PSG1412002CE
A6

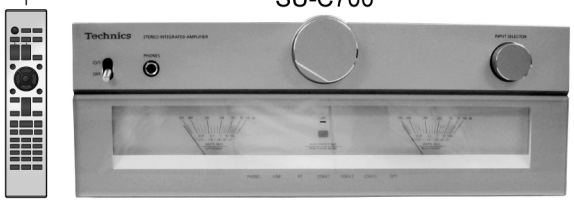
Service Manual

Stereo Integrated Amplifier

Model No. SU-C700EB
SU-C700EG
SU-C700GN
SU-C700PP

Product Color: (S)...Silver Type

Remote Control



⚠ 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.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

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Technics®

1 Safety Precautions

1.1. General Guidelines

1. **IMPORTANT SAFETY NOTICE**
   There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Schematic Diagrams, Circuit Board Layout, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent X-RADIATION, shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.
2. An Isolation Transformer should always be used during the servicing of AC Adaptor whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks. It will also protect AC Adaptor from being damaged by accidental shorting that may occur during servicing.
3. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
4. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
5. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

(This "Safety Precaution" is applied only in U.S.A.)

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

1.1.1. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1MΩ and 5.2MΩ.
   When the exposed metal does not have a return path to the chassis, the reading must be ∞

1.1.2. Leakage Current Hot Check

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15μF capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1-1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

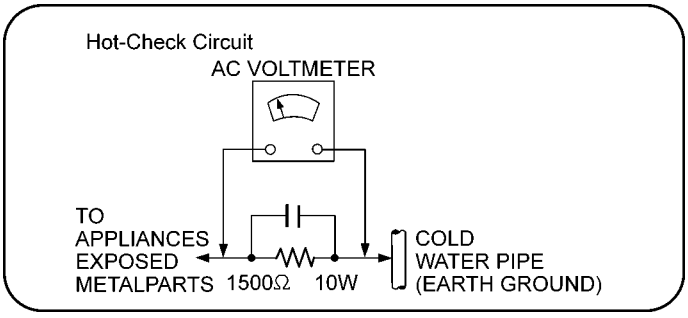


Figure 1-1

1.2. Before Repair and Adjustment

Disconnect Power Supply AC to discharge AC capacitor in SMPS P.C.B. and AC Inlet P.C.B. through a 10 W, 10 W resistor to ground.

1.2.1. SMPS P.C.B.

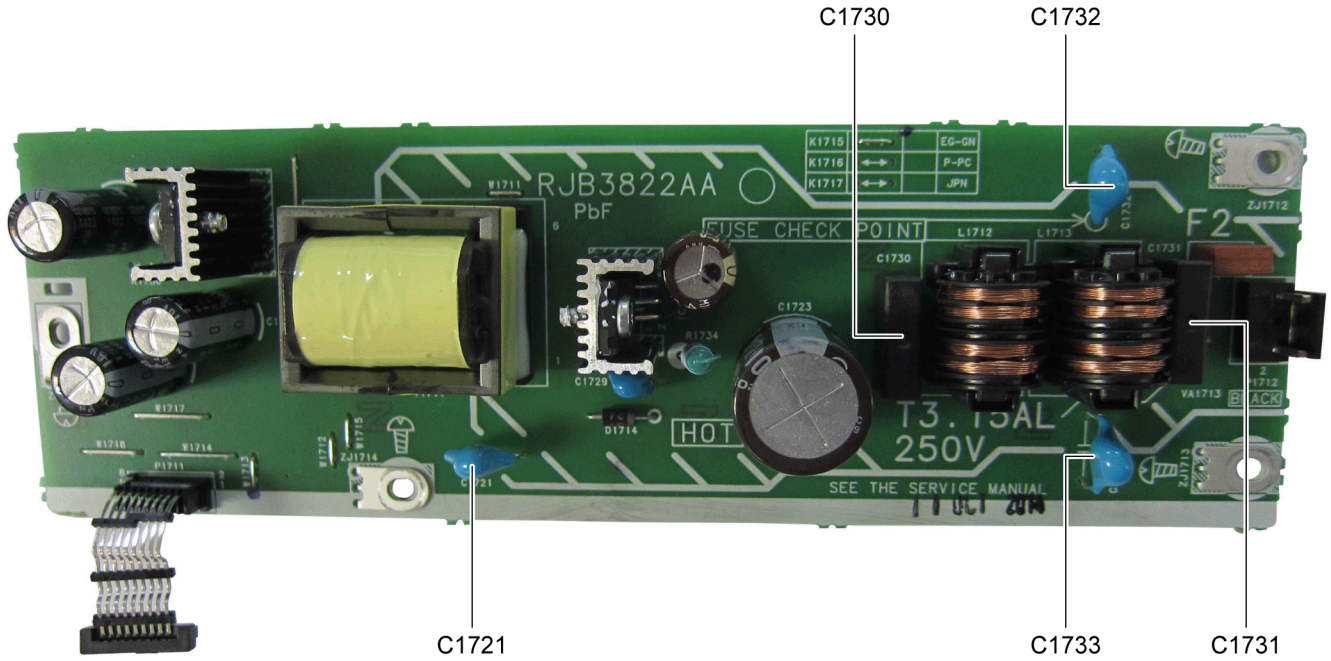


Figure 1-2

1.2.2. AC Inlet P.C.B.

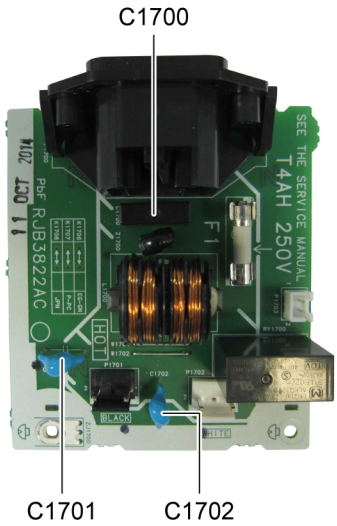


Figure 1-3

Caution:

DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices.

After repairs are completed, restore power gradually using a variac to avoid overcurrent.

- Current consumption at AC 220V - 240V, should be ~165±20mA during power on (In Standby mode) should be ~0.30W. (EB/EG/GN)
- Current consumption at AC 120V, should be ~600±20mA during power on (In Standby mode) should be ~0.30W. (PP)

1.3. Protection Circuitry

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

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are “shorted”, or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note:

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

1.4. Caution For AC Cord (For EB)

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 stated below.
If in any doubt please consult a qualified electrician.

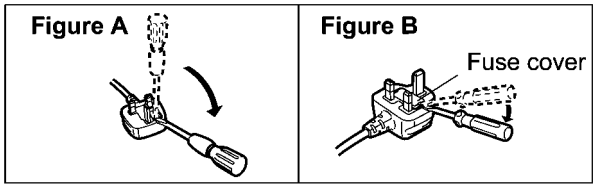
IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral, Brown: Live.
As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal 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.

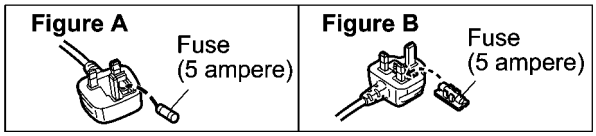


Figure 1-4

1.5. Safety Parts Information

Safety Parts List:

There are special components used in this equipment which are important for safety.

These parts are marked by ⚠ in the Schematic Diagrams, Exploded View & Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

Safety	Ref No.	Part No.	Part Name & Description	Remarks
⚠	26	RGR0462A-A4	REAR PANEL	EB/EG/GN
⚠	26	RGR0462A-B2	REAR PANEL	PP
⚠	67	RMX0538	SMPS BARRIER	
⚠	68	RMX0537	SPEAKER TERMINAL BARRIER	
⚠	A2	K2CB2YY00098	AC CORD	PP
⚠	A2	K2CJ2YY00097	AC CORD	GN
⚠	A2	K2CQ2YY00127	AC CORD	EG
⚠	A2	K2CT2YY00103	AC CORD	EB
⚠	A3	SQT0487	OI (En)	EB/GN
⚠	A3	SQT0488	OI (Cf)	PP
⚠	A3	SQT0489	OI (En)	PP
⚠	A3	SQT0490	OI (Ge,Fr,It,Sp,Du)	EG
⚠	A3	SQT0498	OI (Sw,Da,Fi)	EG
⚠	PCB7	REP5102AA	SMPS P.C.B	EB/EG/GN
⚠	PCB7	REP5102BA	SMPS P.C.B	PP
⚠	PCB8	REP5102AB	POWER P.C.B	EB/EG/GN
⚠	PCB8	REP5102BB	POWER P.C.B	PP
⚠	PCB9	REP5102AC	AC INLET P.C.B	EB/EG/GN
⚠	PCB9	REP5102BC	AC INLET P.C.B	PP
⚠	PCB10	REP5102AD	TRANSFORMER P.C.B	EB/EG/GN
⚠	PCB10	REP5102BD	TRANSFORMER P.C.B	PP

2 Warning

2.1. Prevention of Electrostatic Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices.

Examples of typical ES devices are IC (integrated circuits) and some field-effect transistors and semiconductor "chip" components.

The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as “anti-static (ESD protected)” can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION:
   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

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2.2. General description about Lead Free Solder (PbF)

The lead free solder has been used in the mounting process of all electrical components on the printed circuit boards used for this equipment in considering the globally environmental conservation.

The normal solder is the alloy of tin (Sn) and lead (Pb). On the other hand, the lead free solder is the alloy mainly consists of tin (Sn), silver (Ag) and Copper (Cu), and the melting point of the lead free solder is higher approx.30 degrees C (86°F) more than that of the normal solder.

Definition of PCB Lead Free Solder being used

The letter of “PbF” is printed either foil side or components side on the PCB using the lead free solder. (See right figure)	PbF

Service caution for repair work using Lead Free Solder (PbF)

- The lead free solder has to be used when repairing the equipment for which the lead free solder is used.
  (Definition: The letter of “PbF” is printed on the PCB using the lead free solder.)
- To put lead free solder, it should be well molten and mixed with the original lead free solder.
- Remove the remaining lead free solder on the PCB cleanly for soldering of the new IC.
- Since the melting point of the lead free solder is higher than that of the normal lead solder, it takes the longer time to melt the lead free solder.
- Use the soldering iron (more than 70W) equipped with the temperature control after setting the temperature at 350±30 degrees

C (662±86°F).

Recommended Lead Free Solder (Service Parts Route.)

- The following 3 types of lead free solder are available through the service parts route.

  RFKZ03D01K----------(0.3mm 100g Reel)

  RFKZ06D01K----------(0.6mm 100g Reel)

  RFKZ10D01K----------(1.0mm 100g Reel)

Note

* Ingredient: tin (Sn), 96.5%, silver (Ag) 3.0%, Copper (Cu) 0.5%, Cobalt (Co) / Germanium (Ge) 0.1 to 0.3%

2.3. Grounding for electrostatic breakdown prevention

- As for parts that use optical pick-up (laser diode), the optical pick-up is destroyed by the static electricity of the working environment.

  Repair in the working environment that is grounded.

2.3.1. Worktable grounding

- Put a conductive material (sheet) or iron sheet on the area where the optical pickup is placed and ground the sheet.

2.3.2. Human body grounding

- Use the anti-static wrist strap to discharge the static electricity form your body Figure 2-2.

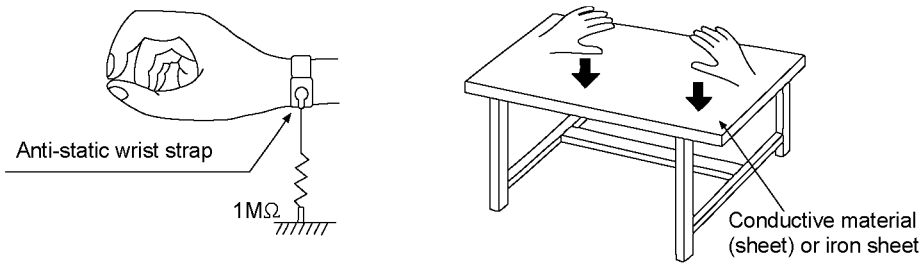


Figure 2-2

3 Service Navigation

3.1. Service Information

This service manual contains technical information which will allow service personnel's to understand and service this model.
Please place orders using the parts list and not the drawing reference numbers.
If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

- **Adjustment of Meter Unit.**
  Refer to Section 7.1 for procedures to adjust the Meter Unit after replacement of Meter Unit and Meter Drive P.C.B..

4 Specifications

■ General

Power supply	AC 220 V to 240 V, 50/60 Hz (EB/EG/GN) AC 120 V, 60 Hz (PP)
Power consumption	73 W
Power Consumption in standby mode	Approx. 0.3 W
Power Consumption in off mode	Approx. 0.3 W
Dimensions (W x H x D)	340 mm x 132 mm x 325 mm ($13\ ^{3}/_{8}$" × $5\ ^{7}/_{32}$" ×$12\ ^{13}/_{16}$")
Mass	Approx. 8.3 kg (18.3 lbs)
Operating temperature range	0 °C to +40 °C (+32 °F to +104 °F)
Operating humidity range	35% to 80% RH (no condensation)

■ Amplifier section

Output power	45 W + 45 W (1 kHz, T.H.D. 0.3 %, 8 Ω, 20 kHz LPF) 70 W + 70 W (1 kHz, T.H.D. 0.5 %, 4 Ω, 20 kHz LPF)
Load impedance	4 Ω to 16 Ω
Frequency response	
PHONO (MM)	20 Hz to 20 kHz (RIAA DEVIATION ±1 dB, 8 Ω)
LINE	20 Hz to 80 kHz (—3 dB, 8 Ω)
COAX1/2/3	20 Hz to 90 kHz (—3 dB, 8 Ω)
Input sensitivity/Input impedance	
LINE	200 mV / 22 kΩ
PHONO (MM)	2.5 mV / 47 kΩ

■ Terminals section

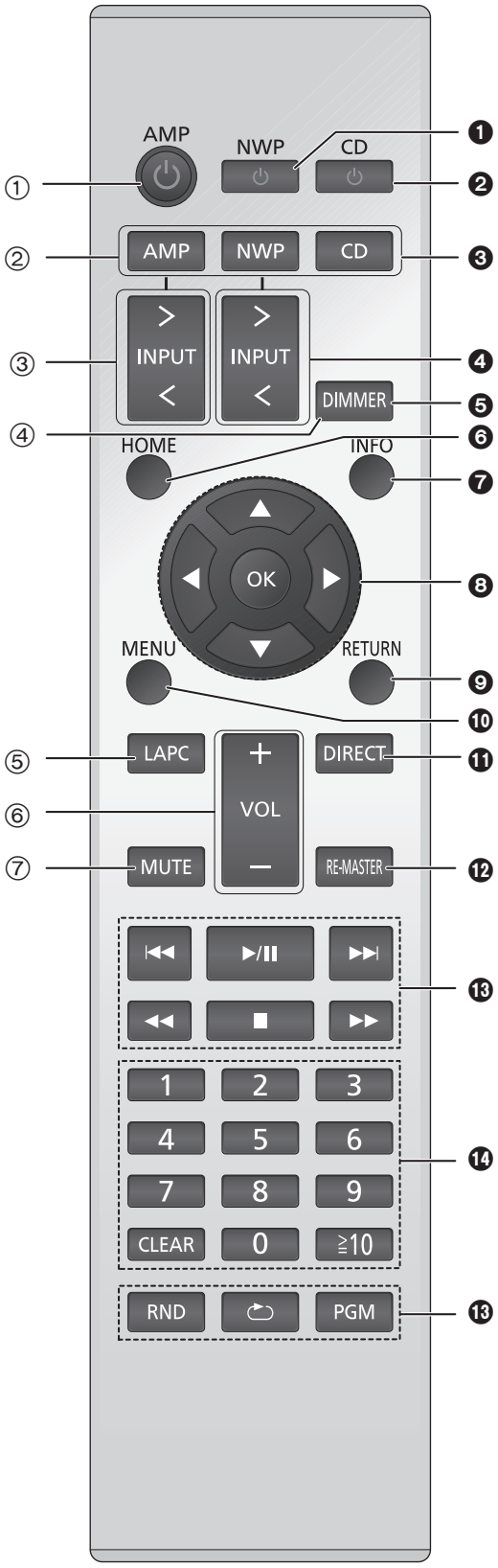
Headphones jack	Stereo, Ø6.3 mm ($^{1}/_{4}$")
USB port	
USB Standard	USB 2.0 high-speed
USB Audio Class specification	USB Audio Class 2.0, Asynchronous mode
Connector	USB Standard B connector
Format support	PCM (32/44.1/48/88.2/96/176.4/192 kHz, 16/24/32 bit) DSD (2.8224 MHz, 5.6448 MHz)
DSD control mode	ASIO Native mode, DoP mode DSD64/DSD128 playback
Channel	2 ch
Analogue input	
Line input	Pin jack
PHONO (MM)	Pin jack
Digital input	
Optical digital input	Optical terminal
Coaxial digital input × 3	Pin jack
Format support	PCM
System port	
System control × 2	Ø3.5 mm ($^{1}/_{8}$") jack

Note:

- Specifications are subject to change without notice. Mass and dimension are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.
- "Direct Stream Digital", DSD and their logos are trademarks of Sony Corporation.

5 Location of Controls and Components

5.1. Remote Control Key Button Operation



■ Buttons that work for this unit

① **[AMP ⏻]: Standby/on switch**
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.
- The remote control do not operate when the power switch lever is in the lowered position.

② **[AMP]/[NWP]/[CD]: Select the device to be operated**

[AMP]	LINE indicator lights up
[NWP]	COAX1 indicator lights up
[CD]	COAX2 indicator lights up

③ **[> INPUT <]: Select the input source**

④ **[DIMMER]: Adjust the brightness of the light and the indicators**
Each press of this button switches the brightness.

⑤ **[LAPC]: Measure the characteristics of the amplifier and correct its output**

⑥ **[+ VOL −]: Adjust the volume**

⑦ **[MUTE]: Mute the sound**
Input indicator blinks. Press [MUTE] again to cancel.

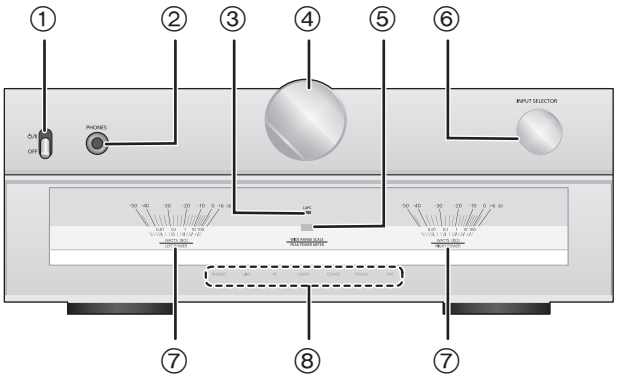
■ Buttons that work for the ST-C700/SL-C700

The remote control of this unit also works for the ST-C700/SL-C700.
For information on the operations of the ST-C700/SL-C700, please also refer to their operating instructions.

❶ Standby/on switch for the ST-C700
❷ Standby/on switch for the SL-C700
❸ Select the device to be operated
❹ Select the input source of the ST-C700
❺ Adjust the display brightness
❻ Display HOME menu
❼ Change the displayed information
❽ Selection/OK
❾ Return to the previous display
❿ Enter menu
⓫ Turn on/off Direct mode
⓬ Turn on/off Re-master
⓭ Basic playback control buttons
⓮ Numeric buttons, etc.

5.2. Main Unit Key Button Operation

■ Front



① **Power switch lever**
Turn on/off this unit.
- The remote control do not operate when the power switch lever is in the lowered position.

② **Headphones jack**
For connecting a headphone plug.
- When a plug is connected, the speakers do not output sound.
- Excessive sound pressure from earphones and headphones can cause hearing loss.
- Listening at full volume for long periods may damage the user's ears.

③ **LAPC indicator**
The indicator lights up when amplifier output correction is on.

④ **Volume knob**
Adjust the volume.
- When this unit is muted, if you turn the knob anticlockwise until it stops and then turn it clockwise, the muting will be cancelled.

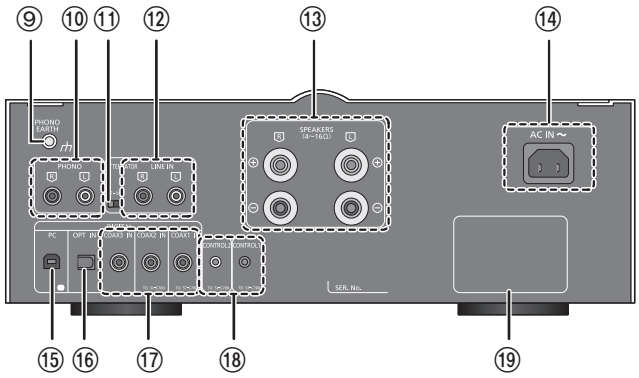
⑤ **Remote control signal sensor**
Distance: Within approx. 7 m directly in front
Angle: Approx. 30° left and right

⑥ **Input selector knob**
Turn this knob clockwise and anticlockwise to switch the input source.

⑦ **Peak power meter**
Display the output level.

⑧ **Input indicator**
The indicator for the selected input source lights up.
- The indicator blinks if you select "PC", "COAX1", "COAX2", "COAX3" or "OPT" when the device is not connected to this unit.

■ Rear



⑨ **PHONO EARTH terminal [PHONO EARTH]**
For connecting the ground wire of a record player.

⑩ **Analogue audio input terminal [PHONO]**
For connecting a record player.
- MM cartridges are supported.

⑪ **Attenuator [ATTENUATOR]**
If audio distortion occurs when using the analogue audio input terminal [LINE IN], set this switch to [ON].

⑫ **Analogue audio input terminal [LINE IN]**

⑬ **Speaker terminals [SPEAKERS]**

⑭ **AC IN terminal [AC IN ~]**

⑮ **Digital audio input terminal [PC]**
For connecting to a PC, etc.

⑯ **Digital audio input terminal [OPT IN]**

⑰ **Digital audio input terminals [COAX1 IN]/[COAX2 IN]/[COAX3 IN]**

⑱ **System terminals [CONTROL1]/[CONTROL2]**

⑲ **Product identification marking**
The model number is indicated.

6 Service Mode

6.1. Doctor Mode

Step 1 Disconnect AC.
Step 2 Power switch (Main Unit) in OFF condition.
Step 3 Press and hold the [AMP] button on remote control.
Step 4 Power switch (Main Unit) turn ON while holding the [AMP] button on remote control.
Step 5 Adjust the volume knob from around center to minimum with holding the [AMP] on remote control.
The indication of Doctor Mode is:
- All selector LED flash 3 times, and then the selector LED will continue flashing.

6.1.1. Doctor Mode Table 1

<table>
<tr><th colspan="2">Item</th><th rowspan="2">LED Display</th><th rowspan="2">Key Operation</th></tr>
<tr><th>Mode Name</th><th>Description</th></tr>
<tr><td>Region Check</td><td>To check region setting</td><td>

<table>
<tr><td>Phono</td><td>Line</td><td>PC</td></tr>
<tr><td>X</td><td>X</td><td>O</td></tr>
</table>
<table>
<tr><td>SERIES</td><td>Coax 1</td><td>Coax 2</td><td>Coax 3</td><td>Opt</td></tr>
<tr><td>EG</td><td>X</td><td>X</td><td>X</td><td>O</td></tr>
<tr><td>EB</td><td>X</td><td>X</td><td>O</td><td>X</td></tr>
<tr><td>PP</td><td>X</td><td>X</td><td>O</td><td>O</td></tr>
<tr><td>JPN</td><td>X</td><td>O</td><td>X</td><td>X</td></tr>
<tr><td>GN</td><td>X</td><td>O</td><td>X</td><td>O</td></tr>
</table>
O - LED lights up X - LED did not lights up
</td><td>Step 1 Enter into Doctor Mode.
Step 2 Press one time [AMP] button on remote control.

To exit, press [AMP] button on remote control.</td></tr>
</table>

6.1.2. Doctor Mode Table 2

<table>
<tr><th colspan="2">Item</th><th rowspan="2">LED Display</th><th rowspan="2">Key Operation</th></tr>
<tr><th>Mode Name</th><th>Description</th></tr>
<tr><td>Main Version</td><td>To check main firmware version</td><td>

<table>
<tr><th>Phono</th><th>Line</th><th>PC</th></tr>
<tr><td>X</td><td>O</td><td>X</td></tr>
</table>
<table>
<tr><th>SERIES</th><th>Coax 1</th><th>Coax 2</th><th>Coax 3</th><th>Opt</th></tr>
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<tr><td>003, 018, 033, 048, 063, 078, 093, 108,,,</td><td>X</td><td>X</td><td>O</td><td>O</td></tr>
<tr><td>004, 019, 034, 049, 064, 079, 094, 109,,,</td><td>X</td><td>O</td><td>X</td><td>X</td></tr>
<tr><td>* 005, 020, 035, 050, 065, 080, 095, 110,,,</td><td>X</td><td>O</td><td>X</td><td>O</td></tr>
<tr><td>006, 021, 036, 051, 066, 081, 096, 111,,,</td><td>X</td><td>O</td><td>O</td><td>X</td></tr>
<tr><td>007, 022, 037, 052, 067, 082, 097, 112,,,</td><td>X</td><td>O</td><td>O</td><td>O</td></tr>
<tr><td>008, 023, 038, 053, 068, 083, 098, 113,,,</td><td>O</td><td>X</td><td>X</td><td>X</td></tr>
<tr><td>009, 024, 039, 054, 069, 084, 099, 114,,,</td><td>O</td><td>X</td><td>X</td><td>O</td></tr>
<tr><td>010, 025, 040, 055, 070, 085, 100, 115,,,</td><td>O</td><td>X</td><td>O</td><td>X</td></tr>
<tr><td>011, 026, 041, 056, 071, 086, 101, 116,,,</td><td>O</td><td>X</td><td>O</td><td>O</td></tr>
<tr><td>012, 027, 042, 057, 072, 087, 102, 117,,,</td><td>O</td><td>O</td><td>X</td><td>X</td></tr>
<tr><td>013, 028, 043, 058, 073, 088, 103, 118,,,</td><td>O</td><td>O</td><td>X</td><td>O</td></tr>
<tr><td>014, 029, 044, 059, 074, 089, 104, 119,,,</td><td>O</td><td>O</td><td>O</td><td>X</td></tr>
<tr><td>015, 030, 045, 060, 075, 090, 105, 120,,,</td><td>O</td><td>O</td><td>O</td><td>O</td></tr>
</table>
O - LED lights up X - LED did not lights up

Example:
<table>
<tr><td>* 005, 020, 035, 050, 065, 080, 095, 110,,,</td><td>X</td><td>O</td><td>X</td><td>O</td></tr>
</table>
<table>
<tr><th>SOFTWARE VERSION</th></tr>
<tr><td>SUC700_A005.mot</td></tr>
</table>
</td><td>Step 1 Enter into Doctor Mode.
Step 2 Press two times [AMP] button on remote control.

To exit, press [AMP] button on remote control.</td></tr>
</table>

6.1.3. Doctor Mode Table 3

<table>
<tr><th colspan="2">Item</th><th rowspan="2">LED Display</th><th rowspan="2">Key Operation</th></tr>
<tr><th>Mode Name</th><th>Description</th></tr>
<tr><td>USB DAC</td><td>To check USB DAC firmware version</td><td>

<table>
<tr><th>Phono</th><th>Line</th><th>PC</th></tr>
<tr><td>X</td><td>O</td><td>O</td></tr>
</table>
<table>
<tr><th>SERIES</th><th>Coax 1</th><th>Coax 2</th><th>Coax 3</th><th>Opt</th></tr>
<tr><td>* 001, 016, 031, 046, 061, 076, 091, 106,,,</td><td>X</td><td>X</td><td>X</td><td>O</td></tr>
<tr><td>002, 017, 032, 047, 062, 077, 092, 107,,,</td><td>X</td><td>X</td><td>O</td><td>X</td></tr>
<tr><td>003, 018, 033, 048, 063, 078, 093, 108,,,</td><td>X</td><td>X</td><td>O</td><td>O</td></tr>
<tr><td>004, 019, 034, 049, 064, 079, 094, 109,,,</td><td>X</td><td>O</td><td>X</td><td>X</td></tr>
<tr><td>005, 020, 035, 050, 065, 080, 095, 110,,,</td><td>X</td><td>O</td><td>X</td><td>O</td></tr>
<tr><td>006, 021, 036, 051, 066, 081, 096, 111,,,</td><td>X</td><td>O</td><td>O</td><td>X</td></tr>
<tr><td>007, 022, 037, 052, 067, 082, 097, 112,,,</td><td>X</td><td>O</td><td>O</td><td>O</td></tr>
<tr><td>008, 023, 038, 053, 068, 083, 098, 113,,,</td><td>O</td><td>X</td><td>X</td><td>X</td></tr>
<tr><td>009, 024, 039, 054, 069, 084, 099, 114,,,</td><td>O</td><td>X</td><td>X</td><td>O</td></tr>
<tr><td>010, 025, 040, 055, 070, 085, 100, 115,,,</td><td>O</td><td>X</td><td>O</td><td>X</td></tr>
<tr><td>011, 026, 041, 056, 071, 086, 101, 116,,,</td><td>O</td><td>X</td><td>O</td><td>O</td></tr>
<tr><td>012, 027, 042, 057, 072, 087, 102, 117,,,</td><td>O</td><td>O</td><td>X</td><td>X</td></tr>
<tr><td>013, 028, 043, 058, 073, 088, 103, 118,,,</td><td>O</td><td>O</td><td>X</td><td>O</td></tr>
<tr><td>014, 029, 044, 059, 074, 089, 104, 119,,,</td><td>O</td><td>O</td><td>O</td><td>X</td></tr>
<tr><td>015, 030, 045, 060, 075, 090, 105, 120,,,</td><td>O</td><td>O</td><td>O</td><td>O</td></tr>
</table>
O - LED lights up X - LED did not lights up

Example:
<table>
<tr><td>* 001, 016, 031, 046, 061, 076, 091, 106,,,</td><td>X</td><td>X</td><td>X</td><td>O</td></tr>
</table>
<table>
<tr><th>SOFTWARE VERSION</th></tr>
<tr><td>C700_ITFUSBDAC_001.S19</td></tr>
</table>
</td><td>Step 1 Enter into Doctor Mode.
Step 2 Press three times [AMP] button on remote control.

