

Service Manual

Digital Integrated Amplifier

Amplifier

SU-X501

Color

(K) Black Type



Area

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

SPECIFICATIONS

(DIN 45 500)

■ AMPLIFIER SECTION

DIN power output	
1 kHz THD: 1 %	2 × 60 W (8 Ω)
Total harmonic distortion	
rated power at 1 kHz	1 % (8 Ω)
Harmonic distortion	
half power at 1 kHz	0.009 % (8 Ω)
Residual hum and noise	0.2 mV
Damping factor	30 (8 Ω)
Input sensitivity and impedance	
PHONO	3 mV/47 kΩ
TUNER, AUX, TAPE 1, TAPE 2	150 mV/22 kΩ
CD	200 mV/22 kΩ
Maximum input voltage (1 kHz, RMS)	
PHONO	100 mV
S/N (rated power 8 Ω)	
PHONO	75 dB (IHF, A: 79 dB)
TUNER, CD, AUX, TAPE 1, TAPE 2	82 dB (IHF, A: 83 dB)
Frequency response	
PHONO	RIAA standard curve ±0.8 dB (30 Hz~15 kHz)
TUNER, CD, AUX, TAPE 1, TAPE 2	15 Hz~55 kHz (-3 dB)
CD, DAT, AUX (digital section)	15 Hz~20 kHz (-0.5 dB)
Tone controls	
BASS	50 Hz, +10 dB~-10 dB
TREBLE	20 kHz, +10 dB~-10 dB
Muting	-20 dB
Super bass	70 Hz, +10 dB

Output voltage

TAPE 1, TAPE 2, REC OUT 150 mV

Channel balance, AUX 250 Hz~6,300 Hz ±1.0 dB

Channel separation, (TUNER, 1 kHz) (A SPEAKER) 60 dB

Headphones output level and impedance 520 mV/330 Ω

Load impedance

A or B 8 Ω~16 Ω

SURROUND 8 Ω~16 Ω

■ GENERAL

Power consumption 300 W

Power supply

For Great Britain and Oceania AC 50 Hz/60 Hz, 240 V

For Continental Europe F.R. Germany and Italy AC 50 Hz/60 Hz, 220 V

For others AC 50 Hz/60 Hz, 110 V/127 V/220 V/240 V

Dimensions (W × H × D) 360 × 128 × 300 mm

(14-3/16" × 5-1/32" × 11-13/16")

Weight 6.6 kg (14.5 lb.)

Notes:

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

Technics

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

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■ BEFORE REPAIR

- (1) Turn off the power supply. Using a 10Ω, 5 W resistor connect both ends of power supply capacitors (C711, C712, 4700 μF) in order to discharge the voltage.
- (2) Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50 Hz/60 Hz in NO SIGNAL mode should be shown below with respect to supply voltage 110 V/127 V/220 V/240 V.

Power supply voltage	AC 110 V	AC 127 V	AC 220 V	AC 240 V
Consumed current 50 Hz	300~750 mA	270~680 mA	150~400 mA	130~360 mA
Consumed current 60 Hz	300~750 mA	270~680 mA	150~400 mA	130~360 mA

■ PROTECTION CIRCUITRY

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

*No sound is heard when the power is switched ON.

*Sound stops during a performance.

The 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 this unit are used.

If this occurs, follow the procedure outlined below:

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

Note:

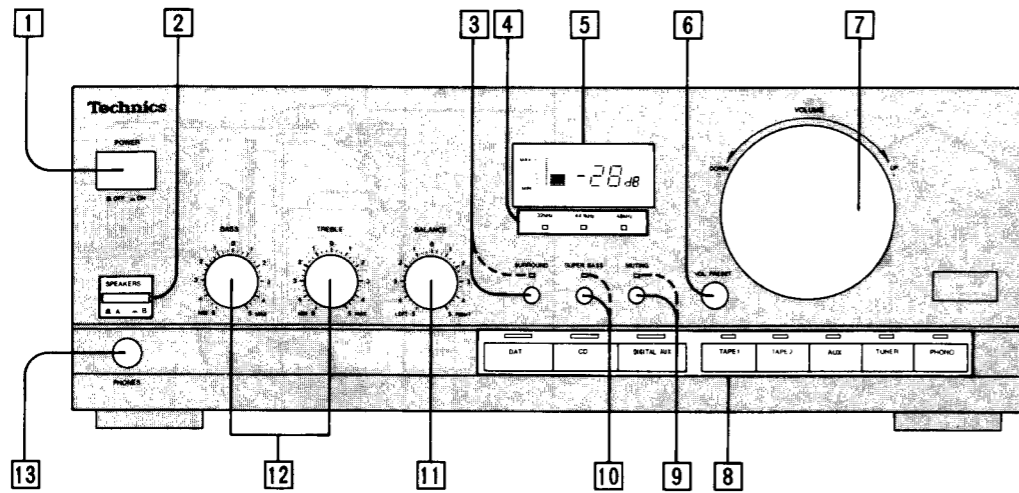
When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

■ ACCESSORIES

●AC power supply cord	1	●Attachment AC plug	1
Configuration of AC power supply cord differs according to area.			
SJA173	For (GN) area only.	SJP9215... For (GC) area only	
SJA188	For (EB) area only.		
RJA0004	For (GC) area only.		
SFDAC05E03	For others.		

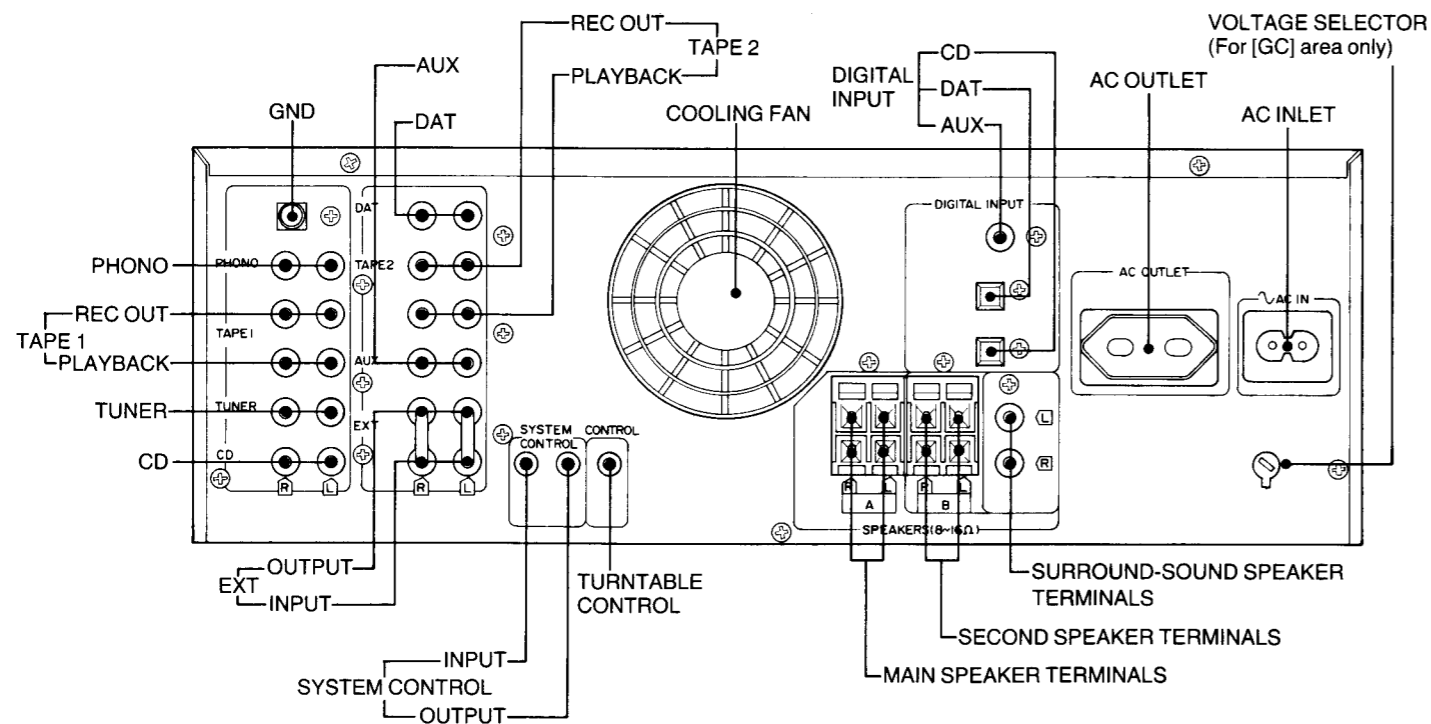
LOCATION OF CONTROLS

Front panel



- | | |
|--|---|
| <p>1 Power switch (POWER)</p> <p>2 Speaker selector (SPEAKERS)</p> <p>3 Surround-sound switch/indicator (SURROUND)</p> <p>4 Sampling frequency indicators
 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</p> <p>5 Volume-level indicator</p> | <p>6 Volume preset button (VOL PRESET)</p> <p>7 Volume control (VOLUME)</p> <p>8 Input selectors/indicators</p> <p>9 Audio muting switch/indicator (MUTING)</p> <p>10 Super bass switch/indicator (SUPER BASS)</p> <p>11 Balance control (BALANCE)</p> <p>12 Tone controls (BASS/TREBLE)</p> <p>13 Headphones jack (PHONES)</p> |
|--|---|

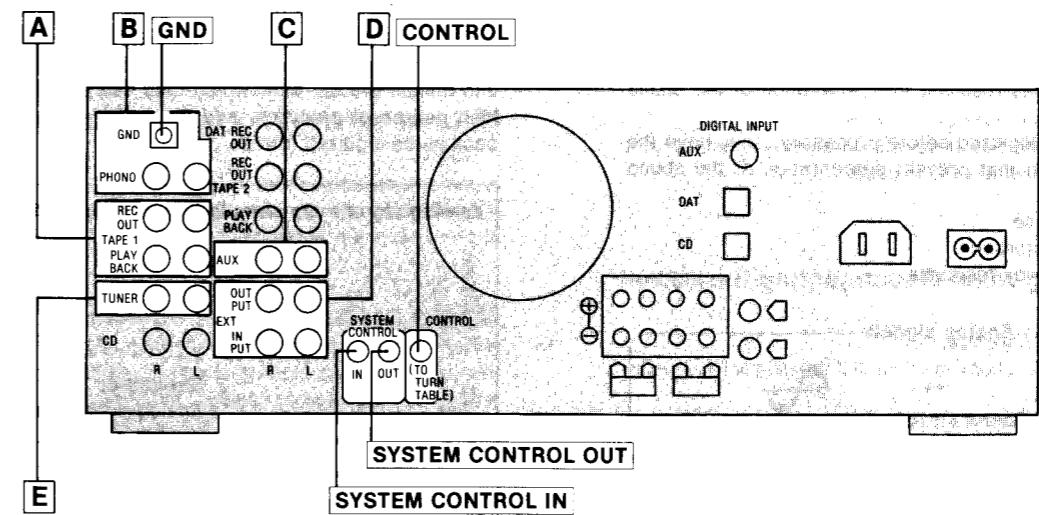
Rear panel



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

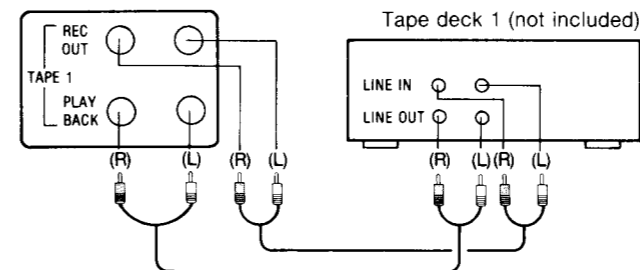
CONNECTIONS

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



A "TAPE 1" terminals

Connect a first tape deck.

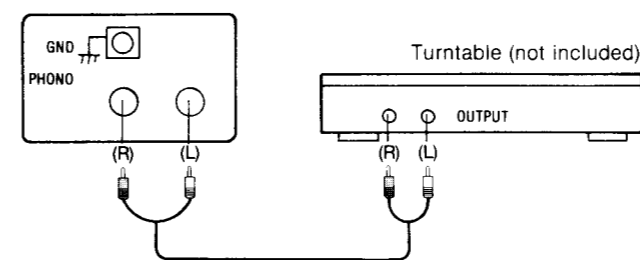


"SYSTEM CONTROL OUT" terminal

This terminal is used to connect a Technics tape deck with the control terminal.

B "PHONO" terminals

Connect a turntable.



"GND" terminal

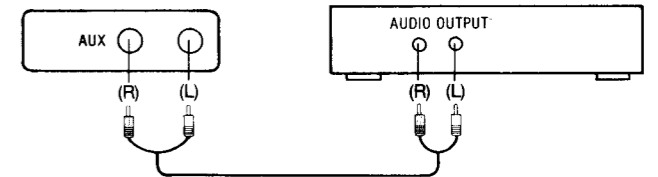
This terminal is for use with a turntable which has a ground wire.

"CONTROL" terminal

This terminal is used to connect a Technics turntable with the remote-control terminal.

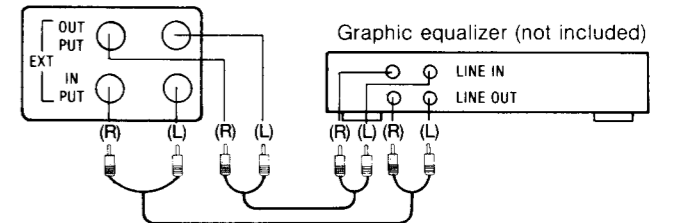
C "AUX" terminals

Connect a video disc player (Only the audio is connectable), etc.
Video disc player (not included)

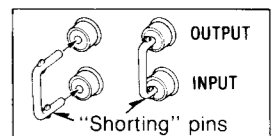


D "EXT" terminals

Connect a graphic equalizer.

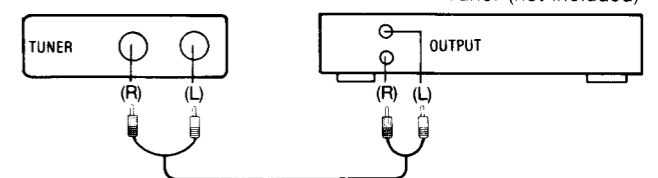


Note: When these terminals are not in use, be sure to insert the "shorting" pins (included).



E "TUNER" terminals

Connect a tuner.

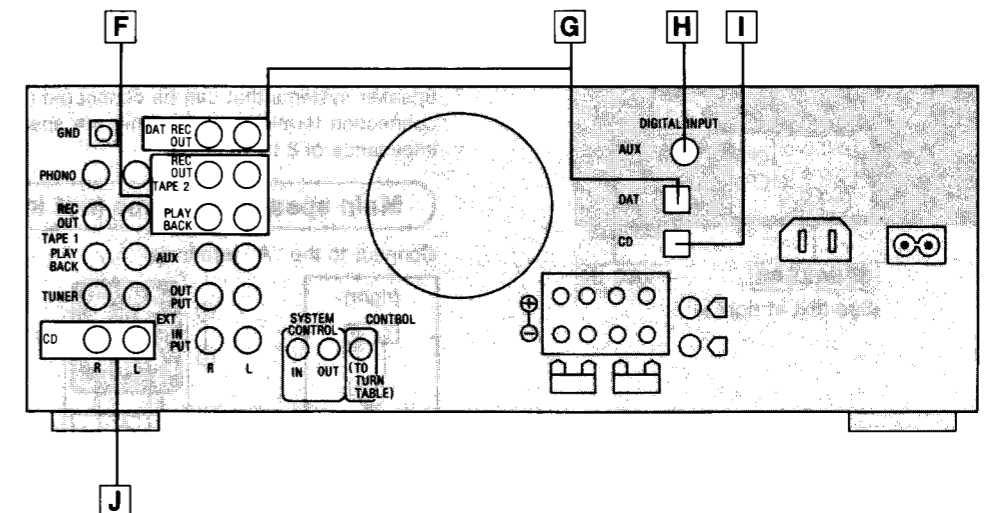
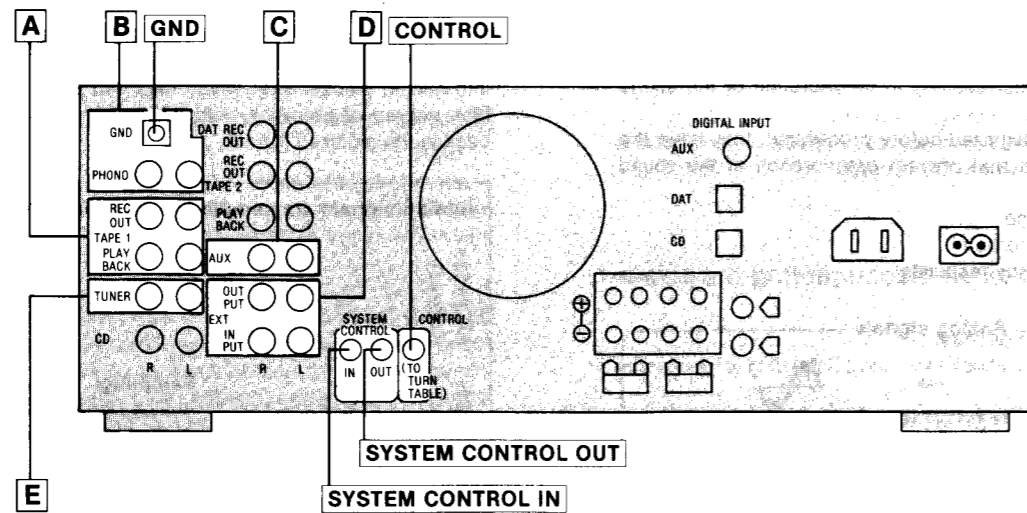


"SYSTEM CONTROL IN" terminal

This terminal is used to connect a Technics tuner with the control terminal.

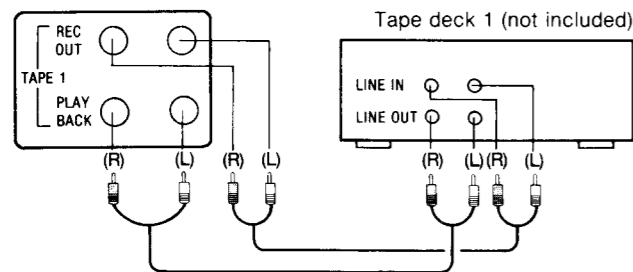
CONNECTIONS

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



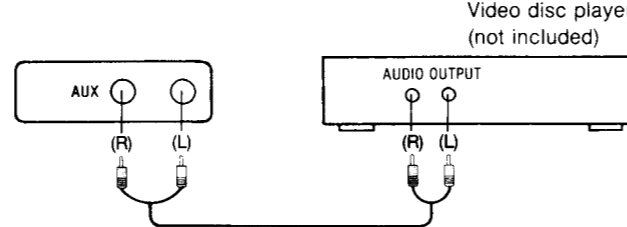
A "TAPE 1" terminals

Connect a first tape deck.



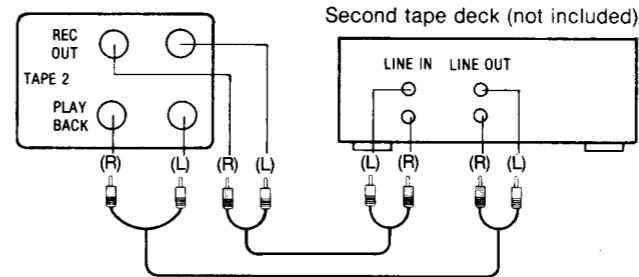
C "AUX" terminals

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



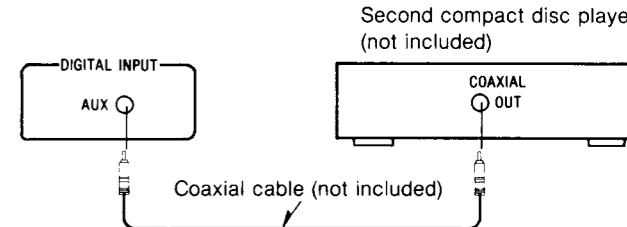
F "TAPE 2" terminals

Connect a video cassette recorder (for audio only) or a second tape deck.



H "AUX" terminal (DIGITAL)

Connect a second compact disc player, etc.

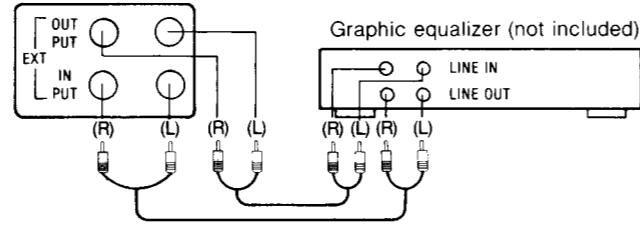


"SYSTEM CONTROL OUT" terminal

This terminal is used to connect a Technics tape deck with the control terminal.

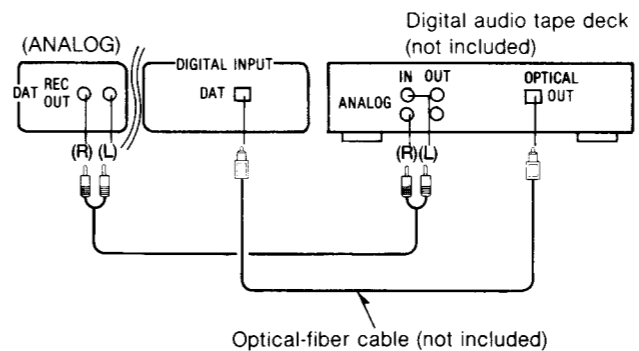
D "EXT" terminals

Connect a graphic equalizer.



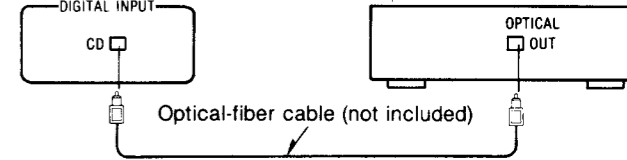
G "DAT" terminals (DIGITAL)

Connect a digital audio tape deck. Recordings can be made to the digital audio tape deck.



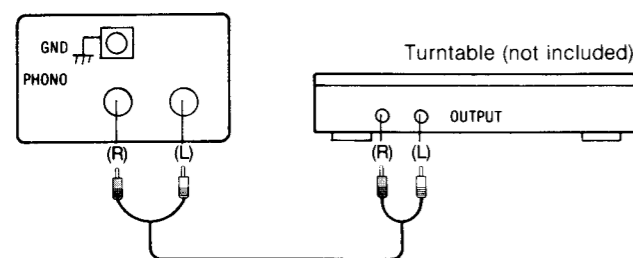
I "CD" terminal (DIGITAL)

Connect a compact disc player.



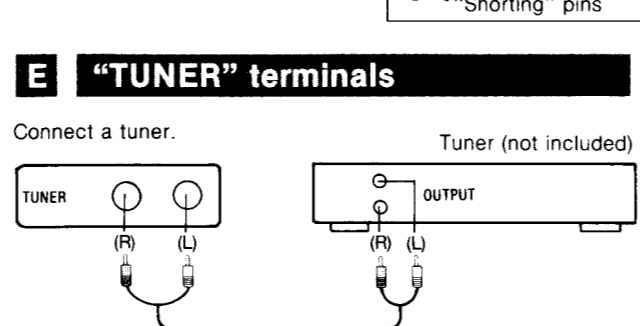
B "PHONO" terminals

Connect a turntable.



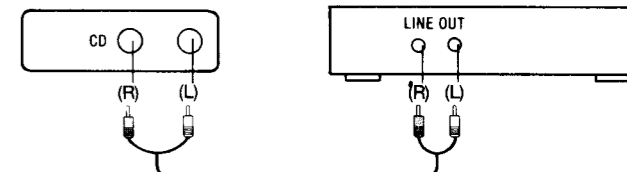
E "TUNER" terminals

Connect a tuner.



J "CD" terminals (ANALOG)

Connect a compact disc player.



"GND" terminal

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

"CONTROL" terminal

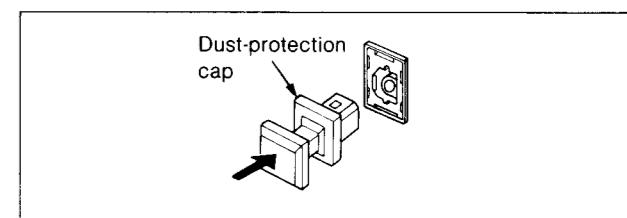
This terminal is used to connect a Technics turntable with the remote-control terminal.

