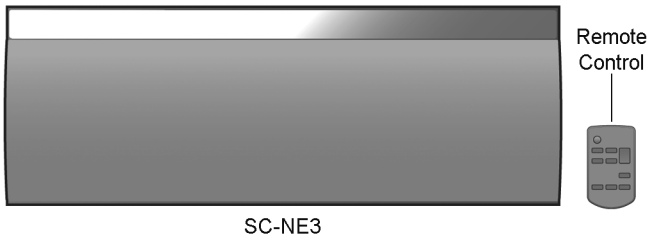
PSG1303001CE

Service Manual

Wireless Speaker System

Model No. SC-NE3EB
SC-NE3EF
SC-NE3EG

Product Color: (K)...Black Type



SC-NE3

⚠ 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.

TABLE OF CONTENTS

Panasonic

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.

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.

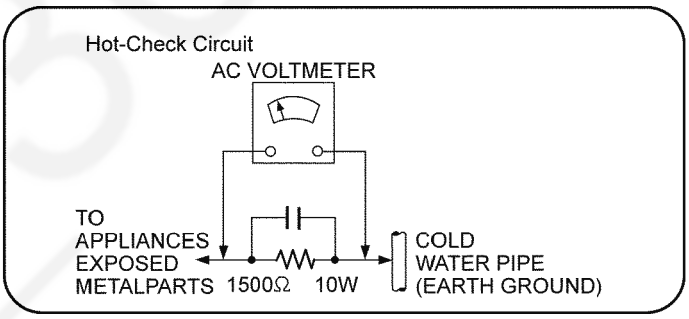


Figure 1-1

1.2. Before Repair and Adjustment

Disconnect AC power to discharge unit AC Capacitors (C1702, C1710, C1725, C1727 and C1728) through a 10W, 1W resistor to ground.

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 240V, at 50Hz in NO SIGNAL mode (at volume min in AUX mode) should be ~200 mA.

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 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 Ψ 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.

Figure A

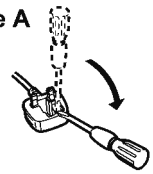
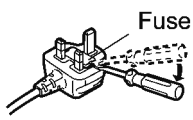


Figure B



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

Figure A

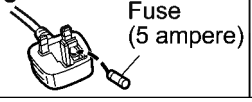
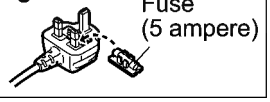


Figure B



1.5. Caution For Fuse Replacement

CAUTION:

Replace with the same type fuse:
(Manufacturer: Skygate Co., Ltd, Type: SCT, F1, T2A, 250V)

1.6. Safety Part 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
⚠	9	RFKHCNE3EB-K	REAR CABINET ASS'Y	
⚠	27	RMV0390	SMPS INSULATOR SHEET A	
⚠	28	RMV0391-1	SMPS INSULATOR SHEET B	
⚠	A1	N2QAYC000091	REMOTE CONTROL	
⚠	A2	K2CQ2YY00119	AC CORD	EF,EG
⚠	A2	K2CT2YY00097	AC CORD	EB
⚠	A3	VQT4U51	O/I BOOK (En)	EB
⚠	A3	VQT4U52	O/I BOOK (Ge/Fr/Du)	EF,EG
⚠	A3	VQT4U53	O/I BOOK (Sp/Sw/Da/Fi)	EG
⚠	A3	VQT4U54	O/I BOOK (En/Po/Cz)	EG
⚠	PCB3	REP4848F	SMPS P.C.B.	(RTL)
⚠	L1702	G0B183E00004	LINE FILTER	
⚠	T1700	G4DYZ0000059	TRANSFORMER	
⚠	Z1752	ERZE08A471CS	VARISTOR	
⚠	PC1701	B3PBA0000503	PHOTO COUPLER	
⚠	F1	K5G202Y00006	FUSE	
⚠	P1751	K2AA2B000011	AC INLET	
⚠	R1724	ERJ12YJ105U	1M 1/2W	
⚠	R1726	ERJ12YJ105U	1M 1/2W	
⚠	C1702	F0CAF224A105	0.22uF	
⚠	C1710	F1BAF471A013	470pF	
⚠	C1725	F0CAF154A105	0.15uF	
⚠	C1727	F1BAF1020020	1000pF	
⚠	C1728	F1BAF1020020	1000pF	

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. Service caution based on Legal restrictions

2.2.1. 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%

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.

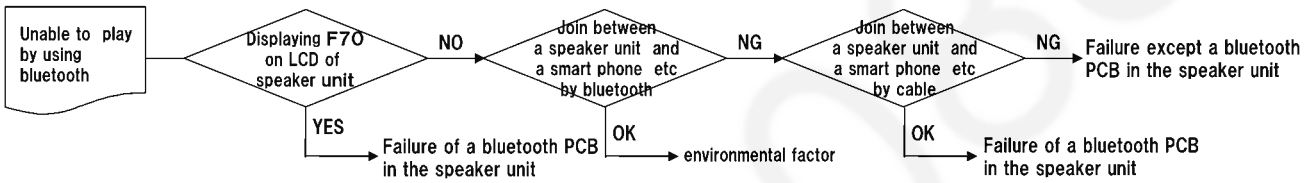
If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

- **Micro-processor:**

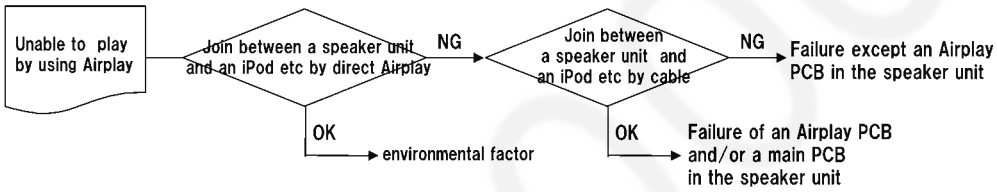
1) The following components are supplied as an assembled part.
   - Micro-processor IC, (IC51002) (RFKWMNE1PM)

3.2. Troubleshooting Guide

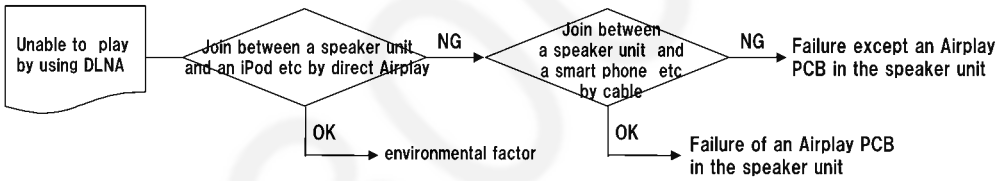
① Speaker Unit : unable to play by using bluetooth



② Speaker Unit : unable to play by using Airplay



③ Speaker Unit : unable to play by using DLNA



4 Specifications

■ **GENERAL**

Power consumption	14 W
Power consumption in standby mode	Approx. 0.2 W
Power consumption in standby mode (With “NET STNBY” set to “ON”)	Approx. 4.0 W
Power supply	AC 220 V to 240 V, 50 Hz
Dimensions (W × H × D)	570 mm × 206 mm × 100 mm
Mass	Approx. 2.8 kg
Operating temperature range	0 °C to +40 °C
Operating humidity range	35% to 80 % RH (no condensation)

■ **AMPLIFIER SECTION**

RMS Output Power Stereo mode	
Front Ch (both ch driven)	20 W per channel (6 Ω), 1 kHz, 10% THD
Total RMS Stereo mode power	40 W

■ **SPEAKER SECTION**

Type	2 way, 2 speaker system (Bass reflex)
Speaker unit(s)	
1. Woofer	8 cm × 1 per channel
2. Tweeter	2.5 cm × 1 per channel
Impedance	6 Ω
Output sound pressure	83.5 dB/W (1 m)
Frequency range	52 Hz to 25 kHz (—16 dB), 75 Hz to 22 kHz (—10 dB)

■ **Wi-Fi/AirPlay SECTION**

Wi-Fi	
WLAN Standards	IEEE802.11b/g
Frequency range	2.4 GHz band
Security	WEP (64 bit/128 bit), WPA™, WPA2™
WPS version	Version 2.0 (WEP not support)

■ **BLUETOOTH SECTION**

Version	Bluetooth® Ver.2.1 +EDR
Output	Class 2 (2.5 mW)
Communication distance	About 10 m*
Communication method	2.4 GHz band FH-SS
Communication profile	A2DP

* Prospective communication distance
Measurement environment:
Temperature 25 °C / Height 1 m
Measure in “MODE 1”

■ **TERMINALS SECTION**

AUX Terminal	Stereo, Ø3.5 mm jack

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

4.1. License

AirPlay, the AirPlay logo, iPad, iPhone, iPod, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries.

The Wi-Fi CERTIFIED Logo is a certification mark of the Wi-Fi Alliance.
The Wi-Fi Protected Setup Mark is a mark of the Wi-Fi Alliance.
“Wi-Fi”, “Wi-Fi Protected Setup”, “WPA” and “WPA2” are marks or registered marks of the Wi-Fi Alliance.

MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson.

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5 General/Introduction

5.1. Bluetooth® Operations

By using the Bluetooth® connection, you can listen to the sound from the Bluetooth® audio device from this unit wirelessly.

- Refer to the operating instructions of the Bluetooth® device for details.

Pairing Bluetooth® devices

Preparation

- Turn on the Bluetooth® feature of the device and place the device near this unit.
- If this unit is already connected to a Bluetooth® device, disconnect it.

1 Press [, AUX] to select “BLUETOOTH”.
- If “PAIRING” is indicated on the display, go to step 3.

2 Press [PLAY MENU] to select “NEW DEV.” and then press [OK].
↳ “PAIRING” is indicated on the display.

3 Select “SC-NE3” from the Bluetooth® device’s Bluetooth® menu.

4 Start play on the Bluetooth® device.

- If prompted for the passkey, input “0000”.
- You can register up to 8 devices with this unit. If a 9th device is paired, the device that has not been used for the longest time will be replaced.

Connecting a paired Bluetooth® device

Preparation

- Turn on the Bluetooth® feature of the device and place the device near this unit.
- If this unit is already connected to a Bluetooth® device, disconnect it.

1 Press [, AUX] to select “BLUETOOTH”.
↳ “READY” is indicated on the display.

2 Select “SC-NE3” from the Bluetooth® device’s Bluetooth® menu.
↳ The name of the connected device is indicated on the display for 2 seconds.

3 Start play on the Bluetooth® device.

- This unit can only be connected to one device at a time.
- When “BLUETOOTH” is selected as the source, this unit will automatically try and connect to the last connected Bluetooth® device.
- The Bluetooth® device will be disconnected if “AUX” is selected as an audio source.

Bluetooth® transmission mode

You can change the transmission speed to prioritize transmission quality or sound quality.

Preparation

- Press [, AUX] to select “BLUETOOTH”.
- If a Bluetooth® device is already connected, disconnect it.

1 Press [PLAY MENU] repeatedly to select “LINK MODE”.

2 Press [▲, ▼] to select the mode and then press [OK].
MODE 1: Emphasis on connectivity
MODE 2: Emphasis on sound quality

- The default setting is “MODE 1”.

Bluetooth® input level

If the sound input level of the Bluetooth® transmission is too low, change the input level setting.

Preparation

- Connect a Bluetooth® device.

1 Press [PLAY MENU] repeatedly to select “INPUT LEVEL”.

2 Press [▲, ▼] to select the level and then press [OK].
“LEVEL 0” ↔ “LEVEL +1” ↔ “LEVEL +2”

- Select “LEVEL 0” if the sound is distorted.
- The default setting is “LEVEL 0”.

Disconnecting a Bluetooth® device

1 While a Bluetooth® device is connected: Press [PLAY MENU] to select “DISCONNECT?”.

2 Press [▲, ▼] to select “OK? YES” and then press [OK].

5.2. Using AirPlay with this unit's speakers

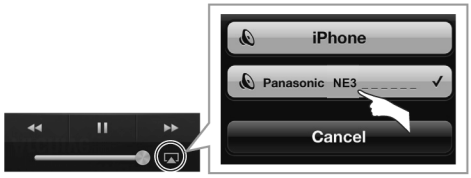
Preparation
- Complete the network settings.
- Connect the iOS device or Mac/PC to the same **home wireless network** as this unit.

1 Turn the unit on.
- Check that the Wi-Fi status indicator **lights in blue**.
- If it doesn't light in blue, check the wireless network settings.

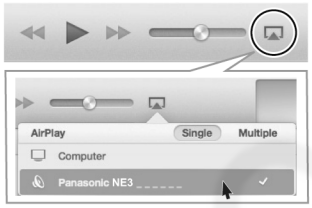
2 iOS device: Start the "**Music**" (or iPod) app.
Mac/PC: Start "**iTunes**".
- If the Music app on your iOS device is used, select the audio file you want to play.

3 Select "**Panasonic NE3 _ _ _ _ _ _**"*1, 2 from the AirPlay icon.
↳ Check the volume settings before starting the playback. (When AirPlay is used for the first time, the volume may be output at the maximum setting.)

e.g., iPhone iOS 6.0.1



e.g., iTunes 11.0



4 Start play.
- The playback will start with a slight delay.

- This unit can be set to turn on automatically when this unit is selected as the output speakers.
- Playback of other audio sources will stop and AirPlay output will have priority.
- Volume changes on the iOS device or iTunes will be applied to this unit. (Refer to the iTunes Help for the required settings in iTunes.)
- With some iOS and iTunes versions, it may not be possible to restart the AirPlay playback if the selector is changed (e.g., "AUX") or the unit is turned off, during the AirPlay playback.
  In this case, select a different device from the AirPlay icon of the Music App or iTunes and then re-select this unit as the output speakers.
- AirPlay will not work when playing back videos on iTunes.

*1: "_" stands for a digit that is unique to each set.
*2: The name that is displayed for this unit can be changed from the "Edit STEREO SYSTEM name" settings. ("Advanced network settings")

Directly streaming to this unit (AirPlay)

With this function set to "ON", you can stream music from the iOS device or Mac / PC (iTunes 10.2.2 or later) to this unit without the need of a wireless network router.
- Previous network settings will be deleted when this function is set to "ON".
- The following explanations are based on an iPhone.

1 Press [SETUP] repeatedly to select "D.CONNECT".

2 Press [▲, ▼] to select "ON" and then press [OK].

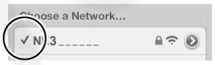
3 Press [▲, ▼] to select "OK? YES" and then press [OK].

"PW _ _ _ _ _ "*1 is displayed.
The 5 digits after "PW" is the password for this network.

4 Connect your iPhone to this unit's wireless network named "NE3 _ _ _ _ _ _"*2.

5 Enter the password that is indicated on this unit's display.

6 Once the iPhone is connected to this unit's wireless network, the setup is competed.



7 Continue to step 2 of "Using AirPlay with this unit's speakers".

- This setting is reset to "OFF" when other network settings are performed.
- When "D.CONNECT" is set to "ON", this unit will not be connected to the Internet. It is not possible to update the software or check the Wi-Fi signal strength.
- When AirPlay is not being used, disconnect the AirPlay compatible device from this network.
- When using a computer on this network, make sure that all the shared files are encrypted.
- This feature is only compatible with the "Open System" authentication method. It is not compatible with "Shared Key" authentication method.

*1: "_" stands for a digit.
*2: "_" stands for a digit that is unique to each set.

5.3. Playing back music files on the DLNA server

You can share music files stored in the DLNA Certified media server (PC with Windows 7 installed, smartphone, etc.) connected to your home wireless network, and enjoy the contents with this unit's speaker.

Preparation
- Complete the network settings.
- Connect your device with DMC (Digital Media Controller) compatible software installed to the same **home wireless network** as this unit.
- Add the contents and folder to the libraries of the Windows Media® Player or the smartphone, etc.
  – Playlist of Windows Media® Player can play back only the contents that are stored in the libraries.

1 Turn the unit on.
- Check that the Wi-Fi status indicator **lights in blue**.
- If it doesn't light in blue, check the wireless network settings.

2 Operate the DMC compatible device and connect to this unit.
- The device name of this unit will be displayed as "Panasonic NE3 _ _ _ _ _ _"*1, 2.
- For details on how to use DMC compatible devices, refer to the operating instructions of the devices or the software.

■ Support format of DLNA client

File formats that are not supported by your DLNA server cannot be played.

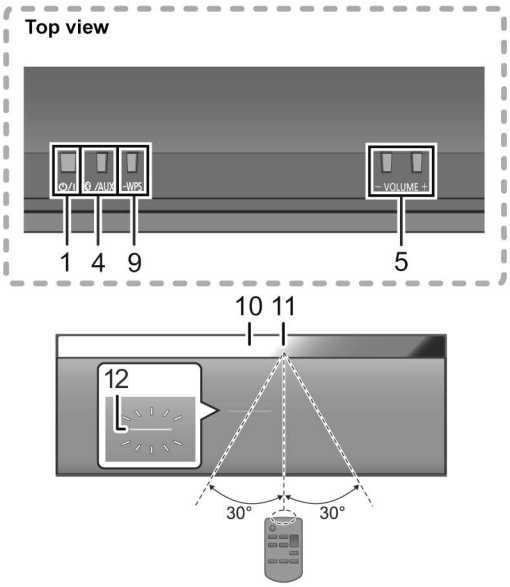
Audio codec	Example of file extension
MP3	.mp3
WAV	.wav

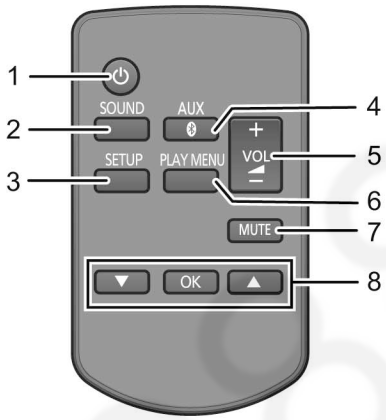
- Depending on the contents and the connected equipment, playback may not be possible.

*1: "_" stands for a digit that is unique to each set.
*2: The name that is displayed for this unit can be changed from the "Edit STEREO SYSTEM name" settings. ("Advanced network settings")

6 Location of Controls and Components

6.1. Main Unit and Remote Control Key Button Operations

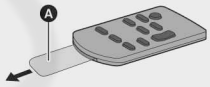




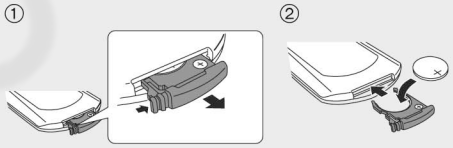
1 **Standby/on switch** [⏻/I] ([⏻])
Press to switch the unit from on to standby mode or vice versa.
In standby mode, the unit is still consuming a small amount of power.
2 Enter sound menu
3 Enter setup menu
4 Select Bluetooth®/AUX
5 Adjust the volume (0 (min) to 50 (max))
6 Enter the Bluetooth® menu/
Change the sound input level of the external device
Select the playback mode for AirPlay
7 Mute the sound
Mutes the sound. Press again to cancel. "MUTE" is also cancelled when the volume is adjusted or the unit is turned off.
8 Selection/OK
9 WPS pairing button
10 Display
11 Remote control signal sensor
Distance: Within approx. 7 m directly in front.
- To avoid interference, please do not put any objects in front of signal sensor.

12 Wi-Fi® status indicator

■ **Before using for the first time**
Remove the insulation sheet Ⓐ.



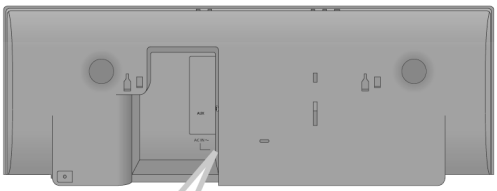
■ **To replace a button-type battery**
Battery type: CR2025 (Lithium battery)



- Set the button-type battery with its (+) mark facing upward.
- Keep the button-type battery out of reach of children to prevent swallowing.

7 Installation Instructions

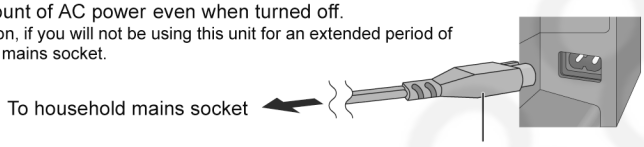
7.1. Connections



Connect the AC mains lead.

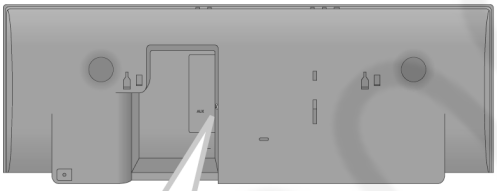
This unit consumes a small amount of AC power even when turned off.

- In the interest of power conservation, if you will not be using this unit for an extended period of time, unplug it from the household mains socket.



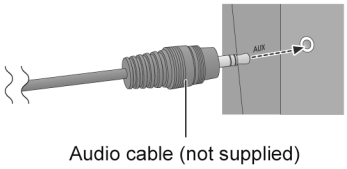
- These speakers do not have magnetic shielding. Do not place them near a television, personal computer or other devices easily influenced by magnetism.
- When this unit is turned on for the first time after purchase, a message prompting you to connect a Bluetooth® device (“PAIRING”) is displayed.

Additional Connection



Connect an external music device (for AUX mode).

① Plug the audio cable (not supplied) into the AUX jack.
Plug type: ∅3.5 mm stereo
② Press [, AUX] to select “AUX” and start playback on the connected device.



■ To select the sound input level of the external device

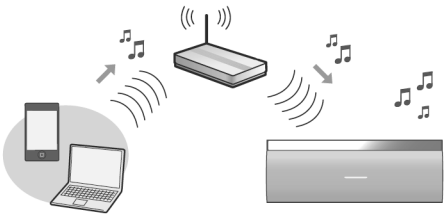
① While in “AUX” mode, press [PLAY MENU] repeatedly to select “INPUT LEVEL” and then press [OK].
② Press [▲, ▼] to select “NORMAL” or “HIGH”.
- The default setting is “NORMAL”.

- Switch the equalizer off or turn the volume of the external device down to reduce the input signal. High level of input signal will distort the sound.
- For details, refer to the instruction manual of the other equipment.
- The cables and the devices are not supplied.

7.2. Network settings

You can wirelessly stream music from an iOS device (iPhone, iPod, iPad), an Android device or a Mac/PC to this unit's speakers by using the AirPlay or DLNA feature.
To use these features, this unit must join the same 2.4 GHz wireless network as the AirPlay compatible device or the DLNA compatible device.

- It is also possible to use AirPlay without a wireless network router. ("Directly streaming to this unit (AirPlay)")



■ Compatible AirPlay devices

iOS 4.3.3 or later
iPod touch 3rd, 4th, and 5th generation
iPhone 5 / iPhone 4S / iPhone 4 / iPhone 3GS
iPad (3rd, and 4th generation) **/ iPad 2 / iPad**
iPad mini
iTunes 10.2.2 or later (Mac / PC)

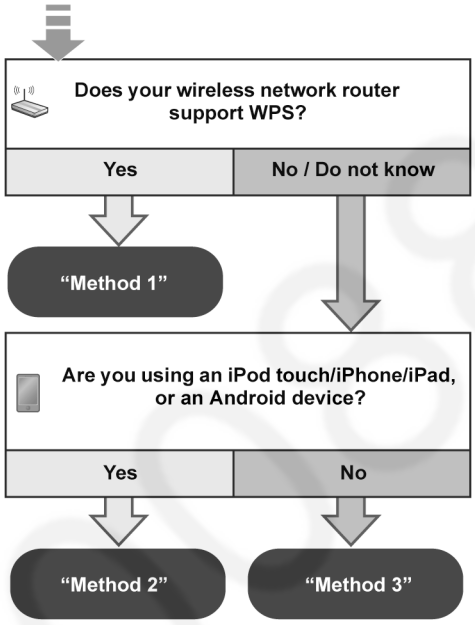
(as of January 2013)

Preparation

- Place this unit close to the wireless network router.

1 Turn this unit on.

2 Follow the chart below to choose the network setting method.



- **If you want to apply the advanced setting, or you want to perform wireless setting with your Mac/PC, try "Method 3" on page 8.**

- To cancel this setting in the middle, press [⏻] to turn off the unit.
- Simultaneous use with other 2.4 GHz devices, such as microwaves, cordless telephones, etc., may result in connection interruptions.
- For up to date compatibility information on your wireless network router refer to http://panasonic.jp/support/global/cs/ (This site is in English only.)

Method 1
If your wireless network router supports WPS (Wi-Fi Protected Setup™).

■ Using the WPS Push Button Configuration (PBC)

The WPS identifier mark

WPS Push Button Configuration (PBC) compatible wireless network router may have this mark.

1 Press and hold **[– WPS]** on the unit.
↳ "WPS" flashes on the display.
(The Wi-Fi status indicator blinks blue.)
- Complete step 2 within 2 mins.

2 After "WPS" is indicated, press the WPS button on the wireless network router.

3 The unit's settings are completed when "**SUCCESS**" is displayed and the Wi-Fi status indicator **stops blinking** and **lights in blue**.

"FAIL" may be displayed if the connection was not made within the set time limit. Try the setting again. If "FAIL" is still displayed, try other methods.

4 Press [OK] on the remote control to exit the setting.

Method 2
Setting the network connection with the smartphone app

You can make the wireless network settings with the app, "Panasonic Stereo System Network Setup" (for free).
If you're using an Android device, download the app at the Google Play Store. If you're using an iPod touch/ iPhone/iPad, download it at the App Store.

Preparation
- Connect your smartphone to your home wireless network.
- Check the password for your home wireless network.

1 Press **[SETUP]** on the remote control repeatedly to select "**NET SETUP**" and then press **[OK]**.
↳ "SETTING" is indicated on the display.
(The Wi-Fi status indicator blinks purple.)

2 Start "**Panasonic Stereo System Network Setup**" on your smartphone and follow the indications.

■ Note for the iOS version

After step 2

1 Enter the password for the home wireless network to which the iOS device is connected.
2 When a message instructing you to connect the iOS device to this unit is displayed, press the home button to close the app.
3 On the Wi-Fi network selection screen in "Settings", select "00 Setup _ _ _ _ _ _".
- " _ " stands for a digit that is unique to each set.

4 When a message indicating the completion of the connection to this unit is displayed, restart the app.

5 When a message indicating the completion of the Wi-Fi setup of this unit is displayed, close the app, and then check the operation of AirPlay, etc.

- "Panasonic Stereo System Network Setup" for Mac OS is also available at the App Store.

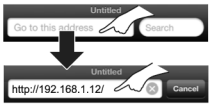
Method 3
Setting the network connection from an Internet browser.

With this method, you will access this unit's wireless network settings from the Internet browser of your compatible device.
- The following explanations are based on an iPhone.

1 Press **[SETUP]** on the remote control repeatedly to select "**NET SETUP**" and then press **[OK]**.
↳ "SETTING" is indicated on the display.
(The Wi-Fi status indicator blinks purple.)

2 After "SETTING" is indicated, connect your compatible device to this unit's wireless network named "**00 Setup _ _ _ _ _ _**".
- " _ " stands for a digit that is unique to each set.
- Make sure that DHCP is enabled for the network setting on your compatible device.

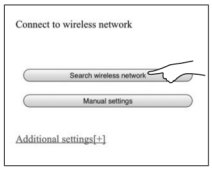
3 Start the Internet browser on your compatible device and type **"http://192.168.1.12/"** into the URL address field and display the page.



↳ This unit's setup window is displayed.

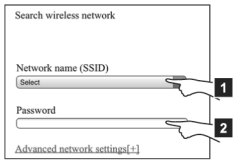
- **Examples of Internet browsers**
  iOS device/Mac : Safari
  Android device : Google Chrome browser
  PC : Windows Internet Explorer

4 Select "**Search wireless network**".



5 Select and input the details.

- Check your **home wireless network name** (Network name (SSID)) and **password** for this network. This can often be found on the wireless network router itself.



1 Select your **home wireless network name**.*1

2 Type the **password**.

6 Select "**JOIN**" to apply the settings.

- In the pop-up screen, select "OK" to continue.
  – Select "Cancel" to return to the setup window.

7 The unit's settings are completed when "**SUCCESS**" is displayed and the Wi-Fi status indicator **stops blinking** and **lights in blue**.

If "FAIL" is displayed press [OK], check the wireless network password and other settings and start again from step 1.

8 Make sure to connect your compatible device back to your **home wireless network**.

*1: If you have set your wireless network to be invisible, select "BACK" and refer to "Alternative settings".

Advanced network settings

- The below settings are the alternative or additional settings for "Method 3".

Alternative settings

Instead of steps 4 and 5
Select "**Manual settings**".

1 Type your **home wireless network name** into the "Network name (SSID)" field.
2 Select the **encryption method** from the "Security system" drop down list.
3 Type the **password** into the "Password" field and then select "JOIN".

Additional settings

If your home wireless network has been configured to use specific IP Addresses, Subnet Mask, Default Gateway, Primary DNS, etc.

Before step 6
Select "**Advanced network settings**".

↳ Input the required addresses into each field and select "JOIN".

- To change the settings back to DHCP, select "ON" from the "DHCP" drop down list.

If you want to change the name of this unit that is displayed as the AirPlay speakers or DLNA renderer.

Before step 4
Select "**Additional settings**".

1 Select "**Edit STEREO SYSTEM name**".
2 Type a new name into the "STEREO SYSTEM name" field.
↳ Only ASCII characters can be used.
3 Select "**OK**".
4 If this unit is already connected to your home wireless network:
– Select "**Additional settings**" and then select "**Exit**".
If this unit is not connected to your home wireless network:
– Continue to **step 4** of "Method 3".

- Enable Java and Cookies in your browser settings.
- This unit can also be set using the WPS PIN code. Replace step 2 of "Method 1" with the following steps. (Before starting, refer to the wireless network router's operating instructions for details on how to enter the PIN code.)

1 While "WPS" is flashing press and hold [– WPS] again to display the 8 digit PIN code.
↳ Wi-Fi status indicator blinks purple.
2 Enter the PIN code into the wireless network router.

8 Service Mode

This unit is equipped with features of self diagnostic & doctor mode setting for checking the functions & reliability.

8.1. Self Diagnostic Mode

Here is the procedures to enter into Self Diagnostic Mode.
Step 1: Turn on the unit.
Step 2: Select Bluetooth/AUX mode.
Step 3: Press and hold [Bluetooth/AUX] button for 2 seconds follow by [VOL+] on the unit.
Step 4: The display show as follow.

To exit the Self Diagnostic Mode

Use either one of the following methods to cancel the Self Diagnostic Mode.

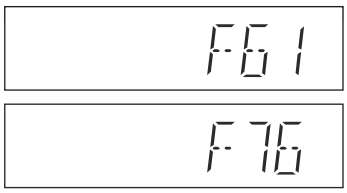
- Press the power button on the main unit or using the remote control.
- Unplug the AC cord.

8.1.1. Self Diagnostic Table

Item		FL display	Key operation
Mode name	**Description**		
Self Diagnostic Mode	To enter into self diagnostic checking.		Step 1 : Select Bluetooth/AUX mode. Step 2 : Press and hold [BT/AUX] follow by [VOL+] on main unit for 2 second.
Error code information	System will perform a check on any unusual/error code from the memory.	Example: 	Step 1 : In self diagnostic mode, Press [STOP] on main unit. To exit, press [⏻/I] on main unit or remote control.
Delete Error code	To clear the stored in memory (EEPROM IC).		Step 1 : In self diagnostic mode, Press [0] on remote control. To exit, press [⏻/I] on main unit or remote control.

8.2. Self Diagnostic Function Error Code

8.2.1. Power Amp Error Code Table

Error Code	Diagnostic Contents	Description of error	Automatic FL Display	Remarks
F61/F76	Power Amp IC output abnormal.	During power-on, PDET1, PDET2 & MAINV_DET / TEMP_DET is “L” after 1 sec.		Press [■] on main unit for next error.

