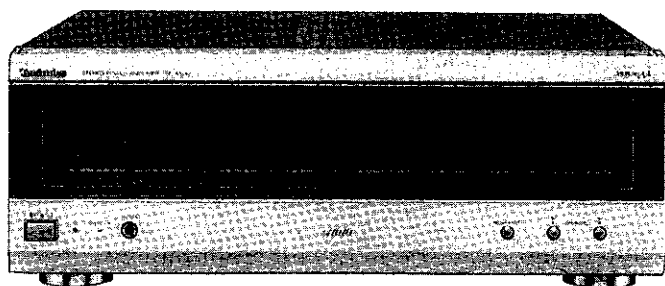


# Service Manual

## Stereo Power Amplifier



### SE-A1010

#### Colour

(K).....Black Type

(N).....Gold Type

#### Areas

(E).....Europe.

(EB).....Great Britain.

(EG).....Germany.

### Specifications (DIN 45 500)

20 Hz – 20 kHz continuous power output both channels driven:	2 × 70 W (8 Ω)
1 kHz continuous power output both channels driven (THD: 1 %):	2 × 85 W (8 Ω) 2 × 120 W (4 Ω)
63 Hz – 12.5 kHz continuous power output both channels driven (THD: 0.7 %):	2 × 80 W (8 Ω) 2 × 105 W (4 Ω)
Total harmonic distortion (THD) rated power at 20 Hz – 20 kHz:	0.015 % (8 Ω)
Intermodulation distortion (50 Hz : 7 kHz = 4 : 1, SMPTE):	0.007 % (8 Ω)
Residual hum and noise:	0.3 mV
Damping factor:	70 (8 Ω) 35 (4 Ω)
Headphones output level/impedance:	540 mV/330 Ω
Load impedance:	
A or B;	4 Ω – 16 Ω
A and B;	8 Ω – 16 Ω
Input sensitivity/impedance:	
NORMAL (INPUT LEVEL CONTROL Max.);	1 V/20 kΩ
DIRECT;	1 V/20 kΩ
S/N:	95 dB, rated power, 4 Ω 115 dB (IHF '66), rated power, 8 Ω

#### Frequency response:

##### NORMAL;

5 Hz – 100 kHz (+0 dB, -3 dB)  
20 Hz – 20 kHz (+0 dB, -0.5 dB)  
(INPUT LEVEL CONTROL Max.)

##### DIRECT;

5 Hz – 100 kHz (+0 dB, -3 dB)  
20 Hz – 20 kHz (+0 dB, -0.5 dB)

#### ■ GENERAL

##### Power supply:

For (E) and (EG) areas;

AC 50 Hz, 230 V

For (EB) area;

AC 50 Hz, 230 V – 240 V

##### Power consumption:

280 W

Standby;

1.6 W

##### Dimensions (W × H × D):

430 × 158 × 344 mm

##### Weight:

10.3 kg

#### Notes:

- Specifications are subject to change without notice. Weight and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.
- For (EB) area: The specification values given have been measured while using a 240 V-power supply

### ⚠ 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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## 1 Before Repair

- Turn off the power supply. Using a 10  $\Omega$ , 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 Hz in NO SIGNAL mode should be shown below with respect to supply voltage 230/240 V.

Power supply voltage	AC 230 V, 50 Hz	AC 240 V, 50 Hz
Consumed current	160-320 mA	160-320 mA

## 2 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:

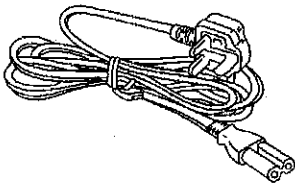
- Switch OFF the power.
- Determine the cause of the problem and correct it.
- Switch ON the power once again.

### Note:

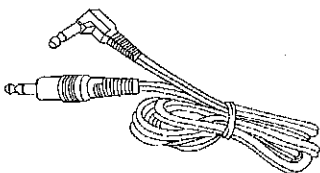
When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and ON again.

## 3 Accessories

- AC mains lead  
(E) and (EG) areas : (RJA0019-X)..... 1 pc.  
(EB) area : (RJA0053-2X).....1 pc.



- Remote control cable  
(SJP2257T).....1 pc.



## 4 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 these colours 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 which is marked with the letter N or coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

**WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL  OR COLOURED GREEN OR GREEN/YELLOW.**

**THIS PLUG IS NOT WATERPROOF—KEEP DRY.**

#### Before use

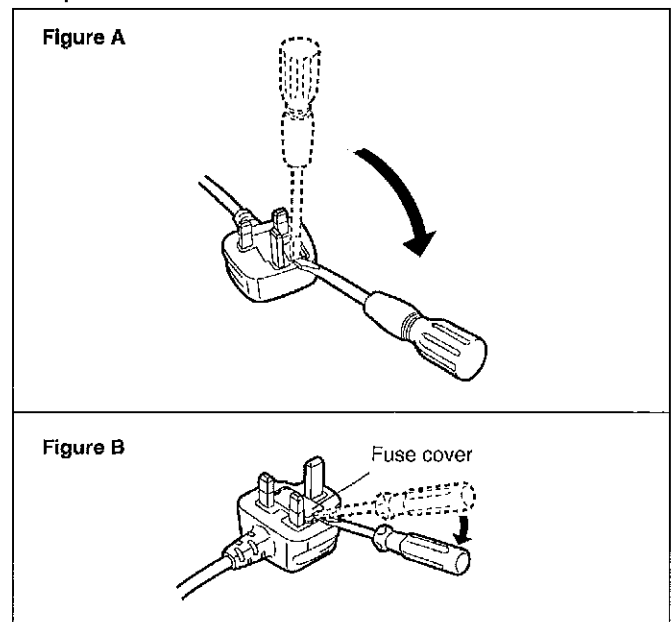
Remove the connector cover.

#### How to replace the fuse

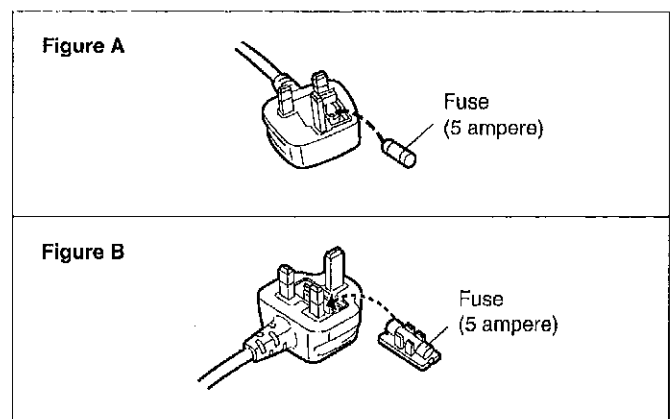
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

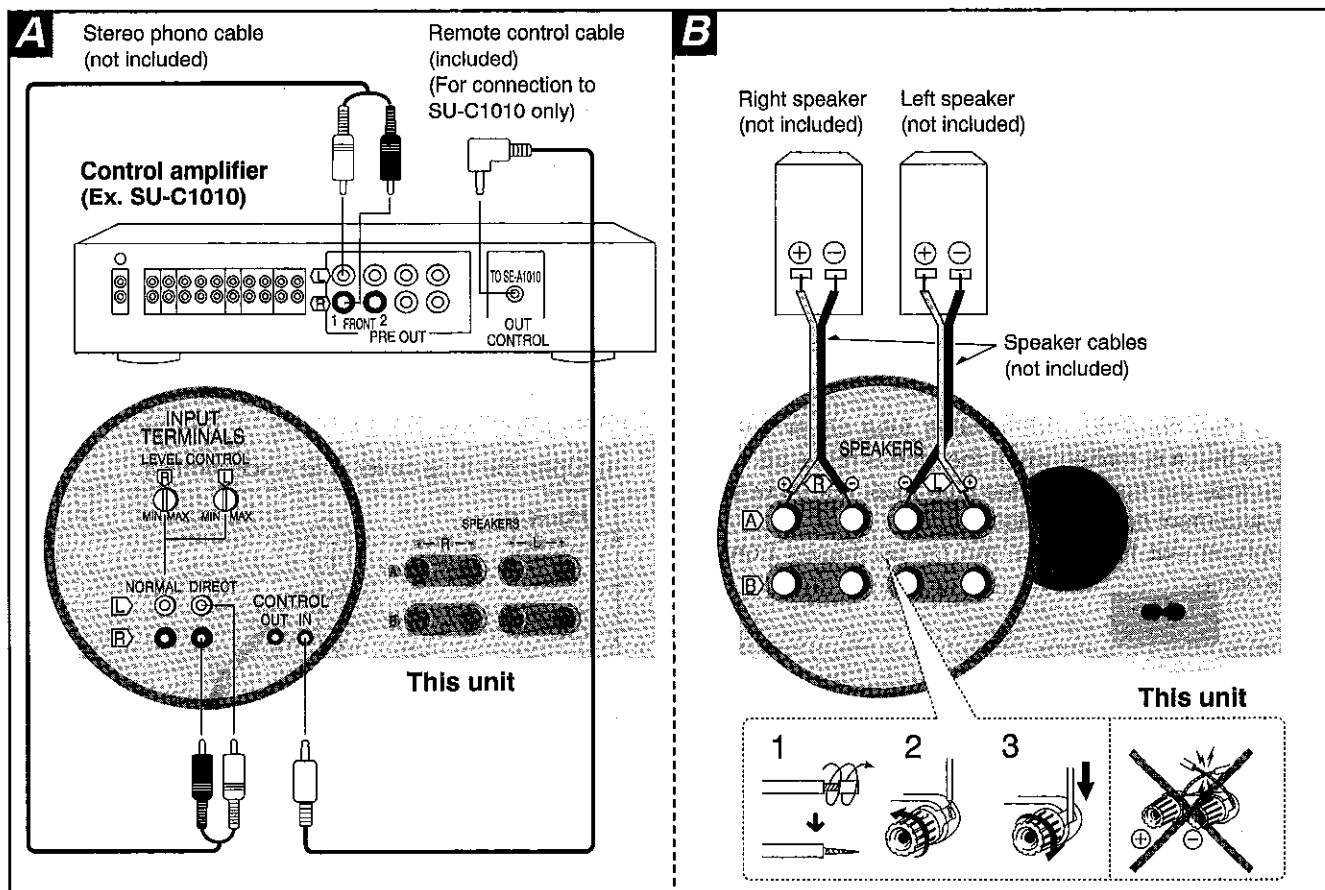


2. Replace the fuse and close or attach the fuse cover.



# 5 Operations

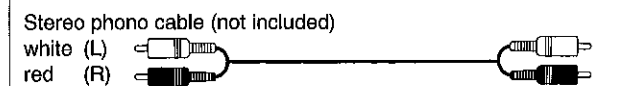
## Connections



Make sure that the AC mains lead for all components has been turned off before making any connections.

To connect equipment, refer to the appropriate operating instructions.

### Connecting to a control amplifier **A**



#### "INPUT TERMINALS"

The amplifier has two input systems: DIRECT and NORMAL.

##### DIRECT

When connected to the DIRECT terminals, audio signals do not pass through the level control circuit, so the sound is crisper.

##### NORMAL

You should use NORMAL input when it is difficult to control volume, for example, when the sound is too loud when you raise volume slightly on the control amplifier. Connect to the terminals and set input level from the LEVEL CONTROL knobs. There are separate level controls for left (L) and right (R).

Turning to the left lowers input, but normally leave it to "MAX".

#### Remote control cable

This enables you to turn the unit on and off together with SU-C1010.

#### Caution

Do not use the DIRECT and NORMAL terminals at the same time.

### Connecting the speakers **B**

The wires which are connected to the positive (+) terminals of the amplifier should be connected to the positive (+) terminals of the speakers. The negative (-) terminals should be connected similarly.

#### "B" terminals

For connection to a second pair of speakers.

If using separate treble and bass speakers, connect one set to the "A" terminals and the other set to the "B" terminals.

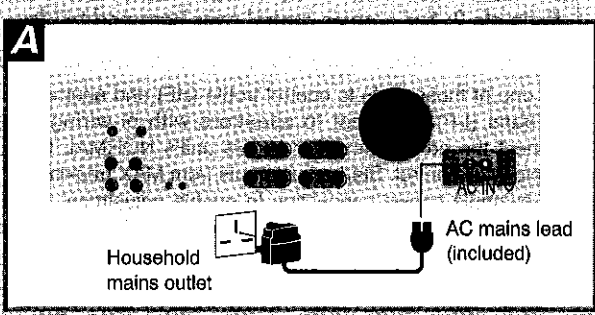
#### Speaker Impedance

When only the "A" or only the "B" terminals are used: 4–16  $\Omega$

When the "A" and "B" terminals are used simultaneously: 8–16  $\Omega$

#### Caution

To prevent damage to circuitry, never short-circuit the positive (+) and negative (-) speaker wires.



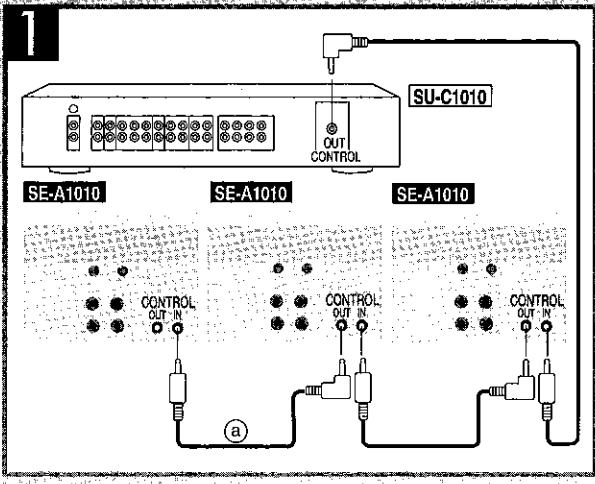
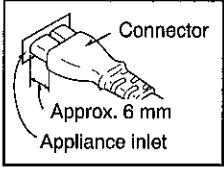
**BE SURE TO READ THE CAUTION FOR THE AC MAINS LEAD BEFORE THE FOLLOWING CONNECTION.**

**Connecting the AC mains lead **A****

Connect the AC mains lead only after all other connections have been made.

**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.

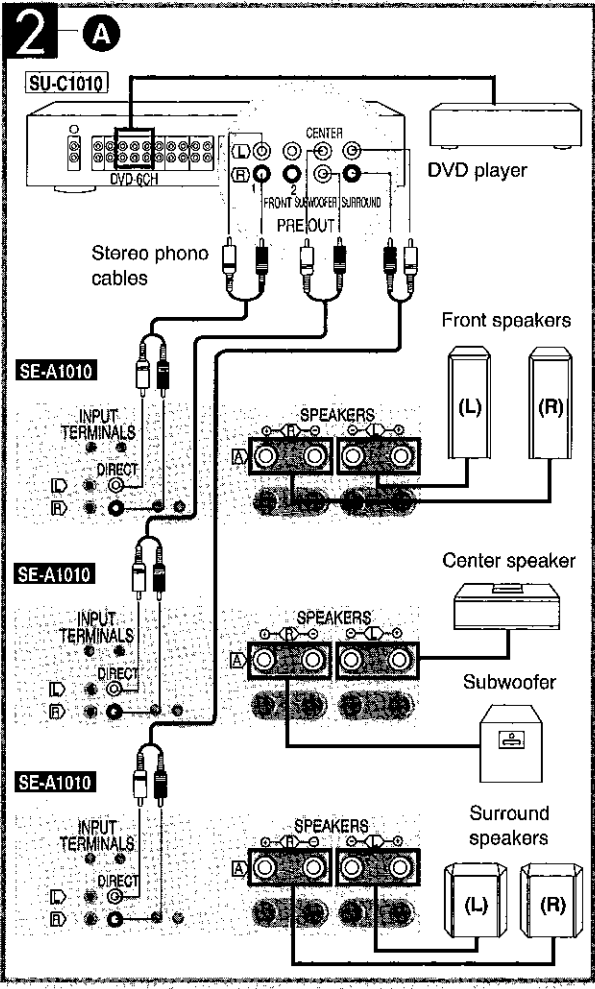


**Multiple amplifier system**

Connect two or three of these amplifiers to one SU-C1010 Control Amplifier to create different systems. Use 3 when playing 6 channel systems, such as DVD. Use 2 for more control over bass and treble balance, or to separate the L and R channels to get a better orientation effect.

**1 Connect the remote control cables (included) as shown.**

The illustration is an example of when three of these units are used. Connection (a) isn't necessary when two are used. This connection allows you to control the system's power through the SU-C1010.



