

Service Manual

Compact Stereo System

Model No. **SC-HC49EG**



Made for



iPod



iPhone

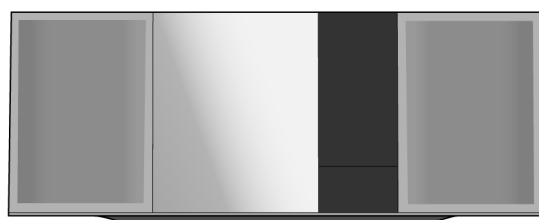


iPad

Product Color: (K)...Black Type

(S)...Silver Type

(W)...White Type



SC-HC49



Remote Control

WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

IMPORTANT SAFETY NOTICE

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

TABLE OF CONTENTS

	PAGE		PAGE
1 Safety Precautions -----	3	5.1. Main Unit & Remote Control Key Button Operations-----	11
1.1. General Guidelines-----	3	6 Service Mode -----	12
1.2. Before Repair and Adjustment-----	4	6.1. Self Diagnostic Table-----	12
1.3. Protection Circuitry-----	4	6.2. Self Diagnostic Function Error Code-----	13
1.4. Caution For Fuse Replacement-----	4	6.3. Doctor Mode Table-----	14
1.5. Safety Part Information-----	4	7 Troubleshooting Guide -----	16
2 Warning -----	5	8 Disassembly and Assembly Instructions -----	17
2.1. Prevention of Electrostatic Discharge (ESD) to Electrostatically Sensitive (ES) Devices-----	5	8.1. Service Fixture & Tools-----	17
2.2. Precaution of Laser Diode-----	6	8.2. Disassembly flow chart-----	18
2.3. Service caution based on Legal restrictions-----	7	8.3. Types of Screws-----	19
2.4. Handling Precaution for Traverse Unit-----	8	8.4. Main Parts Location Diagram-----	19
3 Service Navigation -----	9	8.5. Disassembly of Base Stand Assembly-----	20
3.1. Service Information-----	9	8.6. Disassembly of Front Ornament Unit (L) & (R)---	20
4 Specifications -----	10	8.7. Disassembly of Door Unit-----	21
5 Location of Controls and Components -----	11	8.8. Disassembly of Door Base-----	21

Panasonic®

© Panasonic Corporation 2014. All rights reserved. Unauthorized copying and distribution is a violation of law.

8.9. Disassembly of Front Panel Block-----	22	14 Appendix Information of Schematic Diagram -----	85
8.10. Replacement of iPod Block-----	23	14.1. Voltage Measurement & Waveform Chart-----	85
8.11. Disassembly of Bridge P.C.B.-----	30	15 Exploded View and Replacement Parts List-----	89
8.12. Disassembly of Motor P.C.B.-----	30	15.1. Exploded View and Mechanical replacement	
8.13. Disassembly of Gear Block & Arm Spring (Top) -----	31	Parts List-----	89
8.14. Disassembly of Arm Spring, Gear Assembly & Arm Assembly -----	32	15.2. Electrical Replacement Parts List -----	95
8.15. Replacement of Gear Assembly -----	33		
8.16. Replacement of Arm Assembly-----	35		
8.17. Disassembly of Cam Rail Top & Door Slider Top -----	36		
8.18. Disassembly of Cam Rail Bottom & Door Slider Bottom-----	37		
8.19. Disassembly of NFC P.C.B. -----	38		
8.20. Disassembly of SMPS Unit-----	39		
8.21. Disassembly of SMPS P.C.B. -----	40		
8.22. Disassembly of FL P.C.B. & Button Ornament Unit-----	41		
8.23. Disassembly of Button P.C.B. -----	42		
8.24. Disassembly of CD Mechanism -----	42		
8.25. Disassembly of CD Interface P.C.B.-----	43		
8.26. Disassembly of Main P.C.B. -----	45		
8.27. Disassembly of Front Speaker (SP1) -----	46		
8.28. Disassembly of Front Speaker (SP2) -----	47		
8.29. Disassembly of Passive Radiator Unit (SP3) ----	48		
8.30. Disassembly of Passive Radiator Unit (SP4) ----	49		
8.31. Disassembly of Jack Lid-----	49		
9 Service Position -----	51		
9.1. Checking of SMPS P.C.B.-----	51		
9.2. Checking of FL P.C.B.-----	52		
9.3. Checking of CD Interface P.C.B. -----	54		
9.4. Checking of Main P.C.B.-----	55		
10 Block Diagram -----	59		
10.1. SYSTEM CONTROL (1/2) BLOCK DIAGRAM ---	59		
10.2. SYSTEM CONTROL (2/2) BLOCK DIAGRAM ---	60		
10.3. AUDIO BLOCK DIAGRAM -----	61		
10.4. POWER SUPPLY (1/2) BLOCK DIAGRAM -----	62		
10.5. POWER SUPPLY (2/2) BLOCK DIAGRAM -----	63		
11 Wiring Connection Diagram -----	64		
12 Schematic Diagram-----	65		
12.1. Schematic Diagram Notes -----	65		
12.2. CD INTERFACE CIRCUIT -----	67		
12.3. MAIN (MICON) CIRCUIT (1/2)-----	68		
12.4. MAIN (MICON) CIRCUIT (2/2)-----	69		
12.5. MAIN (SUPPLY) CIRCUIT -----	70		
12.6. MAIN (CD) CIRCUIT -----	71		
12.7. MAIN (DAMP) CIRCUIT -----	72		
12.8. MAIN (TUNER) CIRCUIT -----	73		
12.9. MAIN (iPod_USB) CIRCUIT-----	74		
12.10. BRIDGE, MOTOR & BUTTON CIRCUIT-----	75		
12.11. FL CIRCUIT -----	76		
12.12. SMPS CIRCUIT -----	77		
12.13. iPod DOCK CIRCUIT -----	78		
13 Printed Circuit Board -----	79		
13.1. CD INTERFACE, BRIDGE & iPod DOCK P.C.B.-----	79		
13.2. MAIN P.C.B. (Side A)-----	80		
13.3. MAIN P.C.B. (Side B)-----	81		
13.4. MOTOR, FL & BUTTON P.C.B. -----	82		
13.5. SMPS P.C.B. -----	83		

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 Δ 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 $1M\Omega$ and $5.2M\Omega$. 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 $1.5k\Omega$, 10 watts resistor, in parallel with a $0.15\mu F$ 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.

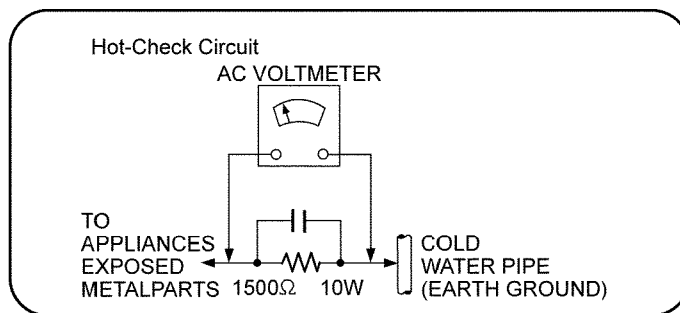


Figure. 1-1

1.2. Before Repair and Adjustment

Disconnect AC power, 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 minimum in FM Tuner 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 Fuse Replacement

CAUTION:

Replace with the same type fuse:

(Manufacturer: Skygate, Type: SCT, F1, T2A, 250V)

1.5. 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
⚠	17	RGP1681A-K1	REAR CABINET	K/S
⚠	17	RGP1681A-W1	REAR CABINET	W
⚠	49	RMV0429	SMPS BRACKET INSULATOR A	
⚠	51	RMV0432	SMPS COVER INSULATION	
⚠	301	RAE5306Z-V	TRAVERSE UNIT	
⚠	A2	K2CQ2YY00119	AC CORD	
⚠	A3	RQT9884-1D	O/I BOOK (Ge/Fr/It/Du)	
⚠	A3	RQT9885-1E	O/I BOOK (Sw/Da/Fi)	
⚠	A3	RQT9886-1R	O/I BOOK (En/Po/Cz/Sp)	
⚠	C1702	F0CAF224A105	0.22uF	
⚠	C1710	F1BAF471A013	470pF	
⚠	C1725	F0CAF104A105	0.1uF	
⚠	C1727	F1BAF1020020	1000pF	
⚠	C1728	F1BAF1020020	1000pF	
⚠	F1	K5G202Y00006	FUSE	
⚠	L1702	G0B922G00002	LINE FILTER	
⚠	P1751	K2AA2B000011	AC INLET	
⚠	PC1702	B3PBA0000579	PHOTO COUPLER	
⚠	PCB7	REP5054CA	SMPS P.C.B.	(RTL)
⚠	R1724	ERJ12YJ105U	1M 1/2W	
⚠	R1726	ERJ12YJ105U	1M 1/2W	
⚠	T1700	G4DY20000077	TRANSFORMER	
⚠	Z1752	ERZV10V511CS	VARISTOR	

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).

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.

2.2. Precaution of Laser Diode

CAUTION!

THIS PRODUCT UTILIZES A LASER.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

Caution:

This product utilizes a laser diode with the unit turned "on", invisible laser radiation is emitted from the pickup lens.

Wavelength: 790 nm (CD)

Maximum output radiation power from pickup: 100 μ W/VDE

Laser radiation from the pickup unit is safety level, but be sure the followings:

1. Do not disassemble the pickup unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pickup lens for a long time.

ACHTUNG :

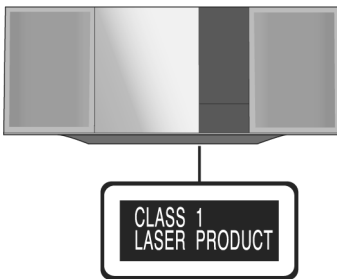
Dieses Produkt enthält eine Laserdiode. Im eingeschalteten Zustand wird unsichtbare Laserstrahlung von der Lasereinheit abgestrahlt.

Wellenlänge : 790nm (CD)

Maximale Strahlungsleistung der Lasereinheit :100 μ W/VDE

Die Strahlung an der Lasereinheit ist ungefährlich, wenn folgende Punkte beachtet werden:

1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinheit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlinse blicken.
4. Nicht über längere Zeit in die Fokussierlinse blicken.



2.3. Service caution based on Legal restrictions

2.3.1. 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%

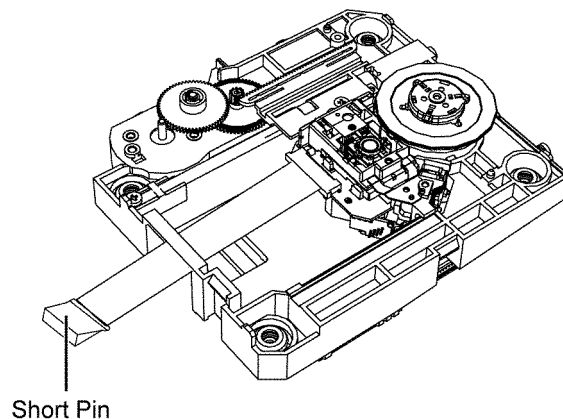
2.4. Handling Precaution for Traverse Unit

The laser diode in the optical pickup unit may break down due to static electricity of clothes or human body. Special care must be taken avoid caution to electrostatic breakdown when servicing and handling the laser diode in the Traverse Unit.

2.4.1. Cautions to Be Taken in Handling the Optical Pickup Unit

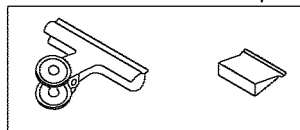
The laser diode in the optical pickup unit may be damaged due to electrostatic discharge generating from clothes or human body. Special care must be taken avoid caution to electrostatic discharge damage when servicing the laser diode.

1. Do not give a considerable shock to the optical pickup unit as it has an extremely high-precise structure.
2. To prevent the laser diode from the electrostatic discharge damage, the flexible cable of the optical pickup unit removed should be short-circuited with a short pin or a clip.
3. The flexible cable may be cut off if an excessive force is applied to it. Use caution when handling the flexible cable.
4. The antistatic FPC is connected to the new optical pickup unit. After replacing the optical pickup unit and connecting the flexible cable, cut off the antistatic FPC.



[Caution]

Ground the cable with a clip or a short pin.



Clip or Short Pin

2.4.2. Grounding for electrostatic breakdown prevention

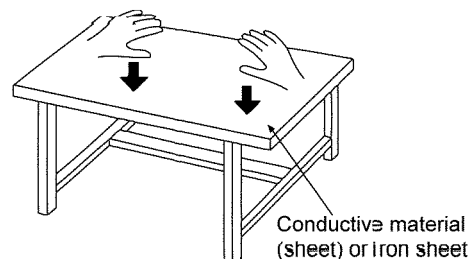
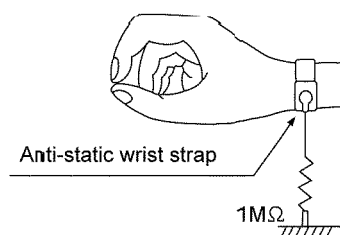
Some devices such as the CD player use the optical pickup (laser diode) and the optical pickup will be damaged by static electricity in the working environment. Proceed servicing works under the working environment where grounding works is completed.

2.4.2.1. Worktable grounding

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

2.4.2.2. Human body grounding

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



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.

Note : In case either NFC P.C.B. or EEPCOM IC (IC8004) on Main P.C.B. should break down, they need to be replaced at the same time as a pair.

The following optional replacement methods are prepared and provided depending on circumstances.

1. NFC P.C.B. / EEPCOM IC (IC8004) kit supply.
Part No. RFKV5053DB
Replace the EEPCOM IC (IC8004) and NFC P.C.B. at the same time.
2. NFC P.C.B. / MAIN P.C.B. kit supply.
Part No. RFKV5053DA
Replace the Main P.C.B. and NFC P.C.B. at the same time.

4 Specifications

■ General

Power consumption	37 W
Power consumption in standby mode*1, 2	Approx. 0.2 W

(when "BLUETOOTH STANDBY" is "ON")*2

	Approx. 0.3 W
Power supply	AC 220 V to 240 V, 50 Hz
Dimensions (W x H x D)	500 mm x 205 mm x 92 mm
Mass (weight)	Approx. 2.5 kg
Operating temperature range	0 °C to +40 °C
Operating humidity range	35% to 80 % RH (no condensation)

■ Amplifier Section

Output power:

RMS Output Power Stereo Mode

Front Ch (both ch driven)	20 W per channel (8 Ω), 1 kHz, 10% THD
---------------------------	---

Total RMS Stereo mode power	40 W
-----------------------------	------

■ Tuner section

Preset Memory	FM 30 stations
Frequency modulation (FM)	
Frequency range	87.50 MHz to 108.00 MHz (50 kHz step)
Antenna terminals	75 Ω (unbalanced)

■ Disc Section

Disc played [8 cm or 12 cm]

CD, CD-R/RW (CD-DA, MP3*3)

Pick up

Wavelength	790 nm (CD)
------------	-------------

■ Speaker System Section

Speaker unit(s)

Full range	6.5 cm Cone type x 1 per channel
------------	-------------------------------------

Passive Radiator	8 cm x 2 per channel
Impedance	8 Ω

■ Terminal Section

Dock connection	DC OUT 5 V 1.0 A
Port connection	DC OUT 5 V 2.1 A
USB Standard	USB 2.0 full speed
Media file format support	MP3 (*.mp3)
USB device file system	FAT12, FAT16, FAT32

■ Bluetooth Section

Version	Ver2.1+EDR
Class	Class 2
Supported profiles	A2DP, AVRCP
Operating Frequency	2402 MHz to 2480 MHz
Operation distance	10 m Line of sight

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

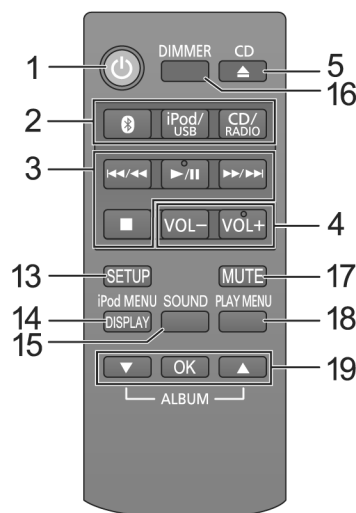
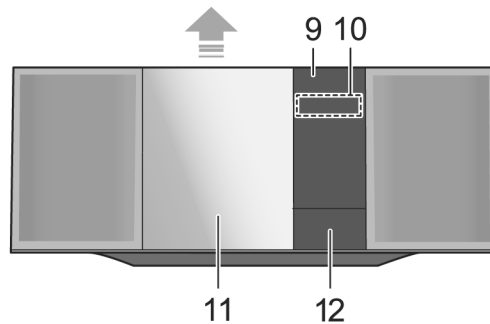
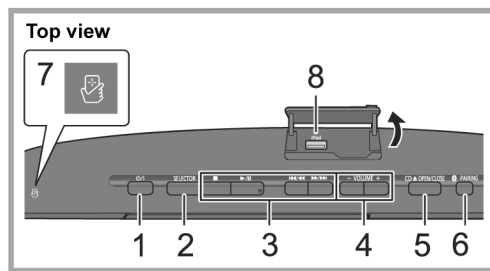
*1: "BLUETOOTH STANDBY" is "OFF".

*2: No device is connected to the DC OUT terminal before turning to standby mode.

*3: MPEG-1 Layer 3, MPEG-2 Layer 3.

5 Location of Controls and Components

5.1. Main Unit & Remote Control Key Button Operations



- 1 **Standby/on switch (⏻/⏻) (⏻)**
Press to switch the unit from on to standby mode or vice versa.
In standby mode, the unit is still consuming a small amount of power.
- 2 **Select the audio source**
On this unit:
"CD" → "BLUETOOTH" → "IPOD_DOCK"
 ↑ ↑
 "FM" "USB"*
On the remote control:
[⏻]: "BLUETOOTH"
[iPod/USB]: "IPOD_DOCK" ↔ "USB"*
[CD/RADIO]: "CD" ↔ "FM"
- 3 **Basic playback control buttons**
- 4 **Adjust the volume (0 (min) to 50 (max))**
- 5 **Open or close the sliding door**
- 6 **Bluetooth®-pairing button**
 - Press to select "BLUETOOTH" as the audio source.
 - Press and hold to enter pairing mode or disconnect a Bluetooth® device.
- 7 **NFC touch area**
- 8 **Port for iPhone/iPad/iPod and USB devices**
Select "USB"* as the audio source.
- 9 **Remote control signal sensor**
Distance: Within approx. 7 m directly in front
Angle: Approx. 30° left and right
- 10 **Display**
- 11 **Sliding door**
- 12 **Dock for iPhone/iPod**
Select "IPOD_DOCK" as the audio source.
- 13 **Enter setup menu**
- 14 **Enter the iPhone/iPod menu /**
Change the displayed information
- 15 **Enter sound menu**
- 16 **Dim the display panel**
Press again to cancel.
- 17 **Mute the sound**
Press again to cancel. "MUTE" is also cancelled when the volume is adjusted or the unit is turned off.
- 18 **Enter playback menu**
- 19 **Selection/OK**

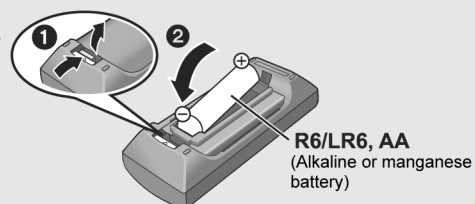
* The display will automatically change to "IPOD_PORT" when a compatible iPhone/iPad/iPod is connected to the port for iPhone/iPad/iPod.

■ Using the remote control

Insert the battery so the terminals (+ and -) match those in the remote control.

Point it at the remote control signal sensor on this unit.

- To avoid interference, please do not put any objects in front of signal sensor.



6 Service Mode

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

6.1. Self Diagnostic Table

Item		FL display	Key operation																
Mode name	Description																		
Self Diagnostic Mode	To enter into self diagnostic checking		Step 1 : Select CD mode (Ensure no disc is inserted). Step 2 : Press and hold [■] follow by [▶▶/▶▶] on main unit for 2 second . • To exit, press the [⏻/⏻] on the main unit or using the remote control. • Unplug the AC cord.																
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 the [⏻/⏻] on the main unit or using the remote control. • Unplug the AC cord.																
Delete Error code	To clear the stored in memory (EEPROM IC)		Step 1 : In self diagnosis mode, press and hold [OK] on remote control for more than 5 second. • To exit, press the [⏻/⏻] on the main unit or using the remote control. • Unplug the AC cord.																
Opecon version	To display model name & version <table border="1"><thead><tr><th>Model Name</th><th>Version display</th></tr></thead><tbody><tr><td>HC49</td><td>_4AA</td></tr><tr><td>HC39</td><td>_4AB</td></tr><tr><td>HC29</td><td>_4AC</td></tr><tr><td>HC19</td><td>_4AD</td></tr><tr><td>HC49DB</td><td>_4AE</td></tr><tr><td>HC39DB</td><td>_4AF</td></tr><tr><td>HC29DB</td><td>_4AG</td></tr></tbody></table>	Model Name	Version display	HC49	_4AA	HC39	_4AB	HC29	_4AC	HC19	_4AD	HC49DB	_4AE	HC39DB	_4AF	HC29DB	_4AG	(Display 1) Version display (Display 2) No Rom correction	Press [DISPLAY] button on the remote control. • To exit, press the [⏻/⏻] on the main unit or using the remote control. • Unplug the AC cord.
Model Name	Version display																		
HC49	_4AA																		
HC39	_4AB																		
HC29	_4AC																		
HC19	_4AD																		
HC49DB	_4AE																		
HC39DB	_4AF																		
HC29DB	_4AG																		
Cold Start	To activate cold start upon next power up. (Backup data are initialized)		Press [SETUP] button on the remote control. • To exit, press the [⏻/⏻] on the main unit or using the remote control. • Unplug the AC cord.																

6.2. Self Diagnostic Function Error Code

6.2.1. CD Mechanism Error Code Table

Error Code	Diagnostic Contents	Description of error	Automatic FL Display	Remarks
CD H15	CD Open Abnormal	During normal operation, if "POS_SW_R (OPEN_SW)" is not detected within 4~5 sec, "CD H15" shall be memorized.		Press [■] on main unit for next error.
CD H16	CD Closing Abnormal	During closing operation, if "POS_SW_CEN (CLOSE_SW)" is not detected within 4~5 sec, "CD H16" shall be memorized.		Press [■] on main unit for next error.

6.2.2. Power Amp Error Code Table

Error Code	Diagnostic Contents	Description of error	Automatic FL Display	Remarks
F61	DAMP output abnormal	PDET2 (DC_DET_AMP)= L (NG). PDET2 (DC_DET_AMP) is checked by reading the input 2x20ms, F61 error code shall be memorized		Press [■] on main unit for next error.
F76	Power supply abnormal	PDET1 (DC_DET_PWR) = L (NG). PDET1 (DC_DET_PWR) is checked by reading the input 2x1ms, F76 error code shall be memorized.		Press [■] on main unit for next error.

6.2.3. Bluetooth Error Code Table

Error Code	Diagnostic Contents	Description of error	Automatic FL Display	Remarks
F70	Bluetooth Communication	Communication between Bluetooth module and micro-p abnormal		Press [■] on main unit for next error.
F77	Bluetooth Address Error	If there is no valid Bluetooth address stored in the EEPROM IC		Press [■] on main unit for next error.

6.3. Doctor Mode Table

Note : To enter the Doctor Mode, please use HC35 remote control. (Part No : N2QAYB000641)

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 check sum and Opecon firmware version	(Display 1) 	In any mode: Press [■] button on main unit follow by [4] & then [7] on the remote control of HC35. • To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC35. • Unplug the AC cord.
	Note: The Opecon firmware version as shown is an example. It will be revised when there is updates.	Opecon firmware version display	
	FL Display sequence Display 1→2	(Display 2) 	
	The Checksum of EEPROM and firmware version will be display for 2 sec.		
	Model Name	Version display	
	HC49	_4AA	
	HC39	_4AB	
	HC29	_4AC	
HC19	_4AD		
HC49DB	_4AE		
HC39DB	_4AF		
HC29DB	_4AG		
FL Display Test	To check the FL segments display (All segments will light up)		In Doctor mode: Press [1] button on the remote control of HC35. To cancel, press [0] button on remote control of HC35. [CANCEL] will be display and returns to Doctor Mode. • To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC35. • Unplug the AC cord.
Mecha Sliding Panel Reliability	To check the operation of sliding Panel. Sequence as follow : 1. CD Door set to CLOSE position. 2. CD Door move to the left (CD Open direction) and stop at LEFT position for 1 sec. 3. CD Door move to the right (CD Close direction) and stop at CLOSE position for 1 sec. 4. All the process above is considered as 1 cycle. Step (2) ~ (3) will repeat; Cycle Counter display increase every 1 cycle completed.	 ↓ 	In Doctor Mode: Press [≥10] follow by [2] & then [1] button on the remote control of HC35. To cancel, press [0] button on remote control of HC35. [CANCEL] will be display and returns to Doctor Mode. • To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC35. • Unplug the AC cord.

Item		FL Display	Key Operation
Mode Name	Description		Front Key
CD Traverse Test Mode	To check for the traverse unit operation. In this mode, the first & last track is access & read. (TOC). It fails when TOC is not completed by 10s or the traverse is out of focus. for more than 2s	 The counter will increment by 1 until reach 99999999 	In Doctor Mode: Press [≥ 10] follow by [1] & then [2] button on the remote control of HC35. To cancel, press [0] button on remote control of HC35. [CANCEL] will be display and returns to Doctor Mode. • To exit Doctor Mode, press [ϕ/I] button on main unit or on the remote control of HC35. • Unplug the AC cord.
Cold Start	To activate cold start upon next power up. (Backup data are initialized)	 The [NO DISC] display will appear after 2s, 	In Doctor Mode: Press [4] button on remote control. To cancel, press [0] button on remote control of HC35. [CANCEL] will be display and returns to Doctor Mode. • To exit Doctor Mode, press [ϕ/I] button on main unit or on the remote control of HC35. • Unplug the AC cord.

7 Troubleshooting Guide

This section is not available at the time of issue

8 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 this service manual)
 - Before carrying out the disassembly process, please ensure all the safety precautions & procedures are followed.
 - During the disassembly and/or assembly process, please handle with care as there may be chassis components with sharp edges.
 - Avoid touching heatsinks due to its high temperature after prolong use.
 - Be sure to use proper service tools , equipments or jigs during repair.
 - Select items from the following indexes when disassembly or replacement are required.
-
- Disassembly of Base Stand Assembly
 - Disassembly of Front Ornament Unit (L) & (R)
 - Disassembly of Door Unit
 - Disassembly of Door Base
 - Disassembly of Front Panel Block
 - Replacement of iPod Block
 - Disassembly of Bridge P.C.B.
 - Disassembly of Motor P.C.B.
 - Disassembly of Gear Block & Arm Spring (Top)
 - Disassembly of Arm Spring, Gear Assembly & Arm Assembly
 - Replacement of Gear Assembly
 - Replacement of Arm Assembly
 - Disassembly of Cam Rail Top & Door Slider Top
 - Disassembly of Cam Rail Bottom & Door Slider Bottom
 - Disassembly of NFC P.C.B.
 - Disassembly of SMPS Unit
 - Disassembly of SMPS P.C.B.
 - Disassembly of FL P.C.B. & Button Ornament Unit
 - Disassembly of Button P.C.B.
 - Disassembly of CD Mechanism
 - Disassembly of CD Interface P.C.B.
 - Disassembly of Main P.C.B.
 - Disassembly of Front Speaker (SP1)
 - Disassembly of Front Speaker (SP2)
 - Disassembly of Passive Radiator Unit (SP3)
 - Disassembly of Passive Radiator Unit (SP4)
 - Disassembly of Jack Lid

8.1. Service Fixture & Tools

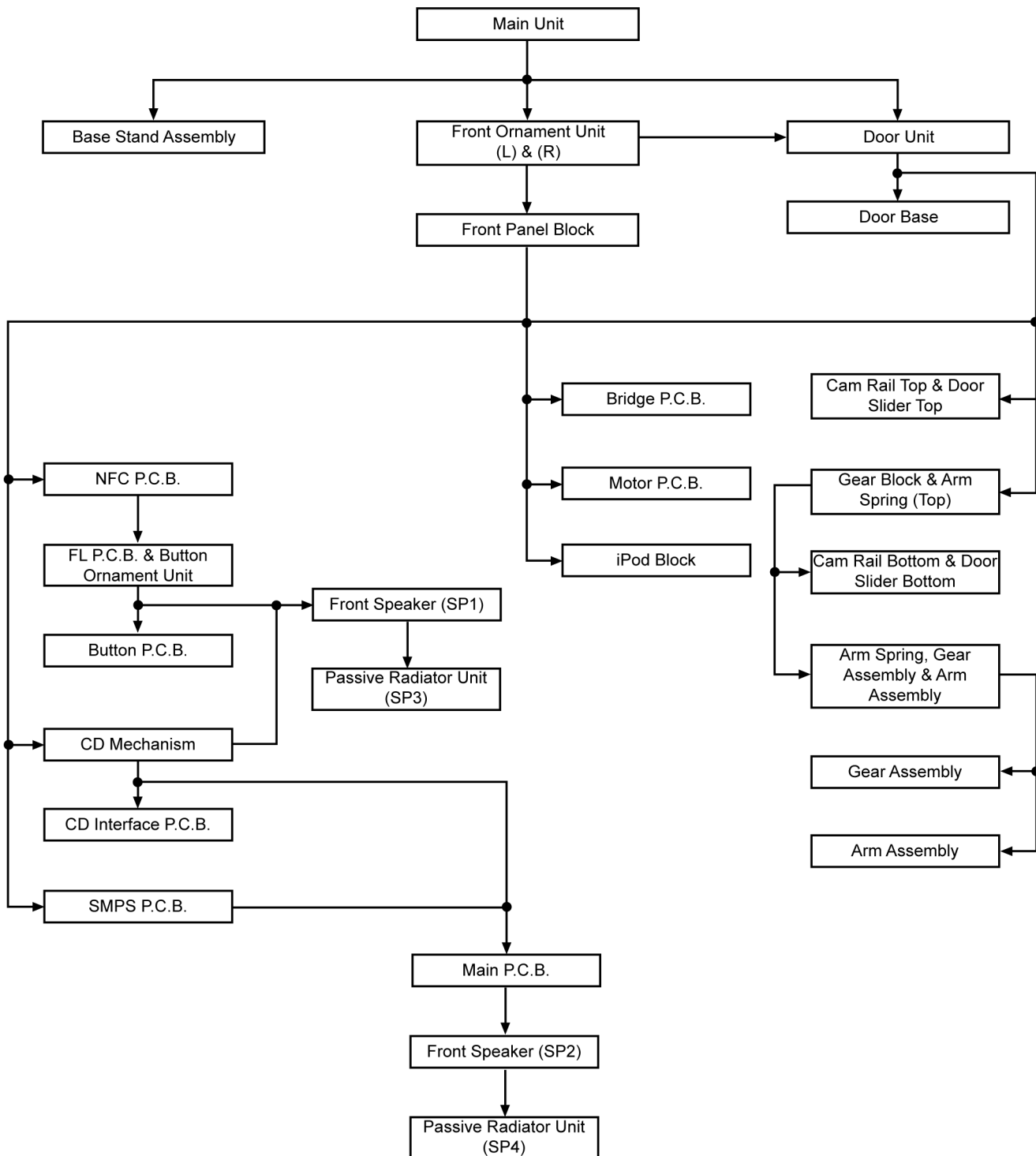
Prepare service tools before process service position.

Ref. No.	Service Tools		Remarks
SFT1	Main P.C.B. (P5003) - CD Interface P.C.B. (CN7002)	REE1978 (24P FFC)	
SFT2	Main P.C.B. (CN1100) - SMPS P.C.B. (P1700)	REX1538 (7P Wire)	

8.2. 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.



8.3. Types of Screws

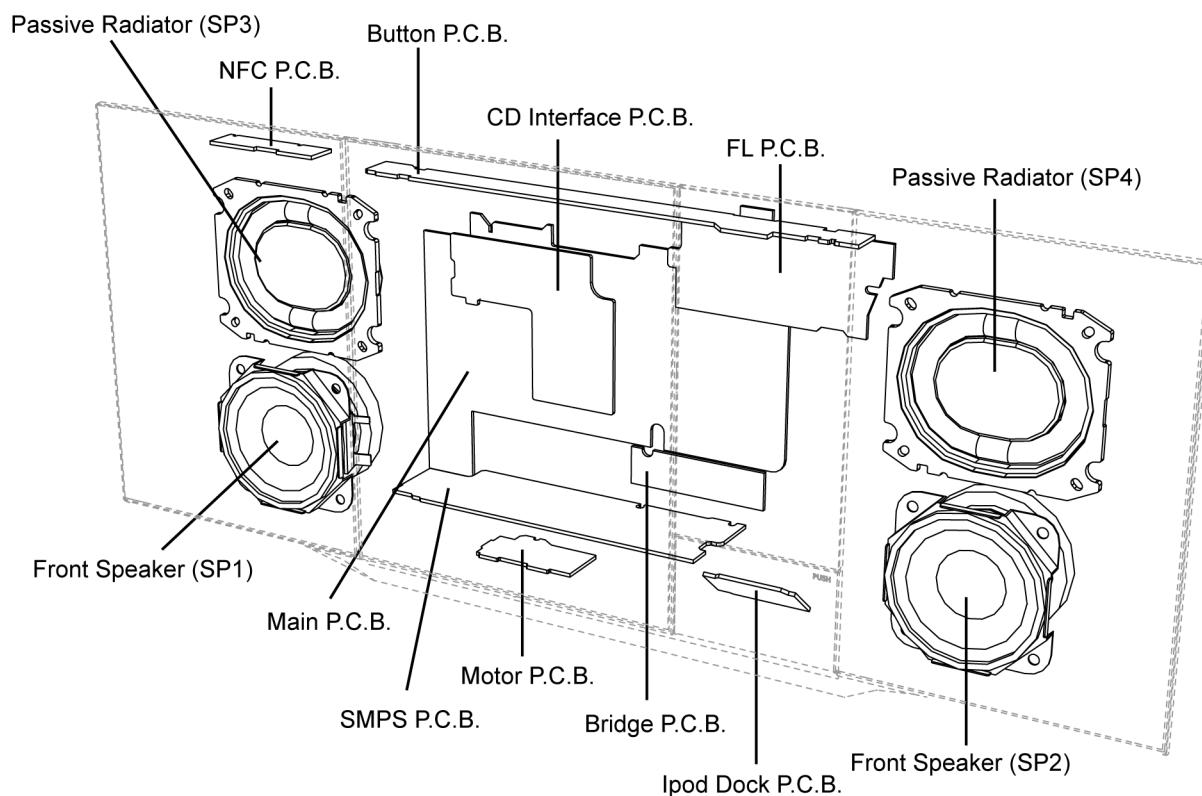
CAUTION NOTE:

Please use original screw and at correct locations.

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

- | | |
|-----------------------|------------------------|
| a : RHD26046 | e : XTB3+10JFJK |
| b : VHD1224-1A | f : RHD30092-1 |
| c : RHD14136 | g : XTN2+6GFJ |
| d : RHD26043-1 | |

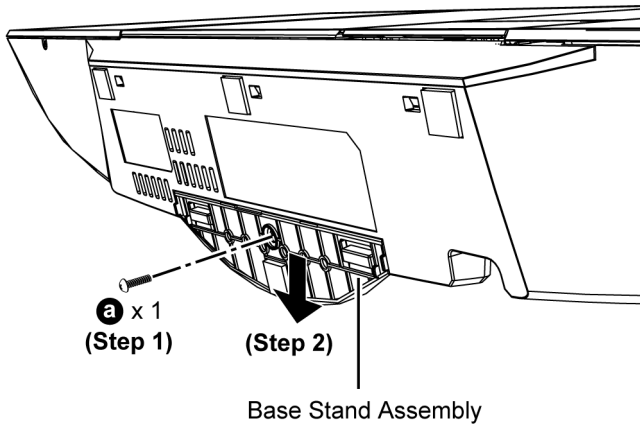
8.4. Main Parts Location Diagram



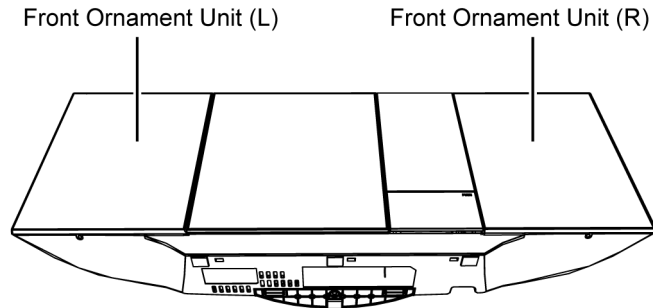
8.5. Disassembly of Base Stand Assembly

Step 1 : Remove 1 screw.

Step 2 : Remove Base Stand Assembly.



8.6. Disassembly of Front Ornament Unit (L) & (R)

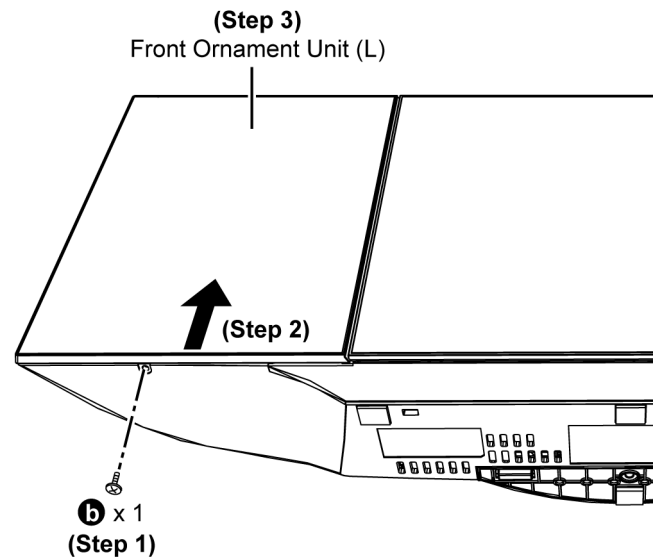


Note : The disassembling procedure for Front Ornament Unit (L) will be described here only.
For Front Ornament Unit (R) please refer to the same procedure described here.

Step 1 : Remove 1 screw.

Step 2 : Push Front Ornament Unit (L) upwards.

Step 3 : Remove Front Ornament Unit (L).

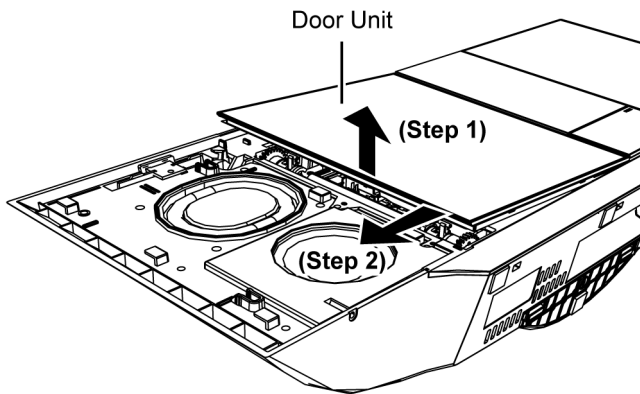


8.7. Disassembly of Door Unit

- Refer to "Disassembly of Front Ornament Unit (L)"

Step 1 : Lift up the Door Unit.

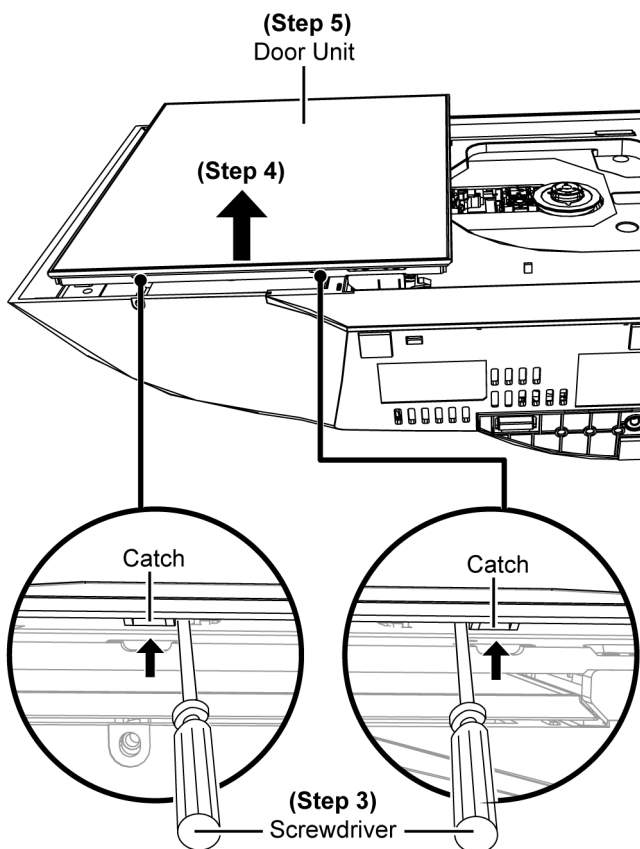
Step 2 : Slide the Door Unit to open it.



Step 3 : Slightly lift up the Door Unit as arrow shown to release catches.

Step 4 : Push Door Unit upwards.

Step 5 : Remove Door Unit.



8.8. Disassembly of Door Base

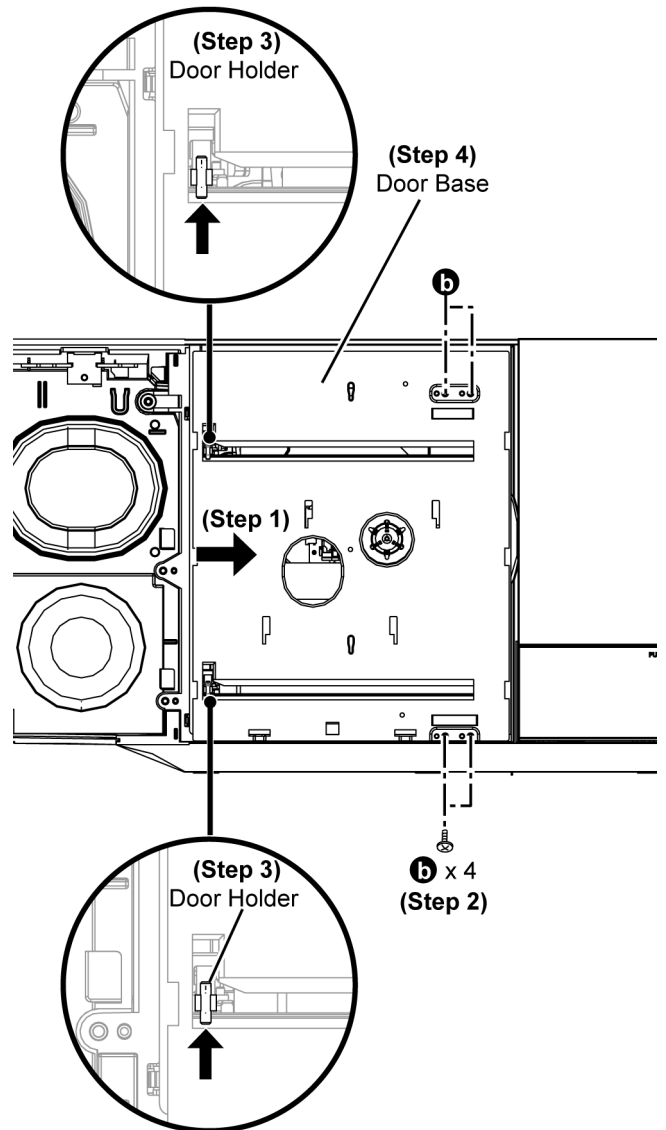
- Refer to "Disassembly of Front Ornament Unit (L)"
- Refer to "Disassembly of Door Unit"

Step 1 : Slide the Door Base to close it.

Step 2 : Remove 4 screws.

Step 3 : Push up to release the Door Holder as arrow shown.
Caution : During assembly, ensure the Door Holder is lock as shown.

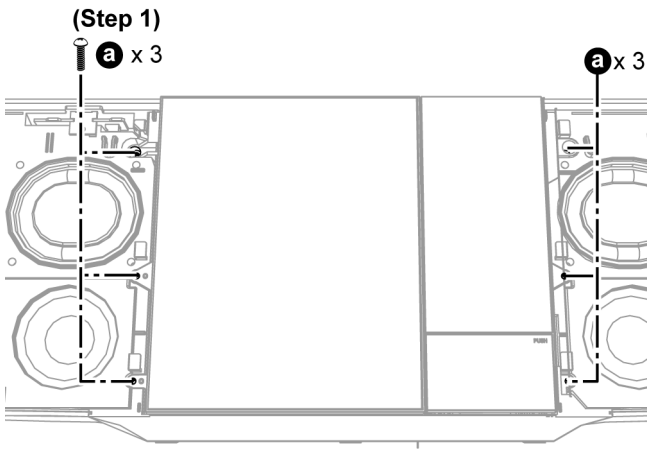
Step 4 : Remove Door Base.



