

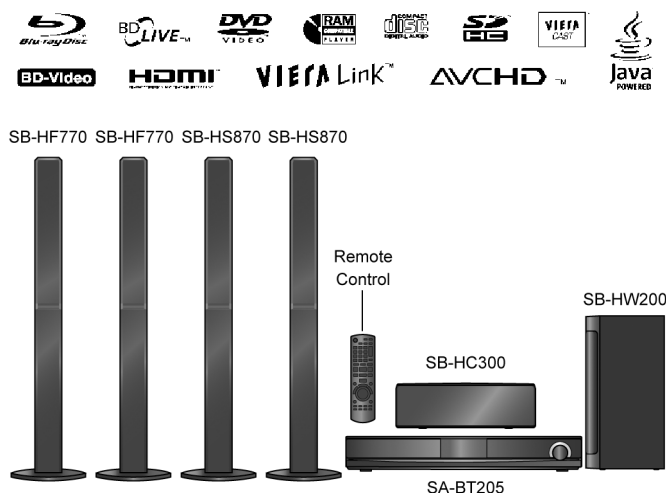
Service Manual

Blu-ray Disc Home Theater Sound System

Model No. **SA-BT205GA**
SA-BT205GS

Vol.1

Product Color: (K)...Black Type



Notes: These model's BD Drive/Digital P.C.B. Module are - RFKNBT200GA (For GA);
- RFKNBT200GS (For GS).

Caution:

Pairing of BD Drive and Digital P.C.B. as "BD Drive/Digital P.C.B. Kit Assembly" have to be replaced together. If the either BD Drive or Digital P.C.B. is changed, BD Drive unit has to be re-aligned. Because the alignment data for BD Drive Unit is stored in Digital P.C.B.

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. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, carry out the following leakage current checks to prevent the customer from being exposed to shock hazards.

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.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

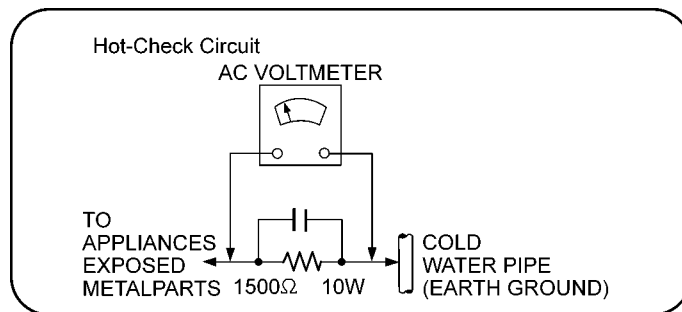


Figure 1

1.2. Safety Precaution for AC Power Supply Cord (For GS only)

For Saudi Arabia and Kuwait

(GS area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

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

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

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

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

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

CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as stated below.

If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral, Brown: Live.

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL  OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF KEEP DRY.

Before use

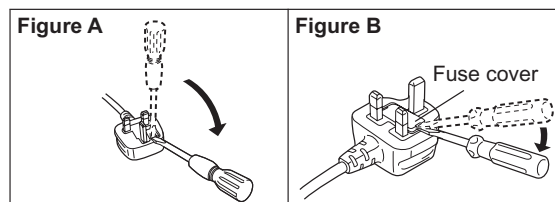
Remove the connector cover.

How to replace the fuse

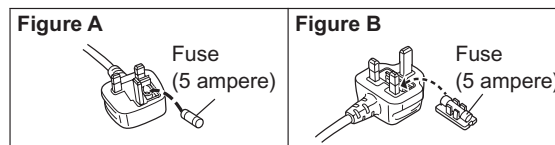
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.



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



1.3. Before Use

Be sure to disconnect the mains cord before adjusting the voltage selector.

Use a minus(-) screwdriver to set the voltage selector (on the rear panel) to the voltage setting for the area in which the unit will be used. (If the power supply in your area is 117V or 120V, set to the "117V or 120V" position.)

Note that this unit will be seriously damaged if this setting is not made correctly. (There is no voltage selector for some countries, the correct voltage is already set.)

1.4. Before Repair and Adjustment

Disconnect AC power to discharge unit AC Capacitors as such (C5700, C5701, C5702, C5703, C5704, C5705, C5706) through a 10 Ω , 10 W 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 240 V, 50 Hz in NO SIGNAL mode volume minimal should be ~ 900 mA.

1.4.1. Caution for fuse replacement

CAUTION:

i) Replace with the same type fuse:
(Manufacturer: LITTELFUSE, INC, Type: 233, F1, 8A, 125V)

ii) Replace with the same type fuse:
(Manufacturer: LITTELFUSE, INC, Type: 392, F2, 1.6A, 250V)

1.5. 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.

1.6. Safety Parts Information

Safety Parts List:

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

These parts are marked by (⚠) in the Schematic Diagrams & 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
⚠	25	RGR0392C-E1A	REAR PANEL	GS
⚠	25	RGR0392C-F2A	REAR PANEL	GA
⚠	41	RKMX0141-1K2	TOP CABINET	
⚠	69	RFKNBT200GA	BD DRIVE / DIGITAL P.C.B ASS'Y	GA
⚠	69	RFKNBT200GS	BD DRIVE / DIGITAL P.C.B ASS'Y	GS
⚠	75	REE1510	RED WIRE (AC-SMPS)	
⚠	76	REE1511	BLACK WIRE (AC-SMPS)	
⚠	84	REE1518	WHITE WIRE (VOLTAGE SELECT-SMPS)	
⚠	85	REE1517	BLUE WIRE (VOLTAGE SELECT-SMPS)	
⚠	A2	K2CP2CA000001	AC CORD	GA
⚠	A2	K2CQ2CA000007	AC CORD	
⚠	A2	K2CZ3YY000005	AC CORD	GS
⚠	A3	RQT9450-L	O/I BOOK	
⚠	A3	RQT9453-G	O/I BOOK	GS
⚠	A3	RQT9454-K	O/I BOOK (Cn)	GA
⚠	PCB8	REP4505C	SMPS P.C.B.	(RTL)
⚠	PCB9	REP4505C	AC INLET P.C.B.	(RTL)
⚠	PCB10	REP4505C	VOLTAGE SELECTOR P.C.B.	(RTL)
⚠	PCB11	RFKB4550B	DIGITAL P.C.B.	(RTL)
⚠	DZ5701	ERZV10V511CS	ZNR	
⚠	S5701	K0ABCA0000007	SW VOLTAGE SELECTOR	
⚠	L5701	ELF15N035AN	LINE FILTER	
⚠	L5702	ELF22V025A	LINE FILTER	
⚠	L5703	ELF22V025A	LINE FILTER	
⚠	T5701	ETS42BM1F6AC	MAIN TRANSFORMER	
⚠	T5751	ETS19AB2A6AG	BACKUP TRANSFORMER	
⚠	T7001	G4D1A00000117	SWITCHING TRANSFORMER	
⚠	PC5702	B3PBA00000402	PHOTO COUPLER	
⚠	PC5720	B3PBA00000402	PHOTO COUPLER	
⚠	PC5799	B3PBA00000402	PHOTO COUPLER	
⚠	RY701	K6B1AEA000003	RELAY	
⚠	F1	K5D402BK00007	FUSE	
⚠	F2	K5G162B000016	FUSE	
⚠	IP7001	K5H7512A00010	PROTECTOR	
⚠	TH5702	D4CAA5R10001	THERMISTOR	
⚠	P5701	K2AA2B0000017	AC INLET	
⚠	C5700	F1BAF471A013	470pF	
⚠	C5701	ECQU2A104MLC	0.1uF	
⚠	C5702	ECQU2A104MLC	0.1uF	
⚠	C5703	ECQU2A104MLC	0.1uF	
⚠	C5704	F1BAF471A013	470pF	
⚠	C5706	F1BAF471A013	470pF	

2 Warning

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

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor “chip” components. The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-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).

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.

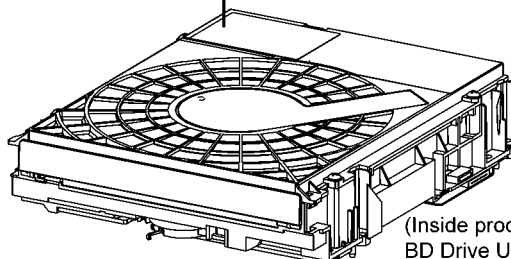
Maximum output radiation power from pickup: 100 μ W/VDE

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.



(Side of product)



(Inside product on BD Drive 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 Precautions for BD Drive 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.

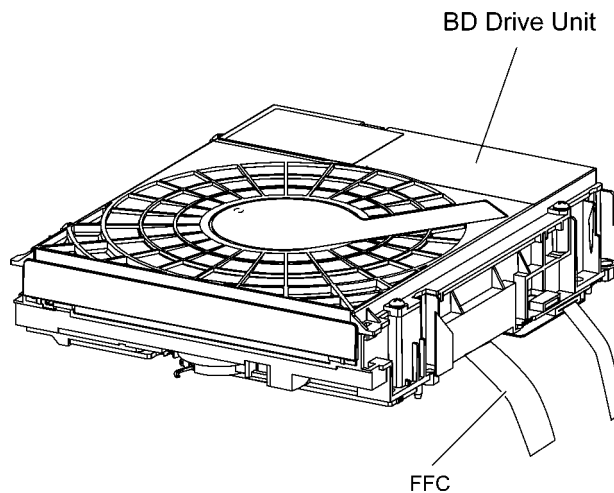


Figure 1

2.4.1. Grounding for electrostatic breakdown prevention

Some devices such as the DVD 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.

2.4.1.1. Worktable grounding

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

2.4.1.2. Human body grounding

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

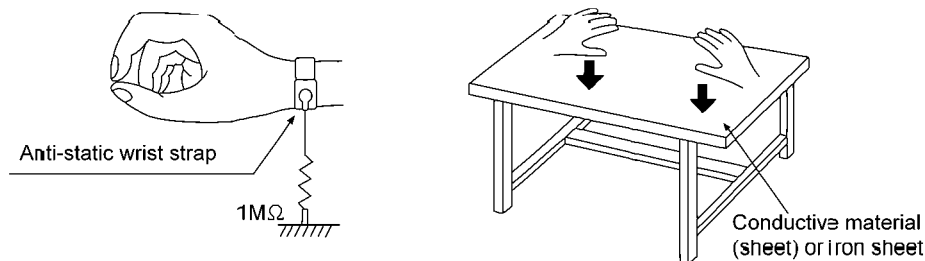


Figure 2

3 Service Navigation

3.1. Service Information

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

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

- **Micro-processor & EEPROM IC:**

1) The following components are assembled part (with download firmware).

- Micro-processor IC, IC100 (BT205GA: RFKWMBT205GA)
(BT205GS: RFKWMBT205GS)

- EEPROM IC, IC105 (BT205GA: RFKWMBT205GA)
(BT205GS: RFKWMBT205GS)

- **Speaker system**

1) For information, please refer to original service manual,
- SB-BT205EB (Order No. PSG0905009CE).

- **Wireless system**

1) This model supports wireless surround (SH-FX70GC).

2) For more information of wireless system, please refer to the original Service Manual, SH-FX70GC (Order No. PSG0902025CE).

- **BD Drive / Digital P.C.B.**

1) This service manual does not contain the following information, because of the impossibility of servicing at component level.

- Schematic Diagram, Block Diagram and P.C.B. layout of BDP/Digital P.C.B. Module.
- Parts List for individual parts of BDP/Digital P.C.B. Module.
- Exploded View and Parts List for individual parts of BDP/Digital P.C.B. Module.

2) The following category are recycle module part. Please send them to Central Repair Center.

- BDP/Digital P.C.B. Module (BT205GA : RFKNBT200GA)
(BT205GS : RFKNBT200GS)

4 Specifications

Main unit SA-BT205GA/GS

●GENERAL

Power supply: AC 110 V to 127 V,
AC 220 V to 240 V, 50/60 Hz

iPod Connector: DC OUT 5V 500mA Max

Power consumption: 120 W

Power consumption in standby mode: approx. 0.3 W

Dimensions (W×H×D): 430 mm×63 mm×327 mm

Mass: Approx 3.7 kg

Operating temperature range: 0 °C to +40 °C

Operating humidity range: 35 % to 80 % RH
(no condensation)

●AMPLIFIER SECTION

RMS TTL Power Output: 1000 W

Front Ch: 125 W per channel (3 Ω), 1 kHz, 10% THD

Surround Ch: 125 W per channel (3 Ω), 1 kHz, 10% THD

Center Ch: 250 W per channel (3 Ω), 1 kHz, 10% THD

Subwoofer Ch: 250 W per channel (3 Ω), 100 Hz, 10% THD

DIN TTL Power Output: 470 W

Front Ch: 65 W per channel (3 Ω), 1kHz, 1.0% THD

Surround Ch: 65 W per channel (3 Ω), 1kHz, 1.0% THD

Center Ch: 105 W per channel (3 Ω), 1kHz, 1.0% THD

Subwoofer Ch: 105 W per channel (3 Ω), 1kHz, 1.0% THD

Audio input

AUX x1

Digital audio input

Optical digital input: x2

Sampling frequency: 32 kHz, 44.1 kHz, 48 kHz

Audio Format: PCM, Dolby Digital

●FM TUNER SECTION

Frequency Modulation (FM)

Frequency range: 87.50-108.00 MHz (50-kHz step)

Antenna terminals: 75 Ω (unbalanced)

●NETWORK SECTION

Ethernet 10BASE-T/100BASE-TX (1 system)

●DISC SECTION

Playable disc:

BD-Video:BD-ROM Version 2

BD-RE: Version 3 (Single Layer, Dual Layer), JPEG^{*6}

BD-R: Version 2 (Single Layer, Dual Layer)

DVD-RAM: DVD Video Recording format, AVCHD format^{*7}, JPEG^{*4}

DVD-R/DVD-R DL: DVD Video format^{*1}, DVD-Video Recording format^{*1}, AVCHD format^{*1,7}, JPEG^{*4}, MP3

DVD-RW: DVD Video format^{*1}, DVD-Video Recording format^{*1}, AVCHD format^{*1,7}

+R/+RW/+R DL: Video^{*1}, AVCHD format^{*1,7}

DVD-Video: DVD-Video format

CD-Audio:

CD-DA

CD-R/CD-RW:

CD-DA, JPEG^{*5}, MP3

Optical Pick up

Wave length: System with 2 lenses
790 nm (CDs)/650 nm (DVDs)/
405 nm (BDs)

LASER Specification:

Class 1 LASER Product

Wave length: 790 nm (CDs)/650 nm (DVDs)/
405 nm (BDs)

Laser power:

No hazardous radiation is emitted with the safety protection

●SD CARD SECTION

SD card slot: Connector (1 system)

SD card: SD Memory Card^{*2} formatted FAT12, FAT16,
FAT32^{*3}:JPEG^{*4}, AVCHD format^{*7}, MPEG2
•Usable capacity will be less (SD Card)

●USB DEVICE SECTION

USB slot: Connector (1 system)

USB Standard:USB 2.0 High Speed MP3, JPEG^{*4}

Format: FAT12, FAT16, FAT32

*1 Finalizing is necessary

*2 Include SDHC card

Include miniSD cards (need a miniSD Adaptor)
Include microSD cards (need a microSD Adaptor)

*3 Does not support long file name

*4 The total combined maximum number of recognizable picture contents and folder: 3000 picture contents and 300 folders.

*5 The total combined maximum number of recognizable picture contents and folder: 999 picture contents and 99 folders.

*6 The total combined maximum number of recognizable picture contents and folder: 9999 picture contents and 300 folders.

*7 AVCHD format V1.0

●VIDEO SECTION

Signal system: PAL/NTSC

Video output

Output level: 1.0 Vp-p (75 Ω)

Output connector: Pin jack (1 system)

Component video output (1080i/720p/480p/480i)

Y output level: 1 Vp-p (75 Ω)

P_B output level: 0.7 Vp-p (75 Ω)

P_R output level: 0.7 Vp-p (75 Ω)

Output connector: Pin Jack (Y: green, P_B: blue,
P_R: Red) (1 system)

HDMI AV output

Output format: 480p (525p)/576p (625p)/1080i (1125i)/720p (750p)/
1080p(1125p)

Output connector: Type A (19 pin)

HDMITM:

(V.1.3a with Deep Color, x.v.ColorTM, High Bit rate Audio)

HDAVI Control:

This unit supports "HDAVI Control 4" function.

Note:

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

Solder:

This model uses lead free solder (PbF).

Wireless Features:

This Model supports wireless surround (e.g:SH-FX70)

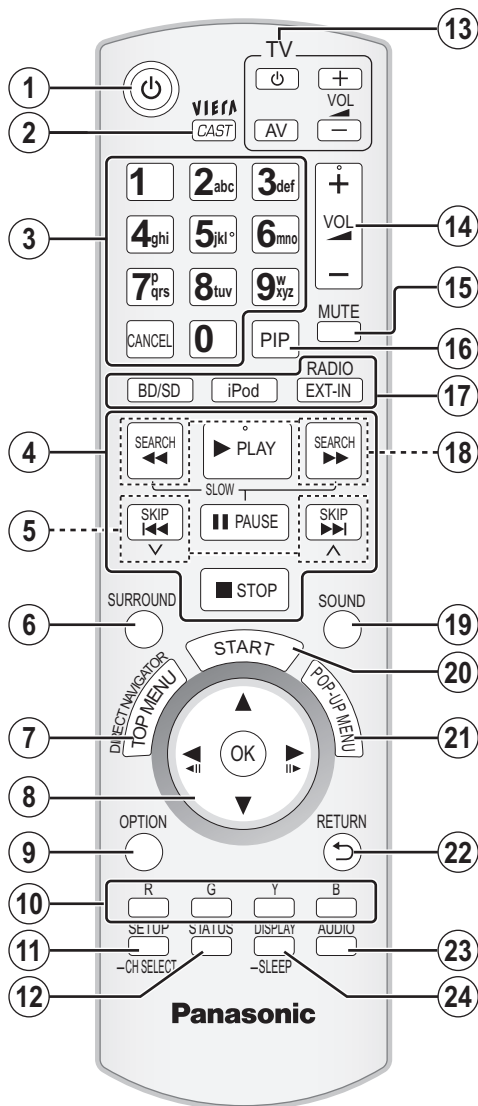
System	SC-BT205GA/GS-K
Main unit	SA-BT205GA/GS-K
Front speakers	SB-HF770P *1
Surround speakers	SB-HS870EG *1
Center speaker	SB-HC300P *1
Subwoofer	SB-HW200P *1

Refer to their respective original service manuals for *1.

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U.S. Patent Nos. 6,836,549; 6,381,747; 7,050,698; 6,516,132; and 5,583,936.
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HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
This product is licensed under the AVC patent portfolio license and VC-1 patent portfolio license for the personal and non-commercial use of a consumer to (i) encode video in compliance with the AVC Standard and VC-1 Standard ("AVC/VC-1 Video") and/or (ii) decode AVC/VC-1 Video that was encoded by a consumer engaged in a personal and non-commercial activity and/or was obtained from a video provider licensed to provide AVC/VC-1 Video. No license is granted or shall be implied for any other use. Additional information may be obtained from MPEG LA, LLC. See http://www.mpegla.com .
HDAVI Control™ is a trademark of Panasonic Corporation.
"x.v.Color" is trademark.
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EZ Sync™ is a trademark of Panasonic Corporation.
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"Blu-ray Disc" is trademark.
"BD-LIVE" logo is trademark of Blu-ray Disc Association.
"BONUSVIEW" is trademark of Blu-ray Disc Association.

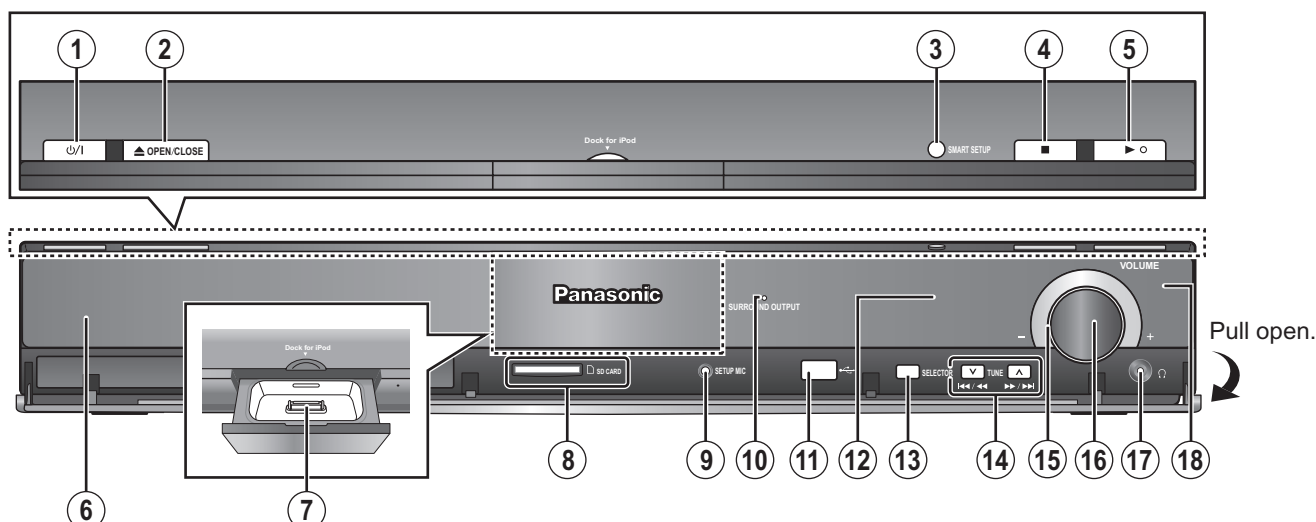
5 Location of Controls and Components

5.1. Remote Control Key Button Operations



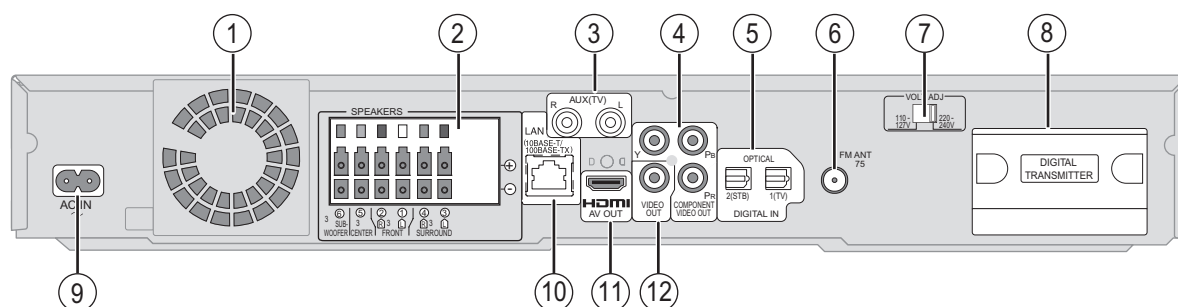
- ① Turn the unit on and off
- ② Display Home screen of VIERA CAST
- ③ Select title numbers, etc./Enter numbers or characters
[CANCEL]: Cancel
- ④ Basic playback control buttons
- ⑤ Select preset radio stations
- ⑥ Select surround sound effects
- ⑦ Show Top menu/Direct Navigator
- ⑧ [▲, ▼, ◀, ▶]: Menu selection
[OK]: Selection
[◀, ▶]: Select preset radio station
[◀◀] (◀◀), [▶▶] (▶▶): Frame-by-frame
- ⑨ Show OPTION menu
- ⑩ [R], [G], [Y], [B]
These buttons are used when;
 - Operating a BD-Video disc that includes Java™ applications (BD-J). For more information about operating this kind of disc, please read the instructions that came with the disc.
 - Displaying "Title View" and "Album View" screens.
 - Operating contents of VIERA CAST
- ⑪ Show Setup menu/Select speaker channel
- ⑫ Show status messages
- ⑬ TV operation buttons
You can operate the TV through the unit's remote control.
[⏻]: Turn the television on and off
[AV]: Switch the input select
[+ - VOL]: Adjust the TV volume
- ⑭ Adjust the volume of the main unit
- ⑮ Mute the sound
- ⑯ Switch on/off Secondary Video (Picture-in-picture)
- ⑰ Select the source
[BD/SD]: Select disc drive or SD card drive
[iPod]: Select iPod as the source
[RADIO/EXT-IN]: Select FM tuner, USB or external audio as the source
- ⑱ Select radio stations manually
- ⑲ Set the sound mode
- ⑳ Show start menu
- ㉑ Show Pop-up menu
- ㉒ Return to previous screen
- ㉓ Select audio
- ㉔ Show on-screen menu/Set the sleep timer

5.2. Main Unit Key Button Operations



- | | |
|---|---|
| <p>① Standby/on switch (⏻/⏻)
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.</p> <p>② Open or close the disc tray</p> <p>③ SMART SETUP button</p> <p>④ Stop</p> <p>⑤ Start play</p> <p>⑥ Disc tray</p> <p>⑦ Connect iPod</p> <p>⑧ SD card slot</p> <p>⑨ Connect Auto speaker setup microphone</p> <p>⑩ The indicator lights when there is surround sound effect.</p> <p>⑪ USB port</p> <p>⑫ Display</p> | <p>⑬ Select the source
BD/DVD → SD → IPOD → FM → USB → AUX → D-IN 1 → D-IN 2</p> <p>“SD” and “USB” on the unit’s display is not displayed when the SD card or USB is not in the SD card slot or USB port.</p> <p>⑭ Skip or slow-search play/Select the radio stations</p> <p>⑮ Volume indicator
It is possible to set the indicator to turn on/off.</p> <p>⑯ Adjust the volume of the main unit</p> <ul style="list-style-type: none"> • When pulled hard, the volume knob may come off. • To prevent children from swallowing the volume knob, do not pull off the volume knob. <p>⑰ Connect headphones (not included)</p> <p>⑱ Remote control signal sensor</p> |
|---|---|

Rear panel terminals



- | | |
|---|--|
| <p>① Cooling fan</p> <p>② SPEAKERS terminal</p> <p>③ AUX (TV) terminal
This terminal can also be used for equipment other than the TV.</p> <p>④ COMPONENT VIDEO OUT terminal</p> <p>⑤ OPTICAL DIGITAL IN terminals
Terminal 1(TV) is designated for connection with the TV.
Terminal 2(STB) can be used for connection with devices other than the STB.</p> | <p>⑥ FM Radio antenna terminal</p> <p>⑦ Voltage Selector</p> <p>⑧ Digital transmitter dock</p> <p>⑨ AC IN terminal</p> <p>⑩ LAN port</p> <p>⑪ HDMI AV OUT terminal</p> <p>⑫ VIDEO OUT terminal</p> |
|---|--|

5.3. Using BD-LIVE or BONUSVIEW in BD-Video

BD-V

What is BONUSVIEW?

BONUSVIEW allows you to enjoy functions such as picture-in-picture or secondary audio etc., with BD-Video supporting BD-ROM Profile 1 version 1.1/ Final Standard Profile.

What is BD-Live?

In addition to the BONUSVIEW function, BD-Video supporting BD-ROM Profile 2 that has a network extension function allows you to enjoy more functions such as subtitles, exclusive images and online games by connecting this unit to the Internet. In order to use the Internet feature, you must have this unit connected to a broadband network

- These discs may not be on sale in certain regions.
- The usable functions and the operating method may vary with each disc, please refer to the instructions on the disc and/or visit their website.

Playing secondary video (picture-in-picture) and secondary audio

Secondary video can be played from a disc compatible with the picture-in-picture function. For the playback method, refer to the instructions for the disc.

To turn on/off secondary video

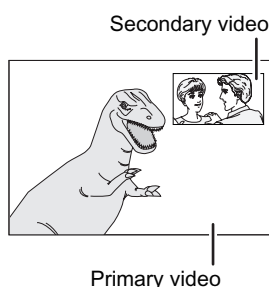
Press [PIP].

Secondary video is played.

- Press the button to turn it ON and OFF.

To turn on/off secondary audio

Set **S**oundtrack in **S**econdary Video to **O**n or **O**ff



- Discs may not always be played back according to the settings on this unit, as certain playback formats are prioritized on certain discs.
- Only the primary video is played during search/slow-motion or frame-by-frame.
- When BD-Video Secondary Audio in Digital Audio Output is set to Off, secondary audio will not be played. Please check that BD-Video Secondary Audio is set to On
- When the secondary video is turned off, the secondary audio is not played.

Enjoying BD-Live discs with Internet

Many BD-Live compatible discs require content to be downloaded onto an SD card in order to access the available BD-Live features.

- An SD card with 1 GB or more of free space (SD Speed Class Rating 2 or higher) needs to be inserted prior to inserting the BD-Live compatible disc.

Some BD-Live content available on the Blu-ray discs may require an Internet account to be created in order to access the BD-Live content. Follow the screen display or instruction manual of the disc for information on acquiring an account.

Preparation

- Connect to the network.

① Insert an SD card

- If the SD card menu screen is displayed, press [BD/SD], select BD/DVD.

② Insert the disc

- For operation method, refer to the instructions on the disc.

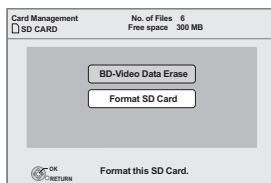
To use the above functions, it is recommended that you format the card on this unit.

Format the card using the following procedures.

Formatting SD cards/Deleting data

It is impossible to restore data after formatting the card or erasing the data. Once a card is formatted, all data including those recorded on the PC is erased as well, even if the data were protected with other equipment. Confirm whether the card can be formatted.

- 1) Insert an SD card
- 2) Press [START].
- 3) Press [▲, ▼] to select To Others and press [OK].
- 4) Press [▲, ▼] to select Card Management and press [OK].
- 5) Press [▲, ▼] to select BD-Video Data Erase or Format SD Card and press [OK].
- 6) Press [◀, ▶] to select Yes and press [OK].
- 7) Press [◀, ▶] to select Start and press [OK].



- While using this feature, do not remove the SD card. Doing so will cause playback to stop.
- A message may be displayed when SD card doesn't have enough storage capacity for BD-Live content. Please make space available on the current SD card, or insert another SD card.
- For details about usable cards, refer to Media (Disc, card and USB device) information
- The unit must be connected to the Internet and set up to use the BD-Live functions. BD-Live Internet Access may need to be changed for certain discs
- When discs supporting BD-Live are played back, the player or disc IDs may be sent to the content provider via the Internet. You can restrict Internet access
- The unit is connected to the Internet when BD-Live functions are used, generating communication charges.
- The playback may be paused depending on the communication environment. Some functions may be disabled to prevent skipping to sections that have not been downloaded, etc.

5.4. Using the iPod

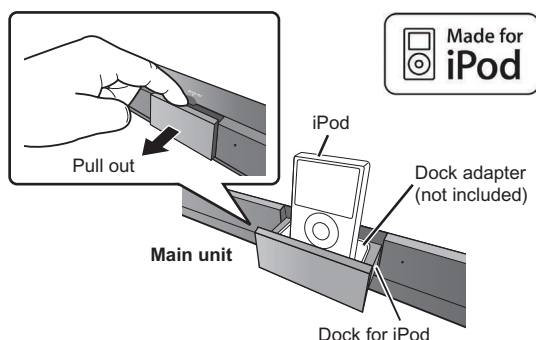
You can enjoy iPod music through this unit's speakers or view iPod videos/photos on the TV.

iPod Connection

Preparation

- **To view photos/videos from the iPod**
 - Ensure the video connection to the VIDEO OUT terminal on this unit
 - Operate the iPod menu to make the appropriate photo/video output settings for your TV. (Refer to operating instructions of your iPod.)
- To display the picture, turn on the TV and select the appropriate video input mode.
- Before connecting/disconnecting the iPod, turn the main unit off or reduce the volume of the main unit to its minimum.

1 Open the Dock for iPod.



- Hold the dock when connecting/disconnecting the iPod.

2 Connect the iPod (not included) firmly.

Recharging starts when the iPod is inserted.

While an iPod is connected

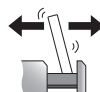
- Do not push the Dock for iPod.

DO NOT



- Do not push or pull your iPod back and forth with great force.

DO NOT



Compatible iPod

Name	Memory size
iPod touch 2nd generation	8 GB, 16 GB, 32 GB
iPod nano 4th generation (video)	8 GB, 16 GB
iPod classic	120 GB
iPod touch 1st generation	8 GB, 16 GB, 32 GB
iPod nano 3rd generation (video)	4 GB, 8 GB
iPod classic	80 GB, 160 GB
iPod nano 2nd generation (aluminum)	2 GB, 4 GB, 8 GB
iPod 5th generation (video)	60 GB, 80 GB
iPod 5th generation (video)	30 GB
iPod nano 1st generation	1 GB, 2 GB, 4 GB
iPod 4th generation (colour display)	40 GB, 60 GB
iPod 4th generation (colour display)	20 GB, 30 GB
iPod 4th generation	40 GB
iPod 4th generation	20 GB
iPod mini	4 GB, 6 GB



About dock adapter

- Attach the dock adapter which should be supplied with your iPod to the dock for the stable use of the iPod.
- If you need an adapter, consult your iPod dealer.

About recharging the battery

- iPod will start recharging regardless of whether this unit is on or off.
- "IPOD*" will be shown on the main unit's display during iPod charging in main unit standby mode.
- Check iPod to see if the battery is fully recharged.
- If you are not using iPod for an extended period of time after recharging has completed, disconnect it from main unit, as the battery will be depleted naturally. (Once fully recharged, additional recharging will not occur.)



- Compatibility depends on the software version of your iPod.
- Audio/video cannot be recorded or transmitted to iPods via this system.
- Panasonic makes no warranty for iPod data management.

- **For more information, refer to the operating instructions for iPod.**
- The contents of the operating instructions and those displayed on iPod may differ partially, but this will not fundamentally affect use of playback.



■ To use the iPod touch features

- ① Press the Home button on the iPod touch.
- ② Select the iPod touch features on the touch screen to operate.

iPod Playback

This system features two different iPod playback modes.

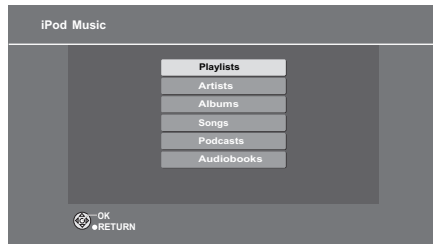
The first of these is EXTENDED mode, for playback of music and video contents. With this mode, you can operate the iPod from the main unit. The second mode is SIMPLE mode, which can be used for playback of three types of contents – music, photos, and videos. With this mode, simple operations such as play, stop, and search can be performed on the display of your iPod.

Enjoy music/video (EXTENDED mode)

① Press [iPod] to select "IPOD".

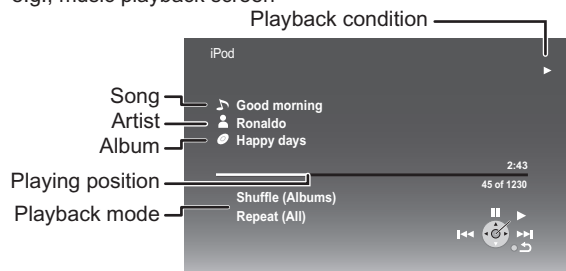
The iPod automatically switches to this unit's display mode.

- To switch the menu, press [STATUS] several times.
Music menu Video menu
iPod menu (iPod LCD)
- "MUSIC" or "VIDEOS" is displayed on the main unit.
When playing back video contents, ensure the video connection to the VIDEO OUT terminal on this unit and switch the TV input to video in.
e.g., music main menu screen



② Press [▲, ▼] to select an item and press [OK].

- Play starts from the selected song or video.
- To display the previous or next page
Press [◀, ▶].
- Press [RETURN] to return to the previous screen.
e.g., music playback screen



Clear/display iPod Music or Video menu during playback.

Press [TOP MENU/DIRECT NAVIGATOR].



NOTE

- If the Video menu (EXTENDED mode) is accessed, the video shuffle playback mode on the iPod is set to "Off" when the iPod is disconnected from the unit.

Enjoy photos (SIMPLE mode)

You can also play music and video using SIMPLE mode.

① Press [iPod] to select "IPOD".

② Press [STATUS] several times to select the iPod menu (iPod LCD).

- "ALL" is displayed on the main unit.
Proceed operations through iPod display.

③ Switch the TV input to video in.

- Ensure the video connection to the VIDEO OUT terminal on this unit

④ Play a slideshow on your iPod.

The picture will be displayed on your TV.

You can use the remote control to operate the iPod menu.

- [▲, ▼]: To navigate menu items
- [OK]: To go to the next menu.
- [RETURN]: To return to the previous menu.

The remote control operation may vary between iPod models.

Other methods of playback

While in "MUSIC" or "VIDEOS" mode, it is possible to select the following playback modes.

Items	Selection/playback method	
Play Mode	Shuffle *1	
	• Off:	Cancel
	• Songs:	Play all songs on iPod in random order.
	• Albums:	Play all songs on album in random order.
	Repeat	
	• Off:	Cancel
	• One:	Play a single song/video repeatedly.
	• All:	Play all songs/videos from selected items (e.g., Playlists, Albums, etc.) repeatedly.

*1For music playback only.

① Press [START].

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

③ Press [▲, ▼] to select "Play Mode" and then press [OK].

④ Press [▲, ▼] to select an item and press [OK].

⑤ Press [▲, ▼] to select the setting and press [OK].



NOTE

Playback modes during and after connection.

- Music playback modes set on the iPod will be maintained when connected to the main unit. Changes made while the iPod is connected to the main unit be kept on the iPod after disconnecting it.
- If the Video menu (EXTENDED mode) is accessed, the video shuffle playback mode on the iPod is set to "Off" when the iPod is disconnected from the unit.



TIPS

To return to the previous screen

Press [RETURN].

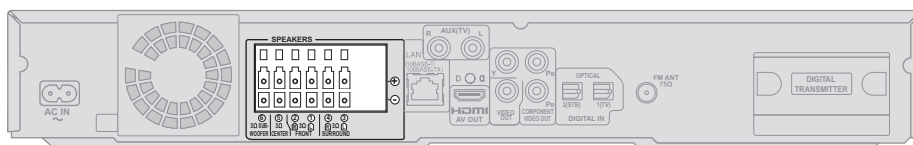
Basic controls

While playing music or video it is possible to use the following buttons of the remote control.

Buttons	Functions
[▶ PLAY]	Play
[■ STOP]	Pause
[⏸ PAUSE]	- Press [▶ PLAY] to restart play. - Playback start position may not be stored in memory in certain cases.
[SKIP: ⏮, ⏭]	Skip
(Press and hold) [SEARCH ⏮, SEARCH ⏭]	Search

- Use the controls on the iPod unit during photo playback.

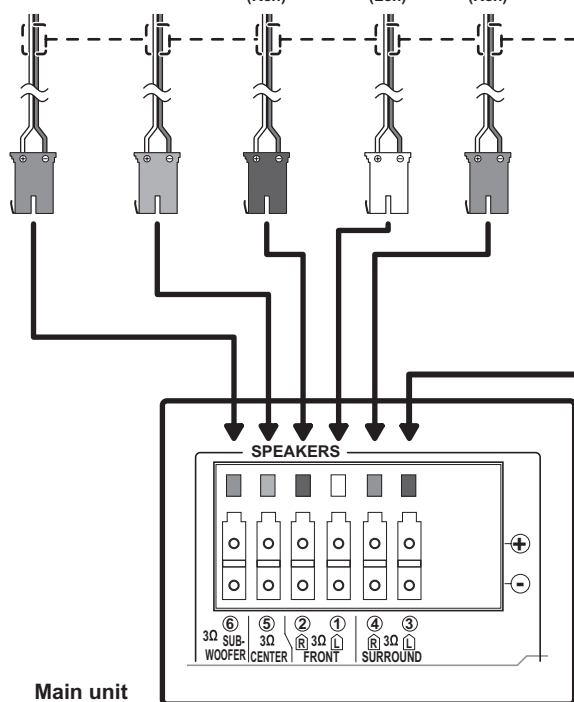
5.5. Speaker Connections



Main unit

- Don't use a front speaker as a surround speaker or vice versa. Verify the type of speaker with label on the rear label of the speaker before connecting the appropriate cable.
- Pay attention to the type of speaker and the connector colour when you place the speakers.

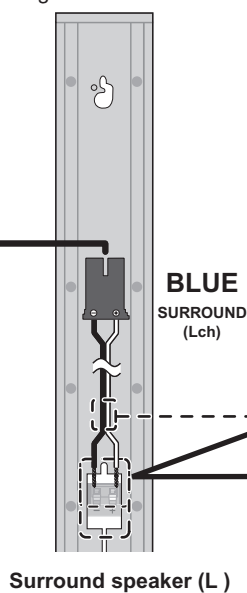
PURPLE SUBWOOFER **GREEN** CENTRE **RED** FRONT (Rch) **WHITE** FRONT (Lch) **GREY** SURROUND (Rch)



Main unit

e.g. Front speaker (L)
Speaker cable sticker (included)

e.g.



Surround speaker (L)

- Insert the wire fully, taking care not to insert beyond the wire insulation.

+ : White
- : Blue



- Be careful not to cross (short-circuit) or reverse the polarity of the speaker wires as doing so may damage the speakers.



Do not

Connect to the terminals of the same colour.

Use of the speaker cable stickers is convenient when making cable connections.

5.6. Disc, SD Card and USB device Information

5.6.1. Disc Playability (Media)

Packaged discs

This chart shows the different type of retail/commercial discs you can use, and also includes the industry-standard logos that should appear on the discs and/or packaging.

Type of media/Logo	Features	Indicated as	Type of media/Logo	Features	Indicated as
BD-Video 	High Definition (HD) movie and music discs - Discs supporting BD-Live (BD-ROM Profile 2) that allows interactive functions to be used when this unit is connected to the Internet in addition to the BONUSVIEW function.  - Discs supporting BONUSVIEW (BD-ROM Profile 1 version 1.1/Final Standard Profile) that allows Picture-in-Picture functions to be used. BONUSVIEW™	BD-V	DVD-Video  	High quality movie and music discs	DVD-V
			CD 	Compact Discs (CD's) that contain audio and music Operation and sound quality of CDs that do not conform to CD-DA specifications (copy control CDs, etc.) cannot be guaranteed.	CD

Recorded discs

This chart shows the different type of discs recorded with other devices that you can use.

Finalized This mark means you must finalize the disc with the DVD recorder, etc. before playback. For details about finalizing, refer to the operating instructions for your equipment.

Type of media/Logo	Formats	Indicated as	Type of media/Logo	Formats	Indicated as
BD-RE 	- Version 3 of the BD-RE Recording Format - JPEG format	BD-V JPEG	DVD-R DL Finalized  R DL	- DVD-Video Format - Version 1.2 of the DVD Video Recording Format - MP3 format - JPEG format - AVCHD format	DVD-V DVD-VR MP3 JPEG AVCHD
BD-R 	Version 2 of the BD-R Recording Format	BD-V	+ R/r RW/ + R DL Finalized	+VR (+R/+RW Video Recording) Format - AVCHD format	DVD-V AVCHD
DVD-RAM 	- Version 1.1 of the DVD Video Recording Format - JPEG format - AVCHD format	DVD-VR JPEG AVCHD	CD-R/RW Finalized	- CD-DA format - MP3 format - JPEG format	CD MP3 JPEG
DVD-R/RW Finalized  	- DVD-Video Format - Version 1.1 of the DVD Video Recording Format - MP3 format (DVD-RW is not supported) - JPEG format (DVD-RW is not supported) - AVCHD format	DVD-V DVD-VR MP3 JPEG AVCHD	- It may not be possible to play the above discs in some cases due to the type of discs, the condition of the recording, the recording method and how the files were created. - When a disc recorded in the AVCHD format is being played, the video may be paused for a few seconds at portions spliced, due to deletion or editing.		

SD cards

This chart shows the different type of cards recorded with other devices that you can use.

Type of media	Formats	Indicated as
SD Memory Card* (from 8 MB to 2 GB)	• JPEG format	JPEG
SDHC Memory Card (from 4 GB to 32 GB)	• AVCHD format	AVCHD
	• MPEG2 format	MPEG2

* Including miniSD Card and microSD Card

In these operating instructions, the cards shown in the table (⇒ above) are comprehensively called SD cards.

- A miniSD Card and a microSD Card must be used with the attached adaptor that comes with the card.
- When using from 4 GB to 32 GB SD cards, only SD cards that display the SDHC logo can be used.
- This unit is compatible with SD Memory Cards that meet SD Card Specifications FAT12 and FAT16



formats, as well as SDHC Memory Cards in FAT32 format.

- Useable memory is slightly less than the card capacity.
- If the SD card is formatted on a PC, you may not be able to use it on this unit.
- We recommend using a Panasonic SD card. Please confirm the latest information on the following website.
<http://panasonic.co.jp/pavc/global/cs>
(This site is in English only.)
- Keep the Memory Card out of reach of children to prevent swallowing.
- When a card recorded in the AVCHD format is being played, the video may be paused for a few seconds at portions spliced, due to deletion or edition.
- Switch the write-protect switch to the "LOCK" position to protect the content from accidental erasure.

USB device

This unit can playback pictures by connecting the USB memory recorded with a PC or similar in following formats, and Panasonic digital cameras connected via USB cable.

Type of media	Formats	Indicated as
USB device	• MP3 format	MP3
	• JPEG format	JPEG

Compatible USB devices

- USB devices which are defined as USB mass storage class.
 - USB devices that support USB 1.0/1.1 and USB 2.0 Full Speed/High Speed.
- USB devices of up to 128 GB can be used.
- USB devices that support bulk only transfer. CBI (Control/Bulk/Interrupt) is not supported.
- Digital Cameras which require additional programme installation when connected to a PC are not supported.
- MTP (Media Transport Protocol) device is not supported.

- A multi-port USB card reader is not supported.

File system

- FAT12, FAT16 and FAT32 file systems are supported.
- UDF/NTFS/exFAT file system is not supported.
- Depending on the sector size, some files may not work.
- Only the first partition on USB devices with multi-partition is supported.

Despite meeting the conditions mentioned above, there may be USB device that cannot be used with this unit.

This unit does not support USB device charging.

Regarding 24p output **BD-V**

Many BD-Video movie contents are recorded in 24 frames/second in accordance with the film materials. However, they will normally be output in 60 frames/second in accordance with the display format.

These can be output in 24p as the original. Therefore, high-quality video can be enjoyed with improved clarity, enhanced perspective, etc.

NECESSARY CONNECTIONS

- Connect to a TV supporting 1080/24p input via an HDMI cable.

NECESSARY SETTINGS

- "24p Output": "On"

Discs that cannot be played

- BD-RE with the cartridge
- 2.6 GB and 5.2 GB DVD-RAM
- 3.95 GB and 4.7 GB DVD-R for Authoring
- DVD-RAM that cannot be removed from their cartridges
- Version 1.0 of DVD-RW
- DVD-ROM, CD-ROM, CDV, SACD, Photo CD, MV-Disc and PD
- DVD-Audio
- Video CD and SVCD
- WMA discs
- DivX discs
- HD DVD
- Other discs that are not specifically supported

5.7. About MP3/JPEG/DivX files

File format	MP3	JPEG
Playable media	CD-R* ¹ , CD-RW* ¹ , DVD-R* ¹ , DVD-R DL* ¹ , USB device	CD-R* ¹ , CD-RW* ¹ , DVD-RAM* ² , DVD-R* ¹ , DVD-R DL* ¹ , BD-RE* ³ , SD card, USB device
Extension	Files must have the extension “.mp3” or “.MP3”.	Files must have the extension “.jpg” or “.JPG”.
Picture resolution	—	between 34k 34 and 8192k 8192 pixels (sub sampling is 4:2:2 or 4:2:0)
Compression rate	32 kbps to 320 kbps	—
Sampling rate	44.1 kHz/48 kHz	—
Reference	ID3 tags: version 1, 2.2, 2.3, 2.4 ID3 is a tag embedded in MP3 track to provide information about the track. This unit supports the versions listed above but only titles and the names of artists can be displayed. • If there is a large amount of still picture data etc. within a MP3 file, play may not be possible.	JPEG conforming DCF*⁴ is supported. Thawing Time: approx. 2 sec. (7M pixels) • MOTION JPEG and Progressive JPEG is not supported.

- English alphabet and Arabic numerals are displayed correctly. Other characters may not be displayed correctly.
- The display order on this unit may differ from how the order is displayed on a computer.
- Depending on how you create the media (writing software), files and folders may not play in the order you numbered them.
- Depending on how you create the structure of folders (writing software), files and folders may not play.
- This unit is not compatible with packet-write format.
- Depending on the recording conditions, the media may not play.
- Operation may take time to complete when there are many files and/or folders and some files may not display or be playable.

*1 ISO9660 level 1 or 2 (except for extended formats), Joliet

This unit is compatible with multi-session.

This unit is not compatible with packet writing.

*2 Discs must conform to UDF 2.0.

*3 Discs must conform to UDF 2.5.

*4 Design rule for Camera File system: unified standard established by Japan Electronics and Information Technology Industries Association (JEITA).

■ **Structure of folders that can play back on this unit**
 You can play files on this unit by structure of folders as shown below. However depending on the method of writing data (writing software), play may not be in the order you numbered the folders.

📁 : Folder which can be displayed with this unit

*** : Numbers

XXX: Letters

*1 *** : from 001 to 999

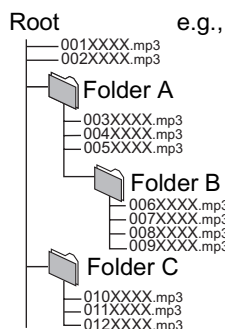
*2 *** : from 100 to 999

XXX: up to 5 figures

*3 ***** : from 0001 to 9999

Structure of MP3 folders in DVD-R/DVD-R DL/CD-R/CD-RW/USB device

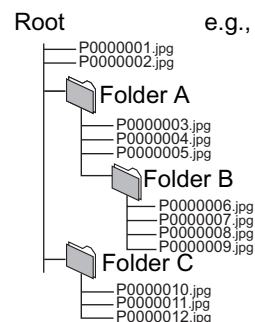
Prefix the file names with 3-digit numbers in the order you want to play them.



Structures of still picture (JPEG) folders

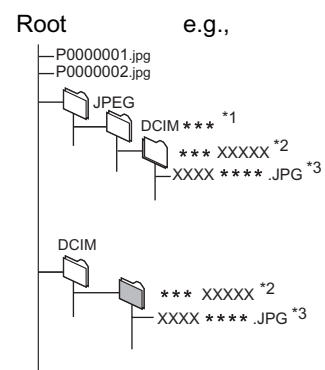
in DVD-R/DVD-R DL/CD-R/CD-RW

Files inside a folder are displayed in the order they were updated or taken.



in BD-RE/DVD-RAM

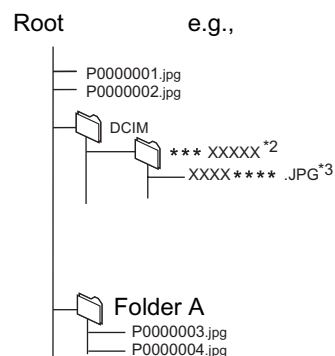
- Folder structure is not displayed.



in SD card/USB device

Displays JPEG files in all folders.

- Folder structure is not displayed.



6 Operating Instructions

6.1. Taking out the Disc from BD Drive Unit when disc cannot be ejected by OPEN/CLOSE button

6.1.1. Forcible Disc Eject

6.1.1.1. When the power can be turned off.

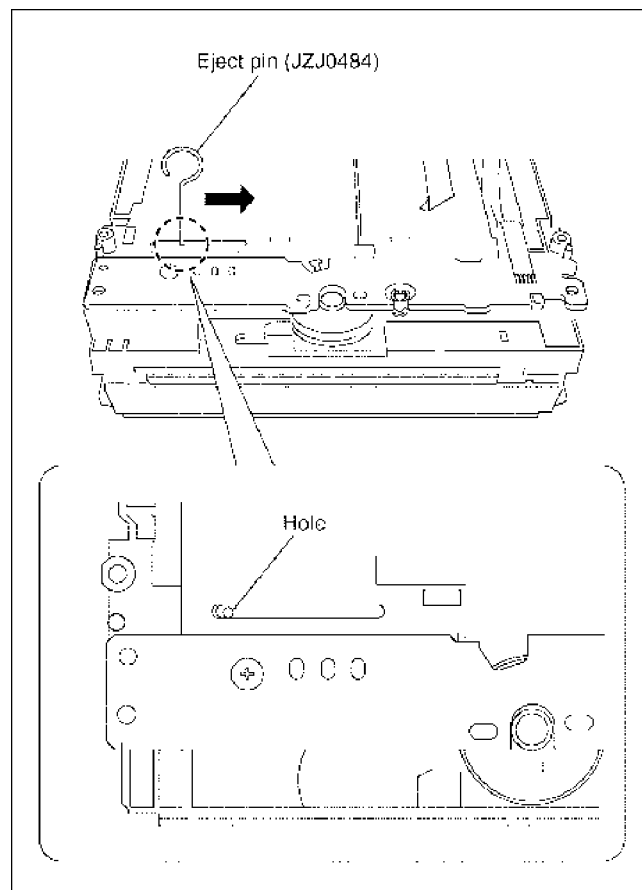
1. Turn off the power and press [SKIP FWD] and [OPEN/CLOSE] keys on the front panel simultaneously for 5 seconds.

6.1.1.2. When the power can not be turned off.

1. Press [POWER] key on the front panel for over 10 seconds to turn off the power forcibly, and press [SKIP FWD] and [OPEN/CLOSE] key on the front panel simultaneously for 5 seconds.

6.1.2. When the Forcible Disc Eject can not be done.

1. Turn off the power and pull out AC cord.
2. Remove the Top Cover.
3. Insert Eject Pin (JZJ0484) into the hole on the bottom of BD Drive and slide the Eject Pin in the direction of the arrow to eject tray slightly.



7 Self-Diagnosis and Special Mode Setting

7.1. Service Mode Summary Table

Self-Diagnosis Function provides information for error to service personnel by Self-Diagnosis Display when any error has occurred.

U, H** and F** are stored in my memory and held.**

- You can check latest error code by transmitting [0] [1] of Remote Control in Service Mode.
Automatic Display on FL will be cancelled when the power is turned off or AC input is turned off during self-diagnosis display is ON.

7.1.1. Error Code Table 1

Error Code	Diagnosis contents	Description	Monitor Display	Automatic FL display
U30	Remote control code error	Display appears when main unit and remote controller codes are not matched.	No display	SET * * is remote controller code of the main unit. Display for 5 seconds.
U59	Abnormal inner temperature detected	Display appears when the drive temperature exceeds 70 C. The power is turned off forcibly. For 30 minutes after this, all key entries are disabled. (Fan motor operates at the highest speed for the first 5 minutes. For the remaining 25 minutes, fan motor is also stopped.) The event is saved in memory as well.	No display	U59 U59 is displayed for 30 minutes.
U71	HDMI incompatible error (HDCP incompatible)	Display this error when the equipment (compatible with DVI such as TV, amplifier etc.) connected to the unit by HDMI is incompatible with HDCP. *HDCP=High-bandwidth Digital Content Protection	No display	U71
U72	HDMI connection error (communication error)	This error is displayed when there are any communication problems with the unit and the equipments (TV, amplifier etc.) connected to the unit by HDMI. (or when there is a problem with the HDMI cable)	No display	U72 U72 display disappears when error has been solved by Power OFF/ON of connecting equipment or by inserting/removing of HDMI cable.
U73	HDMI connection error (authentication error)	when authentication error occurs while the equipments (TV, amplifier etc.) are connected by HDMI. (or when there is a problem with the HDMI cable)	No display	U73 U73 display disappears when error has been solved by Power OFF/ON of connecting equipment or by inserting/removing of HDMI cable.
F99	Hang-up	Displayed when communication error has occurred between Main microprocessor and Timer microprocessor (IC7501).	No display	F99 Displayed is left until the [POWER] key is pressed.
H19	Inoperative fan motor	When inoperative fan motor is detected after powered on, the power is turned off automatically. The event is saved in memory.	No display	No display
F00	No error information	Initial setting for error code in memory (Error code Initialization is possible with error code initialization and main unit initialization.)	No display	No display
F34	Initialization error when main microprocessor is started up for program recording	When initialization error is detected after starting up main microprocessor the power is turned off automatically. The event is saved in memory.	No display	No display
F58	Drive hardware error	When drive unit error is detected, the event is saved in memory.	No display	No display
UNSUPPORT	Unsupported disc error	*An unsupported format disc was played, although the drive starts normally. *The data format is not supported, although the media type is supported. *Exceptionally in case of the disc is dirty.	This disc is incompatible.	UNSUPPORT
NO READ	Disc read error	*A disc is flawed or dirty. *A poor quality failed to start. *The track information could not be read.	Cannot read disc. Please check the disc.	NOREAD
HARD ERR	Drive error	The drive detected a hard error.	DVD drive error.	HARD ERR The character indication flows sideways.

7.1.2. Error Code Table 2

Error Code	Diagnosis contents	Description	Monitor Display	Automatic FL display
SELF CHECK	Restoration operation	Since the power cord fell out during a power failure or operation, it is under restoration operation. *It will OK, if a display disappears automatically. If a display does not disappear, there is the possibility that defective Digital P.C.B. / DVD drive.	No display	SELF CHECK
PLEASE WAIT	Unit is in termination process	Unit is in termination process now. BYE is displayed and power will be turned off.	No display	PLEASE WAIT The character indication flows sideways.
UNFORMAT	Unformatted disc error	You have inserted an unformatted DVD-RAM or DVD-RW that is unformatted or recorded on other equipment.	The disc is not formatted properly.	UNFORMAT
No PLAY	When there is a viewing restriction on a BD-Video or DVD-Video.	Rating password is set.	No display	No PLAY

7.1.3. Power Supply & Digital Amplifier Error Code Table

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F61	The abnormalities in an output or power supply circuit of POWER AMP	In normal operation, when DCDT2 goes to "L" (Low) (Not during POWER OFF condition), F61 appears on FLDisplay for 1 second and PCONT goes to "L" (Low). This is due to speaker output has DC voltage or fan is not working.	F 61	Press [■STOP] on main unit for next error.
F76	Abnormality in the output voltage of stabilized power supply	In normal operation when DCDT1 is detected "L" (Low) for two consecutive times, F76 is displayed on FL for 1 second and after that PCONT will be turned to "L" (Low). This is due to any of the DC voltages (+9V, +7V, -7V, +5V, +5.3V etc.) C22 not available.	F 76	Press [■STOP] on main unit for next error.
H19	Fan Module	Fan Module is not operating properly	H 19	Press [■STOP] on main unit for next error.

7.2. Special Mode Setting

7.2.1. Service Mode Table 1

Item		FL display	Key operation
Mode name	Description		Front Key
Initialize Mode	*All the main unit's parameters are initialized.	INITIALIZE	Press [STOP], [SKIP FWD] and [OPEN/CLOSE] keys simultaneously for five seconds when power is off.
Rating password	The audiovisual level setting password is initialized to Level 8 .	INIT	Open the tray, and press [SKIP REV] on remote control, follow by [PLAY] simultaneously for 5 seconds.
Service Mode	Setting every kind of modes for servicing. *Details are described in 7.3.1. Service Mode at a glance .	SERVICE	When the power is off, press [SKIP FWD] & [SOUND] on remote control and [PLAY] keys simultaneously for 5 seconds.
BD-ROM history cleaning	< Persistent Storage > of BD-ROM standard is cleaned. Screen display: [The player's history data has been cleared] is displayed for five seconds.	***** Same display as before execution.	When disc is not in tray. press [STOP] and [POWER] keys simultaneously for 5 seconds. When power on press [STOP] on main unit & [POWER] on remote control.
Forced disc eject	Removing a disc that cannot be ejected. The tray will open and unit will shift to P-off mode. While Demonstration Lock is being set, this Forced disc eject function is not accepted.	The display before execution leaves. *****	When power is off, press [SKIP] & [OPEN/CLOSE] keys simultaneously for 5 seconds or more.
Forced power-off	When the power button is not effective while power is ON, turn off the power forcibly.	Display in P-off mode.	Press [POWER] key over than 10 seconds.
Aging	Perform sequence of modes as * Aging Description shown below continually.	Display following the mode.	When the power is ON, press [SKIP FW], [PLAY] & [OPEN/CLOSE] simultaneously for over 5 seconds and less than 10 seconds. NOTE1: If Unit has not turned into Aging mode by operations shown above, execute TEST MODE once and re-execute operation shown above. (*All the main unit's parameters include tuner are initialized by TEST mode.) NOTE2: If the unit has hung-up because of pressing keys for over 10 seconds, once turn off the power, and re-execute this command. *When releasing Aging mode, press [POWER] key over 10 seconds.

7.2.2. Service Mode Table 2

Item		FL display	Key operation
Mode name	Description		Front Key
Demonstration lock/unlock	Ejection of the disc is prohibited. The lock setting is effective until unlocking the tray and not released by Main unit initialization of service mode.	*When lock the tray. LOCK LOCK is displayed for 3 seconds.	When the power is on, press [PLAY] and [OPEN/CLOSE] keys simultaneously for 5 seconds. Note: When a disc is not in tray, this setting is not effective.
		*When unlock the tray. UNLOCK UNLOCK is displayed for 3 seconds.	When the power is on, press [PLAY] and [OPEN/CLOSE] keys simultaneously for 5 seconds.
		*When press OPEN/CLOSE key while the tray being locked. LOCK Display LOCK for 3 seconds.	Press [OPEN/CLOSE] key while the tray is being locked.
Progressive initialization	The progressive setting is initialized to Inter-face.	The display before execution leaves. *****	When the power is on (SS mode), press [STOP] and [PLAY] simultaneously for 5 seconds.
Firmware version check	To check for main and sub firmware, model code.	FL Display (i) M-XXXX -> Main Firmware Version (ii) S-YYYY -> Sub Firmware Version (iii) AA/BB/CC -> Date (iv) ZZZZZZ -> Model No.	When the power is on, press & hold [SKIP REV] follow by [POWER].

7.3. Service Mode at glance

Service mode setting: While the power is off, press [SKIP FWD] & [PLAY] on main unit follow by [SOUND] on remote control simultaneously for five second or more.

