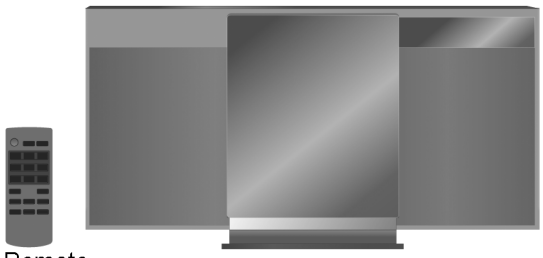
PSG1202011CE
A6

Service Manual

Compact Stereo System

Model No. SC-HC27P
SC-HC27PC
SC-HC271P

Product Color: (K)...Black Type



Remote Control

SC-HC27
SC-HC271

⚠ WARNING

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

IMPORTANT SAFETY NOTICE

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

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Panasonic

1 Safety Precautions

1.1. General Guidelines

1. 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.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, carry out the following leakage current checks to prevent the customer from being exposed to shock hazards.

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

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

1.1.1. Leakage Current Cold Check

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

1.1.2. Leakage Current Hot Check

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15μF capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
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.

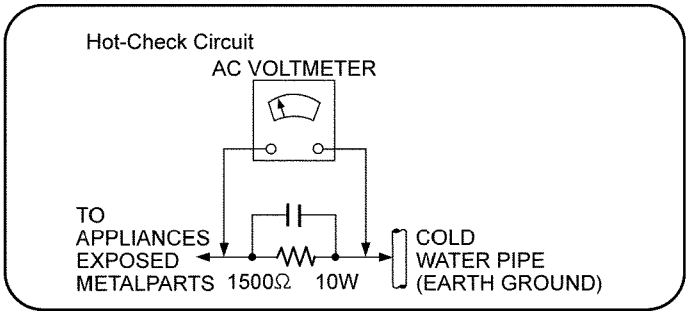


Figure. 1

1.2. Before Repair and Adjustment

Disconnect AC power, discharge unit AC Capacitors as such 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 120V, at 60Hz in NO SIGNAL mode (at volume min 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
⚠	15	RGP1503-K1	REAR CABINET	HC27P
⚠	15	RFKHHC27PCK	REAR CABINET ASS'Y	HC27PC
⚠	15	RFKHHC271P-K	REAR CABINET ASS'Y	HC271P
⚠	27	RMV0391-1	SMPS INSULATOR SHEET B	
⚠	51	RMV0390	SMPS INSULATOR A	
⚠	301	RAE5301Z-V	TRAVERSE	
⚠	A1	N2QAYC000058	REMOTE CONTROL	
⚠	A2	K2CB2YY00059	AC CORD	
⚠	A3	RQT9565-1P	O/I BOOK (En)	HC27P / HC271P
⚠	A3	RQT9567-C	O/I BOOK (Cf)	HC27PC
⚠	C1702	F0CAF224A105	0.22uF	
⚠	C1710	F1BAF471A013	470pF	
⚠	C1725	F0CAF154A105	0.15uF	
⚠	C1727	F1BAF1020020	1000pF	
⚠	C1728	F1BAF1020020	1000pF	
⚠	F1	K5G202Y00006	FUSE	
⚠	IP1100	K5H302Z00003	PROTECTOR	
⚠	L1702	G0B183E00004	LINE FILTER	
⚠	P1751	K2AB2B000007	AC INLET	
⚠	PC1701	B3PBA0000503	PHOTO COUPLER	
⚠	PCB9	REP4774B	SMPS P.C.B.	(RTL)
⚠	R1724	ERJ12YJ105U	1M 1/2W	
⚠	R1726	ERJ12YJ105U	1M 1/2W	
⚠	T1100	G4D1A0000117	SWITCHING TRANSFORMER	
⚠	T1700	G4DYZ0000059	MAIN TRANSFORMER	
⚠	TH1701	D4CAA5R10001	THERMISTOR	
⚠	Z1752	ERZV10V511CS	ZNR	

2 Warning

2.1. Prevention of Electro Static 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 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-equiped 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 equiped with ES devices, place the assembly on a conductive surface such as aluminium foil, to prevent electrostatic charge build up 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 remover 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, aluminium 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).

2.2. Precaution of Laser Diode

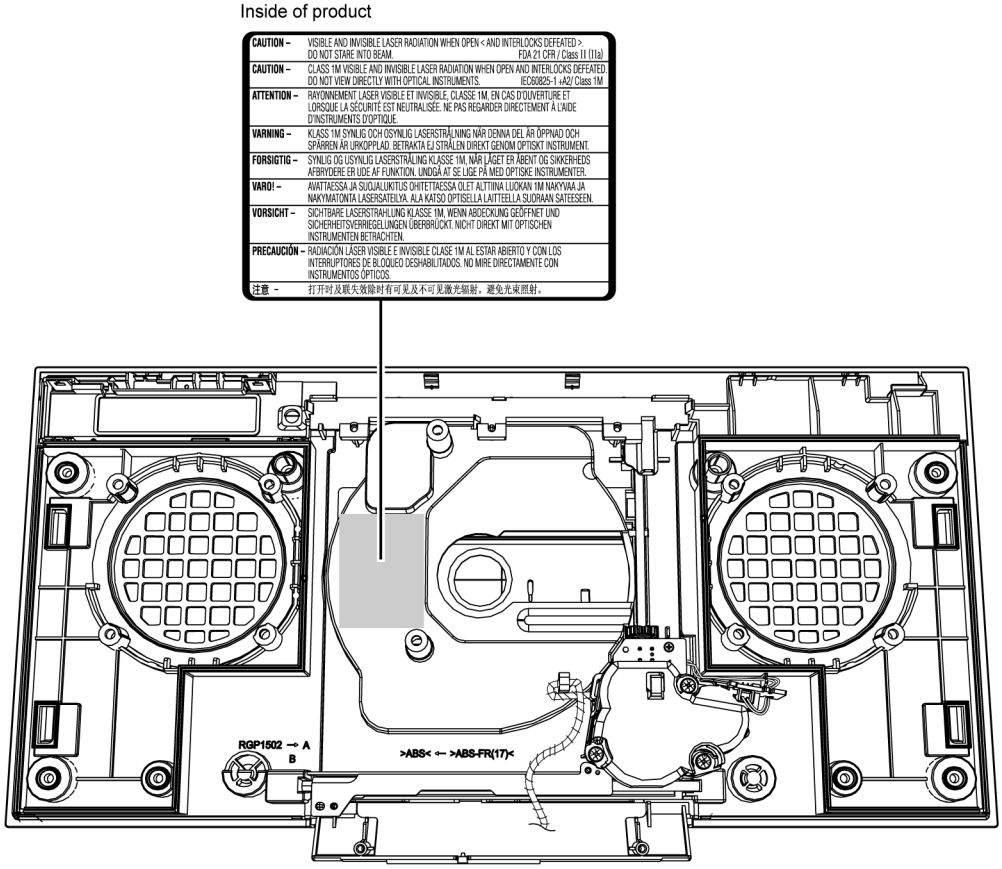
CAUTION!
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

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 μW/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.

Inside of product



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%

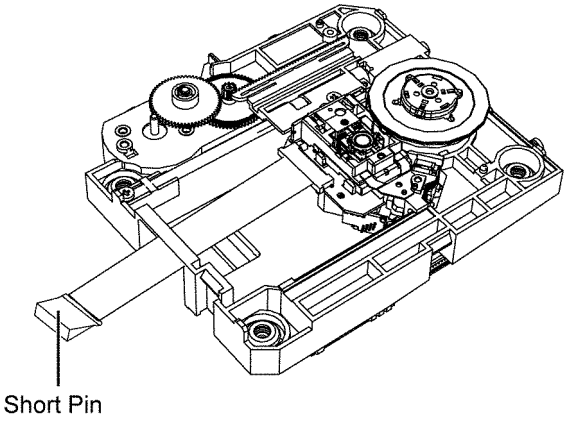
2.4. Handling Precaution for Traverse

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.

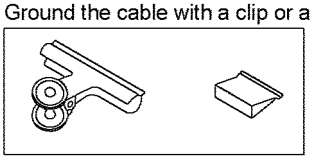
2.4.1. Cautions to Be Taken in Handling the Optical Pickup Unit

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

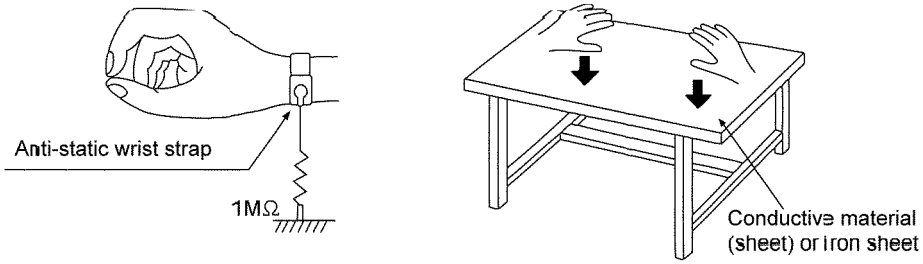
Some devices such as the CD player use the optical pickup (laser diode) and the optical pickup will be damaged by static electricity in the working environment. Proceed servicing works under the working environment where grounding works is completed.

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.

- **Micro-processor:**

1) The following components are supplied as an assembled part.
   - Micro-processor IC, (IC6002) (RFKWMHC27P)

4 Specifications

■ Amplifier Section

RMS Output Power Stereo Mode

Front Ch (both channels driven)	5 W per channel (6 Ω), 1 kHz, 10 % THD
Total RMS stereo mode power	10 W

[HC27, HC271P]

FTC Output Power Stereo Mode

Front Ch (both channels driven)	35 W per channel (6 Ω), 60Hz to 20 kHz, 1 % THD
Total FTC Stereo Mode Power	7 W

■ Tuner section

Preset station	FM 30 stations
Frequency modulation (FM)	
Frequency range	87.9 MHz to 107.9 MHz (200 kHz step) 87.5 MHz to 108.0 MHz (100 kHz step)
Antenna terminals	75 Ω (unbalanced)

■ Terminals section

iPod connector	DC OUT 5 V, 1.0 A MAX
Headphone jack	
Terminal	Stereo, 3.5 mm (1/8”) jack

■ Disc Section

Disc played [8 cm (3") or 12 cm (5")]	CD, CD-R/RW (CD-DA)
Pick up	
Wavelength	790 nm (CD)
Laser power	CLASS 1
Audio output (Disc)	
Number of channels	2 ch (FL, FR)

FL = Front left channel
FR = Front right channel

■ Speaker Section

Type	1 way, 1 speaker system (Bass reflex)
Speaker unit(s)	
Full range	8 cm (3 1/8") Cone type x 1/ch
Impedance	6 Ω

■ General

Power supply	AC 120 V, 60 Hz
Power consumption	14 W
Dimensions (W x H x D)	400 mm x 213 mm x 110 mm (15 3/4" x 8 3/8" x 4 11/32") [D = 72 mm (2 27/32”) min] [D = 144 mm (5 11/32”) tray open]
Mass (weight)	2 kg (4.4 lbs)
Operating temperature range	0°C to +40°C (+32°F to +104°F)
Operating humidity range	35% to 80 % RH (no condensation)

Power consumption in standby mode: 0.1 W (approximate)

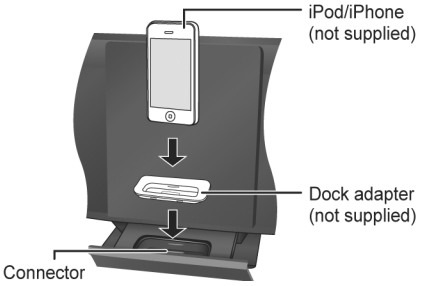
- Specifications are subject to change without notice. Mass and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

5 General/Introduction

5.1. Inserting or removing media

iPod/iPhone

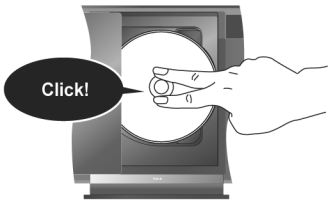
Push [iPod ⏏] to open the dock tray.



Note:
- Make sure to remove the iPod/iPhone from its case.
- Make sure to align your iPod/iPhone with the connector when inserting.
- Use a compatible dock adapter.

Disc

Press [CD ⏏ OPEN/CLOSE] on the main unit to open the sliding door.
Put in a disc with the label facing towards you.



Note:
- Keep fingers away from the sliding door when it is closing.
- This system cannot play MP3 files.

5.2. CD, iPod/iPhone playback operations

Basic playback

iPod CD

Press [iPod] or [CD] to select the source.

Play	Press [▶/II].
Stop	Press [■].
Pause	Press [▶/II]. Press again to continue playback.
Skip track	Press [I◀◀/◀◀] or [▶▶/▶▶I].
Search through track	Press and hold [I◀◀/◀◀] or [▶▶/▶▶I].

iPod/iPhone

iPod

View iPod menu	Press [iPod MENU].
Select an item	Press [▲, ▼] and then press [OK].

Note:
- Depending on the model, it may be necessary to remove the iPod/iPhone and select the album, artist, etc. on the iPod/iPhone.
- Operation results may vary depending on the iPod/iPhone models.
- Read the User Guide of the iPod/iPhone for the operating instructions.

Disc

CD

View information	Press [DISPLAY].

Play menu

CD

1 **Press [PLAY MENU] to select "PLAYMODE" or "REPEAT".**

2 **Press [▲, ▼] and then press [OK] to select the desired mode.**

PLAYMODE	
OFF PLAYMODE	Play all tracks.
1-TRACK 1 ♪	Play one selected track. Press [I◀◀/◀◀] or [▶▶/▶▶I] to select the track.
RANDOM RND	Play all tracks randomly.
REPEAT	
ON REPEAT ↻	Repeat playback.
OFF REPEAT	Cancel repeat playback.

Note:
- During random playback, you cannot skip to tracks which have been played.
- The setting returns to default when you open the sliding door.

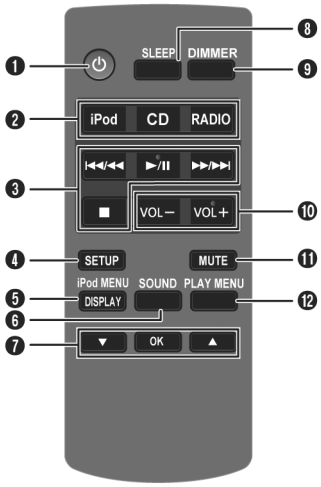
Compatibility CD, iPod/iPhone

- For compatibility of CD, iPod/iPhone please refer to Operating Instructions

6 Location of Controls and Components

6.1. Main Unit & Remote Control Key Button Operations

Remote control



❶ **Standby/on switch [⏻], [⏻/I]**
- Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

❷ Select audio source

❸ Basic playback control

❹ View the clock and timer options

❺ View the iPod menu
View information

❻ Select the sound effects

❼ Select the option

❽ Set the sleep timer

❾ **Decrease the brightness of the display panel**
- Press the button again to cancel.

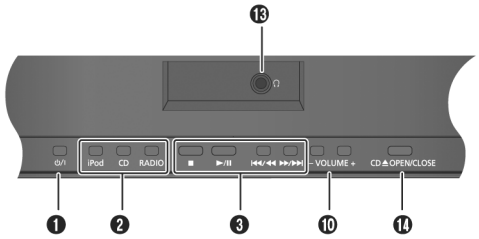
❿ Adjust the volume of the system

⓫ **Mute the sound of the system**
- Press the button again to cancel.
- "MUTE" is also canceled when you adjust the volume or when you switch off the system.

⓬ View the play menu
View the radio options

Main unit

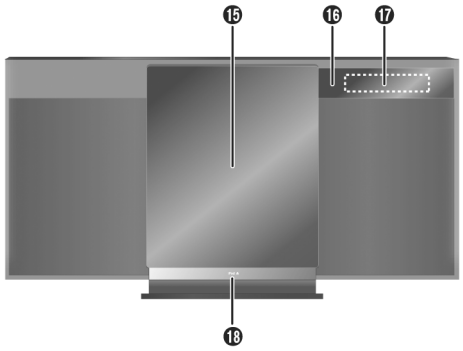
Top view



⓭ **Headphones jack (🎧)**
- Plug type: Ø 3.5 mm (1/8") stereo (not supplied)
- Avoid listening for prolonged periods of time to prevent hearing damage.
- Excessive sound pressure from earphones and headphones can cause hearing loss.
- Listening at full volume for long periods may damage the user's ears.
- Be sure to use the supplied or recommended headphones or earphones.

⓮ Open or close the sliding door

Front view



⓯ Sliding door

⓰ **Remote control sensor**
- Maximum range: 7 m (23 ft) directly in front

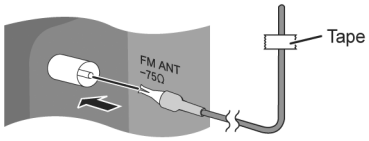
⓱ Display panel

⓲ Open or close the dock for iPod/iPhone

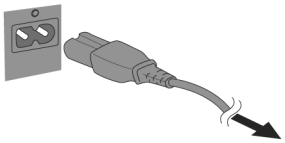
7 Installation Instructions

7.1. Connections

1 **Connect the FM indoor antenna.**
Place the antenna where reception is best.



2 **Connect the AC power supply cord.**
Power consumption in standby mode: 0.1 W (approximate).
Do not use an AC power supply cord from other equipment.

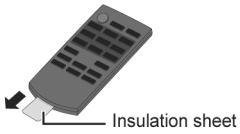


Note:

- Some settings return to default when you disconnect the system.
- These speakers do not have magnetic shielding. Do not put them near TVs, PCs or other equipment easily influenced by magnetism.
- You cannot remove the net of the speakers.

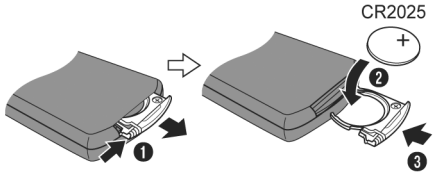
Preparing the remote control

Before using



Replacing the battery
Replace with a new battery (CR2025 lithium battery).

1 **While pressing the stopper, pull out the battery holder.**
2 **Insert a new battery with the (+) side facing up.**
3 **Push the battery holder back fully.**



Warning!
Keep the button-type battery out of reach of children to prevent swallowing.

8 Service Mode

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

8.1. Self Diagnostic Mode

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

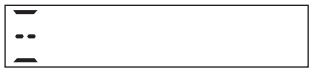
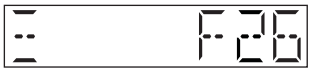
: Error code

To exit the Self Diagnostic Mode

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

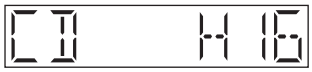
- Press the power button on the main unit or using the remote control.
- Unplug the AC cord.

8.1.1. Self Diagnostic Table

Item		FL display	Key operation
Mode name	**Description**		
Self Diagnostic Mode	To enter into self diagnostic checking		Step 1 : Select CD mode (Ensure no disc is inserted). Step 2 : Press and hold [■] follow by [▶▶/▶▶|] on main unit for 2 second .
Error code information	System will perform a check on any unusual/error code from the memory	Example: 	Step 1 : In self diagnostic mode, Press [STOP] on main unit. To exit, press [⏻/I] on main unit or remote control.
Delete Error code	To clear the stored in memory (EEPROM IC)		Step 1 : In self diagnostic mode, Press [0] on remote control. To exit, press [⏻/I] on main unit or remote control.

8.2. Self Diagnostic Function Error Code

8.2.1. CD Mechanism Error Code Table

Error Code	Diagnostic Contents	Description of error	Automatic FL Display	Remarks
CD H15	CD Open Abnormal	During operation POS_SW_R On fail to be detected within 4 sec. Error No. shall be clear by force or during cold start.		Press [■] on main unit for next error.
CD H16	CD Closing Abnormal	During operation POS_SW_CEN On fail to be detected within 4 sec. Error No. shall be clear by force or during cold start.		Press [■] on main unit for next error.
F26	Communication between CD servo LSI and micro-p abnormal.	During switch to CD function, if SENSE = “L” within failsafe time of 20ms.		Press [■] on main unit for next error.

8.2.2. Power Amp Error Code Table

Error Code	Diagnostic Contents	Description of error	Automatic FL Display	Remarks
F61/F76	Power Amp IC output abnormal	During power-on, PDET1, PDET2 & MAINV_DET / TEMP_DET is “L” after 1 sec.	 	Press [■] on main unit for next error.
SMPS NG	Checking SMPS Type Refer to 8.3.10 for more information	SMPS type and REGION not match. The unit will shut down.		Press [■] on main unit for next error.

8.3. Doctor Mode Table

Note : To enter the Doctor Mode, please use HC25 remote control.
Here is the procedures to enter into Doctor Mode.

Step 1 : Turn on the unit.

Step 2 : Select CD mode.

Step 3 : Pressing and hold [■] on main unit then press [4] follow by [7] using the remote control.

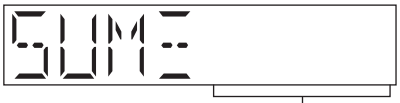
Step 4 : The display show as follow.

To exit the Doctor mode

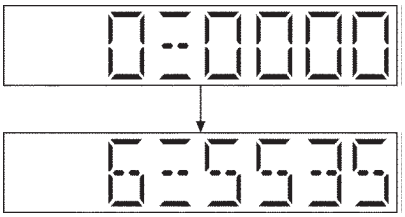
Use either one of the following methods to cancel the Doctor mode.

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

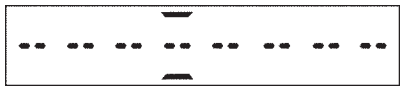
8.3.1. Doctor Mode Table 1

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Doctor Mode	To enter into Doctor Mode for checking of various items and displaying EEPROM and firmware version. Note: The micro-processor version as shown is an example. It will be revise when there is an updates. FL Display sequence Display 1 → 2	(Display 1)  Version Display (DEC) Check sum (HEX) Checksum : (Condition 1)  No Rom correction (Display 2)  The Checksum of EEPROM and firmware version will be display for 2 sec.	In any mode: Press [■] button on main unit follow by [4] & then [7] on the remote control of HC25. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC25.

8.3.2. Doctor Mode Table 2

Item		FL Display	Key Operation
Mode Name	Description		Front Key
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 HC25. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press **[⏻/I]** button on main unit or on the remote control of HC25.
Volume Setting	To check for preset volume setting Note : In tuner mode this function is not possible		In Doctor Mode: Press [7] button on the remote control of HC25. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press **[⏻/I]** button on main unit or on the remote control of HC25.
			In Doctor Mode: Press [8] button on the remote control of HC25. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press **[⏻/I]** button on main unit or on the remote control of HC25.
			In Doctor Mode: Press [9] button on the remote control of HC25. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press **[⏻/I]** button on main unit or on the remote control of HC25.
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. Refer to 8.3.5 for more information		In Doctor Mode: Press [≥10] follow by [2] & then [1] button on the remote control of HC25. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press **[⏻/I]** button on main unit or on the remote control of HC25.

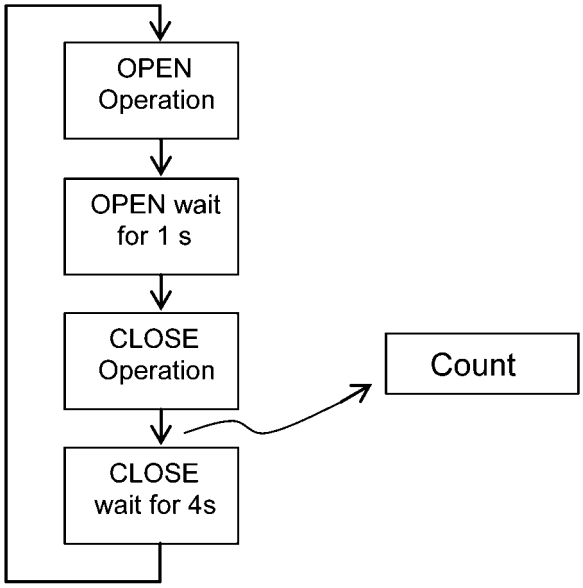
8.3.3. Doctor Mode Table 3

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 Refer to 8.3.6 for more information	 The counter will increment by 1 until reach 99999999 	In Doctor Mode: Press [≥10] follow by [1] & yhen [2] button on the remote control of HC25. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC25.
CD Self-Adjusment Display	To display result of self adjustment for CD.	 The [NO DISC] display will appear after 3s, 	In Doctor Mode: Press [≥10] follow by [1] & then [4] button on the remote control of HC25. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC25.
CD Combination Test	To check the open/close operation & inner outer disc access operation. 1. It fails when CD open/close is not completed by 4s. 2. The disc access fails in 10s. 3. The traverse is out of focus for more than 2s. Refer to 8.3.7 for more information		In Doctor Mode: Press [≥10] follow by [1] & then [5] button on the remote control of HC25. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC25.
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 [SLEEP] button on remote control. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC25.
EEPROM Checksum	To check sum of EEPROM for a simplifield ROM correction. 1. When EEPROM is not detected, the only micro-p's version shall be displayed without an EEPROM's check sum	 Version Display (DEC) Check sum (HEX) EEPROM not detected only firmware is display 	In any mode: Press [■] button on main unit follow by [4] & then [7] on the remote control of HC25. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC25.

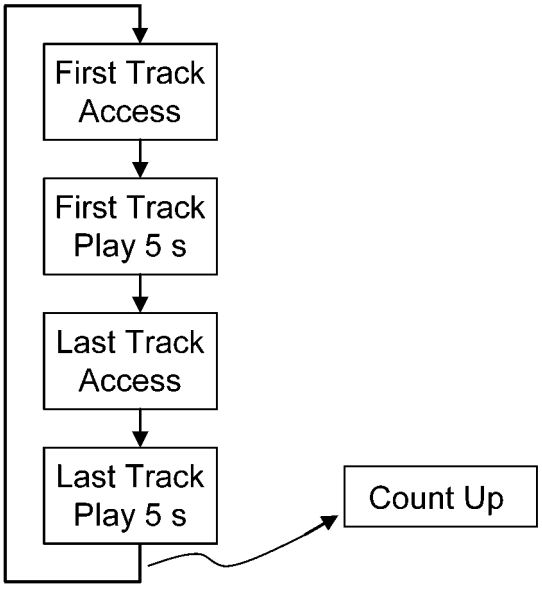
8.3.4. Doctor Mode Table 4

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Region Checking	To check Region setting of unit. Refer to 8.3.8 for the Region Setting destination	 Region Setting destination	In Doctor Mode: Press [≥10] follow by [1] & then [6] button on the remote control of HC25. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC25.
CD LSI 947 Version Check	To check CD LSI Version No. & checksum correction	 Year of sales ROM type Running version number The display will appear after 2s,  Check sum display (HEX) The [NO DISC] display will appear after 2s, 	In Doctor Mode: Press [4] button on the remote control of HC25. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC25.
Yamaha DSP Version Check	To check DSP Firmware mode & Version No.	 Firmware Version No (00~FF) Firmware Mode (00~FF)	In Doctor Mode: Press [6] button on the remote control of HC25. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC25.
Model setting	To check Model Setting. Refer to 8.3.9 for the Model Setting	 Model Setting	In Doctor Mode: Press [≥10] follow by [1] & then [8] button on the remote control of HC25. To cancel, press [0] button on remote control. It returns Doctor Mode. To exit Doctor Mode, press [⏻/I] button on main unit or on the remote control of HC25.

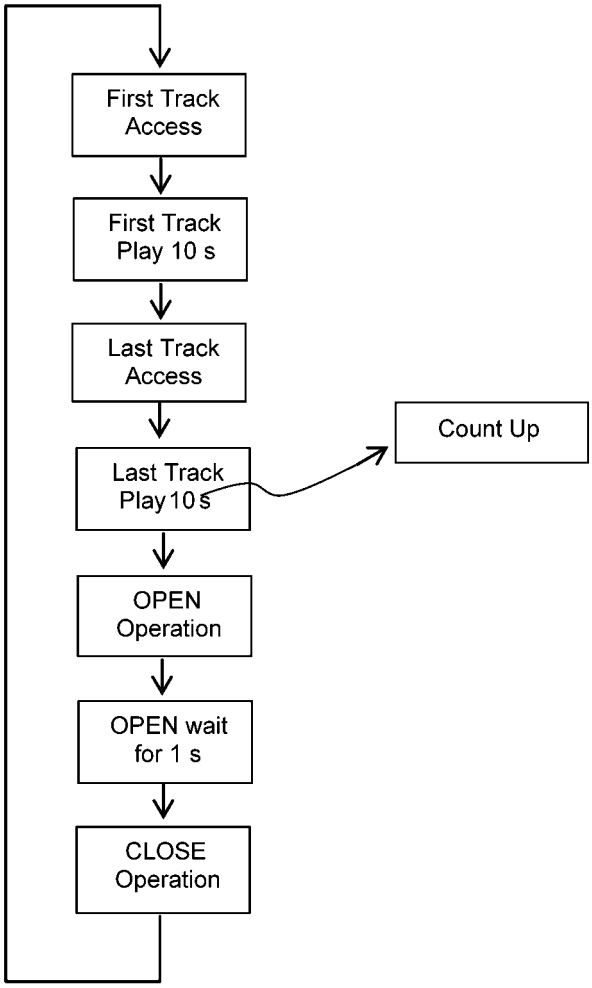
8.3.5. Mecha Sliding Panel Reliability



8.3.6. CD Traverse Test (For CD)



8.3.7. CD Combination Test (For CD)



8.3.8. Region Check Table (For Tuner)

Region	Model	Series	Country
1 (D)	HC27	P/PC	North America
3	HC27	EE	E. Europe
4	HC27	EG/EF/EC	Germany, France
5	HC27	DBEB	UK
7	HC27	GT/GK/GS/ PU	S.E Asia, Latin America
8	HC27	GN	Oceania

8.3.9. Model setting

Region No.	Function		Model
	With iPod	With Shock Proof	
S0	O	O	HC27

8.3.10. SMPS Region Table

SMPS Block No.	Main P.C.B. Series
A	Japan
B	P/PC
C	Others

Note : Please refer to Section 15 (Printed Circuit Board Diagrams) for the SMPS P.C.B and Main P.C.B part number.

9 Service Fixture & Tools

Prepare service tools before process service position.

Ref. No.	Service Tools		Remarks
SFT1	Main P.C.B. (CN6006) - CD Servo P.C.B. (CN7002)	REE1712 (30P FFC)	
SFT2	Main P.C.B. (CN1100) - SMPS P.C.B. (P1700)	REX1538 (7P Wire)	

10 Disassembly and Assembly Instructions

Caution Note:

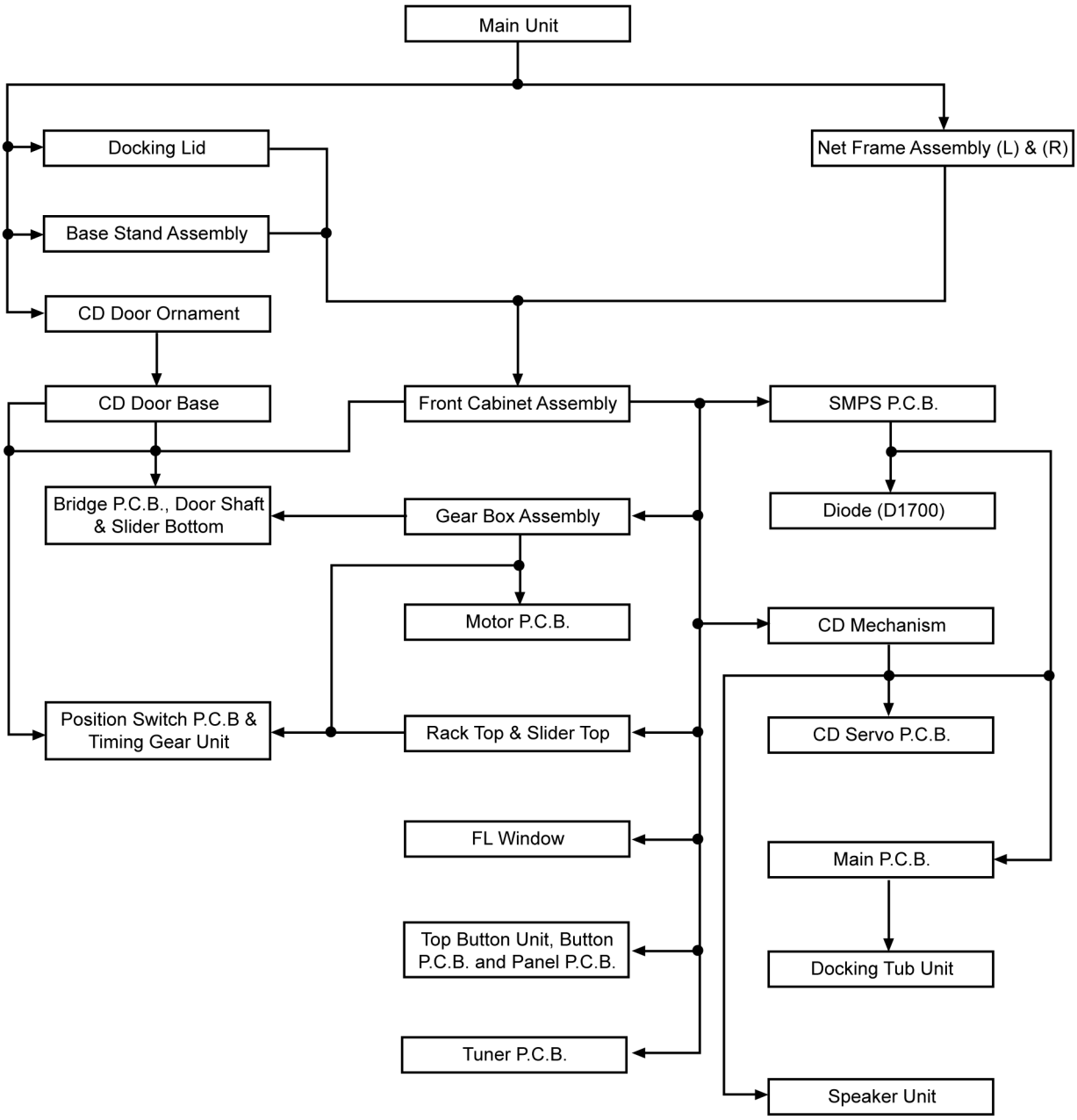
- **This section describes the disassembly and/or assembly procedures for all major printed circuit boards & main components for the unit. (You may refer to the section of “Main components and P.C.B Locations” as described in the service manual)**
- **Before carrying out the disassembly process, please ensure all the safety precautions & procedures are followed.**
- **During the disassembly and/or assembly process, please handle with care as there may be chassis components with sharp edges.**
- **Avoid touching heatsinks due to its high temperature after prolong use. (See caution as described below)**

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

- **Disassembly of Net Frame Assembly (L) & (R)**
- **Disassembly of Base Stand Assembly**
- **Disassembly of Docking Lid**
- **Replacement of CD Door Ornament**
- **Replacement of CD Door Base**
- **Disassembly of Front Cabinet Assembly**
- **Disassembly of FL Window**
- **Disassembly of Gear Box Assembly**
- **Replacement of Rack Top & Slider Top**
- **Replacement of Bridge P.C.B., Door Shaft & Slider Bottom**
- **Disassembly of Position Switch P.C.B. & Timing Gear Unit**
- **Disassembly of Top Button Unit, Button P.C.B. and Panel P.C.B.**
- **Disassembly of CD Mechanism**
- **Disassembly of CD Servo P.C.B.**
- **Disassembly of Tuner P.C.B.**
- **Disassembly of SMPS P.C.B.**
- **Replacement of Diode (D1700)**
- **Disassembly of Speaker Unit**
- **Disassembly of Main P.C.B.**
- **Disassembly of Docking Tub Unit**

10.1. Disassembly flow chart

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



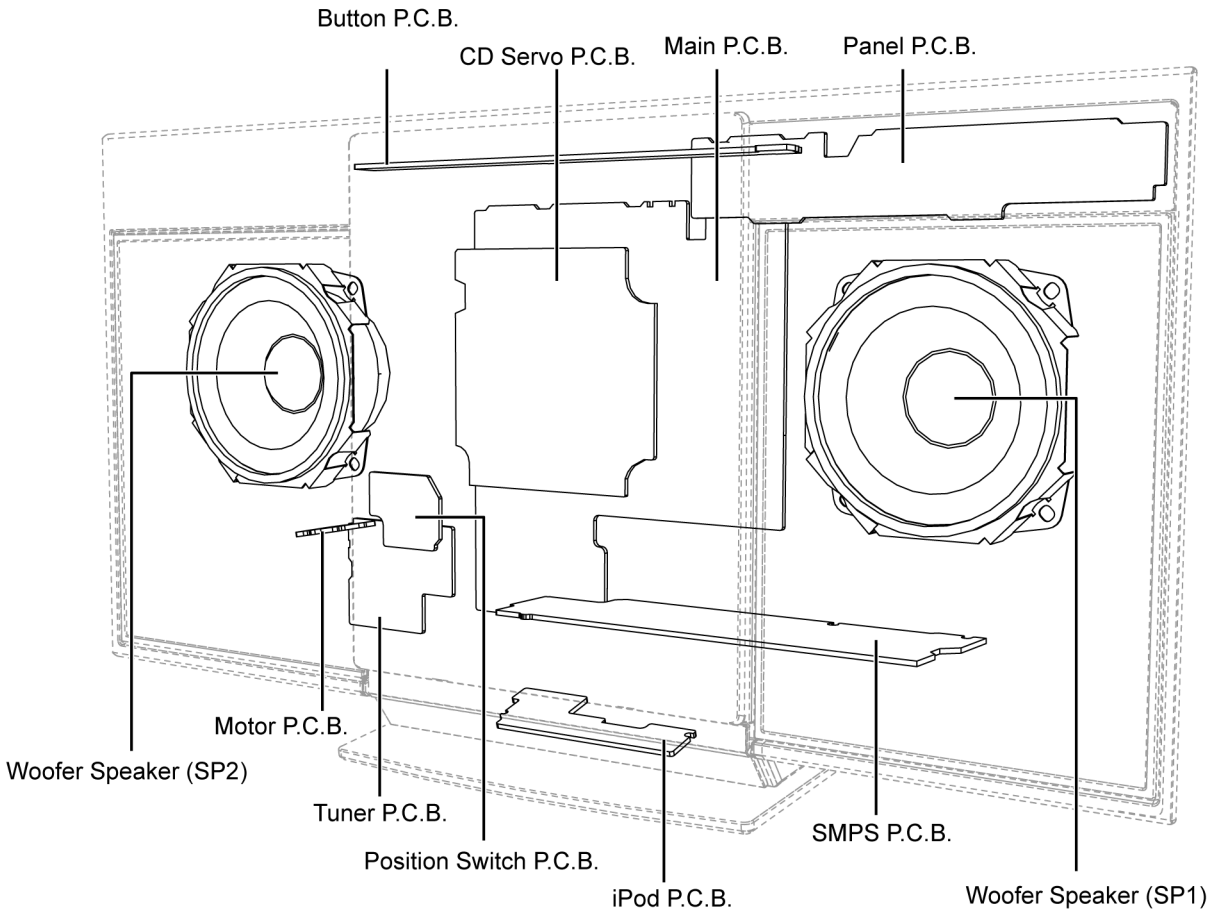
10.2. Types of Screws

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

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

- ⓐ : RHD26046-L
- ⓑ : VHD1224-1
- ⓒ : XTW3+12TFJK
- ⓓ : XTW2+6SFJ
- ⓔ : XQN17+C28FJ
- ⓕ : XTN2+6GFJ
- ⓖ : XTB3+10JFJK
- ⓗ : RHD26043-1
- ⓘ : RHD30092-1
- ⓙ : XTB3+8JFJ-J
- ⓚ : XTB26+12GFJ

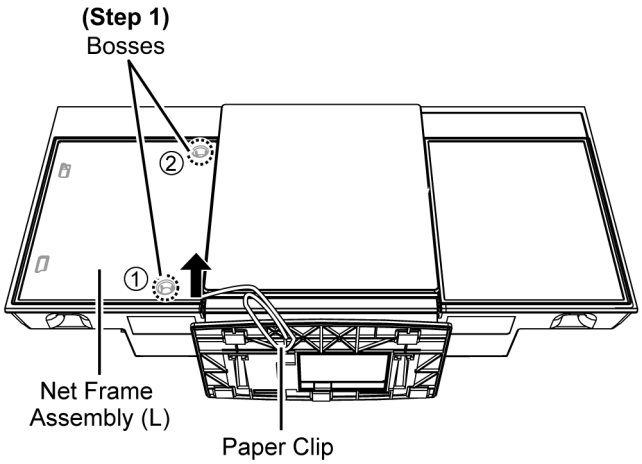
10.3. Main Parts Location Diagram



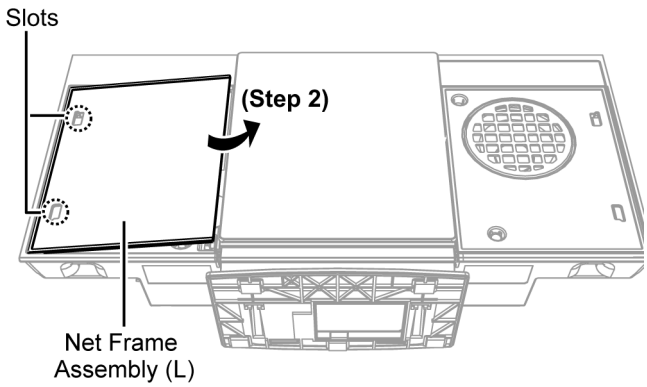
10.4. Disassembly of Net Frame Assembly (L) & (R)

Note : Net Frame Assembly (L) & (R) have the same mechanical structure. For disassembling of Net Frame Assembly (R), repeat the (Step 1) to (Step 2) of 10.4.
Below illustrated Net Frame Assembly (L).

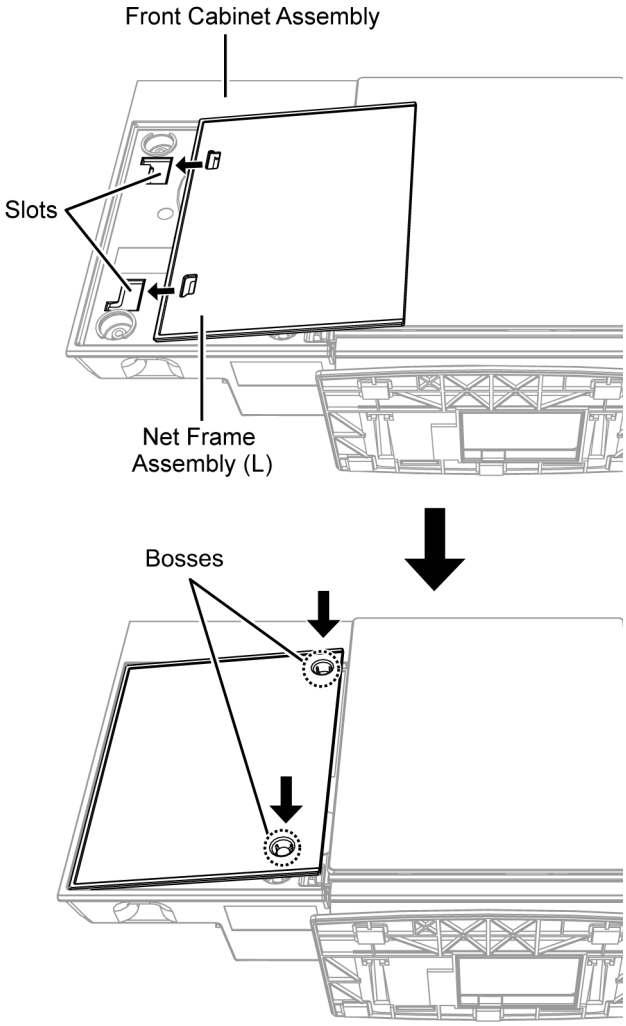
Step 1 : Using Paper Clip gently lift up Net Frame Assembly (L) in order of sequences (1) to (2) to release 2 bosses as shown.



Step 2 : Release Net Frame Assembly (L) from Slots of Front Cabinet Assembly as shown.

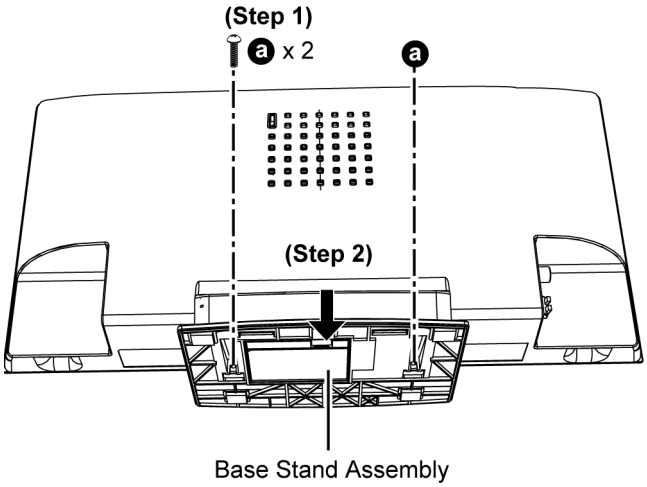


Caution : During assembling of Net Frame Assembly (L), ensure it is fully Slot to Front Cabinet Assembly & Press down the bosses of the Net Frame Assembly a "click" sound will be heard.



10.5. Disassembly of Base Stand Assembly

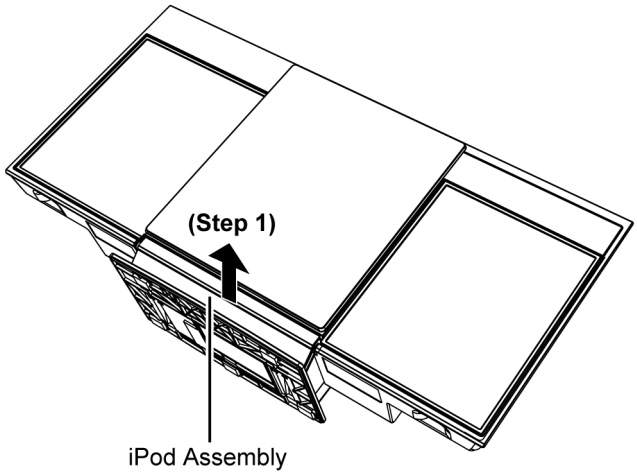
Step 1 : Remove 2 screws.
Step 2 : Lift up the Base Stand Assembly.



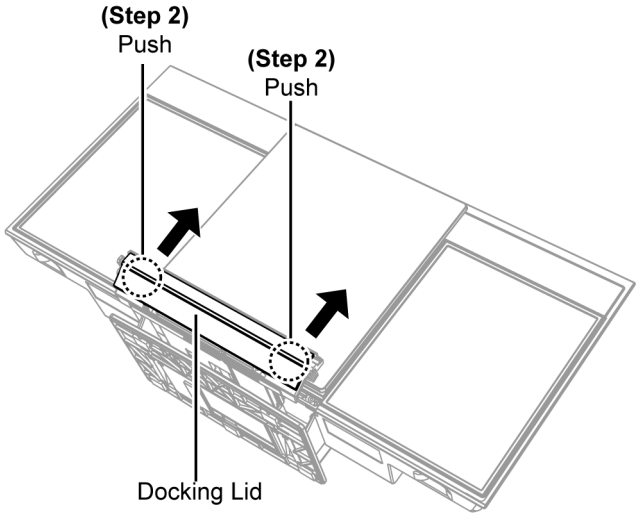
(Bottom view)

10.6. Disassembly of Docking Lid

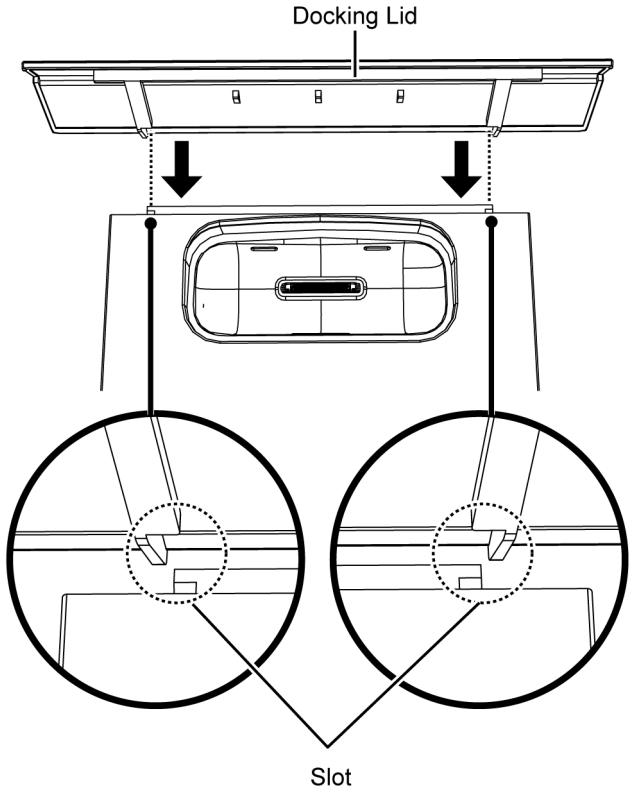
Step 1 : Press to open the iPod Assembly.



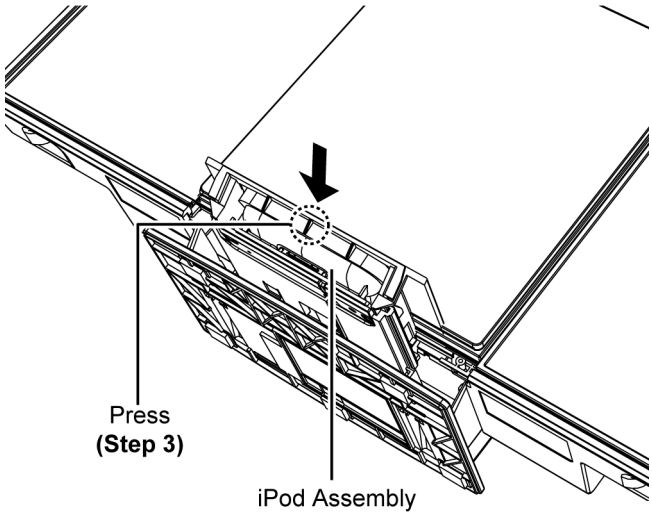
Step 2 : Push to remove Docking Lid as shown.



Caution : During assembly of Docking Lid, ensure it is fully insert into the slot.



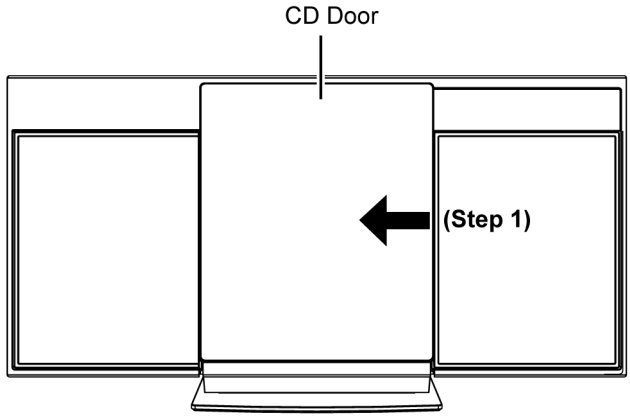
Step 3 : Press to close the iPod Assembly.



