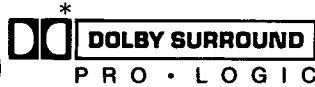


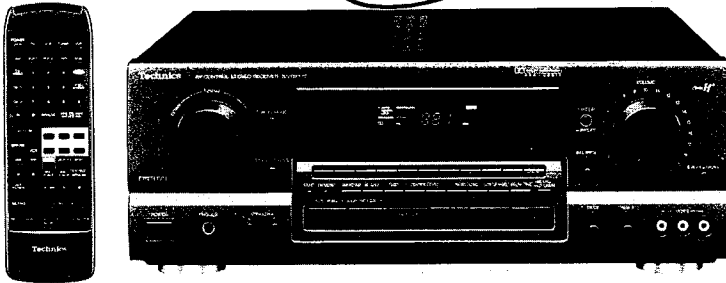
# Service Manual

AV Control Stereo Receiver



Receiver  
**SA-GX770**

2264



Colour

(K) ... Black Type

Area

Suffix for Model No.	Area	Colour
(P)	U.S.A.	(K)
(PC)	Canada.	

\* Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. numbers 3,632,886, 3,746,792 and 3,959,590; Canada numbers 1,004,603 and 1,037,877.  
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## SPECIFICATIONS (IHF'78)

### ■ AMPLIFIER SECTION

**Rated minimum sine wave**  
**RMS power output**  
 20 Hz—20 kHz both channels driven  
 0.05% total harmonic distortion  
 125W per channel (8Ω)

**1kHz continuous power output**  
 both channels driven  
 0.05% total harmonic distortion  
 130W per channel (8Ω)

**Total harmonic distortion**  
 rated power at 20 Hz—20 kHz 0.05% (8Ω)  
 half power at 1kHz 0.03% (8Ω)

**Power output at the Dolby Pro Logic operation**  
 0.8% at 1kHz, Front 2 × 100W (8Ω)  
 Center 100W (8Ω)  
 Rear 100W (8Ω)

**Low frequency damping factor** 30 (8Ω)

**Load impedance**  
 A or B 4—8Ω  
 A and B 8Ω

**Dynamic headroom** 2dB (8Ω)

**SMPTE intermodulation distortion** 0.3% (8Ω)

**Frequency response**  
 PHONO RIAA standard curve ±0.8dB  
 CD, VCR 1, VCR 2, TAPE/DCC 7Hz—70kHz, ±3dB

**Input sensitivity**  
 PHONO 0.4mV (3mV, IHF '66)  
 CD, VCR 1, VCR 2, TAPE/DCC 27mV (200mV, IHF '66)

**S/N (IHF A)**  
 PHONO 70dB (80dB, IHF '66)  
 CD, VCR 1, VCR 2, TAPE/DCC 75dB (85dB, IHF '66)

**Input impedance**  
 PHONO 47kΩ  
 CD, VCR 1, VCR 2, TAPE/DCC 22kΩ

### Tone controls

**BASS** 50 Hz, +10 dB to -10 dB  
**TREBLE** 20 kHz, +10 dB to -10 dB  
**Loudness control (volume at -30 dB)** 50 Hz, +9 dB

### ■ FM TUNER SECTION

**Frequency range** 87.9—107.9MHz  
**Sensitivity** 11.2dBf (2μV, IHF '58)  
**50dB quieting sensitivity**  
**MONO** 18.3dBf (4.5μV, IHF '58)  
**STEREO** 38.3dBf (45μV, IHF '58)

**Total harmonic distortion**  
**MONO** 0.2%  
**STEREO** 0.3%

**S/N**  
**MONO** 75dB  
**STEREO** 70dB

**Frequency response** 20 Hz—15 kHz, +1 dB, -2 dB

**Alternate channel selectivity** 65dB  
**Capture ratio** 1dB  
**Image rejection at 98 MHz** 45dB  
**IF rejection at 98 MHz** 80dB  
**Spurious response rejection at 98 MHz** 75dB  
**AM suppression** 50dB

**Stereo separation**  
**1 kHz** 40dB  
**10 kHz** 30dB

**Carrier leak**  
**19 kHz** -35dB  
**38 kHz** -50dB

**Antenna terminals** 75Ω (unbalanced)

### AM TUNER SECTION

Frequency range	530–1710kHz
Sensitivity	20 $\mu$ V, 330 $\mu$ V/m
Selectivity	55dB
Image rejection at 1000kHz	40dB
IF rejection at 1000kHz	60dB

### VIDEO SECTION

Output voltage at 1V input (unbalanced)	1 $\pm$ 0.1Vp-p
Maximum input voltage	1.5Vp-p

### GENERAL

Power consumption	300W, 385VA
Power supply	AC 120V, 60Hz

### Dimensions (W x H x D)

430 x 158 x 352mm

(16-15/16" x 6-7/32" x 13-27/32")

### Weight

10.1kg (22.2lb.)

### REMOTE CONTROL TRANSMITTER

Control keys 56 keys

### Dimensions (W x H x D)

70 x 28 x 215mm

(2-3/4" x 1-3/32" x 8-15/32")

### Weight (including batteries)

160g (4.8 oz.)

### Power source

Two "AAA" (R03/UM-4)

### Notes:

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

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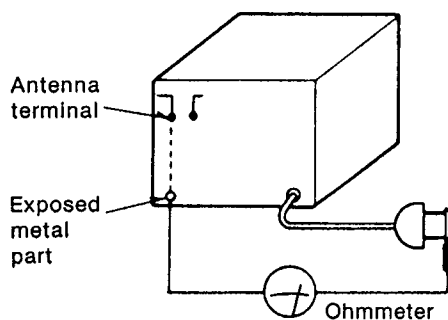
## SAFETY PRECAUTION (This "safety precaution" is applied only in U.S.A.)

- Before servicing, unplug the power cord to prevent an electric shock.
- When replacing parts, use only manufacturer's recommended components for safety.
- Check the condition of the power cord. Replace if wear or damage is evident.
- After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
- Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

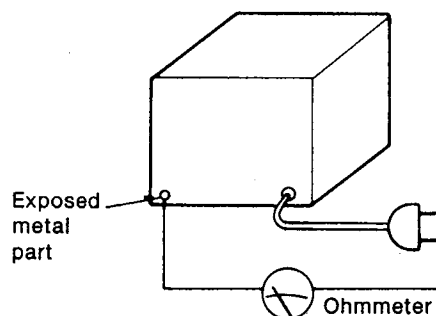
### INSULATION RESISTANCE TEST

- Unplug the power cord and short the two prongs of the plug with a jumper wire.
- Turn on the power switch.
- Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads, control shafts, handle brackets, etc. Equipment with exposed metal part terminals should read between 3M $\Omega$  and 5.2M $\Omega$  to all exposed parts. (Fig. A) Equipment without exposed metal part terminals should read approximately infinity to all exposed parts. (Fig. B)

**Note:** Some exposed parts may be isolated from the chassis by design. These will read infinity.



(Fig. A)

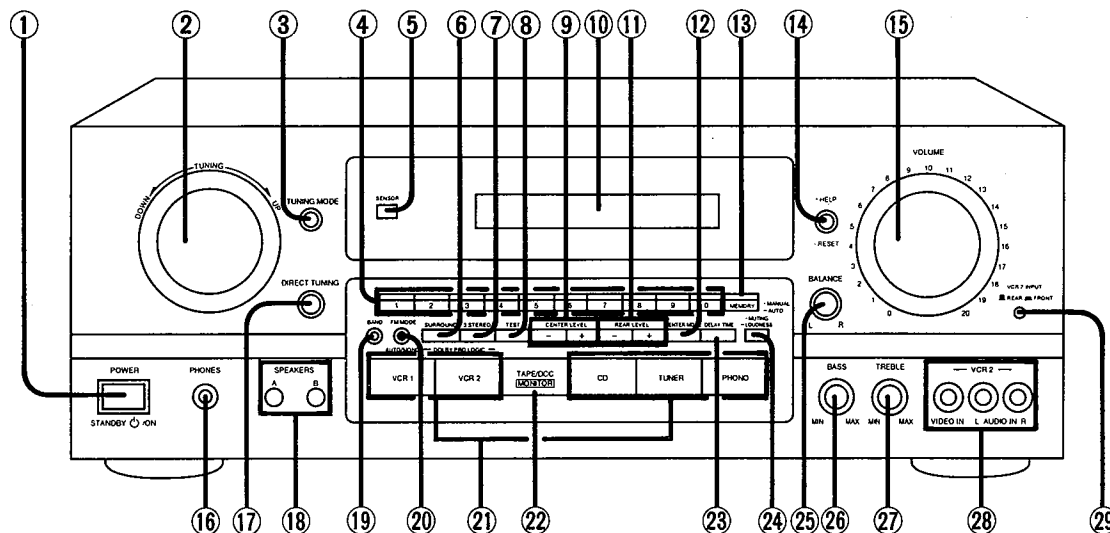
Resistance = 3M $\Omega$ –5.2M $\Omega$ 

(Fig. B)

Resistance = Approx.  $\infty$ 

- If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.

## FRONT PANEL CONTROLS



No.	Name
-----	------

- |   |   |
|---|---|
| ① | Power switch (POWER)                              |
| ② | Tuning control (TUNING)                           |
| ③ | Tuning mode select button (TUNING MODE)           |
| ④ | Numeric buttons (1 – 0)                           |
| ⑤ | Remote control signal receptor                    |
| ⑥ | DOLBY PRO LOGIC SURROUND ON/OFF button (SURROUND) |
| ⑦ | DOLBY PRO LOGIC 3 STEREO ON/OFF button (3 STEREO) |
| ⑧ | Test signal ON/OFF button (TEST)                  |
| ⑨ | Center level adjust button (CENTER LEVEL)         |
| ⑩ | Display   |
| ⑪ | Rear level adjust button (REAR LEVEL)             |
| ⑫ | Center mode select button (CENTER MODE)           |
| ⑬ | Memory button (MEMORY)                            |
| ⑭ | Help/reset button (-HELP – RESET)                 |
| ⑮ | Volume control (VOLUME)                           |

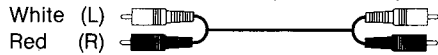
No.	Name
-----	------

- |   |  |
|---|--|
| ⑯ | Headphone jack (PHONES)                      |
| ⑰ | Direct tuning button (DIRECT TUNING)         |
| ⑱ | Speaker select buttons (SPEAKERS)            |
| ⑲ | Band select button (BAND)                    |
| ⑳ | FM mode select button (FM MODE)              |
| ㉑ | Input select buttons                         |
| ㉒ | Tape/DCC monitor button (TAPE/DCC [MONITOR]) |
| ㉓ | Delay time adjust button (DELAY TIME)        |
| ㉔ | Muting/loudness button (-MUTING – LOUDNESS)  |
| ㉕ | Balance control (BALANCE)                    |
| ㉖ | Bass control (BASS)                          |
| ㉗ | Treble control (TREBLE)                      |
| ㉘ | VCR 2 front input terminals (VCR 2)          |
| ㉙ | VCR 2 input select button (VCR 2 INPUT)      |

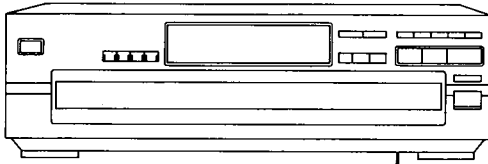
# EQUIPMENT CONNECTIONS

## Connecting audio equipment

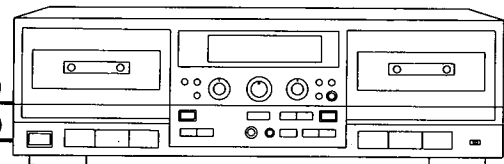
**Stereo connection cable** (not included)



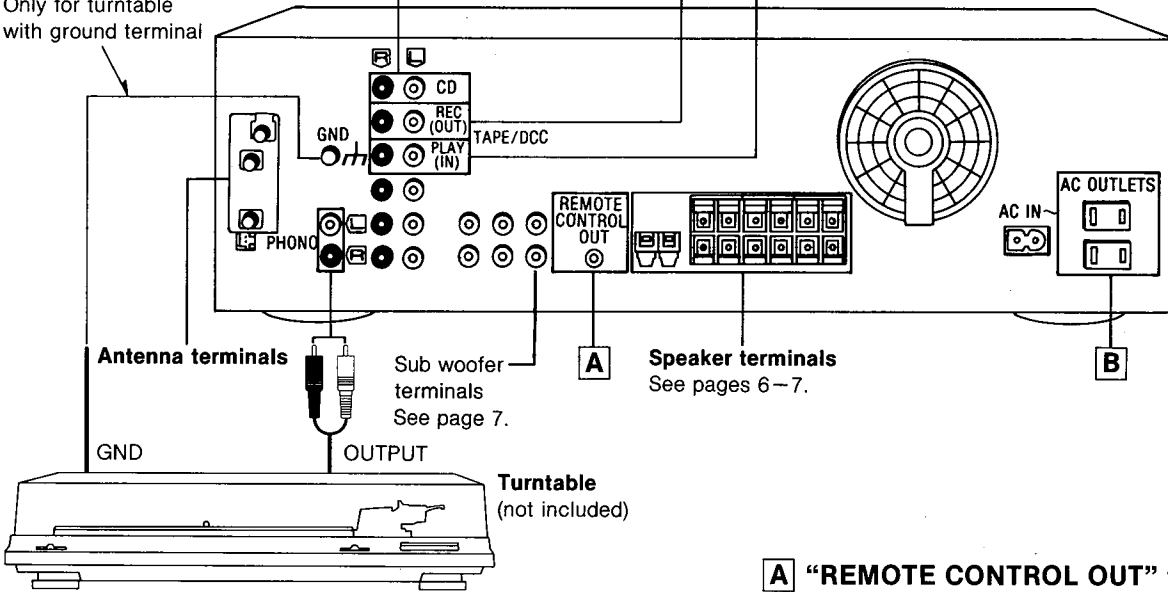
**CD changer (or CD player)**  
(not included)



**Tape deck or digital compact cassette deck (DCC)** (not included)



Only for turntable with ground terminal



### A "REMOTE CONTROL OUT" terminal

Connect the connection cable for remote control to a Technics tape deck and/or CD changer (or CD player) which has the appropriate remote control terminal as shown at the left.

If a tape deck is not being used, the CD changer (or CD player) can be connected directly (dotted line).

#### Note

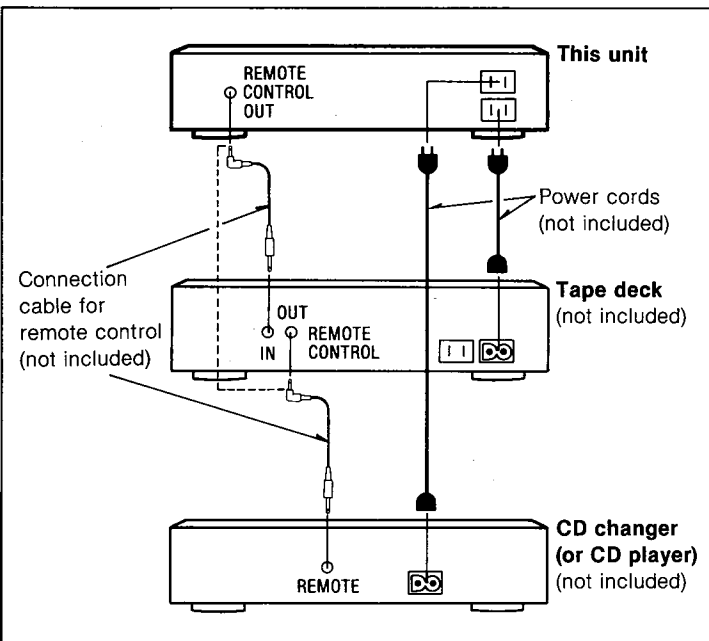
For a tape deck and/or CD changer (or CD player) with a remote control sensor, this connection is not necessary.

### B "SWITCHED" AC outlet(s)

Power to these outlets is controlled by the power switch of this unit. Audio equipment rated up to the indicated power ratings can be connected here.

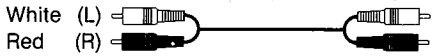
#### For proper remote-control operation

Connect the power cords of the tape deck and CD changer (or CD player) to these outlets as shown at the left.

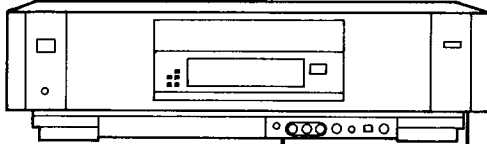


## Connecting video equipment

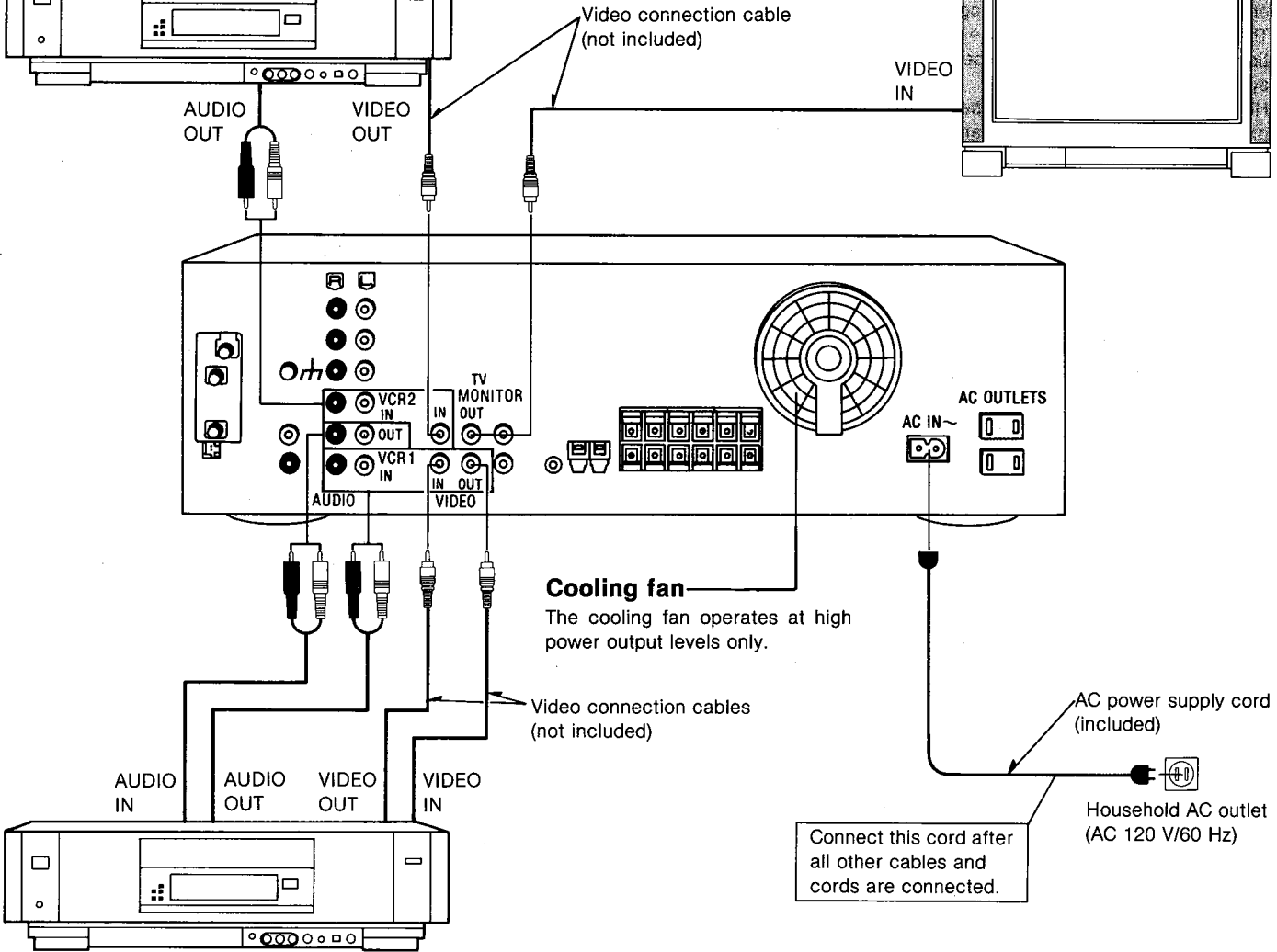
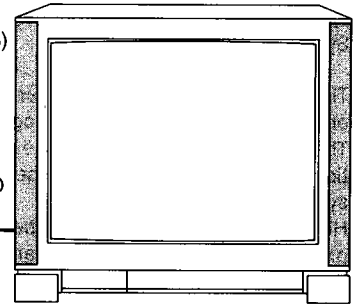
**Stereo connection cable (not included)**



**Second VCR (for playback only) (not included)**



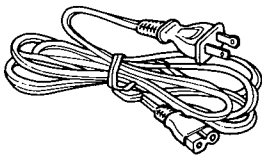
**Monitor TV (not included)**



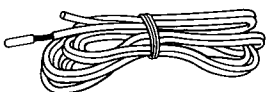
**VCR (not included)**

## ACCESSORIES

AC power supply cord ..... 1 pc.  
(SJA172)

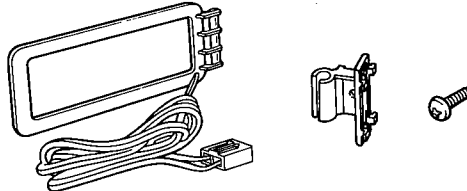


FM indoor antenna (RSA0006).... 1 pc.

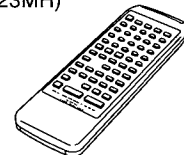


AM loop antenna set (RSA0010)

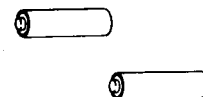
- AM antenna holder ..... 1 pc.  
(RMN0244)
- Screw ..... 1 pc.  
(XTN3+10AFZ)



Remote control transmitter..... 1 pc.  
(RAK-SA723MH)



Batteries (UM-4, "AAA", R03) ... 2 pcs.



**Note:** There are available on route.

## ■ SPEAKER CONNECTIONS

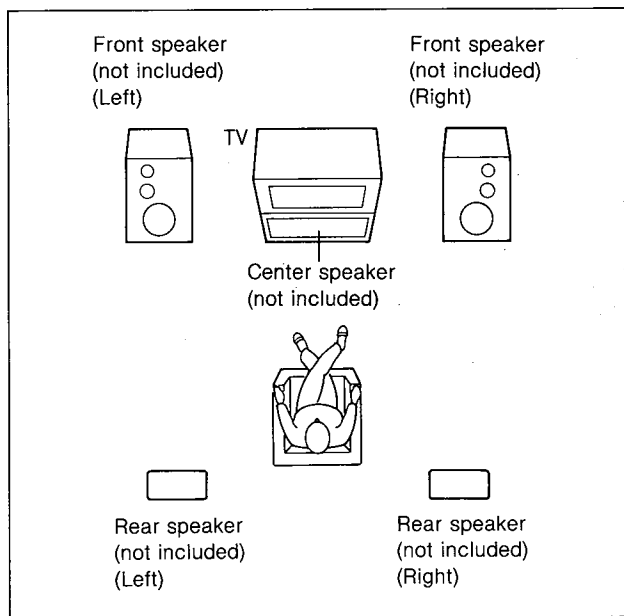
### Placement of speakers

As well as enjoying normal stereo reproduction with both the left and right front speakers connected, a center speaker and rear speakers can also be connected to the main unit in order to enjoy playback with a feeling of presence using the Dolby Pro-Logic Systems.

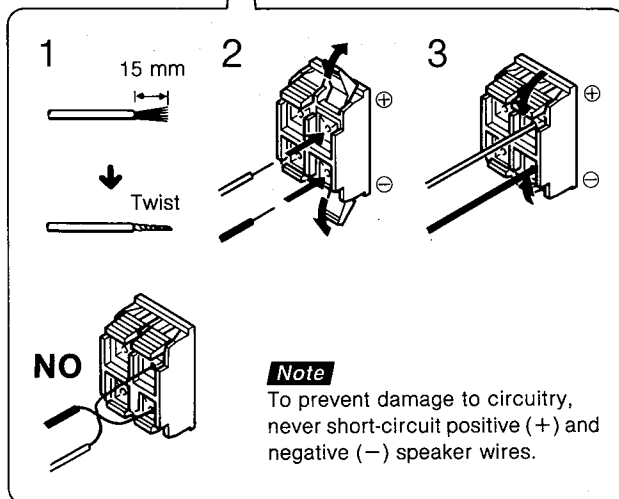
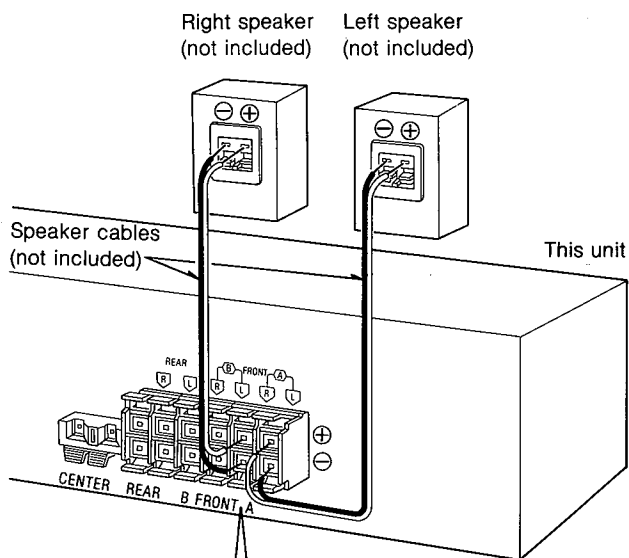
The illustration below shows where to place the speakers when enjoying sound with Dolby Pro-Logic systems.