7.3.1. Service Mode Table 1

Item		FL display	Key operation (Remote controller key)
Mode name	Description		
Release Items	Item of Service Mode executing is cancelled.	SERVICE	Press [0] [0] or [Return] in service mode.
Error Code Display	Last Error Code of U/H/F held by Timer is displayed on FL. *Details are described in 7.1.1. Self-Diagnosis Functions .	♣ □ □ * ♣ shows U/H/F. □ □ shows number. If any error history dose not exist, [F00] is displayed.	Press [0] [1] in service mode
ROM Version Display	1. Region code (displayed for 5 sec.) 2. Main firm version (displayed for 5 sec.) 3. Timer firm version (displayed for 5 sec.) 4. Drive firm version (displayed for 5 sec.) 5. ROM correction version (left displayed)	1. NO\$% \$: Region of DVD (Example: 1,2.....) %: Region of BD (Example: A,B.....) 2. ***** 3. ***** 4. ***** 5. *** * are version displays.	Press [0] [2] in service mode
Drive check	Simple quality of BD/DVD drive.	When BD/DVD drive is OK DRV OK When BD/DVD drive is NG DRV NG *If the date of the present or the trouble occurred time is incorrect, it may be not able to judge correctly.	Press [3] [8] in service mode.

7.3.2. Service Mode Table 2

Item		FL display	Key operation
Mode name	Description		(Remote controller key)
Laser Used Time Indication	Check laser used time (hours) of drive.	***** (***** is the used time display in hour. Laser used time of BD/DVD/CD in Playback/Recording mode is Counted. 1. Blu-ray Playback: BP **** 2. Blu-ray Recording: BR **** 3. DVD Playback: DP **** 4. DVD Recording: DR **** 5. CD: CD ****	Press [4] [1] in service mode.

7.3.3. Service Mode Table 3

Item		FL display	Key operation
Mode name	Description		(Remote controller key)
BD/DVD drive last error	BD/DVD drive error code display.	1. Error Number is displayed for 5 seconds. NO **** 2. Time when the error has occurred is display for 5 seconds. DDhhmm DD : Day hh : Hour mm : Minute 3. Last drive error (1/2) is displayed for 5 seconds. ***** 00 : Bad disc 03 : Bad disc 04 : Bad disc or drive malfunction 4. Last drive error (2/2) is displayed for five seconds. ***** 5. Error occurring disc type is displayed for 5 seconds. DVD-RW DVDRW CD-R CDR CD-RW CDRW DVD+R DVDPR DVD+RW DVDPRW BD-ROM BDRW	Press [4] [2] in service mode.

7.3.4. Service Mode Table 4

Item		FL display	Key operation												
Mode name	Description		(Remote controller key)												
		BD-RE BDRE BD-R BDR DVD ROM DVD CD CD RAM (2.6GB) RAM26 RAM (4.7GB) RAM47 DVD-R DVDR Others MEDIA* * is displayed the resposed value from RTSC. 6. Disc maker ID is displayed for 5 seconds. ***** 7. Factor of drive error (hexadecimal) occurring is left displayed. * * + + □ □ * * : Error occurring operation code (This is not used) + + : Error occurring disc type <table><tr><td>0</td><td>DVD-ROM</td></tr><tr><td>1</td><td>CD</td></tr><tr><td>2</td><td>2.6GB DVD-RAM</td></tr><tr><td>3</td><td>4.7GB DVD-RAM</td></tr><tr><td>4</td><td>DVD-R</td></tr><tr><td>After 5</td><td>Others</td></tr></table>	0	DVD-ROM	1	CD	2	2.6GB DVD-RAM	3	4.7GB DVD-RAM	4	DVD-R	After 5	Others	In case that the maker cannot be identified, display is black out.
0	DVD-ROM														
1	CD														
2	2.6GB DVD-RAM														
3	4.7GB DVD-RAM														
4	DVD-R														
After 5	Others														

7.3.5. Service Mode Table 5

Item		FL display	Key operation (Remote controller key)																																																																																									
Mode name	Description																																																																																											
		□□ : Error occurring disc situation <table><tr><th rowspan="2">Display</th><th colspan="4">Detail</th></tr><tr><th>Disc distinction</th><th>With or without Cartridge</th><th>Disc cart-ridge state</th><th>Size</th></tr><tr><td>00</td><td>OK</td><td>With</td><td>Not opened</td><td>12cm</td></tr><tr><td>10</td><td>OK</td><td>With</td><td>Not opened</td><td>8cm</td></tr><tr><td>20</td><td>OK</td><td>With</td><td>Opened</td><td>12cm</td></tr><tr><td>30</td><td>OK</td><td>With</td><td>Opened</td><td>8cm</td></tr><tr><td>40</td><td>OK</td><td>Without</td><td>Not opened</td><td>12cm</td></tr><tr><td>50</td><td>OK</td><td>Without</td><td>Not opened</td><td>8cm</td></tr><tr><td>60</td><td>OK</td><td>Without</td><td>Opened</td><td>12cm</td></tr><tr><td>70</td><td>OK</td><td>Without</td><td>Opened</td><td>8cm</td></tr><tr><td>80</td><td>NG</td><td>With</td><td>Not opened</td><td>12cm</td></tr><tr><td>90</td><td>NG</td><td>With</td><td>Not opened</td><td>8cm</td></tr><tr><td>A0</td><td>NG</td><td>With</td><td>Opened</td><td>12cm</td></tr><tr><td>B0</td><td>NG</td><td>With</td><td>Opened</td><td>8cm</td></tr><tr><td>C0</td><td>NG</td><td>Without</td><td>Not opened</td><td>12cm</td></tr><tr><td>D0</td><td>NG</td><td>Without</td><td>Not opened</td><td>8cm</td></tr><tr><td>E0</td><td>NG</td><td>Without</td><td>Opened</td><td>12cm</td></tr><tr><td>F0</td><td>NG</td><td>Without</td><td>Opened</td><td>8cm</td></tr></table>	Display	Detail				Disc distinction	With or without Cartridge	Disc cart-ridge state	Size	00	OK	With	Not opened	12cm	10	OK	With	Not opened	8cm	20	OK	With	Opened	12cm	30	OK	With	Opened	8cm	40	OK	Without	Not opened	12cm	50	OK	Without	Not opened	8cm	60	OK	Without	Opened	12cm	70	OK	Without	Opened	8cm	80	NG	With	Not opened	12cm	90	NG	With	Not opened	8cm	A0	NG	With	Opened	12cm	B0	NG	With	Opened	8cm	C0	NG	Without	Not opened	12cm	D0	NG	Without	Not opened	8cm	E0	NG	Without	Opened	12cm	F0	NG	Without	Opened	8cm	
Display	Detail																																																																																											
	Disc distinction	With or without Cartridge	Disc cart-ridge state	Size																																																																																								
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E0	NG	Without	Opened	12cm																																																																																								
F0	NG	Without	Opened	8cm																																																																																								
CEC (H) output	Check of the CEC terminal high output of HDMI.	When the check is OK CECHOK When the check is NG CECHNG	Press [5] [5] in service mode.																																																																																									
CEC (L) output	Check of the CEC terminal low output of HDMI.	When the check is OK CECLOK When the check is NG CECLNG	Press [5] [6] in service mode.																																																																																									
Tray OPEN/CLOSE Test	The DVD drive tray is opened and closed repeatedly.	***** * is number of open/close cycle times.	Press [9] [1] in service mode *When releasing this mode, press the [POWER] button of Remote Controller more than 10 seconds.																																																																																									
Delete the Laser Used Time	Laser used time stored in the memory of the unit is deleted.	CLR	Press [9] [5] in service mode.																																																																																									
Delete the Last Drive Error	Delete the Last Drive Error information stored on the DVD Drive.	CLR	Press [9] [6] in service mode.																																																																																									
Delete the Error History	Delete Error History information stored on the unit.	CLR	Press [9] [7] in service mode.																																																																																									
Error code initialization	Initialization of the last error code held by timer (Write in F00)	CLR	Press [9] [8] in service mode.																																																																																									
Initialize Service	Last Drive Error, Error history and Error Codes stored on the unit are initialized to factory setting.	CLR	Press [9] [9] in service mode.																																																																																									
Finishing service mode	Release Service Mode.	Display in STOP (SS) mode. *****	Press power button on the front panel or Remote controller in service mode.																																																																																									

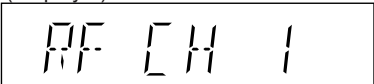
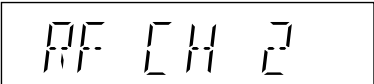
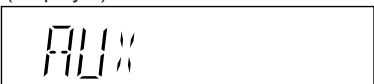
7.4. Service Mode Table (Wireless - e.g. SH-FX70)

By pressing various button combinations on the player and remote control unit, you can activate the various service modes for checking.

7.4.1. Service Mode Table 1

Item		FL Display	Key Operation
Mode Name	Description		Front Key
ID Setting	To set the ID in the Tx & Rx. The system goes into "Pairing Mode". [P] will be displayed to indicate it is in "Pairing Mode". During this condition, the "ID set" button on the receiver unit can be pressed to pair the Tx & Rx. After 60 seconds, the FL display will return to its previous display. Note: Carry out pairing when Tx or Rx has been changed.	 Note : W2S or W4S will blink when a new transmitter card is inserted or when the Receiver module P.C.B.(Rx) had been changed. It will stopped when pairing is completed.	Press and hold [FAST FORWARD] button on the main unit, and [3] button on the remote control unit. Press the [P] on main unit or remote control.

7.4.2. Service Mode Table 2

Item		FL Display	Key Operation
Mode Name	Description		Front Key
RF Channel Selection Display	RF Channel 1 Display* FL Display sequence: Display 1→2→3	(Display 1)  (Display 2)  (Display 3) 	Main set is in AUX mode. Press and hold [STOP] button on the main unit, and [4] button on the remote control unit. After 2 seconds.
	RF Channel 2 Display* FL Display sequence: Display 1→2→3	(Display 1)  (Display 2)  (Display 3) 	Main set is in AUX mode. Press and hold [STOP] button on the main unit, and [5] button on the remote control unit. After 2 seconds.
	RF Channel 3 Display* FL Display sequence: Display 1→2→3	(Display 1)  (Display 2)  (Display 3) 	Main set is in AUX mode. Press and hold [STOP] button on the main unit, and [6] button on the remote control unit. After 2 seconds.
	Auto RF Channel Display* FL Display sequence: Display 1→2→3	(Display 1)  (Display 2)  (Display 3) 	Main set is in AUX mode. Press and hold [STOP] button on the main unit, and [7] button on the remote control unit. After 2 seconds.

*Note: This mode is for purpose of disabling/enabling the frequency of automatic allocation and be able to select a fixed RF channel (channels 1, 2 or 3).

8 Service Fixture & Tools

8.1. Service Tools and Equipment

Prepare service tools before process service position.

Service Tools		Remarks
D-Amp P.C.B. (CN8502) - SMPS P.C.B. (*JW1)	REXX0725 (8P cable)	
Main P.C.B. (CN503) - D-Amp P.C.B. (CN8501)	RFKZBT200E2 (22P FFC)	
Main P.C.B. (CN506) - Digital P.C.B. (P58000)	RFKZBT200E1 (28P FFC)	

9 Disassembly and Assembly Instructions

“ATTENTION SERVICER”

Be careful when disassembling and servicing.

Some chassis components may have sharp edges.

Special Note:

1. This section describes the disassembly procedures for all the major printed circuit boards and main components.
2. Before the disassembly process was carried out, do take special note that all safety precautions are to be carried out.
(Ensure that no AC power supply is connected during disassembling.)
3. For assembly after operation checks or replacement, reverse the respective procedures.
Special reassembly procedures are described only when required.
4. Do take note of the locators on each printed circuit board during reassembling procedures.
5. The Switch Regulator IC may have high temperature after prolonged use.
6. Use caution when removing the top cabinet and avoid touching heat sinks located in the unit.

**CAUTION: HOT!!
PLEASE DO NOT
TOUCH THE HEAT SINK**

7. Select items from the following index when checks or replacement are required.

- Disassembly of Top Cabinet
- Disassembly of Voltage Selector P.C.B.
- Disassembly of Rear Panel
- Disassembly of Front Panel Assembly
- Disassembly of Panel & Power Button P.C.B.
- Disassembly of Setup Mic P.C.B.
- Disassembly of SD P.C.B.
- Disassembly of Tray Lid
- Disassembly of iPod P.C.B.
- Disassembly of BD Drive Unit
- Disassembly of Main P.C.B.
- Disassembly of Digital P.C.B.
- Disassembly of D-Amp P.C.B.
- Replacement of Audio Amplifier Driver IC (IC8001)
- Replacement of Audio Amplifier Driver IC (IC8002)
- Replacement of Regulator Transistor (Q8026)
- Disassembly of AC Inlet P.C.B.
- Disassembly of SMPS P.C.B.
- Replacement of Switching Regulator IC (IC5701)
- Replacement of Rectifier Diode (D5702)
- Replacement of Regulator Diode (D5801)
- Replacement of Regulator Diode (D5802)
- Replacement of Regulator Diode (D5803)
- Disassembly of Wireless Adapter P.C.B.
- Disassembly of Tuner P.C.B.
- Disassembly of BD Drive

CAUTION NOTE:

Please use original screw and at correct locations.

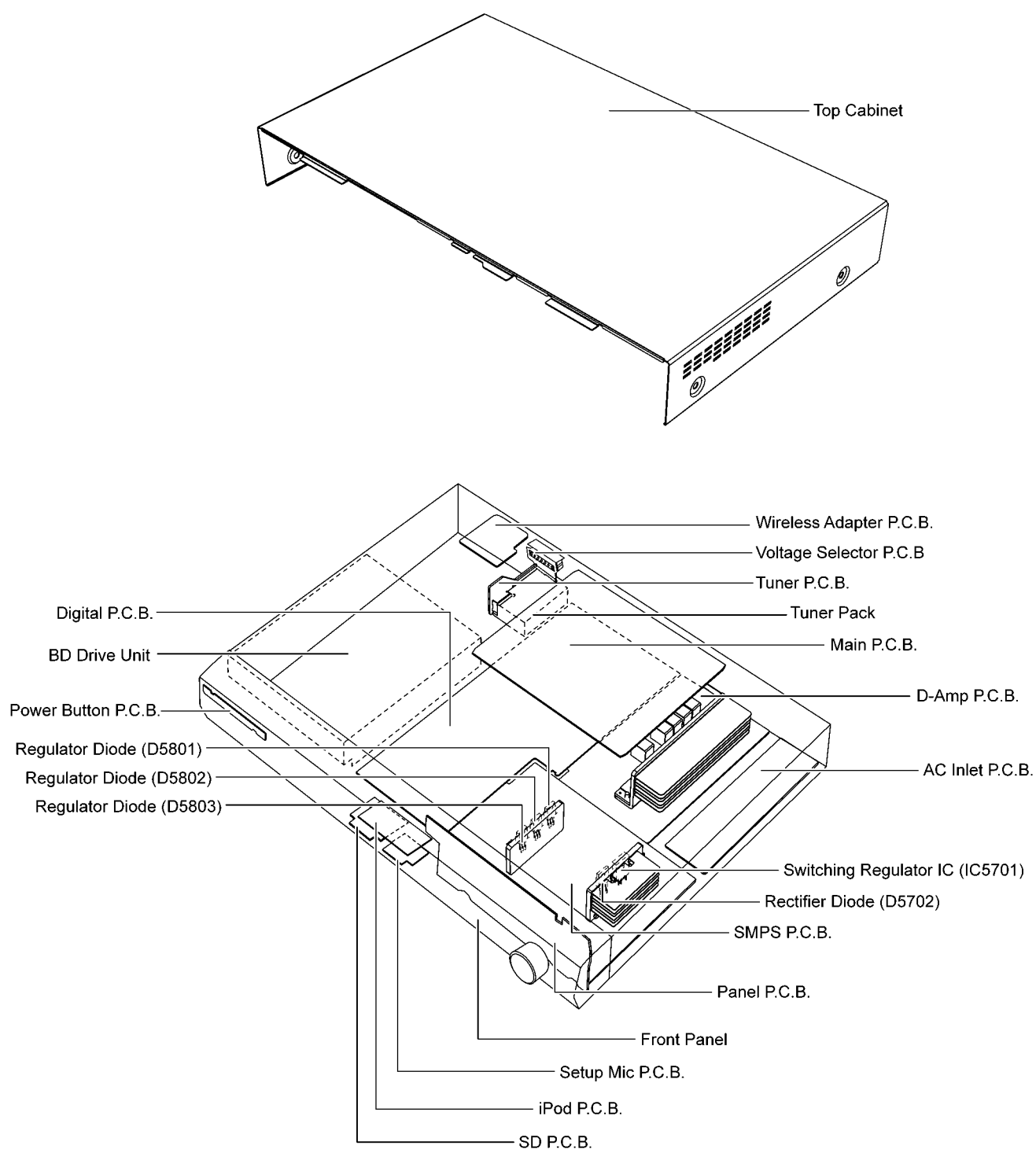
Below shown is part no. of different screw types used:

- | | |
|------------------------|----------------------|
| a :RHD30119-S | e :RHD26043-1 |
| b :RHD30007-K2J | f :RHD26046 |
| c :RHD30111-31 | g :VHD1224-1 |
| d :XSN3+4FJ | h :XTB3+10JFJ |

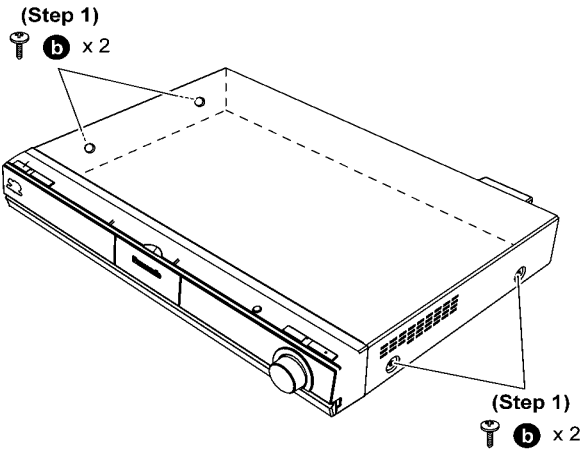
9.1. Disassembly Flow Chart



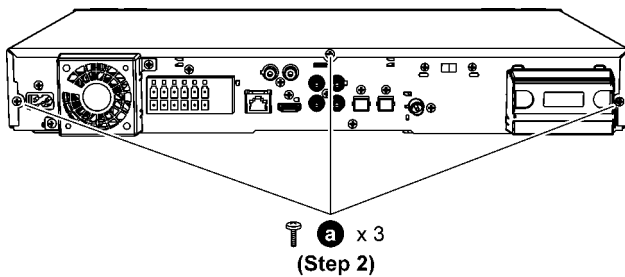
9.2. Main Components and P.C.B. Locations



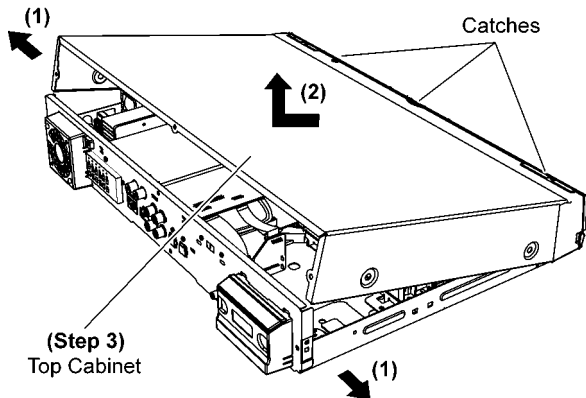
9.3. Disassembly of Top Cabinet



Step 1 Remove 4 screws on each side.



Step 2 Remove 3 screws at the rear panel.

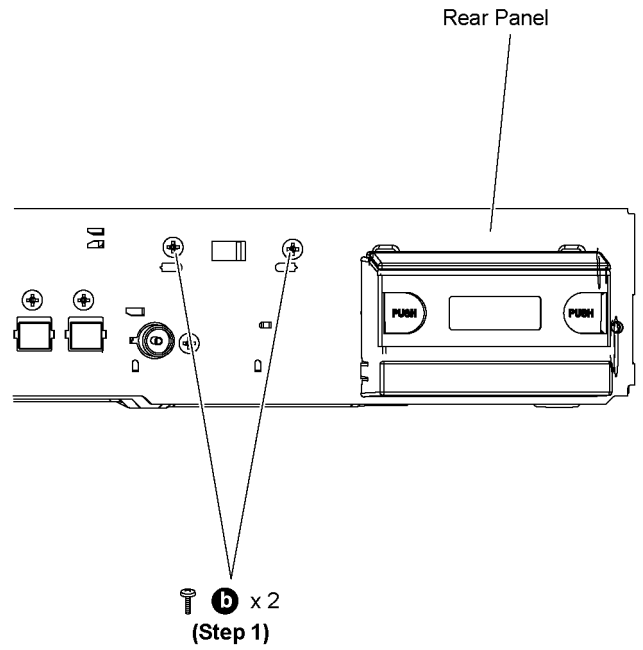


Step 3 Lift up the back part of the top cabinet and remove it in the direction of arrows (1) to (2).

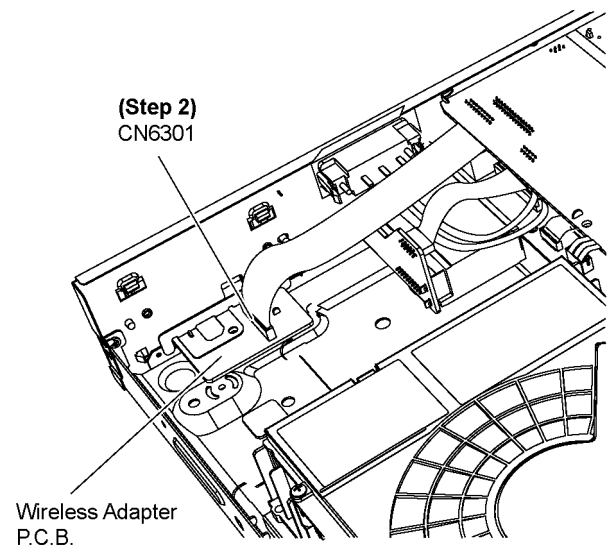
Caution: When lift up the back part of top cabinet. Ensure that the catches are released completely.

9.4. Disassembly of Voltage Selector P.C.B.

- Follow (Step 1) to (Step 3) of Item 9.3.

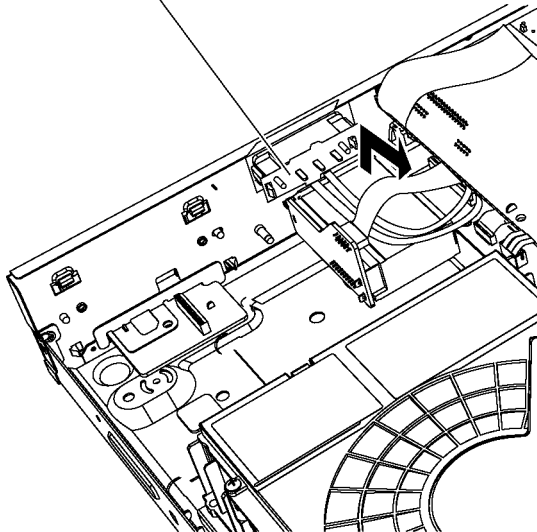


Step 1 Remove 2 screws.

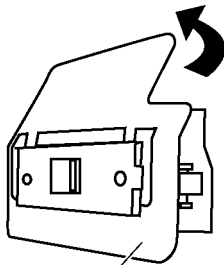


Step 2 Detach 19P FFC on Wireless Adapter P.C.B..

(Step 3)
Voltage Selector P.C.B.

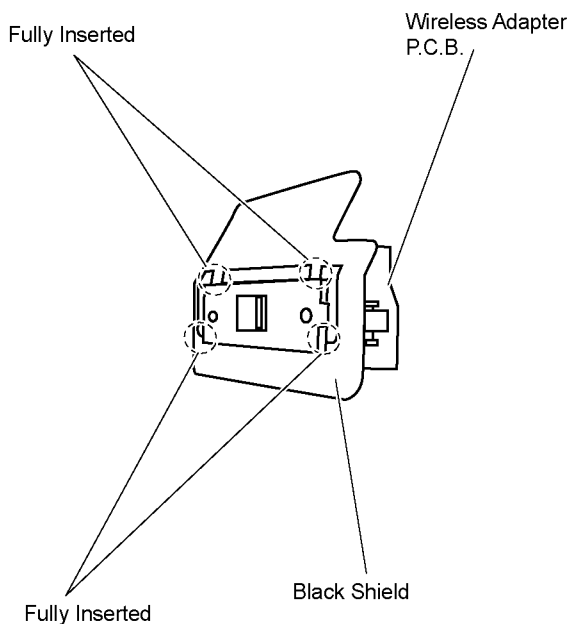


Step 3 Lift up Voltage Selector P.C.B..

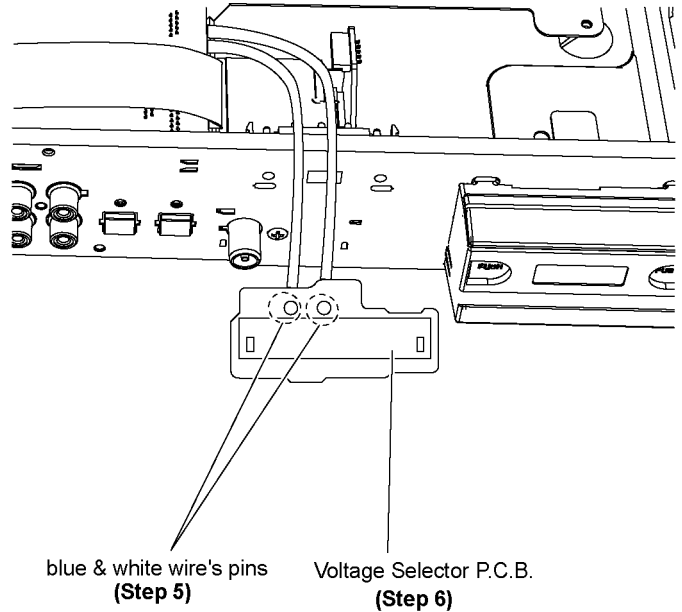


Black Shield
(Step 4)

Step 4 Remove Black Shield in the direction of arrow.



Caution: During assembling, ensure that Black Shield is inserted into the Voltage Selector P.C.B..

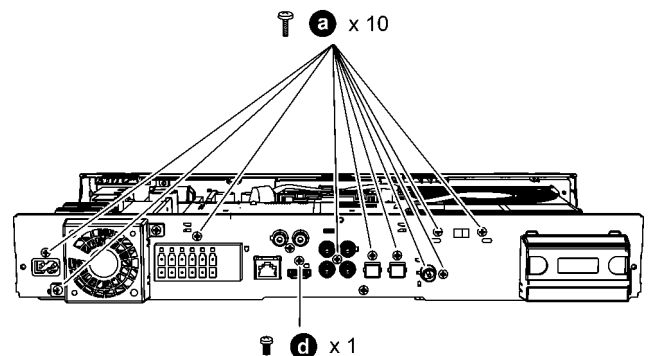


Step 5 Desolder blue & white wire's pins on Voltage Selector P.C.B..

Step 6 Remove Voltage Selector P.C.B..

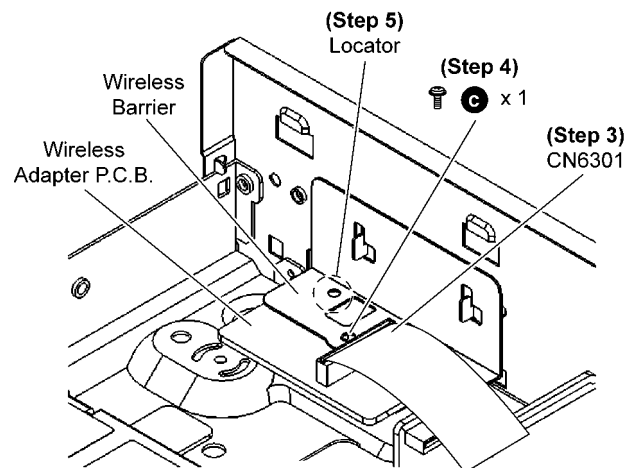
9.5. Disassembly of Rear Panel

- Follow (Step 1) to (Step 3) of Item 9.3.



Step 1 Remove 10 screws at the rear panel.

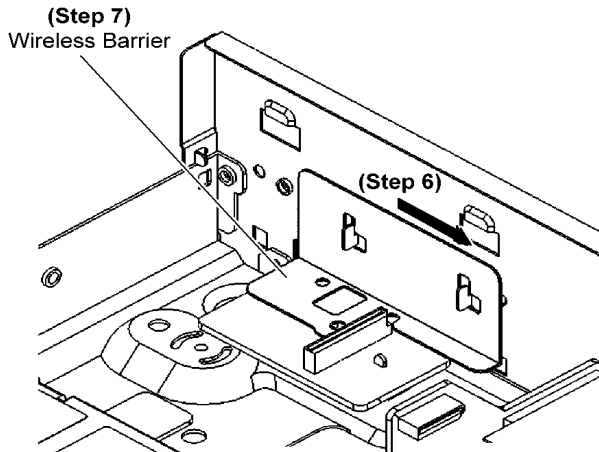
Step 2 Remove 1 screw at the rear panel.



Step 3 Detach 19P FFC at the connector (CN6301) on Wireless Adapter P.C.B..

Step 4 Remove 1 screw on Wireless Adapter P.C.B..

Step 5 Release 1 locator of wireless barrier.

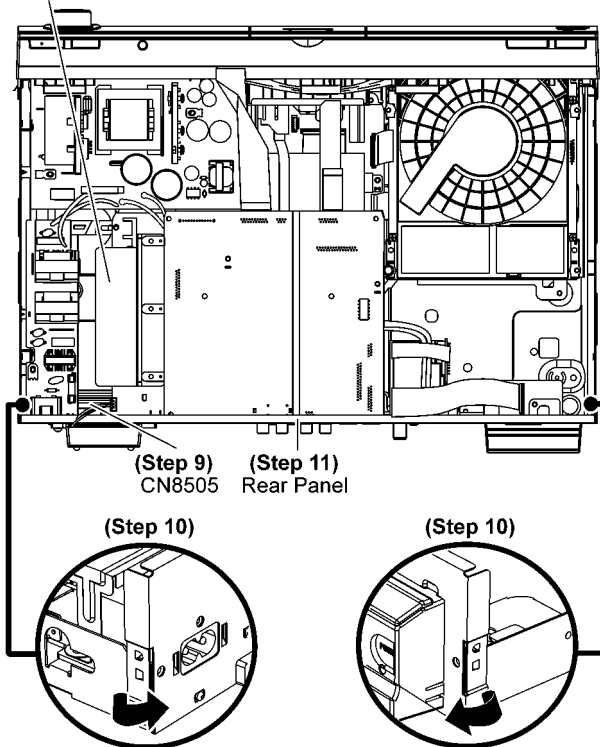


Step 6 Slightly slide wireless barrier in the direction of arrow.

Step 7 Detach the wireless barrier.

Step 8 Remove wireless barrier.

D-AMP P.C.B.



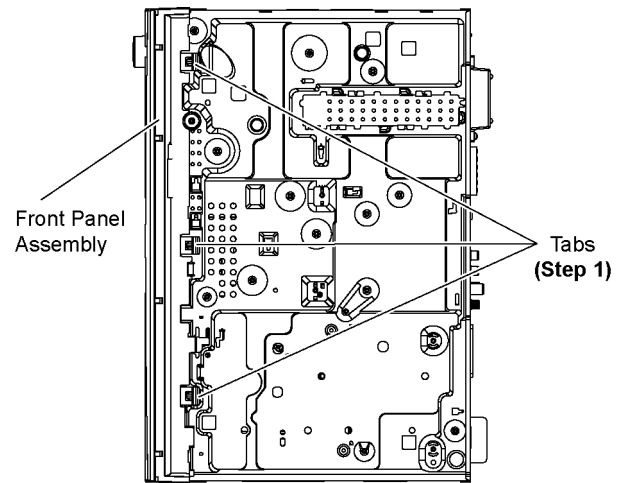
Step 9 Detach 3P cable at the connector (CN8505) on D-Amp P.C.B.

Step 10 Release the tab of each side of rear panel in the direction of arrow.

Step 11 Remove the rear panel.

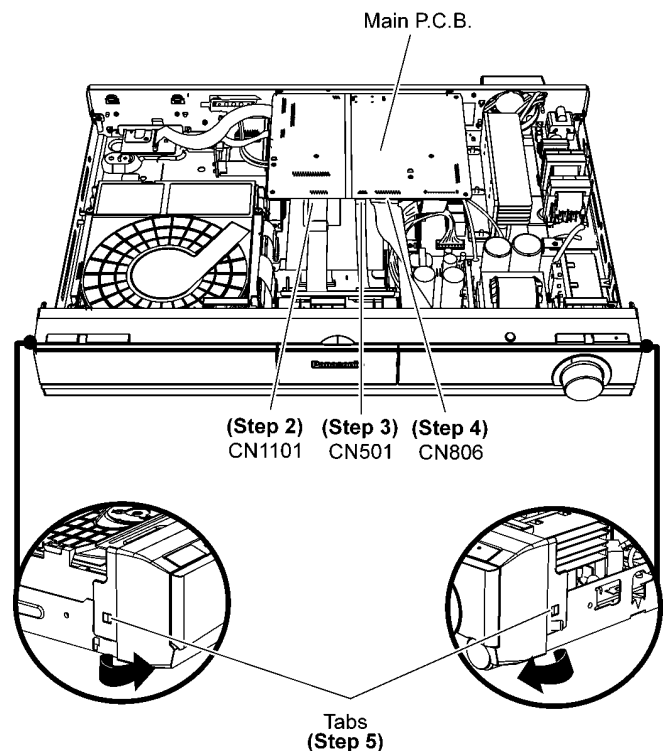
9.6. Disassembly of Front Panel Assembly

• Follow (Step 1) to (Step 3) of Item 9.3.



Step 1 Release tabs at bottom of the front panel assembly.

Caution: Do not exert strong force when releasing the tabs. During assembling, ensure that the tabs are fully caught onto bottom chassis.



Step 2 Detach 14P FFC at the connector (CN1101) on Main P.C.B..

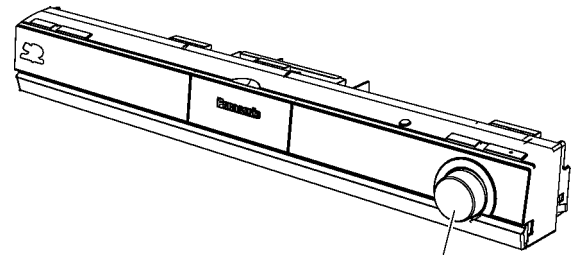
Step 3 Detach 7P FFC at the connector (CN501) on Main P.C.B..

Step 4 Detach 20P FFC at the connector (CN806) on Main P.C.B..

Step 5 Release tabs at each side of the front panel assembly on the direction of arrow.

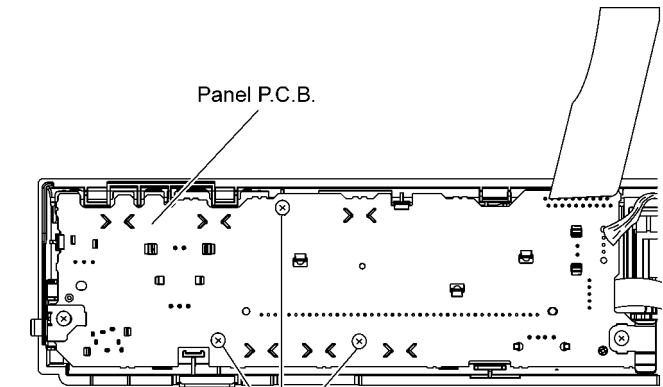
9.7. Disassembly of Panel & Power Button P.C.B.

- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 9) of Item 9.6.



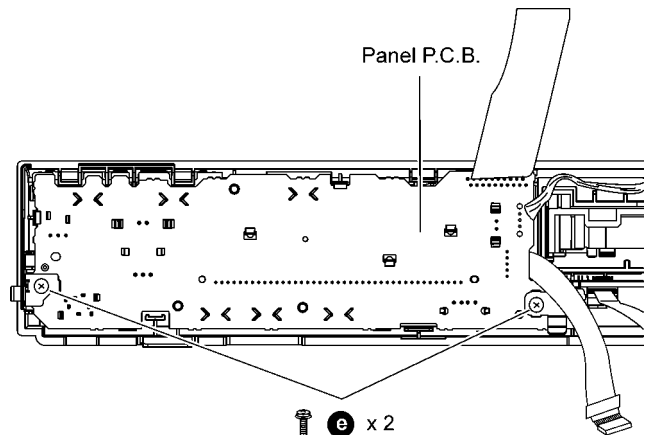
volume knob
(Step 1)

Step 1 Remove the volume knob.



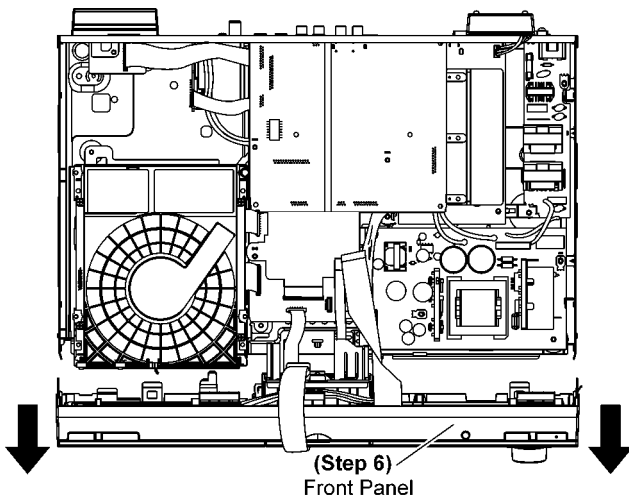
Panel P.C.B.
f x 3
(Step 2)

Step 2 Remove 3 screws (without washer) on Panel P.C.B..



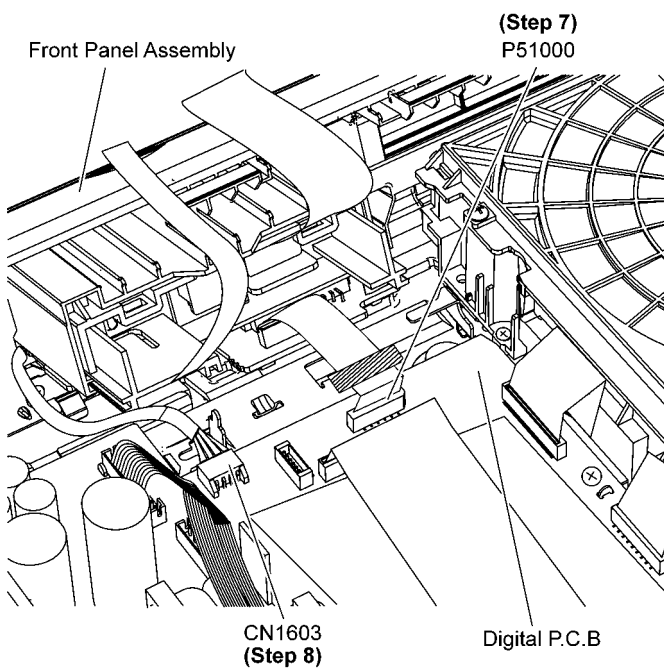
Panel P.C.B.
e x 2
(Step 3)

Step 3 Remove 2 screws (with washer) on Panel P.C.B..



(Step 6)
Front Panel

Step 6 Slightly detach the front panel assembly.



(Step 7)
P51000

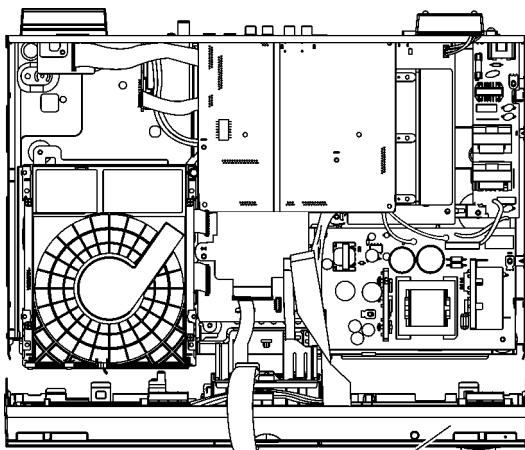
Front Panel Assembly

CN1603
(Step 8)

Digital P.C.B

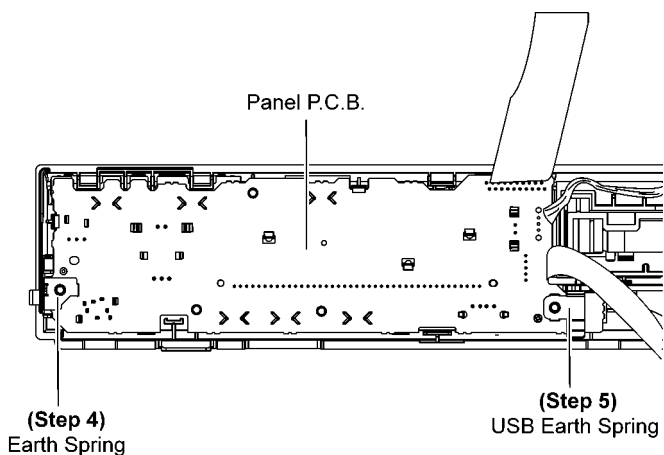
Step 7 Detach 13P FFC at the connector (P51000) on Digital P.C.B..

Step 8 Detach 5P cable at the connector (CN1603) on Digital P.C.B..



(Step 9)
Front Panel Assembly

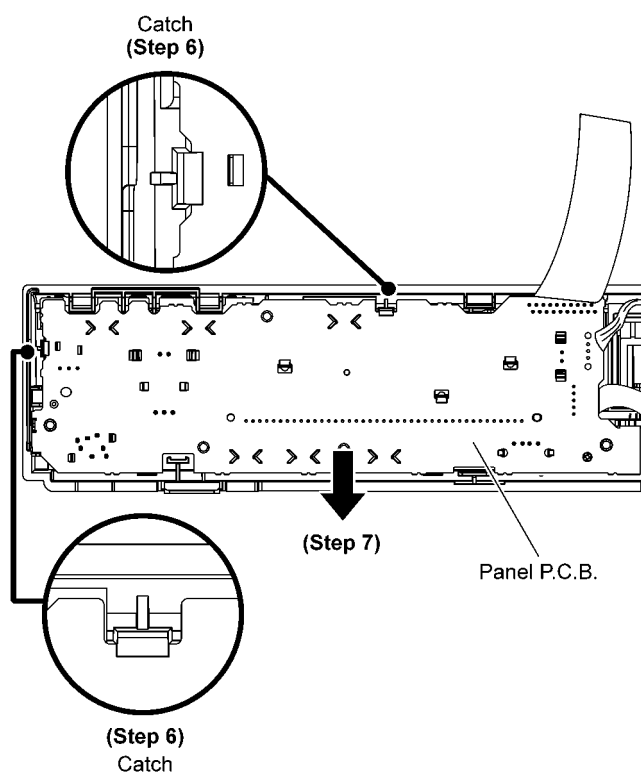
Step 9 Remove the front panel assembly.



Step 4 Remove earth spring on Panel P.C.B..

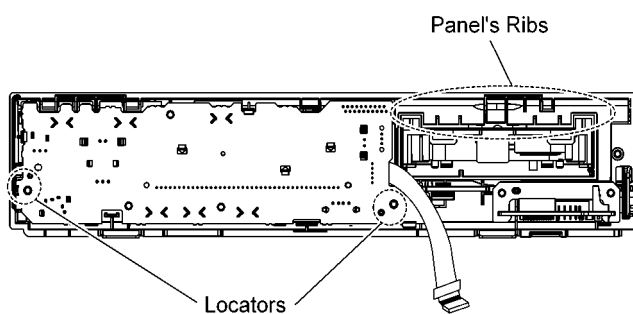
Step 5 Remove USB earth spring on Panel P.C.B..

Caution: Keep both earth spring & USB earth spring in safe place for assembling.

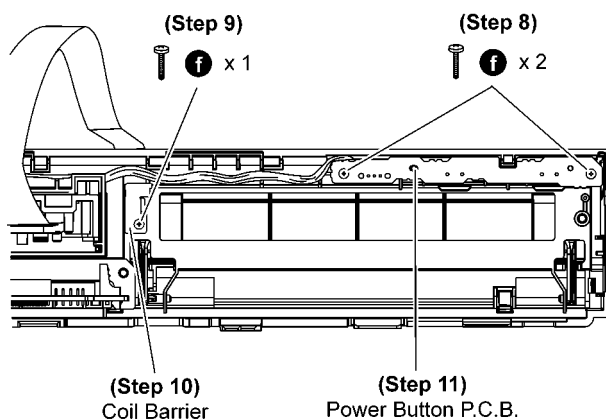


Step 6 Release 2 catches on Panel P.C.B..

Step 7 Remove Panel P.C.B..



Caution: During assembling, ensure that Panel P.C.B. is properly located & fully caught onto front panel.

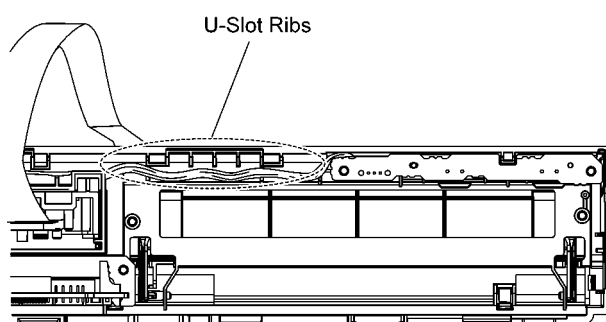


Step 8 Remove 2 screws on the Power Button P.C.B..

Step 9 Remove 1 screw on coil barrier.

Step 10 Remove coil barrier.

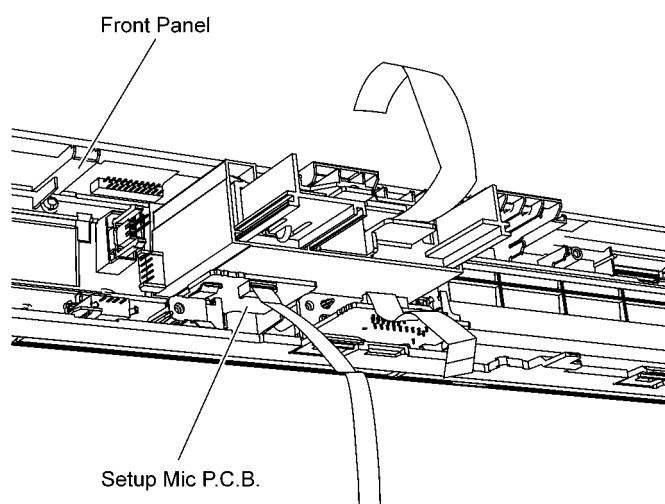
Step 11 Remove Power Button P.C.B..



Caution: During assembling, ensure that 3P wire is well inserted into the three U-Slot ribs.

9.8. Disassembly of Setup Mic P.C.B.

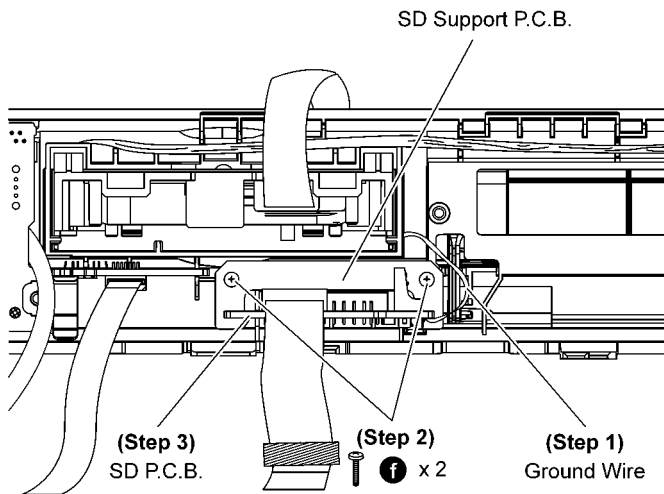
- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 9) of Item 9.6.
- Follow (Step 1) to (Step 7) of Item 9.7.



Step 1 Remove Setup Mic P.C.B..

9.9. Disassembly of SD P.C.B.

- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 9) of Item 9.6.

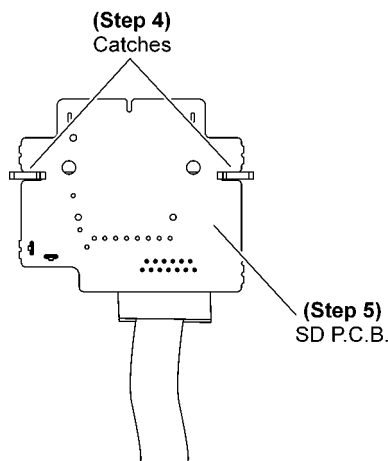


Step 1 Desolder ground wire.

Caution: During assembling, solder back the ground wire.

Step 2 Remove 2 screws on SD support P.C.B..

Step 3 Remove SD P.C.B. with SD support P.C.B..

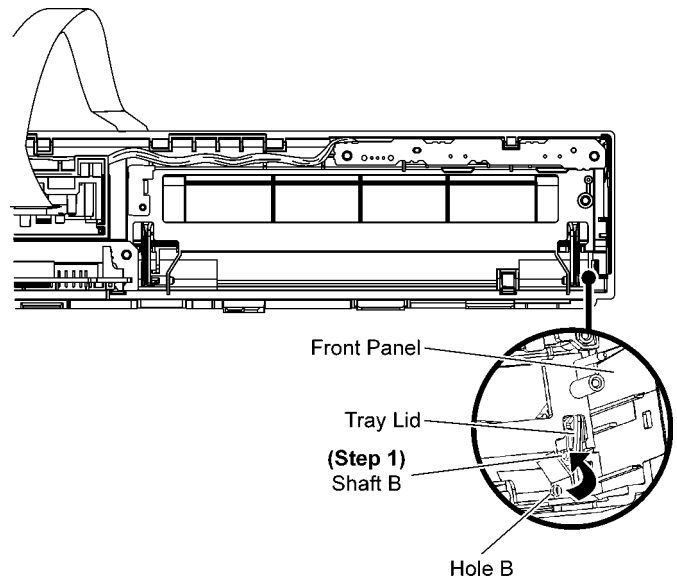


Step 4 Release 2 catches on SD P.C.B..

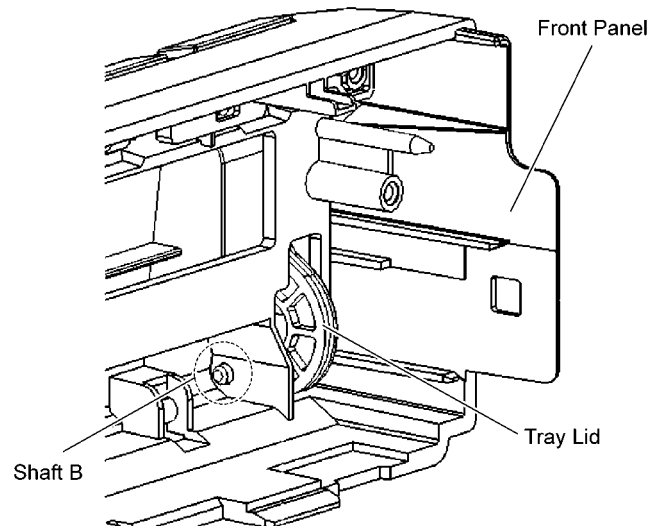
Step 5 Remove SD P.C.B..

9.10. Disassembly of Tray Lid

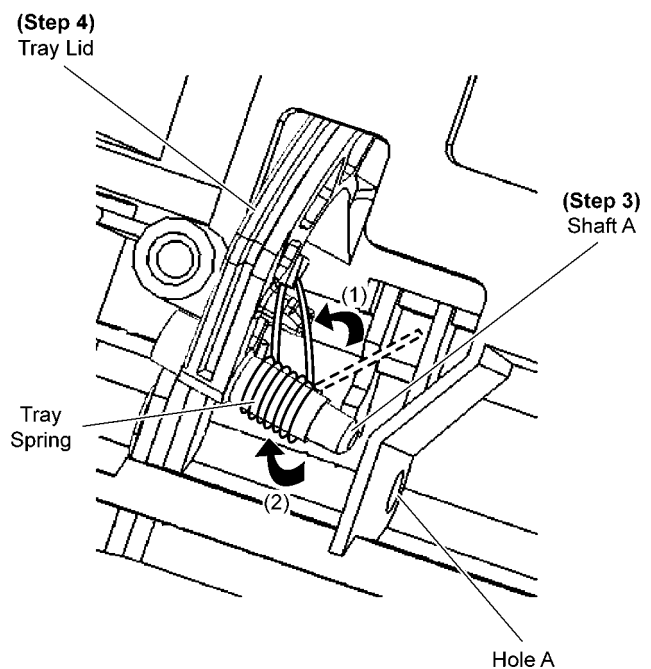
- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 9) of Item 9.6.



Step 1 Release Shaft B of tray lid from hole B.

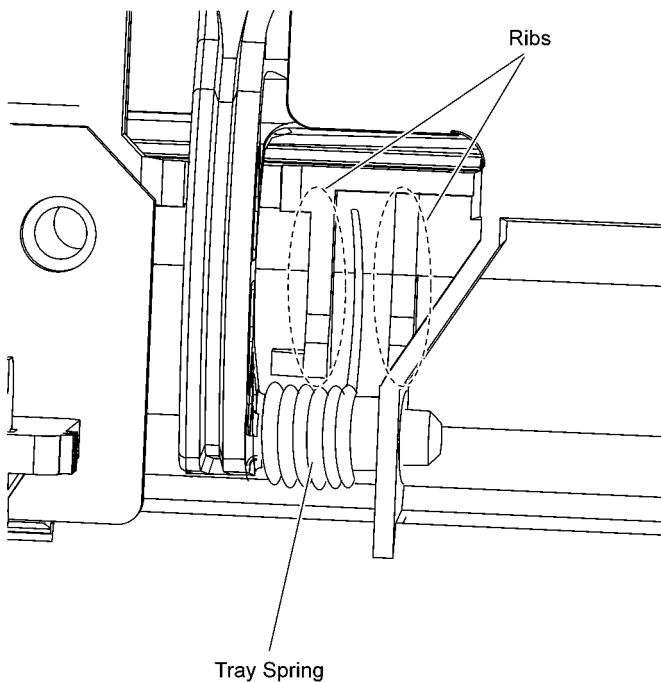


Caution: During assembling, ensure that Shaft B of tray lid is fully inserted into front panel.

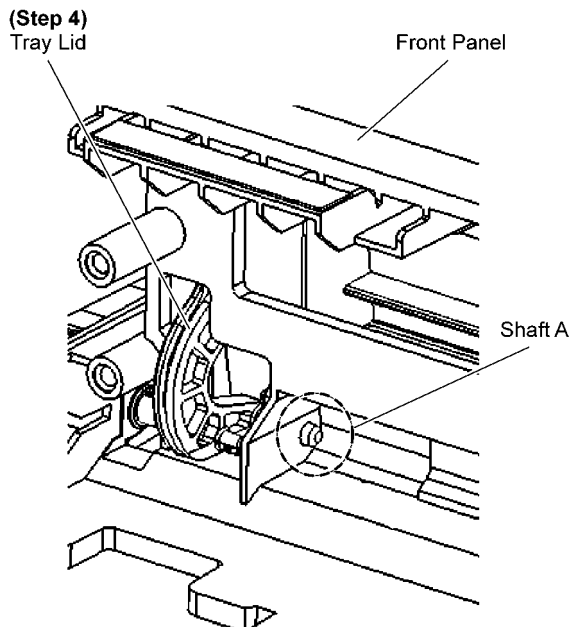


Step 2 Lift the door spring of Shaft A in the direction of arrow (1).

Step 3 Release Shaft A of tray lid in the direction of arrow (2).



Caution: During assembling, ensure that tray spring is fully position in between two ribs.

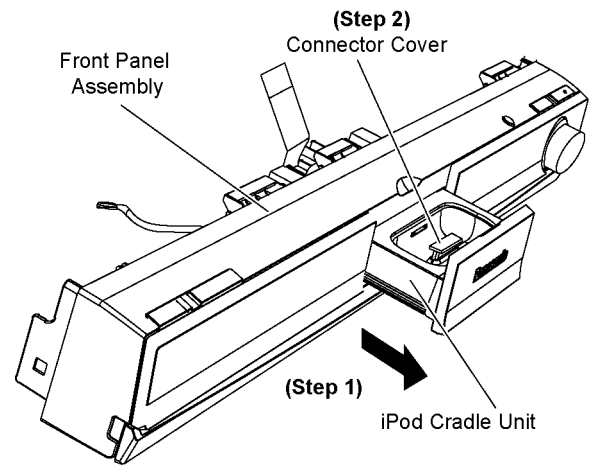


Caution: During assembling, ensure that Shaft A of tray lid is fully inserted into front panel.

Step 4 Remove the tray lid.

9.11. Disassembly of iPod P.C.B.

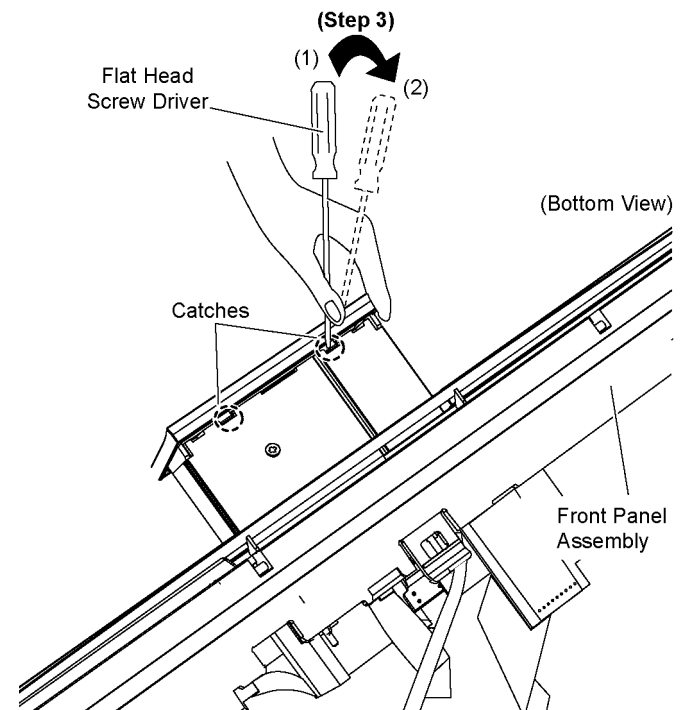
- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 9) of Item 9.6.



Step 1 Pull out the iPod Cradle Unit as arrow shown.

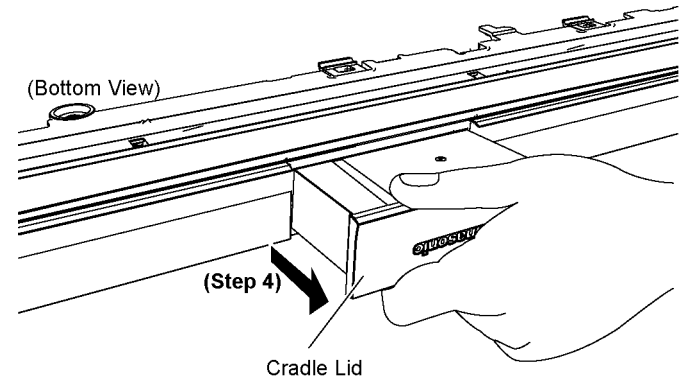
Step 2 Remove connector cover.

Caution: Keep the connector cover in safe place. Place it back during assembling.

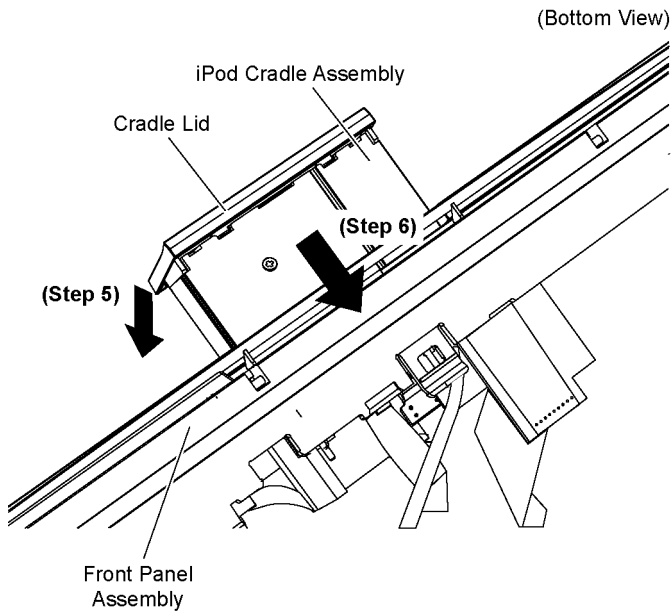


Step 3 Insert and tilt the flat head screw driver into the gap to release the catches in the direction of arrow shown.

Caution: Do not exert strong force when releasing the catches.

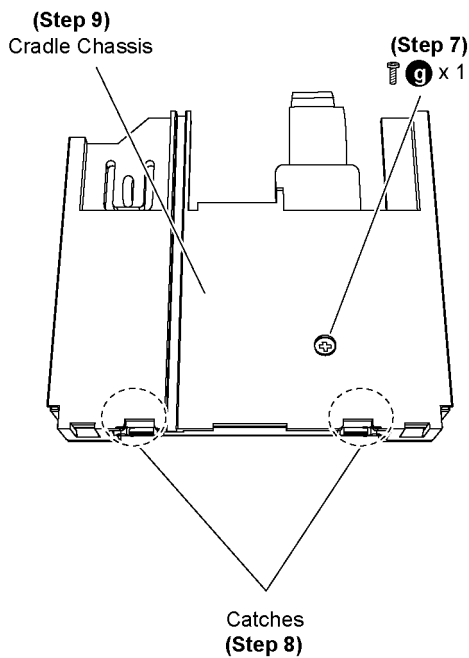


Step 4 Pull the Cradle Lid gently outwards as arrow shown.



