

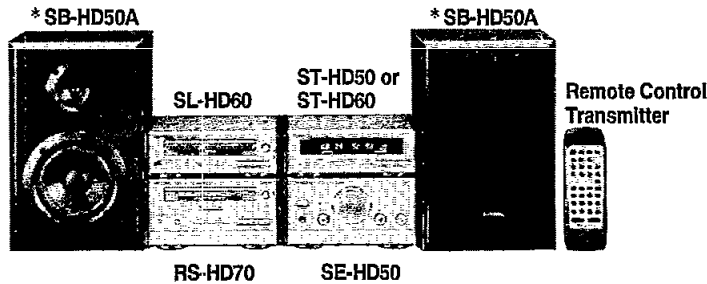
# Service Manual

Amplifier

Amplifier

## SE-HD50

System: SC-HD50



### Colour

(N) ..... Gold

### Areas

(E) ..... Europe

(EG) ..... Germany and Italy

(EB) ..... Great Britain

(EP) ..... East Europe and Russia

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:  $2 \times 23$  W (6 ohm)RMS 1 kHz, THD 10 %, both channel driven:  $2 \times 30$  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: 90 W

#### Power supply

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

[ for (EB) area ]: 230 - 240 V, AC 50 Hz

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

Weight: 3.5 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-HD50 or ST-HD60, Compact Disc Player: SL-HD60, Amplifier: SE-HD50, Cassette Deck: RS-HD70, Speakers: SB-HD50A

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.

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# Technics®

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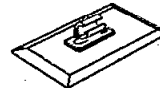
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## ■ Accessories

- AC power supply cord ..... 1 pc.  
For (EB) area (RJA0053-1X)      For (E,EG,EP) area (RJA0019-2K)
- Remote control transmitter ..... 1 pc.  
For (E, EB, EP) area (RAK-CH215WH)      For (EG) area (RAK-CH193WH)
- Speaker cords ..... 2 pcs. (REE0393)



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



- FM indoor antenna ..... 1 pc. (RSA0007)
- Antenna plug adaptor ..... 1 pc.  
For (EB) area only (SJP9009)
- Flat cable (Long thick) ..... 1 pc. (REX0812)



- Flat cable (Long thin) ..... 1 pc. (REX0813)
- Flat cable (short) ..... 1 pc. (REX0608)



## ■ Before Repair

- (1) Turn off the power supply. Using a 10 Ω, 10 W resistor, connect both ends of power supply capacitors (C701, C702) 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) (EP)	(EB)
Power supply voltage	AC 230 V	AC 240 V
Consumed current 50 Hz	50 ~ 170 mA	50 ~ 170 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.

## ■ Caution for AC Main Lead



[ (EB) area code model only ]

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

### CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.

If in any doubt please consult a qualified electrician.

### IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:


Blue: Neutral  
Brown: Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

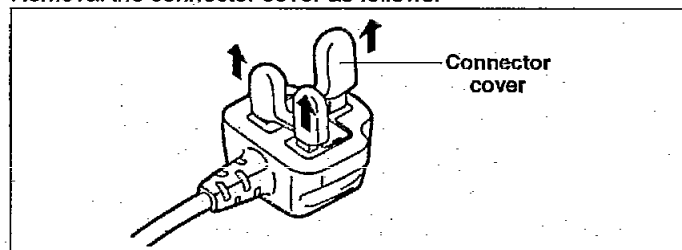
This apparatus was produced to BS 800.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol .

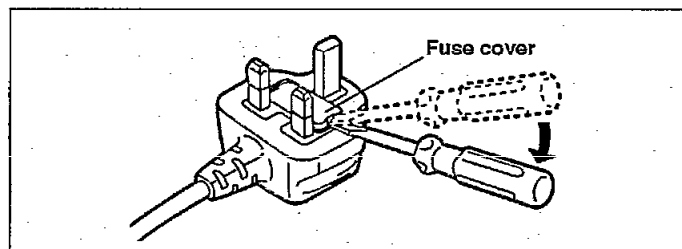
### Before use

Remove the connector cover as follows.

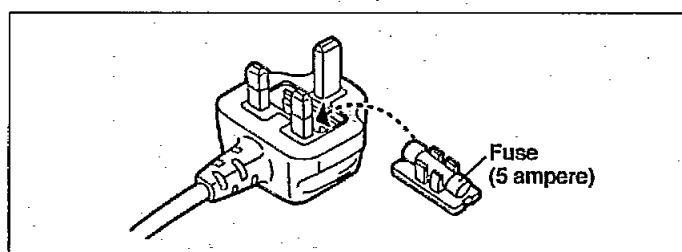


### How to replace the fuse

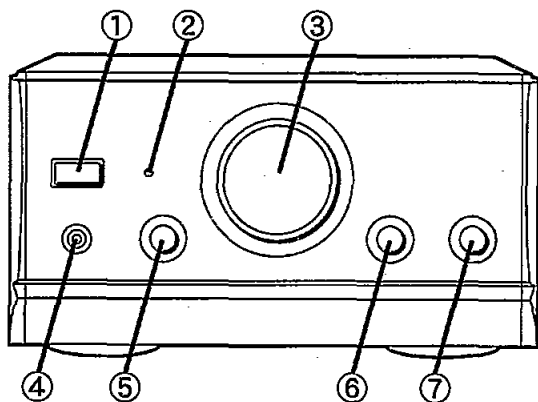
1. Remove the fuse cover with a screwdriver.



2. Replace the fuse and attach the fuse cover.

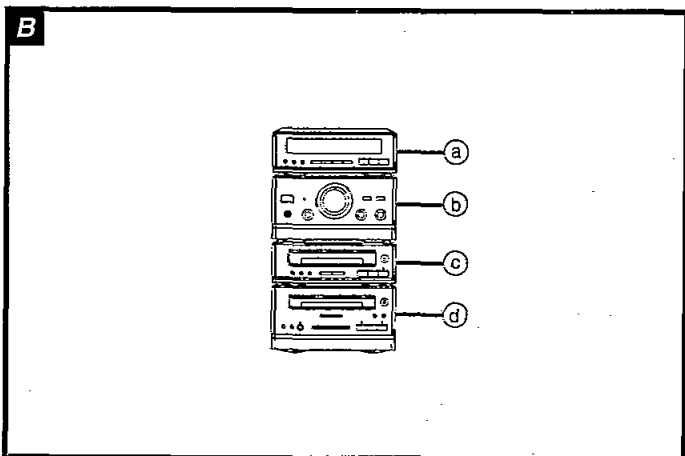
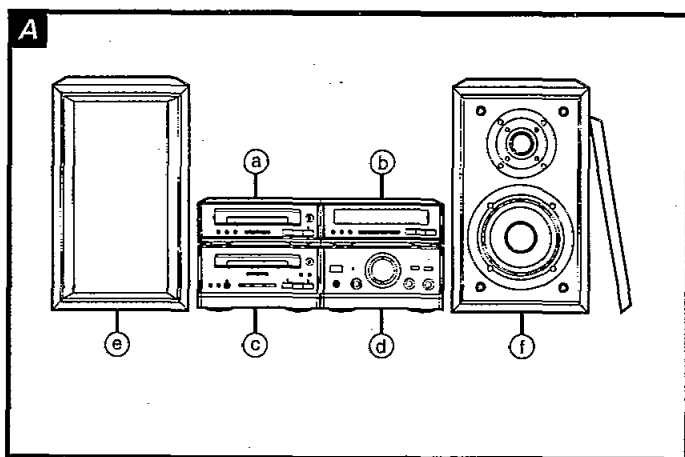


## ■ Location of Controls



- ① **Power "STANDBY  $\text{\textcircled{O}}$ /ON" switch (POWER, STANDBY  $\text{\textcircled{O}}$ /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 **Headphones jack (PHONES)**
- ⑤ **Balance control (BALANCE)**
- ⑥ **Bass control (BASS)**
- ⑦ **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.

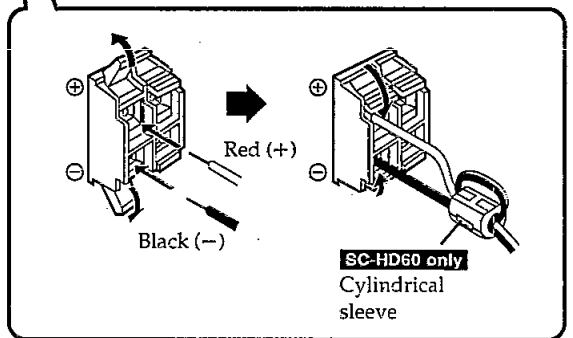
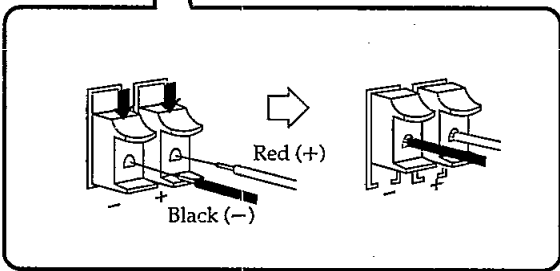
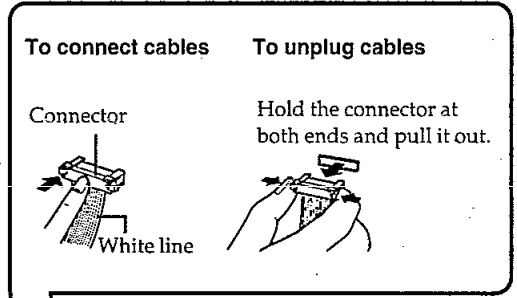
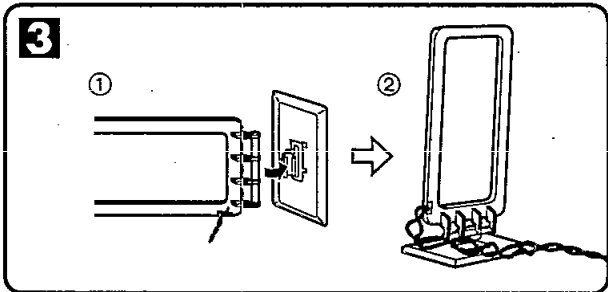
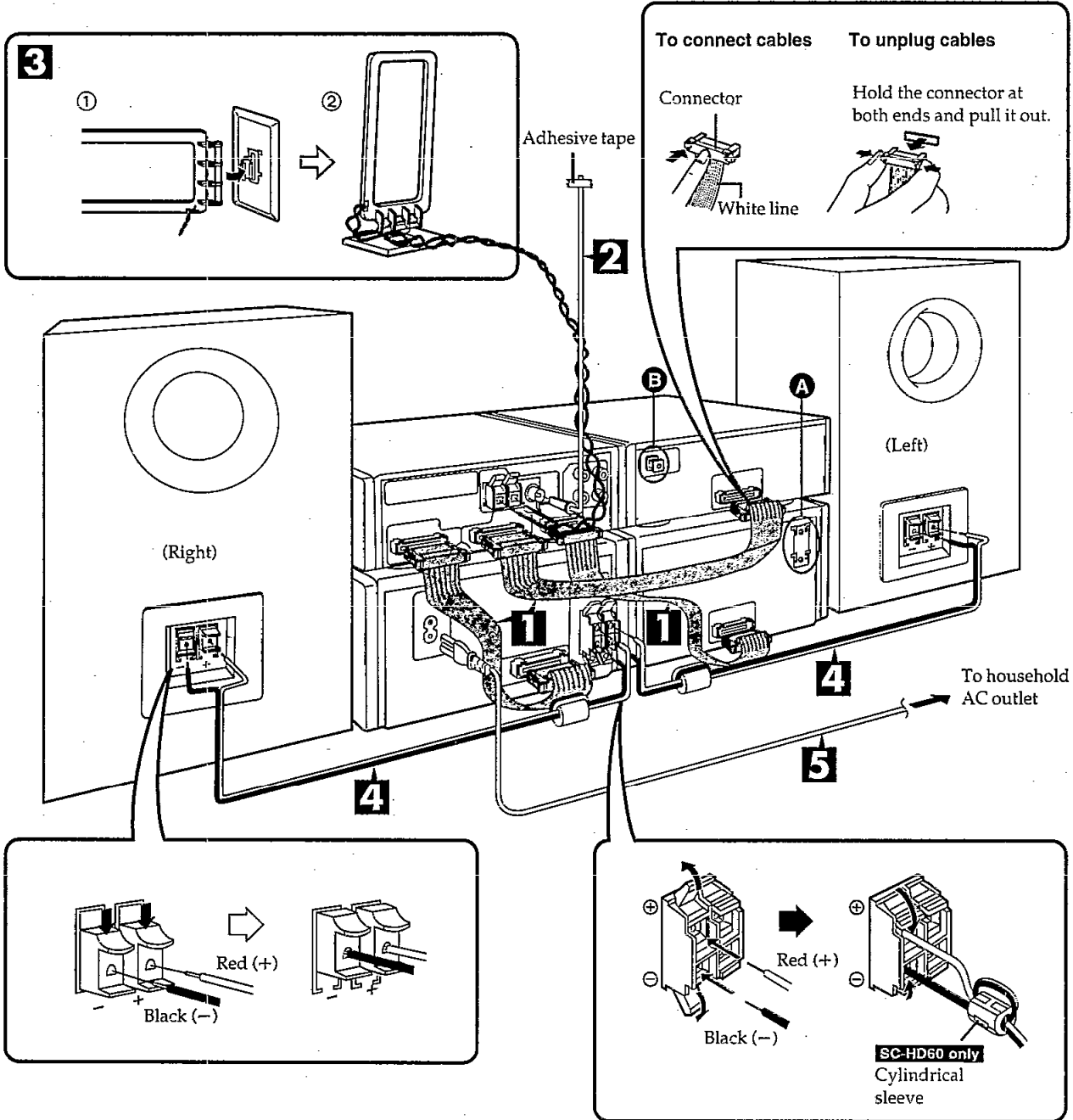
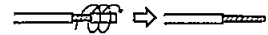
#### Note

