

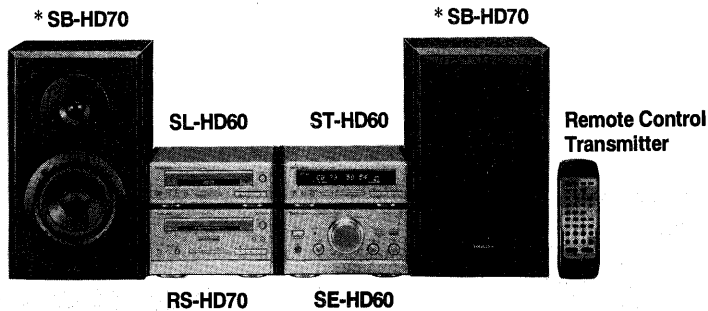
Service Manual

Amplifier

Amplifier

System: SC-HD60

SE-HD60



Colour

(N) Gold

Area

(E) Europe.

(EG) Germany and Italy.

Because of unique interconnecting cables, when a compact requires service, send or bring in the entire system.

Specifications

Amplifier Section

Power output

DIN 1 kHz, THD 1 %, both channel driven: 2×45 W (6 ohm)RMS 1 kHz, THD 10 %, both channel driven: 2×60 W (6 ohm)

Total harmonic distortion

Rated power at 1 kHz: 1 % (6 ohm)

Half power at 1 kHz: 0.09 % (6 ohm)

Load impedance: 6 ohm

S/N (rated power): 90 dB

General

Power consumption: 100 W

Power supply

[for (E,EG) area]: 230 V, AC 50Hz

Dimensions: 196(W)/103(H)/255(D) mm

Weight: 4.1 kg

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.

System/SC-HD60:

Tuner: ST-HD60, Compact Disc Player: SL-HD60, Amplifier: SE-HD60, Cassette Deck: RS-HD70, Speakers: SB-HD70

Notes: * Made in PAES

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Technics®

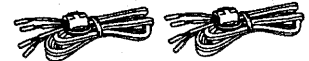
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■ Contents

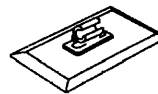
	Page		Page
Accessories	2	To Supply Power Source	11
Before Repair	3	Type Illustration of ICs, Transistors and Diodes	11
Protection Circuitry	3	Schematic Diagram	12 ~ 17
Location of Controls	3	Printed Circuit Board Diagram	18 ~ 20
Installation	4	Block Diagram	21, 22
Connections	5, 6	Replacement Parts List (Electrical)	23, 24
Changing the Tone	7	Resistors and Capacitors	25, 26
Convenient Functions	7	Replacement Parts List (Cabinet, Packing and Accessories)	27
Operation Checks and Main Component Replacement Procedures	8 ~ 10	Cabinet Parts Location	28
Wiring Connection Diagram	10	Packaging	29

■ Accessories

- AC power supply cord 1 pc.
(RJA0019-2K)
- Remote control transmitter 1 pc.
(RAK-CH193WH)
- Speaker cords 2 pcs.
(RFA0737-R)



- Remote control batteries 2 pcs.
(UM-4, "AAA", R03)
Note: These are available on sales route.
- AM loop antenna set (RSA0021)
AM loop antenna 1 pc.
Antenna holder with stand 1 pc.
- Antenna holder without stand 1 pc.
Screw 1 pc.



- FM indoor antenna 1 pc.
(RSA0007)
- Flat cable (short) 1 pc.
(REX0608)
- Flat cable (Long thick) 1 pc.
(REX0812)



- Flat cable (Long thin) 1 pc.
(REX0813)



■ Before Repair

- (1) Turn off the power supply. Using a 10 Ω , 10 W resistor, connect both ends of power supply capacitors (C715 ~ C718) 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 in NO SIGNAL mode should be shown below with respect to supply voltage 230 V.

Area	(E) (EG)
Power supply voltage	AC 230 V
Consumed current 50 Hz	60 ~ 180 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 functions 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.

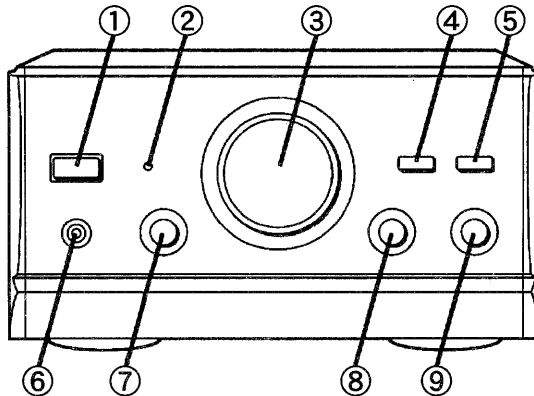
If this occurs, follow the procedure outlined below:

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

Note:

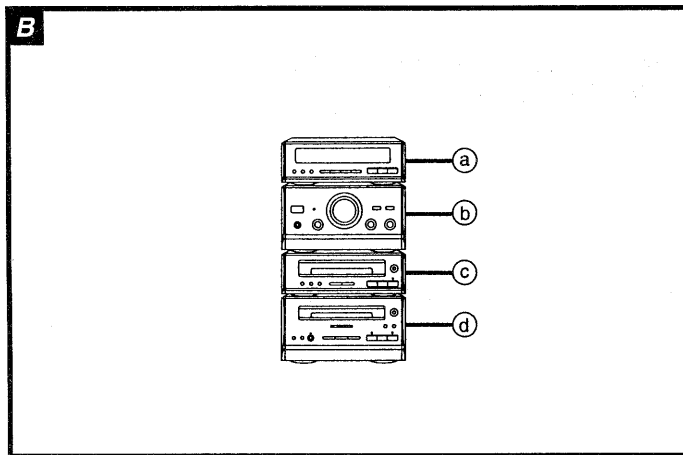
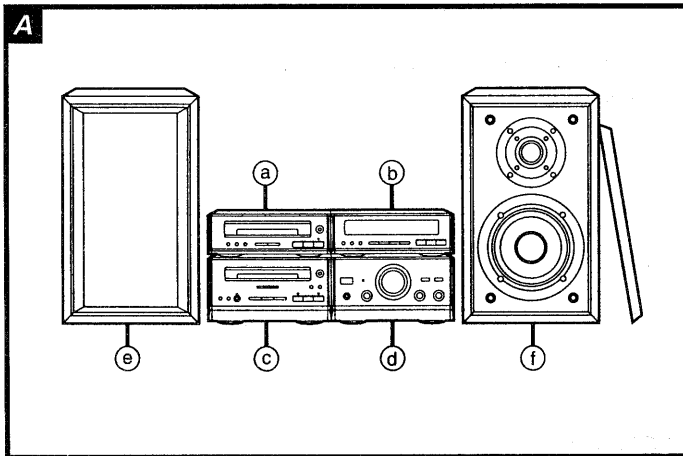
When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

■ Location of Controls



- ① **Power "STANDBY \odot /ON" switch (POWER, STANDBY \odot /ON)**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ② **Standby indicator (STANDBY)**
When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.
- ③ **Volume control (VOLUME)**
- ④ **Source direct button (SOURCE DIRECT)**
- ⑤ **Vocal presence button (VOCAL PRESENCE)**
- ⑥ **Headphones jack (PHONES)**
- ⑦ **Balance control (BALANCE)**
- ⑧ **Bass control (BASS)**
- ⑨ **Treble control (TREBLE)**

■ Installation



Locating the components

Side-by-side set-up **A**

- Ⓐ CD player
- Ⓑ Tuner
- Ⓒ Cassette deck
- Ⓓ Amplifier
- Ⓔ Left speaker
- Ⓕ Right speaker

Stacking **B**

- Ⓐ CD player
- Ⓑ Tuner
- Ⓒ Cassette deck
- Ⓓ Amplifier

Caution:

Use the speakers only with the recommended system. Failure to do so may lead to the amplifier and/or the speakers, and may result in the risk of fire. Consult a qualified service person if damage has occurred or if you experience a sudden in performance.

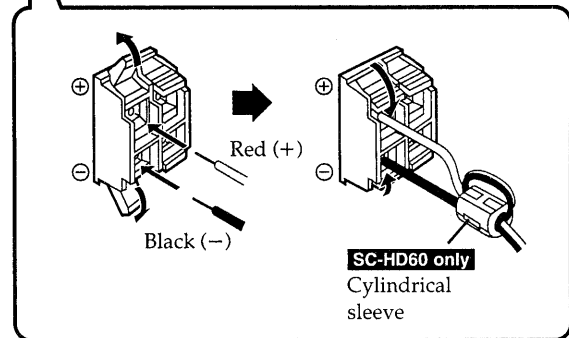
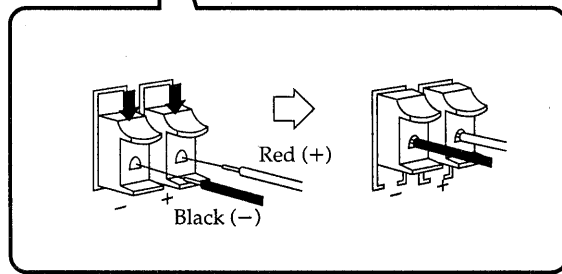
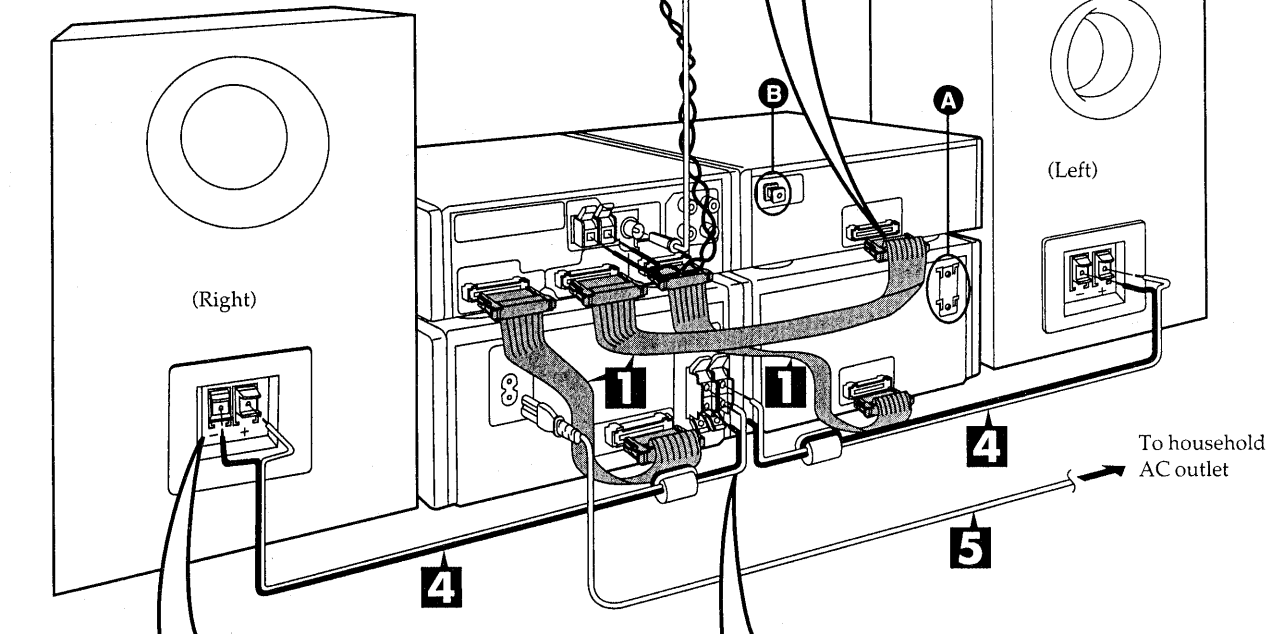
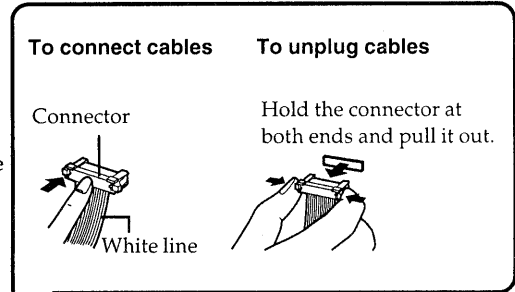
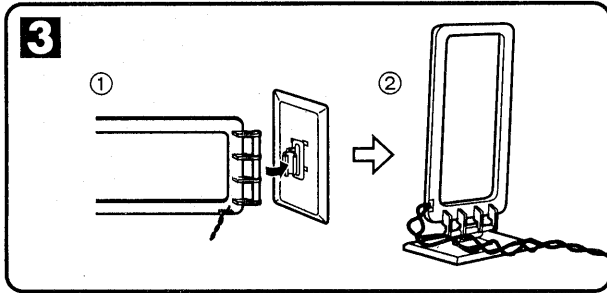
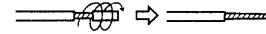
Note

Left and right speakers are exactly the same.

■ Connections

Connect the AC mains lead after you have connected all other cables.

To prepare the AM loop antenna wire and speaker cords, twist the vinyl cover tip and pull off.



1 Connect the flat cables.

1. Connect the short flat cable between the terminals A1 and A2.
2. Connect the long thick flat cable between the terminals B1 and B2.
3. Connect the long thin flat cable between the terminals C1 and C2.

Note

Do not try connecting or disconnecting the flat cables while the power is switched to ON.

After connection:

Keep cables as flat against the back of the unit as possible.

2 Connect the FM indoor antenna.

Tape the antenna to a wall or column, in a position where radio signals are received with the least amount of interference.

Note

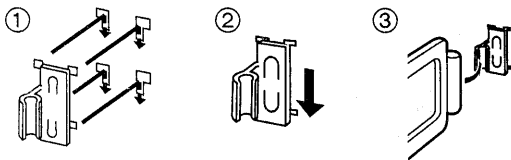
When you cannot get a good reception with this FM indoor antenna, we recommend you install an FM outdoor antenna (not included).

