

Service Manual

Digital Straight Amplifier

Amplifier
SU-MA10



Color

(A) ... Gold Type

Area

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

SPECIFICATIONS (DIN 45 500)

■ MAIN AMP. SECTION

20 Hz~20 kHz continuous power output both channels driven	2×100 W (8Ω) 2×140 W (4Ω)
1 kHz continuous power output both channels driven (THD: 1%)	2×110 W (8Ω) 2×160 W (4Ω)
63 Hz~12.5 kHz continuous power output both channels driven (0.7%)	2×105 W (8Ω) 2×145 W (4Ω)
Total harmonic distortion (Input: Aux) rated power at 20 Hz~20 kHz	0.005% (8Ω) 0.007% (4Ω)
half power at 20 Hz~20 kHz	0.003% (8Ω)
Inter modulation distortion rated power at 50 Hz:7 kHz=4:1, SMPTE	0.005% (8Ω)
Residual hum and noise	0.9 mV
Damping factor	110 (8Ω), 55 (4Ω)
Headphones output level and impedance	680 mV/330Ω
Load impedance	
A or B, bi-wiring	4Ω~16Ω
A and B	8Ω~16Ω

■ PRE AMP. SECTION

Input sensitivity and impedance	
PHONO MM	2.5 mV/47 kΩ
PHONO MC	250 μV/220Ω
TUNER, AUX, DAT, TAPE	150 mV/22 kΩ
Phono maximum input voltage (IHF '66, 1 kHz, RMS)	
MM	160 mV
MC	15 mV

S/N

rated power (4Ω)	
PHONO MM	79 dB (IHF '66: 88 dB)
PHONO MC	70 dB (IHF '66: 72 dB)
TUNER, AUX, DAT, TAPE	92 dB (IHF '66: 104 dB)
-26 dB power (4Ω)	
PHONO MM	72 dB
PHONO MC	67 dB
TUNER, AUX, DAT, TAPE	75 dB
50 mW power (4Ω)	
PHONO MM	65 dB
PHONO MC	63 dB
TUNER, AUX, DAT, TAPE	66 dB

Frequency response

PHONO	RIAA standard curve ±0.2 dB (20 Hz~20 kHz)
TUNER, AUX, DAT, TAPE	0.8 Hz~120 kHz (+0, -3 dB) +0 dB, -0.2 dB (20 Hz~20 kHz)

Output voltage

DAT, TAPE, REC OUT	150 mV
Channel balance, AUX 250 Hz~6,300 Hz	±1 dB
Channel separation, AUX 1 kHz	55 dB

■ Digital Section (fs=44.1 kHz, EIAJ-D)

Harmonic distortion (1 kHz)	0.005%
Frequency Response	+0.3 dB, -0.3 dB (2 Hz~20 kHz)

Technics

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-91, Japan

■ GENERAL

Power consumption	920 W
Power supply	
For Continental Europe and Germany	AC 50Hz/60Hz, 220V
For Great Britain	AC 50Hz/60Hz, 240V
Dimensions (W×H×D)	430×186×433 mm (16 ⁵ / ₁₆ "×7 ⁵ / ₁₆ "×17 ¹ / ₁₆ ")
Weight	25 kg (55 lb.)

Notes:

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

●MASH is a trademark of NTT.

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■ BEFORE REPAIR

- Turn off the power supply. Using a 10Ω, 5W resistor connect both ends of power supply capacitors (C551A, C552A, 12000μF) in order to discharge the voltage.
- Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50Hz/60Hz in NO SIGNAL mode should be shown below with respect to supply voltage 220V/240V.

Power supply voltage	AC220V	AC240V
Consumed current 50Hz	140 ~ 400mA	130 ~ 360mA
Consumed current 60Hz	120 ~ 350mA	110 ~ 320mA

■ PROTECTION CIRCUITRY

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

- No sound is heard when the power is switched ON.
(The power indicator will not change from green to red.)
- 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", if speaker systems with an impedance less than the indicated rated impedance of this unit are used, or if DC voltage

appears in the output.

If this occurs, follow the procedure outlined below:

- Switch OFF the power.
- Determine the cause of the problem and correct it.
- Switch ON the power once again.

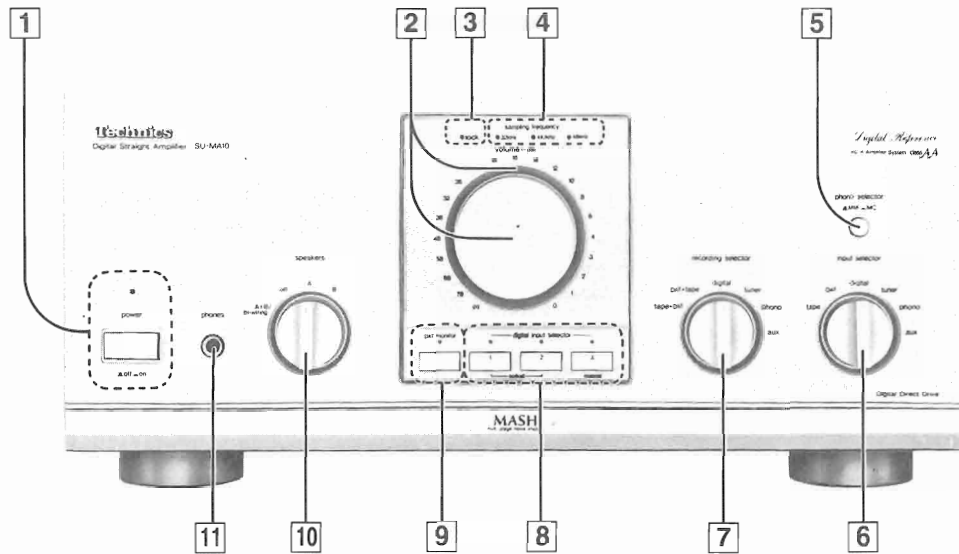
Note:

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

■ ACCESSORY

- AC power supply cord 1
- SFDAC05E03 (E), (EG)
- SJA193 (EB)

FRONT PANEL CONTROLS AND FUNCTIONS



1 Power switch/indicator (power)

When the power is turned on, the green indicator lights, and after about 4 seconds it changes to red to indicate that the unit can now be operated.

The protection circuit is activated and the indicator will not change to red when trouble in the circuitry, such as a short-circuit in the "+" and "-" speaker cords or a DC voltage generated in the output, has been detected.

2 Volume control/indicator (volume)

There are two types of volume scale indications: one for when the input selector is set for an analog position and one for when it is digital position (indicator will illuminate.).

3 Lock indicator (lock)

Indicates that a digital signal is being received and that the amplifier is in operational status.

4 Sampling frequency indicators (sampling frequency)

The appropriate indicator will illuminate whenever a digital signal with one of the sampling frequencies listed below is detected at the "DIGITAL INPUT" (①~③) or "DAT" digital terminal on the rear panel of this unit.

Note that some digital components (compact disc players, etc.) emit digital signals whenever their power switches are ON.

32 kHz: For digital signals with the 32-kHz mode sampling frequency

44.1 kHz: CD and others

48 kHz: For digital signals with the 48-kHz mode sampling frequency

5 Phono cartridge selector (phono selector)

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

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 Recording output selector (recording selector)

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

8 Digital input selectors/indicators (digital input selector)

These selectors are used when a component connected to one of the "DIGITAL INPUT" (①~③) terminals (on the rear panel of this unit) is to be used as the sound source.

First set the main input selector to the "digital" position and then use the digital input selector to select the digital sound source. (The corresponding indicator will illuminate.)

9 DAT monitor switch/indicator (DAT monitor)

This is used for monitoring when playing back a tape in the DAT component connected to the "DAT" digital terminals (on the rear panel of the unit) or when digitally recording material onto a DAT tape from a digital component.

10 Speaker selector (speakers)

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

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

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

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

A+B/bi-wiring: Sound can be heard simultaneously from the speaker systems connected to the "A" terminals and the "B" terminals.

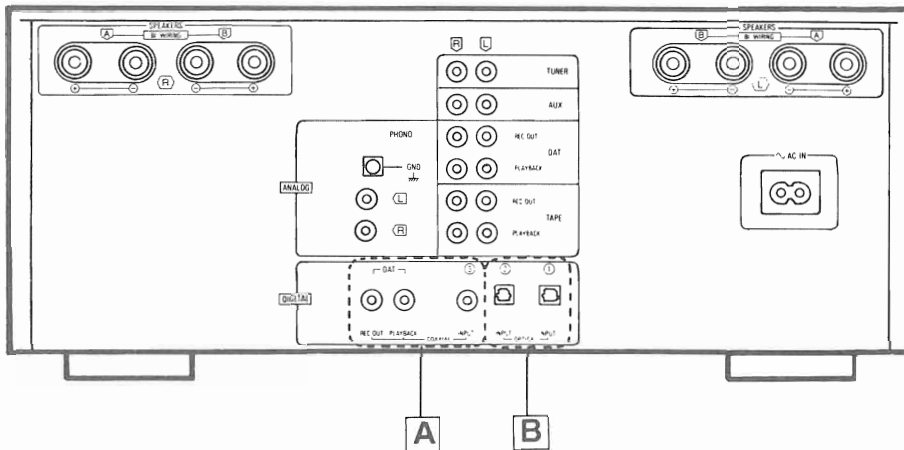
Or, if bi-wired speaker systems are connected, sound can be heard from them.

11 Headphones jack (phones)

CONNECTIONS

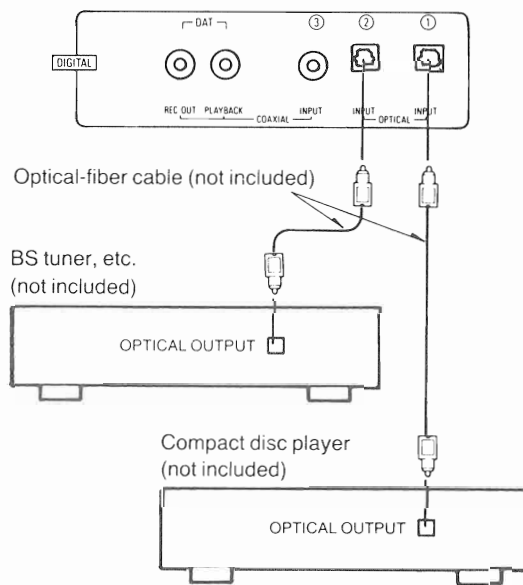
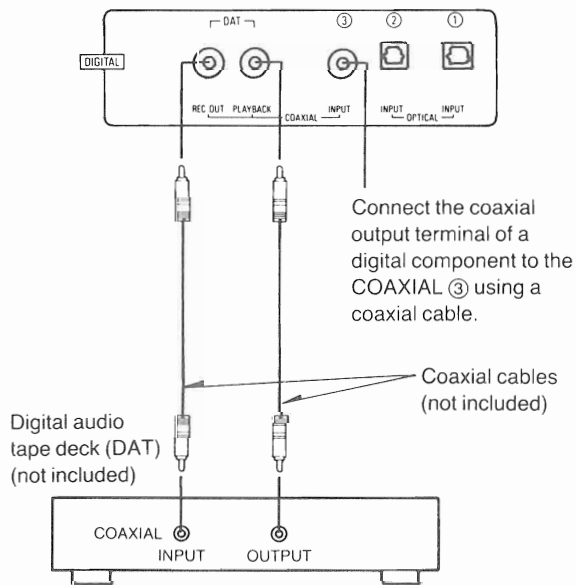
Making connections to the digital terminals

Components equipped with digital output facilities can be connected to the amplifier by optical-fiber cable (optional) or coaxial cable (optional). Optical fiber cables may be connected to the OPTICAL ① and ② terminals and coaxial cables to the COAXIAL ③ and DAT terminals.



A Making connections to the coaxial terminals

B Making connections to the optical terminals



Notes

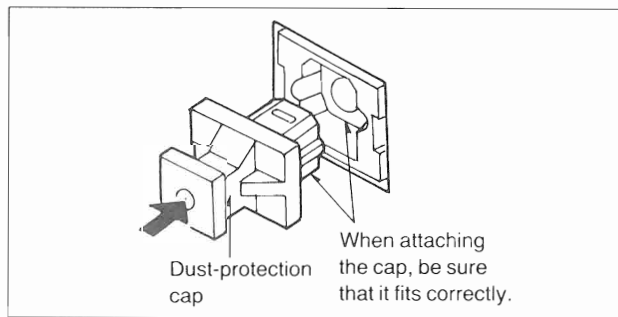
Careful note should be taken of the following points. If these points are not heeded, a malfunction of the unit's operation could occur.

1. Coaxial cables must absolutely never be connected to the analog terminals.
2. Only digital-type components should be connected to the digital terminals.
3. Optical-fiber cables must absolutely never be bent.

Use of "OPTICAL" terminals of this unit

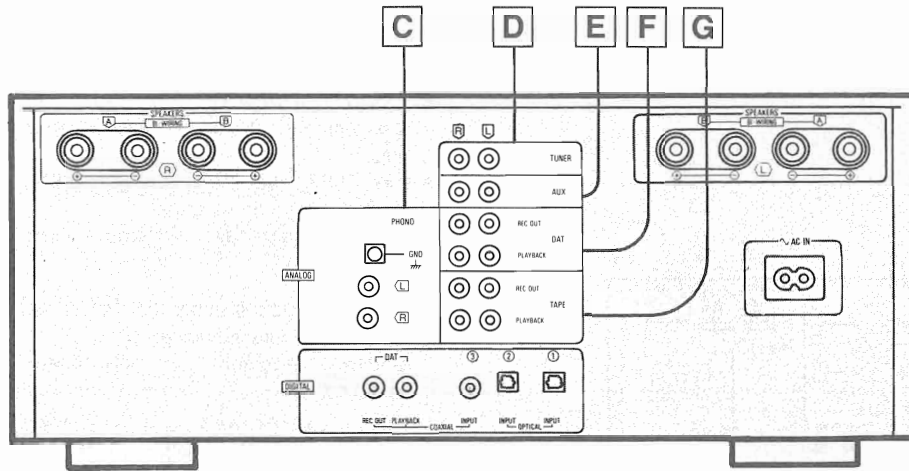
These terminals are protected by the dust-protection caps to avoid damage by dust, etc.

Remove the caps only when "OPTICAL" terminals are to be used. When these terminals are not being used, attach the caps as shown in the illustration at the right.



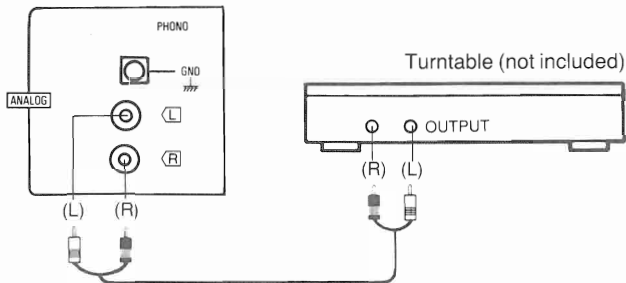
Making connections to the analog terminals

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



C "PHONO" terminals

Connect a turntable.



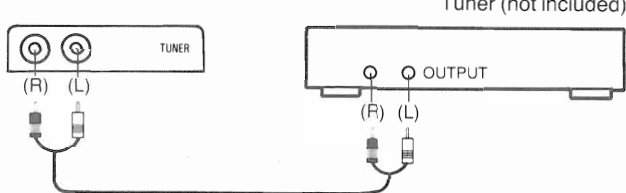
■ "GND" terminal

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

* Phono input capacitance is about 270pF for (EG) area (about 100pF for other areas.).

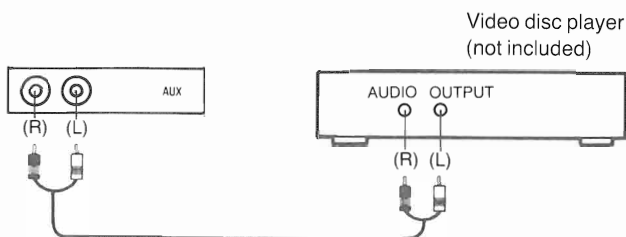
D "TUNER" terminals

Connect a tuner.



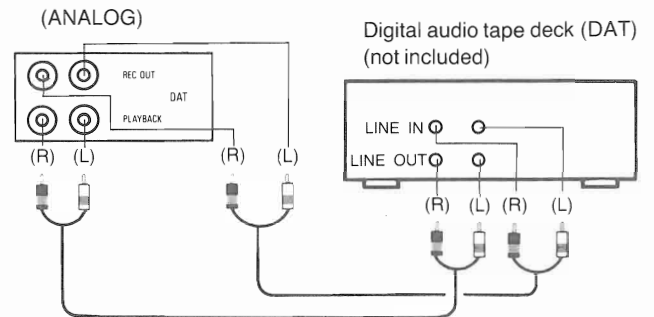
E "AUX" terminals

Connect a video disc player (Only the audio is connectable), etc.



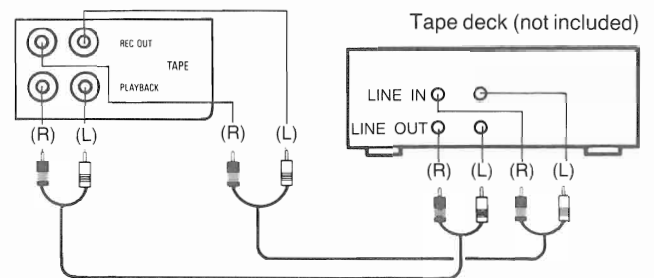
F "DAT" terminals (ANALOG)

Connect a digital audio tape deck (DAT).



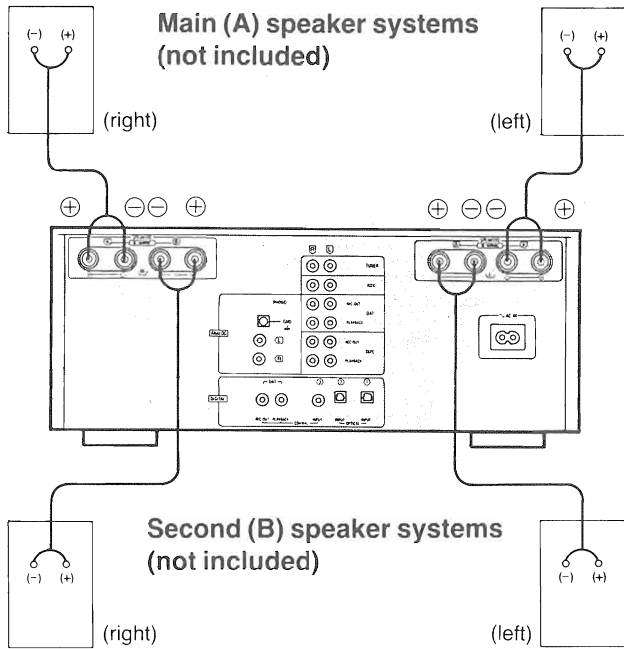
G "TAPE" terminals

Connect a tape deck.



Connection to speaker systems

To connect main and/or second speaker systems



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

■ Load impedance

- When only the "A" or only the "B" terminals are used: 4–16 ohms
- When both the "A" and the "B" terminals are used simultaneously: 8–16 ohms
- When bi-wired speaker systems are used: 4–16 ohms

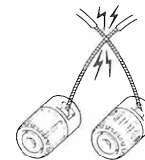
■ To connect cords to terminals

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

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

Note:

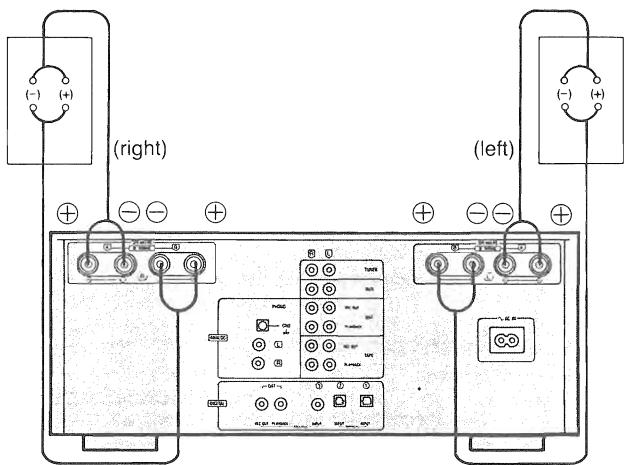
To prevent damage to circuitry, never short-circuit the plus (+) and minus (-) speaker cords.



■ Bi-wiring

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

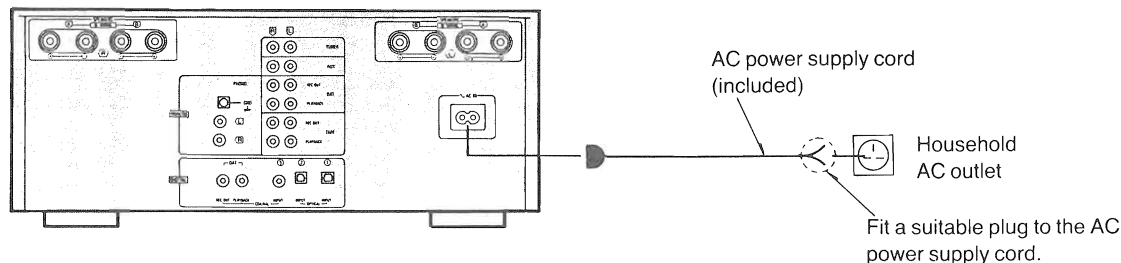
To connect bi-wired speaker systems



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

To connect the AC power supply cord (included)

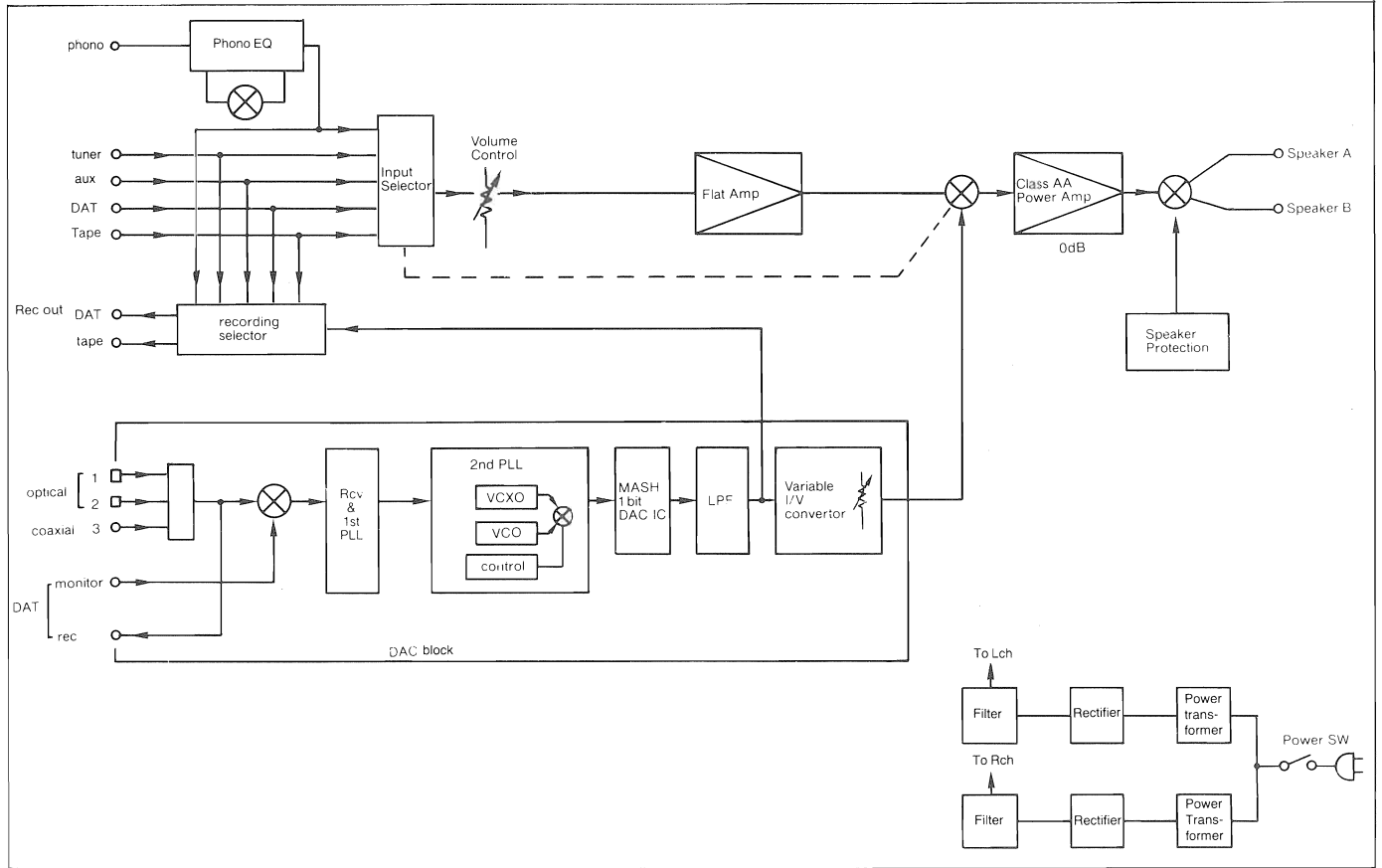
Connect the AC power supply cord (included) after all other cables and cords are connected.