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**

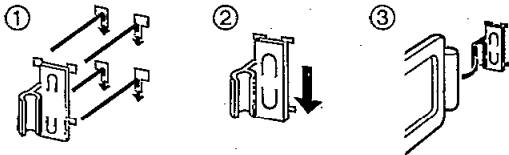
When you cannot get a good reception with this FM indoor antenna, we recommend you install an FM outdoor antenna (not included).

**3 Connect the AM loop antenna.**

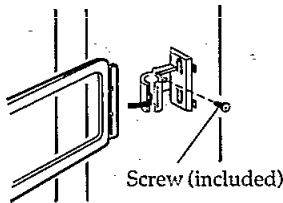
You can also install the AM loop antenna on the rear of the cassette deck, wall or pillars.

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.**

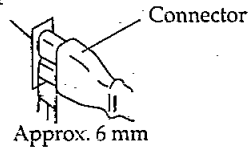
(United Kingdom only)  
**BE SURE TO READ THE CAUTION FOR AC MAINS LEAD ON PAGE 4 BEFORE PROCEEDING TO STEP 5.**

**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.

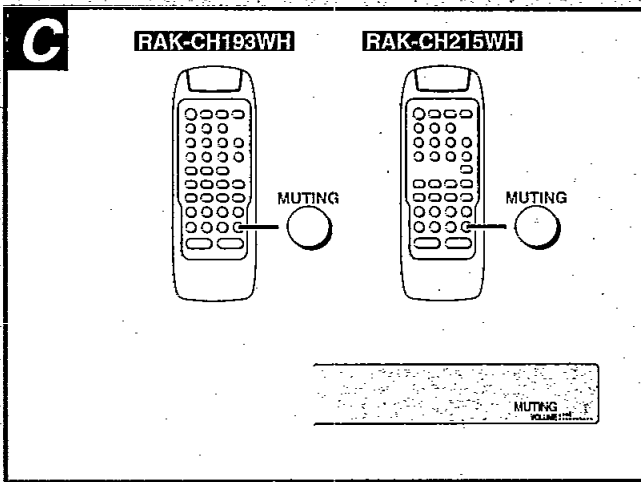
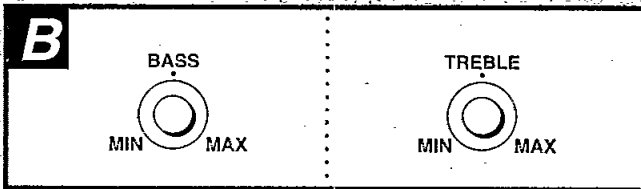
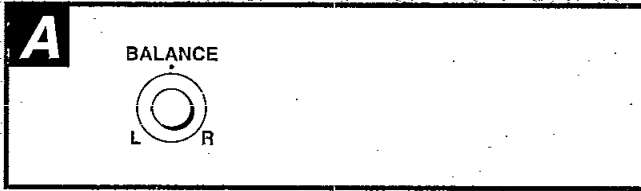
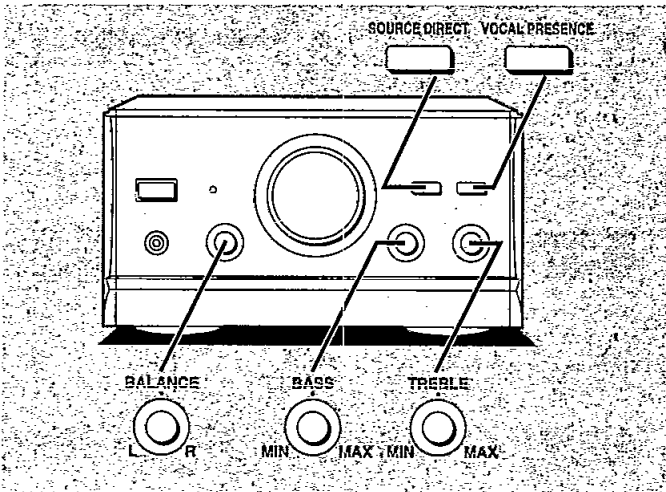
Appliance inlet



**Connections to "DIGITAL OPTICAL OUT" terminal: (E)**

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



### To adjust the sound balance

**A**

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

**B**

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

**C**

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

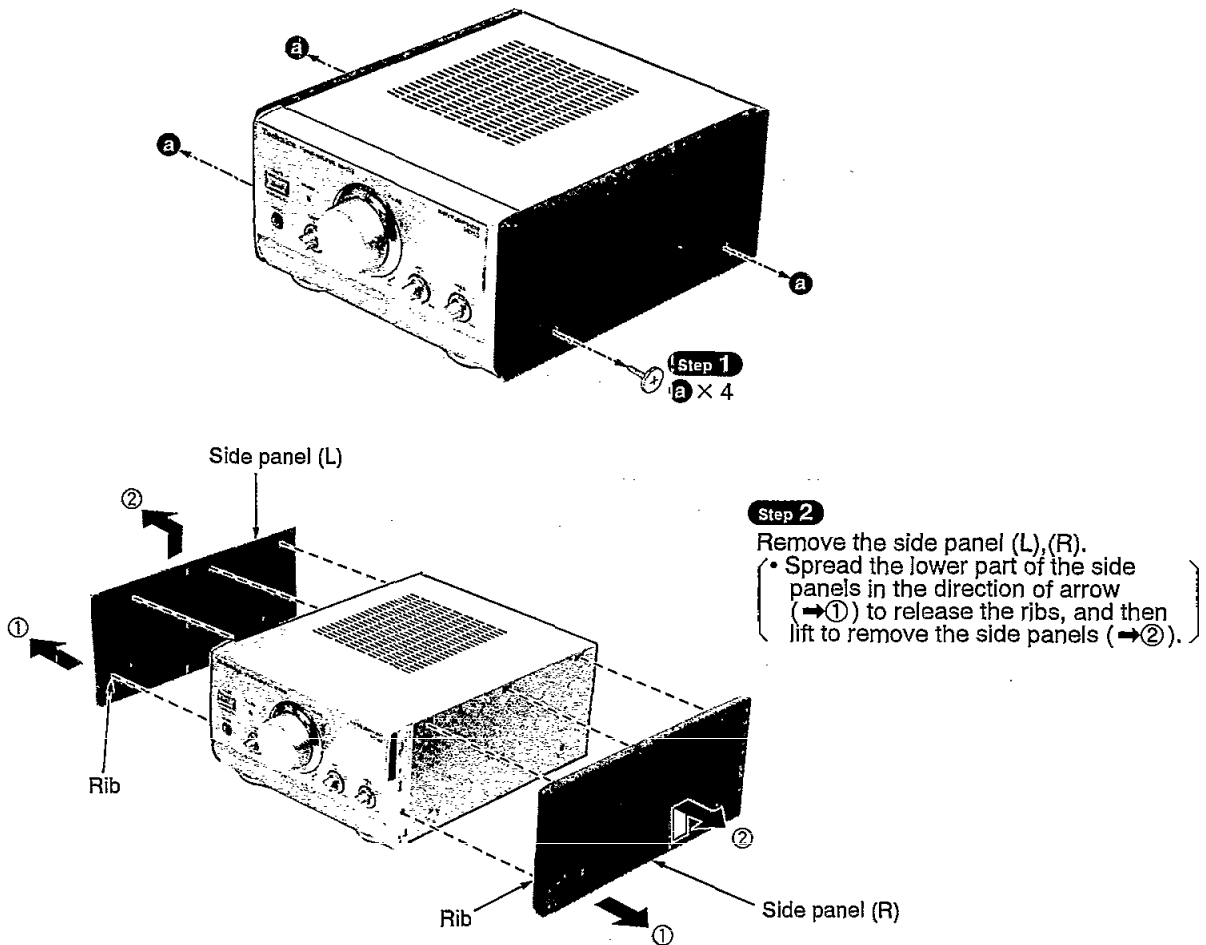
1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.
3. Select 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

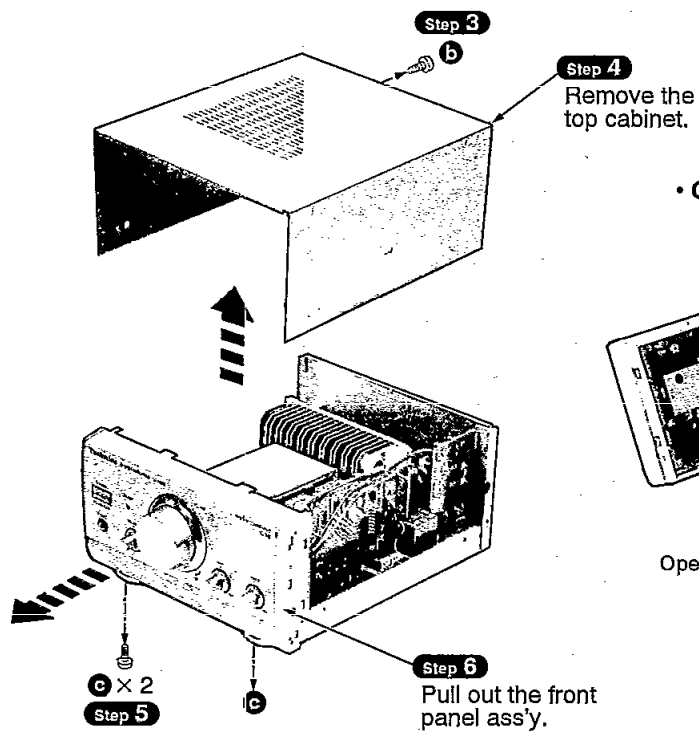
• Checking Procedures for each P.C.B.	Page.
1. Checking for the operation P.C.B. ....	8,9.
2. Checking for the protection P.C.B. and main P.C.B. ....	9,10.
• Main Component Replacement Procedures	
1. Replacement for the power IC. ....	10.

