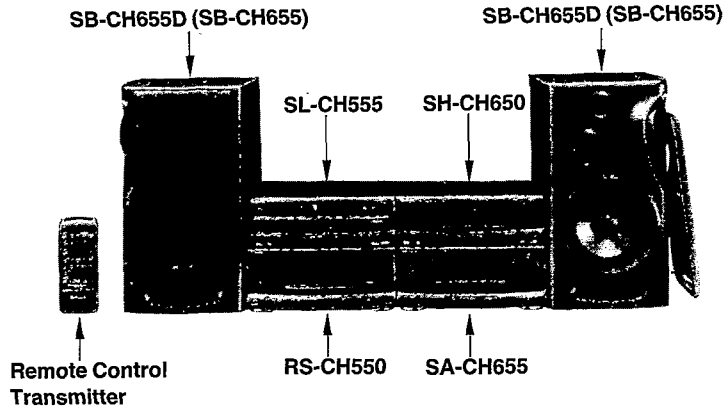


Service Manual

Tuner Amplifier

Tuner Amplifier

SA-CH655



Colour

(K) Black Type

Areas

Suffix for Model No.	Area	Colour
(E)	Europe	(K)
(EB)	Great Britain	
(EG)	Germany and Italy	
(GC)	Asia, Latin America, Middle Near East and Africa	
(GN)	Oceania	

Note:
On the above picture, Model No. SB-CH655D is printed as the system speaker.
The surround speakers are not supplied with model No. SB-CH655.

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

System: SC-CH655

SPECIFICATIONS

(DIN 45 500)

■ MAIN AMP. SECTION

Power output
DIN 1 kHz THD 1%, both channel driven 2×50 W (6Ω)

SPACE MODE

(Only for the system with SB-CH655D)
MAIN 1 kHz THD 1% 2×45 W (6Ω)
SURROUND 1 kHz THD 1% 2×5 W (8Ω)

Total harmonic distortion

Rated power at 1 kHz 1% (6Ω)
Half power at 1 kHz 0.09% (6Ω)

Load impedance

MAIN 6–8Ω
SURROUND 8Ω

S/N (rated power) 84 dB (IHF, A 88 dB)

Frequency response 40 Hz–30 kHz (–3 dB)

■ FM TUNER SECTION

Frequency range 87.50–108.00 MHz (0.05 MHz steps)

Sensitivity 1.8 μV (IHF, usable)
S/N 26 dB 1.5 μV (75Ω)

S/N

MONO 70 dB (75 dB, IHF)

Stereo separation at 1 kHz 35 dB

Antenna terminal(s) 75Ω (unbalanced)

■ AM TUNER SECTION

Frequency range

MW
For (E, EB, EG, GN) areas 522–1611 kHz (9 kHz steps)
530–1620 kHz (10 kHz steps)
For (GC) area 531–1602 kHz (9 kHz steps)
530–1600 kHz (10 kHz steps)

LW
For (E, EB, EG, GN) areas 144–288 kHz (9 kHz steps)
For (GC) area 153–279 kHz (9 kHz steps)

Sensitivity (S/N 20 dB)

MW 500 μV/m
LW 50 μV

■ TIMER SECTION

Clock Quartz-lock type

Function 24-hour programmable; Play timer (1 time)
Rec timer (1 time)
Sleep (120 min. 1 min. intervals)

Setting 1 minute–23 hours. 59 minutes (1 min. intervals)

System	Sound processor	Tuner amplifier	Compact disc player	Cassette deck	Speakers
SC-CH655	SH-CH650	SA-CH655	SL-CH555	RS-CH550	SB-CH655 (Made in PAES) (E), (EB), (EG) areas SB-CH655D..... (GC), (GN) areas

Technics

■ GENERAL

Power consumption

For (E, EB, EG, GN) areas	166 W
For (GC) area	175 W

Power supply

For (E, EG) areas	AC 50/60 Hz, 230 V
For (EB, GN) areas	AC 50/60 Hz, 230 V-240 V
For (GC) area	AC 50/60 Hz, 110/127/220/240 V

Dimension (W×H×D)

270×119×332 mm

Weight

5.5 kg

Notes:

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

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■ BEFORE REPAIR

- Turn off the power supply. Using a 10Ω, 10 W resistor, connect both ends of power supply capacitors (C701, C702) in order to discharge the voltage.
- Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50/60 Hz in NO SIGNAL mode is mode should be shown below with respect to supply voltage 110 V/127 V/ 220 V/240 V.

Power supply voltage	AC 110~127 V	AC 220~240 V	AC 230 V	AC 240 V
Consumed current 50 Hz	250~350 mA	95~175 mA	100~190 mA	95~175 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:

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

Note:

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

■ BEFORE USE FOR (GC) AREA

Be sure to disconnect the mains cord before adjusting the voltage selector.

Use a minus (-) screwdriver to set the voltage selector (on the bottom of the tuner amplifier) to the voltage setting for the area in which the unit will be used.

(If the power supply in your area is 117 V or 120 V, set to the "127 V" position.)

Note that this unit will be seriously damaged if this setting is not made correctly. (There is no voltage selector for some countries; the correct voltage is already set.)

THIS TUNER/RECEIVER IS CAPABLE OF RECEIVING THE NEW AM STEREO BROADCASTS FROM THE AM BAND RADIO STATIONS. HOWEVER LIKE MANY TUNERS AND RECEIVERS CURRENTLY AVAILABLE ON THE MARKET IT WILL REPRODUCE THIS AM STEREO SIGNAL ONLY IN AM MONO, WHICH, IN EFFECT, IS OF NO LESSER QUALITY THAN YOUR EXISTING AM MONO TUNER/RECEIVER.



■ CAUTION FOR AC MAINS LEAD (For United Kingdom)

("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:

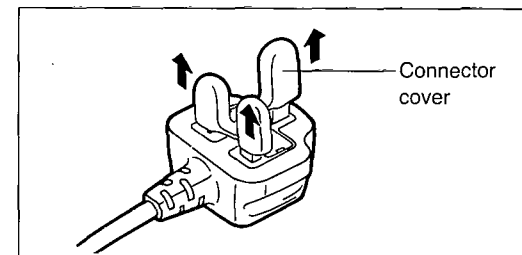
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

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 .

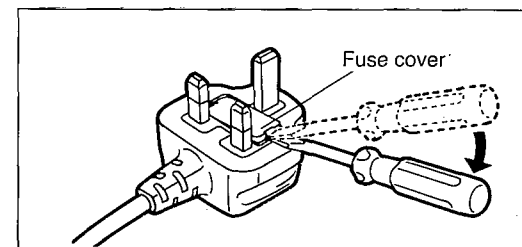
Before use

Remove the connector cover as follows.

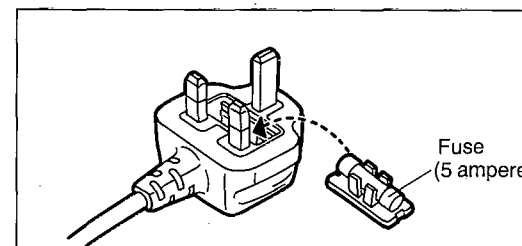


How to replace the fuse

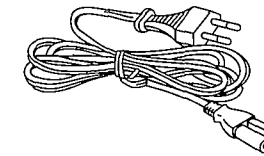
1. Remove the fuse cover with a screwdriver.



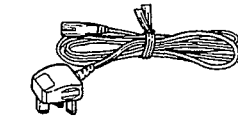
2. Replace the fuse and attach the fuse cover.



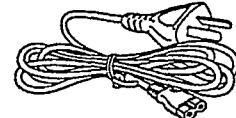
■ ACCESSORIES



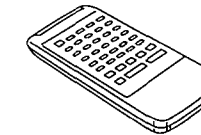
● AC power supply cord
for (E, EG, GC) areas (RJA0019-2K) 1 pc.



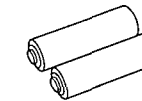
for (EB) area (VJA0733) 1 pc.



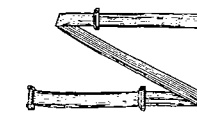
for (GN) area (SJA173) 1 pc.



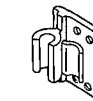
● Remote control transmitter
(RAK-SC003WH) 1 pc.



● Remote control batteries
(UM-4, AAA, R03) 2 pcs.
Note: These are available on sale route.



● Flat cable
(REX0462) 1 pc.



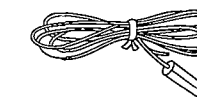
● Antenna holder
(SMA233-1M) 1 pc.



● LW/MW loop antenna
(SPB1163T) 1 pc.



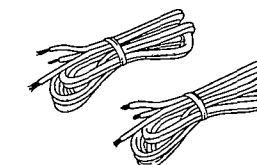
● Mounting screws
(XTN3+10AFZ) 2 pcs.



● FM indoor antenna
for (E, EB, EG) areas (RSA0007) 1 pc.
for (GC, GN) areas (RSA0006) 1 pc.



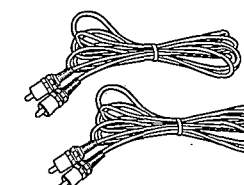
● Attachment plug
for (EB) area (SJP9009) 1 pc.



● Speaker cords
(SWXS257M) 2 pcs.



● Power plug adaptor
for (GC) area (SJP5213-2) 1 pc.



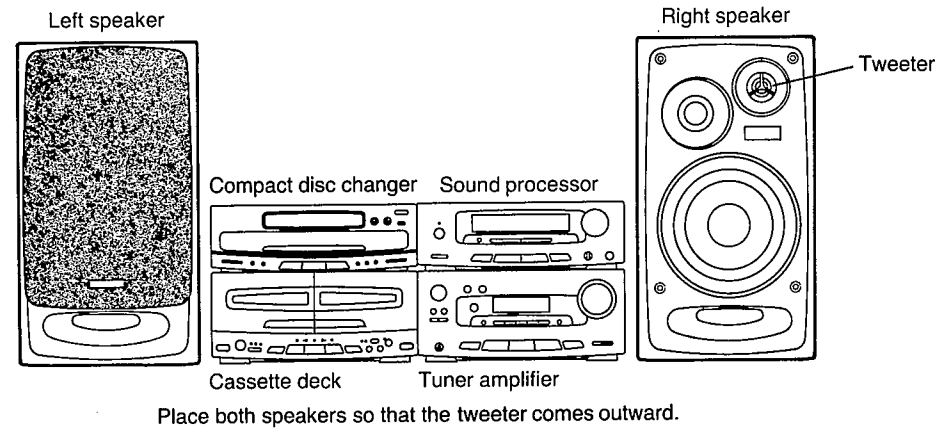
● Surround speaker cords
for (GC, GN) areas (RJL1P001B25) 2 pcs.

Note:
The configurations of AC power supply cord and FM indoor antenna differ according to area.

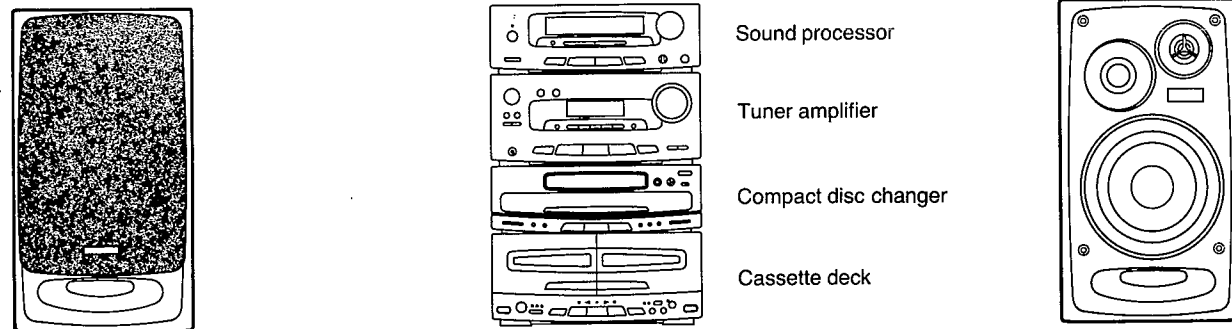
■ STACKING THE COMPONENTS

Install the various components as shown below.