8.2.2. AirPlay Error Code Table

Error Code	Diagnostic Contents	Description of error	Automatic FL Display	Remarks
F27	Air Play Communication	Communication between Air Play module and micro-p abnormal.		Press [■] on main unit for next error.

8.2.3. Bluetooth Error Code Table

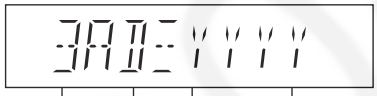
Error Code	Diagnostic Contents	Description of error	Automatic FL Display	Remarks
F70	Bluetooth Communication	Communication between module and micro-p abnormal.		Press [■] on main unit for next error.

8.3. Doctor Mode Table

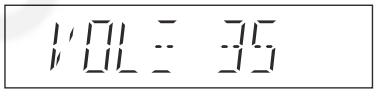
Note: To enter the Doctor Mode, please use HC55 remote control.
Here is the procedures to enter into Doctor Mode.
Step 1: Turn on the unit.
Step 2: Select Bluetooth/AUX mode.
Step 3: Pressing and hold [Bluetooth/AUX] on main unit then press [4] follow by [7] using the remote control.
Step 4: The display show as follow.

To exit the Doctor mode
Use either one of the following methods to cancel the Doctor mode.
- Press the power button of the unit or using the remote control.
- Unplug the AC cord.

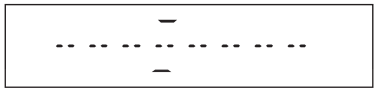
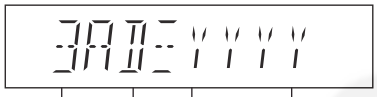
8.3.1. Doctor Mode Table 1

Item		FL display	Key operation
Mode name	**Description**		**Front Key**
Doctor Mode	To enter into Doctor Mode for checking of various items and displaying EEPROM and firmware version. Note: The micro-processor version as shown is an example. It will be revise when there is an updates. FL Display sequence Display 1→2	(Display 1)  Version Display (DEC) Check sum (HEX) Checksum: (Condition 1)  No Rom correction (Display 2)  The Checksum of EEPROM and firmware version will be display for 2 sec.	In any mode: Press [BT/AUX] button on main unit follow by [4] and the [7] on the remote control of HC55. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC55.

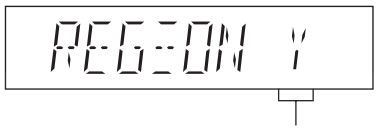
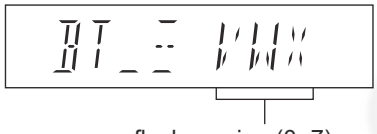
8.3.2. Doctor Mode Table 2

<table>
<tr><th colspan="2">Item</th><th rowspan="2">FL display</th><th rowspan="2">Key operation
Front Key</th></tr>
<tr><th>Mode name</th><th>Description</th></tr>
<tr><td>FL Display Test</td><td>To check the FL segments display (All segments will light up).</td><td>  </td><td>In Doctor mode:
Press [1] button on the remote control of HC55.
To cancel, press [0] button on remote control. It returns Doctor Mode.
To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC55.</td></tr>
<tr><td>Tact SW Inspection</td><td>To conduct the acceptance of all keys on the main set.</td><td>
<table>
<tr><th>No</th><th>NE3/5 (SP unit)</th><th>NE1</th><th>FL Display</th><th>Remarks</th></tr>
<tr><td>1</td><td>POWER</td><td>POWER</td><td>  </td><td>1st digit of FL</td></tr>
<tr><td>2</td><td>SELEC-TOR</td><td>SELEC-TOR</td><td>  </td><td>2nd digit of FL</td></tr>
<tr><td>3</td><td>WPS</td><td>D.BASS</td><td>  </td><td>3rd digit of FL</td></tr>
<tr><td>4</td><td>VOL-</td><td>VOL-</td><td>  </td><td>4th digit of FL</td></tr>
<tr><td>5</td><td>VOL+</td><td>VOL+</td><td>  </td><td>5th digit of FL</td></tr>
</table>
</td><td>In Doctor mode:
Press [2] button on the remote control of HC55.
To cancel, press [0] button on remote control. It returns Doctor Mode.
To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC55.</td></tr>
<tr><td rowspan="3">Volume Setting</td><td rowspan="3">To check for preset volume setting.
Note : In tuner mode this function is not possible.</td><td>  </td><td>In Doctor mode:
Press [7] button on the remote control of HC55.
To cancel, press [0] button on remote control. It returns Doctor Mode.
To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC55.</td></tr>
<tr><td>  </td><td>In Doctor mode:
Press [8] button on the remote control of HC55.
To cancel, press [0] button on remote control. It returns Doctor Mode.
To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC55.</td></tr>
<tr><td>  </td><td>In Doctor mode:
Press [9] button on the remote control of HC55.
To cancel, press [0] button on remote control. It returns Doctor Mode.
To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC55.</td></tr>
</table>

8.3.3. Doctor Mode Table 3

Item		FL display	Key operation
Mode name	Description		Front Key
Cold Start	To activate cold start upon next power up. (Backup date are initialized)	 The [NO DISC] display will appear after 2s. 	In Doctor mode: Press [SLEEP] button on the remote control of HC55. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC55.
EEPROM Checksum	To check sum of EEPROM for a simplified ROM correction. 1. When EEPROM is not detected, the only micro-p's version shall be displayed without an EEPROM's check sum.	 Version Display (DEC) Check sum (HEX) EEPROM not detected only firmware is display. 	In any mode: Press [BT/AUX] button on main unit follow by [4] and the [7] on the remote control of HC55. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC55.

8.3.4. Doctor Mode Table 4

Item		FL display	Key operation
Mode name	Description		Front Key
Region Checking	To check Region setting of unit. Refer to 8.3.5 for the Region Setting destination.	 Region Setting destination	In Doctor mode: Press [≧10] button follow by [1] and then [6] button on the remote control of HC55. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC55.
Bluetooth Version Check	To check Bluetooth version setting of unit.	 v = flash version (0~7), w = flash sub version (0~F), x = control version (0~F)	In Doctor mode: Press [Play Timer] button on the remote control of HC55. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC55.
Yamaha DSP Version Check	To check DSP Firmware mode and Version No.	 Firmware Version No (00~FF) Firmware Mode (00~FF)	In Doctor mode: Press [6] button on the remote control of HC55. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC55.
Air Play Version Check	To check Air Play firmware version.	 Firmware Version No (0001 ~ 9999)	In Doctor mode: Press [5] button on the remote control of HC55. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC55.

8.3.5. Region Check Table

Region	Model	Series	Country
1	NE5/3/1	P/PC	North America
2 (D)	NE5/3/1	Japan	Japan
4	NE5/3/1	EG	UK, Germany, France
5	NE5/3	EB	UK
7	NE5/1	PU/GS	S.E. Asia
9	NE5/3/1	GN	Oceania

9 Service Fixture & Tools

Prepare service tools before process service position.

Ref. No.	Service Tools		Remarks
SFT1	Main P.C.B. (CN58001) - SMPS P.C.B. (P1700)	REX1538 (7P Wire)	

10 Disassembly and Assembly Instructions

Caution Note:

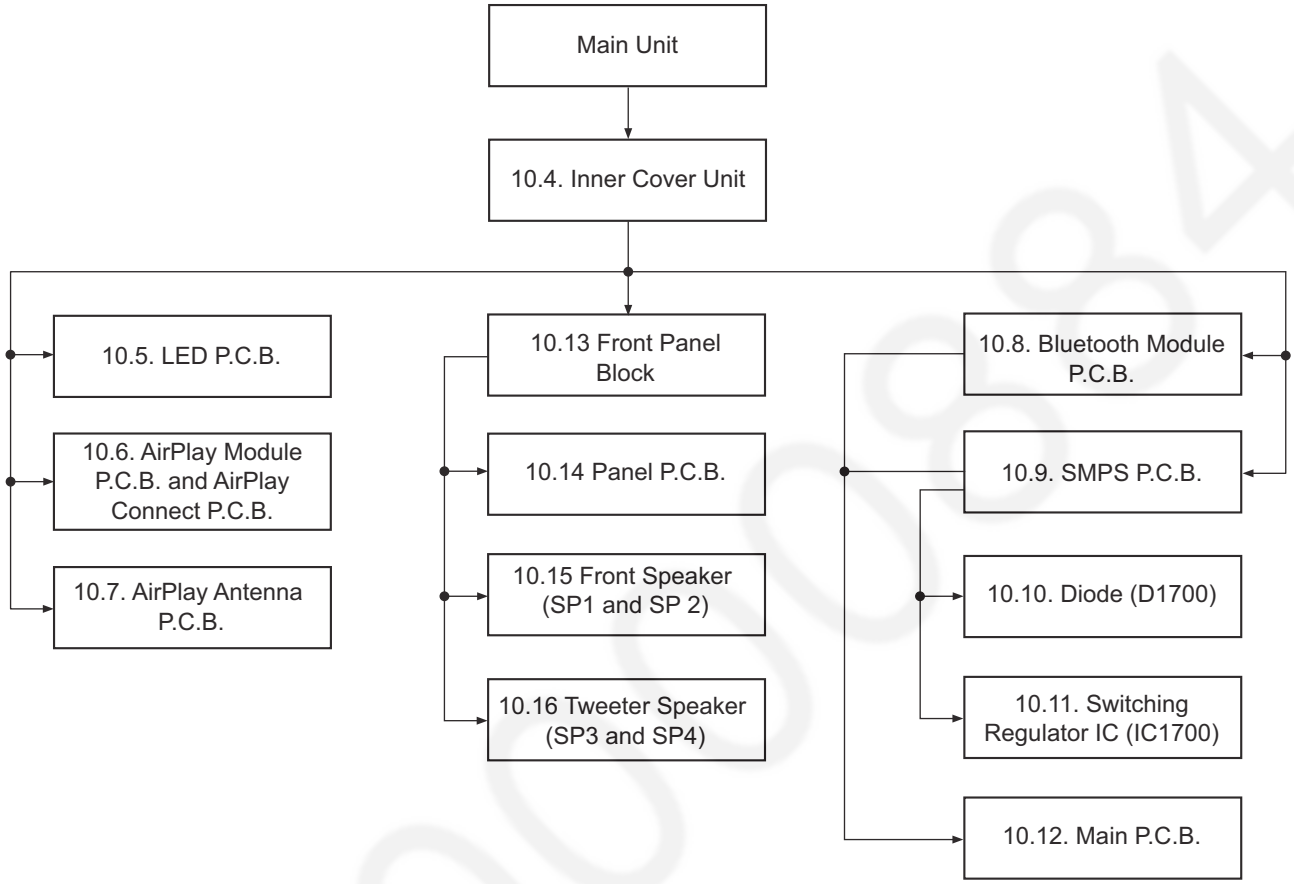
- **This section describes the disassembly and/or assembly procedures for all major printed circuit boards & main components for the unit. (You may refer to the section of "Main components and P.C.B Locations" as described in the service manual)**
- **Before carrying out the disassembly process, please 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. (See caution as described below)**

- **During disassembly and assembly, please ensure proper service tools, equipments or jigs is being used.**
- **During replacement of component parts, please refer to the section of "Replacement Parts List" as described in the service manual.**
- **Select items from the following indexes when disassembly or replacement are required.**

- **Disassembly of Inner Cover Unit**
- **Disassembly of LED P.C.B.**
- **Disassembly of AirPlay Module P.C.B. and AirPlay Connect P.C.B.**
- **Disassembly of AirPlay Antenna P.C.B.**
- **Disassembly of Bluetooth Module P.C.B.**
- **Disassembly of SMPS P.C.B.**
- **Replacement of Diode (D1700)**
- **Replacement of Switching Regulator IC (IC1700)**
- **Disassembly of Main P.C.B.**
- **Disassembly of Front Panel Block**
- **Disassembly of Panel P.C.B.**
- **Disassembly of Front Speaker (SP1 and SP2)**
- **Disassembly of Tweeter Speaker (SP3 and SP4)**

10.1. Disassembly flow chart

The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing.
To assemble the unit, reverse the steps shown in the chart below.



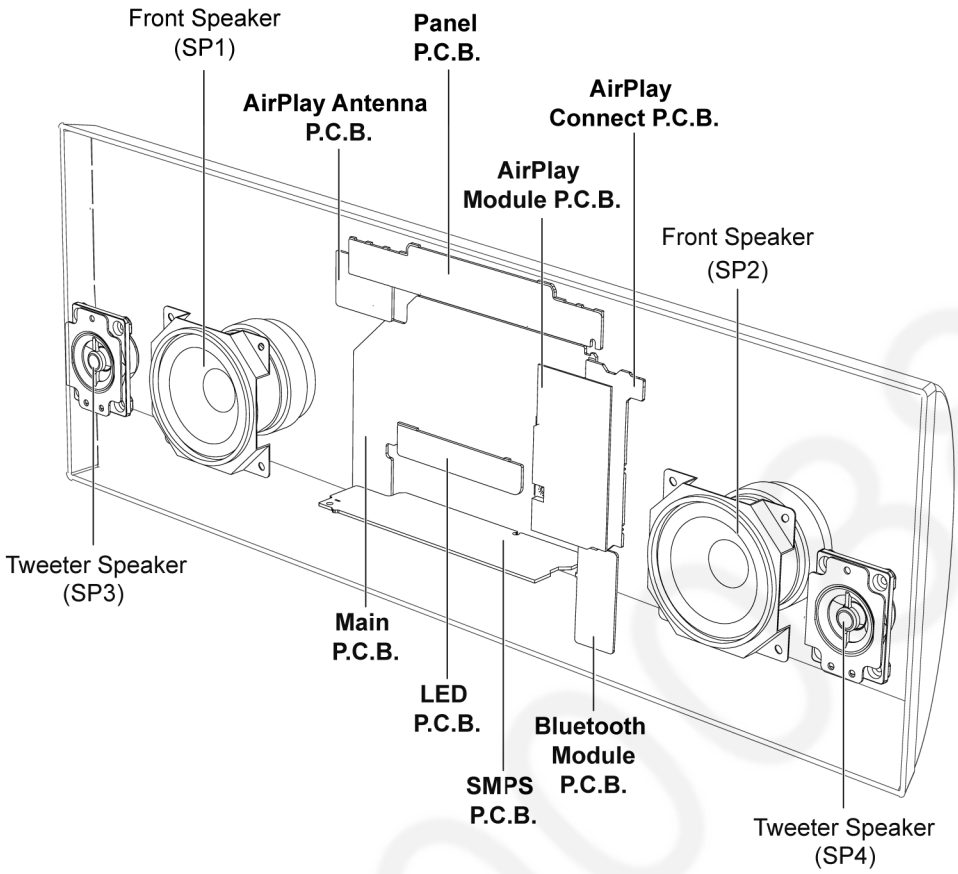
10.2. Types of Screws

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

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

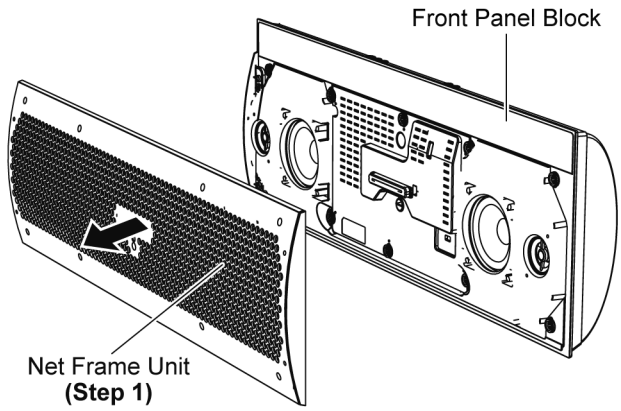
- ⓐ :RHD26046
- ⓑ :RHD26043-1
- ⓒ :XTB3+10JFJK
- ⓓ :RHD30092-1
- ⓔ :XTB3+8JFJ-J

10.3. Main Parts Location Diagram

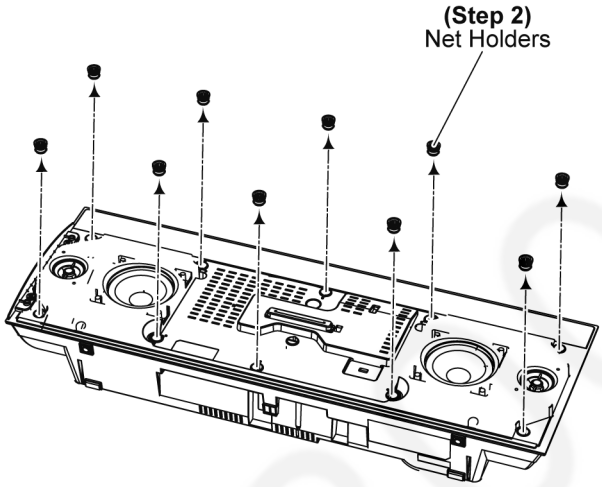


10.4. Disassembly of Inner Cover Unit

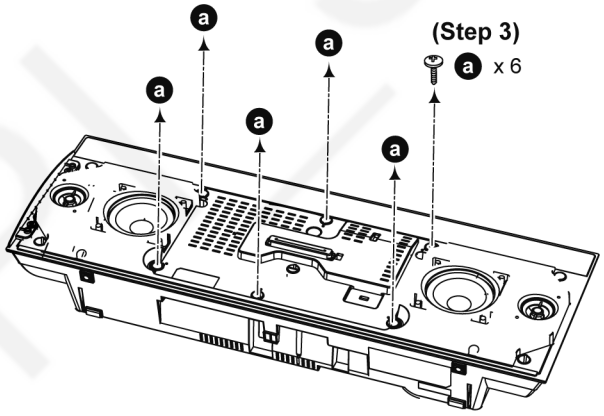
Step 1 Remove Net Frame Unit from the Front Panel Block.



Step 2 Remove 10 Net Holders.

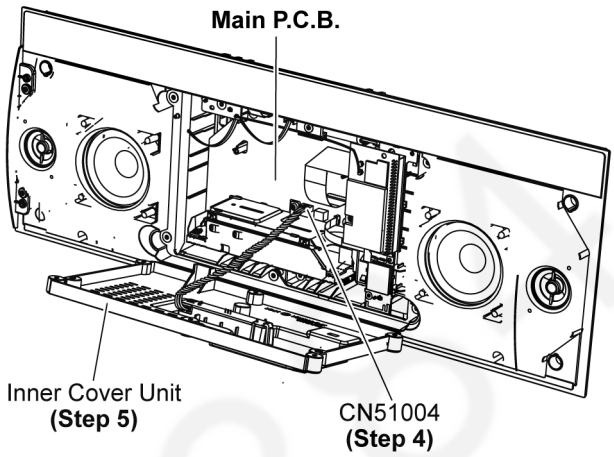


Step 3 Remove 6 screws.



Step 4 Detach 4P Wire at the connector (CN51004) on Main P.C.B..

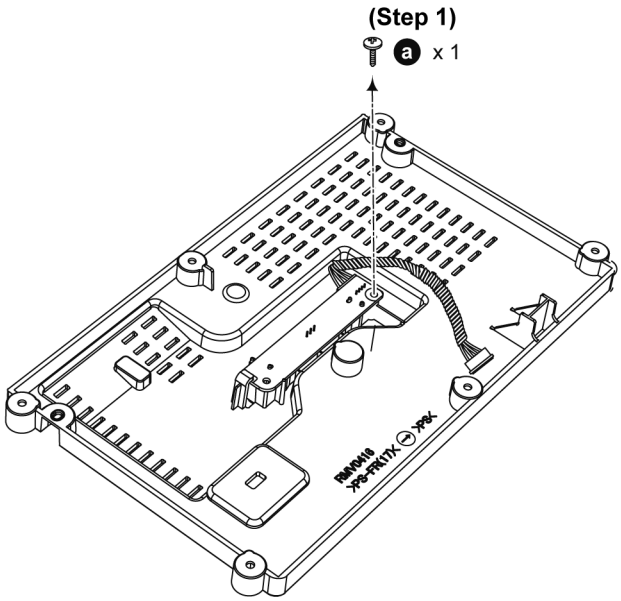
Step 5 Remove the Inner Cover Unit.



10.5. Disassembly of LED P.C.B.

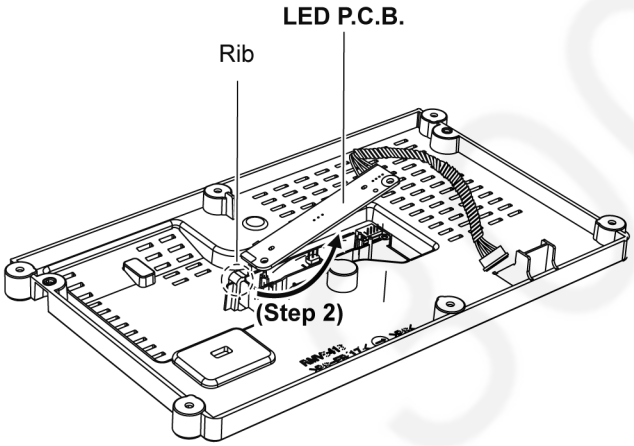
• Refer to “Disassembly of Inner Cover Unit”.

Step 1 Remove 1 screw.

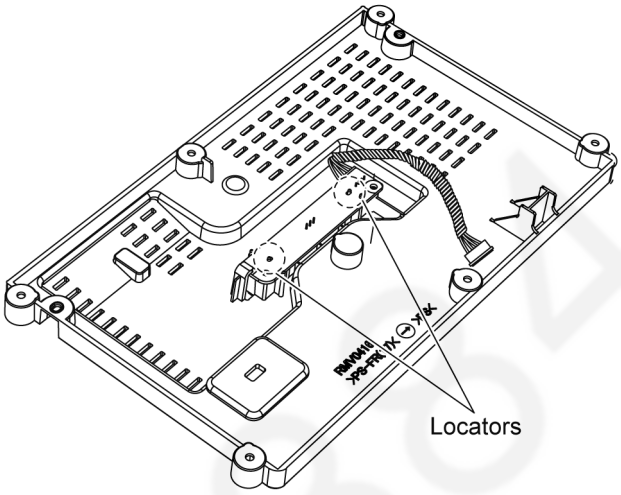


Step 2 Lift up to remove the LED P.C.B. as shown.

Caution: During assembling, ensure the LED P.C.B. is place below the rib.



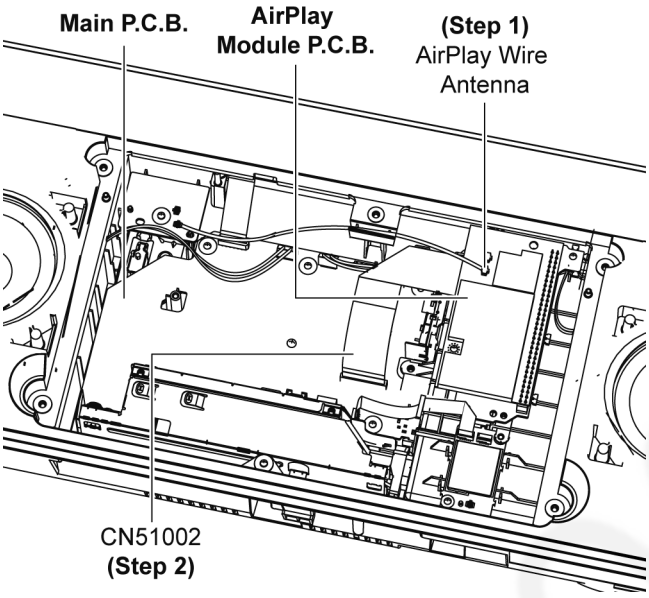
Caution: During assembling, ensure that the LED P.C.B. is properly seated onto the locators of Inner Cover Unit and light panel.



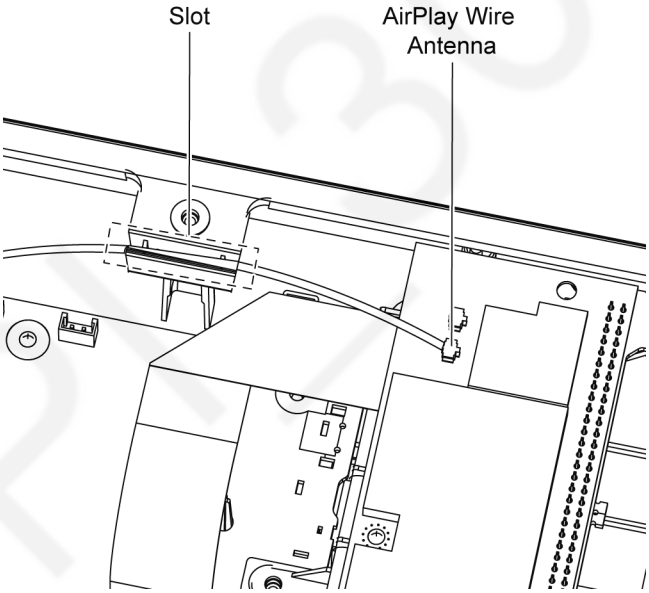
10.6. Disassembly of AirPlay Module P.C.B. and AirPlay Connect P.C.B.

• Refer to “Disassembly of Inner Cover Unit”.

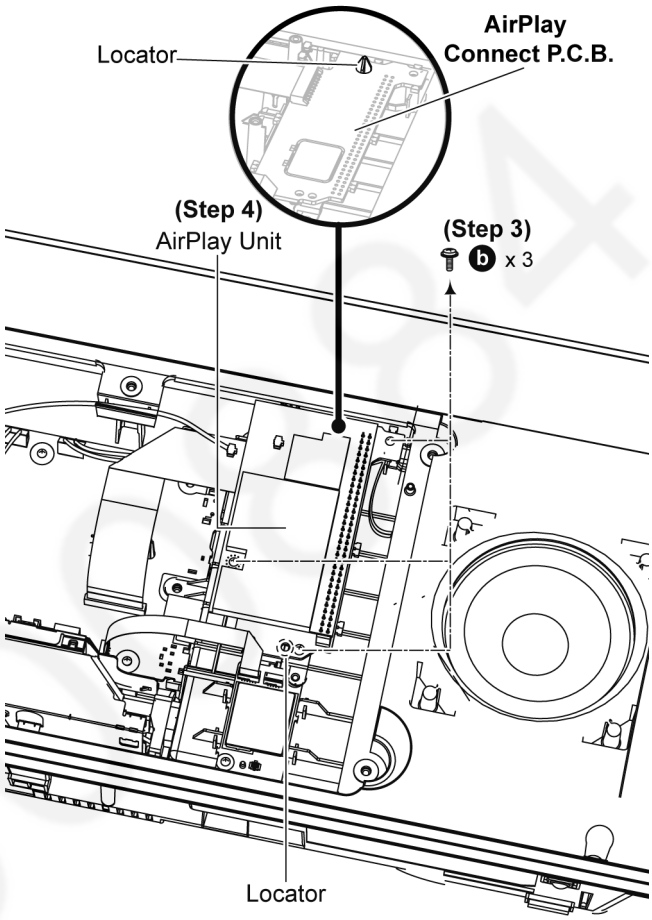
Step 1 Detach 1P AirPlay Wire Antenna on the AirPlay Module P.C.B..
Step 2 Detach 20P FFC at the connector (CN51002) on the Main P.C.B..



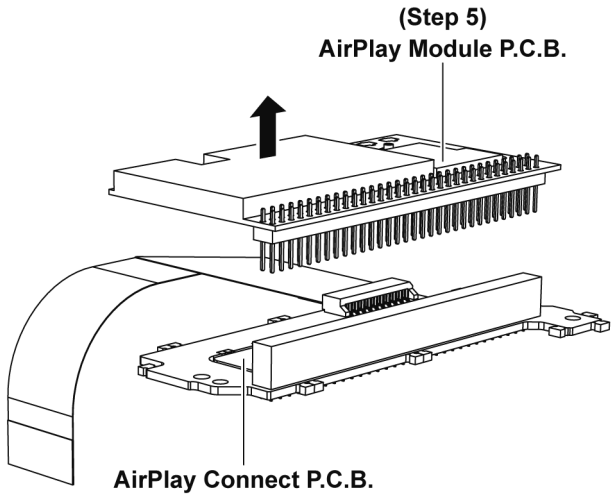
Caution 1: During assembling, ensure the AirPlay Wire Antenna is properly inserted in the slot.
Caution 2: During assembling, ensure the AirPlay Wire Antenna is properly fix on the AirPlay Module P.C.B..



Step 3 Remove 3 screws.
Step 4 Lift up the AirPlay Unit.
Caution: During assembling, ensure the AirPlay Unit properly seated onto the locators.



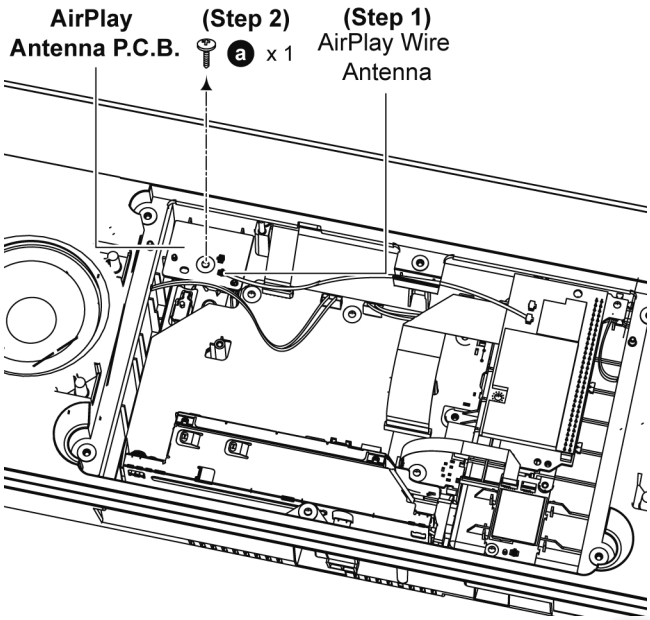
Step 5 Lift up to remove the AirPlay Module P.C.B..



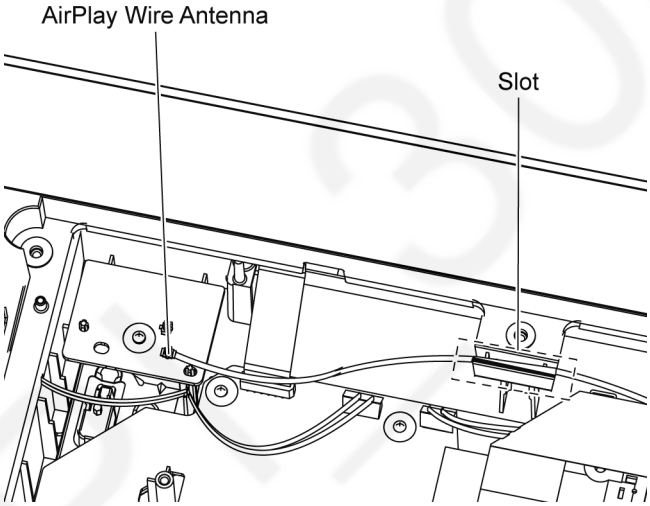
10.7. Disassembly of AirPlay Antenna P.C.B.

• Refer to “Disassembly of Inner Cover Unit”.