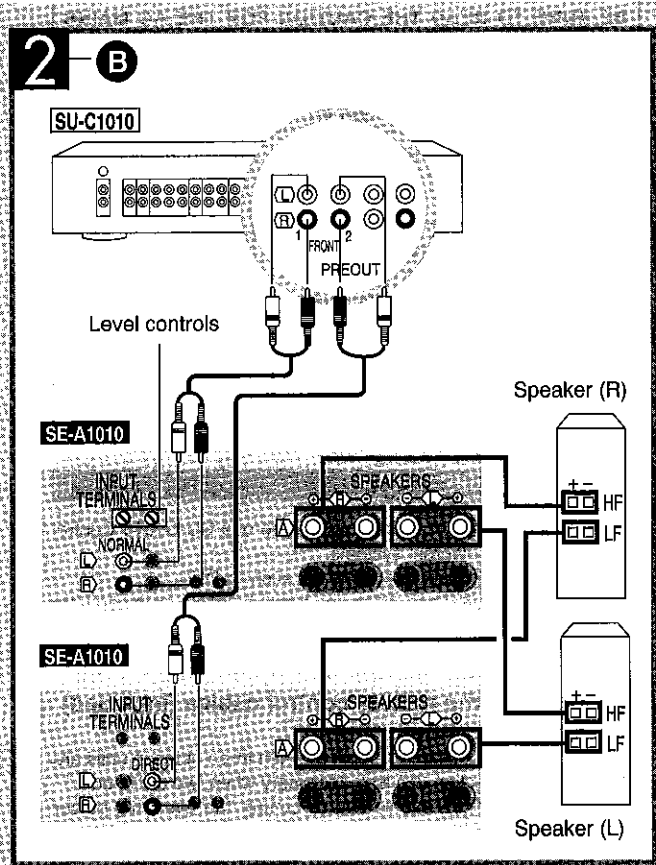
**2 Connect the stereo connection cables and speakers to suit the system.**

Three examples of connection follow. All cables and speakers not included.

**Example 1: To playback 6 channel sound from DVDs **2-A****

Use one of these units for the front speaker channels (L and R), one for the subwoofer and center channels, and one for the surround channels (L and R). Read the operating instructions for SU-C1010 and the DVD player carefully for connection and set-up details.

(continued next page)

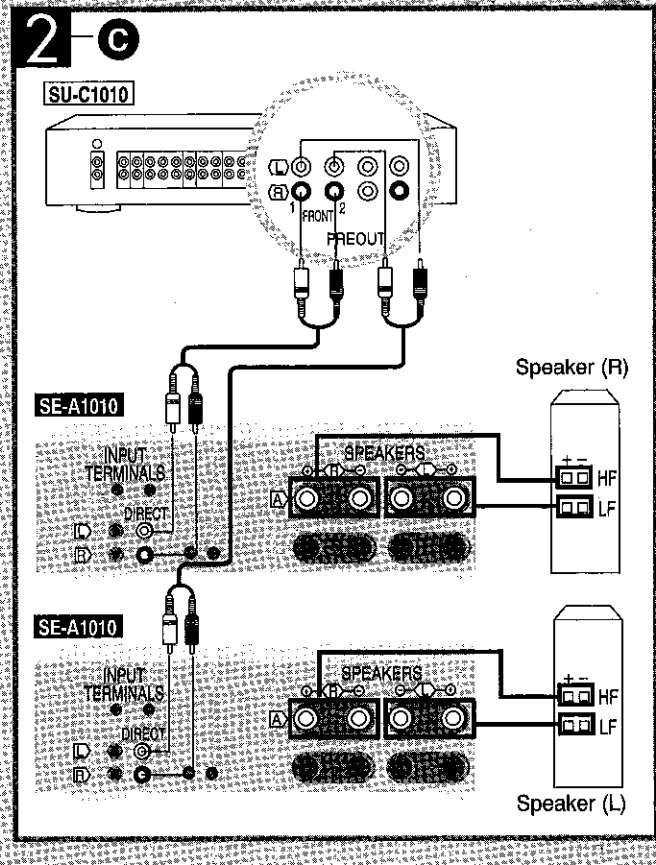


**Example 2: For greater control over bass and treble balance**  
**2-B** balance

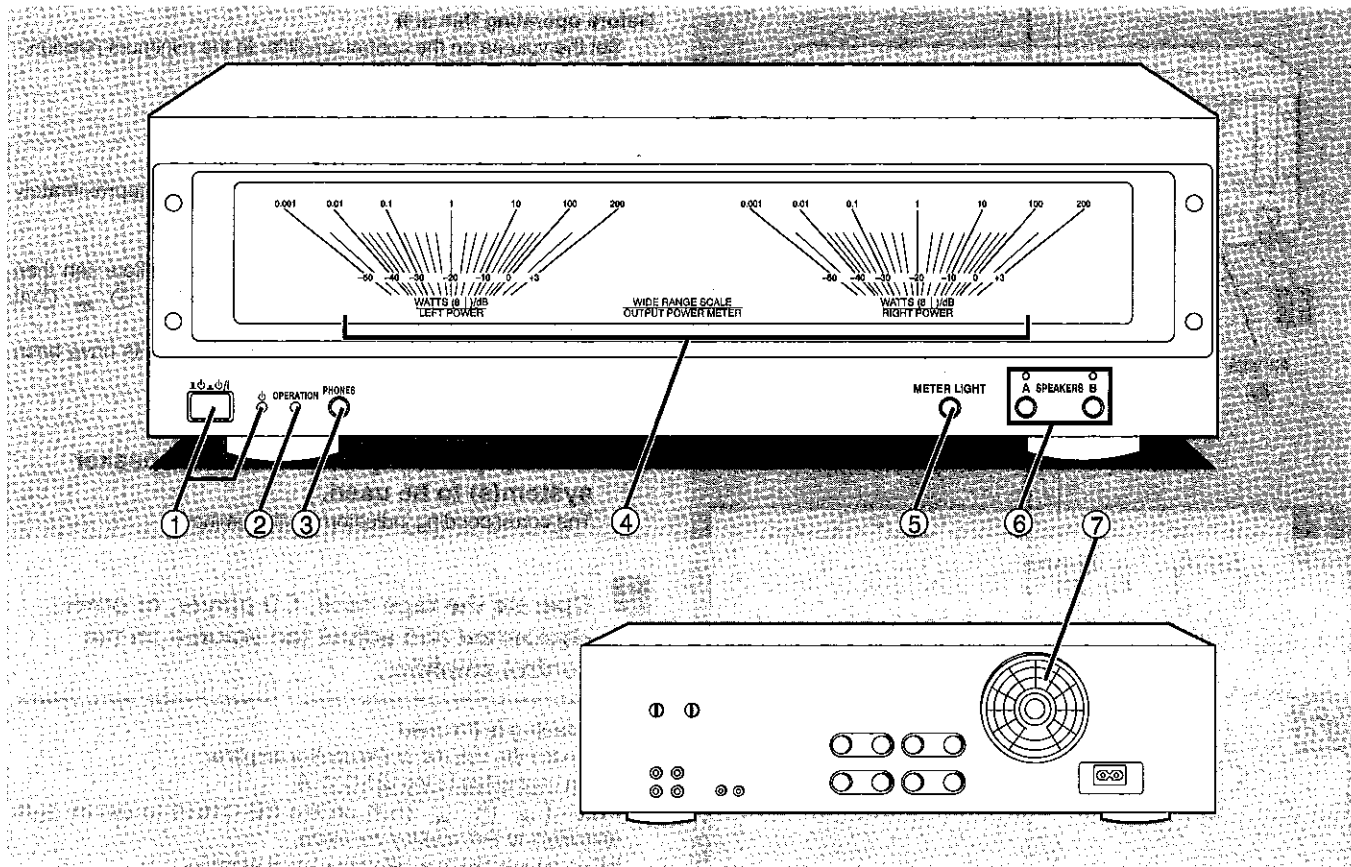
Use one of these units to control treble (HF) and another to control the bass (LF). Connect the control amplifier to this unit's NORMAL terminals to enable level control. Start adjustments from MAX (maximum). The example shows connection to enable adjustment of treble for overall bass-treble balance control. If required, the bass can also be connected to the NORMAL terminals to enable L-R balance control.

**Example 3: Using these units as monaural amplifiers**  
**2-C**




Use one each of these units for the left and right channels. Complete separation of the channels is better and a greater sense of position is achieved. The example shows connection to speakers with bi-wiring terminals.



## Names of Parts



No.	Name
-----	------

- ① **Unit on/off button (   /I) and remote standby indicator (  )**  
 Use this button to turn the unit on and off.  
 ■ (off): The unit is in standby mode.  
 ▬ (on): The unit is on. The unit can be turned on and off from the Technics control amplifier SU-C1010 (sold separately). When the unit is turned off from SU-C1010, it is in remote standby and the indicator lights.

The unit is still using a small amount of power in the standby and remote standby conditions. Standby uses less power.

- ② **Operation indicator (OPERATION)**  
 This indicator illuminates when the power amplifier is in the normal operating condition.  
 If the (+) and (-) wires of the speaker cables are shorted, or if a circuit abnormality such as DC voltage in the power output to the speakers is detected, the protection circuit will operate and the "OPERATION" indicator will turn off.

- ③ **Headphone jack (PHONES)**

No.	Name
-----	------

- ④ **Power meters**  
 Indicate the output (watts) of this unit.  
 When speakers having an impedance of 8 Ω are connected, the output level will be as indicated. However, if the speaker impedance is 16 Ω, the output level will be one-half the indicated value, and if the impedance is 4 Ω, the output level will be double the indicated value.

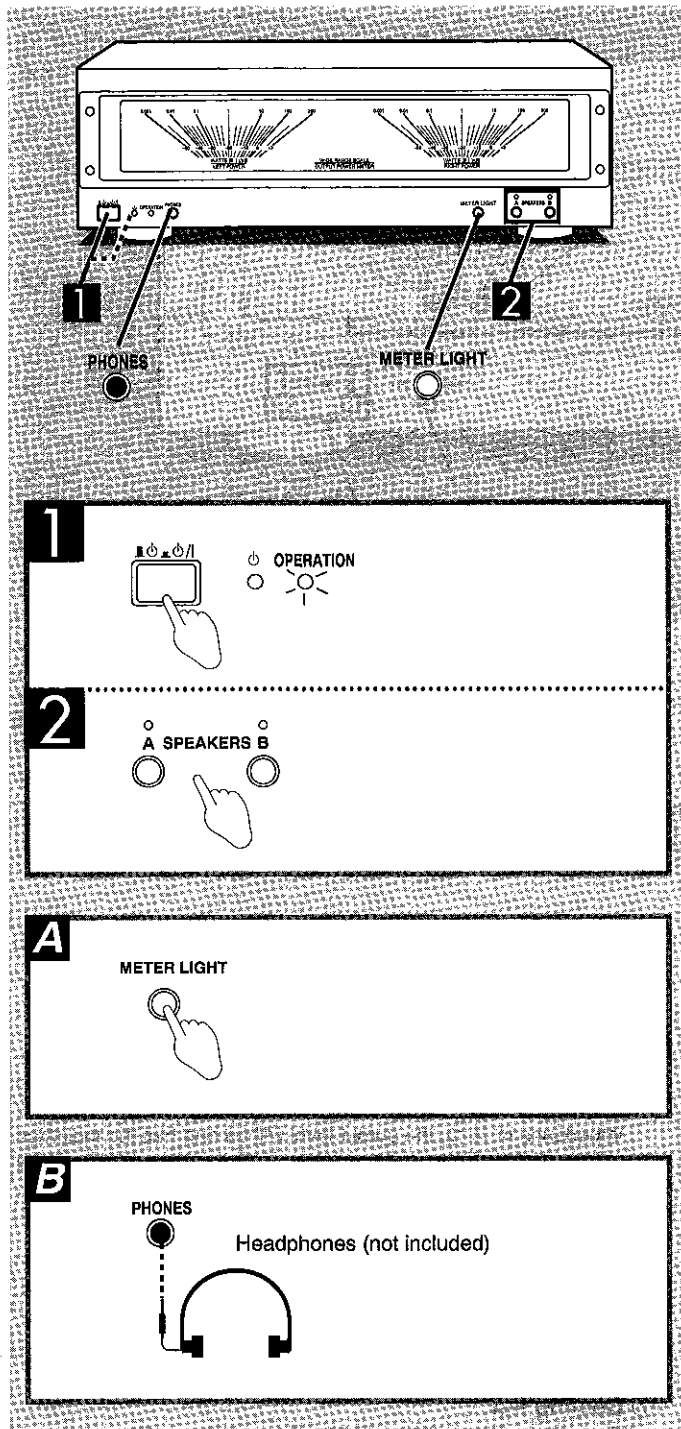
$$\text{Actual output} = \text{meter indication} \times \frac{8 (\Omega)}{\text{impedance of the speakers } (\Omega)}$$

- ⑤ **Power meter light button (METER LIGHT)**

- ⑥ **Speaker select buttons/indicators (SPEAKERS)**

- ⑦ **Cooling fan**  
 The cooling fan operates at high power output levels only.

## Operations



### Before operating this unit

1. Set the volume on the control amplifier to the minimum position.
2. Turn on the control amplifier.

#### 1 Press [ ] (power) [ ] (power/|).

The operation indicator will illuminate after approximately 4 seconds.

If this unit is connected to an SU-C1010

Once this unit has been turned on, both amplifiers can then be turned on or to the standby mode using [ ] (power) [ ] (power/|) on the control amplifier.

This is possible even when 2 or 3 of these units have been connected.

#### 2 Press [A] and/or [B] to select the speaker system(s) to be used.

The corresponding indicator(s) will illuminate.

#### 3 Operate the tape deck, CD player, or other equipment and adjust the volume on the control amplifier.

### After listening is finished

1. Decrease the volume at the control amplifier.
2. When connected to the SU-C1010  
Press [ ] (power) [ ] (power/|) on the SU-C1010 to switch both amplifiers to the standby condition.  
When connected to a different control amplifier  
First switch this unit to the standby position, and then do the same for control amplifier.

### Note

If the unit is turned off while the power meter light is on, a small click will be heard a few seconds later. This is an automatic adjustment by the internal mechanism, not an indication of malfunction.

### Turning the power meter light on/off A

Press [METER LIGHT].

### To listen through headphones B

Decrease the volume at the control amplifier, and connect the headphones.

Plug type: 6.3 mm stereo

If sound from speakers is not wanted, press SPEAKER [A] and/or [B] to turn off the speaker indicators.

### Note

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



## 6 Operation Checks and 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 item from the following index when checks or replacement are required.

### ● Contents

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

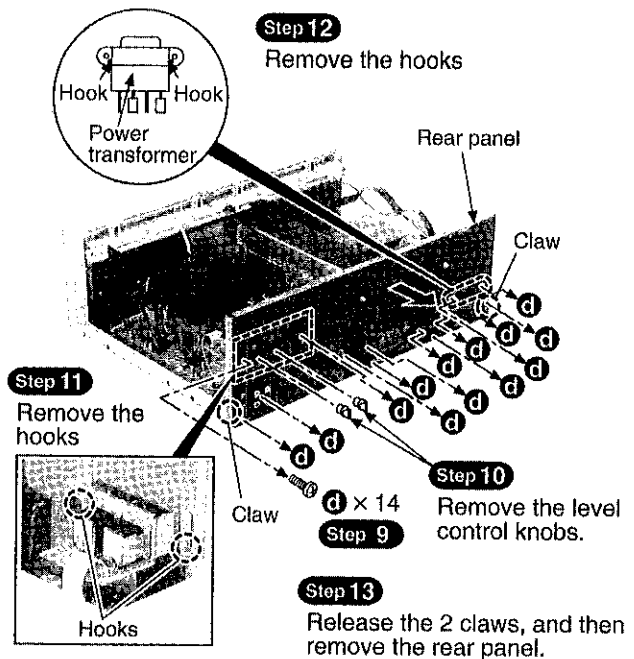
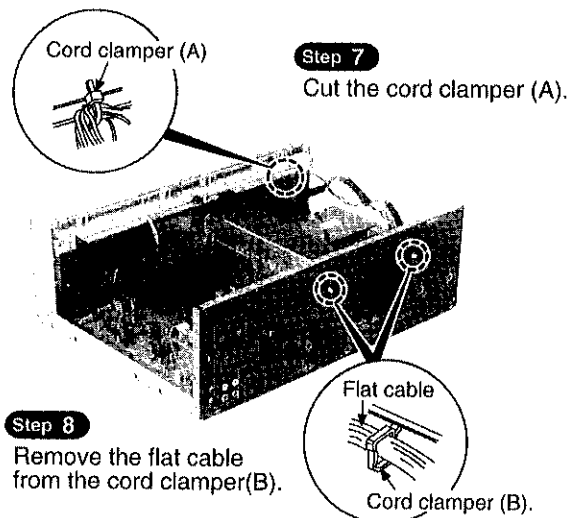
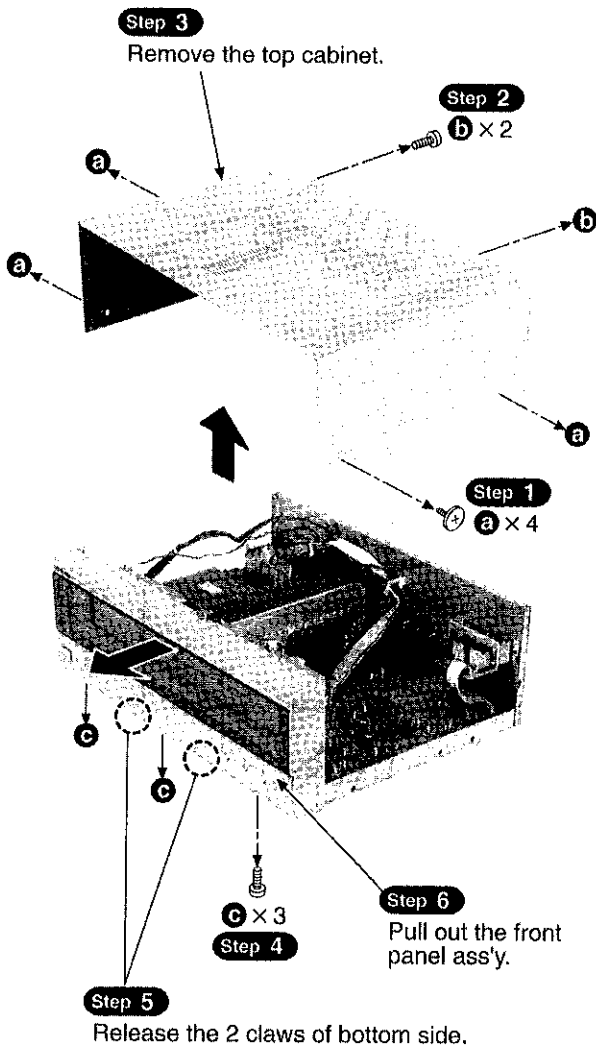
1. Checking for the main P.C.B..