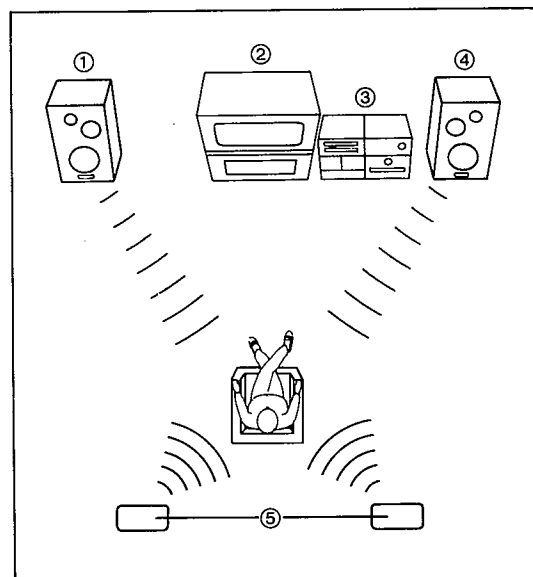
■ Horizontal stacking



■ Vertical stacking



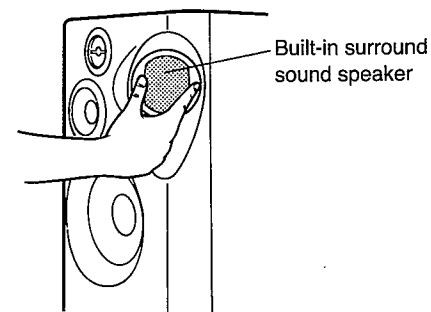
■ System layout



- ① Left speaker
- ② Television set (not included)
- ③ This system
- ④ Right speaker
- ⑤ Surround speakers (not included)

(Only for the system with SB-CH655D):

Place both speakers so that the built-in surround speaker comes outward.



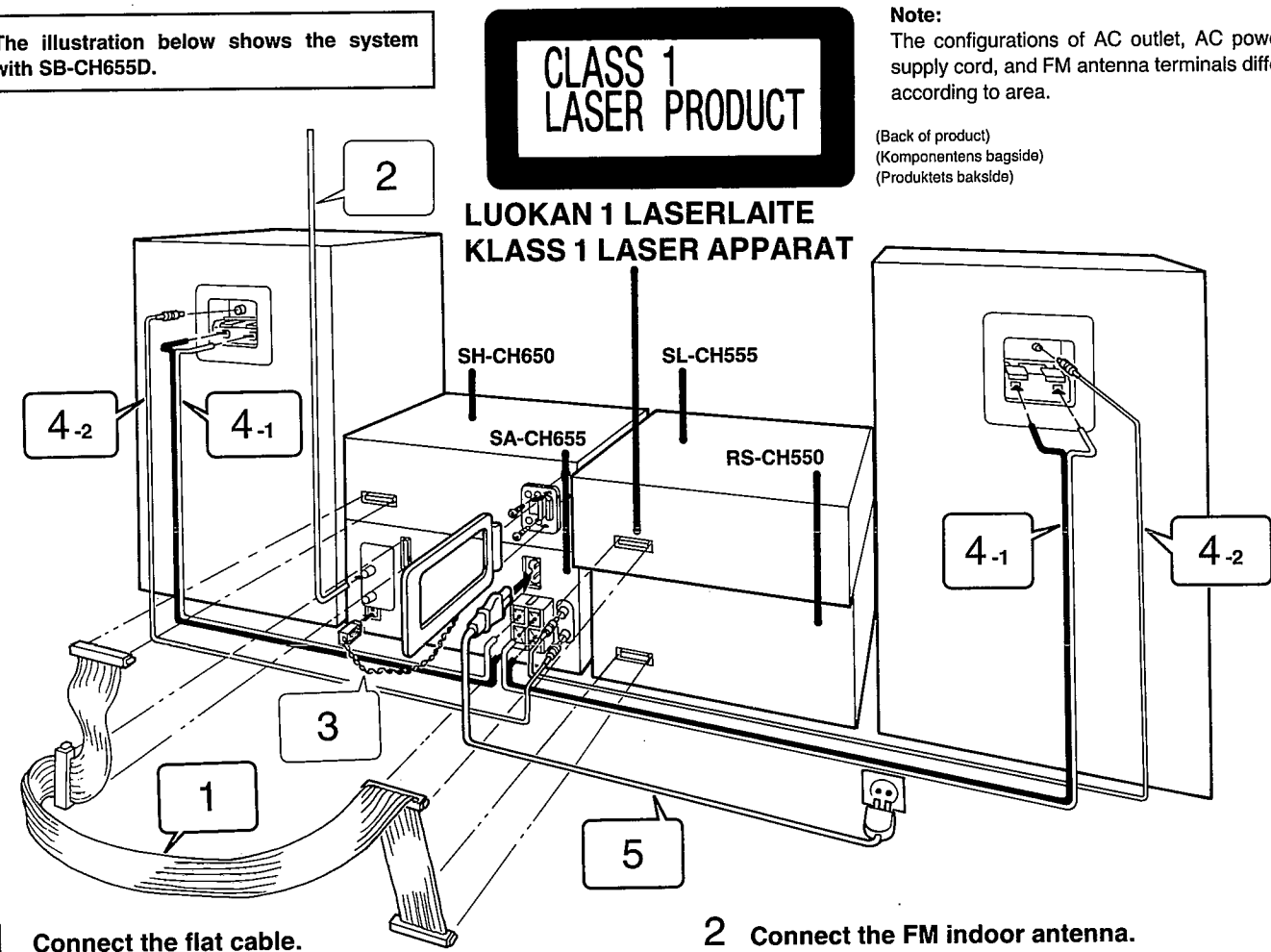
When you select the SPACE mode, you can get the surround sound effect. Install the speakers as illustrated left, and adjust the angle of the built-in surround speakers as you like.

To produce a better stereo sound, install both speakers away from the system.

Surround sound effect differs according to where you install the surround speakers. Install them as you like.

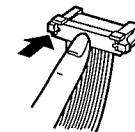
■ CONNECTIONS

The illustration below shows the system with SB-CH655D.

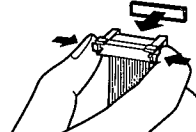


1 Connect the flat cable.

Connecting



Disconnecting



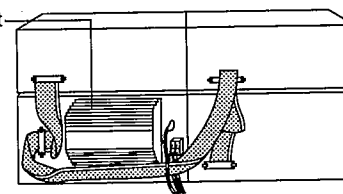
Hold the connector with the recessed part up and press in at the center until you hear a click.

First connect the blue-colored connector to the terminal of the sound processor (A), then connect the rest in the order B, C, D.

Route the cable horizontally (underneath the heat outlet grille) so that the side with the white-color lead is positioned at the front.

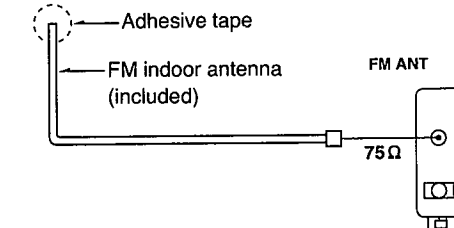
After connection, fold and press the cable as flat to the back of the unit as possible.

Heat outlet grille



2 Connect the FM indoor antenna.

Install the antenna on a wall at a height and in a direction which result in the best reception.



The tip of the internal antenna wire should not come into contact with any metal objects. When you cannot get a good reception with this FM indoor antenna, we recommend you install an FM outdoor antenna (not included. See page 8). Disconnect the FM indoor antenna if you install an FM outdoor antenna.

Note:

The configurations of AC outlet, AC power supply cord, and FM antenna terminals differ according to area.

(Back of product)
(Komponentens baksida)
(Produktets baksida)

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

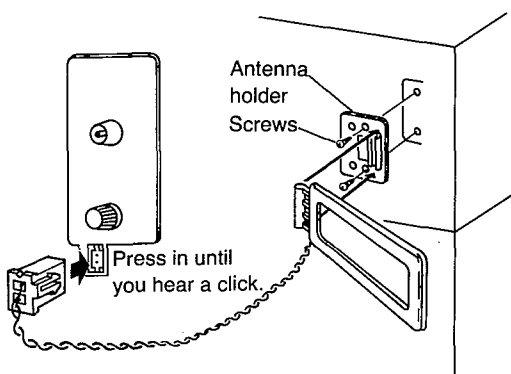
3 Connect the LW/MW loop antenna.

1. Attach the antenna holder with screws (included) to the rear panel of the sound processor.
2. Clamp the antenna to the antenna holder and connect the antenna terminal to the rear panel of the tuner amplifier.
3. Position the loop for the best reception.

You may attach the LW/MW antenna holder to a rack or other structure.

Notes:

- To minimize noise pickup, keep the LW/MW loop antenna away from the speaker cable, power cord, and metal surfaces.
- For better reception, keep the LW/MW loop antenna cord along the heat outlet grille, and away from the flat cable.



4-1 Connect the speaker cables.

Note:

Be sure to connect speaker cables before connecting the AC power supply cord.

Connection of speaker cables

1. Strip off the outer covering, and twist the center conductor.

Make sure the bare ends of the wires are not unraveled. (If they are, twist them tight again.)

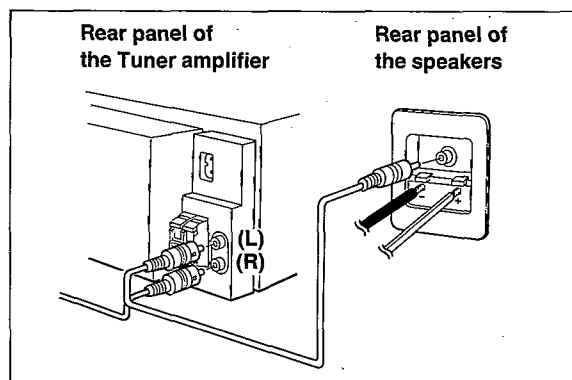
2. Insert the wire to the rear panel of the speakers, and then pull down the lever.

3. Insert the wire to the rear panel of the tuner amplifier, and close the lever.

Notes:

- 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.

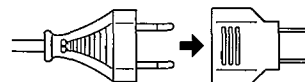
4-2 Connect the surround speaker cords. (Only for the system with SB-CH655D)



5 Connect the AC power supply cord after you have connected all other cables and cords.

For areas except Europe, Australia and New Zealand

If the power plug will not fit your socket, use the power plug adaptor (included).

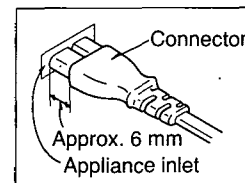


For areas except Australia and New Zealand

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.



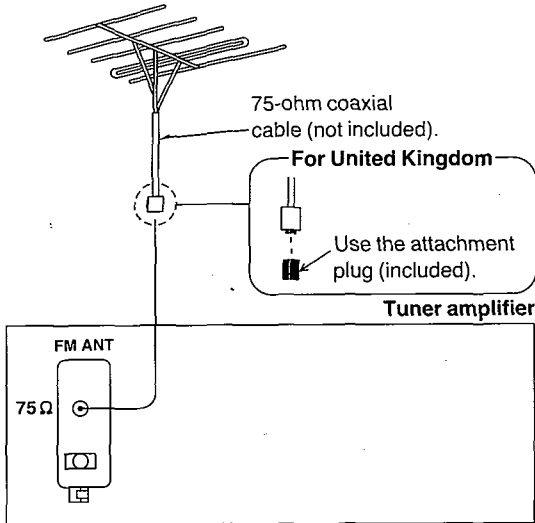
■ **Optional antenna connections**

FM outdoor antenna (not included)

If the FM indoor antenna does not provide satisfactory reception of FM broadcasts, use an outdoor antenna.

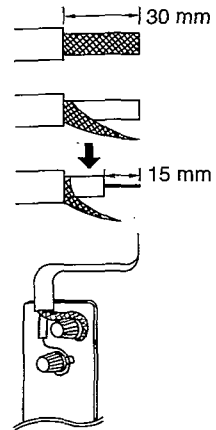
You may need an outdoor antenna if you use this system in a mountainous region or inside a reinforced-concrete building, etc. An outdoor antenna should be installed by a competent technician only.

FM outdoor antenna



For areas except Europe (FM outdoor antenna)

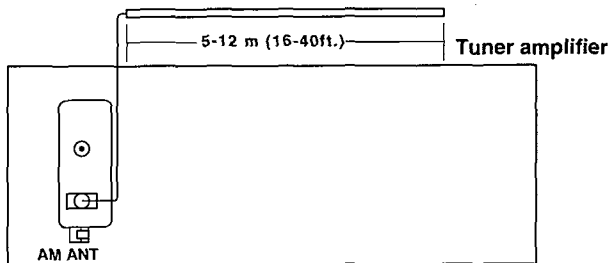
1. Remove a piece of the outer vinyl sheath from the end of the cable.
2. Bundle the shield braid, and remove a piece of the inner vinyl sheath covering the core wire.
3. Connect the core wire and the shield braid.