Step 5 Push and slide the Cradle Lid downwards to remove Cradle Lid as arrow shown.

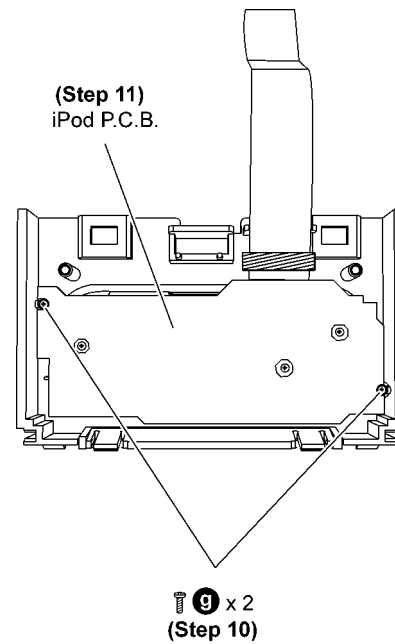
Step 6 Remove the iPod Cradle Assembly in the direction of arrow shown.



Step 7 Remove 1 screw at the Cradle chassis.

Step 8 Release 2 catches at the Cradle chassis.

Step 9 Remove Cradle chassis.



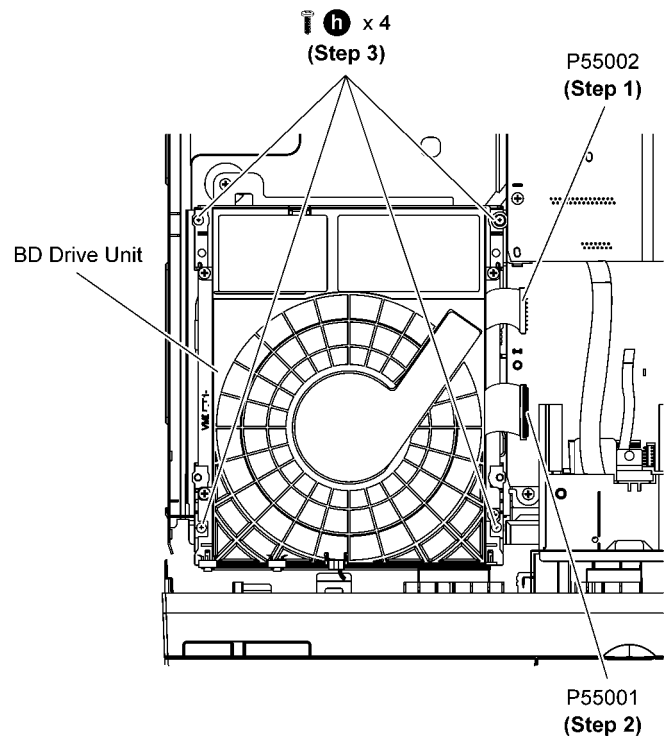
Step 10 Remove 2 screws on iPod P.C.B..

Step 11 Remove iPod P.C.B..

9.12. Disassembly of BD Drive Unit

- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 6) of Item 9.6.

Caution: Pairing of BD Drive and Digital P.C.B. as “BD Drive/Digital P.C.B. Kit Assembly” have to be replaced together. If the either BD Drive or Digital P.C.B. is changed, BD Drive unit has to be re-aligned. Because the alignment data for BD Drive Unit is stored in Digital P.C.B..

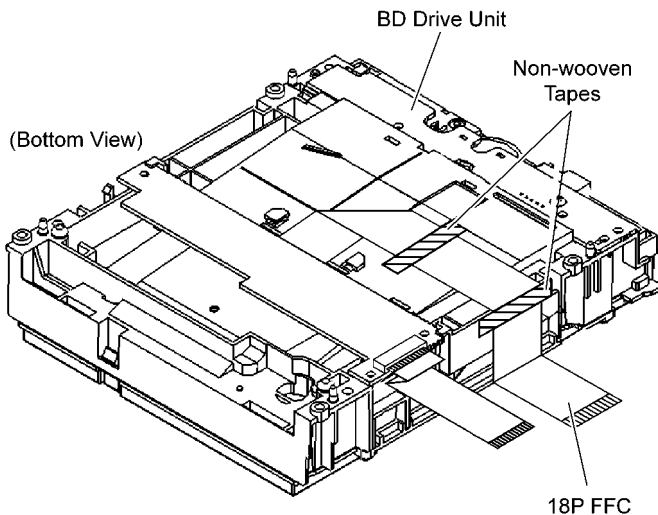


Step 1 Detach FFC at the connector (P55002) on Digital P.C.B..

Step 2 Detach FFC at the connector (P55001) on Digital P.C.B..

Step 3 Remove 4 screws at BD Drive Unit.

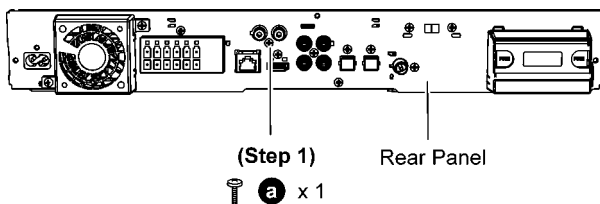
Step 4 Remove BD Drive Unit.



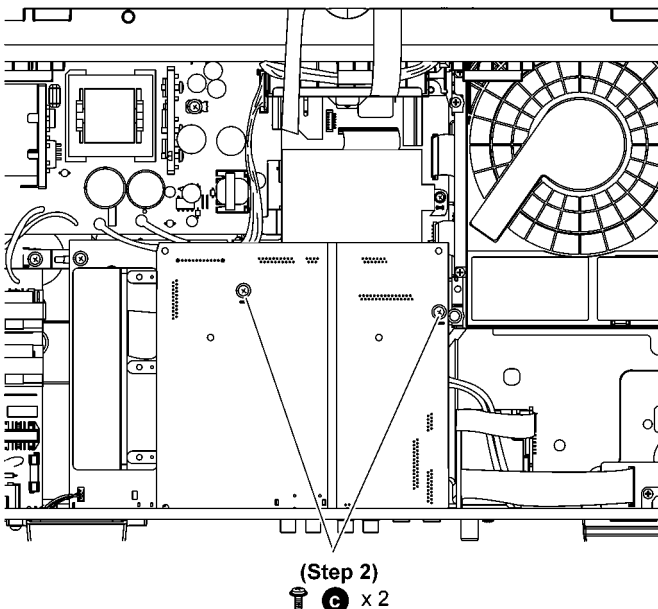
Caution: During fixing 18P FFC to BD Drive unit, ensure that non-wooven tapes are properly pasted over 18P FFC onto BD Drive Unit.

9.13. Disassembly of Main P.C.B.

- Follow (Step 1) to (Step 3) of Item 9.3.

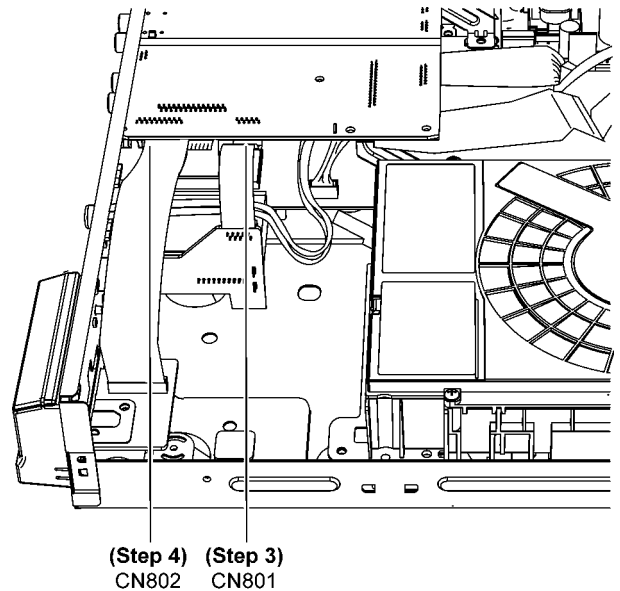


Step 1 Remove 1 screw at the rear panel.



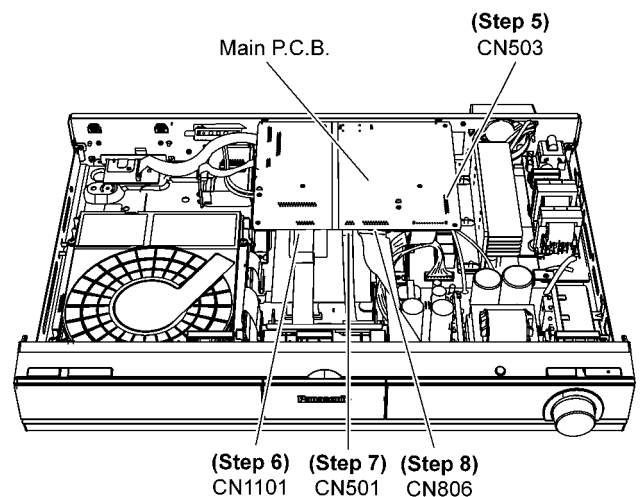
Step 2 Remove 2 screws on Main P.C.B..

Caution: During assembling, ensure that the Main P.C.B. is seated properly on Main P.C.B. angles.



Step 3 Detach 10P FFC at the connector (CN801) on Main P.C.B..

Step 4 Detach 18P FFC at the connector (CN802) on Main P.C.B..

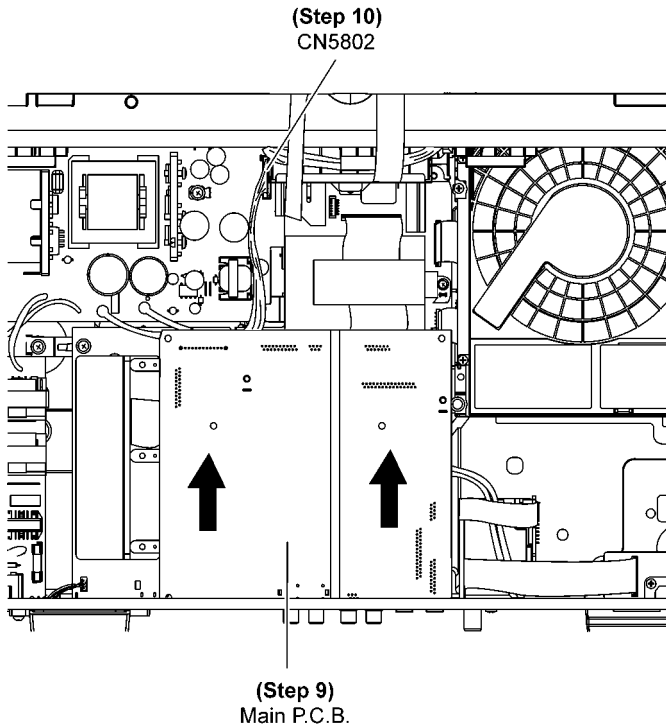


Step 5 Detach 22P FFC at connector (CN503) on Main P.C.B..

Step 6 Detach 14P FFC at connector (CN1101) on Main P.C.B..

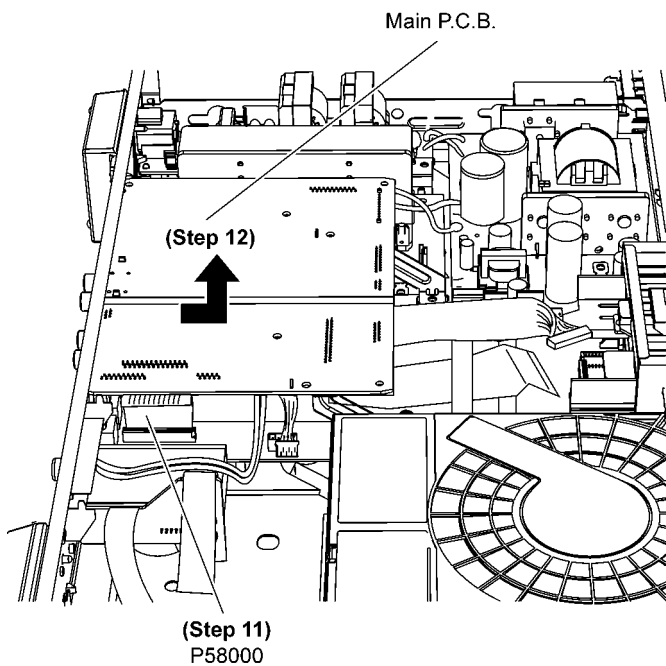
Step 7 Detach 7P FFC at connector (CN501) on Main P.C.B..

Step 8 Detach 20P FFC at connector (CN806) on Main P.C.B..



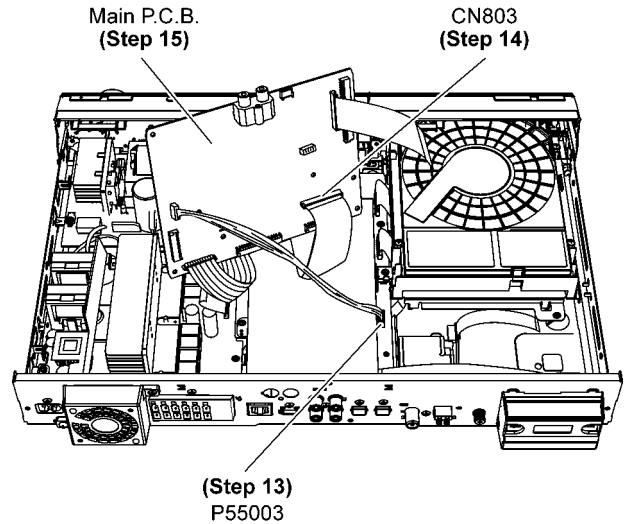
Step 9 Move the Main P.C.B. outwards.

Step 10 Detach 11P cable at the connector (CN5802) on SMPS P.C.B..



Step 11 Detach 28P FFC at the connector (P58000) on Digital P.C.B..

Step 12 Lift up Main P.C.B..



Step 13 Detach 4P cable at the connector (P55003) on Main P.C.B..

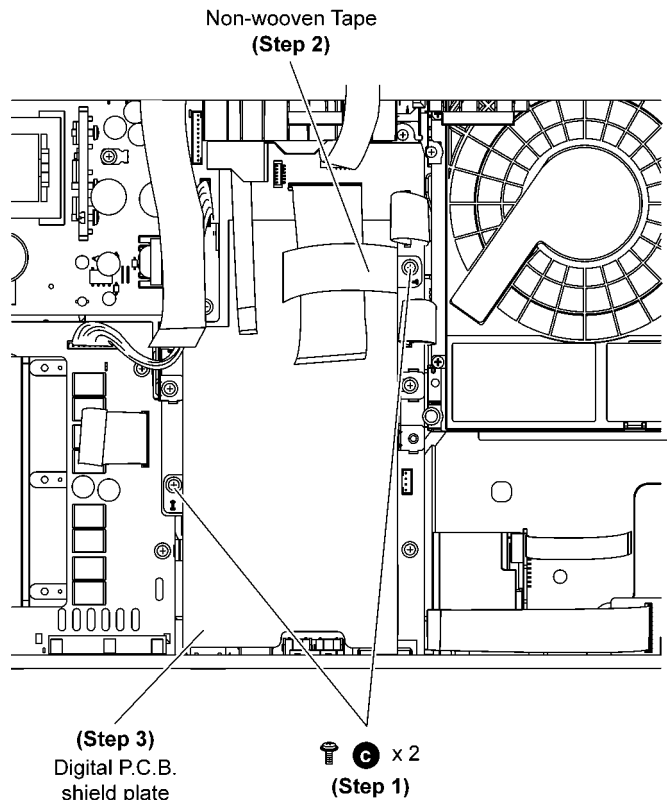
Step 14 Detach 30P FFC at the connector (CN803) on Main P.C.B..

Step 15 Remove Main P.C.B..

9.14. Disassembly of Digital P.C.B.

- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 3) of Item 9.4.
- Follow (Step 1) to (Step 7) of Item 9.5.
- Follow (Step 1) to (Step 15) of Item 9.13.

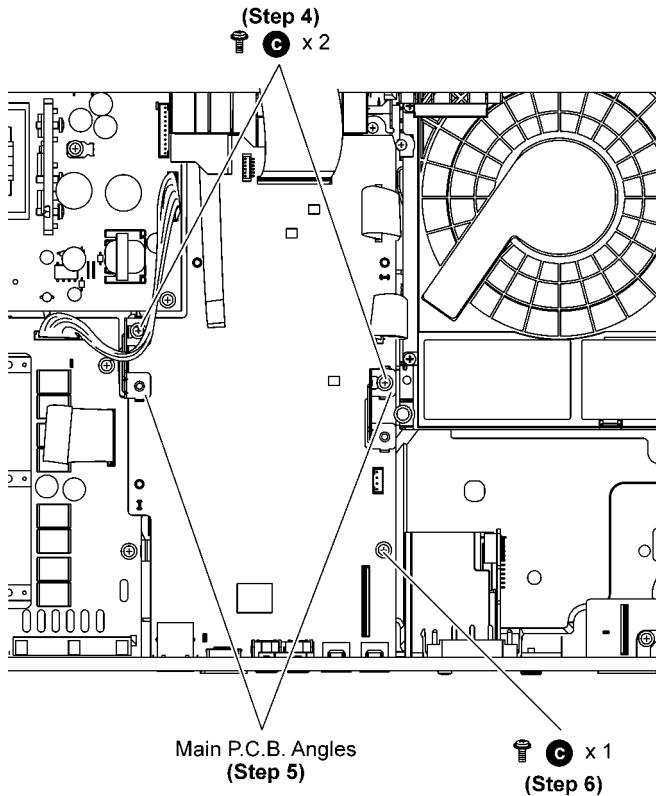
Caution: Pairing of BD Drive and Digital P.C.B. as “BD Drive/Digital P.C.B. Kit Assembly” have to be replaced together. If the either BD Drive or Digital P.C.B. is changed, BD Drive unit has to be re-aligned. Because the alignment data for BD Drive Unit is stored in Digital P.C.B..



Step 1 Remove 2 screws on Digital P.C.B..

Step 2 Lift up non-woven tape.

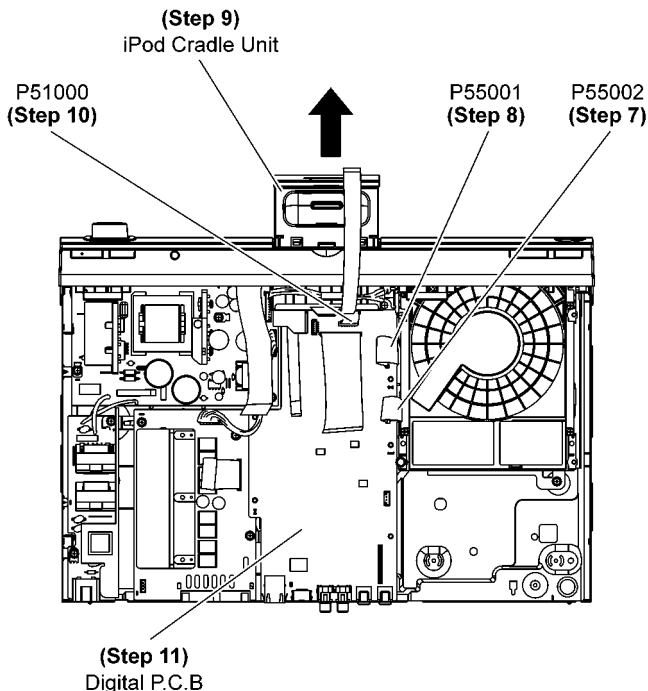
Step 3 Remove Digital P.C.B. shield plate.



Step 4 Remove 2 screws on Main P.C.B.

Step 5 Remove 2 Main P.C.B. angles.

Step 6 Remove 1 screw on Digital P.C.B.



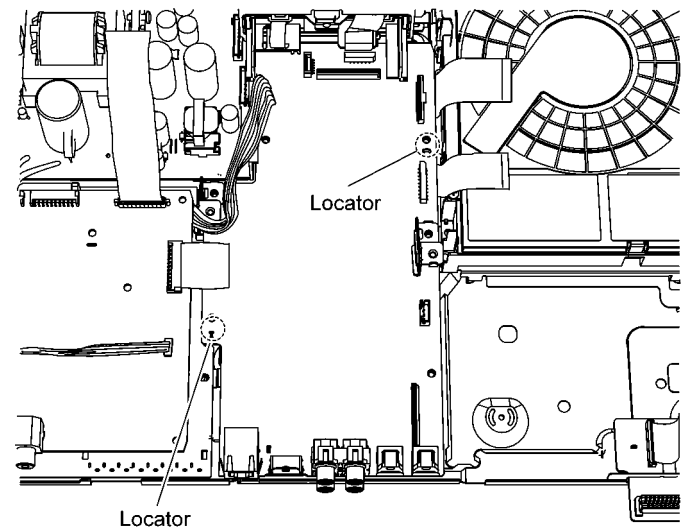
Step 7 Detach 18P FFC at the connector (P55002) on Digital P.C.B..

Step 8 Detach 45P FFC at the connector (P55001) on Digital P.C.B..

Step 9 Slightly push the iPod cradle unit in the direction of arrow.

Step 10 Detach 13P FFC at the connector (P51000) on the Digital P.C.B..

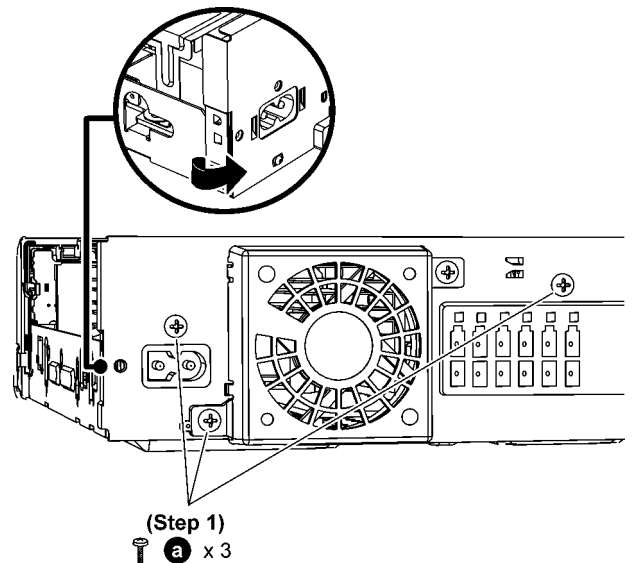
Step 11 Remove Digital P.C.B..



Caution: During assembling, ensure the Digital P.C.B. is seated properly at the locators.

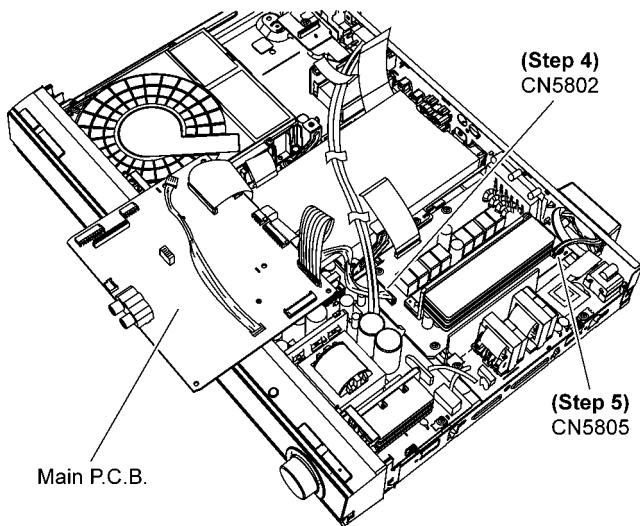
9.15. Disassembly of D-Amp P.C.B.

- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 13) of Item 9.13.



Step 1 Remove 3 screws at the rear panel.

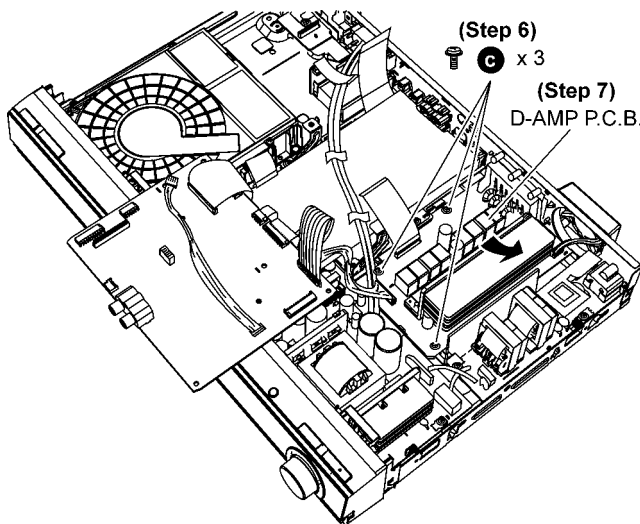
Step 2 Release the tab of the rear panel in the direction of arrow.



Step 3 Upset the Main P.C.B..

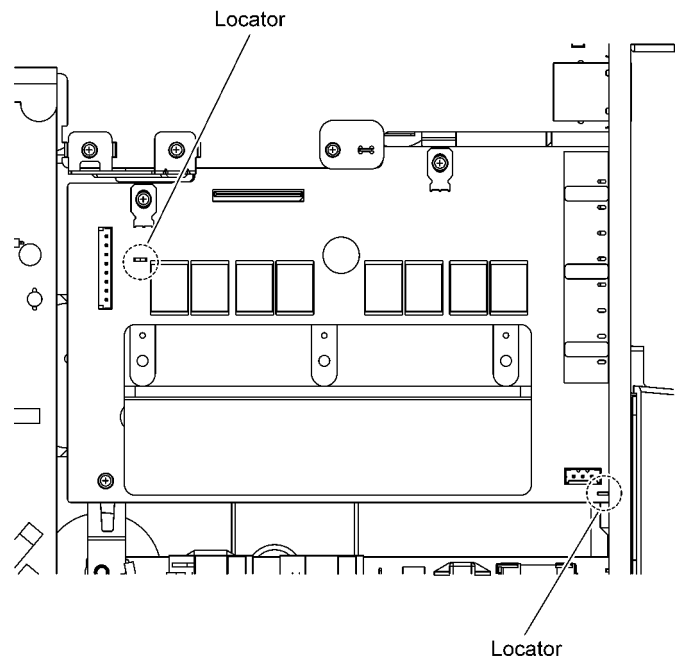
Step 4 Detach 8P FFC at the connector (CN5802) on D-Amp P.C.B..

Step 5 Detach 3P cable at the connector (CN5805) on D-Amp P.C.B..



Step 6 Remove 3 screws on D-Amp P.C.B..

Step 7 Remove D-Amp P.C.B. in the direction of arrow.

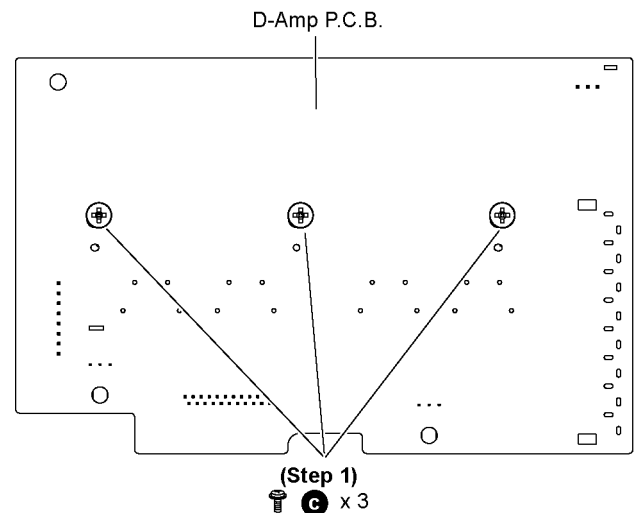


Caution: During assembling, ensure that the D-Amp P.C.B. is seated properly at the locators.

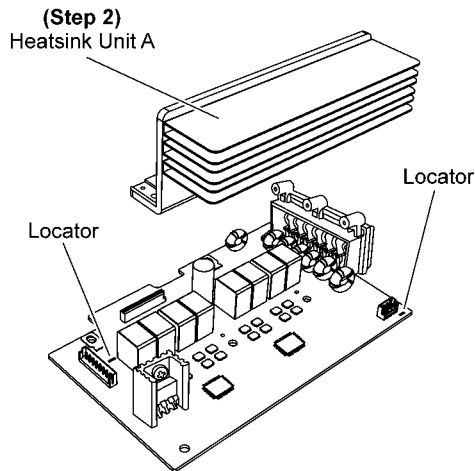
9.16. Replacement of Audio Amplifier Driver IC (IC8001)

9.16.1. Disassembly of Audio Amplifier Driver IC (IC8001)

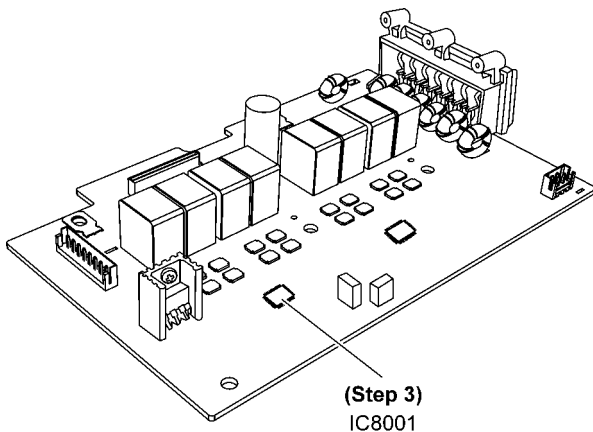
- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 13) of Item 9.13.
- Follow (Step 1) to (Step 7) of Item 9.15.



Step 1 Remove 3 screws at the solder side of D-Amp P.C.B..



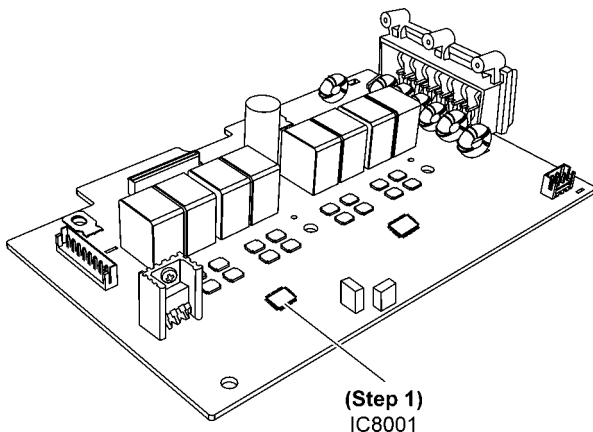
Step 2 Remove the heatsink unit A.



Step 3 Desolder pins of Audio Amplifier Driver IC (IC8001).

Step 4 Remove Audio Amplifier Driver IC (IC8001) from D-Amp P.C.B.

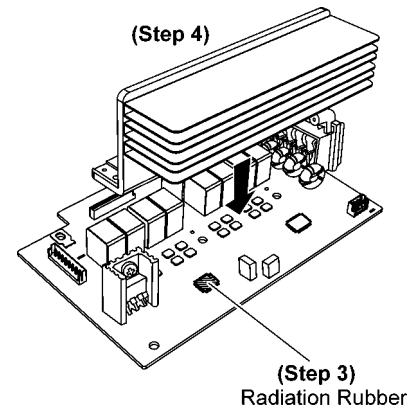
9.16.2. Assembly of Audio Amplifier Driver IC (IC8001)



Step 1 Mount the Audio Amplifier Driver IC (IC8001) on to the D-Amp P.C.B..

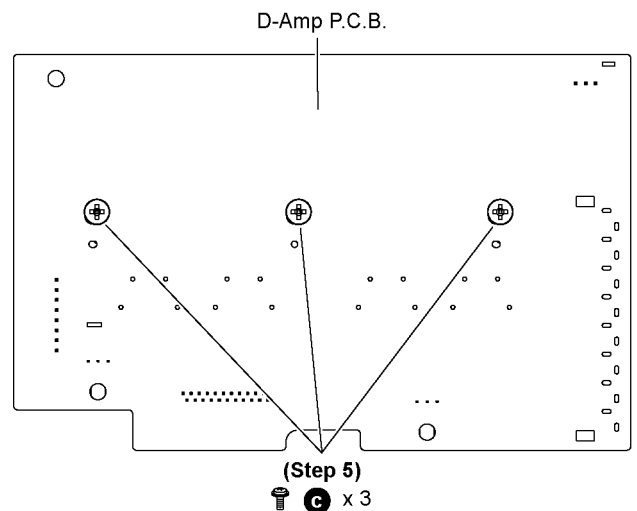
Caution: Ensure that the pins of Audio Amplifier Driver IC (IC8001) is positioned correctly on D-Amp P.C.B..

Step 2 Solder the pins of Audio Amplifier Driver IC (IC8001) on the D-Amp P.C.B..



Step 3 Apply the radiation rubber to the Audio Amplifier Driver IC (IC8001).

Step 4 Install the heatsink unit A on D-Amp P.C.B. in the direction of arrow.



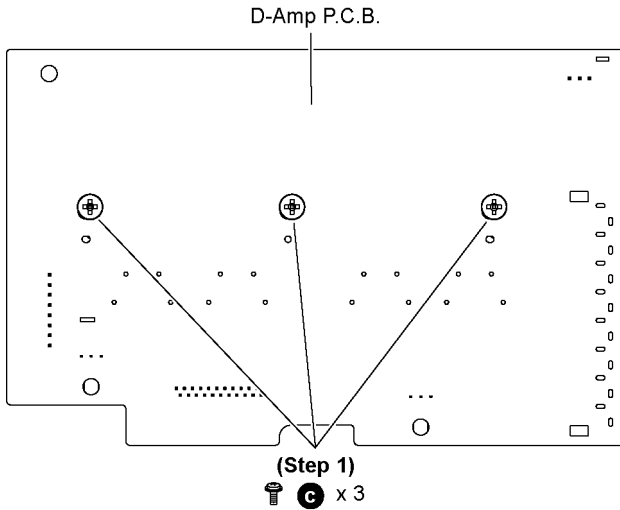
Step 5 Screw the 3 screws on the solder side of D-Amp P.C.B..

9.17. Replacement of Audio Amplifier Driver IC (IC8002)

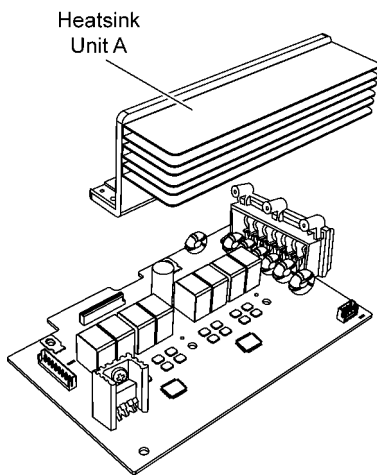
9.17.1. Disassembly of Audio Amplifier Driver IC (IC8002)

- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 9) to (Step 13) of Item 9.13.
- Follow (Step 1) to (Step 7) of Item 9.15.

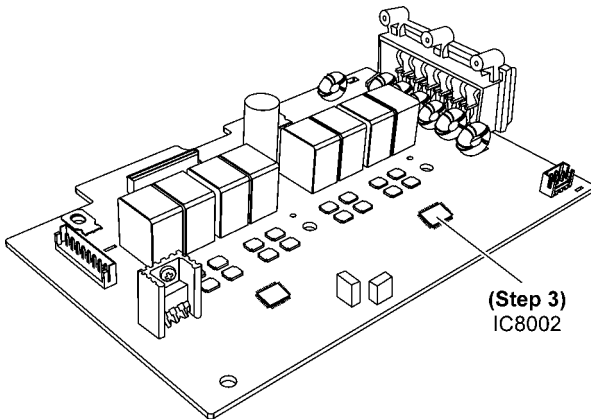
9.17.2. Assembly of Driver IC (IC8002)



Step 1 Remove 3 screws at the solder side of D-Amp P.C.B..

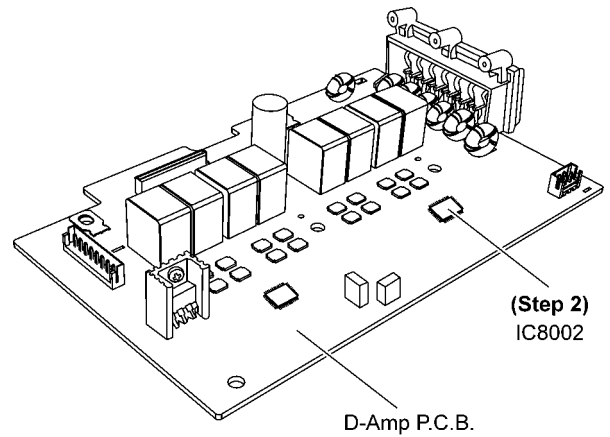


Step 2 Remove the heatsink unit A.



Step 3 Desolder pins of Audio Amplifier Driver IC (IC8002).

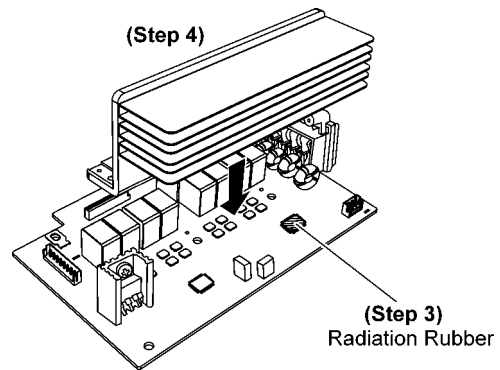
Step 4 Remove Audio Amplifier Driver IC (IC8002) from D-Amp P.C.B..



Step 1 Mount the Audio Amplifier Driver IC (IC8002) on to the D-Amp P.C.B..

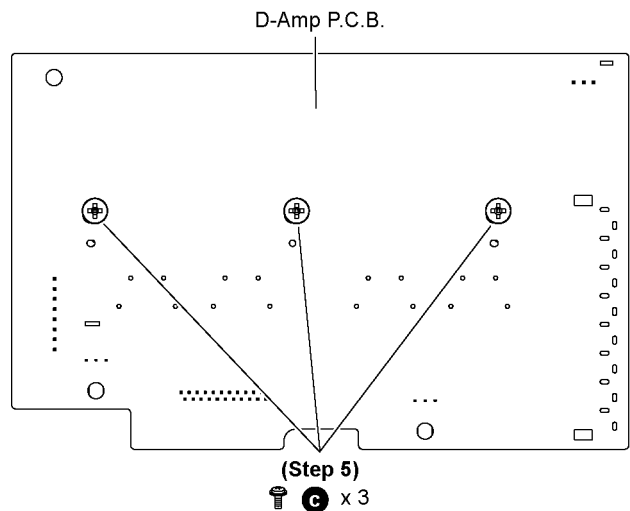
Caution: Ensure that the pins of Audio Amplifier Driver IC (IC8002) is positioned correctly on D-Amp P.C.B..

Step 2 Solder the pins of Audio Amplifier Driver IC (IC8002) on the D-Amp P.C.B..



Step 3 Apply radiator rubber to the Audio Amplifier Driver IC (IC8002).

Step 4 Install the heatsink unit A on D-Amp P.C.B. in the direction of arrow.

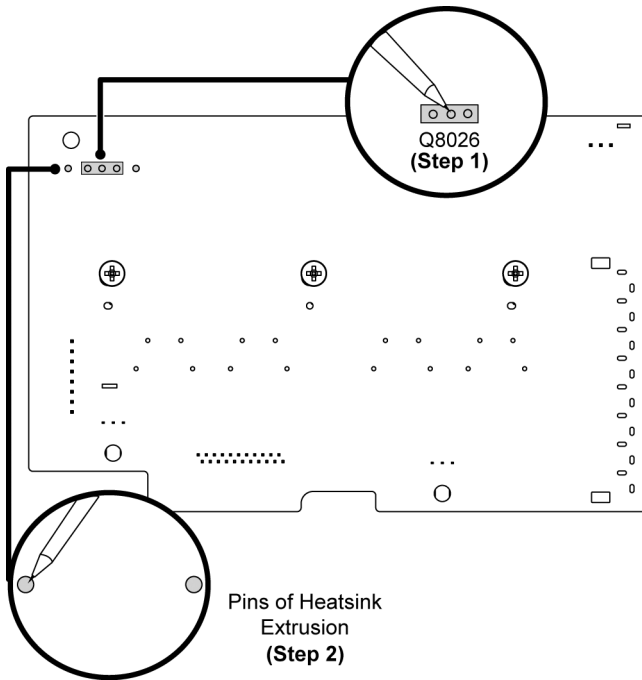


Step 5 Screw the 3 screws on the solder side of D-Amp P.C.B..

9.18. Replacement of Regulator Transistor (Q8026)

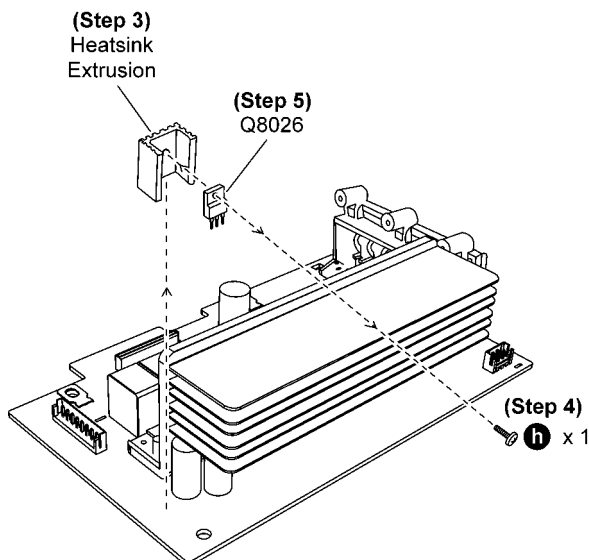
9.18.1. Disassembly of Regulator Transistor (Q8026)

- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 3) of Item 9.13.
- Follow (Step 1) to (Step 7) of Item 9.15.



Step 1 Desolder pins of the Regulator Transistor (Q8026) on the solder side of D-Amp P.C.B..

Step 2 Desolder pins of the heatsink extrusion.

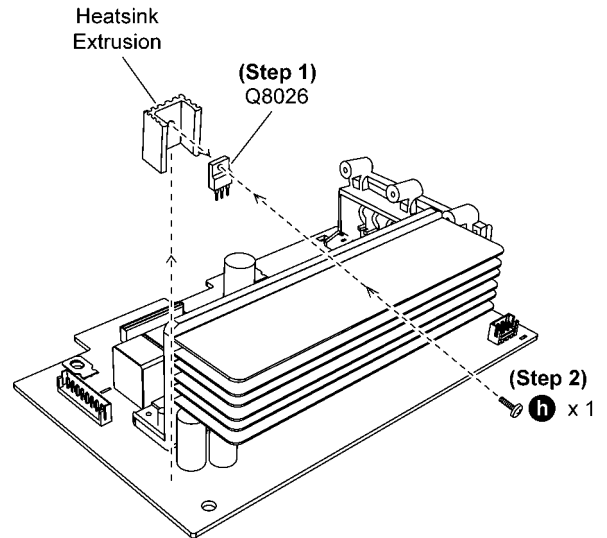


Step 3 Remove the heatsink extrusion with the IC in the direction of arrow.

Step 4 Remove 1 screw from the Regulator Transistor (Q8026).

Step 5 Remove the Regulator Transistor (Q8026) from the heatsink extrusion.

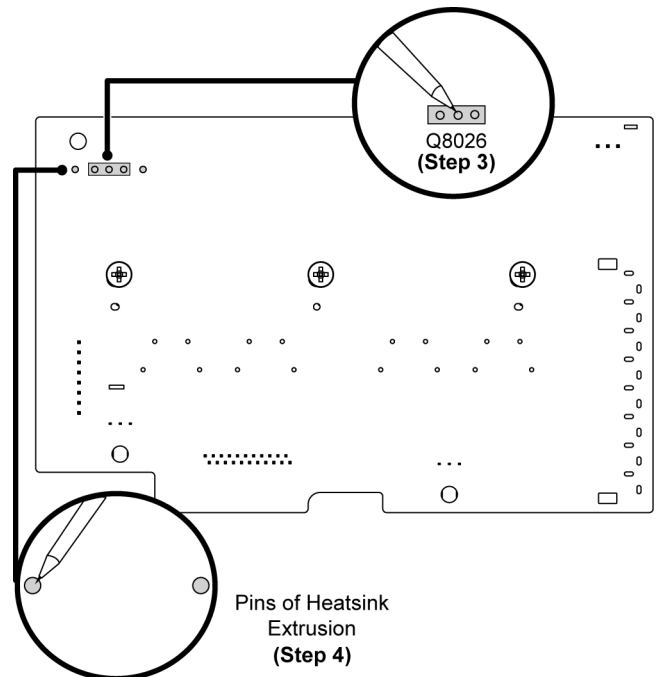
9.18.2. Assembly of Regulator Transistor (Q8026)



Step 1 Install Regulator Transistor (Q8026) on to the heatsink extrusion.

Step 2 Mount the heatsink extrusion with Q8026 on the D-Amp P.C.B..

Caution: Ensure the (Q8026) is tightly screw to the heat-sink extrusion.



Step 3 Solder pins of the (Q8026) on the solder side of D-Amp P.C.B..

Step 4 Solder pins of the heatsink extrusion on the solder side of D-Amp P.C.B..

Caution: Ensure pins of the (Q8026) are properly seated and soldered on D-Amp P.C.B..

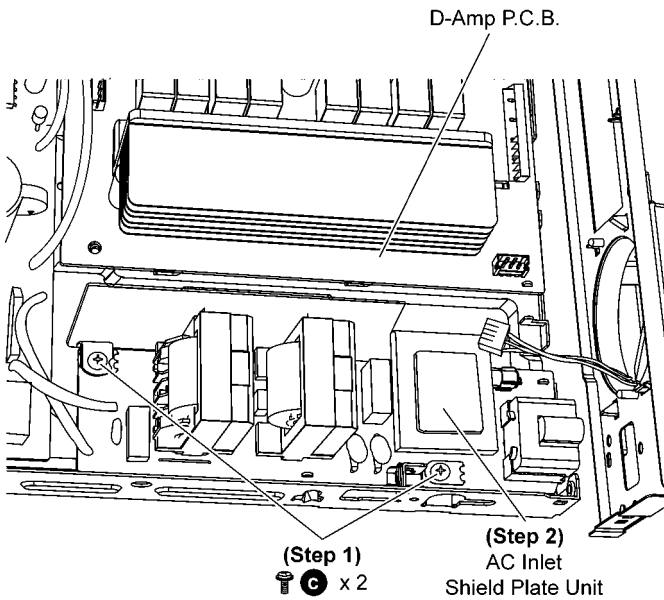
9.19. Disassembly of AC Inlet P.C.B.

- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 2) of Item 9.15.

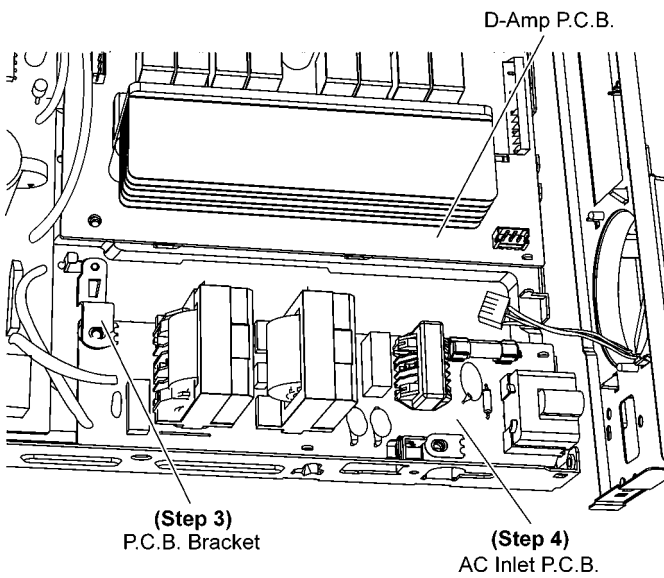
Caution: During assembling, ensure that the AC Inlet P.C.B is seated properly at the locators.

9.20. Disassembly of SMPS P.C.B.

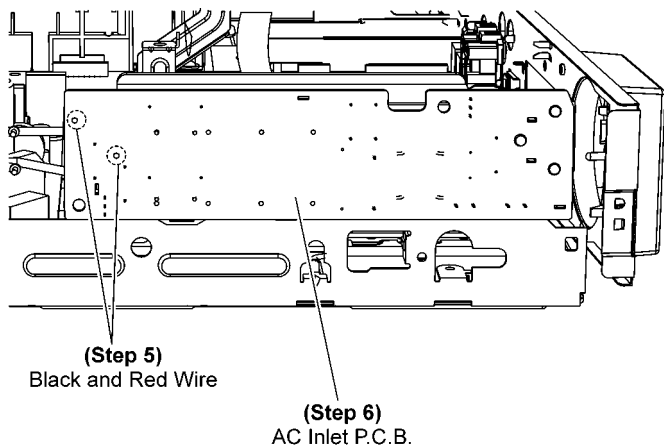
- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 6) of Item 9.6.



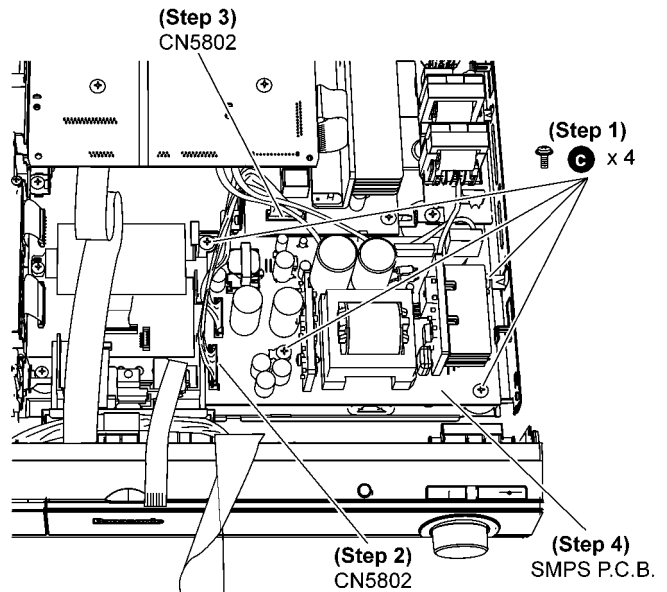
- Step 1** Remove 2 screws at the AC Inlet shield plate unit.
Step 2 Remove AC Inlet shield plate unit.



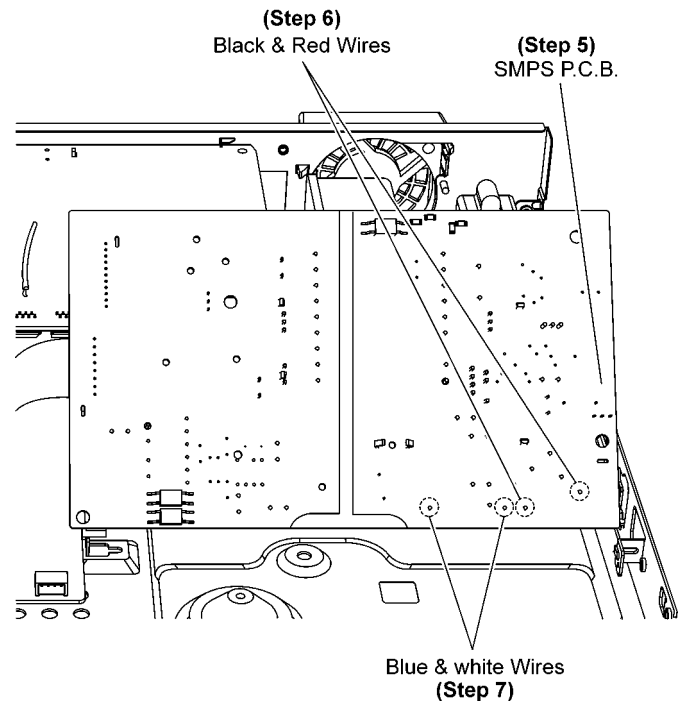
- Step 3** Remove P.C.B. Bracket.
Step 4 Lift up AC Inlet P.C.B..



- Step 5** Desolder black and red wires.
Step 6 Remove AC Inlet P.C.B..



- Step 1** Remove 4 screws on SMPS P.C.B..
Step 2 Detach 11P FFC at the connector (CN5802) on SMPS P.C.B..
Step 3 Detach 8P FFC at the connector (CN8502) on D-Amp P.C.B..
Step 4 Lift up the SMPS P.C.B..

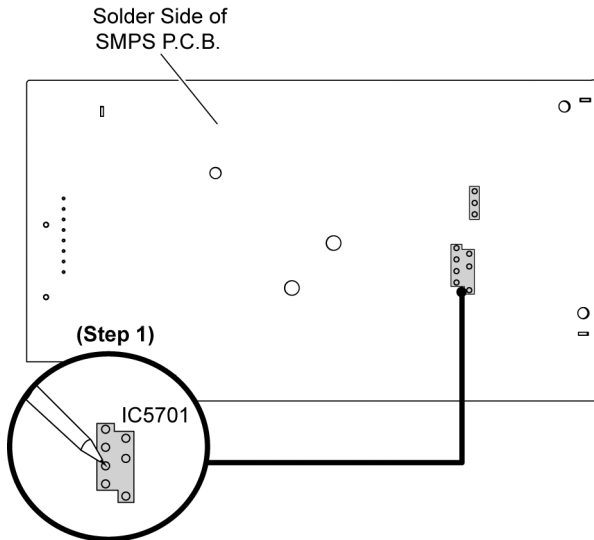


- Step 5** Upset the SMPS P.C.B. according to diagram shown.
Step 6 Desolder black and red wires on SMPS P.C.B..
Step 7 Desolder blue and white wires on SMPS P.C.B..
Step 8 Remove SMPS P.C.B..

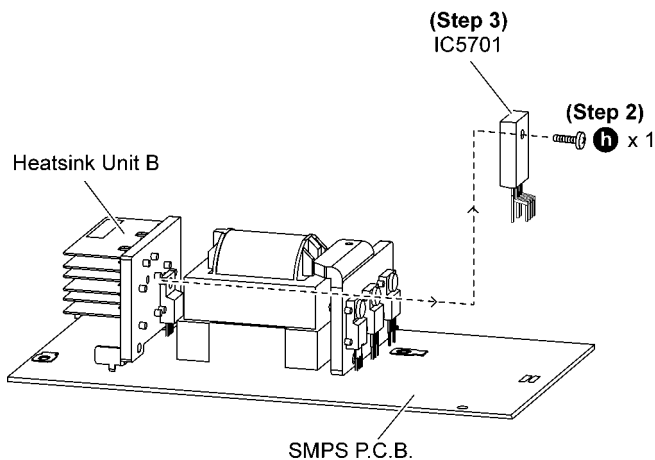
9.21. Replacement of Switching Regulator IC (IC5701)

9.21.1. Disassembly of Switching Regulator IC (IC5701)

- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 6) of Item 9.6.
- Follow (Step 1) to (Step 7) of Item 9.20.



Step 1 Desolder pins of the switching regulator IC (IC5701) on the solder side of SMPS P.C.B..



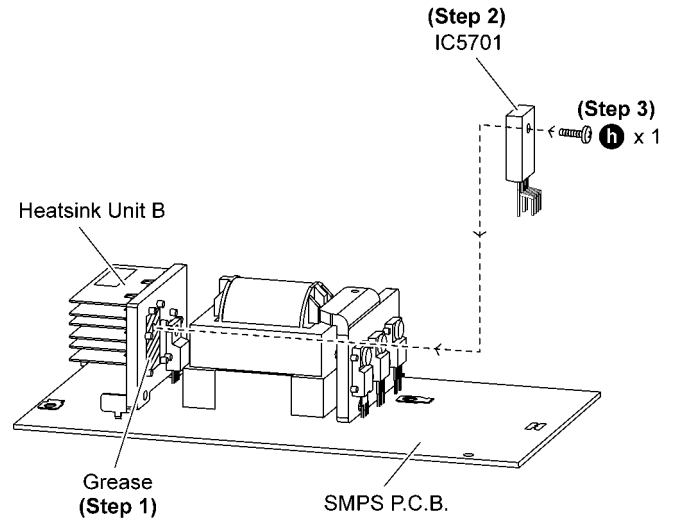
Step 2 Remove 1 screw from the switching regulator IC (IC5701).

Step 3 Remove the switching regulator IC (IC5701).

Caution: Handle the SMPS P.C.B. with care due to its high temperature after prolonged use. Touching it may lead to injuries.

Note: Refer to the diagrams of SMPS P.C.B. (Item 17.8.) for location of the part.

9.21.2. Assembly of Switching Regulator IC (IC5701)

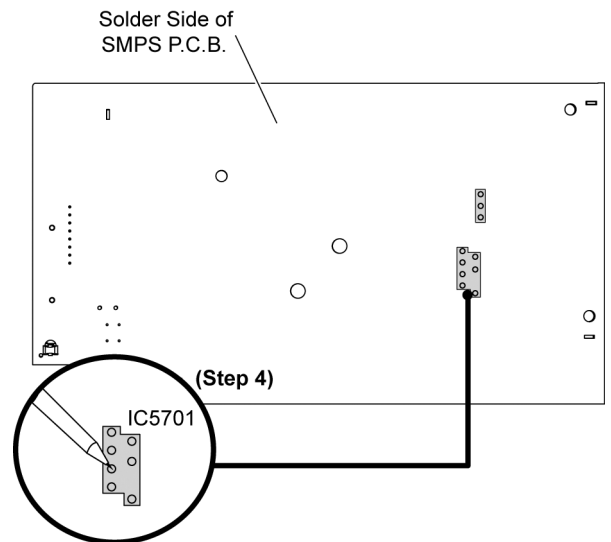


Step 1 Apply grease to the heatsink unit B.

Step 2 Mount the switching regulator IC (IC5701) on to SMPS P.C.B.

Step 3 Fix and screw the switching regulator IC (IC5701) to the heatsink unit B.

Caution: Ensure the switching regulator IC (IC5701) is tightly screwed to the heatsink unit B.



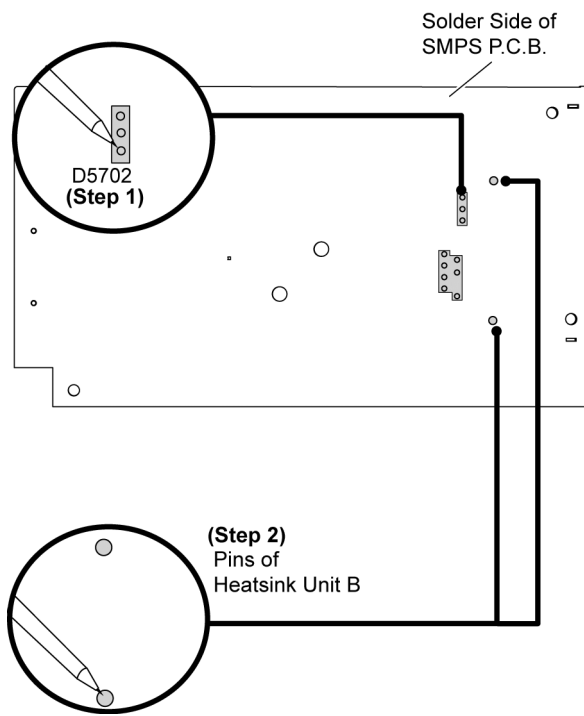
Step 4 Solder pins of the switching regulator IC (IC5701) on the solder side of SMPS P.C.B..

Caution: Ensure pins of the switching regulator IC (IC5701) are properly seated and soldered on SMPS P.C.B..

9.22. Replacement of Rectifier Diode (D5702)

9.22.1. Disassembly of Rectifier Diode (D5702)

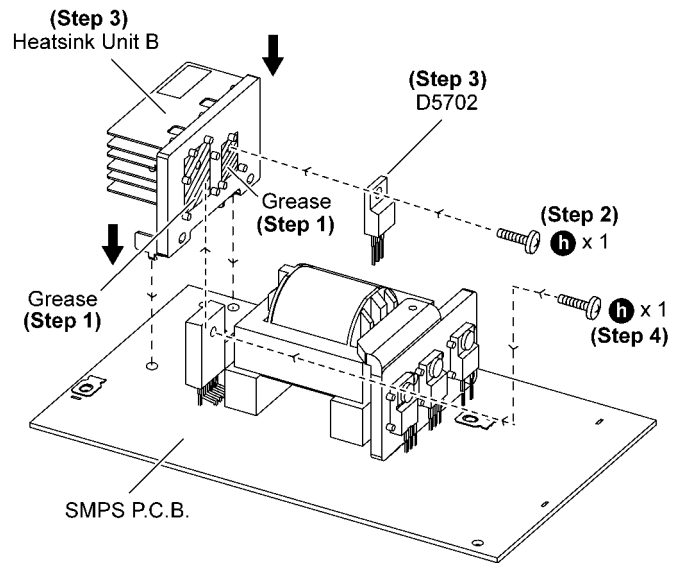
- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 6) of Item 9.6.
- Follow (Step 1) to (Step 7) of Item 9.20.



Step 1 Desolder pins of the rectifier diode (D5702) on the solder side of SMPS P.C.B..

Step 2 Desolder pins of the heatsink unit B.

9.22.2. Assembly of Rectifier Diode (D5702)



Step 1 Apply grease to the heatsink unit B.