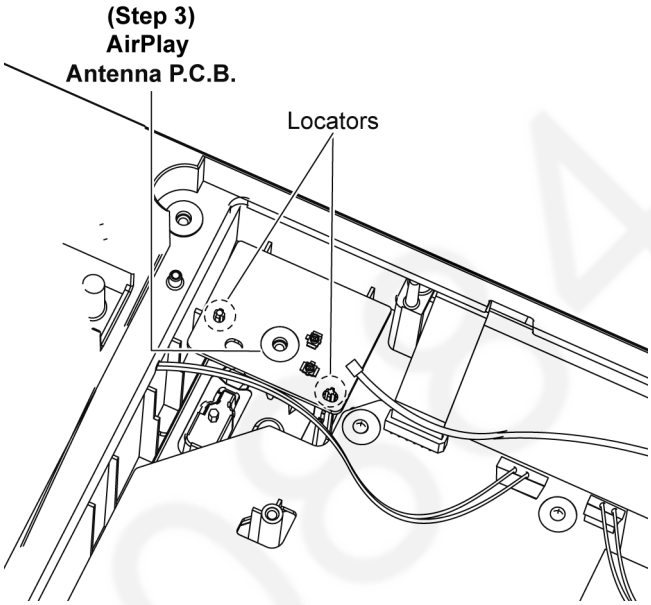
Step 1 Detach 1P AirPlay Wire Antenna on the AirPlay Antenna P.C.B..
Step 2 Remove 1 screw.



Caution 1: During assembling, ensure the AirPlay Wire Antenna is properly inserted in the slot.
Caution 2: During assembling, ensure the AirPlay Wire Antenna is properly fix on the AirPlay Antenna P.C.B..



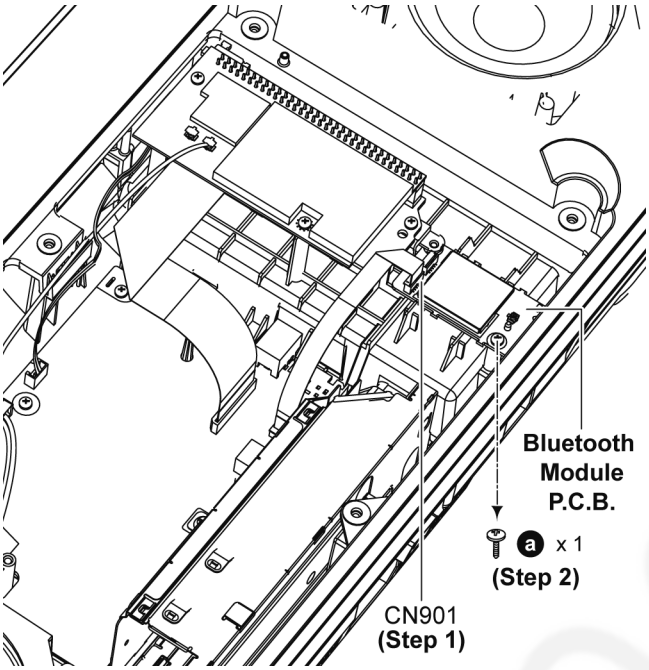
Step 3 Lift up the AirPlay Antenna P.C.B..
Caution: During assembling, ensure that the AirPlay Antenna P.C.B. is properly located and fully seated onto the Unit.



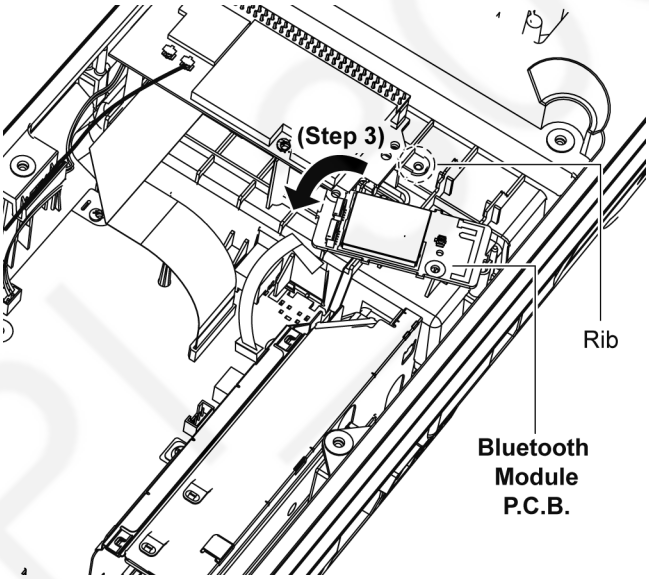
10.8. Disassembly of Bluetooth Module P.C.B.

• Refer to “Disassembly of Inner Cover Unit”.

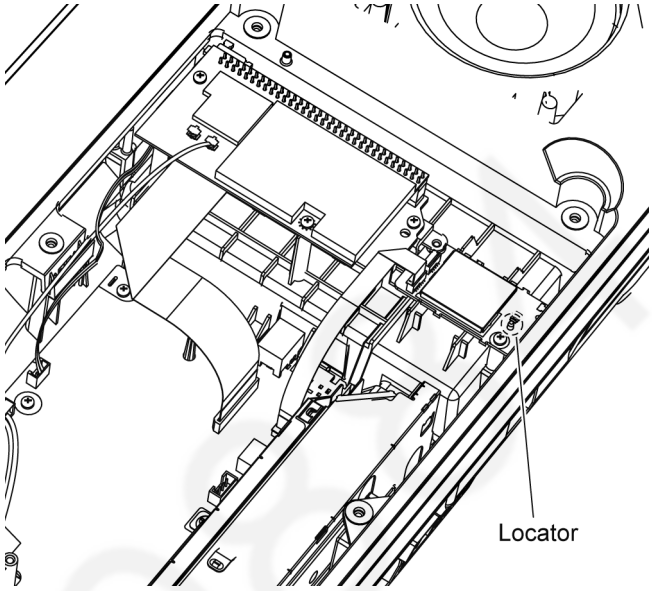
Step 1 Detach 12P FFC at the connector (CN901) on the Bluetooth Module P.C.B..
Step 2 Remove 1 screw.



Step 3 Lift up to remove the Bluetooth Module P.C.B. as shown.
Caution: During assembling, ensure the Bluetooth Module P.C.B. is place below the rib.



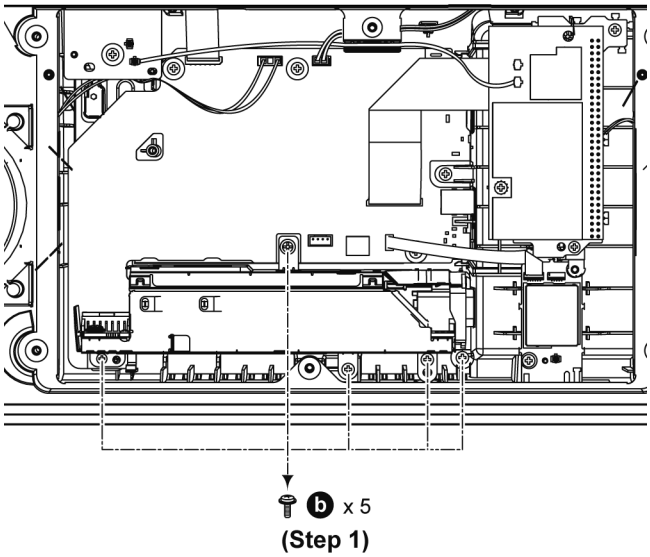
Caution: During assembling, ensure that the Bluetooth Module P.C.B. is properly located and fully seated onto the Unit.



10.9. Disassembly of SMPS P.C.B.

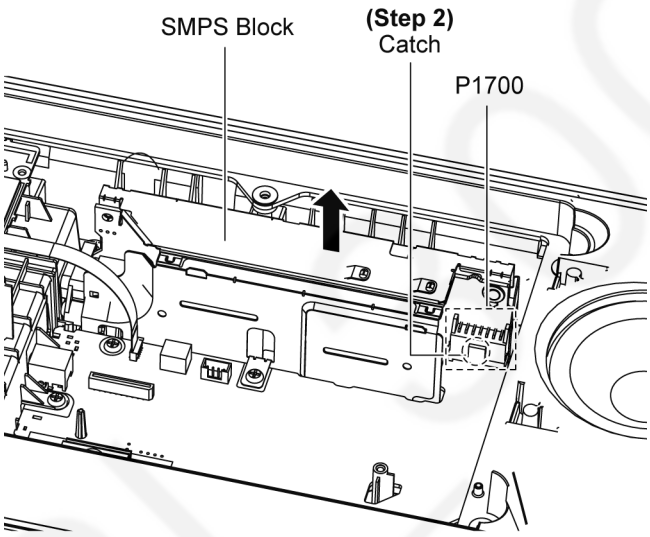
• Refer to “Disassembly of Inner Cover Unit”.

Step 1 Remove 5 screws.



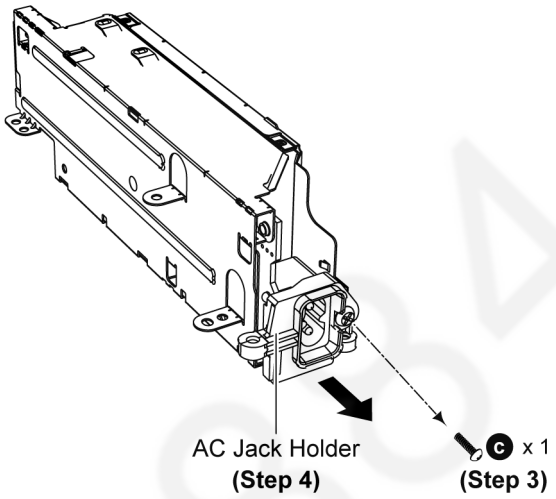
Step 2 Release the catch and lift up the SMPS Block.

Caution: During assembling, a "click" sound could be heard when the SMPS Block is attached properly to the Main P.C.B..



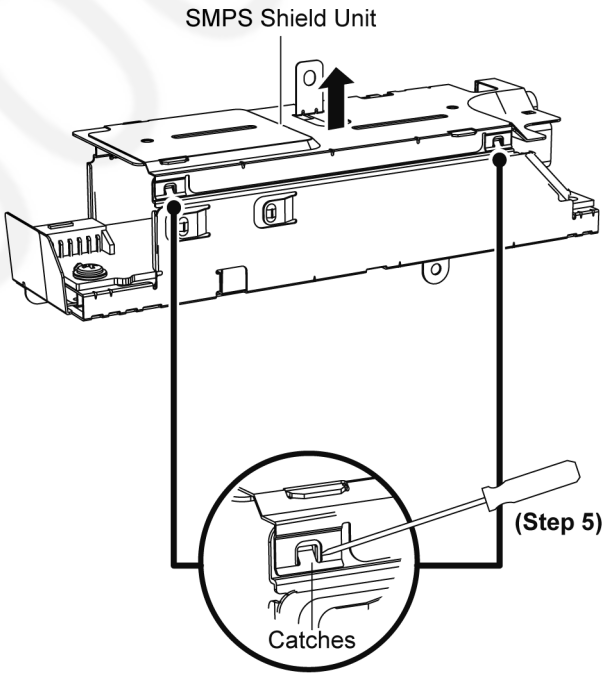
Step 3 Remove 1 screw.

Step 4 Remove AC Jack Holder.



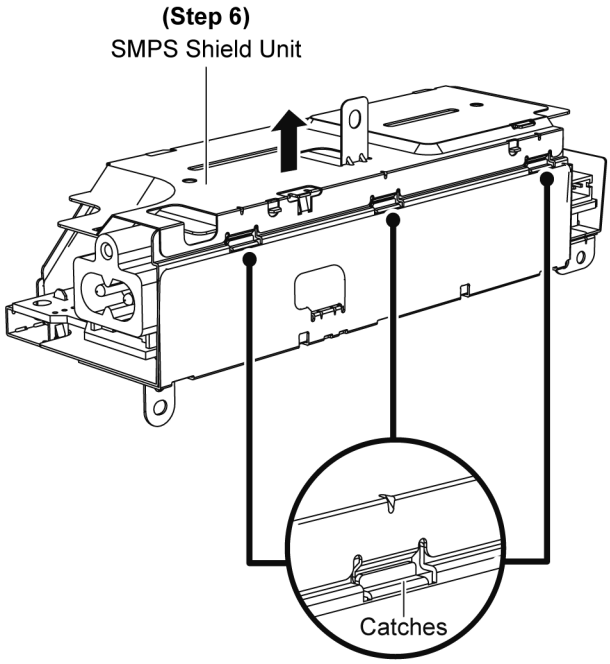
Step 5 Release 2 catches using a screwdriver and gently push up the SMPS Shield Unit.

Caution: During assembling, ensure that the SMPS Shield Unit is catched properly to the SMPS bracket as shown.

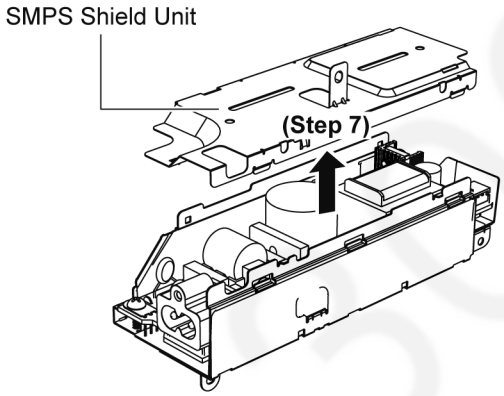


Step 6 Gently push up the SMPS Shield Unit to release the catches.

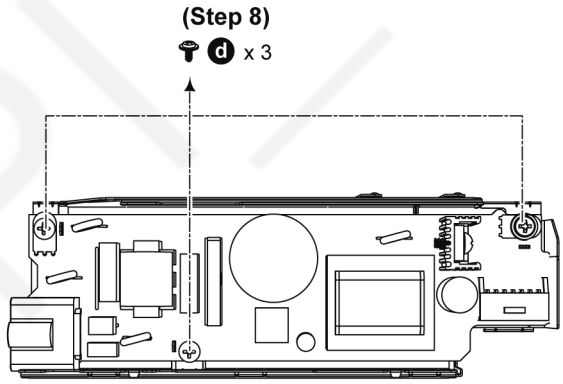
Caution: During assembling, ensure that the SMPS Shield Unit is catched properly to the SMPS bracket as shown.



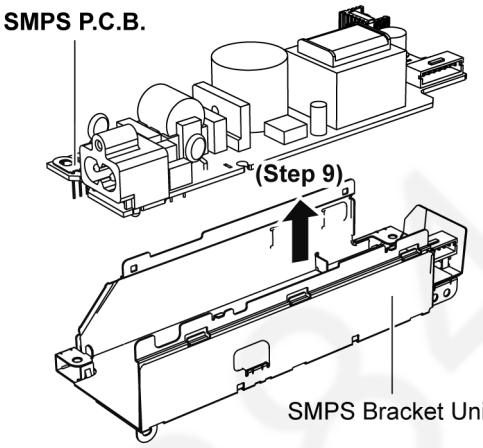
Step 7 Remove the SMPS Shield Unit.



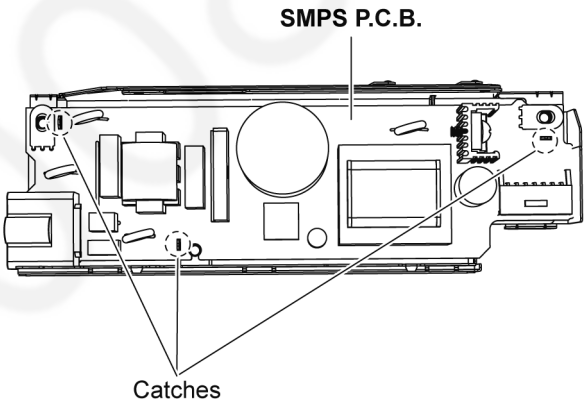
Step 8 Remove 3 screws.



Step 9 Remove the SMPS P.C.B..



Caution: During assembling, ensure that SMPS P.C.B. is properly located and fully seated onto the SMPS Bracket Unit.



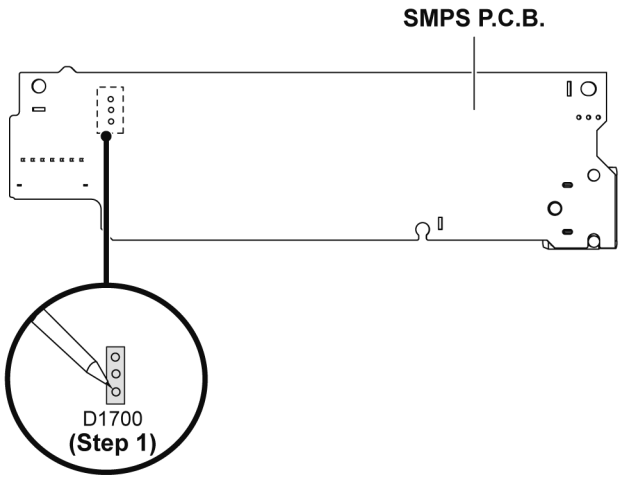
10.10. Replacement of Diode (D1700)

- Refer to “Disassembly of SMPS P.C.B.”.

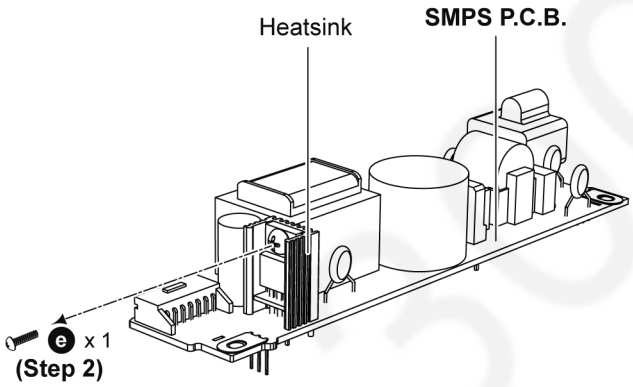
10.10.1. Disassembly of Diode (D1700)

Caution: Avoid touching the heatsink unit and SMPS P.C.B., due to its high temperature after prolonged use. Touching it may lead to injuries.

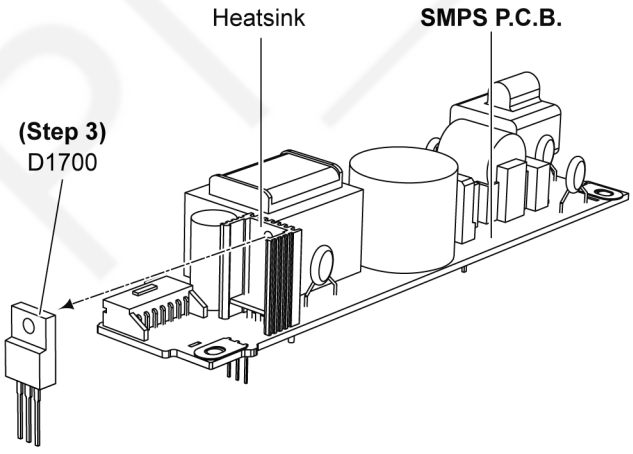
Step 1 Desolder pins of the Diode (D1700) on the solder side of SMPS P.C.B..



Step 2 Remove 1 screw.



Step 3 Remove the Diode (D1700).



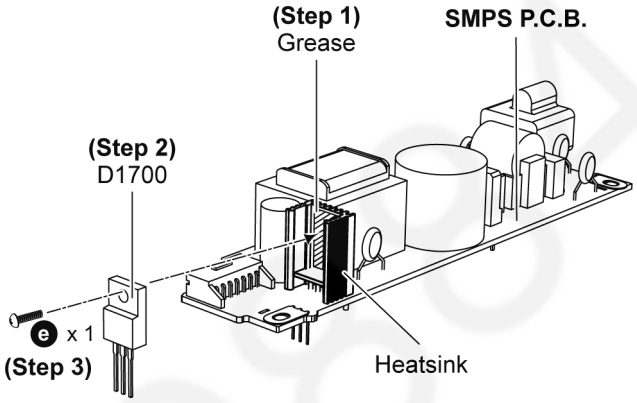
10.10.2. Assembly of Diode (D1700)

Step 1 Apply grease to the heatsink unit.

Step 2 Fix the Diode (D1700) onto SMPS P.C.B..

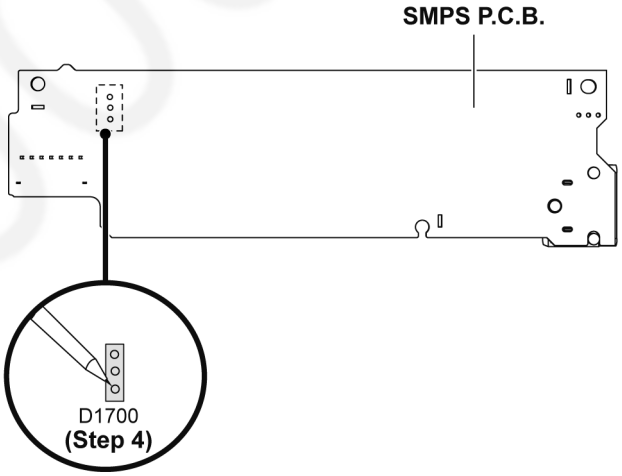
Step 3 Fix the Diode (D1700) onto the heatsink unit with 1 screw.

Caution: Ensure the Diode (D1700) is fixed properly to the heatsink.



Step 4 Solder pins of the Diode (D1700).

Caution: Ensure the Diode (D1700) is seated properly onto the SMPS P.C.B. before soldering.



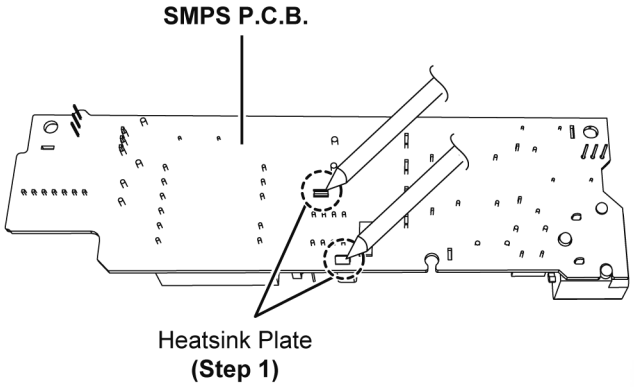
10.11. Replacement of Switching Regulator IC (IC1700)

• Refer to “Disassembly of SMPS P.C.B.”.

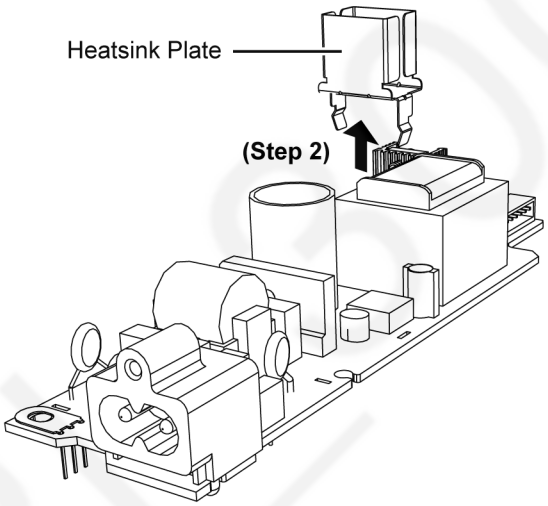
10.11.1. Disassembly of Switching Regulator IC (IC1700)

Caution: Avoid touching the heatsink unit and SMPS P.C.B., due to its high temperature after prolonged use. Touching it may lead to injuries.

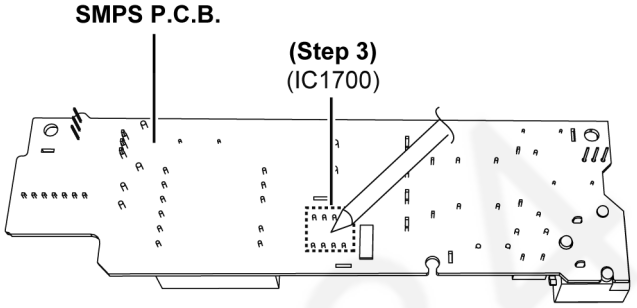
Step 1 Desolder pins of the Heatsink Plate on the solder side of SMPS P.C.B..



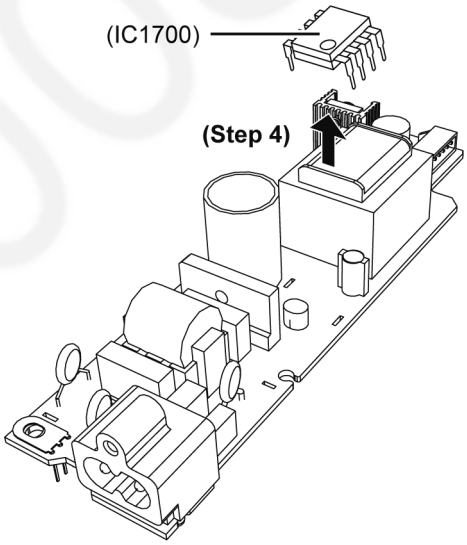
Step 2 Remove the Heatsink Plate.



Step 3 Desolder pins of the Switching Regulator IC (IC1700) on the solder side of SMPS P.C.B..

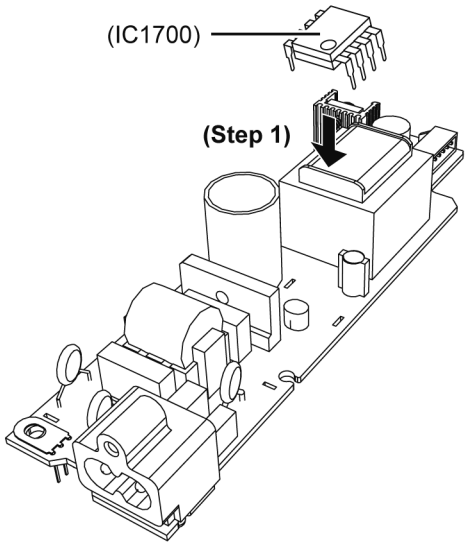


Step 4 Remove the Switching Regulator IC (IC1700).



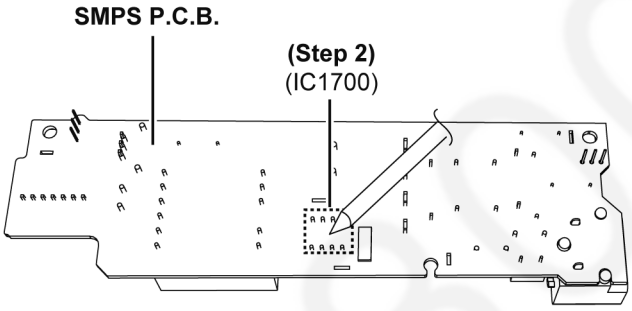
10.11.2. Assembly of Switching Regulator IC (IC1700)

Step 1 Fix the Switching Regulator IC (IC1700) onto SMPS P.C.B..

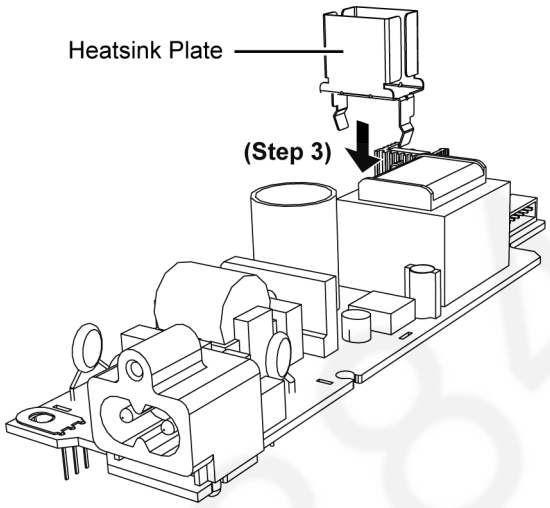


Step 2 Solder pins of the Switching Regulator IC (IC1700).

Caution : Ensure the Switching Regulator IC (IC1700) is seated properly onto the SMPS P.C.B. before soldering.

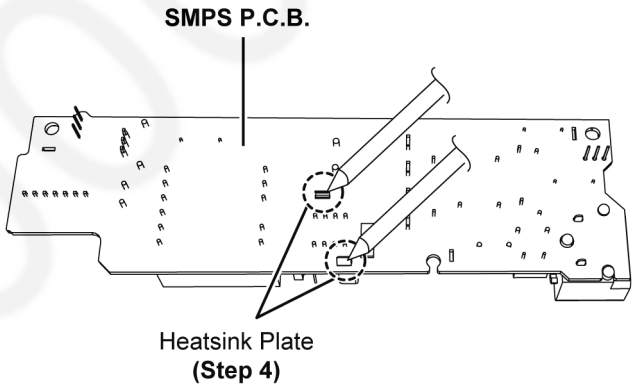


Step 3 Fix the Heatsink Plate onto SMPS P.C.B..



Step 4 Solder pins of the Heatsink Plate.

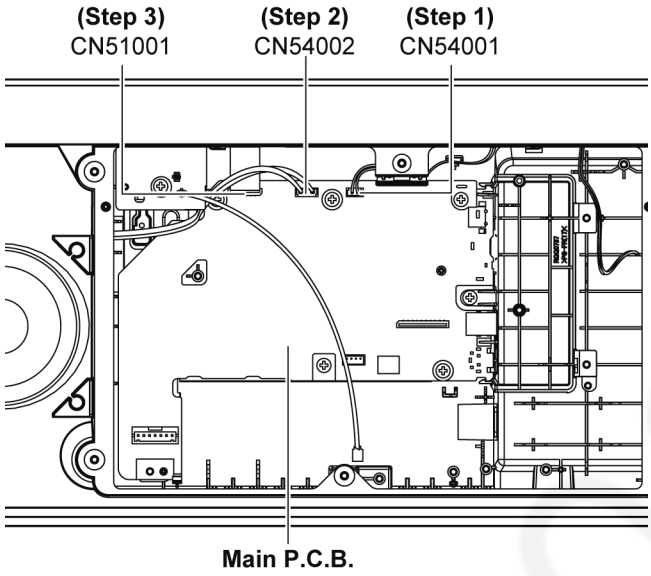
Caution : Ensure the Heatsink Plate is seated properly onto the SMPS P.C.B. before soldering.



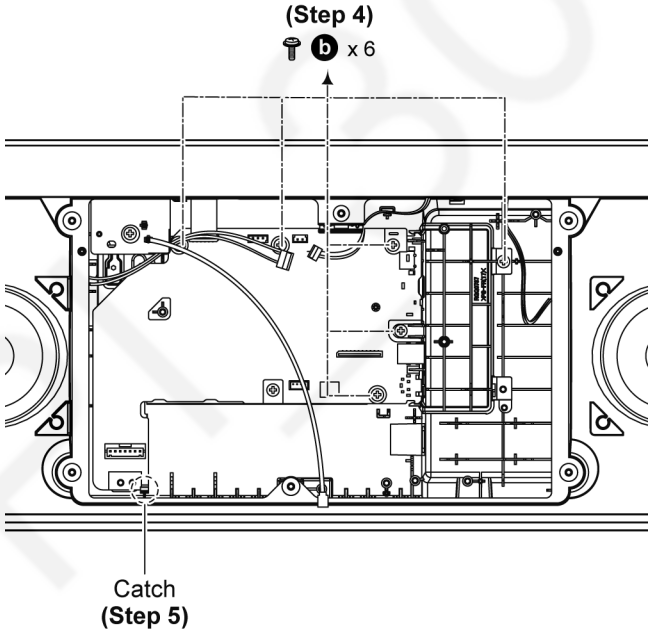
10.12. Disassembly of Main P.C.B.

- Refer to “Disassembly of Inner Cover Unit”.
- Refer to “Disassembly of Bluetooth Module P.C.B..”.
- Refer to (Step 1) - (Step 4) of Item 10.6.
- Refer to (Step 1) - (Step 2) of Item 10.9.