LW/MW outdoor antenna (not included)

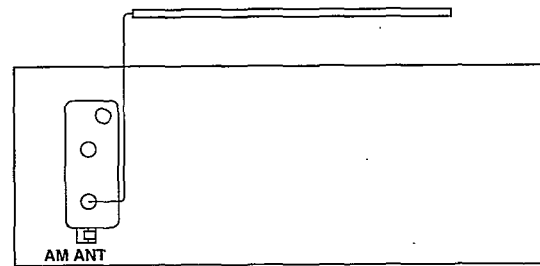
An outdoor antenna may be required in a mountainous region, or if this system is located inside a reinforced-concrete building, etc.

Run 5 to 12 m of vinyl-covered wire horizontally along a window or other convenient location.



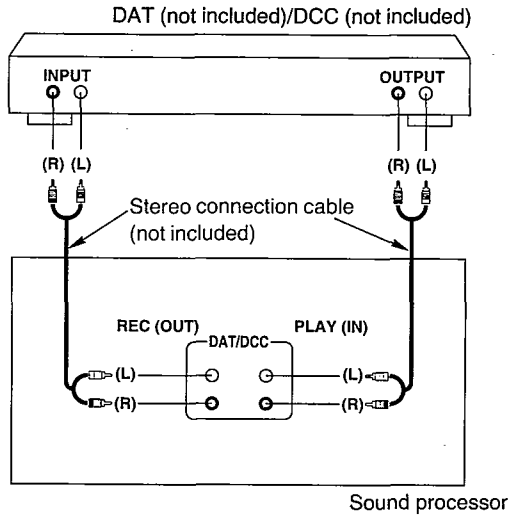
Note:
Do not remove the LW/MW loop antenna.

For areas except Europe

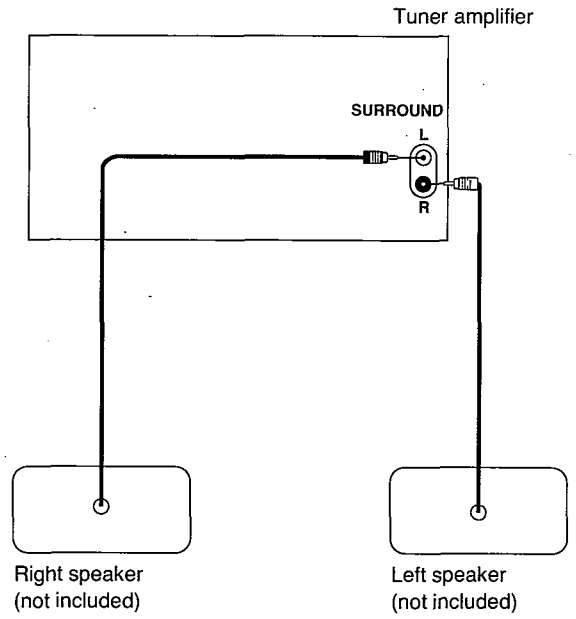


■ External unit connection

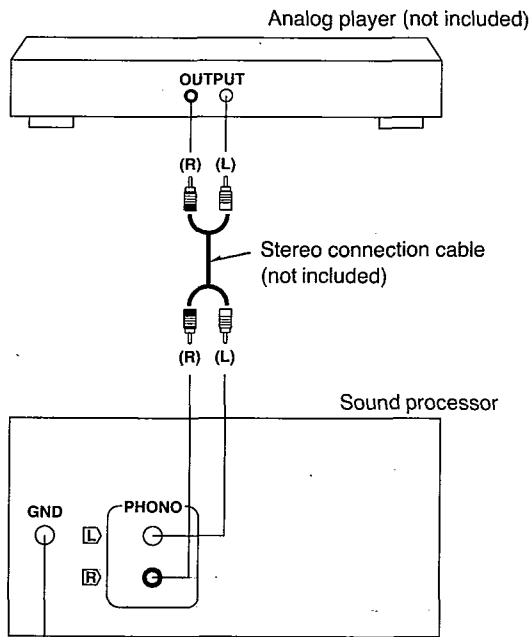
**DAT (digital audio tape deck)/
DCC (digital compact cassette deck)**



Rear surround speakers



Analog player



"GND" terminal

This terminal is for a ground wire use.

For the set with "AUX" terminal instead of "PHONO"; Use an analog player which has built-in phono equalizer.

Notes:

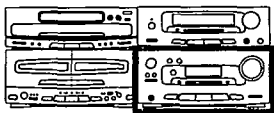
- Be sure to connect both speaker systems. If only one side is connected, no sound will be heard.
- Install each speaker left and right at the back of the listening space.

(Only for the system with SB-CH655D):

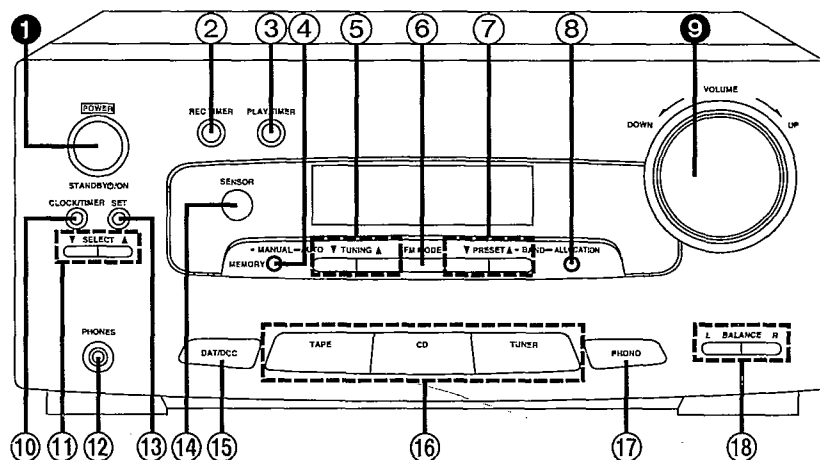
Disconnect the surround speaker cords provided for the system (see step 4-2 on page 7) when connecting the optional surround speaker system.

■ LOCATION OF CONTROLS

The functions indicated by the numbers with black background (for example ❶) can also be activated from the remote control.



•According to the area, there is a set with ❶ AUX instead of ❶ PHONO.



❶ Power "STANDBY ⏻/ON" switch (POWER, STANDBY ⏻/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.

❷ Timer recording button (REC TIMER)

Press to confirm, exit or reset the record timer.

❸ Timer play button (PLAY TIMER)

Press to confirm, exit or reset the play timer.

❹ Preset memory button (MEMORY, -MANUAL, -AUTO)

Press to put a broadcast station into the memory.

❺ Tuning buttons (▼ TUNING ▲)

Use to tune in a desired broadcast station.

❻ FM mode button (FM MODE)

Press to select the FM listening mode (stereo or monaural) during FM broadcasts.

❼ Preset tuning buttons (▼ PRESET ▲)

Use to select channel number for a broadcast station which has been stored in the tuner's memory.

❽ Band select/allocation change button (-BAND -ALLOCATION)

Press to select the MW, LW or FM radio band.
Press and hold to change the MW frequency step.

❾ Volume level control (VOLUME)

Turn to adjust the volume level.

Note that -- dB is the lowest volume setting and 0 dB is the highest.

❿ Clock/timer button (CLOCK/TIMER)

Press to select the clock set mode or desired timer mode.

⓫ Timer select buttons (▼ SELECT ▲)

Use when setting the current time and timer.

⓬ Headphones jack (PHONES) (Ø3.5, 32Ω)

Plug headphones cord into this jack.

⓭ Setting button (SET)

Press to set the present time in the clock mode, or set the various selection in the timer mode.

⓮ Remote control signal sensor (SENSOR)

Receives the signals from the remote control.

⓯ DAT/DCC input select button (DAT/DCC)

(Only when you connect the DAT or DCC to this system) Press to select the DAT/DCC source.

⓰ Input select buttons (TAPE, CD, TUNER)

Press to select the sound source.

⓱ PHONO input select button (PHONO)

(Only when you connect an analog player to the PHONO terminal of this unit) Press to select the PHONO source.

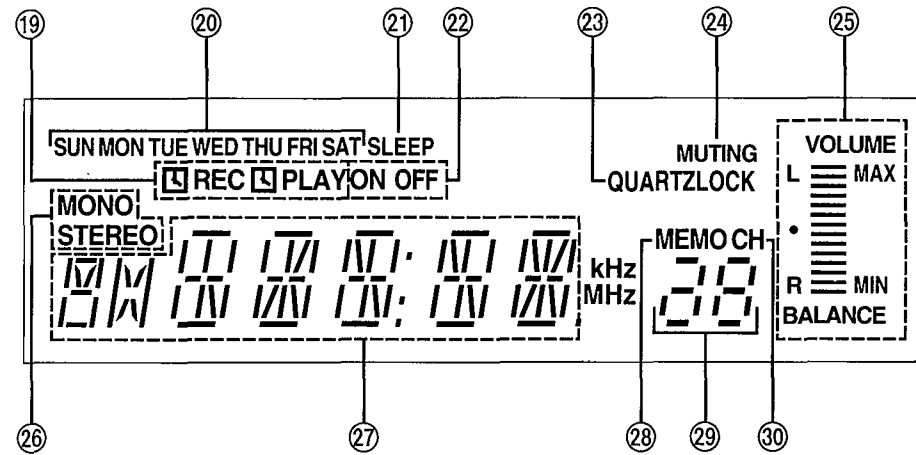
⓲ Balance adjustment buttons (L BALANCE R)

Use to adjust the volume balance between left and right speakers.

SETTING THE TIME OF DAY

These instructions explain how to set the time for 16:25 (4:25 p.m.) on Wednesday.

Display section



19 Timer mode indicators (REC, PLAY)

REC: Lights when you have set the record timer mode.
PLAY: Lights when you have set the play timer mode.

20 Day indicators (SUN-SAT)

Shows the day of the week or the day the timer has been set for.

21 Sleep timer indicator (SLEEP)

Lights when you have set the sleep timer mode.

22 Timer on/off indicator (ON, OFF)

Lights together with the setting time to show the timer ON time and OFF time.

23 Quartz lock indicator (QUARTZLOCK)

Lights when you precisely tune in a broadcast station.

24 Muting indicator (MUTING)

Lights when you activate the muting mode.

25 Volume level/balance display (VOLUME, L-R BALANCE)

Shows the volume level and left-right balance.

26 FM STEREO/MONO indicator (MONO, STEREO)

"STEREO" lights when an FM stereo broadcast is being received. If you press this button to select monaural mode, "MONO" lights.

27 Alpha-numeric display

Shows the selected source, present time, and the contents of the timer setting, received frequencies, volume level.

28 Memory indicator (MEMO)

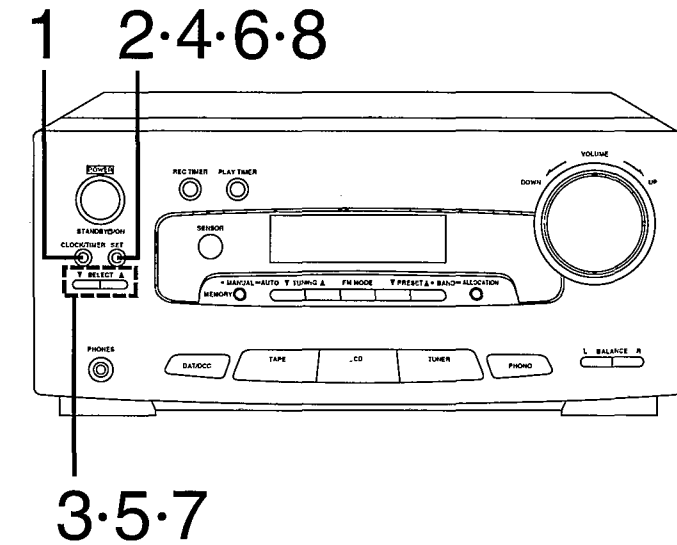
Lights when the preset memory button is pressed.

29 Preset channel display

Shows the preset channel you select.

30 Channel indicator (CH)

Lights when the unit is in the preset tuning mode.

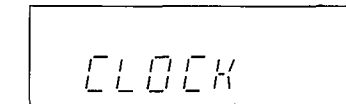


Switch on the power.

1 Press CLOCK/TIMER to select "CLOCK".

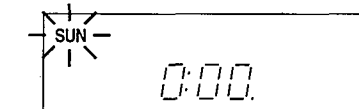
The display will show CLOCK.

The display will return to what was previously indicated if you allow 7 or more seconds to elapse before you accomplish the next operation.