3 Connect the AM loop antenna.

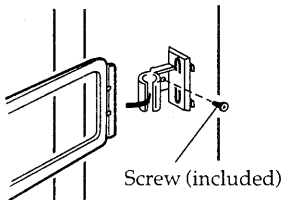
You can also install the AM loop antenna on the rear of the cassette deck, wall or pillars.

In this case, be sure to use the antenna holder with the hole.

• **To install on the cassette deck rear (A)**



• **To install on walls or pillars**



Note

To minimize noise pickup, bundle the loop antenna cord using a tape or so to keep the flat cables away from the AM loop antenna cord.

4 Connect the right (R) and left (L) front speaker cables.

Note

- For SC-HD60 connect the end of the speaker cable with the cylindrical sleeve to the amp side.
- To prevent damage to circuitry, never short-circuit positive (+) and negative (-) speaker wires.
- Be sure to connect only positive (red) wires to positive (+) terminals and negative (black) wires to negative (-) terminals.

These speakers are made so as to be able to be used in close proximity to the TV, but irregular coloring may result due to how the system is placed. If such distortion occurs, turn off the TV for sometime between 15 and 30 minutes. The demagnetizing function of the TV will eliminate the distortion. If the irregular coloring is still visible, then move the speaker further away from the TV. Please note that if there is a magnetic object near the TV, irregular coloring may result due to the interaction between the TV and the speakers.

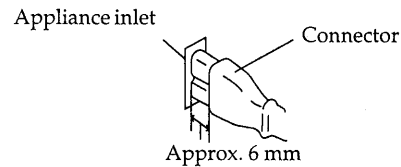
5 Connect the AC mains lead.

(United Kingdom only)
BE SURE TO READ THE CAUTION FOR AC MAINS LEAD ON PAGE 4 BEFORE PROCEEDING TO STEP 5.

Insertion of Connector

Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing.

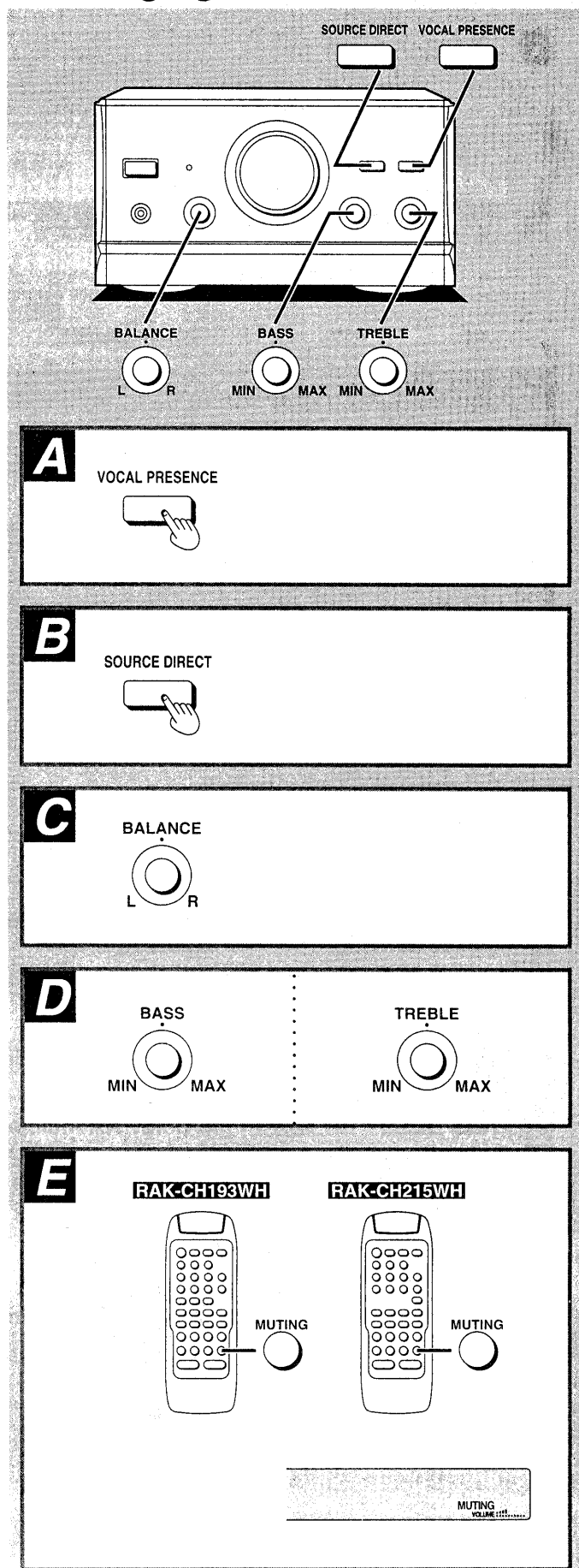
However there is no problem using the unit.



Connections to "DIGITAL OPTICAL OUT" terminal: (B)

Before using this terminal, take out the dust protection cap. Connect an optical-fiber cable to the optical input terminal of the DCC or minidisc deck (cables and components not included).

■ Changing the Tone



Listening with Vocal Presence **A**

Press VOCAL PRESENCE.

The button will light up. Vocal Presence accentuates midrange sounds to make voices stand out. (Vocal Presence cannot be used at the same time as SOURCE DIRECT.)

To cancel

Press VOCAL PRESENCE again.

For clearer sound **B**

Press SOURCE DIRECT.

The button will light up. Voice signals will not be fed through the tone control circuit, so you get a clearer sound. (You cannot adjust BASS or TREBLE when using SOURCE DIRECT.)

To cancel

Press SOURCE DIRECT again.

To adjust the sound balance **C**

Turn BALANCE to adjust the left/right sound balance.

Note

The effect works only with playback. It cannot be used in recording.

To adjust the tone quality **D**

Turn BASS to adjust the low-frequency sound.

Turn TREBLE to adjust the high-frequency sound.

Note

The effect works only with playback. It cannot be used in recording.

■ Convenient Functions

To mute the volume **E**

This feature is convenient when you have a telephone call, etc.

by remote control only

Press MUTING.

"MUTING" will light.

To cancel, press MUTING once again. ("MUTING" goes out.)

To cancel from the amplifier, reduce the volume level to the minimum position (—dB) and then reset to the desired volume.

For your reference:

When the system is turned off, the muting operation will be automatically canceled.

■ Operation Checks and Main Component Replacement Procedures

NOTE

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.
4. Refer the parts No. on the page of "Main Component Replacement Procedures", if necessary.

● Contents

•Checking Procedures for each P.C.B.

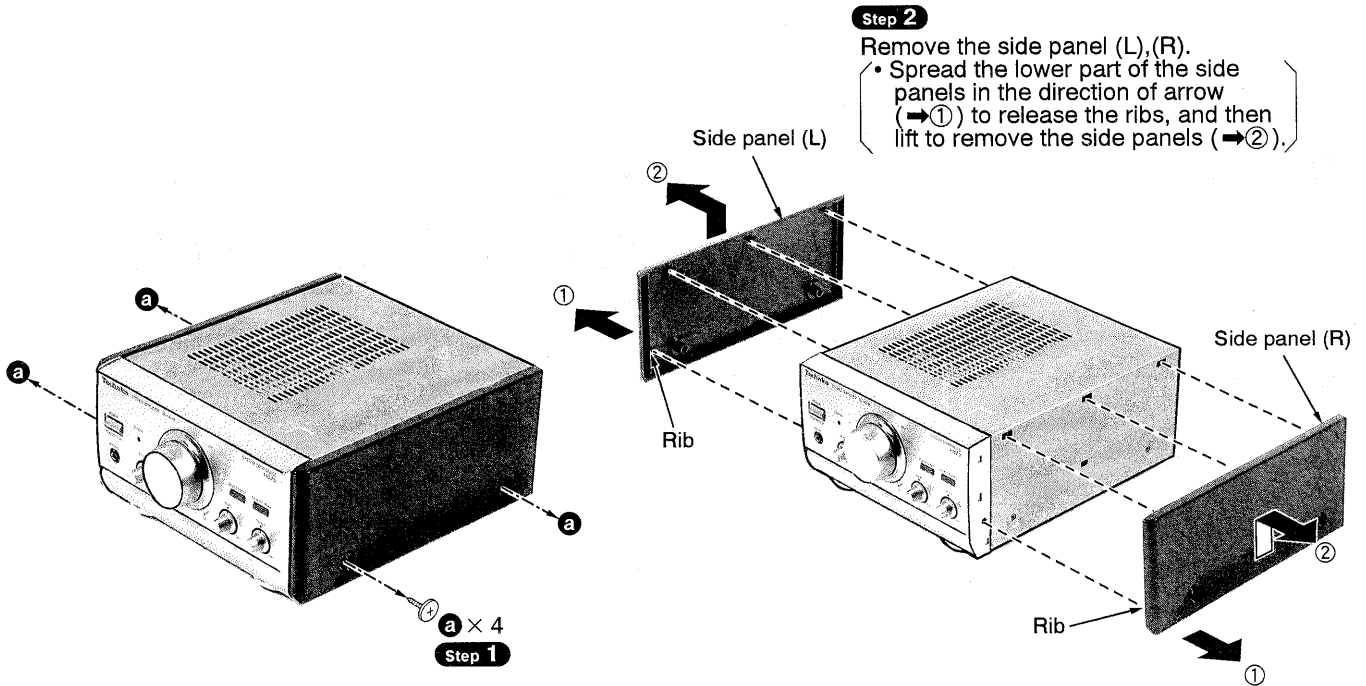
	Page.
1. Checking for the operation P.C.B..	8.
2. Checking for the PDM P.C.B..	9.

•Main Component Replacement Procedures

1. Replacement for the regulator transistor.	10.
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■ Checking Procedure for each P.C.B.

1. Checking for the operation P.C.B.

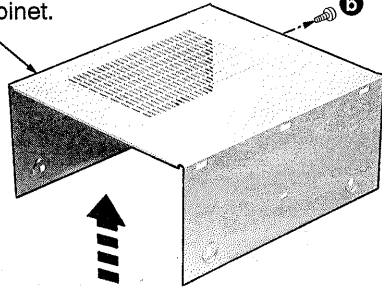


Step 4

Remove the cabinet.

Step 3

b



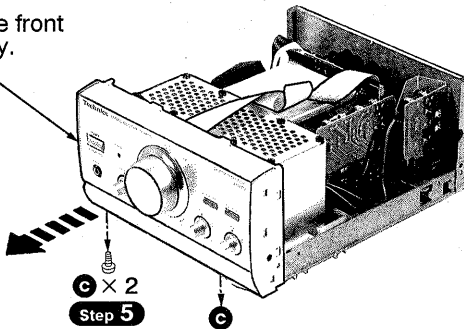
Step 6

Pull out the front panel ass'y.

c x 2

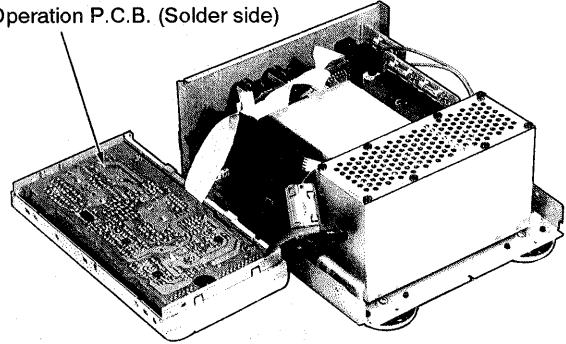
Step 5

c



• Check the operation P.C.B. as shown below.

Operation P.C.B. (Solder side)

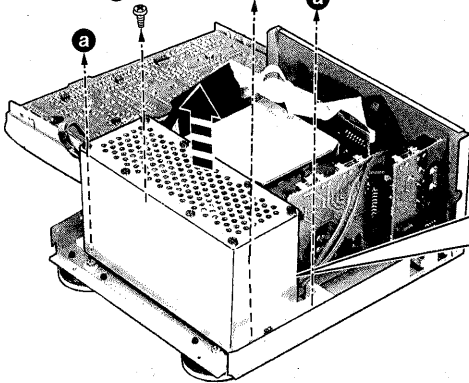


2. Checking for the PDM P.C.B.

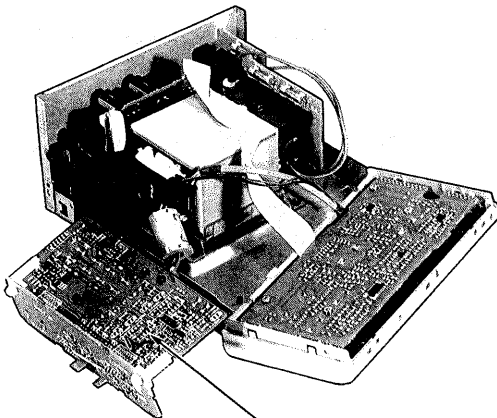
• Follow Step 1 ~ Step 6 in item 1 on pages 8 and 9.

Step 1

a x 4



• Check the PDM P.C.B. as shown below.



PDM P.C.B.