"SYSTEM CONTROL IN" terminal

This terminal is used to connect a Technics tuner with the control terminal.

"DIGITAL INPUT" (DAT, CD) terminals of this unit

These terminals are protected by dust-protection caps to avoid damage by dust, etc. Remove the caps only when the "DIGITAL INPUT" terminals are to be used. When these terminals are not being used, attach the caps as shown in the illustration at the right.



(RESET)

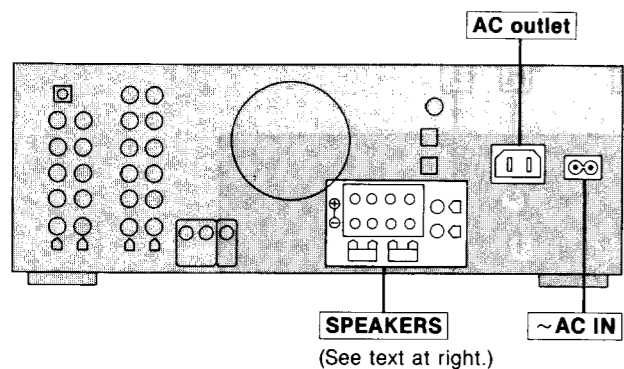
(MUTING) (PER BASS)

VOLTAGE SELECTOR (or [GC] area only)

AC INLET

SPEAKER

ALS



AC outlet ("AC OUTLET")

Do not connect video equipment (such as a TV, etc.) to the AC outlet of this unit. (This outlet is intended for audio equipment.) Do not exceed the indicated power ratings when connecting to this outlet.

"UNSWITCHED" outlet:

Power is always available, regardless of power switch. Audio equipment rated up to 60 W can be connected here.

Note:

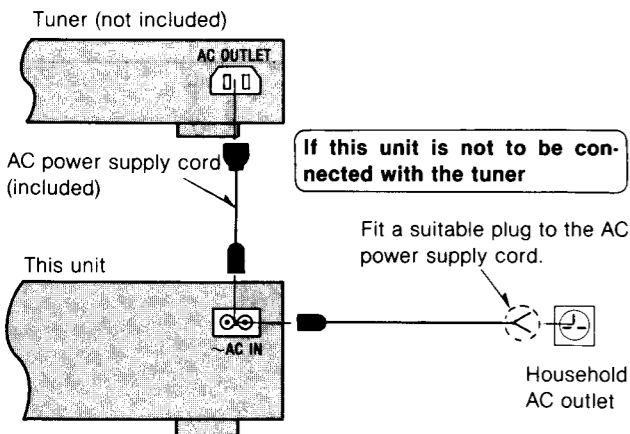
The configuration of the AC outlet differs according to area.

AC power supply cord

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

Note:

• Configuration of the AC outlet and AC power supply cord differ according to area.

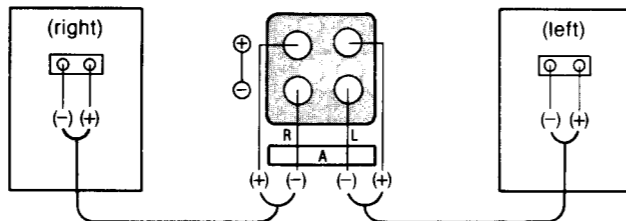


Connection of speaker systems

Three pairs of speaker systems (main, second, surround-sound) can be connected to this unit. Speaker systems that can be connected (to any of the speaker connection terminals of this unit) are speaker systems with an impedance of 8 to 16 ohms.

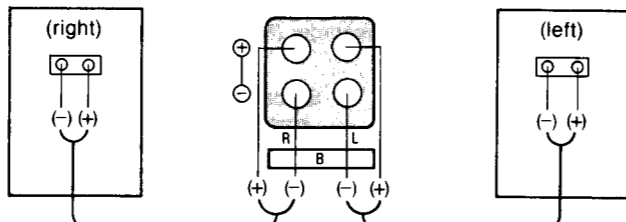
Main speaker systems (not included)

Connect to the "A" terminals.



Second speaker systems (not included)

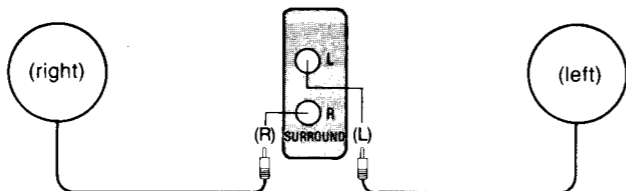
Connect to the "B" terminals.



Surround-sound speaker systems (not included)

Connect to the "SURROUND" terminals.

• Be sure to connect both speaker systems. If only one side is connected, no sound will be heard.



To connect cords to terminals

- Strip off the outer covering, and twist the center conductor. Twist
- Tilt the lever back and insert the cord.
- Close the lever and pull the cord gently to be sure that it is secure.

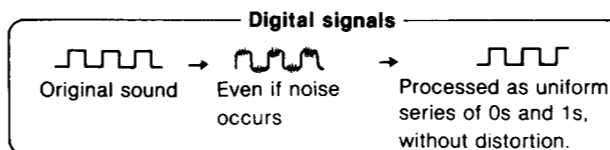
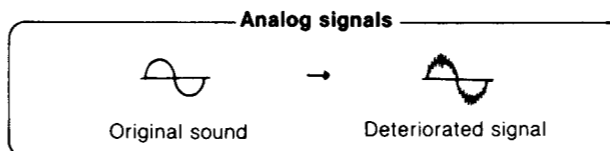
Note: Be sure to only connect positive (+) cords to positive (+) terminals, and negative (-) cords to negative (-) terminals.

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

DIGITALIZATION OF AUDIO SIGNALS

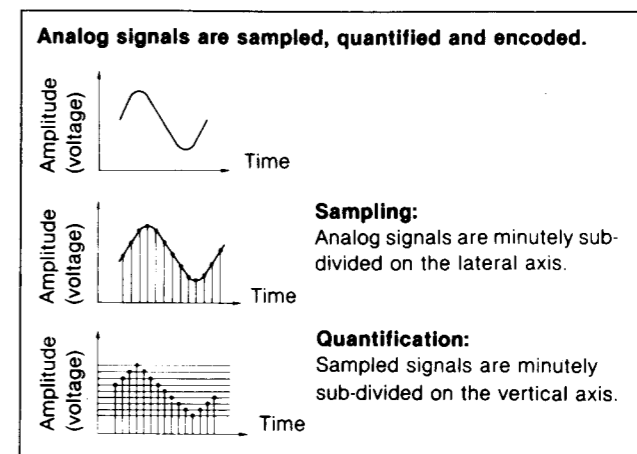
Why digitize?

- Audio signals are analog signals with a continuous form.
- When these audio signals are subjected to repeated electronic processing (recording, playback, etc.), they become noisy and distortion occurs, thus resulting in deterioration of the sound quality.
- If these signals are digitized before processing, they have the following advantages that prevent deterioration of the sound quality:
 - ① Resistance to noise
 - ② Extremely low distortion
 - ③ Flat, even frequency response

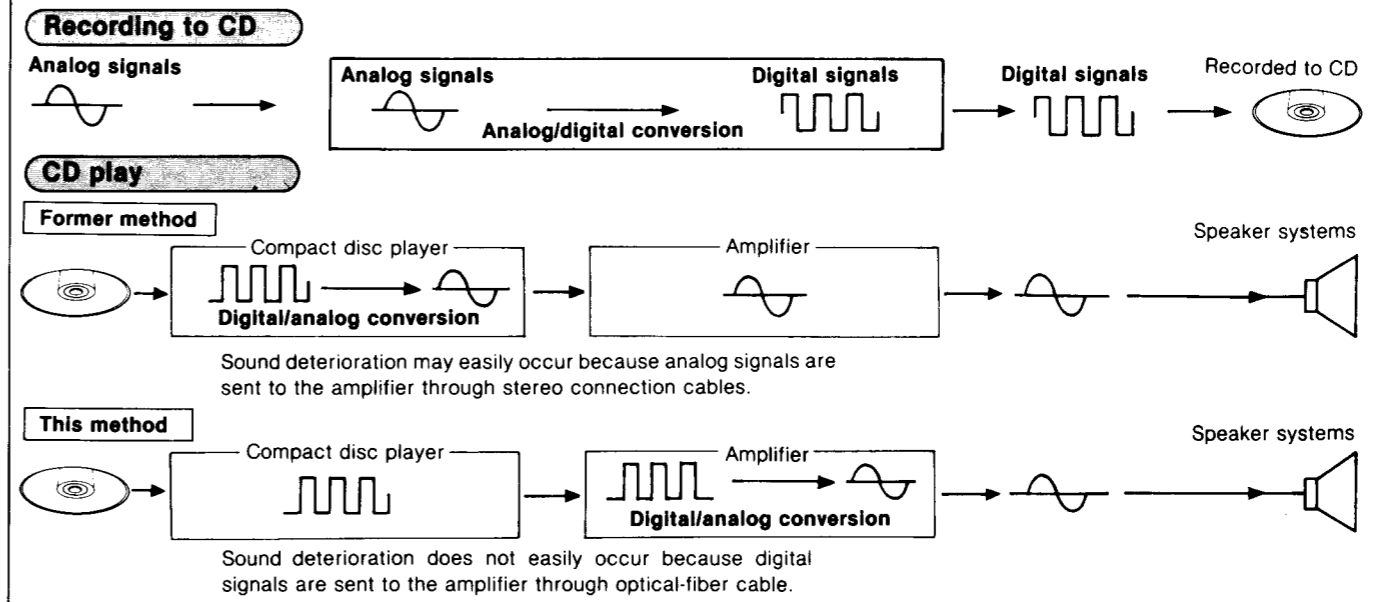


How signals are digitized

If it is known to what degree of minuteness the human ear can distinguish sounds, it is then possible, by using that data as the standard reference, to digitize signals by dividing analog signals into minute pieces, after which they can be transmitted with a high degree of precision, and thereafter recorded and played back in the digitized format.



Digitalization example (recording to CD and play of CD)



What the sampling frequency is

The sampling frequency expresses the degree of minuteness to which signals can be sub-divided, relative to a certain specified time interval, during sampling. For compact disc sound: Analog signals are sub-divided 44,100 times (i.e., 44.1 kHz) during one second. This 44.1 kHz is, therefore, the sampling frequency for compact disc sound.

What analog/digital conversion is

Audio signals (analog signals) are taken out (sampled) at certain fixed time intervals. The points at which this sampling frequency occurs are digitally encoded and converted to digital signals.

What digital/analog conversion is

Each sampling frequency point is returned (converted) to voltage, thus converting digital signals to the analog signals that we can hear.

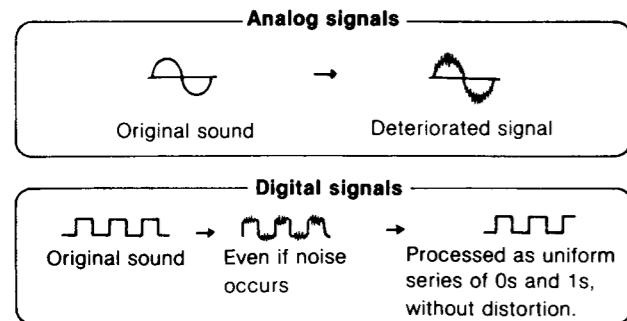
DISASS

Ref. No. 1	Procedure 1	
Ref. No. 3	Procedure 1→2→3	• Remove the 6...
Ref. No. 4	Procedure 1→2→4	• Remove the 2...
		<p>A: 11 mm B: 16 mm C: longer than 22 mm</p> <p>• Use a wrench of dimensions shown in the illustration to remove nuts.</p>

DIGITALIZATION OF AUDIO SIGNALS

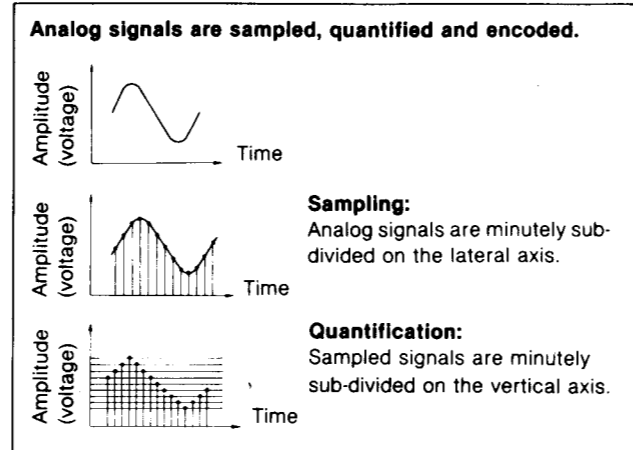
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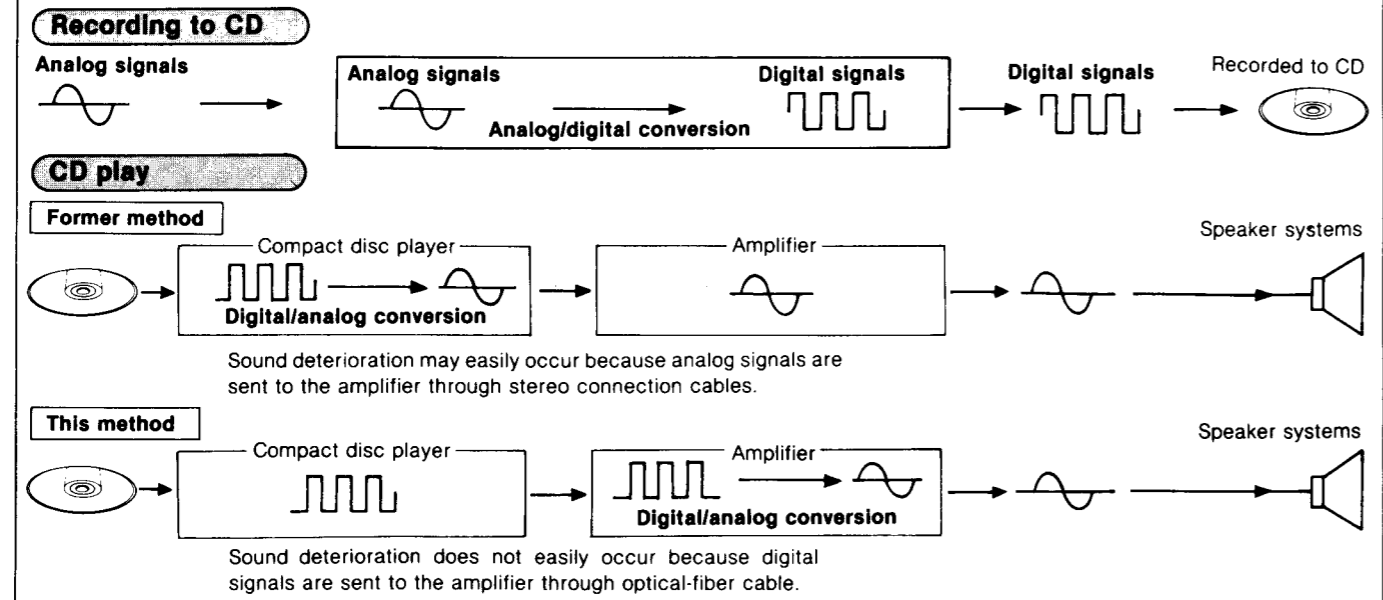


How signals are digitized

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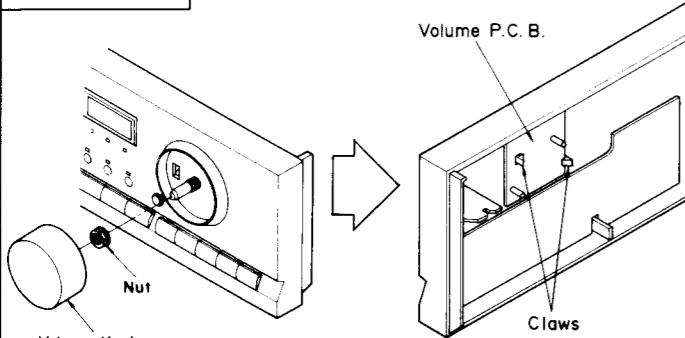
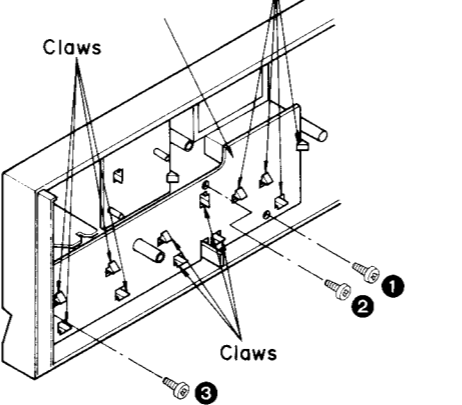
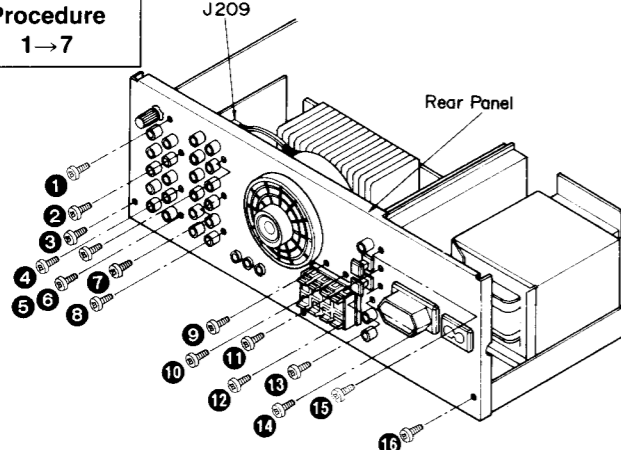
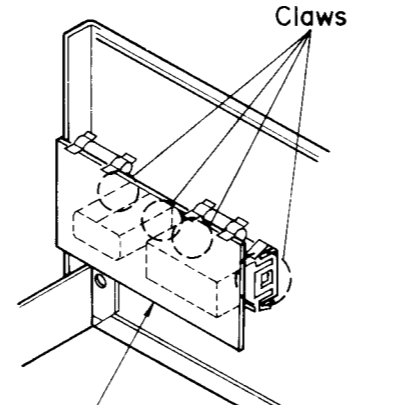
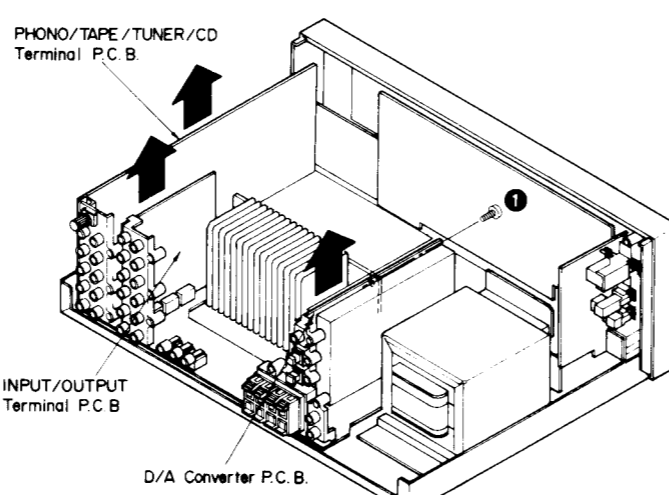
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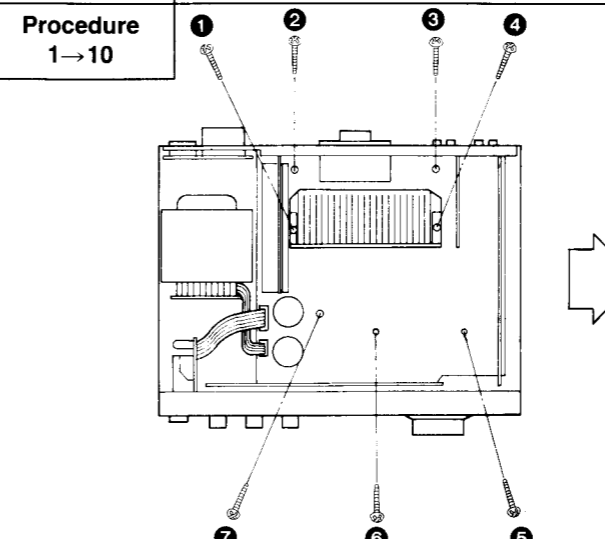
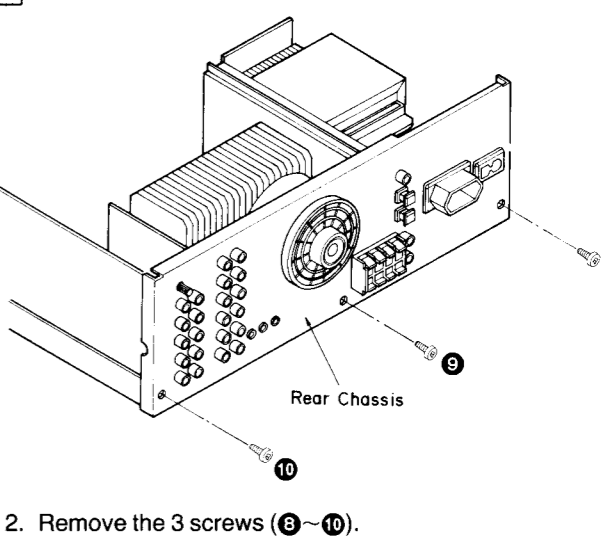
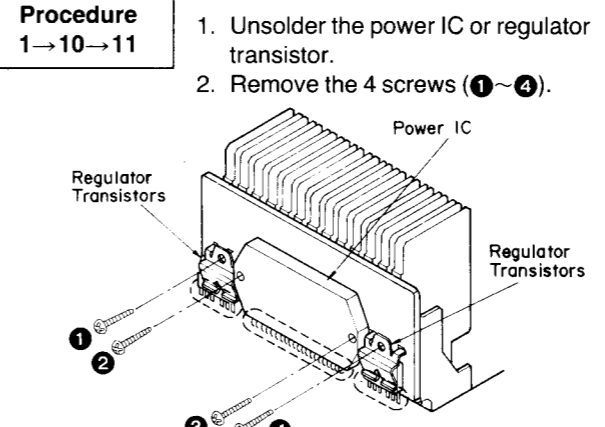
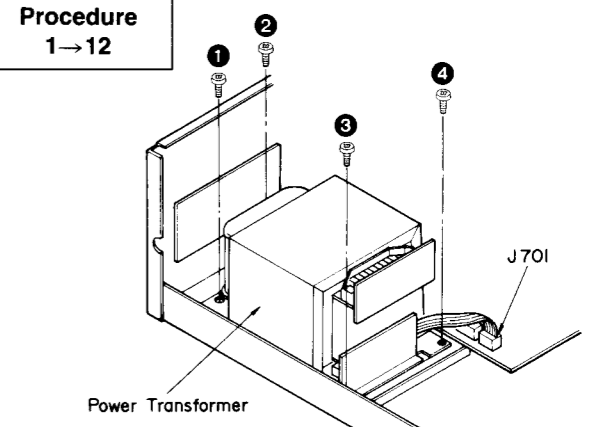
What digital/analog conversion is

Each sampling frequency point is returned (converted) to voltage, thus converting digital signals to the analog signals that we can hear.