8.9. Disassembly of Front Panel Block

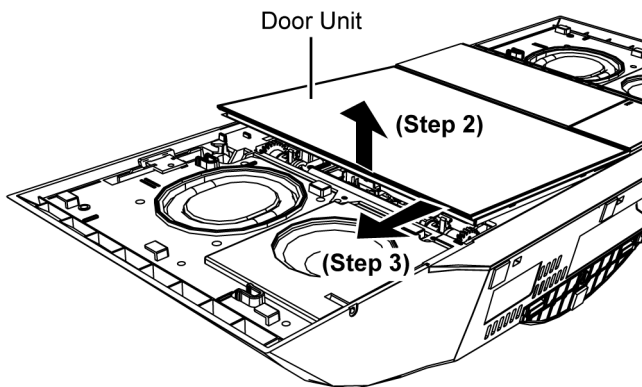
- Refer to "Disassembly of Front Ornament Unit (L) & (R)"

Step 1 : Remove 6 screws.



Step 2 : Lift up the Door Unit.

Step 3 : Slide the Door Unit to open it.

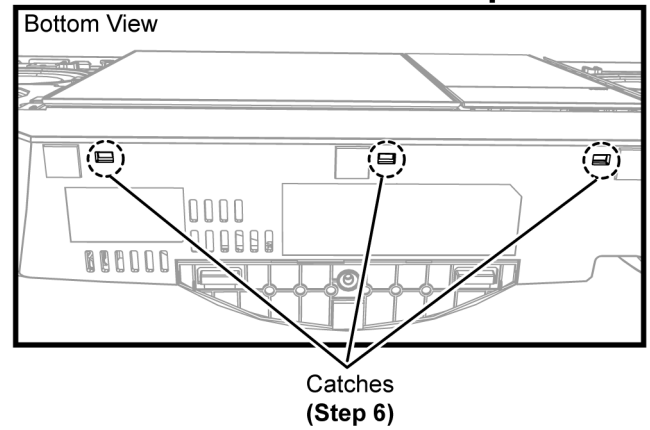
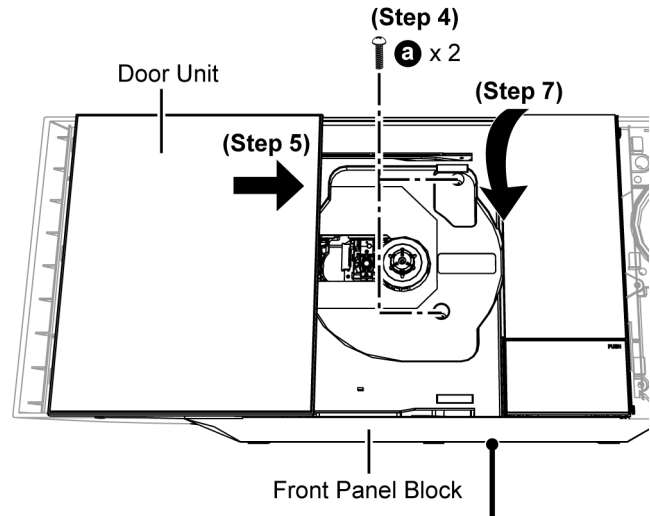


Step 4 : Remove 2 screws.

Step 5 : Slide the Door Unit to close it.

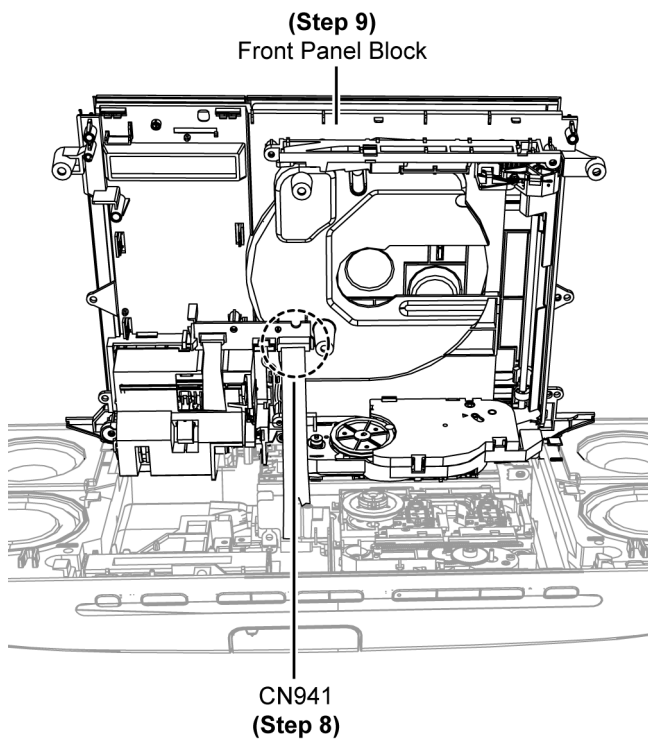
Step 6 : Release catches on the Front Panel Block.

Step 7 : Slightly lift up the Front Panel Block.



Step 8 : Detach 14P FFC at connector (CN941) on the Bridge P.C.B..

Step 9 : Remove Front Panel Block.



8.10. Replacement of iPod Block

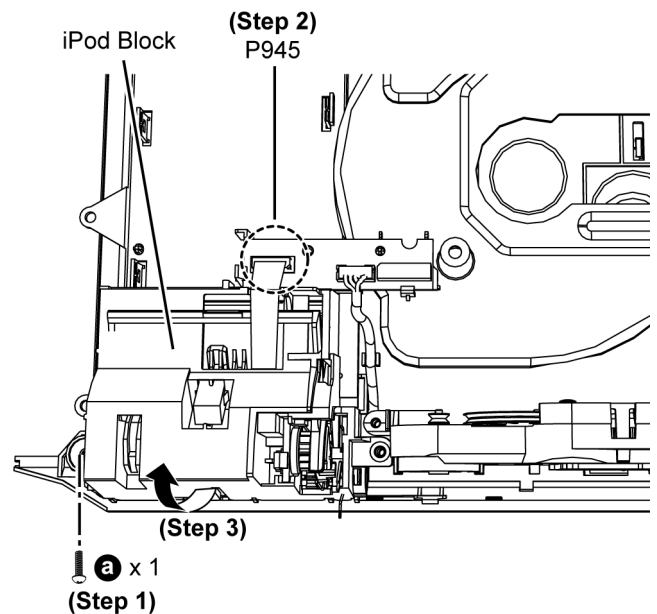
- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Front Panel Block"

8.10.1. Disassembly of iPod Block

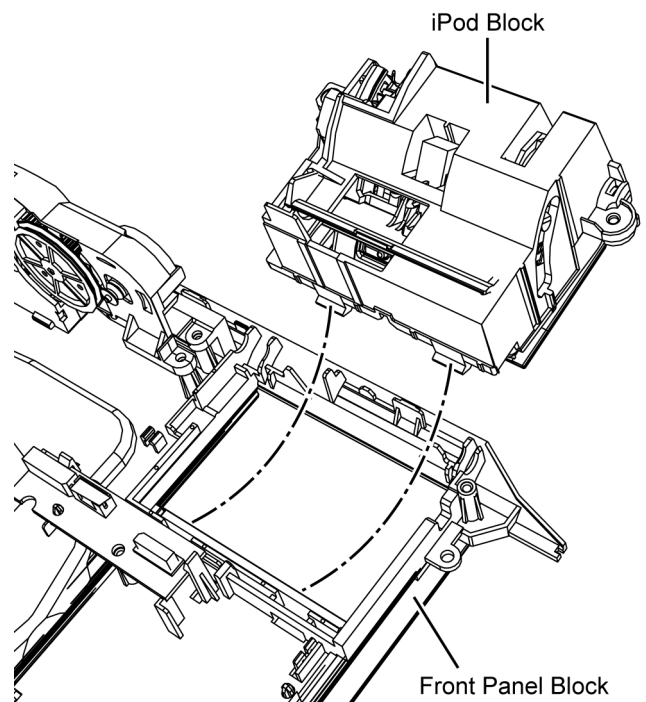
Step 1 : Remove 1 screw.

Step 2 : Detach 9P FFC at connector (P945) on the Bridge P.C.B..

Step 3 : Slightly lift up to remove iPod Block.



Caution : During assembling, ensure the iPod Block is inserted into the Front Panel Block, A "tick" sound is heard when the iPod Block is fully caught.

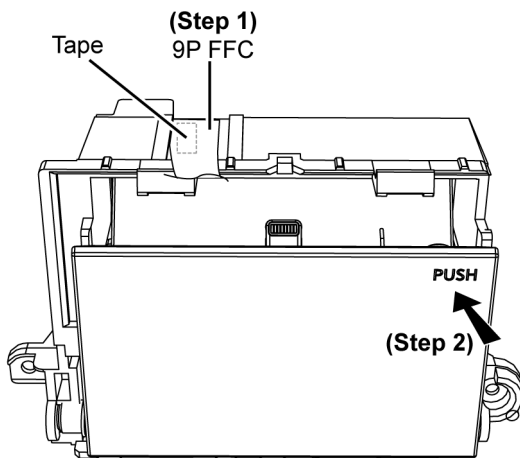


8.10.2. Disassembly of Rear Cover

- Refer to “Disassembly of iPod Block”

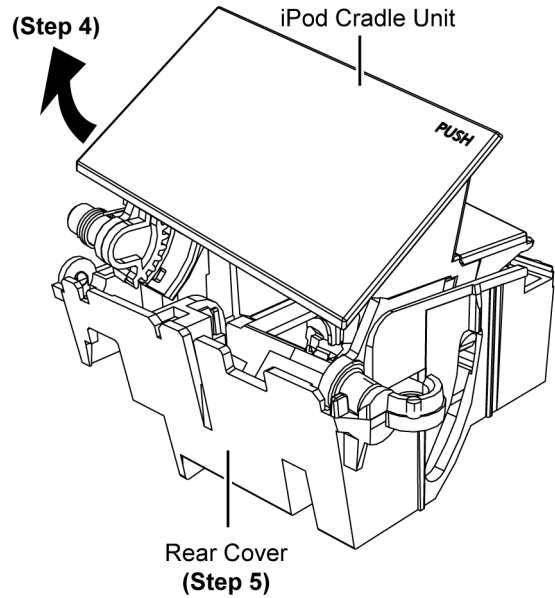
Step 1 : Lift up the 9P FFC.

Step 2 : Press to open the iPod Cradle Unit.

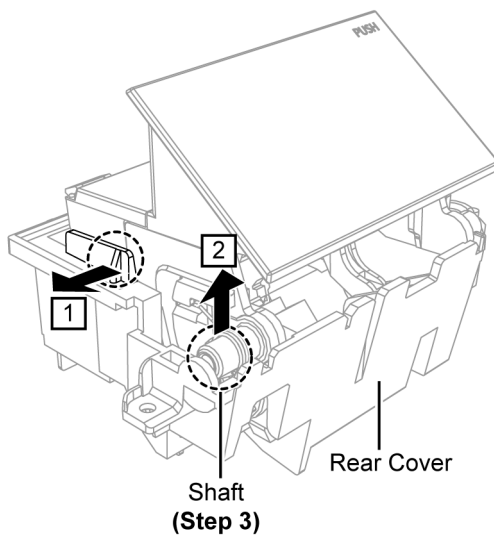


Step 4 : Lift up the iPod Cradle Unit.

Step 5 : Remove Rear Cover.



Step 3 : Pull and lift up the shaft of the iPod Cradle Unit in order of sequences (1) to (2) as shown.

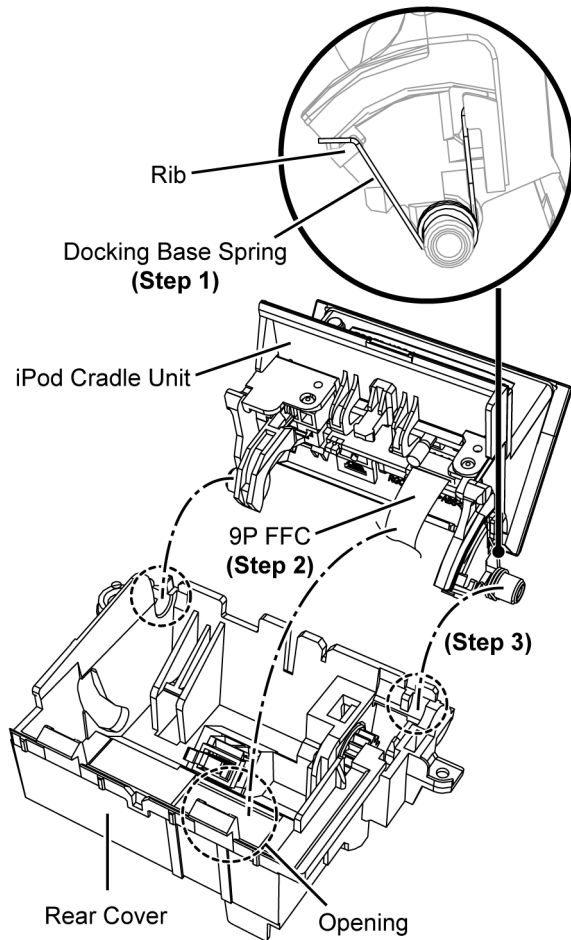


8.10.3. Assembly of Rear Cover

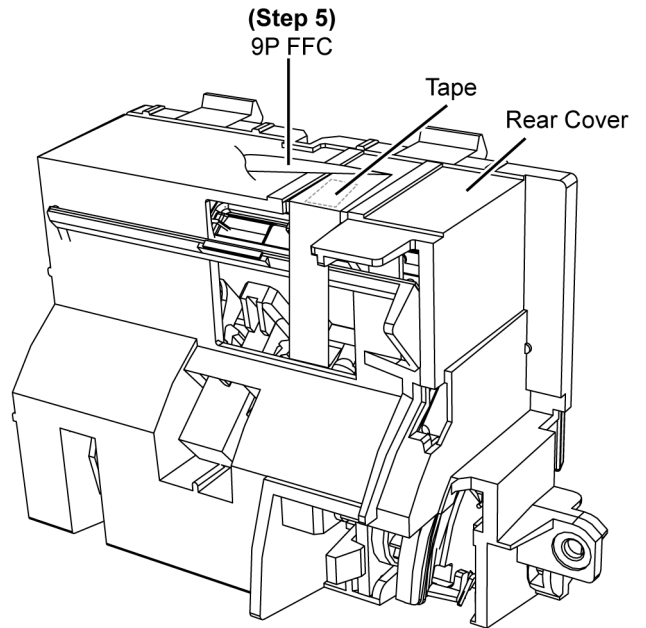
Step 1 : Place the Docking Base Spring onto the rib as shown.

Step 2 : Insert the 9P FFC into the opening of the Rear Cover.

Step 3 : Place the iPod Cradle Unit onto the Rear Cover.

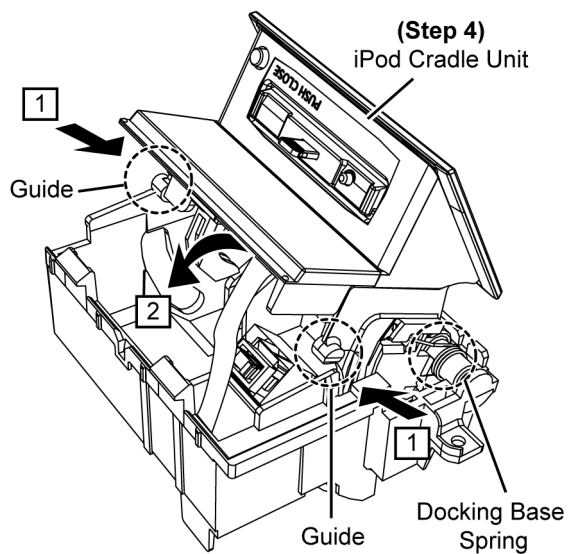


Step 5 : Paste 9P FFC on Rear Cover.



Step 4 : Slightly push the guides of the iPod Cradle Unit inward in order of sequences (1) to (2) as shown.

Caution : After assembly, Docking Base Spring will auto locate to Rear Cover.



8.10.4. Disassembly of Dock Ornament

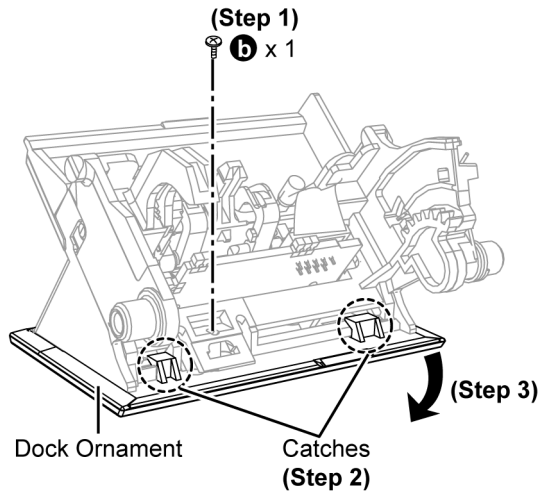
- Refer to “Disassembly of iPod Block”
- Refer to “Disassembly of Rear Cover”

Step 1 : Remove 1 screw.

Step 2 : Release catches on the Dock Ornament.

Caution : During assembling, ensure a “tack” Sound is heard when the Dock Ornament is fully catches.

Step 3 : Remove Dock Ornament.

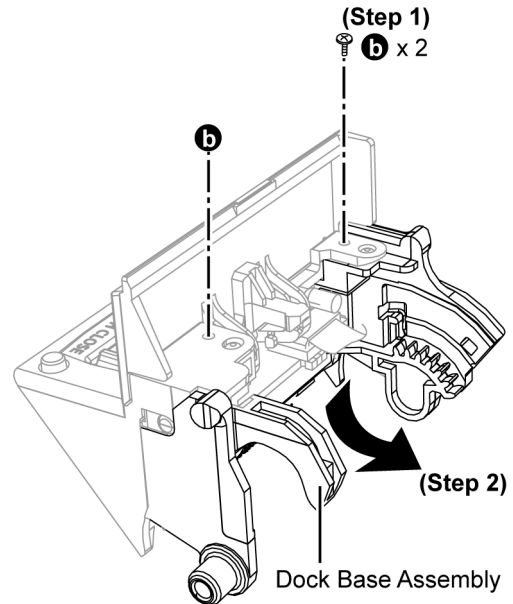


8.10.5. Disassembly of Dock Base Assembly & Lock Button Assembly

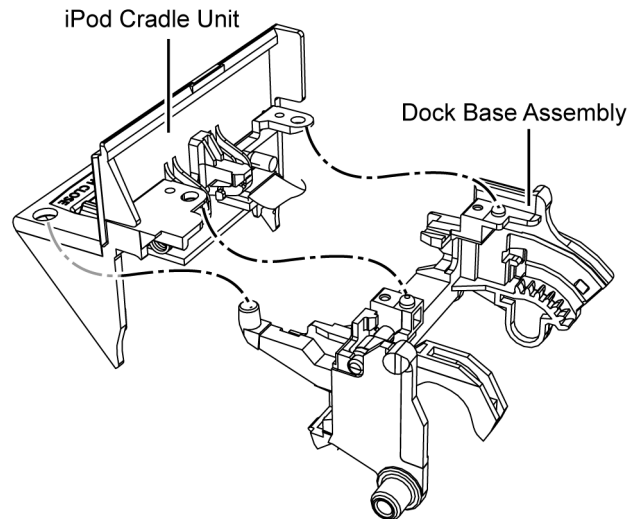
- Refer to “Disassembly of iPod Block”
- Refer to “Disassembly of Rear Cover”
- Refer to “Disassembly of Door Ornament”

Step 1 : Remove 2 screws.

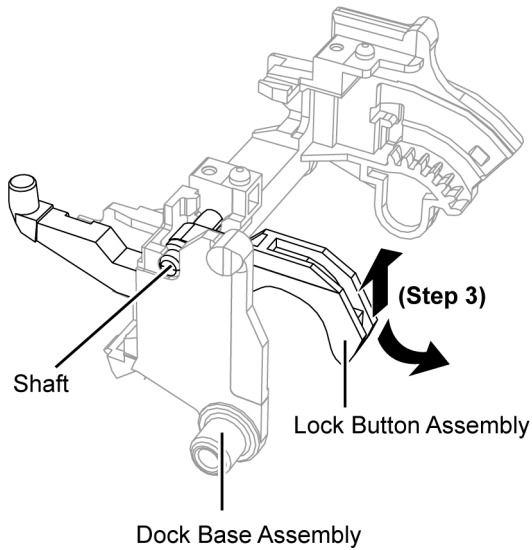
Step 2 : Detach the Dock Base Assembly.



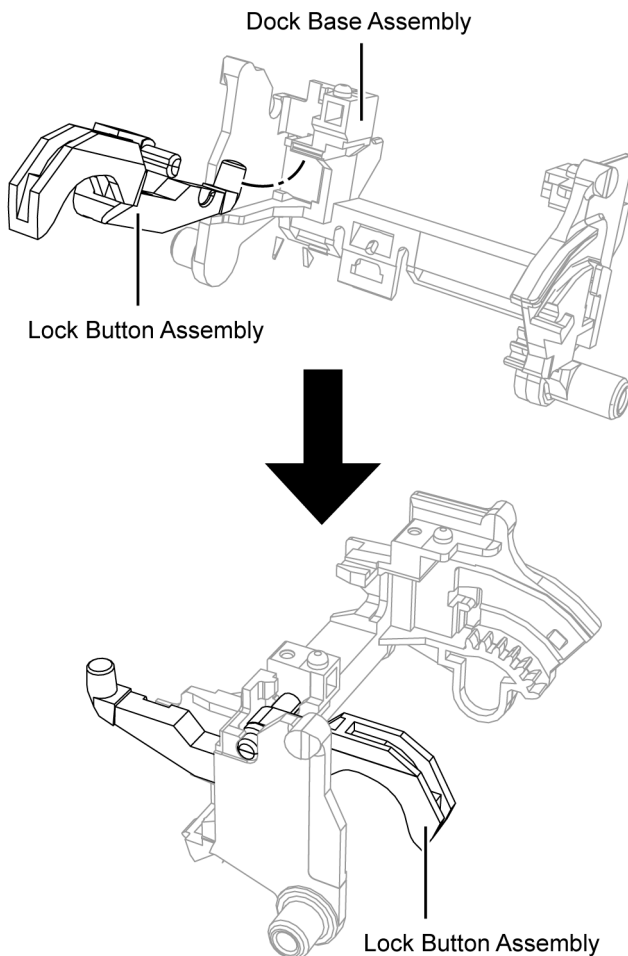
Caution : During assembling, ensure the Dock Base Assembly is properly fix into the iPod Cradle Unit.



Step 3 : Lift up and remove Lock Button Assembly & Dock Base Assembly.



Caution : During assembling, ensure the Lock Button Assembly is properly fix into the Dock Base Assembly as shown.

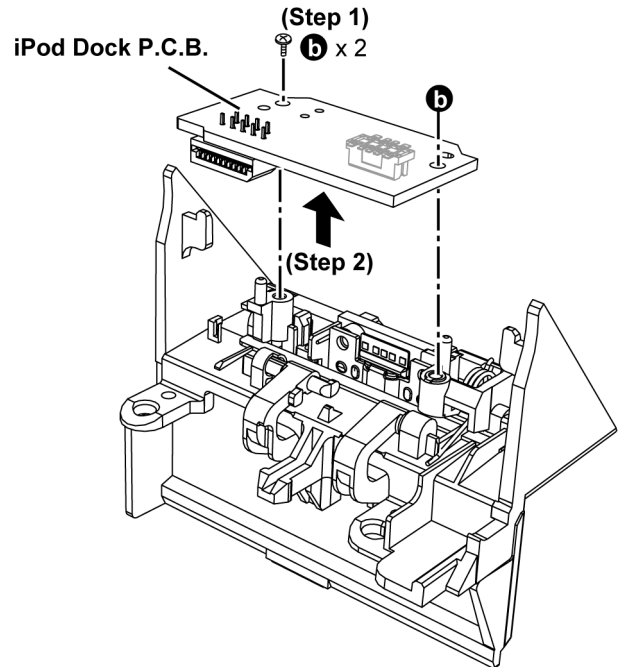


8.10.6. Disassembly of iPod Dock P.C.B.

- Refer to "Disassembly of iPod Block"
- Refer to "Disassembly of Rear Cover"
- Refer to "Disassembly of Door Ornament"
- Refer to "(Step 1) - (Step 2) of item 8.10.5."

Step 1 : Remove 2 screws.

Step 2 : Remove iPod Dock P.C.B..

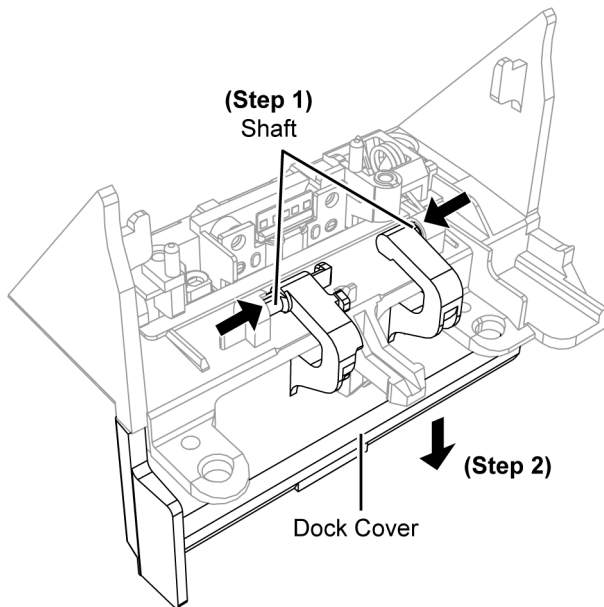


8.10.7. Disassembly of Dock Cover

- Refer to “Disassembly of iPod Block”
- Refer to “Disassembly of Rear Cover”
- Refer to “Disassembly of Dock Ornament”
- Refer to “(Step 1) - (Step 2) of item 8.10.5.”
- Refer to “Disassembly of iPod Dock P.C.B.”

Step 1 : Push the shaft of the Dock Cover inwards as shown.

Step 2 : Remove Dock Cover.

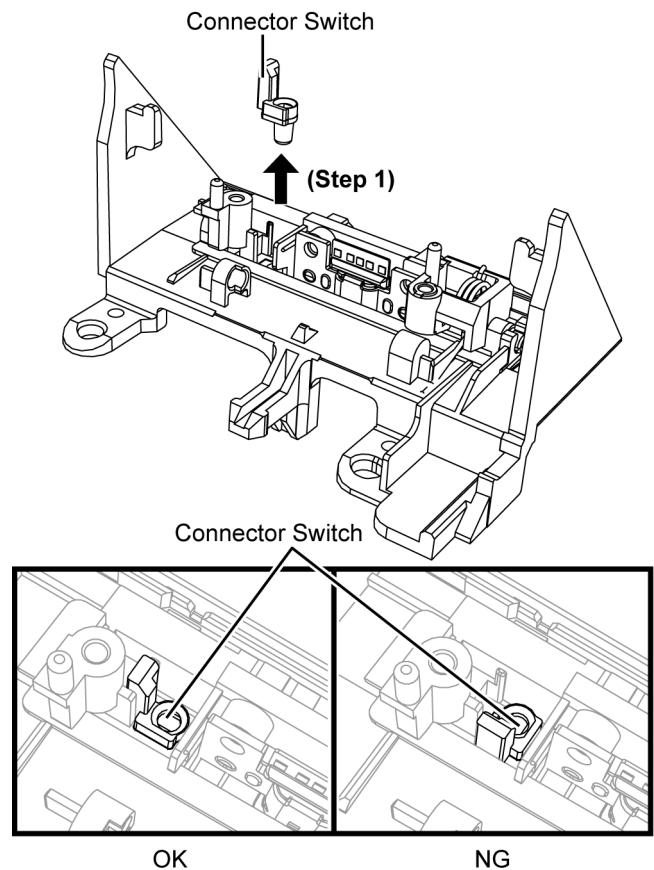


8.10.8. Disassembly of iPod Connector Unit & iPod Cradle

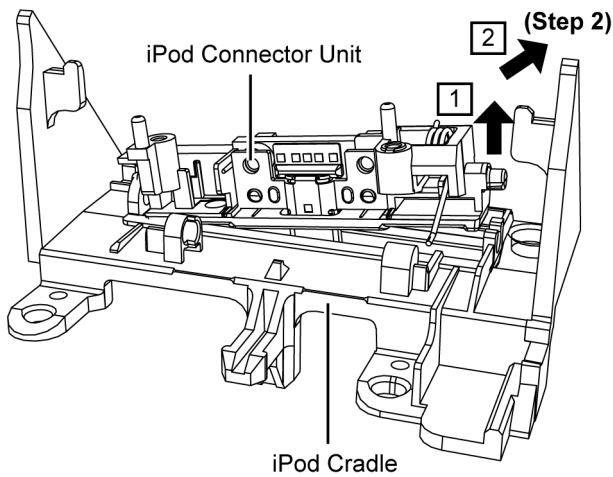
- Refer to “Disassembly of iPod Block”
- Refer to “Disassembly of Rear Cover”
- Refer to “Disassembly of Door Ornament”
- Refer to “(Step 1) - (Step 2) of item 8.10.5.”
- Refer to “Disassembly of iPod Dock P.C.B.”
- Refer to “Disassembly of Dock Cover”

Step 1 : Remove Connector Switch.

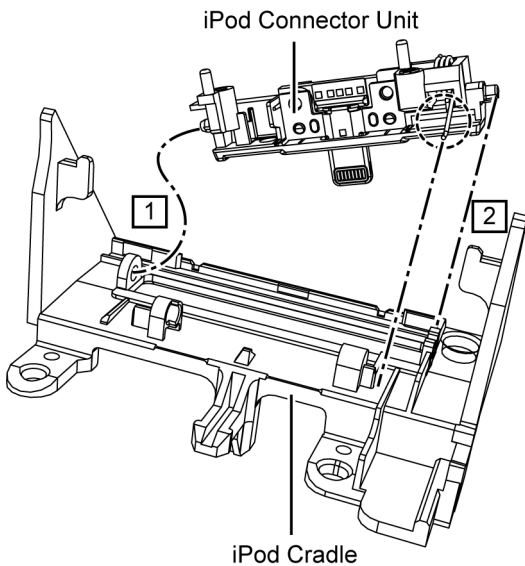
Caution : During assembling, ensure the Connector Switch is insert as shown.



Step 2 : Lift up to remove iPod Connector Unit as arrow shown in order of sequences (1) to (2).



Caution : During assembling, ensure the iPod Connector Unit is properly fix into the iPod Cradle in order of sequences (1) to (2) as shown.



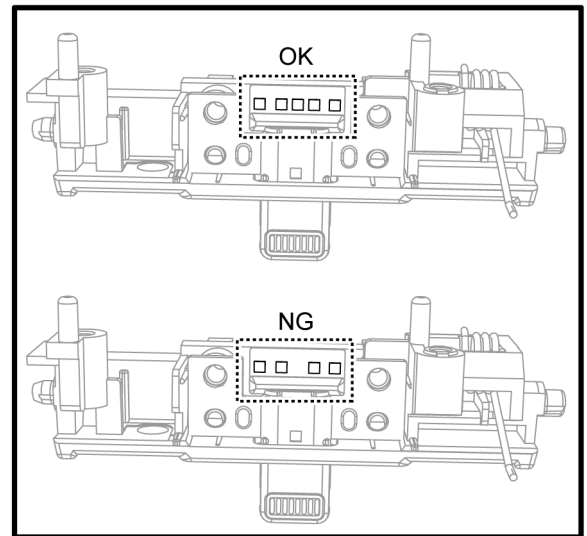
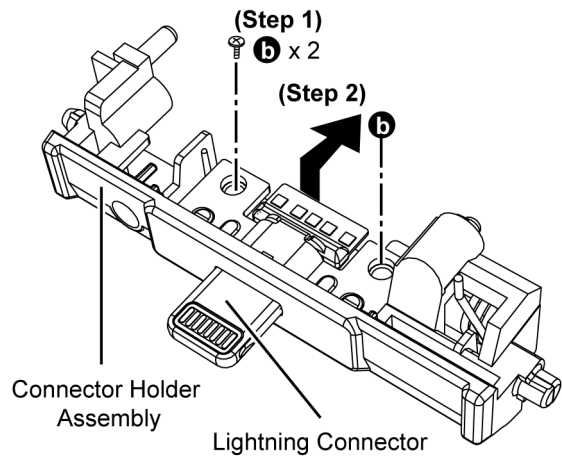
8.10.9. Disassembly of Lightning Connector & Connector Holder Assembly

- Refer to "Disassembly of iPod Block"
- Refer to "Disassembly of Rear Cover"
- Refer to "Disassembly of Door Ornament"
- Refer to "(Step 1) - (Step 2) of item 8.10.5."
- Refer to "Disassembly of iPod Dock P.C.B."
- Refer to "Disassembly of Dock Cover"
- Refer to "Disassembly of iPod Connector Unit"

Step 1 : Remove 2 screws.

Step 2 : Remove Lightning Connector.

Caution : During assembling, ensure the lightning connector is insert properly, see picture below.



8.11. Disassembly of Bridge P.C.B.

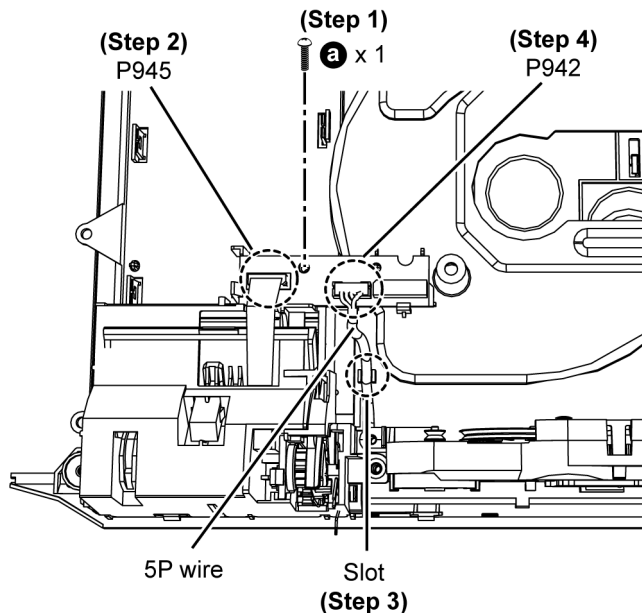
- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Front Panel Block"

Step 1 : Remove 1 screw.

Step 2 : Detach 9P FFC at connector (P945) on the Bridge P.C.B..

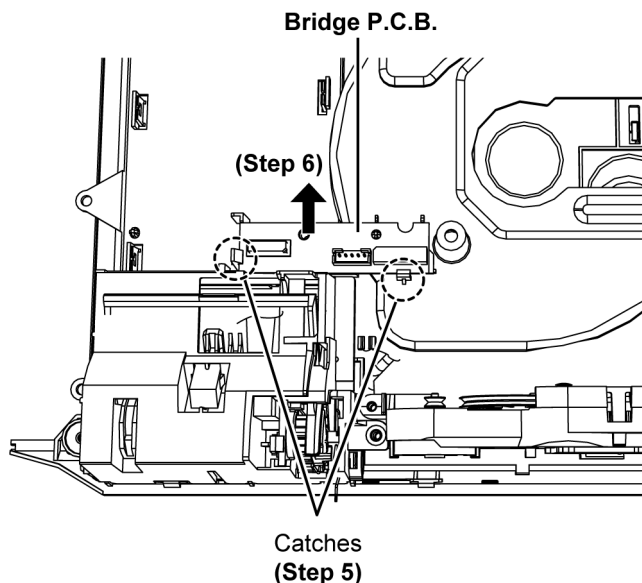
Step 3 : Release 5P wire from the slot.

Step 4 : Detach 5P wire at connector (P942) on the Bridge P.C.B..



Step 5 : Release catches.

Step 6 : Remove Bridge P.C.B..



8.12. Disassembly of Motor P.C.B.

- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Front Panel Block"

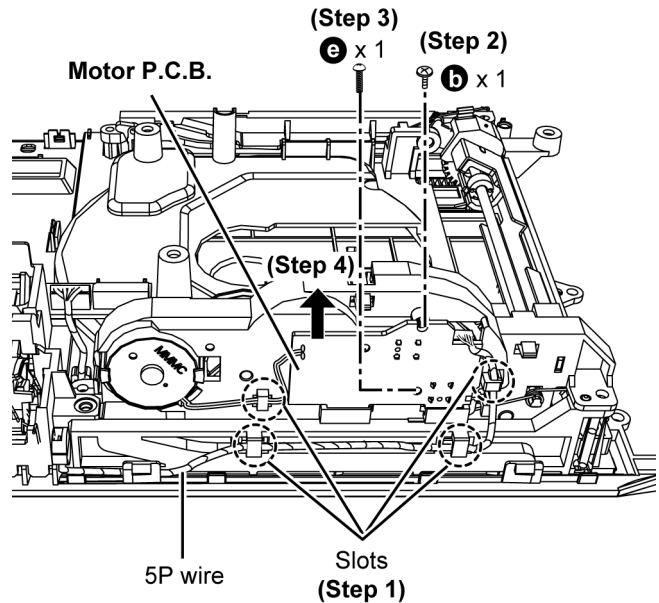
Step 1 : Release 5P wire from the slots.

Step 2 : Remove 1 screw.

Step 3 : Remove 1 screw.

Step 4 : Lift up the Motor P.C.B..

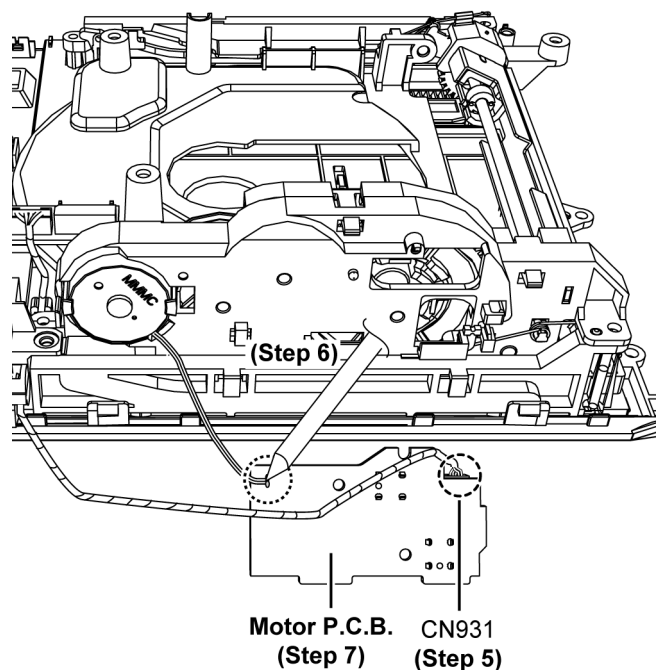
Caution : During assembly, use manual screwing to prevent overrun for [e] type screw.



Step 5 : Detach 5P wire at connector (CN931) on the Motor P.C.B..

Step 6 : Desolder pins on the solder side of the Motor P.C.B..

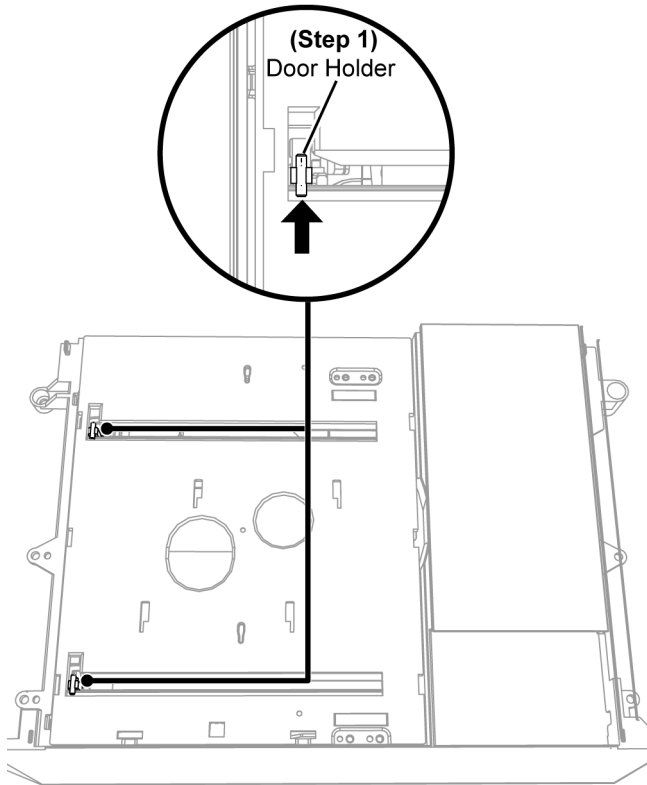
Step 7 : Remove Motor P.C.B..



8.13. Disassembly of Gear Block & Arm Spring (Top)

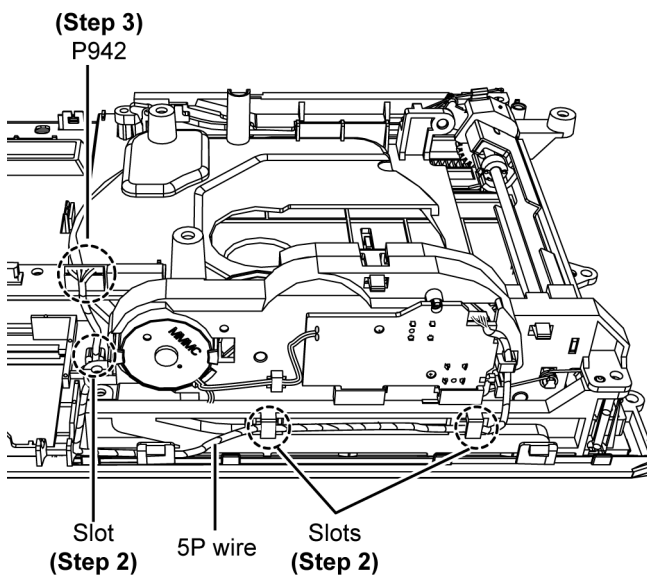
- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Door Unit"
- Refer to "Disassembly of Front Panel Block"
- Refer to "Disassembly of iPod Block"

Step 1 : Push up to release the Door Holder as arrow shown.



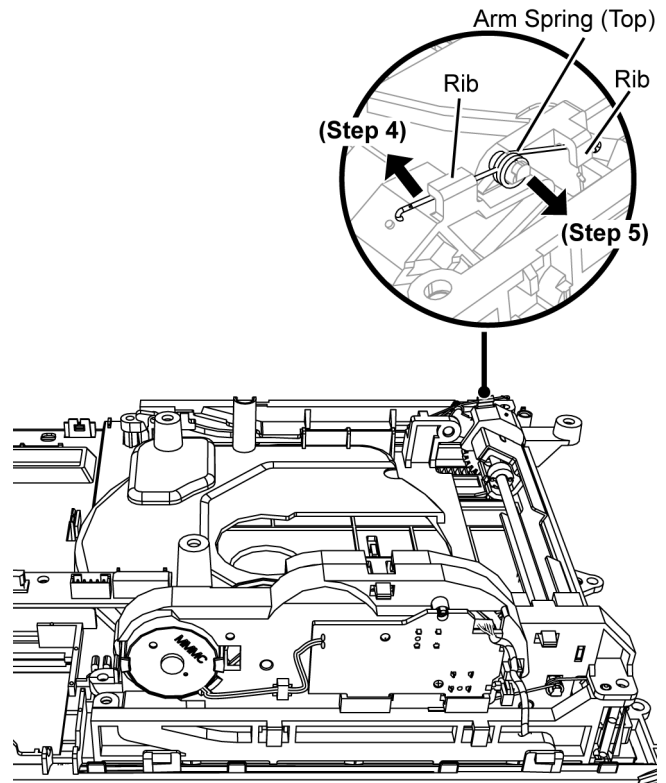
Step 2 : Release 5P wire from the slots.

Step 3 : Detach 5P wire at connector (P942) on the Bridge P.C.B..



Step 4 : Release Arm Spring (Top) from the ribs.

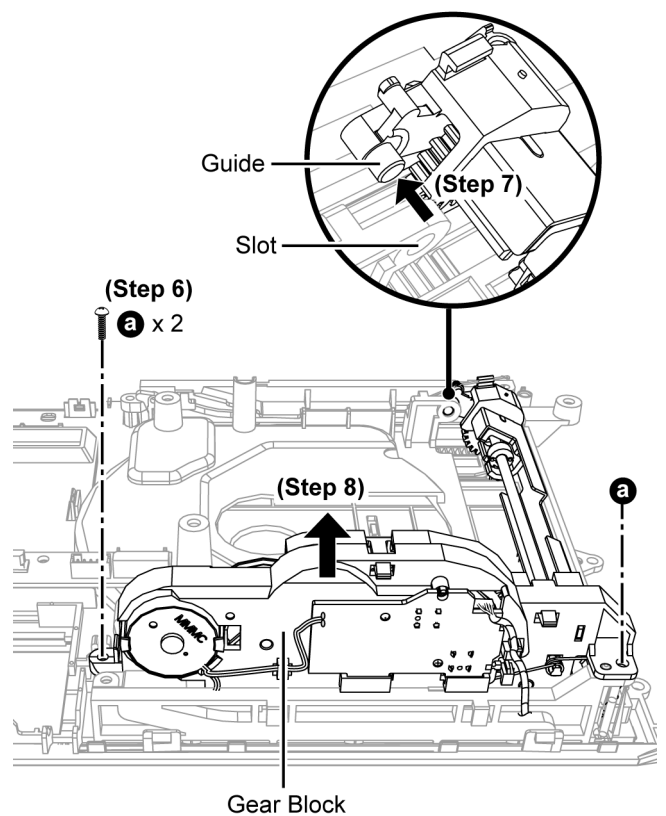
Step 5 : Remove Arm Spring (Top).