Step 5

e x 8

Step 7

Remove the PDM P.C.B..

b

d

d x 2

Step 6

Step 4

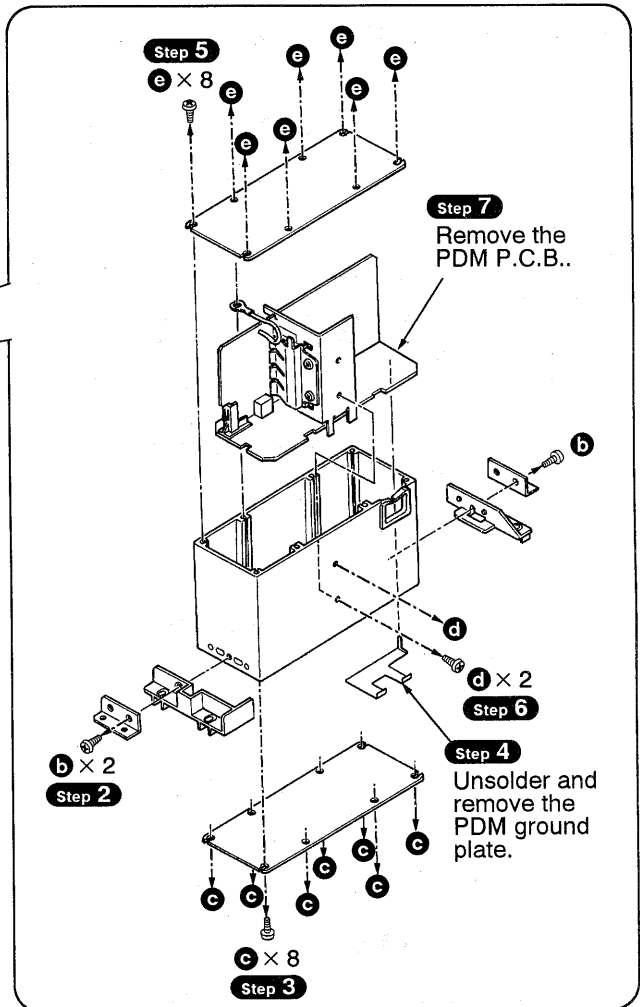
Unsolder and remove the PDM ground plate.

b x 2

Step 2

c x 8

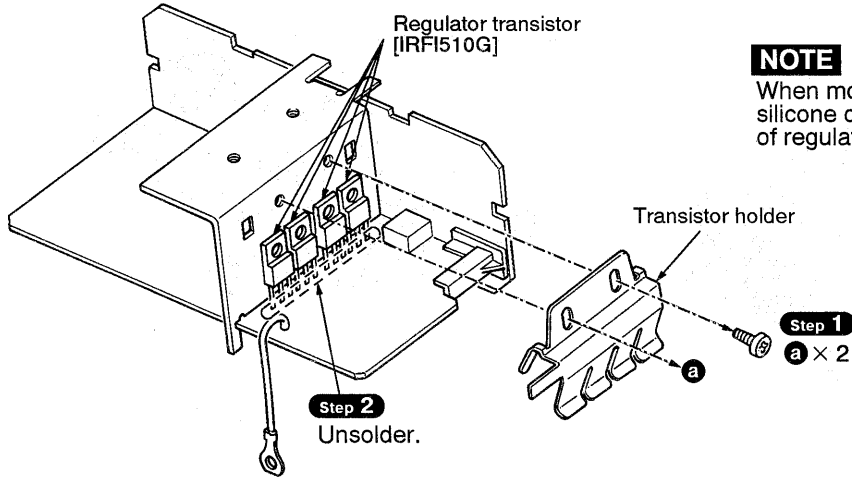
Step 3



Main Component Replacement Procedures

1. Replacement for the regulator transistor

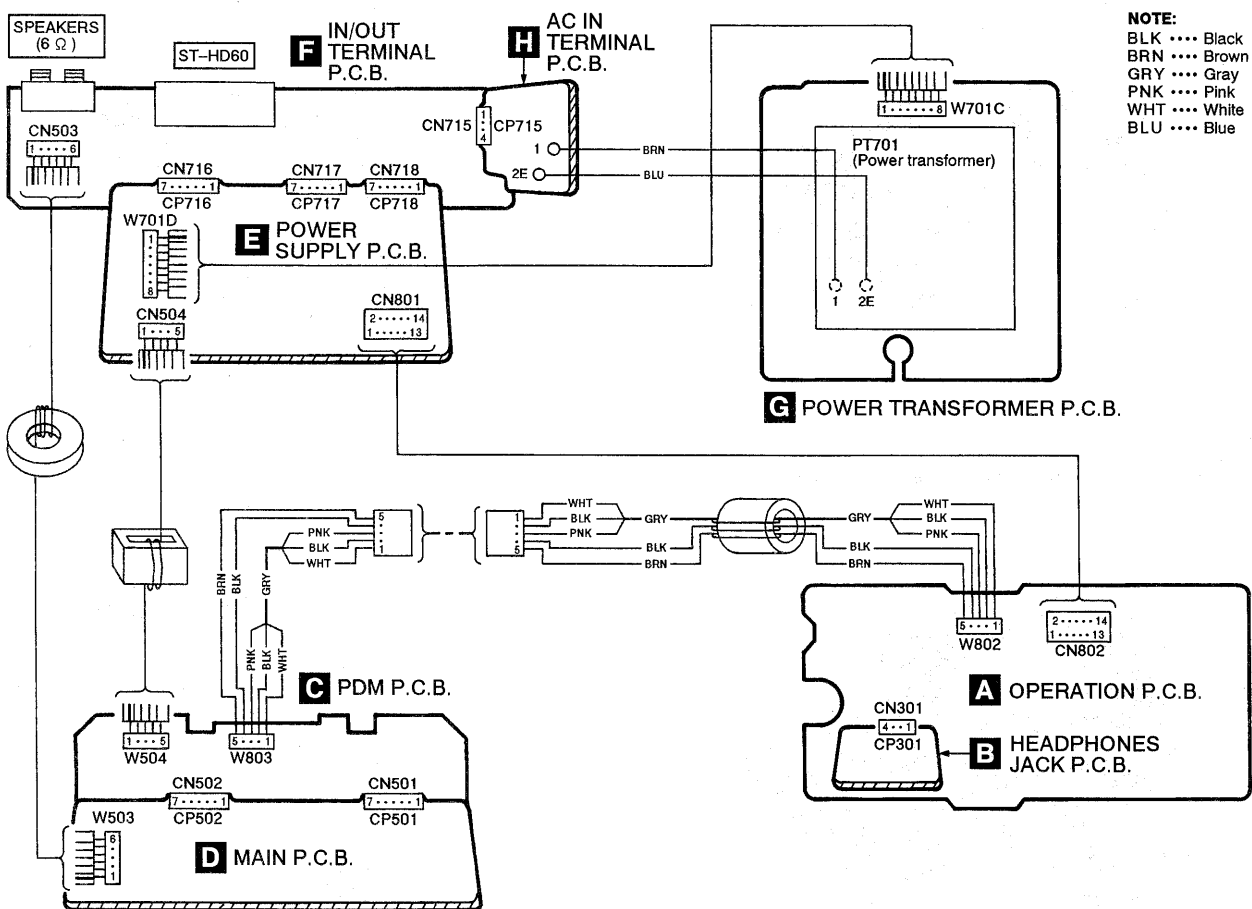
- Follow **Step 1** ~ **Step 6** in item 1 on page 8 and 9.
- Follow **Step 1** ~ **Step 7** in item 2 on page 9.



NOTE

When mounting the regulator transistor, apply silicone compound (RFKX0002) to the rear side of regulator transistor.

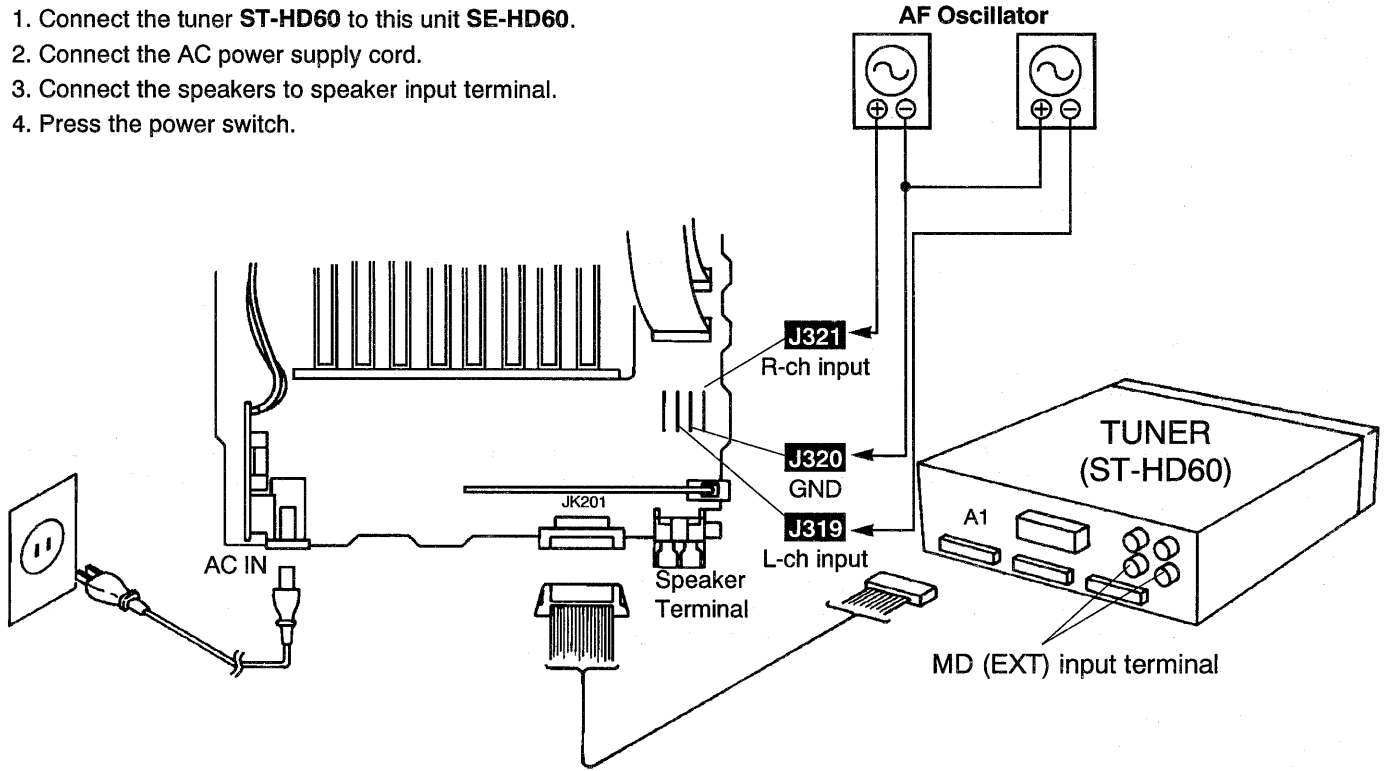
Wiring Connection Diagram



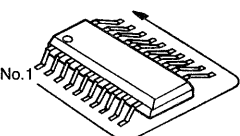
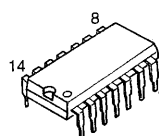
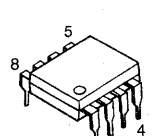
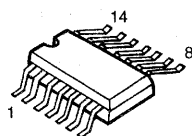
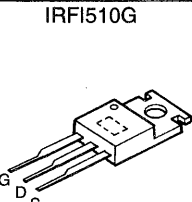
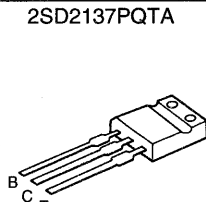
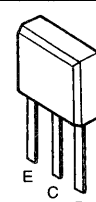

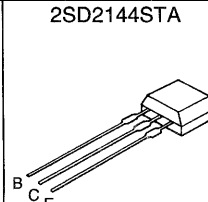
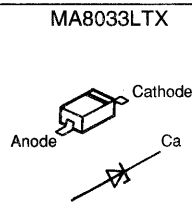
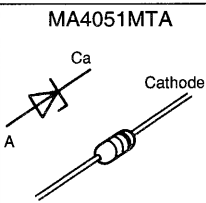
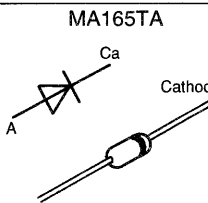
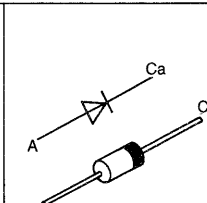
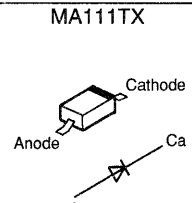
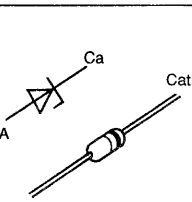
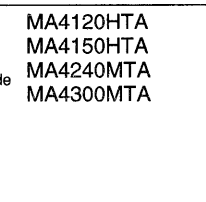
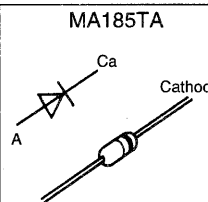
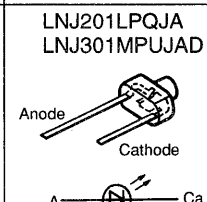
■ To Supply Power Source

This unit SE-HD60 is not operate normally without connecting the unit ST-HD60.
When operate the unit SE-HD60, be sure to connect the unit ST-HD60 with included connection cable.

1. Connect the tuner ST-HD60 to this unit SE-HD60.
2. Connect the AC power supply cord.
3. Connect the speakers to speaker input terminal.
4. Press the power switch.



■ Type Illustration of ICs, Transistors and Diodes

	<table border="1"> <tr><td>M5218AFPE3</td><td>8PIN</td></tr> <tr><td>M5219FPTA</td><td>8PIN</td></tr> <tr><td>TC7WU04FT12L</td><td>8PIN</td></tr> <tr><td>TC7W08FTE12L</td><td>8PIN</td></tr> <tr><td>TC9215AFEL</td><td>16PIN</td></tr> </table>	M5218AFPE3	8PIN	M5219FPTA	8PIN	TC7WU04FT12L	8PIN	TC7W08FTE12L	8PIN	TC9215AFEL	16PIN	<p>IR2112</p> 	<p>NJM2114D</p> 	<p>TC74HC00AFT1 TC74HC74AFEL</p> 
	M5218AFPE3	8PIN												
M5219FPTA	8PIN													
TC7WU04FT12L	8PIN													
TC7W08FTE12L	8PIN													
TC9215AFEL	16PIN													
<p>IRFI510G</p> 	<p>2SD2137PQTA</p> 		<p>2SC3312RSTA 2SC3311AIRTA UN4111AITA UN4115TA</p>	<p>2SB1218RTX 2SB792RSTTX 2SD1819RTX</p> 	<p>2SD2144STA</p> 									
<p>MA8033LTX</p> 	<p>MA4051MTA</p> 	<p>MA165TA</p> 	<p>1N5402BF RL1N4003N02 D1NL20U-4084</p> 	<p>MA111TX</p> 										
	<p>MA4120HTA MA4150HTA MA4240MTA MA4300MTA</p> 	<p>MA185TA</p> 	<p>LNJ201LPQJA LNJ301MPUJAD</p> 											

■ Schematic Diagram

Page

A OPERATION CIRCUIT	13, 14
B HEADPHONES JACK CIRCUIT	13
C PDM CIRCUIT	14
D MAIN CIRCUIT	15, 16
E POWER SUPPLY CIRCUIT	17
F INPUT/OUTPUT TERMINAL CIRCUIT	17
G POWER TRANSFORMER CIRCUIT	17
H AC IN TERMINAL CIRCUIT	17

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

Notes:

- **S801** : Power "STANDBY ϕ /ON" switch (POWER, STANDBY ϕ /ON)
- **S802** : Source direct switch (SOURCE DIRECT)
- **S803** : Vocal presence switch (VOCAL PRESENCE)

● 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.
No mark: Power ON

● Important safety notice:
Components identified by \triangle mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

● **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.