DISASSEMBLY INSTRUCTIONS

<p>Ref. No. 1 Procedure 1</p>	<p>Removal of the Cabinet</p> <p>• Remove the 6 screws (1~6).</p>	<p>Ref. No. 2 Procedure 1→2</p>	<p>Removal of the Front Panel</p> <p>1. Remove the flat cables (J501, J502).</p> <p>2. Remove the 3 screws (1~3).</p> <p>3. Remove the front panel in the direction of the arrow.</p> <p>How to remove the flat cable</p> <p>1. Lift the connector.</p> <p>2. Pull out the flat cable.</p>
<p>Ref. No. 3 Procedure 1→2→3</p>	<p>Removal of the Power Switch/Headphones P.C.B.</p> <p>• Remove the 2 screws (1, 2).</p>		
<p>Ref. No. 4 Procedure 1→2→4</p>	<p>Removal of the FL Drive P.C.B.</p> <p>1. Pull out the 3 knobs (1~3).</p> <p>2. Remove the 3 nuts (4~6).</p> <p>• Use a wrench of the dimensions shown in the illustration above to remove nuts.</p>		<p>Removal of the FL Drive P.C.B.</p> <p>3. Remove the 7 screws (7~13).</p>

Ref. No. 5	Removal of the Volume P.C.B.	Ref. No. 6	Removal of the Operation Switch P.C.B.
Procedure 1→2→4→5		Procedure 1→2→4→6	
Ref. No. 7	Removal of the Rear Panel	Ref. No. 8	Removal of the AC OUTLET/ AC IN P.C.B.
Procedure 1→7		Procedure 1→7→8	
Ref. No. 9	Removal of the D/A Converter P.C.B., PHONO/TAPE/TUNER/CD Terminal P.C.B. and INPUT/ OUTPUT Terminal P.C.B.		
Procedure 1→7→9			

Ref. No. 10	How to check the main P.C.B.		
Procedure 1→10			
Ref. No. 11	Removal of the Power IC and Regulator Transistor	Ref. No. 12	Removal of the Power Transformer
Procedure 1→10→11			

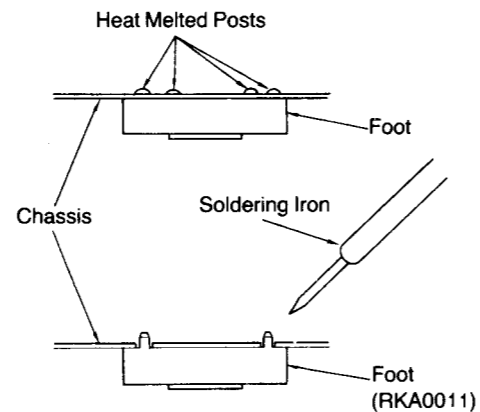
Ref. No. 13	Removal of the Fan Motor	<ol style="list-style-type: none"> 4. Insert a screwdriver at the root of the cooling fan. Force it out of the motor shaft. 5. Remove the motor cover by used ⊖ screwdriver. 6. Remove the motor from the fan casing. 7. When mounting the motor fan, align the fan casing's projection with the hole of the fan motor.
Procedure 1→13	<ol style="list-style-type: none"> 1. Remove the 1 connector (J209). 2. Release the 3 claws. 	

“ATTENTION SERVICER”

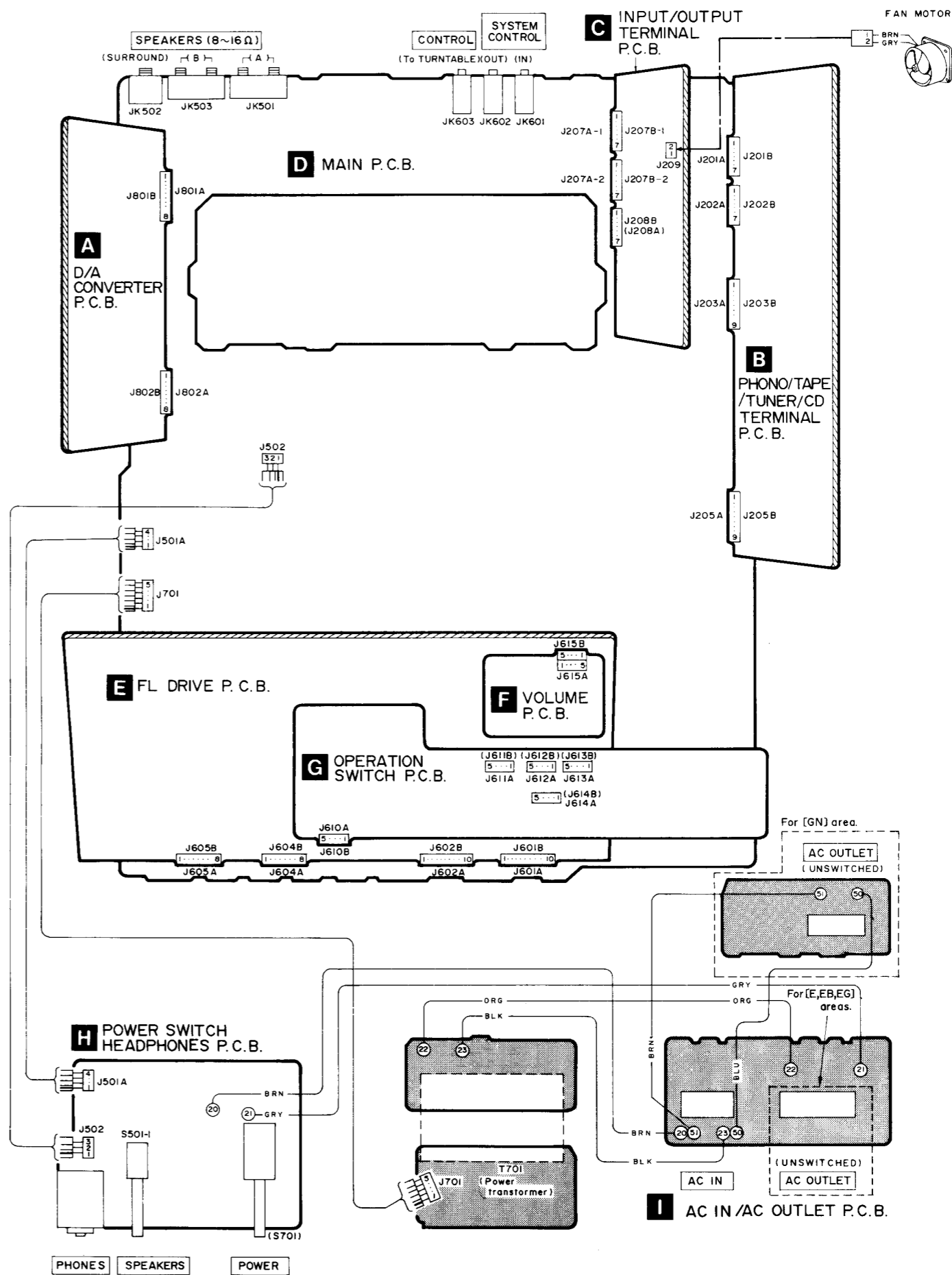
Some chassis components may have sharp edges. Be careful when disassembling and servicing.

●Replacement of the Foot.

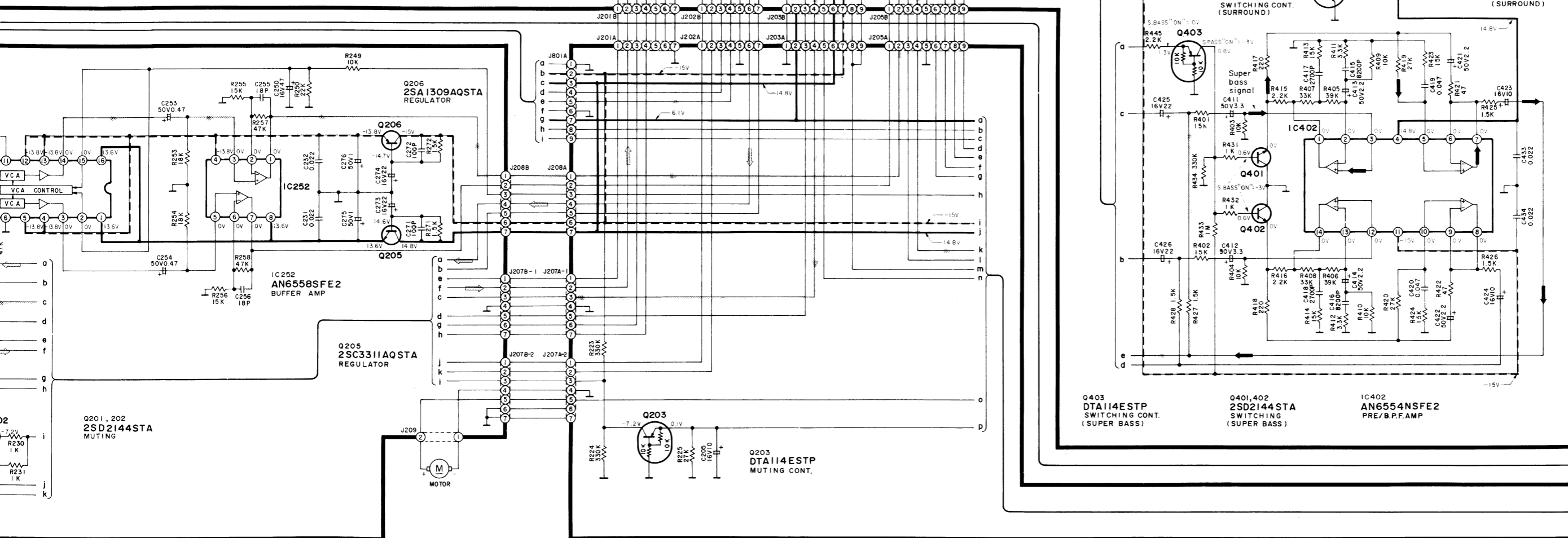
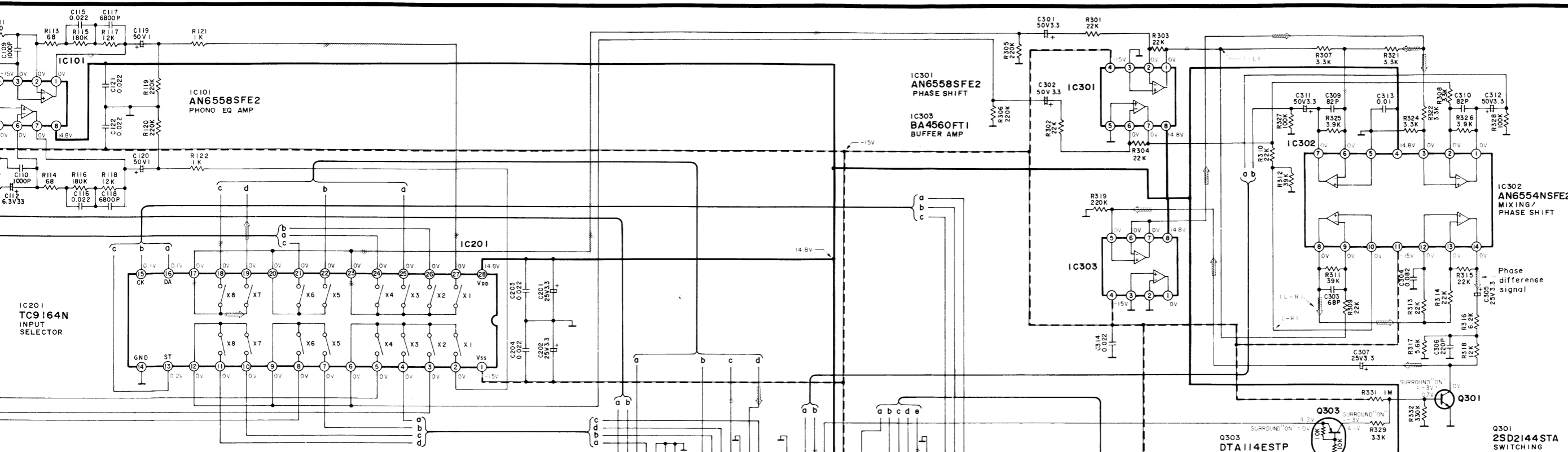
1. Remove the 4 heat melted posts on the chassis with a pair of nippers or similar tool.
2. To replace the foot (RKA0011) on the chassis, melt the 4 posts with a soldering iron.



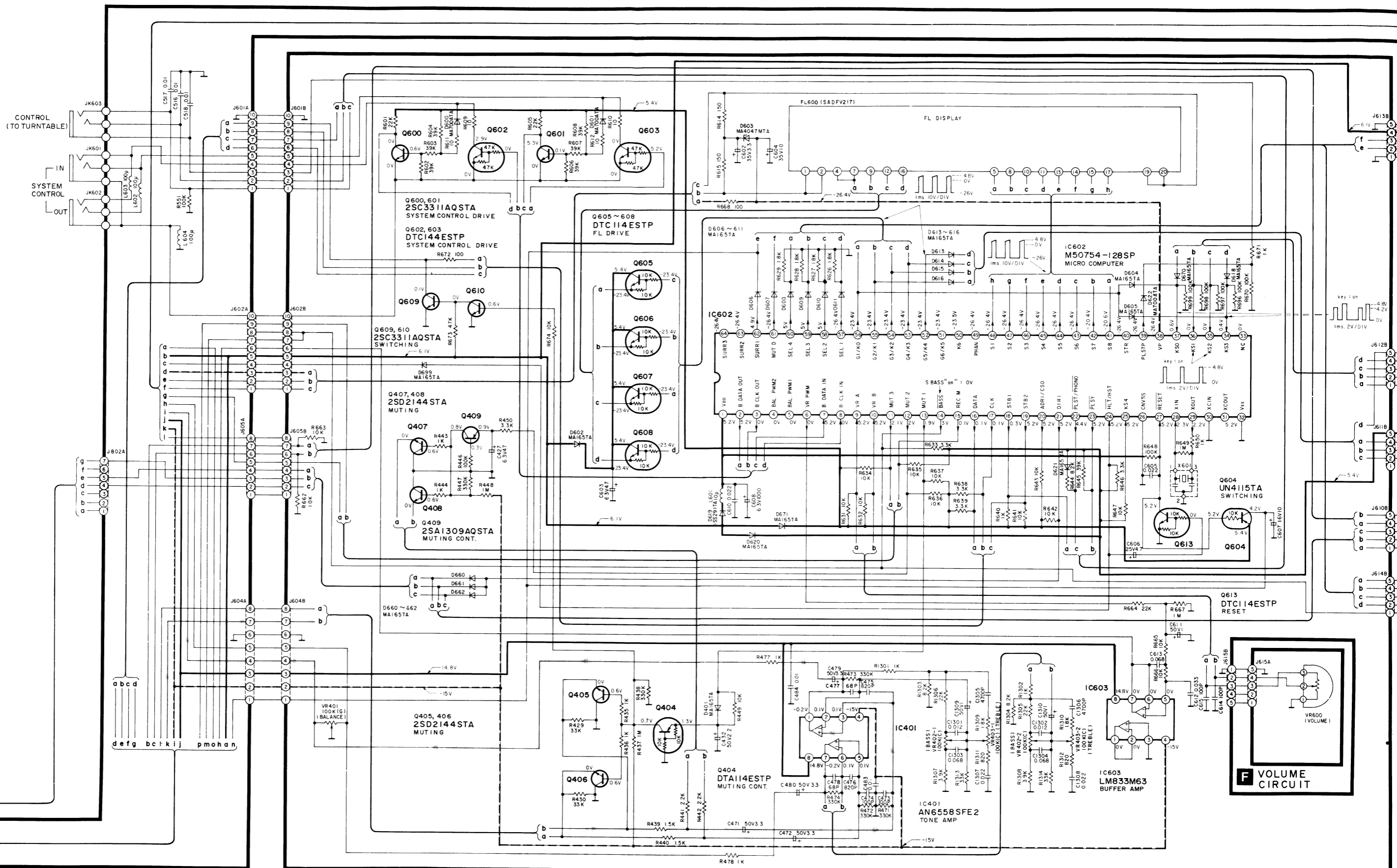
■ WIRING CONNECTION DIAGRAM



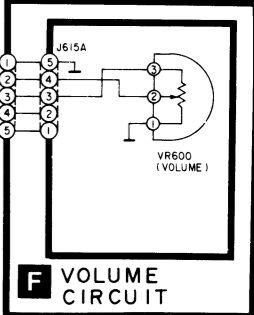
D TERMINAL CIRCUIT

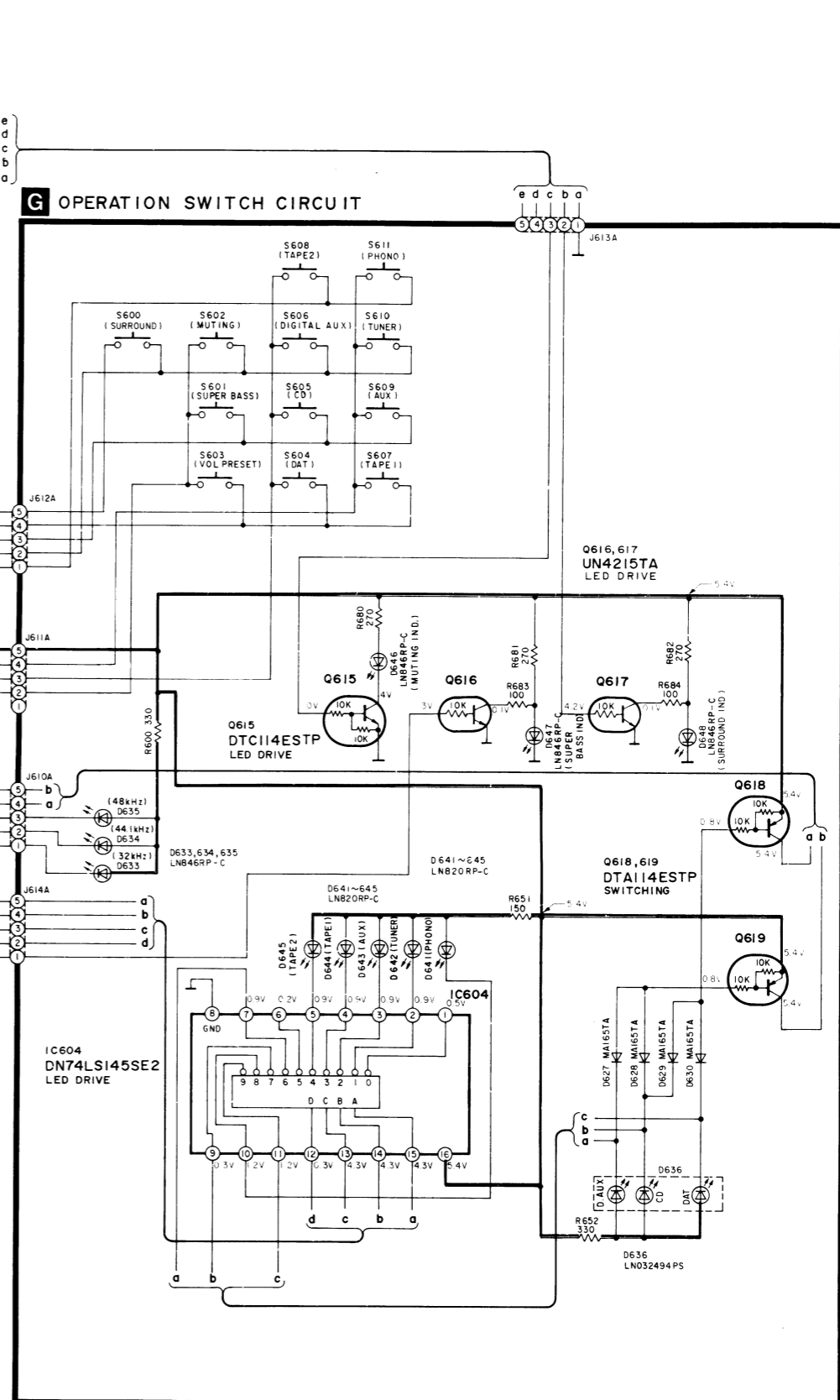
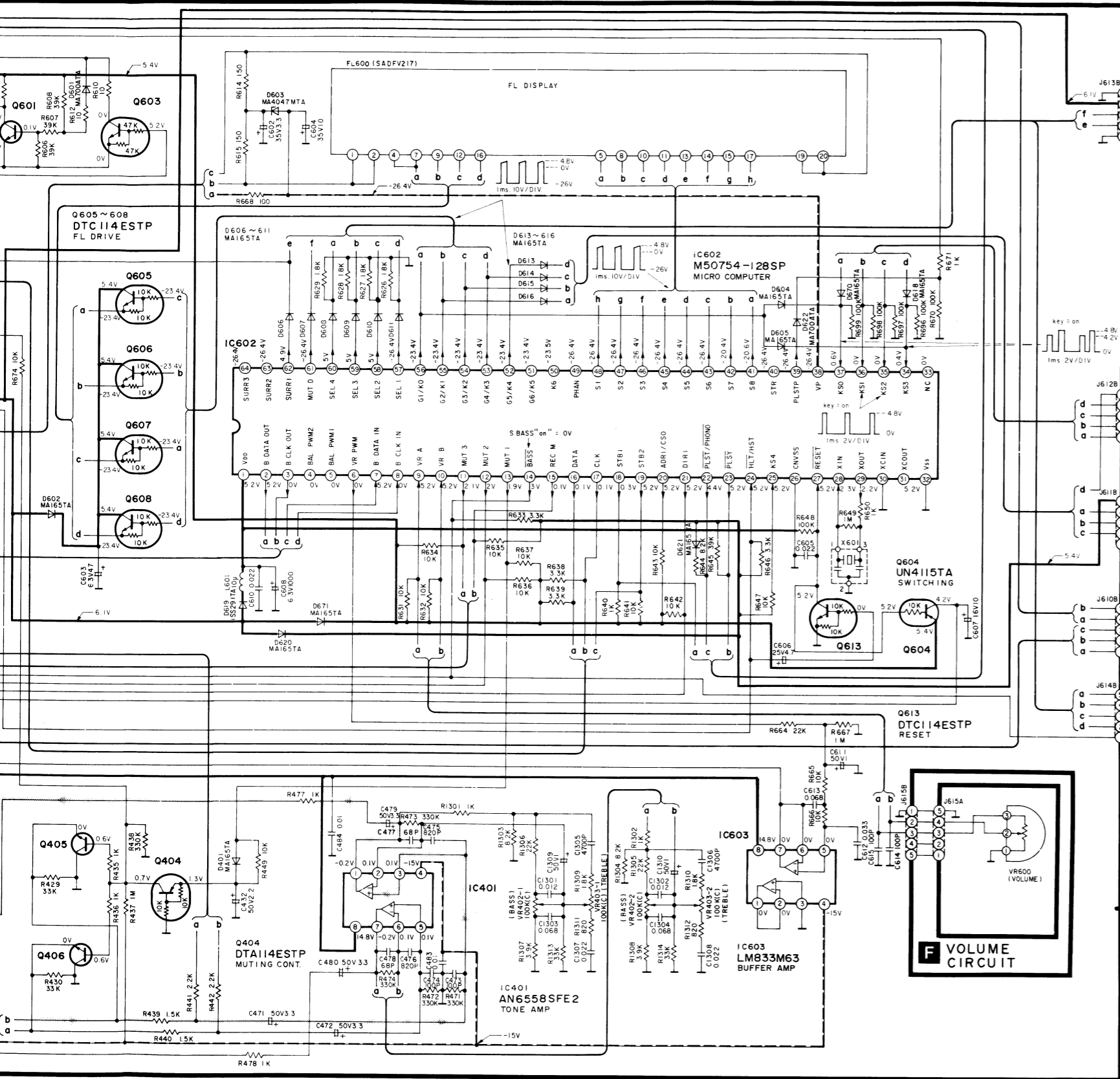