To exit, press [AMP] button on remote control.</td></tr>
</table>

6.2. Service Mode

6.2.1. Service Mode Table 1

<table>
<tr><th colspan="2">Item</th><th>LED Display</th><th>Key Operation</th></tr>
<tr><th>Mode Name</th><th>Description</th><th></th><th></th></tr>
<tr>
<td>Main Set Key</td>
<td>To check main set keys</td>
<td>

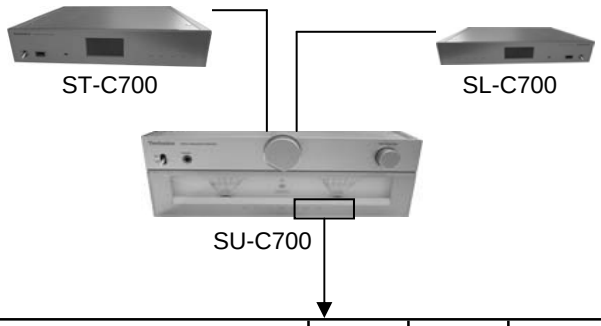
<table>
<tr><th>Phono</th><th>Line</th><th>PC</th></tr>
<tr><td>O</td><td>X</td><td>X</td></tr>
</table>
<table>
<tr><th>MAIN SET KEY CHECK</th><th>Coax 1</th><th>Coax 2</th><th>Coax 3</th><th>Opt</th></tr>
<tr><td>Start Main set key check</td><td>X</td><td>X</td><td>X</td><td>X</td></tr>
<tr><td>Power Switch ON -> OFF</td><td>X</td><td>X</td><td>X</td><td>O</td></tr>
<tr><td>Power Switch OFF -> ON</td><td>X</td><td>X</td><td>O</td><td>X</td></tr>
<tr><td>Volume Knob at Mid Level</td><td>X</td><td>X</td><td>O</td><td>O</td></tr>
<tr><td>Volume Knob at Max Level</td><td>X</td><td>O</td><td>X</td><td>X</td></tr>
<tr><td>Volume Knob at Min Level</td><td>X</td><td>O</td><td>X</td><td>O</td></tr>
<tr><td>Clockwise of Selector Knob</td><td>X</td><td>O</td><td>O</td><td>X</td></tr>
<tr><td>Counter clockwie of Selector Knob</td><td>X</td><td>O</td><td>O</td><td>O</td></tr>
<tr><td>Attenua for OFF -> ON</td><td>O</td><td>X</td><td>X</td><td>X</td></tr>
<tr><td>Attenua for ON -> OFF</td><td>O</td><td>X</td><td>X</td><td>O</td></tr>
</table>
O - LED lights up X - LED did not lights up

All the selector LED and LAPC LED will light up when the procedure is succesfully complete.
</td>
<td>Step 1 Enter into Doctor Mode.
Step 2 Press four times [AMP] button on remote control.

To exit, press [AMP] button on remote control.</td>
</tr>
<tr>
<td>Shipment Mode</td>
<td>To initialize to shipping condition</td>
<td></td>
<td>Step 1 Enter into Doctor Mode.
Step 2 Switch off Power Switch.
Step 3 Wait untill all Selector LED, Backlight LED OFF and then disconnect AC Cord.

To exit, press [AMP] button on remote control.</td>
</tr>
</table>

6.2.2. Service Mode Table 2

<table>
<tr><th colspan="2">Item</th><th rowspan="2">LED Display</th><th rowspan="2">Key Operation</th></tr>
<tr><th>Mode Name</th><th>Description</th></tr>
<tr><td>System Combination</td><td>To check the system combination</td><td>Note: Before start this test, please connect the SU-C700, SL-C700 and ST-C700 with Control cable.
 

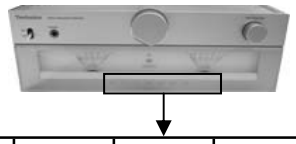
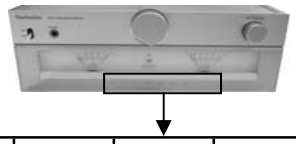
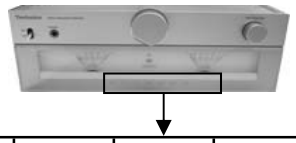
<table><tr><th>SYSTEM COMBINATION CHECK</th><th>Coax 1</th><th>Coax 2</th><th>Coax 3</th><th>Opt</th></tr><tr><td>KEY [CDP]</td><td></td><td></td><td></td><td></td></tr><tr><td>Send the command to CDP</td><td>X</td><td>X</td><td>X</td><td>O</td></tr><tr><td>Receive the respond from CDP</td><td>X</td><td>X</td><td>O</td><td>X</td></tr><tr><td>KEY [NWP]</td><td></td><td></td><td></td><td></td></tr><tr><td>Send the command to NWP</td><td>X</td><td>O</td><td>X</td><td>X</td></tr><tr><td>Receive the respond from NWP</td><td>O</td><td>X</td><td>X</td><td>X</td></tr></table>O - LED lights up X - LED did not lights up

When all 4 LED lights on, it shows that the system can communicate.</td><td>Step 1 Press [CD] button on the remote control. (For SU-C700 and SL-C700 pairing)
Step 2 Press [NWP] button on the remote control. (For SU-C700 and ST-C700 pairing)

To exit, use Selector Knob on main unit.</td></tr>
</table>

6.3. Error Code Table

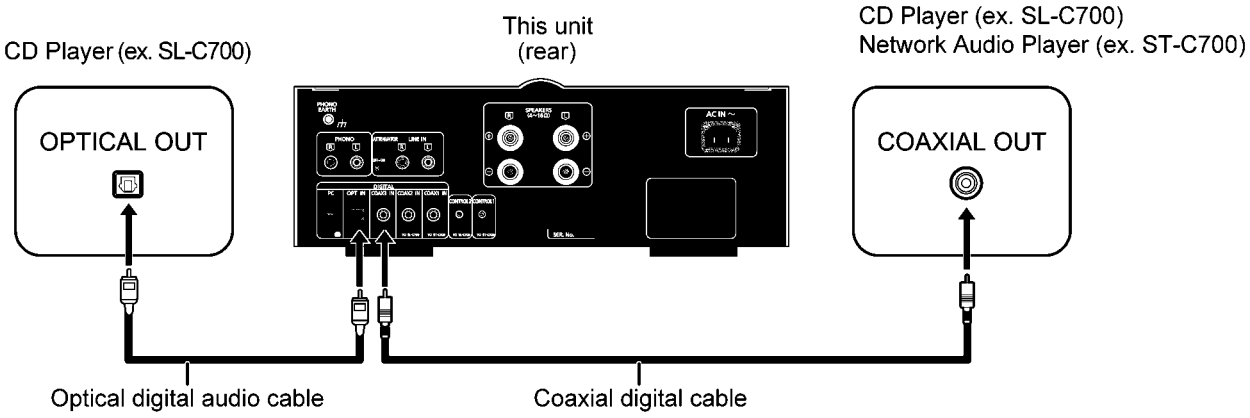
- When any abnormal state occurs, there are some error indication with LED displayed.
- This feature implemented in the model in order to help in indentifying and troubleshooting abnormal conditions.

<table>
<tr><th colspan="2">Item</th><th rowspan="2">LED Display</th><th rowspan="2">Key Operation</th></tr>
<tr><th>Mode Name</th><th>Description</th></tr>
<tr><td>Error Code F76</td><td>Current Abnormality</td><td> 
<table>
<tr><th>Phono</th><th>Line</th><th>PC</th><th>Coax 1</th><th>Coax 2</th><th>Coax 3</th><th>Opt</th></tr>
<tr><td>O</td><td>O</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td></tr>
</table>
O - LED lights up X - LED did not lights up</td><td>To exit, press [AMP] button on remote control.</td></tr>
<tr><td>Error Code F61</td><td>1) Short Speaker
2) AMP Error</td><td> 
<table>
<tr><th>Phono</th><th>Line</th><th>PC</th><th>Coax 1</th><th>Coax 2</th><th>Coax 3</th><th>Opt</th></tr>
<tr><td>O</td><td>O</td><td>O</td><td>X</td><td>X</td><td>X</td><td>X</td></tr>
</table>
O - LED lights up X - LED did not lights up</td><td>To exit, press [AMP] button on remote control.</td></tr>
<tr><td rowspan="4">Error Code F70</td><td>DSP Error</td><td> 
<table>
<tr><th>Phono</th><th>Line</th><th>PC</th><th>Coax 1</th><th>Coax 2</th><th>Coax 3</th><th>Opt</th></tr>
<tr><td>O</td><td>X</td><td>O</td><td>X</td><td>X</td><td>X</td><td>X</td></tr>
</table>
O - LED lights up X - LED did not lights up</td><td rowspan="4"></td></tr>
<tr><td>DAP Error</td><td>
<table>
<tr><th>Phono</th><th>Line</th><th>PC</th><th>Coax 1</th><th>Coax 2</th><th>Coax 3</th><th>Opt</th></tr>
<tr><td>O</td><td>X</td><td>O</td><td>O</td><td>X</td><td>X</td><td>X</td></tr>
</table>
O - LED lights up X - LED did not lights up</td></tr>
<tr><td>USB Error</td><td>
<table>
<tr><th>Phono</th><th>Line</th><th>PC</th><th>Coax 1</th><th>Coax 2</th><th>Coax 3</th><th>Opt</th></tr>
<tr><td>O</td><td>X</td><td>O</td><td>O</td><td>O</td><td>X</td><td>X</td></tr>
</table>
O - LED lights up X - LED did not lights up</td></tr>
<tr><td>EEPROM Error</td><td>
<table>
<tr><th>Phono</th><th>Line</th><th>PC</th><th>Coax 1</th><th>Coax 2</th><th>Coax 3</th><th>Opt</th></tr>
<tr><td>O</td><td>X</td><td>O</td><td>O</td><td>X</td><td>X</td><td>X</td></tr>
</table>
O - LED lights up X - LED did not lights up</td><td>To exit, press [AMP] button on remote control.</td></tr>
</table>

7 Troubleshooting Guide

7.1. Adjustment of the Peak Power Meter

Subject
After replacement of METER PCB or METER DRIVER PCB, adjustment of the peak power meter is required.
Connection
Connect CD Player to OPT IN terminal or COAX1 IN terminal to play Audio Test Disc.
Or connect Network Audio Player to COAX1 IN terminal to play USB Memory with Audio Test sound.



Test sound preparation:
Following test sounds are required.

a. MP3 file for 1 kHz sine wave 0 Vrms (-∞dB)
b. MP3 file for 1 kHz sine wave 2 Vrms (0dB)

Go into Meter Adjustment mode:

Step 1 Press “AMP” button on the remote control and keep pressing untill step 4.
And then turn the unit on by pull-up the Power switch lever on the unit.

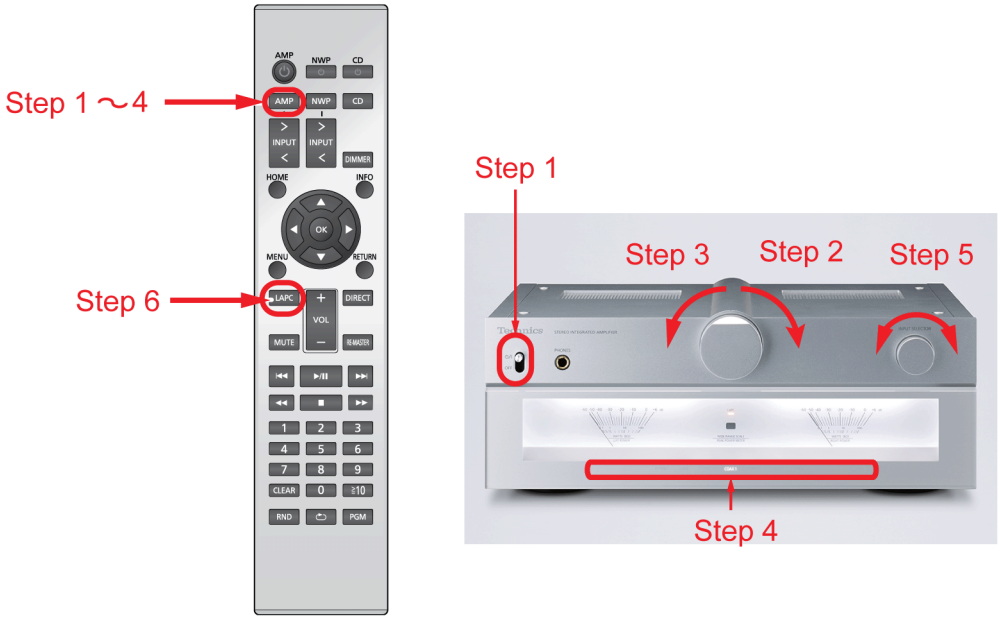
Step 2 After clicking sound can be heard, rotate Volume know clockwise to maximum.
(Pressing “AMP” button on the remote control continuously.)

Step 3 Rotate Volume know aunti-clockwise to minimum.
(Pressing “AMP” button on the remote control continuously.)

Step 4 All Input Indicater are flashing for a few seconds.
(After flashing, release the pressing “AMP” button on the remote control.)

Step 5 Select input source by Input selector knob, “OPT” or “COAX1” which CD Player or Network Audio Player is connected.

Step 6 Press “LAPC” button on the remote control.
Input Indicater”PHONO”, “PC” and “OPT” are lit.
The unit goes into Meter Adjustment mode.

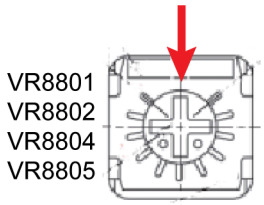


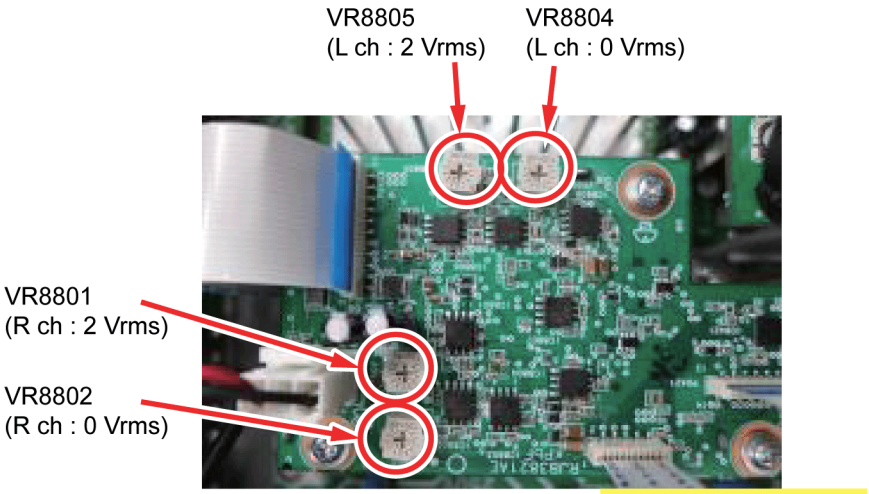
Exit from Meter Adjustment mode to Normal operation:

Press power button for AMP on the remote control or pull-down the Power switch lever on the unit to turn the unit off.

Adjustment procedure:

Step 1 Set Adjustment Volume VR8801, VR8802, VR8804 and VR8805 to center (50%) position.





Step 2 Go into Meter Adjustment mode.

Step 3 Adjustment of 0Vrms (-∞dB) Level.

Play 0Vrms (-∞dB) of 1 kHz sine wave from CD player or Network Audio Player.
(It should be Play mode. Adjustment can not be done in Pause or Mute mode.)
Adjust each VR to set the needle at Mechanical zero position.
L ch: VR8804
R ch: VR8802

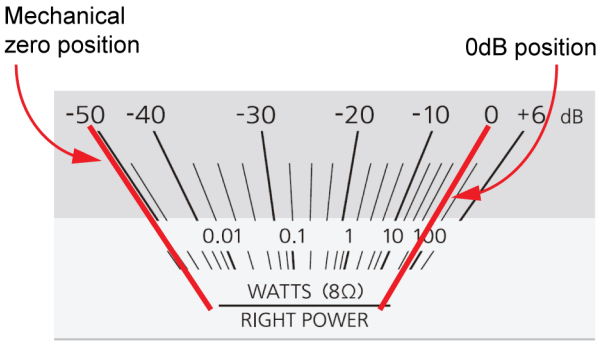
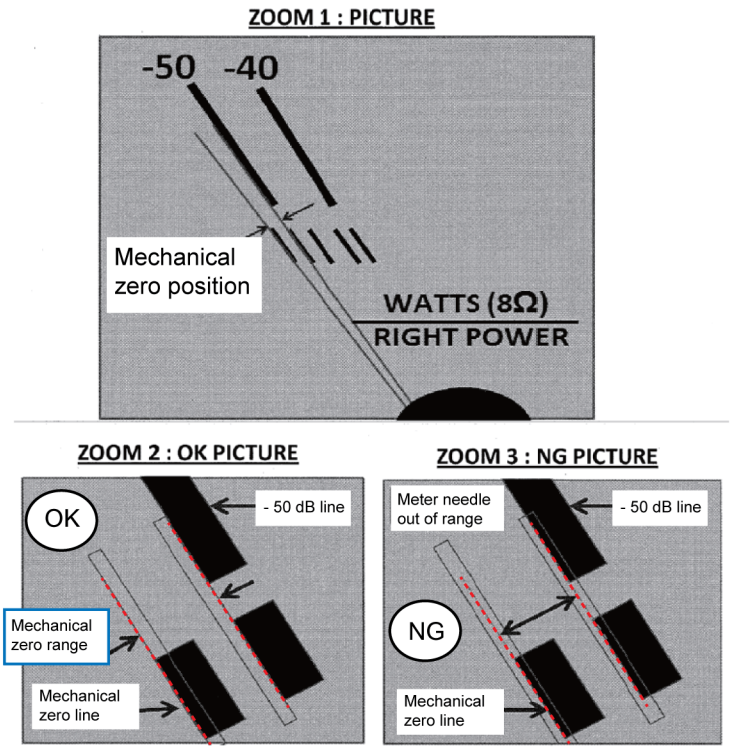


Figure 01



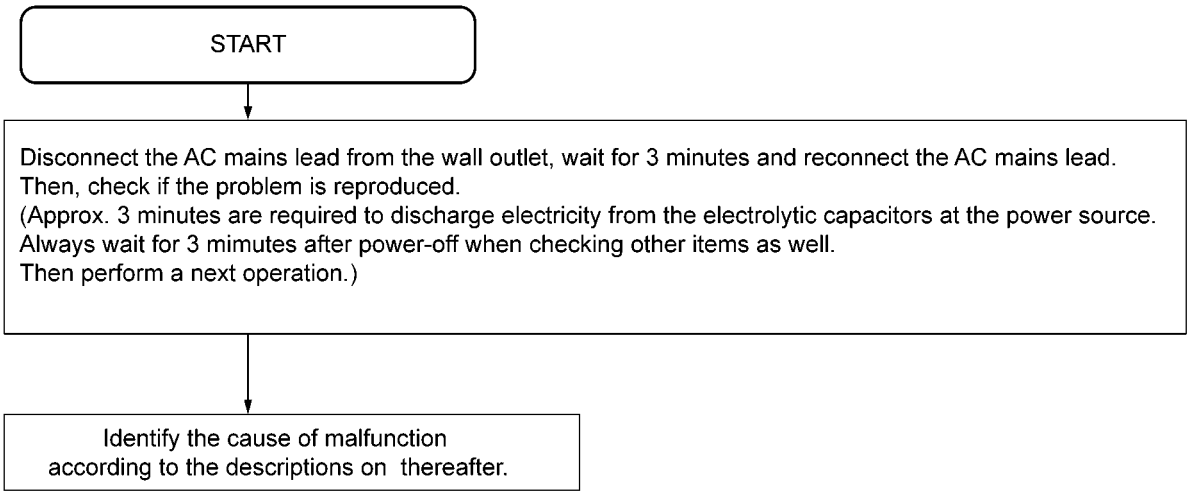
Step 4 Adjustment of 2Vrms (0dB) Level.

Play 2Vrms (0dB) of 1 kHz sine wave from CD player or Network Audio Player.
Adjust each VR to set the needle at 0dB position shown in Figure 01.
L ch: VR8805
R ch: VR8801

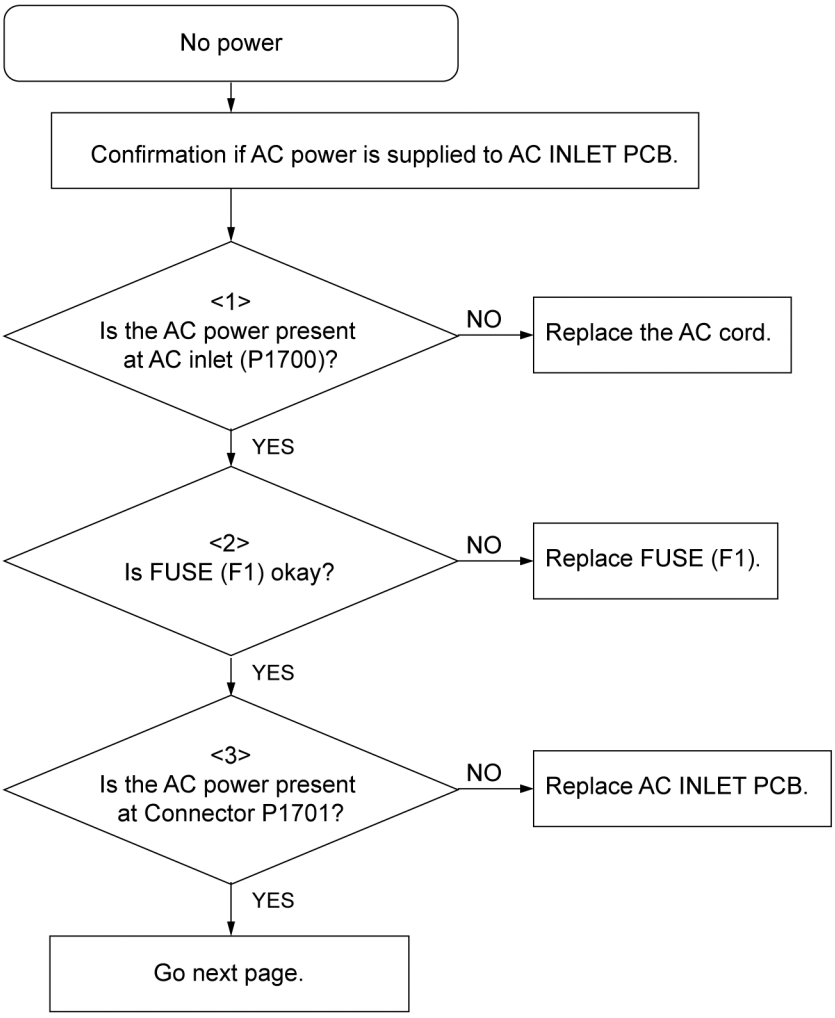
Step 5 Back to Step 3 and confirm the needle position at 0Vrms(-∞dB) Level.

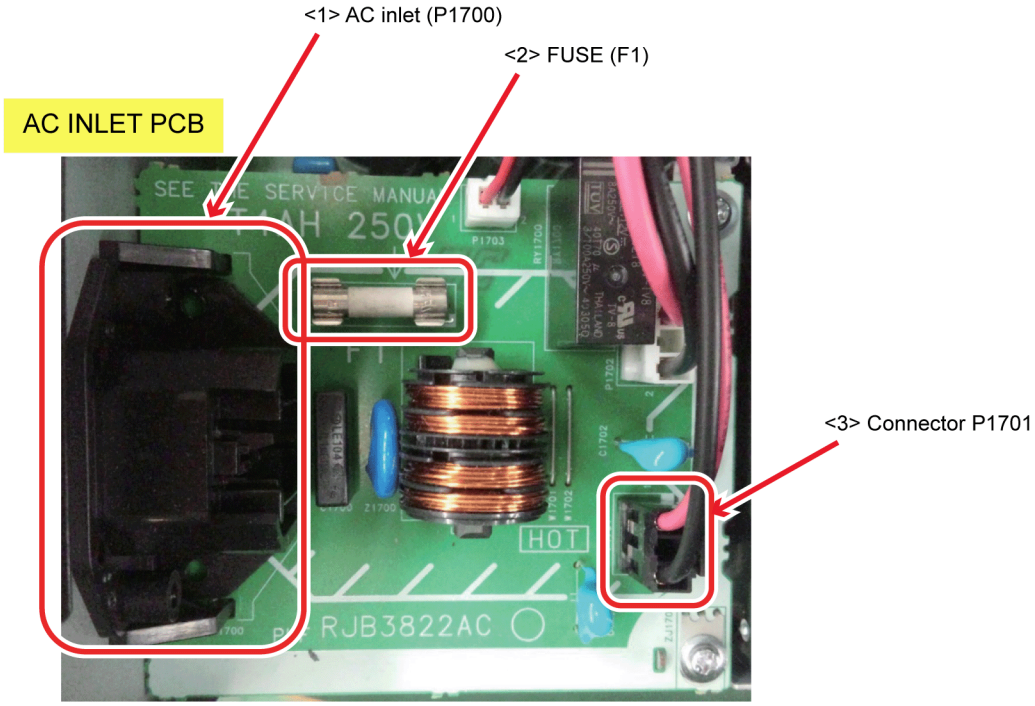
Step 6 Exit from Meter Adjustment mode by turn the unit off.

7.2. Start to Check the Problem



7.3. No power


No power
Confirmation if AC power is supplied to AC INLET PCB.
<1>
Is the AC power present
at AC inlet (P1700)?
NO
Replace the AC cord.
YES
<2>
Is FUSE (F1) okay?
NO
Replace FUSE (F1).
YES
<3>
Is the AC power present
at Connector P1701?
NO
Replace AC INLET PCB.
YES
Go next page.


<1> AC inlet (P1700)
<2> FUSE (F1)
AC INLET PCB
<3> Connector P1701
HOT
RJB3822AC

No power
(from the previous section)

YES

Confirmation if AC power is supplied to SMPS PCB.

<4>
Is the AC power present
at Connector P1712?

NO → Replace Lead wire between
P1701 (AC INLET PCB) and P1712 (SMPS PCB).

YES

<5>
Is FUSE (F2) okay?

NO → Replace SMPS PCB.

YES

<6>
Is the AC power present
at Connector P1711?

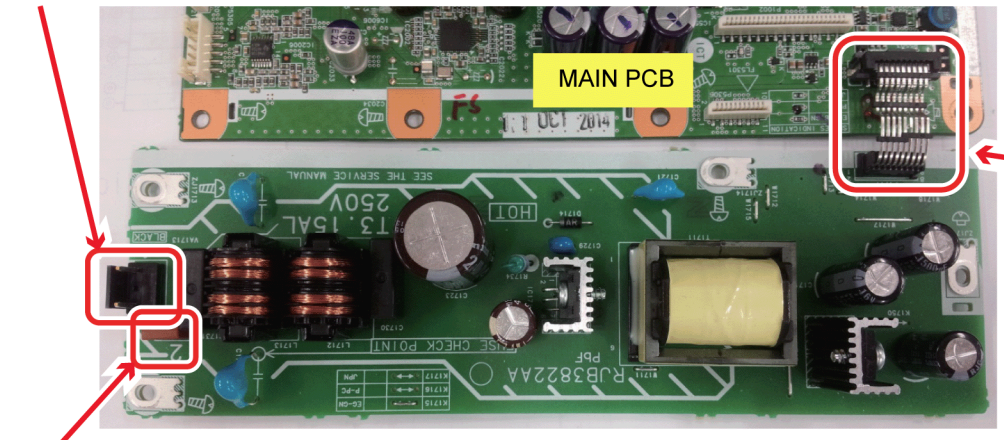
NO → Is the AC power present
at Connector P1711
after disconnection of P1711?

NO → Replace SMPS PCB.

YES → Replace MAIN PCB.

YES → Go next page.