Step 6 : Remove 2 screws.

Step 7 : Release guide from the slot.

Step 8 : Remove Gear Block.

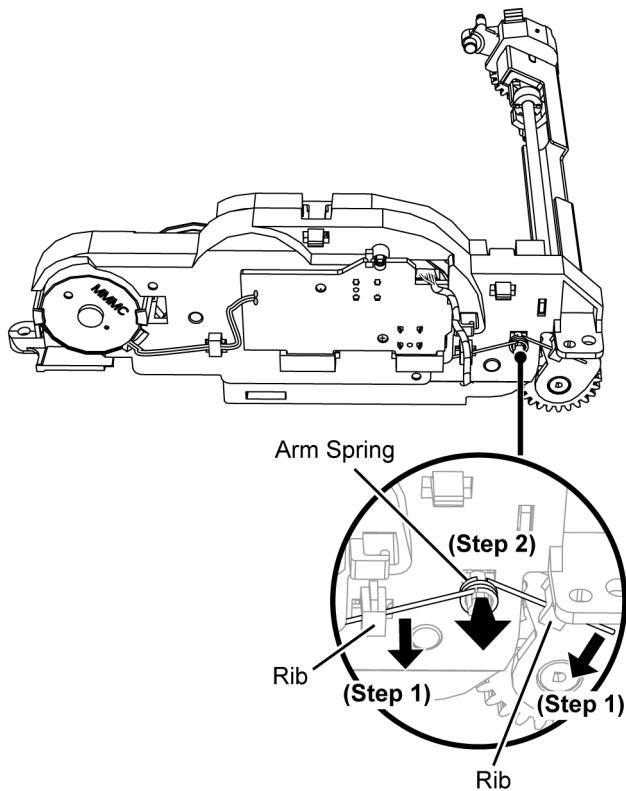


8.14. Disassembly of Arm Spring, Gear Assembly & Arm Assembly

- Refer to “Disassembly of Front Ornament Unit (L) & (R)”
- Refer to “Disassembly of Door Unit”
- Refer to “Disassembly of Front Panel Block”
- Refer to “Disassembly of iPod Block”
- Refer to “Disassembly of Gear Block & Arm Spring (Top)”

Step 1 : Release Arm Spring from the ribs.

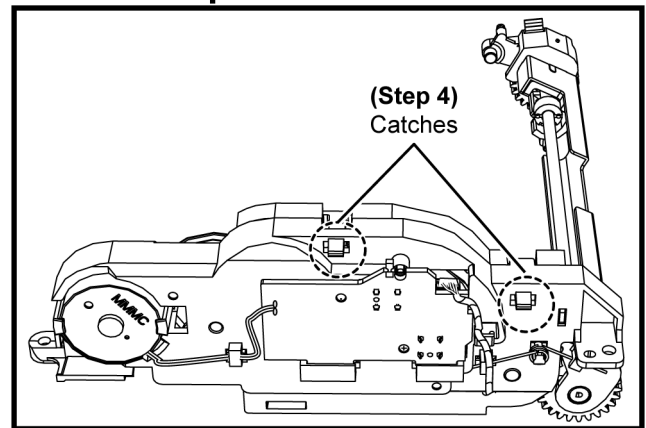
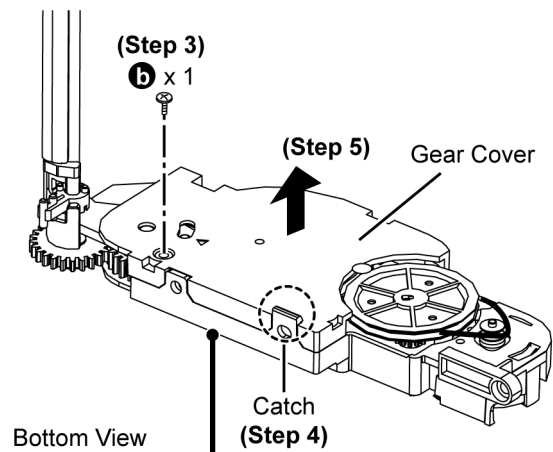
Step 2 : Remove Arm Spring.



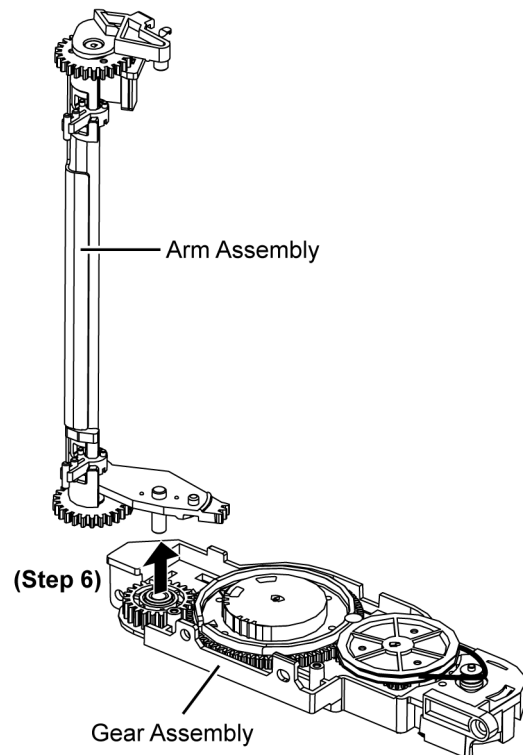
Step 3 : Remove 1 screw.

Step 4 : Release catches.

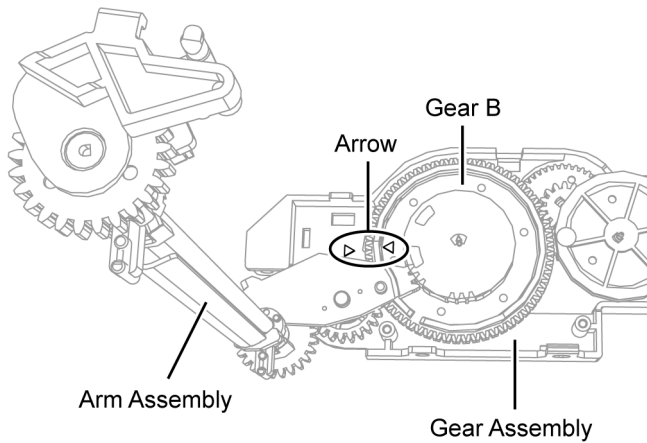
Step 5 : Remove Gear Cover.



Step 6 : Remove Arm Assembly & Gear Assembly.



Caution : During assembling, position & align the Gear B with the indicated arrow on the Gear Assembly.



8.15. Replacement of Gear Assembly

- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Door Unit"
- Refer to "Disassembly of Front Panel Block"
- Refer to "Disassembly of iPod Block"
- Refer to "Disassembly of Gear Block & Arm Spring (Top)"
- Refer to "Refer to (Step 1) - (Step 6) of item 8.14."

8.15.1. Disassembly of Belt, Pulley Gear, Gear B & Gear A

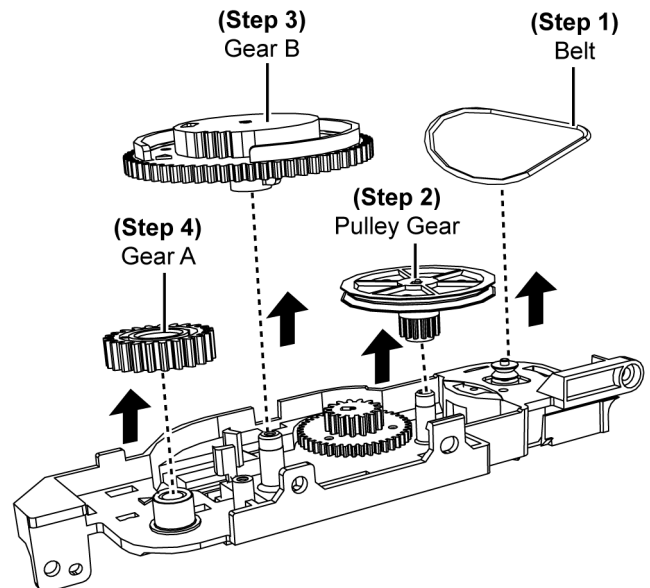
Step 1 : Remove Belt.

Step 2 : Remove Pulley Gear.

Step 3 : Remove Gear B.

Step 4 : Remove Gear A.

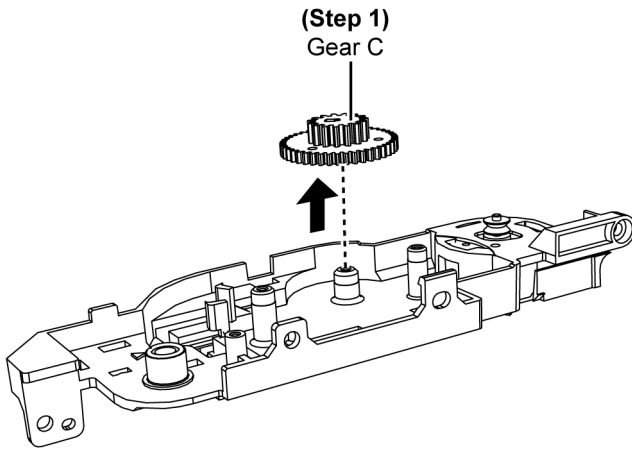
Caution : During assembling, ensure to turn Gear A, Gear B and Pulley Gear a few time to match gear teeth with other gear before push to fix it.



8.15.2. Disassembly of Gear C

- Refer to “Disassembly of Belt, Pulley Gear, Gear B & Gear A”

Step 1 : Remove Gear C.

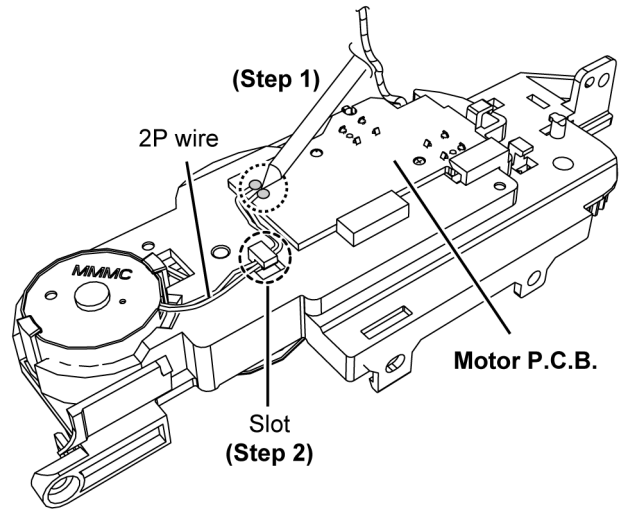


8.15.3. Disassembly of Motor Assembly

- Refer to “Refer to (Step 1) of item 8.15.1.”

Step 1 : Desolder pins on the solder side of the Motor P.C.B..

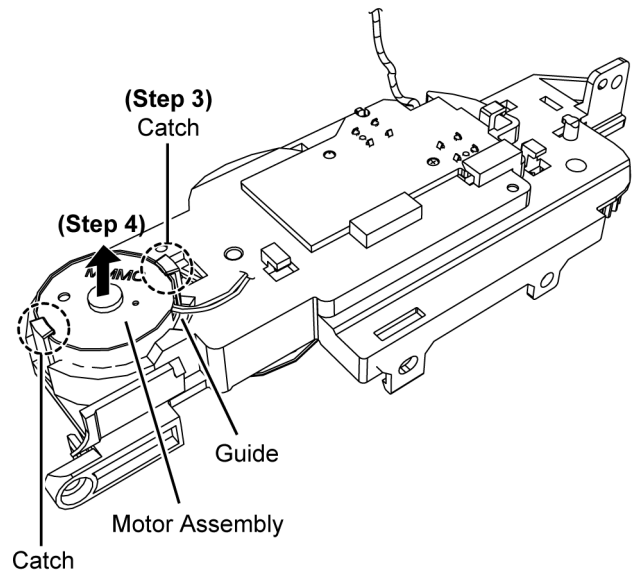
Step 2 : Release 2P wire from the slot.



Step 3 : Release catches.

Step 4 : Remove Motor Assembly.

Caution : During assembling, position & align the Motor wire with the guide on the Gear Base, A “click” sound is heard when the Motor is fully caught.



8.16. Replacement of Arm Assembly

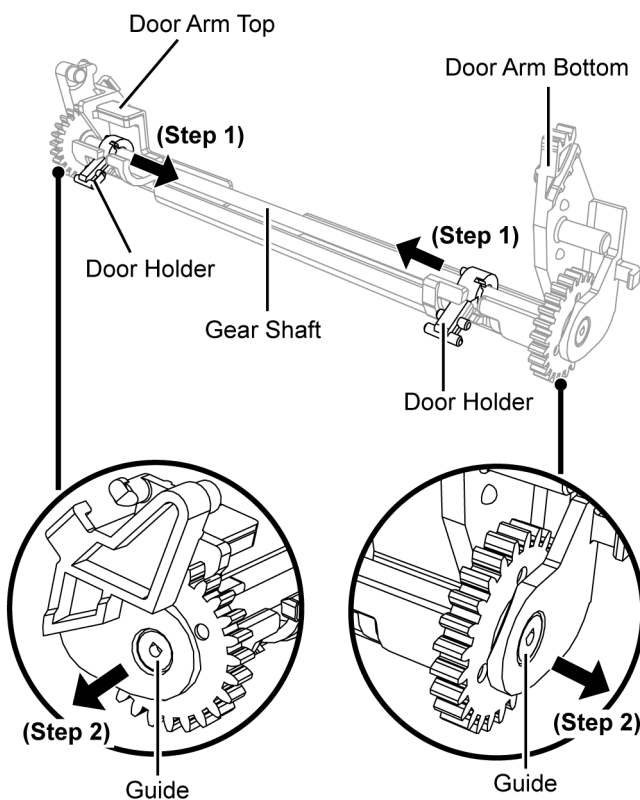
- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Door Unit"
- Refer to "Disassembly of Front Panel Block"
- Refer to "Disassembly of iPod Block"
- Refer to "Disassembly of Gear Block & Arm Spring (Top)"
- Refer to "Refer to (Step 1) - (Step 6) of item 8.14."

8.16.1. Disassembly of Drive Gear, Door Holder & Gear Shaft

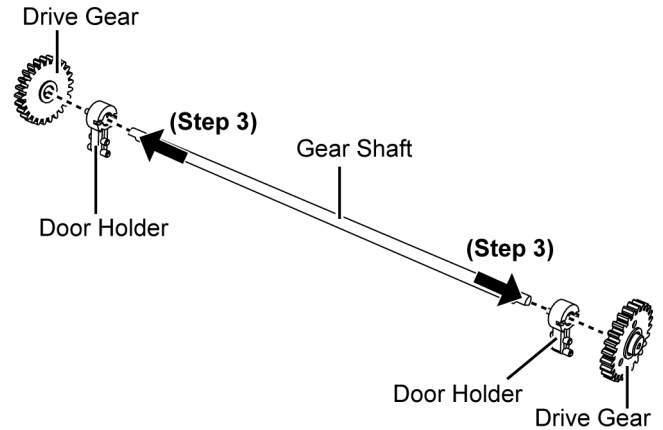
Step 1 : Release and push the Door Holder to the middle of the Gear Shaft.

Caution : During assembling, ensure the Door Holder is in lock position as shown.

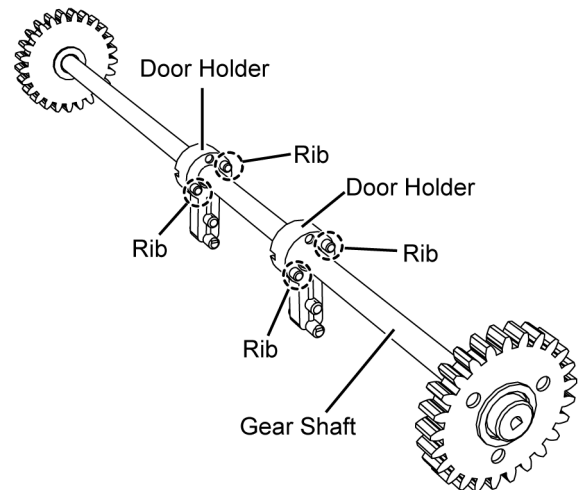
Step 2 : Push Door Arm Bottom and Door Arm Top to release guide and remove Gear Shaft Assembly.



Step 3 : Remove Drive Gear, Door Holder & Gear Shaft.



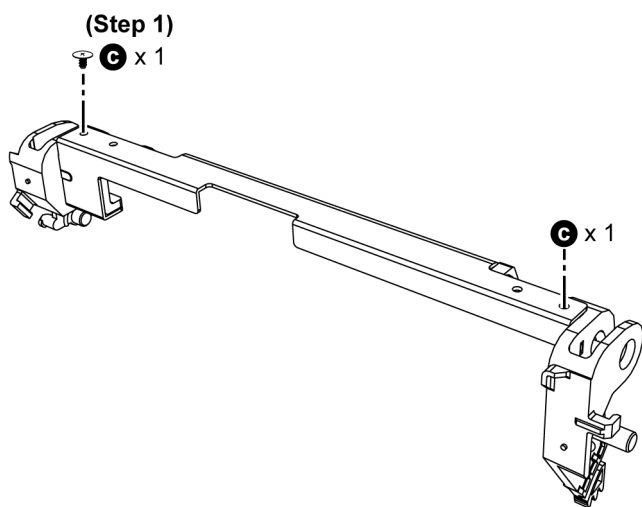
Caution : During assembling, ensure the Door Holder Rib is parallel into the Gear Shaft.



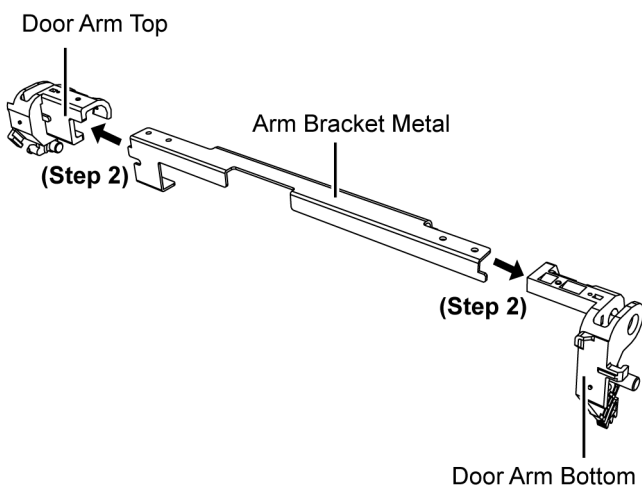
8.16.2. Disassembly of Arm Bracket Metal, Door Arm Top & Door Arm Bottom

- Refer to "Disassembly of Drive Gear, Door Holder & Gear Shaft"

Step 1 : Remove 2 screws.



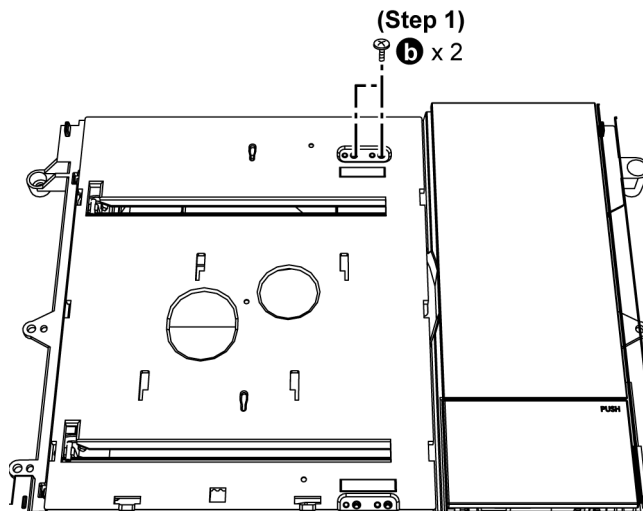
Step 2 : Remove Arm Bracket Metal, Door Arm Top & Door Arm Bottom.



8.17. Disassembly of Cam Rail Top & Door Slider Top

- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Door Unit"
- Refer to "Disassembly of Front Panel Block"

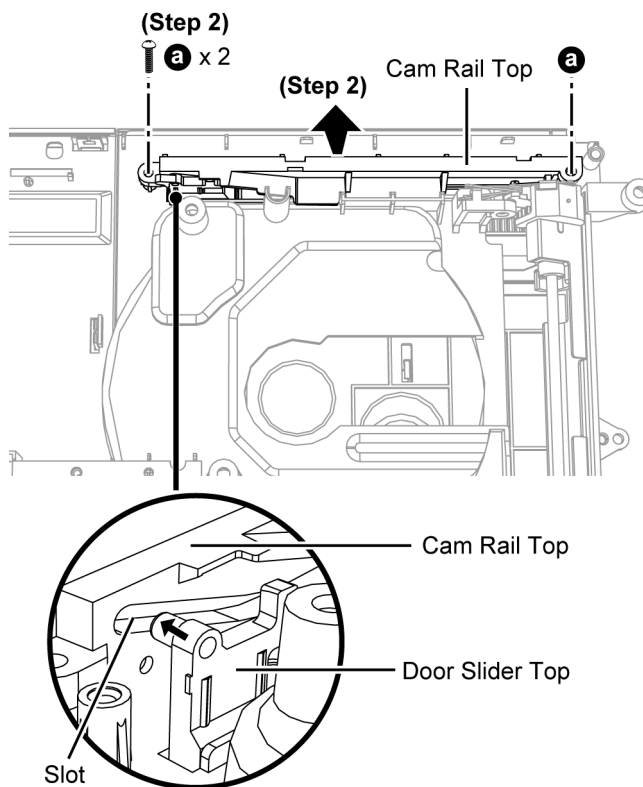
Step 1 : Remove 2 screws.



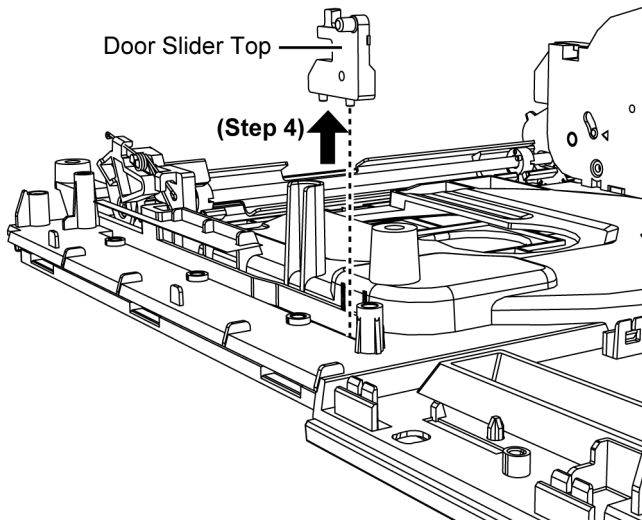
Step 2 : Remove 2 screws.

Step 3 : Slightly lift up to remove Cam Rail Top.

Caution : During assembling, ensure the Door Slider Bottom is properly inserted into the Cam Rail Bottom.



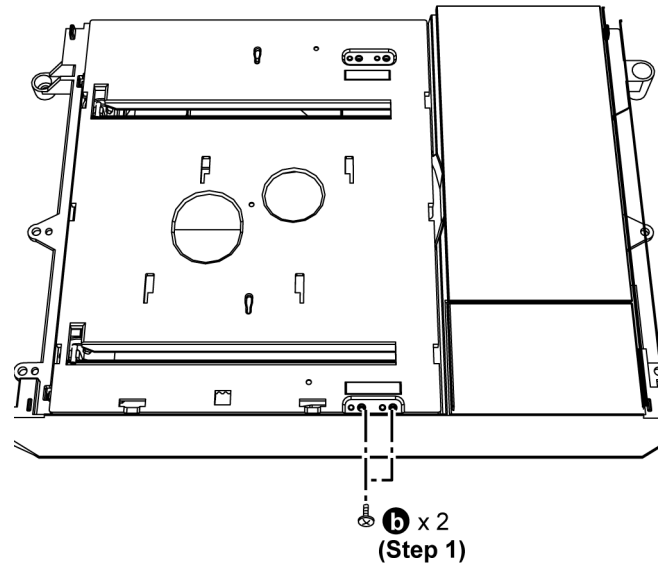
Step 4 : Remove Door Slider Top.



8.18. Disassembly of Cam Rail Bottom & Door Slider Bottom

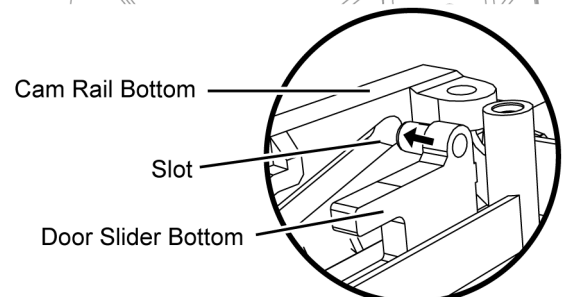
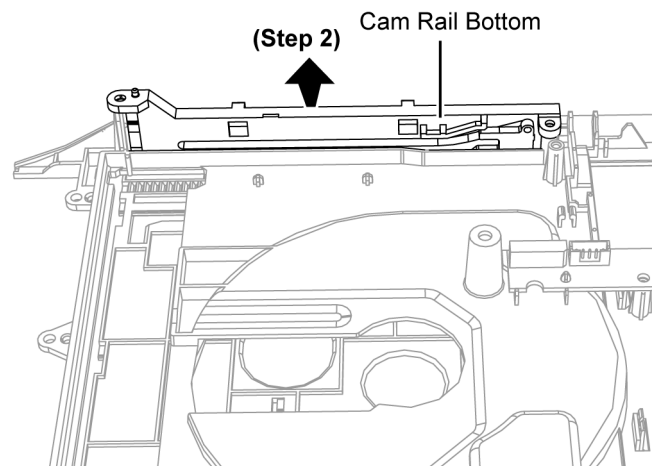
- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Door Unit"
- Refer to "Disassembly of Front Panel Block"
- Refer to "Disassembly of iPod Block"
- Refer to "Disassembly of Gear Block & Arm Spring (Top)"

Step 1 : Remove 2 screws.

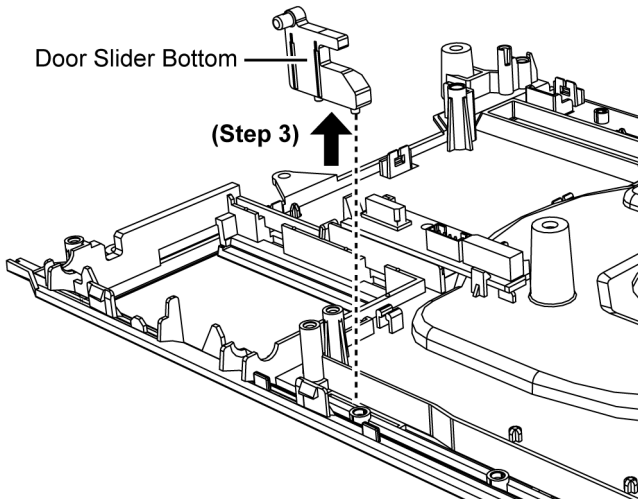


Step 2 : Slightly lift up to remove Cam Rail Bottom.

Caution : During assembling, ensure the Door Slider Bottom is properly inserted into the slot of Cam Rail Bottom.



Step 3 : Remove Door Slider Bottom.



8.19. Disassembly of NFC P.C.B.

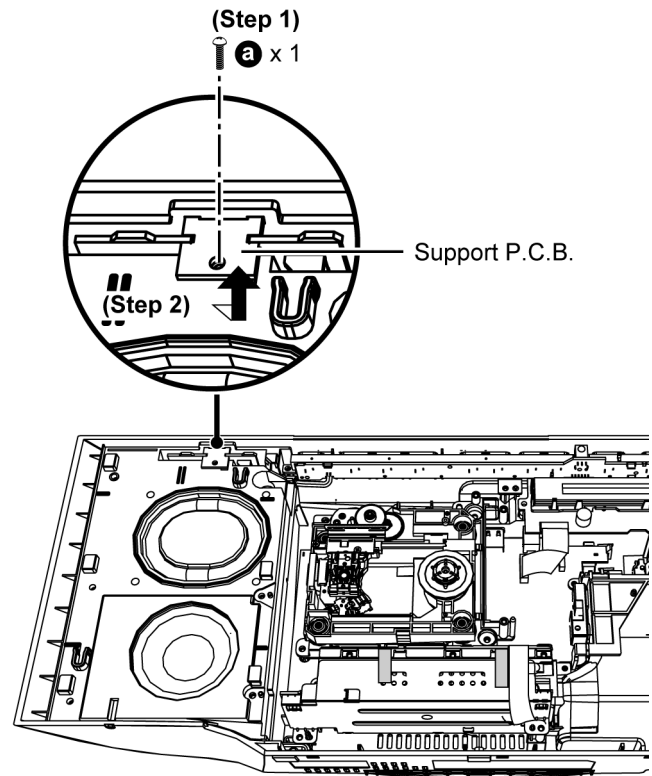
- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Front Panel Block"

Caution:

In case either NFC P.C.B. or EEPROM IC (IC8004) on Main P.C.B. should break down, they need to be replaced at the same time as a pair.
For the details, please refer to "Service Navigation"

Step 1 : Remove 1 screw.

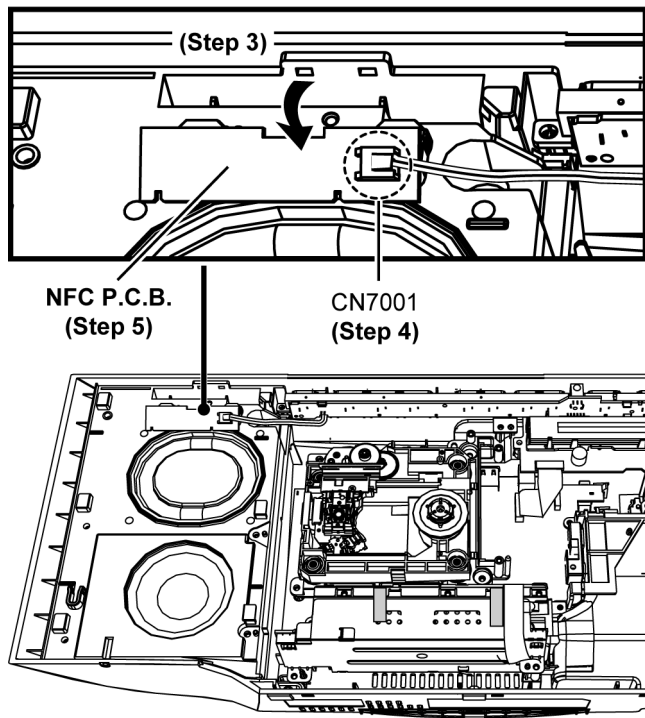
Step 2 : Slightly lift up to remove Support P.C.B..



Step 3 : Lift up NFC P.C.B..

Step 4 : Detach 2P wire at connector (CN7001) on the NFC P.C.B..

Step 5 : Remove NFC P.C.B..

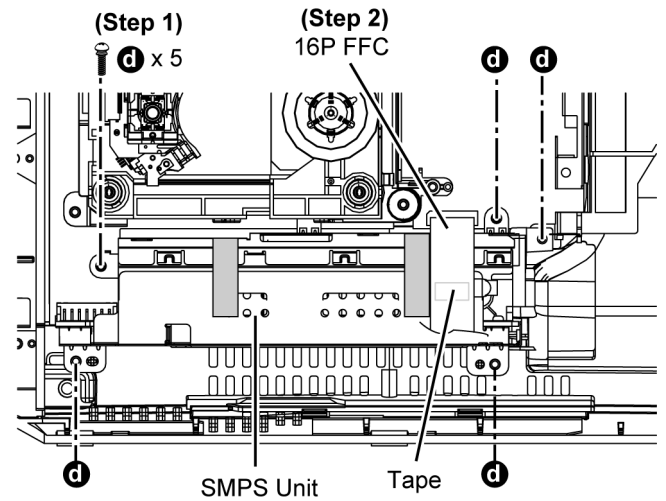


8.20. Disassembly of SMPS Unit

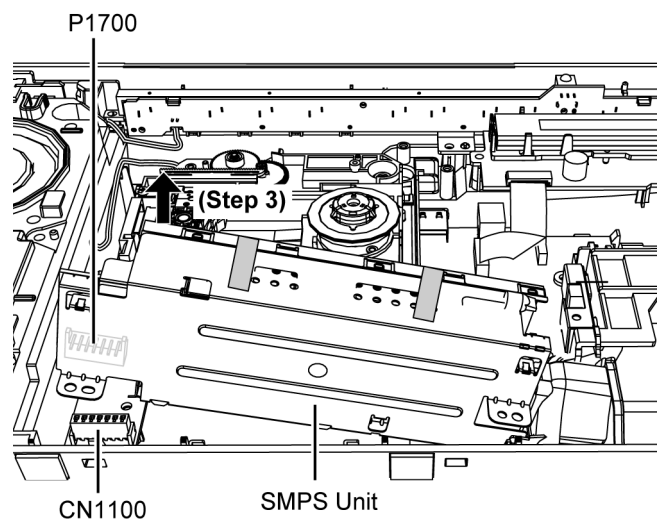
- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Front Panel Block"

Step 1 : Remove 5 screws.

Step 2 : Gently lift up the 16P FFC.



Step 3 : Gently lift up to remove SMPS Unit.



8.21. Disassembly of SMPS P.C.B.

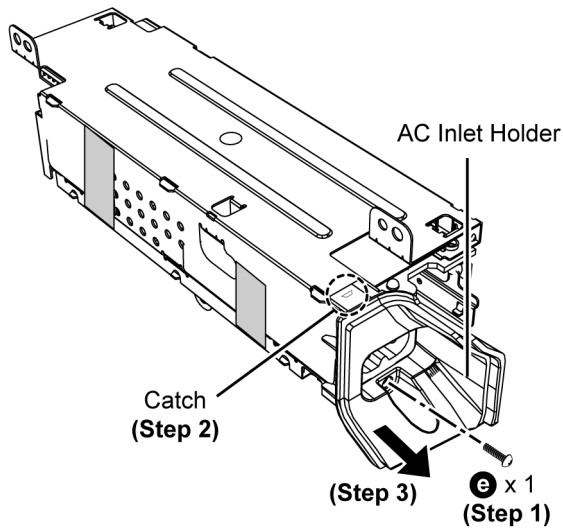
- Refer to "Disassembly of SMPS Unit"

Step 1 : Remove 1 screw.

Step 2 : Release catch.

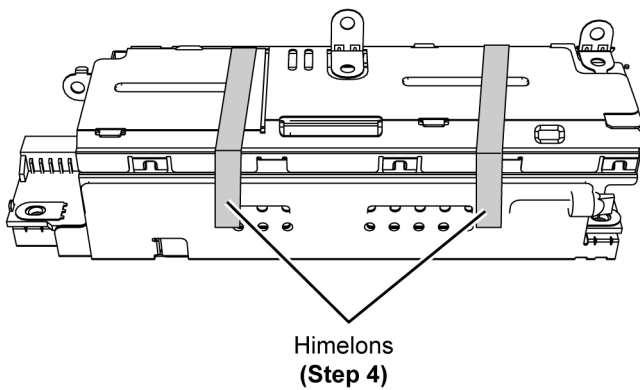
Step 3 : Remove AC Inlet Holder.

Caution : During assembling, ensure the AC Inlet Holder is fully caught to the SMPS Unit. A "click" sound will be heard when fully caught.



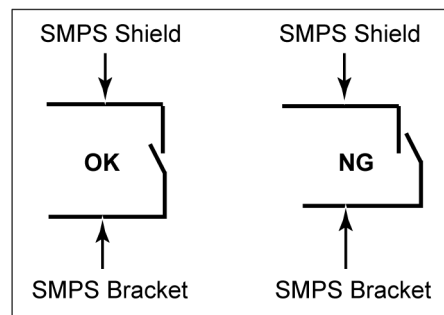
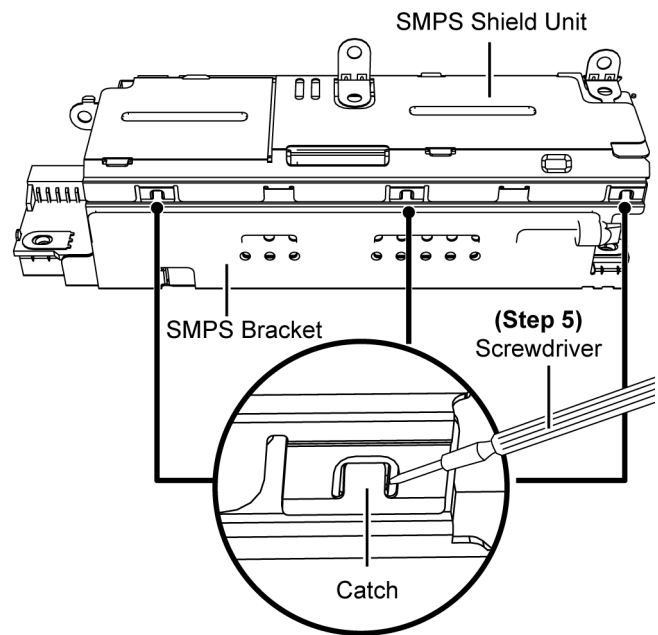
Step 4 : Lift up the Himelons.

Caution : Replace the Himelons if they are torn during disassembling.



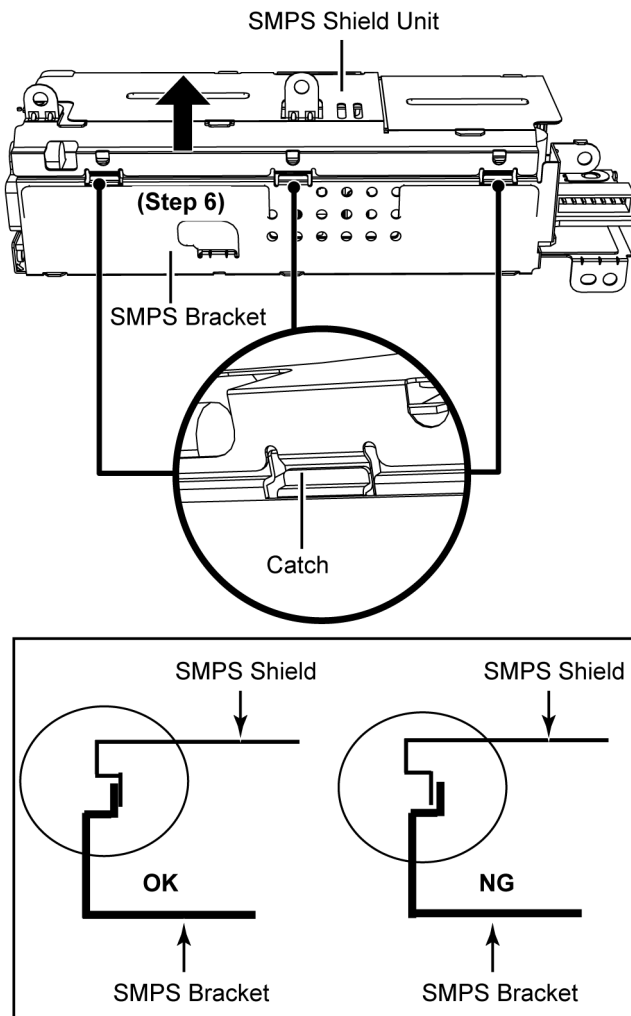
Step 5 : Press to release catches using a screwdriver and gently push up the SMPS Shield Unit.

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



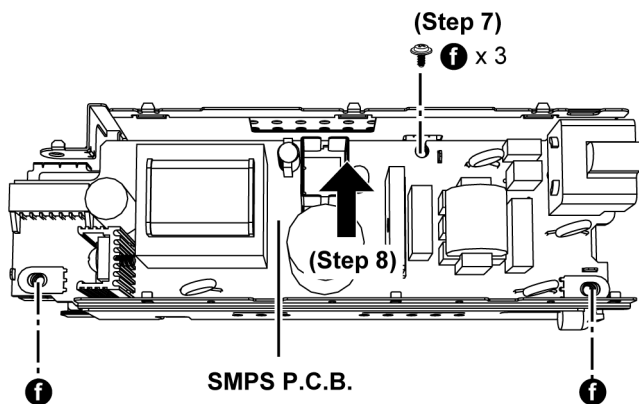
Step 6 : Gently push up the SMPS Shield Unit to release the catches and remove it.

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



Step 7 : Remove 3 screws.

Step 8 : Remove SMPS P.C.B..



8.22. Disassembly of FL P.C.B. & Button Ornament Unit

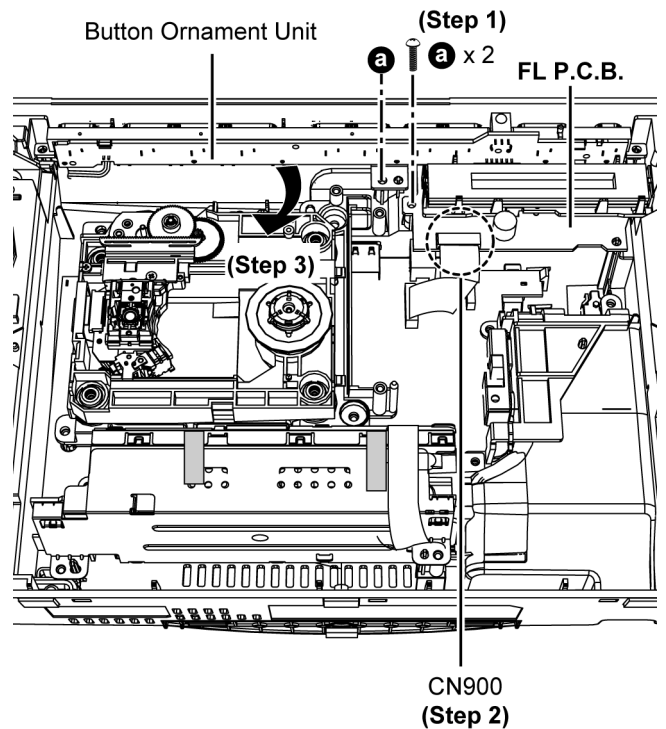
- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Front Panel Block"
- Refer to "Disassembly of NFC P.C.B."

Caution : During assembling, ensure Button Ornament Unit is fully seated and all button operations are working.

Step 1 : Remove 2 screws.

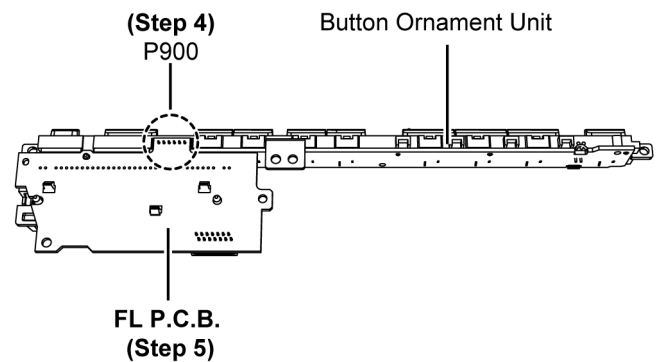
Step 2 : Detach 14P FFC at connector (CN900) on the Button P.C.B..

Step 3 : Lift up FL P.C.B. and Button Ornament Unit.



Step 4 : Detach 6P connector (P900) on the FL P.C.B..

Step 5 : Remove FL P.C.B..



8.23. Disassembly of Button P.C.B.

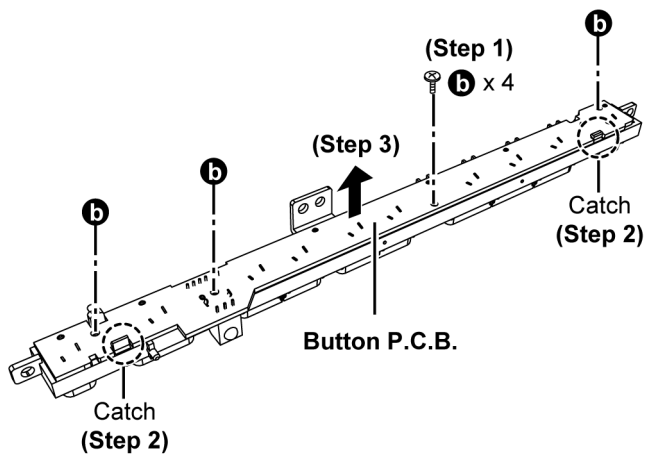
- Refer to “Disassembly of Front Ornament Unit (L) & (R)”
- Refer to “Disassembly of Front Panel Block”
- Refer to “Disassembly of NFC P.C.B.”
- Refer to “Disassembly of FL P.C.B.”

