

Service Manual

Compact Stereo System



Remote
Control

SC-HC195/295/297

Model No. **SC-HC195EB**
SC-HC195EG
SC-HC295EG
SC-HC297EB

Product Color: (K)...Black Type
 (W)...White Type (For HC195EG,
 HC295EG)

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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1 Safety Precautions

1.1. General Guidelines

1. IMPORTANT SAFETY NOTICE

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

1.1.1. Leakage Current Cold Check

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

1.1.2. Leakage Current Hot Check

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

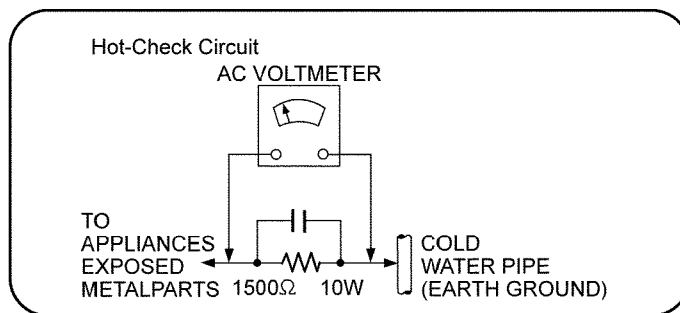


Figure. 1-1

1.2. Caution for AC Cord (For EB only)

(For the AC mains plug of three pins)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience. A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

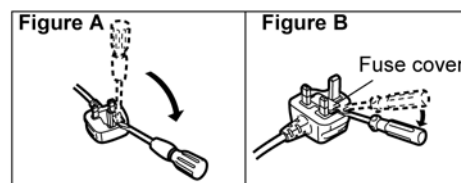
Before use

Remove the connector cover.

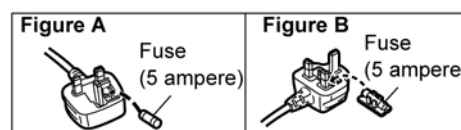
How to replace the fuse

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

1. Open the fuse cover with a screwdriver.



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



1.3. Before Repair and Adjustment

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

Caution :

DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices. After repairs are completed, restore power gradually using a variac, to avoid overcurrent.

- Current consumption at AC 220V to 240V, at 50Hz in NO SIGNAL mode (at volume minimum in FM Tuner mode) should be ~200 mA.

1.4. 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.

1.5. Caution For Fuse Replacement

CAUTION:

Replace with the same type fuse:

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

1.6. Safety Part Information

Safety Parts List:

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

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

Safety	Ref. No.	Part No.	Part Name & Description	Remarks
⚠	14	RGN3625A-K1	NAME PLATE	HC295EG-K/W
⚠	14	RGN3625B-K1	NAME PLATE	HC297EB-K
⚠	14	RGN3628-K1	NAME PLATE	HC195EG-K/W, HC195EB-K
⚠	35	RMV0429	SMPS BRACKET INSULATOR A	
⚠	36	RMV0432	SMPS COVER INSULATION	
⚠	301	RAE5308Z-V	TRAVERSE UNIT	(E.S.D)
⚠	A2	K2CQ2YY00119	AC CORD	HC195EG, HC295EG
⚠	A2	K2CT2YY00097	AC CORD	HC195EB, HC297EB
⚠	A3	RQT0B01-B	O/I BOOK (En)	HC297EB
⚠	A3	RQT0B02-D	O/I BOOK(Ge/Fr/It/Du)	HC195EG, HC295EG
⚠	A3	RQT0B03-E	O/I BOOK(Sw/Da/Fi/Pol/Cz/Sp)	HC195EG, HC295EG
⚠	A3	RQT0B08-B	O/I BOOK(En)	HC195, HC295
⚠	PCB6	REP5059FA	SMPS P.C.B.	(RTL)
⚠	L1702	G0B922G00002	LINE FILTER	
⚠	T1700	G4DY20000077	SWITCHING TRANSFORMER	
⚠	Z1752	D4EAY511A182	VARISTOR	
⚠	PC1702	B3PBA0000579	PHOTO COUPLER	
⚠	F1	K5G202Y00006	FUSE	
⚠	P1751	K2AA2B000011	AC INLET	
⚠	R1724	ERJ12YJ105U	1M 1/2W	
⚠	R1726	ERJ12YJ105U	1M 1/2W	
⚠	C1702	F0CAF224A105	0.22uF	
⚠	C1710	F1BAF471A215	470pF	
⚠	C1725	F0CAF104A105	0.1uF	
⚠	C1727	F1BAF102A216	1000pF	
⚠	C1728	F1BAF102A216	1000pF	

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 IC (integrated circuits) and some field-effect transistors and semiconductor "chip" components.

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

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION:

Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

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2.2. Precaution of Laser Diode

CAUTION!

THIS PRODUCT UTILIZES A LASER.

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

Caution:

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

Wavelength: 790 nm (CD)

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

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

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

ACHTUNG :

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

Wellenlänge : 790nm (CD)

Maximale Strahlungsleistung der Lasereinheit :100 μ W/VDE

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

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



Bottom of product

Product Identification Marking is located on the bottom of the unit.

2.3. Service caution based on Legal restrictions

2.3.1. General description about Lead Free Solder (PbF)

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

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

Definition of PCB Lead Free Solder being used

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

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

- The lead free solder has to be used when repairing the equipment for which the lead free solder is used.
(Definition: The letter of "PbF" is printed on the PCB using the lead free solder.)
- To put lead free solder, it should be well molten and mixed with the original lead free solder.
- Remove the remaining lead free solder on the PCB cleanly for soldering of the new IC.
- Since the melting point of the lead free solder is higher than that of the normal lead solder, it takes the longer time to melt the lead free solder.
- Use the soldering iron (more than 70W) equipped with the temperature control after setting the temperature at 350±30 degrees C (662±86°F).

Recommended Lead Free Solder (Service Parts Route.)

- The following 3 types of lead free solder are available through the service parts route.
RFKZ03D01K----- (0.3mm 100g Reel)
RFKZ06D01K----- (0.6mm 100g Reel)
RFKZ10D01K----- (1.0mm 100g Reel)

Note

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

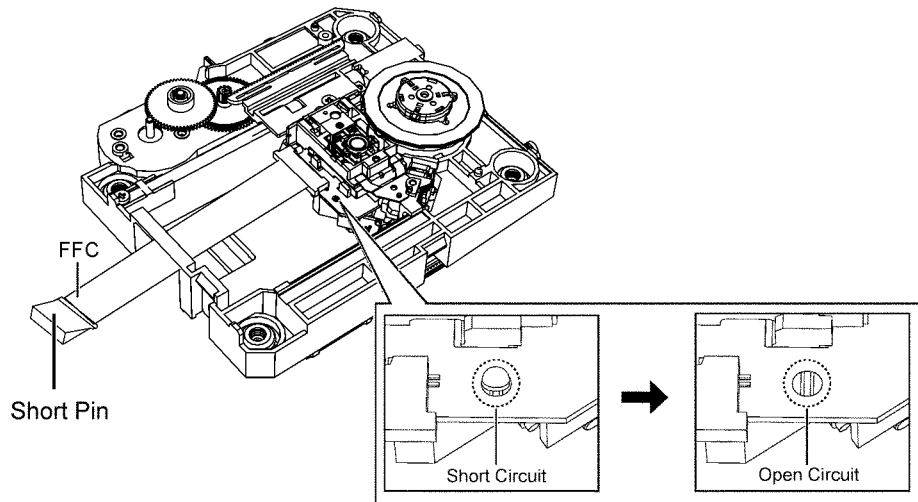
2.4. Handling Precaution for Traverse Unit

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

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

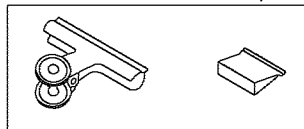
The laser diode in the optical pickup unit may be damaged due to electrostatic discharge generating from clothes or human body. Special care must be taken avoid caution to electrostatic discharge damage when servicing the laser diode.

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



[Caution]

Ground the cable with a clip or a short pin.



Clip or Short Pin

2.4.2. Grounding for electrostatic breakdown prevention

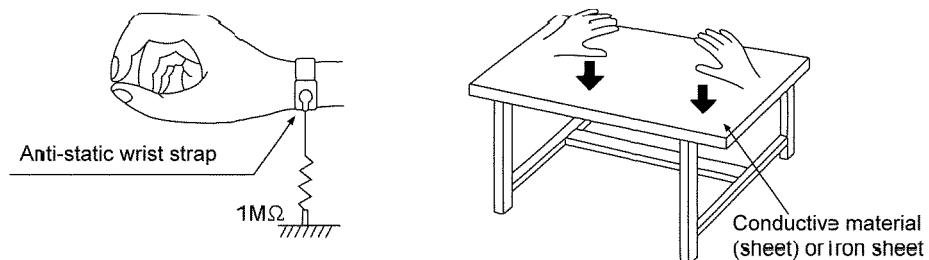
Some devices such as the CD player use the optical pickup (laser diode) and the optical pickup will be damaged by static electricity in the working environment. Proceed servicing works under the working environment where grounding works is completed.

2.4.2.1. Worktable grounding

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

2.4.2.2. Human body grounding

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



3 Service Navigation

3.1. Service Information

This service manual contains technical information which will allow service personnel's to understand and service this model. Please place orders using the parts list and not the drawing reference numbers.

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

In case of repair of parts, please refer as follow :

Detective Parts	Repair method
1) IC8004	Change by NFC Kit
2) Main P.C.B.	Change by Main P.C.B. Kit A'ssy
3) NFC P.C.B.	Change by Main P.C.B. Kit A'ssy

3.2. Software Update through USB

In case of update software, please refer as follow :

1. Power On Set
2. Go to USB selector
3. Plug In USB (containing HC295.FRM)
4. FL will show "READING". Then show the update progress "UPD 0 % to UPD 100 %".
5. After finish update, FL will show "SUCCESS"
6. Plug out AC, Plug out USB
7. Plug in AC and Power on set.

4 Specifications

■ Amplifier Section

RMS Output Power Stereo Mode

Front Ch (both ch driven)	10 W per channel (8 Ω), 1 kHz, 10 % THD
Total RMS stereo mode power	20 W

■ Tuner, Terminal section

Preset station	FM 30 stations
Frequency modulation (FM)	
Frequency range	87.50 MHz to 108.00 MHz (50 kHz step)
Antenna terminals	75 Ω (unbalanced)
AUX input (For HC295/HC297)	
Terminal	Stereo, 3.5 mm jack

■ DAB section (For HC297)

DAB memories	20 channels
Frequency band (wavelength)	
Band III (Europe)	5A to 13F (174.928 MHz to 239.200 MHz)
Sensitivity *BER 4x10 ⁻⁴	
Min requirement	-98 dBm
DAB External Antenna	
Terminal	F - Connector (75 Ω)

■ Disc Section

Disc played [8 cm or 12 cm]	
	CD, CD-R/RW (CD-DA, MP3 ^{*1})
Pick up	
Wavelength	790 nm (CD)

■ USB Section

USB port	
(For HC295/297)	DC OUT 5 V, 1.5 A
(For HC195)	DC OUT 5 V, 500 mA
USB standard	USB 2.0 full speed
Media file format support	MP3 (*.mp3)
USB device file system	FAT12, FAT16, FAT32

■ Bluetooth® Section (For HC295/297)

Version	Bluetooth® Ver.2.1+EDR
Class	Class 2
Supported profiles	A2DP, AVRCP
Operating Frequency	2.4 GHz band, FH-SS
Operation distance	10 m Line of sight

■ Speaker Section

Speaker unit(s)	
Full range	8 cm Cone type x 1 per channel
Impedance	8 Ω

■ General

Power supply	AC 220 V to 240 V, 50 Hz
Power consumption	
(For HC295/297)	22 W
(For HC195)	14 W
Dimensions (W x H x D)	400 mm x 197 mm x 107 mm
Mass	1.9 kg
Operating temperature range	0°C to +40°C
Operating humidity range	35% to 80 % RH (no condensation)
Power consumption in standby mode ^{*2}	0.2 W (approximate)
Power consumption in standby mode ^{*2} (For HC295/297)	

(With "BLUETOOTH STANDBY"
set to "ON")

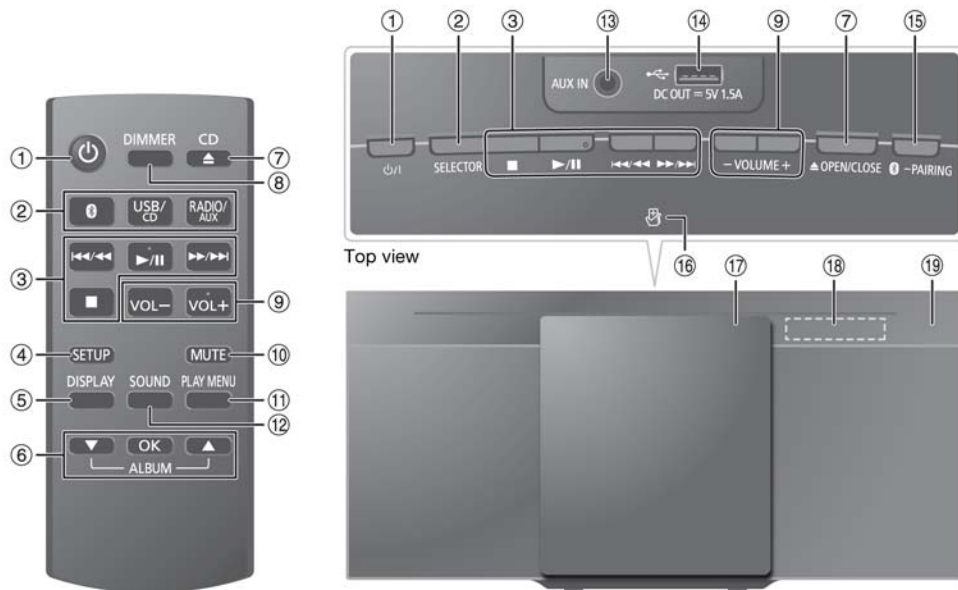
0.3 W (approximate)

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

^{*1} MPEG-1 Layer 3, MPEG-2 Layer 3

^{*2} Power consumption in standby mode is measured with USB device disconnected from the unit before switching to standby mode.

Do the procedures with the remote control. You can also use the buttons on the main unit if they are the same.



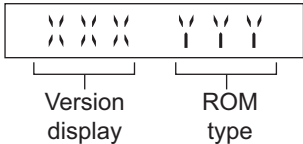
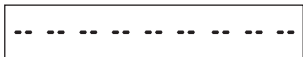
- ① Standby/on switch [⏻], [ON]**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ② Select the audio source**
On the remote control:
Press the corresponding button to select the source.
On the main unit:

CD → BLUETOOTH → USB → DAB+ → FM
 └─────────── AUX ─────────┘
- ③ Basic playback control**
- ④ View the setup menu**
- ⑤ View the content information**
- ⑥ Select or confirm the option**
- ⑦ Open or close the sliding door**
- ⑧ Decrease the brightness of the display panel**
To cancel, press the button again.
- ⑨ Adjust the volume level**
- ⑩ Mute the sound**
To cancel, press the button again.
“MUTE” is also cancelled when you adjust the volume or when you switch off the system.
- ⑪ View the play menu**
- ⑫ Select the sound effects**
- ⑬ AUX IN terminal**
- ⑭ USB port (←) / DC OUT terminal (→ “Charging a portable device”)**
- ⑮ Select “BLUETOOTH” as the audio source**
To start Bluetooth® pairing, press and hold the button.
- ⑯ NFC touch area**
- ⑰ Sliding door**
- ⑱ Display panel**
- ⑲ Remote control sensor**
Distance: Within approximately 7 m
Angle: Approximately 20° up and down, 30° left and right

6 Service Mode

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

6.1. Self Diagnostic Table 1

	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 [■] button on mainset for more than 2 sec and press [▶▶/▶▶] on mainset for more than 2 sec. • To exit, press the [⏻/] on the main unit or using the remote control. • Unplug the AC cord.												
Error code information	System will perform a check on any unusual/error code from the memory	Example: 	Step 1 : In self diagnostic mode, Press [STOP] on main unit. It can display up to 5 latest error code • To exit, press the [⏻/] on the main unit or using the remote control. • Unplug the AC cord.												
Delete Error code	To clear the stored in memory (EEPROM IC)		Step 1 : While displaying the error code, press and hold [OK] on remote control for more than 5 second. • To exit, press the [⏻/] on the main unit or using the remote control. • Unplug the AC cord.												
Opecon version	To display model name & version <table><tr><th>Model Name</th><th>Version display</th></tr><tr><td>HC295</td><td>_6AA≡***_</td></tr><tr><td>HC297 DAB</td><td>_6AB≡***_</td></tr><tr><td>HC395</td><td>_6AC≡***_</td></tr><tr><td>HC397 DAB</td><td>_6AD≡***_</td></tr><tr><td>HC195</td><td>_6AE≡***_</td></tr></table>	Model Name	Version display	HC295	_6AA≡***_	HC297 DAB	_6AB≡***_	HC395	_6AC≡***_	HC397 DAB	_6AD≡***_	HC195	_6AE≡***_		In self diagnostic mode, Opecon version display and firmware version display will be shown one at a time each time [DISPLAY] key press. When press [DISPLAY] key during the last firmware version display (refer to left table), the first version display (opecon version) should display again. In version display mode, when press STOP key should go to error code display mode. • To exit, press the [⏻/] on the main unit or using the remote control. • Unplug the AC cord.
Model Name	Version display														
HC295	_6AA≡***_														
HC297 DAB	_6AB≡***_														
HC395	_6AC≡***_														
HC397 DAB	_6AD≡***_														
HC195	_6AE≡***_														
Cold Start	To activate cold start upon next power up. (Backup data are initialized)		In self diagnostic mode, Press [SETUP] button on the remote control. • To exit, press the [⏻/] on the main unit or using the remote control. • Unplug the AC cord.												

6.2. Self Diagnostic Function Error Code

6.2.1. CD Mechanism Error Code Table

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

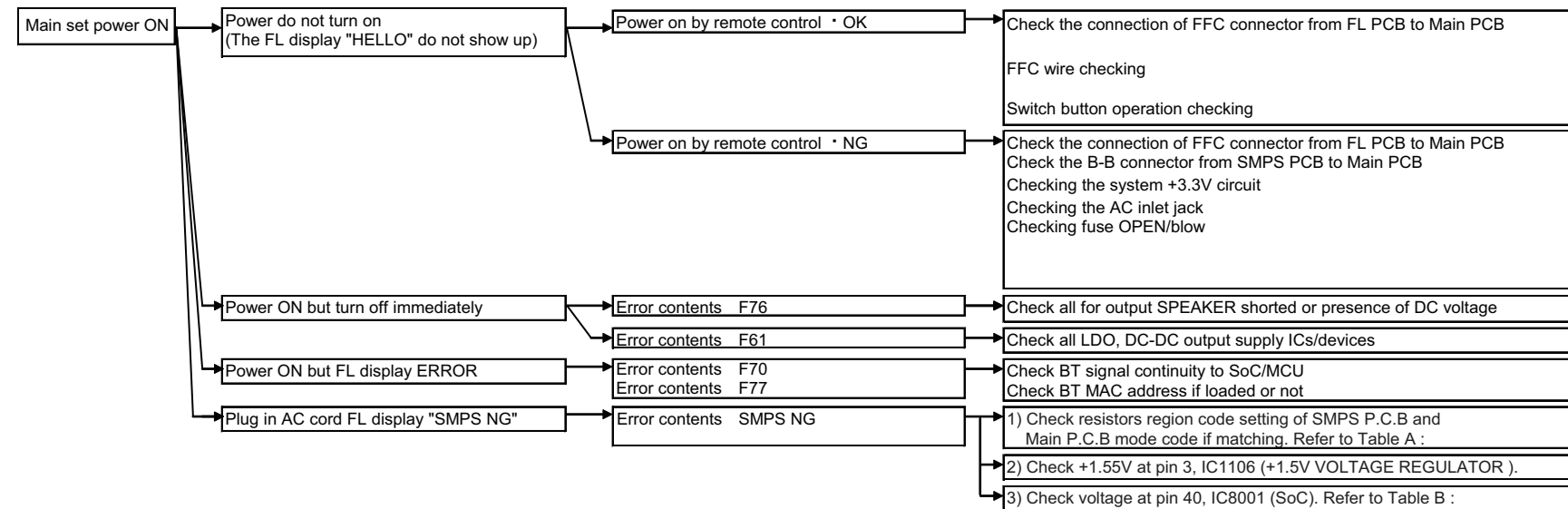
6.2.2. Power Amp Error Code Table

Error Code	Diagnostic Contents	Description of error	Automatic FL Display	Remarks
F61	DAMP output abnormal	PDET2 (DC_DET_AMP)= L (NG). PDET2 (DC_DET_AMP) is checked by reading the input 2x20ms, F61 error code shall be memorized		Press [■] on main unit for next error.
F76	Power supply abnormal	PDET1 (DC_DET_PWR)= L (NG). PDET1 (DC_DET_PWR) is checked by reading the input 2x1ms, F76 error code shall be memorized.		Press [■] on main unit for next error.
SMPS NG	Checking For SMPS P.C.B.	SMPS type and REGION not match. The unit will shut down.		Press [■] on main unit for next error.

6.2.3. Bluetooth Error Code Table

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

7 Troubleshooting Guide



- Check the 14P of [FL]-[Main] FFC connector CN900 to CN6007. (For HC395/HC397)
- Check the 12P of [Panel]-[Main] FFC connector CN6801 to CN8001. (For HC195/HC295/HC297)
- Check the 14P of [FL]-[Main] FFC. (For HC395/HC397)
- Power buttons is KEY1 line → 1.5V, if press will momentary drop to 0.198V~0.489V range

Check [FL] CN900(14Pin) → 1.5V, CN900(12Pin) → 3.3V (For HC395/HC397)
 Check [FL] CN6801(4Pin) → 1.5V, CN8001(2Pin) → 3.3V (For HC195/HC295/HC297)
 [Switching power module] P1700(5,7Pin) → 8.5V to 19V ; P1700 (2Pin) → 0V to 3.3V
 Check [Main] IC1108(3Pin) → 3.3V (For HC395/HC397)
 Check [Main] IC1102(3Pin) → 3.3V (For HC195/HC295/HC297)
 Check [Switching power module]-[ACinlet] wire, copper pattern and solder condition.
 Check the continuity of [Switching power module] F1 FUSE.

Check the IC400 overcurrent, overheating, failure of [DSP] → [DSP] exchange.

Check the each power supply for short or OVP (eg AMP Vcc ,+12V,+5.6, +5.28V,+3.3,+1.8V)

[Main] BT & communication error of the microcomputer/SoC → [Main] board exchange or [BT] module exchange.
 NO BT MAC address downloaded thus cannot recognize by SoC, failure of IC8001 or IC8004.

Replace SMPS P.C.B, It is wrong region

Replace IC1106 if abnormal voltage

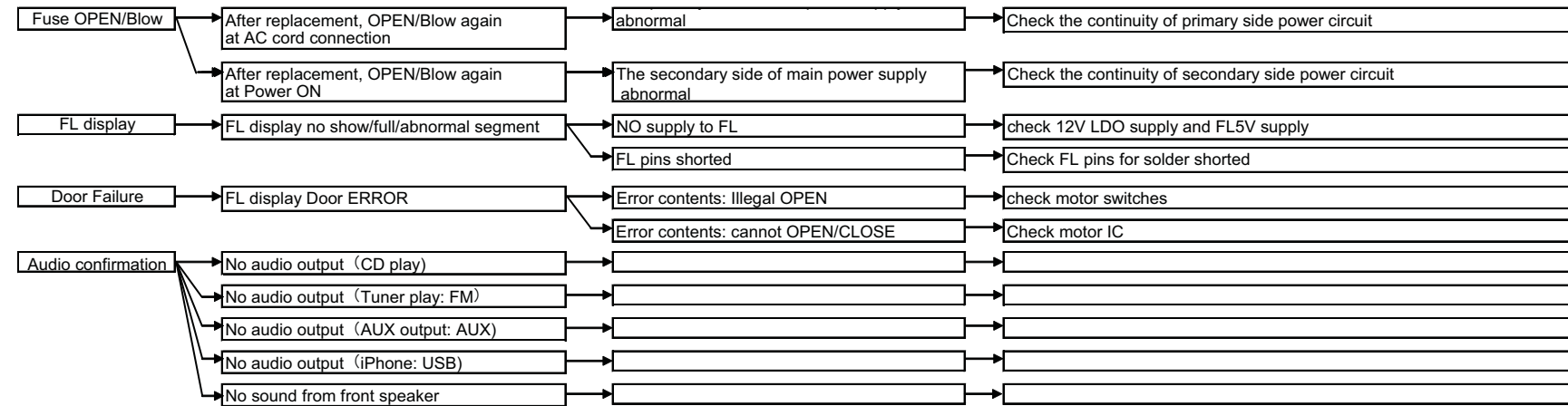
Replace IC8001 (1.55V abnormal or L1108)

Table A

MODEL	Region	SMPS ID (R1707) on SMPS P.C.B	Region Setting (R8041) on Main P.C.B	MODEL	Region	SMPS ID (R1707) on SMPS P.C.B	Region Setting (R8041) on Main P.C.B	MODEL	Region	SMPS ID (R1707) on SMPS P.C.B	Region Setting (R8041) on Main P.C.B
HC195	EG/EB	3.9K	15K	HC295	EG	3.9K	15K	HC395	EG	3.9K	15K
					GN	3.9K	33K	HC397	EB/EG	3.9K	3.9K
					GS	3.9K	8.2K				
				HC297	EB	3.9K	3.9K				

Table B

RESISTOR SETTING	VOLTAGE RANGE
0 Ohm	0.000 0.294
3.9k	0.295 0.534
8.2k	0.536 0.775
15k	0.776 1.015
33k	1.016 1.254
Open	1.255 1.500



Short-open power transformer, electrolytic diode IC · [switching power module].
 (D1701,C1706,IC1700,T1700)

Short-open power-electrolytic IC diode [switching power module]
 (D1700,C1703,IC1701)

[FL] FL6801(31, 37Pin)

[FL] FL6801 (all pins if shorted base on schematic)
 [FL] FL6801 pin (9, 12,15Pin) control signal line if have
 [Motor PCB] CN931 (1, 4Pin) (For HC395/HC397), CN905 (3, 4Pin) (For HC195/HC295/HC297)

[Main] IC5001 supply pins and solderability

Check the [DSP]IC400 (23Pin) → 3.3V, check IC400 (25,30,31,36Pin) → PWM waveform have or not

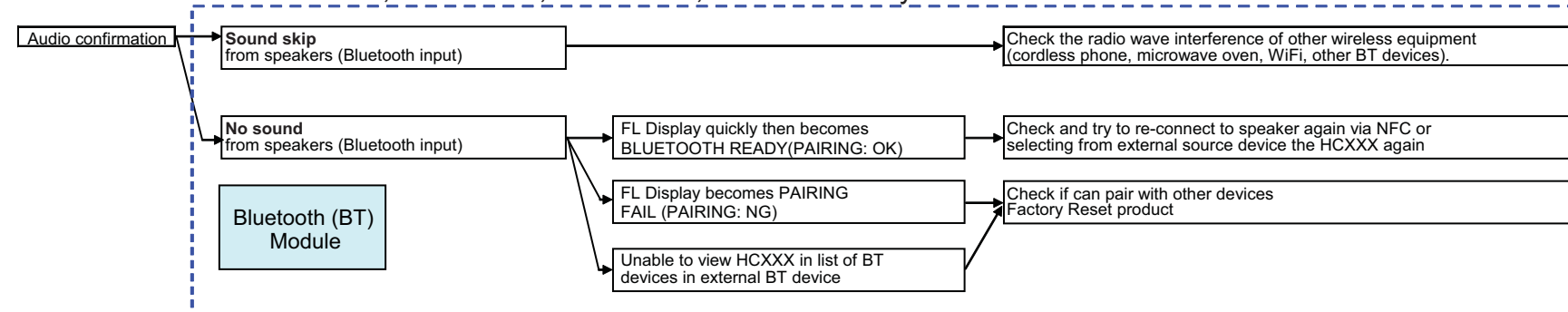
Check IC52 power supply and solderability

Check IC52 power supply and solderability

Check (MAIN) IC6001 for supply and solderability, connection to IC8001, USB 5V supply check (For HC195/HC295/HC297)

Check IC400 supply voltage pin 26 & 35 → 19.5V(For HC195/HC295/HC297),
 speaker connector connected CN400 and CN401

For SC-HC397, SC-HC395, SC-HC297, SC-HC295 only



Place wireless equipment more than 2 meters away from main unit

Change Main PCB if symptoms persist

Change Main PCB if symptoms persist

If all above are OK, replace BT module

8 Disassembly and Assembly Instructions

Caution Note:

- This section describes the disassembly and/or assembly procedures for all major printed circuit boards & main components for the unit. (You may refer to the section of “Main components and P.C.B Locations” as described in this service manual)
 - Before carrying out the disassembly process, please ensure all the safety precautions & procedures are followed.
 - During the disassembly and/or assembly process, please handle with care as there may be chassis components with sharp edges.
 - Avoid touching heatsinks due to its high temperature after prolong use.
 - Be sure to use proper service tools , equipments or jigs during repair.
 - Select items from the following indexes when disassembly or replacement are required.
-
- Disassembly of Base Stand Unit
 - Disassembly of Net Frame Assembly (L) & (R)
 - Disassembly of CD Door Ornament
 - Disassembly of CD Door Base
 - Disassembly of Front Cabinet Assembly
 - Disassembly of FL Window
 - Disassembly of Gear Box Assembly
 - Disassembly of Rack Top & CD Door Slider Top
 - Disassembly of Door Shaft & CD Door Slider Bottom
 - Disassembly of Position Switch P.C.B. & Timing Gear Unit
 - Disassembly of CD Mechanism
 - Disassembly of CD Interface P.C.B.
 - Disassembly of SMPS Unit
 - Disassembly of SMPS P.C.B.
 - Disassembly of Tuner P.C.B. (For HC195/HC295)
 - Disassembly of DAB Module (For HC297)
 - Disassembly of Top Button Unit
 - Disassembly of Panel P.C.B.
 - Disassembly of Button P.C.B.
 - Disassembly of NFC P.C.B. (For HC295/HC297)
 - Disassembly of Woofer Speaker (SP1)
 - Disassembly of Woofer Speaker (SP2)
 - Disassembly of Main P.C.B.

8.1. Service Fixture & Tools

Prepare service tools before process service position.

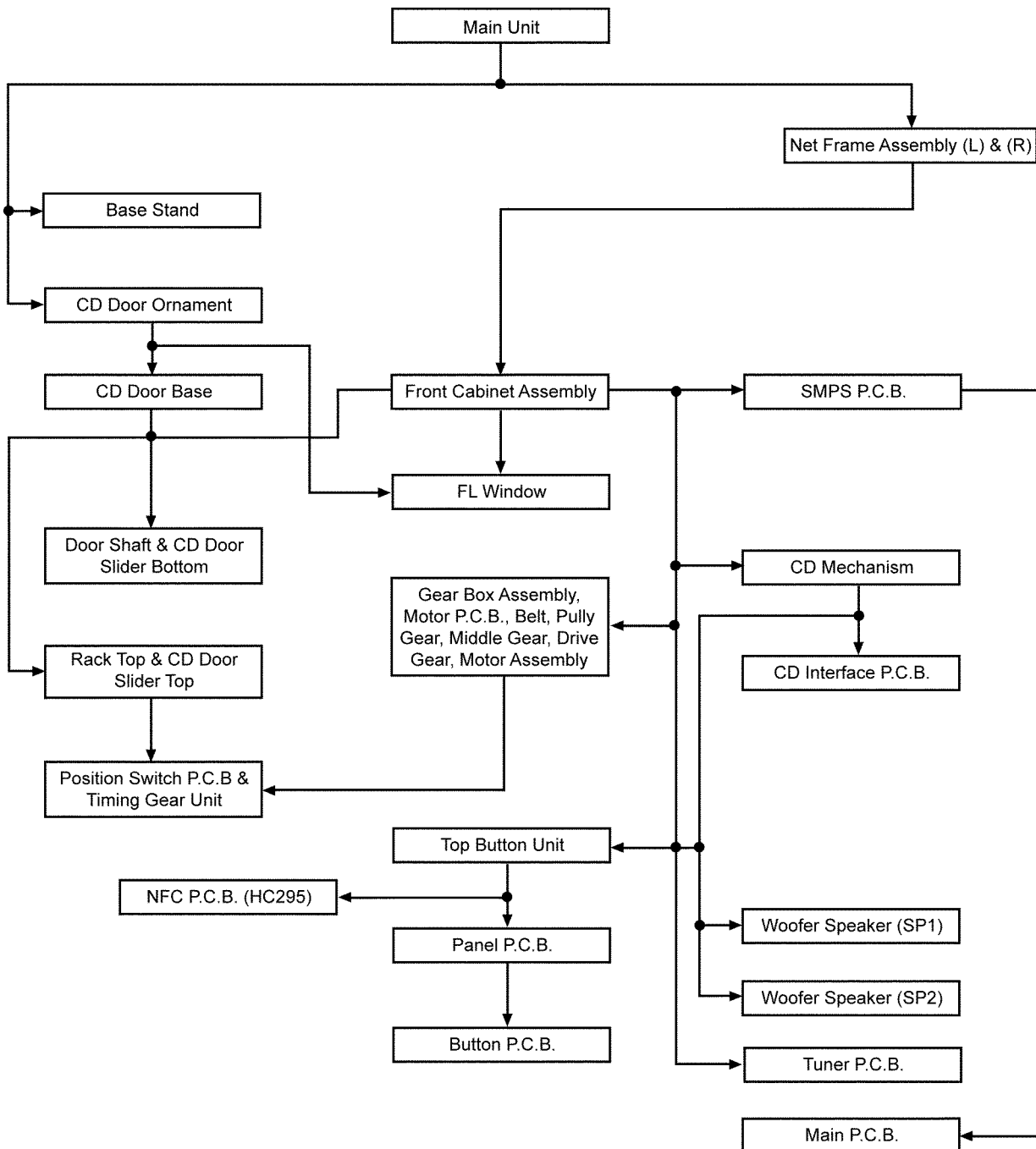
Ref. No.	Service Tools		Remarks
SFT1	Main P.C.B. (CN5002) - CD Interface P.C.B. (CN7002)	REE1978 (24P FFC)	
SFT2	Main P.C.B. (CN1100) - SMPS P.C.B. (P1700)	REX1538 (7P Wire)	

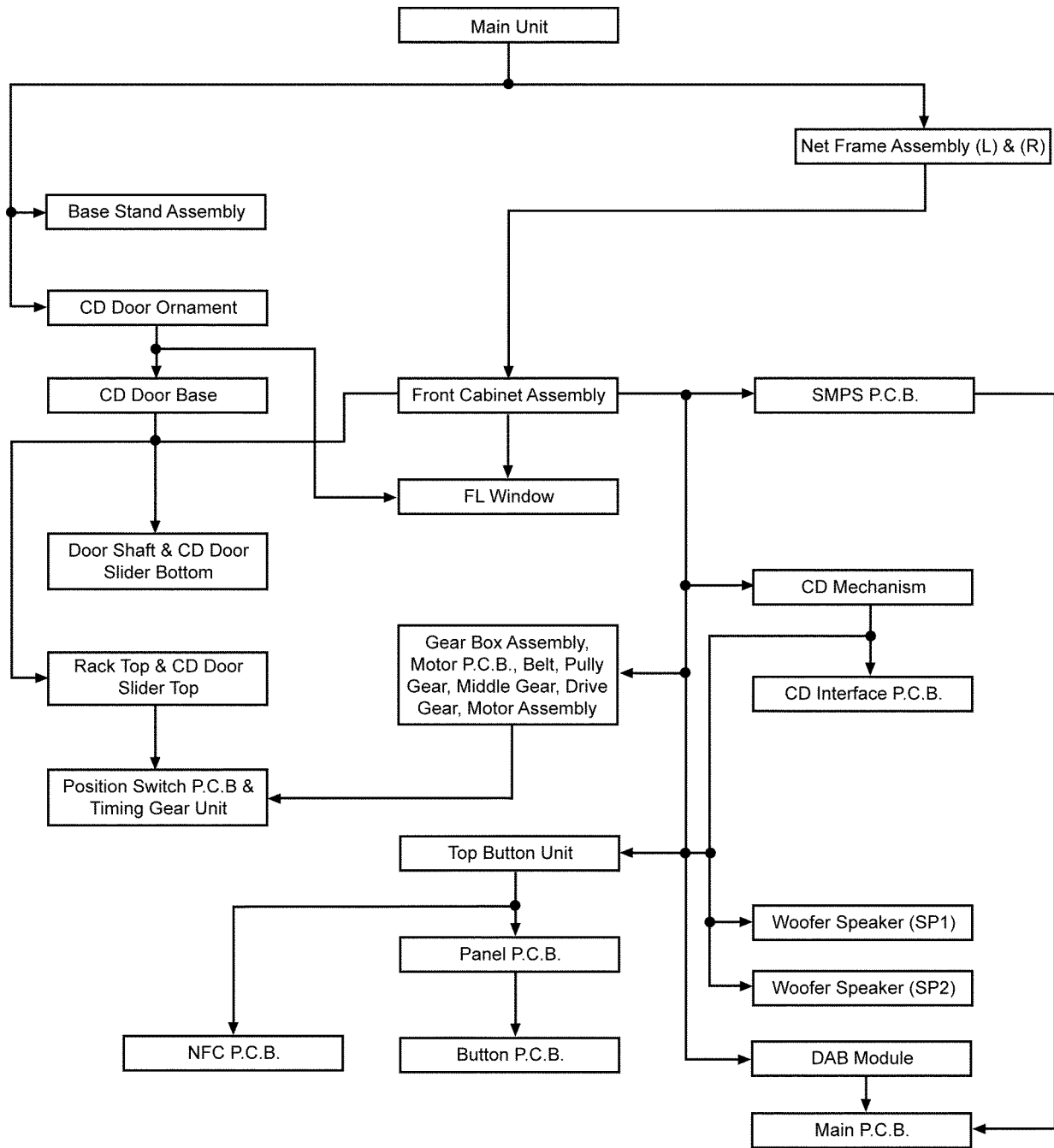
8.2. Disassembly flow chart

The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing.

To assemble the unit, reverse the steps shown in the chart below.

For HC195/295





8.3. Types of Screws

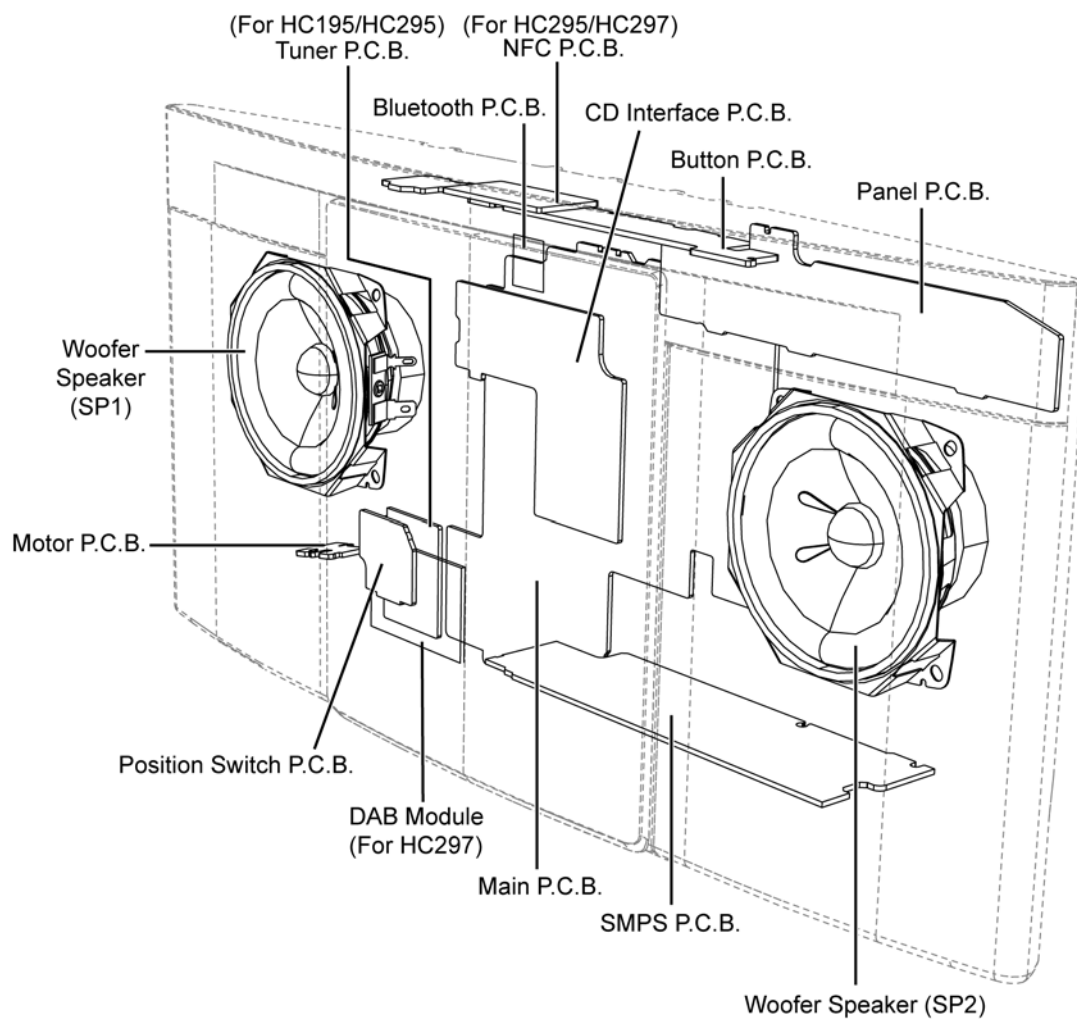
CAUTION NOTE:

Please use original screw and at correct locations.