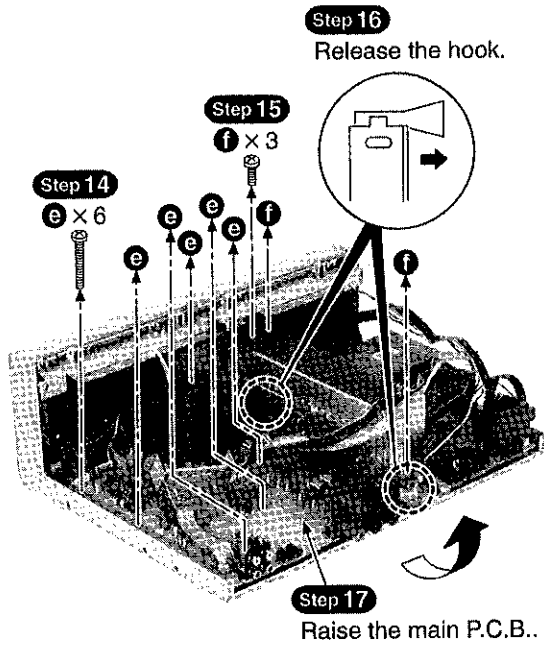
#### ■ Main Component Replacement Procedures

1. Replacement for the meter ass'y.
2. Replacement for the power IC and regulator transistor.
3. Replacement for the fan motor.

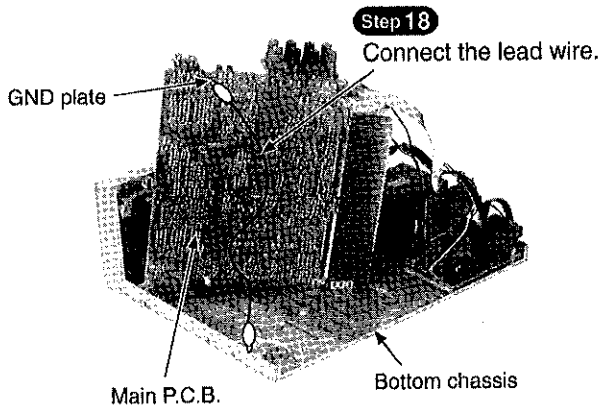
### ■ Checking Procedures for each P.C.B.

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





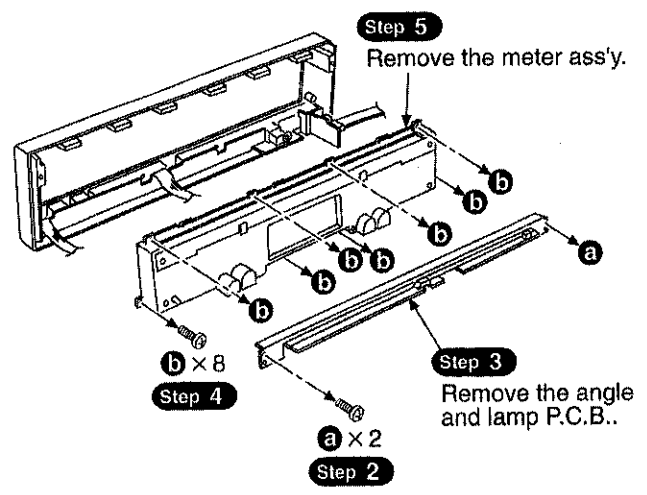
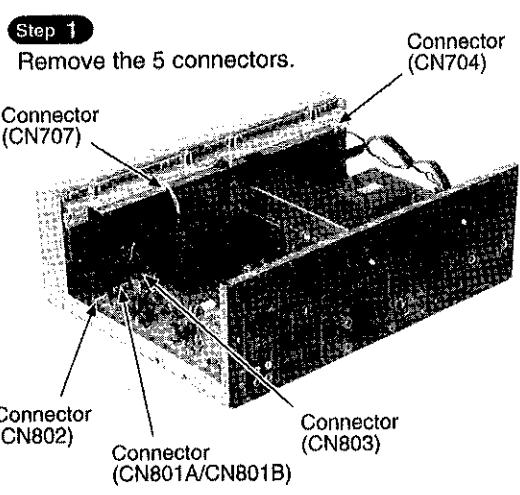
• Check the main P.C.B. as shown below.



## ■ Main Component Replacement Procedures

### 1. Replacement for the meter ass'y

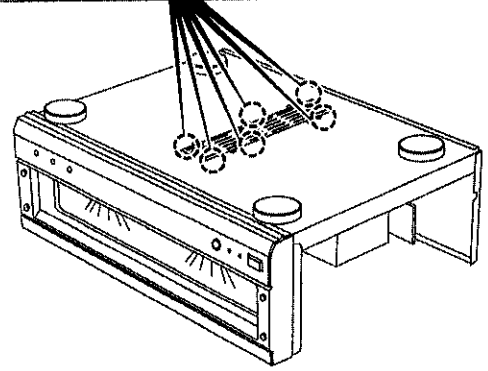
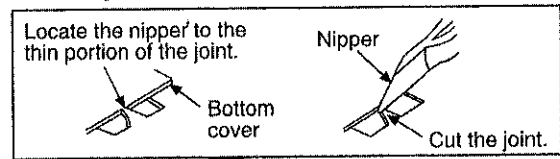
• Follow the Step 1 ~ Step 7 of the item 1 in checking procedures for each P.C.B..



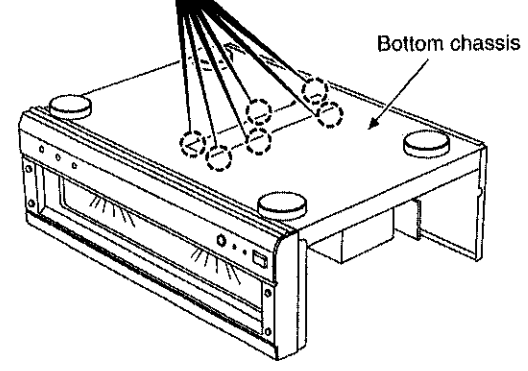
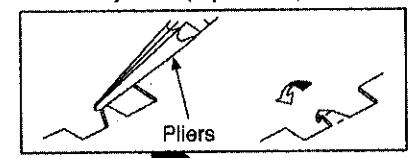
### 2. Replacement for the power IC and regulator transistor

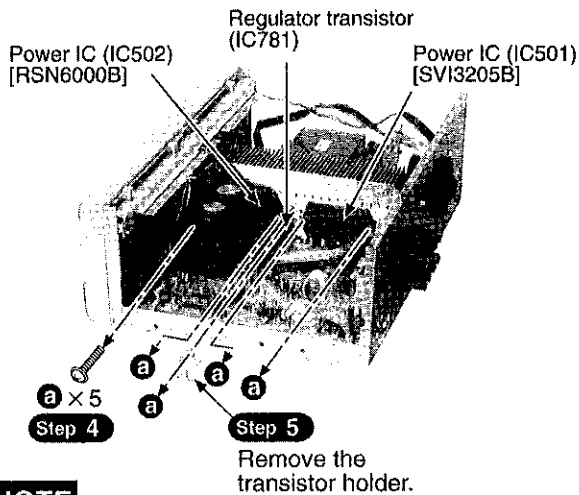
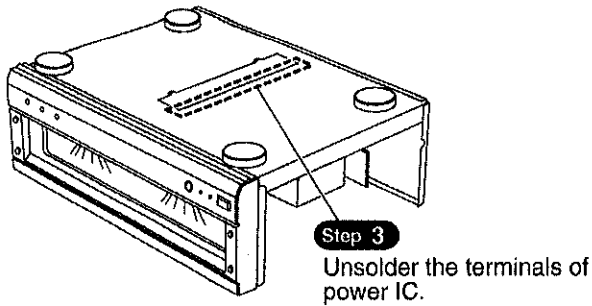
• Follow the Step 1 ~ Step 3 of the item 1 in checking procedures for each P.C.B..

**Step 1**  
Cut the joints as shown below. (6 portions)



**Step 2**  
Fold the joints. (6 portions)



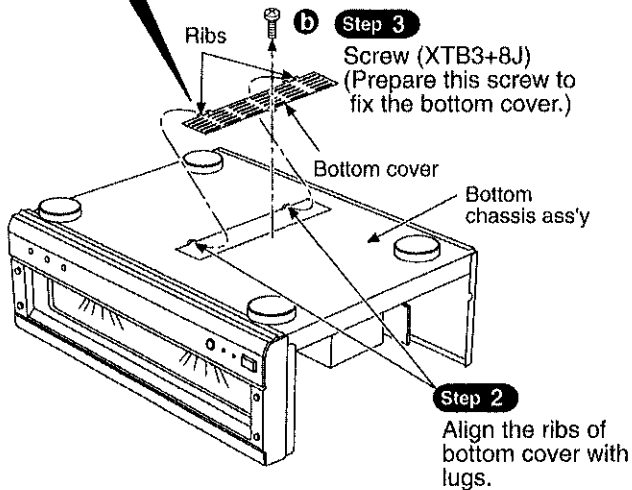
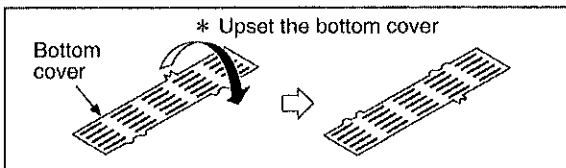


#### NOTE

1. After replacing the power IC or regulator transistor, apply a sufficient quantity of compound grease (RFKX0002) between the heat sink and the power IC or regulator transistor (Radiation of power IC and regulator transistor).
2. Tighten enough the screws (a) after replacing the power IC and regulator transistor. Otherwise, the heat radiation works little.

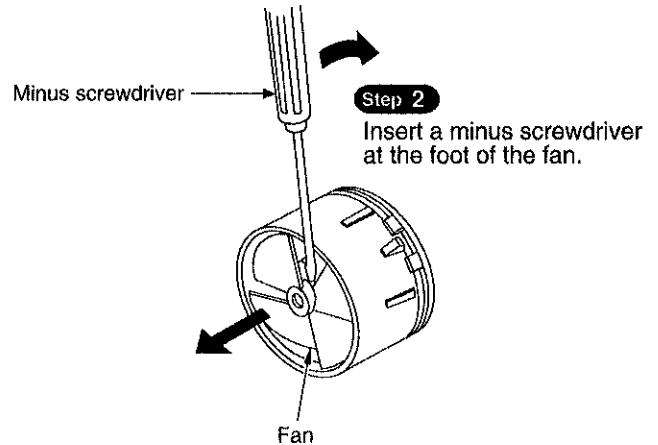
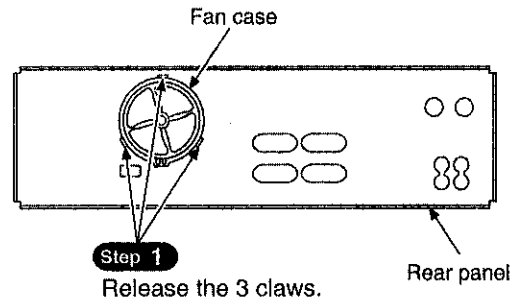
#### Installation of the bottom cover after replacement

##### Step 1



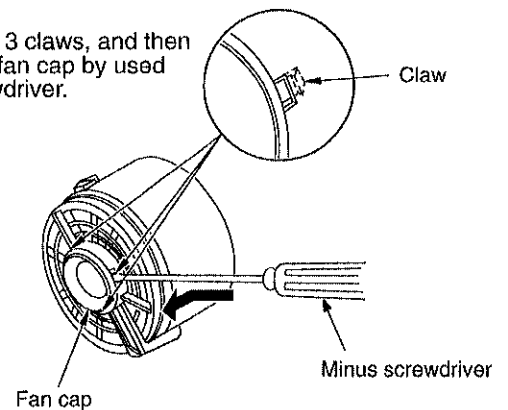
### 3. Replacement for the fan motor

- Follow the **Step 1** ~ **Step 3**, **Step 8** ~ **Step 13** of the item 1 in checking procedures for each P.C.B..



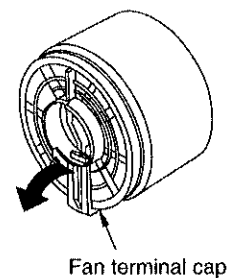
##### Step 3

- Release the 3 claws, and then remove the fan cap by used minus screwdriver.



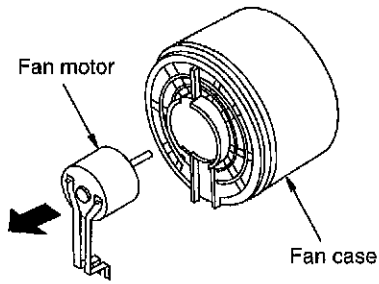
##### Step 4

- Remove the fan terminal cap in the direction of arrow.



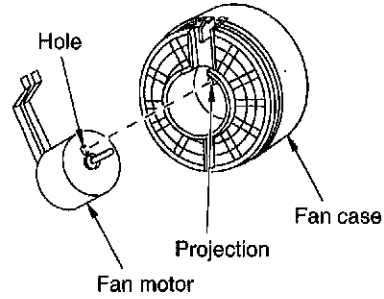
**Step 5**

Remove the fan motor from the fan case.



**Installation of the fan motor after replacement**

• When mounting the fan motor, align the fan casing's projection with the hole of the fan motor.



## 7 Type Illustration of ICs, Transistors and Diodes

<p>M5218AP</p>	<p>UPD4027BC</p>	<p>AN7062N</p>	<p>0N3131R</p>	<p>BA6138</p>	<p>AN78L05TA</p>
<p>RSN6000B SVI3205B</p>	<p>2SD2374PQAU</p>	<p>2SA992EFPTA 2SA1123RSTTA 2SC2631RSTTA</p>	<p>2SC3940AQSTA</p>	<p>2SA1309ARTA 2SC3311ARTA UN4111TA UN4215TA</p>	
<p>2SJ105GRYTA 2SK330GRYTA</p>	<p>MA165TA MA29WATA MA167TA</p>	<p>MA167ATA 1SS291TA</p>	<p>1SR35200TB</p>	<p>P300DLF</p>	<p>SLR-305VC</p>
<p>MA4036MTA MA4056MTA MA4068LTA</p>	<p>MA4100MTA MA4160MTA MA4220MTA</p>				

## 8 Schematic Diagram

### 8.1. Schematic Diagram Notes

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

#### Notes:

**S801:** Unit on/off switch ( ■ ⏻ ■  
⏻ /I)

**S802:** Speaker select switch (SPEAKER A)

**S803:** Speaker select switch (SPEAKER B)

**S804:** Power meter light switch (METER LIGHT)

**VR401,402:** Input level control VR (LEVEL CONTROL)

**VR909:** Power meter adjustment VR (L ch)

**VR910:** Power meter adjustment VR (R ch)

- 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 manufacturers 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.

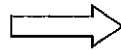
Cover the parts boxes made of plastics with aluminum foil.