D MAIN CIRCUIT

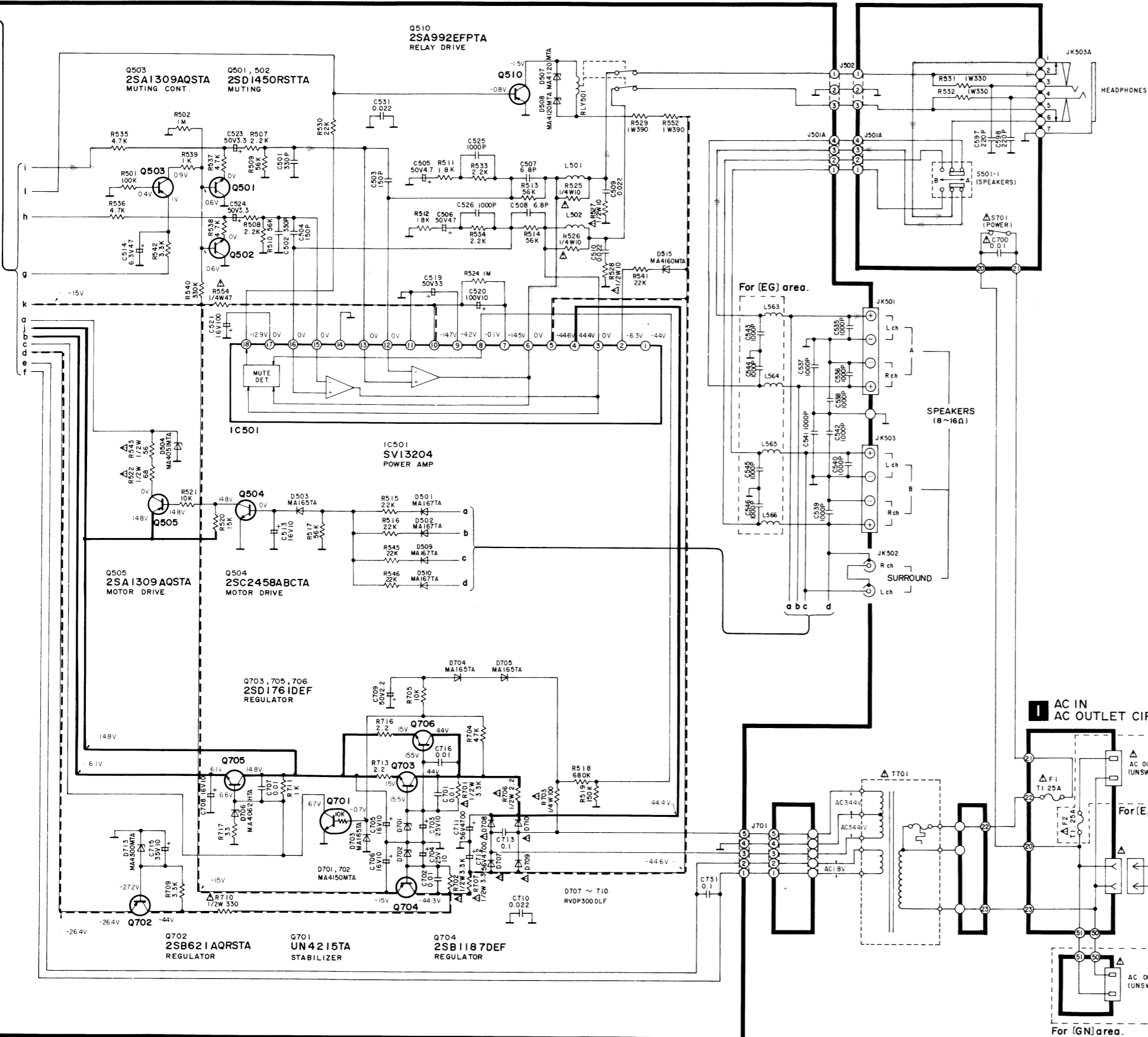


E FL DRIVE CIRCUIT

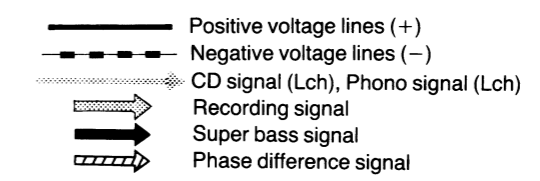




H POWER SWITCH/ HEADPHONES CIRCUIT



- Notes:**
- S501-1 : Speaker selector switch in "A" position.
 - S600 : Surround-sound switch in "OFF" position.
 - S601 : Super bass switch in "OFF" position.
 - S602 : Audio muting switch in "OFF" position.
 - S603 : Volume preset switch in "OFF" position.
 - S604~S611 : Input selector switches.
 - S604: DAT, S605: CD, S606: DIGITAL AUX
 - S607: TAPE1, S608: TAPE 2, S609: AUX
 - S610: TUNER, S611: PHONO
 - S701 : Power switch in "ON" position.
 - S702 : Voltage selector switch in "220 V" position. (110 V/127 V/220 V/240 V) For (GC) area only.

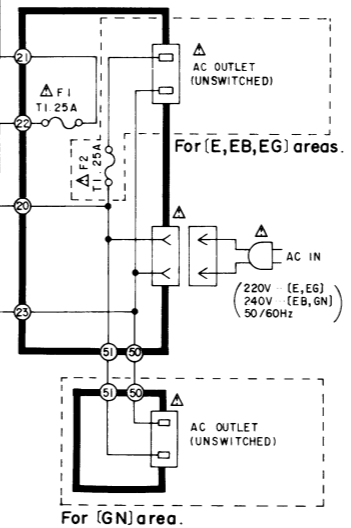


•Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

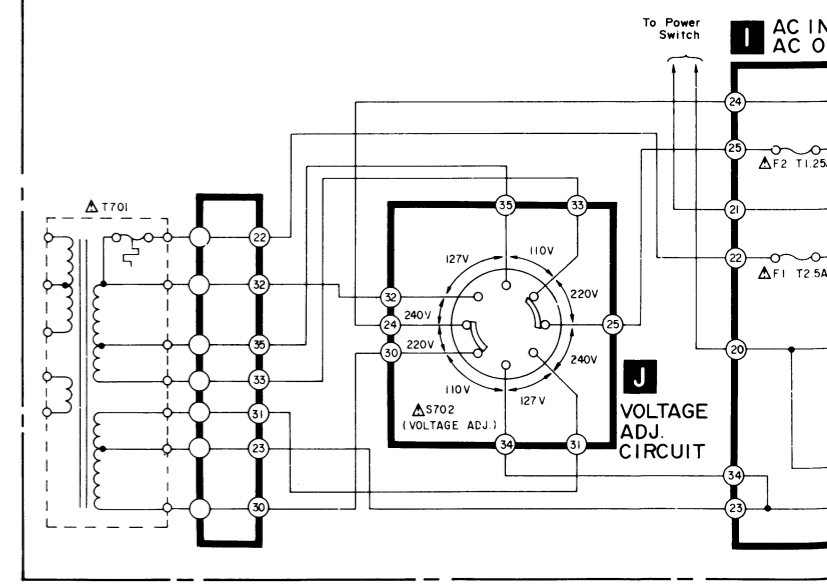
•Important safety notice: Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

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

I AC IN AC OUTLET CIRCUIT



Power Source For (GC) area.



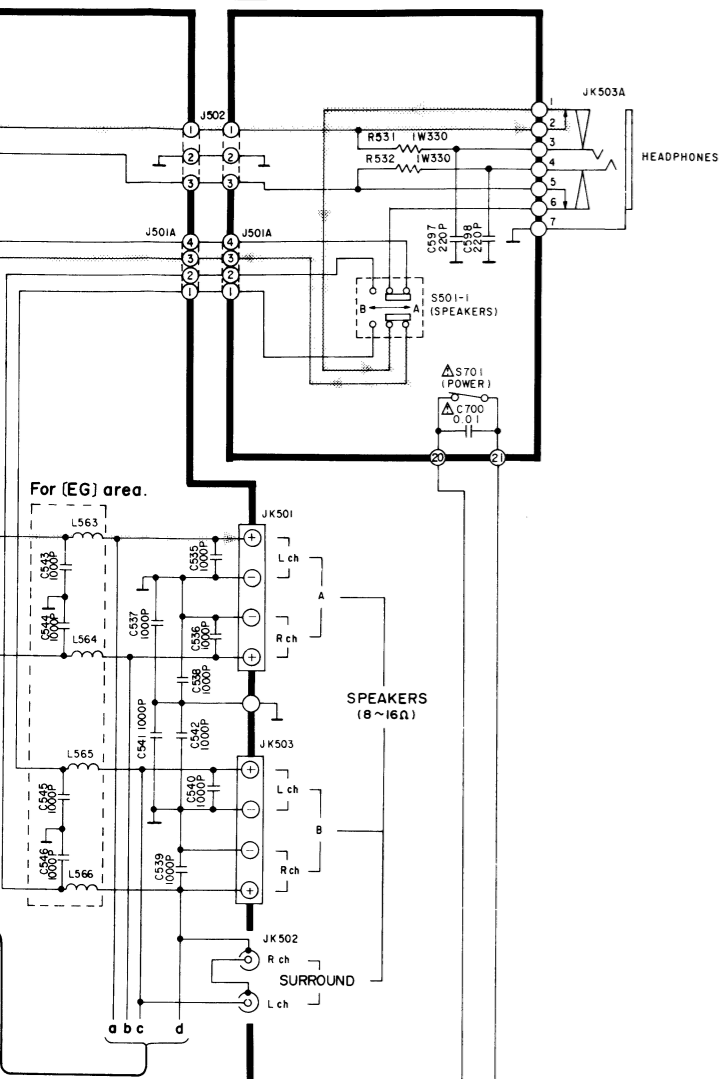
BA4560F

TC9164

LN846RF

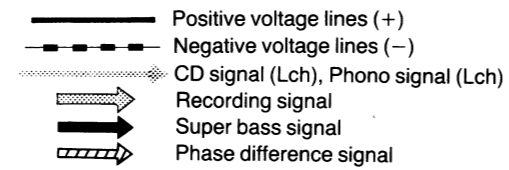
■ TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

H POWER SWITCH/HEADPHONES CIRCUIT



Notes:

- S501-1 : Speaker selector switch in "A" position.
- S600 : Surround-sound switch in "OFF" position.
- S601 : Super bass switch in "OFF" position.
- S602 : Audio muting switch in "OFF" position.
- S603 : Volume preset switch in "OFF" position.
- S604~S611 : Input selector switches.
 (S604: DAT, S605: CD, S606: DIGITAL AUX
 S607: TAPE1, S608: TAPE 2, S609: AUX
 S610: TUNER, S611: PHONO)
- S701 : Power switch in "ON" position.
- S702 : Voltage selector switch in "220 V" position.
 (110 V/127 V/220 V/240 V)
 For (GC) area only.

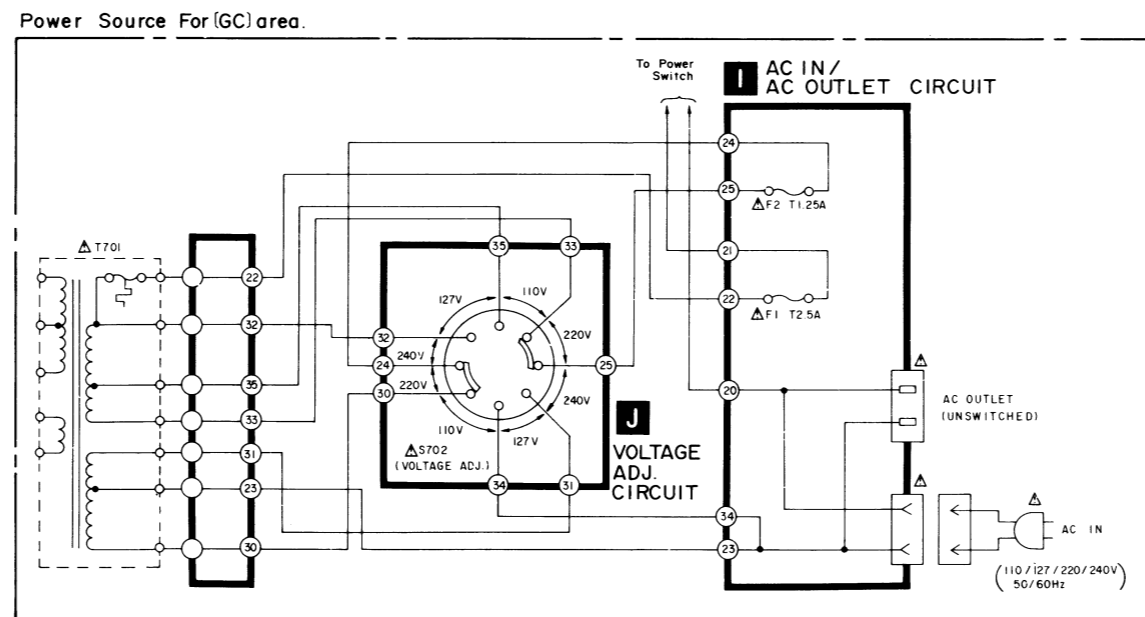
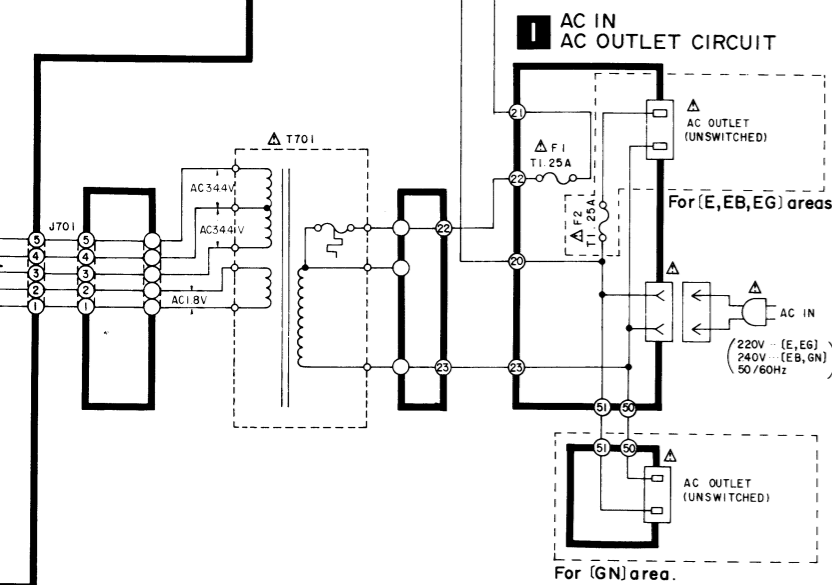


- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
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 Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

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- *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.

BA4560FT1 	AN6558SFE2 BA4560FT1 LM833M63 	AN6554NSFE2 MC74HCU04FEL 	DN74LS145SE2 PD00601 	PCM1700U-T1 	M5283P
TC9164N 	PD0052 	M50754-128SP 	SVI3204 	2SA992EFPTA 2SB621AQRSTA 2SC3114STUTA 	2SB1187DEF 2SD1761DEF
2SC2458ABCTA 2SD2144STA DTA114ESTP DTC114ESTP DTC144ESTP 	2SA1309AQSTA 2SC3311AQSTA 2SD1450RSTTA UN4115TA UN4215TA 	MA4120MTA MA4150MTA MA4160MTA MA4300MTA 	MA4043MTA MA4047MTA MA4051MTA MA4062HTA MA5051LTA 	MA165TA MA167TA 1SS291TA 	MA700ATA
RVDP300DLF 	LN820RP-C 	LN846RP-C 	LN038494PS 		

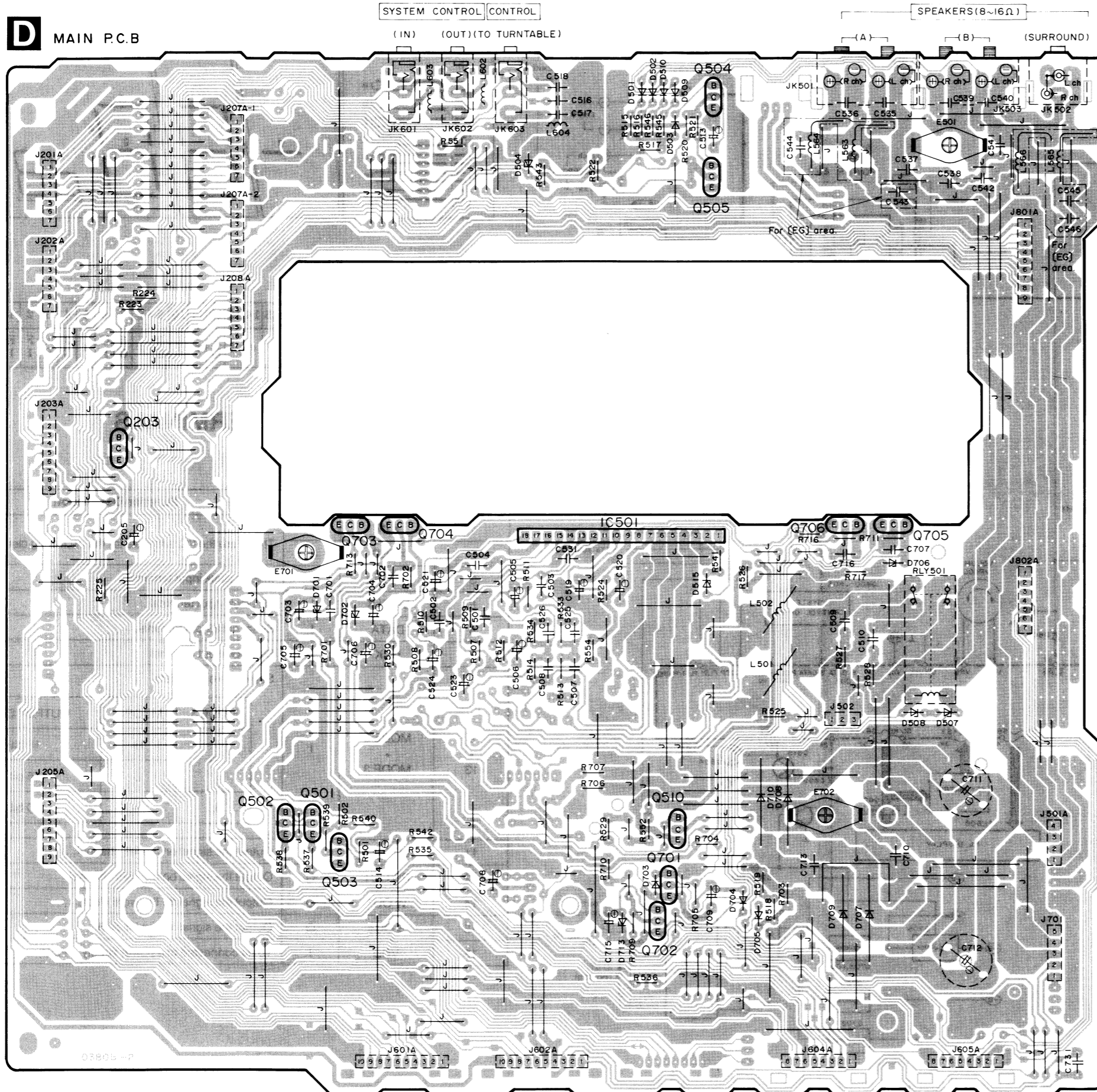


PRINTED CIRCUIT BOARDS (Parts list: pages 32~34, 38~40; Wiring connection diagram: page 12)

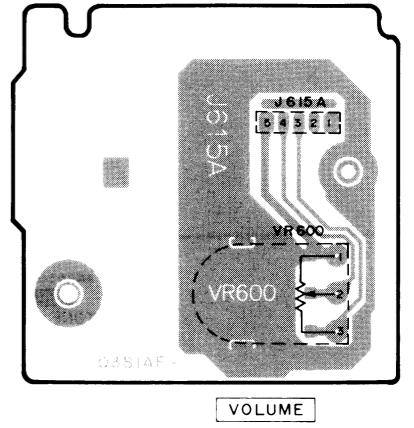
1 2 3 4 5 6 7 8 9 10

A
B
C
D
E
F

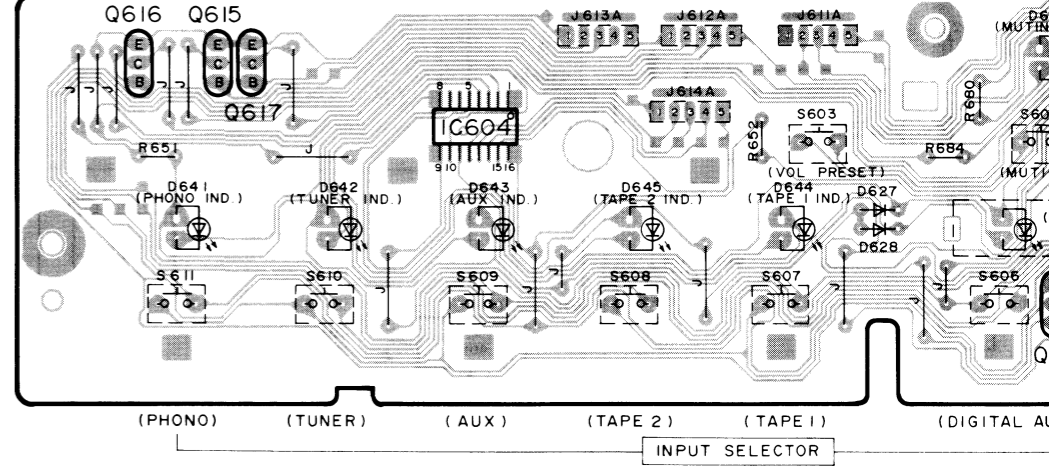
D MAIN P.C.B.



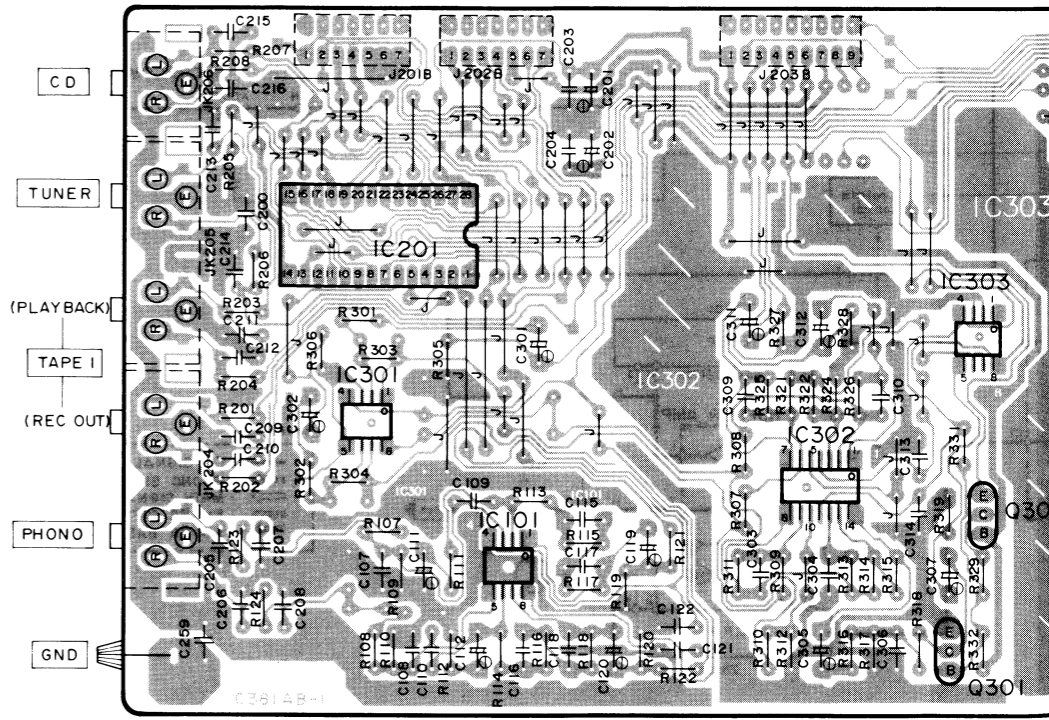
F VOLUME P.C.B.

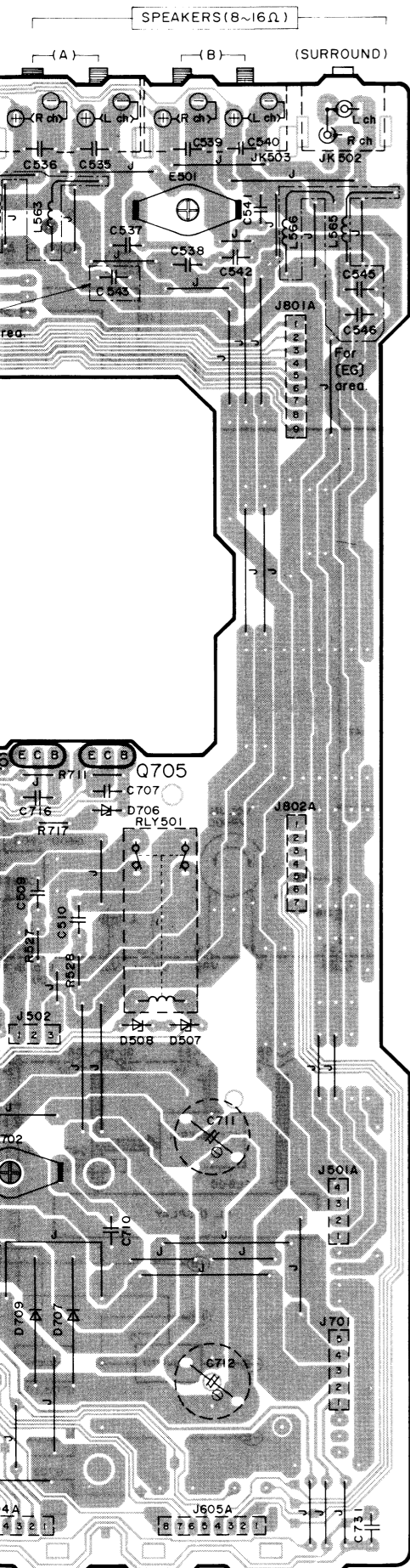


G OPERATION SWITCH P.C.B.