## ■ Checking Procedure for each P.C.B.

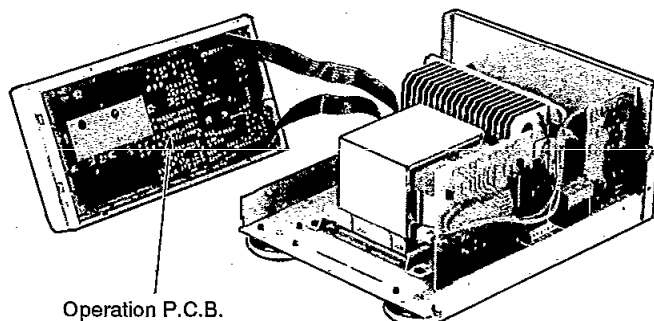
### 1. Checking for the operation P.C.B.







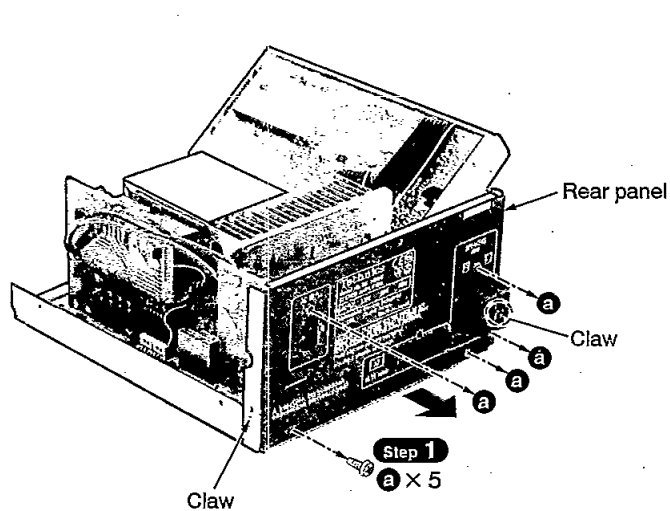
• Check the operation P.C.B. as shown below.



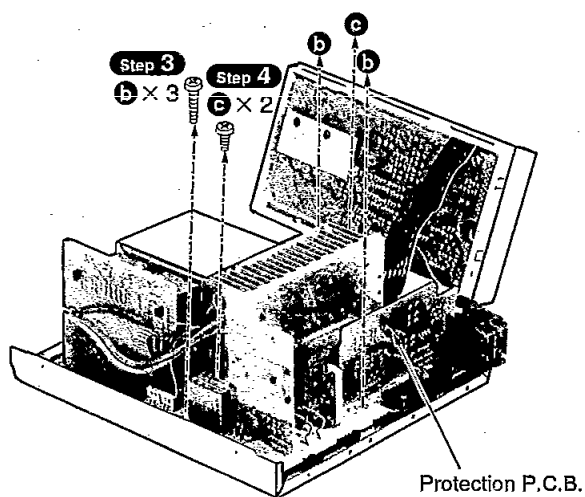
## 2. Checking for the protection P.C.B. and main P.C.B.

• Follow the **Step 1** ~ **Step 6** of the item 1 in checking procedure for each P.C.B. on pages 8 and 9.

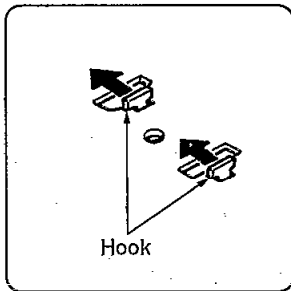
• Check the protection P.C.B. as shown below.



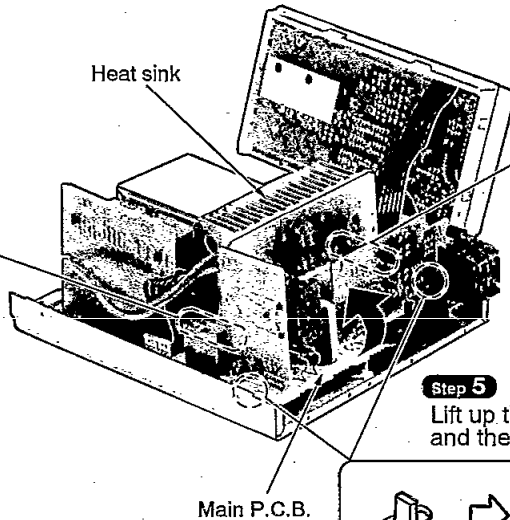
**Step 2**  
Release the 2 claws, and then remove the rear panel.



(Bottom side)

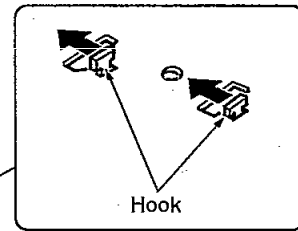


Heat sink



Main P.C.B.

(Bottom side)



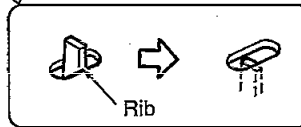
Hook

**Step 6**

Release the hooks of heat sink from the bottom side when the rib is free, and then remove the main P.C.B..

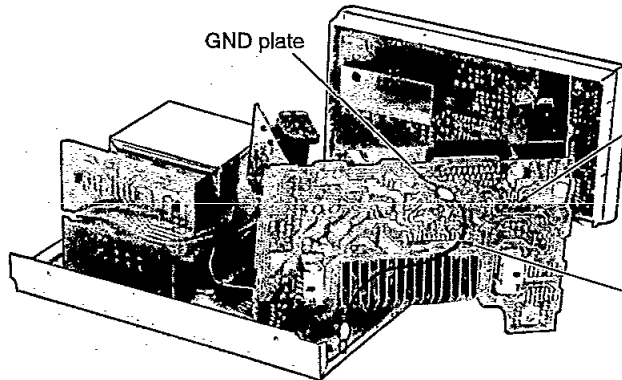
**Step 5**

Lift up the main P.C.B., and then release the rib.



Rib

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



GND plate

**Step 7**

Raise the main P.C.B..

**Step 8**

Connect the lead wire.

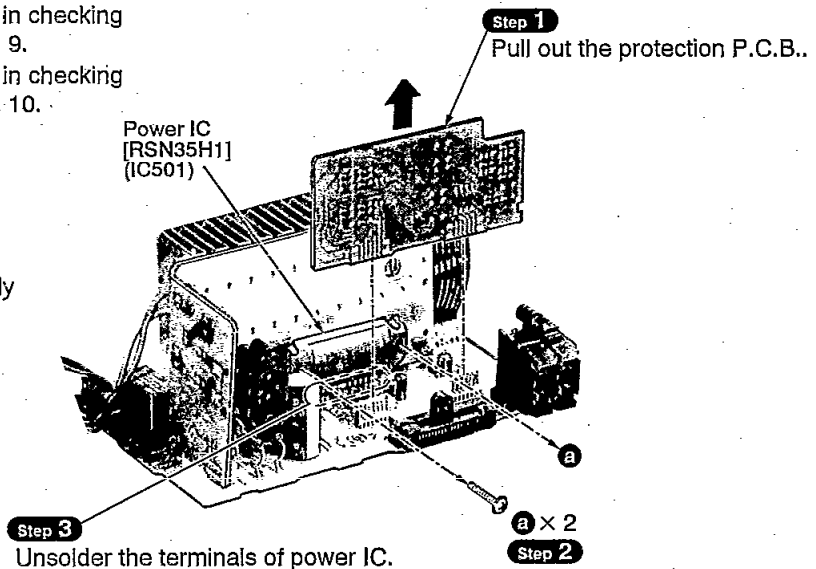
## Main Component Replacement Procedures

### 1. Replacement for the power IC

- Follow the **Step 1** ~ **Step 6** of the item 1 in checking procedure for each P.C.B. on pages 8 and 9.
- Follow the **Step 1** ~ **Step 6** of the item 2 in checking procedure for each P.C.B. on pages 9 and 10.

**NOTE**

When mounting the power IC apply silicone compound (RFKX0002) to the rear side of power IC.



**Step 1**

Pull out the protection P.C.B..

Power IC [RSN35H1] (IC501)

**Step 3**

Unsolder the terminals of power IC.

a × 2

**Step 2**

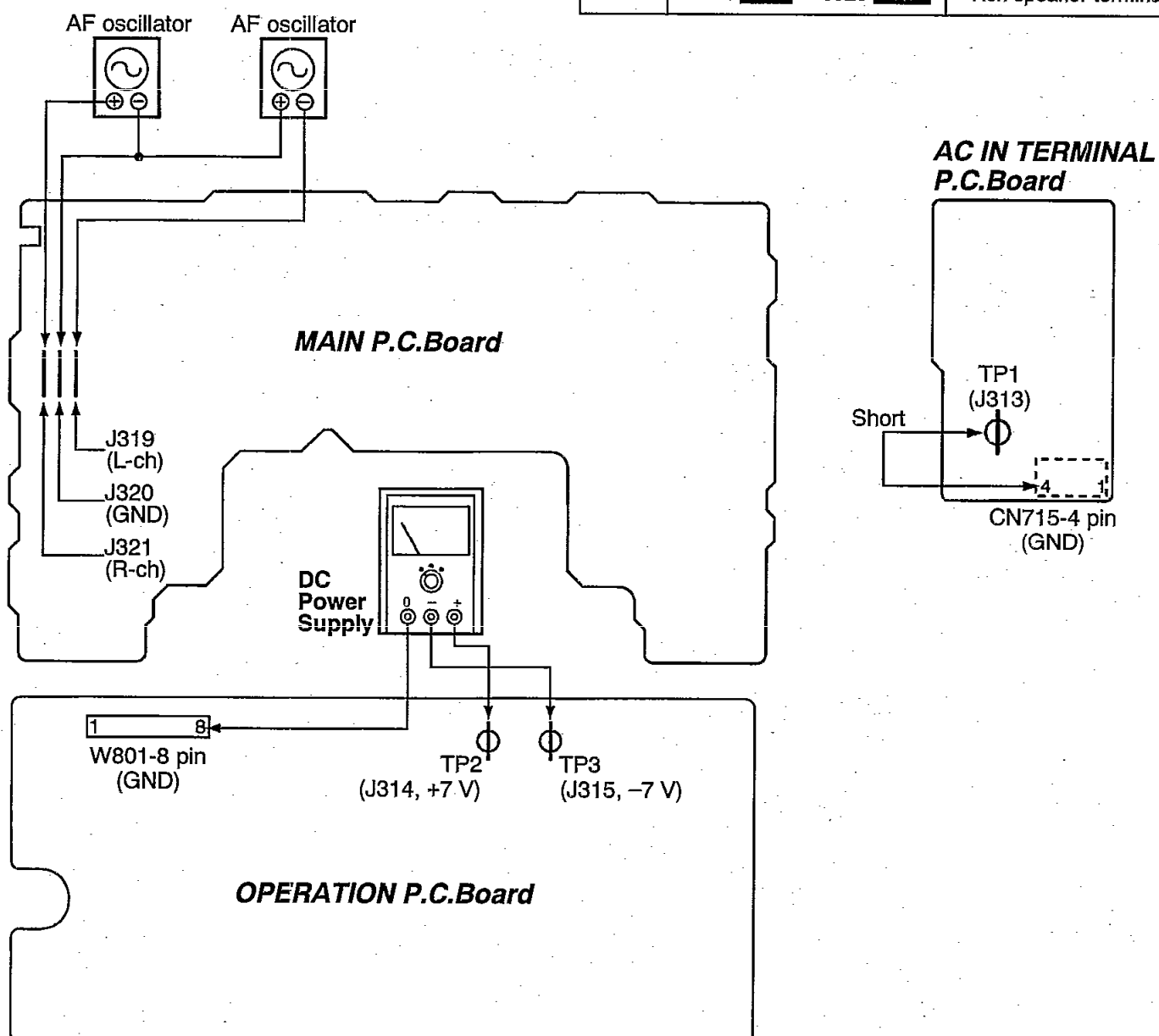
## ■ To Supply Power Source

1. Short the section between the points TP1 (J313, +5 V) and CN715-4 pin (GND) on the AC IN TERMINAL P.C.Board.
2. Connect the DC Power Supply as shown below.
  - 2-1. +7 V terminal of the DC Power supply connect to TP2 (J314).
  - 2-2. GND terminal of the DC Power supply connect to W801-8 pin (D.GND).
  - 2-3. -7 V terminal of the DC Power supply connect to TP3 (J315).
3. Connect this unit SE-HD50 to an AC outlet by the AC Power Cord.

