

Service Manual

CD Stereo System



This illustration shows SC-AKX77.

Model No. SA-AKX57PN

SA-AKX77PH

SA-AKX77PN

SC-AKX57PN

SC-AKX77PH

SC-AKX77PN

Product Color: (K)...Black Type

Please refer to the original service manual for:

- CD Mechanism Unit (BRS11C), Order No. PSG1102001CE
- Speaker system SB-AKX76PN-K, Order No. PSG1304024CE (For SA-AKX77PN/PH)
- Speaker system SB-AKX56PN-K, Order No. PSG1304049AE (For SA-AKX57PN)

⚠ 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 Δ in the Schematic Diagrams, Circuit Board Layout, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent X-RADIATION, shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

2. An Isolation Transformer should always be used during the servicing of AC Adaptor whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks. It will also protect AC Adaptor from being damaged by accidental shorting that may occur during servicing.
3. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
4. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
5. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.1.1. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between $1M\Omega$ and $5.2M\Omega$.

When the exposed metal does not have a return path to the chassis, the reading must be ∞

1.1.2. Leakage Current Hot Check

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

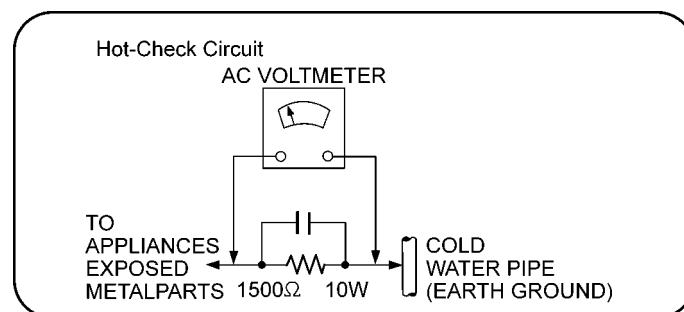


Figure 1-1

1.2. Before 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.)

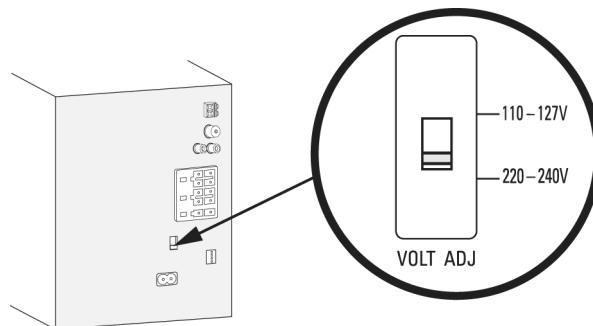


Figure 1-2

1.3. Before Repair and Adjustment

Disconnect AC power to discharge unit AC Capacitors as such (C5701, C5702, C5703, C5704, C5705, C5706, C5707, C5708) through a $10\ \Omega$, 10 W resistor to ground.

Caution:

DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices.

After repairs are completed, restore power gradually using a variac, to avoid overcurrent.

Current consumption at AC 110~127 V / 220~240 V, 50/60 Hz in Power ON, FM Tuner at volume minimal mode should be ~ 750 mA (PH).

Current consumption at AC 120 V, 60 Hz in Power ON, FM Tuner at volume minimal mode should be ~ 500 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. Caution For Fuse Replacement

CAUTION:

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

CAUTION:

Replace with the same type fuse:
(Manufacturer: HOLLYLAND, INC, Type: 50T, F1, T8AL, 250V) (For PH only)

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
	16	RGR0443E-C1A	REAR PANEL	AKX77PN
	16	RGR0443F-BA	REAR PANEL	AKX77PH
	16	RGR0443G-C1A	REAR PANEL	AKX57PN
	17	RKM0713-K1	TOP CABINET	
	45	REXX1123-K	1P RED WIRE (VOLTAGE SELECTOR-SMPS)	AKX77PH
	46	REXX1122-K	1P BLACK WIRE (VOLTAGE SELECTOR-SMPS)	AKX77PH
	301	RAE1036Z-V	TRAVERSE ASS'Y	
	A2	K2CB2CB00022	AC CORD	AKX57PN, AKX77PN
	A2	K2CQ2YY00119	AC CORD	AKX77PH
	A3	RQT9858-M	O/I BOOK (Sp/En)	
	PCB8	REP4965J	SMPS P.C.B.	(RTL)AKX57PN
	PCB8	REP4965H	SMPS P.C.B.	(RTL)AKX77PN
	PCB8	REP4965G	SMPS P.C.B.	(RTL)AKX77PH
	PCB9	REP4965G	VOLTAGE SELECTOR P.C.B.	(RTL)AKX77PH
	DZ5701	D4EAY511A127	VARISTOR	(E.S.D)
	S5701	K0ABCAB000007	VOLTAGE SELECTOR	AKX77PH
	L5701	G0B183J00002	LINE FILTER	
	L5702	G0B183J00002	LINE FILTER	
	T5701	G4DYZ0000069	TRANSFORMER	AKX57PN
	T5701	G4DYZ0000070	TRANSFORMER	AKX77PH, AKX77PN
	T5751	G4DYZ0000064	TRANSFORMER	AKX57PN
	T5751	G4DYZ0000065	TRANSFORMER	AKX77PH, AKX77PN
	T6000	G4DYA0000214	TRANSFORMER	
	F1	K5D802APA008	FUSE	AKX57PN, AKX77PN
	F1	K5D802BK0004	FUSE	AKX77PH
	PC5701	B3PBA0000579	PHOTO COUPLER	
	PC5702	B3PBA0000579	PHOTO COUPLER	
	PC5720	B3PBA0000579	PHOTO COUPLER	
	PC5799	B3PBA0000579	PHOTO COUPLER	
	P5701	K2AA2B000011	AC INLET	AKX77PH
	P5701	K2AB2B000007	AC INLET	AKX57PN, AKX77PN
	R5708	D0GF155JA048	1.5M 1/4W	AKX57PN, AKX77PH
	R5708	ERJ8GEYJ105V	1M 1/4W	AKX77PN
	R5709	D0GF155JA048	1.5M 1/4W	AKX57PN, AKX77PH
	R5709	ERJ8GEYJ105V	1M 1/4W	AKX77PN
	C5701	F0CAF104A105	0.1uF	
	C5702	F0CAF104A105	0.1uF	AKX57PN, AKX77PH
	C5702	F0CAF224A105	0.22uF	AKX77PN
	C5703	F0CAF104A105	0.1uF	AKX57PN, AKX77PH
	C5703	F0CAF224A105	0.22uF	AKX77PN
	C5704	F1BAF471A013	470pF	
	C5705	F1BAF471A013	470pF	
	C5706	F1BAF471A013	470pF	
	C5707	F1BAF471A013	470pF	
	C5708	F1BAF471A013	470pF	

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).

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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:

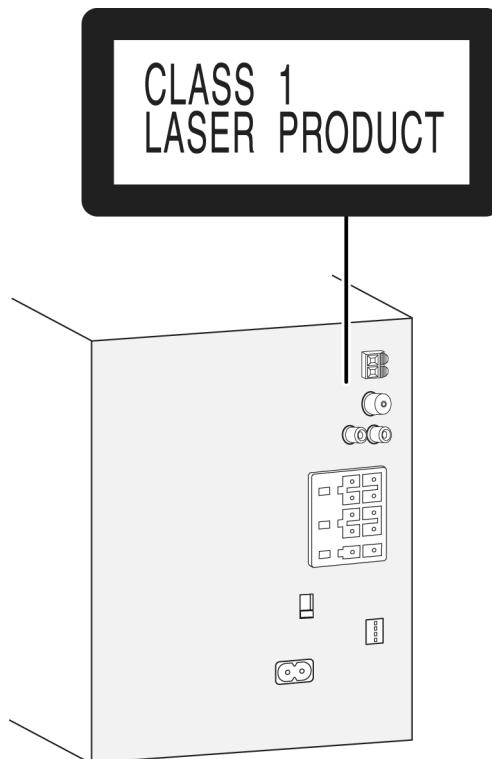
This product utilizes a laser diode with the unit turned “on”, invisible laser radiation is emitted from the pickup lens.

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 Ass'y

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.

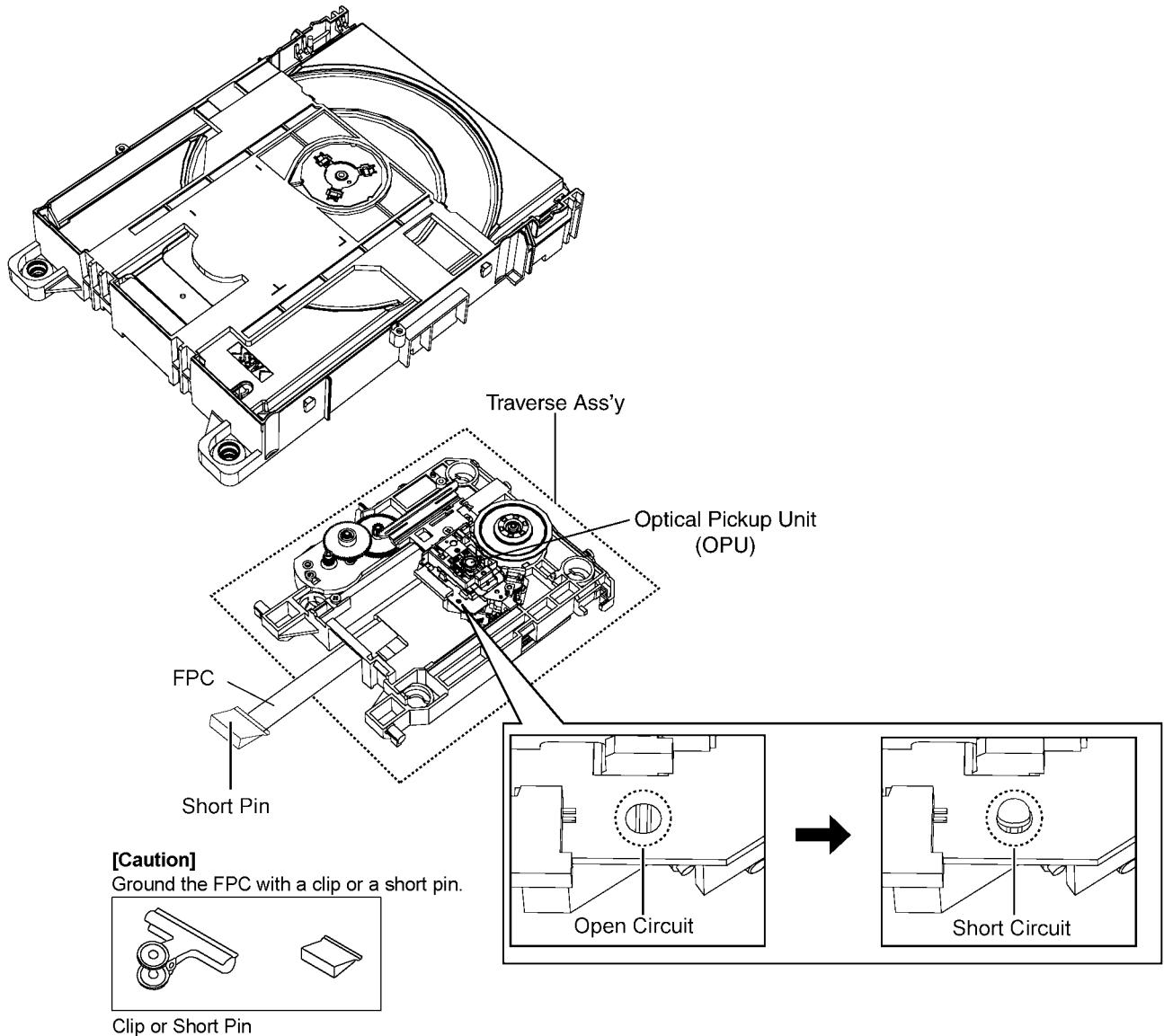


Figure 2-2

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 from your body Figure 2-3.

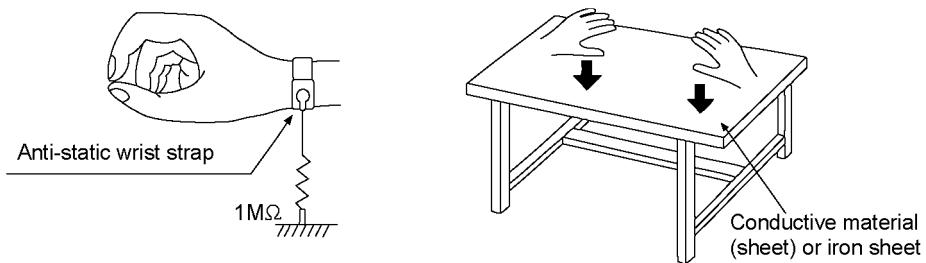


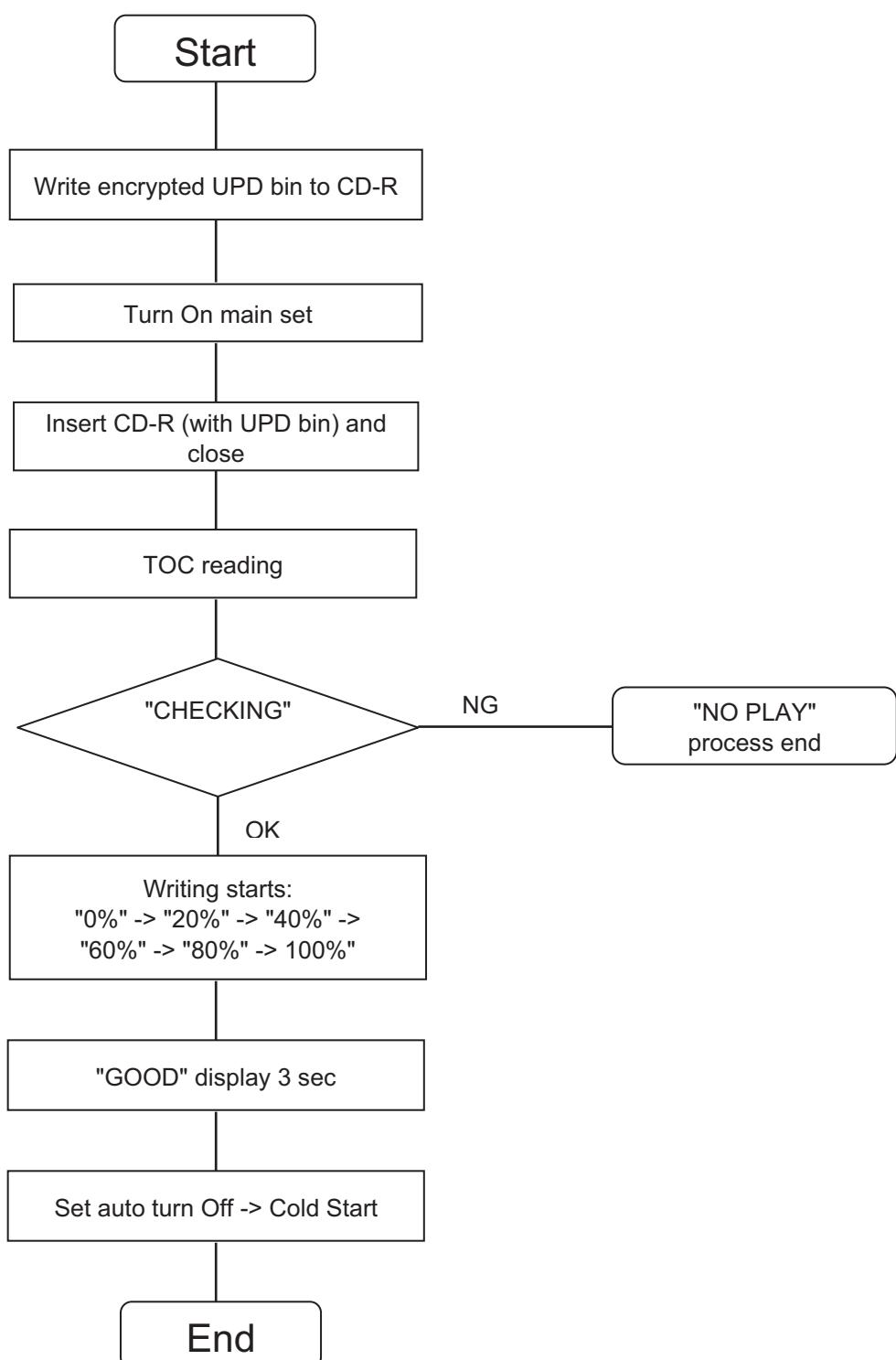
Figure 2-3

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.