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

- | | | |
|-----------------------|------------------------|------------------------|
| a : RHD26046-L | e : XQN17+C28FJ | i : XTB3+10JFJK |
| b : VHD1224-1 | f : RHD30092-1 | |
| c : RHD26066 | g : XTN2+6GFJ | |
| d : XTW2+6SFJ | h : RHD26043-1 | |

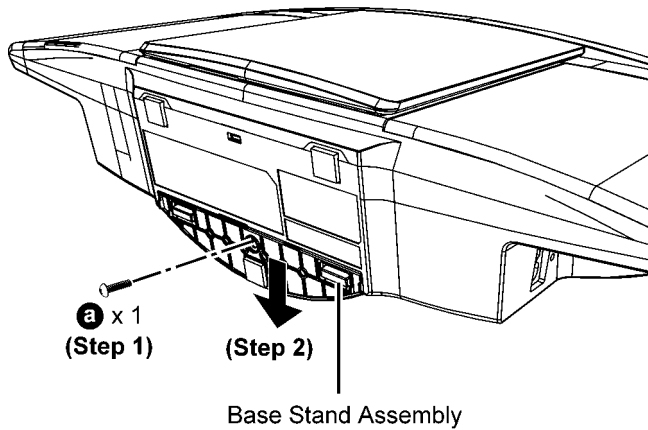
8.4. Main Parts Location Diagram



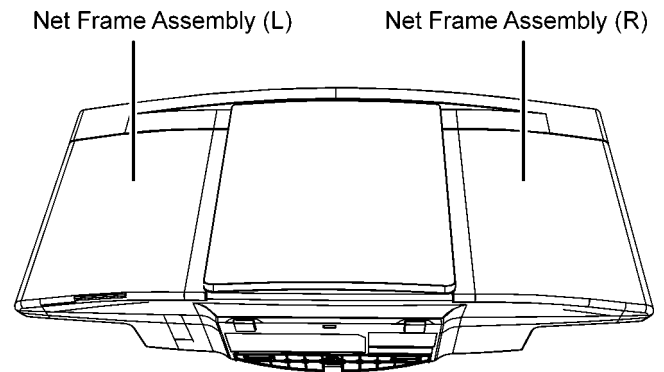
8.5. Disassembly of Base Stand Unit

Step 1 : Remove screw.

Step 2 : Remove Base Stand Unit.



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



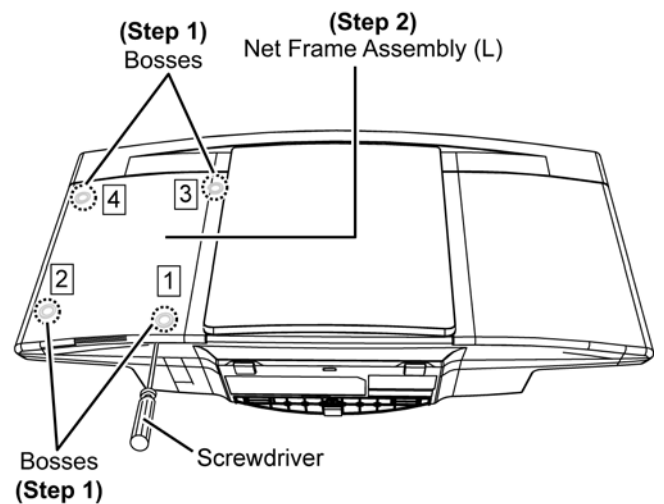
Note : The disassembling procedure for Net Frame Assembly (L) will be described only.

For Net Frame Assembly (R) please refer to the same procedure described here.

Step 1 : Insert screwdriver into the opening & gently lift up Net Frame Assembly (L) in order of sequences (1) to (4) to release 4 bosses as shown.

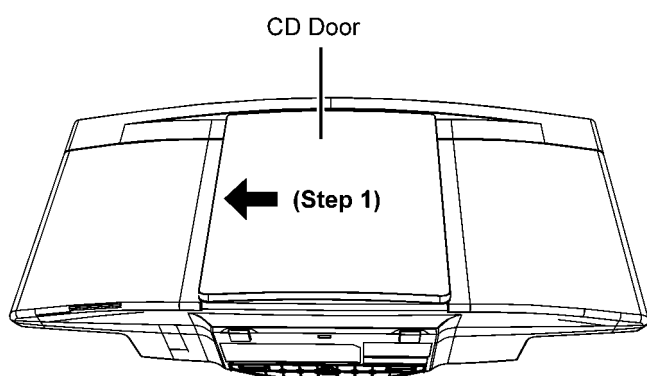
Caution : Do not use strong force as it may damage the Bosses.

Step 2 : Remove Net Frame Assembly (L).



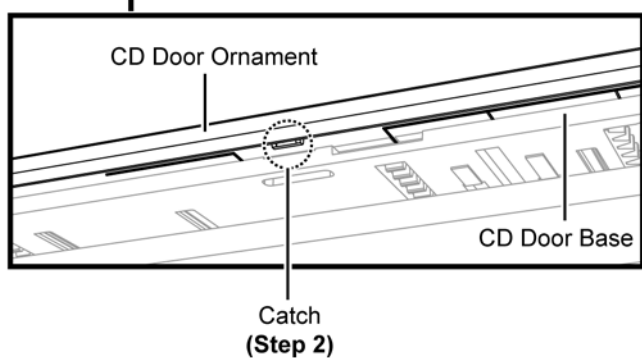
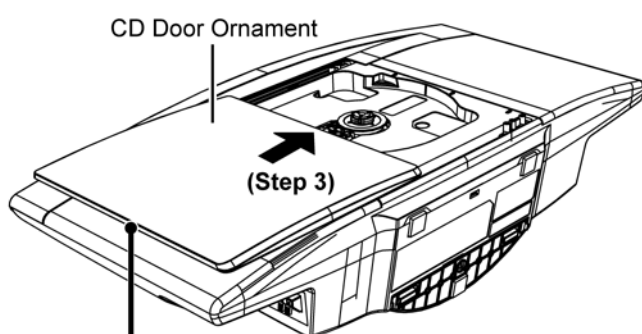
8.7. Disassembly of CD Door Ornament

Step 1 : Slide CD Door to open it.



Step 2 : Release catch.

Step 3 : Slide to remove CD Door Ornament.

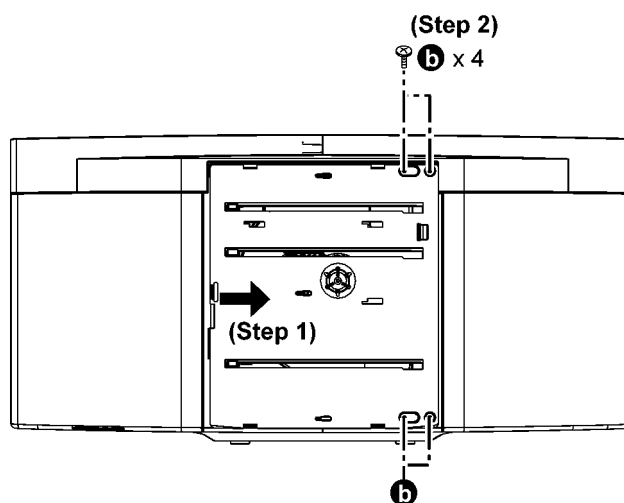


8.8. Disassembly of CD Door Base

• Refer to "Disassembly of CD Door Ornament"

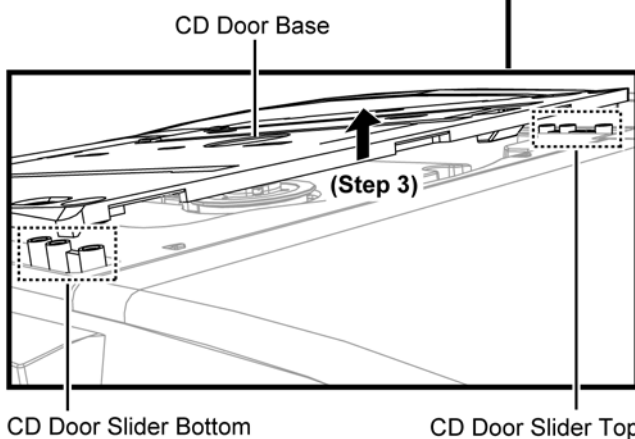
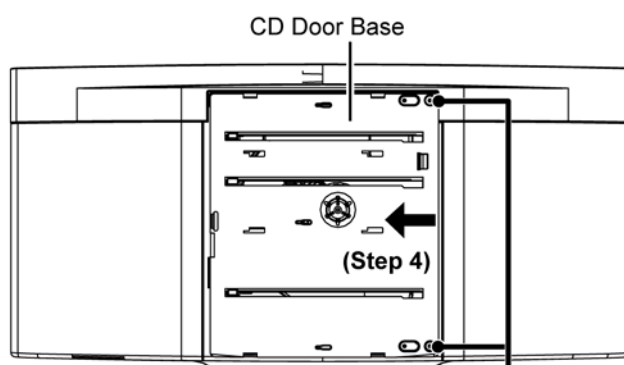
Step 1 : Slide CD Door to close it.

Step 2 : Remove 4 screws.

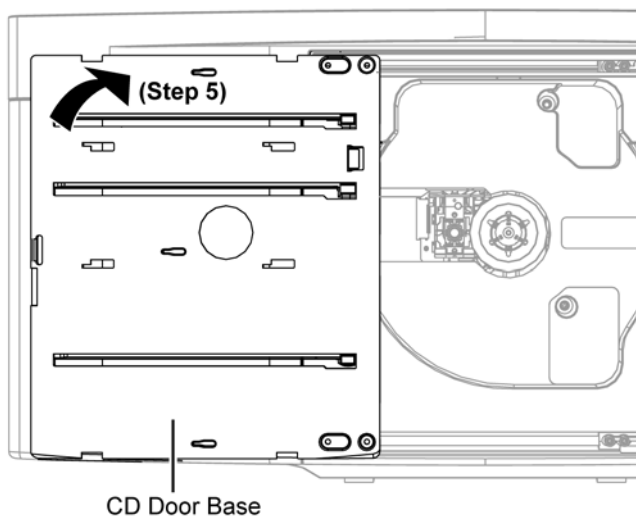


Step 3 : Slightly lift up CD Door Base.

Step 4 : Slide CD Door Base towards to the left.

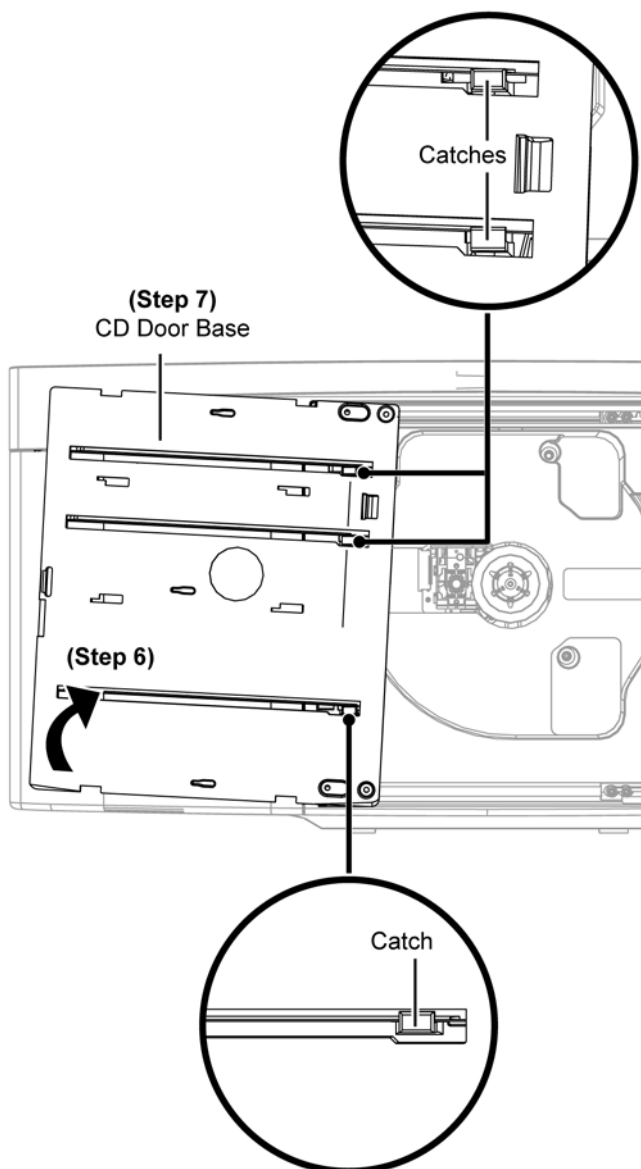


Step 5 : Push CD Door Base as shown.



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

Step 7 : Remove CD Door Base.

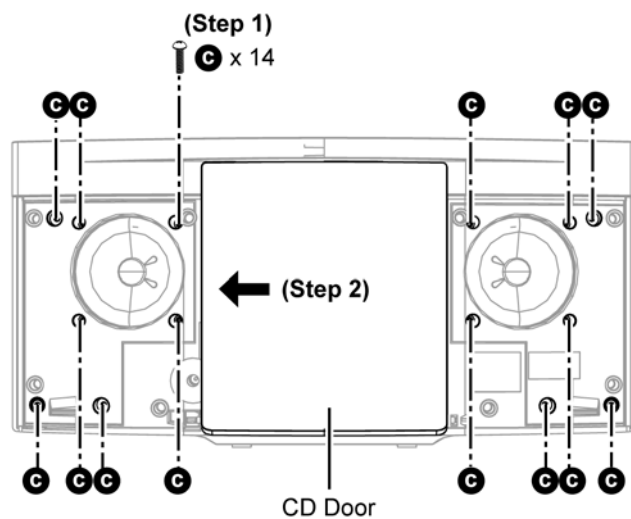


8.9. Disassembly of Front Cabinet Assembly

• Refer to "Disassembly of Net Frame Assembly (L) & (R)"

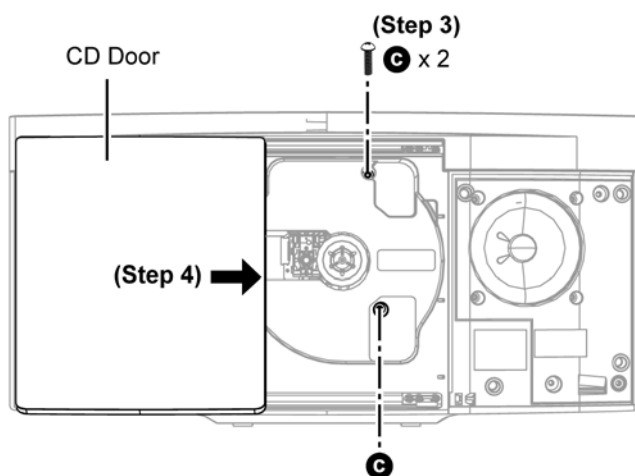
Step 1 : Remove 14 screws.

Step 2 : Slide CD Door to open it.



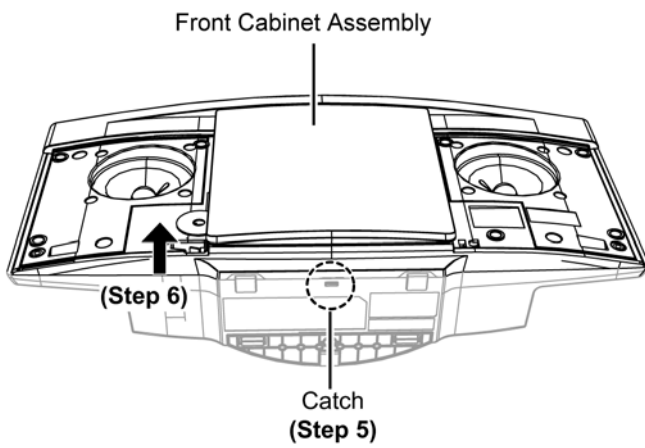
Step 3 : Remove 2 screws.

Step 4 : Slide CD Door to close it.



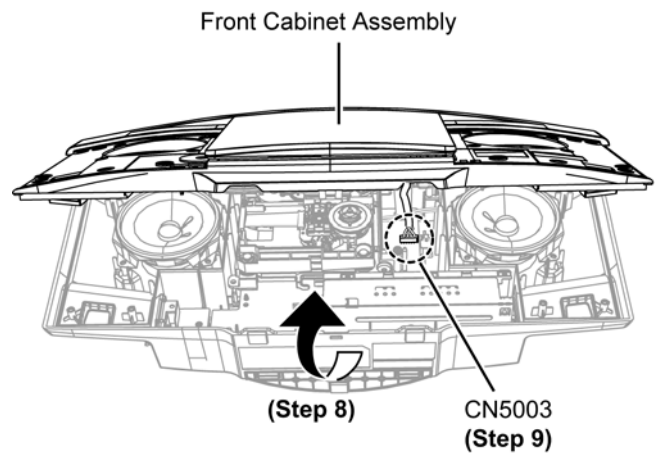
Step 5 : Release catch.

Step 6 : Slightly lift up Front Cabinet Assembly.

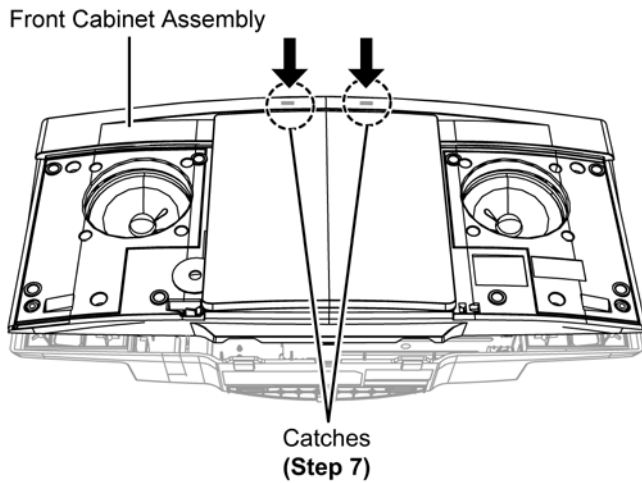


Step 8 : Slightly lift up Front Cabinet Assembly as shown.

Step 9 : Detach 5P Wires at connector (CN5003) on Main P.C.B..



Step 7 : Press Front Cabinet Assembly to release catches.



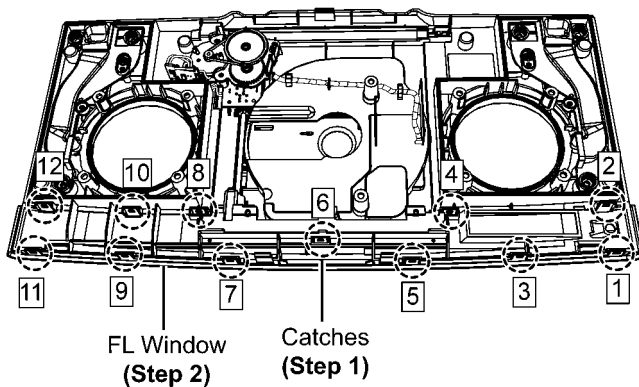
8.10. Disassembly of FL Window

- Refer to "Disassembly of Net Frame Assembly (L) & (R)"
- Refer to "Disassembly of CD Door Ornament"
- Refer to "Disassembly of Front Cabinet Assembly"

Step 1 : Release 12 catches in order of sequences (1) to (12).

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

Step 2 : Remove FL Window.



8.11. Disassembly of Gear Box Assembly

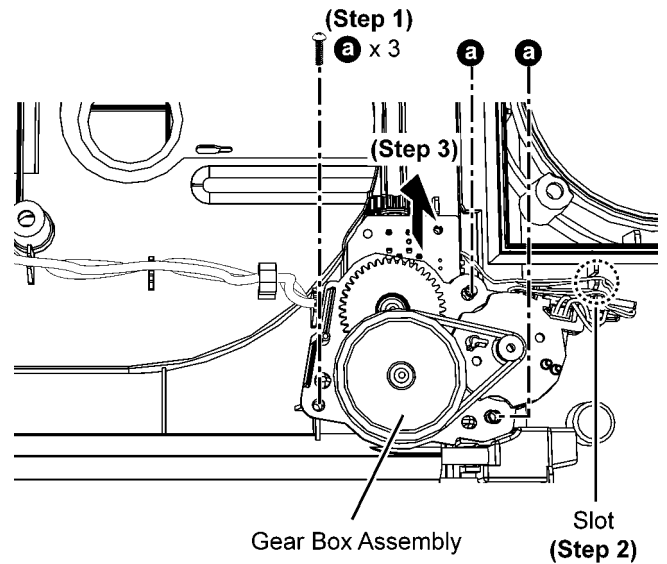
- Refer to "Disassembly of Net Frame Assembly (L) & (R)"
- Refer to "Disassembly of Front Cabinet Assembly"

Step 1 : Remove 3 screws.

Step 2 : Release 2P wire from slot on Front Cabinet Assembly.

Step 3 : Slightly lift up the Gear Box Assembly.

Caution : During assembling, dressed 2P wire properly into slots.

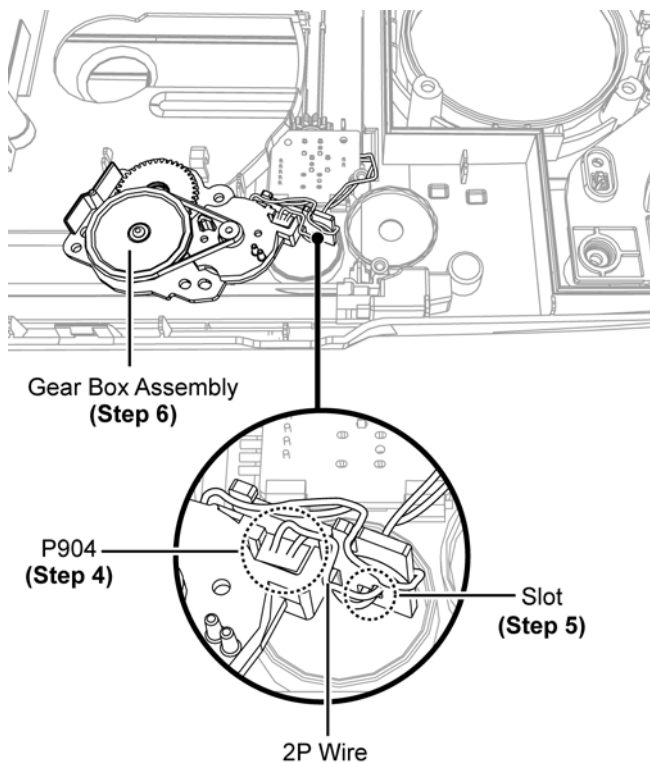


Step 4 : Detach 2P wire at connector (P904) on Motor P.C.B..

Step 5 : Release 2P wire from slot.

Caution : During assembling, dressed 2P wire properly into slots.

Step 6 : Remove Gear Box Assembly.

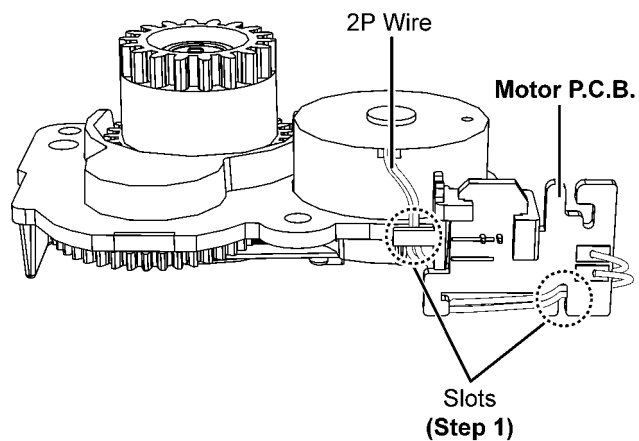


8.11.1. Disassembly of Motor P.C.B.

- Refer to “Disassembly of Gear Box Assembly”

Step 1 : Release the 2P wire from slots.

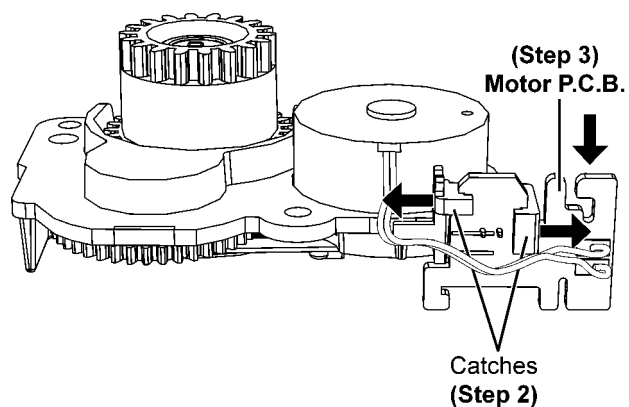
Caution : During assembling, dressed 2P Wire into slots.



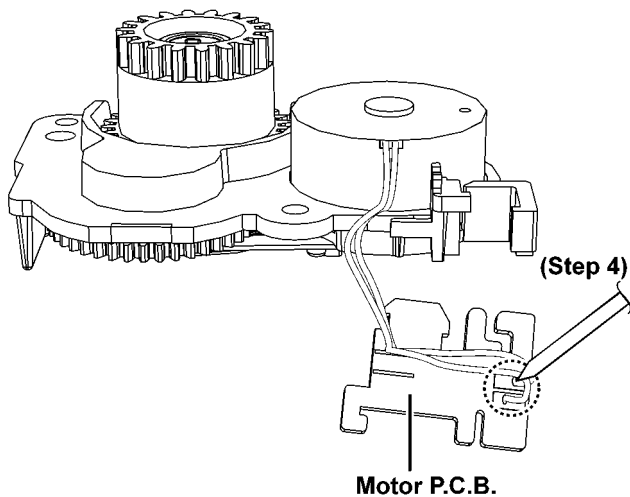
Step 2 : Release 2 catches.

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

Caution : During assembling, insert Motor P.C.B. properly & ensure it is fully caught.



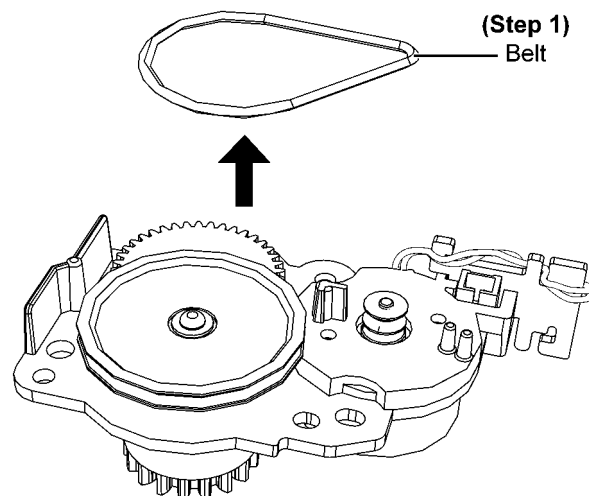
Step 4 : Desolder pins on solder side of Motor P.C.B. and remove Motor P.C.B..



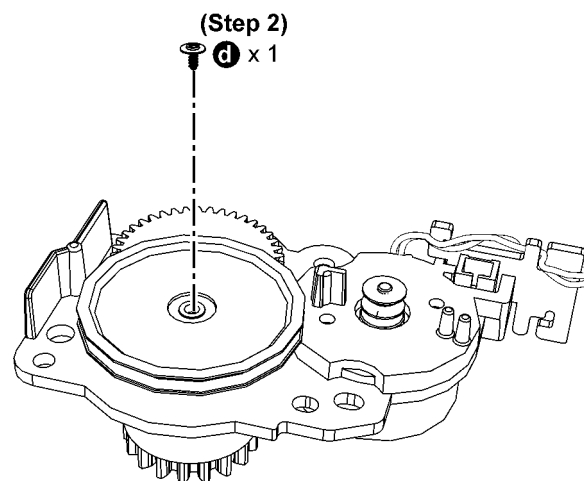
8.11.2. Disassembly of Belt, Pulley Gear, Middle Gear and Drive Gear

• Refer to "Disassembly of Gear Box Assembly"

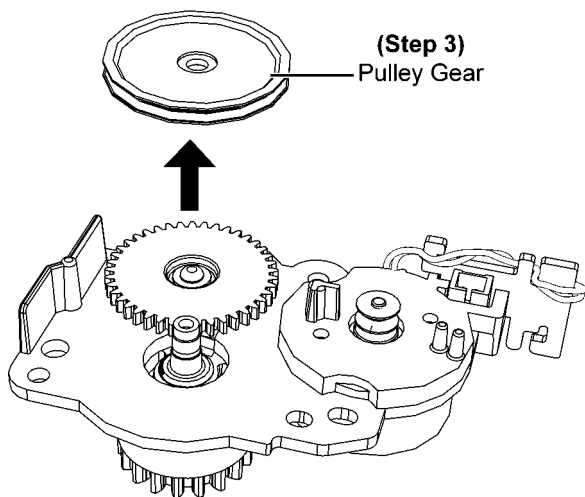
Step 1 : Remove Belt.



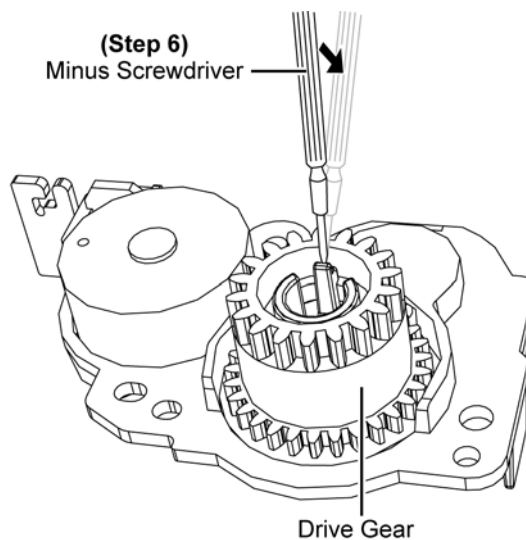
Step 2 : Remove screw.



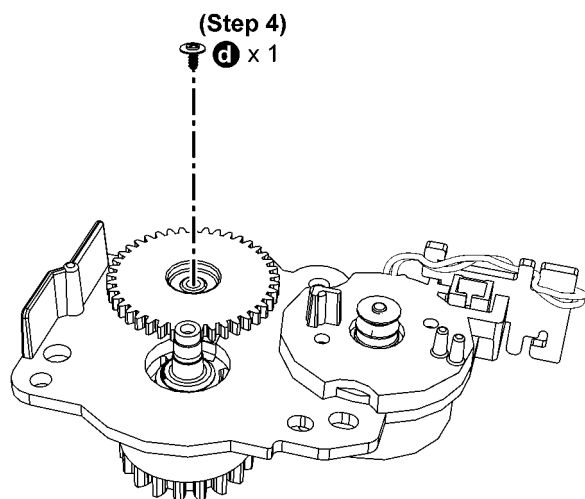
Step 3 : Remove Pulley Gear.



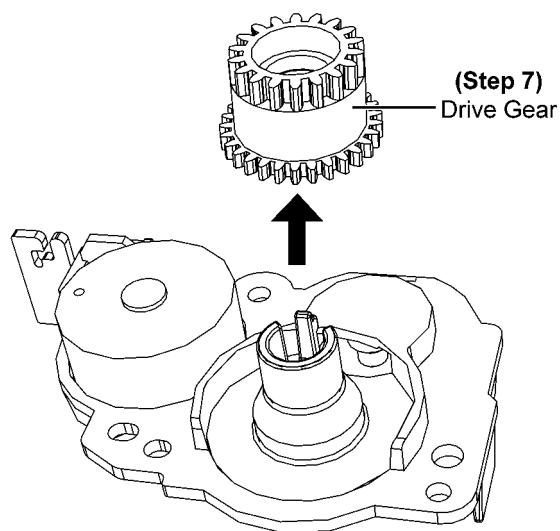
Step 6 : Use minus screwdriver to release catch as shown.



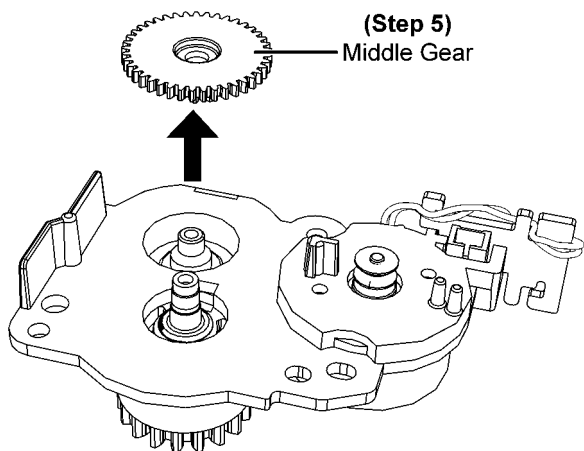
Step 4 : Remove screw.



Step 7 : Remove Drive Gear.



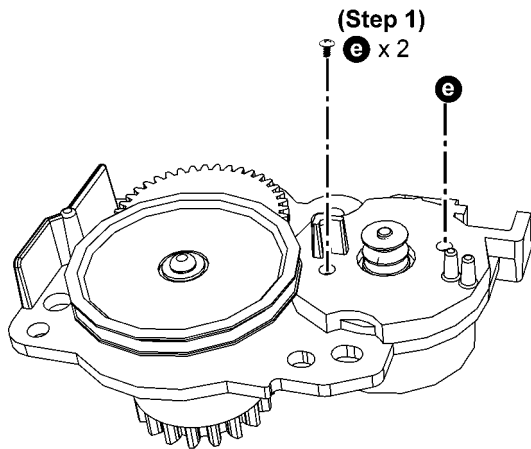
Step 5 : Remove Middle Gear.



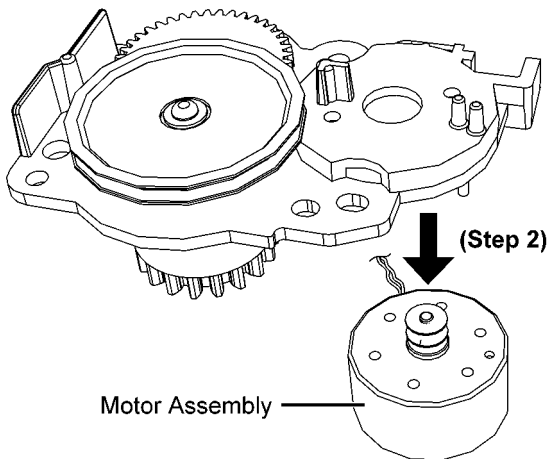
8.11.3. Disassembly of Motor Assembly

- Refer to "Disassembly of Gear Box Assembly"
- Refer to "Disassembly of Motor P.C.B."
- Refer to (Step 1) of item 8.11.2.

Step 1 : Remove 2 screws.



Step 2 : Remove Motor Assembly.



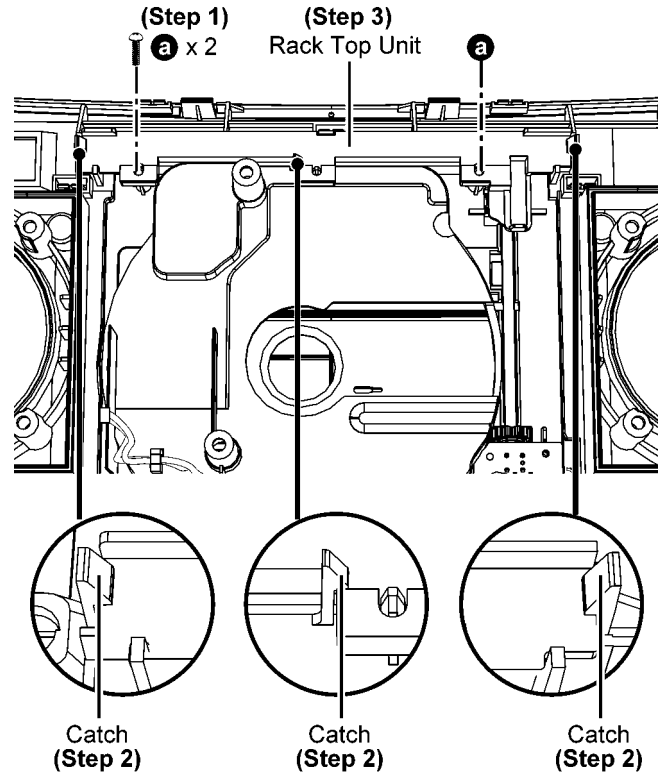
8.12. Disassembly of Rack Top & CD Door Slider Top

- Refer to "Disassembly of Net Frame Assembly (L) & (R)"
- Refer to "Disassembly of CD Door Ornament"
- Refer to "Disassembly of CD Door Base"
- Refer to "Disassembly of Front Cabinet Assembly"

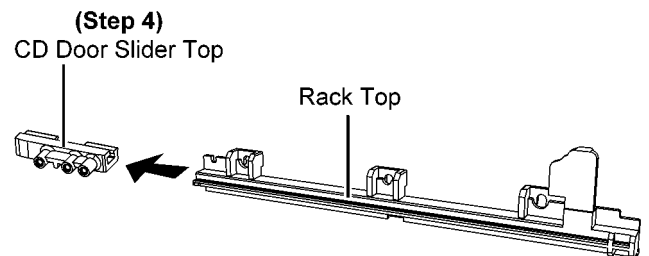
Step 1 : Remove 2 screws.

Step 2 : Release catches.

Step 3 : Remove Rack Top Unit.



Step 4 : Remove CD Door Slider Top.

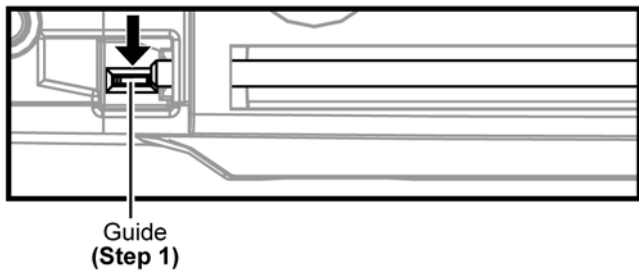
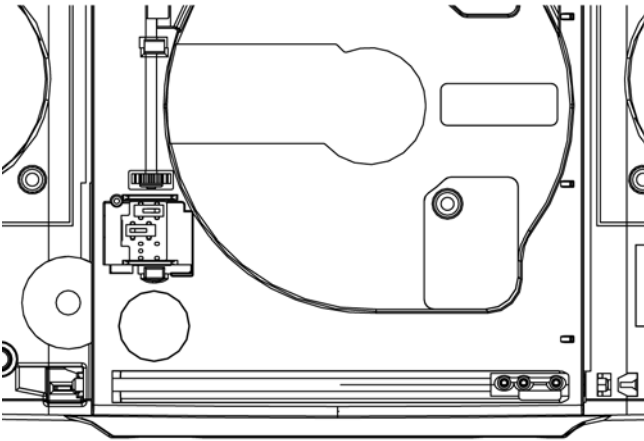
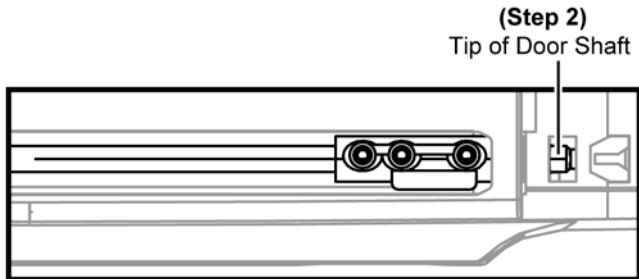


8.13. Disassembly of Door Shaft & CD Door Slider Bottom

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

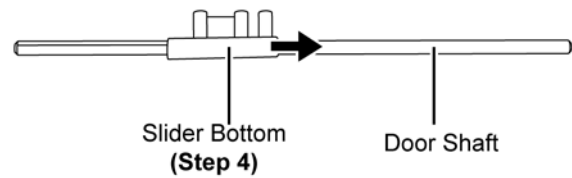
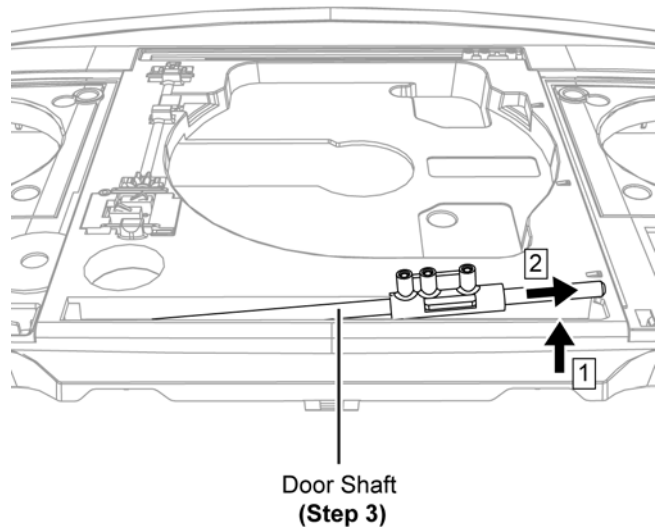
Step 1 : Lift up Guide.