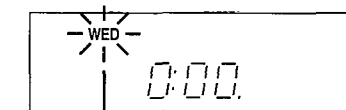


2 Press SET.

The day indicator will start to flash.



3 Press one of the SELECT buttons to select "WED".

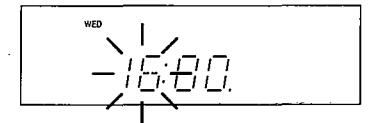


Flashing

4 Press SET.

5 Press one of the SELECT buttons to select "16".

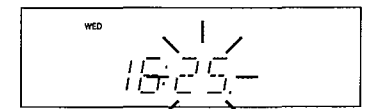
Going from 23:59 to 0:00 on the hour display will not change the day display.



6 Press SET.

7 Press one of the SELECT buttons to select "25".

Going from 59 to 00 on the minute display will not change the hour display.



Flashing

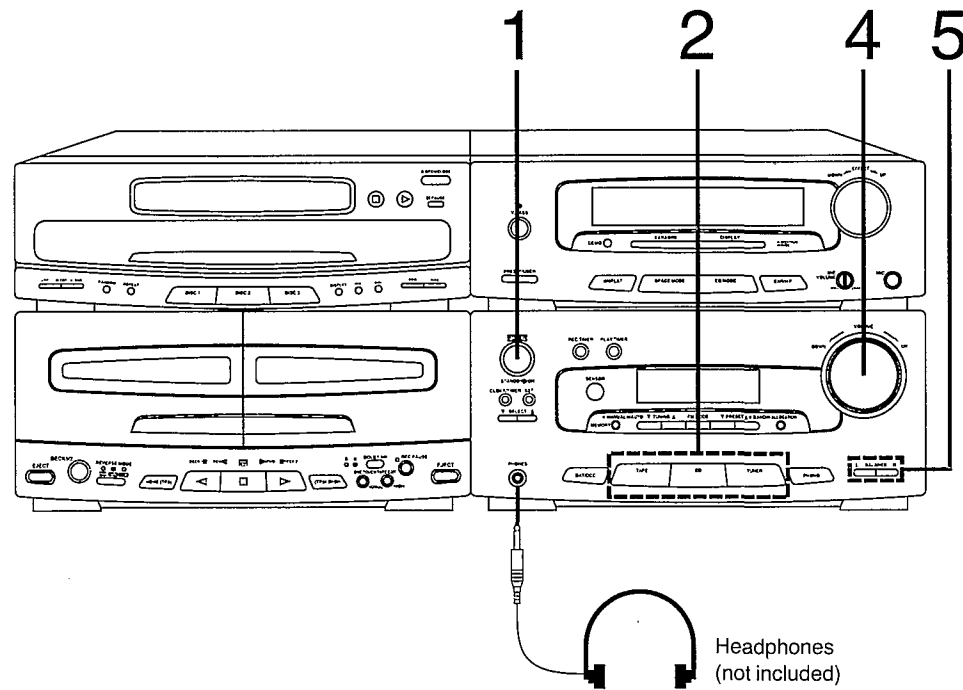
8 Press SET to finish setting the time.

After about 2 seconds, the display will return to what it were before entering the clock setting mode.

To display the clock again, press CLOCK/TIMER. The display will show "CLOCK", and then clock will appear for 5 seconds.

"E" appears on the display if the power cord has been once disconnected or there has been a power failure. If this happens, reset the time.

■ BASIC OPERATING PROCEDURE



1 Press POWER STANDBY $\text{\textcircled{P}}$ /ON to switch on the power.

2 Select the sound source by pressing TAPE, CD, or TUNER.

The display of the selected source will appear. If you press a different sound source while listening to a compact disc or tape, the disc or tape automatically stops playing.

3 Start the sound source.

4 Adjust the volume level.

5 Adjust the left-right volume balance.

Pressing BALANCE buttons simultaneously will restore the balance to the center position.

Perform fine balance adjustment while playing the selected music source. The balance display is only a rough quick.

Note:

Before you set the system to the standby mode, be sure to reduce the volume level to prevent the extremely high output from the tuner amplifier from damaging the speakers.

How to mute the volume

(Only from the remote control)

Press MUTING on the remote control.



MUTING indicator appears on the display.

Cancel the muted state by pressing the muting button once again or reduce the volume level to the minimum position and then reset to the desired volume.

How to use headphones

Reduce the volume level.

Connect the headphones to the headphones jack.

Avoid listening for prolonged periods of time to prevent hearing damage.

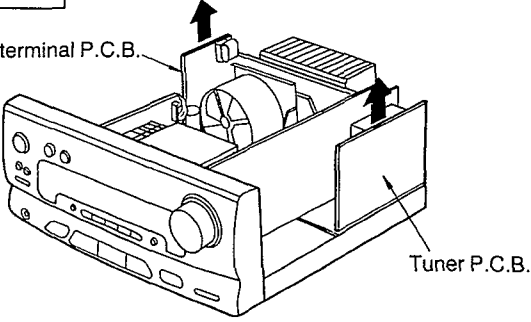
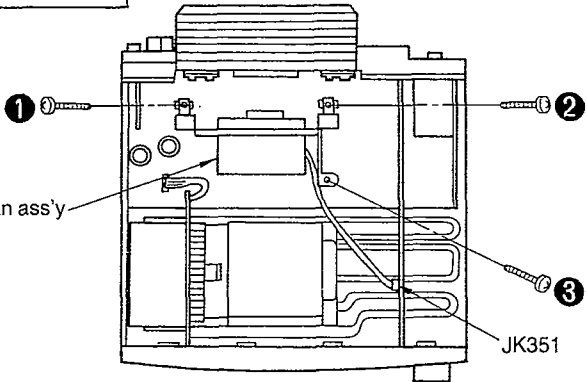
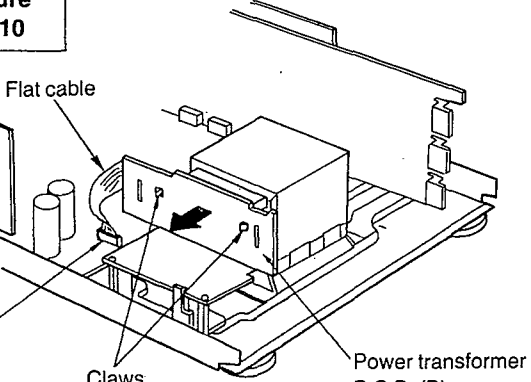
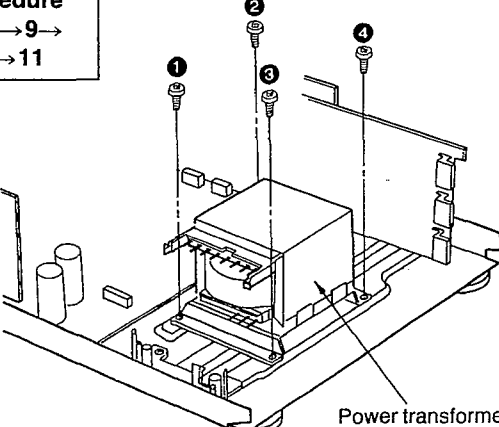
Plug type: Stereo mini

■ DISASSEMBLY INSTRUCTIONS

"ATTENTION SERVICER"

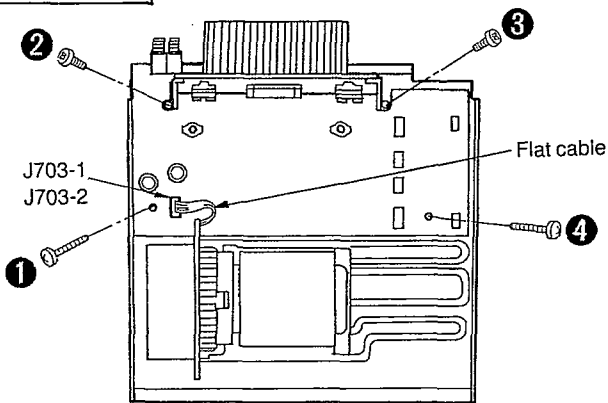
Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1	Removal of the Cabinet	Ref. No. 2	Removal of the Front Panel Ass'y
Procedure 1	<p>1. Remove the 5 screws (1~5). 2. Remove the cabinet in the direction of arrow.</p>	Procedure 1→2	<p>1. Remove the 2 screws (1, 2). 2. Remove the front panel ass'y in the direction of arrow.</p>
Ref. No. 3	Removal of the FL P.C.B.	Ref. No. 4	Removal of the Headphones Jack P.C.B.
Procedure 1→2→3	<p>1. Pull out the volume knob. 2. Remove the nut. 3. Remove the 7 screws (1~7). 4. Release the 2 claws.</p>	Procedure 1→2→3→4	<p>•Remove the headphones jack P.C.B. in the direction of arrow.</p>
Ref. No. 5	Removal of the Rear Grill Ass'y	<p>2. Remove the 2 ribs. 3. Remove the rear grill ass'y in the direction of arrow.</p>	
Procedure 1→5	<p>1. Remove the 9 screws (1~9).</p>	<p>2. Remove the 2 ribs. 3. Remove the rear grill ass'y in the direction of arrow.</p>	

<p>Ref. No. 6</p>	<p>Removal of the AC Input Terminal P.C.B. and Tuner P.C.B.</p>	<p>Ref. No. 7</p>	<p>Removal of the Input-output Terminal P.C.B.</p>
<p>Procedure 1→5→6</p>	 <p>AC input terminal P.C.B.</p> <p>Tuner P.C.B.</p> <p>■ Removal of the AC Input Terminal P.C.B. ● Remove the AC input terminal P.C.B. in the direction of arrow.</p> <p>■ Removal of the tuner P.C.B. ● Remove the tuner P.C.B. in the direction of arrow.</p>		<p>Procedure 1→2→5→7</p>
<p>Ref. No. 8</p>		<p>Ref. No. 9</p>	
<p>Procedure 1→8</p>	 <p>Fan ass'y</p> <p>JK351</p> <p>1. Remove the 1 connector (JK351). 2. Remove the 3 screws (1~3).</p>		<p>Procedure 1→2→9</p>
<p>Ref. No. 10</p>		<p>Ref. No. 11</p>	
<p>Procedure 1→2→10</p>	 <p>Flat cable</p> <p>J703-1 J703-2</p> <p>Claws</p> <p>Power transformer P.C.B. (B)</p> <p>1. Remove the 1 flat cable (J703-1, J703-2). 2. Release the 2 screws. 3. Remove the power transformer P.C.B. (B) in the direction of arrow.</p>		<p>Procedure 1→2→9→ 10→11</p>
<p>1. Remove the 2 screws (1, 2). 2. Release the 1 claw. 3. Remove the 2 rib. 4. Remove the power transformer P.C.B. (A) in the direction of arrow.</p>		 <p>Power transformer</p> <p>● Remove the 4 screws (1~4).</p>	

Ref. No. 12
Removal of the Main P.C.B.

Procedure
 1→2→5→
 6→7→8→12

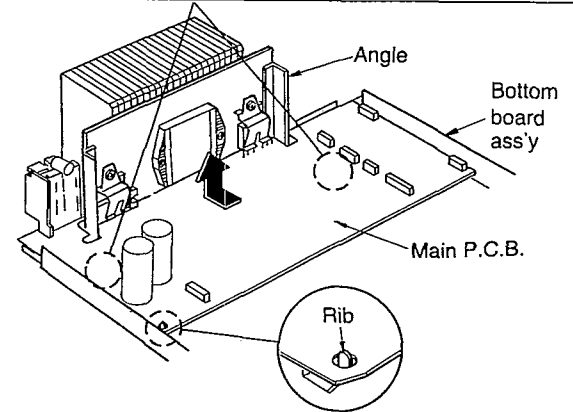


1. Remove the 4 screws (1~4).
2. Remove the 1 flat cable (J703-1, J703-2).

3. Remove the rib.
4. Remove the main P.C.B. in the direction of arrow.

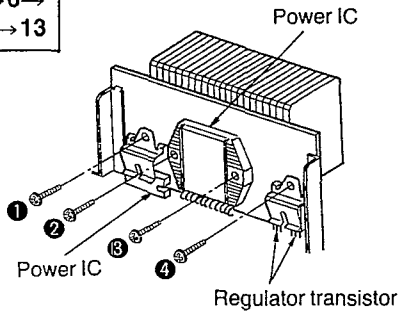
NOTE
 • Insert the projection on the angle into the hole of the bottom board ass'y and then install the Main P.C.B.