Step 1 : Remove 4 screws.

Step 2 : Release catches.

Caution : During assembling, ensure the Button P.C.B. is fully caught to the Top Button.

Step 3 : Remove Button P.C.B..

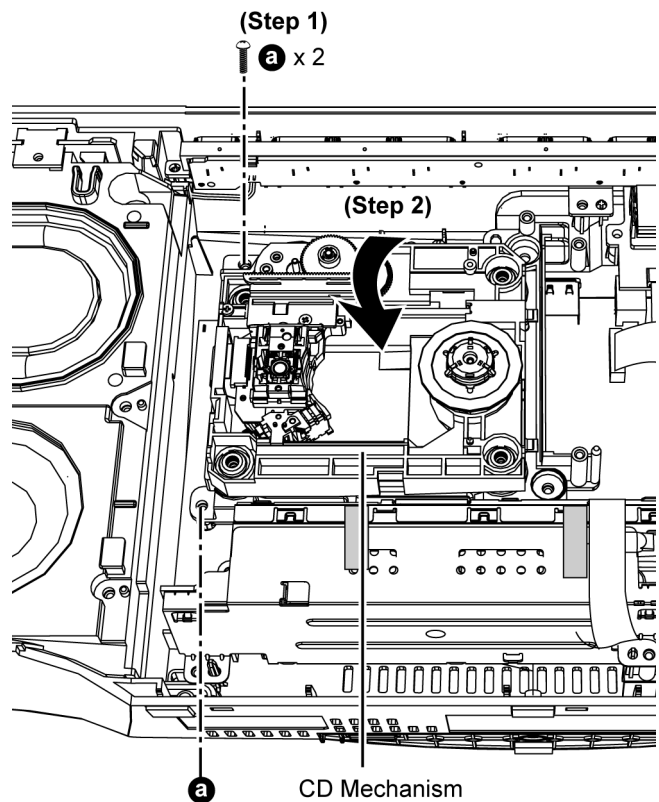


8.24. Disassembly of CD Mechanism

- Refer to “Disassembly of Front Ornament Unit (L) & (R)”
- Refer to “Disassembly of Front Panel Block”

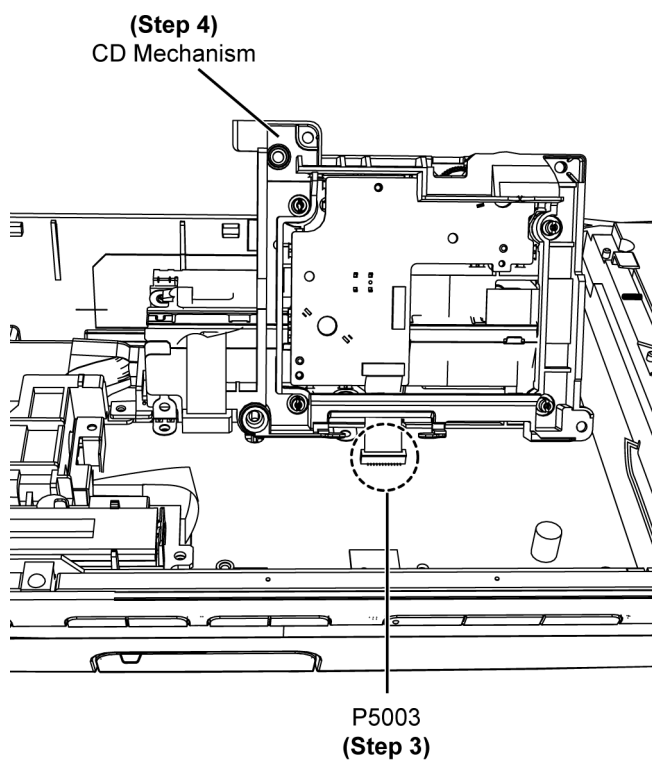
Step 1 : Remove 2 screws.

Step 2 : Lift up the CD Mechanism.



Step 3 : Detach 24P FFC at connector (P5003) on the Main P.C.B..

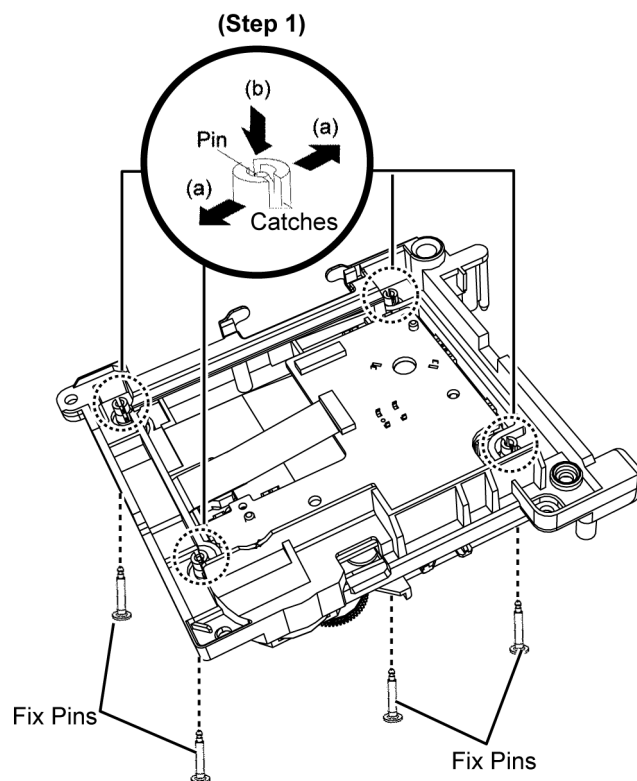
Step 4 : Remove CD Mechanism.



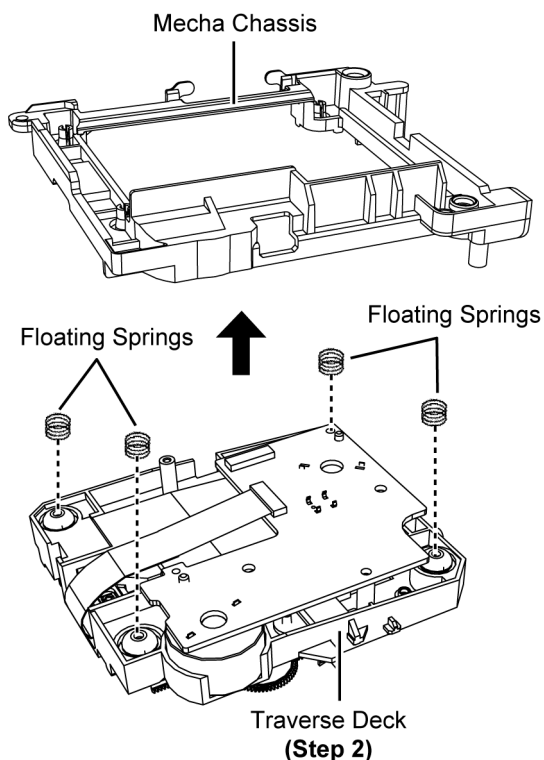
8.25. Disassembly of CD Interface P.C.B.

• Refer to "Disassembly of CD Mechanism"

Step 1 : Release catches and push down the fixed pins as arrow shown.

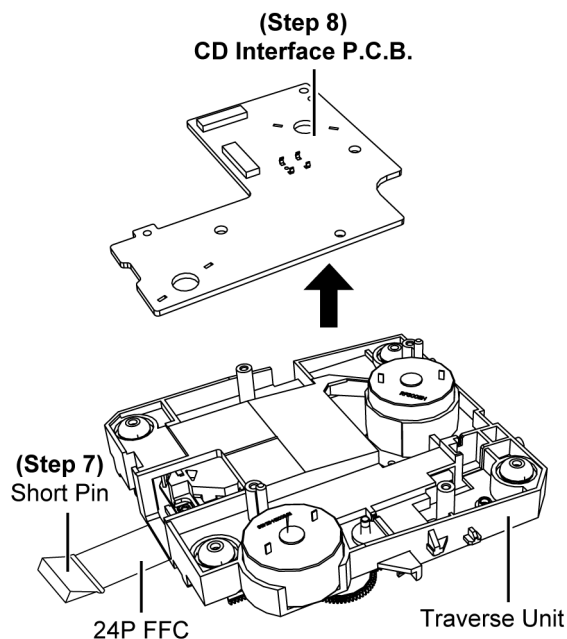


Step 2 : Lift up the Mecha Chassis & remove Floating Springs.
Caution : Keep the Floating Springs and place them back during assembling.



Step 7 : Attach short pin to the 24P FFC of the Traverse Unit.

Step 8 : Remove CD Interface P.C.B..



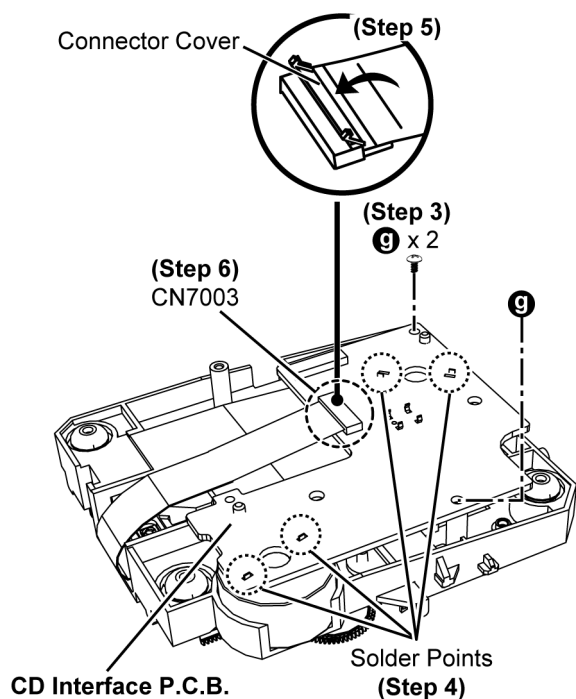
Step 3 : Remove 2 screws.

Step 4 : Desolder points on the CD Interface P.C.B..

Step 5 : Lift up the Connector Cover.

Caution : Do not use strong force as it may damage the connector cover.

Step 6 : Detach 24P FFC at connector (CN7003) on the CD Interface P.C.B..



8.26. Disassembly of Main P.C.B.

- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Front Panel Block"
- Refer to "Disassembly of SMPS Unit"
- Refer to "Disassembly of CD Mechanism"

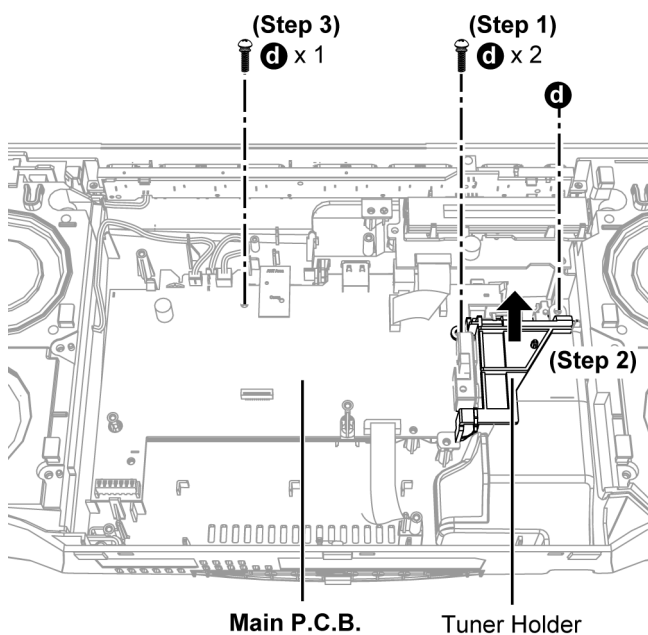
Caution:

In case either NFC P.C.B. or EEPROM IC (IC8004) on Main P.C.B. should break down, they need to be replaced at the same time as a pair.
For the details, please refer to "Service Navigation"

Step 1 : Remove 2 screws.

Step 2 : Remove Tuner Holder.

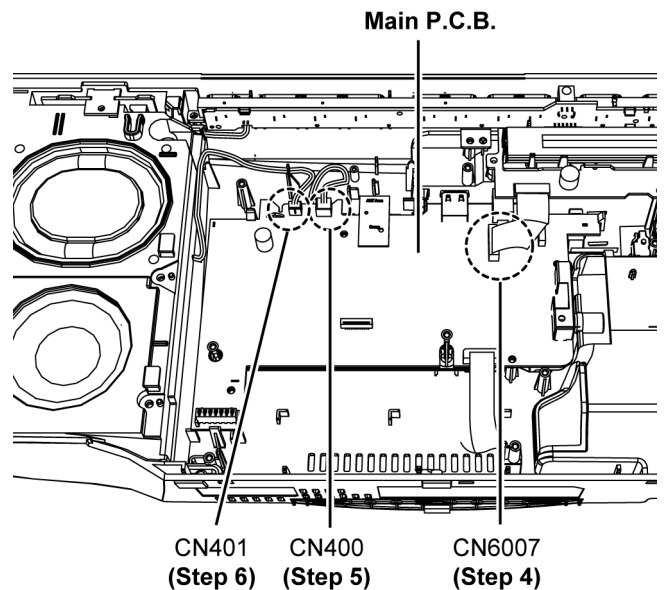
Step 3 : Remove 1 screw.



Step 4 : Detach 14P FFC at connector (CN6007) on the Main P.C.B..

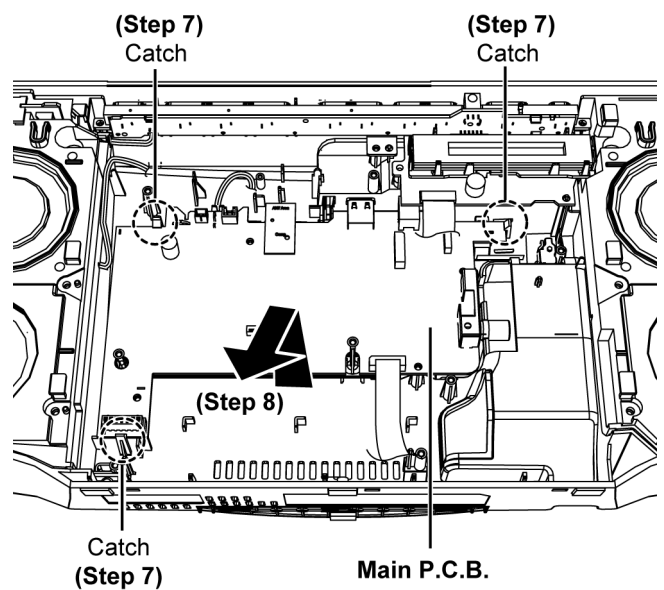
Step 5 : Detach 2P wire at connector (CN400) on the Main P.C.B..

Step 6 : Detach 2P wire at connector (CN401) on the Main P.C.B..



Step 7 : Release catches.

Step 8 : Slightly lift up to remove Main P.C.B..



8.27. Disassembly of Front Speaker (SP1)

- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Front Panel Block"
- Refer to "Disassembly of NFC P.C.B."
- Refer to "(Step 1) - (Step 3) of item 8.22."
- Refer to "Disassembly of CD Mechanism"

Caution : When assembled the Button Ornament Unit, ensure it is seated properly and all button operations are working.

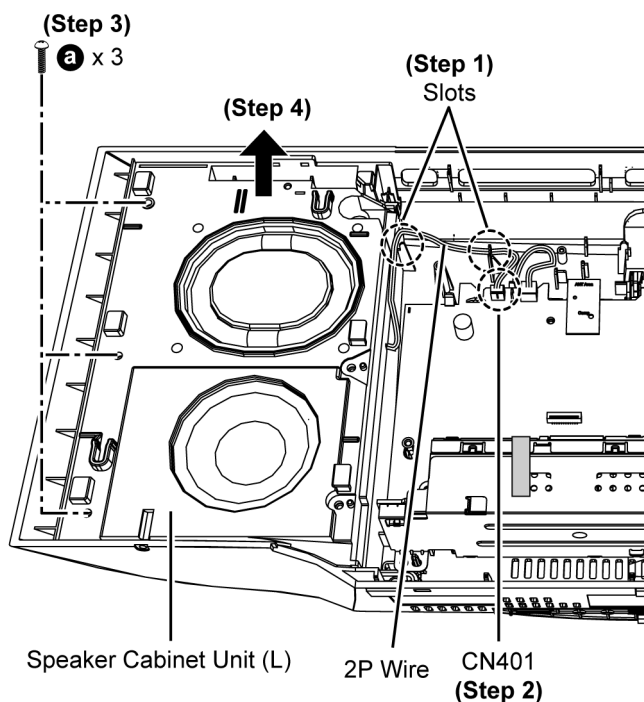
Step 1 : Release 2P wire from the slots.

Caution : During assembling, dressed the 2P wire into the slots of the Rear Panel Block.

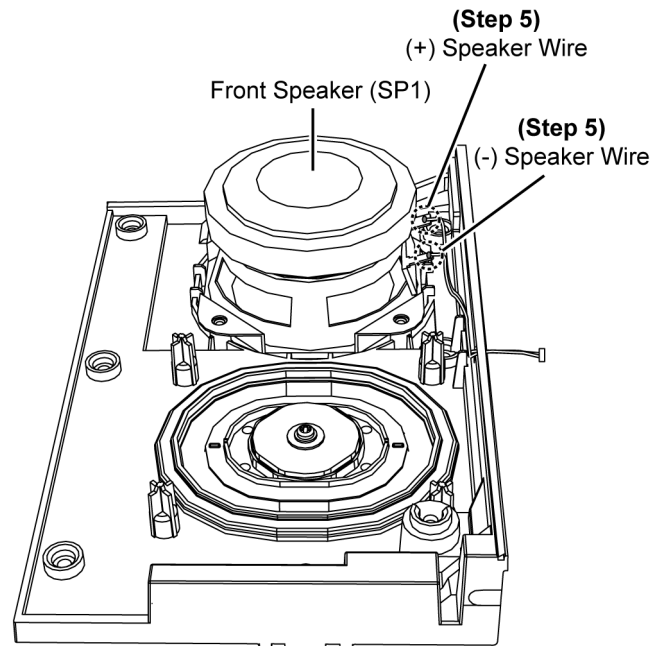
Step 2 : Detach 2P wire at connector (CN401) on the Main P.C.B..

Step 3 : Remove 3 screws.

Step 4 : Remove Speaker Cabinet Unit (L).

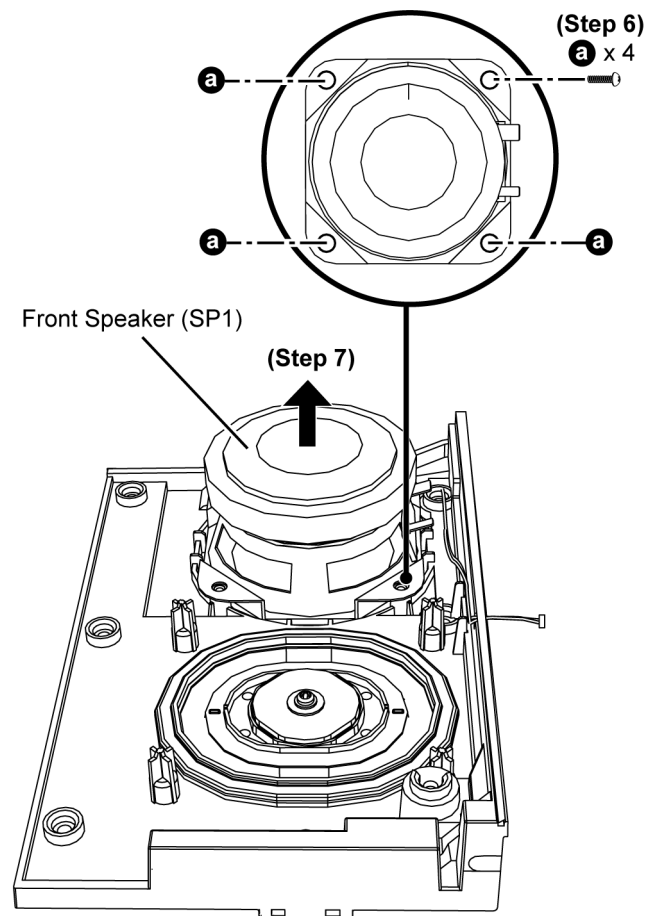


Step 5 : Desolder the speaker wire at the terminals on the Front Speaker (SP1).



Step 6 : Remove 4 screws.

Step 7 : Remove Front Speaker (SP1).

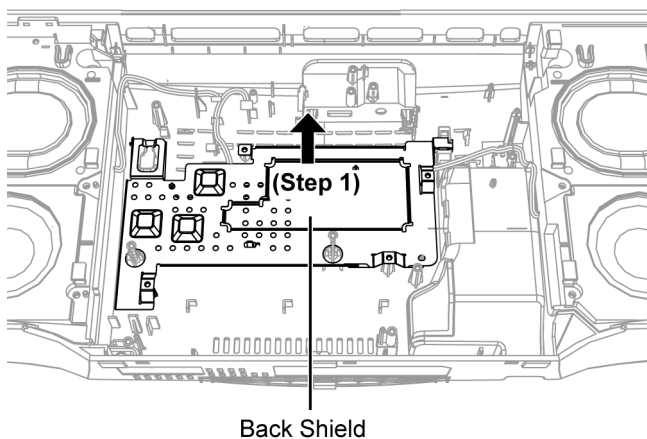


8.28. Disassembly of Front Speaker (SP2)

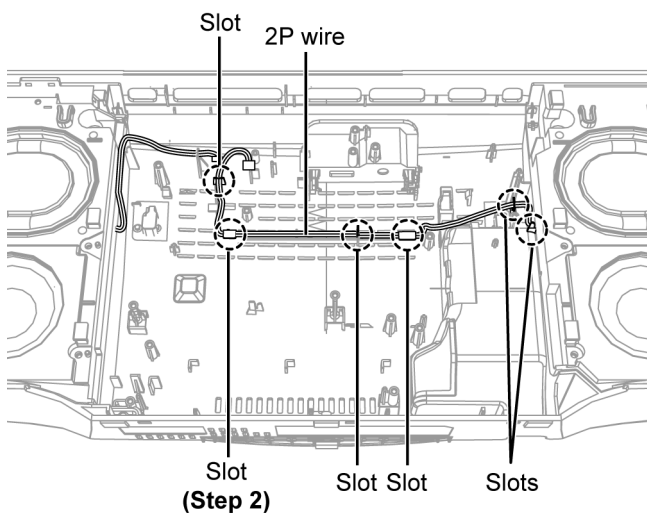
- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Front Panel Block"
- Refer to "Disassembly of NFC P.C.B."
- Refer to "Disassembly of SMPS Unit"
- Refer to "(Step 1) - (Step 3) of item 8.22."
- Refer to "Disassembly of CD Mechanism"
- Refer to "Disassembly of Main P.C.B."

Caution : When assembled the Button Ornament Unit, ensure it is seated properly and all button operations are working.

Step 1 : Remove Back Shield.

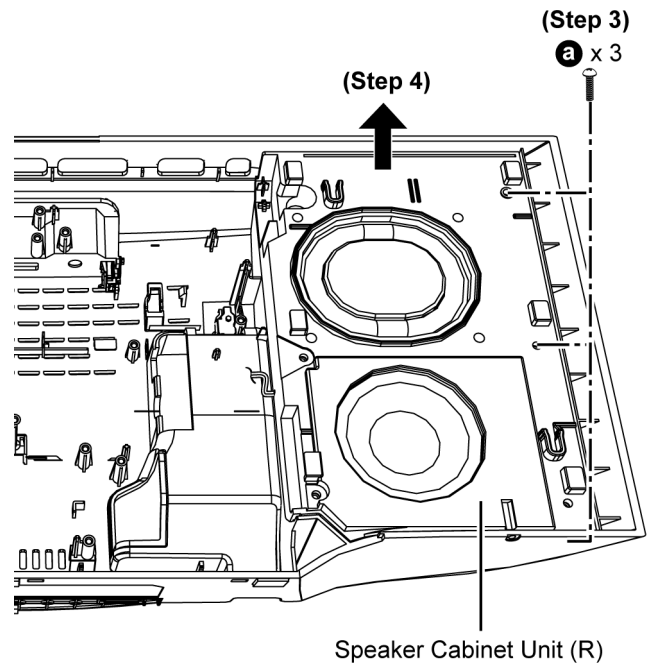


Step 2 : Release 2P wire from the slots.

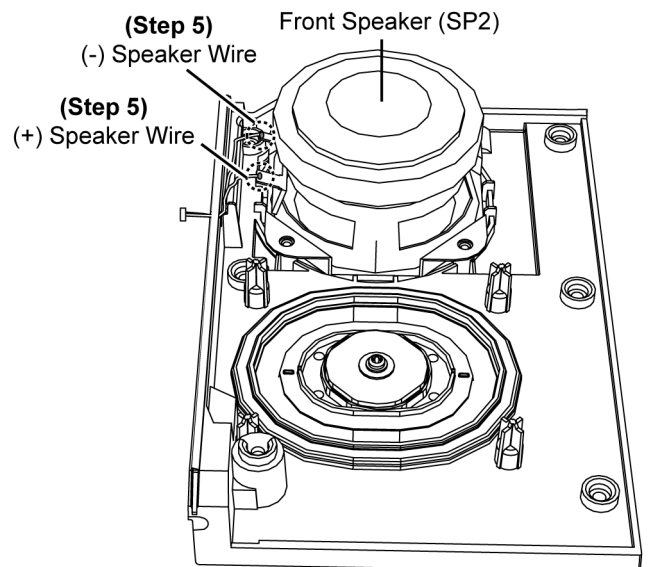


Step 3 : Remove 3 screws.

Step 4 : Remove Speaker Cabinet Unit (R).

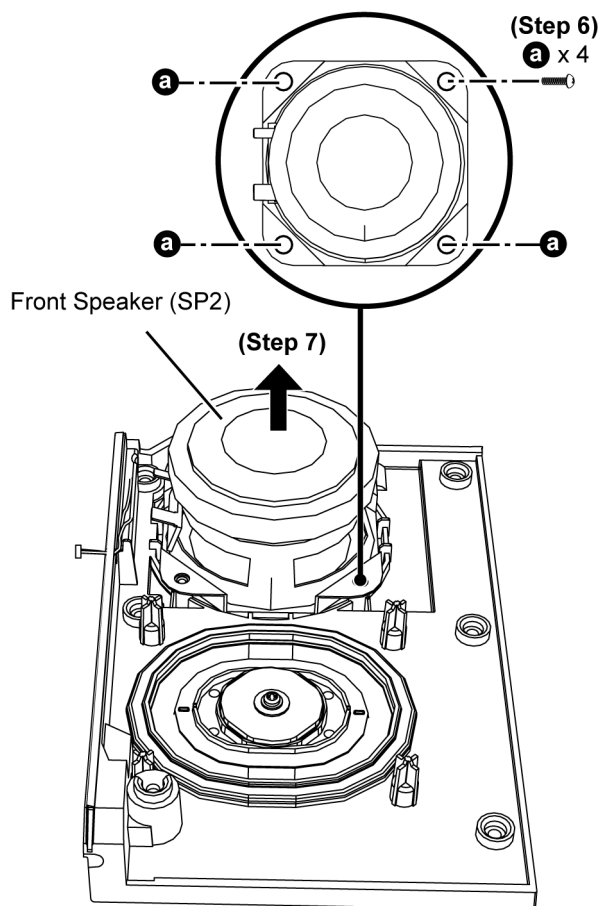


Step 5 : Desolder the speaker wire at the terminals on the Front Speaker (SP2).



Step 6 : Remove 4 screws.

Step 7 : Remove Front Speaker (SP2).



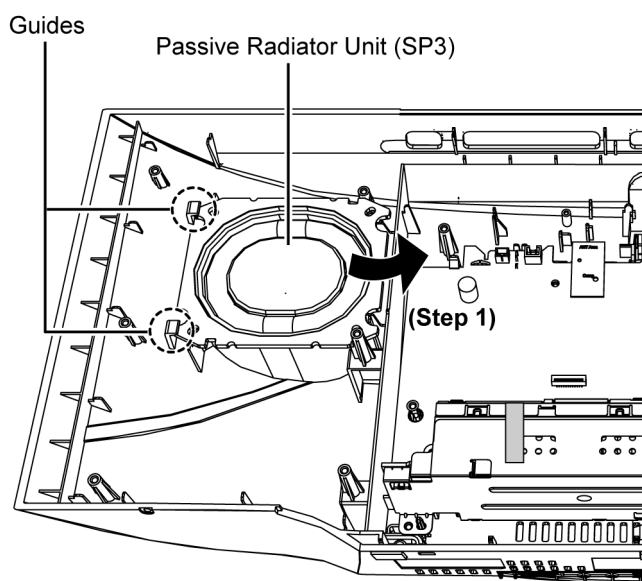
8.29. Disassembly of Passive Radiator Unit (SP3)

- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Front Panel Block"
- Refer to "Disassembly of NFC P.C.B."
- Refer to "(Step 1) - (Step 3) of item 8.22."
- Refer to "Disassembly of CD Mechanism"
- Refer to "(Step 1) - (Step 4) of item 8.27."

Caution : When assembled the Button Ornament Unit, ensure it is seated properly and all button operations are working.

Step 1 : Slightly lift up to remove the Passive Radiator Unit (SP3).

Caution : During assembling, ensure the Passive Radiator Unit (SP3) is seated under the guides of the cabinet as shown.



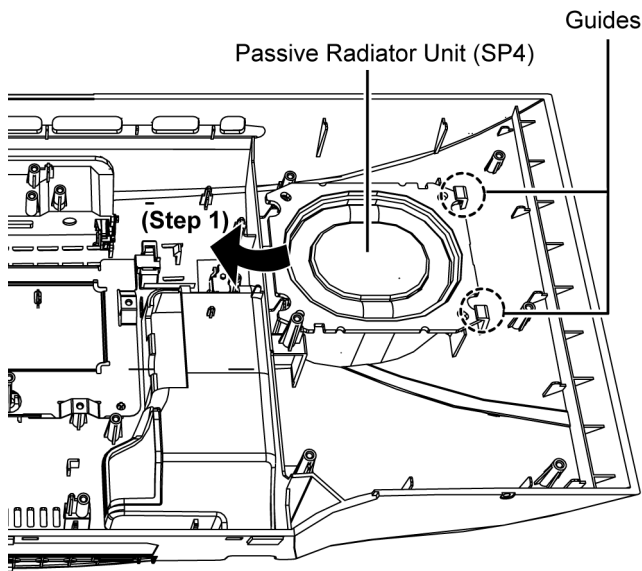
8.30. Disassembly of Passive Radiator Unit (SP4)

- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Front Panel Block"
- Refer to "Disassembly of NFC P.C.B."
- Refer to "Disassembly of SMPS Unit"
- Refer to "(Step 1) - (Step 3) of item 8.22."
- Refer to "Disassembly of CD Mechanism"
- Refer to "Disassembly of Main P.C.B."
- Refer to "(Step 1) - (Step 4) of item 8.28."

Caution : When assembled the Button Ornament Unit, ensure it is seated properly and all button operations are working.

Step 1 : Slightly lift up to remove the Passive Radiator Unit (SP4).

Caution : During assembling, ensure the Passive Radiator Unit (SP4) is seated under the guides of the cabinet as shown.



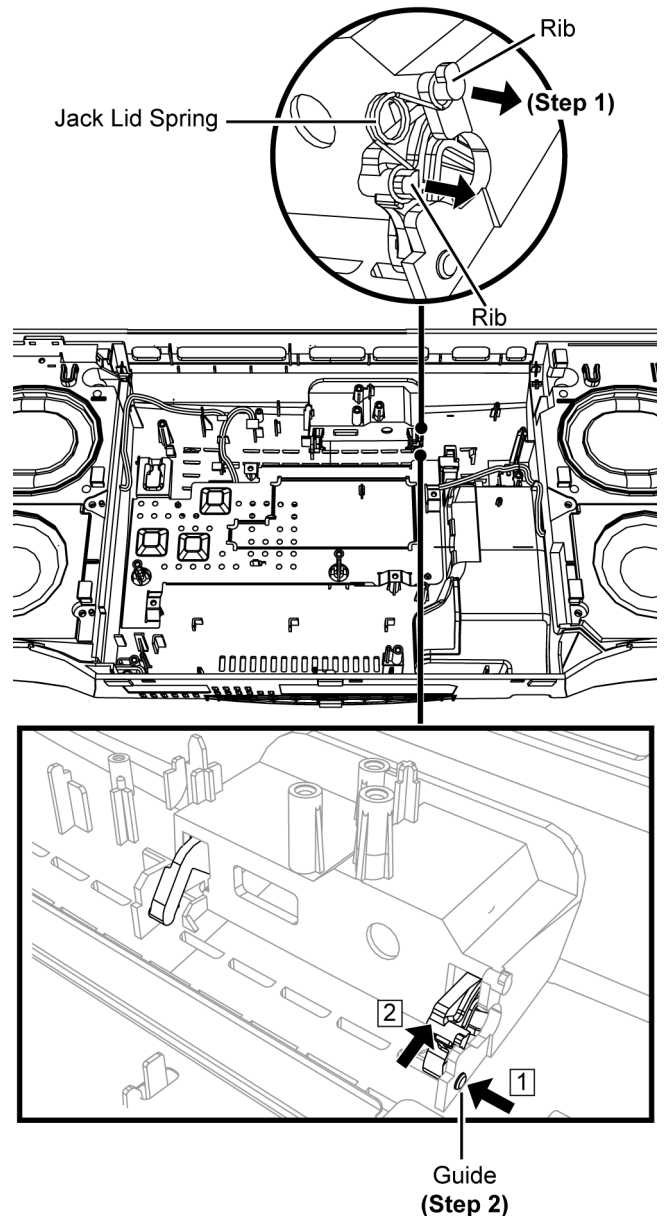
8.31. Disassembly of Jack Lid

- Refer to "Disassembly of Front Ornament Unit (L) & (R)"
- Refer to "Disassembly of Front Panel Block"
- Refer to "Disassembly of NFC P.C.B."
- Refer to "Disassembly of SMPS Unit"
- Refer to "(Step 1) - (Step 3) of item 8.22."
- Refer to "Disassembly of CD Mechanism"
- Refer to "Disassembly of Main P.C.B."

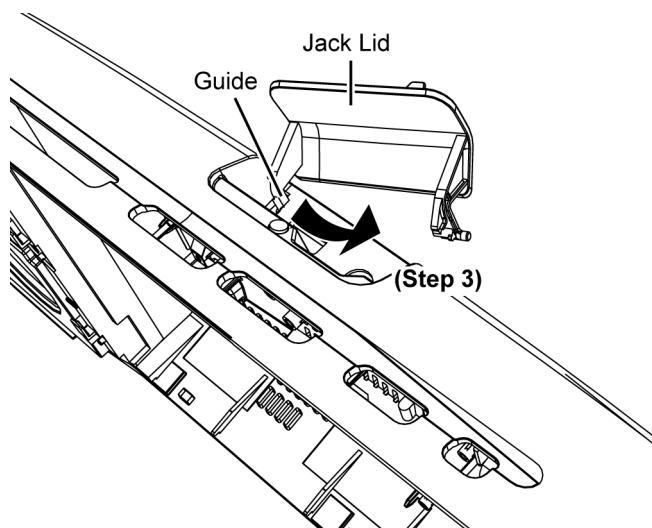
Caution : When assembled the Button Ornament Unit, ensure it is seated properly and all button operations are working.

Step 1 : Release Jack Lid Spring as shown.

Step 2 : Release shaft of the Jack Lid inwards in order of sequences (1) to (2) as shown.



Step 3 : Lift up to remove Jack Lid in the direction as shown.



9 Service Position

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

9.1. Checking of SMPS P.C.B.

Step 1 : Remove Front Ornament Unit (L) & (R).

Step 2 : Remove Front Panel Block.

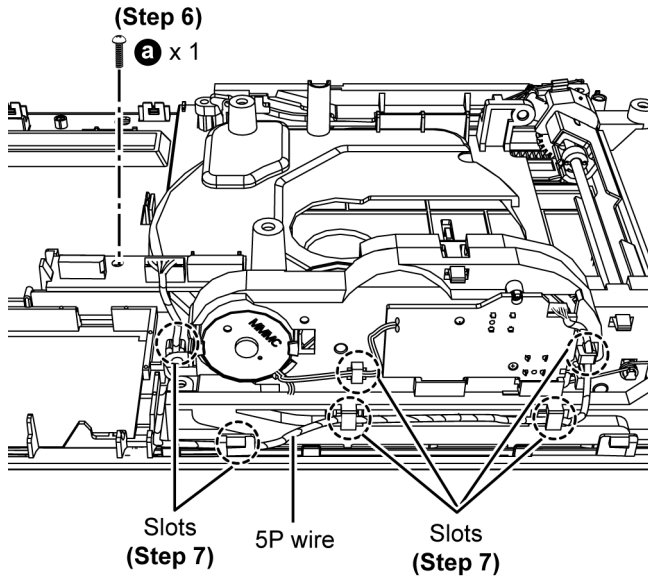
Step 3 : Remove iPod Block.

Step 4 : Remove SMPS Unit.

Step 5 : Remove SMPS P.C.B..

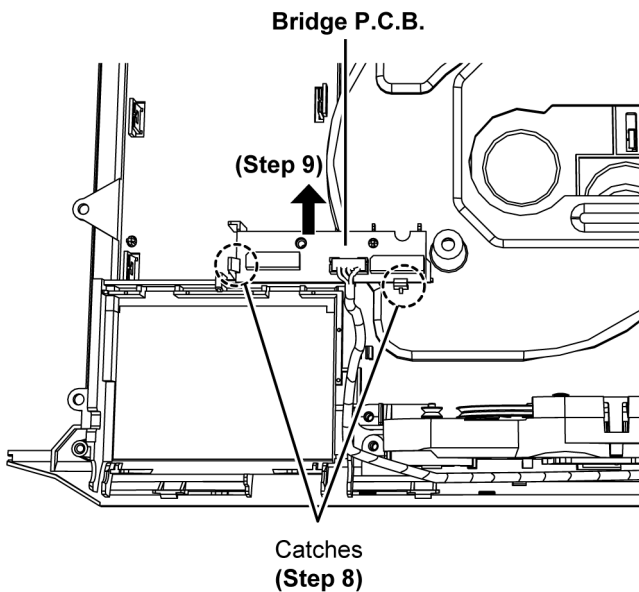
Step 6 : Remove 1 screw.

Step 7 : Release 5P wire from the slots.



Step 8 : Release catches.

Step 9 : Remove Bridge P.C.B..

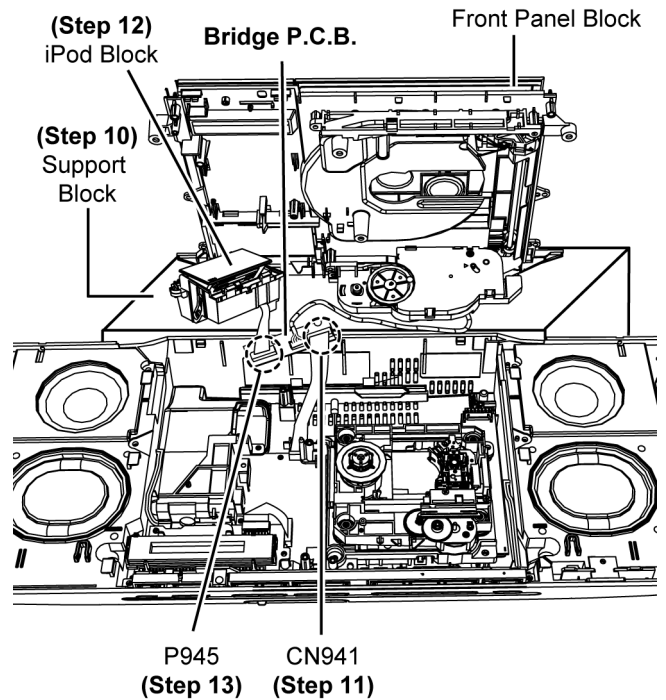


Step 10 : Place a Support Block to support the Front Panel Block as shown.

Step 11 : Connect 14P FFC at connector (CN941) on Bridge P.C.B..

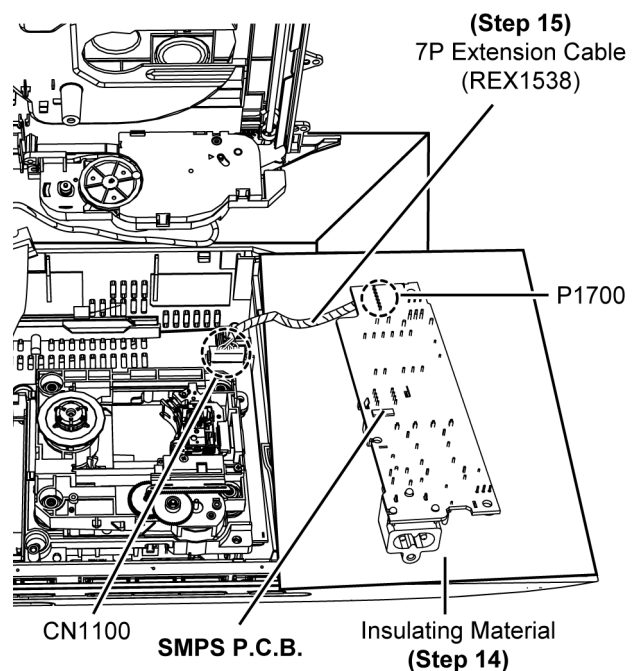
Step 12 : Place the iPod Block on the Support Block.

Step 13 : Connect 9P FFC at connector (P945) on Bridge P.C.B..

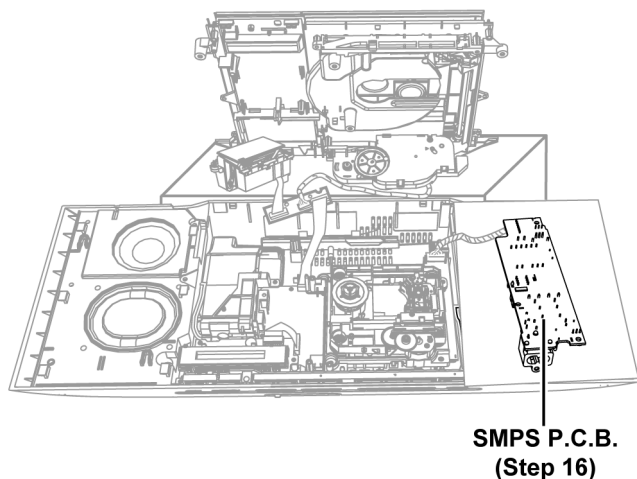


Step 14 : Place the SMPS P.C.B. on the Insulating Material.

Step 15 : Connect 7P extension cable (REX1538) from P1700 on the SMPS P.C.B. to CN1100 on the Main P.C.B..



Step 16 : Check the SMPS P.C.B. according to the diagram shown.



9.2. Checking of FL P.C.B.

Step 1 : Remove Front Ornament Unit (L) & (R).

Step 2 : Remove Front Panel Block.

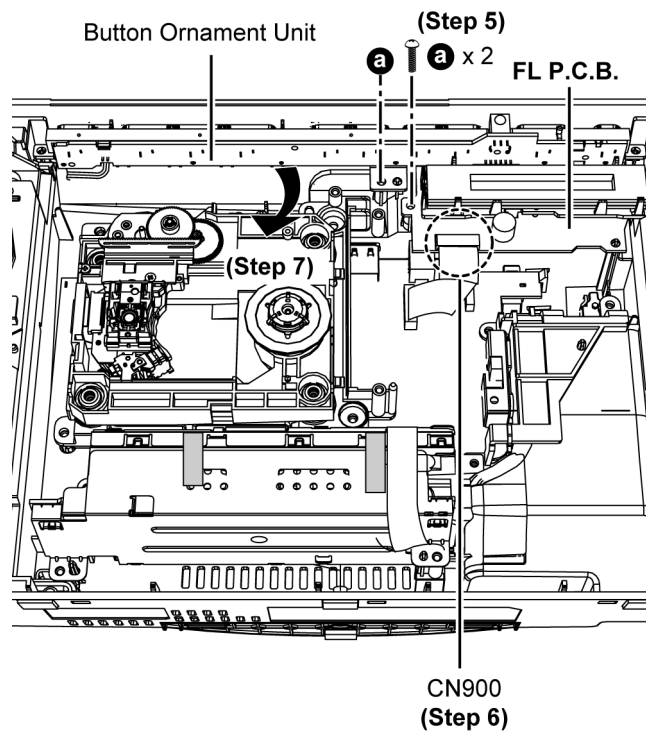
Step 3 : Remove iPod Block.

Step 4 : Remove NFC P.C.B..

Step 5 : Remove 2 screws.