3.2. Firmware Update Procedure



4 Specifications

■ Amplifier section		■ USB section	
RMS output power stereo mode		USB Port	
Front Hi	250 W per channel (3 Ω), 1 kHz, 30% THD	USB standard	USB 2.0 full speed
Front Lo	250 W per channel (3 Ω), 100 Hz, 30% THD	Media file format support	MP3 (*.mp3)
AKX77 Subwoofer Ch	400 W per channel (2 Ω), 100 Hz, 30% THD	USB device file system	FAT12, FAT16, FAT32
Total RMS stereo mode power AKX77 AKX57	1400 W (30% THD) 1000 W (30% THD)	USB port power	500 mA (max)
		Bit rate	16 kbps to 320 kbps (playback)
■ Tuner, terminals section		USB recording	
Preset memory		Bit rate	128 kbps
	FM 30 stations AM 15 stations	USB recording speed	1x, 3x max (CD only)
		Recording file format	MP3 (*.mp3)
Frequency modulation (FM)		■ Bluetooth® section	
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)	Bluetooth® system specification	V 3.0
Antenna terminals	75 Ω (unbalanced)	Wireless equipment classification	
		Class 2	
Amplitude modulation (AM)		Supported profiles	
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)	A2DP, AVRCP, GAVDP	
		Frequency band	
		2402 MHz to 2480 MHz (Adaptive Frequency Hopping)	
Music port (front)		Driving distance	
Sensitivity	100 mV, 4.7 kΩ	10 m line of sight	
Terminal	Stereo, 3.5 mm jack		
Aux Input		■ General	
	Pin jack	Power supply	AC 110 to 127/220 to 240 V, 50/60 Hz (PH) AC 120 V, 60 Hz (PN)
■ Disc section		Power consumption	
Discs played (8 cm or 12 cm)	CD, CD-R/RW (CD-DA, MP3*)	AKX77	125 W (for PH) 120 W (for PN)
		AKX57	105 W
Pick up		Dimensions (W x H x D)	
Wavelength	790 nm (CD)	220 mm x 334 mm x 250 mm	
Audio output (disc)		Mass	
Number of channels		AKX77	3.4 kg
AKX77	2.1 ch (FL, FR, SW)	AKX57	3.3 kg
AKX57	2 ch (FL, FR)		
FL = Front left channel		Operating temperature range	
FR = Front right channel		0 °C to +40 °C	
SW = Subwoofer channel		Operating humidity range	
*MPEG-1 Layer 3		35% to 80% RH (no condensation)	
■ Internal memory section		Power consumption in standby mode	
Memory		0.3 W (approximate) (PH) 0.2 W (approximate) (PN)	
Memory size	2 GB		
Media file format support	MP3 (*.mp3)		
Memory recording		Note:	
Bit rate	128 kbps	1. Specifications are subject to change without notice. Mass and dimensions are approximate.	
Memory recording speed	1x, 3x max (CD only)	2. Total harmonic distortion is measured by the digital spectrum analyzer.	
Recording file format	MP3 (*.mp3)	■ System: SC-AKX57PN-K	
Capacity of total songs recorded	510 songs	Main Unit: SA-AKX57PN-K Speaker System: SB-AKX56PN-K	
(use 128 kbps, approximately 1 song = 4 mins)			
■ System: SC-AKX77PN/PH-K		Main Unit: SA-AKX77PN/PH-K Speaker System: SB-AKX76PN-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



① Standby/on switch [Ø], [Ø/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.

② Alphanumeric buttons

To select a 2-digit number

Example: 16: [≥ 10] → [1] → [6]

To set a character

Example: B: [2] → [2]

③ Delete a programmed track

Delete a selected track in a playlist

④ Select audio source

⑤ Basic playback control

⑥ Select the sound effects

⑦ Start the title search for internal memory

⑧ View content information

Decrease the brightness of the display panel

Press and hold the button to use this function.

To cancel, press and hold the button again.

⑨ Recording operation control

⑩ Set the play timer and record timer

⑪ Set the clock and timer

⑫ Set the sleep timer

Automatically switch off the system

When you are in disc, USB or internal memory source, the auto off function switches off the system if you do not use the system for 30 minutes.

Press and hold the button to use this function.

To cancel, press and hold the button again.

⑬ Set the program function

⑭ Adjust the volume of the system

⑮ 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.

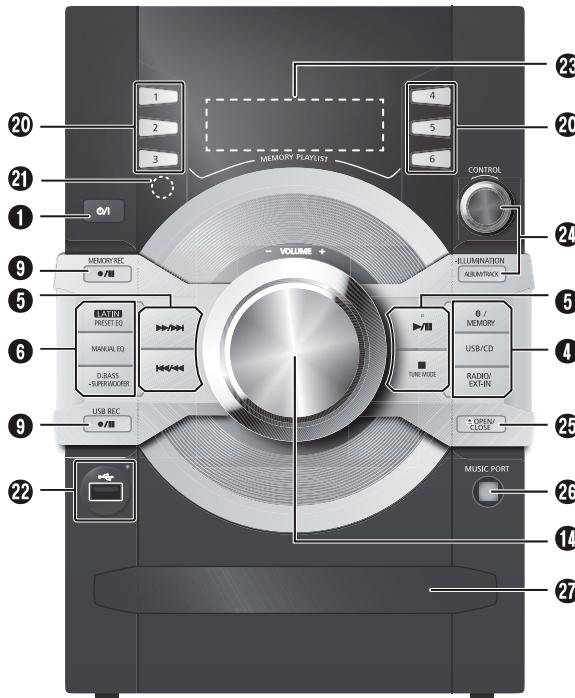
⑯ Set the play menu item

⑰ Internal memory playlist operation

⑱ Select the option

⑲ Set the edit mode for USB and internal memory

6.2. Main Unit Key Button Operation



① Standby/on switch [⊕], [⊖/|]

Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

④ Select audio source

⑤ Basic playback control

⑥ Select the sound effects

⑨ Recording operation control

⑯ Adjust the volume of the system

⑳ Internal memory playlist direct buttons

Press and hold to add a track to the corresponding playlist.
Press to select the playlist.

㉑ Remote control sensor

Distance: Within approximately 7 m

Angle: Approximately 20° up and down, 30° left and right

㉒ USB port (↔)

USB recording indicator

㉓ Display panel

**㉔ Browse playlist of the internal memory
Browse tracks or albums**

[CD]

Turn [CONTROL] to browse the track.

Press [**▶/II**] to start playback from the selection.

[MP3]

Press [ALBUM/TRACK] to select album or track and then turn [CONTROL] to browse.

Press [**▶/II**] to start playback from the selection.

Set the illumination effect

Press and hold [–ILLUMINATION] and then turn [CONTROL] to select the desired setting.

㉕ Open or close the disc tray

㉖ Music port jack

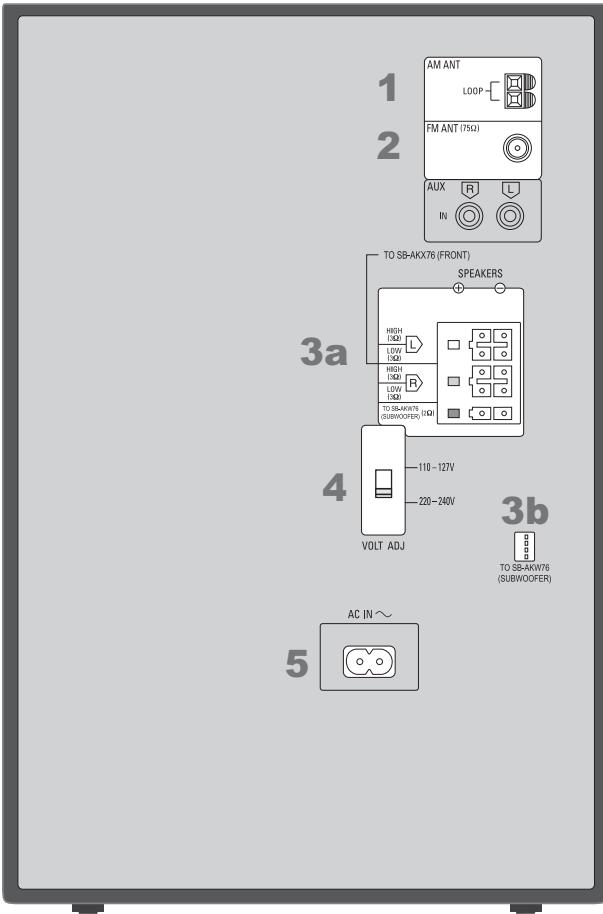
㉗ Disc tray

7 Installation Instructions

7.1. Speaker and A/C Connection

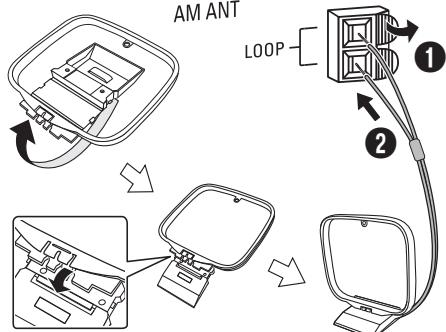
Connect the AC power supply cord only after all the other connections have been made.

The illustrations shown are of SC-AKX77 for South America (except Argentina and Brazil). Your unit may differ in appearance.



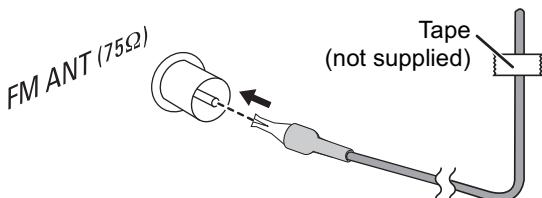
1 Connect the AM loop antenna.

Stand the antenna up on its base until it clicks.



2 Connect the FM indoor antenna.

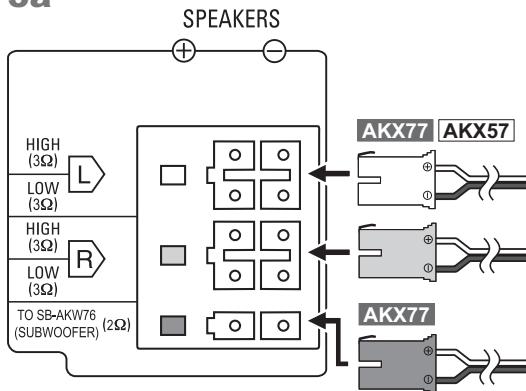
Place the antenna where reception is best.



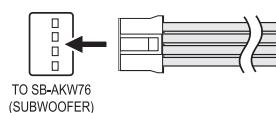
3 Connect the speakers.

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

3a

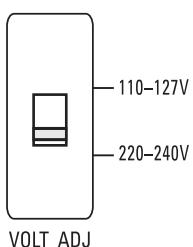


3b AKX77



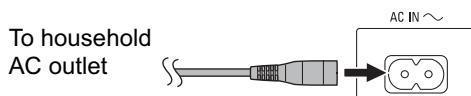
4 For PH only

Set the voltage.



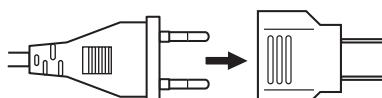
Use a flat-head screwdriver to set the voltage selector to the AC voltage in your area.

5 Connect the AC power supply cord.



For PH only

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



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.

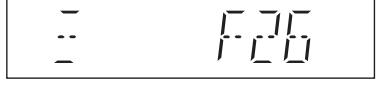
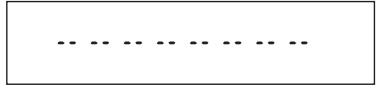
8 Service Mode

8.1. Cold-Start

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

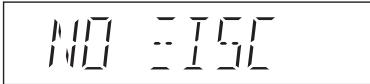
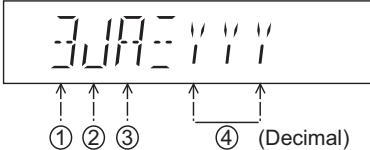
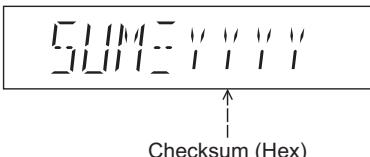
1. Unplug AC power cord
2. Press & hold [POWER] button
3. Plug AC power cord while [POWER] button being pressed
FL Display will show “-----”
4. Release [POWER] button

8.2. Service Mode Table

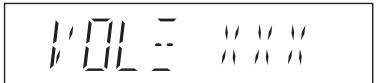
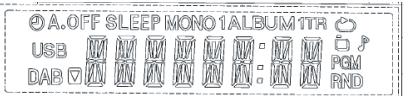
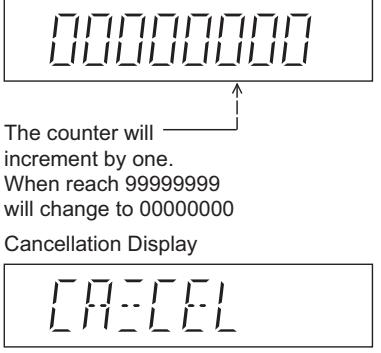
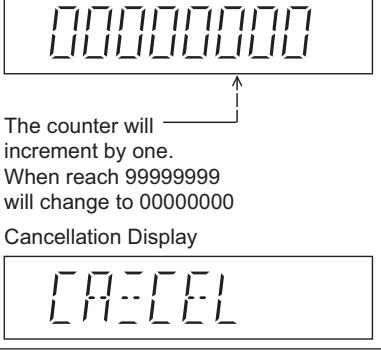
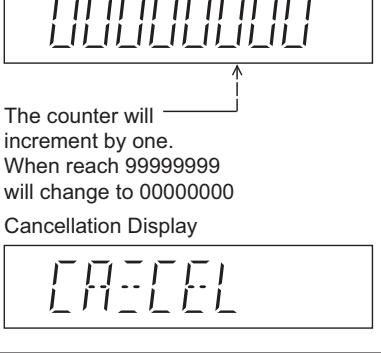
Item		FL display	Key operation
Mode name	Description		
Service Mode	To enter into Service Mode checking.		Step 1 : Select CD mode (Ensure no disc is inserted). Step 2 : Press and hold [■] 2 seconds follow by [▶▶/▶▶▶] on main unit for 2 seconds.
Error code information	System will perform a check on any unusual/error code from the memory.	Example: 	Step 1 : In service mode, Press [■] on main unit. To exit, press [◊/] on main unit or remote control.
Delete Error code	To clear the stored in memory (EEPROM IC).		Step 1 : In service mode, Press [0] on remote control more than 5 seconds. To exit, press [◊/] on main unit or remote control.
Cold Start	To activate cold start upon next power up. (Backup date are initialized)		Step 1 : In service mode, Press [3] on the remote control. To exit, press [◊/] on main unit or remote control.
Software/Firmware Version	Software/Firmware Version checking.	    <p>v = flash version (0~7), w = flash sub version (0~F), x = control version (0~F), yyy = EEPROM version (0~255), zz = EEPROM sub version (0~99),</p>	Step 1 : In Bluetooth mode first, then change back to CD mode. Step 2 : Enter Service Mode, Press [2] on remote control. To exit, press [◊/] on main unit or remote control.