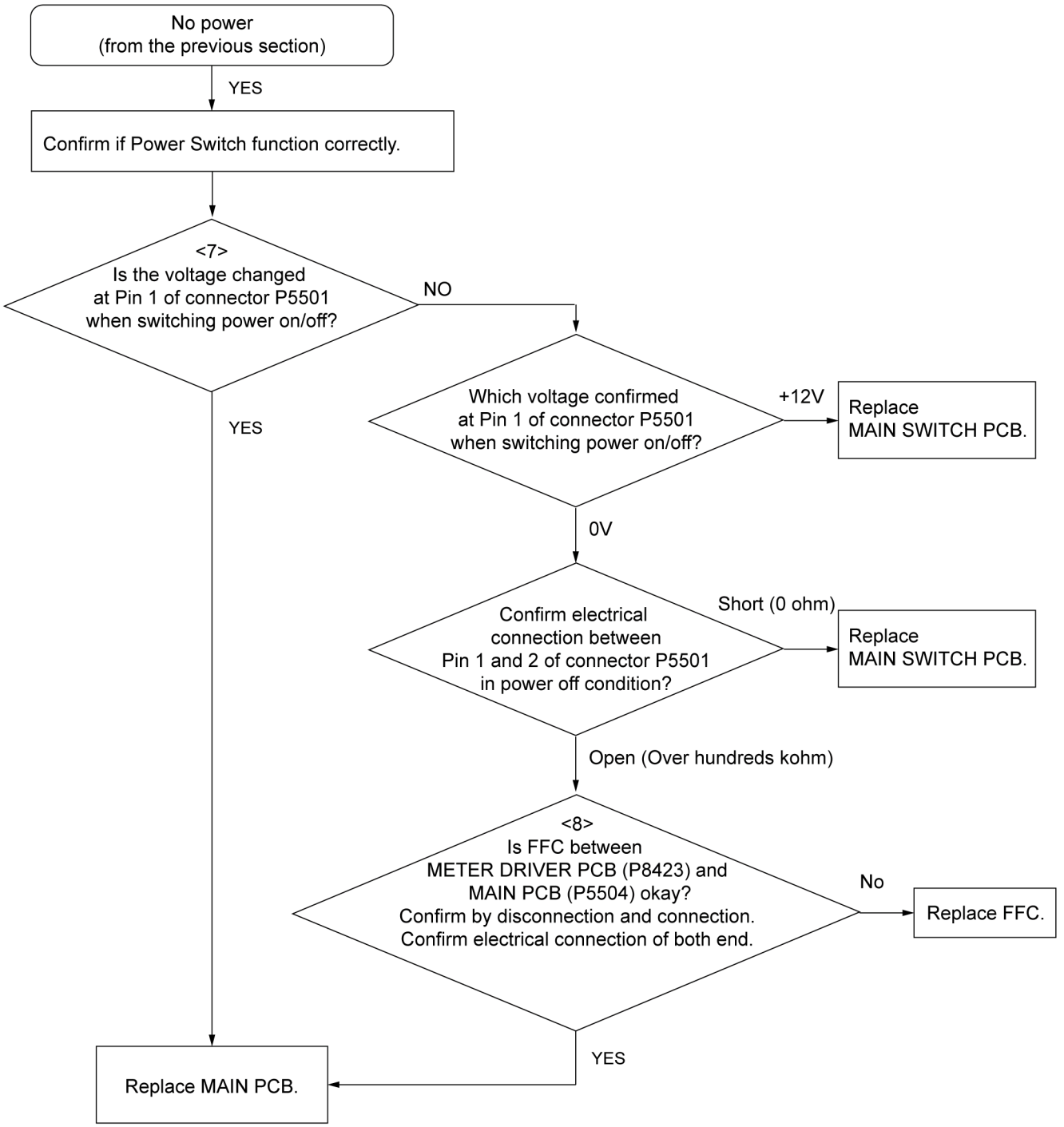
<4>
Connector P1712



<6>
Connector P1711

Pin No.	Value/Name
1	- - -
2	12V
3	12V
4	12V
5	GND
6	GND
7	GND
8	- - -
9	- - -

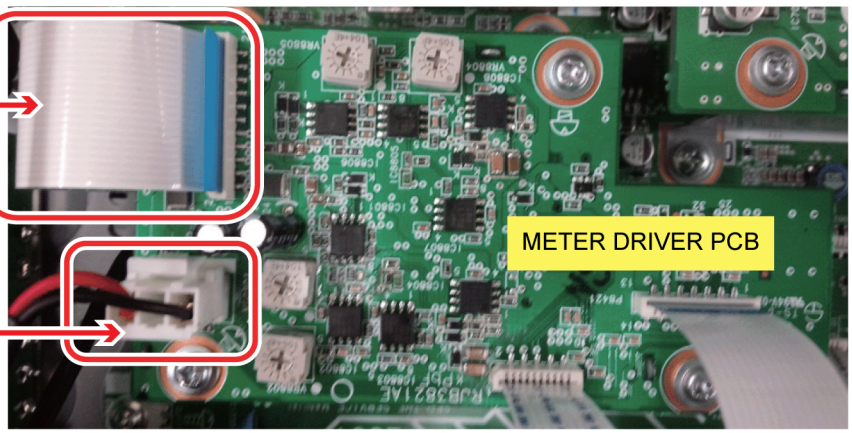
<5>
FUSE (F2)



<8>
FFC from
METER DRIVER PCB (P8423) to
MAIN PCB (P5504)

<7>
Connector P5501 on METER DRIVER PCB
to MAIN SWITCH PCB

Pin No.	Value/Name	
	Power OFF	Power ON
1	12V	0V
2	GND	GND



7.4. Shutdown right after Power ON

The unit goes shutdown automatically right after Power ON

Confirmation if AC power is supplied to MAIN PCB.

<1> Is the correct voltage present at connector P1762?

YES → Go to check item <10>.

NO

Can be heard the click sound of relay component when turn on?

YES

NO

<2> Is the correct voltage present at connector P5502?

NO → Replace MAIN PCB.

YES

<3> Is the correct voltage present at connector P1703?

NO → Replace wire between P1703 and P5502.

YES

<4> Is the AC power present at Connector P1702 in power on condition?

NO → Replace AC INLET PCB.

YES

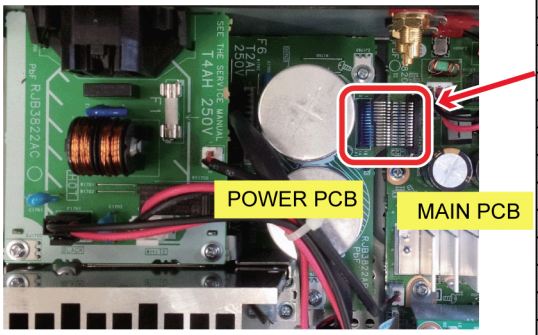
<5> Is the AC power present at Connector P1741 in power on condition?

NO → Replace wire between P1702 and P1741.

YES

Go next page.

Note:
LED lights momentaly.
One of possible cause is that the unit goes shutdown due to the detection of abnormal operation.

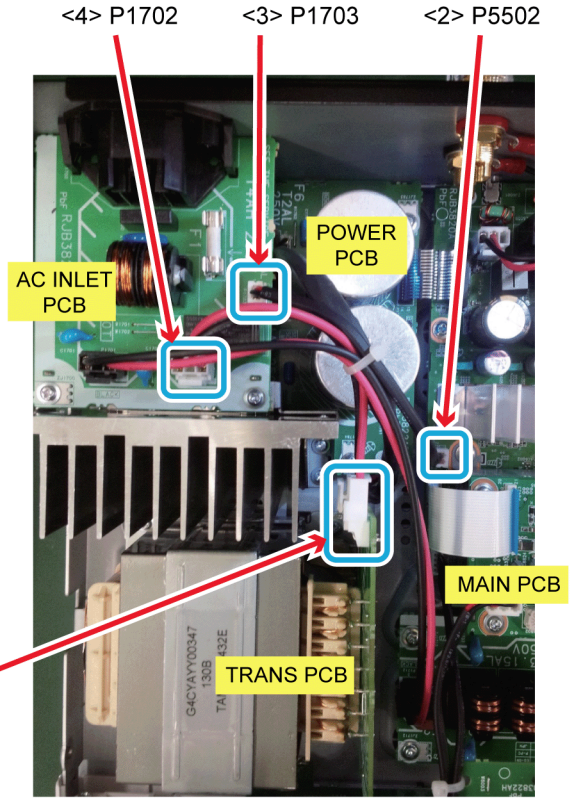


<1>
Connector P1762

Pin No.	Value/Name
1	- - -
2	+18V
3	GND
4	GND
5	-18V
6	- - -
7	- - -
8	+32V
9	+32V
10	+32V
11	+32V
12	PGND
13	PGND
14	PGND
15	PGND

P1703 / P5502

Pin No.	Value/Name	
	Power OFF	Power ON
1	+12V	+12V
2	+12V	GND



The unit goes shutdown automatically right after Power ON
(from the previous section)

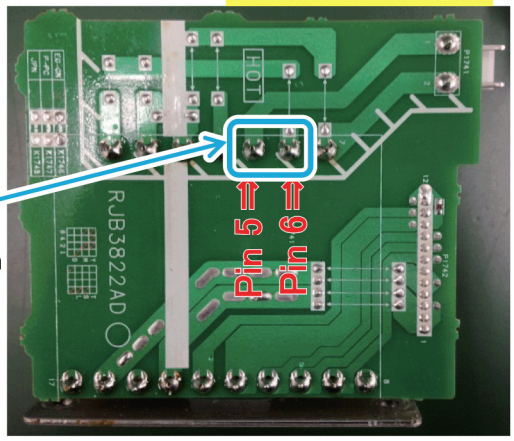
YES

<6>
Is it electrically connected between Pin 5 and 6 of Transformer T1741?

NO → Replace TRANSFORMER PCB

YES

TRANSFORMER PCB

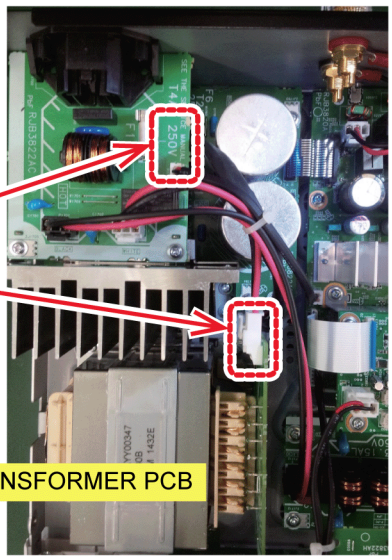


<6>
Built-in FUSE between Pin 5 and 6 of Transformer T1741

<7>
Is WIRE between POWER PCB (P1761) and TRANSFORMER PCB (P1742) okay?
Confirm by disconnection and connection.
Confirm electrically connection of both end.

NO → Replace WIRE.

YES



<7-1> Connector P1761

<7-2> Connector P1742

TRANSFORMER PCB

<8>
Is the Fuse (F3) on POWER PCB okay?

NO → Replace Fuse F3.

YES

<9>
Are the Fuse (F4, F5, F6) on POWER PCB okay?

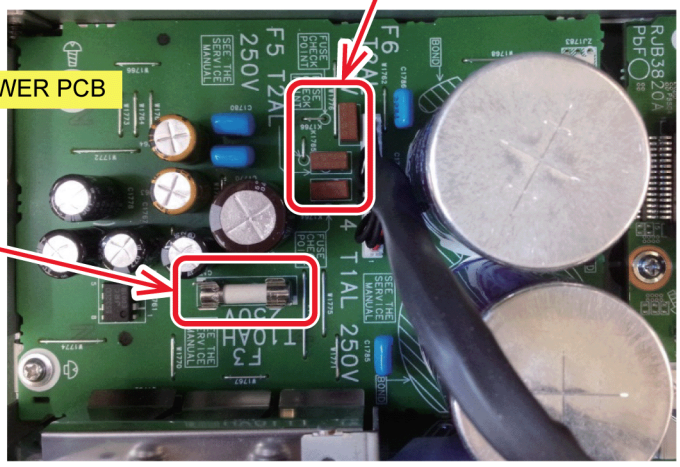
NO → Replace POWER PCB.

YES

Go next page.

<9> Fuse (F4, F5, F6)

POWER PCB



<8> Fuse (F3)

The unit goes shutdown automatically right after Power ON
(from the previous section)

YES

Confirm if the thermistor TH1761 on POWER PCB is failure.

<10>
Confirm value of resistor
between Pin 1 and Pin 3 of connector P1762
after disconnection of
connector P1762 from MAIN PCB.

Failure: OPEN or SHORT

Replace POWER PCB.

Normal: 100 kohm or less.

Confirm if the Speaker Terminal is failure.

<11>
Confirm the symptom
after disconnect
P6001 (SPEAKER-R) and
P6002 (SPEAKER-L).

Normal operation
without symptom.

No change.
(Still shutdown)

Confirm electrical
connection between (+) and (-) of
wire from P6001 or P6002
to speaker terminal.

Short

Replace the wire
from P6001 or P6002
to speaker terminal.

Open

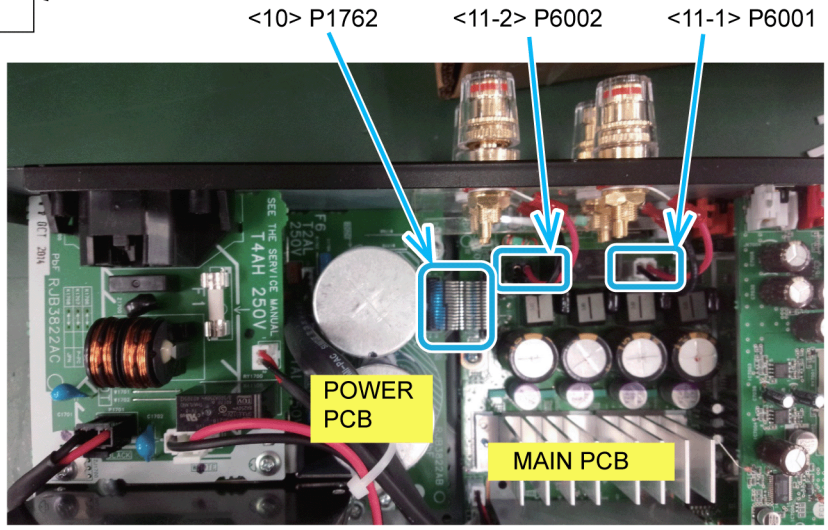
Confirm the electrical
connection between speaker terminal
and chassis.

Short

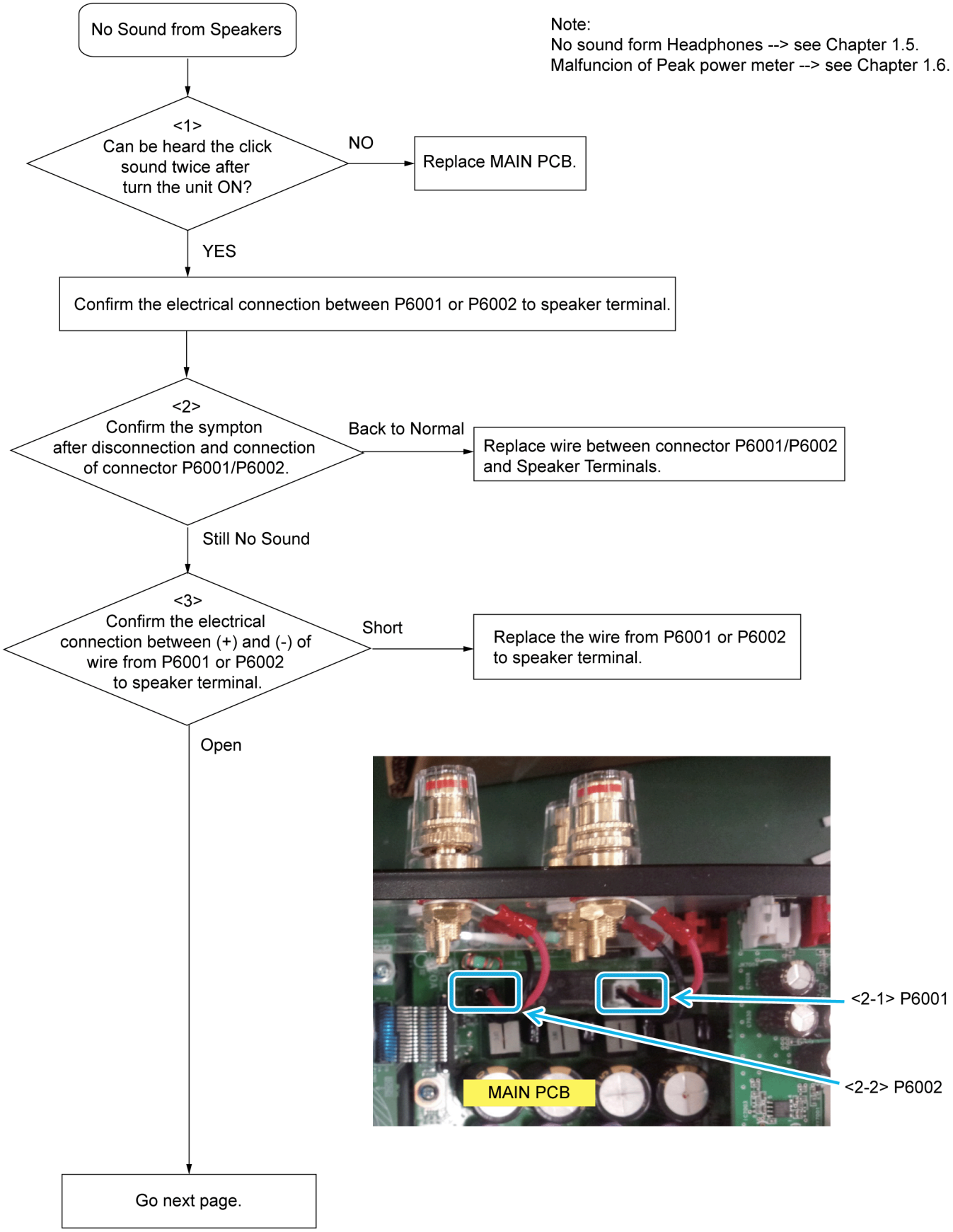
Replace
speaker terminal.

Open

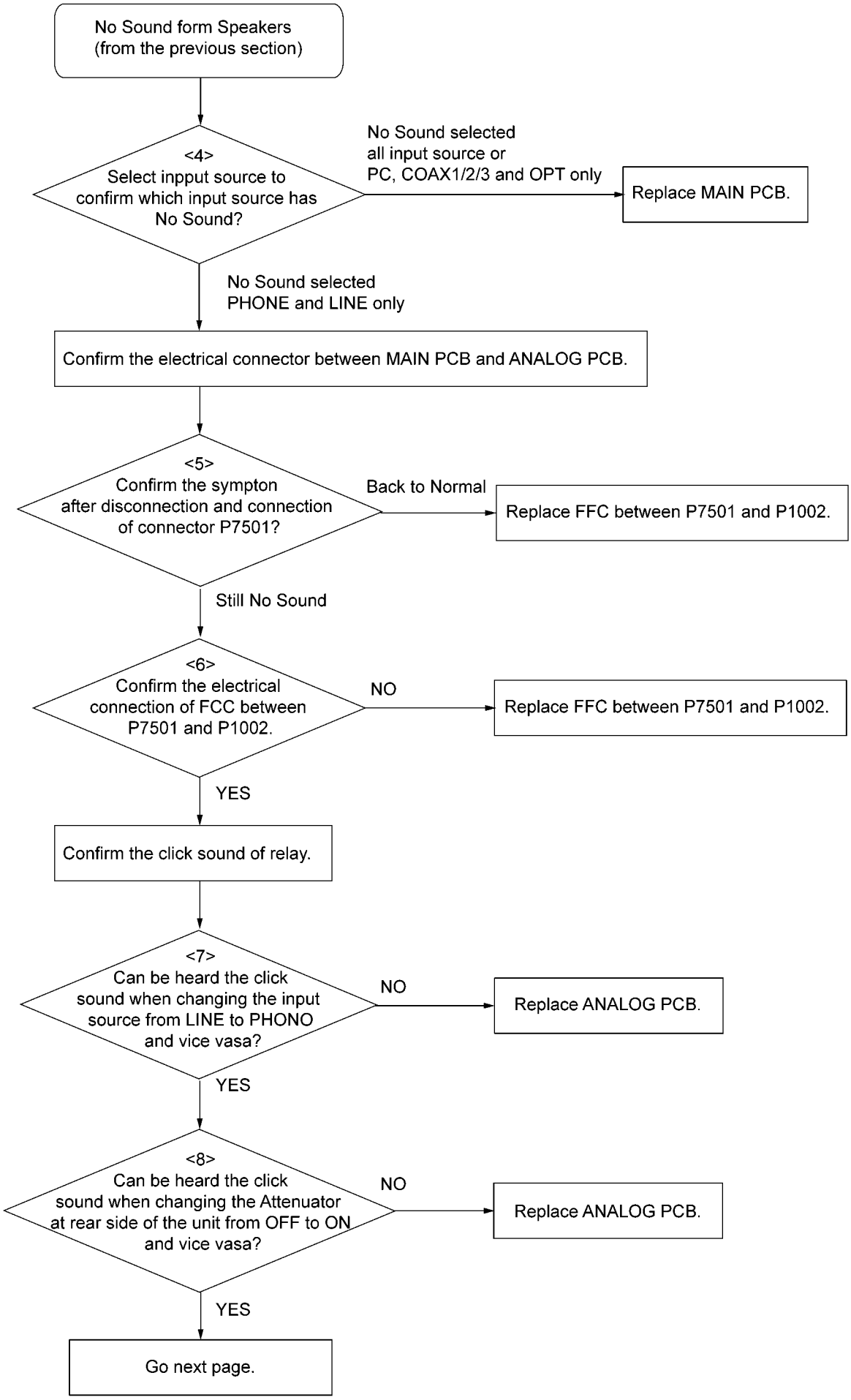
Replace MAIN PCB.

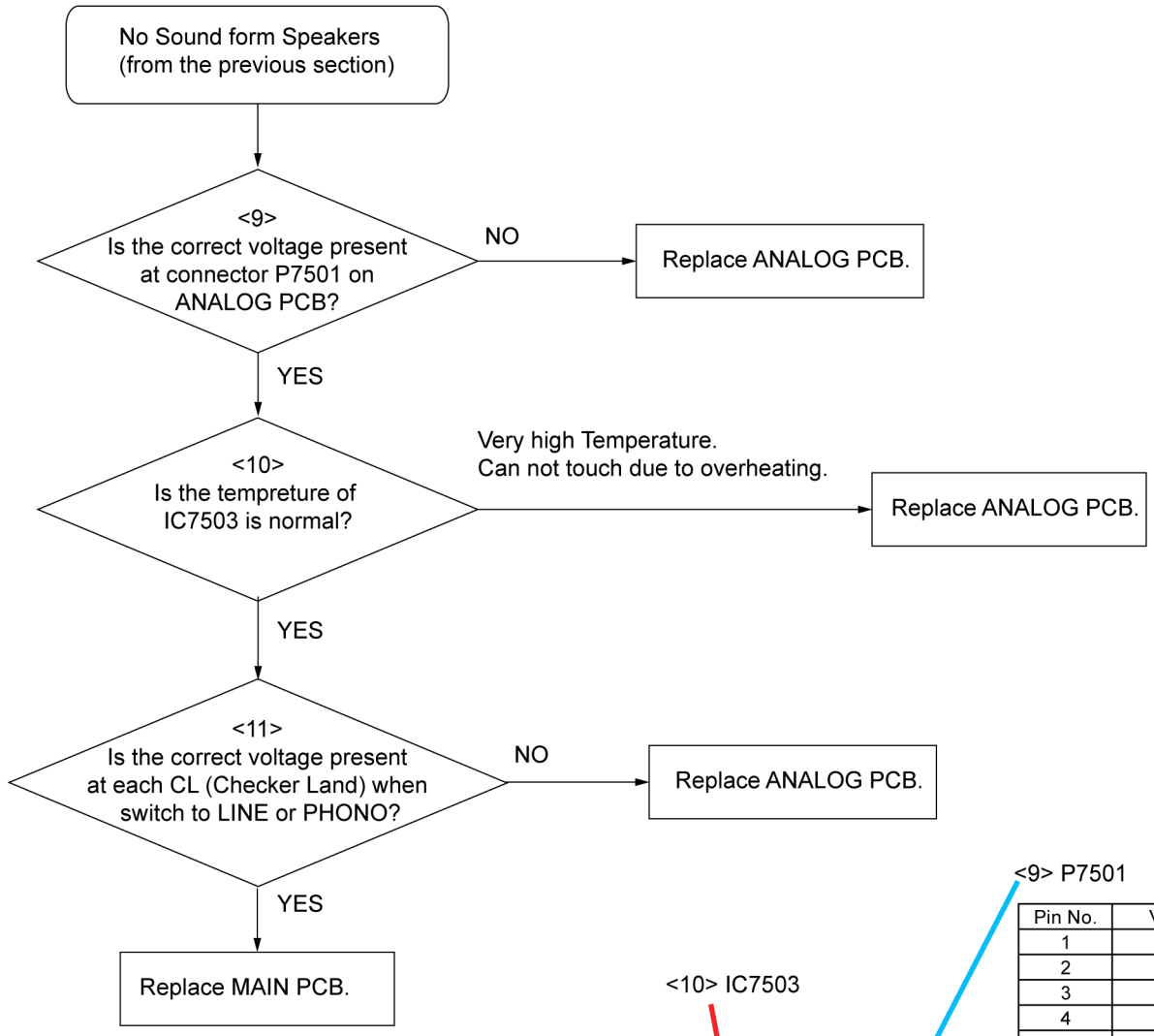


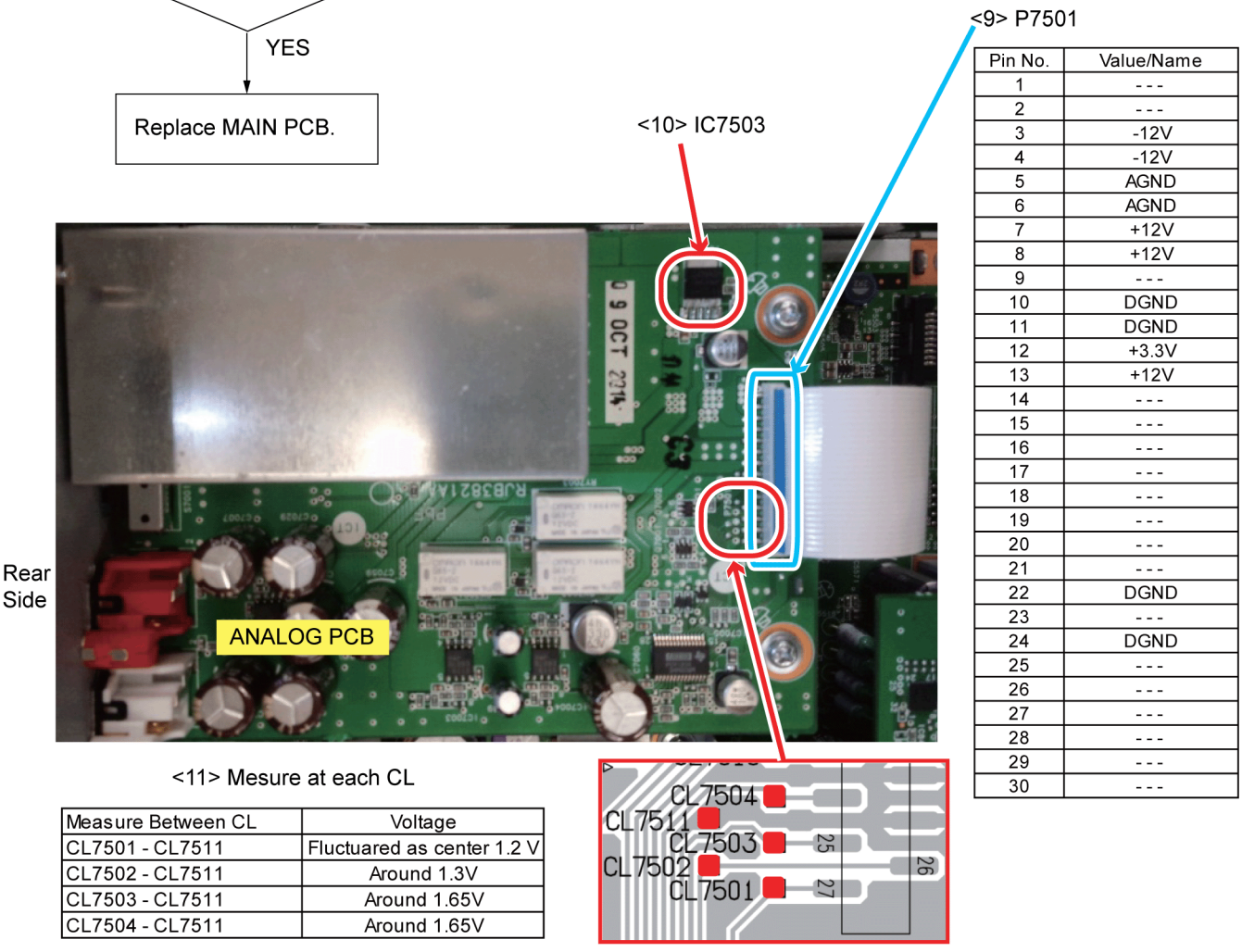
7.5. No Sound from Speakers



Note:
No sound form Headphones --> see Chapter 1.5.
Malfuncion of Peak power meter --> see Chapter 1.6.


No Sound form Speakers
(from the previous section)
<4>
Select inpput source to
confirm which input source has
No Sound?
No Sound selected
all input source or
PC, COAX1/2/3 and OPT only
Replace MAIN PCB.
No Sound selected
PHONE and LINE only
Confirm the electrical connector between MAIN PCB and ANALOG PCB.
<5>
Confirm the sympton
after disconnection and connection
of connector P7501?
Back to Normal
Replace FFC between P7501 and P1002.
Still No Sound
<6>
Confirm the electrical
connection of FCC between
P7501 and P1002.
NO
Replace FFC between P7501 and P1002.
YES
Confirm the click sound of relay.
<7>
Can be heard the click
sound when changing the input
source from LINE to PHONO
and vice vasa?
NO
Replace ANALOG PCB.
YES
<8>
Can be heard the click
sound when changing the Attenuator
at rear side of the unit from OFF to ON
and vice vasa?
NO
Replace ANALOG PCB.
YES
Go next page.