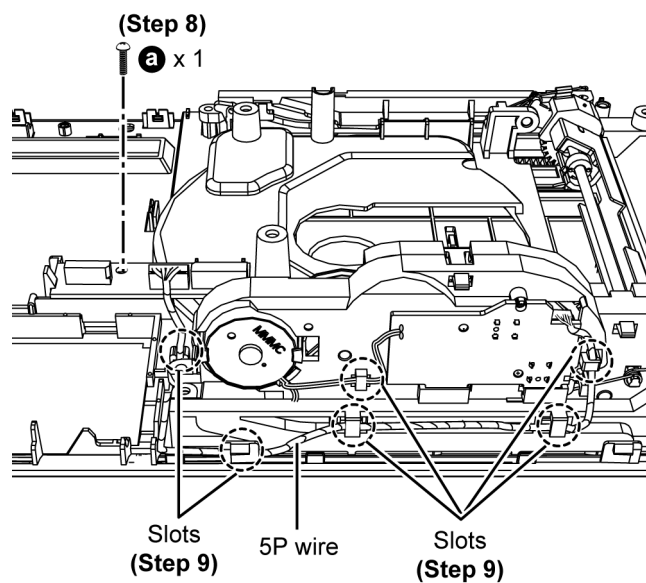
Step 6 : Detach 14P FFC at connector (CN900) on the Button P.C.B..

Step 7 : Lift up FL P.C.B. and Button Ornament Unit.



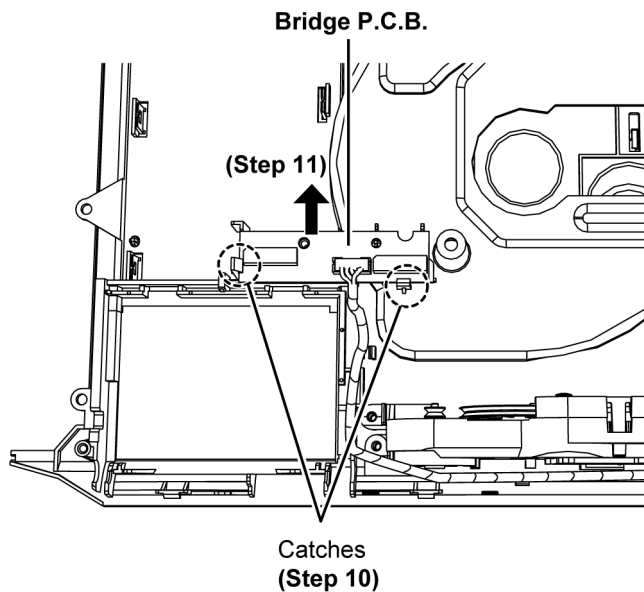
Step 8 : Remove 1 screw.

Step 9 : Release 5P wire from the slots.



Step 10 : Release catches.

Step 11 : Remove Bridge P.C.B..

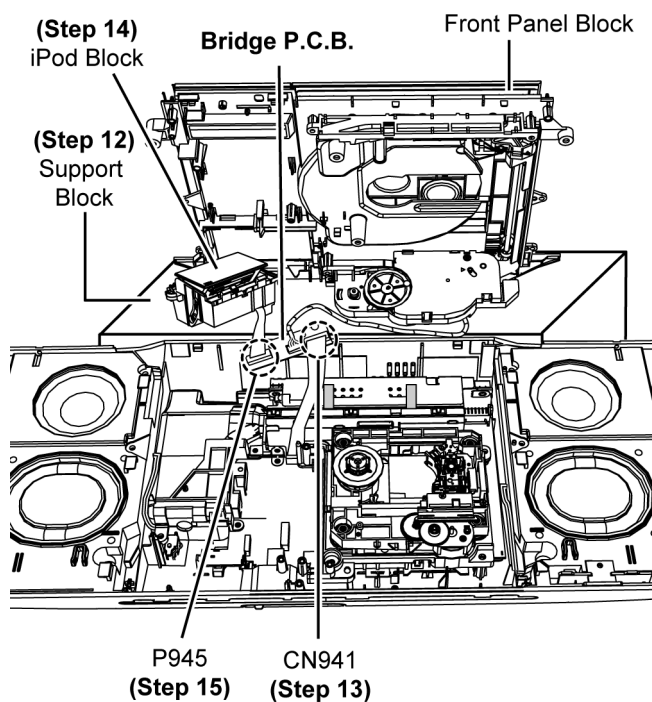


Step 12 : Place a Support Block to support the Front Panel Block as shown.

Step 13 : Connect 14P FFC at connector (CN941) on Bridge P.C.B..

Step 14 : Place the iPod Block on the Support Block.

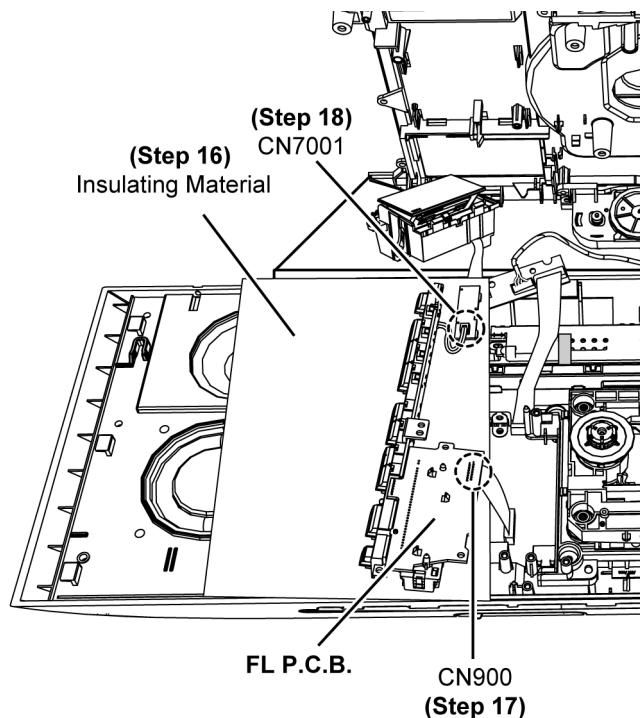
Step 15 : Connect 9P FFC at connector (P945) on Bridge P.C.B..



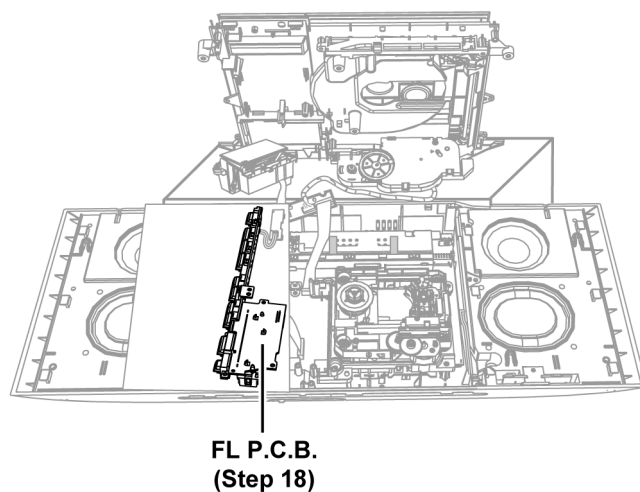
Step 16 : Place the FL P.C.B. on the Insulating Material.

Step 17 : Connect 14P FFC at connector (CN900) on FL P.C.B..

Step 18 : Connect 2P wire at connector (CN7001) on NFC P.C.B..



Step 19 : Check the FL P.C.B. according to the diagram shown.



9.3. Checking of CD Interface P.C.B.

Note : Insert CD before Checking CD Interface P.C.B.

Step 1 : Remove Front Ornament Unit (L) & (R).

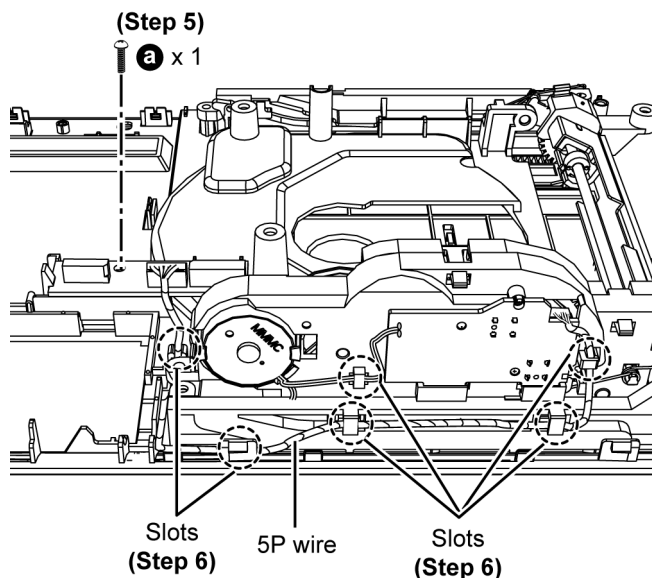
Step 2 : Remove Front Panel Block.

Step 3 : Remove iPod Block.

Step 4 : Remove CD Mechanism.

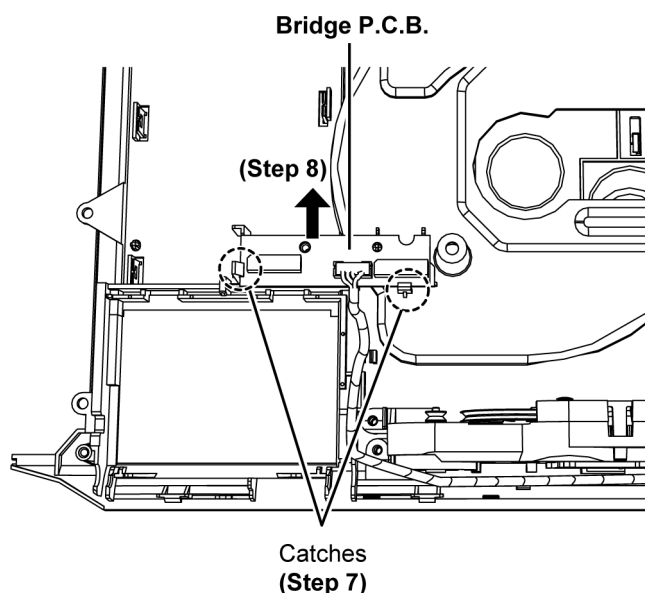
Step 5 : Remove 1 screw.

Step 6 : Release 5P wire from the slots.



Step 7 : Release catches.

Step 8 : Remove Bridge P.C.B..

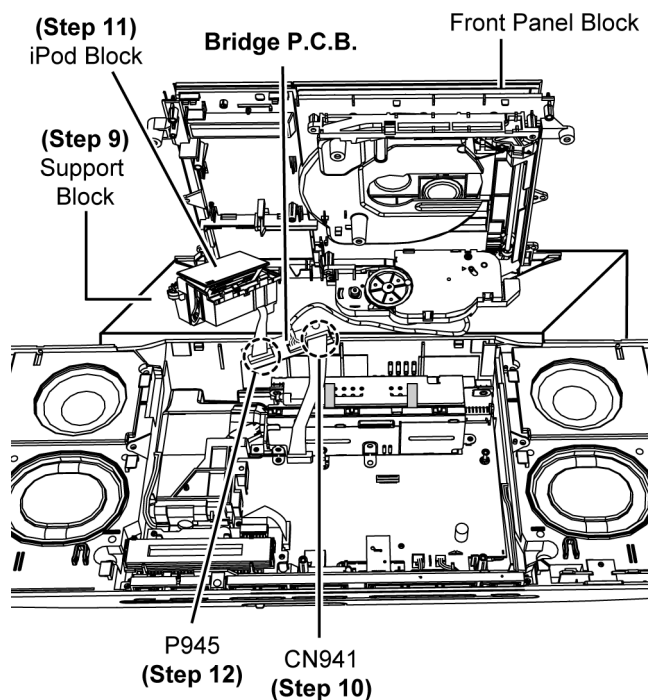


Step 9 : Place a Support Block to support the Front Panel Block as shown.

Step 10 : Connect 14P FFC at connector (CN941) on Bridge P.C.B..

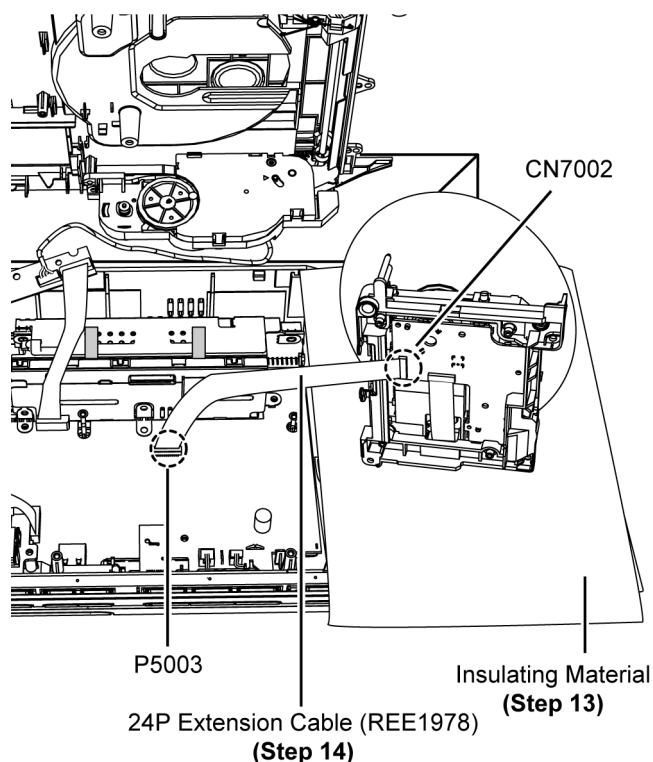
Step 11 : Place the iPod Block on the Support Block.

Step 12 : Connect 9P FFC at connector (P945) on Bridge P.C.B..

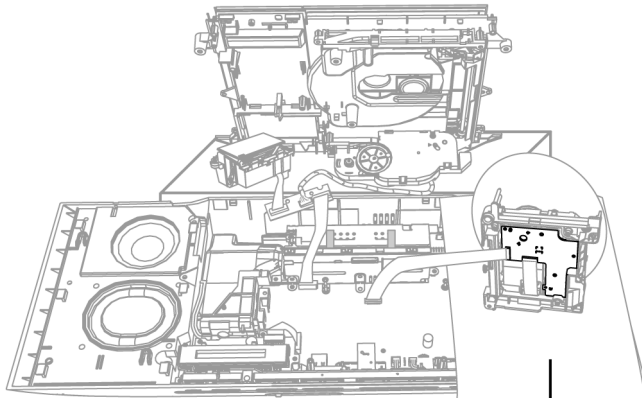


Step 13 : Place the CD Mechanism on the Insulating Material.

Step 14 : Connect 24P extension cable (REE1978) from P5003 on the Main P.C.B. to CN7002 on the CD Interface P.C.B..



Step 15 : Check the CD Interface P.C.B. according to the diagram shown.



**CD Interface P.C.B.
(Step 15)**

9.4. Checking of Main P.C.B.

Step 1 : Remove Front Ornament Unit (L) & (R).

Step 2 : Remove Front Panel Block.

Step 3 : Remove iPod Block.

Step 4 : Remove NFC P.C.B..

Step 5 : Remove SMPS Unit.

Step 6 : Remove Bottom Ornament Unit.

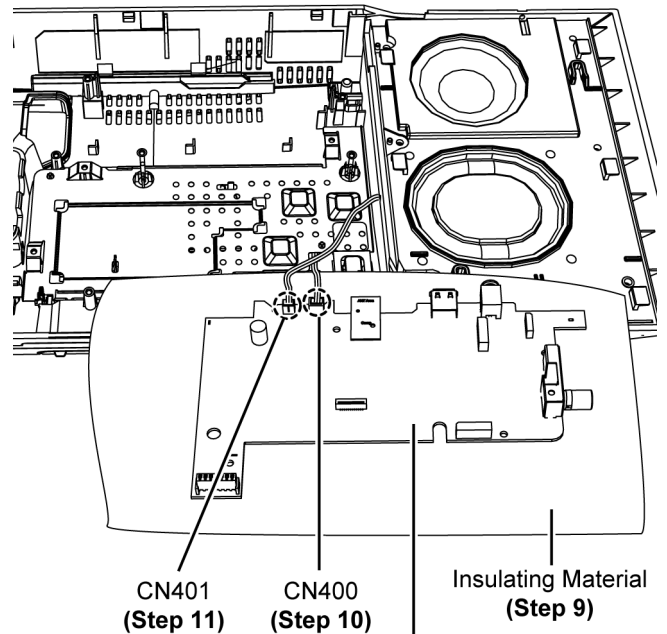
Step 7 : Remove CD Mechanism.

Step 8 : Remove Main P.C.B..

Step 9 : Place the Main P.C.B. on the Insulating Material.

Step 10 : Connect 2P wire at connector (CN400) on Main P.C.B..

Step 11 : Connect 2P wire at connector (CN401) on Main P.C.B..

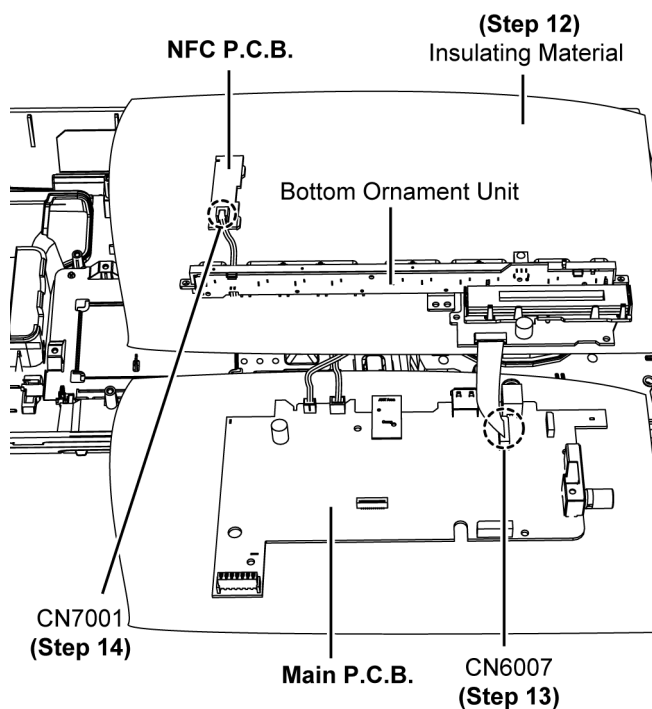


Main P.C.B.

Step 12 : Place the Bottom Ornament Unit & NFC P.C.B. on the Insulating Material.

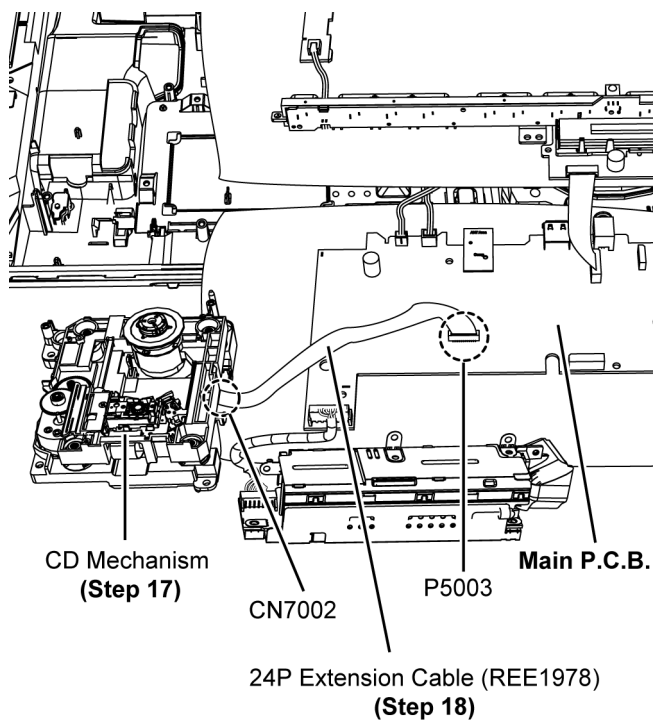
Step 13 : Connect 14P FFC at connector (CN6007) on Main P.C.B..

Step 14 : Connect 2P wire at connector (CN7001) on NFC P.C.B..



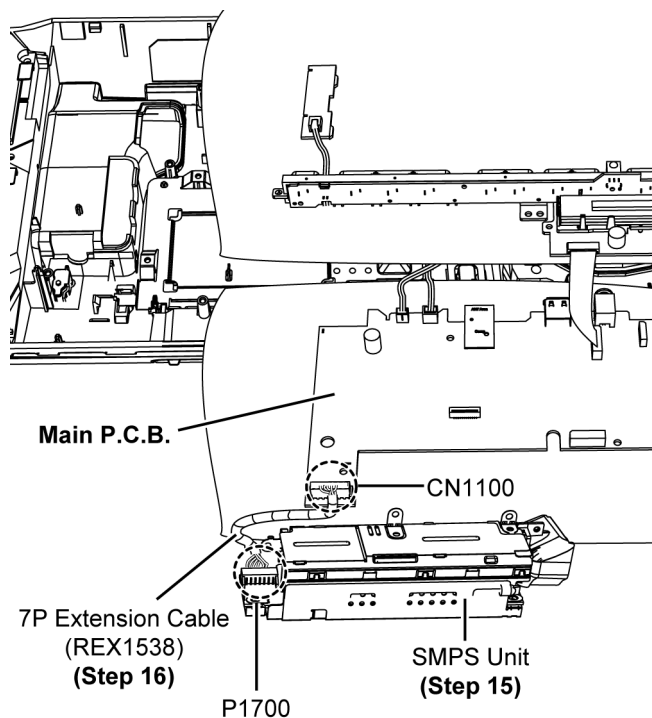
Step 17 : Place the CD Mechanism as shown.

Step 18 : Connect 24P extension cable (REE1978) from P5003 on the Main P.C.B. to CN7002 on the CD Interface P.C.B..



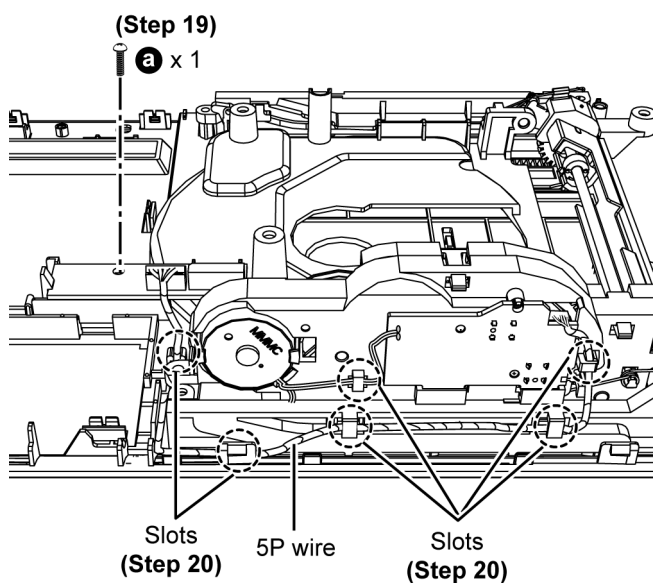
Step 15 : Place the SMPS Unit as shown.

Step 16 : Connect 7P extension cable (REX1538) from CN1100 on the Main P.C.B. to P1700 on the SMPS P.C.B..



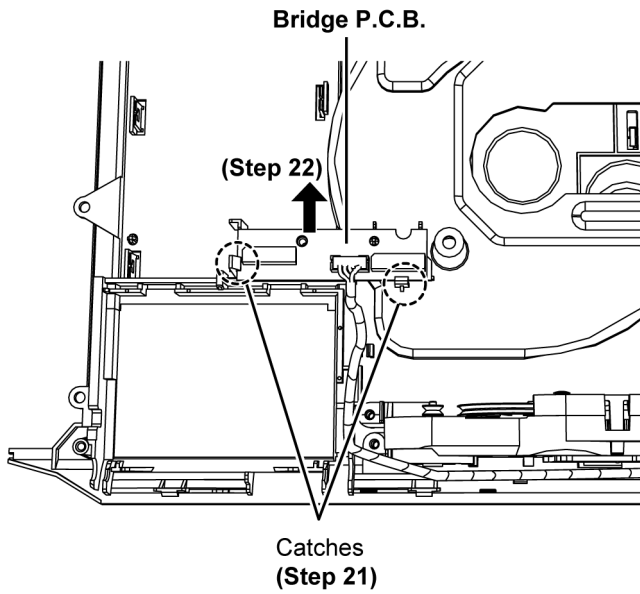
Step 19 : Remove 1 screw.

Step 20 : Release 5P wire from the slots.

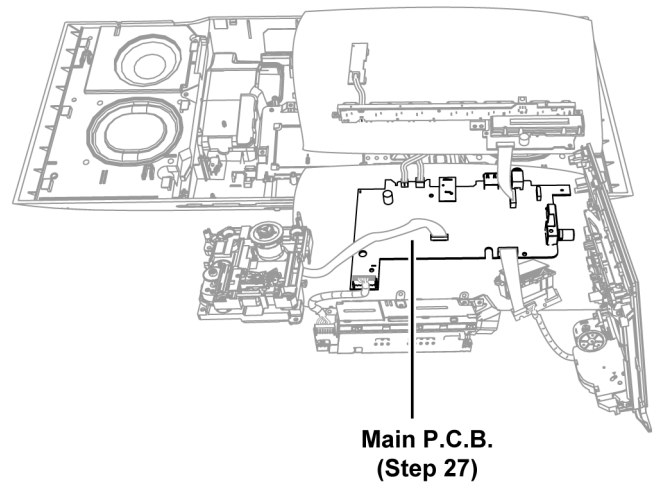


Step 21 : Release catches.

Step 22 : Remove Bridge P.C.B..



Step 27 : Check the Main P.C.B. according to the diagram shown.

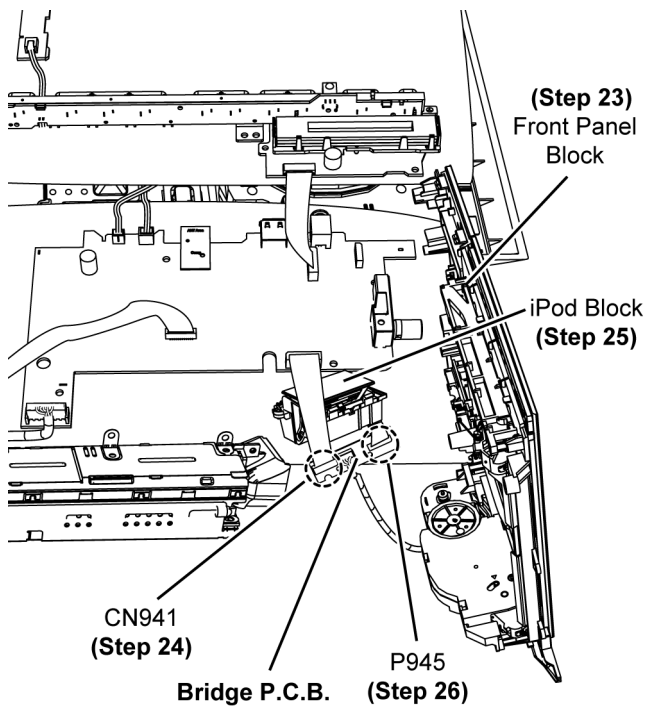


Step 23 : Place the Front Panel Block as shown.

Step 24 : Connect 14P FFC at connector (CN941) on Bridge P.C.B..

Step 25 : Place the iPod Block as shown.

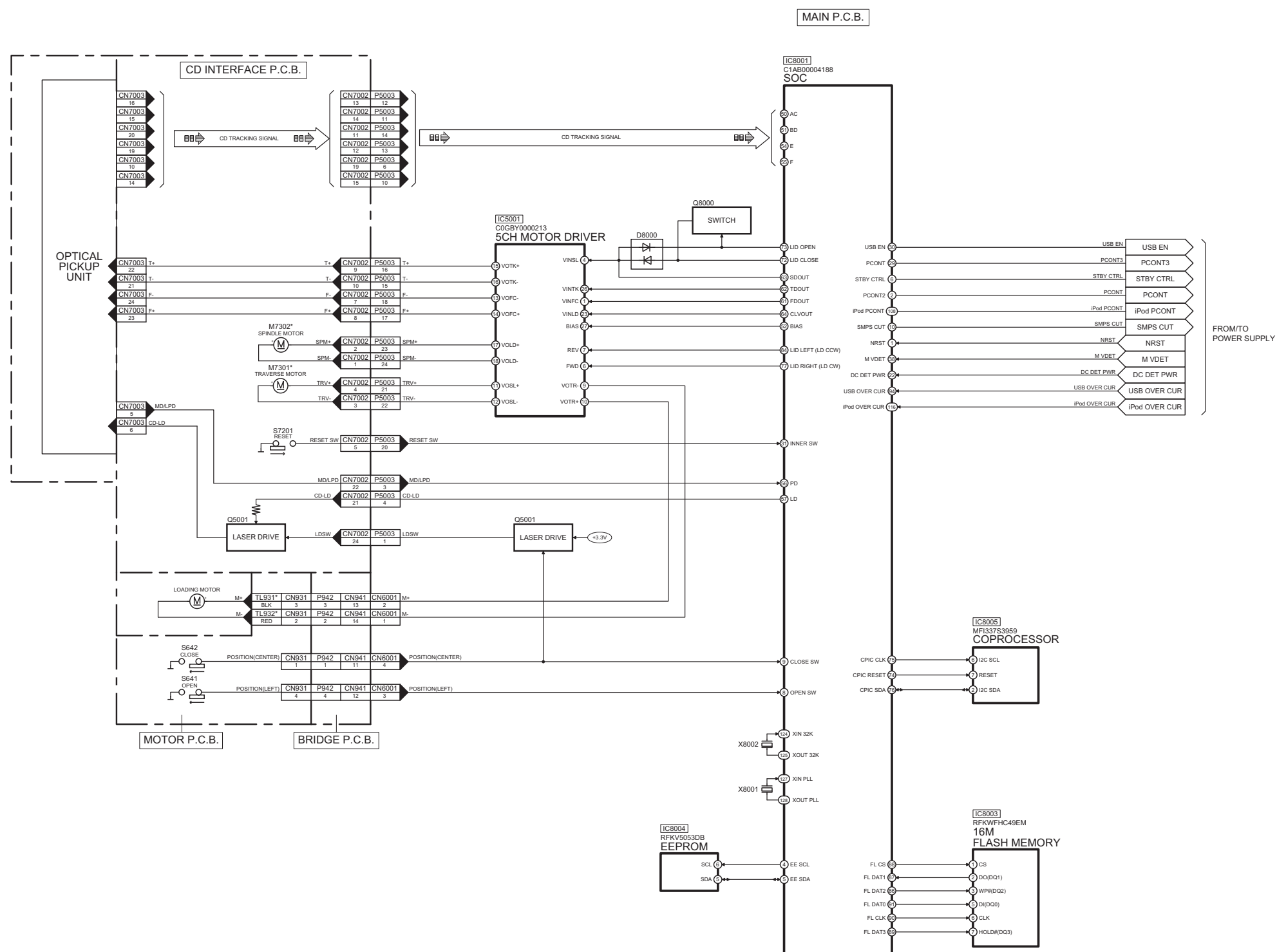
Step 26 : Connect 9P FFC at connector (P945) on Bridge P.C.B..



10 Block Diagram

10.1. SYSTEM CONTROL (1/2) BLOCK DIAGRAM

🔊 : CD AUDIO INPUT SIGNAL LINE 📶 : iPod/iPhone/iPad(USB) SIGNAL LINE



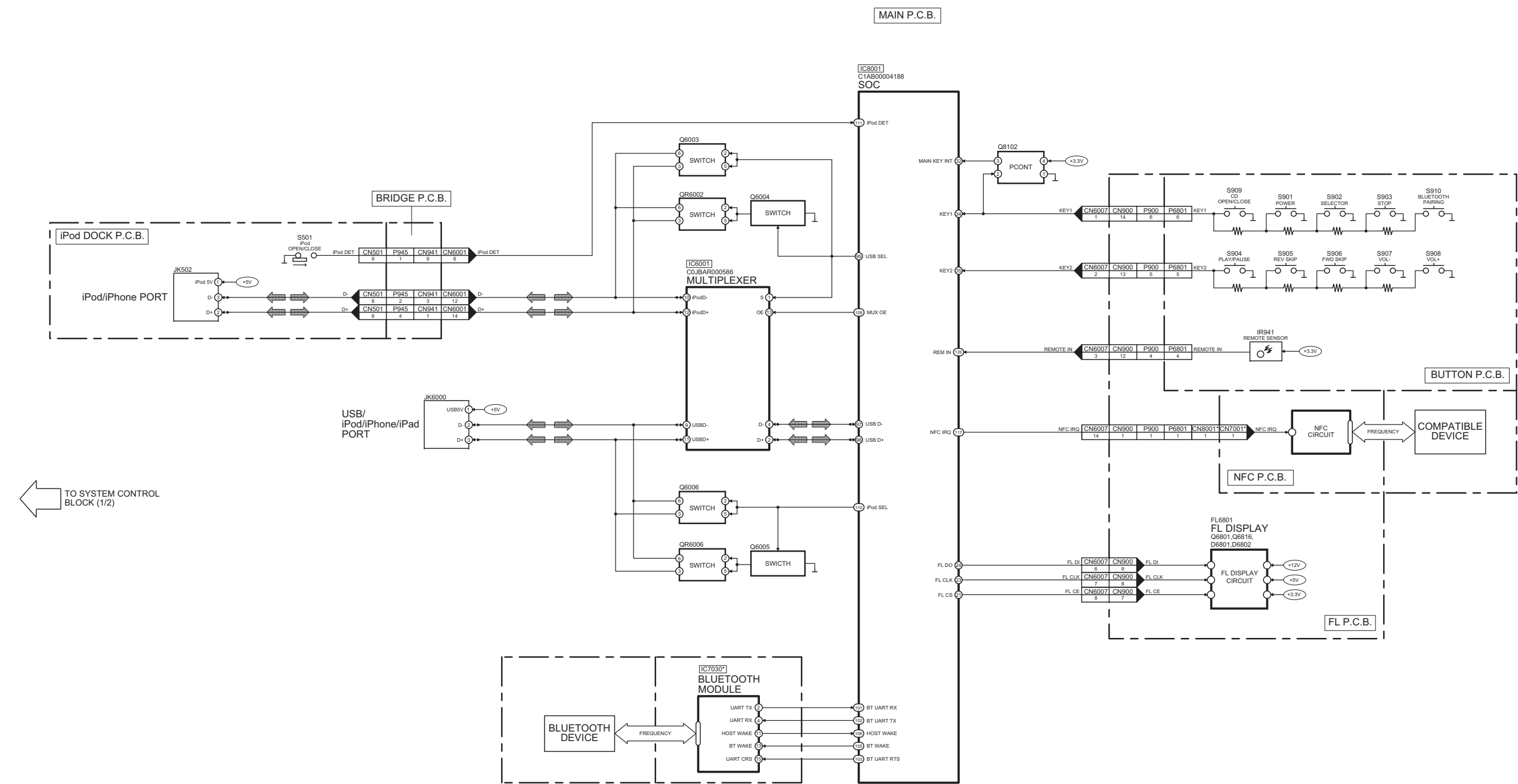
TO SYSTEM CONTROL
BLOCK (2/2) ➔

NOTE: “*” REF IS FOR INDICATION ONLY

SC-HC49EG SYSTEM CONTROL (1/2) BLOCK DIAGRAM

10.2. SYSTEM CONTROL (2/2) BLOCK DIAGRAM

CD AUDIO INPUT SIGNAL LINE iPod/iPhone/iPad(USB) SIGNAL LINE

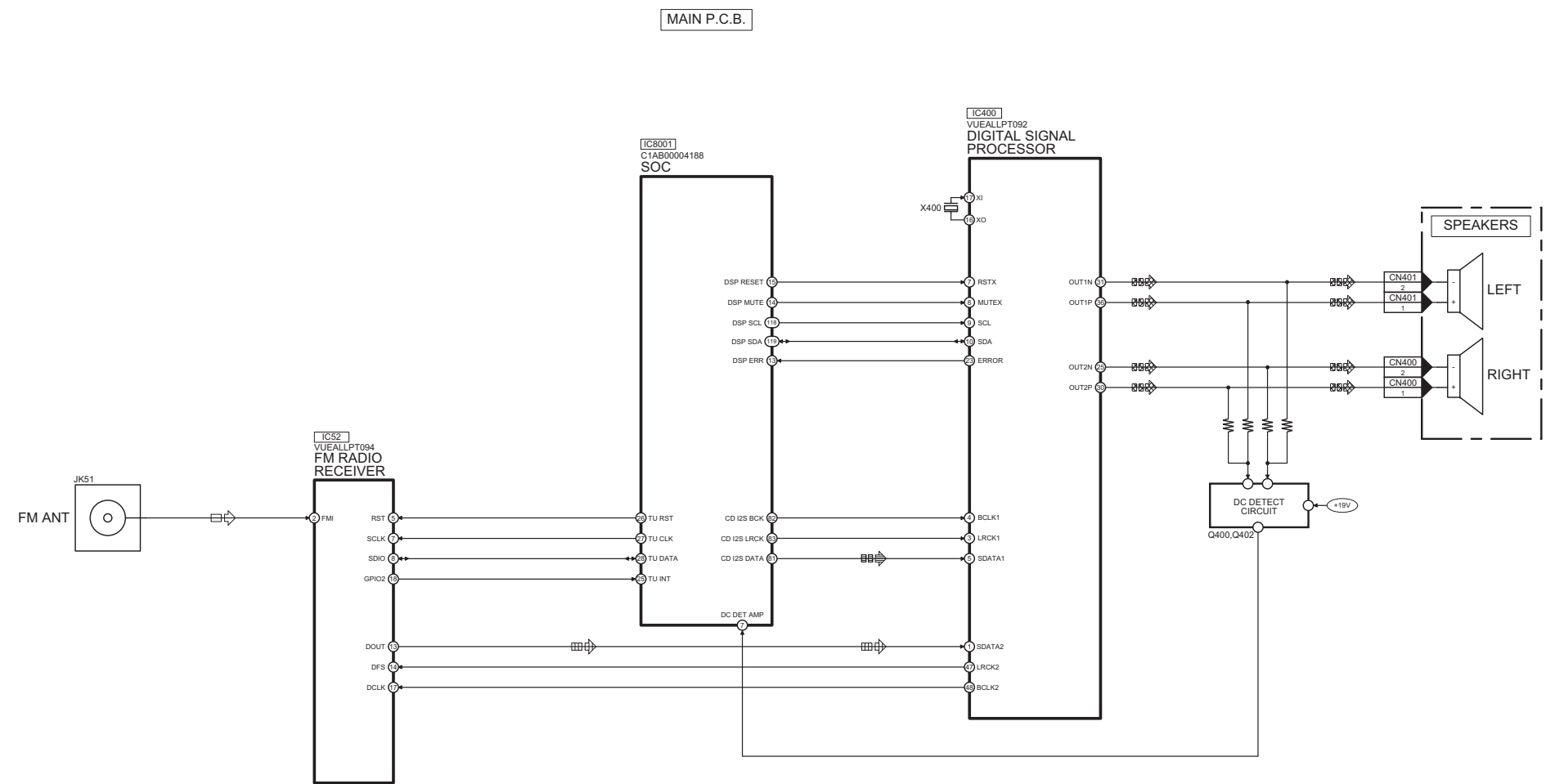


NOTE: “ * ” REF IS FOR INDICATION ONLY

SC-HC49EG SYSTEM CONTROL (2/2) BLOCK DIAGRAM

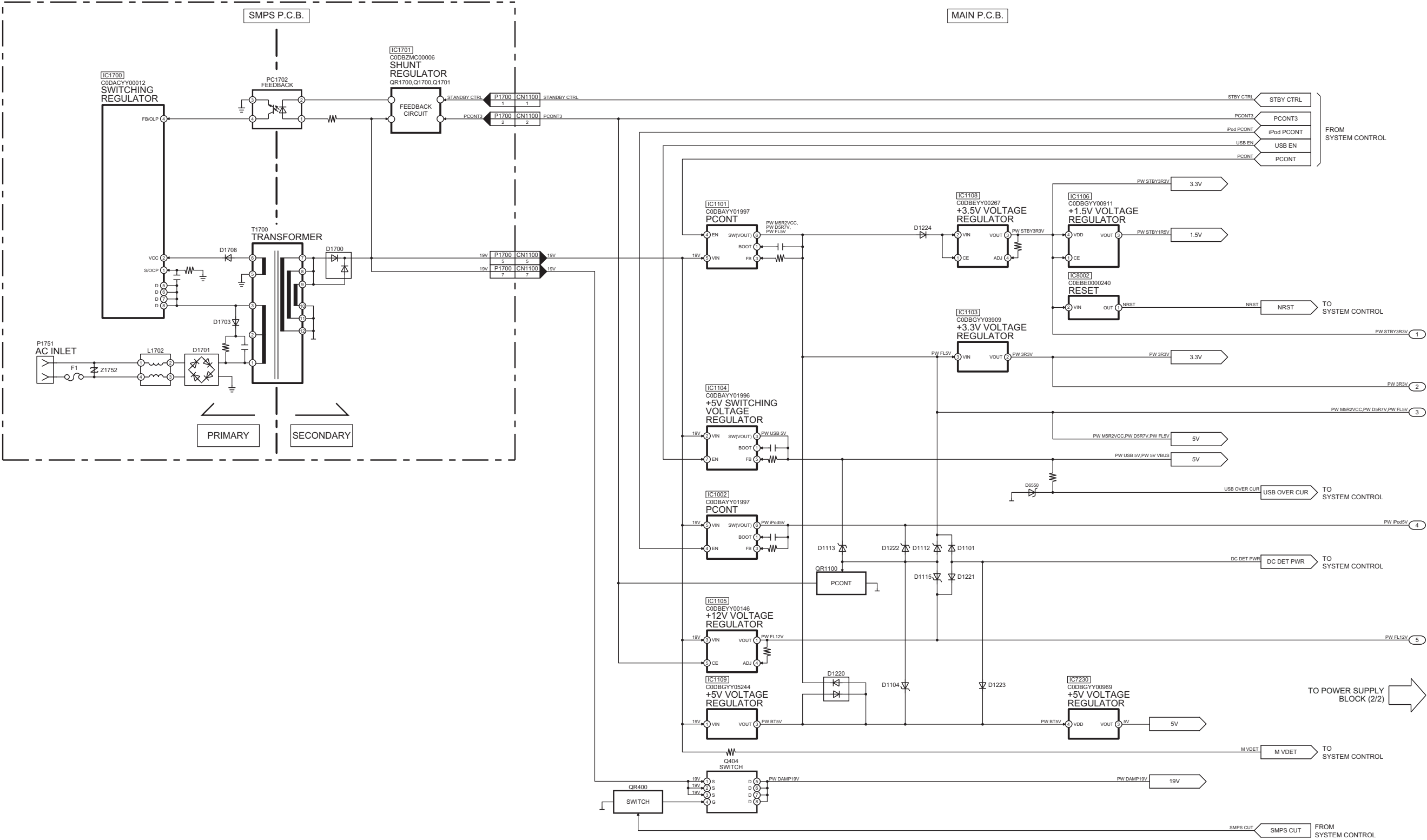
10.3. AUDIO BLOCK DIAGRAM

 : CD AUDIO INPUT SIGNAL LINE
  : TUNER AUDIO INPUT SIGNAL LINE
  : AUDIO OUTPUT SIGNAL LINE
  : FM SIGNAL LINE



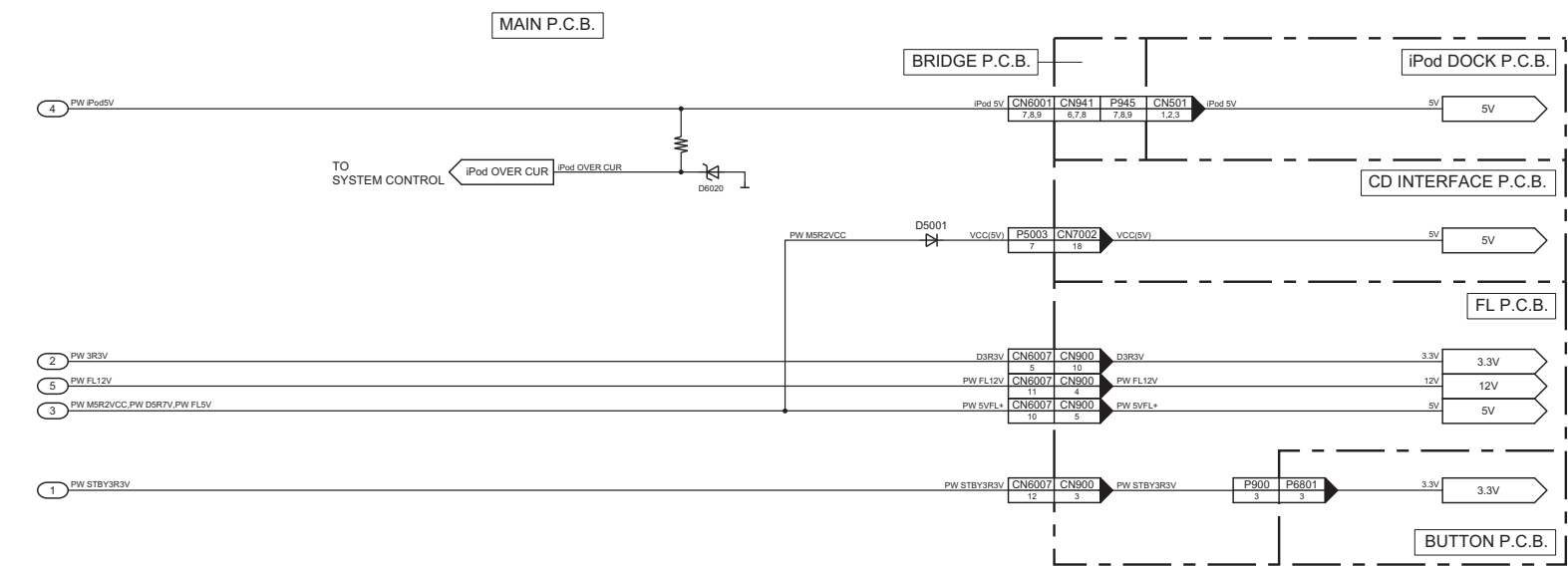
SC-HC49EG AUDIO BLOCK DIAGRAM

10.4. POWER SUPPLY (1/2) BLOCK DIAGRAM



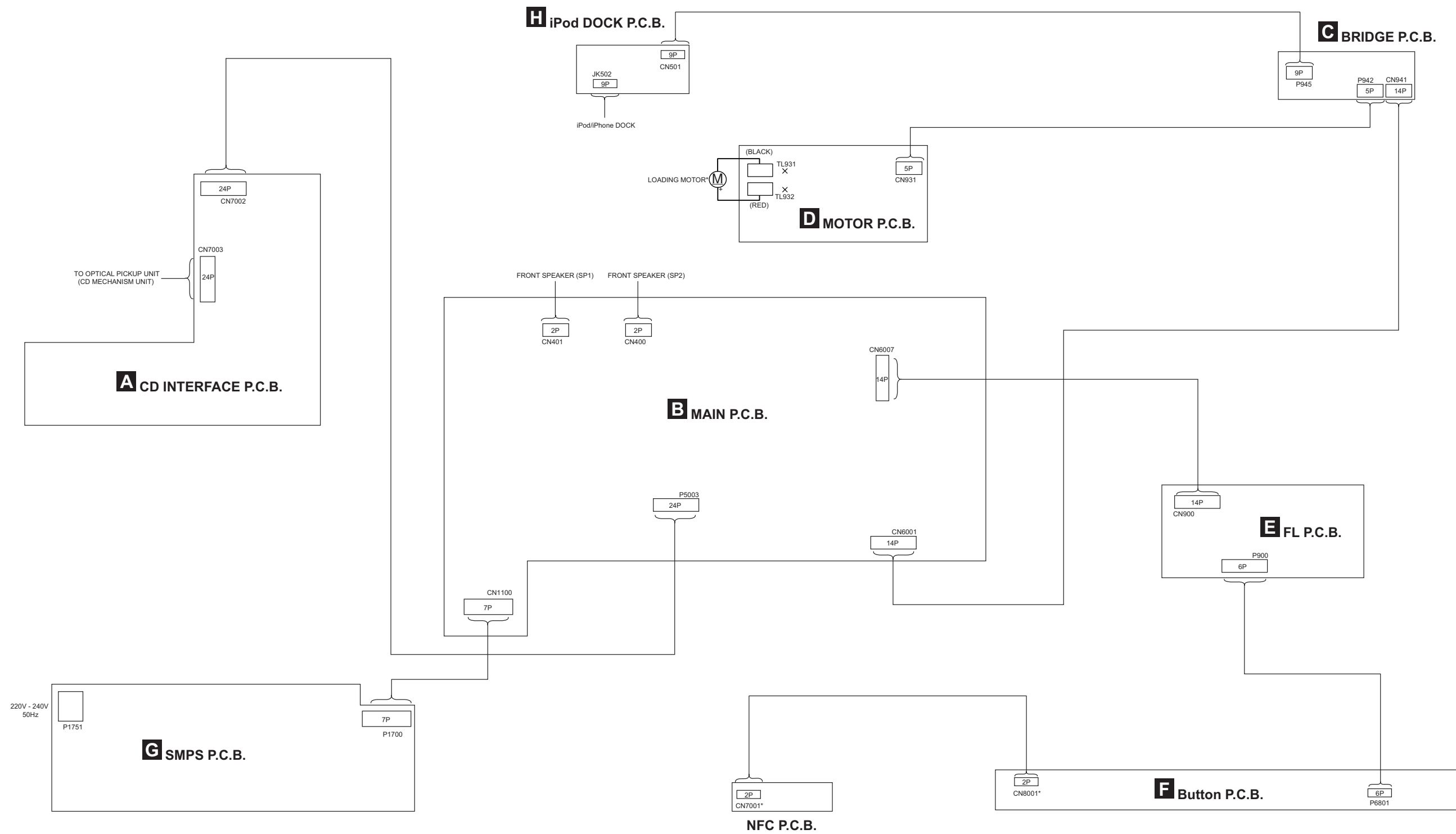
SC-HC49EG POWER SUPPLY (1/2) BLOCK DIAGRAM

10.5. POWER SUPPLY (2/2) BLOCK DIAGRAM



TO POWER SUPPLY
BLOCK (1/2)

11 Wiring Connection Diagram



Note : “ * ” REF IS FOR INDICATION ONLY.