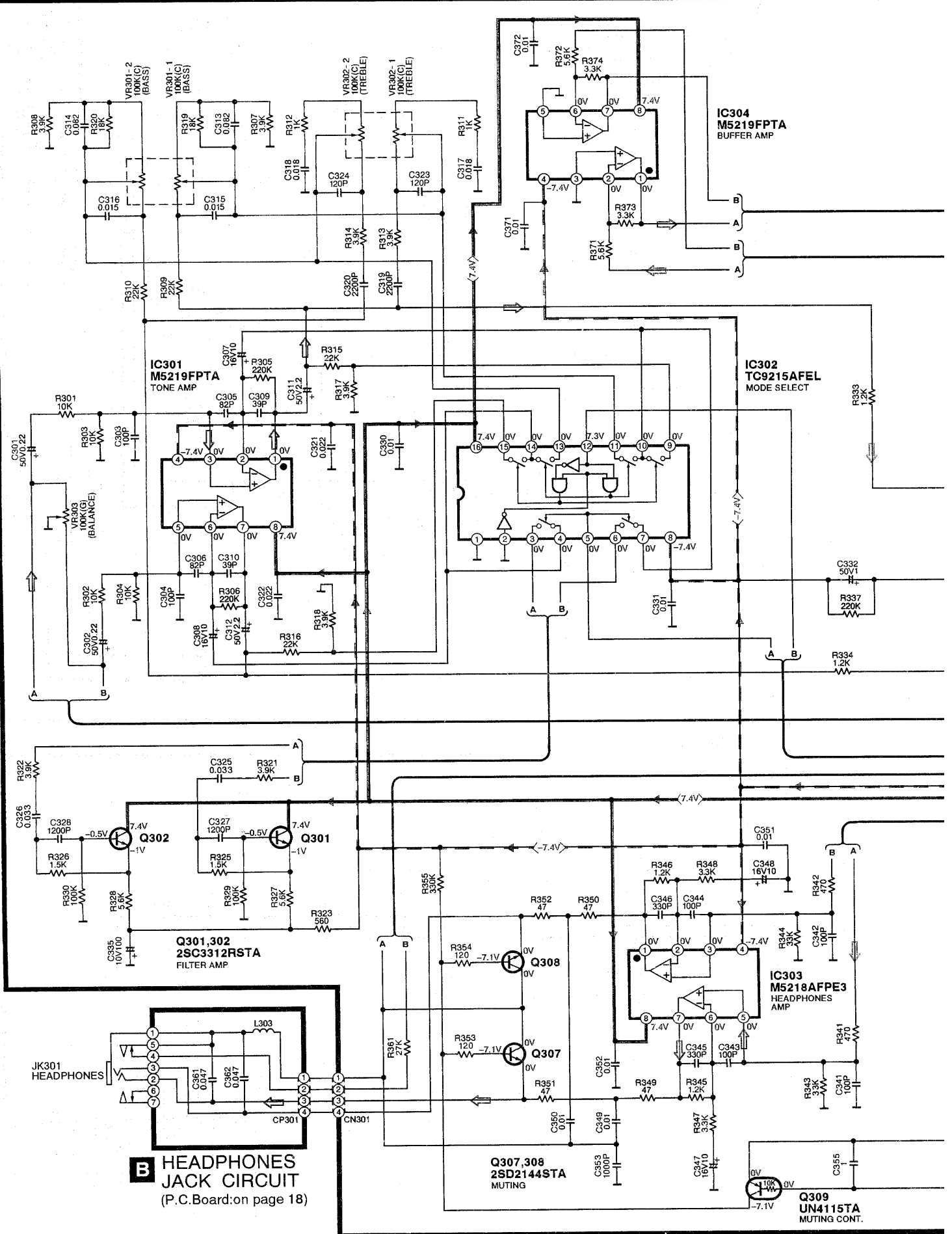
● Voltage and signal line

 : Positive voltage line

 : Positive voltage line

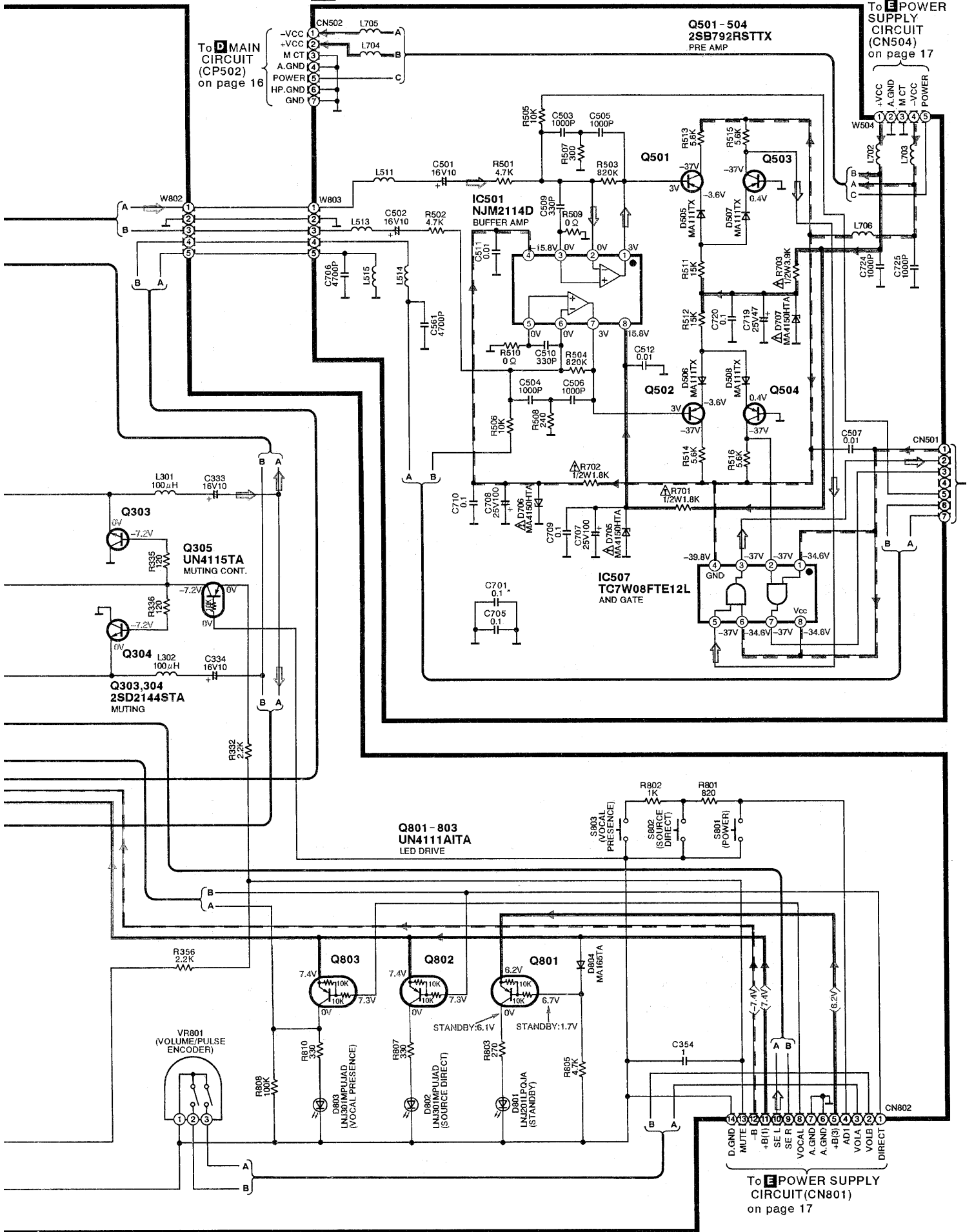
 : Source signal line (L ch)

A OPERATION CIRCUIT (P.C.Board: on page 18)



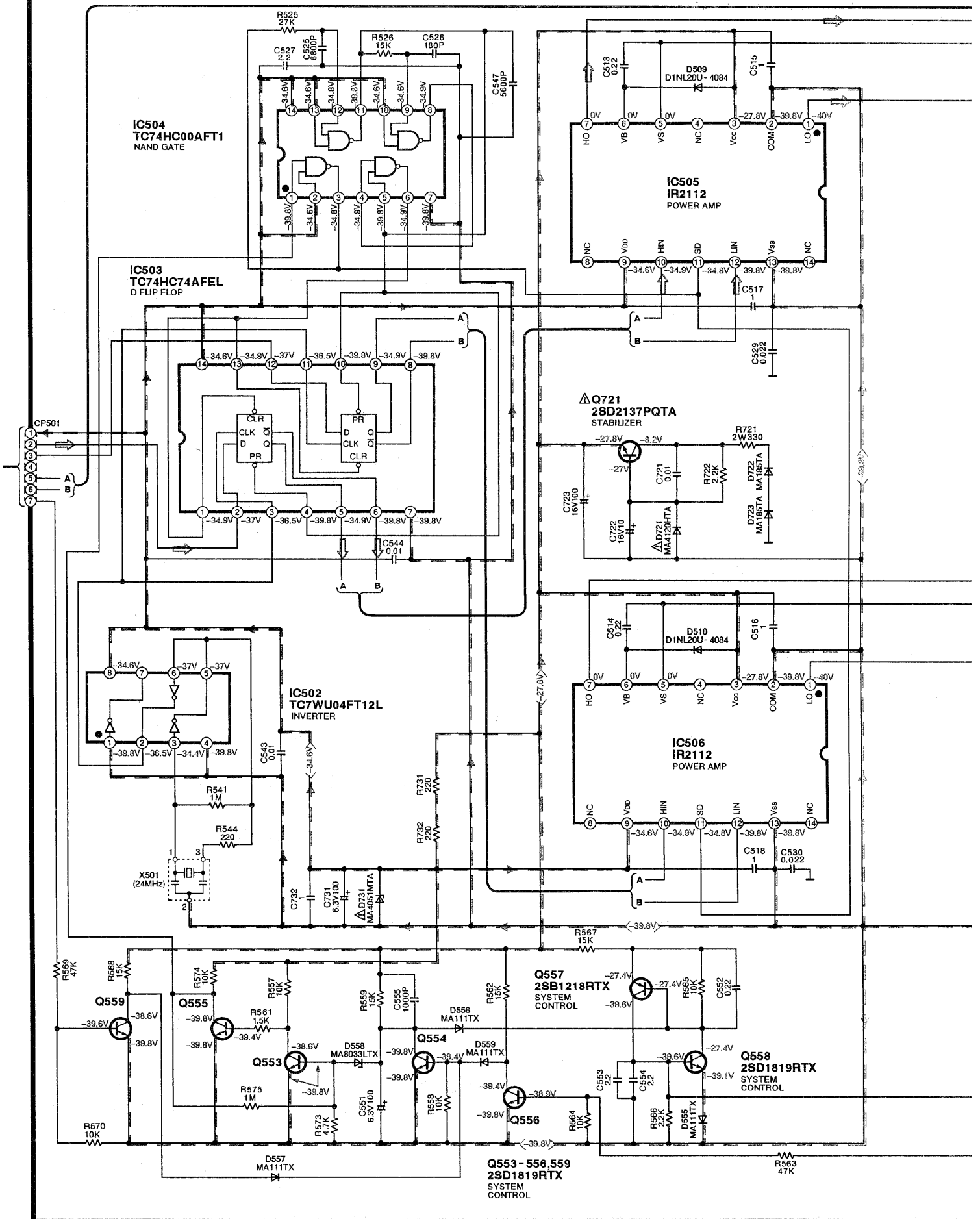
B HEADPHONES JACK CIRCUIT (P.C.Board: on page 18)




C PDM CIRCUIT (P.C.Board: on page 18)