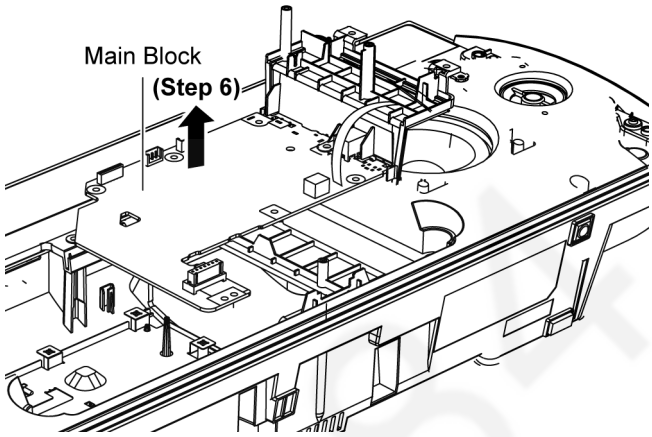
Step 1 Detach 2P Wire at the connector (CN54001) on Main P.C.B..
Step 2 Detach 2P Wire at the connector (CN54002) on Main P.C.B..
Step 3 Detach 12P FFC at the connector (CN51001) on Main P.C.B..



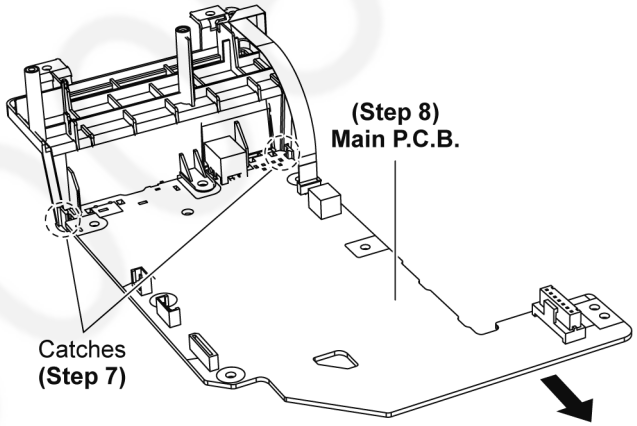
Step 4 Remove 6 screws.
Step 5 Release 1 catch.



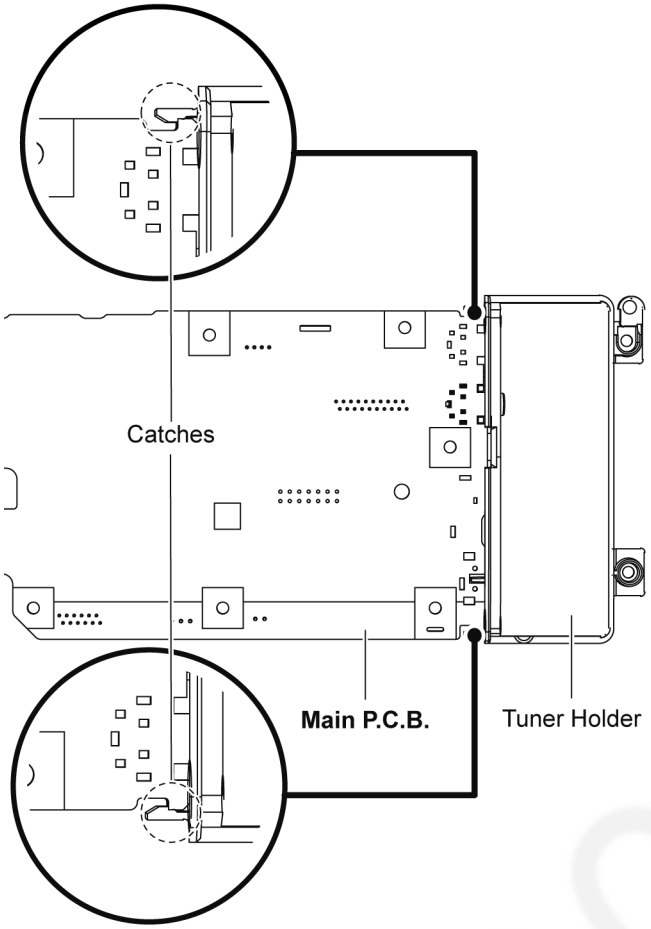
Step 6 Remove the Main Block.



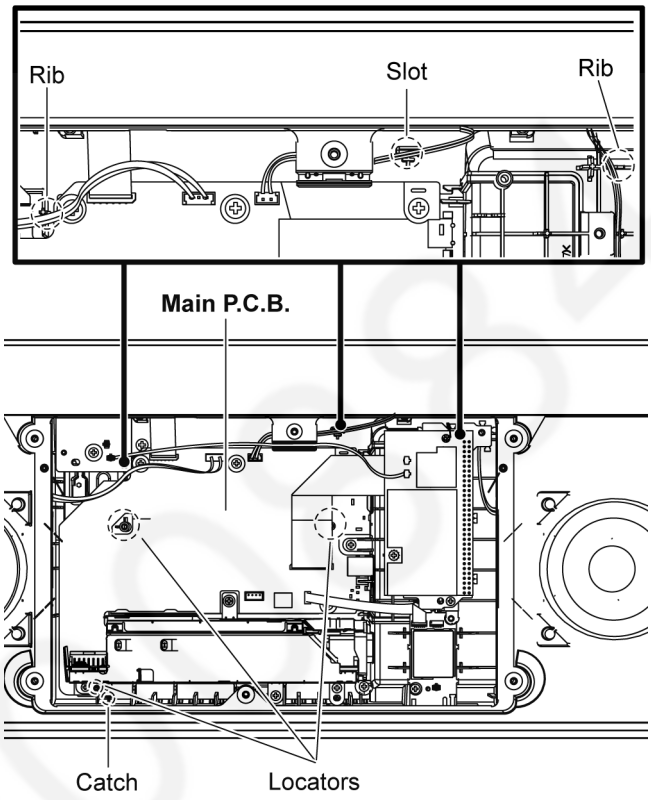
Step 7 Release 2 catches.
Step 8 Remove the Main P.C.B..



Caution: During assembling, ensure that Tuner Holder is properly located and fully seated onto the Main P.C.B..



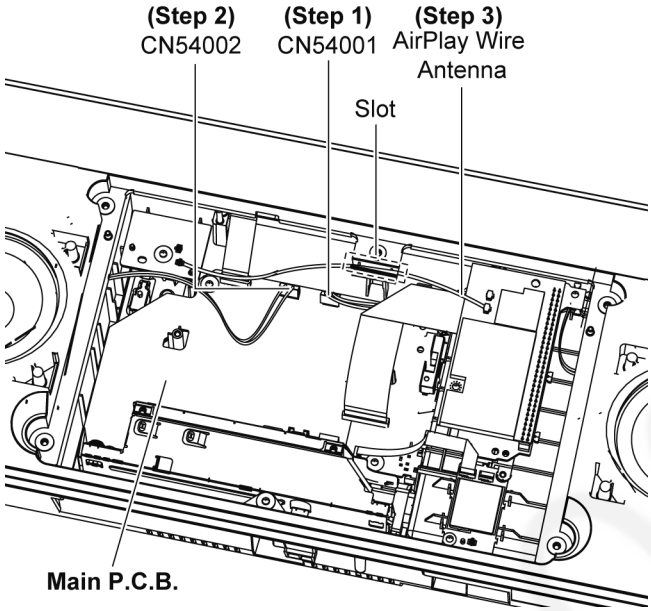
Caution 1: During assembling, ensure that the (SP1 and SP2) 2P Wire are dressed into the ribs and slot as shown.
Caution 2: During assembling, ensure that Main P.C.B. is properly located and fully seated onto the Unit.



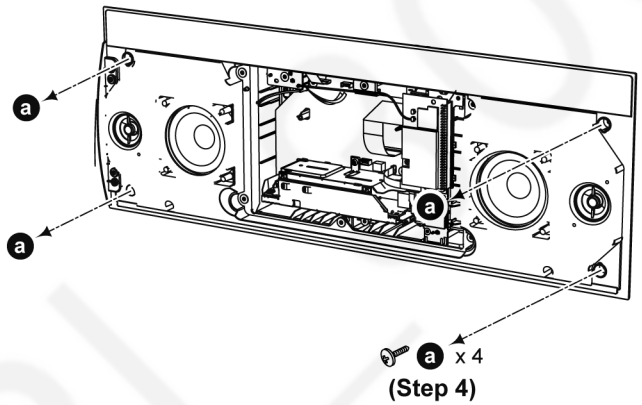
10.13. Disassembly of Front Panel Block

• Refer to “Disassembly of Inner Cover Unit”.

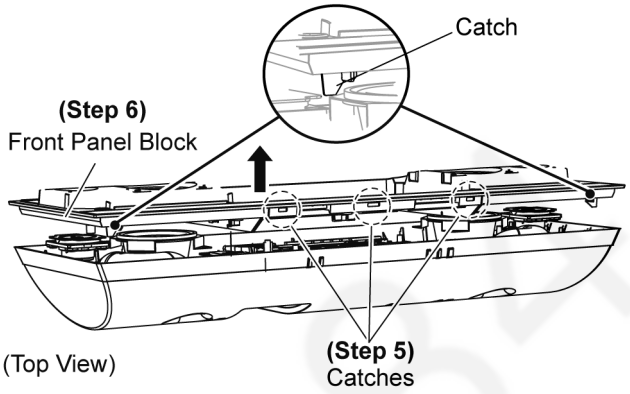
Step 1 Detach 2P Wire at the connector (CN54001) on Main P.C.B..
Step 2 Detach 2P Wire at the connector (CN54002) on Main P.C.B..
Step 3 Lift up the AirPlay Wire Antenna from the slot.
Caution: During assembling, ensure AirPlay Wire Antenna is properly insert in the slot.



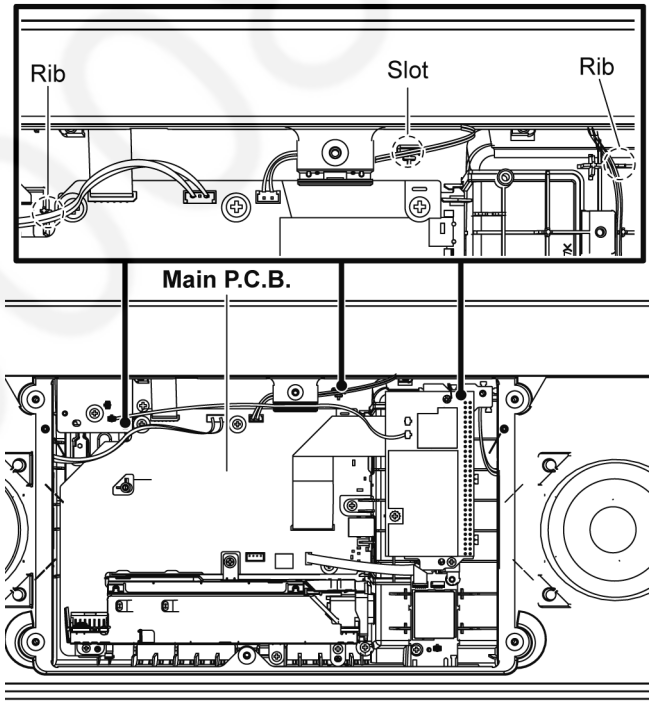
Step 4 Remove 4 screws.



Step 5 Release 5 catches.
Step 6 Remove the Front Panel Block as arrow shown.



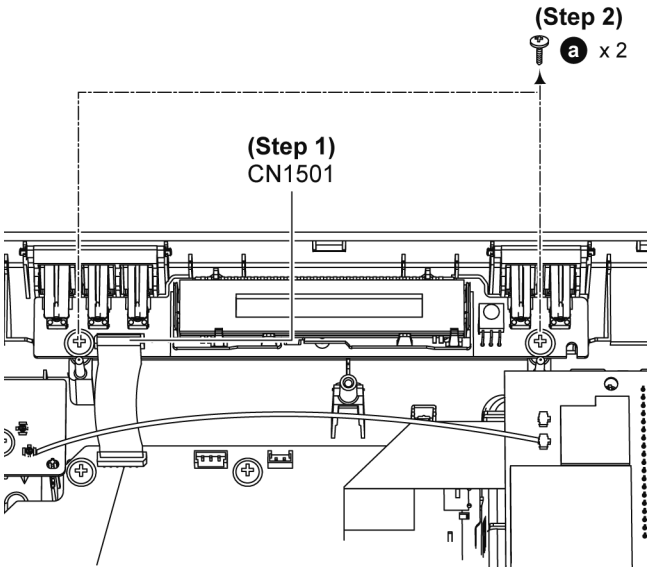
Caution: During assembling, ensure that the (SP1 and SP2) 2P Wire are dressed into the ribs and slot as shown.



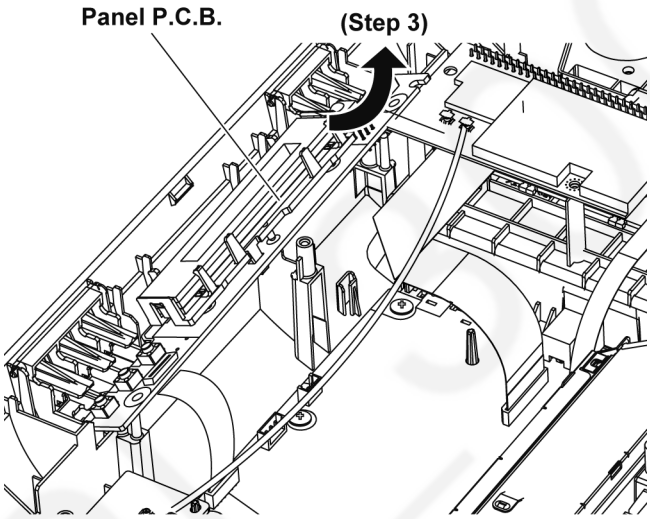
10.14. Disassembly of Panel P.C.B.

- Refer to “Disassembly of Inner Cover Unit”
- Refer to “Disassembly of Front Panel Block”

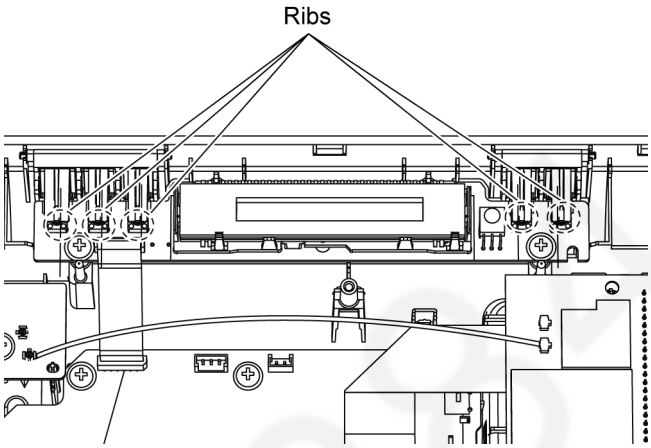
Step 1 Detach 12P FFC at the connector (CN1501) on Panel P.C.B..
Step 2 Remove 2 screws.



Step 3 Lift up and remove the Panel P.C.B..
Caution: During assembling, ensure that the Panel P.C.B. is properly and fully seated onto the unit.



Caution: During assembling, make sure the buttons are placed properly below the ribs.

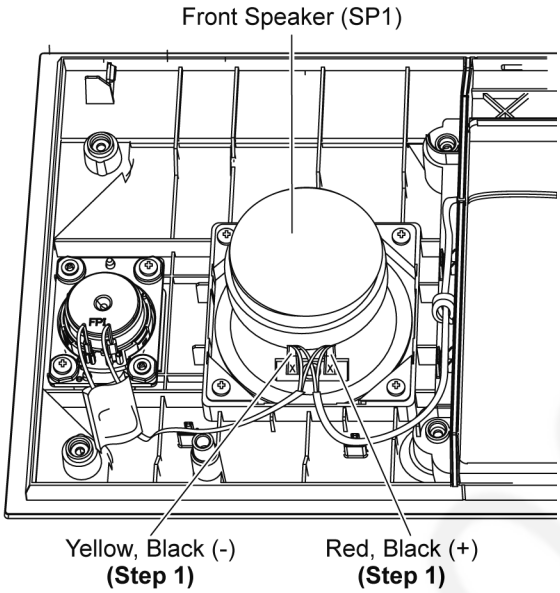


10.15. Disassembly of Front Speaker (SP1 and SP2)

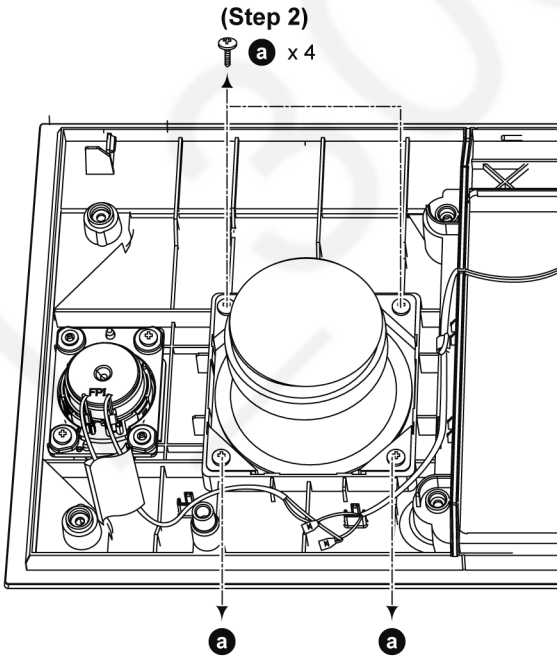
- Refer to “Disassembly of Inner Cover Unit”
- Refer to “Disassembly of Front Panel Block”

Note: Front Speaker (SP1 and SP2) have the same Mechanical structure. For disassembling of Front Speaker (SP2), repeat the (Step 1) to (Step 3) of Item 10.15.

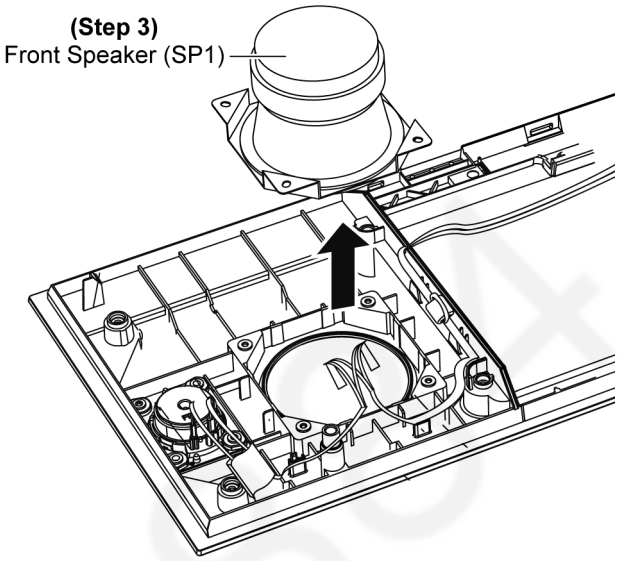
Step 1 Detach Red, Black (+) Wire and Yellow, Black (-) Wire at the terminals on the Front Speaker (SP1).



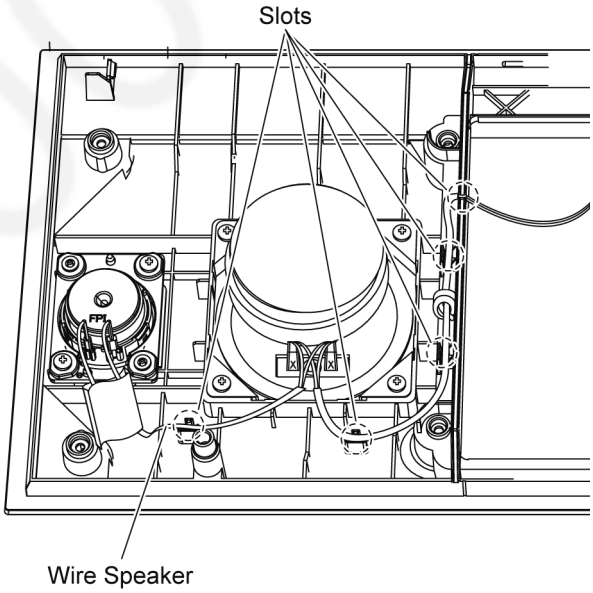
Step 2 Remove 4 screws.



Step 3 Remove the Front Speaker (SP1).



Caution: During assembling, ensure the wires of the speaker are fully catched to the slot.

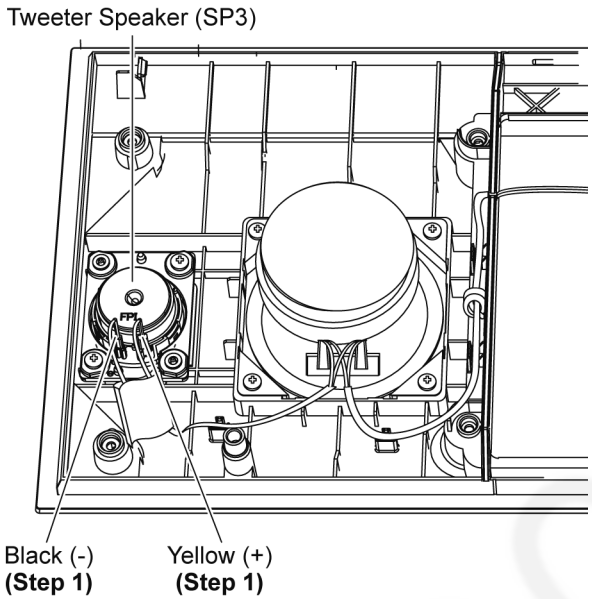


10.16. Disassembly of Tweeter Speaker (SP3 and SP4)

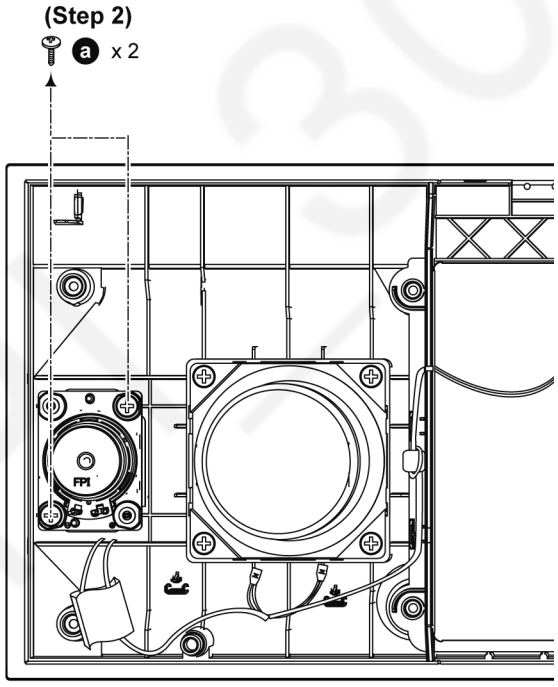
- Refer to “Disassembly of Inner Cover Unit”
- Refer to “Disassembly of Front Panel Block”

Note: Tweeter Speaker (SP3 and SP4) have the same Mechanical structure. For disassembling of Tweeter Speaker (SP4), repeat the (Step 1) to (Step 3) of Item 10.16.

Step 1 Detach Yellow (+) Wire and Black (-) Wire at the terminals on the Tweeter Speaker (SP3).

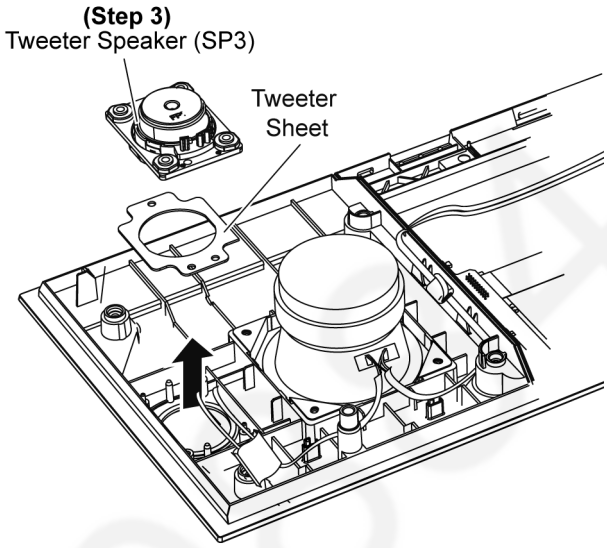


Step 2 Remove 2 screws.

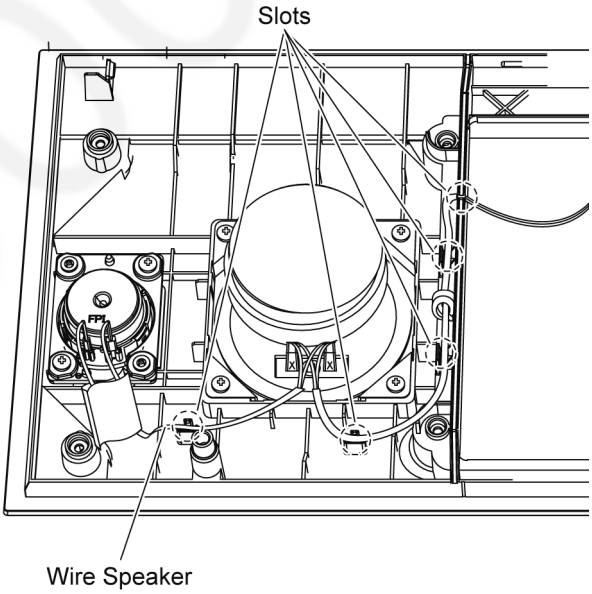


Step 3 Lift up to remove Tweeter Speaker (SP3).

Caution: During assembling, ensure the Tweeter Sheet and the Tweeter Speaker are properly fixed.



Caution: During assembling, ensure the wires of the speaker are fully catched to the slot.

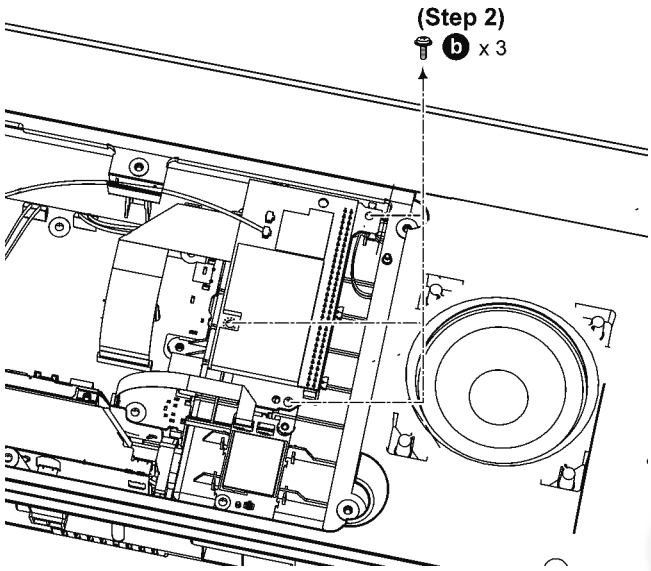


11 Service Position

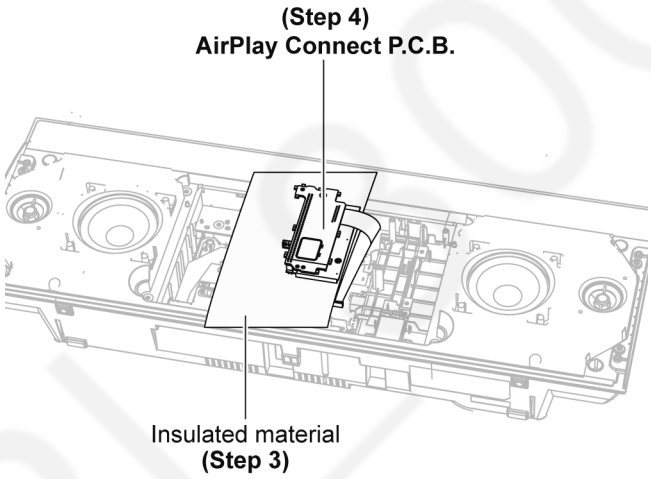
Note: For description of the disassembly procedures, see the Section 10

11.1. Checking of AirPlay Connect P.C.B.

Step 1 Remove the Inner Cover Unit.
Step 2 Remove 3 screws.

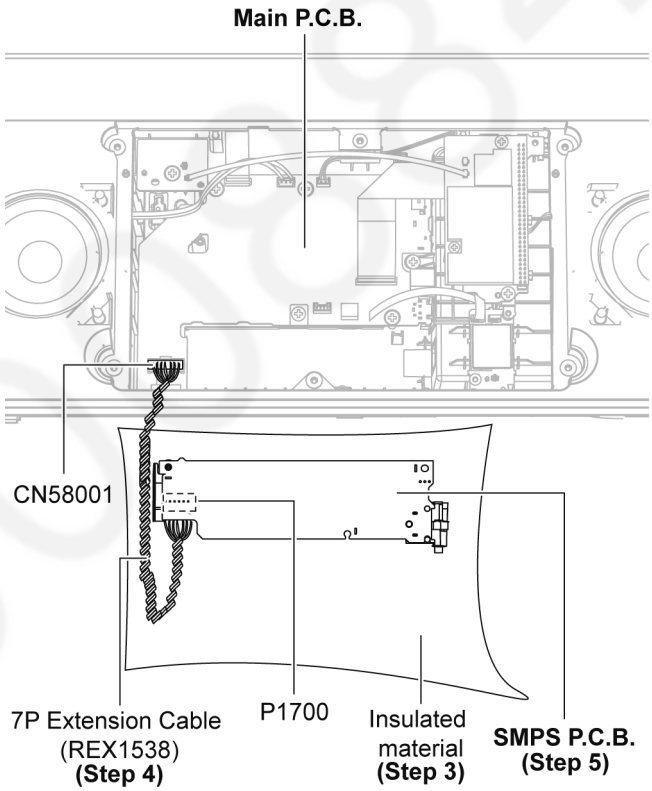


Step 3 Flip over the AirPlay Connect P.C.B. and AirPlay Module P.C.B. onto insulated material.
Step 4 Check the AirPlay Connect P.C.B. according to the diagram shown.



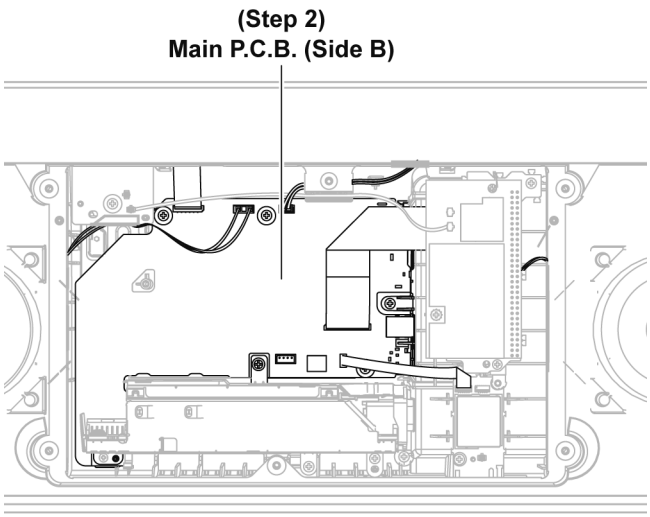
11.2. Checking of SMPS P.C.B.

Step 1 Remove the Inner Cover Unit.
Step 2 Remove the SMPS P.C.B.
Step 3 Place the SMPS P.C.B. onto insulated material.
Step 4 Connect 7P extension cable (REX1538) from P1700 on the SMPS P.C.B. to CN58001 Main P.C.B..
Step 5 Check the SMPS P.C.B. according to the diagram shown.