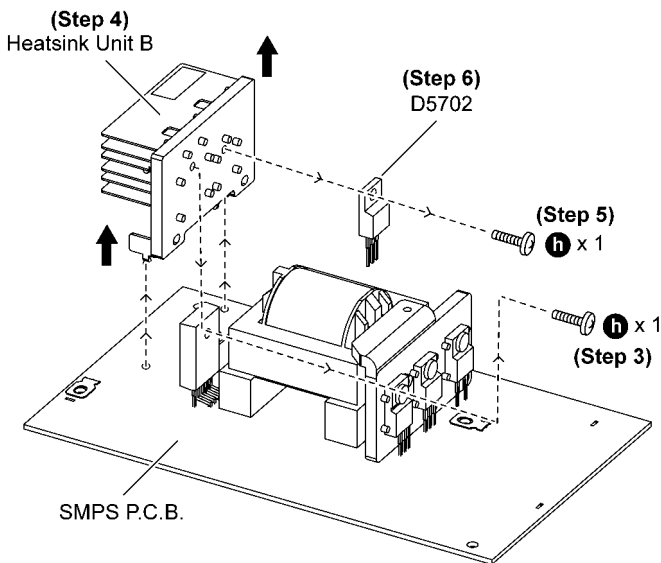
Step 2 Fix and screw the rectifier diode (D5702) to the heatsink unit B.

Caution: Ensure the rectifier diode (D5702) is tightly screwed to the heatsink unit B.

Step 3 Mount the heatsink unit B with rectifier diode (D5702) on SMPS P.C.B. in the direction of arrows.

Caution: Ensure the heatsink unit B with rectifier diode (D5702) are properly seated on SMPS P.C.B.

Step 4 Fix and screw the switching regulator IC (IC5701) to the heatsink unit B.



Step 3 Remove 1 screw from the switching regulator IC (IC5701).

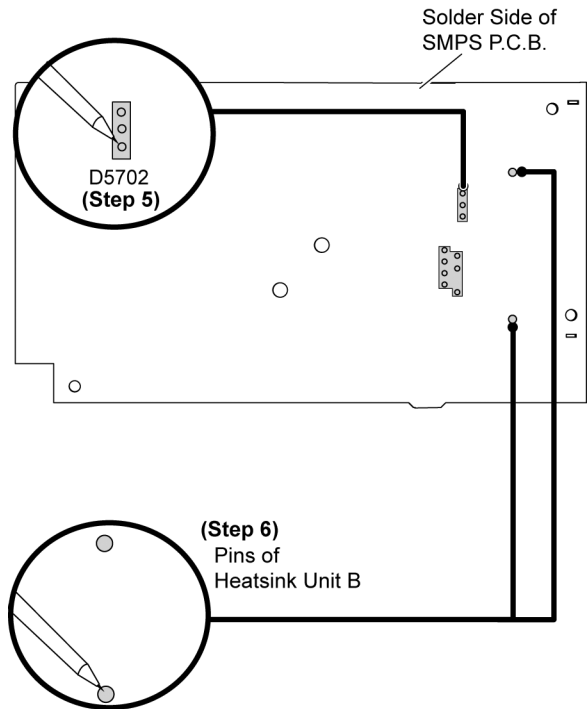
Step 4 Remove the heatsink unit B with rectifier diode (D5702) in the direction of arrows.

Step 5 Remove 1 screw from the rectifier diode. (D5702).

Step 6 Remove the rectifier diode (D5702).

Caution: Handle the SMPS P.C.B. with care due to its high temperature after prolonged use. Touching it may lead to injuries.

Note: Refer to the diagrams of SMPS P.C.B. (Item 17.8) for location of the electrical components.



Step 5 Solder pins of the rectifier diode (D5702) on the solder side of SMPS P.C.B..

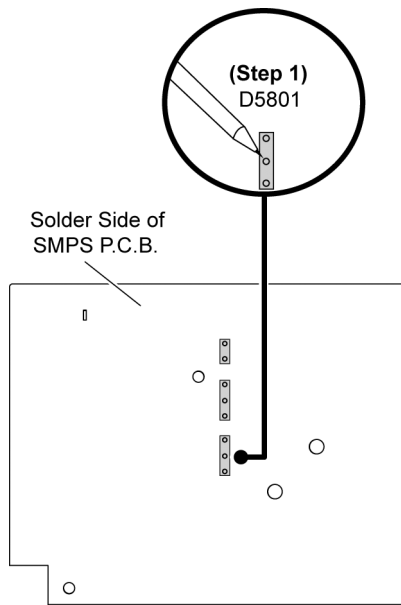
Step 6 Solder pins of the heatsink unit B on the pattern side of SMPS P.C.B..

Caution: Ensure pins of the rectifier diode (D5702) are properly seated and soldered on SMPS P.C.B..

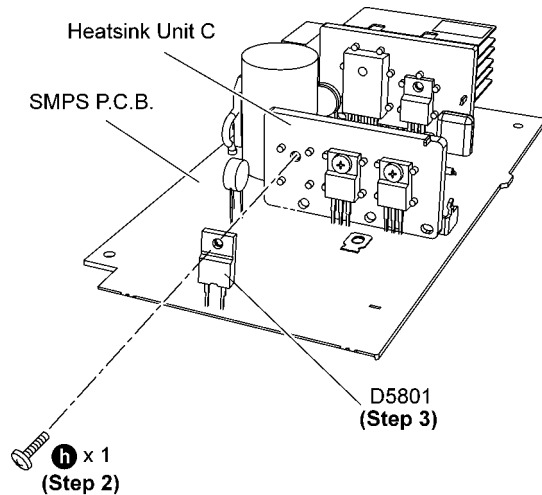
9.23. Replacement of Regulator Diode (D5801)

9.23.1. Disassembly of Regulator Diode (D5801)

- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 6) of Item 9.6.
- Follow (Step 1) to (Step 7) of Item 9.20.



Step 1 Desolder pins of the regulator diode (D5801) on the solder side of SMPS P.C.B..



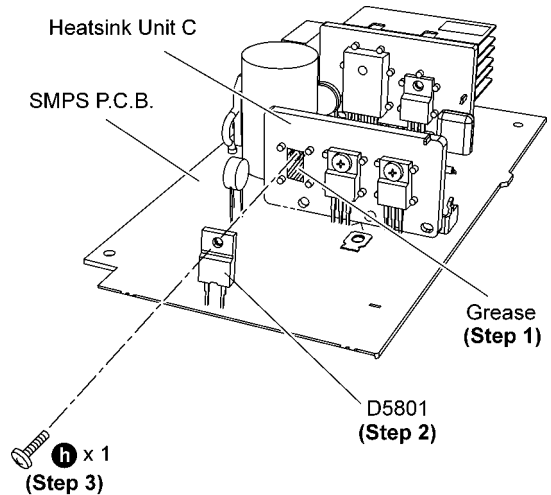
Step 2 Remove 1 screw from the regulator diode (D5801).

Step 3 Remove the regulator diode (D5801) from the SMPS P.C.B..

Caution: Handle the SMPS P.C.B. with care due to its high temperature after prolonged use. Touching it may lead to injuries.

Note: Refer to the diagrams of SMPS P.C.B. (Item 17.8) for location of the electrical components.

9.23.2. Assembly of Regulator Diode (D5801)

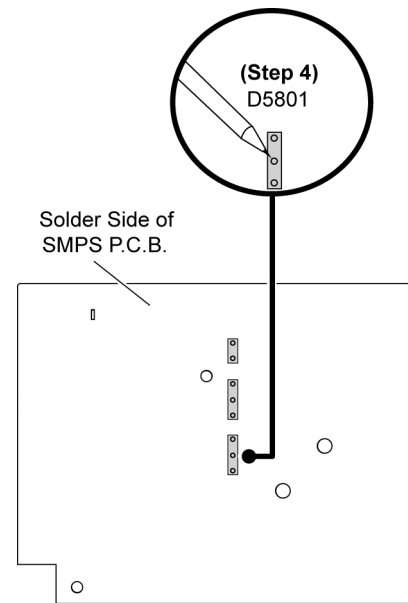


Step 1 Apply grease to the heatsink unit C.

Step 2 Mount the regulator diode (D5801) on to SMPS P.C.B..

Step 3 Fix and screw the regulator diode (D5801) to the heat-sink unit C.

Caution: Ensure the regulator diode (D5801) is tightly screwed to the heatsink unit C.



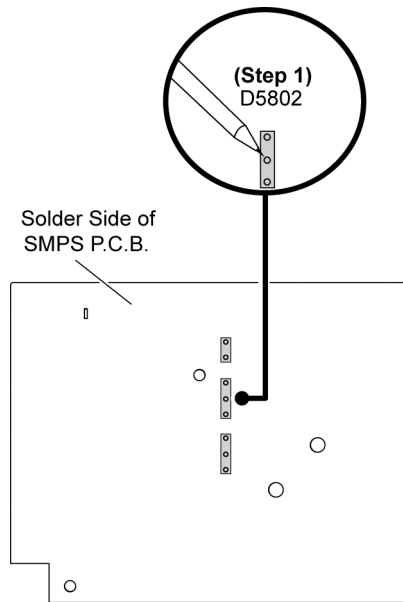
Step 4 Solder pins of the regulator diode (D5801) on the solder side of SMPS P.C.B..

Caution: Ensure pins of the regulator diode (D5801) are properly seated and soldered on SMPS P.C.B..

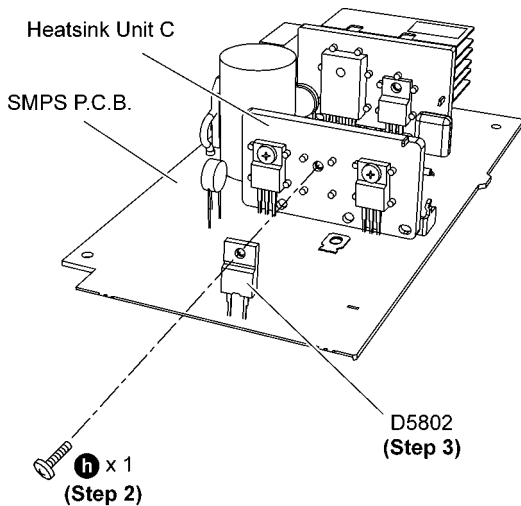
9.24. Replacement of Regulator Diode (D5802)

9.24.1. Disassembly of Regulator Diode (D5802)

- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 6) of Item 9.6.
- Follow (Step 1) to (Step 7) of Item 9.20.



Step 1 Desolder pins of the regulator diode (D5802) on the solder side of SMPS P.C.B..



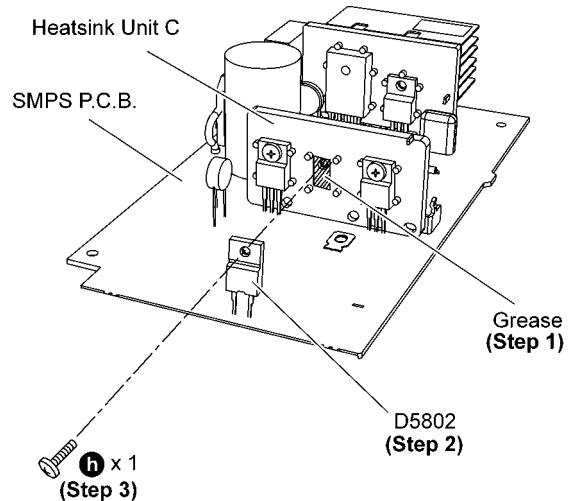
Step 2 Remove 1 screw from the regulator diode (D5802).

Step 3 Remove the regulator diode (D5802) from the SMPS P.C.B..

Caution: Handle the SMPS P.C.B. with care due to its high temperature after prolonged use. Touching it may lead to injuries.

Note: Refer to the diagrams of SMPS P.C.B. (Item 17.8) for location of the electrical components.

9.24.2. Assembly of Regulator Diode (D5802)

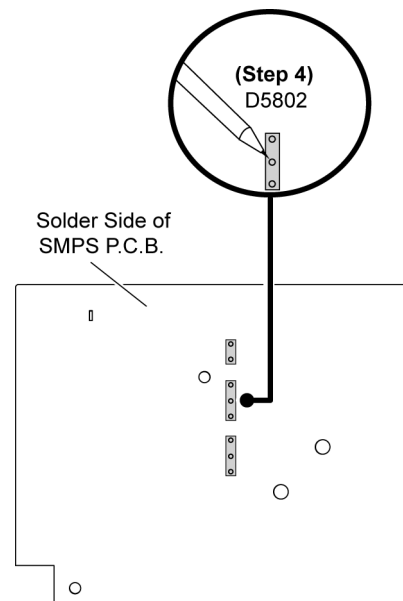


Step 1 Apply grease to the heatsink unit C.

Step 2 Mount the regulator diode (D5802) on to SMPS P.C.B..

Step 3 Fix and screw the regulator diode (D5802) to the heat-sink unit C.

Caution: Ensure the regulator diode (D5802) is tightly screwed to the heatsink unit C.



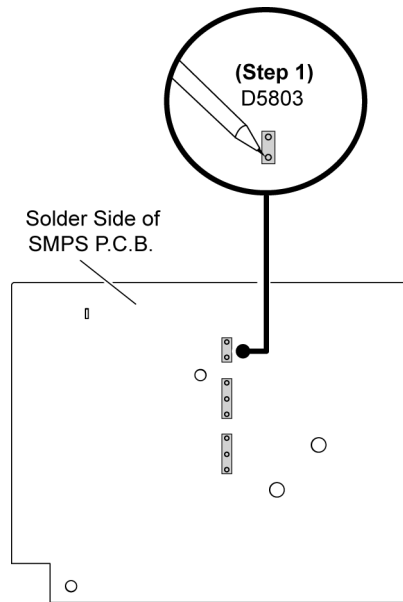
Step 4 Solder pins of the regulator diode (D5802) on the solder side of SMPS P.C.B..

Caution: Ensure pins of the regulator diode (D5802) are properly seated and soldered on SMPS P.C.B..

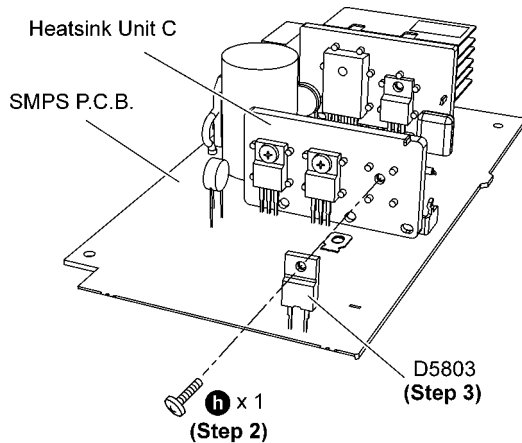
9.25. Replacement of Regulator Diode (D5803)

9.25.1. Disassembly of Regulator Diode (D5803)

- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 6) of Item 9.6.
- Follow (Step 1) to (Step 7) of Item 9.20.



Step 1 Desolder pins of the regulator diode (D5803) on the solder side of SMPS P.C.B..



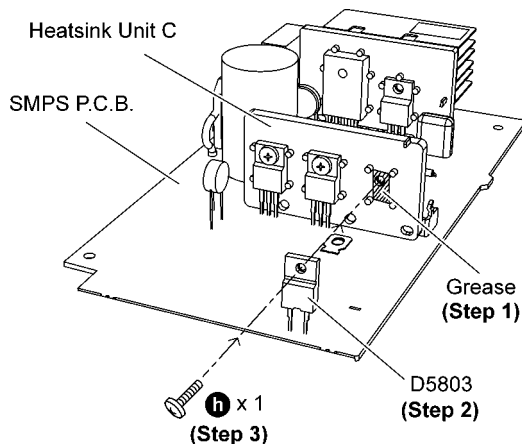
Step 2 Remove 1 screw from the regulator diode (D5803).

Step 3 Remove the regulator diode (D5803) from the SMPS P.C.B..

Caution: Handle the SMPS P.C.B. with care due to its high temperature after prolonged use. Touching it may lead to injuries.

Note: Refer to the diagrams of SMPS P.C.B. (Item 17.8) for location of the electrical components.

9.25.2. Assembly of Regulator Diode (D5803)

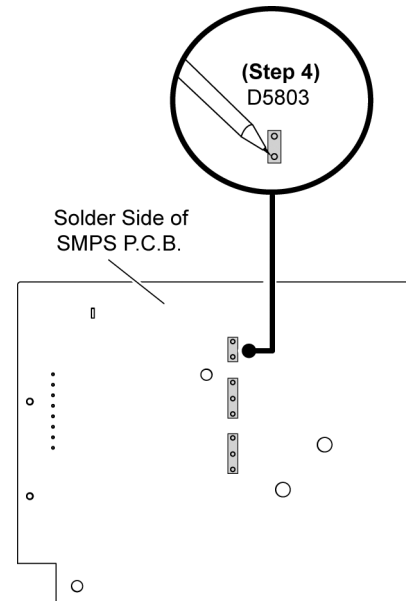


Step 1 Apply grease to the heatsink unit C.

Step 2 Mount the regulator diode (D5803) on to SMPS P.C.B..

Step 3 Fix and screw the regulator diode (D5803) to the heat-sink unit C.

Caution: Ensure the regulator diode (D5803) is tightly screwed to the heatsink unit C.

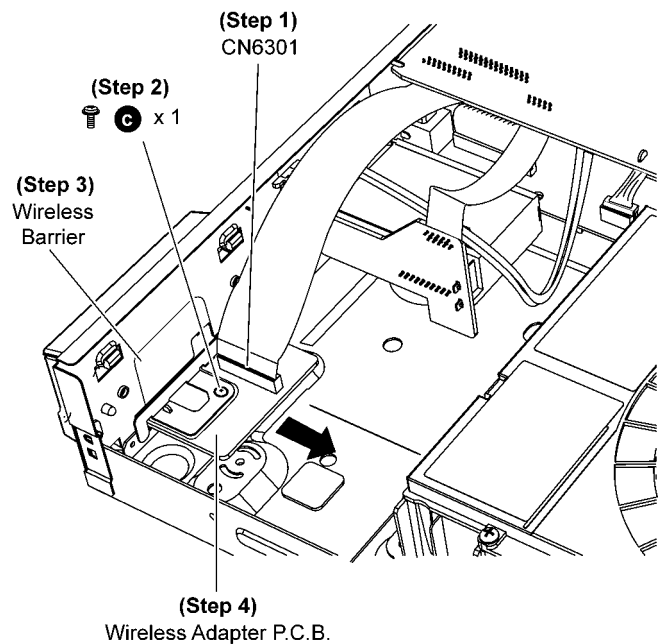


Step 4 Solder pins of the regulator diode (D5803) on the solder side of SMPS P.C.B..

Caution: Ensure pins of the regulator diode (D5803) are properly seated and soldered on SMPS P.C.B..

9.26. Disassembly of Wireless Adapter P.C.B.

• Follow (Step 1) to (Step 3) of Item 9.3.



Step 1 Detach 19P FFC at the connector (CN6301) on Wireless Adapter P.C.B..

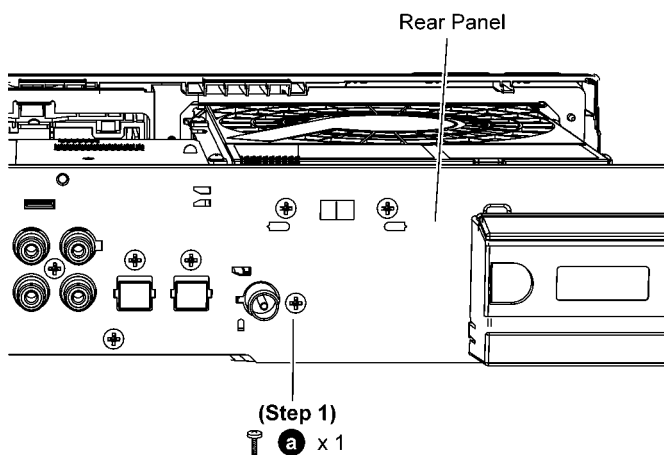
Step 2 Remove 1 screw on Wireless Adapter P.C.B..

Step 3 Remove wireless barrier.

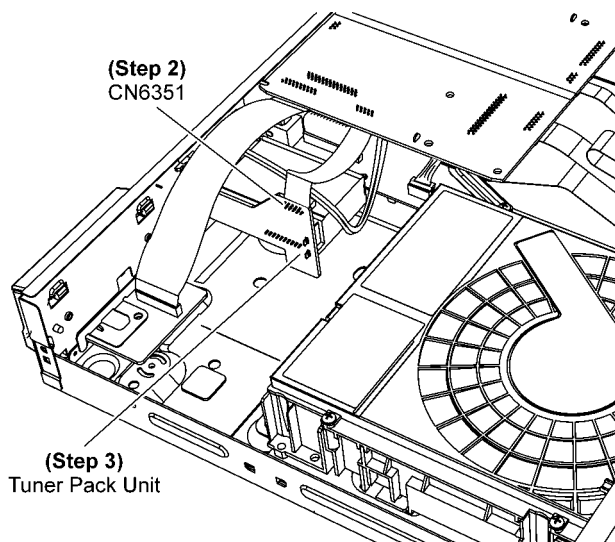
Step 4 Remove Wireless Adapter P.C.B..

9.27. Disassembly of Tuner P.C.B.

- Follow (Step 1) to (Step 3) of Item 9.3.

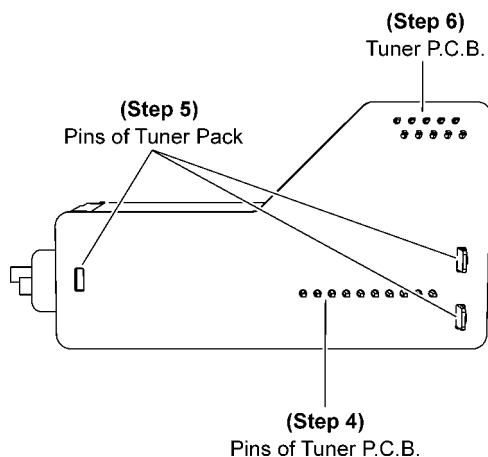


Step 1 Remove 1 screw at the rear panel.



Step 2 Detach 10P FFC at the connector (CN6351) on Tuner unit.

Step 3 Remove the Tuner Pack unit.



Step 4 Desolder pins at the connector (Z6351) on the solder side of Tuner P.C.B..

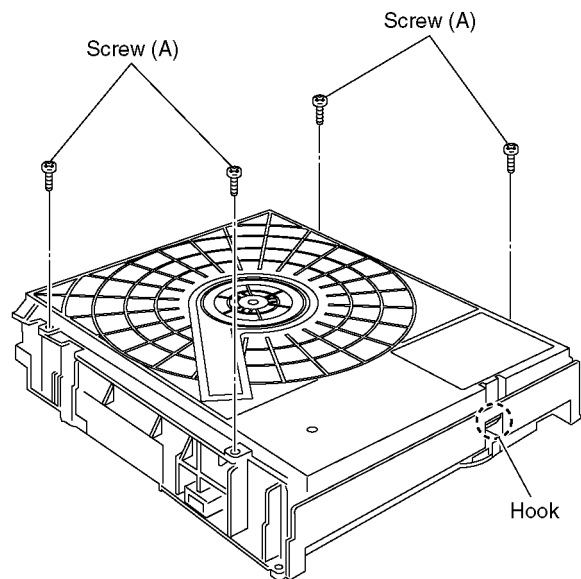
Step 5 Desolder pins of Tuner Pack.

Step 6 Remove Tuner P.C.B..

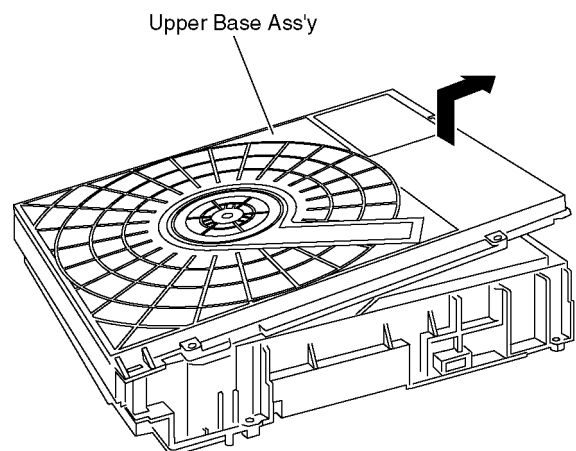
9.28. Disassembly of BD Drive

- Follow (Step 1) to (Step 3) of Item 9.3.
- Follow (Step 1) to (Step 6) of Item 9.6.
- Follow (Step 1) to (Step 4) of Item 9.12.

9.28.1. Upper Base Ass'y

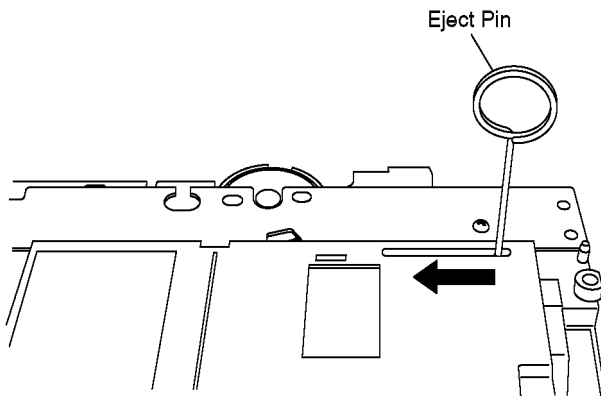


Step 1 Remove the 4 Screws , and push the Hook in.



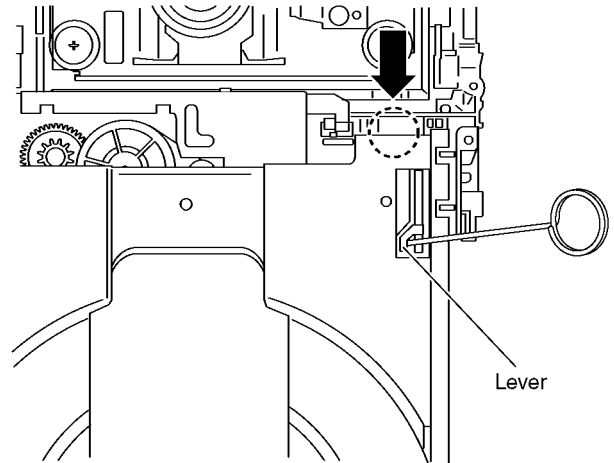
Step 2 Lift up the Upper Base Ass'y, and pull it out to the direction of arrow.

9.28.2. Tray



Step 1 Perform the step "9.28.1. Upper Base Ass'y."

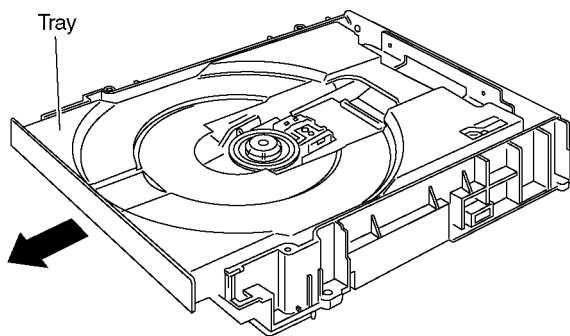
Step 2 Insert the Eject Pin into the hole of the bottom side, and slide it to the direction of arrow until it can be.



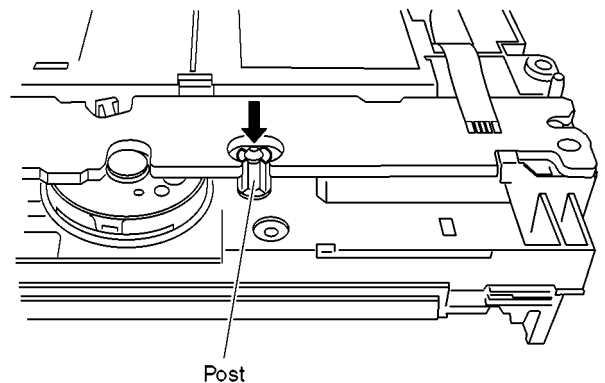
Step 5 Insert the Eject Pin into the Tray as below figure, lift up the lever using the Eject Pin while pushing the dotted point of the Tray.

And remove the Tray.

9.28.3. Pulley Gear, Belt

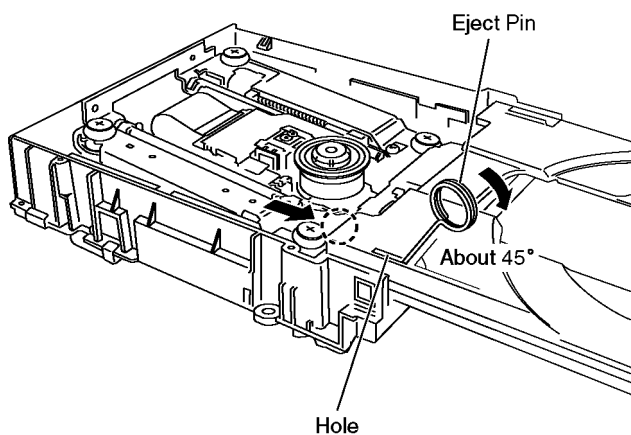


Step 3 Pull the Tray to the direction of arrow until it can be.



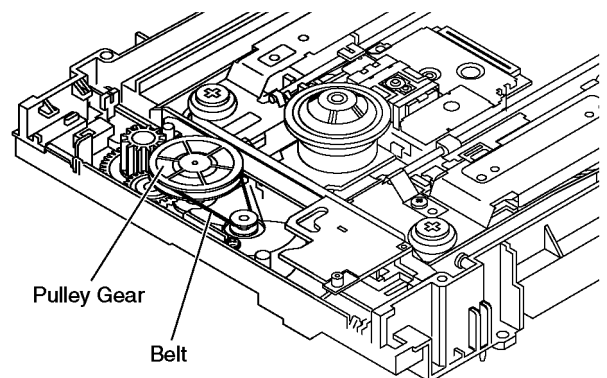
Step 1 Perform the step "9.28.2. Tray".

Step 2 Push the Post to the direction of arrow by using the slotted screwdriver.



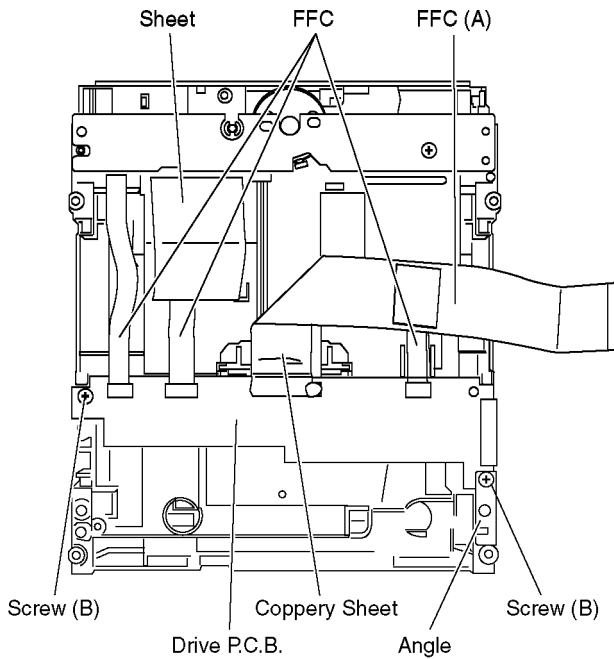
Step 4 Insert the Eject Pin into the hole of the Tray at 45 degrees, and lean it to the direction of arrow with pushing the dotted point of the tray forward.

Then the one side of the tray is come off from the Drive.

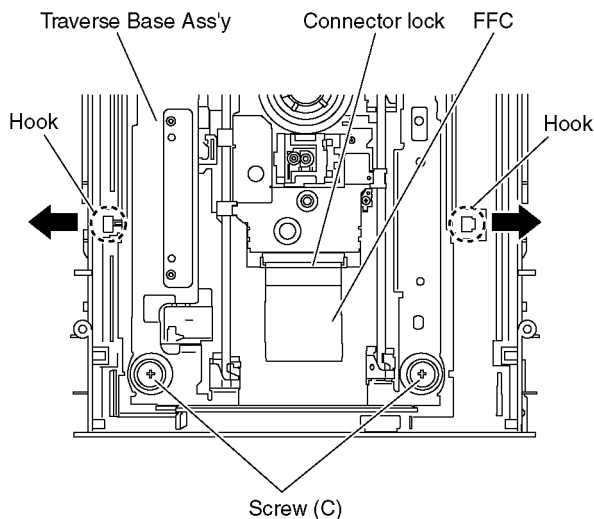


Step 3 Remove the Pulley Gear and Belt.

9.28.4. Slide Cam

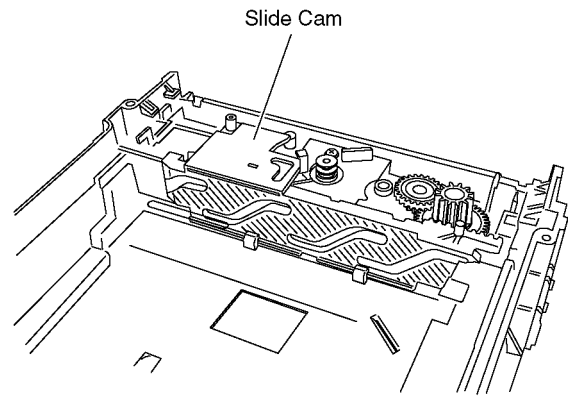


- Step 1** Perform the step "9.28.3. Pulley Gear, Belt".
Step 2 Remove the Sheet.
Step 3 Disconnect the 3 FFCs.
Step 4 Remove the 2 Screws (B) and the Angle.
Step 5 Peel off Coppery Sheet from FFC (A) and remove the Drive P.C.B..



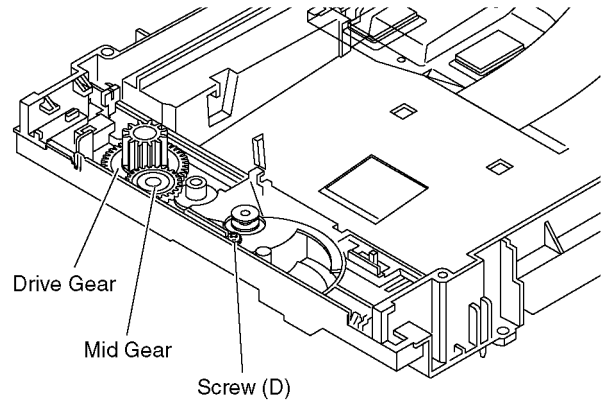
Caution: Though the Drive P.C.B. is not supplied as replacement parts, it must be removed for after disassembling.

- Step 6** Open the connector lock, and disconnect the FFC.
Step 7 Remove the 2 Screws (C), and remove the Traverse Base Ass'y with spreading the 2 hooks to the direction of arrows.

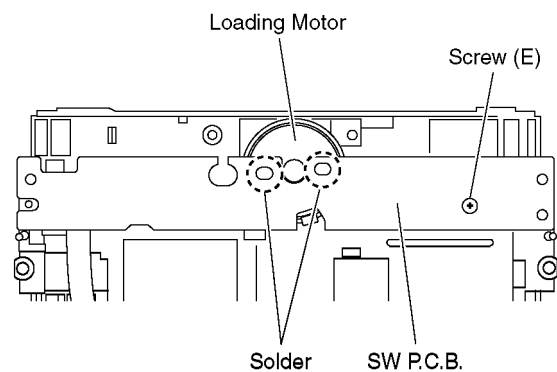


Step 8 Remove the Slide Cam.

9.28.5. Mid Gear, Drive Gear and Loading Motor

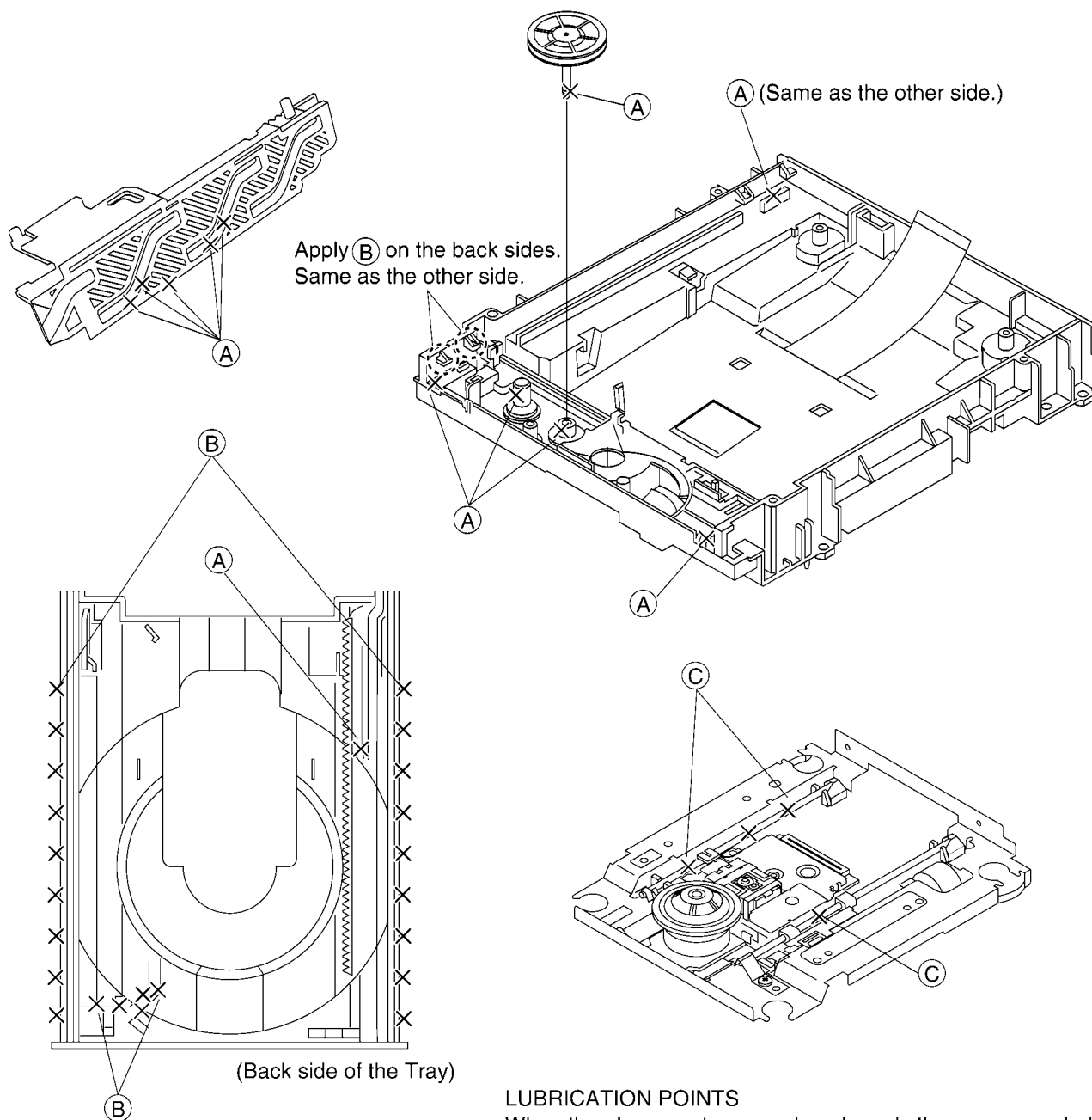


- Step 1** Perform the step "9.28.4. Slide Cam".
Step 2 Remove the Mid Gear and Drive Gear.
Step 3 Remove the Screw (D) to remove the Loading Motor.



- Step 4** Remove the Screw (E), and remove the SW P.C.B. with the Loading Motor.
 Remove the 2 soldering points, and remove the Loading Motor.

9.28.6. Grease



LUBRICATION POINTS

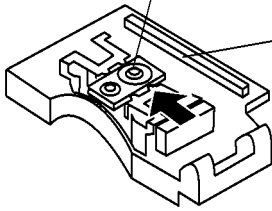
When the above parts are replaced, apply the recommended lubricants or adhesive for better maintenance of the unit.

Mark	Kind of lubricant	Part No.
(A)	Grease	RFKZ0484
(B)	Hanarl	RFKZ0441
(C)	Grease	RFKXPG641

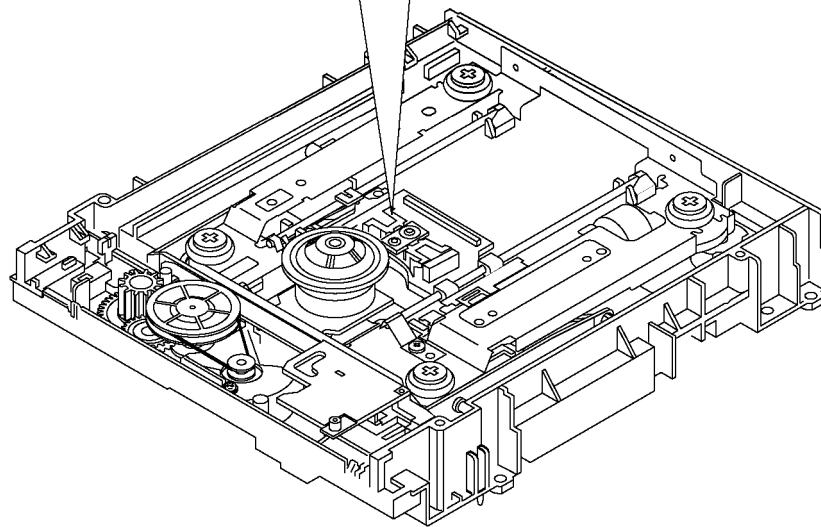
9.28.7. How to Clean the Lens of Optical Pick-UP

Follow the "9.2.1. Upper Base Ass'y.

Caution : Be sure to wipe a lens in the direction of arrow.



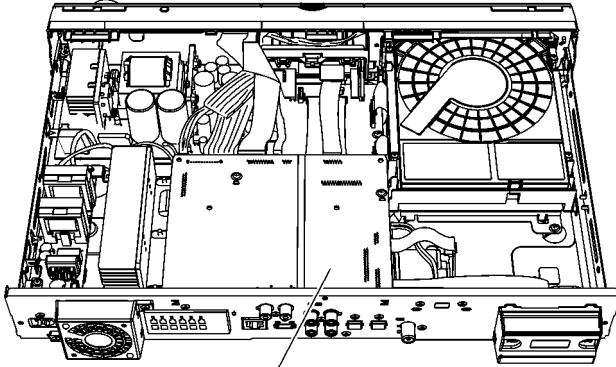
Gently wipe the object lens surface with a cotton swab slightly dampened with ethyl alcohol. Clean the lens until the cotton swab no longer picks up dirt. Finally, wipe the lens surface with a soft, dry cloth to remove any residual alcohol.



10 Service Position

10.1. Checking & Servicing of Main P.C.B.

10.1.1. Checking & servicing Side A of Main P.C.B.

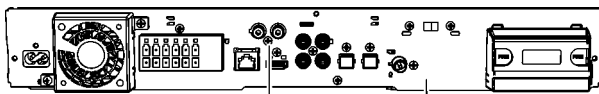


(Step 1)
Side A of Main P.C.B

Step 1 Remove top cabinet to check & service side A of Main P.C.B..

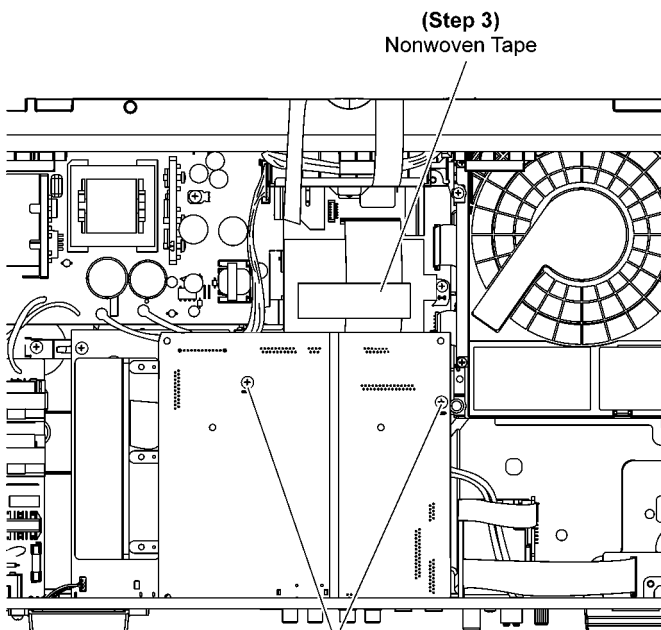
10.1.2. Checking & servicing Side B of Main P.C.B.

Step 1 Remove 1 top cabinet.



(Step 2)
a x 1
Rear Panel

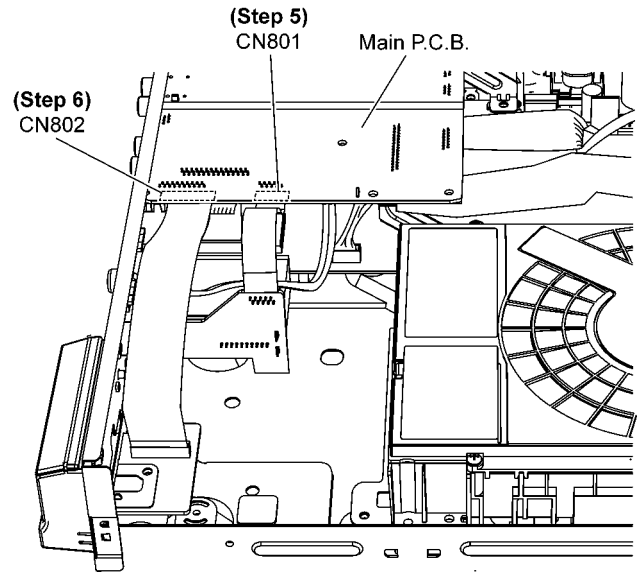
Step 2 Remove 1 screw at the rear panel.



(Step 3)
c x 2

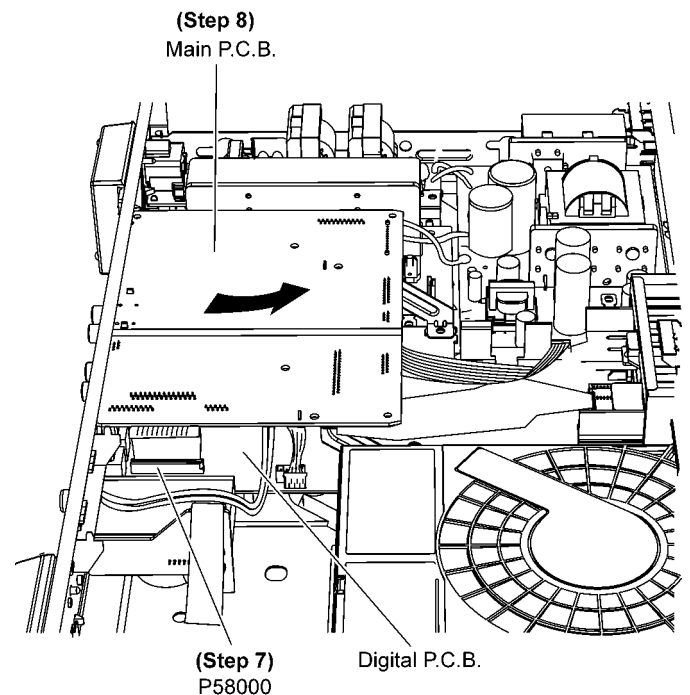
Step 3 Remove 2 screws on Main P.C.B..

Step 4 Lift up nonwoven tape.



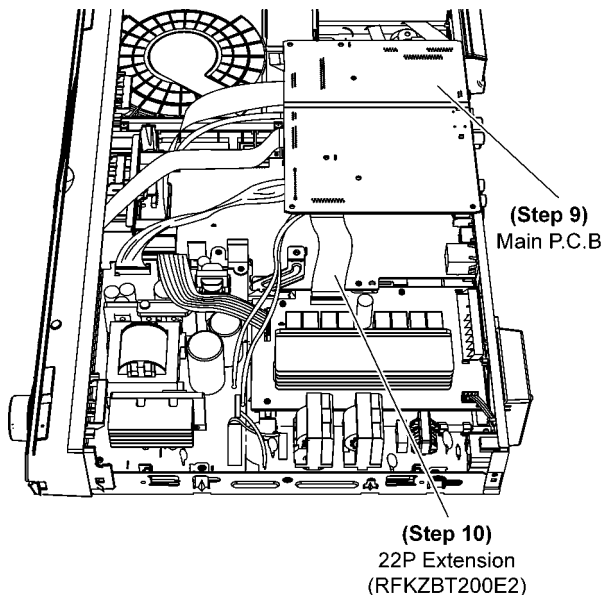
Step 5 Detach 10P FFC at the connector (CN801) on Main P.C.B..

Step 6 Detach 18P FFC at the connector (CN802) on Main P.C.B..



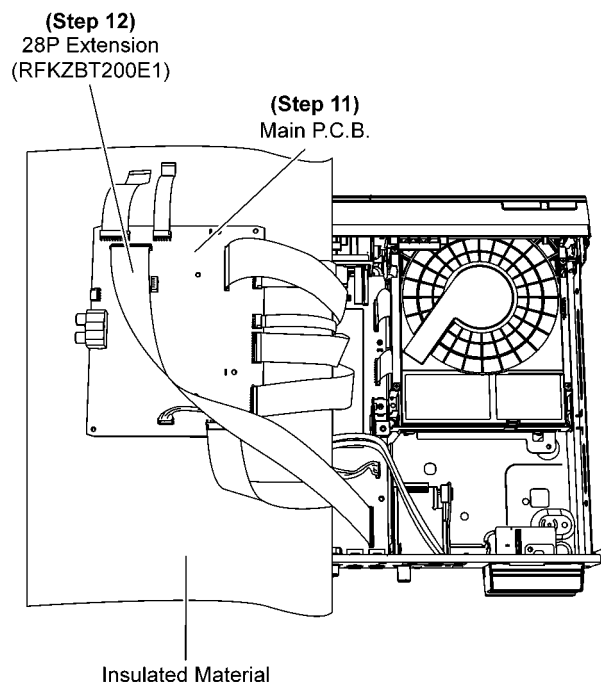
Step 7 Detach 28P FFC at the connector (P58000) on Digital P.C.B..

Step 8 Lift up Main P.C.B..



Step 9 Put aside Main P.C.B..

Step 10 Attach with 22P extension FFC (Part No. RFKZBT200E2) from CN503 to CN8501.



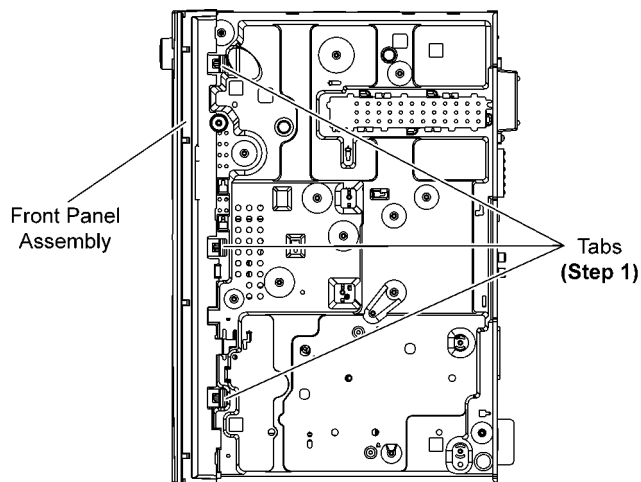
Step 11 Upset Main P.C.B..

Step 12 Attach with 28P extension FFC (Part No. RFKZBT200E1) from CN506 to P58008.

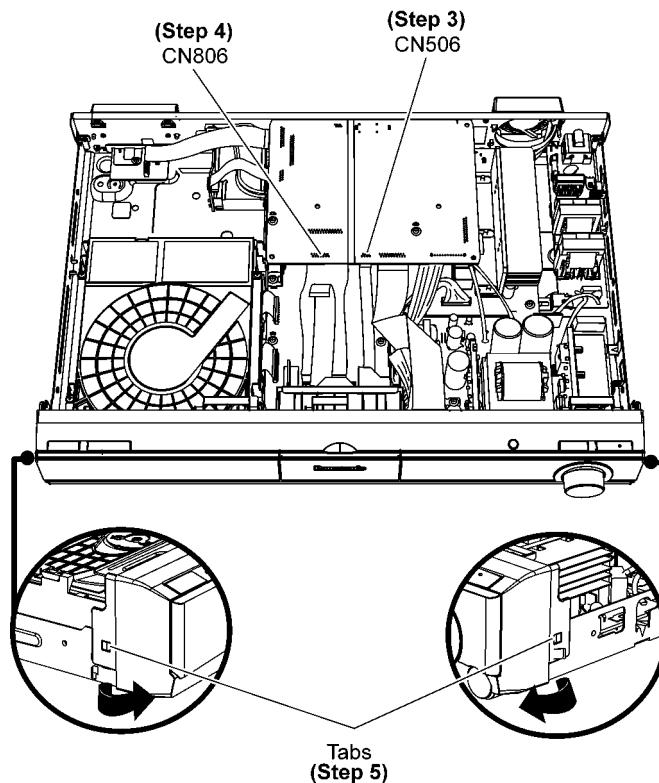
Step 13 Process to check and service Side B of Main P.C.B..

Caution: Insulated material is required to insulate Main P.C.B from other parts.

10.2. Checking & Servicing of SMPS P.C.B.



Step 1 Release the tabs at the bottom of the front panel assembly.

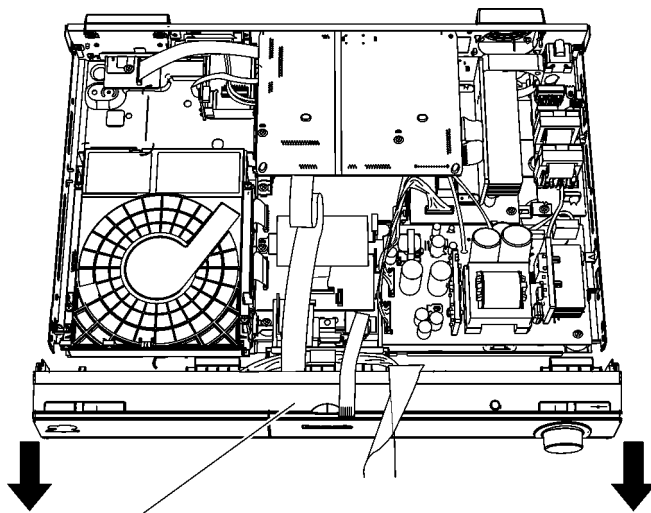


Step 2 Remove top cabinet.

Step 3 Detach 7P FFC at the connector (CN506) on Main P.C.B..

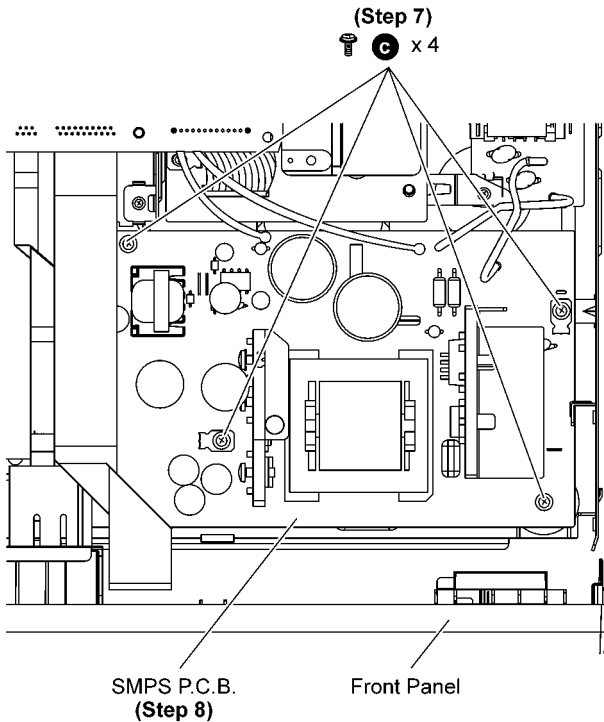
Step 4 Detach 20P FFC at the connector (CN806) on Main P.C.B..

Step 5 Release the tabs at each side at the front panel assembly in the direction of arrow.



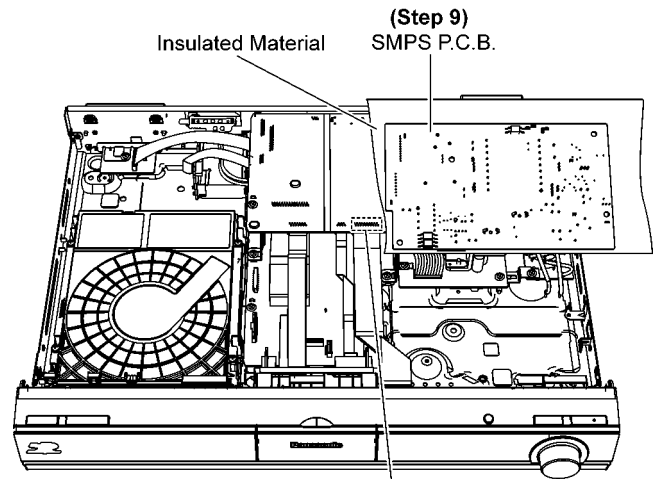
(Step 6)
Front Panel Assembly

Step 6 Slightly detach the front panel assembly.



Step 7 Remove 4 screws on SMPS P.C.B..

Step 8 Lift up SMPS P.C.B..



(Step 10)
CN806

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

Step 10 Connect 20P FFC to the connector (CN806) on SMPS P.C.B..

Step 11 Process to check and service SMPS P.C.B..

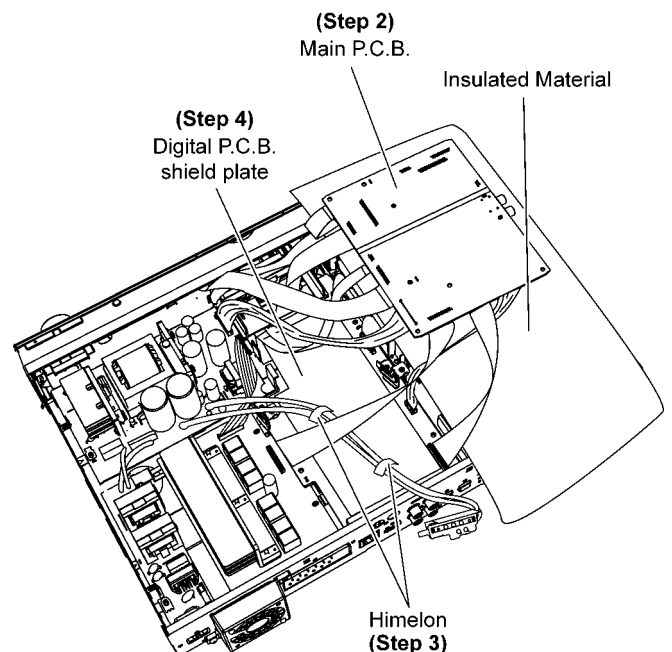
Caution: Insulated material is required to insulate SMPS P.C.B. from other parts.

10.3. Checking & Servicing of Digital P.C.B.

10.3.1. Checking & servicing side B of Digital P.C.B.

- Follow (Step 1) to (Step 11) of Item 10.1.2.

Step 1 Detach Voltage Selector from rear panel.

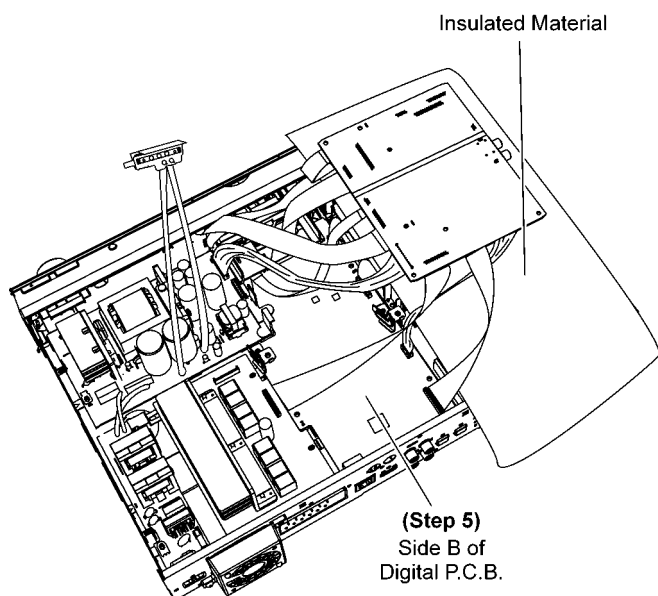


Step 2 Put aside Main P.C.B..

Caution: Insulated material is required to insulate Main P.C.B. from other parts.

Step 3 Remove 2 Himelon.

Step 4 Remove Digital P.C.B. shield plate.

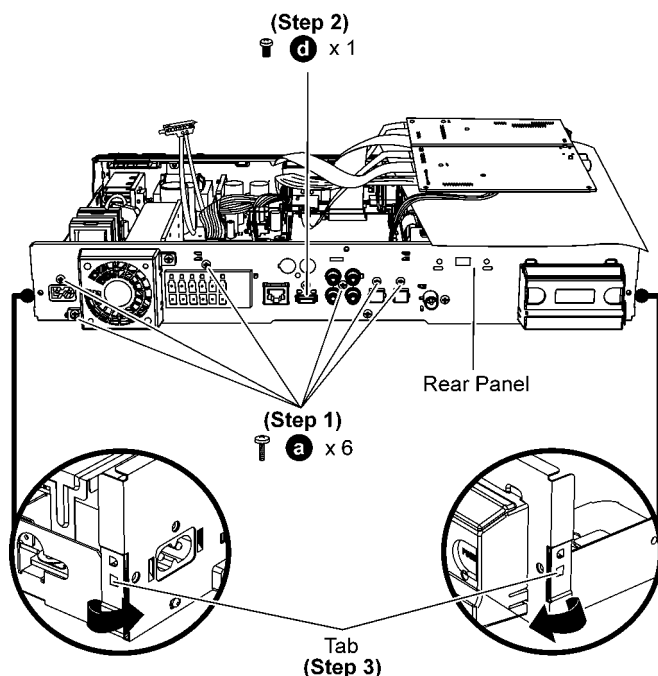


Step 5 Process to check & service side B of Digital P.C.B..

