PSG1306001CE

Service Manual

CD Stereo System

Model No. SA-AKX17PH
SA-AKX17PN

Product Color: (K)...Black Type

Please refer to the original service manual for:
- **CD Mechanism Unit (BRS11C), Order No. PSG1102001CE**
- **Speaker system SB-AKX16PN-K, Order No. PSG1301013CE**

⚠ WARNING

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

IMPORTANT SAFETY NOTICE

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

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1 Safety Precautions

1.1. General Guidelines

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

1.1.1. Leakage Current Cold Check

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

1.1.2. Leakage Current Hot Check

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

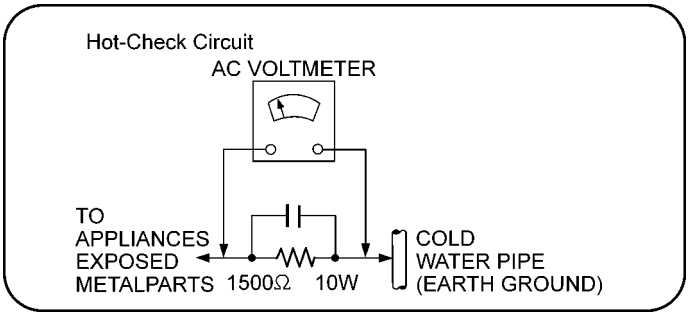


Figure 1-1

1.2. Before Use (For PH only)

Be sure to disconnect the mains cord before adjusting the voltage selector as shown in Figure 1-2.
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.
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.)

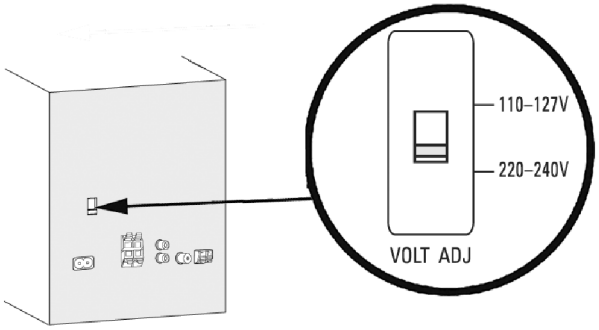


Figure 1-2

1.3. Before Repair and Adjustment

Caution:

DO NOT SHORT-CIRCUIT DIRECTLY (with a screw driver 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 110~127 V / 220~240 V, 50/60 Hz in Power ON, FM Tuner at volume minimal mode should be ~ 250 mA (PH).
Current consumption at AC 120 V, 60 Hz in Power ON, FM Tuner at volume minimal mode should be ~ 250 mA (PN).

1.4. Protection Circuitry

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are “shorted”, or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.
If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note:

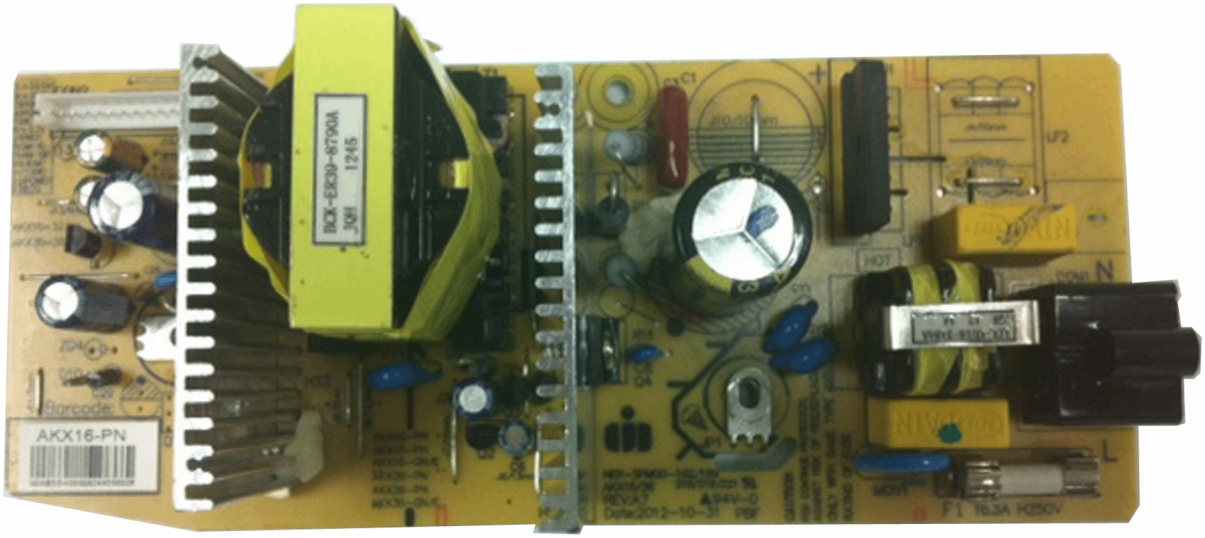
When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

1.5. Power Supply using SMPS

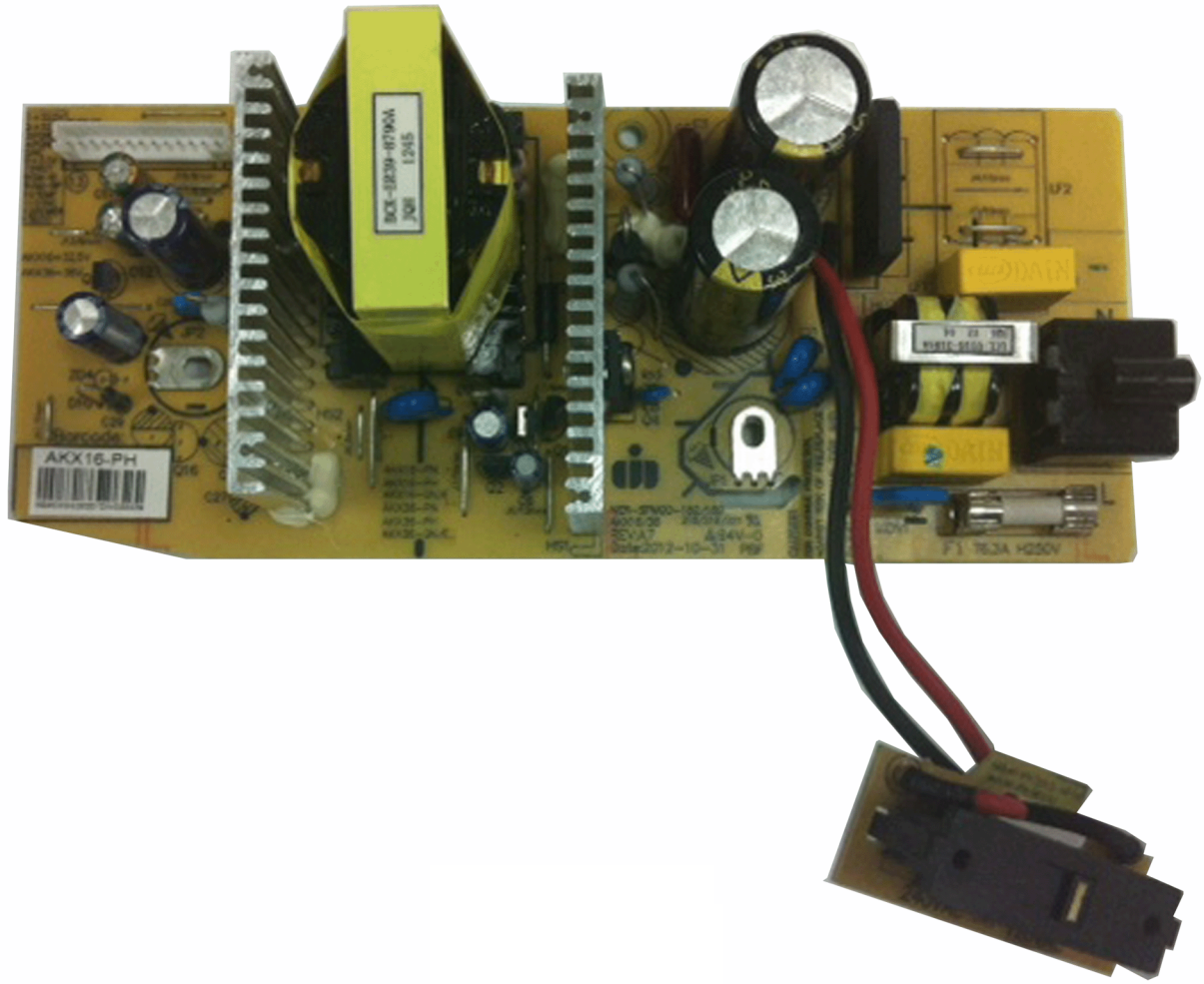
This model uses Switching Mode Power Supply (SMPS) to provide the power supply to the unit. Here is the supplied part no. for the SMPS Module for the models

1) N0AB3GK00008 (For PN)
2) N0AD3GK00001 (For PH)

1.5.1. For PN



1.5.2. For PH



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

Safety	Ref. No.	Part No.	Part Name & Description	Remarks
⚠	8	RGR0443A-E1A	REAR PANEL	PN
⚠	8	RGR0443B-B1A	REAR PANEL	PH
⚠	26	RKM0713-K1	TOP CABINET	
⚠	301	RAE1036Z-V	TRAVERSE ASS'Y	
⚠	A2	K2CQ2YY00119	AC CORD	PH
⚠	A2	K2CB2CB00022	AC CORD	PN
⚠	A3	RQT9843-1M	O/I BOOK (Sp/En)	
⚠	PCB8	N0AD3GK00001	SMPS MODULE P.C.B.	PH
⚠	PCB8	N0AB3GK00008	SMPS MODULE P.C.B.	PN

2 Warning

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

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices.

> Examples of typical ES devices are IC (integrated circuits) and some field-effect transistors and semiconductor "chip" components.

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

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as “anti-static (ESD protected)” can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION:
   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

IMPORTANT SAFETY NOTICE

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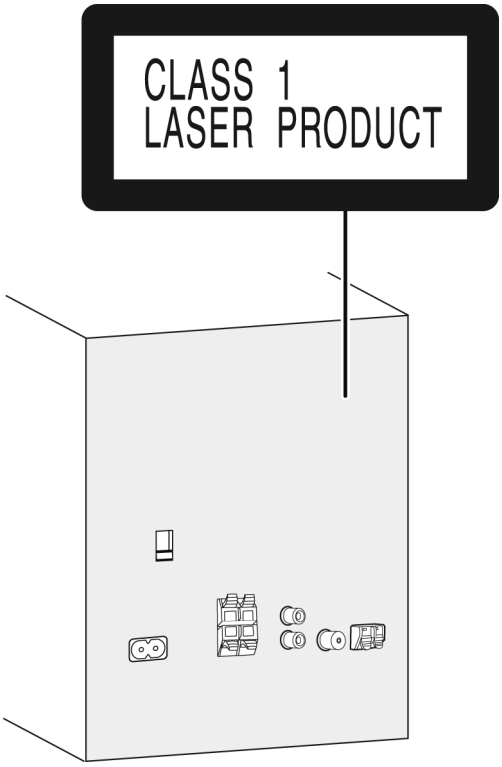
2.2. Precaution of Laser Diode

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

Caution:

This product utilizes a laser diode with the unit turned “on”, invisible laser radiation is emitted from the pickup lens.
Wavelength: 790 nm (CD)
Maximum output radiation power from pickup: 100 μW/VDE
Laser radiation from the pickup unit is safety level, but be sure the followings:

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



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 Traverse Unit

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

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

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

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

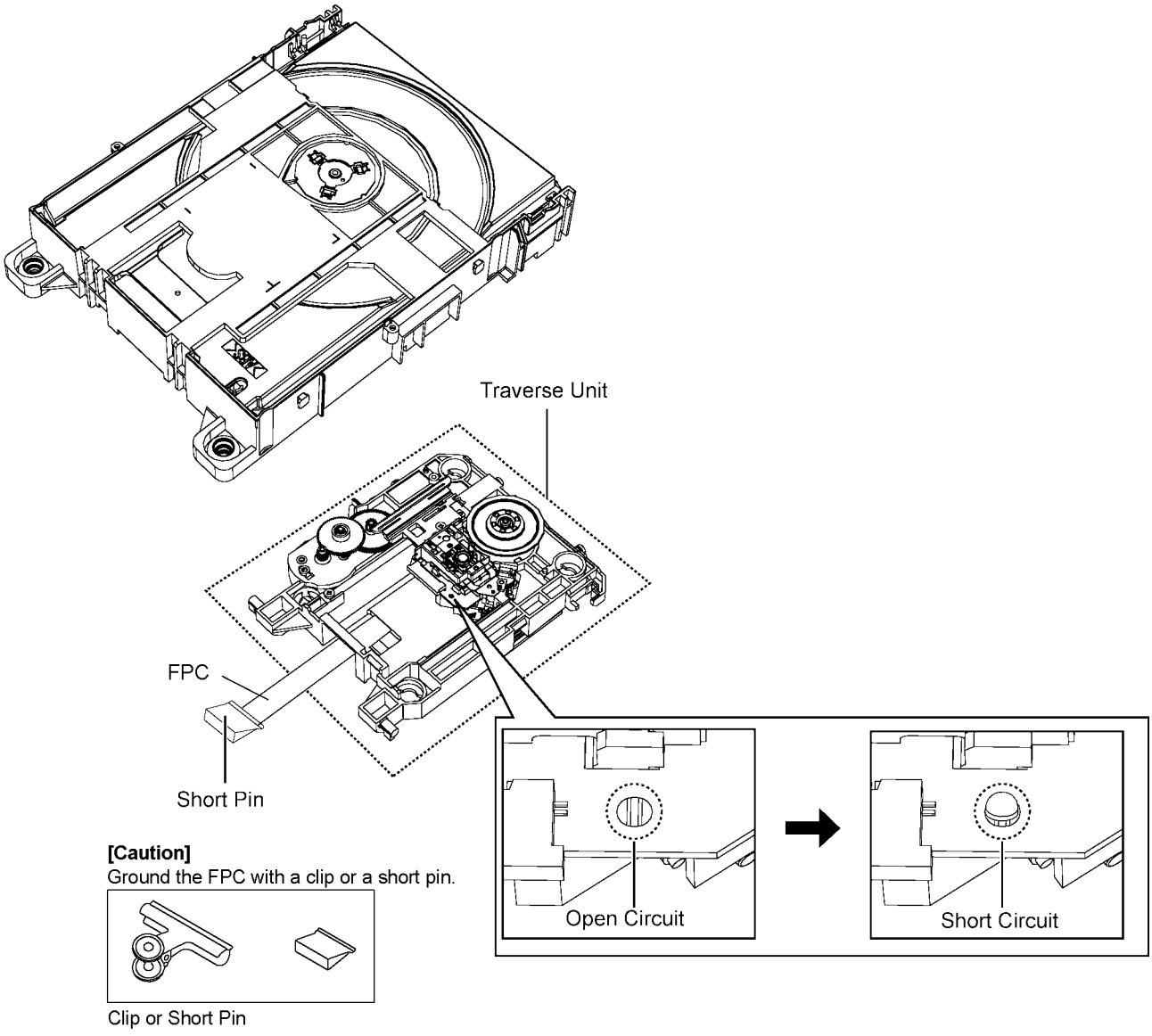


Figure 2-2

2.5. Grounding for electrostatic breakdown prevention

• As for parts that use optical pick-up (laser diode), the optical pick-up is destroyed by the static electricity of the working environment.
Repair in the working environment that is grounded.

2.5.1. Worktable grounding

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

2.5.2. Human body grounding

• Use the anti-static wrist strap to discharge the static electricity form your body Figure 2-3.

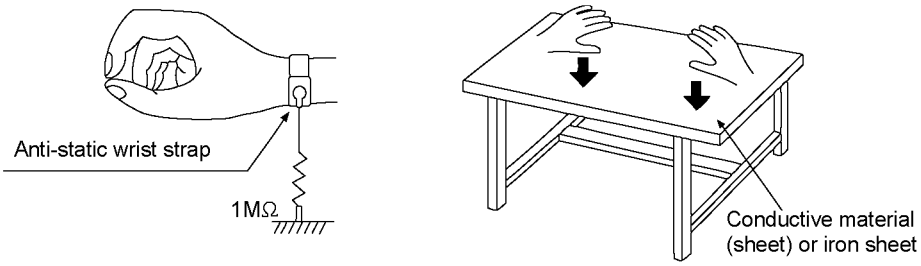


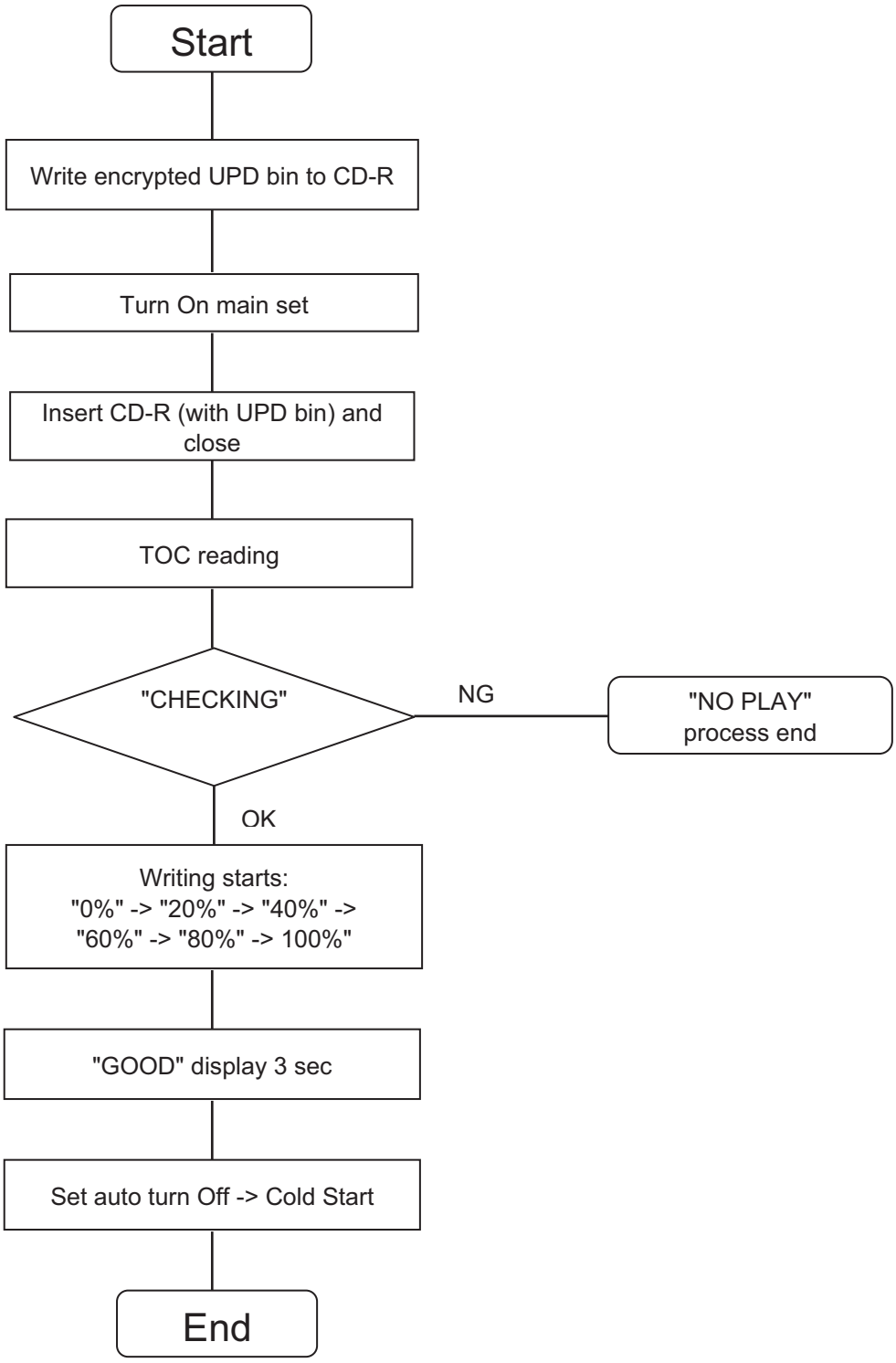
Figure 2-3

3 Service Navigation

3.1. Service Information

This service manual contains technical information which will allow service personnel's to understand and service this model.
Please place orders using the parts list and not the drawing reference numbers.
If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

3.1.1. Firmware Update Procedure



4 Specifications

■ **Amplifier section**

RMS output power stereo mode

Front Ch (both ch driven)	175 W per channel (4 Ω), 1 kHz, 30% THD
Total RMS stereo mode power	350 W (30% THD)

■ **Tuner, terminals section**

Preset memory	FM 30 stations AM 15 stations
Frequency modulation (FM)	
Frequency range	87.50 MHz to 108.00 MHz (50 kHz step) (for PH) 87.5 MHz to 108.0 MHz (100 kHz step) (for PN) 87.9 MHz to 107.9 MHz (200 kHz step) (for PN)
Antenna terminals	75 Ω (unbalanced)
Amplitude modulation (AM)	
Frequency range	522 kHz to 1629 kHz (9 kHz step) (for PH) 520 kHz to 1630 kHz (10 kHz step) (for PH) 520 kHz to 1710 kHz (10 kHz step) (for PN)
Aux Input	Pin jack

■ **Disc section**

Discs played (8 cm or 12 cm)	CD, CD-R/RW(CD-DA, MP3*)
Pick up	
Wavelength	790 nm(CD)
Audio output	
Number of channels	2 ch (FL, FR)

FL = Front left channel
FR = Front right channel
*MPEG-1 Layer 3

■ **USB section**

USB Port

USB standard	USB 2.0 full speed
Media file format support	MP3 (*.mp3)
USB device file system	FAT12, FAT16, FAT32
USB port power	500 mA (max)
Bit rate	16 kbps to 320 kbps (playback)

USB recording

Bit rate	128 kbps
USB recording speed	1x, 3x max (CD only)
Recording file format	MP3 (*.mp3)

■ **General**

Power consumption	58 W (for PH) 55 W (for PN)
Power Consumption in standby mode	0.4 W (approximate) (for PH) 0.3 W (approximate) (for PN)
Power supply	AC 110 to 127/220 to 240 V, 50/60 Hz (for PH) AC 120 V, 60 Hz (for PN)
Dimensions (W x H x D)	220 mm x 334 mm x 250 mm
Mass	2.8 kg
Operating temperature range	0 °C to +40 °C
Operating humidity range	35% to 80% RH (no condensation)

1. Specifications are subject to change without notice. Mass and dimension are appropriate
2. Total harmonic distortion is measured by the digital spectrum analyzer.

■ **System: SC-AKX17PN-K**

Main Unit: SA-AKX17PN-K
Front Speakers: SB-AKX16PN-K

■ **System: SC-AKX17PH-K**

Main Unit: SA-AKX17PH-K
Front Speakers: SB-AKX16PN-K

5 General/Introduction

5.1. Media Information

Note on disc

- This system can play CD-R/RW with CD-DA or MP3 format content.
- Some CD-R/RW cannot be played because of the condition of the recording.
- MP3 files are defined as tracks and folders are defined as albums.
- This system can access up to:
  – CD-DA: 99 tracks
  – MP3: 999 tracks, 255 albums and 20 sessions
- Disc must conform to ISO9660 level 1 or 2 (except for extended formats).
- Recordings will not necessarily be played in the order you recorded them.

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

6 Location of Controls and Components

6.1. Remote Control Key Button Operation

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

❷ Numeric buttons [1 to 9, 0, ≧10]
To select a 2-digit number
Example: 16: [≧10]→[1]→[6]

❸ Delete a programmed track

❹ Select audio source

❺ Basic playback control

❻ Select the sound effects

❼ Auto preset the radio station

❽ View content information
Decrease the brightness of the display panel
Press and hold [– DIMMER] on the remote control or press [DIMMER] on the main unit to use this function.
To cancel, do the above step again.

❾ Recording operation control

❿ Set the clock and timer

⓫ Set the program function

⓬ Adjust the volume of the system

⓭ **Mute the sound of the system**
Press the button again to cancel.
“MUTE” is also canceled when you adjust the volume or when you switch off the system.

⓮ Set the play menu item

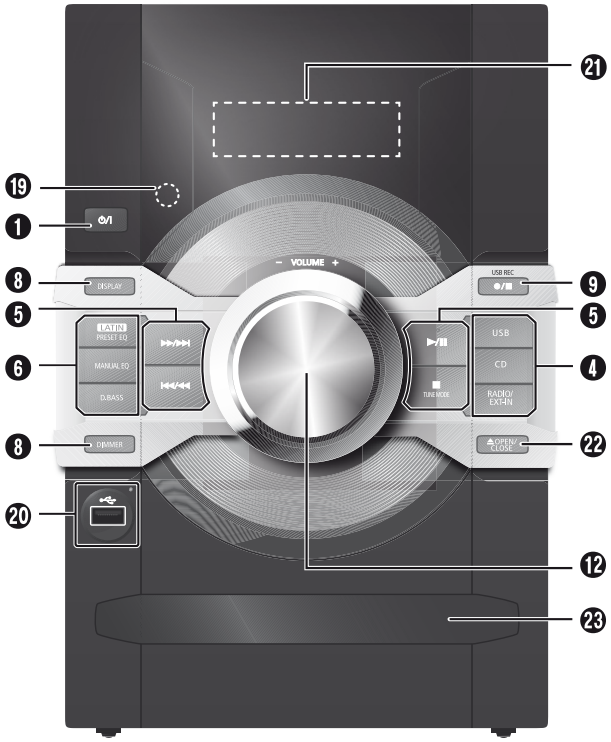
⓯ Set the radio menu item

⓰ Select the option

⓱ **Automatically switch off the system**
When you are in disc, USB or AUX source, the auto off function switches off the system if you do not use the system for 30 minutes.
To cancel, press the button again.

⓲ Set the edit mode for USB

6.2. Main Unit Key Button Operation



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

❹ Select audio source

❺ Basic playback control

❻ Select the sound effects

❽ View content information
Decrease the brightness of the display panel
Press and hold [– DIMMER] on the remote control or press [DIMMER] on the main unit to use this function. To cancel, do the above step again.

❾ Recording operation control

⓬ Adjust the volume of the system

⓳ Remote control sensor
Distance: Within approximately 7 m
Angle: Approximately 20° up and down, 30° left and right

⓴ USB port (•⇠)
USB recording indicator

㉑ Display panel

㉒ Open or close the disc tray

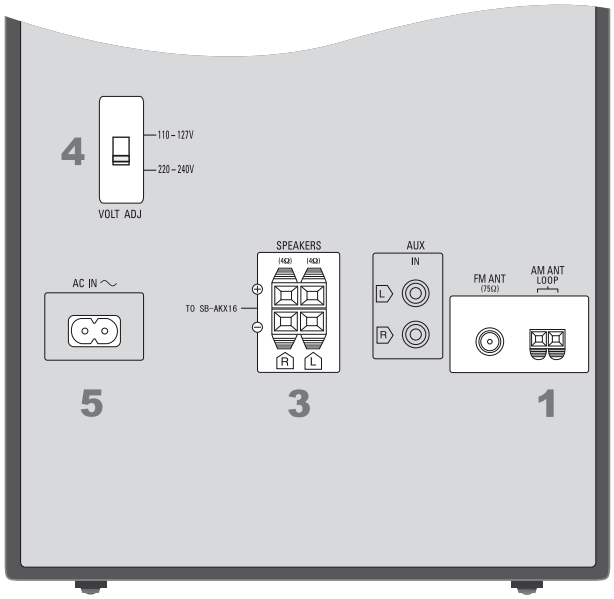
㉓ Disc tray

7 Installation Instructions

7.1. Speaker and A/C Connection

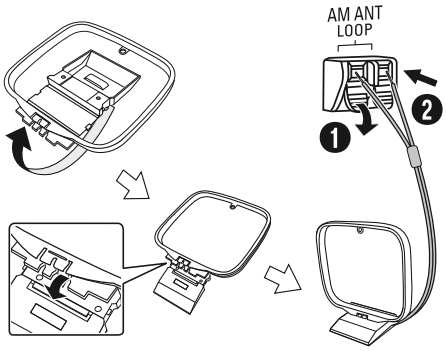
Connect the AC power supply cord only after all the other connections have been made.

The illustrations shown are of the model for South America (except Argentina and Brazil). Your unit may differ in appearance.



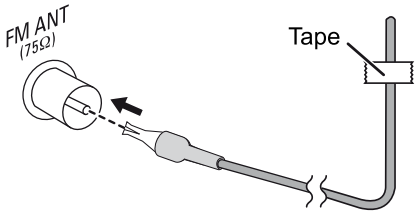
1 **Connect the AM loop antenna.**

Stand the antenna up on its base until it clicks.



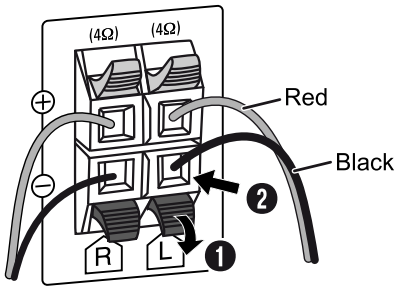
2 **Connect the FM indoor antenna.**

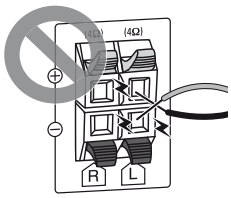
Place the antenna where reception is best.



3 **Connect the speakers.**

Connect the speaker cables to the terminals of the same color.

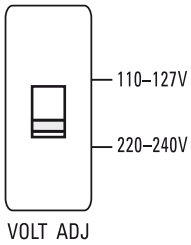




Be careful not to cross (short-circuit) or reverse the polarity of the speaker wires as doing so may damage the speakers.

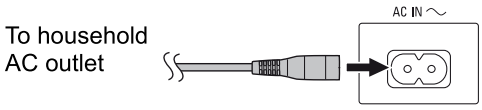
4 **For South America (except Argentina and Brazil)**

Set the voltage.