SC-HC49EG
WIRING CONNECTION DIAGRAM

12 Schematic Diagram

12.1. Schematic Diagram Notes

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

Notes:

S501:	iPod OPEN/CLOSE switch.
S641:	OPEN switch (▲).
S642:	CLOSE switch (▲).
S901:	POWER switch (⏻).
S902:	SELECTOR switch.
S903:	STOP switch (■).
S904:	PLAY/PAUSE switch (▶/⏸).
S905:	REV SKIP switch (◀◀/◀).
S906:	FWD SKIP switch (▶/▶▶).
S907:	VOL- switch.
S908:	VOL+ switch.
S909:	CD OPEN/CLOSE switch (CD ▲).
S910:	BT-PAIRING switch (📶).
S7201:	RESET 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 μ F, unless otherwise noted. F=Farads, pF=pico-Farad.

• Coil

Unit of inductance is H, unless otherwise noted.

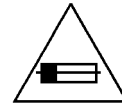
• *

REF IS FOR INDICATION ONLY.

• Voltage and signal line

	: +B Signal Line
	: -B Signal Line
	: CD Audio Input Signal Line
	: Tuner/AUX Audio Input Signal Line
	: Audio Output Signal Line
	: iPod/iPhone/iPad(USB) Signal Line
	: FM Signal Line

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



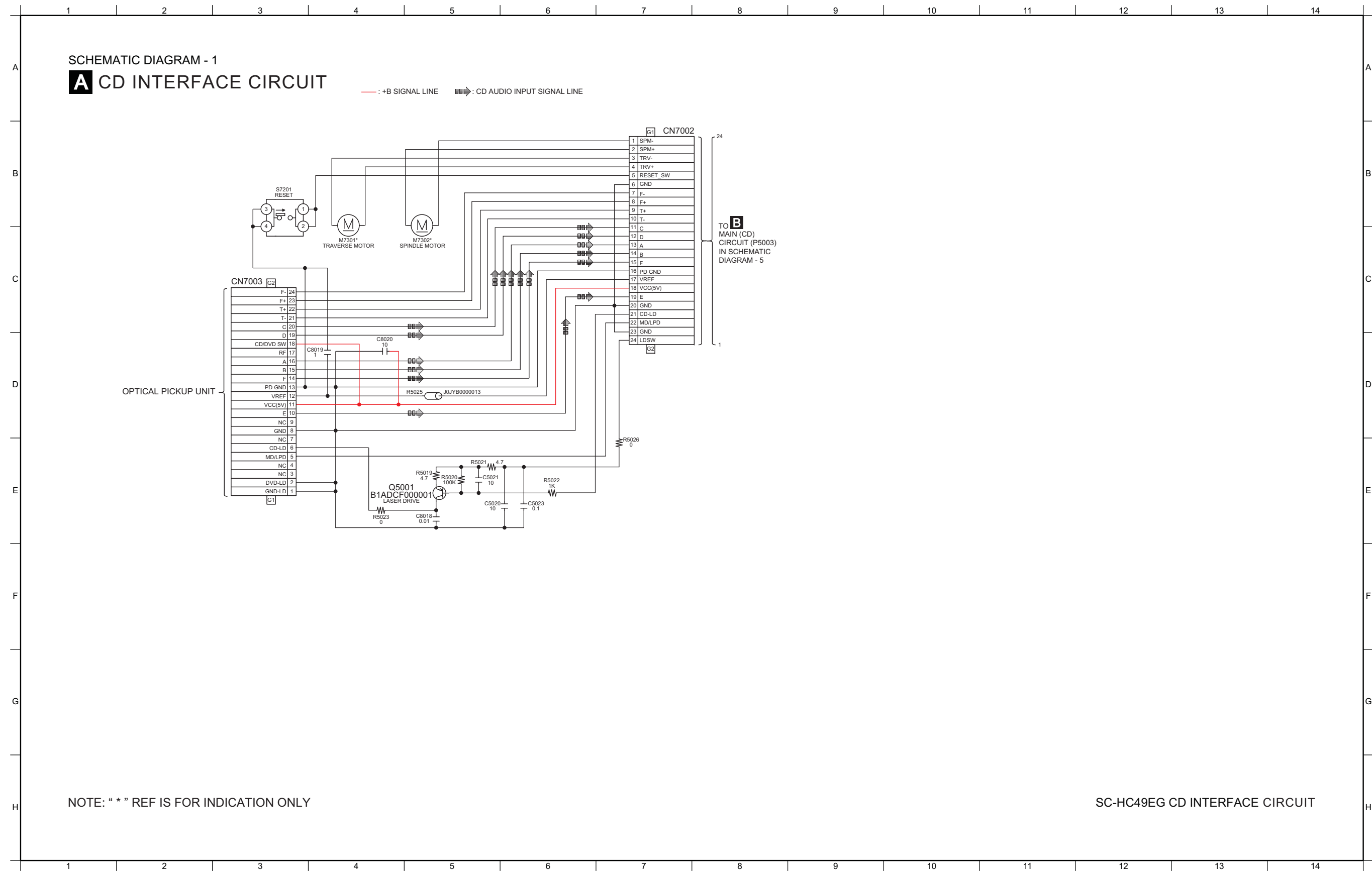
RISK OF FIRE-REPLACE FUSE AS MARKED.

FUSE CAUTION

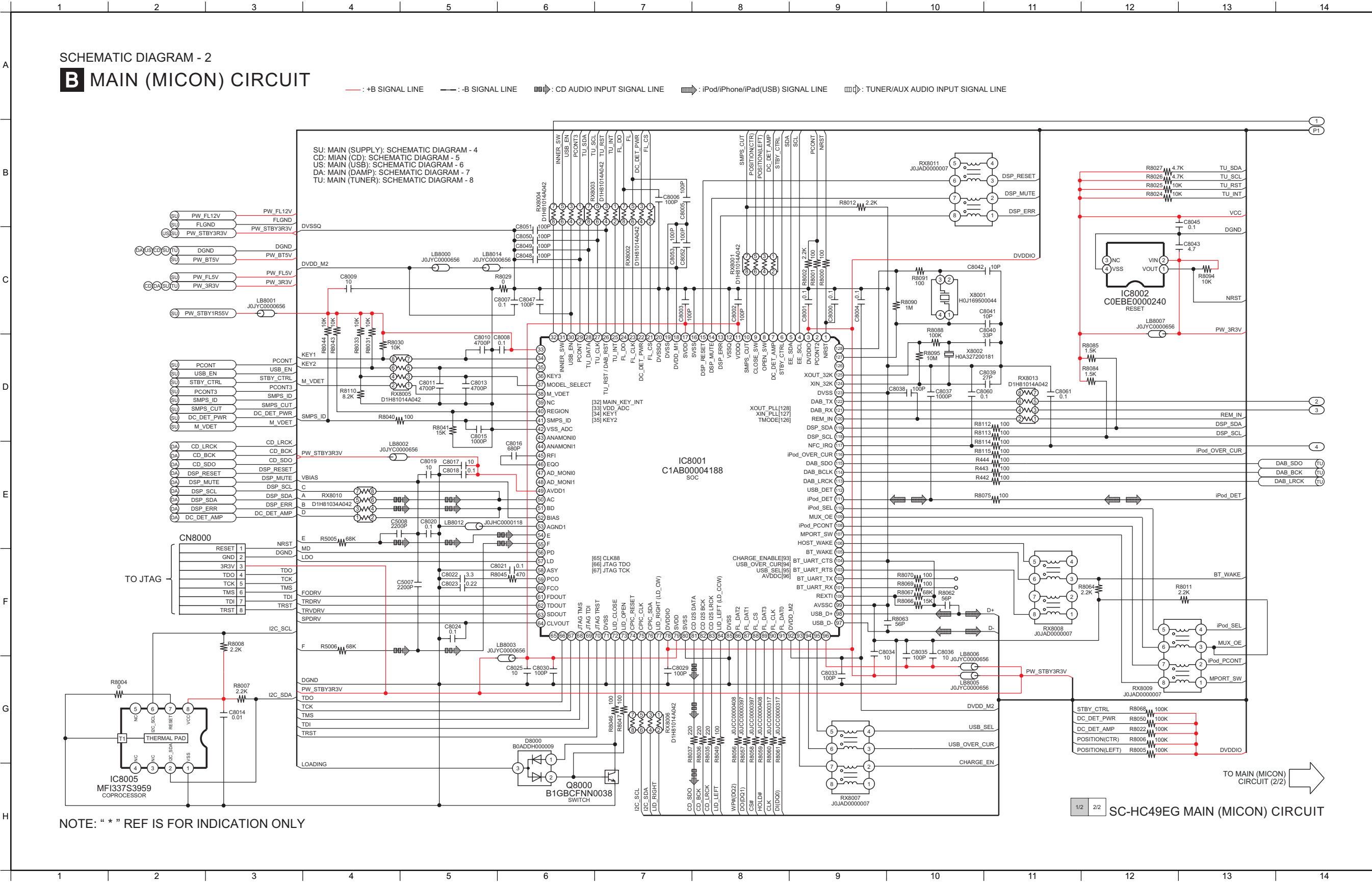


These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection against fire hazard, replace with the same type fuse. For fuse rating, refer to the marking adjacent to the symbol.

12.2. CD INTERFACE CIRCUIT



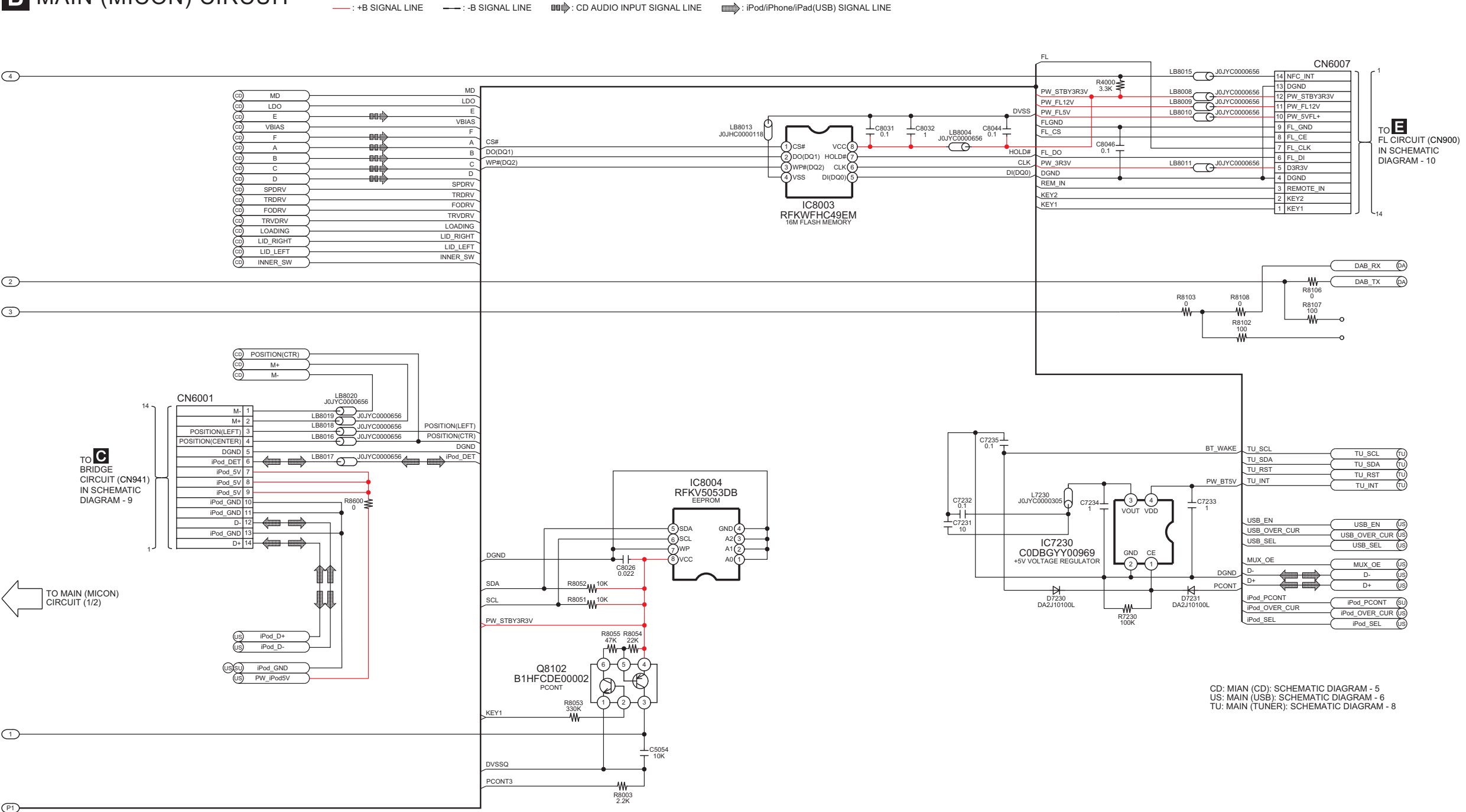
12.3. MAIN (MICON) CIRCUIT (1/2)



12.4. MAIN (MICON) CIRCUIT (2/2)

SCHEMATIC DIAGRAM - 3

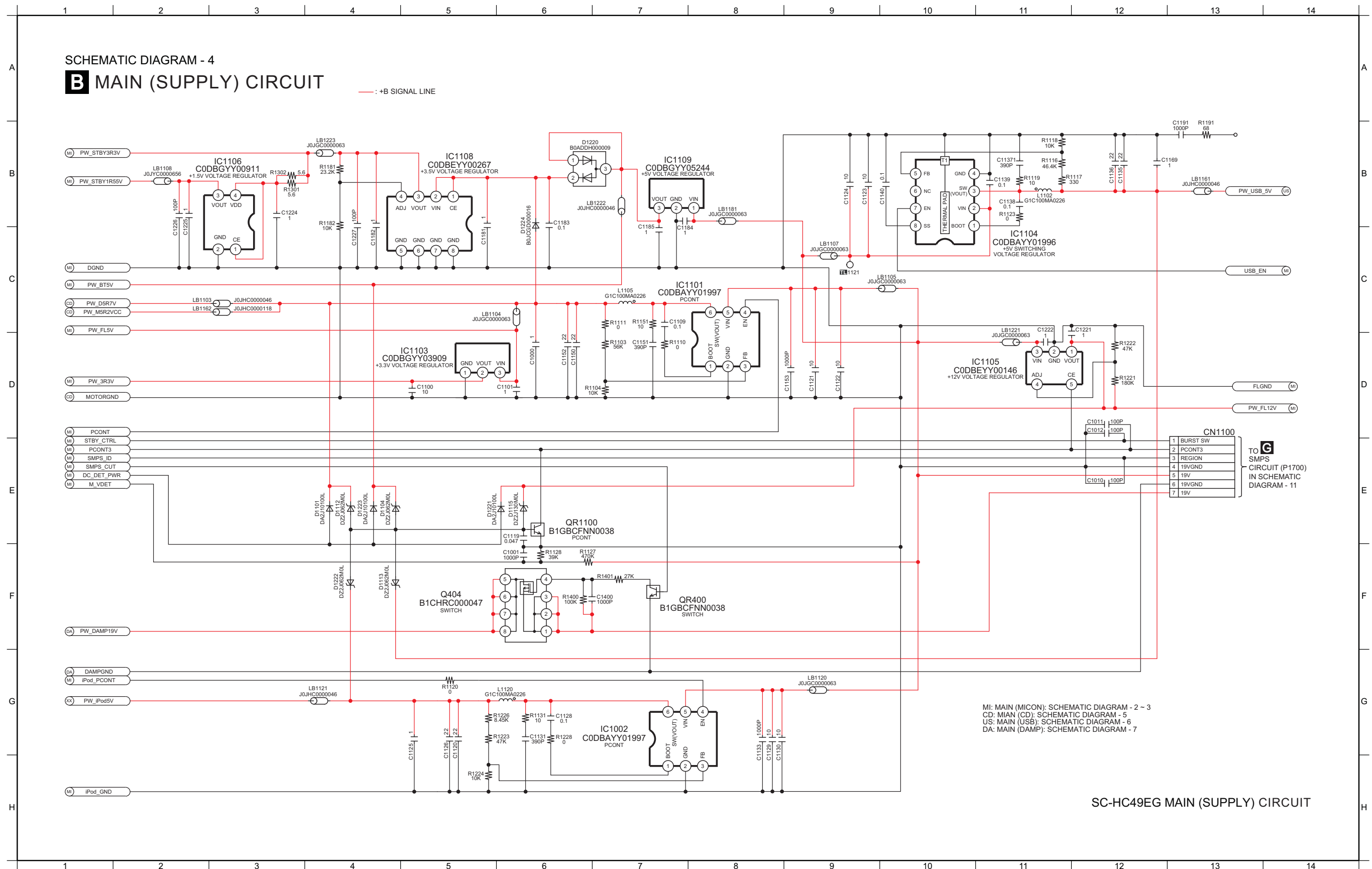
B MAIN (MICON) CIRCUIT



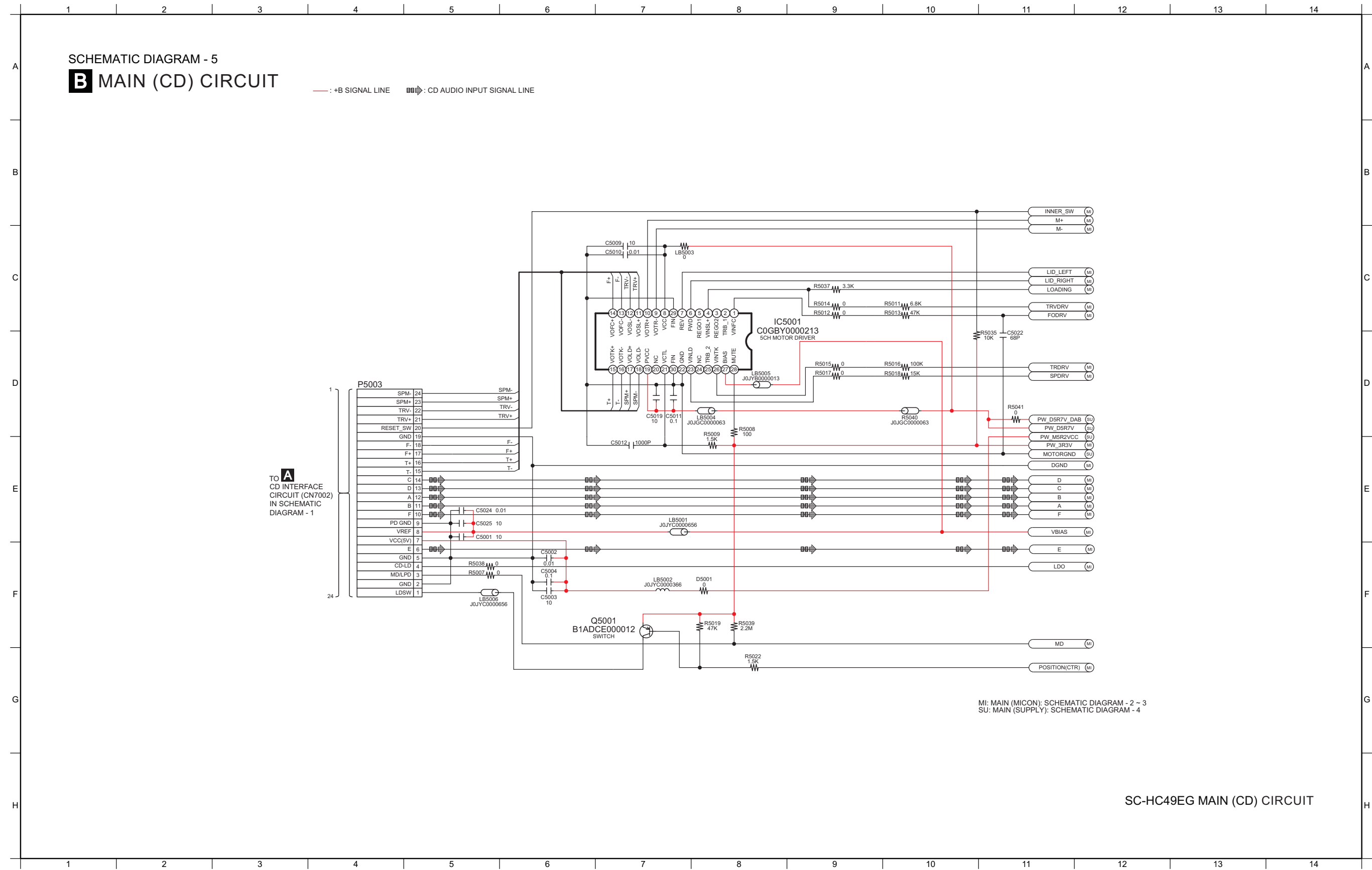
NOTE: “ * ” REF IS FOR INDICATION ONLY

1/2 2/2 SC-HC49EG MIAN (MICON) CIRCUIT

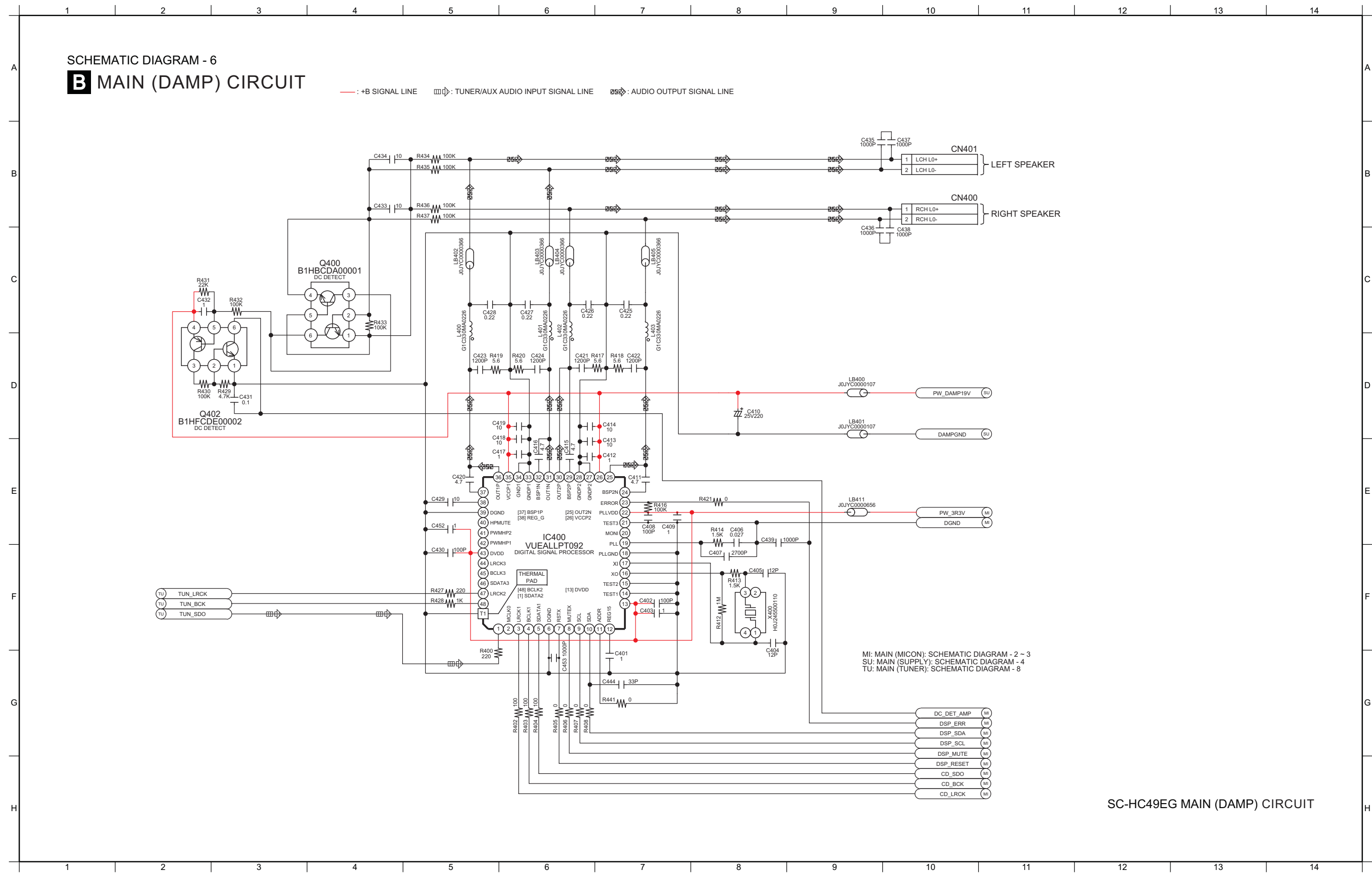
12.5. MAIN (SUPPLY) CIRCUIT



12.6. MAIN (CD) CIRCUIT



12.7. MAIN (DAMP) CIRCUIT

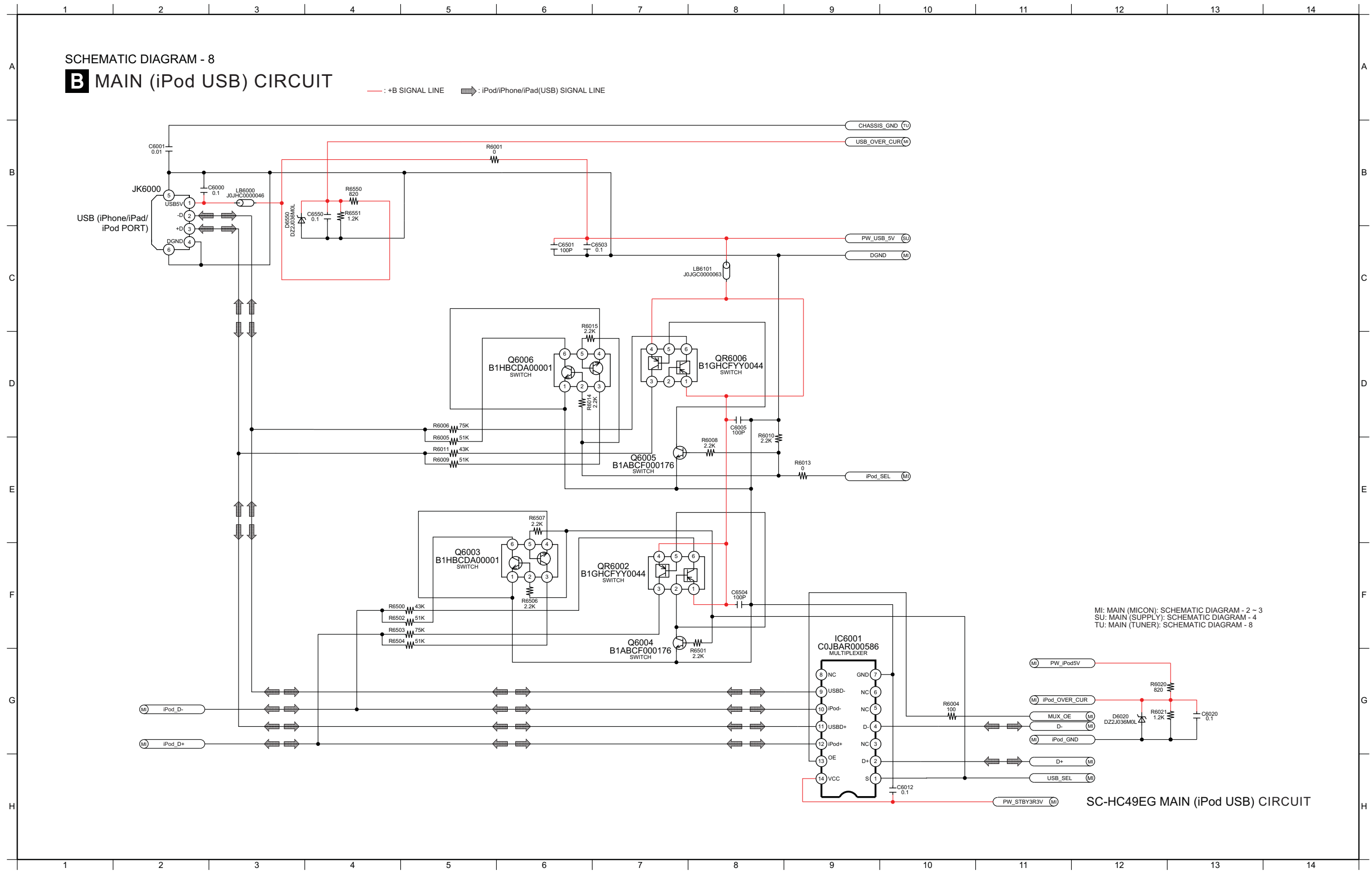


SC-HC49EG MAIN (DAMP) CIRCUIT

12.8. MAIN (TUNER) CIRCUIT

SC-HC49EG MAIN (TUNER) CIRCUIT

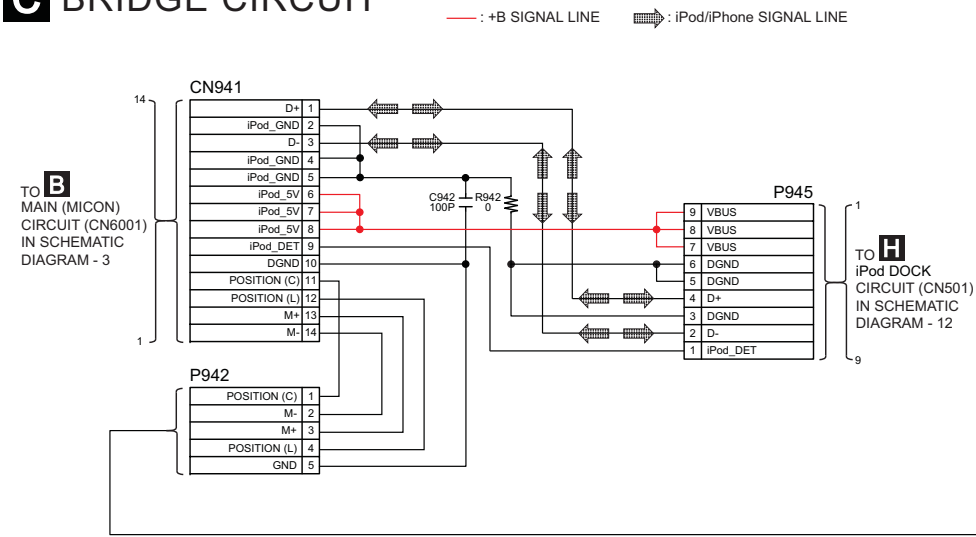
12.9. MAIN (iPod_USB) CIRCUIT



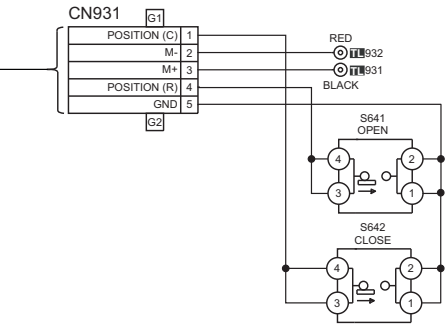
12.10. BRIDGE, MOTOR & BUTTON CIRCUIT

SCHEMATIC DIAGRAM - 9

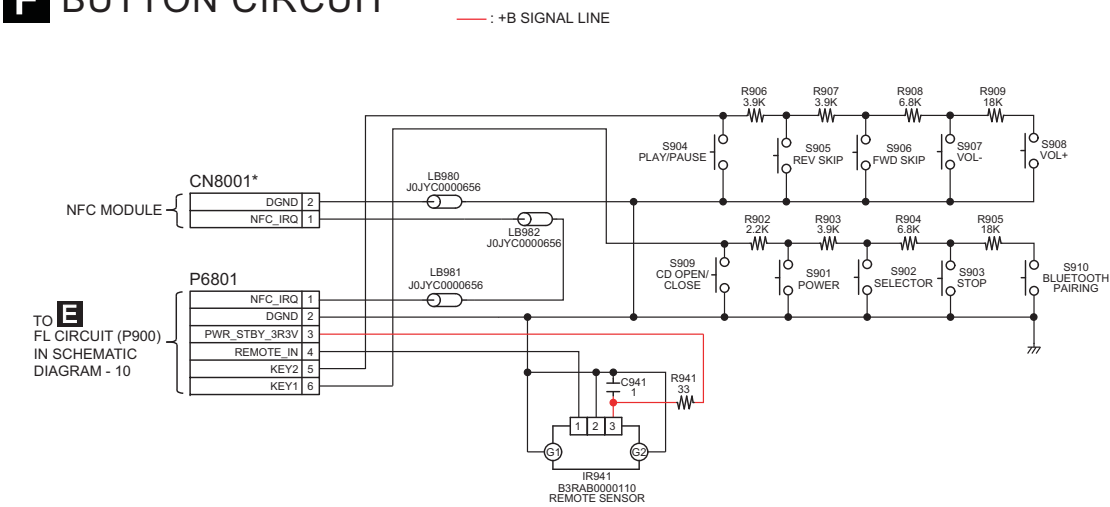
C BRIDGE CIRCUIT



D MOTOR CIRCUIT



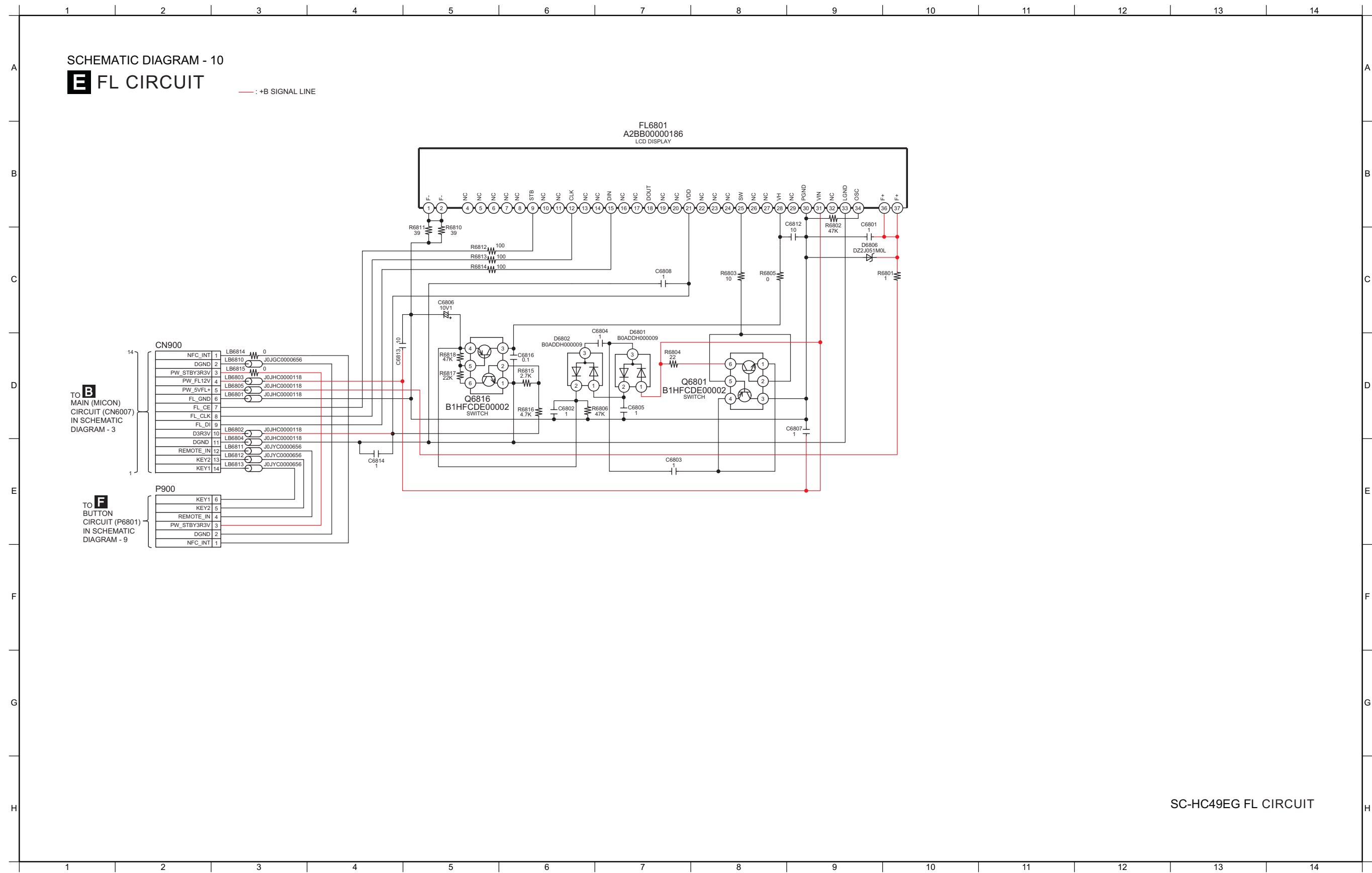
F BUTTON CIRCUIT



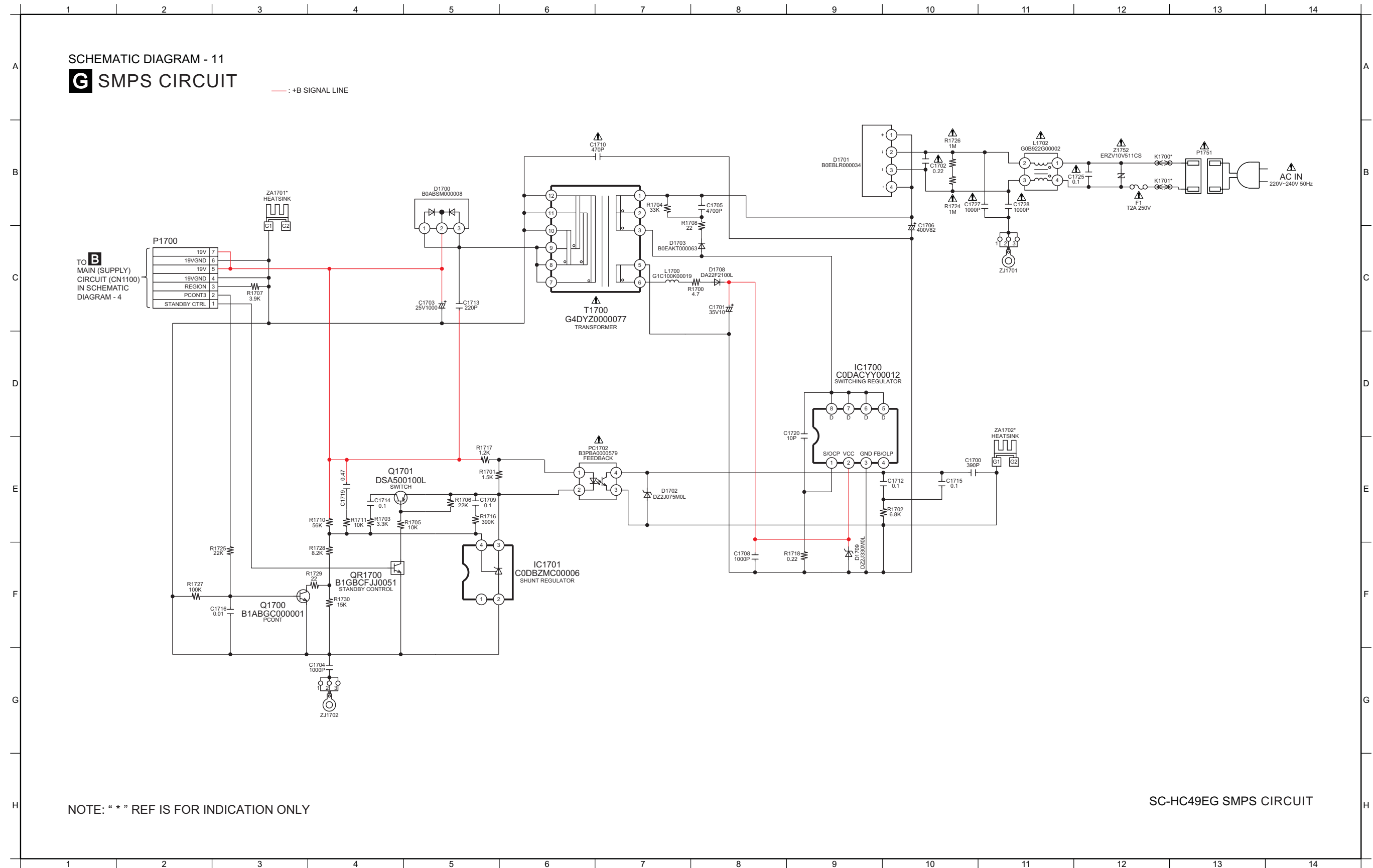
NOTE: " * " REF IS FOR INDICATION ONLY

SC-HC49EG BRIDGE / MOTOR / BUTTON CIRCUIT

12.11. FL CIRCUIT



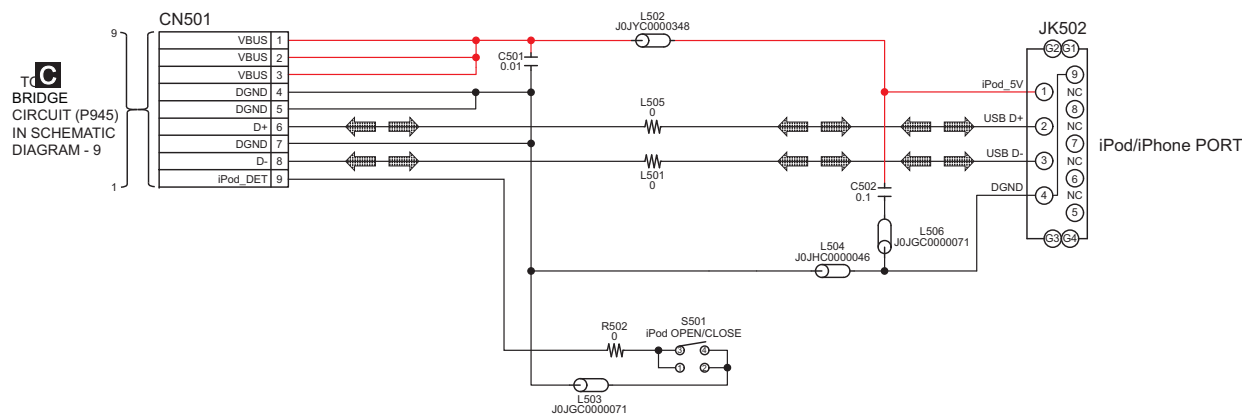
12.12. SMPS CIRCUIT



12.13. iPod DOCK CIRCUIT

SCHEMATIC DIAGRAM - 12
H iPod DOCK CIRCUIT

— : +B SIGNAL LINE ⇄ : iPod/iPhone SIGNAL LINE

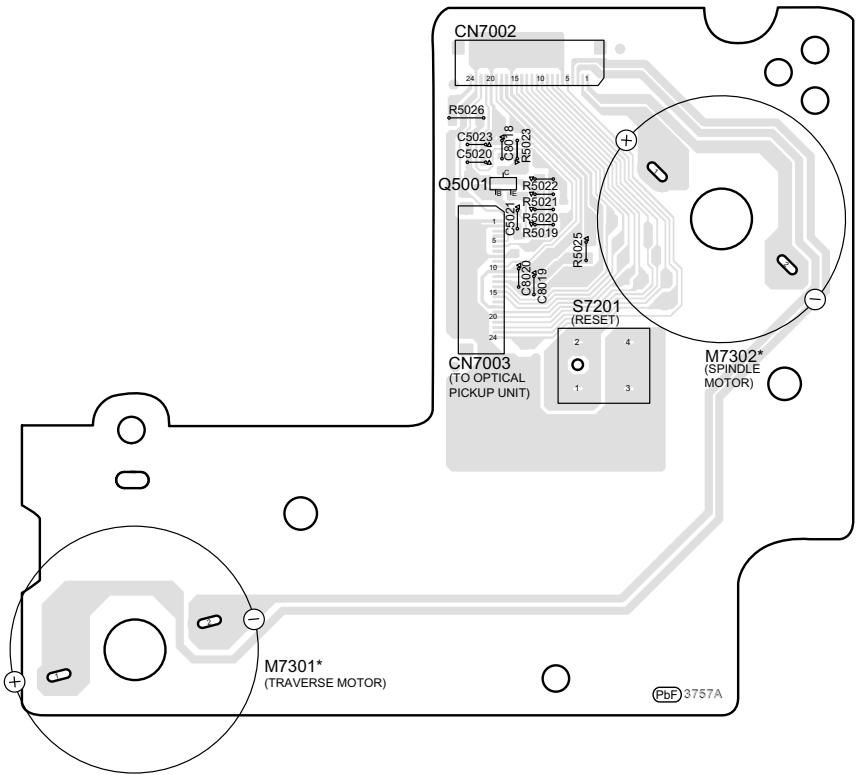


SC-HC49EG iPod DOCK CIRCUIT

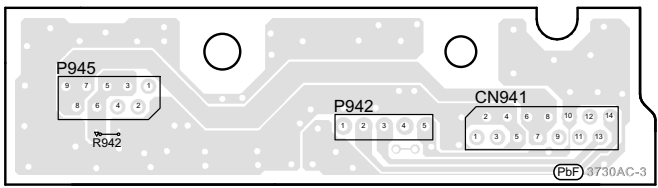
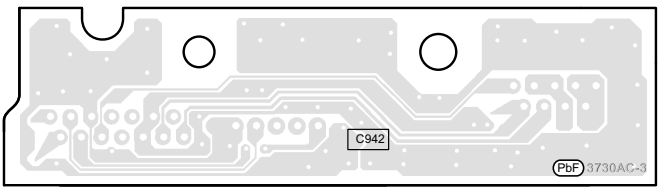
13 Printed Circuit Board