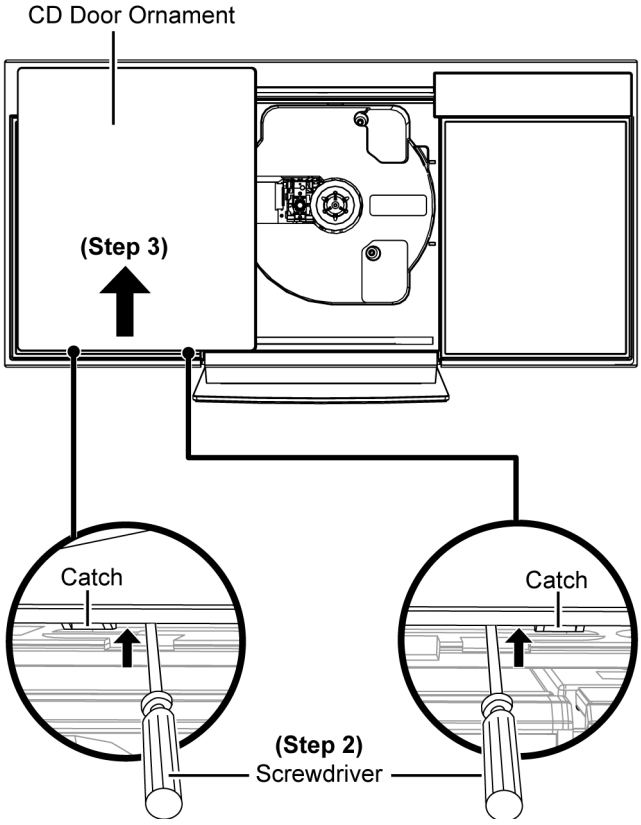
10.7. Replacement of CD Door Ornament

10.7.1. Disassembly of CD Door Ornament

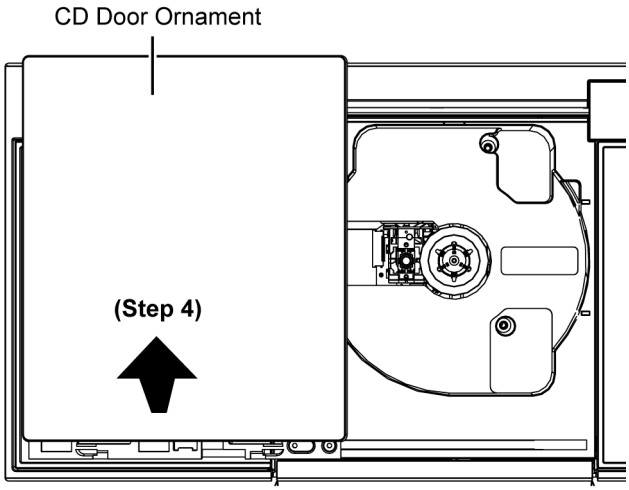
Step 1 : Slide the CD Door to open it.



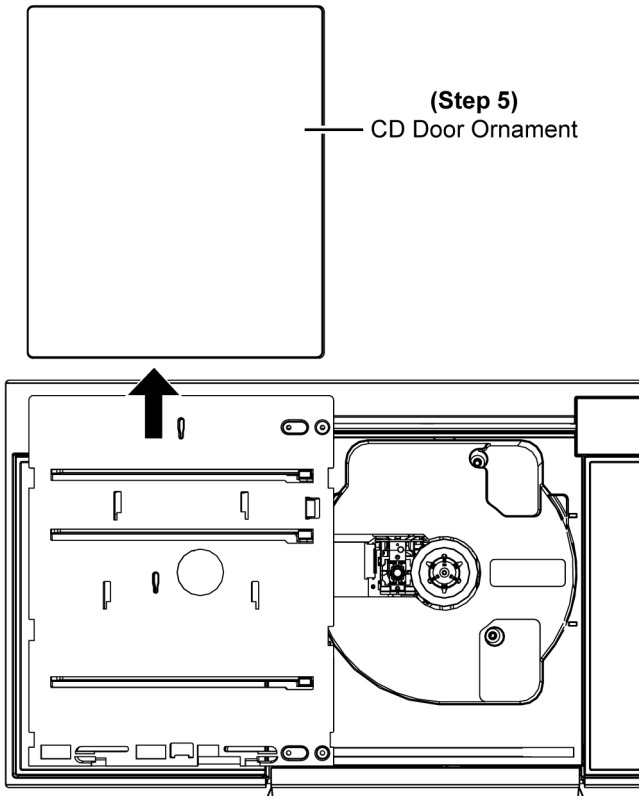
Step 2 : Slightly push up the CD Door Ornament as arrow shown using a screwdriver to releasing both catches.
Step 3 : Push the CD Door Ornament upwards.



Step 4 : Lift up to remove CD Door Ornament.

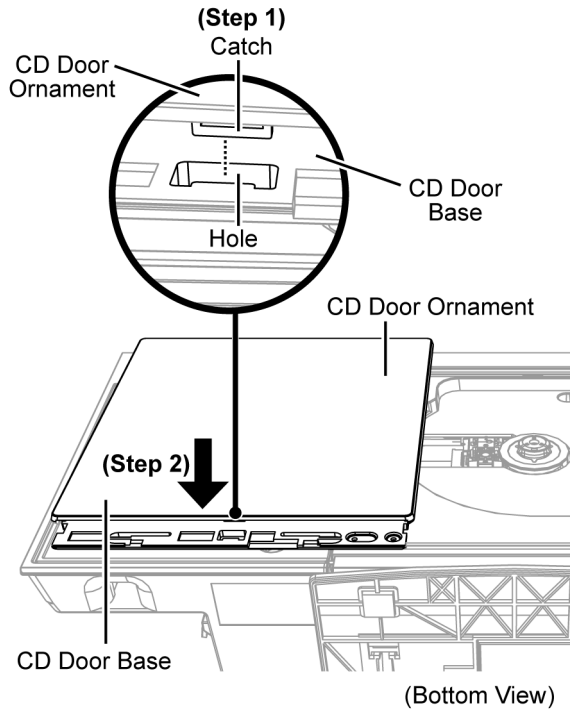


Step 5 : Remove CD Door Ornament.

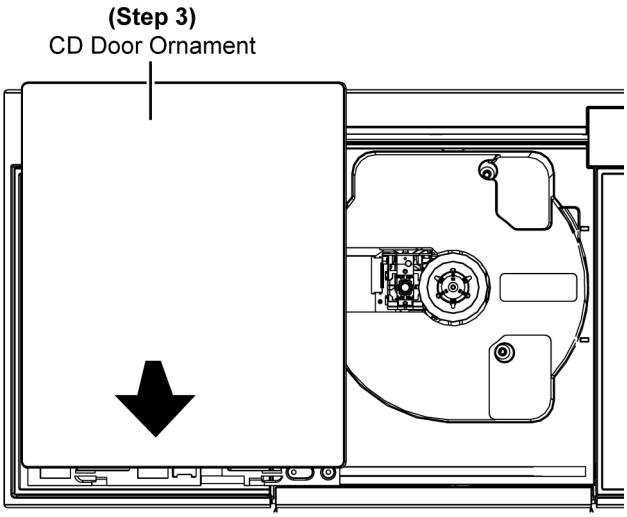


10.7.2. Assembly of CD Door Ornament

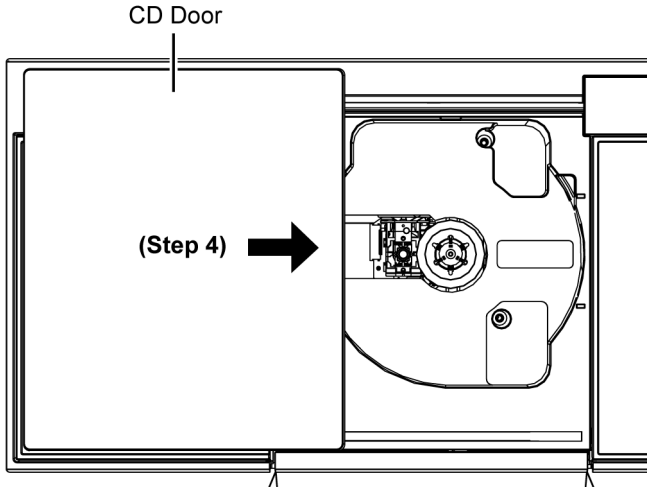
Step 1 : Align the catch of CD Door Ornament onto the hole of CD Door Base.
Step 2 : Push down the CD Door Ornament to Fix it.



Step 3 : Push down the CD Door Ornament, a “click” sound is heard when the CD Door Ornament is fully catched.



Step 4 : Slide the CD Door to close it.

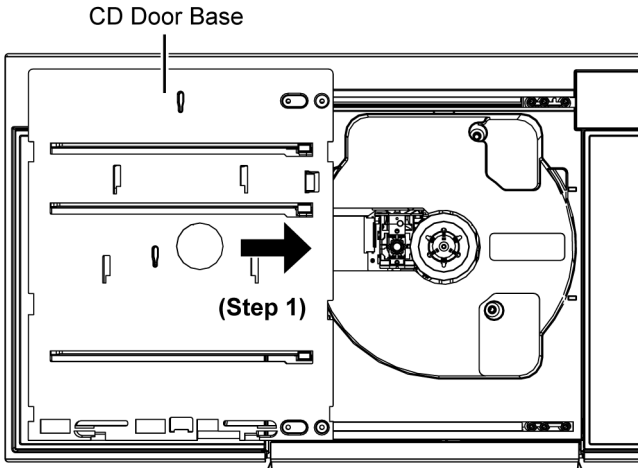


10.8. Replacement of CD Door Base

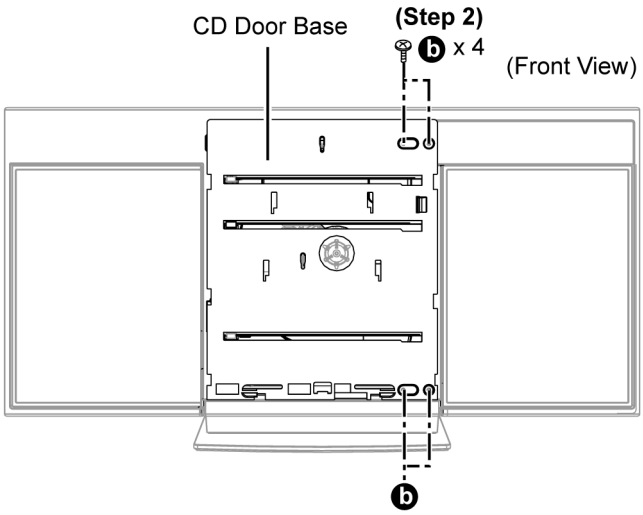
• Refer to “Disassembly of CD Door Ornament”

10.8.1. Disassembly of CD Door Base

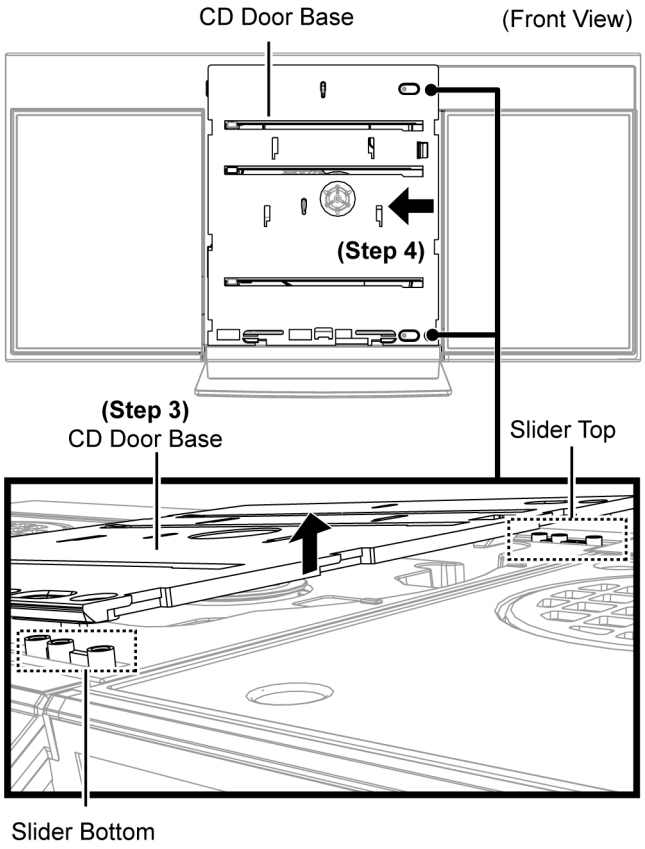
Step 1 : Slide the CD Door Base to close it.



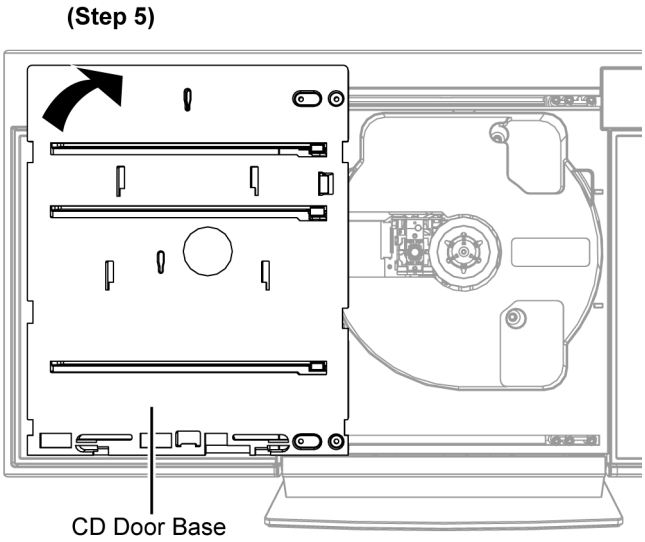
Step 2 : Remove 4 screws.



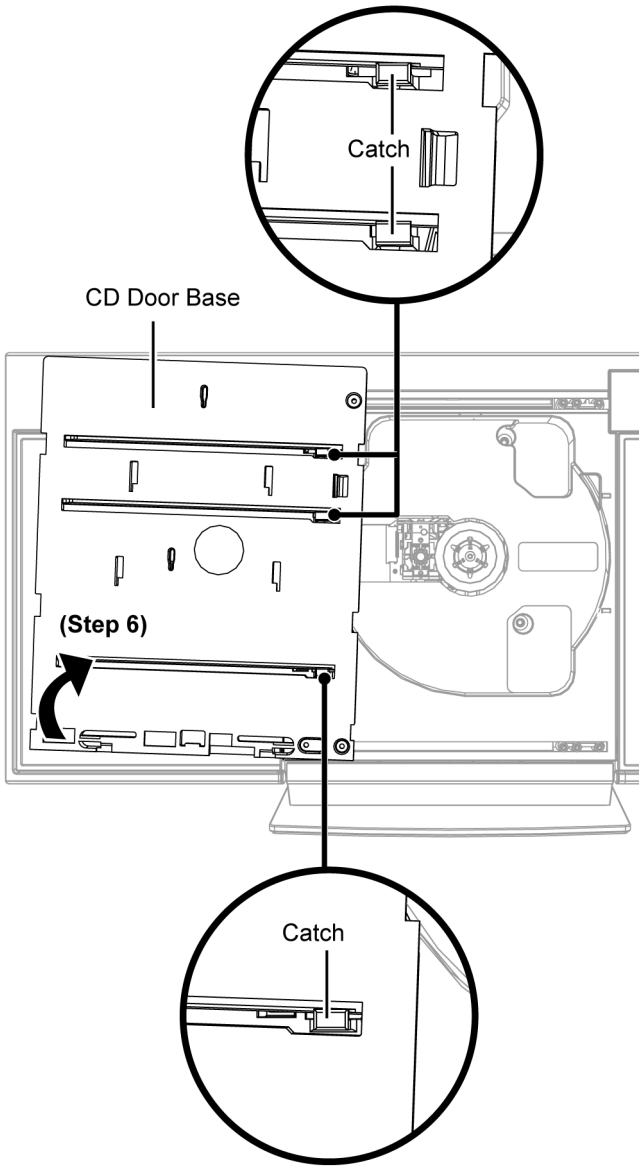
Step 3 : Slightly lift up the CD Door Base.
Step 4 : Slide the CD Door Base towards to the left.



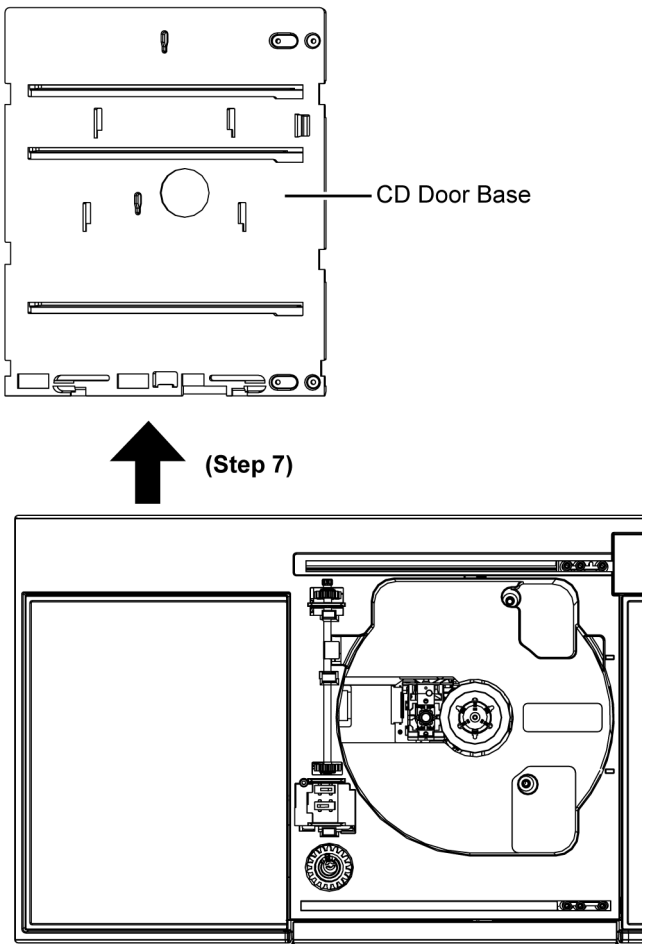
Step 5 : Push the CD Door Base as shown.



Step 6 : Slightly lift up the CD Door Base to release catches.



Step 7 : Remove CD Door Base.

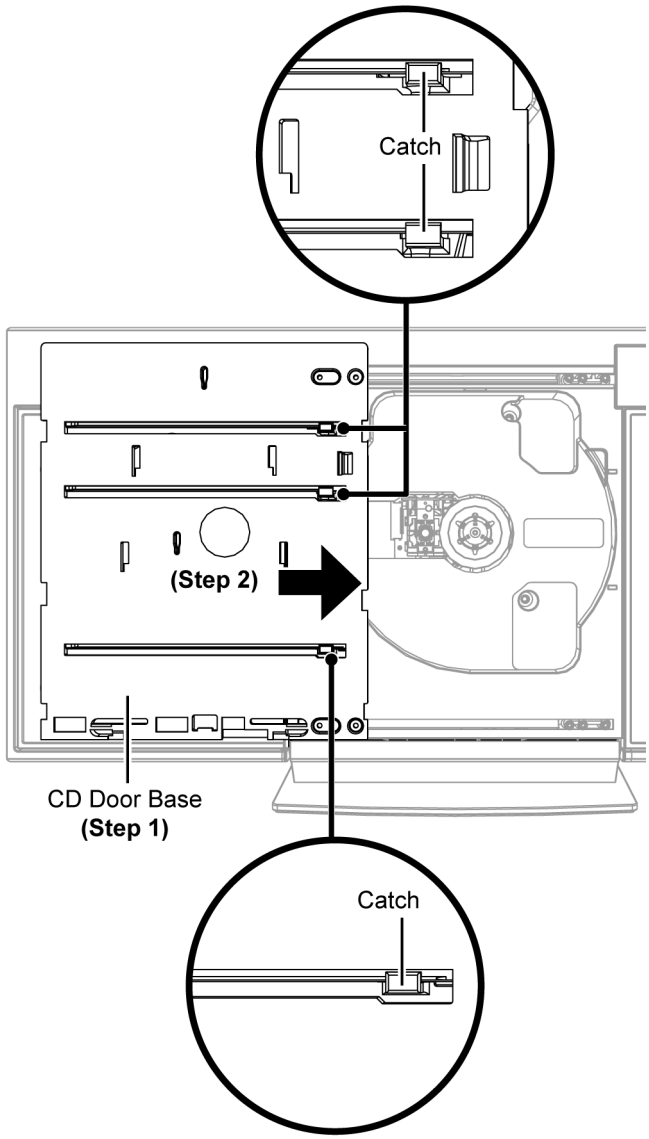


10.8.2. Assembly of CD Door Base

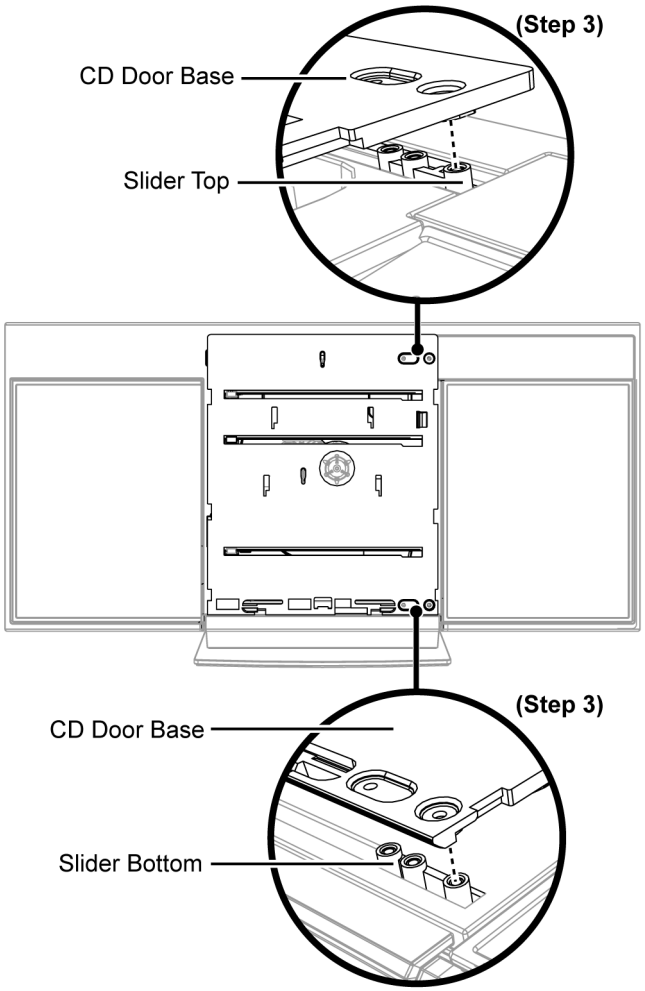
Step 1 : Place the CD Door Base onto Front Cabinet.

Caution : Ensure that the 3 catch are inserted into the respective slots of CD Door Base.

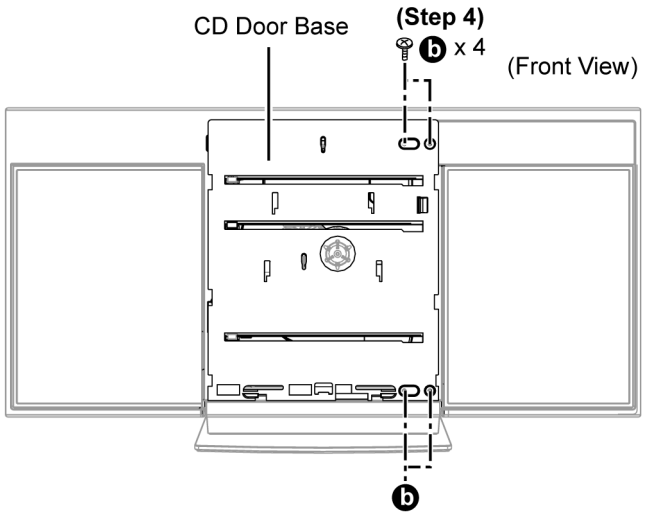
Step 2 : Slide CD Door Base as arrow shown.



Step 3 : Align the CD Door Base onto the Slider Top and Slider Bottom as diagram shown.



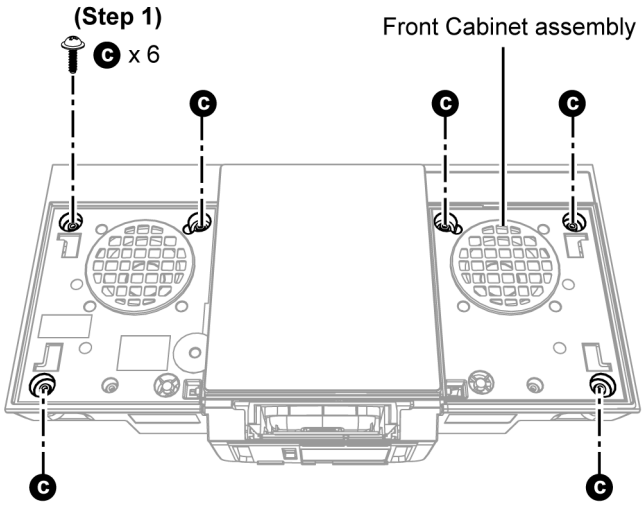
Step 4 : Fix 4 screws.



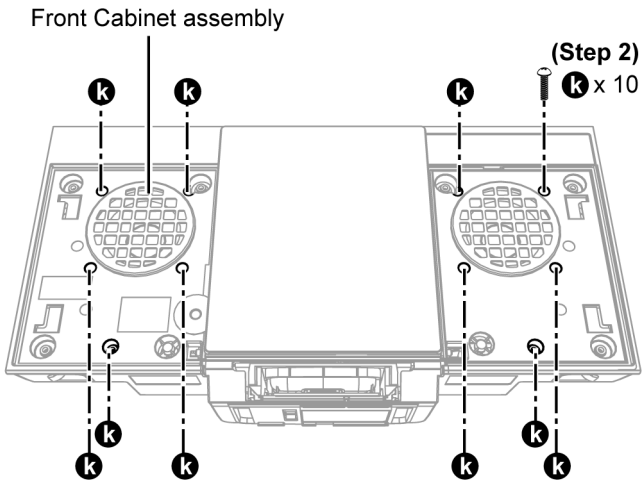
10.9. Disassembly of Front Cabinet Assembly

- Refer to “Disassembly of Net Frame Assembly (L) & (R)”
- Refer to “Disassembly of Base Stand Assembly”
- Refer to “Disassembly of Docking Lid”

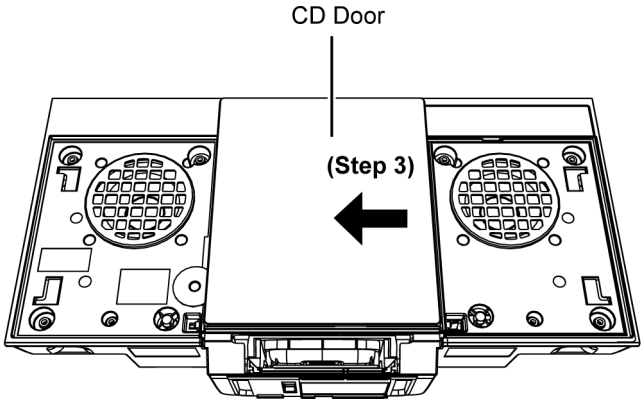
Step 1 : Remove 6 screws.



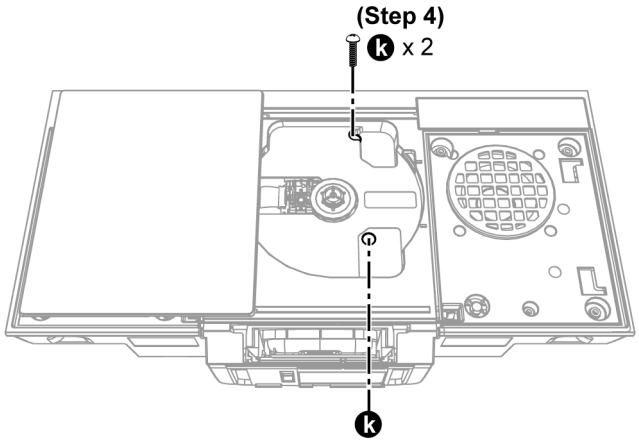
Step 2 : Remove 10 screws.



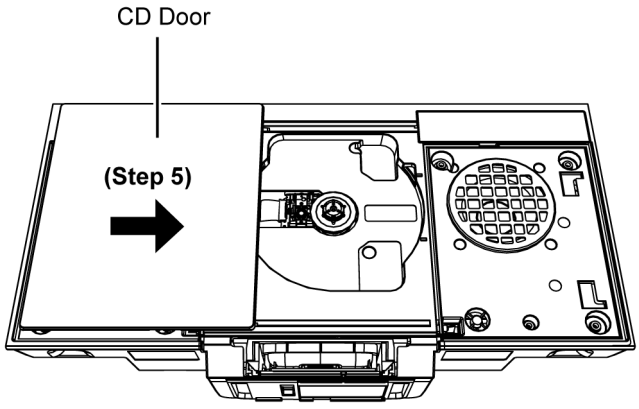
Step 3 : Slide the CD Door to open it.



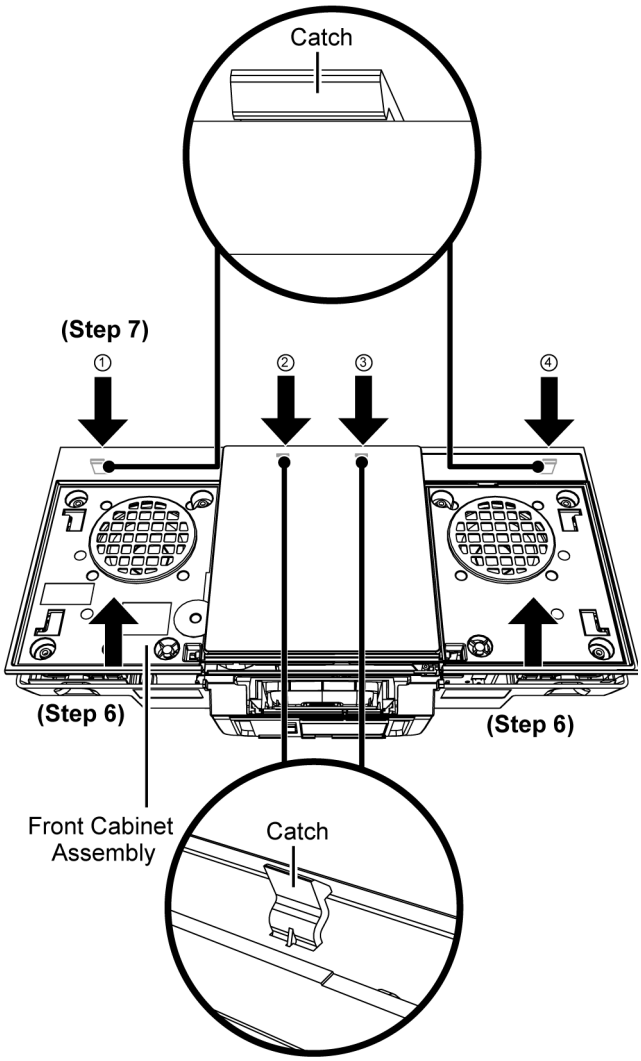
Step 4 : Remove 2 screws.



Step 5 : Slide the CD Door to close it.



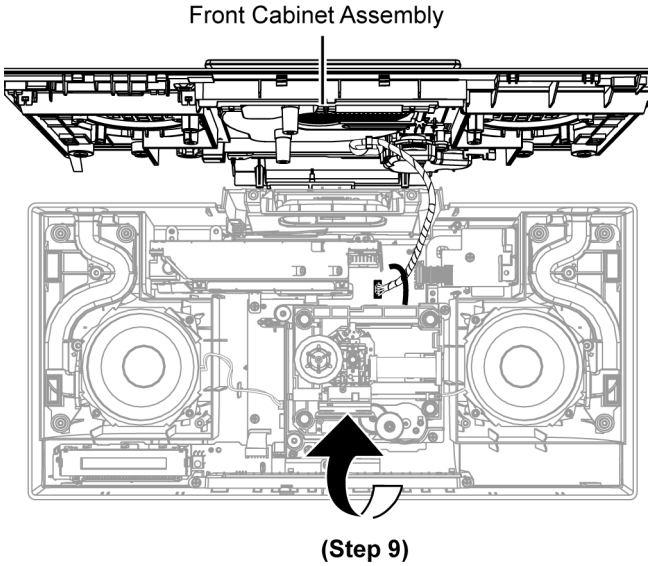
Step 6 : Slightly lift up Front Cabinet Assembly.
Step 7 : Press the Front Cabinet Assembly to release catch in order of sequences (1) to (4).



Step 8 : Upset the unit.

Step 9 : Slightly lift up Front Cabinet Assembly as shown

Caution : Do not use strong force during lift up the Front Cabinet Assembly.

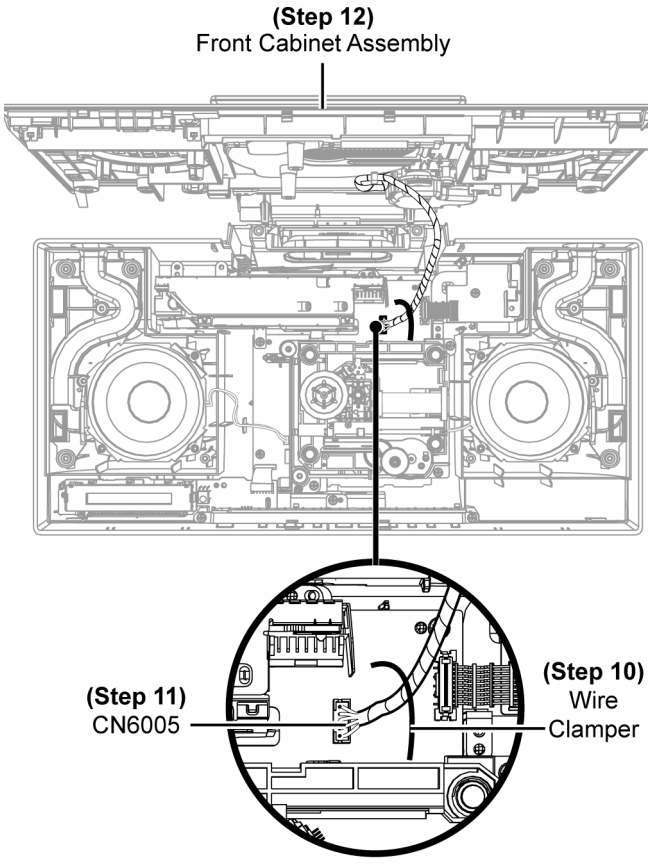


Step 10 : Release the Wire Clamper.

Caution : During assembling, ensure 5P Wires is dressed under the wire clamper as shown.

Step 11 : Detach 5P Wires at the connector (CN6005) on Main P.C.B..

Step 12 : Remove Front Cabinet Assembly.

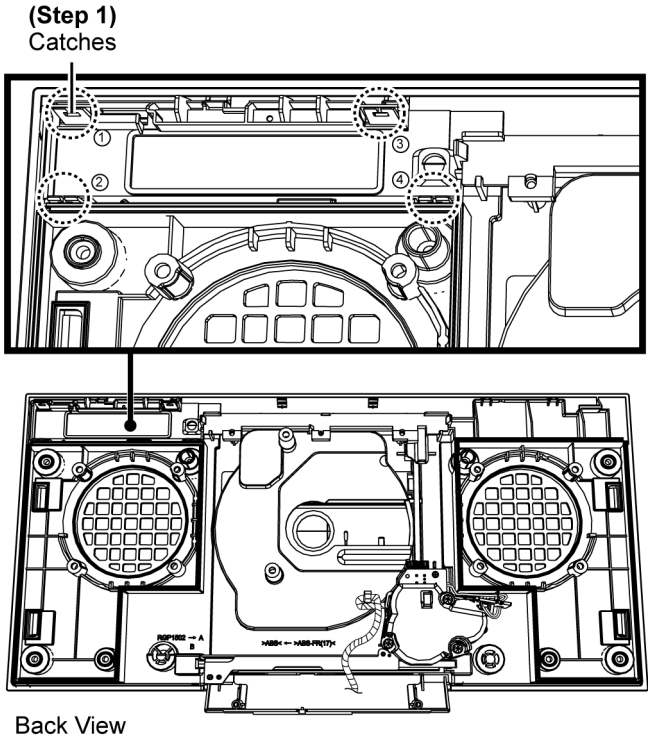


10.10. Disassembly of FL Window

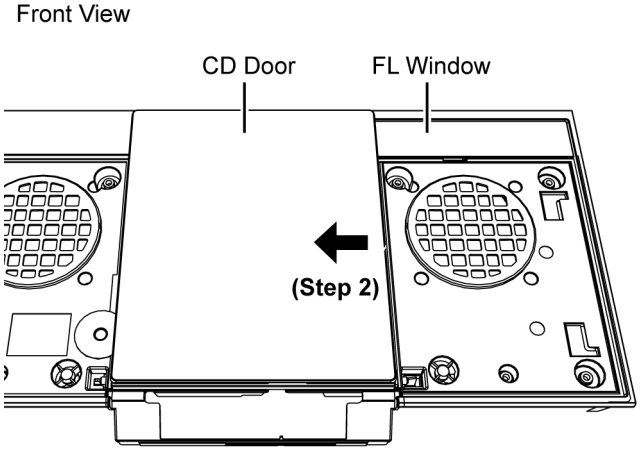
- Refer to “Disassembly of Net Frame Assembly (L) & (R)”
- Refer to “Disassembly of Base Stand Assembly”
- Refer to “Disassembly of Docking Lid”
- Refer to “Disassembly of Front Cabinet Assembly”

Step 1 : Release 4 catches in order of sequences (1) to (4).

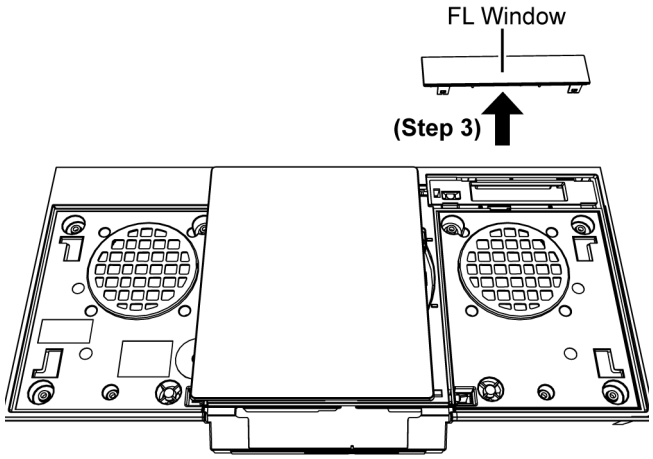
Caution : Do not use strong force as it may damage the FL Window.



Step 2 : Slide a little bit to open CD door.



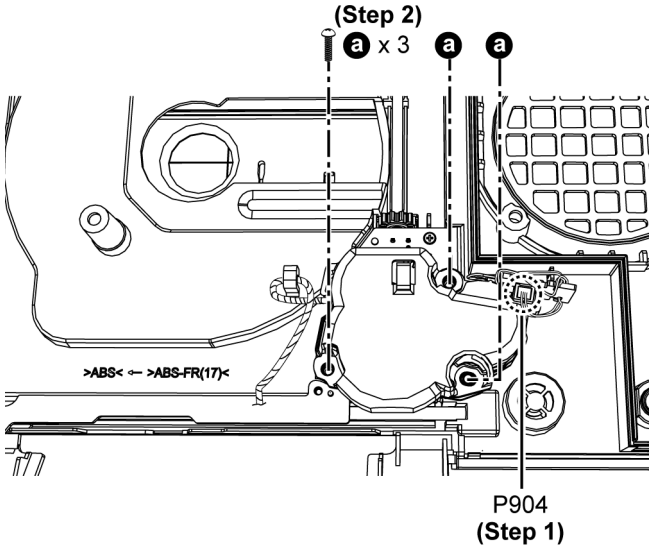
Step 3 : Remove FL Window.



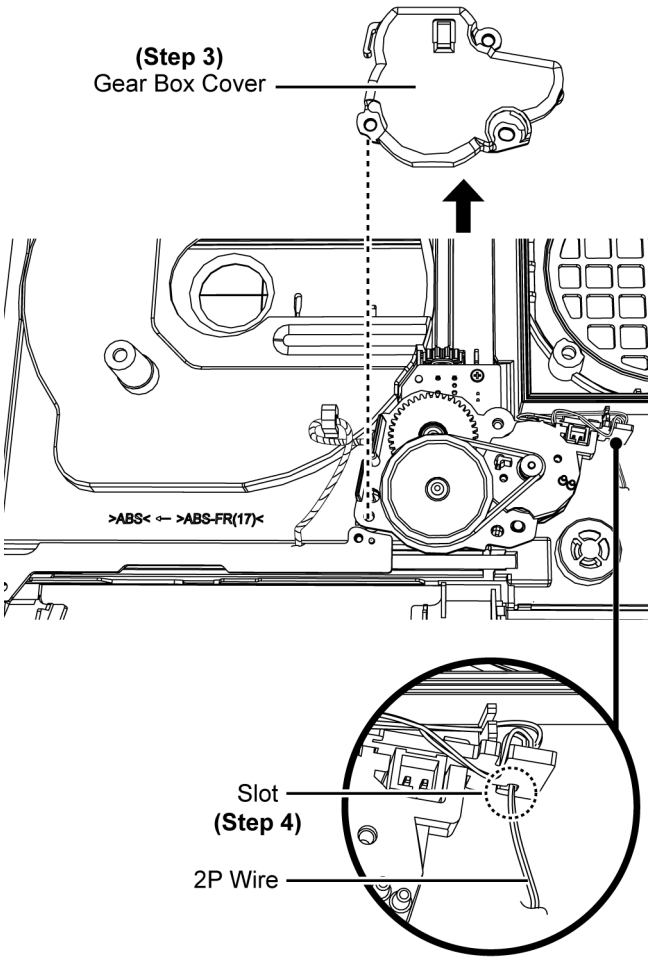
10.11. Disassembly of Gear Box Assembly

- Refer to “Disassembly of Net Frame Assembly (L) & (R)”
- Refer to “Disassembly of Base Stand Assembly”
- Refer to “Disassembly of Docking Lid”
- Refer to “Disassembly of Front Cabinet Assembly”

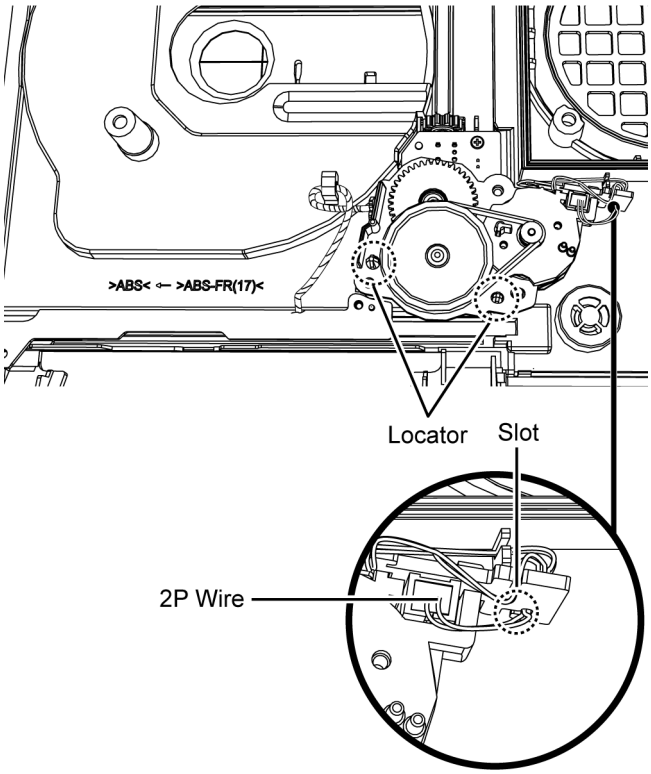
Step 1 : Detach 2P Wires at the connector (P904) on Motor P.C.B..
Step 2 : Remove 3 screws.



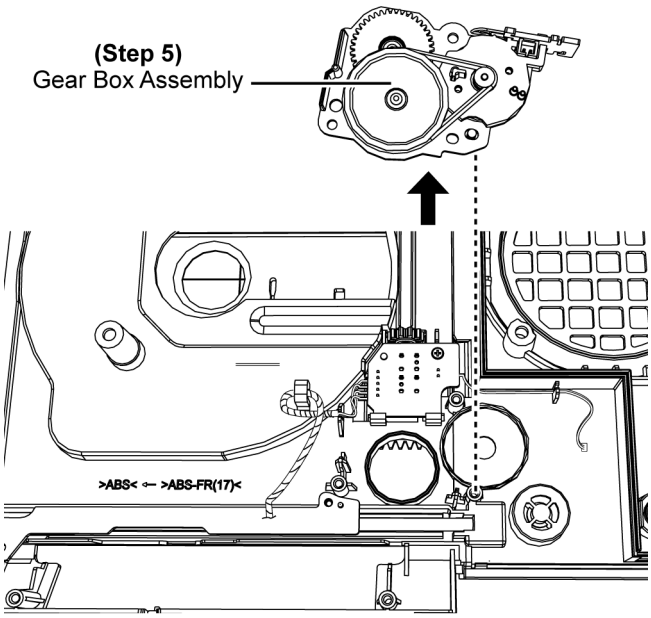
Step 3 : Remove Gear Box Cover.
Step 4 : Release 2P wires from slot.



Caution 1 : During assembling, ensure the Gear Box Assembly is properly seated on the locator.
Caution 2 : During assembling, ensure the 5P wire is inserted into the slots.



Step 5 : Remove Gear Box Assembly.

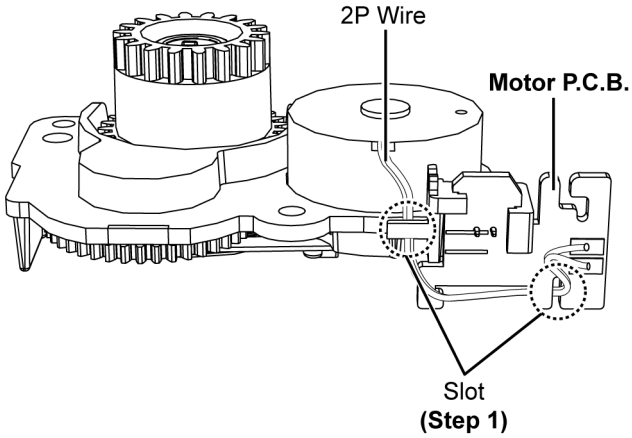


10.11.1. Disassembly of Motor P.C.B.

• Refer to “Disassembly of Gear Box Assembly”

Step 1 : Release the 2P wire from slot.

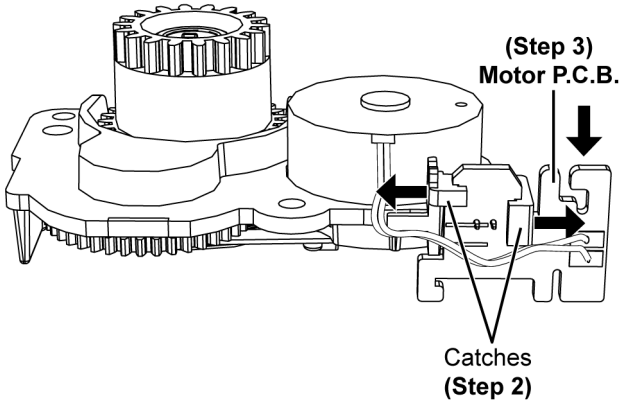
Caution : During assembling, ensure the 2P Wire is inserted into the slots.



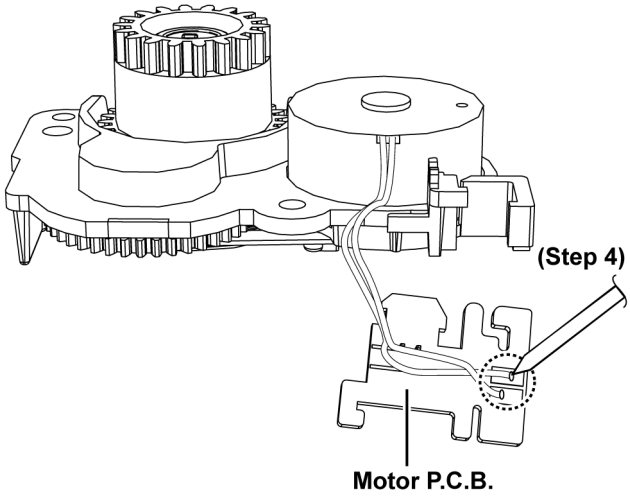
Step 2 : Release 2 catches.

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

Caution : During assembling, ensure the Motor P.C.B. is fully catched.



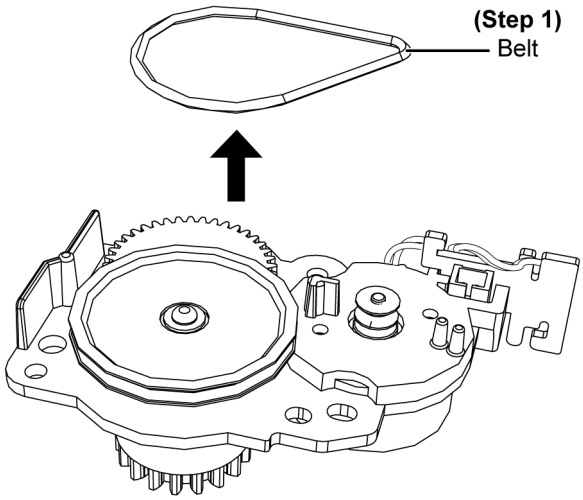
Step 4 : Desolder pin on the solder side of Motor P.C.B. and remove the Motor P.C.B..



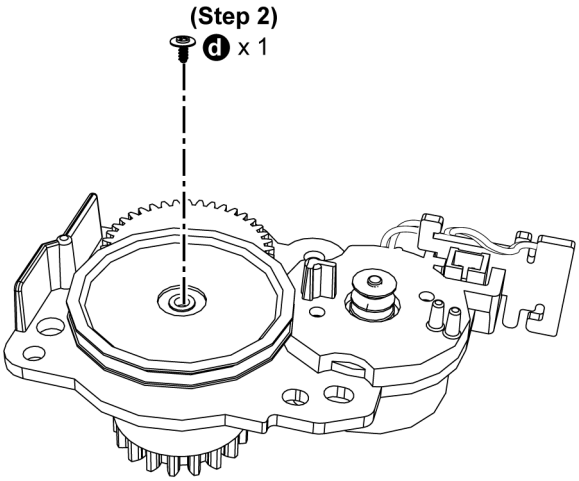
10.11.2. Disassembly of Belt, Pully Gear, Middle Gear and Drive Gear

• Refer to “Disassembly of Gear Box Assembly”

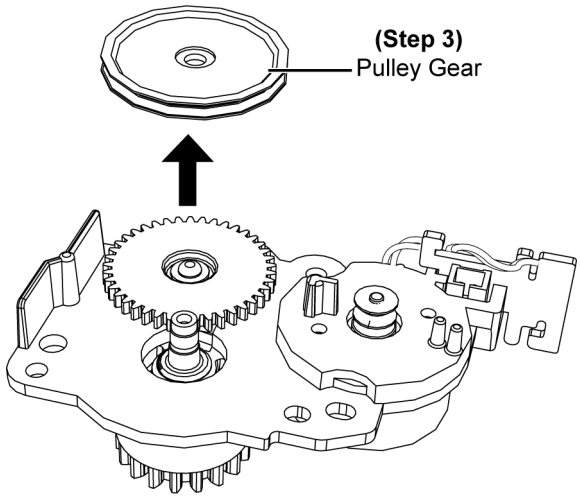
Step 1 : Remove Belt.



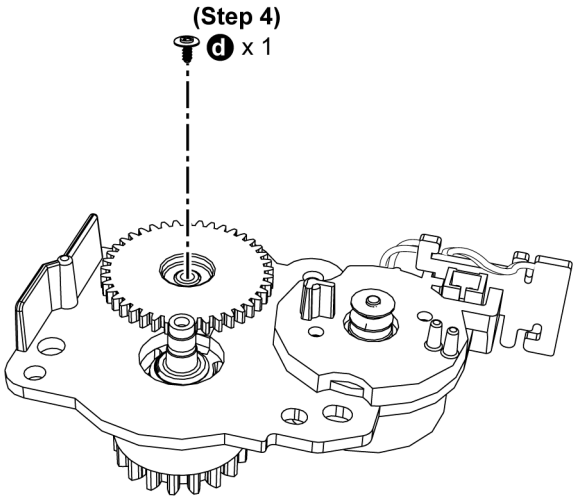
Step 2 : Remove 1 screw.



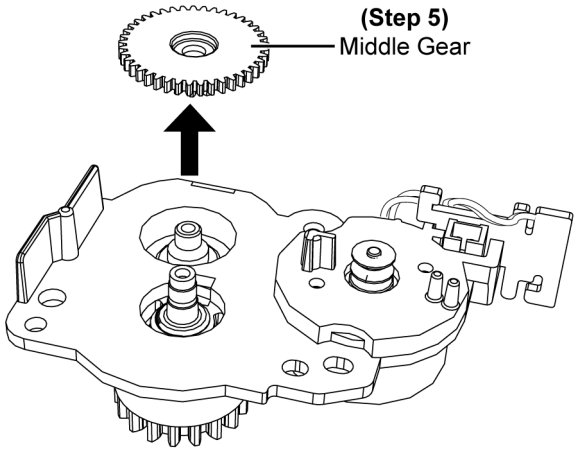
Step 3 : Remove Pulley Gear.