The listening position at which the effect is the greatest is a position slightly to the rear of a center position of five-speaker systems.

However the position should be adjusted to your personal preference, because the effect varies to some degree depending upon the type of music and the music source.



### Connection of front speakers



#### ■ "B" terminals

For connection to a second pair of speakers.

#### ■ Speaker impedance

**When only the "A" or only the "B" speakers are connected:**

The impedance of the speaker used with this unit must be 4–8  $\Omega$ .

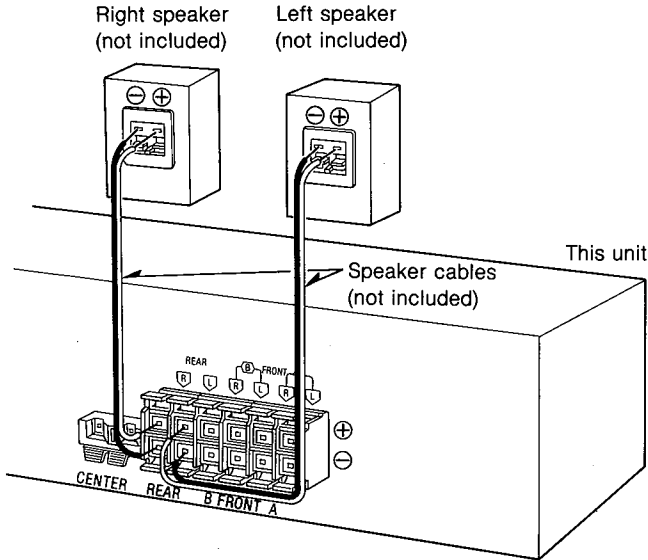
#### **Note**

If 4  $\Omega$  speakers are connected, be sure to set the impedance on the main unit to LOW according to step 2.

**When both the "A" and the "B" speakers are connected simultaneously:**

The impedance of the speaker used with this unit must be 8  $\Omega$ .

## Connection of rear speakers

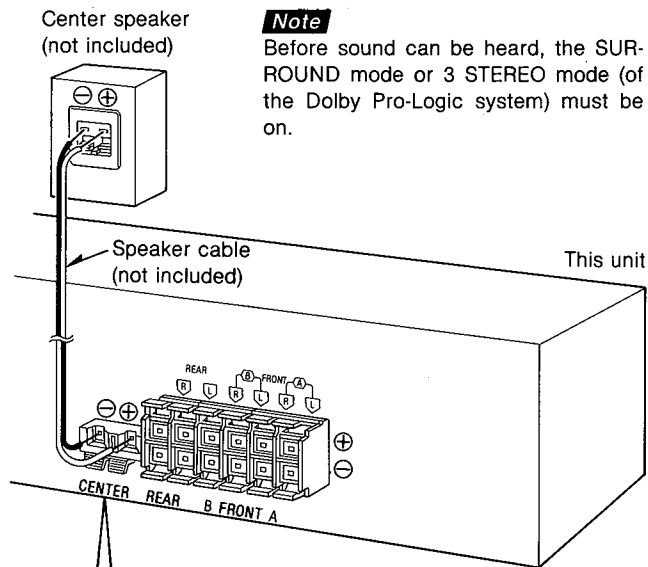


**Note**  
Before sound can be heard, the SURROUND mode (of the Dolby Pro-Logic system) must be on and both rear speakers must be connected.

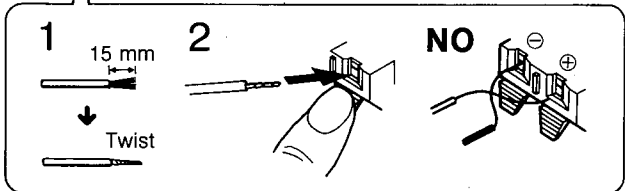
### Speaker impedance

The impedance of any speaker used with this unit must be 8 Ω.

## Connection of center speaker



**Note**  
Before sound can be heard, the SURROUND mode or 3 STEREO mode (of the Dolby Pro-Logic system) must be on.



### Speaker impedance

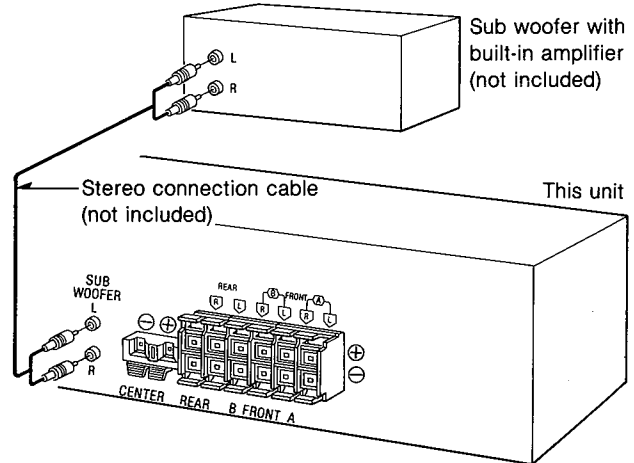
The impedance of any speaker used with this unit must be 8 Ω.

## Connection of sub woofer

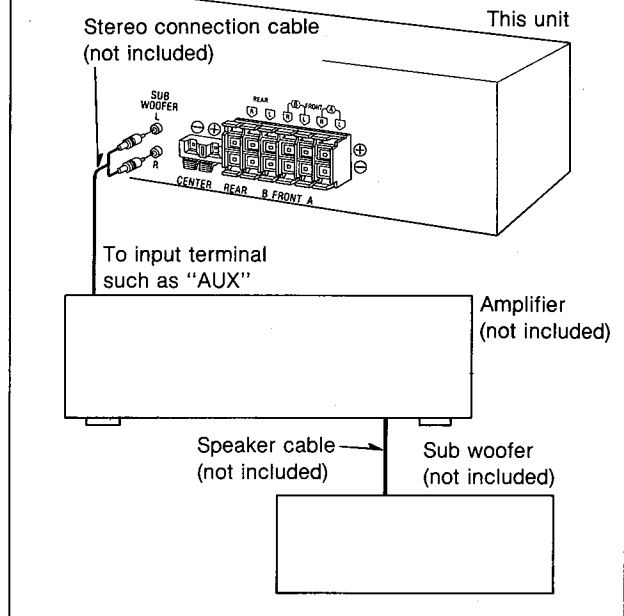
The sub woofer is connected when bass sounds are inadequately reproduced because front speakers are too small. When connected, the sub woofer can be placed in any position.

### Note

This unit has no amplifier section designed especially for the sub woofer, so it is necessary to purchase a sub woofer with a built in amplifier or buy the two separately.



## Connecting a sub woofer which does not have a built-in amplifier



### For your reference:

The level of sound output from the sub woofer will always be at 80 Hz or less, regardless of the settings of the speaker select buttons on this unit, thus the intensity of the low frequency range will be maintained.

### When adjusting the volume of the sub woofer

After setting the volume control on the sub woofer or on the amplifier which is connected to the sub woofer, make any further adjustments with the volume control on this unit.

## REMOTE CONTROL OPERATION

This remote control transmitter can be used to operate other units manufactured by this company in addition to the system components you have purchased, including TVs and VCRs manufactured since 1985, DCC decks, laser disc players.

It is also possible to change over the remote control code so that the remote control transmitter can operate TVs, VCRs and laser disc players which have not been manufactured by this company.

### Basic operations

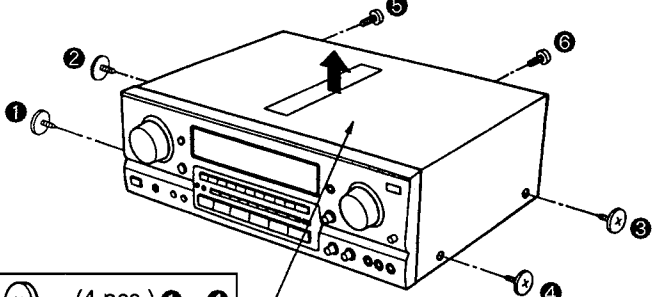
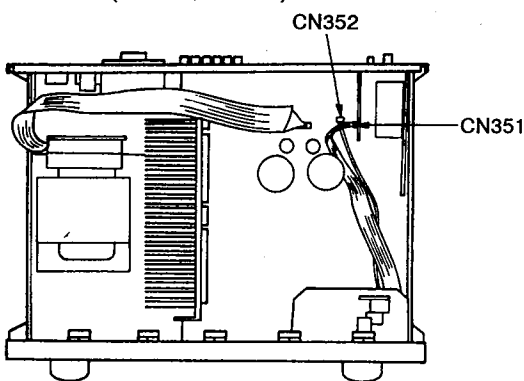
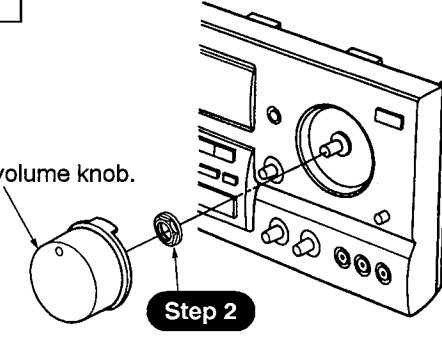
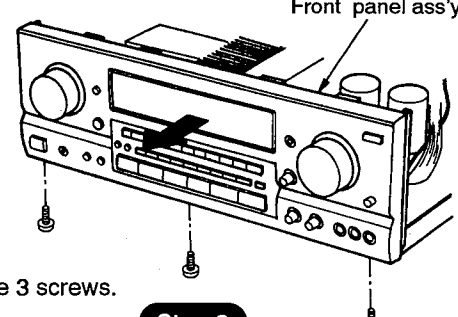
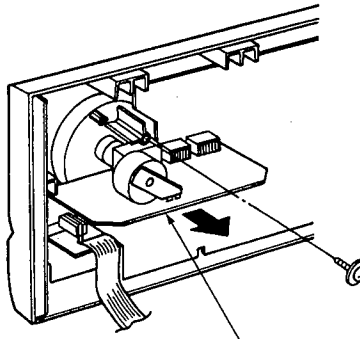
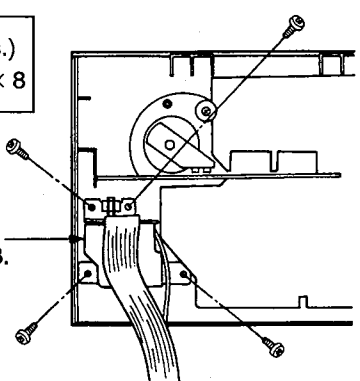
	<p><b>To turn the power supply ON/OFF</b></p>	<p>TUNER → POWER</p> <p>Once the power has been set to ON, it can be turned ON and OFF simply by pressing POWER. (See <b>Note</b> below.)</p>
	<p><b>To use the graphic equalizer or digital sound processor</b></p>	<p>VCR 2</p> <p>Press once again to bypass the graphic equalizer or digital sound processor.</p>
	<p><b>To select an input source</b></p>	<p>TUNER CD VCR 1 TAPE</p>
	<p><b>To turn the Dolby Pro Logic SURROUND mode ON/OFF</b></p>	<p>SURROUND</p>
	<p><b>To turn the Dolby Pro Logic 3 STEREO mode ON/OFF</b></p>	<p>3 STEREO</p>
	<p><b>To adjust the output level of the rear speakers</b></p>	<p>SURROUND → - REAR +</p>
	<p><b>To adjust the output level of the center speaker</b></p>	<p>SURROUND or 3 STEREO → - CENTER +</p>
	<p><b>To output a test signal</b></p>	<p>TEST</p> <p>Press once more to stop a test signal.</p>
	<p><b>To mute the sound level</b> (The sound output is switched off.)</p>	<p>MUTING</p> <p>On the amplifier's display</p> <p>flashing</p> <p>Press once more to return to the original volume. The volume will return to its original level even if the volume has been adjusted while muted.</p>
	<p><b>To adjust the volume level</b></p>	<p>- VOLUME +</p>
<p><b>Note</b></p> <p>After carrying out the operations for turning the power of the TV or VCR ON or OFF, always press TUNER before pressing POWER when turning the power of the system components ON and OFF.</p>		

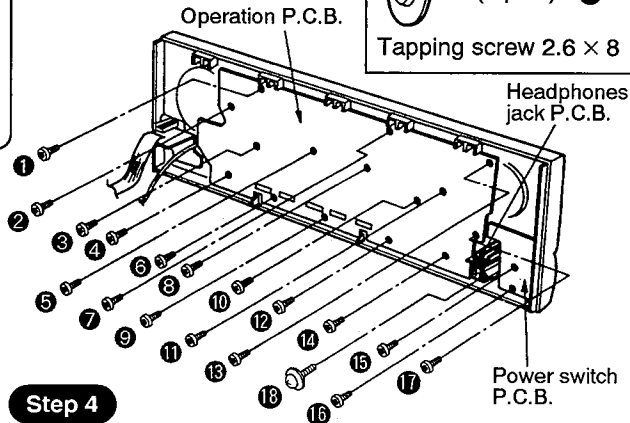



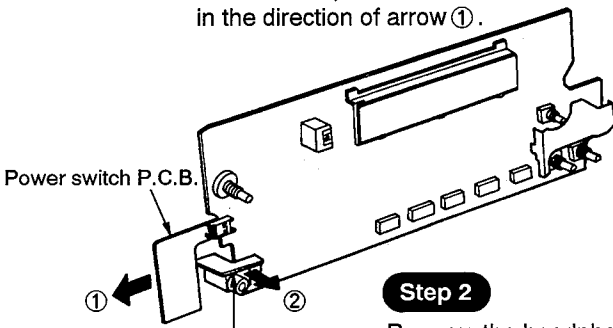
## DISASSEMBLY INSTRUCTIONS

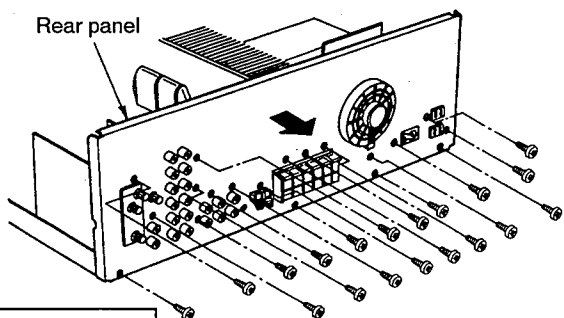
### "ATTENTION SERVICER"

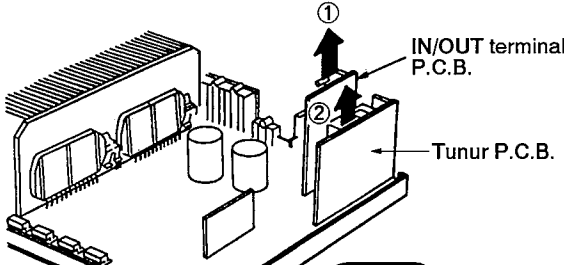
Some chassis components may have sharp edges. Be careful when disassembling and servicing.

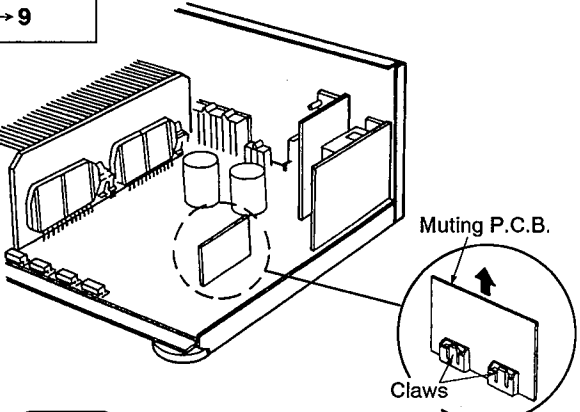
<b>Ref.No.</b> 1	<b>Removal of the cabinet</b>	<b>Ref.No.</b> 2	<b>Removal of the front panel ass'y</b>
<b>Procedure</b> 1	<b>Step 1</b> Remove the 6 screws.	<b>Procedure</b> 1→2	<b>Step 1</b> Remove the 2 connectors (CN351, CN352).
 <p> <b>Step 2</b> Remove the cabinet in the direction of arrow.         </p> <div data-bbox="89 709 332 882" style="border: 1px solid black; padding: 5px;"> <p>(4 pcs.) ①~④ (Black)</p> <p>(2 pcs.) ⑤, ⑥ Tapping screw 3 × 8 (Black)</p> </div>		 <div data-bbox="787 882 1031 987" style="border: 1px solid black; padding: 5px;"> <p>(3 pcs.) Tapping screw 3 × 8 (Black)</p> </div>	
<b>Ref.No.</b> 3	<b>Removal of the volume P.C.B.</b>	<b>Step 2</b> Remove the 3 screws.	
<b>Procedure</b> 1→2→3	<b>Step 1</b> Pull out the volume knob.	<b>Step 3</b> Remove the front panel ass'y in the direction of arrow.	
 <p> <b>Step 2</b> Remove the nut.         </p>			
 <p> <b>Step 3</b> Remove the 1 screw.         </p> <p> <b>Step 4</b> Remove the volume P.C.B. in the direction of arrow.         </p> <div data-bbox="89 1900 349 2005" style="border: 1px solid black; padding: 5px;"> <p>(1 pcs.) Tapping screw 2.6 × 8</p> </div>		<b>Ref.No.</b> 4	<b>Removal of the VCR2 P.C.B.</b>
		<b>Procedure</b> 1→2→4	<b>Step 1</b> Remove the 4 screws.
		<div data-bbox="787 1627 1031 1732" style="border: 1px solid black; padding: 5px;"> <p>(4 pcs.) Tapping screw 2.6 × 8</p> </div> <p> <b>Step 2</b> Remove the VCR2 P.C.B.         </p> 	

<p><b>Ref.No.</b> 5</p>	<p><b>Removal of the operation P.C.B., power switch P.C.B. and headphones jack P.C.B.</b></p>		<div data-bbox="1187 128 1455 323" style="border: 1px solid black; padding: 5px;"> <p>(17 pcs.) ①~⑰ Tapping screw 2.6 × 8</p> <p>(1 pcs.) ⑱ Tapping screw 2.6 × 8</p> </div> 
<p><b>Procedure</b> 1 → 2 → 3 → 5</p>	<div data-bbox="545 205 829 401" style="border: 1px solid black; padding: 5px;"> <p>※ Pull out the knobs with using adhesive tape when removing the knobs.</p>  </div> <div data-bbox="115 359 220 394" style="border: 1px solid black; border-radius: 5px; padding: 2px;"> <p><b>Step 1</b></p> </div> <p>Pull out the tuning knob.</p> <div data-bbox="269 537 358 573" style="border: 1px solid black; border-radius: 5px; padding: 2px;"> <p><b>Step 2</b></p> </div> <p>Remove the nut.</p> <p>Balance knob    Bass knob    Treble knob</p> <div data-bbox="196 653 285 688" style="border: 1px solid black; border-radius: 5px; padding: 2px;"> <p><b>Step 3</b></p> </div> <p>Pull out the balance knob, bass knob and treble knob.</p>		

<p><b>Ref.No.</b> 6</p>	<p><b>Removal of the power switch P.C.B. and headphones jack P.C.B.</b></p>	
<p><b>Procedure</b> 1 → 2 → 3 → 5 → 6</p>	<div data-bbox="277 877 383 913" style="border: 1px solid black; border-radius: 5px; padding: 2px;"> <p><b>Step 1</b></p> </div> <p>Remove the power switch P.C.B. in the direction of arrow ①.</p>  <div data-bbox="464 1220 553 1255" style="border: 1px solid black; border-radius: 5px; padding: 2px;"> <p><b>Step 2</b></p> </div> <p>Remove the headphones jack P.C.B. in the direction of arrow ②.</p>	

<p><b>Ref.No.</b> 7</p>	<p><b>Removal of the rear panel</b></p>	
<p><b>Procedure</b> 1 → 7</p>	<div data-bbox="992 856 1097 892" style="border: 1px solid black; border-radius: 5px; padding: 2px;"> <p><b>Step 2</b></p> </div> <p>Remove the rear panel in the direction of arrow.</p>  <div data-bbox="1154 1283 1243 1318" style="border: 1px solid black; border-radius: 5px; padding: 2px;"> <p><b>Step 1</b></p> </div> <p>Remove the 19 screws.</p> <div data-bbox="789 1262 1024 1367" style="border: 1px solid black; padding: 5px;"> <p>(19 pcs.) Tapping screw 3 × 8 (Black)</p> </div>	

<p><b>Ref.No.</b> 8</p>	<p><b>Removal of the tuner P.C.B. and IN/OUT terminal P.C.B.</b></p>	
<p><b>Procedure</b> 1 → 7 → 8</p>	<div data-bbox="277 1472 383 1507" style="border: 1px solid black; border-radius: 5px; padding: 2px;"> <p><b>Step 1</b></p> </div> <p>Remove the IN/OUT terminal P.C.B. in the direction of arrow ①.</p>  <div data-bbox="464 1839 553 1875" style="border: 1px solid black; border-radius: 5px; padding: 2px;"> <p><b>Step 2</b></p> </div> <p>Remove the tuner P.C.B. in the direction of arrow ②.</p>	

<p><b>Ref.No.</b> 9</p>	<p><b>Removal of the muting P.C.B.</b></p>	
<p><b>Procedure</b> 1 → 9</p>	<div data-bbox="862 1493 1438 1902" style="border: 1px solid black; padding: 5px;">  </div> <div data-bbox="878 1902 984 1938" style="border: 1px solid black; border-radius: 5px; padding: 2px;"> <p><b>Step 1</b></p> </div> <p>Release the 2 claws, and then remove the muting P.C.B. in the direction of arrow.</p>	

**Ref.No. 10**      **Removal of the power supply P.C.B.**

**Procedure**  
1 → 7 → 10

**Step 1**  
Remove the 2 screws.

Power supply P.C.B.

**Step 2**  
Remove the power supply P.C.B. in the direction of arrow.

(2 pcs.)  
Tapping screw 3 × 20  
(Black)

**Ref.No. 11**      **Removal of the power transformer P.C.B.**

**Procedure**  
1 → 7 → 11

CP701A/B

**Step 1**  
Remove the 1 flat cable(CP701A/B).

**Ref.No. 12**      **Removal of the power transformer**

**Procedure**  
1 → 7 → 10 → 11  
→ 12

**Step 1**  
Remove the 4 screws.

Power transformer

**Step 2**  
Release the 2 claws.

Power transformer P.C.B.

**Step 3**  
Remove the power transformer P.C.B. in the direction of arrow.

**Ref.No. 13**      **Removal of the main P.C.B.**

**Procedure**  
1 → 2 → 7 → 8  
→ 9 → 13

**Step 1**  
Remove the 9 screws.

**Step 2**  
Remove the 1 flat cable. (CP701A/B)

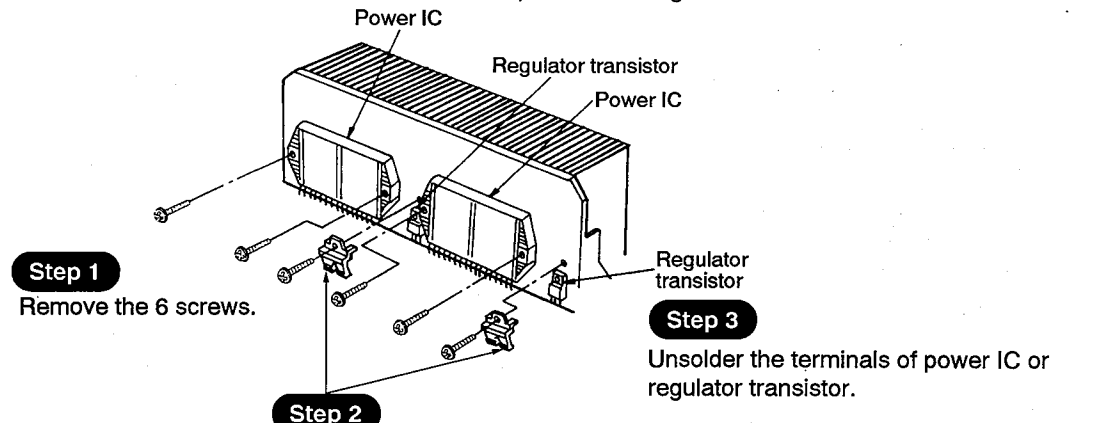

(6 pcs.) ①~③  
⑦~⑨  
Tapping screw 3 × 20  
(Black)  
  
 (3 pcs.) ④~⑥  
Tapping screw 3 × 8  
(Black)

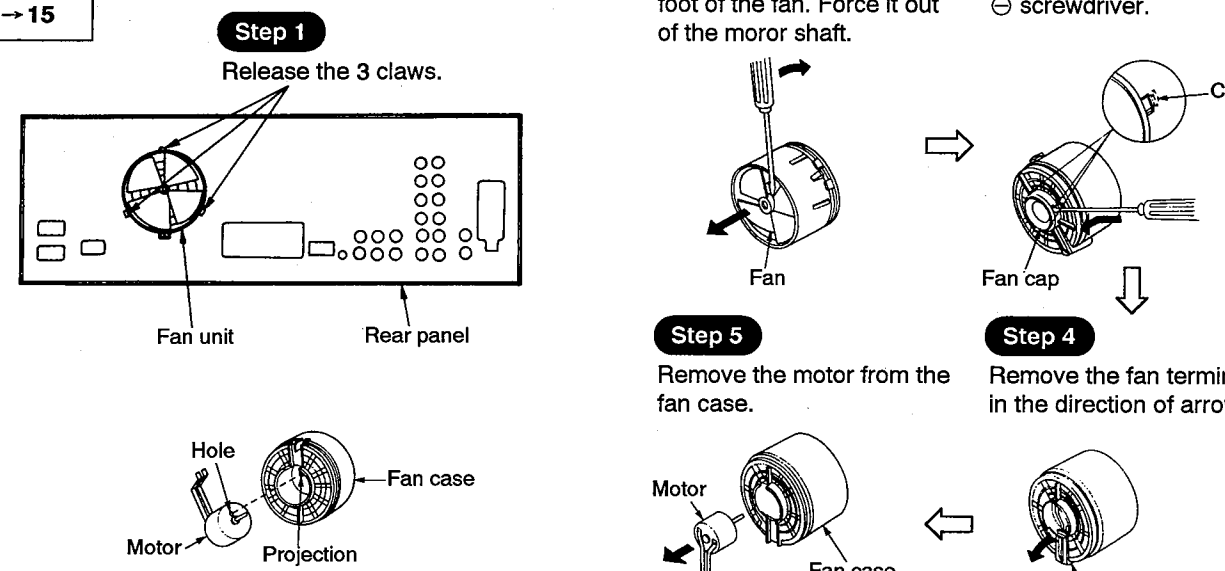
①  
②  
③  
④  
⑤  
⑥  
⑦  
⑧  
⑨

Hooks

Main P.C.B.