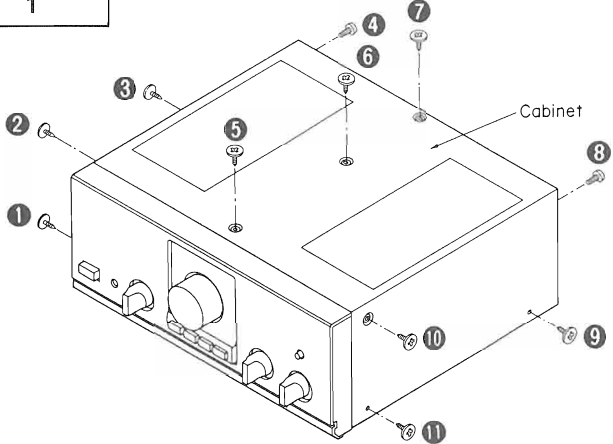
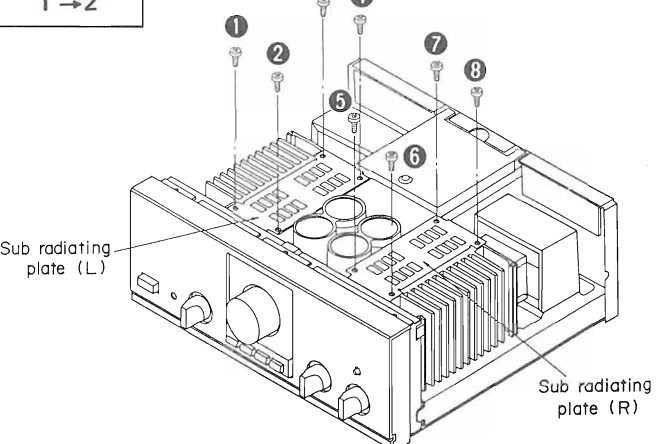
FEATURES

The SU-MA10 digital straight amplifier boasts the following features.

- ① D.D.D. (Digital Direct Drive) allows reproduction of digital source signals with no loss in quality.
- ② Newly developed 2-mode, 2-PLL digital interface receiver reduces jitter related distortion.
- ③ Power amp block with dual mono construction.
- ④ Design features such as highly rigid separate chassis effectively kill vibrations.
- ⑤ Strictly selected audio specification parts including newly developed X-pro twin-capacitors.



DISASSEMBLY INSTRUCTIONS

Ref. No. 1	Removal of the cabinet.	Ref. No. 2	Removal of the sub radiating plate (L), (R)
Procedure 1	 <p>● Remove the 11 screws (① ~ ⑪).</p>	Procedure 1 → 2	 <p>● Remove the 8 screws (① ~ ⑧).</p>

Ref. No. 3
Removal of the voltage control amp P.C.B. (L), (R).

Procedure
 1 → 2 → 3

1. Remove the 2 connector (CN509, CN510).
 2. Pull out the P.C.B. (Lch, Rch) in the direction of the arrow.

Note:
 Take care the connectors, and remove the P.C.B.

Ref. No. 4
Removal of the pre-shield case.

Procedure
 1 → 4

1. Remove the 4 screws (① ~ ④).
 2. Lift the pre-shield case and remove it.

Ref. No. 5
Removal of the phono input terminal P.C.B.

Procedure
 1 → 4 → 5

1. Remove the 6 screws (① ~ ⑥)
 2. Remove the phono input terminal plate.
 3. Remove the shield plate.

4. Remove the coaxial cable (W201, W202)

Ref. No. 6
Removal of the input/output terminal P.C.B.

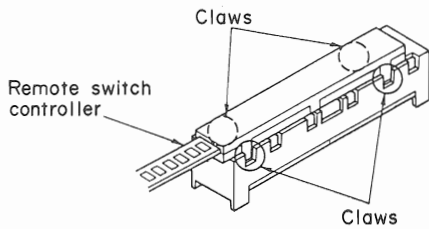
Procedure
 1 → 4 → 6

1. Remove the 5 screws (① ~ ⑤).
 2. Remove the shield plate.

3. Remove the 3 connectors (CN102, CN103, CN203).
 4. Remove the remote switch controller.

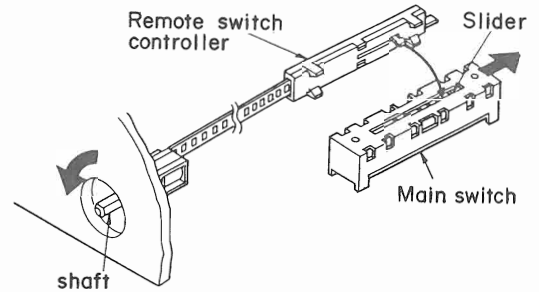
■ **Removal of the remote switch controller.**

- Release the 4 claws of remote switch controller by used ⊖ screwdriver.



■ **Installation of the remote switch controller.**

1. Turn the shaft to the end in the direction of the arrow.
2. Slide the slider of the main switch as far as it will go in the direction of the arrow, and then mount the remote switch controller.

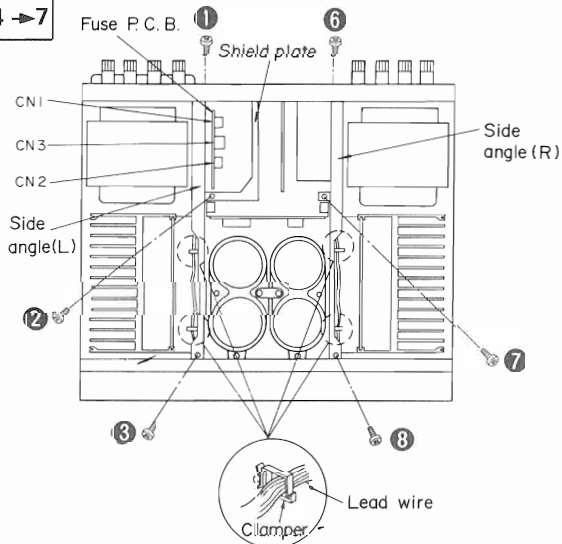


Ref. No.
7

Removal of the side angle (L), (R) and fuse P.C.B.

Procedure

1 → 2 → 4 → 7

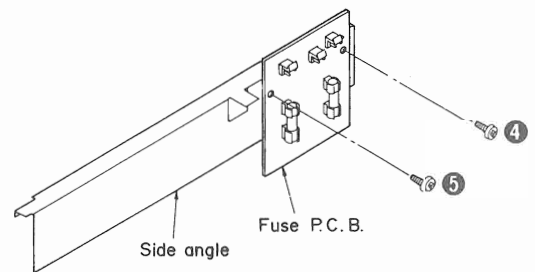


■ **Removal of the side angle (L) and fuse P.C.B.**

1. Remove the 3 connectors (CN1, CN2, CN3)
2. Remove the shield plate.
3. Remove the 3 screws (1 ~ 3).
4. Remove the lead wire from clamper.
5. Remove the side angle (L) and fuse P.C.B.
6. Remove the 2 screws (4, 5), and remove the fuse P.C.B.

■ **Removal of the side angle (R).**

1. Remove the 3 screws (6 ~ 8).

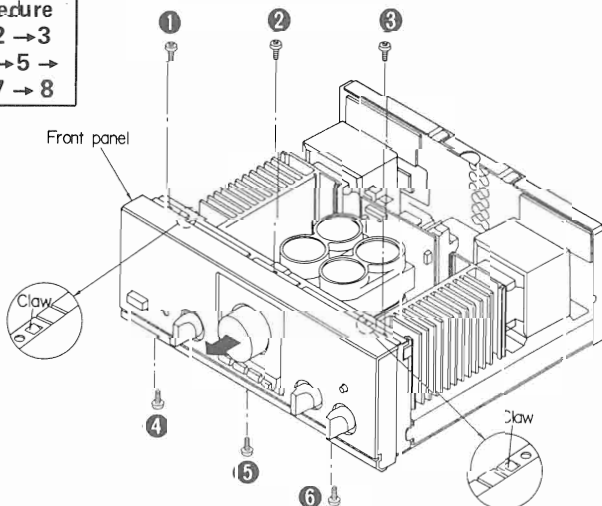


Ref. No.
8

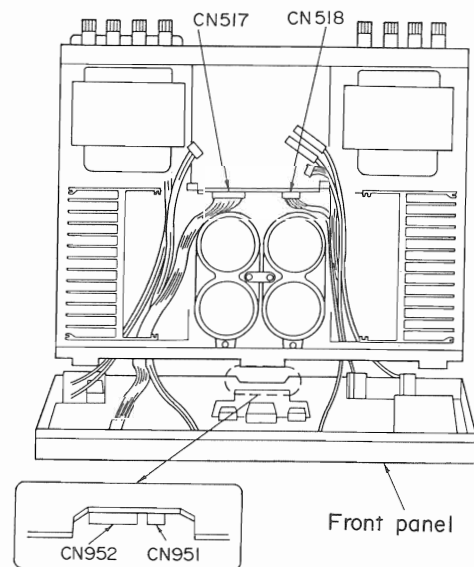
Removal of the front panel

Procedure

1 → 2 → 3
→ 4 → 5 →
6 → 7 → 8



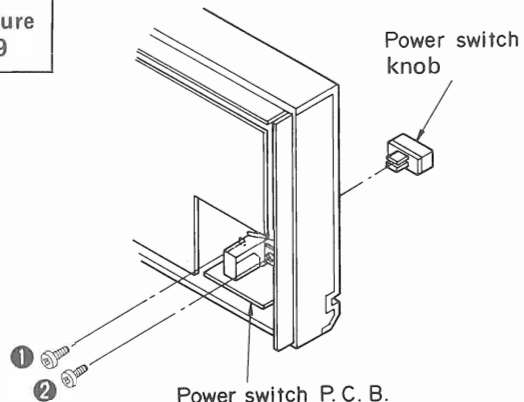
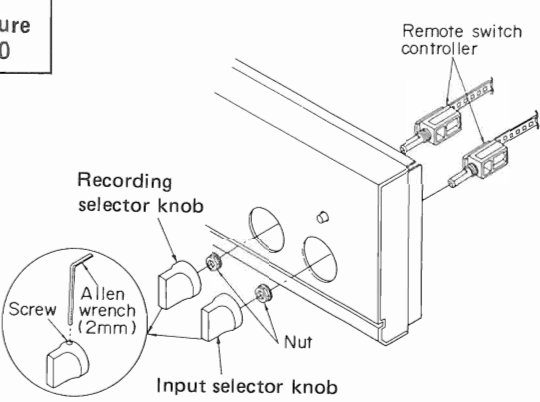
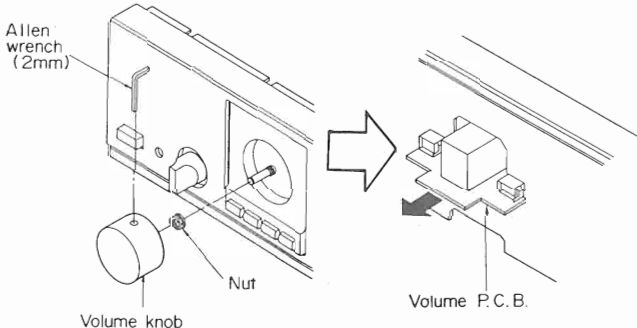
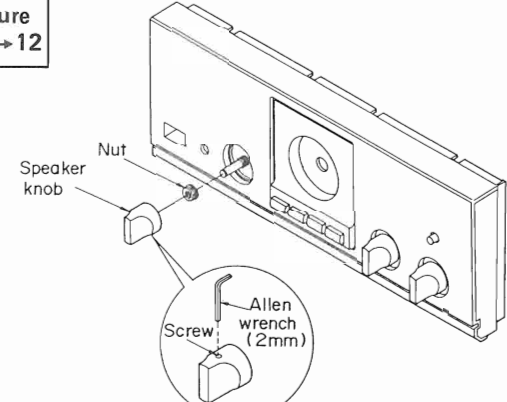
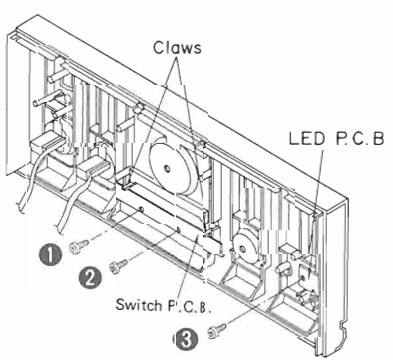
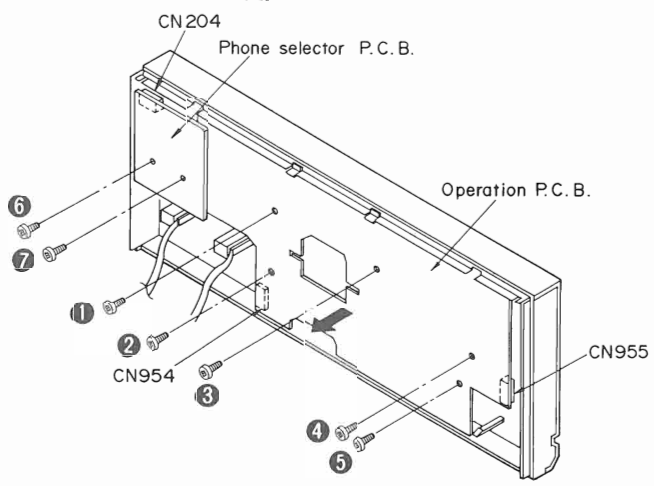
1. Remove the 6 screws (1 ~ 6)
2. Release the 2 claws, and remove the front panel in the direction of the arrow.



3. Remove the 4 connectors (CN517, CN518, CN951, CN952).

Note:

Take care the connectors, and remove the front panel.

<p>Ref. No. 9</p>	<p>Removal of the power switch P.C.B.</p>	<p>Ref. No. 10</p>	<p>Removal of the remote switch controller</p>
<p>Procedure 8 → 9</p>	 <p>Power switch knob</p> <p>Power switch P.C.B.</p> <ol style="list-style-type: none"> 1. Remove the power switch knob by pushing it from behind the front panel. 2. Remove the 2 screws (① , ②). 	<p>Procedure 8 → 10</p>	 <p>Remote switch controller</p> <p>Recording selector knob</p> <p>Input selector knob</p> <p>Screw</p> <p>Allen wrench (2mm)</p> <p>Nut</p> <ol style="list-style-type: none"> 1. Loosen the screws set in the input selector knob and recording selector knob by using a allen wrench and remove the knob. 2. Remove the 2 nuts.
<p>Ref. No. 11</p>	<p>Removal of the volume P.C.B.</p>	<p>Ref. No. 12</p>	<p>Removal of the operation P.C.B. and phono selector P.C.B.</p>
<p>Procedure 8 → 11</p>	 <p>Allen wrench (2mm)</p> <p>Volume knob</p> <p>Nut</p> <p>Volume P.C.B.</p> <ol style="list-style-type: none"> 1. Loosen the screw set in the volume knob by using a allen wrench and remove the knob. 2. Remove the 1 nut. 3. Remove the volume P.C.B. in the direction of the arrow. 	<p>Procedure 8 → 11 → 12</p>	 <p>Speaker knob</p> <p>Nut</p> <p>Allen wrench (2mm)</p> <p>Screw</p> <p>■ Removal of the operation P.C.B.</p> <ol style="list-style-type: none"> 1. Loosen the screw set in the speaker knob by using a allen wrench and remove the knob. 2. Remove the 1 nut.
<p>Ref. No. 13</p>	<p>Removal of the switch P.C.B. and LED P.C.B.</p>	 <p>Claws</p> <p>LED P.C.B.</p> <p>Switch P.C.B.</p> <ol style="list-style-type: none"> 1 2 3 	
<p>Procedure 8 → 11 → 12 → 13</p>	<p>■ Removal of the switch P.C.B.</p> <ol style="list-style-type: none"> 1. Remove the 2 screws (① , ②). 2. Release the 2 claws <p>■ Removal of the LED P.C.B.</p> <ol style="list-style-type: none"> 1. Remove the 1 screw. (③). 	 <p>CN204</p> <p>Phone selector P.C.B.</p> <p>Operation P.C.B.</p> <p>CN954</p> <p>CN955</p> <ol style="list-style-type: none"> 1 2 3 4 5 6 7 <p>■ Removal of the phono selector P.C.B.</p> <ol style="list-style-type: none"> 1. Remove the 2 screws (⑥ , ⑦). 2. Remove the 1 connector (CN204). 	

<p>Ref. No. 14</p>	<p>Removal of the power transformer (L), (R)</p>			
<p>Procedure 1 → 2 → 3 → 4 → 14</p>	<p>■ Removal of the power transformer (L)</p> <ol style="list-style-type: none"> 1. Remove the 2 connectors (CN1, CN501). 2. Remove the 4 nuts (❶ ~ ❷). <p>■ Removal of the power transformer (R)</p> <ol style="list-style-type: none"> 1. Remove the 2 connectors (CN2, CN502). 2. Remove the 4 nuts (❸ ~ ❹). 		<p>Ref. No. 15</p>	<p>Removal of the relay P.C.B.</p>
<p>Procedure 1 → 2 → 3 → 4 → 7 → 15</p>	<ol style="list-style-type: none"> 1. Remove the 2 latches. 2. Remove the 8 connectors (CN507, CN508, CN515, CN516, CN517, CN518, CN519, CN520). 		<p>Ref. No. 16</p>	<p>Removal of the twin capacitor (L), (R)</p>
			<p>Procedure 1 → 2 → 3 → 4 → 7 → 15 → 16</p>	<ol style="list-style-type: none"> 1. Remove the 2 connectors (CN503, CN504). 2. Remove the 6 screws (❶ ~ ❷).
<p>Ref. No. 17</p>	<p>Removal of the power amp P.C.B. (L), (R)</p>			
<p>Procedure 1 → 2 → 3 → 4 → 5 → 7 → 17</p>	<p>■ Removal of the power amp P.C.B. (L)</p> <ol style="list-style-type: none"> 1. Remove the 4 screws (❶ ~ ❷). 2. Remove the 5 connectors (CN501, CN503, CN505, CN507, CN515). <p>■ Removal of the power amp P.C.B. (R)</p> <ol style="list-style-type: none"> 1. Remove the 4 screws (❸ ~ ❹). 2. Remove the 5 connectors (CN502, CN504, CN506, CN508, CN516). 			

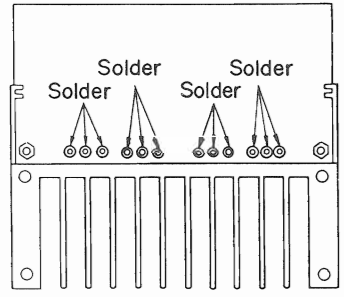
Ref. No. 18

Removal of the power transistor.

Procedure 17 → 18

Power transistor

1. Unsolder the power transistor.
 2. Remove the 4 screws (① ~ ④).
- [This figure show the left (Lch) power transistor. Remove the right (Rch) power transistor in the same way.]
- When mounting the power IC or regulator transistor. Apply silicon compound (SZZ0L15) to the rear side of power IC or regulator transistor.



Ref. No. 19

Removal of the DAC P.C.B.

Procedure 1 → 19

Front panel

Claw

-
- Bottom panel
3. Remove the 16 screws (⑦ ~ ⑳), and remove the bottom panel.

Ref. No. 20

Removal of the AC inlet P.C.B.

Procedure 1 → 20

Claws

AC inlet P.C.B.

Sub rear panel

1. Remove the 4 screw (① ~ ④), and remove the sub rear panel in the direction of the arrow.
2. Release the 2 claws.

-
- DAC P.C.B.
4. Remove the 2 connectors (CN951, CN952).
 5. Remove the 8 screws (⑳ ~ ㉓).

Ref. No. 21	Removal of the speaker terminal P.C.B. (L), (R)
Procedure 1 → 2 → 3 → 7 → 14 → 21	
	<ol style="list-style-type: none"> 1. Remove the 6 screws (① ~ ⑥). 2. Remove the 4 connector (CN505, CN506, CN519, CN520).

Ref. No. 22	How to check the operation P.C.B., power amp P.C.B. (L)/ (R) and DAC P.C.B.
Procedure 1 → 22	
	<ol style="list-style-type: none"> 1. Remove the 6 screws (① ~ ⑥). 2. Release the 2 claws, and pull out the front panel in the direction of the arrow.

	<ol style="list-style-type: none"> 3. Remove the 16 screws (⑦ ~ ⑳). 4. When checking the soldered surface of P.C.B. and replacing the parts, do as show. 5. Remove the 8 screws (㉓ ~ ㉟). 6. Remove the 2 connectors (CN951, CN952), and Remove the DAC P.C.B. 7. When checking the soldered surface of P.C.B. and replacing the parts, connect the connectors (CN951, CN952), do as shown.

Ref. No. 23	How to check the voltage control amp P.C.B. (L), (R)
Procedure 1 → 2 → 23	
	<ol style="list-style-type: none"> 1. Remove the 8 screws (① ~ ⑧). 2. Pull out the radiator and voltage control amp P.C.B. in the direction of the arrow.
	<p>Note:</p> <ul style="list-style-type: none"> ●Take care the connectors. ●Connect the earth terminal of power amp P.C.B. and chassis by lead wire. <p>[Figure 2 and figure 3 show the left (Lch) voltage control amp P.C.B. Remove the right (Rch) voltage control amp P.C.B. in the same way.]</p>

Ref. No. 24	About the wire processing
Procedure 1 → 2 → 4 → 24	<p>●When processing the wire after the repair finish, do as shown.</p>
	<ol style="list-style-type: none"> 1. Insert the wires of twin capacitors into the clamber. 2. The release (INPUT/REC. switch) should be routed to the inside of the CN504 lead wires. Also, do not clamp the release. 3. Arrange the various lead wires so that they are not touching the rectifier diode. <p>Note: Be especially careful not to bend or forcefully pull the bottom of the release (INPUT/REC. switch); doing so could cause a malfunction.</p>

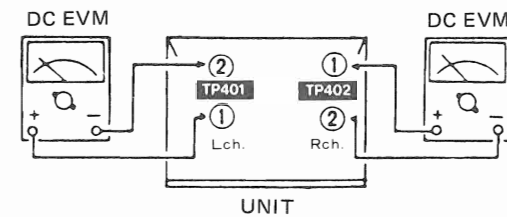
MEASUREMENTS AND ADJUSTMENTS

Control positions and equipment used.