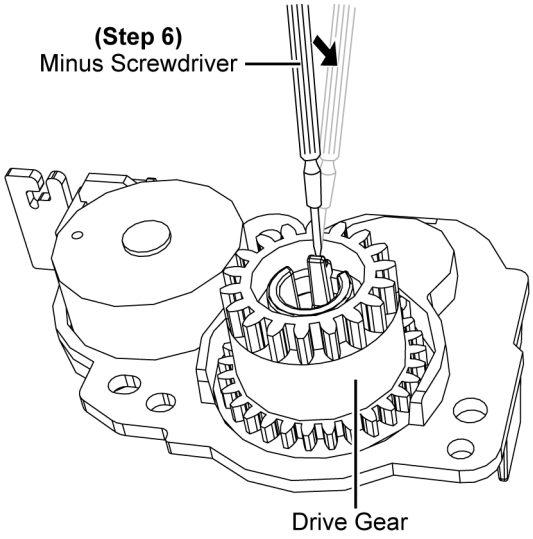
Step 4 : Remove 1 screw.



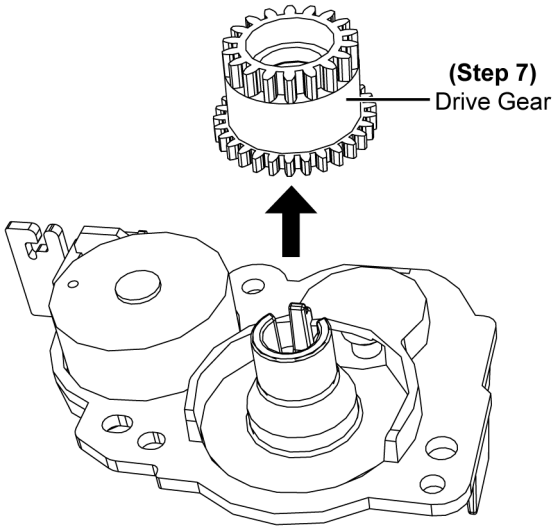
Step 5 : Remove Middle Gear.



Step 6 : Use the minus screwdriver to release a catch as shown.



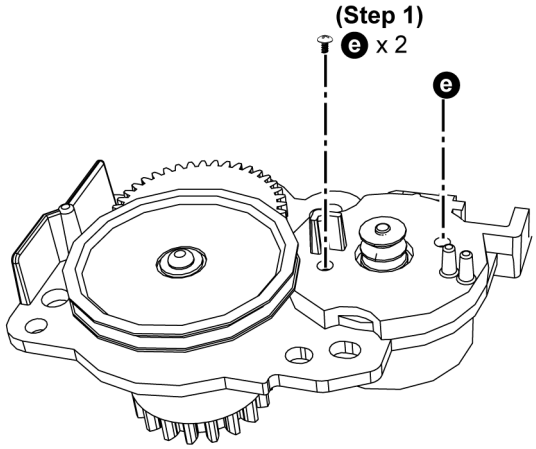
Step 7 : Remove Drive Gear.



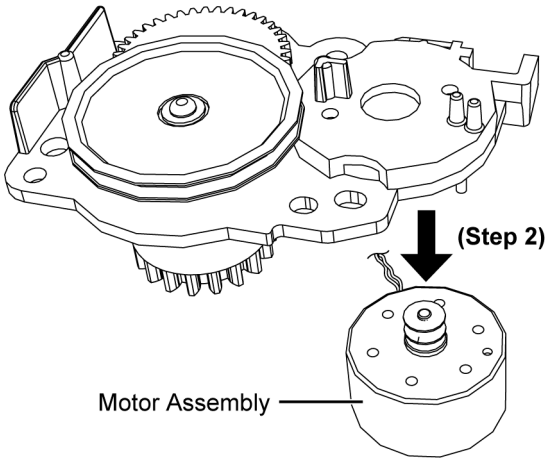
10.11.3. Disassembly of Motor Assembly

- Refer to “Disassembly of Gear Box Assembly”
- Refer to “Disassembly of Motor P.C.B.”
- Refer to (Step 1) of item 10.11.2.

Step 1 : Remove 2 screws.



Step 2 : Remove Motor Assembly.

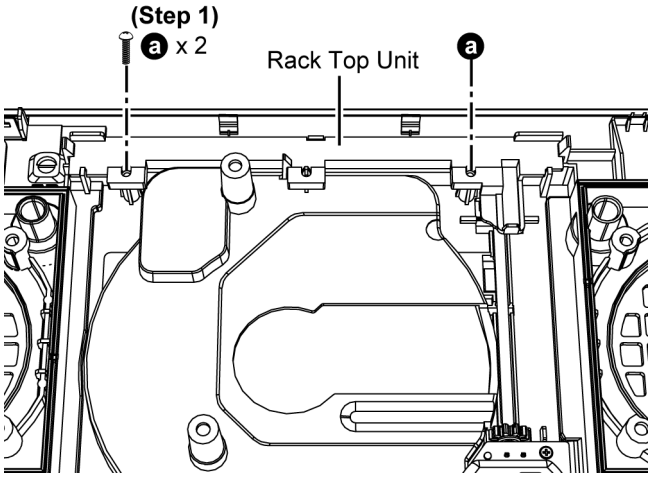


10.12. Replacement of Rack Top & Slider Top

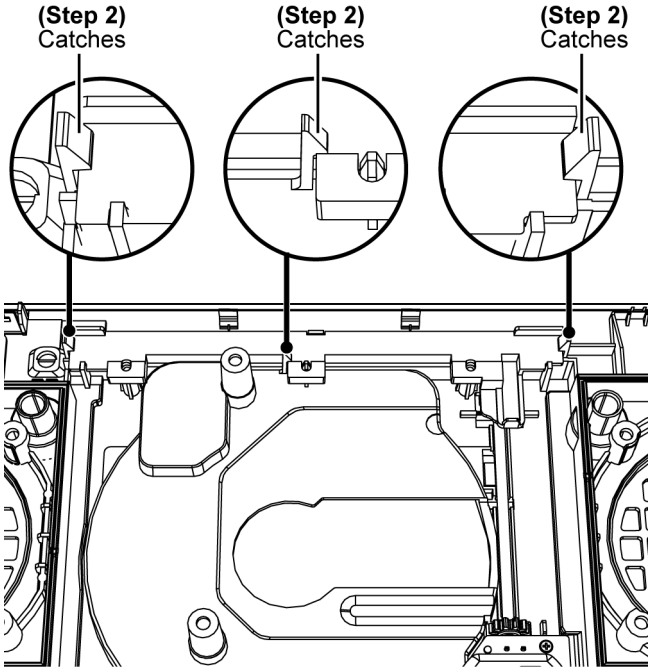
- Refer to “Disassembly of Net Frame Assembly (L) & (R)”
- Refer to “Disassembly of Base Stand Assembly”
- Refer to “Disassembly of Docking Lid”
- Refer to “Disassembly of CD Door Ornament”
- Refer to “Disassembly of CD Door Base”
- Refer to “Disassembly of Front Cabinet Assembly”

10.12.1. Disassembly of Rack Top & Slider Top

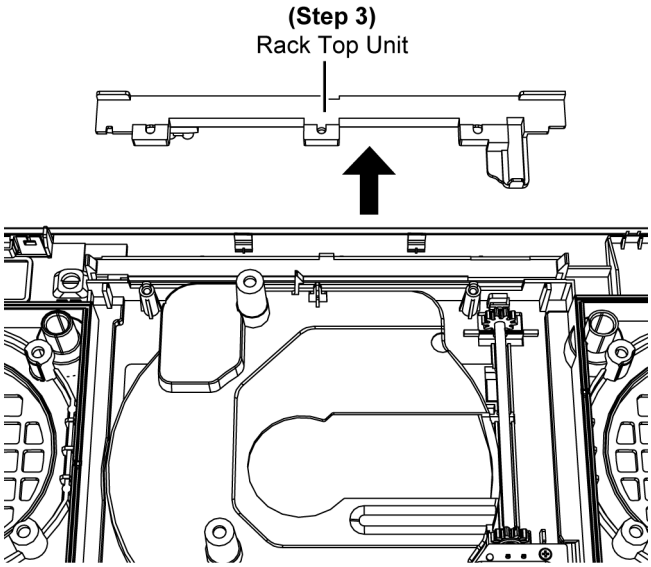
Step 1 : Remove 2 screw.



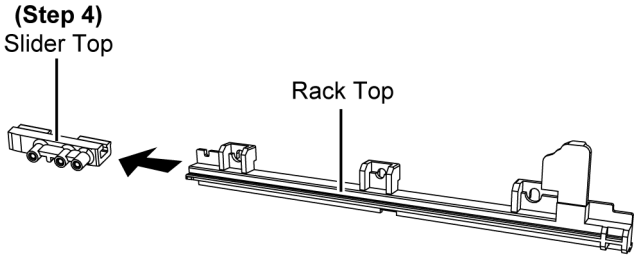
Step 2 : Release 3 catches.



Step 3 : Remove Rack Top Unit.

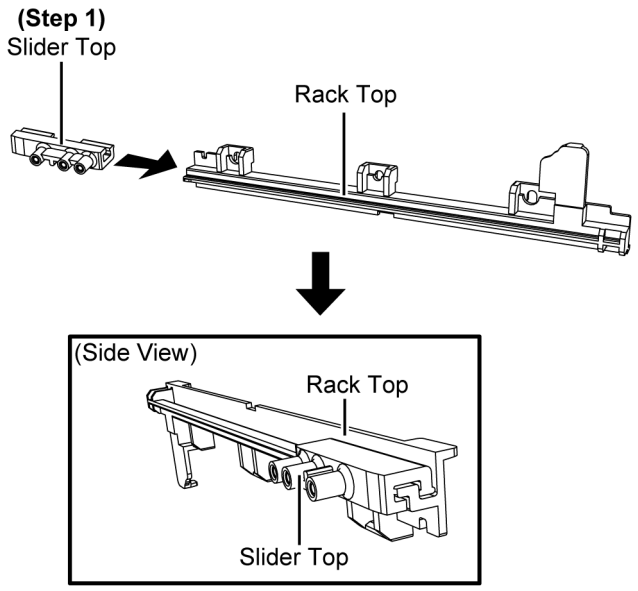


Step 4 : Remove Slider Top.



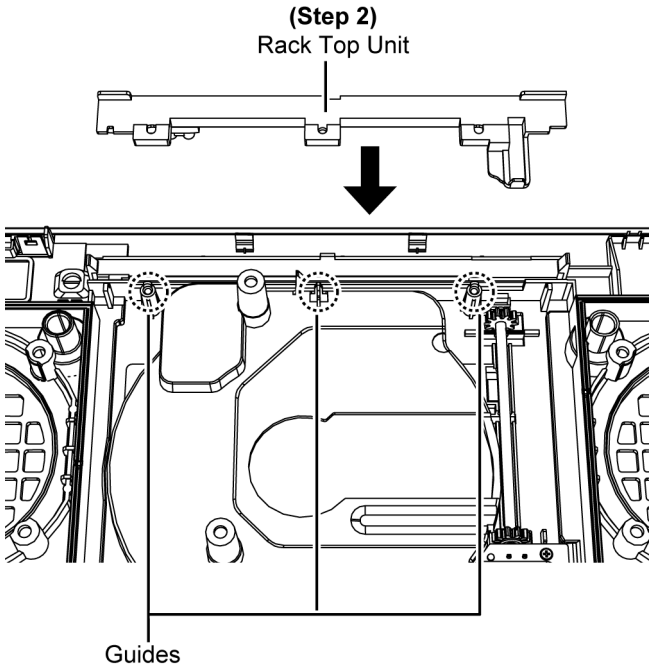
10.12.2. Assembly of Rack Top & Slider Top

Step 1 : Slide in the Slider Top.

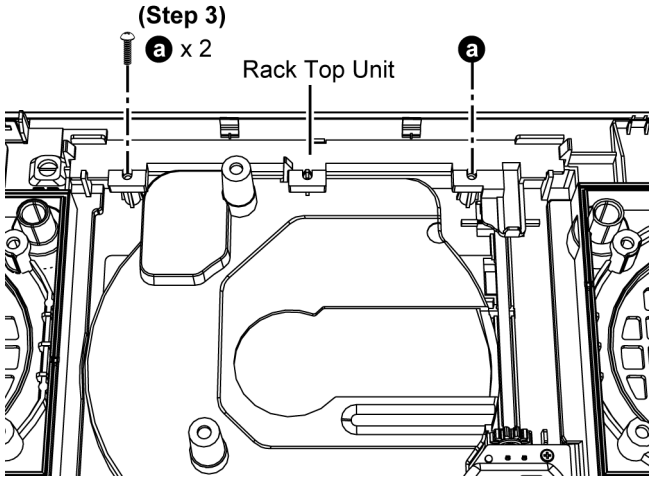


Step 2 : Fix Rack Top Unit.

Caution : During assembling, ensure the Rack Top Unit is properly seated onto guides, a “click” sound is heard when the Rack Top Unit is fully catched.



Step 3 : Fix 2 screws.

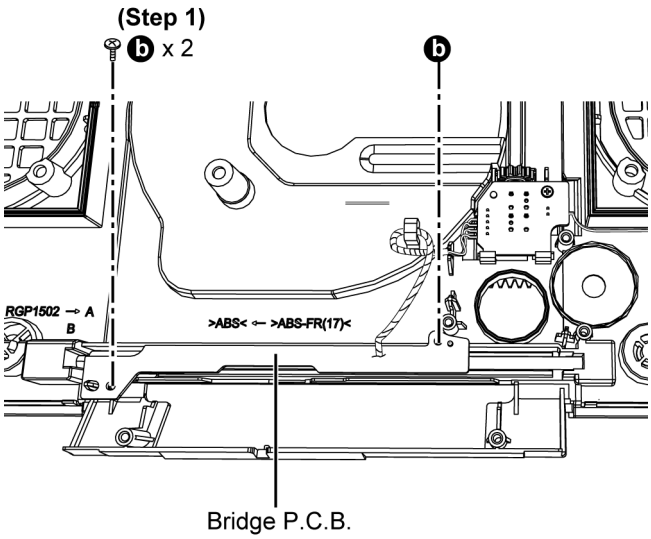


10.13. Replacement of Bridge P.C.B., Door Shaft & Slider Bottom

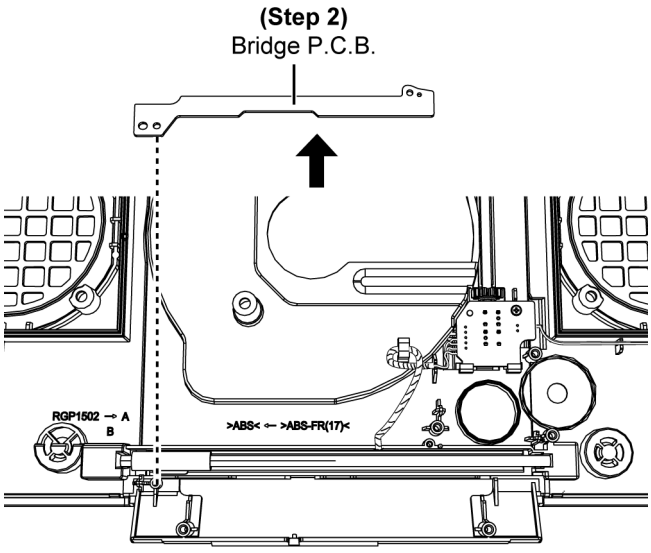
- Refer to “Disassembly of Net Frame Assembly (L) & (R)”
- Refer to “Disassembly of Base Stand Assembly”
- Refer to “Disassembly of Docking Lid”
- Refer to “Disassembly of CD Door Ornament”
- Refer to “Disassembly of CD Door Base”
- Refer to “Disassembly of Front Cabinet Assembly”
- Refer to “Disassembly of Gear Box Assembly”

10.13.1. Disassembly of Bridge P.C.B., Door Shaft & Slider Bottom

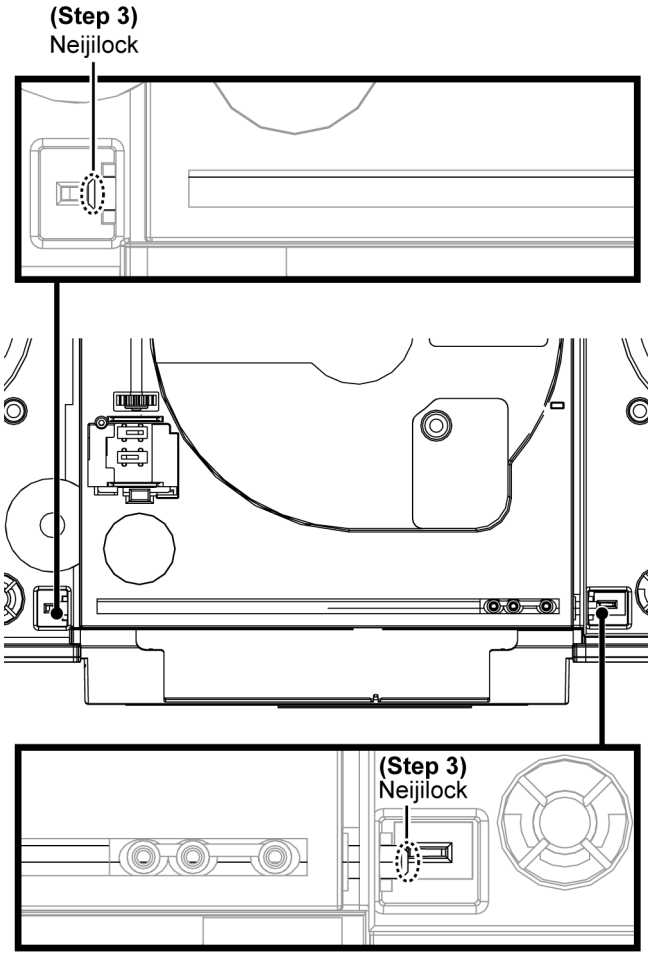
Step 1 : Remove 2 screws.



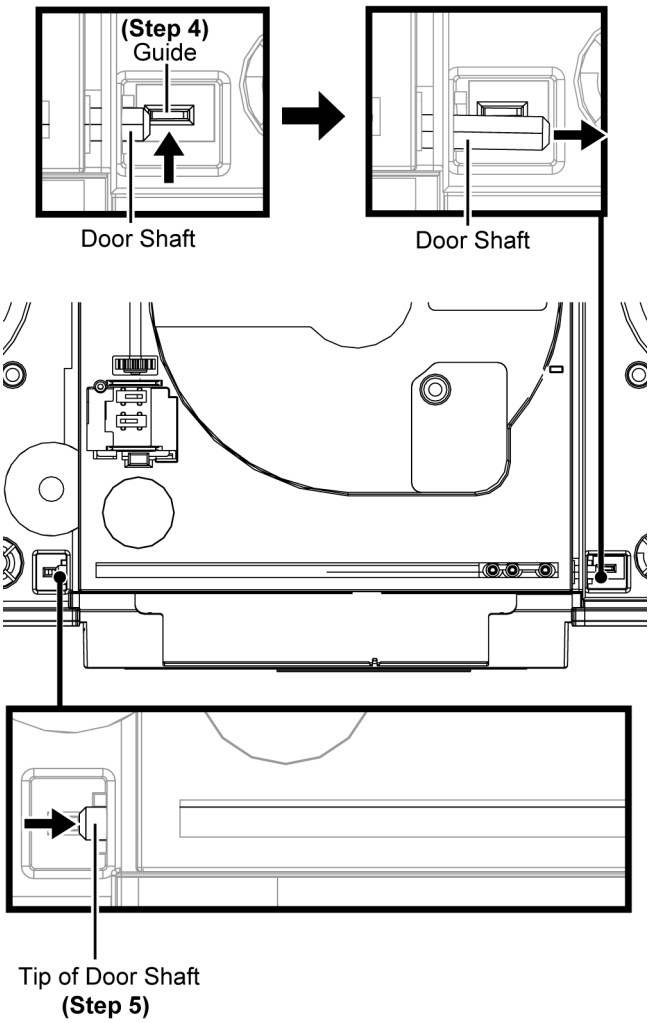
Step 2 : Remove Bridge P.C.B..



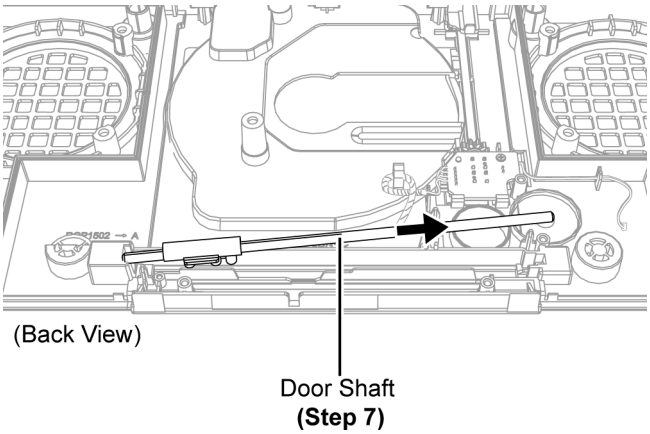
Step 3 : Remove Neijilock.

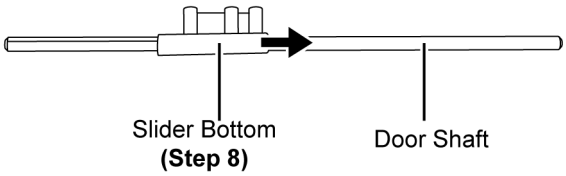


Step 4 : Lift up Guide.
Step 5 : Push the Tip of the Door Shaft as arrow shown.



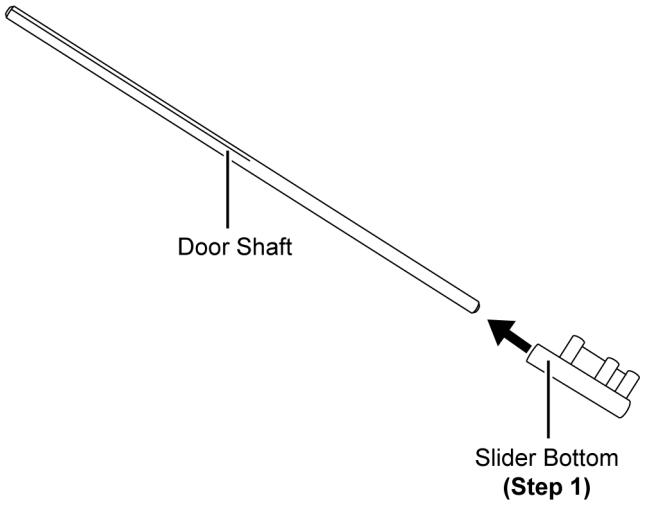
Step 6 : Upset the Front Cabinet Assembly.
Step 7 : Remove Door Shaft.
Step 8 : Remove the Slider Bottom.



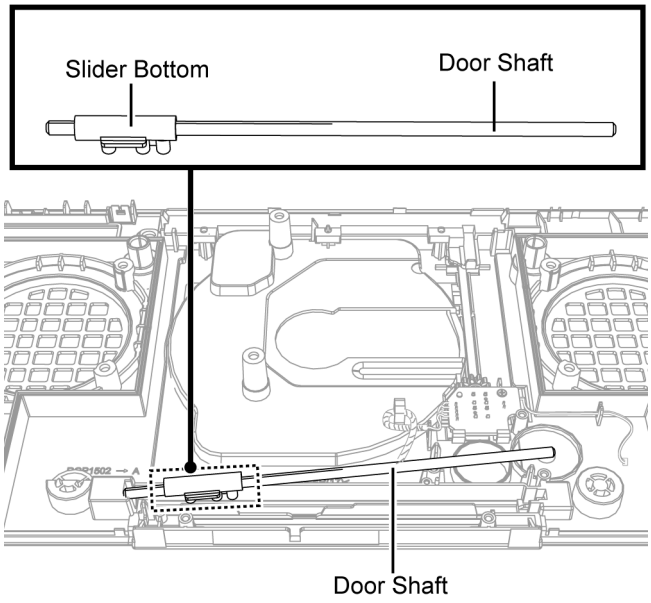


10.13.2. Assembly of Bridge P.C.B., Door Shaft & Slider Bottom

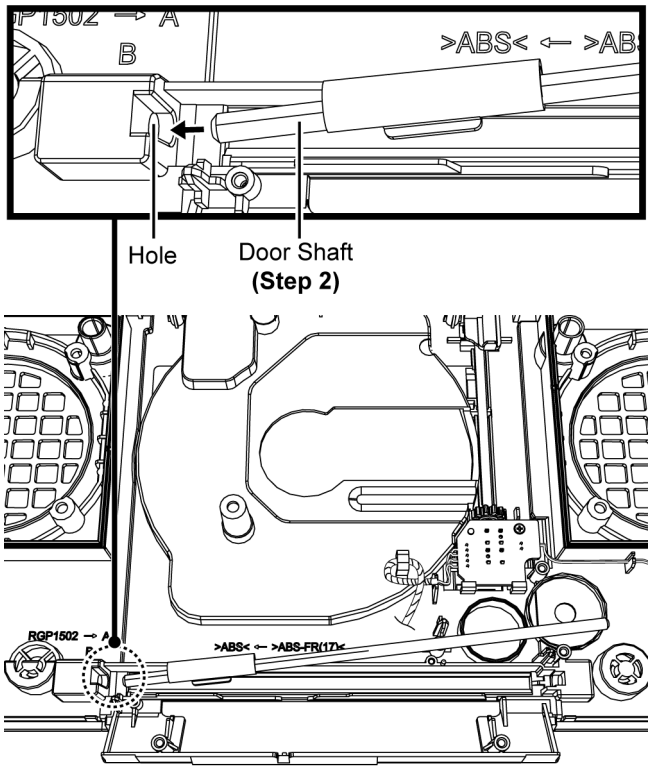
Step 1 : Slot the Slider Bottom thru the Door Shaft.



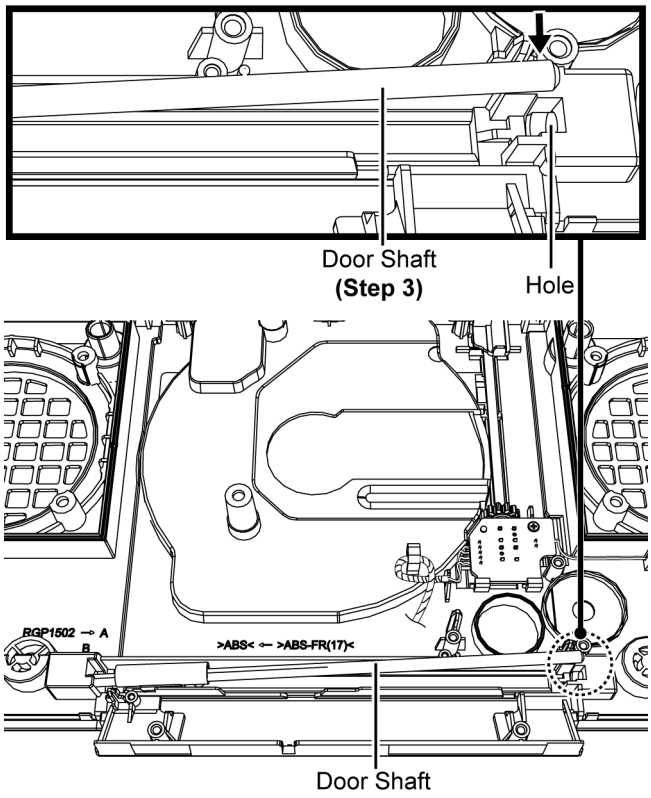
Caution : During assembling, ensure Slider Bottom is turned downwards as diagram show.



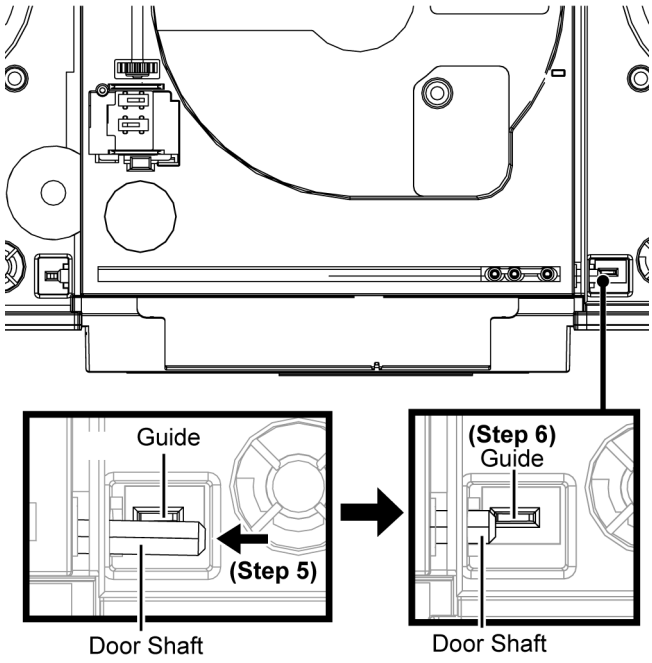
Step 2 : Slot in the one end of the Door Shaft into the hole as diagram shown.



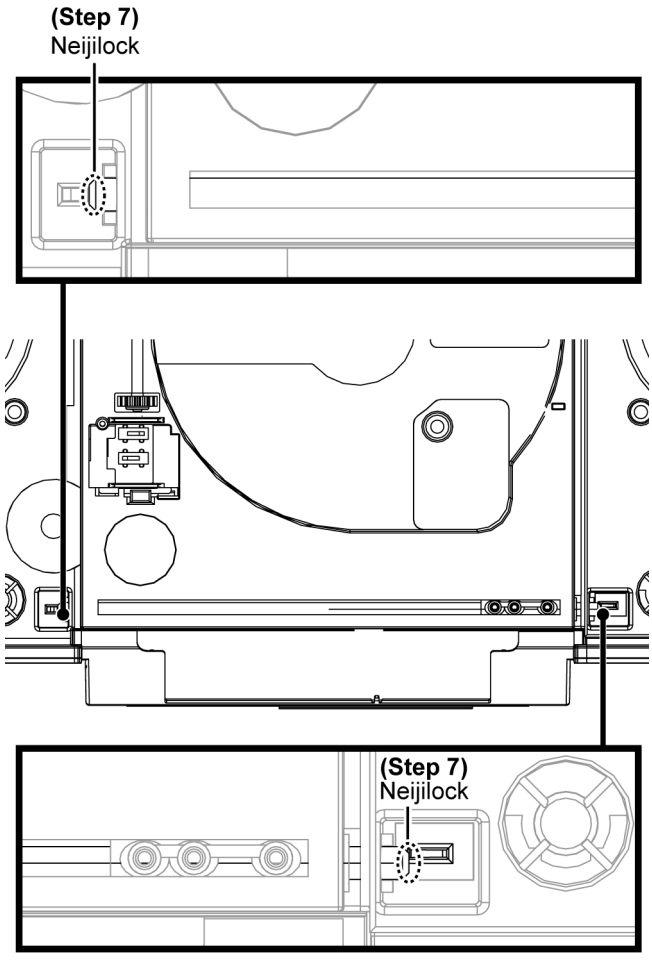
Step 3 : Push the Door Shaft downwards and slot it into the hole.



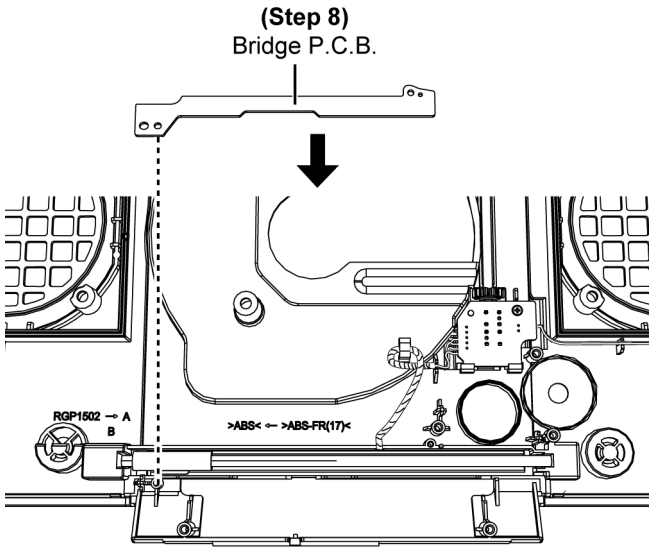
Step 4 : Upset the Front Cabinet Assembly.
Step 5 : Push the Door Shaft as arrow shown.
Step 6 : Make sure that the Door Shaft is fixed by the Guide.



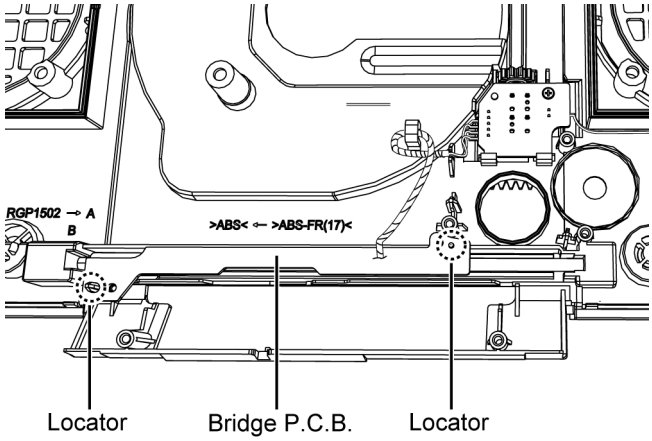
Step 7 : Apply Neijilock.



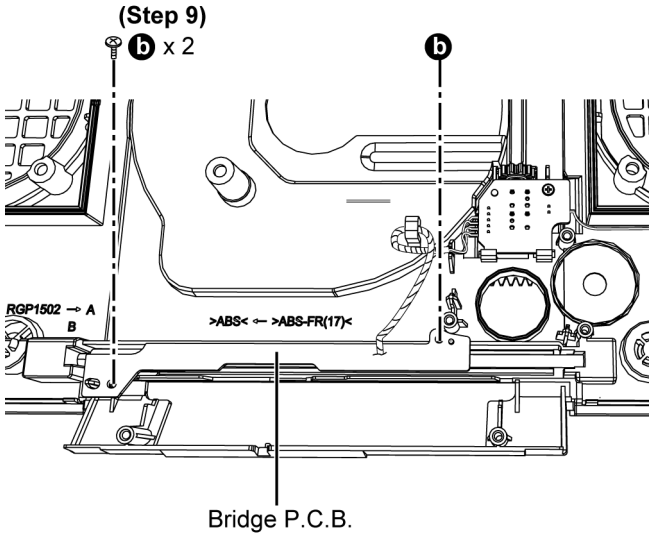
Step 8 : Place back the Bridge P.C.B..



Caution : During assembling, ensure the Bridge P.C.B. is properly seated onto the 2 locators.



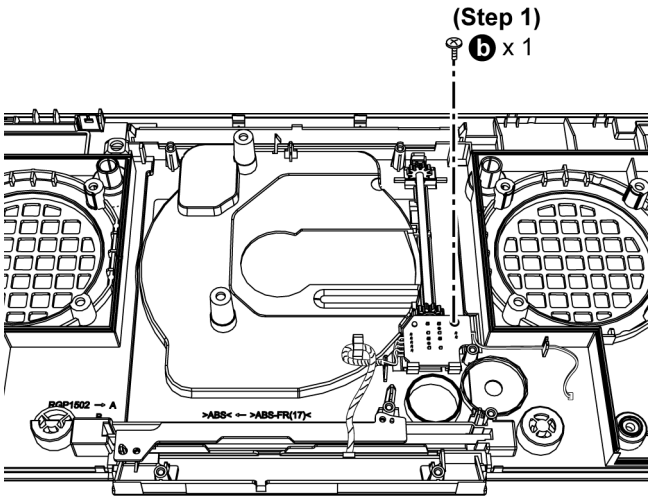
Step 9 : Fix 2 screws.



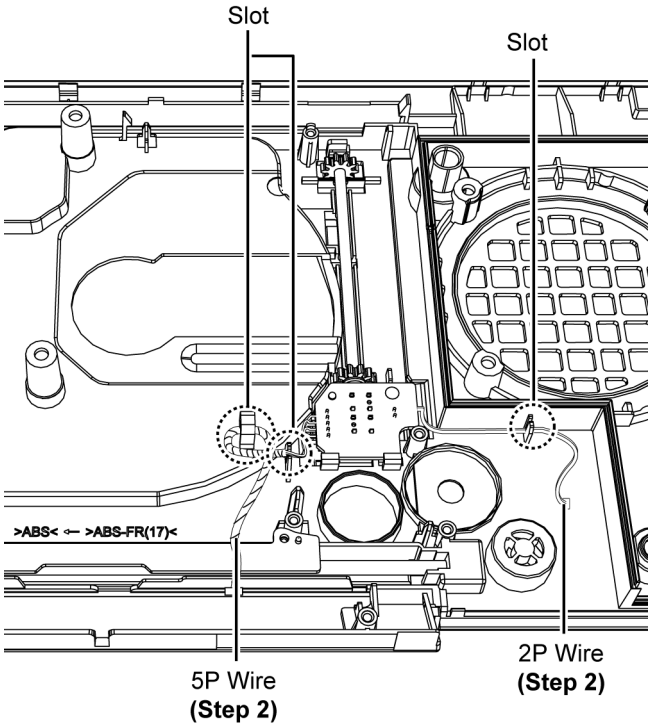
10.14. Disassembly of Position Switch P.C.B. & Timing Gear Unit

- Refer to “Disassembly of Net Frame Assembly (L) & (R)”
- Refer to “Disassembly of Base Stand Assembly”
- Refer to “Disassembly of Docking Lid”
- Refer to “Disassembly of CD Door Ornament”
- Refer to “Disassembly of CD Door Base”
- Refer to “Disassembly of Front Cabinet Assembly”
- Refer to “Disassembly of Gear Box Assembly”
- Refer to (Step 1) - (Step 3) of item 10.12.1.

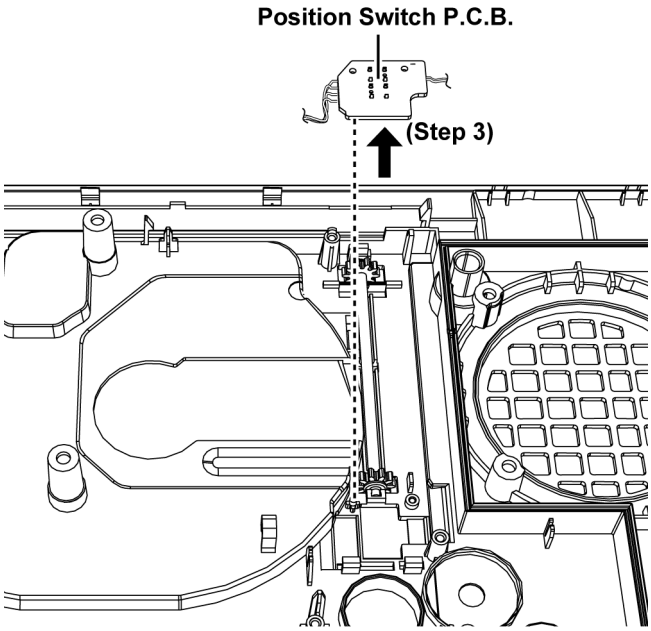
Step 1 : Remove 1 screw.



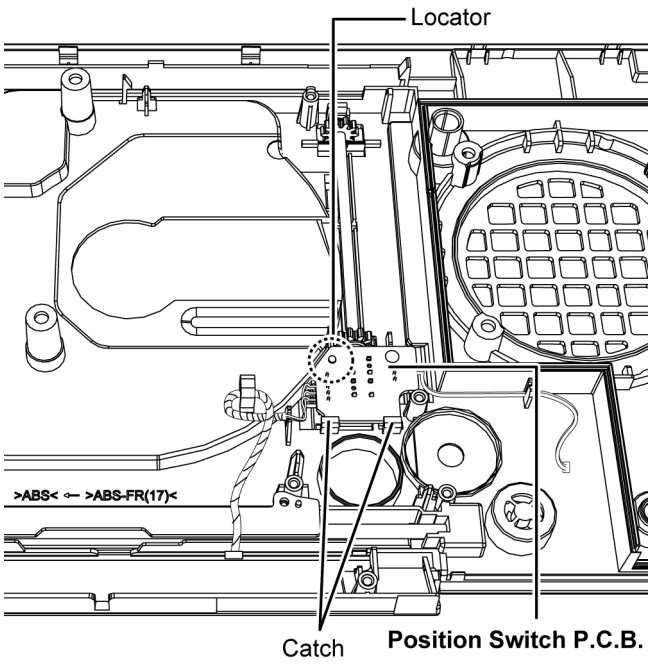
Step 2 : Release the 5P Wire & 2P Wire from the slot.



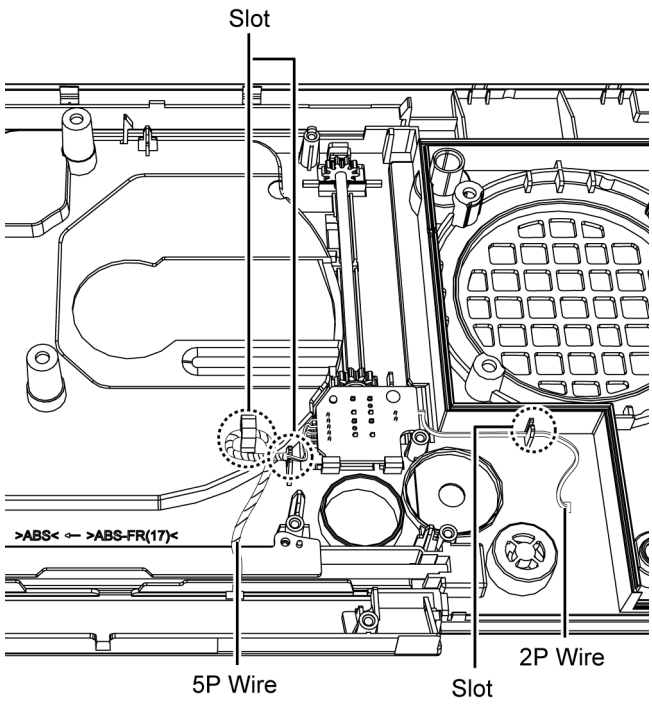
Step 3 : Remove Position Switch P.C.B..



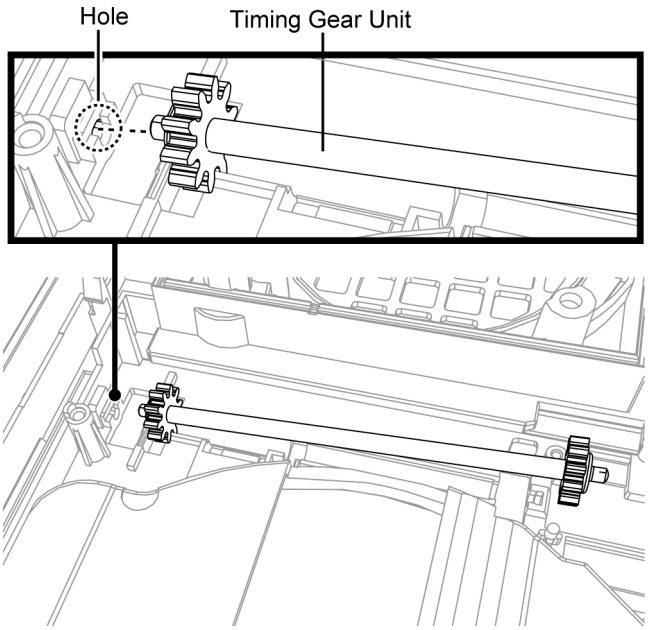
Caution : During assembling, ensure the Position Switch P.C.B. is fully catched and properly seated on the locator.



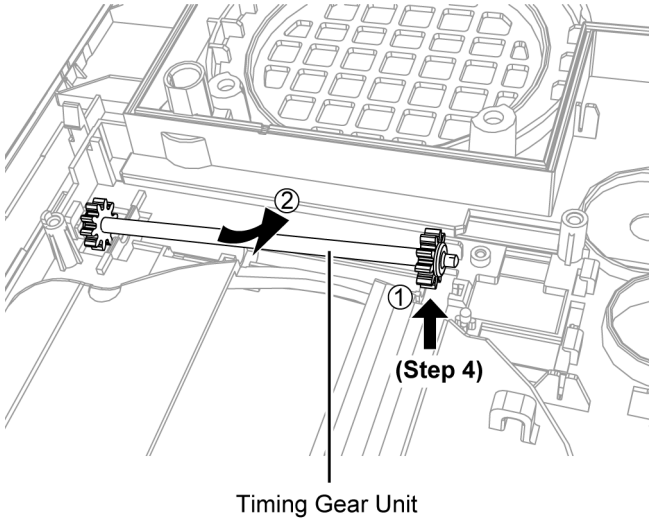
Caution : During assembling, ensure the 5P wire & 2P wire is inserted into the slots.



Caution : During assembling, ensure Timing Gear Unit slot into the hole as shown.



Step 4 : Remove Timing Gear Unit in order of sequences (1) to (2) as shown.

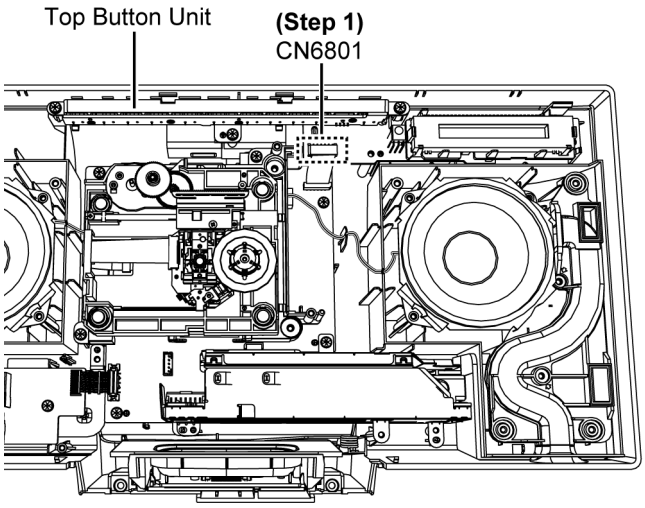


10.15. Disassembly of Top Button Unit, Button P.C.B. and Panel P.C.B.

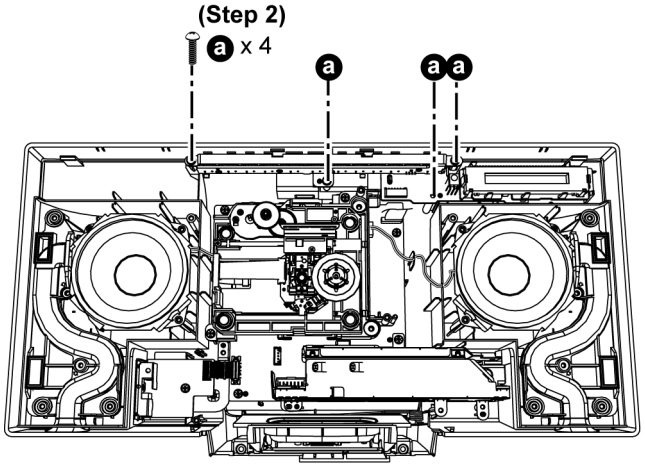
- Refer to “Disassembly of Net Frame Assembly (L) & (R)”
- Refer to “Disassembly of Base Stand Assembly”
- Refer to “Disassembly of Docking Lid”
- Refer to “Disassembly of Front Cabinet Assembly”

10.15.1. Disassembly of Panel P.C.B.

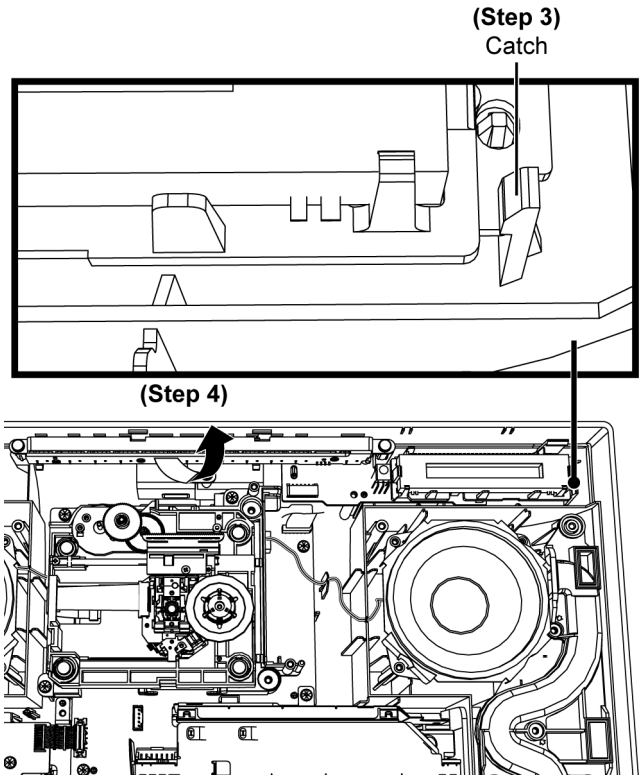
Step 1 : Detach 13P FFC at the connector (CN6801) on Panel P.C.B..



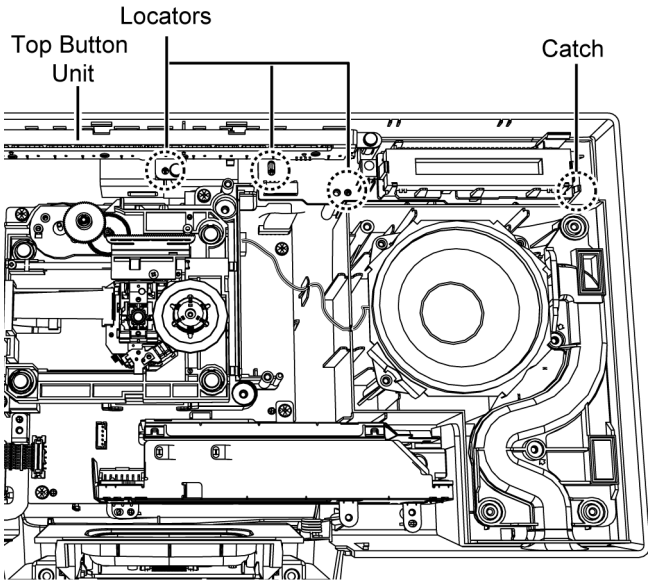
Step 2 : Remove 4 screws.



Step 3 : Release 1 catch at Panel P.C.B..
Step 4 : Remove Top Button Unit as shown.



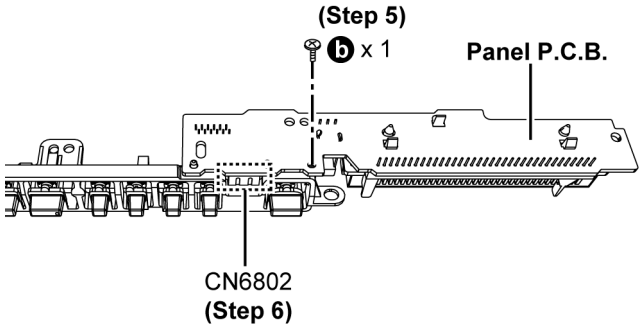
Caution : During assembling, ensure the Top Button Unit is fully catched and properly seated on the locator.



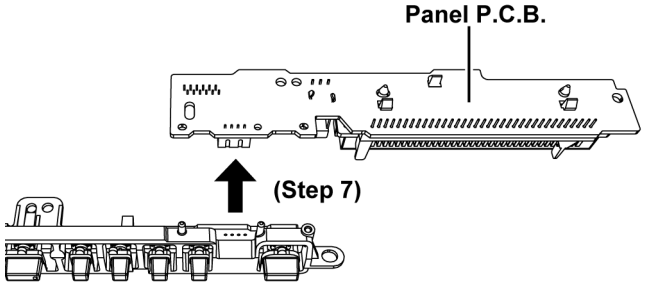
Step 5 : Remove 1 screw.

Step 6 : Detach 4P connector (CN6802) on the Panel P.C.B..

Caution : During assembling, ensure 4P connector is properly connected to Button P.C.B..