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



: Source signal line



: Positive voltage line

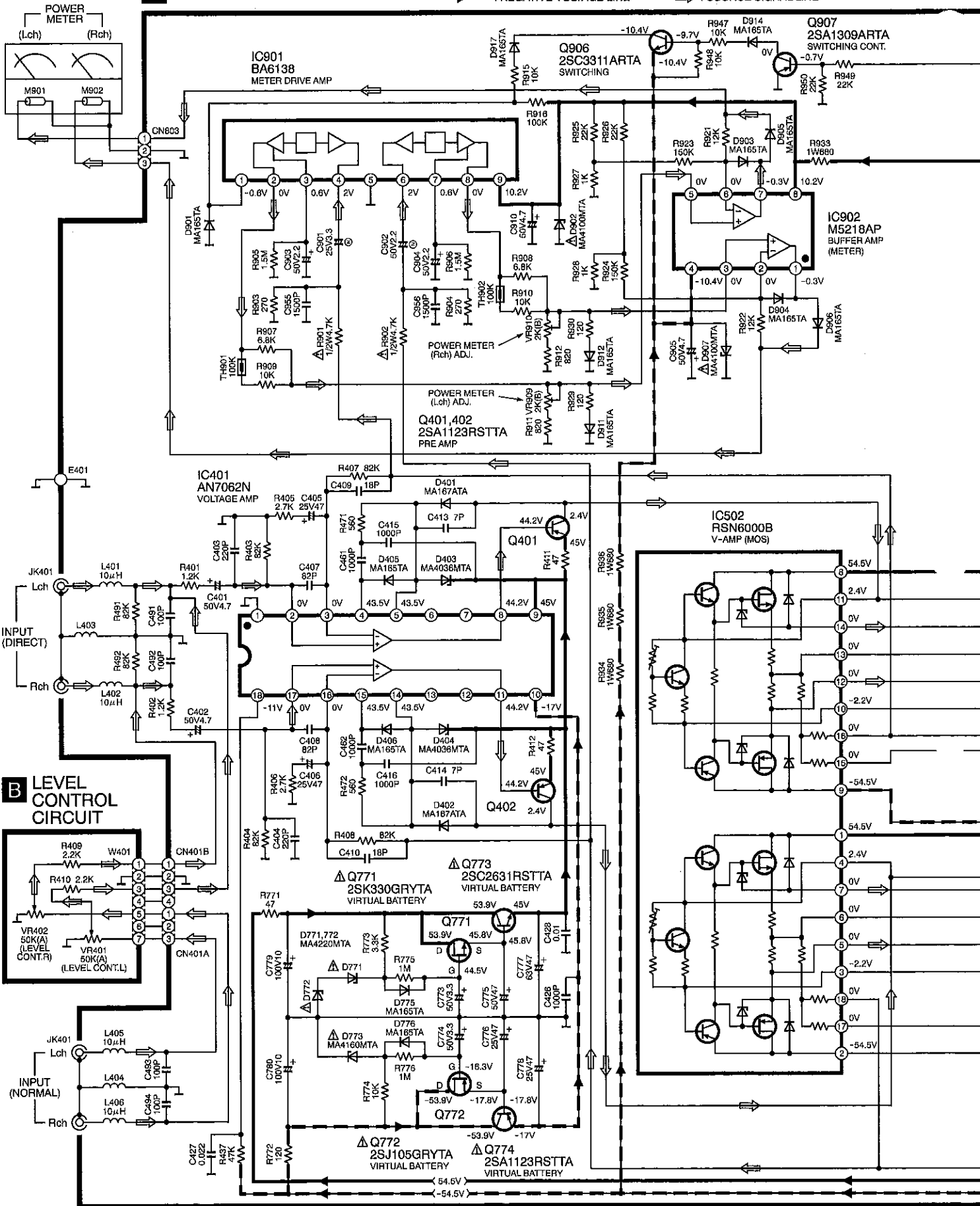


: Negative voltage line

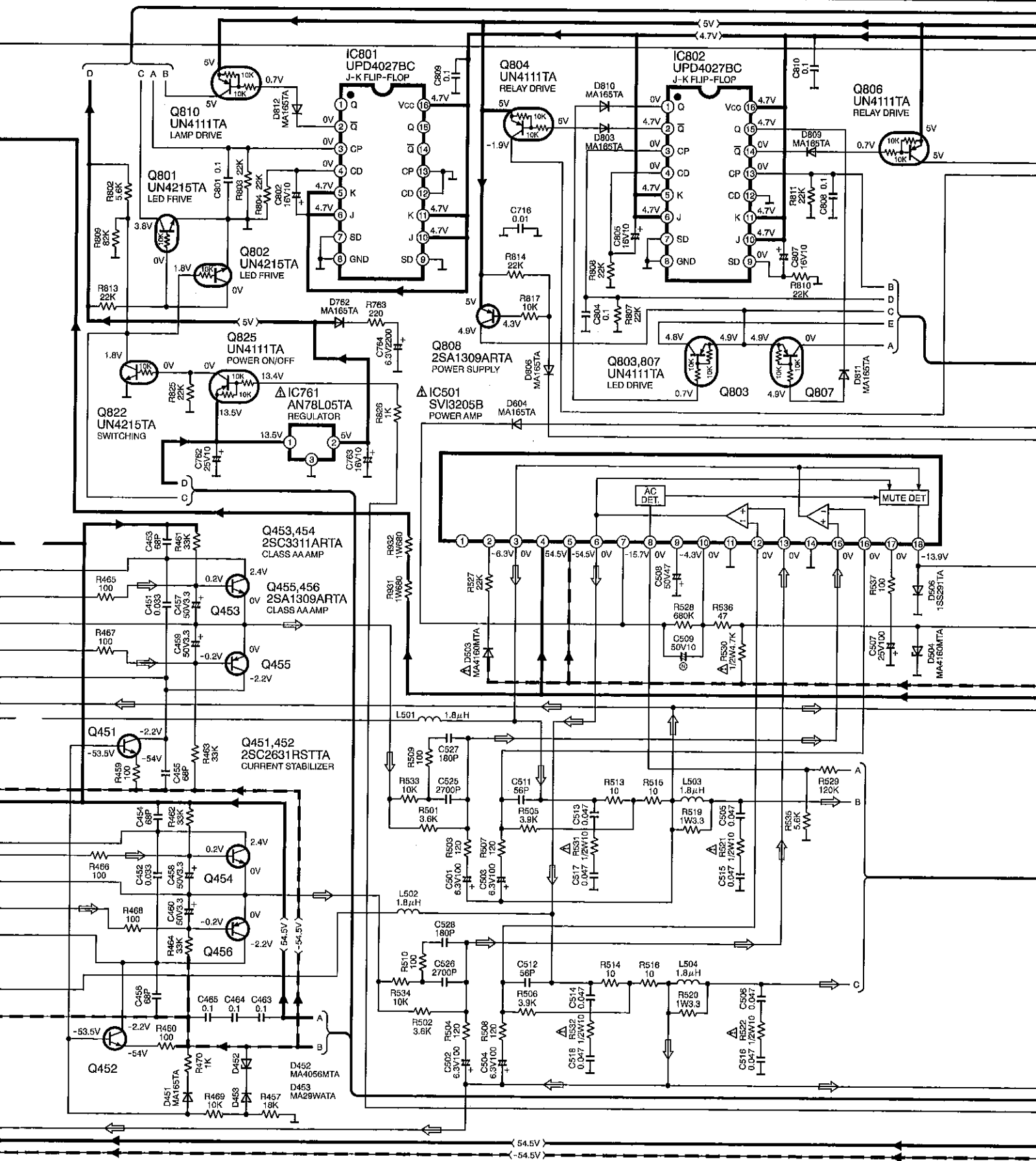
# 8.2. Schematic Diagram

## A MAIN CIRCUIT




: POSITIVE VOLTAGE LINE  
 : NEGATIVE VOLTAGE LINE  
 : SOURCE SIGNAL LINE

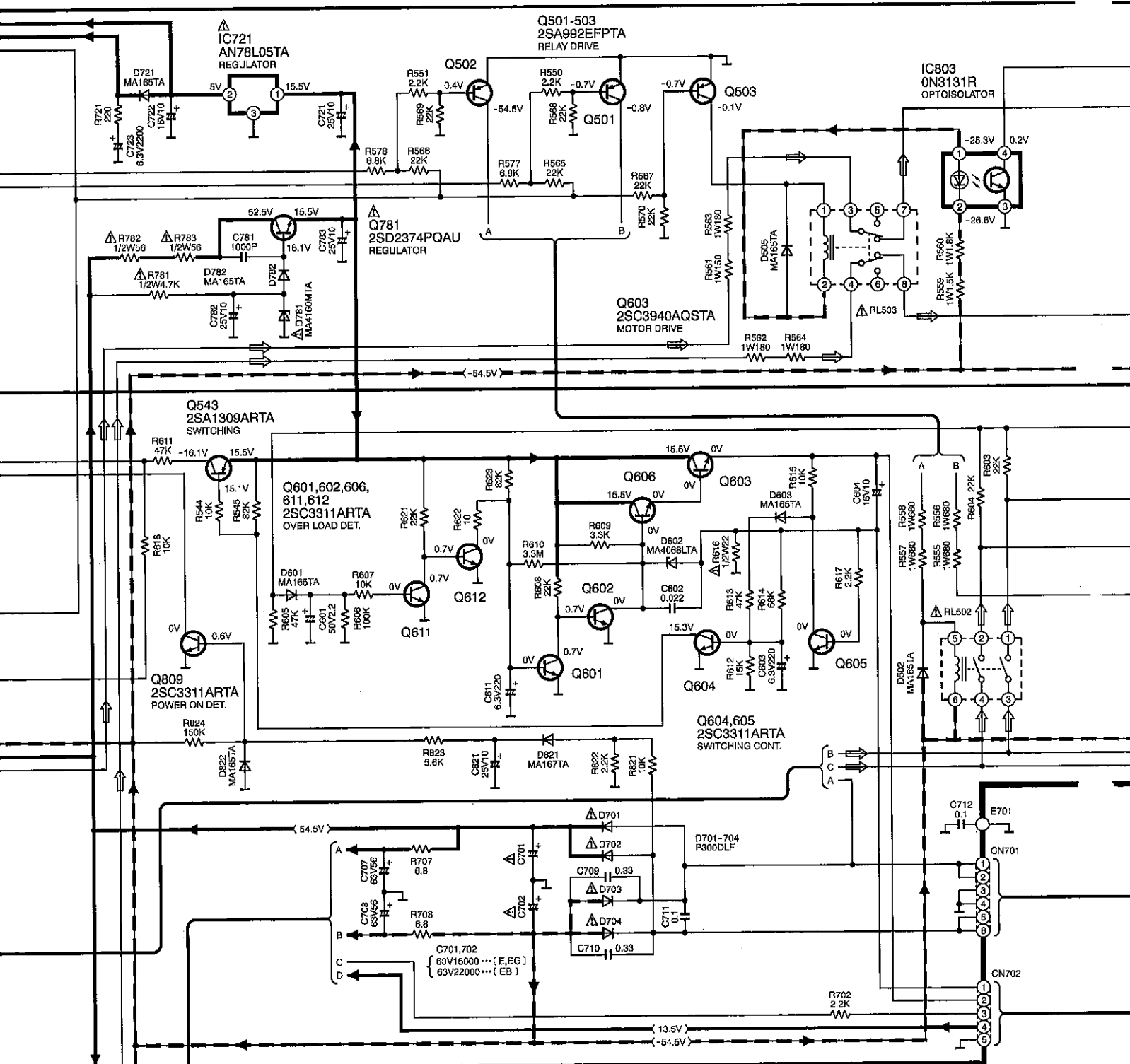


——— : POSITIVE VOLTAGE LINE  
 - - - - : NEGATIVE VOLTAGE LINE  
 ⇨ : SOURCE SIGNAL LINE

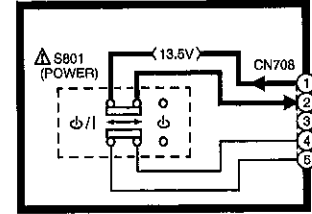


# A MAIN CIRCUIT

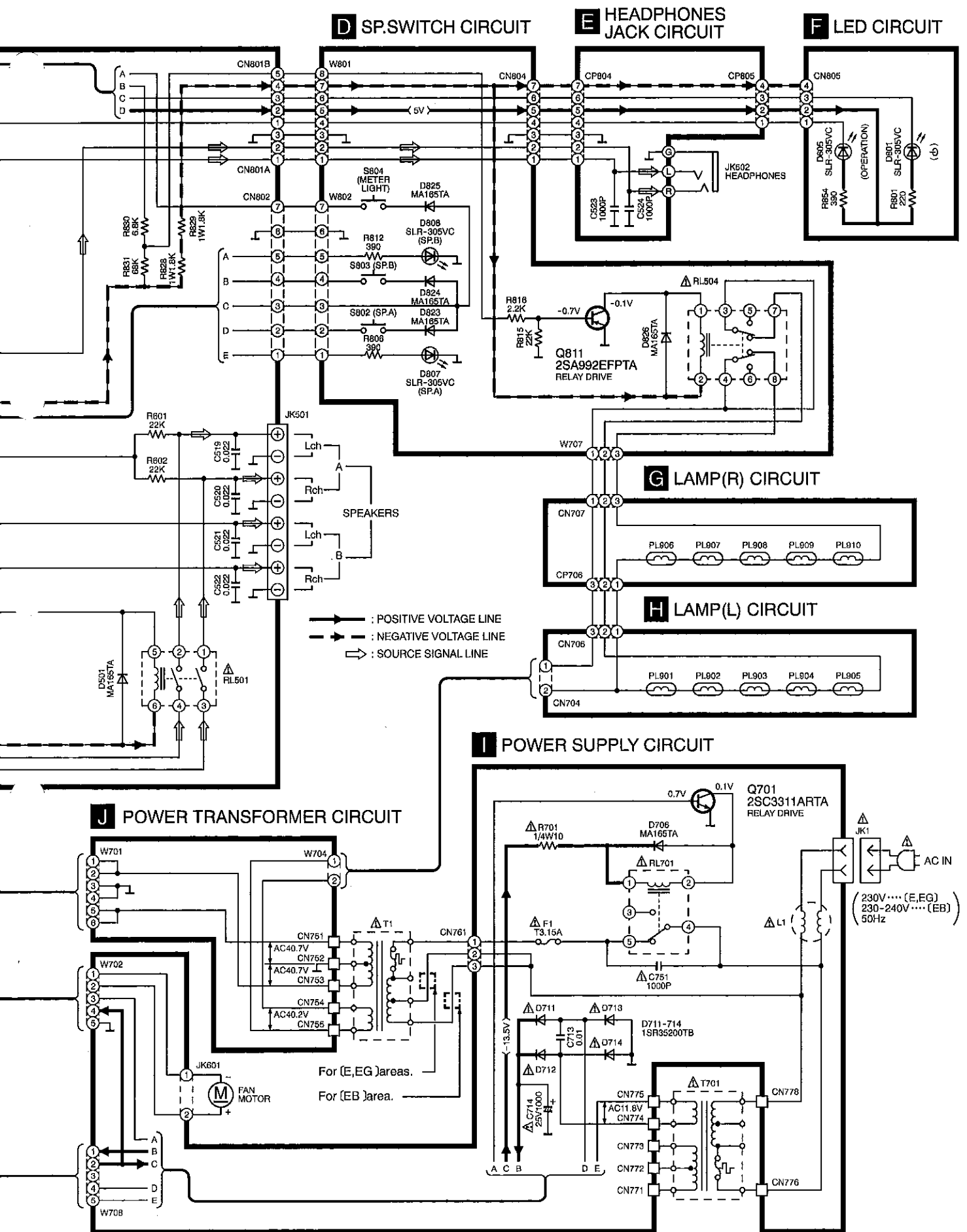
 : POSITIVE VOLTAGE LINE  
 : NEGATIVE VOLTAGE LINE  
 : SOURCE SIGNAL LINE



# C POWER SWITCH CIRCUIT



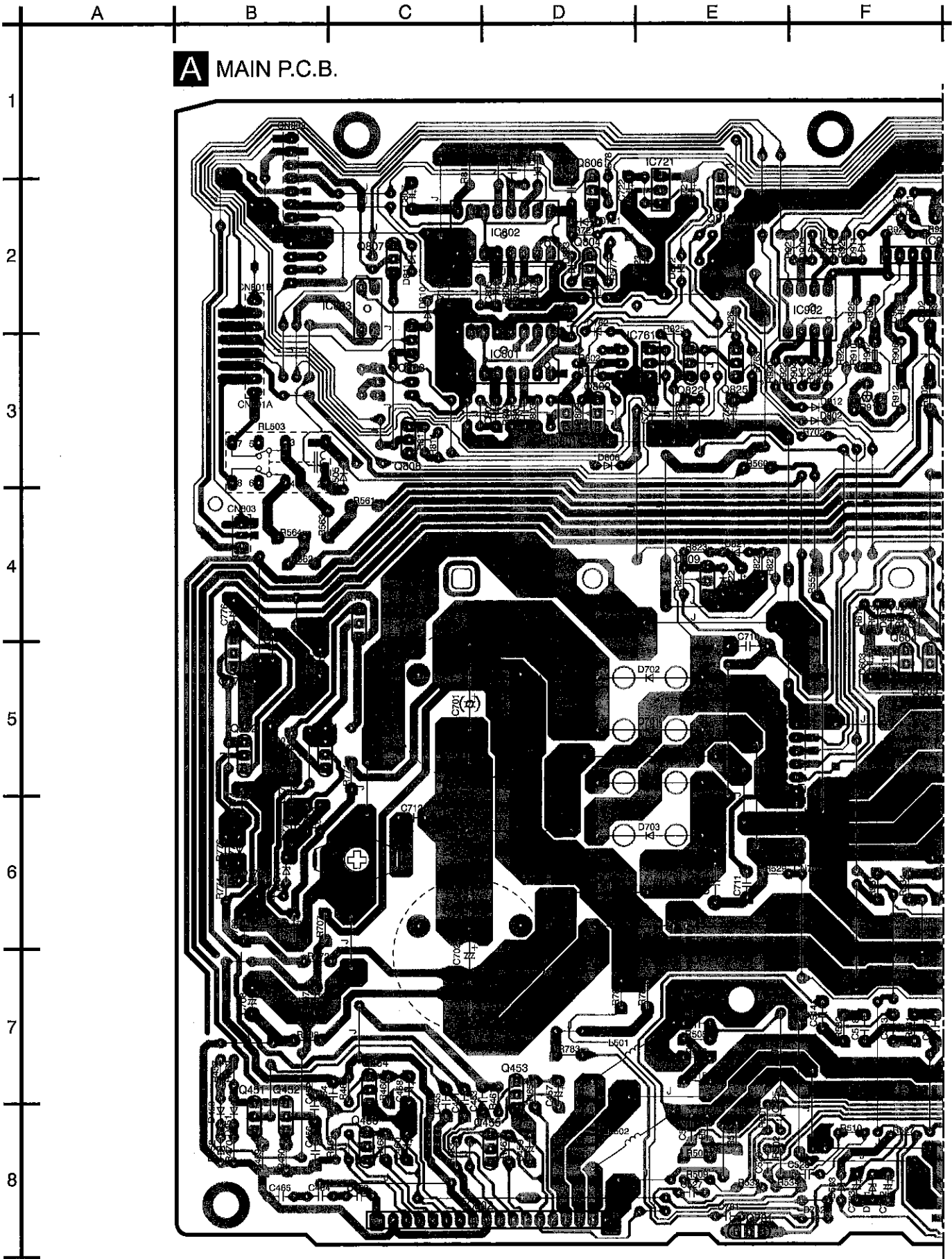


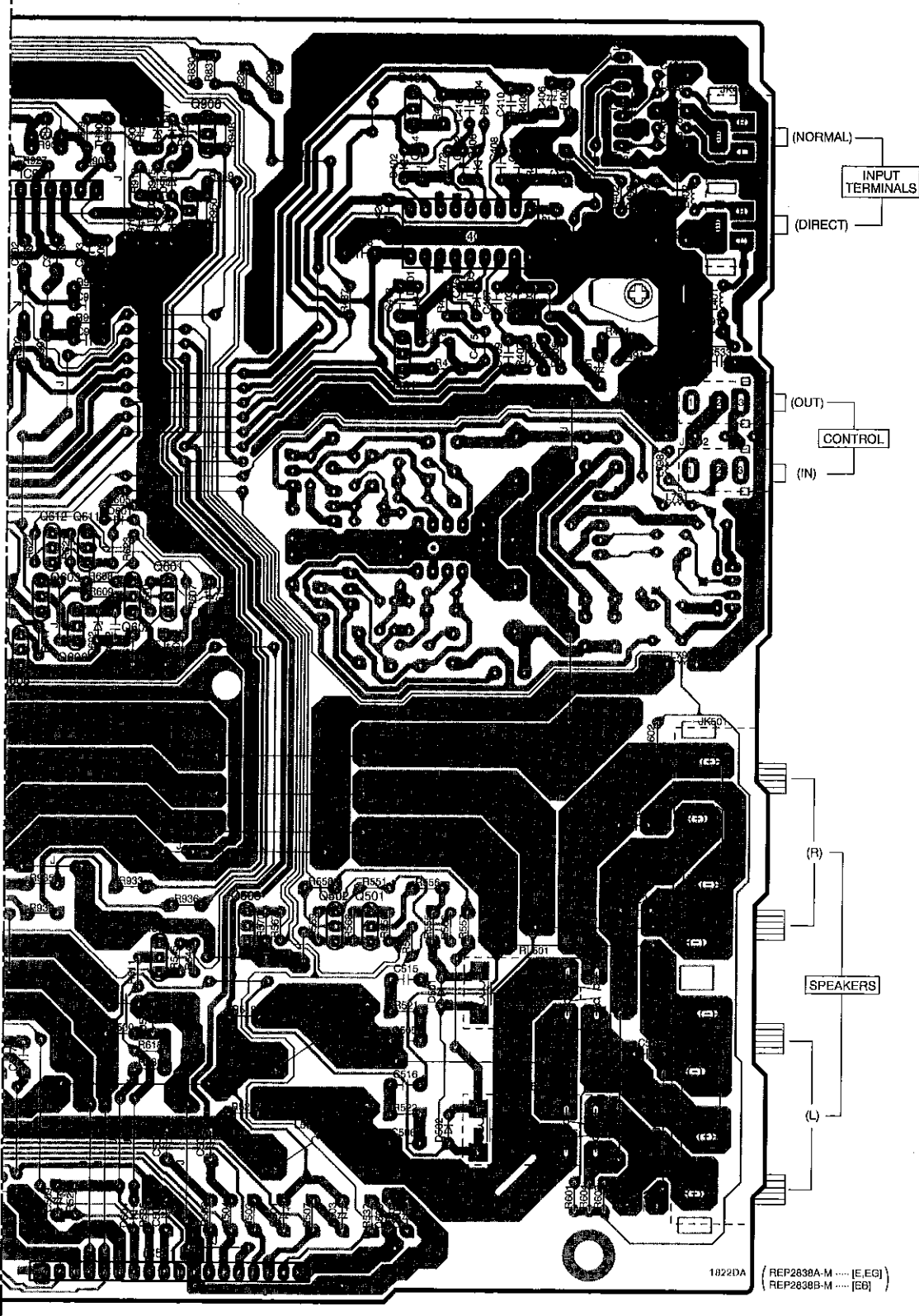
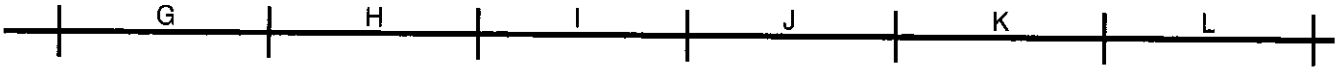


— : POSITIVE VOLTAGE LINE  
 - - - : NEGATIVE VOLTAGE LINE  
 — : SOURCE SIGNAL LINE

# 9 Printed Circuit Board Diagram

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



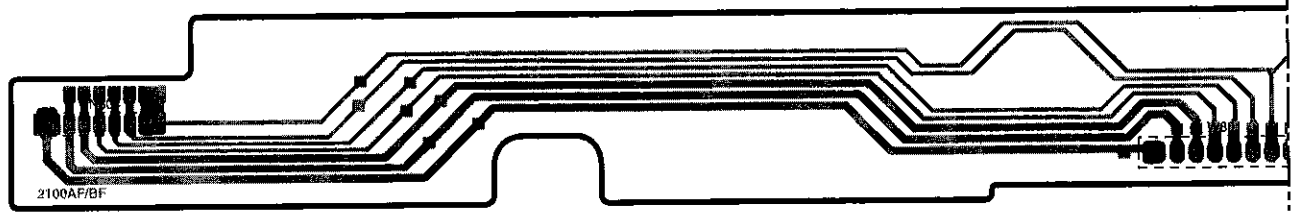


A B C D E F

**ELECTRICAL PARTS LOCATION**

Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.
<b>A MAIN P.C.B.</b>															
IC401	2I	D405	3I	L401	3K	R469	7B	R568	6I	R822	4E	C410	1I	C533	3K
IC501	8G	D406	2I	L402	2J	R470	8B	R569	6H	R823	4E	C413	3I	C601	5G
IC502	8D	D451	8B	L403	2J	R471	3I	R570	6H	R824	4E	C414	2I	C602	5G
IC721	2E	D452	8B	L404	2J	R472	2I	R577	2D	R825	2E	C415	3I	C603	5F
IC761	3E	D453	8B	L405	2J	R491	3I	R578	2D	R826	2E	C416	2I	C604	4F
IC801	3D	D501	7I	L406	1J	R492	2J	R601	8J	R828	1H	C426	2I	C811	4H
IC802	2D	D502	7I	L501	7D	R501	8E	R602	5J	R829	1H	C427	2J	C701	5C
IC803	2C	D503	8F	L502	8D	R502	8E	R603	8J	R830	1H	C428	2I	C702	7C
IC901	2G	D504	7G	L503	7H	R503	8H	R604	8J	R831	1H	C451	7C	C707	7B
IC902	2F	D505	3C	L504	7H	R504	8H	R605	4G	R901	3G	C452	8B	C708	7B
Q401	3I	D506	8I	L791	4J	R505	7E	R606	5G	R902	3F	C453	7C	C709	6E
Q402	2I	D601	4G	L797	5J	R506	8E	R607	4H	R903	3G	C454	7C	C710	5E
Q451	8B	D602	5G	L798	4J	R507	8H	R608	4G	R904	3G	C455	7C	C711	6E
Q452	8B	D603	4F	RL501	7J	R508	8H	R609	4G	R905	2G	C456	8B	C712	6C
Q453	7D	D604	8G	RL502	7J	R509	8E	R610	4G	R906	3F	C457	7D	C716	2C
Q454	7C	D701	5E	RL503	3B	R510	8F	R611	7G	R907	2G	C458	7C	C721	2E
Q455	8D	D702	5E	CN401A	2J	R513	7E	R612	5F	R908	2F	C459	8D	C722	2D
Q456	8C	D703	6E	CN401B	1J	R514	8E	R613	4F	R909	2G	C460	8C	C723	2E
Q501	6I	D704	5E	CN701	6F	R515	7E	R614	4F	R910	3F	C461	3I	C762	3E
Q502	6H	D721	2D	CN702	5F	R516	8E	R615	4F	R911	2F	C462	2I	C763	3E
Q503	6H	D762	2D	CN801A	3B	R519	7H	R616	5G	R912	3F	C463	8C	C764	3E
Q543	6G	D771	6B	CN801B	2B	R520	7H	R617	5G	R915	2G	C464	8B	C773	5B
Q601	4G	D772	6B	CN802	1B	R521	7I	R618	7G	R916	2G	C465	8B	C774	6B