Step 2 : Push tip of the Door Shaft inwards as arrow shown.



Step 3 : Lift up and remove Door Shaft in order of sequences (1) to (2).

Step 4 : Remove Slider Bottom.



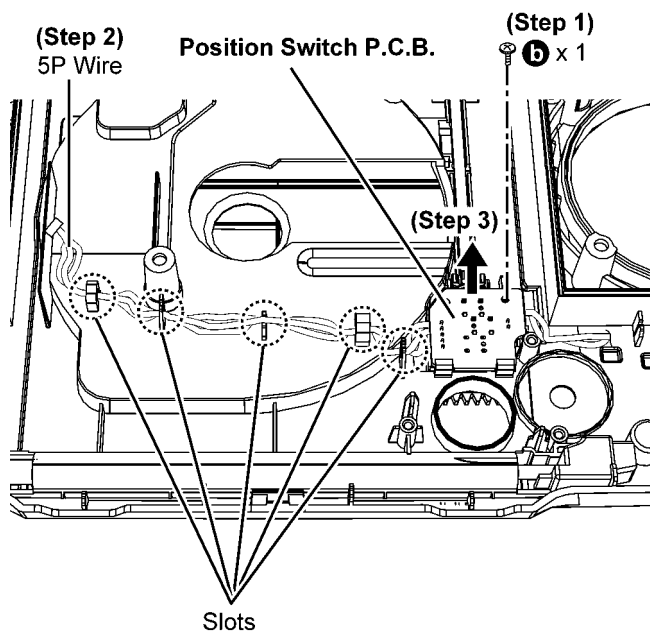
8.14. Disassembly of Position Switch P.C.B. & Timing Gear Unit

- Refer to "Disassembly of Net Frame Assembly (L) & (R)"
- 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 8.12.

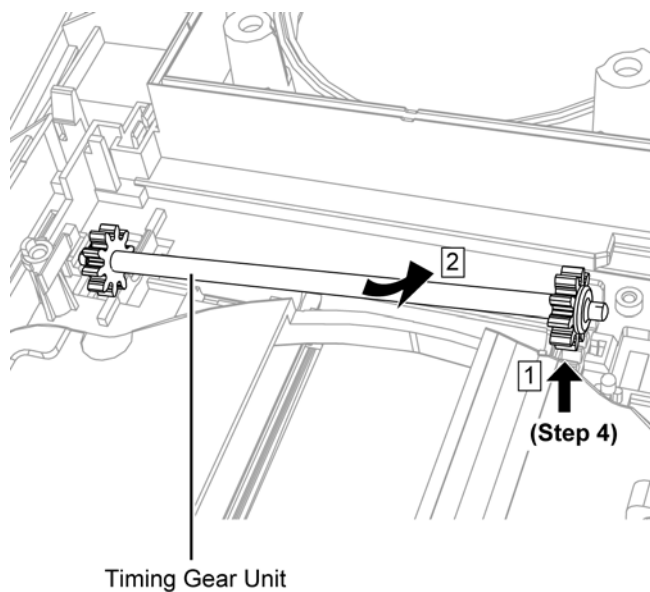
Step 1 : Remove screw.

Step 2 : Release 5P Wire from slots.

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



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

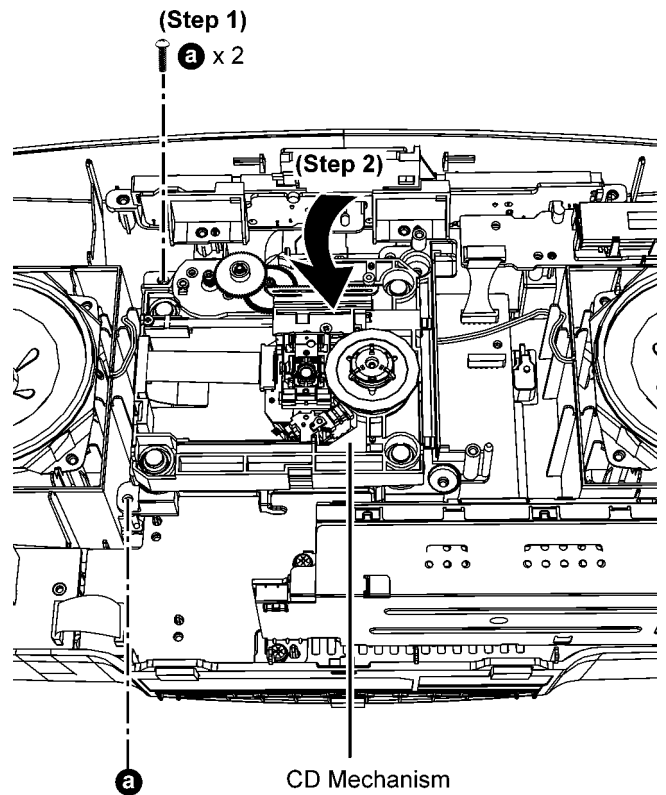


8.15. Disassembly of CD Mechanism

- Refer to "Disassembly of Net Frame Assembly (L) & (R)"
- Refer to "Disassembly of Front Cabinet Assembly"

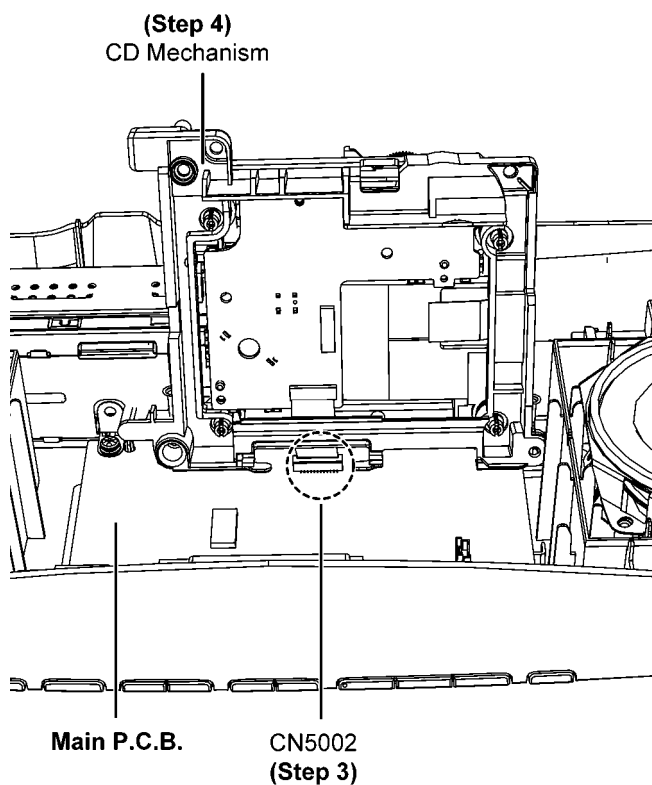
Step 1 : Remove 2 screws.

Step 2 : Lift up CD Mechanism.



Step 3 : Detach 24P FFC at connector (CN5002) on Main P.C.B..

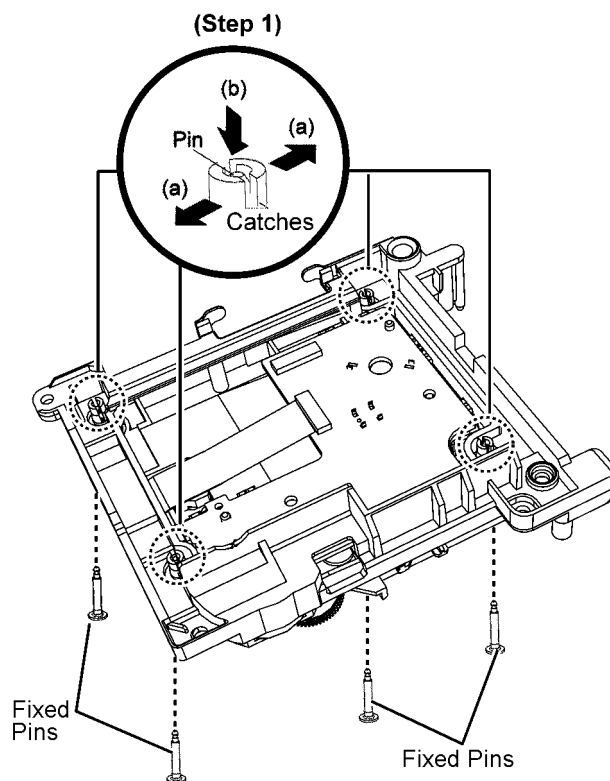
Step 4 : Remove CD Mechanism.



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

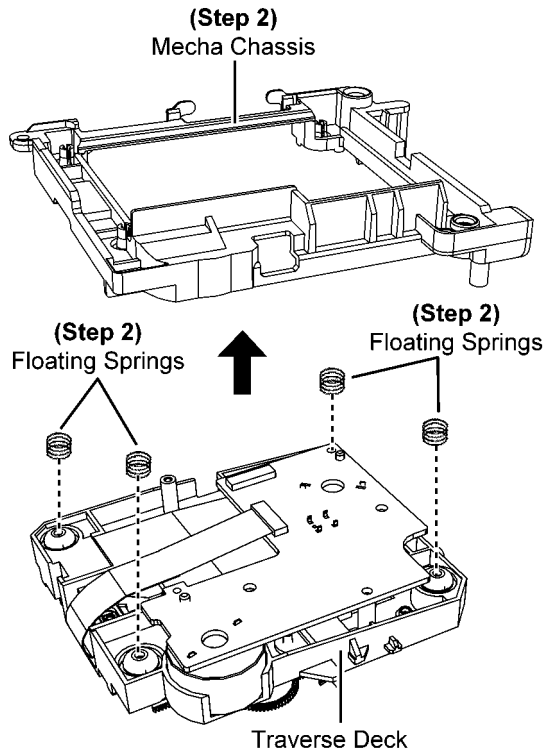
- Refer to "Disassembly of CD Mechanism"

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



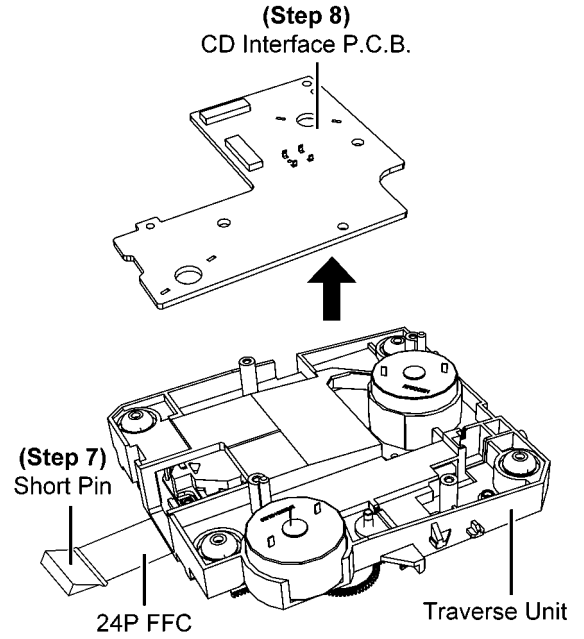
Step 2 : Lift up Mecha Chassis & remove Floating Springs.

Caution : Keep Floating Springs in safe place and place them back during assembling



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

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



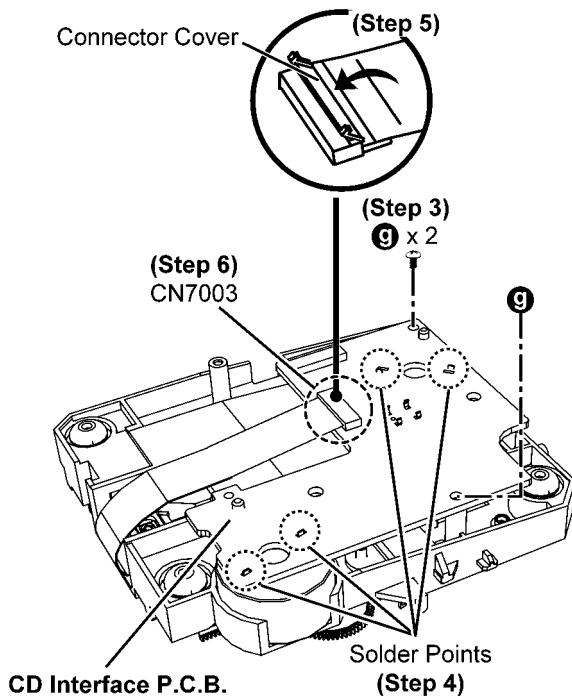
Step 3 : Remove 2 screws.

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

Step 5 : Lift up Connector Cover.

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

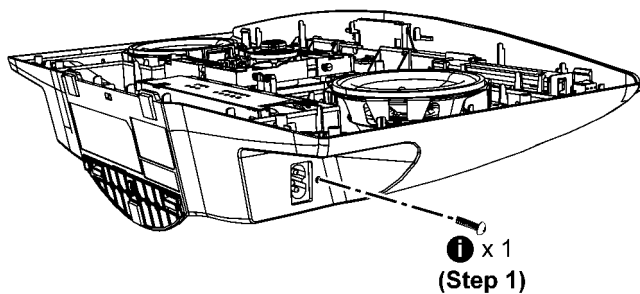
Step 6 : Detach 24P FFC at connector (CN7003) on CD Interface P.C.B..



8.17. Disassembly of SMPS Unit

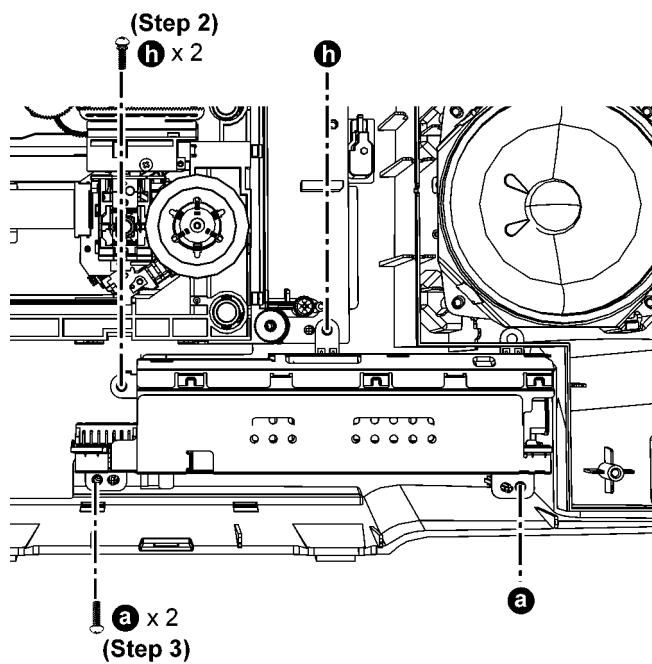
- Refer to “Disassembly of Net Frame Assembly (L) & (R)”
- Refer to “Disassembly of Front Cabinet Assembly”

Step 1 : Remove screw.



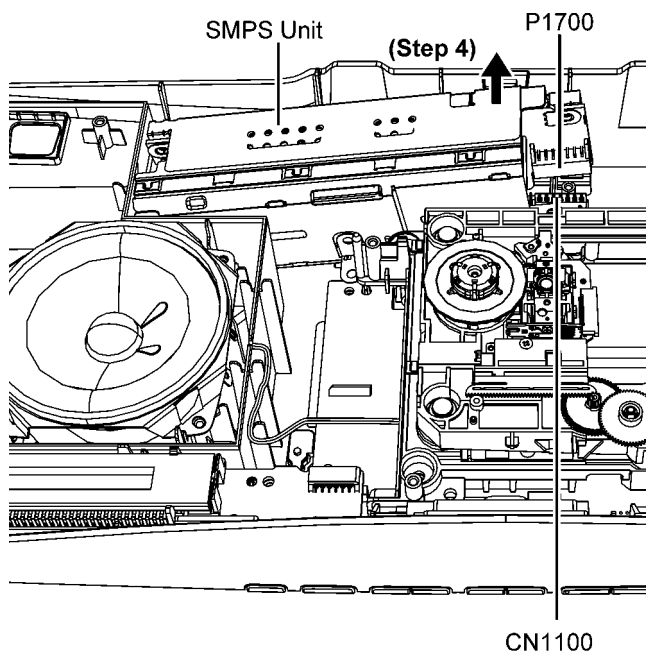
Step 2 : Remove 2 screws.

Step 3 : Remove 2 screws.



Step 4 : Gently lift up to remove SMPS Unit.

Caution : During assembling, align SMPS Unit (between P1700 with CN1100). A “click” sound could be heard when SMPS unit is attached properly to Main P.C.B..

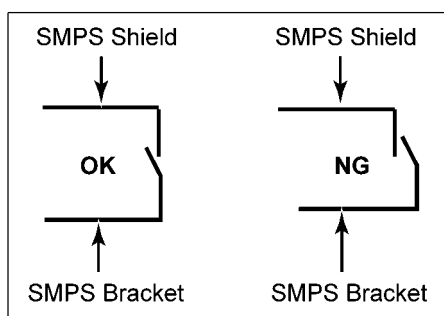
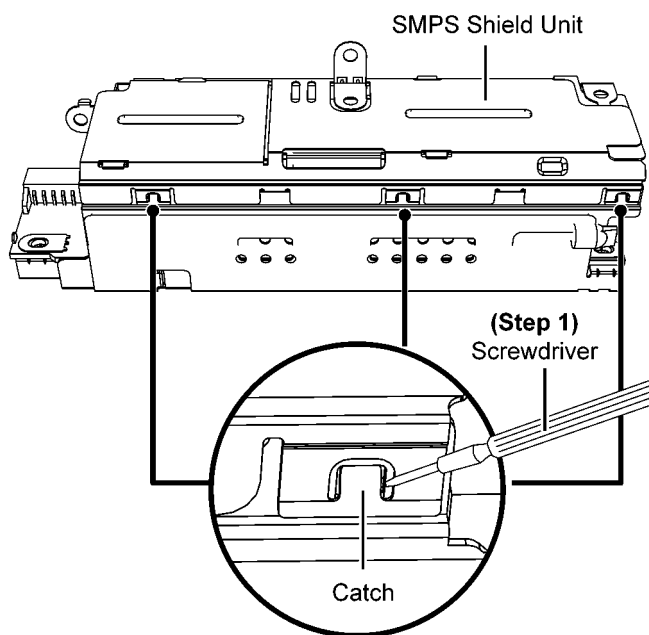


8.18. Disassembly of SMPS P.C.B.

- Refer to "Disassembly of SMPS Unit"

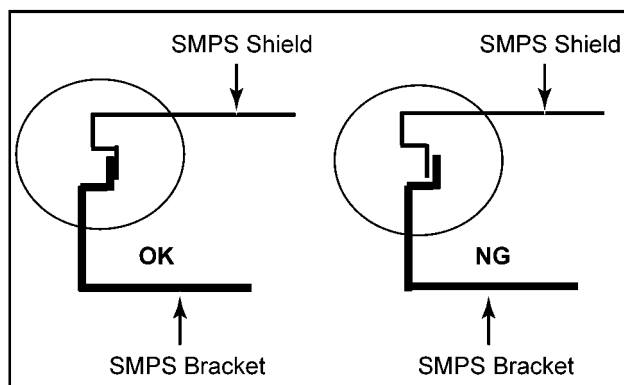
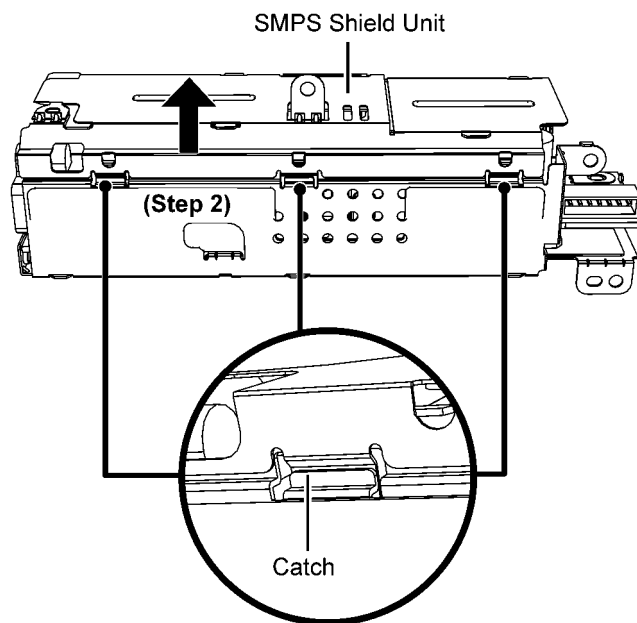
Step 1 : Press to release catches using a screwdriver and gently push up SMPS Shield Unit.

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



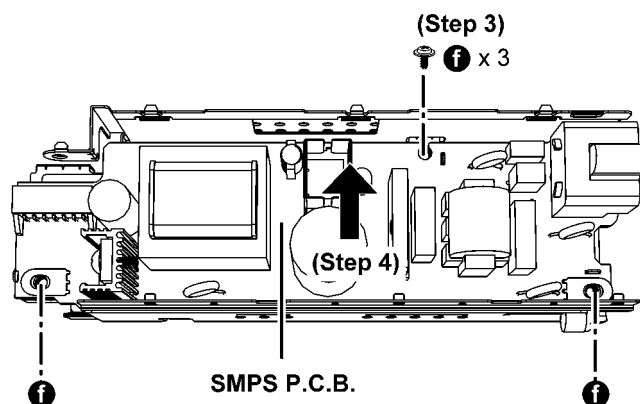
Step 2 : Gently push up SMPS Shield Unit to release catches and remove it.

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



Step 3 : Remove 3 screws.

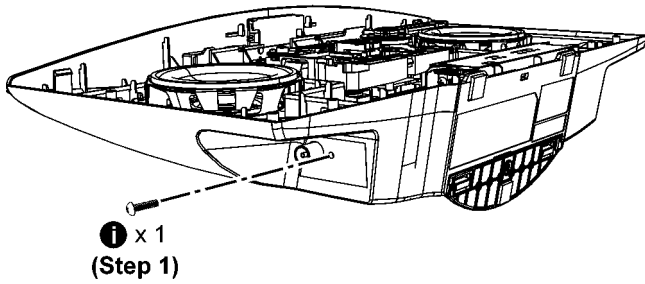
Step 4 : Remove SMPS P.C.B..



8.19. Disassembly of Tuner P.C.B. (For HC195/HC295)

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

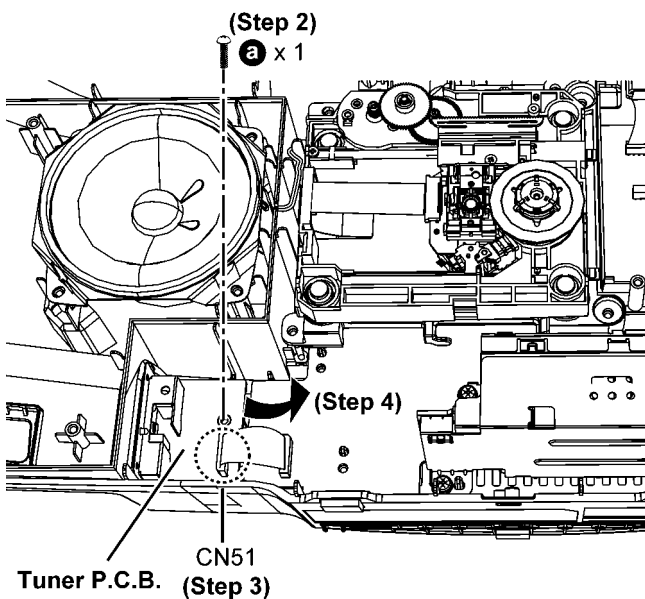
Step 1 : Remove screw.



Step 2 : Remove screw.

Step 3 : Detach 12P FFC at connector (CN51) on Tuner P.C.B..

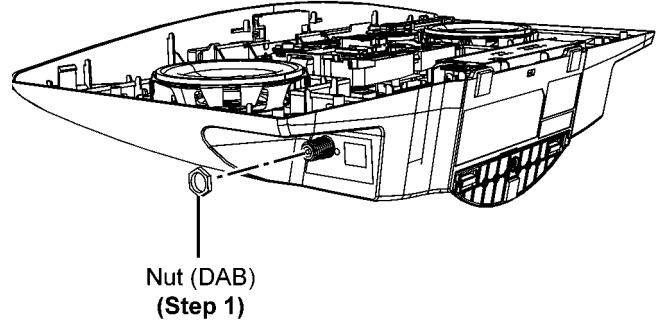
Step 4 : Remove Tuner P.C.B..



8.20. Disassembly of DAB Module (For HC297)

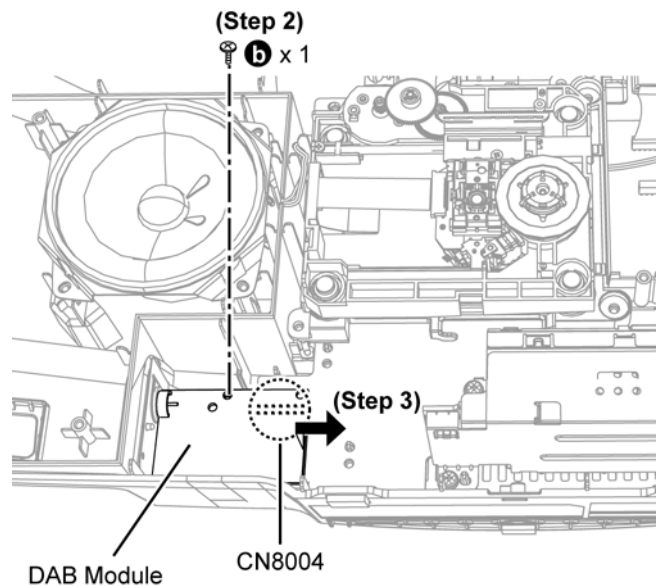
- Refer to “Disassembly of Net Frame Assembly (L) & (R)”
- Refer to “Disassembly of Front Cabinet Assembly”

Step 1 : Remove Nut (DAB).



Step 2 : Remove screw.

Step 3 : Gently lift up and remove DAB Module.

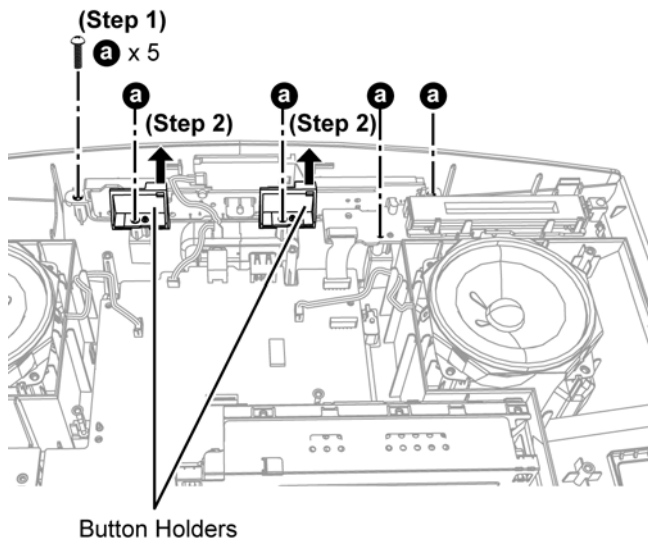


8.21. Disassembly of Top Button Unit

- Refer to "Disassembly of Net Frame Assembly (L) & (R)"
- Refer to "Disassembly of Front Cabinet Assembly"
- Refer to "Disassembly of CD Mechanism"

Step 1 : Remove 5 screws.

Step 2 : Remove Button Holders.



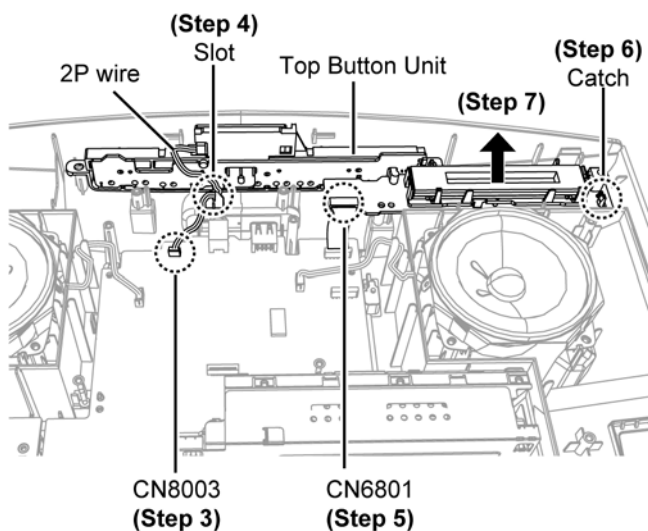
Step 3 : Detach 2P wire at connector (CN8003) on Main P.C.B.. (HC295/HC297 only).

Step 4 : Release the 2P wire from slot (HC295/HC297 only).

Step 5 : Detach 12P FFC at connector (CN6801) on Panel P.C.B..

Step 6 : Release catch on Panel P.C.B..

Step 7 : Slightly lift up Top Button Unit.



8.22. Disassembly of Panel P.C.B.

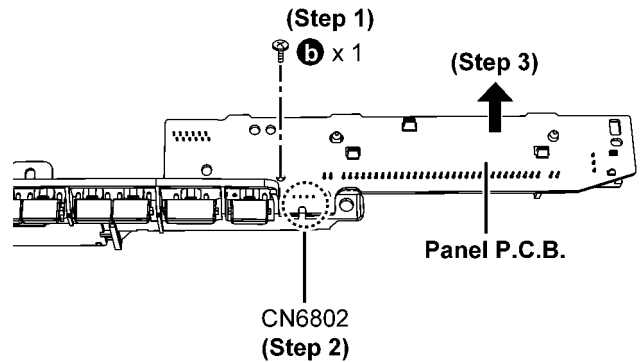
- Refer to "Disassembly of Top Button Unit"

Step 1 : Remove screw.

Step 2 : Detach 4P connector (CN6802) on Panel P.C.B..

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

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

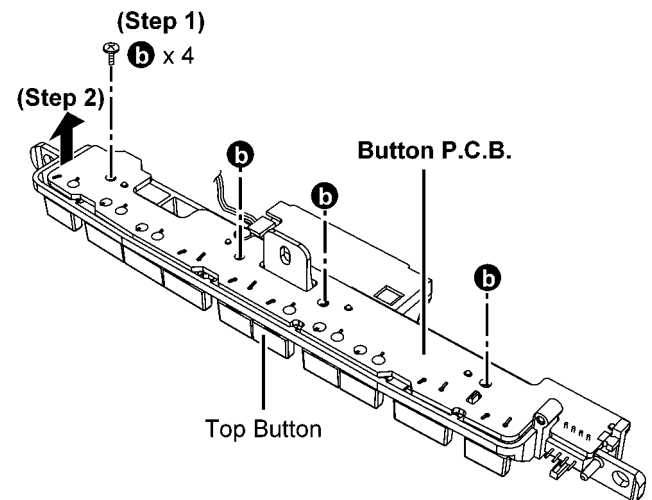


8.23. Disassembly of Button P.C.B.

- Refer to "Disassembly of Top Button Unit"
- Refer to "Disassembly of Panel P.C.B."

Step 1 : Remove 4 screws.

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



8.24. Disassembly of NFC P.C.B. (For HC295/HC297)

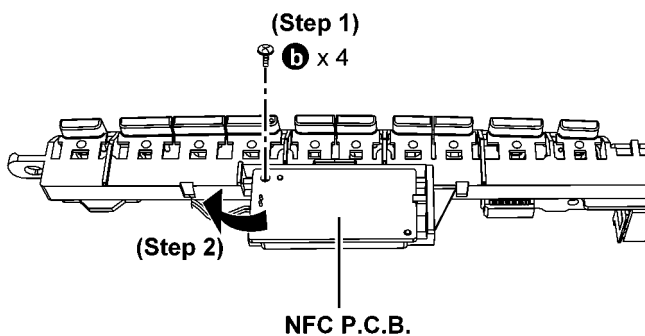
- Refer to "Disassembly of Top Button Unit"

Caution:

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

Step 1 : Remove screw.

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



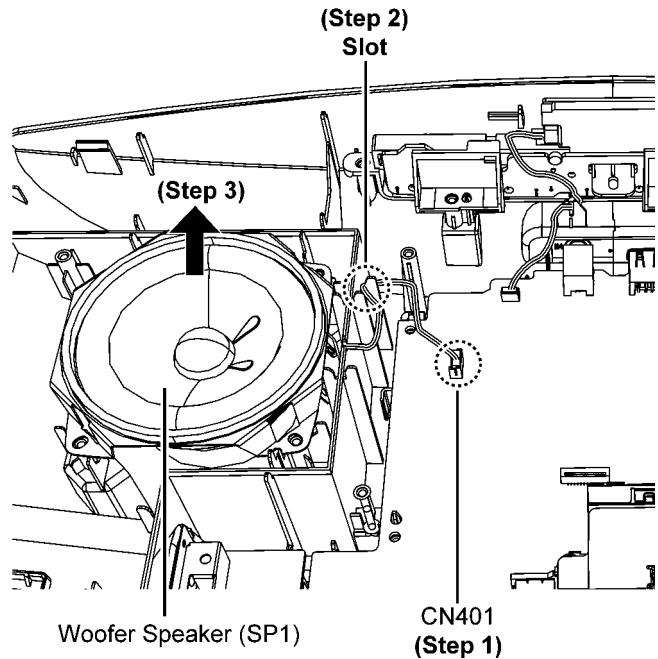
8.25. Disassembly of Woofer Speaker (SP1)

- Refer to "Disassembly of Net Frame Assembly (L) & (R)"
- Refer to "Disassembly of Front Cabinet Assembly"
- Refer to "Disassembly of CD Mechanism"

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

Step 2 : Release 2P wire from slot.

Step 3 : Remove Woofer Speaker (SP1).



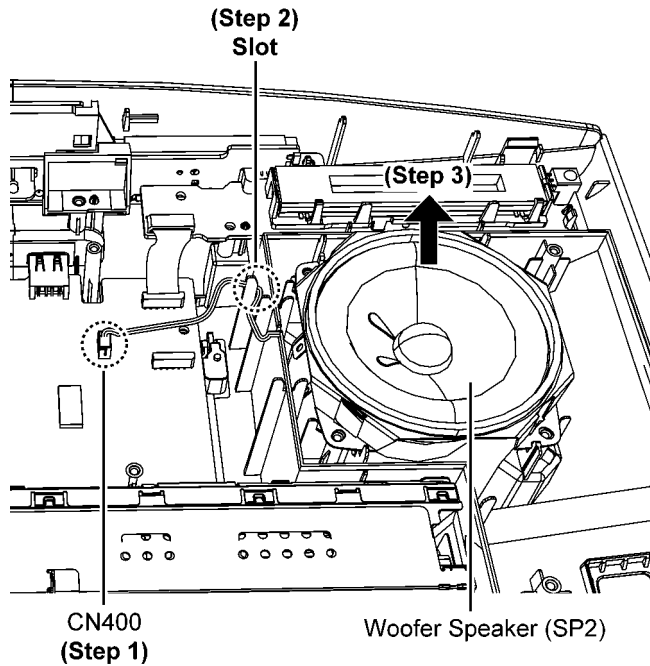
8.26. Disassembly of Woofer Speaker (SP2)

- Refer to "Disassembly of Net Frame Assembly (L) & (R)"
- Refer to "Disassembly of Front Cabinet Assembly"
- Refer to "Disassembly of CD Mechanism"

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

Step 2 : Release 2P wire from the slot.

Step 3 : Remove Woofer Speaker (SP2).



8.27. Disassembly of Main P.C.B. (For HC195/HC295)

- Refer to "Disassembly of Net Frame Assembly (L) & (R)"
- Refer to "Disassembly of Front Cabinet Assembly"
- Refer to "Disassembly of CD Mechanism"
- Refer to "Disassembly of SMPS Unit"

(For HC295)

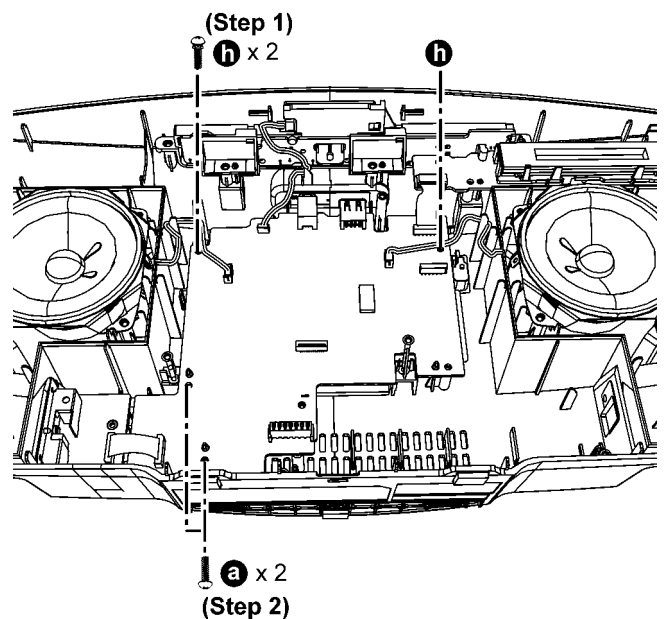
Caution:

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

For the details, please refer to "Service Navigation"

Step 1 : Remove 2 screws.

Step 2 : Remove 2 screws.



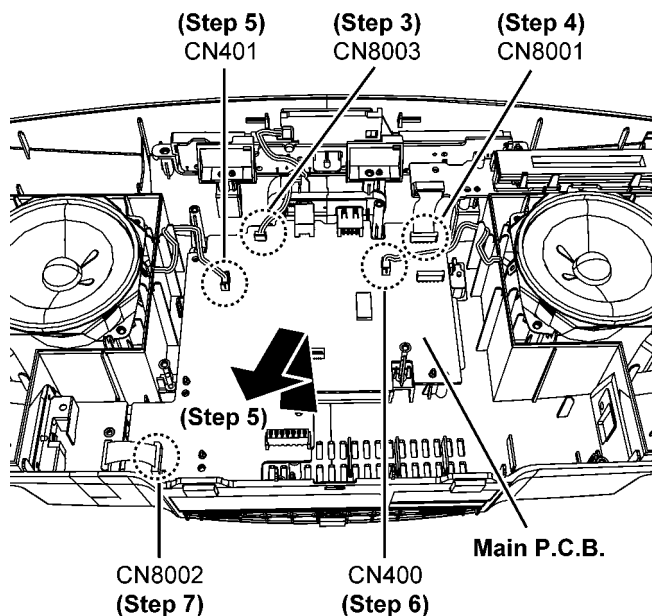
Step 3 : Detach 2P wire at connector (CN8003) on Main P.C.B..
(For HC295)

Step 4 : Detach 12P FFC at connector (CN8001) on Main P.C.B..

Step 5 : Detach 2P wire at connector (CN401) on Main P.C.B..

Step 6 : Detach 2P wire at connector (CN400) on Main P.C.B..

Step 7 : Detach 12P FFC at connector (CN8002) on Main P.C.B..



8.28. Disassembly of Main P.C.B. (For HC297)

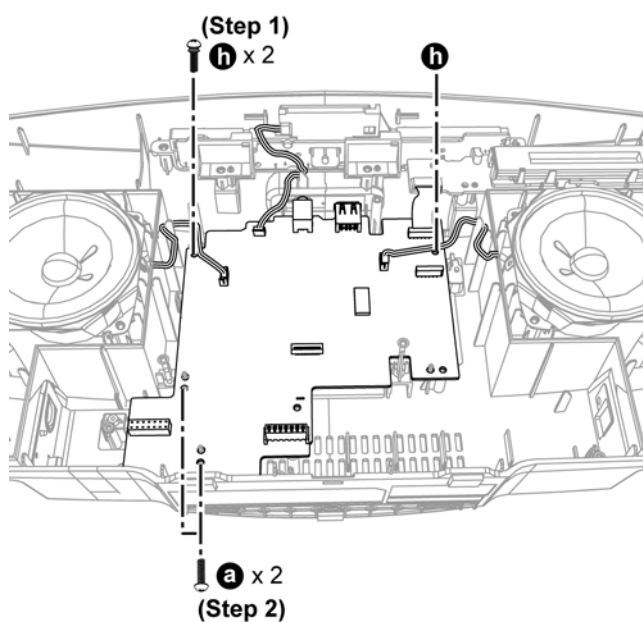
- Refer to "Disassembly of Net Frame Assembly (L) & (R)"
- Refer to "Disassembly of Front Cabinet Assembly"
- Refer to "Disassembly of CD Mechanism"
- Refer to "Disassembly of SMPS Unit"
- Refer to "Disassembly of DAB Module"

Caution:

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

Step 1 : Remove 2 screws.

Step 2 : Remove 2 screws.