- Volume knob ∞ (Minimum)
- Speaker selector off
- Compact disc player using the "DIGITAL OUT" terminal.
- Test disc
- AC and DC electronic voltmeter (EVM)

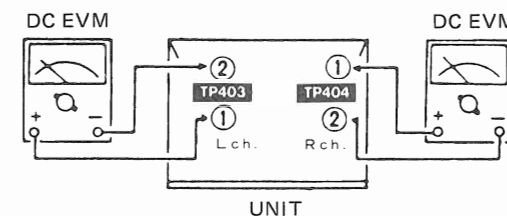
(1) VOLTAGE CONTROL (V) AMP. IDLING (ICQ) ADJUSTMENT

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.).



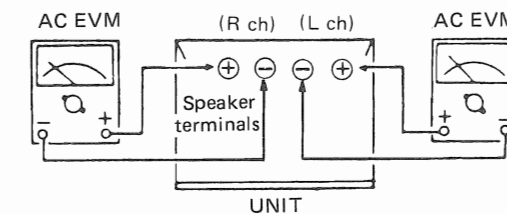
(2) CURRENT DRIVE (C) AMP. IDLING (ICQ) ADJUSTMENT

1. Test equipment connection is shown in figure. (Connect the DC EVM on both channels.)
2. Completely turn the (C) 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.).

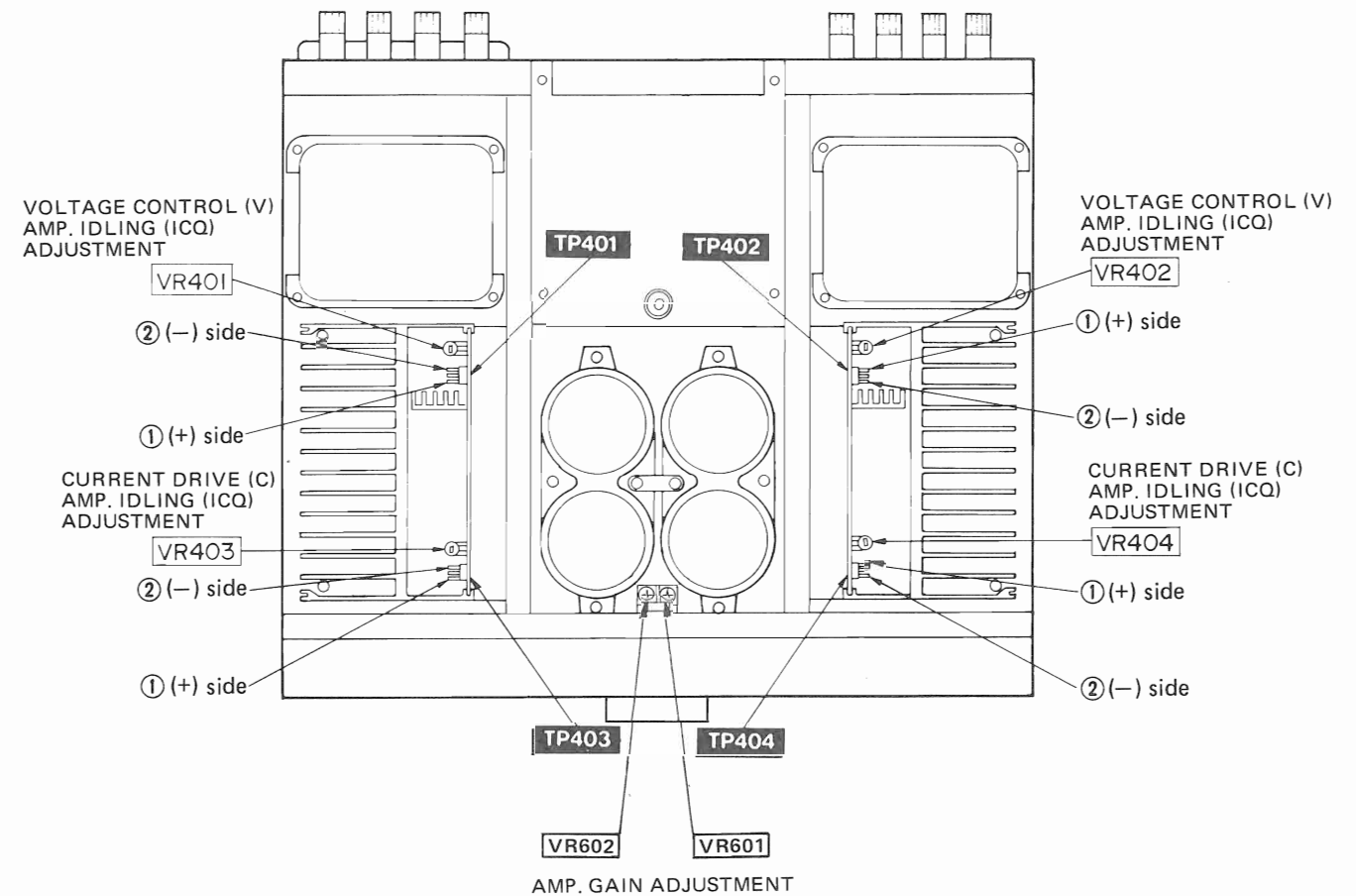


(3) AMP. GAIN ADJUSTMENT

1. Test equipment connection is shown in figure. (Connect the AC EVM on both channels.)
2. Set the input selector to the "digital".
3. Set the digital input selector to the "coaxial 3".
4. Set the speaker systems to the "A" or "B".
5. Connect the coaxial (digital) output terminal of the compact disc player to the "coaxial 3" using a coaxial cable.
6. Place the volume control scale to the "-8dB".
7. Turn ON the set and the compact disc player, and play the 1kHz, -20 dB on the test disc.
8. Adjust VR601 (Lch) [VR602(Rch)] so that the voltage is 3.5 ± 0.1V.



Adjustment points



TERMINAL FUNCTION OF IC'S

● IC717 (YM3623B): Digital signal processor

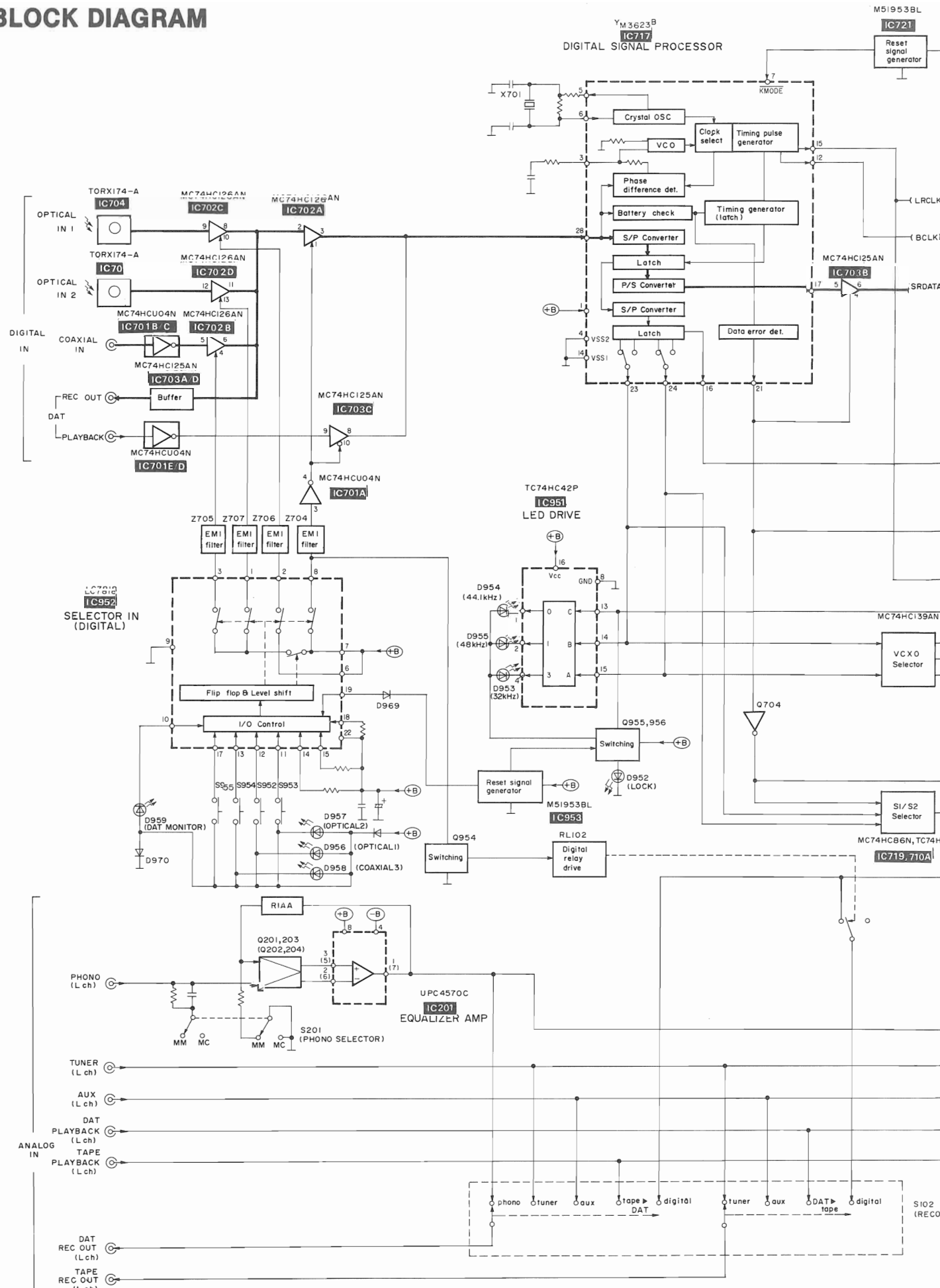
Pin No.	Mark	I/O Division	Function	Pin No.	Mark	I/O Division	Function
1	VDD1	I	Power supply terminal	15	L/R	O	L/R discrimination signal
2	ADJ	-	(Not used, open)	16	DEF	O	Emphasis signal
3	VCO	I/O	External condenser terminal	17	D0	O	Serial data output
4	VSS2	-	GND terminal	18	WC	-	(Not used, open)
5	XO	O	Crystal vibrator input/output terminal	19	DIGR	-	
6	XI	I		20	DIG L	-	
7	KMODE	I	Reset signal	21	ERR	O	Error detection terminal
8	OA	-	(Not used, open)	22	SEL	I	Power supply terminal
9	OB	-		(Not used, open)	23	S1	O
10	T1	-	24		S2	O	
11	T2	-	Serial bit clock output		25	SCK	O
12	BCO	O		26	SSYNC	O	Sub code signal (Not used, open)
13	SYNC	O	Synchronization signal (Not used, open)	27	SDO	O	Sub code data output (Not used, open)
14	Vss1	-	GND terminal	28	DIN	I	Serial data input

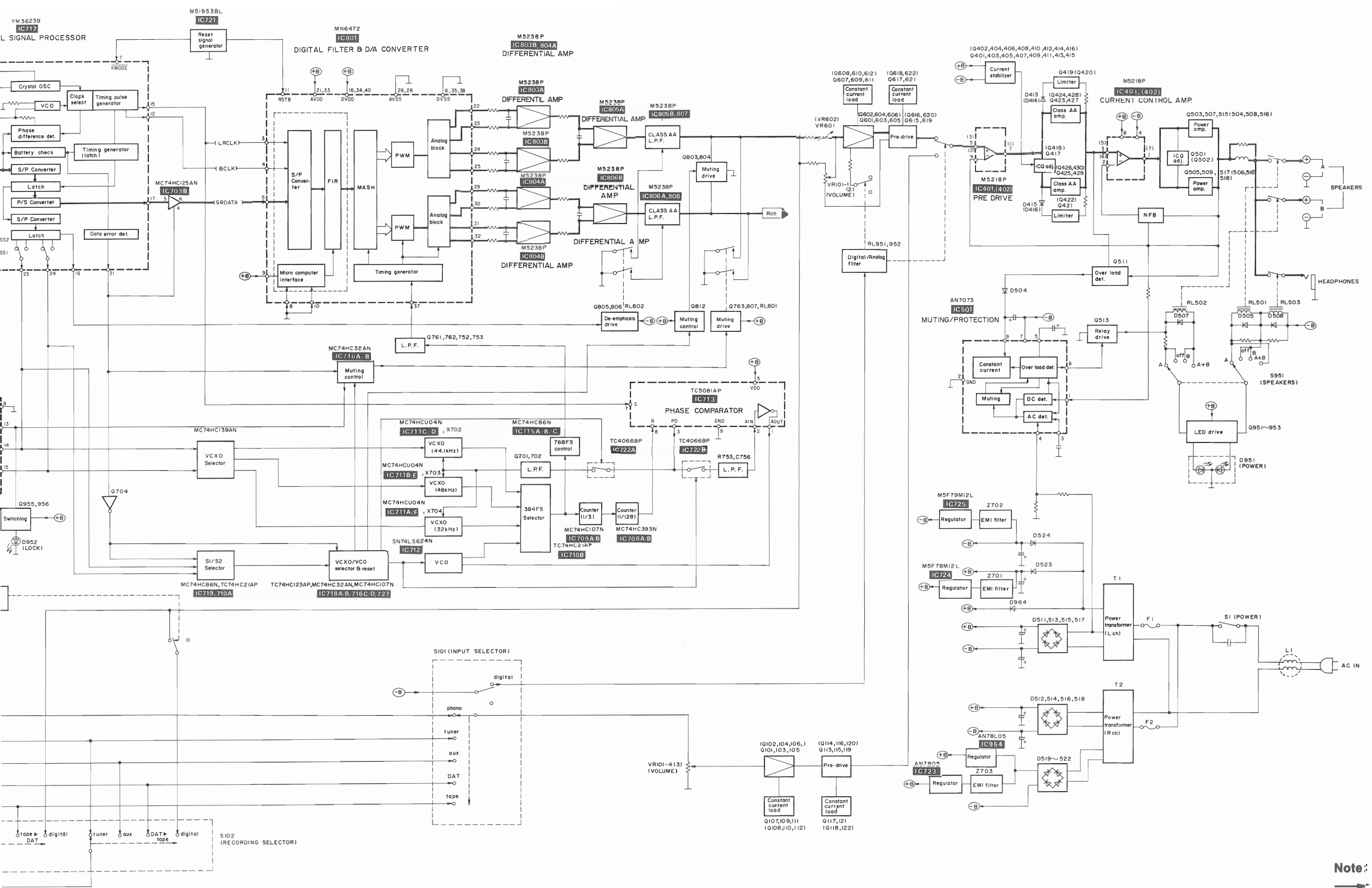
●IC801 (MN6472): Digital filter & D/A converter

Pin No.	Mark	I/O Division	Function
1	192fs	O	192fs (=8.4672 MHz) output (Not used, open)
2	LRPOL	I	L/R clock selector (Not used, connected to power supply)
3	LRCLK	I	L/R discrimination signal
4	BCLK	I	Serial bit clock input
5	SRDATA	I	Serial data input
6	DVss	-	Digital GND terminal
7	384fs	O	384fs (=16.9344 MHz) output (Not used, open)
8	MDATA	I	Command data input (Not used, connected to GND)
9	MCLK	I	Command clock input (Not used, connected to power supply)
10	MLD	I	Command load input (Not used, connected to GND)
11	RSTB	I	Reset signal
12	IE	I	(Not used, connected to GND)
13	TP1	O	Test terminal
14	TP2		
15	TEST1	I	Test terminal (Not used, connected to GND)
16	DVDD	I	Digital power supply terminal
17	TEST2	I	Test terminal (Not used, open)
18	X3	I	(Not used, open)
19	SEL1	I	(Not used, connected to GND)
20	SEL2	I	(Not used, connected to GND)
21	AVDD1	I	Analog power supply terminal

Pin No.	Mark	I/O Division	Function
22	OUTL2(-)	O	Lch data output (-)
23	OUTL2(+)	O	Lch data output (+)
24	OUTL1(-)	O	Lch data output (-)
25	OUTL1(+)	O	Lch data output (+)
26	AVss1	-	Analog GND terminal
27	NC	-	(Not connected)
28	AVss2	-	Analog GND terminal
29	OUTR1(+)	O	Rch data output (+)
30	OUTR1(-)	O	Rch data output (-)
31	OUTR2(+)	O	Rch data output(+)
32	OUTR2(-)	O	Rch data output(-)
33	AVDD2	I	Analog power supply terminal
34	DVDD1	I	Digital power supply terminal
35	DVss1	-	Digital GND terminal
36	X2	O	Clock output
37	X1	I	Clock input
38	DVss2	-	Digital GND terminal
39	NSUB	I	Sub strate terminal (Not used connected to power supply)
40	DVDD2	I	Digital power supply terminal
41	CLKSEL	-	(Not used, connected to GND)
42	ZFLAGB	O	Zero input detection terminal

■ BLOCK DIAGRAM





Note: Audio signal

SCHEMATIC DIAGRAM

(Parts list on pages 44 ~ 49)

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

Notes:

- S1 : Power switch in "on" position.
- S101, 102 : Input selector (input selector) switch.
- S201 : Phono cartridge selector (phono selector) switch.
- S951 : Speaker selector (speakers) switch.
- S952~954 : Digital input selectors/indicators (digital input selector) switch.

[S952: 1, S953: 2, S954: 3]

- S955 : DAT monitor switch/indicator (DAT monitor) switch.

● The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

● 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.

● — / - - - - : Positive voltage lines and negative voltage lines.

● : audio signal lines (Lch)

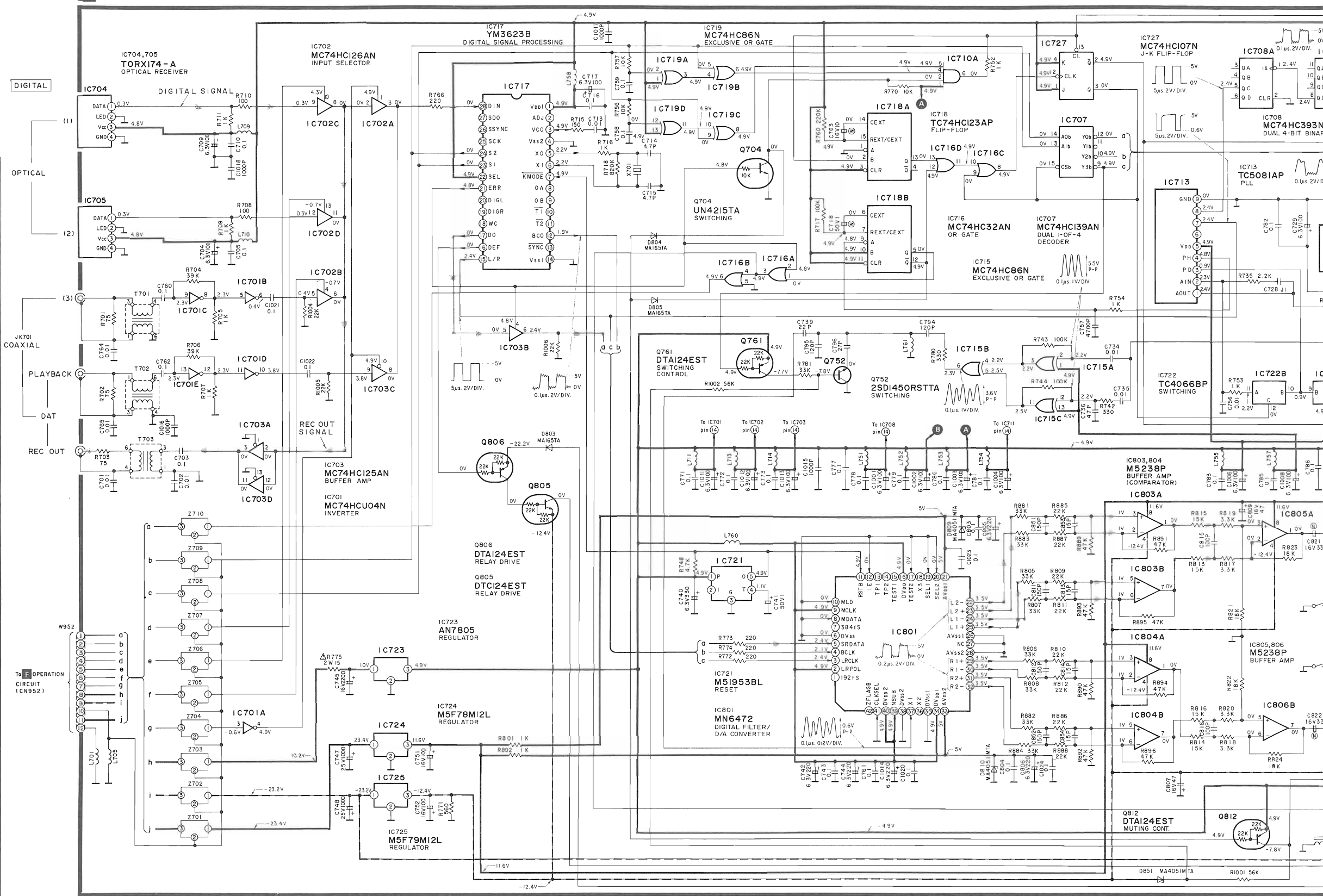
● : analog signal lines (Lch)