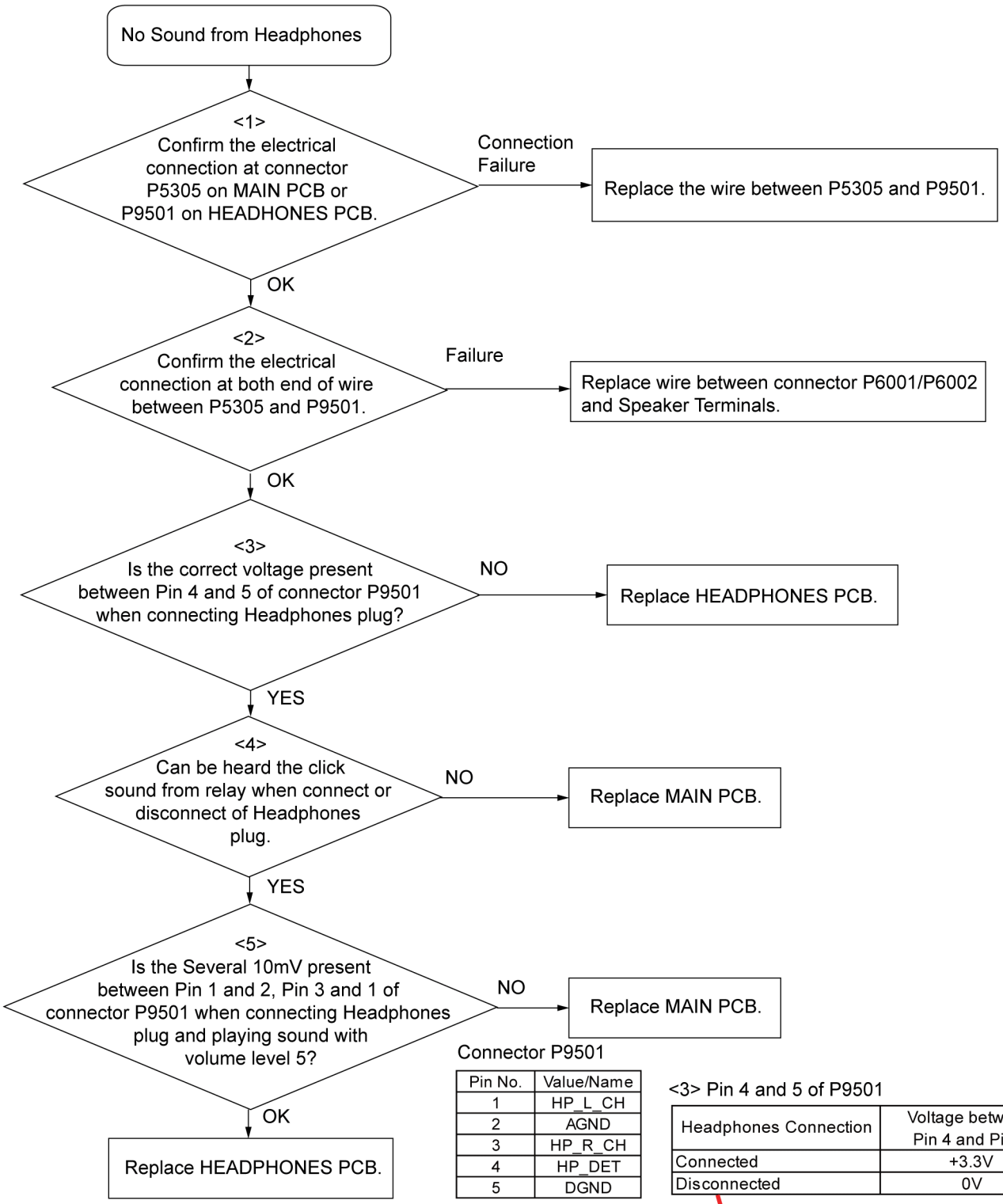


Pin No.	Value/Name
1	- - -
2	- - -
3	-12V
4	-12V
5	AGND
6	AGND
7	+12V
8	+12V
9	- - -
10	DGND
11	DGND
12	+3.3V
13	+12V
14	- - -
15	- - -
16	- - -
17	- - -
18	- - -
19	- - -
20	- - -
21	- - -
22	DGND
23	- - -
24	DGND
25	- - -
26	- - -
27	- - -
28	- - -
29	- - -
30	- - -

<11> Mesure at each CL

Measure Between CL	Voltage
CL7501 - CL7511	Fluctuared as center 1.2 V
CL7502 - CL7511	Around 1.3V
CL7503 - CL7511	Around 1.65V
CL7504 - CL7511	Around 1.65V

7.6. No Sound from Headphones



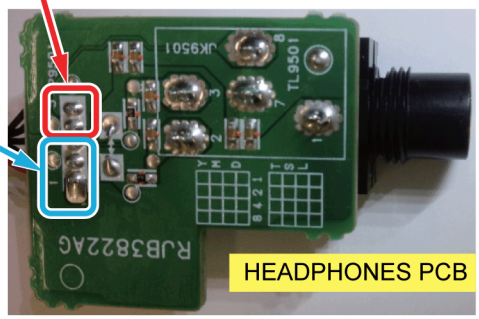
Connector P9501

Pin No.	Value/Name
1	HP_L_CH
2	AGND
3	HP_R_CH
4	HP_DET
5	DGND

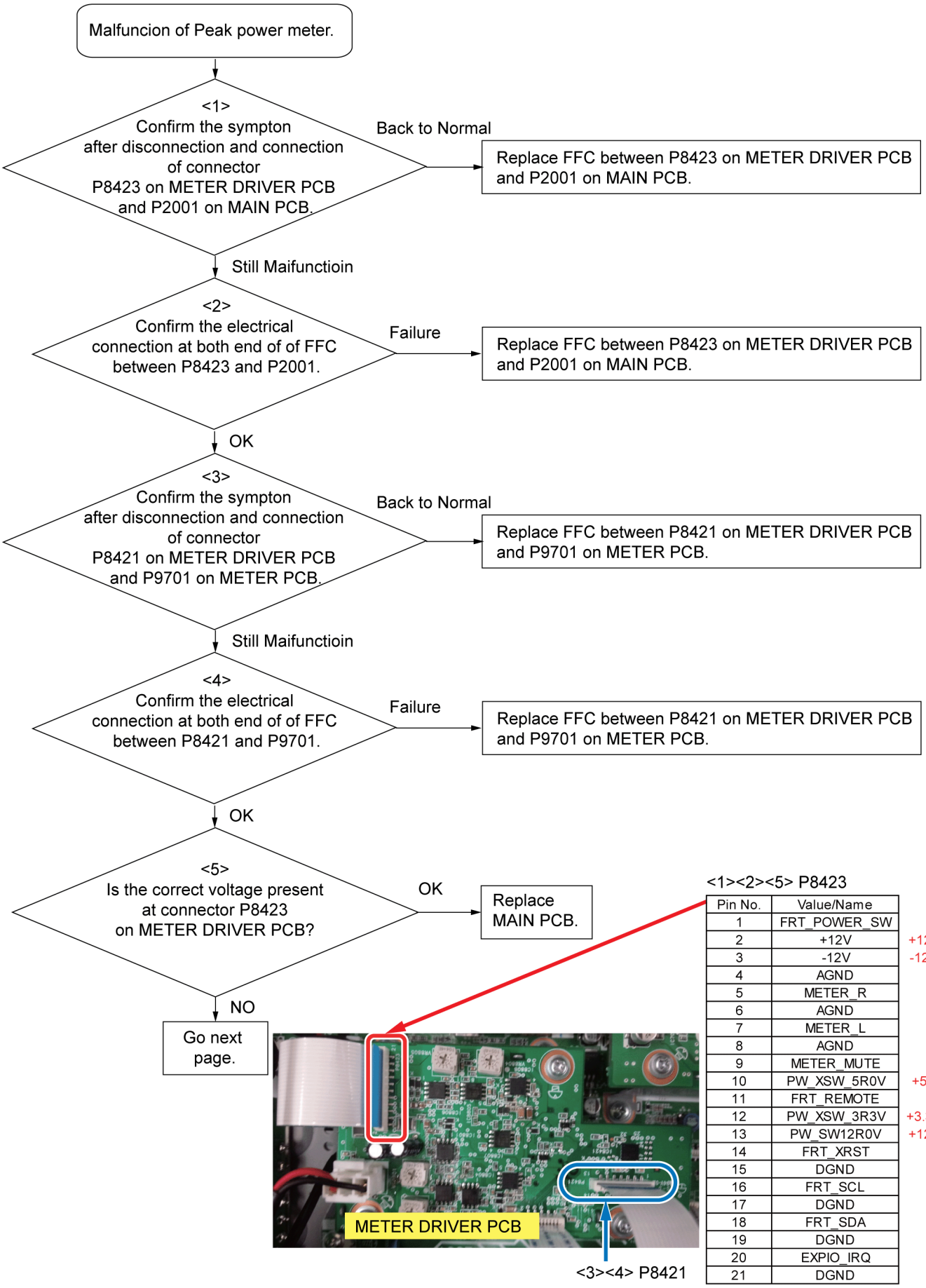
<3> Pin 4 and 5 of P9501

Headphones Connection	Voltage between Pin 4 and Pin 5
Connected	+3.3V
Disconnected	0V

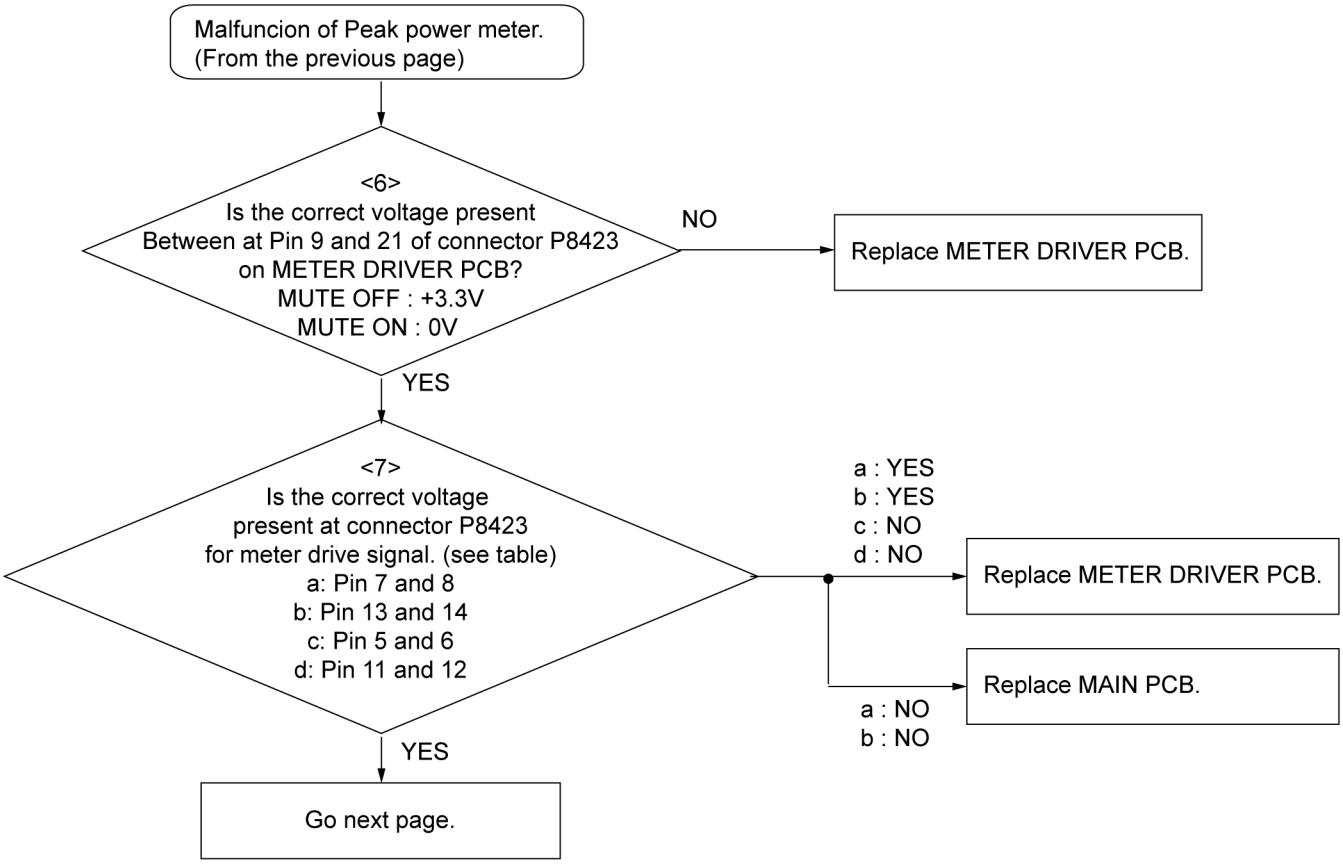
<5>
Measurement point
a. between Pin 1 and 2, Pin 3 and 1 of connector P9501
b. between Pin 1 and 2, Pin 3 and 1 of connector P9501
Codition:
By Voltmeter with AC range.
Connecting Headphones plug and playing sound.
Set volume level 4.
Voltage should be: Several 10mV



7.7. Malfuncion of Peak power meter

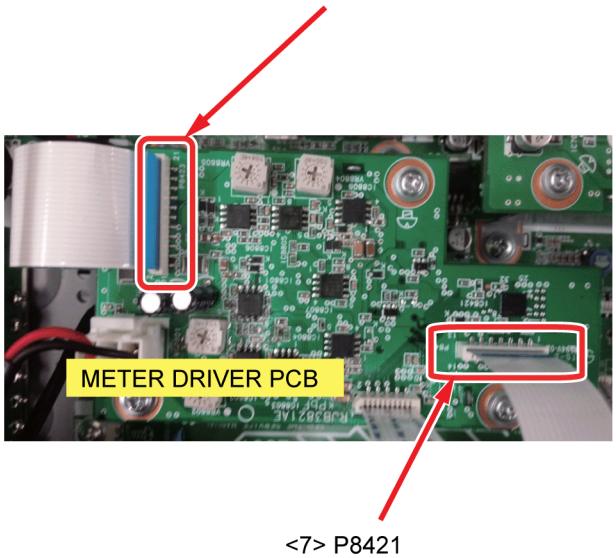


Pin No.	Value/Name	
1	FRT_POWER_SW	
2	+12V	+12V
3	-12V	-12V
4	AGND	
5	METER_R	
6	AGND	
7	METER_L	
8	AGND	
9	METER_MUTE	
10	PW_XSW_5R0V	+5V
11	FRT_REMOTE	
12	PW_XSW_3R3V	+3.3V
13	PW_SW12R0V	+12V
14	FRT_XRST	
15	DGND	
16	FRT_SCL	
17	DGND	
18	FRT_SDA	
19	DGND	
20	EXPIO_IRQ	
21	DGND	



<6><7> P8423

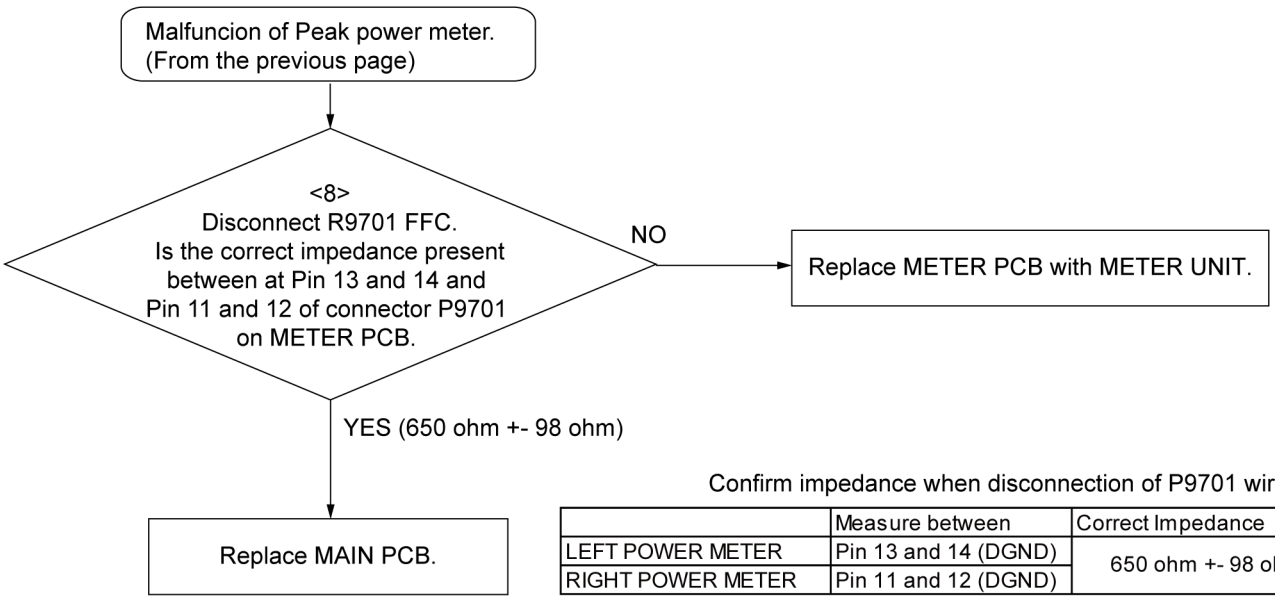
		Measure Between	Correct Voltage	Remark
LEFT POWER METER	**a**	Pin 7 and 8 (AGND)	0V to 2V	Measure by Voltmeter with AC range
RIGHT POWER METER	**b**	Pin 5 and 6 (AGND)	0V to 2V	



Note:
Volume level should be set over 2
for correct measurement
of both R8423 and R8421.

<7> P8421

		Measure Between	Correct Voltage	Remark
LEFT POWER METER	**c**	Pin 13 and 14 (DGND)	0V to 350mV	Measure by Voltmeter with DC range
RIGHT POWER METER	**d**	Pin 11 and 12 (DGND)	0V to 350mV	

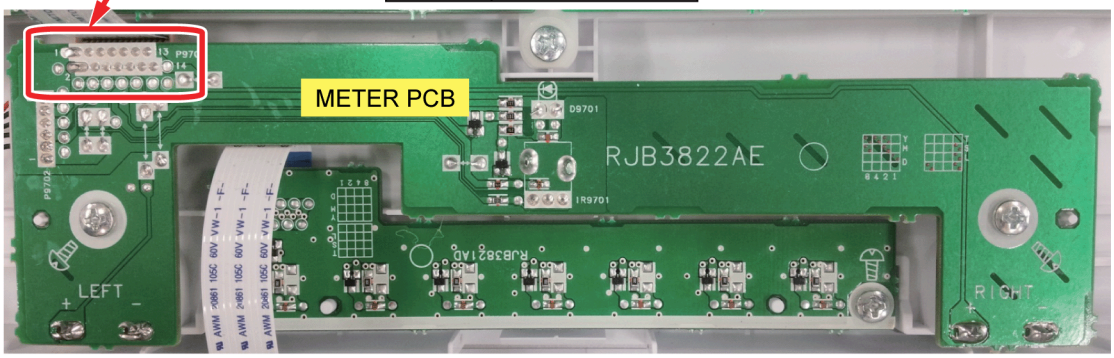


Confirm impedance when disconnection of P9701 wire.

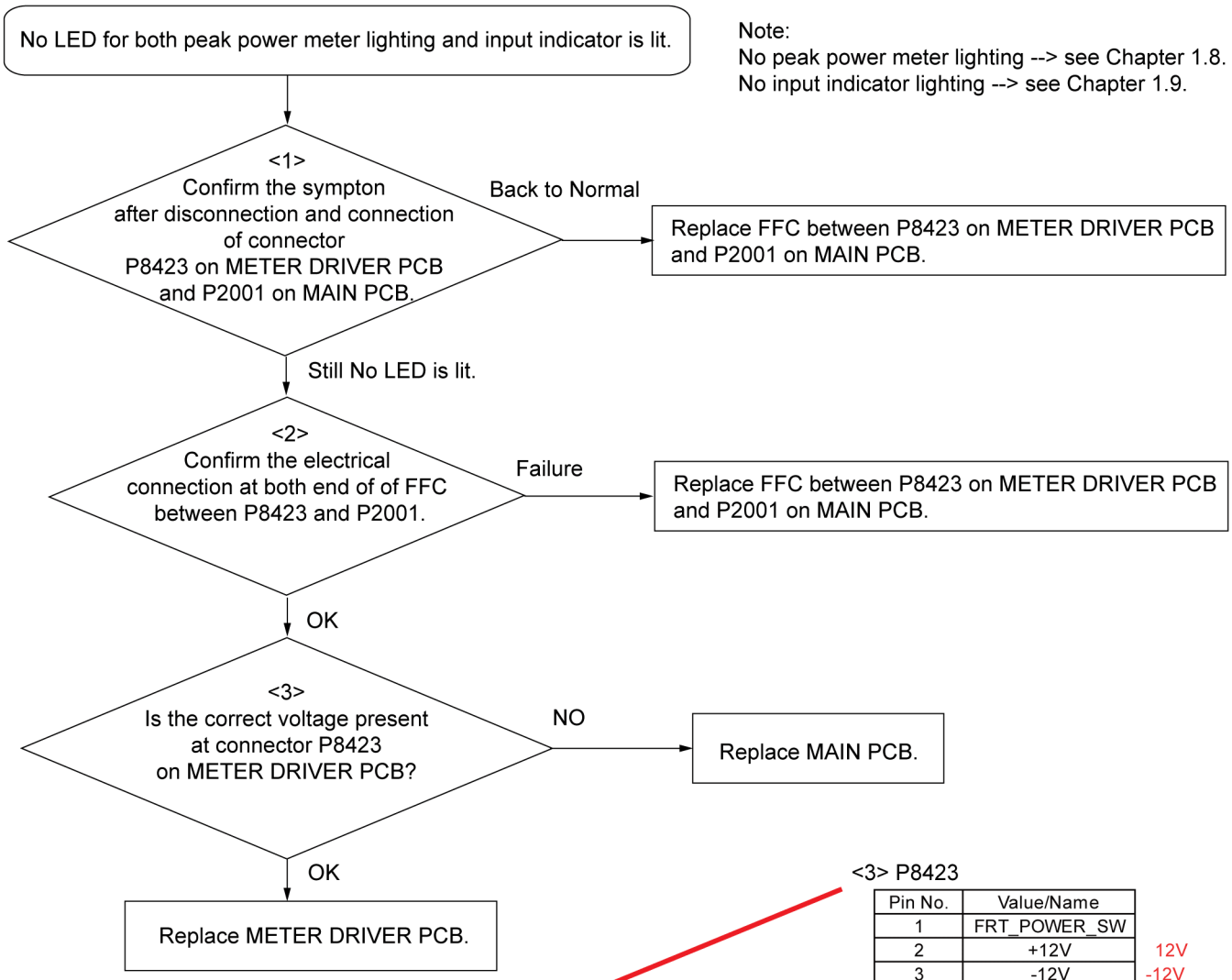
	Measure between	Correct Impedance
LEFT POWER METER	Pin 13 and 14 (DGND)	650 ohm +- 98 ohm
RIGHT POWER METER	Pin 11 and 12 (DGND)	

<8> P9701 Confirm impedance when disconnection of P9701 wire.

Pin No.	Value/Name
1	DGND
2	LED_METER_3
3	LED_METER_2
4	LED_METER_1
5	REM_IN
6	PW_SW_12R0V
7	LED_LINER_P
8	PW_XSW_3R3V
9	LED_LINER_P_2
10	PW_FRT_5R0V
11	METER_R_OUT
12	DGND
13	METER_L_OUT
14	DGND

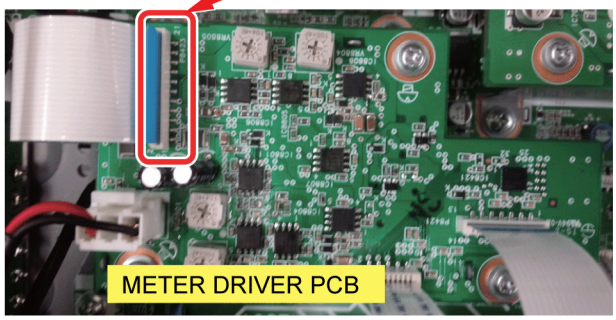


7.8. No LED is lit



<3> P8423

Pin No.	Value/Name	
1	FRT_POWER_SW	
2	+12V	12V
3	-12V	-12V
4	AGND	
5	METER_R	
6	AGND	
7	METER_L	
8	AGND	
9	METER_MUTE	
10	PW_XSW_5R0V	+5V
11	FRT_REMOTE	
12	PW_XSW_3R3V	3.3V
13	PW_SW12R0V	12V
14	FRT_XRST	
15	DGND	
16	FRT_SCL	
17	DGND	
18	FRT_SDA	
19	DGND	
20	EXPIO_IRQ	
21	DGND	



7.9. No Peak Power Meter Lighting

No LED for peak power meter lighting.

<1>
Confirm the sympton after disconnection and connection of connector P8423 on METER DRIVER PCB and P2001 on MAIN PCB.

Back to Normal → Replace FFC between P8423 on METER DRIVER PCB and P2001 on MAIN PCB.

Still No Lighting

<2>
Confirm the electrical connection at both end of of FFC between P8423 and P2001.

Failure → Replace FFC between P8423 on METER DRIVER PCB and P2001 on MAIN PCB.

OK

<3>
Confirm the sympton after disconnection and connection of connector P9702 on METER PCB and P8901 on METER LED L PCB.

Back to Normal → Replace FFC between P9702 on METER PCB and P8901 on METER LED L PCB.

Still No Lighting

<4>
Confirm the electrical connection at both end of of FFC between P9702 and P8901.

Failure → Replace FFC between P9702 on METER PCB and P8901 on METER LED L PCB.

OK

<5>
Is the correct voltage present at connector P8901 on METER DRIVER PCB?

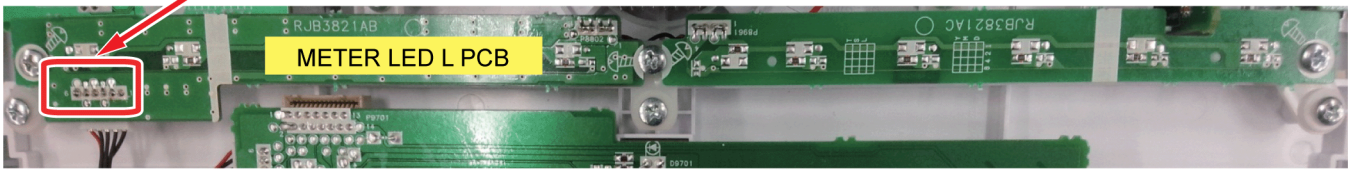
NO → Replace METER DRIVER PCB.

OK

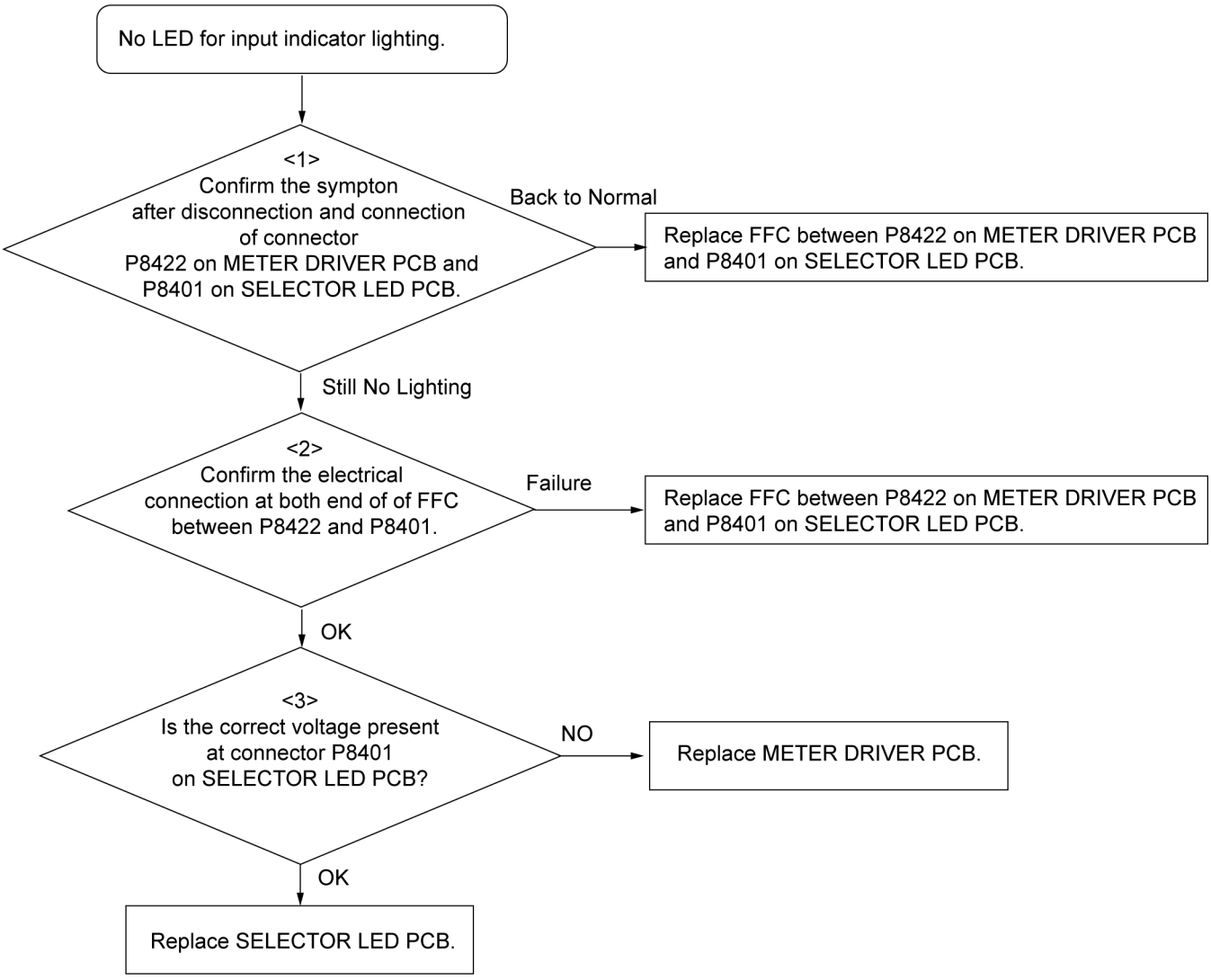
Replace METER LED L PCB.