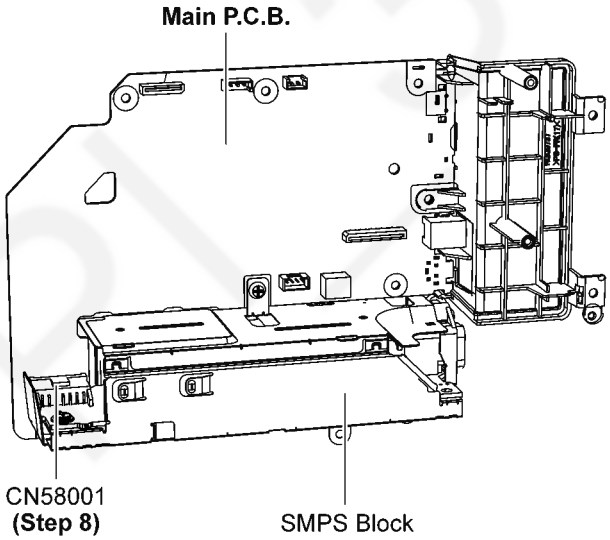
11.3. Checking of Main P.C.B. (Side B)

Step 1 Remove the Inner Cover Unit.
Step 2 Check the Main P.C.B. (Side B) according to the diagram shown.

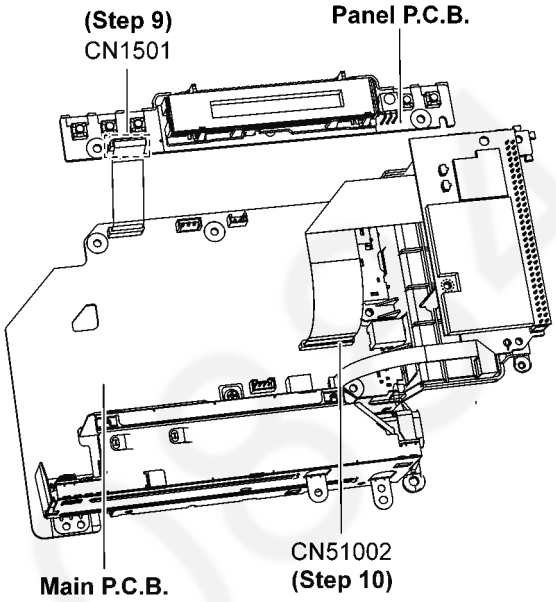


11.4. Checking of Main P.C.B. (Side A)

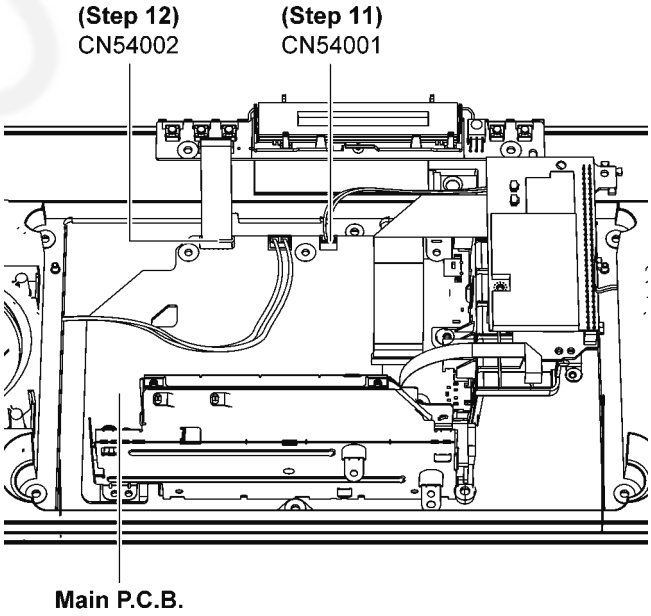
Step 1 Remove the Inner Cover Unit.
Step 2 Remove the Bluetooth Module P.C.B..
Step 3 Remove the AirPlay Unit.
Step 4 Remove the SMPS Block.
Step 5 Remove the Main P.C.B..
Step 6 Remove the Front Panel Block.
Step 7 Remove the Panel P.C.B..
Step 8 Connect 7P at the connector (CN58001) on Main P.C.B..



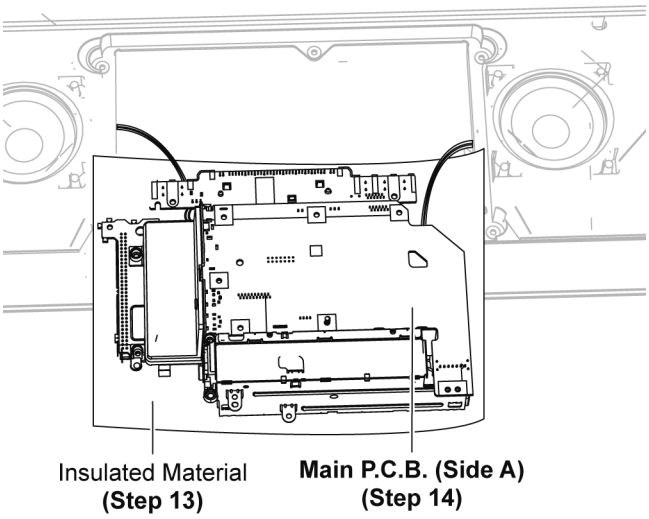
Step 9 Connect 12P FFC at the connector (CN1501) on Panel P.C.B..
Step 10 Connect 20P FFC at the connector (CN51002) on SPK Main P.C.B..



Step 11 Connect 2P Wire at the connector (CN54001) on Main P.C.B..
Step 12 Connect 2P Wire at the connector (CN54002) on Main P.C.B..

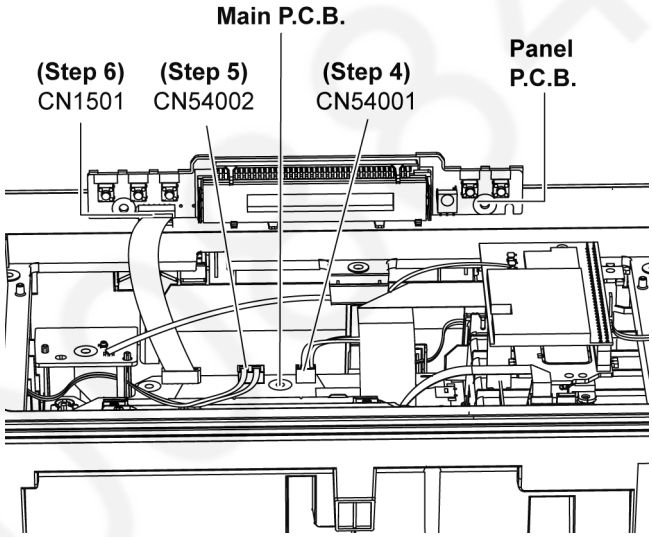


Step 13 Flip over and place the Main P.C.B. onto insulated material.
Step 14 Check the Main P.C.B. (Side A) according to the diagram shown.

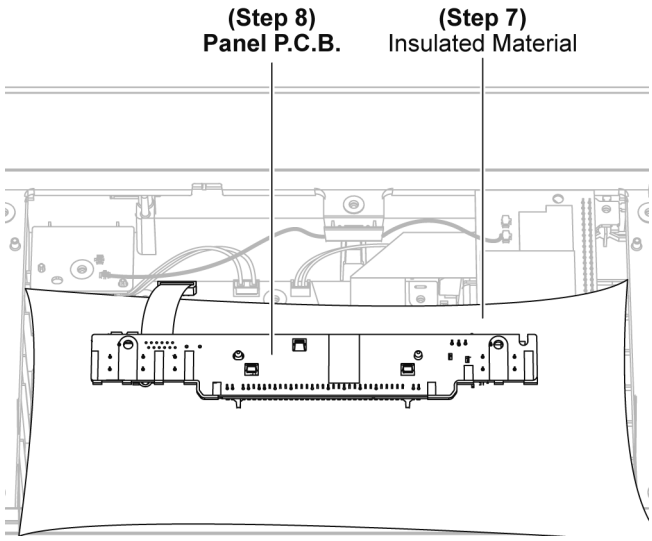


11.5. Checking of Panel P.C.B.

Step 1 Remove the Inner Cover Unit.
Step 2 Remove the Front Panel Block.
Step 3 Remove the Panel P.C.B..
Step 4 Connect 2P Wire at the connector (CN54001) on Main P.C.B..
Step 5 Connect 2P Wire at the connector (CN54002) on Main P.C.B..
Step 6 Connect 12P FFC at the connector (CN1501) on Panel P.C.B..

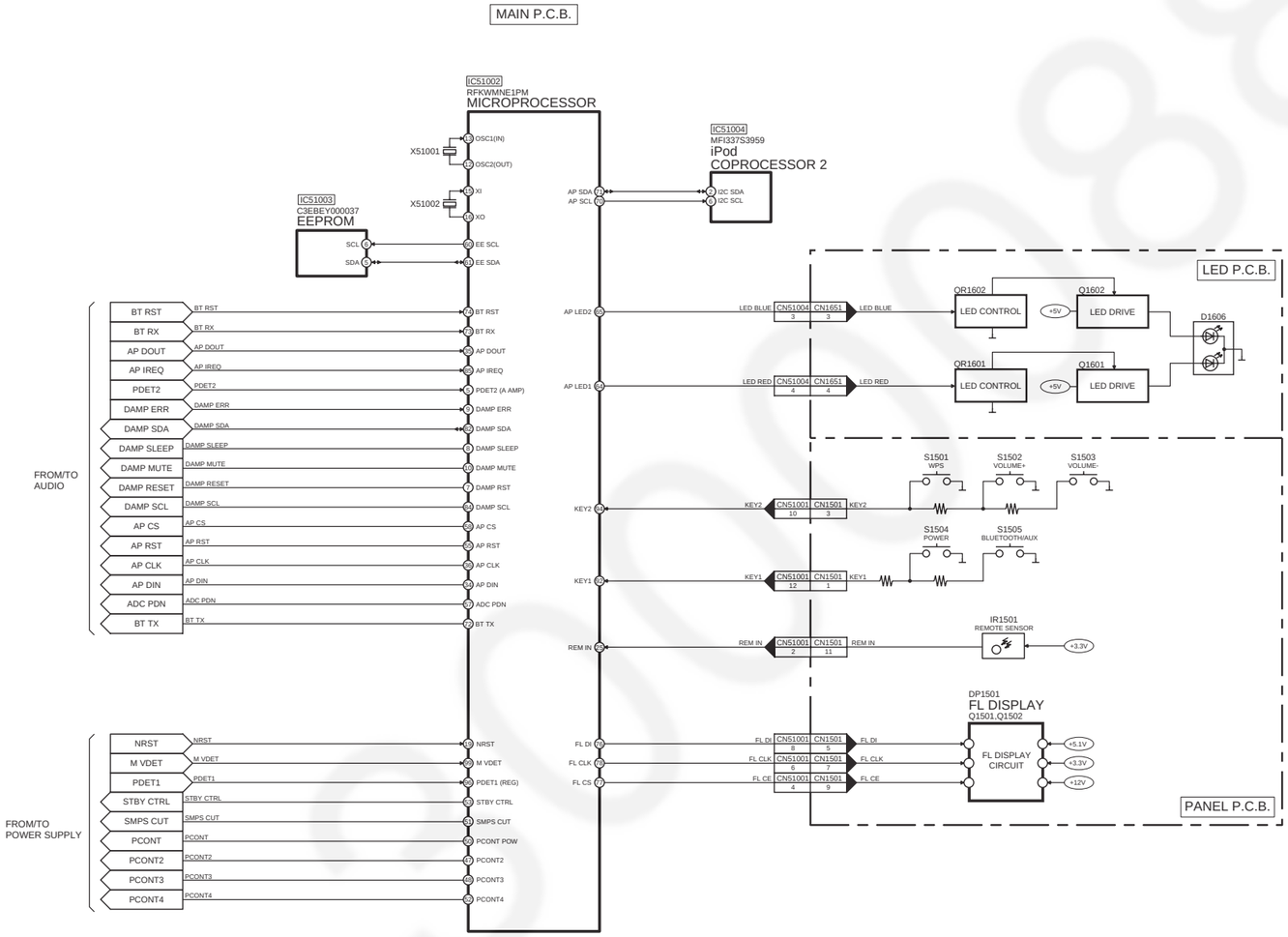


Step 7 Place the Panel P.C.B. onto insulated material.
Step 8 Check the Panel P.C.B. according to the diagram shown.



12 Block Diagram

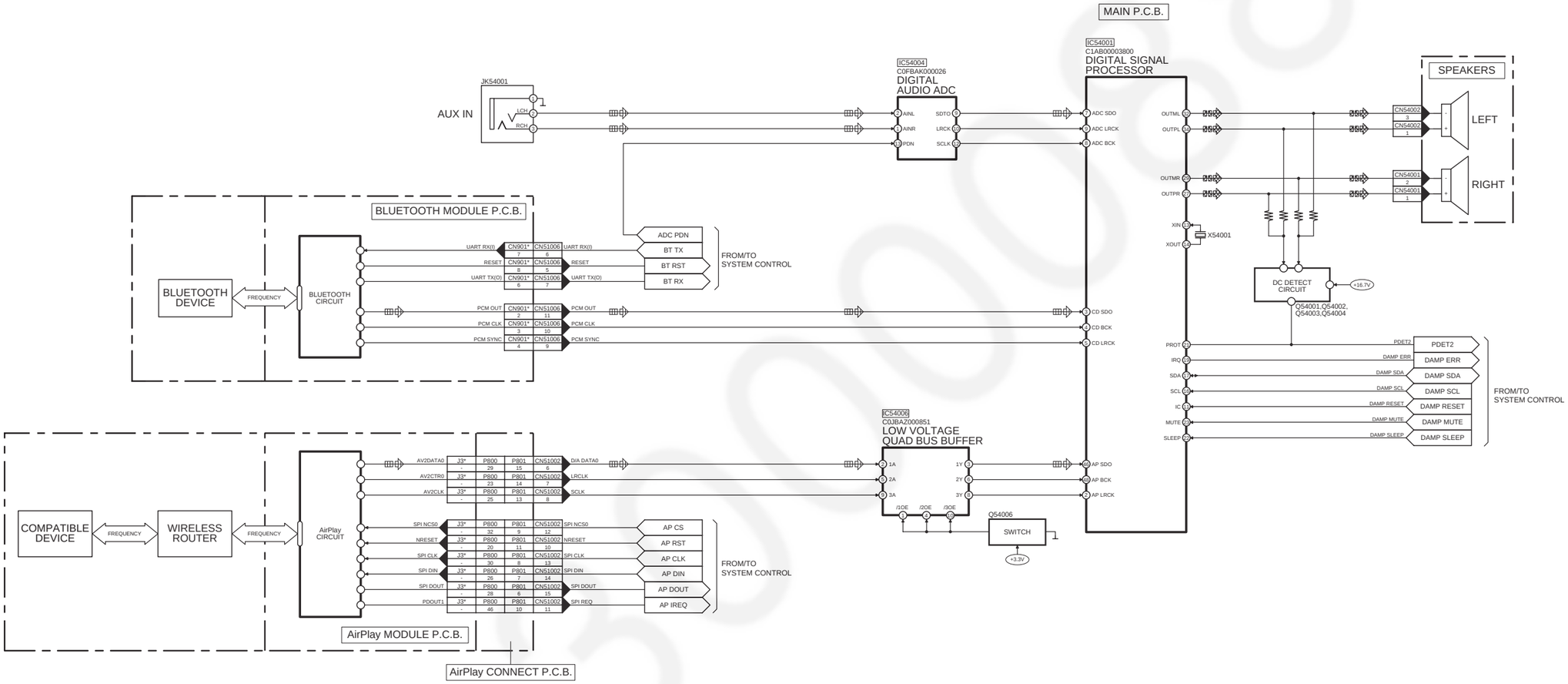
12.1. System Control



SC-NE3EB/EF/EG SYSTEM CONTROL BLOCK DIAGRAM

12.2. Audio

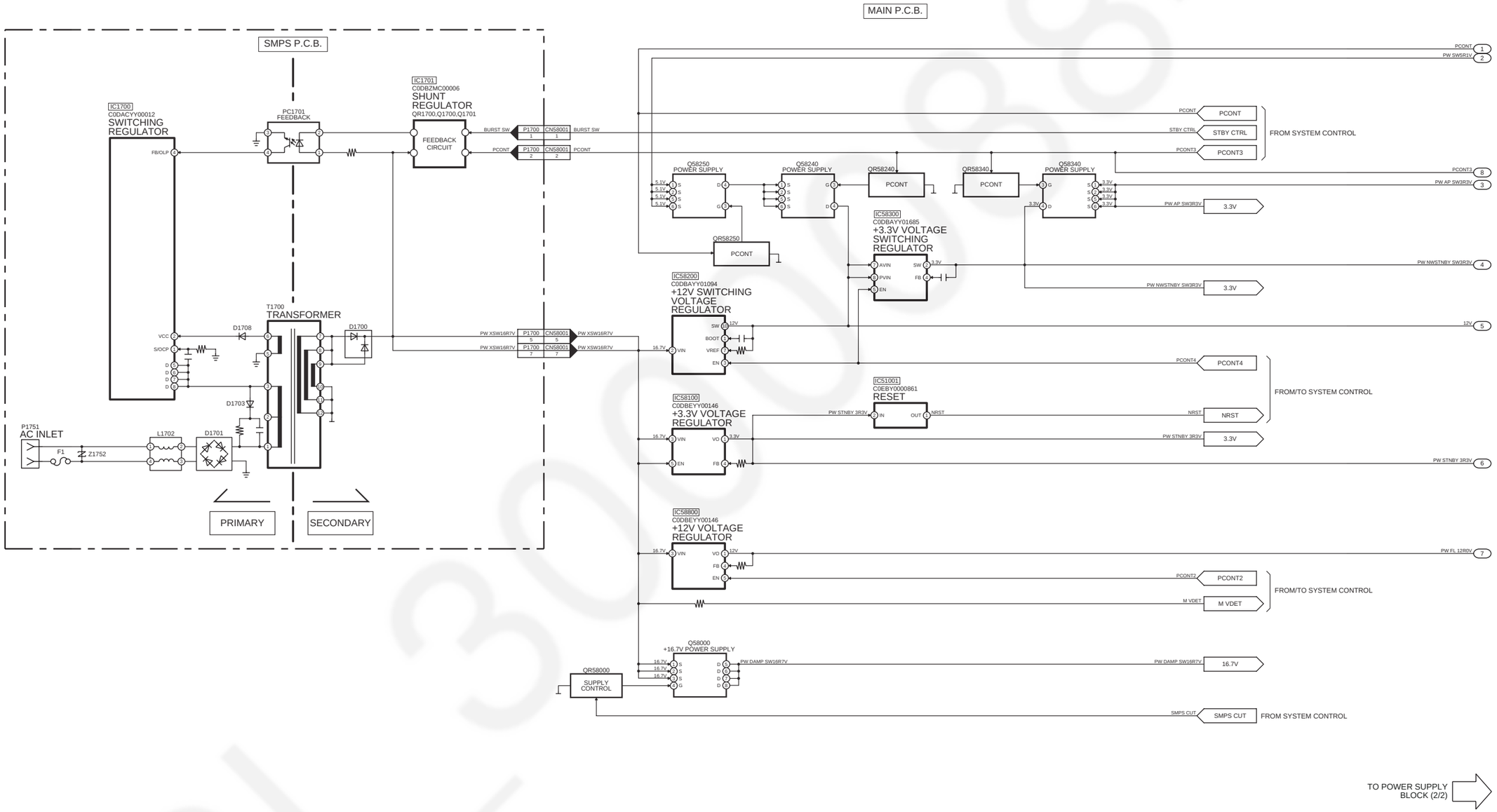
: AUX/BLUETOOTH/AirPlay AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE



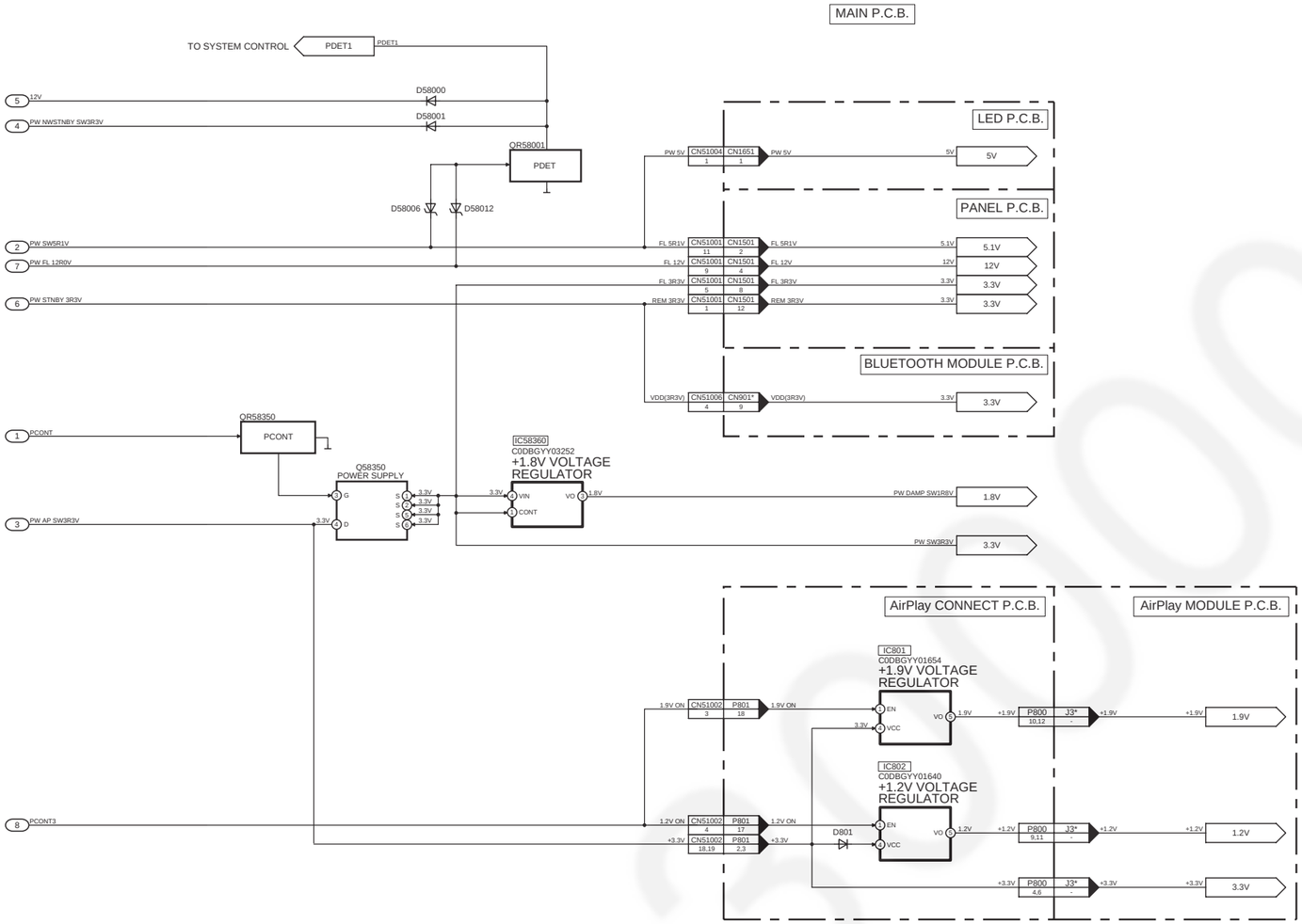
NOTE: “ * ” REF IS FOR INDICATION ONLY

SC-NE3EB/EF/EG AUDIO BLOCK DIAGRAM

12.3. Power Supply



SC-NE3EB/EF/EG POWER SUPPLY (1/2) BLOCK DIAGRAM

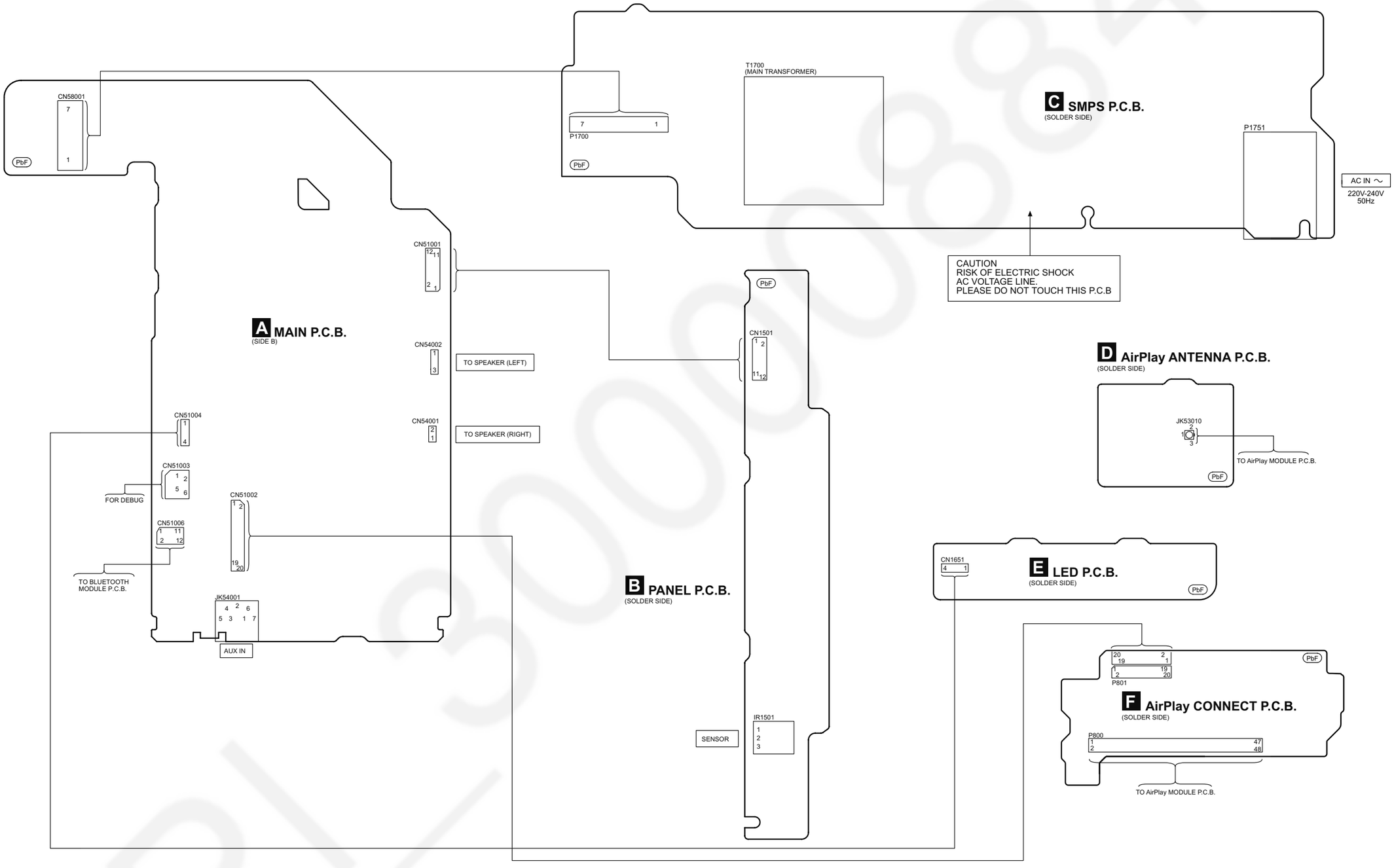


TO POWER SUPPLY BLOCK (1/2)

NOTE: " * " REF IS FOR INDICATION ONLY

SC-NE3EB/EF/EG POWER SUPPLY (2/2) BLOCK DIAGRAM

13 Wiring Connection Diagram



SC-NE3EB/EF/EG WIRING CONNECTION DIAGRAM

14 Schematic Diagram

14.1. Schematic Diagram Notes

(All schematic diagrams may be modified at any time with the development of new technology)

Notes:

S1501: WPS switch.
S1502: VOLUME (+) switch.
S1503: VOLUME (-) switch.
S1504: POWER switch (⏻/I).
S1505: BLUETOOTH/AUX switch.

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

- In case of AC rated voltage Capacitors, the part no. and values will be indicated in the Schematic Diagram.
  AC rated voltage capacitors:
  C1702, C1710, C1725, C1727, C1728

- **Resistor**
  Unit of resistance is OHM [Ω] (K=1,000, M=1,000,000).

- **Capacitor**
  Unit of capacitance is μF, unless otherwise noted. F=Farads, pF=pico-Farad.

- **Coil**
  Unit of inductance is H, unless otherwise noted.

- *****
  REF IS FOR INDICATION ONLY.

- Voltage and signal line

  : +B Signal Line

  :AUX/Bluetooth Audio Input Signal Line

  : Audio Output Signal Line

FUSE CAUTION

These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection against fire harzard, replace with the same type fuse. For fuse rating, refer to the marking adjacent to the symbol.

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE F1 T2A, 250V FUSE

RISK OF FIRE-REPLACE FUSE AS MARKED.