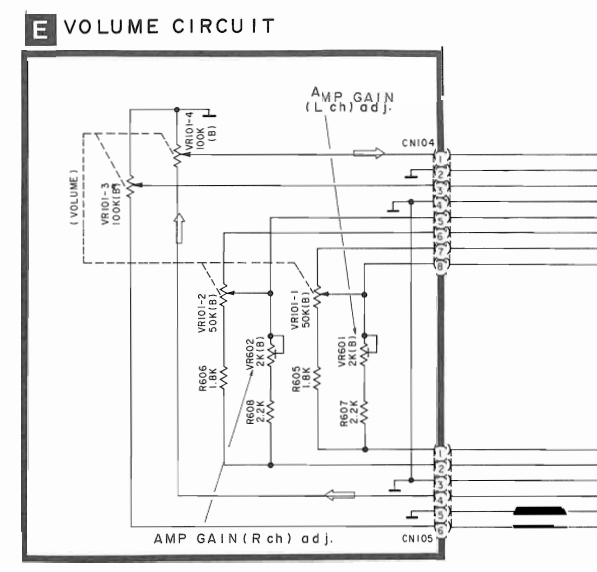
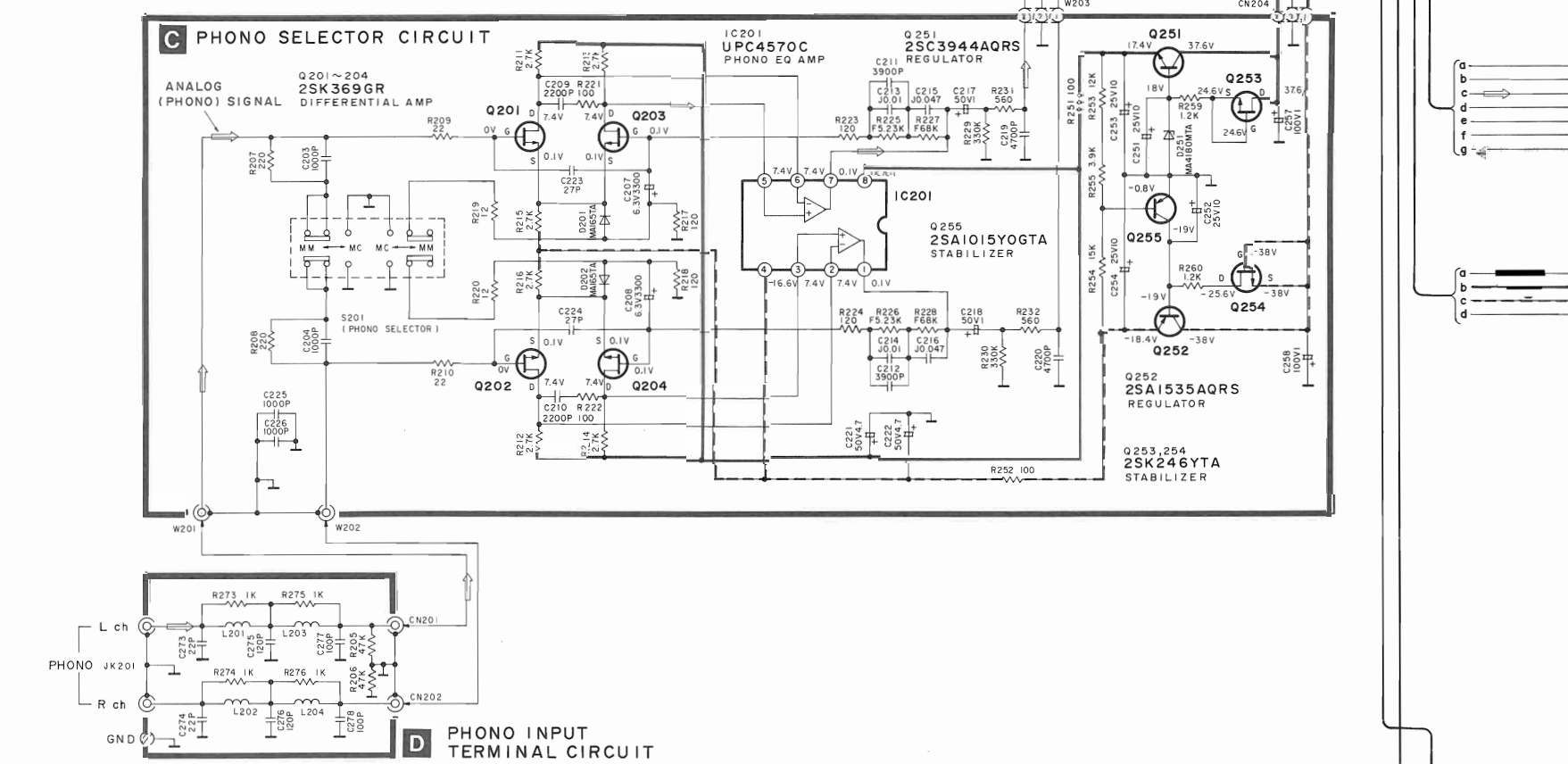
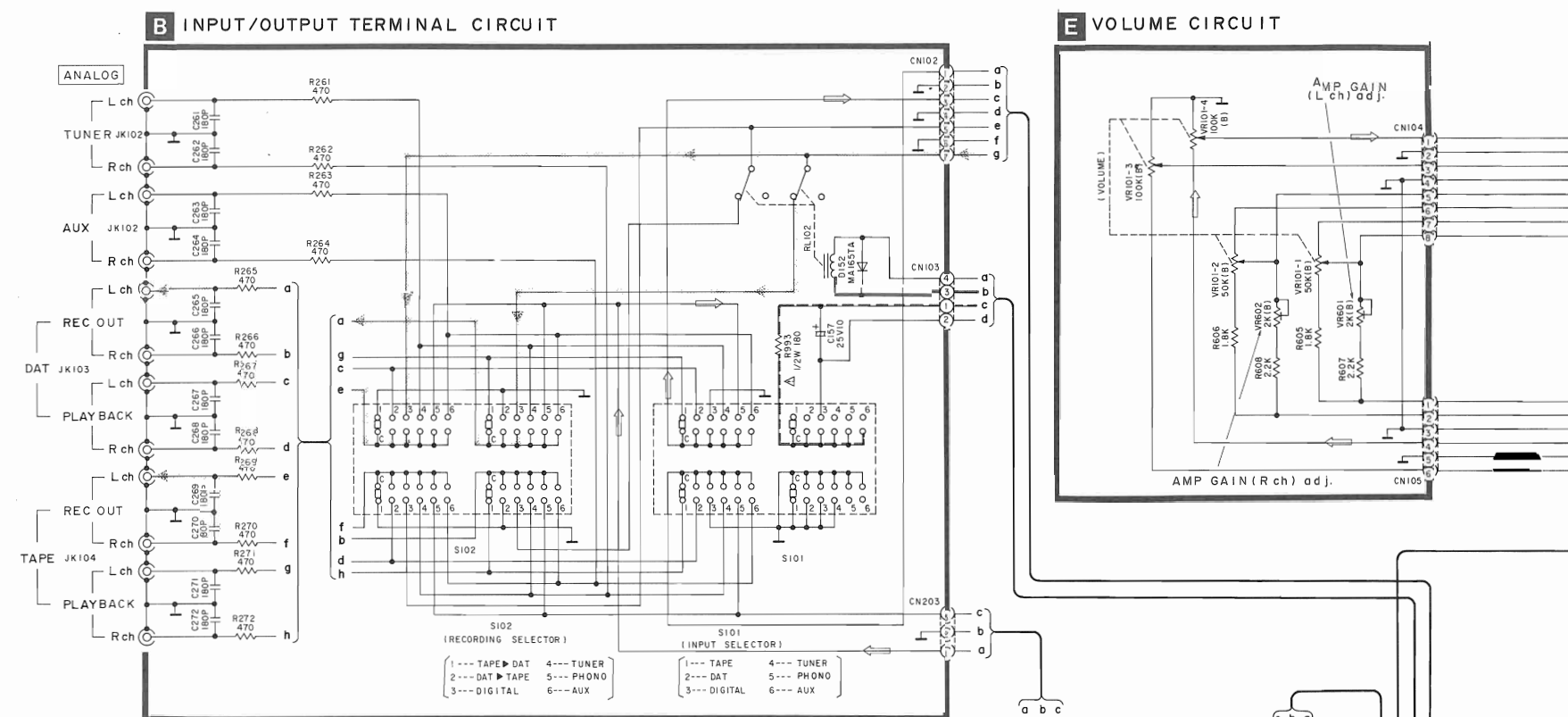
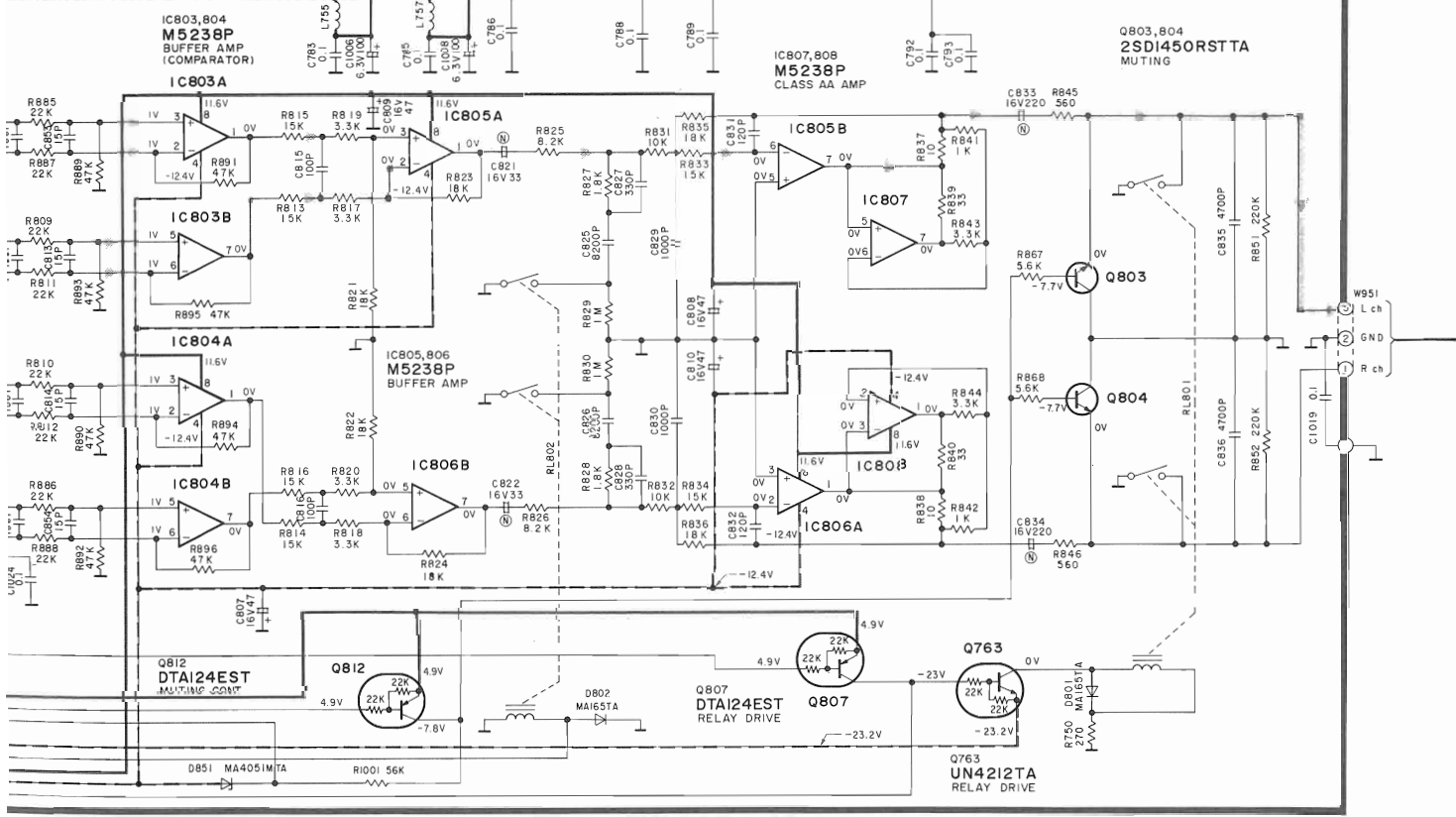
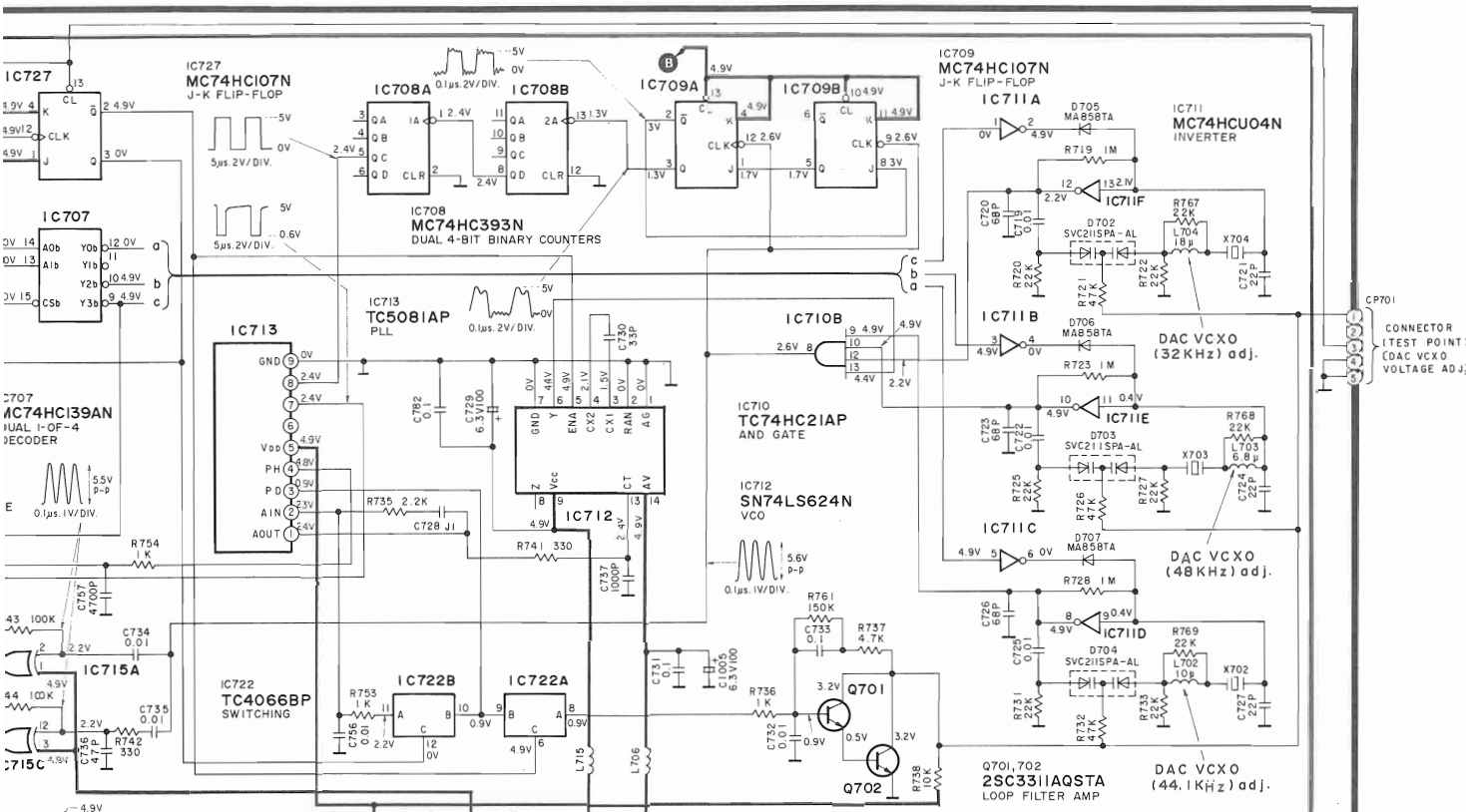
Caution! IC and LSI are sensitive to static electricity. Secondary trouble can be prevented by taking care during repair.

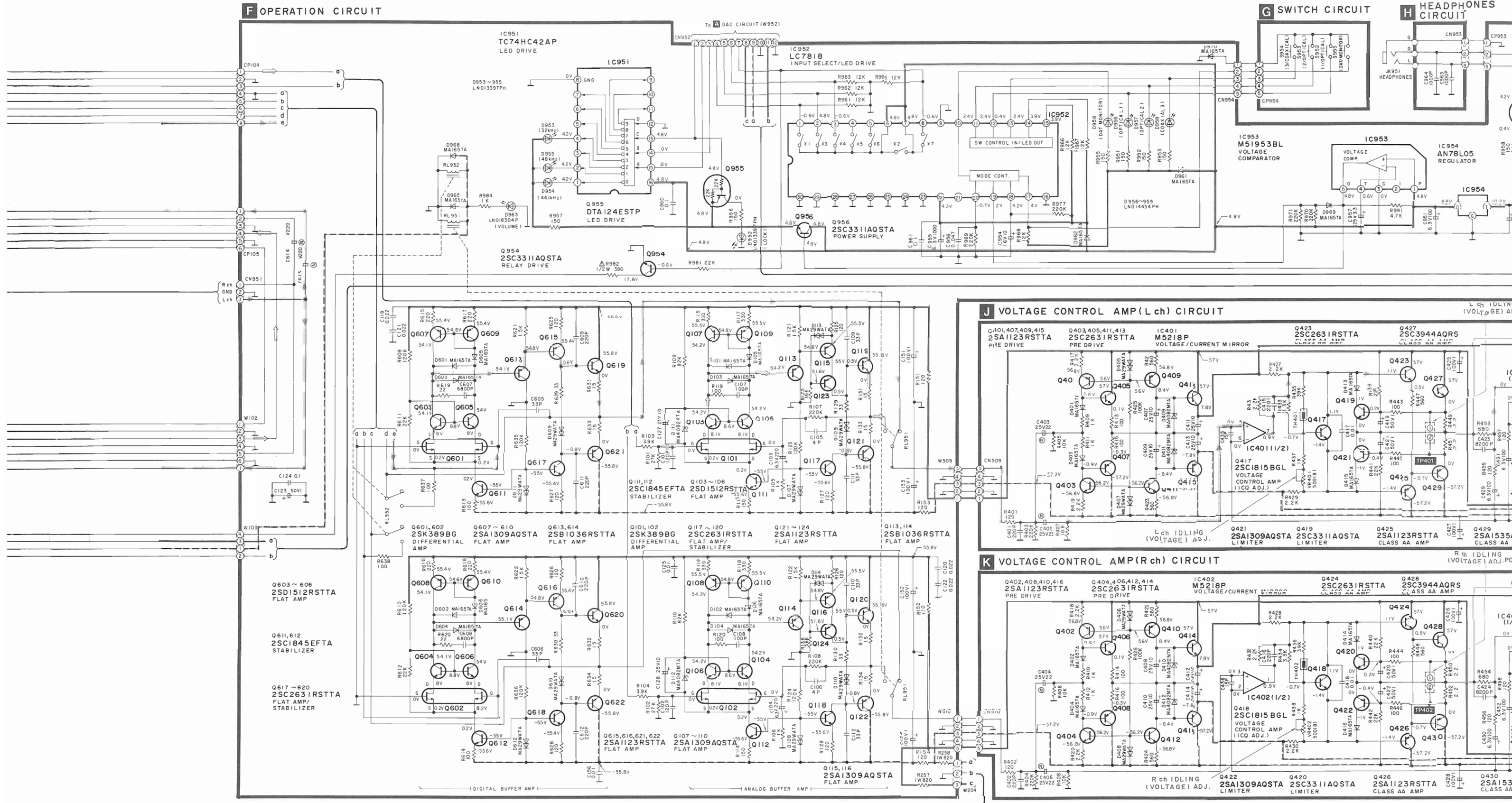
- Cover the parts boxes made of plastics with aluminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the pins of IC or LSI with fingers directly.