Q602	4G	D773	6B	CN803	4B	R522	7I	R621	4G	R921	2F	C491	3K	C775	5B
Q603	4G	D775	6B	JK401	2K	R527	8F	R622	4G	R922	3E	C492	2J	C776	4B
Q604	5F	D776	6B	JK501	5K	R528	8G	R623	4G	R923	2F	C493	2J	C777	5B
Q605	5F	D781	8F	JK801	3K	R529	6E	R702	3F	R924	3F	C494	1J	C778	5B
Q606	5G	D782	8F	JK802	4K	R530	7G	R707	6B	R925	2F	C501	8H	C779	6B
Q611	4G	D802	3F	E401	3J	R531	7F	R708	7B	R926	2F	C502	8H	C780	6B
Q612	4G	D803	2D	E701	6C	R532	7F	R721	2D	R927	2G	C503	8H	C781	8E
Q771	5B	D806	3D	R401	3J	R533	8E	R763	3E	R928	3F	C504	8G	C782	8F
Q772	5B	D809	1D	R402	2J	R534	8E	R771	5C	R929	2F	C505	7I	C783	8F
Q773	4C	D810	2C	R403	3J	R535	8G	R772	7B	R930	3E	C506	7I	C801	3D
Q774	5B	D811	2C	R404	2J	R536	7G	R773	6B	R931	6F	C507	8I	C802	3D
Q781	8E	D812	2E	R405	3J	R537	8I	R774	6B	R932	6G	C508	8G	C804	2D
Q801	3D	D821	4E	R406	1J	R544	6H	R775	6B	R933	6G	C509	8G	C805	2D
Q802	3D	D822	4E	R407	3I	R545	6G	R776	6B	R934	6F	C511	7E	C807	2C
Q803	3C	D901	2G	R408	1I	R550	6I	R781	7D	R935	6G	C512	8E	C808	1D
Q804	2D	D902	2G	R411	3I	R551	6I	R782	7E	R936	6H	C513	7F	C809	2D
Q806	2D	D903	2F	R412	2I	R555	6I	R783	7D	R947	2H	C514	7F	C810	2D
Q807	2C	D904	3F	R437	3H	R556	6I	R802	3D	R948	2H	C515	7I	C821	4E
Q808	3C	D905	2F	R457	7B	R557	6I	R803	3D	R949	2H	C516	7I	C901	2G
Q809	4E	D906	3F	R459	8B	R558	6H	R804	3D	R950	2H	C517	7F	C902	2F
Q810	2E	D907	2G	R460	8B	R559	4F	R807	2D	C401	3J	C518	7F	C903	2G
Q822	3E	D911	2F	R461	7D	R560	3E	R808	2D	C402	2J	C519	7J	C904	2F
Q825	3E	D912	3F	R462	7C	R561	4C	R809	3D	C403	3I	C520	6J	C905	2G
Q906	2H	D914	2G	R463	8C	R562	4B	R810	1C	C404	2I	C521	8J	C910	2G
Q907	2H	D917	2G	R464	8C	R563	4B	R811	1D	C405	3J	C522	6J	C955	3G
D401	3I	VR909	2G	R465	7D	R564	4B	R813	3D	C406	1J	C525	8E	C956	3G
D402	2I	VR910	3F	R466	7C	R565	6I	R814	3C	C407	3I	C526	8E		
D403	3I	TH901	2G	R467	8D	R566	6I	R817	3C	C408	2I	C527	8E		
D404	2I	TH902	3F	R468	8C	R567	6H	R821	4E	C409	3I	C528	8F		
<b>D SP. SWITCH P.C.B.</b>															
Q811	8G	D823	8I	D826	8H	S804	7I	W707	8H	R806	8J	R816	8G		
D807	8J	D824	7I	S802	7J	RL504	8H	W801	8F	R612	8K				
D808	8K	D825	8I	S803	7K	CN804	8A	W802	8L	R815	8G				

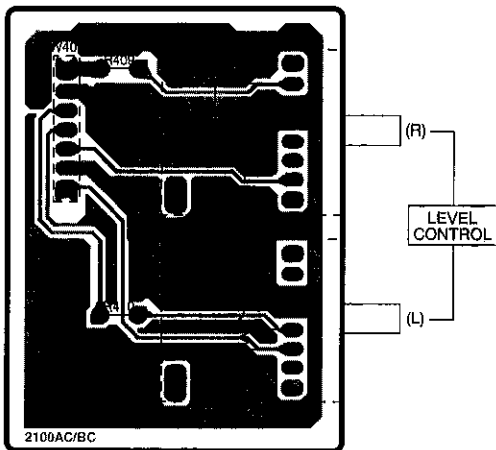
**D SP. SWITCH P.C.B.**



(REP2839AB-S ..... [E,EG])  
 (REP2839BB-S ..... [EB])

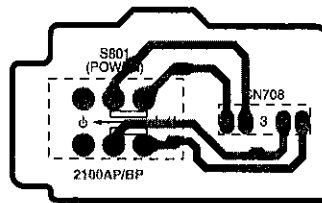


**B** LEVEL CONTROL P.C.B.



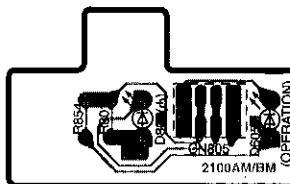
2100AC/BC  
 (REP2839AA-S ..... [E,EG])  
 (REP2839BA-S ..... [EB])

**C** POWER SWITCH P.C.B.



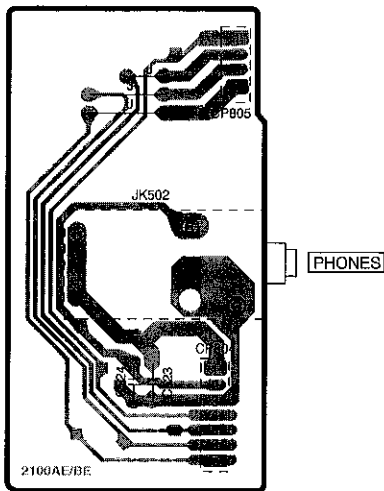
(REP2839AB-S ..... [E,EG])  
 (REP2839BB-S ..... [EB])

**F** LED P.C.B.



(REP2839AB-S ..... [E,EG])  
 (REP2839BB-S ..... [EB])

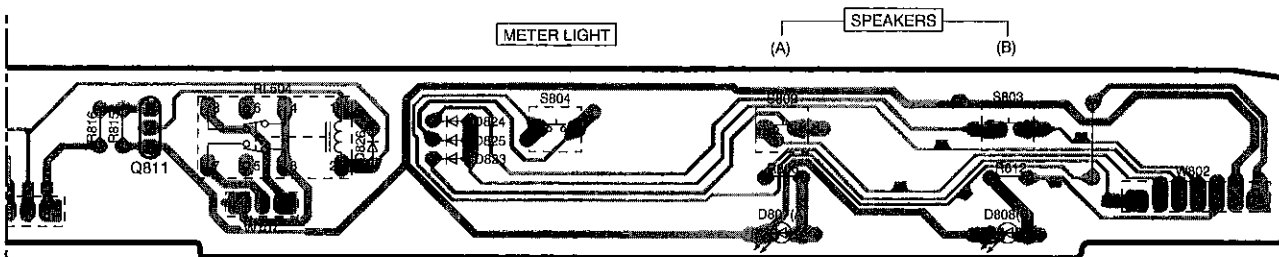
**E** HEADPHONES JACK P.C.B.