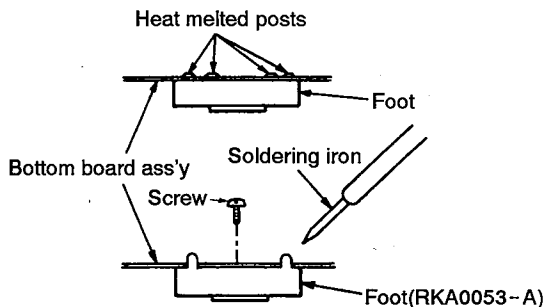
**Step 3**  
Release the 2 hooks by sliding the main P.C.B. in the direction of arrow ①, and then remove the main P.C.B. in the direction of arrow ②.

<p><b>Ref.No.</b> 14</p>	<p><b>Removal of the power IC and regulator transistor</b></p>	<p>• <b>When mounting the power IC or regulator transistor.</b> Apply silicone compound(RFKX0002) to the rear side of power IC or regulator transistor.</p>
<p><b>Procedure</b> 1 → 2 → 7 → 8 → 9 → 13 → 14</p>	 <p><b>Step 1</b> Remove the 6 screws.</p> <p><b>Step 2</b> Remove the transistor holder.</p> <p><b>Step 3</b> Unsolder the terminals of power IC or regulator transistor.</p> <div data-bbox="77 640 337 735" style="border: 1px solid black; padding: 5px;">  (6 pcs.) Tapping screw 3 × 15         </div>	

<p><b>Ref.No.</b> 15</p>	<p><b>Removal of the cooling fan motor</b></p>		<p><b>Step 2</b> Insert a screwdriver at the foot of the fan. Force it out of the motor shaft.</p> <p><b>Step 3</b> Remove the fan cap by used ⊖ screwdriver.</p>
<p><b>Procedure</b> 1 → 7 → 15</p>	 <p><b>Step 1</b> Release the 3 claws.</p> <p><b>Step 2</b> Insert a screwdriver at the foot of the fan. Force it out of the motor shaft.</p> <p><b>Step 3</b> Remove the fan cap by used ⊖ screwdriver.</p> <p><b>Step 4</b> Remove the fan terminal cap in the direction of arrow.</p> <p><b>Step 5</b> Remove the motor from the fan case.</p>		<p><b>Note:</b> When mounting the motor, align the fan casing's projection with the hole of the motor.</p>

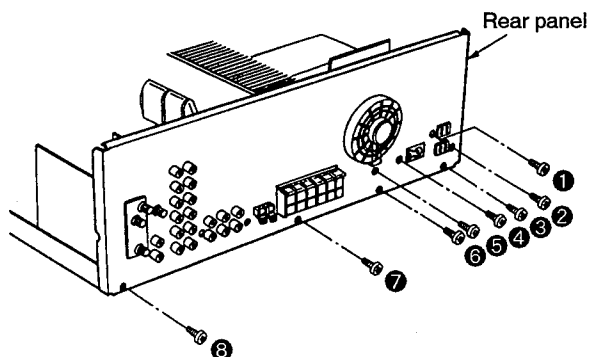
## REPLACEMENT OF THE FOOT

1. Remove the 4 heat melted posts on the Bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot(RKA0053-A) on the Bottom board ass'y melt the 4 posts with a soldering iron or install it with a screw (XTB3+6J).

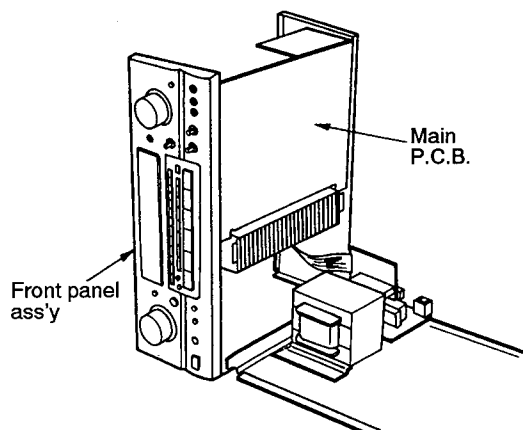


## HOW TO CHECK THE MAIN P.C.B.

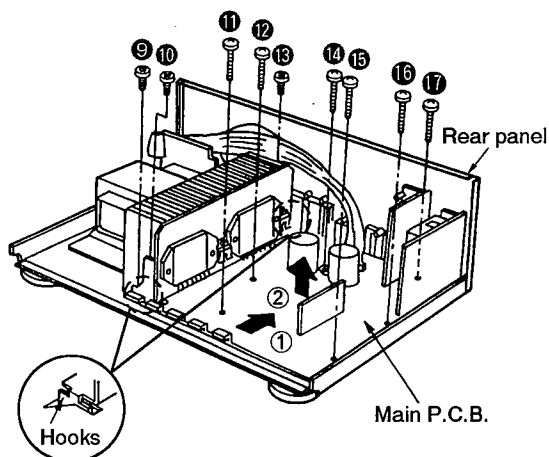
1. Remove the cabinet according to the disassembly instructions, procedure 1 "Removal of the cabinet" on page 9.
2. Remove the front panel ass'y according to the disassembly instructions, procedure 2 "Removal of the front panel ass'y" on page 9.



3. Remove the 8 screws (1 ~ 8).

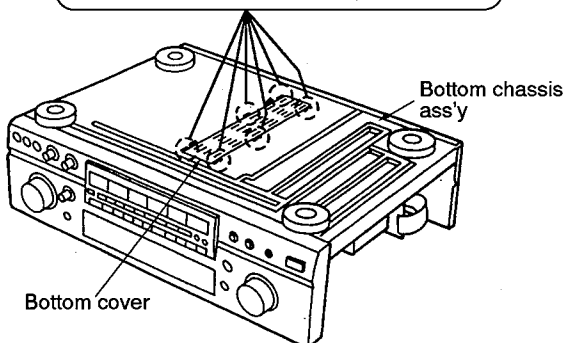
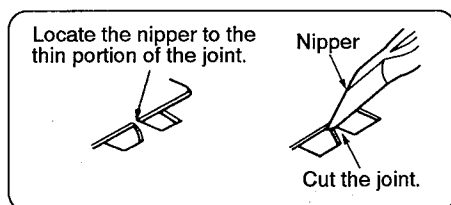


4. Remove the 9 screws (9 ~ 17).
5. Release the 2 hooks by sliding the main P.C.B. in the direction of arrow ①, and then remove the main P.C.B. equipped with rear panel in the direction of arrow ②.

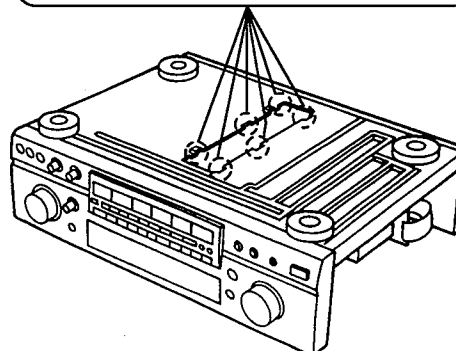
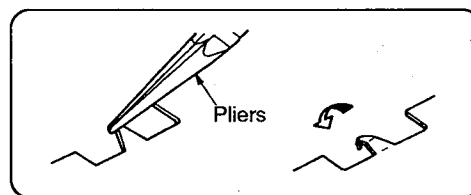


6. Reinstall the front panel ass'y to the main P.C.B.
7. When checking the soldered surface of the main P.C.B. and replacing the parts, do as shown in above.

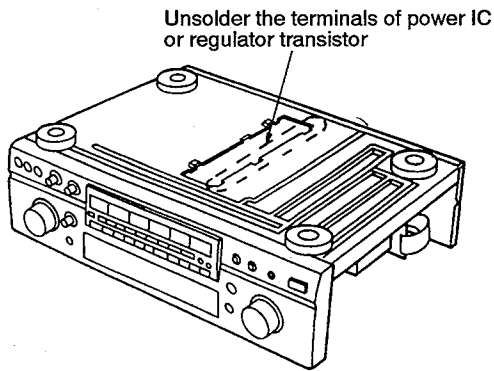
## HOW TO REPLACEMENT THE POWER IC'S AND REGULATOR TRANSISTOR



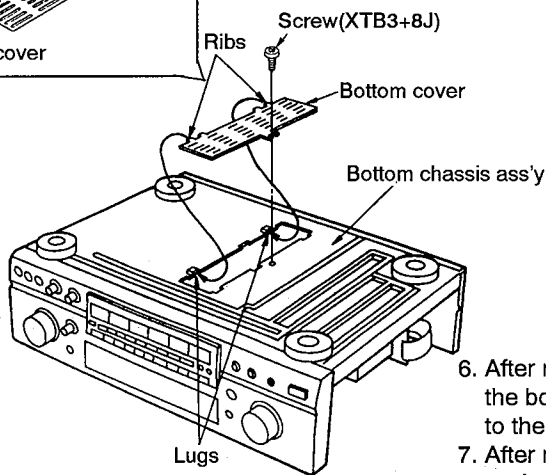
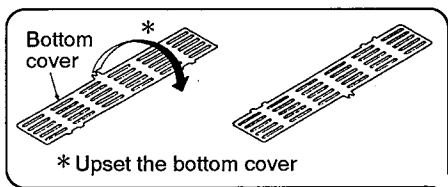
1. Cut the joints(6 portions) between bottom cover and bottom chassis ass'y with nipper.



2. After cutting the joints(6 portions), bend the portions of the bottom chassis ass'y in the direction of arrow with pliers.

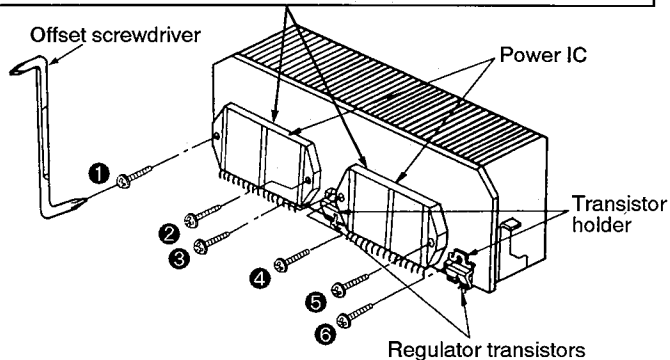


3. When replacing the power IC or regulator transistor, unsolder the terminals of power IC or regulator transistor on the soldered surface.



———— CAUTION ————

- After replacing the power IC or regulator transistor, apply a sufficient quantity of compound grease (RFKX0002) between the heat sink and the power IC or regulator transistor. (Radiation of power IC & transistor)
- Tighten enough the screws (1 ~ 6) after replacing the power IC or regulator transistor. Otherwise, the heat radiation works little.

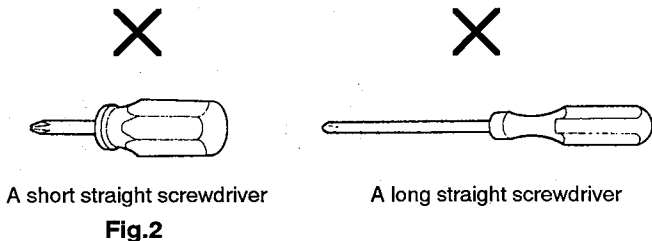


4. Then remove the 6 screws (1 ~ 6) fixed to the power IC or transistor holder.  
 5. When installing or removing the power IC or transistor holder, be sure to use an offset screwdriver.

6. After replacing the power IC or regulator transistor, upset the bottom cover and align the ribs of the bottom cover to the lugs on the bottom chassis ass'y.  
 7. After mounting the bottom cover on the bottom chassis ass'y, fix it with a screw(XTB3+8J).

**CAUTION:**

1. A long straight screwdriver cannot be used for removal or mounting since its long grip interferes with the neighboring P.C.B. (See Fig.1)
2. A short straight screwdriver may be used for removal, but cannot be used for mounting because the limited space in the unit will not allow sufficient tightening torque. (See Fig.2)



3. Insufficient tightening will cause poor heat dissipation from the power IC and regulator transistor and, in the worst case, may lead their thermal breakdown. (See Fig.2)

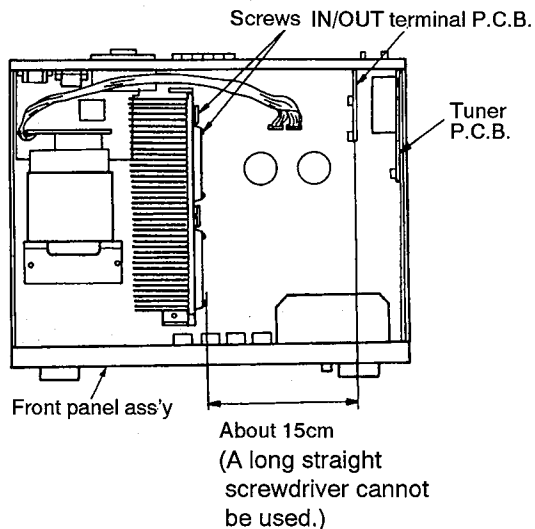
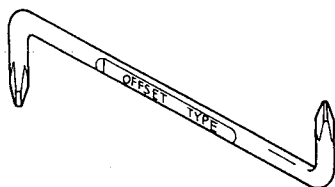

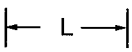


Fig.1

**—OFFSET SCREWDRIVER—**

- The PROTO offset screwdriver No.34- ¼ is recommended for use in the application above.



No.		
34 ¼	1 & 2	4 ¾"

- The address of PROTO International Sales is as follows.

**International Sales**

International Sales Office  
Stanley-Proto Industrial Tools  
14117 Industrial Park Blvd.  
Covington, GA 30209 U.S.A.  
Fax: 706-786-4387  
Phone: 706-787-3800

Australia, New Zealand &  
South Pacific  
Stanley-Proto Industrial Tools  
P.O.Box 10  
400 Whitehorse Road  
Nunweding 3131  
Victoria, Australia  
Fax: 61-3-894-1173  
Phone: 61-3-878-9244

Singapore, Indonesia,  
Philippines, Korea, Hong  
Kong, Malaysia, China.  
Stanley-Proto Asia Pacific  
12 Gul Drive  
Singapore 2262  
Fax: 65-861-3206  
Phone: 65-862-0883

Thailand  
Stanley-Proto Thailand Ltd.  
1017 Moo 13 Bangnatrad  
Highway, Tambol Bankaew  
Amphur Bangplee  
Samutprakarn, Thailand  
Fax: 66-2-316-6071  
Phone: 66-2-316-8655

Japan  
Stanley Works Japan  
2-7-16 Hyakunin-Cho  
Shinjuku-ku  
Tokyo 160 Japan  
Fax: 81-3-3360-8456  
Phone: 81-3-3360-8458

Mexico  
Herramientas Stanley S.A.  
DE C.V.  
Apartado Postal 675  
72030 Puebla, Pue, Mexico  
Fax: 52-22-494-4880  
Phone: 52-22-495-300

South & Central America,  
Puerto Rico, The Caribbean  
Stanley Inter-America  
2101 N.W. 84th Ave.  
Miami, Florida 33122  
Fax: 305-594-4261  
Phone: 305-591-3828

Europe  
Stanley-Proto Europe  
Woodside, Sheffield  
539PD  
England  
Fax: 44-742-739-038  
Phone: 44-742-768-888

Canada  
Stanley-Proto Canada  
1100 Corporate Drive  
Burlington, Ontario  
Canada, L7L 5R6  
Fax: 416-335-0075  
Phone: 416-335-0075

Middle East, Mediterranean  
& Africa  
Stanley-MEMA  
Cory House The Ring  
Bracknell Berkshire  
RG 12 1A2  
England  
Fax: 44-344-485-526  
Phone: 44-344-51813

**■ PROTECTION CIRCUITRY**

The protection circuitry 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 outlines below:

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

**Note:**

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

**■ BEFORE REPAIR AND ADJUSTMENT**

Disconnect AC power, Discharge both Power Supply Capacitors C703 and C704 (80V 12000µF) C705 and C706 (50V 3300µF) through a 10Ω, 5W resistor to ground. DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices. After repairs are completed, restore power gradually using a variac, to avoid overcurrent.

Current consumption at 120V, 60Hz in NO SIGNAL mode should be 400~1000mA.

## ■ TERMINAL FUNCTION OF IC

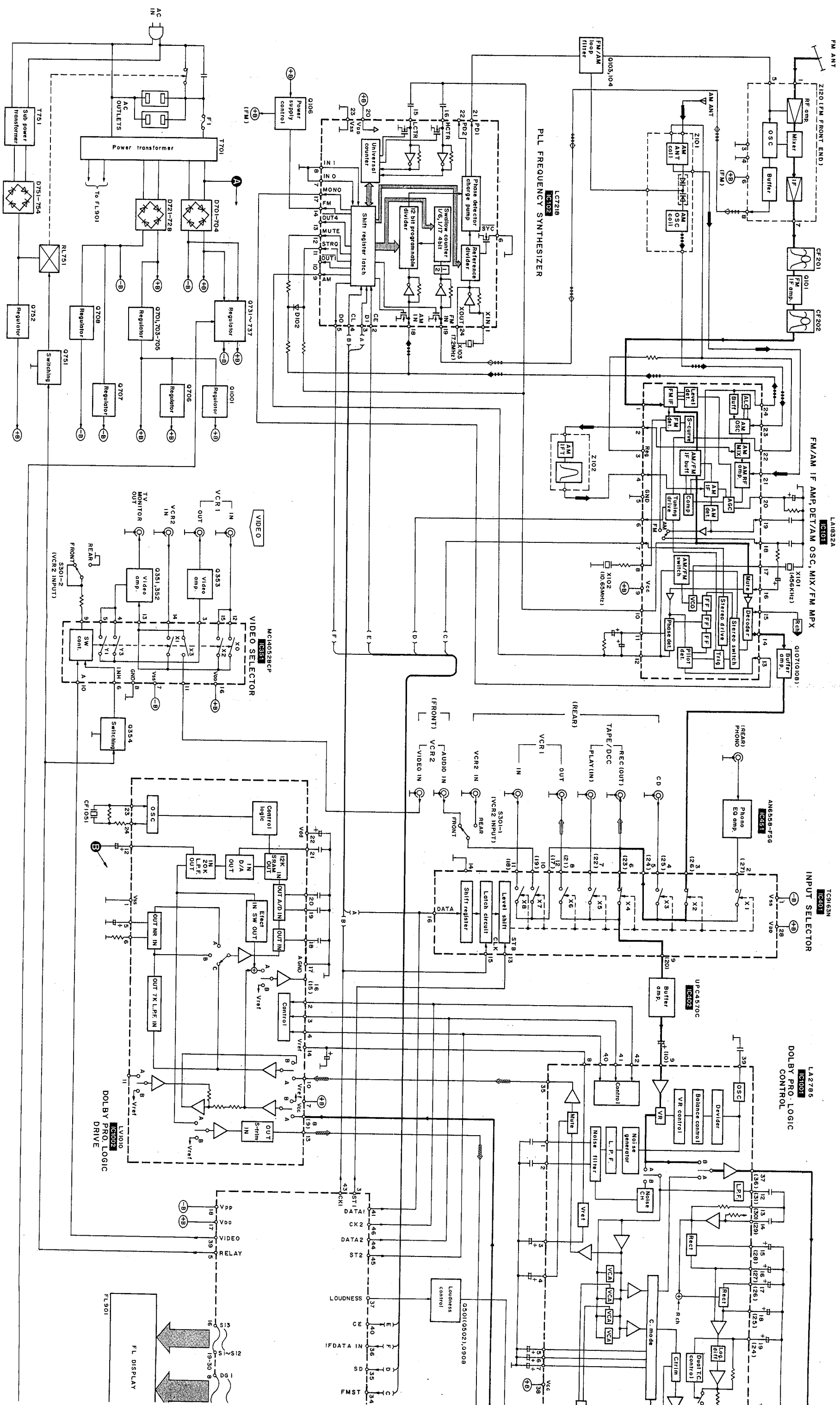
### • IC901 (LC8A012C5481): Microcomputer

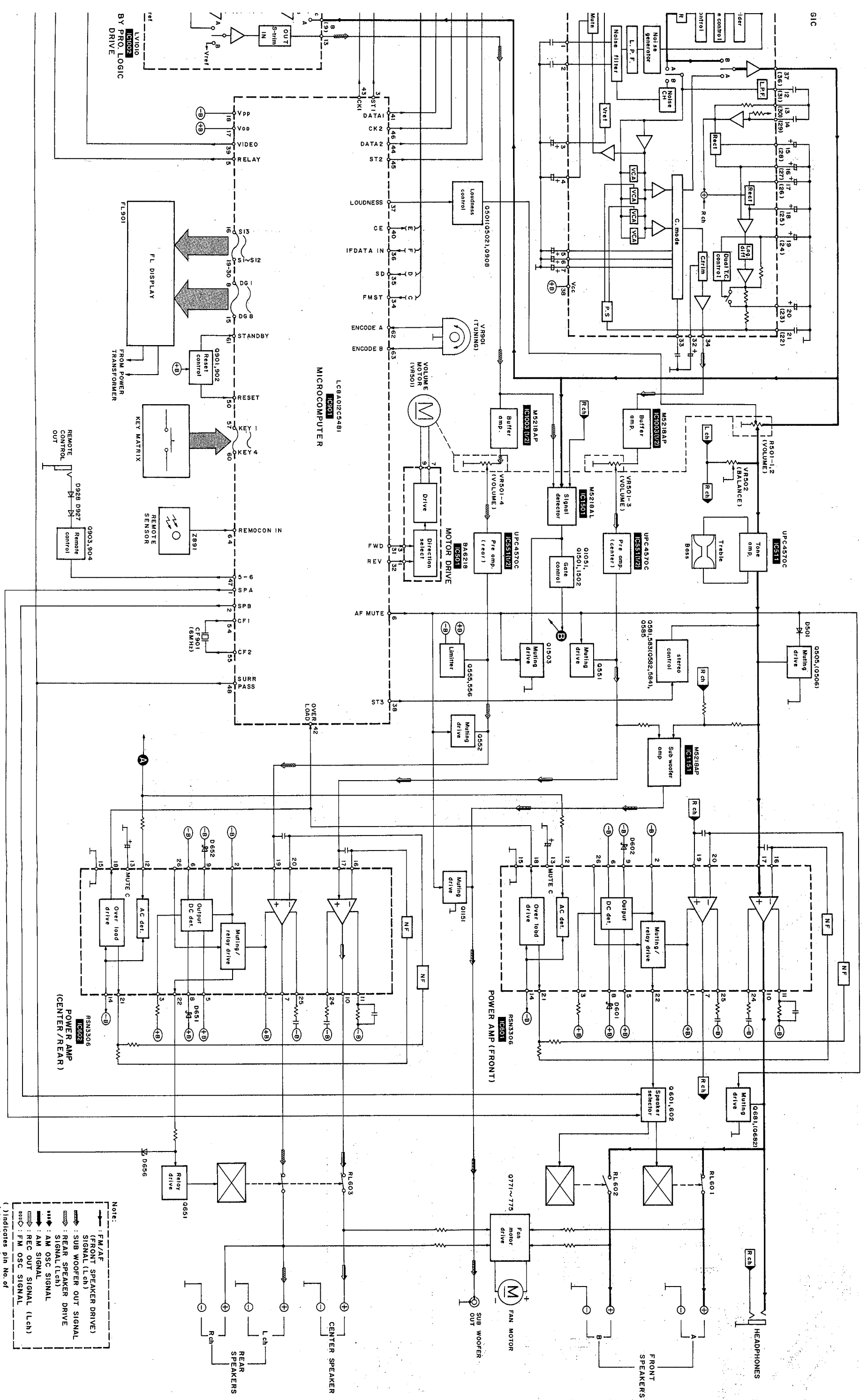
Pin No.	Mark	I/O Division	Function
1 • 2	SPA • SPB	O	Speaker select control terminal
3	ST1	O	Level shift control terminal
4	NC	—	Not used, open
5	RELAY	O	Relay control terminal
6	AF MUTE	O	Muting control terminal
7	LIMIT	O	Muting control (−20dB) terminal
8 } 15	DG1 } DG8	O	Digit signal of FL display
16	S13	O	Segment signal of FL display
17	VDD	I	Power supply terminal
18	VPP	I	Power supply terminal of FL display
19 } 30	S12 } S1	O	Segment signal of FL display
31 • 32	FWD • REV	O	Rotation control terminal of volume motor
33	IN1	—	Not used, connected to resistor
34	FM STEREO	I	Stereo signal detect terminal
35	SD	I	Received signal detect terminal
36	IFDATAIN	I	Serial data signal
37	LOUDNESS	—	Not used, open
38	ST3	O	Level shift control terminal
39	VIDEO	O	Video selector control terminal
40	CE	O	Chip enable terminal

Pin No.	Mark	I/O Division	Function
41	DATA1	O	Serial data signal
42	OVER LOAD	I	Over load detect terminal
43	CK1	O	Serial clock signal
44	DATA2	O	Serial data signal
45	ST2	O	Level shift control terminal
46	CK2	O	Serial clock signal
47	5–6	O	Remote control terminal
48	SURR. PASS	O	Level shift control terminal
49	NC	—	Test terminal
50	RESET	I	Reset detect terminal
51	XT1	—	Not used, connected to power supply
52	XT2	—	Not used, open
53	VSS	—	GND terminal
54	CF1	I	Crystal oscillator
55	CF2	O	Terminal (6MHz)
56	VDD	I	Power supply terminal
57 } 60	KEY1 } KEY4	I	Key matrix detect terminal
61	STANDBY	I	Power detect terminal
62 • 63	ENCODE A • ENCODE B	I	Not used, connected to power supply
64	REMOCON IN	I	Remote control terminal



BLOCK DIAGRAM





Note:

- FM/AF SIGNAL (FRONT SPEAKER DRIVE)
- FM/AF SIGNAL (Lch)
- SUB WOOFER OUT SIGNAL
- REAR SPEAKER DRIVE SIGNAL (Lch)
- AM OSC SIGNAL
- REC OUT SIGNAL (Lch)
- FM OSC SIGNAL

( ) indicates pin No. of right channel.

TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

 LC8A012C5481 M5218AP 8 Pin LV1010 24 Pin LA1832A 24 Pin LC7218 24 Pin	 M5218AL AN6558-FSG 8 Pin LA2785 42 Pin	 RSN3306	 M5218AL	 BA6218	 TC9163N
 2SC3940AQSTA UPC4570C 8 Pin MC14052BCP 16 Pin	 2SJ40CDTA	 2SA1309AIRTA 2SC2785FETA 2SC2787LTA 2SC3311AIRTA 2SC3311ARSTA UN411FTA UN4113TA	 UN421FTA UN4211TA UN4213TA UN4214TA	 2SC3327ABTP	 2SA929EFTA 2SB621AQSTA
 2SB1357DEFTA 2SD2037DEFTA	 MA4030MTA MA4039MTA MA4047MTA MA4056MTA MA4062MTA MA4068MTA MA4075MTA	 MA4051MTA MA4082MTA	 MA165TA MA700ATA 1SS291TA 1SR35200TB	 P300DLF P300D5002T SB3606501T	 MA4100MTA MA4150MTA MA4220MTA MA4360MTA
 Cd Cathode Anode	 Cd Cathode Anode	 Cd Cathode Anode	 Cd Cathode Anode	 Cd Cathode Anode	 Cd Cathode Anode

SCHEMATIC DIAGRAM (Parts list on pages 44~50.)

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

Note 1:

- S946 : Numeric (5) switch.
- S947 : Center level adjust (CENTER LEVEL (-)) switch.
- S948 : Test signal ON/OFF (TEST) switch.
- S949 : Numeric (4) switch.
- S950 : Numeric (6) switch.
- S951 : Center level adjust (CENTER LEVEL (+)) switch.
- S952 : Numeric (7) switch.
- S953 : Rear level adjust (REAR LEVEL (-)) switch.
- S954, 955 : Input select switches. (S954: CD, S955: TUNER)
- S956 : Center mode select (CENTER MODE) switch.
- S957 : Numeric (9) switch.
- S958 : Muting/Loudness (-MUTING-LOUDNESS) switch.
- S960 : Rear level adjust (REAR LEVEL (+)) switch.
- S961 : Numeric (8) switch.
- S962 : Numeric (0) switch.
- S963 : Delay time adjust (DELAY TIME) switch.
- S964 : Input select (PHONO) switch.
- S966 : Memory (MEMORY) switch.
- S968 : Help/reset (-HELP-RESET) switch.
- S970 : Tape/DCC monitor (TAPE/DCC [MONITOR]) switch.
- S971, 972 : Input select switch. (S971: VCR 2, S972: VCR 1)
- S973 : Speaker select (SPEAKERS B) switch.
- S974 : FM mode select (FM MODE) switch.
- S975 : Band select (BAND) switch.
- S976 : Direct tuning (DIRECT TUNING) switch.
- S978 : Power (POWER) switch.
- S980 : DOLBY PRO LOGIC 3 STEREO ON/OFF (3 STEREO) switch.
- S981 : Speaker select (SPEAKERS A) switch.
- S982 : Dolby pro logic surround ON/OFF (SURROUND) switch.
- S983 : Numeric (3) switch.
- S984 : Numeric (2) switch.
- S986 : Tuning mode select (TUNING MODE) switch.

Signal line

- ◀ : FM OSC signal
- ◀ : AM OSC signal
- ◀ : Rec out signal (L ch)
- ◀ : Rear speaker drive signal (L ch)
- ◀ : Positive voltage lines
- ◀ : Negative voltage lines
- ◀ : FM signal
- ◀ : AM signal
- ◀ : AF signal (L ch)
- ◀ : Center speaker drive signal (L ch)
- ◀ : Sub woofer drive signal

Important safety notice

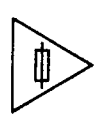
Components identified by  $\Delta$  mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used as occasion calls. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list. The supply part number is described alone in the replacement parts.

Part No.	Production Part No.	Supply Part No.
IC1501	M5218AL	M5218L

- All voltage values shown in circuitry are DC voltage in FM signal (Stereo signal) reception mode.
- \* Figures in ( ) Stand for DC-voltage in AM signal reception mode.

Note 2:

**CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE 8A 125V FUSE.**



RISK OF FIRE-REPLACE FUSE AS MARKED.

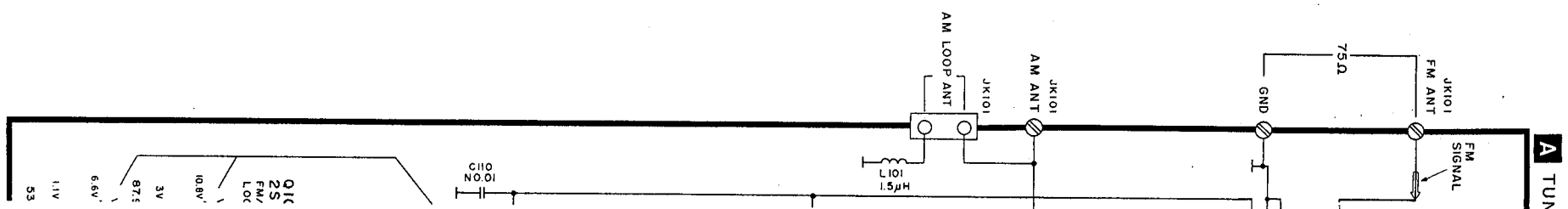
FUSE CAUTION

This symbol located near the fuse indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating, refer to the marking adjacent to the symbol.

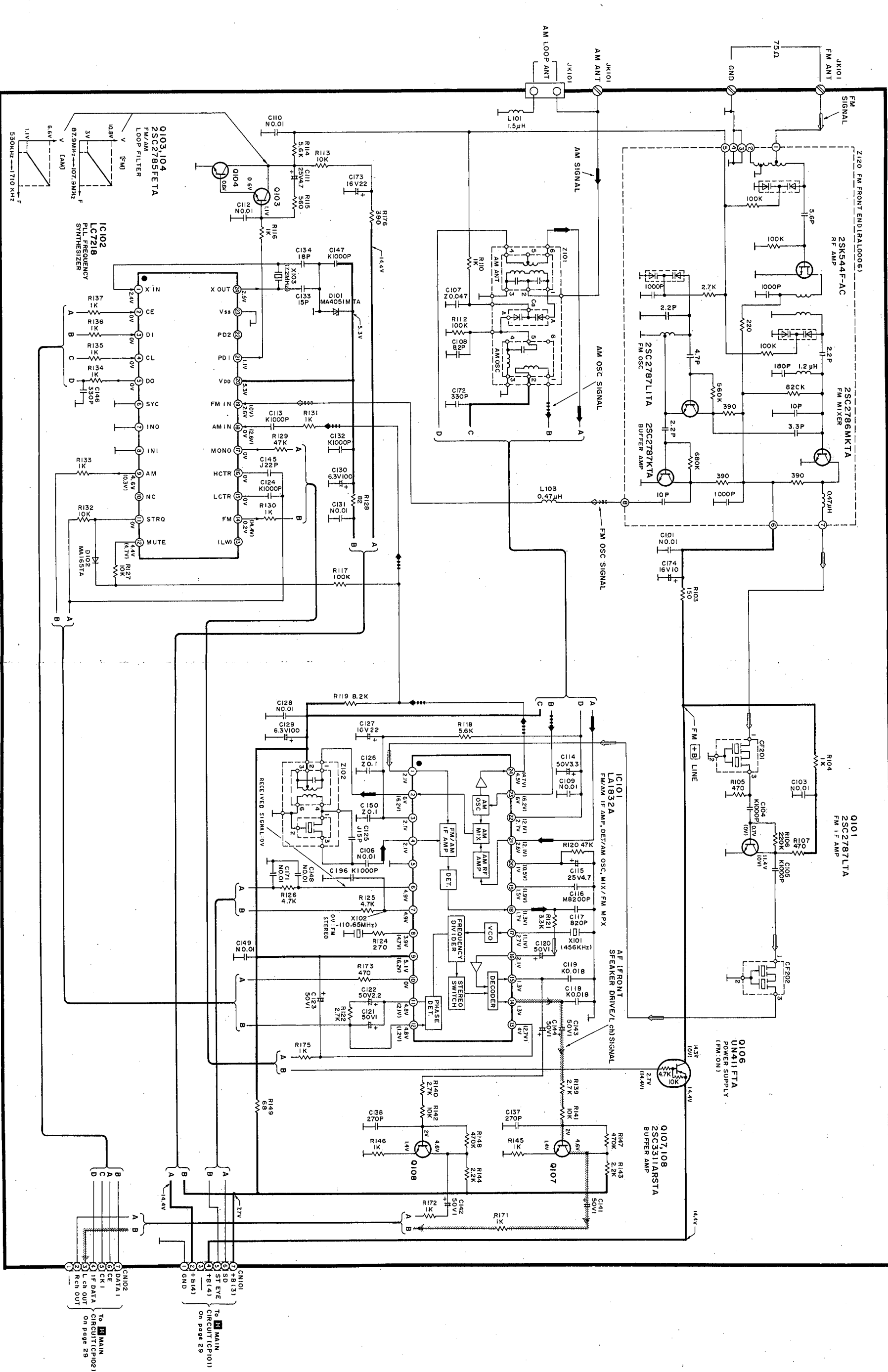
Ce symbole indique que le fusible utilisé est à rapide. Pour une protection permanente, n'utiliser que des fusibles de même type. Ce dernier est indiqué là où le présent symbole est apposé.

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.



A TUNER CIRCUIT



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Part No.  
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voltage in  
AM signal

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**T<sub>1</sub> MAIN**  
CIRCUIT(C902)  
On page 29

**T<sub>2</sub> MAIN**  
CIRCUIT(C903)  
On page 29

**T<sub>3</sub> MAIN**  
CIRCUIT(C901)  
On page 29

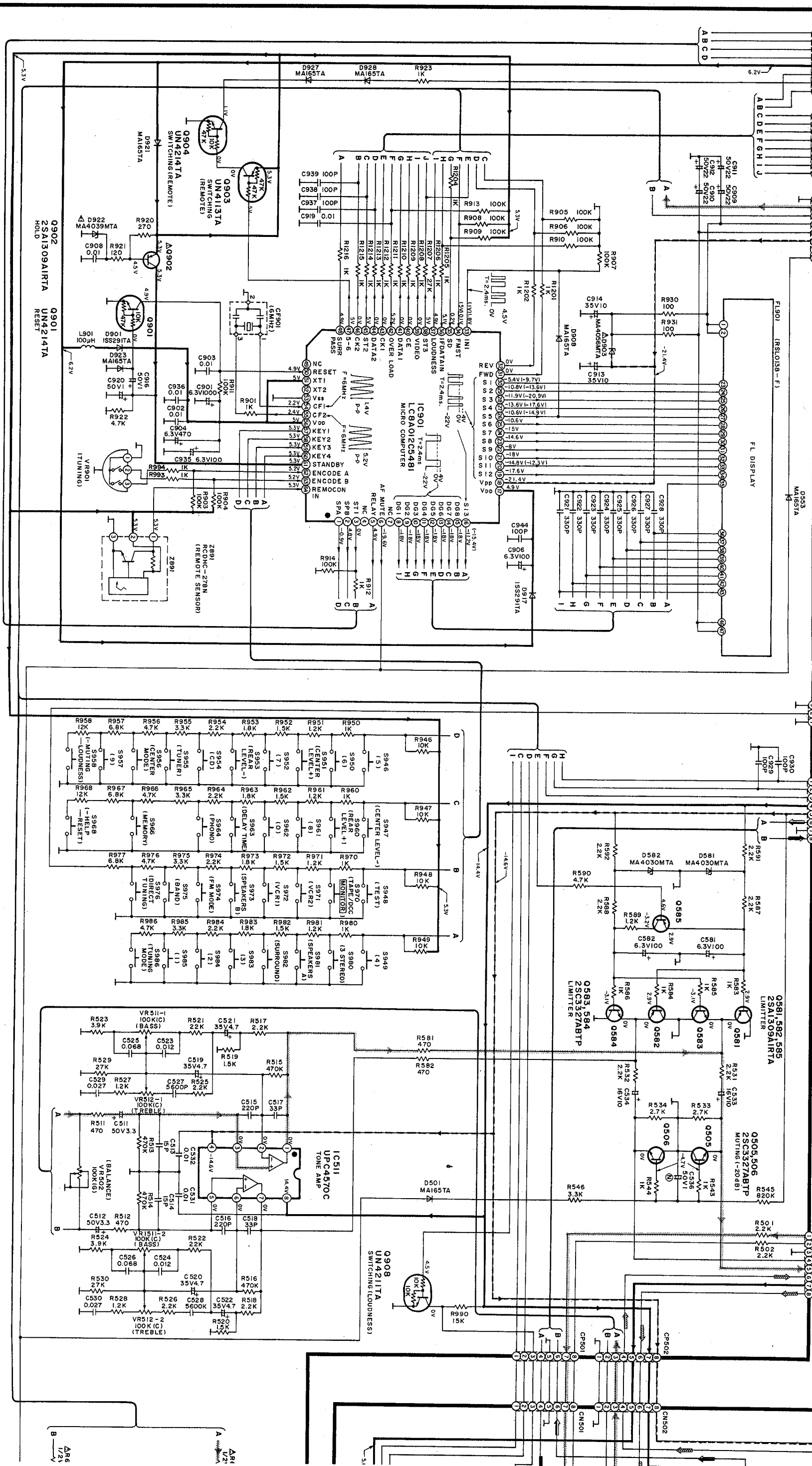
**B OPERATION CIRCUIT**

**C POWER SWITCH CIRCUIT**

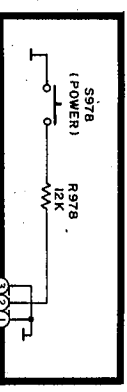
**T<sub>4</sub> MAIN**  
CIRCUIT(C904)  
On page 30

**T<sub>5</sub> MAIN**  
CIRCUIT(C905)  
On page 30

**D VOLUME**



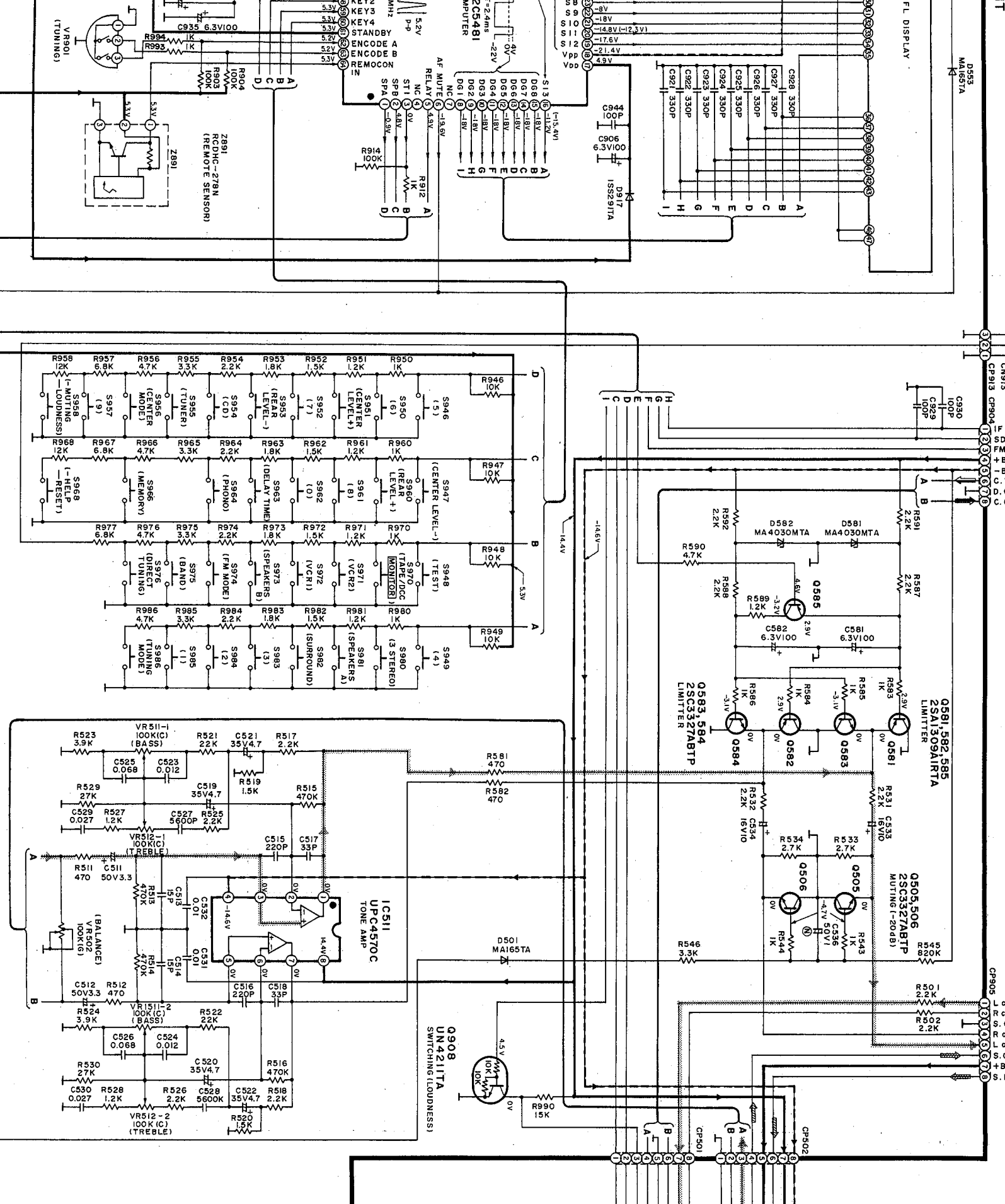
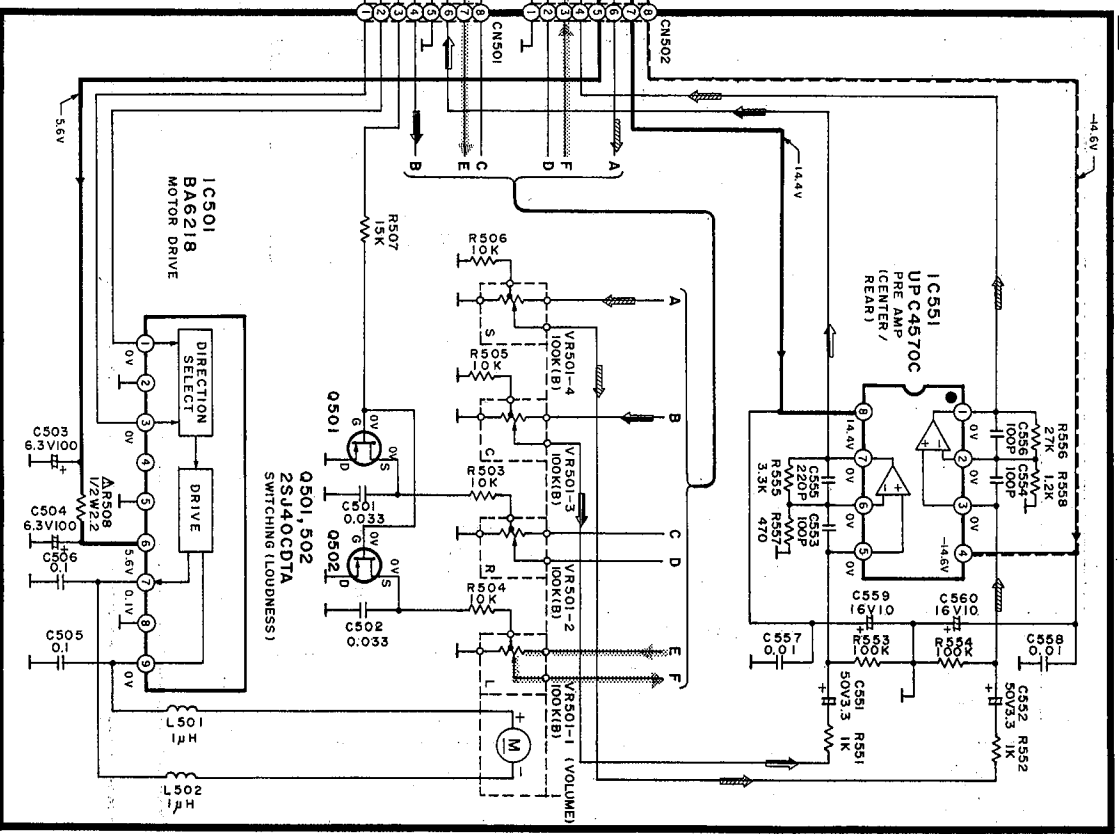
C POWER SWITCH CIRCUIT