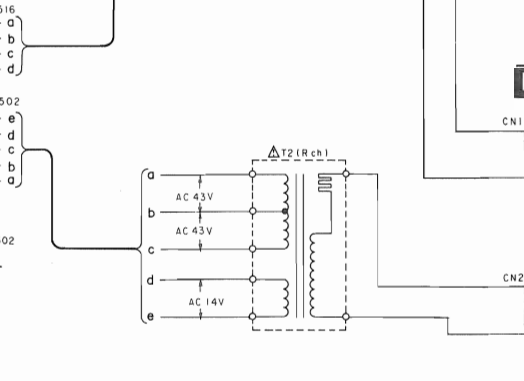
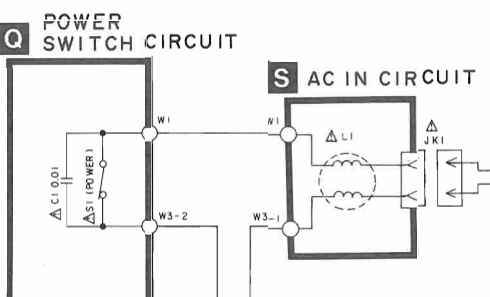
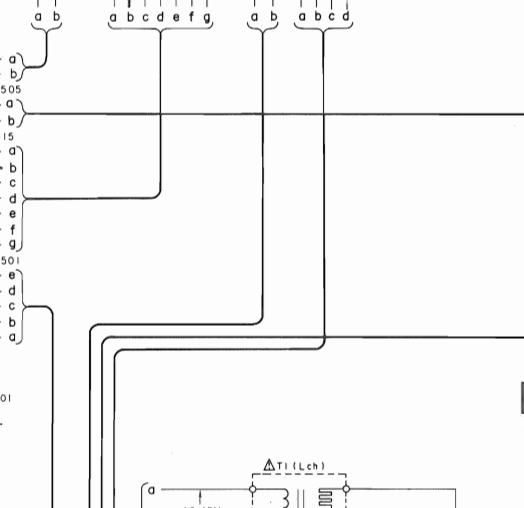
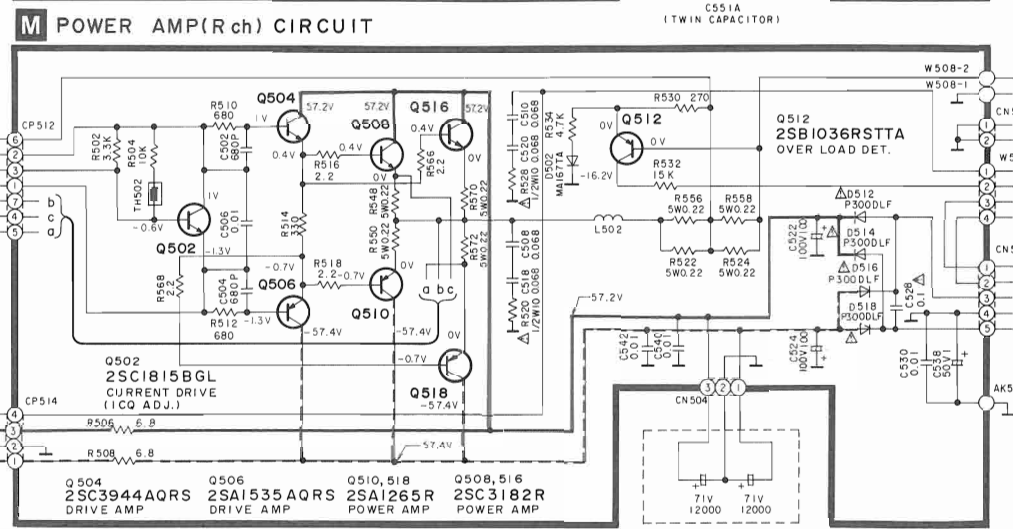
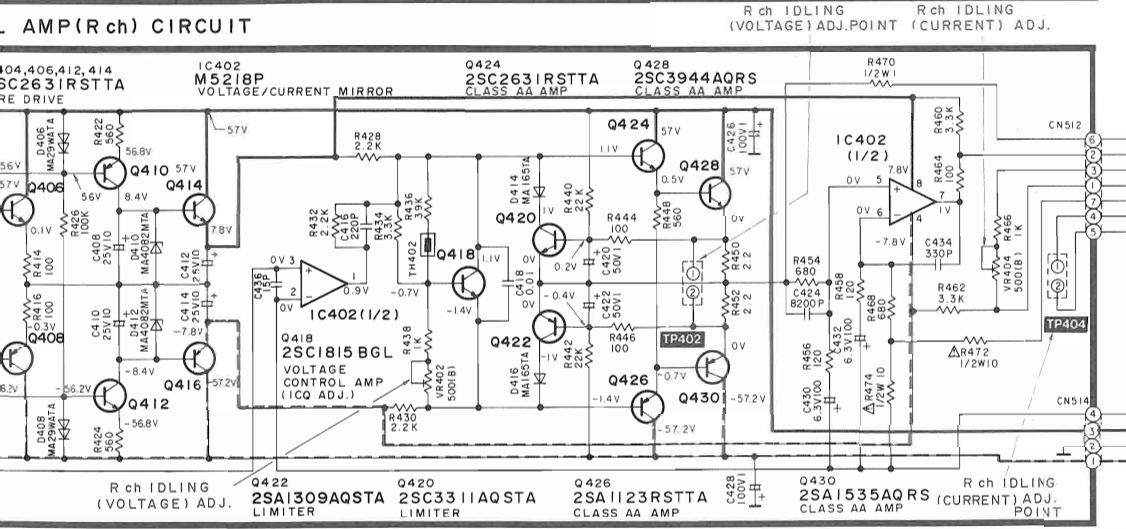
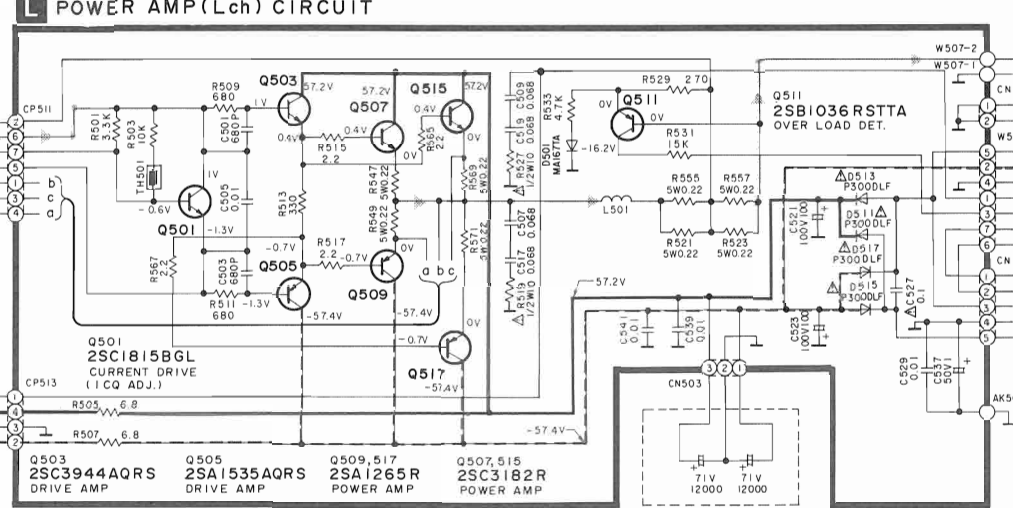
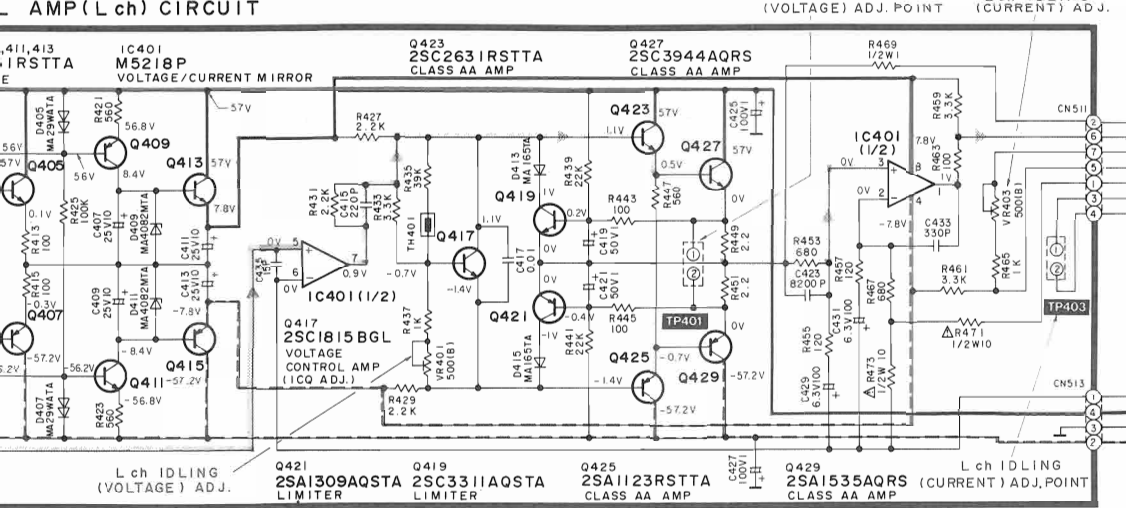
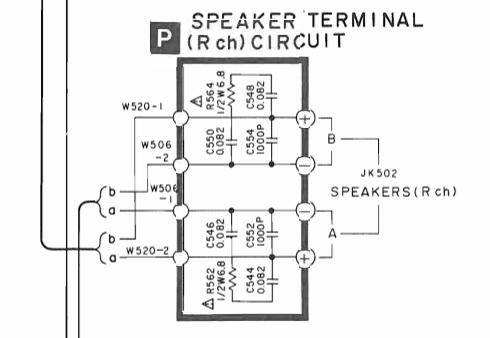
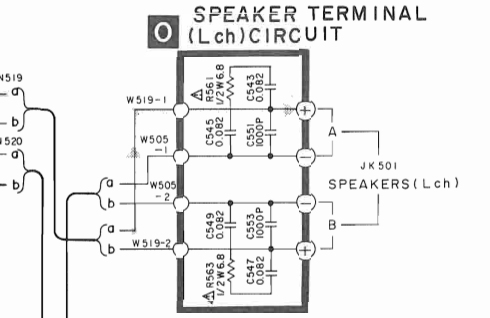
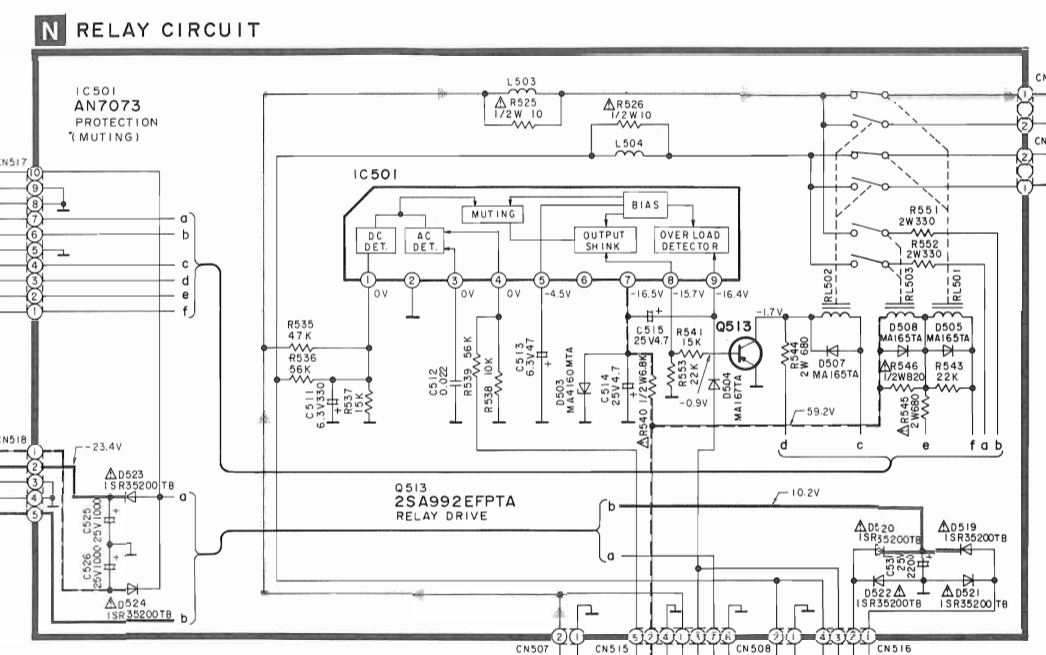
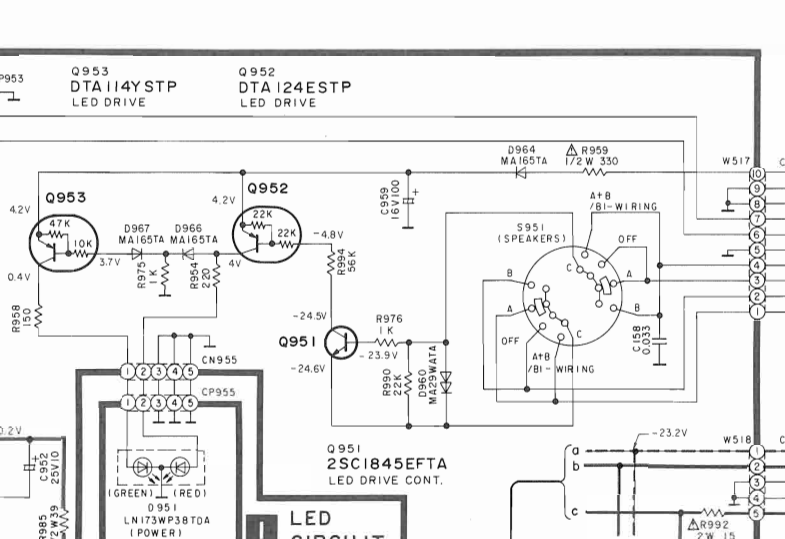
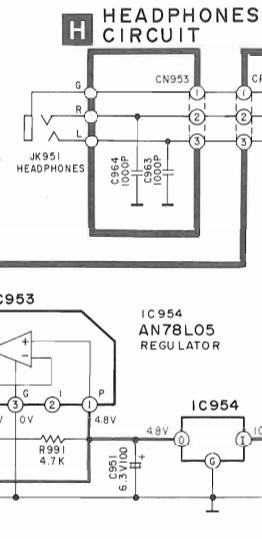
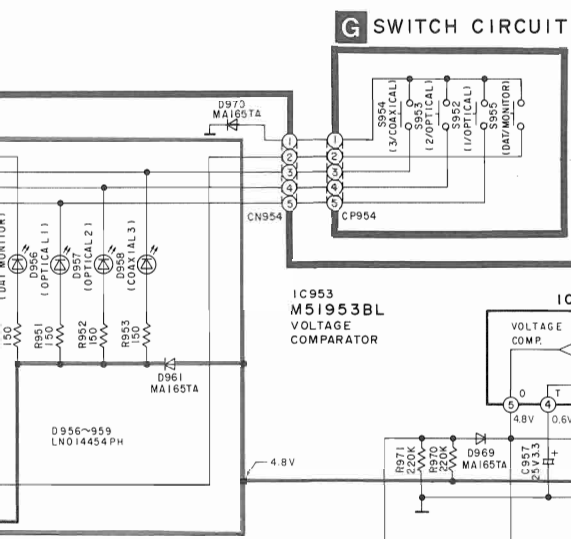
A
B
C
D
E
F

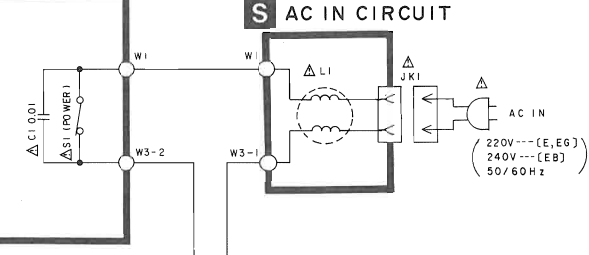
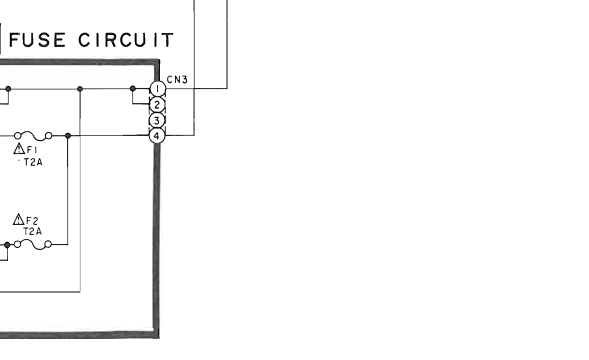
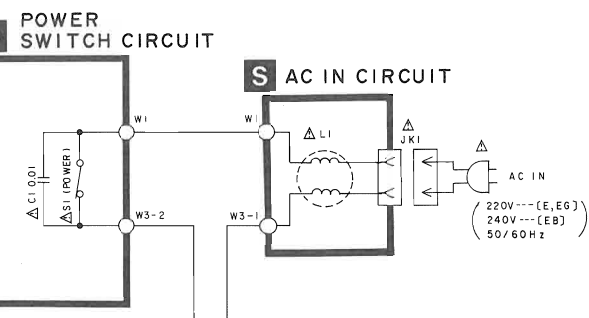
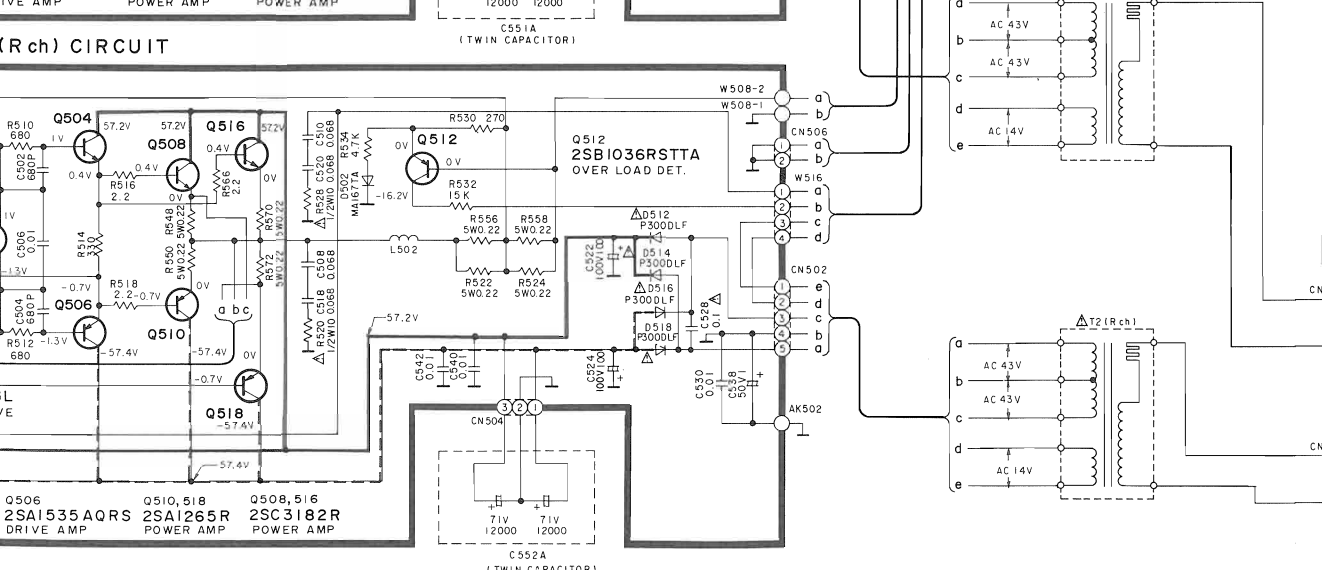
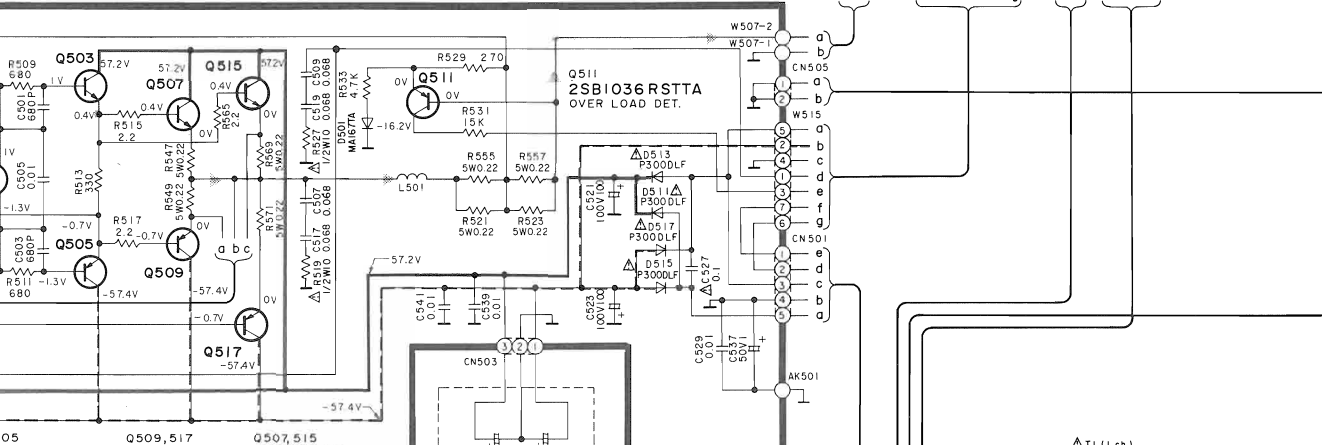
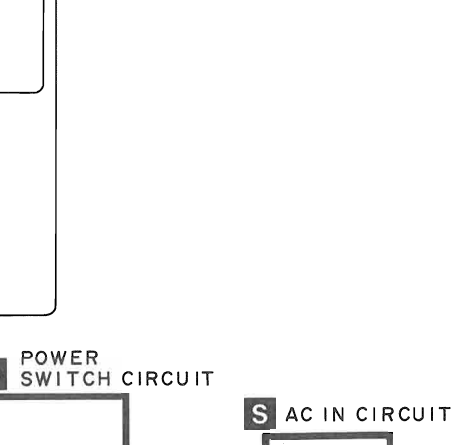
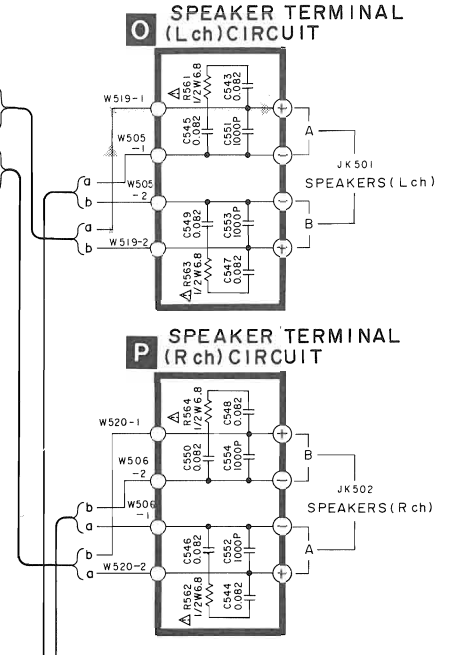
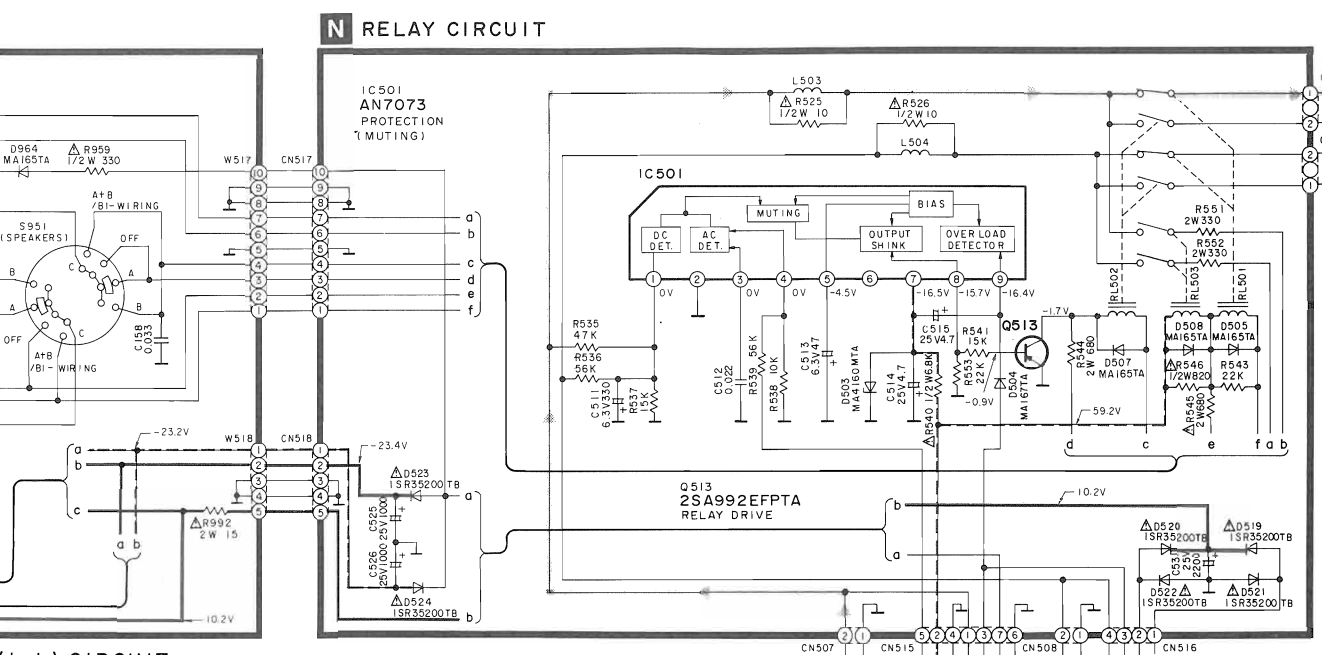
A DAC CIRCUIT







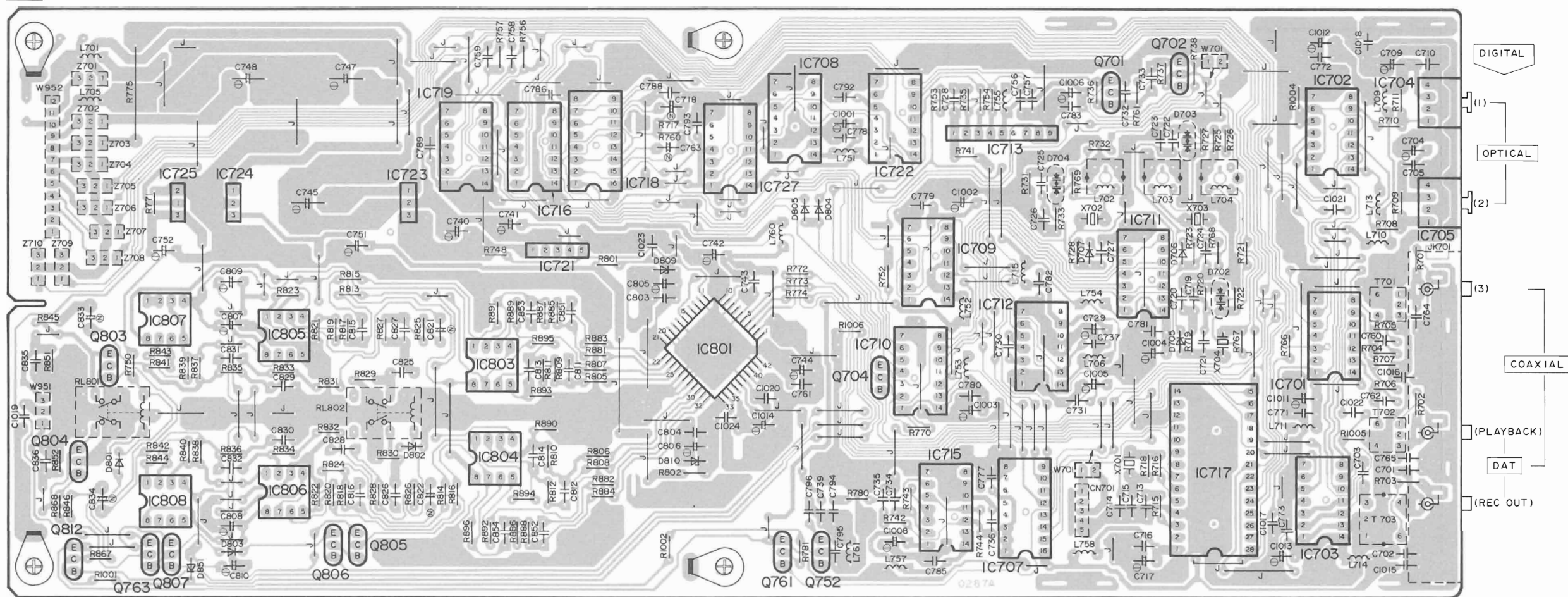




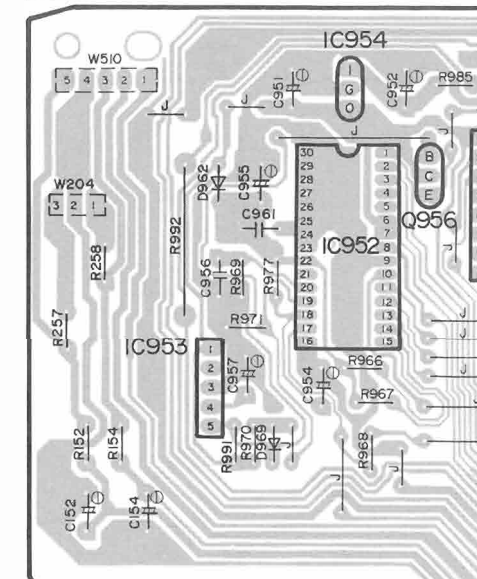
1 2 3 4 5 6 7 8 9 10

PRINTED CIRCUIT BOARDS

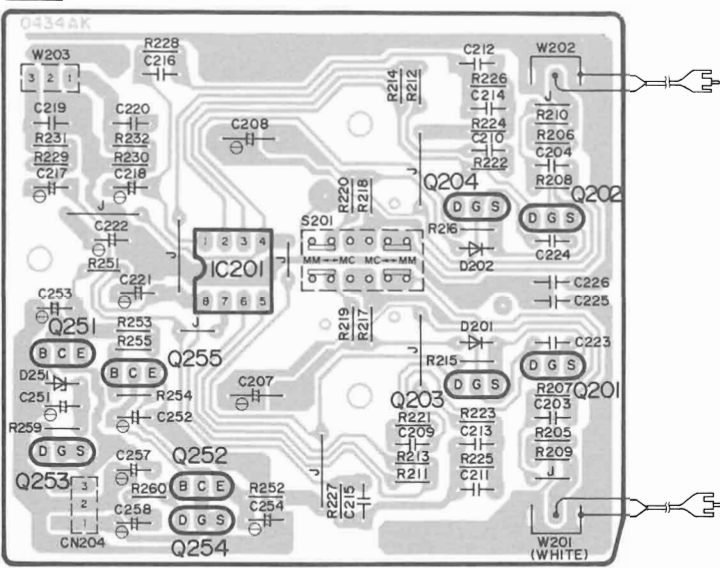
A DAC P.C.B.