10.3.2. Checking & servicing side A of Digital P.C.B.

- Follow (Step 1) to (Step 11) of Item 10.1.2
- Follow (Step 1) to (Step 2) of Item 10.3.1

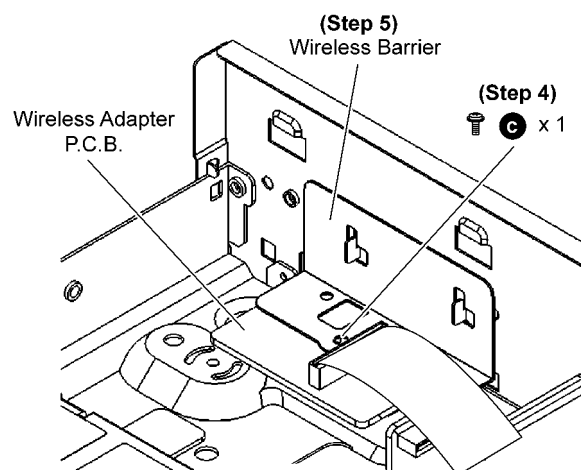
Caution: Pairing of BD Drive and Digital P.C.B. as “BD Drive/Digital P.C.B. Kit Assembly” have to be replaced together. If the either BD Drive or Digital P.C.B. is changed, BD Drive unit has to re-aligned. Because the alignment data for BD Drive Unit is stored in Digital P.C.B..



Step 1 Remove 6 screws on Digital P.C.B.

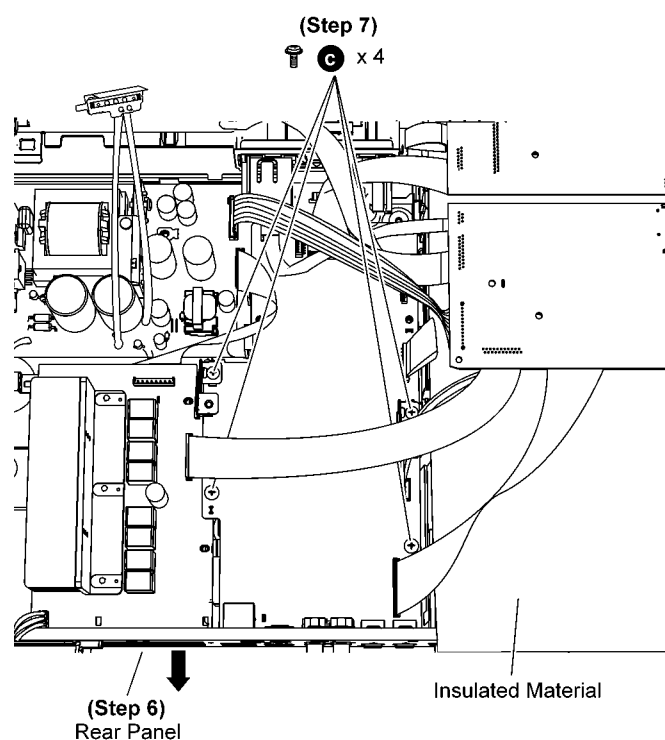
Step 2 Remove 1 screw at rear panel.

Step 3 Release the tabs of each side of the rear panel as the diagram shown.



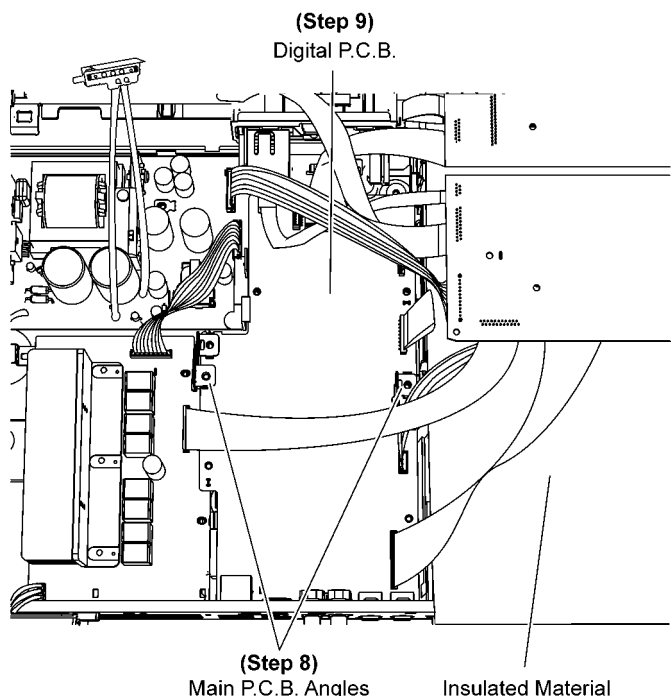
Step 4 Remove 1 screw on wireless barrier.

Step 5 Remove wireless barrier.



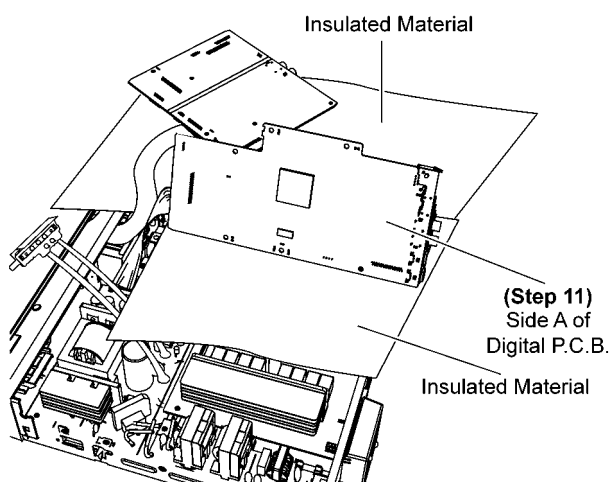
Step 6 Slightly detach rear panel backward as arrow shown.

Step 7 Remove 4 screws on Digital P.C.B..



Step 8 Remove 2 Main P.C.B. angles.

Step 9 Lift up Digital P.C.B..



Step 10 Position Digital P.C.B. according to diagram shown.

Step 11 Position to check & service Side A of Digital P.C.B..

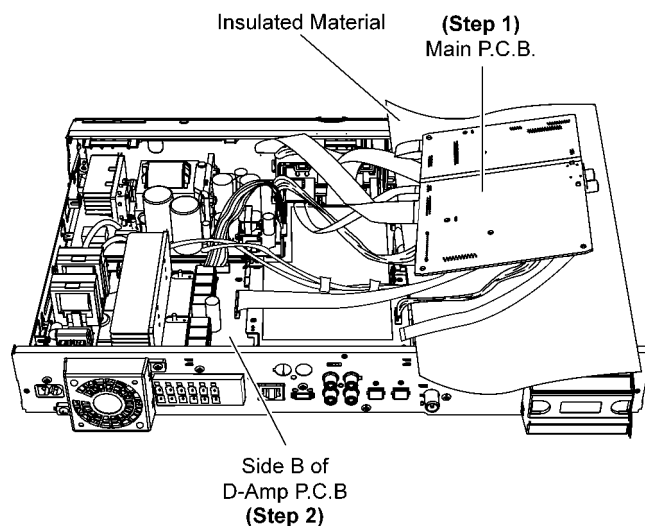
Caution: Insulated material is required to insulate Digital P.C.B. from other parts.

10.4. Checking and Servicing of D-Amp P.C.B.

10.4.1. Checking & servicing side B of D-Amp P.C.B.

- Follow (Step 1) to (Step 11) of Item 10.1.2

Caution: Pairing of BD Drive and Digital P.C.B. as "BD Drive/Digital P.C.B. Kit Assembly" have to be replaced together. If the either BD Drive or Digital P.C.B. is changed, BD Drive unit has to re-aligned. Because the alignment data for BD Drive Unit is stored in Digital P.C.B..

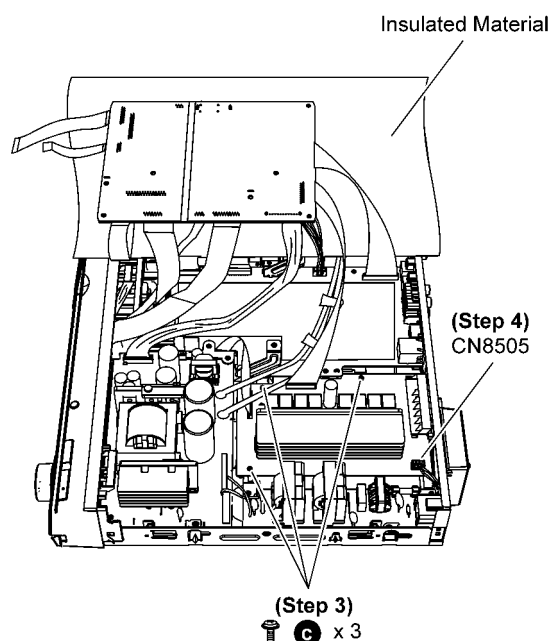


Step 1 Put aside Main P.C.B..

Step 2 Process to check & service side B of D-Amp P.C.B..

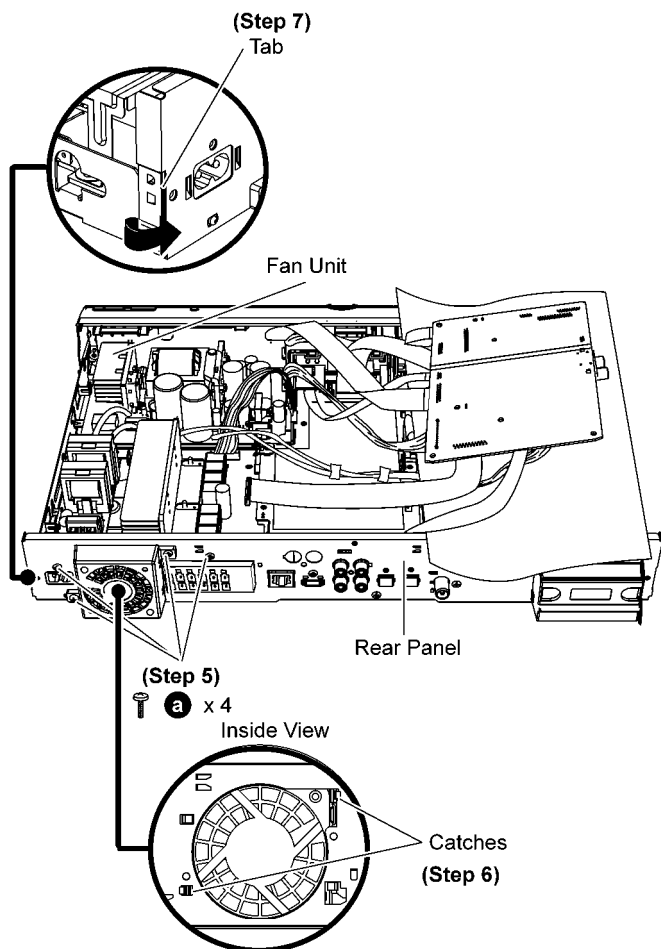
10.4.2. Checking & servicing side A of D-Amp P.C.B.

- Follow (Step 1) to (Step 11) of Item 10.1.2
- Follow (Step 1) of Item 10.4.1



Step 3 Remove 3 screws on D-Amp P.C.B..

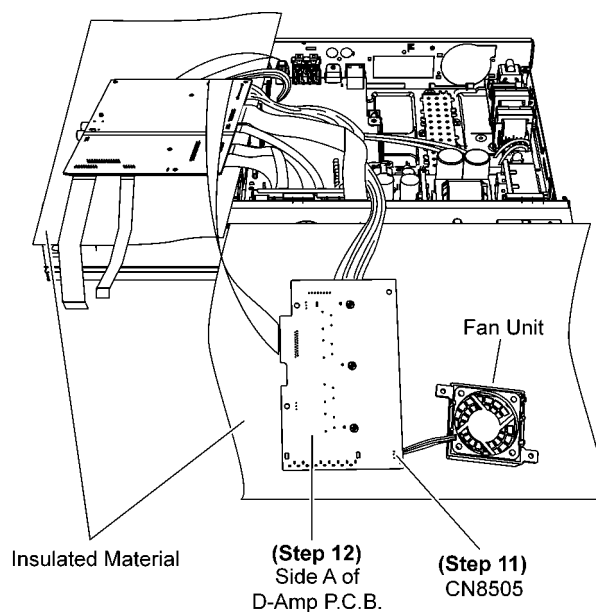
Step 4 Detach 3P cable at the connector (CN8505) on D-Amp P.C.B.



Step 5 Remove 4 screws at the rear panel.

Step 6 Release the catches and remove the fan unit.

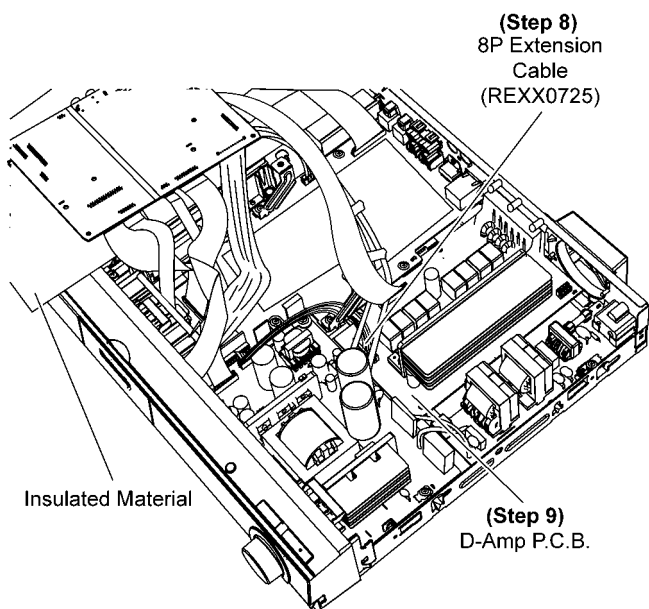
Step 7 Release the tab at the rear panel according to arrow.



Step 10 Position D-Amp P.C.B. according to diagram shown.

Step 11 Connect fan unit to connector (CN8505) on D-Amp P.C.B.

Step 12 Process to check & service side A of D-Amp P.C.B.
Caution: Insulated material is required to insulate P.C.B. from other parts.



Step 8 Attach original cable with 8P extension cable (Part No. REXX0725) from JW1 to CN5802.

Step 9 Lift up D-Amp P.C.B..

10.5. Caution for Replacing Parts

10.5.0.1. Notice after replacing Digital P.C.B.

After replacing Digital P.C.B., **TEST** is displayed on FL.
Once power off, and start-up again.

10.5.0.2. Items that should be done after replacing parts

√: Necessary —: Unnecessary

Items that Should be done Replacing Parts	Updating Firmware (Note 1)
Digital P.C.B.	√

Note 1:

Download latest Firmware and burn it on CD-R or CD-RW, and update Firmware.

10.5.0.3. Standard Inspection Specifications after Making Repairs

After making repairs, we recommend performing the following inspection, to check normal operation.

No.	Procedure	Item to Check
1	Turn on the power, and confirm items pointed out.	Items pointed out should reappear.
2	Insert RAM disc.	The Panasonic RAM disc should be recognized.
4	Perform playback for one minute using the RAM disc.	No abnormality should be seen in the picture, sound or operation. *Panasonic DVD-RAM disc should be used when recording and playback.
5	Perform playback for one minute using the BD-Video disc.	No abnormality should be seen in the picture, sound or operation.
6	If a problem is caused by a BD-Video disc, VCD, DVD-R, DVD-Video, Audio-CD, or MP3, playback the test disc.	No abnormality should be seen in the picture, sound or operation.
7	After checking and making repairs, upgrade the firmware to the latest version.	Make sure that [UPD OK] appears in the FL displays. *[UNSUPPORT] display means the unit is already updated to newest same version. Then version up is not necessary.
8	Transfer [9][9] in the service mode setting, and initialize the service settings (return various settings and error information to their default values. The laser time is not included in this initialization).	Make sure that [CLR] appears in the FL display. After checking it, turn the power off.

Use the following checklist to establish the judgment criteria for the picture and sound.

Item	Contents	Check	Item	Contents	Check
Picture	Block noise		Sound	Distorted sound	
	Crosscut noise			Noise (static, background noise, etc.)	
	Dot noise			The sound level is too low.	
	Picture disruption			The sound level is too high.	
	Not bright enough			The sound level changes.	
	Too bright				
	Flickering color				
	Color fading				

11 Voltage & Waveform Chart

Note:

- Indication Voltage Values are in 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 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.

11.1. Main P.C.B. (1/4)

REF NO. MODE	IC100																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.3	1.2	0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0	1.6	1.6	0	1.2	3.3	3.3	1.8	3.3	3.3
STANDBY	3.3	1.2	0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0	1.6	1.6	0	1.2	3.3	3.3	1.8	3.3	3.3
REF NO. MODE	IC100																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	3.3	3.3	0.8	3.3	3.3	3.2	3.2	0	3.3	3.3	0	3.3	0	0	1.5	0	1.8	3.3	0	0
STANDBY	3.3	3.3	0.8	3.3	3.3	3.2	3.2	0	3.3	3.3	0	3.3	0	0	1.5	0	1.8	3.3	0	0
REF NO. MODE	IC100																			
	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0	0	0	0	0	0	0	0.1	0.1	2.4	0	0	0	0	0	0	0	0	0	-0.1
STANDBY	0	0	0	0	0	0	0	0.1	0.1	2.4	0	0	0	0	0	0	0	0	0	-0.1
REF NO. MODE	IC100																			
	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	3.3	3.3	0	3.2	3.3	3.3	0	0	3.3	0	3.3	0	3.3	0	1.8	0	1.3	0	1.3	3.3
STANDBY	3.3	3.3	0	3.2	3.3	3.3	0	0	3.3	0	3.3	0	3.3	0	1.8	0	1.3	0	1.3	3.3
REF NO. MODE	IC100																			
	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	3.3	3.3	0	0	3.3	3.3	3.3	0	1.3	3.3	3.3	3.3
STANDBY	3.3	3.3	3.3	3.3	3	3.3	3.3	3.3	3.3	3.3	0	0	3.3	3.3	3.3	0	1.3	3.3	3.3	3.3
REF NO. MODE	IC101																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	0	3.3	3.3	3.3	0	3.3	0	0	3.3	0	3.3	0	0	0	0	3.3	3.3	3.3	3.3
STANDBY	0	0	3.3	3.3	3.3	0	3.3	0	0	3.3	0	3.3	0	0	0	0	3.3	3.3	3.3	3.3
REF NO. MODE	IC101																			
	21	22	23	24	25	26	27	28	29	30										
CD PLAY	3.3	3.3	0	3.3	0	0	0	0	0	3.3										
STANDBY	3.3	3.3	0	3.3	3.3	0	0	0	0	3.3										
REF NO. MODE	IC102																			
	1	2	3	4	5															
CD PLAY	0	0	0	3.3	3.3															
STANDBY	0	0	0	3.3	3.3															
REF NO. MODE	IC104																			
	1	2	3																	
CD PLAY	3.3	0	5.2																	
STANDBY	3.3	0	5.2																	
REF NO. MODE	IC105																			
	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	0	3.3	3.3	0	3.3												
STANDBY	0	0	0	0	3.3	3.3	0	3.3												

SA-BT205GA/GS MAIN P.C.B.

11.2. Main P.C.B. (2/4)

REF NO.	IC501																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	-5.8	2.2	0	-7.2	0	0	0	4.7												
STANDBY	-5.8	2.2	0	-7.2	0	0	0	4.7												
REF NO.	IC1001																			
MODE	1	2	3	4	5															
CD PLAY	5.2	0	3.1	1.1	0.1															
STANDBY	5.2	0	3.3	1.0	0.1															
REF NO.	IC1101																			
MODE	1	2	3	4	5															
CD PLAY	0.1	0	0.1	0.1	0.1															
STANDBY	0.1	0	0.1	0.1	0.1															
REF NO.	IC1102																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-7.2	0	0	0	6.9												
STANDBY	0	0	0	-7.2	0	0	0	6.9												
REF NO.	IC1451																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	0	0.8	0	3.3	0	0	0	0	0	0	3.3	3.3	0	0	0	0	0	0	0
STANDBY	0	3.3	0.8	0	3.3	0	0	0	0	0	0	3.3	3.3	0	0	0	0	0	0	0
REF NO.	IC2101																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REF NO.	IC2101																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0
STANDBY	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0
REF NO.	IC2101																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0	0	0	0	0	0	0	0.1	0.1	2.4	0	0	0	0	0	0	0	0	0	0.1
STANDBY	0	0	0	0	0	0	0	0.1	0.1	2.4	0	0	0	0	0	0	0	0	0	0.1
REF NO.	IC2101																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	0	3.3	0	3.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDBY	0	3.3	0	3.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REF NO.	IC2101																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0	0	-7.2	6.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDBY	0	0	-7.2	6.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SA-BT205GA/GS MAIN P.C.B.

11.3. Main P.C.B. (3/4)

REF NO.	IC2102																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-7.2	0	0	0	6.9												
STANDBY	0	0	0	-7.2	0	0	0	6.9												
REF NO.	IC3101																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-7.2	0	0	0	6.9												
STANDBY	0	0	0	-7.2	0	0	0	6.9												
REF NO.	IC3102																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-7.2	0	0	0	6.9												
STANDBY	0	0	0	-7.2	0	0	0	6.9												
REF NO.	IC3103																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-7.2	0	0	0	6.9												
STANDBY	0	0	0	-7.2	0	0	0	6.9												
REF NO.	IC3104																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-7.2	0	0	0	6.9												
STANDBY	0	0	0	-7.2	0	0	0	6.9												
REF NO.	IC3105																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-7.2	0	0	0	6.9												
STANDBY	0	0	0	-7.2	0	0	0	6.9												
REF NO.	IC3106																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-7.2	0	0	0	6.9												
STANDBY	0	0	0	-7.2	0	0	0	6.9												
REF NO.	IC3107																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-7.2	0	0	0	6.9												
STANDBY	0	0	0	-7.2	0	0	0	6.9												
REF NO.	IC3201																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
CD PLAY	0	0	0	0	0	0	-7.2	0	6.9	0	0	0	0	0	0	6.9				
STANDBY	0	0	0	0	0	0	-7.2	0	6.9	0	0	0	0	0	0	6.9				
REF NO.	IC7001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.8	2.5	2.0	1.0	1.6	0	0	0	0	20.3	18.9	21.7	21.6	0	19.0	1.8	1.0	2.0	2.5	2.5
STANDBY	1.8	2.5	2.0	1.0	1.6	0	0	0	0	20.3	18.9	21.7	21.7	0	19.0	1.8	1.0	2.0	2.5	2.5

SA-BT205GA/GS MAIN P.C.B.

11.4. Main P.C.B. (4/4)

REF NO.	IC7002																		
MODE	1	2	3	4	5	6	7	8											
CD PLAY	3.3	0	0	1.9	5.2	0	0	5.2											
STANDBY	3.3	0	0	1.9	5.2	0	0	5.2											
REF NO.	IC7003																		
MODE	1	2	3	4	5														
CD PLAY	11.5	11.5	9.0	0	0														
STANDBY	11.5	11.5	9.0	0	0														
REF NO.	Q101				Q102							Q351							
MODE	E	C	B		1	2	3	4	5	6		E	C	B					
CD PLAY	1.8	1.8	1.2		0	0.7	0	0	0.7	0		1.5	1.4	0.8					
STANDBY	1.8	1.8	1.2		0	0.7	0	0	0.7	0		1.5	1.4	0.8					
REF NO.	Q353							Q354				Q1101				Q1102			
MODE	1	2	3	4	5	6		E	C	B		E	C	B		E	C	B	
CD PLAY	0	0.6	0	0	0.6	0		0.	0	0.6		0.	3.3	0		3.1	3.1	2.5	
STANDBY	0	0.6	0	0	0.6	0		0.	0	0.6		0.	3.3	0		3.1	3.1	2.5	
REF NO.	Q1103				Q2101							Q2102							
MODE	E	C	B		1	2	3	4	5	6		1	2	3	4	5	6		
CD PLAY	1.5	1.5	0.8		0	-4.8	0	0	-4.8	0		0	-4.8	0	0	-4.8	0		
STANDBY	1.5	1.5	0.8		0	0.6	0	0	0.6	0		0	0.6	0	0	0.6	0		
REF NO.	Q2103							Q7001				Q7002							
MODE	1	2	3	4	5	6		E	C	B		1	2	3	4	5	6		
CD PLAY	0	-4.8	0	0	-4.8	0		0	11.1	0.1		11.5	11.5	20.2	22.8	11.5	11.5		
STANDBY	0	0.6	0	0	0.6	0		0	11.1	0.1		11.5	11.5	20.2	22.8	11.5	11.5		
REF NO.	Q7003							Q7004				Q7005				Q7006			
MODE	1	2	3	4	5	6		E	C	B		E	C	B		E	C	B	
CD PLAY	5.2	5.2	21.6	22.8	5.2	5.2		-7.2	-11.2	-7.8		0	-7.7	-0.6		7.0	11.2	7.6	
STANDBY	5.2	5.2	21.6	22.8	5.2	5.2		-7.2	-11.2	-7.8		0	-7.7	-0.6		7.0	11.2	7.6	
REF NO.	Q7007				Q7008				Q7050				QR101				QR102		
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
CD PLAY	0	3.3	-1.4		0	3.3	-2.3		0	0	0.7		0	0	3.3		3.3	-5.1	3.3
STANDBY	0	3.3	-1.4		0	3.3	-2.3		0	0	0.7		0	0	3.3		3.3	-5.1	3.3
REF NO.	QR1101				QR1102				QR2203				QR3201				QR7001		
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
CD PLAY	0	0	3.0		0	0	3.0		0	-4.8	0		0	6.9	0		0	3.3	0
STANDBY	0	0	3.0		0	0	3.0		1.0	0.9	0		0	6.9	0		0	3.3	0
REF NO.	QR7051																		
MODE	E	C	B																
CD PLAY	4.4	4.4	0																
STANDBY	4.4	4.4	0																

SA-BT205GA/GS MAIN P.C.B.

11.5. Panel P.C.B.

REF NO.	IC6001																			
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	0	1.9	1.1	0	0	3.3	0.7	1.1	0	3.3	-25.5	-23.3	-23.3	-25.5	-16.3	-18.7	-14
STANDBY	3.3	0	0	0	1.9	1.1	0	0	3.3	0.7	1.1	0	3.3	-25.6	-23.3	-23.3	-25.6	-16.3	-18.7	-14

REF NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	-25.6	-25.6	-25.6	-23.4	-21	-25.5	-25.6	-25.6	-16.3	-26.4	-14.2	-16.5	23.6	-23.5	-23.5	-23.5	-23.5	-23.5	-23.5	-23.5
STANDBY	-25.7	-25.7	-25.7	-23.4	-21	-25.6	-25.7	-25.7	-16.4	-26.5	-14.2	-16.5	23.7	-23.6	-23.6	-23.6	-23.6	-23.6	-23.6	-23.6

REF NO.	IC6001																			
MODE	41	42	43	44																
CD PLAY	-23.5	-23.5	-3.3	0																
STANDBY	-23.6	-23.6	-3.3	0																

REF NO.	Q6001				Q6003				Q6004											
MODE	E	C	B		E	C	B		E	C	B									
CD PLAY	0.1	0.1	2.8		0.1	9.9	0		0	0.1	2.9									
STANDBY	0.1	0.1	2.8		0.1	9.9	0		0	0.1	2.9									

SA-BT205GA/GS PANEL P.C.B.

11.6. D-Amp P.C.B. (1/2)

REF NO.	IC8003																			
MODE	1	2	3	4	5															
CD PLAY	-31.7	-36.8	-35.0	-31.7	-31.6															
STANDBY	-31.7	-36.8	-35.0	-31.7	-31.6															
REF NO.	IC8004																			
MODE	1	2	3	4	5															
CD PLAY	-31.7	-36.8	-35.0	-31.7	-31.6															
STANDBY	-31.7	-36.8	-35.0	-31.7	-31.6															
REF NO.	IC8006																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
CD PLAY	0.1	5.0	4.7	0	2.3	2.4	0	2.4	2.4	2.4	2.5	2.5	2.3	5.0						
STANDBY	0.1	5.0	4.7	0	2.3	2.4	0	2.4	2.4	2.4	2.5	2.5	2.3	5.0						
REF NO.	IC8008																			
MODE	1	2	3																	
CD PLAY	5.0	0	6.9																	
STANDBY	5.0	0	6.9																	
REF NO.	Q8002							Q8003							Q8004					
MODE	1	2	3	4	5	6		1	2	3	4	5	6		1	2	3	4	5	6
CD PLAY	0	0.7	0	0	0.7	0		0	0.7	0	0	0.7	0		0	0.7	0	0	0.7	0
STANDBY	0	0.7	0	0	0.7	0		0	0.7	0	0	0.7	0		0	0.7	0	0	0.7	0
REF NO.	Q8006				Q8007				Q8008				Q8009				Q8010			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	3.2	0		0	0.7	0.7		7.1	16.9	7.7		0	3.9	0.2		0	0	0.6	
STANDBY	0	3.2	0		0	0.7	0.7		7.1	16.9	7.7		0	3.9	0.2		0	0	0.6	
REF NO.	Q8011				Q8012				Q8013				Q8014				Q8015			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	0	0.6		0	3.2	0.2		0	3.2	0.2		-5.3	-7.2	-5.8		0	-5.8	-0.6	
STANDBY	0	0	0.6		0	3.2	0.2		0	3.2	0.2		-5.2	-7.1	-8.5		0	-5.8	-0.6	
REF NO.	Q8016				Q8017				Q8026				Q8301							
MODE	E	C	B		E	C	B		E	C	B		1	2	3	4	5	6		
CD PLAY	0	3.2	0		0	3.2	0		-26.3	-0.5	-25.8		37.5	37.5	37.5	37.5	37.5	37.5		
STANDBY	0	3.2	0		0	3.2	0		-26.3	-0.5	-25.8		37.5	37.5	37.5	37.5	37.5	37.5		
REF NO.	Q8302							Q8401							Q8402					
MODE	1	2	3	4	5	6		1	2	3	4	5	6		1	2	3	4	5	6
CD PLAY	0	0	0	0	0	0		37.5	37.5	37.5	37.5	37.5	37.5		0	0	0	0	0	0
STANDBY	0	0	0	0	0	0		37.5	37.5	37.5	37.5	37.5	37.5		0	0	0	0	0	0
REF NO.	Q8501							Q8502							Q8601					
MODE	1	2	3	4	5	6		1	2	3	4	5	6		1	2	3	4	5	6
CD PLAY	37.5	37.5	37.5	37.5	37.5	37.5		0	0	0	0	0	0		37.5	37.5	37.5	37.5	37.5	37.5
STANDBY	37.5	37.5	37.5	37.5	37.5	37.5		0	0	0	0	0	0		37.5	37.5	37.5	37.5	37.5	37.5

SA-BT205GA/GS D-AMP P.C.B.

11.7. D-Amp P.C.B. (2/2)

REF NO.	Q8602							Q8701							Q8702					
MODE	1	2	3	4	5	6		1	2	3	4	5	6		1	2	3	4	5	6
CD PLAY	0	0	0	0	0	0		37.5	37.5	37.5	37.5	37.5	37.5		0	0	0	0	0	0
STANDBY	0	0	0	0	0	0		37.5	37.5	37.5	37.5	37.5	37.5		0	0	0	0	0	0

REF NO.	Q8801							Q8802							QR8003					
MODE	1	2	3	4	5	6		1	2	3	4	5	6		E	C	B			
CD PLAY	37.5	37.5	37.5	37.5	37.5	37.5		0	0	0	0	0	0		5.0	5.0	0			
STANDBY	37.5	37.5	37.5	37.5	37.5	37.5		0	0	0	0	0	0		5.0	5.0	0			

REF NO.	QR8004				QR8005				QR8006				QR8007							
MODE	E	C	B		E	C	B		E	C	B		E	C	B					
CD PLAY	5.0	5.0	0		-31.6	3.1	-31.7		3.2	0	3.1		-5.3	-5.2	2.55					
STANDBY	5.0	5.0	0		-31.6	3.1	-31.7		3.2	0	3.1		-5.3	-5.2	2.55					

SA-BT205GA/GS D-AMP P.C.B.

11.8. Setup Mic P.C.B.

REF NO.	IC6501																	
MODE	1	2	3	4	5	6	7	8										
CD PLAY	0	0	0	-7.2	0	0	0	7.0										
STANDBY	0	0	0	-7.2	0	0	0	7.0										

REF NO.	Q6501				Q6502				Q6503				Q6504							
MODE	E	C	B		E	C	B		E	C	B		E	C	B					
CD PLAY	0	0	-4.8		3.6	3.6	3.0		0	-4.8	0		0.6	0	0					
STANDBY	0	0	-4.8		3.6	3.6	3.0		0	-4.8	0		0.6	0	0					

SA-BT205GA/GS SETUP MIC P.C.B.

11.9. SMPS P.C.B.

REF NO.	IC5701																			
MODE	1	2	3	4	5	6	7													
CD PLAY	10.2	-6.4	-6.4	-4.4	-6.5	-6.4	-6.4													
STANDBY	10.2	-6.4	-6.5	-4.4	-6.5	-6.3	-6.4													

REF NO.	IC5799																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	-8.6	0	-9.0	-8.1	7.4	0	-9.3	-9.3												
STANDBY	-8.6	0	-9.0	-8.0	-7.3	0	-9.2	-9.3												

REF NO.	IC5801																			
MODE	1	2	3																	
CD PLAY	-2.1	-33.6	-37																	
STANDBY	-2.1	-33.6	-37																	

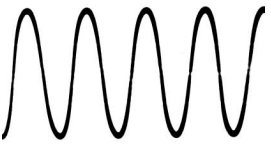
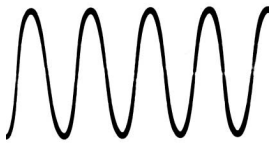
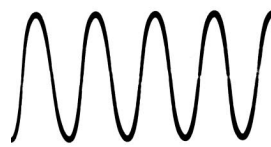
REF NO.	IC5899																			
MODE	1	2	3																	
CD PLAY	4.1	2.5	0																	
STANDBY	4.1	2.5	0																	

REF NO.	Q5720				Q5861				Q5862				Q5863				Q5898			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	-6.2	-5.7	-6.3		4.4	4.4	3.8		0	3.2	0		-37	-37	-36.4		0	2.1	0.4	
STANDBY	-6.2	-5.7	-6.3		4.4	4.4	3.8		0	3.2	0		-37	-37	-36.4		0	2.1	0.4	

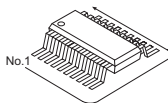
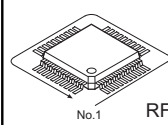
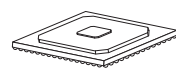
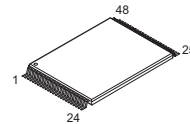
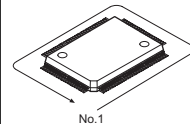
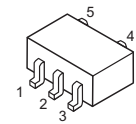
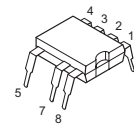
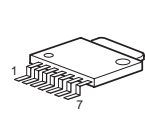
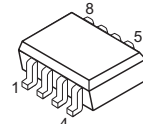
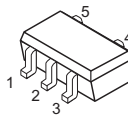
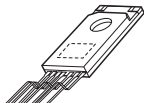
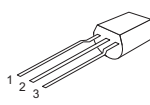
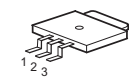
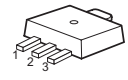
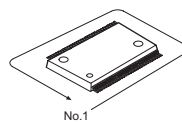
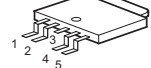
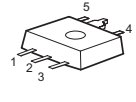
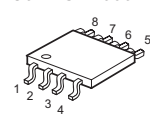
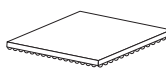
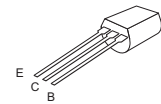
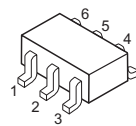
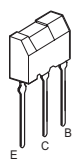
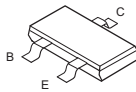
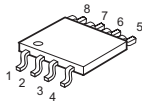
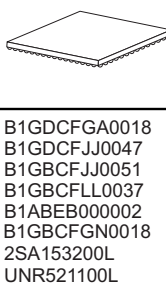
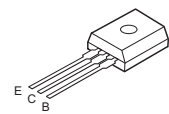
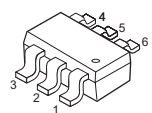
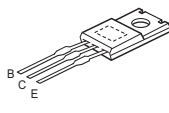
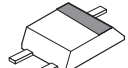
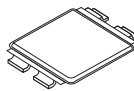
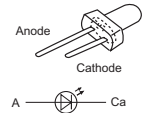
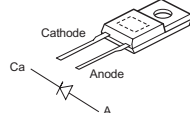
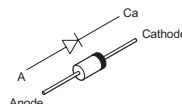
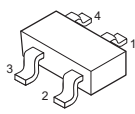
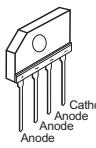
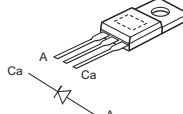
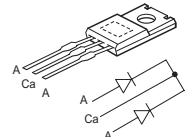
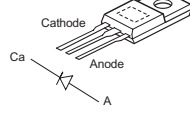
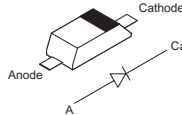
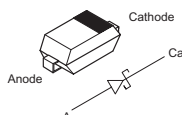
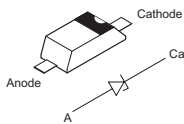
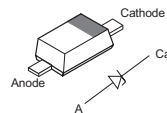
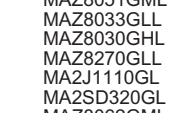
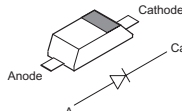
REF NO.	Q5899																			
MODE	E	C	B																	
CD PLAY	0	0.1	0.8																	
STANDBY	0	0.1	0.8																	

SA-BT205GA/GS SMPS P.C.B.

11.10. Waveform Table

WF No. IC100-12 (PLAY)  3.2Vp-p(50nsec/div)	WF No. IC100-13 (PLAY)  2.2Vp-p(50nsec/div)	WF No. IC2101-13 (PLAY)  5.6Vp-p(200usec/div)	WF No. IC2101-16,17 (PLAY)  4.4Vp-p(200usec/div)
WF No. IC2101-19 (PLAY)  1.2Vp-p(200usec/div)	WF No. IC2101-27,30,41,78,79 80 (PLAY)  1.5Vp-p(500nsec/div)	WF No. IC2101-44 (PLAY)  0.2Vp-p(500usec/div)	WF No. IC2101-81,82 (PLAY)  4Vp-p(200usec/div)
WF No. IC2102-1 (PLAY)  10.4Vp-p(200usec/div)	WF No. IC2102-3,5 (PLAY)  1.5Vp-p(200usec/div)	WF No. IC2102-7 (PLAY)  7.6Vp-p(200usec/div)	WF No. IC6001-5 (PLAY)  1.4Vp-p(2usec/div)
WF No. IC6001-8 (PLAY)  5.6Vp-p(2usec/div)	WF No. IC6501-7 (PLAY)  1.9Vp-p(200usec/div)		

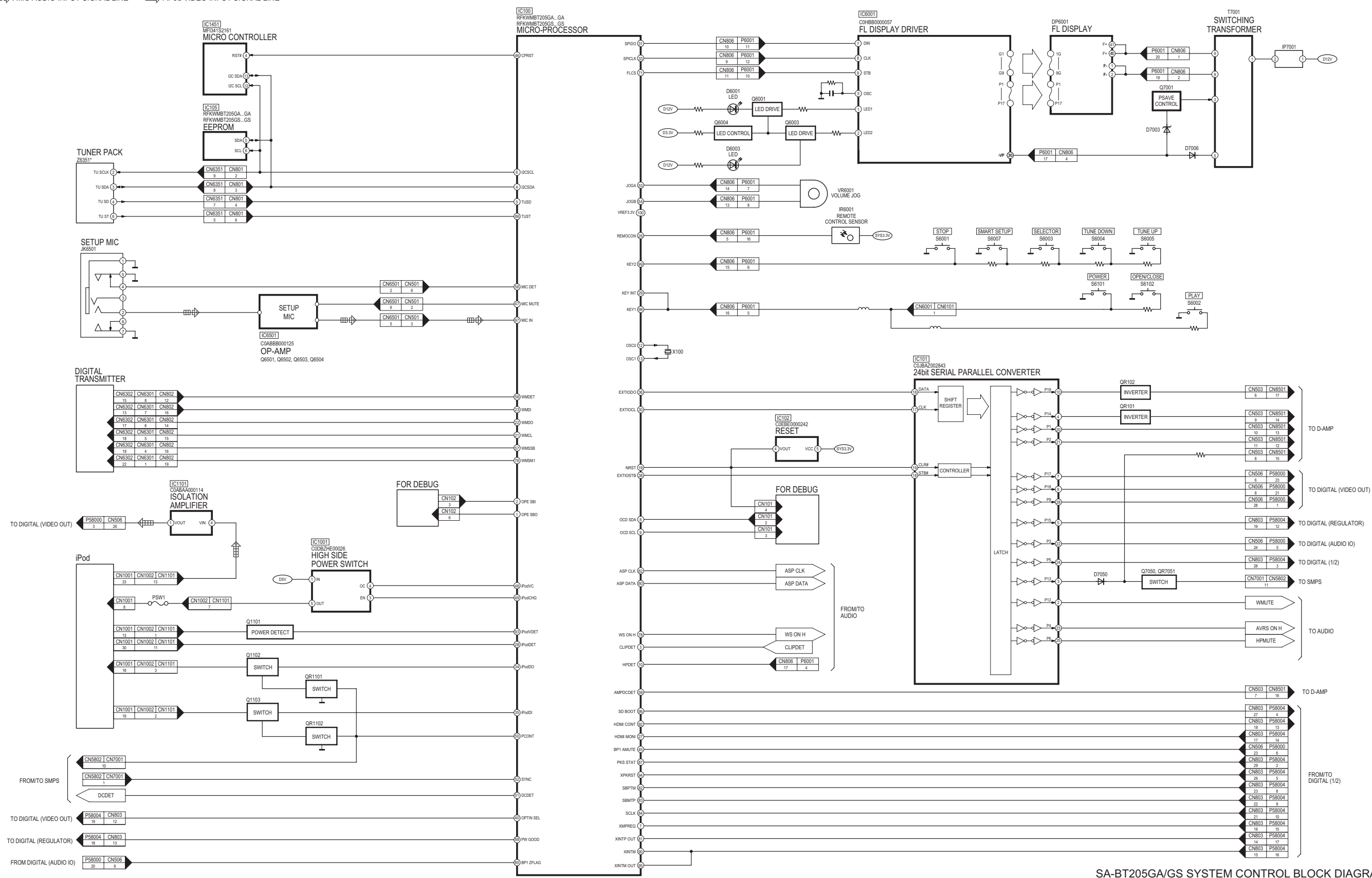
12 Illustration of ICs, Transistor and Diode

RFKWMBT205GA(8p)(GA) RFKWMBT205GS (8p)(GS) 		C0ABBA000159 (8p) C0ABBB000189 (8p) C0ABBB000125 (8p) C0JBAB000902 (14p) C0FBAK000026 (16p) C0DBAYY00333 (20p) C0ABBA000114 C0ZBZ0001675 C0DBZHE00026 C0DBZHE00024 C0EBE0000368 C0EBE0000242		C0GBM0000007 (24p) C0FBBK000069 (28p) C0JBAZ002843 (30p) C0DBAYY00274 (30p) C1AB00003097 (32p) C0JBAR000300 (16p) C3EBFC000042 (8p)		 RFKB4504B (48p) MN864704AKP (96p) MFI341S2161 (20p) C1CB00002965 (48p) C0HBB0000057 (44p) RFKWMBT205GA (100p) (GA) RFKWMBT205GS (100p) (GS)		RFKB4550B 			
RFKB4550B 		C1AB00002735 (100p) 		C0JBAB000422 		MIP2F20MSSCF 		C0DBFZG00001 		C0JBAR000434 B1MBEDA00026 	
		C0CBCDD00004 C0ABAA000114 C0ZBZ0001675 C0DBZHE00026 C0DBZHE00024 C0EBE0000368 C0EBE0000242		C5HACYY00003 (7p) 		C0DABFC00002 (3p) C0DAEMZ00001 (3p) 		C0CBABC00117 		C0CBADC00042 	
AN41213A-VF 		C0DBEYY00016 C0DBZH000047 C0CBCYG00004 C0DBEYG00002 		C0CBCBE00005 		C0DBAYH00007 C0DBZYY00018 C0DBGFD00024 		C3ABSG000053 C3ABTG000009 		2SC3940ARA 	
B1GFGCAA0001 B1CFGD000003 		B1BABK000001 		B1GBCFNN0041 B1GDCFNN0032 B1GDCFJJ0008 		B1GBCFJJ0007 B1ABCF000176 B1ABGC000005 B1ADCE000012 B1ABGC000001 B1ADNB000003 B1ADCF000172 B1GBCFGG0030 		B1GDCFGA0018 B1GDCFJJ0047 B1GBCFJJ0051 B1GBCFLL0037 B1ABEB000002 B1GBCFGN0018 2SA153200L UNR521100L 		B1BACD000018 	
B1HBDCA00001 B1CHPD000003 		B1BCCG000002 		UNR51ALJ0L UNR52ALJ0L UNR91A5J0L UNR921AJ0L 2SD1819K0L 		B1CBRK000001 		B3AEA0000099 B3ABA0000795 		B0HFRJ000012 	
B0EAMM000057 B0HAMP000094 B0JAME000029 		B0EDKT000009 		B0FBAR000041 		B0ZAZ0000052 B1BACG000048 		B0HBSM000043 		B0HBSM000054 	
B0ACCK000005 B0JCMD000060 		B0JCPG000005 B0HCM0000019 B0JCND000021 		B0JCMD000010 				MAZ8200GML MAZ8180GML MAZ8130GHL MAZ8120GML MAZ8110GML MAZ8100GHL MAZ8068GML MAZ8300GML MAZ8150GML 		MAZ8075GML MAZ8051GML MAZ8033GLL MAZ8030GHL MAZ8270GLL MA2J1110GL MA2SD320GL MAZ8062GML 	
MA2YF8000L 											

13 Block Diagram

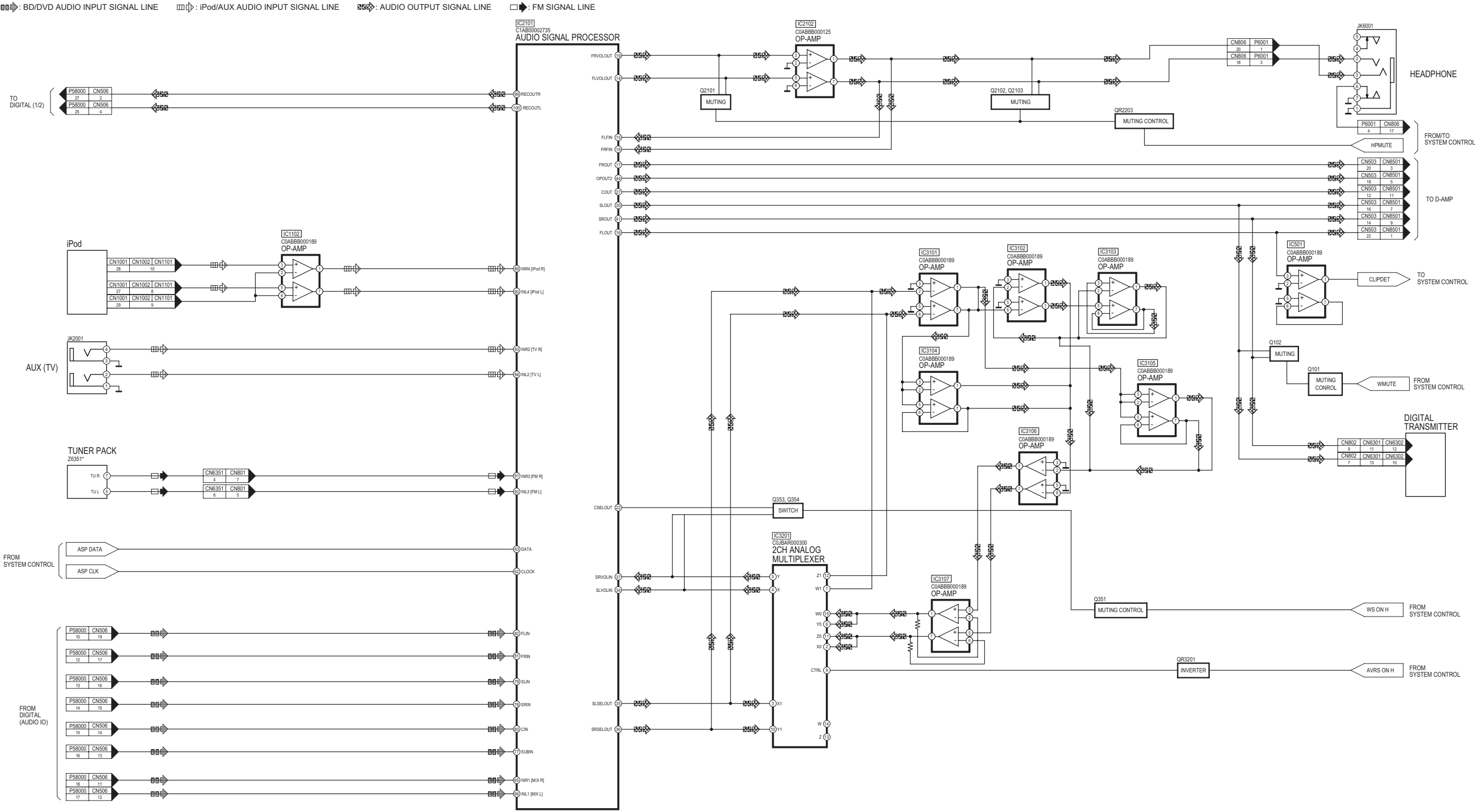
13.1. System Control

⏮: MIC AUDIO INPUT SIGNAL LINE ⏭: iPod VIDEO INPUT SIGNAL LINE



SA-BT205GA/GS SYSTEM CONTROL BLOCK DIAGRAM

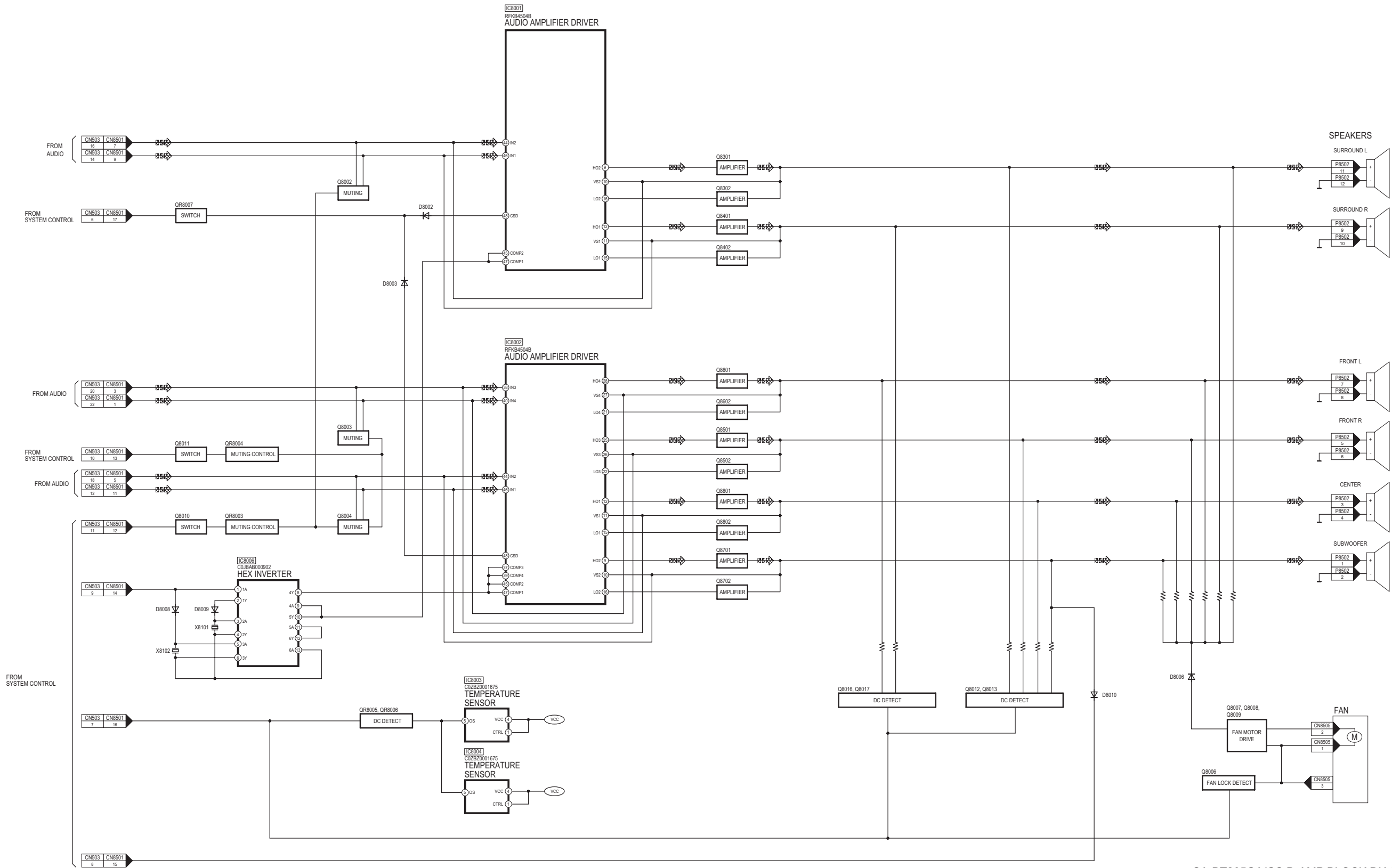
13.2. Audio



SA-BT205GA/GS AUDIO BLOCK DIAGRAM

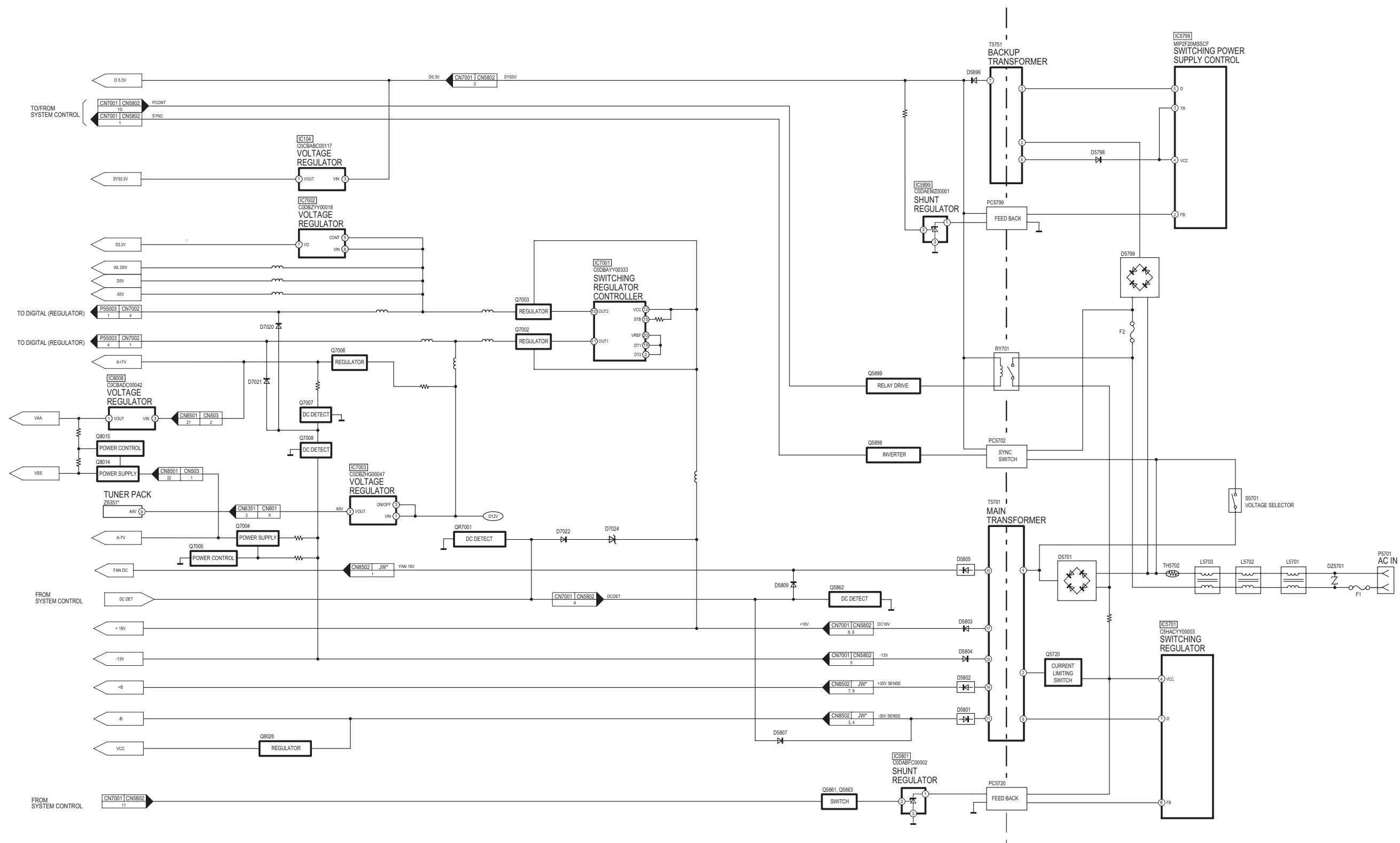
13.3. D-Amp

 : AUDIO OUTPUT SIGNAL LINE



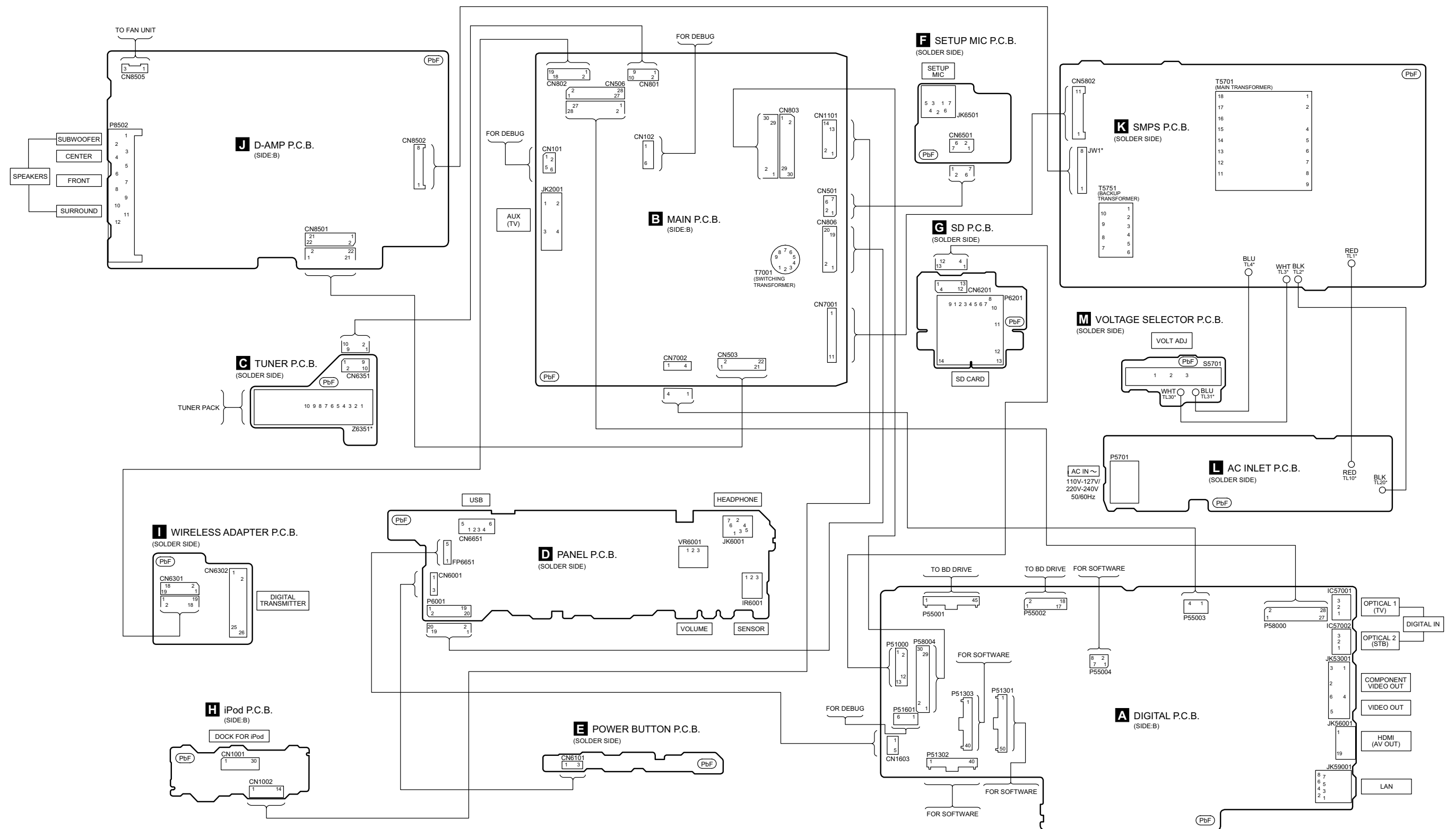
SA-BT205GA/GS D-AMP BLOCK DIAGRAM

13.4. SMPS



SA-BT205GA/GS SMPS BLOCK DIAGRAM

14 Wiring Connection Diagram



NOTE: " * " REF IS FOR INDICATION ONLY.

SA-BT205GA/GS WIRING CONNECTION

15 Schematic Diagram Notes

- This schematic diagram may be modified at any time with the development of new technology.

Notes:

S6001:	Stop switch (■).
S6002:	Play switch (▶).
S6003:	Selector switch.
S6004:	Tune Down ∨ switch (◀◀◀/◀◀◀).
S6005:	Tune Up ∧ switch (▶▶▶/▶▶▶).
S6007:	Smart Setup switch.
S6101:	Power switch (⏻/⏻).
S6102:	Open/Close switch (▲).
VR0901:	Volume jog.

- 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:

C5700, C5701, C5702, C5703, C5704, C5705, C5706

- **Resistor**

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

- **Capacitor**

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

- **Coil**

Unit of inductance is H, unless otherwise noted.