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

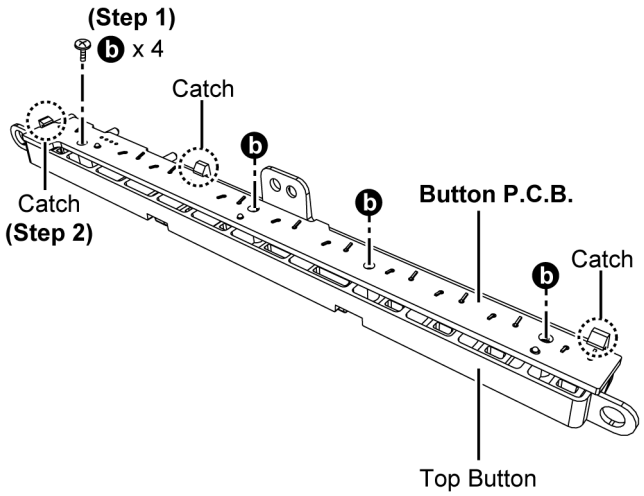


10.15.2. Disassembly of Top Button & Button P.C.B.

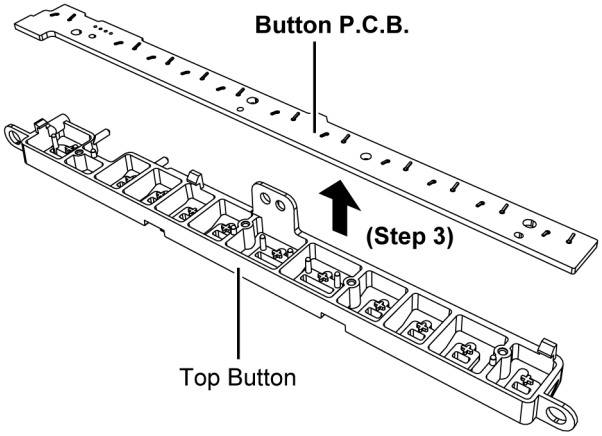
• Refer to “Disassembly of Panel P.C.B.”

Step 1 : Remove 4 screws.

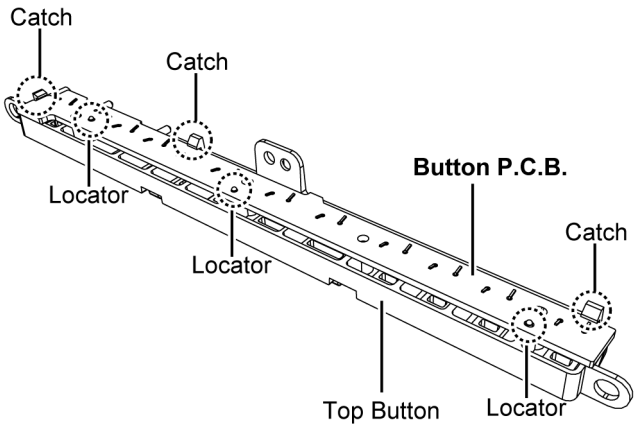
Step 2 : Release 3 catches.



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



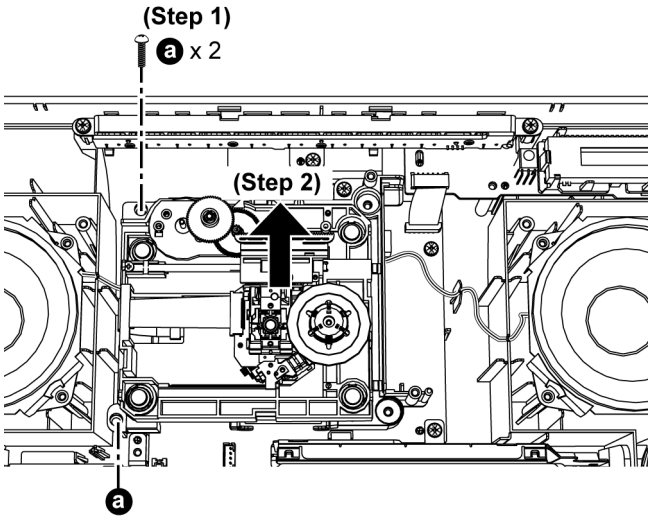
Caution : During assembling, ensure the Button P.C.B. is fully catched and properly seated on the locator.



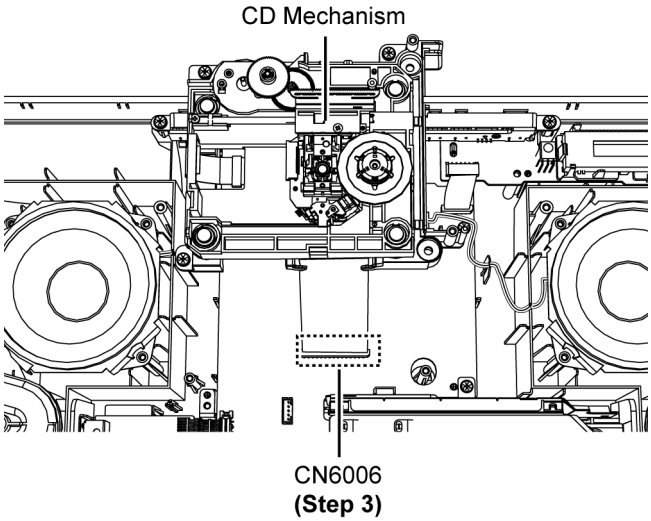
10.16. Disassembly of CD Mechanism

- Refer to “Disassembly of Net Frame Assembly (L) & (R)”
- Refer to “Disassembly of Base Stand Assembly”
- Refer to “Disassembly of Docking Lid”
- Refer to “Disassembly of Front Cabinet Assembly”

Step 1 : Remove 2 screws.
Step 2 : Slightly lift up CD Mechanism.

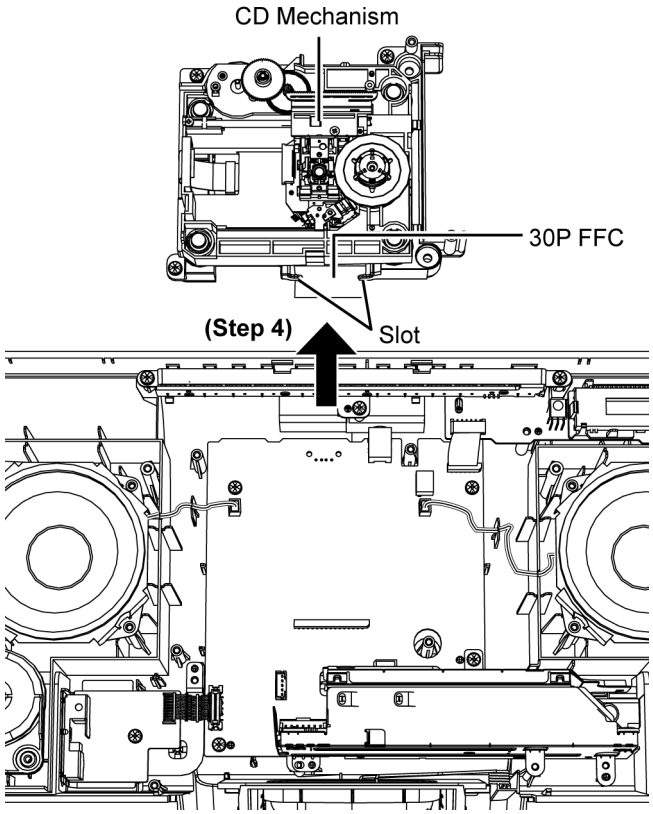


Step 3 : Detach 30P FFC at the connector (CN6006) on the Main P.C.B..



Step 4 : Remove CD Mechanism.

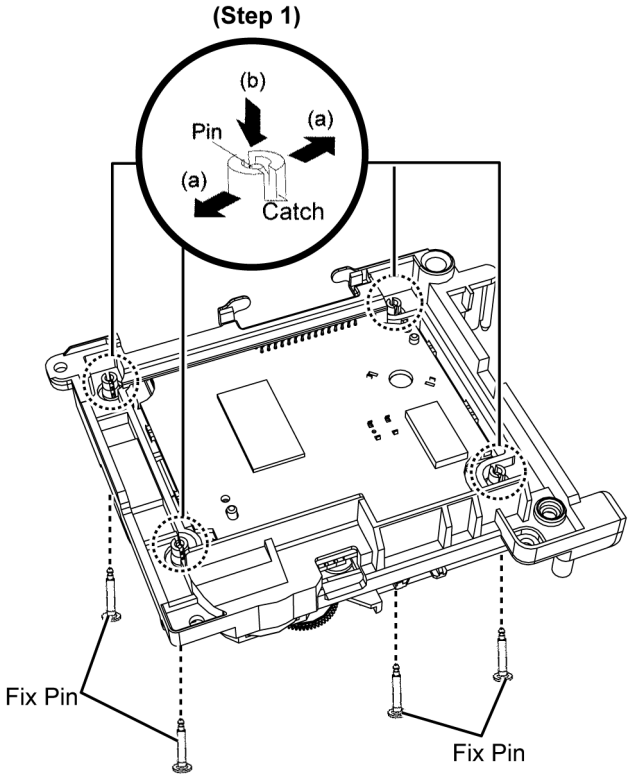
Caution : During assembling of the CD Mechanism, ensure that the 30P FFC insert to the slot as shown.



10.17. Disassembly of CD Servo P.C.B.

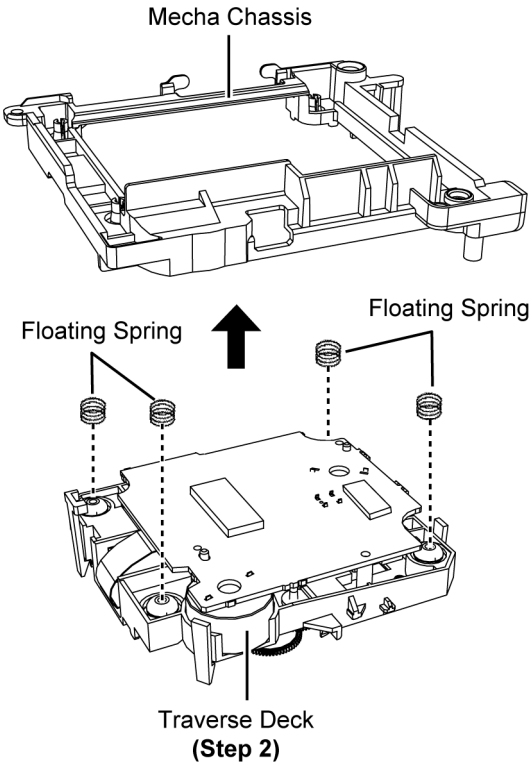
- Refer to “Disassembly of CD Mechanism”

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

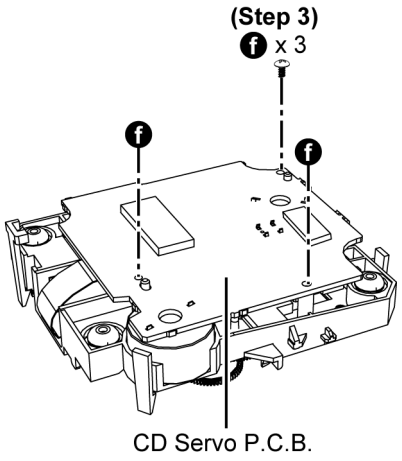


Step 2 : Lift up the Mecha Chassis & Floating Springs.

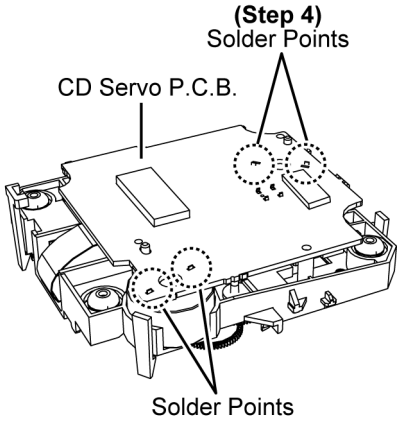
Caution : Keep the Floating Spring in safe place and place them back during assembling.



Step 3 : Remove 3 screws.



Step 4 : Desolder points on the solder side of CD Servo P.C.B..

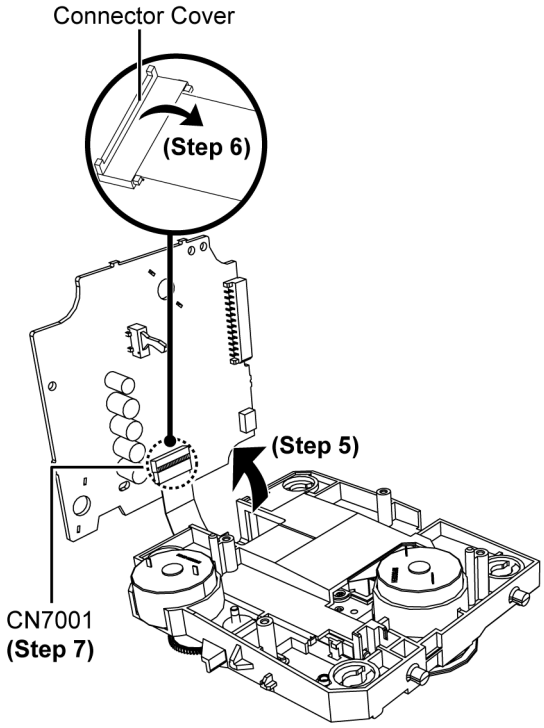


Step 5 : Upset the CD Servo P.C.B..

Step 6 : Lift up the Connector Cover.

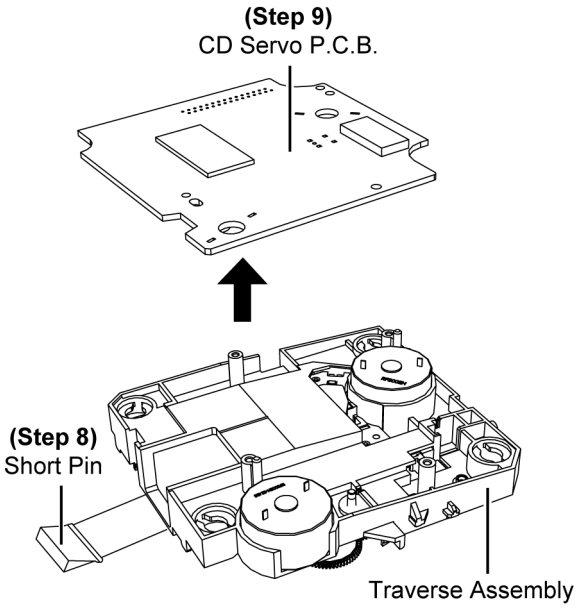
Caution : Do not use strong force as it may damage the connector cover.

Step 7 : Detach 24P FFC at the connector (CN7001) from the CD Servo P.C.B..



Step 8 : Attach short pin to the 24P FFC of the Traverse Assembly.

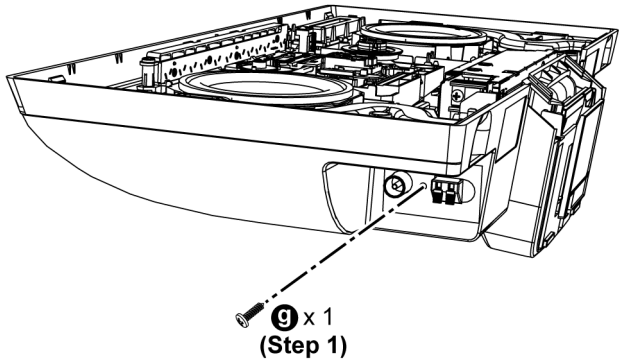
Step 9 : Remove CD Servo P.C.B..



10.18. Disassembly of Tuner P.C.B.

- Refer to “Disassembly of Net Frame Assembly (L) & (R)”
- Refer to “Disassembly of Base Stand Assembly”
- Refer to “Disassembly of Docking Lid”
- Refer to “Disassembly of Front Cabinet Assembly”

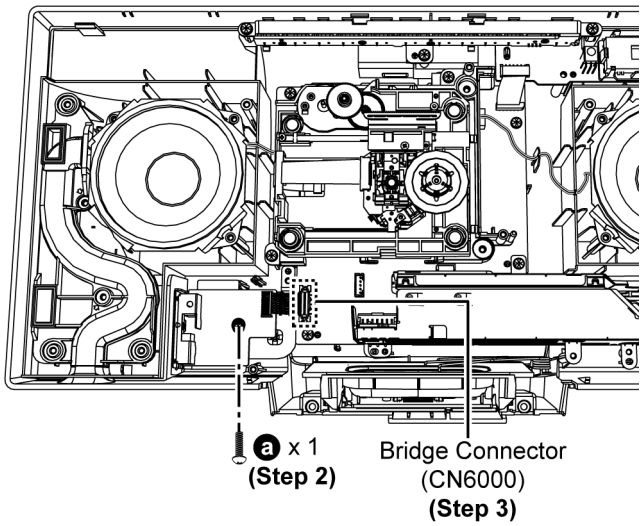
Step 1 : Remove 1 screw.

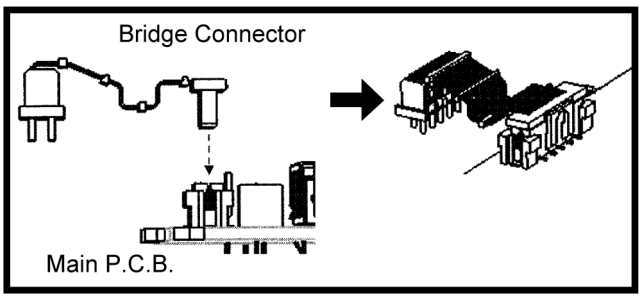


Step 2 : Remove 1 screw.

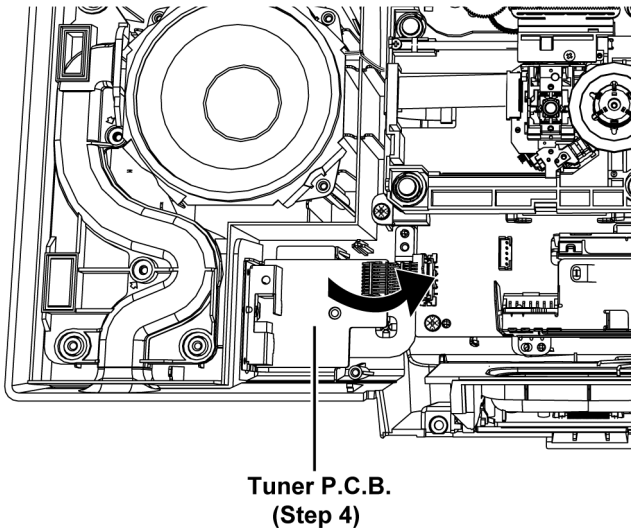
Step 3 : Detach 9P Bridge Connector (CN6000) on Main P.C.B..

Caution : During assembling, ensure Bridge Connector fully fix to Main P.C.B..





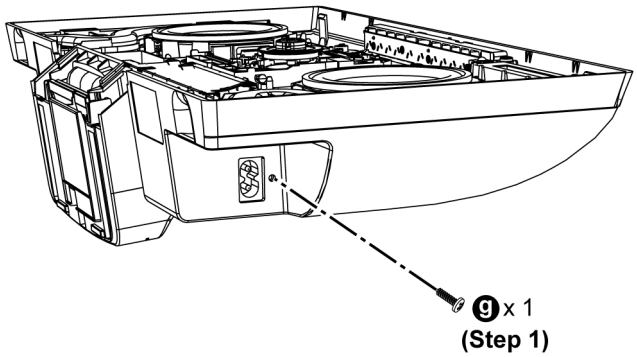
Step 4 : Remove Tuner P.C.B..



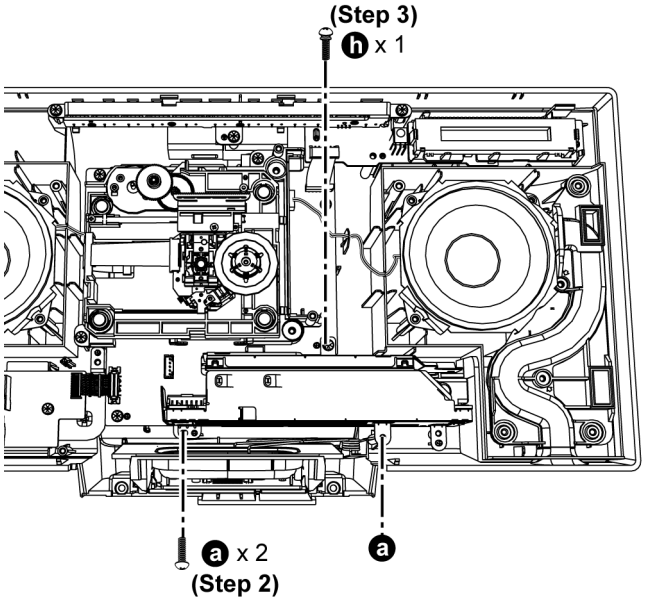
10.19. Disassembly of SMPS P.C.B.

- Refer to “Disassembly of Net Frame Assembly (L) & (R)”
- Refer to “Disassembly of Base Stand Assembly”
- Refer to “Disassembly of Docking Lid”
- Refer to “Disassembly of Front Cabinet Assembly”

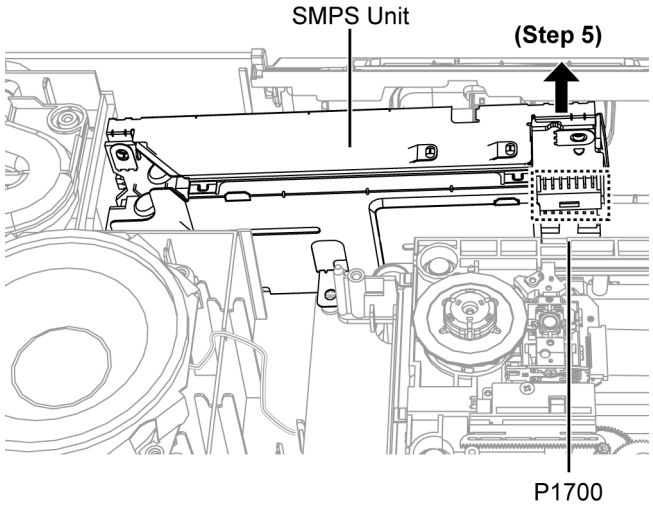
Step 1 : Remove 1 screw.



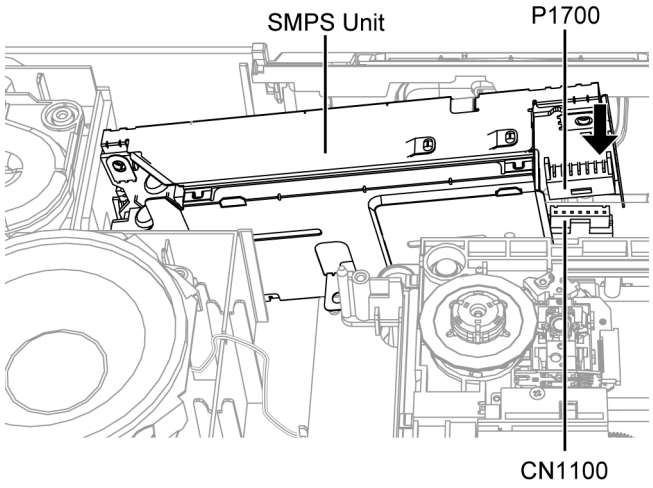
Step 2 : Remove 2 screws.
Step 3 : Remove 1 screw.
Step 4 : Upset the unit.



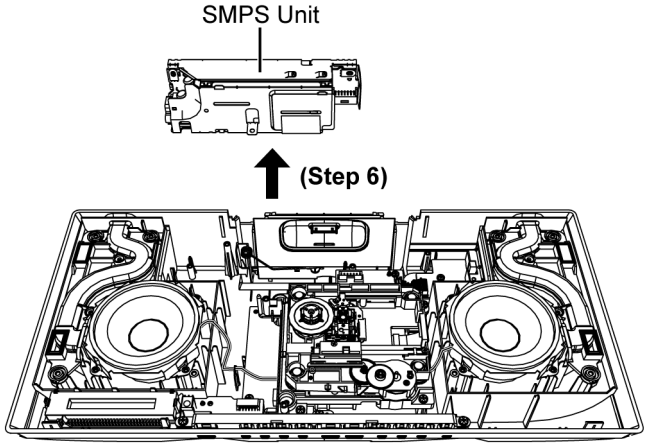
Step 5 : Gently lift up the SMPS Unit.



Caution : During assembling, a "click" sound could be heard when 7P Board to Board connector is properly connected.

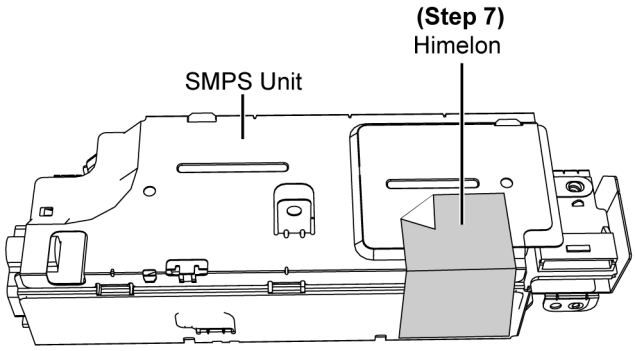


Step 6 : Remove SMPS Unit.



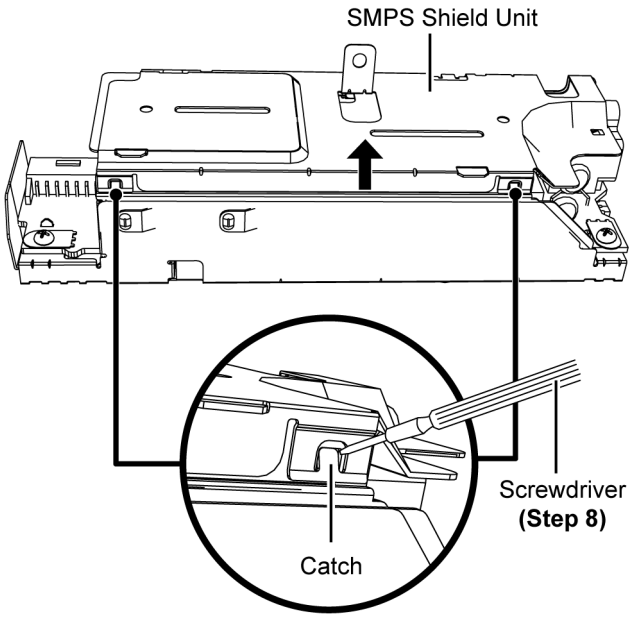
Step 7 : Lift up the Himelons.

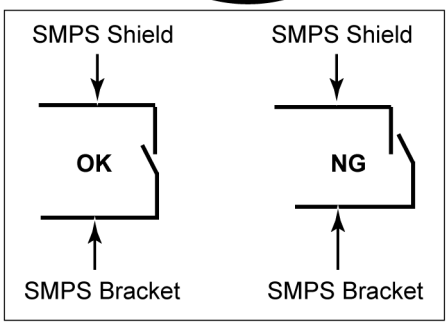
Caution : Replace the Himelons if they are torn during disassembling.



Step 8 : Using a Screwdriver to release 2 catches and gently push up SMPS Shield Unit.

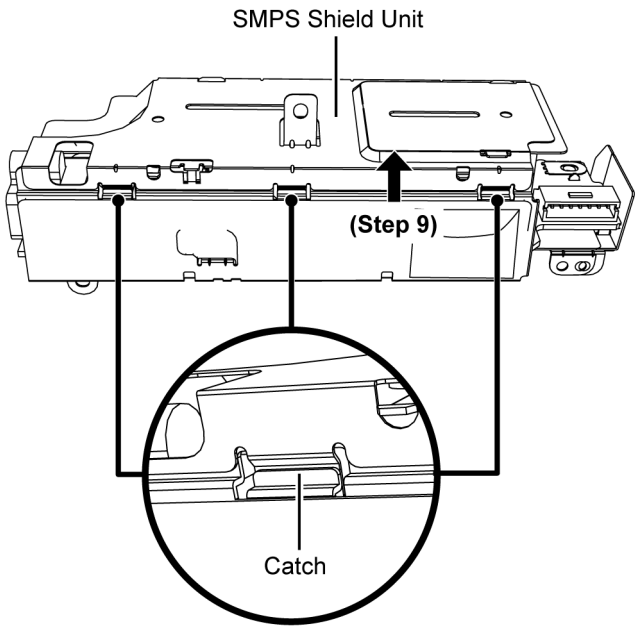
Caution : During assembling, ensure SMPS Shield Unit catched Properly to SMPS bracket as shown.

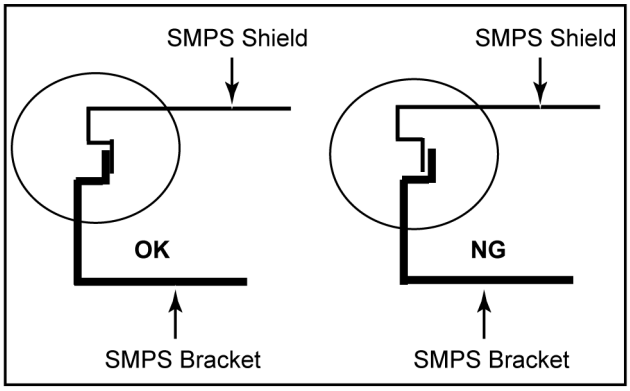




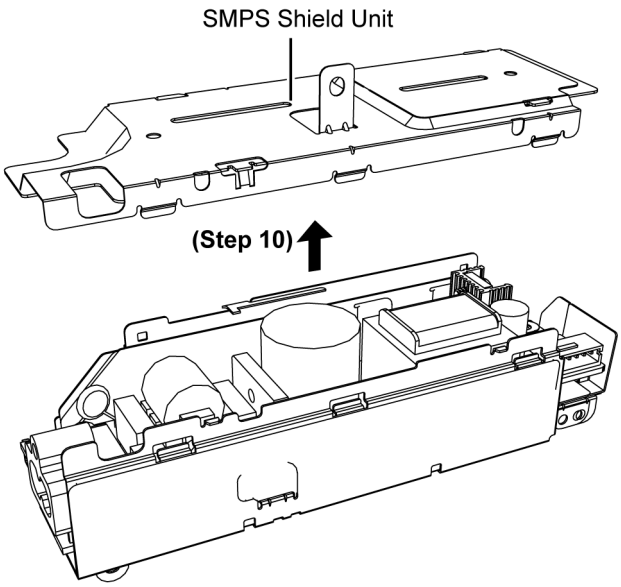
Step 9 : Gently push up the SMPS Shield Unit to release the catches.

Caution : During assembling, ensure SMPS Shield Unit catched Properly to SMPS bracket as shown

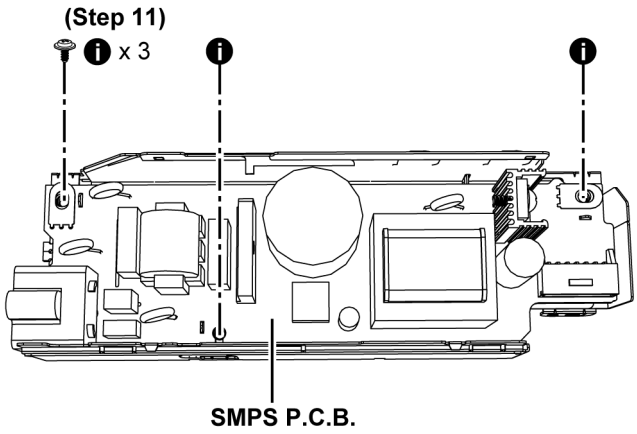




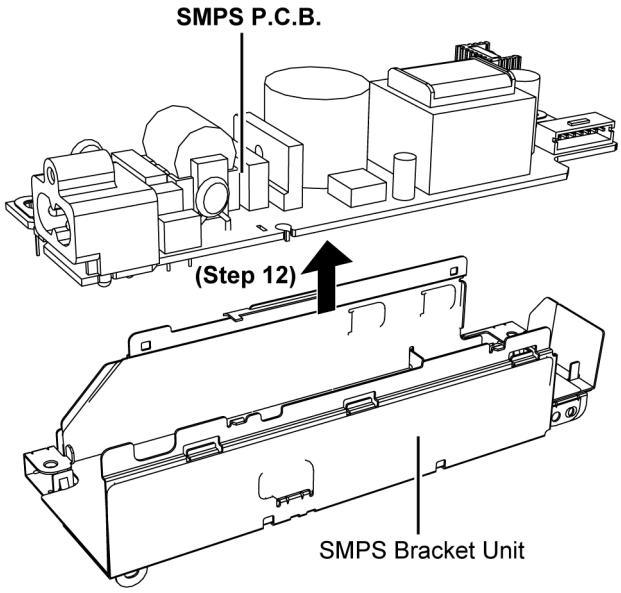
Step 10 : Remove SMPS Shield Unit.



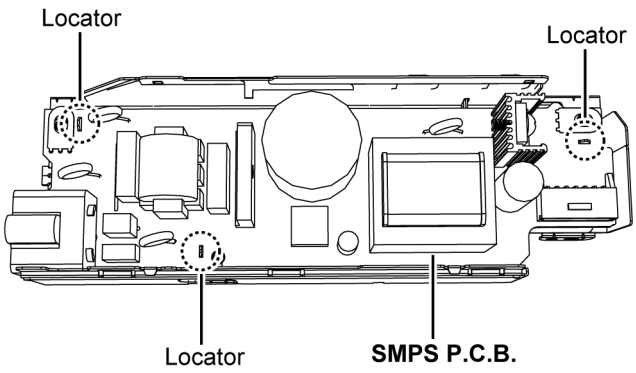
Step 11 : Remove 3 screws.



Step 12 : Remove SMPS P.C.B..



Caution : During assembling of SMPS P.C.B., ensure that the SMPS P.C.B. is properly seated on the locators.



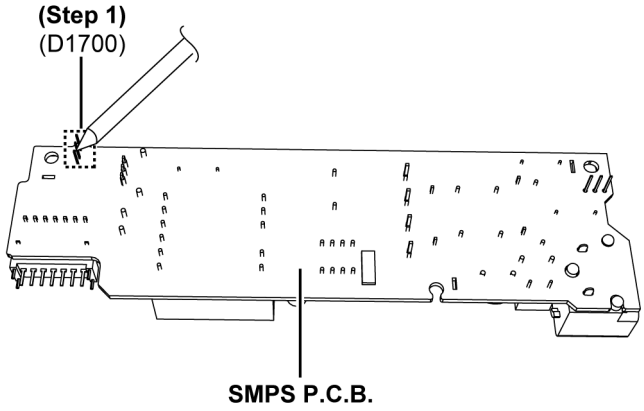
10.20. Replacement of Diode (D1700)

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

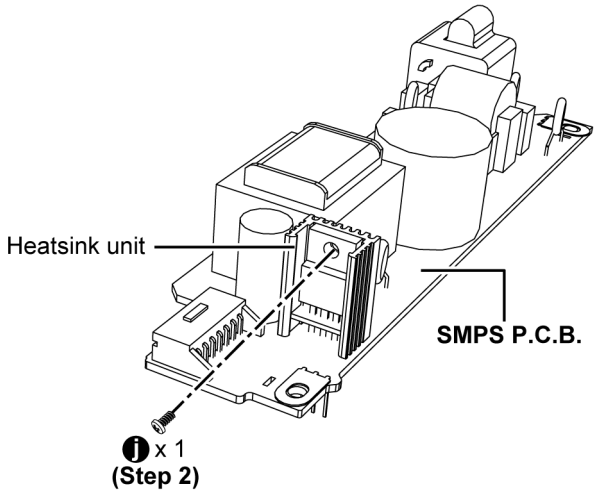
10.20.1. Disassembly of Diode (D1700)

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

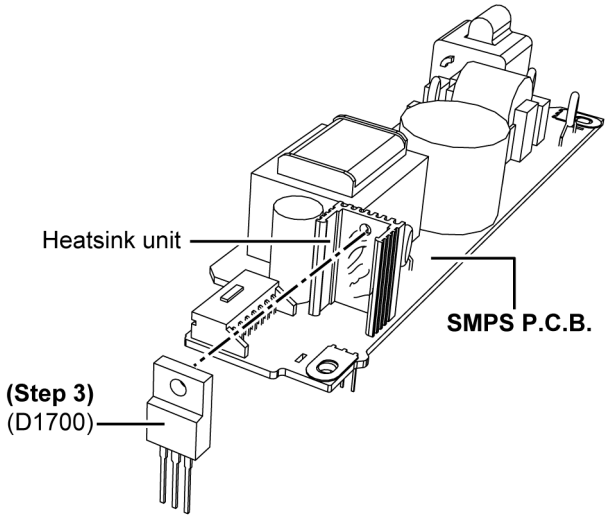
Step 1 : Desolder pins of the Diode (D1700) on the solder side of SMPS P.C.B..



Step 2 : Remove 1 screw.

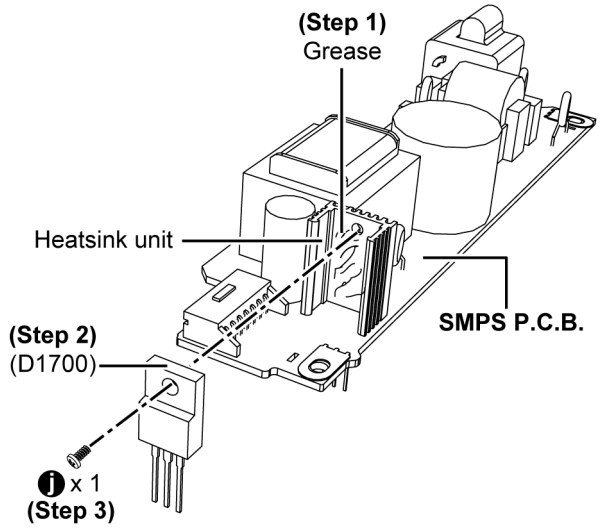


Step 3 : Remove the Diode (D1700).

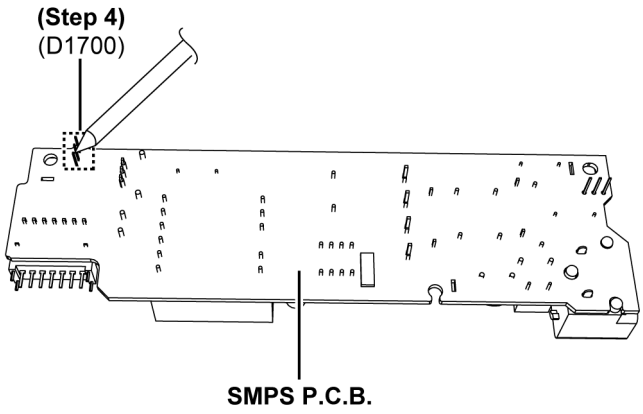


10.20.2. Assembly of Diode (D1700)

Step 1 : Apply grease to the heatsink unit.
Step 2 : Fix the Diode (D1700) onto SMPS P.C.B..
Step 3 : Fix the Diode (D1700) onto the heatsink unit with 1 screw.
Caution : Ensure the Diode (D1700) is fixed properly to the heatsink.



Step 4 : Solder pins of the Diode (D1700).
Caution : Ensure the Diode (D1700) is seated properly onto the SMPS P.C.B. before soldering.



10.21. Disassembly of Speaker Unit

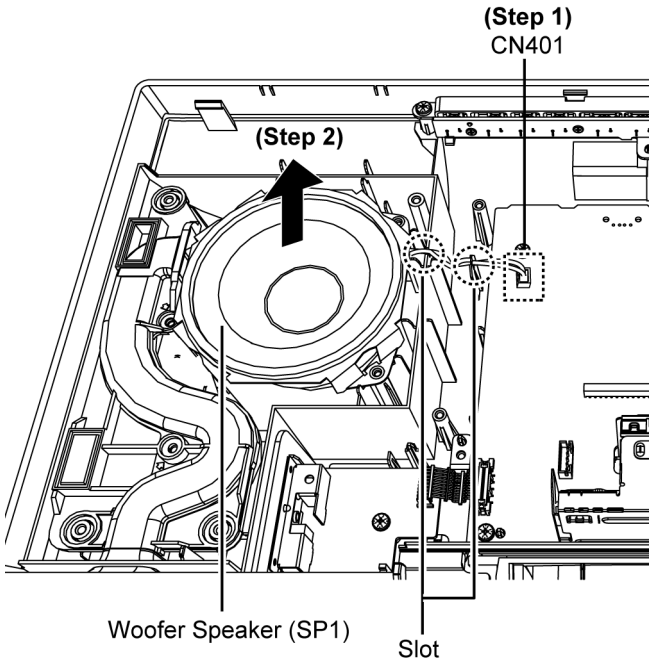
- Refer to “Disassembly of Net Frame Assembly (L) & (R)”
- Refer to “Disassembly of Base Stand Assembly”
- Refer to “Disassembly of Docking Lid”
- Refer to “Disassembly of Front Cabinet Assembly”
- Refer to “Disassembly of CD Mechanism”

10.21.1. Disassembly of Woofer Speaker (SP1)

Step 1 : Detach 2P wire at the connector (CN401) on Main P.C.B..

Step 2 : Remove Woofer Speaker (SP1).

Caution : During assembling, ensure wire is fixed into the slot.

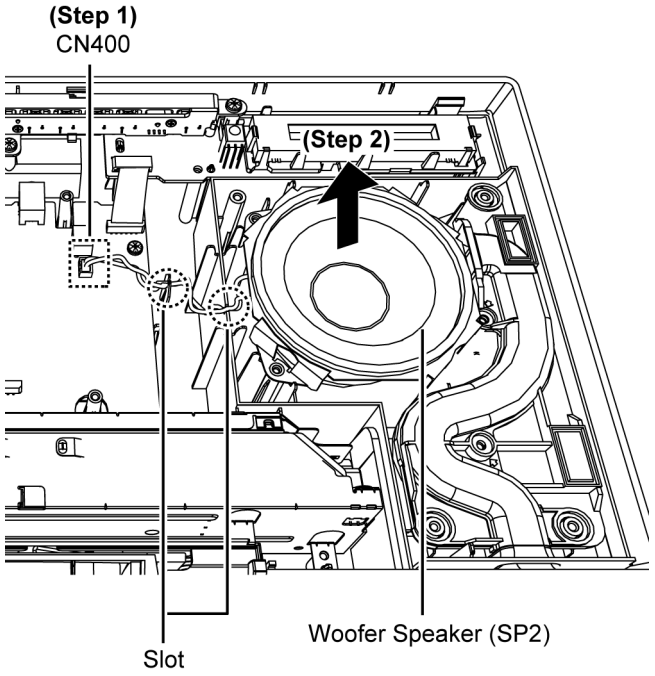


10.21.2. Disassembly of Woofer Speaker (SP2)

Step 1 : Detach 2P wire at the connector (CN400) on Main P.C.B..

Step 2 : Remove Woofer Speaker (SP2).

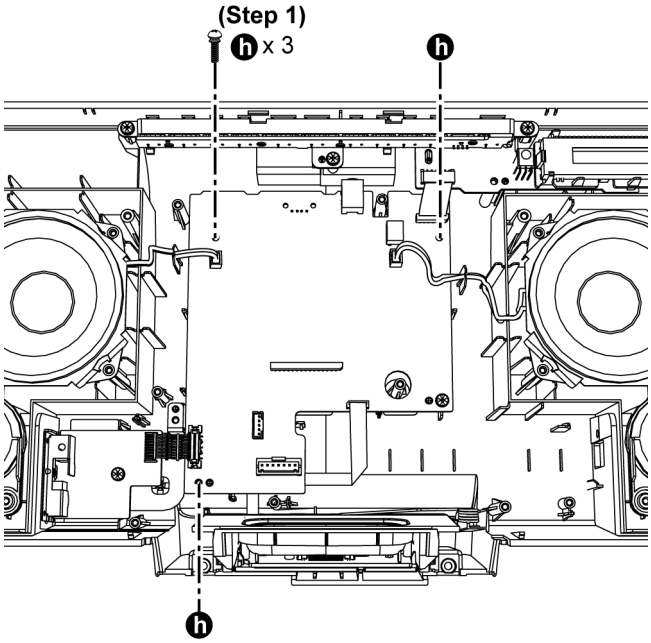
Caution : During assembling, ensure wire is fixed into the slot.



10.22. Disassembly of Main P.C.B.

- Refer to “Disassembly of Net Frame Assembly (L) & (R)”
- Refer to “Disassembly of Base Stand Assembly”
- Refer to “Disassembly of Docking Lid”
- Refer to “Disassembly of Front Cabinet Assembly”
- Refer to “Disassembly of CD Mechanism”
- Refer to (Step 1) - (Step 6) of item 10.19.

Step 1 : Remove 3 screws.



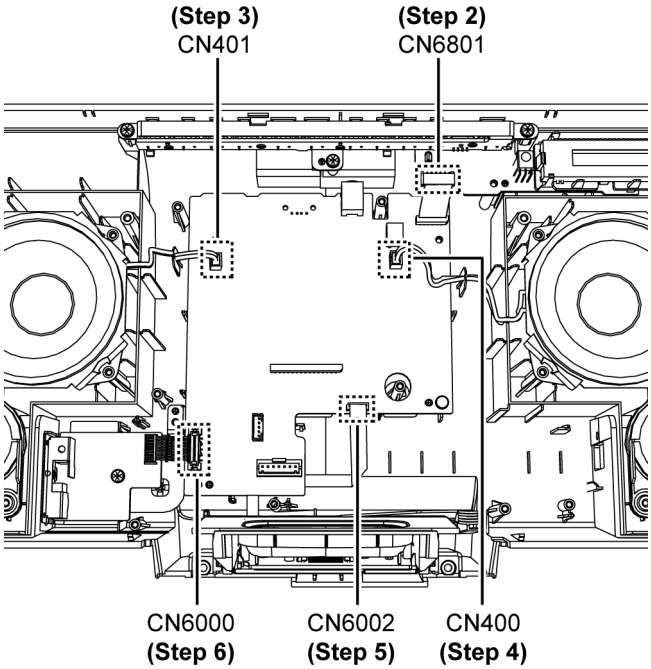
Step 2 : Detach 13P FFC at the connector (CN6801) on Main P.C.B..

Step 3 : Detach 2P wire at the connector (CN401) on Main P.C.B..

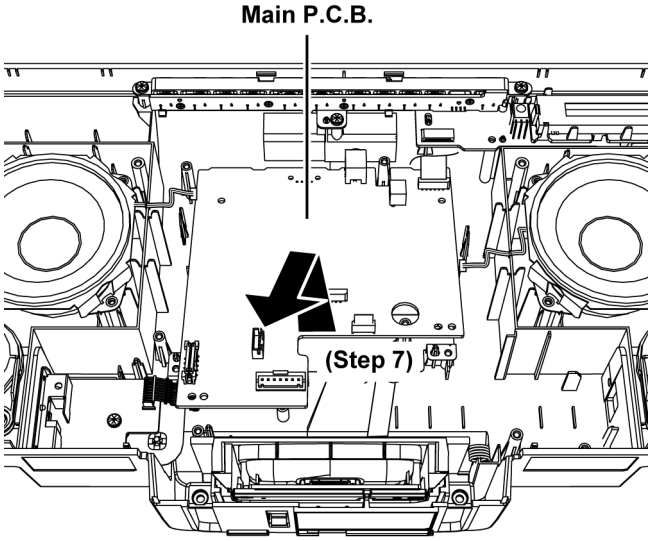
Step 4 : Detach 2P wire at the connector (CN400) on Main P.C.B..

Step 5 : Detach 7P FFC at the connector (CN6002) on Main P.C.B..

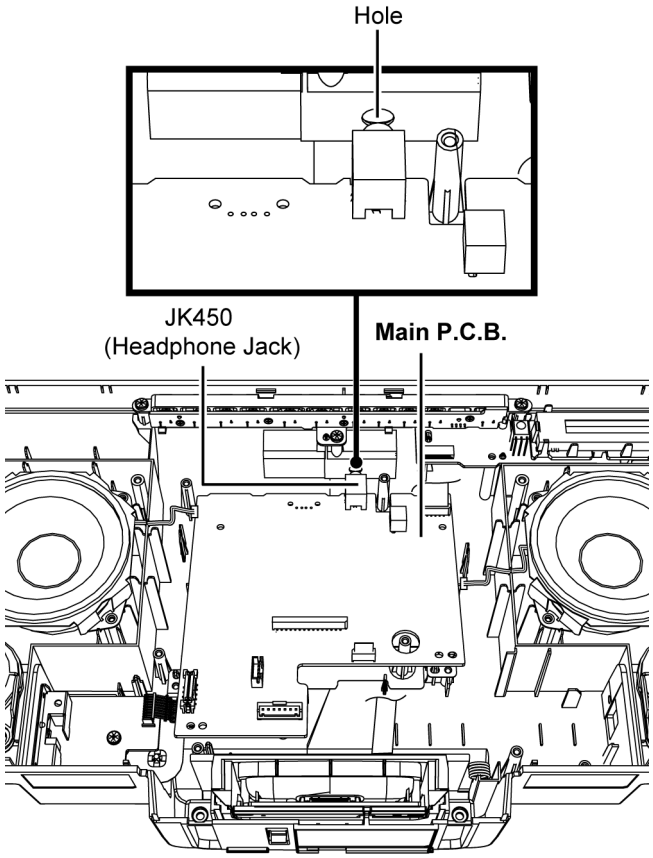
Step 6 : Detach 9P Bridge Connector (CN6000) on Main P.C.B..



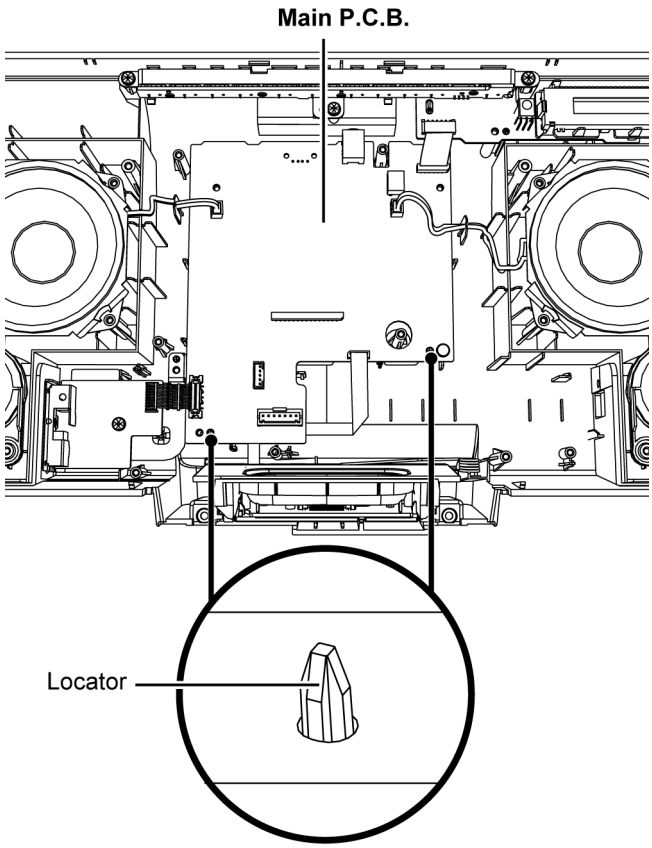
Step 7 : Slightly Lift up to remove Main P.C.B. as shown.



Caution : During assembling, ensure the Headphone Jack (JK450) is inserted into the hole of Rear Cabinet Assembly as shown.



Caution : During assembling, ensure the Main P.C.B. is properly seated onto the locator.



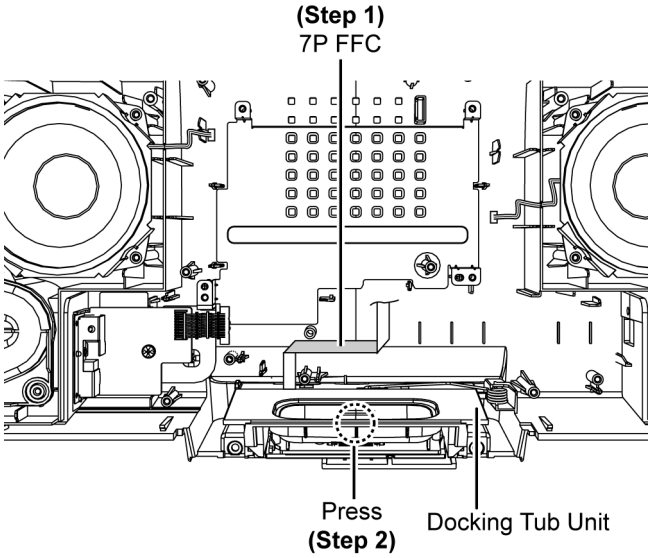
10.23. Disassembly of Docking Tub Unit

- Refer to “Disassembly of Net Frame Assembly (L) & (R)”
- Refer to “Disassembly of Base Stand Assembly”
- Refer to “Disassembly of Docking Lid”
- Refer to “Disassembly of Front Cabinet Assembly”
- Refer to “Disassembly of CD Mechanism”
- Refer to (Step 1) - (Step 6) of item 10.19.
- Refer to “Disassembly of Main P.C.B.”