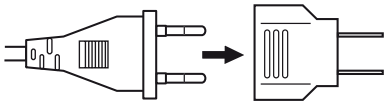
Use a flat-head screwdriver to set the voltage selector to the AC voltage in your area.

5 **Connect the AC power supply cord.**



For South America (except Argentina and Brazil)

If the power plug does not fit your socket, use the power plug adapter (supplied).



Do not use an AC power supply cord from other equipment.

Conserving power

The system consumes a small amount of power even when it is in standby mode. Disconnect the power supply if you do not use the system.

Some settings will be lost after you disconnect the system. You have to set them again.

8 Service Mode

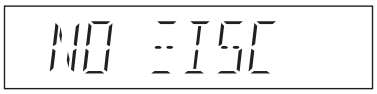
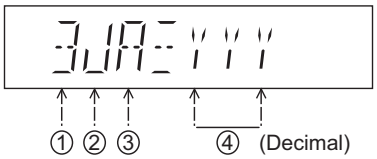
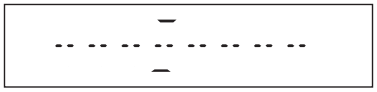
8.1. Cold-Start

Here is the procedure to carry out cold-start or initialize to shipping mode.

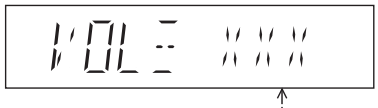
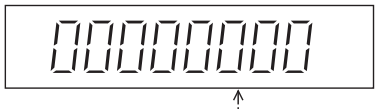
1. Unplug AC power cord
2. Press & hold [POWER] button
3. Plug AC power cord while [POWER] button being pressed
   FL Display will show "_ _ _ _ _ _ _ _"
4. Release [POWER] button

8.2. Doctor Mode Table

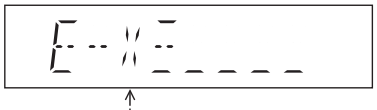
8.2.1. Doctor Mode Table 1

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Doctor Mode	To enter into Doctor Mode		In CD Mode: 1. Press [■] button on main unit follow by [4] and [7] on remote control. 2. To exit, press [DELETE] button on remote control or, press [POWER,⏻/I] button on Main Unit
EEPROM checksum check	Displaying of 1. Year Develop. 2. Model Type. 3. ROM Type. 4. Firmware Version.	(Display 1)  ① ② ③ ④ (Decimal) Version No. (001 ~ 999) → specific for each firmware (Display 2)  Checksum (Hex)	In CD mode: 1. Enter into Doctor Mode
Cold Start	To active cold start upon next AC power up when reset start is execute the next time.		In Doctor Mode: 1. Press [SLEEP] button on the remote control.

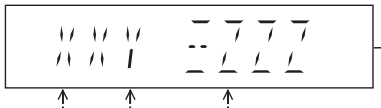
8.2.2. Doctor Mode Table 2

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Volume Setting Check	To check the volume setting of the main unit.	 Press [7]: VOL50 Press [8]: VOL35 Press [9]: VOL0 Volume	In Doctor Mode: 1. Press [7], [8], [9] button on the remote control.
FL Display Check	To check the FL segment display. All segments will light up while all LED blink at 0.5s intervals.		In Doctor mode: 1. Press [1] button on the remote control. 2. To cancel this mode, press [0] button on the remote control.
Traverse Test	To determine the traverse unit operation for inner & outer access track. In this mode,ensure the CD is in the main unit. Note: Refer to Section 8.3 Figure 8-2 for process flow	 The counter will increment by one. When reach 99999999 will change to 00000000 Cancellation Display 	In Doctor Mode: 1. Press [10]→[1]→[2] button on the remote control. 2. To cancel this mode, press [0] button on the remote control.
Reliability Test (Combination)	To determine the traverse unit operation & open/close operation of the mechanism. In this mode,ensure the CD is in the main unit. Note: Refer to Section 8.3 Figure 8-3 for process flow	 The counter will increment by one. When reach 99999999 will change to 00000000 Cancellation Display 	In Doctor Mode: 1. Press [10]→[1]→[5] button on the remote control. 2. To cancel this mode, press [0] button on the remote control.
Loading Test	To determine the open & close operation of the CD Mechanism Unit. In this mode, the tray will open & close automatically. Note: Refer to Section 8.3 Figure 8-1 for process flow	 The counter will increment by one. When reach 99999999 will change to 00000000 Cancellation Display 	In Doctor Mode: 1. Press [10]→[2]→[1] button on the remote control. 2. To cancel this mode, press [0] button on the remote control.

8.2.3. Doctor Mode Table 3

<table>
<tr><th colspan="2">Item</th><th rowspan="2">FL Display</th><th>Key Operation</th></tr>
<tr><th>Mode Name</th><th>Description</th><th>Front Key</th></tr>
<tr><td>CD
Self- Adjustment Test</td><td>To display result of self-adjustment for CD.</td><td> 
Display of auto adjustment result

Reference table:
<table>
<tr><th>ERROR Code / Status Condition</th><th>0</th><th>1</th><th>2</th><th>4</th><th>6</th><th>8</th><th>A</th><th>C</th><th>E</th><th>F</th></tr>
<tr><td>AOC1/AOC2</td><td>O</td><td>※</td><td>O</td><td>O</td><td>O</td><td>O</td><td>O</td><td>O</td><td>O</td><td>-</td></tr>
<tr><td>ABC2/ABC1</td><td>O</td><td>-</td><td>X</td><td>O</td><td>X</td><td>O</td><td>X</td><td>O</td><td>X</td><td>-</td></tr>
<tr><td>2nd AOC1</td><td>O</td><td>-</td><td>O</td><td>X</td><td>X</td><td>O</td><td>O</td><td>X</td><td>X</td><td>-</td></tr>
<tr><td>FAGC/TAGC</td><td>O</td><td>-</td><td>O</td><td>O</td><td>O</td><td>X</td><td>X</td><td>X</td><td>X</td><td>-</td></tr>
<tr><td>AGC2</td><td>O</td><td>-</td><td>O</td><td>O</td><td>O</td><td>O</td><td>O</td><td>O</td><td>O</td><td>△</td></tr>
</table>
O : OK;
X : NG (In case that time out happens.)
※: Either one of FO AOC, TR AOC and FO coarse AGC is NG.
△: If the AGC is NG (ignore others).</td><td>In Doctor Mode:
1. Press [10]→[1]→[4] button on the remote control.

To cancel this mode, press [0] button on the remote control.</td></tr>
<tr><td>CD LSI Version Check</td><td>For checking CD LSI Version and checksum information.</td><td>(Display 1)
 
ROM Type
Version (Decimal)
Year Develop
after 2 sec
(Display 2)
 
Checksum (Hex)</td><td>In Doctor Mode:
1. Press [4] button on the remote control.

To cancel this mode, press [0] button on the remote control.</td></tr>
</table>

8.3. Reliability Test Mode (CD Mechanism Unit)

Below is the process flow chart of the aging test for the CD Mechanism Unit.

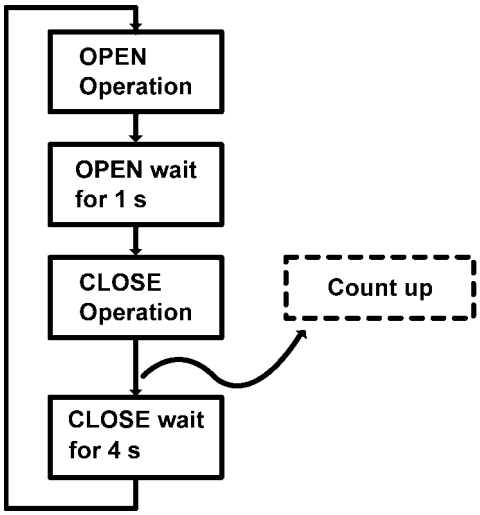


Figure 8-1 Reliability Test (Loading)

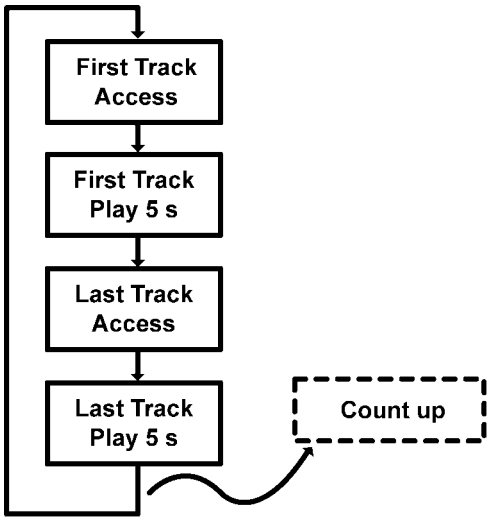


Figure 8-2 Reliability Test (Traverse)

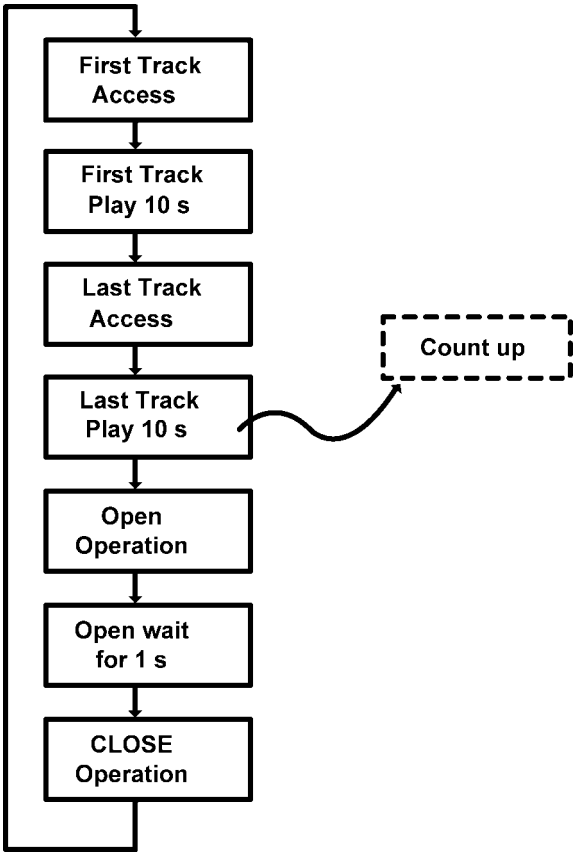


Figure 8-3 Reliability Test (Combination)

8.4. Self-Diagnostic Mode

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

8.5. Self-Diagnostic Error Code Table

Self-Diagnostic Function (Refer Section 8.4. Self-Diagnostic Mode) provides information on any problems occurring for the unit and its respective components by displaying the error codes. These error code such as U**, H** and F** are stored in memory and held unless it is cleared.

The error code is automatically display after entering into self-diagnostic mode.

8.5.1. Power Supply Error Code Table

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F61	Power Amp IC output abnormal	Upon power on, PCONT=HIGH, DC_DET_AMP after checking LSI.		Press [■] on main unit for next error.
F76		DC_DET_PWR		
F61-76		Both DCDET (NG)		

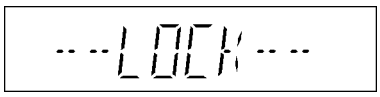
8.5.2. CD Mechanism Error Code Table

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

8.6. Sales Demonstration Lock Function

8.6.1. Entering into Sales demonstration lock mode

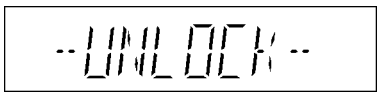
Here is the procedures to enter into the Sales demonstration lock mode.
Step 1: Turn on the unit.
Step 2: Select to any mode function.
Step 3: Press and hold [⏏OPEN/CLOSE] and [CD] keys for 5 sec or more.
The display will show upon entering into this mode for 2 sec..



Note: [⏏OPEN/CLOSE] button is invalid and the main unit displays “LOCKED” while the lock function mode is entered.

8.6.2. Cancellation of Sales demonstration lock mode

Step 1: Turn on the unit.
Step 2: Select to any mode function.
Step 3: Set volume to Vol 19.
Step 4: Press and hold [⏏OPEN/CLOSE] and [CD] keys for 5 sec or more.
The display will show upon entering into this mode for 2 sec..



9 Troubleshooting Guide

“Contents for this section is not available at time of issue”

10 Disassembly and Assembly Instructions

• Illustration is based on SA-AKX17PH-K.

Caution Note:

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

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

- **During disassembly and assembly, please ensure proper service tools, equipments or jigs is being used.**
- **During replacement of component parts, please refer to the section of "Replacement Parts List" as described in the service manual.**
- **Select items from the following indexes when disassembly or replacement are required.**
- Disassembly of Top Cabinet
- Disassembly of Front Panel Unit
- Disassembly of Panel P.C.B. and LCD P.C.B.
- Disassembly of Remote Sensor P.C.B.
- Disassembly of USB P.C.B.
- Disassembly of CD Lid
- Disassembly of Rear Panel
- Disassembly of Main P.C.B.
- Disassembly of SMPS Module and Voltage Selector P.C.B.
- Disassembly of CD Mechanism Unit
- Disassembly of CD Interface P.C.B.

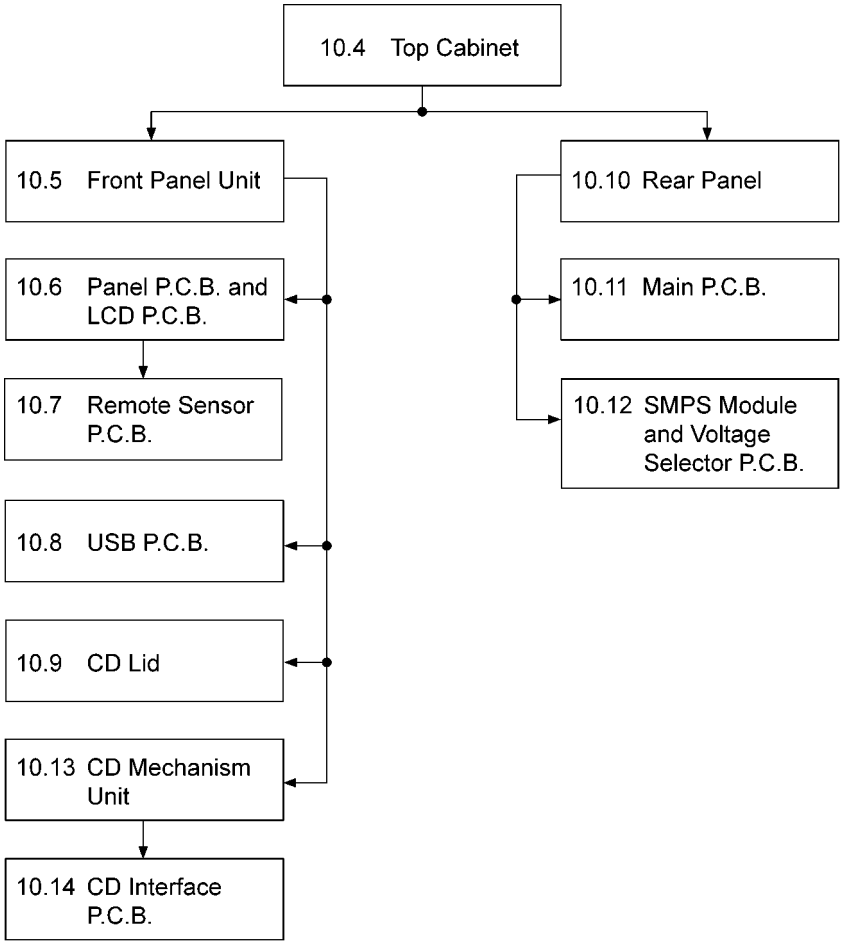
10.1. Screw Types

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

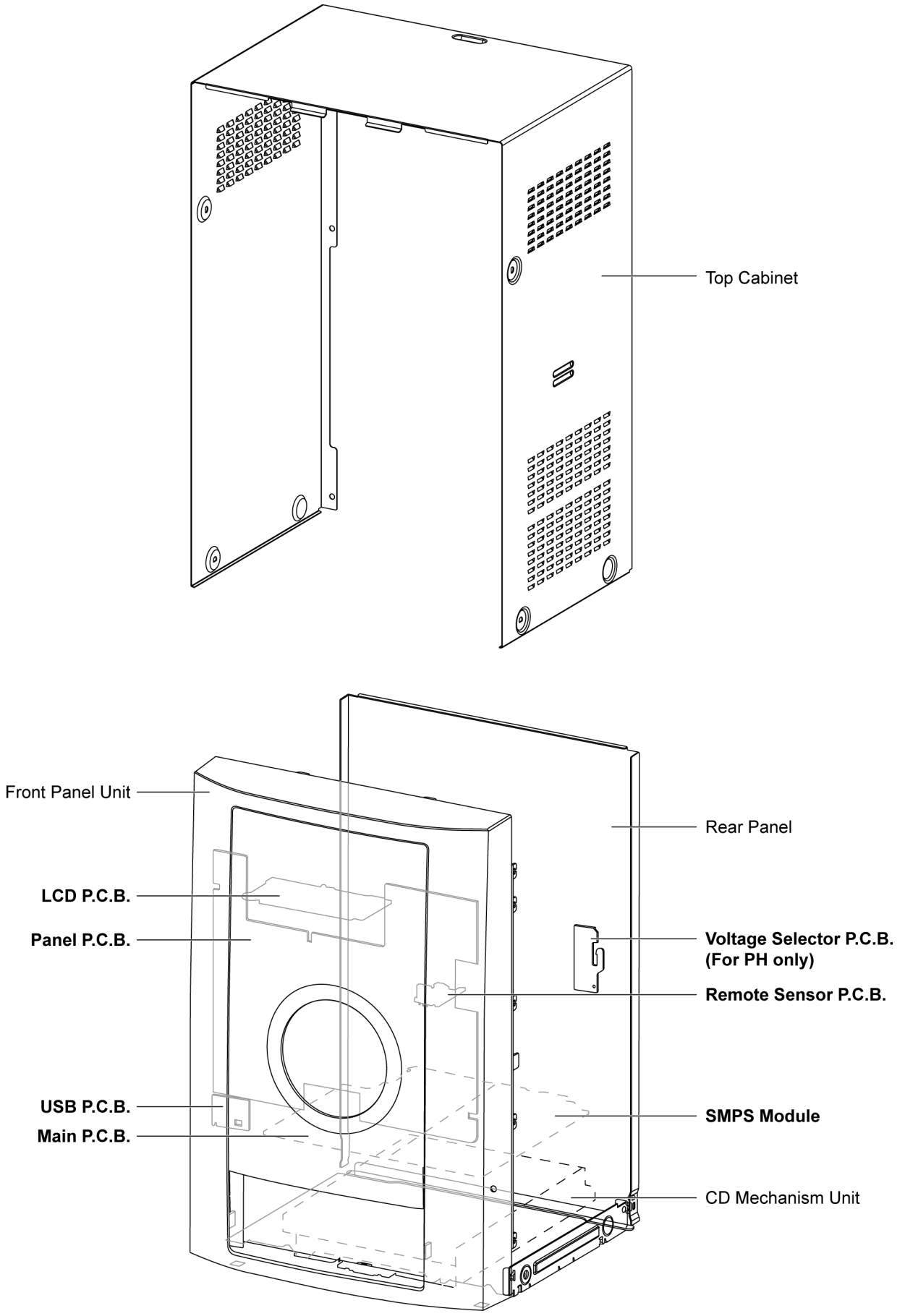
Below shown is part no. of different screw types used:

- ⓐ :RHD30007-K2J
- ⓑ :RHD30119-S
- ⓒ :RHD26046-L
- ⓓ :RHD30111-31
- ⓔ :RHD26043-1
- ⓕ :RHDX031008
- ⓖ :XTN2+6GFJ

10.2. Disassembly Flow Chart

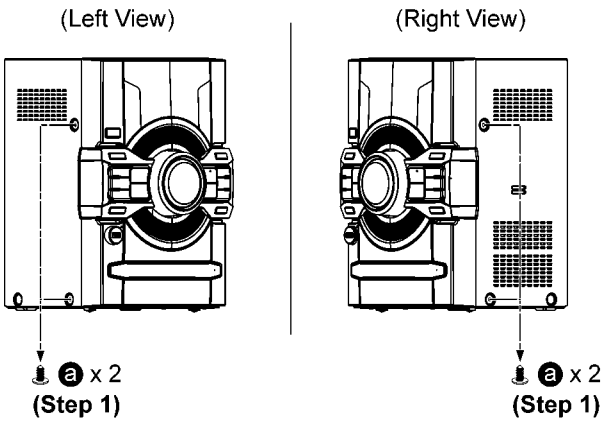


10.3. Main Components and P.C.B. Locations

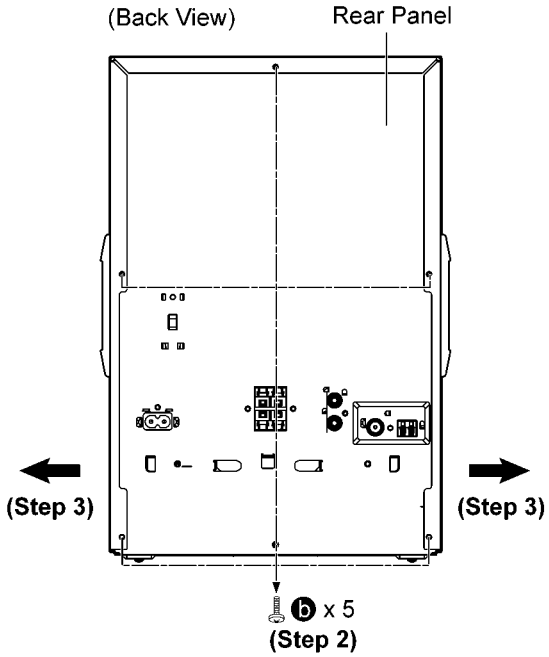


10.4. Disassembly of Top Cabinet

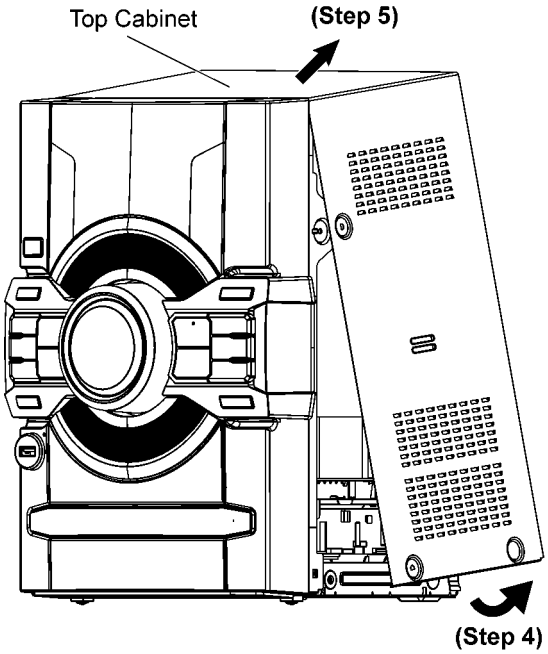
Step 1 Remove 2 screws on each side.



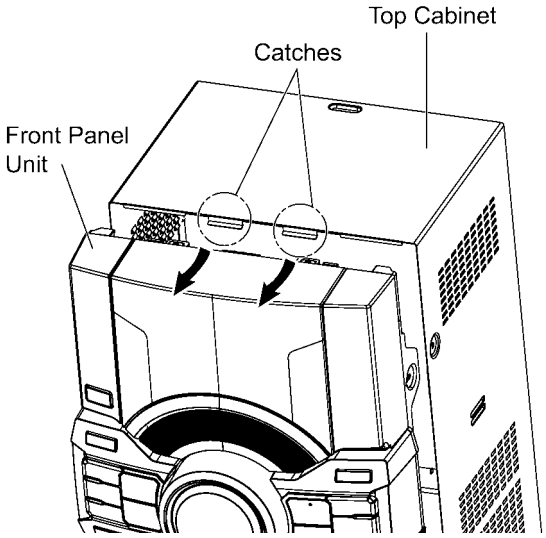
Step 2 Remove 5 screws.
Step 3 Release both sides of Top Cabinet outwards as arrow shown.



Step 4 Slightly lift up to remove the Top Cabinet.



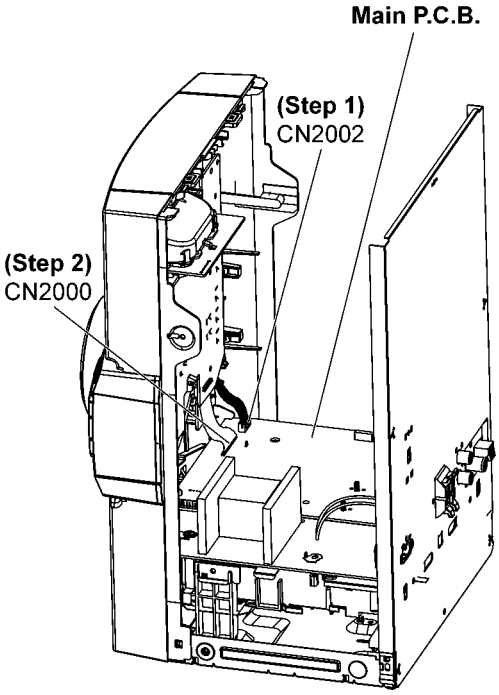
Caution: During assembling, ensure that the Top Cabinet is inserted properly into the Front Panel Unit as shown.



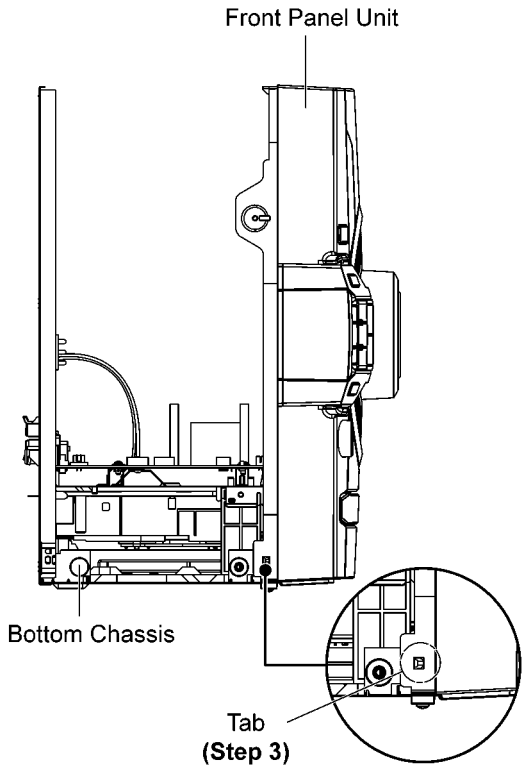
10.5. Disassembly of Front Panel Unit

- **Refer to "Disassembly of Top Cabinet".**

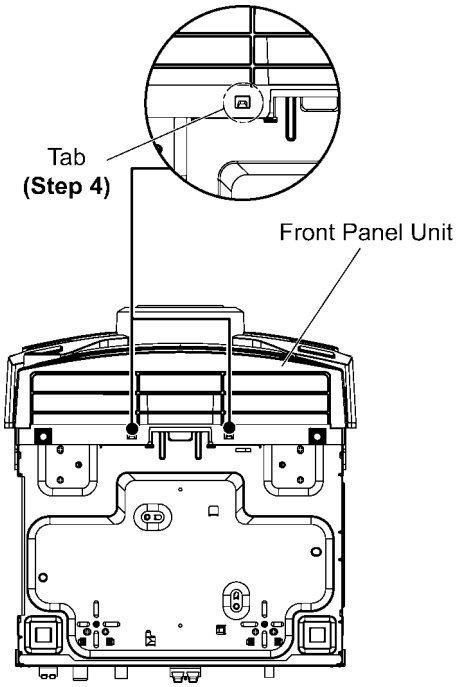
Step 1 Detach 5P Cable Wire at the connector (CN2002) on Main P.C.B.
Step 2 Detach 17P FFC at the connector (CN2000) on Main P.C.B.



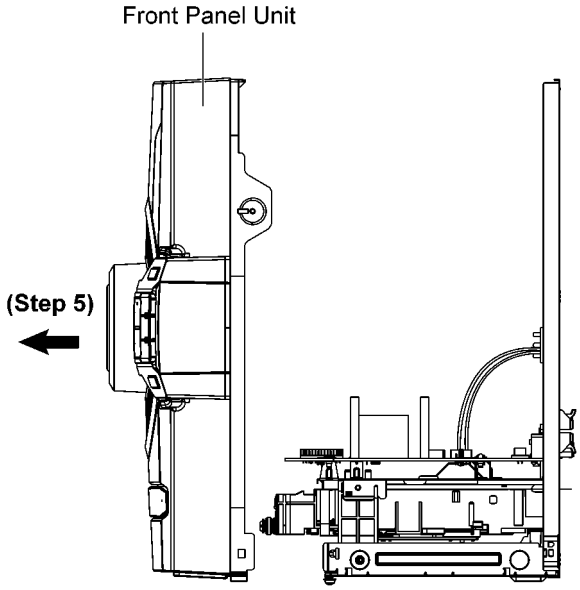
Step 3 Release tabs on both side of the Front Panel Unit.



Step 4 Release tabs at bottom of unit.