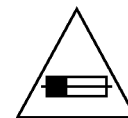
- *

Ref. is for indication only.

- Voltage and signal line

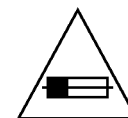
—	:+B signal line
---	:-B signal line
	:Audio output signal line
	:Video output signal line
	:BD/DVD Audio input signal line
	:BD/DVD Video input signal line
	:iPod Video input signal line
	:iPod/Mic/AUX Audio input signal line
	:FM signal Line
	:SD/USB signal line

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE F1 T4AL 250V FUSE



RISK OF FIRE-REPLACE FUSE AS MARKED.

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE F2 T1.6A 250V FUSE



RISK OF FIRE-REPLACE FUSE AS MARKED.

FUSE CAUTION



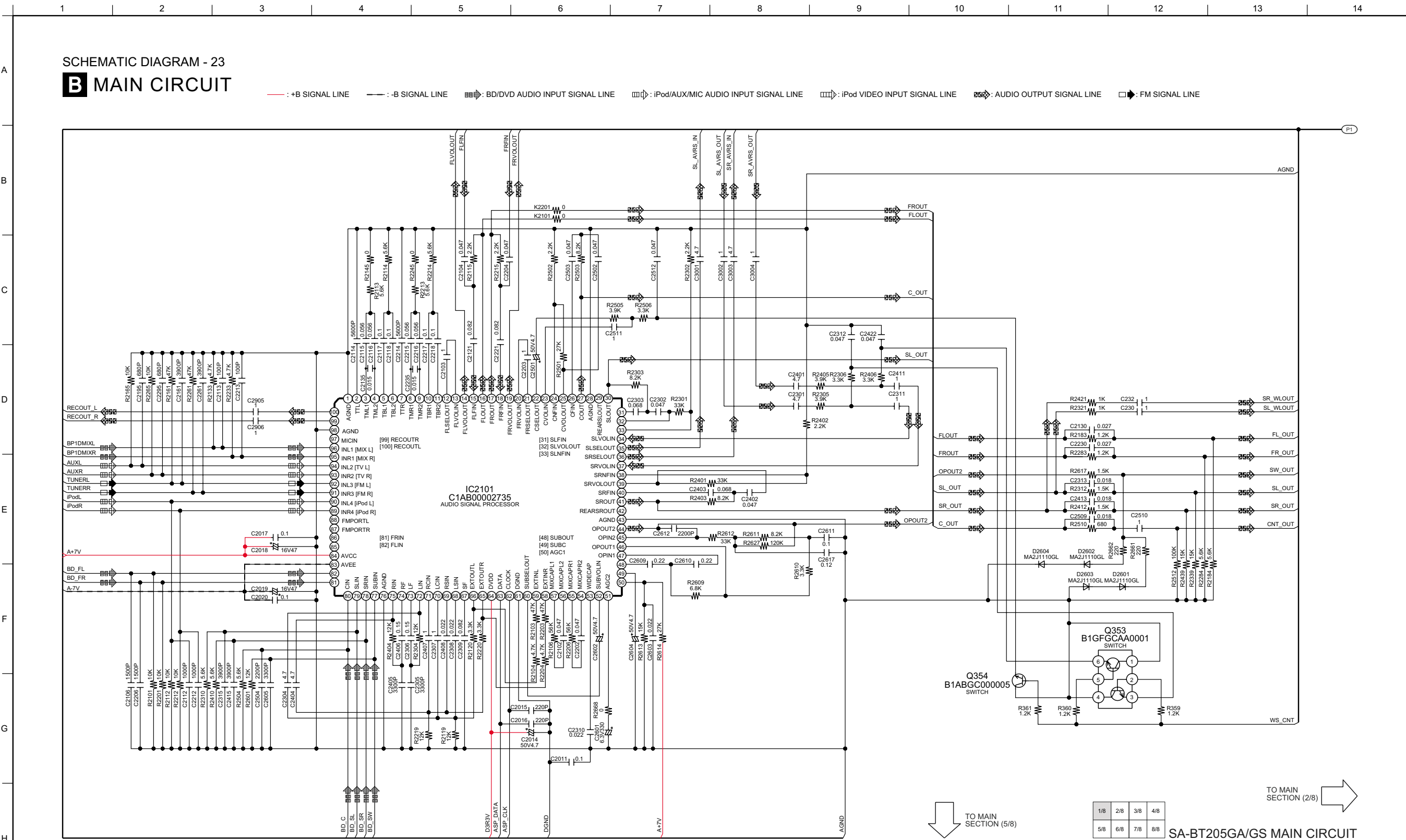
These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection against fire hazard, replace with the same type fuse. For fuse rating, refer to the marking adjacent to the symbol.



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

16 Schematic Diagram

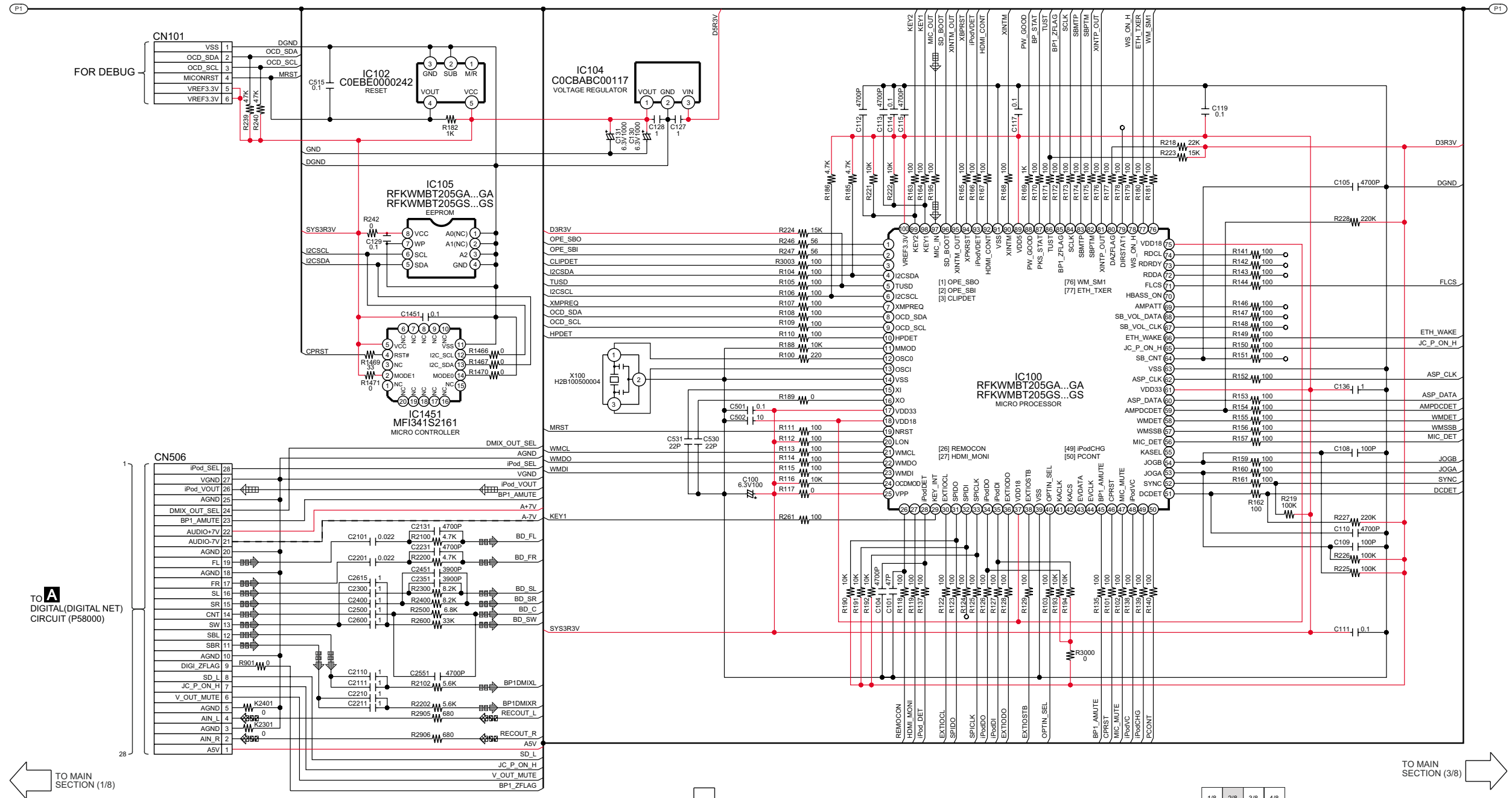
16.1. Main Circuit



SCHEMATIC DIAGRAM - 24

B MAIN CIRCUIT

— : +B SIGNAL LINE — : -B SIGNAL LINE : BD/DVD AUDIO INPUT SIGNAL LINE : iPod/AUX/MIC AUDIO INPUT SIGNAL LINE : iPod VIDEO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : FM SIGNAL LINE



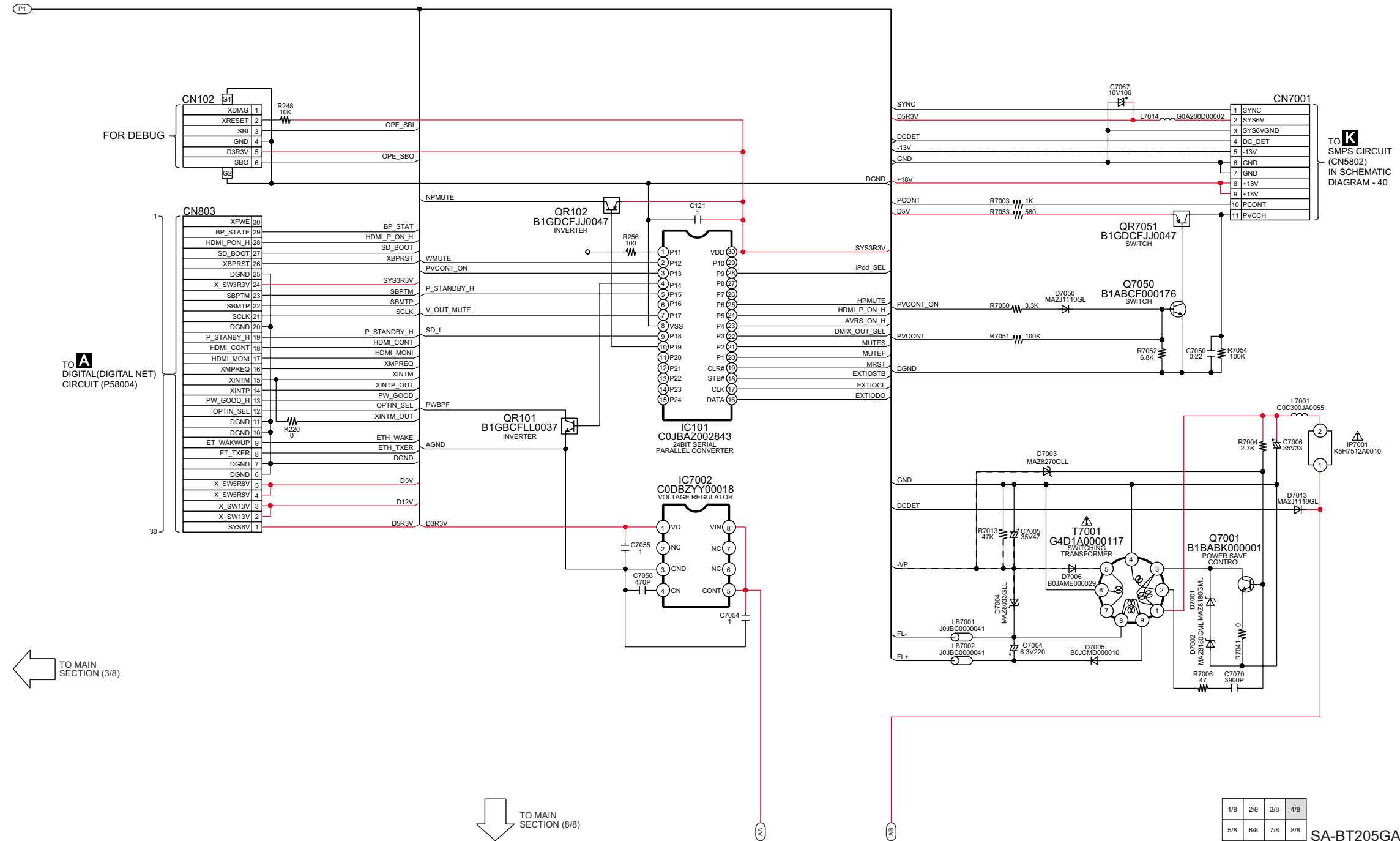
1/8	2/8	3/8	4/8
5/8	6/8	7/8	8/8

SA-BT205GA/GS MAIN CIRCUIT

SCHEMATIC DIAGRAM - 26

B MAIN CIRCUIT

— : +B SIGNAL LINE
 — : -B SIGNAL LINE
 : BD/DVD AUDIO INPUT SIGNAL LINE
 : iPod/AUX/MIC AUDIO INPUT SIGNAL LINE
 : iPod VIDEO INPUT SIGNAL LINE
 : AUDIO OUTPUT SIGNAL LINE
 : FM SIGNAL LINE



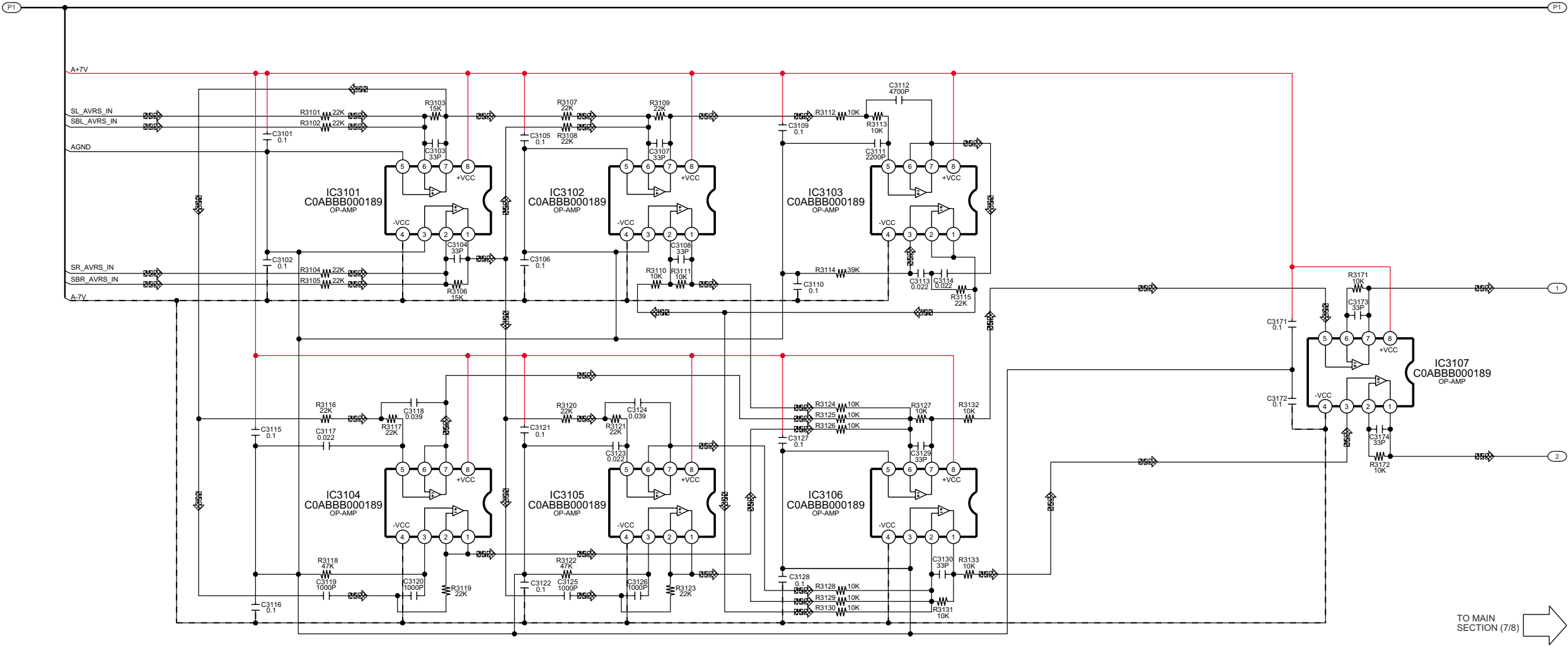
1/8	2/8	3/8	4/8
5/8	6/8	7/8	8/8

SA-BT205GA/GS MAIN CIRCUIT

B MAIN CIRCUIT

— : +B SIGNAL LINE — : -B SIGNAL LINE : BD/DVD AUDIO INPUT SIGNAL LINE : iPod/AUX/MIC AUDIO INPUT SIGNAL LINE : iPod VIDEO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : FM SIGNAL LINE

↑ TO MAIN
SECTION (2/8)



← TO MAIN
SECTION (5/8)

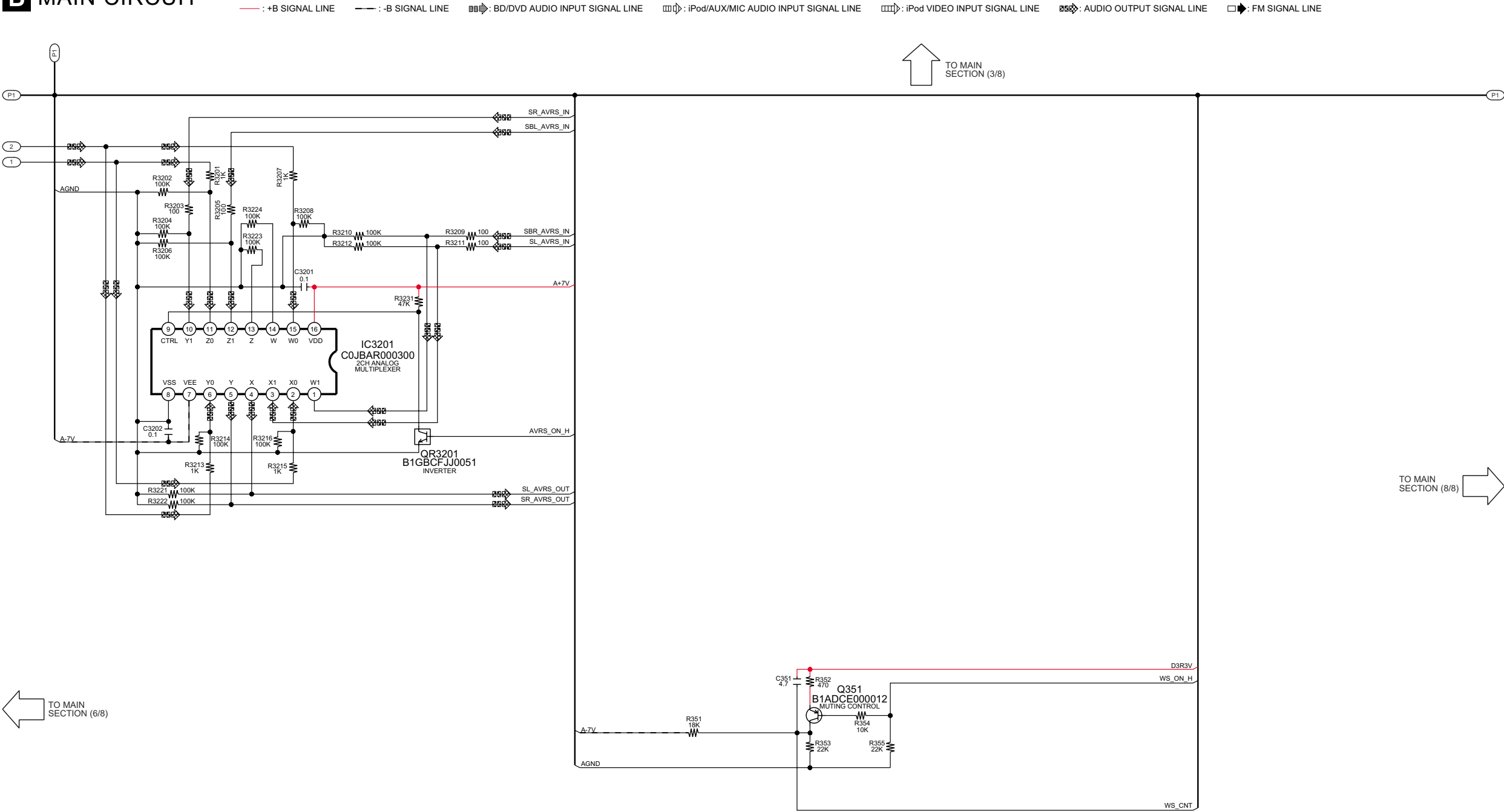
→ TO MAIN
SECTION (7/8)

1/8	2/8	3/8	4/8
5/8	6/8	7/8	8/8

SA-BT205GA/GS MAIN CIRCUIT

SCHEMATIC DIAGRAM - 29

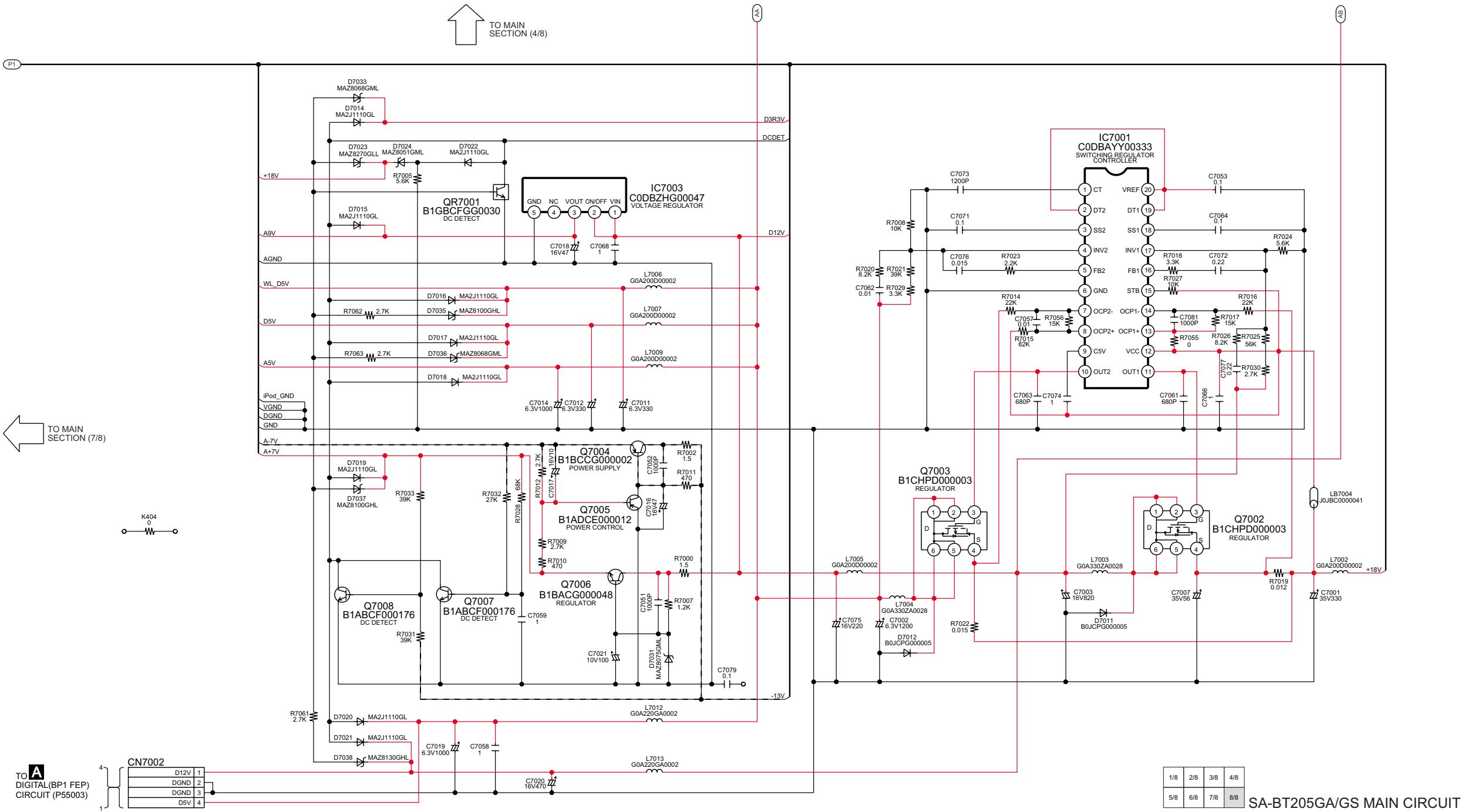
B MAIN CIRCUIT



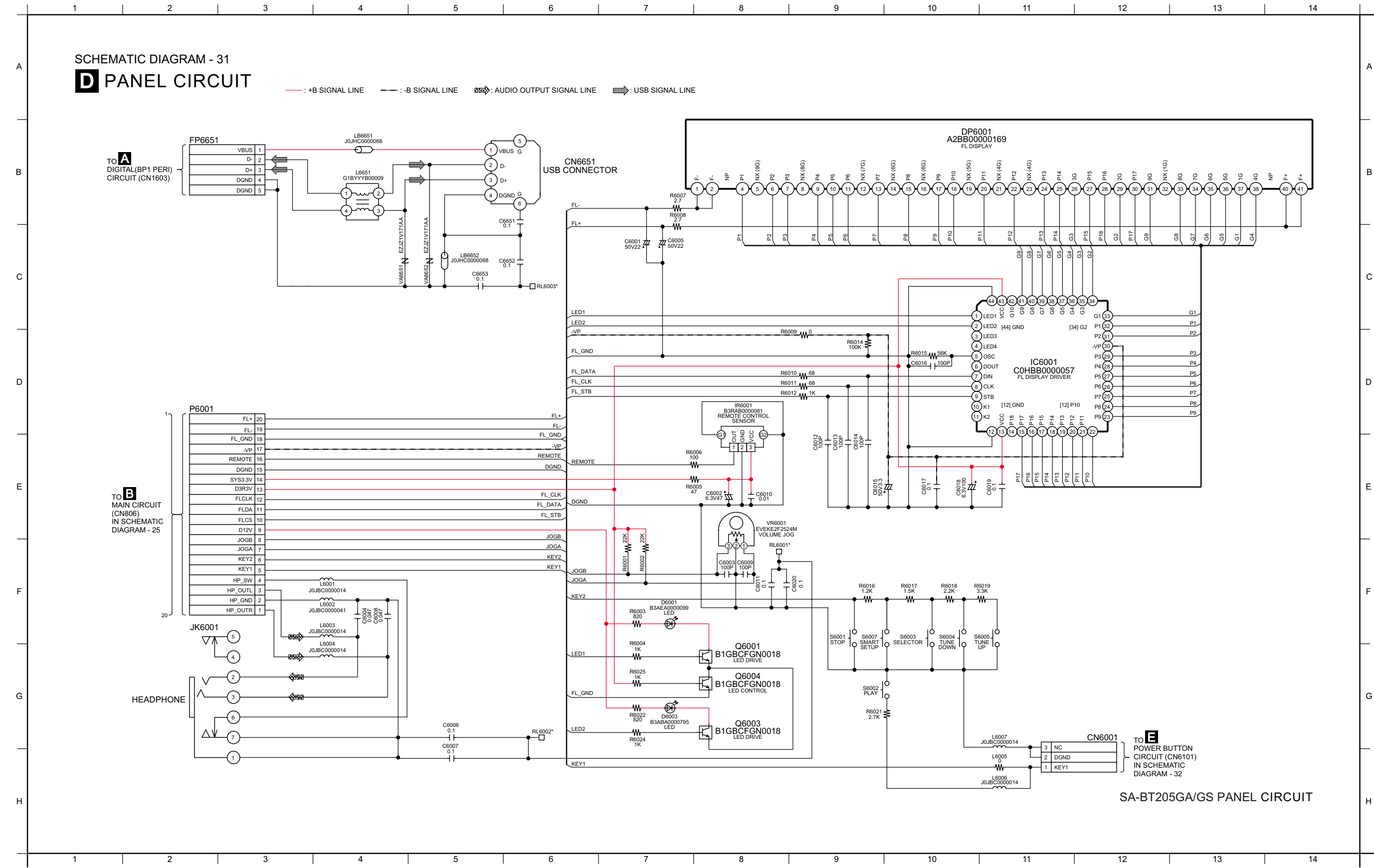
SCHEMATIC DIAGRAM - 30

B MAIN CIRCUIT

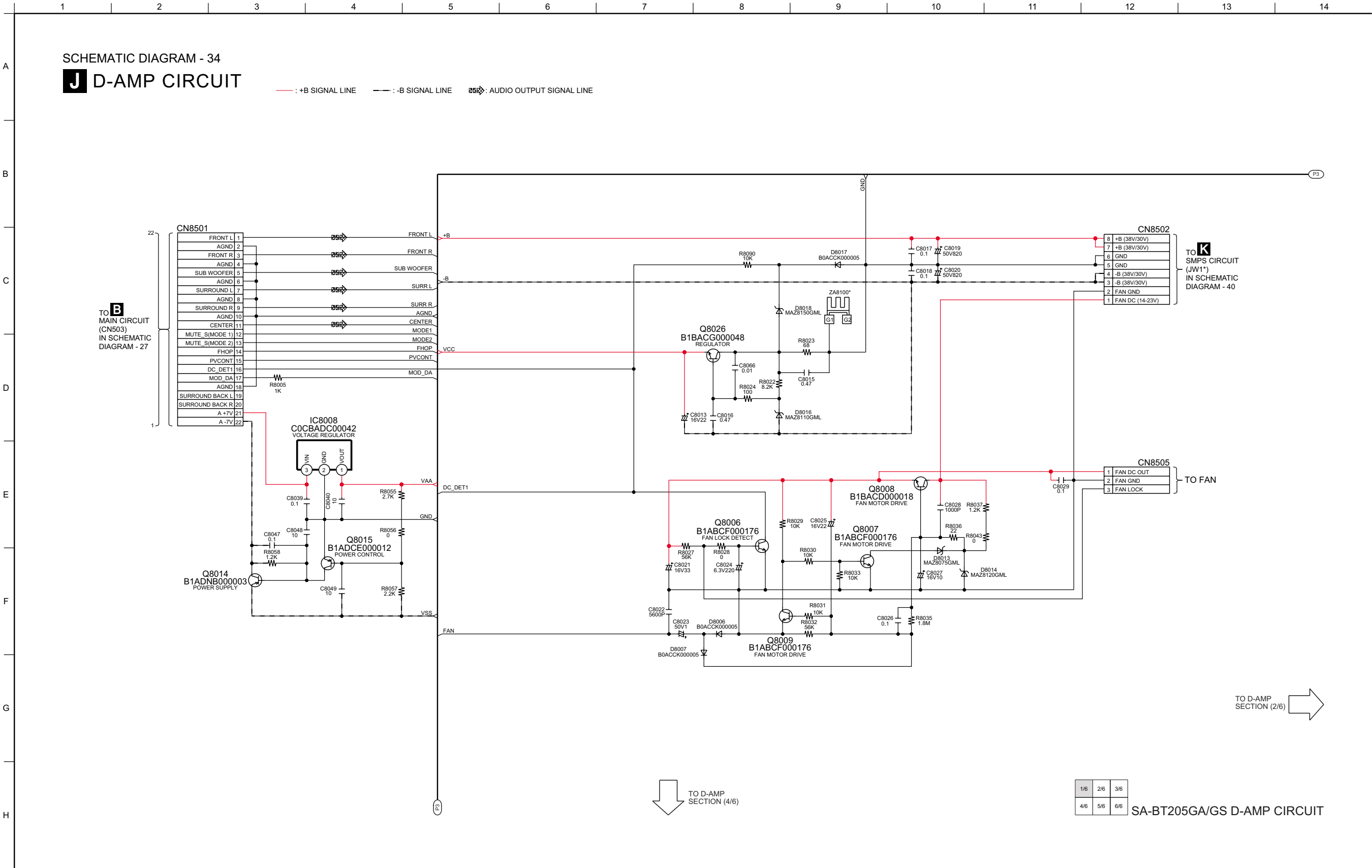
—: +B SIGNAL LINE —: -B SIGNAL LINE : BD/DVD AUDIO INPUT SIGNAL LINE : iPod/AUX/MIC AUDIO INPUT SIGNAL LINE : iPod VIDEO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : FM SIGNAL LINE



16.2. Panel Circuit



16.5. D-Amp Circuit

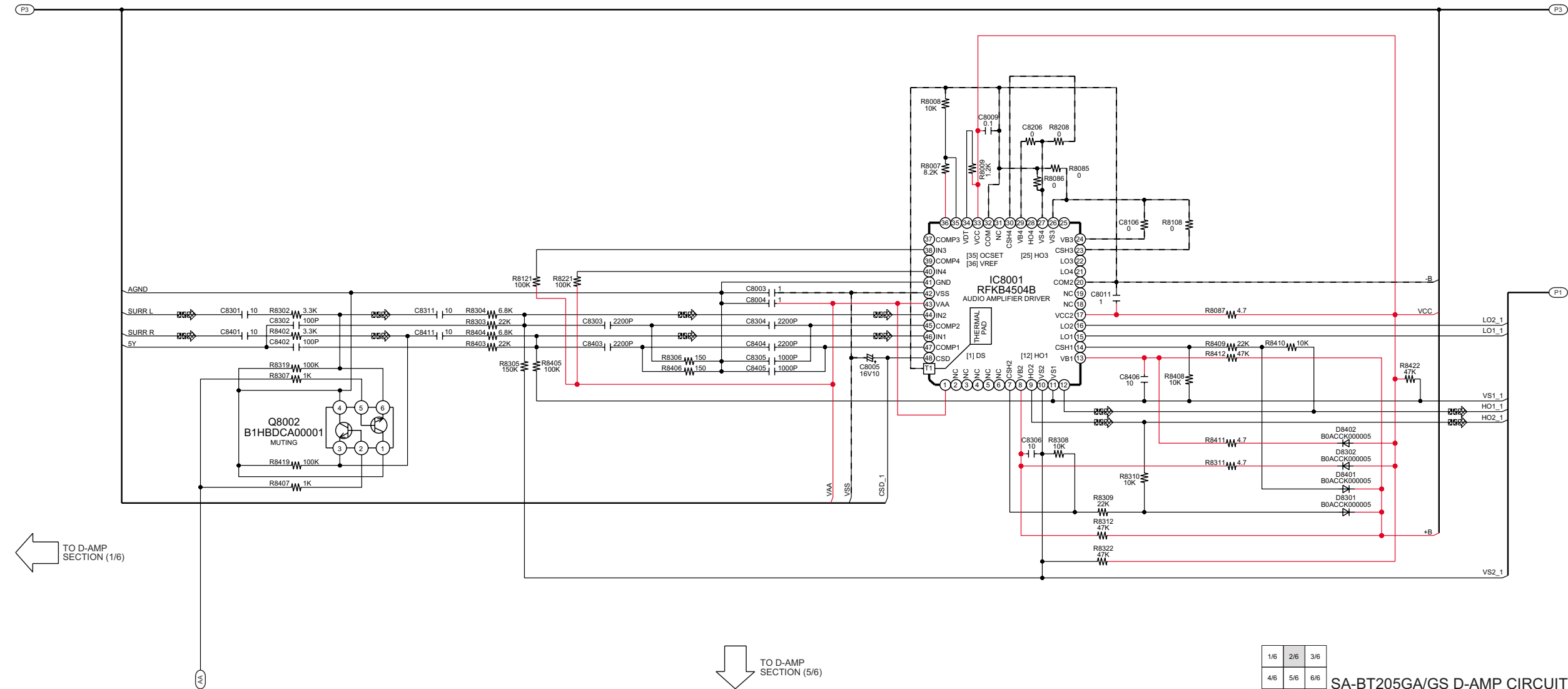


SCHEMATIC DIAGRAM - 35

J D-AMP CIRCUIT

— : +B SIGNAL LINE - - - : -B SIGNAL LINE  : AUDIO OUTPUT SIGNAL LINE

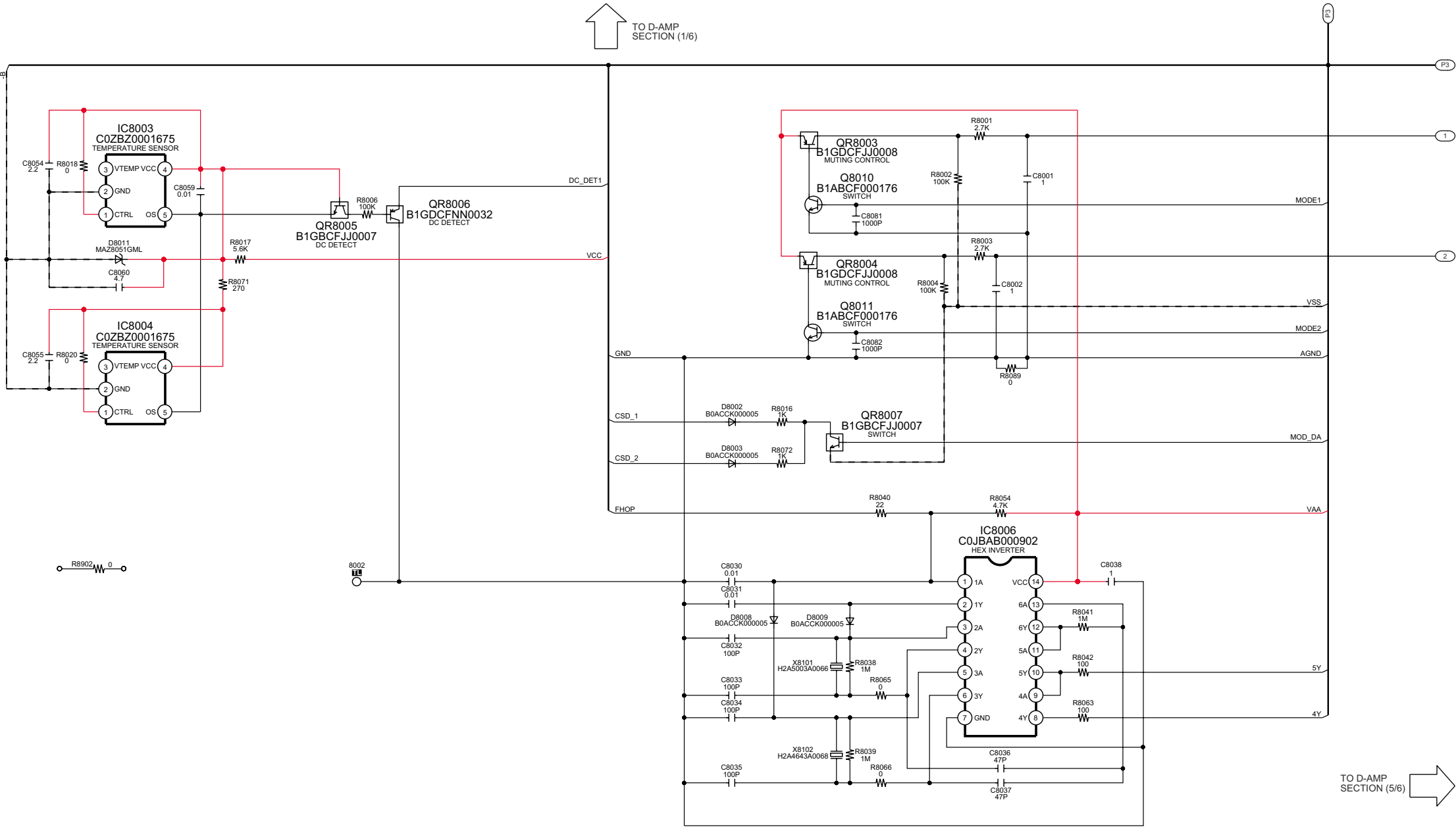
TO D-AMP SECTION (3/6) 



SCHEMATIC DIAGRAM - 37

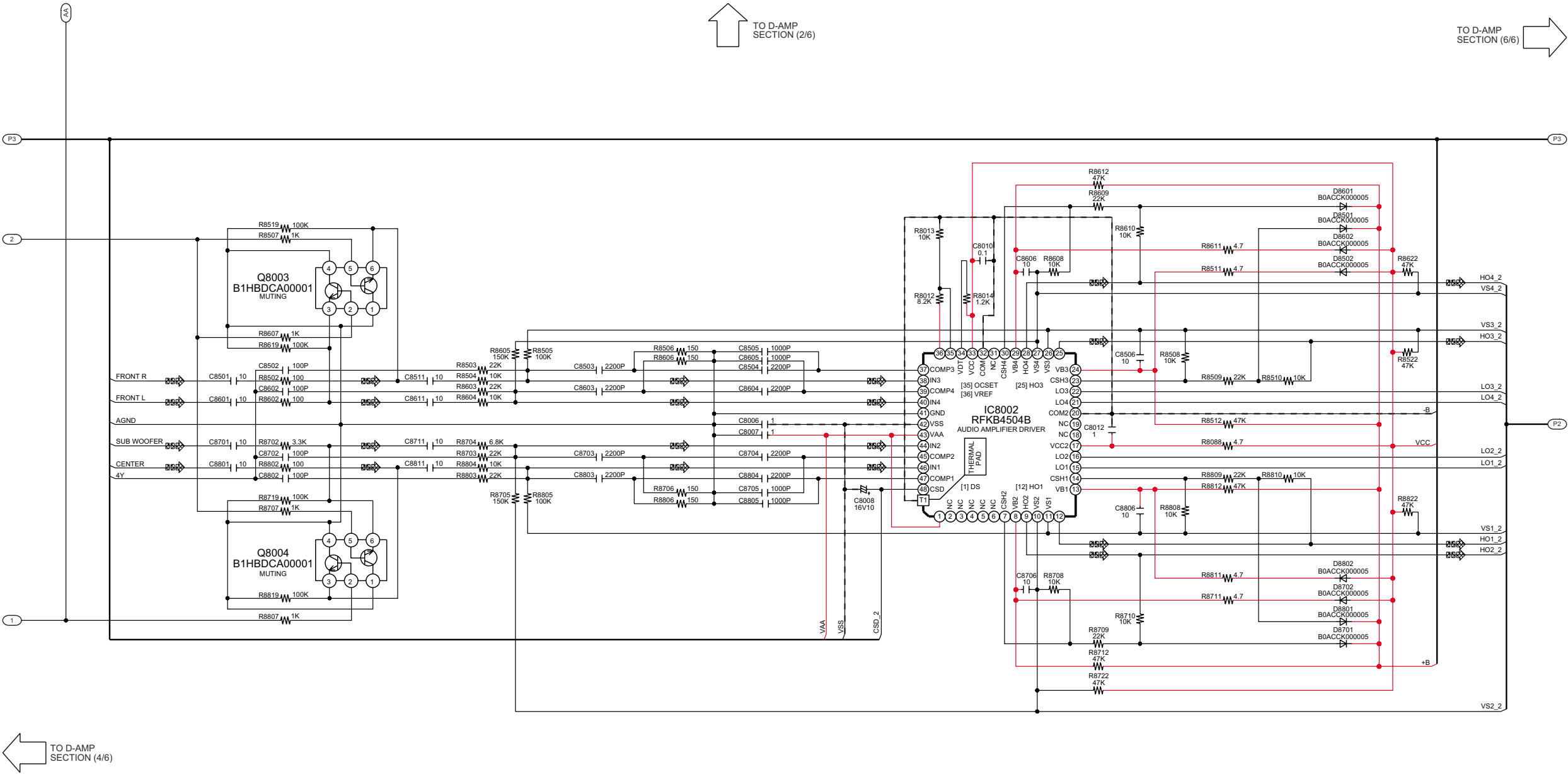
J D-AMP CIRCUIT

— : +B SIGNAL LINE — : -B SIGNAL LINE  : AUDIO OUTPUT SIGNAL LINE



SCHEMATIC DIAGRAM - 38
J D-AMP CIRCUIT

— : +B SIGNAL LINE — : -B SIGNAL LINE  : AUDIO OUTPUT SIGNAL LINE

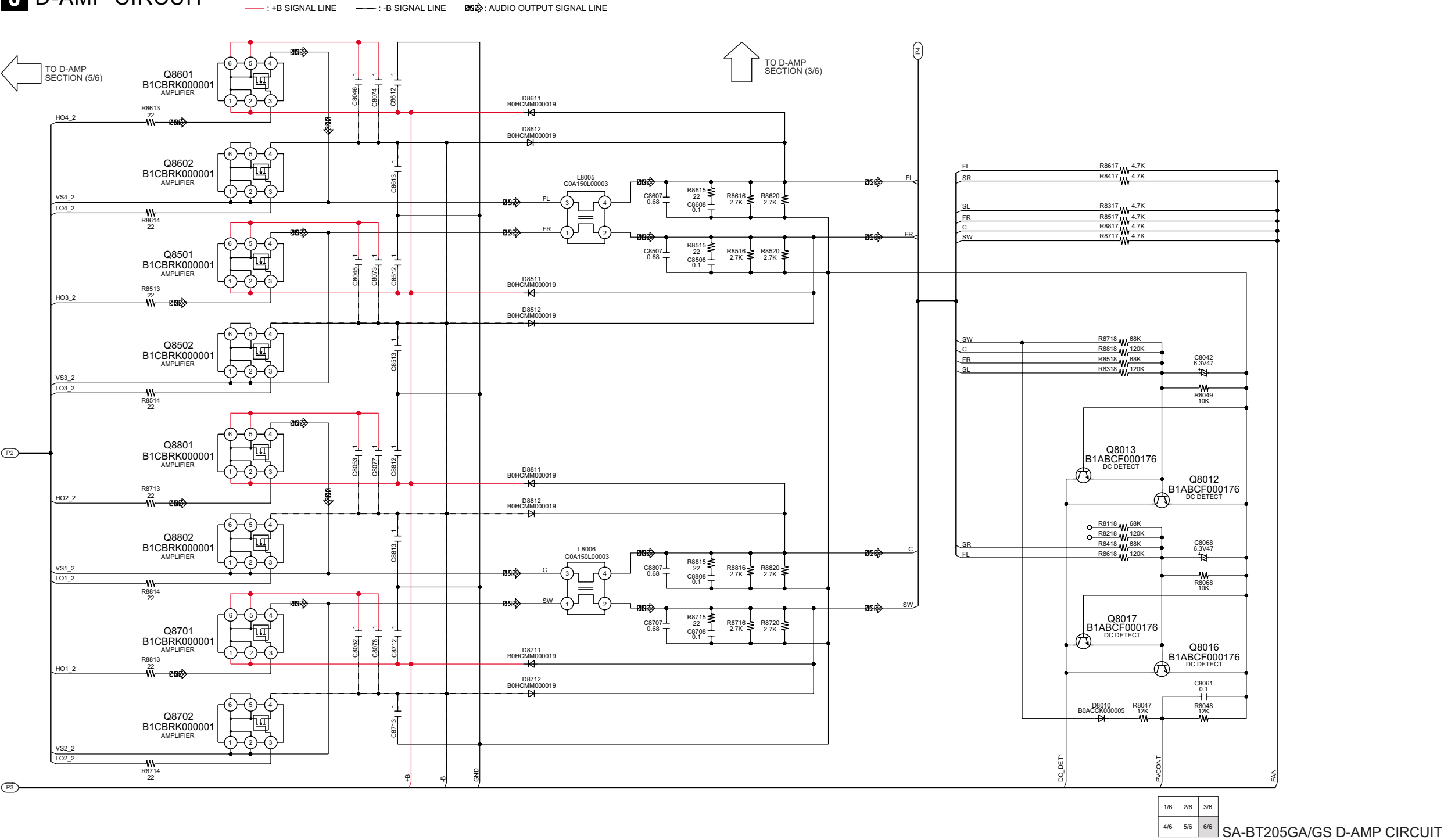


1/6	2/6	3/6
4/6	5/6	6/6

SA-BT205GA/GS D-AMP CIRCUIT

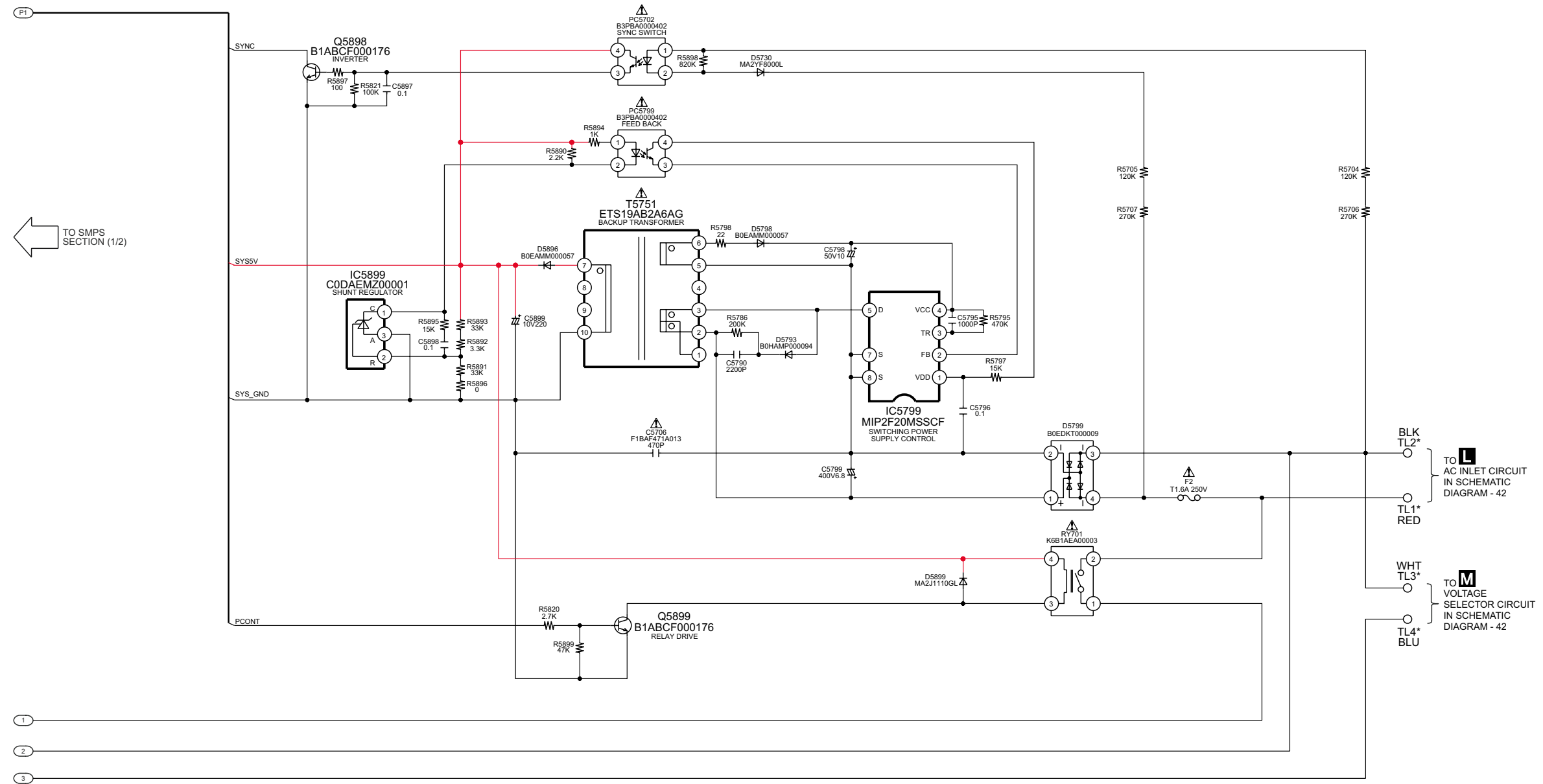
SCHEMATIC DIAGRAM - 39

J D-AMP CIRCUIT

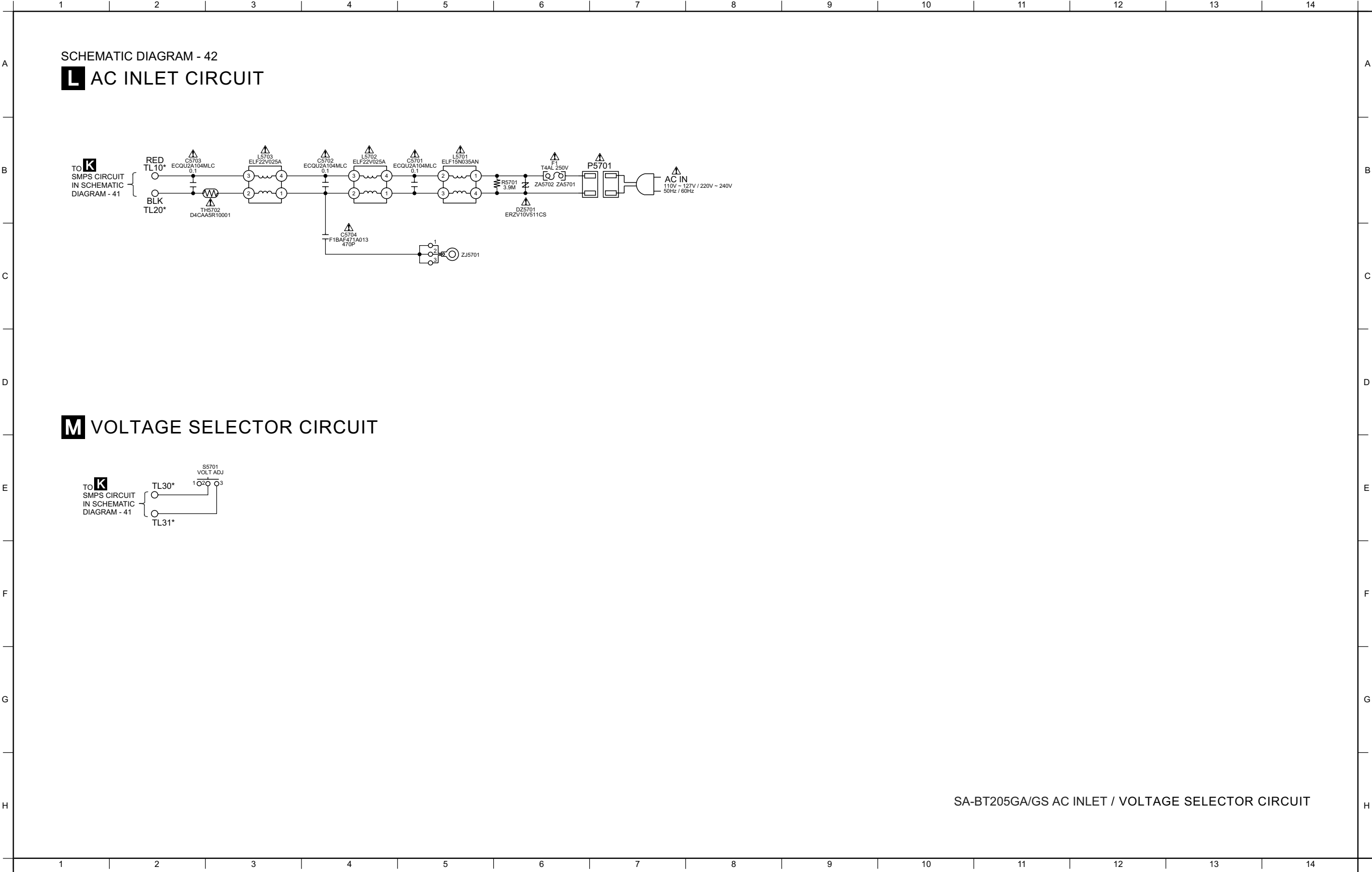


SCHEMATIC DIAGRAM - 41
K SMPS CIRCUIT

— : +B SIGNAL LINE — : -B SIGNAL LINE

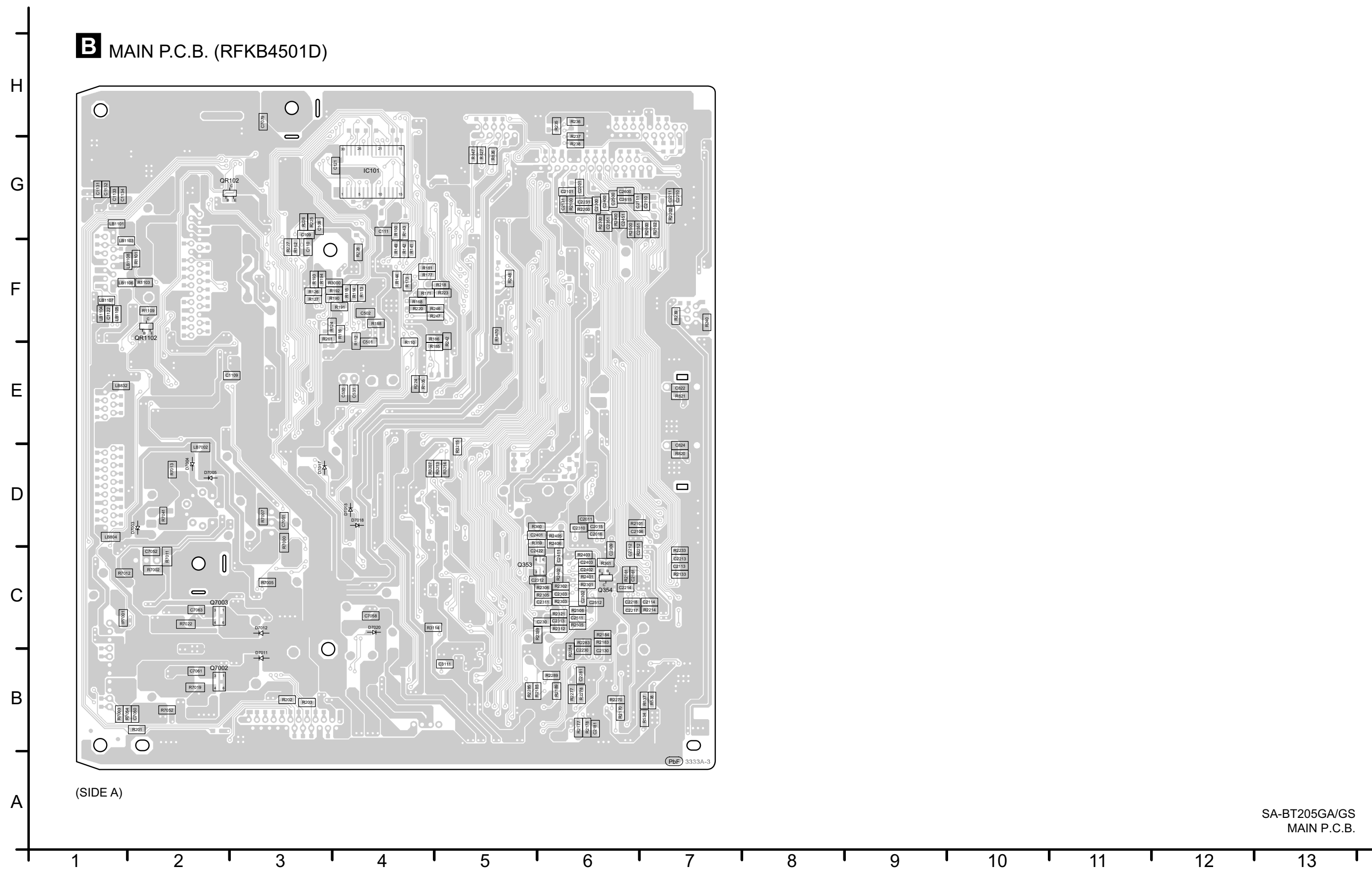


16.7. AC Inlet & Voltage Selector Circuit



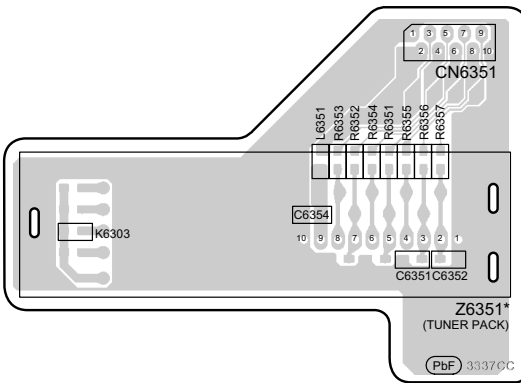
17 Printed Circuit Board

17.1. Main P.C.B.

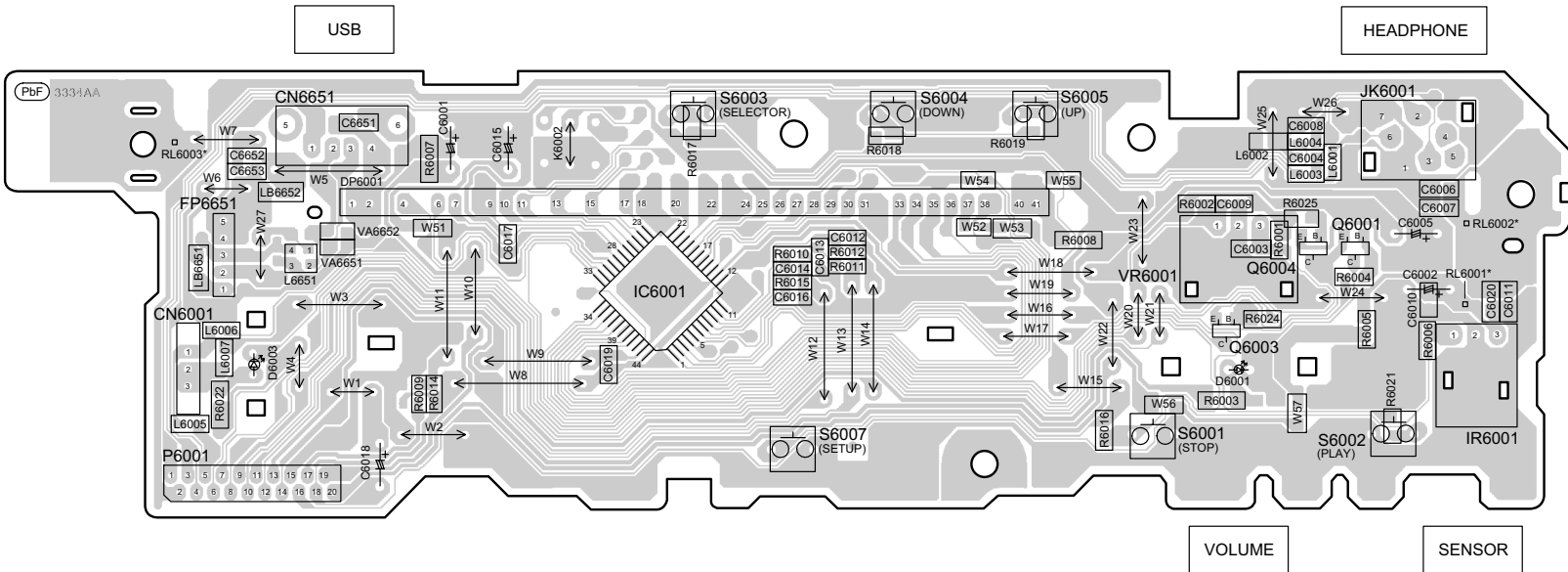


17.2. Tuner, Panel, Power Button, Setup Mic & SD P.C.B.

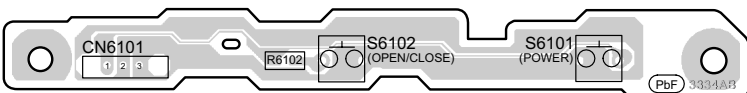
C TUNER P.C.B. (REP4505C)



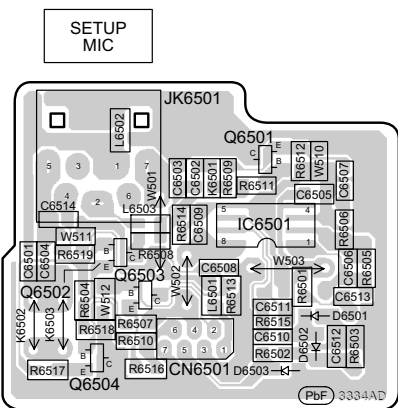
D PANEL P.C.B. (REP4502B)



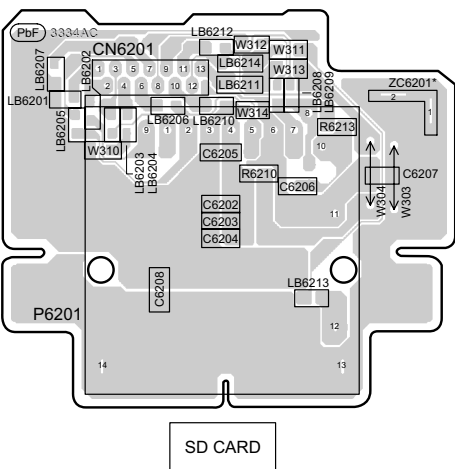
E POWER BUTTON P.C.B. (REP4502B)



F SETUP MIC P.C.B. (REP4502B)



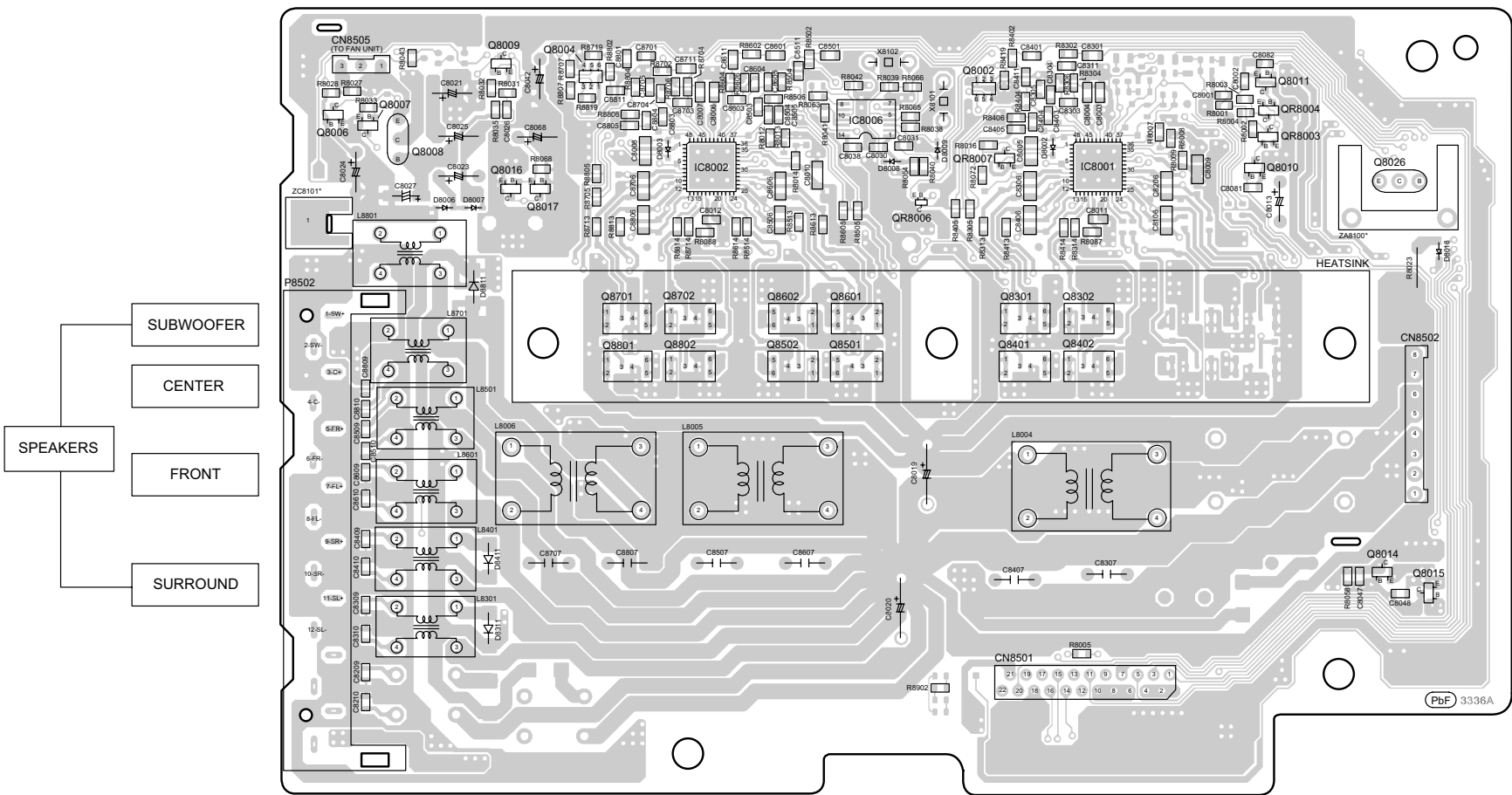
G SD P.C.B. (REP4502B)



NOTE: " * " REF IS FOR INDICATION ONLY.