### Operation Check

1. Set the unit to power ON mode.
2. Input a signal (1 kHz, 100 mV), and confirm it to be outputted from the speaker terminal.

	INPUT	OUTPUT
L-ch	J319 <b>Lch</b> ⇔ J320 <b>GND</b>	Lch speaker terminal
R-ch	J321 <b>Lch</b> ⇔ J320 <b>GND</b>	Rch speaker terminal



## ■ Schematic Diagram

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<b>A</b> HEADPHONES JACK CIRCUIT .....	13
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<b>F</b> AC IN TERMINAL CIRCUIT .....	14

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

### Notes:

- S801 : Power "STANDBY  $\phi$  /ON" switch (POWER, STANDBY  $\phi$  /ON)
- VR301-1, VR301-2 : Bass control (BASS)
- VR302-1, VR302-2 : Treble control (TREBLE)
- VR303 : Balance control (BALANCE)
- VR801 : Volume control (VOLUME)

- 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.

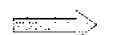
Put a conductive mat on the work table.

Do not touch the legs of IC or LSI with the fingers directly.

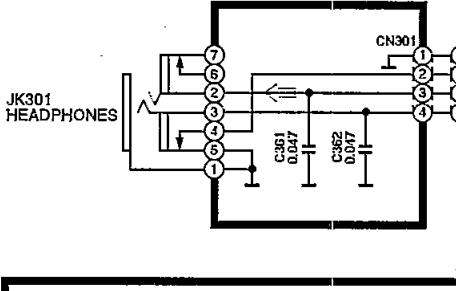
### ● Voltage and signal line

 : Positive voltage line

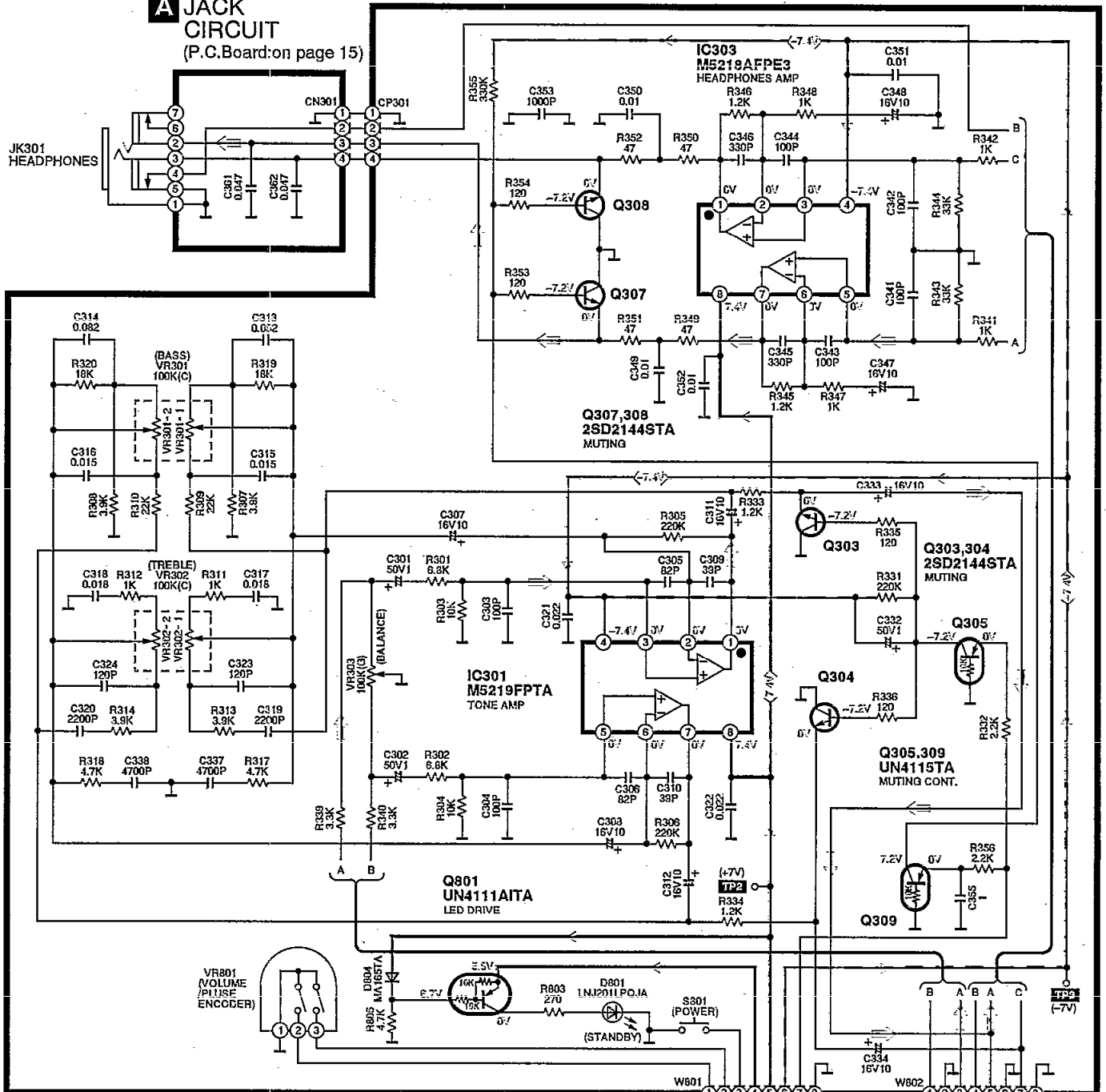
 : Positive voltage line

 : AM signal line

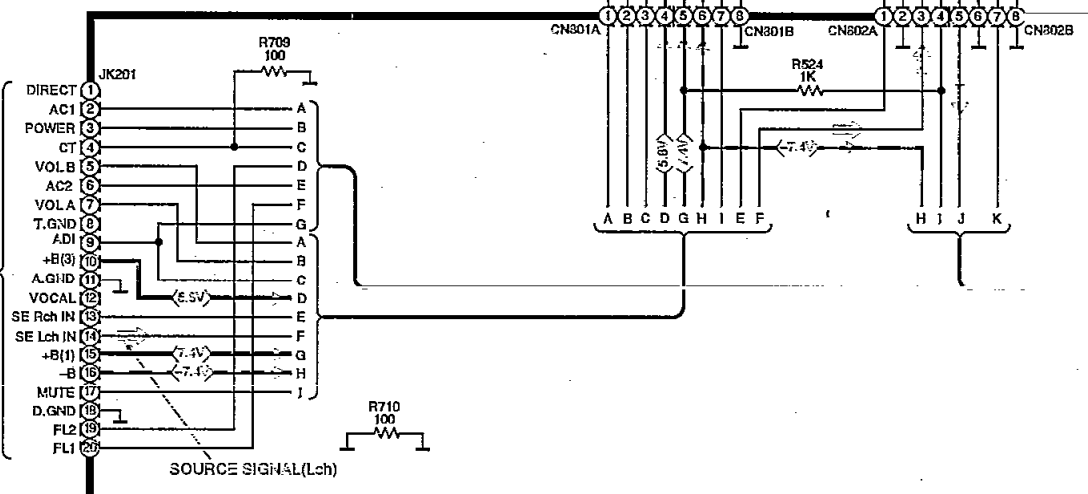
**A HEADPHONES JACK CIRCUIT**  
(P.C.Board: on page 15)




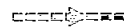

**B OPERATION CIRCUIT (P.C.Board: on page 15)**

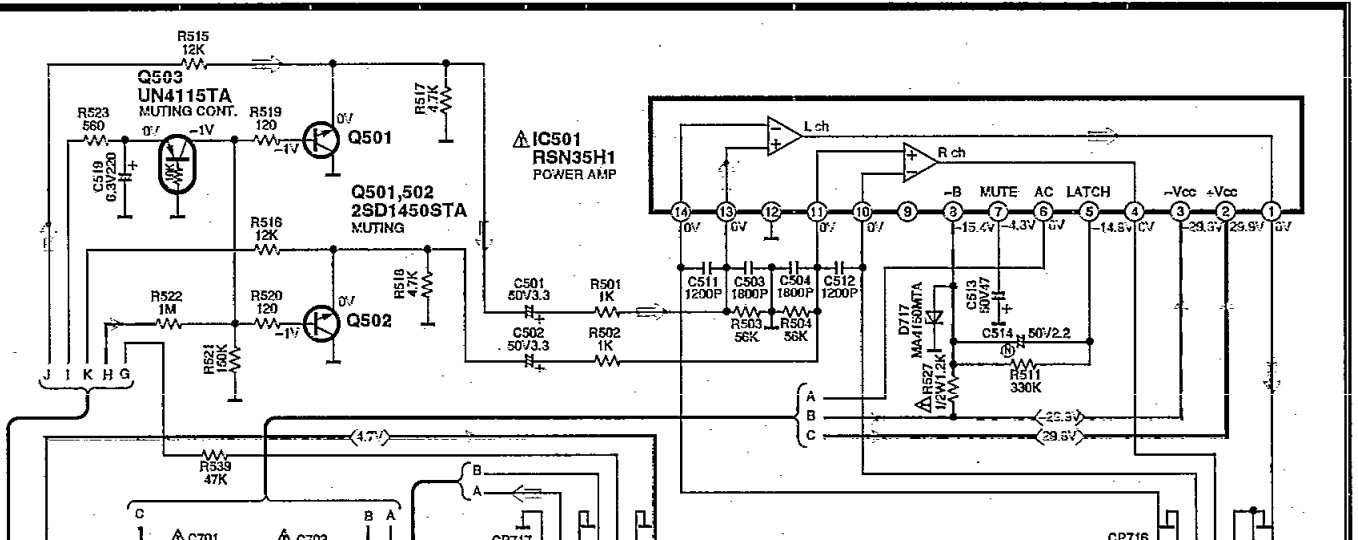


To ST-HD50 :JK603 on page 12  
To ST-HD60 :JK603 on page 13

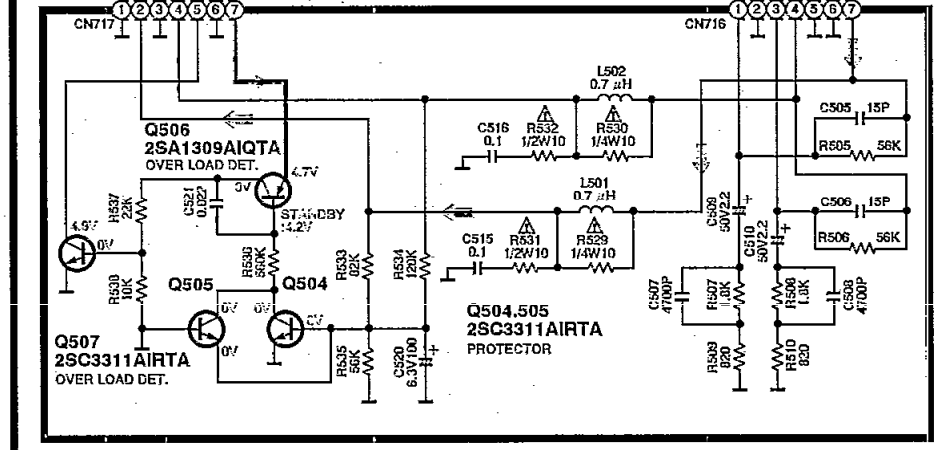


**C MAIN CIRCUIT** (P.C.Board: on page 16)

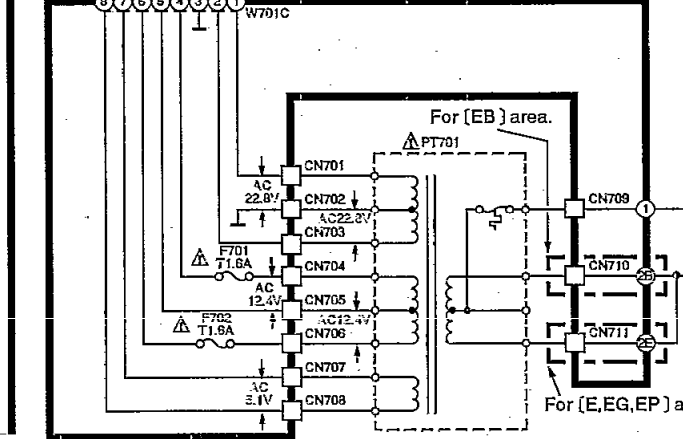
 : Positive voltage line  
 : Positive voltage line  
 : AM signal line