<5> P8901

Pin No.	Value/Name		Lighting (Default)	DIMMER1	DIMMER2	Light off
1	PW_GDV_12R0V	+12V				
2	PW_GDV_12R0V	+12V				
3	LED_METER_1	-->	+3.3V	0V	0V	0V
4	LED_METER_2	-->	+3.3V	+3.3V	0V	0V
5	LED_METER_3	-->	+3.3V	+3.3V	+3.3V	0V
6	GND					



7.10. No Input Indicator Lighting



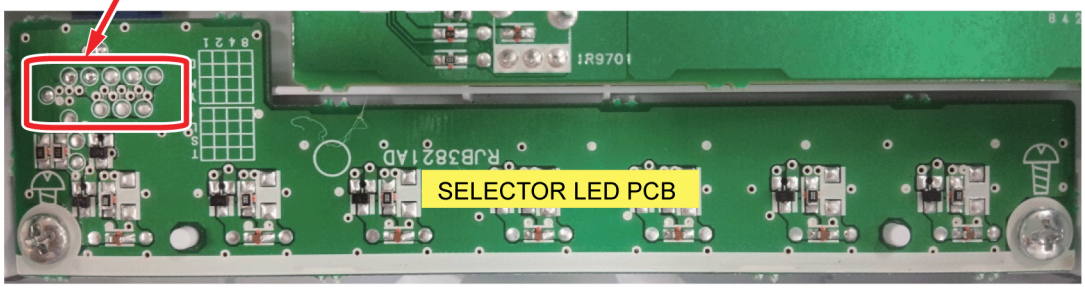
<3> P8401

Pin No.	Value/Name
1	DGND
2	See table
3	+5V
4	See table
5	See table
6	See table
7	See table
8	See table
9	See table
10	See table

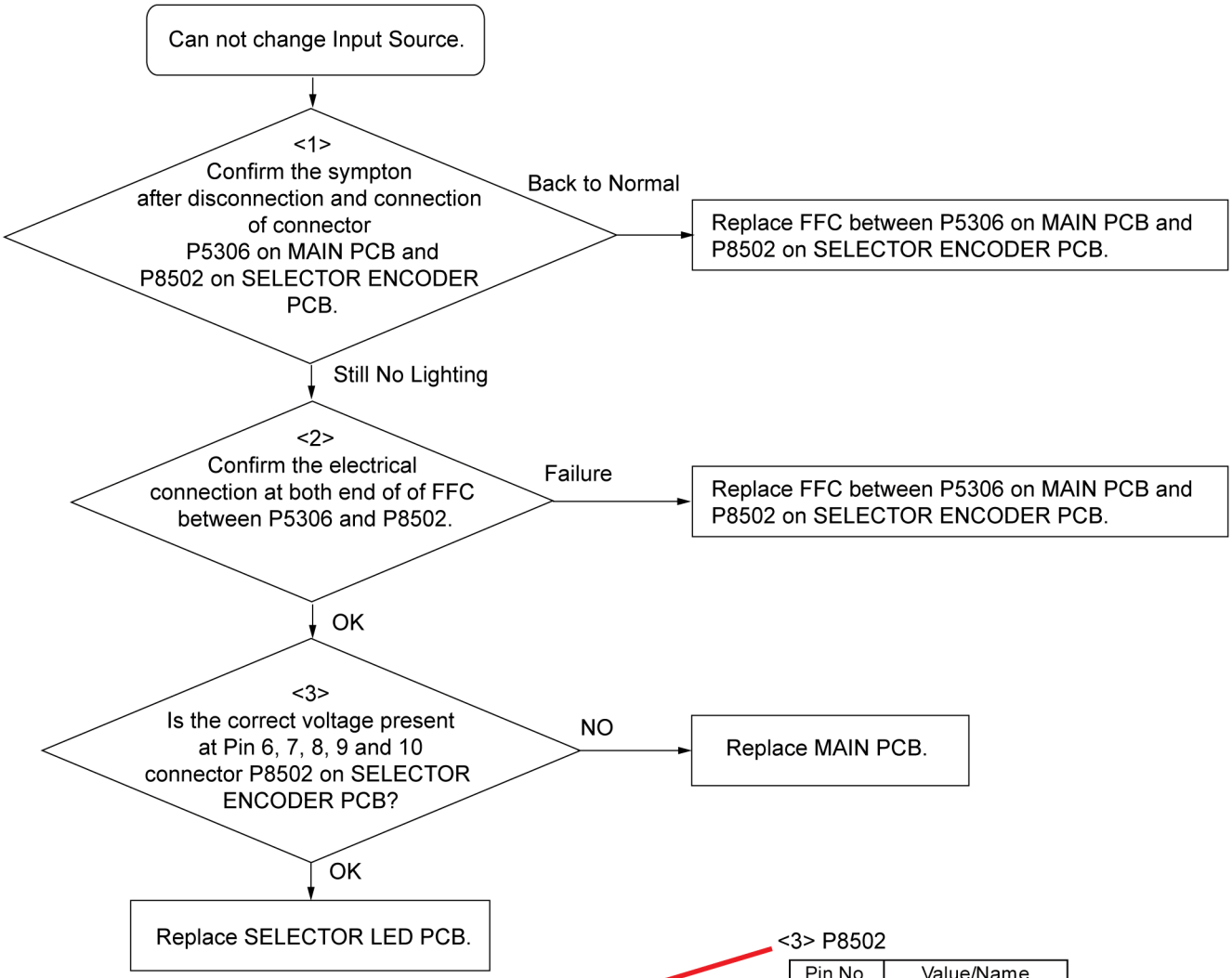
Voltage for each Dimmer and Input selection position

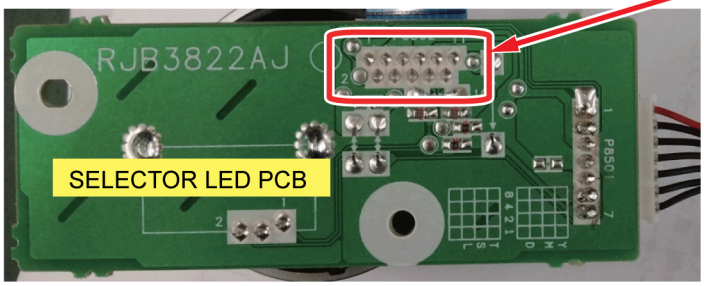
		Pin 2
DIMMER	ON	0V
	OFF	+3.3V

Input	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	Pin 10
PHONO	0V	0V	0V	0V	0V	0V	+3.3V
LINE	0V	0V	0V	0V	0V	+3.3V	0V
PC	0V	0V	0V	0V	+3.3V	0V	0V
COAX1	0V	0V	0V	+3.3V	0V	0V	0V
COAX2	0V	0V	+3.3V	0V	0V	0V	0V
COAX3	0V	+3.3V	0V	0V	0V	0V	0V
OPT	+3.3V	0V	0V	0V	0V	0V	0V



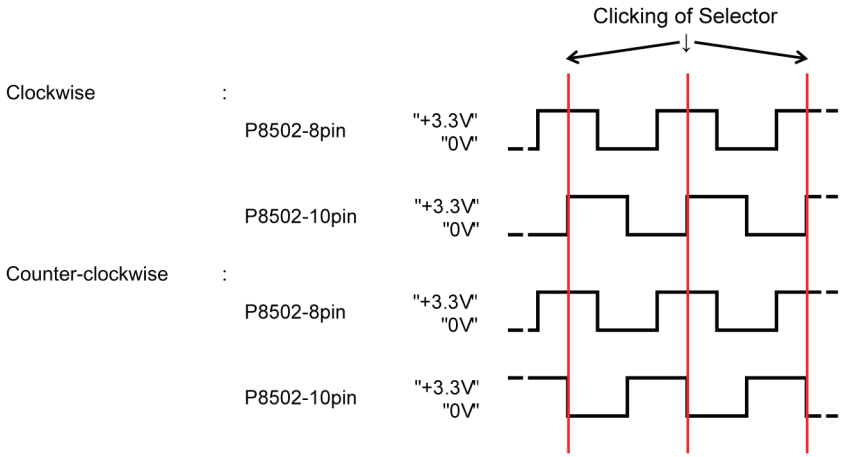
7.11. Can not change Input Source





<3> P8502

Pin No.	Value/Name	
1	VOL_UP	
2	VOL_DOWN	
3	D5V0	
4	DGND	
5	VOL_SIG	
6	DGND	0V
7	PW_VDD_3R3V	+3.3V
8	SEL_ENC1	see below
9	DGND	0V
10	SEL_ENC2	see below
11	PW_ANA_M12R0V	



7.12. Can not control Volume

Can not control Volume.

<1>
Confirm the sympton after disconnection and connection of connector P5306 on MAIN PCB and P8502 on SELECTOR ENCODER PCB.

Back to Normal → Replace FFC between P5306 on MAIN PCB and P8502 on SELECTOR ENCODER PCB.

Still No Lighting

<2>
Confirm the electrical connection at both end of of FFC between P5306 and P8502.

Failure → Replace FFC between P5306 on MAIN PCB and P8502 on SELECTOR ENCODER PCB.

OK

<3>
Confirm the sympton after disconnection and connection of connector P8501 on SELECTOR ENCODER PCB and P8001 VOLUME PCB.

Back to Normal → Replace wire between P8501 on SELECTOR ENCODER PCB and P8001 VOLUME PCB.

Still No Lighting

<4>
Confirm the electrical connection at both end of of FFC between P8501 and P8001.

Failure → Replace wire between P8501 on SELECTOR ENCODER PCB and P8001 VOLUME PCB.

OK

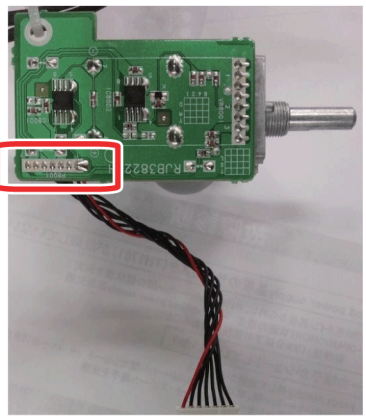
<5>
Is the correct voltage present at connector P8001 on VOLUME PCB?

Pin 1, 2, 3, 6 and 7 : NO → Replace MAIN PCB.

Pin 5 : NO → Replace VOLUME PCB.

Pin 5 : OK → Replace MAIN PCB.

Pin 1, 2, 3, 6 and 7 : OK → Replace VOLUME PCB.



Pin 1 and 2 during operation of Volume

Remote operation	Pin 1	Pin 2
Pressing VOL "+"	+3.3V	0V
Pressing VOL "-"	0V	+3.3V

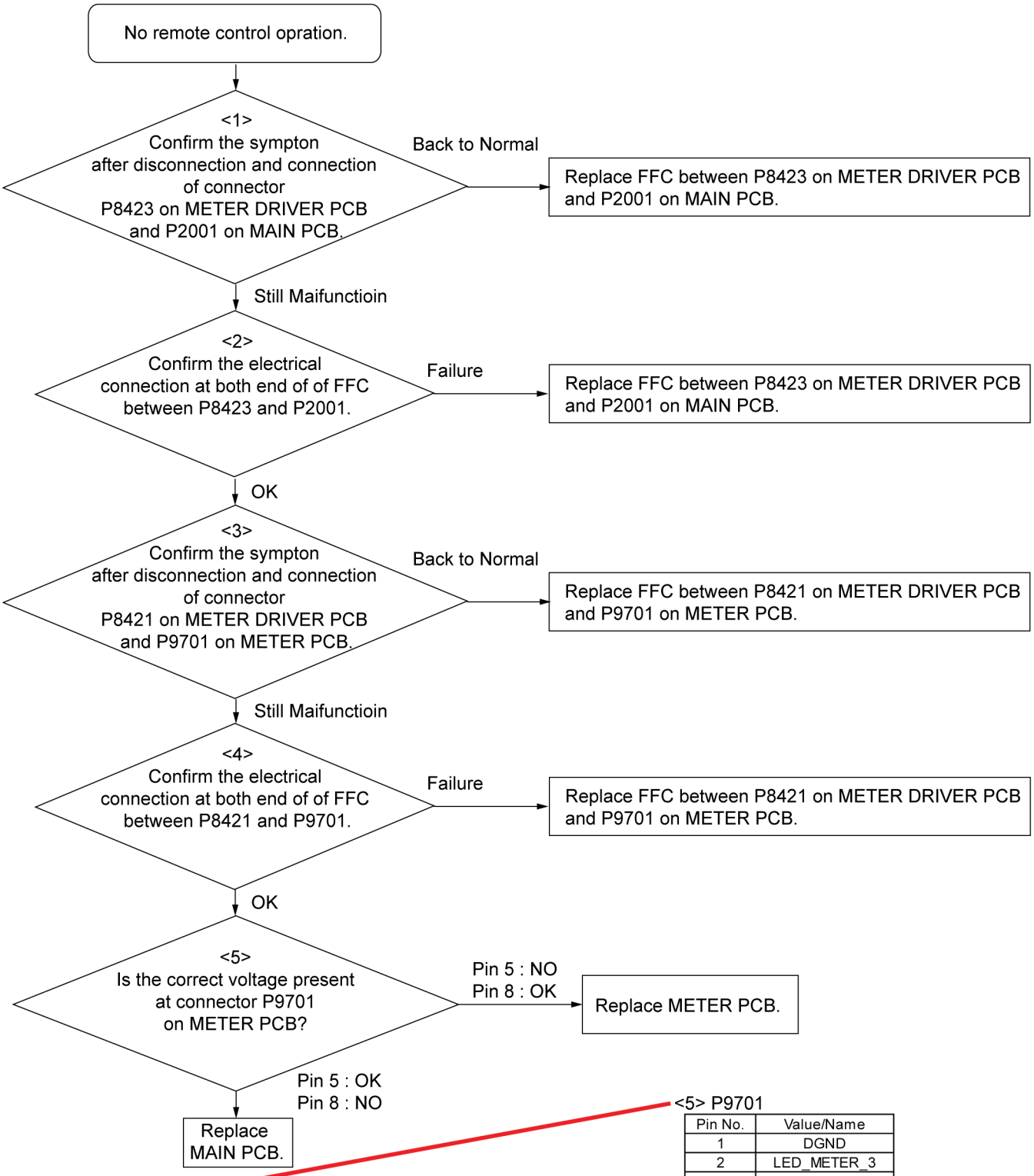
Pin 5 for each Volume Level

Volume Level	Value
0	0V
5	approx. 1.65V
10	+3.3V

<5> P8001

Pin No.	Value/Name	
1	VOL_UP	see table
2	VOL_DOWN	see table
3	PW_FRT_5R0V	+5V
4	DGND	
5	VOL_SIG	see table
6	PW_VDD_3R0V	+3.3V
7	PW_ANA_M12R0V	+12V

7.13. No remote control operation



8 Disassembly and Assembly Instructions

- **This section describes the disassembly and/or assembly procedures for all major printed circuit boards & main components for the unit. (You may refer to the section of "Main components and P.C.B. Locations" as described in this service manual)**
- **Before carrying out the disassembly process, please ensure all the safety precautions & procedures are followed.**
- **During the disassembly and/or assembly process, please handle with care as there may be chassis components with sharp edges.**
- **Avoid touching heatsinks due to its high temperature after prolong use.**
- **Be sure to use proper service tools, equipments or jigs during repair.**
- **Select items from the following indexes when disassembly or replacement are required.**
- Disassembly of Top Cabinet Block
- Disassembly of Front Panel Unit
- Disassembly of Selector Encoder P.C.B.
- Disassembly of Volume P.C.B.
- Disassembly of Main Switch P.C.B.
- Disassembly of Headphone P.C.B.
- Disassembly of Meter LED L P.C.B. and Meter LED R P.C.B.
- Disassembly of Meter P.C.B.
- Disassembly of Selector LED P.C.B.
- Disassembly of Meter Unit
- Disassembly of Analog P.C.B.
- Disassembly of Meter Drive P.C.B.
- Disassembly of Main P.C.B. Ass'y
- Disassembly of SMPS P.C.B.
- Disassembly of AC Inlet P.C.B.
- Disassembly of Power P.C.B.
- Disassembly of Transformer P.C.B.

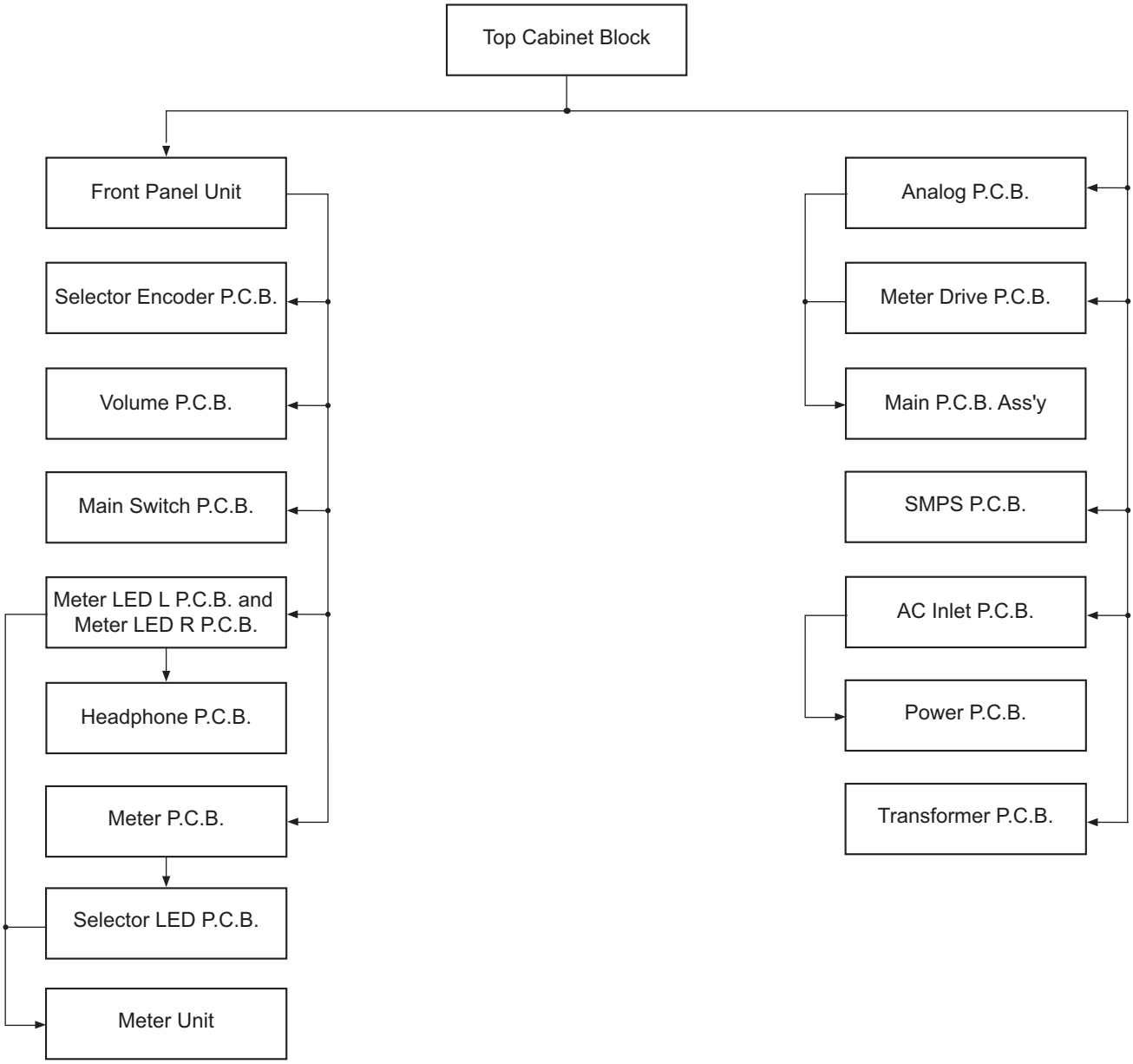
8.1. Type of Screws

CAUTION NOTE:
Please use original screw and at correct locations.

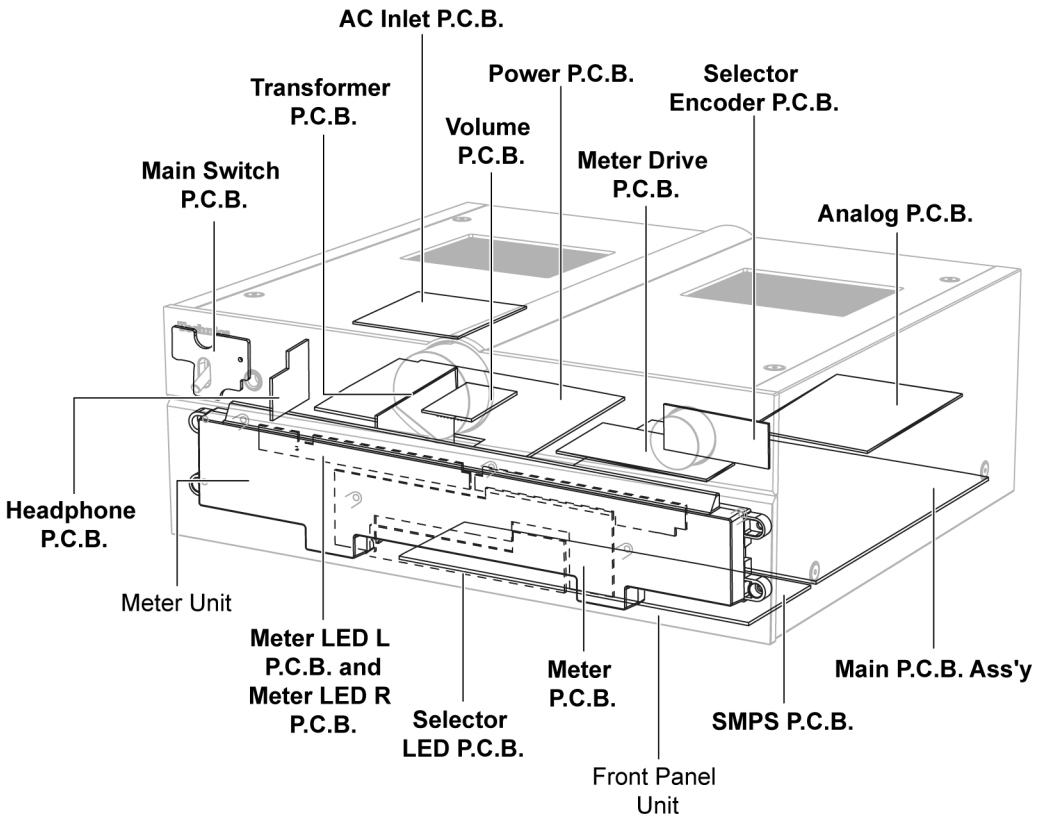
Below shown is part no. of different screw types used:

ⓐ :RHD30119-K	ⓔ :RHD30111-31
ⓑ :RHD40040	ⓕ :XYN3+C8FJK
ⓒ :RHD26045	ⓖ :RHDC0023
ⓓ :RHD26016-1L	ⓗ :XTB4+10AFJK

8.2. Disassembly Flow Chart

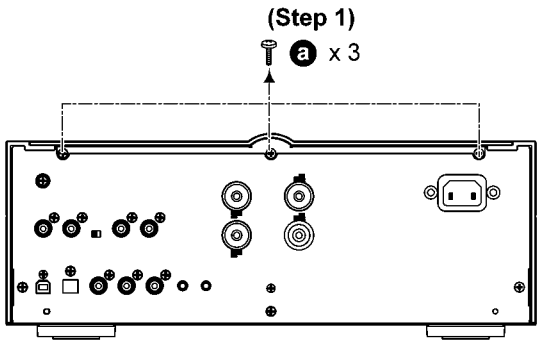


8.3. Main Components and P.C.B. Locations

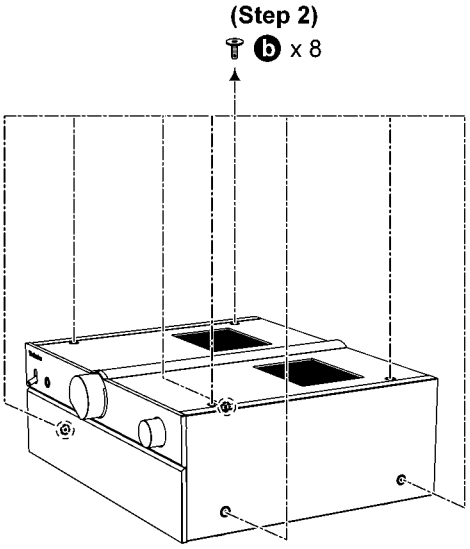


8.4. Disassembly of Top Cabinet Block

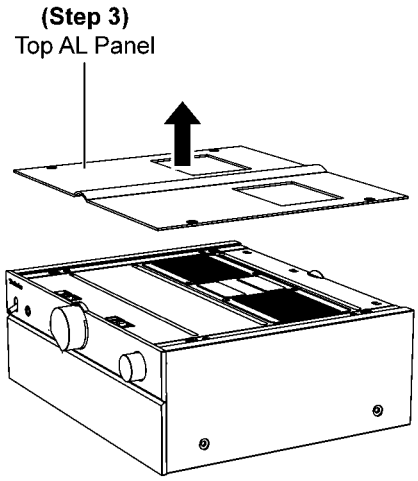
Step 1 Remove 3 screws.



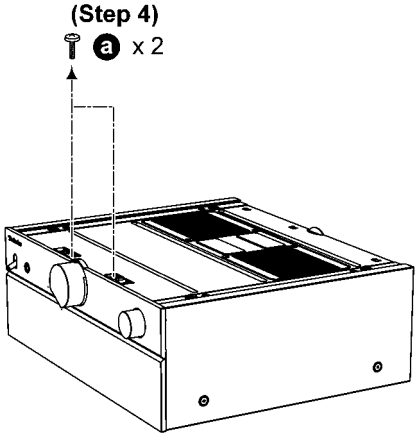
Step 2 Remove 8 screws.



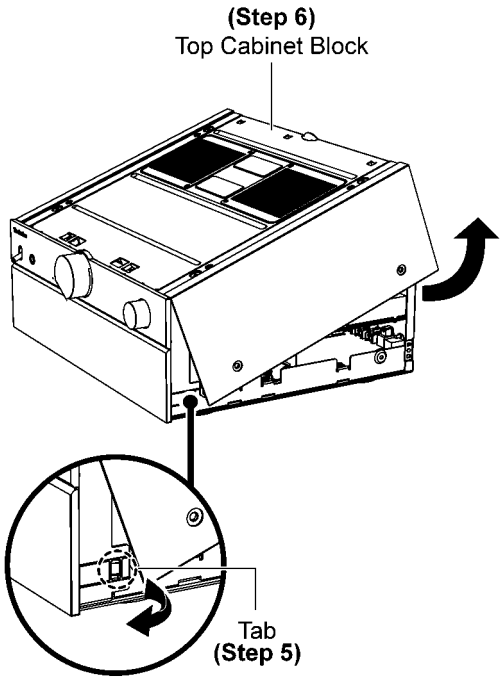
Step 3 Remove Top AL Panel.



Step 4 Remove 2 screws.



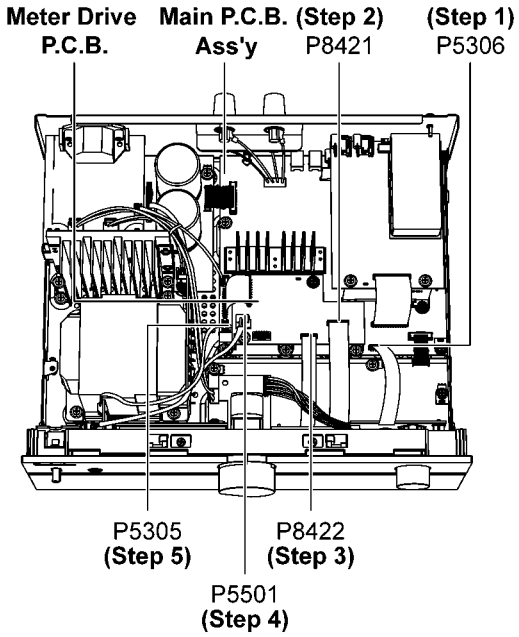
Step 5 Release both sides of Top Cabinet Block outwards as arrow shown.
Step 6 Lift up to remove Top Cabinet Block.



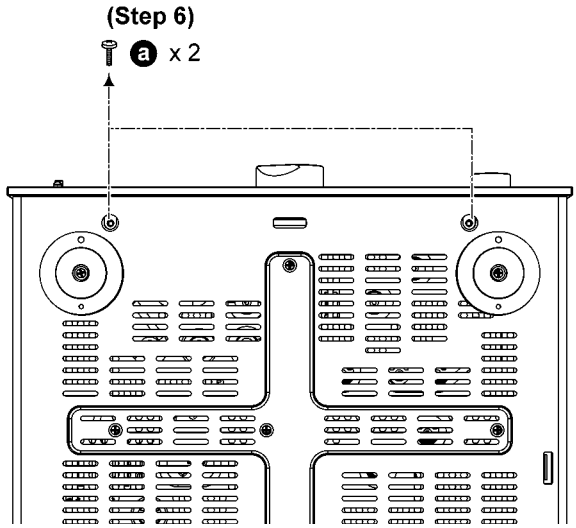
8.5. Disassembly of Front Panel Unit

- **Refer to "Disassembly of Top Cabinet Block".**

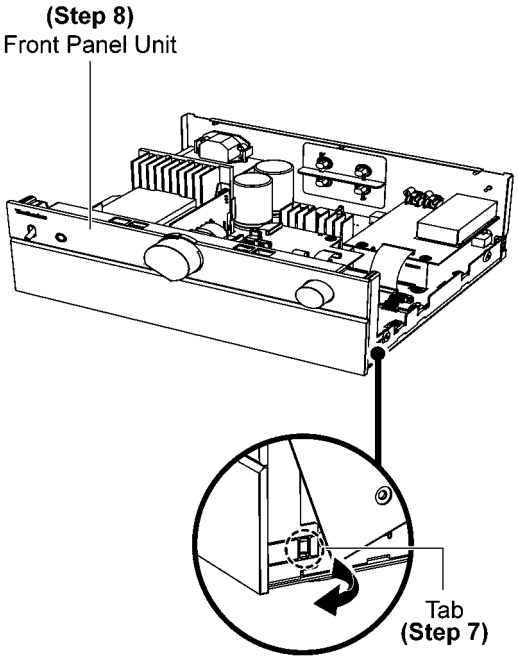
Step 1 Detach 11P FFC at the connector (P5306) on Main P.C.B. Ass'y.
Step 2 Detach 14P FFC at the connector (P8421) on Meter Drive P.C.B..
Step 3 Detach 10P FFC at the connector (P8422) on Meter Drive P.C.B..
Step 4 Detach 2P Cable at the connector (P5501) on Meter Drive P.C.B..
Step 5 Detach 5P Cable at the connector (P5305) on Main P.C.B. Ass'y.



Step 6 Remove 2 screws.



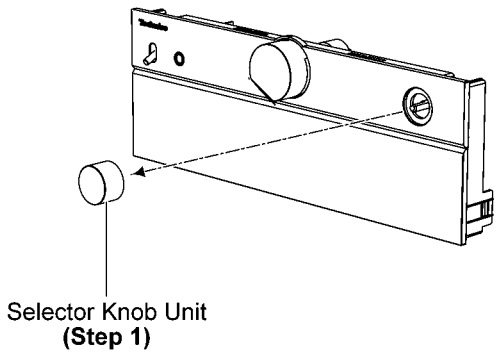
Step 7 Release tabs on both sides of Front Panel Unit.
Step 8 Detach to remove Front Panel Unit



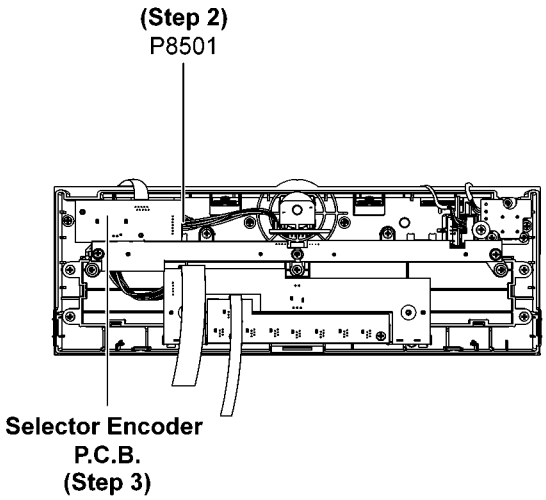
8.6. Disassembly of Selector Encoder P.C.B.