F OPERATION P.C.B.

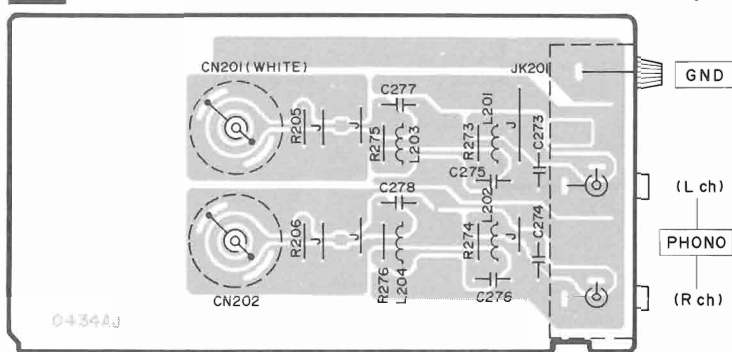


C PHONO SELECTOR P.C.B.



PHONO SELECTOR

D PHONO INPUT TERMINAL P.C.B.



ANALOG

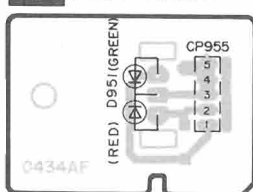
GND

(L ch)

PHONO

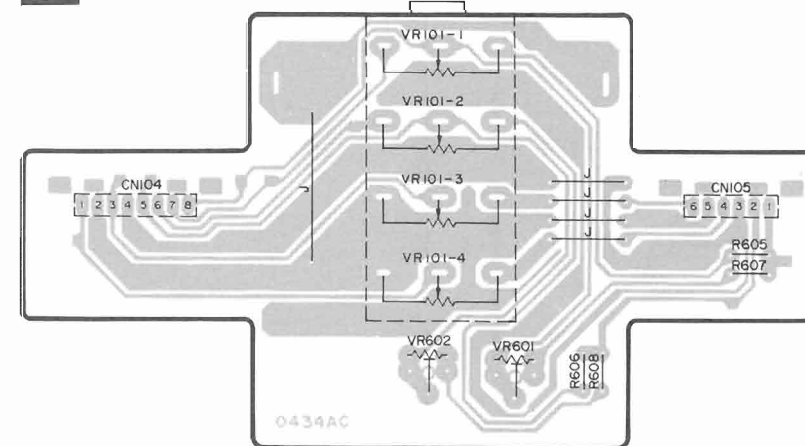
(R ch)

I LED P.C.B.

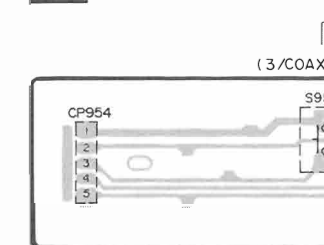


(Power Ind.)

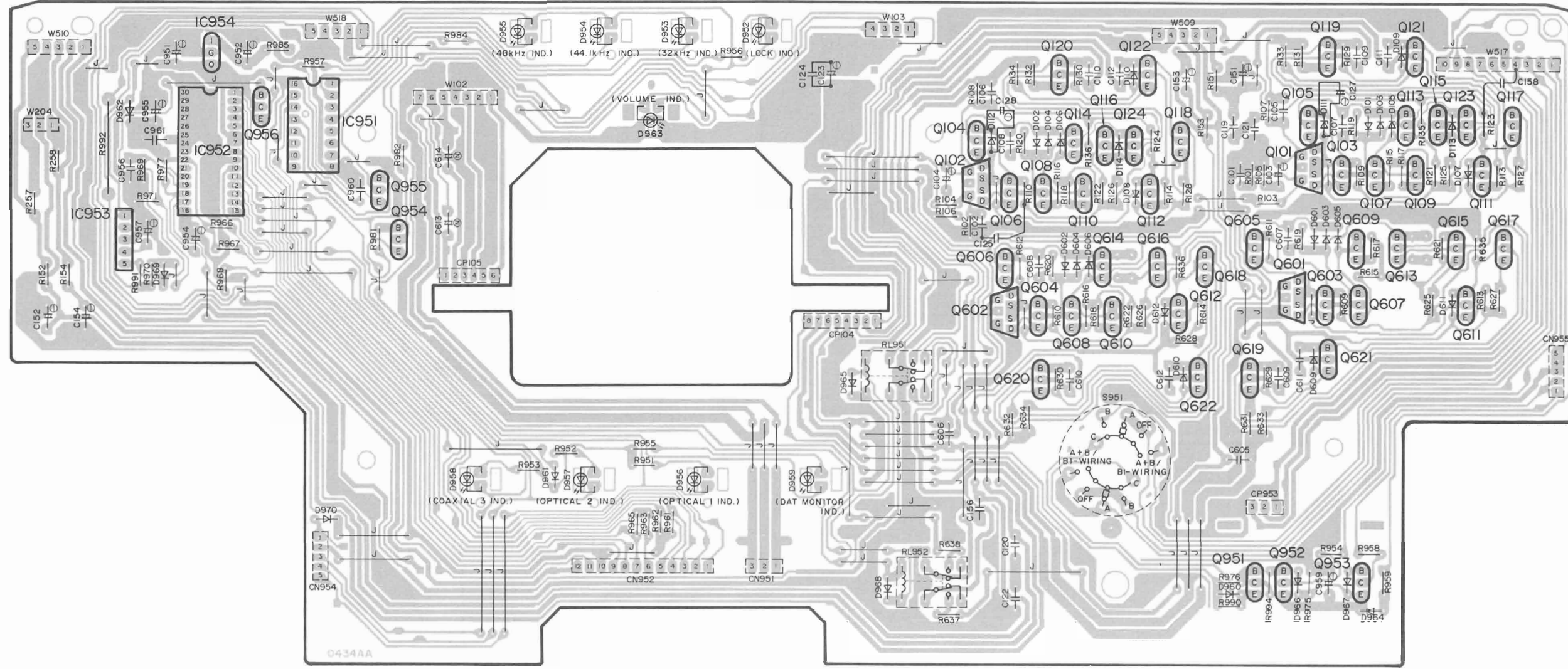
E VOLUME P.C.B.



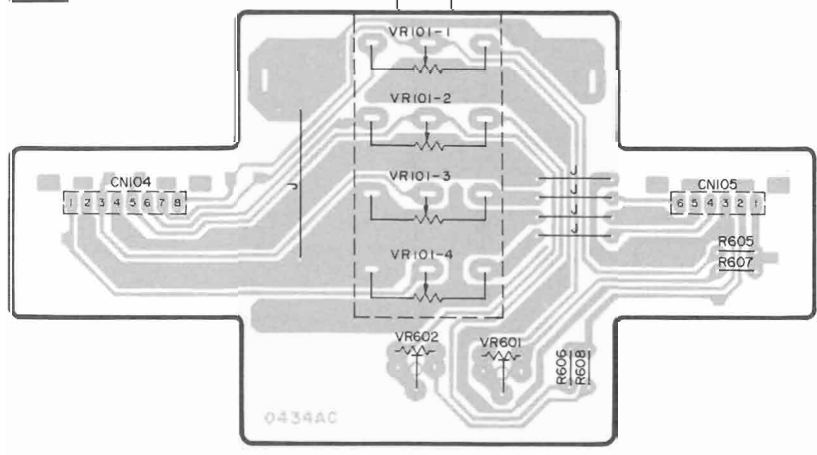
G SWITCH P.C.B.



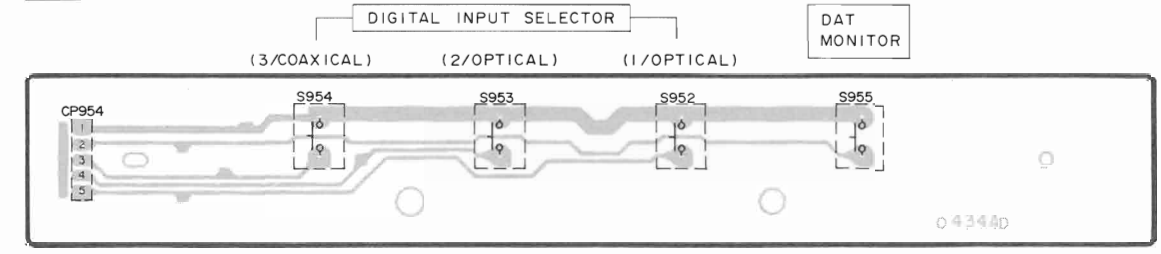
F OPERATION P.C.B.



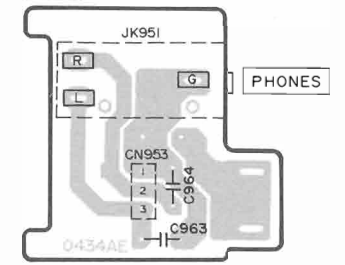
E VOLUME P.C.B.



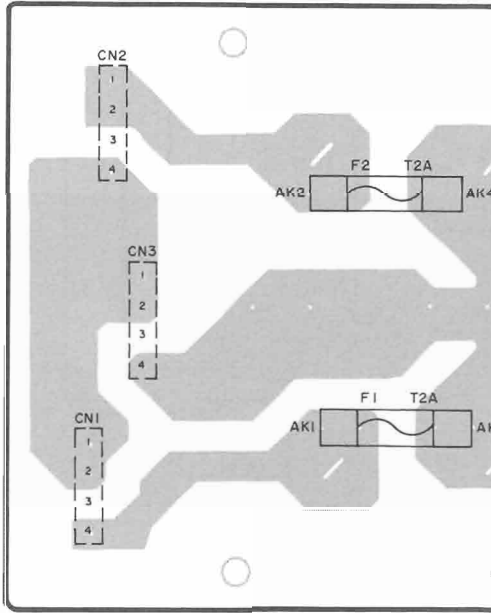
G SWITCH P.C.B.

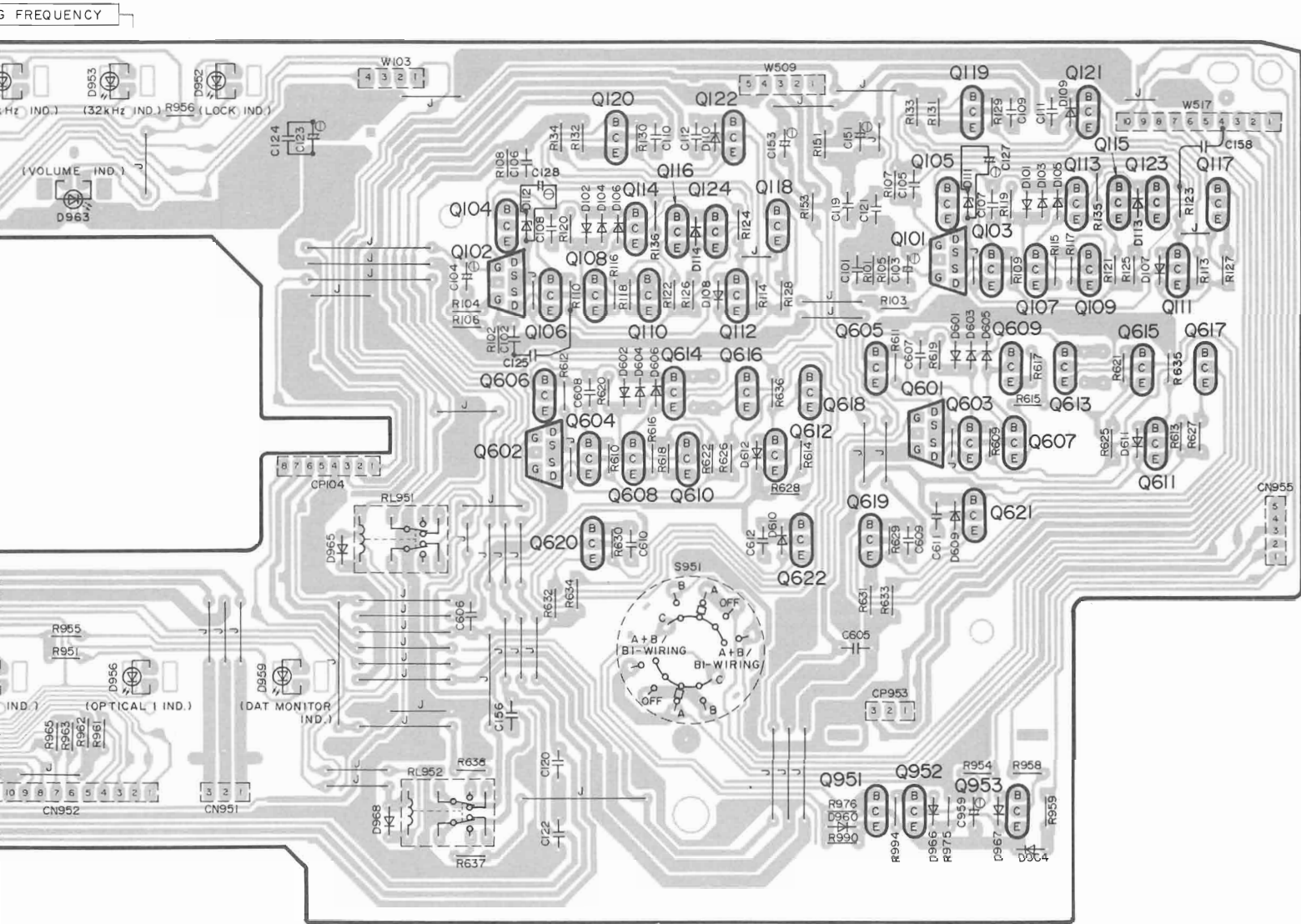


H HEADPHONES P.C.B.



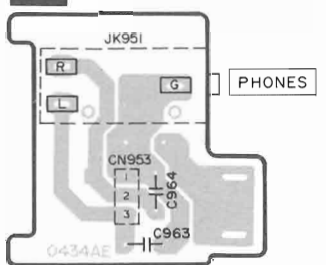
R FUSE P.C.B.



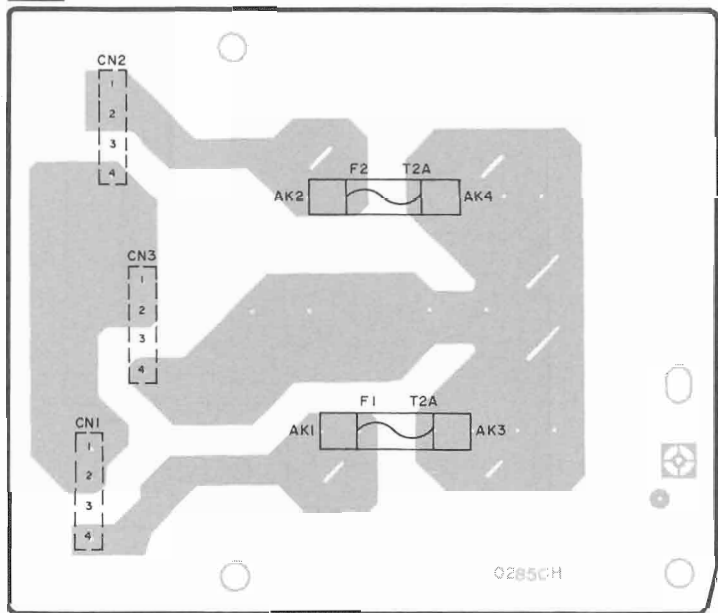


SPEAKERS

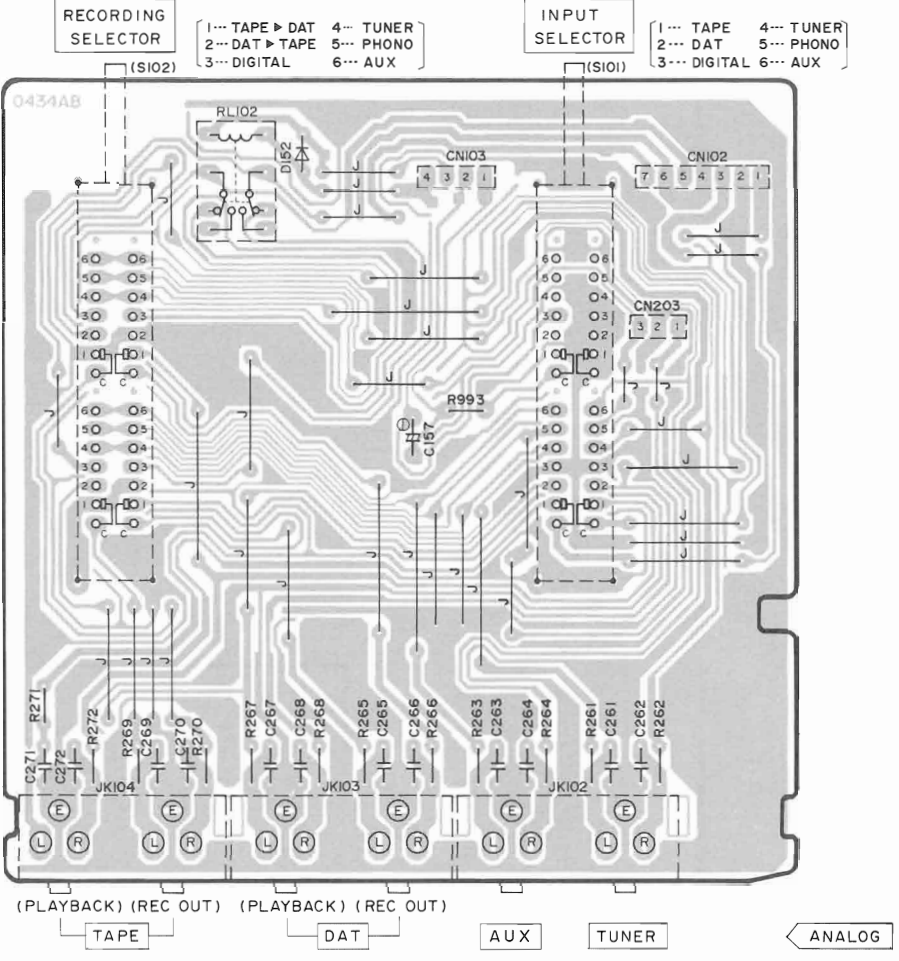
H HEADPHONES P.C.B.



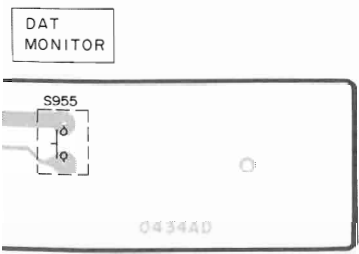
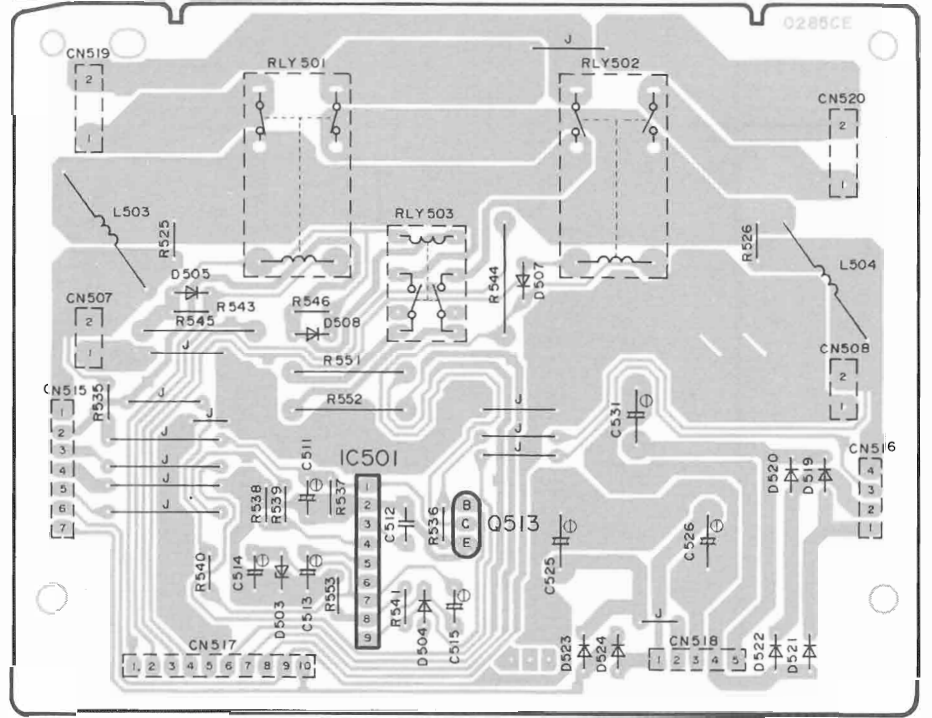
R FUSE P.C.B.