2100AE/BE  
 (REP2839AB-S ..... [E,EG])  
 (REP2839BB-S ..... [EB])

**ELECTRICAL PARTS LOCATION**

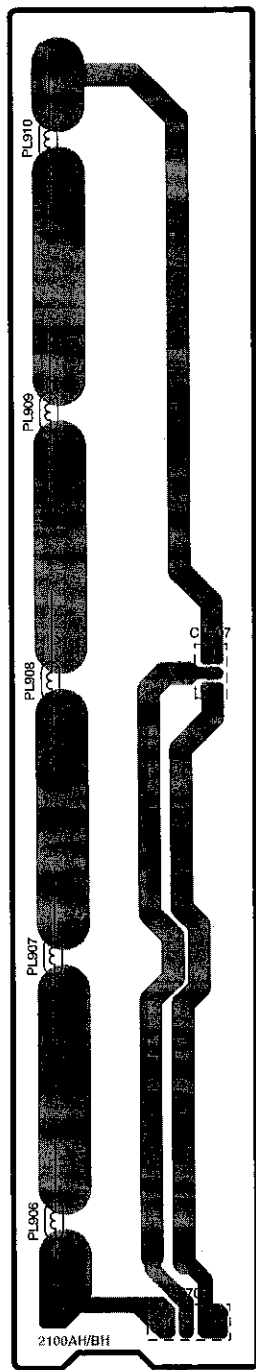
Ref. No.	Lo. No.	Ref. No.	Lo. No.
<b>B</b> LEVEL CONTROL P.C.B.			
VR401	3H	R409	1G
VR402	2H	R410	3G
W401	2G		
<b>C</b> POWER SWITCH P.C.B.			
S801	2J	CN708	2K
<b>E</b> HEADPHONES JACK P.C.B.			
JK502	5H	C523	8H
CP804	6H	C524	6H
CP805	4H		
<b>F</b> LED P.C.B.			
D605	3K	R801	3J
D801	3K	R854	3J
CN805	3K		



A B C D E F

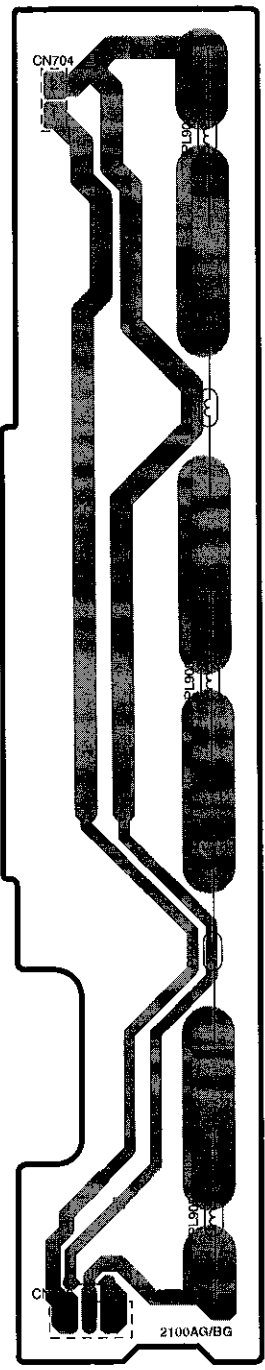
1  
2  
3  
4  
5  
6  
7  
8

**G** LAMP(R) P.C.B.



(REP2839AB-S ..... [E,EG])  
(REP2839BB-S ..... [EB])

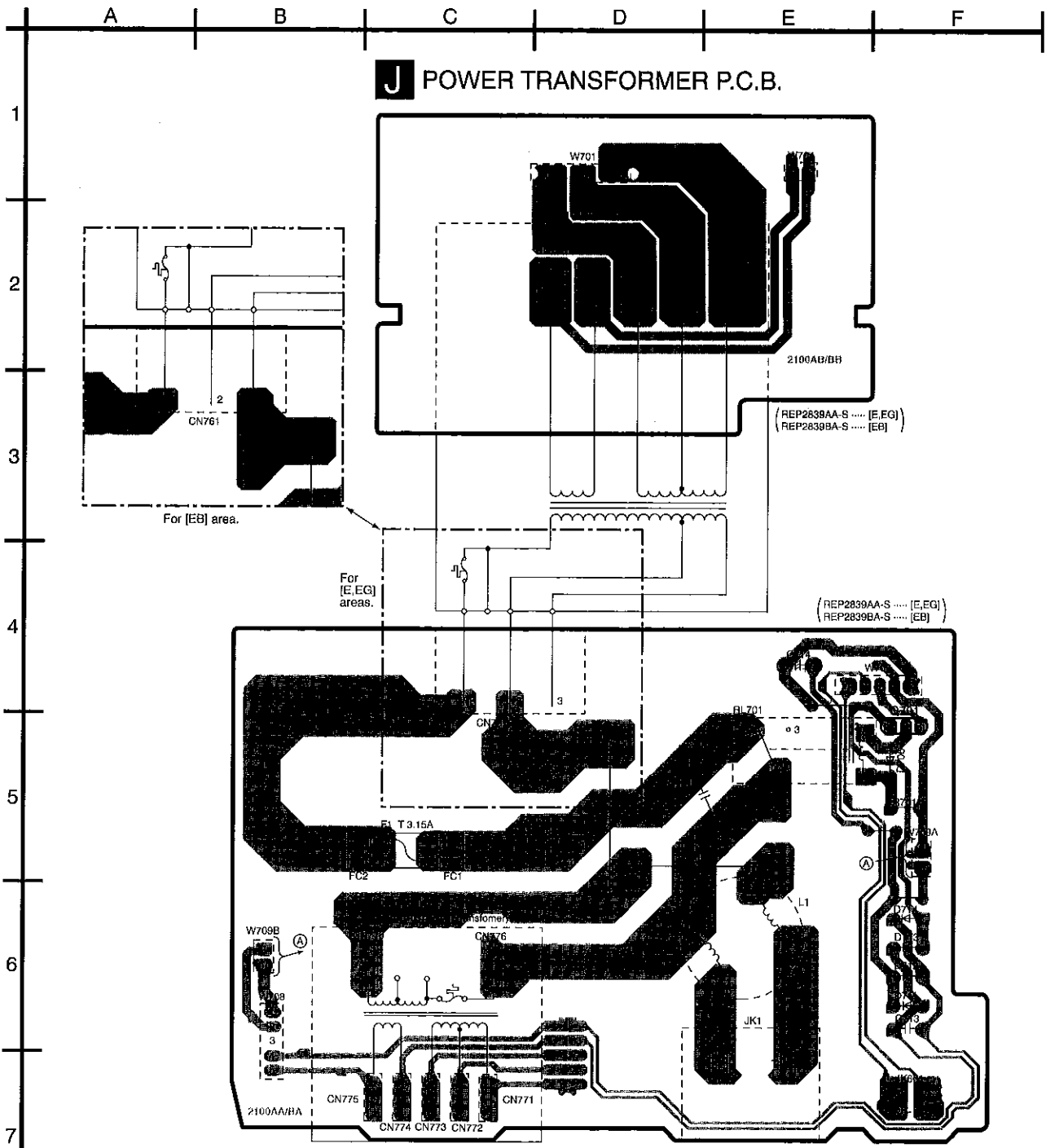
**H** LAMP(L) P.C.B.



(REP2839AB-S ..... [E,EG])  
(REP2839BB-S ..... [EB])

**ELECTRICAL PARTS LOCATION**

Ref. No.	Lo. No.	Ref. No.	Lo. No.
<b>G</b> LAMP(R) P.C.B.			
PL906	7A	PL910	2A
PL907	6A	CN707	4B
PL908	4A	CP706	7B
PL909	3A		
<b>H</b> LAMP(L) P.C.B.			
PL901	2D	PL905	7D
PL902	3D	CN704	2C
PL903	4D	CN706	7C
PL904	6D		



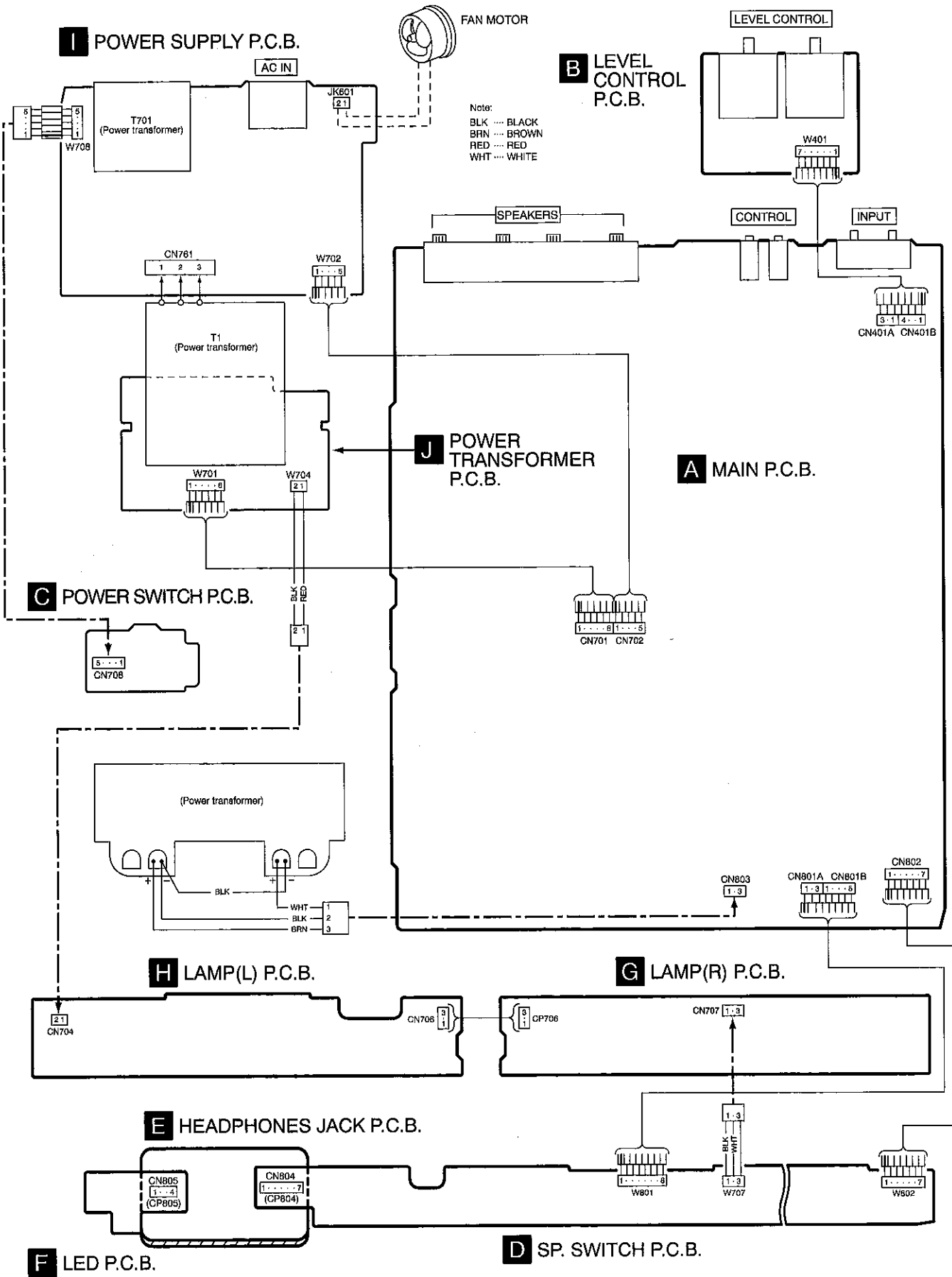
**I POWER SUPPLY P.C.B.**

AC IN  
 (230V 50Hz ..... [E,EG])  
 (230-240V 50Hz .... [EB])

**ELECTRICAL PARTS LOCATION**

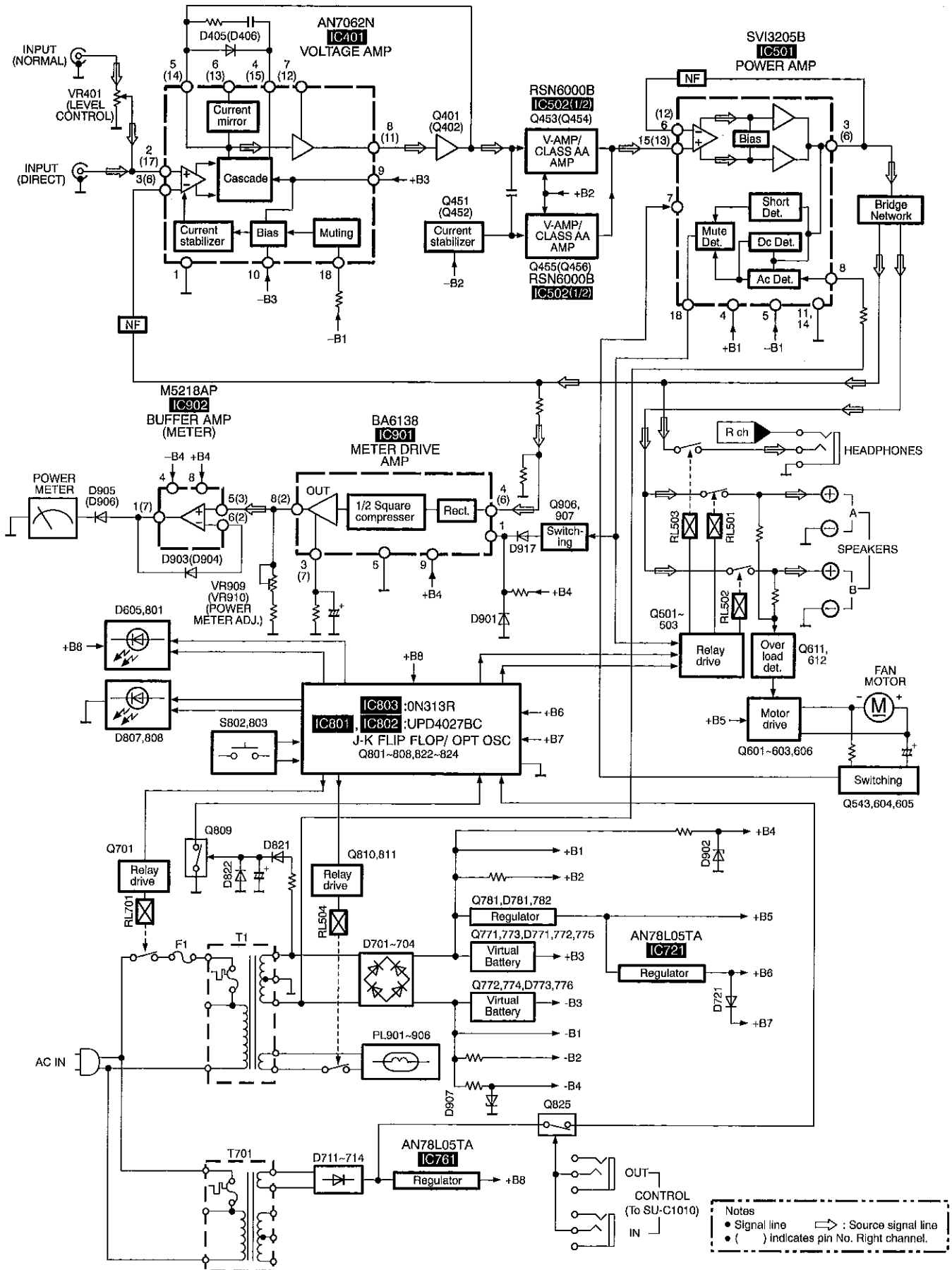
Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.
<b>J POWER TRANSFORMER P.C.B.</b>															
T1	2D	CN751	2E	CN752	2D	CN753	2D	CN754	2D	CN755	2D	W701	1D	W704	1E
<b>I POWER SUPPLY P.C.B.</b>															
Q701	5F	D713	6F	L1	6E	CN772	7C	CN776	6C	FC1	5C	W709A	5F	C714	4E
D706	5F	D714	6F	RL701	5E	CN773	7C	CN778	6C	FC2	5B	W709B	6B	C751	5E
D711	6F	T701	6C	CN761	4C	CN774	7C	JK1	7E	W702	4F	R701	5F		
D712	6F	F1	5C	CN771	7C	CN775	7C	JK601	7F	W708	6B	C713	6F		

# 10 Wiring Connection Diagram





# 11 Block Diagram



Notes  
 • Signal line      ⇨ : Source signal line  
 • ( ) indicates pin No. Right channel.