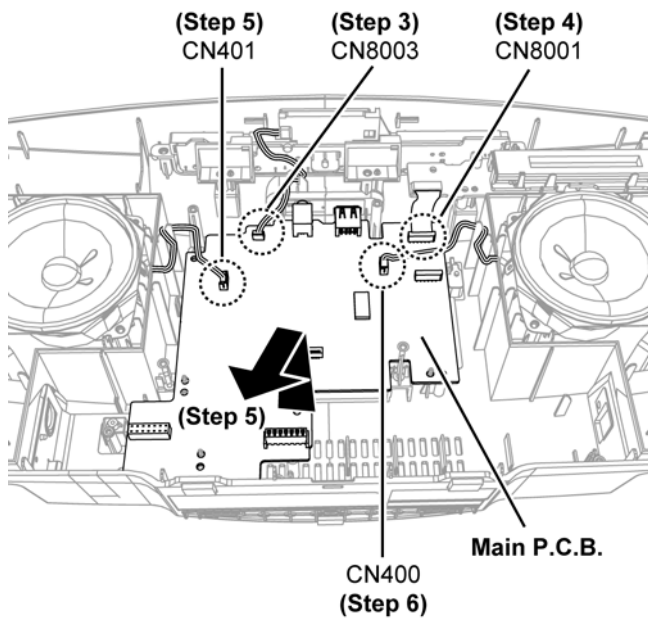


Step 3 : Detach 2P wire at connector (CN8003) on Main P.C.B..

Step 4 : Detach 12P FFC at connector (CN8001) on Main P.C.B..

Step 5 : Detach 2P wire at connector (CN401) on Main P.C.B..

Step 6 : Detach 2P wire at connector (CN400) on Main P.C.B..



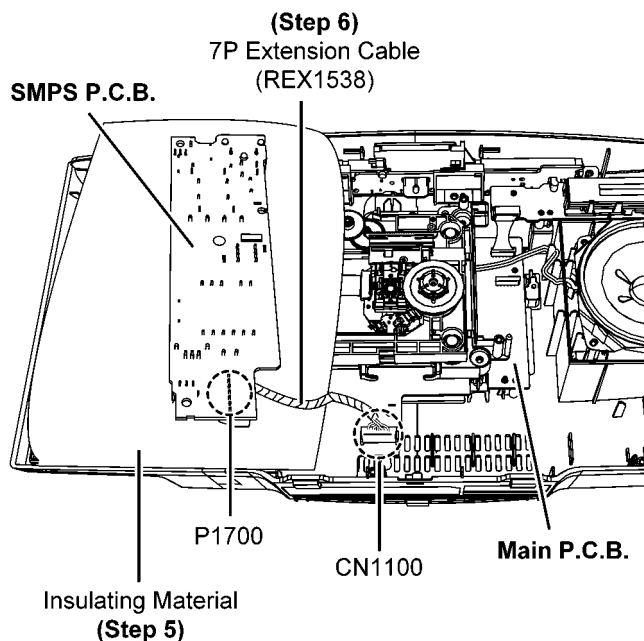
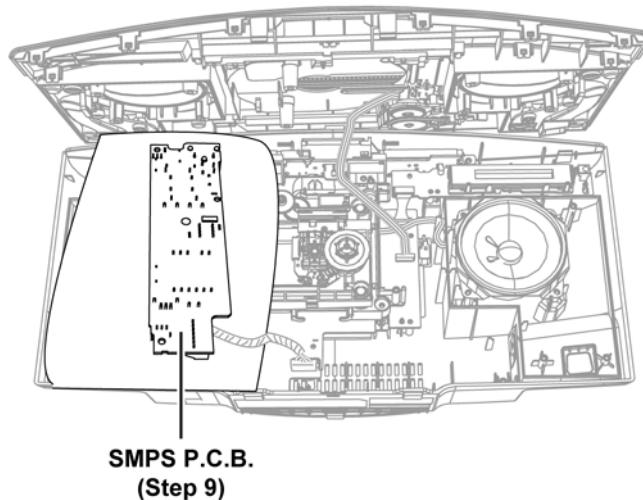
9 Service Position

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

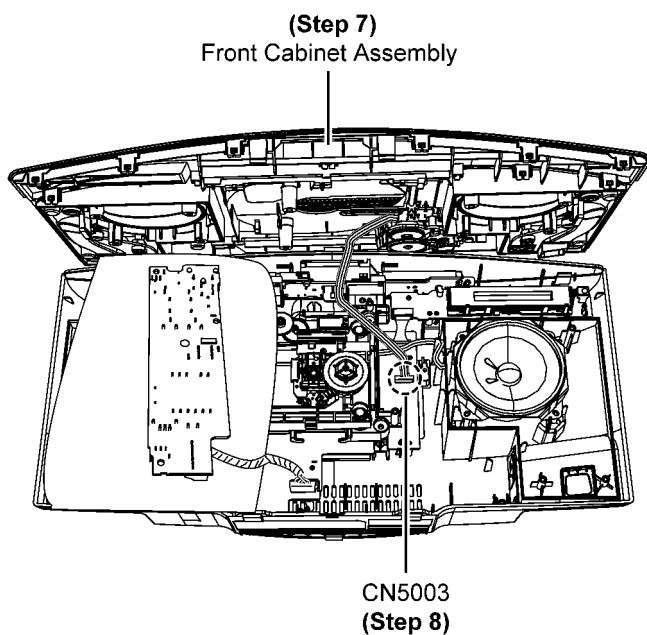
9.1. Checking of SMPS P.C.B.

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

- Step 1 : Remove Net Frame Assembly (L) & (R).
- Step 2 : Remove Front Cabinet Assembly.
- Step 3 : Remove SMPS Unit.
- Step 4 : Remove SMPS Shield Unit & SMPS Bracket.
- Step 5 : Place SMPS P.C.B. on the Insulating Material.
- Step 6 : Connect 7P extension cable (REX1538) from P1700 on SMPS P.C.B. to CN1100 on Main P.C.B..



- Step 7 : Place Front Cabinet Assembly as shown.
- Step 8 : Connect 5P wire at connector (CN5003) on Main P.C.B..



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

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

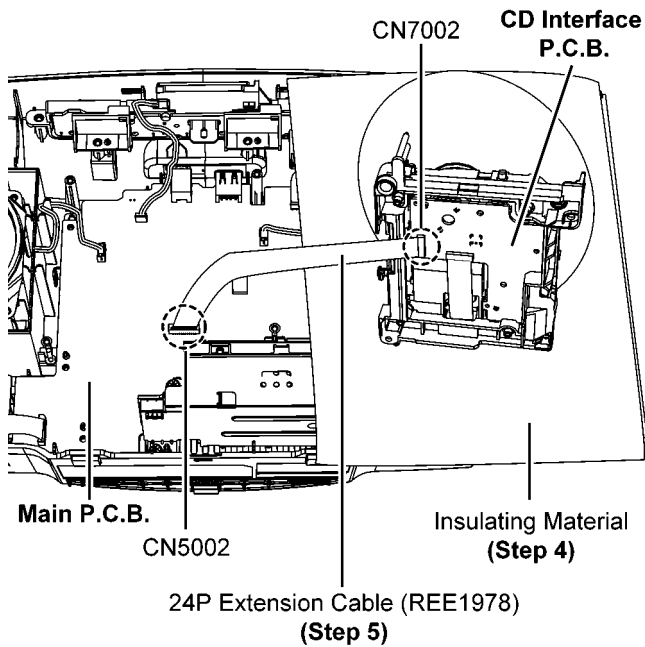
Step 1 : Remove Net Frame Assembly (L) & (R).

Step 2 : Remove Front Cabinet Assembly.

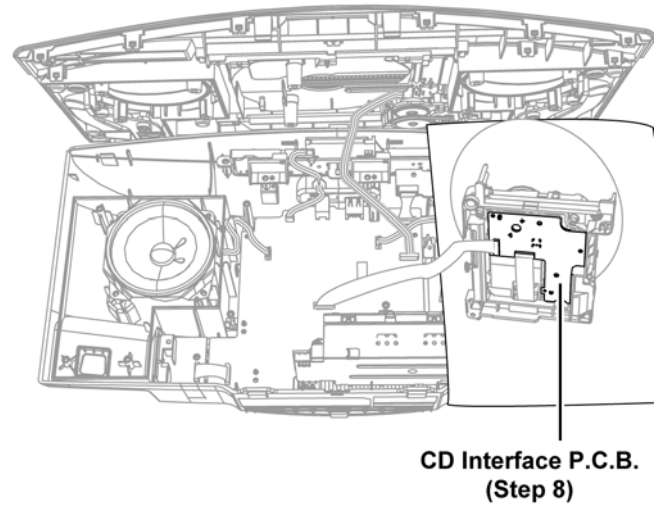
Step 3 : Remove CD Mechanism.

Step 4 : Place CD Mechanism on the Insulating Material.

Step 5 : Connect 24P extension cable (REE1978) from CN5002 on Main P.C.B. to CN7002 on CD Interface P.C.B..

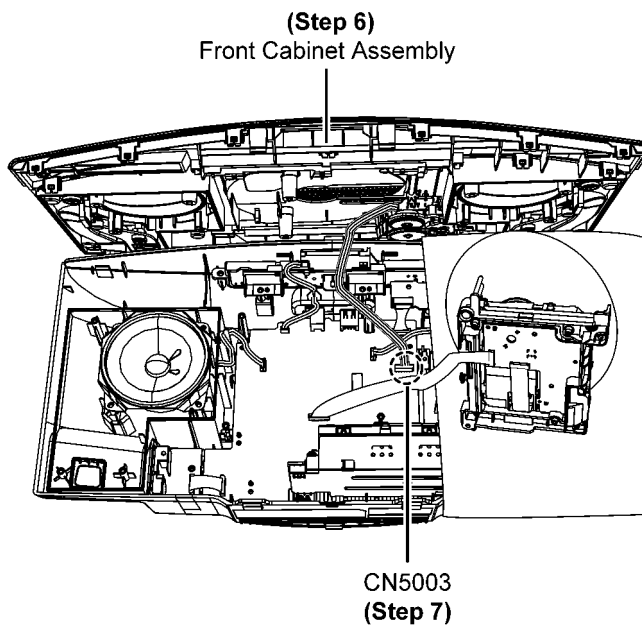


Step 8 : Check CD Interface P.C.B. according to the diagram shown.



Step 6 : Place Front Cabinet Assembly as shown.

Step 7 : Connect 5P wire at connector (CN5003) on Main P.C.B..



9.3. Checking of Panel P.C.B.

Step 1 : Remove Net Frame Assembly (L) & (R).

Step 2 : Remove Front Cabinet Assembly.

Step 3 : Remove CD Mechanism.

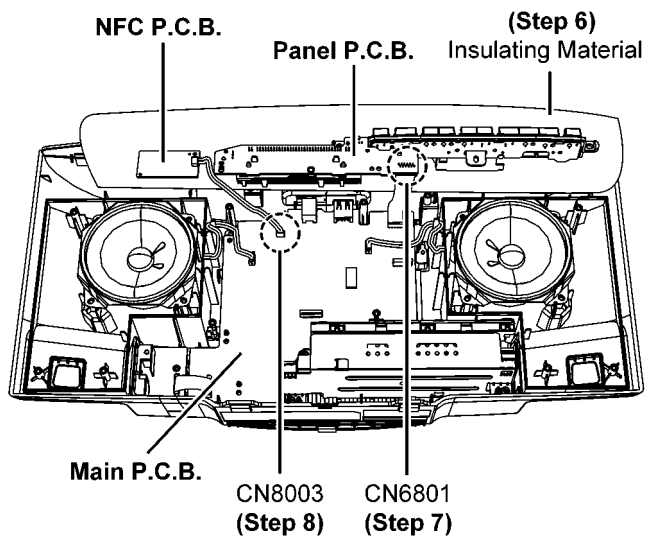
Step 4 : Remove Top Button Unit.

Step 5 : Remove NFC P.C.B.. (For HC295/297)

Step 6 : Place Top Button Unit & NFC P.C.B. on Insulating Material.

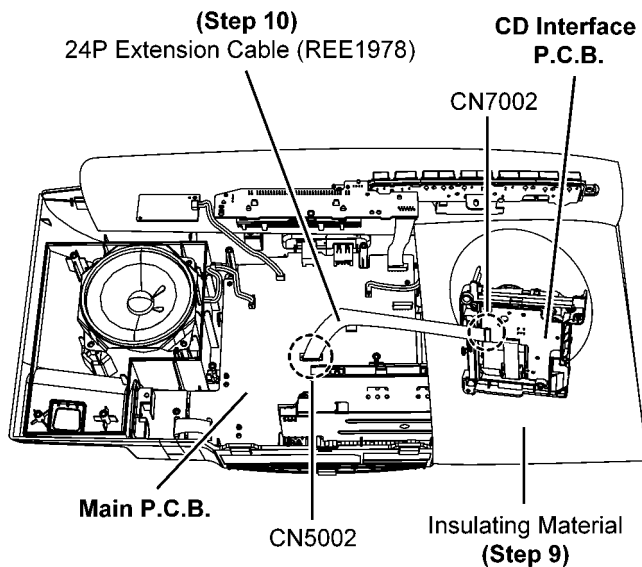
Step 7 : Connect 12P FFC at connector (CN6801) on Panel P.C.B..

Step 8 : Connect 2P wire at connector (CN8003) on Main P.C.B..



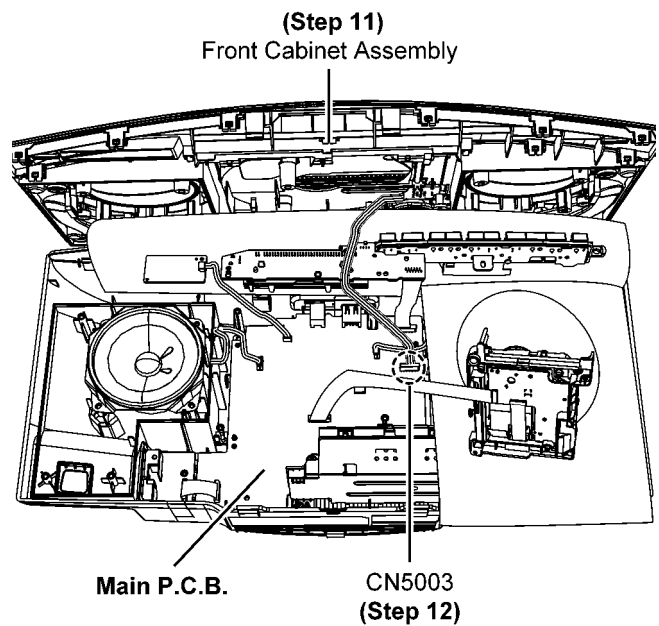
Step 9 : Place CD Mechanism on the Insulating Material.

Step 10 : Connect 24P extension cable (REE1978) from CN5002 on Main P.C.B. to CN7002 on CD Interface P.C.B..

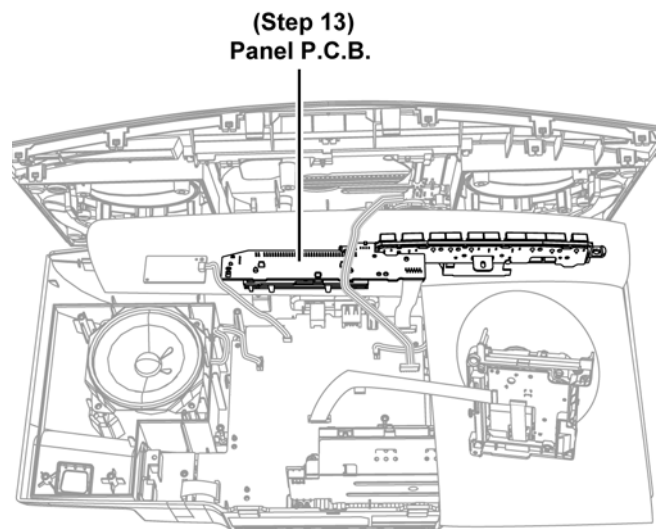


Step 11 : Place Front Cabinet Assembly as shown.

Step 12 : Connect 5P wire at connector (CN5003) on Main P.C.B..

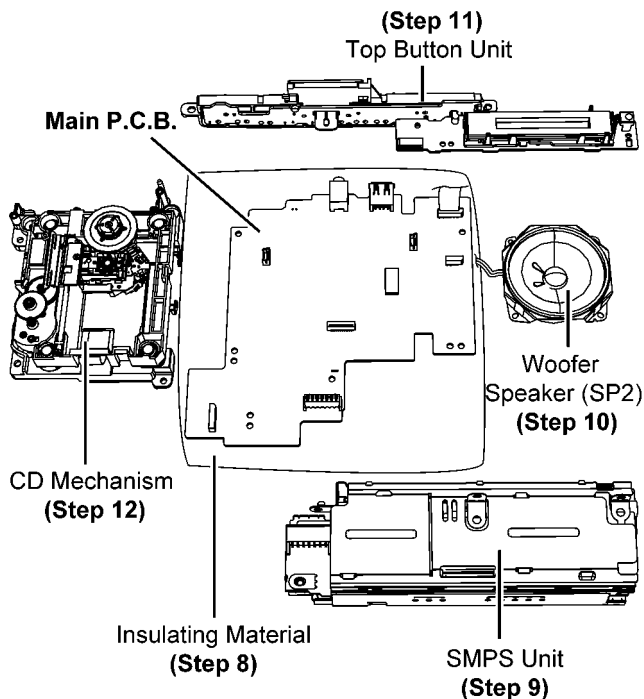


Step 13 : Check Panel P.C.B. according to the diagram shown.

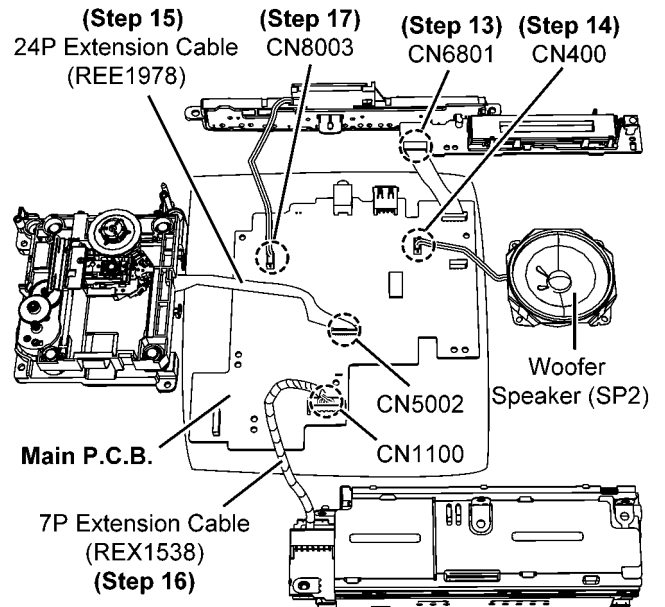


9.4. Checking of Main P.C.B. (Side B) (For HC195/HC295)

- Step 1 :** Remove Net Frame Assembly (L) & (R).
- Step 2 :** Remove Front Cabinet Assembly.
- Step 3 :** Remove CD Mechanism.
- Step 4 :** Remove SMPS Unit.
- Step 5 :** Remove Top Button Unit.
- Step 6 :** Remove Woofer Speaker (SP2).
- Step 7 :** Remove Main P.C.B..
- Step 8 :** Place Main P.C.B. on the Insulating Material.
- Step 9 :** Place SMPS Unit as shown.
- Step 10 :** Place Woofer Speaker (SP2) as shown.
- Step 11 :** Place Top Button Unit as shown.
- Step 12 :** Place CD Mechanism as shown.



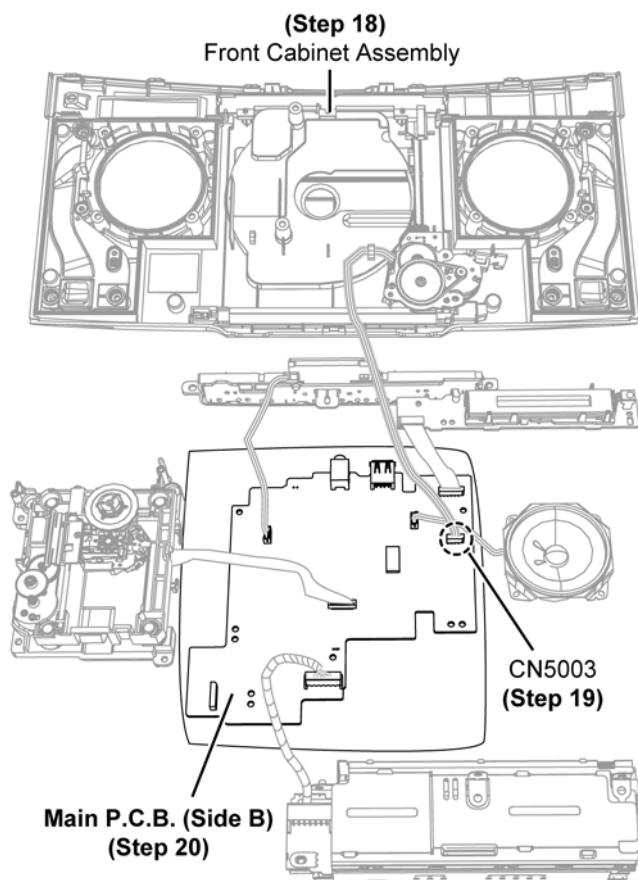
- Step 13 :** Connect 12P FFC at connector (CN6801) on Panel P.C.B..
- Step 14 :** Connect 2P wire at connector (CN400) on Main P.C.B..
- Step 15 :** Connect 24P extension cable (REE1978) from CN5002 on Main P.C.B. to CN7002 on CD Interface P.C.B..
- Step 16 :** Connect 7P extension cable (REX1538) from P1700 on SMPS P.C.B. to CN1100 on Main P.C.B..
- Step 17 :** Connect 2P wire at connector (CN8003) on Main P.C.B..



Step 18 : Place Front Cabinet Assembly as shown.

Step 19 : Connect 5P wire at connector (CN5003) on Main P.C.B..

Step 20 : Check Main P.C.B. (Side B) according to the diagram shown.



9.5. Checking of Main P.C.B. (Side A) (For HC195/HC295)

Step 1 : Remove Net Frame Assembly (L) & (R).

Step 2 : Remove Front Cabinet Assembly.

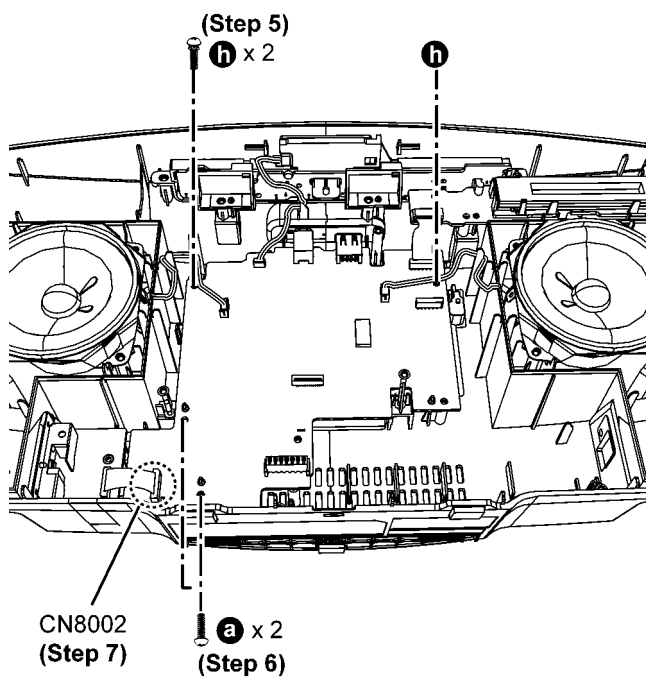
Step 3 : Remove CD Mechanism.

Step 4 : Remove SMPS Unit.

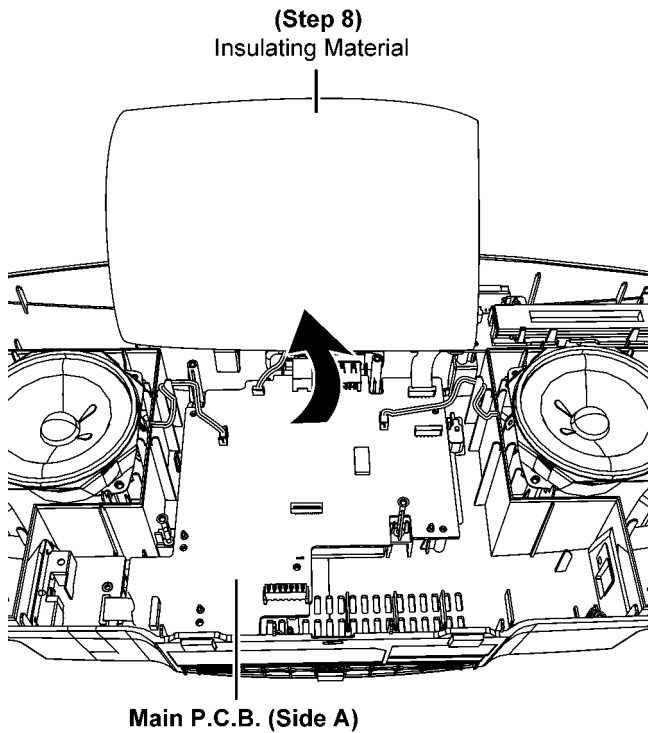
Step 5 : Remove 2 screws.

Step 6 : Remove 2 screws.

Step 7 : Detach 12P FFC at connector (CN8002) on Main P.C.B..

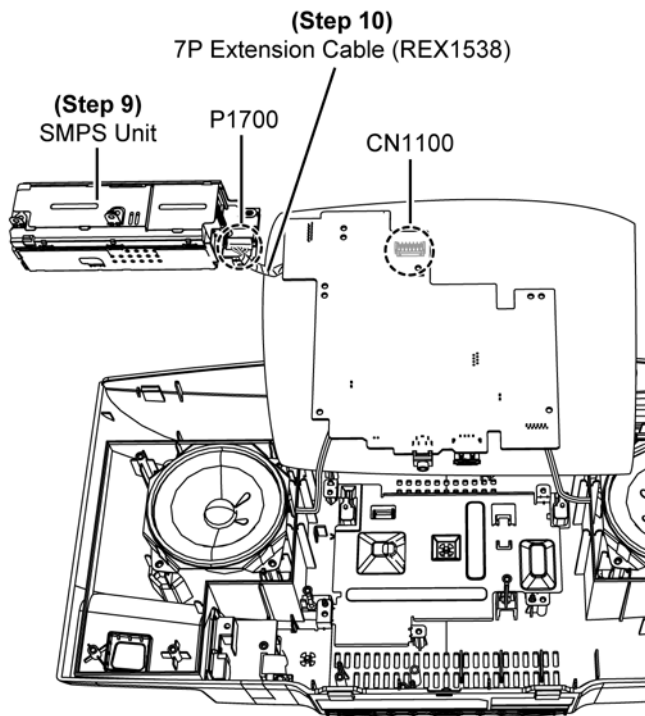


Step 8 : Place Main P.C.B. (Side A) on the Insulating Material as shown.



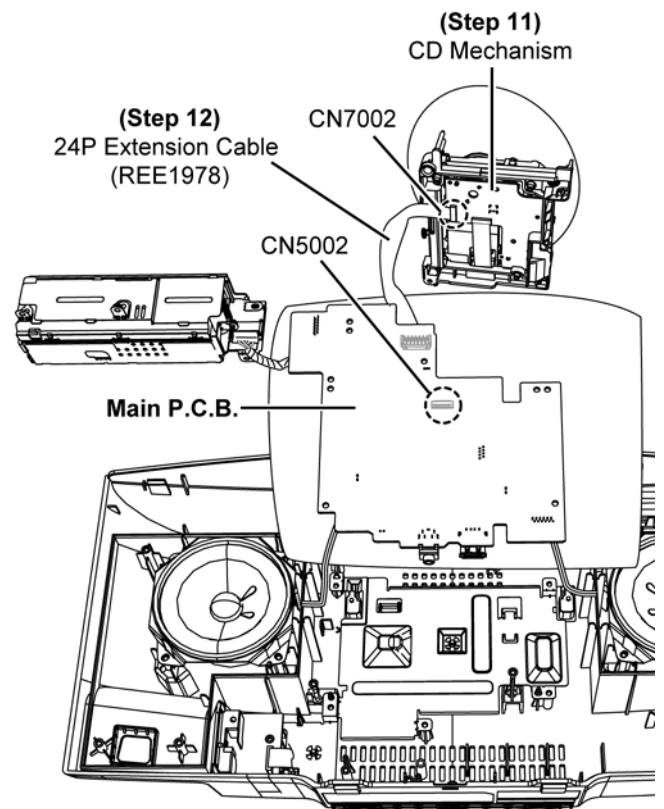
Step 9 : Place SMPS Unit as shown.

Step 10 : Connect 7P extension cable (REX1538) from P1700 on SMPS P.C.B. to CN1100 on Main P.C.B..



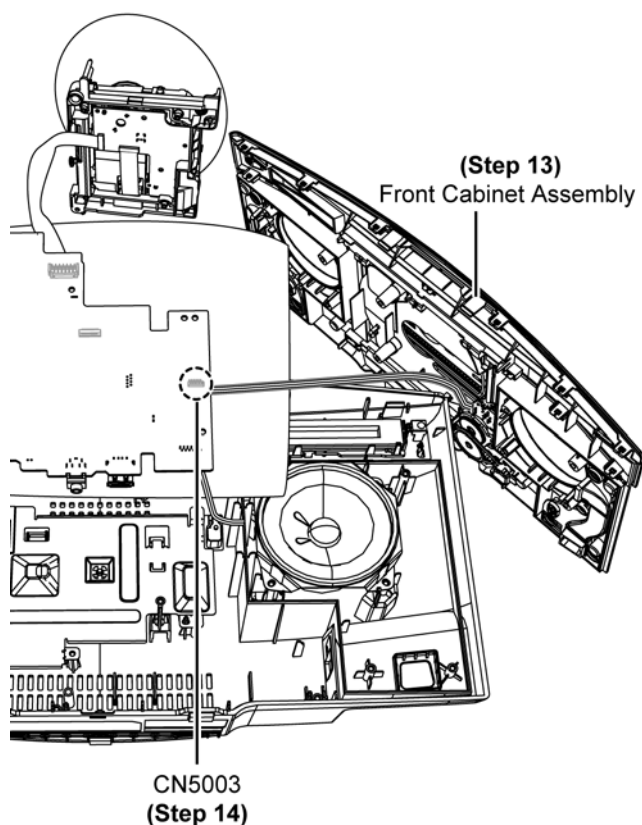
Step 11 : Place CD Mechanism as shown.

Step 12 : Connect 24P extension cable (REE1978) from CN5002 on Main P.C.B. to CN7002 on CD Interface P.C.B..

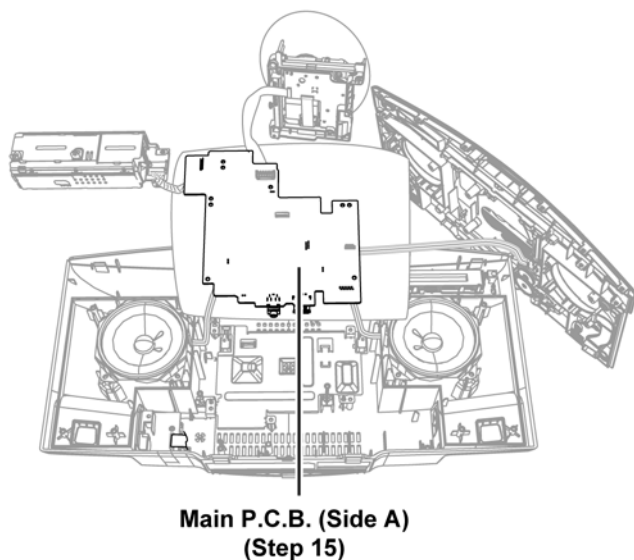


Step 13 : Place Front Cabinet Assembly as shown.

Step 14 : Connect 5P wire at connector (CN5003) on Main P.C.B..



Step 15 : Check Main P.C.B. (Side A) according to the diagram shown.



9.6. Checking of Main P.C.B. (Side B) (For HC297)

Step 1 : Remove Net Frame Assembly (L) & (R).

Step 2 : Remove Front Cabinet Assembly.

Step 3 : Remove CD Mechanism.

Step 4 : Remove SMPS Unit.

Step 5 : Remove DAB Module.

Step 6 : Remove Top Button Unit.

Step 7 : Remove Woofer Speaker (SP2).

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

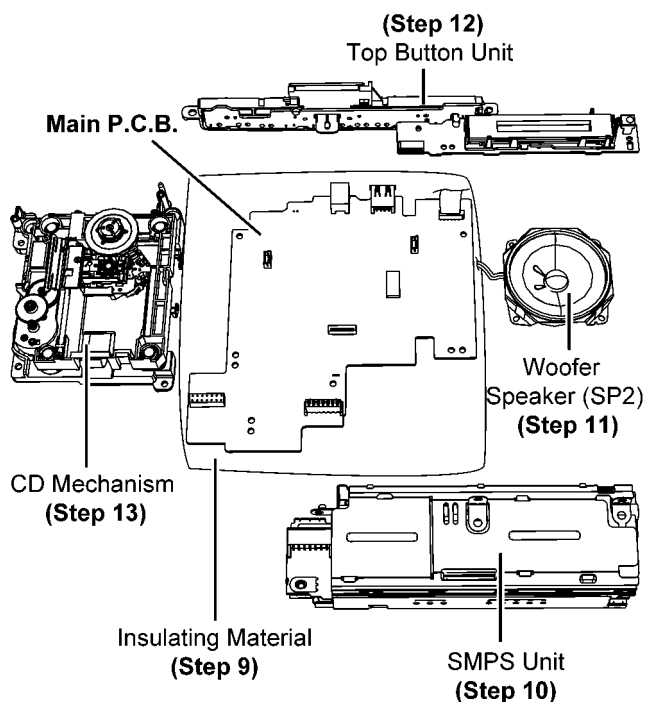
Step 9 : Place Main P.C.B. on the Insulating Material.

Step 10 : Place SMPS Unit as shown.

Step 11 : Place Woofer Speaker (SP2) as shown.

Step 12 : Place Top Button Unit as shown.

Step 13 : Place CD Mechanism as shown.



Step 14 : Connect 12P FFC at connector (CN6801) on Panel P.C.B..

Step 15 : Connect 2P wire at connector (CN400) on Main P.C.B..

Step 16 : Connect 24P extension cable (REE1978) from CN5002 on Main P.C.B. to CN7002 on CD Interface P.C.B..

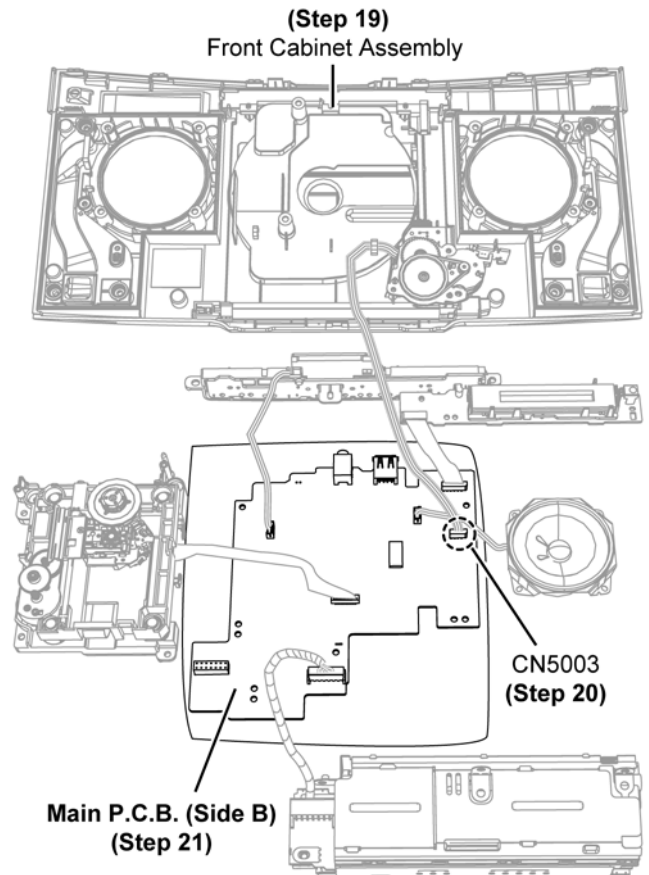
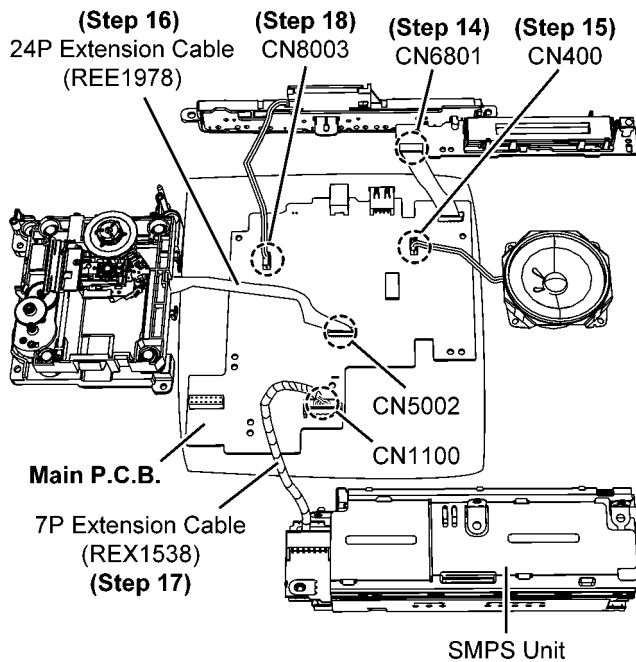
Step 17 : Connect 7P extension cable (REX1538) from P1700 on SMPS P.C.B. to CN1100 on Main P.C.B..

Step 18 : Connect 2P wire at connector (CN8003) on Main P.C.B..

Step 19 : Place Front Cabinet Assembly as shown.

Step 20 : Connect 5P wire at connector (CN5003) on Main P.C.B..

Step 21 : Check Main P.C.B. (Side B) according to the diagram shown.



9.7. Checking of Main P.C.B. (Side A) (For HC297)

Step 1 : Remove Net Frame Assembly (L) & (R).

Step 2 : Remove Front Cabinet Assembly.

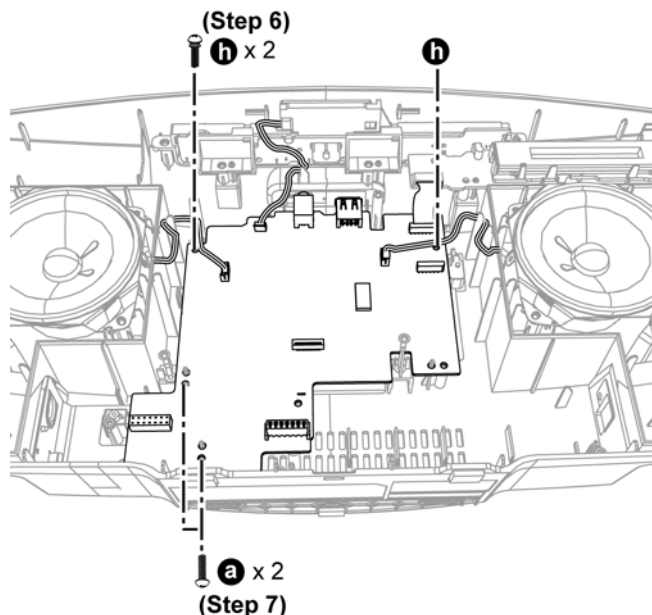
Step 3 : Remove CD Mechanism.

Step 4 : Remove SMPS Unit.

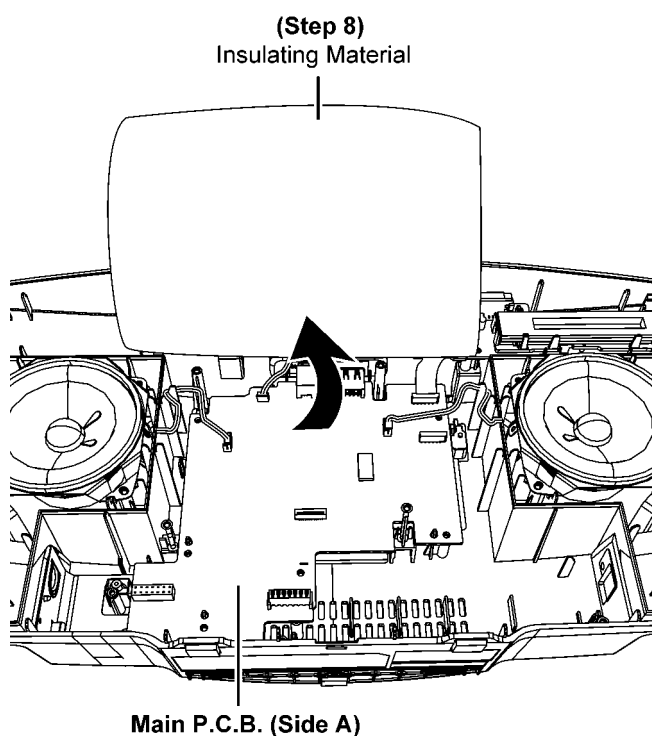
Step 5 : Remove DAB Module.