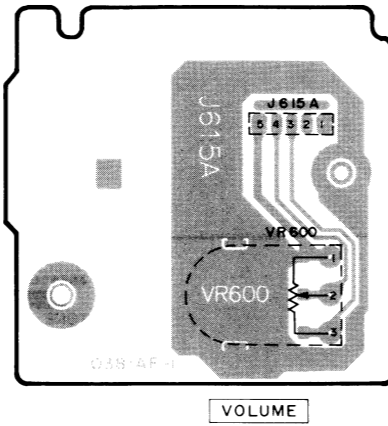


B PHONO/TAPE/TUNER/CD TERMINAL P.C.B.

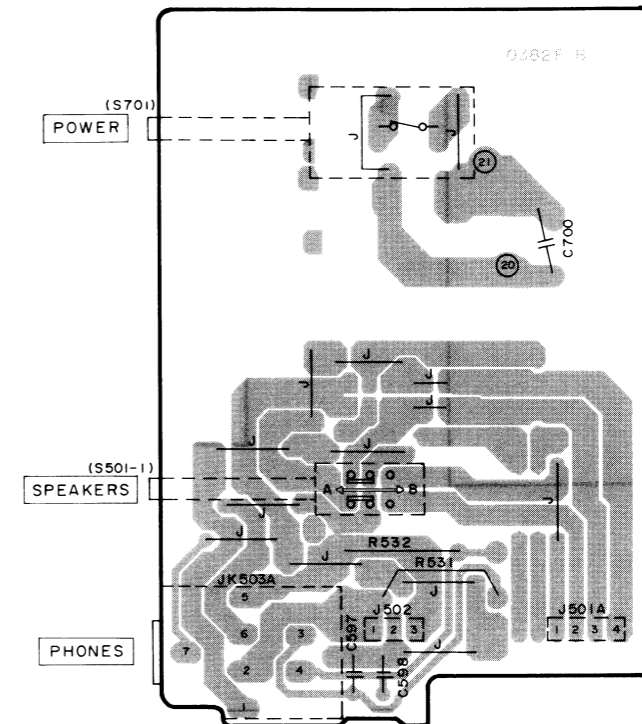




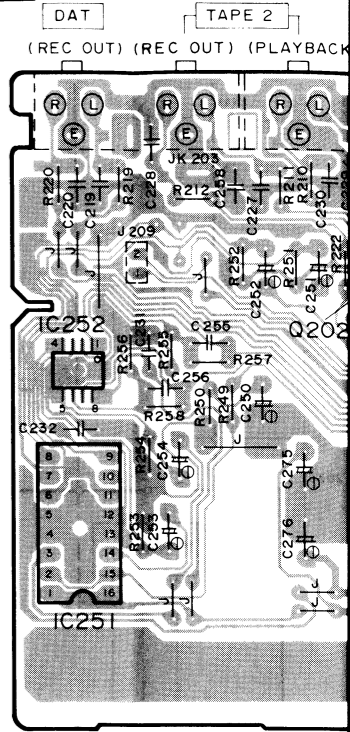
F VOLUME P.C.B.



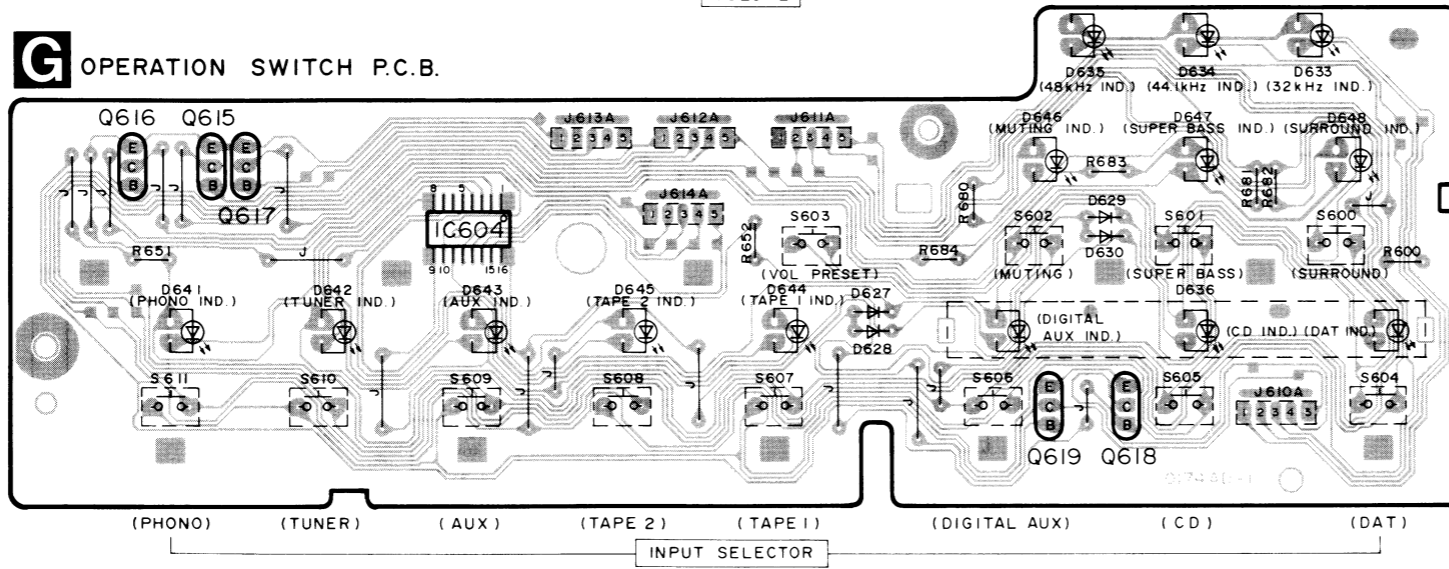
H POWER SWITCH/HEADPHONES P.C.B.



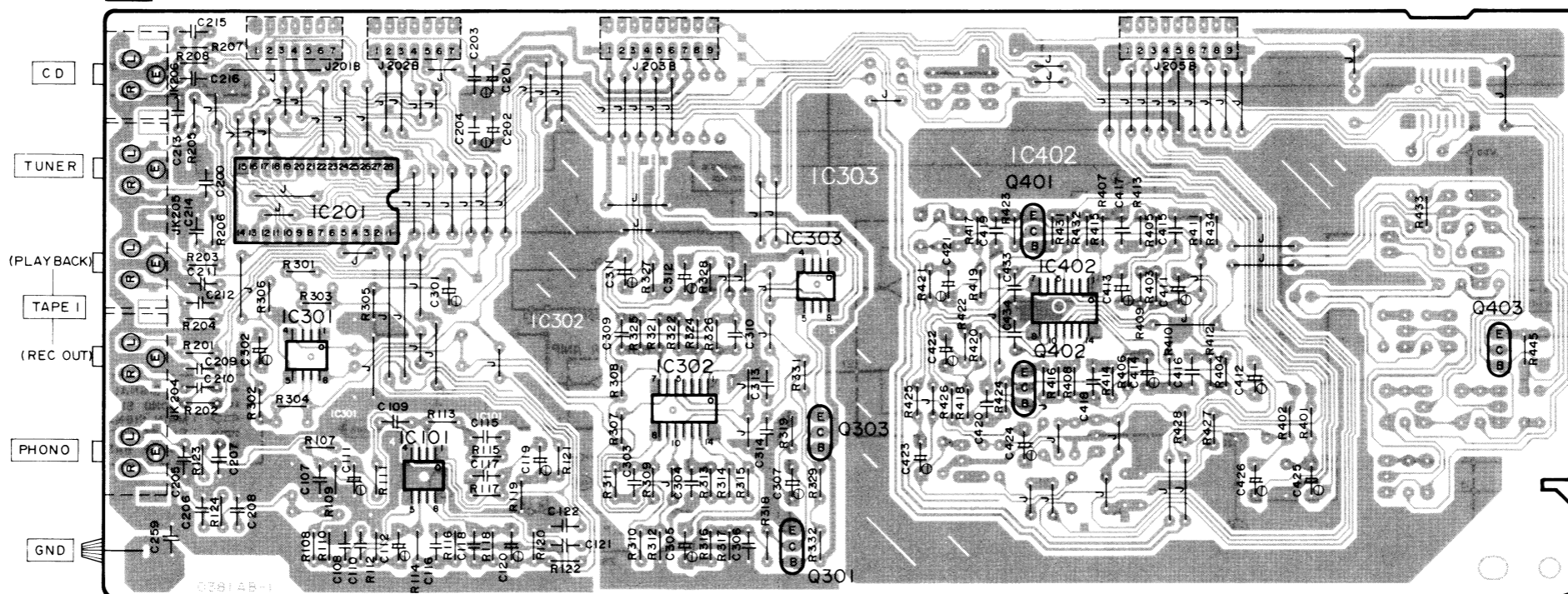
C INPUT/OUTPUT TERM



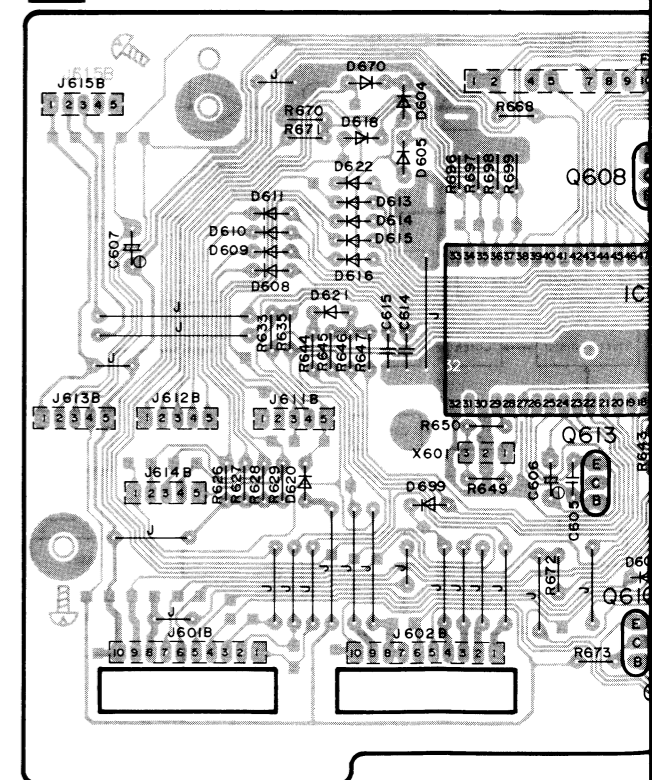
G OPERATION SWITCH P.C.B.



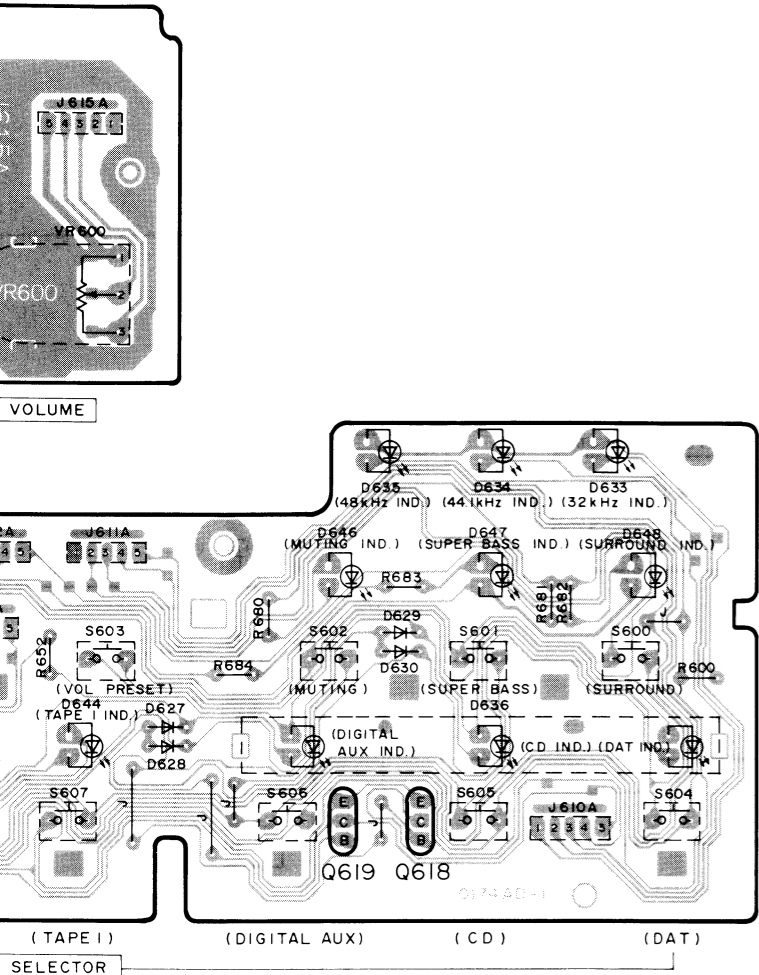
B PHONO/TAPE/TUNER/CD TERMINAL P.C.B.



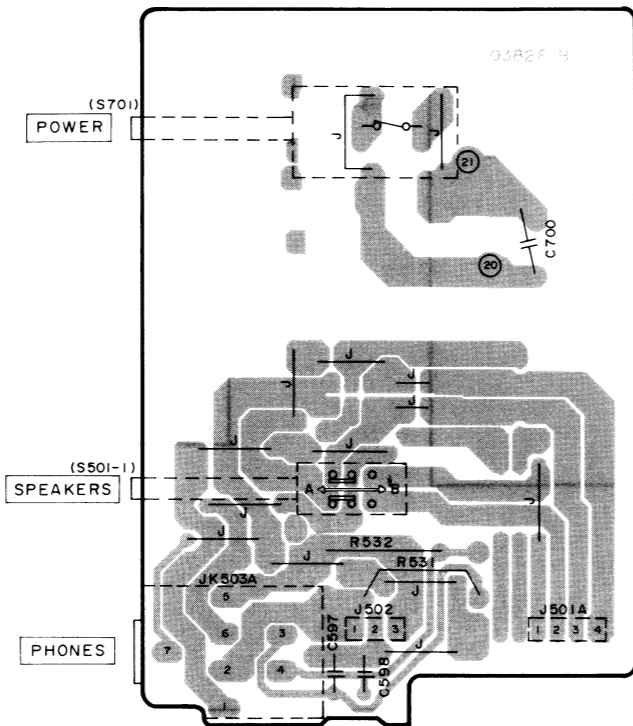
E FL DRIVE P.C.B.



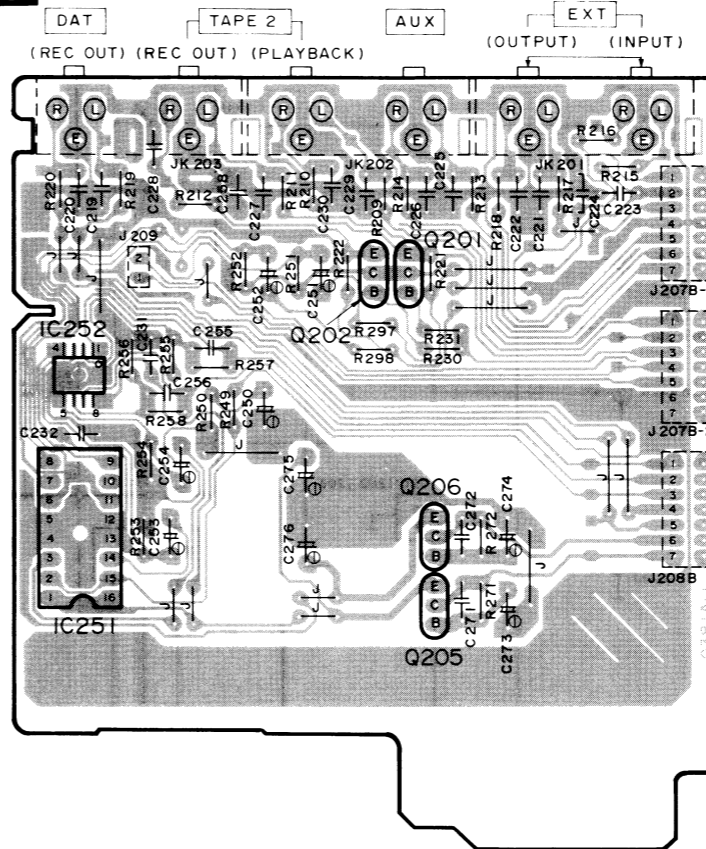
P.C.B.



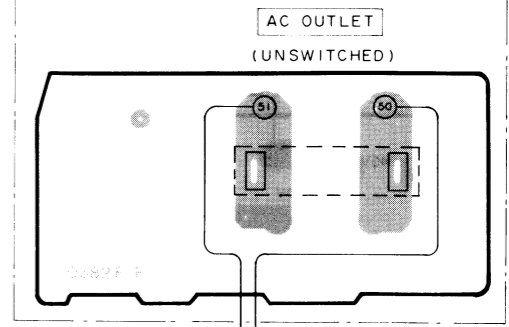
H POWER SWITCH/HEADPHONES P.C.B.



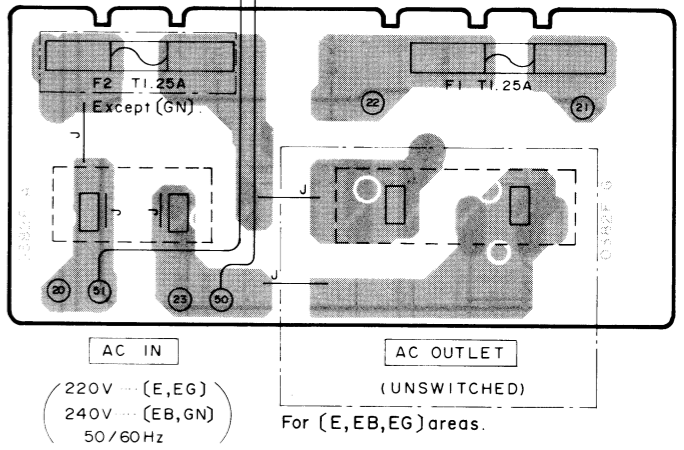
C INPUT/OUTPUT TERMINAL P.C.B.



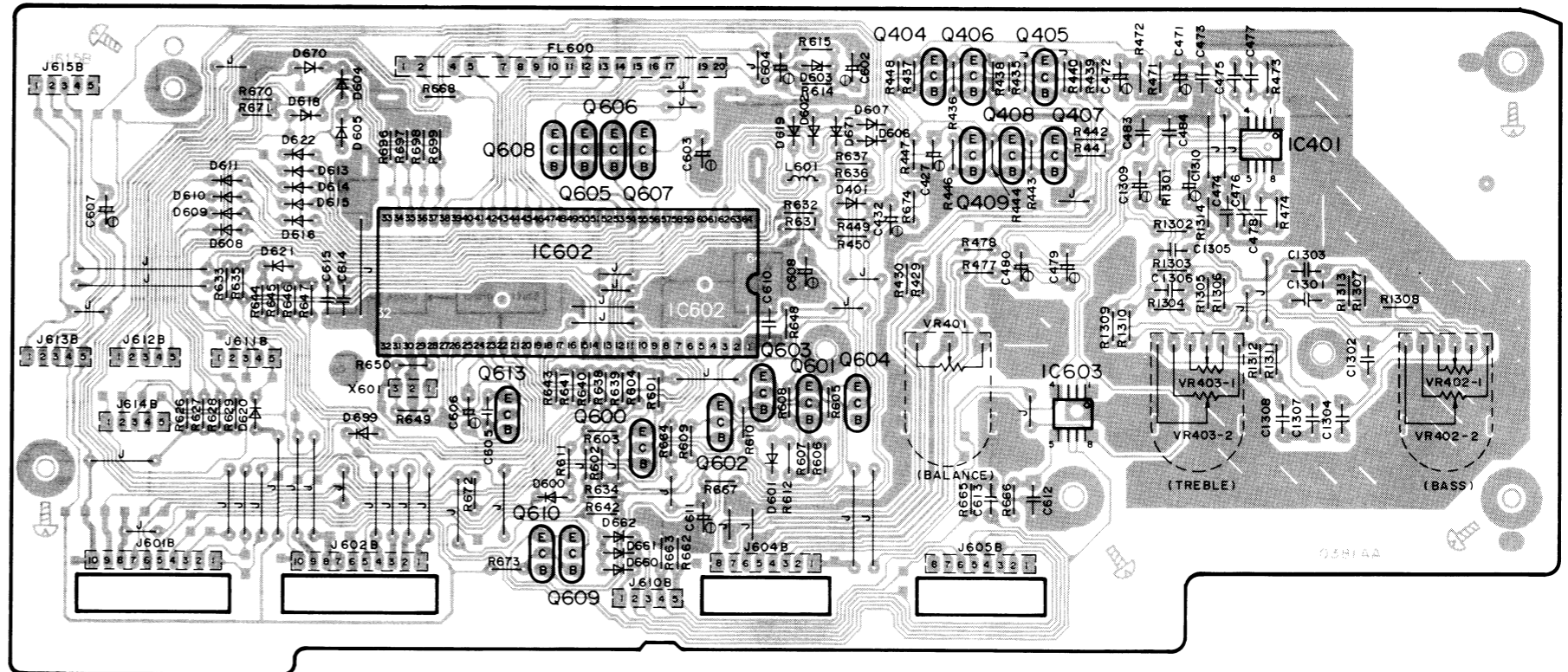
For (GN) area.



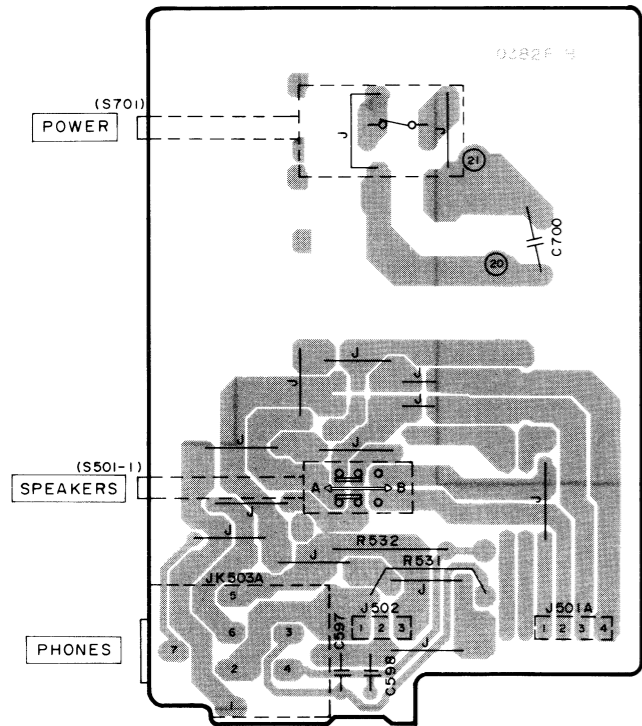
I AC IN / AC OUTLET P.C.B.