13.1. CD INTERFACE, BRIDGE & iPod DOCK P.C.B.

A CD INTERFACE P.C.B. (REP5057A)

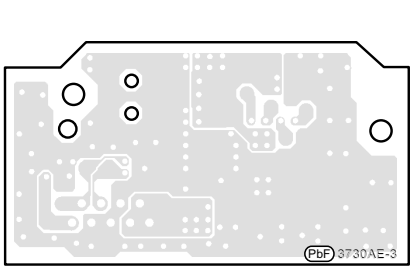


C BRIDGE P.C.B. (REP5053DC)

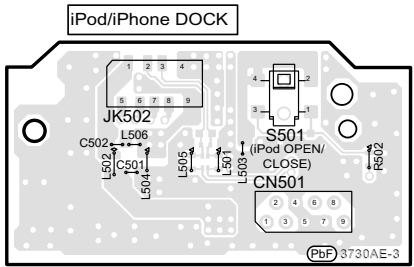


(SIDE B)

H iPod DOCK P.C.B. (REP5053DE)



(SIDE A)



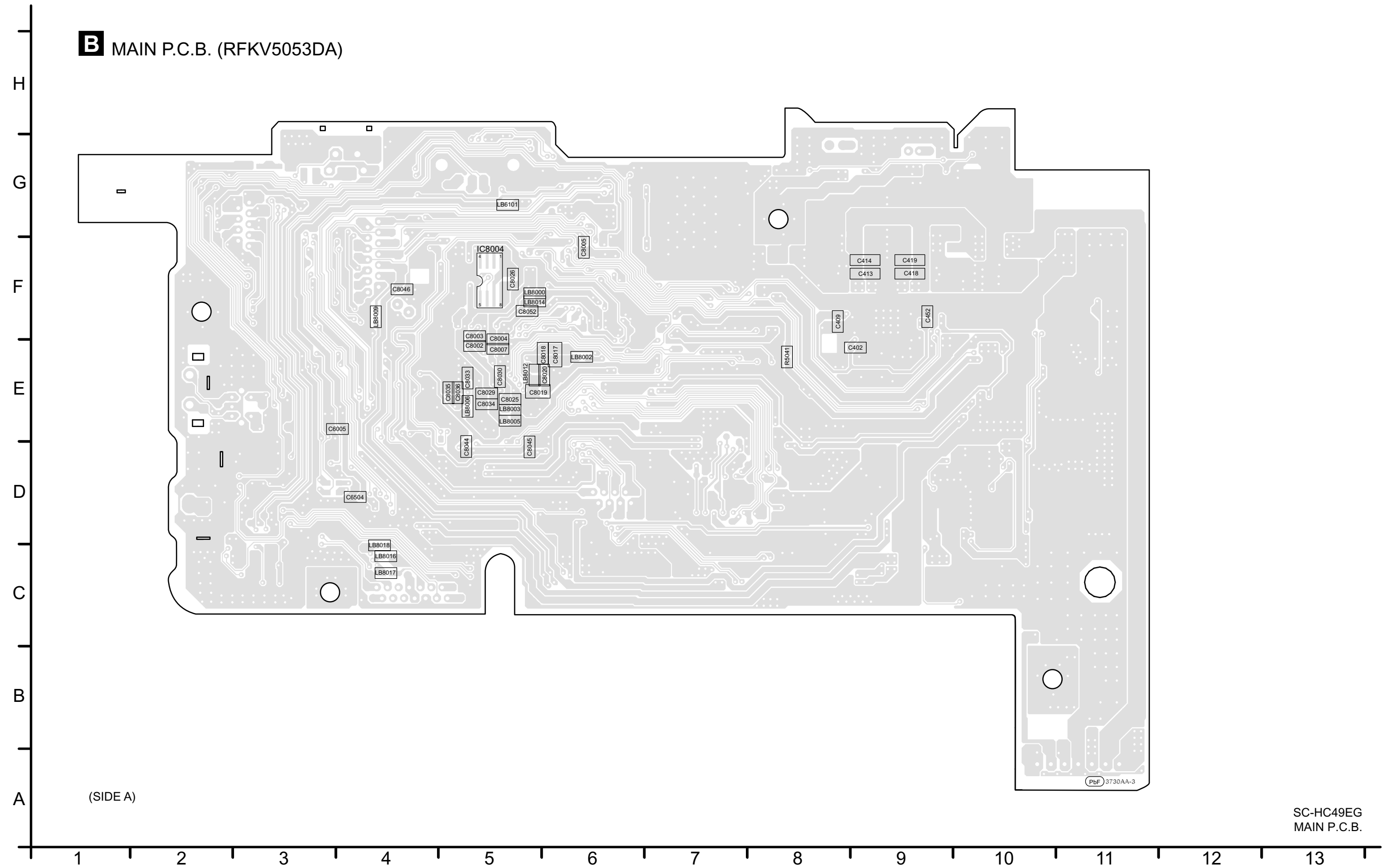
(SIDE B)

NOTE: " * " REF IS FOR INDICATION ONLY

SC-HC49EG
CD INTERFACE / BRIDGE / iPod DOCK P.C.B.

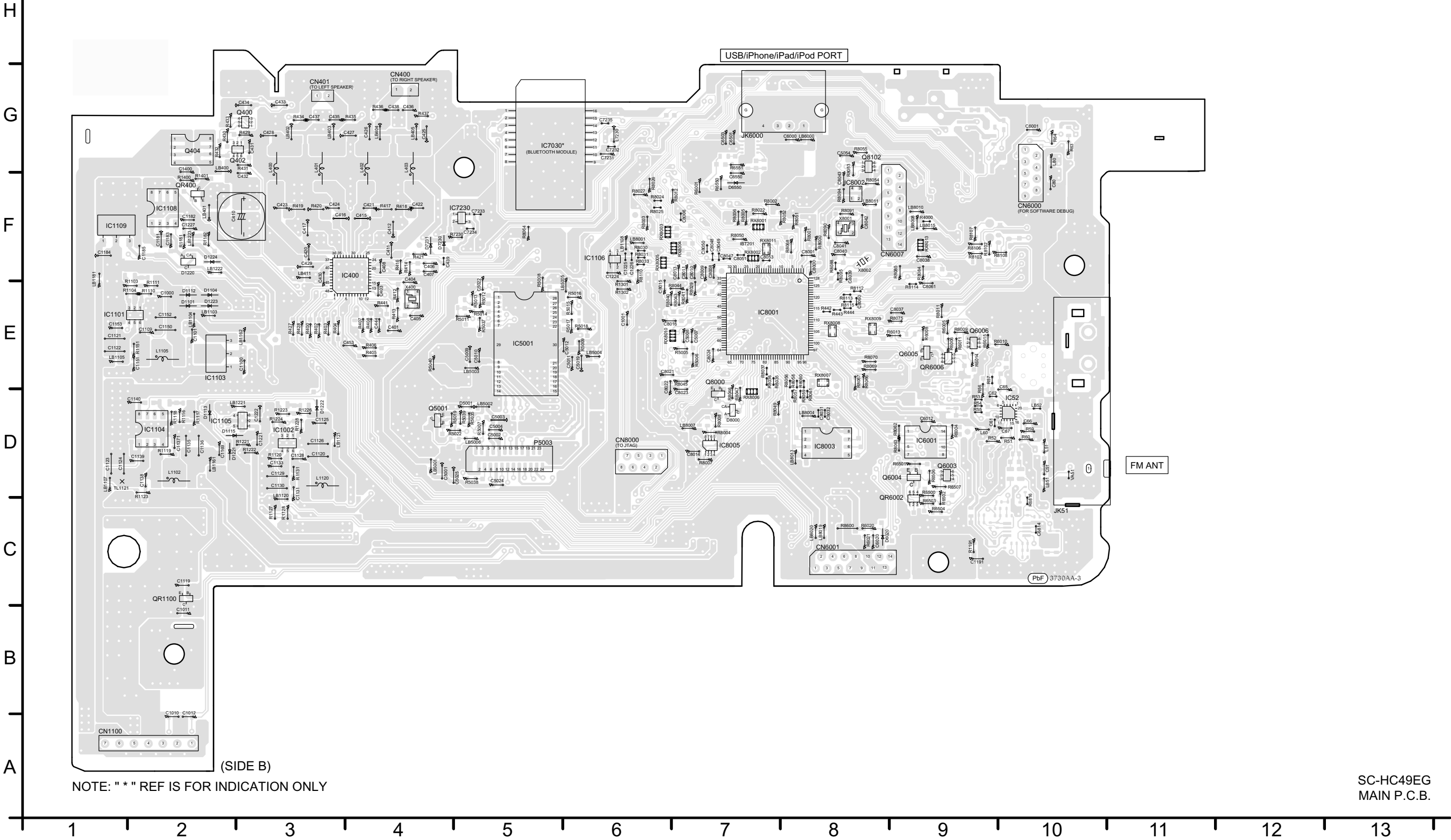
13.2. MAIN P.C.B. (Side A)

B MAIN P.C.B. (RFKV5053DA)



13.3. MAIN P.C.B. (Side B)

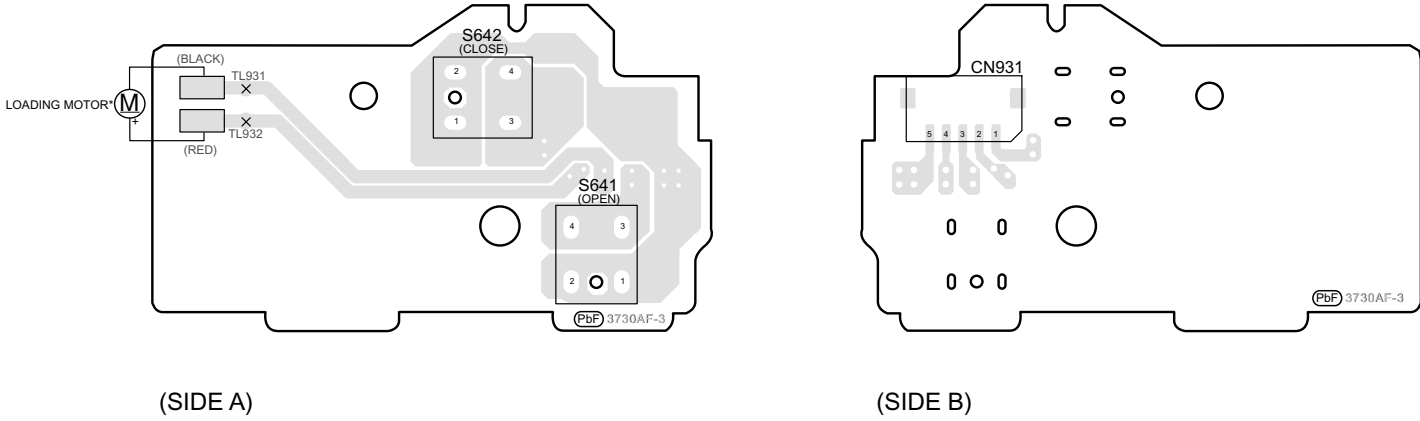
B MAIN P.C.B. (RFKV5053DA)



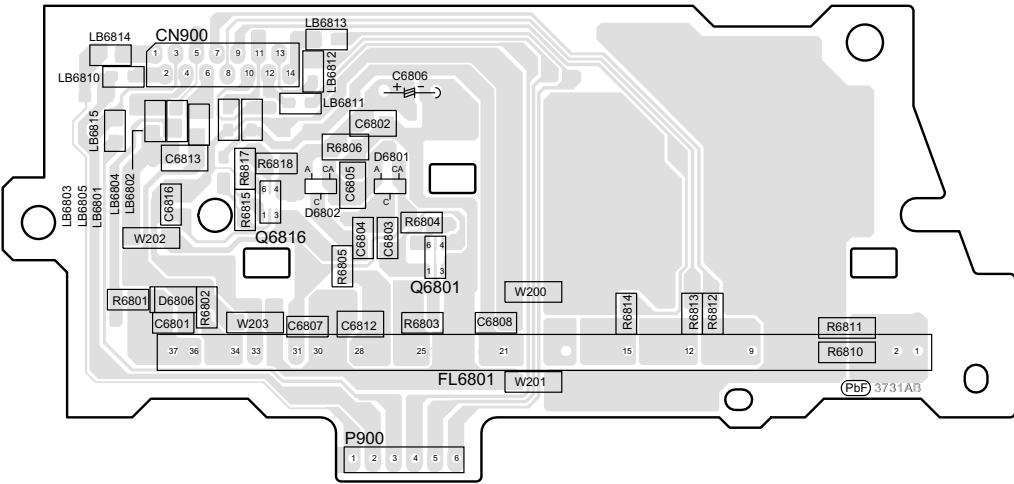
13.4. MOTOR, FL & BUTTON P.C.B.

H
G
F
E
D
C
B
A

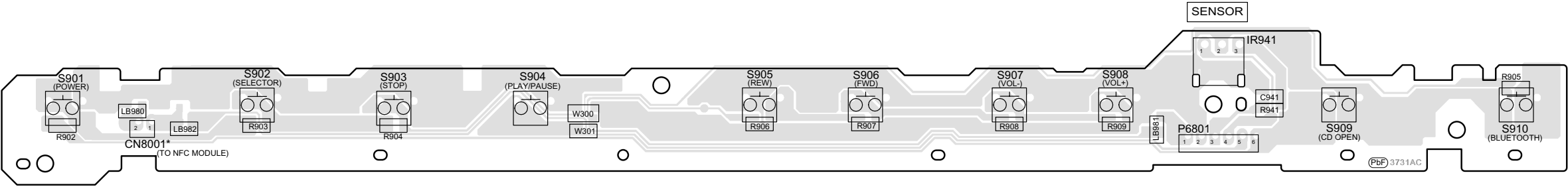
D MOTOR P.C.B. (REP5053DF)



E FL P.C.B. (REP5054CB)



F BUTTON P.C.B. (REP5054CC)



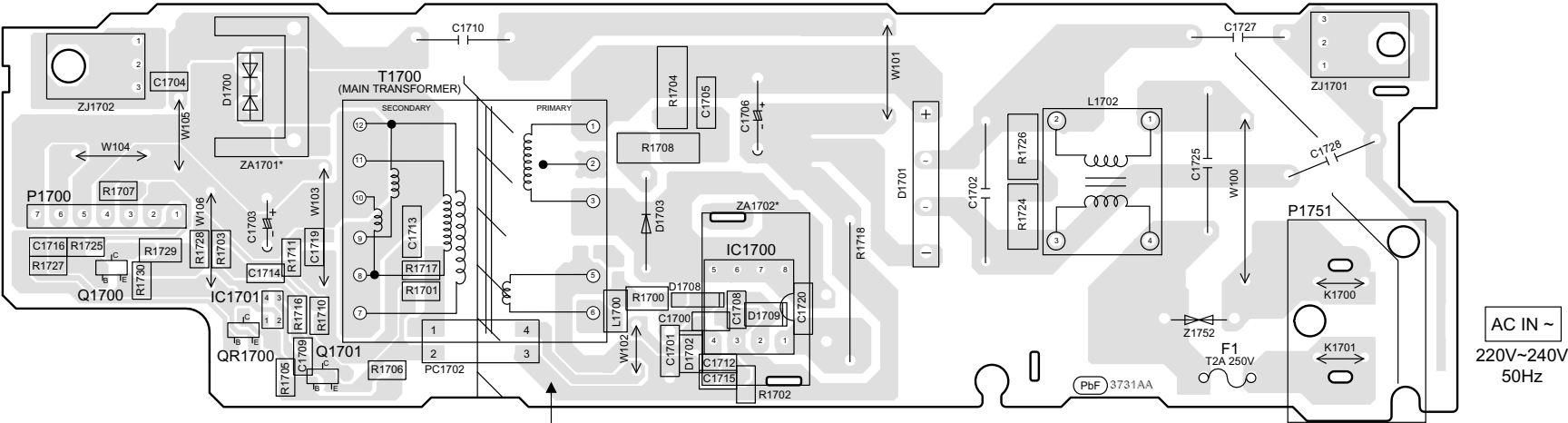
NOTE: " * " REF IS FOR INDICATION ONLY

SC-HC49EG
MOTOR / FL / BUTTON P.C.B.

1 2 3 4 5 6 7 8 9 10 11 12 13

13.5. SMPS P.C.B.

G SMPS P.C.B. (REP5054CA)



CAUTION
RISK OF ELECTRIC SHOCK
AC VOLTAGE LINE.
PLEASE DO NOT TOUCH THIS P.C.B

NOTE: " * " REF IS FOR INDICATION ONLY

SC-HC49EG
SMPS P.C.B.

14 Appendix Information of Schematic Diagram

14.1. Voltage Measurement & 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.

14.1.1. CD Interface, FL & SMPS P.C.B.

REF NO.	Q5001																		
MODE	E	C	B																
CD PLAY	2.8	1.9	2.1																
STANDBY	3.3	0	3.3																

SC-HC49EG CD INTERFACE P.C.B.

REF NO.	Q6801							Q6816											
MODE	1	2	3	4	5	6		1	2	3	4	5	6						
CD PLAY	6.1	6.2	0	6.1	6.2	12		0	0.7	28.2	28.2	27.5	0						
STANDBY	6.1	6.2	0	6.1	6.2	12		0	0.7	28.2	28.2	27.5	0						

SC-HC49EG FL P.C.B.

REF NO.	IC1700																		
MODE	1	2	3	4	5	6	7	8											
POWER ON	0	25.8	0	1.1	300	300	300	300											

REF NO.	IC1701																		
MODE	1	2	3	4															
POWER ON	0	0	17.3	2.5															

REF NO.	Q1700				Q1701				QR1700										
MODE	E	C	B		E	C	B		E	C	B								
POWER ON	0	0	0.6		17.3	0	17.2		0	17.2	0								

SC-HC49EG SMPS P.C.B.

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

REF NO. MODE	IC400																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.3	0	0	1.7	1.7	0	3.3	3.3	3.3	3.3	0	1.5	3.3	0	0	1.4	1.4	0	1	3.3
STANDBY	3.3	0	0	1.7	1.7	0	3.3	3.3	3.3	3.3	0	1.5	3.3	0	0	1.4	1.4	0	1	3.3
REF NO. MODE	IC400																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	3.3	1	5.3	9.8	19.4	0	0	14.5	0	5.3	0	0	0	19.4	9.8	5.3	5.8	0	1.7
STANDBY	0	3.3	1	5.3	9.8	19.4	0	0	14.5	0	5.3	0	0	0	19.4	9.8	5.3	5.8	0	1.7
REF NO. MODE	IC400																			
	41	42	43	44	45	46	47	48												
CD PLAY	0.1	0.1	0.1	0.1	0.1	0.1	0	0												
STANDBY	0.1	0.1	0.1	0.1	0.1	0.1	0	0												
REF NO. MODE	IC1002																			
	1	2	3	4	5	6														
POWER	0	0	0	0	19.5	0														
STANDBY	0	0	0	0	19.5	0														
REF NO. MODE	IC1101																			
	1	2	3	4	5	6														
POWER	9.8	0	0.8	3.3	19.4	4.6														
STANDBY	9.8	0	0.8	3.3	19.4	4.6														
REF NO. MODE	IC1103																			
	1	2	3																	
POWER	0	3.3	5.3																	
STANDBY	0	3.3	5.3																	
REF NO. MODE	IC1104																			
	1	2	3	4	5	6	7	8												
CD PLAY	10.1	19.4	5.1	0	0.9	0	3.3	0												
STANDBY	10.1	19.4	5.1	0	0.9	0	3.3	0												
REF NO. MODE	IC1105																			
	1	2	3	4	5															
CD PLAY	12.3	0	19.4	2.5	3.3															
STANDBY	12.3	0	19.4	2.5	3.3															
REF NO. MODE	IC1106																			
	1	2	3	4																
POWER	3	0	1.6	3.3																
STANDBY	3	0	1.6	3.3																
REF NO. MODE	IC1108																			
	1	2	3	4	5	6	7	8												
POWER	5.1	5.1	3.3	1	0	0	0	0												
STANDBY	5.1	5.1	3.3	1	0	0	0	0												
REF NO. MODE	IC1109																			
	1	2	3																	
CD PLAY	19.4	0	5																	
STANDBY	19.4	0	5																	
REF NO. MODE	IC5001																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.6	5.3	0	1.6	0	0	0	5.3	0	0	2.7	2.7	2.8	2.8	2.8	2.8	2.8	2.8	5.3	0
STANDBY	1.6	5.3	0	1.6	0	0	0	5.3	0	0	2.7	2.7	2.8	2.8	2.8	2.8	2.8	2.8	5.3	0

SC-HC49EG MAIN P.C.B.

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

REF NO.	IC5001																			
MODE	21	22	23	24	25	26	27	28	29	30										
CD PLAY	3.3	0	1.6	0	5.3	1.6	1.6	3.3	0	0										
STANDBY	3.3	0	1.6	0	5.3	1.6	1.6	3.3	0	0										
REF NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
USB	3.0	0	0	0	0	0	0	0	2.1	2.9	2.9	2.1	3.3	3.3						
STANDBY	3.0	0	0	0	0	0	0	0	2.1	2.9	2.9	2.1	3.3	3.3						
REF NO.	IC7230																			
MODE	1	2	3	4																
CD PLAY	2.7	0	4.6	5.1																
STANDBY	2.7	0	4.6	5.1																
REF NO.	IC8001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3	0	3.3	3.3	0	3.3	3.3	3.3	0	3.3	0	0	0
STANDBY	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3	0	3.3	3.3	0	3.3	3.3	3.3	0	3.3	0	0	0
REF NO.	IC8001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0.6	3	0.1	1.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.2	1.6	1.5	1.6	0	0.7	1.5	0	0.9
STANDBY	0.6	3	0.1	1.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.2	1.6	1.5	1.6	0	0.7	1.5	0	0.9
REF NO.	IC8001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0.4	0	3.3	3.3	1.1	1	0	0	3.3	1.6	1.6	1.6	0	1.6	1.6	2.4	1.7	0	0.5	0.8
STANDBY	0.4	0	3.3	3.3	1.1	1	0	0	3.3	1.6	1.6	1.6	0	1.6	1.6	2.4	1.7	0	0.5	0.8
REF NO.	IC8001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	1.6	1.6	1.6	1.6	1.6	0	1.5	1.5	1.6	1.6	0	0	3.3	0	3.3	3.3	0	3.3	3.3	0
STANDBY	1.6	1.6	1.6	1.6	1.6	0	1.5	1.5	1.6	1.6	0	0	3.3	0	3.3	3.3	0	3.3	3.3	0
REF NO.	IC8001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0	1.6	1.6	0	0	3.1	1.1	3.3	3.3	0	0	1.6	0	2.8	3	3.3	0	0	0	0
STANDBY	0	1.6	1.6	0	0	3.1	1.1	3.3	3.3	0	0	1.6	0	2.8	3	3.3	0	0	0	0
REF NO.	IC8001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
CD PLAY	0	0	0	0	3.3	0	3.3	0	3.3	3	3.3	3.3	1.7	1.7	1.7	3.3	3.3	3.3	3.3	3.2
STANDBY	0	0	0	0	3.3	0	3.3	0	3.3	3	3.3	3.3	1.7	1.7	1.7	3.3	3.3	3.3	3.3	3.2
REF NO.	IC8001																			
MODE	121	122	123	124	125	126	127	128												
CD PLAY	0	0	0	1.5	1.5	0	1.4	1.4												
STANDBY	0	0	0	1.5	1.5	0	1.4	1.4												
REF NO.	IC8002																			
MODE	1	2	3	4																
CD PLAY	3.3	3.3	0	0																
STANDBY	3.3	3.3	0	0																
REF NO.	IC8005																			
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												

SC-HC49EG MAIN P.C.B.

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

REF NO.	Q400							Q402											
MODE	1	2	3	4	5	6		1	2	3	4	5	6						
CD PLAY	9.8	9.8	19.2	9.8	9.8	19.2		0	0	0	19.4	19.4	3.3						
STANDBY	9.8	9.8	19.2	9.8	9.8	19.2		0	0	0	19.4	19.4	3.3						

REF NO.	Q404									Q5001									
MODE	1	2	3	4	5	6	7	8		E	C	B							
CD PLAY	19.5	19.5	19.5	4.1	19.5	19.5	19.5	19.5		3.3	3.2	2.5							
STANDBY	19.5	19.5	19.5	4.1	19.5	19.5	19.5	19.5		3.3	3.2	2.5							

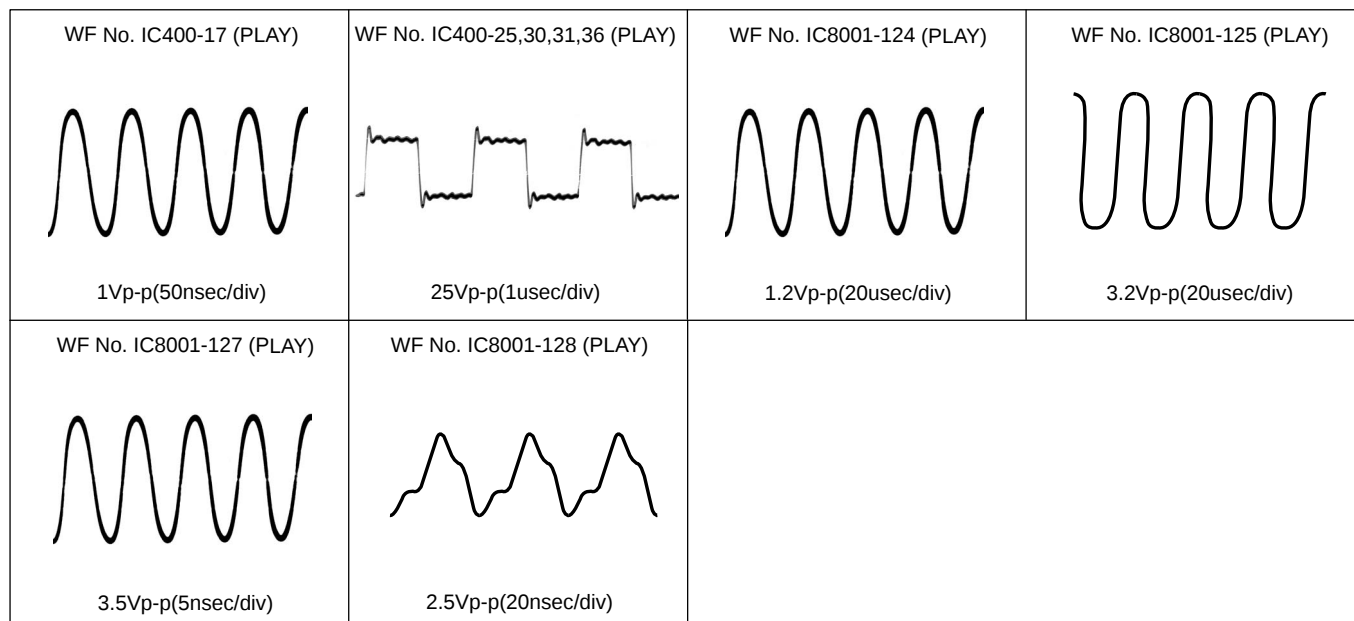
REF NO.	Q6004				Q6005				Q6006										
MODE	E	C	B		E	C	B		1	2	3	4	5	6					
USB	0	0	0.7		0	0	0.7		0	0.7	0	0	0.7	0					
STANDBY	0	0	0.7		0	0	0.7		0	0.7	0	0	0.7	0					

REF NO.	Q8102							QR400				QR1100				Q8000			
MODE	1	2	3	4	5	6		E	C	B		E	C	B		E	C	B	
CD PLAY	0	0.6	3.2	3.3	2.7	0		0	0	3.3		0	3.3	0		0	0	3.3	
STANDBY	0	0.6	3.2	3.3	2.7	0		0	0	3.3		0	3.3	0		0	0	3.3	

REF NO.	Q6003							QR6002							QR6006					
MODE	1	2	3	4	5	6		1	2	3	4	5	6		1	2	3	4	5	6
USB	0	0.7	0	0	0.7	0		5.3	0	5.3	5.3	0	5.3		5.3	0	5.3	5.3	0	5.3
STANDBY	0	0.7	0	0	0.7	0		5.3	0	5.3	5.3	0	5.3		5.3	0	5.3	5.3	0	5.3

SC-HC49EG MAIN P.C.B.

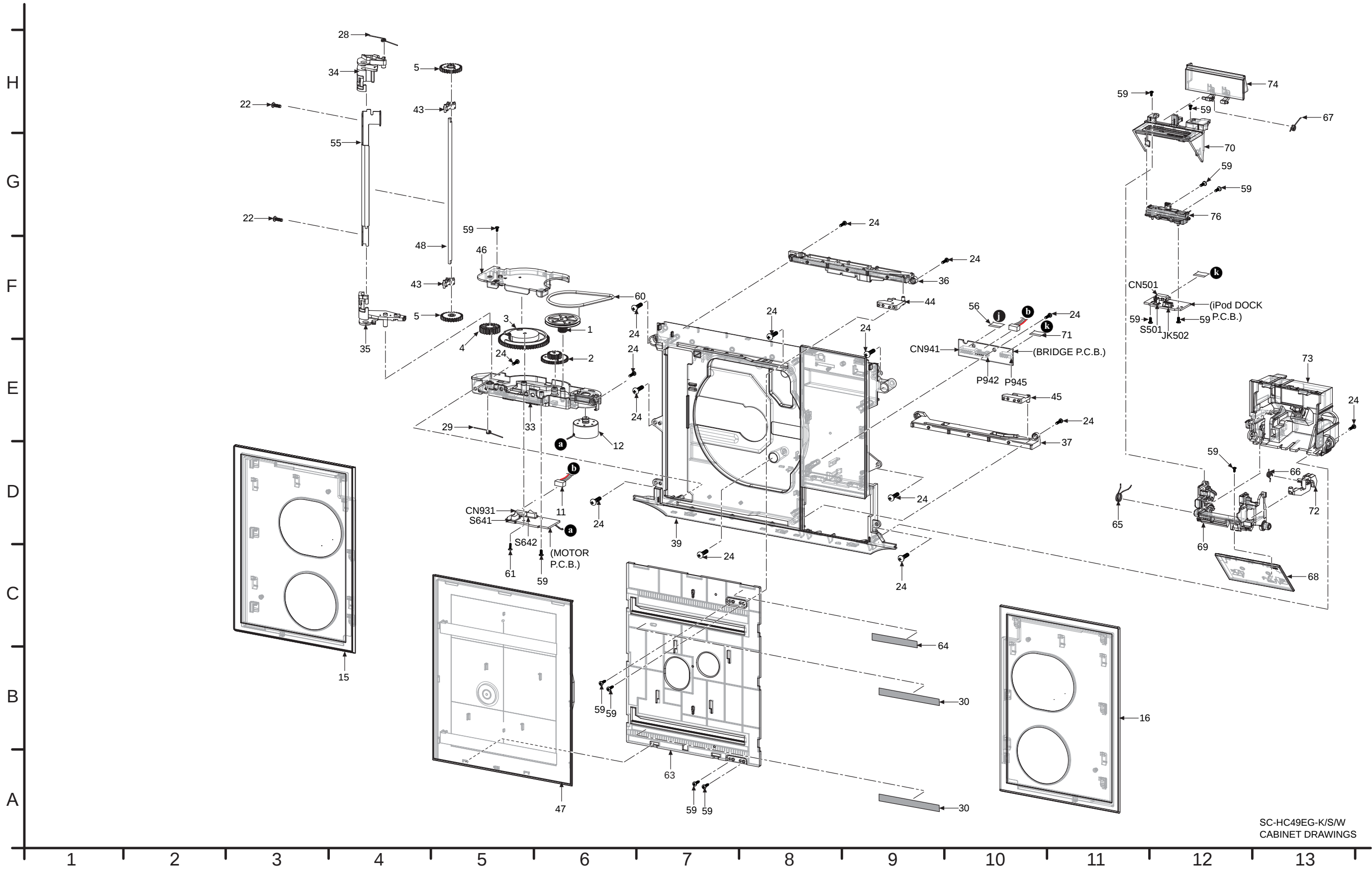
14.1.5. Waveform Chart



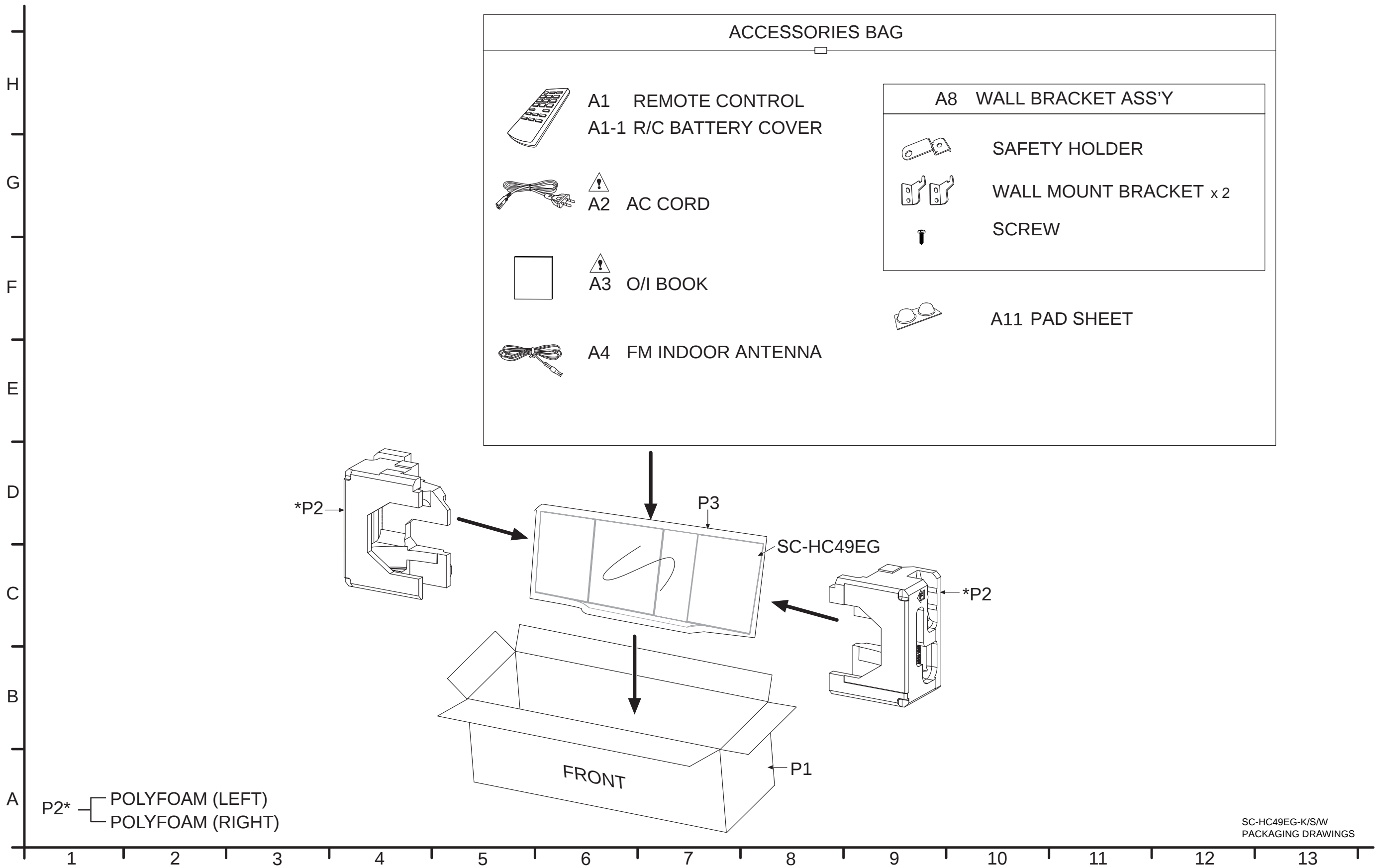
15 Exploded View and Replacement Parts List

15.1. Exploded View and Mechanical replacement Parts List

15.1.1. Cabinet Parts Location



15.1.2. Packaging



15.1.3. 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	RDG0665	PULLEY GEAR	1	
	2	RDG0666	GEAR C	1	
	3	RDG0667	GEAR B	1	
	4	RDG0668	GEAR A	1	
	5	RDG0669	DRIVE GEAR	2	
	6	REE1884	14P FFC (FL - MAIN)	1	
	7	REE1908	24P FFC (MAIN - CD INTERFACE)	1	
	8	REX1499	2P WIRE (BUTTON - NFC)	1	
	9	REX1674	SPEAKER WIRE L	1	
	10	REX1675-1	SPEAKER WIRE R	1	
	11	REX1676	5P WIRE (MOTOR - BRIDGE)	1	
	12	RFKPHC37P-K	MOTOR ASS'Y	1	
	13	RGK2536-K	BASE STAND	1	K/S
	13	RGK2536-W	BASE STAND	1	W
	15	RYK1827-K	FRONT ORNAMENT UNIT L	1	K
	15	RYK1827-S	FRONT ORNAMENT UNIT L	1	S
	15	RYK1827-W	FRONT ORNAMENT UNIT L	1	W
	16	RYK1828-K	FRONT ORNAMENT UNIT R	1	K
	16	RYK1828-S	FRONT ORNAMENT UNIT R	1	S