- **Refer to "Disassembly of Top Cabinet Block".**
- **Refer to "Disassembly of Front Panel Unit".**

Step 1 Detach Selector Knob Unit.



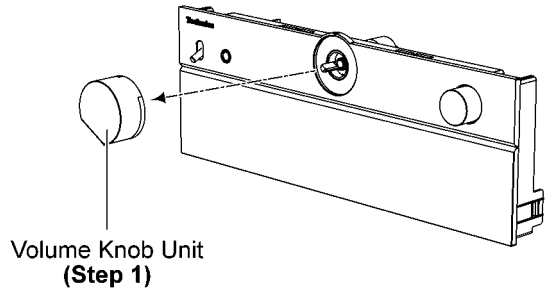
Step 2 Detach 7P Wire at the connector (P8501) on Selector Encoder P.C.B..
Step 3 Remove Selector Encoder P.C.B..



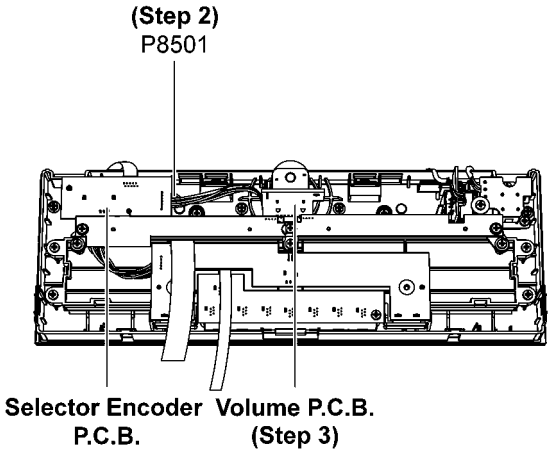
8.7. Disassembly of Volume P.C.B.

- **Refer to "Disassembly of Top Cabinet Block".**
- **Refer to "Disassembly of Front Panel Unit".**

Step 1 Detach Volume Knob Unit.



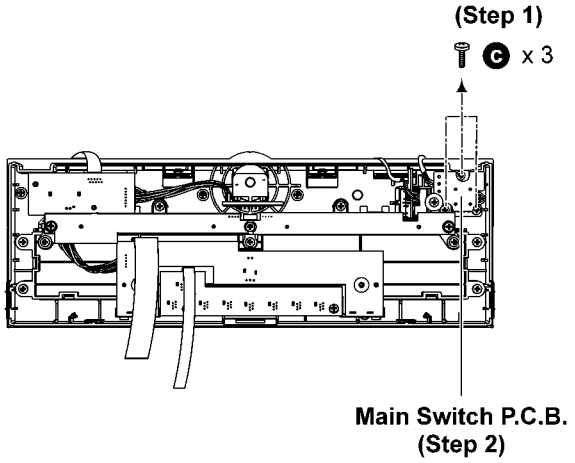
Step 2 Detach 7P Wire at the connector (P8501) on Selector Encoder P.C.B..
Step 3 Remove Volume P.C.B..



8.8. Disassembly of Main Switch P.C.B.

- **Refer to "Disassembly of Top Cabinet Block".**
- **Refer to "Disassembly of Front Panel Unit".**

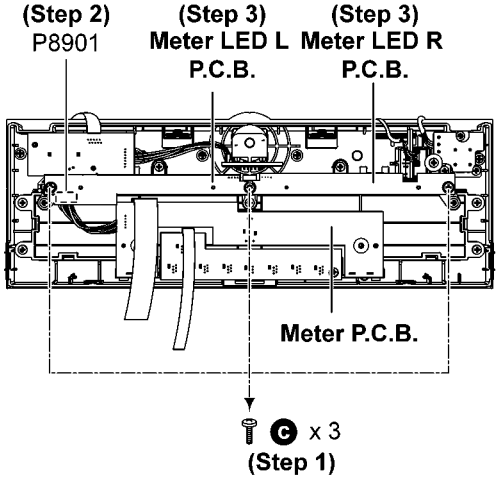
Step 1 Remove 3 screws.
Step 2 Remove Main Switch P.C.B..



8.9. Disassembly of Meter LED L P.C.B. and Meter LED R P.C.B.

- **Refer to "Disassembly of Top Cabinet Block".**
- **Refer to "Disassembly of Front Panel Unit".**

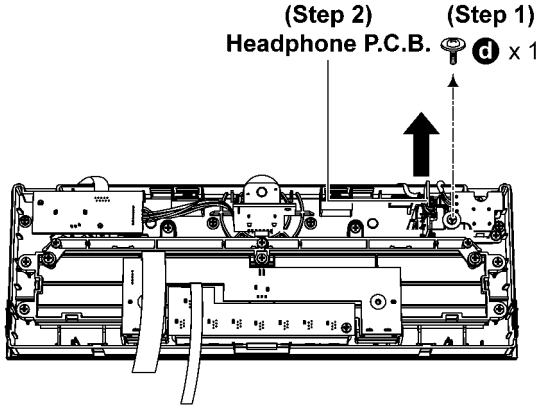
Step 1 Remove 3 screws.
Step 2 Detach 6P Wire at the connector (P8901) on Meter P.C.B..
Step 3 Remove Meter LED L P.C.B. and Meter LED R P.C.B..



8.10. Disassembly of Headphone P.C.B.

- **Refer to "Disassembly of Top Cabinet Block".**
- **Refer to "Disassembly of Front Panel Unit".**
- **Refer to "Disassembly of Meter LED L P.C.B. and Meter LED R P.C.B.".**

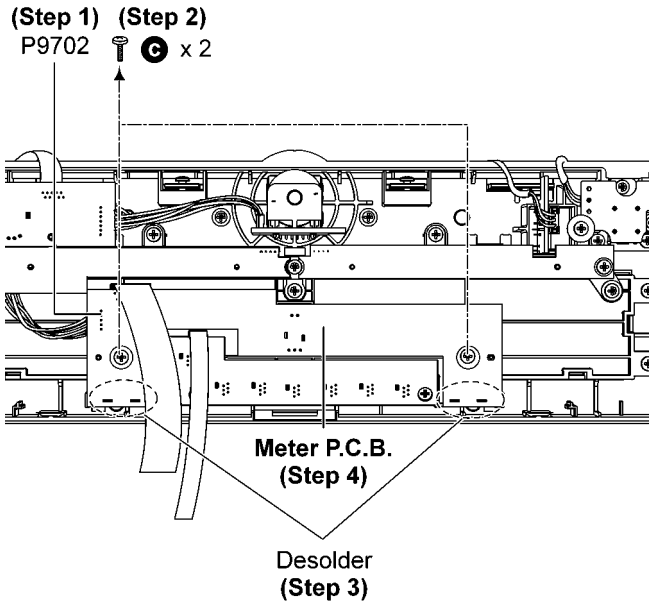
Step 1 Remove screw.
Step 2 Remove Headphone P.C.B..



8.11. Disassembly of Meter P.C.B.

- **Refer to "Disassembly of Top Cabinet Block".**
- **Refer to "Disassembly of Front Panel Unit".**

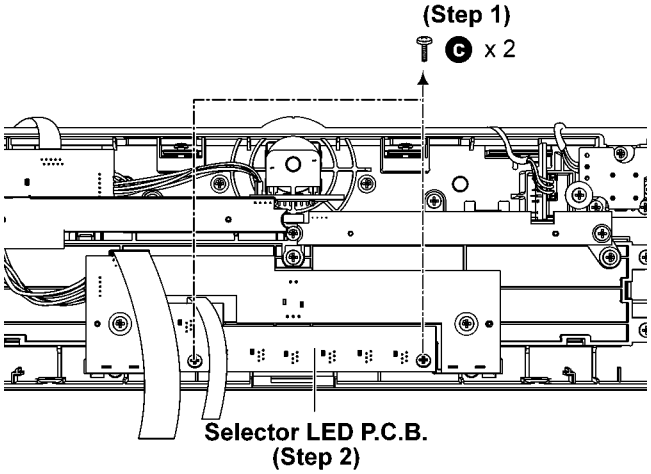
Step 1 Detach 6P Wire at the connector (P9702) on Meter P.C.B..
Step 2 Remove 2 screws.
Step 3 Desolder the pins of Meter P.C.B..
Step 4 Remove Meter P.C.B..



8.12. Disassembly of Selector LED P.C.B.

- **Refer to "Disassembly of Top Cabinet Block".**
- **Refer to "Disassembly of Front Panel Unit".**

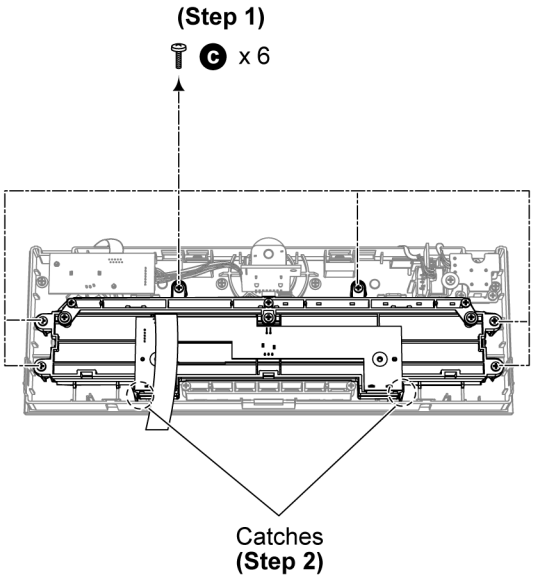
Step 1 Remove 2 screws.
Step 2 Remove Selector LED P.C.B..



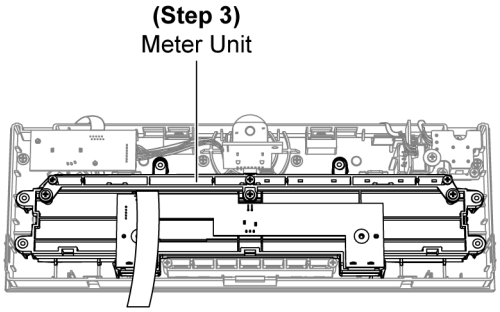
8.13. Disassembly of Meter Unit

- **Refer to "Disassembly of Top Cabinet Block".**
- **Refer to "Disassembly of Front Panel Unit".**
- **Refer to "Disassembly of Meter LED L P.C.B. and Meter LED R P.C.B.".**
- **Refer to "Disassembly of Selector LED P.C.B.".**

Step 1 Remove 6 screws.
Step 2 Release catches.



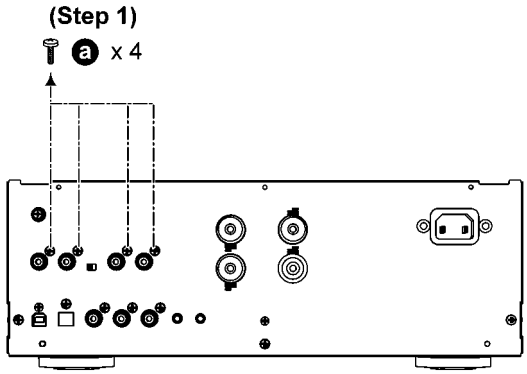
Step 3 Remove Meter Unit.



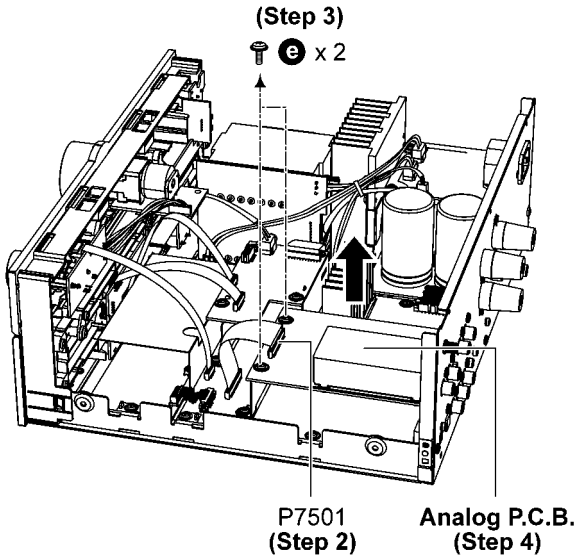
8.14. Disassembly of Analog P.C.B.

- **Refer to "Disassembly of Top Cabinet Block".**

Step 1 Remove 4 screws.



Step 2 Detach 27P FFC at the connector (P7501) on Analog P.C.B..
Step 3 Remove 2 screws.
Step 4 Remove Analog P.C.B..

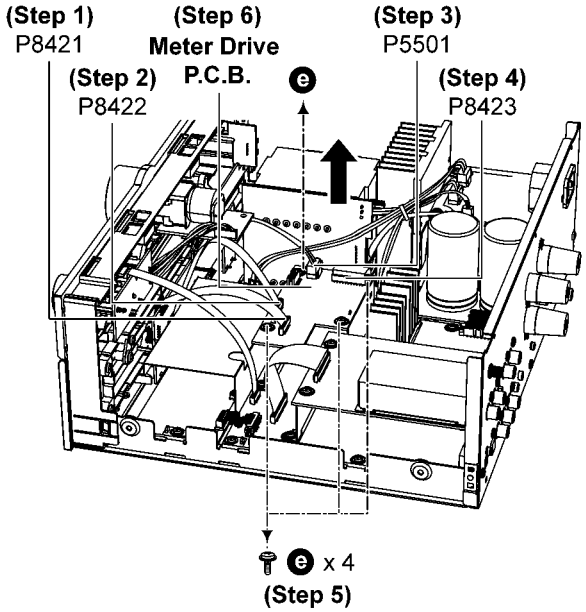


8.15. Disassembly of Meter Drive P.C.B.

- **Refer to "Disassembly of Top Cabinet Block".**

Caution: After replacement of new Meter Drive P.C.B., adjustment needed (Refer to Section 7.1).

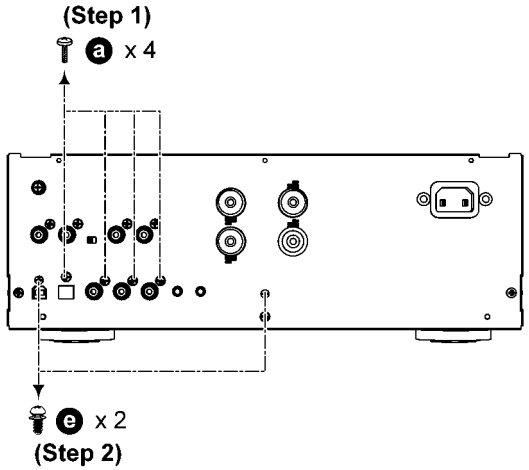
Step 1 Detach 14P FFC at the connector (P8421) on Meter Drive P.C.B..
Step 2 Detach 10P FFC at the connector (P8422) on Meter Drive P.C.B..
Step 3 Detach 2P Cable at the connector (P5501) on Meter Drive P.C.B..
Step 4 Detach 21P FFC at the connector (P8423) on Meter Drive P.C.B..
Step 5 Remove 4 screws.
Step 6 Remove Meter Drive P.C.B..



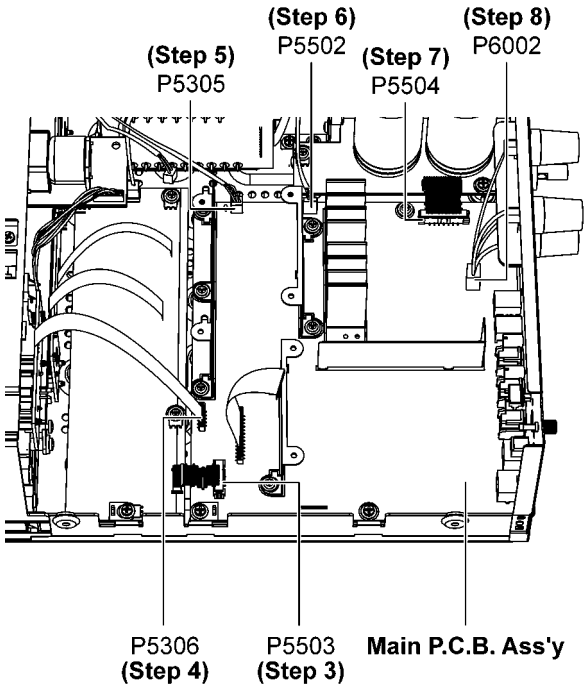
8.16. Disassembly of Main P.C.B. Ass'y

- **Refer to "Disassembly of Top Cabinet Block".**
- **Refer to "Disassembly of Analog P.C.B.".**
- **Refer to "Disassembly of Meter Drive P.C.B.".**

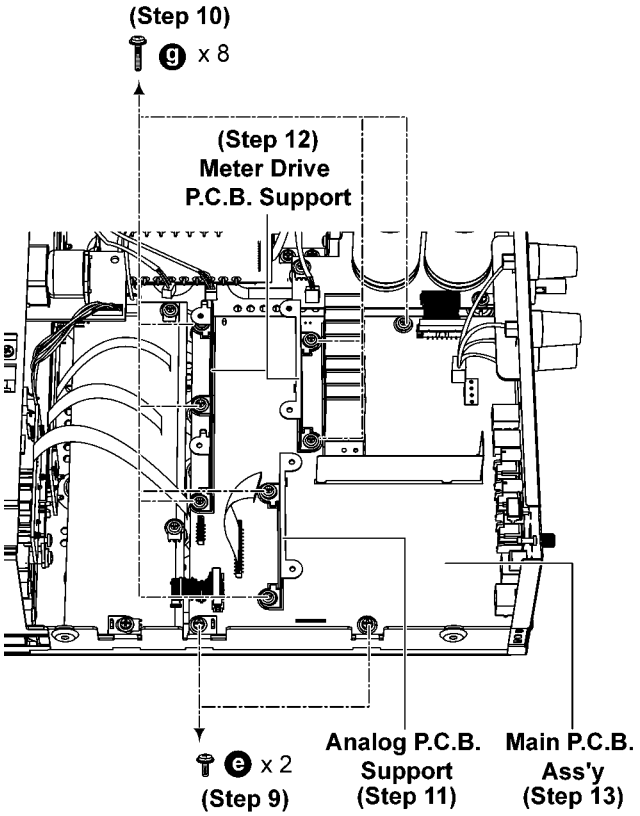
Step 1 Remove 4 screws.
Step 2 Remove 2 screws.



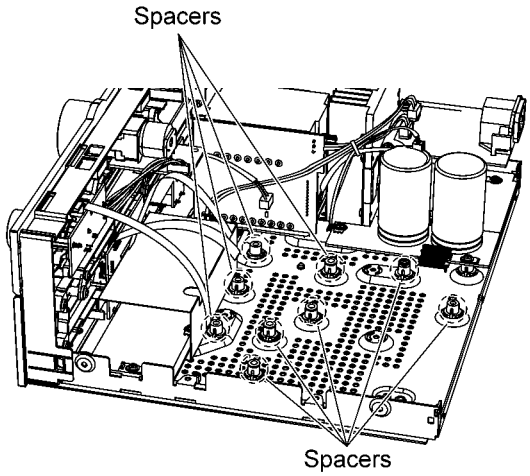
Step 3 Detach 9P Bridge Connector at the connector (P5503) on Main P.C.B. Ass'y.
Step 4 Detach 11P FFC at the connector (P5306) on Main P.C.B. Ass'y.
Step 5 Detach 5P Cable at the connector (P5305) on Main P.C.B. Ass'y.
Step 6 Detach 2P Cable at the connector (P5502) on Main P.C.B. Ass'y.
Step 7 Detach 15P Bridge Connector at the connector (P5504) on Main P.C.B. Ass'y.
Step 8 Detach 2P Cable at the connector (P6002) on Main P.C.B. Ass'y.



Step 9 Remove 2 screws.
Step 10 Remove 8 screws.
Step 11 Remove Analog P.C.B. Support.
Step 12 Remove Meter Drive P.C.B. Support.
Step 13 Remove Main P.C.B. Ass'y.



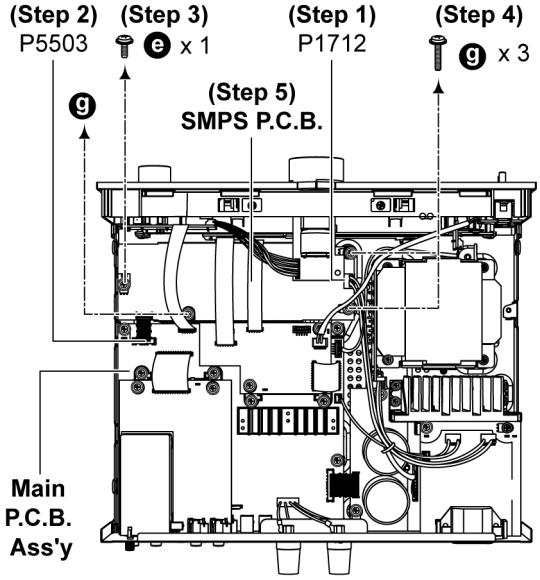
During assembling, ensure the spacers are placed at correct position as shown.



8.17. Disassembly of SMPS P.C.B.

- **Refer to "Disassembly of Top Cabinet Block".**

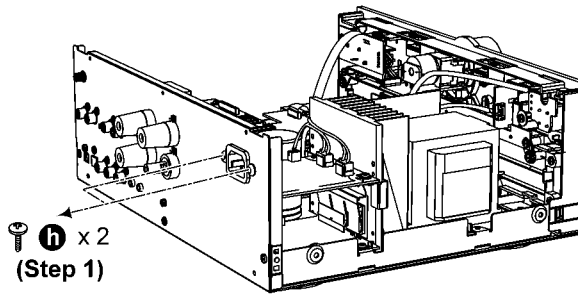
Step 1 Detach 2P Cable at the connector (P1712) on SMPS P.C.B..
Step 2 Detach 9P Bridge Connector at the connector (P5503) on Main P.C.B. Ass'y.
Step 3 Remove screw.
Step 4 Remove 3 screws.
Step 5 Remove SMPS P.C.B..



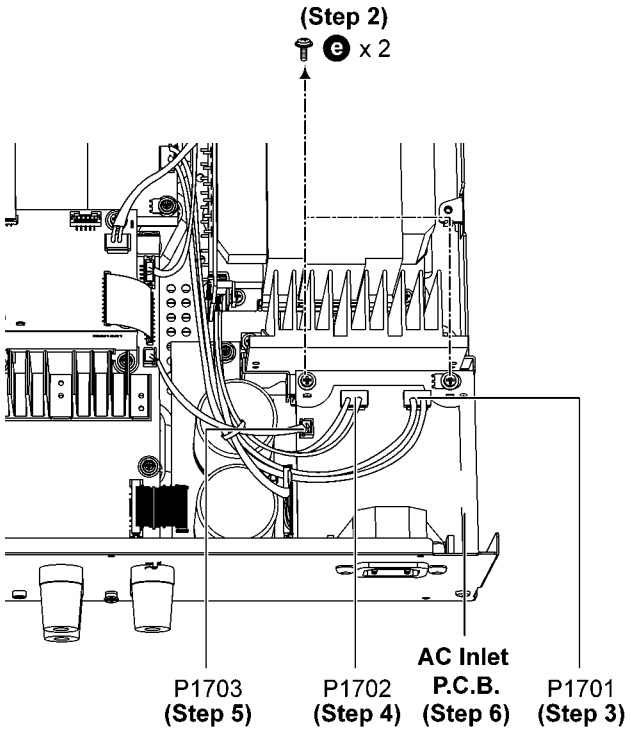
8.18. Disassembly of AC Inlet P.C.B.

- **Refer to "Disassembly of Top Cabinet Block".**

Step 1 Remove 2 screws.



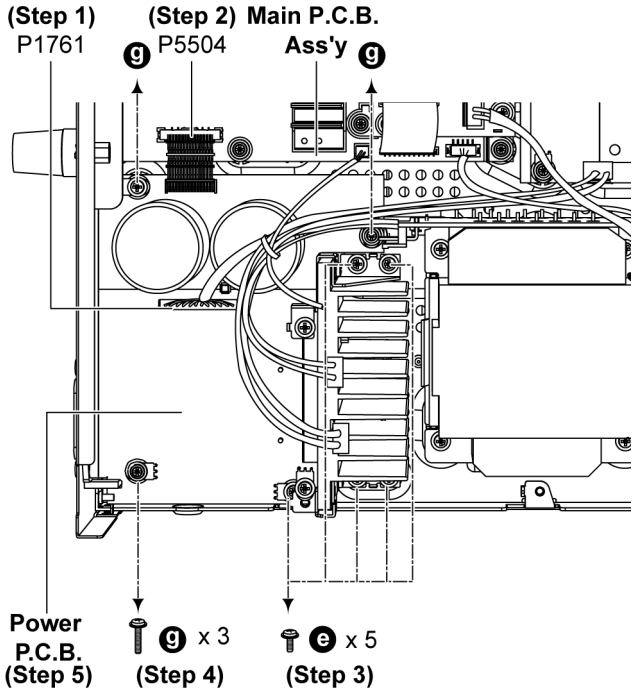
Step 2 Remove 2 screws.
Step 3 Detach 2P Cable at the connector (P1701) on AC Inlet P.C.B..
Step 4 Detach 2P Cable at the connector (P1702) on AC Inlet P.C.B..
Step 5 Detach 2P Cable at the connector (P1703) on AC Inlet P.C.B..
Step 6 Remove AC Inlet P.C.B..



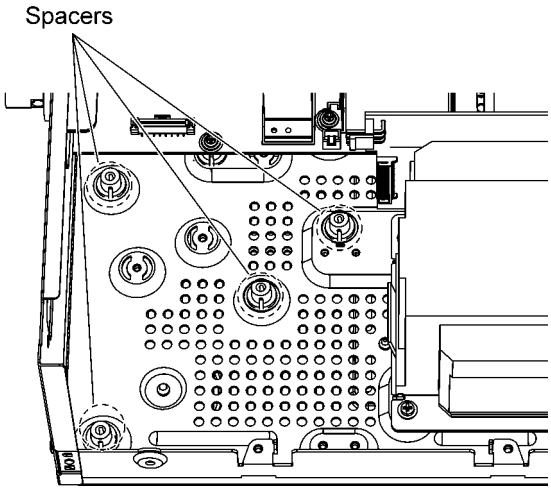
8.19. Disassembly of Power P.C.B.

- **Refer to "Disassembly of Top Cabinet Block".**
- **Refer to "Disassembly of AC Inlet P.C.B.".**

Step 1 Detach 12P Cable at the connector (P1761) on Power P.C.B..
Step 2 Detach 15P Bridge Connector at the connector (P5504) on Main P.C.B. Ass'y.
Step 3 Remove 5 screws.
Step 4 Remove 3 screws.
Step 5 Remove Power P.C.B..



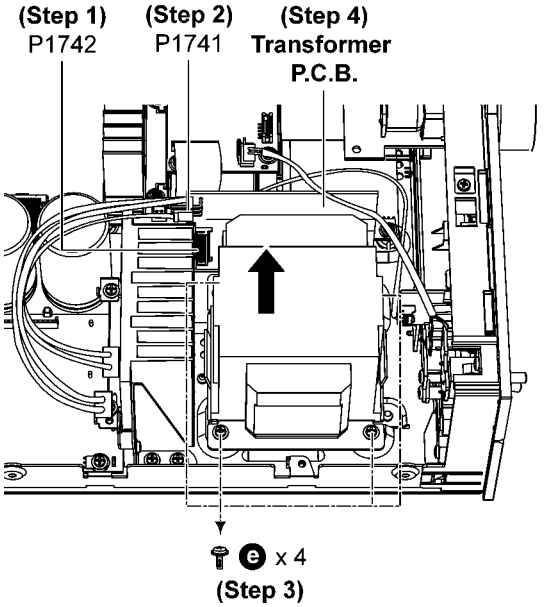
During assembling, ensure the spacers are placed at correct position as shown.



8.20. Disassembly of Transformer P.C.B.

- **Refer to "Disassembly of Top Cabinet Block".**

Step 1 Detach 12P Cable at the connector (P1742) on Transformer P.C.B..
Step 2 Detach 2P Cable at the connector (P1741) on Transformer P.C.B..
Step 3 Remove 4 screws.
Step 4 Remove Transformer P.C.B..

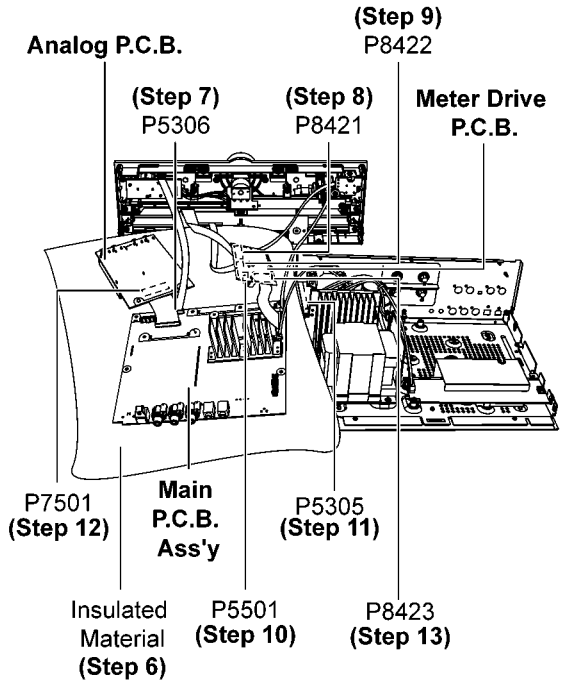


9 Service Position

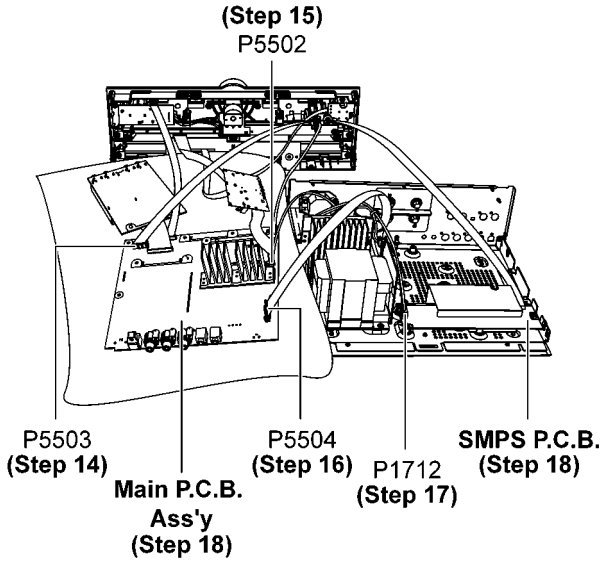
Note: For description of the disassembly procedures, see the Section 8.