8.3. Doctor Mode Table

8.3.1. Doctor Mode Table 1

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Doctor Mode	To enter into Doctor Mode		<p>In CD Mode:</p> <ol style="list-style-type: none"> Press [■] button on main unit follow by [4] and [7] on remote control. To exit, press [DELETE] button on remote control or, press [POWER, φ/I] button on Main Unit
EEPROM checksum check	Displaying of 1. Year Develop. 2. Model Type. 3. ROM Type. 4. Firmware Version.	<p>(Display 1)</p>  <p>Version No. (001 ~ 999) → specific for each firmware</p> <p>(Display 2)</p>  <p>Checksum (Hex)</p>	<p>In CD mode:</p> <ol style="list-style-type: none"> Enter into Doctor Mode
Cold Start	To active cold start upon next AC power up when reset start is execute the next time.		<p>In Doctor Mode:</p> <ol style="list-style-type: none"> Press [SLEEP] button on the remote control.

8.3.2. 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	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.

8.3.3. Doctor Mode Table 3

Item		FL Display	Key Operation																																																																		
Mode Name	Description																																																																				
CD Self- Adjustment Test	To display result of self-adjustment for CD operation.	 ↑ Display of auto adjustment result Reference table: <table border="1"> <thead> <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> </thead> <tbody> <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> </tbody> </table> <p>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).</p>	ERROR Code Status Condition	0	1	2	4	6	8	A	C	E	F	AOC1/AOC2	O	※	O	O	O	O	O	O	O	-	ABC2/ABC1	O	-	X	O	X	O	X	O	X	-	2 nd AOC1	O	-	O	X	X	O	O	X	X	-	FAGC/TAGC	O	-	O	O	O	X	X	X	X	-	AGC2	O	-	O	O	O	O	O	O	O	△	In Doctor Mode: 1. Press [10]→[1]→[4] button on the remote control. To cancel this mode, press [0] button on the remote control.
ERROR Code Status Condition	0	1	2	4	6	8	A	C	E	F																																																											
AOC1/AOC2	O	※	O	O	O	O	O	O	O	-																																																											
ABC2/ABC1	O	-	X	O	X	O	X	O	X	-																																																											
2 nd AOC1	O	-	O	X	X	O	O	X	X	-																																																											
FAGC/TAGC	O	-	O	O	O	X	X	X	X	-																																																											
AGC2	O	-	O	O	O	O	O	O	O	△																																																											
CD LSI Version Check	To check the CD LSI Version and its checksum.	(Display 1) ↑ ROM Type Year Develop Version (Decimal) after 2 sec (Display 2) ↑ Checksum (Hex)	In Doctor Mode: 1. Press [4] button on the remote control. To cancel this mode, press [0] button on the remote control.																																																																		
Bluetooth Version Check	Bluetooth module will need some time to power up and read the version display. Meanwhile [BT_--_] will show before the ver. numbers appear. 2s display count should start after flash version number appear.	 ↓ v = flash version (0~7), w = flash sub version (0~F), x = control version (0~F), yyy = EEPROM version (0~255), zz = EEPROM sub version (0~99),	1. Go to Bluetooth selector and enter Doctor Mode. 2. Press [10]→[2]→[4] and display will show.																																																																		
Bluetooth Check	1. Bluetooth device will start pairing. 2. Once connected it will autoplay for 5 sec and auto disconnect.		1. Go to Bluetooth selector and enter Doctor Mode. 2. Press USB[O/I] on remote control. 3. Device will display SC-MAX250-X, SC-MAX150-X. (X = region number)																																																																		

8.4. Reliability Test Mode (CD Mechanism Unit)

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

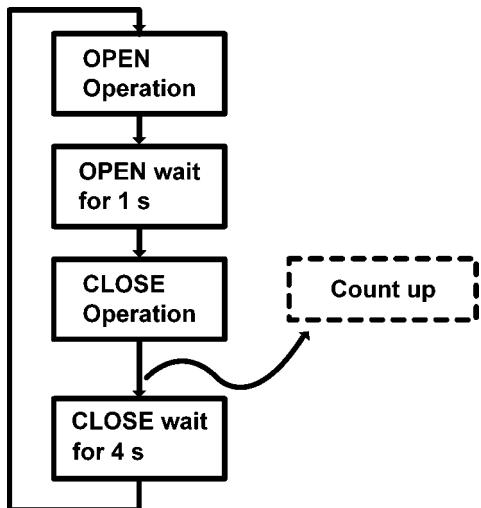


Figure 8-1 Reliability Test (Loading)

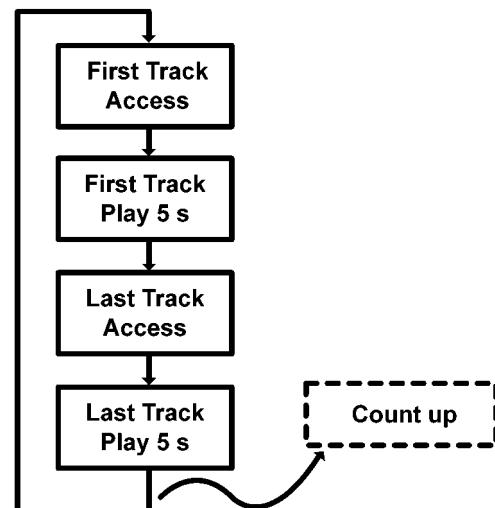


Figure 8-2 Reliability Test (Traverse)

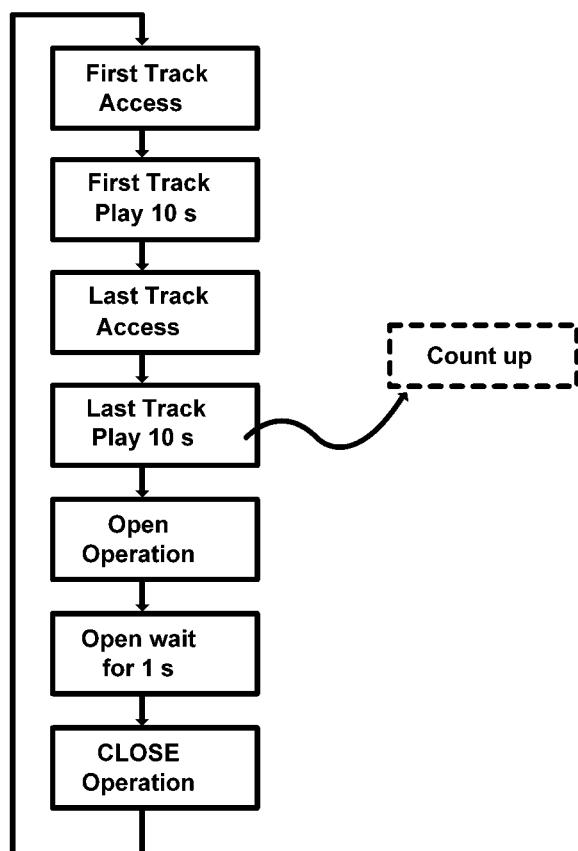


Figure 8-3 Reliability Test (Combination)

8.5. Self-Diagnostic Mode

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

8.6. Self-Diagnostic Error Code Table

Self-Diagnostic Function (Refer Section 8.5. 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.

8.6.1. 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)		

8.6.2. 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.

8.7. Sales Demonstration Lock Function

8.7.1. Entering into Sales demonstration lock mode

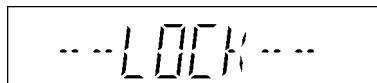
Here is the procedures to enter into the Sales demonstration lock mode.

Step 1: Turn on the unit.

Step 2: Select to any mode function.

Step 3: Press and hold [Δ OPEN/CLOSE] and [CD] keys for 5 sec or more.

The display will show upon entering into this mode for 2 sec..



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

8.7.2. Cancellation of Sales demonstration lock mode

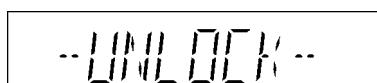
Step 1: Turn on the unit.

Step 2: Select to any mode function.

Step 3: Set volume to Vol 19.

Step 4: Press and hold [Δ 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-AKX77PH-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., Memory LED P.C.B. and Music Port P.C.B.
- Disassembly of Remote Sensor P.C.B.
- Disassembly of Bluetooth P.C.B.
- Disassembly of USB P.C.B.
- Disassembly of Rear Panel
- Disassembly of Main P.C.B.
- Disassembly of SMPS P.C.B. and Voltage Selector P.C.B.
- Disassembly of CD Mechanism Unit
- Disassembly of CD Interface P.C.B.
- Disassembly of Fan Unit

10.1. Screw Types

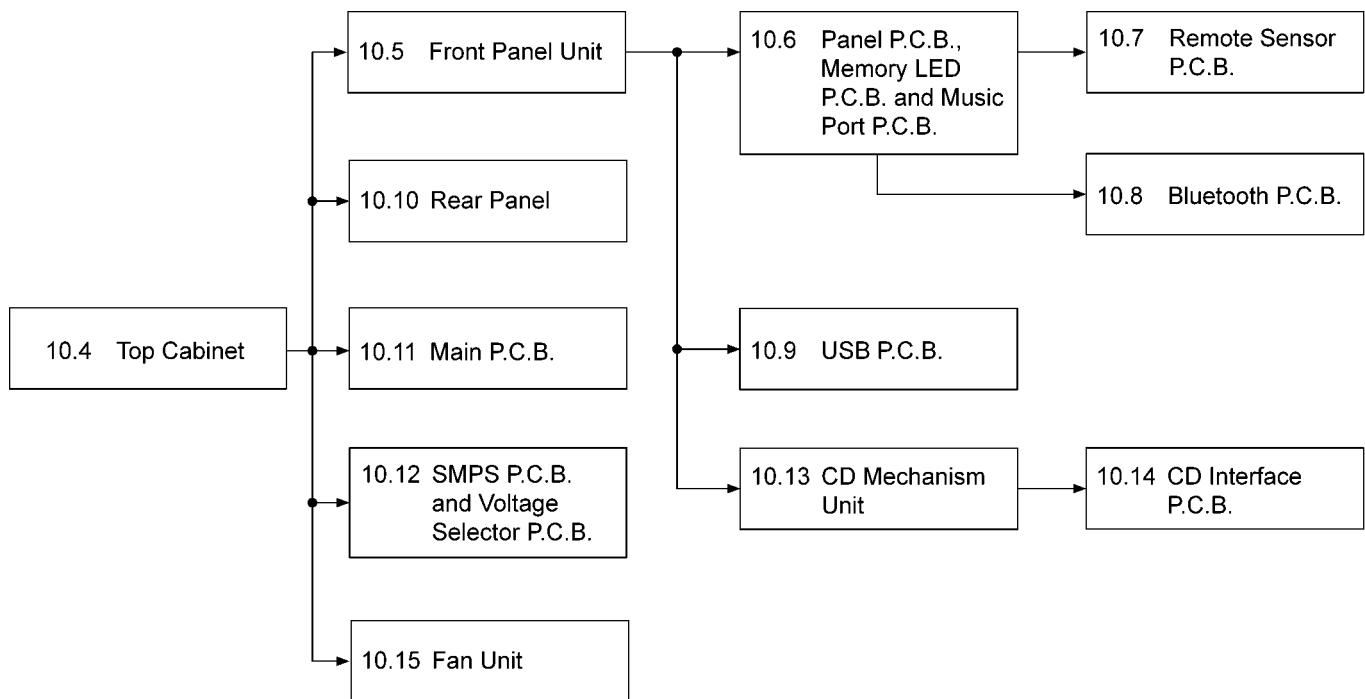
CAUTION NOTE:

Please use original screw and at correct locations.

