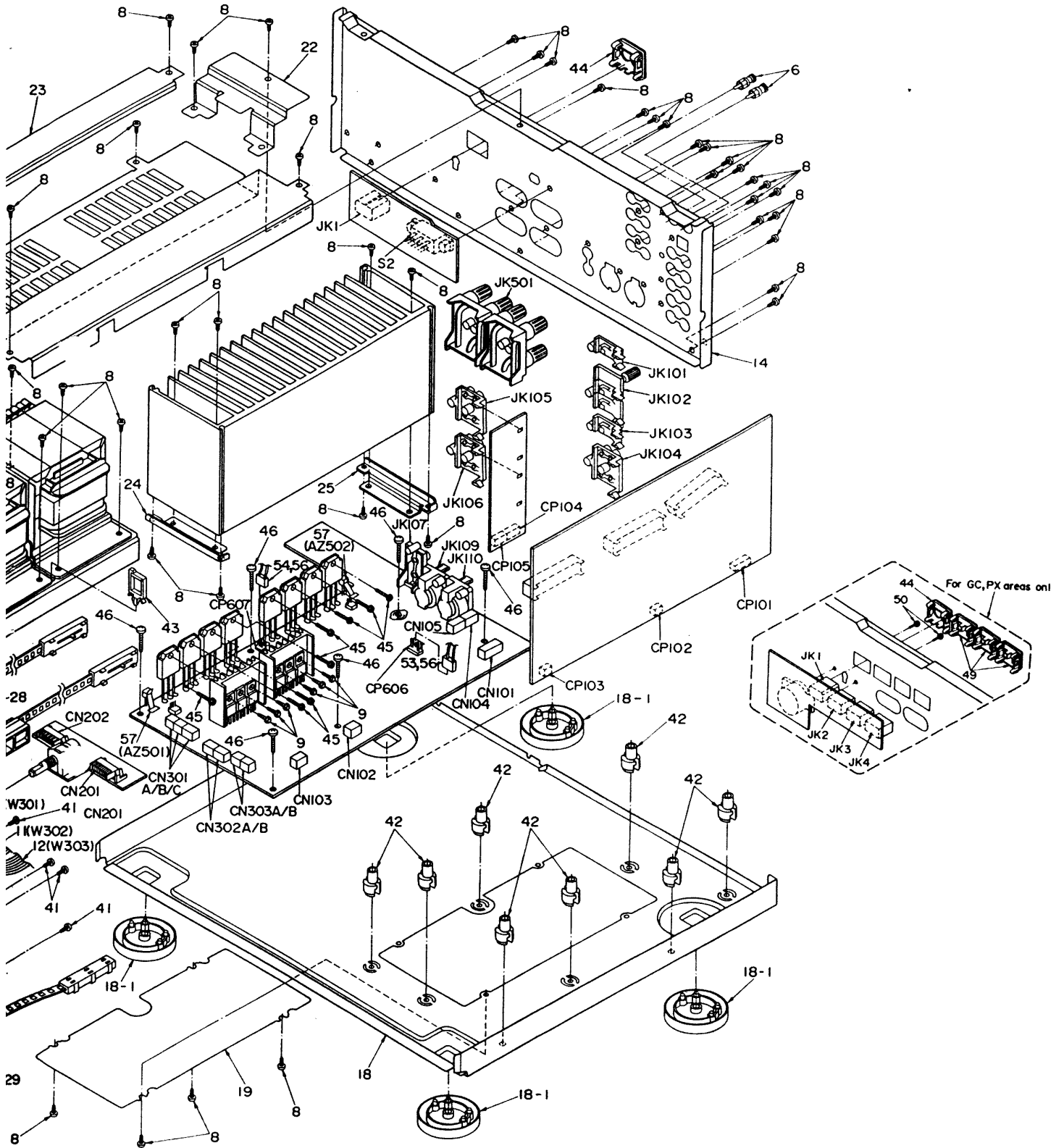
Notes : • Capacity value are in microfarads (uF) unless specified otherwise; Part No. -farads (pF) F-Farads (F)
 • Resistance values are in ohms, unless specified otherwise. IR=1, 000(Ohm) , IR=1, 000k(Ohm)

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R237	EM827J680T	1/4W 68	R625-528	EM827FV100T	1/2W 10 Δ	C107, 108	EC01H02J23	50V 1000P
R239-236	EM81S152E	1W 1.5K	R625A-530	EM827V1271T	1/4W 270	C109, 110	EC01H02J273	50V 2200P
R301, 302	EM827J822T	1/4W 82K	R631, 532	EM827J153	1/4W 15K	C111, 112	EC01H02J53	50V 27P
R303, 304	EM827V102T	1/4W 1K	R631A-534	EM827V1472T	1/4W 4.7K	C113, 114	EC01H02J22	6.3V 3000U
R305-310	EM827V1681T	1/4W 680	R635	EM827H7J23	50V 0.01U	C115, 116	EC01H02J27	50V 3000P
R311, 312	EM827J151	1/4W 150	R635A-536	EM827H7J23	50V 0.047U	C117, 118	EC01H02J23	50V 0.01U
R313, 320	EM827J224T	1/4W 220K	R636	EM827H7J23	50V 0.100P	C119, 120	EC01H02J23	50V 0.047U
R321, 322	EM827V1681T	1/4W 680	R637	EM827J153	1/4W 15K	C121, 122	EC01H02J23	50V 0.100P
R323, 324	EM827V2221T	1/4W 220	R638	EM827J103	1/4W 10K	C123, 124	EC01H02J23	50V 0.58U
R325, 326	EM827J224T	1/4W 220K	R639	EM827J223	1/4W 22K	C125, 126	EC01H02J378	50V 0.320U
R327, 328	EM827J224T	1/4W 220K	R639A	EM827J153	1/4W 15K	C127, 128	EC01H02J378	50V 0.320U
R329-332	EM827V1300T	1/4W 33	R641	EM827J153	1/4W 15K	C129-134	EC01H02J208	50V 1000P
R333-336	EM827V1681T	1/4W 680	R641A-545	EM827J153	1/4W 15K	C135, 136	EC01H02J378	50V 39P
R341, 342	EM827V1681T	1/4W 680	R646	EM827J153	1/4W 15K	C151-154	EC01H02J378	50V 100
R343, 344	EM827V150T	1/4W 150	R646A-546	EM827J153	1/4W 15K	C155-158	EC01H02J378	50V 600P
R345, 346	EM827V150T	1/4W 150	R647	EM827V1681T	1/4W 680	C159, 160	EC01H02J378	50V 39P
R352, 353	EM827J151	1/4W 150	R651, 552	EM827V1681T	1/4W 680	C161, 162	EC01H02J378	50V 88P
R401, 402	EM827V1681T	1/4W 680	R653, 554	EM827V1681T	1/4W 680	C167, 168	EC01H02J378	50V 0.11U
R403, 404	EM827J224T	1/4W 220K	R655-558	EM827V1681T	1/4W 680	C171, 172	EC01H02J378	50V 270P
R405-412	EM827V1681T	1/4W 680	R658-572	EM827V1681T	1/4W 680	C173, 174	EC01H02J378	50V 100
R413-416	EM827V1681T	1/4W 680	R661, 663	EM827V1681T	1/4W 680	C179, 180	EC01H02J378	50V 0.11U
R417-420	EM827V1681T	1/4W 680	R663, 662	EM827J153	1/4W 15K	C181-186	EC01H02J378	50V 180P
R421-424	EM827V1681T	1/4W 680	R665, 658	EM827J102	1/4W 1K	C201, 202	EC01H02J378	50V 0.058U
R425, 426	EM827J104	1/4W 100K	R667	EM827J102	1/4W 1K	C203, 204	EC01H02J378	50V 120P
R427-432	EM827V1681T	1/4W 680	R668, 664	EM827V100T	1/4W 100	C205, 206	EC01H02J378	50V 82P
R433, 434	EM827V1681T	1/4W 680	R671	EM827V100T	1/4W 100	C207, 208	EC01H02J378	50V 2200P
R435-442	EM827J223	1/4W 22K	R673	EM827V1515	1W 150	C209, 210	EC01H02J378	50V 39P
R443-446	EM827V101T	1/4W 100	R674	EM827V1515	1W 150	C212, 212	EC01H02J378	50V 4.7U
R449-452	EM827V1681T	1/4W 680	R676	EM827V1515	1W 150	C214, 214	EC01H02J378	50V 820P
R453, 454	EM827V1681T	1/4W 680	R677, 678	EM827V103	1/4W 10K	C216, 216	EC01H02J378	50V 0.062U
R455-458	EM827V121T	1/4W 120	R701	EM827J100	1/4W 100	C218, 220	EC01H02J378	50V 0.15U
R459-462	EM827V1681T	1/4W 680	R702	EM827V1681T	1/4W 680	C221, 222	EC01H02J378	50V 0.018U
R463, 464	EM827V101T	1/4W 100	R704	EM827V1681T	1/4W 680	C223-226	EC01H02J378	50V 0.11U
R465, 466	EM827V102T	1/4W 1K	R705-710	EM827J103	1/4W 10K	C227, 228	EC01H02J378	50V 100
R467, 468	EM827V1681T	1/4W 680	R713	EM827J101	1/4W 100	C251, 252	EC01H02J378	50V 100
R469, 470	EM827V1681T	1/4W 680	R714, 715	EM827J103	1/4W 10K	C253, 254	EC01H02J378	50V 82P
R471-474	EM827V1681T	1/4W 680	R718	EM827J121	1/4W 220	C257, 258	EC01H02J378	50V 0.11U
R475, 476	EM827V1681T	1/4W 680				C259, 260	EC01H02J378	50V 0.11U
R477, 478	EM827V1681T	1/4W 680				C301, 302	EC01H02J378	50V 2200P
R479-482	EM827V1681T	1/4W 680				C303-306	EC01H02J378	50V 27P
R483, 484	EM827V1681T	1/4W 680				C308, 310	EC01H02J378	50V 7P
R501, 502	EM827V1681T	1/4W 680				C313, 314	EC01H02J378	50V 0.11U
R503, 504	EM827V1681T	1/4W 680				C315-318	EC01H02J378	50V 0.11U
R505, 506	EM827V1681T	1/4W 680				C401, 402	EC01H02J378	50V 1000P
R509-512	EM827V1681T	1/4W 680				C407-410	EC01H02J378	50V 47U
R513, 514	EM827V1681T	1/4W 680				C411-414	EC01H02J378	50V 100
R515-518	EM827V1681T	1/4W 680				C415-416	EC01H02J378	50V 220P
R519, 520	EM827V1681T	1/4W 680						
R521-524	EM827V1681T	1/4W 680						