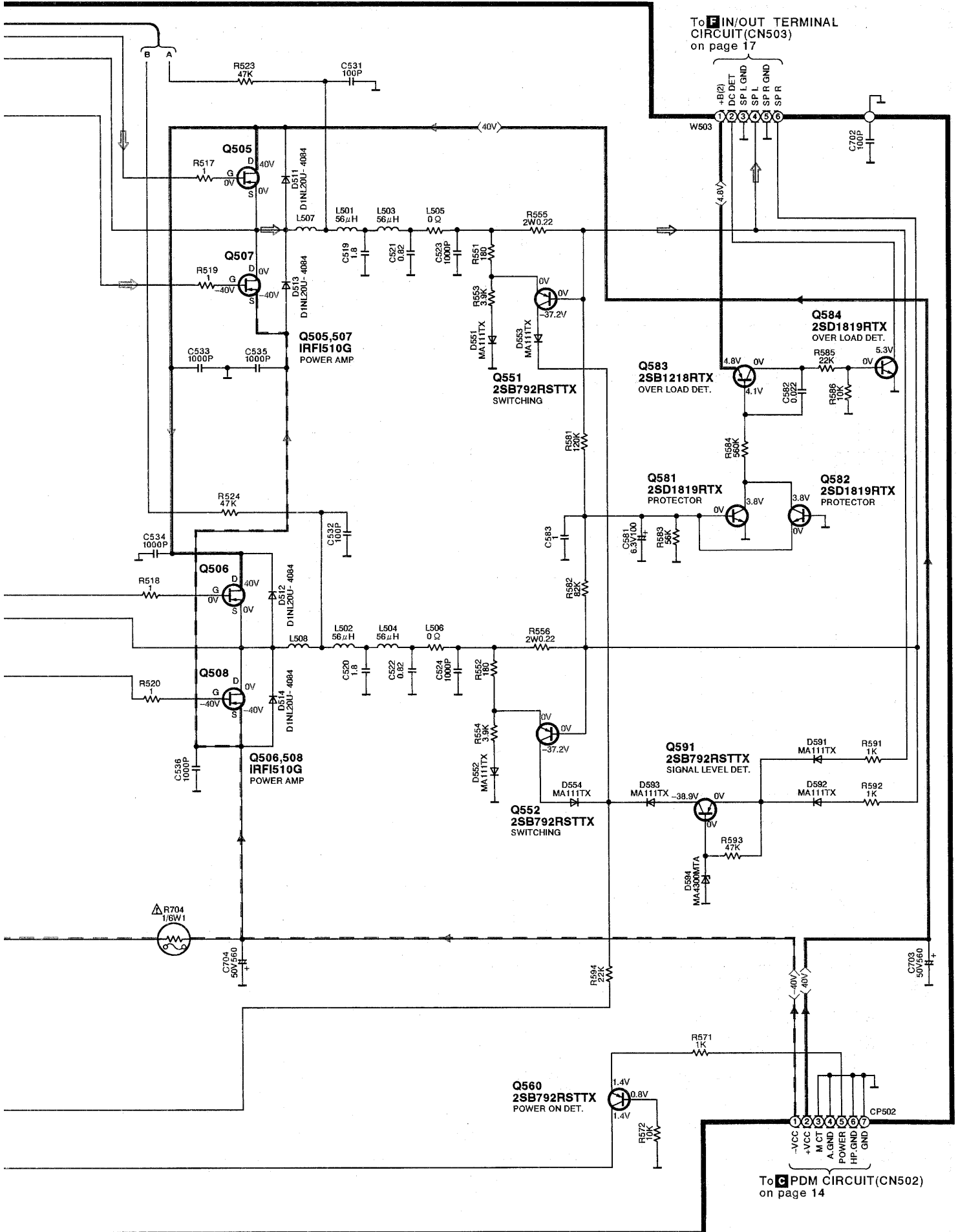


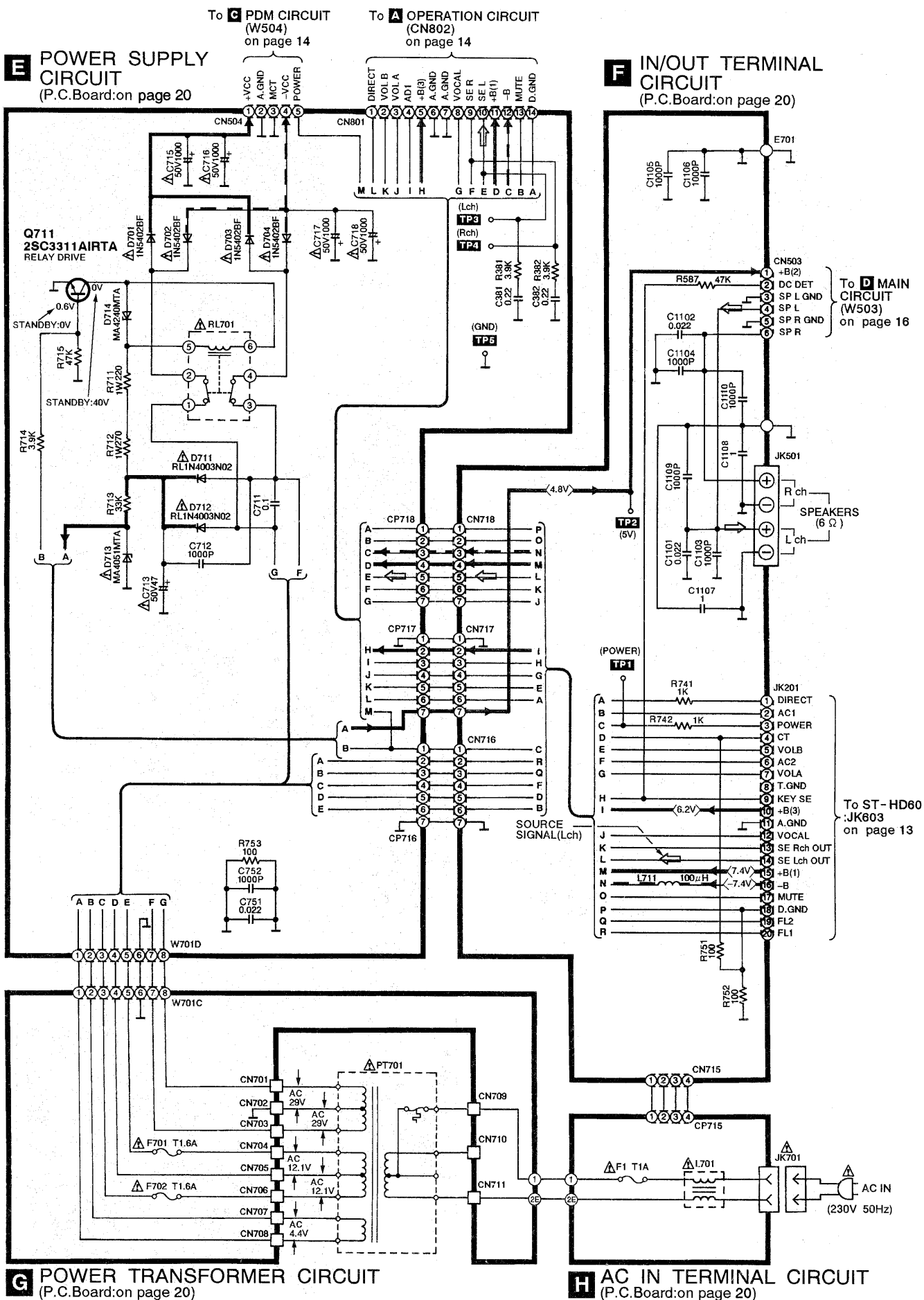
D MAIN CIRCUIT (P.C.Board: on page 19)

→ : Positive voltage line
 - - - - - → : Negative voltage line
 ⇨ : Source signal line (L ch)



 : Positive voltage line
  : Negative voltage line
  : Source signal line (L ch)





E POWER SUPPLY CIRCUIT
(P.C.Board: on page 20)

To **C** PDM CIRCUIT
(W504)
on page 14

To **A** OPERATION CIRCUIT
(CN802)
on page 14

F IN/OUT TERMINAL CIRCUIT
(P.C.Board: on page 20)

To **D** MAIN CIRCUIT
(W503)
on page 16

To ST-HD60
JK603
on page 13

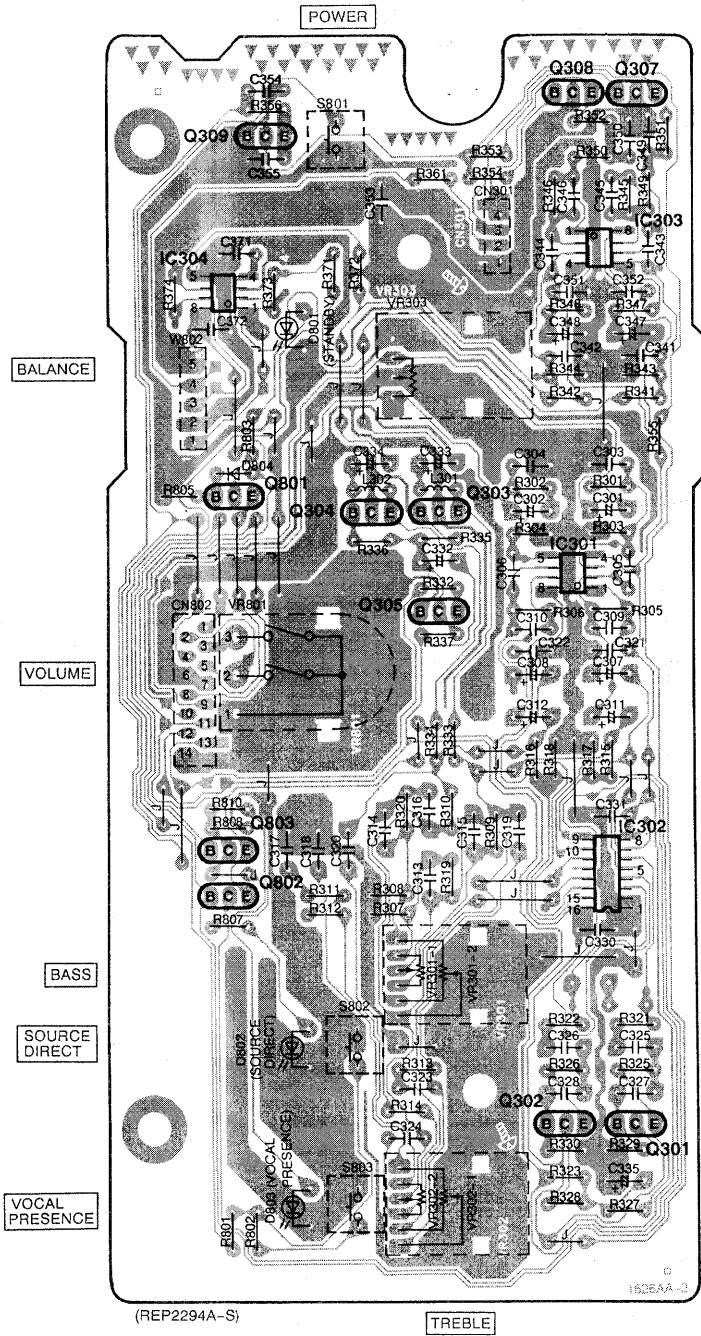
G POWER TRANSFORMER CIRCUIT
(P.C.Board: on page 20)

H AC IN TERMINAL CIRCUIT
(P.C.Board: on page 20)

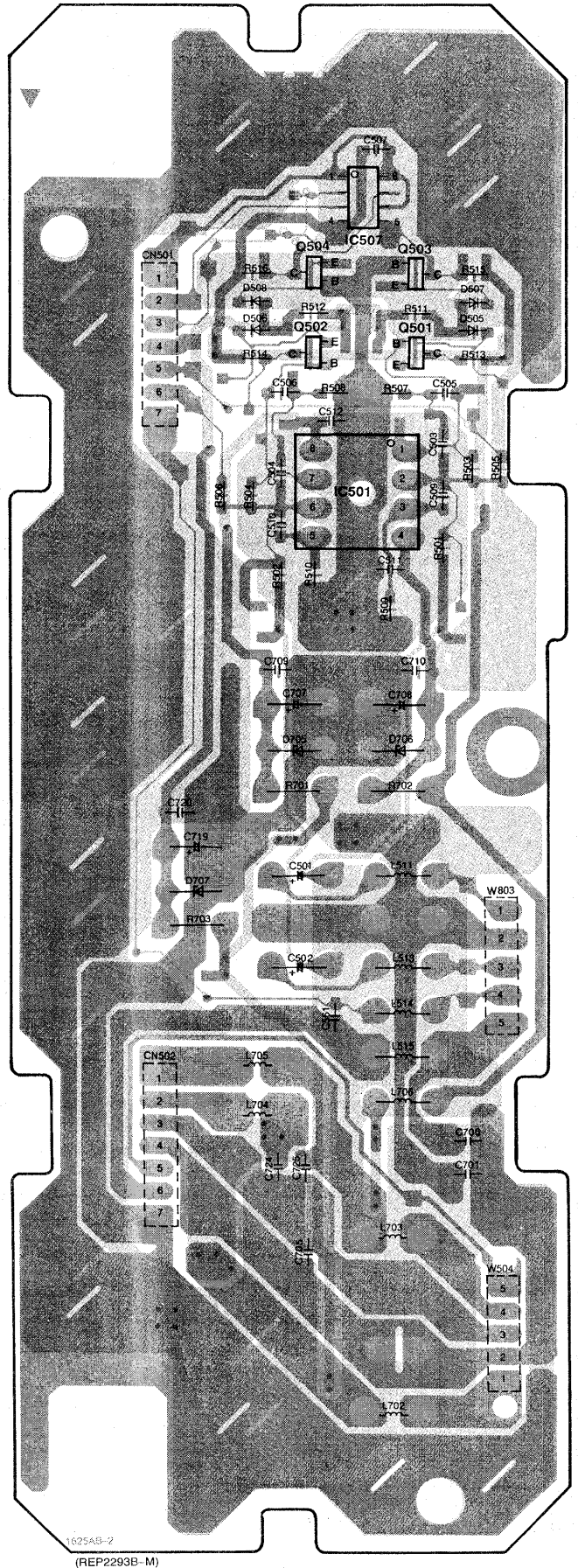
Printed Circuit Board Diagram

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

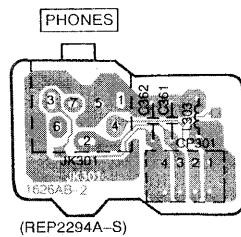
A OPERATION P.C.B.