SA-BT205GA/GS
TUNER/PANEL/POWER BUTTON/SETUP MIC/SD P.C.B.

J D-AMP P.C.B. (RFKB4504B)



(SIDE B)

NOTE: " * " REF IS FOR INDICATION ONLY.

SA-BT205GA/GS
D-AMP P.C.B.

18 Terminal Function of ICs

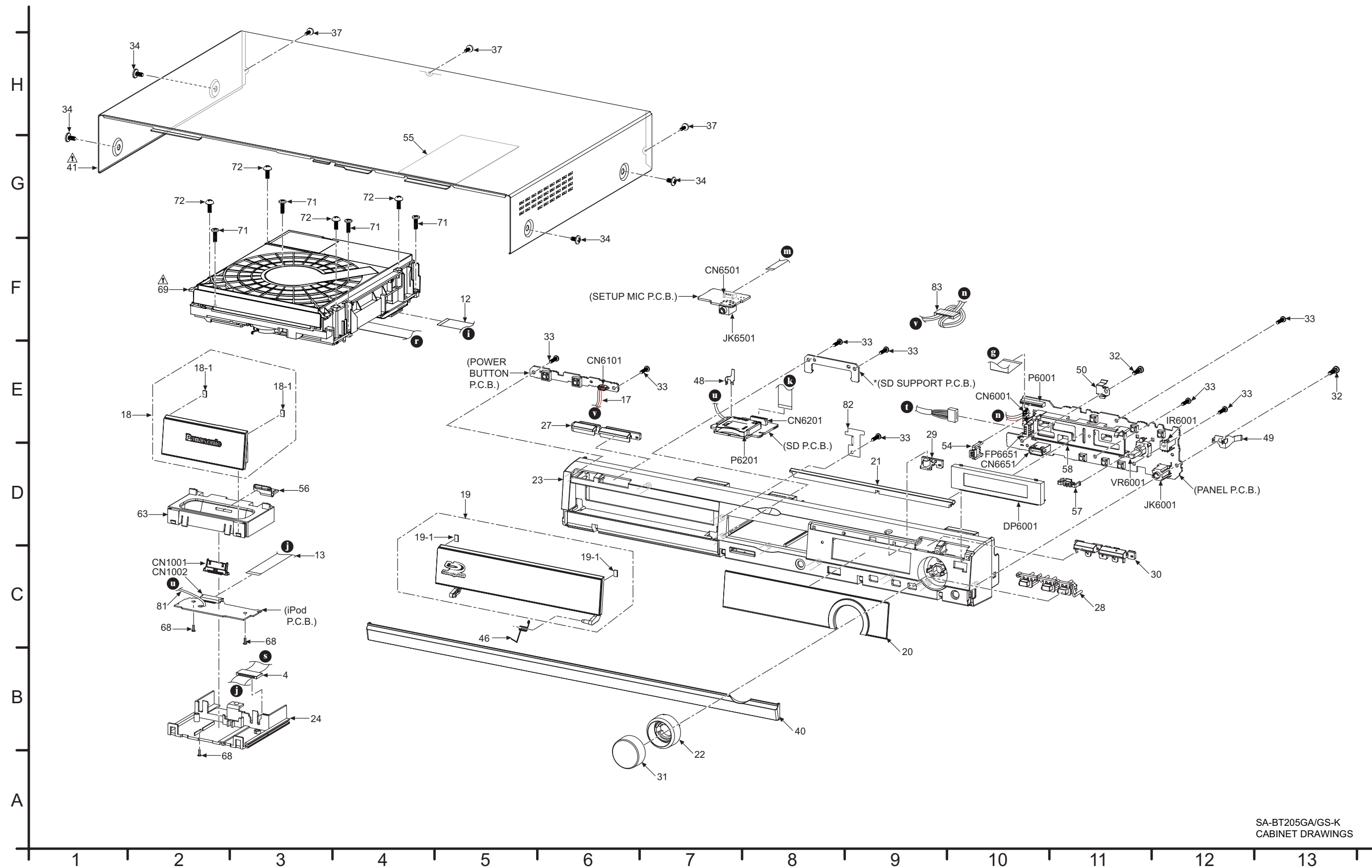
18.1. IC6001(C0HBB0000057): IC FL Driver

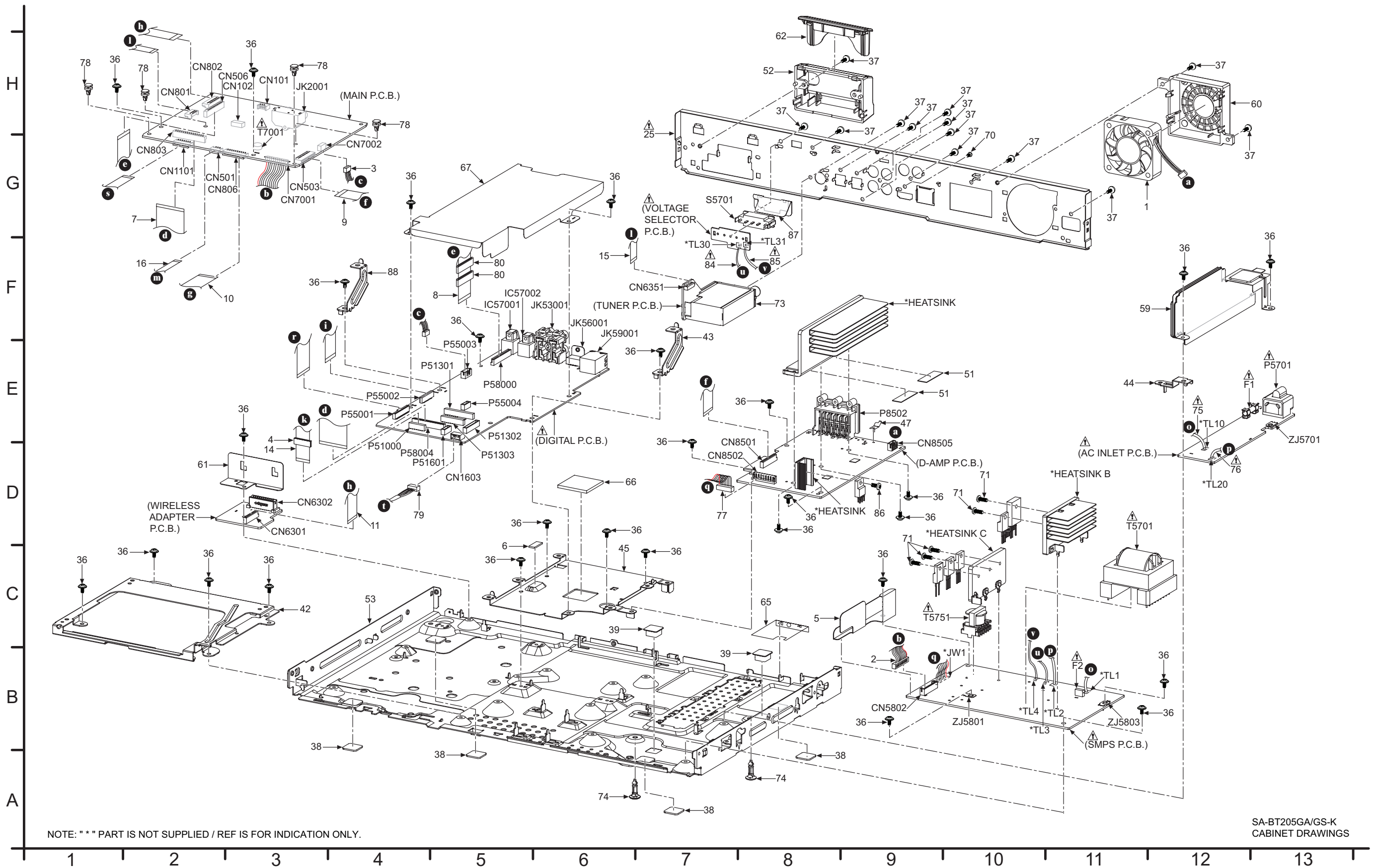
Pin No.	Terminal Name	I/O	Function
1	NC	O	No Connection
2	NC	-	No Connection
3	NC	-	No Connection
4	NC	-	No Connection
5	OSC	I	Oscillator Input
6	NC	-	No Connection
7	DIN	I	Data Input
8	CLK	I	Clock Input
9	STB	I	Serial Interface Strobe
10	NC	-	No Connection
11	NC	-	No Connection
12	GND	-	GND
13	VCC	-	Power Supply (+5V)
14	P18	O	Segment Output 18
15	P17	O	Segment Output 17
16	P16	O	Segment Output 16
17	P15	O	Segment Output 15
18	P14	O	Segment Output 14
19	P13	O	Segment Output 13
20	P12	O	Segment Output 12
21	P11	O	Segment Output 11
22	P10	O	Segment Output 10
23	P9	O	Segment Output 9
24	P8	O	Segment Output 8
25	P7	O	Segment Output 7
26	P6	O	Segment Output 6
27	P5	O	Segment Output 5
28	P4	O	Segment Output 4
29	P3	O	Segment Output 3
30	-VP	-	Voltage Supply
31	P2	O	Segment Output 2
32	P1	O	Segment Output 1
33	G1	O	Grid Segment Output 1
34	G2	O	Grid Segment Output 2
35	G3	O	Grid Segment Output 3
36	G4	O	Grid Segment Output 4
37	G5	O	Grid Segment Output 5
38	G6	O	Grid Segment Output 6
39	G7	O	Grid Segment Output 7
40	G8	O	Grid Segment Output 8
41	G9	O	Grid Segment Output 9
42	G10	O	Grid Segment Output 10
43	VCC	-	Voltage Supply (+5V)
44	GND	-	GND

19 Exploded View and Replacement Parts List

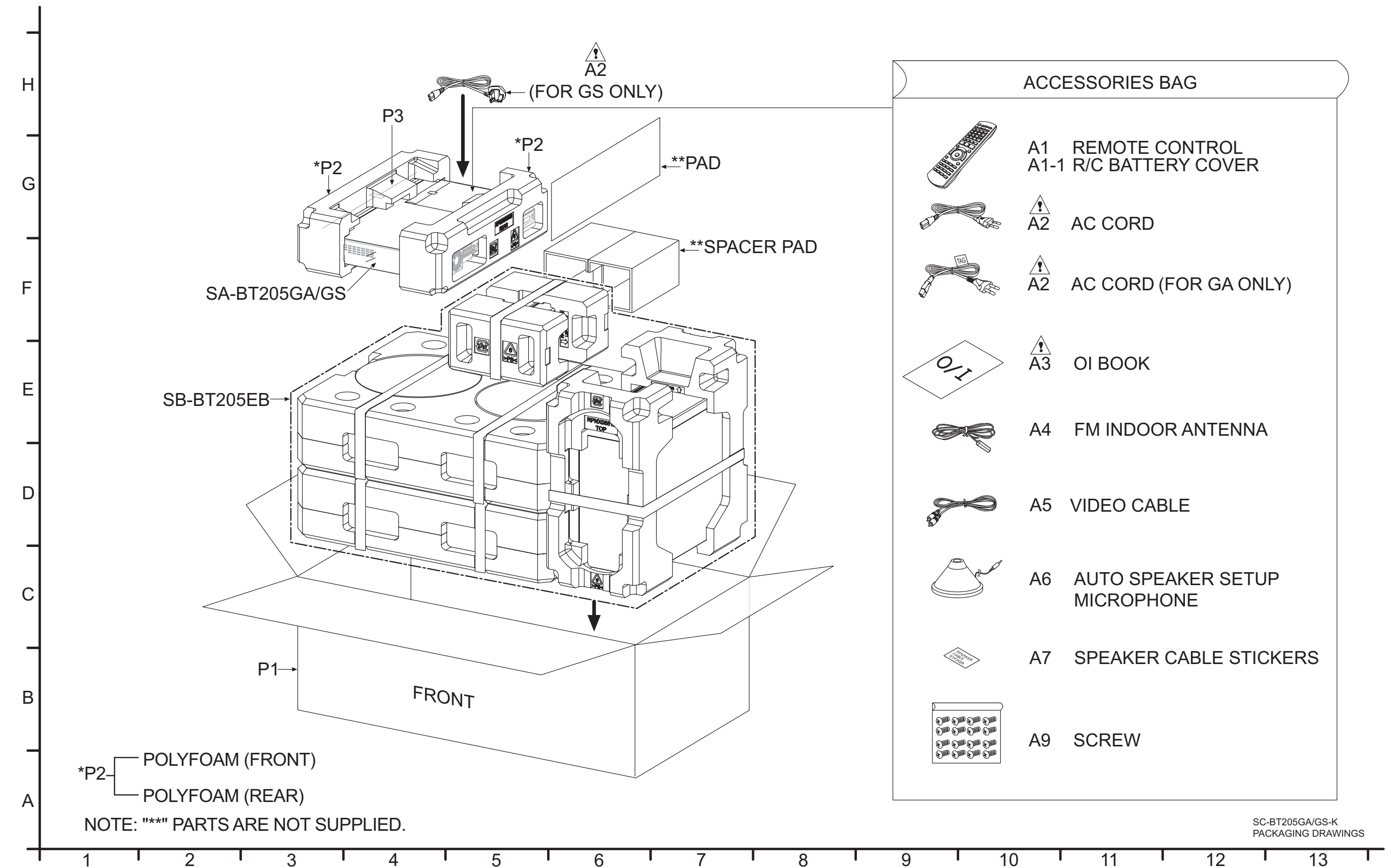
19.1. Exploded View and Mechanical Replacement Part List

19.1.1. Cabinet Parts Location

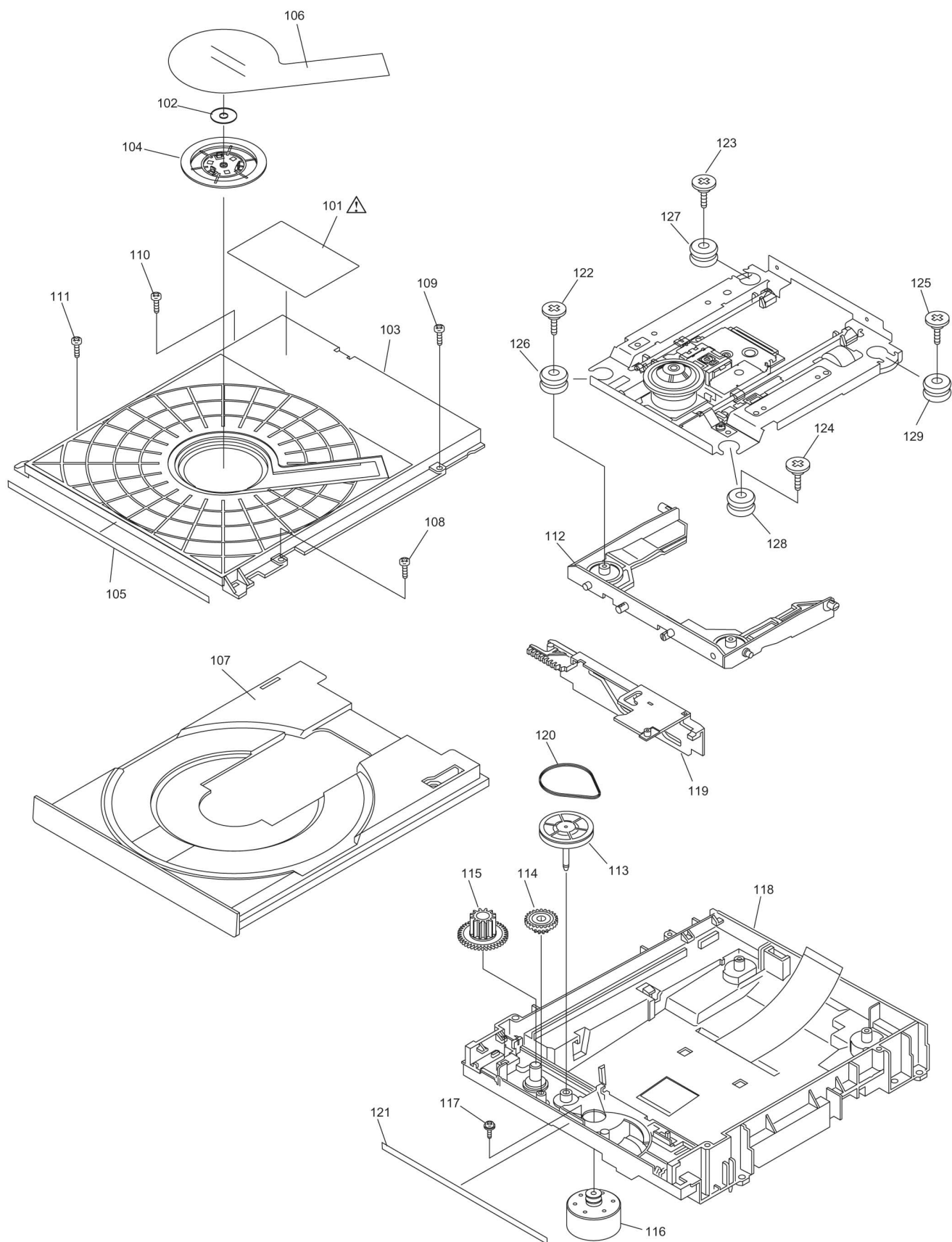




19.1.2. Packaging



19.1.3. BD Mechanism Cabinet Mechanism Section



19.1.4. Mechanical Replacement Part List

Important Safety Notice

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

RTL (Retention Time Limited)

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

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

Note:

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

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

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			CABINET AND CHASSIS		
	1	L6FAYYYH0079	FAN UNIT	1	
	2	REX1339	11P WIRE (MAIN-SMPS)	1	
	3	REX1340	4P WIRE (MAIN-DIGITAL)	1	
	4	J0KD00000126	FERRITE CORE	2	
	5	RMV0359	WIRE BARRIER	1	
	6	VMG1694	HEATSINK RUBBER	1	
	7	REZ1930	30P FFC (MAIN-DIGITAL)	1	
	8	REZ1931	28P FFC (MAIN-DIGITAL)	1	
	9	REZ1932	22P FFC (MAIN-D-AMP)	1	
	10	REZ1933	20P FFC (MAIN-PANEL)	1	
	11	REZ1934	19P FFC (MAIN-WIRELESS)	1	
	12	REZ1935	18P FFC (BD DRV-DIGITAL)	1	
	13	REZ1972	14P FFC (MAIN-iPod)	1	
	14	REZ1937	13P FFC (SD-DIGITAL)	1	
	15	REZ1938	10P FFC (MAIN-TUNER)	1	
	16	REZ1939	9P FFC (MAIN-MIC)	1	
	17	REZ1940-1	3P WIRE (PANEL-POWER)	1	
	18	RYQ0700C-Q1	CRADLE LID UNIT	1	
	18-1	RMG0796-K	LID CUSHION	2	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	19	RYF0862-K1	TRAY LID UNIT	1	
	19-1	RMG0796-K	LID CUSHION	2	
	20	RYQ0701-Q	FL ORNAMENT UNIT	1	
	21	RGK2178-K	PANEL ORNAMENT	1	
	22	RGKX0518-Q	VOLUME LIGHT GUIDE	1	
	23	RGP1401E-K	FRONT PANEL	1	
	24	RGPX0367-K	CRADLE CHASSIS	1	
	25	RGR0392C-E1A	REAR PANEL	1	GS
	25	RGR0392C-F2A	REAR PANEL	1	GA
	27	RGUX0786-K	POWER BUTTON	1	
	28	RGUX0787-K	OPERATION BUTTON	1	
	29	RGUX0788-K	ANS BUTTON	1	
	30	RGUX0789-K	PLAY STOP BUTTON	1	
	31	RGWX0116-K	VOLUME KNOB	1	
	32	RHD26043-1	SCREW	2	
	33	RHD26046	SCREW	8	
	34	RHD30007-K2J	SCREW	4	
	36	RHD30111-31	SCREW	28	
	37	RHD30119-S	SCREW	16	
	38	RKA0059-K	LEG RUBBER	4	
	39	RXQX0041	CUSHION ASSY	2	
	40	RKF0854-K1	PANEL LID	1	
	41	RKMX0141-1K2	TOP CABINET	1	
	42	RMA2183	MECHA ANGLE	1	
	43	RXA0235	MAIN PCB ANGLE	1	
	44	RMA2185	D-AMP PCB ANGLE	1	
	45	RMA2186-1	DIGITAL PCB ANGLE	1	
	46	RMB0901	TRAY SPRING	1	
	47	RMC0667	EARTH SPRING	1	
	48	RMC0749	HP EARTH SPRING	1	
	49	RMCX0042	EARTH SPRING	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	50	RMGX0061	USB EARTH SPRING	1	
	51	RMG0786-H	RADIATION RUBBER	2	
	52	RMKX0127-K1	TRANSMITTER CHASSIS	1	
	53	RMKX0155C-3	BOTTOM CHASSIS	1	
	54	RMNX0151	LED HOLDER	1	
	55	RMNX0306	SMPS PCB INSULATOR	1	
	56	RMNX0252-K	CRADLE KEY	1	
	57	RMNX0253	LED HOLDER	1	
	58	RMNX0260	FL HOLDER	1	
	59	RXQ1742	AC IN SHIELD UNIT	1	
	60	RMQX0233-K	FAN COVER	1	
	61	RMV0358	WIRELESS BARRIER	1	
	62	RMVX0109-K1	TRANSMITTER CHASSIS COVER	1	
	63	RMVX0120-K	CRADLE COVER	1	
	65	RMZ1015	AC BARRIER	1	
	66	RSC0839	RADIATOR SHEET	1	
	67	RXA0236A	DIGITAL SHIELD	1	
	68	VHD1224-1	ADJ SPRING HOLDER SCREW	3	
⚠	69	RFKNBT200GA	BD DRIVE / DIGITAL P.C.B ASS'Y	1	GA
⚠	69	RFKNBT200GS	BD DRIVE / DIGITAL P.C.B ASS'Y	1	GS
	70	XSN3+4FJ	SCREW	1	
	71	XTB3+10JFJ	SCREW	9	
	72	XTV26+10GFJ	SCREW	4	
	73	J3CBBB000002	TUNER PACK	1	
⚠	75	REE1510	RED WIRE (AC-SMPS)	1	
	74	RMNX0298	PCB SPACER	2	
⚠	76	REE1511	BLACK WIRE (AC-SMPS)	1	
	77	REX1374	8P WIRE (DIGITAL-SMPS)	1	
	78	RMR0502A-W	PCB SUPPORT	4	
	79	REX1341	5P WIRE (PANEL-DIGITAL)	1	
	80	J0KD00000015	FERRITE CORE	2	
	81	REE1516	1P WIRE (iPod-SD)	1	
	82	RMV0361	COIL BARRIER	1	
	83	J0KE00000063	FERRITE CORE	1	
⚠	84	REE1518	WHITE WIRE (VOLTAGE SELECT-SMPS)	1	
⚠	85	REE1517	BLUE WIRE (VOLTAGE SELECT-SMPS)	1	
	86	XTB3+8JFJ	SCREW	1	
	87	RMZ1058-1	VOLTAGE SW BARRIER	1	
	88	RXA0237	MAIN P.C.B. ANGLE UNIT (L)	1	
			TRAVERSE DECK		
	101	VQL1V70-J	LASER CAUTION LABEL	1	
	102	VMA0V86	YOKE	1	
	103	VMD5751	UPPER BASE	1	
	104	VMD5752	CLAMPER	1	
	105	VMT1876-J	DUST COVER A	1	
	106	VMZ3737-J	CLAMP COVER	1	
	107	VXA8619	TRAY ASS'Y	1	
	108	XTV26+10GFJ	SCREW	1	
	109	XTV26+10GFJ	SCREW	1	
	110	XTV26+10GFJ	SCREW	1	
	111	XTV26+10GFJ	SCREW	1	
	112	VMD5753	MID BASE	1	
	113	VDG1713	PULLEY GEAR	1	
	114	VDG1714	MID GEAR	1	
	115	VDG1715	DRIVE GEAR	1	
	116	VEM0867	LOADING MOTOR U	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			PACKING MATERIALS		
	P1	RP68917-1	PACKING CASE	1	GS
	P1	RP68918-1	PACKING CASE	1	GA
	P2	RPNX0595-2	POLYFOAM	1	
	P3	RPF0058-1J	MIRAMAT	1	
			ACCESSORIES		
	A1	N2QAKB000073	REMOTE CONTROL	1	
	A1-1	RKK-PT470EBK	R/C BATTERY COVER	1	
⚠	A2	K2CP2CA00001	AC CORD	1	GA
⚠	A2	K2CQ2CA00007	AC CORD	1	
⚠	A2	K2CZ3YY00005	AC CORD	1	GS
⚠	A3	RQT9450-L	O/I BOOK	1	
⚠	A3	RQT9453-G	O/I BOOK	1	GS
⚠	A3	RQT9454-K	O/I BOOK (Cn)	1	GA
	A4	RSAX0002	FM ANTENNA INDOOR	1	
	A5	K2KA2BA00001	VIDEO CABLE	1	
	A6	L0CBAY000034	AUTO SPEAKER SETUP MICROPHONE	1	
	A7	RQCXA0013-1	SPEAKER CABLE STICKERS	1	
	A9	XTN5+10FFJK	SCREW	16	

19.2. Electrical Replacement Part List

Important Safety Notice

Components identified by $\triangle$ 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 (μ F) unless specified otherwise, P=Pico-farads (pF), F=Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1000 (OHM).
- All parts mentioned are supplied by PAVCSG unless indicated likewise.
- Parts mentioned [SPG] in the Remarks column are supplied by PAVC-CSG.