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
C107, 108	EC01H02J23	50V 1000P	C671, 672	EC01H02J378	50V 0.11U
C109, 110	EC01H02J273	50V 2200P	C673, 674	EC01H02J378	50V 0.11U
C111, 112	EC01H02J53	50V 27P	C675, 676	EC01H02J378	50V 0.11U
C113, 114	EC01H02J22	6.3V 3000U	C677, 678	EC01H02J378	50V 0.11U
C115, 116	EC01H02J27	50V 3000P	C679, 680	EC01H02J378	50V 0.11U
C117, 118	EC01H02J23	50V 0.01U	C681, 682	EC01H02J378	50V 0.11U
C119, 120	EC01H02J23	50V 0.047U	C683, 684	EC01H02J378	50V 0.11U
C121, 122	EC01H02J23	50V 0.100P	C685, 686	EC01H02J378	50V 0.11U
C123, 124	EC01H02J378	50V 0.320U	C687, 688	EC01H02J378	50V 0.11U
C125, 126	EC01H02J378	50V 0.320U	C689, 690	EC01H02J378	50V 0.11U
C127, 128	EC01H02J378	50V 0.320U	C691, 692	EC01H02J378	50V 0.11U
C129-134	EC01H02J208	50V 1000P	C693, 694	EC01H02J378	50V 0.11U
C135, 136	EC01H02J378	50V 39P	C695, 696	EC01H02J378	50V 0.11U
C151-154	EC01H02J378	50V 100	C697, 698	EC01H02J378	50V 0.11U
C155-158	EC01H02J378	50V 600P	C699, 700	EC01H02J378	50V 0.11U
C159, 160	EC01H02J378	50V 39P	C701, 702	EC01H02J378	50V 0.11U
C161, 162	EC01H02J378	50V 88P	C703, 704	EC01H02J378	50V 0.11U
C167, 168	EC01H02J378	50V 0.11U	C705, 706	EC01H02J378	50V 0.11U
C171, 172	EC01H02J378	50V 270P	C707, 708	EC01H02J378	50V 0.11U
C173, 174	EC01H02J378	50V 100	C709, 710	EC01H02J378	50V 0.11U
C179, 180	EC01H02J378	50V 0.11U	C711, 712	EC01H02J378	50V 0.11U
C181-186	EC01H02J378	50V 180P	C713, 714	EC01H02J378	50V 0.11U
C201, 202	EC01H02J378	50V 0.058U	C715-718	EC01H02J378	50V 0.11U
C203, 204	EC01H02J378	50V 120P	C719, 720	EC01H02J378	50V 0.11U
C205, 206	EC01H02J378	50V 82P	C721, 722	EC01H02J378	50V 0.11U
C207, 208	EC01H02J378	50V 2200P	C723-726	EC01H02J378	50V 0.11U
C209, 210	EC01H02J378	50V 39P	C727, 728	EC01H02J378	50V 100
C212, 212	EC01H02J378	50V 4.7U	C751, 252	EC01H02J378	50V 100
C214, 214	EC01H02J378	50V 820P	C753, 254	EC01H02J378	50V 82P
C216, 216	EC01H02J378	50V 0.062U	C757, 258	EC01H02J378	50V 0.11U
C218, 220	EC01H02J378	50V 0.15U	C759, 260	EC01H02J378	50V 0.11U
C221, 222	EC01H02J378	50V 0.018U	C301, 302	EC01H02J378	50V 2200P
C223-226	EC01H02J378	50V 0.11U	C303-306	EC01H02J378	50V 27P
C227, 228	EC01H02J378	50V 100	C308, 310	EC01H02J378	50V 7P
C251, 252	EC01H02J378	50V 100	C313, 314	EC01H02J378	50V 0.11U
C253, 254	EC01H02J378	50V 82P	C315-318	EC01H02J378	50V 0.11U
C257, 258	EC01H02J378	50V 0.11U	C401, 402	EC01H02J378	50V 1000P
C259, 260	EC01H02J378	50V 0.11U	C407-410	EC01H02J378	50V 47U
C301, 302	EC01H02J378	50V 2200P	C411-414	EC01H02J378	50V 100
C303-306	EC01H02J378	50V 27P	C415-416	EC01H02J378	50V 220P
C308, 310	EC01H02J378	50V 7P			
C313, 314	EC01H02J378	50V 0.11U			
C315-318	EC01H02J378	50V 0.11U			
C401, 402	EC01H02J378	50V 1000P			
C407-410	EC01H02J378	50V 47U			
C411-414	EC01H02J378	50V 100			
C415-416	EC01H02J378	50V 220P			

CABINET PARTS LOCATION





■ SCHEMATIC DIAGRAM (Parts list on pages 29~32.)

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

Notes:

- S1 : Power switch in "on" position.
- S2 : Voltage selector switch in "240 V" position.
(230 V/240 V) For (E), (EB), (EG), (GN) areas only.
Voltage selector switch in "220 V" position.
(110 V/127 V/220 V/240 V) For (GC), (PX) areas only.
- S101 : Phono cartridge selector (PHONO SELECTOR) switch in "MC" position.
- S102 : Recording output selector (REC SELECTOR) switch in "TAPE2/DAT ▶ 1" position.
- S103 : Input selector (INPUT SELECTOR) switch in "TAPE2/DAT" position.
- S201 : Muting (MUTING)/Mode selector (MODE)/Adaptor (ADAPTOR) switches.
- S202 : Loudness (LOUDNESS)/Tone control (TONE CONTROL) switches.
- S351 : Speaker selector (SPEAKERS) switch.
- S701 : Extended direct drive selector (EXTENDED DIRECT DRIVE) switch.

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

● 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.