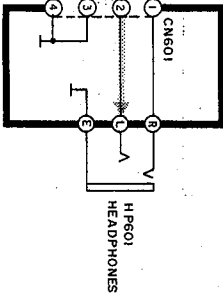
To MAIN CIRCUIT (CN904) On page 30

To MAIN CIRCUIT (CN905) On page 30

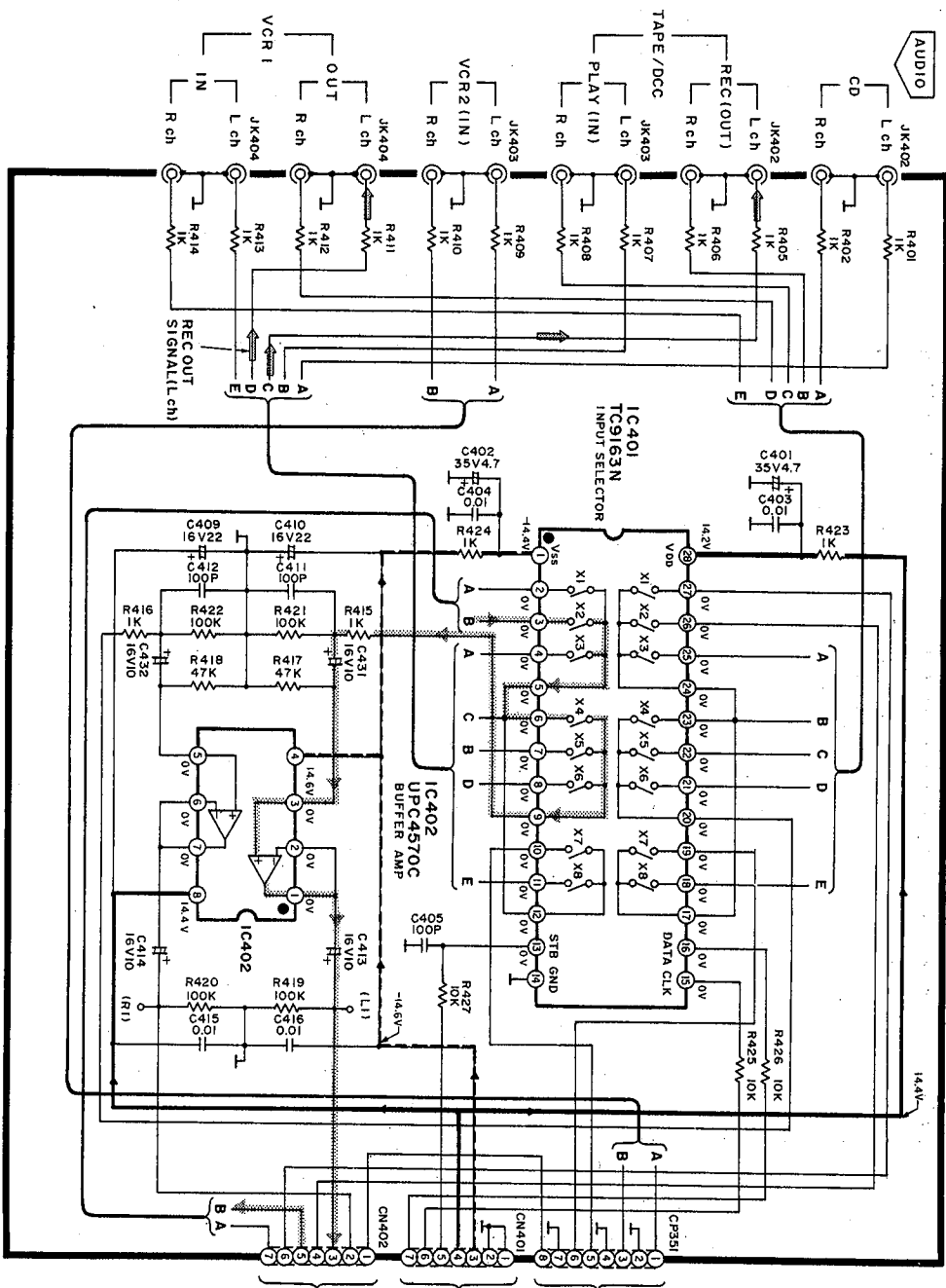
D VOLUME CIRCUIT



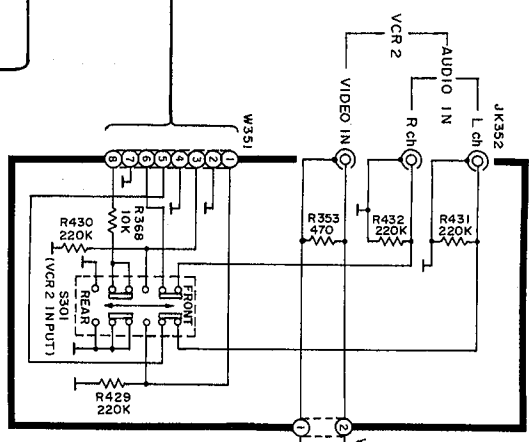
E HEADPHONES JACK CIRCUIT



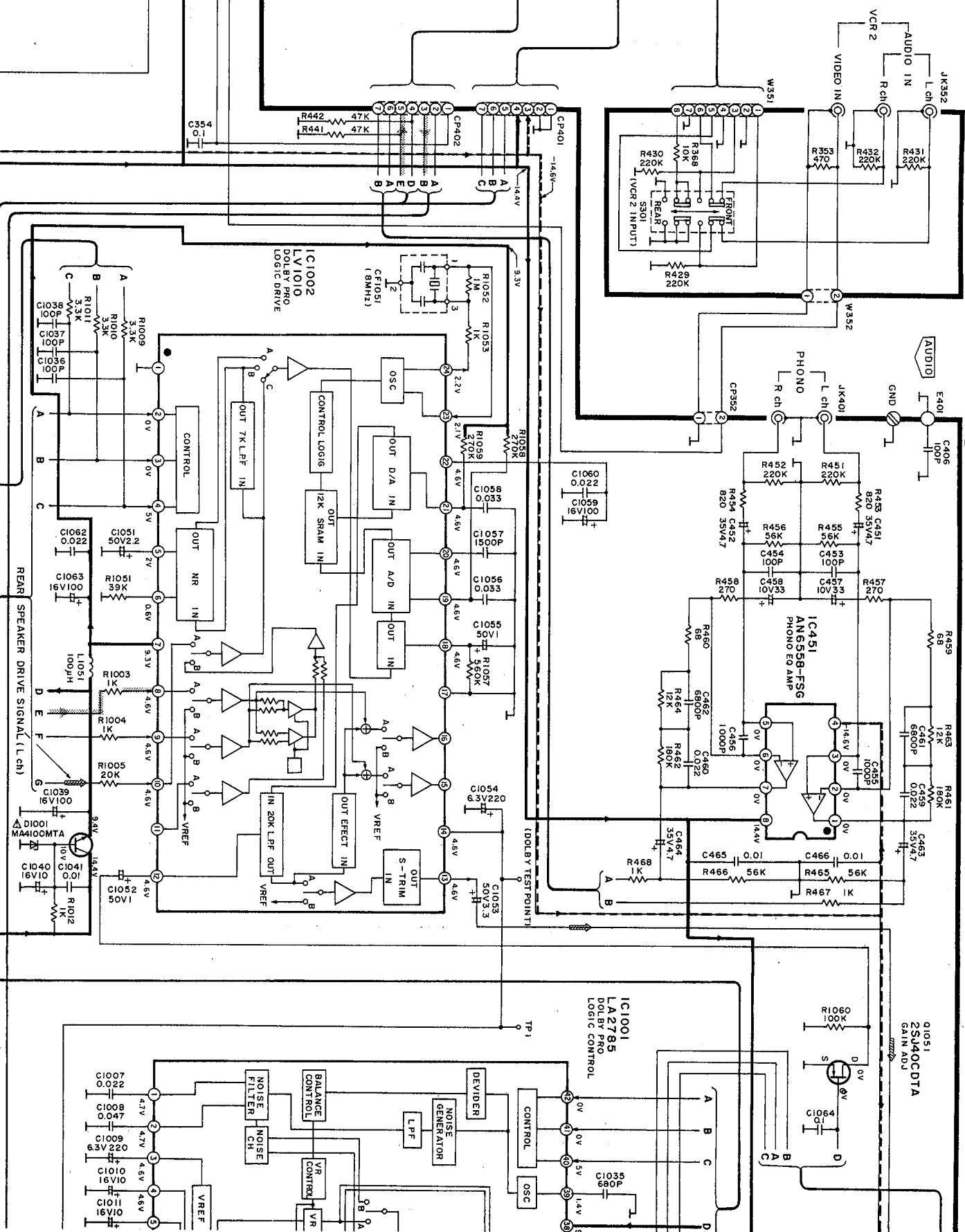
F IN/OUT TERMINAL CIRCUIT



G VCR2 CIRCUIT



H MAIN CIRCUIT

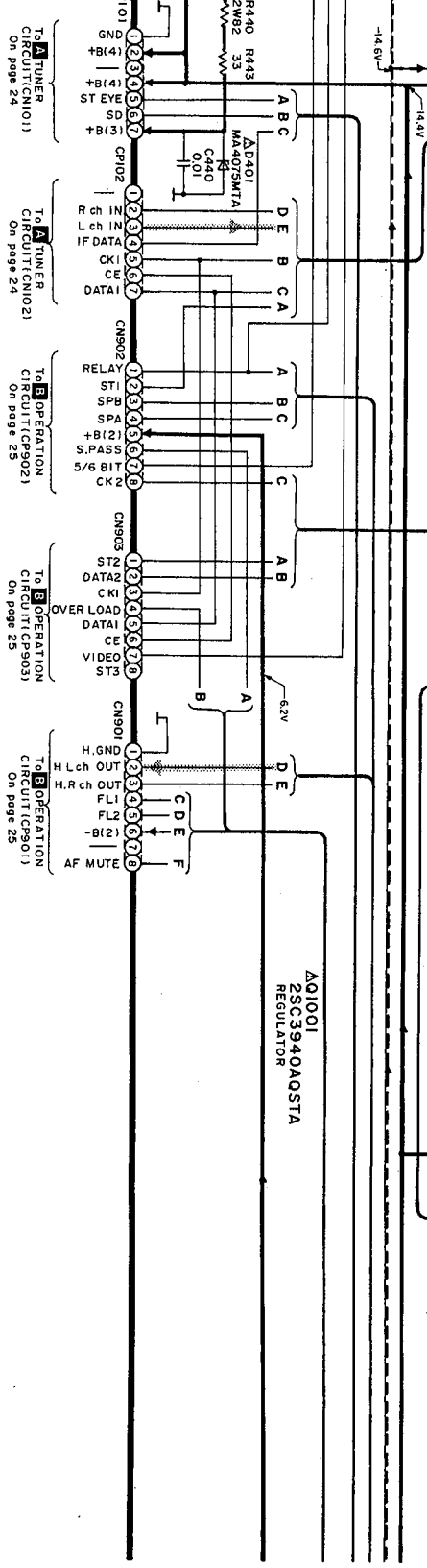
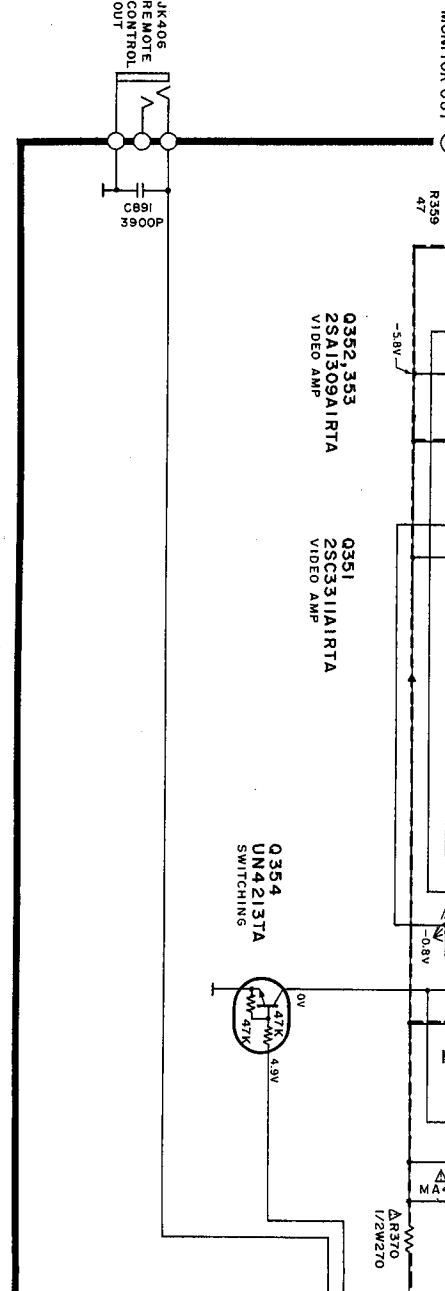


Q352, 353 2SA1309A1RTA VIDEO AMP

Q351 2SC311A1RTA VIDEO AMP

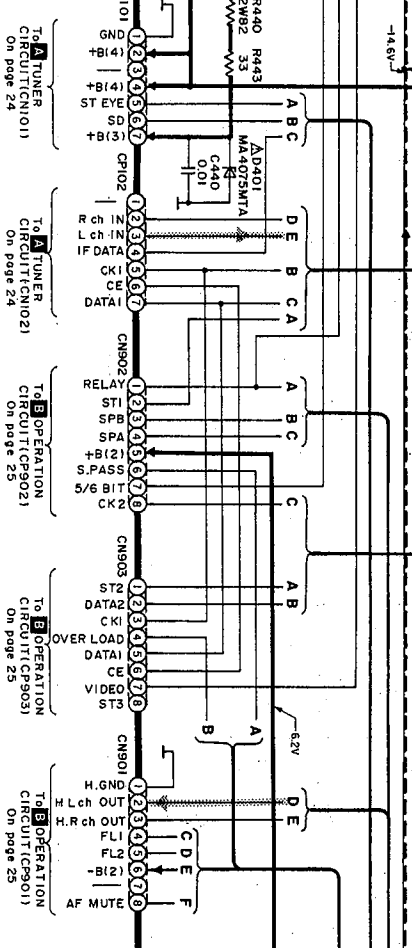
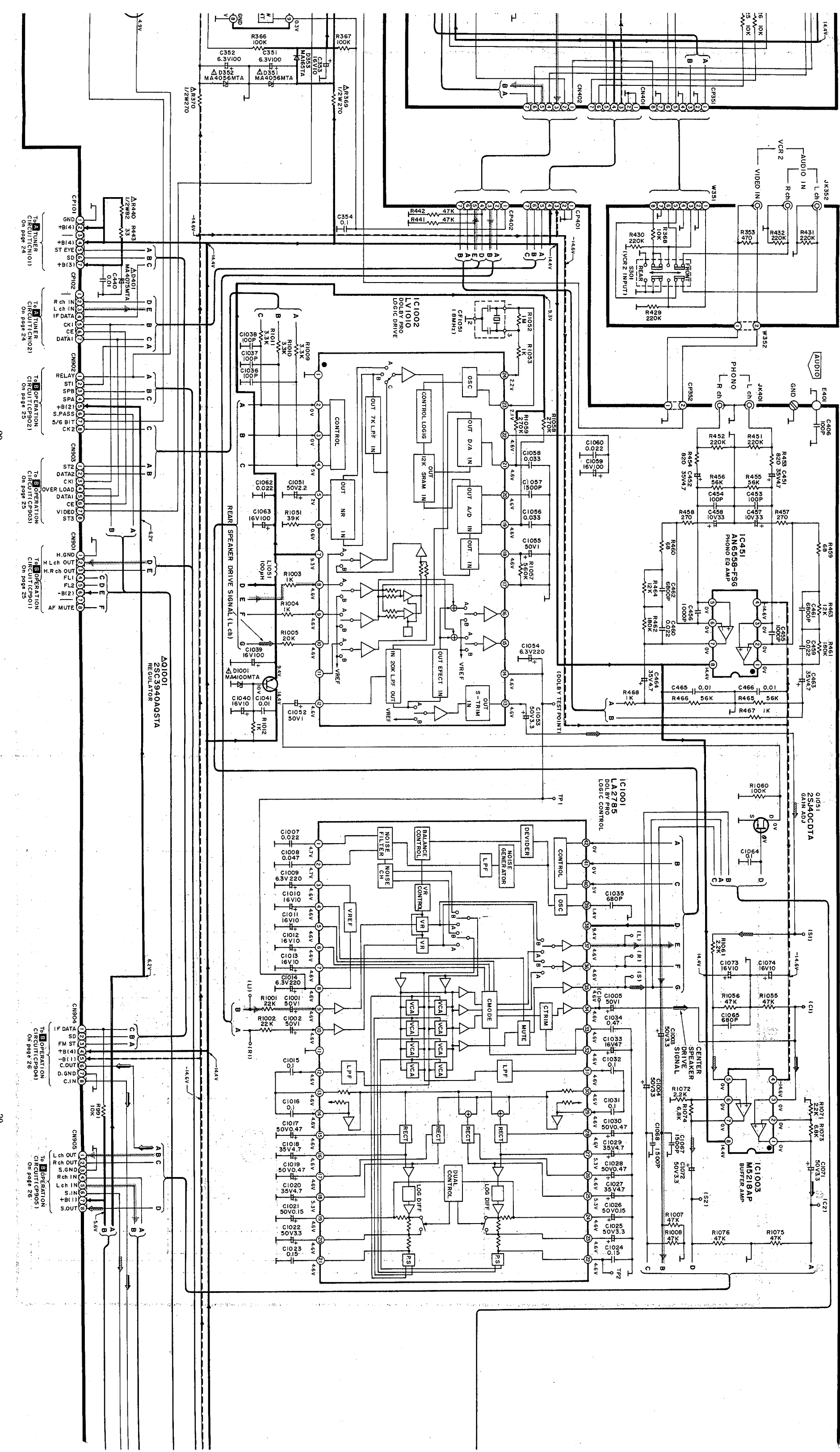
Q354 UN4213TA SWITCHING

A01001 2SC3940AOSTA AUDIO REGULATOR



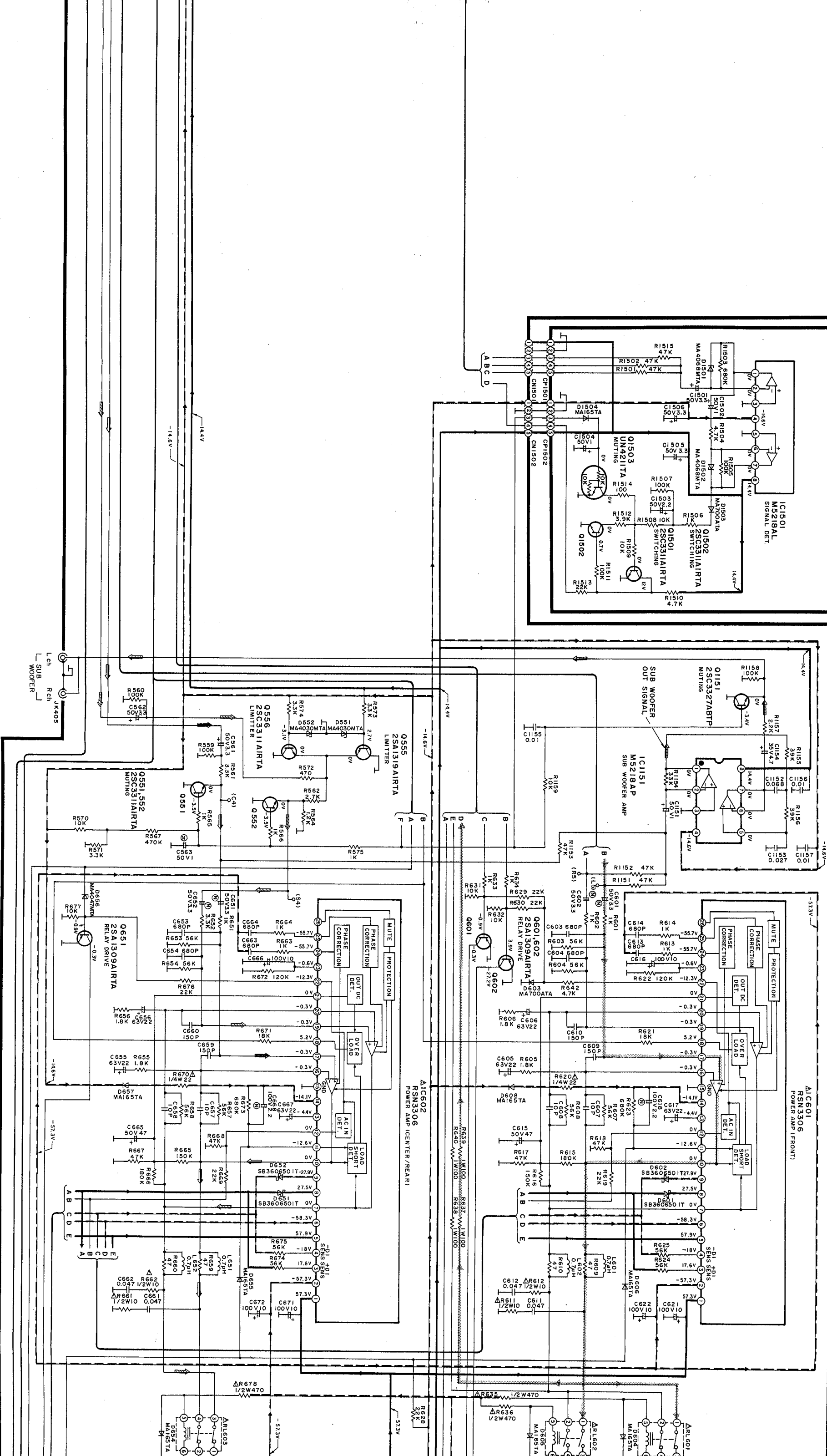
G VCR2 CIRCUIT

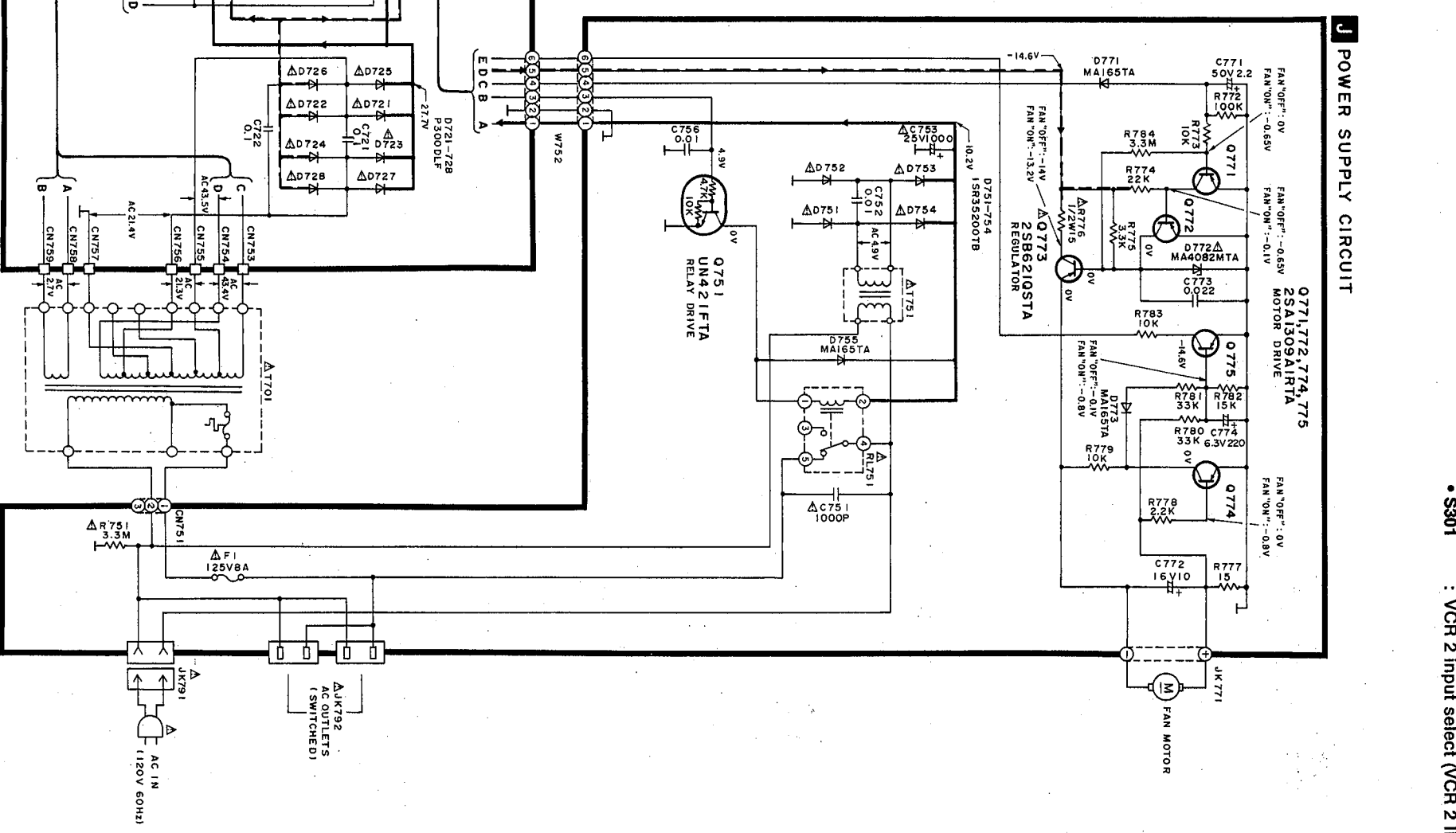
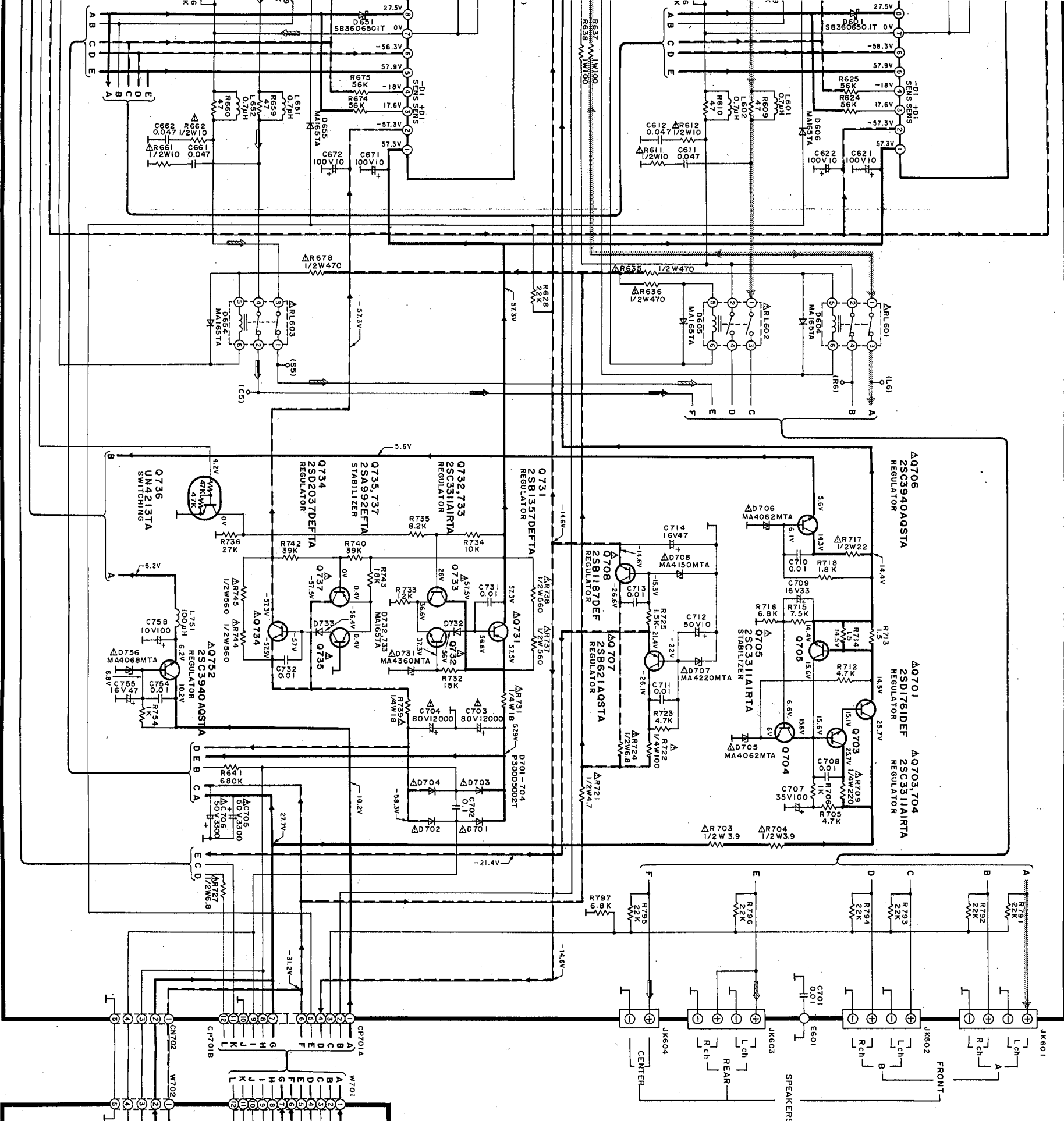
H MAIN CIRCUIT





MUTING CIRCUIT



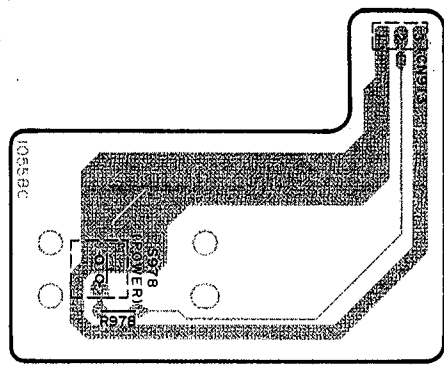


Note 3: • S301 : VCR 2 input select (VCR 2 INPUT) switch.