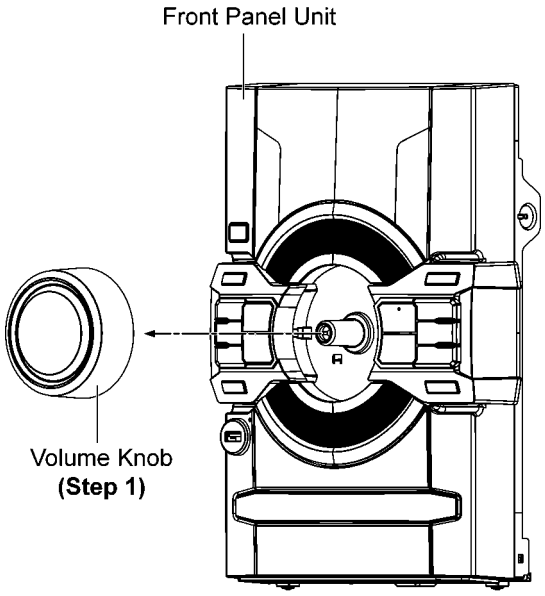
Step 5 Detach to remove the Front Panel Unit



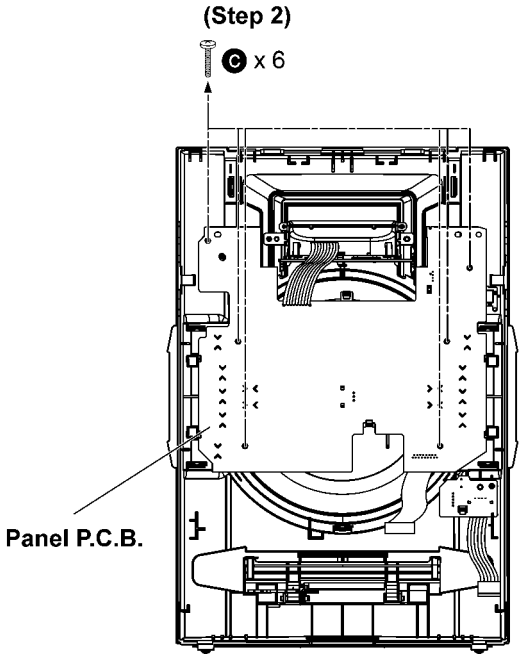
10.6. Disassembly of Panel P.C.B. and LCD P.C.B.

- **Refer to "Disassembly of Top Cabinet".**
- **Refer to "Disassembly of Front Panel Unit".**

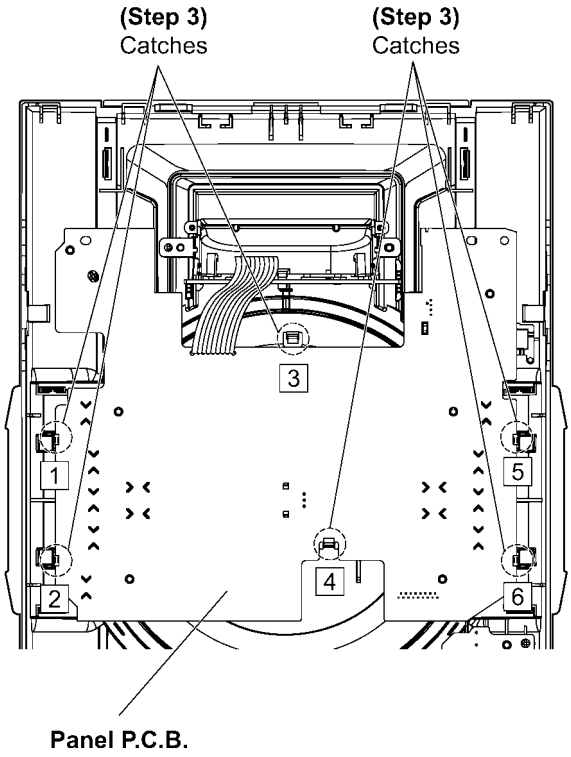
Step 1 Remove Volume Knob.



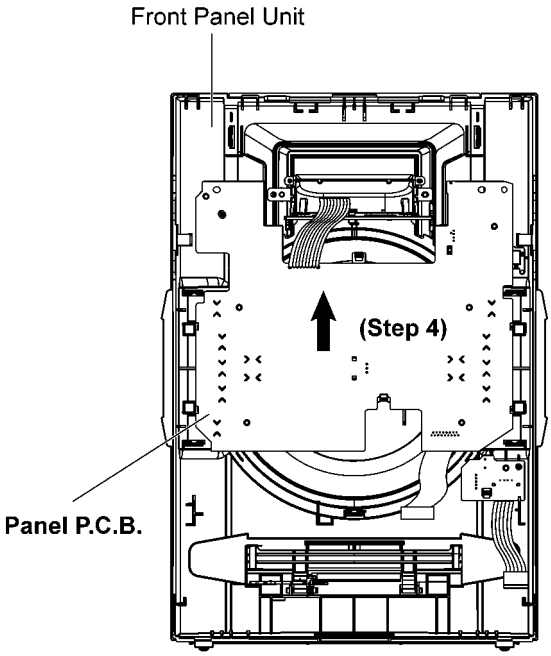
Step 2 Remove 6 screws.



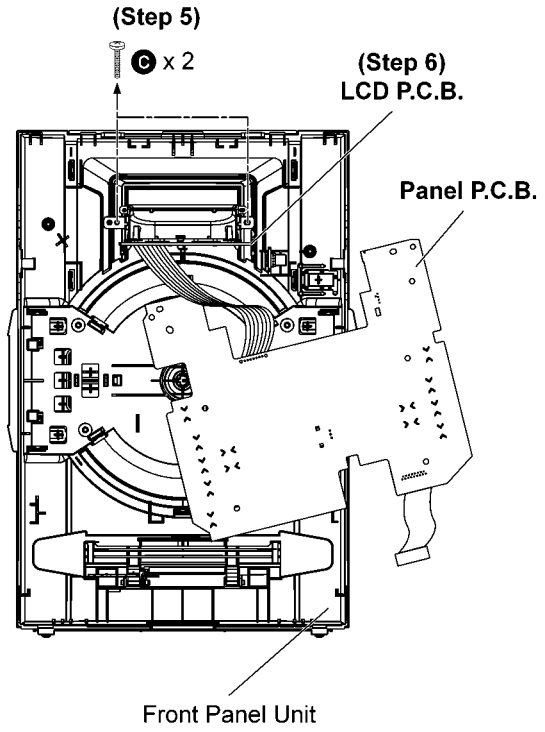
Step 3 Release catches in sequences (1-6).



Step 4 Slightly lift up Panel P.C.B.



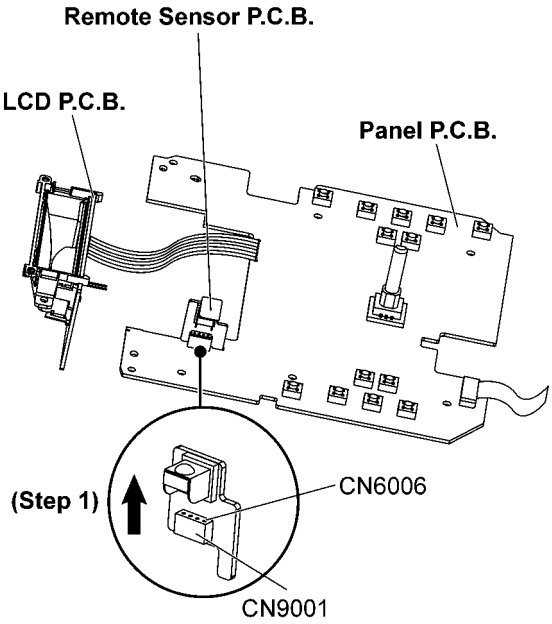
Step 5 Remove 2 screws.
Step 6 Remove the Panel P.C.B. and LCD P.C.B..



10.7. Disassembly of Remote Sensor P.C.B.

- **Refer to "Disassembly of Top Cabinet".**
- **Refer to "Disassembly of Front Panel Unit".**
- **Refer to "Disassembly of Panel P.C.B. and LCD P.C.B..**

Step 1 Remove Remote Sensor P.C.B.

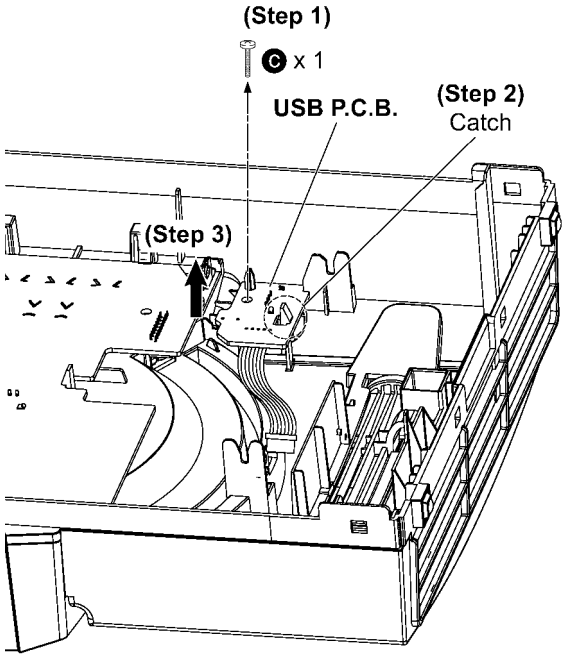


Caution: During assembling, ensure that the Remote Sensor P.C.B. is properly inserted & fully attached to Panel P.C.B.

10.8. Disassembly of USB P.C.B.

- **Refer to "Disassembly of Top Cabinet".**
- **Refer to "Disassembly of Front Panel Unit".**
- **Refer to "Disassembly of Panel P.C.B. and LCD P.C.B.**

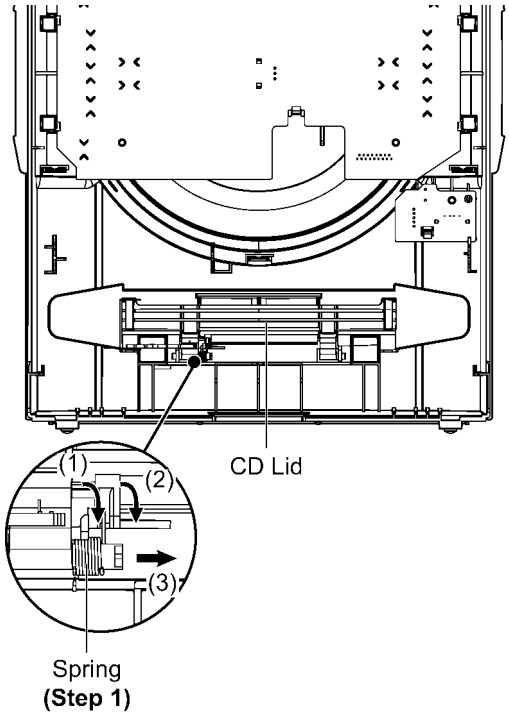
Step 1 Remove 1 screw.
Step 2 Remove 1 catch.
Step 3 Remove USB P.C.B..



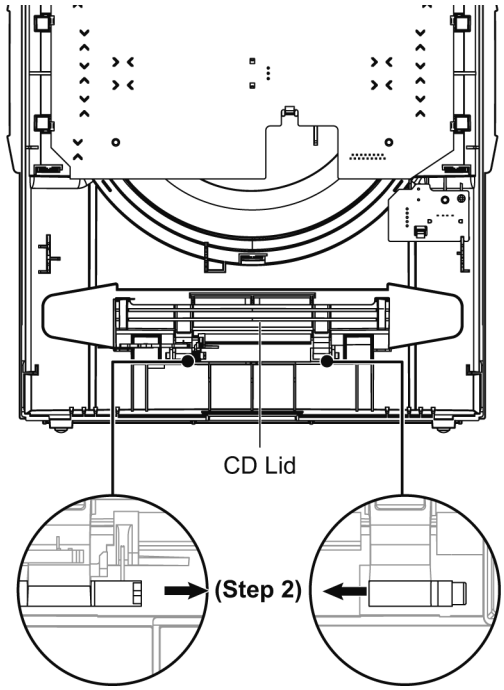
10.9. Disassembly of CD Lid

- **Refer to "Disassembly of Top Cabinet".**
- **Refer to "Disassembly of Front Panel Unit".**

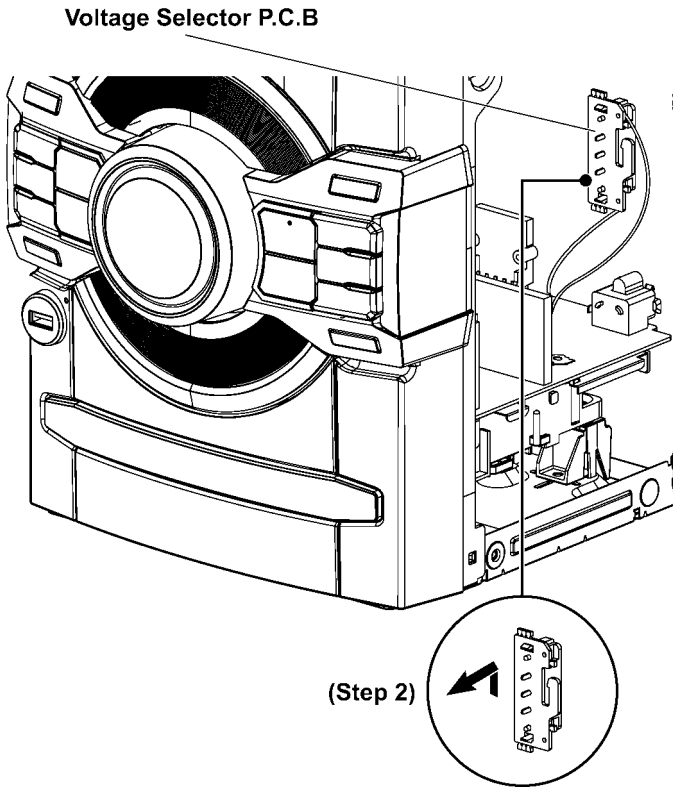
Step 1 Remove the spring in order of sequence (1) to (3).



Step 2 Remove CD Lid.



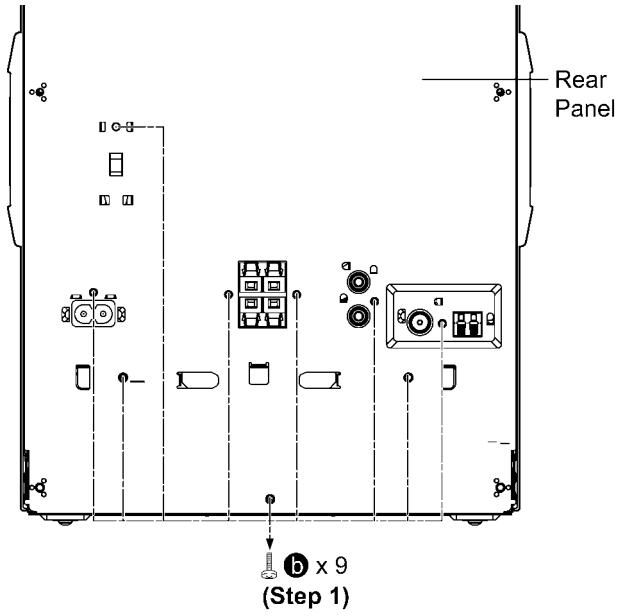
Step 2 Detach Voltage Selector P.C.B..



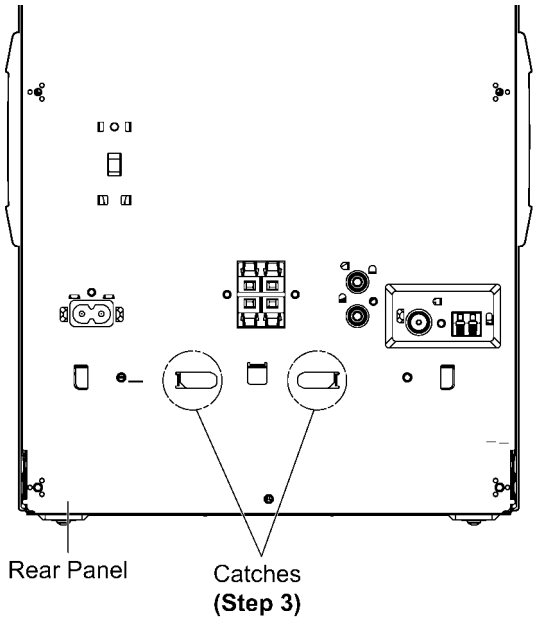
10.10. Disassembly of Rear Panel.

- **Refer to "Disassembly of Top Cabinet".**

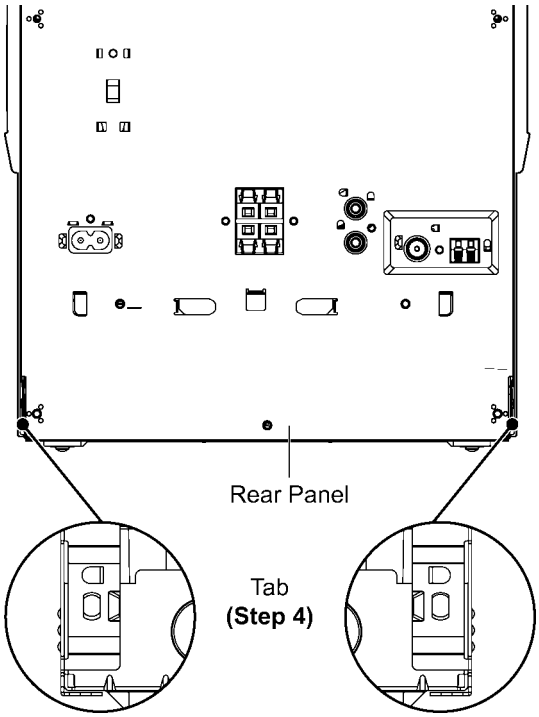
Step 1 Remove 9 screws.



Step 3 Lift up Inner Chassis Unit to release the catches between the Inner Chassis Unit and the Rear Panel.



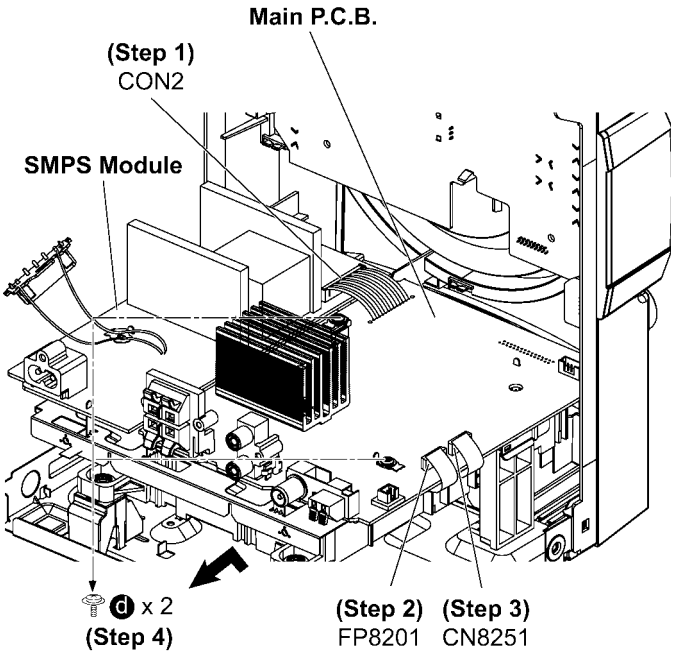
Step 4 Release 2 tabs.
Step 5 Release Rear Panel.



10.11. Disassembly of Main P.C.B.

- **Refer to "Disassembly of Top Cabinet".**
- **Refer to "Disassembly of Rear Panel".**

Step 1 Detach 13P Cable Wire at the connector (CON2) on SMPS P.C.B..
Step 2 Detach 24P FFC at the connector (FP8201) on Main P.C.B..
Step 3 Detach 10P FFC at the connector (CN8251) on Main P.C.B..
Step 4 Remove 2 screws.

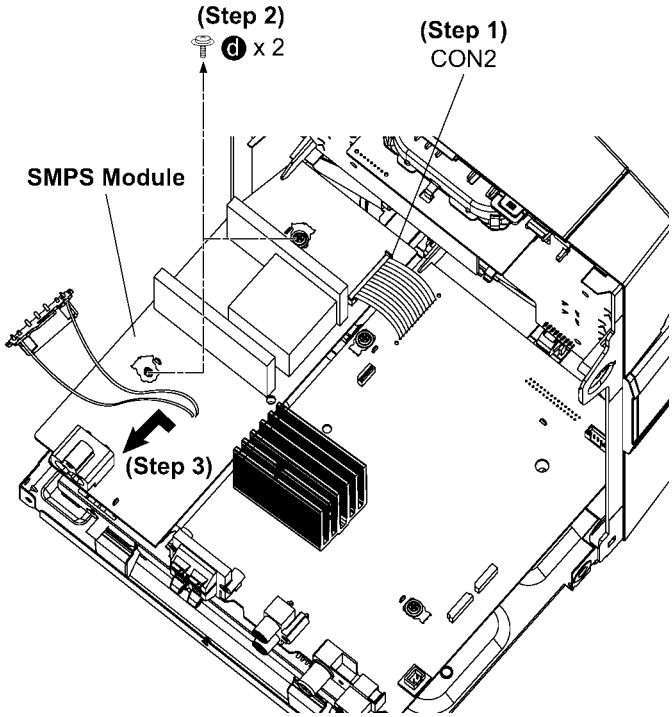


Step 5 Remove the Main P.C.B. from Bottom Chassis according to arrow shown.

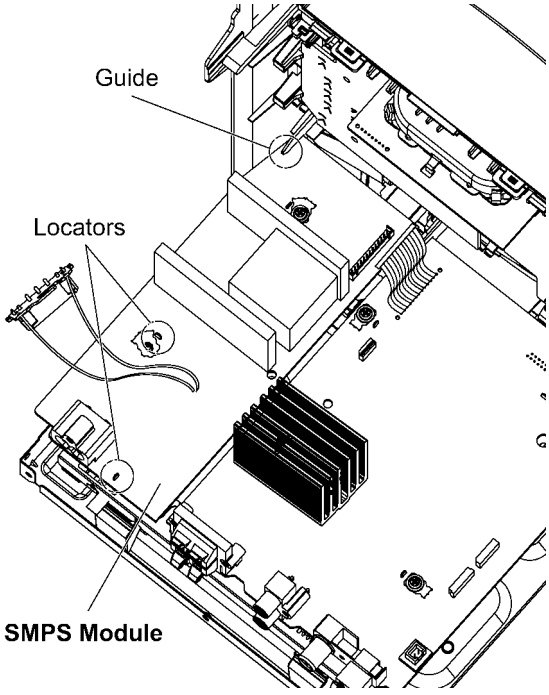
10.12. Disassembly of SMPS Module and Voltage Selector P.C.B.

- **Refer to "Disassembly of Top Cabinet".**
- **Refer to "Disassembly of Rear Panel".**

Step 1 Detach 13P Cable Wire at the connector (CON2) on SMPS Module.
Step 2 Remove 2 screws.
Step 3 Remove SMPS Module and Voltage Selector P.C.B..



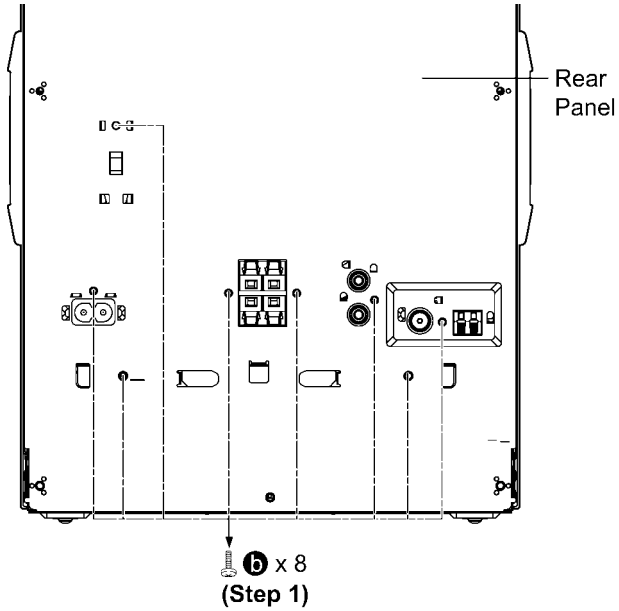
Caution: During assembling, ensure that SMPS Module is seated properly through the located & fully guided.



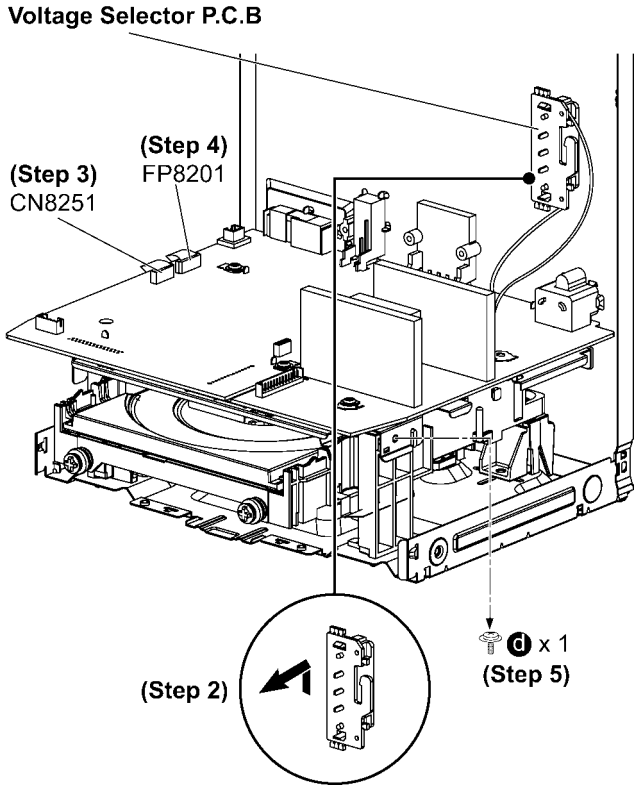
10.13. Disassembly of CD Mechanism Unit

- **Refer to “Disassembly of Top Cabinet”.**
- **Refer to “Disassembly of Front Panel Unit”.**

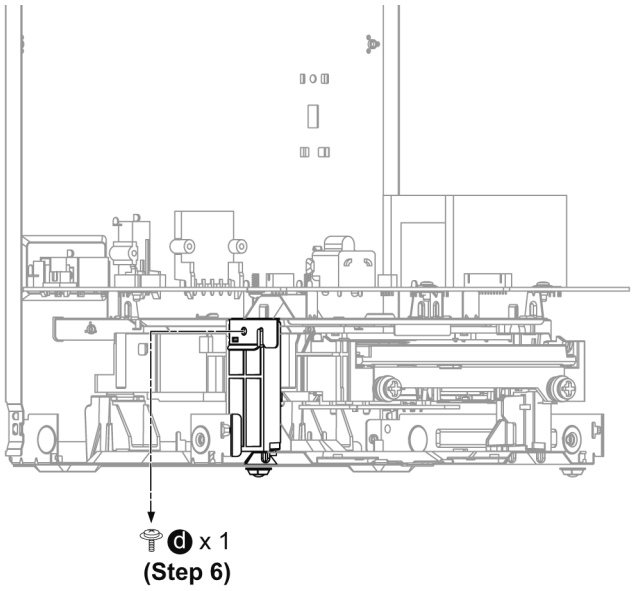
Step 1 Remove 8 screws.



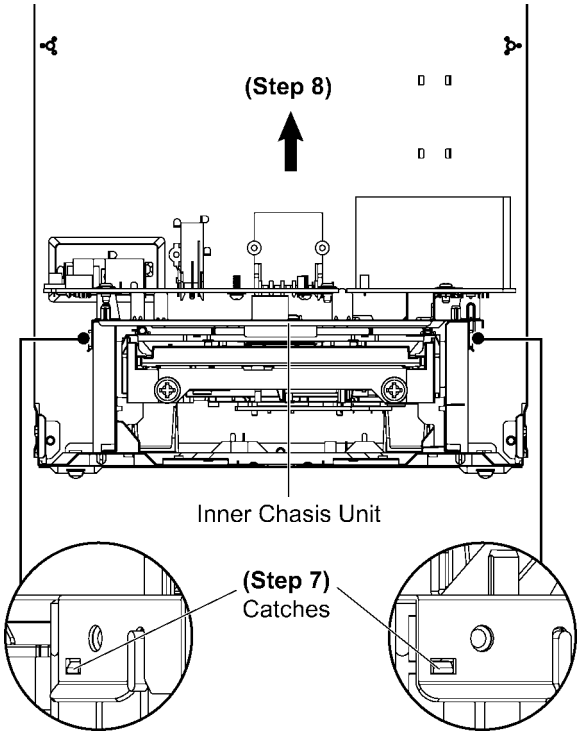
Step 2 Detach Voltage Selector P.C.B. from Rear Panel as arrow shown..
Step 3 Detach 10P FFC at a connector (CN8251) on Main P.C.B..
Step 4 Detach 24P FFC at a connector (FP8201) on Main P.C.B..
Step 5 Remove 1 screw.



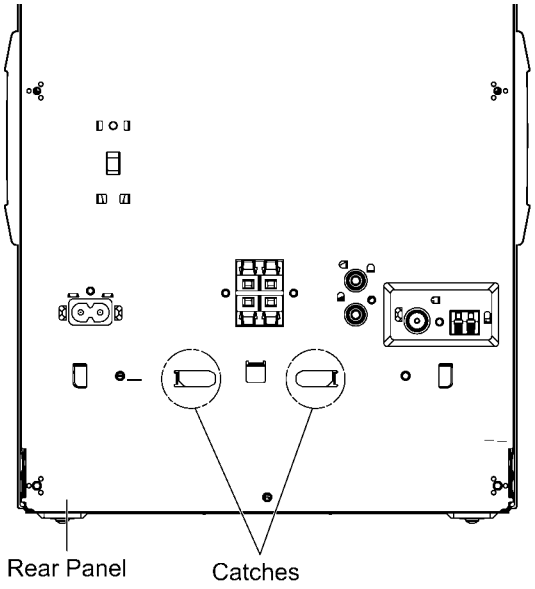
Step 6 Remove 1 screw.