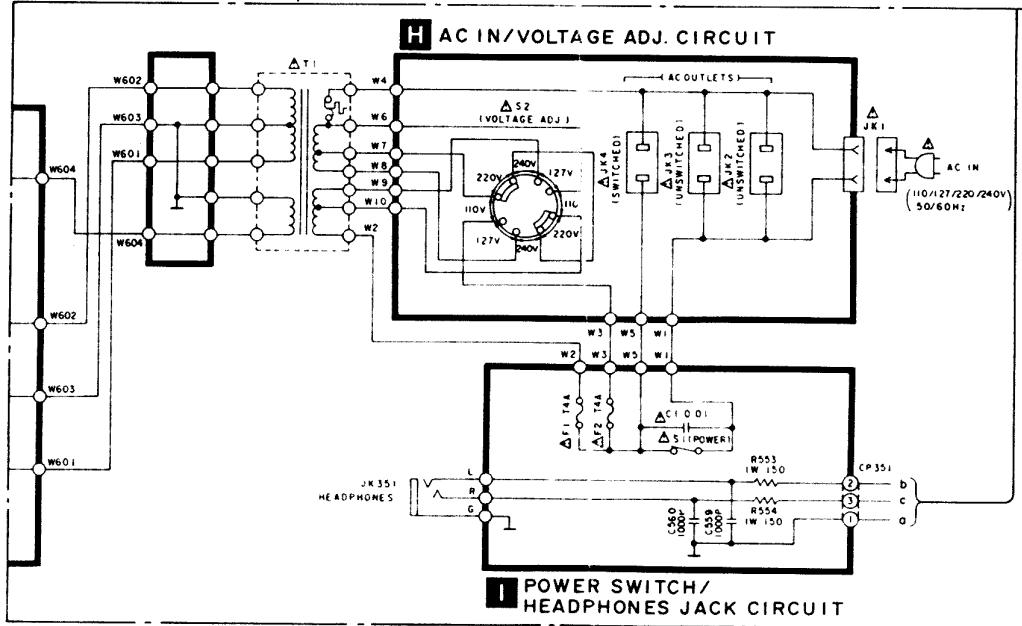
● Important safety notice:

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

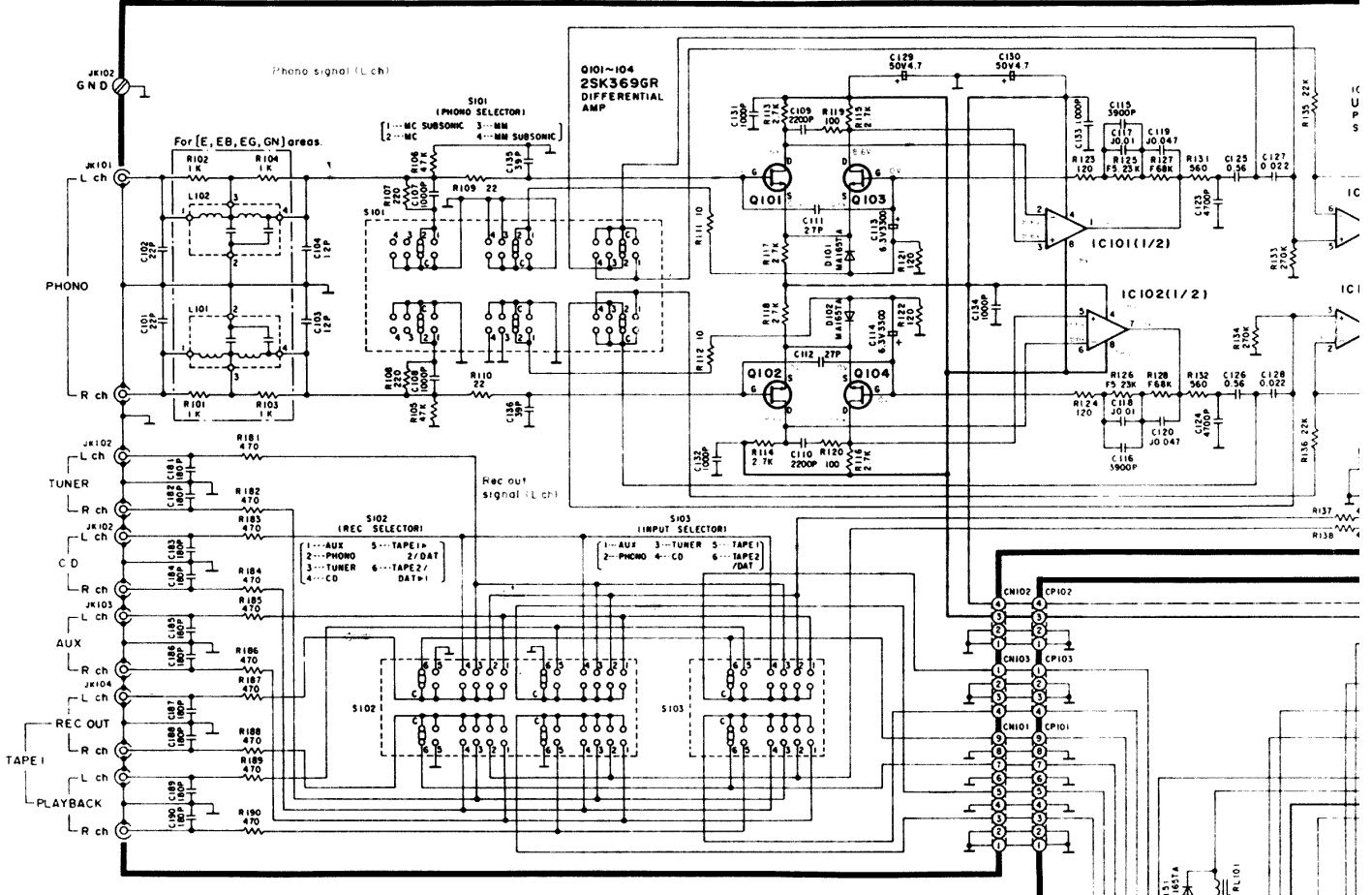
● Caution!

- 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.

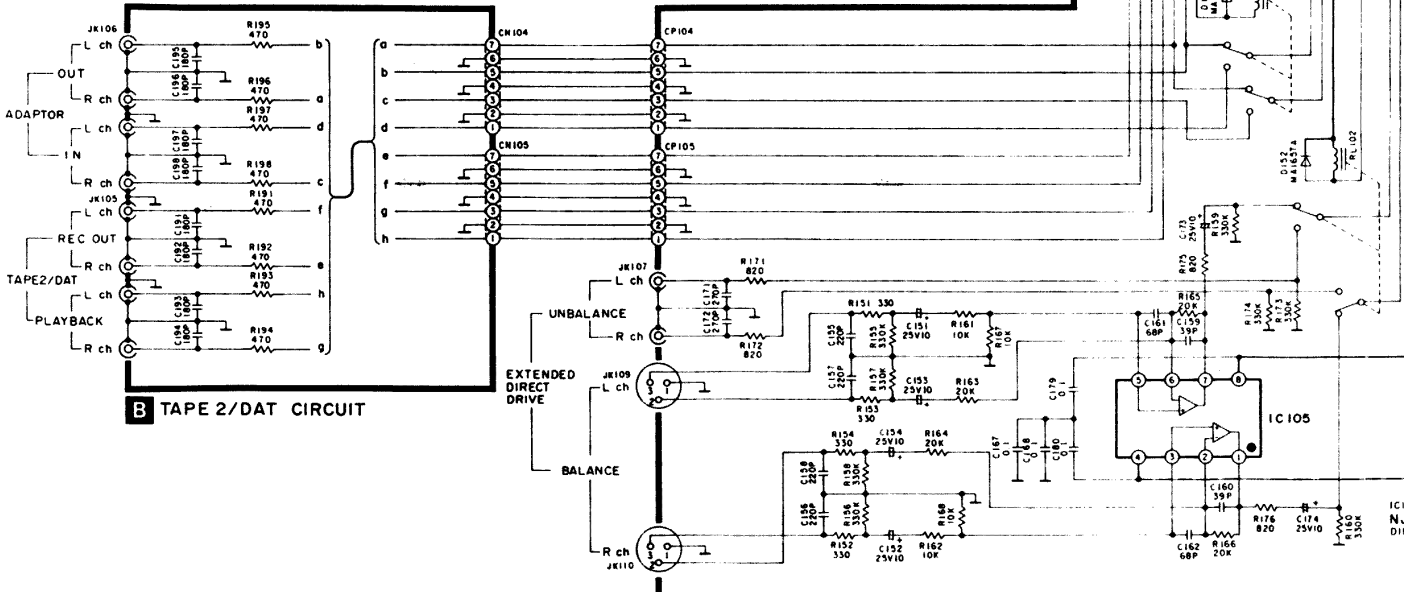
Power Source Circuit For (GC,PX) areas.