# 12 Measurements and Adjustments

## 12.1. Measuring Instruments and Special Tools

- AC electronic voltmeter (AC EVM)
- AF oscillator

## 12.2. Power Meter Adjustment

1. Test equipment connection is shown in Fig.1
2. Before turning ON the set, adjust VR909 (L ch) and VR910 (R ch) to mechanical center position. (Shown in Fig.2)
3. Turn the power ON, make sure that the power meter is mechanically adjusted to 0 point. (Shown in Fig.3)
4. Apply a 1 kHz signal to the input terminal so that the output voltage of speaker terminal is 8.9 - 9.0 V. (Adjust the signal level with the attenuator of AF oscillator.)
5. Adjust VR909 (L ch) and VR910 (R ch) so that the power meter indicates 10 W. (Shown in Fig.4)

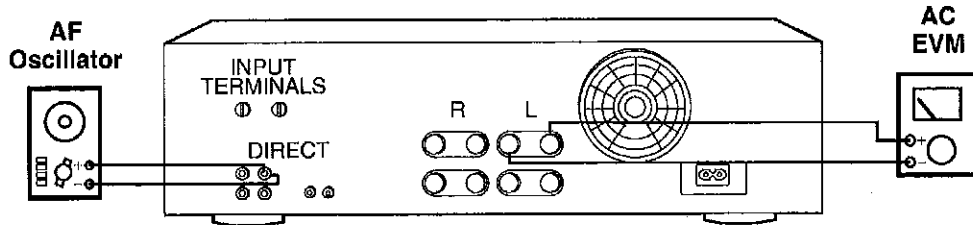


Fig.1

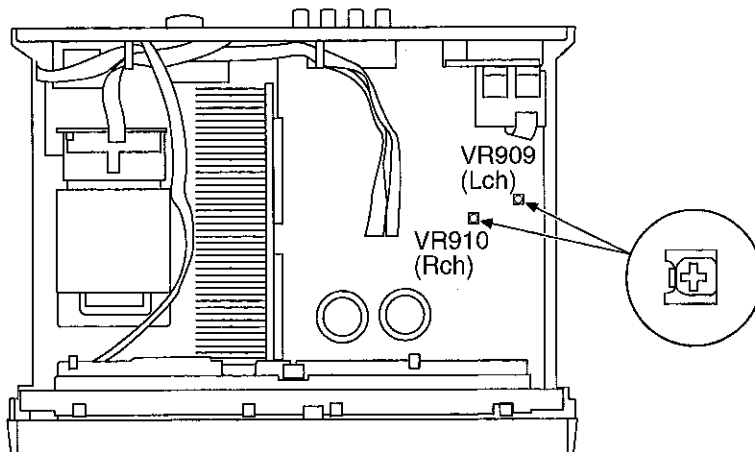


Fig.2

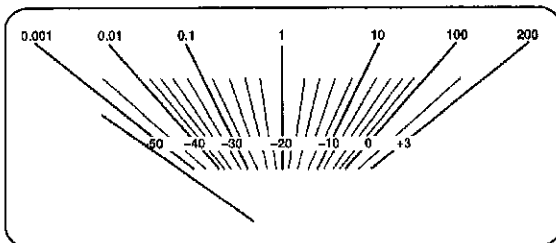


Fig.3

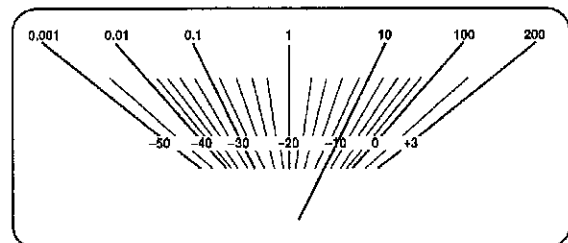


Fig.4

# 13 Replacement Parts List

## Notes:

- Important safety notice:

Components identified by  $\Delta$  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 manufactures specified parts shown in the parts list.

- The mark in Remarks indicates as follow.

- Language of instruction manual.

<IA> : English, Spanish, Swedish, Russian, Polish, Czech

<IB> : English

<IC> : German, Italian, French

<ID> : Dutch, Danish

- Specify the colours

<K> : For Black Type.

<N> : For Gold Type

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

- The marking (RTL) indicates that Retention Time is Limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

- All parts are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
1	RKM0041A-K2	TOP COVER	1	<K>
1	RKM0041A-N	TOP COVER	1	<N>
2	XTBS3+8JFZ1	SCREW	2	
3	SNE2129-3	SCREW	4	<K>
3	SNE2129-2	SCREW	4	<N>
4	RGW0048	BUTTON, VR	2	
5	RHN90001	NUT	2	
6	RKA0053-A	FOOT	4	
6-1	RMG0270-K	RUBBER	4	
7	RMG0332-K	RUBBER	2	
8	RMN0217-1	PCB HOLDER	1	
9	RGB0031-A	TECHNICS BADGE	1	
10	RGG0166-K	PANEL1	1	<K>
10	RGG0166-N	PANEL1	1	<N>
11	RGG0167-K1	PANEL2	1	<K>
11	RGG0167-N1	PANEL2	1	<N>
12	RGL0301-Q	PANEL LIGHT A	1	
13	RGL0302-Q	PANEL LIGHT B	1	
14	RGP0720-K	PANEL	1	<K>
14	RGP0720-N	PANEL	1	<N>
15	RGU0890-1K	BUTTON, POWER	1	<K>
15	RGU0890-1N	BUTTON, POWER	1	<N>
16	RGU1271-1K	BUTTON, SPEAKER	3	<K>
16	RGU1271-N	BUTTON, SPEAKER	3	<N>
17	RHD26016	SCREW	1	
18	RHD26033	SCREW	4	
19	RKW0584-Q	WINDOW	1	
20	RMG0509-K	CAP	4	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
21	RSE0006D	POWER METER	1	
22	XTBS26+8J	SCREW	21	
23	XTBS3+8JFZ1	SCREW	20	
24	XTB3+20JFZ	SCREW	9	
25	XTB3+6G	SCREW	4	
26	XTB3+8JFZ	SCREW	9	
27	XTW3+15T	SCREW	5	
28	REZ1232	WIRE ASS'Y	1	
29	REX0741	WIRE ASS'Y	1	
30	REZ1233	WIRE ASS'Y	1	
31	REZ1263	WIRE ASS'Y	1	
32	REM0020-1	FAN UNIT	1	
32-1	MDN-4RB4MRC	FAN MOTOR	1	
32-2	RMQ0208-K	FAN MOTOR COVER	1	
32-3	RMQ0209-K	FAN CASE	1	
32-4	RMQ0212-K	FAN TERMINAL	1	
32-5	SHE232-1	FAN	1	
32-6	SUS271	SPRING	1	
33	RHD30053	SCREW	1	
34	RMZ0354	BARRIER	2	
35	RMR1110-K	SP TERMINAL COVER	8	
A1	$\Delta$ RJA0019-X	AC POWER SUPPLY CORD	1	(E, EG)
A1	$\Delta$ RJA0053-2X	AC POWER SUPPLY CORD	1	(EB)
A2	SJP2257T	REMOTE CONT. CORD	1	
A3	RQCB0169	SERVICE CENTER LIST	1	
A4	RQA0117	WARRANTY CARD	1	
A5	RQT5000-E	OPERATING INSTRUCTIONS	1	(E) <IA>
A6	RQT5003-B	OPERATING INSTRUCTIONS	1	(EB) <IB>
A7	RQT5001-D	OPERATING INSTRUCTIONS	1	(EG) <IC>
A8	RQT5002-H	OPERATING INSTRUCTIONS	1	(EG) <ID>
C401,0	ECA1HPXS4R7	50V 4.7U	2	
2	B			
C403,0	ECKT1H221KB	50V 220P	2	
4				
C405,0	ECA1EPXS470	25V 47U	2	
6	B			
C407,0	ECBT1H820KB	50V 82P	2	
8	5			
C409,1	ECCR2H180JC	500V 18P	2	
0	5			
C413,1	ECCV2H070D	500V 7P	2	
4				
C415,1	ECBT1H102KB	50V 1000P	2	
6	5			
C426	ECQB1H102JF	50V 1000P	1	
	3			
C427	ECQB1H223JF	50V 0.022U	1	
	3			
C428	ECHR1H103JZ	50V 0.01U	1	
	3			
C451,5	ECKR1H333ZF	50V 0.033U	2	
2	5			
C453-56	ECCV2H680K	500V 68P	4	
C457-60	RCE1HKA3R3B	50V 3.3U	4	
	G			
C461,6	ECBT1H102KB	50V 1000P	2	
	5			
C463-65	ECBT1H104ZF	50V 0.1U	3	
	5			
C491,9	RCKT1H101KB	50V 100P	2	
2				
C493,9	ECBT1H101KB	50V 100P	2	
4	5			
C501-04	ECA0JPXS101	6.3V 100U	4	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
C505,06	ECQV1H473JM3	50V 0.047U	2	
C507	ECA1EM101	25V 100U	1	
C508	ECA1HM470	50V 47U	1	
C509	ECEA1HN100SB	50V 10U	1	
C511,12	ECBT1H560J5	50V 56P	2	
C513-18	ECQV1H473JM3	50V 0.047U	6	
C519-22	ECQB1H223JF3	50V 0.022U	4	
C523,24	ECBT1H102KB5	50V 1000P	2	
C525,26	ECBT1C272KR5	16V 2700P	2	
C527,28	ECBT1H181KB5	50V 180P	2	
C533	ECBT1C103NS5	16V 0.01U	1	
C601	ECEA1HKS2R2	50V 2.2U	1	
C602	ECBT1E223ZF	25V 0.022U	1	
C603	ECEA1AKS221	6.3V 220U	1	
C604	RCE1CKA100BG	16V 10U	1	
C611	ECEA1AKS221	6.3V 220U	1	
C701	ECETX1J153XZ	63V 15000U	1	(E, EG)
C701	ECETX1J223XZ	63V 0.022U	1	(EB)
C702	ECETX1J153XZ	63V 15000U	1	(E, EG)
C702	ECETX1J223XZ	63V 22000U	1	(EB)
C707,08	ECA1JPH560E	63V 56U	2	
C709,10	ECQE2334KEW	250V 0.33U	2	
C711	ECQE2104KF3	250V 0.1U	1	
C712	ECBT1H104ZF5	50V 0.1U	1	
C713	ECKR1H103ZF5	50V 0.01U	1	
C714	ECA1EM102	25V 1000U	1	
C716	ECBT1C103NS5	16V 0.01U	1	
C721	ECEA1EKS100	25V 10U	1	
C722	RCE1CKA100BG	16V 10U	1	
C723	ECA0JM222	6.3V 2200U	1	
C751	ECKWRS102MBC	125V 1000P	1	
C762	ECEA1EKS100	25V 10U	1	
C763	RCE1CKA100BG	16V 10U	1	
C764	ECA0JM222	6.3V 2200U	1	
C773,74	ECA1HBX3R3B	50V 3.3U	2	
C775	ECA1HPXS470B	50V 47U	1	
C776	ECA1EPXS470B	25V 47U	1	
C777	RCE1JFG470BJ	63V 47U	1	
C778	RCE1EFG470BJ	25V 47U	1	
C779,80	ECA2APXS100B	100V 10U	2	
C781	ECBT1H102KB5	50V 1000P	1	
C782,83	ECEA1EKS100	25V 10U	2	
C801	ECBT1H104ZF5	50V 0.1U	1	
C802	RCE1CKA100BG	16V 10U	1	
C804	ECBT1H104ZF5	50V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
C805	RCE1CKA100BG	16V 10U	1	
C807	RCE1CKA100BG	16V 10U	1	
C808-10	ECBT1H104ZF5	50V 0.1U	3	
C821	ECEA1EKS100	25V 10U	1	
C901,02	ECEA1EKN3R3B	25V 3.3U	2	
C903,04	ECEA1HKS2R2	50V 2.2U	2	
C905	RCE1HKA4R7BG	50V 4.7U	1	
C910	RCE1HKA4R7BG	50V 4.7U	1	
C955,56	ECBT1C152JR5	16V 1500P	2	
CN401A	RJS1A6603	CONNECTOR (4P)	1	
CN401B	RJS1A6604	CONNECTOR (3P)	1	
CN701	RJS1A6606	CONNECTOR (6P)	1	
CN702	RJS1A6605	CONNECTOR (5P)	1	
CN704	RJP2G17ZA	CONNECTOR (2P)	1	
CN706	SJS50382JQH	CONNECTOR (3P)	1	
CN707	RJP3G17ZA	CONNECTOR (3P)	1	
CN708	RJS1A6605	CONNECTOR (5P)	1	
CN751-55	RJS1A1101T1	CONNECTOR (1P)	5	
CN761	SJS305-1	CONNECTOR (3P)	1	
CN771-76	RJS1A1101T1	CONNECTOR (1P)	6	
CN778	RJS1A1101T1	CONNECTOR (1P)	1	
CN801A	RJS1A6603	CONNECTOR (3P)	1	
CN801B	RJS1A6605	CONNECTOR (5P)	1	
CN802	RJS1A6607T1	CONNECTOR (7P)	1	
CN803	RJP3G18ZA	CONNECTOR (3P)	1	
CN804	RJU057W007	CONNECTOR (7P)	1	
CN805	RJU057W004	CONNECTOR (4P)	1	
CP706	SJT30345JQ	CONNECTOR (3P)	1	
CP804	RJT057W007-1	CONNECTOR (7P)	1	
CP805	RJT057W004-1	CONNECTOR (4P)	1	
D401,02	MA167	DIODE	2	
D403,04	MA4036M	DIODE	2	
D405,06	MA165	DIODE	2	
D451	MA165	DIODE	1	
D452	MA4056M	DIODE	1	
D453	MA29WA	DIODE	1	
D501,02	MA165	DIODE	2	
D503	MA4160M	DIODE	1	
D504	MA4160M	DIODE	1	
D505	MA165	DIODE	1	
D506	188291TA	DIODE	1	
D601	MA165	DIODE	1	
D602	MA4068L	DIODE	1	
D603,04	MA165	DIODE	2	
D605	SLR-305VC	LED	1	
D701-04	P300DLF	DIODE	4	
D706	MA165	DIODE	1	
D711-14	1SR35200TB	DIODE	4	
D721	MA165	DIODE	1	
D762	MA165	DIODE	1	
D771,72	MA4220M	DIODE	2	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
D773 △	MA4160M	DIODE	1	
D775,7 6	MA165	DIODE	2	
D781 △	MA4160M	DIODE	1	
D782	MA165	DIODE	1	
D801	SLR-305VC	LED	1	
D802,0 3	MA165	DIODE	2	
D806	MA165	DIODE	1	
D807,0 B	SLR-305VC	LED	2	
D809- 12	MA165	DIODE	4	
D821	MA167	DIODE	1	
D822- 26	MA165	DIODE	5	
D901	MA165	DIODE	1	
D902 △	MA4100M	DIODE	1	
D903- 06	MA165	DIODE	4	
D907 △	MA4100M	DIODE	1	
D911,1 2	MA165	DIODE	2	
D914	MA165	DIODE	1	
D917	MA165	DIODE	1	
F1 △	XBA2C31TB0	FUSE	1	
IC401	AN7062N	IC	1	
IC501 △	SVI3205B	IC	1	
IC502	RSN6000B	IC	1	
IC721	AN78L05TA	IC	1	
IC761 △	AN78L05TA	IC	1	
IC801, 02	UPD4027BC	IC	2	
IC903	ON3131R	IC	1	
IC901	BA6138	IC	1	
IC902	M5218AP	IC	1	
JK1 △	SJS9236	JACK,AC INLET	1	
JK401	SJF3069A	JACK	1	
JK501	RJH4801M-2	JACK	1	
JK502	RJJ63TA01	JACK	1	
JK601	RJS1A7402-1	JACK	1	
JK801 02	RJJ33T01	JACK	2	
L1 △	SLQ2650MH49	COIL	1	
L401,0 2	RLQA100JT-Y	COIL	2	
L403,0 4	BL02RN1R62T 2	COIL	2	
L405,0 6	RLQA100JT-Y	COIL	2	
L501- 04	SLQY18G-10	COIL	4	
L791	ELEXT1R0KA9	COIL	1	
L797,9 8	ELEXT1R0KA9	COIL	2	
P1	RPQ0164	PAD	1	
P2	RPF0139	PROTECTION COVER	1	
P3	RPG4447	PACKING CASE	1	(E)<K>
P3	RPG4450	PACKING CASE	1	(E)<N>
P3	RPG4448	PACKING CASE	1	(EB, EG)<K>
P3	RPG4451	PACKING CASE	1	(EB, EG)<N>
P4	RPN1205	PAD	1	