[Bottom view]



Ref. No. 13
Removal of the Power IC and Regulator Transistor

Procedure
 1→2→5→6→
 7→8→12→13

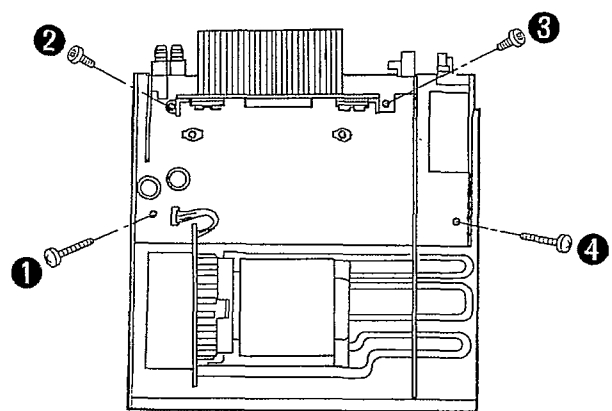


1. Unsolder the power IC or regulator transistors.
 2. Remove the 4 screws (1~4).
- When mounting the power IC or regulator transistor, apply silicone compound (RFKX0002) to the rear side of power IC or regulator transistors.

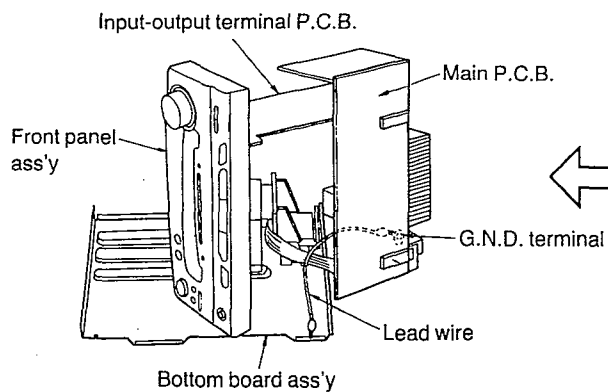
Ref. No. 14
How to check the Main P.C.B.

Procedure
 1→2→5→
 8→14

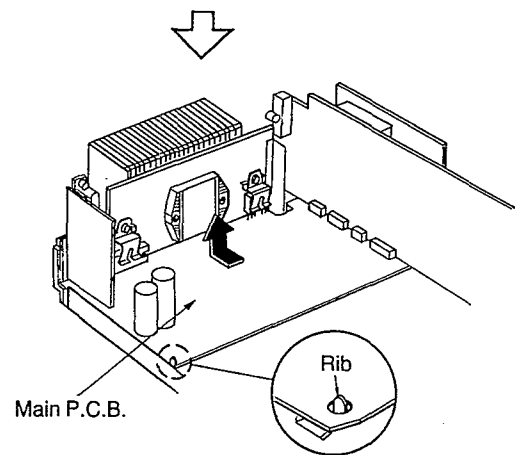
• When checking the soldered surfaces of main P.C.B. and replacing the parts, do as show.



1. Remove the 4 screws (1~4).

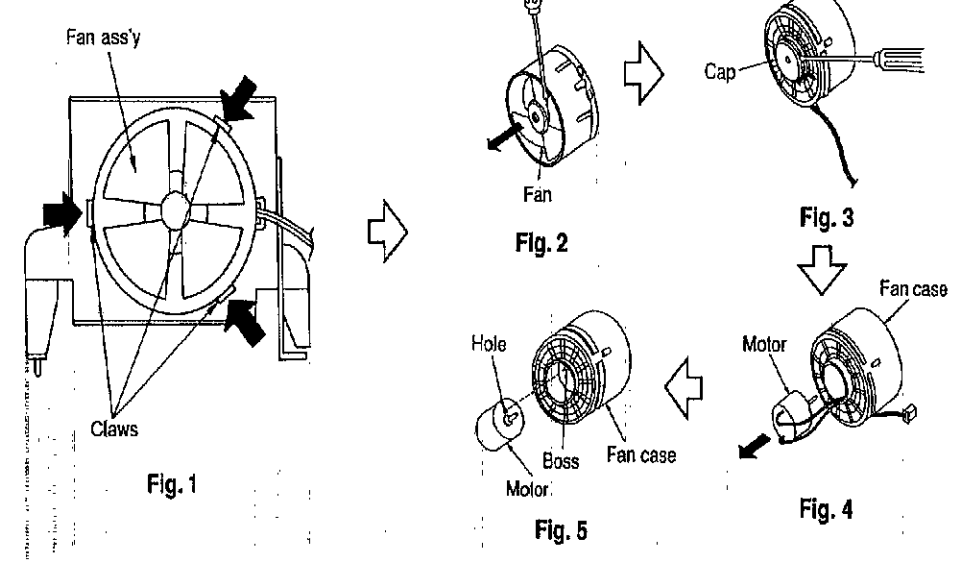


4. Connect the G.N.D. terminal to the bottom board ass'y by the lead wire.
5. Reinstall the front panel ass'y to the input-output terminal P.C.B.



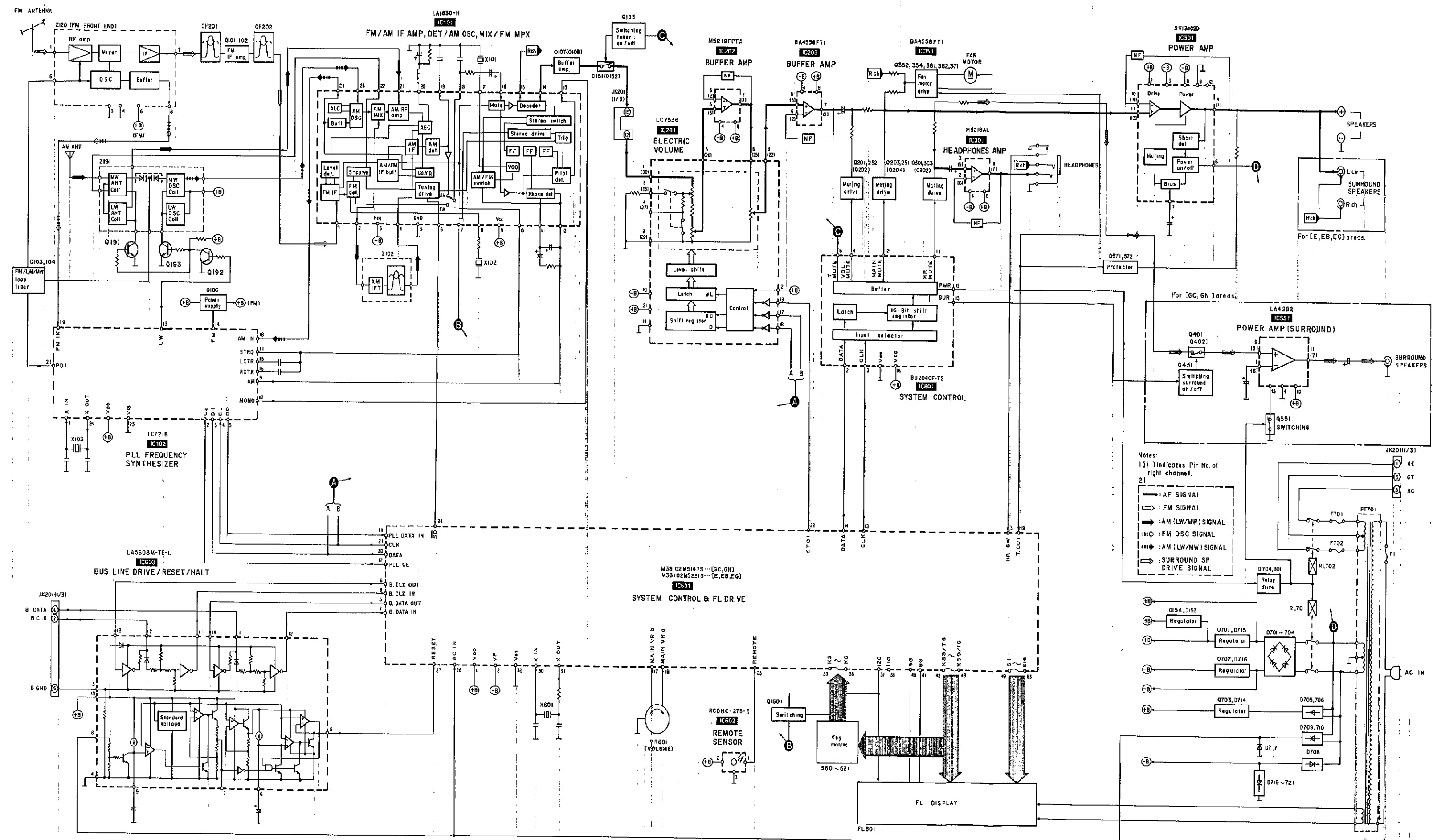
2. Remove the rib.
3. Remove the main P.C.B. in the direction of arrow.

Ref. No. 15
Removal of the Fan Ass'y
Procedure 1-8-15



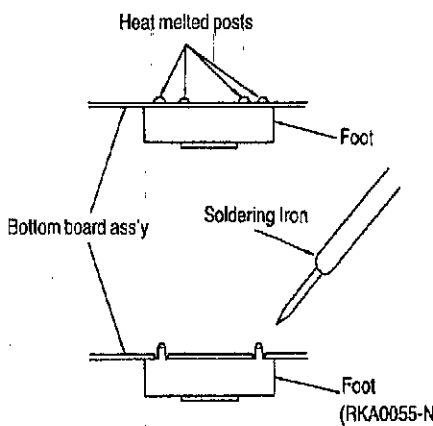
1. Release the 3 claws (shown in Fig. 1).
2. Insert a screwdriver at the root of the fan (shown in Fig. 2).
3. Remove the cap (shown in Fig. 3).
4. Remove the motor from the fan case (shown in Fig. 4).
5. When mounting the motor, align the fan case projection with the hole of the motor (shown in Fig. 5).

■ BLOCK DIAGRAM

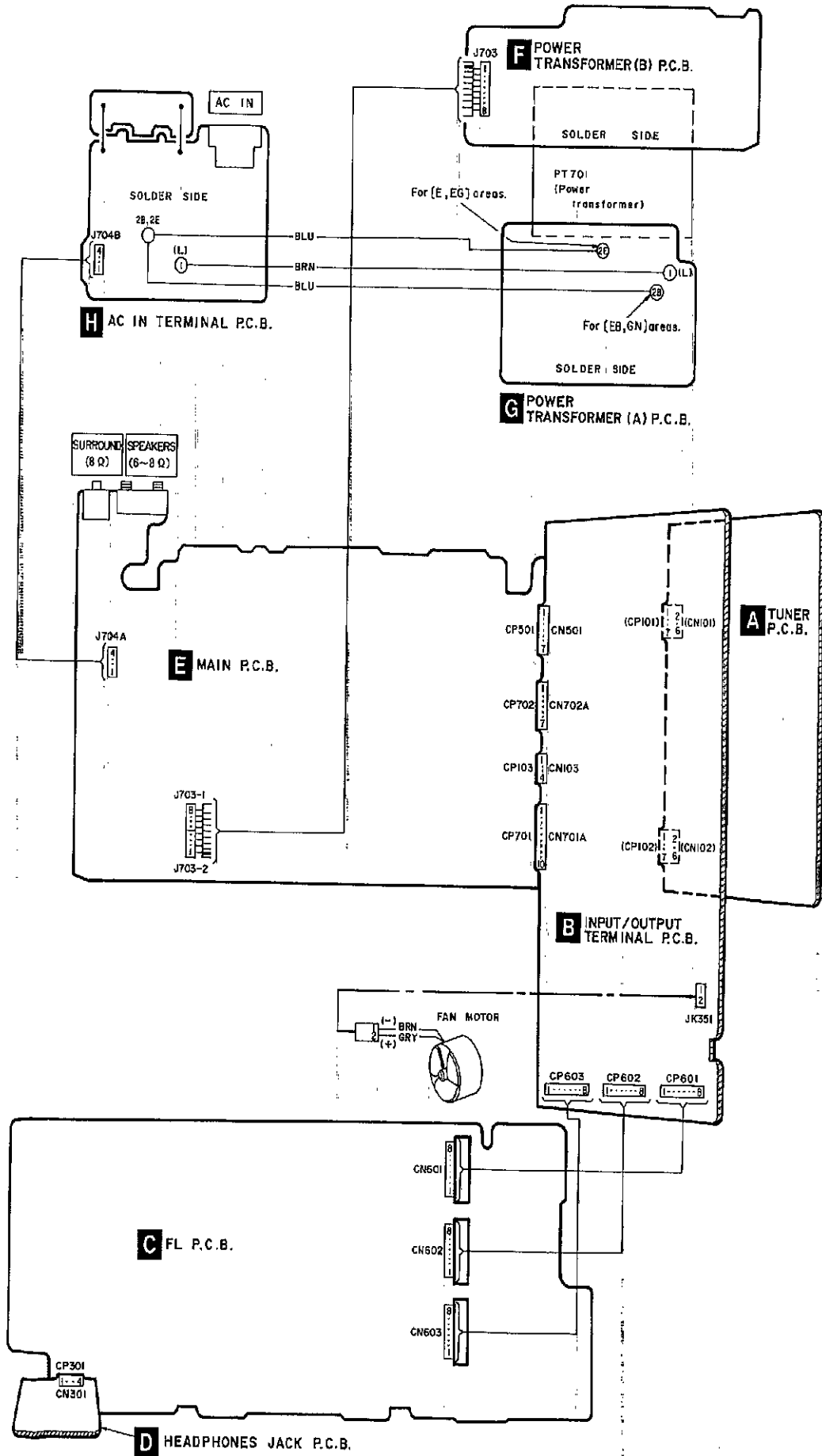


● Replacement of the Foot.