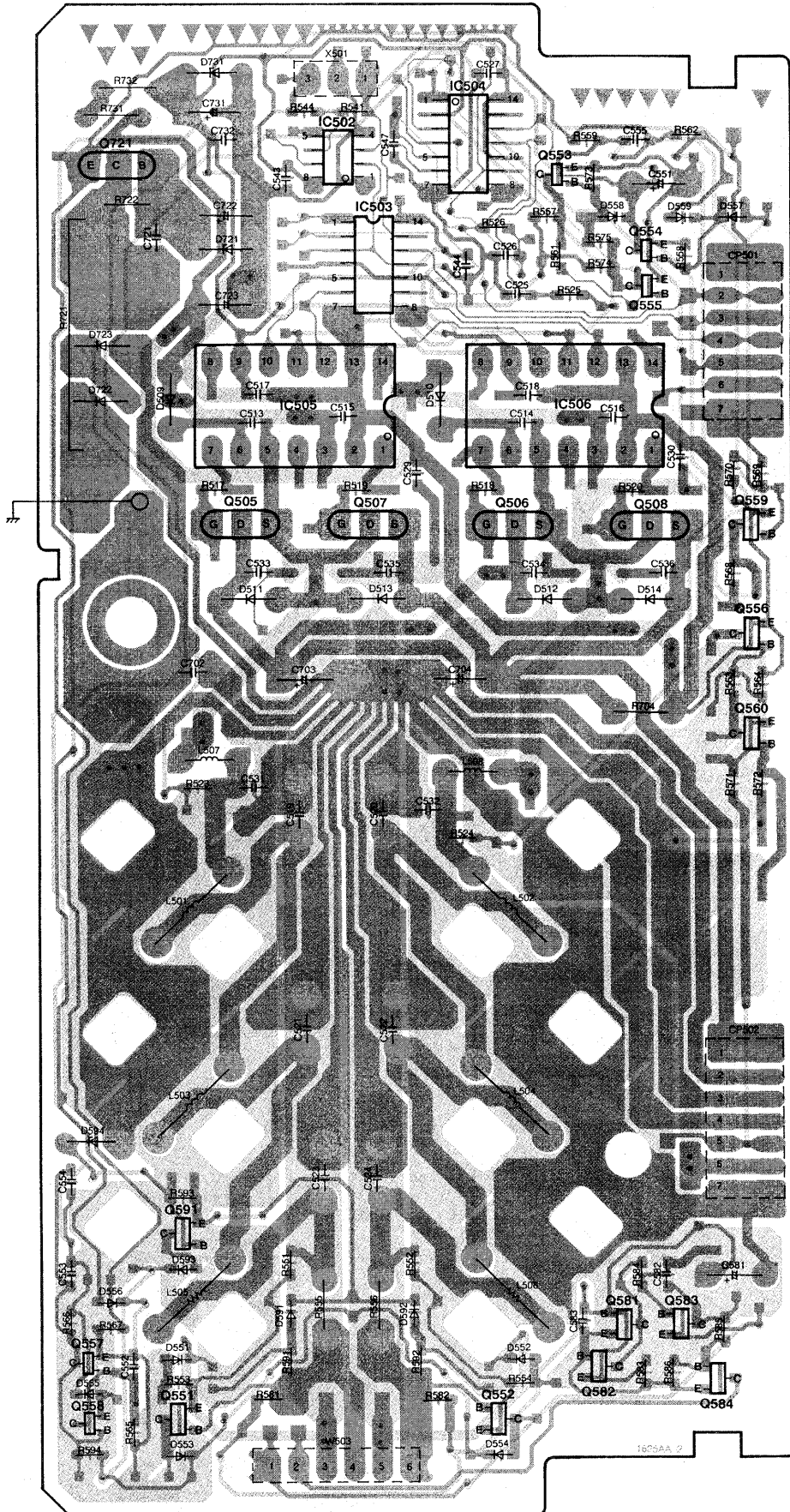
C PDM P.C.B.



B HEADPHONES JACK P.C.B.

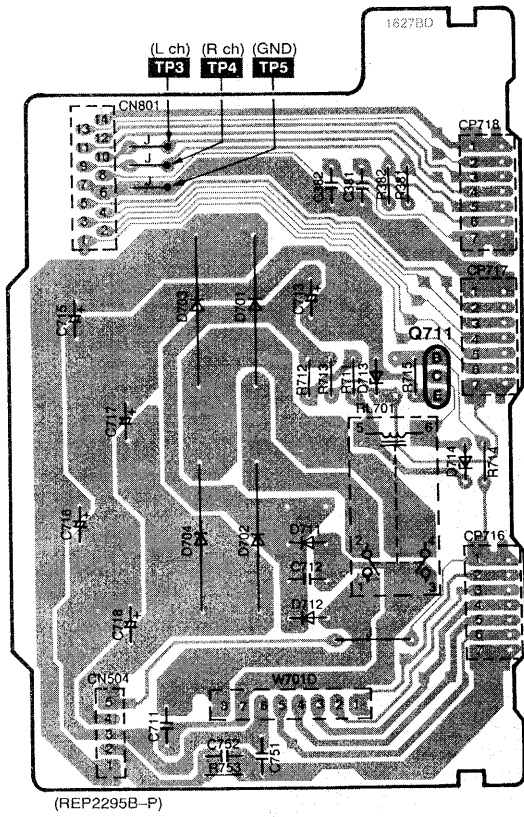


D MAIN P.C.B.

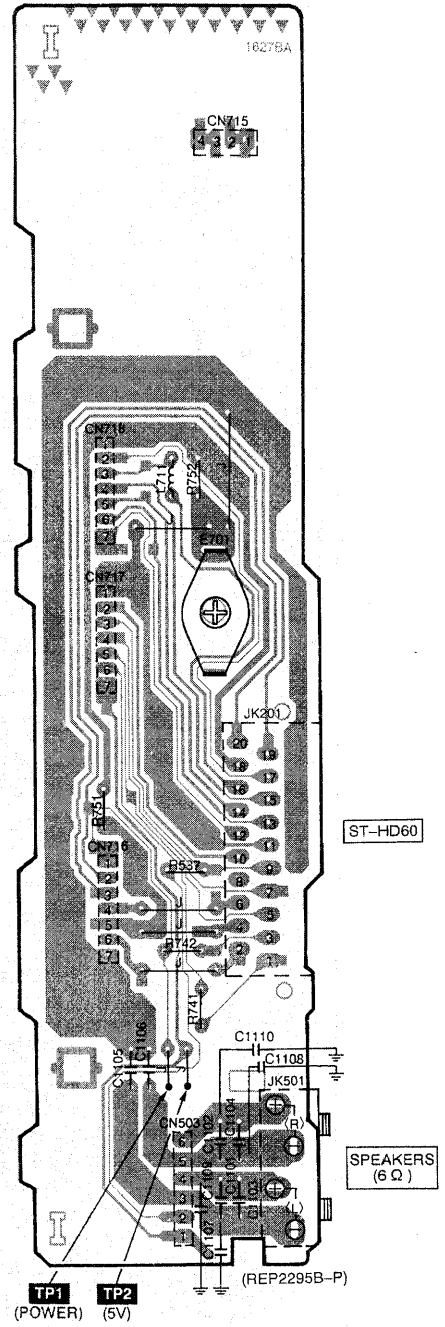


(REP2293B-M)

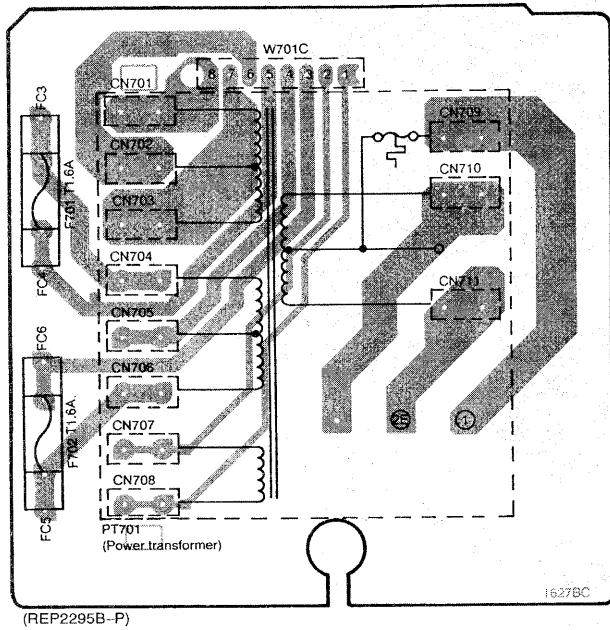
E POWER SUPPLY P.C.B.



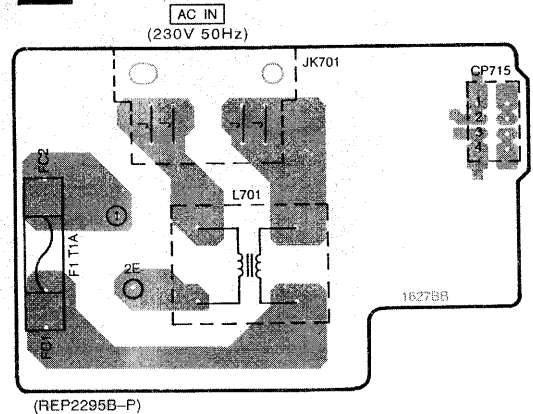
F IN/OUT TERMINAL P.C.B.



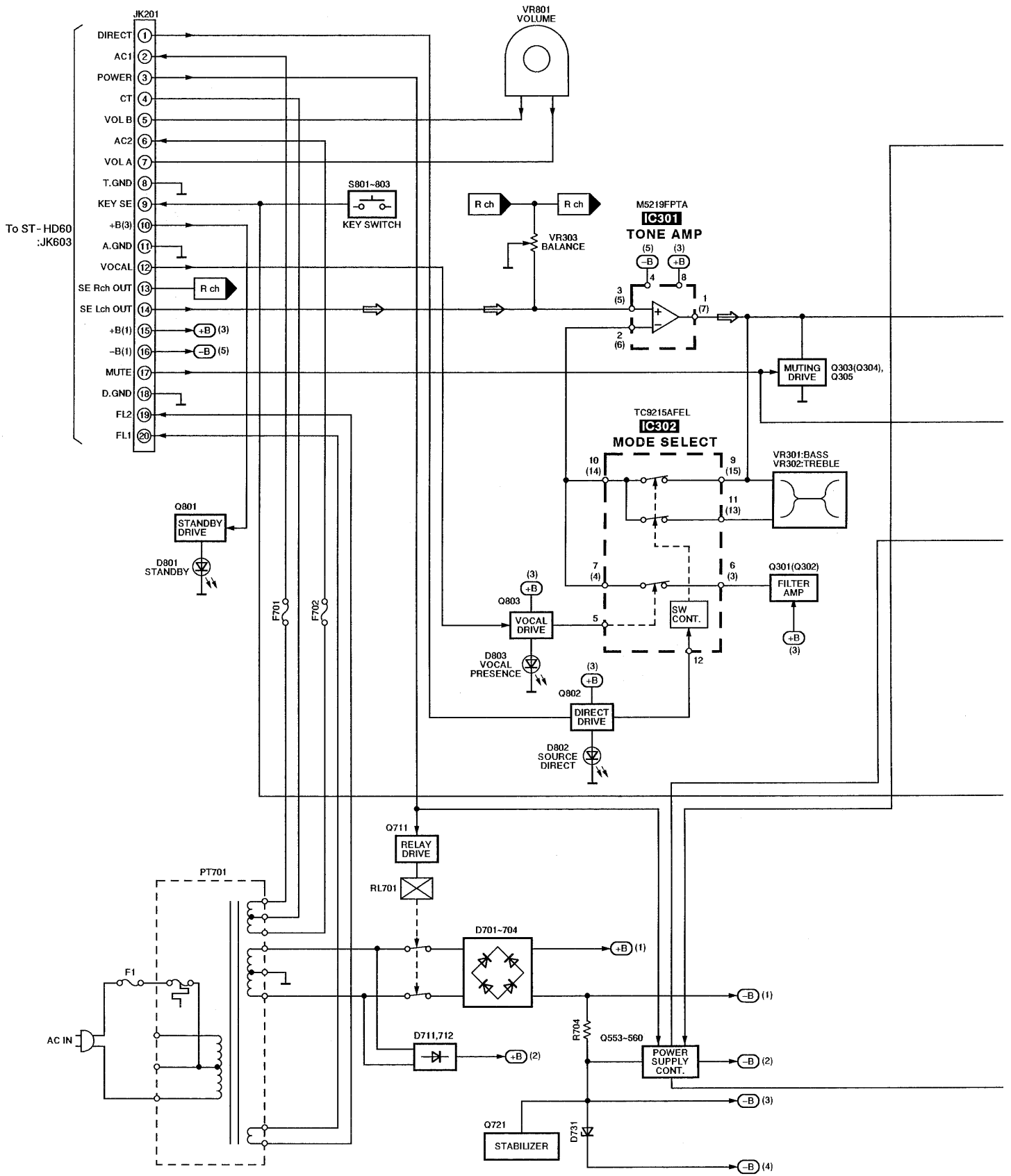
G POWER TRANSFORMER P.C.B.