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			PRINTED CIRCUIT BOARDS		
	PCB1	RFKB4501D	MAIN P.C.B.	1	(RTL)
	PCB2	REP4505C	WIRELESS ADAPTER P.C.B.	1	(RTL)
	PCB3	REP4502B	PANEL P.C.B.	1	(RTL)
	PCB4	REP4502B	POWER BUTTON P.C.B.	1	(RTL)
	PCB5	REP4502B	SD P.C.B.	1	(RTL)
	PCB6	REP4502B	SETUP MIC P.C.B.	1	(RTL)
	PCB7	RFKB4504B	D-AMP P.C.B.	1	(RTL)
$\triangle$	PCB8	REP4505C	SMPS P.C.B.	1	(RTL)
$\triangle$	PCB9	REP4505C	AC INLET P.C.B.	1	(RTL)
$\triangle$	PCB10	REP4505C	VOLTAGE SELECTOR P.C.B.	1	(RTL)
$\triangle$	PCB11	RFKB4550B	DIGITAL P.C.B.	1	(RTL)
	PCB12	REPX0631A-C	iPod P.C.B.	1	(RTL)
	PCB13	REP4505C	TUNER P.C.B.	1	(RTL)
			INTEGRATED CIRCUITS		
	IC100	RFKWMBT205GA	IC	1	GA
	IC100	RFKWMBT205GS	IC	1	GS
	IC101	C0JBAZ002843	IC	1	
	IC102	C0EBE0000242	IC	1	
	IC104	C0CBABC00117	IC	1	
	IC105	RFKWMBT205GA	IC	1	GA
	IC105	RFKWMBT205GS	IC	1	GS
	IC501	C0ABBB000189	IC	1	
	IC1001	C0DBZHE00026	IC	1	
	IC1101	C0ABAA000114	IC	1	
	IC1102	C0ABBB000189	IC	1	
	IC1451	MFI341S2161	IC	1	
	IC2101	C1AB00002735	IC	1	
	IC2102	C0ABBB000125	IC	1	
	IC3101	C0ABBB000189	IC	1	
	IC3102	C0ABBB000189	IC	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	IC3103	C0ABBB000189	IC	1	
	IC3104	C0ABBB000189	IC	1	
	IC3105	C0ABBB000189	IC	1	
	IC3106	C0ABBB000189	IC	1	
	IC3107	C0ABBB000189	IC	1	
	IC3201	C0JBAR000300	IC	1	
	IC5701	C5HACY000003	IC	1	
	IC5799	MIP2F20MSSCF	IC	1	
	IC5801	C0DABFC00002	IC	1	
	IC5899	C0DAEMZ00001	IC	1	
	IC6001	C0HBB0000057	IC	1	
	IC6501	C0ABBB000125	IC	1	
	IC7001	C0DBAYY00333	IC	1	
	IC7002	C0DBZYY00018	IC	1	
	IC7003	C0DBZH000047	IC	1	
	IC8001	C0ZBZ0001673	IC	1	
	IC8002	C0ZBZ0001673	IC	1	
	IC8003	C0ZBZ0001675	IC	1	
	IC8004	C0ZBZ0001675	IC	1	
	IC8006	C0JBAB0000902	IC	1	
	IC8008	C0CBADC00042	IC	1	
			TRANSISTORS		
	Q101	B1ADCE000012	TRANSISTOR	1	
	Q102	B1GFGCAA0001	TRANSISTOR	1	
	Q351	B1ADCE000012	TRANSISTOR	1	
	Q353	B1GFGCAA0001	TRANSISTOR	1	
	Q354	B1ABGC000005	TRANSISTOR	1	
	Q1101	B1ABCF000176	TRANSISTOR	1	
	Q1102	B1ADCE000012	TRANSISTOR	1	
	Q1103	B1ADCE000012	TRANSISTOR	1	
	Q2101	B1GFGCAA0001	TRANSISTOR	1	
	Q2102	B1GFGCAA0001	TRANSISTOR	1	
	Q2103	B1GFGCAA0001	TRANSISTOR	1	
	Q5720	2SC3940ARA	TRANSISTOR	1	
	Q5861	B1ADCE000012	TRANSISTOR	1	
	Q5862	B1ABCF000176	TRANSISTOR	1	
	Q5863	B1ABGC000001	TRANSISTOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	Q5898	B1ABCF000176	TRANSISTOR	1	
	Q5899	B1ABCF000176	TRANSISTOR	1	
	Q6001	B1GBCFGN0018	TRANSISTOR	1	
	Q6003	B1GBCFGN0018	TRANSISTOR	1	
	Q6004	B1GBCFGN0018	TRANSISTOR	1	
	Q6501	B1ABEB000002	TRANSISTOR	1	
	Q6502	B1ADCE000012	TRANSISTOR	1	
	Q6503	B1GDCFGA0018	TRANSISTOR	1	
	Q6504	B1GDCFGA0018	TRANSISTOR	1	
	Q7001	B1BABK000001	TRANSISTOR	1	
	Q7002	B1CHPD000003	TRANSISTOR	1	
	Q7003	B1CHPD000003	TRANSISTOR	1	
	Q7004	B1BCCG000002	TRANSISTOR	1	
	Q7005	B1ADCE000012	TRANSISTOR	1	
	Q7006	B1BACG000048	TRANSISTOR	1	
	Q7007	B1ABCF000176	TRANSISTOR	1	
	Q7008	B1ABCF000176	TRANSISTOR	1	
	Q7050	B1ABCF000176	TRANSISTOR	1	
	Q8002	B1HBDCA00001	TRANSISTOR	1	
	Q8003	B1HBDCA00001	TRANSISTOR	1	
	Q8004	B1HBDCA00001	TRANSISTOR	1	
	Q8006	B1ABCF000176	TRANSISTOR	1	
	Q8007	B1ABCF000176	TRANSISTOR	1	
	Q8008	B1BACD000018	TRANSISTOR	1	
	Q8009	B1ABCF000176	TRANSISTOR	1	
	Q8010	B1ABCF000176	TRANSISTOR	1	
	Q8011	B1ABCF000176	TRANSISTOR	1	
	Q8012	B1ABCF000176	TRANSISTOR	1	
	Q8013	B1ABCF000176	TRANSISTOR	1	
	Q8014	B1ADNB000003	TRANSISTOR	1	
	Q8015	B1ADCE000012	TRANSISTOR	1	
	Q8016	B1ABCF000176	TRANSISTOR	1	
	Q8017	B1ABCF000176	TRANSISTOR	1	
	Q8026	B1BACG000048	TRANSISTOR	1	
	Q8301	B1CBRK000001	TRANSISTOR	1	
	Q8302	B1CBRK000001	TRANSISTOR	1	
	Q8401	B1CBRK000001	TRANSISTOR	1	
	Q8402	B1CBRK000001	TRANSISTOR	1	
	Q8501	B1CBRK000001	TRANSISTOR	1	
	Q8502	B1CBRK000001	TRANSISTOR	1	
	Q8601	B1CBRK000001	TRANSISTOR	1	
	Q8602	B1CBRK000001	TRANSISTOR	1	
	Q8701	B1CBRK000001	TRANSISTOR	1	
	Q8702	B1CBRK000001	TRANSISTOR	1	
	Q8801	B1CBRK000001	TRANSISTOR	1	
	Q8802	B1CBRK000001	TRANSISTOR	1	
			DIODES		
	D500	MAZ8051GML	DIODE	1	
	D501	MA2J1110GL	DIODE	1	
	D2601	MA2J1110GL	DIODE	1	
	D2602	MA2J1110GL	DIODE	1	
	D2603	MA2J1110GL	DIODE	1	
	D2604	MA2J1110GL	DIODE	1	
	D5701	B0FBAR000041	DIODE	1	
	D5702	B0ZAZ0000052	DIODE	1	
	D5721	MAZ8200GML	DIODE	1	
	D5722	MAZ8200GML	DIODE	1	
	D5723	MA2J1110GL	DIODE	1	
	D5724	MA2J1110GL	DIODE	1	
	D5725	MAZ8062GML	DIODE	1	
	D5726	MA2J1110GL	DIODE	1	
	D5727	MA2J1110GL	DIODE	1	
	D5729	B0EAMM000057	DIODE	1	
	D5730	MA2YF8000L	DIODE	1	
	D5731	B0EAMM000057	DIODE	1	
	D5732	MAZ8300GML	DIODE	1	
	D5733	MAZ8270GML	DIODE	1	
	D5793	B0HAMP000094	DIODE	1	
	D5798	B0EAMM000057	DIODE	1	
	D5799	B0EDKT000009	DIODE	1	
	D5801	B0HBSM000043	DIODE	1	
	D5802	B0HBSM000054	DIODE	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	D5803	B0HFRJ000012	DIODE	1	
	D5804	B0EAMM000057	DIODE	1	
	D5805	B0EAMM000057	DIODE	1	
	D5807	MA2J1110GL	DIODE	1	
	D5809	MA2J1110GL	DIODE	1	
	D5810	MA2J1110GL	DIODE	1	
	D5811	MAZ8051GML	DIODE	1	
	D5896	B0EAMM000057	DIODE	1	
	D5899	MA2J1110GL	DIODE	1	
	D6001	B3AEA0000099	DIODE	1	
	D6003	B3ABA0000795	DIODE	1	
	D6501	MA2J1110GL	DIODE	1	
	D6502	MA2J1110GL	DIODE	1	
	D6503	MAZ8030GHL	DIODE	1	
	D7001	MAZ8180GML	DIODE	1	
	D7002	MAZ8180GML	DIODE	1	
	D7003	MAZ8270GML	DIODE	1	
	D7004	MAZ8033GML	DIODE	1	
	D7005	B0JCMD000010	DIODE	1	
	D7006	B0JAME000029	DIODE	1	
	D7011	B0JCPG000005	DIODE	1	
	D7012	B0JCPG000005	DIODE	1	
	D7013	MA2J1110GL	DIODE	1	
	D7014	MA2J1110GL	DIODE	1	
	D7015	MA2J1110GL	DIODE	1	
	D7016	MA2J1110GL	DIODE	1	
	D7017	MA2J1110GL	DIODE	1	
	D7018	MA2J1110GL	DIODE	1	
	D7019	MA2J1110GL	DIODE	1	
	D7020	MA2J1110GL	DIODE	1	
	D7021	MA2J1110GL	DIODE	1	
	D7022	MA2J1110GL	DIODE	1	
	D7023	MAZ8270GML	DIODE	1	
	D7024	MAZ8051GML	DIODE	1	
	D7031	MAZ8075GML	DIODE	1	
	D7033	MAZ8068GML	DIODE	1	
	D7035	MAZ8100GHL	DIODE	1	
	D7036	MAZ8068GML	DIODE	1	
	D7037	MAZ8100GHL	DIODE	1	
	D7038	MAZ8130GHL	DIODE	1	
	D7050	MA2J1110GL	DIODE	1	
	D8002	B0ACCK000005	DIODE	1	
	D8003	B0ACCK000005	DIODE	1	
	D8006	B0ACCK000005	DIODE	1	
	D8007	B0ACCK000005	DIODE	1	
	D8008	B0ACCK000005	DIODE	1	
	D8009	B0ACCK000005	DIODE	1	
	D8010	B0ACCK000005	DIODE	1	
	D8011	MAZ8051GML	DIODE	1	
	D8013	MAZ8075GML	DIODE	1	
	D8014	MAZ8120GML	DIODE	1	
	D8016	MAZ8110GML	DIODE	1	
	D8017	B0ACCK000005	DIODE	1	
	D8018	MAZ8150GML	DIODE	1	
	D8301	B0ACCK000005	DIODE	1	
	D8302	B0ACCK000005	DIODE	1	
	D8311	B0HCMM000019	DIODE	1	
	D8312	B0HCMM000019	DIODE	1	
	D8401	B0ACCK000005	DIODE	1	
	D8402	B0ACCK000005	DIODE	1	
	D8411	B0HCMM000019	DIODE	1	
	D8412	B0HCMM000019	DIODE	1	
	D8501	B0ACCK000005	DIODE	1	
	D8502	B0ACCK000005	DIODE	1	
	D8511	B0HCMM000019	DIODE	1	
	D8512	B0HCMM000019	DIODE	1	
	D8601	B0ACCK000005	DIODE	1	
	D8602	B0ACCK000005	DIODE	1	
	D8611	B0HCMM000019	DIODE	1	
	D8612	B0HCMM000019	DIODE	1	
	D8701	B0ACCK000005	DIODE	1	
	D8702	B0ACCK000005	DIODE	1	
	D8711	B0HCMM000019	DIODE	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	D8712	B0HCMM000019	DIODE	1	
	D8801	B0ACCK000005	DIODE	1	
	D8802	B0ACCK000005	DIODE	1	
	D8811	B0HCMM000019	DIODE	1	
	D8812	B0HCMM000019	DIODE	1	
⚠	DZ5701	ERZV10V511CS	ZNR	1	
			VARISTORS		
	VA6651	EZJZ1V171AA	VARISTOR	1	
	VA6652	EZJZ1V171AA	VARISTOR	1	
			VARIABLE RESIS- TOR		
	VR6001	EVEKE2F2524M	VOLUME JOG	1	
			SWITCHES		
⚠	S5701	K0ABCA000007	SW VOLTAGE SELECTOR	1	
	S6001	EVQ21405R	SW STOP	1	
	S6002	EVQ21405R	SW PLAY	1	
	S6003	EVQ21405R	SW SELECTOR	1	
	S6004	EVQ21405R	SW TUNE DOWN	1	
	S6005	EVQ21405R	SW TUNE UP	1	
	S6007	EVQ21405R	SW SMART SETUP	1	
	S6101	EVQ21405R	SW POWER	1	
	S6102	EVQ21405R	SW OPEN/CLOSE	1	
	PSW1	D4FB1R100009	SW	1	
			CONNECTORS		
	CN101	K1MN06BA0004	6P CONNECTOR	1	
	CN102	K1KA06AA0083	6P CONNECTOR	1	
	CN501	K1MN07BA0004	7P CONNECTOR	1	
	CN503	K1MN22BA0005	22P CONNECTOR	1	
	CN506	K1MN28AA0004	28P CONNECTOR	1	
	CN801	K1MN10BA0004	10P CONNECTOR	1	
	CN802	K1MN19BA0005	19P CONNECTOR	1	
	CN803	K1MN30AA0004	30P CONNECTOR	1	
	CN806	K1MN20BA0005	20P CONNECTOR	1	
	CN1001	MFI514S0117	30P CONNECTOR	1	
	CN1002	K1MN14BA0141	14P CONNECTOR	1	
	CN1101	K1MN14BA0004	14P CONNECTOR	1	
	CN1603	K1KA05BA0014	5P CONNECTOR	1	
	CN5802	K1KA11AA0194	11P CONNECTOR	1	
	CN6001	K1YZ03000010	3P CABLE HOLDER	1	
	CN6101	K1YZ03000010	3P CABLE HOLDER	1	
	CN6201	K1MN13AA0003	13P CONNECTOR	1	
	CN6301	K1MN19AA0004	19P CONNECTOR	1	
	CN6302	K1MY26A00001	26P CONNECTOR (WIRELESS)	1	
	CN6351	K1MN10BA0004	10P CONNECTOR	1	
	CN6501	K1MN07BA0004	7P CONNECTOR	1	
	CN6651	K1FY104A0007	4P CONNECTOR (USB)	1	
	CN7001	K1YZ11000002	11P CONNECTOR	1	
	CN7002	K1YZ04000002	4P CONNECTOR	1	
	CN8501	K1MN22AA0004	22P CONNECTOR	1	
	CN8502	K1KA08AA0180	8P CONNECTOR	1	
	CN8505	K1KA03AA0301	3P CONNECTOR	1	
	FP6651	K1KA05BA0061	5P CONNECTOR	1	
	P6001	K1MN20AA0004	20P CONNECTOR	1	
	P6201	K1NA12B00004	12P CONNECTOR (SD)	1	
			COILS AND INDUC- TORS		
	L1001	J0JHC00000107	INDUCTOR	1	
	L1002	J0JHC00000107	INDUCTOR	1	
	L1003	J0JHC00000107	INDUCTOR	1	
	L1004	J0JHC00000107	INDUCTOR	1	
	L1005	J0JHC00000107	INDUCTOR	1	
	L1006	J0JHC00000107	INDUCTOR	1	
	L1007	J0JHC00000107	INDUCTOR	1	
	L1008	J0JHC00000107	INDUCTOR	1	
	L1009	J0JHC00000107	INDUCTOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	L1010	J0JHC00000107	INDUCTOR	1	
	L1011	J0JHC00000107	INDUCTOR	1	
⚠	L5701	ELF15N035AN	LINE FILTER	1	
⚠	L5702	ELF22V025A	LINE FILTER	1	
⚠	L5703	ELF22V025A	LINE FILTER	1	
	L6001	J0JBC00000014	INDUCTOR	1	
	L6002	J0JBC00000041	INDUCTOR	1	
	L6003	J0JBC00000014	INDUCTOR	1	
	L6004	J0JBC00000014	INDUCTOR	1	
	L6006	J0JBC00000014	INDUCTOR	1	
	L6007	J0JBC00000014	INDUCTOR	1	
	L6351	J0JBC00000014	INDUCTOR	1	
	L6501	J0JBC00000019	INDUCTOR	1	
	L6502	J0JBC00000019	INDUCTOR	1	
	L6503	J0JBC00000019	INDUCTOR	1	
	L6651	G1BYYB000009	FILTER	1	
	L7001	G0C390JA0055	INDUCTOR	1	
	L7002	G0A200D00002	CHOKE COIL	1	
	L7003	G0A330ZA0028	CHOKE COIL	1	
	L7004	G0A330ZA0028	CHOKE COIL	1	
	L7005	G0A200D00002	CHOKE COIL	1	
	L7006	G0A200D00002	CHOKE COIL	1	
	L7007	G0A200D00002	CHOKE COIL	1	
	L7009	G0A200D00002	CHOKE COIL	1	
	L7012	G0A220GA0002	CHOKE COIL	1	
	L7013	G0A220GA0002	CHOKE COIL	1	
	L7014	G0A200D00002	CHOKE COIL	1	
	L8004	G0A150L00003	CHOKE COIL	1	
	L8005	G0A150L00003	CHOKE COIL	1	
	L8006	G0A150L00003	CHOKE COIL	1	
	L8301	G0B9R5K00003	LINE FILTER	1	
	L8401	G0B9R5K00003	LINE FILTER	1	
	L8501	G0B9R5K00003	LINE FILTER	1	
	L8601	G0B9R5K00003	LINE FILTER	1	
	L8701	G0B9R5K00003	LINE FILTER	1	
	L8801	G0B9R5K00003	LINE FILTER	1	
	LB801	J0JBC00000014	INDUCTOR	1	
	LB802	J0JBC00000014	INDUCTOR	1	
	LB803	J0JBC00000014	INDUCTOR	1	
	LB804	J0JBC00000041	INDUCTOR	1	
	LB805	J0JBC00000041	INDUCTOR	1	
	LB807	J0JBC00000014	INDUCTOR	1	
	LB808	J0JBC00000014	INDUCTOR	1	
	LB809	J0JBC00000014	INDUCTOR	1	
	LB810	J0JBC00000014	INDUCTOR	1	
	LB811	J0JBC00000014	INDUCTOR	1	
	LB812	J0JBC00000014	INDUCTOR	1	
	LB813	J0JBC00000014	INDUCTOR	1	
	LB814	J0JBC00000014	INDUCTOR	1	
	LB815	J0JBC00000014	INDUCTOR	1	
	LB817	J0JBC00000014	INDUCTOR	1	
	LB818	J0JBC00000014	INDUCTOR	1	
	LB819	J0JBC00000014	INDUCTOR	1	
	LB820	J0JBC00000041	INDUCTOR	1	
	LB821	J0JBC00000014	INDUCTOR	1	
	LB822	J0JBC00000014	INDUCTOR	1	
	LB823	J0JBC00000014	INDUCTOR	1	
	LB824	J0JBC00000014	INDUCTOR	1	
	LB825	J0JBC00000014	INDUCTOR	1	
	LB826	J0JBC00000014	INDUCTOR	1	
	LB827	J0JBC00000014	INDUCTOR	1	
	LB831	J0JBC00000014	INDUCTOR	1	
	LB832	J0JBC00000014	INDUCTOR	1	
	LB1101	J0JYC00000070	INDUCTOR	1	
	LB1107	J0JBC00000014	INDUCTOR	1	
	LB6201	J0JHC00000045	INDUCTOR	1	
	LB6204	J0JHC00000045	INDUCTOR	1	
	LB6205	J0JHC00000045	INDUCTOR	1	
	LB6207	J0JHC00000045	INDUCTOR	1	
	LB6210	J0JHC00000045	INDUCTOR	1	
	LB6212	J0JEC00000008	INDUCTOR	1	
	LB6213	J0JHC00000045	INDUCTOR	1	
	LB6214	J0JEC00000008	INDUCTOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	LB6301	J0JBC0000014	INDUCTOR	1	
	LB6306	J0JBC0000014	INDUCTOR	1	
	LB6308	J0JBC0000014	INDUCTOR	1	
	LB6310	J0JBC0000014	INDUCTOR	1	
	LB6312	J0JBC0000014	INDUCTOR	1	
	LB6651	J0JHC0000068	INDUCTOR	1	
	LB6652	J0JHC0000068	INDUCTOR	1	
	LB7001	J0JBC0000041	INDUCTOR	1	
	LB7002	J0JBC0000041	INDUCTOR	1	
	LB7004	J0JBC0000041	INDUCTOR	1	
			TRANSFORMERS		
⚠	T5701	ETS42BM1F6AC	MAIN TRANSFORMER	1	
⚠	T5751	ETS19AB2A6AG	BACKUP TRANSFORMER	1	
⚠	T7001	G4D1A0000117	SWITCHING TRANSFORMER	1	
			COMPONENT COMBINATION		
	ZJ5701	K4CZ01000027	TERMINAL	1	
	ZJ5801	K4CZ01000027	TERMINAL	1	
	ZJ5803	K4CZ01000027	TERMINAL	1	
			PHOTO COUPLERS		
⚠	PC5702	B3PBA0000402	PHOTO COUPLER	1	
⚠	PC5720	B3PBA0000402	PHOTO COUPLER	1	
⚠	PC5799	B3PBA0000402	PHOTO COUPLER	1	
			OSCILLATORS		
	X100	H2B100500004	CRYSTAL OSCILLATOR	1	
	X8101	H2A5003A0066	CRYSTAL OSCILLATOR	1	
	X8102	H2A4643A0068	CRYSTAL OSCILLATOR	1	
			FL DISPLAY		
	DP6001	A2BB00000169	LCD DISPLAY	1	
			RELAY		
⚠	RY701	K6B1AEA00003	RELAY	1	
			FUSES		
⚠	F1	K5D402BK0007	FUSE	1	
⚠	F2	K5G162B00016	FUSE	1	
			FUSE HOLDERS		
	ZA5701	K3GE1ZZ00001	FUSE HOLDER	1	
	ZA5702	K3GE1ZZ00001	FUSE HOLDER	1	
			FUSE PROTECTORS		
⚠	IP7001	K5H7512A0010	PROTECTOR	1	
	IR6001	B3RAB0000081	REMOTE SENSOR	1	
			THERMISTOR		
⚠	TH5702	D4CAA5R10001	THERMISTOR	1	
			JACKS		
	JK2001	K2HA204B0179	JK AUX	1	
	JK6001	K2HC103A0031	JK HEADPHONE	1	
	JK6501	K2HC1YYB0033	JK MIC	1	
⚠	P5701	K2AA2B000017	AC INLET	1	
	P8502	K4AZ12A00004	JK SPEAKER	1	
			CHIP JUMPERS		
	K404	D0GBR00JA008	0 1/16W	1	
	K1002	D0GBR00JA008	0 1/16W	1	
	K2101	D0GBR00JA008	0 1/16W	1	
	K2201	D0GBR00JA008	0 1/16W	1	
	K2301	D0GBR00JA008	0 1/16W	1	
	K2401	D0GBR00JA008	0 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	K5723	D0GDR00JA017	0 1/10W	1	
	K6303	D0GBR00JA008	0 1/16W	1	
	K6501	D0GBR00JA008	0 1/16W	1	
	L6005	D0GBR00JA008	0 1/16W	1	
	LB1102	D0GBR00JA008	0 1/16W	1	
	LB1103	D0GBR00JA008	0 1/16W	1	
	LB1104	D0GBR00JA008	0 1/16W	1	
	LB1105	D0GBR00JA008	0 1/16W	1	
	LB1106	D0GBR00JA008	0 1/16W	1	
	LB1108	D0GBR00JA008	0 1/16W	1	
	LB1109	D0GBR00JA008	0 1/16W	1	
	LB6206	D0GBR00JA008	0 1/16W	1	
	LB6211	D0GBR00JA008	0 1/16W	1	
	LB6303	D0GBR00JA008	0 1/16W	1	
	LB6305	D0GBR00JA008	0 1/16W	1	
	LB6307	D0GBR00JA008	0 1/16W	1	
	LB6309	D0GBR00JA008	0 1/16W	1	
	LB6311	D0GBR00JA008	0 1/16W	1	
	LB6313	D0GBR00JA008	0 1/16W	1	
	LB6314	D0GBR00JA008	0 1/16W	1	
	LB6315	D0GBR00JA008	0 1/16W	1	
	LB6316	D0GBR00JA008	0 1/16W	1	
	LB6317	D0GBR00JA008	0 1/16W	1	
	LB6318	D0GBR00JA008	0 1/16W	1	
	LB6319	D0GBR00JA008	0 1/16W	1	
	LB6320	D0GBR00JA008	0 1/16W	1	
	LB6321	D0GBR00JA008	0 1/16W	1	
	LB6322	D0GBR00JA008	0 1/16W	1	
	W51	D0GDR00JA017	0 1/10W	1	
	W52	D0GBR00JA008	0 1/16W	1	
	W53	D0GDR00JA017	0 1/10W	1	
	W54	D0GBR00JA008	0 1/16W	1	
	W55	D0GBR00JA008	0 1/16W	1	
	W56	D0GDR00JA017	0 1/10W	1	
	W57	D0GDR00JA017	0 1/10W	1	
	W310	D0GDR00JA017	0 1/10W	1	
	W311	D0GDR00JA017	0 1/10W	1	
	W312	D0GBR00JA008	0 1/16W	1	
	W313	D0GDR00JA017	0 1/10W	1	
	W314	D0GBR00JA008	0 1/16W	1	
	W510	D0GBR00JA008	0 1/16W	1	
	W511	D0GBR00JA008	0 1/16W	1	
	W512	D0GDR00JA017	0 1/10W	1	
			RESISTORS		
	LB6202	D0GB101JA008	100 1/16W	1	
	LB6203	D0GB101JA008	100 1/16W	1	
	LB6208	D0GB101JA008	100 1/16W	1	
	LB6209	D0GB101JA008	100 1/16W	1	
	R100	D0GB221JA007	220 1/10W	1	
	R101	D0GB101JA008	100 1/16W	1	
	R102	D0GB101JA008	100 1/16W	1	
	R103	D0GB101JA008	100 1/16W	1	
	R104	D0GB101JA008	100 1/16W	1	
	R105	D0GB101JA008	100 1/16W	1	
	R106	D0GB101JA008	100 1/16W	1	
	R107	D0GB101JA008	100 1/16W	1	
	R108	D0GB101JA008	100 1/16W	1	
	R109	D0GB101JA008	100 1/16W	1	
	R110	D0GB101JA008	100 1/16W	1	
	R111	D0GB101JA008	100 1/16W	1	
	R112	D0GB101JA008	100 1/16W	1	
	R113	D0GB101JA008	100 1/16W	1	
	R114	D0GB101JA008	100 1/16W	1	
	R115	D0GB101JA008	100 1/16W	1	
	R116	D0GB103JA008	10K 1/16W	1	
	R117	D0GBR00JA008	0 1/16W	1	
	R118	D0GB101JA008	100 1/16W	1	
	R119	D0GB101JA008	100 1/16W	1	
	R122	D0GB101JA008	100 1/16W	1	
	R123	D0GB101JA008	100 1/16W	1	
	R124	D0GB101JA008	100 1/16W	1	
	R125	D0GB101JA008	100 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R126	D0GB101JA008	100 1/16W	1	
	R127	D0GB101JA008	100 1/16W	1	
	R128	D0GB101JA008	100 1/16W	1	
	R129	D0GB101JA008	100 1/16W	1	
	R135	D0GB101JA008	100 1/16W	1	
	R137	D0GB101JA008	100 1/16W	1	
	R138	D0GB101JA008	100 1/16W	1	
	R139	D0GB101JA008	100 1/16W	1	
	R140	D0GB101JA008	100 1/16W	1	
	R141	D0GB101JA008	100 1/16W	1	
	R142	D0GB101JA008	100 1/16W	1	
	R143	D0GB101JA008	100 1/16W	1	
	R144	D0GB101JA008	100 1/16W	1	
	R146	D0GB101JA008	100 1/16W	1	
	R147	D0GB101JA008	100 1/16W	1	
	R148	D0GB101JA008	100 1/16W	1	
	R149	D0GB101JA008	100 1/16W	1	
	R150	D0GB101JA008	100 1/16W	1	
	R151	D0GB101JA008	100 1/16W	1	
	R152	D0GB101JA008	100 1/16W	1	
	R153	D0GB101JA008	100 1/16W	1	
	R154	D0GB101JA008	100 1/16W	1	
	R155	D0GB101JA008	100 1/16W	1	
	R156	D0GB101JA008	100 1/16W	1	
	R157	D0GB101JA008	100 1/16W	1	
	R159	D0GB101JA008	100 1/16W	1	
	R160	D0GB101JA008	100 1/16W	1	
	R161	D0GB101JA008	100 1/16W	1	
	R162	D0GB101JA008	100 1/16W	1	
	R163	D0GB101JA008	100 1/16W	1	
	R164	D0GB101JA008	100 1/16W	1	
	R165	D0GB101JA008	100 1/16W	1	
	R166	D0GB101JA008	100 1/16W	1	
	R167	D0GB101JA008	100 1/16W	1	
	R168	D0GB101JA008	100 1/16W	1	
	R169	D0GB102JA008	1K 1/16W	1	
	R170	D0GB101JA008	100 1/16W	1	
	R171	D0GB101JA008	100 1/16W	1	
	R172	D0GB101JA008	100 1/16W	1	
	R173	D0GB101JA008	100 1/16W	1	
	R174	D0GB101JA008	100 1/16W	1	
	R175	D0GB101JA008	100 1/16W	1	
	R176	D0GB101JA008	100 1/16W	1	
	R177	D0GB101JA008	100 1/16W	1	
	R178	D0GB101JA008	100 1/16W	1	
	R179	D0GB101JA008	100 1/16W	1	
	R180	D0GB101JA008	100 1/16W	1	
	R181	D0GB101JA008	100 1/16W	1	
	R182	D0GB102JA008	1K 1/16W	1	
	R185	D0GB472JA008	4.7K 1/16W	1	
	R186	D0GB472JA008	4.7K 1/16W	1	
	R188	D0GB103JA008	10K 1/16W	1	
	R189	D0GBR00JA008	0 1/16W	1	
	R190	D0GB103JA008	10K 1/16W	1	
	R191	D0GB103JA008	10K 1/16W	1	
	R192	D0GB103JA008	10K 1/16W	1	
	R193	D0GB103JA008	10K 1/16W	1	
	R194	D0GB103JA008	10K 1/16W	1	
	R195	D0GB101JA008	100 1/16W	1	
	R201	D0GB563JA008	56K 1/16W	1	
	R202	D0GB563JA008	56K 1/16W	1	
	R203	D0GB101JA008	100 1/16W	1	
	R206	D0GB223JA008	22K 1/16W	1	
	R207	D0GB103JA008	10K 1/16W	1	
	R208	D0GB473JA008	47K 1/16W	1	
	R209	D0GB182JA008	1.8K 1/16W	1	
	R210	D0GB471JA008	470 1/16W	1	
	R211	D0GB183JA008	18K 1/16W	1	
	R212	D0GB223JA008	22K 1/16W	1	
	R213	D0GB182JA008	1.8K 1/16W	1	
	R214	D0GB473JA008	47K 1/16W	1	
	R218	D0GB223JA008	22K 1/16W	1	
	R219	D0GB104JA008	100K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R220	D0GBR00JA008	0 1/16W	1	
	R221	D0GB103JA008	10K 1/16W	1	
	R222	D0GB103JA008	10K 1/16W	1	
	R223	D0GB153JA008	15K 1/16W	1	
	R224	D0GB153JA008	15K 1/16W	1	
	R225	D0GB104JA008	100K 1/16W	1	
	R226	D0GB104JA008	100K 1/16W	1	
	R227	D0GB224JA008	220K 1/16W	1	
	R228	D0GB224JA008	220K 1/16W	1	
	R230	D0GBR00JA008	0 1/16W	1	
	R232	D0GBR00JA008	0 1/16W	1	
	R235	D0GB182JA008	1.8K 1/16W	1	
	R236	D0GB182JA008	1.8K 1/16W	1	
	R237	D0GB182JA008	1.8K 1/16W	1	
	R238	D0GB182JA008	1.8K 1/16W	1	
	R239	D0GB473JA008	47K 1/16W	1	
	R240	D0GB473JA008	47K 1/16W	1	
	R242	D0GBR00JA008	0 1/16W	1	
	R246	D0GB560JA008	56 1/16W	1	
	R247	D0GB560JA008	56 1/16W	1	
	R248	D0GB103JA008	10K 1/16W	1	
	R256	D0GB101JA008	100 1/16W	1	
	R261	D0GB101JA008	100 1/16W	1	
	R351	D0GB183JA008	18K 1/16W	1	
	R352	D0GB471JA008	470 1/16W	1	
	R353	D0GB223JA008	22K 1/16W	1	
	R354	D0GB103JA008	10K 1/16W	1	
	R355	D0GB223JA008	22K 1/16W	1	
	R359	D0GB122JA008	1.2K 1/16W	1	
	R360	D0GB122JA008	1.2K 1/16W	1	
	R361	D0GB122JA008	1.2K 1/16W	1	
	R530	D0GB824JA008	820K 1/16W	1	
	R531	D0GB102JA008	1K 1/16W	1	
	R532	D0GB471JA008	470 1/16W	1	
	R533	D0GB824JA008	820K 1/16W	1	
	R534	D0GB392JA008	3.9K 1/16W	1	
	R535	D0GB682JA008	6.8K 1/16W	1	
	R536	D0GB222JA008	2.2K 1/16W	1	
	R537	D0GB472JA008	4.7K 1/16W	1	
	R538	D0GB102JA008	1K 1/16W	1	
	R539	D0GB223JA008	22K 1/16W	1	
	R540	D0GB473JA008	47K 1/16W	1	
	R820	D0GB153JA008	15K 1/16W	1	
	R821	D0GB153JA008	15K 1/16W	1	
	R826	D0GB102JA008	1K 1/16W	1	
	R827	D0GB102JA008	1K 1/16W	1	
	R839	D0GB272JA008	2.7K 1/16W	1	
	R840	D0GB272JA008	2.7K 1/16W	1	
	R844	ERJ3GEYF3R3V	3.3 1/10W	1	
	R845	D0GB221JA007	220 1/10W	1	
	R846	D0GB221JA007	220 1/10W	1	
	R847	D0GB221JA007	220 1/10W	1	
	R848	D0GB561JA008	560 1/16W	1	
	R901	D0GBR00JA008	0 1/16W	1	
	R1001	D0GB101JA008	100 1/16W	1	
	R1002	D0GB101JA008	100 1/16W	1	
	R1003	D0GB104JA008	100K 1/16W	1	
	R1004	D0GB104JA008	100K 1/16W	1	
	R1005	ERJ3GEYF753V	75K 1/10W	1	
	R1006	ERJ3GEYF753V	75K 1/10W	1	
	R1007	ERJ3GEYF513V	51K 1/10W	1	
	R1008	ERJ3GEYF513V	51K 1/10W	1	
	R1009	D0GB151JA008	150 1/16W	1	
	R1010	D0GB151JA008	150 1/16W	1	
	R1011	D0GBR00JA008	0 1/16W	1	
	R1012	D0GBR00JA008	0 1/16W	1	
	R1013	D0GB102JA008	1K 1/16W	1	
	R1101	ERJ3RED334V	330K 1/16W	1	
	R1102	D0GB274JA007	270K 1/10W	1	
	R1103	ERJ3RED224V	220K 1/16W	1	
	R1104	ERJ3GEYJ564V	560K 1/10W	1	
	R1105	D0GB104JA008	100K 1/16W	1	
	R1106	D0GB472JA008	4.7K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R3107	D0GB223JA008	22K 1/16W	1	
	R3108	D0GB223JA008	22K 1/16W	1	
	R3109	D0GB223JA008	22K 1/16W	1	
	R3110	D0GB103JA008	10K 1/16W	1	
	R3111	D0GB103JA008	10K 1/16W	1	
	R3112	D0GB103JA008	10K 1/16W	1	
	R3113	D0GB103JA008	10K 1/16W	1	
	R3114	D0GB393JA008	39K 1/16W	1	
	R3115	D0GB223JA008	22K 1/16W	1	
	R3116	D0GB223JA008	22K 1/16W	1	
	R3117	D0GB223JA008	22K 1/16W	1	
	R3118	D0GB473JA008	47K 1/16W	1	
	R3119	D0GB223JA008	22K 1/16W	1	
	R3120	D0GB223JA008	22K 1/16W	1	
	R3121	D0GB223JA008	22K 1/16W	1	
	R3122	D0GB473JA008	47K 1/16W	1	
	R3123	D0GB223JA008	22K 1/16W	1	
	R3124	D0GB103JA008	10K 1/16W	1	
	R3125	D0GB103JA008	10K 1/16W	1	
	R3126	D0GB103JA008	10K 1/16W	1	
	R3127	D0GB103JA008	10K 1/16W	1	
	R3128	D0GB103JA008	10K 1/16W	1	
	R3129	D0GB103JA008	10K 1/16W	1	
	R3130	D0GB103JA008	10K 1/16W	1	
	R3131	D0GB103JA008	10K 1/16W	1	
	R3132	D0GB103JA008	10K 1/16W	1	
	R3133	D0GB103JA008	10K 1/16W	1	
	R3171	D0GB103JA008	10K 1/16W	1	
	R3172	D0GB103JA008	10K 1/16W	1	
	R3201	D0GB102JA008	1K 1/16W	1	
	R3202	D0GB104JA008	100K 1/16W	1	
	R3203	D0GB101JA008	100 1/16W	1	
	R3204	D0GB104JA008	100K 1/16W	1	
	R3205	D0GB101JA008	100 1/16W	1	
	R3206	D0GB104JA008	100K 1/16W	1	
	R3207	D0GB102JA008	1K 1/16W	1	
	R3208	D0GB104JA008	100K 1/16W	1	
	R3209	D0GB101JA008	100 1/16W	1	
	R3210	D0GB104JA008	100K 1/16W	1	
	R3211	D0GB101JA008	100 1/16W	1	
	R3212	D0GB104JA008	100K 1/16W	1	
	R3213	D0GB102JA008	1K 1/16W	1	
	R3214	D0GB104JA008	100K 1/16W	1	
	R3215	D0GB102JA008	1K 1/16W	1	
	R3216	D0GB104JA008	100K 1/16W	1	
	R3221	D0GB104JA008	100K 1/16W	1	
	R3222	D0GB104JA008	100K 1/16W	1	
	R3223	D0GB104JA008	100K 1/16W	1	
	R3224	D0GB104JA008	100K 1/16W	1	
	R3231	D0GB473JA008	47K 1/16W	1	
	R5701	ERDS1TJ395B	3.9M 1/2W	1	
	R5702	ERJ1TYJ104U	100K 1W	1	
	R5703	ERJ1TYJ104U	100K 1W	1	
	R5704	ERJ8GEYJ124V	120K 1/4W	1	
	R5705	ERJ8GEYJ124V	120K 1/4W	1	
	R5706	ERJ8GEYJ274V	270K 1/4W	1	
	R5707	ERJ8GEYJ274V	270K 1/4W	1	
	R5720	D0GD220JA017	22 1/10W	1	
	R5721	D0GD103JA017	10K 1/10W	1	
	R5722	D0GB222JA008	2.2K 1/16W	1	
	R5723	ERJ1TYJ333U	33K 1W	1	
	R5724	ERJ1TYJ333U	33K 1W	1	
	R5725	D0GB222JA008	2.2K 1/16W	1	
	R5726	ERX2SZJR10P	0.1 2W	1	
	R5728	D0GB683JA008	68K 1/16W	1	
	R5729	D0GB103JA008	10K 1/16W	1	
	R5730	D0GB102JA008	1K 1/16W	1	
	R5732	D0GB221JA007	220 1/10W	1	
	R5733	D0GB473JA008	47K 1/16W	1	
	R5786	ERJ1TYJ204U	200K 1W	1	
	R5795	ERJ6GEYJ474V	470K 1/8W	1	
	R5797	D0GB153JA008	15K 1/16W	1	
	R5798	D0GB220JA008	22 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R5802	ERJ3RBD153V	15K 1/16W	1	
	R5803	D0GD122JA017	1.2K 1/10W	1	
	R5804	ERJ6RED184V	180K 1/10W	1	
	R5805	ERJ3RBD682V	6.8K 1/16W	1	
	R5806	D0GB153JA008	15K 1/16W	1	
	R5807	ERJ6GEYJ331V	330 1/8W	1	
	R5808	D0GD222JA017	2.2K 1/10W	1	
	R5809	ERJ6GEYJ331V	330 1/8W	1	
	R5814	D0GB822JA008	8.2K 1/16W	1	
	R5817	ERJ3RBD222V	2.2K 1/16W	1	
	R5818	D0GB101JA008	100 1/16W	1	
	R5819	D0GD220JA017	22 1/10W	1	
	R5820	ERJ6GEYJ272V	2.7K 1/8W	1	
	R5821	D0GB104JA008	100K 1/16W	1	
	R5832	ERJ1TYJ332U	3.3K 1W	1	
	R5834	ERJ1TYJ332U	3.3K 1W	1	
	R5861	D0GB104JA008	100K 1/16W	1	
	R5862	D0GD222JA017	2.2K 1/10W	1	
	R5863	D0GD562JA017	5.6K 1/10W	1	
	R5864	D0GB471JA008	470 1/16W	1	
	R5865	D0GB223JA008	22K 1/16W	1	
	R5890	D0GB222JA008	2.2K 1/16W	1	
	R5891	ERJ3RBD333V	33K 1/16W	1	
	R5892	ERJ3RBD332V	3.3K 1/16W	1	
	R5893	ERJ3RBD333V	33K 1/16W	1	
	R5894	D0GB102JA008	1K 1/16W	1	
	R5895	D0GB153JA008	15K 1/16W	1	
	R5896	D0GBR00JA008	0 1/16W	1	
	R5897	D0GB101JA008	100 1/16W	1	
	R5898	ERJ6GEYJ824V	820K 1/8W	1	
	R5899	ERJ6GEYJ473V	47K 1/8W	1	
	R6001	D0GB223JA008	22K 1/16W	1	
	R6002	D0GB223JA008	22K 1/16W	1	
	R6003	ERJ8GEYJ821V	820 1/4W	1	
	R6004	D0GB102JA008	1K 1/16W	1	
	R6005	D0GB470JA008	47 1/16W	1	
	R6006	D0GB101JA008	100 1/16W	1	
	R6007	ERJ8GEYJ2R7V	2.7 1/4W	1	
	R6008	ERJ8GEYJ2R7V	2.7 1/4W	1	
	R6009	D0GBR00JA008	0 1/16W	1	
	R6010	D0GB680JA008	68 1/16W	1	
	R6011	D0GB680JA008	68 1/16W	1	
	R6012	D0GB102JA008	1K 1/16W	1	
	R6014	D0GB104JA008	100K 1/16W	1	
	R6015	D0GB563JA008	56K 1/16W	1	
	R6016	D0GB122JA008	1.2K 1/16W	1	
	R6017	D0GB152JA008	1.5K 1/16W	1	
	R6018	D0GB222JA008	2.2K 1/16W	1	
	R6019	D0GB332JA008	3.3K 1/16W	1	
	R6021	D0GB272JA008	2.7K 1/16W	1	
	R6022	ERJ8GEYJ821V	820 1/4W	1	
	R6024	D0GB102JA008	1K 1/16W	1	
	R6025	D0GB102JA008	1K 1/16W	1	
	R6102	D0GB122JA008	1.2K 1/16W	1	
	R6210	J0JHC0000045	INDUCTOR	1	
	R6213	D0GB101JA008	100 1/16W	1	
	R6301	D0GB123JA008	12K 1/16W	1	
	R6302	D0GB123JA008	12K 1/16W	1	
	R6331	D0GB4R7JA008	4.7 1/16W	1	
	R6332	D0GB4R7JA008	4.7 1/16W	1	
	R6333	D0GB4R7JA008	4.7 1/16W	1	
	R6351	D0GB101JA008	100 1/16W	1	
	R6352	D0GB101JA008	100 1/16W	1	
	R6353	D0GB101JA008	100 1/16W	1	
	R6354	D0GB101JA008	100 1/16W	1	
	R6355	D0GB101JA008	100 1/16W	1	
	R6356	D0GB101JA008	100 1/16W	1	
	R6357	D0GB101JA008	100 1/16W	1	
	R6501	D0GB221JA007	220 1/10W	1	
	R6502	D0GB101JA008	100 1/16W	1	
	R6503	D0GB473JA008	47K 1/16W	1	
	R6504	D0GB103JA008	10K 1/16W	1	
	R6505	D0GB184JA008	180K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R6506	D0GB102JA008	1K 1/16W	1	
	R6507	D0GB332JA008	3.3K 1/16W	1	
	R6508	D0GB222JA008	2.2K 1/16W	1	
	R6509	D0GB223JA008	22K 1/16W	1	
	R6510	D0GB222JA008	2.2K 1/16W	1	
	R6511	D0GB222JA008	2.2K 1/16W	1	
	R6512	D0GB103JA008	10K 1/16W	1	
	R6513	D0GB273JA008	27K 1/16W	1	
	R6514	D0GB563JA008	56K 1/16W	1	
	R6515	D0GB104JA008	100K 1/16W	1	
	R6516	D0GB182JA008	1.8K 1/16W	1	
	R6517	D0GB103JA008	10K 1/16W	1	
	R6518	D0GB472JA008	4.7K 1/16W	1	
	R6519	D0GB682JA008	6.8K 1/16W	1	
	R7000	ERJ6GEYJ1R5V	1.5 1/8W	1	
	R7002	ERJ6GEYJ1R5V	1.5 1/8W	1	
	R7003	D0GB102JA008	1K 1/16W	1	
	R7004	D0GB272JA008	2.7K 1/16W	1	
	R7005	D0GB562JA008	5.6K 1/16W	1	
	R7006	D0GB470JA008	47 1/16W	1	
	R7007	D0GB122JA008	1.2K 1/16W	1	
	R7008	ERJ3RBD1002V	10K 1/16W	1	
	R7009	D0GB272JA008	2.7K 1/16W	1	
	R7010	D0GB471JA008	470 1/16W	1	
	R7011	D0GD471JA017	470 1/10W	1	
	R7012	D0GB272JA008	2.7K 1/16W	1	
	R7013	D0GB473JA008	47K 1/16W	1	
	R7014	D0GB223JA008	22K 1/16W	1	
	R7015	D0GB823JA008	82K 1/16W	1	
	R7016	D0GB223JA008	22K 1/16W	1	
	R7017	D0GB153JA008	15K 1/16W	1	
	R7018	D0GB332JA008	3.3K 1/16W	1	
	R7019	D1BDR012A116	0.012 1/3W	1	
	R7020	D0GB822JA008	8.2K 1/16W	1	
	R7021	ERJ3RBD3902V	39K 1/16W	1	
	R7022	D1BDR015A116	0.015 1/3W	1	
	R7023	D0GB222JA008	2.2K 1/16W	1	
	R7024	ERJ3RBD5601V	5.6K 1/16W	1	
	R7025	ERJ3RBD5602V	56K 1/16W	1	
	R7026	D0GB822JA008	8.2K 1/16W	1	
	R7027	D0GB103JA008	10K 1/16W	1	
	R7028	D0GB683JA008	68K 1/16W	1	
	R7029	ERJ3RBD3301V	3.3K 1/16W	1	
	R7030	ERJ3RBD2701V	2.7K 1/16W	1	
	R7031	D0GB393JA008	39K 1/16W	1	
	R7032	D0GB273JA008	27K 1/16W	1	
	R7033	D0GB393JA008	39K 1/16W	1	
	R7041	D0GBR00JA008	0 1/16W	1	
	R7050	D0GB332JA008	3.3K 1/16W	1	
	R7051	D0GB104JA008	100K 1/16W	1	
	R7052	D0GB682JA008	6.8K 1/16W	1	
	R7053	D0GB561JA008	560 1/16W	1	
	R7054	D0GB104JA008	100K 1/16W	1	
	R7055	D0GBR00JA008	0 1/16W	1	
	R7056	D0GB153JA008	15K 1/16W	1	
	R7061	D0GB272JA008	2.7K 1/16W	1	
	R7062	D0GB272JA008	2.7K 1/16W	1	
	R7063	D0GB272JA008	2.7K 1/16W	1	
	R8001	D0GB272JA008	2.7K 1/16W	1	
	R8002	D0GB104JA008	100K 1/16W	1	
	R8003	D0GB272JA008	2.7K 1/16W	1	
	R8004	D0GB104JA008	100K 1/16W	1	
	R8005	D0GB102JA008	1K 1/16W	1	
	R8006	D0GB104JA008	100K 1/16W	1	
	R8007	D0GB822JA008	8.2K 1/16W	1	
	R8008	D0GB103JA008	10K 1/16W	1	
	R8009	D0GB122JA008	1.2K 1/16W	1	
	R8012	D0GB822JA008	8.2K 1/16W	1	
	R8013	D0GB103JA008	10K 1/16W	1	
	R8014	D0GB122JA008	1.2K 1/16W	1	
	R8016	D0GB102JA008	1K 1/16W	1	
	R8017	D0GB562JA008	5.6K 1/16W	1	
	R8018	D0GBR00JA008	0 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R8020	D0GBR00JA008	0 1/16W	1	
	R8022	D0GB822JA008	8.2K 1/16W	1	
	R8023	D0AF680JA039	68 1/2W	1	
	R8024	D0GB101JA008	100 1/16W	1	
	R8027	D0GB563JA008	56K 1/16W	1	
	R8028	D0GBR00JA008	0 1/16W	1	
	R8029	D0GB103JA008	10K 1/16W	1	
	R8030	D0GB103JA008	10K 1/16W	1	
	R8031	D0GB103JA008	10K 1/16W	1	
	R8032	D0GB563JA008	56K 1/16W	1	
	R8033	D0GB103JA008	10K 1/16W	1	
	R8035	ERJ3GEYJ185V	1.8M 1/10W	1	
	R8036	D0GB220JA008	22 1/16W	1	
	R8037	D0GD122JA017	1.2K 1/10W	1	
	R8038	D0GB105JA008	1M 1/16W	1	
	R8039	D0GB105JA008	1M 1/16W	1	
	R8040	D0GB220JA008	22 1/16W	1	
	R8041	D0GB105JA008	1M 1/16W	1	
	R8042	D0GB101JA008	100 1/16W	1	
	R8043	D0GBR00JA008	0 1/16W	1	
	R8047	D0GB123JA008	12K 1/16W	1	
	R8048	D0GB123JA008	12K 1/16W	1	
	R8049	D0GB103JA008	10K 1/16W	1	
	R8054	D0GB472JA008	4.7K 1/16W	1	
	R8055	D0GB272JA008	2.7K 1/16W	1	
	R8056	D0GBR00JA008	0 1/16W	1	
	R8057	D0GB222JA008	2.2K 1/16W	1	
	R8058	D0GB122JA008	1.2K 1/16W	1	
	R8063	D0GB101JA008	100 1/16W	1	
	R8065	D0GBR00JA008	0 1/16W	1	
	R8066	D0GBR00JA008	0 1/16W	1	
	R8068	D0GB103JA008	10K 1/16W	1	
	R8071	D0GB271JA008	270 1/16W	1	
	R8072	D0GB102JA008	1K 1/16W	1	
	R8085	D0GBR00JA008	0 1/16W	1	
	R8086	D0GBR00JA008	0 1/16W	1	
	R8087	D0GB4R7JA008	4.7 1/16W	1	
	R8088	D0GB4R7JA008	4.7 1/16W	1	
	R8089	D0GDR00JA017	0 1/10W	1	
	R8090	D0GB103JA008	10K 1/16W	1	
	R8108	D0GBR00JA008	0 1/16W	1	
	R8118	D0GB683JA008	68K 1/16W	1	
	R8121	D0GB104JA008	100K 1/16W	1	
	R8208	D0GBR00JA008	0 1/16W	1	
	R8218	D0GB124JA008	120K 1/16W	1	
	R8221	D0GB104JA008	100K 1/16W	1	
	R8302	D0GB332JA008	3.3K 1/16W	1	
	R8303	D0GB223JA008	22K 1/16W	1	
	R8304	D0GB682JA008	6.8K 1/16W	1	
	R8305	D0GB154JA008	150K 1/16W	1	
	R8306	D0GB151JA008	150 1/16W	1	
	R8307	D0GB102JA008	1K 1/16W	1	
	R8308	D0GB103JA008	10K 1/16W	1	
	R8309	D0GB223JA008	22K 1/16W	1	
	R8310	D0GB103JA008	10K 1/16W	1	
	R8311	D0GB4R7JA008	4.7 1/16W	1	
	R8312	D0GB473JA008	47K 1/16W	1	
	R8313	D0GB220JA008	22 1/16W	1	
	R8314	D0GB220JA008	22 1/16W	1	
	R8315	ERJ1TYJ220U	22 1W	1	
	R8316	D0GF272JA047	2.7K 1/3W	1	
	R8317	D0GB472JA008	4.7K 1/16W	1	
	R8318	D0GB124JA008	120K 1/16W	1	
	R8319	D0GB104JA008	100K 1/16W	1	
	R8320	D0GF272JA047	2.7K 1/3W	1	
	R8322	D0GB473JA008	47K 1/16W	1	
	R8402	D0GB332JA008	3.3K 1/16W	1	
	R8403	D0GB223JA008	22K 1/16W	1	
	R8404	D0GB682JA008	6.8K 1/16W	1	
	R8405	D0GB154JA008	150K 1/16W	1	
	R8406	D0GB151JA008	150 1/16W	1	
	R8407	D0GB102JA008	1K 1/16W	1	
	R8408	D0GB103JA008	10K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R8409	D0GB223JA008	22K 1/16W	1	
	R8410	D0GB103JA008	10K 1/16W	1	
	R8411	D0GB4R7JA008	4.7 1/16W	1	
	R8412	D0GB473JA008	47K 1/16W	1	
	R8413	D0GB220JA008	22 1/16W	1	
	R8414	D0GB220JA008	22 1/16W	1	
	R8415	ERJ1TYJ220U	22 1W	1	
	R8416	D0GF272JA047	2.7K 1/3W	1	
	R8417	D0GB472JA008	4.7K 1/16W	1	
	R8418	D0GB683JA008	68K 1/16W	1	
	R8419	D0GB104JA008	100K 1/16W	1	
	R8420	D0GF272JA047	2.7K 1/3W	1	
	R8422	D0GB473JA008	47K 1/16W	1	
	R8502	D0GB101JA008	100 1/16W	1	
	R8503	D0GB223JA008	22K 1/16W	1	
	R8504	D0GB103JA008	10K 1/16W	1	
	R8505	D0GB154JA008	150K 1/16W	1	
	R8506	D0GB151JA008	150 1/16W	1	
	R8507	D0GB102JA008	1K 1/16W	1	
	R8508	D0GB103JA008	10K 1/16W	1	
	R8509	D0GB223JA008	22K 1/16W	1	
	R8510	D0GB103JA008	10K 1/16W	1	
	R8511	D0GB4R7JA008	4.7 1/16W	1	
	R8512	D0GB473JA008	47K 1/16W	1	
	R8513	D0GB220JA008	22 1/16W	1	
	R8514	D0GB220JA008	22 1/16W	1	
	R8515	ERJ1TYJ220U	22 1W	1	
	R8516	D0GF272JA047	2.7K 1/3W	1	
	R8517	D0GB472JA008	4.7K 1/16W	1	
	R8518	D0GB683JA008	68K 1/16W	1	
	R8519	D0GB104JA008	100K 1/16W	1	
	R8520	D0GF272JA047	2.7K 1/3W	1	
	R8522	D0GB473JA008	47K 1/16W	1	
	R8602	D0GB101JA008	100 1/16W	1	
	R8603	D0GB223JA008	22K 1/16W	1	
	R8604	D0GB103JA008	10K 1/16W	1	
	R8605	D0GB154JA008	150K 1/16W	1	
	R8606	D0GB151JA008	150 1/16W	1	
	R8607	D0GB102JA008	1K 1/16W	1	
	R8608	D0GB103JA008	10K 1/16W	1	
	R8609	D0GB223JA008	22K 1/16W	1	
	R8610	D0GB103JA008	10K 1/16W	1	
	R8611	D0GB4R7JA008	4.7 1/16W	1	
	R8612	D0GB473JA008	47K 1/16W	1	
	R8613	D0GB220JA008	22 1/16W	1	
	R8614	D0GB220JA008	22 1/16W	1	
	R8615	ERJ1TYJ220U	22 1W	1	
	R8616	D0GF272JA047	2.7K 1/3W	1	
	R8617	D0GB472JA008	4.7K 1/16W	1	
	R8618	D0GB124JA008	120K 1/16W	1	
	R8619	D0GB104JA008	100K 1/16W	1	
	R8620	D0GF272JA047	2.7K 1/3W	1	
	R8622	D0GB473JA008	47K 1/16W	1	
	R8702	D0GB332JA008	3.3K 1/16W	1	
	R8703	D0GB223JA008	22K 1/16W	1	
	R8704	D0GB682JA008	6.8K 1/16W	1	
	R8705	D0GB154JA008	150K 1/16W	1	
	R8706	D0GB151JA008	150 1/16W	1	
	R8707	D0GB102JA008	1K 1/16W	1	
	R8708	D0GB103JA008	10K 1/16W	1	
	R8709	D0GB223JA008	22K 1/16W	1	
	R8710	D0GB103JA008	10K 1/16W	1	
	R8711	D0GB4R7JA008	4.7 1/16W	1	
	R8712	D0GB473JA008	47K 1/16W	1	
	R8713	D0GB220JA008	22 1/16W	1	
	R8714	D0GB220JA008	22 1/16W	1	
	R8715	ERJ1TYJ220U	22 1W	1	
	R8716	D0GF272JA047	2.7K 1/3W	1	
	R8717	D0GB472JA008	4.7K 1/16W	1	
	R8718	D0GB683JA008	68K 1/16W	1	
	R8719	D0GB104JA008	100K 1/16W	1	
	R8720	D0GF272JA047	2.7K 1/3W	1	
	R8722	D0GB473JA008	47K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R8802	D0GB101JA008	100 1/16W	1	
	R8803	D0GB223JA008	22K 1/16W	1	
	R8804	D0GB103JA008	10K 1/16W	1	
	R8805	D0GB104JA008	100K 1/16W	1	
	R8806	D0GB151JA008	150 1/16W	1	
	R8807	D0GB102JA008	1K 1/16W	1	
	R8808	D0GB103JA008	10K 1/16W	1	
	R8809	D0GB223JA008	22K 1/16W	1	
	R8810	D0GB103JA008	10K 1/16W	1	
	R8811	D0GB4R7JA008	4.7 1/16W	1	
	R8812	D0GB473JA008	47K 1/16W	1	
	R8813	D0GB220JA008	22 1/16W	1	
	R8814	D0GB220JA008	22 1/16W	1	
	R8815	ERJ1TYJ220U	22 1W	1	
	R8816	D0GF272JA047	2.7K 1/3W	1	
	R8817	D0GB472JA008	4.7K 1/16W	1	
	R8818	D0GB124JA008	120K 1/16W	1	
	R8819	D0GB104JA008	100K 1/16W	1	
	R8820	D0GF272JA047	2.7K 1/3W	1	
	R8822	D0GB473JA008	47K 1/16W	1	
	R8902	D0GBR00JA008	0 1/16W	1	
			CAPACITORS		
	C100	F2A0J101A245	100uF 6.3V	1	
	C101	F1H1H470A004	47pF 50V	1	
	C104	F1H1H472A219	4700pF 50V	1	
	C105	F1H1H472A219	4700pF 50V	1	
	C108	F1H1H101A230	100pF 50V	1	
	C109	F1H1H101A230	100pF 50V	1	
	C110	F1H1H472A219	4700pF 50V	1	
	C111	F1H1C104A042	0.1uF 16V	1	
	C112	F1H1H472A219	4700pF 50V	1	
	C113	F1H1H472A219	4700pF 50V	1	
	C114	F1H1C104A042	0.1uF 16V	1	
	C115	F1H1H472A219	4700pF 50V	1	
	C117	F1H1C104A042	0.1uF 16V	1	
	C119	F1H1C104A042	0.1uF 16V	1	
	C121	F1H1C105A097	1uF 16V	1	
	C122	F1J1A4750002	4.7uF 10V	1	
	C127	F1H1C105A097	1uF 16V	1	
	C128	F1H1C105A097	1uF 16V	1	
	C129	F1H1C104A042	0.1uF 16V	1	
	C130	F2A0J102A247	1000uF 6.3V	1	
	C131	F2A0J102A247	1000uF 6.3V	1	
	C136	F1H1C105A097	1uF 16V	1	
	C230	F1H1C105A097	1uF 16V	1	
	C232	F1H1C105A097	1uF 16V	1	
	C351	F1J1A4750002	4.7uF 10V	1	
	C501	F1H1C104A042	0.1uF 16V	1	
	C502	F1J0J106A014	10uF 6.3V	1	
	C515	F1H1C104A042	0.1uF 16V	1	
	C518	F1H1C104A042	0.1uF 16V	1	
	C520	F1H1H103A219	0.01uF 50V	1	
	C521	F1H1H220A004	22pF 50V	1	
	C522	F1H1H103A219	0.01uF 50V	1	
	C523	F1H1C105A097	1uF 16V	1	
	C530	F1H1H220A004	22pF 50V	1	
	C531	F1H1H220A004	22pF 50V	1	
	C532	F1J1A106A043	10uF 10V	1	
	C533	F1J1A106A043	10uF 10V	1	
	C822	F1H1H221A792	220pF 50V	1	
	C824	F1H1H221A792	220pF 50V	1	
	C845	F2A0J102A247	1000uF 6.3V	1	
	C848	F1H1C105A097	1uF 16V	1	
	C849	F1H1C105A097	1uF 16V	1	
	C1001	F1H1H104A013	0.1uF 50V	1	
	C1002	F1H1H104A013	0.1uF 50V	1	
	C1003	F1H1H104A013	0.1uF 50V	1	
	C1004	F1H1H104A013	0.1uF 50V	1	
	C1101	F1H1C104A042	0.1uF 16V	1	
	C1102	F2A0J101A245	100uF 6.3V	1	
	C1103	F1H0J106A009	10uF 6.3V	1	
	C1104	F1H0J106A009	10uF 6.3V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C1105	F1H1C104A042	0.1uF 16V	1	
	C1107	F2A0J101A245	100uF 6.3V	1	
	C1108	F1J1A106A043	10uF 10V	1	
	C1109	F1H1C104A042	0.1uF 16V	1	
	C1110	F1H1C104A042	0.1uF 16V	1	
	C1113	F1H1H101A230	100pF 50V	1	
	C1114	F1H1H101A230	100pF 50V	1	
	C1115	F1H1H330A230	33pF 50V	1	
	C1116	F1H1H330A230	33pF 50V	1	
	C1117	F1H1C105A097	1uF 16V	1	
	C1118	F1H1C105A097	1uF 16V	1	
	C1119	ECJ1VC1H471J	470pF 50V	1	
	C1120	ECJ1VC1H471J	470pF 50V	1	
	C1122	F1H1H103A219	0.01uF 50V	1	
	C1131	F1H1H102A219	1000pF 50V	1	
	C1132	F1H1H102A219	1000pF 50V	1	
	C1133	F1H1H102A219	1000pF 50V	1	
	C1134	F1H1H102A219	1000pF 50V	1	
	C1451	F1H1C104A042	0.1uF 16V	1	
	C2011	F1H1C104A042	0.1uF 16V	1	
	C2014	F2A1H4R7A234	4.7uF 50V	1	
	C2015	ECJ1VB1H221K	220pF 50V	1	
	C2016	ECJ1VB1H221K	220pF 50V	1	
	C2017	F1H1C104A042	0.1uF 16V	1	
	C2018	F2A1C470A234	47uF 16V	1	
	C2019	F2A1C470A234	47uF 16V	1	
	C2020	F1H1C104A042	0.1uF 16V	1	
	C2101	F1H1E223A047	0.022uF 25V	1	
	C2102	F1H1C473A088	0.047uF 16V	1	
	C2103	F1H1C105A097	1uF 16V	1	
	C2104	F1H1C473A088	0.047uF 16V	1	
	C2106	F1H1H152A219	1500pF 50V	1	
	C2110	F1H1C105A097	1uF 16V	1	
	C2111	F1H1C105A097	1uF 16V	1	
	C2112	F1H1H102A219	1000pF 50V	1	
	C2113	F1H1H101A230	100pF 50V	1	
	C2114	F1H1H562A219	5600pF 50V	1	
	C2115	F1H1C563A055	0.056uF 16V	1	
	C2116	F1H1C563A055	0.056uF 16V	1	
	C2117	F1H1C104A042	0.1uF 16V	1	
	C2118	F1H1C104A042	0.1uF 16V	1	
	C2121	ECJ1VB1C823K	0.082uF 16V	1	
	C2130	F1H1E2730002	0.027uF 25V	1	
	C2131	F1H1H472A219	4700pF 50V	1	
	C2135	F1H1H153A219	0.015uF 50V	1	
	C2161	F1H1H392A013	3900pF 50V	1	
	C2171	F2A1H4R7A234	4.7uF 50V	1	
	C2177	F2A1H1R0A234	1.0uF 50V	1	
	C2178	F1H1H101A230	100pF 50V	1	
	C2179	F1H1H470A004	47pF 50V	1	
	C2180	F1H1C104A042	0.1uF 16V	1	
	C2181	F1H1H102A219	1000pF 50V	1	
	C2194	F1J1A4750002	4.7uF 10V	1	
	C2195	ECJ1VB1H681K	680pF 50V	1	
	C2201	F1H1E223A047	0.022uF 25V	1	
	C2202	F1H1C473A088	0.047uF 16V	1	
	C2203	F1H1C105A097	1uF 16V	1	
	C2204	F1H1C473A088	0.047uF 16V	1	
	C2206	F1H1H152A219	1500pF 50V	1	
	C2210	F1H1C105A097	1uF 16V	1	
	C2211	F1H1C105A097	1uF 16V	1	
	C2212	F1H1H102A219	1000pF 50V	1	
	C2213	F1H1H101A230	100pF 50V	1	
	C2214	F1H1H562A219	5600pF 50V	1	
	C2215	F1H1C563A055	0.056uF 16V	1	
	C2216	F1H1C563A055	0.056uF 16V	1	
	C2217	F1H1C104A042	0.1uF 16V	1	
	C2218	F1H1C104A042	0.1uF 16V	1	
	C2221	ECJ1VB1C823K	0.082uF 16V	1	
	C2230	F1H1E2730002	0.027uF 25V	1	
	C2231	F1H1H472A219	4700pF 50V	1	
	C2235	F1H1H153A219	0.015uF 50V	1	
	C2261	F1H1H392A013	3900pF 50V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C2277	F2A1H1R0A234	1.0uF 50V	1	
	C2278	F1H1H101A230	100pF 50V	1	
	C2279	F1H1H470A004	47pF 50V	1	
	C2280	F1H1C104A042	0.1uF 16V	1	
	C2281	F1H1H102A219	1000pF 50V	1	
	C2294	F1J1A4750002	4.7uF 10V	1	
	C2295	ECJ1VB1H681K	680pF 50V	1	
	C2300	F1H1C105A097	1uF 16V	1	
	C2301	F1J1A4750002	4.7uF 10V	1	
	C2302	F1H1C473A088	0.047uF 16V	1	
	C2303	F1H1C683A087	0.068uF 16V	1	
	C2304	F1J1A4750002	4.7uF 10V	1	
	C2305	F1H1H332A013	3300pF 50V	1	
	C2306	F1H1A154A037	0.15uF 10V	1	
	C2307	F1H1C105A097	1uF 16V	1	
	C2308	F1H1E223A047	0.022uF 25V	1	
	C2309	ECJ1VB1C823K	0.082uF 16V	1	
	C2310	F1H1E223A047	0.022uF 25V	1	
	C2311	F1H1C105A097	1uF 16V	1	
	C2312	F1H1C473A088	0.047uF 16V	1	
	C2313	F1H1E183A029	0.018uF 25V	1	
	C2315	F1H1H392A013	3900pF 50V	1	
	C2351	F1H1H392A013	3900pF 50V	1	
	C2400	F1H1C105A097	1uF 16V	1	
	C2401	F1J1A4750002	4.7uF 10V	1	
	C2402	F1H1C473A088	0.047uF 16V	1	
	C2403	F1H1C683A087	0.068uF 16V	1	
	C2404	F1J1A4750002	4.7uF 10V	1	
	C2405	F1H1H332A013	3300pF 50V	1	
	C2406	F1H1A154A037	0.15uF 10V	1	
	C2407	F1H1C105A097	1uF 16V	1	
	C2408	F1H1E223A047	0.022uF 25V	1	
	C2411	F1H1C105A097	1uF 16V	1	
	C2413	F1H1E183A029	0.018uF 25V	1	
	C2415	F1H1H392A013	3900pF 50V	1	
	C2422	F1H1C473A088	0.047uF 16V	1	
	C2451	F1H1H392A013	3900pF 50V	1	
	C2500	F1H1C105A097	1uF 16V	1	
	C2501	F2A1H4R7A234	4.7uF 50V	1	
	C2502	F1H1C473A088	0.047uF 16V	1	
	C2503	F1H1C473A088	0.047uF 16V	1	
	C2504	F1H1H222A219	2200pF 50V	1	
	C2509	F1H1E183A029	0.018uF 25V	1	
	C2510	F1H1C105A097	1uF 16V	1	
	C2511	F1H1C105A097	1uF 16V	1	
	C2512	F1H1C473A088	0.047uF 16V	1	
	C2551	F1H1H472A219	4700pF 50V	1	
	C2600	F1H1C105A097	1uF 16V	1	
	C2601	F2A0J331A247	330uF 6.3V	1	
	C2602	F2A1H4R7A234	4.7uF 50V	1	
	C2603	F1H1E223A047	0.022uF 25V	1	
	C2604	F2A1H4R7A234	4.7uF 50V	1	
	C2605	F1H1H332A013	3300pF 50V	1	
	C2609	F1H1A224A025	0.22uF 10V	1	
	C2610	F1H1A224A025	0.22uF 10V	1	
	C2611	F1H1C104A042	0.1uF 16V	1	
	C2612	F1H1H222A219	2200pF 50V	1	
	C2615	F1H1C105A097	1uF 16V	1	
	C2617	F1H1A124A028	0.12uF 10V	1	
	C2905	F1H1C105A097	1uF 16V	1	
	C2906	F1H1C105A097	1uF 16V	1	
	C3001	F1J1A4750002	4.7uF 10V	1	
	C3002	F1H1C105A097	1uF 16V	1	
	C3003	F1J1A4750002	4.7uF 10V	1	
	C3004	F1H1C105A097	1uF 16V	1	
	C3101	F1H1C104A042	0.1uF 16V	1	
	C3102	F1H1C104A042	0.1uF 16V	1	
	C3103	F1H1H330A230	33pF 50V	1	
	C3104	F1H1H330A230	33pF 50V	1	
	C3105	F1H1C104A042	0.1uF 16V	1	
	C3106	F1H1C104A042	0.1uF 16V	1	
	C3107	F1H1H330A230	33pF 50V	1	
	C3108	F1H1H330A230	33pF 50V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C3109	F1H1C104A042	0.1uF 16V	1	
	C3110	F1H1C104A042	0.1uF 16V	1	
	C3111	F1H1H222A219	2200pF 50V	1	
	C3112	F1H1H472A219	4700pF 50V	1	
	C3113	F1H1E223A047	0.022uF 25V	1	
	C3114	F1H1E223A047	0.022uF 25V	1	
	C3115	F1H1C104A042	0.1uF 16V	1	
	C3116	F1H1C104A042	0.1uF 16V	1	
	C3117	F1H1E223A047	0.022uF 25V	1	
	C3118	F1H1C393A001	0.039uF 16V	1	
	C3119	F1H1H102A219	1000pF 50V	1	
	C3120	F1H1H102A219	1000pF 50V	1	
	C3121	F1H1C104A042	0.1uF 16V	1	
	C3122	F1H1C104A042	0.1uF 16V	1	
	C3123	F1H1E223A047	0.022uF 25V	1	
	C3124	F1H1C393A001	0.039uF 16V	1	
	C3125	F1H1H102A219	1000pF 50V	1	
	C3126	F1H1H102A219	1000pF 50V	1	
	C3127	F1H1C104A042	0.1uF 16V	1	
	C3128	F1H1C104A042	0.1uF 16V	1	
	C3129	F1H1H330A230	33pF 50V	1	
	C3130	F1H1H330A230	33pF 50V	1	
	C3171	F1H1C104A042	0.1uF 16V	1	
	C3172	F1H1C104A042	0.1uF 16V	1	
	C3173	F1H1H330A230	33pF 50V	1	
	C3174	F1H1H330A230	33pF 50V	1	
	C3201	F1H1C104A042	0.1uF 16V	1	
	C3202	F1H1C104A042	0.1uF 16V	1	
⚠	C5700	F1BAF471A013	470pF	1	
⚠	C5701	ECQU2A104MLC	0.1uF	1	
⚠	C5702	ECQU2A104MLC	0.1uF	1	
⚠	C5703	ECQU2A104MLC	0.1uF	1	
⚠	C5704	F1BAF471A013	470pF	1	
⚠	C5706	F1BAF471A013	470pF	1	
	C5711	F2B2G331A084	330uF 400V	1	
	C5712	F2B2G331A084	330uF 400V	1	
	C5713	F0C2J1030005	0.01uF 630V	1	
	C5720	F1H1H102A219	1000pF 50V	1	
	C5721	ECJ1V81H221K	220pF 50V	1	
	C5722	F1H1H222A219	2200pF 50V	1	
	C5723	F1H1H471A219	470pF 50V	1	
	C5724	F1H1H102A219	1000pF 50V	1	
	C5725	F1H1H104A013	0.1uF 50V	1	
	C5726	F2A1H100A454	10uF 50V	1	
	C5727	F1H1H222A219	2200pF 50V	1	
	C5730	F1H1E105A116	1uF 25V	1	
	C5747	ECKE3D821KBP	820pF 2000V	1	
	C5790	F1K2J2220002	2200pF 630V	1	
	C5791	F1H1E105A116	1uF 25V	1	
	C5795	F1H1H102A219	1000pF 50V	1	
	C5796	F1H1H104A013	0.1uF 50V	1	
	C5798	F2A1H100A454	10uF 50V	1	
	C5799	F2B2G6R80001	6.8uF 400V	1	
	C5800	F1J2E1030004	0.01uF 250V	1	
	C5805	F2A1H2220038	2200uF 50V	1	
	C5808	F2A1H2220038	2200uF 50V	1	
	C5810	F1H1H104A013	0.1uF 50V	1	
	C5811	F1J2E1030004	0.01uF 250V	1	
	C5812	F1H1H104A013	0.1uF 50V	1	
	C5813	F2A1V3310040	330uF 35V	1	
	C5815	F1H1H104A013	0.1uF 50V	1	
	C5816	F2A1E471A652	470uF 25V	1	
	C5817	F2A2AR100001	0.10uF 100V	1	
	C5818	F1H1H104A013	0.1uF 50V	1	
	C5823	F1H1H104A013	0.1uF 50V	1	
	C5824	F2A1E2210050	220uF 25V	1	
	C5826	F1J2E1030004	0.01uF 250V	1	
	C5827	F1J2E1030004	0.01uF 250V	1	
	C5828	F2A0J222A247	2200uF 6.3V	1	
	C5831	F1H1H104A013	0.1uF 50V	1	
	C5832	F1H1H104A013	0.1uF 50V	1	
	C5840	F1J2E1030004	0.01uF 250V	1	
	C5842	F1J2E1030004	0.01uF 250V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C5869	F1H1H103A219	0.01uF 50V	1	
	C5896	F1H1H104A013	0.1uF 50V	1	
	C5897	F1H1H104A013	0.1uF 50V	1	
	C5898	F1H1H104A013	0.1uF 50V	1	
	C5899	F2A1A2210063	220uF 10V	1	
	C6001	F2A1H220A234	22uF 50V	1	
	C6002	ECA0JAK470XB	47uF 6.3V	1	
	C6003	F1H1H101A230	100pF 50V	1	
	C6004	F1H1C473A088	0.047uF 16V	1	
	C6005	F2A1H220A234	22uF 50V	1	
	C6006	F1H1H104A013	0.1uF 50V	1	
	C6007	F1H1H104A013	0.1uF 50V	1	
	C6008	F1H1C473A088	0.047uF 16V	1	
	C6009	F1H1H101A230	100pF 50V	1	
	C6010	F1H1H103A219	0.01uF 50V	1	
	C6011	F1H1H104A013	0.1uF 50V	1	
	C6012	F1H1H101A230	100pF 50V	1	
	C6013	F1H1H101A230	100pF 50V	1	
	C6014	F1H1H101A230	100pF 50V	1	
	C6015	ECA1HAK3R3XB	3.3uF 50V	1	
	C6016	F1H1H101A230	100pF 50V	1	
	C6017	F1H1H104A013	0.1uF 50V	1	
	C6018	F2A0J101A245	100uF 6.3V	1	
	C6019	F1H1H104A013	0.1uF 50V	1	
	C6020	F1H1H104A013	0.1uF 50V	1	
	C6202	F1J0J106A014	10uF 6.3V	1	
	C6203	F1J0J106A014	10uF 6.3V	1	
	C6204	F1J0J106A014	10uF 6.3V	1	
	C6205	F1H1H102A219	1000pF 50V	1	
	C6206	F1H1H103A219	0.01uF 50V	1	
	C6207	F1H1H103A219	0.01uF 50V	1	
	C6208	F1H1H103A219	0.01uF 50V	1	
	C6301	F1H1H103A219	0.01uF 50V	1	
	C6302	J0JYC0000070	INDUCTOR	1	
	C6303	EEUFC1A102B	1000uF 10V	1	
	C6306	F1H1H101A230	100pF 50V	1	
	C6308	F1H1H101A230	100pF 50V	1	
	C6310	F1H1H101A230	100pF 50V	1	
	C6312	F1H1H101A230	100pF 50V	1	
	C6351	F1H1H220A004	22pF 50V	1	
	C6352	F1H1H220A004	22pF 50V	1	
	C6354	F1H1A105A025	1uF 10V	1	
	C6501	F1H1H103A219	0.01uF 50V	1	
	C6502	F1H1C105A097	1uF 16V	1	
	C6503	F1H1H103A219	0.01uF 50V	1	
	C6504	F1H1H103A219	0.01uF 50V	1	
	C6505	F1H1C105A097	1uF 16V	1	
	C6506	ECJ1VC1H150J	15pF 50V	1	
	C6507	F1H1C105A097	1uF 16V	1	
	C6508	F1H1C105A097	1uF 16V	1	
	C6509	F1H1C104A042	0.1uF 16V	1	
	C6510	F1H1C105A097	1uF 16V	1	
	C6511	ECJ1VC1H151J	150pF 50V	1	
	C6512	F1J0J106A014	10uF 6.3V	1	
	C6513	F1H1C105A097	1uF 16V	1	
	C6514	F1H1H103A219	0.01uF 50V	1	
	C6651	F1H1C104A042	0.1uF 16V	1	
	C6652	F1H1C104A042	0.1uF 16V	1	
	C6653	F1H1C104A042	0.1uF 16V	1	
	C7001	F2A1V3310040	330uF 35V	1	
	C7002	F2A0J1220028	1200uF 6.3V	1	
	C7003	F2A1C8210008	820uF 16V	1	
	C7004	F2A0J221A245	220uF 6.3V	1	
	C7005	F2A1V470A654	47uF 35V	1	
	C7006	F2A1V330A379	33uF 35V	1	
	C7007	F2A1V5600013	56uF 35V	1	
	C7011	F2A0J3310059	330uF 6.3V	1	
	C7012	F2A0J3310059	330uF 6.3V	1	
	C7014	F2A0J102A247	1000uF 6.3V	1	
	C7016	F2A1C470A234	47uF 16V	1	
	C7017	F2A1C100A234	10uF 16V	1	
	C7018	F2A1C470A234	47uF 16V	1	
	C7019	F2A0J102A247	1000uF 6.3V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C7020	F2A1C471A236	470uF 16V	1	
	C7021	F2A1A101A206	100uF 10V	1	
	C7050	F1H1C224A068	0.22uF 16V	1	
	C7051	F1H1H102A219	1000pF 50V	1	
	C7052	F1H1H102A219	1000pF 50V	1	
	C7053	F1H1H104A013	0.1uF 50V	1	
	C7054	F1H1E105A116	1uF 25V	1	
	C7055	F1H1E105A116	1uF 25V	1	
	C7056	ECJ1VC1H471J	470pF 50V	1	
	C7057	F1H1H103A219	0.01uF 50V	1	
	C7058	F1H1E105A116	1uF 25V	1	
	C7059	F1H1E105A116	1uF 25V	1	
	C7061	ECJ1VB1H681K	680pF 50V	1	
	C7062	F1H1H103A219	0.01uF 50V	1	
	C7063	ECJ1VB1H681K	680pF 50V	1	
	C7064	F1H1H104A013	0.1uF 50V	1	
	C7066	F1J1V1050001	1uF 35V	1	
	C7067	F2A1A101A204	100uF 10V	1	
	C7068	F1H1E105A116	1uF 25V	1	
	C7070	F1H1H392A013	3900pF 50V	1	
	C7071	F1H1H104A013	0.1uF 50V	1	
	C7072	F1H1C224A068	0.22uF 16V	1	
	C7073	ECJ1VB1H122K	1200pF 50V	1	
	C7074	F1H1A105A025	1uF 10V	1	
	C7075	F2A1C221A236	220uF 16V	1	
	C7076	F1H1H153A219	0.015uF 50V	1	
	C7077	F1H1C224A068	0.22uF 16V	1	
	C7079	F1H1H104A013	0.1uF 50V	1	
	C7081	F1H1H102A219	1000pF 50V	1	
	C8001	F1H1A105A025	1uF 10V	1	
	C8002	F1H1A105A025	1uF 10V	1	
	C8003	ECJ2FB1E105K	1uF 25V	1	
	C8004	ECJ2FB1E105K	1uF 25V	1	
	C8005	F1K1C1060001	10uF 16V	1	
	C8006	ECJ2FB1E105K	1uF 25V	1	
	C8007	ECJ2FB1E105K	1uF 25V	1	
	C8008	F1K1C1060001	10uF 16V	1	
	C8009	F1K2A1040007	0.1uF 100V	1	
	C8010	F1K2A1040007	0.1uF 100V	1	
	C8011	ECJ2FB1E105K	1uF 25V	1	
	C8012	ECJ2FB1E105K	1uF 25V	1	
	C8013	F2A1C220A234	22uF 16V	1	
	C8015	F1J1H474A757	0.47uF 50V	1	
	C8016	F1J1H474A757	0.47uF 50V	1	
	C8017	ECJ3VB1H104K	0.1uF 50V	1	
	C8018	ECJ3VB1H104K	0.1uF 50V	1	
	C8019	F2A1H8210023	820uF 50V	1	
	C8020	F2A1H8210023	820uF 50V	1	
	C8021	F2A1C330A234	33uF 16V	1	
	C8022	F1H1H562A219	5600pF 50V	1	
	C8023	ECA1HAK010XB	1uF 50V	1	
	C8024	F2A0J221A245	220uF 6.3V	1	
	C8025	F2A1C220A234	22uF 16V	1	
	C8026	F1H1H104A013	0.1uF 50V	1	
	C8027	EEE1CA100SR	10uF 16V	1	
	C8028	F1H1H102A219	1000pF 50V	1	
	C8029	F1H1H104A013	0.1uF 50V	1	
	C8030	F1H1H103A219	0.01uF 50V	1	
	C8031	F1H1H103A219	0.01uF 50V	1	
	C8032	F1H1H101A230	100pF 50V	1	
	C8033	F1H1H101A230	100pF 50V	1	
	C8034	F1H1H101A230	100pF 50V	1	
	C8035	F1H1H101A230	100pF 50V	1	
	C8036	F1H1H470A004	47pF 50V	1	
	C8037	F1H1H470A004	47pF 50V	1	
	C8038	F1H1A105A025	1uF 10V	1	
	C8039	F1H1H104A013	0.1uF 50V	1	
	C8040	F1J1A106A043	10uF 10V	1	
	C8042	F2A0J470A245	47uF 6.3V	1	
	C8043	F1K2A105A006	1uF 100V	1	
	C8044	F1K2A105A006	1uF 100V	1	
	C8045	F1K2A105A006	1uF 100V	1	
	C8046	F1K2A105A006	1uF 100V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C8047	F1H1H104A013	0.1uF 50V	1	
	C8048	F1J1A106A043	10uF 10V	1	
	C8049	F1J1A106A043	10uF 10V	1	
	C8050	F1K2A105A006	1uF 100V	1	
	C8051	F1K2A105A006	1uF 100V	1	
	C8052	F1K2A105A006	1uF 100V	1	
	C8053	F1K2A105A006	1uF 100V	1	
	C8054	F1H1A225A051	2.2uF 10V	1	
	C8055	F1H1A225A051	2.2uF 10V	1	
	C8059	F1H1H103A219	0.01uF 50V	1	
	C8060	F1H0J4750005	4.7uF 6.3V	1	
	C8061	F1H1H104A013	0.1uF 50V	1	
	C8066	F1H1H103A219	0.01uF 50V	1	
	C8068	F2A0J470A245	47uF 6.3V	1	
	C8071	F1K2A105A006	1uF 100V	1	
	C8072	F1K2A105A006	1uF 100V	1	
	C8073	F1K2A105A006	1uF 100V	1	
	C8074	F1K2A105A006	1uF 100V	1	
	C8075	F1K2A105A006	1uF 100V	1	
	C8076	F1K2A105A006	1uF 100V	1	
	C8077	F1K2A105A006	1uF 100V	1	
	C8078	F1K2A105A006	1uF 100V	1	
	C8081	F1H1H102A219	1000pF 50V	1	
	C8082	F1H1H102A219	1000pF 50V	1	
	C8106	D0YFR0000002	0 1/4W	1	
	C8109	F1H1H102A219	1000pF 50V	1	
	C8110	F1H1H102A219	1000pF 50V	1	
	C8112	F1K1H105A149	1uF 50V	1	
	C8113	F1K1H105A149	1uF 50V	1	
	C8206	D0YFR0000002	0 1/4W	1	
	C8209	F1H1H102A219	1000pF 50V	1	
	C8210	F1H1H102A219	1000pF 50V	1	
	C8212	F1K1H105A149	1uF 50V	1	
	C8213	F1K1H105A149	1uF 50V	1	
	C8301	F1J1A106A043	10uF 10V	1	
	C8302	F1H1H101A230	100pF 50V	1	
	C8303	F1H1H222A219	2200pF 50V	1	
	C8304	F1H1H222A219	2200pF 50V	1	
	C8305	F1H1H102A219	1000pF 50V	1	
	C8306	F1K1C1060001	10uF 16V	1	
	C8307	ECQV1H684JL3	0.68uF 50V	1	
	C8308	F1H1H104A013	0.1uF 50V	1	
	C8309	F1H1H102A219	1000pF 50V	1	
	C8310	F1H1H102A219	1000pF 50V	1	
	C8311	F1J1A106A043	10uF 10V	1	
	C8312	F1K1H105A149	1uF 50V	1	
	C8313	F1K1H105A149	1uF 50V	1	
	C8401	F1J1A106A043	10uF 10V	1	
	C8402	F1H1H101A230	100pF 50V	1	
	C8403	F1H1H222A219	2200pF 50V	1	
	C8404	F1H1H222A219	2200pF 50V	1	
	C8405	F1H1H102A219	1000pF 50V	1	
	C8406	F1K1C1060001	10uF 16V	1	
	C8407	ECQV1H684JL3	0.68uF 50V	1	
	C8408	F1H1H104A013	0.1uF 50V	1	
	C8409	F1H1H102A219	1000pF 50V	1	
	C8410	F1H1H102A219	1000pF 50V	1	
	C8411	F1J1A106A043	10uF 10V	1	
	C8412	F1K1H105A149	1uF 50V	1	
	C8413	F1K1H105A149	1uF 50V	1	
	C8501	F1J1A106A043	10uF 10V	1	
	C8502	F1H1H101A230	100pF 50V	1	
	C8503	F1H1H222A219	2200pF 50V	1	
	C8504	F1H1H222A219	2200pF 50V	1	
	C8505	F1H1H102A219	1000pF 50V	1	
	C8506	F1K1C1060001	10uF 16V	1	
	C8507	ECQV1H684JL3	0.68uF 50V	1	
	C8508	F1H1H104A013	0.1uF 50V	1	
	C8509	F1H1H102A219	1000pF 50V	1	
	C8510	F1H1H102A219	1000pF 50V	1	
	C8511	F1J1A106A043	10uF 10V	1	
	C8512	F1K1H105A149	1uF 50V	1	
	C8513	F1K1H105A149	1uF 50V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C8601	F1J1A106A043	10uF 10V	1	
	C8602	F1H1H101A230	100pF 50V	1	
	C8603	F1H1H222A219	2200pF 50V	1	
	C8604	F1H1H222A219	2200pF 50V	1	
	C8605	F1H1H102A219	1000pF 50V	1	
	C8606	F1K1C1060001	10uF 16V	1	
	C8607	ECQV1H684JL3	0.68uF 50V	1	
	C8608	F1H1H104A013	0.1uF 50V	1	
	C8609	F1H1H102A219	1000pF 50V	1	
	C8610	F1H1H102A219	1000pF 50V	1	
	C8611	F1J1A106A043	10uF 10V	1	
	C8612	F1K1H105A149	1uF 50V	1	
	C8613	F1K1H105A149	1uF 50V	1	
	C8701	F1J1A106A043	10uF 10V	1	
	C8702	F1H1H101A230	100pF 50V	1	
	C8703	F1H1H222A219	2200pF 50V	1	
	C8704	F1H1H222A219	2200pF 50V	1	
	C8705	F1H1H102A219	1000pF 50V	1	
	C8706	F1K1C1060001	10uF 16V	1	
	C8707	ECQV1H684JL3	0.68uF 50V	1	
	C8708	F1H1H104A013	0.1uF 50V	1	
	C8709	F1H1H102A219	1000pF 50V	1	
	C8710	F1H1H102A219	1000pF 50V	1	
	C8711	F1J1A106A043	10uF 10V	1	
	C8712	F1K1H105A149	1uF 50V	1	
	C8713	F1K1H105A149	1uF 50V	1	
	C8801	F1J1A106A043	10uF 10V	1	
	C8802	F1H1H101A230	100pF 50V	1	
	C8803	F1H1H222A219	2200pF 50V	1	
	C8804	F1H1H222A219	2200pF 50V	1	
	C8805	F1H1H102A219	1000pF 50V	1	
	C8806	F1K1C1060001	10uF 16V	1	
	C8807	ECQV1H684JL3	0.68uF 50V	1	
	C8808	F1H1H104A013	0.1uF 50V	1	
	C8809	F1H1H102A219	1000pF 50V	1	
	C8810	F1H1H102A219	1000pF 50V	1	
	C8811	F1J1A106A043	10uF 10V	1	
	C8812	F1K1H105A149	1uF 50V	1	
	C8813	F1K1H105A149	1uF 50V	1	

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