9.1. Checking and Repairing of Main P.C.B. Ass'y and SMPS P.C.B.

Step 1 Remove Top Cabinet Block.
Step 2 Remove Front Panel Unit.
Step 3 Remove Analog P.C.B..
Step 4 Remove Meter Drive P.C.B..
Step 5 Remove Main P.C.B. Ass'y.
Step 6 Place Analog P.C.B., Meter Drive P.C.B. and Main P.C.B. Ass'y on the insulated material.
Step 7 Attach 11P FFC at the connector (P5306) on Main P.C.B. Ass'y.
Step 8 Attach 14P FFC at the connector (P8421) on Meter Drive P.C.B..
Step 9 Attach 10P FFC at the connector (P8422) on Meter Drive P.C.B..
Step 10 Attach 2P Cable at the connector (P5501) on Meter Drive P.C.B..
Step 11 Attach 5P Cable at the connector (P5305) on Main P.C.B. Ass'y.
Step 12 Attach 27P FFC at the connector (P7501) on Analog P.C.B..
Step 13 Attach 21P FFC at the connector (P8423) on Meter Drive P.C.B..

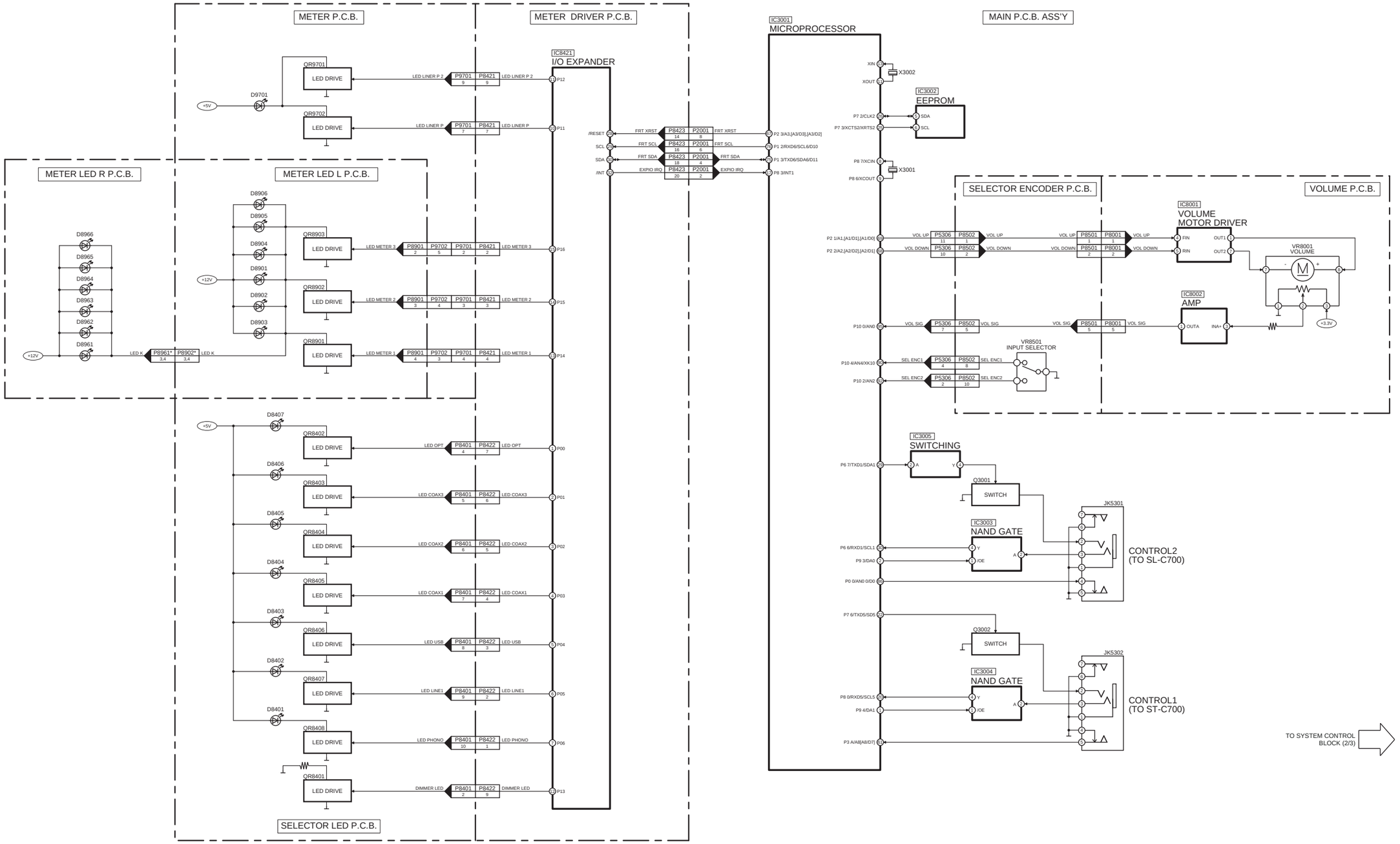


Step 14 Attach 9P Bridge Connector at the connector (P5503) on Main P.C.B. Ass'y.
Step 15 Attach 2P Cable at the connector (P5502) on Main P.C.B. Ass'y.
Step 16 Attach 15P Bridge Connector at the connector (P5504) on Main P.C.B. Ass'y.
Step 17 Attach 2P Cable at the connector (P1712) on SMPS P.C.B.
Step 18 Main P.C.B. Ass'y and SMPS P.C.B. can be checked as diagram shown.

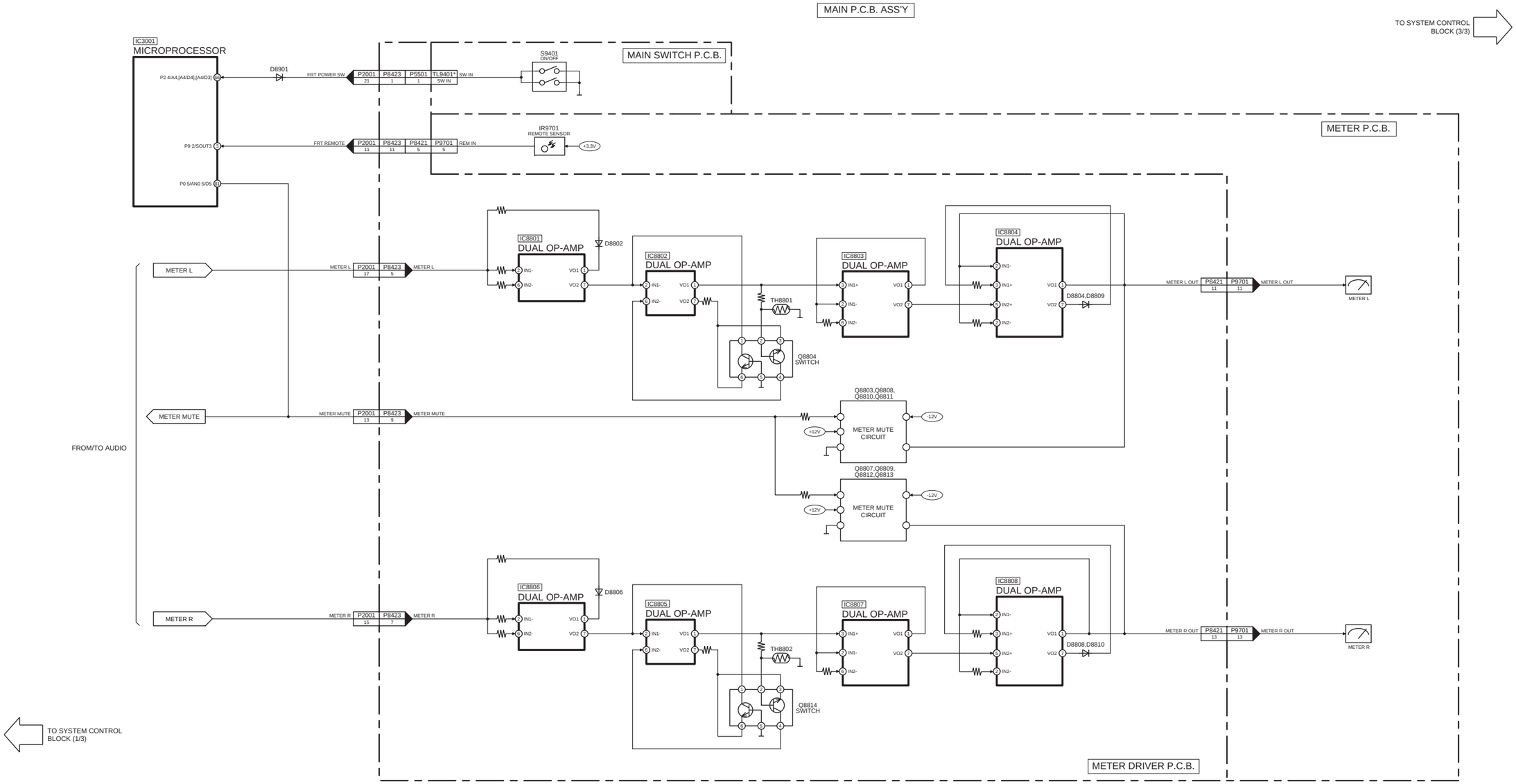


10 Block Diagram

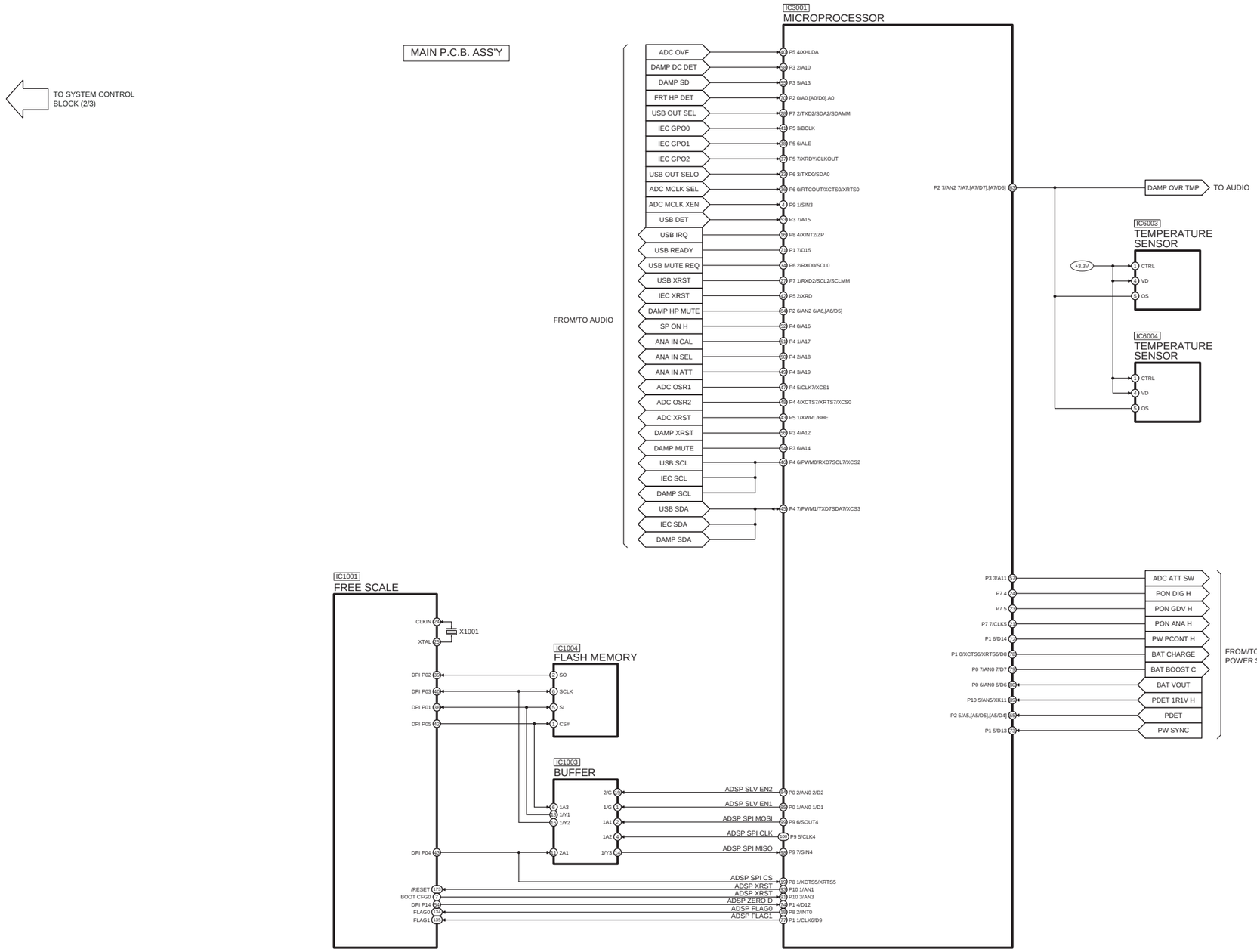
10.1. System Control



SU-C700EB/EG/GN/PP SYSTEM CONTROL (1/3) BLOCK DIAGRAM



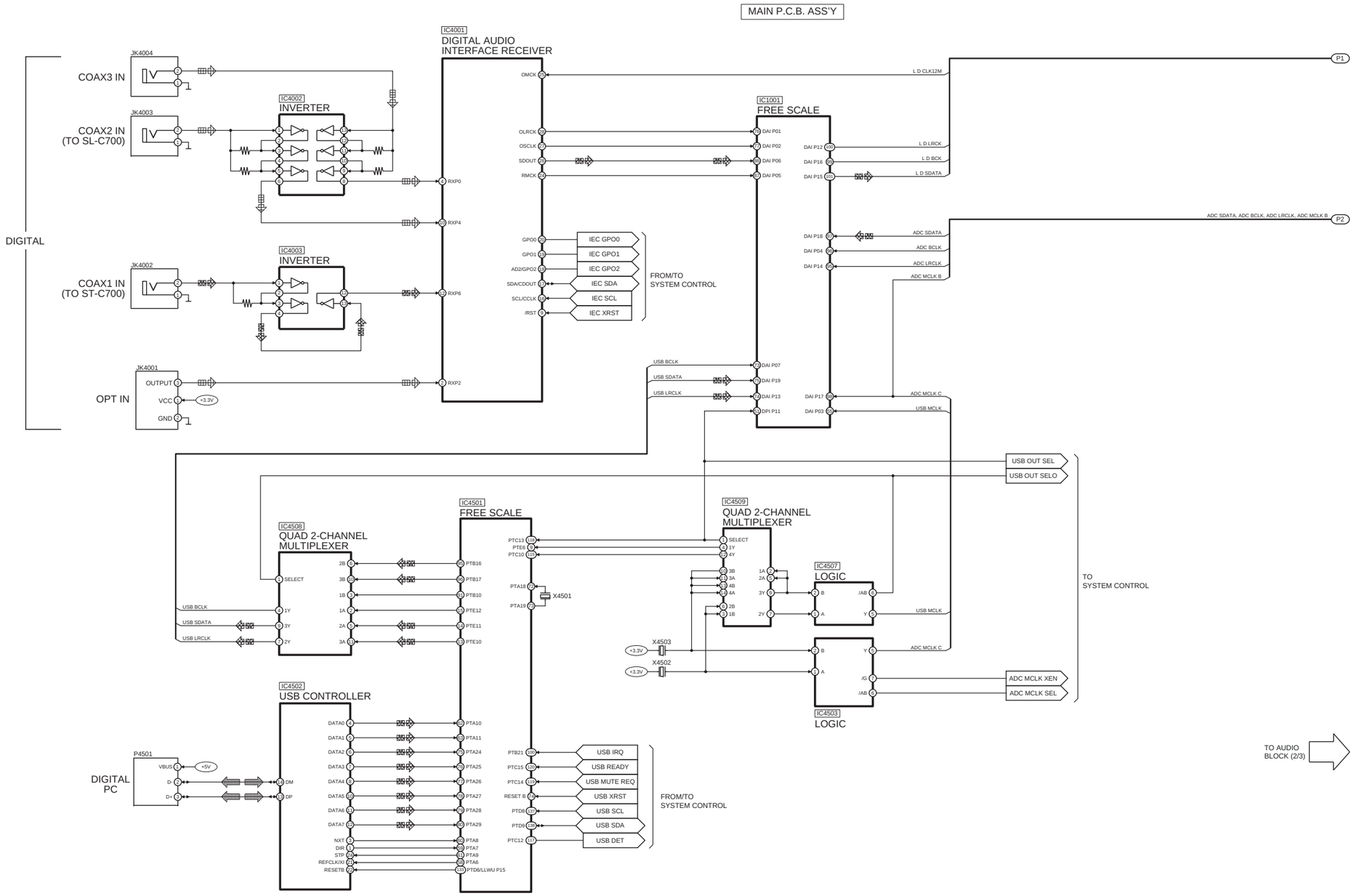
SU-C700EB/EG/GN/PP SYSTEM CONTROL (2/3) BLOCK DIAGRAM



SU-C700EB/EG/GN/PP SYSTEM CONTROL (3/3) BLOCK DIAGRAM

10.2. Audio

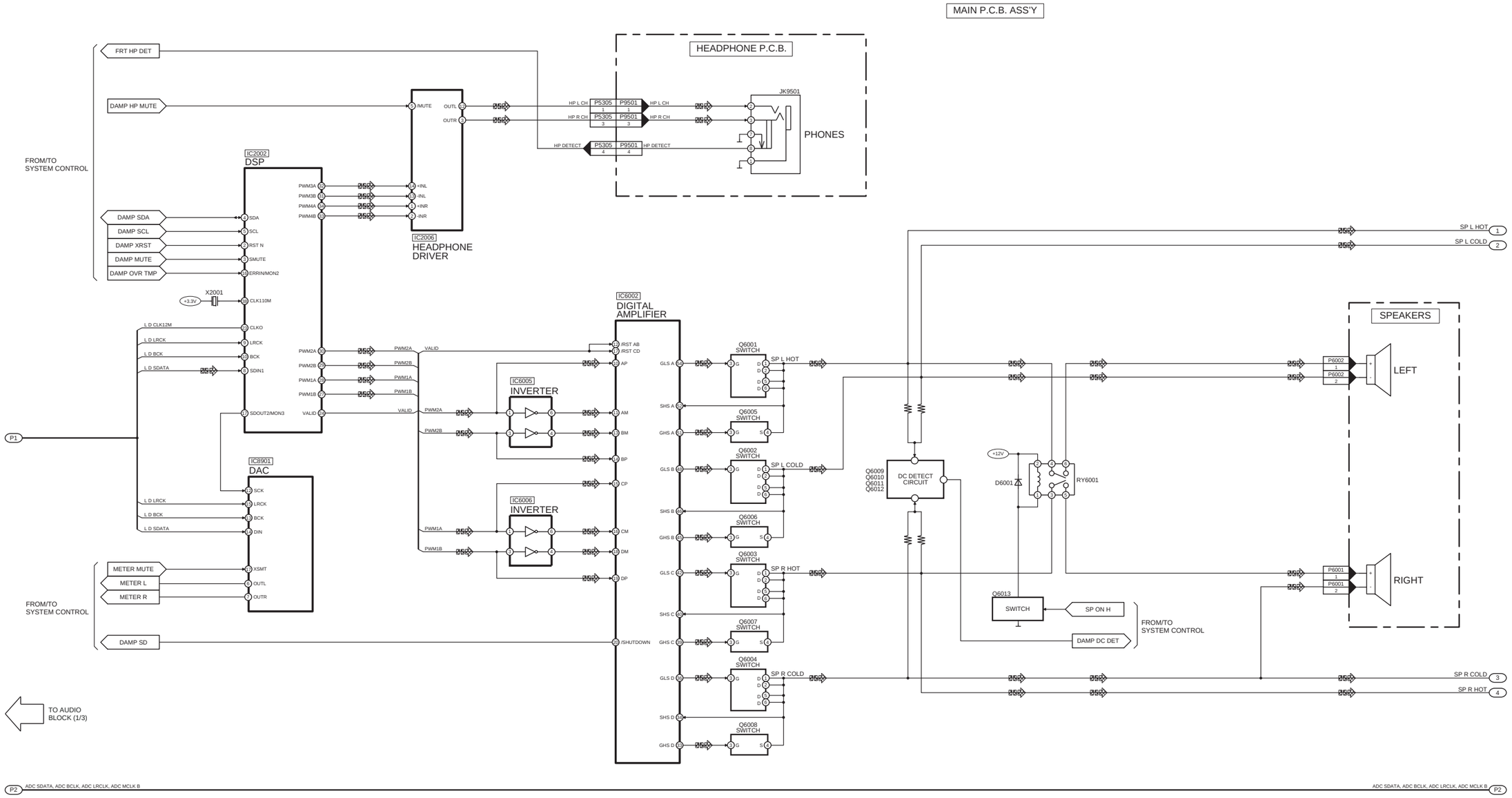
: OPTICAL/COAX/PHONO/LINE AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : USB SIGNAL LINE



SU-C700EB/EG/GN/PP AUDIO (1/3) BLOCK DIAGRAM

: OPTICAL/COAX/PHONO/LINE AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : USB SIGNAL LINE

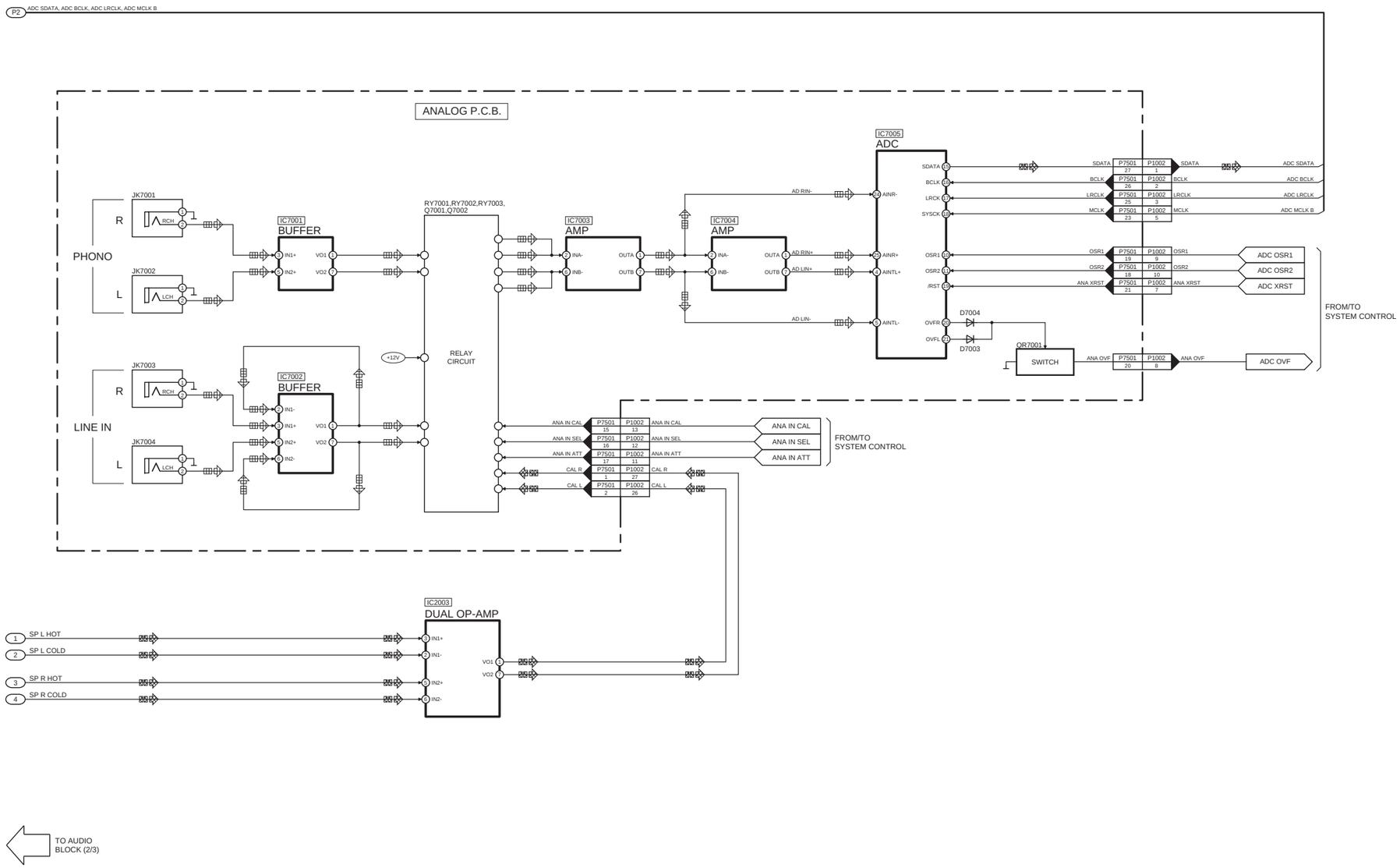
MAIN P.C.B. ASS'Y



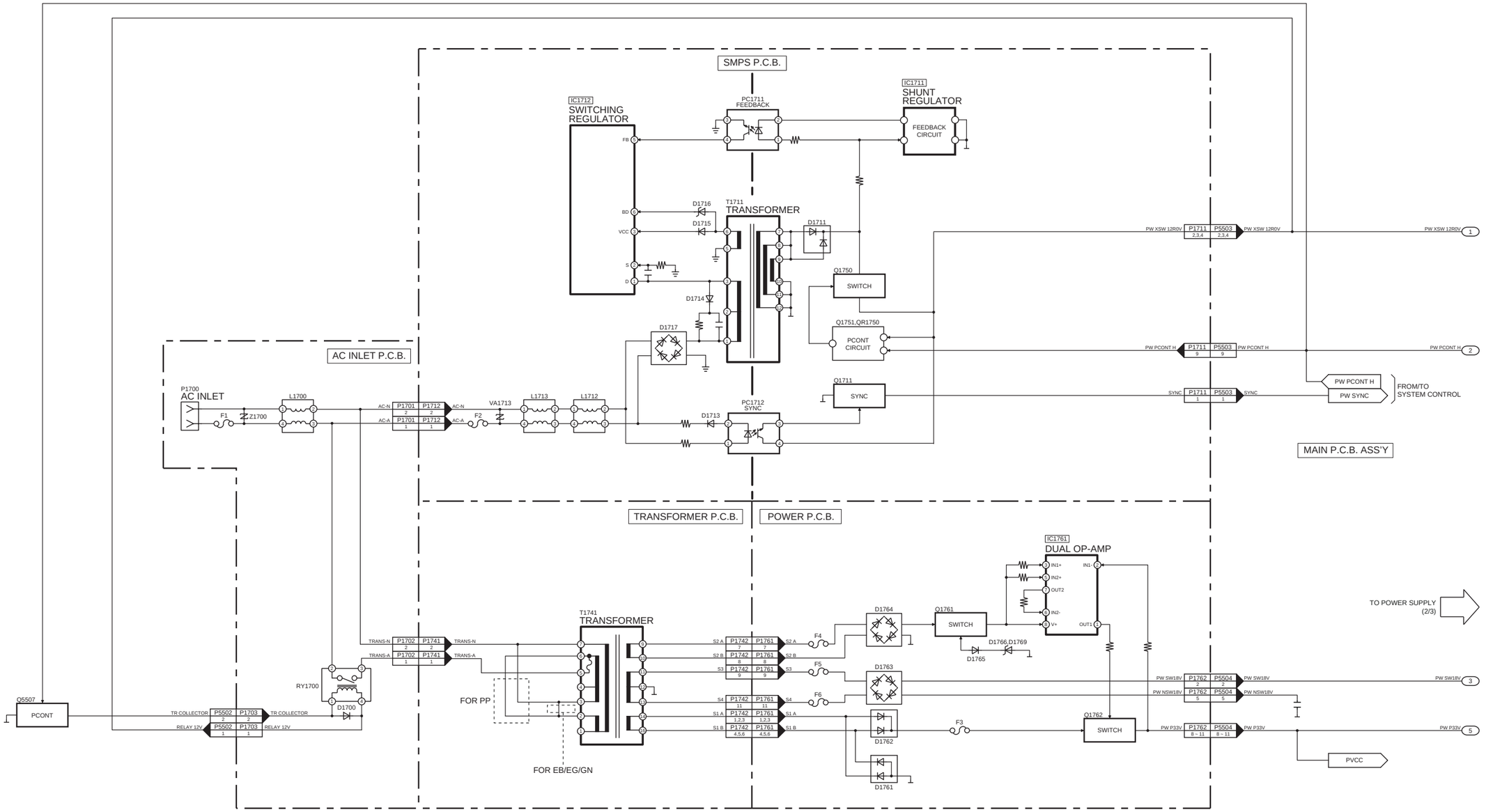
SU-C700EB/EG/GN/PP AUDIO (2/3) BLOCK DIAGRAM

: OPTICAL/COAX/PHONO/LINE AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : USB SIGNAL LINE

MAIN P.C.B. ASS'Y



10.3. Power Supply



SU-C700EB/EG/GN/PP POWER SUPPLY (1/3) BLOCK DIAGRAM

MAIN P.C.B. ASS'Y

TO POWER SUPPLY (2/3)

PW XSW 12R0V → +12V

PW XSW 5R0V (6)

PW XSW 3R3V (7)