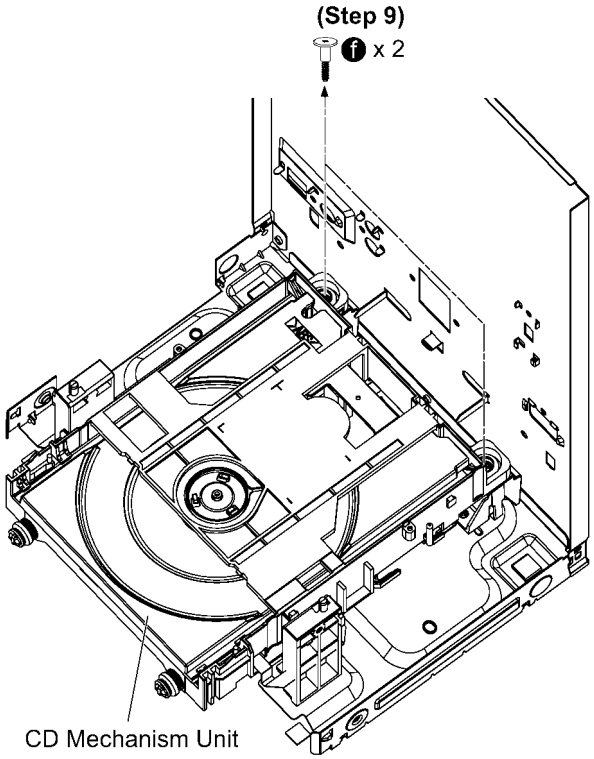
Step 7 Release 2 catches.
Step 8 Lift up and remove the Inner Chassis Unit..



Caution: During assembling, ensure that Inner Chassis Unit is catched onto Rear Panel properly.



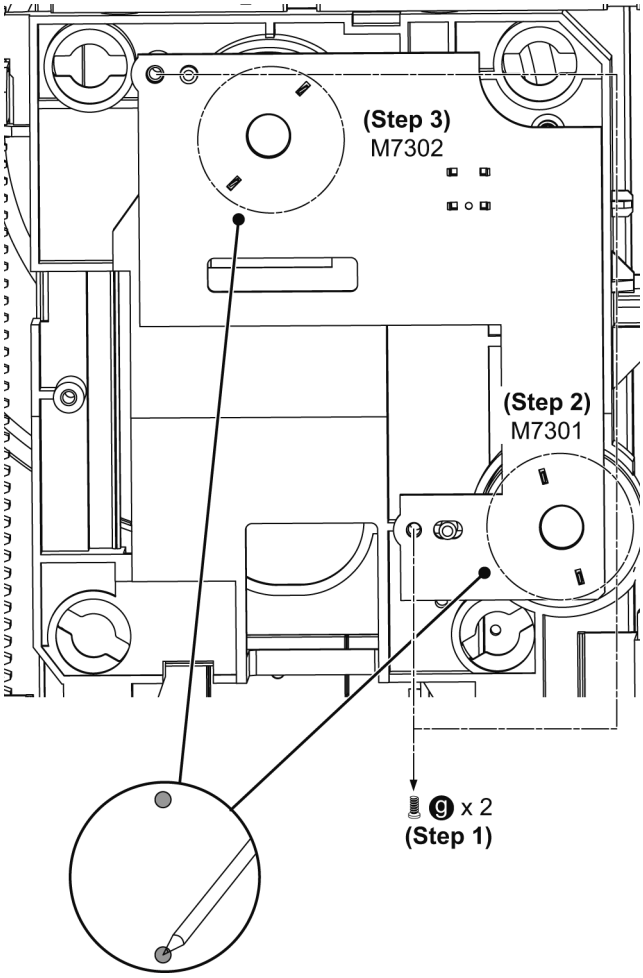
Step 9 Remove 2 screws.
Step 10 Remove CD Mechanism Unit.



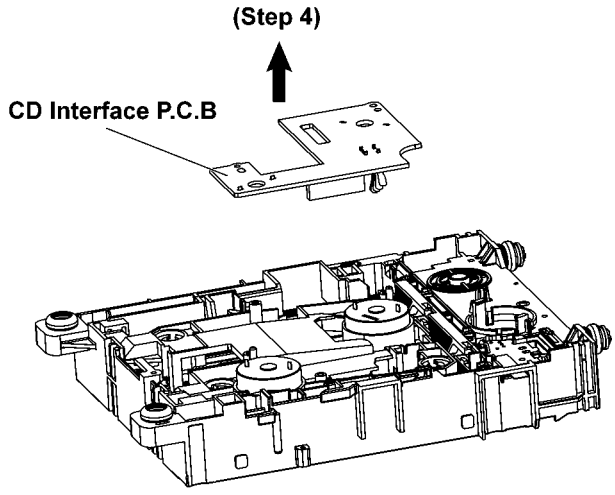
10.14. Disassembly of CD Interface P.C.B.

- **Refer to "Disassembly of Top Cabinet".**
- **Refer to "Disassembly of Front Panel Unit".**
- **Refer to "Disassembly of CD Mechanism Unit".**

Step 1 Remove 2 screws.
Step 2 Desolder pins of the motor (M7301).
Step 3 Desolder pins of the motor (M7302).



Step 4 Remove CD Interface P.C.B..

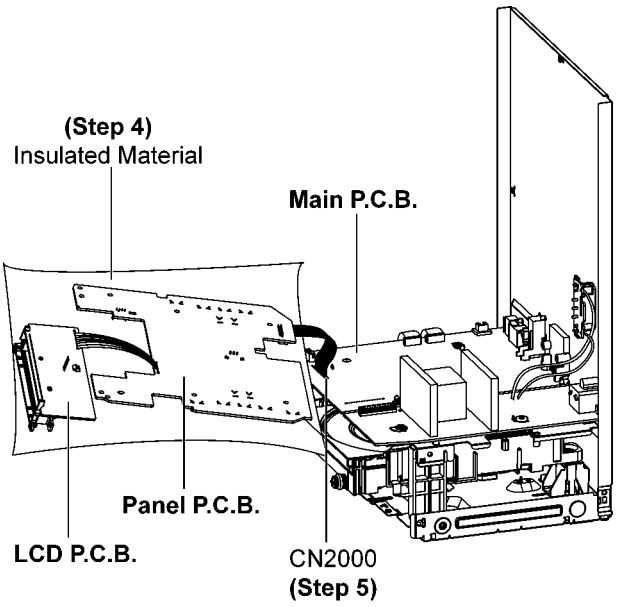


11 Service Position

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

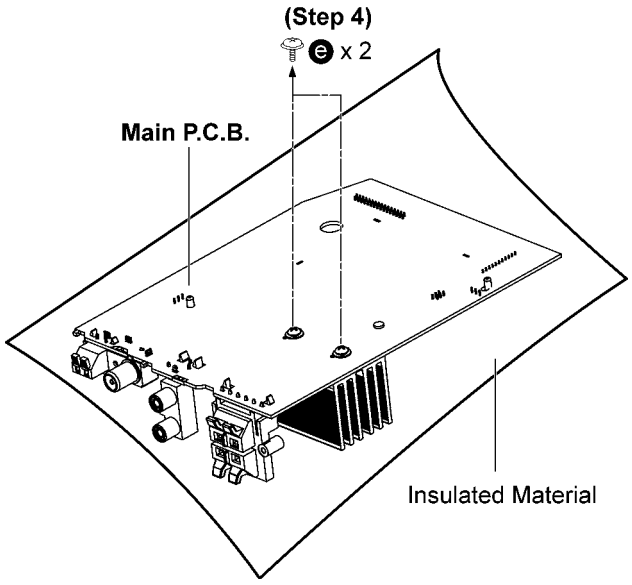
11.1. Checking of Panel P.C.B. and LCD P.C.B.

Step 1 Remove Top Cabinet.
Step 2 Remove Front Panel Unit.
Step 3 Remove the Panel P.C.B. and the LCD P.C.B..
Step 4 Positioned the Panel P.C.B. and LCD P.C.B. on the insulated material as shown.
Step 5 Attach 17P FFC at a connector (CN2000) on the Main P.C.B..
Step 6 Panel P.C.B. and LCD P.C.B. can be checked at diagram shown.

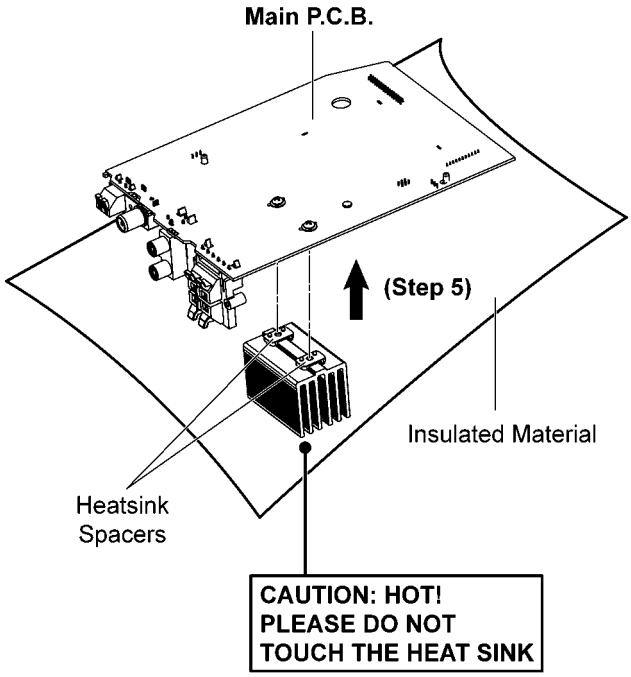


11.2. Checking and Repairing of Main P.C.B. (Side B)

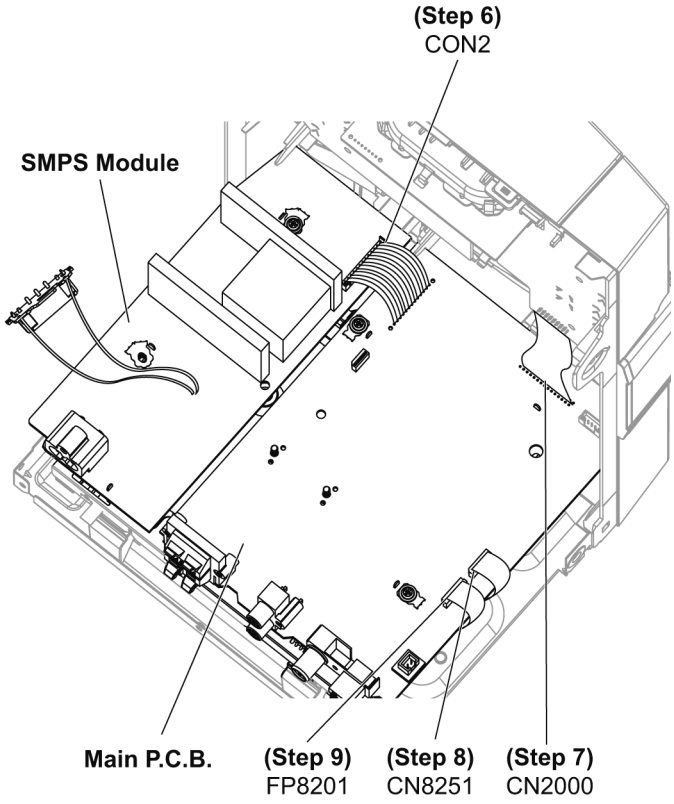
Step 1 Remove Top Cabinet.
Step 2 Remove Rear Panel.
Step 3 Remove Main P.C.B..
Step 4 Remove 2 screws.



Step 5 Lift up the Main P.C.B. as arrow shown.

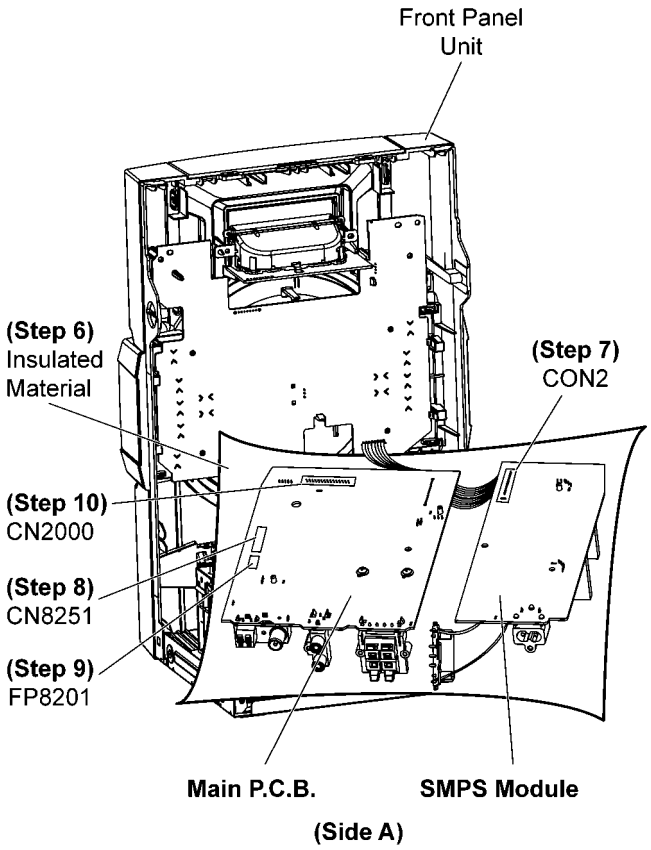


Step 6 Attach 13P Cable at a connector (CON2) on the SMPS Module.
Step 7 Attach 17P FFC at a connector (CN2000) on the Main P.C.B..
Step 8 Attach 10P FFC at a connector (CN8251) on the main P.C.B..
Step 9 Attach 24P FFC at a connector (FP8201) on the Main P.C.B..
Step 10 Side B Main P.C.B. can be checked at diagram shown.



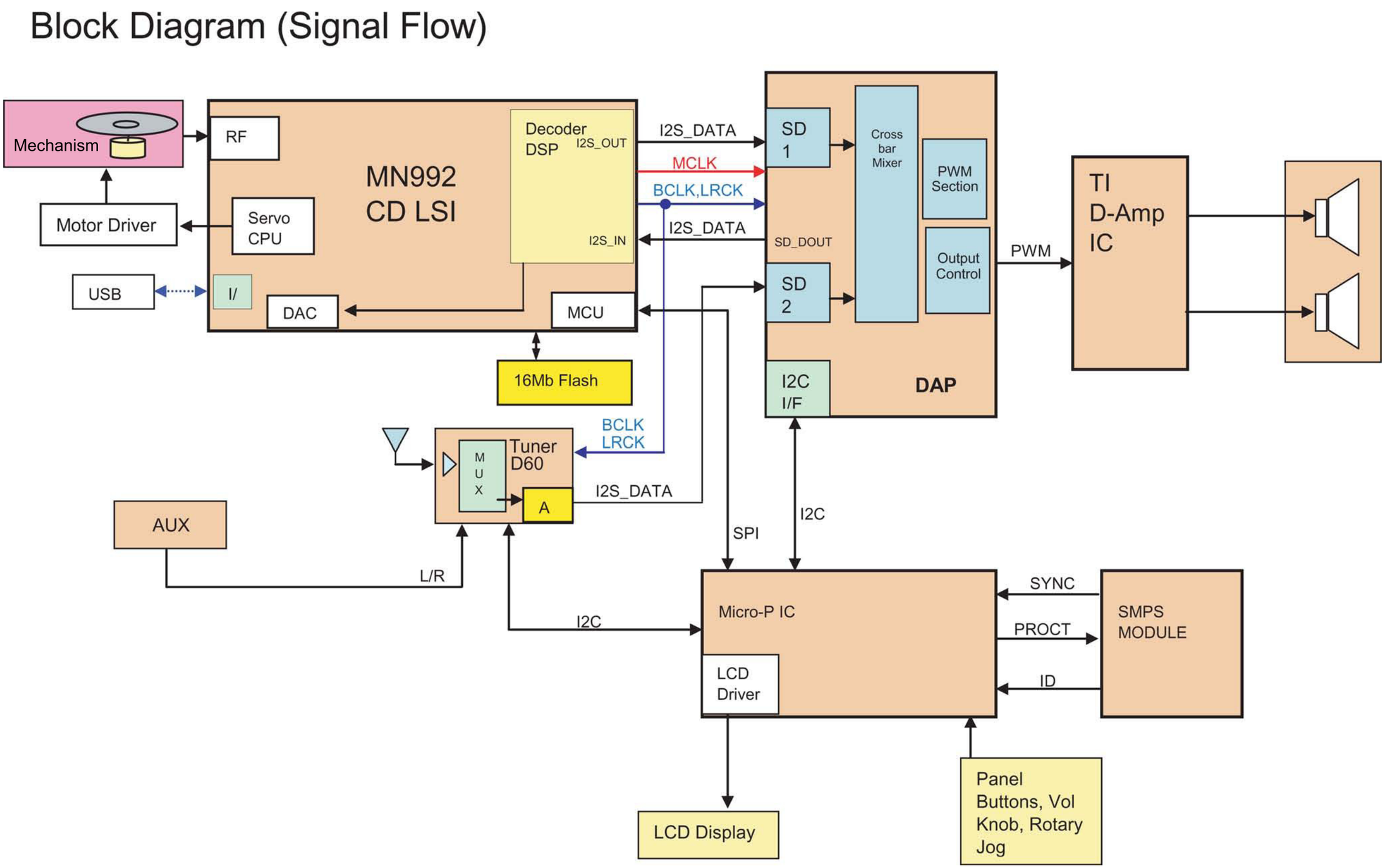
11.3. Checking and Repairing of Main P.C.B. (Side A)

Step 1 Remove Top Cabinet.
Step 2 Remove Front Panel Unit.
Step 3 Remove Rear Panel.
Step 4 Remove Main P.C.B..
Step 5 Remove SMPS Module and Voltage Selector P.C.B..
Step 6 Positioned the Main P.C.B., SMPS Module and the Voltage Selector P.C.B. on the insulated material.
Step 7 Attach 13P Cable at a connector (CON2) on the SMPS Module.
Step 8 Attach 10P FFC at a connector (CN8251) on the main P.C.B..
Step 9 Attach 24P FFC at a connector (FP8201) on the Main P.C.B..
Step 10 Attach 17P FFC at a connector (CN2000) on the Main P.C.B..
Step 11 Side A Main P.C.B. can be checked at diagram shown.



(Side A)

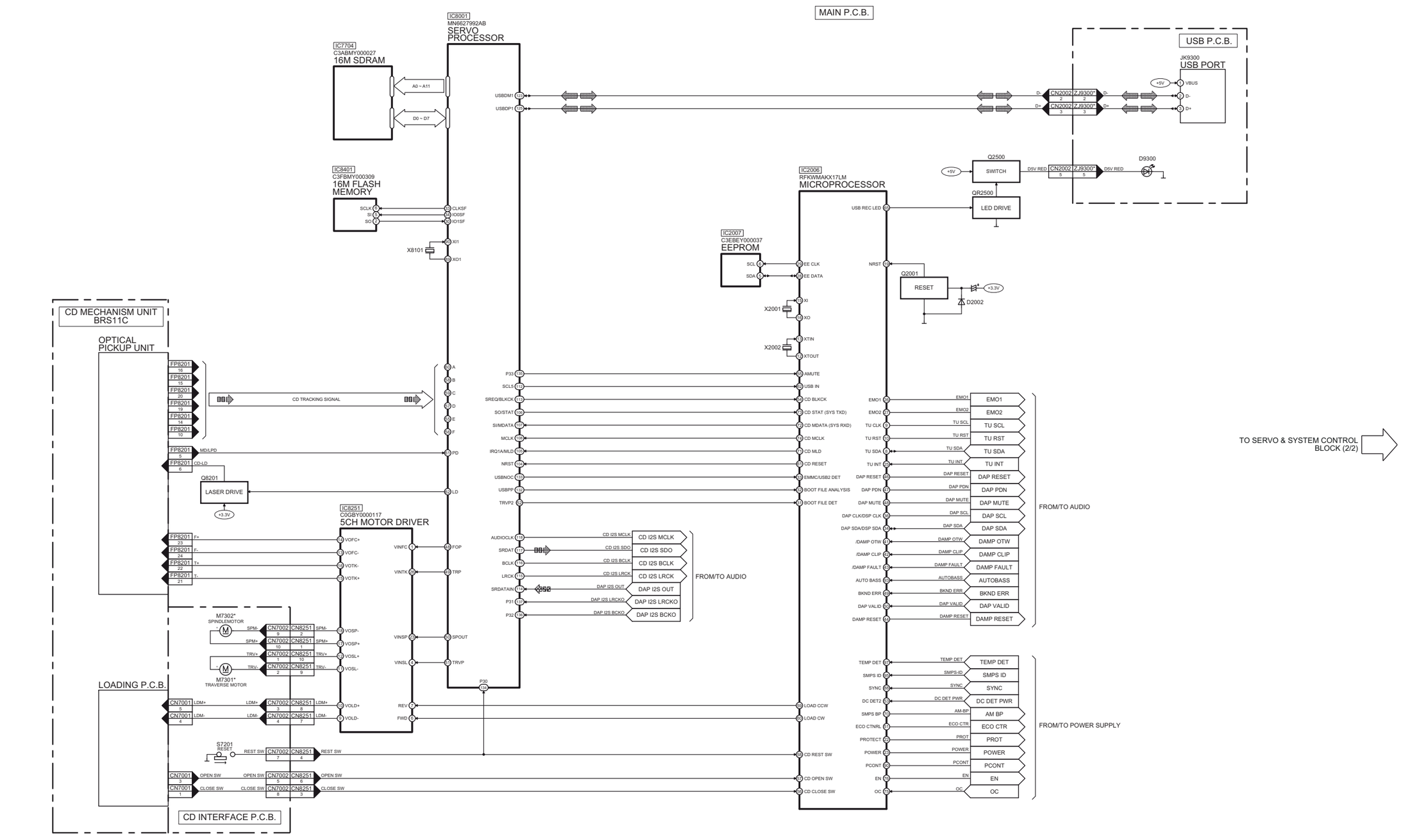
12 Simplified Block Diagram



13 Block Diagram

13.1. Servo & System Control

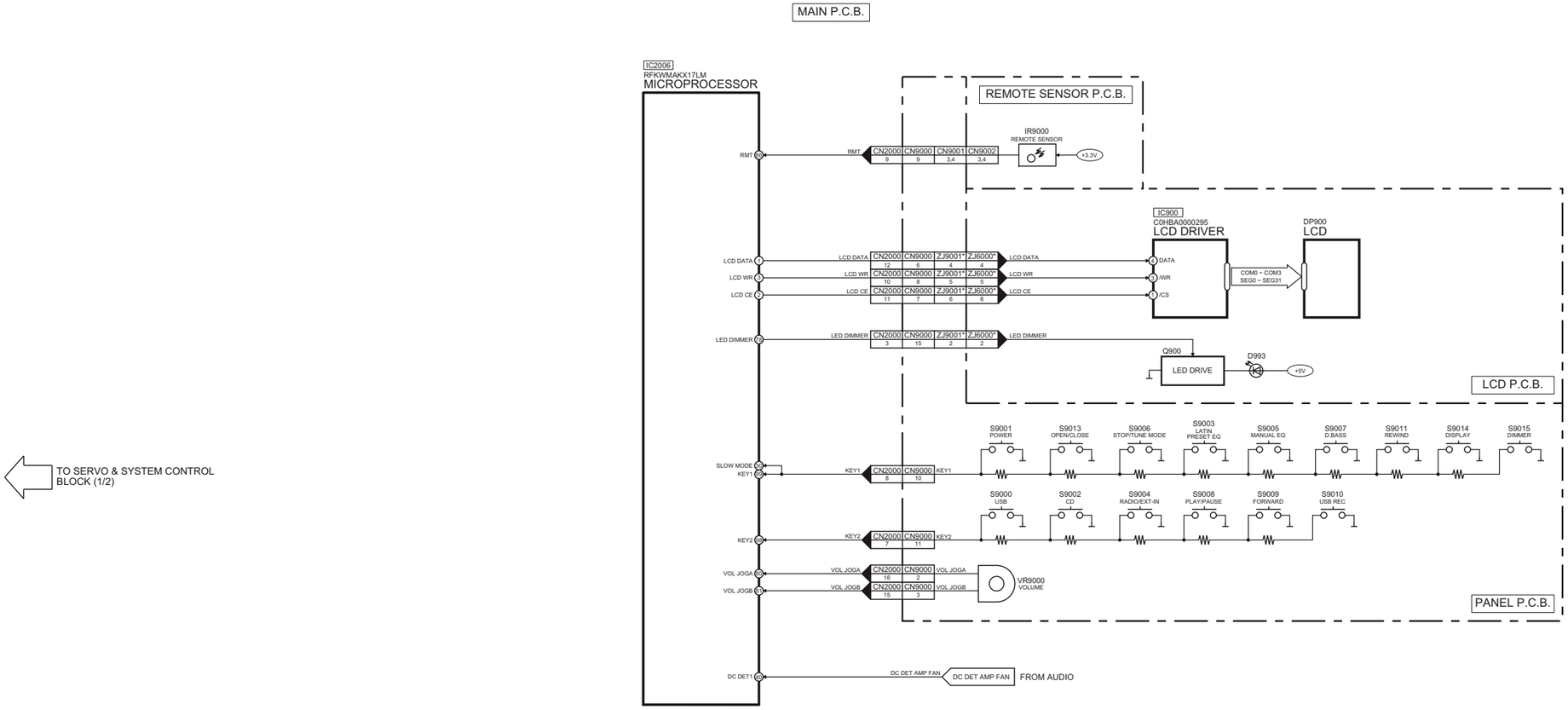
: CD AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : USB SIGNAL LINE



NOTE: " * " REF IS FOR INDICATION ONLY

SA-AKX17PH/PN SERVO & SYSTEM CONTROL (1/2) BLOCK DIAGRAM

: CD AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : USB SIGNAL LINE



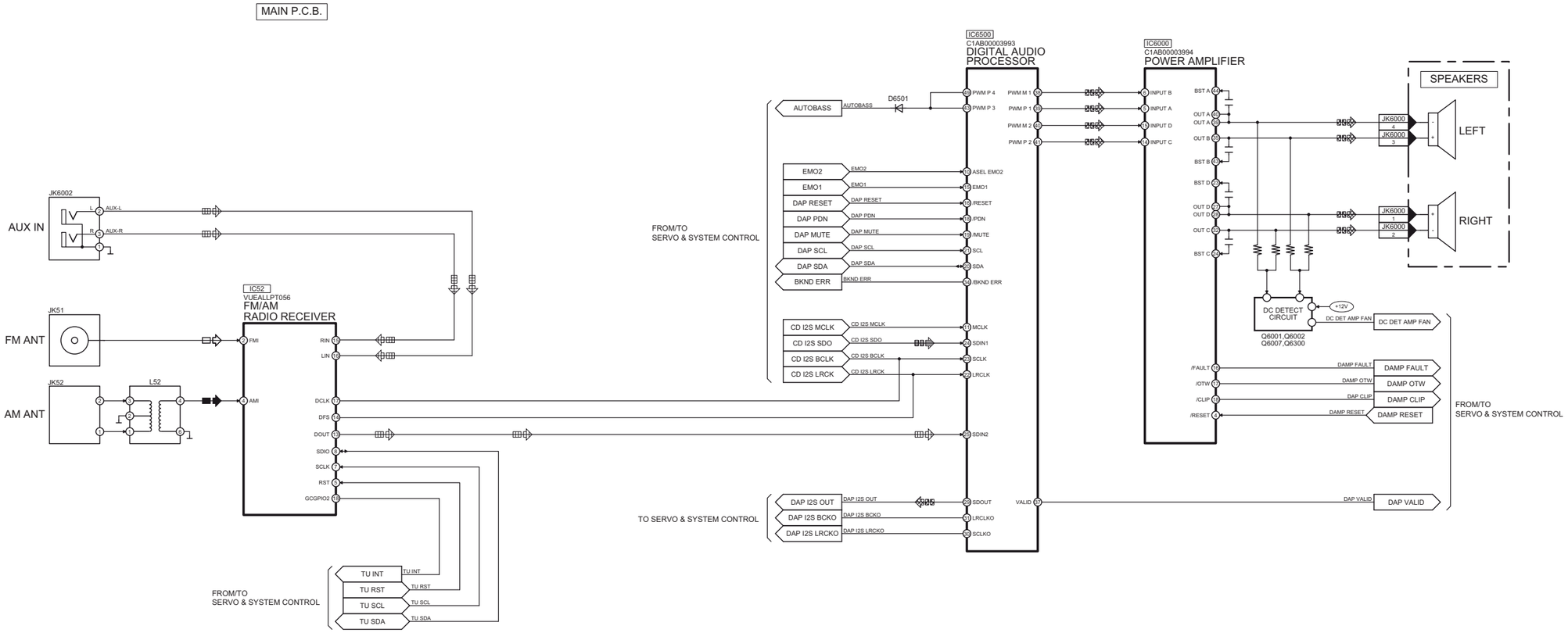
TO SERVO & SYSTEM CONTROL BLOCK (1/2)