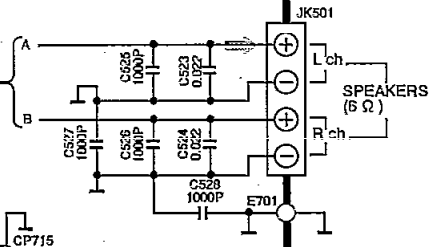
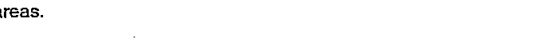
**D PROTECTION CIRCUIT** (P.C.Board: on page 15)



**E POWER TRANSFORMER CIRCUIT** (P.C.Board: on page 17)



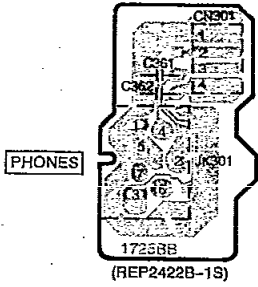
**F AC IN TERMINAL CIRCUIT** (P.C.Board: on page 17)



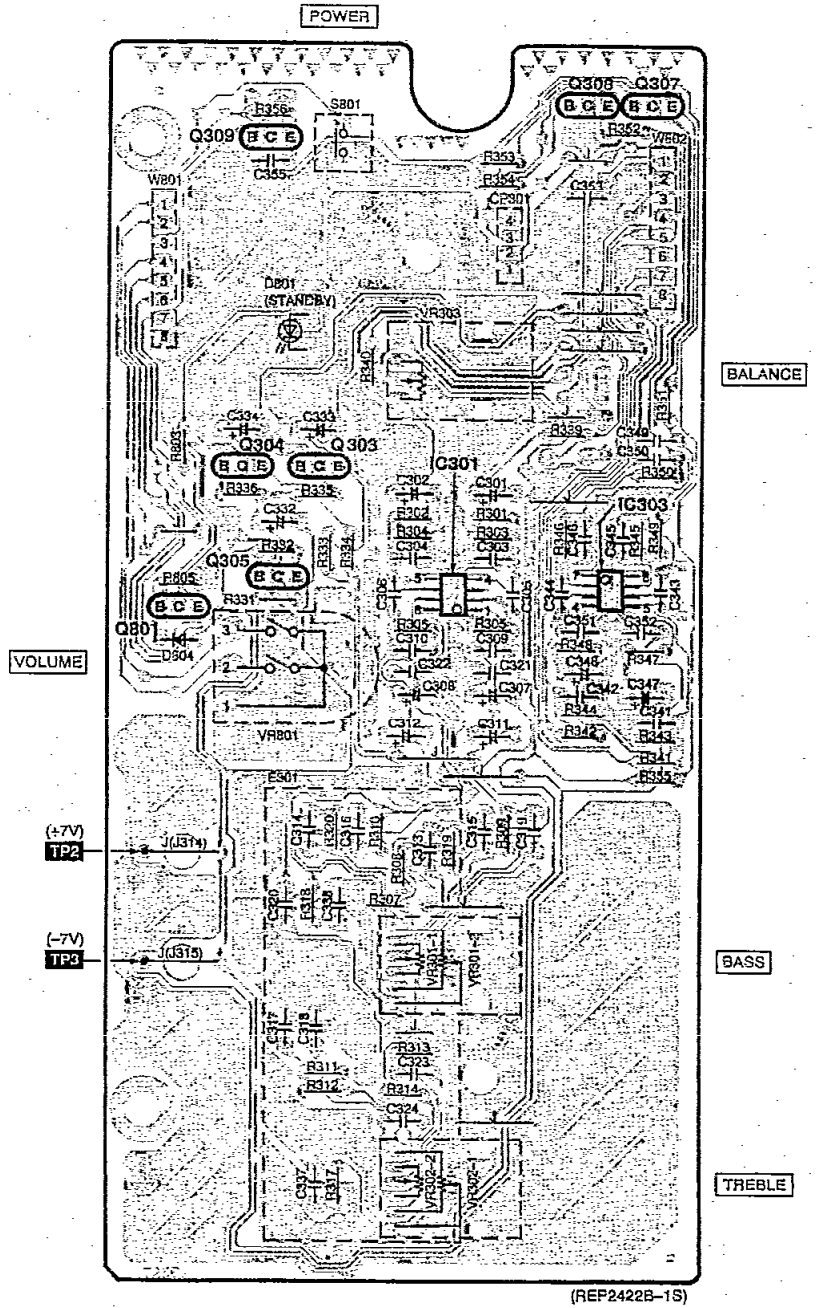
# Printed Circuit Board Diagram

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

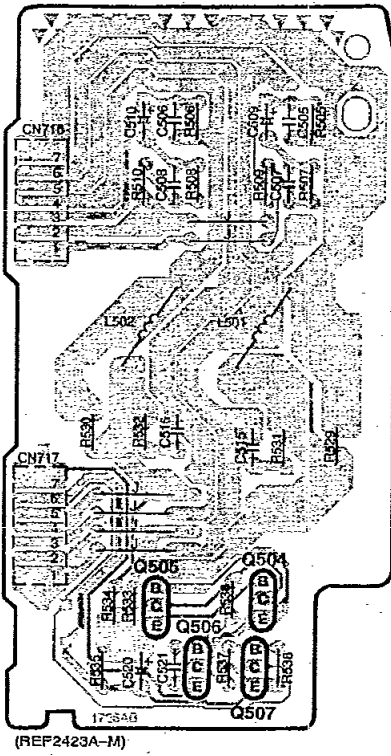
## A HEADPHONES JACK P.C.B.



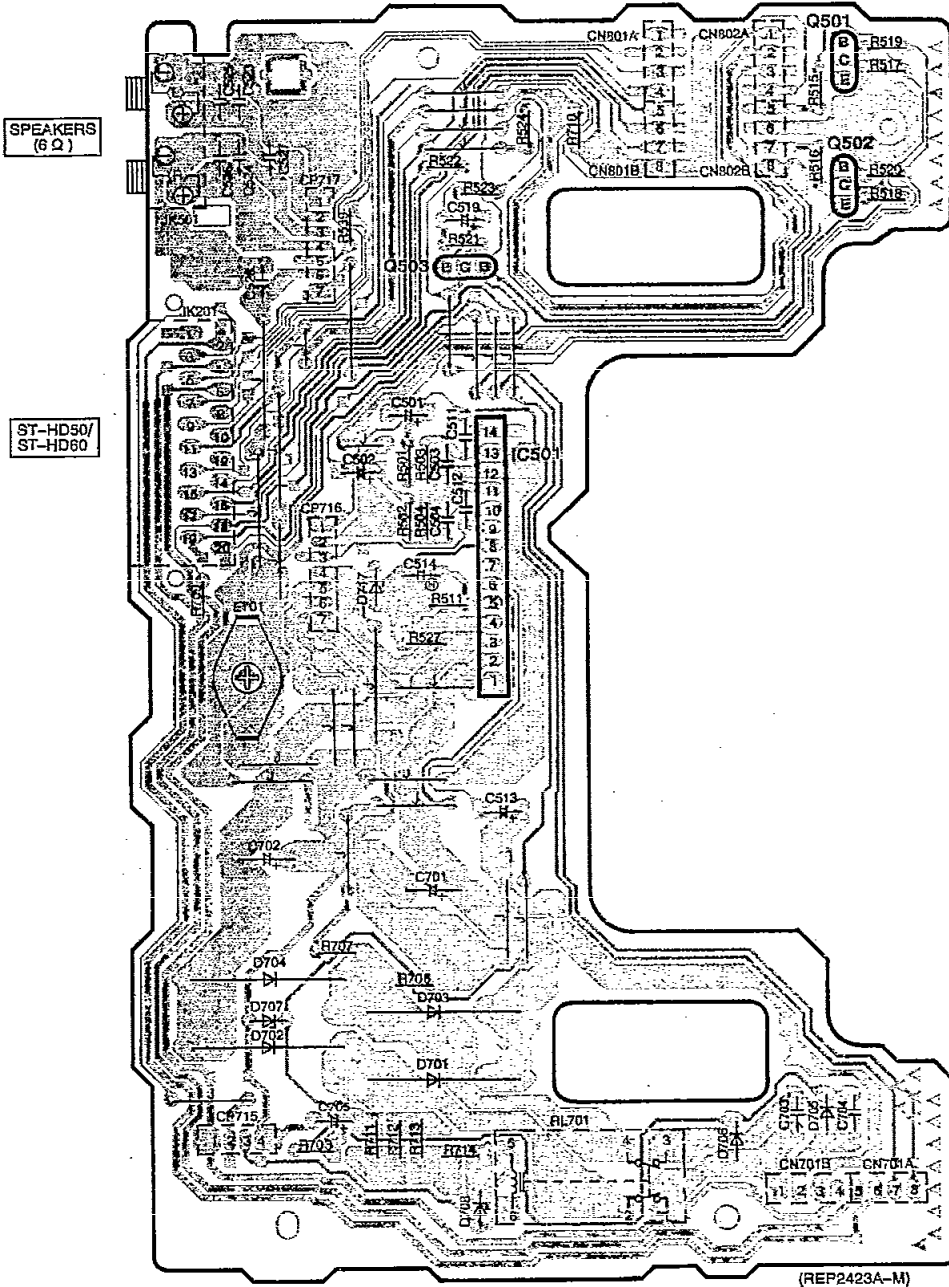
## B OPERATION P.C.B.