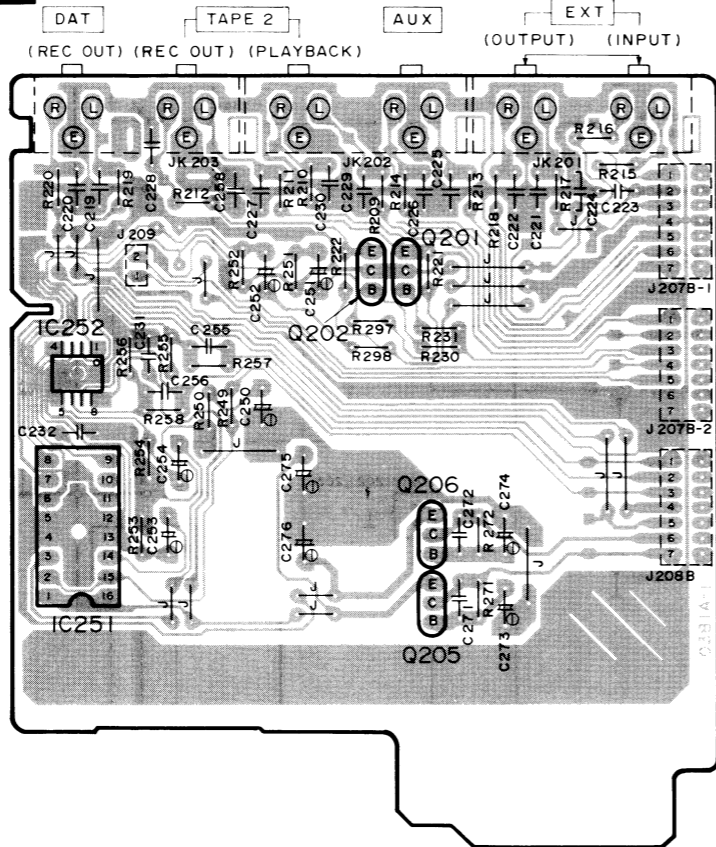
E FL DRIVE P.C.B.



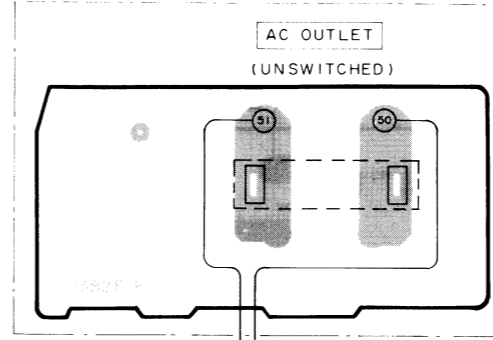
H POWER SWITCH/HEADPHONES P.C.B.



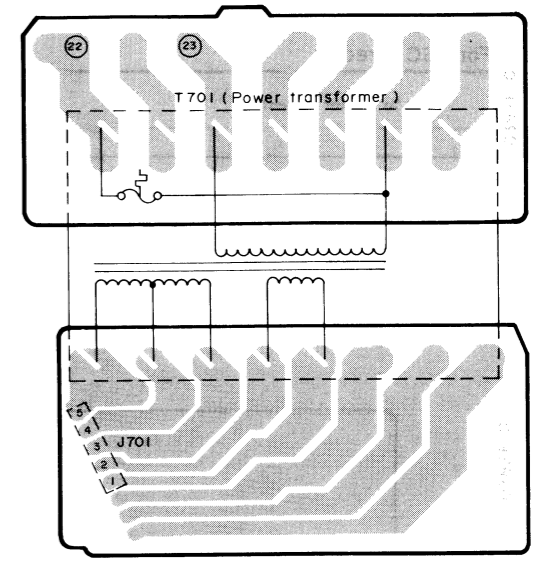
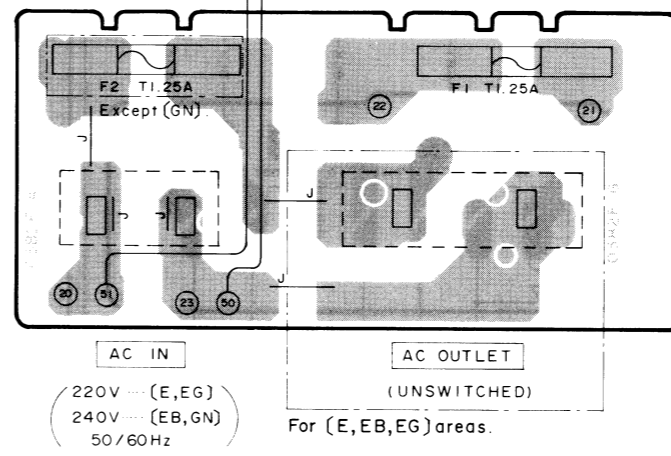
C INPUT/OUTPUT TERMINAL P.C.B.



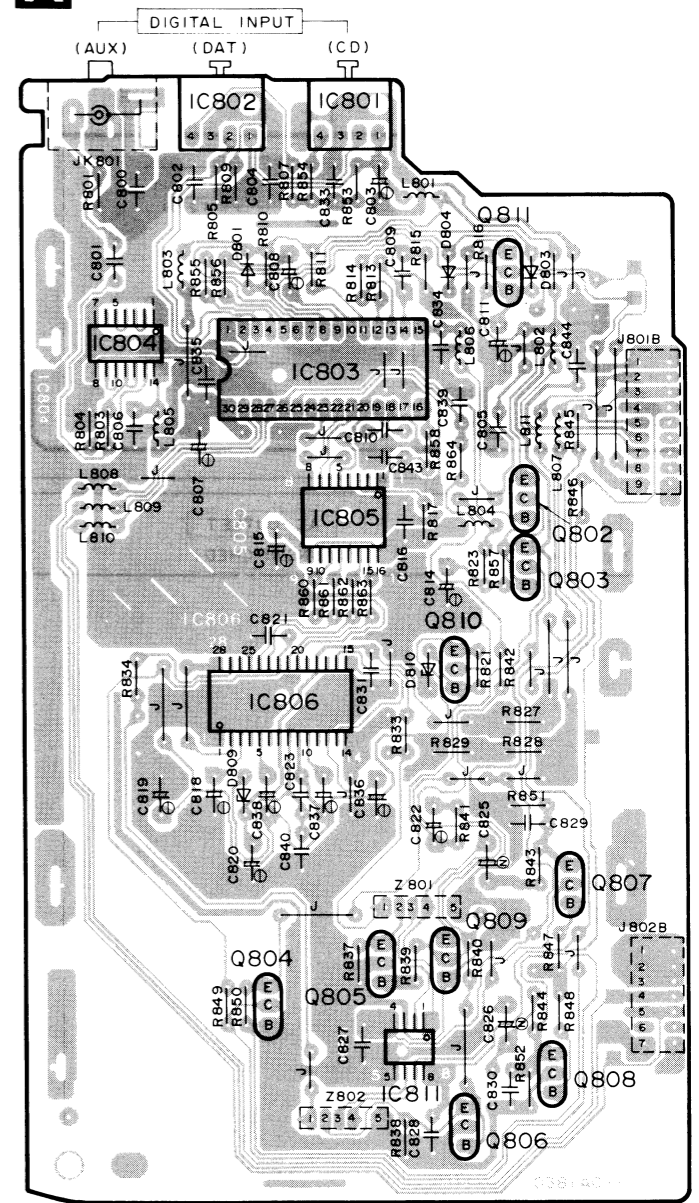
For (GN) area.



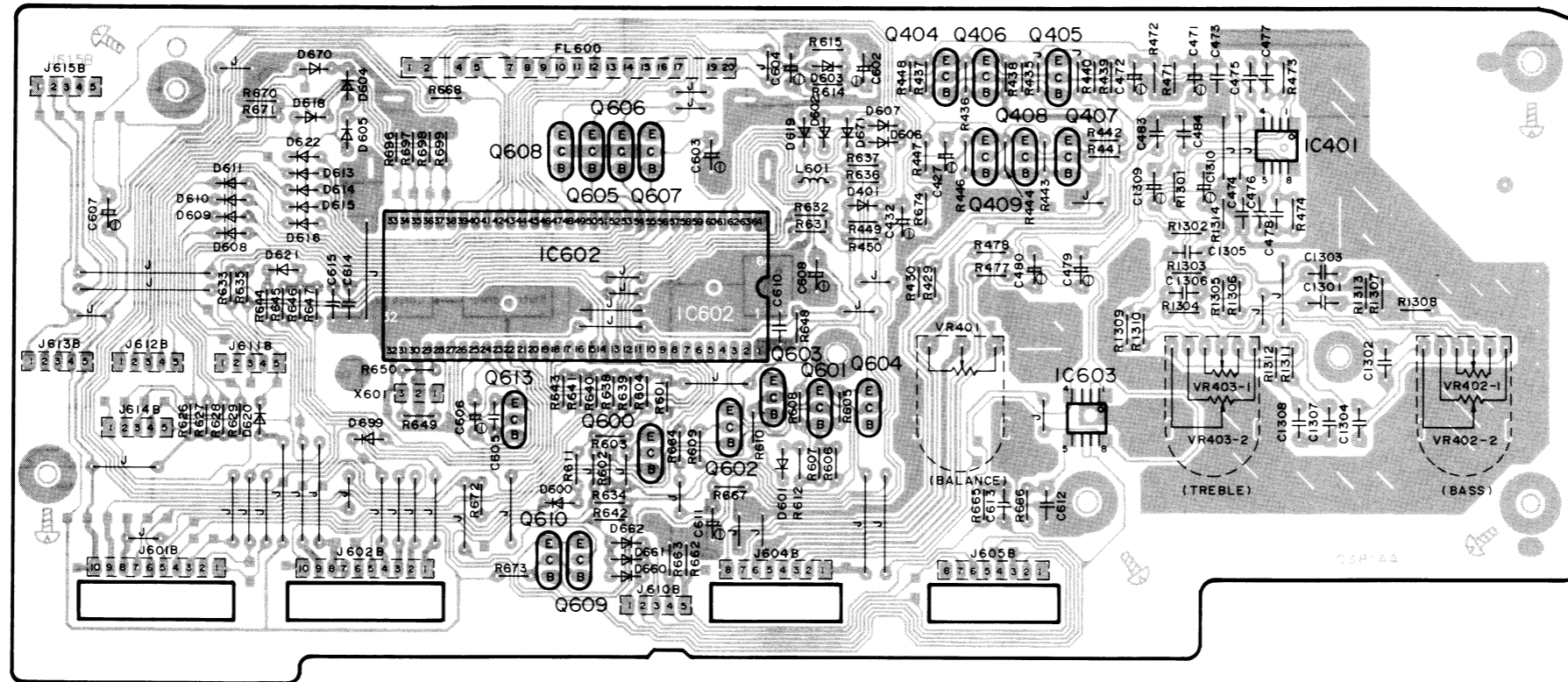
I AC IN / AC OUTLET P.C.B.



A D/A CONVERTER P.C.B.

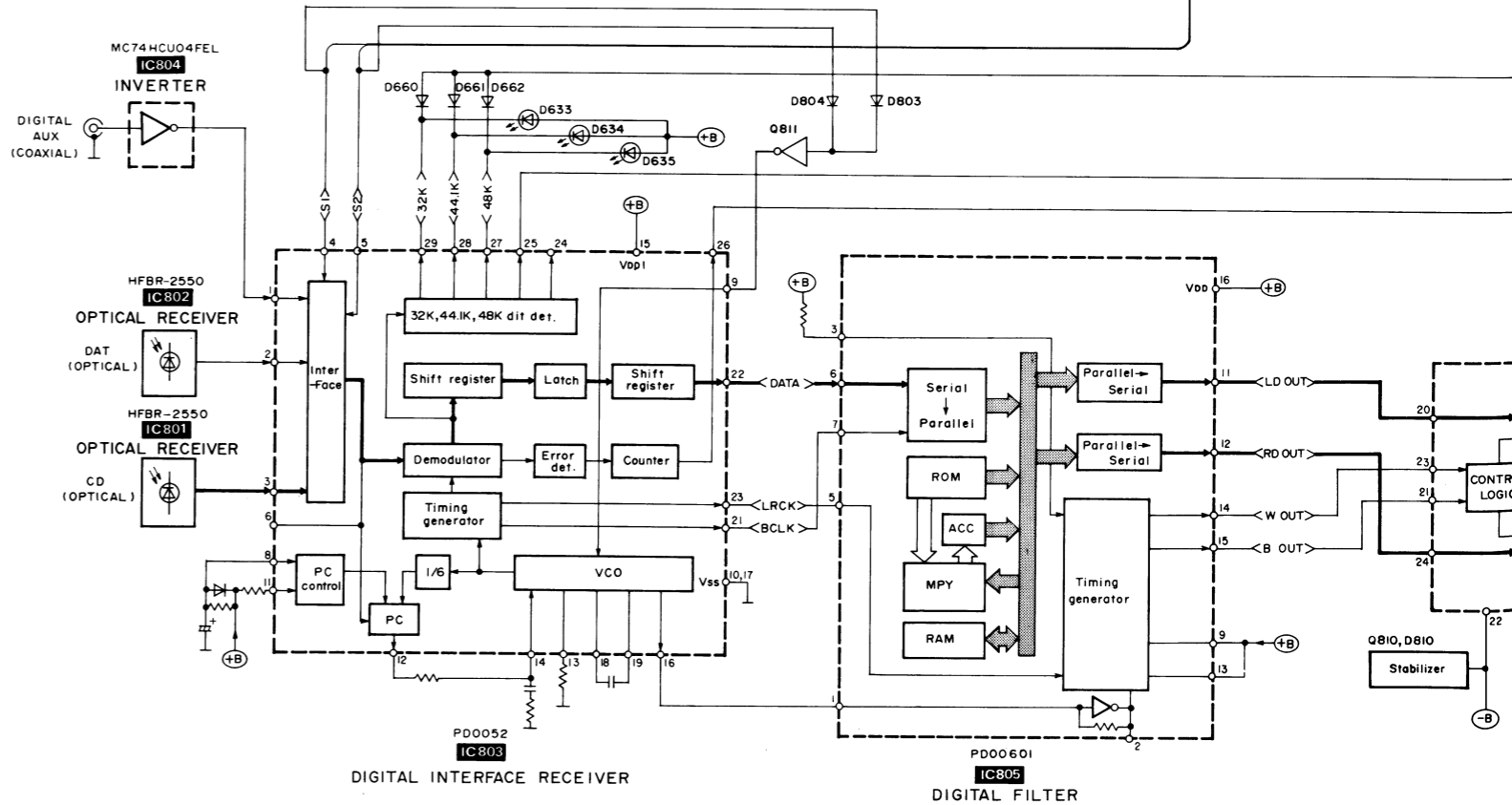
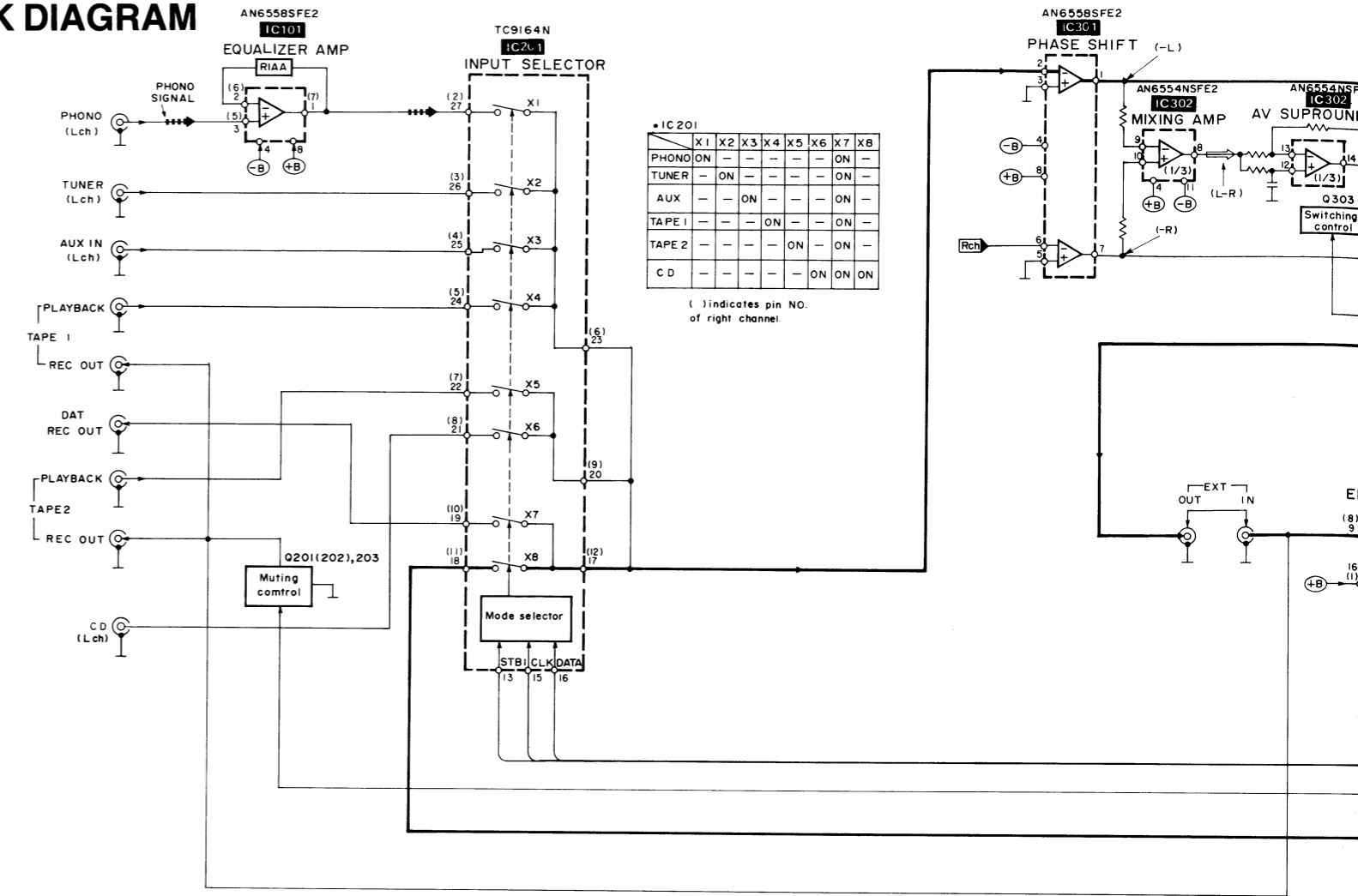
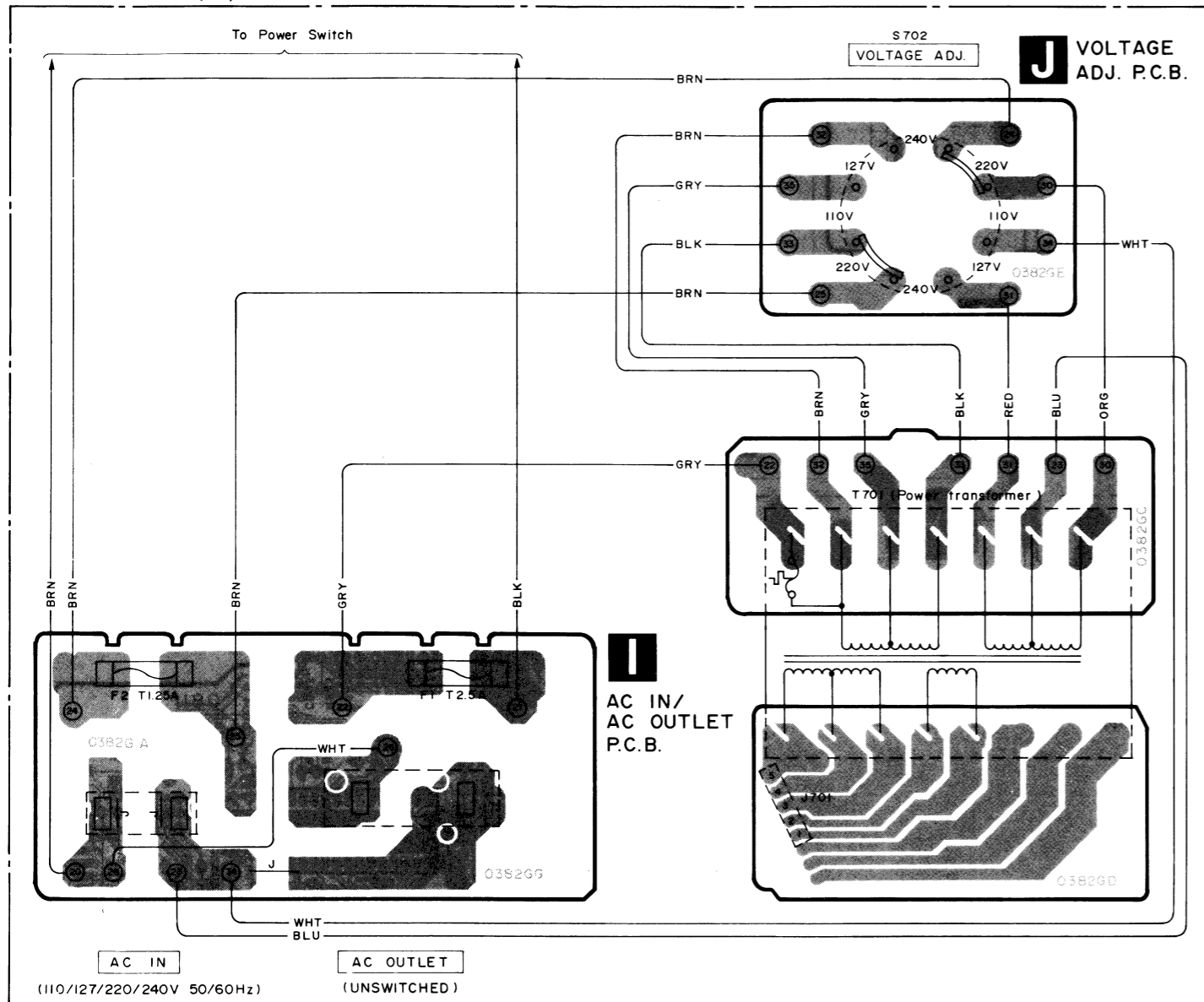


E FL DRIVE P.C.B.

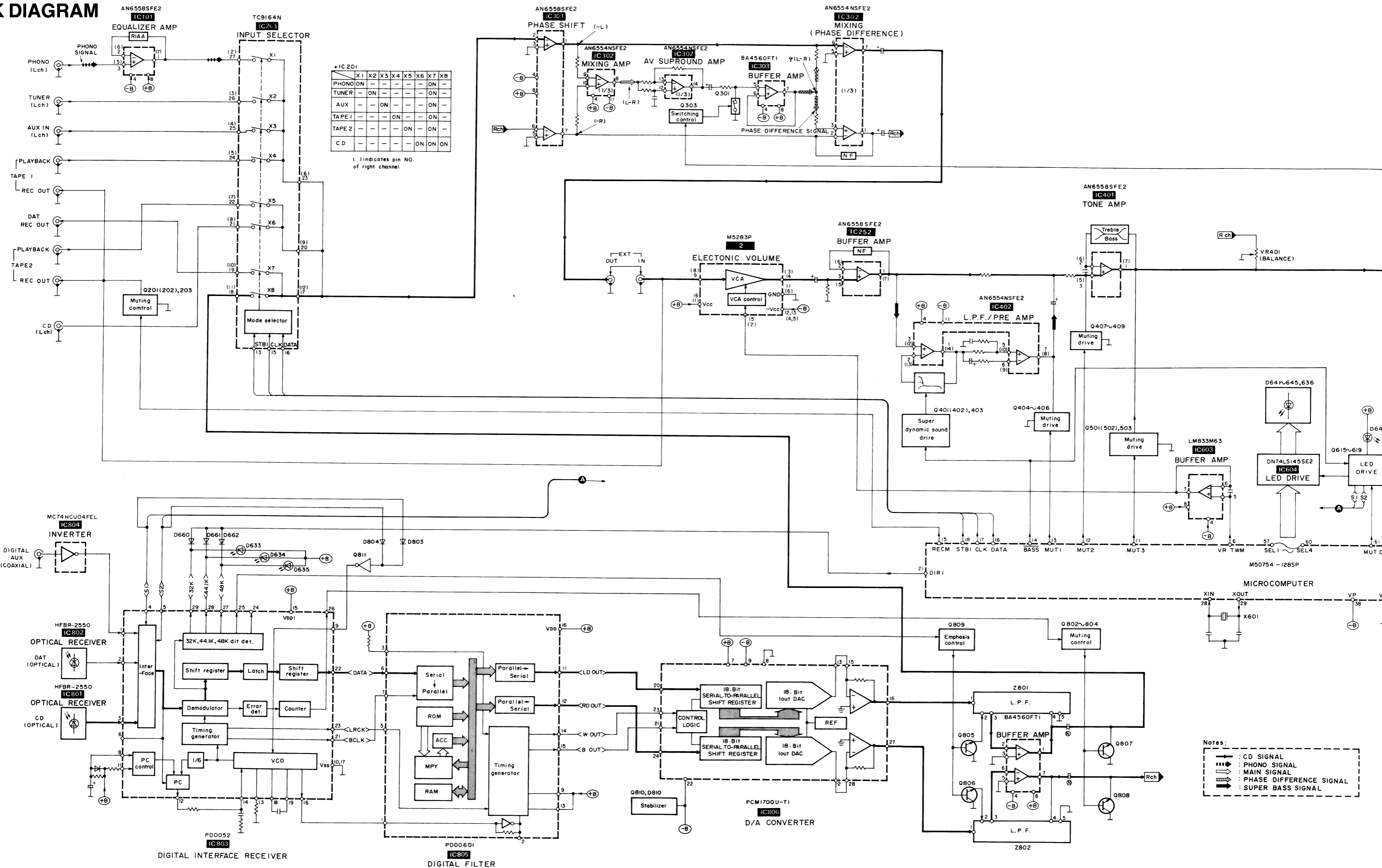


■ BLOCK DIAGRAM

Power Source For (GC) area.