Step 6 : Remove 2 screws.

Step 7 : Remove 2 screws.

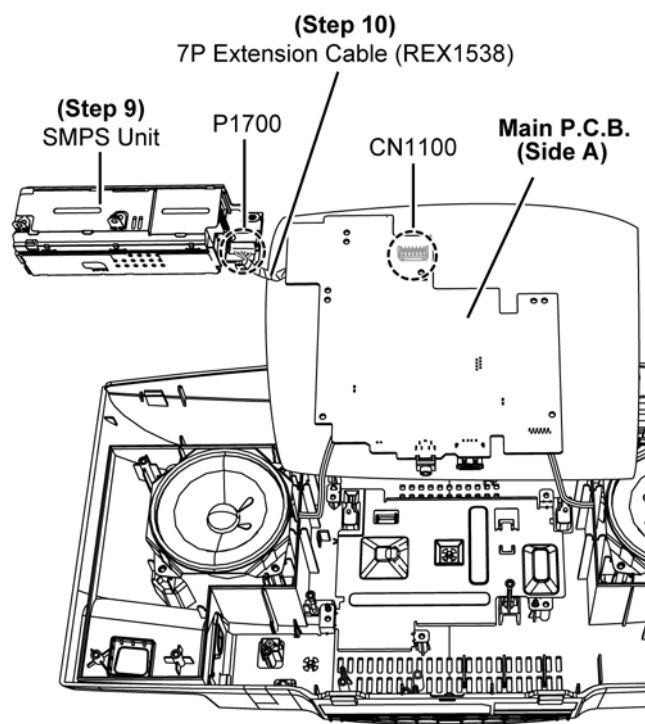


Step 8 : Place Main P.C.B. (Side A) on the Insulating Material as shown.



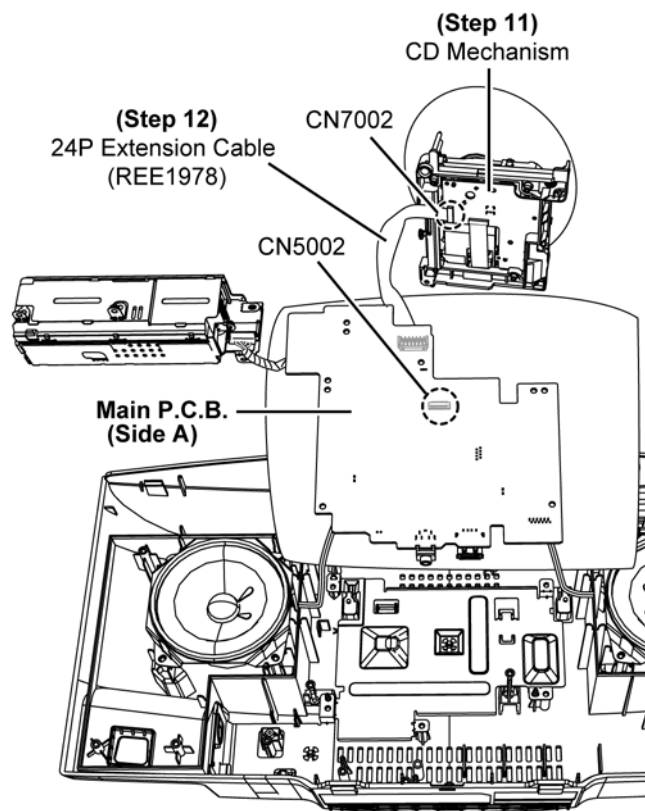
Step 9 : Place SMPS Unit as shown.

Step 10 : Connect 7P extension cable (REX1538) from P1700 on SMPS P.C.B. to CN1100 on Main P.C.B..



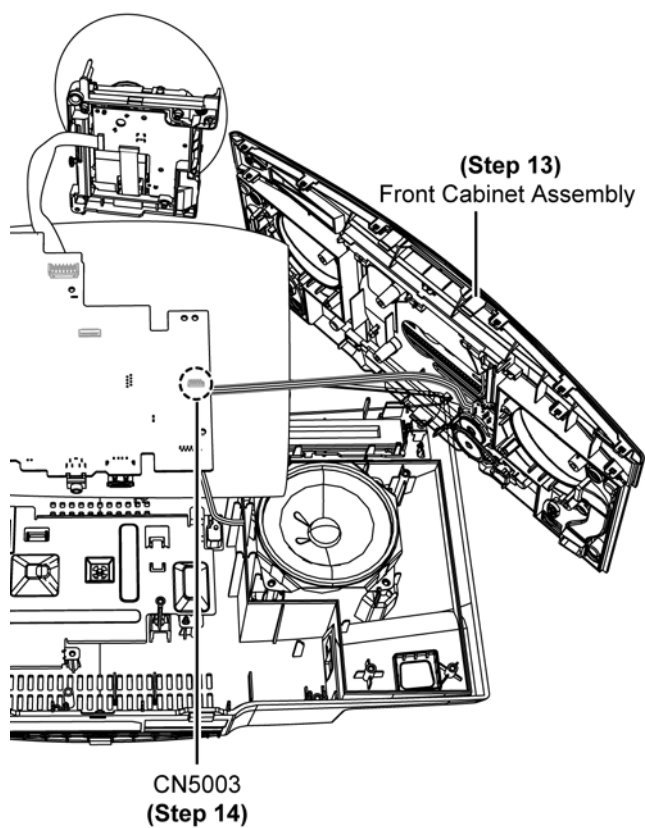
Step 11 : Place CD Mechanism as shown.

Step 12 : Connect 24P extension cable (REE1978) from CN5002 on Main P.C.B. to CN7002 on CD Interface P.C.B..

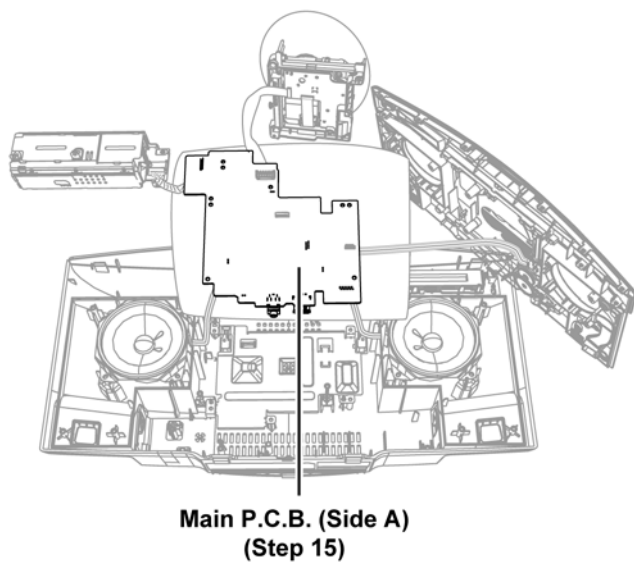


Step 13 : Place Front Cabinet Assembly as shown.

Step 14 : Connect 5P wire at connector (CN5003) on Main P.C.B..

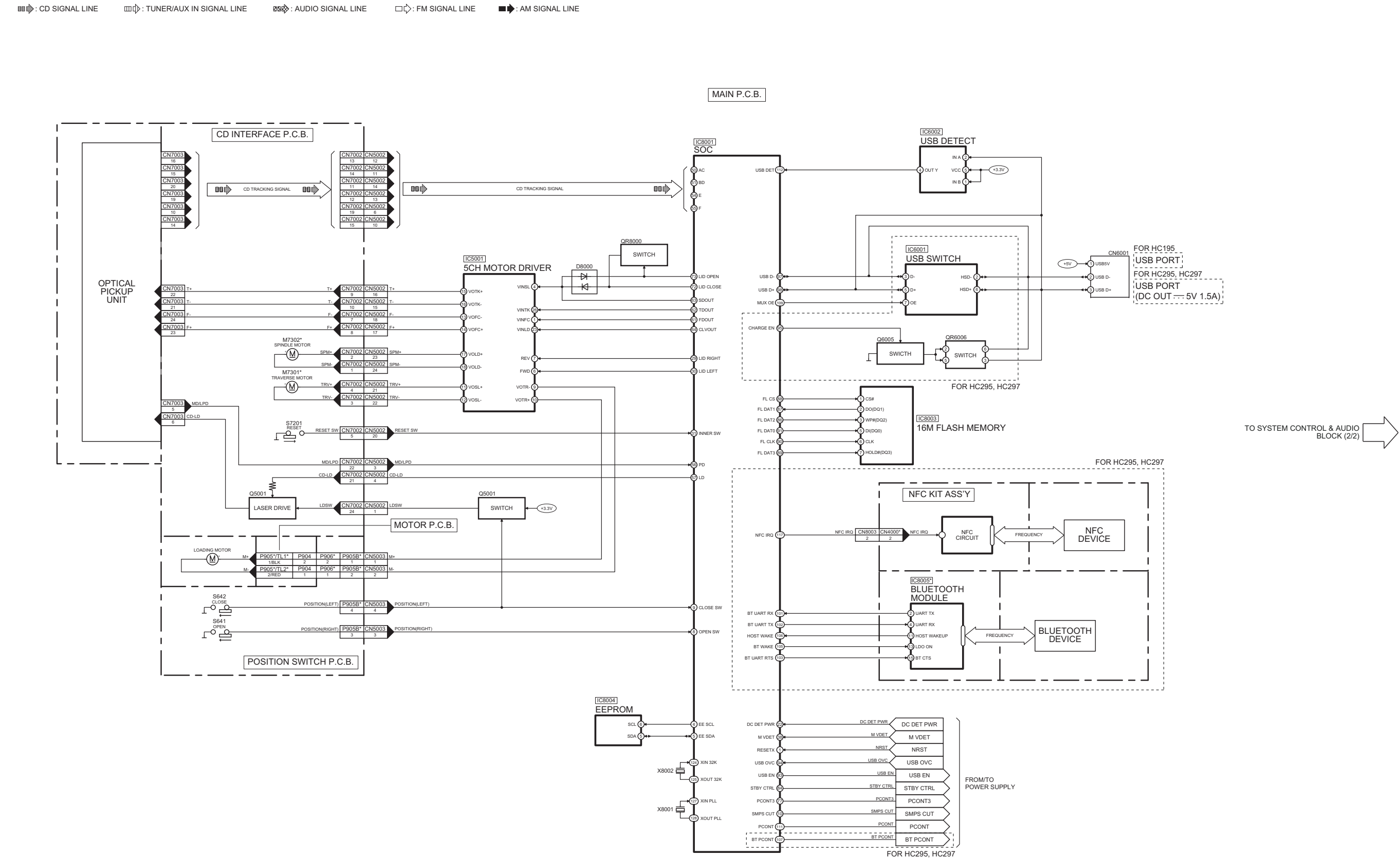


Step 15 : Check Main P.C.B. (Side A) according to the diagram shown.



10 Block Diagram

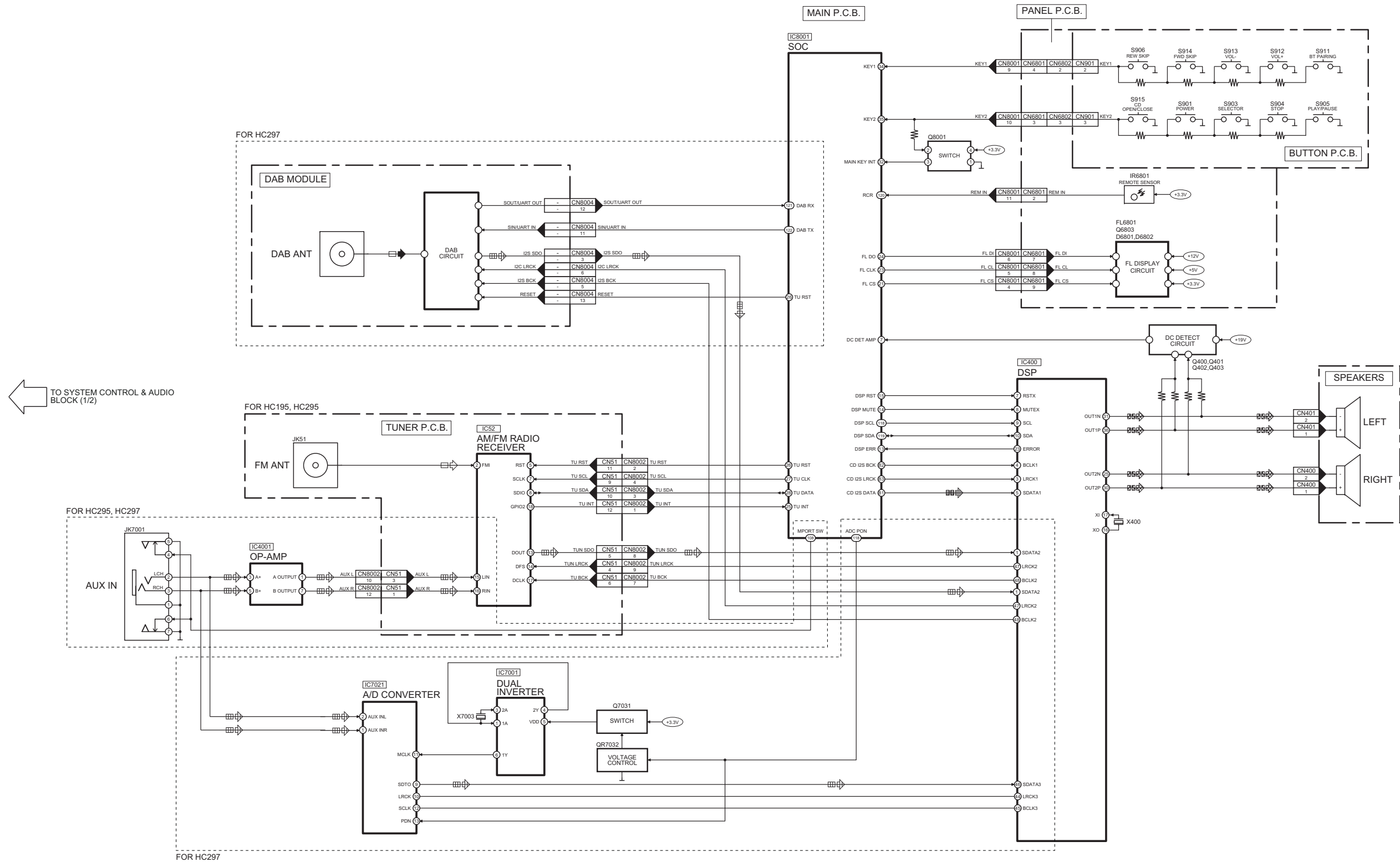
10.1. SYSTEM CONTROL & AUDIO (1/2) BLOCK DIAGRAM



SC-HC195EB/EG,SC-HC295EG,SC-HC297EB SYSTEM CONTROL & AUDIO (1/2) BLOCK DIAGRAM

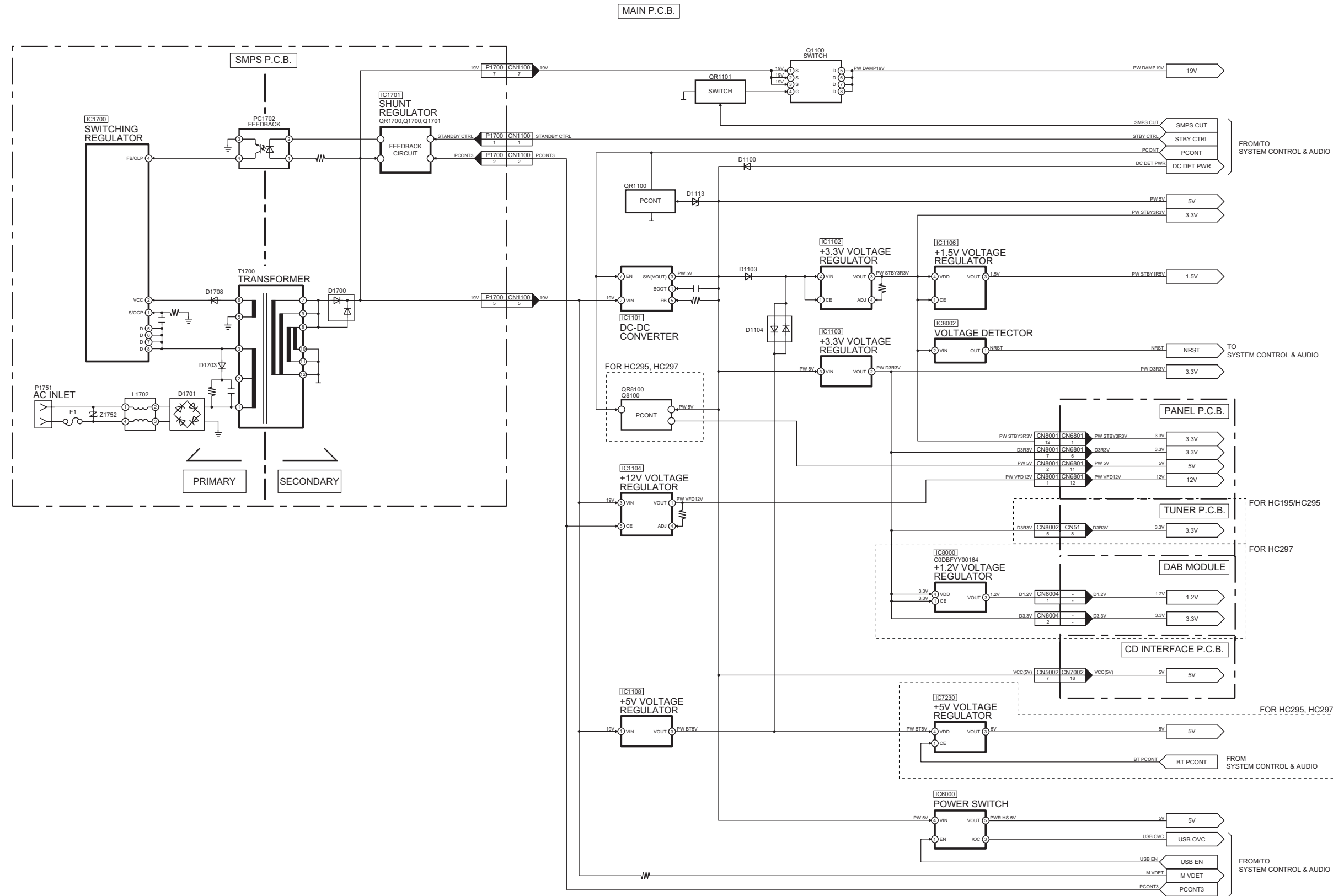
10.2. SYSTEM CONTROL & AUDIO (2/2) BLOCK DIAGRAM

: CD SIGNAL LINE
 : TUNER/AUX IN SIGNAL LINE
 : AUDIO SIGNAL LINE
 : FM SIGNAL LINE
 : AM SIGNAL LINE



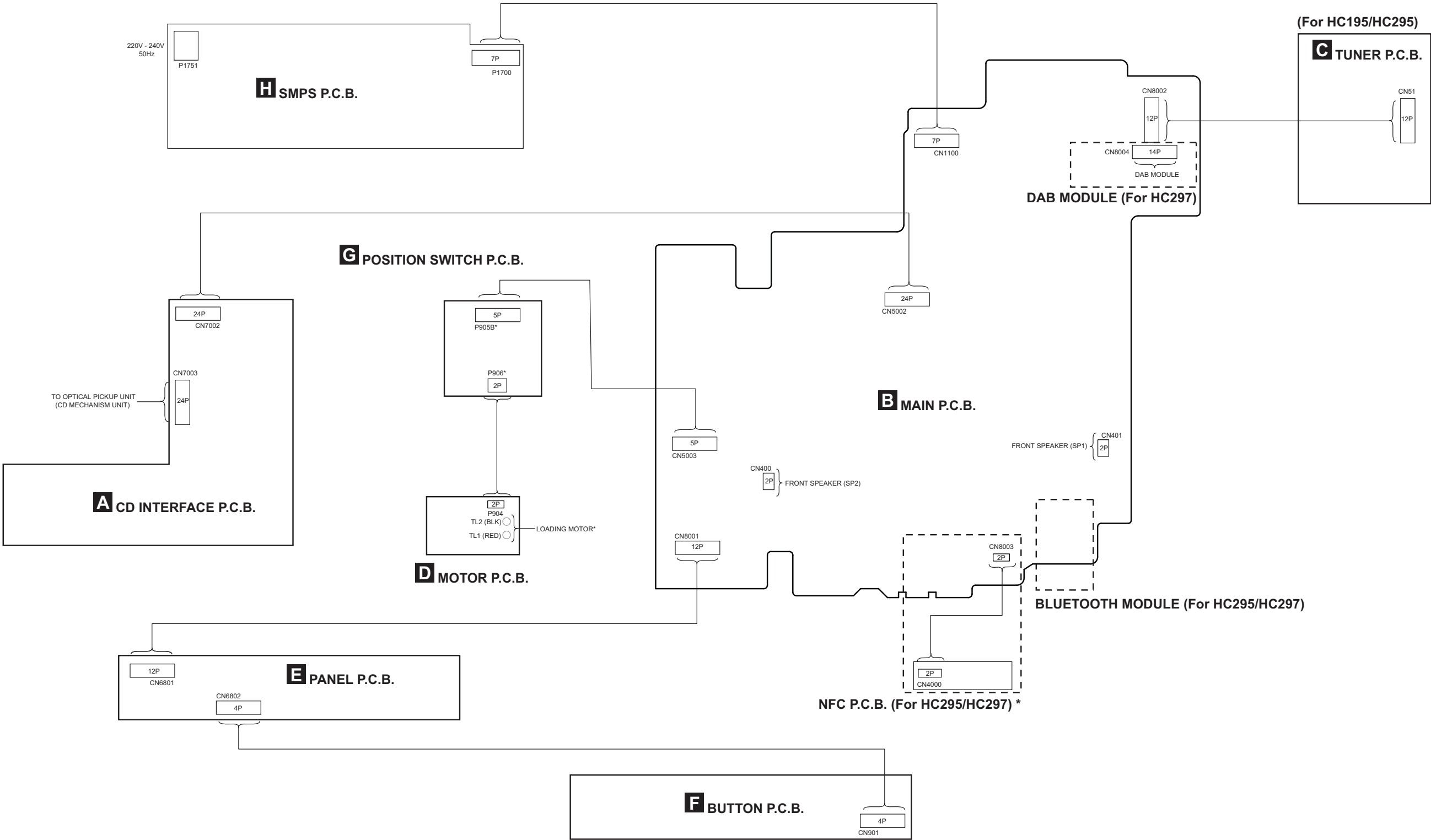
SC-HC195EB/EG,SC-HC295EG,SC-HC297EB SYSTEM CONTROL & AUDIO (2/2) BLOCK DIAGRAM

10.3. POWER SUPPLY BLOCK DIAGRAM



SC-HC195EG,SC-HC295EB/EG,SC-HC297EB POWER SUPPLY BLOCK DIAGRAM

11 Wiring Connection Diagram



NOTE: " * " REF IS FOR INDICATION ONLY.
(NFC PCB and IC8004) and (NFC PCB and MAIN PCB) are supplied as a kit. For the details, refer to "Service Navigation".

SC-HC195EG, SC-HC295EB/EG, SC-HC297EB
WIRING CONNECTION DIAGRAM

12 Schematic Diagram

12.1. Schematic Diagram Notes

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

Notes:

S641:	OPEN switch.
S642:	CLOSE switch.
S901:	POWER switch (⏻/⏻).
S903:	SELECTOR switch.
S904:	STOP switch (■).
S905:	PLAY/PAUSE switch (▶/⏸).
S906:	REV SKIP switch (◀◀/▶▶).
S911:	BT PAIRING switch (📶).
S911:	(For HC295/HC297)
S912:	D.BASS switch. (For HC195)
S913:	VOL+ switch.
S914:	VOL- switch.
S915:	FWD SKIP switch (▶▶▶/▶▶▶).
S915:	CD OPEN/CLOSE switch (⏏).
S7201:	RESET switch.

• Important safety notice:

Components identified by ⚠ mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high quality sound (capacitors), low-noise (resistors), etc are used.

When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

• In case of AC rated voltage Capacitors, the part no. and values will be indicated in the Schematic Diagram.

AC rated voltage capacitors:

C1702, C1710, C1725, C1727, C1728

• Resistor

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

• Capacitor

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

• Coil

Unit of inductance is H, unless otherwise noted.

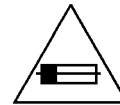
• *

REF IS FOR INDICATION ONLY.

• Voltage and signal line

	: +B Signal Line
	: CD Signal Line
	: Tuner/Aux In Signal Line
	: Audio Signal Line
	: FM Signal Line

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



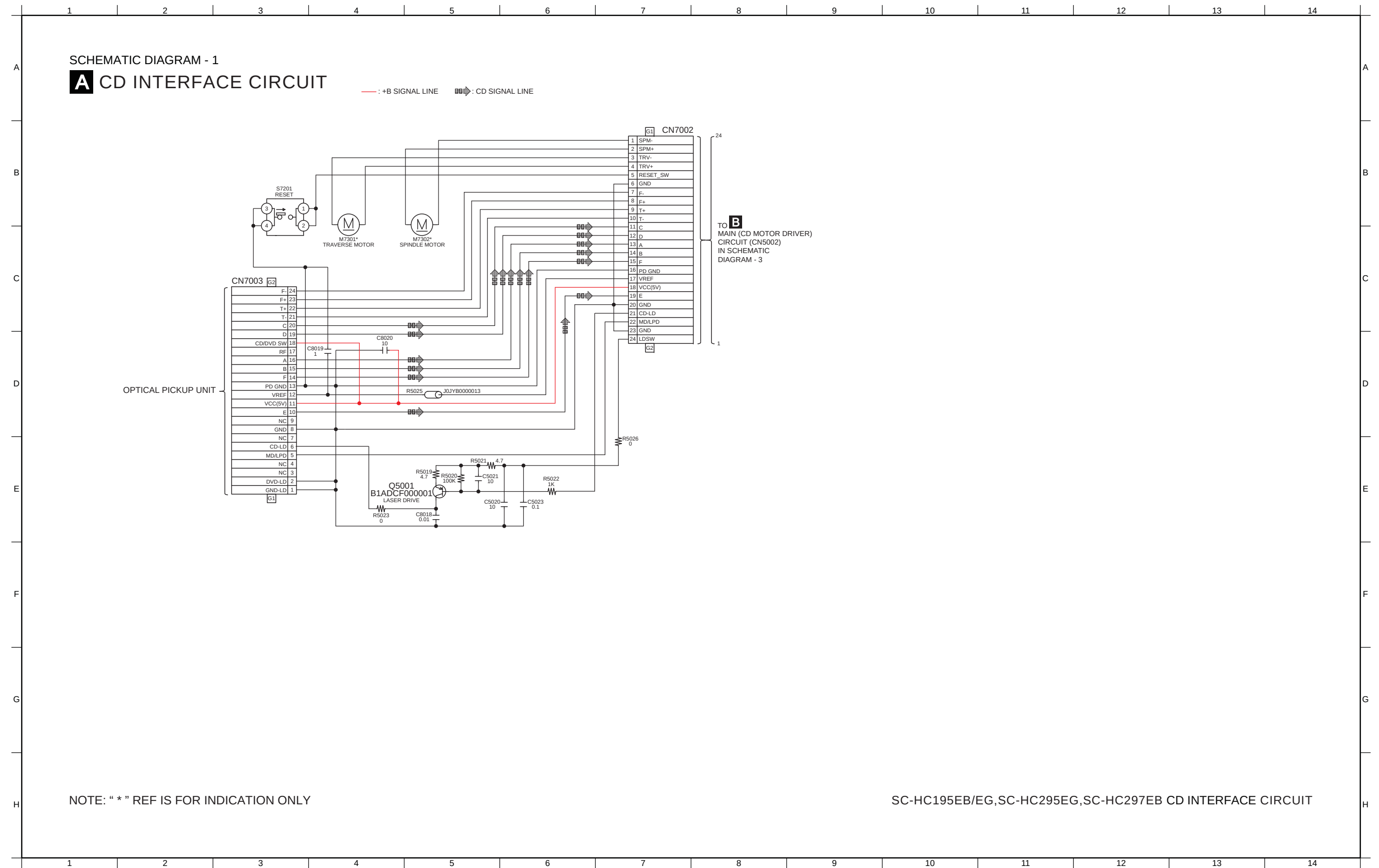
RISK OF FIRE-REPLACE FUSE AS MARKED.

FUSE CAUTION



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

12.2. CD INTERFACE CIRCUIT

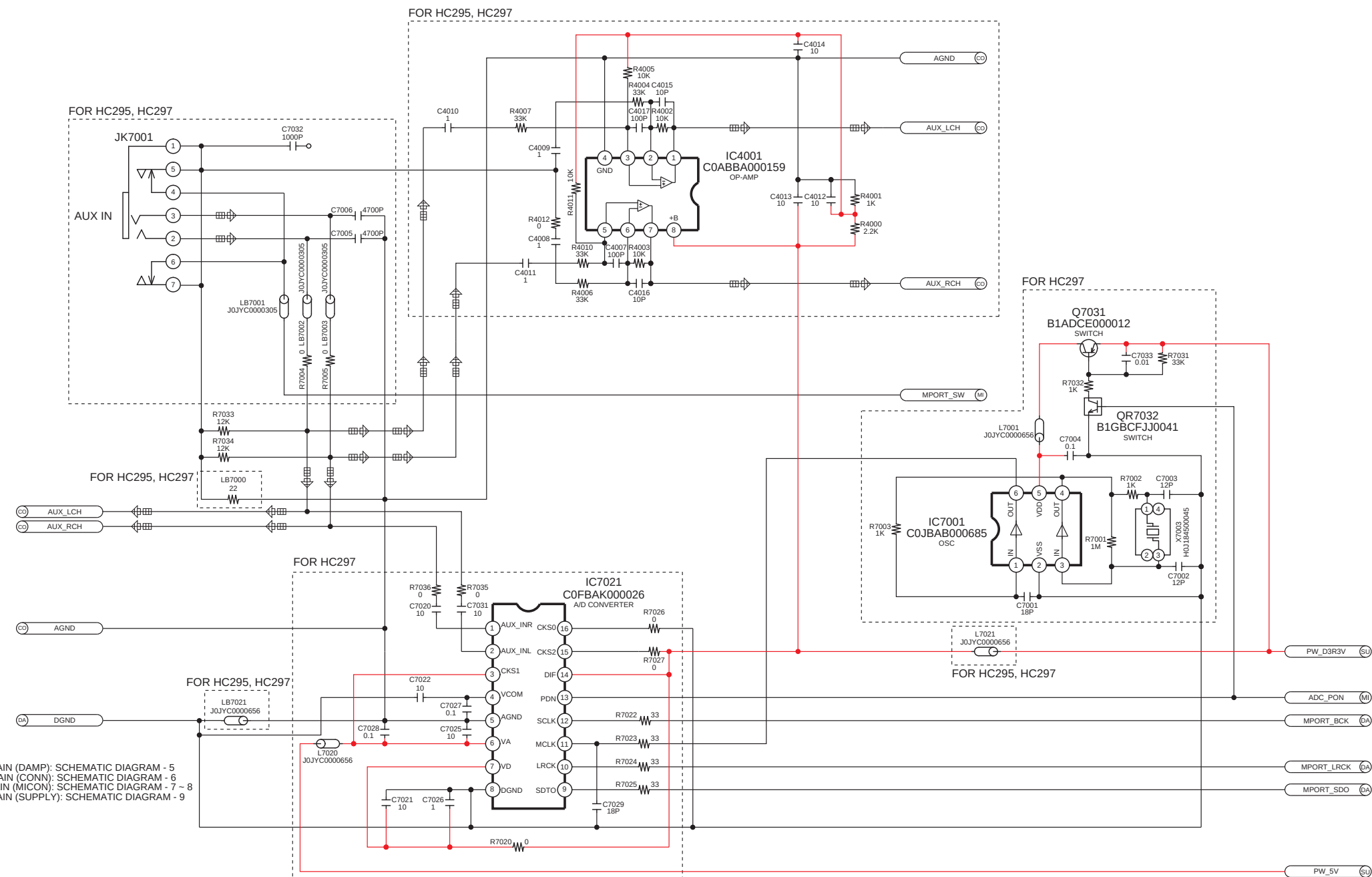


12.3. MAIN (MPORT ADC) CIRCUIT



B MAIN (MPORT ADC) CIRCUIT

— : +B SIGNAL LINE  : AUX IN SIGNAL LINE



DA: MAIN (DAMP): SCHEMATIC DIAGRAM - 5
CO: MAIN (CONN): SCHEMATIC DIAGRAM - 6
MI: MAIN (MICON): SCHEMATIC DIAGRAM - 7 ~ 8
SU: MAIN (SUPPLY): SCHEMATIC DIAGRAM - 9

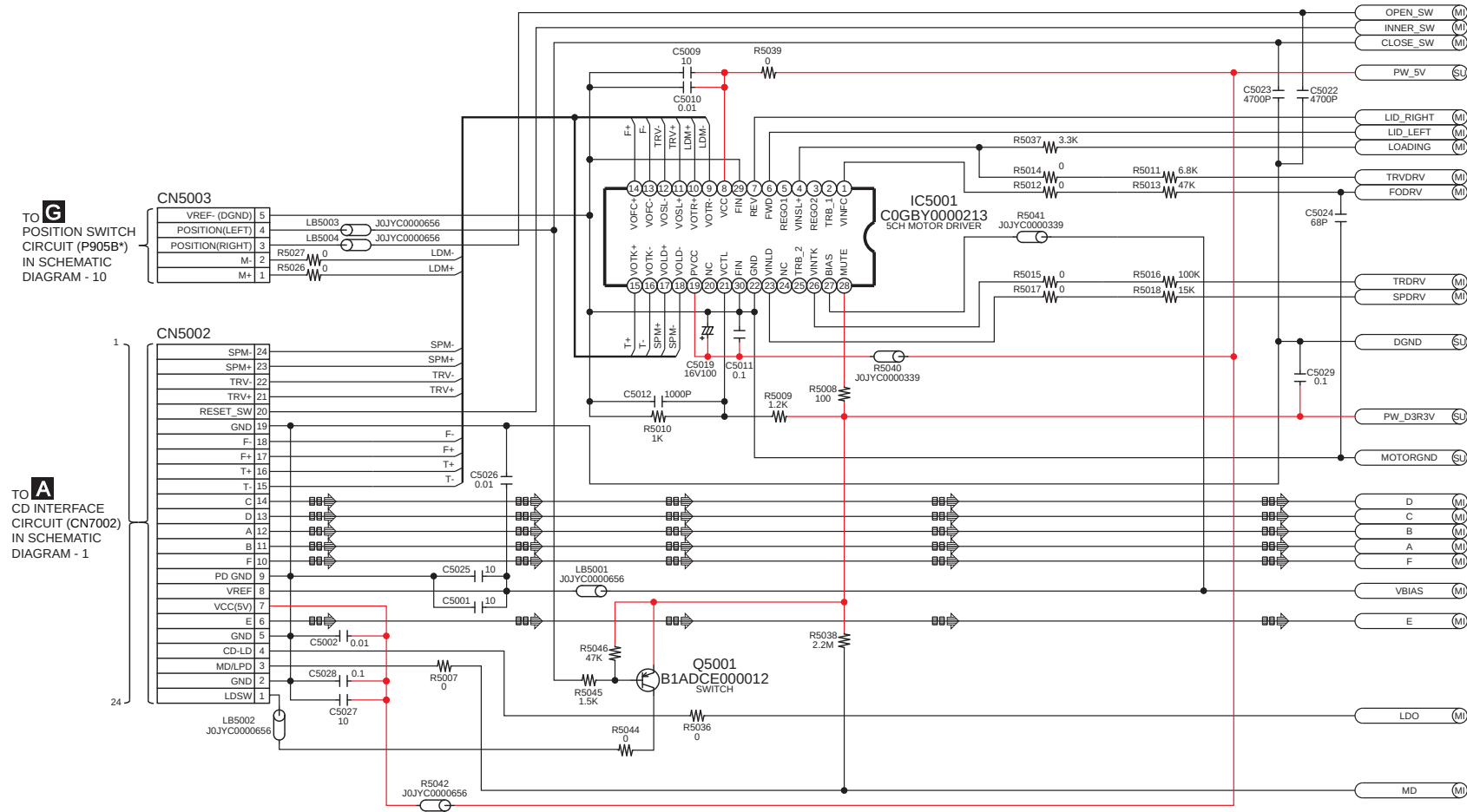
SC-HC195EB/EG,SC-HC295EG,SC-HC297EB MAIN (MPORT ADC) CIRCUIT