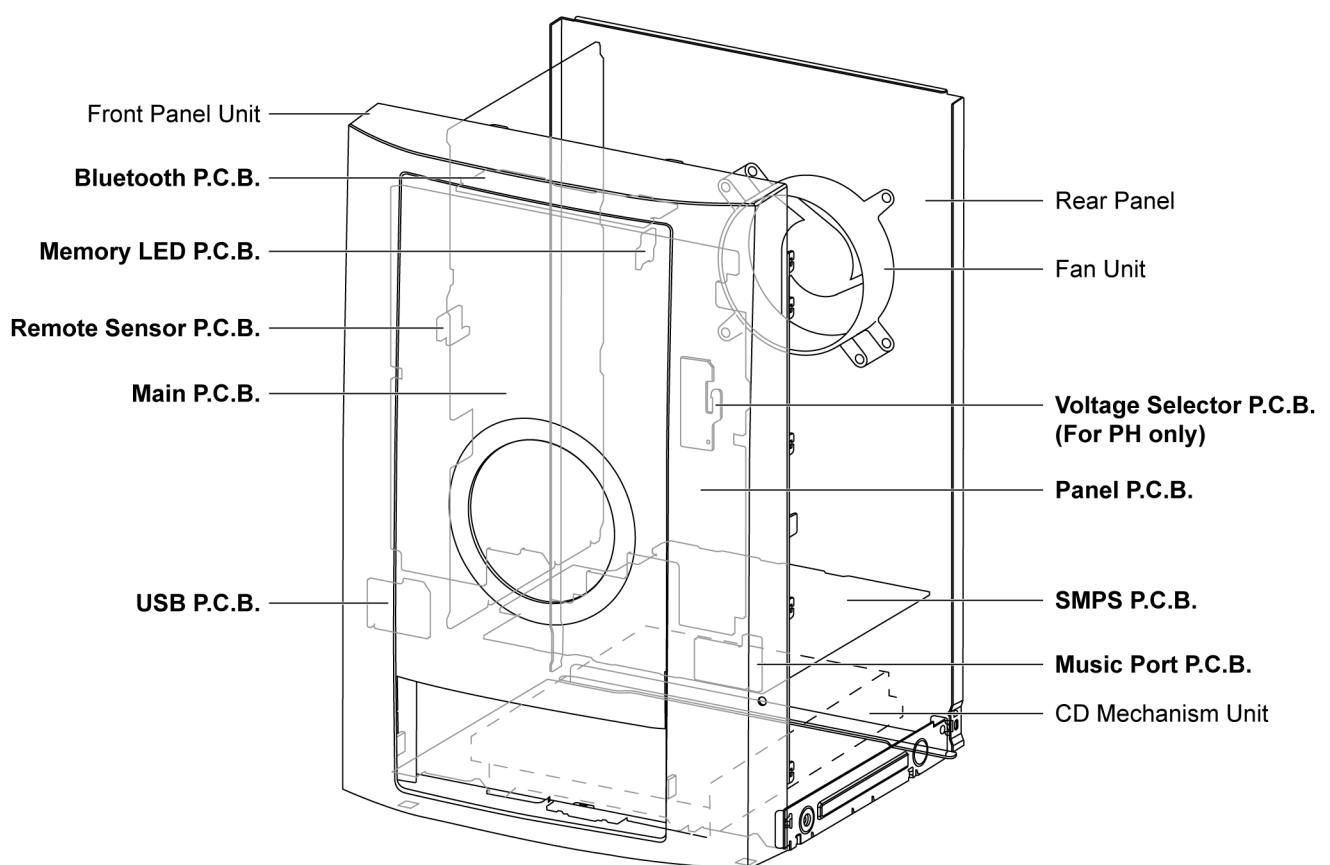
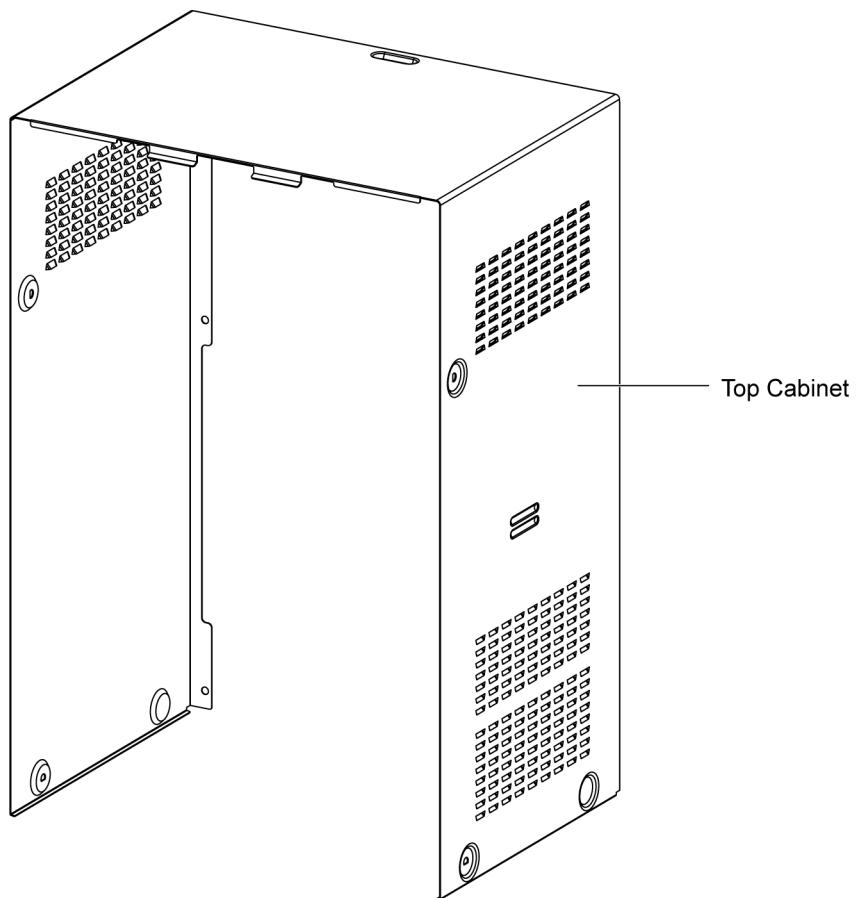
Below shown is part no. of different screw types used:

- | | |
|------------------------|-----------------------|
| a :RHD30007-K2J | e :RHD26043-1 |
| b :RHD30119-S | f :RHDX30005-J |
| c :RHD26046-L | g :RHDX031008 |
| d :RHD30111-31 | h :XTN2+6GFJ |

10.2. Disassembly Flow Chart

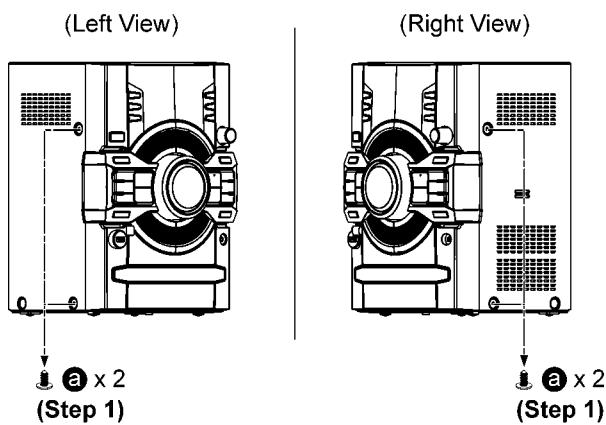


10.3. Main Components and P.C.B. Locations



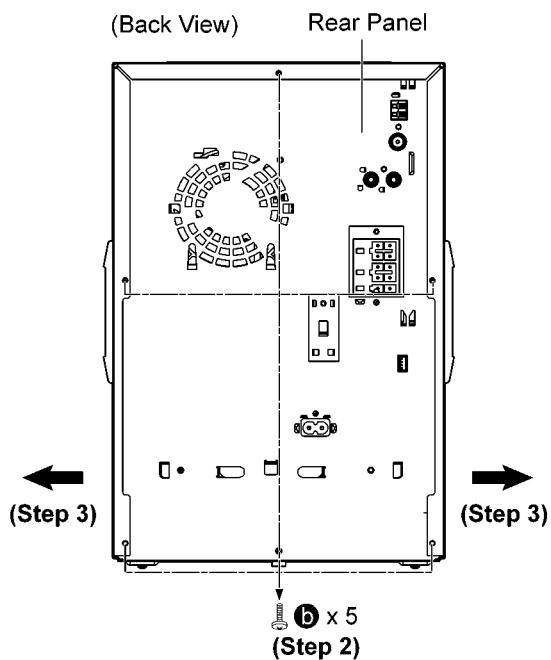
10.4. Disassembly of Top Cabinet

Step 1 Remove 2 screws on each side.



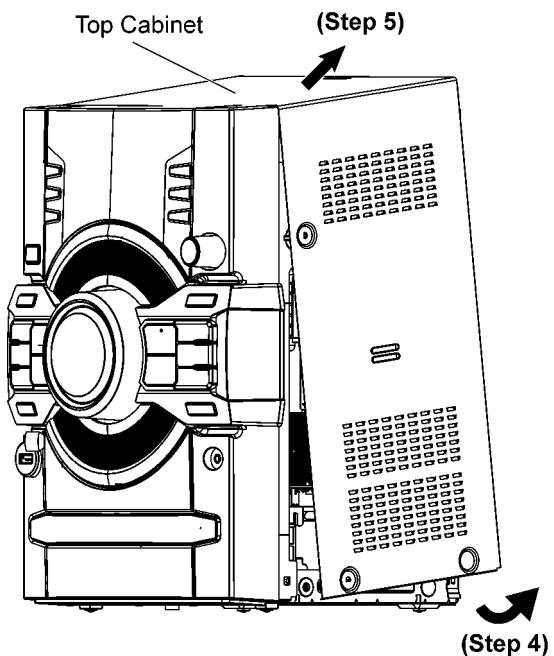
Step 2 Remove 5 screws.

Step 3 Release both sides of Top Cabinet outwards as arrow shown.

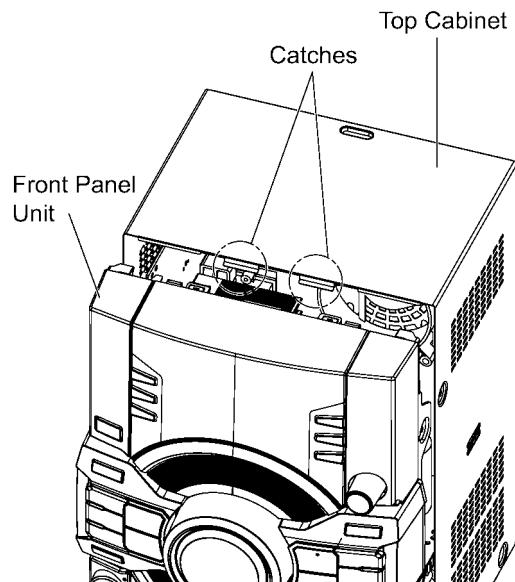


Step 4 Slightly lift up the Top Cabinet.

Step 5 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".

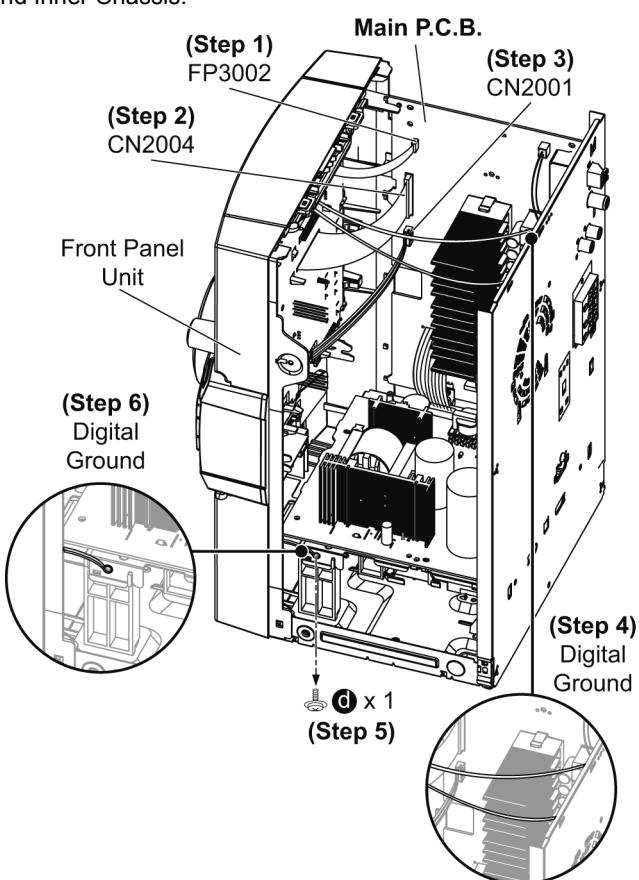
Step 1 Detach 10P FFC at connector (FP3002) on Main P.C.B..
Step 2 Detach 30P FFC at connector (CN2004) on Main P.C.B..

Step 3 Detach 5P Cable Wire at connector (CN2001) on Main P.C.B..

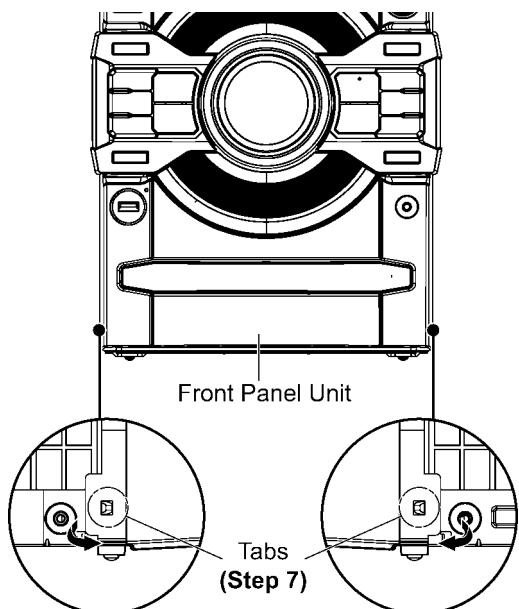
Step 4 Detach Digital Ground Wire on Rear Panel.

Step 5 Remove 1 screw.

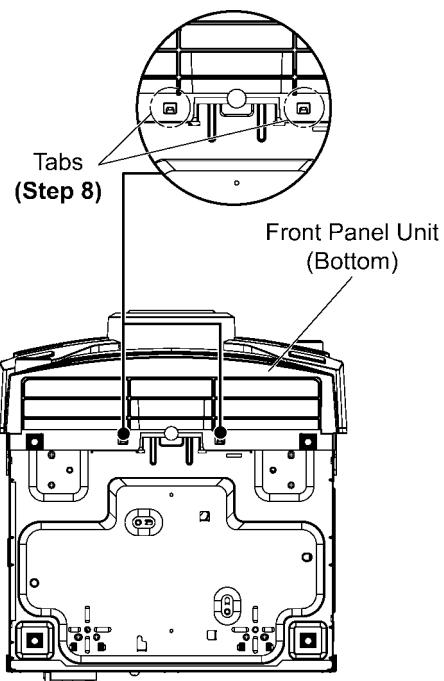
Step 6 Release Digital Ground Wire between Music Port P.C.B. and Inner Chassis.



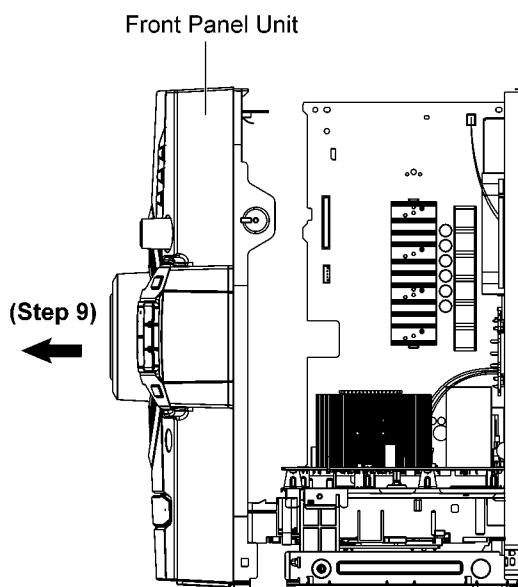
Step 7 Release tabs on both side of the Front Panel Unit.



Step 8 Release tabs at bottom of unit.



Step 9 Detach to remove the Front Panel Unit.