IC5505 +5V DC-DC CONVERTER

IC5508 +3.3V VOLTAGE REGULATOR → PW XSW 3R3V → +3.3V

IC5501 +3.3V VOLTAGE REGULATOR → PW CK 3R3V → +3.3V

D5505

FROM SYSTEM CONTROL: PON DIG H (8)

IC5502 +3.3V DC-DC CONVERTER → PW VDD 3R3V → +3.3V

D5506

PW VDD 3R3V (9)

Q5502 SWITCH

QR5505 PCONT

PW PCONT H (2)

D5507

PW FRT 5R0V (10)

IC5503 +5V VOLTAGE REGULATOR

IC5509 +3.3V VOLTAGE REGULATOR → PW ANA 3R3V → +3.3V

D5508

Q5503 SWITCH

D5514

D5515

PW BAT 5R0V (11)

QR5501 SWITCH → BAT CHARGE

IC5510 +5V STEP DOWN VOLTAGE REGULATOR → BAT VOUT

Q5504 SWITCH

QR5502 SWITCH → BAT BOOST C

FROM/TO SYSTEM CONTROL

D5509

Q5508 SWITCH → PW GDV 12R0V → +12V

QR5504 SWITCH → PON GDV H

TO POWER SUPPLY (1/3)

+12V (12)

Q5501 SWITCH

PW SW 12R0V (13)

QR5503 PCONT

PW SW 12R0V → +12V

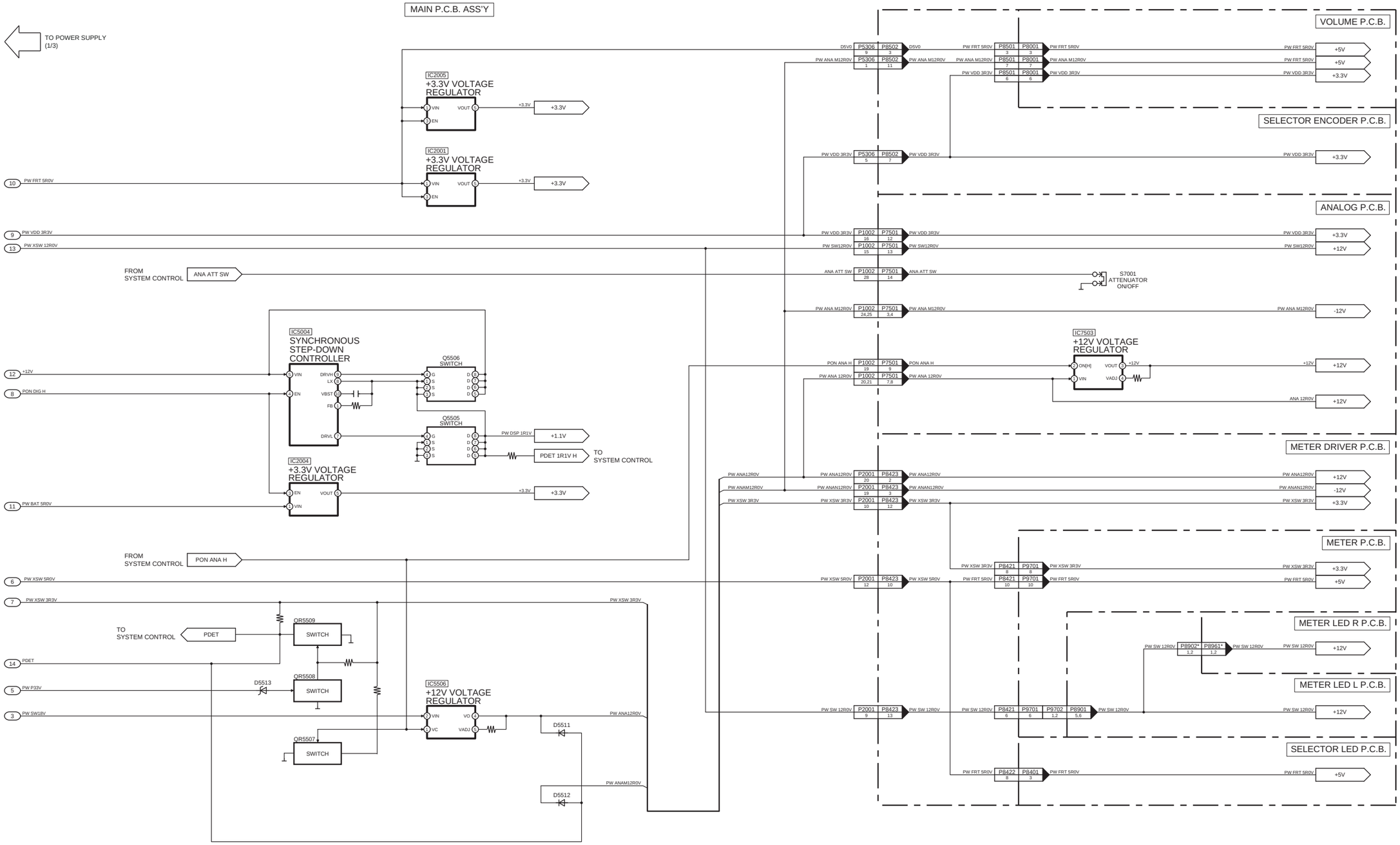
D5510

PDET (14)

PW SW18V (3)

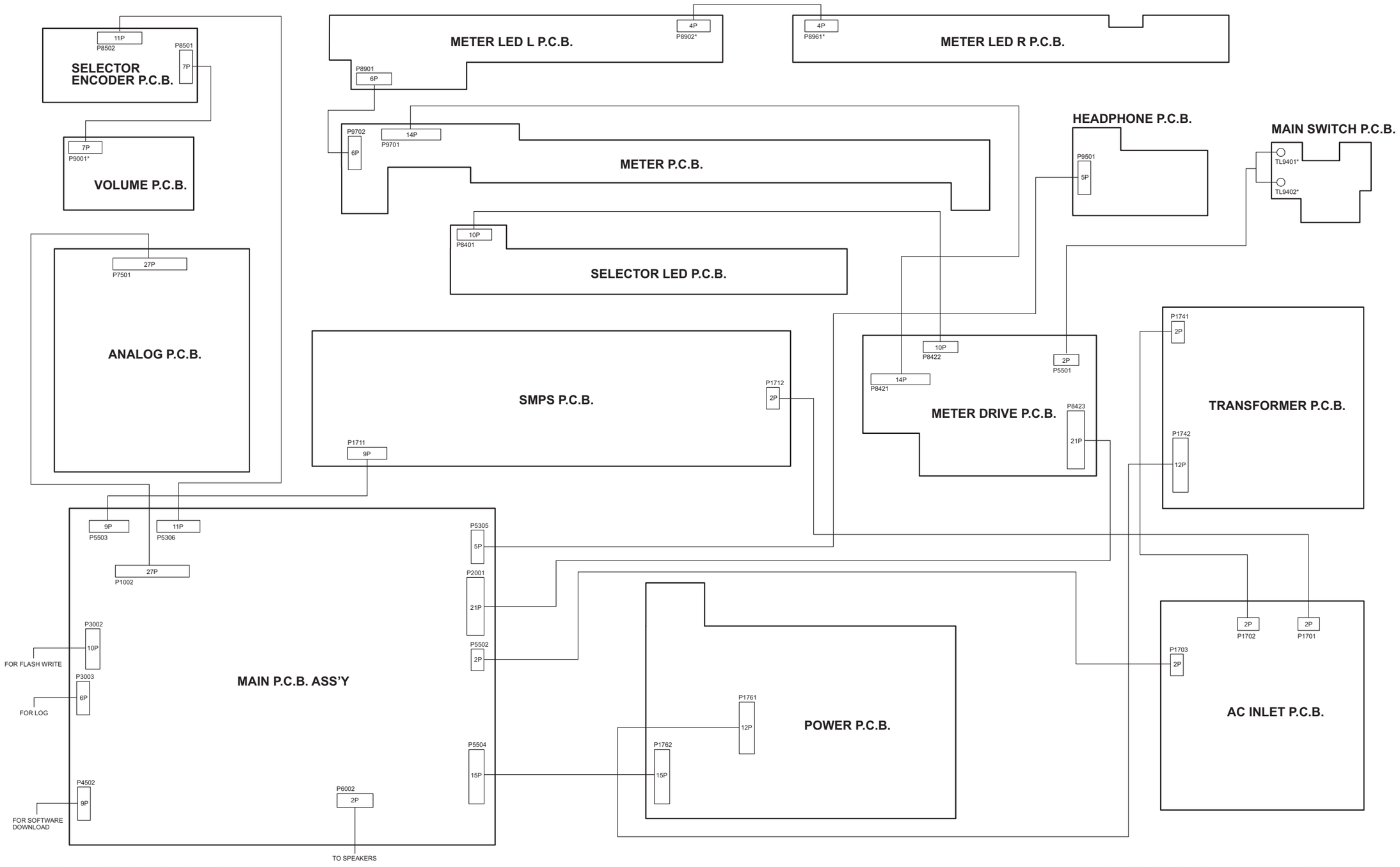
PW P33V (5)

SU-C700EB/EG/GN/PP POWER SUPPLY (2/3) BLOCK DIAGRAM



SU-C700EB/EG/GN/PP POWER SUPPLY (3/3) BLOCK DIAGRAM

11 Wiring Connection Diagram

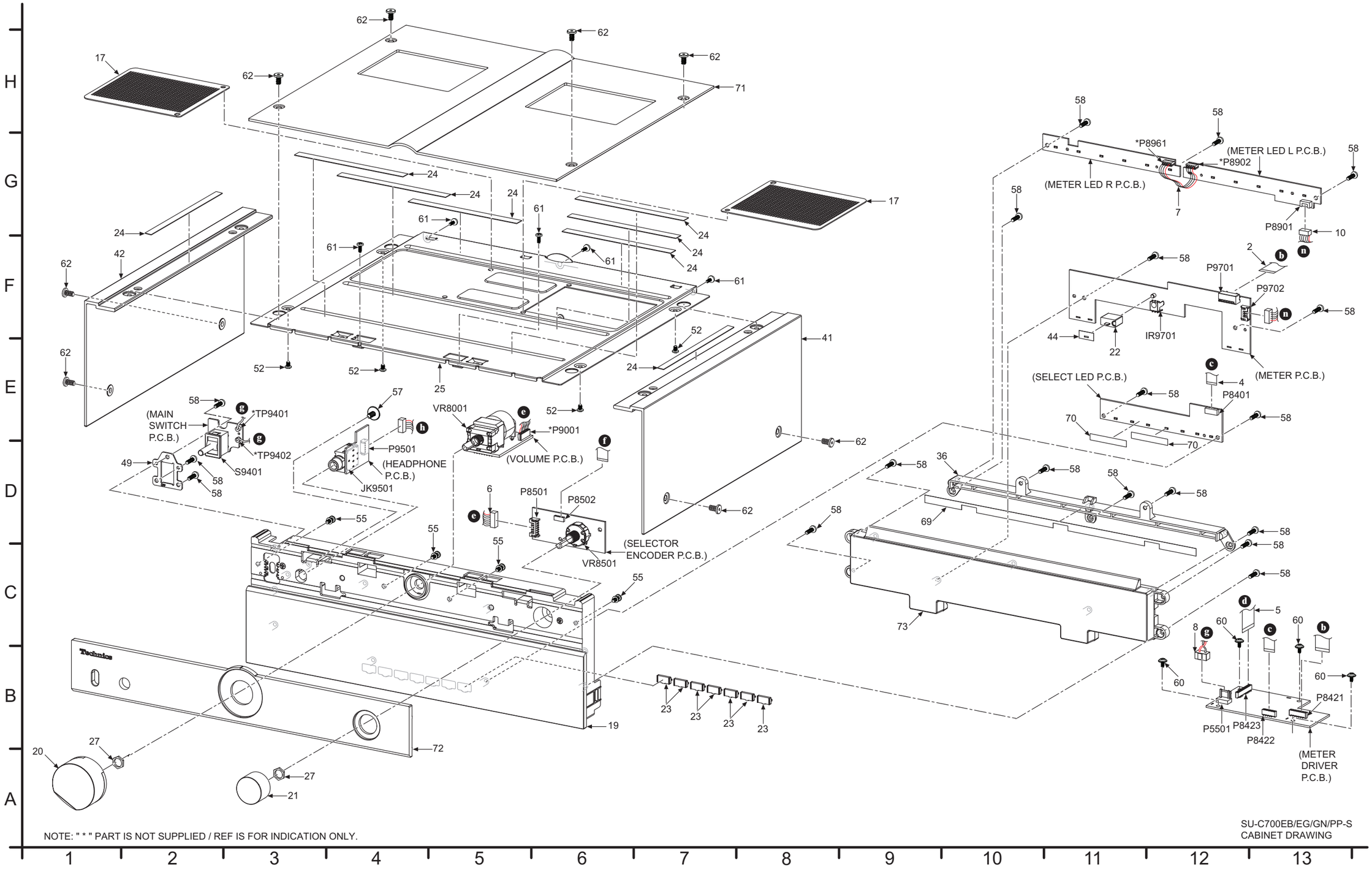


NOTE: " * " REF IS FOR INDICATION ONLY.

SU-C700EB/EG/GN/PP WIRING CONNECTION DIAGRAM

12 Exploded View and Replacement Parts List

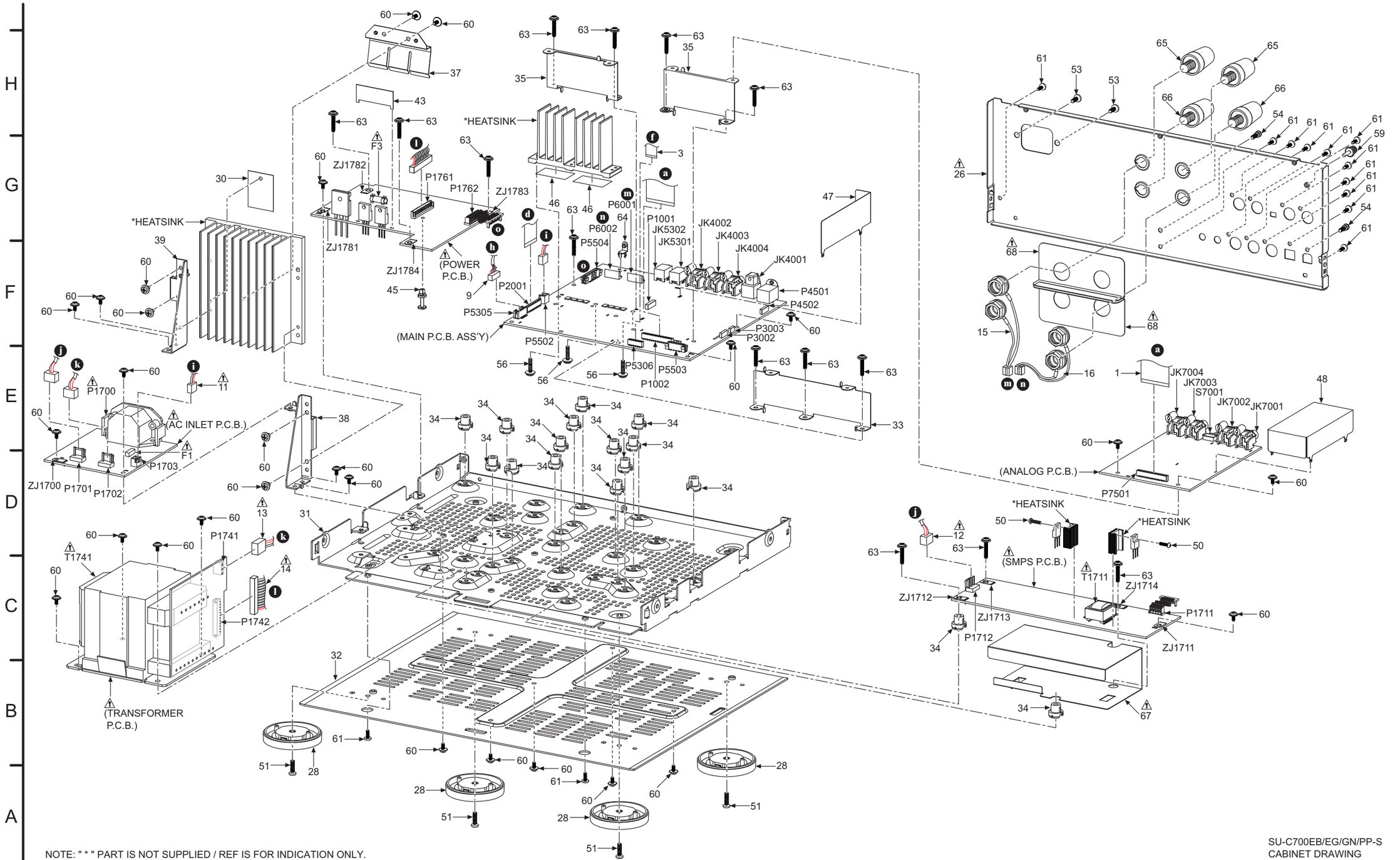
12.1. Cabinet Parts Location 1



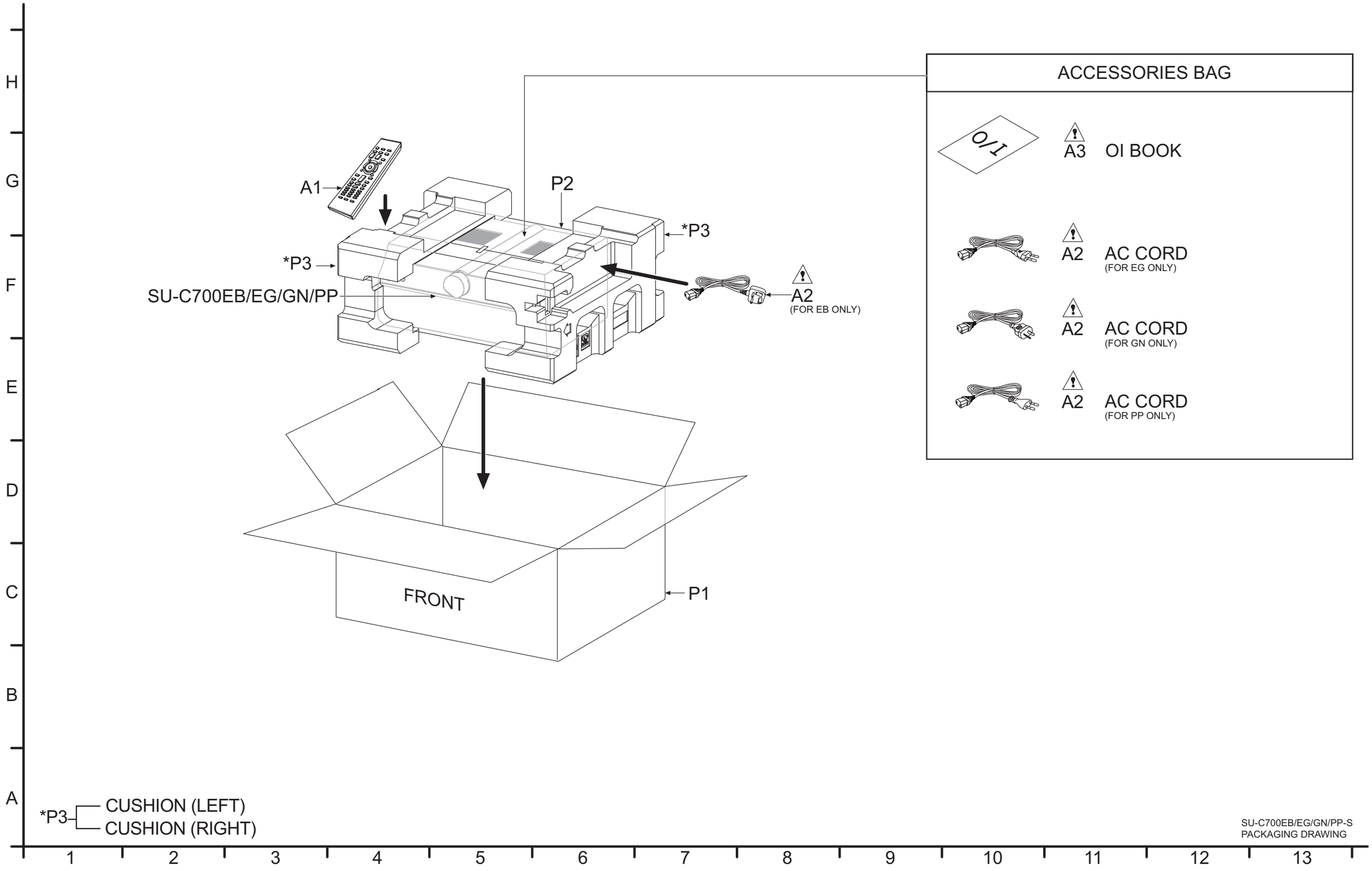
NOTE: " * " PART IS NOT SUPPLIED / REF IS FOR INDICATION ONLY.

SU-C700EB/EG/GN/PP-S
CABINET DRAWING

12.2. Cabinet Parts Location 2



12.3. Packaging



12.4. Mechanical Replacement Part List

Important Safety Notice

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

RTL (Retention Time Limited)

Note: The marking (RTL) indicates that the 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 dependant 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.

Note:

- When replacing any of these components, be sure to use only manufacturer's specified parts shown in the replacement part list.
- The parenthesized indications on the Remarks column specify the destination & product color (Refer to the cover page for the information).
- Parts without these indications shall be used for all areas.
- This product uses a laser diode. Refer to "Precaution of Laser Diode".
- All parts mentioned are supplied by PAVCJM unless indicated likewise.
- Reference for O/I book languages are as follows:

Ar:	Arabic	Du:	Dutch	It:	Italian	Sp:	Spanish
Cf:	Canadian French	En:	English	Ko:	Korean	Sw:	Swedish
Cz:	Czech	Fr:	French	Po:	Polish	Co:	Traditional Chinese
Da:	Danish	Ge:	German	Ru:	Russian	Cn:	Simplified Chinese
Pe:	Persian	Ur:	Ukraine	Pr:	Portuguese	Fi:	Finnish

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			CABINET AND CHASSIS		
	1	REE2027	27P FFC (ANALOG-MAIN)	1	
	2	REE2028	14P FFC (METER-METER DRIVE)	1	
	3	REE2029	11P FFC (SELECTOR ENCODER-SELECT LED)	1	
	4	REE2030	10P FFC (SELECTOR LED-METER DRIVE)	1	
	5	REE2033	21P FFC (MAIN-METER DRIVE)	1	
	6	REX1781	7P WIRE (VOLUME-SELECTOR)	1	
	7	REX1784	4P WIRE (METER LED-METER)	1	
	8	REX1789	2P WIRE (POWER SW-MAIN)	1	
	9	REX1790	5P WIRE (HEADPHONE-MAIN)	1	
	10	REX1791	5P WIRE (METER LED L -METER)	1	
	11	REX1792	2P WIRE (AC INLET-MAIN)	1	
	12	REX1793	2P WIRE (AC INLET-SMPS)	1	
	13	REX1794	2P WIRE (AC INLET-TRANS)	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	14	REX1795	12P WIRE (TRANS-SMPS)	1	
	15	REX1835	2P WIRE (SP_TERMINAL-MAIN)	1	
	16	REX1836	2P WIRE (SP_TERMINAL-MAIN)	1	
	17	RGM0284-S	PUNCHING PLATE	2	
	19	RFKGUC700ES	FRONT PANEL ASS'Y	1	
	20	RGW0451-S	VOLUME KNOB UNIT	1	
	21	RGW0452-S	SELECTOR KNOB UNIT	1	
	22	RGL0812-Q	LPD LIGHT GUIDE	1	
	23	RGL0813-Q	SELECTOR LIGHT GUIDE	7	
	24	RMQ2437	EPT SEALER	8	
⚠	26	RGR0462A-A4	REAR PANEL	1	EB/EG/GN
⚠	26	RGR0462A-B2	REAR PANEL	1	PP
	27	RHN90001-1	M9 NUT	2	
	28	RKA0325-K	SET LEG UNIT	4	
	30	RMG1010-H	INSULATION SHEET	1	
	31	RMK0880	INNER CHASSIS	1	
	32	RMK0881	OUTER CHASSIS	1	
	33	RMN1081	ANALOG PCB SUPPORT	1	
	34	RMN1082	PCB SUPPORT	16	
	35	RMN1094	SUB PCB SUPPORT	2	
	36	RMN1095	LED COVER	1	
	37	RMN1104	MOSFET SPRING	1	
	38	RMN1105	HEATSINK ANGLE L	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	39	RMN1106	HEATSINK ANGLE R	1	
	41	RGG0253-S	SIDE AL PANEL R	1	
	42	RGG0253A-S	SIDE AL PANEL L	1	
	43	RMX0533	SBD SPACER	1	
	44	RMX0536	LPD SHEET	1	
	45	VKC0392	PCB SUPPORT	1	
	46	RMG1003-H	HEAT RADIATION SHEET	2	
	47	RSC1291	SHIELD	1	
	48	RSC1292	ANALOG PCB SHIELD	1	
	49	RMN1083	POWER SW ANGLE	1	
	50	XTB3+8JFJ	SCREW	2	
	51	XTB3+12JFJK	SCREW	4	
	52	XTB3+4JFJ	SCREW	4	
	53	XTB4+10AFJK	SCREW	2	
	54	XYN3+C8FJK	SCREW	2	
	55	XYN3+F6FJ	SCREW	4	
	56	RHDX261002	SCREW	3	
	57	RHD26016-1L	SCREW	1	
	58	RHD26045	SCREW	19	
	59	RHD30070	SCREW	1	
	60	RHD30111-31	SCREW	31	
	61	RHD30119-K	SCREW	18	
	62	RHD40040	SCREW	8	
	63	RHDC0023	SCREW	14	
	64	RMA2255-J	GND ANGLE	1	
	65	K4AA01J00006	TERMINAL	2	
	66	K4AA01J00005	TERMINAL	2	
⚠	67	RMX0538	SMPS BARRIER	1	
⚠	68	RMX0537	SPEAKER TERMINAL BARRIER	2	
	69	RMQ2444	METER LIGHT DIFFUSION SHEET	1	
	70	RMQ2447	SELECTOR LED PCB SHEET	2	
	71	RGG0252-S	TOP AL PANEL	1	
	72	RGG0251-S	FRONT AL PANEL	1	
	73	RAQ0126	METER UNIT	1	
			PACKING MATERIALS		
	P1	SPG0027	PACKING CASE	1	EG
	P1	SPG0028	PACKING CASE	1	EB
	P1	SPG0030	PACKING CASE	1	PP
	P1	SPG0031	PACKING CASE	1	GN
	P2	SPH0002	MIRAMAT SHEET	1	
	P3	SPN0084-1	CUSHION	1	
			ACCESSORIES		
	A1	N2QAYA000096	REMOTE CONTROL	1	
⚠	A2	K2CB2YY00098	AC CORD	1	PP
⚠	A2	K2CJ2YY00097	AC CORD	1	GN
⚠	A2	K2CQ2YY00127	AC CORD	1	EG
⚠	A2	K2CT2YY00103	AC CORD	1	EB
⚠	A3	SQT0487	OI (En)	1	EB/GN
⚠	A3	SQT0488	OI (Cf)	1	PP
⚠	A3	SQT0489	OI (En)	1	PP
⚠	A3	SQT0490	OI (Ge,Fr,It,Sp,Du)	1	EG
⚠	A3	SQT0498	OI (Sw,Da,Fi)	1	EG

12.5. Electrical Replacement Parts List

Important Safety Notice

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

RTL (Retention Time Limited)

Note: The marking (RTL) indicates that the 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 dependant 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.

Note:

- When replacing any of these components, be sure to use only manufacturer's specified parts shown in the replacement part list.
- The parenthesized indications on the Remarks column specify the destination & product color (Refer to the cover page for the information).
- Parts without these indications shall be used for all areas.
- This product uses a laser diode. Refer to "Precaution of Laser Diode".
- Capacitor value are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF), F=Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1000 (OHM).
- All parts mentioned are supplied by PAVCJM unless indicated likewise.
- Parts mentioned [SPG] in the Remarks column are supplied by JAPAN.

E.S.D. standards for Electrostatically Sensitive Devices, refer to "PREVENTION OF ELECTROSTATIC DISCHARGE (ESD) TO ELECTROSTATIC SENSITIVE (ES) DEVICES" section.

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			PRINTED CIRCUIT BOARDS		
	PCB1	RFKB5100A	MAIN P.C.B ASS'Y	1	
	PCB3	REP5101AA	ANALOG P.C.B	1	
	PCB4	REP5101AB	METER LED L P.C.B	1	
	PCB5	REP5101AC	METER LED R P.C.B	1	
	PCB6	REP5101AD	SELECTOR LED P.C.B	1	
⚠	PCB7	REP5102AA	SMPS P.C.B	1	EB/EG/ GN
⚠	PCB7	REP5102BA	SMPS P.C.B	1	PP
⚠	PCB8	REP5102AB	POWER P.C.B	1	EB/EG/ GN
⚠	PCB8	REP5102BB	POWER P.C.B	1	PP
⚠	PCB9	REP5102AC	AC INLET P.C.B	1	EB/EG/ GN
⚠	PCB9	REP5102BC	AC INLET P.C.B	1	PP

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
⚠	PCB10	REP5102AD	TRANSFORMER P.C.B	1	EB/EG/ GN
⚠	PCB10	REP5102BD	TRANSFORMER P.C.B	1	PP
	PCB11	REP5101AE	METER DRIVER P.C.B	1	
	PCB12	REP5102AF	MAIN SWITCH P.C.B	1	EB/EG/ GN
	PCB12	REP5102BF	MAIN SWITCH P.C.B	1	PP
	PCB13	REP5102AG	HEADPHONE P.C.B	1	EB/EG/ GN
	PCB13	REP5102BG	HEADPHONE P.C.B	1	PP
	PCB14	REP5102AH	VOLUME P.C.B	1	EB/EG/ GN
	PCB14	REP5102BH	VOLUME P.C.B	1	PP
	PCB15	REP5102AJ	SELECTOR ENCODER P.C.B	1	EB/EG/ GN
	PCB15	REP5102BJ	SELECTOR ENCODER P.C.B	1	PP
	PCB16	REP5102AE	METER P.C.B	1	EB/EG/ GN
	PCB16	REP5102BE	METER P.C.B	1	PP

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