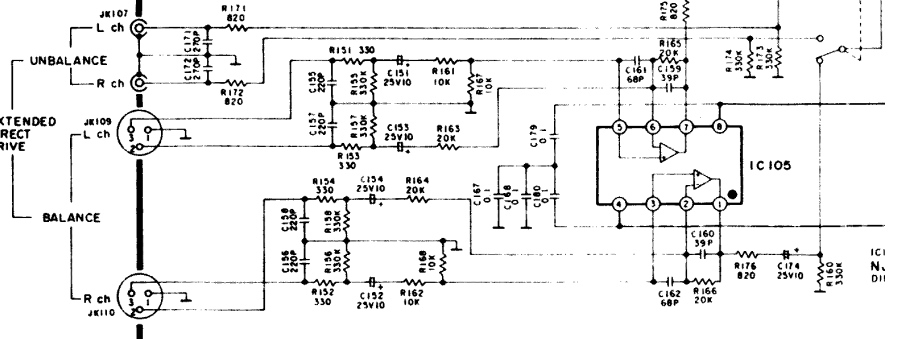
A INPUT SELECTOR CIRCUIT



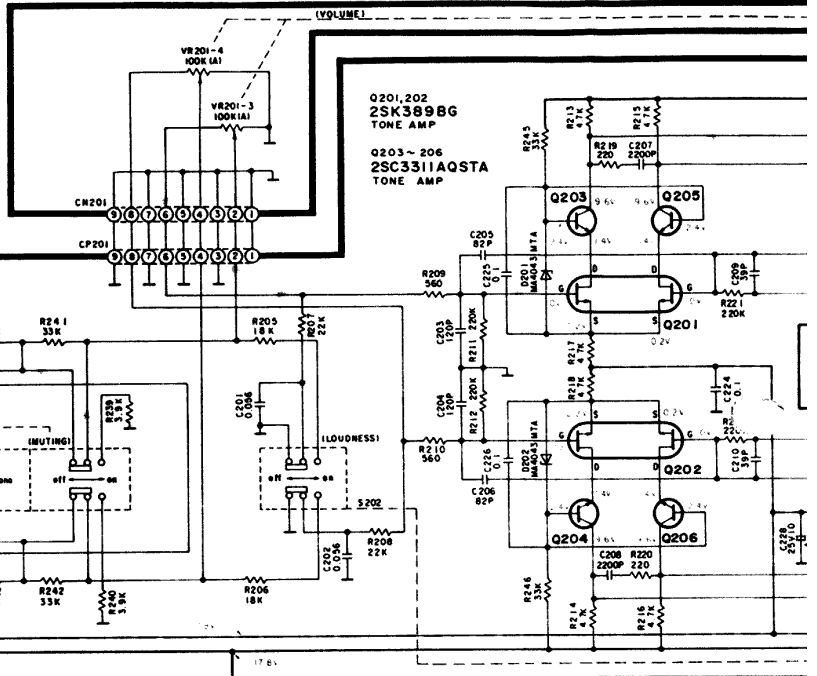
B TAPE 2/DAT CIRCUIT



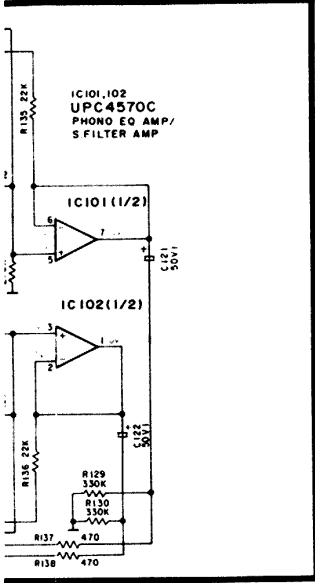
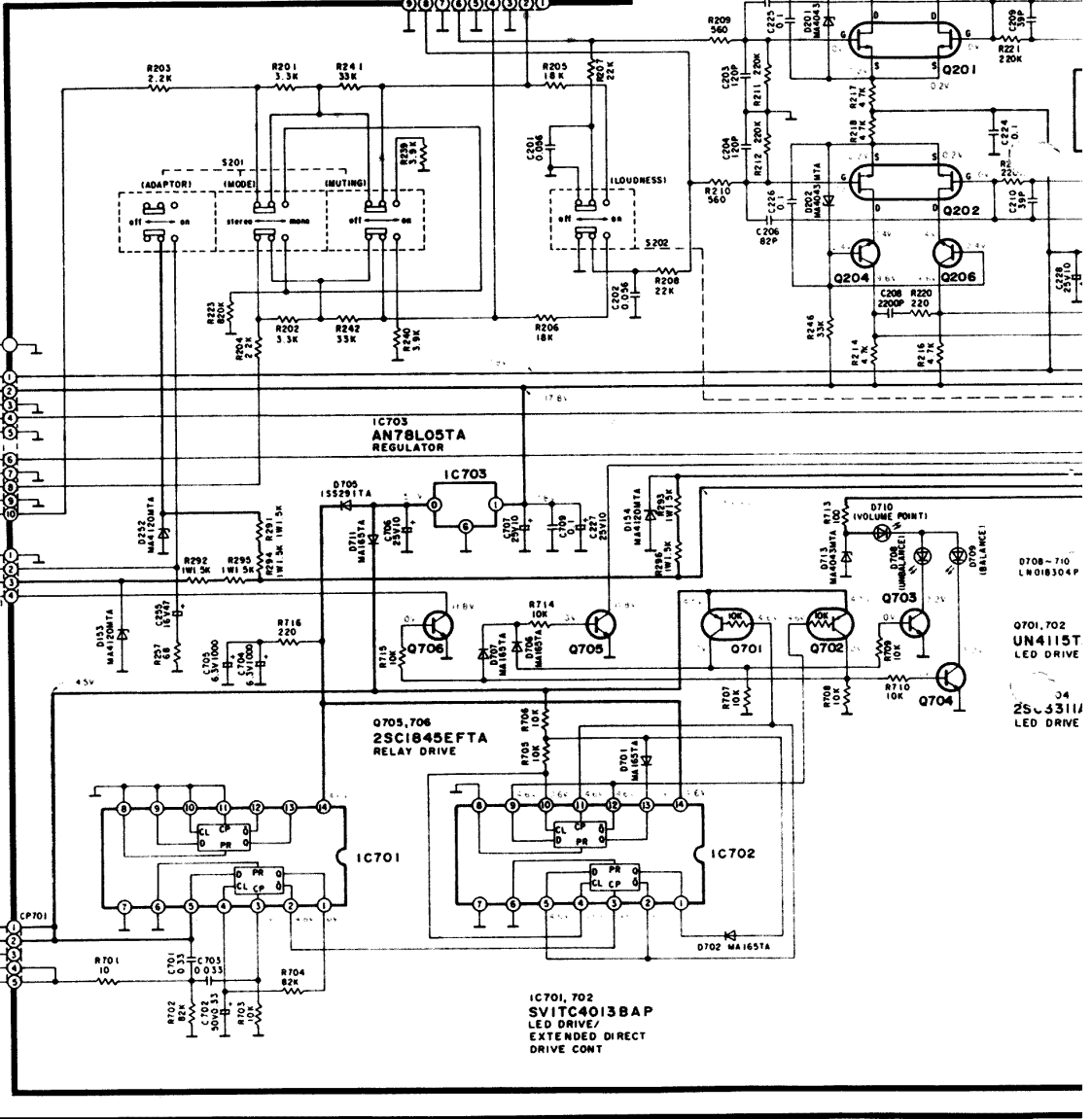
C MAIN CIRCUIT