CK DIAGRAM

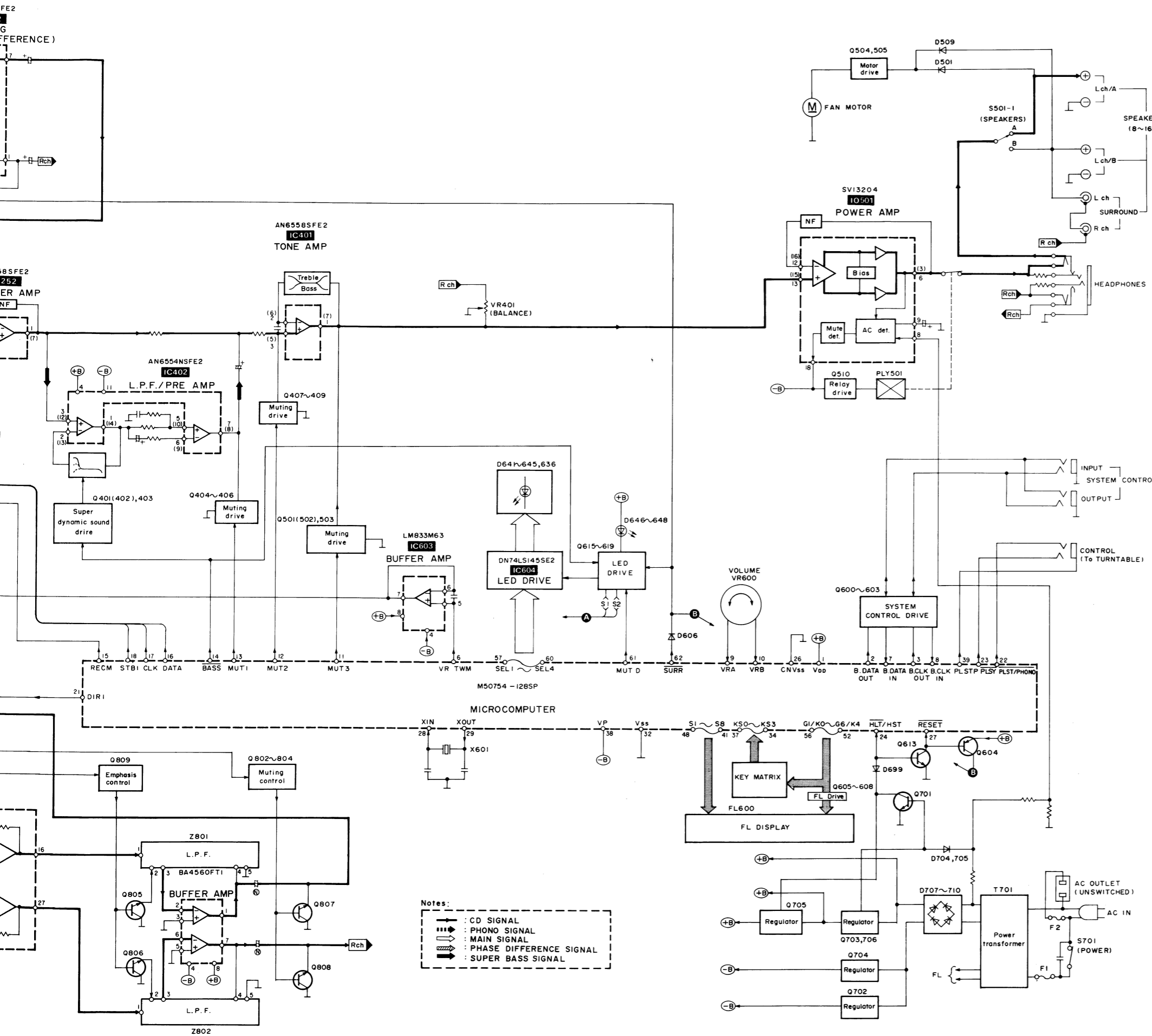


+IC 201

	X1	X2	X3	X4	X5	X6	X7	X8
PHONO	ON	-	-	-	-	ON	-	-
TUNER	-	ON	-	-	-	ON	-	-
AUX	-	-	ON	-	-	ON	-	-
TAPE 1	-	-	-	ON	-	ON	-	-
TAPE 2	-	-	-	-	ON	ON	-	-
CD	-	-	-	-	-	ON	ON	ON

() indicates pin NO. of right channel.

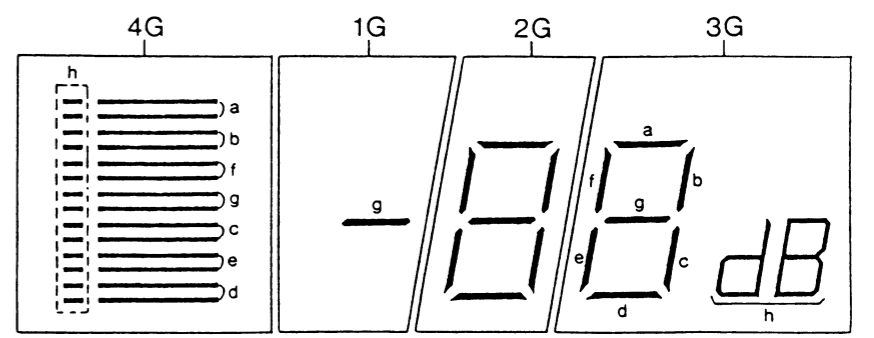
- Notes:
- : CD SIGNAL
 - : PHONO SIGNAL
 - : MAIN SIGNAL
 - : PHASE DIFFERENCE SIGNAL
 - : SUPER BASS SIGNAL



Notes:
 - CD SIGNAL
 - PHONO SIGNAL
 - MAIN SIGNAL
 - PHASE DIFFERENCE SIGNAL
 - SUPER BASS SIGNAL

DESCRIPTION OF FL PANEL [FL600 (SADFV217)]

GRID ASSIGNMENT



PIN CONNECTION

Pin No.	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Connection	F 2	F 2	N P	a	4 G	b	c	d	1 G	e	f	2 G	g	3 G	N P	h	3 G	N P	F 1	F 1

FUNCTIONS OF IC TERMINALS

IC805 (PD00601)

Pin No.	Symbol	I/O	Function Description		
1	X IN	I	These are the I/O terminals for the oscillating clock signal.		
2	X OUT	O			
3	MODE 1	I	Master clock input terminal.		
5	LR CLK	I	LR clock input terminal.		
6	DATA	I	Serial data input terminal.		
7	BCK	I	Bit clock input terminal.		
9	MODE 2	I	Select the output data.		
			H	H	18 bit
			L	L	16 bit
13	MODE 3	I	L	—	20 bit
11	LD OUT	O	Output the signal on the left channel.		
12	RD OUT	O	Output the signal on the right channel.		
14	W OUT	O	Output the signal for the word clock.		
15	B OUT	O	Output the signal for the bit clock.		
16	VDD	I	To be connected to a power supply. (+5 V)		

●IC602 (M50754-128SP)

Pin No.	Symbol	I/O	Function Description
1	VDD	—	To be connected to a power supply. (+5 V)
2	B. DATA OUT	O	This is the output terminal for the bus data signal.
3	B. CLK OUT	O	This is the output terminal for the bus clock signal.
6	VR PWM	O	This terminal outputs the signal for the control of the volume.
7	B. DATA IN	I	This is the input terminal for the bus data signal.
8	B. CLK IN	I	This is the input terminal for the bus clock signal.
9	VR A	I	These are the terminals for the rotary encoder of the volume of VR600.
10	VR B		
11	MUT 3	O	Outputs the -6 dB signal for control of attenuated muting.
12	MUT 2		
13	MUT 1		
14	$\overline{\text{BASS}}$	O	Output the signal for the control of super bass LED.
15	REC M	O	Output the signal for muting the VTR 1 recording.
16	DATA	O	These are output terminal for data and clock signals.
17	CLK		
18	STB 1	O	The serial data inputted into IC201 is latched by the STB pulse and the switch is set to ON according to data.
22	$\overline{\text{PLST/PHONO}}$	O	These are the terminals for sync recording on the player.
23	$\overline{\text{PLSY}}$	I	
24	$\overline{\text{HLT/HST}}$	I	This is the terminal for the detection of power supply.
25	KS4	I	This is the key scan terminal.
27	$\overline{\text{RESET}}$	I	This is the input terminal for the reset signal.
28	X IN	I	These are the I/O terminals for the oscillating clock signal.
29	X OUT	O	
34 } 37	KS 3 } KS 0	I	These are the key scan terminals.
38	VP	I	The signal which pulls down the voltage is inputted into this terminal.
39	PLS TP	O	This is the terminal for sync recording on the player.
41 } 48	S8 } S1	O	These terminals output signals for the control of the FL display.
52 } 56	G5/K4 } G1/K0		
57 } 60	SEL 1 } SEL 4		
61	MUT D	O	Output the signal for the control of the LED.
62	$\overline{\text{SURR}}$		

REPLACEMENT PARTS LIST

Notes : * Important safety notice:

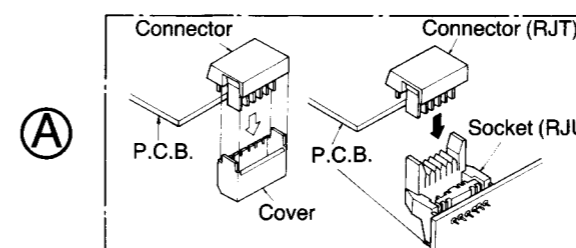
Components identified by \triangle mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

* The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.

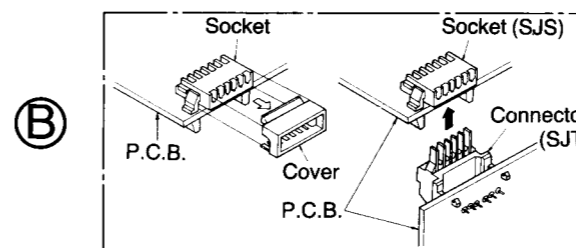
Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)		Q616, 617	UN4215TA	TRANSISTOR	
				Q618, 619	DTA114ESTP	TRANSISTOR	
				Q701	UN4215TA	TRANSISTOR	
IC101	AN6558SFE2	IC, PHONO EQ AMP.		Q702	2SB621AQRSTA	TRANSISTOR	
IC201	TC9164N	IC, INPUT SELECTOR		Q703	2SD1761DEF	TRANSISTOR	
IC251	M5283P	IC, ATTENUATOR		Q704	2SB1187DEF	TRANSISTOR	
IC252	AN6558SFE2	IC, BUFFER AMP.		Q705, 706	2SD1761DEF	TRANSISTOR	
IC301	AN6558SFE2	IC, PHASE SHIFT		Q802, 803	DTC114ESTP	TRANSISTOR	
IC302	AN6554NSFE2	IC, MIXING/PHASE SHIFT		Q804	DTA114ESTP	TRANSISTOR	
IC303	BA4560FT1	IC, BUFFER AMP.		Q805, 806	2SC3114STUTA	TRANSISTOR	
IC401	AN6558SFE2	IC, TONE AMP.		Q807, 808	2SD2144STA	TRANSISTOR	
IC402	AN6554NSFE2	IC, PRE/BUFFER AMP.		Q809	DTA114ESTP	TRANSISTOR	
IC501	SV13204	IC, POWER AMP.		Q810	2SC3311AQSTA	TRANSISTOR	
IC602	M50754-128SP	IC, MICROCOMPUTER		Q811	DTC114ESTP	TRANSISTOR	
IC603	LM833M63	IC, BUFFER AMP.				DIODE(S)	
IC604	DN74LS145SE2	IC, LED DRIVE					
IC801, 802	HFBR-2550	IC, OPTICAL RECEIVER		D401	MA165TA	DIODE	
IC803	PD0052	IC, DIGITAL INTERFACE		D501, 502	MA167TA	DIODE	
IC804	MC74HCU04FEL	IC, INVERTER		D503	MA165TA	DIODE	
IC805	PD00601	IC, DIGITAL FILTER		D504	MA4051MTA	DIODE	
IC806	PCM1700U-T1	IC, D/A CONVERTER		D507, 508	MA4120MTA	DIODE	
IC811	BA4560FT1	IC, BUFFER AMP.		D509, 510	MA167TA	DIODE	
		TRANSISTOR(S)		D515	MA4160MTA	DIODE	
Q201, 202	2SD2144STA	TRANSISTOR		D600, 601	MA700ATA	DIODE	
Q203	DTA114ESTP	TRANSISTOR		D602	MA165TA	DIODE	
Q205	2SC3311AQSTA	TRANSISTOR		D603	MA4047MTA	DIODE	
Q206	2SA1309AQSTA	TRANSISTOR		D604-611	MA165TA	DIODE	
Q301	2SD2144STA	TRANSISTOR		D613-616	MA165TA	DIODE	
Q303	DTA114ESTP	TRANSISTOR		D618	MA165TA	DIODE	
Q401, 402	2SD2144STA	TRANSISTOR		D619	1SS291TA	DIODE	
Q403, 404	DTA114ESTP	TRANSISTOR		D620, 621	MA165TA	DIODE	
Q405-408	2SD2144STA	TRANSISTOR		D622	MA700ATA	DIODE	
Q409	2SA1309AQSTA	TRANSISTOR		D627-630	MA165TA	DIODE	
Q501, 502	2SD1450RSTTA	TRANSISTOR		D633-635	LN846RP-C	LED	
Q503	2SA1309AQSTA	TRANSISTOR		D636	LN038494PS	LED	
Q504	2SC2458ABCTA	TRANSISTOR		D641-645	LN820RP-C	LED	
Q505	2SA1309AQSTA	TRANSISTOR		D646-648	LN846RP-C	LED	
Q510	2SA992EPPTA	TRANSISTOR		D660-662	MA165TA	DIODE	
Q600, 601	2SC3311AQSTA	TRANSISTOR		D670, 671	MA165TA	DIODE	
Q602, 603	DTC144ESTP	TRANSISTOR		D699	MA165TA	DIODE	
Q604	UN4115TA	TRANSISTOR		D701, 702	MA4150MTA	DIODE	
Q605-608	DTC114ESTP	TRANSISTOR		D703-705	MA165TA	DIODE	
Q609, 610	2SC3311AQSTA	TRANSISTOR		D706	MA4062HTA	DIODE	
Q613	DTC114ESTP	TRANSISTOR		D707-710	RVDP300DLF	DIODE	\triangle
Q615	DTC114ESTP	TRANSISTOR		D713	MA4300MTA	DIODE	
				D801	MA165TA	DIODE	

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
D803, 804	MA165TA	DIODE		S604	EVQ21405R	SW, INPUT SELECTOR (DAT)	
D809	MA4051LTA	DIODE		S605	EVQ21405R	SW, INPUT SELECTOR (CD)	
D810	MA4043MTA	DIODE		S606	EVQ21405R	SW, INPUT SELECTOR (D. AUX)	
		VARIABLE RESISTOR(S)		S607	EVQ21405R	SW, INPUT SELECTOR (TAPE1)	
				S608	EVQ21405R	SW, INPUT SELECTOR (TAPE2)	
VR401	EW1E DAF25G15	BALANCE CONTROL		S609	EVQ21405R	SW, INPUT SELECTOR (AUX)	
VR402, 403	EW2CAF25C15	BASS/TREBLE CONTROL		S610	EVQ21405R	SW, INPUT SELECTOR (TUNER)	
VR600	EVQWVF2024B	MAIN VOLUME		S611	EVQ21405R	SW, INPUT SELECTOR (PHONO)	
		COMPONENT COMBINATION (S)		S701	ESB8249V	SW, POWER	△
				S702	ESE37263	SW, VOLTAGE SELECTOR	△ (GC)
						JACK(S)	
Z801, 802	H8DN2041B	COMPONENT COMBINATION		J209	SJT3213	CONNECTOR (2P)	
		COIL (S)		J502	RJS1A1703	CONNECTOR (3P)	
				J701	RJS1A1705	CONNECTOR (5P)	
L501, 502	SLQY07G-40	COIL		J201A	RJT057W007	CONNECTOR (7P)	
L563-566	SLQY07G-40	COIL	(EG)	J202A	RJT057W007	CONNECTOR (7P)	
L601	RLQZP100KT-Y	COIL		J203A	RJT057W009	CONNECTOR (9P)	
L602, 603	RLQZP101KT-Y	COIL		J205A	RJT057W009	CONNECTOR (9P)	
L604	RLQZP101KT-Y	COIL		J208A	RJT057W007	CONNECTOR (7P)	
L801	RLQZP470KT-Y	COIL		J501A	RJS1A1704	CONNECTOR (4P)	
L802	RLQZP101KT-Y	COIL		J601A	RJU003K010M1	SOCKET (10P)	(Black)
L803	RLQZP3R3KT-Y	COIL			SJT31054WF	CONNECTOR (10P)	(Ivory)
L804	RLQZP1R2KT-Y	COIL		J602A	RJU003K010M1	SOCKET (10P)	(Black)
L805	RLQZP3R3KT-Y	COIL			SJT31054WF	CONNECTOR (10P)	(Ivory)
L806	RLQZP1R2KT-Y	COIL		J604A	RJU003K008M1	SOCKET (8P)	(Black)
L807	RLQZP3R3KT-Y	COIL			SJT30854WF	CONNECTOR (8P)	(Ivory)
L808-810	RLQZP1R2KT-Y	COIL		J605A	RJU003K008M1	SOCKET (8P)	(Black)
L811	RLQZP3R3KT-Y	COIL			SJT30854WF	CONNECTOR (8P)	(Ivory)
		OSCILLATOR(S)		J610A	SJS50581BB	SOCKET (5P)	
				J611A	SJS50581BB	SOCKET (5P)	
X601	EFOGC6004T4	OSCILLATOR		J612A	SJS50581BB	SOCKET (5P)	
		DISPLAY TUBE		J613A	SJS50581BB	SOCKET (5P)	
				J614A	SJS50581BB	SOCKET (5P)	
				J615A	SJS50581BB	SOCKET (5P)	
FL600	SADVF217	DISPLAY TUBE		J801A	RJT057W009	CONNECTOR (9P)	
		FUSE (S)		J802A	RJT057W007	CONNECTOR (7P)	
				J207A-1, 2	RJT057W007	CONNECTOR (7P)	
F1	XBA2C12TB0	FUSE 250V T1. 25A	△ (E, EB, EG)	J201B	RJU057W007	SOCKET (7P)	
F1	XBA2C25TB0	FUSE 250V T2. 5A	△ (GC)	J202B	RJU057W007	SOCKET (7P)	
F2	XBA2C12TB0	FUSE 250V T1. 25A	△	J203B	RJU057W009	SOCKET (9P)	
		SWITCH(ES)		J205B	RJU057W009	SOCKET (9P)	
S501-1	RSP2B009-J	SW, SPEAKER SELECTOR A/B		J208B	RJU057W007	SOCKET (7P)	
S600	EVQ21405R	SW, SURROUND SOUND		J601B	RJT003K010M1	CONNECTOR (10P)	(Black or Gray)
S601	EVQ21405R	SW, SUPER BASS			SJS51087WF	SOCKET (10P)	(Ivory)
S602	EVQ21405R	SW, AUDIO MUTING		J602B	RJT003K010M1	CONNECTOR (10P)	(Black or Gray)
S603	EVQ21405R	SW, VOLUME PRESET			SJS51087WF	SOCKET (10P)	(Ivory)
				J604B	RJT003K008M1	CONNECTOR (8P)	(Black or Gray)
					SJS50887WF	SOCKET (8P)	(Ivory)
				J605B	RJT003K008M1	CONNECTOR (8P)	(Black or Gray)
					SJS50887WF	SOCKET (8P)	(Ivory)

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
J610B	SJT30549BB1	CONNECTOR (5P)					
J611B	SJT30549BB1	CONNECTOR (5P)				FUSE HOLDER(S)	
J612B	SJT30549BB1	CONNECTOR (5P)					
J613B	SJT30549BB1	CONNECTOR (5P)		FC1, 2	SJT388	FUSE HOLDER	△
J614B	SJT30549BB1	CONNECTOR (5P)		FC3, 4	SJT388	FUSE HOLDER	△ (E, EB, EG, GC)
J615B	SJT30549BB1	CONNECTOR (5P)					
J801B	RJU057W009	SOCKET (9P)				RELAY	
J802B	RJU057W007	SOCKET (7P)					
J207B-1, 2	RJU057W007	SOCKET (7P)		RLY501	SSY134	RELAY	
JK201	SJF3069N	EXT IN/OUT				TRANSFORMER	
JK202	SJF3069N	TAPE2 PB/AUX					
JK203	SJF3069N	DAT/TAPE2 REC OUT					
JK204	SJF3067N	PHONO/TAPE1 REC OUT		T701	SLT5N482-W	POWER TRANSFORMER	△ (E, EG)
JK205	SJF3069N	TAPE1 PB/TUNER		T701	SLT5N481-W	POWER TRANSFORMER	△ (EB, GN)
JK206	SJF3068N	CD		T701	SLT5N483-W	POWER TRANSFORMER	△ (GC)
JK501	RJR0054	SP A					
JK502	SJF3068-4N	SP SURROUND					
JK503	RJR0054	SP B					
JK503A	RJJ67TS02	H P JACK					
JK601	RJJ33T01	SYSTEM CONTROL IN					
JK602	RJJ33T01	SYSTEM CONTROL OUT					
JK603	RJJ33T01	TURN TABLE CONTROL					
JK801	SJFD7-2	DIGITAL INPUT					



Pins	Part No.	Color
8 pin	RJT003K008M1	(Black or Gray)
8 pin	RJU003K008M1	(Black)
10 pin	RJT003K010M1	(Black or Gray)
10 pin	RJU003K010M1	(Black)

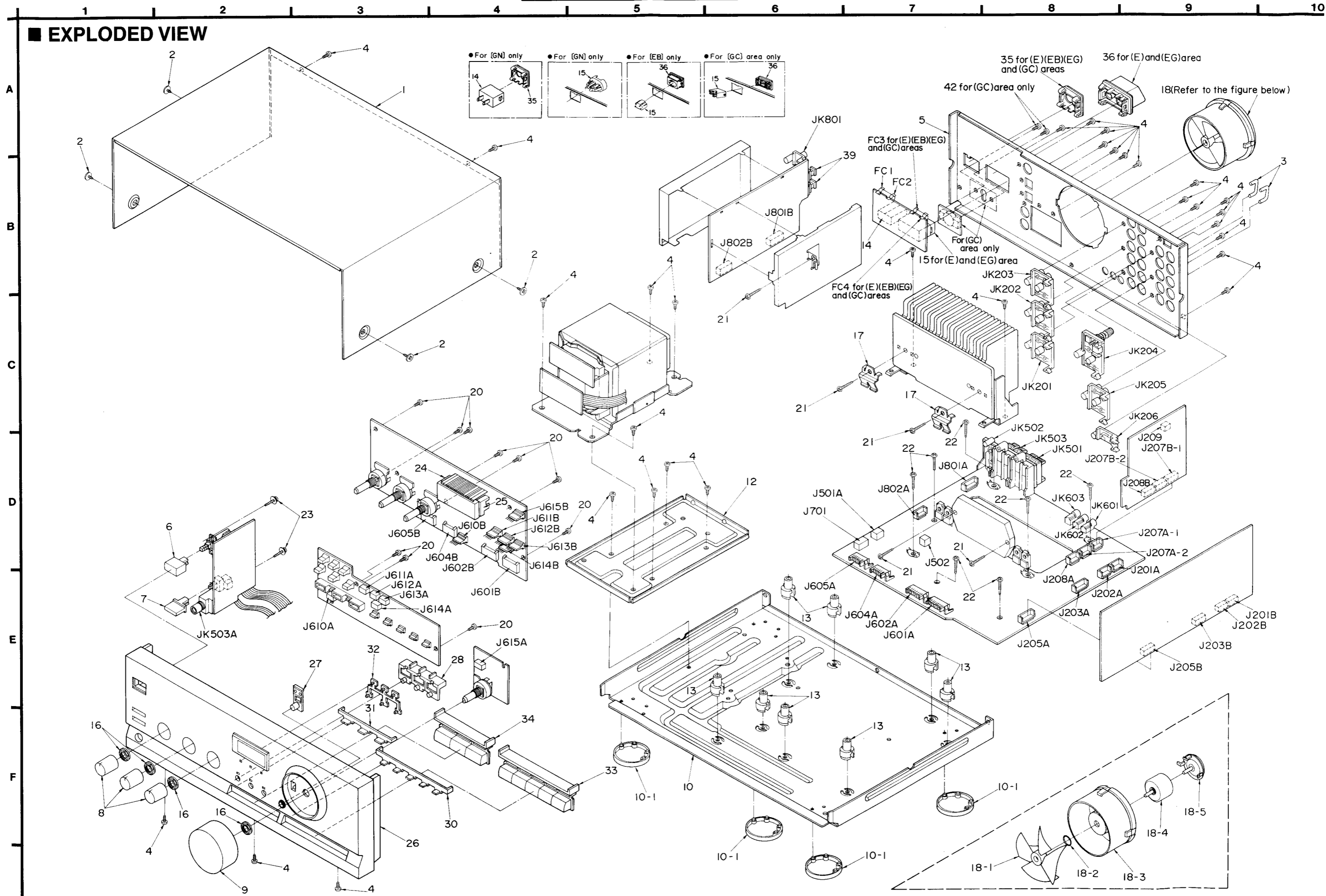


Pins	Part No.	Color
8 pin	SJS50887WF	(Ivory)
8 pin	SJT30854WF	(Ivory)
10 pin	SJS51087WF	(Ivory)
10 pin	SJT31054WF	(Ivory)

Notes:

- Regarding Ref. No. J601A, J602A, J604A, J605A, J601B, J602B, J604B, J605B, there are two types (A) and (B).
- Be sure to order the replacement parts of the desired color by the corresponding part numbers.
- The type-(A) connector and the type-(B) socket are protected with covers when they are supplied. Remove the cover after soldering the connector or socket to P.C.B.