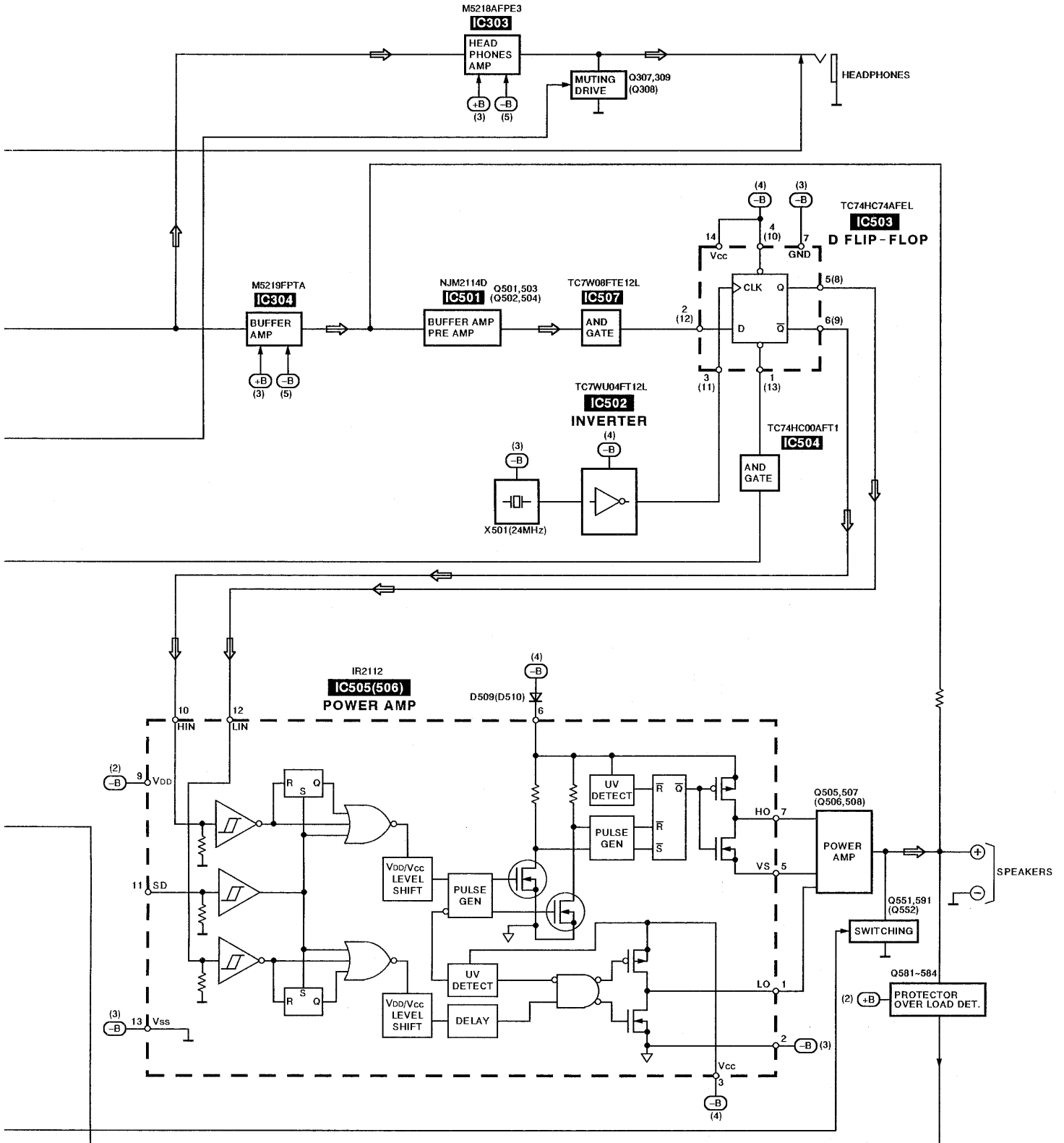


H AC IN TERMINAL P.C.B.



Block Diagram





Notes:
 1) \Rightarrow :SOURCE SIGNAL
 2) () INDICATES PIN NO. OF RIGHT CHANNEL.

■ Replacement Parts List (Electrical)

Notes: *Important safety notice:

 Components identified by Δ mark have special characteristics important for safety.

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

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

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

Parts without these indications can be used for all areas.

*[M] Indicates in Remarks columns parts that are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)		D705-707 Δ	MA4150M	DIODE	[M]
				D711, 712 Δ	RL1N4003N02	DIODE	[M]
				D713 Δ	MA4051MTA	DIODE	[M]
IC301	M5219FPTA	IC	[M]	D714	MA4240H	DIODE	[M]
IC302	TC9215AFEL	IC	[M]	D721 Δ	MA4120HTA	DIODE	[M]
IC303	M5218AFPE3	IC	[M]	D722, 723	MA185TA	DIODE	[M]
IC304	M5219FPTA	IC	[M]	D731 Δ	MA4051MTA	DIODE	[M]
IC501	NJM2114D	IC	[M]	D801	LNJ201LPQJA	LED	[M]
IC502	TC7WU04FT12L	IC	[M]	D802, 803	LNJ301MPUJAD	LED	[M]
IC503	TC74HC74AFEL	IC	[M]	D804	MA165	DIODE	[M]
IC504	TC74HC00AFT1	IC	[M]			VARIABLE RESISTOR(S)	
IC505, 506	IR2112	IC	[M]				
IC507	TC7W08FTE12L	IC	[M]	VR301, 302	EVJYA1F04C15	V. R	[M]
		TRANSISTOR(S)		VR303	EVJ02QF04G15	V. R	[M]
				VR801	EVQMQAF2524B	V. R	[M]
Q301, 302	2SC3312RSTA	TRANSISTOR	[M]			COIL(S)	
Q303, 304	2SD2144S	TRANSISTOR	[M]	L301, 302	ELEXT101KA9	COIL	[M]
Q305	UN4115	TRANSISTOR	[M]	L303	RL1500050T-Y	COIL	[M]
Q307, 308	2SD2144S	TRANSISTOR	[M]	L501	RLQT560K	COIL	[M]
Q309	UN4115	TRANSISTOR	[M]	L502	RLQT560K1	COIL	[M]
Q501-504	2SB792RSTTX	TRANSISTOR	[M]	L503	RLQT560K	COIL	[M]
Q505-508	IRF1510G	TRANSISTOR	[M]	L504	RLQT560K1	COIL	[M]
Q551, 552	2SB792RSTTX	TRANSISTOR	[M]	L505, 506	ERD25V0R00T	CHIP JUMPER	[M]
Q553-556	2SD1819RTX	TRANSISTOR	[M]	L507, 508	BL02RN1R62T2	COIL	[M]
Q557	2SB1218RTX	TRANSISTOR	[M]	L511	BL02RN2R62T4	COIL	[M]
Q558, 559	2SD1819RTX	TRANSISTOR	[M]	L513-515	BL02RN2R62T4	COIL	[M]
Q560	2SB792RSTTX	TRANSISTOR	[M]	L701 Δ	RLQZ271M	COIL	[M]
Q581, 582	2SD1819RTX	TRANSISTOR	[M]	L702-706	BL02RN2R62T4	COIL	[M]
Q583	2SB1218RTX	TRANSISTOR	[M]	L711	ELEXT101KA9	COIL	[M]
Q584	2SD1819RTX	TRANSISTOR	[M]			OSCILLATOR(S)	
Q591	2SB792RSTTX	TRANSISTOR	[M]	X501	EF0EC2405T4	OSCILLATOR	[M]
Q711	2SC3311AIRTA	TRANSISTOR	[M]			FUSE(S)	
Q721 Δ	2SD2137PQTA	TRANSISTOR	[M]	F1 Δ	XBA2C10TB0	FUSE	[M]
Q801-803	UN4111	TRANSISTOR	[M]	F701, 702 Δ	XBA2C16TB0	FUSE	[M]
		DIODE(S)				SWITCH(ES)	
D505-508	MA111TX	DIODE	[M]	S801-803	EVQ21405R	SW	[M]
D509-514	D1NL20U-4084	DIODE	[M]				
D551-557	MA111TX	DIODE	[M]				
D558	MA8033LTX	DIODE	[M]				
D559	MA111TX	DIODE	[M]				
D591-593	MA111TX	DIODE	[M]				
D594	MA4300M	DIODE	[M]				
D701-704 Δ	1N5402BF	DIODE	[M]				

Ref. No.	Part No.	Part Name & Description	Remarks				
		CONNECTOR (S)					
CN301	RJT057W004-1	CONNECTOR (4P)	[M]				
CN501, 502	RJT057W007-1	CONNECTOR (7P)	[M]				
CN503	RJS1A6606	CONNECTOR (6P)	[M]				
CN504	RJS5T7ZA	CONNECTOR (5P)	[M]				
CN701-711	RJS1A1101T1	CONNECTOR (1P)	[M]				
CN715	RJT057W004-1	CONNECTOR (4P)	[M]				
CN716-718	RJT057W007-1	CONNECTOR (7P)	[M]				
CN801, 802	RJS1A6714	CONNECTOR (14P)	[M]				
CP301	RJU057W004	CONNECTOR (4P)	[M]				
CP501, 502	RJU057W007	CONNECTOR (7P)	[M]				
CP715	RJU057W004	CONNECTOR (4P)	[M]				
CP716-718	RJU057W007	CONNECTOR (7P)	[M]				
		GND PLATE					
E701	SNE1004-2	GND PLATE	[M]				
		FUSE HOLDER					
FC1-6	EYF52BC	FUSE HOLDER	[M]				
		POWER TRANSFORMER (S)					
PT701△	RTP2M5B011	POWER TRANSFORMER	[M]				
		RELAY (S)					
RL701△	RSY0013M-0	RELAY	[M]				
		JACK (S)					
JK201	RJT065K20	SYSTEM	[M]				
JK301	RJJ37TN01-C	HEADPHONES	[M]				
JK501	RJR0054	JACK	[M]				
JK701△	SJS9236	AC IN	[M]				

Resistors and Capacitors

Notes: *Capacity values are in microfarads (μ F) unless specified otherwise, P = Pico-farads (pF) F = Farads (F)
 *Resistance values are in ohms, unless specified otherwise, 1K = 1,000 (OHM) 1M = 1,000k (OHM)
 * [M] Indicates in Remarks columns parts that are supplied by MESA.

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
			R555, 556	ERF2EXKR22V	2W 0.22 [M]	C301, 302	ECEA1HKAR22B	50V 0.22 [M]
		RESISTORS	R557, 558	ERJ6GEYJ103V	1/10W 10K [M]	C303, 304	ECBT1H101KB5	50V 100P [M]
			R559	ERJ6GEYJ153V	1/10W 15K [M]	C305, 306	ECBT1H820KB5	50V 82P [M]
R301-304	ERDS2TJ103	1/4W 10K [M]	R561	ERJ6GEYJ152V	1/10W 1.5K [M]	C307, 308	RCE1CKA100BG	16V 10U [M]
R305, 306	ERDS2TJ224T	1/4W 220K [M]	R562	ERJ6GEYJ153V	1/10W 15K [M]	C309, 310	ECBT1H390J5	50V 39P [M]
R307, 308	ERDS2TJ392T	1/4W 3.9K [M]	R563	ERJ6GEYJ473V	1/10W 47K [M]	C311, 312	ECEA1HKA2R2B	50V 2.2U [M]
R309, 310	ERDS2TJ223	1/4W 22K [M]	R564, 565	ERJ6GEYJ103V	1/10W 10K [M]	C313, 314	ECQV1H823JM3	50V 0.082U [M]
R311, 312	ERDS2TJ102	1/4W 1K [M]	R566	ERJ6GEYJ222V	1/10W 2.2K [M]	C315, 316	ECQB1H153JF3	50V 0.015U [M]
R313, 314	ERDS2TJ392T	1/4W 3.9K [M]	R567, 568	ERJ6GEYJ153V	1/10W 15K [M]	C317, 318	ECQB1H183JF3	50V 0.018U [M]
R315, 316	ERDS2TJ223	1/4W 22K [M]	R569	ERJ6GEYJ473V	1/10W 47K [M]	C319, 320	ECQB1H222JF3	50V 2200P [M]
R317, 318	ERDS2TJ392T	1/4W 3.9K [M]	R570	ERJ6GEYJ103V	1/10W 10K [M]	C321, 322	ECBT1E223ZF	25V 0.022U [M]
R319, 320	ERDS2TJ183T	1/4W 18K [M]	R571	ERJ6GEYJ102V	1/10W 1K [M]	C323, 324	ECBT1H121KB5	50V 120P [M]
R321, 322	ERDS2TJ392T	1/4W 3.9K [M]	R572	ERJ6GEYJ103V	1/10W 10K [M]	C325, 326	ECQV1H333JM3	50V 0.033U [M]
R323	ERDS2TJ561	1/4W 560 [M]	R573	ERJ6GEYJ472V	1/10W 4.7K [M]	C327, 328	ECQB1H122JF3	50V 1200P [M]
R325, 326	ERDS2TJ152	1/4W 1.5K [M]	R574	ERJ6GEYJ103V	1/10W 10K [M]	C330, 331	ECBT1E103ZF	25V 0.01U [M]
R327, 328	ERDS2TJ562	1/4W 5.6K [M]	R575	ERJ6GEYJ105	1/10W 1M [M]	C332	ECEA1HKA010B	50V 1U [M]
R329, 330	ERDS2TJ104	1/4W 100K [M]	R581	ERJ6GEYJ124V	1/10W 120K [M]	C333, 334	RCE1CKA100BG	16V 10U [M]
R332	ERDS2TJ222	1/4W 2.2K [M]	R582	ERJ6GEYJ823	1/10W 82K [M]	C335	RCE1AKA101BG	10V 100U [M]
R333, 334	ERDS2TJ122	1/4W 1.2K [M]	R583	ERJ6GEYJ563V	1/10W 56K [M]	C341-344	ECBT1H101KB5	50V 100P [M]
R335, 336	ERDS2EJ121	1/4W 120 [M]	R584	ERJ6GEYJ564V	1/10W 560K [M]	C345, 346	ECBT1H331KB5	50V 330P [M]
R337	ERDS2TJ224T	1/4W 220K [M]	R585	ERJ6GEYJ223V	1/10W 22K [M]	C347, 348	RCE1CKA100BG	16V 10U [M]
R341, 342	ERDS2TJ471	1/4W 470 [M]	R586	ERJ6GEYJ103V	1/10W 10K [M]	C349-352	ECBT1E103ZF	25V 0.01U [M]
R343, 344	ERDS2TJ333	1/4W 33K [M]	R587	ERDS2TJ473	1/4W 47K [M]	C353	ECBT1H102KB5	50V 1000P [M]
R345, 346	ERDS2TJ122	1/4W 1.2K [M]	R591, 592	ERJ6GEYJ102V	1/10W 1K [M]	C354, 355	ECBT1C105ZF5	16V 1U [M]
R347, 348	ERDS2TJ332	1/4W 3.3K [M]	R593	ERJ6GEYJ473V	1/10W 47K [M]	C361, 362	ECBT1H473ZF5	50V 0.047U [M]
R349-352	ERDS2TJ470	1/4W 47 [M]	R594	ERJ6GEYJ223V	1/10W 22K [M]	C371, 372	ECBT1E103ZF	25V 0.01U [M]
R353, 354	ERDS2EJ121	1/4W 120 [M]	R701, 702 Δ	ERDS1FJ182	1/2W 1.8K [M]	C381, 382	ECQV1H224JM3	50V 0.22U [M]
R355	ERDS2TJ334	1/4W 330K [M]	R703 Δ	ERDS1FJ392	1/2W 3.9K [M]	C501, 502	RCE1CKA100BG	16V 10U [M]
R356	ERDS2TJ222	1/4W 2.2K [M]	R704 Δ	ERQ16NKNW1ROE	1W 1.0 [M]	C503-506	ECUV1H102KBN	50V 1000P [M]
R361	ERDS2TJ273	1/4W 27K [M]	R711 Δ	ERGS1J221	1/6W 220 [M]	C507	ECUV1E103ZFN	25V 0.01U [M]
R371, 372	ERDS2TJ562	1/4W 5.6K [M]	R712	ERGS1J271	1W 270 [M]	C509, 510	ECUV1H331KBN	50V 330P [M]
R373, 374	ERDS2TJ332	1/4W 3.3K [M]	R713	ERDS2TJ333	1/4W 33K [M]	C511, 512	ECUV1E103ZFN	25V 0.01U [M]
R381, 382	ERDS2TJ392T	1/4W 3.9K [M]	R714	ERDS2TJ392T	1/4W 3.9K [M]	C513, 514	ECUV1E224ZFN	25V 0.22U [M]
R501, 502	ERJ6GEYJ472V	1/10W 4.7K [M]	R715	ERDS2TJ473	1/4W 47K [M]	C515-518	ECUVNC105ZFN	16V 1U [M]
R503, 504	ERJ6GEYJ824V	1/10W 820K [M]	R721	ERG2ANJP331S	2W 330 [M]	C519, 520	ECQV1H185JL3	50V 1.8U [M]
R505, 506	ERJ6GEYJ103V	1/10W 10K [M]	R722	ERDS2TJ222	1/4W 2.2K [M]	C521, 522	ECQV1H824JM3	50V 0.82U [M]
R507	ERJ6GEYJ301V	1/10W 300 [M]	R731, 732	ERDS2TJ221	1/4W 220 [M]	C523, 524	ECKT1H102KB	50V 1000P [M]
R508	ERJ6GEYJ241V	1/10W 240 [M]	R741, 742	ERDS2TJ102	1/4W 1K [M]	C525	ECUV1H682KBN	50V 6800P [M]
R509, 510	ERJ6GEYOR00V	1/10W 0.00 [M]	R751-753	ERDS2TJ101	1/4W 100 [M]	C526	ECUV1H181KCN	50V 180P [M]
R511, 512	ERJ6GEYJ153V	1/10W 15K [M]	R801	ERDS2TJ821	1/4W 820 [M]	C527	ECUVNC225ZFN	16V 2.2U [M]
R513-516	ERJ6GEYJ562V	1/10W 5.6K [M]	R802	ERDS2TJ102	1/4W 1K [M]	C529, 530	ECUV1H223ZFN	50V 0.022U [M]
R517-520	ERJ6GEYJ1R0V	1/10W 1.0 [M]	R803	ERDS2TJ271	1/4W 270 [M]	C531, 532	ECUV2H101JCM	500V 100P [M]
R523, 524	ERJ6GEYJ473V	1/10W 47K [M]	R805	ERDS2TJ472	1/4W 4.7K [M]	C533-536	ECUV1H102KBN	50V 1000P [M]
R525	ERJ6GEYJ273V	1/10W 27K [M]	R807	ERDS2TJ331	1/4W 330 [M]	C543, 544	ECUV1E103ZFN	25V 0.01U [M]
R526	ERJ6GEYJ153V	1/10W 15K [M]	R808	ERDS2TJ104	1/4W 100K [M]	C547	ECUV1H562KBN	50V 5600P [M]
R541	ERJ6GEYJ105	1/10W 1M [M]	R810	ERDS2TJ331	1/4W 330 [M]	C551	ECEA0JKA101B	6.3V 100U [M]
R544	ERJ6GEYJ221V	1/10W 220 [M]			CAPACITORS	C552	ECUV1E224ZFN	25V 0.22U [M]
R551, 552	ERJ6GEYJ181V	1/10W 180 [M]				C553, 554	ECUVNC225ZFN	16V 2.2U [M]
R553, 554	ERJ6GEYJ392V	1/10W 3.9K [M]				C555	ECUV1H102KBN	50V 1000P [M]