NOTE: “ * ” REF IS FOR INDICATION ONLY

SA-AKX17PH/PN SERVO & SYSTEM CONTROL (2/2) BLOCK DIAGRAM

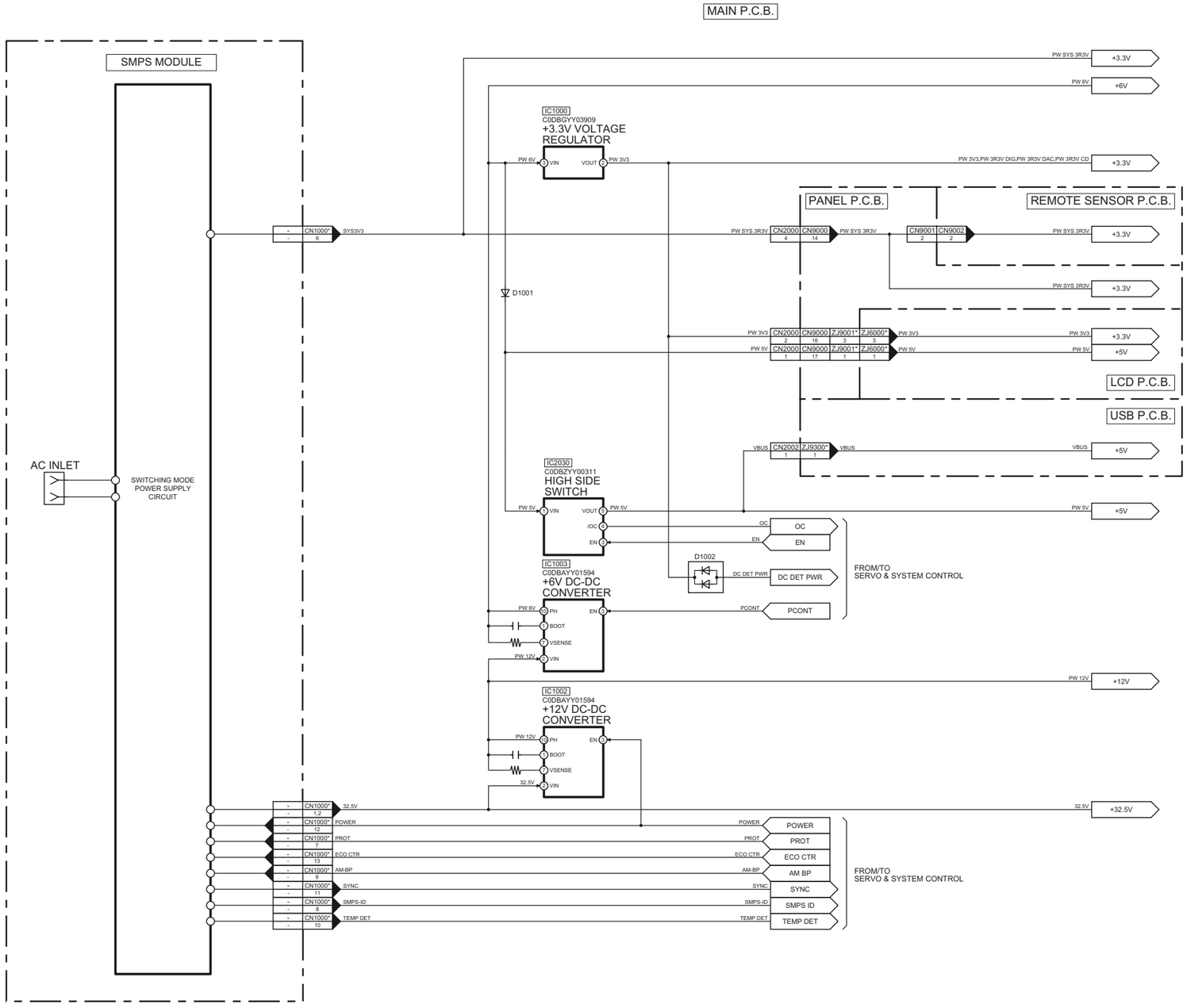
13.2. Audio

: CD AUDIO INPUT SIGNAL LINE : AUX/TUNER AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : AM SIGNAL LINE : FM SIGNAL LINE



SA-AKX17PH/PN AUDIO BLOCK DIAGRAM

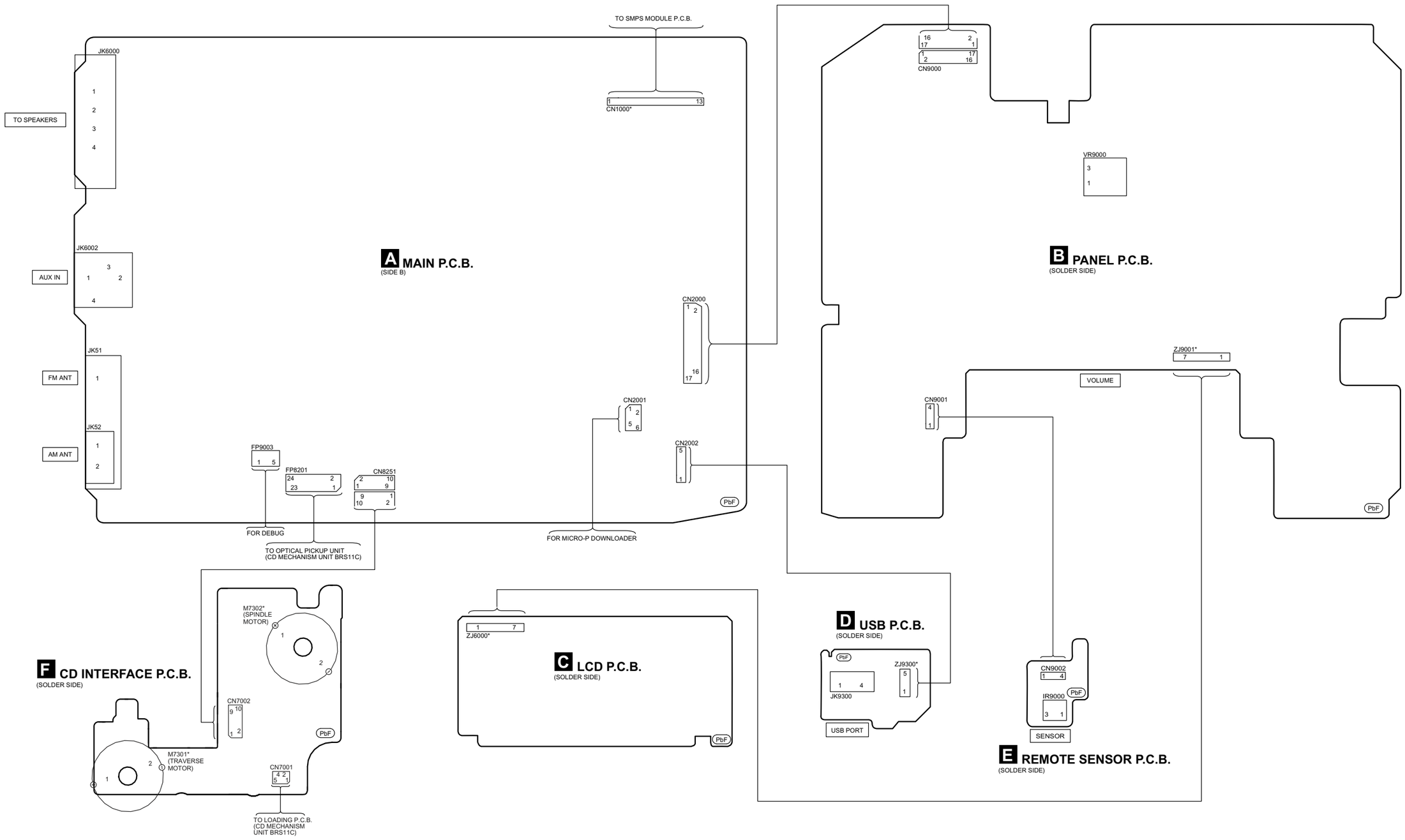
13.3. Power Supply



NOTE: “ * ” REF IS FOR INDICATION ONLY

SA-AKX17PH/PN POWER SUPPLY BLOCK DIAGRAM

14 Wiring Connection Diagram



NOTE: " * " REF IS FOR INDICATION ONLY.

SA-AKX17PH/PN WIRING CONNECTION DIAGRAM

15 Schematic Diagram

15.1. Schematic Diagram Notes

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

Notes:

S7201:	Reset switch
S9000:	USB switch.
S9001:	Power switch (⏻/I).
S9002:	CD switch.
S9003:	Latin Preset EQ switch.
S9004:	Radio/EXT-IN switch.
S9005:	Manual EQ switch.
S9006:	Stop (■) / Tune Mode switch.
S9007:	D.BASS switch.
S9008:	Play/Pause (▶/❚❚) switch.
S9009:	Forward (▶▶/▶▶|) switch.
S9011:	Rewind (|◀◀/◀◀) switch.
S9013:	Open/Close switch (⏏).
VR6001:	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.

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

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

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

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

- Voltage and signal line

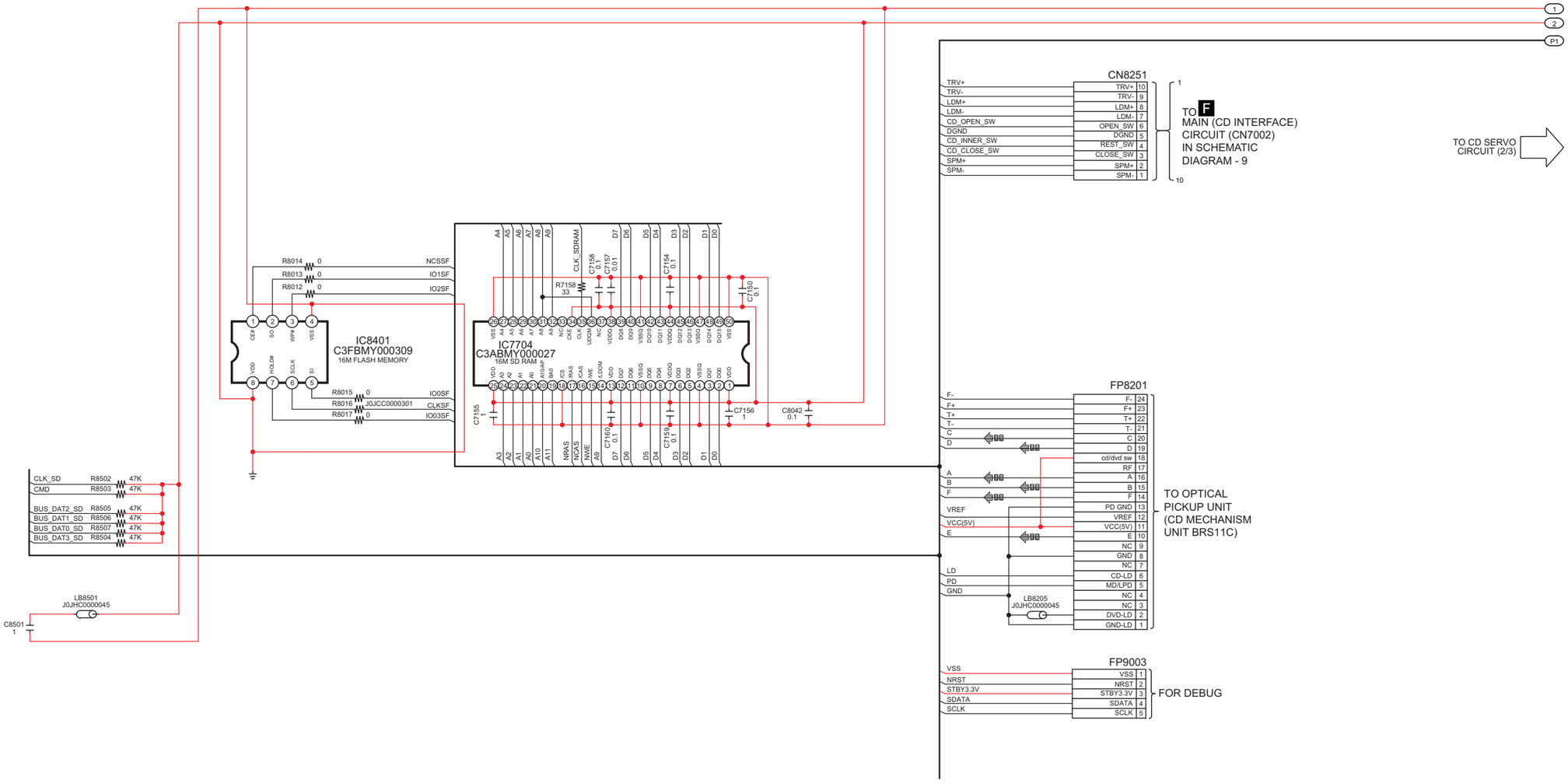
  : +B signal line
  : CD Audio input signal line
  : AUX/Tuner Audio input signal line
  : Audio output signal line
  : USB signal line
  : AM signal line
  : FM signal line

15.2. MAIN (CD Servo) Circuit

SCHEMATIC DIAGRAM - 1

A MAIN (CD SERVO) CIRCUIT

: +B SIGNAL LINE : CD AUDIO INPUT SIGNAL LINE

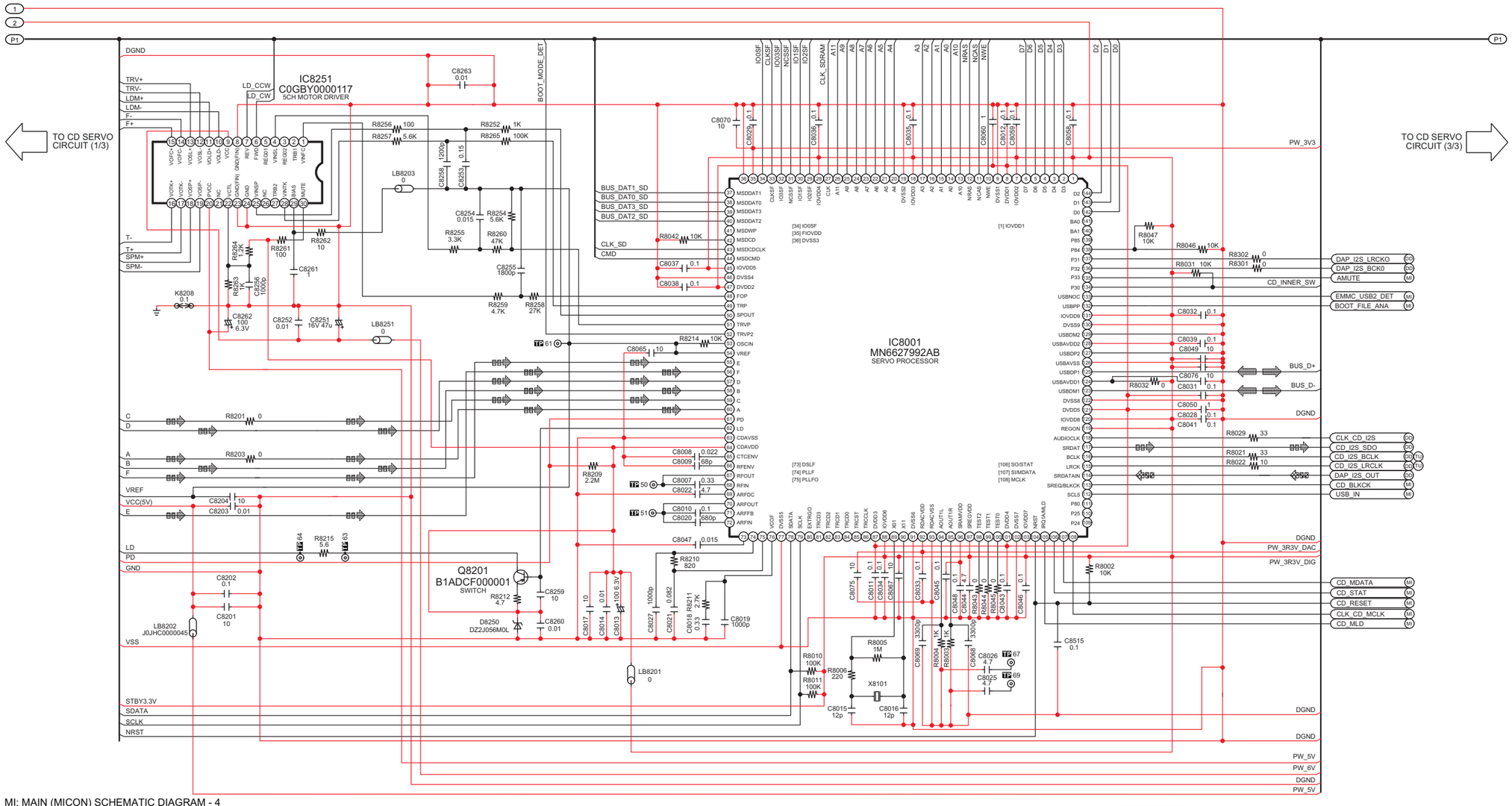


1/3 | 2/3 | 3/3 SA-AKX17PH/PN MAIN (CD SERVO) CIRCUIT

SCHEMATIC DIAGRAM - 2

A MAIN (CD SERVO) CIRCUIT

: +B SIGNAL LINE : CD AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : USB SIGNAL LINE

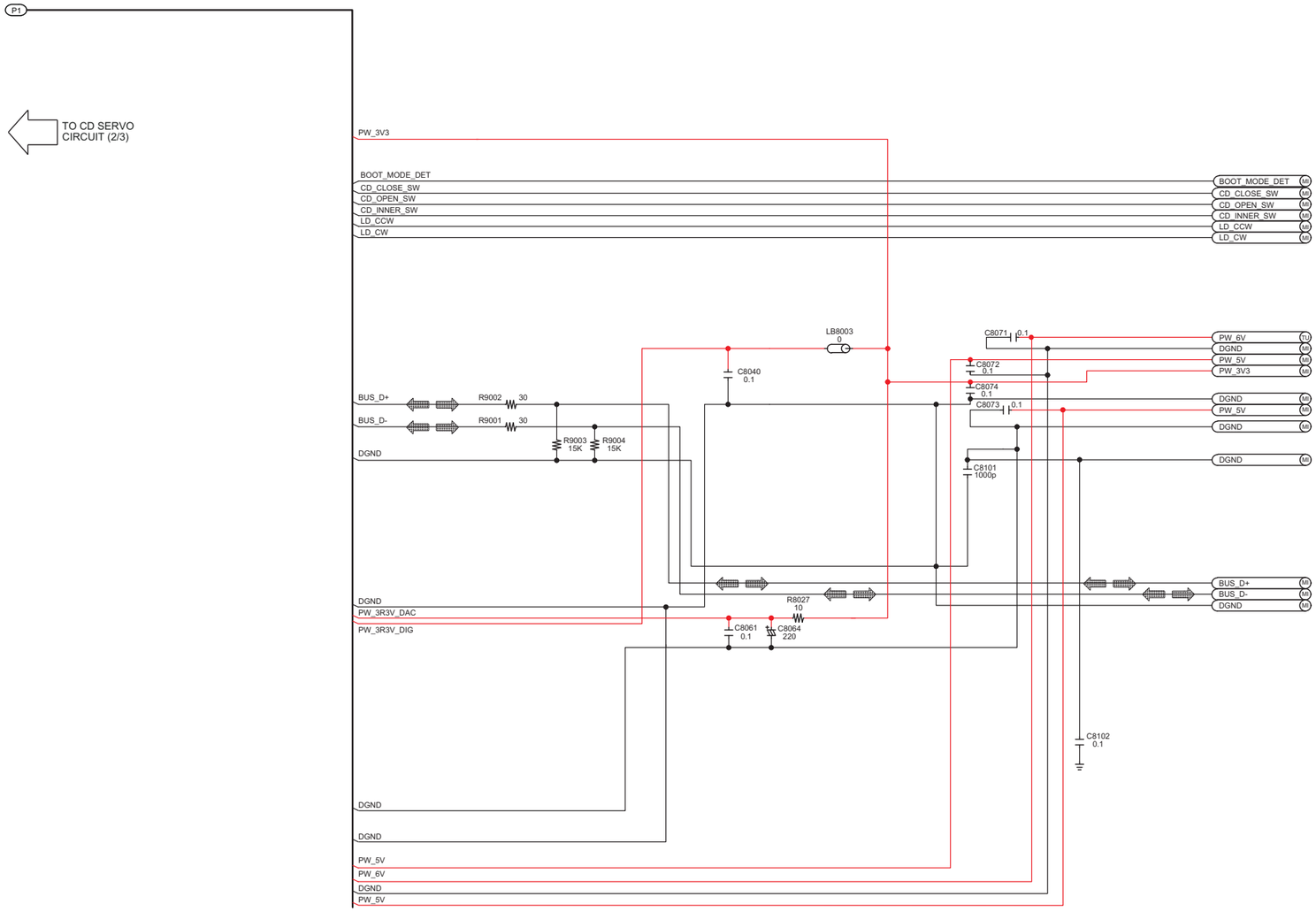


MI: MAIN (MICON) SCHEMATIC DIAGRAM - 4
DD: MAIN (DAP_DSP) SCHEMATIC DIAGRAM - 6
TU: MAIN (TUNER_AUX) SCHEMATIC DIAGRAM - 7

SCHEMATIC DIAGRAM - 3

A MAIN (CD SERVO) CIRCUIT

: +B SIGNAL LINE : USB SIGNAL LINE

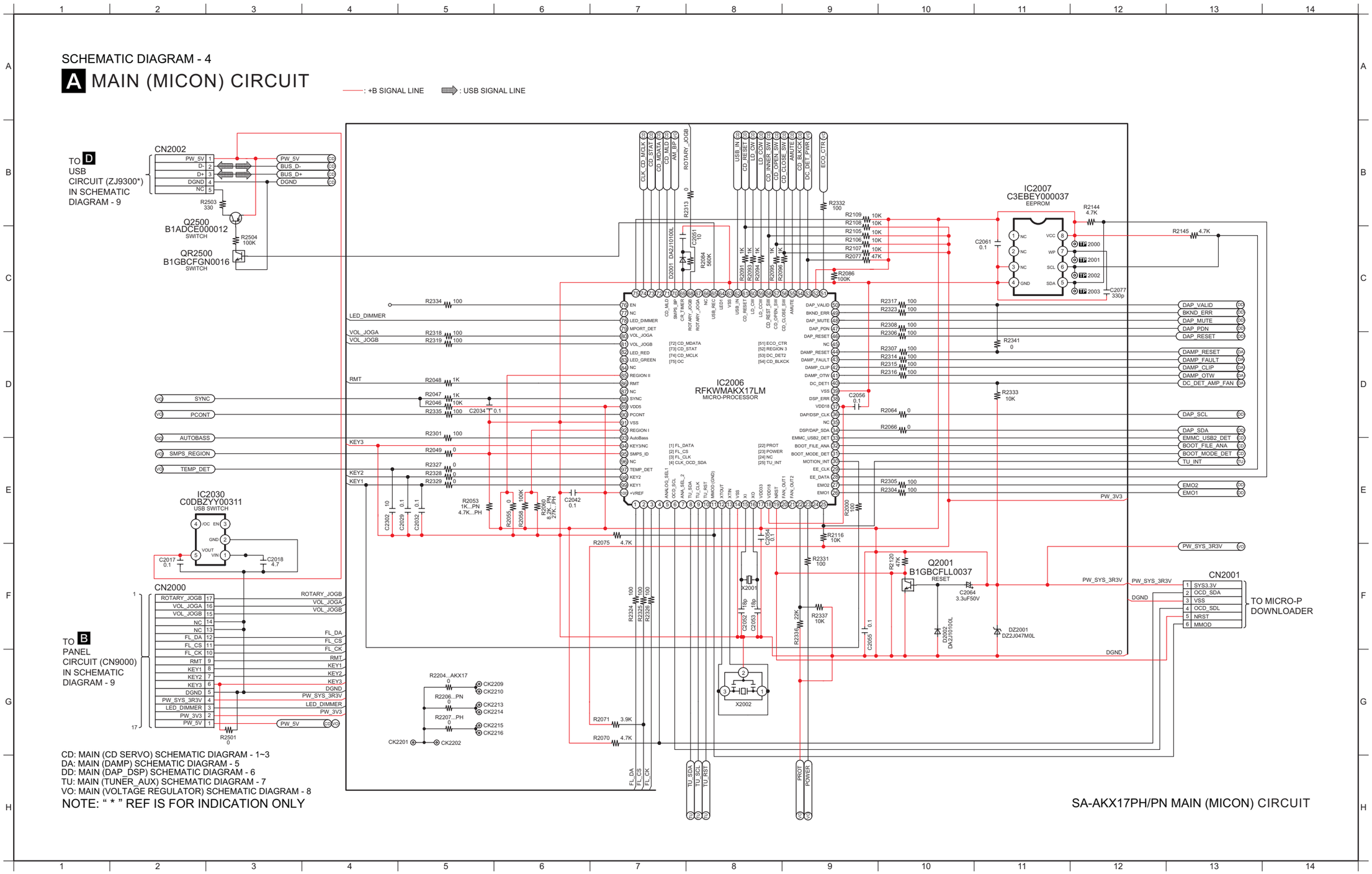


MI: MAIN (MICON) SCHEMATIC DIAGRAM - 4
TU: MAIN (TUNER_AUX) SCHEMATIC DIAGRAM - 7

1/3 | 2/3 | 3/3

SA-AKX17PH/PN MAIN (CD SERVO) CIRCUIT

15.3. MAIN (Micon) Circuit

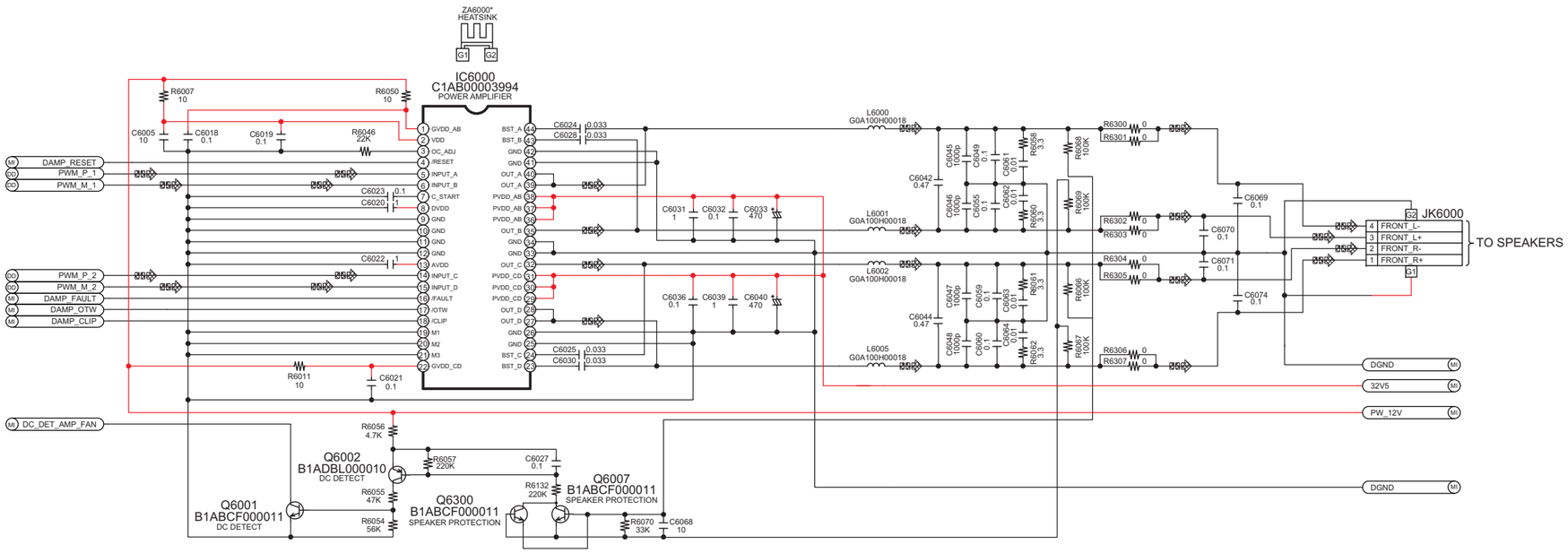


15.4. MAIN (Damp) Circuit

SCHEMATIC DIAGRAM - 5

A MAIN (DAMP) CIRCUIT

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



MI: MAIN (MICON) SCHEMATIC DIAGRAM - 4
DD: MAIN (DAP_DSP) SCHEMATIC DIAGRAM - 6

NOTE: " * " REF IS FOR INDICATION ONLY

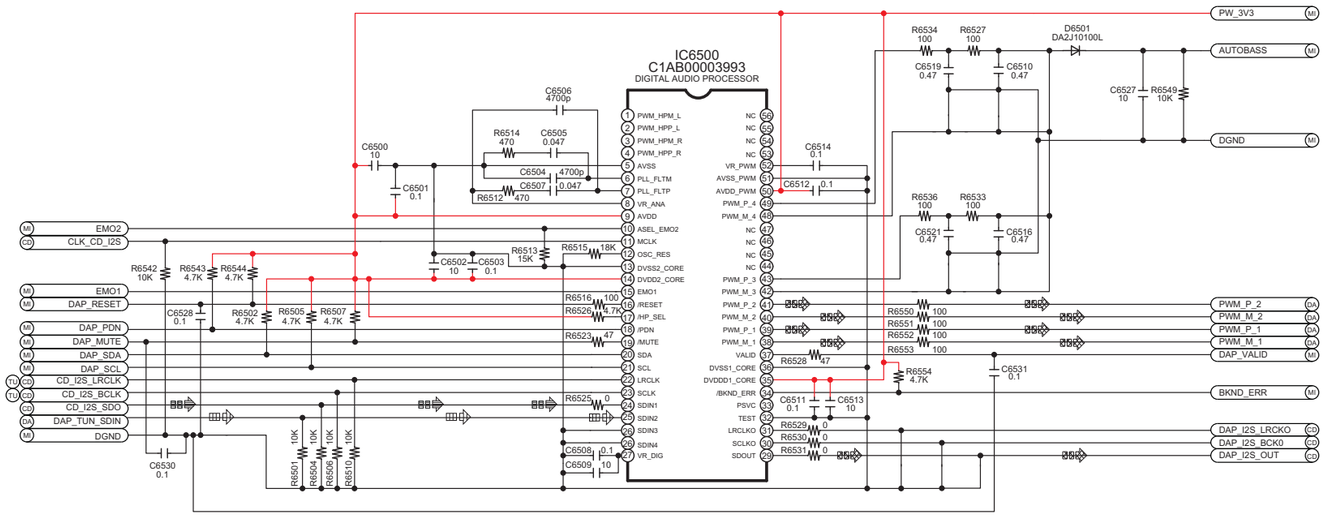
SA-AKX17PH/PN MAIN (DAMP) CIRCUIT

15.5. MAIN (Dap_Dsp) Circuit

SCHEMATIC DIAGRAM - 6

A MAIN (DAP_DSP) CIRCUIT

: +B SIGNAL LINE : CD AUDIO INPUT SIGNAL LINE : AUX/TUNER INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE



CD: MAIN (CD SERVO) SCHEMATIC DIAGRAM - 1~3
MI: MAIN (MICON) SCHEMATIC DIAGRAM - 4
DA: MAIN (DAMP) SCHEMATIC DIAGRAM - 5
TU: MAIN (TUNER_AUX) SCHEMATIC DIAGRAM - 7