## D PROTECTION P.C.B.



**C** MAIN P.C.B.

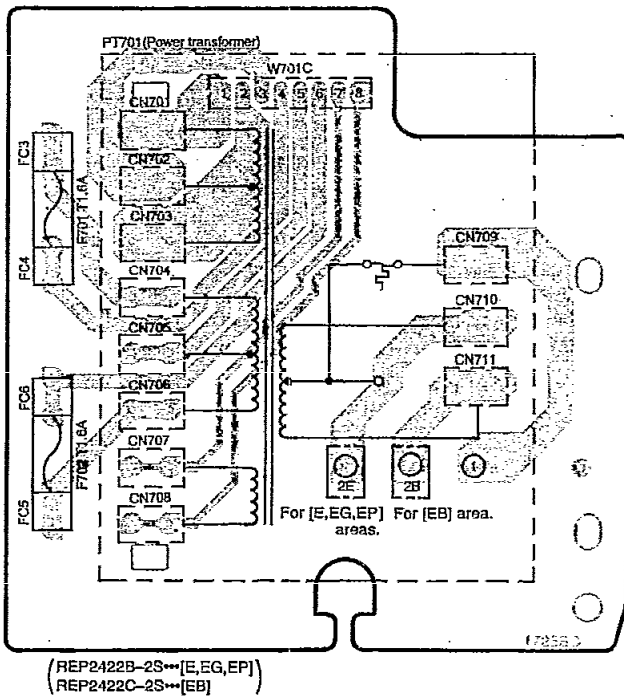


■ Type Illustration of ICs, Transistors and Diodes

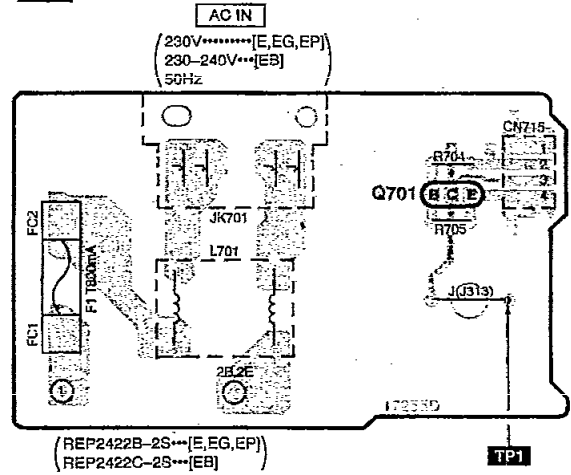
<p>M5218AFPE3 M5219FPTA</p>	<p>RSN35H1</p>		<p>2SA1309AIQTA 2SC3311AIRTA 2SD1450STA UN4111AITA UN4115TA</p>	<p>2SD2144STA</p>	<p>1N5402BF RL1N4003N02</p>
<p>MA4150MTA MA4240MTA</p>	<p>MA4051MTA</p>	<p>MA165TA</p>	<p>LNJ201LPQJA</p>		



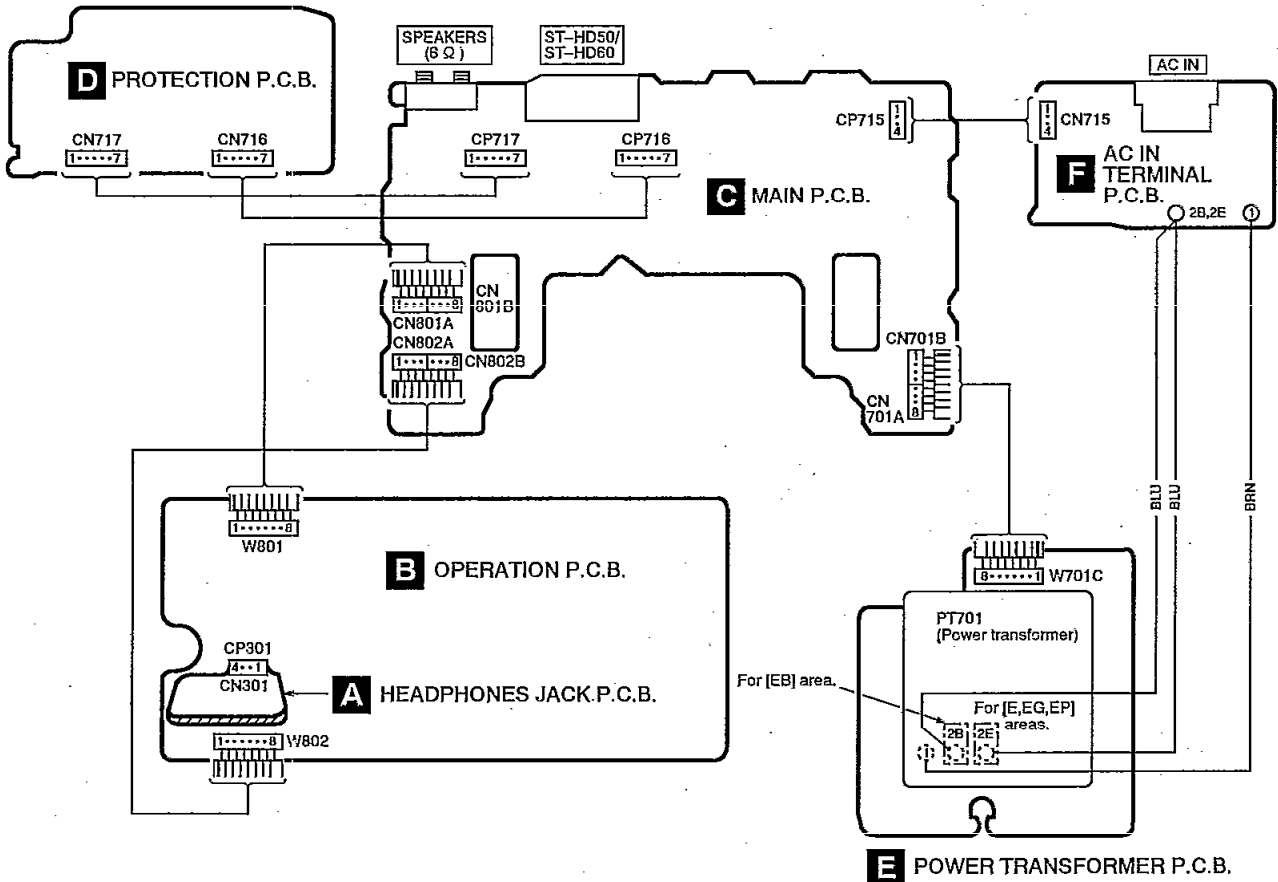
**E** POWER TRANSFORMER P.C.B.



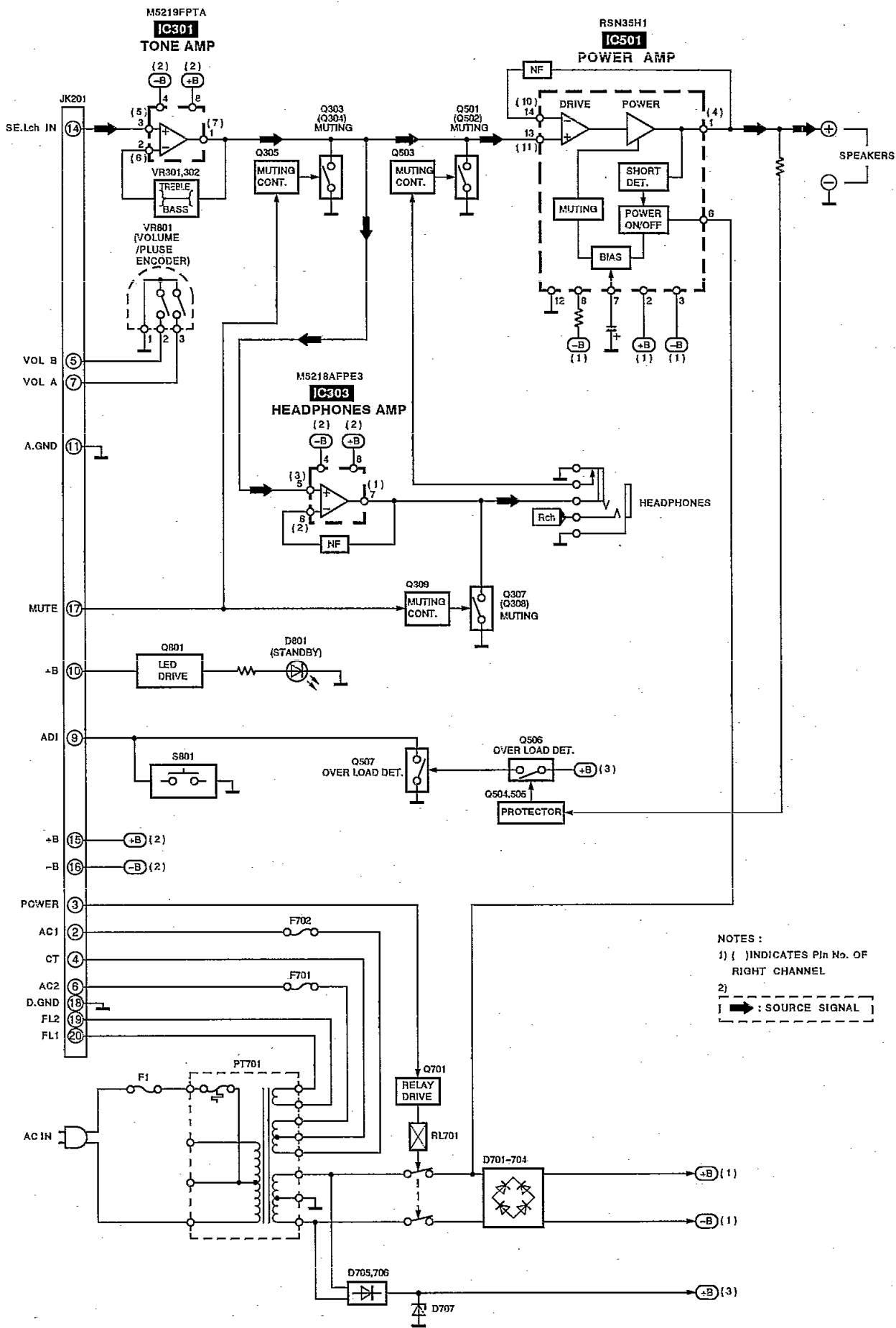
**F** AC IN TERMINAL P.C.B.



**Wiring Connection Diagram**



# Block Diagram



# 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 manufacturer's specified parts shown in the parts list.

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

Parts without these indications can be used for all areas.

\* [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)				SWITCH (ES)	
IC301	M5219FPTA	IC	[M]	S801	EVQ21405R	SW	[M]
IC303	M5218AFPE3	IC	[M]			CONNECTOR (S)	
IC501Δ	RSN35H1	IC	[M]	CN301	RJU057W004	CONNECTOR (4P)	[M]
		TRANSISTOR (S)		CN701-709	RJS1A1101T1	CONNECTOR (1P)	[M]
Q303, 304	2SD2144S	TRANSISTOR	[M]	CN710	RJS1A1101T1	CONNECTOR (1P)	[M] (EB)
Q305	UN4115	TRANSISTOR	[M]	CN711	RJS1A1101T1	CONNECTOR (1P)	[M] (E, EG, EP)
Q307, 308	2SD2144S	TRANSISTOR	[M]	CN715	RJU057W004	CONNECTOR (4P)	[M]
Q309	UN4115	TRANSISTOR	[M]	CN716, 717	RJU057W007	CONNECTOR (7P)	[M]
Q501, 502	2SD145ORTA	TRANSISTOR	[M]	CN701A	RJS1A6604	CONNECTOR (4P)	[M]
Q503	UN4115	TRANSISTOR	[M]	CN801A	RJS1A6604	CONNECTOR (4P)	[M]
Q504, 505	2SC3311AIRTA	TRANSISTOR	[M]	CN802A	RJS1A6604	CONNECTOR (4P)	[M]
Q506	2SA1309AIQTA	TRANSISTOR	[M]	CN701B	RJS1A6604	CONNECTOR (4P)	[M]
Q507	2SC3311AIRTA	TRANSISTOR	[M]	CN801B	RJS1A6604	CONNECTOR (4P)	[M]
Q701	2SC3311AIRTA	TRANSISTOR	[M]	CN802B	RJS1A6604	CONNECTOR (4P)	[M]
Q801	UN4111	TRANSISTOR	[M]	CP301	RJT057W004-1	CONNECTOR (4P)	[M]
		DIODE (S)		CP715	RJT057W004-1	CONNECTOR (4P)	[M]
D701-704Δ	1N5402BF	DIODE	[M]	CP716, 717	RJT057W007-1	CONNECTOR (7P)	[M]
D705, 706Δ	RL1N4003N02	DIODE	[M]			EARTH TERMINAL (S)	
D707Δ	MA4051MTA	DIODE	[M]	E301	RSC0340	EARTH TERMINAL	[M]
D708	MA4240H	DIODE	[M]	E701	SNE1004-2	EARTH TERMINAL	[M]
D717	MA4150M	DIODE	[M]			FUSE HOLDER	
D801	LNJ201LPQJA	DIODE (LED)	[M]	FC1-6	EYF52BC	FUSE HOLDER	[M]
D804	MA165	DIODE	[M]			TRANSFORMER (S)	
		VARIABLE RESISTOR (S)		PT701Δ	RTP2M5B012	POWER TRANSFORMER	[M]
VR301, 302	EVJYA1F04C15	V. R	[M]			RELAY (S)	
VR303	EVJ02QF04G15	V. R	[M]	RL701Δ	RSY0013M-0	RELAY	[M]
VR801	EVQWQAF2524B	V. R	[M]			JACK (S)	
		COIL (S)		JK201	RJT065K20	CONNECTOR (20P)	[M]
L501, 502	SLQY07G-40	COIL	[M]	JK301	RJJ37IN01-C	HEADPHONES	[M]
L701Δ	RLQ2271M	COIL	[M]	JK501	RJR0054M	SPEAKERS	[M]
		FUSE (S)		JK701Δ	SJS9236	AC INLET	[M]
F1Δ	XBA2C08TBO	FUSE	[M]				
F701, 702Δ	XBA2C16TBO	FUSE	[M]				