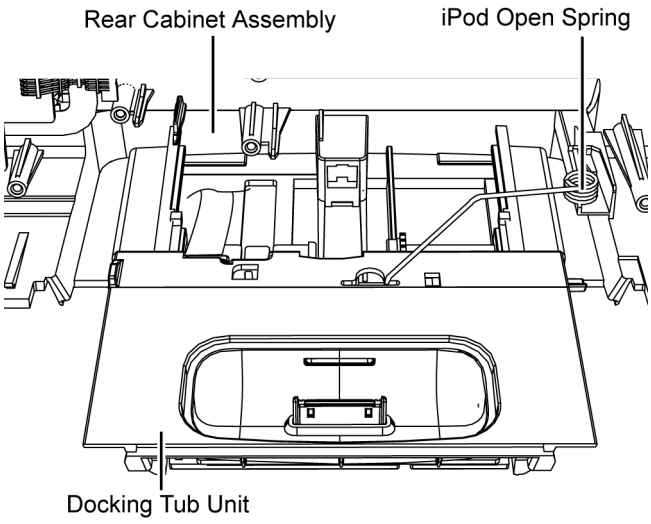
Step 1 : Lift up 7P FFC taped on Rear Cabinet Assembly.

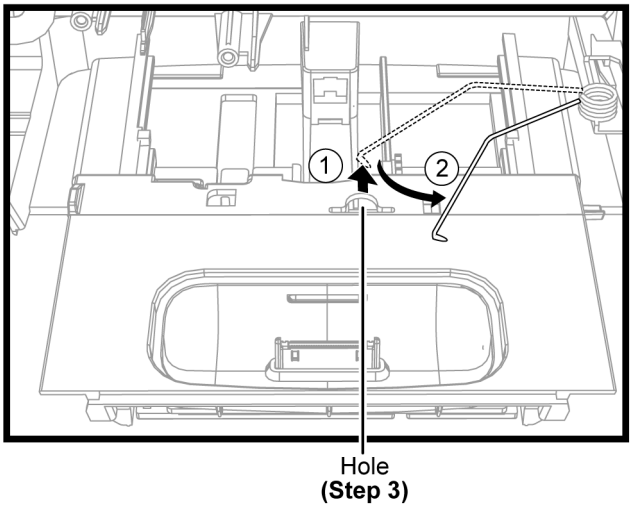
Caution : During assembling, paste the 7P FFC back on the Rear Cabinet Assembly, replace the double sided tape if torn.

Step 2 : Press to open the Docking Tub Unit.



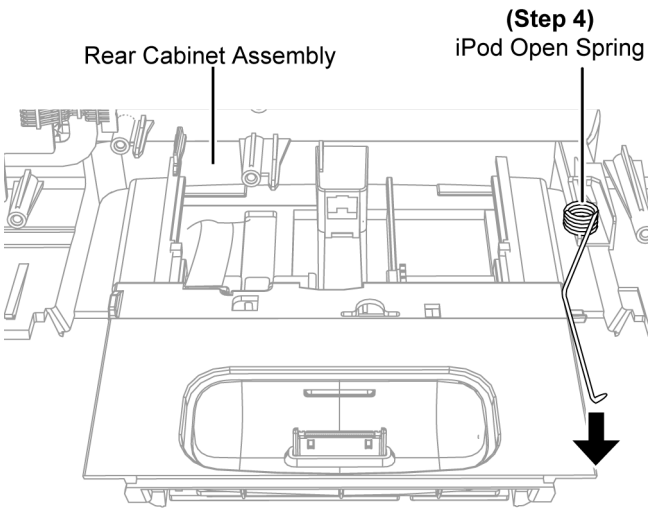
Step 3 : Release iPod Open Spring from the Docking Tub Unit hole as shown.



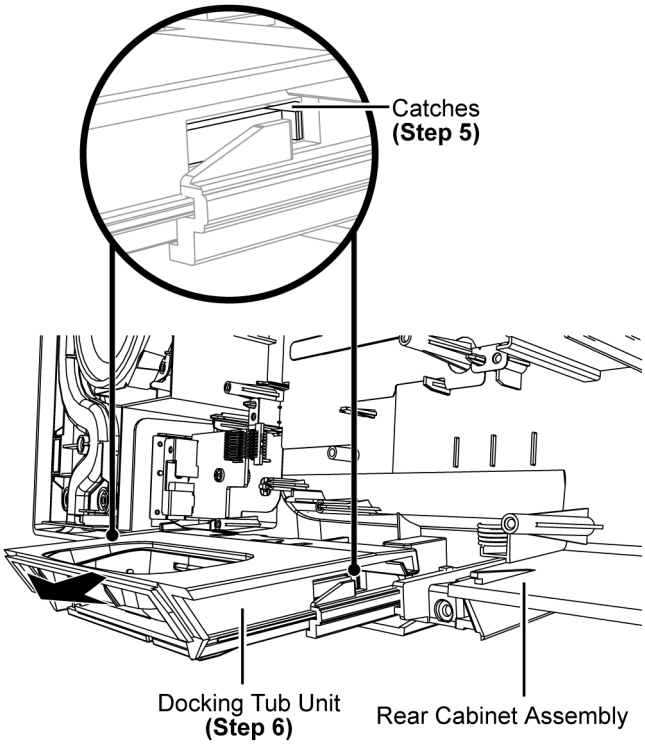


Step 4 : Remove iPod Open Spring as arrow shown.

Caution : Keep iPod Open Spring in the safe place and place them back during assembling.



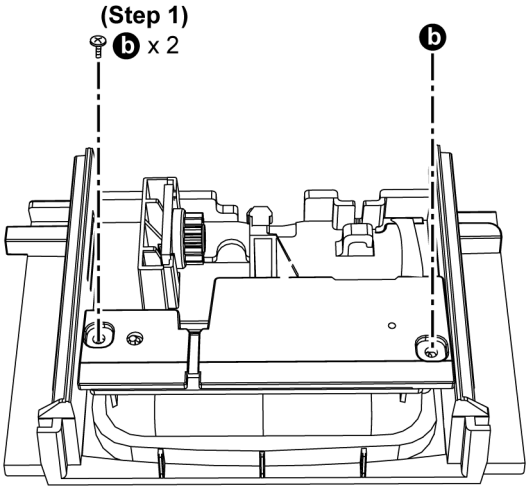
Step 5 : Release 2 catches.
Step 6 : Remove the Docking Tub Unit from Rear Cabinet Assembly.



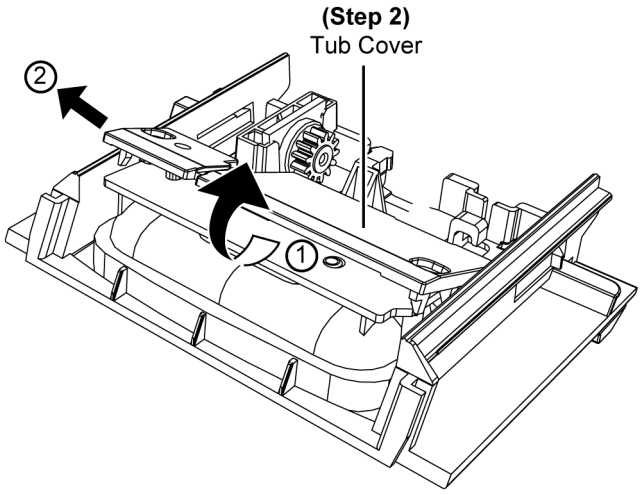
10.23.1. Disassembly of iPod P.C.B.

• Refer to “Disassembly of Docking Tub Unit”

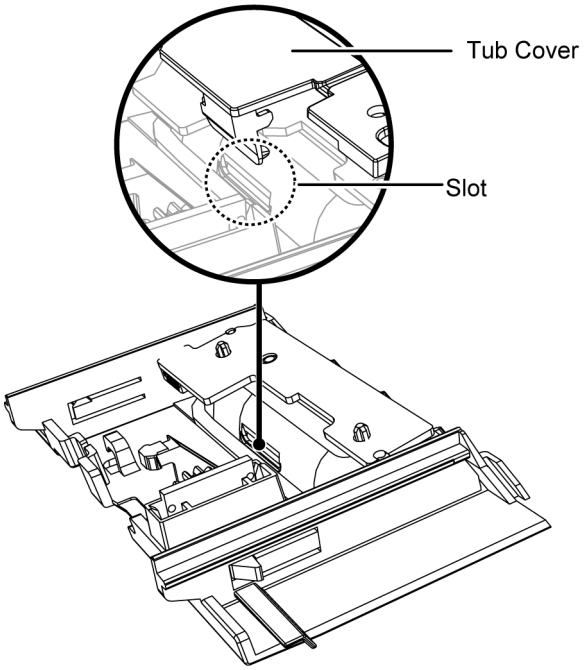
Step 1 : Remove 2 screws.



Step 2 : Lift up Tub Cover as arrow (1) and (2) shown to remove it.

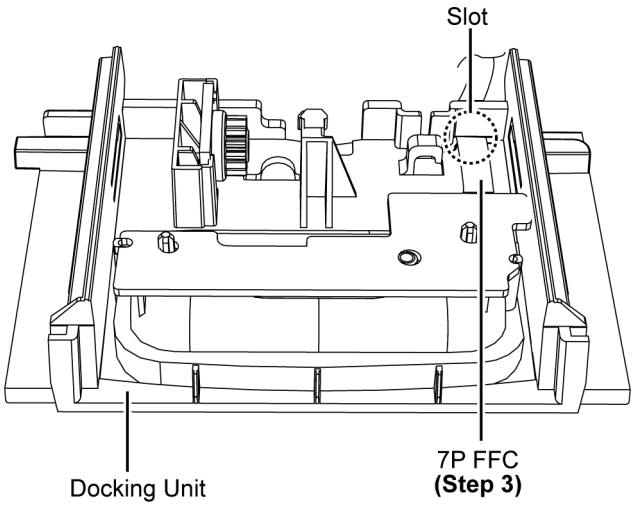


Caution : During assembling of Tub Cover, ensure it is fixed properly into the slot.

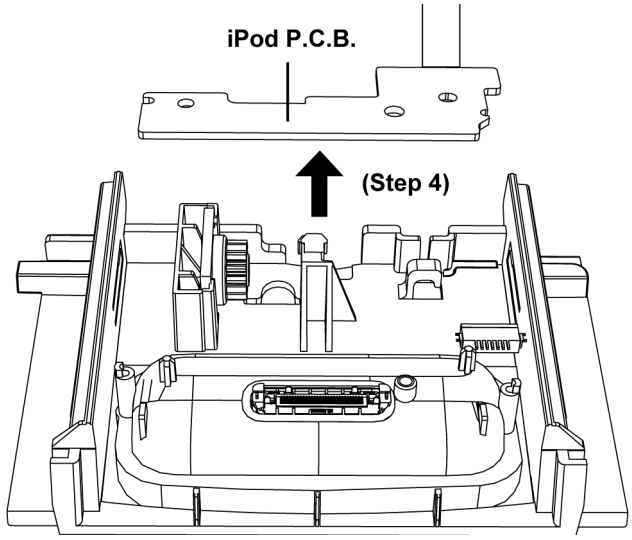


Step 3 : Release the 7P FFC from the slot of Docking Unit.

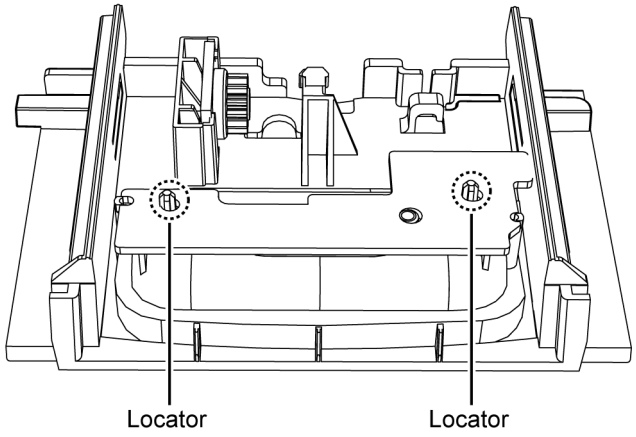
Caution : During assembling, Insert the 7P FFC through the slot of Docking Unit.



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



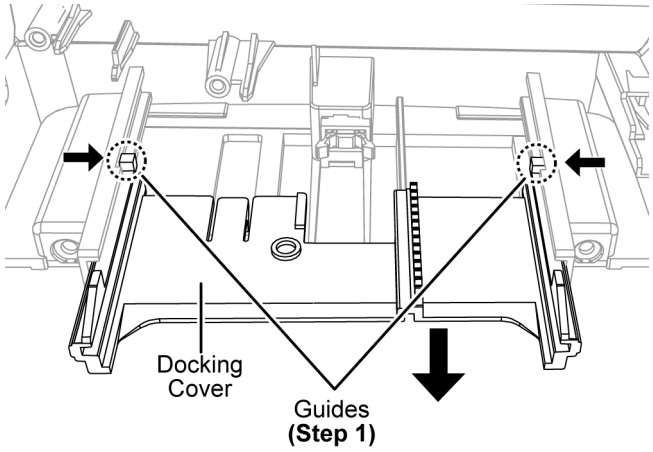
Caution : During assembling, ensure that the iPod P.C.B. is properly seated onto the 2 locators.



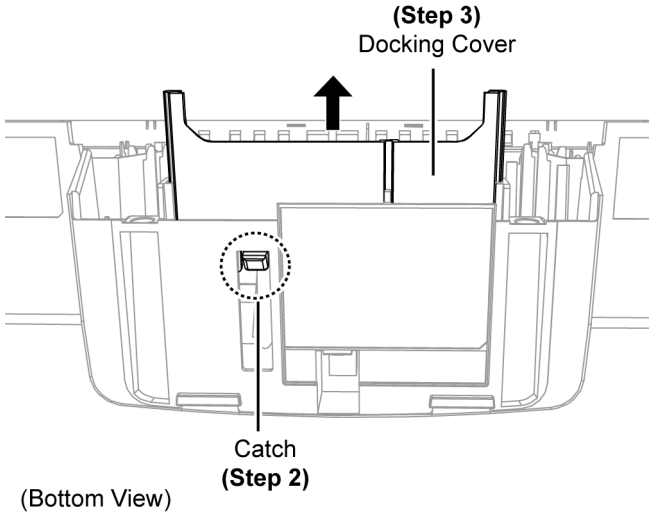
10.23.2. Disassembly of Docking Cover

• Refer to “Disassembly of Docking Tub Unit”

Step 1 : Release 2 Guides.



Step 2 : Release catch.
Step 3 : Remove Docking Cover as shown.



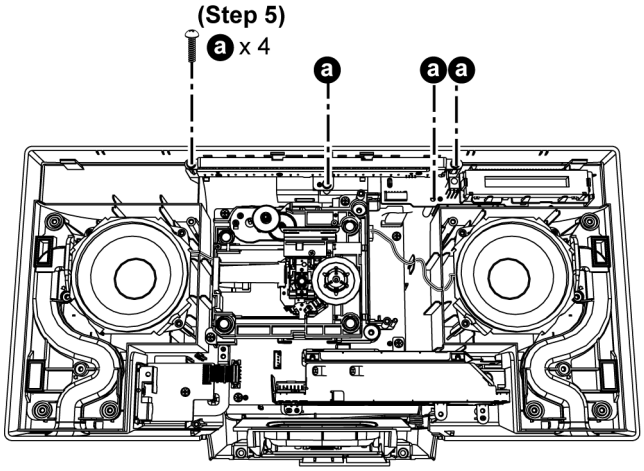
(Bottom View)

11 Service Position

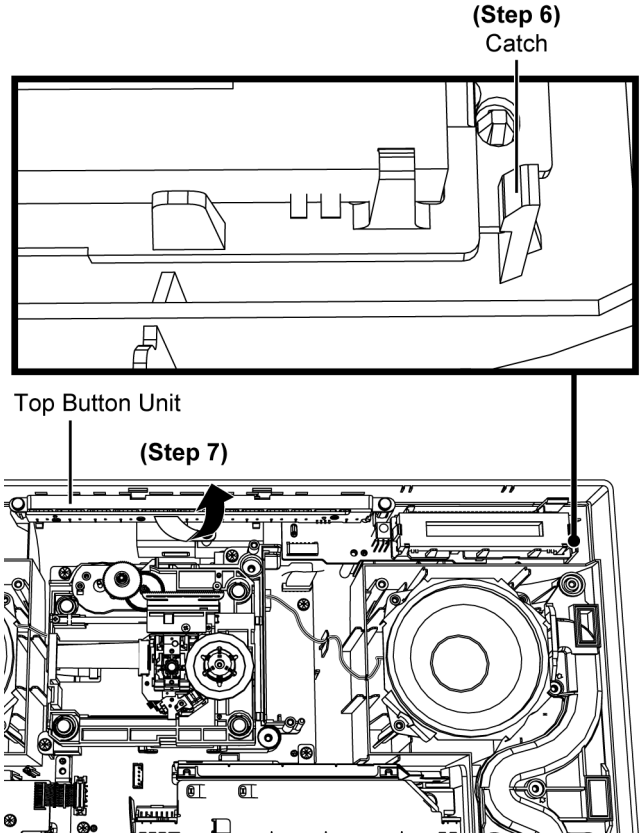
Note: For description of the disassembly procedures, see the Section 10

11.1. Checking & Repairing of Panel P.C.B.

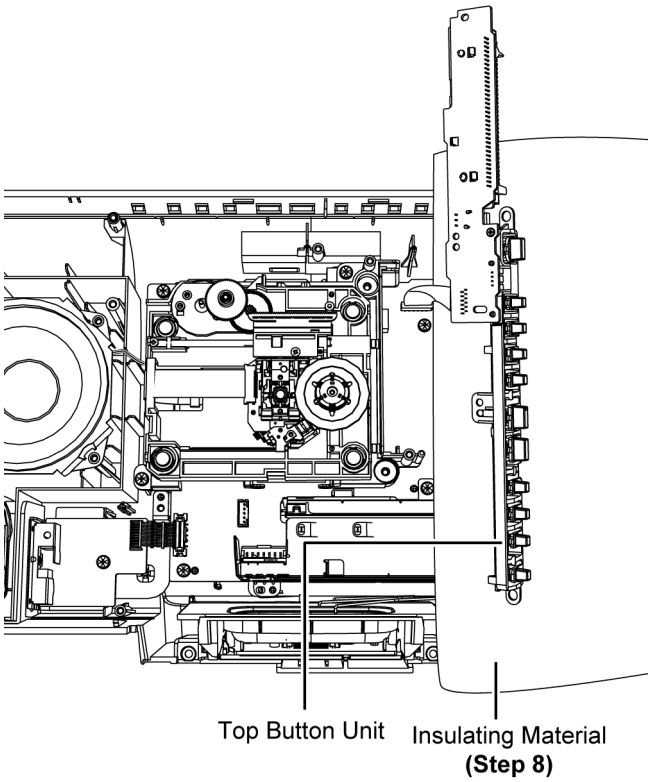
Step 1 : Remove the Net Frame Assembly (L) & (R).
Step 2 : Remove the Base Stand Assembly.
Step 3 : Remove the Docking Lid.
Step 4 : Remove the Front Cabinet Assembly.
Step 5 : Remove 4 screws.



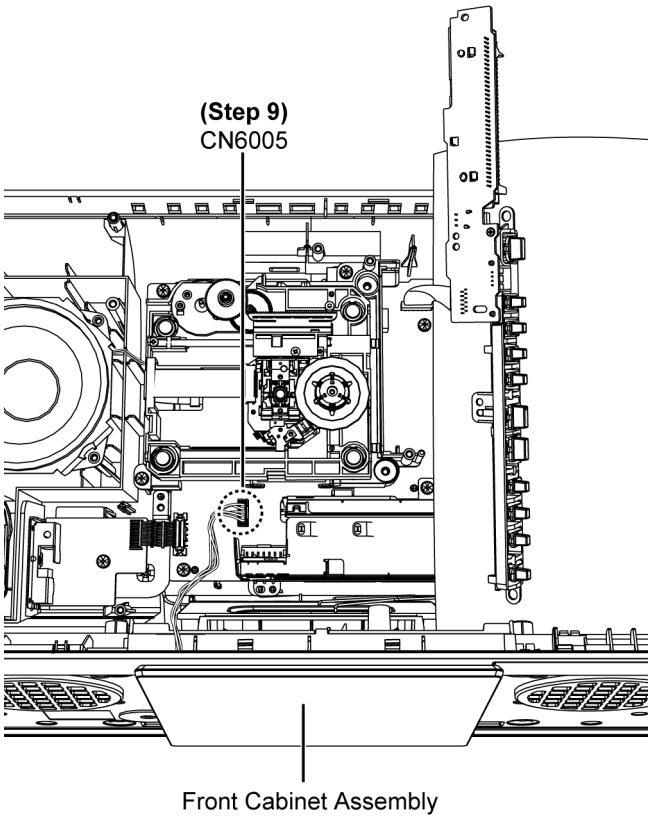
Step 6 : Release 1 catch.
Step 7 : Lift up the Top Button Unit as shown.



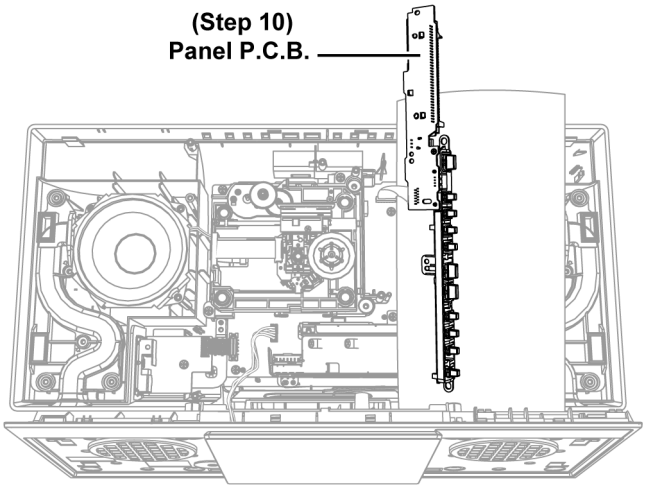
Step 8 : Place the Top Button Unit on the Insulating Material.



Step 9 : Connect 5P wire at the connector (CN6005) on Main P.C.B..

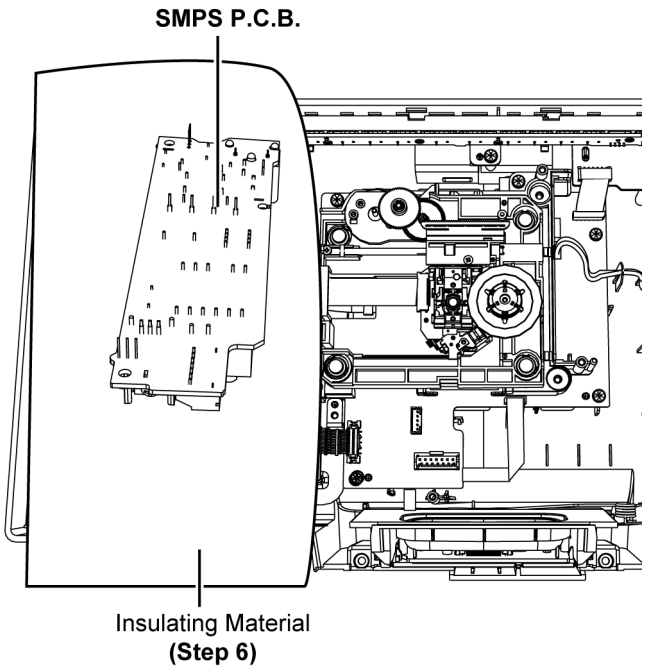


Step 10 : Check and repair the Panel P.C.B. according to the diagram shown.

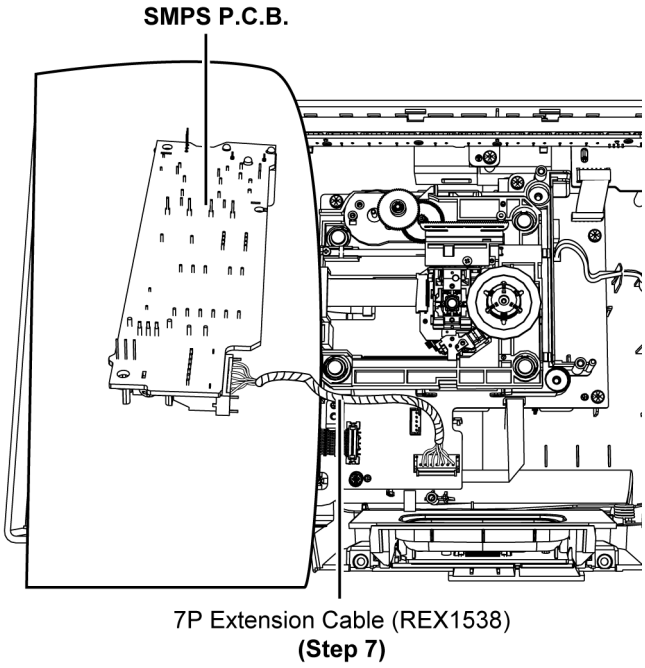


11.2. Checking & Repairing of SMPS P.C.B.

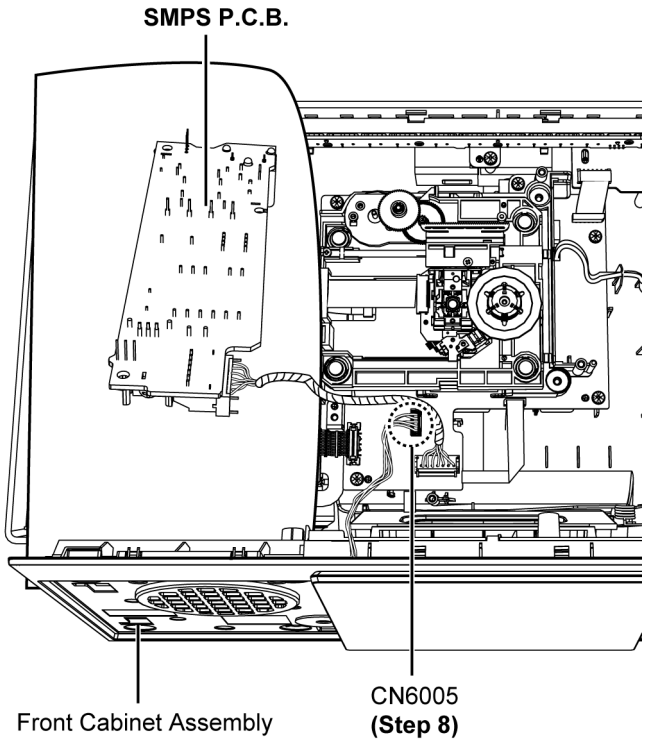
Step 1 : Remove the Net Frame Assembly (L) & (R).
Step 2 : Remove the Base Stand Assembly.
Step 3 : Remove the Docking Lid.
Step 4 : Remove the Front Cabinet Assembly.
Step 5 : Remove the SMPS P.C.B..
Step 6 : Place the SMPS P.C.B. on the Insulating Material.



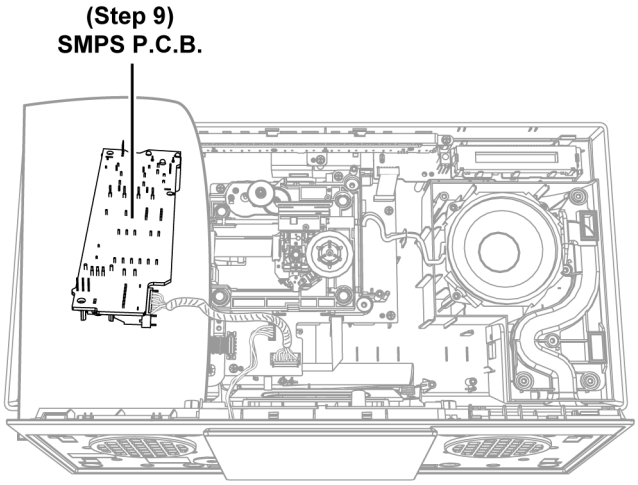
Step 7 : Connect 7P extension cable (REX1538) from P1700 on the SMPS P.C.B. to CN1100 on the Main P.C.B..



Step 8 : Connect 5P wire at the connector (CN6005) on Main P.C.B..



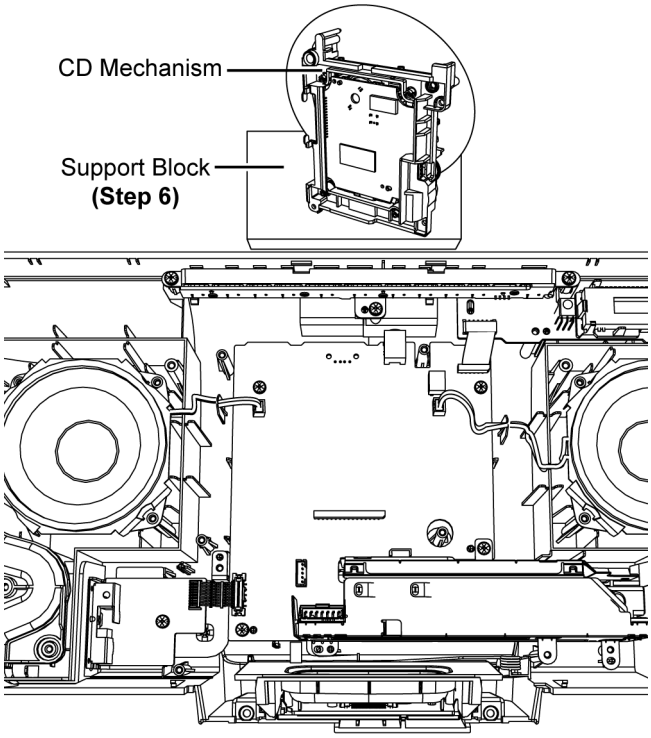
Step 9 : Check and repair the SMPS P.C.B. according to the diagram shown.



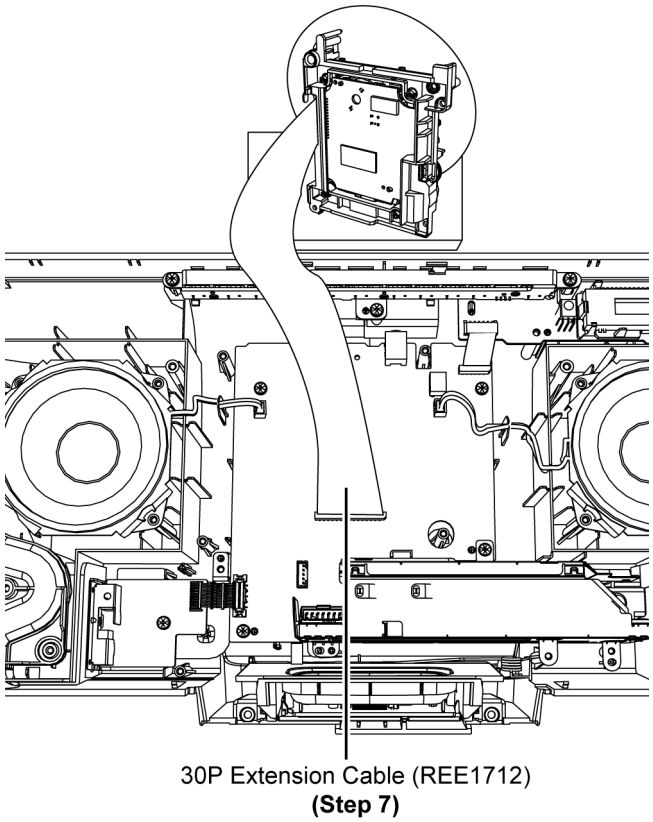
11.3. Checking & Repairing of CD Servo P.C.B.

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

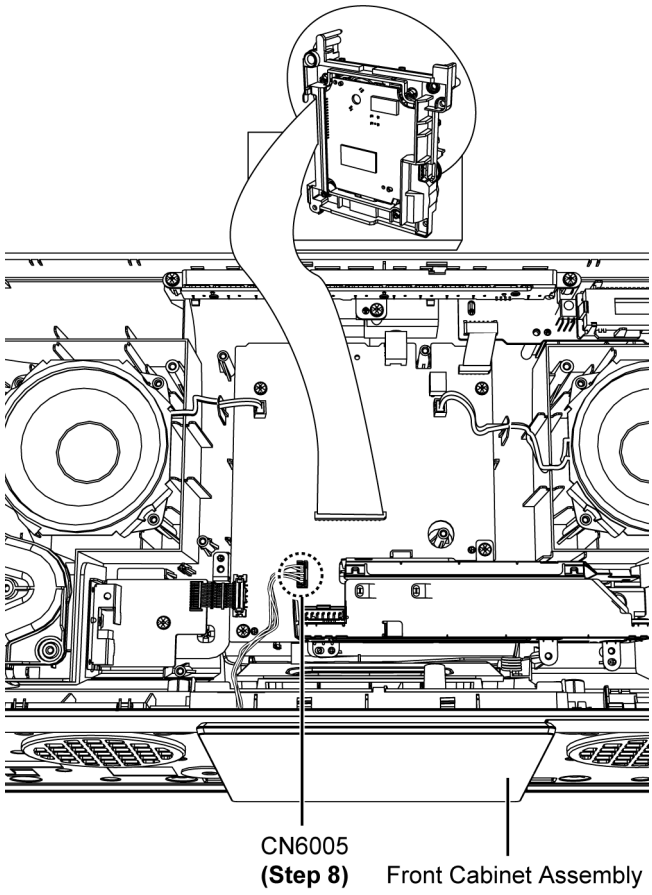
Step 1 : Remove the Net Frame Assembly (L) & (R).
Step 2 : Remove the Base Stand Assembly.
Step 3 : Remove the Docking Lid.
Step 4 : Remove the Front Cabinet Assembly.
Step 5 : Remove the CD Mechanism.
Step 6 : Place a Support Block to support the CD Mechanism as shown.



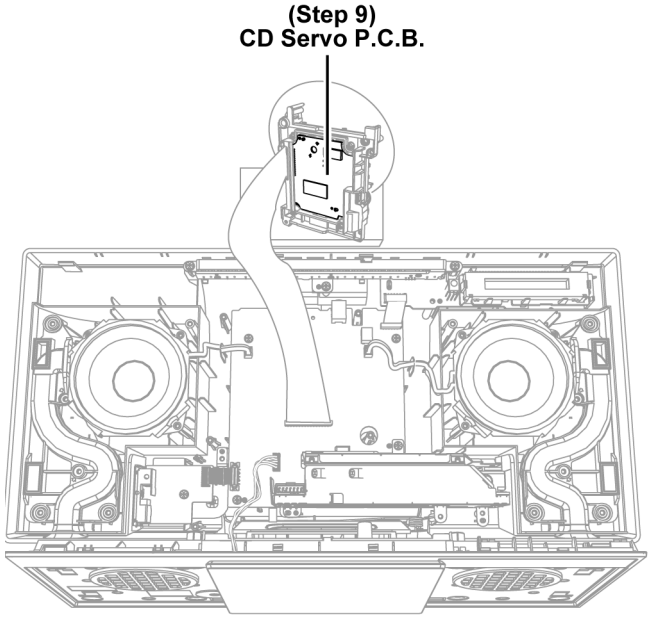
Step 7 : Connect 30P extension cable (REE1712) from CN6006 on the Main P.C.B. to CN7002 on the CD Servo P.C.B..



Step 8 : Connect 5P wire at the connector (CN6005) on Main P.C.B..



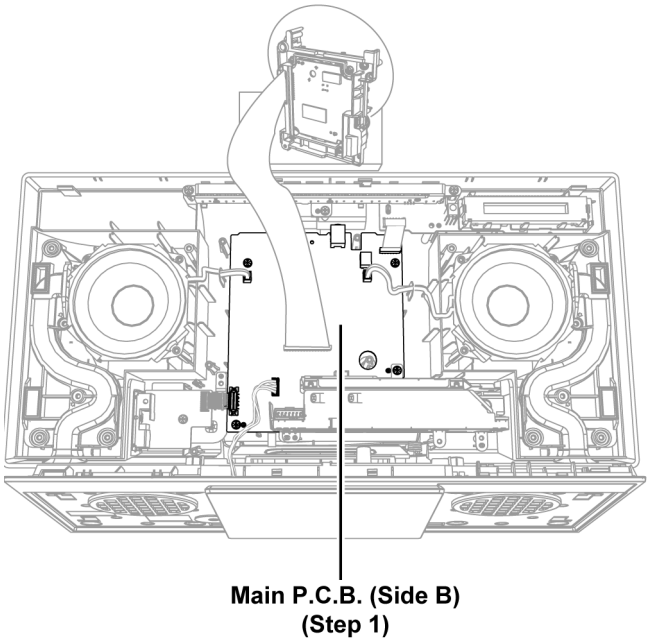
Step 9 : Check and repair the CD Servo P.C.B. according to the diagram shown.



11.4. Checking & Repairing of Main P.C.B. (Side B)

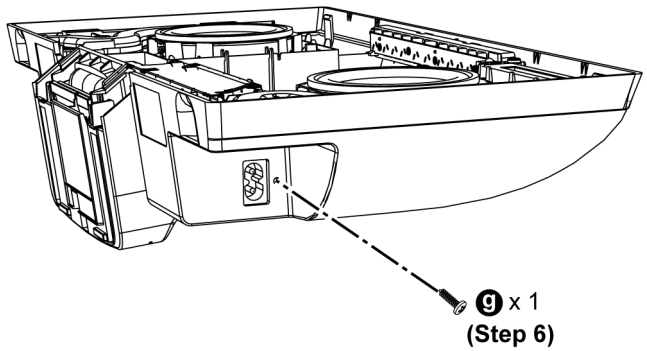
• Refer to (Step 1) - (Step 8) of item 11.3.

Step 1 : Check and repair the Main P.C.B. (Side B) according to the diagram shown.

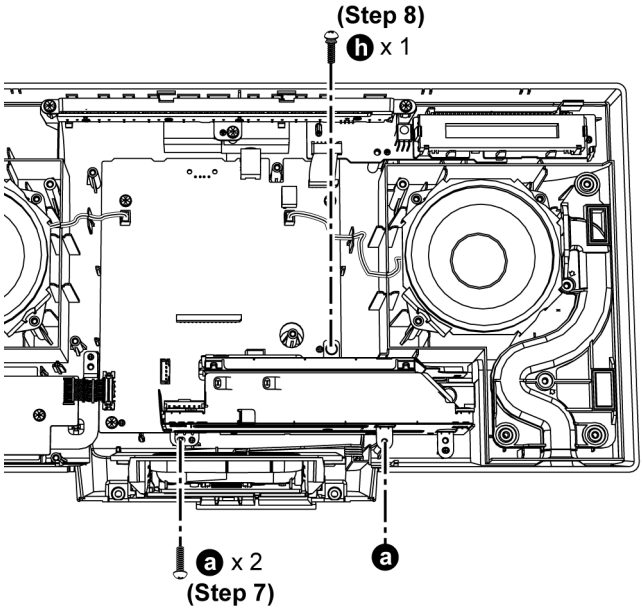


11.5. Checking & Repairing of Main P.C.B. (Side A)

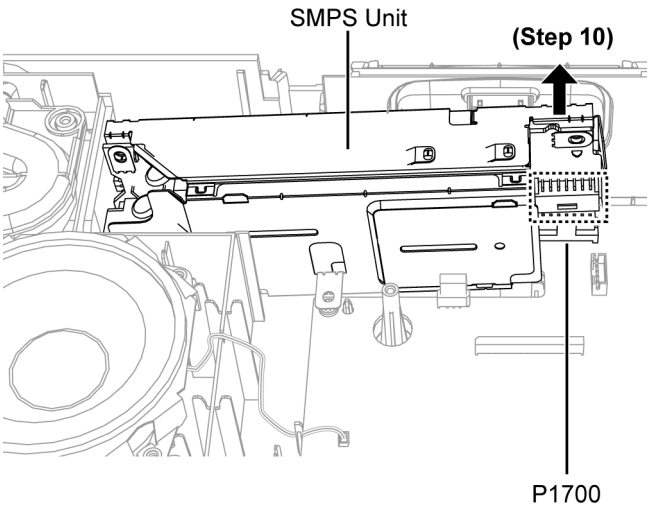
Step 1 : Remove the Net Frame Assembly (L) & (R).
Step 2 : Remove the Base Stand Assembly.
Step 3 : Remove the Docking Lid.
Step 4 : Remove the Front Cabinet Assembly.
Step 5 : Remove the CD Mechanism.
Step 6 : Remove 1 screw.



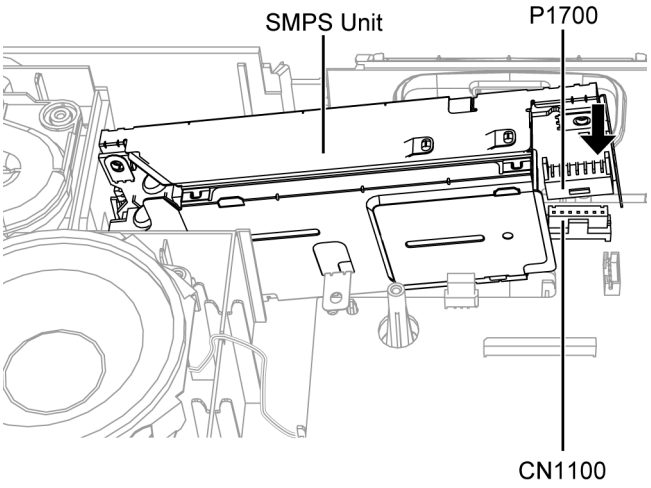
Step 7 : Remove 2 screws.
Step 8 : Remove 1 screw.
Step 9 : Upset the unit.



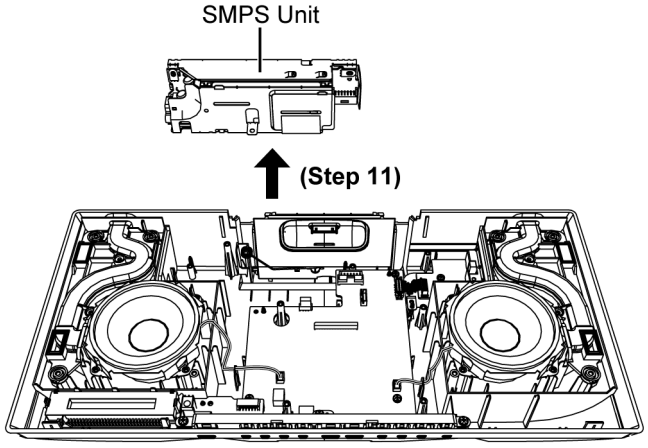
Step 10 : Gently lift up the SMPS Unit.



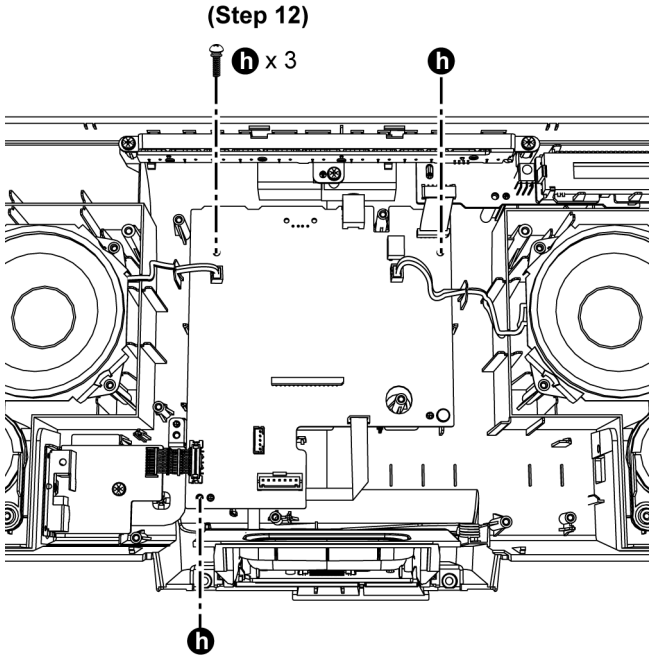
Caution : During assembling, a "click" sound could be heard when 7P Board to Board connector is properly connected.



Step 11 : Remove SMPS Unit.

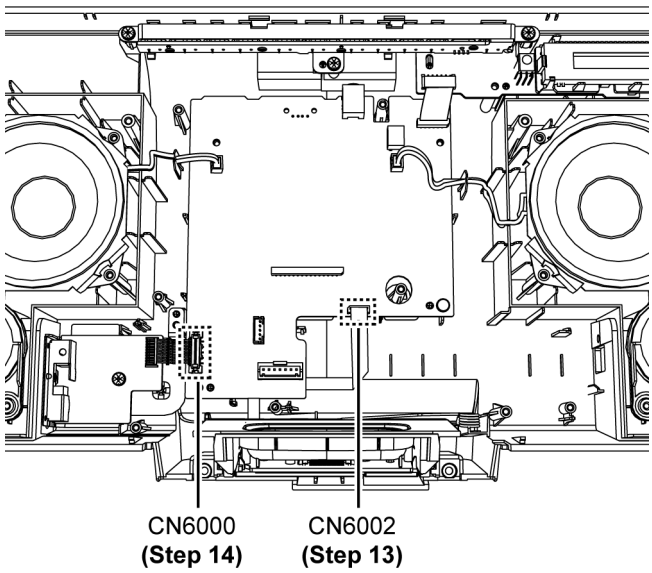


Step 12 : Remove 3 screws.

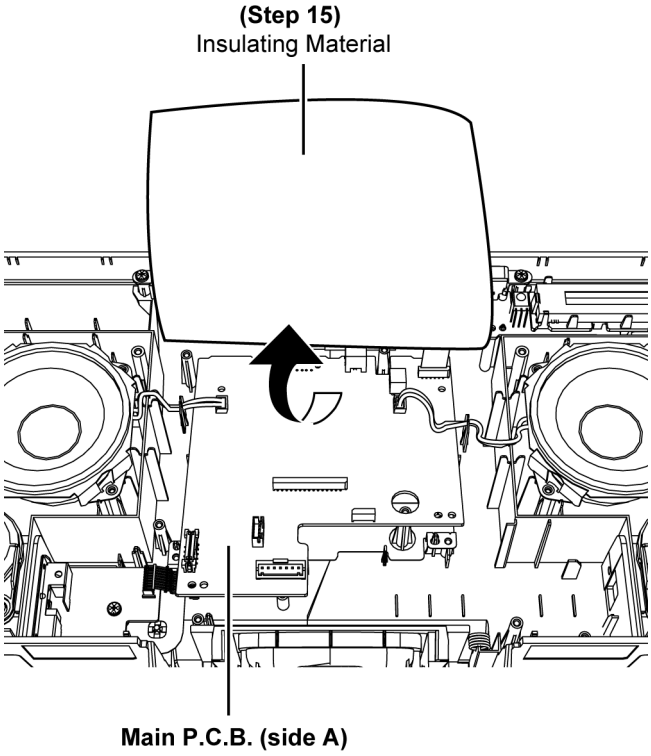


Step 13 : Detach 7P FFC at the connector (CN6002) on Main P.C.B..

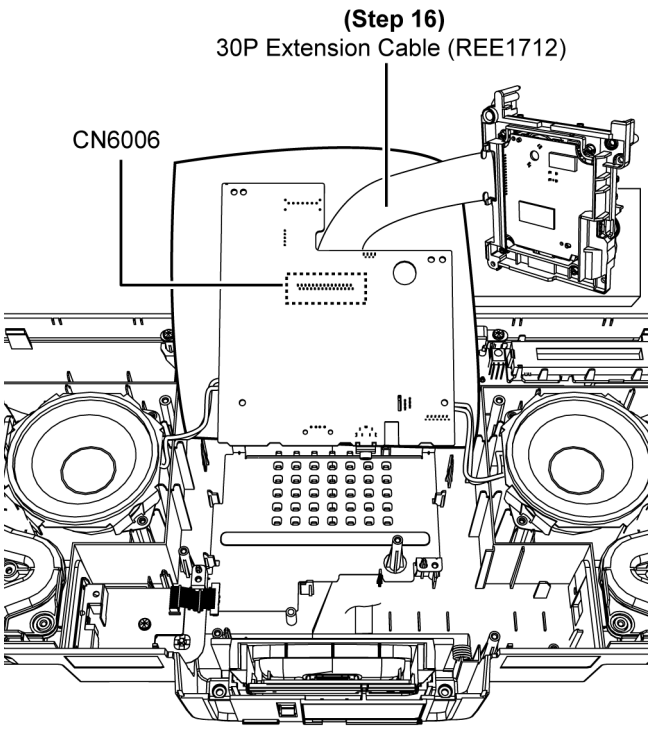
Step 14 : Detach 9P Bridge Connector (CN6000) on Main P.C.B..



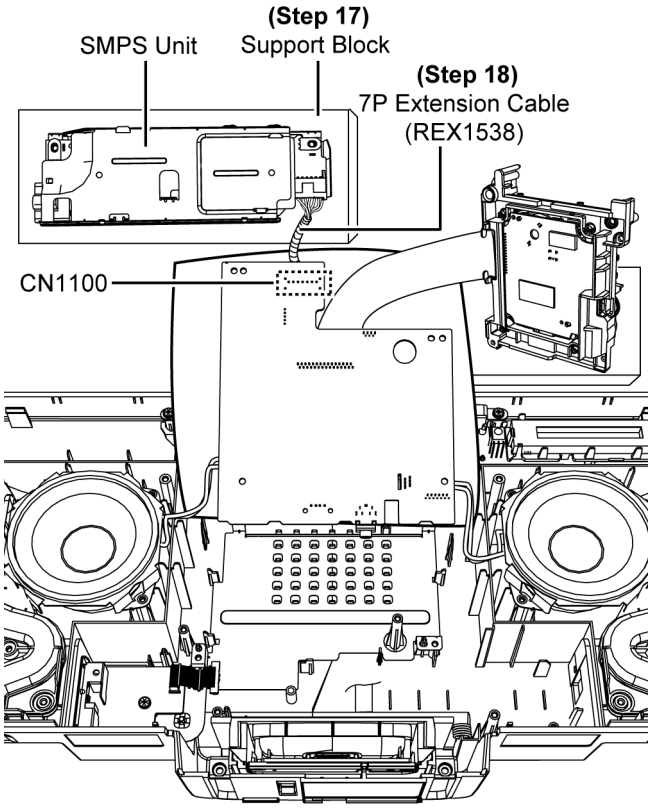
Step 15 : Place the Main P.C.B. (Side A) on the Insulating Material as shown.



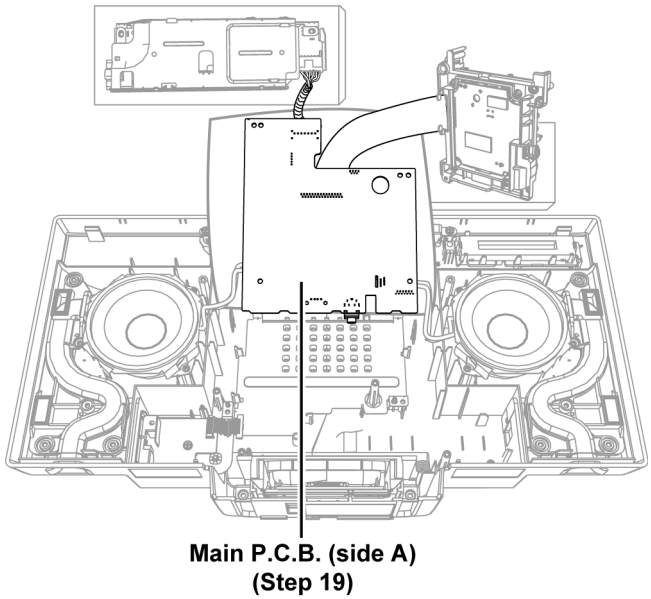
Step 16 : Connect 30P extension cable (REE1712) from CN6006 on the Main P.C.B. to CN7002 on the CD Servo P.C.B..



Step 17 : Place the SMPS Unit on the Support Block.
Step 18 : Connect 7P extension cable (REX1538) from P1700 on the SMPS P.C.B. to CN1100 on the Main P.C.B..