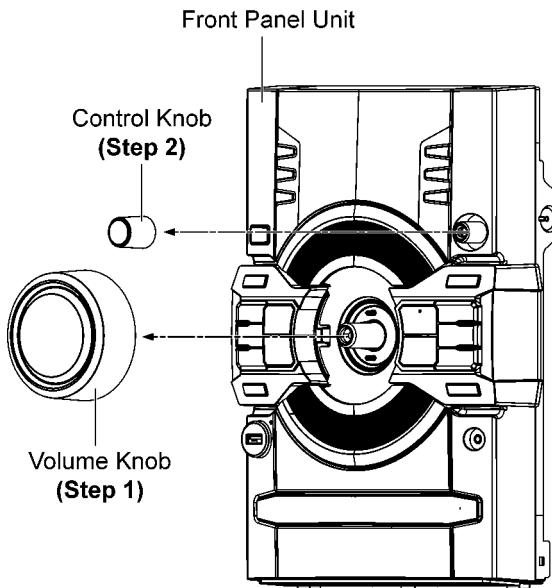


10.6. Disassembly of Panel P.C.B., Memory LED P.C.B. and Music Port P.C.B.

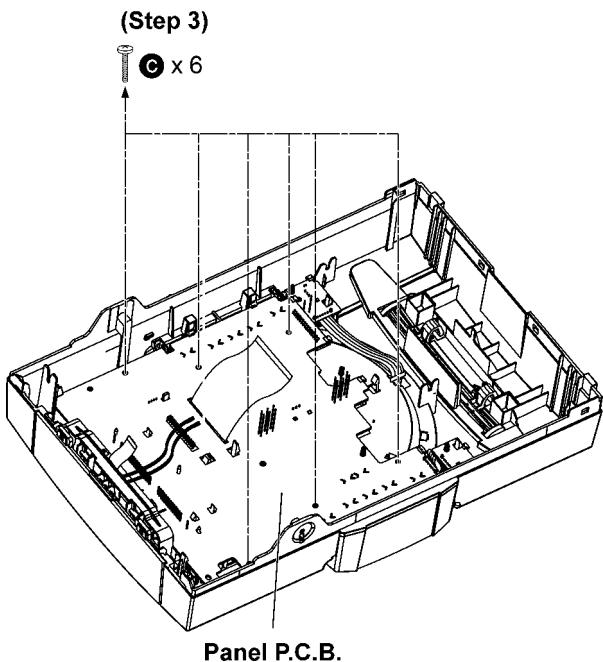
- Refer to "Disassembly of Top Cabinet".
- Refer to "Disassembly of Front Panel Unit".

Step 1 Remove Volume Knob.

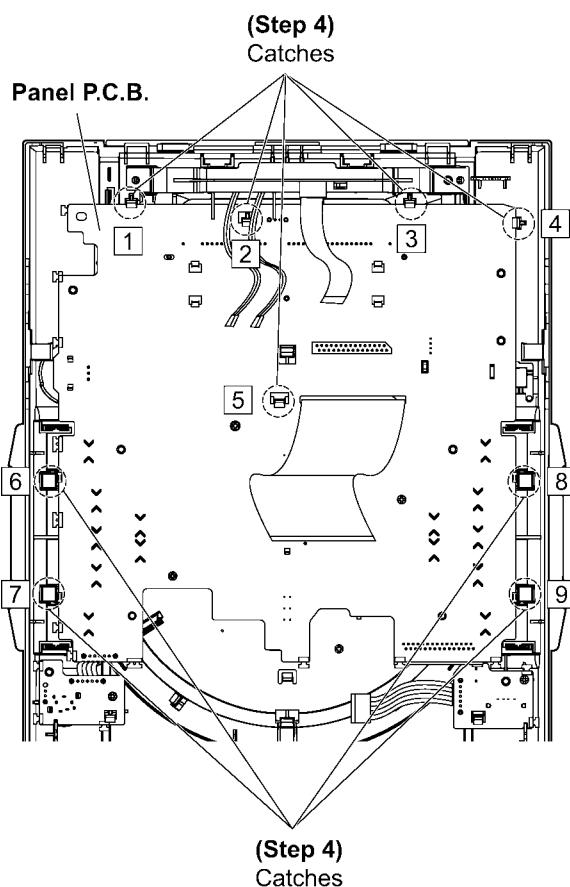
Step 2 Remove Control Knob.



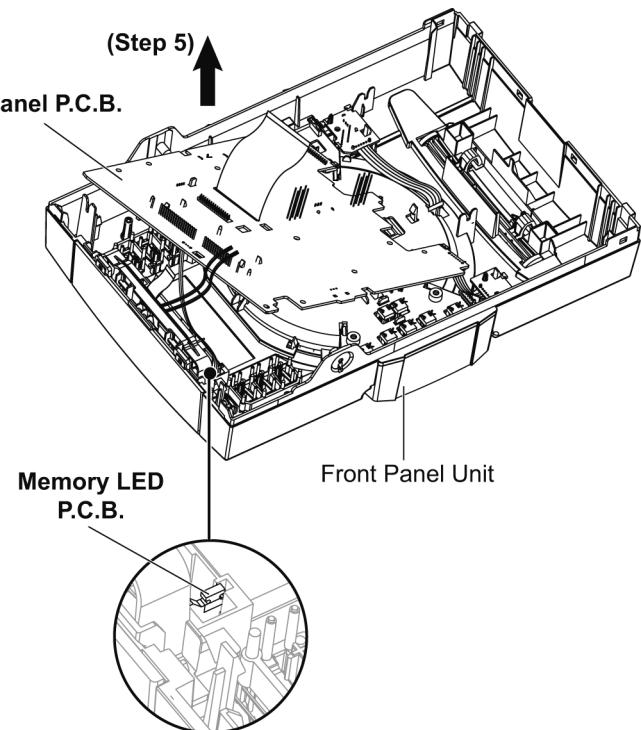
Step 3 Remove 6 screws.



Step 4 Release catches in sequences (1-9).



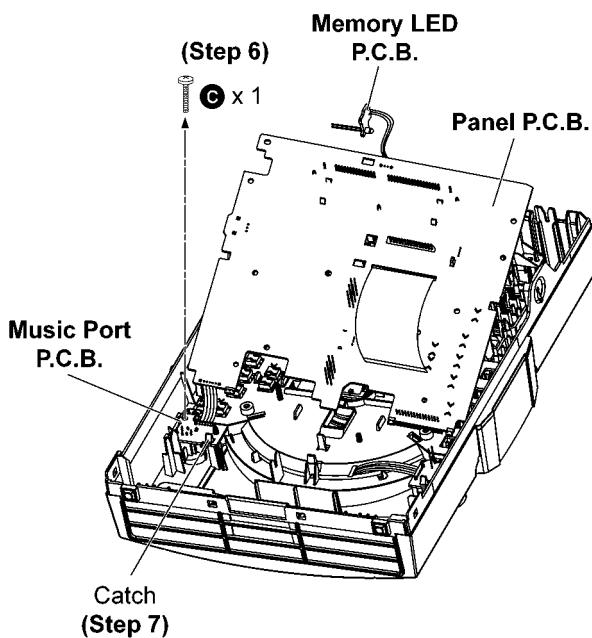
Step 5 Lift up the Panel P.C.B. and Memory LED P.C.B. from Front Panel Unit.



Step 6 Remove 1 screw.

Step 7 Release catch.

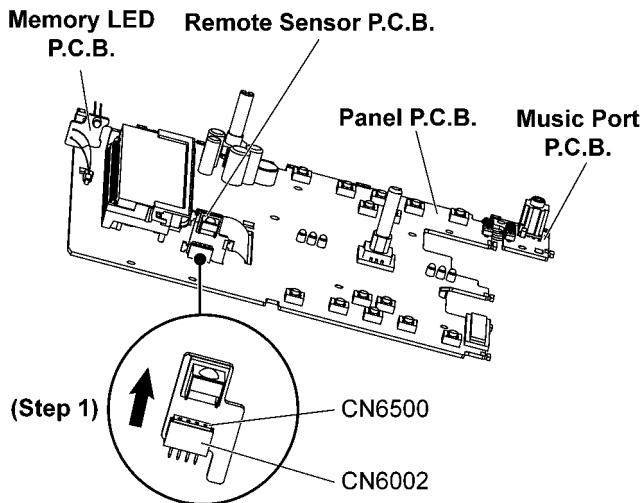
Step 8 Remove the Panel P.C.B., Memory LED P.C.B. and Music Port P.C.B..



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., Memory LED P.C.B. and Music Port 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 Bluetooth P.C.B.

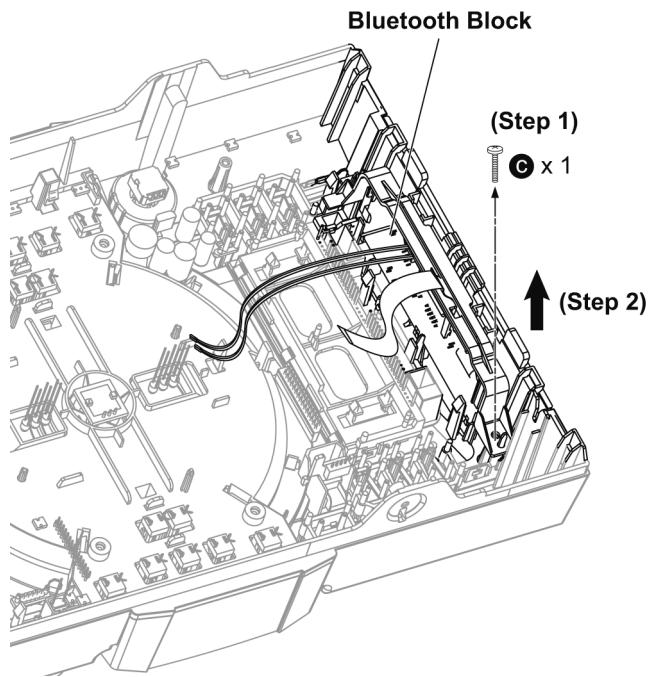
• Refer to “Disassembly of Top Cabinet”.

• Refer to “Disassembly of Front Panel Unit”.

• Refer to “Disassembly of Panel P.C.B., Memory LED P.C.B. and Music Port P.C.B.”.

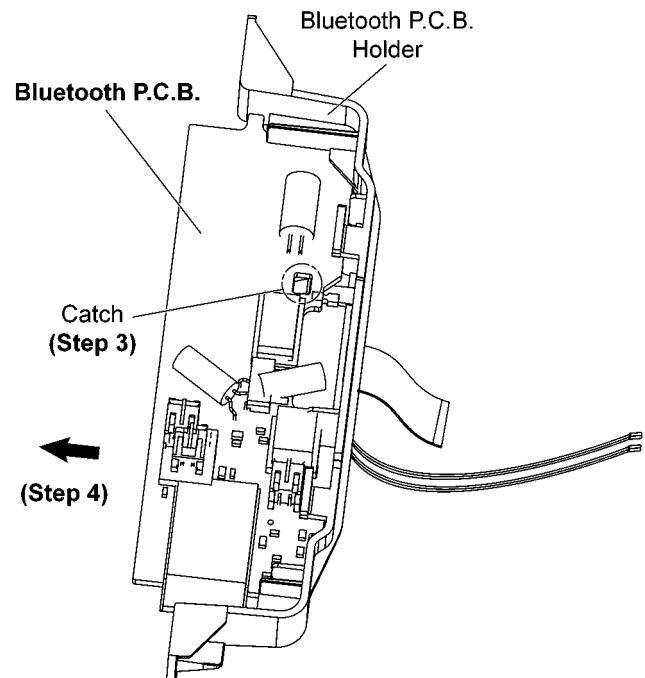
Step 1 Remove 1 screw.

Step 2 Remove Bluetooth Block.



Step 3 Release catch.

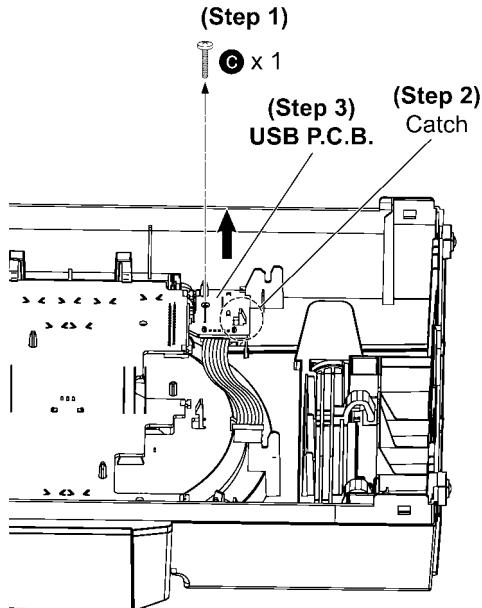
Step 4 Remove Bluetooth P.C.B. from Bluetooth P.C.B. holder.



10.9. Disassembly of USB P.C.B.

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

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

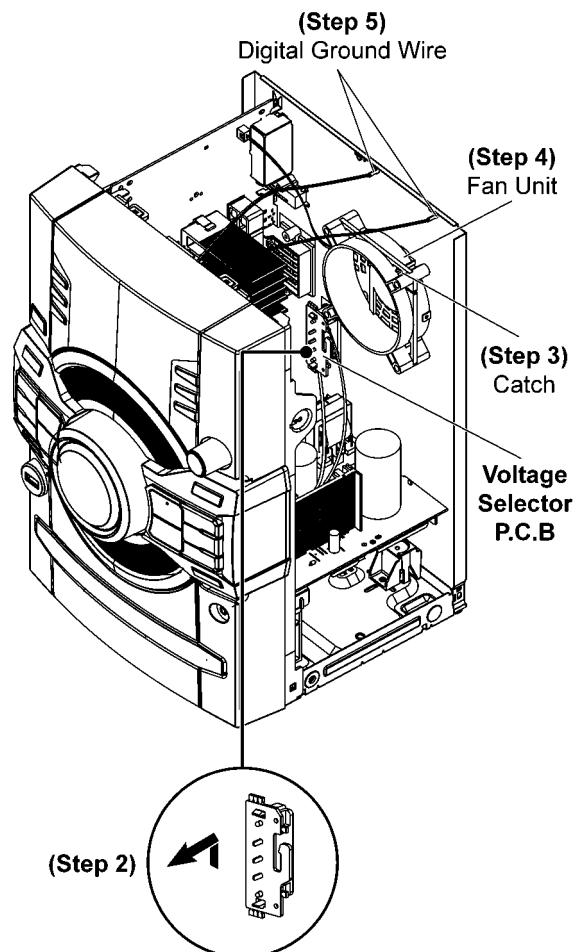


Step 2 Detach Voltage Selector P.C.B..

Step 3 Release catch.

Step 4 Remove Fan Unit.