14.2. Main (Diginet/Micon/Damp) Circuit

SCHEMATIC DIAGRAM - 1

A MAIN (DIGINET) CIRCUIT

—— : +B SIGNAL LINE

TO C SMPS CIRCUIT (P1700) IN SCHEMATIC DIAGRAM - 9

CN58001
STBY_CTRL 1
PCONT 2
REGION 3
GND 4
PW_XSW16R7V 5
GND 6
PW_XSW16R7V 7

MI PW_STNBY_3R3V

MI SMPS_REGION
MI PCONT3
MI STBY_CTRL
DA DAMP_GND
MI DA DGND
MI PCONT4
MI SMPS_CUT

IC58100
C0DBEYY00146
+3.3V VOLTAGE REGULATOR
4 FB
5 EN
3 VIN
2 GND
1 VO

R58132 2.7K
C58110 10
C58120 10
R58131 560
R58130 10K

R58007 4.7K
C58003 1
R58008 4.7K

C58230 0.1
R58230 0

IC58200
C0DBAYY01094
+12V VOLTAGE SWITCHING REGULATOR
1 BOOT
2 VIN
3 EN
4 SS
5 RT
10 SW
9 GND
8 COMP
7 VREF
6 PGOOD
THERMAL PAD
T1

L58200 G1C4R7Z00014
LB58200 J0JHC0000046
C58240 0.1
R58240 47K
R58235 47K
R58234 6.8K
R58232 62K
C58232 680P
R58233 10K
C58233 15P
R58231 62K
R58236 3.9K
C58210 10
C58211 0.1
C58231 3300P
D58200 B0JCND000021
C58220 0.1
C58221 10
C58222 10
C58223 10
C58224 10

Q58240
B1CHQC000007
POWER SUPPLY
T1

R58241 10K
QR58240
B1GBCFNN0041
PCONT

IC58300
C0DBAYY01685
+3.3V VOLTAGE SWITCHING REGULATOR
8 PVIN
7 AVIN
6 MODE
5 EN
1 PGND
2 SW
3 AGND
4 FB
THERMAL PAD
T1

C58311 10
C58312 10
L58300 G1C1R0ZA0379
LB58300 J0JHC0000046
R58332 470K
R58331 75K
R58330 120K
C58330 10P
C58320 10
C58321 0.1

PW_NWSTNBY_SW3R3V

Q58000
B1CHRC000047
+16.7V POWER SUPLY
T1

C58000 1000P
R58000 100K
R58001 27K
QR58000
B1GBCFGG0024
SUPPLY CONTROL

TO MAIN (DIGINET) CIRCUIT (2/2)

PCONT3 MI
PCONT3
VIN
PW_DAMP_SW16R7V DA
P1
EN
GND
PVIN

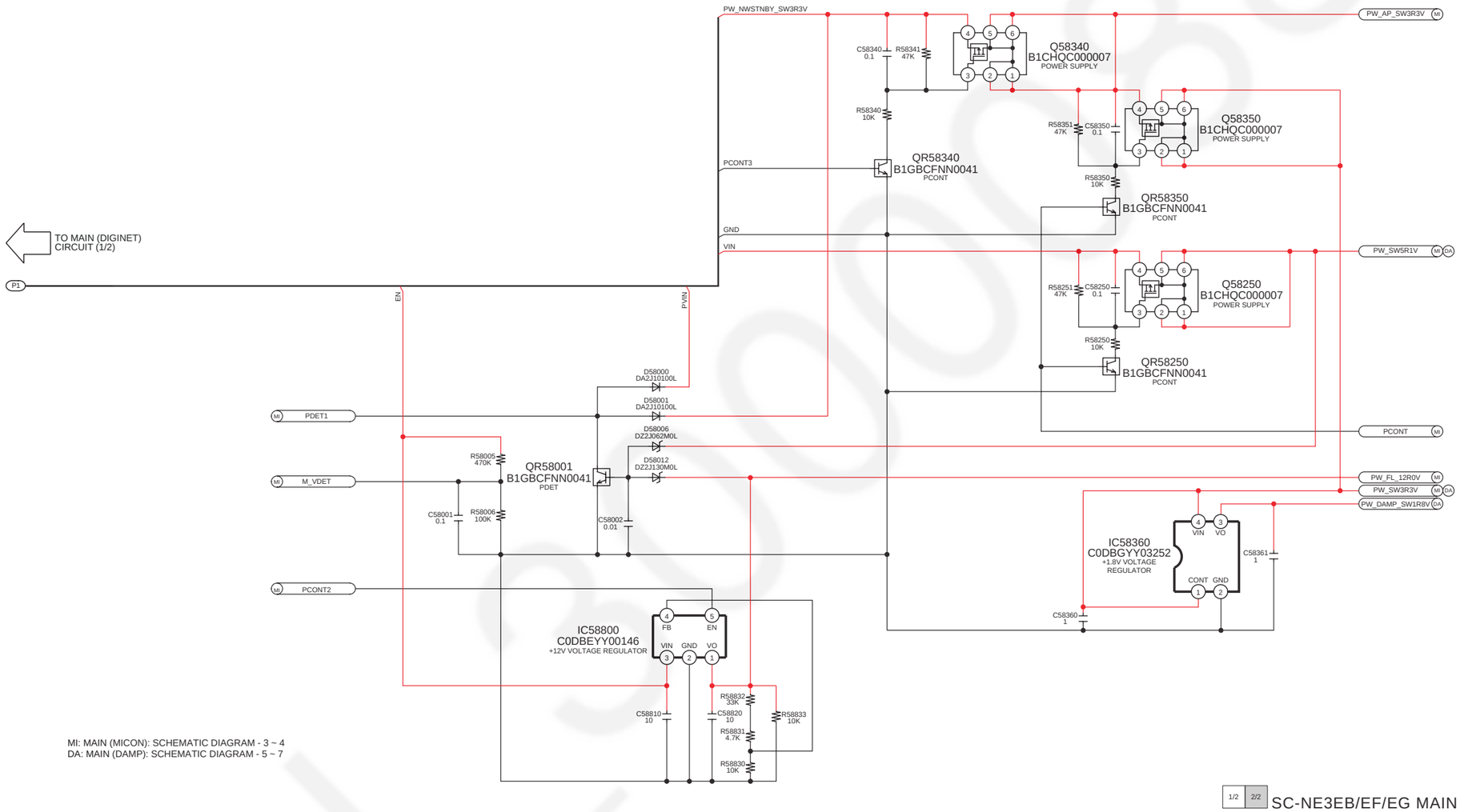
MI: MAIN (MICON): SCHEMATIC DIAGRAM - 3 ~ 4
DA: MAIN (DAMP): SCHEMATIC DIAGRAM - 5 ~ 7

1/2 2/2 SC-NE3EB/EF/EG MAIN (DIGINET) CIRCUIT

SCHEMATIC DIAGRAM - 2

A MAIN (DIGINET) CIRCUIT

—— : +B SIGNAL LINE



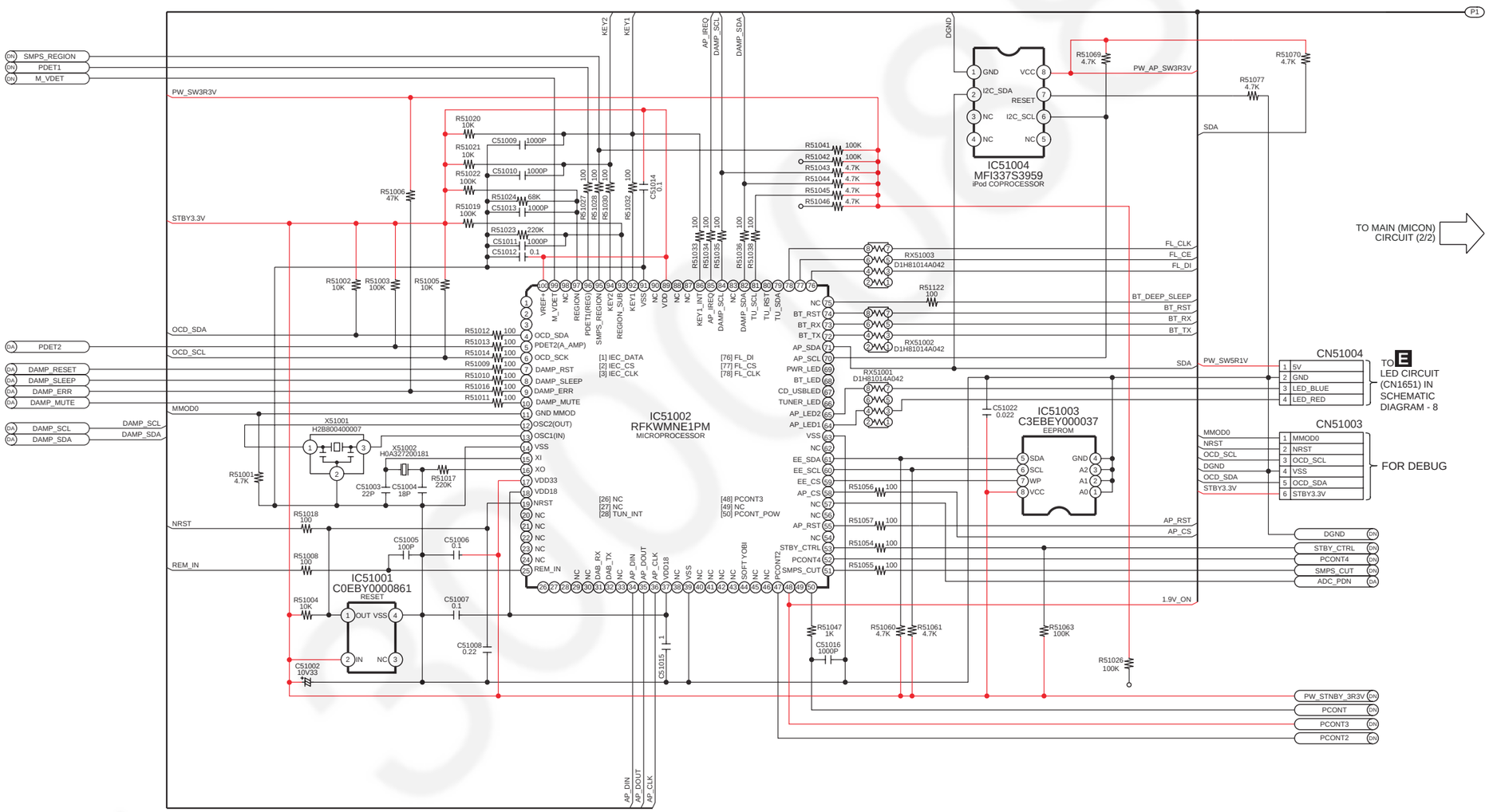
MI: MAIN (MICON): SCHEMATIC DIAGRAM - 3 ~ 4
DA: MAIN (DAMP): SCHEMATIC DIAGRAM - 5 ~ 7

1/2 2/2 SC-NE3EB/EF/EG MAIN (DIGINET) CIRCUIT

SCHEMATIC DIAGRAM - 3

A MAIN (MICON) CIRCUIT

—— : +B SIGNAL LINE ⇒ : BLUETOOTH AUDIO INPUT SIGNAL LINE



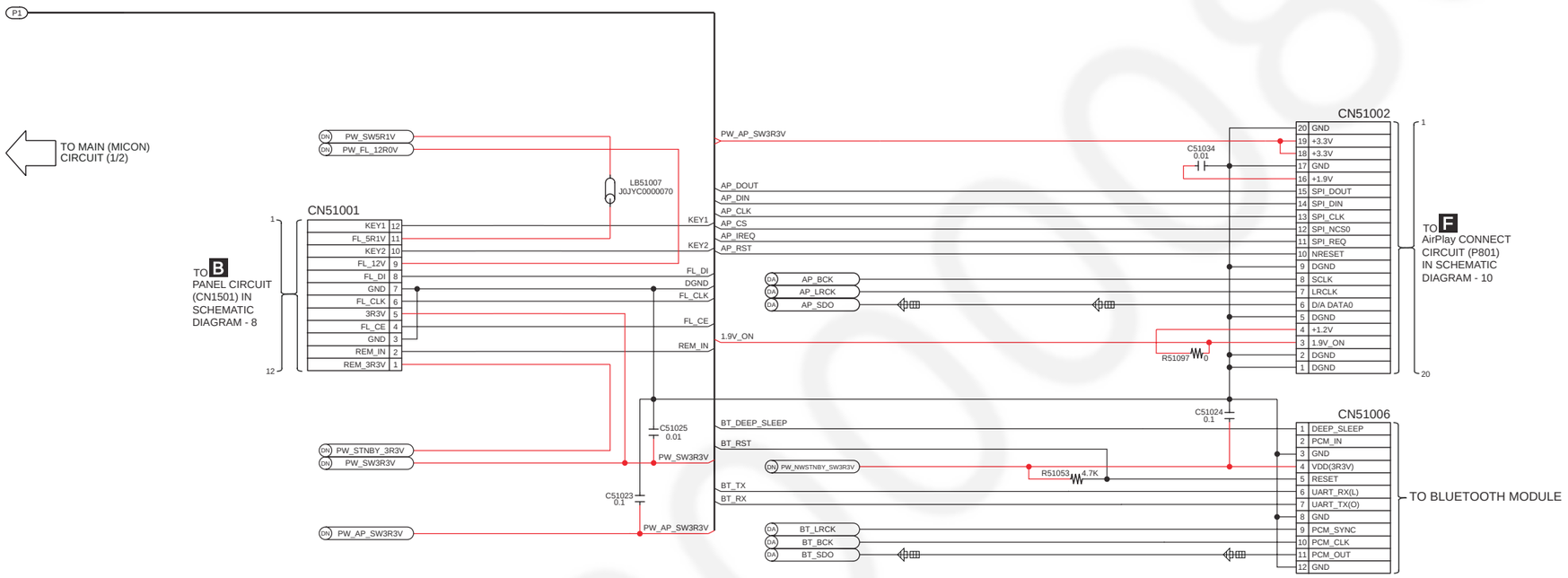
DN: MAIN (DIGINET): SCHEMATIC DIAGRAM - 1 ~ 2
DA: MAIN (DAMP): SCHEMATIC DIAGRAM - 5 ~ 7

1/2 2/2 SC-NE3EB/EF/EG MAIN (MICON) CIRCUIT

SCHEMATIC DIAGRAM - 4

A MAIN (MICON) CIRCUIT

: +B SIGNAL LINE : BLUETOOTH AUDIO INPUT SIGNAL LINE



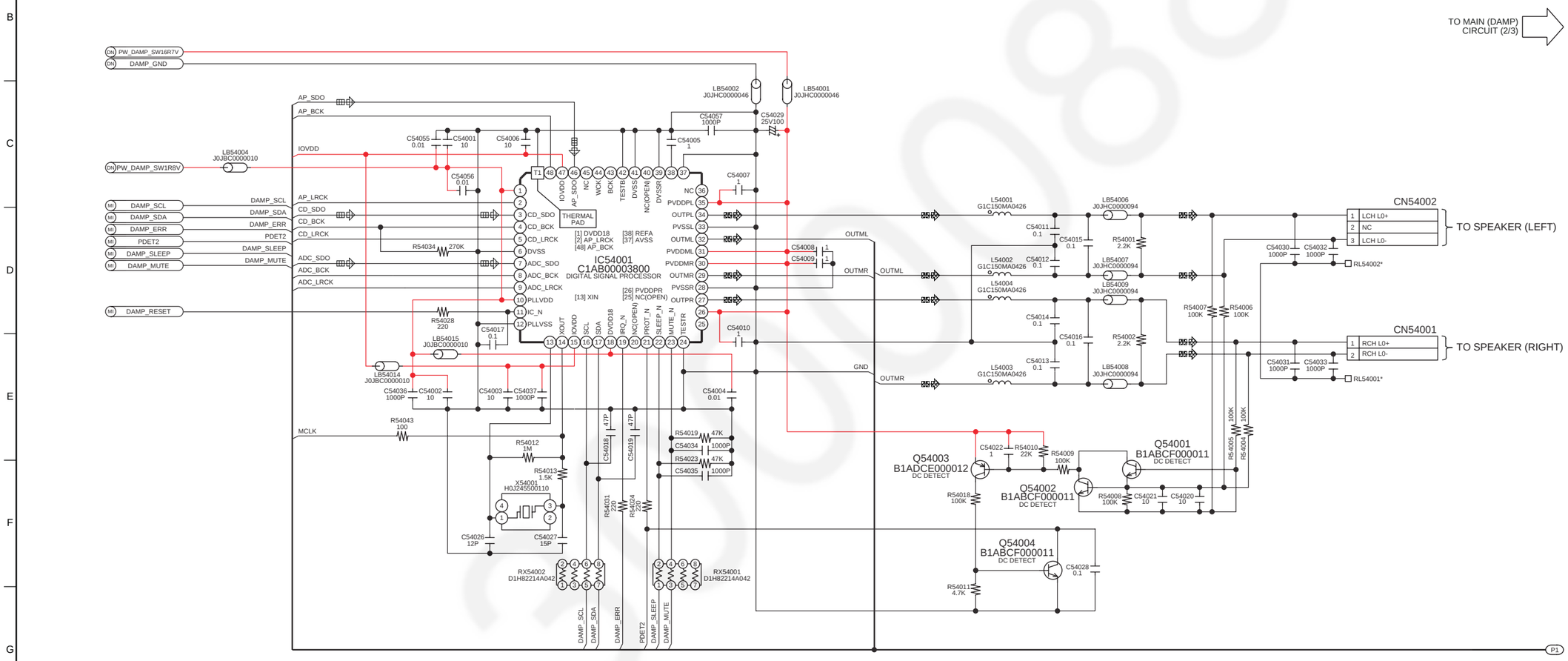
DN: MAIN (DIGINET): SCHEMATIC DIAGRAM - 1 ~ 2
DA: MAIN (DAMP): SCHEMATIC DIAGRAM - 5 ~ 7

1/2 2/2 SC-NE3EB/EF/EG MAIN (MICON) CIRCUIT

SCHEMATIC DIAGRAM - 5

A MAIN (DAMP) CIRCUIT

—— : +B SIGNAL LINE : AUX AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE



DN: MAIN (DIGINET): SCHEMATIC DIAGRAM - 1 ~ 2
MI: MAIN (MICON): SCHEMATIC DIAGRAM - 3 ~ 4

NOTE: " * " REF IS FOR INDICATION ONLY

1/3 2/3 3/3 SC-NE3EB/EF/EG MAIN (DAMP) CIRCUIT

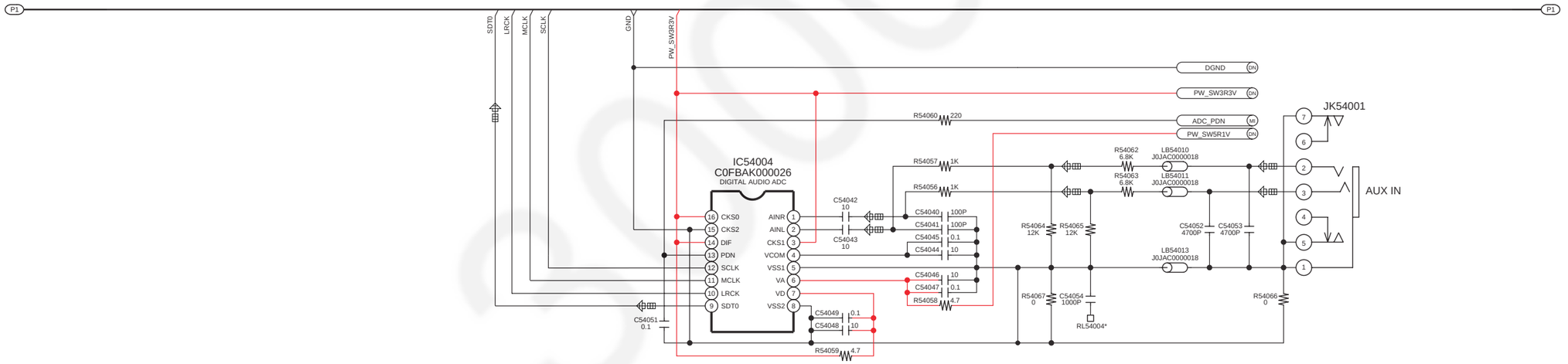
SCHEMATIC DIAGRAM - 6

A MAIN (DAMP) CIRCUIT

—— : +B SIGNAL LINE : AUX AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE

TO MAIN (DAMP) CIRCUIT (1/3)

TO MAIN (DAMP) CIRCUIT (3/3)



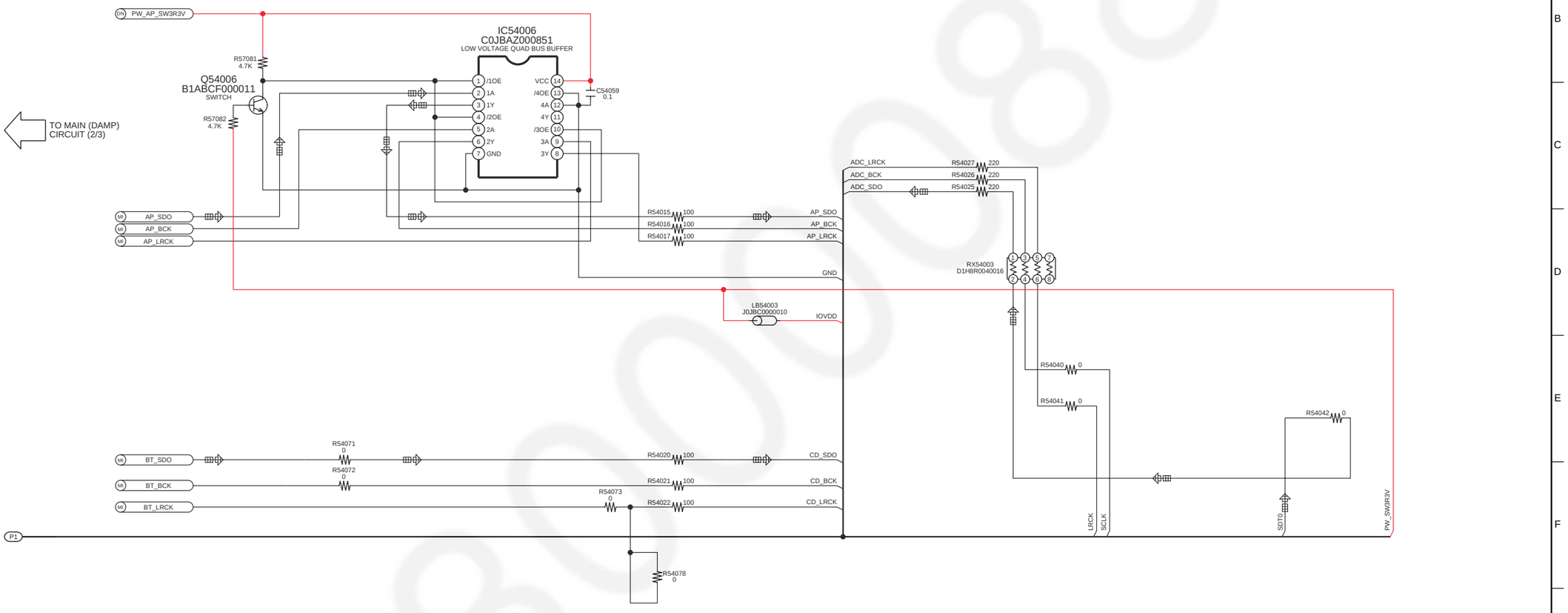
DN: MAIN (DIGINET): SCHEMATIC DIAGRAM - 1 ~ 2
MI: MAIN (MICON): SCHEMATIC DIAGRAM - 3 ~ 4

NOTE: " * " REF IS FOR INDICATION ONLY

SCHEMATIC DIAGRAM - 7

A MAIN (DAMP) CIRCUIT

: +B SIGNAL LINE : AUX AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE



DN: MAIN (DIGINET): SCHEMATIC DIAGRAM - 1 ~ 2
MI: MAIN (MICON): SCHEMATIC DIAGRAM - 3 ~ 4

1/3 2/3 3/3 SC-NE3EB/EF/EG MAIN (DAMP) CIRCUIT

14.3. Panel, LED and AirPlay Antenna Circuit

SCHEMATIC DIAGRAM - 8

B PANEL CIRCUIT

—— : +B SIGNAL LINE

DP1501
A2BB00000186
FL DISPLAY

R1512 33
R1513 39
D1502 B0JCMD000066
D1503 B0JCMD000066
D1504 B0JCMD000066
D1506 B0JCMD000066
C1501 1
C1502 1
C1503 1
C1504 50V1
C1505 1
R1505 47K
R1507 1.2K
C1506 0.1
Q1501 DSC200200L SWITCH
Q1502 DSA200200L SWITCH
IR1501 REMOTE SENSOR
C1507 1
D1507 DZ2J05100L

TO A MAIN (MICON) CIRCUIT (CN51001) IN SCHEMATIC DIAGRAM - 4

CN1501
KEY1 1
FL_5R1V 2
KEY2 3
FL_12V 4
FL_DI 5
GND 6
FL_CLK 7
3R3V 8
FL_CE 9
GND 10
REM_IN 11
REM_3R3V 12

S1502 VOLUME+
S1501 WPS
S1503 VOLUME-
S1504 POWER
S1505 BLUETOOTH/AUX
R1504 1.2K
R1503 1.2K
R1511 3.3K
R1509 1.2K

E LED CIRCUIT

—— : +B SIGNAL LINE

TO A MAIN (MICON) CIRCUIT (CN51004) IN SCHEMATIC DIAGRAM - 3

CN1651
WPS_RED 4
WPS_BLUE 3
GND 2
PW_5V 1

C1601 0.1
R1602 47K
R1601 4.7K
Q1601 DSA200100L LED DRIVE
R1603 220
R1606 220
QR1601 B1GBCFJN0038 LED CONTROL
QR1602 B1GBCFJN0038 LED CONTROL
D1606 B3AKA0000022
R1607 390
R1608 390
R1604 4.7K
R1605 47K
Q1602 DSA200100L LED DRIVE
C1602 0.1

D AirPlay ANTENNA CIRCUIT

JK53010
TO AirPlay MODULE
GND 3
GND 2
RF 1

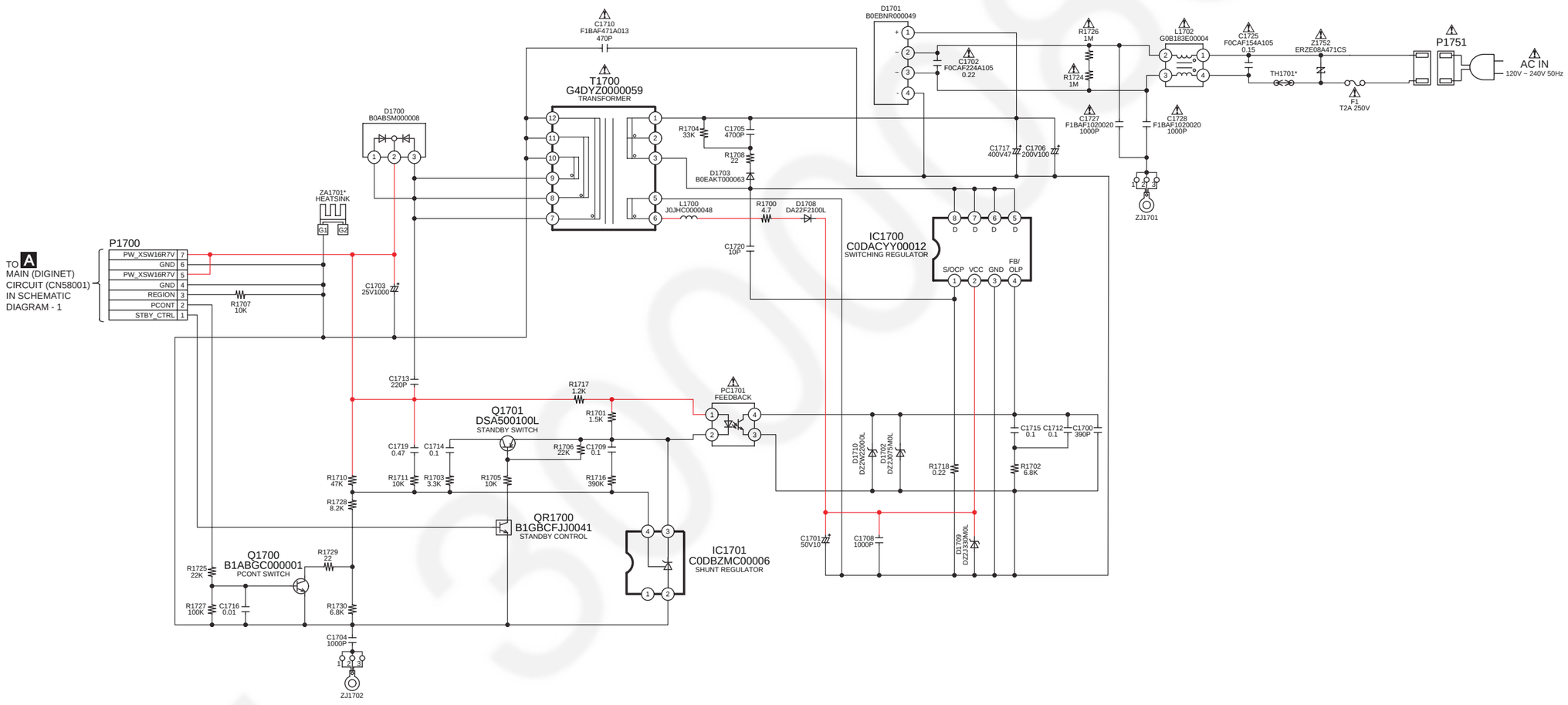
SC-NE3EB/EF/EG PANEL / LED / AirPlay ANTENNA CIRCUIT