Ref. No.	Part No.	Values & Remarks						
C561	ECUV1H472KBN	50V 4700P [M]						
C581	ECEAOJKA101B	6.3V 100U [M]						
C582	ECUV1E223ZFN	25V 0.022U [M]						
C583	ECUVNC105ZFN	16V 1U [M]						
C701	ECUV1E104ZFN	25V 0.1U [M]						
C702	ECUV1H101KCN	50V 100P [M]						
C703, 704	EEUFA1H561E	50V 560U [M]						
C705	ECUV1E104ZFN	25V 0.1U [M]						
C706	ECUV1H472KBN	50V 4700P [M]						
C707, 708	ECA1EM101B	25V 100U [M]						
C709, 710	ECUV1E104ZFN	25V 0.1U [M]						
C711	ECQE1104KF3	100V 0.1U [M]						
C712	ECKR2H102ZF5	500V 1000P [M]						
C713△	ECA1HM470B	50V 47U [M]						
C715△	ECA1HM102E	50V 1000U [M]						
C716△	ECA1HM102B	50V 1000U [M]						
C717△	ECA1HM102E	50V 1000U [M]						
C718△	ECA1HM102B	50V 1000U [M]						
C719	ECEA1EKA470B	25V 47U [M]						
C720	ECUV1E104ZFN	25V 0.1U [M]						
C721	ECUV1E103ZFN	25V 0.01U [M]						
C722	RCE1CKA100BG	16V 10U [M]						
C723	ECEA1CKA101B	16V 100U [M]						
C724, 725	ECUV1H102KBN	50V 1000P [M]						
C731	ECEAOJKA101B	6.3V 100U [M]						
C732	ECUVNC105ZFN	16V 1U [M]						
C751	ECBT1E223ZF	25V 0.022U [M]						
C752	ECBT1H102KB5	50V 1000P [M]						
C1101, 1102	ECBT1E223ZF	25V 0.022U [M]						
C1103-1106	ECBT1H102KB5	50V 1000P [M]						
C1107, 1108	ECBT1C105ZF5	16V 1U [M]						
C1109, 1110	ECBT1H102KB5	50V 1000P [M]						

■ Replacement Parts List (Cabinet, Packing and Accessories)

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RKM0326A-S	CABINET	[M]
2	RHD30073-K	SCREW	[M]
3	XTBS3+10JFZ1	SCREW	[M]
4	RFKGEHD60E-N	FRONT PANEL ASS' Y	[M]
5	RGW0247-S1	KNOB, VOLUME	[M]
6	RKA0076-N	FOOT	[M]
7	RMF0236	SHEET	[M]
8	RMN0191	P. C. B HOLDER	[M]
9	RLBT4001-D	FERRITE CORE	[M]
10	RMN0203	P. C. B HOLDER	[M]
11	RGK0810-N	ORNAMENT	[M]
12	RGK0811-N	ORNAMENT	[M]
13	RGK0815-N	VOLUME ORNAMENT	[M]
14	RGU1392-S	BUTTON, POWER	[M]
15	RGW0198-S	KNOB, TONE	[M]
16	RHD26016	SCREW	[M]
17	SNE4021-1	NUT	[M]
18	XTBS26+8J	SCREW	[M]
19	XTBS3+8JFZ1	SCREW	[M]
20	XTB3+16JFZ	SCREW	[M]
21	SHE185-2	PCB SUPPORT	[M]
22	RMRO985-K	EDGE HOLDER	[M]
23	RLB0010	FERRITE CORE	[M]
24	XTB3+6JFZ	SCREW	[M]
25	XTB3+6G	SCREW	[M]
26	RGK0808-M	ORNAMENT	[M]
27	RGK0809-M	ORNAMENT	[M]
28	RFKEHD7-N	WIRE ASS' Y	[M]
29	RWJ1806380QQ	FLAT CABLE (W503/6P)	[M]
30	RWJ5705300KX	FLAT CABLE (W504, 803/5P)	[M]
31	REZ0902	WIRE ASS' Y (W802/5P)	[M]
32	REZ0900	FLAT CABLE (CN801, 802/14P)	[M]
33	RGU1393-Q	BUTTON, OPERATION	[M]
34	RWJ1808165KK	FLAT CABLE (W701C, D/8P)	[M]
35	RGR0241A-Q	REAR PANEL	[M]
36	RMK0323-2	CHASSIS	[M]
37	RGL0333-1Q	PANEL LIGHT	[M]
38	RMZ0397	BARRIER	[M]
39	RLBT3101-D	FERRITE CORE	[M]
		PACKING MATERIALS	
P1	RPG3434	GIFT BOX (SE)	[M]
P1	RPG3435	GIFT BOX (ST)	[M]
P1	RPG3404	GIFT BOX (SL)	[M]
P1	RPG3174	GIFT BOX (RS)	[M]
P2	RPQ0731	PAD (ACCESSORY)	[M]
P3	RPN0970	PAD (SE)	[M]
P3	RPN0971	PAD (ST/SL)	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
P3	RPN1008	PAD (RS)	[M]
P4	SPP740	SHEET	[M]
P5	RPF0139	POLYETHYLENE COVER	[M]
		ACCESSORIES	
A1	RAK-CH193WH	REMOTE CONTROL	[M]
A1-1	RKK0057-K	BATTERY COVER	[M]
A2	RFA0737-R	SPEAKER CORD UNIT	[M]
A3	REX0608	FLAT CABLE (20P)	[M]
A4	REX0812	FLAT CABLE (19P)	[M]
A5	REX0813	FLAT CABLE (15P)	[M]
A6△	RJA0019-2K	AC POWER SUPPLY CORD	[M]
A7	RQA0117	WARRANTY CARD	[M]
A8	RQC00169	SERVICENTER LIST	[M]
A9	RQT3840-E	INSTRUCTION MANUAL	[M] (E) <IA>
A9	RQT3841-D	INSTRUCTION MANUAL	[M] (EG) <IB>
A9	RQT3862-H	INSTRUCTION MANUAL	[M] (EG) <IC>
A10	RSA0007	FM INDOOR ANTENNA	[M]
A11	RSA0021	AM LOOP ANTENNA	[M]

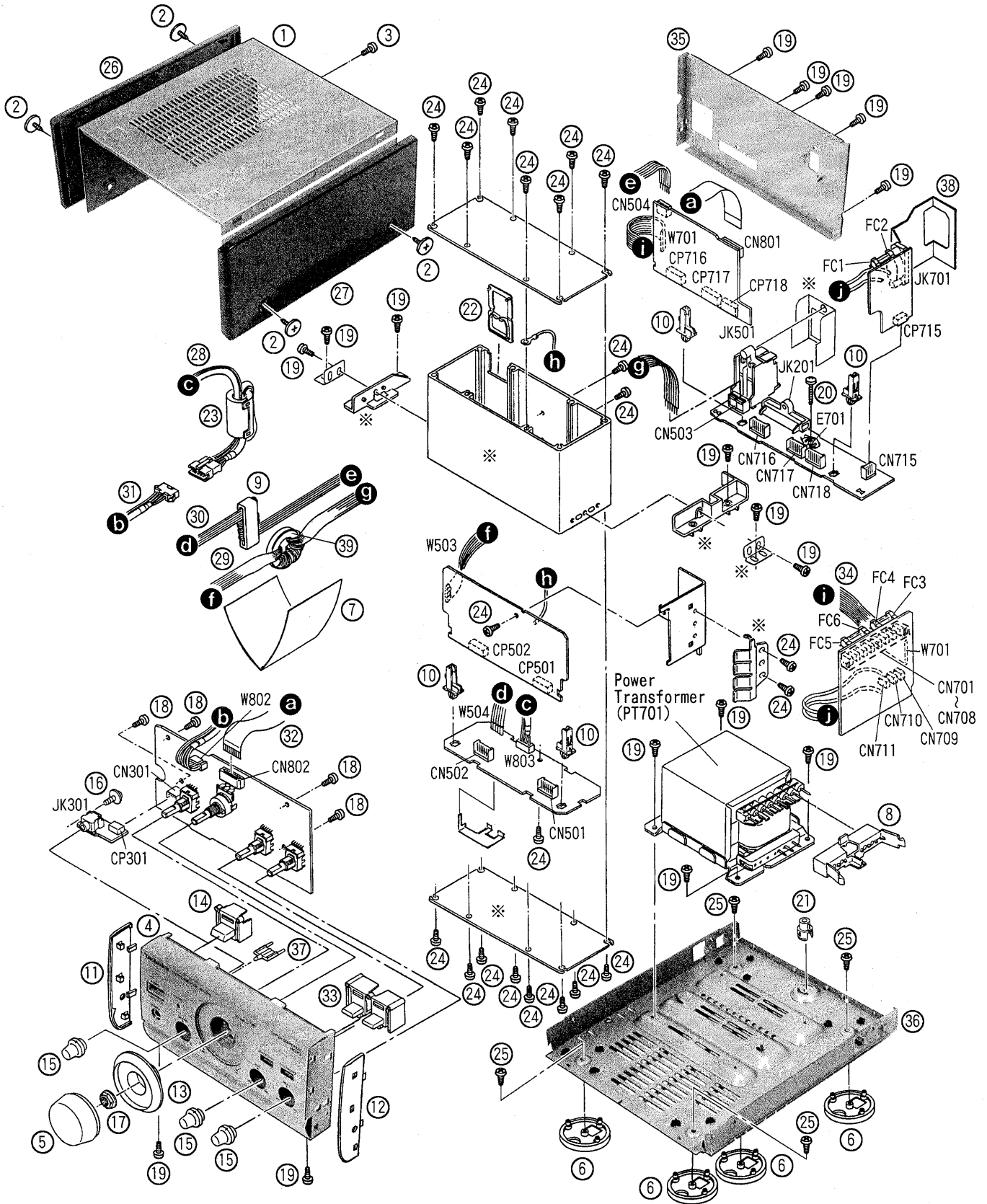
Note : The "< IA >, < IB >, < IC >" mark in Remarks indicate language of instruction manual.

< IA > : French, Spanish, Swedish

< IB > : German, Italian, French

< IC > : Dutch, Danish

■ Cabinet Parts Location



The parts marked in "※" are not supplied.

■ Packaging