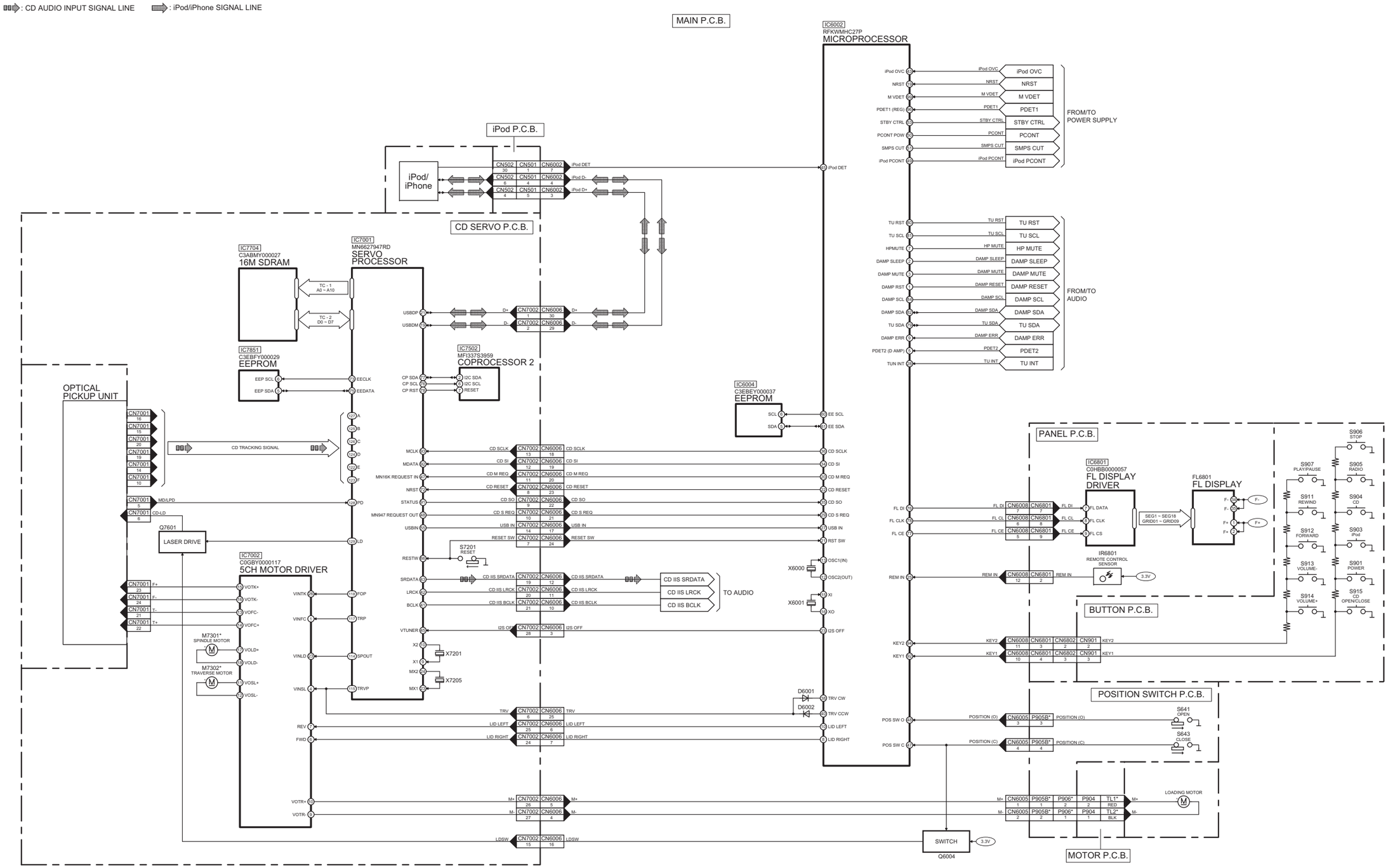
Step 19 : Check and repair the Main P.C.B. (Side A) according to the diagram shown.



12 Block Diagram

12.1. SERVO & SYSTEM CONTROL BLOCK DIAGRAM

: CD AUDIO INPUT SIGNAL LINE : iPod/iPhone SIGNAL LINE



NOTE: “ * ” REF IS FOR INDICATION ONLY

SC-HC27P/PC,SC-HC271P SERVO & SYSTEM CONTROL BLOCK DIAGRAM

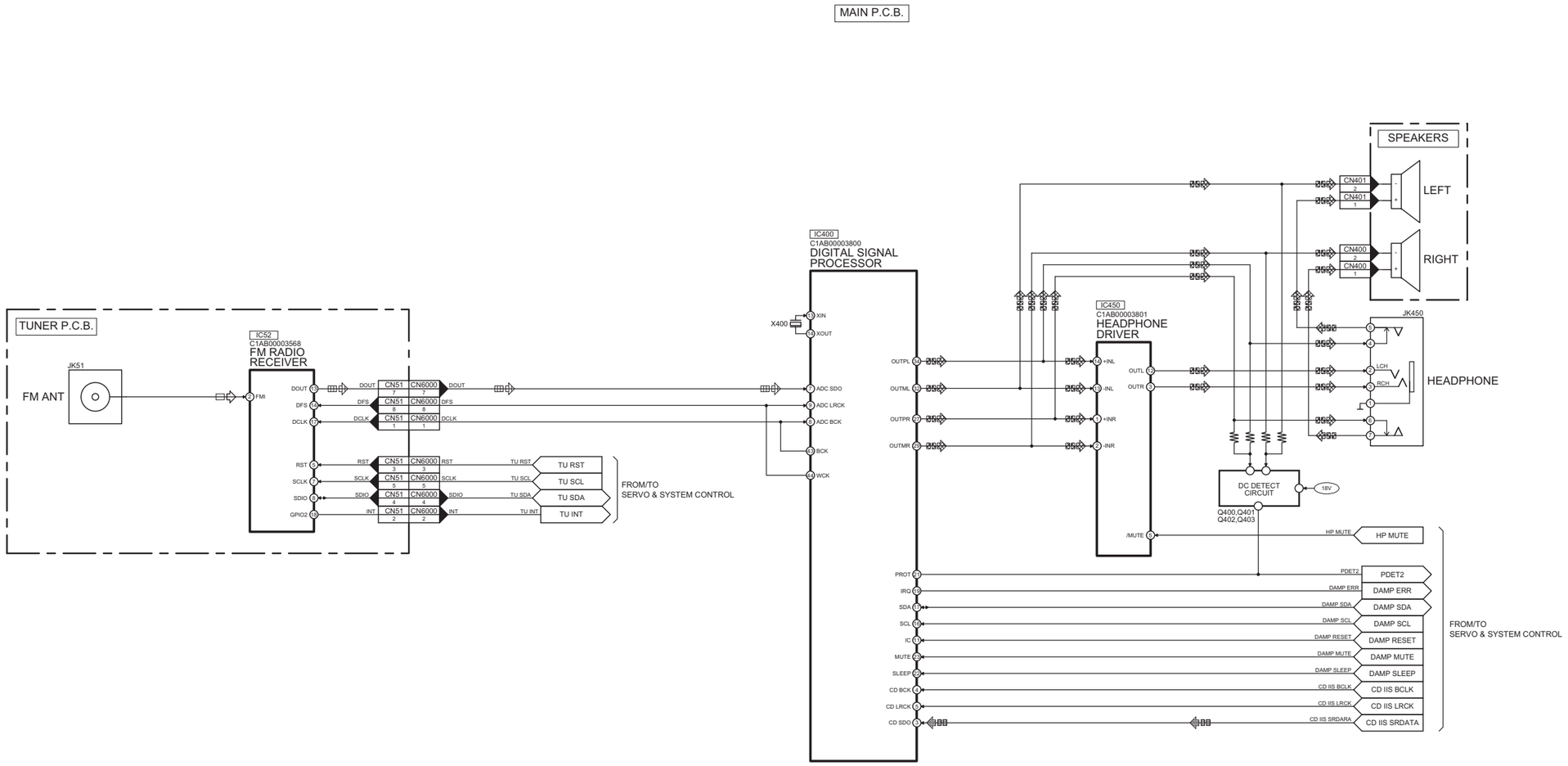
12.2. IC TERMINAL CHART

TC	IC7704 16M SDRAM		SIGNAL NAME	IC7001 SERVO PROCESSOR	
	PORT NAME	PIN NO		PIN NO	PORT NAME
1	A0	21	A0	35	A0
	A1	22	A1	34	A1
	A2	23	A2	33	A2
	A3	24	A3	112	A3
	A4	27	A4	111	A4
	A5	28	A5	110	A5
	A6	29	A6	109	A6
	A7	30	A7	108	A7
	A8	31	A8	107	A8
	A9	32	A9	106	A9
	A10	20	A10	36	A10

TC	IC7704 16M SDRAM		SIGNAL NAME	IC7001 SERVO PROCESSOR	
	PORT NAME	PIN NO		PIN NO	PORT NAME
2	DQ0 / DQ15	2 / 49	D0	102	D0
	DQ1 / DQ14	3 / 48	D1	101	D1
	DQ2 / DQ13	5 / 46	D2	100	D2
	DQ3 / DQ12	6 / 45	D3	99	D3
	DQ4 / DQ11	8 / 43	D4	98	D4
	DQ5 / DQ10	9 / 42	D5	97	D5
	DQ6 / DQ9	11 / 40	D6	96	D6
	DQ7 / DQ8	12 / 39	D7	95	D7

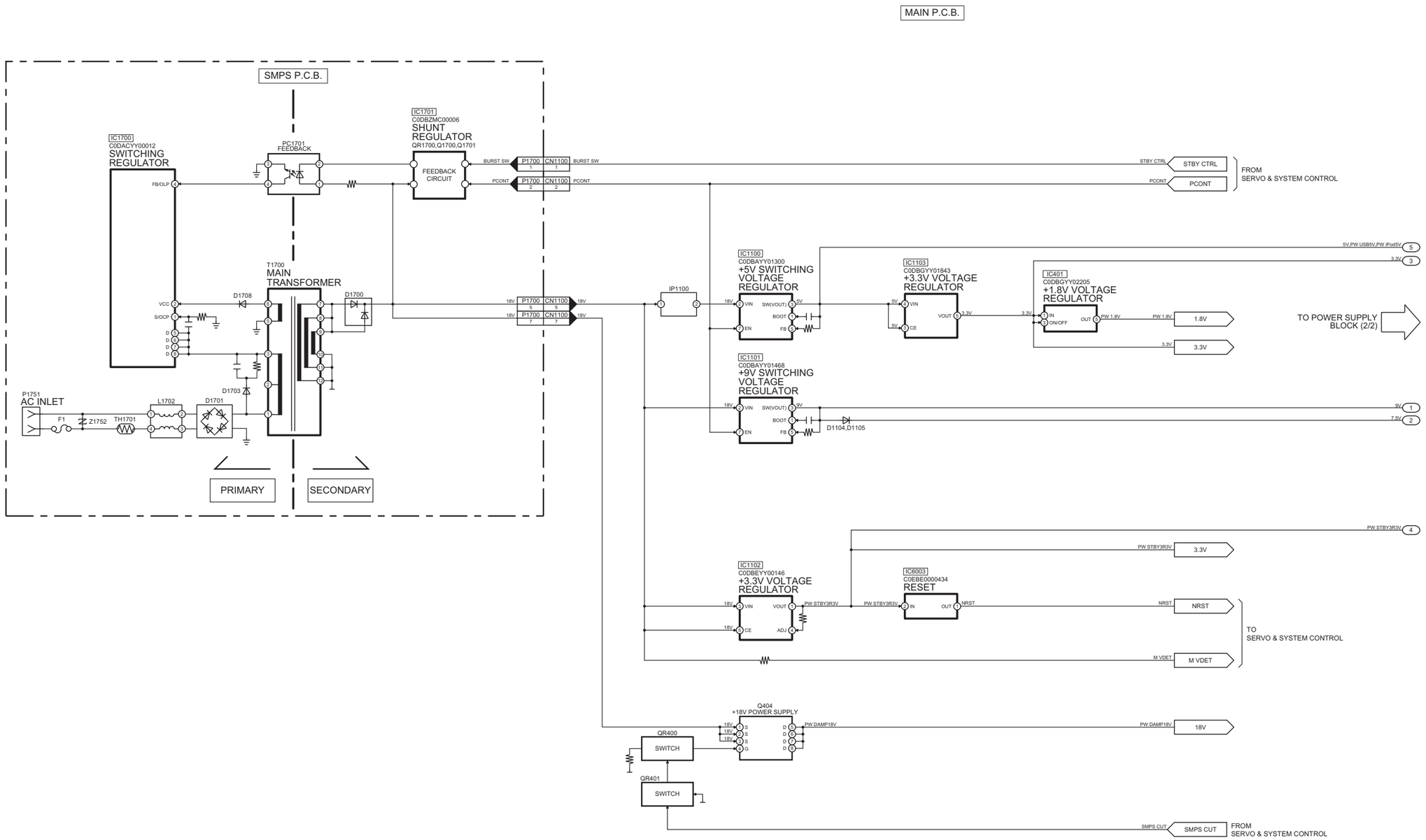
12.3. AUDIO BLOCK DIAGRAM

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



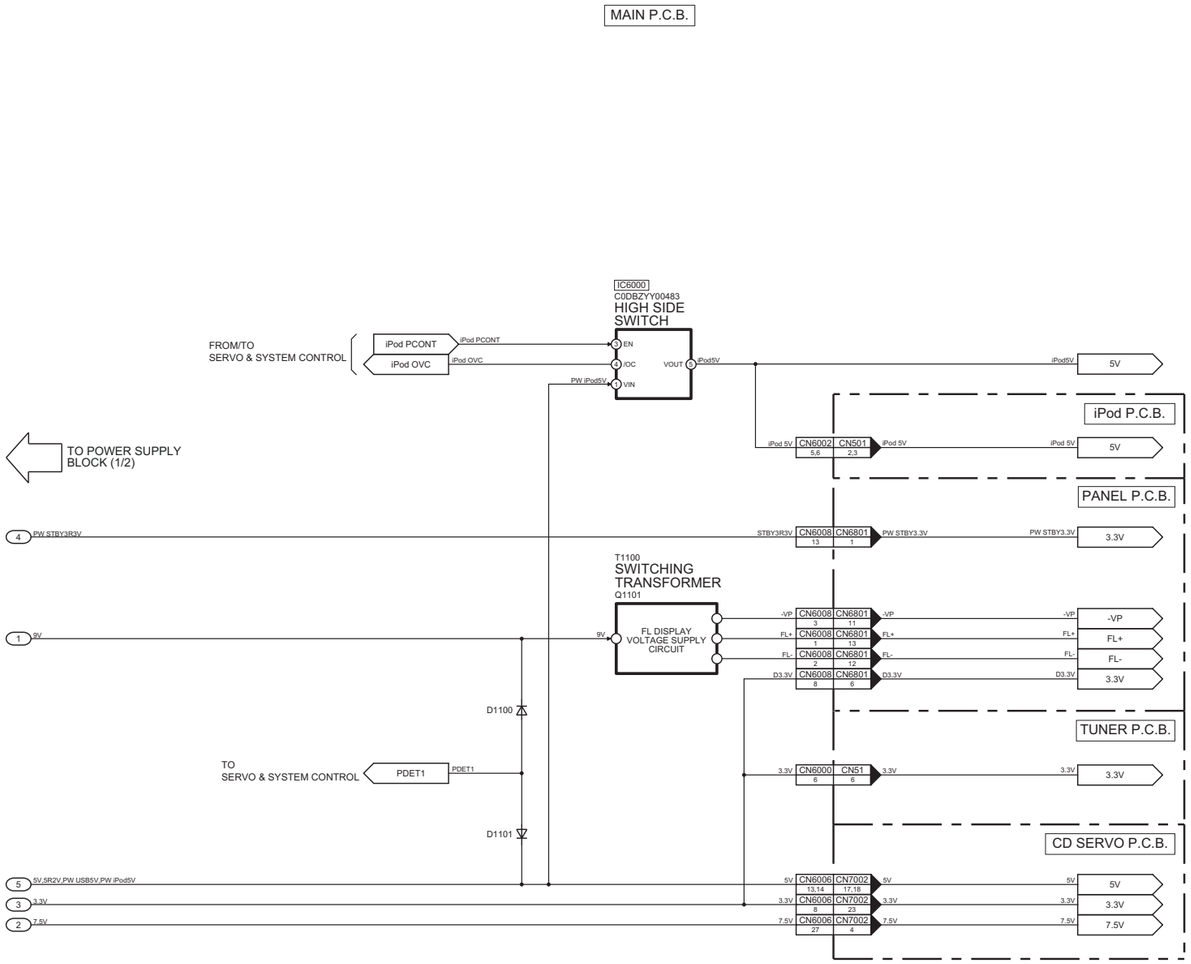
SC-HC27P/PC,SC-HC271P AUDIO BLOCK DIAGRAM

12.4. POWER SUPPLY (1/2) BLOCK DIAGRAM

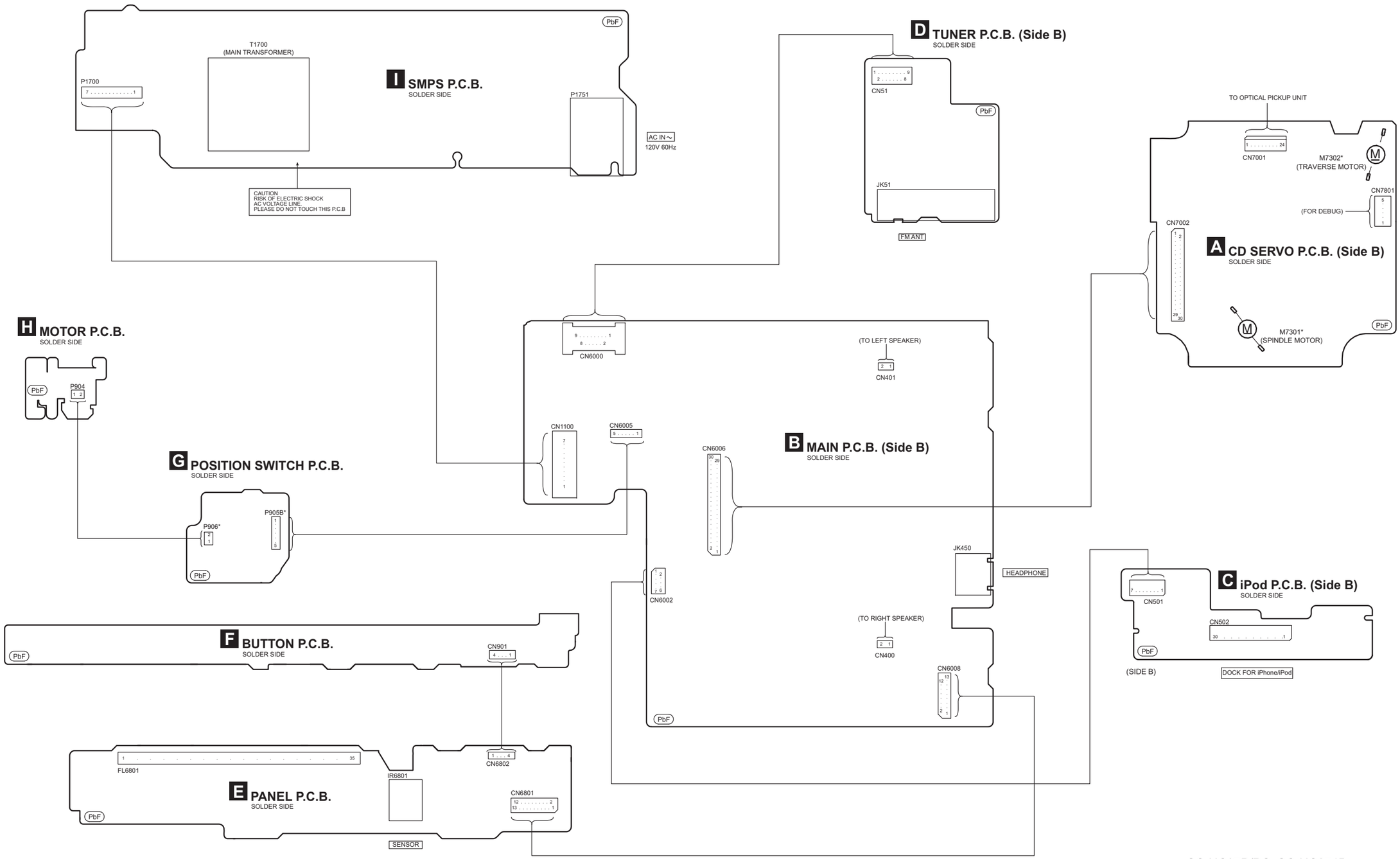


SC-HC27P/PC,SC-HC271P POWER SUPPLY (1/2) BLOCK DIAGRAM

12.5. POWER SUPPLY (2/2) BLOCK DIAGRAM



13 Wiring Connection Diagram



Note : “ * ” REF IS FOR INDICATION ONLY.

SC-HC27P/PC, SC-HC271P
WIRING CONNECTION DIAGRAM

14 Schematic Diagram

14.1. Schematic Diagram Notes

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

Notes:

S641:	OPEN switch.
S643:	CLOSE switch.
S901:	POWER switch (⏻/I).
S903:	iPod switch.
S904:	CD switch.
S905:	RADIO switch.
S906:	STOP switch (■).
S907:	PLAY/PAUSE switch (▶/❚❚).
S911:	REV SKIP switch (I◀◀/◀◀).
S912:	FWD SKIP switch (▶▶/▶▶I).
S913:	VOL- switch.
S914:	VOL+ switch.
S915:	CD OPEN/CLOSE switch(CD ⏏).
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 μF, unless otherwise noted. F=Farads, pF=pico-Farad.

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

- *****

  REF IS FOR INDICATION ONLY.

- Voltage and signal line

  : +B Signal Line

  : -B Signal Line

  : CD Audio Input Signal Line

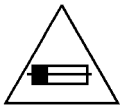
  :Tuner Audio Input Signal Line

  : Audio Output Signal Line

  : iPod/iPhone 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 harzard, replace with the same type fuse. For fuse rating, refer to the marking adjacent to the symbol.

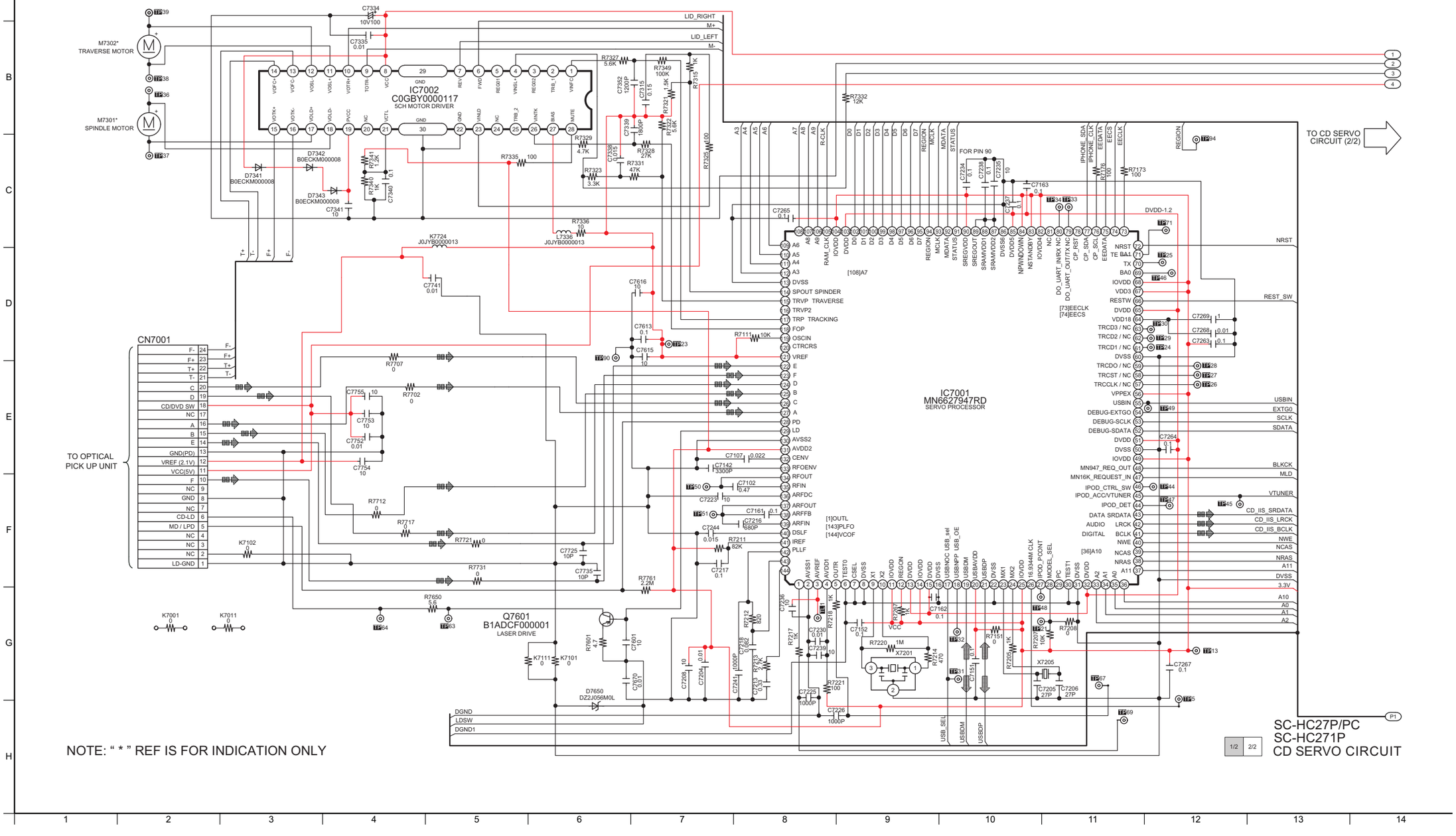
Ce symbole indique que le fusible utilisé est à rapide. Pour une protection permanente, n' utiliser que des fusibles de même type. Ce dernier est indiqué là qù le présent symbole est apposé.

14.2. CD SERVO CIRCUIT (1/2)

SCHEMATIC DIAGRAM - 1

A CD SERVO CIRCUIT

—— : +B SIGNAL LINE ▤▤▤ : CD AUDIO INPUT SIGNAL LINE ▤▤▤ : iPod/iPhone SIGNAL LINE

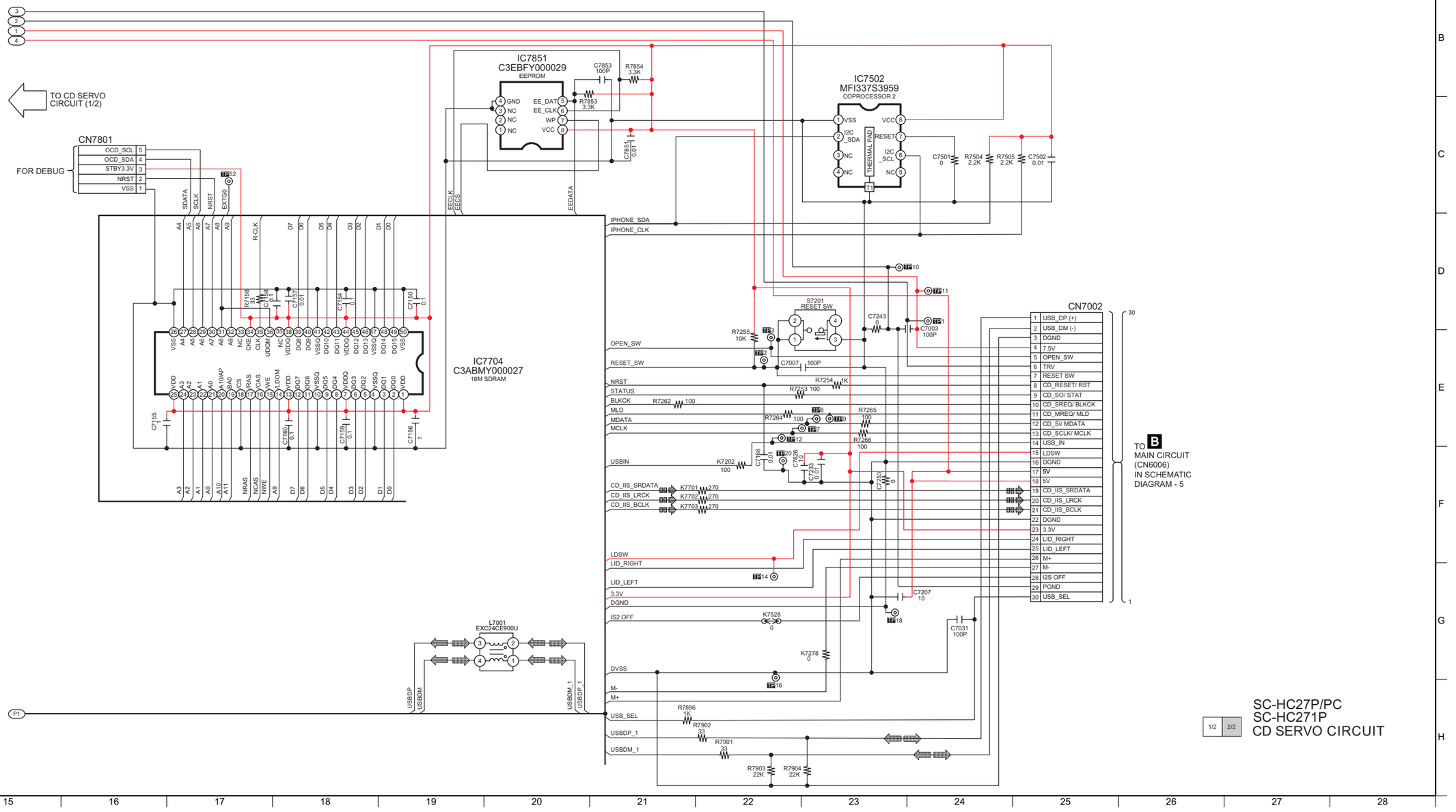


14.3. CD SERVO CIRCUIT (2/2)

SCHEMATIC DIAGRAM - 2

A CD SERVO CIRCUIT

—— : +B SIGNAL LINE : CD AUDIO INPUT SIGNAL LINE : iPod/iPhone SIGNAL LINE



SC-HC27P/PC
SC-HC271P
CD SERVO CIRCUIT

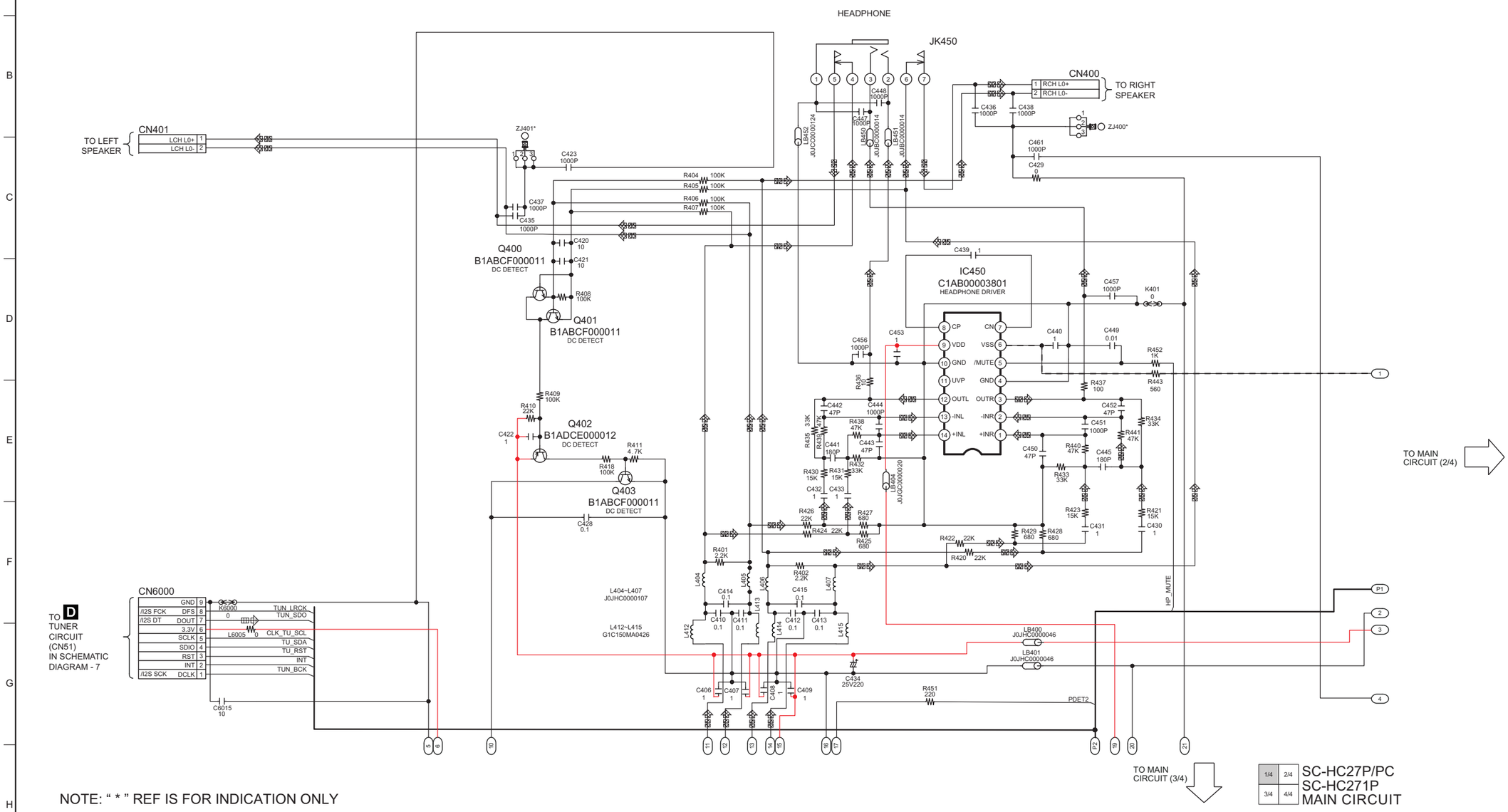
1/2 2/2

14.4. MAIN CIRCUIT (1/4)

SCHEMATIC DIAGRAM - 3

B MAIN CIRCUIT

—— : +B SIGNAL LINE
—— : -B SIGNAL LINE
: CD AUDIO INPUT SIGNAL LINE
: AUDIO OUTPUT SIGNAL LINE
: TUNER AUDIO INPUT SIGNAL LINE
: iPod/iPhone SIGNAL LINE
: FM SIGNAL LINE



NOTE: " * " REF IS FOR INDICATION ONLY

1/4	2/4
3/4	4/4

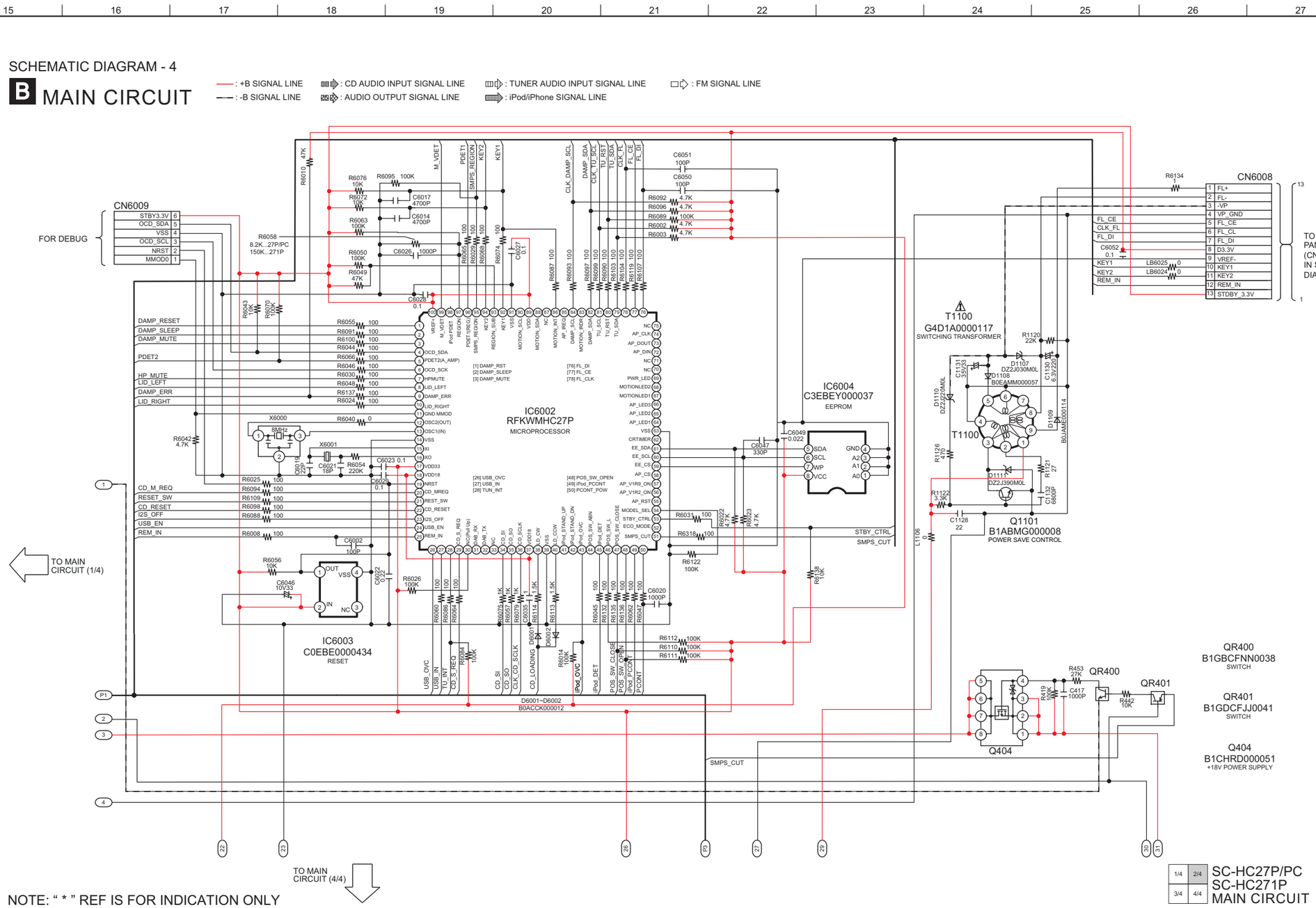
SC-HC27P/PC
SC-HC271P
MAIN CIRCUIT

14.5. MAIN CIRCUIT (2/4)

SCHEMATIC DIAGRAM - 4

B MAIN CIRCUIT

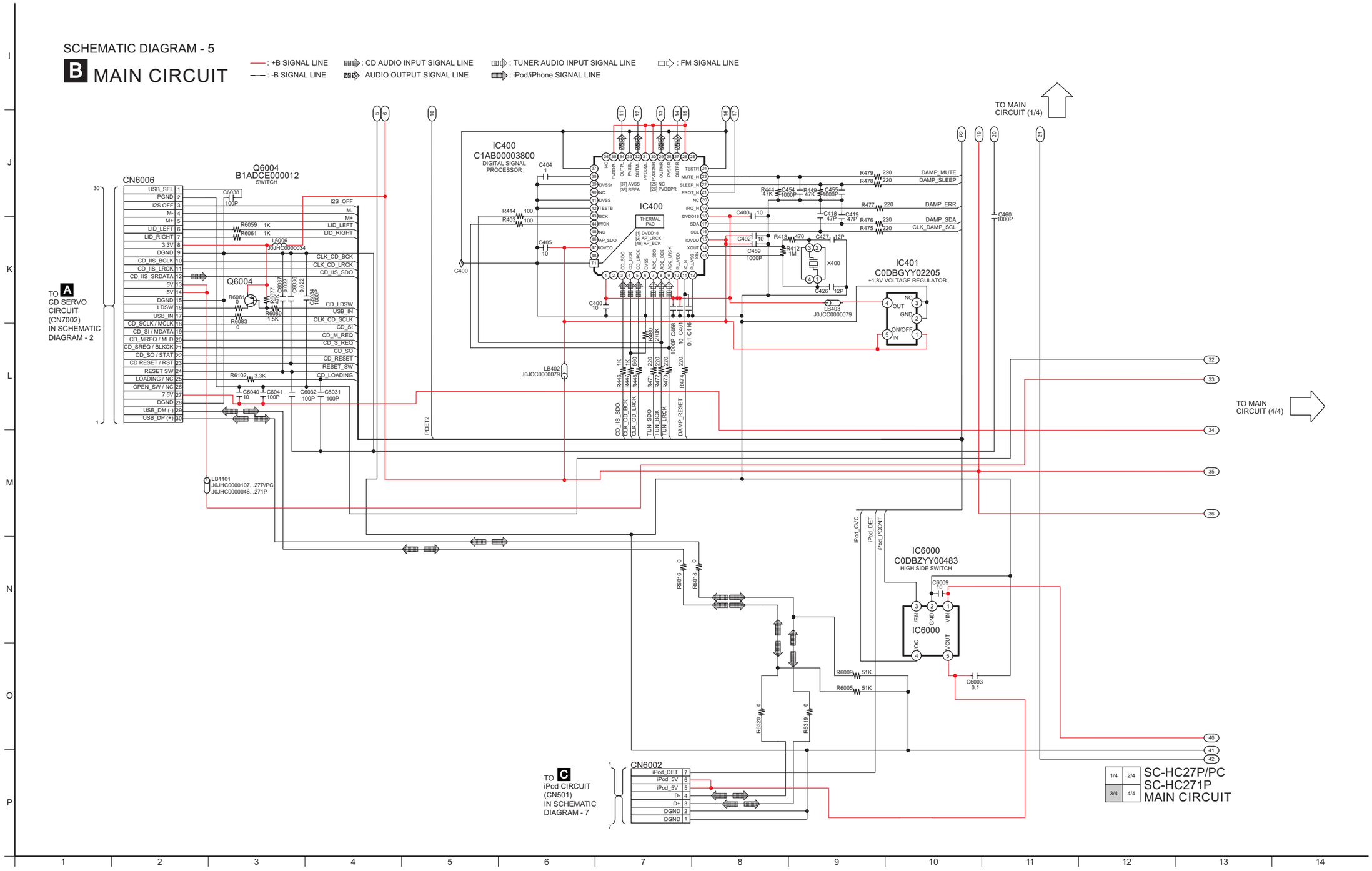
: +B SIGNAL LINE
: -B SIGNAL LINE
: CD AUDIO INPUT SIGNAL LINE
: AUDIO OUTPUT SIGNAL LINE
: TUNER AUDIO INPUT SIGNAL LINE
: iPod/iPhone SIGNAL LINE
: FM SIGNAL LINE



1/4	2/4
3/4	4/4

SC-HC27P/PC
SC-HC271P
MAIN CIRCUIT

14.6. MAIN CIRCUIT (3/4)

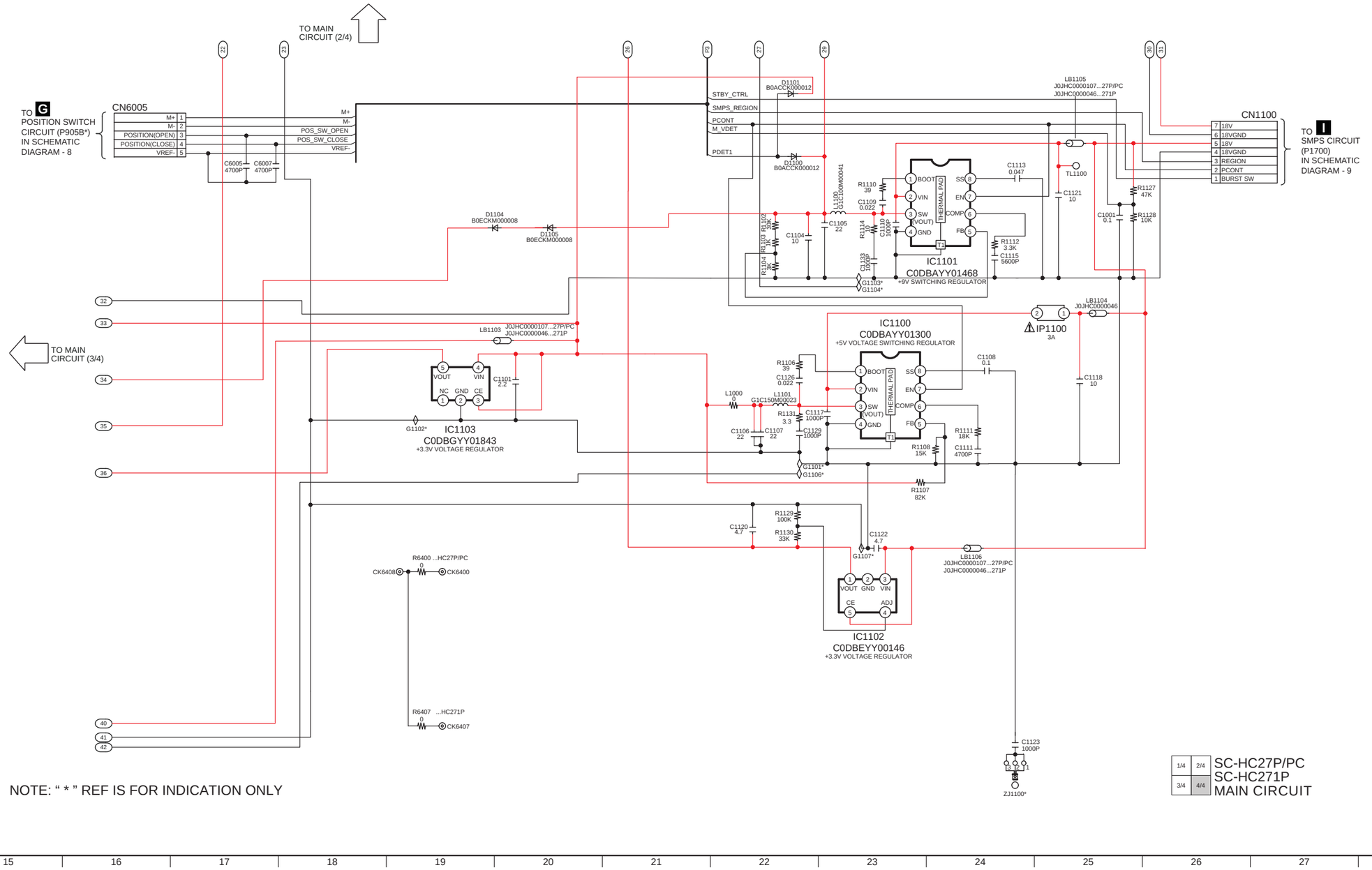


14.7. MAIN CIRCUIT (4/4)

SCHEMATIC DIAGRAM - 6

B MAIN CIRCUIT

: +B SIGNAL LINE
: -B SIGNAL LINE
: CD AUDIO INPUT SIGNAL LINE
: AUDIO OUTPUT SIGNAL LINE
: TUNER AUDIO INPUT SIGNAL LINE
: iPod/iPhone SIGNAL LINE
: FM SIGNAL LINE

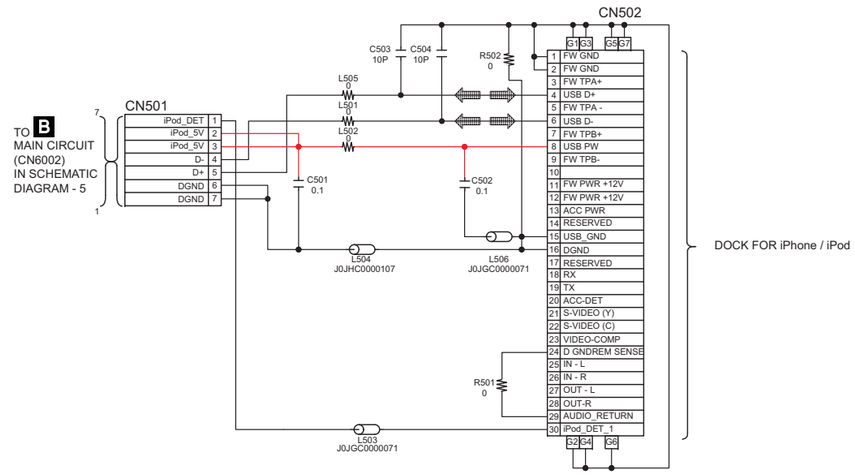


14.8. iPod & TUNER CIRCUIT

SCHEMATIC DIAGRAM - 7

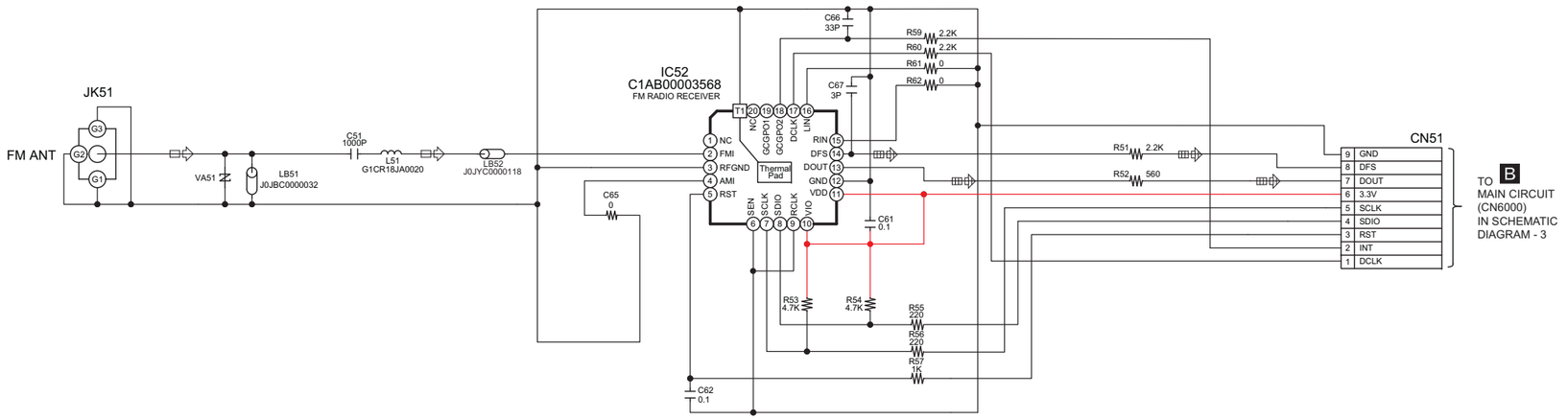
C iPod CIRCUIT

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



D TUNER CIRCUIT

—— : +B SIGNAL LINE ⇨ :TUNER AUDIO INPUT SIGNAL LINE ⇨ : FM SIGNAL LINE



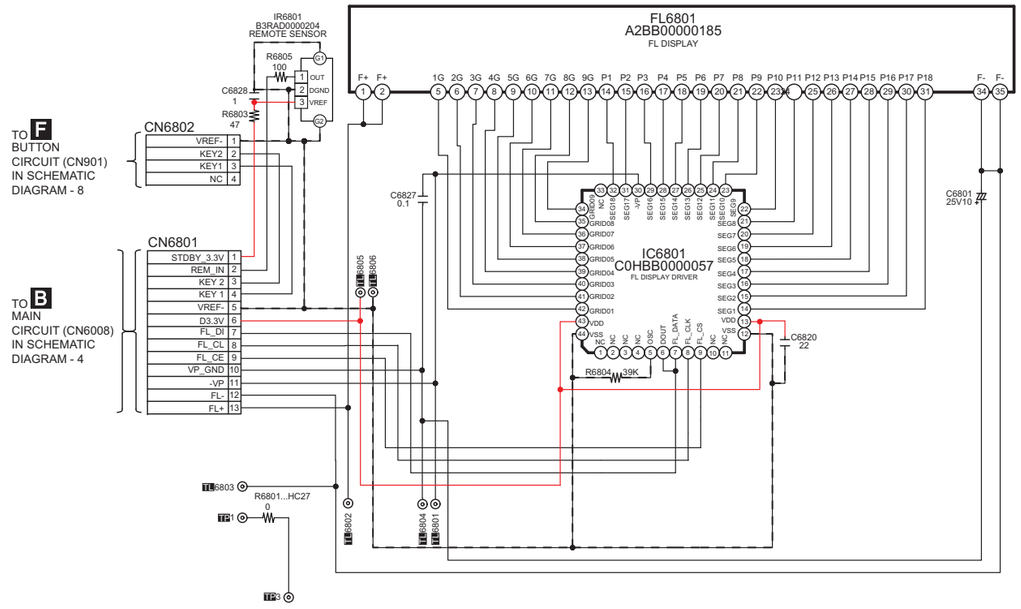
SC-HC27P/PC
SC-HC271P
iPod / TUNER CIRCUIT