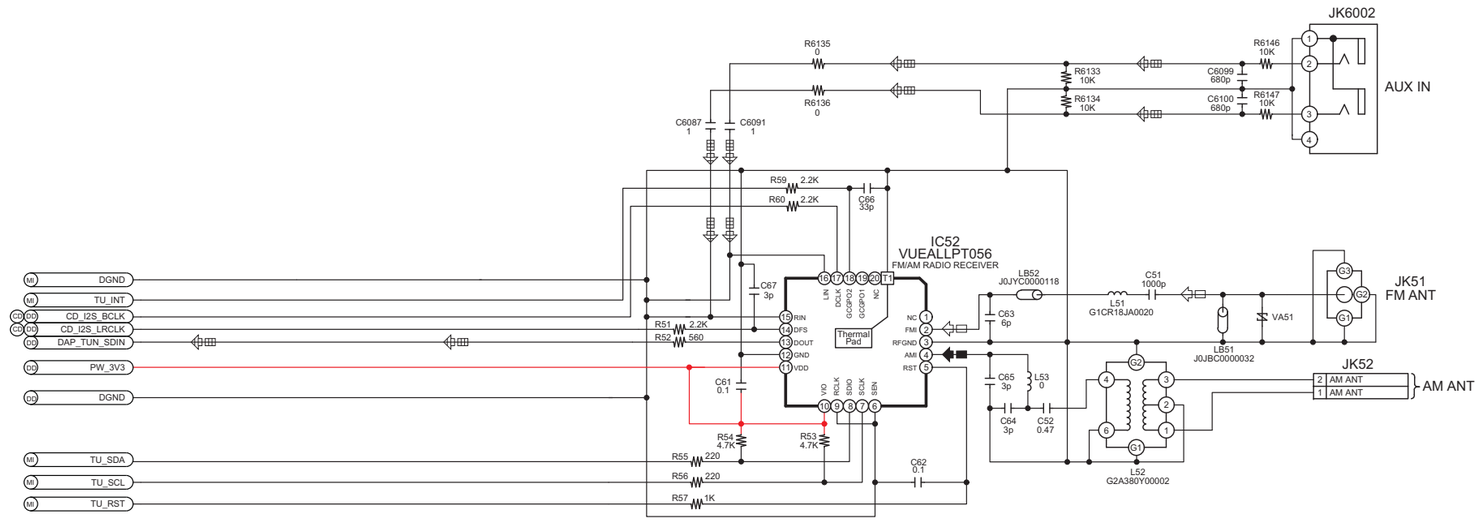
SA-AKX17PH/PN MAIN (DAP_DSP) CIRCUIT

15.6. MAIN (Tuner_Aux) Circuit

SCHEMATIC DIAGRAM - 7

A MAIN (TUNER_AUX) CIRCUIT

: +B SIGNAL LINE : AUX/TUNER INPUT SIGNAL LINE : AM SIGNAL LINE : FM SIGNAL LINE



CD: MAIN (CD SERVO) SCHEMATIC DIAGRAM - 1~3
MI: MAIN (MICON) SCHEMATIC DIAGRAM - 4
DD: MAIN (DAP_DSP) SCHEMATIC DIAGRAM - 6

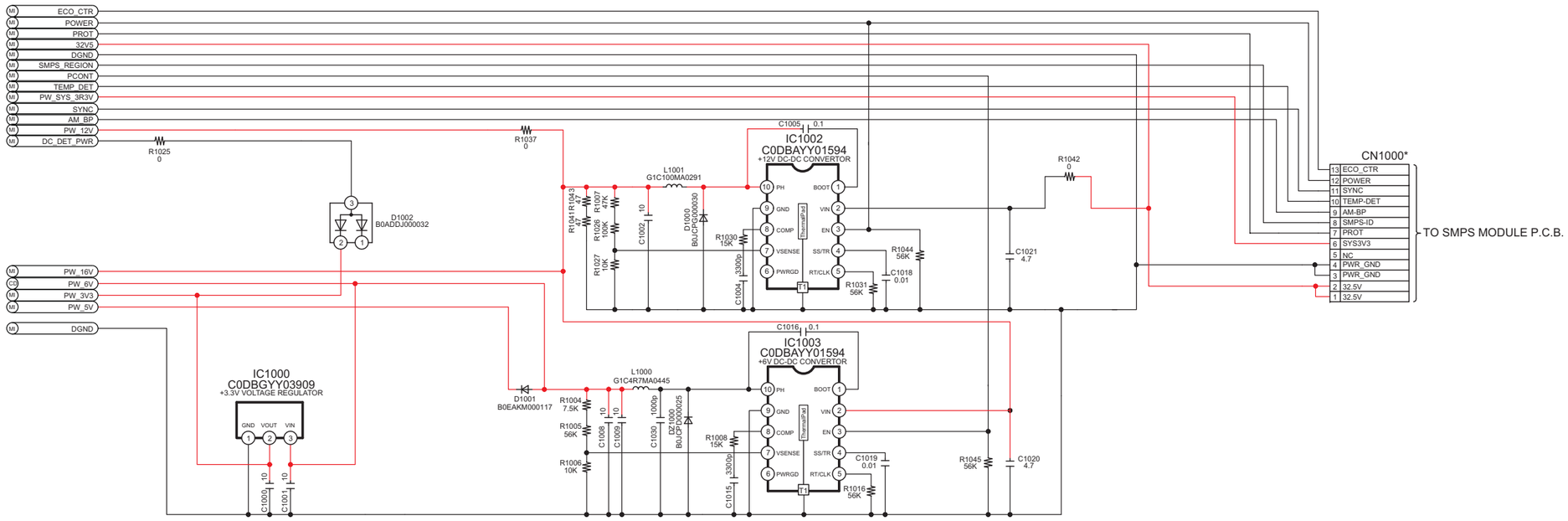
SA-AKX17PH/PN MAIN (TUNER_AUX) CIRCUIT

15.7. MAIN (Voltage Regulator) Circuit

SCHEMATIC DIAGRAM - 8

A MAIN (VOLTAGE REGULATOR) CIRCUIT

: +B SIGNAL LINE



CD: MAIN (CD SERVO) SCHEMATIC DIAGRAM - 1~3
MI: MAIN (MICON) SCHEMATIC DIAGRAM - 4

NOTE: " * " REF IS FOR INDICATION ONLY

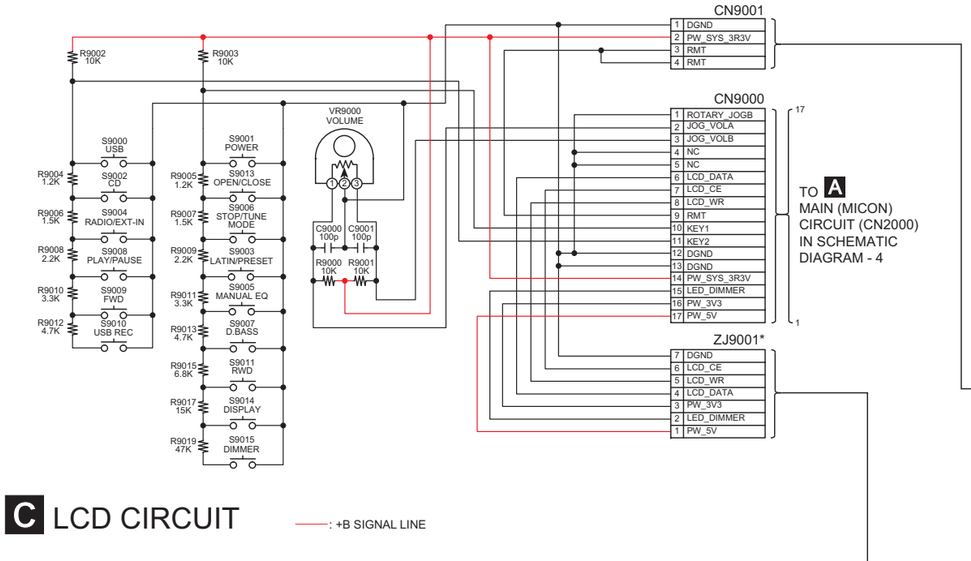
SA-AKX17PH/PN MAIN (VOLTAGE REGULATOR) CIRCUIT

15.8. Panel, LCD, USB, Remote Sensor & CD Interface Circuit

SCHEMATIC DIAGRAM - 9

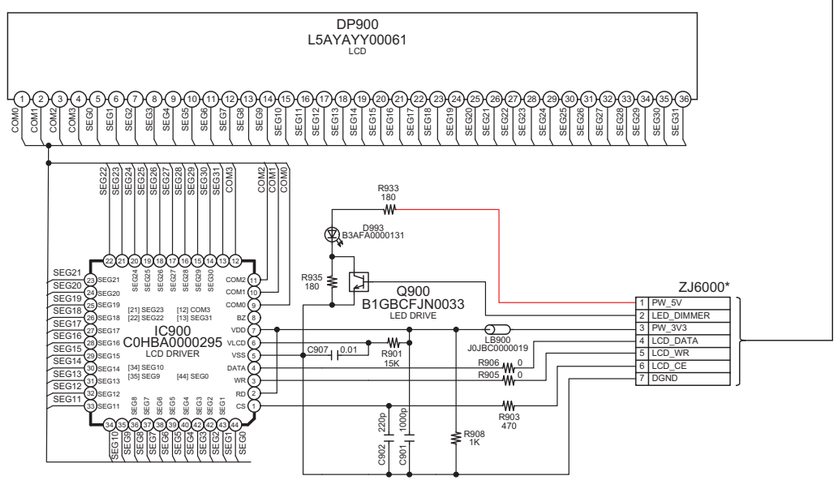
B PANEL CIRCUIT

—— : +B SIGNAL LINE



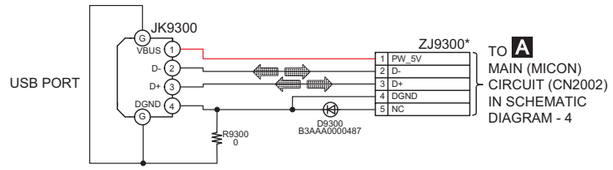
C LCD CIRCUIT

—— : +B SIGNAL LINE



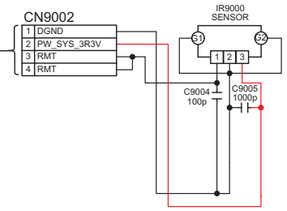
D USB CIRCUIT

—— : +B SIGNAL LINE ⇒ : USB SIGNAL LINE

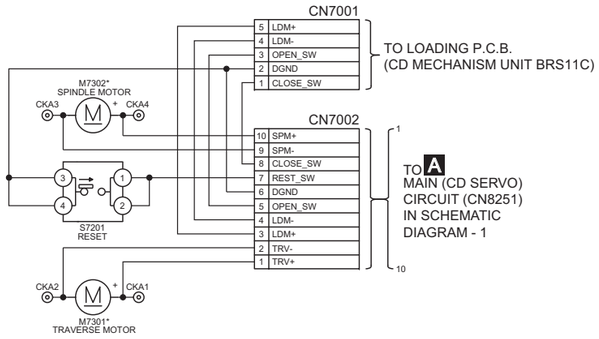


E REMOTE SENSOR CIRCUIT

—— : +B SIGNAL LINE



F CD INTERFACE CIRCUIT



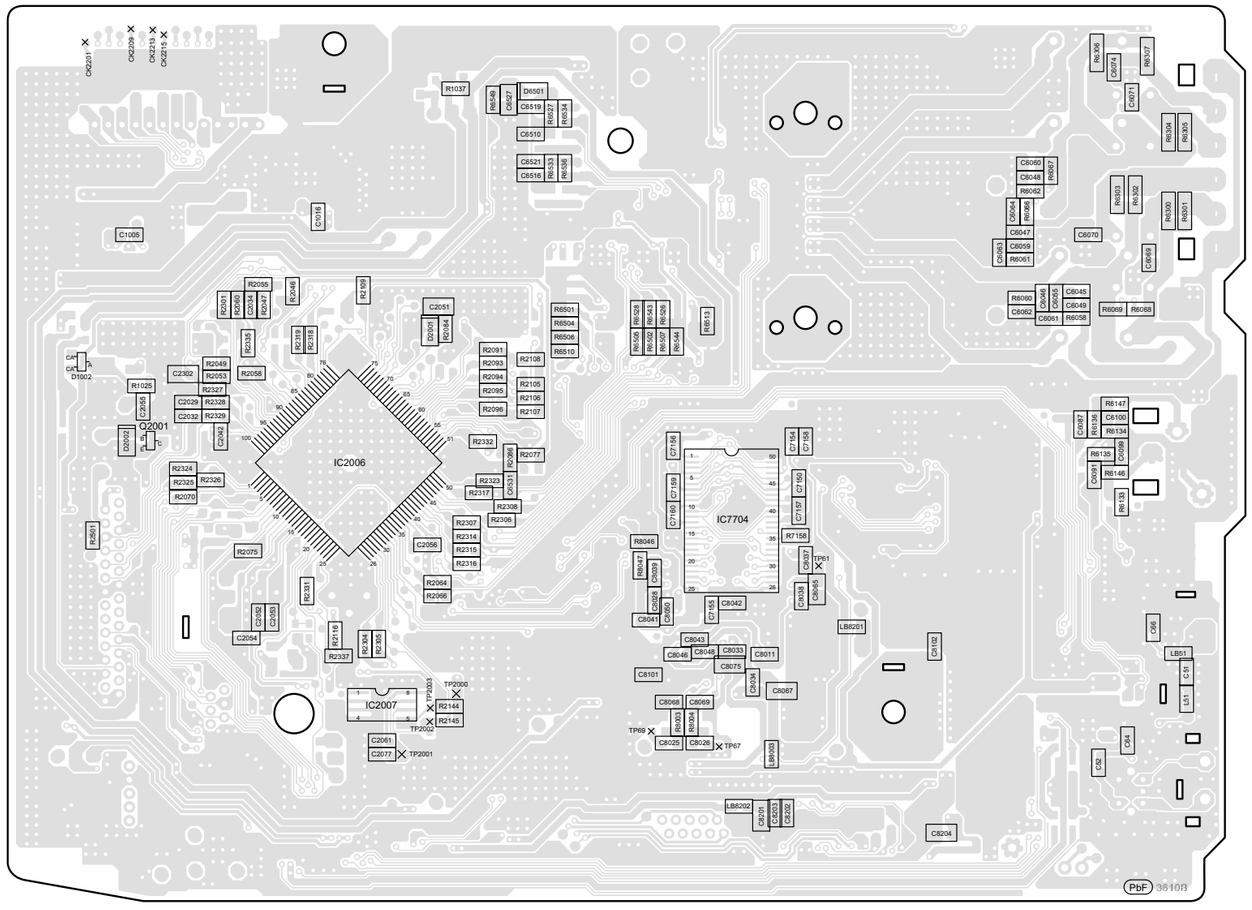
NOTE: " * " REF IS FOR INDICATION ONLY

SA-AKX17PH/PN PANEL / LCD / USB / REMOTE SENSOR / CD INTERFACE CIRCUIT

16 Printed Circuit Board

16.1. Main P.C.B.

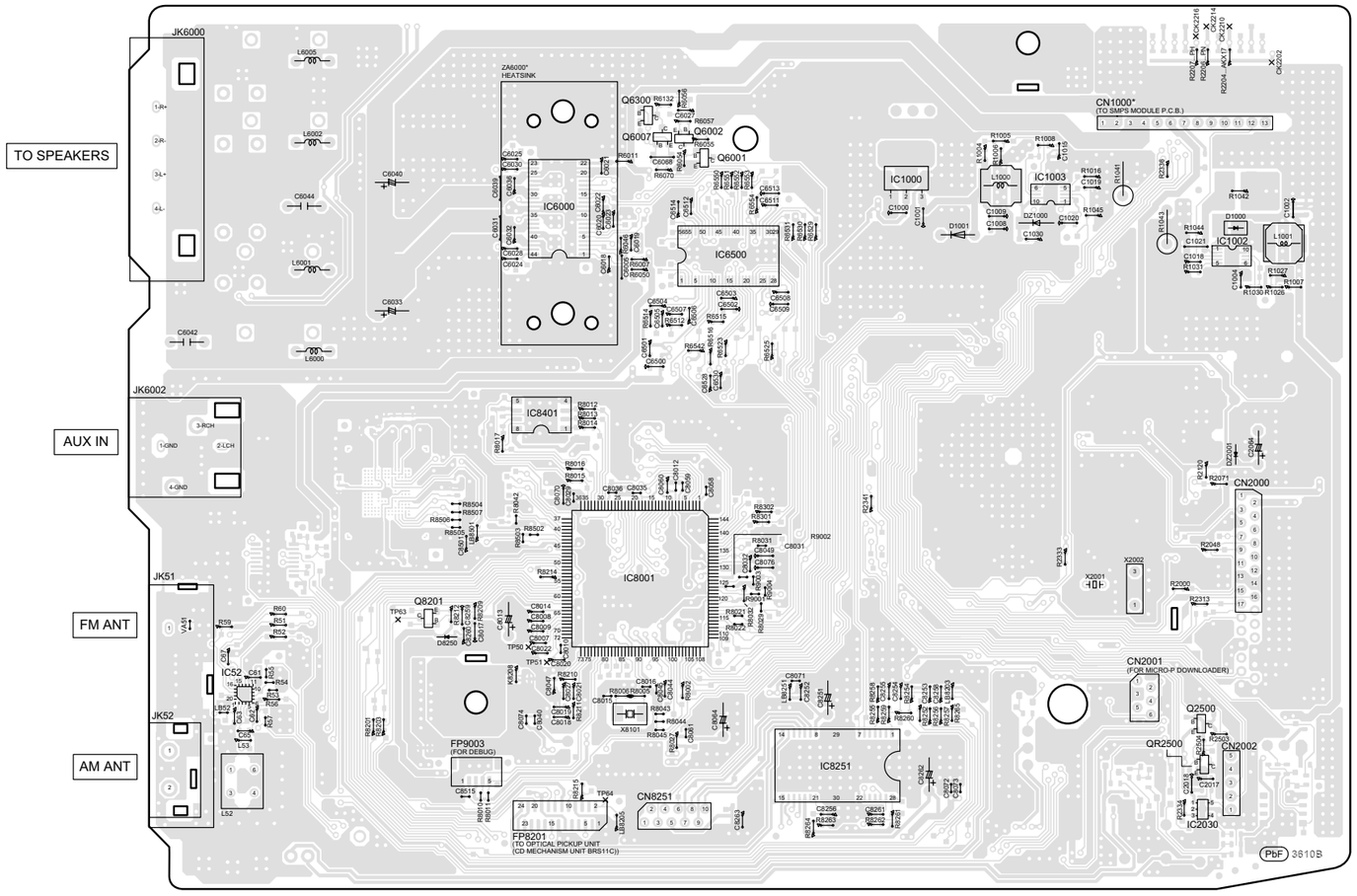
A MAIN P.C.B. (REP4902M...PN)
(REP4902N...PH)



(SIDE A)

SA-AKX17PH/PN
MAIN P.C.B.

A MAIN P.C.B. (REP4902M...PN)
(REP4902N...PH)



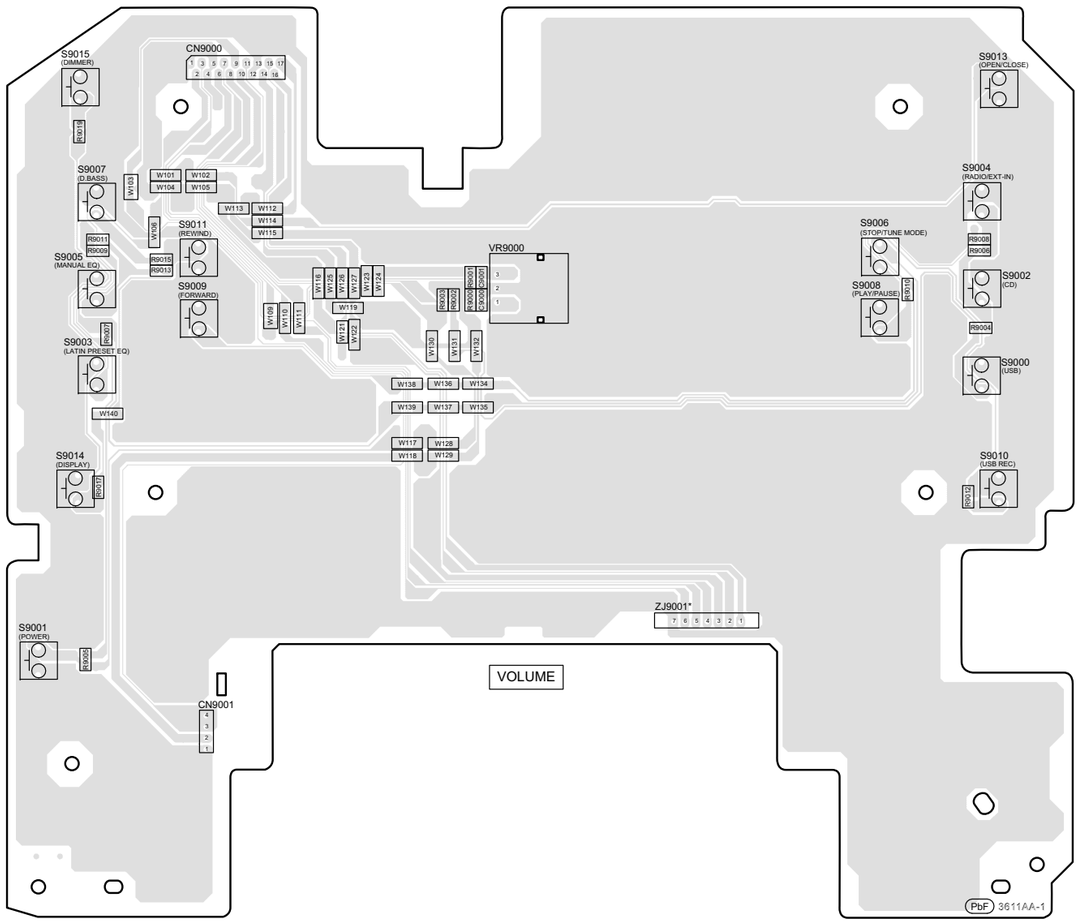
(SIDE B)

NOTE: " * " REF IS FOR INDICATION ONLY.

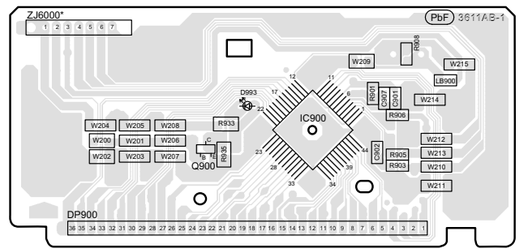
SA-AKX17PH/PN
MAIN P.C.B.

16.2. Panel, LCD, USB & Remote Sensor P.C.B.

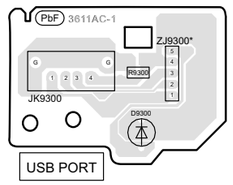
B PANEL P.C.B. (REP4903BA)



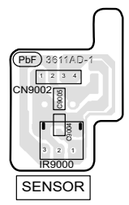
C LCD P.C.B. (REP4903BA)



D USB P.C.B. (REP4903BC)



E REMOTE SENSOR P.C.B. (REP4903BD)

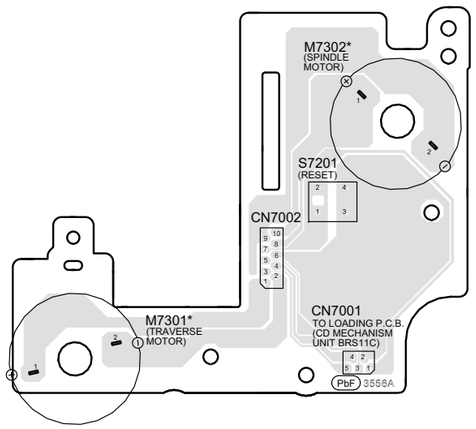


NOTE: " * " REF IS FOR INDICATION ONLY

SA-AKX17PH/PN
PANEL / LCD / USB / REMOTE SENSOR P.C.B.

16.3. CD Interface P.C.B.

F CD INTERFACE P.C.B. (REP4945A)



NOTE: " * " REF IS FOR INDICATION ONLY

SA-AKX17PH/PN
CD INTERFACE P.C.B.

17 Appendix Information of Schematic Diagram

17.1. Voltage 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.

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

REF NO.	IC52																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TUNER	0	1.5	0	3.0	0	0	3.0	3.3	0	3.3	3.3	0	1.4	0.3	0	0	3.3	0	0	0

REF NO.	IC1000																			
MODE	1	2	3																	
POWER ON	0	3.2	5.8																	
STANDBY	0	3.0	5.4																	

REF NO.	IC1002																			
MODE	1	2	3	4	5	6	7	8	9	10										
POWER ON	18.6	32.2	3.3	2.2	0.5	0	0.8	0.7	0	12.4										
STANDBY	18.5	32.2	3.3	2.2	0.5	0	0.8	0.7	0	12.4										

REF NO.	IC1003																			
MODE	1	2	3	4	5	6	7	8	9	10										
CD PLAY	12.0	16.0	3.3	2.2	0.5	0	0.8	0.8	0	6.0										
STANDBY	12.0	16.0	3.3	2.2	0.5	0	0.8	0.8	0	6.0										

REF NO.	IC2006																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.2	3.2	3.2	0	0	0	0	3.3	3.0	0	0	1.5	1.5	0	1.0	1.7	3.3	1.8	3.3	0
STANDBY	3.2	3.2	3.2	0	0	0	0	3.3	3.0	0	0	1.5	1.5	0	1.0	1.7	3.3	1.8	3.3	0

REF NO.	IC2006																			
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	3.3	0	3.3	3.3	0	0	0	3.3	0	0	0	3.3	0	3.3	1.8	0	0	3.3
STANDBY	0	0	3.3	0	3.3	3.3	0	0	0	3.3	0	0	0	3.3	0	3.3	1.8	0	0	3.3

REF NO.	IC2006																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	3.3	3.3	3.3	2.5	0	3.2	3.2	3.2	3.2	2.8	0	0	3.2	3.2	0	3.3	3.3	3.3	0	0
STANDBY	3.3	3.3	3.3	2.5	0	3.2	3.2	3.2	3.2	2.8	0	0	3.2	3.2	0	3.3	3.3	3.3	0	0

REF NO.	IC2006																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	3.3	3.3	0	0	0	0	0.9	1.0	3.3	0	3.2	3.2	3.3	3.2	3.3	3.3	0	3.2	1.1	3.3
STANDBY	3.3	3.3	0	0	0	0	0.9	1.0	3.3	0	3.2	3.2	3.3	3.2	3.3	3.3	0	3.2	1.1	3.3

REF NO.	IC2006																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	3.3	0	0	0	0	0	0	1.6	3.3	3.3	0	0.3	0.6	0	1.6	0	2.0	3.3	3.3	3.3
STANDBY	3.3	0	0	0	0	0	0	1.6	3.3	3.3	0	0.3	0.6	0	1.6	0	2.0	3.3	3.3	3.3

REF NO.	IC2007																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	0	0	0	0	3.3												
STANDBY	0	0	0	0	0	0	0	3.3												

SA-AKX17PH/PN MAIN P.C.B.

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

REF NO.	IC2030																			
MODE	1	2	3	4	5															
CD PLAY	5.2	0	3.3	3.3	5.2															
STANDBY	5.2	0	3.3	3.3	5.2															

REF NO.	IC6000																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	12.1	12.2	1.2	2.5	1.6	1.6	2.7	3.2	0	0	0	0	7.6	1.6	1.6	3.2	3.2	3.2	0	0
STANDBY	12.1	12.2	1.2	2.5	1.6	1.6	2.7	3.2	0	0	0	0	7.6	1.6	1.6	3.2	3.2	3.2	0	0

REF NO.	IC6000																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	12.1	27.9	27.0	0	0	16.4	16.4	32.0	32.0	32.0	16.4	0	0	16.4	32.0	32.0	32.0	16.3	16.4
STANDBY	0	12.1	27.9	27.0	0	0	16.4	16.4	32.0	32.0	32.0	16.4	0	0	16.4	32.0	32.0	32.0	16.4	16.4

REF NO.	IC6000																			
MODE	41	42	43	44																
CD PLAY	0	0	27.0	27.0																
STANDBY	0	0	27.0	27.0																

REF NO.	IC6500																			
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	0.6	1.1	1.7	3.2	0	1.0	1.0	0	3.2	3.2	3.2	3.2	3.2	3.2	3.2
STANDBY	0	0	0	0	0	0.6	1.1	1.8	3.3	0	1.0	1.0	0	3.3	3.3	3.3	3.3	3.3	3.3	3.3

REF NO.	IC6500																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	3.2	1.6	1.5	0.8	1.5	0	0	1.8	1.8	1.7	1.7	0	0	3.2	3.2	0	2.9	1.7	1.6	1.6
STANDBY	3.3	1.6	1.5	0	0	0	0	1.8	1.8	1.7	1.7	0	0	3.3	3.3	0	2.9	1.6	1.7	1.7

REF NO.	IC6500																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56				
CD PLAY	1.6	1.6	1.5	0	0	0	0	1.6	1.6	3.3	0	1.8	0	0	0	0				
STANDBY	1.6	1.6	1.6	0	0	0	0	1.6	1.6	3.3	0	1.8	0	0	0	0				

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

REF NO.	IC7704																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	1.7	1.8	1.6	3.3	0	1.6	1.6	1.7	1.7	3.2	3.2	0	3.3	0	3.2	0	3.2	1.3	1.4
STANDBY	0	1.7	1.8	1.6	3.3	0	1.6	1.6	1.7	1.7	3.2	3.2	0	3.3	0	3.2	0	3.2	1.3	1.4

REF NO.	IC7704																			
MODE	41	42	43	44	45	46	47	48	49	50										
CD PLAY	0	1.3	1.3	3.3	1.3	1.3	0	1.3	1.3	0										
STANDBY	0	1.3	1.3	3.3	1.3	1.3	0	1.3	1.3	0										

SA-AKX17PH/PN MAIN P.C.B.