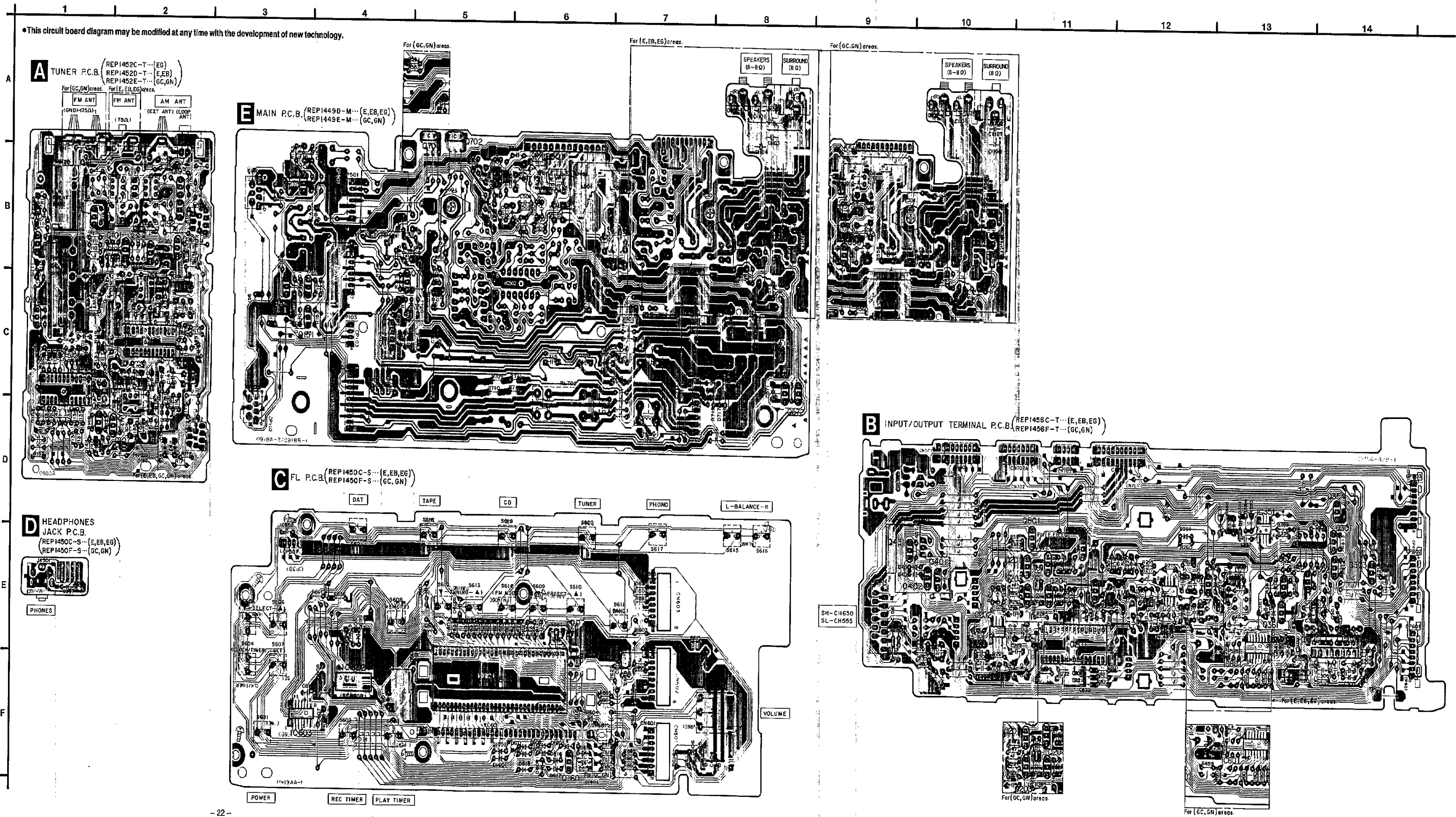
1. Remove the 4 heat melted posts on the bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot (RKA0055-N) on the bottom board ass'y, melt the 4 posts with a soldering iron.