14.9. PANEL, BUTTON, POSITION SWITCH & MOTOR CIRCUIT

SCHEMATIC DIAGRAM - 8

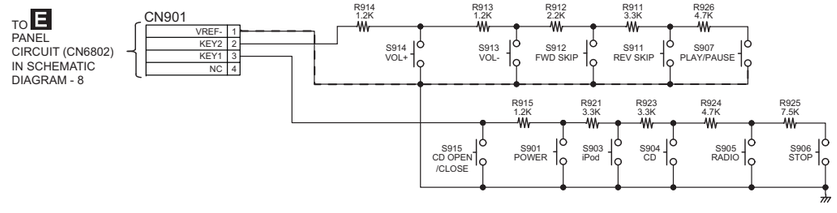
E PANEL CIRCUIT

—— : +B SIGNAL LINE —— : -B SIGNAL LINE



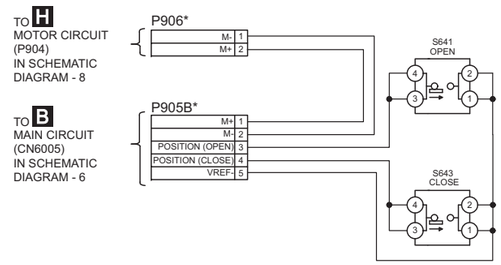
F BUTTON CIRCUIT

—— : +B SIGNAL LINE



NOTE: " * " REF IS FOR INDICATION ONLY

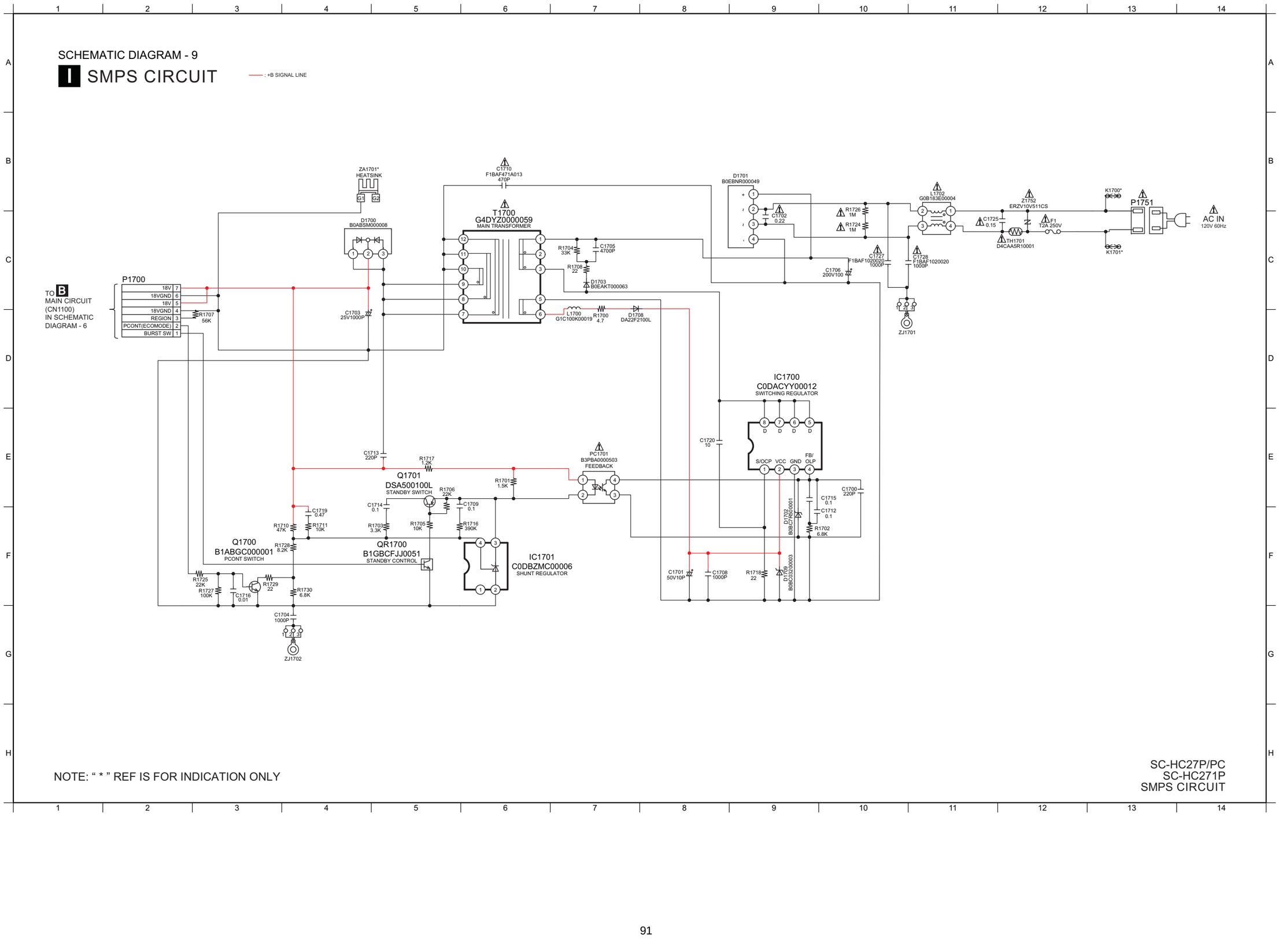
G POSITION SWITCH CIRCUIT



H MOTOR CIRCUIT

SC-HC27P/PC
SC-HC271P
PANEL / BUTTON / POSITION SWITCH / MOTOR CIRCUIT

14.10. SMPS CIRCUIT



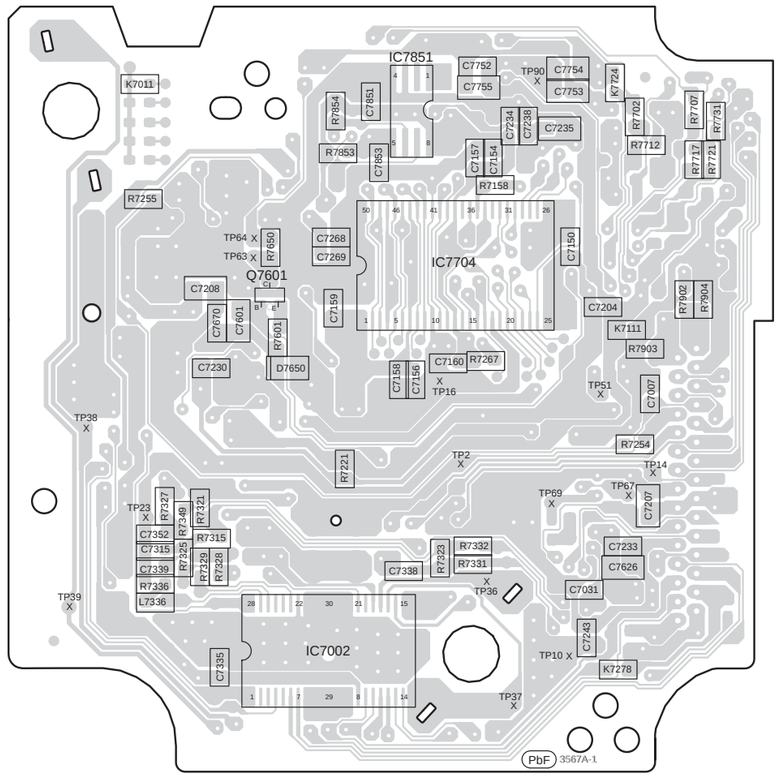
NOTE: " * " REF IS FOR INDICATION ONLY

SC-HC27P/PC
SC-HC271P
SMPS CIRCUIT

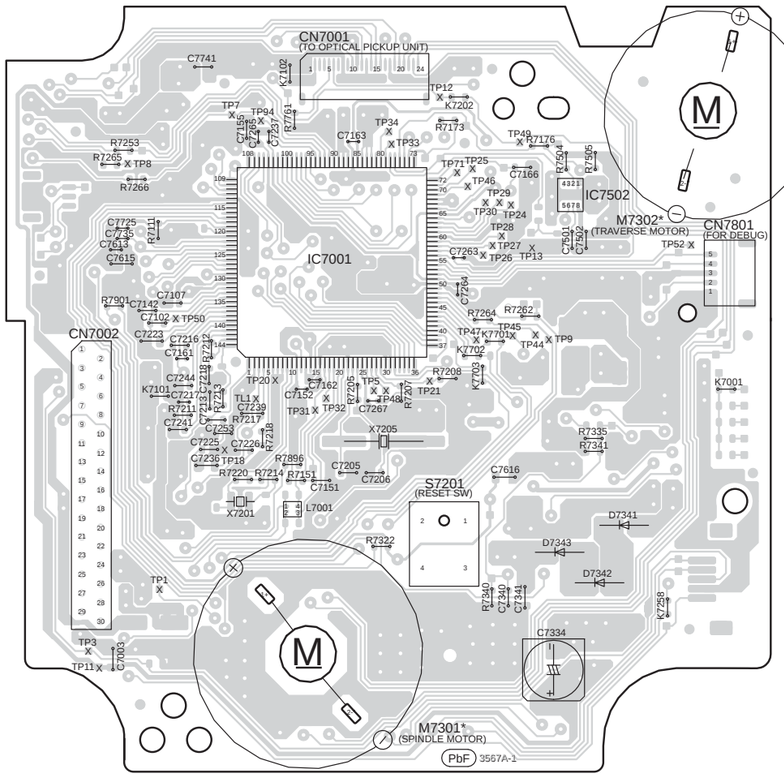
15 Printed Circuit Board

15.1. CD SERVO P.C.B.

A CD SERVO P.C.B. (REP4781A)



(SIDE A)



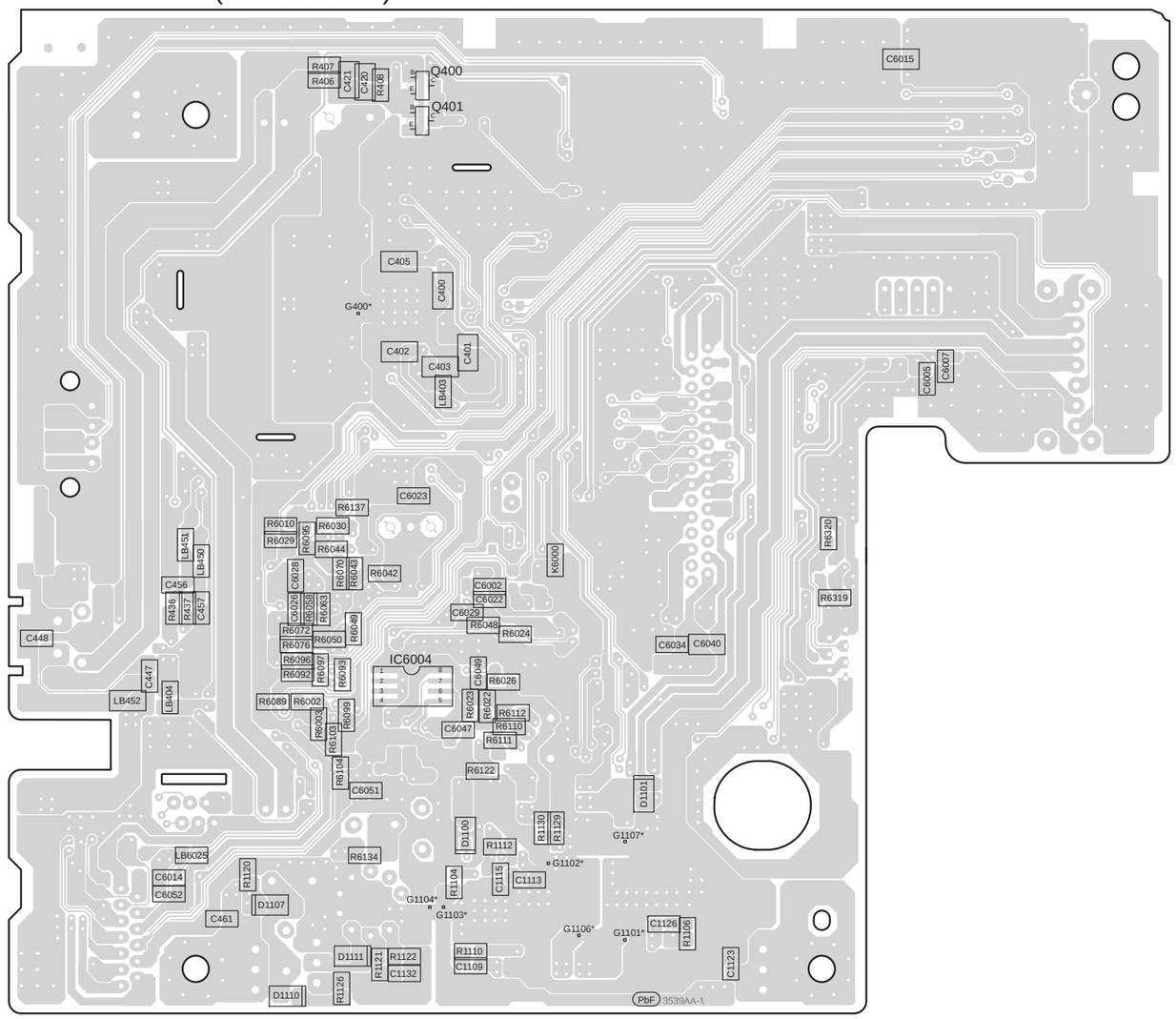
(SIDE B)

NOTE: " * " REF IS FOR INDICATION ONLY

SC-HC27P/PC
SC-HC271P
CD SERVO P.C.B.

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

B MAIN P.C.B. (REP4784AA)...HC27P/PC
(REP4784HA)...HC271P



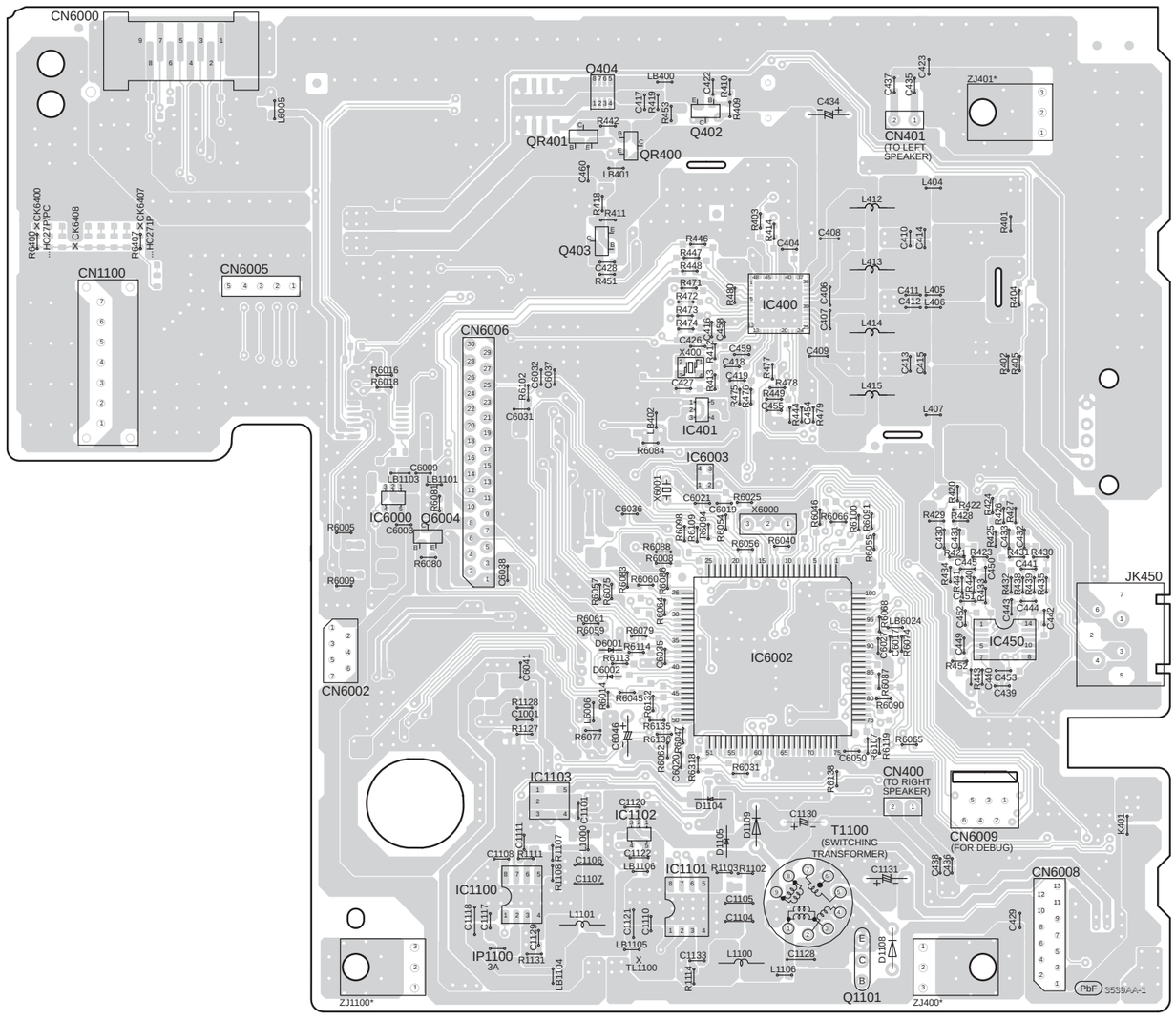
(SIDE A)

NOTE: " * " REF IS FOR INDICATION ONLY

SC-HC27P/PC
SC-HC271P
MAIN P.C.B.

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

B MAIN P.C.B. (REP4784AA)...HC27P/PC
(REP4784HA)...HC271P



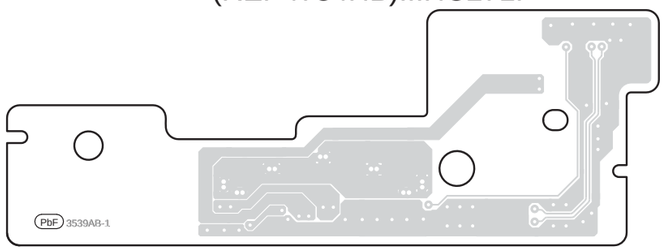
HEADPHONE

(SIDE B)

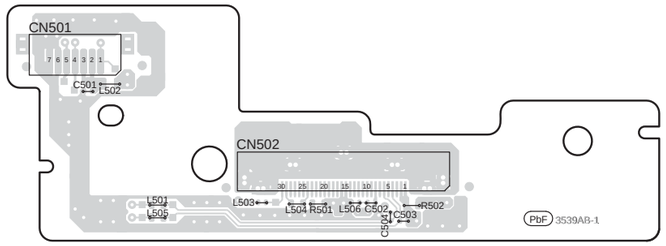
SC-HC27P/PC
SC-HC271P
MAIN P.C.B.

15.4. iPod & TUNER P.C.B.

C iPod P.C.B. (REP4784AB)...HC27P/PC
(REP4784HB)...HC271P



(SIDE A)



(SIDE B)

DOCK FOR iPhone / iPod

D TUNER P.C.B. (REP4784AC)...HC27P/PC
(REP4784HC)...HC271P

(SIDE A)

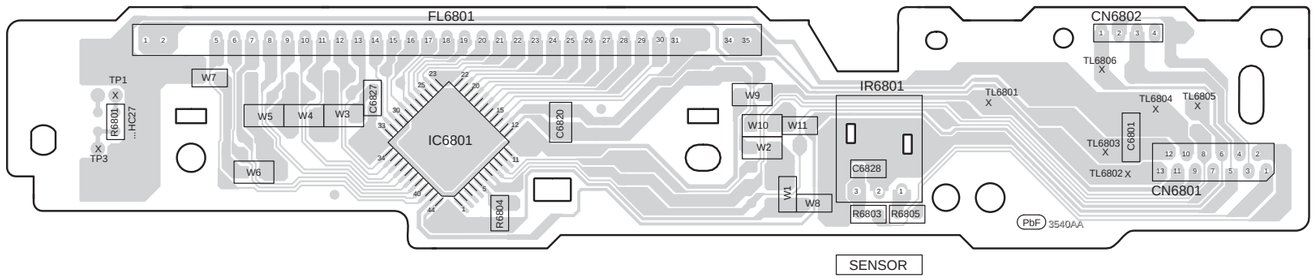
(SIDE B)

FM ANT

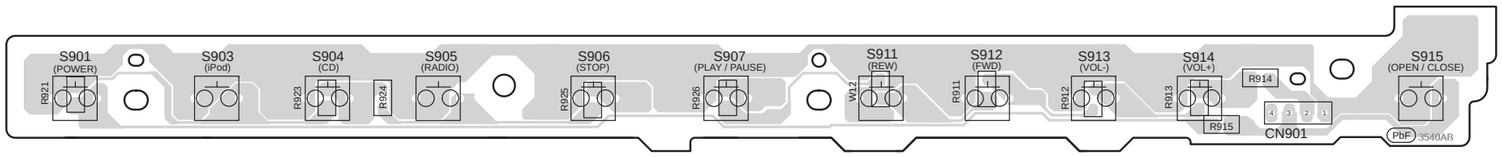
SC-HC27P/PC
SC-HC271P
iPod / TUNER P.C.B.

15.5. PANEL, BUTTON, POSITION SWITCH & MOTOR P.C.B.

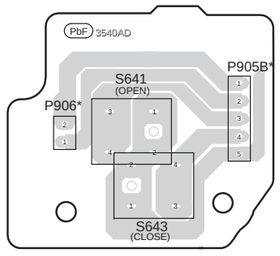
E PANEL P.C.B. (REP4785AA)



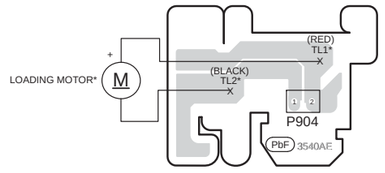
F BUTTON P.C.B. (REP4785AB)



G POSITION SWITCH P.C.B. (REP4785AD)



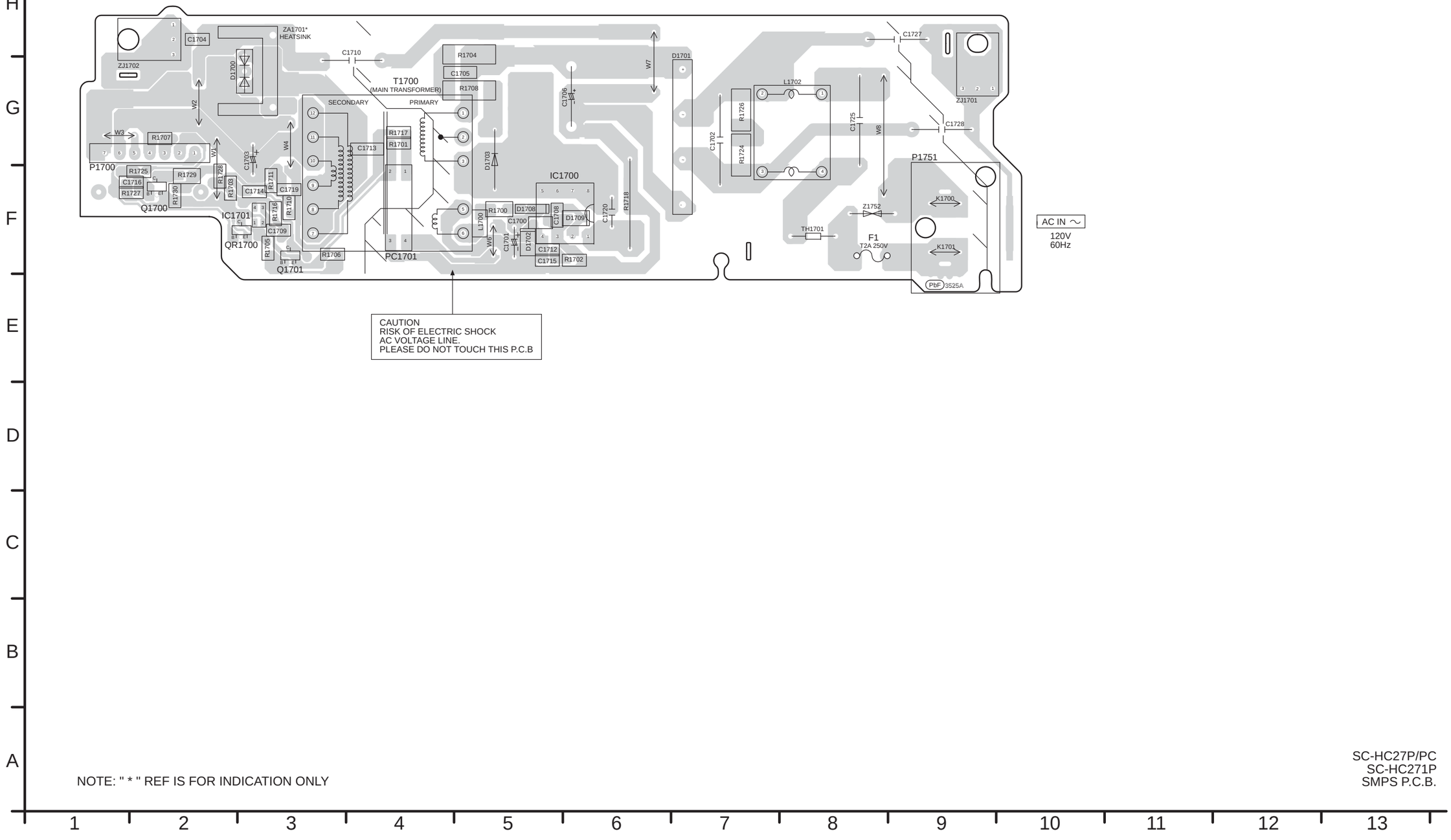
H MOTOR P.C.B. (REP4785AE)



SC-HC27P/PC
SC-HC271P
PANEL / BUTTON / POSITION SWITCH / MOTOR P.C.B.

15.6. SMPS P.C.B.

I SMPS P.C.B. (REP4774B)



NOTE: " * " REF IS FOR INDICATION ONLY

SC-HC27P/PC
SC-HC271P
SMPS P.C.B.

16 Appendix Information of Schematic Diagram

16.1. 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.

16.1.1. CD SERVO P.C.B. (1/2)

REF NO.	IC7001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.5	0	3.3	3.3	1.7	0	0	0	1.7	1.5	3.3	1.6	1.8	3.3	1.8	0	1.8	0	1.8	3.3

REF NO.	IC7001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	1.8	0	1.5	1.6	3.3	1.2	1.5	1.2	3.3	0	0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.2	1.2

REF NO.	IC7001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	3.3	3.3	3.3	0	2.1	0	3.3	3.3	3.3	0	3.3	3.3	3.3	0	3.3	3.3	1.2	1.2	1.5	0

REF NO.	IC7001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	1.2	1.5	1.7	1.5	3.3	1.5	3.3	3.3	1.8	1.2	1.2	3.3	1.5	1.8	1.5	1.5	1.5	1.5	1.2	1.2

REF NO.	IC7001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	1.5	3.3	3.3	3.3	0	1.5	1.5	1.5	1.5	1.5	1.5

REF NO.	IC7001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
CD PLAY	1.5	1.5	3.3	3.3	3.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0	3.3	3.3	0	1.5	1.5	2.1	2.1

REF NO.	IC7001																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
CD PLAY	2.1	1.5	1.5	1.5	1.5	1.2	1.5	1.8	1.8	0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3

REF NO.	IC7001																			
MODE	141	142	143	144																
CD PLAY	3.3	3.3	3.3	3.3																

REF NO.	IC7002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.6	0	0	1.6	0	0	0	7.3	0	0	0	3.8	2.7	2.6	2.8	2.4	2.1	3.1	5.1	3.1

REF NO.	IC7002																			
MODE	21	22	23	24	25	26	27	28	29	30										
CD PLAY	1.5	0	1.4	0	0	1.6	1.6	3.2	0	0										

REF NO.	IC7502																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	3.3	0	0	0	1.5	3.3	3.3												

REF NO.	IC7704																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.2	1.5	1.6	0	0	1.6	3.3	1.5	0	0	0	1.6	3.3	0	0	3.2	0	0	0	0

SC-HC27P/PC, SC-HC271P CD SERVO P.C.B.

16.1.2. CD SERVO P.C.B. (2/2)

REF NO.	IC7704																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	1.7	1.7	1.6	3.3	0	0	0	1.6	1.6	3.1	3.1	0	3.2	0	3.1	0	3.2	0	1.6

REF NO.	IC7704																			
MODE	41	42	43	44	45	46	47	48	49	50										
CD PLAY	0	1.5	1.5	3.2	1.5	1.5	0	1.5	0	0										

REF NO.	IC7851																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	0	3.2	3.2	0	3.2												

REF NO.	Q7601																			
MODE	E	C	B																	
CD PLAY	2.9	2	2.2																	

SC-HC27P/PC, SC-HC271P CD SERVO P.C.B.

16.1.3. MAIN P.C.B. (1/2)

REF NO.	IC400																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	2.8	3	0.8	1.6	1.6	0	0	1.6	1.6	3.3	3.2	0	1.7	3.3	3.3	1.8	1.8	1.8	3.3	0
STANDBY	2.8	3	0.8	1.6	1.6	0	0	1.6	1.6	3.3	3.2	0	1.7	3.3	3.3	1.8	1.8	1.8	3.3	0

REF NO.	IC400																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	3.3	3.3	3.2	0	1.7	16.7	3.1	0	3.1	16.4	16.7	3.3	0	3.3	16.7	1.7	0	3.3	0	0
STANDBY	3.3	3.3	3.2	0	1.7	16.7	3.1	0	3.1	16.4	16.7	3.3	0	3.3	16.7	1.7	0	3.3	0	0

REF NO.	IC400																			
MODE	41	42	43	44	45	46	47	48												
CD PLAY	0	0	1.7	1.7	0	3.3	3.3	2.5												
STANDBY	0	0	1.7	1.7	0	3.3	3.3	2.5												

REF NO.	IC401																			
MODE	1	2	3	4	5															
POWER ON	3.3	0	0	3.3	3.3															
STANDBY	3.3	0	0	3.3	3.3															

REF NO.	IC450																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
POWER ON	3.1	3.1	3.3	0	3.3	-3.2	1.6	1.6	3.3	0	3.7	3.4	3.3	3.3						
STANDBY	3.1	3.1	3.3	0	3.3	-3.2	1.6	1.6	3.3	0	3.7	3.4	3.3	3.3						

REF NO.	IC1100																			
MODE	1	2	3	4	5	6	7	8												
POWER ON	9.6	16.7	5.2	0	0	1.4	3.3	2												
STANDBY	9.6	16.7	5.2	0	0	1.4	3.3	2												

REF NO.	IC1101																			
MODE	1	2	3	4	5	6	7	8												
POWER ON	13	16.7	9	0	0.8	1.4	3.3	2												
STANDBY	13	16.7	9	0	0.8	1.4	3.3	2												

REF NO.	IC1102																			
MODE	1	2	3	4	5															
POWER ON	3.3	0	16.7	2.5	16.7															
STANDBY	3.3	0	16.7	2.5	16.7															

REF NO.	IC1103																			
MODE	1	2	3	4	5															
POWER ON	0	0	5.2	5.2	3.3															
STANDBY	0	0	5.2	5.2	3.3															

REF NO.	IC6000																			
MODE	1	2	3	4	5															
iPod	5.2	0	3.3	3.3	5.0															
STANDBY	5.2	0	3.3	3.3	5.0															

16.1.4. MAIN P.C.B. (2/2)

REF NO.	IC6002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
POWER ON	3.3	3.3	3.3	3.3	3.2	0	3.3	0	0	0	0	1.2	1.6	0	1.2	1.0	3.3	1.8	3.3	3.2
STANDBY	3.3	3.3	3.3	3.3	3.2	0	3.3	0	0	0	0	1.2	1.6	0	1.2	1.0	3.3	1.8	3.3	3.2

REF NO.	IC6002																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
POWER ON	3.2	3.3	0	0	0	3.3	3.2	2.9	3.2	3.2	0	1.6	0	3.2	3.3	3.2	1.8	3.2	0	0
STANDBY	3.2	3.3	0	0	0	3.3	3.2	2.9	3.2	3.2	0	1.6	0	3.2	3.3	3.2	1.8	3.2	0	0

REF NO.	IC6002																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
POWER ON	0	0	3.3	0	3.3	0	0	3.3	3.3	3.2	3.2	0	0	0	0	0	0	0	0.5	3.2
STANDBY	0	0	3.3	0	3.3	0	0	3.3	3.3	3.2	3.2	0	3.0	0	0	0	0	0	0.5	3.2

REF NO.	IC6002																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
POWER ON	3.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.3	3.3	3.3	3.3	3.3
STANDBY	3.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.3	3.3	3.3	3.3	3.3

REF NO.	IC6002																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
POWER ON	3.3	3.2	3.3	3.2	3.2	3.3	0	0	3.3	0	0	3.3	1.1	3.3	1.1	3.3	0.3	0	2.8	3.3
STANDBY	3.3	3.2	3.3	3.2	3.2	3.3	0	0	3.3	0	0	3.3	1.1	3.3	1.1	3.3	0.3	0	2.8	3.3

REF NO.	IC6003																			
MODE	1	2	3	4																
POWER ON	3.3	3.3	0	0																
STANDBY	3.3	3.3	0	0																

REF NO.	IC6004																			
MODE	1	2	3	4	5	6	7	8												
POWER ON	0	0	0	0	3.3	3.3	0.5	3.3												
STANDBY	0	0	0	0	3.3	3.3	0.5	3.3												

REF NO.	Q400				Q401				Q402				Q403							
MODE	E	C	B		E	C	B		E	C	B		E	C	B					
POWER ON	3.5	16.3	3.5		3.6	16.4	3.6		16.5	0	16.		0	3.3	0					
STANDBY	3.5	16.3	3.5		3.6	16.4	3.6		16.5	0	16.		0	3.3	0					

REF NO.	Q404									Q1101				Q6004						
MODE	1	2	3	4	5	6	7	8		E	C	B		E	C	B				
POWER ON	16.5	16.5	16.5	1.1	16.5	16.7	16.7	16.7		0	8.9	0		3.2	3.1	2.4				
STANDBY	16.5	16.5	16.5	1.1	16.5	16.7	16.7	16.7		0	8.9	0		3.2	3.1	2.4				

REF NO.	QR400				QR401															
MODE	E	C	B		E	C	B													
CD PLAY	-3.2	1.1	3.2		3.2	3.2	0													
STANDBY	-3.2	1.1	3.2		3.2	3.2	0													

SC-HC27P/PC, SC-HC271P MAIN P.C.B.

16.1.5. PANEL P.C.B.

REF NO.	IC6801																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
POWER ON	0	0	0	0	1.9	0	0	0	1.5	0	0	0	3.2	-21.4	-21.4	-21.4	-19	-10	-16.6	-0.1
STANDBY	0	0	0	0	1.9	0	0	0	1.5	0	0	0	3.2	-21.4	-21.4	-21.4	-19	-10	-16.6	-0.1

REF NO.	IC6801																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
POWER ON	-21.4	-19.1	-21.4	-16.8	-16.8	-21.4	-18.9	-21.3	-16.6	-21.9	-12.2	-14.7	-21.7	-19.4	-19.4	-19.4	-19.4	-19.4	-19.4	-19.2
STANDBY	-21.4	-19.1	-21.4	-16.8	-16.8	-21.4	-18.9	-21.3	-16.6	-21.9	-12.2	-14.7	-21.7	-19.4	-19.4	-19.4	-19.4	-19.4	-19.4	-19.2

REF NO.	IC6801																			
MODE	41	42	43	44																
POWER ON	-19	-19.1	3.3	0																
STANDBY	-19	-19.1	3.3	0																

SC-HC27P/PC, SC-HC271P PANEL P.C.B.

16.1.6. Tuner P.C.B.

REF NO.	IC52																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TUNER	0	3.3	0	0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	3.3	3.3	3.3	0	0

SC-HC27P/PC, SC-HC271P TUNER P.C.B.

16.1.7. SMPS P.C.B.

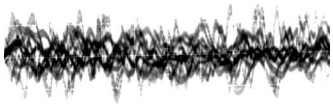
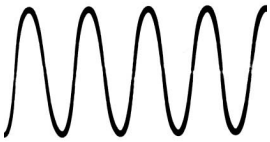
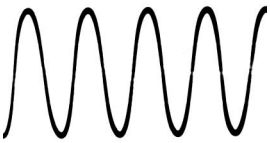
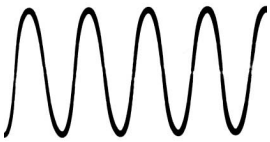
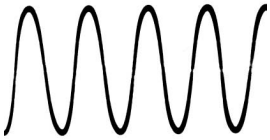
REF NO.	IC1700																			
MODE	1	2	3	4	5	6	7	8												
POWER ON	15.0	18.0	0	2.0	15.1	15.1	15.1	15.1												
STANDBY	15.0	18.0	0	2.0	15.1	15.1	15.1	15.1												

REF NO.	IC1701																			
MODE	1	2	3	4																
POWER ON	0	0	14.5	2.5																
STANDBY	0	0	14.5	2.5																

REF NO.	Q1700				Q1701				QR1700											
MODE	E	C	B		E	C	B		E	C	B									
POWER ON	0	14.5	2.5		14.5	14.5	2.5		0	14.4	0.5									
STANDBY	0	14.5	2.5		14.5	14.5	2.5		0	14.4	0.5									

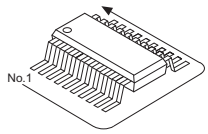
SC-HC27P/PC, SC-HC271P SMPS P.C.B.

16.1.8. Waveform Chart

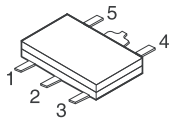
WF No. IC52-2,13,14 (TUNER)  0.1Vp-p(200usec/div)	WF No. IC400-13 (PLAY)  2Vp-p(20nsec/div)	WF No. IC400-14 (PLAY)  2.2Vp-p(20nsec/div)	WF No. IC450-3 (PLAY)  1.4Vp-p(5usec/div)
WF No. IC450-12 (PLAY)  2.8Vp-p(5usec/div)	WF No. IC6002-12 (PLAY)  3.8Vp-p(50nsec/div)	WF No. IC6002-13 (PLAY)  3Vp-p(50nsec/div)	WF No. IC6002-15 (PLAY)  1.1Vp-p(10usec/div)
WF No. IC6002-16 (PLAY)  2.1Vp-p(10usec/div)			

16.2. Illustration of IC's, Transistors and Diodes

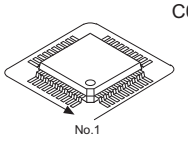
C0DBAYY01300 (8P)
C1AB00003801 (14P)
C3ABMY000027 (50P)
C3EBEY000037 (8P)
C3EBFY000029 (8P)
C0DBZMC00006 (4P)
C0DBAYY01468 (8P)



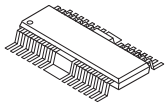
C0DBGYY01843



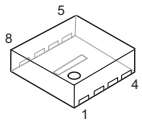
MN6627947RD (144P)
RFKWMHC27P (100P)
C0HBB0000057 (44P)



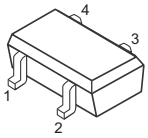
C0GBY0000117 (30P)



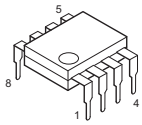
MFI337S3959



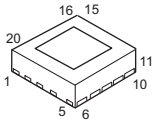
C0EBE0000434



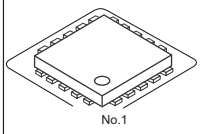
C0DACYY00012



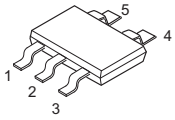
C1AB00003568



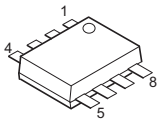
C1AB00003800 (48P)

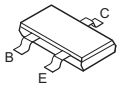


C0DBEYY00146
C0DBGYY02205
C0DBZYY00483



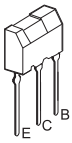
B1CHRD000051



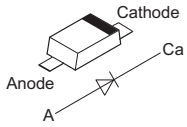


B1ADCF000001
B1ADCE000012
B1ABCF000011
B1ABGC000001
DSA500100L
B1GBCFJJ0051
B1GBCFNN0038
B1GDCFJJ0041

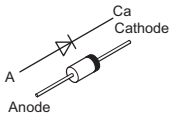
B1ABMG000008



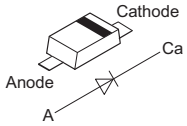
B0ACCK000012



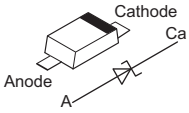
B0EAMM000057
B0EAKT000063



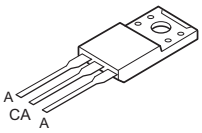
DZ2J030M0L
DZ2J056M0L
DZ2J220M0L
DZ2J390M0L



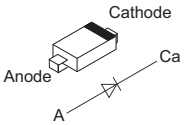
B0BC7R500001
DA22F2100L
B0BC03200003



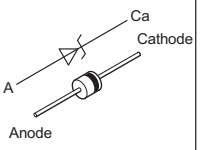
B0ABSM000008



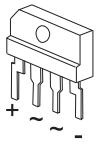
B0ECKM000008



B0JAME000114



B0EBNR000049



16.3. Terminal Function of IC's

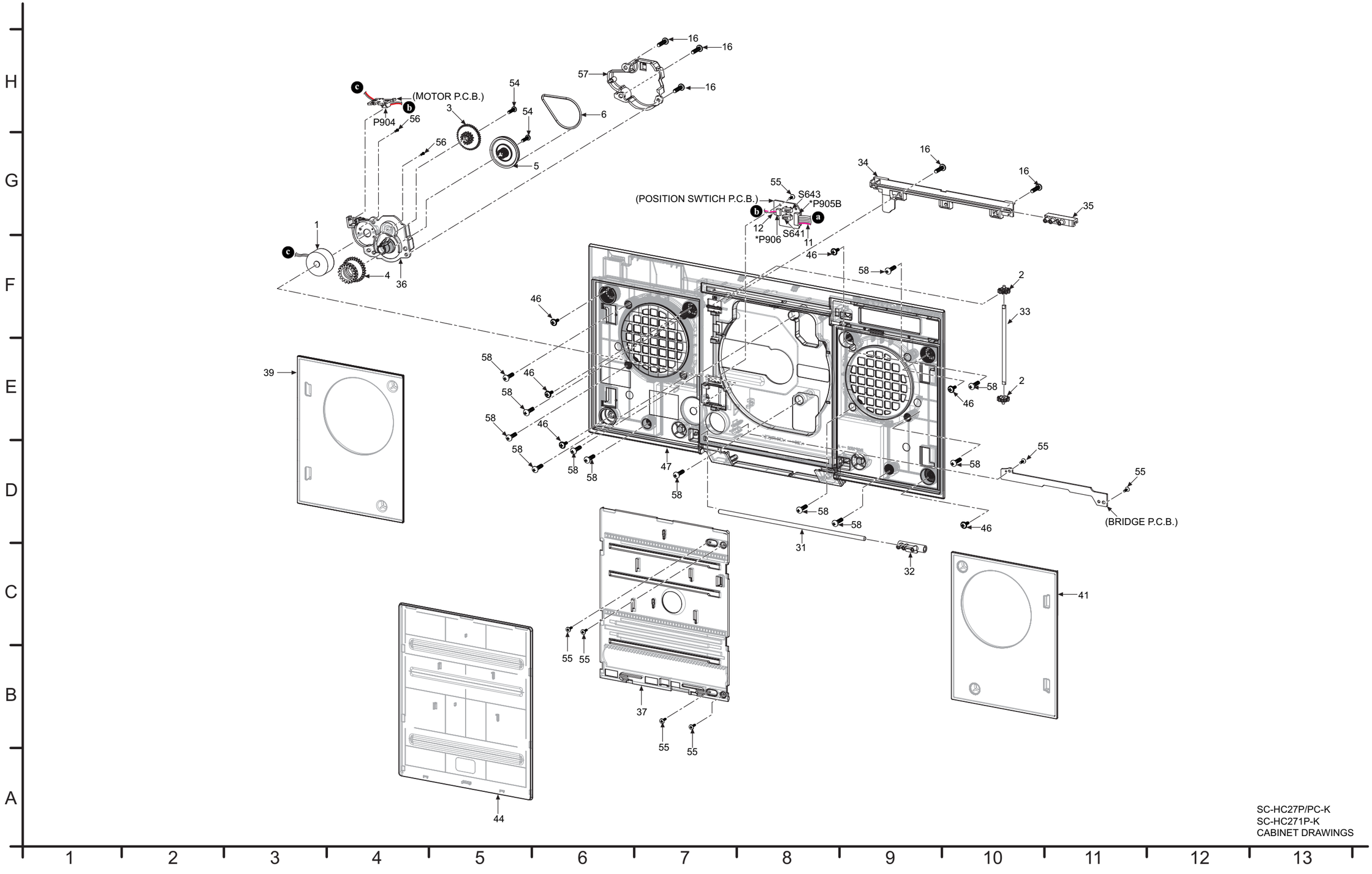
16.3.1. IC6002 (RFKWMHC27P) MICRO PROCESSOR IC

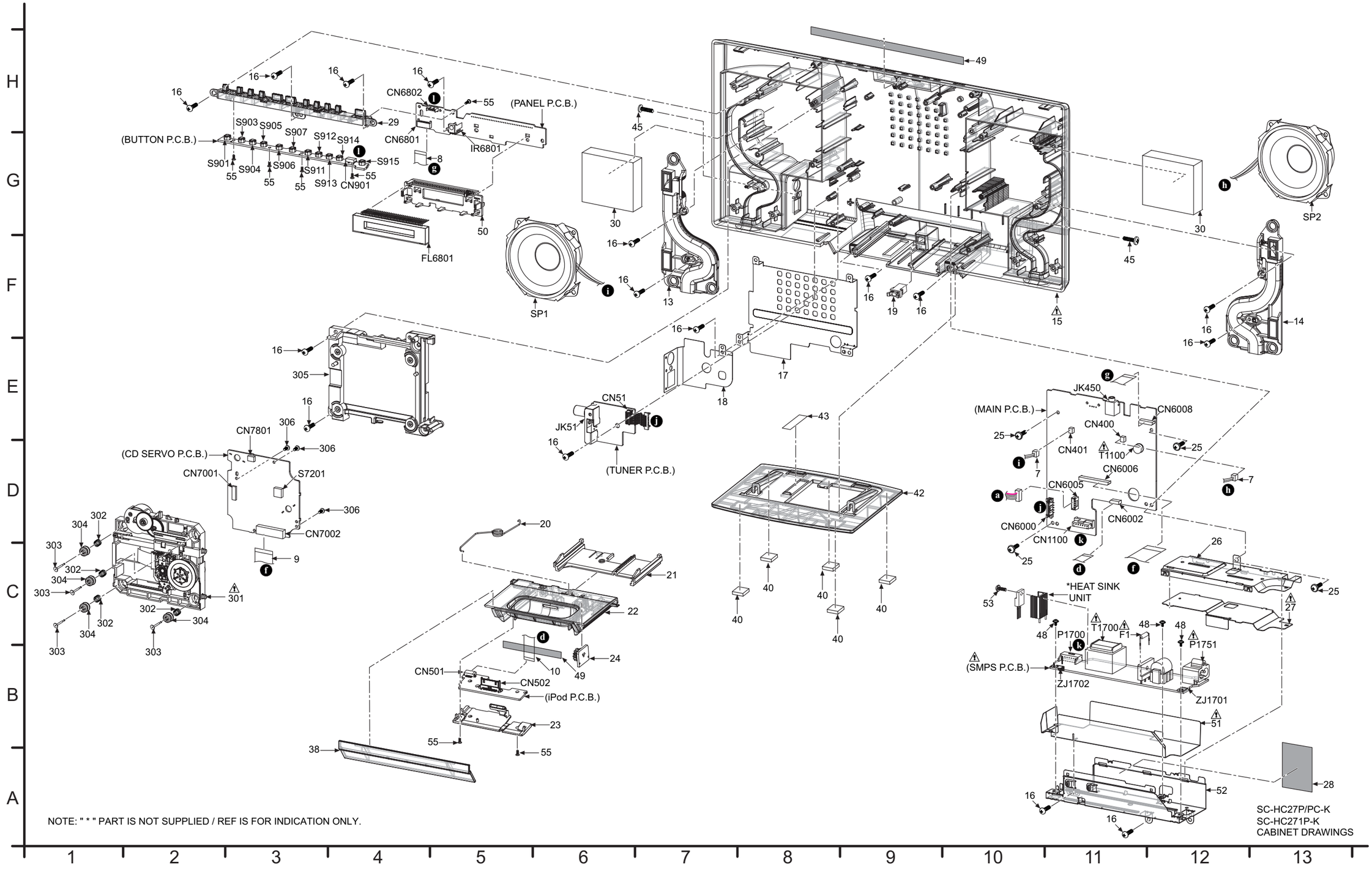
Pin No.	Mark	I/O	Function
1	DAMP_RST	O	DAMP RESET
2	DAMP_SLEEP	O	DAMP SLEEP MODE
3	DAMP_MUTE	O	DAMP MUTING
4	OCD_SDA	O	OCD SERIAL DATA
5	PDET2 (D_AMP)	I	D-AMP WARNING / ERROR DETECT (ACTIVE LOW= ERROR)
6	OCD_SCK	O	OCD SERIAL DATA CLOCK
7	HPMUTE	O	HEADPHONE MUTING
8	LID_RIGHT	O	SLIDING DOOR OPEN.CLOSE CONTROL RIGHT
9	DAMP_ERR	I	DAMP ERROR
10	LID_LEFT	O	SLIDING DOOR OPEN.CLOSE CONTROL LEFT
11	GND_MM0D0	-	GROUND
12	OSC2(OUT)	O	OSCILLATOR OUTPUT
13	OSC1(IN)	I	OSCILLATOR INPUT
14	VSS	-	GROUND
15	XI	O	OSCILLATOR OUTPUT
16	XO	O	OSCILLATOR INPUT
17	VDD33	-	+3.3 VOLTAGE SUPPLY
18	VDD18	-	+1.8 VOLTAGE SUPPLY
19	NRST	I	ACTIVE LOW RESET
20	CD_M_REQ	O	CD MICRO-PROCESSOR INTER-RUPT REQUEST
21	RST_SW	I	RESET SWITCH
22	CD_RESET	O	CD RESET
23	I2S_OFF	O	I2S ON/OFF (FOR V TUNER)
24	USB_EN	O	USB ENABLE
25	REM_IN	I	REMOTE CONTROL INPUT
26	USB_OVC	I	USB OVERCURRENT
27	USB_IN	I	USB IN
28	TUN_INT	I	TUNER INTERRUPT
29	CD_S_REQ	I	CD STATUS REQUEST
30	NC	-	NO CONNECTION
31	NC	-	NO CONNECTION
32	NC	-	NO CONNECTION
33	NC	-	NO CONNECTION
34	CD_SI	O	CD SERIAL INPUT
35	CD_SO	I	CD SERIAL OUTPUT
36	CD_SCLK	O	CD SERIAL CLOCK
37	VDD18	-	+1.8 VOLTAGE SUPPLY
38	TRV_CW	O	TRAVERSE MOTOR CLOCKWISE
39	VSS	-	GROUND
40	TRV_CCW	O	TRAVERSE MOTOR COUNTER-CLOCKWISE
41	NC	-	NO CONNECTION
42	NC	-	NO CONNECTION
43	iPod_OVC	I	iPod OVERCURRENT PROTEC-TION
44	POS_SW_ABN	O	POSTION SWITCH ABNORMAL DETECT
45	iPod_DET	I	iPod DETECT
46	NC	-	NO CONNECTION
47	CLOSE_SW	I	CLOSE SWITCH DETECT
48	OPEN_SW	I	OPEN SWITCH DETECT
49	iPod_PCONT	O	iPod POWER CONTROL
50	PCONT_POW	O	POWER CONTROL
51	SMPS_CUT	O	SMPS CUTOFF
52	ECO_MODE	-	NO CONNECTION
53	STBY_CTRL	O	STANDBY CONTROL
54	MODEL_SEL	I	MODEL SELECTION
55	NC	-	NO CONNECTION
56	NC	-	NO CONNECTION
57	NC	-	NO CONNECTION
58	NC	-	NO CONNECTION
59	NC	-	NO CONNECTION
60	EE_SCL	O	EEPROM SERIAL CLOCK
61	EE_SDA	I/O	EEPROM SERIAL DATA
62	CRTIMER	-	NO CONNECTION
63	VSS	-	GROUND
64	NC	-	NO CONNECTION
65	NC	-	NO CONNECTION
66	NC	-	NO CONNECTION
67	NC	-	NO CONNECTION
68	NC	-	NO CONNECTION
69	PWR_LED	O	POWER LED DRIVE
70	NC	-	NO CONNECTION
71	NC	-	NO CONNECTION
72	NC	-	NO CONNECTION
73	NC	-	NO CONNECTION
74	NC	-	NO CONNECTION
75	NC	-	NO CONNECTION
76	FL_DI	O	FL DISPLAY DATA INPUT
77	FL_CS	O	FL DISPLAY CHIP SELECT
78	FL_CLK	O	FL DISPLAY CLOCK
79	TU_SDA	I/O	TUNER SERIAL DATA
80	TU_RST	O	TUNER RESET
81	TU_SCL	O	TUNER SERIAL CLOCK
82	DAMP_SDA	I/O	DAMP SERIAL DATA
83	NC	-	NO CONNECTION
84	DAMP_SCL	O	DAMP SERIAL CLOCK
85	NC	-	NO CONNECTION
86	KEY INT	-	KEY INITIALIZE
87	NC	-	NO CONNECTION
88	NC	-	NO CONNECTION
89	VDD	-	VOLTAGE SUPPLY
90	NC	-	NO CONNECTION
91	VSS	-	GROUND
92	KEY1	I	KEY INPUT 1
93	REGION_SUB	I	REGION SETTING
94	KEY2	I	KEY INPUT 2
95	SMPS_REG	I	SMPS TYPE DETECTION
96	PDET1 (REG)	I	REGULATOR POWER RISE DETECT
97	REGION	I	TUNER REGION SETTING
98	NC	-	NO CONNECTION
99	M_VDET	I	SMPS POWER DETECT / POWER DROP DETECTION
100	VREF+	-	VOLTAGE SUPPLY