12.4. MAIN (CD MOTOR DRIVER) CIRCUIT

SCHEMATIC DIAGRAM - 3

B MAIN (CD MOTOR DRIVER) CIRCUIT

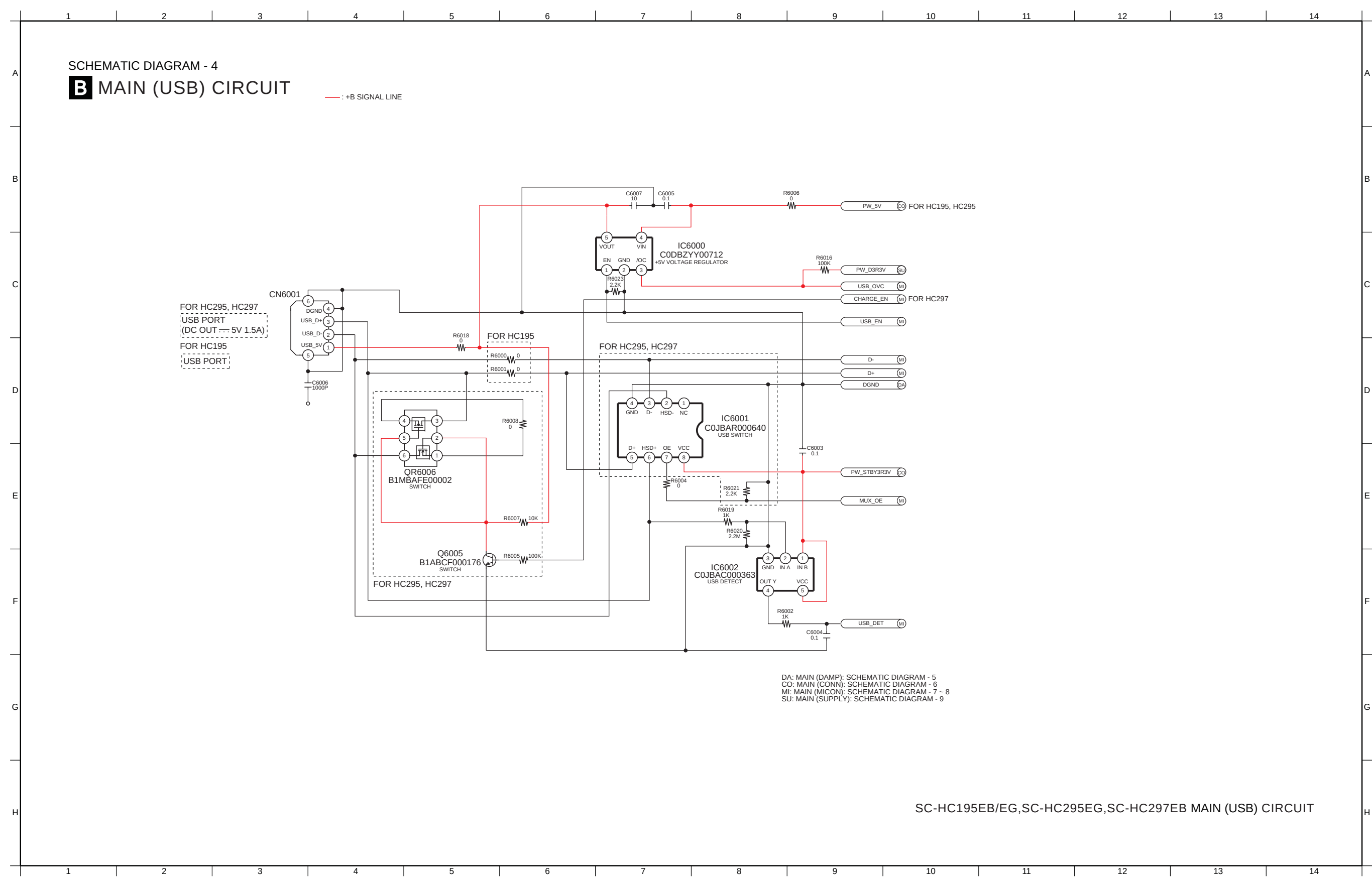
— : +B SIGNAL LINE CD SIGNAL LINE



NOTE: " * " REF IS FOR INDICATION ONLY

SC-HC195EB/EG,SC-HC295EG,SC-HC297EB MAIN (CD MOTOR DRIVER) CIRCUIT

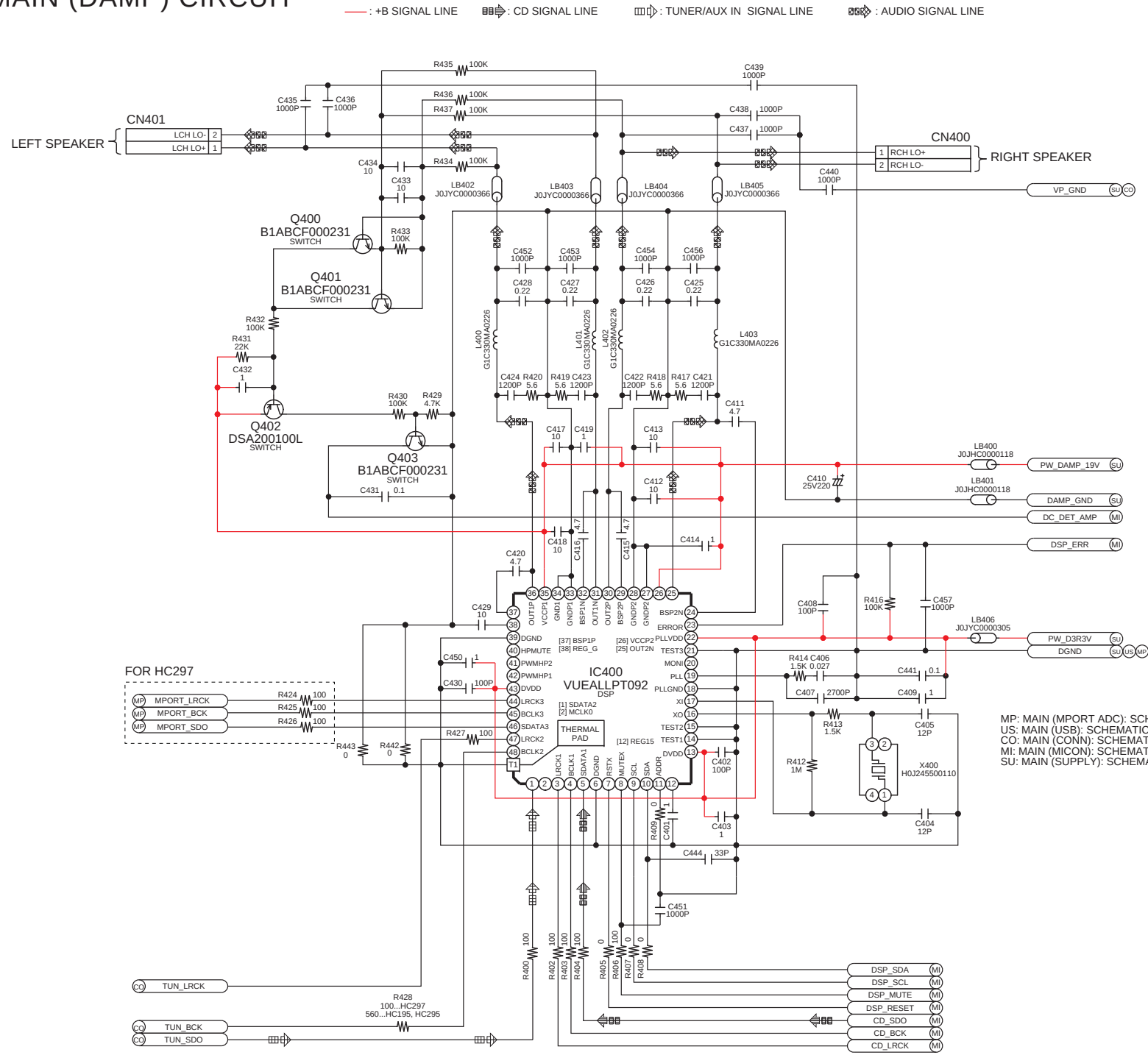
12.5. MAIN (USB) CIRCUIT



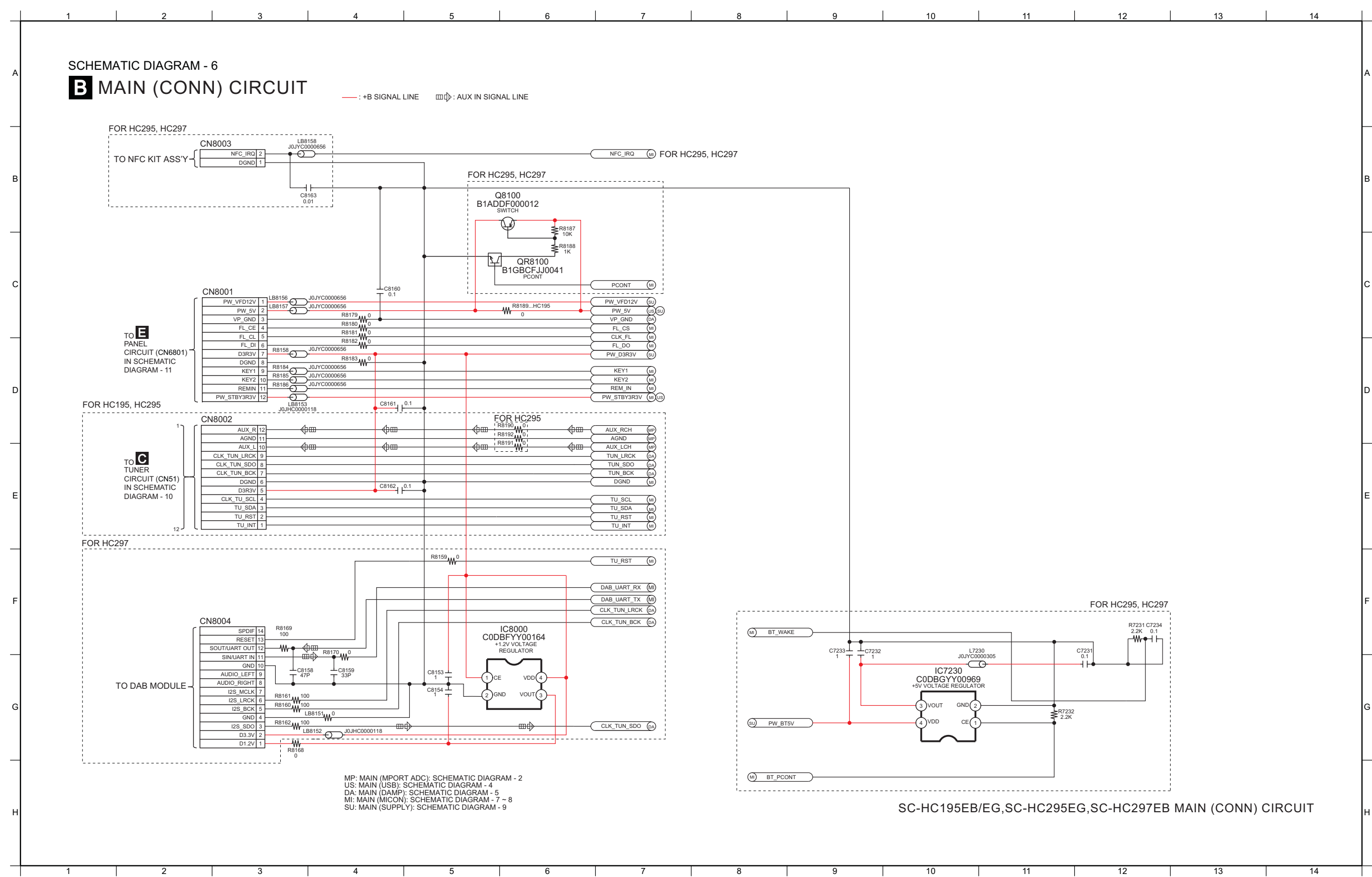
12.6. MAIN (DAMP) CIRCUIT

SCHEMATIC DIAGRAM - 5

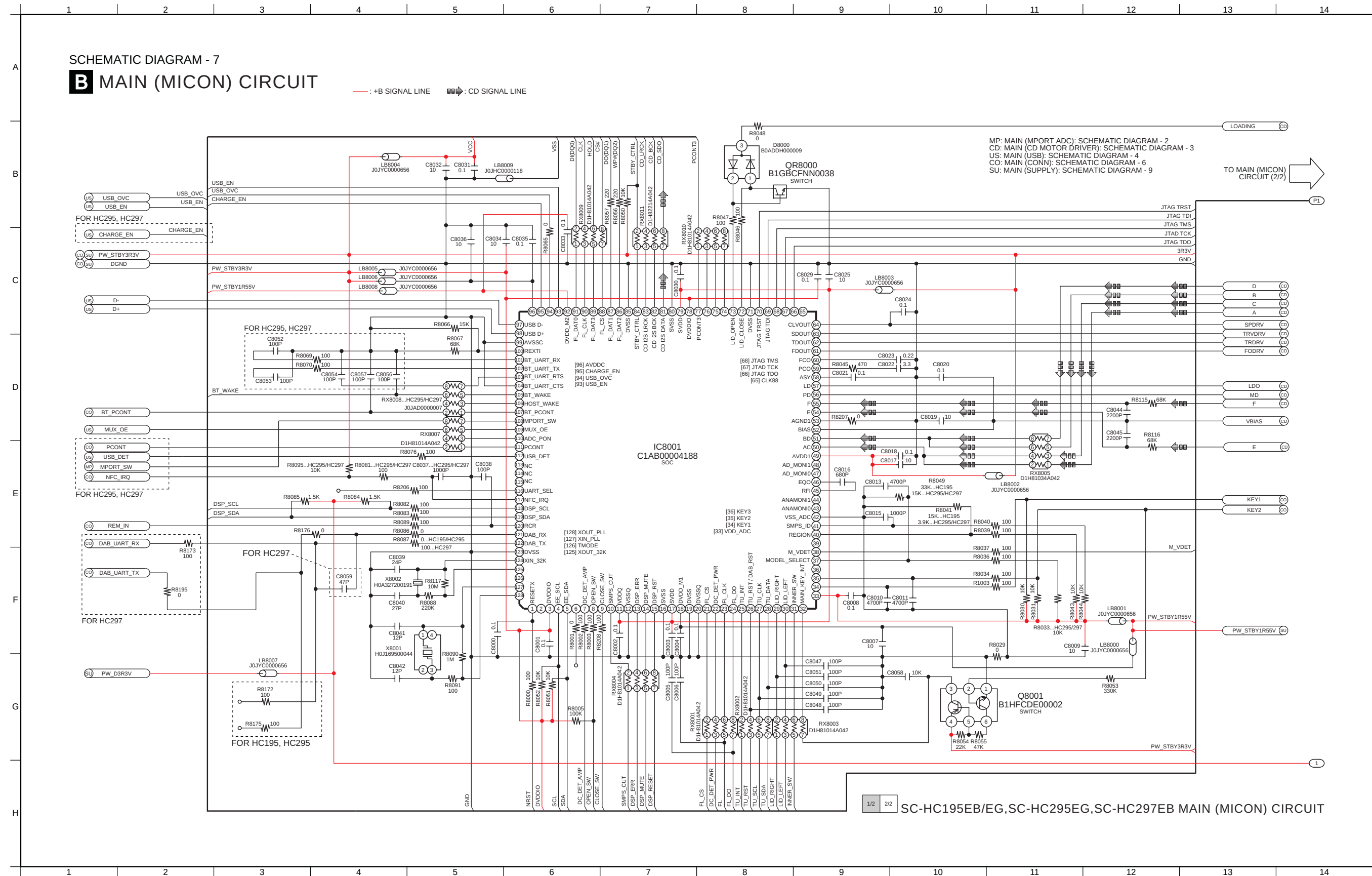
B MAIN (DAMP) CIRCUIT



12.7. MAIN (CONN) CIRCUIT

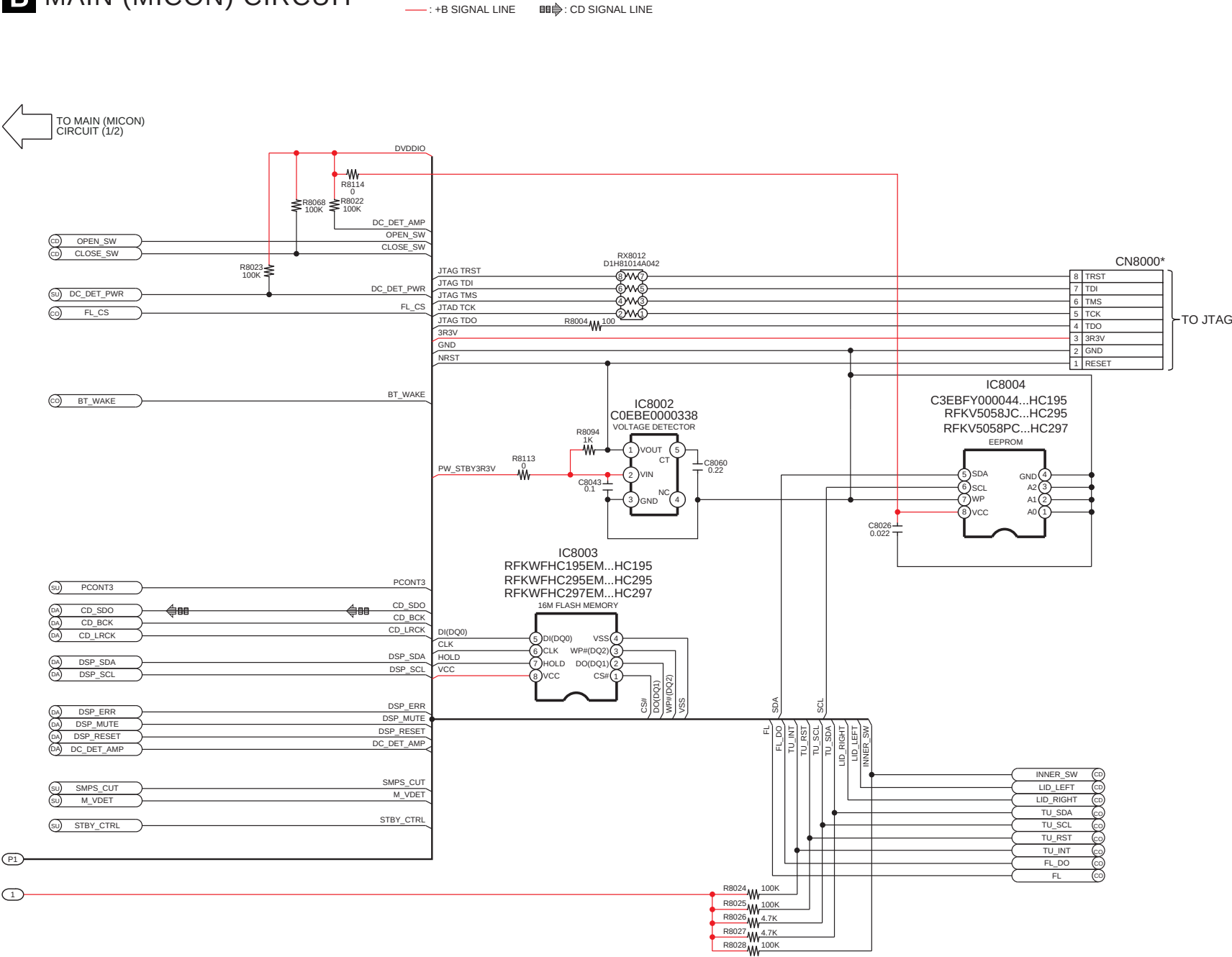


12.8. MAIN (MICON) CIRCUIT (1/2)



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

SCHEMATIC DIAGRAM - 8
B MAIN (MICON) CIRCUIT



CD: MAIN (CD MOTOR DRIVER): SCHEMATIC DIAGRAM - 3
DA: MAIN (DAMP): SCHEMATIC DIAGRAM - 5
CO: MAIN (CONN): SCHEMATIC DIAGRAM - 6
SU: MAIN (SUPPLY): SCHEMATIC DIAGRAM - 9

NOTE: “ * ” REF IS FOR INDICATION ONLY

1/2 2/2 SC-HC195EB/EG,SC-HC295EG,SC-HC297EB MAIN (MICON) CIRCUIT

SCHEMATIC DIAGRAM - 9

B MAIN (SUPPLY) CIRCUIT

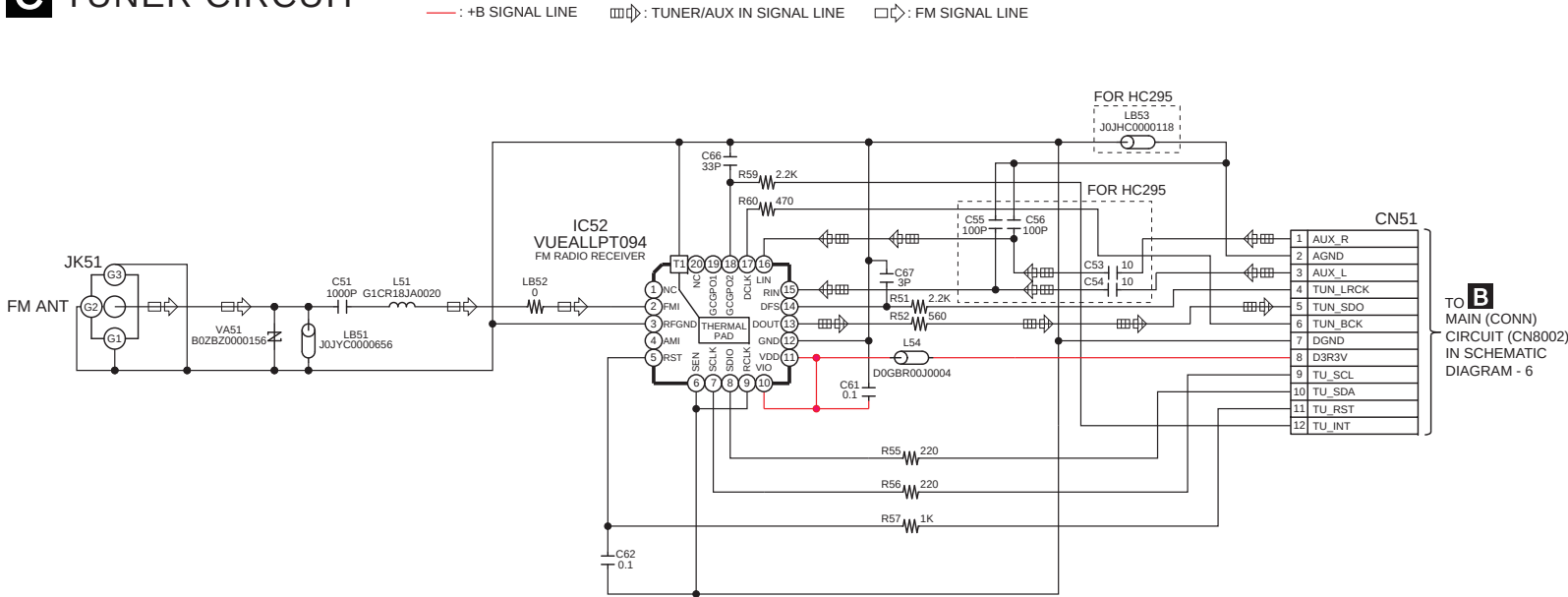
— : +B SIGNAL LINE

MP: MAIN (MPORT ADC): SCHEMATIC DIAGRAM - 2
 CD: MAIN (CD MOTOR DRIVER): SCHEMATIC DIAGRAM - 3
 US: MAIN (USB): SCHEMATIC DIAGRAM - 4
 DA: MAIN (DAMP): SCHEMATIC DIAGRAM - 5
 CO: MAIN (CONN): SCHEMATIC DIAGRAM - 6
 MI: MAIN (MICON): SCHEMATIC DIAGRAM - 7 ~ 8

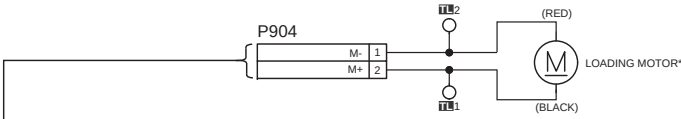
SC-HC195EB/EG, SC-HC295EG, SC-HC297EB MAIN (SUPPLY) CIRCUIT

12.11. TUNER (For HC195/HC295 only), MOTOR, BUTTON & POSITION SWITCH CIRCUIT

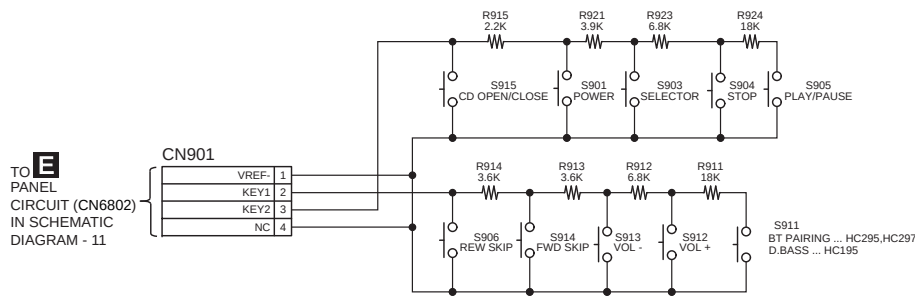
SCHEMATIC DIAGRAM - 10
C TUNER CIRCUIT



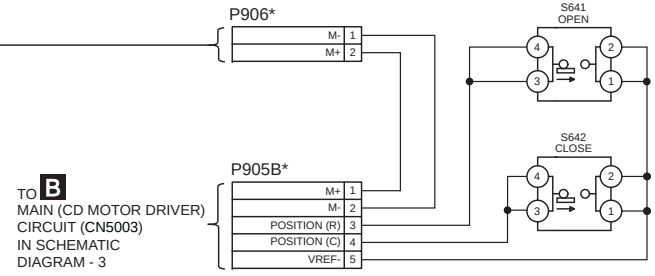
D MOTOR CIRCUIT



F BUTTON CIRCUIT



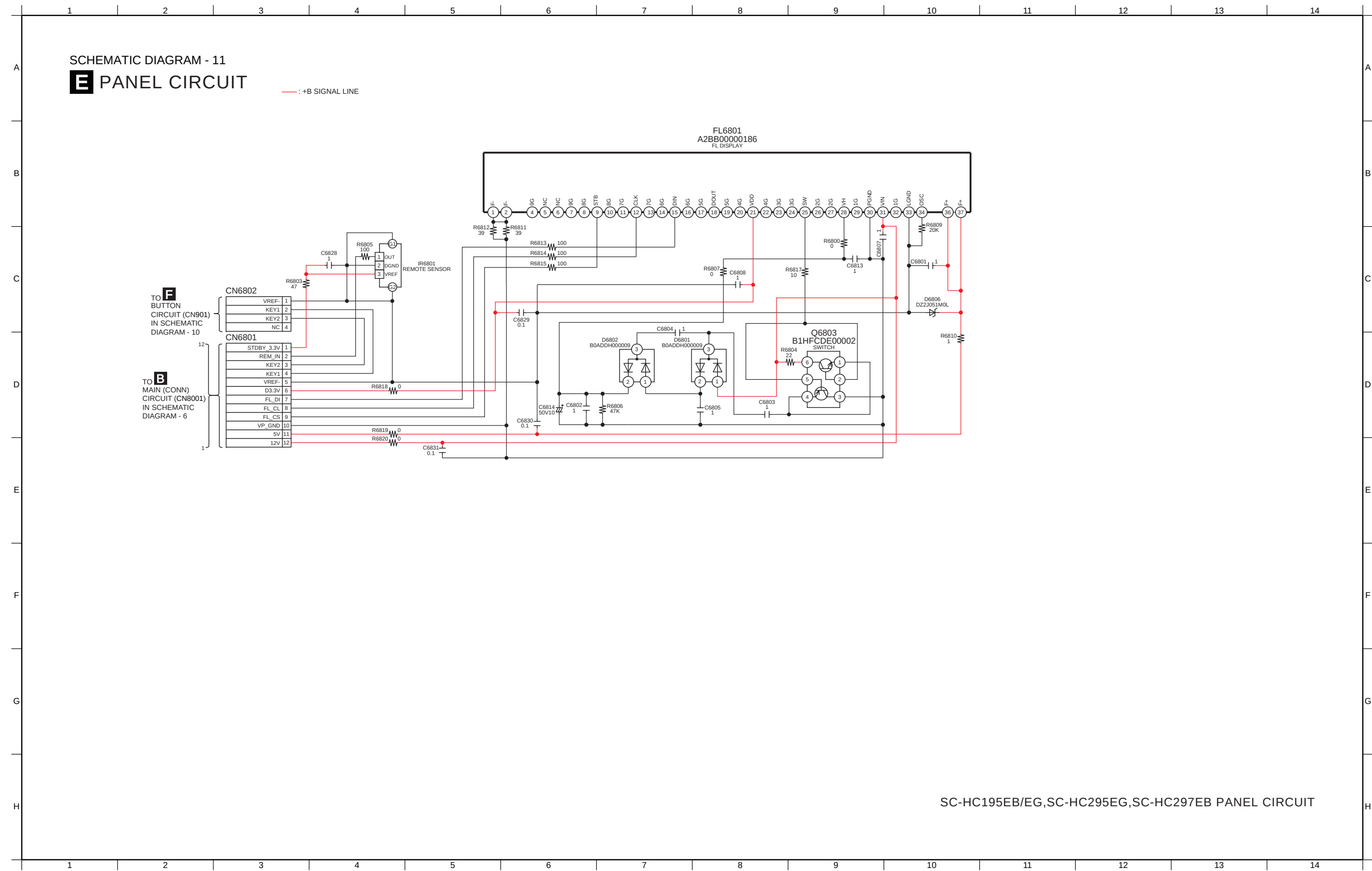
G POSITION SWITCH CIRCUIT



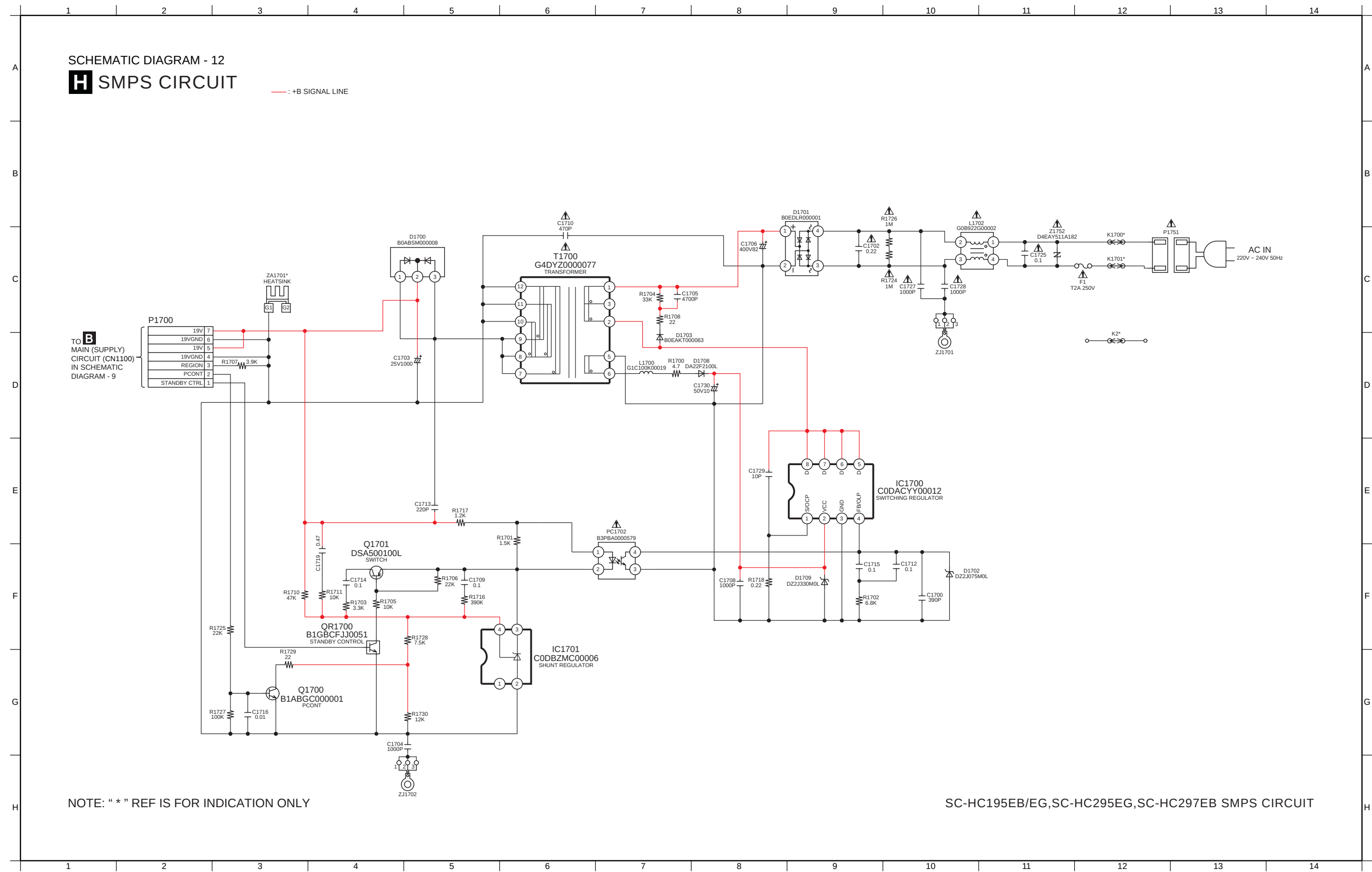
NOTE: " * " REF IS FOR INDICATION ONLY

SC-HC195EB/EG,SC-HC295EG,SC-HC297EB TUNER / MOTOR / BUTTON / POSITION SWITCH CIRCUIT

12.12. PANEL CIRCUIT



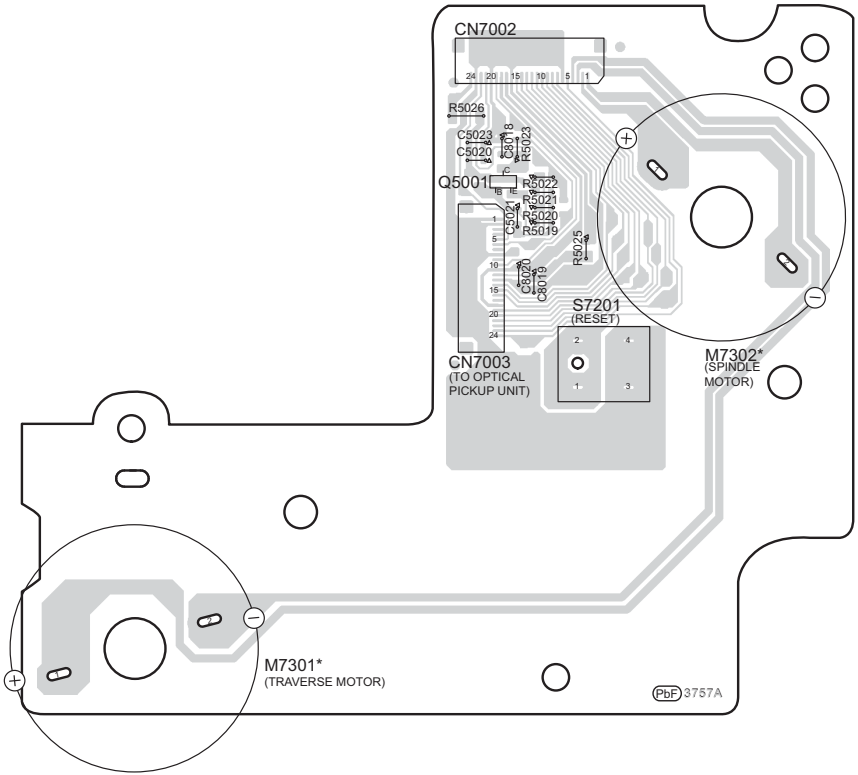
12.13. SMPS CIRCUIT



13 Printed Circuit Board

13.1. CD INTERFACE, TUNER (For HC195/HC295 only) & MOTOR P.C.B.

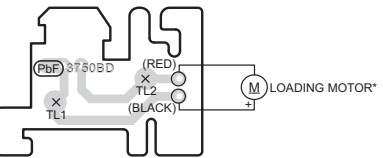
A CD INTERFACE P.C.B. (REP5057A)



C TUNER P.C.B. (REPX5058JB...HC295EG)
(REPX5058QB...HC195EB/EG)



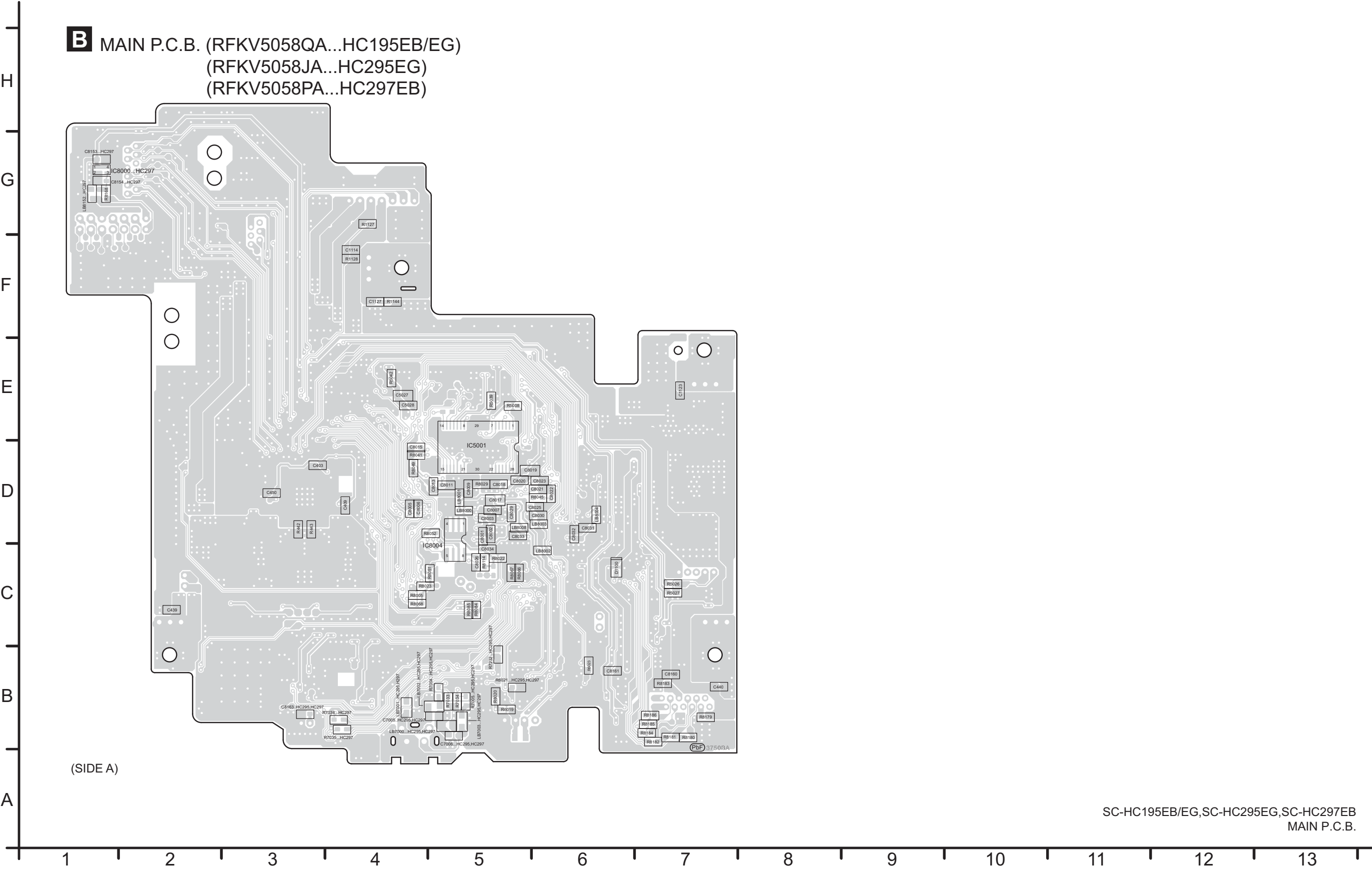
D MOTOR P.C.B. (REP5058QD...HC195EB/EG)
(REP5058JD...HC295EG)
(REP5058PD...HC297EB)



NOTE: " * " REF IS FOR INDICATION ONLY

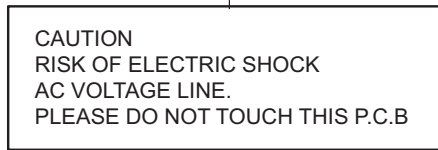
SC-HC195EB/EG, SC-HC295EG, SC-HC297EB
CD INTERFACE / TUNER / MOTOR P.C.B.

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



A vertical scale from 0 to 100. The scale is marked with horizontal lines at intervals of 20 units (0, 20, 40, 60, 80, 100). The labels A, B, C, D, E, F, G, and H are positioned to the right of the scale, corresponding to the following values: A (0), B (20), C (40), D (60), E (80), F (90), G (95), and H (100).

AC IN ~
220V-240V
50Hz



SC-HC195EB/EG,SC-HC295EG,SC-HC297EB
SMPS P.C.B.

14 Appendix Information of Schematic Diagram

14.1. Voltage Measurement

Note:

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
- Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
- Circuit voltage and waveform described herein shall be regarded as reference information when probing defect point because it may differ from actual measuring value due to difference of Measuring instrument and its measuring condition and product itself.

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

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

SC-HC195EB/EG, SC-HC295EG, SC-HC297EB CD INTERFACE P.C.B.

REF NO.	Q6803																			
MODE	1	2	3	4	5	6														
POWER ON	6.1	6.1	0	6.1	6.1	11.9														
STANDBY	6.1	6.1	0	6.1	6.1	11.9														

SC-HC195EB/EG, SC-HC295EG, SC-HC297EB FL P.C.B.

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

REF NO.	IC1701																			
MODE	1	2	3	4																
POWER ON	0	0	17.2	2.5																

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

SC-HC195EB/EG, SC-HC295EG, SC-HC297EB SMPS P.C.B.

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

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	3.3	0	0	1.7	1.7	0	3.3	3.3	3.3	3.3	0	1.5	3.3	0	0	1.4	1.4	0	1	3.3
STANDBY	3.3	0	0	1.7	1.7	0	3.3	3.3	3.3	3.3	0	1.5	3.3	0	0	1.4	1.4	0	1	3.3
REF NO.	IC400																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	3.3	1	5.3	9.8	19.4	0	0	14.4	9.7	9.7	14.4	0	0	19.4	9.8	5.3	5.8	0	1.7
STANDBY	0	3.3	1	5.3	9.8	19.4	0	0	14.4	9.7	9.7	14.4	0	0	19.4	9.8	5.3	5.8	0	1.7
REF NO.	IC400																			
MODE	41	42	43	44	45	46	47	48												
CD PLAY	0	0	3.3	0	0	0	1.7	1.7												
STANDBY	0	0	3.3	0	0	0	1.7	1.7												
REF NO.	IC1101																			
MODE	1	2	3	4	5	6	7	8												
POWER ON	10.3	19.4	5.2	0	0.9	0	3	0												
STANDBY	10.3	19.4	5.2	0	0.9	0	3	0												
REF NO.	IC1102																			
MODE	1	2	3	4	5	6	7	8												
POWER ON	5	5	3.3	1	0	0	0	0												
STANDBY	5	5	3.3	1	0	0	0	0												
REF NO.	IC1103																			
MODE	1	2	3																	
POWER ON	0	3.3	5.3																	
STANDBY	0	3.3	5.3																	
REF NO.	IC1104																			
MODE	1	2	3	4	5															
POWER ON	12.1	0	19.4	2.5	3															
STANDBY	12.1	0	19.4	2.5	3															
REF NO.	IC1106																			
MODE	1	2	3	4																
POWER ON	3	0	1.6	3																
STANDBY	3	0	1.6	3																
REF NO.	IC1108																			
MODE	1	2	3																	
POWER ON	19.4	0	5																	
STANDBY	19.4	0	5																	
REF NO.	IC4001																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	1	1	1	0	1	1	1	3.3												
STANDBY	1	1	1	0	1	1	1	3.3												
REF NO.	IC5001																			
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	5.3	0	0	2.7	2.7	2.8	2.8	2.8	2.8	2.8	2.8	5.3	0
STANDBY	1.6	0	0	1.6	0	0	0	5.3	0	0	2.7	2.7	2.8	2.8	2.8	2.8	2.8	2.8	5.3	0
REF NO.	IC5001																			
MODE	21	22	23	24	25	26	27	28	29	30										
CD PLAY	1.5	0	1.6	0	0	1.6	0	3.3	0	0										
STANDBY	1.5	0	1.6	0	0	1.6	0	3.3	0	0										

SC-HC195EB/EG, SC-HC295EG, SC-HC297EB MAIN P.C.B.