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

REF NO.	IC8001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.2	1.3	1.1	1.2	1.2	1.3	3.2	1.2	0	3.2	3.2	3.2	0	0	0	0	0	3.2	0	0
STANDBY	3.2	1.3	1.1	1.2	1.2	1.3	3.2	1.2	0	3.2	3.2	3.2	0	0	0	0	0	3.2	0	0

REF NO.	IC8001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	0	0	0	3.2	3.2	1.3	3.2	3.2	3.2	3.2	3.2	0.6	3.0	3.2	0	1.2	1.2	1.2	0.8
STANDBY	0	0	0	0	3.2	3.2	1.3	3.2	3.2	3.2	3.2	3.2	0.6	3.0	3.2	0	1.2	1.2	1.2	0.8

REF NO.	IC8001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0	1.0	0.8	0.8	3.2	0	1.2	1.7	1.7	1.5	0	1.5	1.6	3.3	1.6	1.6	1.9	0	1.7	1.7
STANDBY	0	1.0	0.8	0.8	3.2	0	1.2	1.7	1.7	1.5	0	1.5	1.6	3.3	1.6	1.6	1.9	0	1.7	1.7

REF NO.	IC8001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	1.7	0.2	0	3.3	3.2	3.2	0	1.0	0	1.0	1.2	1.6	1.6	1.4	1.4	0.4	0	3.3	3.3	0
STANDBY	1.7	0.2	0	3.3	3.2	3.2	0	1.0	0	1.0	1.2	1.6	1.6	1.4	1.4	0.4	0	3.3	3.3	0

REF NO.	IC8001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0	0	0	0	0	0	1.2	3.3	1.2	1.2	0	3.3	3.3	0	1.6	1.6	3.3	0	0	0
STANDBY	0	0	0	0	0	0	1.2	3.3	1.2	1.2	0	3.3	3.3	0	1.6	1.6	3.3	0	0	0

REF NO.	IC8001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
CD PLAY	1.2	0	3.2	3.1	3.0	3.2	3.1	3.1	0	0	0	3.2	3.1	3.0	1.6	1.4	0.8	1.0	3.2	3.2
STANDBY	1.2	0	3.2	3.1	3.0	3.2	3.1	3.1	0	0	0	3.2	3.1	3.0	1.6	1.4	0.8	1.0	3.2	3.2

REF NO.	IC8001																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
CD PLAY	1.2	0	3.0	3.2	3.0	0	0	3.2	0	0	3.2	0	0	3.2	0	1.6	1.6	1.6	0	0
STANDBY	1.2	0	3.0	3.2	3.0	0	0	3.2	0	0	3.2	0	0	3.2	0	1.6	1.6	1.6	0	0

REF NO.	IC8001																			
MODE	141	142	143	144																
CD PLAY	0	1.0	1.1	1.1																
STANDBY	0	1.0	1.1	1.1																

REF NO.	IC8251																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.7	0	0	1.6	0	3.0	3.0	5.8	0	0	3.0	3.0	2.5	2.7	2.6	2.7	2.4	2.8	5.0	0
STANDBY	1.7	0	0	1.6	0	3.1	3.0	5.8	0	0	3.0	3.0	2.7	2.7	2.6	2.7	2.7	2.7	5.0	0

REF NO.	IC8251																			
MODE	21	22	23	24	25	26	27	28	29	30										
CD PLAY	1.5	0	1.6	0	0	1.7	1.7	3.3	0	0										
STANDBY	1.0	0	1.7	0	0	1.7	1.7	3.3	0	0										

SA-AKX17PH/PN MAIN P.C.B.

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

REF NO.	IC8401																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	2.1	2.6	3.3	0	3.0	0.6	3.3	3.3												
STANDBY	2.4	2.6	3.3	0	3.2	0.5	3.3	3.3												

REF NO.	Q2001				Q2500				Q6001				Q6002				Q6007			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	0	3.3		5.0	3.3	0.8		0	3.3	0		12.6	0	14.0		15.7	15.3	16.1	
STANDBY	0	0	3.3		5.0	3.3	0.8		0	3.3	0		12.2	0	13.6		16.2	15.8	16.2	

REF NO.	Q6300				Q8201				QR2500											
MODE	E	C	B		E	C	B		E	C	B									
CD PLAY	16.2	15.8	16.2		3.0	2.1	3.2		0	0.8	0									
STANDBY	16.0	16.0	16.0		3.2	2.1	3.2		0	0.8	0									

SA-AKX17PH/PN MAIN P.C.B.

17.1.5. LCD P.C.B.

REF NO.	IC900																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.2	3.3	3.2	3.2	0	2.9	3.3	1.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
STANDBY	3.2	3.3	3.2	3.2	0	2.8	3.2	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

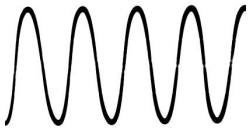
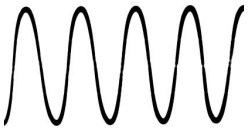
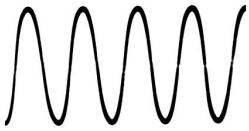
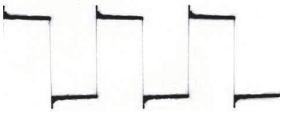
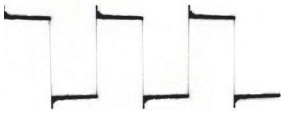
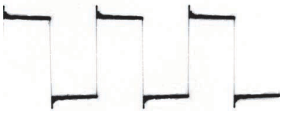
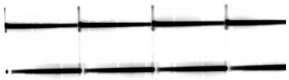
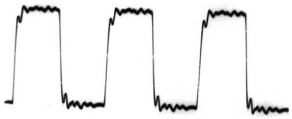
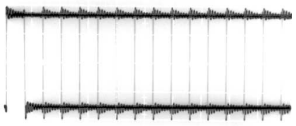
REF NO.	IC900																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
STANDBY	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

REF NO.	IC900																			
MODE	41	42	43	44																
CD PLAY	1.5	1.5	1.5	1.5																
STANDBY	1.5	1.5	1.5	1.5																

REF NO.	Q900																			
MODE	E	C	B																	
CD PLAY	0	0	3.2																	
STANDBY	0	0	3.3																	

SA-AKX17PH/PN LCD P.C.B.

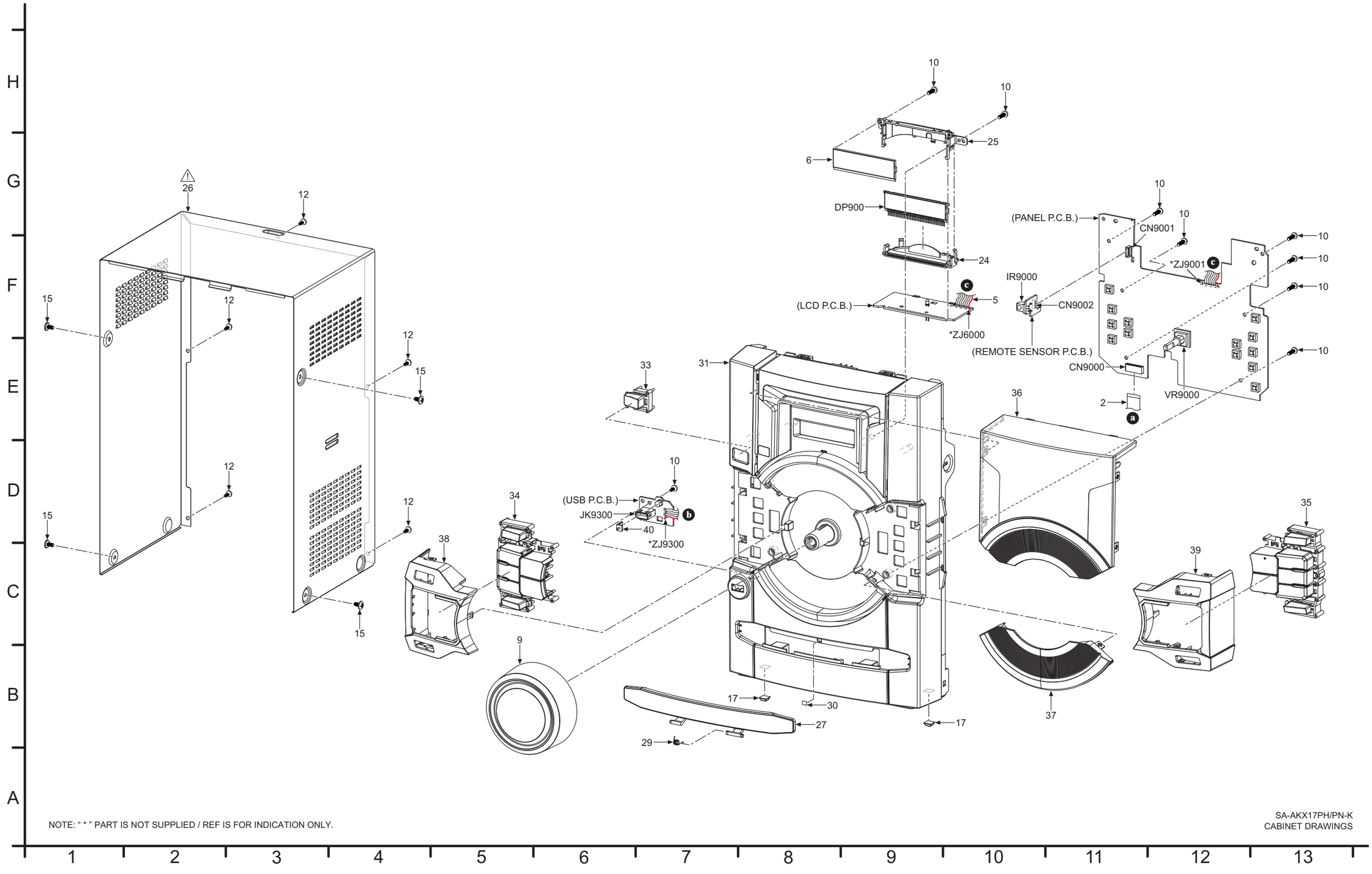
17.1.6. Waveform Table

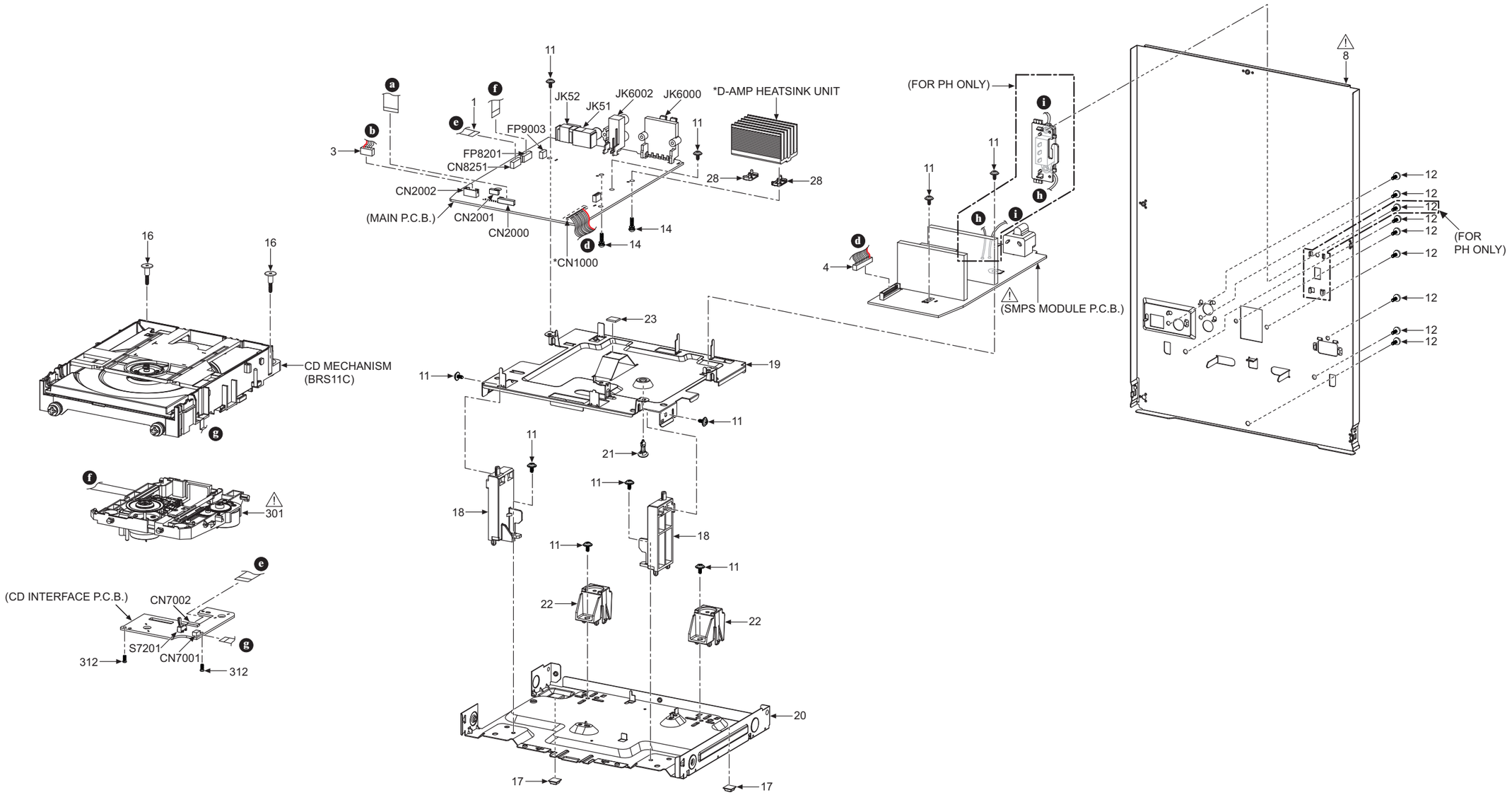
WF No. IC2006-12 (PLAY)  4Vp-p(50nsec/div)	WF No. IC2006-13 (PLAY)  3.2Vp-p(50nsec/div)	WF No. IC2006-15 (PLAY)  1.8Vp-p(10usec/div)	WF No. IC2006-16 (PLAY)  2.8Vp-p(10usec/div)
WF No. IC6000-5,6,14,15 (PLAY)  3.2Vp-p(1usec/div)	WF No. IC6000-27,28,32,39,40 (PLAY)  32Vp-p(1usec/div)	WF No. IC6500-24 (PLAY)  3.4Vp-p(500nsec/div)	WF No. IC6500-25 (PLAY)  3.2Vp-p(10usec/div)
WF No. IC6500-38,39,40,41 (PLAY)  3.2Vp-p(1usec/div)	WF No. IC8001-55,56,57,58,59, 60 (PLAY)  0.5Vp-p(2usec/div)	WF No. IC8001-89,90 (PLAY)  2.5Vp-p(200usec/div)	WF No. IC8001-117 (PLAY)  3.4Vp-p(100nsec/div)
WF No. IC8001-123,125 (PLAY)  0.4Vp-p(5usec/div)			

18 Exploded View and Replacement Parts List

18.1. Exploded View and Mechanical Replacement Part List

18.1.1. Cabinet Parts Location

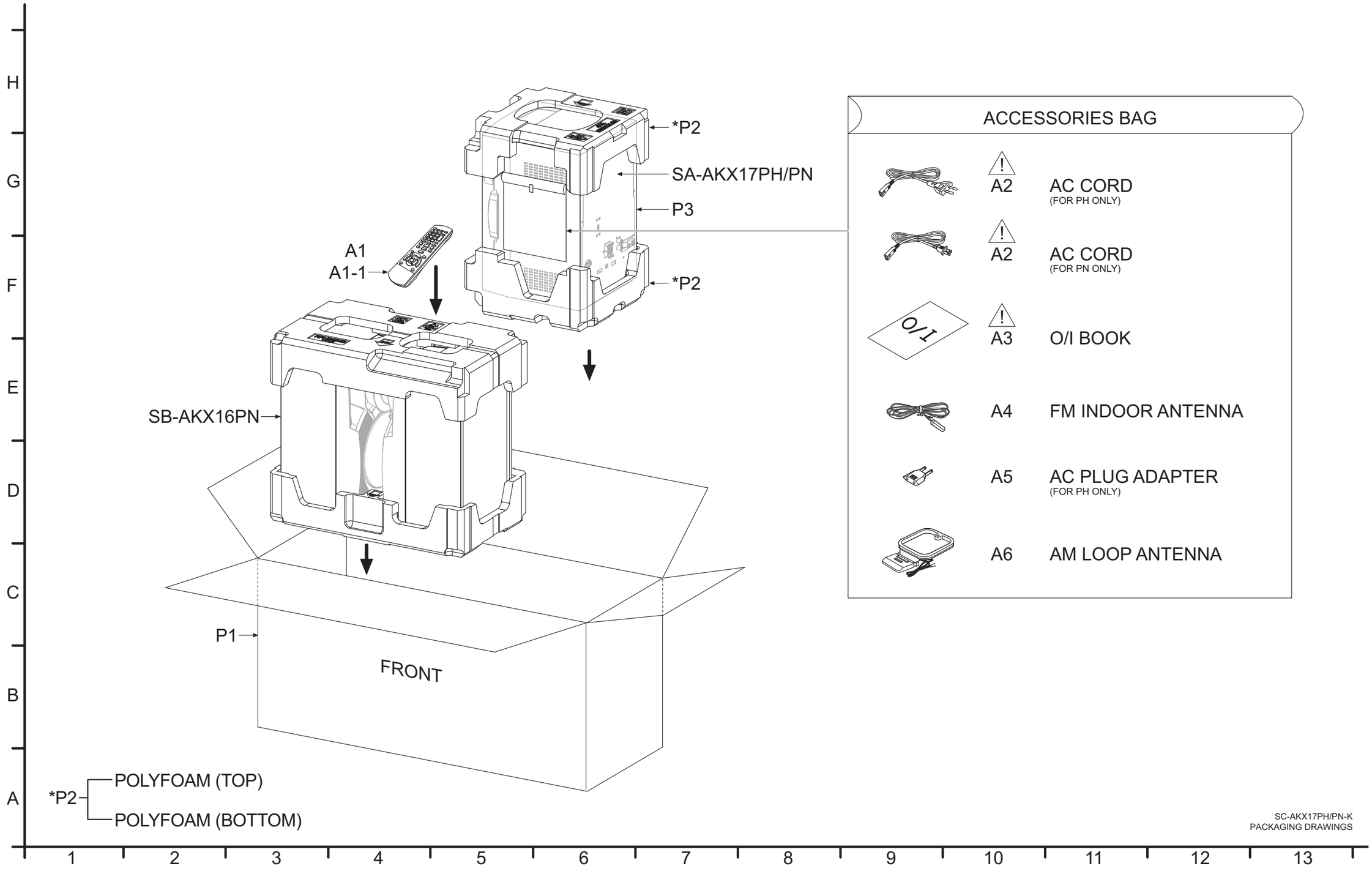




NOTE: " * " PART IS NOT SUPPLIED / REF IS FOR INDICATION ONLY.

SA-AKX17PH/PN-K
CABINET DRAWINGS

18.1.2. Packaging



18.1.3. 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 PAVCJM unless indicated likewise.
- Reference for O/I book languages are as follows:

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

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			CABINET AND CHASSIS		
	1	REE1730	10P FFC (MAIN-CD INTERFACE)	1	
	2	REE1733	17P FFC (MAIN-PANEL)	1	
	3	REX1472	5P CABLE WIRE (USB-MAIN)	1	
	4	REX1561	13P CABLE WIRE (SMPS-MAIN)	1	
	5	REX1588	7P CABLE WIRE (PANEL-LCD)	1	
	6	RMXX1008-2	LCD DIFFUSER SHEET	1	
⚠	8	RGR0443A-E1A	REAR PANEL	1	PN
⚠	8	RGR0443B-B1A	REAR PANEL	1	PH
	9	RGW0428-S1	VOLUME KNOB	1	
	10	RHD26046-L	SCREW	9	
	11	RHD30111-31	SCREW	10	
	12	RHD30119-S	SCREW	13	PN
	12	RHD30119-S	SCREW	14	PH
	14	RHD26043-1	SCREW	2	
	15	RHD30007-K2J	SCREW	4	
	16	RHDX031008	SCREW	2	
	17	RKAX0042-K	LEG CUSHION	4	
	18	RMA2442	CHASSIS SUPPORT	2	
	19	RMK0837	INNER CHASSIS	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	20	RMKX1031A-1	BOTTOM CHASSIS	1	
	21	RMNX0298	PCB SPACER	1	
	22	RMQ2134	MECHA HOLDER	2	
	23	RSC1228	THERMAL PAD	1	
	24	RMNX1011-W2	LCD HOLDER BASE	1	
	25	RMNX1012A-W2	LCD HOLDER COVER	1	
⚠	26	RKM0713-K1	TOP CABINET	1	
	27	RGK2438-K	CD LID	1	
	28	RMZX1022	HEATSINK SPACER	2	
	29	RMB0930	CD LID SPRING	1	
	30	RMGX0033A-K	CD LID CUSHION	1	
	31	RFKGAKX17LK	FRONT PANEL ASS'Y	1	
	33	RGU2848-K	POWER BUTTON	1	
	34	RGU2882D-S1	LEFT FUNCTION BUTTON	1	
	35	RGU2883B-S1	RIGHT FUNCTION BUTTON	1	
	36	RKW1021-Q	FL WINDOW	1	
	37	RKW1026-Q	CENTER ORNAMENT BOTTOM	1	
	38	RGK2479A-S	LEFT FUNCTION ORNAMENT	1	
	39	RGK2480A-S	RIGHT FUNCTION ORNAMENT	1	
	40	RGL0785-Q	USB REC LIGHT PCS	1	
			TRAVERSE DECK		

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
⚠	301	RAE1036Z-V	TRAVERSE ASS'Y	1	
	312	XTN2+6GFJ	SCREW	2	
			PACKING MATE-RIALS		
	P1	RPG0F84	PACKING CASE	1	PN
	P1	RPG0F85	PACKING CASE	1	PH
	P2	RPN2483-1	POLYFOAM	1	
	P3	RPFX0198-1	MIRAMAT	1	
			ACCESSORIES		
	A1	N2QAYB000911	REMOTE CON-TROL	1	
	A1-1	RKK-PM500EBK	R/C BATTERY COVER	1	
⚠	A2	K2CB2CB00022	AC CORD	1	PN
⚠	A2	K2CQ2YY00119	AC CORD	1	PH
⚠	A3	RQT9843-1M	O/I BOOK (Sp/En)	1	
	A4	RSAX0002	FM INDOOR ANTENNA	1	
	A5	K2DAYYY00002	AC PLUG ADAPTER	1	PH
	A6	N1DYYYY00011	AM LOOP ANTENNA	1	

18.2. Electrical Replacement Parts List

Important Safety Notice

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

RTL (Retention Time Limited)

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

Note:

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

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

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			PRINTED CIR-CUIT BOARDS		
	PCB1	REP4902M	MAIN P.C.B.	1	(RTL) PN
	PCB1	REP4902N	MAIN P.C.B.	1	(RTL) PH
	PCB2	REP4903BA	PANEL P.C.B.	1	(RTL)
	PCB3	REP4903BA	LCD P.C.B.	1	(RTL)
	PCB4	REP4903BC	USB P.C.B.	1	(RTL)
	PCB5	REP4903BD	REMOTE SEN-SOR P.C.B.	1	(RTL)
	PCB6	REP4945A	CD INTERFACE P.C.B.	1	(RTL)
⚠	PCB8	N0AD3GK00001	SMPS MODULE P.C.B.	1	PH
⚠	PCB8	N0AB3GK00008	SMPS MODULE P.C.B.	1	PN
			INTERGRATED CIRCUITS		
	IC52	VUEALLPT056	IC	1	(E.S.D), [SPG]
	IC900	C0HBA0000295	IC	1	(E.S.D)
	IC1000	C0DBGYY03909	IC	1	(E.S.D)
	IC1002	C0DBAYY01594	IC	1	(E.S.D)
	IC1003	C0DBAYY01594	IC	1	(E.S.D)
	IC2006	RFKWMAKX17LM	IC	1	(E.S.D), JIGS&ADJ
	IC2007	C3EBEY000037	IC	1	(E.S.D)
	IC2030	C0DBZYY00311	IC	1	(E.S.D)
	IC6000	C1AB00003994	IC	1	(E.S.D)
	IC6500	C1AB00003993	IC	1	(E.S.D)
	IC7704	C3ABMY000027	IC	1	(E.S.D)
	IC8001	MN6627992AB	IC	1	(E.S.D)
	IC8251	C0GBY0000117	IC	1	(E.S.D)

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	IC8401	C3FBMY000309	IC	1	(E.S.D)
			TRANSISTORS		
	Q900	B1GBCFJN0033	TRANSISTOR	1	(E.S.D)
	Q2001	B1GBCFLL0037	TRANSISTOR	1	(E.S.D)
	Q2500	B1ADCE000012	TRANSISTOR	1	(E.S.D)
	Q6001	B1ABCF000011	TRANSISTOR	1	(E.S.D)
	Q6002	B1ADBL000010	TRANSISTOR	1	(E.S.D)
	Q6007	B1ABCF000011	TRANSISTOR	1	(E.S.D)
	Q6300	B1ABCF000011	TRANSISTOR	1	(E.S.D)
	Q8201	B1ADCF000001	TRANSISTOR	1	(E.S.D)
	QR2500	B1GBCFGN0016	TRANSISTOR	1	(E.S.D)
			DIODES		
	D993	B3AFA0000131	DIODE	1	(E.S.D)
	D1000	B0JCPG000030	DIODE	1	(E.S.D)
	D1001	B0EAKM000117	DIODE	1	(E.S.D)
	D1002	B0ADDJ000032	DIODE	1	(E.S.D)
	D2001	DA2J10100L	DIODE	1	(E.S.D)
	D2002	DA2J10100L	DIODE	1	(E.S.D)
	D6501	DA2J10100L	DIODE	1	(E.S.D)
	D8250	DZ2J056M0L	DIODE	1	(E.S.D)
	D9300	B3AAA0000487	DIODE	1	(E.S.D)
	DZ1000	B0JCPD000025	DIODE	1	(E.S.D)
	DZ2001	DZ2J047M0L	DIODE	1	(E.S.D)
			VARISTORS		
	VR9000	EVEKE2F3524B	VARISTOR	1	
	VA51	EZAEG2A50AX	VARISTOR	1	
			SWITCHES		