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	16	RYK1828-W	FRONT ORNAMENT UNIT R	1	W
	17	RGP1681A-K1	REAR CABINET	1	K/S
	17	RGP1681A-W1	REAR CABINET	1	W
	18	RGQ0797-K	JACK LID	1	K/S
	18	RGQ0797-W	JACK LID	1	W
	19	RGQ0799-K	TUNER HOLDER	1	K/S
	19	RGQ0799-W	TUNER HOLDER	1	W
	20	RGQ0800-K	AC INLET HOLDER	1	K/S
	20	RGQ0800-W	AC INLET HOLDER	1	W
	21	RGU2942-K	TOP BUTTON	1	K/S
	21	RGU2942-W	TOP BUTTON	1	W
	22	RHD14136	SCREW	2	
	23	RHD26043-1	SCREW	8	
	24	RHD26046	SCREW	35	
	25	RHD30092-1	SCREW	3	
	26	RKAX0028-K	LEG FELT	4	
	27	RMB0975	JACK LID SPRING	1	
	28	RMB0980	ARM SPRING (TOP)	1	
	29	RME0496	ARM SPRING	1	
	30	RMFX1028	HIMELON	4	
	32	RMG0997-K	LID CUSHON	1	
	33	RMK0869-1	GEAR BASE	1	
	34	RML0767	DOOR ARM TOP	1	
	35	RML0768	DOOR ARM BOTTOM	1	
	36	RMM0316	CAM RAIL TOP	1	
	37	RMM0317	CAM RAIL BOTTOM	1	
	38	RMN1049-1	FL HOLDER	1	
	39	RYP1956A-K1	FRONT CABINET UNIT	1	
	40	RMQ2009	EPT SEALER (PASSIVE RADIATOR)	2	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	41	RMQ2260	EPT SEALER A	2	
	42	RMQ2261	EPT SEALER B	2	
	43	RMQ2266	DOOR HOLDER	2	
	44	RMQ2267	DOOR SLIDER TOP	1	
	45	RMQ2268	DOOR SLIDER BOT-TOM	1	
	46	RMQ2269	GEAR COVER	1	
	47	RYP1963A-K	DOOR UNIT	1	K
	47	RYP1963A-S	DOOR UNIT	1	S
	47	RYP1963A-W	DOOR UNIT	1	W
	48	RMU0104	GEAR SHAFT	1	
⚠	49	RMV0429	SMPS BRACKET INSULATOR A	1	
	50	RMV0431	BACK SHIELD	1	
⚠	51	RMV0432	SMPS COVER INSULATION	1	
	52	RSC1097	D-AMP HEAT ABSORBER	2	
	53	RSC1258	SMPS BRACKET	1	
	54	RSC1259	SMPS COVER	1	
	55	RSC1261	ARM BRACKET METAL	1	
	56	RXQ2223	14P FFC UNIT LINK-MAIN	1	
	57	RYK1833-K	SPEAKER CABINET UNIT L	1	
	58	RYK1834-K	SPEAKER CABINET UNIT R	1	
	59	VHD1224-1A	SCREW	19	
	60	VMG1720	BELT	1	
	61	XTB3+10JFJK	SCREW	2	
	62	XTB3+8JFJ-J	SCREW	1	
	63	RGP1682-K	DOOR BASE	1	
	64	RMFX1026	HIMELON	1	
	65	RMB0976	DOCKING BASE SPRING	1	
	66	RMB0977	LOCK SPRING	1	
	67	RMB0979	DOCK COVER SPRING	1	
	68	RGQ0803-K	DOCK ORNAMENT	1	
	69	RGQ0801-K	DOCKING BASE	1	
	70	RGQ0805-K	CRADLE IPOD	1	
	71	REE1883	9P FFC IPOD LINK	1	
	72	RMQ2270	LOCK BUTTON	1	
	73	RXQ2221	COVER UNIT	1	
	74	RMQ2287	DOCK COVER	1	
	76	RXQ2225	CONNECTOR HOLDER UNIT	1	
			SPEAKERS		
	SP1	EAS65P144F	FRONT SPEAKER	1	
	SP2	EAS65P144F	FRONT SPEAKER	1	
	SP3	RXX0328	PASSIVE RADIATOR UNIT	1	
	SP4	RXX0329	PASSIVE RADIATOR UNIT	1	
			TRAVERSE DECK		
⚠	301	RAE5306Z-V	TRAVERSE UNIT	1	
	302	RME0109-1	FLOATING SPRING	4	
	303	RMS0757-1	FIX PIN	4	
	304	RMG0730-G	FLOATING RUBBER	4	
	305	RMQ2020-1J	MIDDLE CHASSIS	1	
	306	XTN2+6GFJ	SCREW	2	
			PACKING MATERIALS		
	P1	RPG0K26	PACKING CASE	1	S
	P1	RPG0K27	PACKING CASE	1	K
	P1	RPG0K28	PACKING CASE	1	W
	P2	RPN2629	POLYFOAM	1	
	P3	RPFX0262-1	MIRAMAT	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			ACCESSORIES		
	A1	N2QAYB000945	REMOTE CONTROL	1	
	A1-1	RKK-AKX18PHK	R/C BATTERY COVER	1	
⚠	A2	K2CQ2YY00119	AC CORD	1	
⚠	A3	RQT9884-1D	O/I BOOK (Ge/Fr/It/Du)	1	
⚠	A3	RQT9885-1E	O/I BOOK (Sw/Da/Fi)	1	
⚠	A3	RQT9886-1R	O/I BOOK (En/Po/Cz/Sp)	1	
	A4	RSAX0002	FM INDOOR ANTENNA	1	
	A8	RFA3549-1	WALL BRACKET ASS'Y	1	
	A11	RFA3589	PAD SHEET	1	

15.2. Electrical Replacement Parts List

Important Safety Notice

Components identified by Δ 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 CIRCUITS BOARDS		
	PCB1	REP5057A	CD INTERFACE P.C.B.	1	(RTL)
	PCB2	RFKV5053DA	MAIN P.C.B KIT ASS'Y	1	(RTL)
	PCB3	RFKV5053DB	NFC KIT ASS'Y	1	
	PCB4	REP5053DC	BRIDGE P.C.B.	1	(RTL)
	PCB5	REP5053DE	iPod DOCK P.C.B.	1	(RTL)
	PCB6	REP5053DF	MOTOR P.C.B.	1	(RTL)
Δ	PCB7	REP5054CA	SMPS P.C.B.	1	(RTL)
	PCB8	REP5054CB	FL P.C.B.	1	(RTL)
	PCB9	REP5054CC	BUTTON P.C.B.	1	(RTL)
	PCB10	RSNE031B0	BLUETOOTH MODULE	1	
			INTEGRATED CIRCUITS		
	IC52	VUEALLPT094	IC	1	(E.S.D)
	IC400	VUEALLPT092	IC	1	(E.S.D)
	IC1002	C0DBAYY01997	IC	1	(E.S.D)
	IC1101	C0DBAYY01997	IC	1	(E.S.D)
	IC1103	C0DBGYY03909	IC	1	(E.S.D)
	IC1104	C0DBAYY01996	IC	1	(E.S.D)
	IC1105	C0DBEYY00146	IC	1	(E.S.D)
	IC1106	C0DBGYY00911	IC	1	(E.S.D)
	IC1108	C0DBEYY00267	IC	1	(E.S.D)
	IC1109	C0DBGYY05244	IC	1	(E.S.D)
	IC1700	C0DACYY00012	IC	1	(E.S.D)
	IC1701	C0DBZMC00006	IC	1	(E.S.D)
	IC5001	C0GBY0000213	IC	1	(E.S.D)
	IC6001	C0JBAR000586	IC	1	(E.S.D)

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	IC7230	C0DBGYY00969	IC	1	(E.S.D)
	IC8001	C1AB00004188	IC	1	(E.S.D)
	IC8002	C0EBE0000240	IC	1	(E.S.D)
	IC8003	RFKWFHC49EM	IC	1	(E.S.D)
	IC8004	RFKV5053DB	IC	1	(E.S.D)
	IC8005	MFI337S3959	IC	1	(E.S.D)
			TRANSISTORS		
	Q400	B1HBCDA00001	TRANSISTOR	1	(E.S.D)
	Q402	B1HFCDE00002	TRANSISTOR	1	(E.S.D)
	Q404	B1CHRC000047	TRANSISTOR	1	(E.S.D)
	Q1700	B1ABGC000001	TRANSISTOR	1	(E.S.D)
	Q1701	DSA500100L	TRANSISTOR	1	(E.S.D)
	Q5001	B1ADCE000012	TRANSISTOR	1	(E.S.D)
	Q5001	B1ADCF000001	TRANSISTOR	1	(E.S.D)
	Q6003	B1HBCDA00001	TRANSISTOR	1	(E.S.D)
	Q6004	B1ABCF000176	TRANSISTOR	1	(E.S.D)
	Q6005	B1ABCF000176	TRANSISTOR	1	(E.S.D)
	Q6006	B1HBCDA00001	TRANSISTOR	1	(E.S.D)
	Q6801	B1HFCDE00002	TRANSISTOR	1	(E.S.D)
	Q6816	B1HFCDE00002	TRANSISTOR	1	(E.S.D)
	Q8000	B1GBCFNN0038	TRANSISTOR	1	(E.S.D)
	Q8102	B1HFCDE00002	TRANSISTOR	1	(E.S.D)
	QR400	B1GBCFNN0038	TRANSISTOR	1	(E.S.D)
	QR1100	B1GBCFNN0038	TRANSISTOR	1	(E.S.D)
	QR1700	B1GBCFJJ0051	TRANSISTOR	1	(E.S.D)
	QR6002	B1GHCFYY0044	TRANSISTOR	1	(E.S.D)
	QR6006	B1GHCFYY0044	TRANSISTOR	1	(E.S.D)
			DIODES		
	D1101	DA2J10100L	DIODE	1	(E.S.D)
	D1104	DZ2J062M0L	DIODE	1	(E.S.D)
	D1112	DZ2J062M0L	DIODE	1	(E.S.D)

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	D1113	DZ2J062M0L	DIODE	1	(E.S.D)
	D1115	DZ2J130M0L	DIODE	1	(E.S.D)
	D1220	B0ADDH000009	DIODE	1	(E.S.D)
	D1221	DA2J10100L	DIODE	1	(E.S.D)
	D1222	DZ2J062M0L	DIODE	1	(E.S.D)
	D1223	DA2J10100L	DIODE	1	(E.S.D)
	D1224	B0JCGD000016	DIODE	1	(E.S.D)
	D1700	B0ABSM000008	DIODE	1	(E.S.D)
	D1701	B0EBLR000034	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)
	D6020	DZ2J036M0L	DIODE	1	(E.S.D)
	D6550	DZ2J036M0L	DIODE	1	(E.S.D)
	D6801	B0ADDH000009	DIODE	1	(E.S.D)
	D6802	B0ADDH000009	DIODE	1	(E.S.D)
	D6806	DZ2J051M0L	DIODE	1	(E.S.D)
	D7230	DA2J10100L	DIODE	1	(E.S.D)
	D7231	DA2J10100L	DIODE	1	(E.S.D)
	D8000	B0ADDH000009	DIODE	1	(E.S.D)
			VARISTOR		
	VA51	EZAEG2A50AX	VARISTOR	1	
			SWITCHES		
	S501	K0L1BA000028	SW iPod OPEN/ CLOSE	1	
	S641	K0L1BA000078	SW OPEN	1	
	S642	K0L1BA000078	SW CLOSE	1	
	S901	EVQ11G04M	SW POWER	1	
	S902	EVQ11G04M	SW SELECTOR	1	
	S903	EVQ11G04M	SW STOP	1	
	S904	EVQ11G04M	SW PLAY/PAUSE	1	
	S905	EVQ11G04M	SW REV SKIP	1	
	S906	EVQ11G04M	SW FWD SKIP	1	
	S907	EVQ11G04M	SW VOL -	1	
	S908	EVQ11G04M	SW VOL +	1	
	S909	EVQ11G04M	SW CD OPEN/CLOSE	1	
	S910	EVQ11G04M	SW BT-PAIRING	1	
	S7201	K0L1BA000158	SW RESET	1	
			CONNECTORS		
	CN400	K1KA02AA0180	2P CONNECTOR	1	
	CN401	K1KA02AA0193	2P CONNECTOR	1	
	CN501	K1MN09B00038	9P CONNECTOR	1	
	CN900	K1MY14BA0566	14P CONNECTOR	1	
	CN931	K1KA05BA0047	5P CONNECTOR	1	
	CN941	K1MY14AA0267	14P CONNECTOR	1	
	CN1100	K1KY07A00029	7P CONNECTOR	1	
	CN6000	K1MY09AA0266	9P CONNECTOR	1	
	CN6001	K1MY14AA0267	14P CONNECTOR	1	
	CN6007	K1MY14AA0267	14P CONNECTOR	1	
	CN7002	K1MY24B00006	24P CONNECTOR	1	
	CN7003	K1MY24B00006	24P CONNECTOR	1	
	CN8000	K1MY08AA0266	8P CONNECTOR	1	
	JK51	K4ZZ02000103	JK FM ANT	1	
	P900	K1KA06AA0031	6P CONNECTOR	1	
	P942	K1KA05AA0193	5P CONNECTOR	1	
	P945	K1MY09AA0266	9P CONNECTOR	1	
	P1700	K1KY07B00021	7P CONNECTOR	1	
	P5003	K1MY24A00001	24P CONNECTOR	1	
	P6801	K1KB06B00038	6P CONNECTOR	1	
			COILS AND INDUC- TORS		
	L51	G1CR18JA0020	INDUCTOR	1	
	L60	J0JYC0000656	INDUCTOR	1	
	L80	J0JYC0000656	INDUCTOR	1	
	L400	G1C330MA0226	INDUCTOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	L401	G1C330MA0226	INDUCTOR	1	
	L402	G1C330MA0226	INDUCTOR	1	
	L403	G1C330MA0226	INDUCTOR	1	
	L502	J0JYC0000348	INDUCTOR	1	
	L503	J0JGC0000071	INDUCTOR	1	
	L504	J0JHC0000046	INDUCTOR	1	
	L506	J0JGC0000071	INDUCTOR	1	
	L1102	G1C100MA0226	INDUCTOR	1	
	L1105	G1C100MA0226	INDUCTOR	1	
	L1120	G1C100MA0226	INDUCTOR	1	
	L1700	G1C100K00019	INDUCTOR	1	
⚠	L1702	G0B922G00002	LINE FILTER	1	
	L7230	J0JYC0000305	INDUCTOR	1	
	LB51	J0JYC0000656	INDUCTOR	1	
	LB400	J0JYC0000107	INDUCTOR	1	
	LB401	J0JYC0000107	INDUCTOR	1	
	LB402	J0JYC0000366	INDUCTOR	1	
	LB403	J0JYC0000366	INDUCTOR	1	
	LB404	J0JYC0000366	INDUCTOR	1	
	LB405	J0JYC0000366	INDUCTOR	1	
	LB411	J0JYC0000656	INDUCTOR	1	
	LB980	J0JYC0000656	INDUCTOR	1	
	LB981	J0JYC0000656	INDUCTOR	1	
	LB982	J0JYC0000656	INDUCTOR	1	
	LB1103	J0JHC0000046	INDUCTOR	1	
	LB1104	J0JGC0000063	INDUCTOR	1	
	LB1105	J0JGC0000063	INDUCTOR	1	
	LB1107	J0JGC0000063	INDUCTOR	1	
	LB1108	J0JYC0000656	INDUCTOR	1	
	LB1120	J0JGC0000063	INDUCTOR	1	
	LB1121	J0JHC0000046	INDUCTOR	1	
	LB1161	J0JHC0000046	INDUCTOR	1	
	LB1162	J0JHC0000118	INDUCTOR	1	
	LB1181	J0JGC0000063	INDUCTOR	1	
	LB1221	J0JGC0000063	INDUCTOR	1	
	LB1222	J0JHC0000046	INDUCTOR	1	
	LB1223	J0JGC0000063	INDUCTOR	1	
	LB5001	J0JYC0000656	INDUCTOR	1	
	LB5002	J0JYC0000366	INDUCTOR	1	
	LB5004	J0JGC0000063	INDUCTOR	1	
	LB5005	J0JYB0000013	INDUCTOR	1	
	LB5006	J0JYC0000656	INDUCTOR	1	
	LB6000	J0JHC0000046	INDUCTOR	1	
	LB6101	J0JGC0000063	INDUCTOR	1	
	LB6801	J0JHC0000118	INDUCTOR	1	
	LB6802	J0JHC0000118	INDUCTOR	1	
	LB6803	J0JHC0000118	INDUCTOR	1	
	LB6804	J0JHC0000118	INDUCTOR	1	
	LB6805	J0JHC0000118	INDUCTOR	1	
	LB6810	J0JYC0000656	INDUCTOR	1	
	LB6811	J0JYC0000656	INDUCTOR	1	
	LB6812	J0JYC0000656	INDUCTOR	1	
	LB6813	J0JYC0000656	INDUCTOR	1	
	LB8000	J0JYC0000656	INDUCTOR	1	
	LB8001	J0JYC0000656	INDUCTOR	1	
	LB8002	J0JYC0000656	INDUCTOR	1	
	LB8003	J0JYC0000656	INDUCTOR	1	
	LB8004	J0JYC0000656	INDUCTOR	1	
	LB8005	J0JYC0000656	INDUCTOR	1	
	LB8006	J0JYC0000656	INDUCTOR	1	
	LB8007	J0JYC0000656	INDUCTOR	1	
	LB8008	J0JYC0000656	INDUCTOR	1	
	LB8009	J0JYC0000656	INDUCTOR	1	
	LB8010	J0JYC0000656	INDUCTOR	1	
	LB8011	J0JYC0000656	INDUCTOR	1	
	LB8012	J0JHC0000118	INDUCTOR	1	
	LB8013	J0JHC0000118	INDUCTOR	1	
	LB8014	J0JYC0000656	INDUCTOR	1	
	LB8015	J0JYC0000656	INDUCTOR	1	
	LB8016	J0JYC0000656	INDUCTOR	1	
	LB8017	J0JYC0000656	INDUCTOR	1	
	LB8018	J0JYC0000656	INDUCTOR	1	
	LB8019	J0JYC0000656	INDUCTOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	LB8020	J0JYC0000656	INDUCTOR	1	
	R5025	J0JYB0000013	INDUCTOR	1	
	R5040	J0JGC0000063	INDUCTOR	1	
	R8056	J0JCC0000408	INDUCTOR	1	
	R8057	J0JCC0000397	INDUCTOR	1	
	R8058	J0JCC0000397	INDUCTOR	1	
	R8059	J0JCC0000408	INDUCTOR	1	
	R8060	J0JCC0000317	INDUCTOR	1	
	R8061	J0JCC0000317	INDUCTOR	1	
	RX8007	J0JAD0000007	INDUCTOR	1	
	RX8008	J0JAD0000007	INDUCTOR	1	
	RX8009	J0JAD0000007	INDUCTOR	1	
	RX8011	J0JAD0000007	INDUCTOR	1	
			TRANSFORMER		
△	T1700	G4DYZ0000077	TRANSFORMER	1	
			VARISTOR		
△	Z1752	ERZV10V511CS	VARISTOR	1	
			PHOTO COUPLER		
△	PC1702	B3PBA0000579	PHOTO COUPLER	1	
			REMOTE SENSOR		
	IR941	B3RAB0000110	REMOTE SENSOR	1	
			TERMINALS		
	ZJ1701	K4CZ01000027	TERMINAL	1	
	ZJ1702	K4CZ01000027	TERMINAL	1	
			OSCILLATORS		
	X400	H0J245500110	OSCILLATOR	1	
	X8001	H0J169500044	OSCILLATOR	1	
	X8002	H0A327200181	OSCILLATOR	1	
			FL DISPLAY		
	FL6801	A2BB00000186	LCD DISPLAY	1	
			FUSE		
△	F1	K5G202Y00006	FUSE	1	
			JACKS		
	JK502	K3ZZ00900009	iPod/iPhone PORT	1	
	JK6000	K1FY104B0078	USB PORT	1	
△	P1751	K2AA2B000011	AC INLET	1	
			CHIP JUMPERS		
	D5001	D0GBR00J0004	0 1/10W	1	
	L501	D0GBR00J0004	0 1/10W	1	
	L505	D0GBR00J0004	0 1/10W	1	
	LB52	D0GAR00J0005	0 1/16W	1	
	LB5003	D0GBR00J0004	0 1/10W	1	
	LB6814	D0GBR00J0004	0 1/10W	1	
	LB6815	D0GBR00J0004	0 1/10W	1	
	W200	D0GFR00JA017	0 1/4W	1	
	W201	D0GFR00JA017	0 1/4W	1	
	W202	D0GFR00JA017	0 1/4W	1	
	W203	D0GFR00JA017	0 1/4W	1	
	W300	D0GDR00JA017	0 1/8W	1	
	W301	D0GBR00JA008	0 1/10W	1	
			RESISTORS		

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R51	D0GB222JA065	2.2K 1/10W	1	
	R52	D0GB561JA065	560 1/10W	1	
	R53	D0GA472JA023	4.7K 1/16W	1	
	R54	D0GA472JA023	4.7K 1/16W	1	
	R55	D0GA221JA023	220 1/16W	1	
	R56	D0GB221JA065	220 1/10W	1	
	R57	D0GA102JA023	1K 1/16W	1	
	R59	D0GBR00J0004	0 1/10W	1	
	R60	D0GB331JA065	330 1/10W	1	
	R63	D0GBR00J0004	0 1/10W	1	
	R64	D0GBR00J0004	0 1/10W	1	
	R400	D0GB221JA065	220 1/10W	1	
	R402	D0GB101JA065	100 1/10W	1	
	R403	D0GB101JA065	100 1/10W	1	
	R404	D0GB101JA065	100 1/10W	1	
	R405	D0GBR00J0004	0 1/10W	1	
	R406	D0GBR00J0004	0 1/10W	1	
	R407	D0GBR00J0004	0 1/10W	1	
	R408	D0GBR00J0004	0 1/10W	1	
	R412	D0GB105JA065	1M 1/10W	1	
	R413	D0GB152JA065	1.5K 1/10W	1	
	R414	D0GB152JA065	1.5K 1/10W	1	
	R416	D0GB104JA065	100K 1/10W	1	
	R417	D0GD5R6JA052	5.6 1/8W	1	
	R418	D0GD5R6JA052	5.6 1/8W	1	
	R419	D0GD5R6JA052	5.6 1/8W	1	
	R420	D0GD5R6JA052	5.6 1/8W	1	
	R421	D0GBR00J0004	0 1/10W	1	
	R427	D0GB221JA065	220 1/10W	1	
	R428	D0GB102JA065	1K 1/10W	1	
	R429	D0GB472JA065	4.7K 1/10W	1	
	R430	D0GB104JA065	100K 1/10W	1	
	R431	D0GB223JA065	22K 1/10W	1	
	R432	D0GB104JA065	100K 1/10W	1	
	R433	D0GB104JA065	100K 1/10W	1	
	R434	D0GB104JA065	100K 1/10W	1	
	R435	D0GB104JA065	100K 1/10W	1	
	R436	D0GB104JA065	100K 1/10W	1	
	R437	D0GB104JA065	100K 1/10W	1	
	R441	D0GBR00J0004	0 1/10W	1	
	R442	D0GA101JA023	100 1/16W	1	
	R443	D0GA101JA023	100 1/16W	1	
	R444	D0GA101JA023	100 1/16W	1	
	R502	D0GBR00J0004	0 1/10W	1	
	R902	D0GB222JA065	2.2K 1/10W	1	
	R903	D0GB392JA065	3.9K 1/10W	1	
	R904	D0GB682JA065	6.8K 1/10W	1	
	R905	D0GB183JA065	18K 1/10W	1	
	R906	D0GB392JA065	3.9K 1/10W	1	
	R907	D0GB392JA065	3.9K 1/10W	1	
	R908	D0GB682JA065	6.8K 1/10W	1	
	R909	D0GB183JA065	18K 1/10W	1	
	R941	D0GB330JA065	33 1/10W	1	
	R942	D0GBR00J0004	0 1/10W	1	
	R1103	D1BB5602A074	56K 1/10W	1	
	R1104	D1BB1002A074	10K 1/16W	1	
	R1110	D0GBR00J0004	0 1/10W	1	
	R1111	D0GBR00J0004	0 1/10W	1	
	R1116	D1BB4642A074	46.4K 1/10W	1	
	R1117	D1BB3300A074	330 1/10W	1	
	R1118	D1BB1002A074	10K 1/16W	1	
	R1119	D0GB100JA065	10 1/10W	1	
	R1120	D0GBR00J0004	0 1/10W	1	
	R1123	D0GBR00J0004	0 1/10W	1	
	R1127	ERJ3GEYF474V	470K 1/10W	1	
	R1128	D1BB3902A074	39K 1/10W	1	
	R1131	D0GB100JA065	10 1/10W	1	
	R1151	D0GB100JA065	10 1/10W	1	
	R1181	D1BB2322A074	23.2K 1/10W	1	
	R1182	D1BB1002A074	10K 1/16W	1	
	R1191	D0GB680JA065	68 1/10W	1	
	R1221	D0GB184JA065	180K 1/10W	1	
	R1222	D0GB473JA065	47K 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R1223	D1BB4702A074	47K 1/10W	1	
	R1224	D1BB1002A074	10K 1/16W	1	
	R1226	D1BB8451A074	8.45K 1/10W	1	
	R1228	D0GBR00J0004	0 1/10W	1	
	R1301	D0GB5R6JA065	5.6 1/10W	1	
	R1302	D0GB5R6JA065	5.6 1/10W	1	
	R1400	D0GB104JA065	100K 1/10W	1	
	R1401	D0GB273JA065	27K 1/10W	1	
	R1700	D0GD4R7JA052	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	D0GB392JA065	3.9K 1/10W	1	
	R1708	ERJ1TYJ220U	22 1W	1	
	R1710	D1BB5602A074	56K 1/10W	1	
	R1711	D0GB103JA065	10K 1/10W	1	
	R1716	D0GB394JA065	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	D1BB8201A074	8.2K 1/10W	1	
	R1729	D0GD220JA017	22 1/8W	1	
	R1730	D1BB1502A074	15K 1/10W	1	
	R4000	D0GA332JA023	3.3K 1/16W	1	
	R5005	D0GB683JA065	68K 1/10W	1	
	R5006	D0GB683JA065	68K 1/10W	1	
	R5007	D0GBR00J0004	0 1/10W	1	
	R5008	D0GB101JA065	100 1/10W	1	
	R5009	D0GB152JA065	1.5K 1/10W	1	
	R5011	D0GB682JA065	6.8K 1/10W	1	
	R5012	D0GBR00J0004	0 1/10W	1	
	R5013	D0GB473JA065	47K 1/10W	1	
	R5014	D0GBR00J0004	0 1/10W	1	
	R5015	D0GBR00J0004	0 1/10W	1	
	R5016	D0GB104JA065	100K 1/10W	1	
	R5017	D0GBR00J0004	0 1/10W	1	
	R5018	D0GB153JA065	15K 1/10W	1	
	R5019	D0GB473JA065	47K 1/10W	1	
	R5019	D0GB4R7JA065	4.7 1/10W	1	
	R5020	D0GB104JA065	100K 1/10W	1	
	R5021	D0GB4R7JA065	4.7 1/10W	1	
	R5022	D0GB102JA065	1K 1/10W	1	
	R5022	D0GB152JA065	1.5K 1/10W	1	
	R5023	D0GBR00J0004	0 1/10W	1	
	R5026	D0GFR00J0005	0 1/4W	1	
	R5035	D0GB103JA065	10K 1/10W	1	
	R5037	D0GB332JA065	3.3K 1/10W	1	
	R5038	D0GBR00J0004	0 1/10W	1	
	R5039	D0GB225JA065	2.2M 1/10W	1	
	R5041	D0GBR00J0004	0 1/10W	1	
	R6001	D0GBR00J0004	0 1/10W	1	
	R6004	D0GB101JA065	100 1/10W	1	
	R6005	D1BB5102A073	51K 1/10W	1	
	R6006	D1BB7502A073	75K 1/10W	1	
	R6008	D0GB222JA065	2.2K 1/10W	1	
	R6009	D1BB5102A073	51K 1/10W	1	
	R6010	D0GB222JA065	2.2K 1/10W	1	
	R6011	D1BB4302A073	43K 1/10W	1	
	R6013	D0GBR00J0004	0 1/10W	1	
	R6014	D0GB222JA065	2.2K 1/10W	1	
	R6015	D0GB222JA065	2.2K 1/10W	1	
	R6020	D0GB821JA065	820 1/10W	1	
	R6021	D0GB122JA065	1.2K 1/10W	1	
	R6500	D1BB4302A073	43K 1/10W	1	
	R6501	D0GB222JA065	2.2K 1/10W	1	
	R6502	D1BB5102A073	51K 1/10W	1	
	R6503	D1BB7502A073	75K 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R6504	D1BB5102A073	51K 1/10W	1	
	R6506	D0GB222JA065	2.2K 1/10W	1	
	R6507	D0GB222JA065	2.2K 1/10W	1	
	R6550	D0GB821JA065	820 1/10W	1	
	R6551	D0GB122JA065	1.2K 1/10W	1	
	R6801	D0GB1R0JA065	1 1/10W	1	
	R6802	D0GB473JA065	47K 1/10W	1	
	R6803	D0GB100JA065	10 1/10W	1	
	R6804	D0GB220JA065	22 1/10W	1	
	R6805	D0GBR00J0004	0 1/10W	1	
	R6806	D0GD473JA052	47K 1/8W	1	
	R6810	D0GF390JA048	39 1/4W	1	
	R6811	D0GF390JA048	39 1/4W	1	
	R6812	D0GB101JA065	100 1/10W	1	
	R6813	D0GB101JA065	100 1/10W	1	
	R6814	D0GB101JA065	100 1/10W	1	
	R6815	D0GB272JA065	2.7K 1/10W	1	
	R6816	D0GB472JA065	4.7K 1/10W	1	
	R6817	D0GB223JA065	22K 1/10W	1	
	R6818	D0GB473JA065	47K 1/10W	1	
	R7230	D0GB104JA065	100K 1/10W	1	
	R8000	D0GB101JA065	100 1/10W	1	
	R8001	D0GB101JA065	100 1/10W	1	
	R8002	D0GB222JA065	2.2K 1/10W	1	
	R8003	D0GB222JA065	2.2K 1/10W	1	
	R8004	D0GBR00J0004	0 1/10W	1	
	R8005	D0GB104JA065	100K 1/10W	1	
	R8006	D0GB104JA065	100K 1/10W	1	
	R8007	D0GB222JA065	2.2K 1/10W	1	
	R8008	D0GB222JA065	2.2K 1/10W	1	
	R8011	D0GB222JA065	2.2K 1/10W	1	
	R8012	D0GB222JA065	2.2K 1/10W	1	
	R8022	D0GB104JA065	100K 1/10W	1	
	R8024	D0GA103JA023	10K 1/16W	1	
	R8025	D0GA103JA023	10K 1/16W	1	
	R8026	D0GB472JA065	4.7K 1/10W	1	
	R8027	D0GB472JA065	4.7K 1/10W	1	
	R8029	D0GBR00J0004	0 1/10W	1	
	R8030	D1BA1002A022	10K 1/16W	1	
	R8031	D1BA1002A022	10K 1/16W	1	
	R8033	D1BA1002A022	10K 1/16W	1	
	R8035	D0GA221JA023	220 1/16W	1	
	R8036	D0GA221JA023	220 1/16W	1	
	R8037	D0GA221JA023	220 1/16W	1	
	R8040	D0GB101JA065	100 1/10W	1	
	R8041	D0GB153JA065	15K 1/10W	1	
	R8043	D1BB1002A074	10K 1/16W	1	
	R8044	D1BB1002A074	10K 1/16W	1	
	R8045	D0GB471JA065	470 1/10W	1	
	R8046	D0GB101JA065	100 1/10W	1	
	R8047	D0GB101JA065	100 1/10W	1	
	R8049	D0GB101JA065	100 1/10W	1	
	R8050	D0GB104JA065	100K 1/10W	1	
	R8051	D0GB103JA065	10K 1/10W	1	
	R8052	D0GB103JA065	10K 1/10W	1	
	R8053	D0GB334JA065	330K 1/10W	1	
	R8054	D0GB223JA065	22K 1/10W	1	
	R8055	D0GB473JA065	47K 1/10W	1	
	R8062	F1H1H560B052	56pF 50V	1	
	R8063	F1H1H560B052	56pF 50V	1	
	R8064	D0GB222JA065	2.2K 1/10W	1	
	R8066	D1BB1502A074	15K 1/10W	1	
	R8067	ERJ3GEYF683V	68K 1/10W	1	
	R8068	D0GB104JA065	100K 1/10W	1	
	R8069	D0GB101JA065	100 1/10W	1	
	R8070	D0GB101JA065	100 1/10W	1	
	R8075	D0GB101JA065	100 1/10W	1	
	R8084	D0GB152JA065	1.5K 1/10W	1	
	R8085	D0GB152JA065	1.5K 1/10W	1	
	R8088	D0GA104JA023	100K 1/16W	1	
	R8090	D0GB105JA065	1M 1/10W	1	
	R8091	D0GB101JA065	100 1/10W	1	
	R8094	D0GB103JA065	10K 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R8095	D0GA106JA023	10M 1/16W	1	
	R8102	D0GB101JA065	100 1/10W	1	
	R8103	D0GBR00J0004	0 1/10W	1	
	R8106	D0GBR00J0004	0 1/10W	1	
	R8107	D0GB101JA065	100 1/10W	1	
	R8108	D0GBR00J0004	0 1/10W	1	
	R8110	D0GB822JA065	8.2K 1/10W	1	
	R8112	D0GA101JA023	100 1/16W	1	
	R8113	D0GA101JA023	100 1/16W	1	
	R8114	D0GA101JA023	100 1/16W	1	
	R8115	D0GA101JA023	100 1/16W	1	
	R8600	D0GFR00J0005	0 1/4W	1	
			RESISTOR NET- WORKS		
	RX8001	D1H81014A042	RESISTOR NETWORK	1	
	RX8002	D1H81014A042	RESISTOR NETWORK	1	
	RX8003	D1H81014A042	RESISTOR NETWORK	1	
	RX8004	D1H81014A042	RESISTOR NETWORK	1	
	RX8005	D1H81014A042	RESISTOR NETWORK	1	
	RX8006	D1H81014A042	RESISTOR NETWORK	1	
	RX8010	D1H81034A042	RESISTOR NETWORK	1	
	RX8013	D1H81014A042	RESISTOR NETWORK	1	
			CAPACITORS		
	C51	F1H1H102B047	1000pF 50V	1	
	C61	F1G1C104A077	0.1uF 16V	1	
	C62	F1G1C104A077	0.1uF 16V	1	
	C65	D0GBR00J0004	0 1/10W	1	
	C66	F1H1H330B052	33pF 50V	1	
	C67	F1H1H3R0B050	3pF 50V	1	
	C80	F1H1H103B047	0.01uF 50V	1	
	C401	F1H1A105A113	1uF 10V	1	
	C402	F1H1H101B052	100pF 50V	1	
	C403	F1H1A105A113	1uF 10V	1	
	C404	F1H1H120B052	12pF 50V	1	
	C405	F1H1H120B052	12pF 50V	1	
	C406	F1H1H273A918	0.027uF 50V	1	
	C407	F1H1H272A219	2700pF 50V	1	
	C408	F1H1H101B052	100pF 50V	1	
	C409	F1H1A105A113	1uF 10V	1	
	C410	F2G1E2210026	220uF 25V	1	
	C411	F1J1E475A257	4.7uF 25V	1	
	C412	F1J1E105A287	1uF 25V	1	
	C413	F1K1E1060009	10uF 25V	1	
	C414	F1K1E1060009	10uF 25V	1	
	C415	F1J1E475A257	4.7uF 25V	1	
	C416	F1J1E475A257	4.7uF 25V	1	
	C417	F1J1E105A287	1uF 25V	1	
	C418	F1K1E1060009	10uF 25V	1	
	C419	F1K1E1060009	10uF 25V	1	
	C420	F1J1E475A257	4.7uF 25V	1	
	C421	F1H1H122B047	1200pF 50V	1	
	C422	F1H1H122B047	1200pF 50V	1	
	C423	F1H1H122B047	1200pF 50V	1	
	C424	F1H1H122B047	1200pF 50V	1	
	C425	F1J1H2240017	0.22uF 50V	1	
	C426	F1J1H2240017	0.22uF 50V	1	
	C427	F1J1H2240017	0.22uF 50V	1	
	C428	F1J1H2240017	0.22uF 50V	1	
	C429	F1J1A106A043	10uF 10V	1	
	C430	F1H1H101B052	100pF 50V	1	
	C431	F1H1H104B047	0.1uF 50V	1	
	C432	F1H1E105A153	1uF 25V	1	
	C433	F1J1A106A043	10uF 10V	1	
	C434	F1J1A106A043	10uF 10V	1	
	C435	F1H1H102B047	1000pF 50V	1	
	C436	F1H1H102B047	1000pF 50V	1	
	C437	F1H1H102B047	1000pF 50V	1	
	C438	F1H1H102B047	1000pF 50V	1	
	C439	F1G1H102A834	1000pF 50V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C444	F1H1H330B052	33pF 50V	1	
	C452	F1H1A105A113	1uF 10V	1	
	C453	F1H1H102B047	1000pF 50V	1	
	C501	F1G1C104A077	0.1uF 16V	1	
	C502	F1G1C104A077	0.1uF 16V	1	
	C941	F1H1A105A113	1uF 10V	1	
	C942	F1H1H101B052	100pF 50V	1	
	C1000	F1H1A105A113	1uF 10V	1	
	C1001	F1H1H102B047	1000pF 50V	1	
	C1010	F1H1H101B052	100pF 50V	1	
	C1011	F1H1H101B052	100pF 50V	1	
	C1012	F1H1H101B052	100pF 50V	1	
	C1100	F1H0J1060006	10uF 6.3V	1	
	C1101	F1H1A105A113	1uF 10V	1	
	C1109	F1H1H104B047	0.1uF 50V	1	
	C1119	F1H1H473A220	0.047uF 50V	1	
	C1120	F1K1C2260001	22uF 16V	1	
	C1121	F1K1E1060009	10uF 25V	1	
	C1122	F1K1E1060009	10uF 25V	1	
	C1123	F1K1E1060009	10uF 25V	1	
	C1124	F1K1E1060009	10uF 25V	1	
	C1125	F1H1A105A113	1uF 10V	1	
	C1126	F1K1C2260001	22uF 16V	1	
	C1128	F1H1H104B047	0.1uF 50V	1	
	C1129	F1K1E1060009	10uF 25V	1	
	C1130	F1K1E1060009	10uF 25V	1	
	C1131	F1H1H391A219	390pF 50V	1	
	C1133	F1H1H102B047	1000pF 50V	1	
	C1135	F1K1C2260001	22uF 16V	1	
	C1136	F1K1C2260001	22uF 16V	1	
	C1138	F1H1H104B047	0.1uF 50V	1	
	C1139	F1H1H104B047	0.1uF 50V	1	
	C1140	F1H1H104B047	0.1uF 50V	1	
	C1150	F1K1C2260001	22uF 16V	1	
	C1151	F1H1H391A219	390pF 50V	1	
	C1152	F1K1C2260001	22uF 16V	1	
	C1153	F1H1H102B047	1000pF 50V	1	
	C1169	F1H1A105A113	1uF 10V	1	
	C1181	F1J1E105A287	1uF 25V	1	
	C1182	F1H1C105A118	1uF 16V	1	
	C1183	F1H1H104B047	0.1uF 50V	1	
	C1184	F1J1E105A287	1uF 25V	1	
	C1185	F1H1C105A118	1uF 16V	1	
	C1191	F1H1H102B047	1000pF 50V	1	
	C1221	F1H1C105A118	1uF 16V	1	
	C1222	F1J1E105A287	1uF 25V	1	
	C1224	F1H1A105A113	1uF 10V	1	
	C1225	F1G1A1050004	1uF 10V	1	
	C1226	F1G1H101A834	100pF 50V	1	
	C1227	F1H1H101B052	100pF 50V	1	
	C1400	F1H1H102B047	1000pF 50V	1	
	C1700	F1H1H391A219	390pF 50V	1	
	C1701	F1K1V106A010	10uF 35V	1	
△	C1702	F0CAF224A105	0.22uF	1	
	C1703	F2A1E1020114	1000uF 25V	1	
	C1704	F1H1H102B047	1000pF 50V	1	
	C1705	F1K2J472A010	4700pF 630V	1	
	C1706	F2A2G820A354	82uF 400V	1	
	C1708	F1H1H102B047	1000pF 50V	1	
	C1709	F1H1H104B047	0.1uF 50V	1	
△	C1710	F1BAF471A013	470pF	1	
	C1712	F1H1H104B047	0.1uF 50V	1	
	C1713	F1K2J221A014	220pF 630V	1	
	C1714	F1H1H104B047	0.1uF 50V	1	
	C1715	F1H1H104B047	0.1uF 50V	1	
	C1716	F1H1H103B047	0.01uF 50V	1	
	C1719	F1H1E474A116	0.47uF 25V	1	
	C1720	F1K3D100A009	10pF 2000V	1	
△	C1725	F0CAF104A105	0.1uF	1	
△	C1727	F1BAF1020020	1000pF	1	
△	C1728	F1BAF1020020	1000pF	1	
	C5001	F1J1A106A043	10uF 10V	1	
	C5002	F1H1H103B047	0.01uF 50V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C5003	F1J1A106A043	10uF 10V	1	
	C5004	F1H1C104A041	0.1uF 16V	1	
	C5007	F1H1H222A219	2200pF 50V	1	
	C5008	F1H1H222A219	2200pF 50V	1	
	C5009	F1J1A106A043	10uF 10V	1	
	C5010	F1H1H103B047	0.01uF 50V	1	
	C5011	F1H1C104A041	0.1uF 16V	1	
	C5012	F1H1H102B047	1000pF 50V	1	
	C5019	F1J1A106A043	10uF 10V	1	
	C5020	F1H0J1060006	10uF 6.3V	1	
	C5021	F1H0J1060006	10uF 6.3V	1	
	C5022	F1H1H680A831	68pF 50V	1	
	C5023	F1H1H104B047	0.1uF 50V	1	
	C5024	F1H1H103B047	0.01uF 50V	1	
	C5025	F1J1A106A043	10uF 10V	1	
	C5054	D06B103JA065	10K 1/10W	1	
	C6000	F1H1H104B047	0.1uF 50V	1	
	C6001	F1H1H103B047	0.01uF 50V	1	
	C6005	F1H1H101B052	100pF 50V	1	
	C6012	F1H1H104B047	0.1uF 50V	1	
	C6020	F1H1H104B047	0.1uF 50V	1	
	C6501	F1H1H101B052	100pF 50V	1	
	C6503	F1H1H104B047	0.1uF 50V	1	
	C6504	F1H1H101B052	100pF 50V	1	
	C6550	F1H1H104B047	0.1uF 50V	1	
	C6801	F1H1A105A113	1uF 10V	1	
	C6802	F1J1V1050001	1uF 35V	1	
	C6803	F1H1E105A153	1uF 25V	1	
	C6804	F1H1E105A153	1uF 25V	1	
	C6805	F1J1E105A287	1uF 25V	1	
	C6806	F2A1V470B125	47uF 35V	1	
	C6807	F1H1E105A153	1uF 25V	1	
	C6808	F1H1E105A153	1uF 25V	1	
	C6812	F1J1V1050001	1uF 35V	1	
	C6813	F1J1E105A287	1uF 25V	1	
	C6814	F1J1E105A287	1uF 25V	1	
	C6816	F1H1H104B047	0.1uF 50V	1	
	C7231	F1H0J1060006	10uF 6.3V	1	
	C7232	F1G1C104A149	0.1uF 16V	1	
	C7233	F1G1A1050004	1uF 10V	1	
	C7234	F1G1A1050004	1uF 10V	1	
	C7235	F1G1C104A149	0.1uF 16V	1	
	C8000	F1H1C104A041	0.1uF 16V	1	
	C8001	F1H1C104A041	0.1uF 16V	1	
	C8002	F1H1H101B052	100pF 50V	1	
	C8003	F1H1H101B052	100pF 50V	1	
	C8004	F1H1C104A041	0.1uF 16V	1	
	C8005	F1H1H101B052	100pF 50V	1	
	C8006	F1G1H101A834	100pF 50V	1	
	C8007	F1H1C104A041	0.1uF 16V	1	
	C8008	F1H1C104A041	0.1uF 16V	1	
	C8009	F1H0J1060006	10uF 6.3V	1	
	C8010	F1H1H472B047	4700pF 50V	1	
	C8011	F1H1H472B047	4700pF 50V	1	
	C8013	F1H1H472B047	4700pF 50V	1	
	C8014	F1H1H103B047	0.01uF 50V	1	
	C8015	F1H1H102B047	1000pF 50V	1	
	C8016	F1H1H681A831	680pF 50V	1	
	C8017	F1J1A106A043	10uF 10V	1	
	C8018	F1H1C104A041	0.1uF 16V	1	
	C8018	F1H1H103B047	0.01uF 50V	1	
	C8019	F1H1A105A113	1uF 10V	1	
	C8019	F1J1A106A043	10uF 10V	1	
	C8020	F1H0J1060006	10uF 6.3V	1	
	C8020	F1H1C104A041	0.1uF 16V	1	
	C8021	F1H1C104A041	0.1uF 16V	1	
	C8022	F1H1A335A083	3.3uF 10V	1	
	C8023	F1H1C2240011	0.22uF 16V	1	
	C8024	F1H1C104A041	0.1uF 16V	1	
	C8025	F1H0J1060006	10uF 6.3V	1	
	C8026	F1H1H223B047	0.022uF 50V	1	
	C8029	F1H1H101B052	100pF 50V	1	
	C8030	F1H1H101B052	100pF 50V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C8031	F1G1C104A149	0.1uF 16V	1	
	C8032	F1G0J1050013	1uF 6.3V	1	
	C8033	F1H1H101B052	100pF 50V	1	
	C8034	F1H0J1060006	10uF 6.3V	1	
	C8035	F1H1H101B052	100pF 50V	1	
	C8036	F1H0J1060006	10uF 6.3V	1	
	C8037	F1H1H102B047	1000pF 50V	1	
	C8038	F1H1H101B052	100pF 50V	1	
	C8039	F1G1H270A834	27pF 50V	1	
	C8040	F1H1H330B052	33pF 50V	1	
	C8041	F1H1H100B051	10pF 50V	1	
	C8042	F1H1H100B051	10pF 50V	1	
	C8043	F1H0J4750005	4.7uF 6.3V	1	
	C8044	F1H1C104A041	0.1uF 16V	1	
	C8045	F1H1C104A041	0.1uF 16V	1	
	C8046	F1H1C104A041	0.1uF 16V	1	
	C8047	F1G1H101A834	100pF 50V	1	
	C8048	F1G1H101A834	100pF 50V	1	
	C8049	F1G1H101A834	100pF 50V	1	
	C8050	F1G1H101A834	100pF 50V	1	
	C8051	F1G1H101A834	100pF 50V	1	
	C8052	F1H1H101B052	100pF 50V	1	
	C8053	F1G1H101A834	100pF 50V	1	
	C8060	F1G1C104A149	0.1uF 16V	1	
	C8061	F1H1H104B047	0.1uF 50V	1	
	C11371	F1H1H391A219	390pF 50V	1	
			SERVICE FIXTURE AND TOOLS		
	SFT1	REE1978	24P FFC (MAIN - CD INTERFACE)	1	
	SFT2	REX1538	7P WIRE (MAIN - SMPS)	1	

IPSG1402