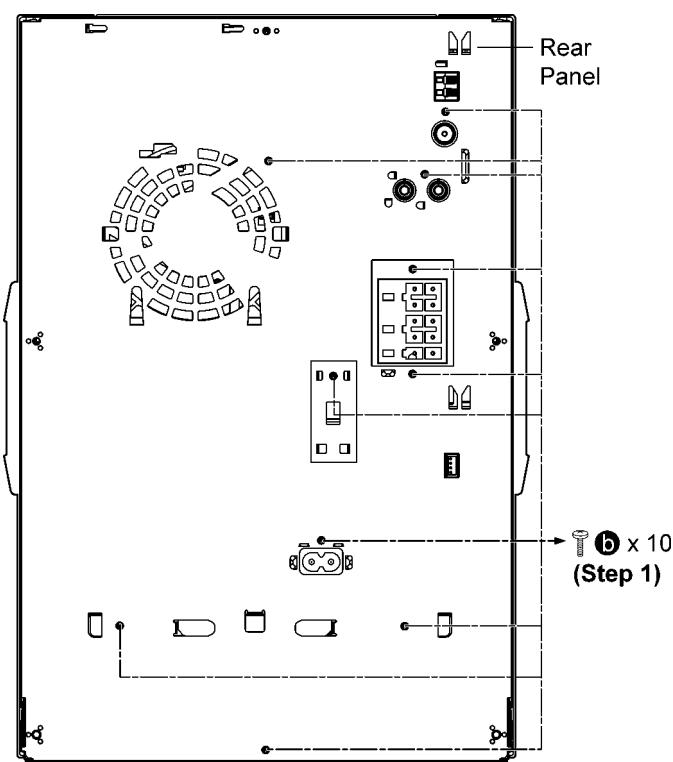
Step 5 Detach Digital Ground Wire.



10.10. Disassembly of Rear Panel

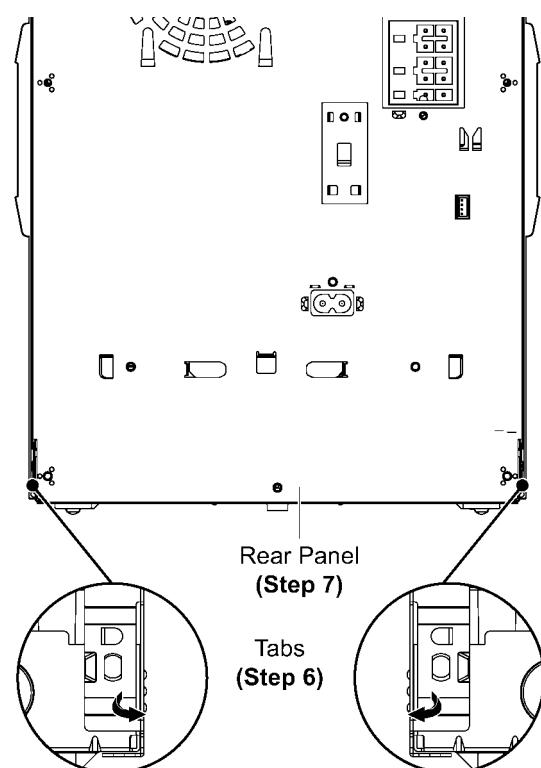
- Refer to "Disassembly of Top Cabinet".

Step 1 Remove 10 screws.



Step 6 Release 2 tabs.

Step 7 Detach to remove Rear Panel.



10.11. Disassembly of Main P.C.B.

- Refer to “Disassembly of Top Cabinet”.

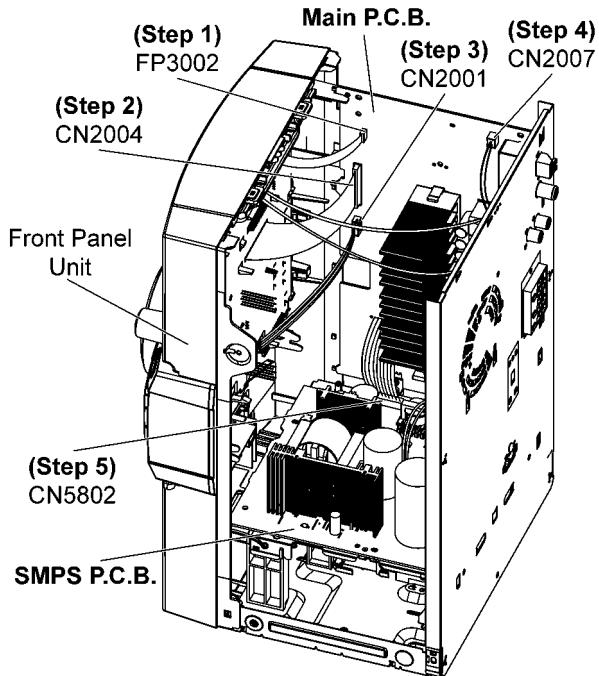
Step 1 Detach 10P FFC at connector (FP3002) on Main P.C.B..

Step 2 Detach 30P FFC at connector (CN2004) on Main P.C.B..

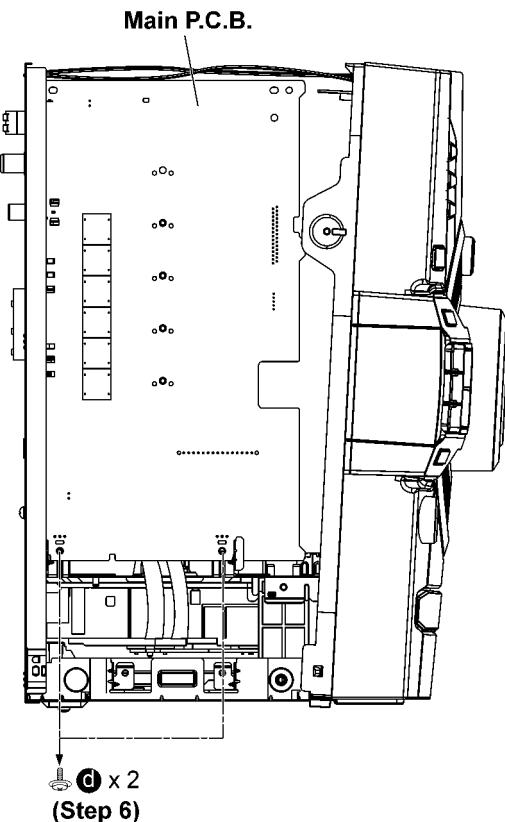
Step 3 Detach 5P Cable Wire at connector (CN2001) on Main P.C.B..

Step 4 Detach 2P Cable at connector (CN2007) on Main P.C.B..

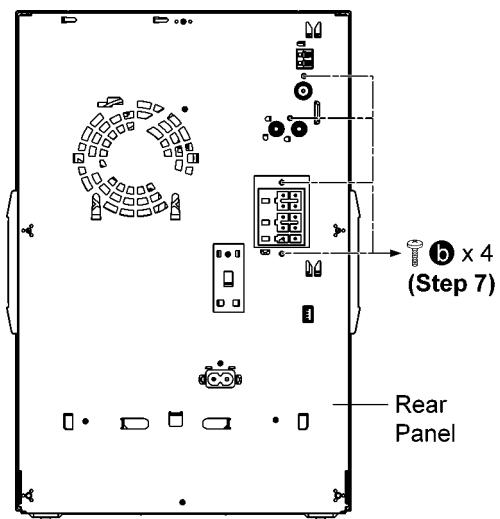
Step 5 Detach 13P Cable at connector (CN5802) on SMPS P.C.B..



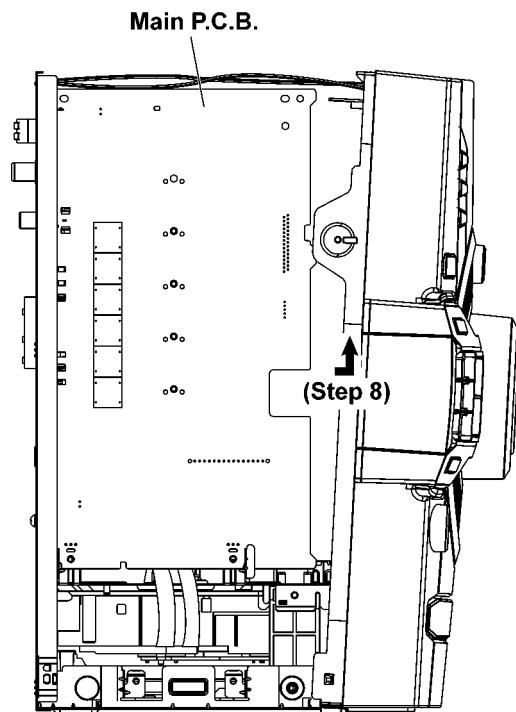
Step 6 Remove 2 screws.



Step 7 Remove 4 screws.



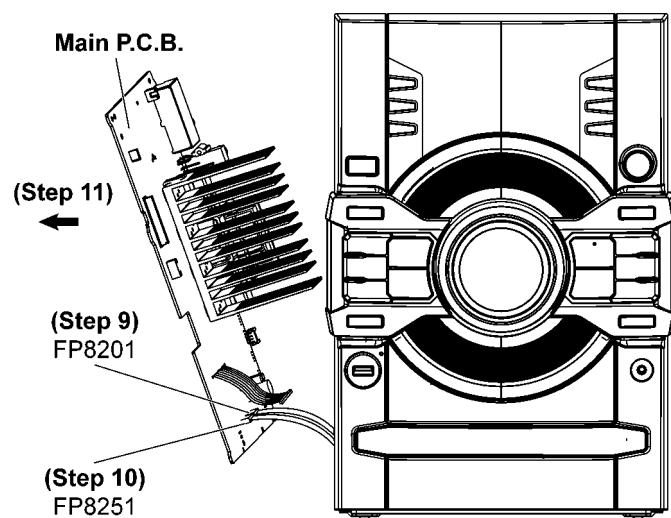
Step 8 Detach to lift up the Main P.C.B..



Step 9 Detach 24P FFC at connector (FP8201) on Main P.C.B..

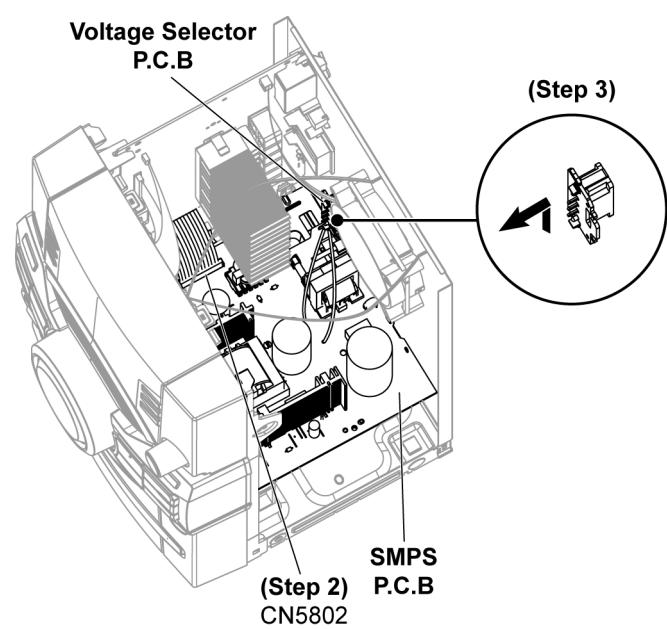
Step 10 Detach 10P FFC at connector (FP8251) on Main P.C.B..

Step 11 Remove the Main P.C.B..



Step 2 Detach 13P Cable Wire at connector (CN5802) on SMPS P.C.B..

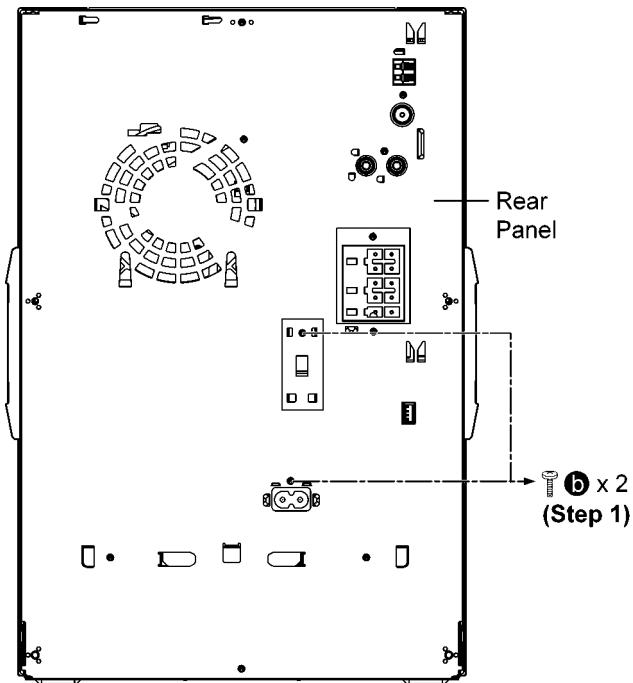
Step 3 Detach Voltage Selector P.C.B..



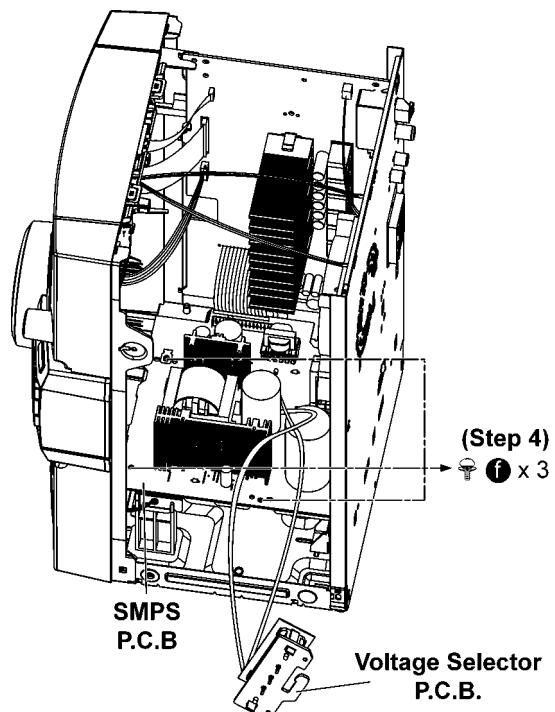
10.12. Disassembly of SMPS P.C.B. and Voltage Selector P.C.B.

- Refer to "Disassembly of Top Cabinet".

Step 1 Remove 2 screws.



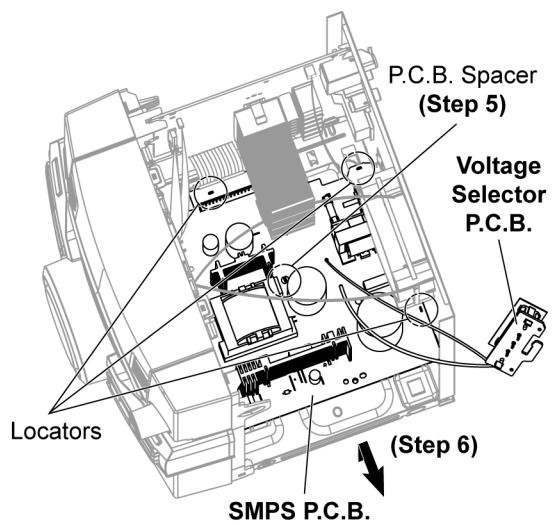
Step 4 Remove 3 screws.