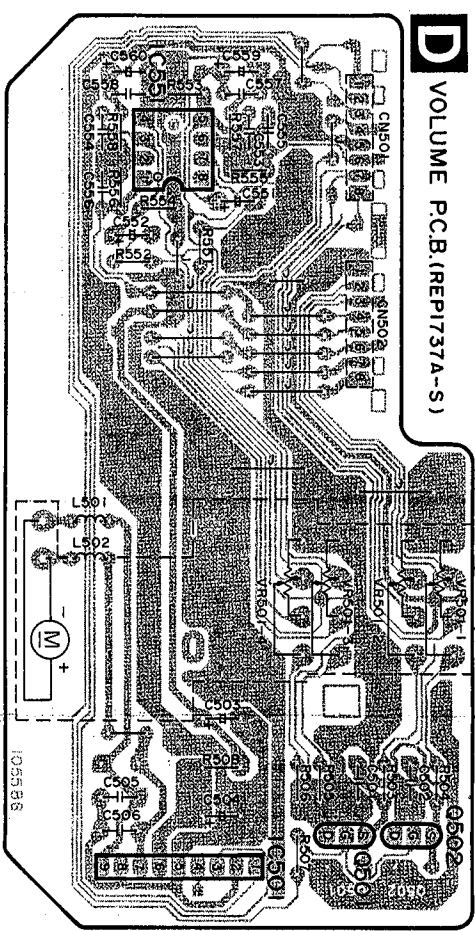
PRINTED CIRCUIT BOARDS

This printed circuit board diagram may be modified at any time with the development of new technology

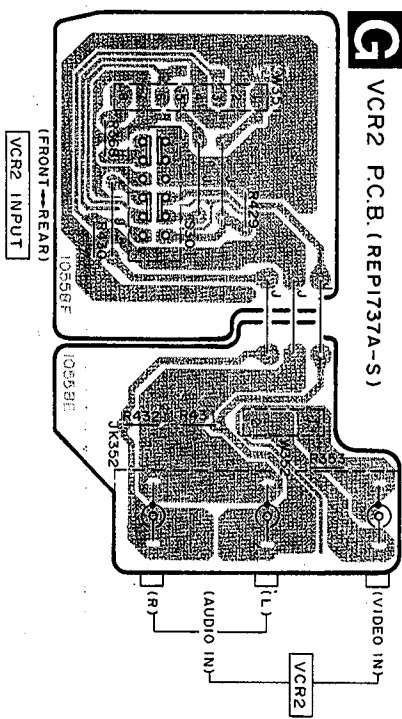
**C** POWER SWITCH  
P.C.B. (REP1737A-S)



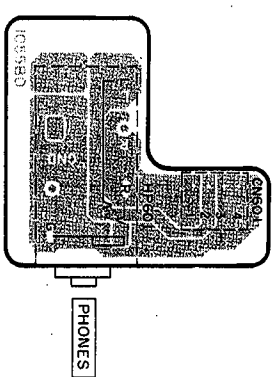
**D** VOLUME P.C.B. (REP1737A-S)



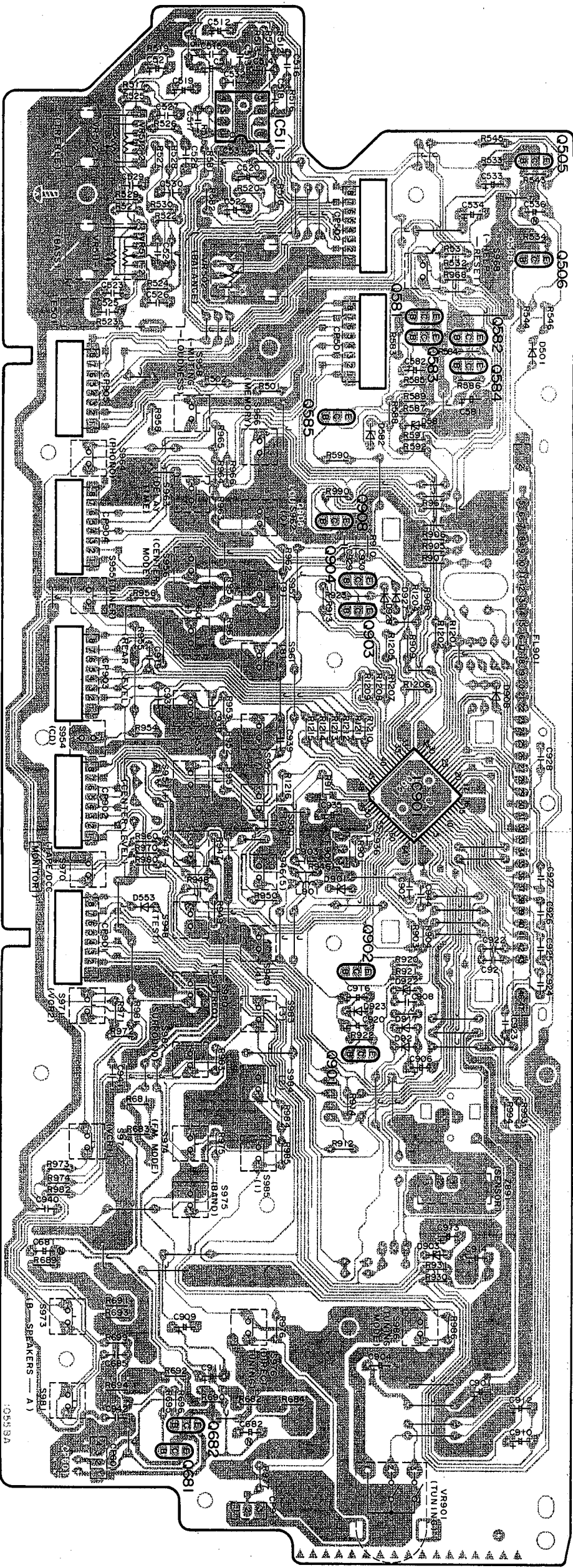
**G** VCR2 P.C.B. (REP1737A-S)



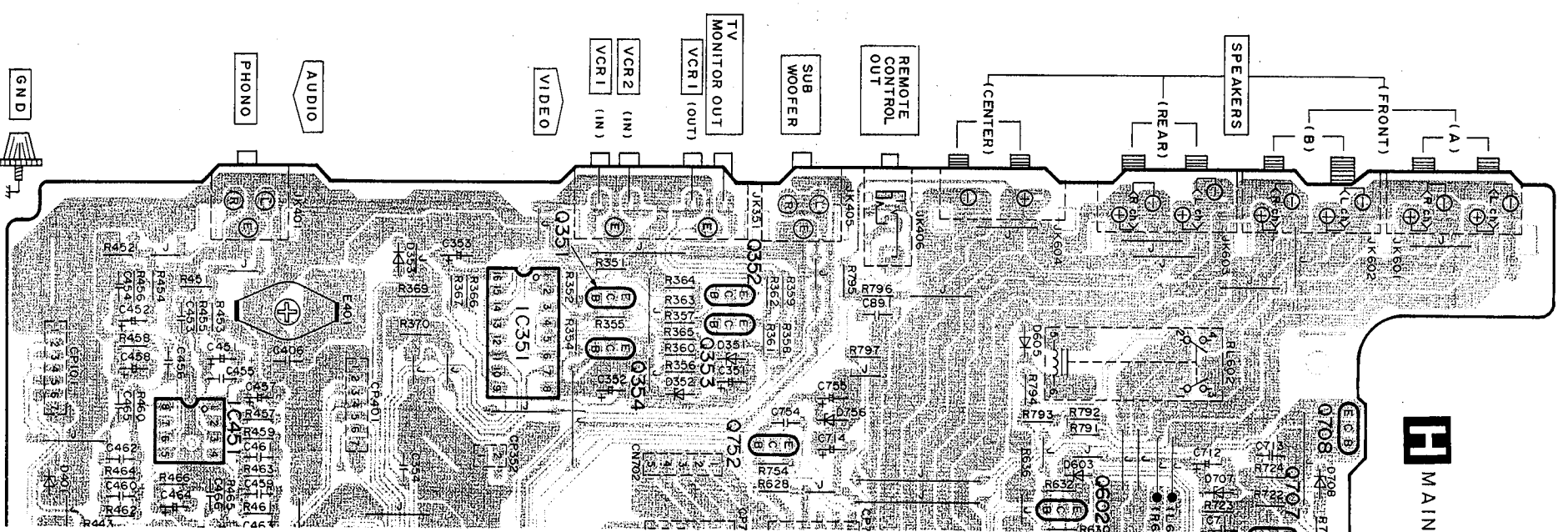
**E** HEADPHONES  
JACK P.C.B.  
(REP1737A-S)



**B** OPERATION P.C.B. (REP1737A-S)



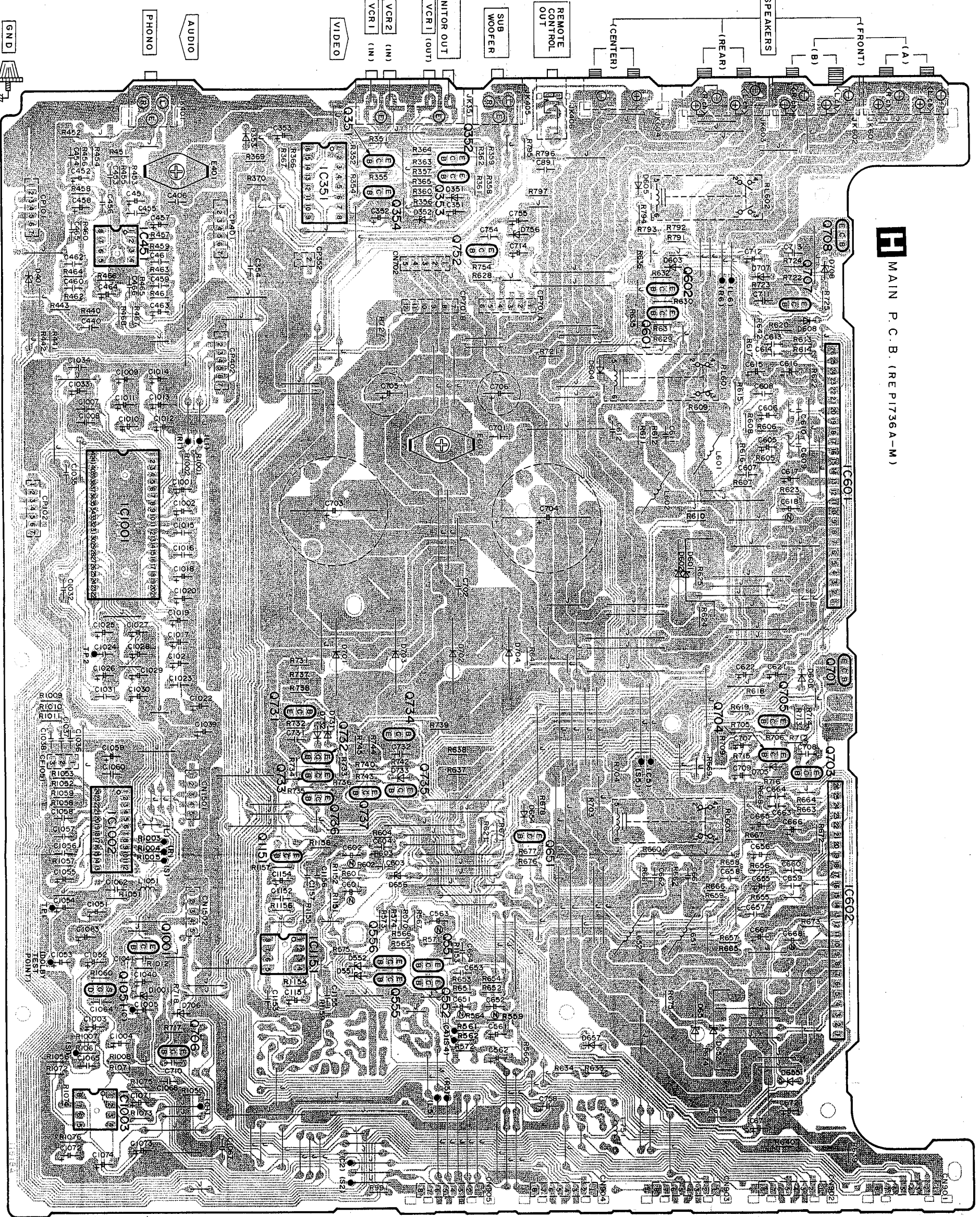
**H** MAIN



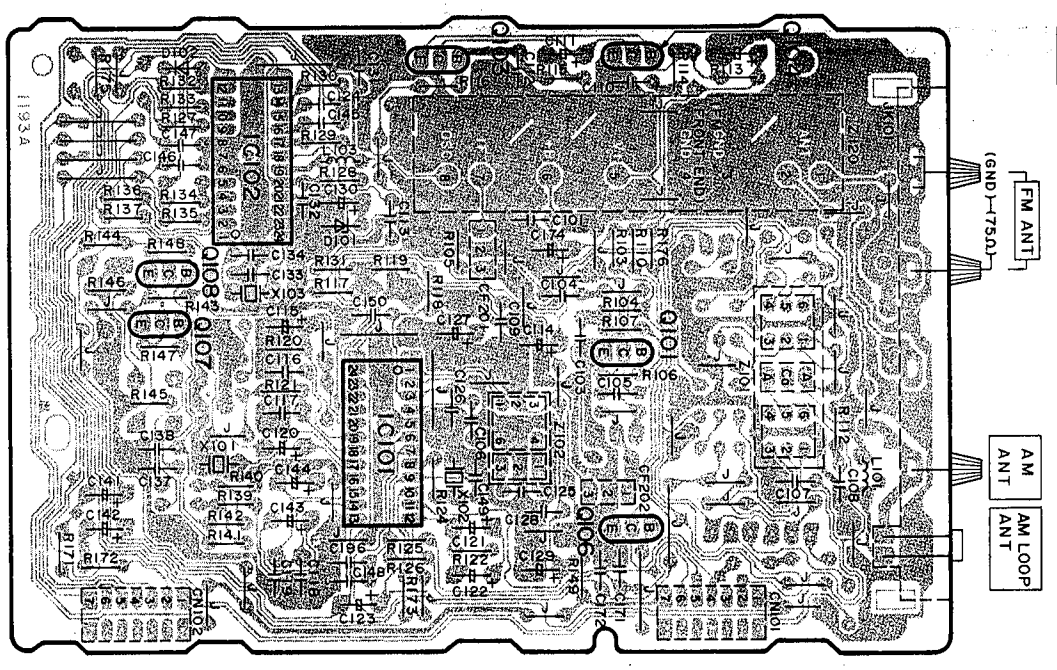
10 11 12 13 14 15 16 17 18 19

SA-GX770 SA-GX770

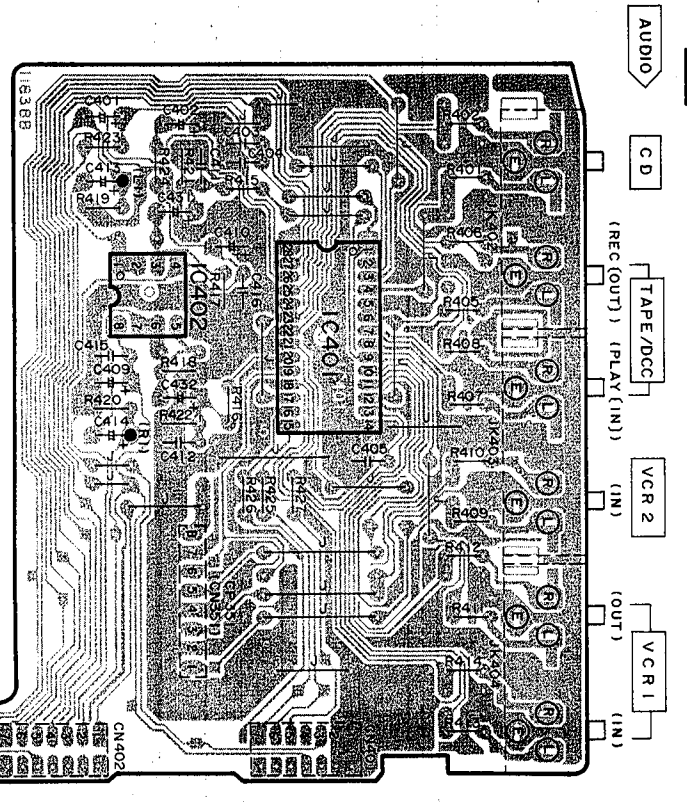
**F** MAIN P.C.B. (REP1736A-M)



**A** TUNER P.C.B. (REP1750A-T)

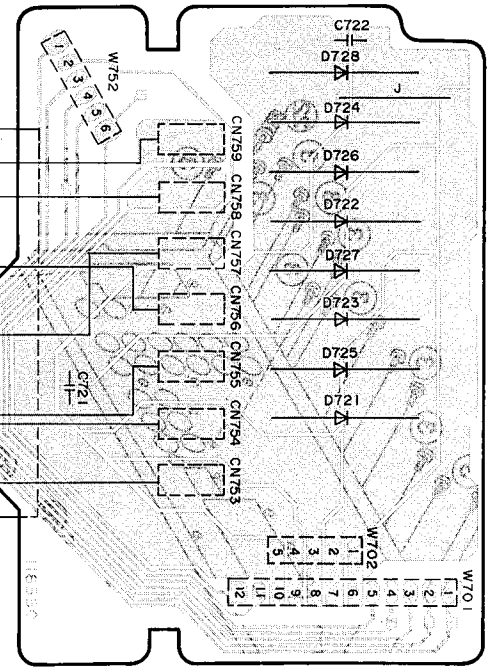


**F** IN/OUT TERMINAL P.C.B. (REP1738A-P)

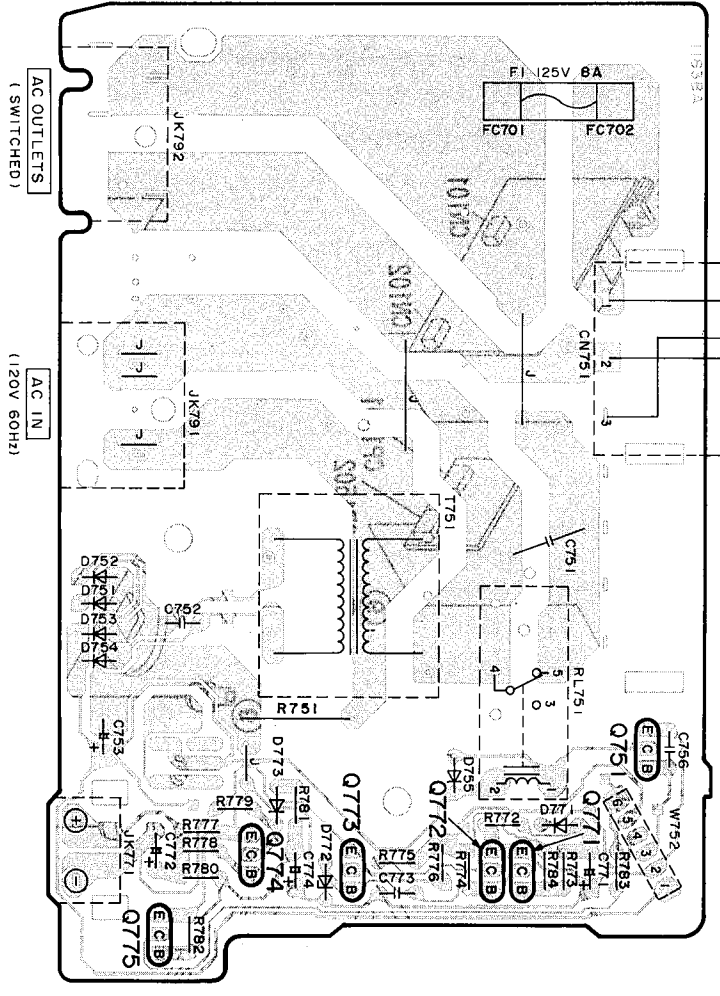


**WIRING CONNECTION DIAGRAM**

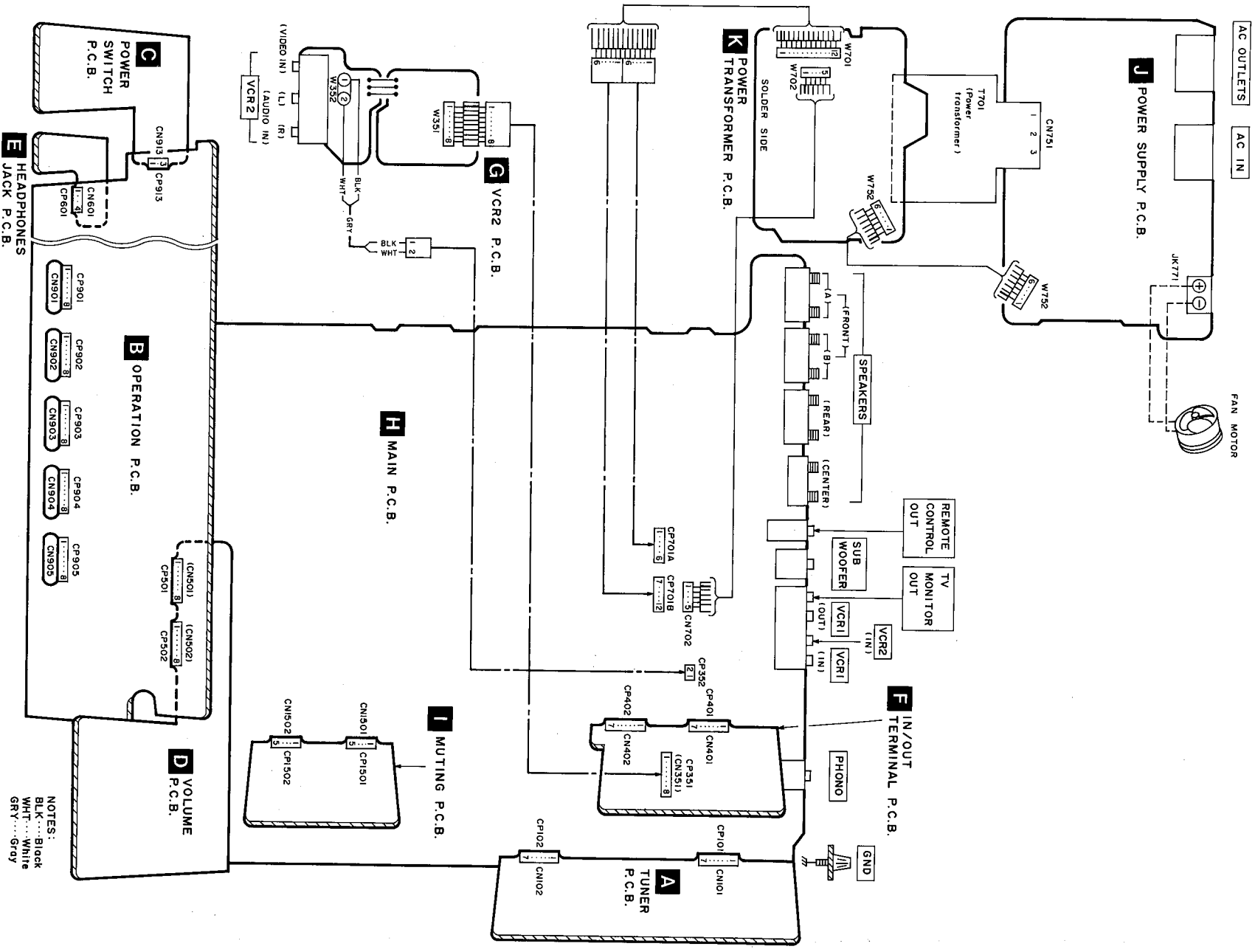
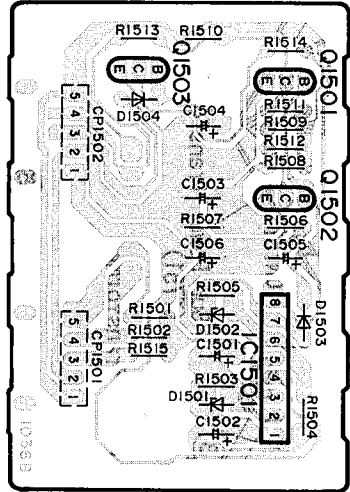
**K** POWER TRANSFORMER P.C.B.(REP1738A-P)