14.4. SMPS Circuit

SCHEMATIC DIAGRAM - 9

C SMPS CIRCUIT

—— : +B SIGNAL LINE



NOTE: " * " REF IS FOR INDICATION ONLY

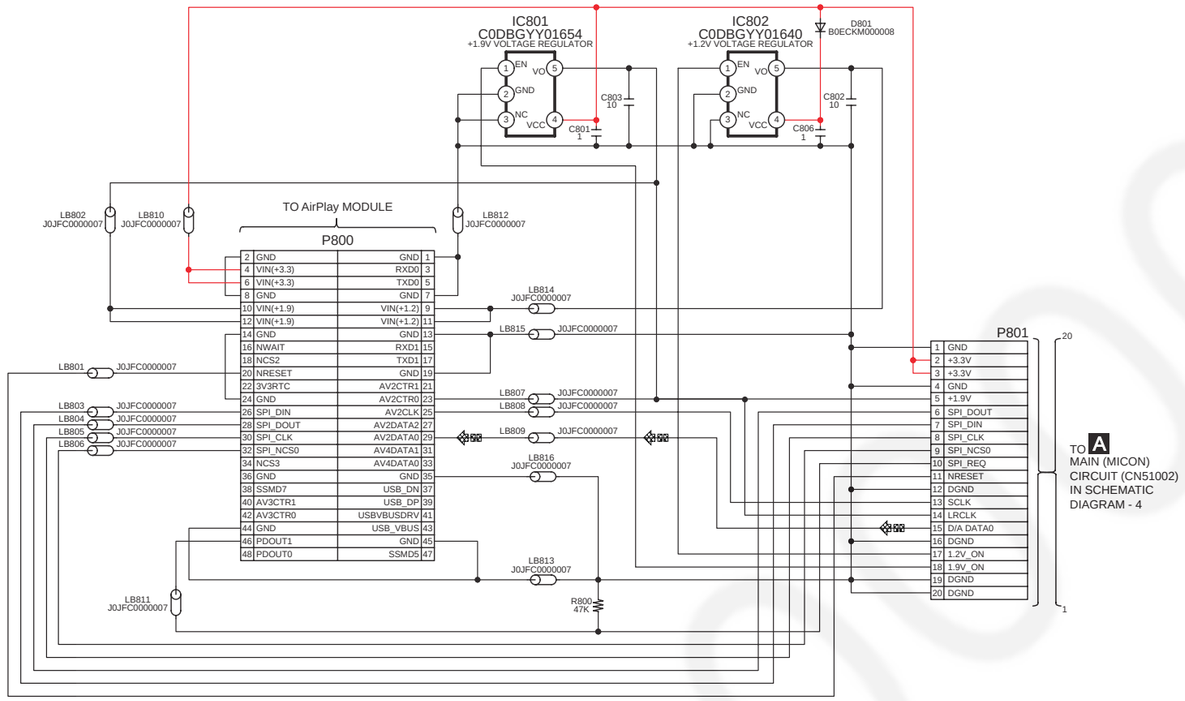
SC-NE3EB/EF/EG SMPS CIRCUIT

14.5. AirPlay Connect Circuit

SCHEMATIC DIAGRAM - 10

F AirPlay CONNECT CIRCUIT

: +B SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE

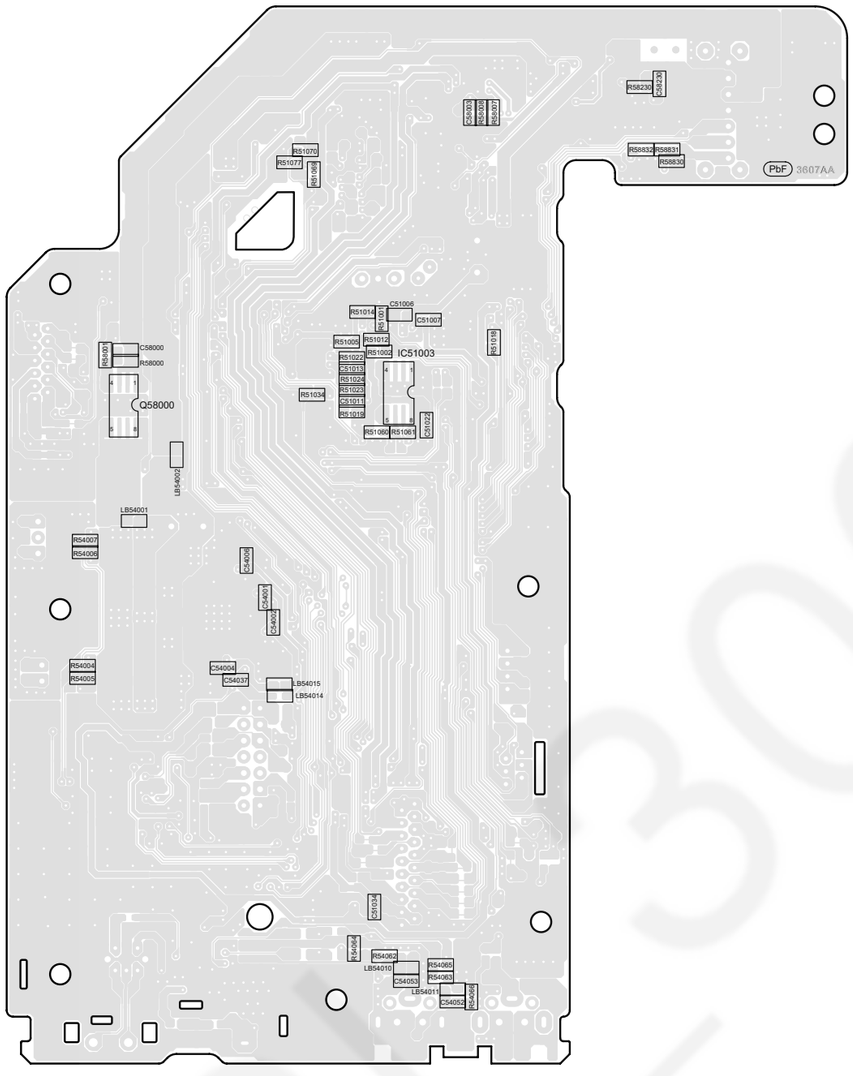


SC-NE3EB/EF/EG AirPlay CONNECT CIRCUIT

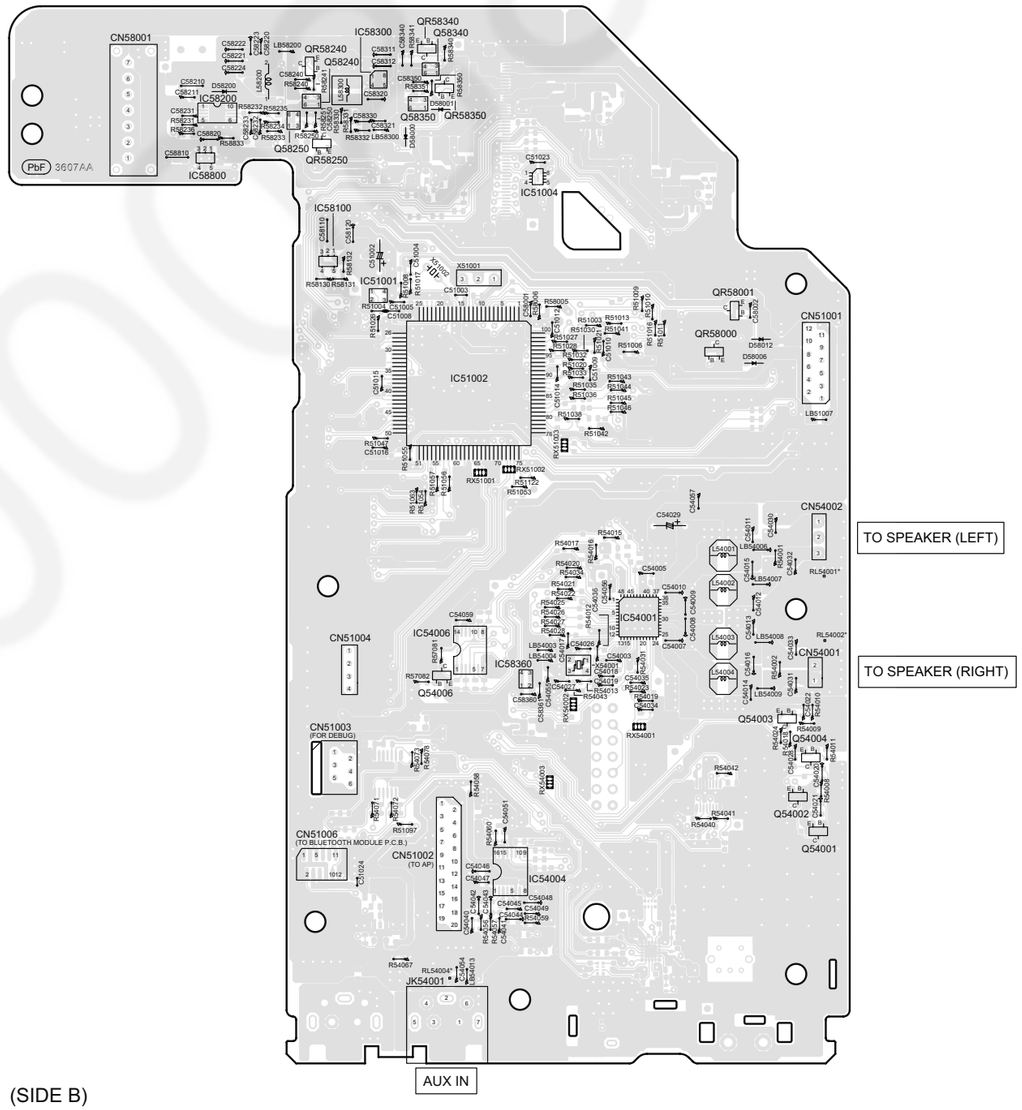
15 Printed Circuit Board

15.1. Main P.C.B.

A MAIN P.C.B. (REP4846LA)



(SIDE A)



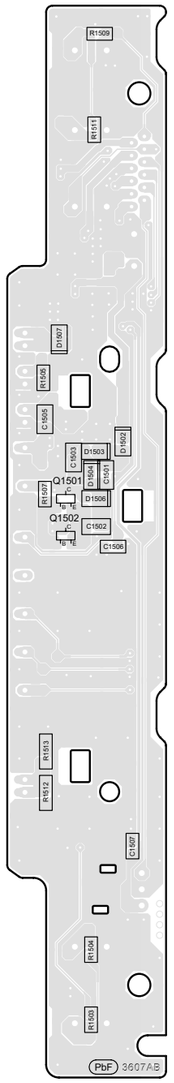
(SIDE B)

NOTE: " * " REF IS FOR INDICATION ONLY.

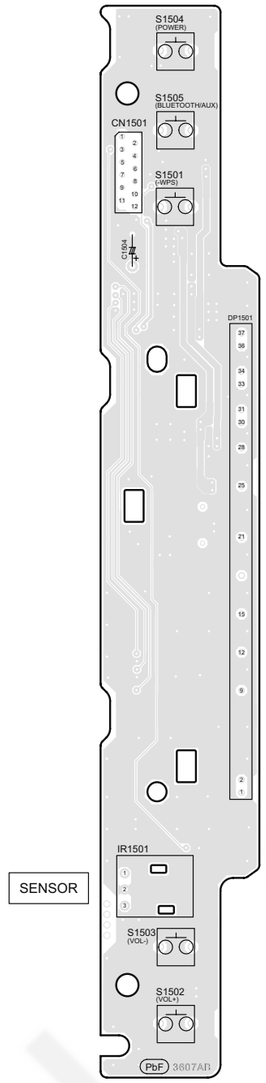
SC-NE3EB/EF/EG
MAIN P.C.B.

15.2. Panel, AirPlay Antenna and LED P.C.B.

B PANEL P.C.B. (REP4846LB)

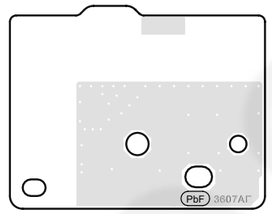


(SIDE A)

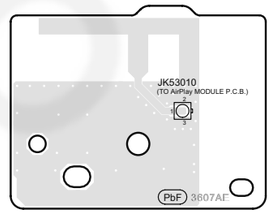


(SIDE B)

D AirPlay ANTENNA P.C.B. (REP4846LE)



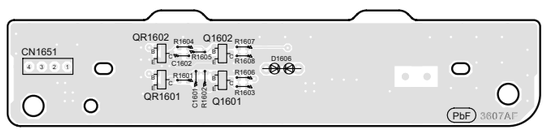
(SIDE A)



(SIDE B)

E LED P.C.B. (REP4846LF)

(SIDE A)

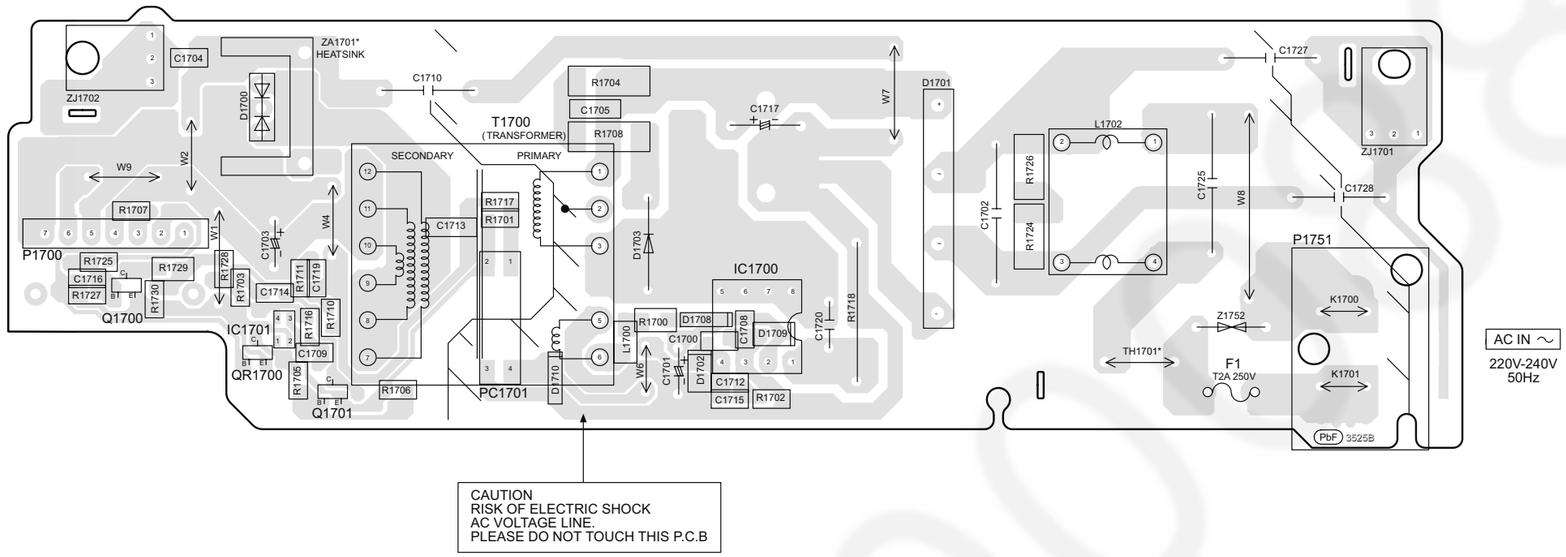


(SIDE B)

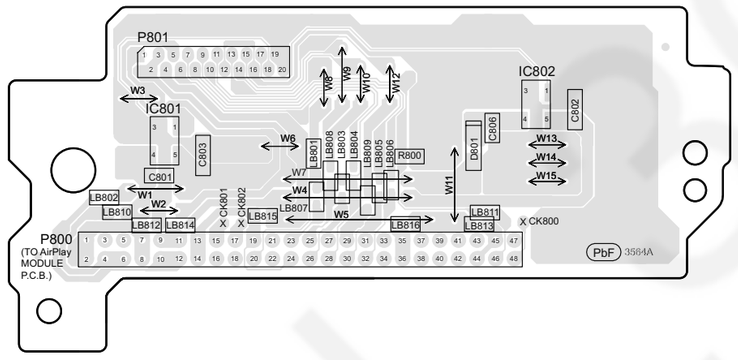
SC-NE3EB/EF/EG
PANEL / AirPlay ANTENNA / LED P.C.B.

15.3. SMPS and AirPlay Connect P.C.B.

C SMPS P.C.B. (REP4848F)



F AirPlay CONNECT P.C.B. (REP4772A)



NOTE: " * " REF IS FOR INDICATION ONLY

SC-NE3EB/EF/EG
SMPS / AirPlay CONNECT P.C.B.

16 Appendix Information of Schematic Diagram

16.1. Voltage Measurement and Waveform Chart

Note:

- 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.
- Circuit voltage and waveform described herein shall be regarded as reference information when probing defect point because it may differ from actual measuring value due to difference of Measuring instrument and its measuring condition and product itself.

16.1.1. Main P.C.B. (1/3)

REF NO.	IC51001																			
MODE	1	2	3	4																
CD PLAY	3.3	3.3	0	0																
STANDBY	3.3	3.3	0	0																

REF NO.	IC51002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	0	0	3.3	3.3	0	3.3	3.3	3.3	3.3	0	1.6	1.6	0	1.1	1.7	3.3	1.8	3.3	0
STANDBY	0	0	0	3.3	3.3	0	3.3	3.3	3.3	3.3	0	1.6	1.6	0	1.1	1.7	3.3	1.8	3.3	0

REF NO.	IC51002																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	0	0	0	3.3	0	0	0	0	0	0	0	0	3.3	3.2	3.3	1.8	0	0	0
STANDBY	0	0	0	0	3.3	0	0	0	0	0	0	0	0	3.3	3.2	3.3	1.8	0	0	0

REF NO.	IC51002																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0	0	0	0	0	3.3	3.3	3.3	0	3.3	3.3	3.3	0	0	3.3	0	0	3.3	0	3.3
STANDBY	0	0	0	0	0	3.3	3.3	3.3	0	3.3	3.3	3.3	0	0	3.3	0	0	3.3	0	3.3

REF NO.	IC51002																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	3.3	0	0	0	0	0	0	0	0	3.3	3.3	3.3	3.3	3.3	0	0	1.5	0	3.3	3.3
STANDBY	3.3	0	0	0	0	0	0	0	0	3.3	3.3	3.3	3.3	3.3	0	0	1.5	0	3.3	3.3

REF NO.	IC51002																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	3.3	3.3	0	3.3	0	3.3	0	0	3.3	0	0	3.3	0.3	3.3	1.2	3.3	0.3	0	3	3.3
STANDBY	3.3	3.3	0	3.3	0	3.3	0	0	3.3	0	0	3.3	0.3	3.3	1.2	3.3	0.3	0	3	3.3

REF NO.	IC51003																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	0	3.3	3.3	0	3.3												
STANDBY	0	0	0	0	3.3	3.3	0	3.3												

REF NO.	IC51004																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	3.3	0	0	0	3.3	0	3.3												
STANDBY	0	3.3	0	0	0	3.3	0	3.3												

REF NO.	IC54001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.8	0	3.0	1.7	1.8	0	0.8	1.2	1.2	1.8	3.3	0	1.3	1.6	3.3	3.3	3.3	1.8	3.3	0
STANDBY	1.8	0	3.0	1.7	1.8	0	0.8	1.2	1.2	1.8	3.3	0	1.3	1.6	3.3	3.3	3.3	1.8	3.3	0

REF NO.	IC54001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	3.3	3.3	3.3	0	0	16.8	0	0	3.0	16.8	16.8	0.6	0	3.0	16.8	0	0	0.3	0	0
STANDBY	3.3	3.3	3.3	0	0	16.8	0	0	3.0	16.8	16.8	0.6	0	3.0	16.8	0	0	0.3	0	0

SC-NE3EB/EF/EG MAIN P.C.B.

16.1.2. Main P.C.B. (2/3)

REF NO.	IC54001																			
MODE	41	42	43	44	45	46	47	48												
CD PLAY	0	0	0	0	0	1.5	3.3	1.6												
STANDBY	0	0	0	0	0	1.5	3.3	1.6												

REF NO.	IC54004																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
CD PLAY	1.8	2.0	3.3	0	0	5.1	3.3	0	0.8	1.0	0.8	1.2	3.3	3.3	0	3.3				
STANDBY	1.8	2.0	3.3	0	0	5.1	3.3	0	0.8	1.0	0.8	1.2	3.3	3.3	0	3.3				

REF NO.	IC54006																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
CD PLAY	0	0	0	0	1.6	1.6	0	1.6	1.6	0	0	0	0	3.3						
STANDBY	0	0	0	0	1.6	1.6	0	1.6	1.6	0	0	0	0	3.3						

REF NO.	IC58100																			
MODE	1	2	3	4	5															
CD PLAY	3.3	0	16.8	2.5	16.8															
STANDBY	3.3	0	16.8	2.5	16.8															

REF NO.	IC58200																			
MODE	1	2	3	4	5	6	7	8	9	10										
CD PLAY	11.2	16.8	3.3	2.2	0.5	0	3.3	0.7	0	5.1										
STANDBY	11.2	16.8	3.3	2.3	0.5	0	3.3	0.7	0	5.1										

REF NO.	IC58300																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	3.3	0	0.6	1.6	0	5.1	5.1												
STANDBY	0	3.3	0	0.6	1.6	0	5.1	5.1												

REF NO.	IC58360																			
MODE	1	2	3	4																
CD PLAY	3.3	0	1.8	3.3																
STANDBY	3.3	0	1.8	3.3																

REF NO.	IC58800																			
MODE	1	2	3	4	5															
CD PLAY	12.0	0	16.8	2.5	3.3															
STANDBY	12.0	0	16.8	2.5	3.3															

REF NO.	Q54001				Q54002				Q54003				Q54004				Q54006			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	3.5	16.6	3.5		3.5	16.6	3.5		16.7	0	16.8		0	3.3	0		0	0	0.7	
STANDBY	3.5	16.6	3.5		3.5	16.6	3.5		16.8	0	16.8		0	3.3	0		0	0	0.7	

REF NO.	Q58000									Q58240										
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5	6					
CD PLAY	16.8	16.8	16.8	3.6	16.8	16.8	16.8	16.8		5.1	5.1	0.9	5.1	5.1	5.1					
STANDBY	16.8	16.8	16.8	3.6	16.8	16.8	16.8	16.8		5.1	5.1	0.9	5.1	5.1	5.1					

SC-NE3EB/EF/EG MAIN P.C.B.

16.1.3. Main P.C.B. (3/3)

REF NO.	Q58250							Q58340							Q58350					
MODE	1	2	3	4	5	6		1	2	3	4	5	6		1	2	3	4	5	6
CD PLAY	5.1	5.1	0.9	5.1	5.1	5.1		3.3	3.3	0.6	3.3	3.3	3.3		3.3	3.3	0.6	3.3	3.3	3.3
STANDBY	5.1	5.1	0.9	5.1	5.1	5.1		3.3	3.3	0.6	3.3	3.3	3.3		3.3	3.3	0.6	3.3	3.3	3.3

REF NO.	QR58000				QR58001				QR58240				QR58250				QR58340			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	0	3.2		0	3.3	0		0	0	3.3		0	0	3.2		0	0	3.3	
STANDBY	0	0	3.2		0	3.3	0		0	0	3.3		0	0	3.2		0	0	3.3	

REF NO.	QR58350																			
MODE	E	C	B																	
CD PLAY	0	0	3.2																	
STANDBY	0	0	3.2																	

SC-NE3EB/EF/EG MAIN P.C.B.

16.1.4. Panel P.C.B.

REF NO.	Q1501				Q1502															
MODE	E	C	B		E	C	B													
POWER ON	6.0	12.0	6.1		6.0	0	6.1													
STANDBY	6.0	12.0	6.1		6.0	0	6.1													

SC-NE3EB/EF/EG PANEL P.C.B.

16.1.5. LED P.C.B.

REF NO.	Q1601				Q1602				QR1601				QR1602							
MODE	E	C	B		E	C	B		E	C	B		E	C	B					
CD PLAY	5.1	0	5.0		5.0	0	5.0		0	5.0	0		0	5.0	0					
STANDBY	5.0	0	5.0		5.0	0	5.0		0	5.0	0		0	5.0	0					

SC-NE3EB/EF/EG LED P.C.B.

16.1.6. SMPS P.C.B.

REF NO.	IC1700																			
MODE	1	2	3	4	5	6	7	8												
POWER ON	3.0	20.2	0	2.0	600	600	600	600												
STANDBY	3.0	20.2	0	2.0	600	600	600	600												

REF NO.	IC1701																			
MODE	1	2	3	4																
POWER ON	0	0	18.0	2.5																
STANDBY	0	0	18.0	2.5																

REF NO.	Q1700				Q1701				QR1700											
MODE	E	C	B		E	C	B		E	C	B									
POWER ON	0	18.0	3.3		14.74	0	14.74		0	14.46	0									
STANDBY	0	1.12	3.3		8.06	8.04	7.36		0	0	3.3									

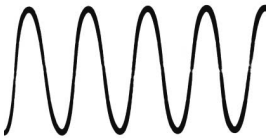
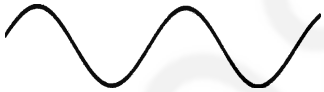
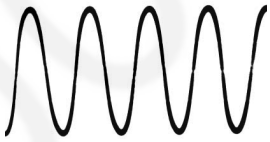
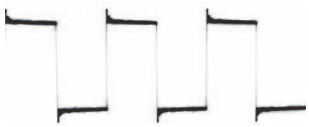
SC-NE3EB/EF/EG SMPS P.C.B.

16.1.7. AirPlay Connect P.C.B.

REF NO.	IC801																			
MODE	1	2	3	4	5															
CD PLAY	3.3	0	0	3.3	1.9															
STANDBY	3.3	0	0	3.3	1.9															
REF NO.	IC802																			
MODE	1	2	3	4	5															
CD PLAY	3.3	0	0	2.5	1.2															
STANDBY	3.3	0	0	2.5	1.2															

SC-NE3EB/EF/EG AirPlay CONNECT P.C.B.

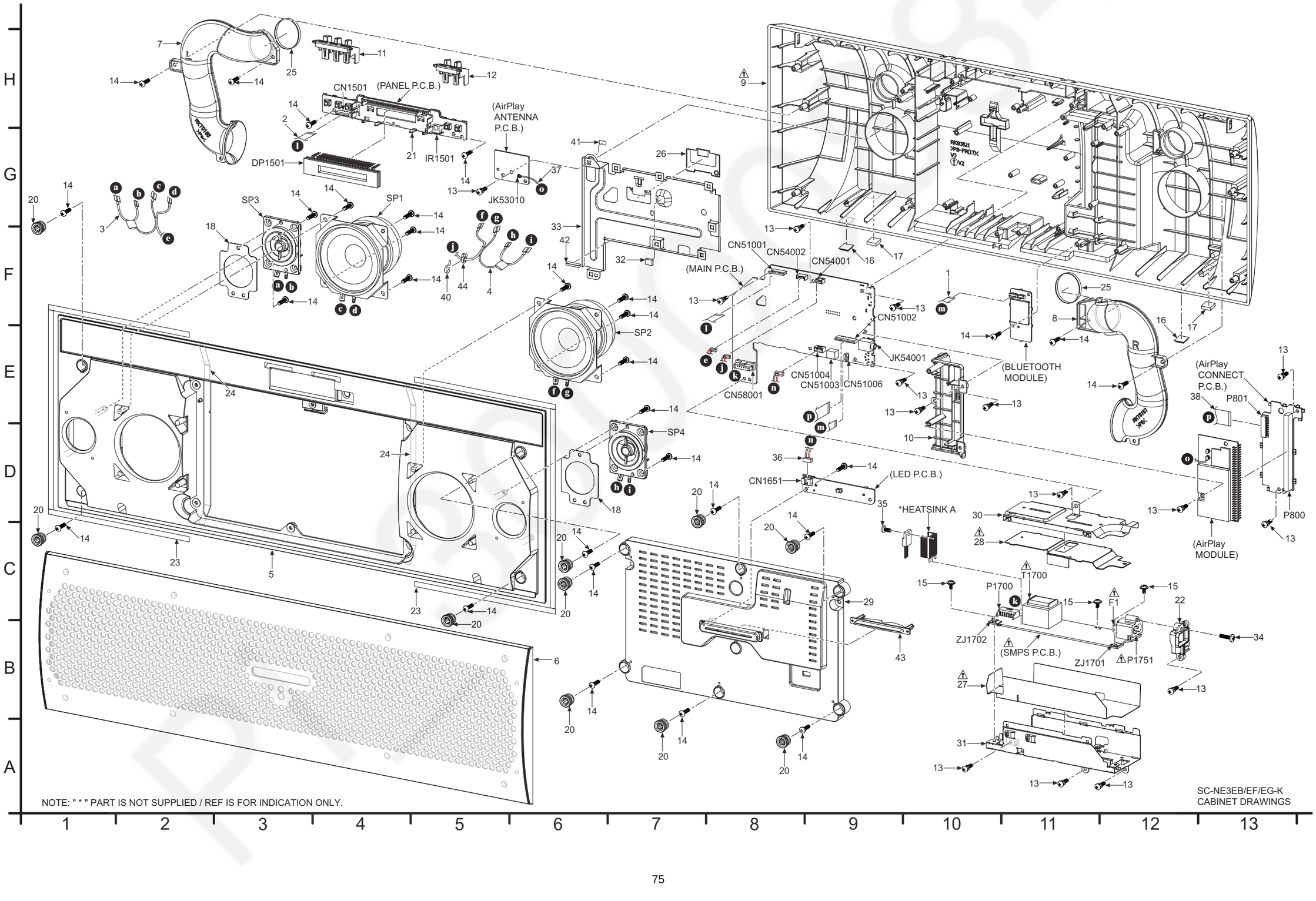
16.1.8. Waveform Chart

WF No. IC51002-12 (PLAY)  3.8Vp-p(50nsec/div)	WF No. IC51002-13 (PLAY)  3Vp-p(50nsec/div)	WF No. IC51002-15 (PLAY)  1.3Vp-p(10usec/div)	WF No. IC51002-16 (PLAY)  2.4Vp-p(10usec/div)
WF No. IC54001-3 (PLAY)  4.8Vp-p(5usec/div)	WF No. IC54001-13 (PLAY)  1.4Vp-p(20nsec/div)	WF No. IC54001-14 (PLAY)  5.6Vp-p(20nsec/div)	WF No. IC54001-27,29,32,34 (PLAY)  28Vp-p(1usec/div)

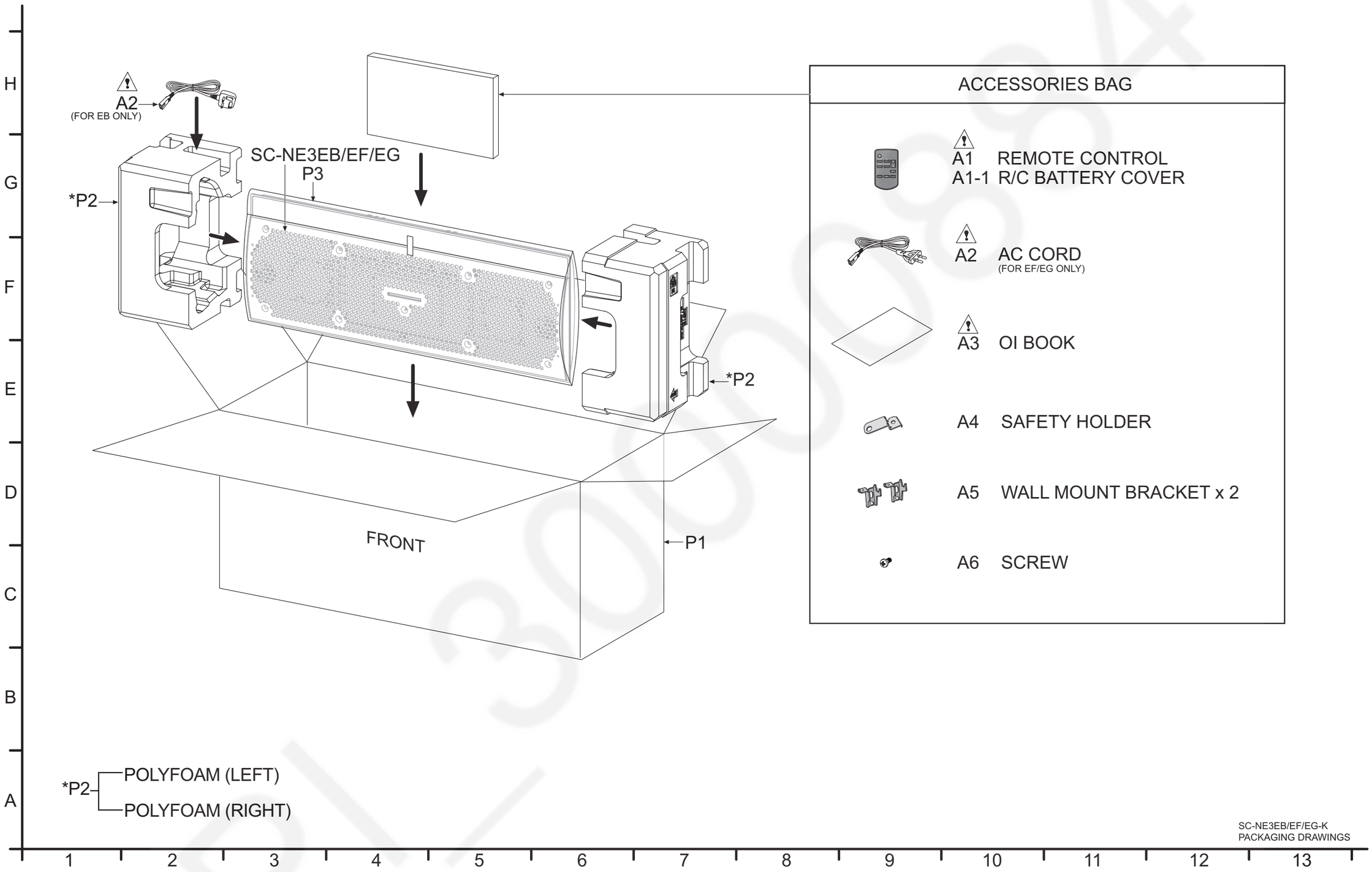
17 Exploded View and Replacement Parts List

17.1. Exploded View and Mechanical replacement Parts List

17.1.1. Cabinet Parts Location



17.1.2. Packaging



ACCESSORIES BAG

	A1 A1-1	REMOTE CONTROL R/C BATTERY COVER
	A2	AC CORD (FOR EF/EG ONLY)
	A3	OI BOOK
	A4	SAFETY HOLDER
	A5	WALL MOUNT BRACKET x 2
	A6	SCREW