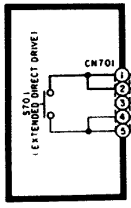
F VOLUME CIRCUIT



E OPERATION CIRCUIT



D SWITCH CIRCUIT

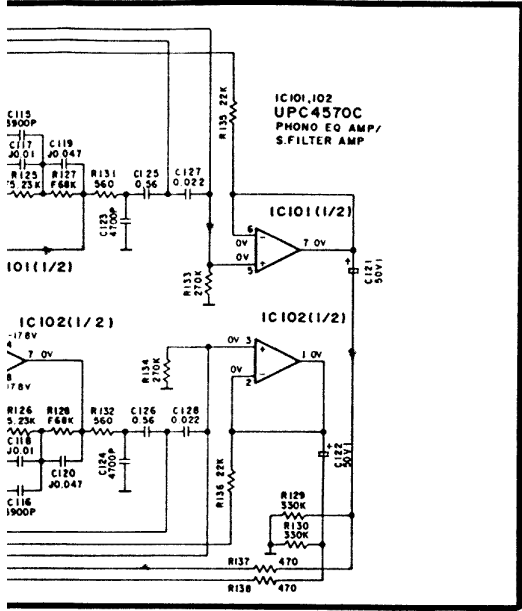


IC105
NJM5532DD
DIFFERENCE AMP

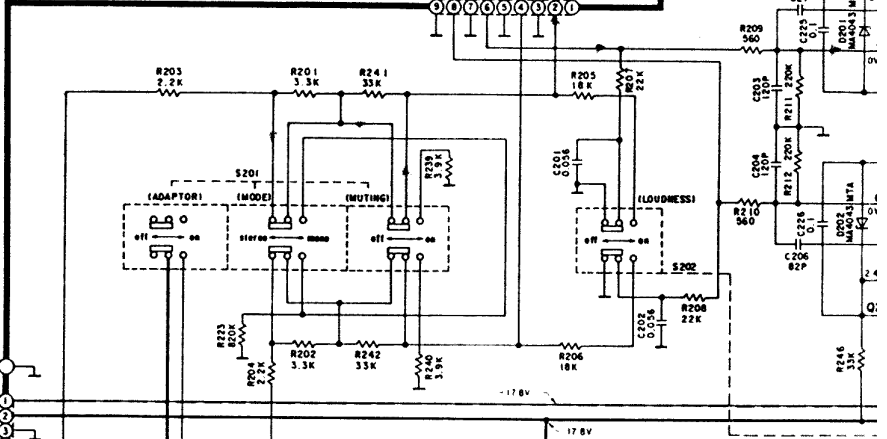
Q708-710
LN018304P

Q701,702
UN4115T
LED DRIVE

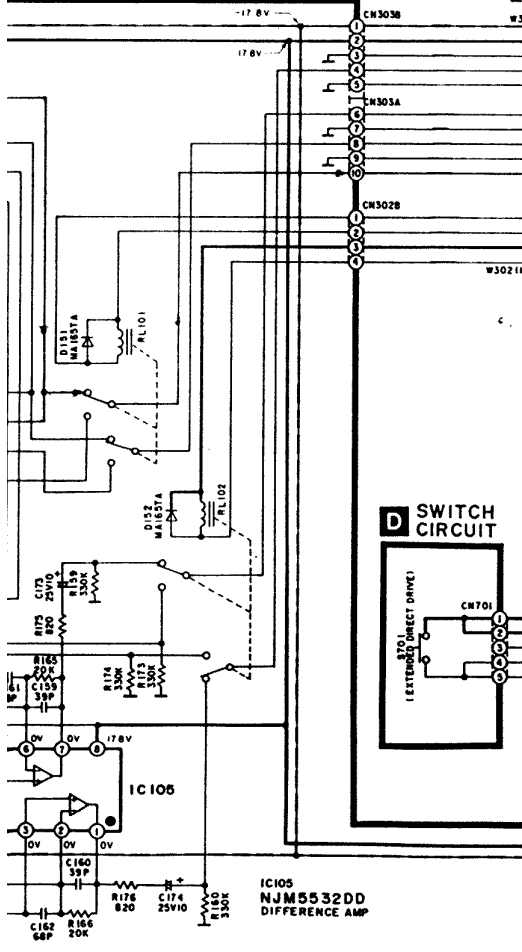
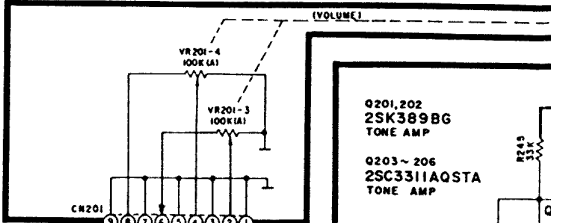
Q703
34
2SC4311J
LED DRIVE



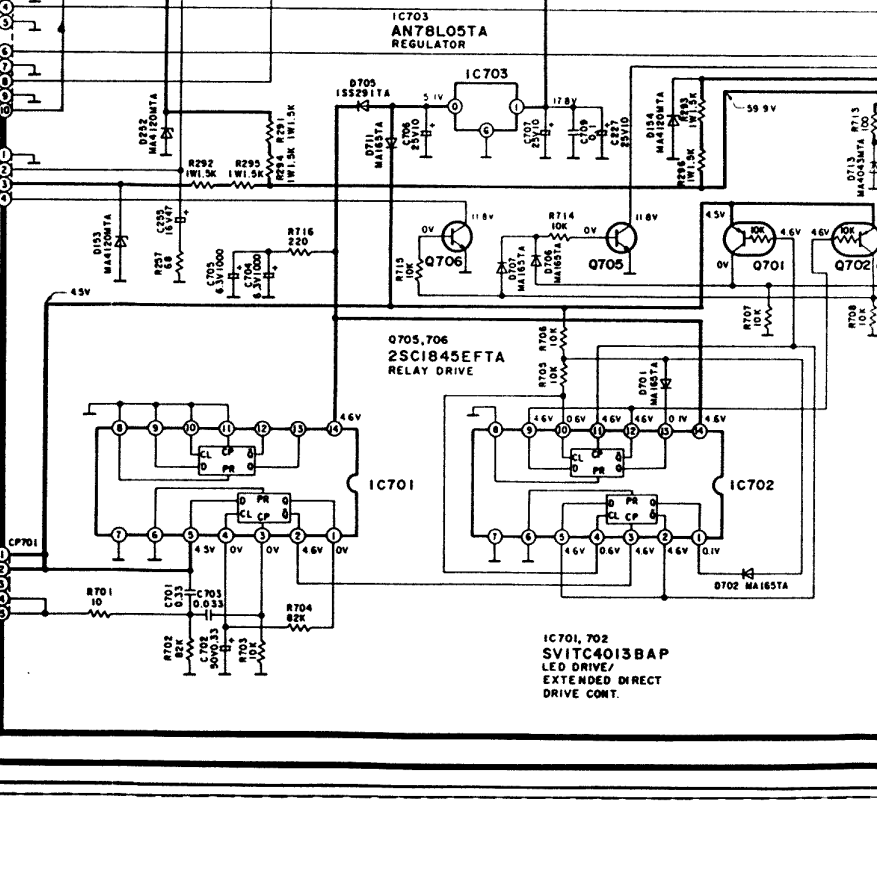
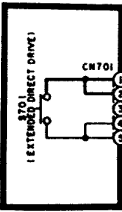
E OPERATION CIRCUIT