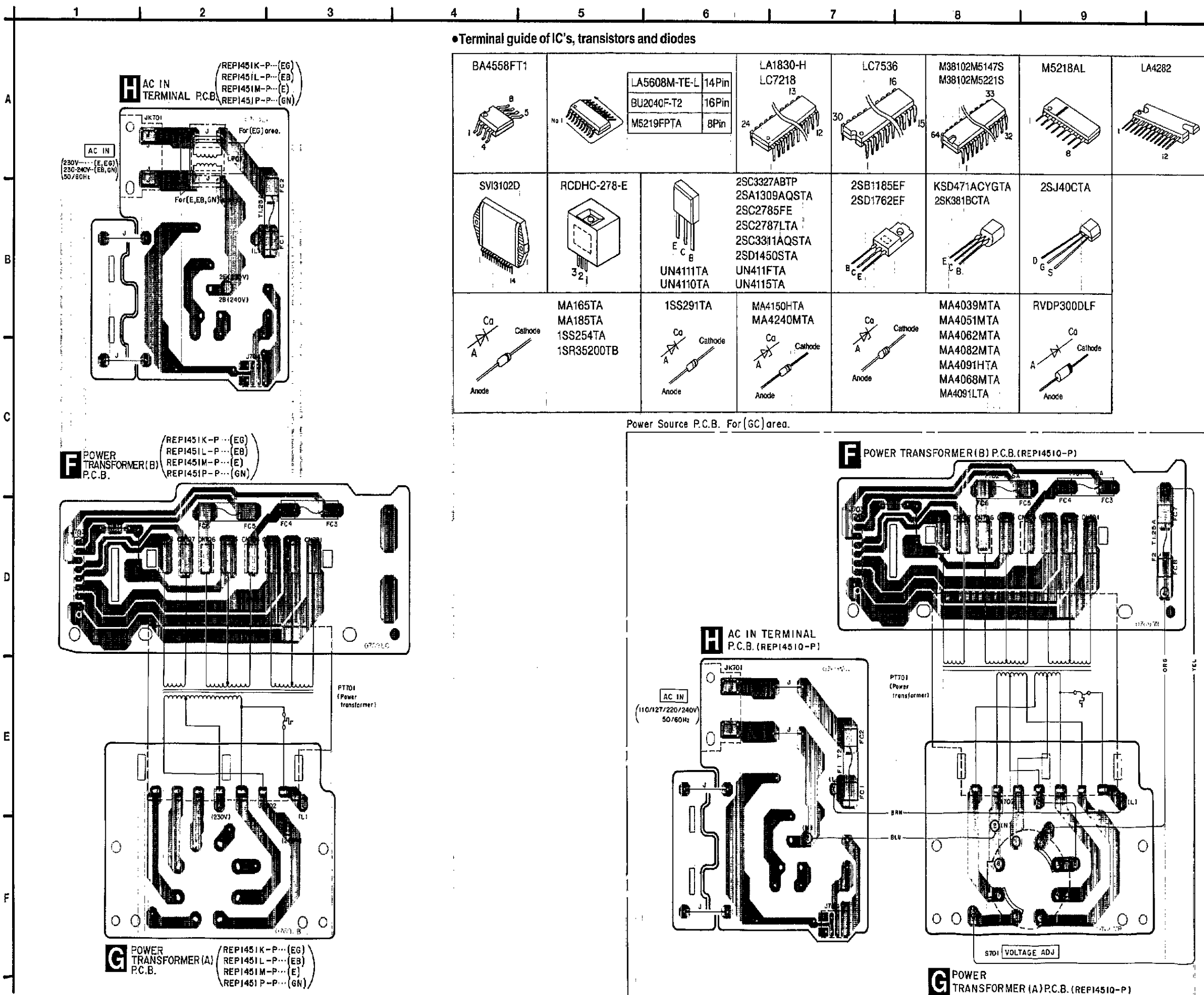
■ WIRING CONNECTION DIAGRAM



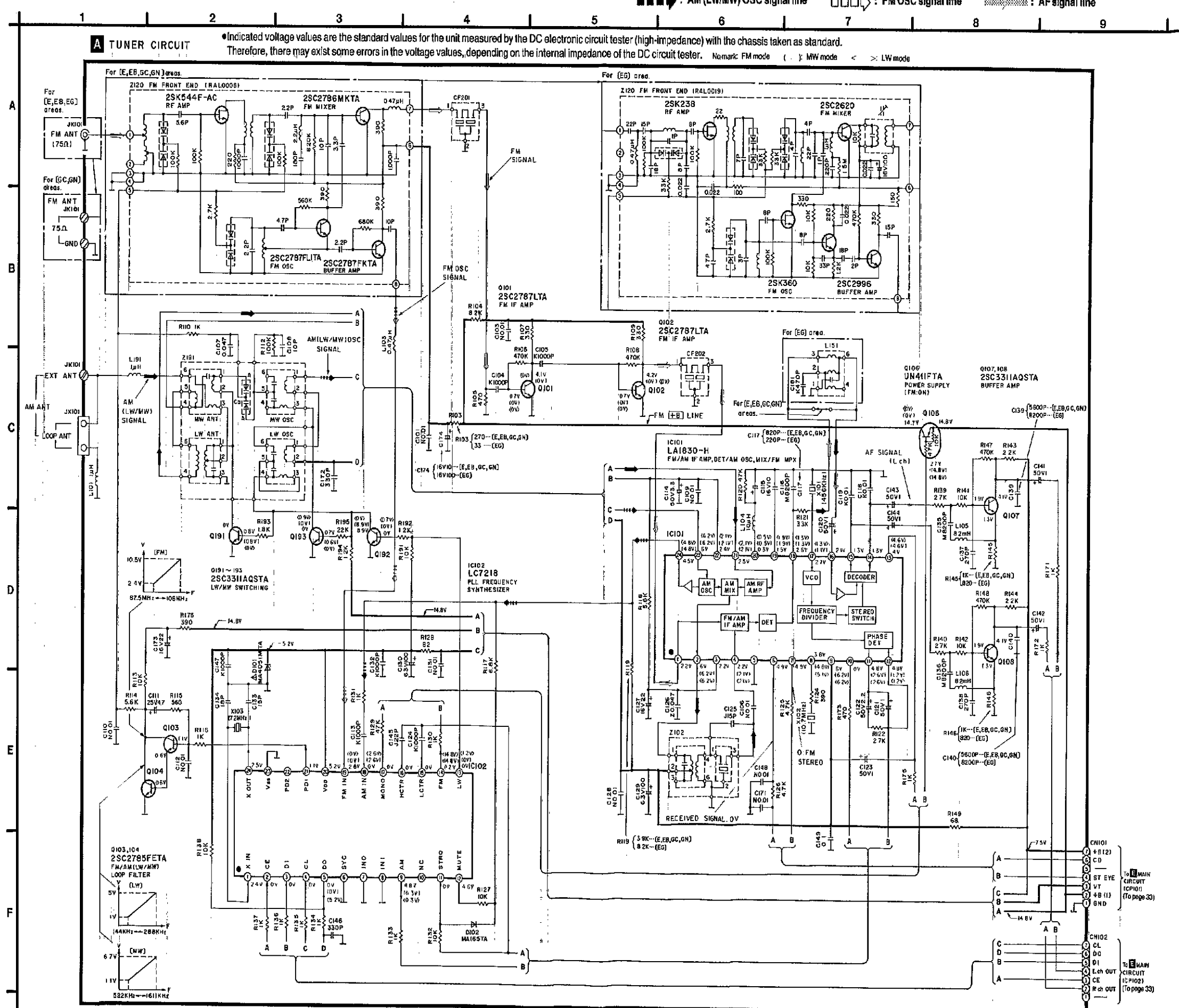
■ PRINTED CIRCUIT BOARD DIAGRAM



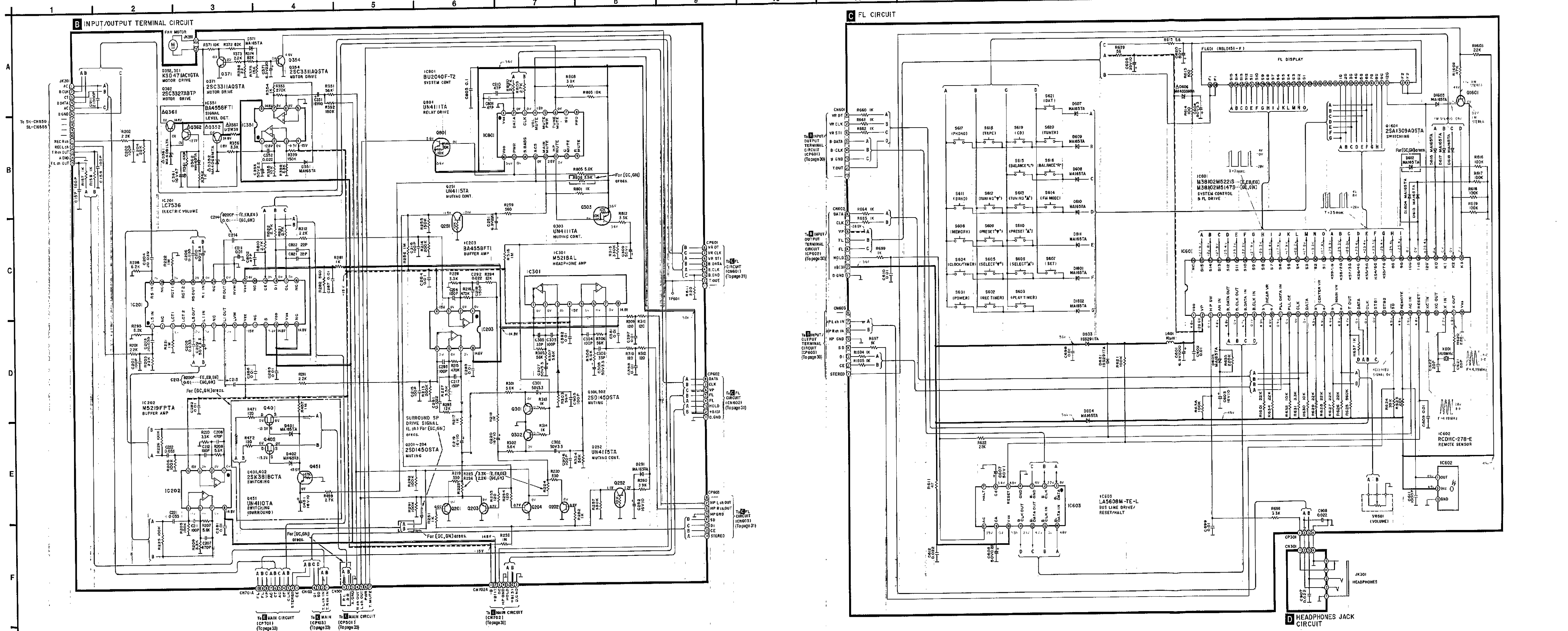
PRINTED CIRCUIT BOARD DIAGRAM



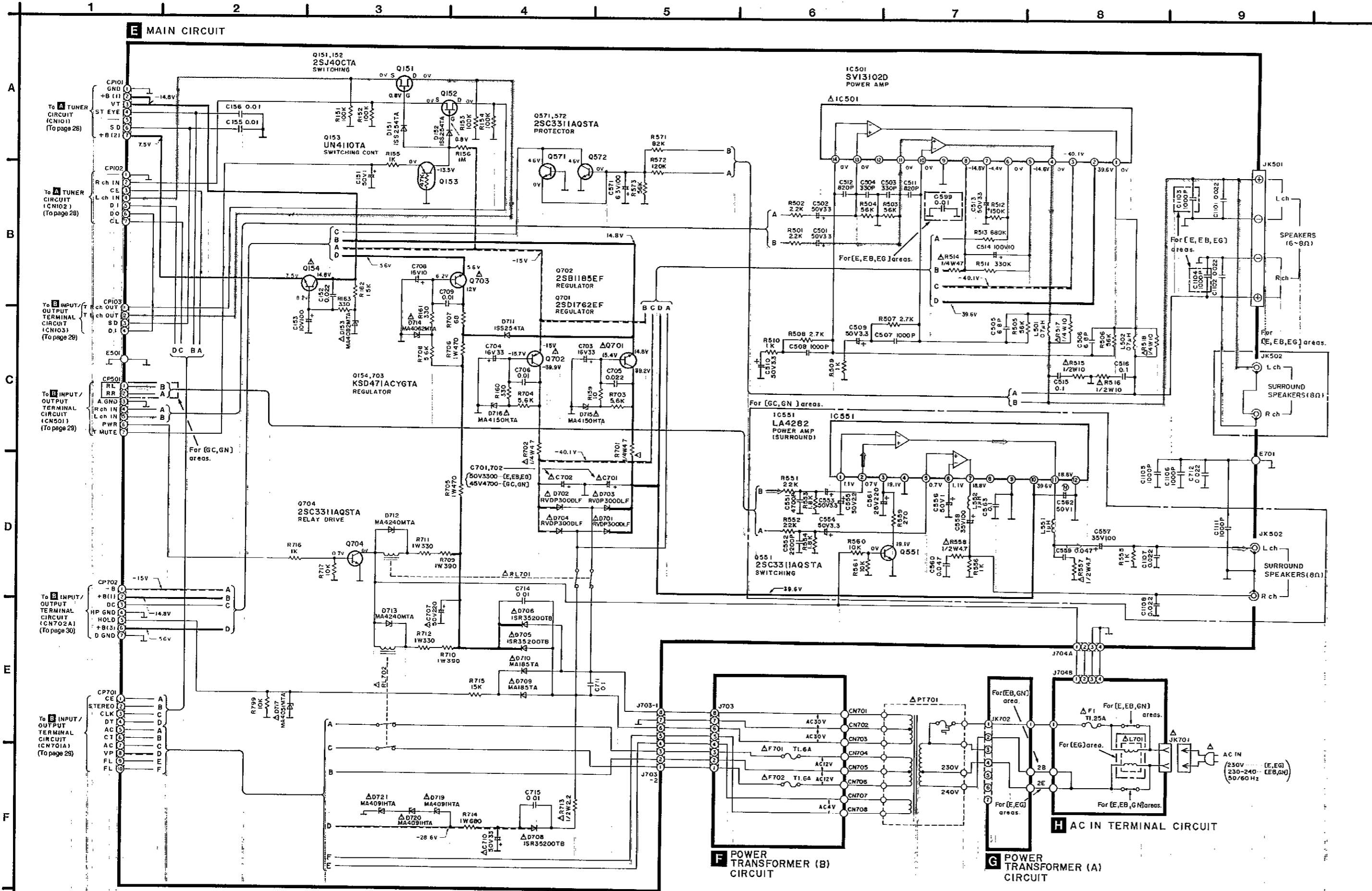
SCHEMATIC DIAGRAM • TUNER CIRCUIT (Parts list on pages 37-41.)



SCHEMATIC DIAGRAM • INPUT/OUTPUT TERMINAL CIRCUIT and FL/HEADPHONES JACK CIRCUIT (Parts list on pages 37-41.)



SCHEMATIC DIAGRAM • MAIN/POWER TRANSFORMER (A)/(B)/AC IN TERMINAL CIRCUIT (Parts list on pages 37-41.)



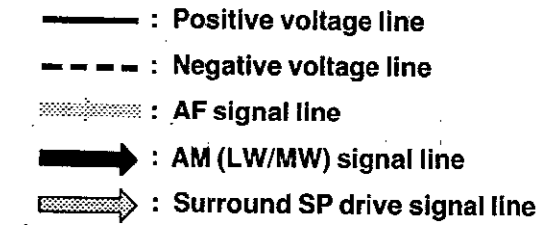
- Notes:**
- S601 : Power "STANDBY ϕ /ON" switch (POWER/STANDBY ϕ /ON)
 - S602 : Timer recording switch (REC TIMER)
 - S603 : Timer play switch (PLAY TIMER)
 - S604 : Clock/timer switch (CLOCK/TIMER)
 - S605 : Timer select switch (∇)
 - S606 : Timer select switch (\blacktriangle)
 - S607 : Setting switch (SET)
 - S608 : Preset memory switch (MEMORY, -MANUAL, -AUTO)
 - S609 : Preset tuning switch (∇)
 - S610 : Preset tuning switch (\blacktriangle)
 - S611 : Band select/allocation charge switch (-BAND -ALLOCATION)
 - S612 : Tuning switch (∇)
 - S613 : Tuning switch (\blacktriangle)
 - S614 : FM mode switch (FM MODE)
 - S615 : Balance adjustment switch (BALANCE L)
 - S616 : Balance adjustment switch (BALANCE R)
 - S617 : Input select switch (PHONO)
 - S618 : Input select switch (TAPE)
 - S619 : Input select switch (CD)
 - S620 : Input select switch (TUNER)
 - S621 : Input select switch (DAT/DC)
 - S701 : 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.
No mark: FM mode () ; MW mode (<) ; LW mode (>)

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.

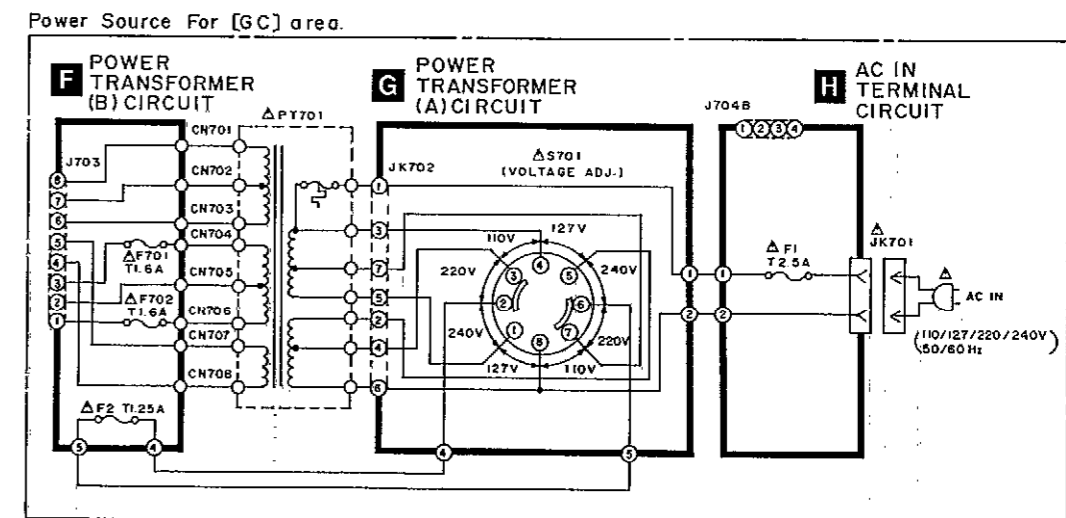
Caution!
IC and LSI are sensitive to static electricity. Secondary trouble can be prevented by taking care during repair. Cover the parts boxes made of plastics with aluminum foil. Ground the soldering iron. Put a conductive mat on the work table. Do not touch the legs of IC or LSI with the fingers directly.

The supply part number is described alone in the replacement parts list.