17.1.3. Mechanical 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".
- 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	REE1767	12P FFC (BLUE-TOOTH - MAIN)	1	
	2	REE1769	12P FFC (PANEL - MAIN)	1	
	3	REX1596	1P CABLE WIRE (SPK L - MAIN)	1	
	4	REX1597	1P CABLE WIRE (SPK R - MAIN)	1	
	5	RFKGCNE3EB-K	FRONT CABINET ASS'Y	1	
	6	RYB0395	SPEAKER NET FRAME	1	
	7	RXQ2156	SPEAKER LEFT PORT UNIT	1	
	8	RXQ2157	SPEAKER RIGHT PORT UNIT	1	
⚠	9	RFKHCNE3EB-K	REAR CABINET ASS'Y	1	
	10	RGQ0737C-K1	TUNER HOLDER	1	
	11	RGU2864-K	POWER BUTTON	1	
	12	RGU2865-K	VOLUME BUTTON	1	
	13	RHD26043-1	SCREW	15	
	14	RHD26046	SCREW	30	
	15	RHD30092-1	SCREW	3	
	16	RKA0253-H	LEG CUSHION	2	
	17	RKA0294-K	LEG CUSHION	2	
	18	RMF0458-J	TWEETER SHEET	2	
	20	RMG0520-H	NET HOLDER	10	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	21	RMN1049-1	FL HOLDER	1	
	22	RMN1055	AC JACK HOLDER	1	
	23	RMQ2156	EPT SEALER A	2	
	24	RMQ2157	EPT SEALER B	2	
	25	RMQ2158	EPT SEALER C	2	
	26	RMQ2159	SP HOLE COVER	1	
⚠	27	RMV0390	SMPS INSULATOR SHEET A	1	
⚠	28	RMV0391-1	SMPS INSULATOR SHEET B	1	
	29	RMV0416-1	SPEAKER INNER COVER	1	
	30	RSC1067	SMPS SHIELD	1	
	31	RSC1068-1	SMPS BRACKET	1	
	32	RSC1097	D-AMP HEAT ABSORBER	1	
	33	RSC1200	SPEAKER REAR SHIELD	1	
	34	XTB3+10JFJK	SCREW	1	
	35	XTB3+8JFJ-J	SCREW	1	
	36	REX1598	4P CABLE WIRE (MAIN - LED)	1	
	37	REX1599	1P CABLE WIRE (AIRPLAY ANTENNA - AIRPLAY MOD-ULE)	1	
	38	REE1768	20P FFC (MAIN - AIRPLAY CONNECT)	1	
	40	RMQ2186	EPT SEALER D	1	
	41	RMQ2199	NON-WOVEN FAB-RIC CLOTH A	1	
	42	RMQ2209	EPT SEALER E	1	
	43	RGL0790-W	PANEL LIGHT	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	44	J0KE00000063	FERRITE CORE	1	
			SPEAKERS		
	SP1	EAS8P231A	FRONT SPEAKER	1	
	SP2	EAS8P231A	FRONT SPEAKER	1	
	SP3	L0AZ03A00017	TWEETER SPEAKER	1	
	SP4	L0AZ03A00017	TWEETER SPEAKER	1	
			PACKING MATERI-ALS		
	P1	RPG0E63-1	PACKING CASE	1	EB
	P1	RPG0E64-1	PACKING CASE	1	EG
	P1	RPG0G59-1	PACKING CASE	1	EF
	P2	RPN2557	POLYFOAM	1	
	P3	RPF0657	MIRAMAT SHEET	1	
			ACCESSORIES		
⚠	A1	N2QAYC000091	REMOTE CONTROL	1	
	A1-1	RKK-HTB10GNK	R/C BATERY COVER	1	
⚠	A2	K2CQ2YY00119	AC CORD	1	EF,EG
⚠	A2	K2CT2YY00097	AC CORD	1	EB
⚠	A3	VQT4U51	O/I BOOK (En)	1	EB
⚠	A3	VQT4U52	O/I BOOK (Ge/Fr/Du)	1	EF,EG
⚠	A3	VQT4U53	O/I BOOK (Sp/Sw/Da/Fi)	1	EG
⚠	A3	VQT4U54	O/I BOOK (En/Po/Cz)	1	EG
	A4	RGQ0660-K	SAFETY HOLDER	1	
	A5	RMQX1082-S	WALL MOUNT BRACKET	2	
	A6	XTB3+8JFJK-J	SCREW	1	

17.2. 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 CIR-CUITS BOARDS		
	PCB1	REP4846LA	MAIN P.C.B.	1	(RTL)
	PCB2	REP4846LB	PANEL P.C.B.	1	(RTL)
⚠	PCB3	REP4848F	SMPS P.C.B.	1	(RTL)
	PCB4	REP4846LE	AirPlay ANTENNA P.C.B.	1	(RTL)
	PCB5	REP4846LF	LED P.C.B.	1	(RTL)
	PCB6	REP4912B	BLUETOOTH MOD-ULE P.C.B.	1	JIGS & ADJ
	PCB7	REP4772A	AirPlay CONNECT P.C.B	1	(RTL)
	PCB8	N5HBZ0000103	AirPlay MODULE P.C.B.	1	JIGS & ADJ
			INTEGRATED CIR-CUITS		
	IC801	C0DBGYY01654	IC	1	(E.S.D)
	IC802	C0DBGYY01640	IC	1	(E.S.D)
	IC1700	C0DACYY00012	IC	1	(E.S.D)
	IC1701	C0DBZMC00006	IC	1	(E.S.D)
	IC51001	C0EBY0000861	IC	1	(E.S.D)
	IC51002	RFKWMNE1PM	IC	1	(E.S.D), JIGS & ADJ
	IC51003	C3EBEY000037	IC	1	(E.S.D)
	IC51004	MFI337S3959	IC	1	(E.S.D)
	IC54001	C1AB00003800	IC	1	(E.S.D)
	IC54004	C0FBAK000026	IC	1	(E.S.D)
	IC54006	C0JBAZ000851	IC	1	(E.S.D)
	IC58100	C0DBEYY00146	IC	1	(E.S.D)
	IC58200	C0DBAYY01094	IC	1	(E.S.D)

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	IC58300	C0DBAYY01685	IC	1	(E.S.D)
	IC58360	C0DBGYY03252	IC	1	(E.S.D)
	IC58800	C0DBEYY00146	IC		
			TRANSISTORS		
	Q1501	DSC200200L	TRANSISTOR	1	(E.S.D)
	Q1502	DSA200200L	TRANSISTOR	1	(E.S.D)
	Q1601	DSA200100L	TRANSISTOR	1	(E.S.D)
	Q1602	DSA200100L	TRANSISTOR	1	(E.S.D)
	Q1700	B1ABGC000001	TRANSISTOR	1	(E.S.D)
	Q1701	DSA500100L	TRANSISTOR	1	(E.S.D)
	Q54001	B1ABCF000011	TRANSISTOR	1	(E.S.D)
	Q54002	B1ABCF000011	TRANSISTOR	1	(E.S.D)
	Q54003	B1ADCE000012	TRANSISTOR	1	(E.S.D)
	Q54004	B1ABCF000011	TRANSISTOR	1	(E.S.D)
	Q54006	B1ABCF000011	TRANSISTOR	1	(E.S.D)
	Q58000	B1CHRC000047	TRANSISTOR	1	(E.S.D)
	Q58240	B1CHQC000007	TRANSISTOR	1	(E.S.D)
	Q58250	B1CHQC000007	TRANSISTOR	1	(E.S.D)
	Q58340	B1CHQC000007	TRANSISTOR	1	(E.S.D)
	Q58350	B1CHQC000007	TRANSISTOR	1	(E.S.D)
	QR1601	B1GBCFJN0038	TRANSISTOR	1	(E.S.D)
	QR1602	B1GBCFJN0038	TRANSISTOR	1	(E.S.D)
	QR1700	B1GBCFJJ0041	TRANSISTOR	1	(E.S.D)
	QR58000	B1GBCFGG0024	TRANSISTOR	1	(E.S.D)
	QR58001	B1GBCFNN0041	TRANSISTOR	1	(E.S.D)
	QR58240	B1GBCFNN0041	TRANSISTOR	1	(E.S.D)
	QR58250	B1GBCFNN0041	TRANSISTOR	1	(E.S.D)
	QR58340	B1GBCFNN0041	TRANSISTOR	1	(E.S.D)
	QR58350	B1GBCFNN0041	TRANSISTOR	1	(E.S.D)
			DIODES		
	D801	B0ECKM000008	DIODE	1	(E.S.D)

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	D1502	B0JCMD000066	DIODE	1	(E.S.D)
	D1503	B0JCMD000066	DIODE	1	(E.S.D)
	D1504	B0JCMD000066	DIODE	1	(E.S.D)
	D1506	B0JCMD000066	DIODE	1	(E.S.D)
	D1507	DZ2J05100L	DIODE	1	(E.S.D)
	D1606	B3AKA0000022	DIODE	1	(E.S.D)
	D1700	B0ABSM000008	DIODE	1	(E.S.D)
	D1701	B0EBNR000049	DIODE	1	(E.S.D)
	D1702	DZ2J075M0L	DIODE	1	(E.S.D)
	D1703	B0EAKT000063	DIODE	1	(E.S.D)
	D1708	DA22F2100L	DIODE	1	(E.S.D)
	D1709	DZ2J330M0L	DIODE	1	(E.S.D)
	D1710	DZ2W22000L	DIODE	1	(E.S.D)
	D58000	DA2J10100L	DIODE	1	(E.S.D)
	D58001	DA2J10100L	DIODE	1	(E.S.D)
	D58006	DZ2J062M0L	DIODE	1	(E.S.D)
	D58012	DZ2J130M0L	DIODE	1	(E.S.D)
	D58200	B0JCND000021	DIODE		
			SWITCHES		
	S1501	EVQ21405R	SW WPS	1	
	S1502	EVQ21405R	SW VOLUME +	1	
	S1503	EVQ21405R	SW VOLUME -	1	
	S1504	EVQ21405R	SW POWER	1	
	S1505	EVQ21405R	SW BLUETOOTH/AUX	1	
			CONNECTORS		
	CN1501	K1MN12A00011	12P CONNECTOR	1	
	CN1651	K1KA04BA0061	4P CONNECTOR	1	
	CN51001	K1MN12A00011	12P CONNECTOR	1	
	CN51002	K1MN20A00013	20P CONNECTOR	1	
	CN51003	K1MN06C00005	6P CONNECTOR	1	
	CN51004	K1KA04AA0193	4P CONNECTOR	1	
	CN51006	K1MY12AA0021	12P CONNECTOR	1	
	CN54001	K1KA02AA0180	2P CONNECTOR	1	
	CN54002	K1KA03AA0180	3P CONNECTOR	1	
	CN58001	K1KB07AA0076	7P CONNECTOR	1	
	P801	K1MN20B00019	20P CONNECTOR	1	
	P1700	K1KA07BA0117	7P CONNECTOR	1	
			COILS AND INDUCTORS		
	L1700	J0JHC0000048	INDUCTOR	1	
⚠	L1702	G0B183E00004	LINE FILTER	1	
	L54001	G1C150MA0426	INDUCTOR	1	
	L54002	G1C150MA0426	INDUCTOR	1	
	L54003	G1C150MA0426	INDUCTOR	1	
	L54004	G1C150MA0426	INDUCTOR	1	
	L58200	G1C4R7Z00014	INDUCTOR	1	
	L58300	G1C1R0ZA0379	INDUCTOR	1	
	LB801	J0JFC0000007	INDUCTOR	1	
	LB802	J0JHC0000107	INDUCTOR	1	
	LB803	J0JFC0000007	INDUCTOR	1	
	LB804	J0JFC0000007	INDUCTOR	1	
	LB805	J0JFC0000007	INDUCTOR	1	
	LB806	J0JFC0000007	INDUCTOR	1	
	LB807	J0JFC0000007	INDUCTOR	1	
	LB808	J0JFC0000007	INDUCTOR	1	
	LB809	J0JFC0000007	INDUCTOR	1	
	LB810	J0JHC0000107	INDUCTOR	1	
	LB811	J0JFC0000007	INDUCTOR	1	
	LB812	J0JHC0000107	INDUCTOR	1	
	LB813	J0JHC0000107	INDUCTOR	1	
	LB814	J0JHC0000107	INDUCTOR	1	
	LB815	J0JHC0000107	INDUCTOR	1	
	LB816	J0JHC0000107	INDUCTOR	1	
	LB51007	J0JYC0000070	INDUCTOR	1	
	LB54001	J0JHC0000046	INDUCTOR	1	
	LB54002	J0JHC0000046	INDUCTOR	1	
	LB54003	J0JBC0000010	INDUCTOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	LB54004	J0JBC0000010	INDUCTOR	1	
	LB54006	J0JHC0000094	INDUCTOR	1	
	LB54007	J0JHC0000094	INDUCTOR	1	
	LB54008	J0JHC0000094	INDUCTOR	1	
	LB54009	J0JHC0000094	INDUCTOR	1	
	LB54010	J0JAC0000018	INDUCTOR	1	
	LB54011	J0JAC0000018	INDUCTOR	1	
	LB54013	J0JAC0000018	INDUCTOR	1	
	LB54014	J0JBC0000010	INDUCTOR	1	
	LB54015	J0JBC0000010	INDUCTOR	1	
	LB58200	J0JHC0000046	INDUCTOR	1	
	LB58300	J0JHC0000046	INDUCTOR	1	
			TRANSFORMER		
⚠	T1700	G4DYZ0000059	TRANSFORMER	1	
			VARISTOR		
⚠	Z1752	ERZE08A471CS	VARISTOR	1	
			PHOTO COUPLER		
⚠	PC1701	B3PBA0000503	PHOTO COUPLER	1	
			TERMINALS		
	ZJ1701	K4CZ01000027	TERMINAL	1	
	ZJ1702	K4CZ01000027	TERMINAL	1	
			OSCILLATORS		
	X51001	H2B800400007	OSCILLATOR	1	
	X51002	H0A327200181	OSCILLATOR	1	
	X54001	H0J245500110	OSCILLATOR	1	
			LCD DISPLAY		
	DP1501	A2BB00000186	LCD DISPLAY	1	
			FUSE		
⚠	F1	K5G202Y00006	FUSE	1	
			JACKS		
	JK53010	K1QZA1AD0014	JK COAXIAL CABLE CONNECTOR)	1	
	JK54001	K2HC1YYB0032	JK AUX IN	1	
	P800	K3ZZ04800002	AirPlay MODULE CONNECTOR	1	
⚠	P1751	K2AA2B000011	AC INLET	1	
			REMOTE SENSOR		
	IR1501	B3RAB0000109	REMOTE SENSOR	1	
			RESISTORS		
	R800	D0GB473JA008	47K 1/10W	1	
	R1503	D0GB122JA065	1.2K 1/10W	1	
	R1504	D0GB122JA065	1.2K 1/10W	1	
	R1505	D0GB473JA065	47K 1/10W	1	
	R1507	D0GB122JA065	1.2K 1/10W	1	
	R1509	D0GB122JA065	1.2K 1/10W	1	
	R1511	D0GB332JA065	3.3K 1/10W	1	
	R1512	D0GF330JA048	33 1/4W	1	
	R1513	D0GF390JA048	39 1/4W	1	
	R1601	D0GB472JA065	4.7K 1/10W	1	
	R1602	D0GB473JA065	47K 1/10W	1	
	R1603	D0GB221JA065	220 1/10W	1	
	R1604	D0GB472JA065	4.7K 1/10W	1	
	R1605	D0GB473JA065	47K 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R1606	D0GB221JA065	220 1/10W	1	
	R1607	D0GB391JA065	390 1/10W	1	
	R1608	D0GB391JA065	390 1/10W	1	
	R1700	D0GD4R7JA017	4.7 1/8W	1	
	R1701	D0GB152JA065	1.5K 1/10W	1	
	R1702	D0GB682JA065	6.8K 1/10W	1	
	R1703	D0GB332JA065	3.3K 1/10W	1	
	R1704	ERJ1TYJ333U	33K 1W	1	
	R1705	D0GB103JA065	10K 1/10W	1	
	R1706	D0GB223JA065	22K 1/10W	1	
	R1707	D0GB103JA065	10K 1/10W	1	
	R1708	ERJ1TYJ220U	22 1W	1	
	R1710	D1BB4702A074	47K 1/10W	1	
	R1711	D0GB103JA065	10K 1/10W	1	
	R1716	D0GB394JA008	390K 1/10W	1	
	R1717	D0GB122JA065	1.2K 1/10W	1	
	R1718	ERX2SJR22P	0.22 2W	1	
⚠	R1724	ERJ12YJ105U	1M 1/2W	1	
	R1725	D0GB223JA065	22K 1/10W	1	
⚠	R1726	ERJ12YJ105U	1M 1/2W	1	
	R1727	D0GB104JA065	100K 1/10W	1	
	R1728	D0HB822ZA002	8.2K 1/16W	1	
	R1729	D0GD220JA017	22 1/8W	1	
	R1730	D1BB6801A074	6.8K 1/10W	1	
	R51001	D0GB472JA065	4.7K 1/10W	1	
	R51002	D0GB103JA065	10K 1/10W	1	
	R51003	D0GB104JA065	100K 1/10W	1	
	R51004	D0GB103JA065	10K 1/10W	1	
	R51005	D0GB103JA065	10K 1/10W	1	
	R51006	D0GB473JA065	47K 1/10W	1	
	R51008	D0GB101JA065	100 1/10W	1	
	R51009	D0GB101JA065	100 1/10W	1	
	R51010	D0GB101JA065	100 1/10W	1	
	R51011	D0GB101JA065	100 1/10W	1	
	R51012	D0GB101JA065	100 1/10W	1	
	R51013	D0GB101JA065	100 1/10W	1	
	R51014	D0GB101JA065	100 1/10W	1	
	R51016	D0GB101JA065	100 1/10W	1	
	R51017	D0GB224JA065	220K 1/10W	1	
	R51018	D0GB101JA065	100 1/10W	1	
	R51019	D0GB104JA065	100K 1/10W	1	
	R51020	D0GB103JA065	10K 1/10W	1	
	R51021	D0GB103JA065	10K 1/10W	1	
	R51022	D0GB104JA065	100K 1/10W	1	
	R51023	D0GB224JA065	220K 1/10W	1	
	R51024	D0GB683JA065	68K 1/10W	1	
	R51026	D0GB104JA065	100K 1/10W	1	
	R51027	D0GB101JA065	100 1/10W	1	
	R51028	D0GB101JA065	100 1/10W	1	
	R51030	D0GB101JA065	100 1/10W	1	
	R51032	D0GB101JA065	100 1/10W	1	
	R51033	D0GB101JA065	100 1/10W	1	
	R51034	D0GB101JA065	100 1/10W	1	
	R51035	D0GB101JA065	100 1/10W	1	
	R51036	D0GB101JA065	100 1/10W	1	
	R51038	D0GB101JA065	100 1/10W	1	
	R51041	D0GB104JA065	100K 1/10W	1	
	R51042	D0GB104JA065	100K 1/10W	1	
	R51043	D0GB472JA065	4.7K 1/10W	1	
	R51044	D0GB472JA065	4.7K 1/10W	1	
	R51045	D0GB472JA065	4.7K 1/10W	1	
	R51046	D0GB472JA065	4.7K 1/10W	1	
	R51047	D0GB102JA065	1K 1/10W	1	
	R51053	D0GB472JA065	4.7K 1/10W	1	
	R51054	D0GB101JA065	100 1/10W	1	
	R51055	D0GB101JA065	100 1/10W	1	
	R51056	D0GB101JA065	100 1/10W	1	
	R51057	D0GB101JA065	100 1/10W	1	
	R51060	D0GB472JA065	4.7K 1/10W	1	
	R51061	D0GB472JA065	4.7K 1/10W	1	
	R51063	D0GB104JA065	100K 1/10W	1	
	R51069	D0GB472JA065	4.7K 1/10W	1	
	R51070	D0GB472JA065	4.7K 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R51077	D0GB472JA065	4.7K 1/10W	1	
	R51097	D0GBR00J0004	0 1/10W	1	
	R51122	D0GB101JA065	100 1/10W	1	
	R54001	D0GB222JA065	2.2K 1/10W	1	
	R54002	D0GB222JA065	2.2K 1/10W	1	
	R54004	D0GB104JA065	100K 1/10W	1	
	R54005	D0GB104JA065	100K 1/10W	1	
	R54006	D0GB104JA065	100K 1/10W	1	
	R54007	D0GB104JA065	100K 1/10W	1	
	R54008	D0GB104JA065	100K 1/10W	1	
	R54009	D0GB104JA065	100K 1/10W	1	
	R54010	D0GB223JA065	22K 1/10W	1	
	R54011	D0GB472JA065	4.7K 1/10W	1	
	R54012	D0GB105JA065	1M 1/10W	1	
	R54013	D0GB152JA065	1.5K 1/10W	1	
	R54015	D0GB101JA065	100 1/10W	1	
	R54016	D0GB101JA065	100 1/10W	1	
	R54017	D0GB101JA065	100 1/10W	1	
	R54018	D0GB104JA065	100K 1/10W	1	
	R54019	D0GB473JA065	47K 1/10W	1	
	R54020	D0GB101JA065	100 1/10W	1	
	R54021	D0GB101JA065	100 1/10W	1	
	R54022	D0GB101JA065	100 1/10W	1	
	R54023	D0GB473JA065	47K 1/10W	1	
	R54024	D0GB221JA065	220 1/10W	1	
	R54025	D0GB221JA065	220 1/10W	1	
	R54026	D0GB221JA065	220 1/10W	1	
	R54027	D0GB221JA065	220 1/10W	1	
	R54028	D0GB221JA065	220 1/10W	1	
	R54031	D0GB221JA065	220 1/10W	1	
	R54034	D0GB274JA065	270K 1/10W	1	
	R54040	D0GBR00J0004	0 1/10W	1	
	R54041	D0GBR00J0004	0 1/10W	1	
	R54042	D0GBR00J0004	0 1/10W	1	
	R54043	D0GB101JA065	100 1/10W	1	
	R54056	D0GB102JA065	1K 1/10W	1	
	R54057	D0GB102JA065	1K 1/10W	1	
	R54058	D0GB4R7JA065	4.7 1/10W	1	
	R54059	D0GB4R7JA065	4.7 1/10W	1	
	R54060	D0GB221JA065	220 1/10W	1	
	R54062	D0GB682JA065	6.8K 1/10W	1	
	R54063	D0GB682JA065	6.8K 1/10W	1	
	R54064	D0GB123JA065	12K 1/10W	1	
	R54065	D0GB123JA065	12K 1/10W	1	
	R54066	D0GBR00J0004	0 1/10W	1	
	R54067	D0GBR00J0004	0 1/10W	1	
	R54071	D0GBR00J0004	0 1/10W	1	
	R54072	D0GBR00J0004	0 1/10W	1	
	R54073	D0GBR00J0004	0 1/10W	1	
	R54078	D0GBR00J0004	0 1/10W	1	
	R57081	D0GB472JA065	4.7K 1/10W	1	
	R57082	D0GB472JA065	4.7K 1/10W	1	
	R58000	D0GB104JA008	100K 1/10W	1	
	R58001	D0GB273JA008	27K 1/10W	1	
	R58005	D0GB474JA008	470K 1/10W	1	
	R58006	D0GB104JA008	100K 1/10W	1	
	R58007	D0GB472JA008	4.7K 1/10W	1	
	R58008	D0GB472JA008	4.7K 1/10W	1	
	R58130	ERJ3RBD103V	10K 1/16W	1	
	R58131	ERJ3RBD561V	560 1/16W	1	
	R58132	ERJ3RBD272V	2.7K 1/16W	1	
	R58230	D0GBR00JA008	0 1/10W	1	
	R58231	ERJ3RBD623V	62K 1/16W	1	
	R58232	ERJ3GEYJ623V	62K 1/10W	1	
	R58233	ERJ3RBD103V	10K 1/16W	1	
	R58234	ERJ3RBD682V	6.8K 1/16W	1	
	R58235	ERJ3RBD473V	47K 1/16W	1	
	R58236	D0HB392ZA002	3.9K 1/16W	1	
	R58240	D0GB473JA008	47K 1/10W	1	
	R58241	D0GB103JA008	10K 1/10W	1	
	R58250	D0GB103JA008	10K 1/10W	1	
	R58251	D0GB473JA008	47K 1/10W	1	
	R58330	ERJ3RED124V	120K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R58331	ERJ3RBD753V	75K 1/16W	1	
	R58332	ERJ3RED474V	470K 1/16W	1	
	R58340	D0GB103JA008	10K 1/10W	1	
	R58341	D0GB473JA008	47K 1/10W	1	
	R58350	D0GB103JA008	10K 1/10W	1	
	R58351	D0GB473JA008	47K 1/10W	1	
	R58830	ERJ3RBD103V	10K 1/16W	1	
	R58831	ERJ3RBD472V	4.7K 1/16W	1	
	R58832	ERJ3RBD333V	33K 1/16W	1	
	R58833	D0GB103JA008	10K 1/10W	1	
			RESISTOR NET-WORKS		
	RX51001	D1H81014A042	RESISTOR NETWORK	1	
	RX51002	D1H81014A042	RESISTOR NETWORK	1	
	RX51003	D1H81014A042	RESISTOR NETWORK	1	
	RX54001	D1H82214A042	RESISTOR NETWORK	1	
	RX54002	D1H82214A042	RESISTOR NETWORK	1	
	RX54003	D1H8R0040016	RESISTOR NETWORK	1	
			CAPACITORS		
	C801	F1H1A105A028	1uF 10V	1	
	C802	F1K1C106A062	10uF 16V	1	
	C803	F1K1C106A062	10uF 16V	1	
	C806	F1H1A105A028	1uF 10V	1	
	C1501	F1J1E105A171	1uF 25V	1	
	C1502	F1J1E105A171	1uF 25V	1	
	C1503	F1J1V1050001	1uF 35V	1	
	C1504	F2A1H1R0A013	1.0uF 50V	1	
	C1505	F1J1E105A171	1uF 25V	1	
	C1506	F1H1H104A013	0.1uF 50V	1	
	C1507	F1H1A105A028	1uF 10V	1	
	C1601	F1H1C104A120	0.1uF 16V	1	
	C1602	F1H1C104A120	0.1uF 16V	1	
	C1700	F1H1H391A889	390pF 50V	1	
	C1701	F2A1H100A454	10uF 50V	1	
⚠	C1702	F0CAF224A105	0.22uF	1	
	C1703	F2A1E1020114	1000uF 25V	1	
	C1704	F1H1H102B047	1000pF 50V	1	
	C1705	F1K2J4720001	4700pF 630V	1	
	C1708	F1H1H102B047	1000pF 50V	1	
	C1709	F1H1H104B047	0.1uF 50V	1	
⚠	C1710	F1BAF471A013	470pF	1	
	C1712	F1H1H104B047	0.1uF 50V	1	
	C1713	F1K2J2210005	220pF 630V	1	
	C1714	F1H1H104B047	0.1uF 50V	1	
	C1715	F1H1H104B047	0.1uF 50V	1	
	C1716	F1H1H103B047	0.01uF 50V	1	
	C1717	F2B2G4700004	47uF 400V	1	
	C1719	F1H1E4740005	0.47uF 25V	1	
	C1720	F1A3D100A009	10pF 2000V	1	
⚠	C1725	F0CAF154A105	0.15uF	1	
⚠	C1727	F1BAF1020020	1000pF	1	
⚠	C1728	F1BAF1020020	1000pF	1	
	C51002	F2A1A330A010	33uF 10V	1	
	C51003	F1H1H220A889	22pF 50V	1	
	C51004	F1H1H180A889	18pF 50V	1	
	C51005	F1H1H1010005	100pF 50V	1	
	C51006	F1H1C104A120	0.1uF 16V	1	
	C51007	F1H1C104A120	0.1uF 16V	1	
	C51008	F1H1A224A061	0.22uF 10V	1	
	C51009	F1H1H102A885	1000pF 50V	1	
	C51010	F1H1H102A885	1000pF 50V	1	
	C51011	F1H1H102A885	1000pF 50V	1	
	C51012	F1H1C104A120	0.1uF 16V	1	
	C51013	F1H1H102A885	1000pF 50V	1	
	C51014	F1H1C104A120	0.1uF 16V	1	
	C51015	F1H1A105A028	1uF 10V	1	
	C51016	F1H1H102A885	1000pF 50V	1	
	C51022	F1H1H223A219	0.022uF 50V	1	
	C51023	F1H1C104A120	0.1uF 16V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C51024	F1G1A1040006	0.1uF 10V	1	
	C51034	F1H1H103A219	0.01uF 50V	1	
	C54001	F1H0J106A009	10uF 6.3V	1	
	C54002	F1H0J106A009	10uF 6.3V	1	
	C54003	F1H0J106A009	10uF 6.3V	1	
	C54004	F1H1H103A219	0.01uF 50V	1	
	C54005	F1H1A105A028	1uF 10V	1	
	C54006	F1H0J106A009	10uF 6.3V	1	
	C54007	F1J1E105A171	1uF 25V	1	
	C54008	F1J1E105A171	1uF 25V	1	
	C54009	F1J1E105A171	1uF 25V	1	
	C54010	F1J1E105A171	1uF 25V	1	
	C54011	F1H1H104A783	0.1uF 50V	1	
	C54012	F1H1H104A783	0.1uF 50V	1	
	C54013	F1H1H104A783	0.1uF 50V	1	
	C54014	F1H1H104A783	0.1uF 50V	1	
	C54015	F1J1H104A717	0.1uF 50V	1	
	C54016	F1J1H104A717	0.1uF 50V	1	
	C54017	F1H1C104A041	0.1uF 16V	1	
	C54018	F1H1H4700006	47pF 50V	1	
	C54019	F1H1H4700006	47pF 50V	1	
	C54020	F1J1A106A043	10uF 10V	1	
	C54021	F1J1A106A043	10uF 10V	1	
	C54022	F1H1E105A116	1uF 25V	1	
	C54026	F1H1H1200004	12pF 50V	1	
	C54027	F1H1H1500009	15pF 50V	1	
	C54028	F1H1H104A013	0.1uF 50V	1	
	C54029	F2A1E1010099	100uF 25V	1	
	C54030	F1H1H102A831	1000pF 50V	1	
	C54031	F1H1H102A831	1000pF 50V	1	
	C54032	F1H1H102A831	1000pF 50V	1	
	C54033	F1H1H102A831	1000pF 50V	1	
	C54034	F1H1H102A831	1000pF 50V	1	
	C54035	F1H1H102A831	1000pF 50V	1	
	C54036	F1H1H102A831	1000pF 50V	1	
	C54037	F1H1H102A831	1000pF 50V	1	
	C54040	F1H1H1010005	100pF 50V	1	
	C54041	F1H1H1010005	100pF 50V	1	
	C54042	F1J1A106A043	10uF 10V	1	
	C54043	F1J1A106A043	10uF 10V	1	
	C54044	F1J1A106A043	10uF 10V	1	
	C54045	F1H1C104A041	0.1uF 16V	1	
	C54046	F1J1A106A043	10uF 10V	1	
	C54047	F1H1C104A041	0.1uF 16V	1	
	C54048	F1J1A106A043	10uF 10V	1	
	C54049	F1H1C104A041	0.1uF 16V	1	
	C54051	F1H1C104A041	0.1uF 16V	1	
	C54052	F1H1H472A219	4700pF 50V	1	
	C54053	F1H1H472A219	4700pF 50V	1	
	C54054	F1H1H102A831	1000pF 50V	1	
	C54055	F1H1H103A219	0.01uF 50V	1	
	C54056	F1H1H103A219	0.01uF 50V	1	
	C54057	F1H1H102A831	1000pF 50V	1	
	C54059	F1H1C104A041	0.1uF 16V	1	
	C58000	F1H1H102A219	1000pF 50V	1	
	C58001	F1H1C104A041	0.1uF 16V	1	
	C58002	F1H1H103A219	0.01uF 50V	1	
	C58003	F1H1A105A036	1uF 10V	1	
	C58110	F1K1E1060001	10uF 25V	1	
	C58120	F1J0J106A014	10uF 6.3V	1	
	C58210	F1K1E1060008	10uF 25V	1	
	C58211	F1H1E104A002	0.1uF 25V	1	
	C58220	F1H1C104A071	0.1uF 16V	1	
	C58221	F1J0J106A014	10uF 6.3V	1	
	C58222	F1J0J106A014	10uF 6.3V	1	
	C58223	F1J0J106A014	10uF 6.3V	1	
	C58224	F1J0J106A014	10uF 6.3V	1	
	C58230	F1H1E104A002	0.1uF 25V	1	
	C58231	F1H1H332A219	3300pF 50V	1	
	C58232	F1H1H6810005	680pF 50V	1	
	C58233	F1H1H1500009	15pF 50V	1	
	C58240	F1H1C104A041	0.1uF 16V	1	
	C58250	F1H1C104A041	0.1uF 16V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C58311	F1J0J106A014	10uF 6.3V	1	
	C58312	F1J0J106A014	10uF 6.3V	1	
	C58320	F1J0J106A014	10uF 6.3V	1	
	C58321	F1H1E104A002	0.1uF 25V	1	
	C58330	F1H1H100A831	10pF 50V	1	
	C58340	F1H1C104A041	0.1uF 16V	1	
	C58350	F1H1C104A041	0.1uF 16V	1	
	C58360	F1H1A105A028	1uF 10V	1	
	C58361	F1H1A105A028	1uF 10V	1	
	C58810	F1K1E1060001	10uF 25V	1	
	C58820	F1J1C1060001	10uF 16V	1	
			SERVICE FIXTURE AND TOOLS		
	SFT1	REX1538	7P WIRE (MAIN - SMPS)	1	

MMH1303