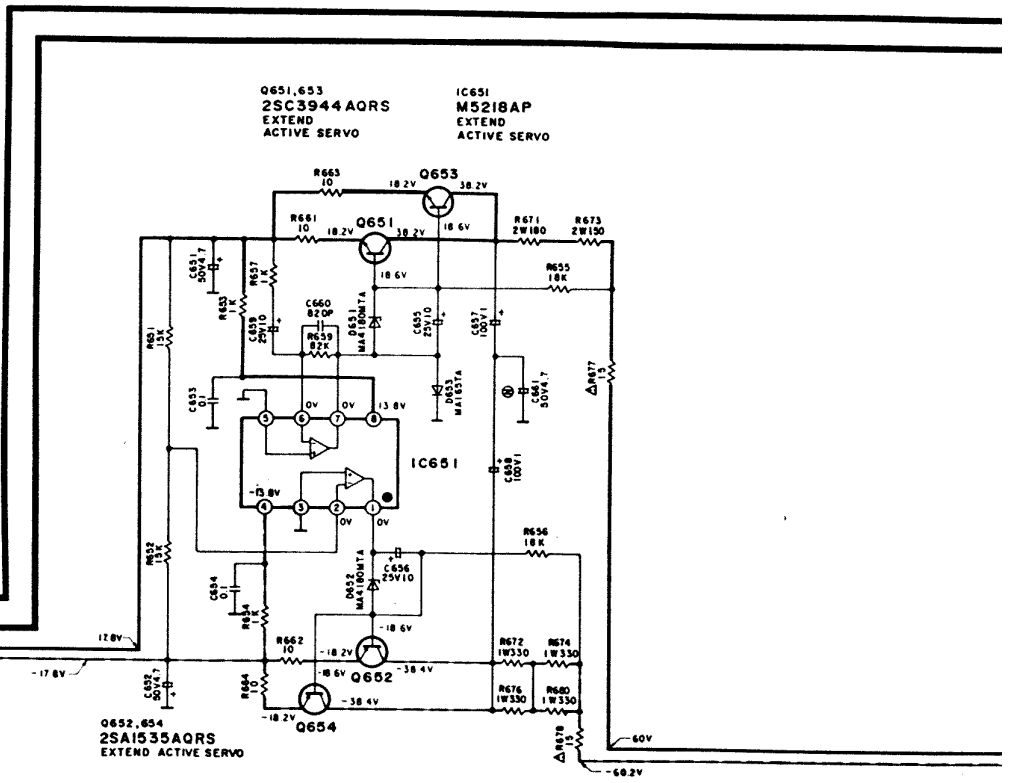
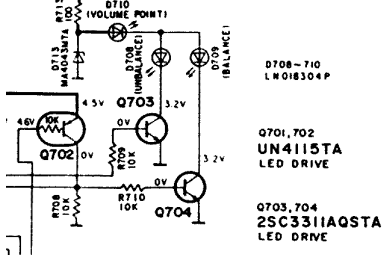
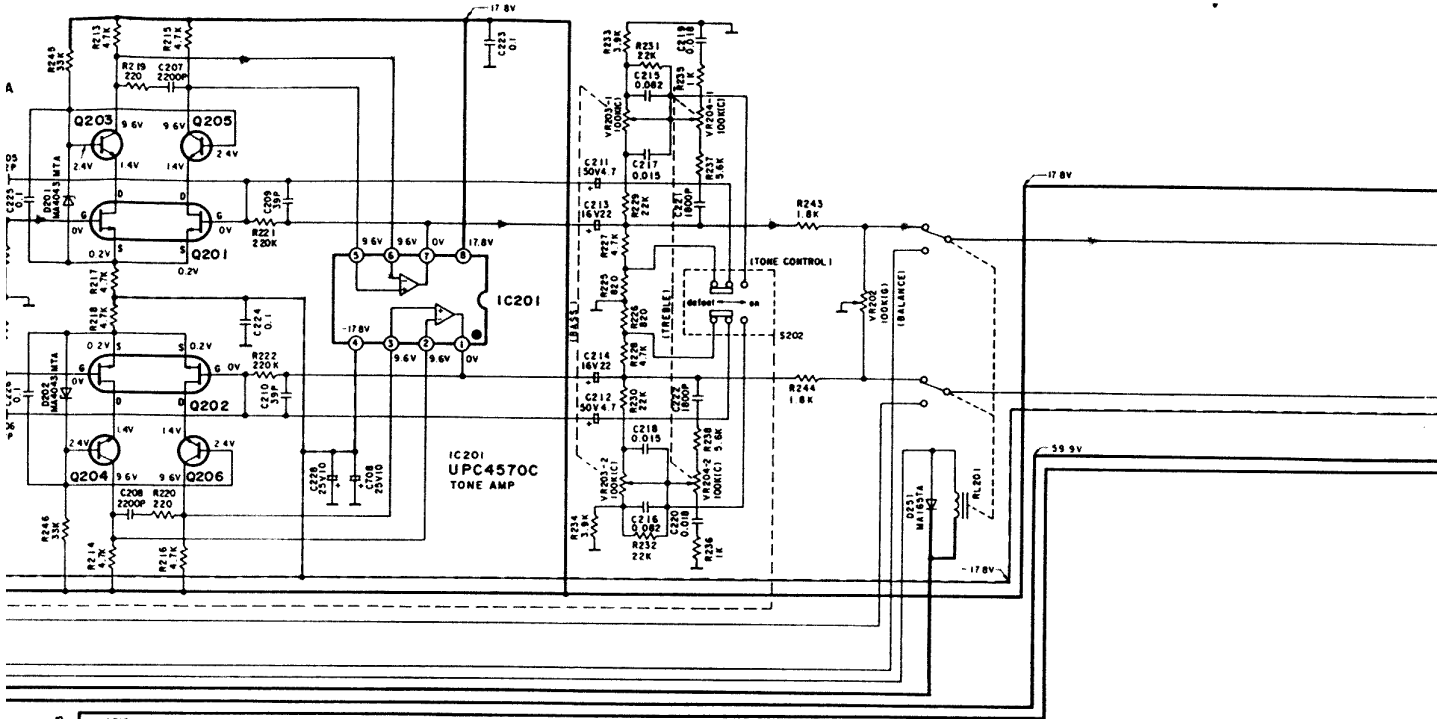
F VOLUME CIRCUIT

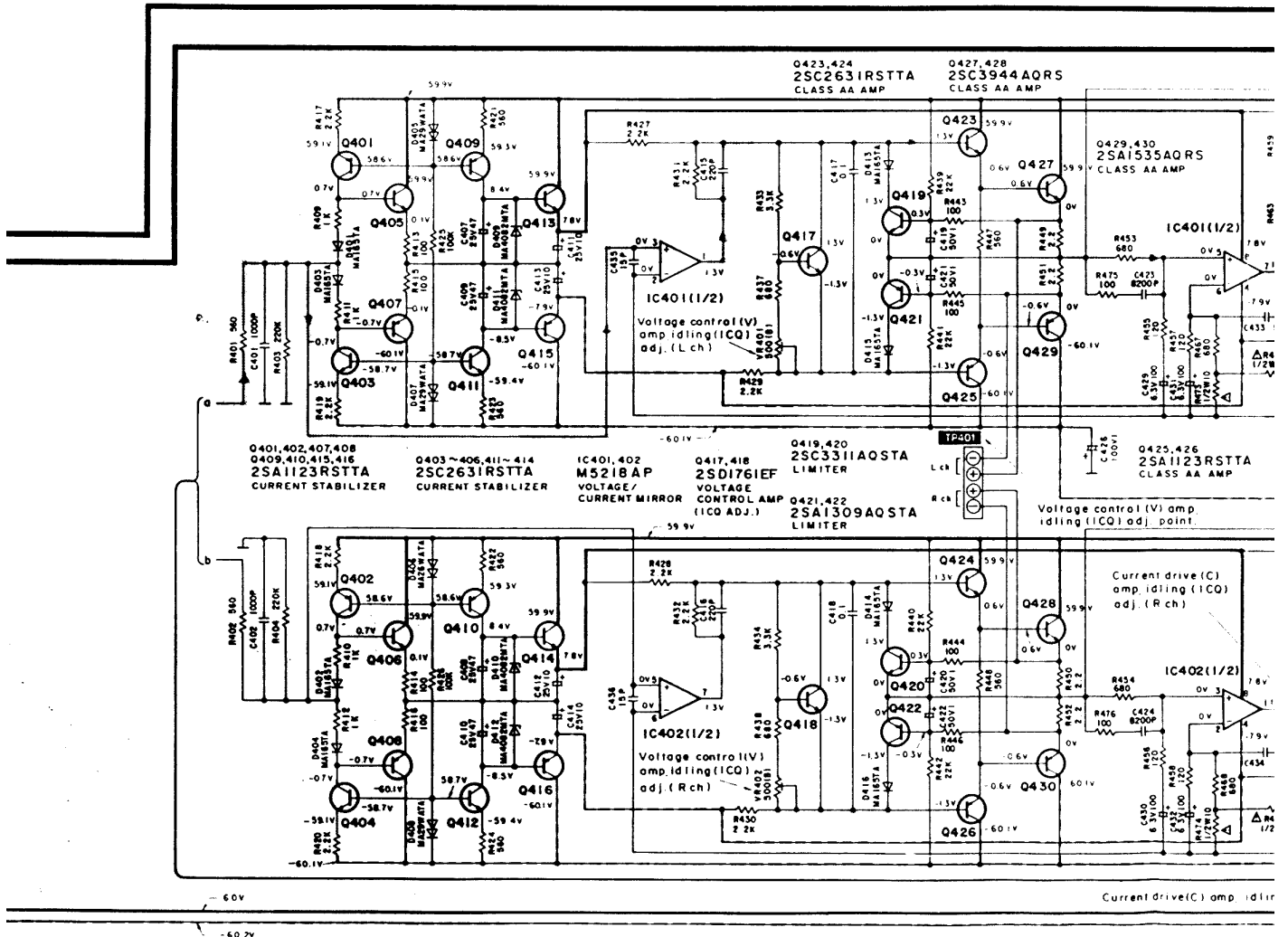
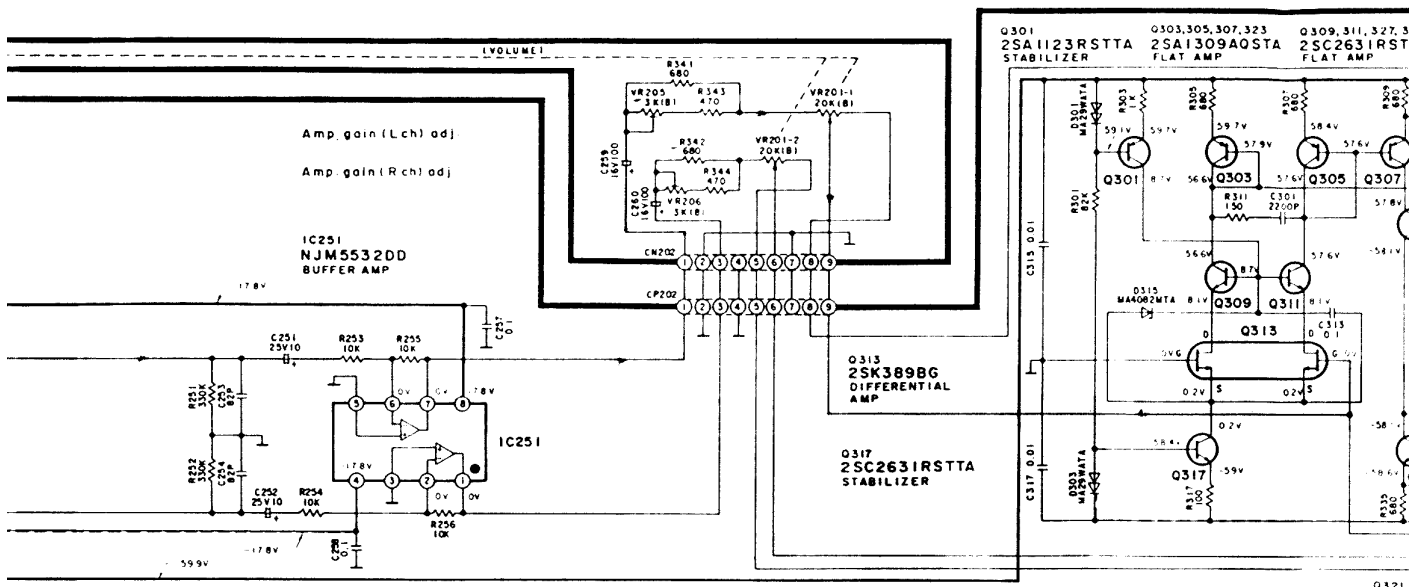