**J** POWER SUPPLY P.C.B.(REP1738A-P)

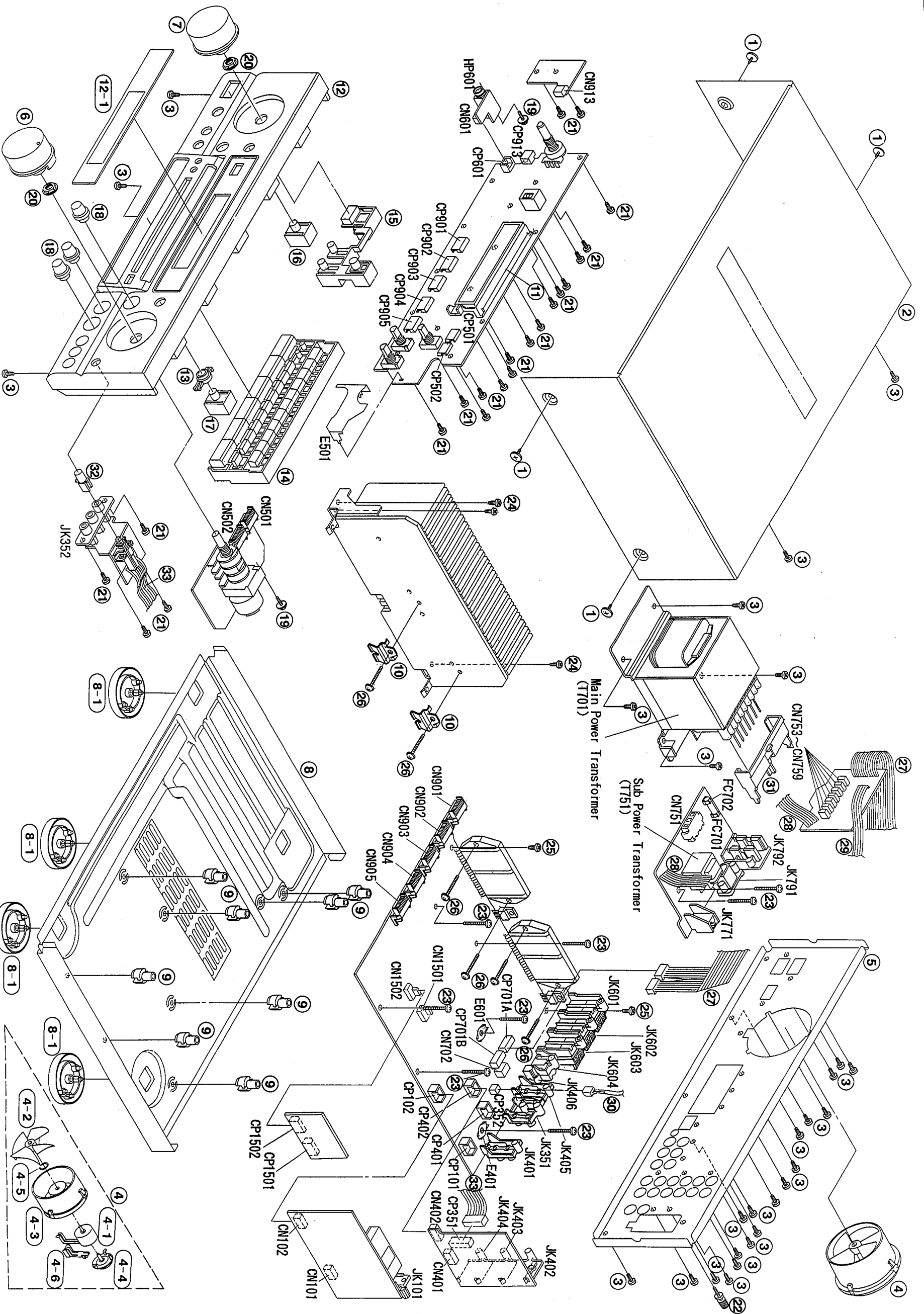


**I** MUTING P.C.B.(REP1565B-T)



NOTES:  
 BLK...Black  
 WHT...White  
 GRY...Gray

CABINET PARTS LOCATION



# REPLACEMENT PARTS LIST

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

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

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

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

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

Parts without these indications can be used for all areas.

\*Remote Control Ass'y: Supply period for three years from termination of production.

\*The "(SF)" mark denotes the standard part.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
						PACKING MATERIAL	
		CABINET AND CHASSIS					
1	RHD30035-K	SCREW		P1	RPG1890	PACKING CASE	
2	RKMO041A-K	CABINET		P2	RPN0682-2	CUSHION	
3	XTBS3+8JFZ1	SCREW		P3	RPQ0164	PAD (ACCESSORIES)	
4	REMO020-1	FAN MOTOR UNIT		P4	XZB60X65A01Z	PROTECTION BAG (UNIT)	
4-1	MDN-4RB4MRC	MOTOR				ACCESSORIES	
4-2	SHE232-1	FAN					
4-3	RMQ0209-K	FAN CASE		A1	RFKSAGX670P	INSTRUCTION MANUAL ASS'Y	(P)
4-4	RMQ0208-K	FAN CAP		A1	RFKSAGX670PC	INSTRUCTION MANUAL ASS'Y	(PC)
4-5	SUS271	SPRING		A2	SJA172	AC POWER SUPPLY CORD	$\Delta$ (SF)
4-6	RMQ0212-K	FAN TERMINAL CAP		A3	RSAD006	FM INDOOR ANTENNA	
5	RGR0168F-A	REAR PANEL		A4	RSAD010	AM LOOP ANTENNA SET	
6	RGW0163-K	VOLUME KNOB		A4-1	RMN0244	AM ANTENNA HOLDER	
7	RGW0171-K	TUNING KNOB		A4-2	XTN3+10AFZ	SCREW	
8	RFKJAGX470PK	BOTTOM CHASSIS ASS'Y		A5	RQCB0391	SERVICENTER LIST	(P)
8-1	RKA0053-A	FOOT		A5	SQX9131	SEVICENTER LIST	(PC)
9	RKQ0089	P. C. B. SUPPORT		A6	RQAD085	WARRANTY CARD	(P)
10	RMCO158	TRANSISTOR HOLDER		A6	SQX7183	WARRANTY CARD	(PC)
11	RMN0205	FL HOLDER		A7	RAK-SA723MH	REMOTE CONTROL TRANSMITTER	
12	RFKGAGX770PK	FRONT PANEL ASS'Y		A7-1	RKK0020-K	BATTERY COVER	FOR R/C TRANSMITTER
12-1	RKW0268B-Q	TRANSPARENT PLATE					
13	RGK0604-N	ORNAMENT BUTTON					
14	RGU0837B-K	SELECTOR BUTTON					
15	RFKNAGX550PA	POWER BUTTON ASS'Y					
16	RFKNAGX550PB	MODE BUTTON ASS'Y					
17	RFKNAGX350PB	MUTING BUTTON ASS'Y					
18	RGW0175-1K	BALANCE/TREBLE/BASS KNOB					
19	RHD26016	SCREW					
20	RHN90001	NUT					
21	XTBS26+8J	SCREW					
22	SNE2123	GND TERMINAL					
23	XTB3+20JFZ	SCREW					
24	XTB3+8JFZ	SCREW					
25	XTWS3+8T	SCREW					
26	XTW3+15T	SCREW					
27	RFKEUG75PP-K	CONNECTOR ASS'Y (12P) (W701)					
28	RWJ180611OKK	FLAT CABLE (6P) (W752)					
29	REZ0684	FLAT CABLE (5P) (W702)					
30	REX0500	FLAT CABLE (2P) (W352)					
31	RMN0217	SUB2 P. C. B. HOLDER					
32	RGU0609-K	VCR2 BUTTON					
33	REX0503	FLAT CABLE (8P) (W351)					

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)		Q752	2SC3940AQSTA	TRANSISTOR	△
				Q771, 772	2SA1309AIRTA	TRANSISTOR	
				Q773	2SB621AQSTA	TRANSISTOR	△
IC101	LA1832A	FM/AM IF AMP. /AM OSC		Q774, 775	2SA1309AIRTA	TRANSISTOR	
IC102	LC7218	PLL FREQ. SYNTHESIZER		Q901	UN4214TA	TRANSISTOR	
IC351	MC14052BCP	VIDEO SELECTOR		Q902	2SA1309AIRTA	TRANSISTOR	△
IC401	TC9163N	INPUT SELECTOR		Q903	UN4113TA	TRANSISTOR	
IC402	UPC4570C	BUFFER AMP.		Q904	UN4214TA	TRANSISTOR	
IC451	AN6558-FSG	PHONO EQ AMP.		Q908	UN4211	TRANSISTOR	
IC501	BA6218	MOTOR DRIVE		Q1001	2SC3940AQSTA	TRANSISTOR	△
IC511	UPC4570C	TONE AMP.		Q1051	2SJ40CDTA	TRANSISTOR	
IC551	UPC4570C	PRE AMP.		Q1151	2SC3327-A	TRANSISTOR	
IC601, 602	RSN3306	POWER AMP (FRONT/REAR)	△	Q1501, 1502	2SC3311AIRTA	TRANSISTOR	
IC901	LC8A012C5481	MICROCOMPUTER		Q1503	UN4211	TRANSISTOR	
IC1001	LA2785	DOLBY PRO-LOGIC CONTROL				DIODE(S)	
IC1002	LV1010	DOLBY PRO-LOGIC DRIVE					
IC1003	M5218AP	BUFFER AMP		D101	MA4051MTA	DIODE	
IC1151	M5218AP	SUB WOOFER AMP		D102	MA165	DIODE	
IC1501	M5218L	SIGNAL DETECTOR		D351, 352	MA4056MTA	DIODE	△
		TRANSISTOR(S)		D353	MA165	DIODE	
Q101	2SC2787L	TRANSISTOR		D401	MA4075MTA	DIODE	△
Q103, 104	2SC2785FE	TRANSISTOR		D501	MA165	DIODE	
Q106	UN411FTA	TRANSISTOR		D551, 552	MA4030MTA	DIODE	
Q107, 108	2SC3311ARSTA	TRANSISTOR		D553	MA165	DIODE	
Q351	2SC3311AIRTA	TRANSISTOR		D581, 582	MA4030MTA	DIODE	
Q352, 353	2SA1309AIRTA	TRANSISTOR		D601, 602	SB3606501T	DIODE	
Q354	UN4213	TRANSISTOR		D603	MA700	DIODE	
Q501, 502	2SJ40CDTA	TRANSISTOR		D604-606	MA165	DIODE	
Q505, 506	2SC3327-A	TRANSISTOR		D608	MA165	DIODE	
Q551, 552	2SC3311AIRTA	TRANSISTOR		D651, 652	SB3606501T	DIODE	
Q555	2SA1309AIRTA	TRANSISTOR		D654, 655	MA165	DIODE	
Q556	2SC3311AIRTA	TRANSISTOR		D656	MA4047MTA	DIODE	
Q581, 582	2SA1309AIRTA	TRANSISTOR		D657	MA165	DIODE	
Q583, 584	2SC3327-A	TRANSISTOR		D701-704	P300D5002T	DIODE	△
Q585	2SA1309AIRTA	TRANSISTOR		D705, 706	MA4062MTA	DIODE	△
Q601, 602	2SA1309AIRTA	TRANSISTOR		D707	MA4220MTA	DIODE	△
Q651	2SA1309AIRTA	TRANSISTOR		D708	MA4150M	DIODE	△
Q681, 682	2SC3327-A	TRANSISTOR		D721-728	P300DLF	DIODE	△
Q701	2SD1761DEF	TRANSISTOR	△	D731	MA4360MTA	DIODE	△
Q703-705	2SC3311AIRTA	TRANSISTOR	△	D732, 733	MA165	DIODE	
Q706	2SC3940AQSTA	TRANSISTOR	△	D751-754	1SR35200TB	DIODE	△
Q707	2SB621AQSTA	TRANSISTOR	△	D755	MA165	DIODE	
Q708	2SB1187DEF	TRANSISTOR	△	D756	MA4068M	DIODE	△
Q731	2SB1357DEFTA	TRANSISTOR	△	D771	MA165	DIODE	
Q732, 733	2SC3311AIRTA	TRANSISTOR	△	D772	MA4082MTA	DIODE	△
Q734	2SD2037DEFTA	TRANSISTOR	△	D773	MA165	DIODE	
Q735	2SA992EFTA	TRANSISTOR	△	D901	1SS291TA	DIODE	
Q736	UN4213	TRANSISTOR		D903	MA4056MTA	DIODE	△
Q737	2SA992EFTA	TRANSISTOR	△	D908	MA165	DIODE	
Q751	UN421FTA	TRANSISTOR		D917	1SS291TA	DIODE	
				D921	MA165	DIODE	



Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
D922	MA4039MTA	DIODE	△	Z120	RAL0006	FM FRONT END	
D923	MA165	DIODE					
D927, 928	MA165	DIODE				FUSE(S)	
D1001	MA4100MTA	DIODE	△				
D1501, 1502	MA4068M	DIODE		F1	XBAIC80NBAU	FUSE 125V 8A	△
D1503	MA700	DIODE					
D1504	MA165	DIODE				SWITCH(ES)	
		VARIABLE RESISTOR(S)		S301	RSP2D009-J	VCR2 SELECTOR	
				S946	EVQ21405R	PRESET TUNING 5	
VR501	EUMMK3002B15	VOLUME CONTROL		S947	EVQ21405R	CENTER DOWN	
VR502	EVJ02SFA5G15	BALANCE CONTROL		S948	EVQ21405R	TEST	
VR511, 512	EVJYA1F02C15	TONE CONTROL		S949	EVQ21405R	PRESET TUNING 4	
VR901	EVQWPOF2024B	TUNING CONTROL		S950	EVQ21405R	PRESET TUNING 6	
				S951	EVQ21405R	CENTER UP	
		COIL(S)		S952	EVQ21405R	PRESET TUNING 7	
				S953	EVQ21405R	REAR DOWN	
L101	ELESN1R5MA	COIL		S954	EVQ21405R	CD	
L103	ELEXTR47MA9	COIL		S955	EVQ21405R	TUNER	
L501, 502	RLQZP1R0KT-Y	COIL		S956	EVQ21405R	CENTER MODE	
L601, 602	RLQYR73M	COIL		S957	EVQ21405R	PRESET TUNING 9	
L651, 652	RLQYR73M	COIL		S958	EVQ21405R	MUTE/LOUDNESS	
L751	ELEPK101KA	COIL		S960	EVQ21405R	REAR UP	
L901	RLQZP101KT-Y	COIL		S961	EVQ21405R	PRESET TUNING 8	
L1051	ELEPK101KA	COIL		S962	EVQ21405R	PRESET TUNING 0	
				S963	EVQ21405R	DELAY TIME	
		TRANSFORMER(S)		S964	EVQ21405R	PHONO	
				S966	EVQ21405R	MEMORY	
T701	RTP1Q5C007-W	POWER TRANSFORMER(MAIN)	△	S968	EVQ21405R	HELP/RESET	
T751	RTP1H5C001-V	POWER TRANSFORMER(SUB)	△	S970	EVQ21405R	TAPE	
				S971	EVQ21405R	VCR2	
		COMPONENT COMBINATION(S)		S972	EVQ21405R	VCR1	
				S973	EVQ21405R	SPEAKERS B	
Z101	RLA2Z002M-T	COMPONENT COMBINATION		S974	EVQ21405R	FM MODE	
Z102	RL12Z006M-T	COMPONENT COMBINATION		S975	EVQ21405R	BAND	
Z891	RCDHC-278N	REMOTE SENSOR		S976	EVQ21405R	DIRECT TUNING	
				S978	EVQ21405R	POWER	
		FILTER(S) AND OSCILLATOR(S)		S980	EVQ21405R	3 STEREO	
				S981	EVQ21405R	SPEAKERS A	
CF201, 202	RLFFETMGD01L	FILTER		S982	EVQ21405R	SURROUND	
CF901	EFOEC6004T4	OSCILLATOR(6MHz)		S983	EVQ21405R	PRESET TUNING 3	
CF1051	EFOEC8004T4	OSCILLATOR(8MHz)		S984	EVQ21405R	PRESET TUNING 2	
X101	RSXZ456KMD7M	OSCILLATOR(456KHz)		S985	EVQ21405R	PRESET TUNING 1	
X102	RLFDGTD01I	OSCILLATOR(10.65MHz)		S986	EVQ21405R	TUNING MODE	
X103	SVQ49U722-S	OSCILLATOR(7.2MHz)					
						RELAY(S)	
		DISPLAY TUBE(S)		RL601-603	RSY0013M-0	RELAY	△
FL901	RSL0138-F	DISPLAY TUBE		RL751	RSY0019-0	RELAY	△
		FM FRONT END PACK ASS'Y(S)				CONNECTOR(S) AND SOCKET(S)	

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
CN101, 102	RJU057W007	SOCKET (7P)				GND PLATE (S)	
CN401, 402	RJU057W007	SOCKET (7P)					
CN501, 502	RJU003K008M1	SOCKET (8P)		E401	SNE1004-2	GND PLATE	
CN601	RJU057W004	SOCKET (4P)		E501	RSC0370	GND PLATE	
CN702	RJS1A6605	CONNECTOR (5P)		E601	SNE1004-2	GND PLATE	
CN751	SJS305-1	CONNECTOR (3P)					
CN753-759	RJS1A1101T1	CONNECTOR (1P)				FUSE HOLDER(S)	
CN901	RJU003K008M1	SOCKET (8P)					
CN902	RJU003K008M1	SOCKET (8P)		FC701, 702	EYF52BC	FUSE HOLDER	
CN903	RJU003K008M1	SOCKET (8P)					
CN904	RJU003K008M1	SOCKET (8P)					
CN905	RJU003K008M1	SOCKET (8P)					
CN913	SJS50382JQH	SOCKET (3P)					
CN1501	RJU060G05T	SOCKET (5P)					
CN1502	RJU060G05T	SOCKET (5P)					
CP101, 102	RJT057W007-1	CONNECTOR (7P)					
CP351	SJT3809	CONNECTOR (8P)					
CP352	SJT3213	CONNECTOR (2P)					
CP401, 402	RJT057W007-1	CONNECTOR (7P)					
CP501, 502	RJT003K008-1	CONNECTOR (8P)					
CP601	RJT057W004-1	CONNECTOR (4P)					
CP701A	RJT039W06T	CONNECTOR (6P)					
CP701B	RJT039W06T	CONNECTOR (6P)					
CP901	RJT003K008-1	CONNECTOR (8P)					
CP902	RJT003K008-1	CONNECTOR (8P)					
CP903	RJT003K008-1	CONNECTOR (8P)					
CP904	RJT003K008-1	CONNECTOR (8P)					
CP905	RJT003K008-1	CONNECTOR (8P)					
CP913	SJT30345JQ	CONNECTOR (3P)					
CP1501	RJT060R05	CONNECTOR (5P)					
CP1502	RJT060R05	CONNECTOR (5P)					
		JACK (S) AND TERMINAL (S)					
JK101	RJH4405-1M	ANT TERMINAL					
JK351	SJF3069-3N	TV MONITOR OUT/VIDEO					
JK352	SJFK5-1A	FRONT VCR2 IN TERMINAL					
JK401	SJF3068-7N	PHONO TERMINAL					
JK402	SJF3069N	CD IN/REC OUT TERMINAL					
JK403	SJF3069N	PLAY IN/VCR2 IN TERMINAL					
JK404	SJF3069N	VCR1 OUT/VCR1 IN TERMINAL					
JK405	SJF3068-7N	SUB WOOFER OUT TERMINAL					
JK406	RJJ33TR01	REMOTE CONTROL OUT TERMINAL					
JK601	RJR0054	FRONT SPEAKERS (A) TERMINAL					
JK602	RJR0054	FRONT SPEAKERS (B) TERMINAL					
JK603	RJR0054	REAR SPEAKERS TERMINAL					
JK604	SJF5201M-1	CENTER SPEAKERS TERMINAL					
JK771	RJS1A7402-1	FAN MOTOR TERMINAL					
JK791	SJSD16	AC INLET	△				
JK792	RJS2A0102-S	AC OUTLET	△				
HP601	RJJ63TA01	HEADPHONES JACK					