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

REF NO.	IC6000																			
MODE	1	2	3	4	5															
USB	3.3	0	3.3	5.3	5.3															
STANDBY	3.3	0	3.3	5.3	5.3															
REF NO.	IC6001 (HC29)																			
MODE	1	2	3	4	5	6	7	8												
USB	0	0	0	0	3.1	3.1	0	3.3												
STANDBY	0	0	0	0	0	0	0	3.3												
REF NO.	IC6002																			
MODE	1	2	3	4	5															
USB	3.3	3.1	0	3.3	3.3															
STANDBY	3.3	3.3	0	3.3	3.3															
REF NO.	IC7230																			
MODE	1	2	3	4																
CD PLAY	2.7	0	4.6	5.1																
STANDBY	2.7	0	4.6	5.1																
REF NO.	IC8001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.3	0	3.3	3.3	3.3	0	3.3	3.3	0	3.3	3.3	0	3.3	3.3	3.3	0	3.3	0	0	0
STANDBY	3.3	0	3.3	3.3	3.3	0	3.3	3.3	0	3.3	3.3	0	3.3	3.3	3.3	0	3.3	0	0	0
REF NO.	IC8001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0.6	3	0	1.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.2	1.6	1.5	1.6	0.9	0.7	1.5	0.8	0.9
STANDBY	0.6	3	0	1.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.2	1.6	1.5	1.6	0.9	0.7	1.5	0.8	0.9
REF NO.	IC8001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0.4	0	3.3	3.3	1.1	1	3.3	3.3	3.3	1.6	1.6	1.6	0	1.6	1.6	2.4	1.7	0	0.5	0.8
STANDBY	0.4	0	3.3	3.3	1.1	1	3.3	3.3	3.3	1.6	1.6	1.6	0	1.6	1.6	2.4	1.7	0	0.5	0.8
REF NO.	IC8001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	1.6	1.6	1.6	1.6	1.6	0	1.5	1.5	1.6	1.6	0	0	3.3	0	3.3	3.3	3.3	3.3	3.3	0
STANDBY	1.6	1.6	1.6	1.6	1.6	0	1.5	1.5	1.6	1.6	0	0	3.3	0	3.3	3.3	3.3	3.3	3.3	0
REF NO.	IC8001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0	1.6	1.6	0	0	3.1	1.1	3.3	3.3	0	0	1.6	3.3	2.8	3	3.3	0	0	0	0
STANDBY	0	1.6	1.6	0	0	3.1	1.1	3.3	3.3	0	0	1.6	3.3	2.8	3	3.3	0	0	0	0
REF NO.	IC8001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
CD PLAY	3.2	3.3	0	0	3.3	0	3.3	0	3.3	3	3.3	3.3	0	0	0	3.3	3.3	3.3	3.3	3.2
STANDBY	3.2	3.3	0	0	3.3	0	3.3	0	3.3	3	3.3	3.3	0	0	0	3.3	3.3	3.3	3.3	3.2
REF NO.	IC8001																			
MODE	121	122	123	124	125	126	127	128												
CD PLAY	0	0	0	1.5	1.5	0	1.4	1.4												
STANDBY	0	0	0	1.5	1.5	0	1.4	1.4												
REF NO.	IC8002																			
MODE	1	2	3	4																
CD PLAY	3.3	3.3	0	0																
STANDBY	3.3	3.3	0	0																

SC-HC195EB/EG, SC-HC295EG, SC-HC297EB MAIN P.C.B.

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

REF NO.	Q1100									Q5001				Q6005						
MODE	1	2	3	4	5	6	7	8		E	C	B		E	C	B				
POWER	19.4	19.4	19.4	4.1	19.4	19.4	19.4	19.4		3.3	3.2	2.5		0	0	0.7				
STANDBY	19.4	19.4	19.4	4.1	19.4	19.4	19.4	19.4		3.3	3.2	2.5		0	0	0.7				

REF NO.	Q8001								Q8100				QR1100				QR1101			
MODE	1	2	3	4	5	6			E	C	B		E	C	B		E	C	B	
POWER	0	0.6	3.3	3.3	2.7	0			5.3	5.3	0		0	3.3	0		0	0	3.3	
STANDBY	0	0.6	3.3	3.3	2.7	0			5.3	5.3	0		0	3.3	0		0	0	3.3	

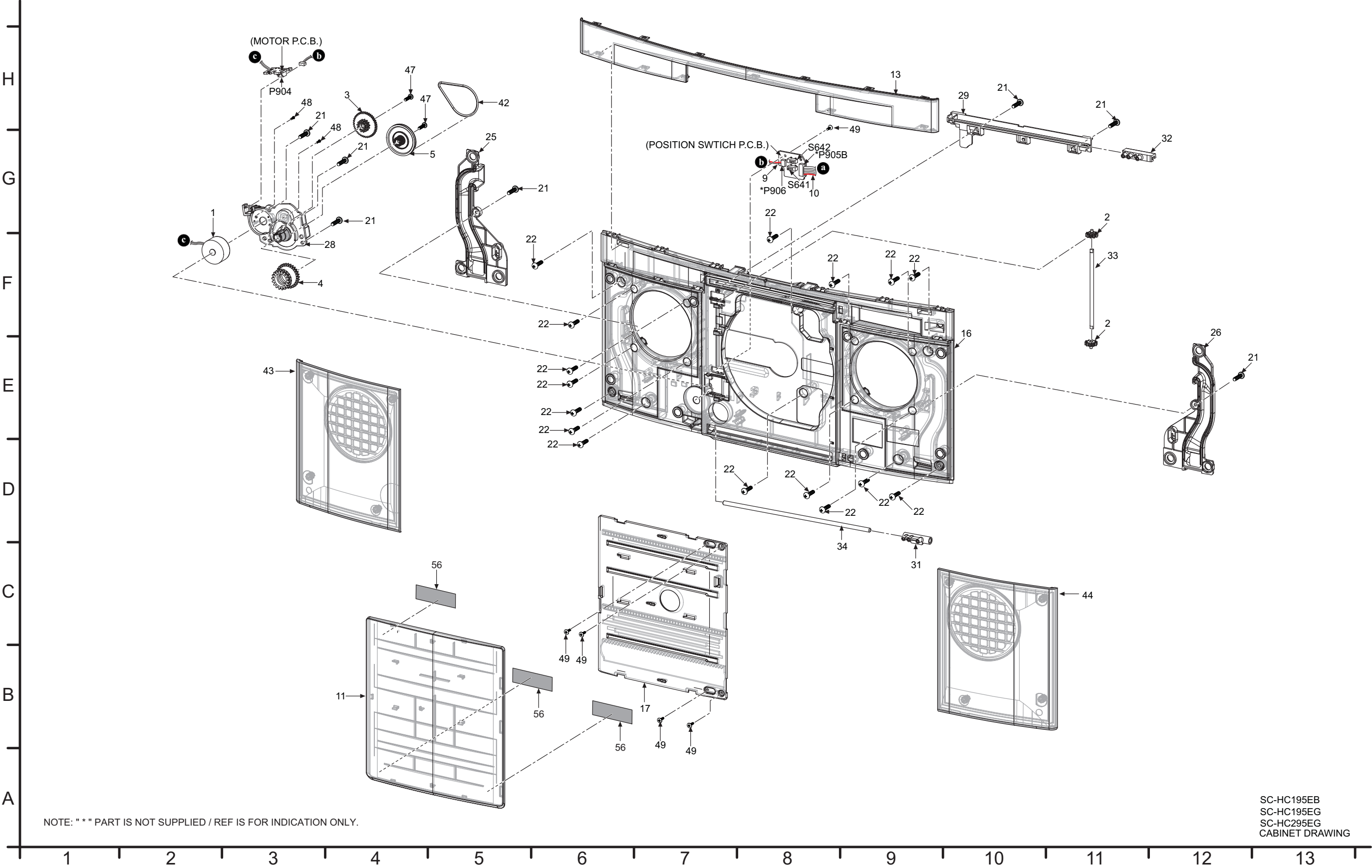
REF NO.	QR6006							QR8000				QR8100								
MODE	1	2	3	4	5	6		E	C	B		E	C	B						
CD PLAY	-0.2	0.1	3.1	-0.2	0.1	0		0	0	3.3		0	0	3.3						
STANDBY	3.3	5.3	3.3	3.3	5.3	3.3		0	0	3.3		0	0	3.3						

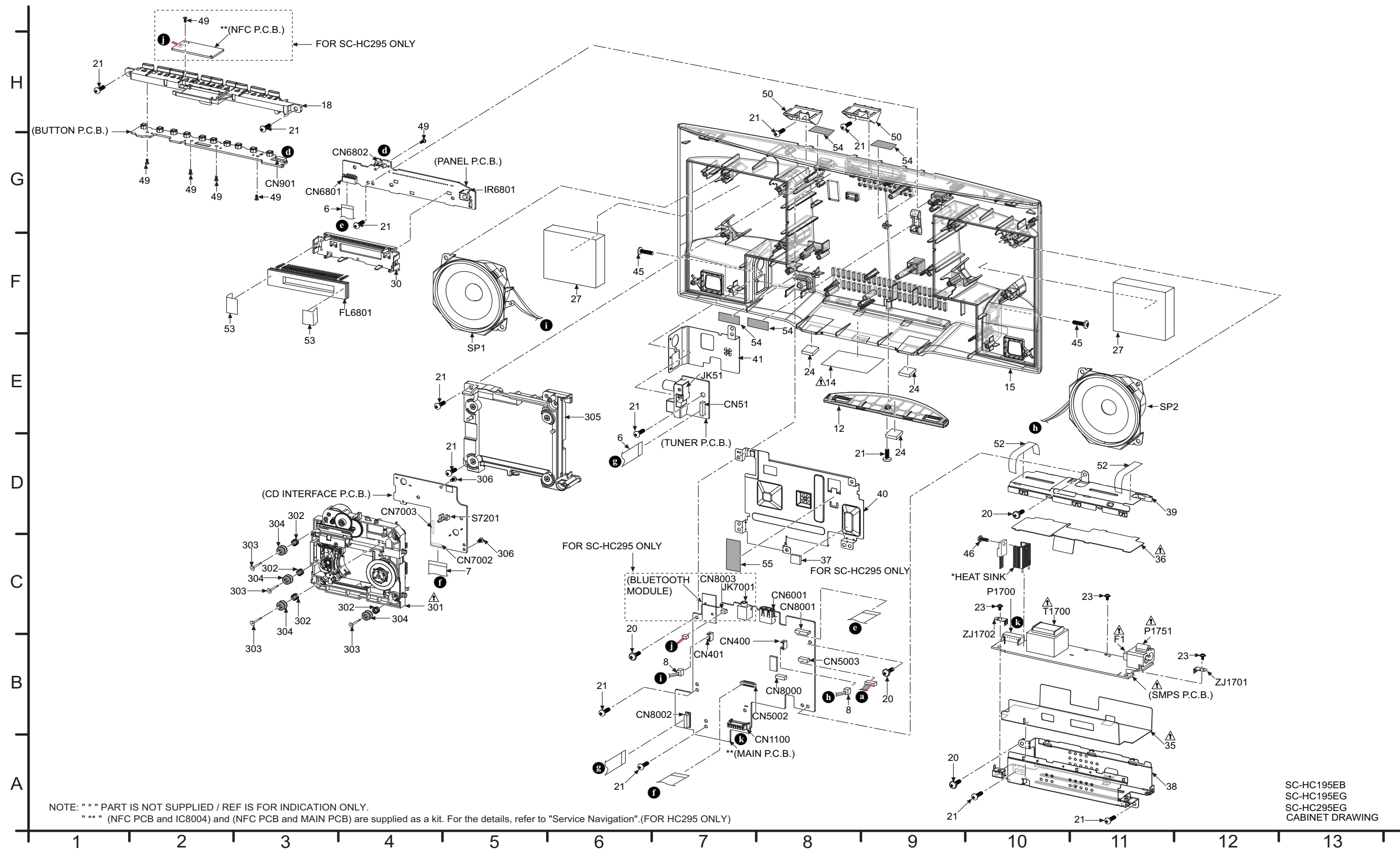
SC-HC195EB/EG, SC-HC295EG, SC-HC297EB MAIN P.C.B.

15 Exploded View and Replacement Parts List

15.1. Exploded View and Mechanical replacement Parts List

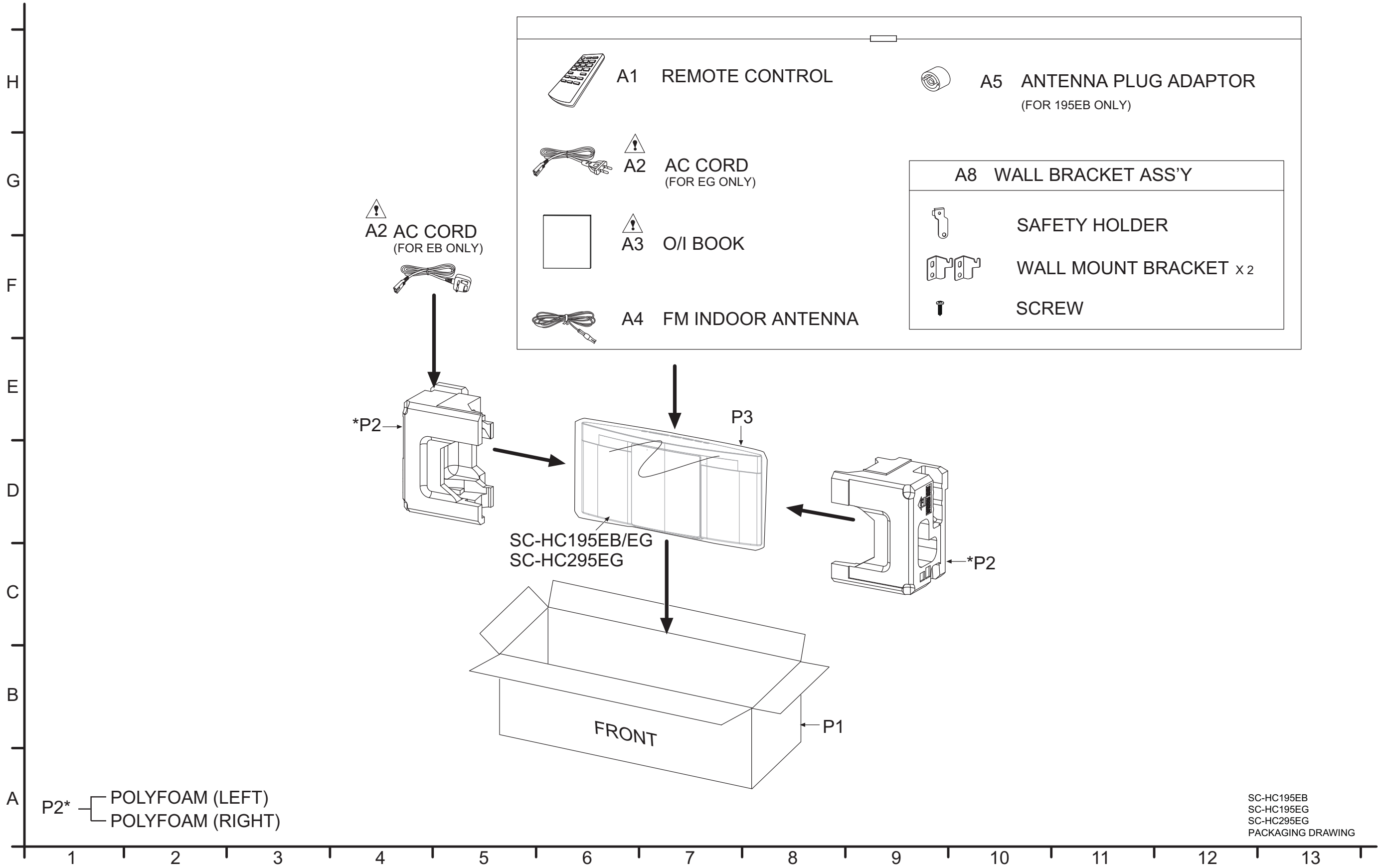
15.1.1. Cabinet Parts Location (For HC195/HC295)



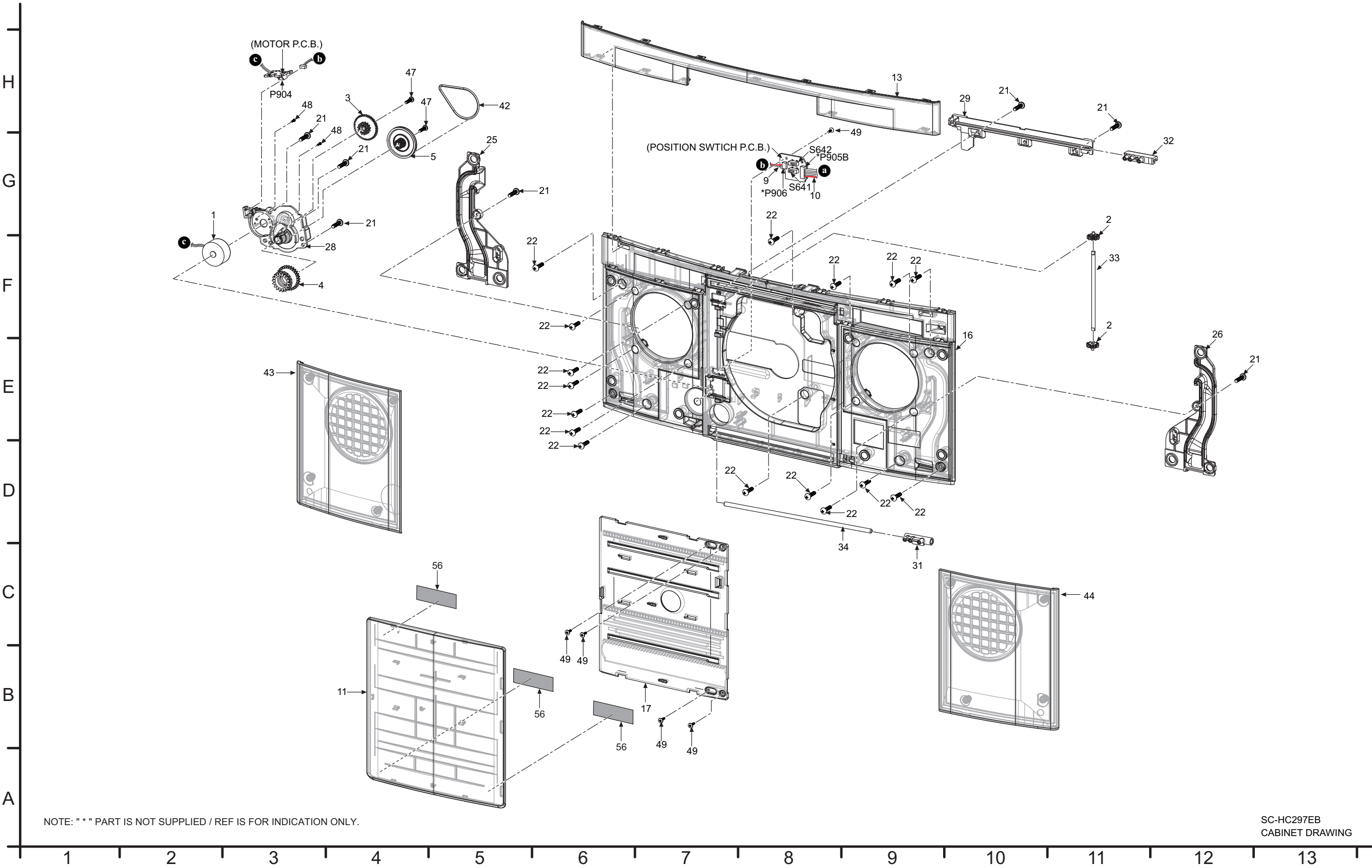


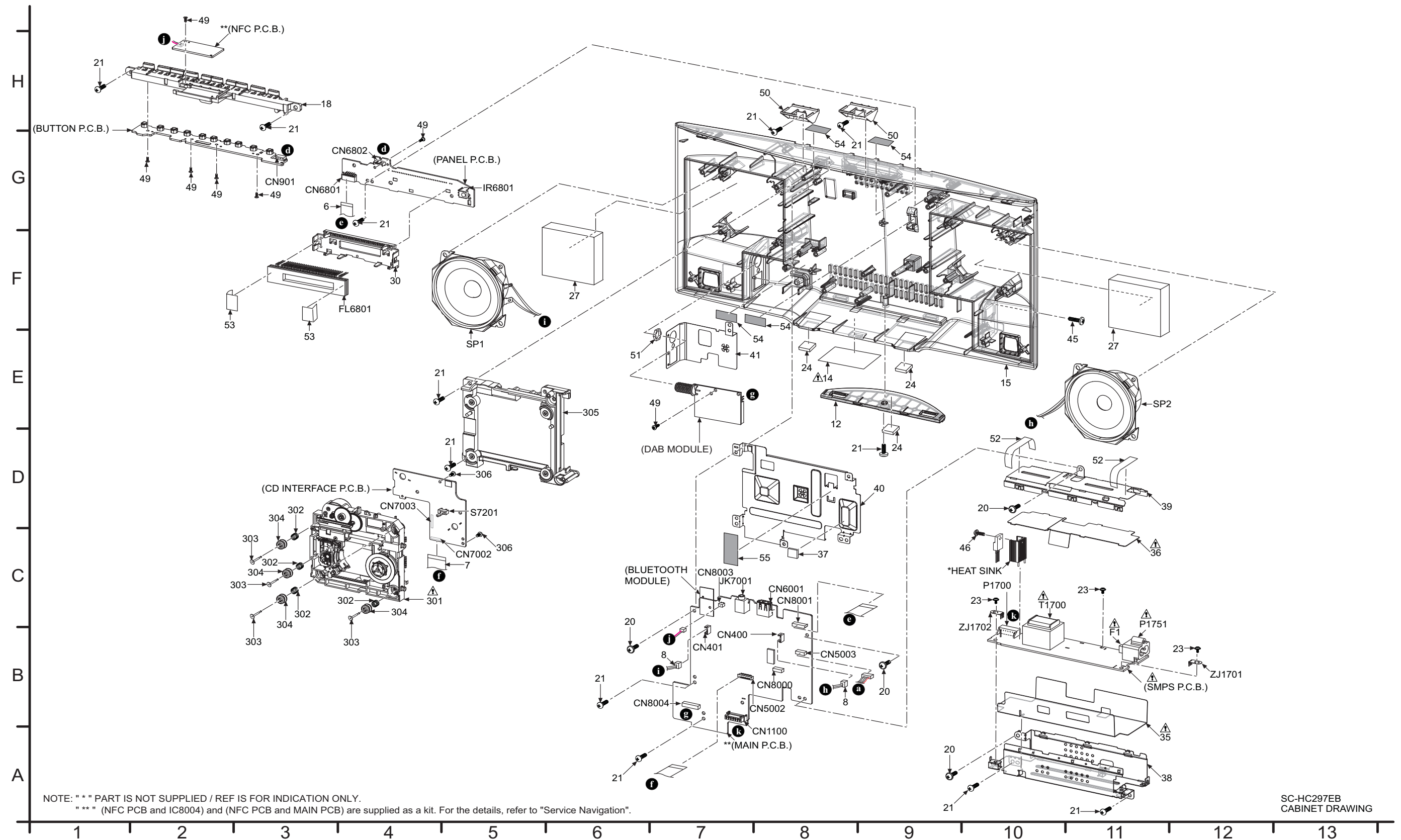
SC-HC195EB
 SC-HC195EG
 SC-HC295EG
 CABINET DRAWING

15.1.2. Packaging (For HC195/HC295)

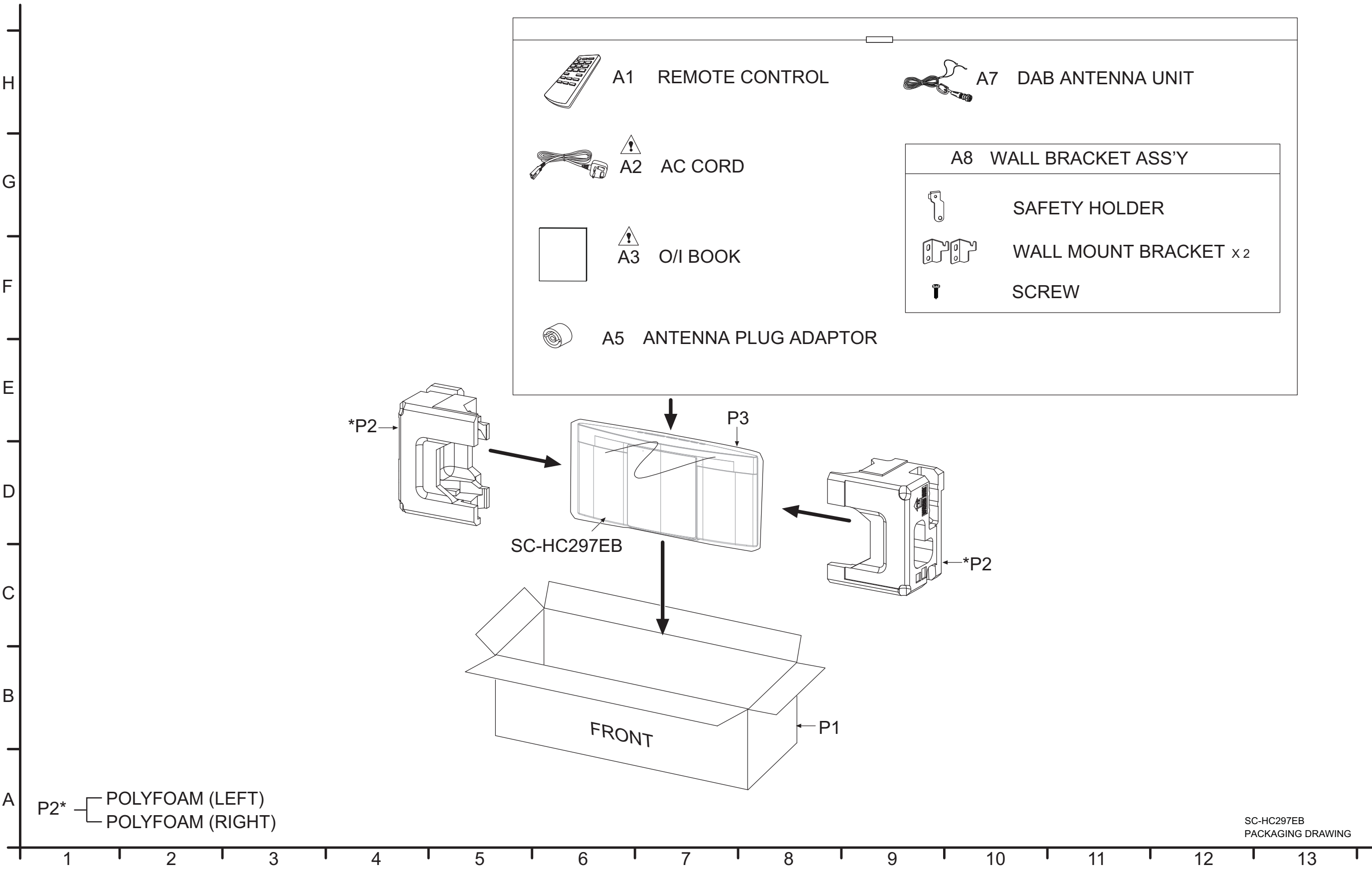


15.1.3. Cabinet Parts Location (For HC297)





15.1.4. Packaging (For HC297)



15.1.5. Mechanical Replacement Parts List

Important Safety Notice

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

RTL (Retention Time Limited)

Note: The marking (RTL) indicates that the Retention Time is Limited for this item.

After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

Note:

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

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

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			CABINET AND CHASSIS		
	1	RFKPHC37P-K	MOTOR ASS'Y	1	
	2	RDGX1008	GEAR	2	
	3	RDGX1014	GEAR	1	
	4	RDGX1015	GEAR	1	
	5	RDGX1016	GEAR	1	
	6	REE1743	12P FFC (PANEL - MAIN)	1	
	7	REE1908	24P FFC (CD INTERFACE - MAIN)	1	
	8	REX1466	2P WIRE (MAIN - SP1 & SP2)	2	
	9	REX1499	2P WIRE (POSITION SWITCH - MOTOR)	1	
	10	REX1567	5P WIRE (POSITION SW - MAIN)	1	
	11	RGK2535D-K1	CD DOOR ORNAMENT	1	HC295EG-K
	11	RGK2535D-W1	CD DOOR ORNAMENT	1	HC295EG-W
	11	RGK2535E-K1	CD DOOR ORNAMENT	1	HC297EB
	11	RGK2535F-K1	CD DOOR ORNAMENT	1	HC195EB/EG-K
	11	RGK2535F-W1	CD DOOR ORNAMENT	1	HC195EG-W

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	12	RGK2536-K	BASE STAND	1	HC195EB/EG-K, HC295EG-K, HC297EB-K
	12	RGK2536-W	BASE STAND	1	HC195EG-W, HC295EG-W
	13	RGK2537-V	FRONT ORNAMENT	1	
	14	RGN3625A-K1	NAME PLATE	1	HC295EG-K/W
	14	RGN3625B-K1	NAME PLATE	1	HC297EB-K
	14	RGN3628-K1	NAME PLATE	1	HC195EG-K/W, HC195EB-K
	15	RGP1683-K1	REAR CABINET	1	HC295EG-K
	15	RGP1683-W1	REAR CABINET	1	HC295EG-W
	15	RGP1683C-K1	REAR CABINET	1	HC297EB-K
	15	RGP1683G-K1	REAR CABINET	1	HC195EB/EG-K
	15	RGP1683G-W1	REAR CABINET	1	HC195EG-W
	16	RGP1684-K1	FRONT CABINET	1	
	17	RGP1686-K1	CD DOOR BASE	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	18	RGU2944-K2	TOP BUTTON	1	HC195EB/ EG-K, HC295EG- K, HC297EB- K
	18	RGU2944-W2	TOP BUTTON	1	HC195EG- W, HC295EG- W
	20	RHD26043-1	SCREW	4	
	21	RHD26046-L	SCREW	20	HC195/ 295
	21	RHD26046-L	SCREW	19	HC297
	22	RHD26066	SCREW	16	
	23	RHD30092-1	SCREW	3	
	24	RKAX0028-K	LEG CUSHION	3	
	25	RKT0179-K	PORT COVER L	1	HC195EB/ EG-K, HC295EG- K, HC297EB- K
	25	RKT0179-W	PORT COVER L	1	HC195EG- W, HC295EG- W
	26	RKT0180-K	PORT COVER R	1	HC195EB/ EG-K, HC295EG- K, HC297EB- K
	26	RKT0180-W	PORT COVER R	1	HC195EG- W, HC295EG- W
	27	RMFX0091	ACOUSTIC ABSORBER	2	
	28	RMKX1026-1	GEAR BASE	1	
	29	RMKX1039-K1	RACK TOP	1	
	30	RMN1049-1	FL HOLDER	1	
	31	RMQX1026-K	BOTTOM CD DOOR SLIDER	1	
	32	RMQX1027-K	TOP CD DOOR SLIDER	1	
	33	RMU0101	TIMING GEAR SHAFT	1	
	34	RMUX1002	DOOR SHAFT	1	
⚠	35	RMV0429	SMPS BRACKET INSULATOR A	1	
⚠	36	RMV0432	SMPS COVER INSU- LATION	1	
	37	RSC1097	D-AMP HEAT ABSORBER	1	HC295, HC297
	38	RSC1258	SMPS BRACKET	1	
	39	RSC1259A	SMPS COVER	1	
	40	RSC1264-1	REAR SHIELD	1	
	41	RSC1265-1	TUNER SHIELD	1	HC195, HC295
	41	RSC1265A-1	TUNER SHIELD	1	HC297
	42	VMG1720	MOTOR BELT	1	
	43	RYQ1342-K	NET FRAME UNIT L	1	HC195EB/ EG-K, HC295EG- K, HC297EB- K
	44	RYQ1343-K	NET FRAME UNIT R	1	HC195EB/ EG-K, HC295EG- K, HC297EB- K
	43	RYQ1342-W	NET FRAME UNIT L	1	HC195EG- W, HC295EG- W
	44	RYQ1343-W	NET FRAME UNIT R	1	HC195EG- W, HC295EG- W

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	45	XTB3+10JFJK	SCREW	2	HC195/ HC295
	45	XTB3+10JFJK	SCREW	1	HC297EB
	46	XTB3+8JFJ-J	SCREW	1	
	47	XTW2+6SFJ	SCREW	2	
	48	XQN17+C28FJ	SCREW	2	
	49	VHD1224-1	SCREW	10	HC195
	49	VHD1224-1	SCREW	11	HC295
	49	VHD1224-1	SCREW	12	HC297
	50	RMQ2282-2	BUTTON HOLDER SUPPORT	2	
	51	RHN95002	SPECIAL NUTS	1	HC297
	52	RMFX1028	HIMELON	2	
	53	RMQ2311F	EPT	2	
	54	RMFX1037	HIMELON	4	
	55	RMFX1027	HIMELON	1	
	56	RMQ2094	EPT	3	
			SPEAKERS		
	SP1	L0AA08A00042	WOOFER SPEAKER (8CM)	1	
	SP2	L0AA08A00042	WOOFER SPEAKER (8CM)	1	
			TRAVERSE DECK		
⚠	301	RAE5308Z-V	TRAVERSE UNIT	1	(E.S.D)
	302	RME0109-1	FLOATING SPRING	4	
	303	RMS0757-1	FIX PIN	4	
	304	RMG0730-G	FLOATING RUBBER	4	
	305	RMQ2020-1J	MIDDLE CHASSIS	1	
	306	XTN2+6GFJ	SCREW	2	
			PACKING MATERI- ALS		
	P1	RP60T29	PACKING CASE	1	HC195EG- K
	P1	RP60T30	PACKING CASE	1	HC195EG- W
	P1	RP60T31	PACKING CASE	1	HC195EB- K
	P1	RP60S79	PACKING CASE	1	HC295EG- K
	P1	RP60T21	PACKING CASE	1	HC295EG- W
	P1	RP60S87	PACKING CASE	1	HC297EB- K
	P2	RPN2628	POLYFOAM	1	
	P3	RPF0262-1	MIRAMAT	1	
			ACCESSORIES		
	A1	N2QAYB000944	REMOTE CONTROL	1	HC295, HC297
	A1	N2QAYB000948	REMOTE CONTROL	1	HC195
⚠	A2	K2CQ2YY00119	AC CORD	1	HC195EG, HC295EG
⚠	A2	K2CT2YY00097	AC CORD	1	HC195EB, HC297EB
⚠	A3	RQT0B01-B	O/I BOOK (En)	1	HC297EB
⚠	A3	RQT0B02-D	O/I BOOK(Ge/Fr/ It/Du)	1	HC195EG, HC295EG
⚠	A3	RQT0B03-E	O/I BOOK(Sw/Da/ Fi/Po/Cz/Sp)	1	HC195EG, HC295EG
⚠	A3	RQT0B08-B	O/I BOOK(En)	1	HC195, HC295
	A4	RSAX0002	FM INDOOR ANTENNA	1	HC195EB/ EG, HC295EG
	A5	K1YZ02000013	ANTENNA PLUG ADAPTOR	1	HC195EB, HC297EB
	A7	RFA3669	DAB ANTENNA UNIT	1	HC297EB
	A8	RFA3549-1	WALL BRACKET ASS'Y	1	

15.2. Electrical Replacement Parts List

Important Safety Notice

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

RTL (Retention Time Limited)

Note: The marking (RTL) indicates that the Retention Time is Limited for this item.

After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

Note:

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

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

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			PRINTED CIRCUITS BOARDS		
	PCB1	REP5057A	CD INTERFACE P.C.B.	1	(RTL)
	PCB2	REP5058QA	MAIN P.C.B	1	(RTL) HC195EB /EG
	PCB2	RFKV5058JA	MAIN/NFC KIT ASS'Y	1	HC295EB /EG
	PCB2	RFKV5058PA	MAIN/NFC KIT ASS'Y	1	HC297EB
	PCB3	REP5058JB	TUNER P.C.B.	1	(RTL) HC295EG
	PCB3	REP5058QB	TUNER P.C.B.	1	(RTL) HC195EG
	PCB4	RFKV5058JC	NFC KIT ASS'Y	1	HC295EB /EG
	PCB4	RFKV5058PC	NFC KIT ASS'Y	1	HC297EB
	PCB5	REP5058QD	MOTOR P.C.B.	1	(RTL) HC195EG
	PCB5	REP5058JD	MOTOR P.C.B.	1	(RTL) HC295EG
	PCB5	REP5058PD	MOTOR P.C.B.	1	(RTL) HC297EB
Δ	PCB6	REP5059FA	SMPS P.C.B.	1	(RTL)
	PCB7	REP5059FB	PANEL P.C.B.	1	(RTL)
	PCB8	REP5059FC	BUTTON P.C.B.	1	(RTL)
	PCB9	REP5059FD	POSITION SWITCH P.C.B.	1	(RTL)
	PCB10	RSNE031B0	BLUETOOTH MODULE	1	HC295/ 297
	PCB11	J3CZBC000013	DAB MODULE	1	HC297

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			INTEGRATED CIRCUITS		
	IC52	VUEALLPT094	IC	1	(E.S.D) HC195, HC295
	IC400	VUEALLPT092	IC	1	(E.S.D)
	IC1101	C0DBAYY001996	IC	1	(E.S.D)
	IC1102	C0DBEYY00315	IC	1	(E.S.D)
	IC1103	C0DBGYY003909	IC	1	(E.S.D)
	IC1104	C0DBEYY00146	IC	1	(E.S.D)
	IC1106	C0DBGYY00911	IC	1	(E.S.D)
	IC1108	C0DBGYY05244	IC	1	(E.S.D)
	IC1700	C0DACYY00012	IC	1	(E.S.D)
	IC1701	C0DBZMC00006	IC	1	(E.S.D)
	IC4001	C0ABBA000159	IC	1	(E.S.D) HC295, HC297
	IC5001	C0GBY0000213	IC	1	(E.S.D)
	IC6000	C0DBZYY00712	IC	1	(E.S.D)
	IC6001	C0JBAR000640	IC	1	(E.S.D) HC295, HC297
	IC6002	C0JBAC000363	IC	1	(E.S.D)
	IC7001	C0JBAB000685	IC	1	(E.S.D) HC297
	IC7021	C0FBAK000026	IC	1	(E.S.D) HC297
	IC7230	C0DBGYY00969	IC	1	(E.S.D) HC295, HC297
	IC8000	C0DBFYY00164	IC	1	(E.S.D) HC297
	IC8001	C1AB00004188	IC	1	(E.S.D)
	IC8002	C0EBE0000338	IC	1	(E.S.D)
	IC8003	RFKWFHC195EM	IC	1	(E.S.D) HC195