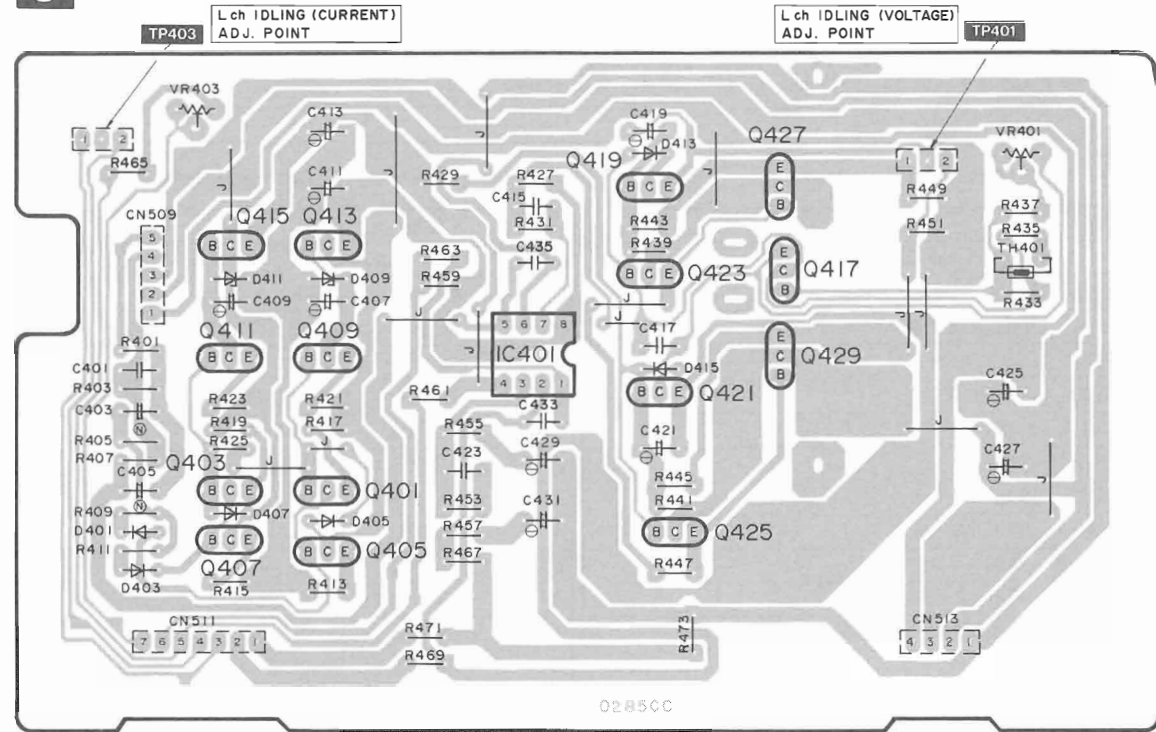
B INPUT/OUTPUT TERMINAL P.C.B.



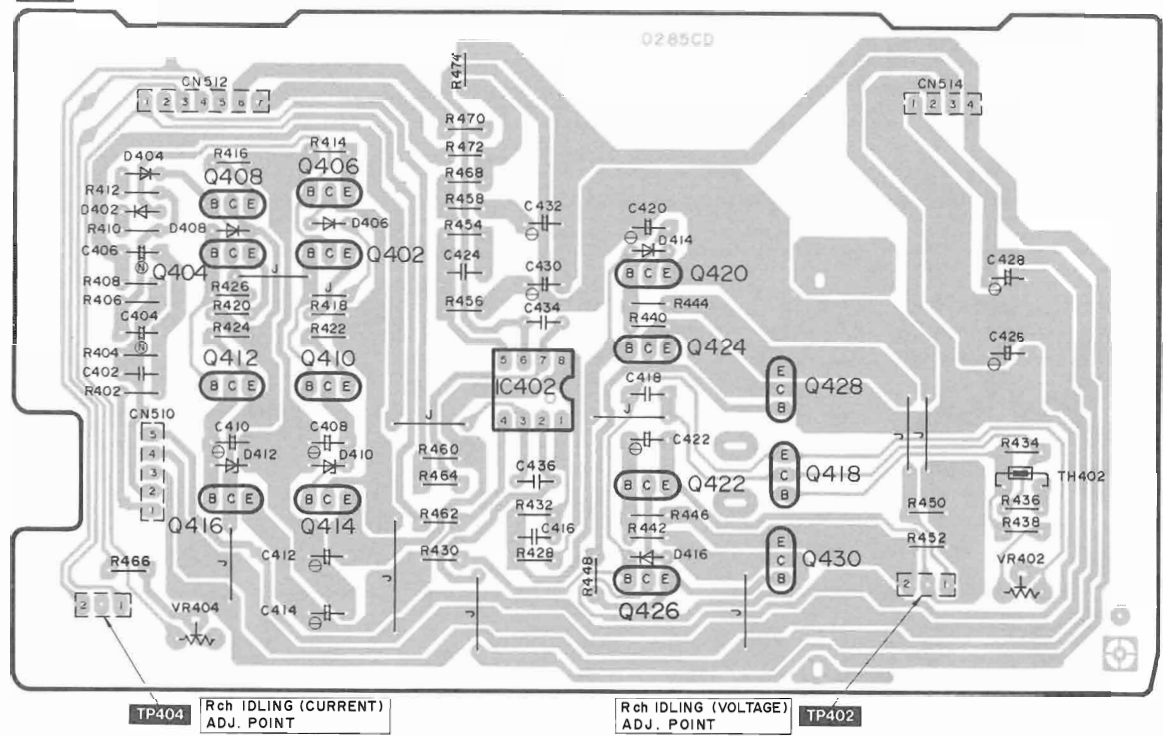
N RELAY P.C.B.



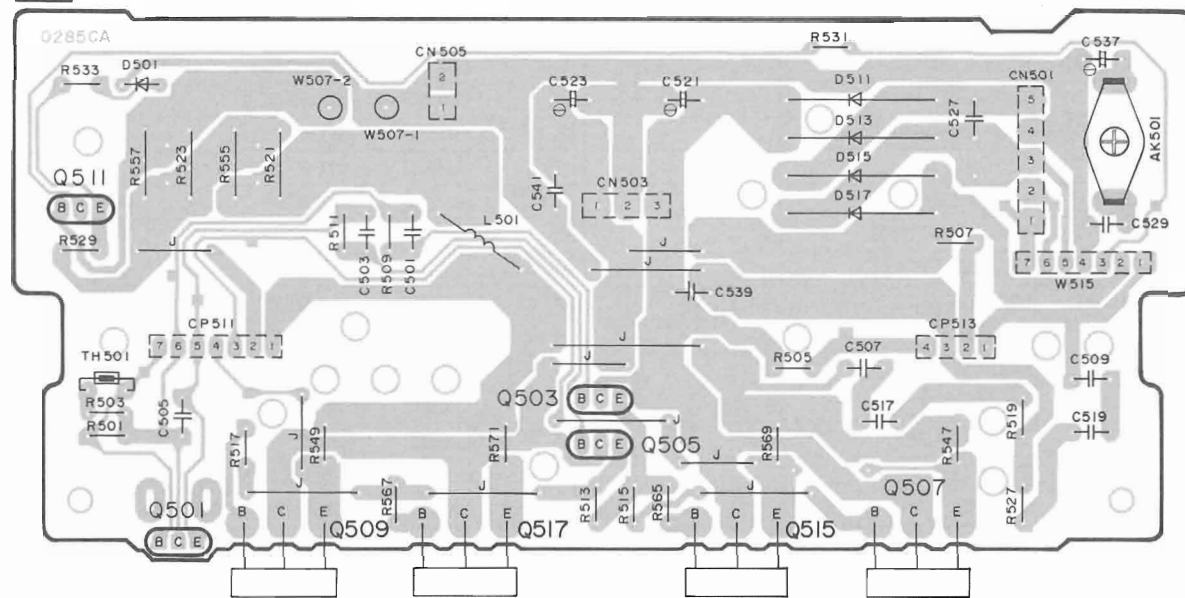
J VOLTAGE CONTROL AMP (L ch) P.C.B.



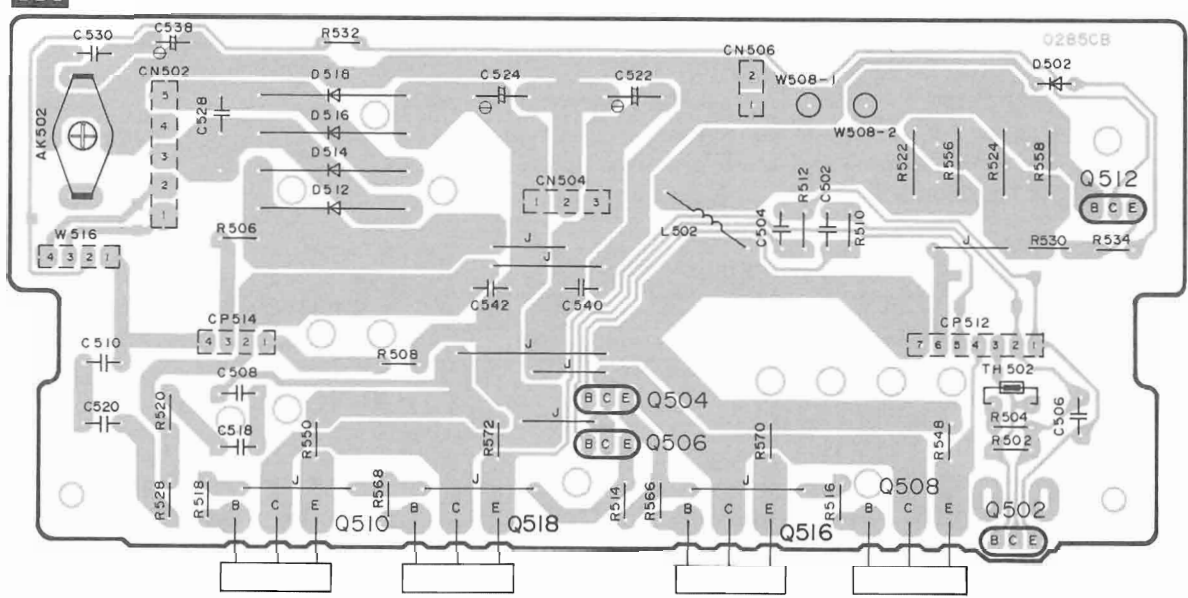
K VOLTAGE CONTROL AMP (R ch) P.C.B.



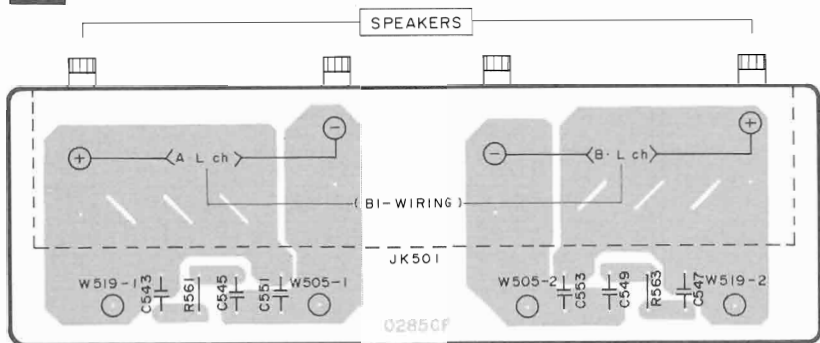
L POWER AMP (L ch) P.C.B.



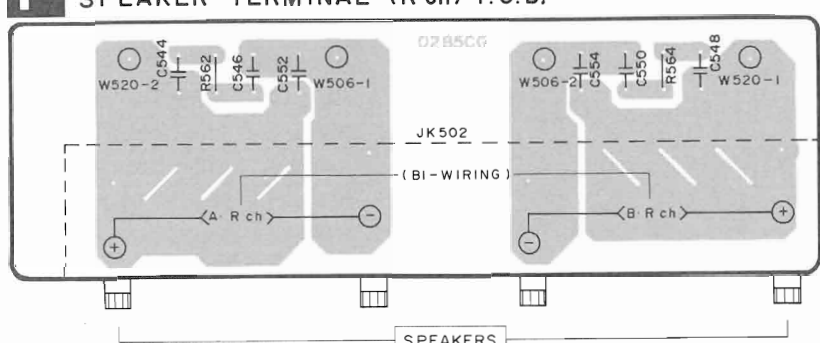
M POWER AMP (R ch) P.C.B.



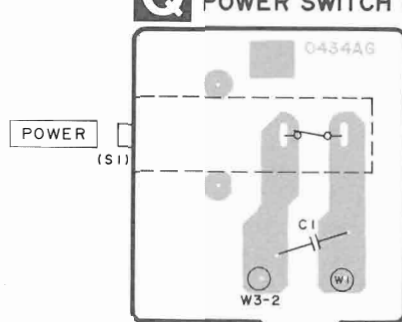
O SPEAKER TERMINAL (L ch) P.C.B.



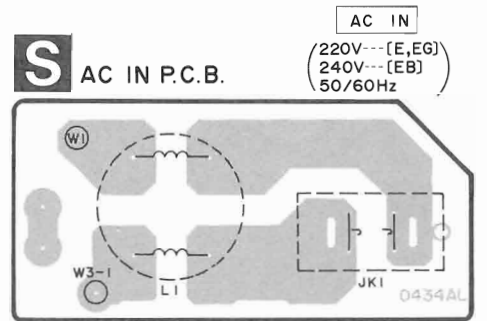
P SPEAKER TERMINAL (R ch) P.C.B.



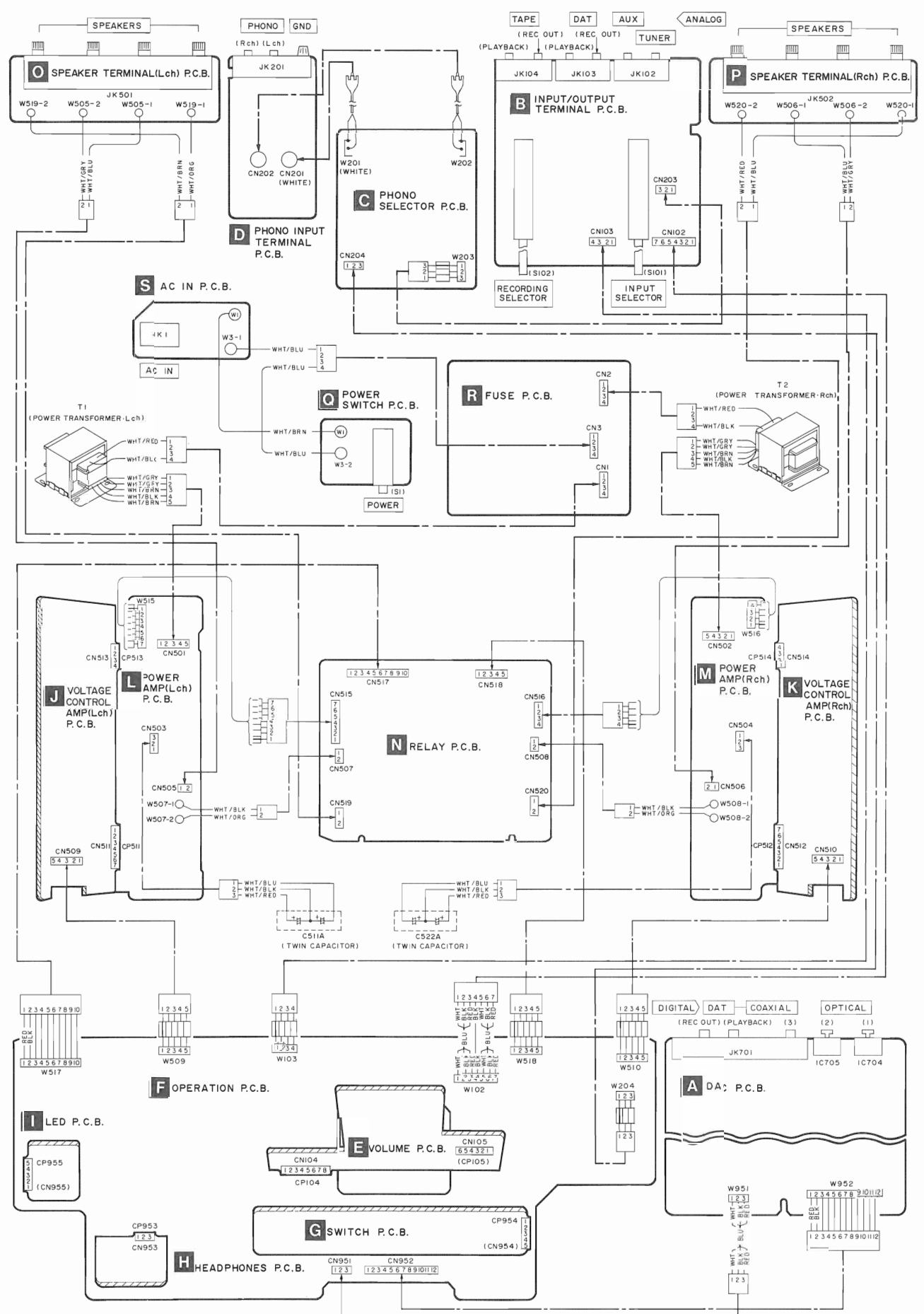
Q POWER SWITCH P.C.B.



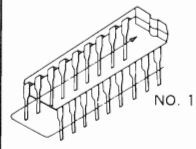
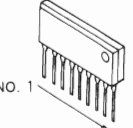
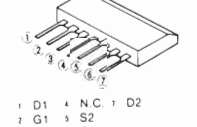
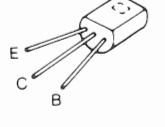
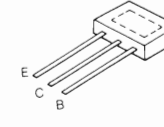
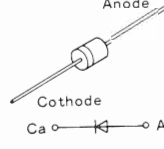
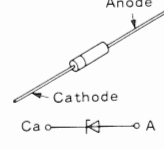
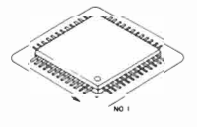
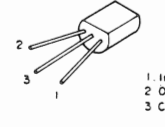
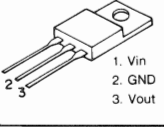
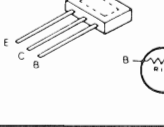
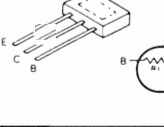
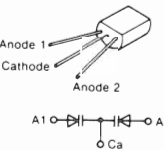
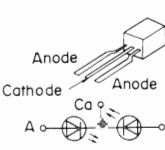
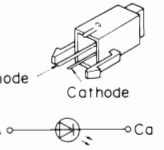
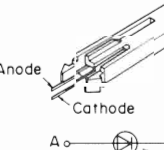
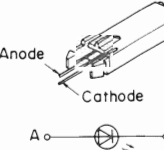
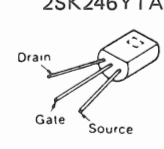
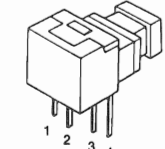
S AC IN P.C.B.