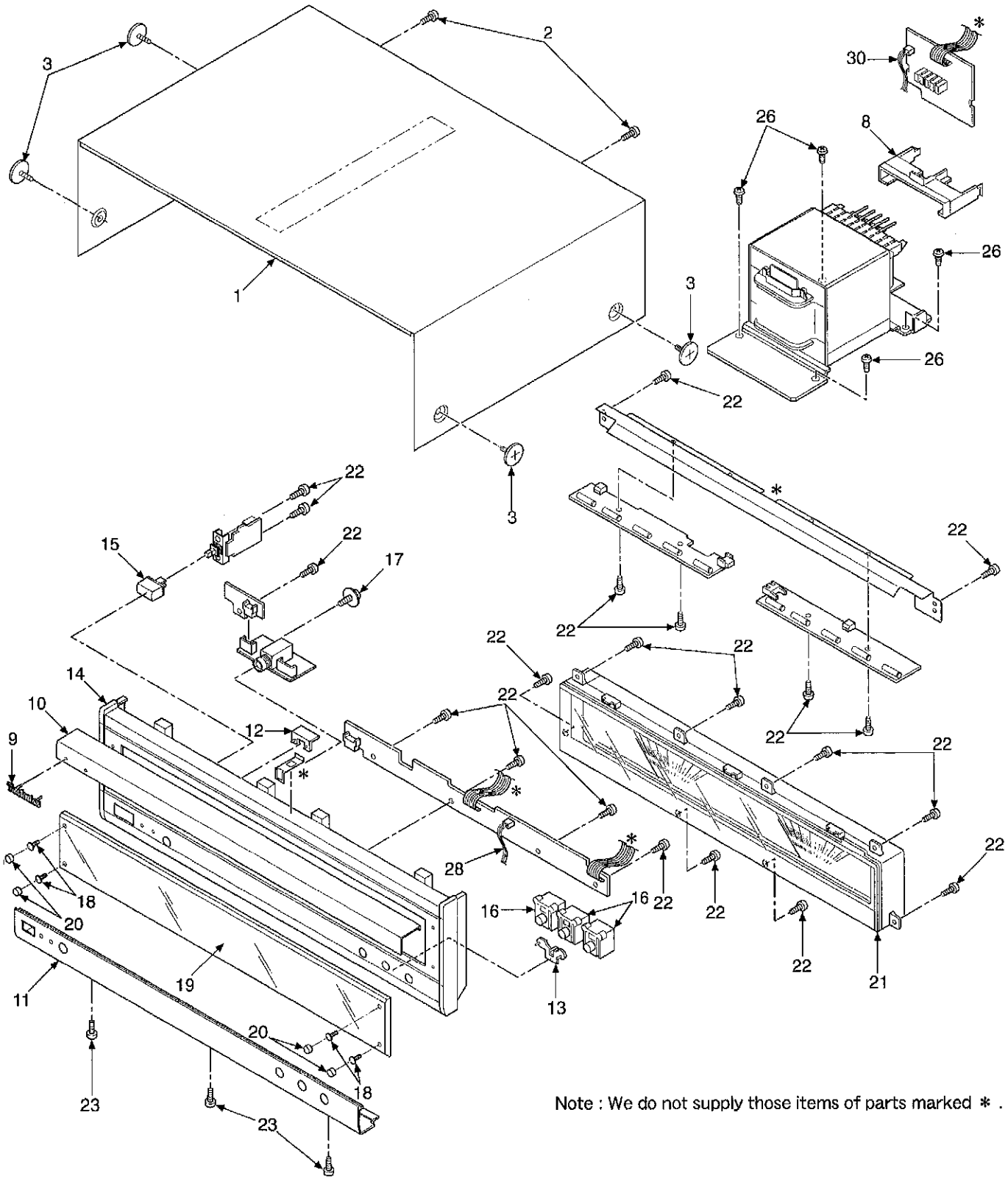
Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
P5	SPP730	SHEET	1	
P6	RPH0032	MIRROR SHEET	1	(EB)
PCB1	REP2838A-M	MAIN PCB	1	(E, EG) (RTL)
PCB1	REP2838B-M	MAIN PCB	1	(EB) (RTL)
PCB2	REP2839AA-S	BATTERY PCB1	1	(E, EG) (RTL)
PCB2	REP2839BA-S	BATTERY PCB1	1	(EB) (RTL)
PCB3	REP2839AB-S	BATTERY PCB2	1	(E, EG) (RTL)
PCB3	REP2839BB-S	BATTERY PCB2	1	(EB) (RTL)
PL901- 10	XAMR131	LAMP	10	
Q401,0 2	2SA992F	TRANSISTOR	2	
Q451,5 2	2SC1845F	TRANSISTOR	2	
Q453,5 4	2SC3311AR	TRANSISTOR	2	
Q455,5 6	2SA1309AR	TRANSISTOR	2	
Q501- 03	2SA992F	TRANSISTOR	3	
Q543	2SA1309AR	TRANSISTOR	1	
Q601,0 2	2SC3311AR	TRANSISTOR	2	
Q603	2SC3940AQST A	TRANSISTOR	1	
Q604- 06	2SC3311AR	TRANSISTOR	3	
Q611,1 2	2SC3311AR	TRANSISTOR	2	
Q701	2SC3311AR	TRANSISTOR	1	
Q771 △	2SK330GRYTA	TRANSISTOR	1	
Q772 △	2SJ105GRYTA	TRANSISTOR	1	
Q773 △	2SC1845F	TRANSISTOR	1	
Q774 △	2SA992F	TRANSISTOR	1	
Q781 △	2SD2374PQAU	TRANSISTOR	1	
Q801,0 2	UN4215	TRANSISTOR	2	
Q803,0 4	UN4111	TRANSISTOR	2	
Q806,0 7	UN4111	TRANSISTOR	2	
Q808	2SA1309AR	TRANSISTOR	1	
Q809	2SC3311AR	TRANSISTOR	1	
Q810	UN4111	TRANSISTOR	1	
Q811	2SA992F	TRANSISTOR	1	
Q822	UN4215	TRANSISTOR	1	
Q825	UN4111	TRANSISTOR	1	
Q906	2SC3311AR	TRANSISTOR	1	
Q907	2SA1309AR	TRANSISTOR	1	
R401,0 2	ERDS2FJ122	1/4W 1.2K	2	
R403,0 4	ERDS2FJ823	1/4W 82K	2	
R405,0 6	ERDS2FJ272	1/4W 2.7K	2	
R407,0 8	ERDS2FJ823	1/4W 82K	2	
R409,1 0	ERDS2FJ222	1/4W 2.2K	2	
R411,1 2	ERDS2FJ470	1/4W 47	2	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
R437	ERDS2FJ473	1/4W 47K	1	
R457	ERDS2FJ183	1/4W 18K	1	
R459,60	ERDS2FJ101	1/4W 100	2	
R461-64	ERDS2FJ333	1/4W 33K	4	
R465-68	ERDS2FJ101	1/4W 100	4	
R469	ERDS2FJ103	1/4W 10K	1	
R470	ERDS2FJ102	1/4W 1K	1	
R471,72	ERDS2FJ561	1/4W 560	2	
R491,92	ERDS2FJ823	1/4W 82K	2	
R501,02	ERDS2FJ362	1/4W 3.6K	2	
R503,04	ERDS2FJ121	1/4W 120	2	
R505,06	ERDS2FJ392	1/4W 3.9K	2	
R507,08	ERDS2FJ121	1/4W 120	2	
R509,10	ERDS2FJ101	1/4W 100	2	
R513-16	ERDS2FJ100	1/4W 10	4	
R519,20	ERX1SJ3R3	1W 3.3	2	
R521,22	ERDS1FJ100	1/2W 10	2	
R527	ERDS2FJ223	1/4W 22K	1	
R528	ERDS2FJ684	1/4W 680K	1	
R529	ERDS2FJ124	1/4W 120K	1	
R530	ERDS1FJ472	1/2W 4.7K	1	
R531,32	ERDS1FJ100	1/2W 10	2	
R533,34	ERDS2FJ103	1/4W 10K	2	
R535	ERDS2FJ562	1/4W 5.6K	1	
R536	ERDS2FJ470	1/4W 47	1	
R537	ERDS2FJ101	1/4W 100	1	
R544	ERDS2FJ103	1/4W 10K	1	
R545	ERDS2FJ823	1/4W 82K	1	
R550,51	ERDS2FJ222	1/4W 2.2K	2	
R555-58	ERGLSJ681	1W 680	4	
R559	ERGLSJ152	1W 1.5K	1	
R560	ERGLSJ182	1W 1.8K	1	
R561,62	ERGLSJ151	1W 150	2	
R563,64	ERGLSJ181	1W 180	2	
R565-70	ERDS2FJ223	1/4W 22K	6	
R577,78	ERDS2FJ682	1/4W 6.8K	2	
R601-04	ERDS2FJ223	1/4W 22K	4	
R605	ERDS2FJ473	1/4W 47K	1	
R606	ERDS2FJ104	1/4W 100K	1	
R607	ERDS2FJ103	1/4W 10K	1	
R608	ERDS2FJ223	1/4W 22K	1	
R609	ERDS2FJ332	1/4W 3.3K	1	
R610	ERDS2TJ335T	1/4W 3.3M	1	
R611	ERDS2FJ473	1/4W 47K	1	
R612	ERDS2FJ153	1/4W 15K	1	
R613	ERDS2FJ473	1/4W 47K	1	
R614	ERDS2FJ683	1/4W 68K	1	
R615	ERDS2FJ103	1/4W 10K	1	
R616	ERDS1FJ220	1/2W 22	1	
R617	ERDS2FJ222	1/4W 2.2K	1	
R618	ERDS2FJ103	1/4W 10K	1	
R621	ERDS2FJ223	1/4W 22K	1	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
R622	ERDS2FJ100	1/4W 10	1	
R623	ERDS2FJ823	1/4W 82K	1	
R701	ERDS2FJ100	1/4W 10	1	
R702	ERDS2FJ222	1/4W 2.2K	1	
R707,08	ERDS2FJ688	1/4W 6.8	2	
R721	ERDS2FJ221	1/4W 220	1	
R763	ERDS2FJ221	1/4W 220	1	
R771	ERDS2FJ470	1/4W 47	1	
R772	ERDS2FJ121	1/4W 120	1	
R773	ERDS2FJ332	1/4W 3.3K	1	
R774	ERDS2FJ103	1/4W 10K	1	
R775,76	ERDS2FJ105	1/4W 1M	2	
R781	ERDS1FJ472	1/2W 4.7K	1	
R782,83	ERDS1FJ560	1/2W 56	2	
R801	ERDS2FJ221	1/4W 220	1	
R802	ERDS2FJ562	1/4W 5.6K	1	
R803,04	ERDS2FJ223	1/4W 22K	2	
R806	ERDS2FJ391	1/4W 390	1	
R807,08	ERDS2FJ223	1/4W 22K	2	
R809	ERDS2FJ823	1/4W 82K	1	
R810,11	ERDS2FJ223	1/4W 22K	2	
R812	ERDS2FJ391	1/4W 390	1	
R813-15	ERDS2FJ223	1/4W 22K	3	
R816	ERDS2FJ222	1/4W 2.2K	1	
R817	ERDS2FJ103	1/4W 10K	1	
R821	ERDS2FJ103	1/4W 10K	1	
R822	ERDS2FJ222	1/4W 2.2K	1	
R823	ERDS2FJ562	1/4W 5.6K	1	
R824	ERDS2FJ154	1/4W 150K	1	
R825	ERDS2FJ223	1/4W 22K	1	
R826	ERDS2FJ102	1/4W 1K	1	
R828,29	ERGLSJ182	1W 1.8K	2	
R830	ERDS2FJ682	1/4W 6.8K	1	
R831	ERDS2FJ683	1/4W 68K	1	
R854	ERDS2FJ391	1/4W 390	1	
R901,02	ERDS1FJ472	1/2W 4.7K	2	
R903,04	ERDS2FJ271	1/4W 270	2	
R905,06	ERDS2TJ155	1/4W 1.5M	2	
R907,08	ERDS2FJ682	1/4W 6.8K	2	
R909,10	ERDS2FJ103	1/4W 10K	2	
R911,12	ERDS2FJ821	1/4W 820	2	
R915	ERDS2FJ103	1/4W 10K	1	
R916	ERDS2FJ104	1/4W 100K	1	
R921,22	ERDS2FJ123	1/4W 12K	2	
R923,24	ERDS2FJ154	1/4W 150K	2	
R925,26	ERDS2FJ223	1/4W 22K	2	
R927,28	ERDS2FJ102	1/4W 1K	2	
R929,30	ERDS2FJ121	1/4W 120	2	
R931-36	ERGLSJ681	1W 680	6	
R947,48	ERDS2FJ103	1/4W 10K	2	
R949,50	ERDS2FJ223	1/4W 22K	2	

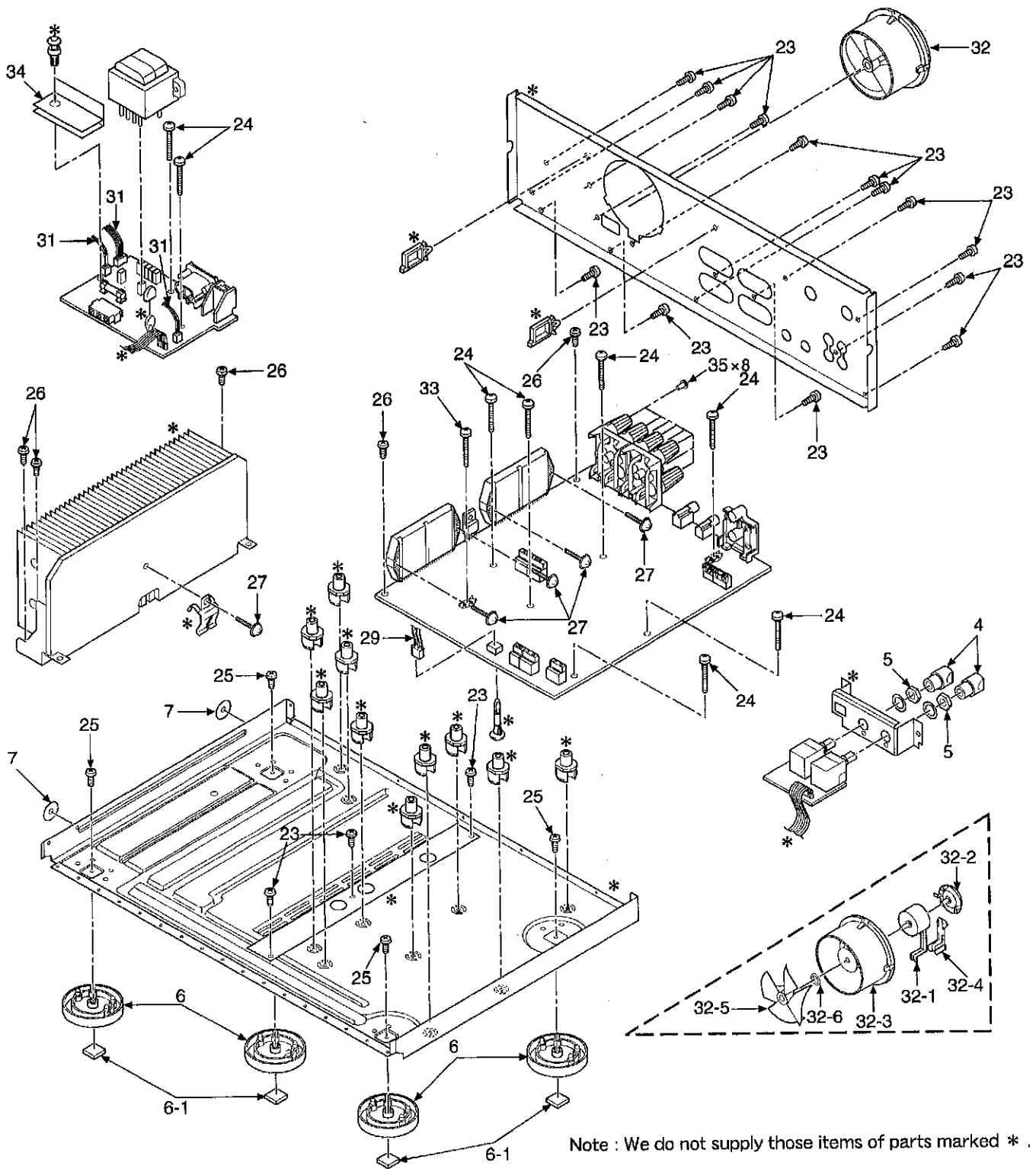
Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
RL501, 02 △	RSY0013M-0	RELAY	2	
RL503, 04 △	RSY0031-A	RELAY	2	
RL701 △	RSY0019M-0	RELAY	1	
S801 △	RSP2B023-A	SW, POWER	1	
S802- 04	EVQ21405R	SW, PUSH	3	
T1 △	RTP1P5B005A	POWER TRANSFORMER	1	
T701 △	RTP1J5B001	POWER TRANSFORMER	1	
TH901, 02	ERTD22HL104 T	THERMISTOR	2	
VR401, 02	EUWM3R020A5 4	VR, LEVEL CONTROL	2	
VR909, 10	EVNDXAA00B2 3	VR, P. METER ADJ.	2	

# 14 Cabinet Parts Location



Note : We do not supply those items of parts marked \* .





Note : We do not supply those items of parts marked \* .

# 15 Packaging