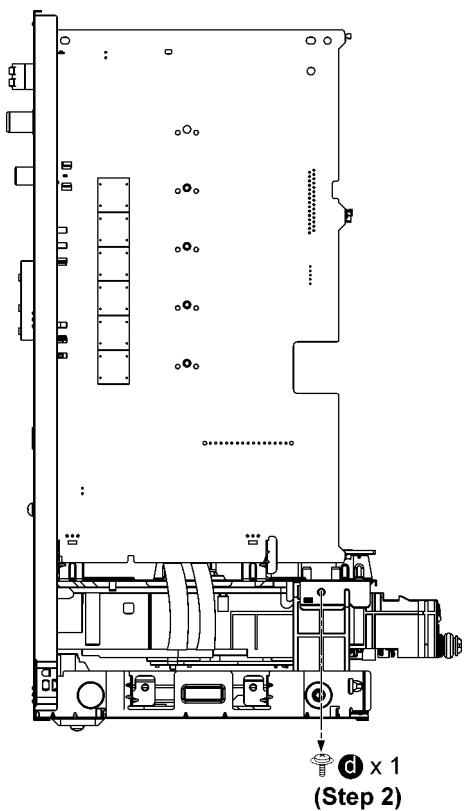
Step 5 Release the P.C.B. Spacer.

Step 6 Remove the SMPS P.C.B. and Voltage Selector P.C.B.

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



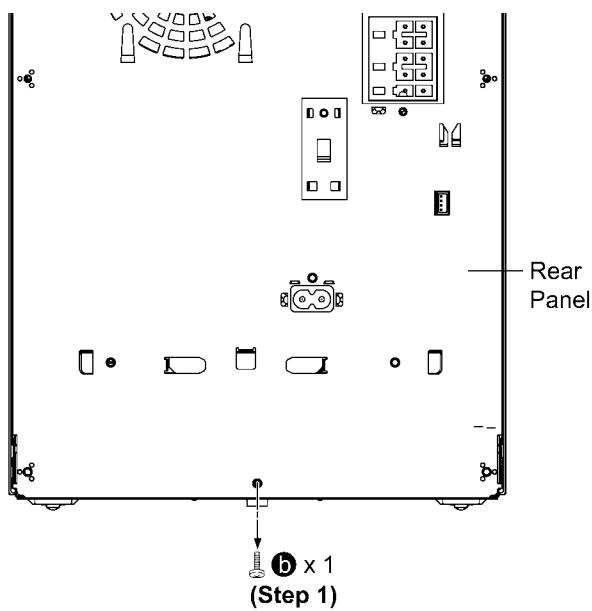
Step 2 Remove 1 screw.



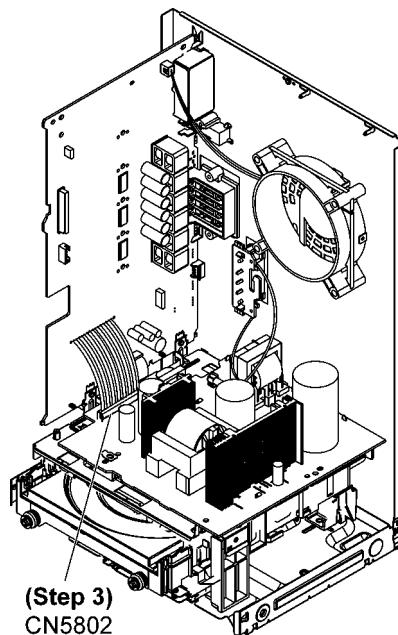
10.13. Disassembly of CD Mechanism Unit

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

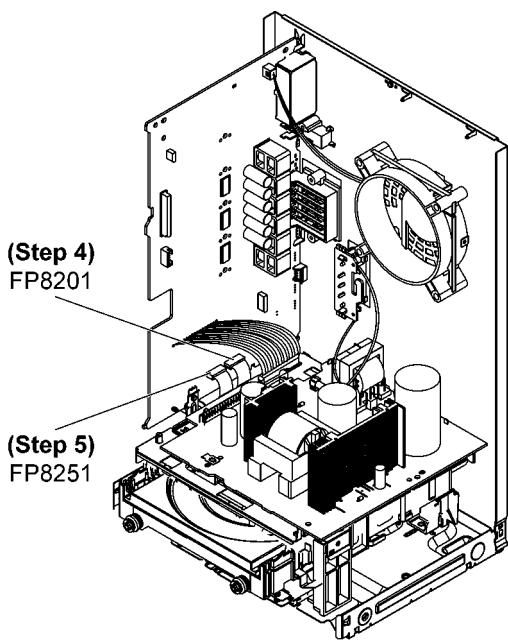
Step 1 Remove 1 screw.



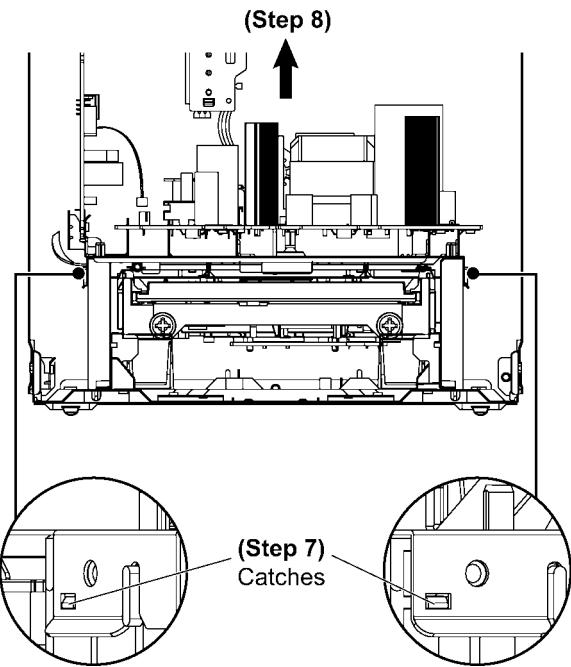
Step 3 Detach 13P Cable at connector (CN5802) on SMPS P.C.B..



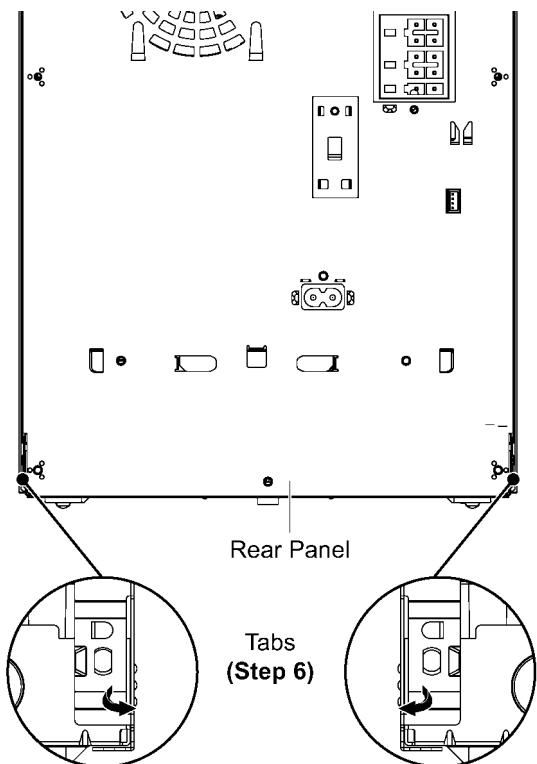
Step 4 Detach 24P FFC at connector (FP8201) on Main P.C.B..
Step 5 Detach 10P FFC at connector (FP8251) on Main P.C.B..



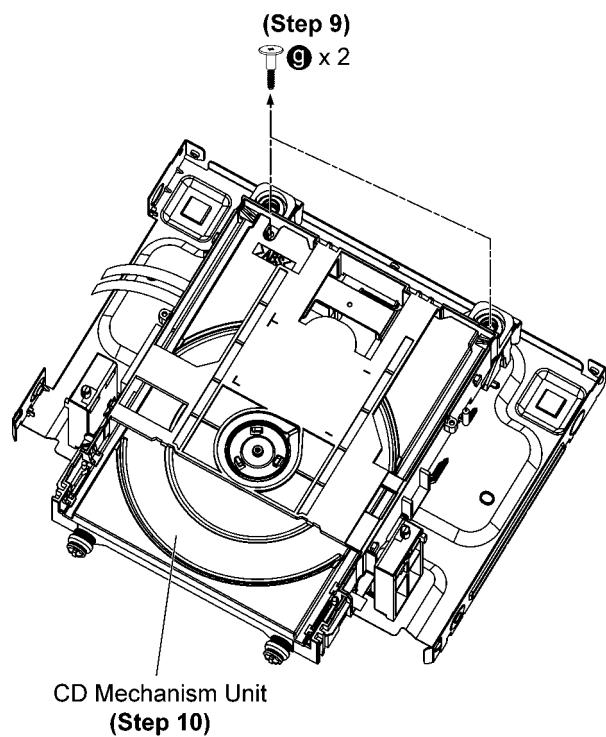
Step 7 Release 2 catches.
Step 8 Lift up the main block (Main P.C.B., Rear Panel, SMPS P.C.B. and inner chassis).



Step 6 Release 2 tabs.



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



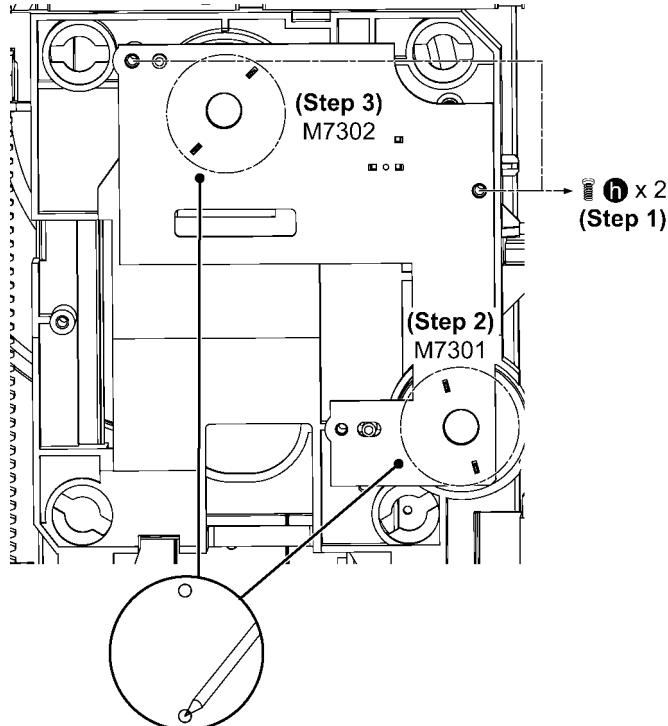
10.14. Disassembly of CD Interface P.C.B.

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

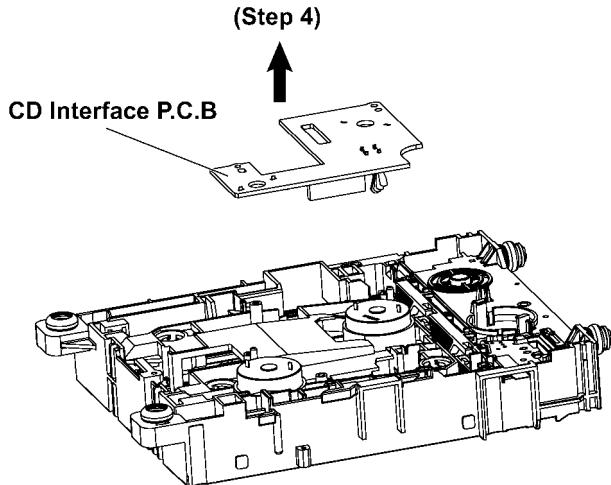
Step 1 Remove 2 screws.

Step 2 Desolder pins of the motor (M7301).

Step 3 Desolder pins of the motor (M7302).



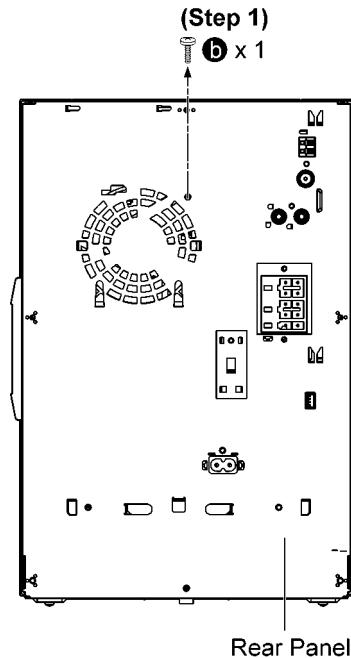
Step 4 Remove CD Interface P.C.B..



10.15. Disassembly of Fan Unit

- Refer to “Disassembly of Top Cabinet”.

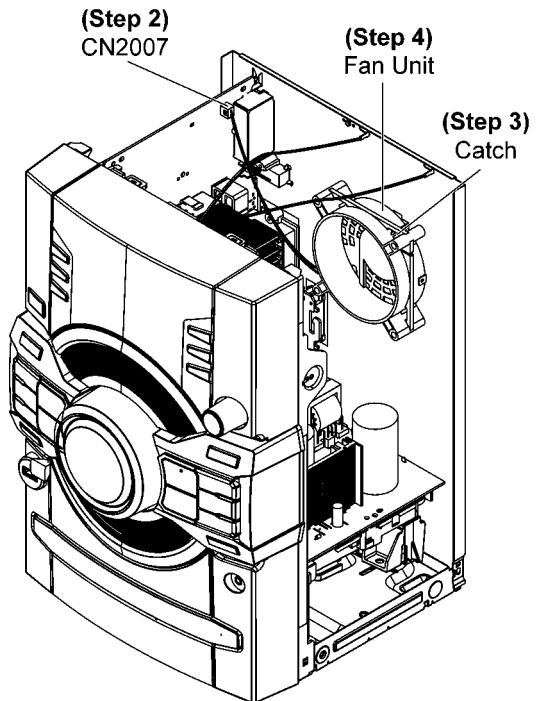
Step 1 Remove 1 screw.



Step 2 Detach 2P Cable Wire at connector (CN2007) on Main P.C.B..

Step 3 Release catch.

Step 4 Remove Fan Unit.



11 Service Position

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

11.1. Checking of Panel P.C.B.

Step 1 Remove Top Cabinet.

Step 2 Remove Front Panel Unit.