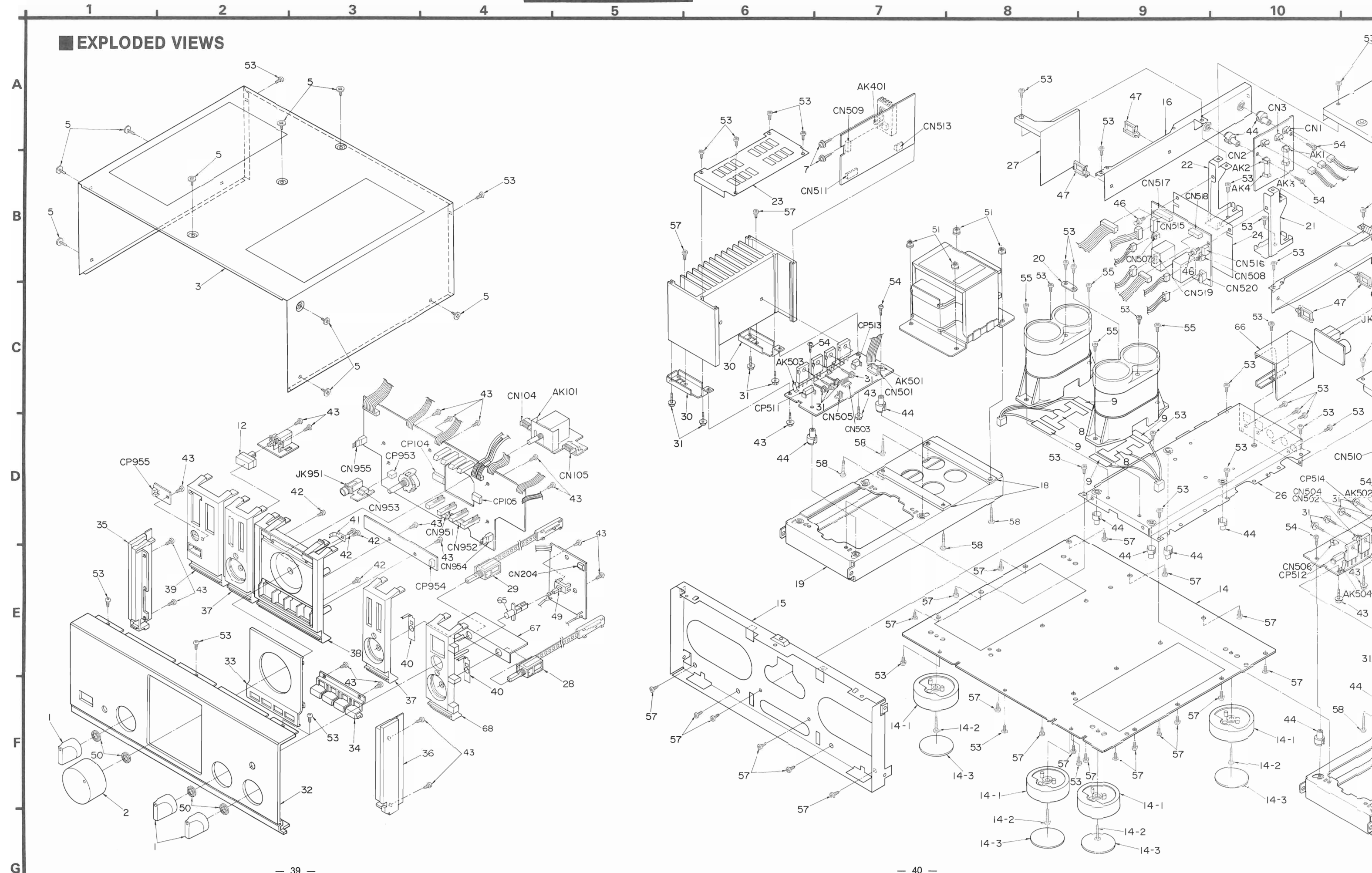
WIRING CONNECTION DIAGRAM

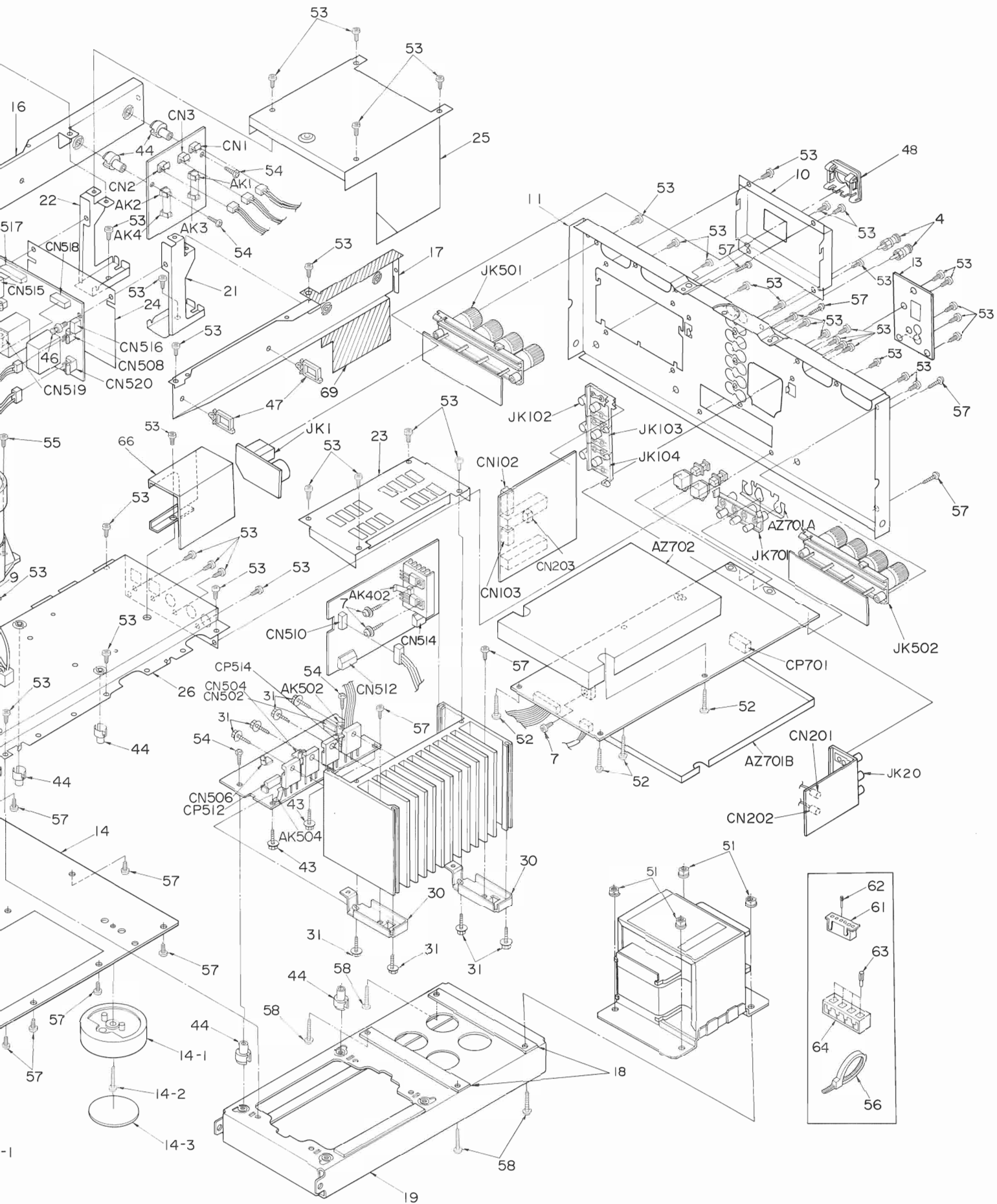


TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODE'S

 <p>IC7818 YM3623B TC74HC42P TC74HC123AP MC74HC139AN</p>	<p>30pin 28pin 16pin</p>	<p>MC74HCU04N MC74HC107N MC74HC125AN MC74HC126AN MC74HC32AN MC74HC393N</p>	<p>14pin 8pin</p>	<p>MC74HC86N TC74HC21AP SN74LS624N TC4066BP M5238P-1 M5218P</p>	<p>UPC4570C TC5081AP AN7073 M51953BL</p>	<p>9pin 5pin</p>	
<p>2SK389BG</p>  <p>1 D1 4 NC 1 D2 1 G1 1 S2 3 S1 4 G2</p>	<p>2SA992EFPTA 2SA1123RSTTA 2SB1036R 2SC2631RSTTA 2SC1815BG 2SC1845EFTA 2SA1015Y</p>	<p>2SA1535AQRS 2SC3944AQRS 2SA1265R</p> 	<p>2SA1309A-R 2SC3311A-Q 2SD1450RTA 2SD1512R 2SC3182R</p> 				
<p>P300DLF 1SR35200TB MA165TA MA167TA MA29WATA MA858TA</p>  <p>Anode Cathode Ca</p>	<p>MA4082MTA MA4160M MA4051MTA MA4180-M</p>  <p>Anode Cathode Ca</p>						
<p>MN6472 42pin</p> 	<p>AN78L05</p>  <p>1 Input 2 Output 3 Common</p>	<p>M5F78M12L M5F79M12L AN7805</p>  <p>1 Vin 2 GND 3 Vout</p>	<p>DTA114YSTP DTA124ESTP</p> 	<p>DTC124EST UN4212TA, UN4215</p> 			
<p>SVC211SPA-AL</p>  <p>Anode 1 Cathode Anode 2 A1 A2 Ca</p>	<p>LN173WP38TDA</p>  <p>Anode Cathode Ca</p>	<p>LN018304P</p>  <p>Anode Cathode A Ca</p>	<p>LN014454PH</p>  <p>Anode Cathode A Ca</p>	<p>LN013397PH</p>  <p>Anode Cathode A Ca</p>			
<p>2SK369GR 2SK246YTA</p>  <p>Drain Gate Source</p>	<p>TORX174-A</p>  <p>1 2 3 4</p>						

EXPLODED VIEWS





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
				41	SUS800	EARTH SPRING	
				42	XTBS3+10JFZ1	SCREW	
				43	XTB3+8JFZ	SCREW	
				44	SHE187-2	P. C. B. SUPPORT	
				46	SHR415	LATCH	
				47	SHR9814	LEAD CLAMPER	
				48	SJS9231A	AC INLET COVER	
				49	SUB181	ATTACH BAR	
				50	SNE4021-1	NUT	
				51	SNE4065	NUT	
				52	XTBS3+20F1	SCREW	
				53	XTBS3+8JFZ1	SCREW	
				54	XTB3+20J	SCREW	
				55	XTB4+10FFZ	SCREW	
				56	SHR301	CLAMPER	
				57	XTB4+8FFZ	SCREW	
				58	XTB4+20FFZ	SCREW	
1	RGW061-A	KNOB, SELECTOR		61	SJS5425	SOCKET (4P)	
2	RGW062	KNOB, VOLUME		61	SJS5715	SOCKET (7P)	
3	RFKUMA10E-A	CABINET ASS'Y		61	SJS5523	SOCKET (5P)	
4	SJPA11-1	SHORT PIN		61	SJS5025	SOCKET (10P)	
5	SNE2129-2	SCREW		61	SJS5331	SOCKET (3P)	
7	XYN3+F8	SCREW		61	SJS5033	SOCKET (12P)	
8	RKFUV900AK	BOOST BAR ASS'Y 1		62	SJT783	CONTACT	
9	RKFUV900BK	BOOST BAR ASS'Y 2		63	SJT785	CONTACT	
10	RGR0069B-A	SUB REAR PANEL		64	SJS5431	SOCKET (4P)	
11	RGR0070C-A	REAR PANEL	(E)	64	SJS5717	SOCKET (7P)	
11	RGR0070C-B	REAR PANEL	(EB)	64	SJS5027	SOCKET (10P)	
11	RGR0070C-C	REAR PANEL	(EG)	64	SJS5337	SOCKET (3P)	
12	RGU0283-1A	BUTTON, POWER		64	SJS5051	SOCKET (12P)	
13	RGR0097	PHONO TERMINAL PLATE		64	SJS5217	SOCKET (2P)	
14	RFKJUV900AK	CHASSIS ASS'Y		65	RGU0282-A	BUTTON, PHONO SELECTOR	
14-1	RKA0035	FOOT		66	RSC0132	PHONO SHIELD CASE	
14-2	XTB4+20FFZ	SCREW		67	RSC0142	PHONO SHIELD PLATE	
14-3	SKYD4	FOOT RUBBER		68	RGK0209A	SELECTOR HOLDER	
15	RFKNMA10E-A	FRONT ANGLE ASS'Y		69	RSC0141	SHIELD CASE (A)	
16	RMA0250	SIDE ANGLE (L)				PACKING MATERIAL	
17	RMA0251	SIDE ANGLE (R)					
18	SHG6352-3	RUBBER, TRANSFORMER					
19	RFKJUMA10E-A	TRANS CHASSIS ASS'Y		P1	RPG0555	PACKING CASE	
20	RMQ0112-1	CAPACITOR ANGLE		P2	RPN0238A-1	PAD (FRONT)	
21	RMQ0113	ANGLE (R)		P3	RPN0238B-1	PAD (BACK)	
22	RMQ0114	ANGLE (L)		P4	SPH223	KRAFT PAPER	
23	RMY0036	SUB RADIATOR		P5	SPH6434	PROTECTION SHEET	
24	RMZ0079	INSULATION SHEET		P6	SPB1061	PROTECTION BAG (F. B.)	
25	RSC0077-1	SHIELD CASE				ACCESSORIES	
26	RSC0078-1	DAC CASE					
27	RSC0115	SHIELD PLATE					
28	RSQ0009-1	RELEASE (INPUT)					
29	RSQ0013	RELEASE (REC)					
30	RMQ0111	RADIATOR ANGLE					
31	SNE2117-1	SCREW					
32	RFKGUMA10E-A	FRONT PANEL ASS'Y					
33	RFKNMA10AA	SUB PANEL ASS'Y					
34	RGU0284	BUTTON, SELECTOR					
35	RGK0207-1A	SIDE ORNAMENT (L)					
36	RGK0208-A	SIDE ORNAMENT (R)					
37	RGK0209	SELECTOR HOLDER					
38	RFKNMA10BA	VOLUME ORNAMENT					
39	RGK0211-1	POWER SW HOLDER					
40	RMC0065	EARTH SPRING					

Ref.No.	Part No.	Part Name & Description	Remarks	Ref.No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT (S)		Q252	2SA1535AQRS	TRANSISTOR	
				Q253, 254	2SK246YTA	TRANSISTOR	
				Q255	2SA1015Y	TRANSISTOR	
IC201	UPC4570C	IC, BUFFER AMP		Q401, 402	2SA1123RSTTA	TRANSISTOR	
IC401, 402	M5218P	IC, POWER AMP		Q403-406	2SC2631RSTTA	TRANSISTOR	
IC501	AN7073	IC, MUTING		Q407-410	2SA1123RSTTA	TRANSISTOR	
IC701	MC74HC04N	IC, INVERTER		Q411-414	2SC2631RSTTA	TRANSISTOR	
IC702	MC74HC126AN	IC, INPUT SELECTOR		Q415, 416	2SA1123RSTTA	TRANSISTOR	
IC703	MC74HC125AN	IC, BUFFER AMP		Q417, 418	2SC1815BG	TRANSISTOR	
IC704, 705	TORX174-A	IC, DIGITAL INPUT(OPTICAL)		Q419, 420	2SC3311A-Q	TRANSISTOR	
IC707	MC74HC139AN	IC, VCXO SELECT SW.		Q421, 422	2SA1309A-R	TRANSISTOR	
IC708	MC74HC393N	IC, DUAL 4 BIT BINARY COUNT		Q423, 424	2SC2631RSTTA	TRANSISTOR	
IC709	MC74HC107N	IC, J-K FLIP FLOP		Q425, 426	2SA1123RSTTA	TRANSISTOR	
IC710	TC74HC21AP	IC, AND GATE		Q427, 428	2SC3944AQRS	TRANSISTOR	
IC711	MC74HC04N	IC, INVERTER		Q429, 430	2SA1535AQRS	TRANSISTOR	
IC712	SN74LS624N	IC, VCO		Q501, 502	2SC1815BG	TRANSISTOR	
IC713	TC5081AP	IC, PLL		Q503, 504	2SC3944AQRS	TRANSISTOR	
IC715	MC74HC86N	IC, EXCLUSIVE OR GATE		Q505, 506	2SA1535AQRS	TRANSISTOR	
IC716	MC74HC32AN	IC, OR GATE		Q507, 508	2SC3182R	TRANSISTOR	
IC717	YM3623B	IC, DIGITAL SIGNAL PROCESSOR		Q509, 510	2SA1265R	TRANSISTOR	
IC718	TC74HC123AP	IC, FLIP FLOP		Q511, 512	2SB1036R	TRANSISTOR	
IC719	MC74HC86N	IC, EXCLUSIVE OR GATE		Q513	2SA992EFPTA	TRANSISTOR	
IC721	M51953BL	IC, RESET		Q515, 516	2SC3182R	TRANSISTOR	
IC722	TC4066BP	IC, SWITCHING		Q517, 518	2SA1265R	TRANSISTOR	
IC723	AN7805	IC, REGULATOR		Q601, 602	2SK389BG	TRANSISTOR	
IC724	M5F78M12L	IC, REGULATOR		Q603-606	2SD1512R	TRANSISTOR	
IC725	M5F79M12L	IC, REGULATOR		Q607-610	2SA1309A-R	TRANSISTOR	
IC727	MC74HC107N	IC, J-K FLIP FLOP		Q611, 612	2SC1845EFTA	TRANSISTOR	
IC801	MN6472	IC, DIGITAL FILTER&D/A CONV.		Q613, 614	2SB1036R	TRANSISTOR	
IC803-808	M5238P-1	IC, DIFFERENTIAL AMP		Q615, 616	2SA1123RSTTA	TRANSISTOR	
IC951	TC74HC42P	IC, LED DRIVE		Q617-620	2SC2631RSTTA	TRANSISTOR	
IC952	LC7818	IC, INPUT SELECTOR		Q621, 622	2SA1123RSTTA	TRANSISTOR	
IC953	M51953BL	IC, VOLTAGE COMPARATOR		Q701, 702	2SC3311A-Q	TRANSISTOR	
IC954	AN78L05	IC, REGULATOR		Q704	UN4215	TRANSISTOR	
		TRANSISTOR (S)		Q752	2SD1450RTA	TRANSISTOR	
				Q761	DTA124ESTP	TRANSISTOR	
				Q763	UN4212TA	TRANSISTOR	
Q101, 102	2SK389BG	TRANSISTOR		Q803, 804	2SD1450RTA	TRANSISTOR	
Q103-106	2SD1512R	TRANSISTOR		Q805	DTC124EST	TRANSISTOR	
Q107-110	2SA1309A-R	TRANSISTOR		Q806, 807	DTA124ESTP	TRANSISTOR	
Q111, 112	2SC1845EFTA	TRANSISTOR		Q812	DTA124ESTP	TRANSISTOR	
Q113, 114	2SB1036R	TRANSISTOR		Q951	2SC1845EFTA	TRANSISTOR	
Q115, 116	2SA1309A-R	TRANSISTOR		Q952	DTA124ESTP	TRANSISTOR	
Q117-120	2SC2631RSTTA	TRANSISTOR		Q953	DTA114YSTP	TRANSISTOR	
Q121-124	2SA1123RSTTA	TRANSISTOR		Q954	2SC3311A-Q	TRANSISTOR	
Q201-204	2SK369GR	TRANSISTOR		Q955	DTA124ESTP	TRANSISTOR	
Q251	2SC3944AQRS	TRANSISTOR		Q956	2SC3311A-Q	TRANSISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
		DIODE(S)	
D101-106	MA165	DIODE	
D107-110	MA29WA	DIODE	
D111, 112	MA4082MTA	DIODE	
D113, 114	MA29WA	DIODE	
D152	MA165	DIODE	
D201, 202	MA165	DIODE	
D251	MA4180-M	DIODE	
D401-404	MA165	DIODE	
D405-408	MA29WA	DIODE	
D409-412	MA4082MTA	DIODE	
D413-416	MA165	DIODE	
D501, 502	MA167	DIODE	
D503	MA4160M	DIODE	
D504	MA167	DIODE	
D505	MA165	DIODE	
D507, 508	MA165	DIODE	
D511-518	P300DLF	DIODE	△
D519-524	1SR35200TB	DIODE	△
D601-606	MA165	DIODE	
D609-612	MA29WA	DIODE	
D702-704	SVC211SPA-AL	DIODE	
D705-707	MA858TA	DIODE	
D801-805	MA165	DIODE	
D809, 810	MA4051MTA	DIODE	
D851	MA4051MTA	DIODE	
D951	LN173WP38TDA	DIODE	
D952-955	LN013397PH	DIODE	
D956-959	LN014454PH	DIODE	
D960	MA29WA	DIODE	
D961, 962	MA165	DIODE	
D963	LN018304P	DIODE	
D964-970	MA165	DIODE	
		VARIABLE RESISTOR(S)	
VR101	EWCL7A225479	V. R. VOLUME	
VR401, 402	EVNMOAA00B52	V. R. ICQ(V-AMP) ADJ.	
VR403, 404	EVNMOAA00B52	V. R. ICQ(I-AMP) ADJ.	
VR601, 602	EVNDXAA00B23	V. R. AMP GAIN ADJ.	
		THERMISTOR(S)	
TH401, 402	ERTD2WHL104S	THERMISTOR	
TH501, 502	ERTD2WHL104S	THERMISTOR	
		COMPONENT COMBINATION(S)	
Z701-710	EXCEMT103DTB	COMPONENT COMBINATION	

Ref. No.	Part No.	Part Name & Description	Remarks
		COIL(S)	
L1	SLQZ650MH49	COIL	△
L201-204	RLQX101K-V	COIL	
L501, 502	SLQY07G-40	COIL	
L503, 504	SLQY18G-10	COIL	
L701	ELEPK470KA	COIL	
L702	RL09B003-M	COIL	
L703	RL09B002-M	COIL	
L704	RL09B004-M	COIL	
L705	ELEPK470KA	COIL	
L706	ELEPK4R7KA	COIL	
L709-711	ELEPK470KA	COIL	
L713, 714	ELEPK470KA	COIL	
L715	ELEPK4R7KA	COIL	
L751-755	ELEPK470KA	COIL	
L757, 758	ELEPK470KA	COIL	
L760	ELEPK470KA	COIL	
L761	ELEPKR22MA	COIL	
		TRANSFORMER(S)	
T1, 2	RFKCUA10E	POWER TRANSFORMER ASS'Y	△(E)
T1, 2	RFKCUA10E-A	POWER TRANSFORMER ASS'Y	△(EG)
T1, 2	RFKCUA10EBA	POWER TRANSFORMER ASS'Y	△(EB)
T701, 702	SLQB20G-1P	TRANSFORMER	
T703	SLZS10VN17-1	TRANSFORMER	
		OSCILLATOR(S)	
X701	SVQAT1693A	OSCILLATOR	
X702	RSXA16M9S01	OSCILLATOR	
X703	RSXA18M4S01	OSCILLATOR	
X704	RSXA12M2S01	OSCILLATOR	
		FUSE(S)	
F1, 2	XBA2C20TB0	FUSE	△
		SWITCH(ES)	
S1	ESB8279V	SW, POWER	△
S101, 102	RSS6D001	SW, INPUT SELECTOR	
S201	ESB68126	SW, PHONO	
S951	RSR4B002	SW, SPEAKERS	
S952	EVQ21405R	SW, DIGITAL INPUT 1	
S953	EVQ21405R	SW, DIGITAL INPUT 2	
S954	EVQ21405R	SW, DIGITAL INPUT 3	
S955	EVQ21405R	SW, DAT MONITOR	
		EARTH MATERIAL(S)	

Ref. No.	Part No.	Part Name & Description	Remarks
AK1-4	EYF52BC	FUSE HOLDER	
AK101	RSC0010	SHIELD PLATE	
AK401, 402	SUS227	EARTH SPRING	
AK501, 502	SNE1004-1	GND PLATE	
AK503, 504	SUS227	EARTH SPRING	
		SHIELD PLATE(S)	
AZ701A	RSCD104-1	SHIELD PLATE	
AZ701B	RSCD116	SHIELD PLATE	
AZ702	RSCD103	SHIELD PLATE	
		CONNECTOR(S) & SOCKET(S)	
CN1-3	RJPIA4204-1	CONNECTOR (3P)	
CN102	SJT3709	CONNECTOR (7P)	
CN103	SJT3415	CONNECTOR (4P)	
CN104	RJU003K008M1	SOCKET (8P)	
CN105	RJU003K006M1	SOCKET (6P)	
CN201, 202	SJF3105N	TERMINAL BOARD	
CN203	SJT3319	CONNECTOR (3P)	
CN204	SJT3321	CONNECTOR (3P)	
CN501, 502	RJPIA3505	CONNECTOR (5P)	
CN503, 504	RJPIA3303	CONNECTOR (3P)	
CN505-508	RJPIA3202	CONNECTOR (2P)	
CN509, 510	SJT3511	CONNECTOR (5P)	
CN511, 512	SJT30745JQ	CONNECTOR (7P)	
CN513, 514	SJT30445JQ	CONNECTOR (4P)	
CN515	SJT3709	CONNECTOR (7P)	
CN516	SJT3415	CONNECTOR (4P)	
CN517	SJT3005	CONNECTOR (10P)	
CN518	SJT3511	CONNECTOR (5P)	
CN519, 520	RJPIA4103	CONNECTOR (3P)	
CN951	SJT3321	CONNECTOR (3P)	
CN952	SJT3017	CONNECTOR (12P)	
CN953	SJT30345JQ	CONNECTOR (3P)	
CN954	SJT30548BB	CONNECTOR (5P)	
CN955	SJT30549BB	CONNECTOR (5P)	
CP104	RJT003K008M1	CONNECTOR (8P)	
CP105	RJT003K006M1	CONNECTOR (6P)	
CP511, 512	SJS50778JQ	SOCKET (7P)	
CP513, 514	SJS50478JQ	SOCKET (4P)	
CP701	SJS50581BB	SOCKET (5P)	
CP953	SJS50378JQ	SOCKET (3P)	
CP954, 955	SJS50581BB	SOCKET (5P)	
		RELAY(S)	
RL102	RSYG5A237P12	RELAY	
RL501, 502	RSY0004-1	RELAY	
RL503	RSYG5A237P12	RELAY	
RL801, 802	RSYG5A237P12	RELAY	

Ref. No.	Part No.	Part Name & Description	Remarks
RL951, 952	RSYG5A237P12	RELAY	
		JACK(S)	
JK1	SJS9231-1B	JACK, AC INLET	△
JK102	SJF3069-4N	JACK, TUNER/AUX	
JK103	SJF3069N	JACK, DAT	
JK104	SJF3069N	JACK, TAPE	
JK201	SJF3067-1N	JACK, PHONO	
JK501	RJH4403	JACK, SPEAKER	
JK502	RJH4403	JACK, SPEAKER	
JK701	SJF3061-16A	JACK, DAT (COAXIAL)	
JK951	SJJD19	JACK, HEADPHONE	

Ref. No.	Part No.	Values & Remarks						
C756	ECBT1E103ZF	25V 0.01U						
C757	ECBT1C472KR5	16V 4700P						
C758-762	ECBT1H104ZF5	50V 0.1U						
C763	ECEA1CN100SB	16V 10U						
C764, 765	ECBT1E103ZF	25V 0.01U						
C771-773	ECBT1H104ZF5	50V 0.1U						
C777-783	ECBT1H104ZF5	50V 0.1U						
C785, 786	ECBT1H104ZF5	50V 0.1U						
C788, 789	ECBT1H104ZF5	50V 0.1U						
C792, 793	ECBT1H104ZF5	50V 0.1U						
C794	ECBT1H121KB5	50V 120P						
C795	ECCR1H121JC5	50V 120P						
C796	ECBT1H270J5	50V 27P						
C803, 804	ECBT1H104ZF5	50V 0.1U						
C805, 806	ECA0JPKS221B	6.3V 220U						
C807-810	ECA1CPXS470B	16V 47U						
C811, 812	ECHR1H151JZ3	50V 150P						
C813, 814	ECCR1H150KC5	50V 15P						
C815, 816	ECHR1H101JZ3	50V 100P						
C821, 822	ECEA1CBZ330B	16V 33U						
C825, 826	ECHR1H822JZ3	50V 8200P						
C827, 828	ECHR1H331JZ3	50V 330P						
C829, 830	ECHR1H102JZ3	50V 1000P						
C831, 832	ECHR1H121JZ3	50V 100P						
C833, 834	ECEA1CBZ221E	16V 220U						
C835, 836	ECQM1H472JZ	50V 4700P						
C851, 852	ECHR1H151JZ3	50V 150P						
C853, 854	ECCR1H150KC5	50V 15P						
C951	ECEA0JU101B	6.3V 100U						
C952	ECEA1EK100	25V 10U						
C954	ECEA1CK100B	16V 10U						
C955	ECEA0JU102	6.3V 1000U						
C956	ECQV1H473JZ3	50V 0.047U						
C957	ECEA1EK3R3B	25V 3.3U						
C959	ECEA1CU101	16V 100U						
C960, 961	ECBT1H104ZF5	50V 0.1U						
C963, 964	ECKT1H102KB	50V 1000P						
C1001-1006	ECEA0JU101B	6.3V 100U						
C1008	ECEA0JU101B	6.3V 100U						
C1011-1013	ECEA0JU101B	6.3V 100U						
C1014	ECA0JPKS221B	6.3V 220U						
C1015-1018	ECBT1H102KB5	50V 1000P						
C1019-1024	ECBT1H104ZF5	50V 0.1U						

PACKING