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	S7201	K0L1BA000158	SW RESET	1	
	S9000	EVQ21405RJ	SW USB	1	
	S9001	EVQ21405RJ	SW POWER	1	
	S9002	EVQ21405RJ	SW CD	1	
	S9003	EVQ21405RJ	SW LATIN PRE-SET EQ	1	
	S9004	EVQ21405RJ	SW RADIO/EXT IN	1	
	S9005	EVQ21405RJ	SW MANUAL EQ	1	
	S9006	EVQ21405RJ	SW STOP/TUNE MODE	1	
	S9007	EVQ21405RJ	SW D. BASS	1	
	S9008	EVQ21405RJ	SW PLAY/PAUSE	1	
	S9009	EVQ21405RJ	SW FORWARD	1	
	S9010	EVQ21405RJ	SW USB REC	1	
	S9011	EVQ21405RJ	SW REWIND	1	
	S9013	EVQ21405RJ	SW OPEN/CLOSE	1	
	S9014	EVQ21405RJ	SW DISPLAY	1	
	S9015	EVQ21405RJ	SW DIMMER	1	
			CONNECTORS		
	CN2000	K1MY17AA0124	17P CONNECTOR	1	
	CN2001	K1MY06B00012	6P CONNECTOR	1	
	CN2002	K1KA05AA0193	5P CONNECTOR	1	
	CN7001	K1MY05BA0539	5P CONNECTOR	1	
	CN7002	K1MN10B00016	10P CONNECTOR	1	
	CN8251	K1MY10AA0124	10P CONNECTOR	1	
	CN9000	K1MN17B00032	17P CONNECTOR	1	
	CN9001	K1KA04A00553	4P CONNECTOR	1	
	CN9002	K1KB04B00043	4P CONNECTOR	1	
	FP8201	K1MY24A00001	24P CONNECTOR	1	
	FP9003	K1KA05AA0051	5P CONNECTOR	1	
	JK9300	K1FY104A0034	USB CONNECTOR	1	
			COILS AND INDUCTORS		
	L51	G1CR18JA0020	INDUCTOR	1	
	L52	G2A380Y00002	ANTENNA COIL	1	
	L1000	G1C4R7MA0445	INDUCTOR	1	
	L1001	G1C100MA0291	INDUCTOR	1	
	L6000	G0A100H00018	CHOKE COIL	1	
	L6001	G0A100H00018	CHOKE COIL	1	
	L6002	G0A100H00018	CHOKE COIL	1	
	L6005	G0A100H00018	CHOKE COIL	1	
	LB51	J0JBC0000032	INDUCTOR	1	
	LB52	J0JYC0000118	INDUCTOR	1	
	LB900	J0JBC0000019	INDUCTOR	1	
	LB8202	J0JHC0000045	INDUCTOR	1	
	LB8205	J0JHC0000045	INDUCTOR	1	
	LB8501	J0JHC0000045	INDUCTOR	1	
	R8016	J0JCC0000301	INDUCTOR	1	
			OSCILLATORS		
	X2001	H0A327200181	OSCILLATOR	1	
	X2002	H2B800400007	OSCILLATOR	1	
	X8101	H0J338300002	OSCILLATOR	1	
			LCD DISPLAY		
	DP900	L5AYAYY00061	LCD DISPLAY	1	
			REMOTE SENSOR		
	IR9000	B3RAB0000110	REMOTE SENSOR	1	
			JACKS		
	JK51	K4ZZ02000103	JK FM ANTENNA	1	
	JK52	K4AC02B00042	JK AM ANTENNA	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	JK6000	K4AC04B00030	JK SPEAKERS	1	
	JK6002	K2HA2YYA0009	JK AUX IN	1	
			CHIP JUMPERS		
	L53	D0GBR00J0004	0 1/10W	1	
	LB8003	D0GBR00J0004	0 1/10W	1	
	LB8201	D0GBR00J0004	0 1/10W	1	
	LB8203	D0GBR00J0004	0 1/10W	1	
	LB8251	D0GBR00J0004	0 1/10W	1	
	W101	D0GFR00JA017	0 1/4W	1	
	W102	D0GFR00JA017	0 1/4W	1	
	W103	D0GDR00JA017	0 1/8W	1	
	W104	D0GFR00JA017	0 1/4W	1	
	W105	D0GFR00JA017	0 1/4W	1	
	W106	D0GFR00JA017	0 1/4W	1	
	W109	D0GDR00JA017	0 1/8W	1	
	W110	D0GFR00JA017	0 1/4W	1	
	W111	D0GFR00JA017	0 1/4W	1	
	W112	D0GFR00JA017	0 1/4W	1	
	W113	D0GFR00JA017	0 1/4W	1	
	W114	D0GFR00JA017	0 1/4W	1	
	W115	D0GFR00JA017	0 1/4W	1	
	W116	D0GFR00JA017	0 1/4W	1	
	W117	D0GFR00JA017	0 1/4W	1	
	W118	D0GFR00JA017	0 1/4W	1	
	W119	D0GFR00JA017	0 1/4W	1	
	W121	D0GBR00JA008	0 1/10W	1	
	W122	D0GFR00JA017	0 1/4W	1	
	W123	D0GFR00JA017	0 1/4W	1	
	W124	D0GFR00JA017	0 1/4W	1	
	W125	D0GFR00JA017	0 1/4W	1	
	W126	D0GFR00JA017	0 1/4W	1	
	W127	D0GFR00JA017	0 1/4W	1	
	W128	D0GFR00JA017	0 1/4W	1	
	W129	D0GFR00JA017	0 1/4W	1	
	W130	D0GFR00JA017	0 1/4W	1	
	W131	D0GFR00JA017	0 1/4W	1	
	W132	D0GFR00JA017	0 1/4W	1	
	W134	D0GFR00JA017	0 1/4W	1	
	W135	D0GFR00JA017	0 1/4W	1	
	W136	D0GFR00JA017	0 1/4W	1	
	W137	D0GFR00JA017	0 1/4W	1	
	W138	D0GFR00JA017	0 1/4W	1	
	W139	D0GFR00JA017	0 1/4W	1	
	W140	D0GFR00JA017	0 1/4W	1	
	W200	D0GDR00JA017	0 1/8W	1	
	W201	D0GFR00JA017	0 1/4W	1	
	W202	D0GDR00JA017	0 1/8W	1	
	W203	D0GFR00JA017	0 1/4W	1	
	W204	D0GFR00JA017	0 1/4W	1	
	W205	D0GFR00JA017	0 1/4W	1	
	W206	D0GFR00JA017	0 1/4W	1	
	W207	D0GFR00JA017	0 1/4W	1	
	W208	D0GFR00JA017	0 1/4W	1	
	W209	D0GDR00JA017	0 1/8W	1	
	W210	D0GFR00JA017	0 1/4W	1	
	W211	D0GFR00JA017	0 1/4W	1	
	W212	D0GFR00JA017	0 1/4W	1	
	W213	D0GFR00JA017	0 1/4W	1	
	W214	D0GFR00JA017	0 1/4W	1	
	W215	D0GFR00JA017	0 1/4W	1	
			RESISTORS		
	R51	D0GB222JA065	2.2K 1/10W	1	
	R52	D0GB561JA065	560 1/10W	1	
	R53	D0GA472JA023	4.7K 1/16W	1	
	R54	D0GA472JA023	4.7K 1/16W	1	
	R55	D0GA221JA023	220 1/16W	1	
	R56	D0GB221JA065	220 1/10W	1	
	R57	D0GA102JA023	1K 1/16W	1	
	R59	D0GB222JA065	2.2K 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R60	D0GB222JA065	2.2K 1/10W	1	
	R901	D0GB153JA065	15K 1/10W	1	
	R903	D0GB471JA065	470 1/10W	1	
	R905	D0GBR00J0004	0 1/10W	1	
	R906	D0GBR00J0004	0 1/10W	1	
	R908	D0GB102JA065	1K 1/10W	1	
	R933	D0GD181JA052	180 1/8W	1	
	R935	D0GD181JA052	180 1/8W	1	
	R1004	D0HB752ZA002	7.5K 1/16W	1	
	R1005	D1BB5602A074	56K 1/10W	1	
	R1006	D1BB1002A074	10K 1/10W	1	
	R1007	ERJ3RBD473V	47K 1/16W	1	
	R1008	D0GB153JA065	15K 1/10W	1	
	R1016	D0GB563JA065	56K 1/10W	1	
	R1025	D0GBR00J0004	0 1/10W	1	
	R1026	ERJ3RBD104V	100K 1/16W	1	
	R1027	D1BB1002A074	10K 1/10W	1	
	R1030	D0GB153JA065	15K 1/10W	1	
	R1031	D0GB563JA065	56K 1/10W	1	
	R1037	D0GBR00J0004	0 1/10W	1	
	R1041	ERG2SJ470E	47 2W	1	
	R1042	D0GBR00J0004	0 1/10W	1	
	R1043	ERG2SJ470E	47 2W	1	
	R1044	D0GB563JA065	56K 1/10W	1	
	R1045	D0GB563JA065	56K 1/10W	1	
	R2000	D0GB101JA065	100 1/10W	1	
	R2046	D0GB103JA065	10K 1/10W	1	
	R2047	D0GB102JA065	1K 1/10W	1	
	R2048	D0GB102JA065	1K 1/10W	1	
	R2049	D0GBR00J0004	0 1/10W	1	
	R2053	D0GB102JA065	1K 1/10W	1	PN
	R2053	D0GB472JA065	4.7K 1/10W	1	PH
	R2055	D0GBR00J0004	0 1/10W	1	
	R2058	D0GB104JA065	100K 1/10W	1	
	R2060	D0GB822JA065	8.2K 1/10W	1	PN
	R2060	D0GB273JA065	27K 1/10W	1	PH
	R2064	D0GBR00J0004	0 1/10W	1	
	R2066	D0GBR00J0004	0 1/10W	1	
	R2070	D0GB472JA065	4.7K 1/10W	1	
	R2071	D0GB392JA065	3.9K 1/10W	1	
	R2075	D0GB472JA065	4.7K 1/10W	1	
	R2077	D0GB473JA065	47K 1/10W	1	
	R2084	D0GB564JA065	560K 1/10W	1	
	R2086	D0GB104JA065	100K 1/10W	1	
	R2091	D0GB102JA065	1K 1/10W	1	
	R2093	D0GB102JA065	1K 1/10W	1	
	R2094	D0GB102JA065	1K 1/10W	1	
	R2095	D0GB102JA065	1K 1/10W	1	
	R2096	D0GB102JA065	1K 1/10W	1	
	R2105	D0GB103JA065	10K 1/10W	1	
	R2106	D0GB103JA065	10K 1/10W	1	
	R2107	D0GB103JA065	10K 1/10W	1	
	R2108	D0GB103JA065	10K 1/10W	1	
	R2109	D0GB103JA065	10K 1/10W	1	
	R2116	D0GB103JA065	10K 1/10W	1	
	R2120	D0GB473JA065	47K 1/10W	1	
	R2144	D0GB472JA065	4.7K 1/10W	1	
	R2145	D0GB472JA065	4.7K 1/10W	1	
	R2204	D0GBR00J0004	0 1/10W	1	
	R2206	D0GBR00J0004	0 1/10W	1	PN
	R2207	D0GBR00J0004	0 1/10W	1	PH
	R2301	D0GB101JA065	100 1/10W	1	
	R2304	D0GB101JA065	100 1/10W	1	
	R2305	D0GB101JA065	100 1/10W	1	
	R2306	D0GB101JA065	100 1/10W	1	
	R2307	D0GB101JA065	100 1/10W	1	
	R2308	D0GB101JA065	100 1/10W	1	
	R2313	D0GBR00J0004	0 1/10W	1	
	R2314	D0GB101JA065	100 1/10W	1	
	R2315	D0GB101JA065	100 1/10W	1	
	R2316	D0GB101JA065	100 1/10W	1	
	R2317	D0GB101JA065	100 1/10W	1	
	R2318	D0GB101JA065	100 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R2319	D0GB101JA065	100 1/10W	1	
	R2323	D0GB101JA065	100 1/10W	1	
	R2324	D0GB101JA065	100 1/10W	1	
	R2325	D0GB101JA065	100 1/10W	1	
	R2326	D0GB101JA065	100 1/10W	1	
	R2327	D0GBR00J0004	0 1/10W	1	
	R2328	D0GBR00J0004	0 1/10W	1	
	R2329	D0GBR00J0004	0 1/10W	1	
	R2331	D0GB101JA065	100 1/10W	1	
	R2332	D0GB101JA065	100 1/10W	1	
	R2333	D0GB103JA065	10K 1/10W	1	
	R2334	D0GB101JA065	100 1/10W	1	
	R2335	D0GB101JA065	100 1/10W	1	
	R2336	D0GB223JA065	22K 1/10W	1	
	R2337	D0GB103JA065	10K 1/10W	1	
	R2341	D0GBR00J0004	0 1/10W	1	
	R2501	D0GBR00J0004	0 1/10W	1	
	R2503	D0GB331JA065	330 1/10W	1	
	R2504	D0GB104JA065	100K 1/10W	1	
	R6007	D0GB100JA065	10 1/10W	1	
	R6011	D0GB100JA065	10 1/10W	1	
	R6046	D0GB223JA065	22K 1/10W	1	
	R6050	D0GB100JA065	10 1/10W	1	
	R6054	D0GB563JA065	56K 1/10W	1	
	R6055	D0GB473JA065	47K 1/10W	1	
	R6056	D0GB472JA065	4.7K 1/10W	1	
	R6057	D0GB224JA065	220K 1/10W	1	
	R6058	D0GB3R3JA065	3.3 1/10W	1	
	R6060	D0GB3R3JA065	3.3 1/10W	1	
	R6061	D0GB3R3JA065	3.3 1/10W	1	
	R6062	D0GB3R3JA065	3.3 1/10W	1	
	R6066	D0GB104JA065	100K 1/10W	1	
	R6067	D0GB104JA065	100K 1/10W	1	
	R6068	D0GB104JA065	100K 1/10W	1	
	R6069	D0GB104JA065	100K 1/10W	1	
	R6070	D0GB333JA065	33K 1/10W	1	
	R6132	D0GB224JA065	220K 1/10W	1	
	R6133	D0GB103JA065	10K 1/10W	1	
	R6134	D0GB103JA065	10K 1/10W	1	
	R6135	D0GBR00J0004	0 1/10W	1	
	R6136	D0GBR00J0004	0 1/10W	1	
	R6146	D0GB103JA065	10K 1/10W	1	
	R6147	D0GB103JA065	10K 1/10W	1	
	R6300	D0GFR00J0005	0 1/4W	1	
	R6301	D0GFR00J0005	0 1/4W	1	
	R6302	D0GFR00J0005	0 1/4W	1	
	R6303	D0GFR00J0005	0 1/4W	1	
	R6304	D0GFR00J0005	0 1/4W	1	
	R6305	D0GFR00J0005	0 1/4W	1	
	R6306	D0GFR00J0005	0 1/4W	1	
	R6307	D0GFR00J0005	0 1/4W	1	
	R6501	D0GB103JA065	10K 1/10W	1	
	R6502	D0GB472JA065	4.7K 1/10W	1	
	R6504	D0GB103JA065	10K 1/10W	1	
	R6505	D0GB472JA065	4.7K 1/10W	1	
	R6506	D0GB103JA065	10K 1/10W	1	
	R6507	D0GB472JA065	4.7K 1/10W	1	
	R6510	D0GB103JA065	10K 1/10W	1	
	R6512	D0GB471JA065	470 1/10W	1	
	R6513	D0GB153JA065	15K 1/10W	1	
	R6514	D0GB471JA065	470 1/10W	1	
	R6515	D0GB183JA065	18K 1/10W	1	
	R6516	D0GB101JA065	100 1/10W	1	
	R6523	D0GB470JA065	47 1/10W	1	
	R6525	D0GBR00J0004	0 1/10W	1	
	R6526	D0GB472JA065	4.7K 1/10W	1	
	R6527	D0GB101JA065	100 1/10W	1	
	R6528	D0GB470JA065	47 1/10W	1	
	R6529	D0GBR00J0004	0 1/10W	1	
	R6530	D0GBR00J0004	0 1/10W	1	
	R6531	D0GBR00J0004	0 1/10W	1	
	R6533	D0GB101JA065	100 1/10W	1	
	R6534	D0GB101JA065	100 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R6536	D0GB101JA065	100 1/10W	1	
	R6542	D0GB103JA065	10K 1/10W	1	
	R6543	D0GB472JA065	4.7K 1/10W	1	
	R6544	D0GB472JA065	4.7K 1/10W	1	
	R6549	D0GB103JA065	10K 1/10W	1	
	R6550	D0GB101JA065	100 1/10W	1	
	R6551	D0GB101JA065	100 1/10W	1	
	R6552	D0GB101JA065	100 1/10W	1	
	R6553	D0GB101JA065	100 1/10W	1	
	R6554	D0GB472JA065	4.7K 1/10W	1	
	R7158	D0GB330JA065	33 1/10W	1	
	R8002	D0GB103JA065	10K 1/10W	1	
	R8003	D0GB102JA065	1K 1/10W	1	
	R8004	D0GB102JA065	1K 1/10W	1	
	R8005	D0GB105JA065	1M 1/10W	1	
	R8006	D0GB221JA065	220 1/10W	1	
	R8010	D0GA104JA023	100K 1/16W	1	
	R8011	D0GA104JA023	100K 1/16W	1	
	R8012	D0GBR00J0004	0 1/10W	1	
	R8013	D0GBR00J0004	0 1/10W	1	
	R8014	D0GBR00J0004	0 1/10W	1	
	R8015	D0GBR00J0004	0 1/10W	1	
	R8017	D0GBR00J0004	0 1/10W	1	
	R8021	D0GA330JA023	33 1/16W	1	
	R8022	D0GA100JA023	10 1/16W	1	
	R8027	D0GB100JA065	10 1/10W	1	
	R8029	D0GA330JA023	33 1/16W	1	
	R8031	D0GA103JA023	10K 1/16W	1	
	R8032	D0GBR00J0004	0 1/10W	1	
	R8042	D0GA103JA023	10K 1/16W	1	
	R8043	D0GAR00J0005	0 1/16W	1	
	R8044	D0GAR00J0005	0 1/16W	1	
	R8045	D0GAR00J0005	0 1/16W	1	
	R8046	D0GB103JA065	10K 1/10W	1	
	R8047	D0GB103JA065	10K 1/10W	1	
	R8201	D0GBR00J0004	0 1/10W	1	
	R8203	D0GBR00J0004	0 1/10W	1	
	R8209	D0GB225JA065	2.2M 1/10W	1	
	R8210	D0GB821JA065	820 1/10W	1	
	R8211	D0GB272JA065	2.7K 1/10W	1	
	R8212	D0GB4R7JA065	4.7 1/10W	1	
	R8214	D0GB103JA065	10K 1/10W	1	
	R8215	D0GB5R6JA065	5.6 1/10W	1	
	R8252	D0GB102JA065	1K 1/10W	1	
	R8254	D0GB562JA065	5.6K 1/10W	1	
	R8255	D0GB332JA065	3.3K 1/10W	1	
	R8256	D0GB101JA065	100 1/10W	1	
	R8257	D0GB562JA065	5.6K 1/10W	1	
	R8258	D0GB273JA065	27K 1/10W	1	
	R8259	D0GB472JA065	4.7K 1/10W	1	
	R8260	D0GB473JA065	47K 1/10W	1	
	R8261	D0GB101JA065	100 1/10W	1	
	R8262	D0GB100JA065	10 1/10W	1	
	R8263	D0GB102JA065	1K 1/10W	1	
	R8264	D0GB122JA065	1.2K 1/10W	1	
	R8265	D0GB104JA065	100K 1/10W	1	
	R8301	D0GBR00J0004	0 1/10W	1	
	R8302	D0GBR00J0004	0 1/10W	1	
	R8502	D0GA473JA023	47K 1/16W	1	
	R8503	D0GA473JA023	47K 1/16W	1	
	R8504	D0GA473JA023	47K 1/16W	1	
	R8505	D0GA473JA023	47K 1/16W	1	
	R8506	D0GA473JA023	47K 1/16W	1	
	R8507	D0GA473JA023	47K 1/16W	1	
	R9000	D0GB103JA065	10K 1/10W	1	
	R9001	D0GB103JA065	10K 1/10W	1	
	R9001	ERJ2RKD300X	30 1/16W	1	
	R9002	D0GB103JA065	10K 1/10W	1	
	R9002	ERJ2RKD300X	30 1/16W	1	
	R9003	D0GA153JA023	15K 1/16W	1	
	R9003	D0GB103JA065	10K 1/10W	1	
	R9004	D0GA153JA023	15K 1/16W	1	
	R9004	D0GB122JA065	1.2K 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R9005	D0GB122JA065	1.2K 1/10W	1	
	R9006	D0GB152JA065	1.5K 1/10W	1	
	R9007	D0GB152JA065	1.5K 1/10W	1	
	R9008	D0GB222JA065	2.2K 1/10W	1	
	R9009	D0GB222JA065	2.2K 1/10W	1	
	R9010	D0GB332JA065	3.3K 1/10W	1	
	R9011	D0GB332JA065	3.3K 1/10W	1	
	R9012	D0GB472JA065	4.7K 1/10W	1	
	R9013	D0GB472JA065	4.7K 1/10W	1	
	R9015	D0GB682JA065	6.8K 1/10W	1	
	R9017	D0GB153JA065	15K 1/10W	1	
	R9019	D0GB473JA065	47K 1/10W	1	
	R9300	D0GBR00J0004	0 1/10W	1	
			CAPACITORS		
	C51	F1H1H102B047	1000pF 50V	1	
	C52	F1H1A474A107	0.47uF 10V	1	
	C61	F1H1H104B047	0.1uF 50V	1	
	C62	F1H1H104B047	0.1uF 50V	1	
	C63	F1H1H6R0B050	6pF 50V	1	
	C64	F1H1H3R0B050	3pF 50V	1	
	C65	F1H1H3R0B050	3pF 50V	1	
	C66	F1H1H330A889	33pF 50V	1	
	C67	F1H1H3R0B050	3pF 50V	1	
	C901	F1H1H102B047	1000pF 50V	1	
	C902	F1H1H221B047	220pF 50V	1	
	C907	F1H1H103B047	0.01uF 50V	1	
	C1000	F1J1A106A043	10uF 10V	1	
	C1001	F1J1A106A043	10uF 10V	1	
	C1002	F1J1C1060001	10uF 16V	1	
	C1004	F1H1H332B047	3300pF 50V	1	
	C1005	F1H1H104B047	0.1uF 50V	1	
	C1008	F1J1A106A043	10uF 10V	1	
	C1009	F1J1A106A043	10uF 10V	1	
	C1015	F1H1H332B047	3300pF 50V	1	
	C1016	F1H1H104B047	0.1uF 50V	1	
	C1018	F1H1H103B047	0.01uF 50V	1	
	C1019	F1H1H103B047	0.01uF 50V	1	
	C1020	F1J1E475A257	4.7uF 25V	1	
	C1021	F1K1H475A256	4.7uF 50V	1	
	C1030	F1H1H102B047	1000pF 50V	1	
	C2017	F1H1C104A178	0.1uF 16V	1	
	C2018	F1J1A4750002	4.7uF 10V	1	
	C2029	F1H1H104B047	0.1uF 50V	1	
	C2032	F1H1H104B047	0.1uF 50V	1	
	C2034	F1H1H104B047	0.1uF 50V	1	
	C2042	F1H1H104B047	0.1uF 50V	1	
	C2051	F1J1A106A043	10uF 10V	1	
	C2052	F1H1H180B052	18pF 50V	1	
	C2053	F1H1H180B052	18pF 50V	1	
	C2054	F1H1H104B047	0.1uF 50V	1	
	C2055	F1H1H104B047	0.1uF 50V	1	
	C2056	F1H1H104B047	0.1uF 50V	1	
	C2061	F1H1H104B047	0.1uF 50V	1	
	C2064	F2A1H3R3A213	3.3uF 50V	1	
	C2077	F1H1H331A885	330pF 50V	1	
	C2302	F1J1A106A043	10uF 10V	1	
	C6005	F1K1E1060001	10uF 25V	1	
	C6018	F1H1H104B047	0.1uF 50V	1	
	C6019	F1H1H104B047	0.1uF 50V	1	
	C6020	F1H1E105A153	1uF 25V	1	
	C6021	F1H1H104B047	0.1uF 50V	1	
	C6022	F1H1E105A153	1uF 25V	1	
	C6023	F1H1H104B047	0.1uF 50V	1	
	C6024	F1H1H333B055	0.033uF 50V	1	
	C6025	F1H1H333B055	0.033uF 50V	1	
	C6027	F1H1H104B047	0.1uF 50V	1	
	C6028	F1H1H333B055	0.033uF 50V	1	
	C6030	F1H1H333B055	0.033uF 50V	1	
	C6031	F1K1H105A138	1uF 50V	1	
	C6032	F1H1H104B047	0.1uF 50V	1	
	C6033	F2A1H4710072	470uF 50V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C6036	F1H1H104B047	0.1uF 50V	1	
	C6039	F1K1H105A138	1uF 50V	1	
	C6040	F2A1H4710072	470uF 50V	1	
	C6042	ECQV1H474JL3	0.47uF 50V	1	
	C6044	ECQV1H474JL3	0.47uF 50V	1	
	C6045	F1H1H102B047	1000pF 50V	1	
	C6046	F1H1H102B047	1000pF 50V	1	
	C6047	F1H1H102B047	1000pF 50V	1	
	C6048	F1H1H102B047	1000pF 50V	1	
	C6049	F1H1H104B047	0.1uF 50V	1	
	C6055	F1H1H104B047	0.1uF 50V	1	
	C6059	F1H1H104B047	0.1uF 50V	1	
	C6060	F1H1H104B047	0.1uF 50V	1	
	C6061	F1H1H103B047	0.01uF 50V	1	
	C6062	F1H1H103B047	0.01uF 50V	1	
	C6063	F1H1H103B047	0.01uF 50V	1	
	C6064	F1H1H103B047	0.01uF 50V	1	
	C6068	F1K1E1060001	10uF 25V	1	
	C6069	F1H1H104B047	0.1uF 50V	1	
	C6070	F1H1H104B047	0.1uF 50V	1	
	C6071	F1H1H104B047	0.1uF 50V	1	
	C6074	F1H1H104B047	0.1uF 50V	1	
	C6087	F1H1A105A062	1uF 10V	1	
	C6091	F1H1A105A062	1uF 10V	1	
	C6099	F1H1H681A889	680pF 50V	1	
	C6100	F1H1H681A889	680pF 50V	1	
	C6500	F1J1A106A043	10uF 10V	1	
	C6501	F1H1H104B047	0.1uF 50V	1	
	C6502	F1J1A106A043	10uF 10V	1	
	C6503	F1H1H104B047	0.1uF 50V	1	
	C6504	F1H1H472A219	4700pF 50V	1	
	C6505	F1H1C473A088	0.047uF 16V	1	
	C6506	F1H1H472A219	4700pF 50V	1	
	C6507	F1H1C473A088	0.047uF 16V	1	
	C6508	F1H1H104B047	0.1uF 50V	1	
	C6509	F1J1A106A043	10uF 10V	1	
	C6510	F1H1E474A116	0.47uF 25V	1	
	C6511	F1H1H104B047	0.1uF 50V	1	
	C6512	F1H1H104B047	0.1uF 50V	1	
	C6513	F1J1A106A043	10uF 10V	1	
	C6514	F1H1H104B047	0.1uF 50V	1	
	C6516	F1H1E474A116	0.47uF 25V	1	
	C6519	F1H1E474A116	0.47uF 25V	1	
	C6521	F1H1E474A116	0.47uF 25V	1	
	C6527	F1J1A106A043	10uF 10V	1	
	C6528	F1H1H104B047	0.1uF 50V	1	
	C6530	F1H1H104B047	0.1uF 50V	1	
	C6531	F1H1H104B047	0.1uF 50V	1	
	C7150	F1H1H104B047	0.1uF 50V	1	
	C7154	F1H1H104B047	0.1uF 50V	1	
	C7155	F1H1A105A062	1uF 10V	1	
	C7156	F1H1A105A062	1uF 10V	1	
	C7157	F1H1H103B047	0.01uF 50V	1	
	C7158	F1H1H104B047	0.1uF 50V	1	
	C7159	F1H1H104B047	0.1uF 50V	1	
	C7160	F1H1H104B047	0.1uF 50V	1	
	C8007	F1H1A334A107	0.33uF 10V	1	
	C8008	F1H1H223B047	0.022uF 50V	1	
	C8009	F1H1H680A831	68pF 50V	1	
	C8010	F1G1A1040006	0.1uF 10V	1	
	C8011	F1H1H104B047	0.1uF 50V	1	
	C8012	F1G1A1040006	0.1uF 10V	1	
	C8013	F2A0J101A208	100uF 6.3V	1	
	C8014	F1H1H103B047	0.01uF 50V	1	
	C8015	F1G1H120A565	12pF 50V	1	
	C8016	F1G1H120A565	12pF 50V	1	
	C8017	F1J1A106A043	10uF 10V	1	
	C8018	F1H1A334A107	0.33uF 10V	1	
	C8019	F1H1H102B047	1000pF 50V	1	
	C8020	F1H1H681B047	680pF 50V	1	
	C8021	F1H1C823A178	0.082uF 16V	1	
	C8022	F1H0J4750005	4.7uF 6.3V	1	
	C8025	F1H0J4750005	4.7uF 6.3V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C8026	F1H0J4750005	4.7uF 6.3V	1	
	C8027	F1H1H102B047	1000pF 50V	1	
	C8028	F1H1H104B047	0.1uF 50V	1	
	C8029	F1G1A1040006	0.1uF 10V	1	
	C8031	F1G1A1040006	0.1uF 10V	1	
	C8032	F1H1H104B047	0.1uF 50V	1	
	C8033	F1H1H104B047	0.1uF 50V	1	
	C8034	F1H1H104B047	0.1uF 50V	1	
	C8035	F1G1A1040006	0.1uF 10V	1	
	C8036	F1G1A1040006	0.1uF 10V	1	
	C8037	F1H1H104B047	0.1uF 50V	1	
	C8038	F1H1H104B047	0.1uF 50V	1	
	C8039	F1H1H104B047	0.1uF 50V	1	
	C8040	F1G1A1040006	0.1uF 10V	1	
	C8041	F1H1H104B047	0.1uF 50V	1	
	C8042	F1H1H104B047	0.1uF 50V	1	
	C8043	F1H1H104B047	0.1uF 50V	1	
	C8044	F1H0J4750005	4.7uF 6.3V	1	
	C8045	F1G1A1040006	0.1uF 10V	1	
	C8046	F1H1H104B047	0.1uF 50V	1	
	C8047	F1H1H153B047	0.015uF 50V	1	
	C8048	F1H1H104B047	0.1uF 50V	1	
	C8049	F1J1A106A043	10uF 10V	1	
	C8050	F1H1A105A062	1uF 10V	1	
	C8058	F1G1A1040006	0.1uF 10V	1	
	C8059	F1G1A1040006	0.1uF 10V	1	
	C8060	F1H1A105A062	1uF 10V	1	
	C8061	F1G1A1040006	0.1uF 10V	1	
	C8064	F2A0J221A016	220uF 6.3V	1	
	C8065	F1J1A106A043	10uF 10V	1	
	C8067	F1J1A106A043	10uF 10V	1	
	C8068	F1H1H332B047	3300pF 50V	1	
	C8069	F1H1H332B047	3300pF 50V	1	
	C8070	F1J1A106A043	10uF 10V	1	
	C8071	F1G1A1040006	0.1uF 10V	1	
	C8072	F1G1A1040006	0.1uF 10V	1	
	C8073	F1G1A1040006	0.1uF 10V	1	
	C8074	F1G1A1040006	0.1uF 10V	1	
	C8075	F1J1A106A043	10uF 10V	1	
	C8076	F1J1A106A043	10uF 10V	1	
	C8101	F1H1H102B047	1000pF 50V	1	
	C8102	F1H1H104B047	0.1uF 50V	1	
	C8201	F1J1A106A043	10uF 10V	1	
	C8202	F1H1H104B047	0.1uF 50V	1	
	C8203	F1H1H103B047	0.01uF 50V	1	
	C8204	F1J1A106A043	10uF 10V	1	
	C8251	F2A1C470B455	47uF 16V	1	
	C8252	F1H1H103B047	0.01uF 50V	1	
	C8253	F1H1A154A107	0.15uF 10V	1	
	C8254	F1H1H153B047	0.015uF 50V	1	
	C8255	F1H1H182B047	1800pF 50V	1	
	C8256	F1H1H102B047	1000pF 50V	1	
	C8258	F1H1H122B047	1200pF 50V	1	
	C8259	F1J1A106A043	10uF 10V	1	
	C8260	F1H1H103B047	0.01uF 50V	1	
	C8261	F1H1A105A062	1uF 10V	1	
	C8262	F2A0J101A208	100uF 6.3V	1	
	C8263	F1H1H103B047	0.01uF 50V	1	
	C8501	F1H1A105A025	1uF 10V	1	
	C8515	F1G1A1040006	0.1uF 10V	1	
	C9000	F1H1H101B052	100pF 50V	1	
	C9001	F1H1H101B052	100pF 50V	1	
	C9004	F1H1H101B052	100pF 50V	1	
	C9005	F1H1H102B047	1000pF 50V	1	
	K8208	F1H1H104B047	0.1uF 50V	1	

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