# RESISTORS AND CAPACITORS

Notes : \* Capacity values are in microfarads ( $\mu\text{F}$ ) 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	R365	ERDS2TJ332	1/4W 3.3K	R562	ERDS2TJ272T	1/4W 2.7K
			R366, 367	ERDS2TJ104	1/4W 100K	R564	ERDS2TJ122	1/4W 1.2K
			R368	ERDS2TJ103	1/4W 10K	R565, 566	ERDS2TJ102	1/4W 1K
R103	ERDS2TJ151	1/4W 150	R369, 370	ERDS1FVJ271T	1/2W 270 $\Delta$	R567	ERDS2TJ474	1/4W 470K
R104	ERDS2TJ102	1/4W 1K	R401, 402	ERDS2TJ102	1/4W 1K	R570	ERDS2TJ103	1/4W 10K
R105	ERDS2TJ471	1/4W 470	R405-416	ERDS2TJ102	1/4W 1K	R571	ERDS2TJ332	1/4W 3.3K
R106	ERDS2TJ224T	1/4W 220K	R417, 418	ERDS2TJ473	1/4W 47K	R572	ERDS2TJ471	1/4W 470
R107	ERDS2TJ471	1/4W 470	R419-422	ERDS2TJ104	1/4W 100K	R573, 574	ERDS2TJ332	1/4W 3.3K
R110	ERDS2TJ102	1/4W 1K	R423, 424	ERDS2TJ102	1/4W 1K	R575	ERDS2TJ102	1/4W 1K
R112	ERDS2TJ104	1/4W 100K	R425-427	ERDS2TJ103	1/4W 10K	R581, 582	ERDS2TJ471	1/4W 470
R113	ERDS2TJ103	1/4W 10K	R429-432	ERDS2TJ224T	1/4W 220K	R583-586	ERDS2TJ102	1/4W 1K
R114	ERDS2TJ562	1/4W 5.6K	R440	ERDS1FVJ820T	1/2W 82 $\Delta$	R587, 588	ERDS2TJ222	1/4W 2.2K
R115	ERDS2TJ561	1/4W 560	R441, 442	ERDS2TJ473	1/4W 47K	R589	ERDS2TJ122	1/4W 1.2K
R116	ERDS2TJ102	1/4W 1K	R443	ERDS2TJ330	1/4W 33	R590	ERDS2TJ472	1/4W 4.7K
R117	ERDS2TJ104	1/4W 100K	R451, 452	ERDS2TJ224T	1/4W 220K	R591, 592	ERDS2TJ222	1/4W 2.2K
R118	ERDS2TJ562	1/4W 5.6K	R453, 454	ERDS2TJ821	1/4W 820	R601, 602	ERDS2TJ102	1/4W 1K
R119	ERDS2TJ822	1/4W 8.2K	R455, 456	ERDS2TJ563	1/4W 56K	R603, 604	ERDS2TJ563	1/4W 56K
R120	ERDS2TJ473	1/4W 47K	R457, 458	ERDS2TJ271	1/4W 270	R605, 606	ERDS2TJ182	1/4W 1.8K
R121	ERDS2TJ332	1/4W 3.3K	R459, 460	ERDS2TJ680T	1/4W 68	R607, 608	ERDS2TJ563	1/4W 56K
R122	ERDS2TJ272T	1/4W 2.7K	R461, 462	ERDS2TJ184T	1/4W 180K	R609, 610	ERDS2TJ470	1/4W 47
R124	ERDS2TJ271	1/4W 270	R463, 464	ERDS2TJ123	1/4W 12K	R611, 612	ERDS1FVJ100T	1/2W 10 $\Delta$
R125, 126	ERDS2TJ472	1/4W 4.7K	R465, 466	ERDS2TJ563	1/4W 56K	R613, 614	ERDS2TJ102	1/4W 1K
R127	ERDS2TJ103	1/4W 10K	R467, 468	ERDS2TJ102	1/4W 1K	R615	ERDS2TJ184T	1/4W 180K
R128	ERDS2TJ820	1/4W 82	R501, 502	ERDS2TJ222	1/4W 2.2K	R616	ERDS2TJ154	1/4W 150K
R129	ERDS2TJ473	1/4W 47K	R503-506	ERDS2TJ103	1/4W 10K	R617, 618	ERDS2TJ473	1/4W 47K
R130, 131	ERDS2TJ102	1/4W 1K	R507	ERDS2TJ153	1/4W 15K	R619	ERDS2TJ223	1/4W 22K
R132	ERDS2TJ103	1/4W 10K	R508	ERDS1FVJ2R2T	1/2W 2.2 $\Delta$	R620	ERD25FJ220	1/4W 22 $\Delta$
R133-137	ERDS2TJ102	1/4W 1K	R511, 512	ERDS2TJ471	1/4W 470	R621	ERDS2TJ183T	1/4W 18K
R139, 140	ERDS2TJ272T	1/4W 2.7K	R513-516	ERDS2TJ474	1/4W 470K	R622	ERDS2TJ124T	1/4W 120K
R141, 142	ERDS2TJ103	1/4W 10K	R517, 518	ERDS2TJ222	1/4W 2.2K	R623	ERDS2TJ684	1/4W 680K
R143, 144	ERDS2TJ222	1/4W 2.2K	R519, 520	ERDS2TJ152	1/4W 1.5K	R624, 625	ERDS2TJ563	1/4W 56K
R145, 146	ERDS2TJ102	1/4W 1K	R521, 522	ERDS2TJ223	1/4W 22K	R628-630	ERDS2TJ223	1/4W 22K
R147, 148	ERDS2TJ474	1/4W 470K	R523, 524	ERDS2TJ392T	1/4W 3.9K	R631, 632	ERDS2TJ103	1/4W 10K
R149	ERDS2TJ680T	1/4W 68	R525, 526	ERDS2TJ222	1/4W 2.2K	R633, 634	ERDS2TJ102	1/4W 1K
R171, 172	ERDS2TJ102	1/4W 1K	R527, 528	ERDS2TJ122	1/4W 1.2K	R635, 636	ERDS1FVJ471T	1/2W 470 $\Delta$
R173	ERDS2TJ471	1/4W 470	R529, 530	ERDS2TJ273	1/4W 27K	R637-640	ERG1SJ101E	1W 100
R175	ERDS2TJ102	1/4W 1K	R531, 532	ERDS2TJ222	1/4W 2.2K	R641	ERDS2TJ684	1/4W 680K
R176	ERDS2TJ391	1/4W 390	R533, 534	ERDS2TJ272T	1/4W 2.7K	R642	ERDS2TJ472	1/4W 4.7K
R351-353	ERDS2TJ471	1/4W 470	R543, 544	ERDS2TJ102	1/4W 1K	R651	ERDS2TJ102	1/4W 1K
R354	ERDS2TJ472	1/4W 4.7K	R545	ERDS2TJ824	1/4W 820K	R652	ERDS2TJ332	1/4W 3.3K
R355	ERDS2TJ470	1/4W 47	R546	ERDS2TJ332	1/4W 3.3K	R653, 654	ERDS2TJ563	1/4W 56K
R356	ERDS2TJ152	1/4W 1.5K	R551, 552	ERDS2TJ102	1/4W 1K	R655, 656	ERDS2TJ182	1/4W 1.8K
R357	ERDS2TJ470	1/4W 47	R553, 554	ERDS2TJ104	1/4W 100K	R657, 658	ERDS2TJ563	1/4W 56K
R358	ERDS2TJ471	1/4W 470	R555	ERDS2TJ332	1/4W 3.3K	R659, 660	ERDS2TJ470	1/4W 47
R359, 360	ERDS2TJ470	1/4W 47	R556	ERDS2TJ273	1/4W 27K	R661, 662	ERDS1FVJ100T	1/2W 10 $\Delta$
R361	ERDS2TJ471	1/4W 470	R557	ERDS2TJ471	1/4W 470	R663, 664	ERDS2TJ102	1/4W 1K
R362	ERDS2TJ470	1/4W 47	R558	ERDS2TJ122	1/4W 1.2K	R665	ERDS2TJ154	1/4W 150K
R363	ERDS2TJ332	1/4W 3.3K	R559, 560	ERDS2TJ104	1/4W 100K	R666	ERDS2TJ184T	1/4W 180K
R364	ERDS2TJ561	1/4W 560	R561	ERDS2TJ332	1/4W 3.3K	R667, 668	ERDS2TJ473	1/4W 47K

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R669	ERDS2TJ223	1/4W 22K	R782	ERDS2TJ153	1/4W 15K	R1001, 1002	ERDS2TJ223	1/4W 22K
R670	ERD25FJ220	1/4W 22 $\Delta$	R783	ERDS2TJ103	1/4W 10K	R1003, 1004	ERDS2TJ102	1/4W 1K
R671	ERDS2TJ183T	1/4W 18K	R784	ERDS2TJ335T	1/4W 3.3M	R1005	ERDS2TJ203T	1/4W 20K
R672	ERDS2TJ124T	1/4W 120K	R791-796	ERDS2TJ223	1/4W 22K	R1007, 1008	ERDS2TJ473	1/4W 47K
R673	ERDS2TJ684	1/4W 680K	R797	ERDS2TJ682T	1/4W 6.8K	R1009-1011	ERDS2TJ332	1/4W 3.3K
R674, 675	ERDS2TJ563	1/4W 56K	R901	ERDS2TJ102	1/4W 1K	R1012	ERDS2TJ102	1/4W 1K
R676	ERDS2TJ223	1/4W 22K	R903-911	ERDS2TJ104	1/4W 100K	R1051	ERDS2TJ393	1/4W 39K
R677	ERDS2TJ103	1/4W 10K	R912	ERDS2TJ102	1/4W 1K	R1052	ERDS2TJ105T	1/4W 1M
R678	ERDS1FVJ471T	1/2W 470 $\Delta$	R913, 914	ERDS2TJ104	1/4W 100K	R1053	ERDS2TJ102	1/4W 1K
R681-684	ERDS1FVJ560T	1/2W 56 $\Delta$	R920	ERDS2TJ271	1/4W 270	R1055, 1056	ERDS2TJ473	1/4W 47K
R689-694	ERDS2TJ270T	1/4W 27	R921	ERDS2EJ121	1/4W 120	R1057	ERDS2TJ564	1/4W 560K
R695, 696	ERDS2TJ102	1/4W 1K	R922	ERDS2TJ472	1/4W 4.7K	R1058, 1059	ERDS2TJ274	1/4W 270K
R699	ERDS2TJ332	1/4W 3.3K	R923	ERDS2TJ102	1/4W 1K	R1060	ERDS2TJ104	1/4W 100K
R703, 704	ERDS1FVJ3R9T	1/2W 3.9 $\Delta$	R930, 931	ERDS2TJ101	1/4W 100	R1061	ERDS2TJ222	1/4W 2.2K
R705	ERDS2TJ472	1/4W 4.7K	R946-949	ERDS2TJ103	1/4W 10K	R1071, 1072	ERDS2TJ222	1/4W 2.2K
R706	ERDS2TJ102	1/4W 1K	R950	ERDS2TJ102	1/4W 1K	R1073, 1074	ERDS2TJ682T	1/4W 6.8K
R709	ERD25FVJ221T	1/4W 220 $\Delta$	R951	ERDS2TJ122	1/4W 1.2K	R1075, 1076	ERDS2TJ473	1/4W 47K
R712	ERDS2TJ472	1/4W 4.7K	R952	ERDS2TJ152	1/4W 1.5K	R1151-1153	ERDS2TJ473	1/4W 47K
R713, 714	ERDS2TJ1R5T	1/4W 1.5	R953	ERDS2TJ182	1/4W 1.8K	R1154	ERDS2TJ333	1/4W 33K
R715	ERDS2TJ752T	1/4W 7.5K	R954	ERDS2TJ222	1/4W 2.2K	R1155, 1156	ERDS2TJ393	1/4W 39K
R716	ERDS2TJ682T	1/4W 6.8K	R955	ERDS2TJ332	1/4W 3.3K	R1157	ERDS2TJ222	1/4W 2.2K
R717	ERDS1FVJ220T	1/2W 22 $\Delta$	R956	ERDS2TJ472	1/4W 4.7K	R1158	ERDS2TJ104	1/4W 100K
R718	ERDS2TJ182	1/4W 1.8K	R957	ERDS2TJ682T	1/4W 6.8K	R1159	ERDS2TJ103	1/4W 10K
R721	ERDS1FVJ4R7T	1/2W 4.7 $\Delta$	R958	ERDS2TJ123	1/4W 12K	R1201, 1202	ERDS2TJ102	1/4W 1K
R722	ERD25FJ101	1/4W 100 $\Delta$	R960	ERDS2TJ102	1/4W 1K	R1204-1206	ERDS2TJ102	1/4W 1K
R723	ERDS2TJ472	1/4W 4.7K	R961	ERDS2TJ122	1/4W 1.2K	R1207	ERDS2TJ273	1/4W 27K
R724	ERDS1FVJ6R8T	1/2W 6.8 $\Delta$	R962	ERDS2TJ152	1/4W 1.5K	R1208-1216	ERDS2TJ102	1/4W 1K
R725	ERDS2TJ152	1/4W 1.5K	R963	ERDS2TJ182	1/4W 1.8K	R1501, 1502	ERDS2TJ473	1/4W 47K
R727	ERDS1FVJ6R8T	1/2W 6.8 $\Delta$	R964	ERDS2TJ222	1/4W 2.2K	R1503	ERDS2TJ684	1/4W 680K
R731	ERD25FVJ180T	1/4W 18 $\Delta$	R965	ERDS2TJ332	1/4W 3.3K	R1504	ERDS2TJ472	1/4W 4.7K
R732	ERDS2TJ153	1/4W 15K	R966	ERDS2TJ472	1/4W 4.7K	R1505	ERDS2TJ104	1/4W 100K
R733	ERDS2TJ123	1/4W 12K	R967	ERDS2TJ682T	1/4W 6.8K	R1506	ERDS2TJ102	1/4W 1K
R734	ERDS2TJ103	1/4W 10K	R968	ERDS2TJ123	1/4W 12K	R1507	ERDS2TJ104	1/4W 100K
R735	ERDS2TJ822	1/4W 8.2K	R970	ERDS2TJ102	1/4W 1K	R1508, 1509	ERDS2TJ103	1/4W 10K
R736	ERDS2TJ273	1/4W 27K	R971	ERDS2TJ122	1/4W 1.2K	R1510	ERDS2TJ472	1/4W 4.7K
R737, 738	ERDS1FVJ561T	1/2W 560 $\Delta$	R972	ERDS2TJ152	1/4W 1.5K	R1511	ERDS2TJ104	1/4W 100K
R739	ERD25FVJ180T	1/4W 18 $\Delta$	R973	ERDS2TJ182	1/4W 1.8K	R1512	ERDS2TJ392T	1/4W 3.9K
R740	ERDS2TJ393	1/4W 39K	R974	ERDS2TJ222	1/4W 2.2K	R1513	ERDS2TJ223	1/4W 22K
R742	ERDS2TJ393	1/4W 39K	R975	ERDS2TJ332	1/4W 3.3K	R1514	ERDS2TJ101	1/4W 100
R743	ERDS2TJ183T	1/4W 18K	R976	ERDS2TJ472	1/4W 4.7K	R1515	ERDS2TJ473	1/4W 47K
R744, 745	ERDS1FVJ561T	1/2W 560 $\Delta$	R977	ERDS2TJ682T	1/4W 6.8K			
R751	ERC122GK335	1/2W 3.3M $\Delta$	R978	ERDS2TJ123	1/4W 12K			CAPACITORS
R754	ERDS2TJ102	1/4W 1K	R980	ERDS2TJ102	1/4W 1K			
R772	ERDS2TJ104	1/4W 100K	R981	ERDS2TJ122	1/4W 1.2K	C101	ECBT1C103NS5	16V 0.01U
R773	ERDS2TJ103	1/4W 10K	R982	ERDS2TJ152	1/4W 1.5K	C103	ECBT1C103NS5	16V 0.01U
R774	ERDS2TJ223	1/4W 22K	R983	ERDS2TJ182	1/4W 1.8K	C104, 105	ECBT1H102KB5	50V 1000P
R775	ERDS2TJ332	1/4W 3.3K	R984	ERDS2TJ222	1/4W 2.2K	C106	ECBT1C103NS5	16V 0.01U
R776	ERDS1FVJ150T	1/2W 15 $\Delta$	R985	ERDS2TJ332	1/4W 3.3K	C107	ECBT1H473ZF5	50V 0.047U
R777	ERDS2TJ150T	1/4W 15	R986	ERDS2TJ472	1/4W 4.7K	C108	ECBT1H8R2KC5	50V 8.2P
R778	ERDS2TJ222	1/4W 2.2K	R990	ERDS2TJ153	1/4W 15K	C109, 110	ECBT1C103NS5	16V 0.01U
R779	ERDS2TJ103	1/4W 10K	R991	ERDS2TJ103	1/4W 10K	C111	ECEA1EKA4R7B	25V 4.7U
R780, 781	ERDS2TJ333	1/4W 33K	R993, 994	ERDS2TJ102	1/4W 1K	C112	ECBT1C103NS5	16V 0.01U

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
C113	ECBT1H102KB5	50V 1000P	C503, 504	ECEA0JKA101B	6.3V 100U	C705, 706	ECA1HM332B	50V 3 <sup>rd</sup> U Δ
C114	ECEA1HKA3R3B	50V 3.3U	C505, 506	ECFR1E104KR	25V 0.1U	C707	ECA1VM101B	35V 1uU
C115	ECEA1EKA4R7B	25V 4.7U	C511, 512	ECEA1HKA3R3B	50V 3.3U	C708	ECKR1H103ZF5	50V 0.01U
C116	ECBT1C822MS5	16V 8200P	C513, 514	ECBT1H150J5	50V 15P	C709	ECEA1CKA330B	16V 33U
C117	ECQB1H821JF3	50V 820P	C515, 516	ECBT1H221KB5	50V 220P	C710	ECBT1E103ZF	25V 0.01U
C118, 119	ECFR1E183KR	25V 0.018U	C517, 518	ECBT1H330J5	50V 33P	C711	ECKR1H103ZF5	50V 0.01U
C120, 121	ECEA1HKA010B	50V 1U	C519-522	ECEA1VKA4R7B	35V 4.7U	C712	ECEA1HKA100B	50V 10U
C122	ECEA1HKA2R2B	50V 2.2U	C523, 524	ECFR1E123KR	25V 0.012U	C713	ECKR1H103ZF5	50V 0.01U
C123	ECEA1HKA010B	50V 1U	C525, 526	ECQV1H683JM3	50V 0.068U	C714	ECEA1CKA470B	16V 47U
C124	ECBT1H102KB5	50V 1000P	C527, 528	ECFR1E562KR	25V 5600P	C721, 722	ECQE2104KF3	250V 0.1U
C125	ECBT1H150JC5	50V 15P	C529, 530	ECQB1H273JF3	50V 0.027U	C731, 732	ECKR1H103ZF5	50V 0.01U
C126	ECBT1H104ZF5	50V 0.1U	C531, 532	ECBT1E103ZF	25V 0.01U	C751	ECKWNS102MBM	400V 1000P Δ
C127	ECEA1CKA220B	16V 22U	C533, 534	ECEA1CKA100B	16V 10U	C752	ECKR1H103ZF5	50V 0.01U
C128	ECBT1C103NS5	16V 0.01U	C536	ECEA1HKN010B	50V 1U	C753	ECA1EM102B	25V 1000U Δ
C129, 130	ECEA0JKA101B	6.3V 100U	C551, 552	ECEA1HKA3R3B	50V 3.3U	C754	ECBT1E103ZF	25V 0.01U
C131	ECBT1C103NS5	16V 0.01U	C553, 554	ECBT1H101KB5	50V 100P	C755	ECEA1CKA470B	16V 47U
C132	ECBT1H102KB5	50V 1000P	C555	ECBT1H221KB5	50V 220P	C756	ECBT1E103ZF	25V 0.01U
C133	ECBT1H150JC5	50V 15P	C556	ECBT1H101KB5	50V 100P	C758	ECEA1AKA101B	10V 100U
C134	ECBT1H180JC5	50V 18P	C557, 558	ECBT1E103ZF	25V 0.01U	C771	ECEA1HKA2R2B	50V 2.2U
C137, 138	ECBT1H271KB5	50V 270P	C559, 560	ECEA1CKA100B	16V 10U	C772	ECEA1CKA100B	16V 10U
C141-144	ECEA1HKA010B	50V 1U	C561, 562	ECEA1HKA3R3B	50V 3.3U	C773	ECBT1E223ZF	25V 0.022U
C145	ECBT1H220JC5	50V 22P	C563	ECEA1HKN010B	50V 1U	C774	ECEA0JKA221B	6.3V 220U
C146	ECBT1H331KB5	50V 330P	C581, 582	ECEA0JKA101B	6.3V 100U	C891	ECFR1E392KR	25V 3900P
C147	ECBT1H102KB5	50V 1000P	C601, 602	ECEA1HKN3R3B	50V 3.3U	C901	ECA0JM102B	6.3V 1000U
C148, 149	ECBT1C103NS5	16V 0.01U	C603, 604	ECBA1H681KB5	50V 680P	C902, 903	ECBT1E103ZF	25V 0.01U
C150	ECBT1H104ZF5	50V 0.1U	C605, 606	ECEA1JU220	63V 22U	C904	ECA0JM471B	6.3V 470U
C171	ECBT1C103NS5	16V 0.01U	C607, 608	ECCR1H100K5	50V 10P	C906	ECEA0JKA101B	6.3V 100U
C172	ECBT1H331KB5	50V 330P	C609, 610	ECBT1H151KB5	50V 150P	C908	ECBT1E103ZF	25V 0.01U
C173	ECEA1CKA220B	16V 22U	C611, 612	ECQV1H473JM3	50V 0.047U	C909-912	ECEA1HKA220B	50V 22U
C174	ECEA1CKA100B	16V 10U	C613, 614	ECBA1H681KB5	50V 680P	C913, 914	ECEA1VKA100B	35V 10U
C196	ECBT1H102KB5	50V 1000P	C615	ECA1HM470B	50V 47U	C916	ECEA1HKA010B	50V 1U
C351, 352	ECEA0JKA101B	6.3V 100U	C616	ECEA2AU100	100V 10U	C919	ECBT1E103ZF	25V 0.01U
C353	ECEA1CKA100B	16V 10U	C617	ECEA1JU220	63V 22U	C920	ECEA1HKA010B	50V 1U
C354	ECBT1H104ZF5	50V 0.1U	C618	ECEA2AN2R2SB	100V 2.2U	C921-928	ECBT1H331KB5	50V 330P
C401, 402	ECEA1VKA4R7B	35V 4.7U	C621, 622	ECEA2AU100	100V 10U	C929, 930	ECBT1H101KB5	50V 100P
C403, 404	ECBT1E103ZF	25V 0.01U	C651, 652	ECEA1HKN3R3B	50V 3.3U	C935	ECEA0JKA101B	6.3V 100U
C405, 406	ECBT1H101KB5	50V 100P	C653, 654	ECBA1H681KB5	50V 680P	C936	ECBT1E103ZF	25V 0.01U
C409, 410	ECEA1CKA220B	16V 22U	C655, 656	ECEA1JU220	63V 22U	C937-942	ECBT1H101KB5	50V 100P
C411, 412	ECBT1H101KB5	50V 100P	C657, 658	ECCR1H100K5	50V 10P	C944	ECBT1H101KB5	50V 100P
C413, 414	ECEA1CKA100B	16V 10U	C659, 660	ECBT1H151KB5	50V 150P	C1001, 1002	ECEA1HKA010B	50V 1U
C415, 416	ECBT1E103ZF	25V 0.01U	C661, 662	ECQV1H473JM3	50V 0.047U	C1003, 1004	ECEA1HKA3R3B	50V 3.3U
C431, 432	ECEA1CKA100B	16V 10U	C663, 664	ECBA1H681KB5	50V 680P	C1005	ECEA1HKA010B	50V 1U
C440	ECBT1E103ZF	25V 0.01U	C665	ECA1HM470B	50V 47U	C1007	ECFR1E223KR	25V 0.022U
C451, 452	ECEA1VKA4R7B	35V 4.7U	C666	ECEA2AU100	100V 10U	C1008	ECFR1E473KR	25V 0.047U
C453, 454	ECBT1H101KB5	50V 100P	C667	ECEA1JU220	63V 22U	C1009	ECEA0JKA221B	6.3V 220U
C455, 456	ECBT1H102KB5	50V 1000P	C668	ECEA2AN2R2SB	100V 2.2U	C1010-1013	ECEA1CKA100B	16V 10U
C457, 458	ECEA1AKA330B	10V 33U	C671, 672	ECEA2AU100	100V 10U	C1014	ECEA0JKA221B	6.3V 220U
C459, 460	ECFR1E223KR	25V 0.022U	C681, 682	ECEA1HN100SB	50V 10U	C1015, 1016	ECQV1H104JM3	50V 0.1U
C461, 462	ECFR1E682KR	25V 6800P	C685	ECBT1E103ZF	25V 0.01U	C1017	ECEA1HKA47B	50V 0.47U
C463, 464	ECEA1VKA4R7B	35V 4.7U	C701	ECBT1E103ZF	25V 0.01U	C1018	ECEA1VKA4R7B	35V 4.7U
C465, 466	ECBT1E103ZF	25V 0.01U	C702	ECQE2104KF3	250V 0.1U	C1019	ECEA1HKA47B	50V 0.47U
C501, 502	ECFR1E333KR	25V 0.033U	C703, 704	ECET1K123VWX	80V 12000U Δ	C1020	ECEA1VKA4R7B	35V 4.7U

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Ref. No.	Part No.	Values & Remarks
C1021	ECEA1HKAR15B	50V 0.15U
C1022	ECEA1HKA3R3B	50V 3.3U
C1023, 1024	ECQV1H154JM3	50V 0.15U
C1025	ECEA1HKA3R3B	50V 3.3U
C1026	ECEA1HKAR15B	50V 0.15U
C1027	ECEA1VKA4R7B	35V 4.7U
C1028	ECEA1HKAR47B	50V 0.47U
C1029	ECEA1VKA4R7B	35V 4.7U
C1030	ECEA1HKAR47B	50V 0.47U
C1031, 1032	ECQV1H104JM3	50V 0.1U
C1033	ECEA1CKA470B	16V 47U
C1034	ECQV1H474JM3	50V 0.47U
C1035	ECBA1H681KB5	50V 680P
C1036-1038	ECBT1H101KB5	50V 100P
C1039	ECEA1CKA101B	16V 100U
C1040	ECEA1CKA100B	16V 10U
C1041	ECBT1E103ZF	25V 0.01U
C1051	ECEA1HKA2R2B	50V 2.2U
C1052	ECEA1HKA010B	50V 1U
C1053	ECEA1HKA3R3B	50V 3.3U
C1054	ECEA0JKA221B	6.3V 220U
C1055	ECEA1HKA010B	50V 1U
C1056	ECFR1E333KR	25V 0.033U
C1057	ECFR1E152KR	25V 1500P
C1058	ECFR1E333KR	25V 0.033U
C1059	ECEA1CKA101B	16V 100U
C1060	ECBT1E223ZF	25V 0.022U
C1062	ECBT1E223ZF	25V 0.022U
C1063	ECEA1CKA101B	16V 100U
C1064	ECBT1H104ZF5	50V 0.1U
C1065	ECBA1H681KB5	50V 680P
C1067, 1068	ECBT1C152KR5	16V 1500P
C1071, 1072	ECEA1HKA3R3B	50V 3.3U
C1073, 1074	ECEA1CKA100B	16V 10U
C1151	ECEA1HKA010B	50V 1U
C1152	ECFR1C683KR	16V 0.068U
C1153	ECFR1C273JR	16V 0.027U
C1154	ECEA1VKA4R7B	35V 4.7U
C1155-1157	ECBT1E103ZF	25V 0.01U
C1501	ECEA1HKA3R3B	50V 3.3U
C1502	ECEA1HKA010B	50V 1U
C1503	ECEA1HKA2R2B	50V 2.2U
C1504	ECEA1HKA010B	50V 1U
C1505, 1506	ECEA1HKA3R3B	50V 3.3U