Ref. No.	Production Parts No.	Supply Parts No.
IC202	M5219FPTA	M5219FP
IC203	BA4558FT1	SVIBA4558F
IC301	M5218AL	M5218L
IC602	RCDHC-278-E	RCDHC-278



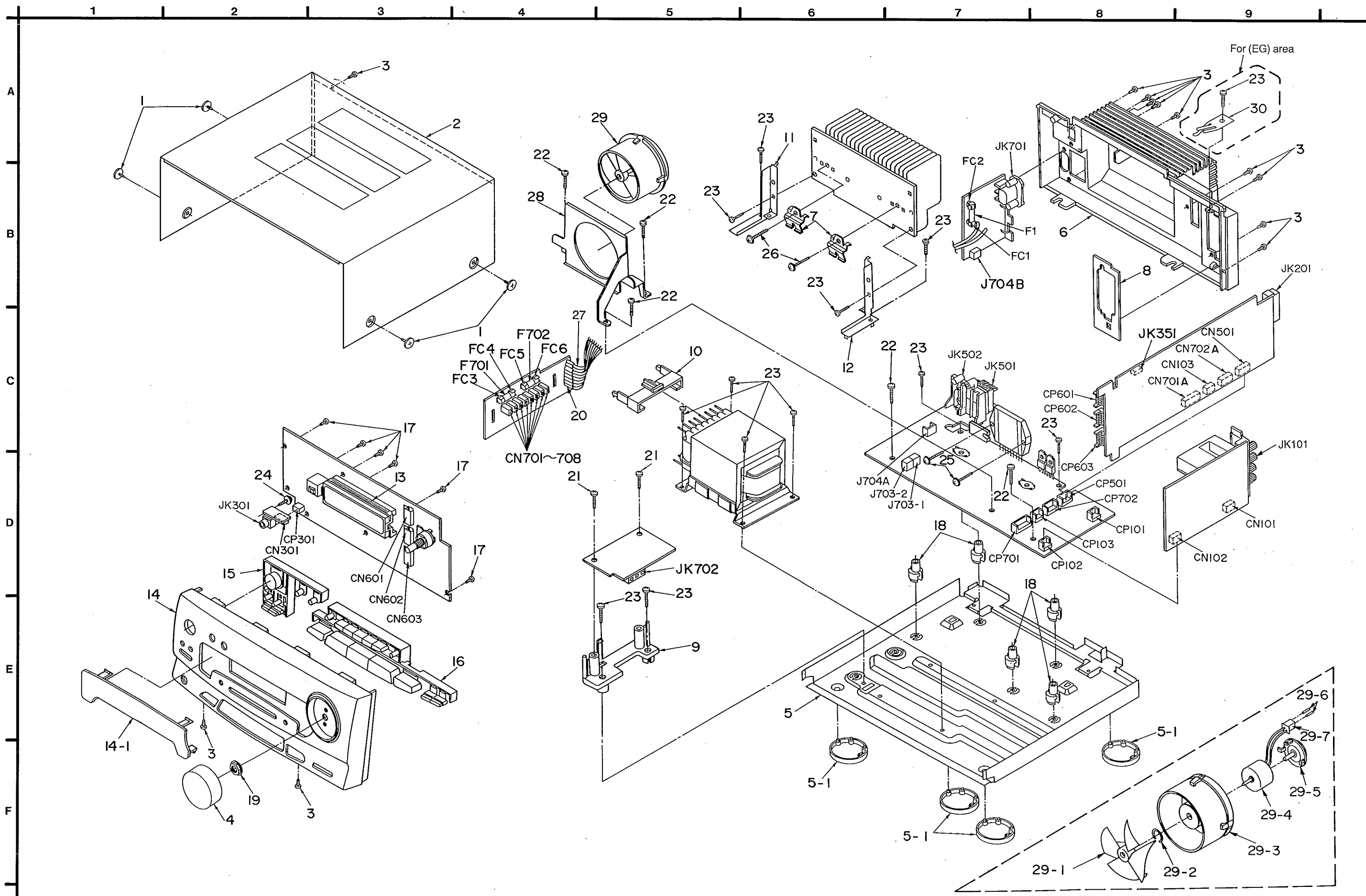
This schematic diagram may be modified at any time with the development of new technology.



Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
C351	ECEA1CKA100B	16V 10U	C712	ECBT1E223ZF	25V 0.022U
C352	ECBT1E223ZF	25V 0.022U	C714, 715	ECKR1H103ZF5	50V 0.01U
C353	ECEA1HKA2R2B	50V 2.2U	C801, 802	ECBT1H470J5	50V 47P
C361	ECEA1CN470SB	16V 47U	C803	ECBT1H104ZF5	50V 0.1U
C371	ECEA0JKA221B	6.3V 220U	C810	ECBT1H470J5	50V 47P
C381, 382	ECBT1E103ZF	25V 0.01U	C811	ECBT1E103ZF	25V 0.01U
C397, 398	ECBT1E103ZF	25V 0.01U	C821, 822	ECBT1H220J5	50V 22P
C451	ECEA1CKA100B	16V 10U GC, GN	C905, 906	ECBT1H101KB5	50V 100P
C501, 502	ECA1HAP3R3B	50V 3.3U	C907, 908	ECBT1E223ZF	25V 0.022U
C503, 504	ECBT1H331KB5	50V 330P	C911	ECKR1H102ZF5	50V 1000P
C505, 506	ECBT1H6R8K5	50V 6.8P	C1101, 1102	ECBT1E223ZF	25V 0.022U
C507, 508	ECBT1H102KB5	50V 1000P	C1103, 1104	ECBT1H102KB5	50V 1000P E, EB, EG
C509, 510	ECA1HAP3R3B	50V 3.3U	C1105, 1106	ECBT1H102KB5	50V 1000P
C511, 512	ECBT1H821KB5	50V 820P	C1107, 1108	ECBT1E223ZF5	25V 0.022U GC, GN
C513	ECA1HAP330B	50V 33U	C1111	ECBT1H102KB5	50V 1000P GC, GN
C514	ECA2AAP100B	100V 10U			
C515, 516	ECBT1H104ZF5	50V 0.1U			
C551	ECBT1C472KR5	16V 4700P GC, GN			
C552	ECBT1C222KR5	16V 2200P GC, GN			
C553, 554	ECEA1HKA3R3B	50V 3.3U GC, GN			
C555	ECEA1HKA2R2B	50V 2.2U GC, GN			
C556	ECEA1HKA010B	50V 1U GC, GN			
C557, 558	ECA1VM101B	35V 100U GC, GN			
C559, 560	ECQV1H473JM3	50V 0.047U GC, GN			
C561	ECA1EM221B	25V 220U GC, GN			
C562	ECEA1HKNO10B	50V 1U GC, GN			
C563	ECQV1H104JM3	50V 0.1U GC, GN			
C571	ECEA0JKA101B	6.3V 100U			
C599	ECBT1C103MS5	16V 0.01U E, EB, EG			
C601	ECEA0JU102	6.3V 1000U			
C602	ECBT1E103ZF	25V 0.01U			
C603	ECEA1CKA100B	16V 10U			
C604	ECEA1HKA3R3B	50V 3.3U			
C605	ECEA1VKA100B	35V 10U			
C607	ECEA1HKA010B	50V 1U			
C608	ECEA1HKA2R2B	50V 0.22U			
C609, 610	ECBT1E103ZF	25V 0.01U			
C611	ECBT1H102KB5	50V 1000P			
C612	ECBT1E223ZF	25V 0.022U			
C620	ECEA1HKA010B	50V 1U			
C621, 622	ECBT1H200JC5	50V 20P			
C698, 699	ECBT1E103ZF	25V 0.01U			
C701, 702△	ECA1HM332B	50V 3300U E, EB, EG			
C701, 702△	ECEA45V472YB	45V 4700U GC, GN			
C703, 704	ECEA1CKA330B	16V 33U			
C705	ECQB1H223JF3	50V 0.022U			
C706	ECKR1H103ZF5	50V 0.01U			
C707 △	ECA1HM221B	50V 220U			
C708	ECEA1CKA100B	16V 10U			
C709	ECBT1E103ZF	25V 0.01U			
C710 △	ECA1HAP330B	50V 33U			
C711	ECQE1104KF3	100V 0.1U			

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS				PACKING MATERIALS	
1	RHD30007	SCREW		P1	RPG1448	PACKING CASE (SYSTEM)	(E, EG)
2	RKM0202A-1K	CABINET		P1	RPG1449	PACKING CASE (SYSTEM)	(EB)
3	XTBS3+8JFZ1	SCREW		P1	RPG1450	PACKING CASE (SYSTEM)	(GC)
4	RGW0152-K	KNOB, MAIN VOLUME		P1	RPG1451	PACKING CASE (SYSTEM)	(GN)
5	RFKJACH550PK	BOTTOM BOARD ASS'Y	(E, EB, EG, GN)	P2	RPG1312	PACKING CASE (AMPLIFIER)	
5	RFKJACH655GC	BOTTOM BOARD ASS'Y	(GC)	P3	RPG1437	PACKING CASE (CD)	
5-1	RKA0055-N	FOOT		P4	RPG1314	PACKING CASE (PROCESSOR)	
6	RFKHACH655EK	REAR GRILL ASS'Y	(E)	P5	RPG1313	PACKING CASE (DECK)	
6	RFKHACH655EB	REAR GRILL ASS'Y	(EB)	P6	RPN0619	PAD (AMPLIFIER)	
6	RFKHACH655EG	REAR GRILL ASS'Y	(EG)	P7	RPN0681	PAD (CD)	
6	RFKHACH655GC	REAR GRILL ASS'Y	(GC)	P8	RPN0621	PAD (PROCESSOR)	
6	RFKHACH655GN	REAR GRILL ASS'Y	(GN)	P9	RPN0620	PAD (DECK)	
7	RMCO158	TRANSISTOR HOLDER		P10	RPQF0047	ACCESSORY BOX	
8	RMCO182	EARTH PLATE	(EG)	P11	XZB22X20C03	PROTECTION COVER	
8	RMCO164	EARTH PLATE	(E, EB, GC, GN)	P12	XZB45X50A01Z	PROTECTION COVER	
9	RMNO190	HOLDER (A)				ACCESSORIES	
10	RMNO191	HOLDER (B)					
11	RMQ0260	HOLDER (L)					
12	RMQ0261	HOLDER (R)		A1	RAK-SC003WH	REMOTE CONTROL TRANSMITTER	
13	RMNO183-1	FL. HOLDER		A1-1	RKK0020-K	BATTERY COVER	
14	RFKGACH655PK	FRONT PANEL ASS'Y		A2	RFKSACH655EK	INSTRUCTIONS MANUAL ASS'Y	(E)
14-1	RKW0225-K	FL. PANEL		A2	RQT1770-B	INSTRUCTIONS MANUAL	(EB)
15	RGU0768-K	BUTTON, POWER		A2	RFKSACH655EG	INSTRUCTIONS MANUAL ASS'Y	(EG)
16	RGU0769B-K	BUTTON, INPUT SELECTOR etc.	(GC, GN)	A2	RFKSACH655GC	INSTRUCTIONS MANUAL ASS'Y	(GC)
16	RGU0769A-K1	BUTTON, INPUT SELECTOR etc.	(E, EB, EG)	A2	RQT1770-B	INSTRUCTIONS MANUAL	(GN)
17	XTBS26+8J	SCREW		A3	RQA0013	WARRANTY CARD	(E, EB, EG)
18	SHE187-2	P. C. B. SPACER		A3	RQX7433ZA	WARRANTY CARD	(GN)
19	SNE4021-1	NUT		A4	RQC00169	SERVICE CENTER LIST	
20	RJS1A5508	HOLDER, CABLE		A5	REX0462	FLAT CABLE (15P)	
21	XTB3+12JFZ	SCREW		A6	RJA0019-2K	AC POWER SUPPLY CORD	(E, EG, GC)△
22	XTB3+20JFZ	SCREW		A6	VJA0733	AC POWER SUPPLY CORD	(EB)△
23	XTB3+8JFZ	SCREW		A6	SJA173	AC POWER SUPPLY CORD	(GN)△
24	XTWS3+10T	SCREW		A7	SWXS257M	SPEAKER CORD	
25	XTW3+15T	SCREW		A8	RSA0007	FM INDOOR ANTENNA	(E, EB, EG)
26	XTW3+8T	SCREW		A8	RSA0006	FM INDOOR ANTENNA	(GC, GN)
27	RWJ1808110XX	FLAT CABLE (8P) (J703)		A9	SPB1163T	LW/MW LOOP ANTENNA	
28	RMNO215	FAN ANGLE		A9-1	SMA233-1M	ANTENNA HOLDER	
29	SYE1128-2	FAN ASS'Y		A9-2	XTN3+10AFZ	SCREW	
29-1	SHE232	FAN		A10	RJL1P001B25	SURROUND SP. CORD	(GC, GN)
29-2	SUS271	SPRING		A11	SJP9009	ATTACHMENT PLUG	(EB)△
29-3	SHE233-1	FAN CASE		A12	SJP5213-2	POWER PLUG ADAPTOR	(GC)△
29-4	MDN-4RB4MRC	MOTOR		A13	RQLA0134	LOCAL VOLTAGE CAUTION LABEL	(GC)
29-5	SHE234	CAP					
29-6	SJT783	TERMINAL					
29-7	SJS5215	CONNECTOR (2P)					
30	RMCO197	EARTH PLATE (TUNER PACK)	(EG)				

CABINET PARTS LOCATION



■ PACKAGING

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