# Resistors and Capacitors

Notes: \*Capacity values are in microfarads ( $\mu\text{F}$ ) unless specified otherwise, P = Pico-farads (pF) F = Farads (F)  
\*Resistance values are in ohms, unless specified otherwise, 1K = 1,000 (OHM) 1M = 1,000K (OHM)

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS	R705	ERDS2TJ473	1/4W 47K [M]	C705	ECA1HM470B	50V 47U [M]
			R706	ERDS2TJ104	1/4W 100K [M]			
			R707	ERDS2TJ684	1/4W 680K [M]			
R301, 302	ERDS2TJ682T	1/4W 6.8K [M]	R709, 710	ERDS2TJ101	1/4W 100 [M]			
R303, 304	ERDS2TJ103	1/4W 10K [M]	R711-714	ERDS2TJ390	1/4W 39 [M]			
R305, 306	ERDS2TJ224T	1/4W 220K [M]	R803	ERDS2TJ271	1/4W 270 [M]			
R307, 308	ERDS2TJ392T	1/4W 3.9K [M]	R805	ERDS2TJ472	1/4W 4.7K [M]			
R309, 310	ERDS2TJ223	1/4W 22K [M]			CAPACITORS			
R311, 312	ERDS2TJ102	1/4W 1K [M]						
R313, 314	ERDS2TJ392T	1/4W 3.9K [M]	C301, 302	ECEA1HKA010B	50V 1U [M]			
R317, 318	ERDS2TJ472	1/4W 4.7K [M]	C303, 304	ECBT1H101KB5	50V 100P [M]			
R319, 320	ERDS2TJ183T	1/4W 18K [M]	C305, 306	ECBT1H820KB5	50V 82P [M]			
R331	ERDS2TJ224T	1/4W 220K [M]	C307, 308	RCE1CKA100BG	16V 10U [M]			
R332	ERDS2TJ222	1/4W 2.2K [M]	C309, 310	ECBT1H390J5	50V 39P [M]			
R333, 334	ERDS2TJ122	1/4W 1.2K [M]	C311, 312	RCE1CKA100BG	16V 10U [M]			
R335, 336	ERDS2EJ121	1/4W 120 [M]	C313, 314	ECQV1H823JM3	50V 0.082U [M]			
R339, 340	ERDS2TJ332	1/4W 3.3K [M]	C315, 316	ECQB1H153JF3	50V 0.015U [M]			
R341, 342	ERDS2TJ102	1/4W 1K [M]	C317, 318	ECQB1H183JF3	50V 0.018U [M]			
R343, 344	ERDS2TJ333	1/4W 33K [M]	C319, 320	ECQB1H222JF3	50V 2200P [M]			
R345, 346	ERDS2TJ122	1/4W 1.2K [M]	C321, 322	ECBT1E223ZF	25V 0.022U [M]			
R347, 348	ERDS2TJ102	1/4W 1K [M]	C323, 324	ECBT1H121KB5	50V 120P [M]			
R349-352	ERDS2TJ470	1/4W 47 [M]	C332	ECEA1HKA010B	50V 1U [M]			
R353, 354	ERDS2EJ121	1/4W 120 [M]	C333, 334	RCE1CKA100BG	16V 10U [M]			
R355	ERDS2TJ334	1/4W 330K [M]	C337, 338	ECQB1H472JF3	50V 4700P [M]			
R356	ERDS2TJ222	1/4W 2.2K [M]	C341-344	ECBT1H101KB5	50V 100P [M]			
R501, 502	ERDS2TJ102	1/4W 1K [M]	C345, 346	ECBT1H331KB5	50V 330P [M]			
R503-506	ERDS2TJ563	1/4W 56K [M]	C347, 348	RCE1CKA100BG	16V 10U [M]			
R507, 508	ERDS2TJ182	1/4W 1.8K [M]	C349-352	ECBT1E103ZF	25V 0.01U [M]			
R509, 510	ERDS2TJ821	1/4W 820 [M]	C353	ECBT1H102KB5	50V 1000P [M]			
R511	ERDS2TJ334	1/4W 330K [M]	C355	ECBT1C105ZF5	16V 1U [M]			
R515, 516	ERDS2TJ123	1/4W 12K [M]	C361, 362	ECBT1H473ZF5	50V 0.047U [M]			
R517, 518	ERDS2TJ472	1/4W 4.7K [M]	C501, 502	RCE1HKA3R3BG	50V 3.3U [M]			
R519, 520	ERDS2EJ121	1/4W 120 [M]	C503, 504	ECBT1C182KR5	16V 1800P [M]			
R521	ERDS2TJ154	1/4W 150K [M]	C505, 506	ECBT1H150J5	50V 15P [M]			
R522	ERDS2TJ105T	1/4W 1M [M]	C507, 508	ECBT1C472KR5	16V 4700P [M]			
R523	ERDS2TJ561	1/4W 560 [M]	C509, 510	ECEA1HKA2R2B	50V 2.2U [M]			
R524	ERDS2TJ102	1/4W 1K [M]	C511, 512	ECBT1C122KR5	16V 1200P [M]			
R527 $\Delta$	ERDS1FJ122	1/2W 1.2K [M]	C513	ECA1HM470B	50V 47U [M]			
R529, 530 $\Delta$	ERD25FVJ100T	1/4W 10 [M]	C514	ECEA1HKN2R2B	50V 2.2U [M]			
R531, 532 $\Delta$	ERDS1FVJ100T	1/2W 10 [M]	C515, 516	ECQV1H104JM3	50V 0.1U [M]			
R533	ERDS2TJ823T	1/4W 82K [M]	C519	ECEADJKA221B	6.3V 220U [M]			
R534	ERDS2TJ124T	1/4W 120K [M]	C520	ECEADJKA101B	6.3V 100U [M]			
R535	ERDS2TJ563	1/4W 56K [M]	C521	ECBT1E223ZF	25V 0.022U [M]			
R536	ERDS2TJ564	1/4W 560K [M]	C523, 524	ECBT1E223ZF	25V 0.022U [M]			
R537	ERDS2TJ223	1/4W 22K [M]	C525-528	ECBT1H102KB5	50V 1000P [M]			
R538	ERDS2TJ103	1/4W 10K [M]	C701, 702 $\Delta$	ECA1VM332B	35V 3300U [M]			
R539	ERDS2TJ473	1/4W 47K [M]	C703	ECQE1104KF3	100V 0.1U [M]			
R703	ERDS2TJ333	1/4W 33K [M]	C704	ECKR2H102ZF5	500V 1000P [M]			
R704	ERDS2TJ392T	1/4W 3.9K [M]						

## ■ Replacement Parts List (Cabinet, Packing, Accessories and Jig/Tool)

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS		P6	RPG3530	GIFT BOX (SYSTEM)	[M] (EP)
						ACCESSORIES	
1	RKM0326F-S	CABINET	[M]	A1	RAK-CH215WH	REMOTE CONTROL TRANSMITTER	[M] (E, EB, EP)
2	RHD30073-K	SCREW	[M]	A1	RAK-CH193WH	REMOTE CONTROL TRANSMITTER	[M] (EG)
3	XTBS3+10JFZ1	SCREW	[M]	A1-1	RKK0057-K	BATTERY COVER	[M]
4	RMK0342-2	CHASSIS	[M]	A2	REED393	SPEAKER CORD	[M]
5	RGW0247-S1	KNOB, VOLUME	[M]	A3	REX0608	FLAT CABLE (20P)	[M]
6	RKA0076-N	FOOT	[M]	A4	REX0812	FLAT CABLE (19P)	[M]
7	RKQ0089-2	P. C. B. SPACER	[M]	A5	REX0813	SYSTEM CONNECTOR	[M]
8	RMN0191	P. C. B. HOLDER	[M]	A6△	RJA0019-2K	AC POWER SUPPLY CORD	[M] (E, EG, EP)
9	RMN0203	P. C. B. HOLDER	[M]	A6△	RJA0053-1X	AC POWER SUPPLY CORD	[M] (EB)
10	RFKGEHD50EN	FRONT PANEL ASS'Y	[M]	A7	RQA0117	WARRANTY CARD	[M]
11	RGK0810-N	ORNAMENT	[M]	A8	RQC00169	SERVICENTER	[M]
12	RGK0811-N	ORNAMENT	[M]	A9	RQT3840-E	INSTRUCTION MANUAL	[M] (E) <IA>
13	RGK0815-N	ORNAMENT	[M]	A9	RQT3842-B	INSTRUCTION MANUAL	[M] (EB/EP) <IB>
14	RGU1392-S	BUTTON, POWER	[M]	A9	RQT3841-D	INSTRUCTION MANUAL	[M] (EG) <IC>
15	RGW0198-S	KNOB, TONE	[M]	A9	RQT3862-H	INSTRUCTION MANUAL	[M] (EG) <ID>
16	RHD26016	SCREW	[M]	A9	RQT4009-R	INSTRUCTION MANUAL	[M] (EP) <IE>
17	SNE4021-1	NUT	[M]	A10	RSA0007	FM INDOOR ANTENNA	[M]
18	XTBS26+8J	SCREW	[M]	A11	RSA0021	AM LOOP ANTENNA	[M]
19	XTBS3+8JFZ1	SCREW	[M]	A12	RQCA0527	QUICK SET UP GUIDE	[M] (EB)
20	XTB3+12JFZ	SCREW	[M]	A13	SJP0009	ANTENNA PLUG ADAPTER	[M] (EB)
21	XTB3+20JFZ	SCREW	[M]			JIG/TOOL	
22	XTW3+15T	SCREW	[M]	SA1	RFK0002	GREASE	[M]
23	RWJ1808190KX	FLAT CABLE (F801/8P)	[M]				
24	RWJ1808160KX	FLAT CABLE (F802/8P)	[M]				
25	RWJ1808090KX	FLAT CABLE (F701/8P)	[M]				
26	RGK0808-M	ORNAMENT	[M]				
27	RGK0809-M	ORNAMENT	[M]				
28	XTB3+6G	SCREW	[M]				
29	RGL0333-1Q	PANEL LIGHT	[M]				
30	RGR0241A-L	REAR PANEL	[M] (E/EG/EP)				
30	RGR0241A-M	REAR PANEL	[M] (EB)				
		PACKING MATERIALS					
P1	RPG3403	GIFT BOX (AMPLIFIER)	[M] (E/EB/EG)				
P1	RPG3528	GIFT BOX (AMP./DECK)	[M] (EP)				
P1	RPG3405	GIFT BOX (TUNER)	[M] (E/EB)				
P1	RPG3435	GIFT BOX (TUNER)	[M] (EG)				
P1	RPG3529	GIFT BOX (TUNER/CD)	[M] (EP)				
P1	RPG3404	GIFT BOX (CD)	[M] (E/EB/EG)				
P1	RPG3174	GIFT BOX (DECK)	[M] (E/EB/EG)				
P2	RPQ0731	PAD (ACCESSORY)	[M] (E/EB/EG)				
P2	RPQ0771	PAD (ACCESSORY)	[M] (EP)				
P3	RPN0970	PAD (AMPLIFIER)	[M]				
P3	RPN0971	PAD (TUNER/CD)	[M]				
P3	RPN1008	PAD (DECK)	[M] (E/EB/EG)				
P3	RPN0970	PAD (DECK)	[M] (EP)				
P4	SPP740	SHEET	[M]				
P5	RPFO139	POLYETHYLENE COVER	[M]				