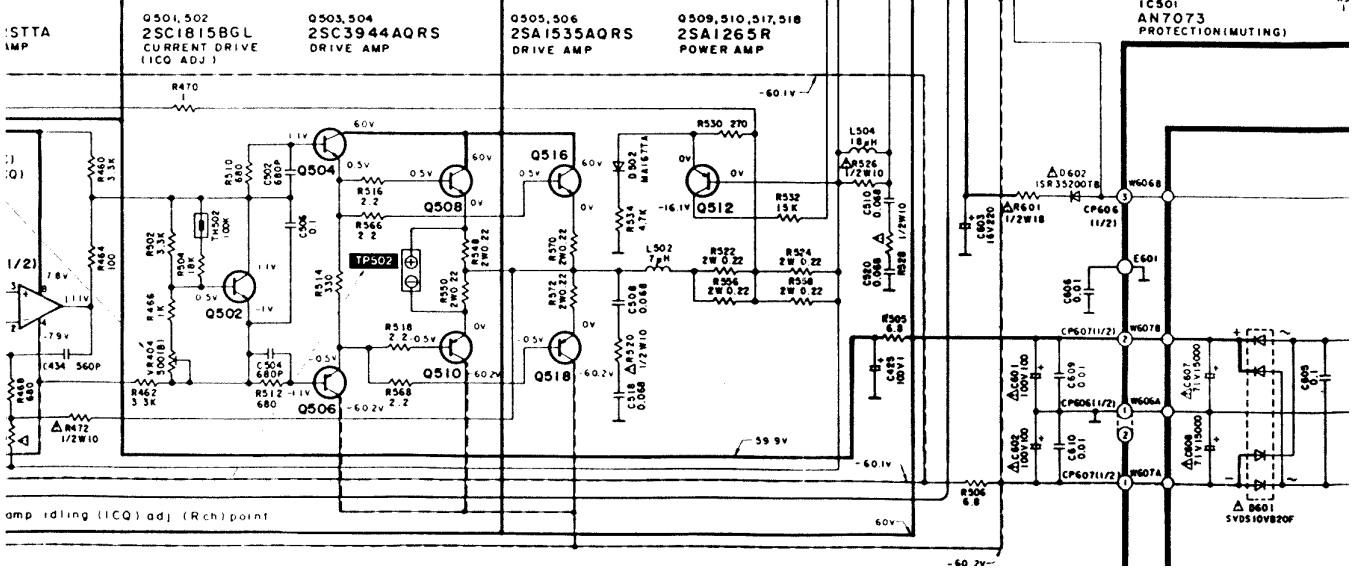
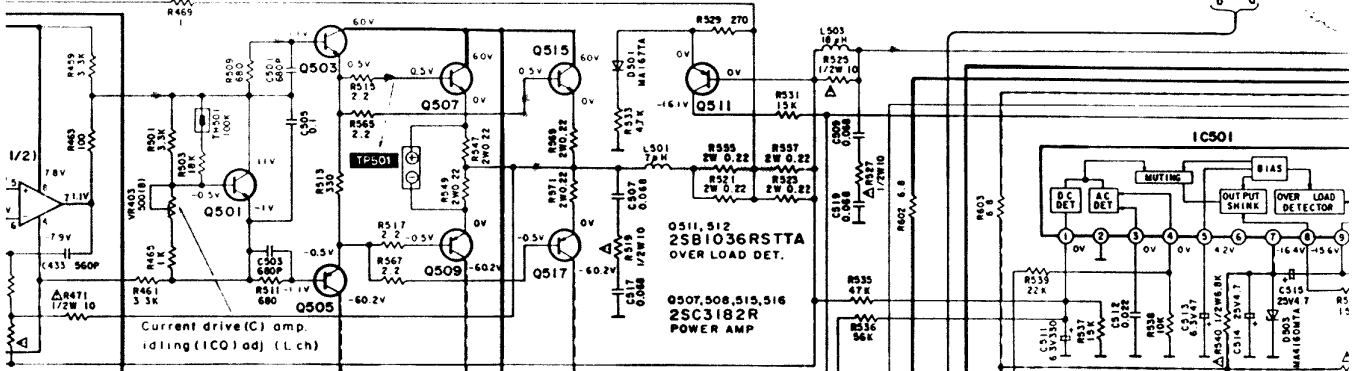
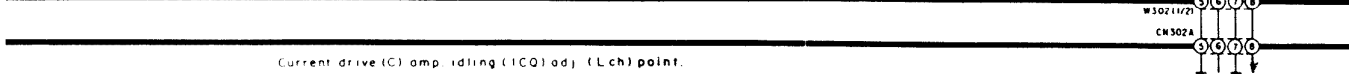
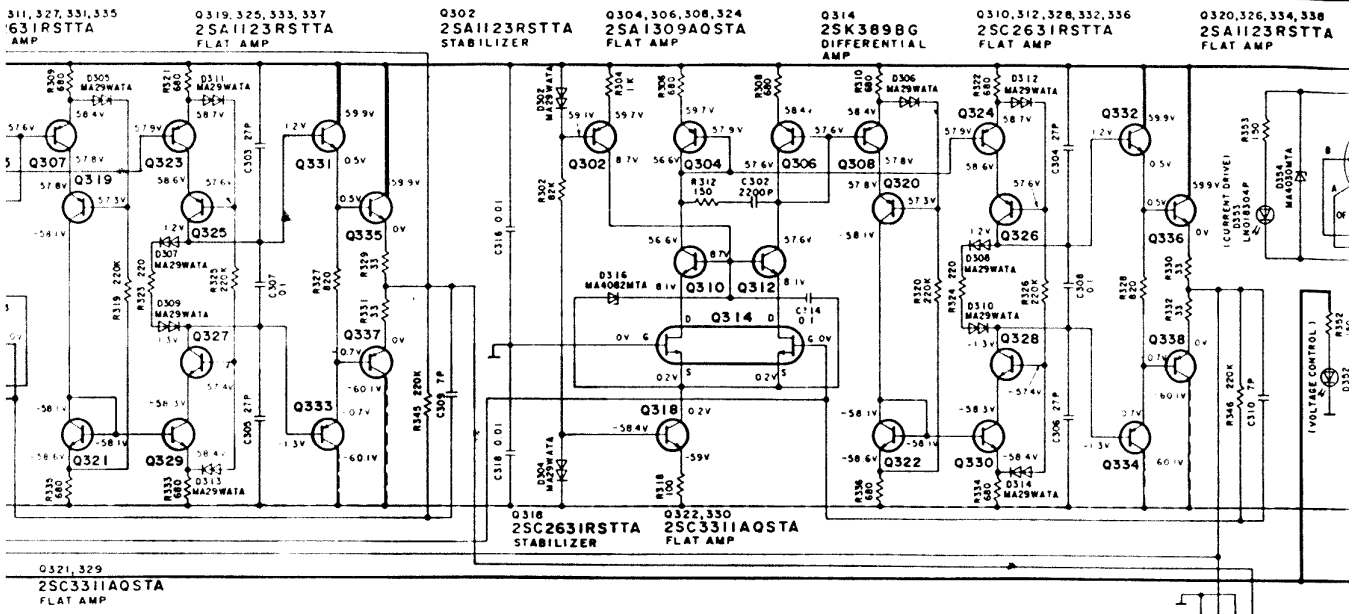
D SWITCH CIRCUIT