17 Exploded View and Replacement Parts List

17.1. Exploded View and Mechanical replacement Parts List

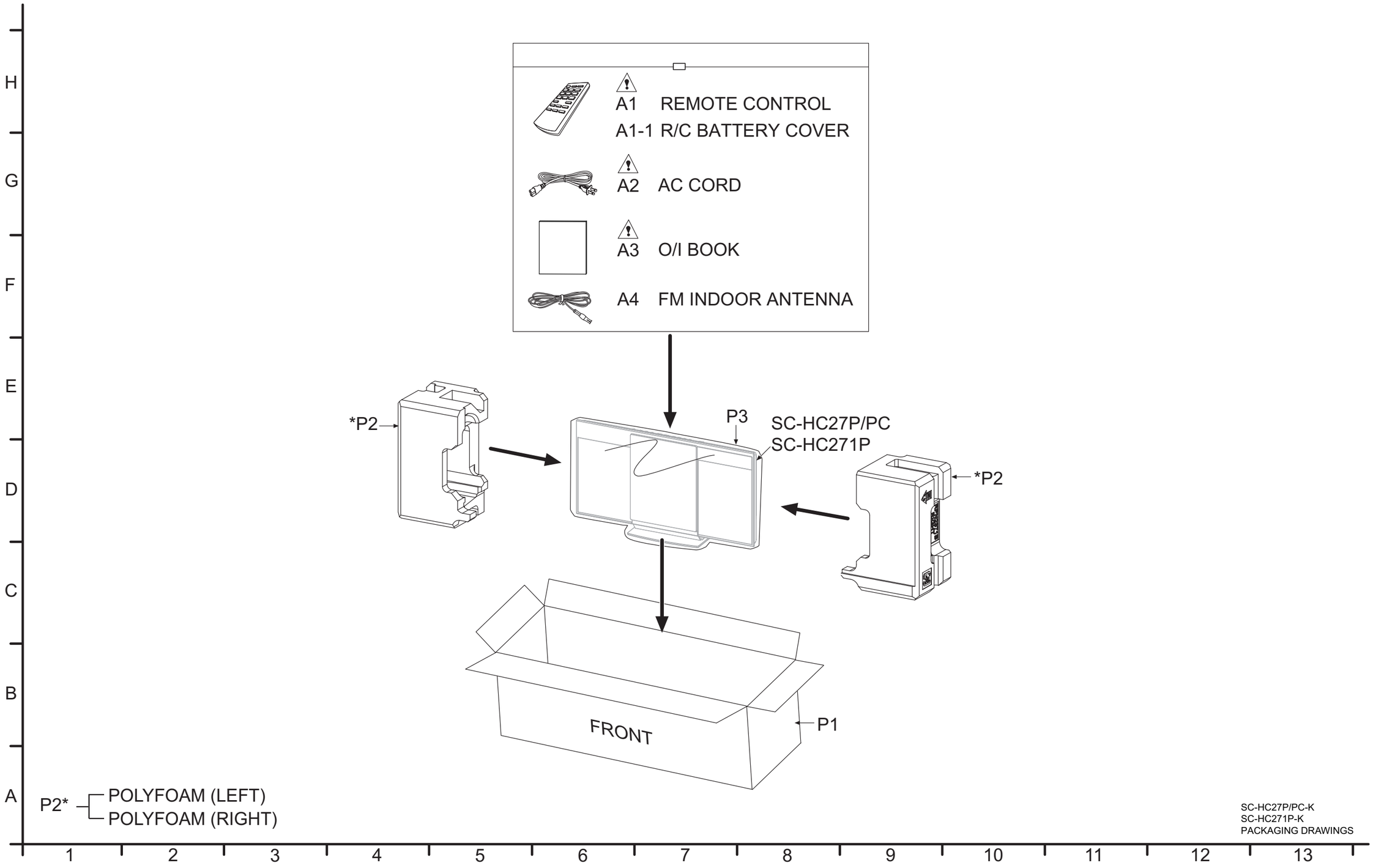
17.1.1. Cabinet Parts Location





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

17.1.2. Packaging



17.1.3. Mechanical Replacement Parts List

Important Safety Notice

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

RTL (Retention Time Limited)

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

Note:

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

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			CABINET AND CHASSIS		
	1	RFKPHC37P-K	MOTOR ASS'Y	1	
	2	RDGX1008	TIMING GEAR	2	
	3	RDGX1014	MIDDLE GEAR	1	
	4	RDGX1015	DRIVE GEAR	1	
	5	RDGX1016	PULLEY GEAR	1	
	6	VMG1720	MOTOR BELT	1	
	7	REX1466	2P WIRE (MAIN - SP1 & SP2)	2	
	8	REE1624	13P FFC (MAIN-PANEL)	1	
	9	REE1626	30P FFC (MAIN - CD SERVO)	1	
	10	REE1628	7P FFC (MAIN-iPod)	1	
	11	REX1468	5P WIRE (POSITION SWITCH - MAIN)	1	
	12	REX1499	2P WIRE (POSiTION SWITCH - MOTOR)	1	
	13	RKT0138-K1	PORT COVER L	1	
	14	RKT0139-K1	PORT COVER R	1	
⚠	15	RGP1503-K1	REAR CABINET	1	HC27P
⚠	15	RFKHHC27PCK	REAR CABINET ASS'Y	1	HC27PC
⚠	15	RFKHHC271P-K	REAR CABINET ASS'Y	1	HC271P
	16	RHD26046-L	SCREW	21	
	17	RSC1066	REAR SHIELD	1	
	18	RSC1078	TUNER SHIELD	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	19	RHQX0002	LATCH	1	
	20	RMBX1018-1	IPOD OPEN SPRING	1	
	21	RGKX1066-K3	DOCKING COVER	1	
	22	RGKX1067-K3	DOCKING TUB	1	
	23	RGKX1068-K	TUB COVER	1	
	24	RXGX1003	DAMPER GEAR	1	
	25	RHD26043-1	SCREW	4	
	26	RSC1067	SMPS SHIELD PLATE	1	
⚠	27	RMV0391-1	SMPS INSULATOR SHEET B	1	
	28	RMFX1035	HIMELON	1	
	29	RGU2758-K1	TOP BUTTON	1	
	30	RMFX0091	ACOUSTIC ABSORBER	2	
	31	RMUX1002	DOOR SHAFT	1	
	32	RMQX1026-K	CD DOOR SLIDER (BOTTOM)	1	
	33	RMU0101	TIMING GEAR SHAFT	1	
	34	RMKX1039-K1	RACK TOP	1	
	35	RMQX1027-K	CD DOOR SLIDER (TOP)	1	
	36	RMKX1026-1	GEAR BASE	1	
	37	RGP1504-K	CD DOOR BASE	1	
	38	RGK2304-K	DOCKING LID	1	
	39	RYB0382-1	NET FRAME L	1	
	40	RKAX0028-K	LEG CUSHION	5	
	41	RYB0383-1	NET FRAME R	1	
	42	RGKX1064-K1	BASE STAND	1	
	43	RMG0547-K	CUSHION	1	
	44	RGK2300-K	CD DOOR ORNAMENT	1	HC27P/PC
	44	RGK2300G-K	CD DOOR ORNAMENT	1	HC271P

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	45	XTB3+10JFJK	SCREW	2	
	46	XTW3+12TFJK	SCREW	6	
	47	RFKGHC27P-K	FRONT PANEL UNIT	1	HC27P HC271P
	47	RFKGHC27PC-K	FRONT PANEL UNIT	1	HC27PC
	48	RHD30092-1	SCREW	3	
	49	RMF0559	HIMELON	2	
	50	RMN1000	FL HOLDER	1	
⚠	51	RMV0390	SMPS INSULATOR A	1	
	52	RSC1068	SMPS BRACKET	1	
	53	XTB3+8JFJ-J	SCREW	1	
	54	XTW2+6SFJ	SCREW	2	
	55	VHD1224-1	SCREW	14	
	56	XQN17+C28FJ	SCREW	2	
	57	RMK0818	GEAR BOX COVER	1	
	58	XTB26+12GFJ	SCREW	12	
			SPEAKERS		
	SP1	L0AA08A00035	FRONT SPEAKER	1	
	SP2	L0AA08A00035	FRONT SPEAKER	1	
			TRAVERSE DECK		
⚠	301	RAE5301Z-V	TRAVERSE	1	
	302	RME0109-1	FLOATING SPRING	4	
	303	RMS0757-1	FIX PIN	4	
	304	RMG0730-G	FLOATING RUBBER	4	
	305	RMQ2020	MIDDLE CHASSIS	1	
	306	XTN2+6GFJ	SCREW	3	
			PACKING MATERI-ALS		
	P1	RPG9824	PACKING CASE	1	HC27P
	P1	RPG9825	PACKING CASE	1	HC27PC
	P1	RPG0A25	PACKING CASE	1	HC271P
	P2	RPN2371	POLYFOAM	1	
	P3	RPFX0262-1	MIRAMAT	1	
			ACCESSORIES		
⚠	A1	N2QAYC000058	REMOTE CONTROL	1	
	A1-1	RKK-HTB10GNK	R/C BATTERY COVER	1	
⚠	A2	K2CB2YY00059	AC CORD	1	
⚠	A3	RQT9565-1P	O/I BOOK (En)	1	HC27P HC271P
⚠	A3	RQT9567-C	O/I BOOK (Cf)	1	HC27PC
	A4	RSAX0002	FM INDOOR ANTENNA	1	

17.2. Electrical Replacement Parts List

Important Safety Notice

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

RTL (Retention Time Limited)

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

Note:

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

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			PRINTED CIR-CUITS BOARDS		
	PCB1	REP4781A	CD SERVO P.C.B.	1	(RTL)
	PCB2	REP4784AA	MAIN P.C.B.	1	(RTL) HC27P/PC
	PCB2	REP4784HA	MAIN P.C.B.	1	(RTL) HC271P
	PCB3	REP4784AB	iPod P.C.B.	1	(RTL) HC27P/PC
	PCB3	REP4784HB	iPod P.C.B.	1	(RTL) HC271P
	PCB4	REP4784AC	TUNER P.C.B.	1	HC27P/PC
	PCB4	REP4784HC	TUNER P.C.B.	1	HC271P
	PCB5	REP4785AA	PANEL P.C.B.	1	(RTL)
	PCB6	REP4785AB	BUTTON P.C.B.	1	(RTL)
	PCB7	REP4785AD	POSITION SWTICH P.C.B.	1	(RTL)
	PCB8	REP4785AE	MOTOR P.C.B.	1	(RTL)
⚠	PCB9	REP4774B	SMPS P.C.B.	1	(RTL)
			INTERGRATED CIR-CUITS		
	IC52	C1AB00003568	IC	1	
	IC400	C1AB00003800	IC	1	
	IC401	C0DBGYY02205	IC	1	
	IC450	C1AB00003801	IC	1	
	IC1100	C0DBAYY01300	IC	1	
	IC1101	C0DBAYY01468	IC	1	
	IC1102	C0DBEYY00146	IC	1	
	IC1103	C0DBGYY01843	IC	1	
	IC1700	C0DACYY00012	IC	1	
	IC1701	C0DBZMC00006	IC	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	IC6000	C0DBZYY00483	IC	1	
	IC6002	RFKWMHC27P	IC	1	
	IC6003	C0EBE0000434	IC	1	
	IC6004	C3EBEY000037	IC	1	
	IC6801	C0HBB0000057	IC	1	
	IC7001	MN6627947RD	IC	1	
	IC7002	C0GBY0000117	IC	1	
	IC7502	MFI337S3959	IC	1	
	IC7704	C3ABMY000027	IC	1	
	IC7851	C3EBFY000029	IC	1	
			TRANSISTORS		
	Q400	B1ABCF000011	TRANSISTOR	1	
	Q401	B1ABCF000011	TRANSISTOR	1	
	Q402	B1ADCE000012	TRANSISTOR	1	
	Q403	B1ABCF000011	TRANSISTOR	1	
	Q404	B1CHRD000051	TRANSISTOR	1	
	Q1101	B1ABMG000008	TRANSISTOR	1	
	Q1700	B1ABGC000001	TRANSISTOR	1	
	Q1701	DSA500100L	TRANSISTOR	1	
	Q6004	B1ADCE000012	TRANSISTOR	1	
	Q7601	B1ADCF000001	TRANSISTOR	1	
	QR400	B1GBCFNN0038	TRANSISTOR	1	
	QR401	B1GDCFJJ0041	TRANSISTOR	1	
	QR1700	B1GBCFJJ0051	TRANSISTOR	1	
			DIODES		
	D1100	B0ACCK000012	DIODE	1	
	D1101	B0ACCK000012	DIODE	1	
	D1104	B0ECKM000008	DIODE	1	
	D1105	B0ECKM000008	DIODE	1	
	D1107	DZ2J030M0L	DIODE	1	
	D1108	B0EAMM000057	DIODE	1	
	D1109	B0JAME000114	DIODE	1	
	D1110	DZ2J220M0L	DIODE	1	
	D1111	DZ2J390M0L	DIODE	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	D1700	B0ABSM000008	DIODE	1	
	D1701	B0EBNR000049	DIODE	1	
	D1702	B0BC7R500001	DIODE	1	
	D1703	B0EAKT000063	DIODE	1	
	D1708	DA22F2100L	DIODE	1	
	D1709	B0BC03200003	DIODE	1	
	D6001	B0ACCK000012	DIODE	1	
	D6002	B0ACCK000012	DIODE	1	
	D7341	B0ECKM000008	DIODE	1	
	D7342	B0ECKM000008	DIODE	1	
	D7343	B0ECKM000008	DIODE	1	
	D7650	DZ2J056M0L	DIODE	1	
			VARISTOR		
	VA51	B0ZBZ0000156	VARISTOR	1	
			SWITCHES		
	S641	K0L1BA000078	SW OPEN	1	
	S643	K0L1BA000078	SW CLOSE	1	
	S901	EVQ11G04M	SW POWER	1	
	S903	EVQ11G04M	SW iPod	1	
	S904	EVQ11G04M	SW CD	1	
	S905	EVQ11G04M	SW RADIO	1	
	S906	EVQ11G04M	SW STOP	1	
	S907	EVQ11G04M	SW PLAY/PAUSE	1	
	S911	EVQ11G04M	SW REV SKIP	1	
	S912	EVQ11G04M	SW FWD SKIP	1	
	S913	EVQ11G04M	SW VOL-	1	
	S914	EVQ11G04M	SW VOL+	1	
	S915	EVQ11G04M	SW CD OPEN/CLOSE	1	
	S7201	K0L1BA000158	SW RESET	1	
			CONNECTORS		
	CN51	K1KY09AA0606	9P CONNECTOR	1	
	CN400	K1KA02AA0180	2P CONNECTOR	1	
	CN401	K1KA02AA0180	2P CONNECTOR	1	
	CN501	K1MN07BA0147	7P CONNECTOR	1	
	CN502	MFI514S0117	30P CONNECTOR	1	
	CN901	K1KB04B00043	4P CONNECTOR	1	
	CN1100	K1KB07AA0076	7P CONNECTOR	1	
	CN6000	K1KY09AA0607	9P CONNECTOR	1	
	CN6002	K1MY07AA0124	7P CONNECTOR	1	
	CN6005	K1KA05AA0193	5P CONNECTOR	1	
	CN6006	K1MY30AA0124	30P CONNECTOR	1	
	CN6008	K1MY13AA0124	13P CONNECTOR	1	
	CN6009	K1MN06C00005	6P CONNECTOR	1	
	CN6801	K1MN13B00019	13P CONNECTOR	1	
	CN6802	K1KA04A00553	4P CONNECTOR	1	
	CN7001	K1MN24BA0197	24P CONNECTOR	1	
	CN7002	K1MN30B00046	30P CONNECTOR	1	
	CN7801	K1KA05BA0014	5P CONNECTOR	1	
	P904	K1KA02BA0061	2P CONNECTOR	1	
	P1700	K1KA07BA0117	7P CONNECTOR	1	
			COILS AND INDUCTORS		
	K7724	J0JYB0000013	INDUCTOR	1	
	L51	G1CR18JA0020	INDUCTOR	1	
	L404	J0JHC0000107	INDUCTOR	1	
	L405	J0JHC0000107	INDUCTOR	1	
	L406	J0JHC0000107	INDUCTOR	1	
	L407	J0JHC0000107	INDUCTOR	1	
	L412	G1C150MA0426	INDUCTOR	1	
	L413	G1C150MA0426	INDUCTOR	1	
	L414	G1C150MA0426	INDUCTOR	1	
	L415	G1C150MA0426	INDUCTOR	1	
	L502	J0JGC0000034	INDUCTOR	1	
	L503	J0JGC0000071	INDUCTOR	1	
	L504	J0JHC0000107	INDUCTOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	L506	J0JGC0000071	INDUCTOR	1	
	L1100	G1C100M00041	INDUCTOR	1	
	L1101	G1C150M00023	INDUCTOR	1	
	L1700	G1C100K00019	INDUCTOR	1	
⚠	L1702	G0B183E00004	LINE FILTER	1	
	L6006	J0JHC0000034	INDUCTOR	1	
	L7001	EXC24CE900U	FILTER	1	
	L7336	J0JYB0000013	INDUCTOR	1	
	LB51	J0JBC0000032	INDUCTOR	1	
	LB52	J0JYC0000118	INDUCTOR	1	
	LB400	J0JHC0000046	INDUCTOR	1	
	LB401	J0JHC0000046	INDUCTOR	1	
	LB402	J0JCC0000079	INDUCTOR	1	
	LB403	J0JCC0000079	INDUCTOR	1	
	LB404	J0JGC0000020	INDUCTOR	1	
	LB450	J0JBC0000014	INDUCTOR	1	
	LB451	J0JBC0000014	INDUCTOR	1	
	LB452	J0JCC0000124	INDUCTOR	1	
	LB1101	J0JHC0000107	INDUCTOR	1	HC27P/PC
	LB1101	J0JHC0000046	INDUCTOR	1	HC271P
	LB1103	J0JHC0000107	INDUCTOR	1	HC27P/PC
	LB1103	J0JHC0000046	INDUCTOR	1	HC271P
	LB1104	J0JHC0000046	INDUCTOR	1	HC27P/PC
	LB1104	J0JHC0000046	INDUCTOR	1	HC271P
	LB1105	J0JHC0000107	INDUCTOR	1	HC27P/PC
	LB1105	J0JHC0000046	INDUCTOR	1	HC271P
	LB1106	J0JHC0000107	INDUCTOR	1	HC27P/PC
	LB1106	J0JHC0000046	INDUCTOR	1	HC271P
			TRANSFORMERS		
⚠	T1100	G4D1A0000117	SWITCHING TRANSFORMER	1	
⚠	T1700	G4DYZ0000059	MAIN TRANSFORMER	1	
			COMPONENT COMBINATION		
⚠	Z1752	ERZV10V511CS	ZNR	1	
			PROTECTOR		
⚠	IP1100	K5H302Z00003	PROTECTOR	1	
			REMOTE SENSOR		
	IR6801	B3RAD0000204	REMOTE SENSOR	1	
			PHOTO COUPLER		
⚠	PC1701	B3PBA0000503	PHOTO COUPLER	1	
			TERMINALS		
	ZJ1701	K4CZ01000027	TERMINAL	1	
	ZJ1702	K4CZ01000027	TERMINAL	1	
			OSCILLATORS		
	X400	H0J245500110	CRYSTAL OSCILLATOR	1	
	X6000	H2B800400007	CRYSTAL OSCILLATOR	1	
	X6001	H0A327200097	CRYSTAL OSCILLATOR	1	
	X7201	H2D169500017	CRYSTAL OSCILLATOR	1	
	X7205	H0J120500076	CRYSTAL OSCILLATOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			FL DISPLAY		
	FL6801	A2BB00000185	LCD DISPLAY	1	
			FUSE		
⚠	F1	K5G202Y00006	FUSE	1	
			THERMISTOR		
⚠	TH1701	D4CAA5R10001	THERMISTOR	1	
			JACKS		
	JK51	K4ZZ02000103	JK FM ANT	1	
	JK450	K2HC1YYB0033	JK HEADPHONE	1	
⚠	P1751	K2AB2B000007	AC INLET	1	
			CHIP JUMPERS		
	K401	D0GBR00JA008	0 1/10W	1	
	K6000	D0GBR00JA008	0 1/10W	1	
	K7001	D0GBR00JA008	0 1/10W	1	
	K7011	D0GBR00JA008	0 1/10W	1	
	K7101	D0GBR00JA008	0 1/10W	1	
	K7102	D0GBR00JA008	0 1/10W	1	
	K7111	D0GBR00JA008	0 1/10W	1	
	K7258	D0GBR00JA008	0 1/10W	1	
	K7278	D0GBR00JA008	0 1/10W	1	
	L501	D0GBR00JA008	0 1/10W	1	
	L505	D0GBR00JA008	0 1/10W	1	
	L1000	D0GDR00JA017	0 1/8W	1	
	L1106	D0GBR00JA008	0 1/10W	1	
	L6005	D0GBR00JA008	0 1/10W	1	
	LB6024	D0GBR00JA008	0 1/10W	1	
	LB6025	D0GBR00JA008	0 1/10W	1	
	W1	D0GBR00JA008	0 1/10W	1	
	W2	D0GDR00JA017	0 1/8W	1	
	W3	D0GDR00JA017	0 1/8W	1	
	W4	D0GDR00JA017	0 1/8W	1	
	W5	D0GDR00JA017	0 1/8W	1	
	W6	D0GDR00JA017	0 1/8W	1	
	W7	D0GBR00JA008	0 1/10W	1	
	W8	D0GBR00JA008	0 1/10W	1	
	W9	D0GDR00JA017	0 1/8W	1	
	W10	D0GDR00JA017	0 1/8W	1	
	W11	D0GBR00JA008	0 1/10W	1	
	W12	D0GBR00JA008	0 1/10W	1	
			RESISTORS		
	K7202	D0GB101JA008	100 1/10W	1	
	K7701	D0GB271JA008	270 1/10W	1	
	K7702	D0GB271JA008	270 1/10W	1	
	K7703	D0GB271JA008	270 1/10W	1	
	R51	D0GB222JA008	2.2K 1/10W	1	
	R52	D0GB561JA008	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	D0GB221JA008	220 1/10W	1	
	R57	D0GA102JA023	1K 1/16W	1	
	R59	D0GB222JA008	2.2K 1/10W	1	
	R60	D0GB222JA008	2.2K 1/10W	1	
	R61	D0GBR00JA008	0 1/10W	1	
	R62	D0GBR00JA008	0 1/10W	1	
	R401	D0GB222JA008	2.2K 1/10W	1	
	R402	D0GB222JA008	2.2K 1/10W	1	
	R403	D0GB101JA008	100 1/10W	1	
	R404	D0GB104JA008	100K 1/10W	1	
	R405	D0GB104JA008	100K 1/10W	1	
	R406	D0GB104JA008	100K 1/10W	1	
	R407	D0GB104JA008	100K 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R408	D0GB104JA008	100K 1/10W	1	
	R409	D0GB104JA008	100K 1/10W	1	
	R410	D0GB223JA008	22K 1/10W	1	
	R411	D0GB472JA008	4.7K 1/10W	1	
	R412	D0GB105JA008	1M 1/10W	1	
	R413	D0GB471JA008	470 1/10W	1	
	R414	D0GB101JA008	100 1/10W	1	
	R418	D0GB104JA008	100K 1/10W	1	
	R419	D0GB104JA008	100K 1/10W	1	
	R420	D0GB223JA008	22K 1/10W	1	
	R421	D0GB153JA008	15K 1/10W	1	
	R422	D0GB223JA008	22K 1/10W	1	
	R423	D0GB153JA008	15K 1/10W	1	
	R424	D0GB223JA008	22K 1/10W	1	
	R425	D0GB681JA008	680 1/10W	1	
	R426	D0GB223JA008	22K 1/10W	1	
	R427	D0GB681JA008	680 1/10W	1	
	R428	D0GB681JA008	680 1/10W	1	
	R429	D0GB681JA008	680 1/10W	1	
	R430	D0GB153JA008	15K 1/10W	1	
	R431	D0GB153JA008	15K 1/10W	1	
	R432	D0GB333JA008	33K 1/10W	1	
	R433	D0GB333JA008	33K 1/10W	1	
	R434	D0GB333JA008	33K 1/10W	1	
	R435	D0GB333JA008	33K 1/10W	1	
	R436	D0GB100JA008	10 1/10W	1	
	R437	D0GB100JA008	10 1/10W	1	
	R438	D0GB473JA008	47K 1/10W	1	
	R439	D0GB473JA008	47K 1/10W	1	
	R440	D0GB473JA008	47K 1/10W	1	
	R441	D0GB473JA008	47K 1/10W	1	
	R442	D0GB103JA008	10K 1/10W	1	
	R443	D0GB561JA008	560 1/10W	1	
	R444	D0GB473JA008	47K 1/10W	1	
	R446	D0GB102JA008	1K 1/10W	1	
	R447	D0GB102JA008	1K 1/10W	1	
	R448	D0GB561JA008	560 1/10W	1	
	R449	D0GB473JA008	47K 1/10W	1	
	R451	D0GB221JA007	220 1/10W	1	
	R452	D0GB102JA008	1K 1/10W	1	
	R453	D0GB273JA008	27K 1/10W	1	
	R471	D0GB221JA008	220 1/10W	1	
	R472	D0GB221JA008	220 1/10W	1	
	R473	D0GB221JA008	220 1/10W	1	
	R474	D0GB221JA007	220 1/10W	1	
	R475	D0GB221JA007	220 1/10W	1	
	R476	D0GB221JA007	220 1/10W	1	
	R477	D0GB221JA007	220 1/10W	1	
	R478	D0GB221JA007	220 1/10W	1	
	R479	D0GB221JA007	220 1/10W	1	
	R480	D0GB274JA008	270K 1/10W	1	
	R501	D0GBR00JA008	0 1/10W	1	
	R502	D0GBR00JA008	0 1/10W	1	
	R911	D0GB332JA008	3.3K 1/10W	1	
	R912	D0GB222JA008	2.2K 1/10W	1	
	R913	D0GB122JA008	1.2K 1/10W	1	
	R914	D0GB122JA008	1.2K 1/10W	1	
	R915	D0GB122JA008	1.2K 1/10W	1	
	R921	D0GB332JA008	3.3K 1/10W	1	
	R923	D0GB332JA008	3.3K 1/10W	1	
	R924	D0GB472JA008	4.7K 1/10W	1	
	R925	D0GB752JA008	7.5K 1/10W	1	
	R926	D0GB472JA008	4.7K 1/10W	1	
	R1102	ERJ3RBD303V	30K 1/16W	1	
	R1103	D0HB102ZA002	1K 1/16W	1	
	R1104	ERJ3RBD302V	3K 1/16W	1	
	R1106	D0GB390JA008	39 1/10W	1	
	R1107	ERJ3RBD823V	82K 1/16W	1	
	R1108	ERJ3RBD153V	15K 1/16W	1	
	R1110	D0GB390JA008	39 1/10W	1	
	R1111	D0GB183JA008	18K 1/10W	1	
	R1112	D0GB332JA008	3.3K 1/10W	1	
	R1114	D0GB100JA008	10 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R1120	D0GB223JA008	22K 1/10W	1	
	R1121	D0GB270JA008	27 1/10W	1	
	R1122	D0GB332JA008	3.3K 1/10W	1	
	R1126	D0GB471JA008	470 1/10W	1	
	R1127	D0GB473JA008	47K 1/10W	1	
	R1128	D0GB103JA008	10K 1/10W	1	
	R1129	ERJ3RBD104V	100K 1/16W	1	
	R1130	ERJ3RBD333V	33K 1/16W	1	
	R1131	D0GB3R3JA008	3.3 1/10W	1	
	R1700	D0GD4R7JA017	4.7 1/8W	1	
	R1701	D0GB152JA008	1.5K 1/10W	1	
	R1702	D0GB682JA008	6.8K 1/10W	1	
	R1703	D0GB332JA008	3.3K 1/10W	1	
	R1704	ERJ1TYJ333U	33K 1W	1	
	R1705	D0GB103JA008	10K 1/10W	1	
	R1706	D0GB223JA008	22K 1/10W	1	
	R1707	D0GB563JA008	56K 1/10W	1	
	R1708	ERJ1TYJ220U	22 1W	1	
	R1710	ERJ3RBD473V	47K 1/16W	1	
	R1711	D0GB103JA008	10K 1/10W	1	
	R1716	D0GB394JA008	390K 1/10W	1	
	R1717	D0GB122JA008	1.2K 1/10W	1	
	R1718	ERX2SJR22P	0.22 2W	1	
⚠	R1724	ERJ12YJ105U	1M 1/2W	1	
	R1725	D0GB223JA008	22K 1/10W	1	
⚠	R1726	ERJ12YJ105U	1M 1/2W	1	
	R1727	D0GB104JA008	100K 1/10W	1	
	R1728	D0HB822ZA002	8.2K 1/16W	1	
	R1729	D0GD220JA017	22 1/8W	1	
	R1730	ERJ3RBD682V	6.8K 1/16W	1	
	R6002	D0GB472JA008	4.7K 1/10W	1	
	R6003	D0GB472JA008	4.7K 1/10W	1	
	R6005	D1BB5102A073	51K 1/10W	1	
	R6008	D0GB101JA008	100 1/10W	1	
	R6009	D1BB5102A073	51K 1/10W	1	
	R6010	D0GB473JA008	47K 1/10W	1	
	R6014	D0GB104JA008	100K 1/10W	1	
	R6016	D0GBR00JA008	0 1/10W	1	
	R6018	D0GBR00JA008	0 1/10W	1	
	R6022	D0GB472JA008	4.7K 1/10W	1	
	R6023	D0GB472JA008	4.7K 1/10W	1	
	R6024	D0GB101JA008	100 1/10W	1	
	R6025	D0GB101JA008	100 1/10W	1	
	R6026	D0GB104JA008	100K 1/10W	1	
	R6029	D0GB101JA008	100 1/10W	1	
	R6030	D0GB101JA008	100 1/10W	1	
	R6031	D0GB101JA008	100 1/10W	1	
	R6040	D0GBR00JA008	0 1/10W	1	
	R6042	D0GB472JA008	4.7K 1/10W	1	
	R6043	D0GB103JA008	10K 1/10W	1	
	R6044	D0GB101JA008	100 1/10W	1	
	R6045	D0GB101JA008	100 1/10W	1	
	R6046	D0GB101JA008	100 1/10W	1	
	R6047	D0GB101JA008	100 1/10W	1	
	R6048	D0GB101JA008	100 1/10W	1	
	R6049	D0GB473JA008	47K 1/10W	1	
	R6050	D0GB104JA008	100K 1/10W	1	
	R6054	D0GB224JA008	220K 1/10W	1	
	R6055	D0GB101JA008	100 1/10W	1	
	R6056	D0GB103JA008	10K 1/10W	1	
	R6057	D0GB102JA008	1K 1/10W	1	
	R6058	D0GB822JA008	8.2K 1/10W	1	HC27P/PC
	R6058	D0GB154JA008	150K 1/10W	1	HC271P
	R6059	D0GB102JA008	1K 1/10W	1	
	R6060	D0GB101JA008	100 1/10W	1	
	R6061	D0GB102JA008	1K 1/10W	1	
	R6062	D0GB101JA008	100 1/10W	1	
	R6063	D0GB104JA008	100K 1/10W	1	
	R6064	D0GB101JA008	100 1/10W	1	
	R6065	D0GB101JA008	100 1/10W	1	
	R6066	D0GB101JA008	100 1/10W	1	
	R6068	D0GB101JA008	100 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R6070	D0GB104JA008	100K 1/10W	1	
	R6072	D0GB103JA008	10K 1/10W	1	
	R6074	D0GB101JA008	100 1/10W	1	
	R6075	D0GB102JA008	1K 1/10W	1	
	R6076	D0GB103JA008	10K 1/10W	1	
	R6077	D0GB473JA008	47K 1/10W	1	
	R6079	D0GB102JA008	1K 1/10W	1	
	R6080	D0GB152JA008	1.5K 1/10W	1	
	R6081	D0GBR00JA008	0 1/10W	1	
	R6083	D0GBR00JA008	0 1/10W	1	
	R6084	D0GB104JA008	100K 1/10W	1	
	R6086	D0GB101JA008	100 1/10W	1	
	R6087	D0GB101JA008	100 1/10W	1	
	R6088	D0GB101JA008	100 1/10W	1	
	R6089	D0GB104JA008	100K 1/10W	1	
	R6090	D0GB101JA008	100 1/10W	1	
	R6091	D0GB101JA008	100 1/10W	1	
	R6092	D0GB472JA008	4.7K 1/10W	1	
	R6093	D0GB101JA008	100 1/10W	1	
	R6094	D0GB101JA008	100 1/10W	1	
	R6095	D0GB104JA008	100K 1/10W	1	
	R6096	D0GB472JA008	4.7K 1/10W	1	
	R6097	D0GB101JA008	100 1/10W	1	
	R6098	D0GB101JA008	100 1/10W	1	
	R6099	D0GB101JA008	100 1/10W	1	
	R6100	D0GB101JA008	100 1/10W	1	
	R6102	D0GB332JA008	3.3K 1/10W	1	
	R6103	D0GB101JA008	100 1/10W	1	
	R6104	D0GB101JA008	100 1/10W	1	
	R6107	D0GB101JA008	100 1/10W	1	
	R6109	D0GB101JA008	100 1/10W	1	
	R6110	D0GB104JA008	100K 1/10W	1	
	R6111	D0GB104JA008	100K 1/10W	1	
	R6112	D0GB104JA008	100K 1/10W	1	
	R6113	D0GB152JA008	1.5K 1/10W	1	
	R6114	D0GB152JA008	1.5K 1/10W	1	
	R6119	D0GB101JA008	100 1/10W	1	
	R6122	D0GB104JA008	100K 1/10W	1	
	R6132	D0GB101JA008	100 1/10W	1	
	R6134	D0GB1R0JA008	1 1/10W	1	
	R6135	D0GB101JA008	100 1/10W	1	
	R6136	D0GB101JA008	100 1/10W	1	
	R6137	D0GB101JA008	100 1/10W	1	
	R6138	D0GB103JA008	10K 1/10W	1	
	R6318	D0GB101JA008	100 1/10W	1	
	R6319	D0GBR00JA008	0 1/10W	1	
	R6320	D0GBR00JA008	0 1/10W	1	
	R6400	D0GBR00JA008	0 1/10W	1	HC27P/PC
	R6407	D0GBR00JA008	0 1/10W	1	HC271P
	R6801	D0GBR00JA008	0 1/10W	1	
	R6803	D0GB470JA008	47 1/10W	1	
	R6804	D0GB393JA008	39K 1/10W	1	
	R6805	D0GB101JA008	100 1/10W	1	
	R7111	D0GB103JA008	10K 1/10W	1	
	R7151	D0GBR00JA008	0 1/10W	1	
	R7158	D0GB330JA008	33 1/10W	1	
	R7173	D0GB101JA008	100 1/10W	1	
	R7176	D0GB101JA008	100 1/10W	1	
	R7205	D0GB102JA008	1K 1/10W	1	
	R7207	D0GB103JA008	10K 1/10W	1	
	R7208	D0GBR00JA008	0 1/10W	1	
	R7211	D0GB823JA008	82K 1/10W	1	
	R7212	D0GB821JA008	820 1/10W	1	
	R7213	D0GB272JA008	2.7K 1/10W	1	
	R7214	D0GB471JA008	470 1/10W	1	
	R7217	D0GB102JA008	1K 1/10W	1	
	R7218	D0GB102JA008	1K 1/10W	1	
	R7220	D0GB105JA008	1M 1/10W	1	
	R7221	D0GB101JA008	100 1/10W	1	
	R7253	D0GB101JA008	100 1/10W	1	
	R7254	D0GB102JA008	1K 1/10W	1	
	R7255	D0GB103JA008	10K 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R7262	D0GB101JA008	100 1/10W	1	
	R7264	D0GB101JA008	100 1/10W	1	
	R7265	D0GB101JA008	100 1/10W	1	
	R7266	D0GB101JA008	100 1/10W	1	
	R7267	D0GB102JA008	1K 1/10W	1	
	R7315	D0GB102JA008	1K 1/10W	1	
	R7321	D0GB152JA008	1.5K 1/10W	1	
	R7322	D0GB562JA008	5.6K 1/10W	1	
	R7323	D0GB332JA008	3.3K 1/10W	1	
	R7325	D0GB101JA008	100 1/10W	1	
	R7327	D0GB562JA008	5.6K 1/10W	1	
	R7328	D0GB273JA008	27K 1/10W	1	
	R7329	D0GB472JA008	4.7K 1/10W	1	
	R7331	D0GB473JA008	47K 1/10W	1	
	R7332	D0GB123JA008	12K 1/10W	1	
	R7335	D0GB101JA008	100 1/10W	1	
	R7336	D0GB100JA008	10 1/10W	1	
	R7340	D0GB102JA008	1K 1/10W	1	
	R7341	D0GB122JA008	1.2K 1/10W	1	
	R7349	D0GB104JA008	100K 1/10W	1	
	R7504	D0GB222JA008	2.2K 1/10W	1	
	R7505	D0GB222JA008	2.2K 1/10W	1	
	R7601	D0GB4R7JA008	4.7 1/10W	1	
	R7650	D0GB5R6JA008	5.6 1/10W	1	
	R7702	D0GBR00JA008	0 1/10W	1	
	R7707	D0GBR00JA008	0 1/10W	1	
	R7712	D0GBR00JA008	0 1/10W	1	
	R7717	D0GBR00JA008	0 1/10W	1	
	R7721	D0GBR00JA008	0 1/10W	1	
	R7731	D0GBR00JA008	0 1/10W	1	
	R7761	D0GB225JA008	2.2M 1/10W	1	
	R7853	D0GB332JA008	3.3K 1/10W	1	
	R7854	D0GB332JA008	3.3K 1/10W	1	
	R7896	D0GB102JA008	1K 1/10W	1	
	R7901	D0GB330JA008	33 1/10W	1	
	R7902	D0GB330JA008	33 1/10W	1	
	R7903	D0GB223JA008	22K 1/10W	1	
	R7904	D0GB223JA008	22K 1/10W	1	
			CAPACITORS		
	C51	F1H1H102A885	1000pF 50V	1	
	C61	F1G1C104A077	0.1uF 16V	1	
	C62	F1G1C104A077	0.1uF 16V	1	
	C65	D0GBR00JA008	0 1/10W	1	
	C66	F1H1H330A230	33pF 50V	1	
	C67	F1H1H3R0A508	3pF 50V	1	
	C400	F1J1A106A043	10uF 10V	1	
	C401	F1J1A106A043	10uF 10V	1	
	C402	F1J1A106A043	10uF 10V	1	
	C403	F1J1A106A043	10uF 10V	1	
	C404	F1H1A105A028	1uF 10V	1	
	C405	F1J1A106A043	10uF 10V	1	
	C406	F1J1E105A171	1uF 25V	1	
	C407	F1J1E105A171	1uF 25V	1	
	C408	F1J1E105A171	1uF 25V	1	
	C409	F1J1E105A171	1uF 25V	1	
	C410	F1H1H104A013	0.1uF 50V	1	
	C411	F1H1H104A013	0.1uF 50V	1	
	C412	F1H1H104A013	0.1uF 50V	1	
	C413	F1H1H104A013	0.1uF 50V	1	
	C414	F1J1H104A717	0.1uF 50V	1	
	C415	F1J1H104A717	0.1uF 50V	1	
	C416	F1H1C104A120	0.1uF 16V	1	
	C417	F1H1H102A885	1000pF 50V	1	
	C418	F1H1H470A004	47pF 50V	1	
	C419	F1H1H470A004	47pF 50V	1	
	C420	F1J1A106A043	10uF 10V	1	
	C421	F1J1A106A043	10uF 10V	1	
	C422	F1H1E105A116	1uF 25V	1	
	C423	F1H1H102A885	1000pF 50V	1	
	C426	F1H1H120A889	12pF 50V	1	
	C427	F1H1H120A889	12pF 50V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C428	F1H1H104A013	0.1uF 50V	1	
	C429	D0GBR00JA008	0 1/10W	1	
	C430	F1J1E105A171	1uF 25V	1	
	C431	F1J1E105A171	1uF 25V	1	
	C432	F1J1E105A171	1uF 25V	1	
	C433	F1J1E105A171	1uF 25V	1	
	C434	F2A1E2210099	220uF 25V	1	
	C435	F1H1H102A885	1000pF 50V	1	
	C436	F1H1H102A885	1000pF 50V	1	
	C437	F1H1H102A885	1000pF 50V	1	
	C438	F1H1H102A885	1000pF 50V	1	
	C439	F1H1A105A028	1uF 10V	1	
	C440	F1H1A105A028	1uF 10V	1	
	C441	F1H1H181A792	180pF 50V	1	
	C442	F1H1H470A004	47pF 50V	1	
	C443	F1H1H470A004	47pF 50V	1	
	C444	F1H1H102A885	1000pF 50V	1	
	C445	F1H1H181A792	180pF 50V	1	
	C447	F1H1H102A885	1000pF 50V	1	
	C448	F1H1H102A885	1000pF 50V	1	
	C449	F1H1H103A885	0.01uF 50V	1	
	C450	F1H1H470A004	47pF 50V	1	
	C451	F1H1H102A885	1000pF 50V	1	
	C452	F1H1H470A004	47pF 50V	1	
	C453	F1H1A105A028	1uF 10V	1	
	C454	F1H1H102A885	1000pF 50V	1	
	C455	F1H1H102A885	1000pF 50V	1	
	C456	F1H1H102A885	1000pF 50V	1	
	C457	F1H1H102A885	1000pF 50V	1	
	C458	F1H1H102A885	1000pF 50V	1	
	C459	F1H1H102A885	1000pF 50V	1	
	C460	F1H1H102A885	1000pF 50V	1	
	C461	F1H1H102A885	1000pF 50V	1	
	C501	F1G1C104A077	0.1uF 16V	1	
	C502	F1G1C104A077	0.1uF 16V	1	
	C503	F1G1H100A565	10pF 50V	1	
	C504	F1G1H100A565	10pF 50V	1	
	C1001	F1H1C104A120	0.1uF 16V	1	
	C1101	F1H1A225A025	2.2uF 10V	1	
	C1104	F1K1C106A062	10uF 16V	1	
	C1105	F1K1C226A121	22uF 16V	1	
	C1106	F1K1C226A121	22uF 16V	1	
	C1107	F1K1C226A121	22uF 16V	1	
	C1108	F1H1H104A013	0.1uF 50V	1	
	C1109	F1H1H223A219	0.022uF 50V	1	
	C1110	F1H1H102A885	1000pF 50V	1	
	C1111	F1H1H472A885	4700pF 50V	1	
	C1113	F1H1H473A220	0.047uF 50V	1	
	C1115	F1H1H562A219	5600pF 50V	1	
	C1117	F1H1E1050001	1uF 25V	1	
	C1118	F1K1E1060001	10uF 25V	1	
	C1120	F1H0J4750005	4.7uF 6.3V	1	
	C1121	F1K1E1060001	10uF 25V	1	
	C1122	F1J1E4750002	4.7uF 25V	1	
	C1123	F1H1H102A885	1000pF 50V	1	
	C1126	F1H1H223A219	0.022uF 50V	1	
	C1128	F1K1C226A121	22uF 16V	1	
	C1129	F1H1H102A885	1000pF 50V	1	
	C1130	F2A0J221A245	220uF 6.3V	1	
	C1131	F2A1V3300062	33uF 35V	1	
	C1132	F1H1H682A219	6800pF 50V	1	
	C1133	F1H1H102A885	1000pF 50V	1	
	C1700	F1H1H221A748	220pF 50V	1	
	C1701	F2A1H100A454	10uF 50V	1	
⚠	C1702	F0CAF224A105	0.22uF	1	
	C1703	F2A1E1020114	1000uF 25V	1	
	C1704	F1H1H102A013	1000pF 50V	1	
	C1705	F1K2J472A010	4700pF 630V	1	
	C1706	F2A2D1010039	100uF 200V	1	
	C1708	F1H1H102A219	1000pF 50V	1	
	C1709	F1H1H104A013	0.1uF 50V	1	
⚠	C1710	F1BAF471A013	470pF	1	
	C1712	F1H1H104A013	0.1uF 50V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C1713	F1K2J221A014	220pF 630V	1	
	C1714	F1H1H104A013	0.1uF 50V	1	
	C1715	F1H1H104A013	0.1uF 50V	1	
	C1716	F1H1H103A219	0.01uF 50V	1	
	C1719	F1H1E474A116	0.47uF 25V	1	
	C1720	F1A3D100A009	10pF 2000V	1	
⚠	C1725	F0CAF154A105	0.15uF	1	
⚠	C1727	F1BAF1020020	1000pF	1	
⚠	C1728	F1BAF1020020	1000pF	1	
	C6002	F1H1H101A889	100pF 50V	1	
	C6003	F1H1C104A120	0.1uF 16V	1	
	C6005	F1H1H472A885	4700pF 50V	1	
	C6007	F1H1H472A885	4700pF 50V	1	
	C6009	F1J1A106A043	10uF 10V	1	
	C6014	F1H1H472A885	4700pF 50V	1	
	C6015	F1J1A106A043	10uF 10V	1	
	C6017	F1H1H472A885	4700pF 50V	1	
	C6019	F1H1H220A889	22pF 50V	1	
	C6020	F1H1H102A885	1000pF 50V	1	
	C6021	F1H1H180A889	18pF 50V	1	
	C6022	F1H1A224A061	0.22uF 10V	1	
	C6023	F1H1C104A120	0.1uF 16V	1	
	C6026	F1H1H102A885	1000pF 50V	1	
	C6027	F1H1C104A120	0.1uF 16V	1	
	C6028	F1H1C104A120	0.1uF 16V	1	
	C6029	F1H1C104A120	0.1uF 16V	1	
	C6031	F1H1H101A889	100pF 50V	1	
	C6032	F1H1H101A889	100pF 50V	1	
	C6034	F1H1H102A885	1000pF 50V	1	
	C6035	F1H1A105A028	1uF 10V	1	
	C6036	F1H1H223A219	0.022uF 50V	1	
	C6037	F1H1H223A219	0.022uF 50V	1	
	C6038	F1H1H101A889	100pF 50V	1	
	C6040	F1J1A106A043	10uF 10V	1	
	C6041	F1H1H101A889	100pF 50V	1	
	C6046	F2A1A330A010	33uF 10V	1	
	C6047	F1H1H331A885	330pF 50V	1	
	C6049	F1H1H223A219	0.022uF 50V	1	
	C6050	F1H1H101A889	100pF 50V	1	
	C6051	F1H1H101A889	100pF 50V	1	
	C6052	F1H1C104A120	0.1uF 16V	1	
	C6801	F1K1E1060001	10uF 25V	1	
	C6820	F1J0J226A014	22uF 6.3V	1	
	C6827	F1H1H104A783	0.1uF 50V	1	
	C6828	F1H1A105A028	1uF 10V	1	
	C7003	F1J1H101A619	100pF 50V	1	
	C7007	F1H1H101A889	100pF 50V	1	
	C7031	F1H1H101A889	100pF 50V	1	
	C7102	F1H1A474A025	0.47uF 10V	1	
	C7107	F1H1H223A219	0.022uF 50V	1	
	C7142	F1H1H332A013	3300pF 50V	1	
	C7150	F1H1C104A120	0.1uF 16V	1	
	C7151	F1H1C104A120	0.1uF 16V	1	
	C7152	F1G1A1040006	0.1uF 10V	1	
	C7154	F1H1C104A120	0.1uF 16V	1	
	C7155	F1H1A105A004	1uF 10V	1	
	C7156	F1H1A105A004	1uF 10V	1	
	C7157	F1H1H103A885	0.01uF 50V	1	
	C7158	F1H1C104A120	0.1uF 16V	1	
	C7159	F1H1C104A120	0.1uF 16V	1	
	C7160	F1H1C104A120	0.1uF 16V	1	
	C7161	F1G1A1040006	0.1uF 10V	1	
	C7162	F1G1A1040006	0.1uF 10V	1	
	C7163	F1G1A1040006	0.1uF 10V	1	
	C7166	F1H1H103A885	0.01uF 50V	1	
	C7204	F1H1H103A885	0.01uF 50V	1	
	C7205	F1H1H270A004	27pF 50V	1	
	C7206	F1H1H270A004	27pF 50V	1	
	C7207	F1J1A106A041	10uF 10V	1	
	C7208	F1J1A106A041	10uF 10V	1	
	C7213	F1H1A334A028	0.33uF 10V	1	
	C7216	F1H1H681A013	680pF 50V	1	
	C7217	F1G1A1040006	0.1uF 10V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C7218	F1H1C823A001	0.082uF 16V	1	
	C7223	F1J1A106A041	10uF 10V	1	
	C7225	F1H1H102A885	1000pF 50V	1	
	C7226	F1H1H102A885	1000pF 50V	1	
	C7230	F1H1H103A885	0.01uF 50V	1	
	C7233	F1H1H103A885	0.01uF 50V	1	
	C7234	F1H1C104A120	0.1uF 16V	1	
	C7235	F1J1A106A041	10uF 10V	1	
	C7236	F1J1A106A041	10uF 10V	1	
	C7237	F1G1A1040006	0.1uF 10V	1	
	C7238	F1H1C104A120	0.1uF 16V	1	
	C7239	F1J1A106A041	10uF 10V	1	
	C7241	F1H1H102A885	1000pF 50V	1	
	C7243	D0GBR00JA008	0 1/10W	1	
	C7244	F1H1C153A001	0.015uF 16V	1	
	C7253	D0GBR00JA008	0 1/10W	1	
	C7263	F1G1A1040006	0.1uF 10V	1	
	C7264	F1G1A1040006	0.1uF 10V	1	
	C7265	F1G1A1040006	0.1uF 10V	1	
	C7267	F1G1A1040006	0.1uF 10V	1	
	C7268	F1H1H103A885	0.01uF 50V	1	
	C7269	F1H1A105A004	1uF 10V	1	
	C7315	F1H1A154A001	0.15uF 10V	1	
	C7334	F2G1A101A019	100uF 10V	1	
	C7335	F1H1H103A885	0.01uF 50V	1	
	C7338	F1H1H153A885	0.015uF 50V	1	
	C7339	F1H1H182A219	1800pF 50V	1	
	C7340	F1H1H103A885	0.01uF 50V	1	
	C7341	F1J1A106A041	10uF 10V	1	
	C7352	F1H1H122A219	1200pF 50V	1	
	C7501	D0GBR00JA008	0 1/10W	1	
	C7502	F1H1H103A885	0.01uF 50V	1	
	C7601	F1J1A106A041	10uF 10V	1	
	C7613	F1G1A1040006	0.1uF 10V	1	
	C7615	F1J1A106A041	10uF 10V	1	
	C7616	F1J1A106A041	10uF 10V	1	
	C7626	F1J1A106A041	10uF 10V	1	
	C7670	F1H1H103A885	0.01uF 50V	1	
	C7725	F1G1H100A565	10pF 50V	1	
	C7735	F1G1H100A565	10pF 50V	1	
	C7741	F1H1H103A885	0.01uF 50V	1	
	C7752	F1H1H103A885	0.01uF 50V	1	
	C7753	F1J1A106A041	10uF 10V	1	
	C7754	F1J1A106A041	10uF 10V	1	
	C7755	F1J1A106A041	10uF 10V	1	
	C7851	F1H1H103A885	0.01uF 50V	1	
	C7853	F1H1H101A889	100pF 50V	1	
			SERVICE FIX-TURES AND TOOLS		
	SFT1	REE1712	30P FFC (MAIN - CD SERVO)	1	
	SFT2	REX1538	7P WIRE(SMPS - MAIN)	1	

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