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	IC8003	RFKWFHC295EM	IC	1	(E.S.D) HC295
	IC8003	RFKWFHC297EM	IC	1	(E.S.D) HC297
	IC8004	RFKV5058JC	IC	1	(E.S.D) HC295
	IC8004	RFKV5058PC	IC	1	(E.S.D) HC297
	IC8004	C3EBFY000044	IC	1	(E.S.D) HC195
			TRANSISTORS		
	Q400	B1ABCF000231	TRANSISTOR	1	(E.S.D)
	Q401	B1ABCF000231	TRANSISTOR	1	(E.S.D)
	Q402	DSA200100L	TRANSISTOR	1	(E.S.D)
	Q403	B1ABCF000231	TRANSISTOR	1	(E.S.D)
	Q1100	B1CHRC000047	TRANSISTOR	1	(E.S.D)
	Q1700	B1ABGC000001	TRANSISTOR	1	(E.S.D)
	Q1701	DSA500100L	TRANSISTOR	1	(E.S.D)
	Q5001	B1ADCE000012	TRANSISTOR	1	(E.S.D)
	Q5001	B1ADCF000001	TRANSISTOR	1	(E.S.D)
	Q6005	B1ABCF000176	TRANSISTOR	1	(E.S.D) HC295, HC297
	Q6803	B1HFCDE00002	TRANSISTOR	1	(E.S.D)
	Q7031	B1ADCE000012	TRANSISTOR	1	(E.S.D) HC297
	Q8001	B1HFCDE00002	TRANSISTOR	1	(E.S.D)
	Q8100	B1ADDF000012	TRANSISTOR	1	(E.S.D) HC295, HC297
	QR1100	B1GBCFNN0038	TRANSISTOR	1	(E.S.D)
	QR1101	B1GBCFNN0038	TRANSISTOR	1	(E.S.D)
	QR1700	B1GBCFJJ0051	TRANSISTOR	1	(E.S.D)
	QR6006	B1MBAFE00002	TRANSISTOR	1	(E.S.D) HC295, HC297
	QR7032	B1GBCFJJ0041	TRANSISTOR	1	(E.S.D) HC297
	QR8000	B1GBCFNN0038	TRANSISTOR	1	(E.S.D)
	QR8100	B1GBCFJJ0041	TRANSISTOR	1	(E.S.D) HC295, HC297
			DIODES		
	D1100	DA2J10100L	DIODE	1	(E.S.D)
	D1103	B0JCGD000016	DIODE	1	(E.S.D)
	D1104	B0ADDH000009	DIODE	1	(E.S.D)
	D1113	DZ2J062M0L	DIODE	1	(E.S.D)
	D1700	B0ABSM000008	DIODE	1	(E.S.D)
	D1701	B0EDLR000001	DIODE	1	(E.S.D)
	D1702	DZ2J075M0L	DIODE	1	(E.S.D)
	D1703	B0EAKT000063	DIODE	1	(E.S.D)
	D1708	DA22F2100L	DIODE	1	(E.S.D)
	D1709	DZ2J330M0L	DIODE	1	(E.S.D)
	D6801	B0ADDH000009	DIODE	1	(E.S.D)
	D6802	B0ADDH000009	DIODE	1	(E.S.D)
	D6806	DZ2J051M0L	DIODE	1	(E.S.D)
	D8000	B0ADDH000009	DIODE	1	(E.S.D)
			VARISTORS		
	VA51	B0ZBZ0000156	DIODE	1	HC195, HC295
			SWITCHES		
	S641	K0L1BA000078	SW OPEN	1	
	S642	K0L1BA000078	SW CLOSE	1	
	S901	EVQ11G04M	SW POWER	1	
	S903	EVQ11G04M	SW SELECTOR	1	
	S904	EVQ11G04M	SW STOP	1	
	S905	EVQ11G04M	SW PLAY/PAUSE	1	
	S906	EVQ11G04M	SW REW SKIP	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	S911	EVQ11G04M	SW BT PAIRING	1	
	S912	EVQ11G04M	SW VOL +	1	
	S913	EVQ11G04M	SW VOL -	1	
	S914	EVQ11G04M	SW FWD SKIP	1	
	S915	EVQ11G04M	SW CD OPEN/CLOSE	1	
	S7201	K0L1BA000158	SW RESET	1	
			CONNECTORS		
	CN51	K1MY12AA0267	12P CONNECTOR	1	HC195, HC295
	CN400	K1KA02AA0180	2P CONNECTOR	1	
	CN401	K1KA02AA0180	2P CONNECTOR	1	
	CN901	K1KY04B00023	4P CONNECTOR	1	
	CN1100	K1KY07A00029	7P CONNECTOR	1	
	CN5002	K1MY24A00001	24P CONNECTOR	1	
	CN5003	K1KA05AA0193	5P CONNECTOR	1	
	CN6001	K1FY104B0111	CONNECTOR	1	
	CN6801	K1MY12BA0566	12P CONNECTOR	1	
	CN6802	K1KY04A00072	4P CONNECTOR	1	
	CN7002	K1MY24B00006	24P CONNECTOR	1	
	CN7003	K1MY24B00006	24P CONNECTOR	1	
	CN8001	K1MY12AA0267	12P CONNECTOR	1	
	CN8002	K1MY12AA0267	12P CONNECTOR	1	HC195, HC295
	CN8003	K1KA02AA0193	2P CONNECTOR	1	HC295, HC297
	CN8004	K1JY14Y00002	CONNECTOR	1	HC297
	P904	K1KA02BA0061	2P CONNECTOR	1	
	P1700	K1KY07B00021	7P CONNECTOR	1	
			COILS AND INDUC-TORS		
	L51	G1CR18JA0020	INDUCTOR	1	HC195, HC295
	L400	G1C330MA0226	INDUCTOR	1	
	L401	G1C330MA0226	INDUCTOR	1	
	L402	G1C330MA0226	INDUCTOR	1	
	L403	G1C330MA0226	INDUCTOR	1	
	L1100	G1C100MA0226	INDUCTOR	1	
	L1700	G1C100K00019	INDUCTOR	1	
⚠	L1702	G0B922G00002	LINE FILTER	1	
	L7001	J0JYC0000656	INDUCTOR	1	HC297
	L7020	J0JYC0000656	INDUCTOR	1	HC297
	L7021	J0JYC0000656	INDUCTOR	1	HC295, HC297
	L7230	J0JYC0000305	INDUCTOR	1	HC295, HC297
	LB51	J0JYC0000656	INDUCTOR	1	HC195, HC295
	LB53	J0JHC0000118	INDUCTOR	1	HC295
	LB400	J0JHC0000118	INDUCTOR	1	
	LB401	J0JHC0000118	INDUCTOR	1	
	LB402	J0JYC0000366	INDUCTOR	1	
	LB403	J0JYC0000366	INDUCTOR	1	
	LB404	J0JYC0000366	INDUCTOR	1	
	LB405	J0JYC0000366	INDUCTOR	1	
	LB406	J0JYC0000305	INDUCTOR	1	
	LB1105	J0JGC0000063	INDUCTOR	1	
	LB1106	J0JGC0000063	INDUCTOR	1	
	LB1107	J0JGC0000063	INDUCTOR	1	
	LB1108	J0JYC0000656	INDUCTOR	1	
	LB5001	J0JYC0000656	INDUCTOR	1	
	LB5002	J0JYC0000656	INDUCTOR	1	
	LB5003	J0JYC0000656	INDUCTOR	1	
	LB5004	J0JYC0000656	INDUCTOR	1	
	LB7001	J0JYC0000305	INDUCTOR	1	HC295, HC297
	LB7002	J0JYC0000305	INDUCTOR	1	HC295, HC297
	LB7003	J0JYC0000305	INDUCTOR	1	HC295, HC297
	LB7021	J0JYC0000656	INDUCTOR	1	HC295, HC297

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	LB8000	J0JYC0000656	INDUCTOR	1	
	LB8001	J0JYC0000656	INDUCTOR	1	
	LB8002	J0JYC0000656	INDUCTOR	1	
	LB8003	J0JYC0000656	INDUCTOR	1	
	LB8004	J0JYC0000656	INDUCTOR	1	
	LB8005	J0JYC0000656	INDUCTOR	1	
	LB8006	J0JYC0000656	INDUCTOR	1	
	LB8007	J0JYC0000656	INDUCTOR	1	
	LB8008	J0JYC0000656	INDUCTOR	1	
	LB8009	J0JHC0000118	INDUCTOR	1	
	LB8152	J0JHC0000118	INDUCTOR	1	HC297
	LB8153	J0JHC0000118	INDUCTOR	1	
	LB8156	J0JYC0000656	INDUCTOR	1	
	LB8157	J0JYC0000656	INDUCTOR	1	
	LB8158	J0JYC0000656	INDUCTOR	1	HC295, HC297
			TRANSFORMER		
△	T1700	G4DYZ0000077	SWITCHING TRANS- FORMER	1	
			VARISTOR		
△	Z1752	D4EAY511A182	VARISTOR	1	
			PHOTO COUPLER		
△	PC1702	B3PBA0000579	PHOTO COUPLER	1	
			TERMINALS		
	ZJ1701	K4CZ01000027	TERMINAL	1	
	ZJ1702	K4CZ01000027	TERMINAL	1	
			OSCILLATORS		
	X400	H0J245500110	OSCILLATOR	1	
	X7003	H0J184500045	OSCILLATOR	1	HC297
	X8001	H0J169500044	OSCILLATOR	1	
	X8002	H0A327200191	OSCILLATOR	1	
			FL DISPLAY		
	FL6801	A2BB00000186	FL DISPLAY	1	
			FUSE		
△	F1	K5G202Y00006	FUSE	1	
			JACKS		
	JK51	K4ZZ02000103	JK FM ANTENNA	[M]	HC195, HC295
	JK7001	K2HC1YYB0033	JK HEADPHONE	[M]	HC295, HC297
△	P1751	K2AA2B000011	AC INLET	[M]	
			CHIP JUMPERS		
	L54	D0GBR00J0004	0 1/10W	1	HC195, HC295
	LB52	D0GBR00J0004	0 1/10W	1	HC195, HC295
	LB8151	D0GBR00J0004	0 1/10W	1	HC297
	W200	D0GFR00J0005	0 1/4W	1	
	W201	D0GDR00J0004	0 1/8W	1	
	W202	D0GFR00J0005	0 1/4W	1	
	W203	D0GDR00J0004	0 1/8W	1	
	W205	D0GBR00J0004	0 1/10W	1	
	W300	D0GBR00J0004	0 1/10W	1	
			REMOTE SENSOR		

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	IR6801	B3RAB0000119	REMOTE SENSOR	1	
			RESISTORS		
	LB7000	D0GD220JA052	22 1/8W	1	HC295, HC297
	R51	D0GB222JA065	2.2K 1/10W	1	HC195, HC295
	R52	D0GB561JA065	560 1/10W	1	HC195, HC295
	R55	D0GA221JA023	220 1/16W	1	HC195, HC295
	R56	D0GB221JA065	220 1/10W	1	HC195, HC295
	R57	D0GA102JA023	1K 1/16W	1	HC195, HC295
	R59	D0GB222JA065	2.2K 1/10W	1	HC195, HC295
	R60	D0GB471JA065	470 1/10W	1	HC195, HC295
	R400	D0GB101JA065	100 1/10W	1	
	R402	D0GB101JA065	100 1/10W	1	
	R403	D0GB101JA065	100 1/10W	1	
	R404	D0GB101JA065	100 1/10W	1	
	R405	D0GBR00J0004	0 1/10W	1	
	R406	D0GB101JA065	100 1/10W	1	
	R407	D0GBR00J0004	0 1/10W	1	
	R408	D0GBR00J0004	0 1/10W	1	
	R409	D0GBR00J0004	0 1/10W	1	
	R412	D0GB105JA065	1M 1/10W	1	
	R413	D0GB152JA065	1.5K 1/10W	1	
	R414	D0GB152JA065	1.5K 1/10W	1	
	R416	D0GB104JA065	100K 1/10W	1	
	R417	D0GD5R6JA052	5.6 1/8W	1	
	R418	D0GD5R6JA052	5.6 1/8W	1	
	R419	D0GD5R6JA052	5.6 1/8W	1	
	R420	D0GD5R6JA052	5.6 1/8W	1	
	R424	D0GB101JA065	100 1/10W	1	HC297
	R425	D0GB101JA065	100 1/10W	1	HC297
	R426	D0GB101JA065	100 1/10W	1	HC297
	R427	D0GB101JA065	100 1/10W	1	
	R428	D0GB101JA065	100 1/10W	1	HC297
	R428	D0GB561JA065	560 1/10W	1	HC195, HC295
	R429	D0GB472JA065	4.7K 1/10W	1	
	R430	D0GB104JA065	100K 1/10W	1	
	R431	D0GB223JA065	22K 1/10W	1	
	R432	D0GB104JA065	100K 1/10W	1	
	R433	D0GB104JA065	100K 1/10W	1	
	R434	D0GB104JA065	100K 1/10W	1	
	R435	D0GB104JA065	100K 1/10W	1	
	R436	D0GB104JA065	100K 1/10W	1	
	R437	D0GB104JA065	100K 1/10W	1	
	R442	D0GBR00J0004	0 1/10W	1	
	R443	D0GBR00J0004	0 1/10W	1	
	R911	D0GB183JA065	18K 1/10W	1	
	R912	D0GB682JA065	6.8K 1/10W	1	
	R913	D0GB362JA065	3.6K 1/10W	1	
	R914	D0GB362JA065	3.6K 1/10W	1	
	R915	D0GB222JA065	2.2K 1/10W	1	
	R921	D0GB392JA065	3.9K 1/10W	1	
	R923	D0GB682JA065	6.8K 1/10W	1	
	R924	D0GB183JA065	18K 1/10W	1	
	R1003	D0GA101JA023	100 1/16W	1	
	R1100	D0GB104JA065	100K 1/10W	1	
	R1102	D1BB4702A074	47K 1/10W	1	
	R1103	D0GBR00J0004	0 1/10W	1	
	R1104	D1BB1002A074	10K 1/10W	1	
	R1105	D0GB273JA065	27K 1/10W	1	
	R1110	D0GFR00J0005	0 1/4W	1	
	R1114	D0GB100JA065	10 1/10W	1	
	R1115	D0GB473JA065	47K 1/10W	1	
	R1116	D0GB184JA065	180K 1/10W	1	
	R1127	ERJ3GEYF474V	470K 1/10W	1	
	R1128	D1BB3902A074	39K 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R1129	D1BB6041A074	600K 1/10W	1	
	R1130	D1BB1002A074	10K 1/10W	1	
	R1142	D0GB5R6JA065	5.6 1/10W	1	
	R1143	D0GB5R6JA065	5.6 1/10W	1	
	R1144	D0GB560JA065	56 1/10W	1	
	R1145	D0GB222JA065	2.2K 1/10W	1	
	R1146	D0GB222JA065	2.2K 1/10W	1	
	R1147	D0GB222JA065	2.2K 1/10W	1	
	R1700	D0GD4R7JA052	4.7 1/8W	1	
	R1701	D0GB152JA065	1.5K 1/10W	1	
	R1702	D0GB682JA065	6.8K 1/10W	1	
	R1703	D0GB332JA065	3.3K 1/10W	1	
	R1704	ERJ1TYJ333U	33K 1W	1	
	R1705	D0GB103JA065	10K 1/10W	1	
	R1706	D0GB223JA065	22K 1/10W	1	
	R1707	D0GB392JA065	3.9K 1/10W	1	
	R1708	ERJ1TYJ220U	22 1W	1	
	R1710	D0GB473JA065	47K 1/10W	1	
	R1711	D0GB103JA065	10K 1/10W	1	
	R1716	D0GB394JA065	390K 1/10W	1	
	R1717	D0GB122JA065	1.2K 1/10W	1	
	R1718	ERX2SJR22P	0.22 2W	1	
⚠	R1724	ERJ12YJ105U	1M 1/2W	1	
	R1725	D0GB223JA065	22K 1/10W	1	
⚠	R1726	ERJ12YJ105U	1M 1/2W	1	
	R1727	D0GB104JA065	100K 1/10W	1	
	R1728	D1BB7501A074	7.5K 1/10W	1	
	R1729	ERJ6GEYJ220V	22 1/8W	1	
	R1730	D1BB1202A074	12K 1/10W	1	
	R4000	D0GB222JA065	2.2K 1/10W	1	HC295, HC297
	R4001	D0GB102JA065	1K 1/10W	1	HC295, HC297
	R4002	D0GA103JA023	10K 1/16W	1	HC295, HC297
	R4003	D0GA103JA023	10K 1/16W	1	HC295, HC297
	R4004	D0GB333JA065	33K 1/10W	1	HC295, HC297
	R4005	D0GA103JA023	10K 1/16W	1	HC295, HC297
	R4006	D0GB333JA065	33K 1/10W	1	HC295, HC297
	R4007	D0GB333JA065	33K 1/10W	1	HC295, HC297
	R4010	D0GB333JA065	33K 1/10W	1	HC295, HC297
	R4011	D0GA103JA023	10K 1/16W	1	HC295, HC297
	R4012	D0GFR00J0005	0 1/4W	1	HC295, HC297
	R5007	D0GAR00J0005	0 1/16W	1	
	R5008	D0GB101JA065	100 1/10W	1	
	R5009	D0GB122JA065	1.2K 1/10W	1	
	R5010	D0GA102JA023	1K 1/16W	1	
	R5011	D0GB682JA065	6.8K 1/10W	1	
	R5012	D0GAR00J0005	0 1/16W	1	
	R5013	D0GB473JA065	47K 1/10W	1	
	R5014	D0GAR00J0005	0 1/16W	1	
	R5015	D0GAR00J0005	0 1/16W	1	
	R5016	D0GA104JA023	100K 1/16W	1	
	R5017	D0GAR00J0005	0 1/16W	1	
	R5018	D0GB153JA065	15K 1/10W	1	
	R5019	D0GB4R7JA065	4.7 1/10W	1	
	R5020	D0GB104JA065	100K 1/10W	1	
	R5021	D0GB4R7JA065	4.7 1/10W	1	
	R5022	D0GB102JA065	1K 1/10W	1	
	R5023	D0GBR00J0004	0 1/10W	1	
	R5025	J0JYB000013	INDUCTOR	1	
	R5026	D0GBR00J0004	0 1/10W	1	
	R5026	D0GFR00J0005	0 1/4W	1	
	R5027	D0GBR00J0004	0 1/10W	1	
	R5036	D0GAR00J0005	0 1/16W	1	
	R5037	D0GB332JA065	3.3K 1/10W	1	
	R5038	D0GB225JA065	2.2M 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R5039	D0GBR00J0004	0 1/10W	1	
	R5040	J0JYC0000339	INDUCTOR	1	
	R5041	J0JYC0000339	INDUCTOR	1	
	R5042	J0JYC0000656	INDUCTOR	1	
	R5044	D0GBR00J0004	0 1/10W	1	
	R5045	D0GB152JA065	1.5K 1/10W	1	
	R5046	D0GB473JA065	47K 1/10W	1	
	R6000	D0GBR00J0004	0 1/10W	1	HC195
	R6001	D0GBR00J0004	0 1/10W	1	HC195
	R6002	D0GB102JA065	1K 1/10W	1	
	R6004	D0GBR00J0004	0 1/10W	1	
	R6005	D0GB104JA065	100K 1/10W	1	HC295, HC297
	R6006	D0GBR00J0004	0 1/10W	1	
	R6007	D0GB103JA065	10K 1/10W	1	HC295, HC297
	R6008	D0GBR00J0004	0 1/10W	1	HC295, HC297
	R6016	D0GB104JA065	100K 1/10W	1	
	R6018	D0GBR00J0004	0 1/10W	1	
	R6019	D0GB102JA065	1K 1/10W	1	
	R6020	D0GB225JA065	2.2M 1/10W	1	
	R6021	D0GB222JA065	2.2K 1/10W	1	HC295, HC297
	R6023	D0GB222JA065	2.2K 1/10W	1	
	R6800	D0GBR00J0004	0 1/10W	1	
	R6803	D0GB470JA065	47 1/10W	1	
	R6804	D0GB220JA065	22 1/10W	1	
	R6805	D0GB101JA065	100 1/10W	1	
	R6806	D0GB473JA065	47K 1/10W	1	
	R6807	D0GBR00J0004	0 1/10W	1	
	R6809	D0GB203JA065	20K 1/10W	1	
	R6810	D0GB1R0JA065	1.0 1/10W	1	
	R6811	D0GF390JA048	39 1/4W	1	
	R6812	D0GF390JA048	39 1/4W	1	
	R6813	D0GB101JA065	100 1/10W	1	
	R6814	D0GB101JA065	100 1/10W	1	
	R6815	D0GB101JA065	100 1/10W	1	
	R6817	D0GB100JA065	10 1/10W	1	
	R6818	D0GBR00J0004	0 1/10W	1	
	R6819	D0GBR00J0004	0 1/10W	1	
	R6820	D0GBR00J0004	0 1/10W	1	
	R7001	D0GB105JA065	1M 1/10W	1	HC297
	R7002	D0GB102JA065	1K 1/10W	1	HC297
	R7003	D0GB102JA065	1K 1/10W	1	HC297
	R7004	D0GBR00J0004	0 1/10W	1	HC295, HC297
	R7005	D0GBR00J0004	0 1/10W	1	HC295, HC297
	R7020	D0GBR00J0004	0 1/10W	1	HC297
	R7022	D0GB330JA065	33 1/10W	1	HC297
	R7023	D0GB330JA065	33 1/10W	1	HC297
	R7024	D0GB330JA065	33 1/10W	1	HC297
	R7025	D0GB330JA065	33 1/10W	1	HC297
	R7026	D0GBR00J0004	0 1/10W	1	HC297
	R7027	D0GBR00J0004	0 1/10W	1	HC297
	R7031	D0GB333JA065	33K 1/10W	1	HC297
	R7032	D0GB102JA065	1K 1/10W	1	HC297
	R7033	D0GB123JA065	12K 1/10W	1	
	R7034	D0GB123JA065	12K 1/10W	1	
	R7035	D0GBR00J0004	0 1/10W	1	HC297
	R7036	D0GBR00J0004	0 1/10W	1	HC297
	R7231	D0GB222JA065	2.2K 1/10W	1	HC295, HC297
	R7232	D0GB222JA065	2.2K 1/10W	1	HC295, HC297
	R8000	D0GB101JA065	100 1/10W	1	
	R8001	D0GAR00J0005	0 1/16W	1	
	R8002	D0GA101JA023	100 1/16W	1	
	R8003	D0GA101JA023	100 1/16W	1	
	R8004	D0GA101JA023	100 1/16W	1	
	R8005	D0GB104JA065	100K 1/10W	1	
	R8022	D0GB104JA065	100K 1/10W	1	
	R8023	D0GB104JA065	100K 1/10W	1	
	R8024	D0GA104JA023	100K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R8025	D0GA104JA023	100K 1/16W	1	
	R8026	D0GB472JA065	4.7K 1/10W	1	
	R8027	D0GB472JA065	4.7K 1/10W	1	
	R8028	D0GA104JA023	100K 1/16W	1	
	R8029	D0GBR00J0004	0 1/10W	1	
	R8030	D0GB103JA065	10K 1/10W	1	
	R8031	D0GB103JA065	10K 1/10W	1	
	R8033	D0GB103JA065	10K 1/10W	1	HC295, HC297
	R8034	D0GA101JA023	100 1/16W	1	
	R8036	D0GA101JA023	100 1/16W	1	
	R8037	D0GA101JA023	100 1/16W	1	
	R8039	D0GA101JA023	100 1/16W	1	
	R8040	D0GA101JA023	100 1/16W	1	
	R8041	D0GB153JA065	15K 1/10W	1	HC195
	R8041	D0GB392JA065	3.9K 1/10W	1	HC295, HC297
	R8043	D0GB103JA065	10K 1/10W	1	
	R8044	D0GB103JA065	10K 1/10W	1	
	R8045	D0GB471JA065	470 1/10W	1	
	R8046	D0GA101JA023	100 1/16W	1	
	R8047	D0GA101JA023	100 1/16W	1	
	R8048	D0GBR00J0004	0 1/10W	1	
	R8049	D0GB153JA065	15K 1/10W	1	HC295, HC297
	R8049	D0GB333JA065	33K 1/10W	1	HC195
	R8050	D0GB103JA065	10K 1/10W	1	
	R8051	D0GB103JA065	10K 1/10W	1	
	R8052	D0GB103JA065	10K 1/10W	1	
	R8053	D0GB334JA065	330K 1/10W	1	
	R8054	D0GB223JA065	22K 1/10W	1	
	R8055	D0GB473JA065	47K 1/10W	1	
	R8056	D0GA221JA023	220 1/16W	1	
	R8057	D0GA221JA023	220 1/16W	1	
	R8065	D0GAR00J0005	0 1/16W	1	
	R8066	D0GB153JA065	15K 1/10W	1	
	R8067	D0GB683JA065	68K 1/10W	1	
	R8068	D0GB104JA065	100K 1/10W	1	
	R8069	D0GA101JA023	100 1/16W	1	HC295, HC297
	R8070	D0GA101JA023	100 1/16W	1	HC295, HC297
	R8076	D0GA101JA023	100 1/16W	1	
	R8081	D0GA101JA023	100 1/16W	1	HC295, HC297
	R8082	D0GA101JA023	100 1/16W	1	
	R8083	D0GA101JA023	100 1/16W	1	
	R8084	D0GB152JA065	1.5K 1/10W	1	
	R8085	D0GB152JA065	1.5K 1/10W	1	
	R8086	D0GAR00J0005	0 1/16W	1	
	R8087	D0GA101JA023	100 1/16W	1	HC297
	R8087	D0GAR00J0005	0 1/16W	1	HC195, HC295
	R8088	D0GB224JA065	220K 1/10W	1	
	R8089	D0GA101JA023	100 1/16W	1	
	R8090	D0GB105JA065	1M 1/10W	1	
	R8091	D0GA101JA023	100 1/16W	1	
	R8094	D0GB102JA065	1K 1/10W	1	
	R8095	D0GA103JA023	10K 1/16W	1	HC295, HC297
	R8113	D0GBR00J0004	0 1/10W	1	
	R8114	D0GBR00J0004	0 1/10W	1	
	R8115	D0GB683JA065	68K 1/10W	1	
	R8116	D0GB683JA065	68K 1/10W	1	
	R8117	D0GB106JA065	10M 1/10W	1	
	R8158	J0JYC0000656	INDUCTOR	1	
	R8159	D0GBR00J0004	0 1/10W	1	HC297
	R8160	D0GB101JA065	100 1/10W	1	HC297
	R8161	D0GB101JA065	100 1/10W	1	HC297
	R8162	D0GB101JA065	100 1/10W	1	HC297
	R8168	D0GBR00J0004	0 1/10W	1	
	R8169	D0GB101JA065	100 1/10W	1	HC297
	R8170	D0GBR00J0004	0 1/10W	1	HC297
	R8172	D0GB101JA065	100 1/10W	1	HC195, HC295

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R8173	D0GB101JA065	100 1/10W	1	HC297
	R8175	D0GB101JA065	100 1/10W	1	HC195, HC295
	R8176	D0GBR00J0004	0 1/10W	1	
	R8179	D0GBR00J0004	0 1/10W	1	
	R8180	D0GBR00J0004	0 1/10W	1	
	R8181	D0GBR00J0004	0 1/10W	1	
	R8182	D0GBR00J0004	0 1/10W	1	
	R8183	D0GBR00J0004	0 1/10W	1	
	R8184	J0JYC0000656	INDUCTOR	1	
	R8185	J0JYC0000656	INDUCTOR	1	
	R8186	J0JYC0000656	INDUCTOR	1	
	R8187	D0GB103JA065	10K 1/10W	1	HC295, HC297
	R8188	D0GB102JA065	1K 1/10W	1	HC295, HC297
	R8189	D0GBR00J0004	0 1/10W	1	HC195
	R8190	D0GBR00J0004	0 1/10W	1	HC295
	R8191	D0GBR00J0004	0 1/10W	1	HC295
	R8192	D0GBR00J0004	0 1/10W	1	HC295
	R8195	D0GBR00J0004	0 1/10W	1	HC297
	R8200	D0GBR00J0004	0 1/10W	1	HC195, HC295
	R8205	D0GBR00J0004	0 1/10W	1	HC297
	R8206	D0GA101JA023	100 1/16W	1	
	R8207	D0GBR00J0004	0 1/10W	1	
	R8208	D0GA101JA023	100 1/16W	1	
	R8210	D0GBR00J0004	0 1/10W	1	HC195, HC295
	R8211	D0GBR00J0004	0 1/10W	1	HC195, HC297
			RESISTOR NET- WORKS		
	RX8001	D1H81014A042	RESISTOR NETWORK	1	
	RX8002	D1H81014A042	RESISTOR NETWORK	1	
	RX8003	D1H81014A042	RESISTOR NETWORK	1	
	RX8004	D1H81014A042	RESISTOR NETWORK	1	
	RX8005	D1H81034A042	RESISTOR NETWORK	1	
	RX8007	D1H81014A042	RESISTOR NETWORK	1	
	RX8008	J0JAD0000007	INDUCTOR	1	HC295, HC297
	RX8009	D1H81014A042	RESISTOR NETWORK	1	
	RX8010	D1H81014A042	RESISTOR NETWORK	1	
	RX8011	D1H82214A042	RESISTOR NETWORK	1	
	RX8012	D1H81014A042	RESISTOR NETWORK	1	
			CAPACITORS		
	C51	F1H1H102B047	1000pF 50V	1	HC195, HC295
	C53	F1J1A106A043	10uF 10V	1	HC295
	C54	F1J1A106A043	10uF 10V	1	HC295
	C55	F1H1H101B052	100pF 50V	1	HC295
	C56	F1H1H101B052	100pF 50V	1	HC295
	C61	F1G1C104A077	0.1uF 16V	1	HC195, HC295
	C62	F1G1C104A077	0.1uF 16V	1	HC195, HC295
	C66	F1H1H330B052	33pF 50V	1	HC195, HC295
	C67	F1H1H3R0B050	3.0pF 50V	1	HC195, HC295
	C401	F1H1A105A113	1uF 10V	1	
	C402	F1H1H101B052	100pF 50V	1	
	C403	F1H1A105A113	1uF 10V	1	
	C404	F1H1H120B052	12pF 50V	1	
	C405	F1H1H120B052	12pF 50V	1	
	C406	F1H1H273A918	0.027uF 50V	1	
	C407	F1H1H272A219	2700pF 50V	1	
	C408	F1H1H101B052	100pF 50V	1	
	C409	F1H1A105A113	1uF 10V	1	
	C410	F2G1E2210026	220uF 25V	1	
	C411	F1J1E475A257	4.7uF 25V	1	
	C412	F1K1E1060009	10uF 25V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C413	F1K1E1060009	10uF 25V	1	
	C414	F1J1E105A287	1uF 25V	1	
	C415	F1J1E475A257	4.7uF 25V	1	
	C416	F1J1E475A257	4.7uF 25V	1	
	C417	F1K1E1060009	10uF 25V	1	
	C418	F1K1E1060009	10uF 25V	1	
	C419	F1J1E105A287	1uF 25V	1	
	C420	F1J1E475A257	4.7uF 25V	1	
	C421	F1H1H122B047	1200pF 50V	1	
	C422	F1H1H122B047	1200pF 50V	1	
	C423	F1H1H122B047	1200pF 50V	1	
	C424	F1H1H122B047	1200pF 50V	1	
	C425	F1J1H2240017	0.22uF 50V	1	
	C426	F1J1H2240017	0.22uF 50V	1	
	C427	F1J1H2240017	0.22uF 50V	1	
	C428	F1J1H2240017	0.22uF 50V	1	
	C429	F1J1A106A043	10uF 10V	1	
	C430	F1H1H101B052	100pF 50V	1	
	C431	F1H1H104B047	0.1uF 50V	1	
	C432	F1H1E105A153	1uF 25V	1	
	C433	F1J1A106A043	10uF 10V	1	
	C434	F1J1A106A043	10uF 10V	1	
	C435	F1H1H102B047	1000pF 50V	1	
	C436	F1H1H102B047	1000pF 50V	1	
	C437	F1H1H102B047	1000pF 50V	1	
	C438	F1H1H102B047	1000pF 50V	1	
	C439	F1H1H102B047	1000pF 50V	1	
	C440	F1H1H102B047	1000pF 50V	1	
	C441	F1H1H104B047	0.1uF 50V	1	
	C444	F1H1H330B052	33pF 50V	1	
	C450	F1H1A105A113	1uF 10V	1	
	C451	F1H1H102B047	1000pF 50V	1	
	C452	F1H1H102B047	1000pF 50V	1	
	C453	F1H1H102B047	1000pF 50V	1	
	C454	F1H1H102B047	1000pF 50V	1	
	C456	F1H1H102B047	1000pF 50V	1	
	C457	F1H1H102B047	1000pF 50V	1	
	C1100	F1J1A106A043	10uF 10V	1	
	C1101	F1H1A105A113	1uF 10V	1	
	C1104	F1K1C2260001	22uF 16V	1	
	C1105	F1K1C2260001	22uF 16V	1	
	C1109	F1H1H104B047	0.1uF 50V	1	
	C1110	F1H1H104B047	0.1uF 50V	1	
	C1113	F1H1H104B047	0.1uF 50V	1	
	C1114	F1H1H102B047	1000pF 50V	1	
	C1120	F1H1C105A118	1uF 16V	1	
	C1121	F1K1E1060009	10uF 25V	1	
	C1123	F1H1H102B047	1000pF 50V	1	
	C1127	F1H1H102B047	1000pF 50V	1	
	C1128	F1H1H102B047	1000pF 50V	1	
	C1130	F1J1E105A287	1uF 25V	1	
	C1131	F1H1E105A153	1uF 25V	1	
	C1133	F1H1H391A219	390pF 50V	1	
	C1136	F1H1A105A113	1uF 10V	1	
	C1137	F1H1A105A113	1uF 10V	1	
	C1141	F1H1H102B047	1000pF 50V	1	
	C1148	F1J1E105A287	1uF 25V	1	
	C1181	F1J1E105A287	1uF 25V	1	
	C1183	F1H1H104B047	0.1uF 50V	1	
	C1700	F1H1H391A219	390pF 50V	1	
⚠	C1702	F0CAF224A105	0.22uF	1	
	C1703	F2A1E1020114	1000uF 25V	1	
	C1704	F1H1H102B047	1000pF 50V	1	
	C1705	F1K2J472A010	4700pF 630V	1	
	C1706	F2A2G820A354	82uF 400V	1	
	C1708	F1H1H102B047	1000pF 50V	1	
	C1709	F1H1H104B047	0.1uF 50V	1	
⚠	C1710	F1BAF471A215	470pF	1	
	C1712	F1H1H104B047	0.1uF 50V	1	
	C1713	F1K2J221A014	220pF 630V	1	
	C1714	F1H1H104B047	0.1uF 50V	1	
	C1715	F1H1H104B047	0.1uF 50V	1	
	C1716	F1H1H103B047	0.01uF 50V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C1719	F1H1E474A116	0.47uF 25V	1	
⚠	C1725	F0CAF104A105	0.1uF	1	
⚠	C1727	F1BAF102A216	1000pF	1	
⚠	C1728	F1BAF102A216	1000pF	1	
	C1729	F1A3D100A009	10pF 2000V	1	
	C1730	F2A1H100A454	10uF 50V	1	
	C4007	F1G1H101A834	100pF 50V	1	HC295, HC297
	C4008	F1G1A1050004	1uF 10V	1	HC295, HC297
	C4009	F1G1A1050004	1uF 10V	1	HC295, HC297
	C4010	F1G1A1050004	1uF 10V	1	HC295, HC297
	C4011	F1G1A1050004	1uF 10V	1	HC295, HC297
	C4012	F1J1A106A043	10uF 10V	1	HC295, HC297
	C4013	F1J1A106A043	10uF 10V	1	HC295, HC297
	C4014	F1J1A106A043	10uF 10V	1	HC295, HC297
	C4015	F1G1H100A834	10pF 50V	1	HC295, HC297
	C4016	F1G1H100A834	10pF 50V	1	HC295, HC297
	C4017	F1G1H101A834	100pF 50V	1	HC295, HC297
	C5001	F1J1A106A043	10uF 10V	1	
	C5002	F1H1H103B047	0.01uF 50V	1	
	C5009	F1J1A106A043	10uF 10V	1	
	C5010	F1H1H103B047	0.01uF 50V	1	
	C5011	F1H1C104A178	0.1uF 16V	1	
	C5012	F1H1H102B047	1000pF 50V	1	
	C5019	F2G1C1010040	100uF 16V	1	
	C5020	F1H0J1060006	10uF 6.3V	1	
	C5021	F1H0J1060006	10uF 6.3V	1	
	C5022	F1G1H472A571	4700pF 50V	1	
	C5023	F1G1H472A571	4700pF 50V	1	
	C5023	F1H1H104B047	0.1uF 50V	1	
	C5024	F1H1H680B052	68pF 50V	1	
	C5025	F1J1A106A043	10uF 10V	1	
	C5026	F1H1H103B047	0.01uF 50V	1	
	C5027	F1J1A106A043	10uF 10V	1	
	C5028	F1H1C104A178	0.1uF 16V	1	
	C5029	F1H1C104A178	0.1uF 16V	1	
	C6003	F1H1H104B047	0.1uF 50V	1	
	C6004	F1H1H104B047	0.1uF 50V	1	
	C6005	F1H1H104B047	0.1uF 50V	1	
	C6006	F1H1H102B047	1000pF 50V	1	
	C6007	F1J1A106A043	10uF 10V	1	
	C6801	F1H1A105A113	1uF 10V	1	
	C6802	F1J1V1050001	1uF 35V	1	
	C6803	F1H1E105A153	1uF 25V	1	
	C6804	F1H1E105A153	1uF 25V	1	
	C6805	F1J1E105A287	1uF 25V	1	
	C6807	F1H1E105A153	1uF 25V	1	
	C6808	F1H1E105A153	1uF 25V	1	
	C6813	F1J1V1050001	1uF 35V	1	
	C6814	F2A1H100C122	10uF 50V	1	
	C6828	F1H1A105A113	1uF 10V	1	
	C6829	F1H1H104B047	0.1uF 50V	1	
	C6830	F1H1H104B047	0.1uF 50V	1	
	C6831	F1H1H104B047	0.1uF 50V	1	
	C7001	F1H1H180B052	18pF 50V	1	HC297
	C7002	F1H1H120B052	12pF 50V	1	HC297
	C7003	F1H1H120B052	12pF 50V	1	HC297
	C7004	F1H1H104B047	0.1uF 50V	1	HC297
	C7005	F1H1H472B047	4700pF 50V	1	HC295, HC297
	C7006	F1H1H472B047	4700pF 50V	1	HC295, HC297
	C7020	F1J1A106A043	10uF 10V	1	HC297
	C7021	F1H0J1060006	10uF 6.3V	1	HC297
	C7022	F1J1A106A043	10uF 10V	1	HC297

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C7025	F1J1A106A043	10uF 10V	1	HC297
	C7026	F1H1A105A113	1uF 10V	1	HC297
	C7027	F1H1H104B047	0.1uF 50V	1	HC297
	C7028	F1H1H104B047	0.1uF 50V	1	HC297
	C7029	F1H1H180B052	18pF 50V	1	HC297
	C7031	F1J1A106A043	10uF 10V	1	HC297
	C7032	F1H1H102B047	1000pF 50V	1	HC295, HC297
	C7033	F1H1H103B047	0.01uF 50V	1	HC297
	C7231	F1H1H104B047	0.1uF 50V	1	HC295, HC297
	C7232	F1H1A105A113	1uF 10V	1	HC295, HC297
	C7233	F1H1A105A113	1uF 10V	1	HC295, HC297
	C7234	F1H1H104B047	0.1uF 50V	1	HC295, HC297
	C8000	F1H1C104A178	0.1uF 16V	1	
	C8001	F1H1C104A178	0.1uF 16V	1	
	C8002	F1H1C104A178	0.1uF 16V	1	
	C8003	F1H1C104A178	0.1uF 16V	1	
	C8004	F1G1C104A077	0.1uF 16V	1	
	C8005	F1H1H101B052	100pF 50V	1	
	C8006	F1H1H101B052	100pF 50V	1	
	C8007	F1H0J1060006	10uF 6.3V	1	
	C8008	F1G1C104A077	0.1uF 16V	1	
	C8009	F1H0J1060006	10uF 6.3V	1	
	C8010	F1G1H472A571	4700pF 50V	1	
	C8011	F1H1H472B047	4700pF 50V	1	
	C8013	F1H1H472B047	4700pF 50V	1	
	C8015	F1H1H102B047	1000pF 50V	1	
	C8016	F1H1H681B052	680pF 50V	1	
	C8017	F1J1A106A043	10uF 10V	1	
	C8018	F1H1C104A178	0.1uF 16V	1	
	C8018	F1H1H103B047	0.01uF 50V	1	
	C8019	F1H1A105A113	1uF 10V	1	
	C8019	F1J1A106A043	10uF 10V	1	
	C8020	F1H0J1060006	10uF 6.3V	1	
	C8020	F1H1C104A178	0.1uF 16V	1	
	C8021	F1H1C104A178	0.1uF 16V	1	
	C8022	F1H1A335A083	3.3uF 10V	1	
	C8023	F1H1C224A178	0.22uF 16V	1	
	C8024	F1H1C104A178	0.1uF 16V	1	
	C8025	F1H0J1060006	10uF 6.3V	1	
	C8026	F1H1H223B047	0.022uF 50V	1	
	C8029	F1H1C104A178	0.1uF 16V	1	
	C8030	F1H1C104A178	0.1uF 16V	1	
	C8031	F1H1C104A178	0.1uF 16V	1	
	C8032	F1H0J1060006	10uF 6.3V	1	
	C8033	F1H1C104A178	0.1uF 16V	1	
	C8034	F1H0J1060006	10uF 6.3V	1	
	C8035	F1H1C104A178	0.1uF 16V	1	
	C8036	F1H0J1060006	10uF 6.3V	1	
	C8037	F1G1H102A834	1000pF 50V	1	HC295, HC297
	C8038	F1H1H101B052	100pF 50V	1	
	C8039	F1H1H240A831	24pF 50V	1	
	C8040	F1H1H270B052	27pF 50V	1	
	C8041	F1H1H120B052	12pF 50V	1	
	C8042	F1H1H120B052	12pF 50V	1	
	C8043	F1H1H104A783	0.1uF 50V	1	
	C8044	F1H1H222B047	2200pF 50V	1	
	C8045	F1H1H222B047	2200pF 50V	1	
	C8047	F1G1H101A834	100pF 50V	1	
	C8048	F1G1H101A834	100pF 50V	1	
	C8049	F1G1H101A834	100pF 50V	1	
	C8050	F1G1H101A834	100pF 50V	1	
	C8051	F1G1H101A834	100pF 50V	1	
	C8052	F1G1H101A834	100pF 50V	1	HC295, HC297
	C8053	F1G1H101A834	100pF 50V	1	HC295, HC297
	C8054	F1G1H101A834	100pF 50V	1	HC295, HC297

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C8056	F1G1H101A834	100pF 50V	1	HC295, HC297
	C8057	F1G1H101A834	100pF 50V	1	HC295, HC297
	C8058	D0GB103JA065	10K 1/10W	1	
	C8059	F1H1H470B052	47pF 50V	1	HC297
	C8060	F1H1C224A178	0.22uF 16V	1	
	C8153	F1H1A105A113	1uF 10V	1	HC297
	C8154	F1H1A105A113	1uF 10V	1	HC297
	C8158	F1H1H470B052	47pF 50V	1	HC297
	C8159	F1H1H330B052	33pF 50V	1	HC297
	C8160	F1H1H104B047	0.1uF 50V	1	
	C8161	F1H1H104B047	0.1uF 50V	1	
	C8162	F1H1H104B047	0.1uF 50V	1	
	C8163	F1H1H103B047	0.01uF 50V	1	HC295, HC297
			SERVICE FIXTURE AND TOOLS		
	SFT1	REE1978	24P FFC (MAIN - CD INTERFACE)	1	
	SFT2	REX1538	7P WIRE (MAIN - SMPS)	1	

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