EXPLODED VIEW



Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS		36	SJS9233A	AC OUTLET COVER	△(GC)
				39	RFKNUX901EKA	CAP	
				42	XYN3+C6FZ	SCREW	(GC)
						PACKING MATERIAL	
1	RKM0024A-2K	CABINET		P1	RPG0468	CARTON BOX	
2	RHD30007	SCREW		P2	RPN0332	PAD	
3	SJP9205-2Y	SHORTING PIN		P3	SPSD152	ACCESSORIES BOX	
4	XTBS3+8JFZ1	SCREW		P4	XZB52X60A01Z	PROTECTION COVER	
5	RGR0083B-D	REAR PANEL	(E)			ACCESSORIES	
5	RGR0083A-B	REAR PANEL	(EB)	A1	RQF0569	INSTRUCTIONS MANUAL ASS' Y	(E)
5	RGR0083B-E	REAR PANEL	(EG)	A1	RQF0568	INSTRUCTIONS MANUAL ASS' Y	(EB)
5	RGR0083D	REAR PANEL	(GC)	A1	RQF0570	INSTRUCTIONS MANUAL ASS' Y	(EG)
5	RGR0083C	REAR PANEL	(GN)	A1	RQF0571	INSTRUCTIONS MANUAL ASS' Y	(GC)
6	RGU0030	POWER BUTTON		A1	RQF0572	INSTRUCTIONS MANUAL ASS' Y	(GN)
7	RGU0101	SP SELECT BUTTON		A1-1	RQA0013	WARRANTY CARD	(E, EB, EG)
8	RGW0028-1K	TOPE KNOB		A1-1	SQX7186	WARRANTY CARD	(GN)
9	RGW0049	MAIN VOL KNOB		A1-2	RQCB0169	SERVICENTOR LIST	
10	RFKJUX301E-K	CHASSIS ASS' Y		A1-3	RFKSUX501E-K	INSTRUCTIONS MANUAL	(E)
10-1	RKA0011	FOOT		A1-3	RQT0463-B	INSTRUCTIONS MANUAL	(EB, GN)
12	RMA0138	ANGLE		A1-3	RQT0466-D	INSTRUCTIONS MANUAL	(EG)
13	SHE187-2	HOLDER		A1-3	RQT0464-G	INSTRUCTIONS MANUAL	(GC)
14	SJS9231-1B	AC INLET	△(E, EB, EG, GC)	A1-4	RQCS0009	CAUTION NOTE FOR FTZ	(EG)
14	SJS9234B	AC INLET	△(GN)	A2	SFDAC05E03	AC CORD	△(E, EG)
15	SJS9333B	AC OUTLET	△(E, EG)	A2	SJA188	AC CORD	△(EB)
15	SJS9332B	AC OUTLET	△(EB)	A2	RJA0004	AC CORD	△(GC)
15	SJS9233B	AC OUTLET	△(GC)	A2	SJA173	AC CORD	△(GN)
15	RJS1A4602	AC OUTLET	△(GN)	A3	SJP9215	AC PLUG ADAPTOR	△(GC)
16	SNE4021-1	NUT					
17	SUS894-1	SPRING					
18	SYE1128-3	FAN ASS' Y					
18-1	SHE232	FAN					
18-2	SJS271	SPRING					
18-3	SHE233	FAN CASE					
18-4	MDN-4RB4MRC	MOTOR					
18-5	SHE234	CAP					
20	XTBS26+8J	SCREW					
21	XTB3+16J	SCREW					
22	XTB3+20JFZ	SCREW					
23	XTWS3+8T	SCREW					
24	SMN2056	FL HOLDER(L)					
25	SMN2056-1	FL HOLDER(R)					
26	RFKJUX501E-K	FRONT PANEL					
27	RFKNUX901EK1	VOL PRESET BUTTON					
28	RFKNUX901EK2	SURROUND(etc) BUTTON					
30	RGL0080-X	PANEL LIGHT					
31	RGL0081-X	PANEL LIGHT					
32	RGL0082-X	PANEL LIGHT					
33	RGU0361-K	INPUT SELECTOR BUTTON					
34	RGU0362-K	DIGITAL SELECTOR BUTTON					
35	SJS9231A	AC INLET COVER	△(E, EB, EG, GC)				
35	SJS9234A	AC INLET COVER	△(GN)				
36	SJS9333A	AC OUTLET COVER	△(E, EG)				
36	SJS9332A	AC OUTLET COVER	△(EB)				

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

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS	R405, 406	ERDS2TJ393T	1/4W 39K	R535-538	ERDS2TJ472T	1/4W 4.7K
			R407, 408	ERDS2TJ333T	1/4W 33K	R539	ERDS2TJ102T	1/4W 1K
			R409, 410	ERDS2TJ103T	1/4W 10K	R540	ERDS2TJ334T	1/4W 330K
R107, 108	ERDS2TJ471T	1/4W 470	R411, 412	ERDS2TJ332T	1/4W 3.3K	R541	ERDS2TJ223T	1/4W 22K
R109, 110	ERDS2TJ473T	1/4W 47K	R413, 414	ERDS2TJ153T	1/4W 15K	R542	ERDS2TJ332T	1/4W 3.3K
R111, 112	ERDS2TJ331T	1/4W 330	R415, 416	ERDS2TJ222T	1/4W 2.2K	R543	ERDS1FVJ560T	1/2W 56 Δ
R113, 114	ERDS2TJ680T	1/4W 68	R417, 418	ERDS2TJ221T	1/4W 220	R545, 546	ERDS2TJ223T	1/4W 22K
R115, 116	ERDS2TJ184T	1/4W 180K	R419, 420	ERDS2TJ273T	1/4W 27K	R551	ERDS2TJ104T	1/4W 100K
R117, 118	ERDS2TJ123T	1/4W 12K	R421, 422	ERDS2TJ470T	1/4W 47	R552	ERG1SJ391E	1W 390
R119, 120	ERDS2TJ224T	1/4W 220K	R423, 424	ERDS2TJ153T	1/4W 15K	R554	ERD25FVJ470T	1/4W 47 Δ
R121, 122	ERDS2TJ102T	1/4W 1K	R425-428	ERDS2TJ152T	1/4W 1.5K	R600	ERDS2TJ331T	1/4W 330
R123, 124	ERDS2TJ471T	1/4W 470	R429, 430	ERDS2TJ333T	1/4W 33K	R601	ERDS2TJ223T	1/4W 22K
R201, 202	ERDS2TJ472T	1/4W 4.7K	R431, 432	ERDS2TJ102T	1/4W 1K	R602-604	ERDS2TJ393T	1/4W 39K
R203-206	ERDS2TJ102T	1/4W 1K	R433	ERDS2TJ105T	1/4W 1M	R605	ERDS2TJ223T	1/4W 22K
R207, 208	ERDS2TJ822T	1/4W 8.2K	R434	ERDS2TJ334T	1/4W 330K	R606-608	ERDS2TJ393T	1/4W 39K
R209, 210	ERDS2TJ102T	1/4W 1K	R435, 436	ERDS2TJ102T	1/4W 1K	R609-612	ERDS2TJ100T	1/4W 10
R211, 212	ERDS2TJ821T	1/4W 820	R437	ERDS2TJ105T	1/4W 1M	R614, 615	ERDS2TJ151T	1/4W 150
R213-220	ERDS2TJ102T	1/4W 1K	R438	ERDS2TJ334T	1/4W 330K	R626-629	ERDS2TJ182T	1/4W 1.8K
R221, 222	ERDS2TJ392T	1/4W 3.9K	R439, 440	ERDS2TJ152T	1/4W 1.5K	R631, 632	ERDS2TJ103T	1/4W 10K
R223, 224	ERDS2TJ334T	1/4W 330K	R441, 442	ERDS2TJ222T	1/4W 2.2K	R633	ERDS2TJ332T	1/4W 3.3K
R225	ERDS2TJ273T	1/4W 27K	R443, 444	ERDS2TJ102T	1/4W 1K	R634-637	ERDS2TJ103T	1/4W 10K
R230, 231	ERDS2TJ102T	1/4W 1K	R445	ERDS2TJ222T	1/4W 2.2K	R638, 639	ERDS2TJ332T	1/4W 3.3K
R249	ERDS2TJ103T	1/4W 10K	R446	ERDS2TJ104T	1/4W 100K	R640	ERDS2TJ102T	1/4W 1K
R250	ERDS2TJ223T	1/4W 22K	R447	ERDS2TJ334T	1/4W 330K	R641-643	ERDS2TJ103T	1/4W 10K
R251, 252	ERDS2TJ473T	1/4W 47K	R448	ERDS2TJ105T	1/4W 1M	R644	ERDS2TJ822T	1/4W 8.2K
R253, 254	ERDS2TJ183T	1/4W 18K	R449	ERDS2TJ103T	1/4W 10K	R645	ERDS2TJ393T	1/4W 39K
R255, 256	ERDS2TJ153T	1/4W 15K	R450	ERDS2TJ332T	1/4W 3.3K	R646	ERDS2TJ332T	1/4W 3.3K
R257, 258	ERDS2TJ473T	1/4W 47K	R471-474	ERDS2TJ334T	1/4W 330K	R647	ERDS2TJ103T	1/4W 10K
R271, 272	ERDS2TJ152T	1/4W 1.5K	R477, 478	ERDS2TJ102T	1/4W 1K	R648	ERDS2TJ104T	1/4W 100K
R297, 298	ERDS2TJ182T	1/4W 1.8K	R501	ERDS2TJ104T	1/4W 100K	R649	ERDS2TJ105T	1/4W 1M
R301-304	ERDS2TJ223T	1/4W 22K	R502	ERDS2TJ105T	1/4W 1M	R650	ERDS2TJ102T	1/4W 1K
R305, 306	ERDS2TJ224T	1/4W 220K	R507, 508	ERDS2TJ222T	1/4W 2.2K	R651	ERDS2TJ151T	1/4W 150
R307, 308	ERDS2TJ332T	1/4W 3.3K	R509, 510	ERDS2TJ563T	1/4W 56K	R652	ERDS2TJ331T	1/4W 330
R309, 310	ERDS2TJ223T	1/4W 22K	R511, 512	ERDS2TJ182T	1/4W 1.8K	R662, 663	ERDS2TJ103T	1/4W 10K
R311, 312	ERDS2TJ393T	1/4W 39K	R513, 514	ERDS2TJ563T	1/4W 56K	R664	ERDS2TJ223T	1/4W 22K
R313-315	ERDS2TJ223T	1/4W 22K	R515, 516	ERDS2TJ223T	1/4W 22K	R665, 666	ERDS2TJ103T	1/4W 10K
R316	ERDS2TJ622T	1/4W 6.2K	R517	ERDS2TJ563T	1/4W 56K	R667	ERDS2TJ105T	1/4W 1M
R317	ERDS2TJ562T	1/4W 5.6K	R518	ERDS2TJ684T	1/4W 680K	R668	ERDS2TJ101T	1/4W 100
R318	ERDS2TJ123T	1/4W 12K	R519	ERDS2TJ154T	1/4W 150K	R670	ERDS2TJ104T	1/4W 100K
R319	ERDS2TJ224T	1/4W 220K	R520	ERDS2TJ153T	1/4W 15K	R671	ERDS2TJ102T	1/4W 1K
R321, 322	ERDS2TJ332T	1/4W 3.3K	R521	ERDS2TJ103T	1/4W 10K	R672	ERDS2TJ101T	1/4W 100
R324	ERDS2TJ332T	1/4W 3.3K	R522	ERDS1FVJ680T	1/2W 68 Δ	R673	ERDS2TJ473T	1/4W 47K
R325, 326	ERDS2TJ392T	1/4W 3.9K	R524	ERDS2TJ105T	1/4W 1M	R674	ERDS2TJ103T	1/4W 10K
R327, 328	ERDS2TJ104T	1/4W 100K	R525, 526	ERD25FVJ100T	1/4W 10 Δ	R680-682	ERDS2TJ271T	1/4W 270
R329	ERDS2TJ332T	1/4W 3.3K	R527, 528	ERDS1FVJ100T	1/2W 10 Δ	R683, 684	ERDS2TJ101T	1/4W 100
R331	ERDS2TJ105T	1/4W 1M	R529	ERG1SJ391E	1W 390	R696-699	ERDS2TJ104T	1/4W 100K
R332	ERDS2TJ334T	1/4W 330K	R530	ERDS2TJ223T	1/4W 22K	R701, 702	ERDS1FVJ332T	1/2W 3.3K Δ
R401, 402	ERDS2TJ153T	1/4W 15K	R531, 532	ERG1ANJP331S	1W 330	R703	ERD25FVJ101T	1/4W 100 Δ
R403, 404	ERDS2TJ103T	1/4W 10K	R533, 534	ERDS2TJ222T	1/4W 2.2K	R704	ERDS2TJ473T	1/4W 47K

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R705	ERDS2TJ103T	1/4W 10K	C109, 110	ECBT1H102KB5	50V 1000P	C503, 504	ECBT1H151KB5	50V 150P
R706	ERDS1FVJ2R2T	1/2W 2.2 Δ	C111, 112	ECEA0JPS330B	6.3V 33U	C505, 506	ECEA1HJ4R7B	50V 4.7U
R707	ERDS1FVJ3R3T	1/2W 3.3 Δ	C115, 116	ECFR1E223KR	25V 0.022U	C507, 508	ECBT1H6R8K5	50V 6.8P
R709	ERDS2TJ332T	1/4W 3.3K	C117, 118	ECFR1E682KR	25V 6800P	C509, 510	ECKR1H223ZF5	50V 0.022U
R710	ERDS1FVJ331T	1/2W 330 Δ	C119, 120	ECEA1HPS010B	50V 1U	C513	ECEA1CK100B	16V 10U
R711	ERDS2TJ102T	1/4W 1K	C121, 122	ECBT1E223ZF5	25V 0.022U	C514	ECEA0JK470B	6.3V 47U
R713	ERDS2TJ2R2T	1/4W 2.2	C200	ECBT1E223ZF5	25V 0.022U	C516-518	ECBT1E103ZF5	25V 0.01U
R716	ERDS2TJ2R2T	1/4W 2.2	C201, 202	ECEA1EK3R3B	25V 3.3U	C519	ECEA1HJ330B	50V 33U
R717	ERDS2TJ330T	1/4W 33	C203, 204	ECBT1E223ZF5	25V 0.022U	C520	ECEA2AU100B	100V 10U
R801	ERDS2TJ750T	1/4W 75	C205	ECBT1H180J5	50V 18P	C521	ECEA1CU101B	16V 100U
R803	ERDS2TJ104T	1/4W 100K	C205	ECEA1CK100B	16V 10U	C523, 524	ECEA1HPS3R3B	50V 3.3U
R804	ERDS2TJ182T	1/4W 1.8K	C206	ECBT1H180J5	50V 18P	C525, 526	ECBT1H102KB5	50V 1000P
R805	ERDS2TJ122T	1/4W 1.2K	C207, 208	ECBT1H151KB5	50V 150P	C531	ECBT1E223ZF5	25V 0.022U
R807	ERDS2TJ100T	1/4W 10	C209-216	ECBT1H101KB5	50V 100P	C535, 536	ECKR1H102ZF5	50V 1000P (E, EB)
R809	ERDS2TJ122T	1/4W 1.2K	C219-230	ECBT1H101KB5	50V 100P			(GC, GN)
R810	ERDS2TJ103T	1/4W 10K	C231, 232	ECBT1E223ZF5	25V 0.022U	C535, 536	ECKR1H223ZF5	50V 0.022U (EG)
R811	ERDS2TJ102T	1/4W 1K	C250	ECEA1CU470B	16V 47U	C537, 538	ECBT1H102KB5	50V 1000P
R813	ERDS2TJ102T	1/4W 1K	C251, 252	ECEA1HPS3R3B	50V 3.3U	C539, 540	ECKR1H102ZF5	50V 1000P (E, EB)
R814	ERDS2TJ103T	1/4W 10K	C253, 254	ECEA1HKR47B	50V 0.47U			(GC, GN)
R815	ERDS2TJ560T	1/4W 56	C255, 256	ECBT1H180J5	50V 18P	C539, 540	ECKR1H223ZF5	50V 0.022U (EG)
R816	ERDS2TJ472T	1/4W 4.7K	C258, 259	ECBT1E223ZF5	25V 0.022U	C541, 542	ECBT1H102KB5	50V 1000P
R817	ERDS2TJ473T	1/4W 47K	C271, 272	ECBT1H101KB5	50V 100P	C543-546	ECKR1H102ZF5	50V 1000P (EG)
R821	ERDS2TJ101T	1/4W 100	C273, 274	ECEA1CK220B	16V 22U	C597, 598	ECBT1H221KB5	50V 220P
R823	ERDS2TJ472T	1/4W 4.7K	C275, 276	ECEA1HK010B	50V 1U	C602	ECEA1VK3R3B	35V 3.3U
R827	ERDS1FVJ271T	1/2W 270 Δ	C301, 302	ECEA1HPS3R3B	50V 3.3U	C603	ECEA0JU470B	6.3V 47U
R828	ERDS1FVJ680T	1/2W 68 Δ	C303	ECBT1H680J5	50V 68P	C604	ECEA1VK100B	35V 10U
R829	ERDS1FVJ820T	1/2W 82 Δ	C304	ECQV1H823JZ3	50V 0.082U	C605	ECBT1E223ZF5	25V 0.022U
R833, 834	ERDS2TJ221T	1/4W 220	C305	ECEA1EK3R3B	25V 3.3U	C606	ECEA1EK4R7B	25V 4.7U
R837, 838	ERDS2TJ474T	1/4W 470K	C306	ECBT1H221KB5	50V 220P	C607	ECEA1CK100B	16V 10U
R839, 840	ERDS2TJ102T	1/4W 1K	C307	ECEA1EK3R3B	25V 3.3U	C608	ECEA0JU102E	6.3V 1000U
R841	ERDS2TJ104T	1/4W 100K	C309, 310	ECBT1H820KB5	50V 82P	C610	ECBT1E223ZF5	25V 0.022U
R842-844	ERDS2TJ272T	1/4W 2.7K	C311, 312	ECEA1HPS3R3B	50V 3.3U	C611	ECEA1HK010B	50V 1U
R845-848	ERDS2TJ471T	1/4W 470	C313	ECBT1E103ZF5	25V 0.01U	C612	ECQV1H333JZ3	50V 0.033U
R849	ERDS2TJ105T	1/4W 1M	C314	ECBT1E223ZF5	25V 0.022U	C613	ECQV1H683JZ3	50V 0.68U
R850	ERDS2TJ182T	1/4W 1.8K	C411, 412	ECEA1HK3R3B	50V 3.3U	C614, 615	ECBT1H101KB5	50V 100P
R851, 852	ERDS2TJ392T	1/4W 3.9K	C413, 414	ECEA1HK2R2B	50V 2.2U	C700	ECKWKC103PF2	400V 0.01U Δ
R853, 854	ERDS2TJ100T	1/4W 10	C415, 416	ECFR1E822KR	25V 8200P	C701, 702	ECKR1H103ZF5	50V 0.01U
R855, 856	ERDS2TJ103T	1/4W 10K	C417, 418	ECFR1E272KR	25V 2700P	C703, 704	ECEA1EU100B	25V 10U
R857	ERDS2TJ471T	1/4W 470	C419, 420	ECFR1E473KR	25V 0.047U	C705, 706	ECEA1CK100B	16V 10U
R858	ERDS2TJ182T	1/4W 1.8K	C421, 422	ECEA1HK2R2B	50V 2.2U	C707	ECBT1E103ZF5	25V 0.01U
R860-864	ERDS2TJ101T	1/4W 100	C423, 424	ECEA1CPS100B	16V 10U	C708	ECEA1CK100B	16V 10U
RI301, 1302	ERDS2TJ102T	1/4W 1K	C425, 426	ECEA1CK220B	16V 22U	C709	ECEA1HK2R2B	50V 2.2U
RI303, 1304	ERDS2TJ822T	1/4W 8.2K	C427	ECEA0JK470B	6.3V 47U	C710	ECBT1E223ZF5	25V 0.022U
RI305, 1306	ERDS2TJ223T	1/4W 22K	C432	ECEA1HK2R2B	50V 2.2U	C711, 712	ECETS56V472U	56V 4700U
RI307, 1308	ERDS2TJ392T	1/4W 3.9K	C433, 434	ECBT1E223ZF5	25V 0.022U	C713	ECQE2104KF3	250V 0.1U
RI309, 1310	ERDS2TJ182T	1/4W 1.8K	C471, 472	ECEA1HPS3R3B	50V 3.3U	C715	ECEA1VK100B	35V 10U
RI311, 1312	ERDS2TJ821T	1/4W 820	C473, 474	ECBT1H101KB5	50V 100P	C716	ECKR1H103ZF5	50V 0.01U
RI313, 1314	ERDS2TJ333T	1/4W 33K	C475, 476	ECBT1H821KB5	50V 820P	C731	ECFR1E104ZF5	25V 0.1U
			C477, 478	ECBT1H680J5	50V 68P	C800, 801	ECBT1E223ZF5	25V 0.022U
			C479, 480	ECEA1HK3R3B	50V 3.3U	C802	ECFR1E104ZF5	25V 0.1U
			C483, 484	ECBT1E103ZF5	25V 0.01U	C803	ECEA1CK100B	16V 10U
			C501, 502	ECBT1H331KB5	50V 330P	C804	ECFR1E104ZF5	25V 0.1U
		CAPACITORS						
C107, 108	ECBT1H101KB5	50V 100P						