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

< IA > : French, Spanish, Swedish

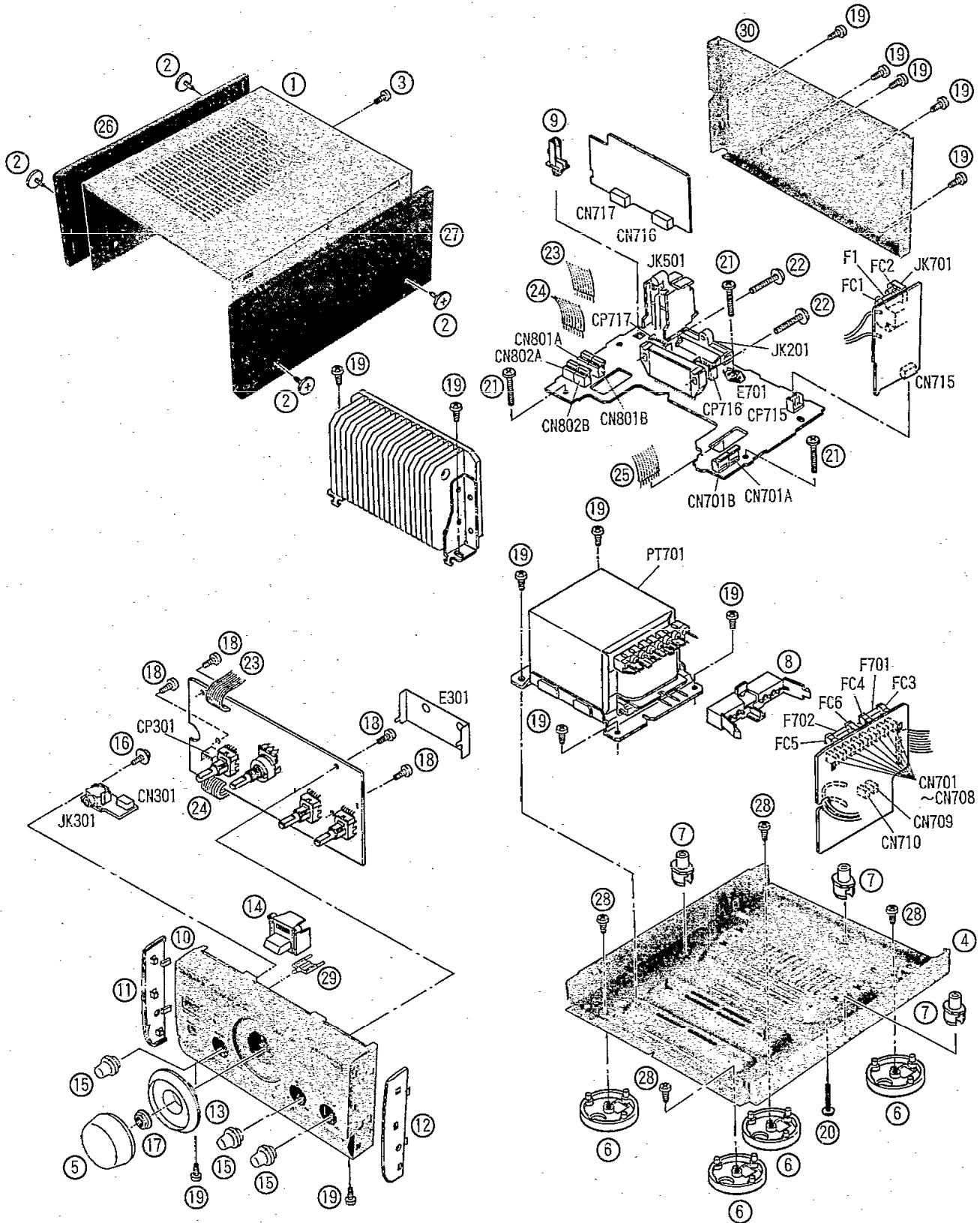
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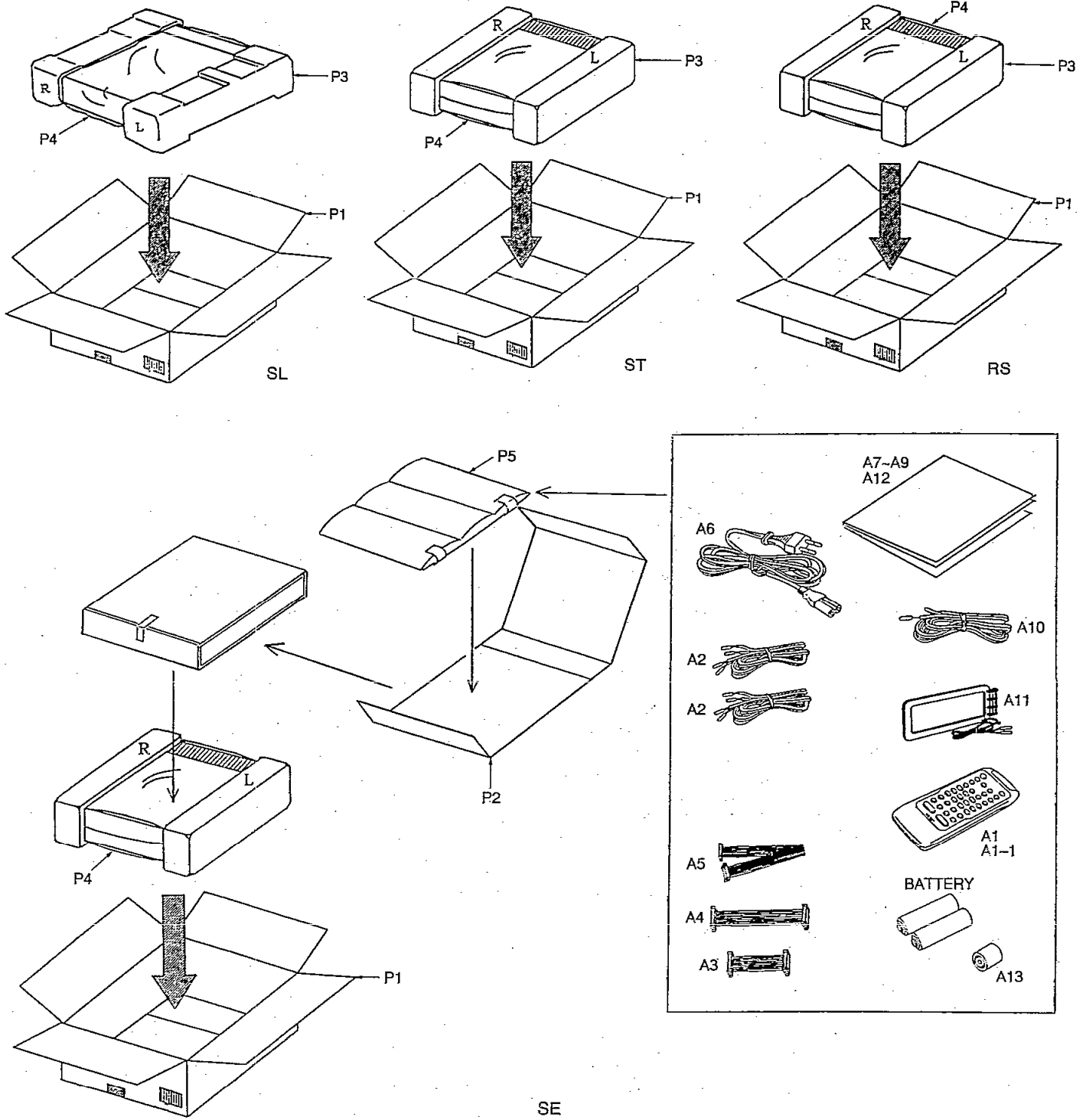
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< IE > : Russian, Polish, Czeco

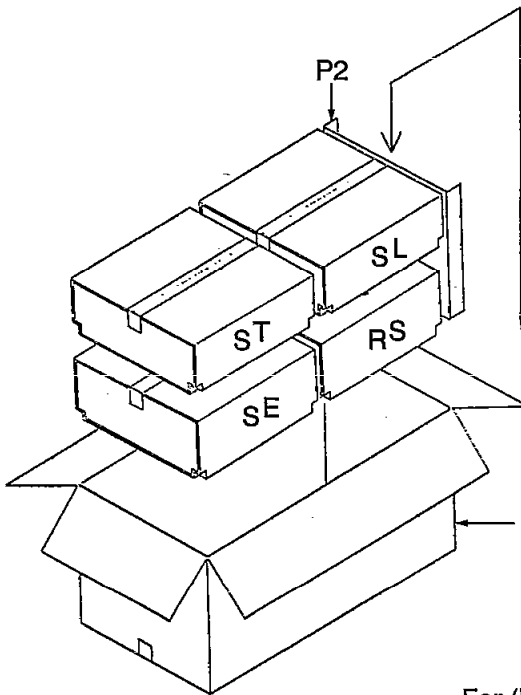
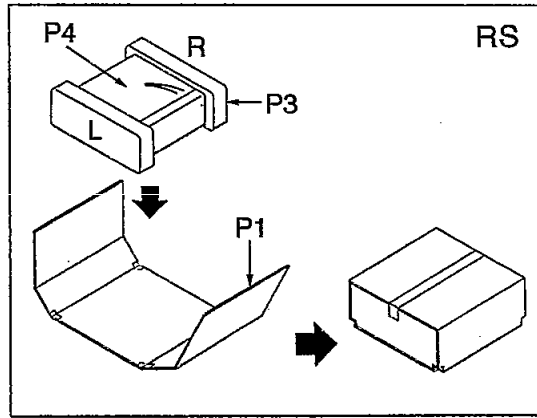
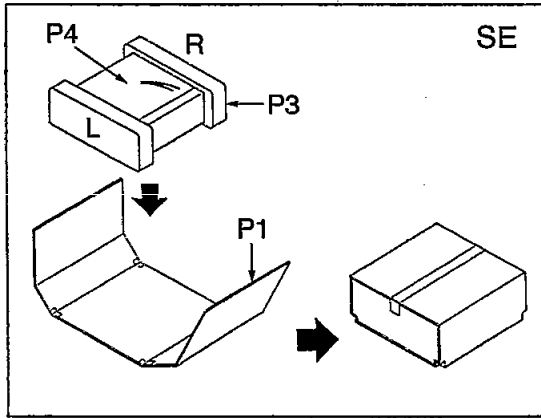
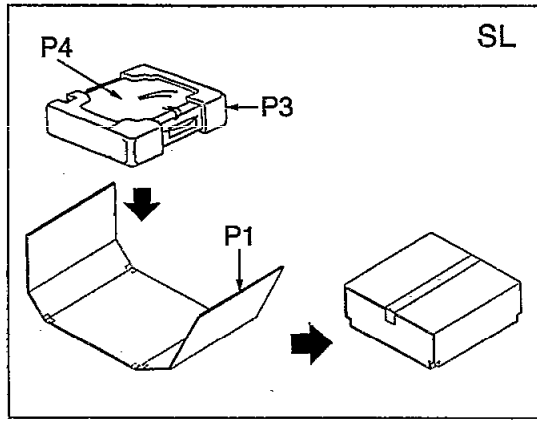
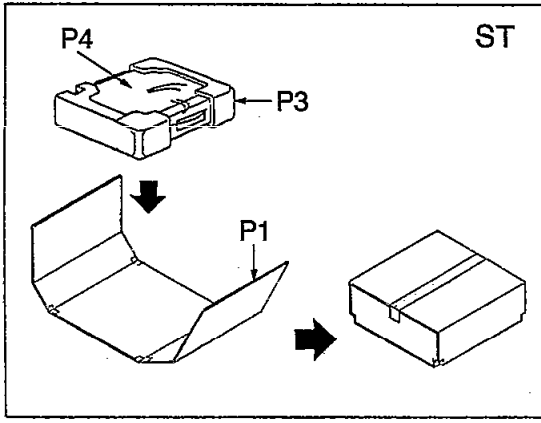
# Cabinet Parts Location



# ■ Packaging



For (E), (EB), (EG) Area



For (EP) Area