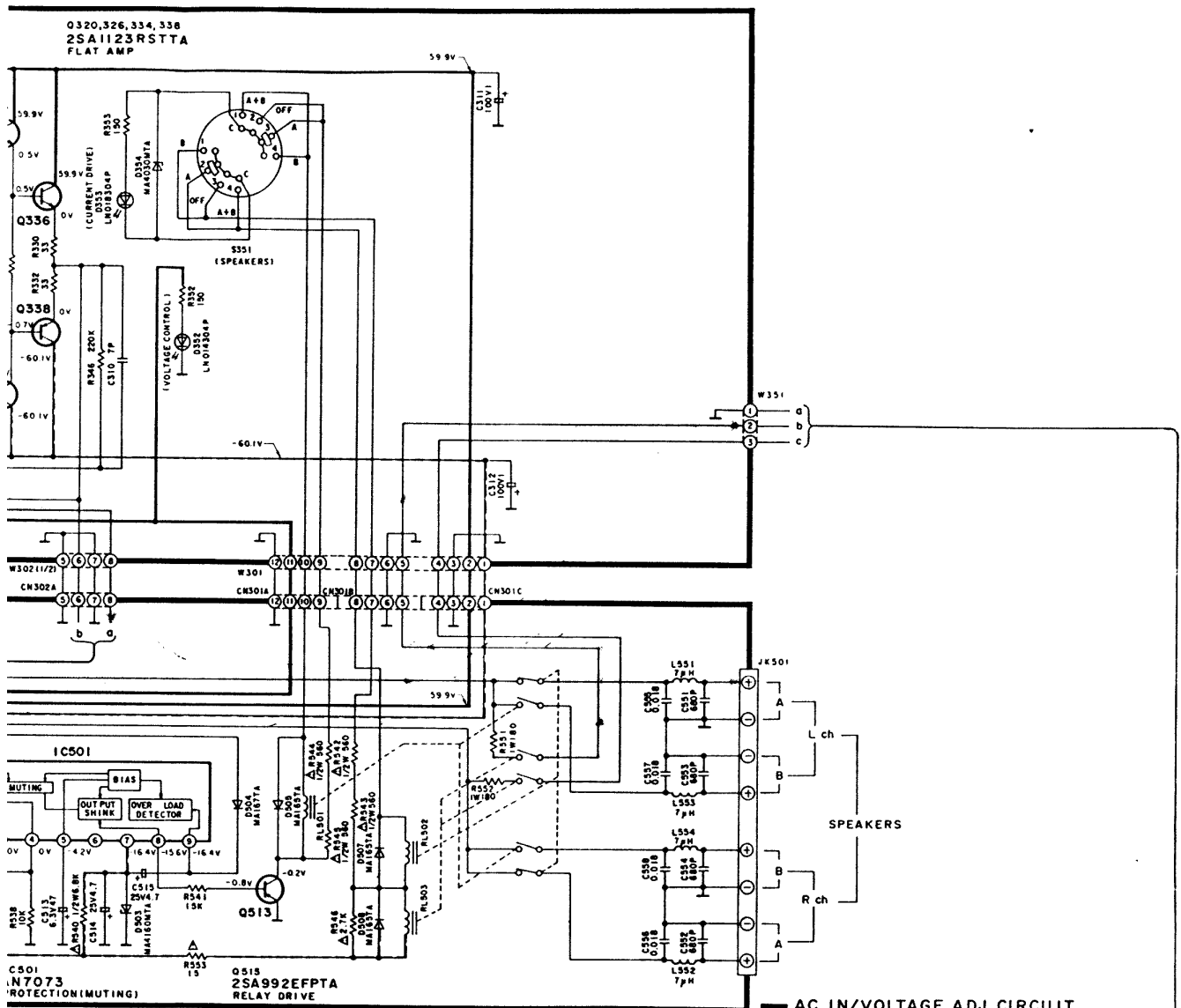


IC701, 702
SV1TC4013BAP
LED DRIVE/
EXTENDED DIRECT
DRIVE CONT.

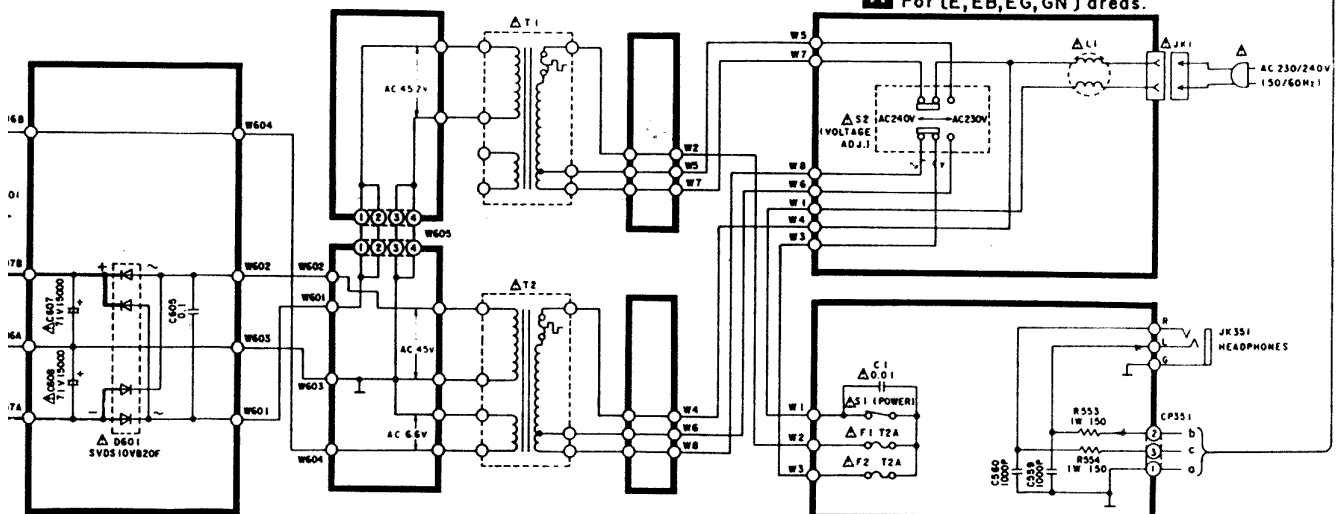








H AC IN/VOLTAGE ADJ. CIRCUIT
For (E, EB, EG, GN) areas.



G CAPACITOR BLOCK CIRCUIT

I POWER SWITCH/HEADPHONES JACK CIRCUIT
For (E, EB, EG, GN) areas.

■ WIRING CONNECTION DIAGRAM