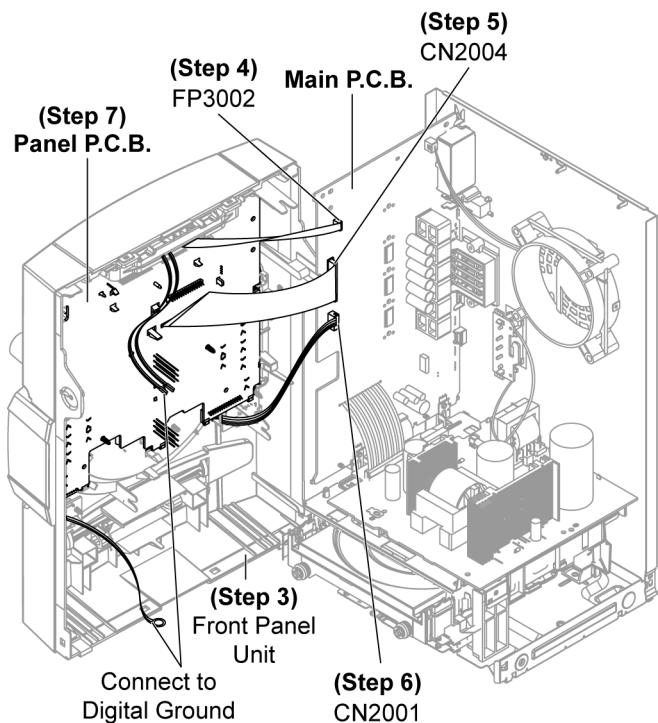
Step 3 Position the Front Panel Unit as shown.

Step 4 Attach 10P FFC at connector (FP3002) on Main P.C.B..

Step 5 Attach 30P FFC at a connector (CN2004) on the Main P.C.B..

Step 6 Attach 5P Cable Wire at connector (CN2001) on Main P.C.B..

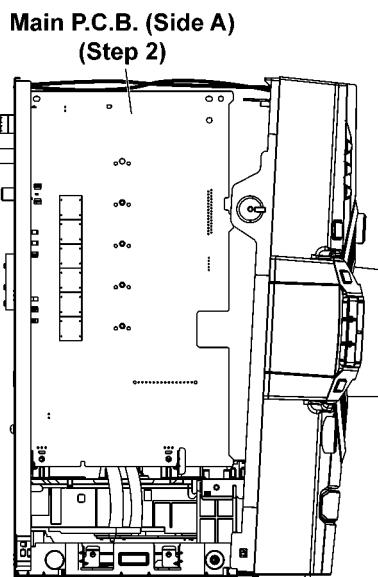
Step 7 Panel P.C.B. can be check at diagram shown.



11.2. Checking of Main P.C.B. (Side A)

Step 1 Remove Top Cabinet.

Step 2 Main P.C.B. (Side A) can be check at diagram shown.



11.3. Checking of Main P.C.B. (Side B)

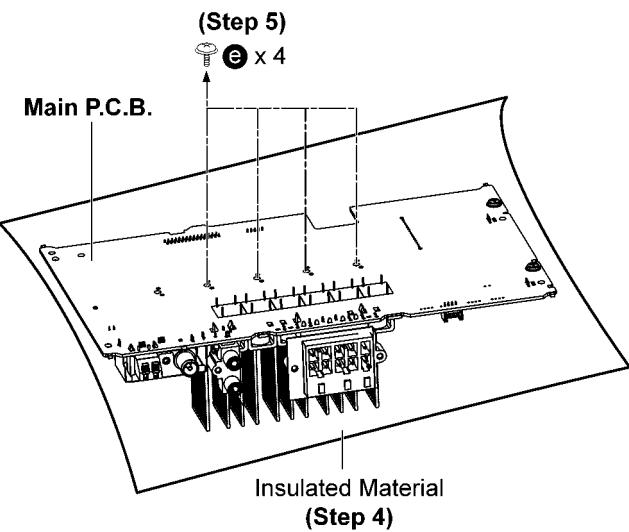
Step 1 Remove Top Cabinet.

Step 2 Remove Front Panel Unit.

Step 3 Remove Main P.C.B..

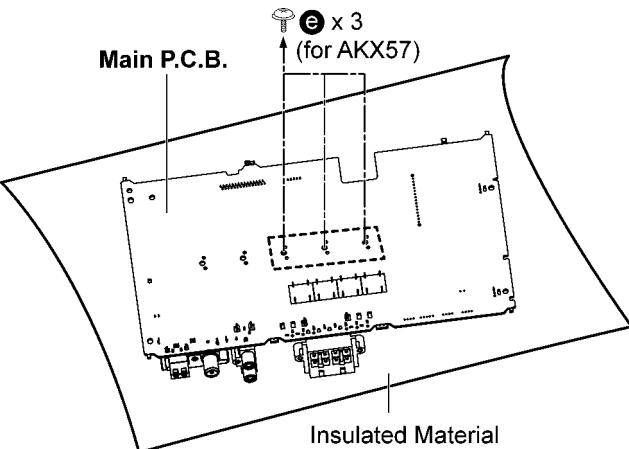
Step 4 Place the Main P.C.B. on an insulated material.

Step 5 Remove 4 screws (for AKX77) and 3 screws (for AKX57).

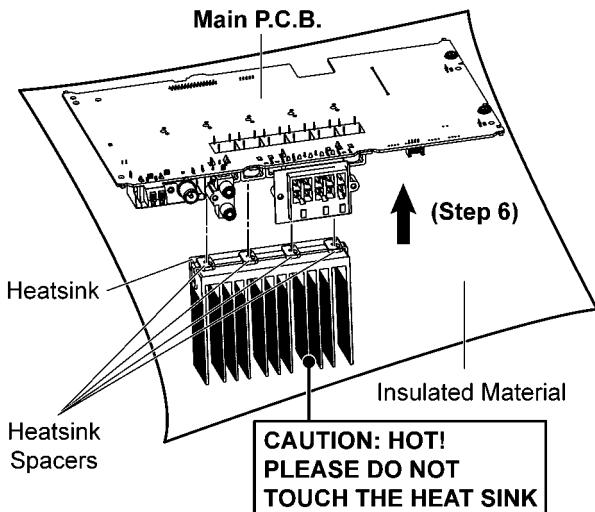


Note:

Below 3 screws are for model AKX57.



Step 6 Lift up the Main P.C.B. as arrow shown.



Step 7 Remove Fan Unit.

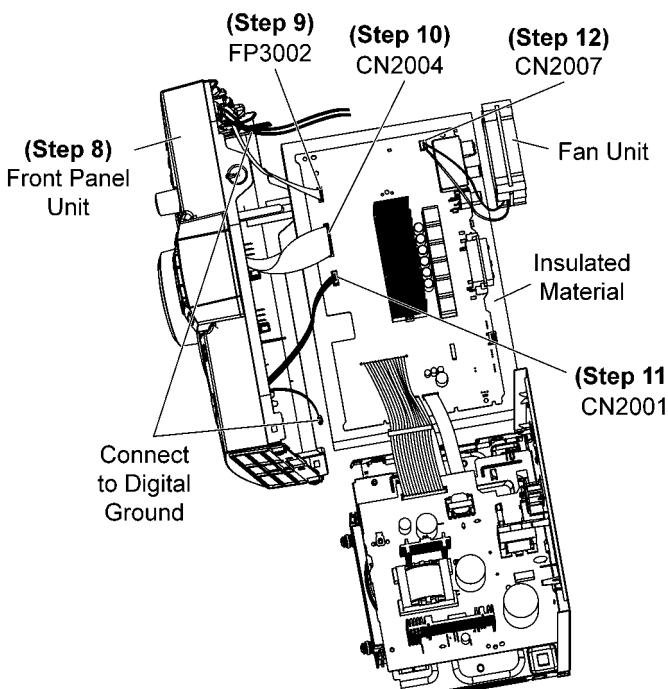
Step 8 Position the Front Panel Unit as shown.

Step 9 Attach 10P FFC at connector (FP3002) on Main P.C.B..

Step 10 Attach 30P FFC at a connector (CN2004) on the Main P.C.B..

Step 11 Attach 5P Cable Wire at connector (CN2001) on Main P.C.B..

Step 12 Attach 2P Cable at connector (CN2007) on Main P.C.B..

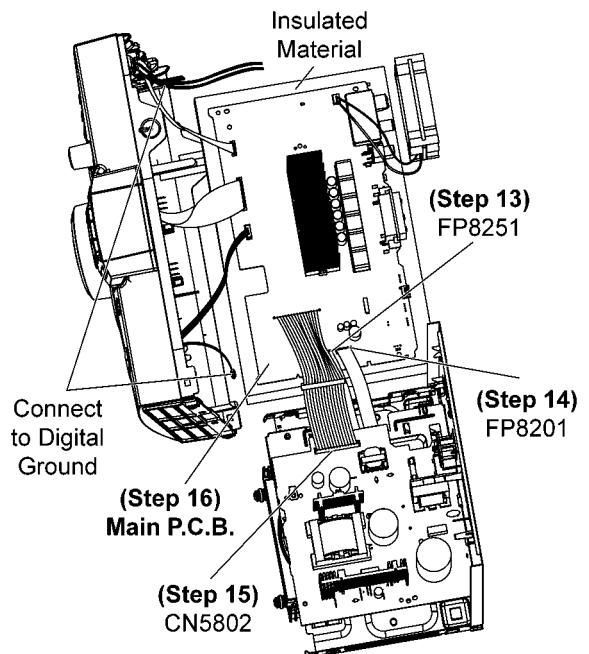


Step 13 Attach 10P FFC at a connector (FP8251) on the Main P.C.B..

Step 14 Attach 24P FFC at a connector (FP8201) on the Main P.C.B..

Step 15 Attach 13P Cable at a connector (CN5802) on the SMPS P.C.B..

Step 16 Side B Main P.C.B. can be check at diagram shown.



11.4. Checking of SMPS P.C.B. (Side A)

Step 1 Remove Top Cabinet.

Step 2 Remove Front Panel Unit.

Step 3 Remove SMPS P.C.B..

Step 4 Position the Front Panel Unit as shown.

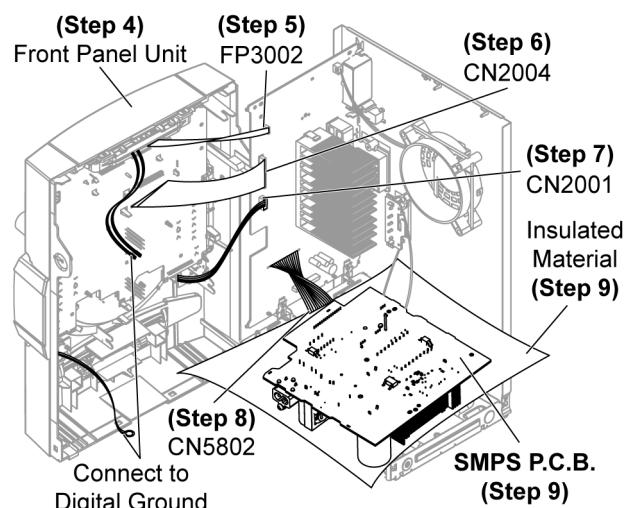
Step 5 Attach 10P FFC at connector (FP3002) on Main P.C.B..

Step 6 Attach 30P FFC at a connector (CN2004) on the Main P.C.B..

Step 7 Attach 5P Cable Wire at connector (CN2001) on Main P.C.B..

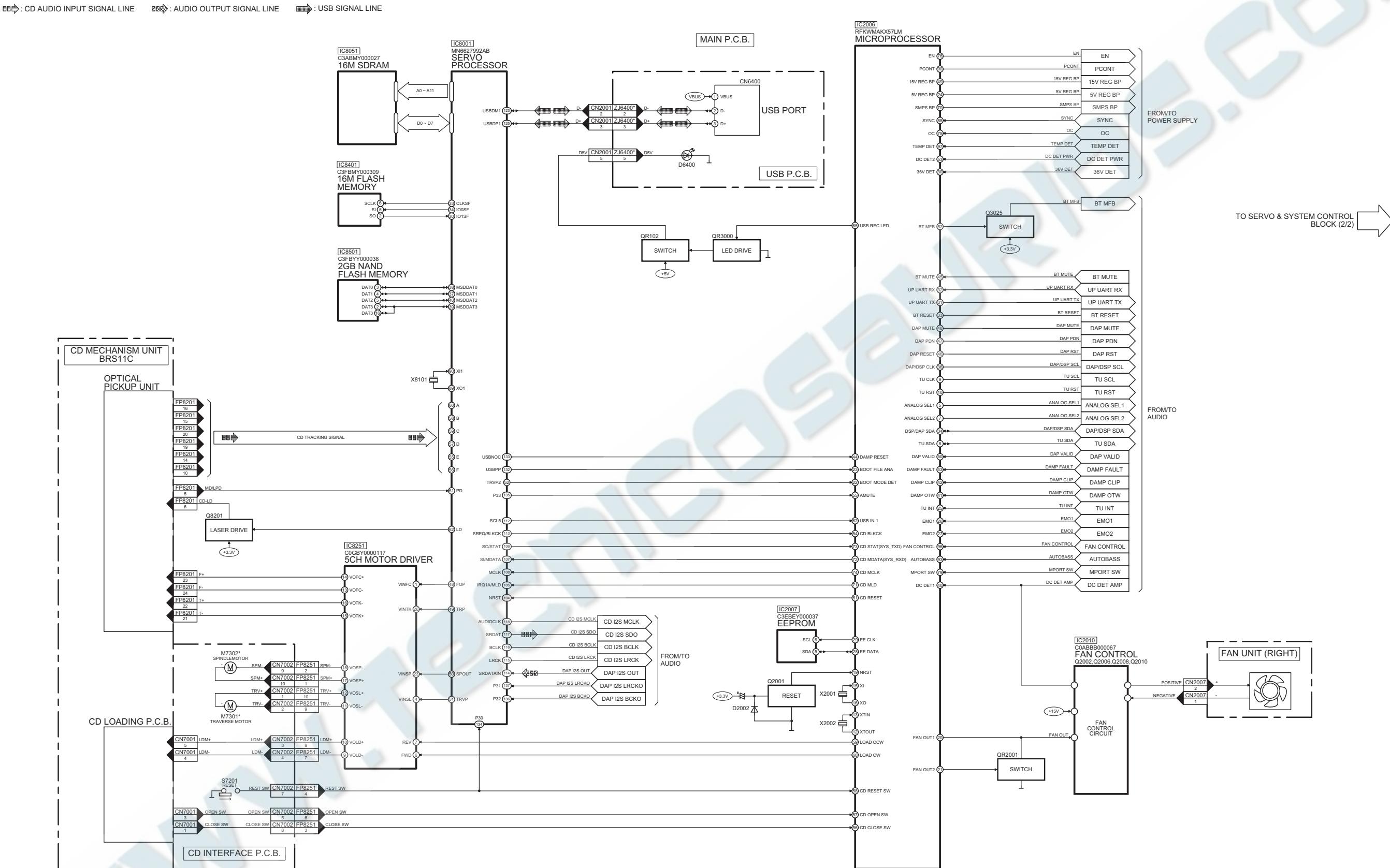
Step 8 Attach 13P Cable at a connector (CN5802) on the SMPS P.C.B..

Step 9 Upset the SMPS P.C.B. and place on an insulated material.



12 Block Diagram

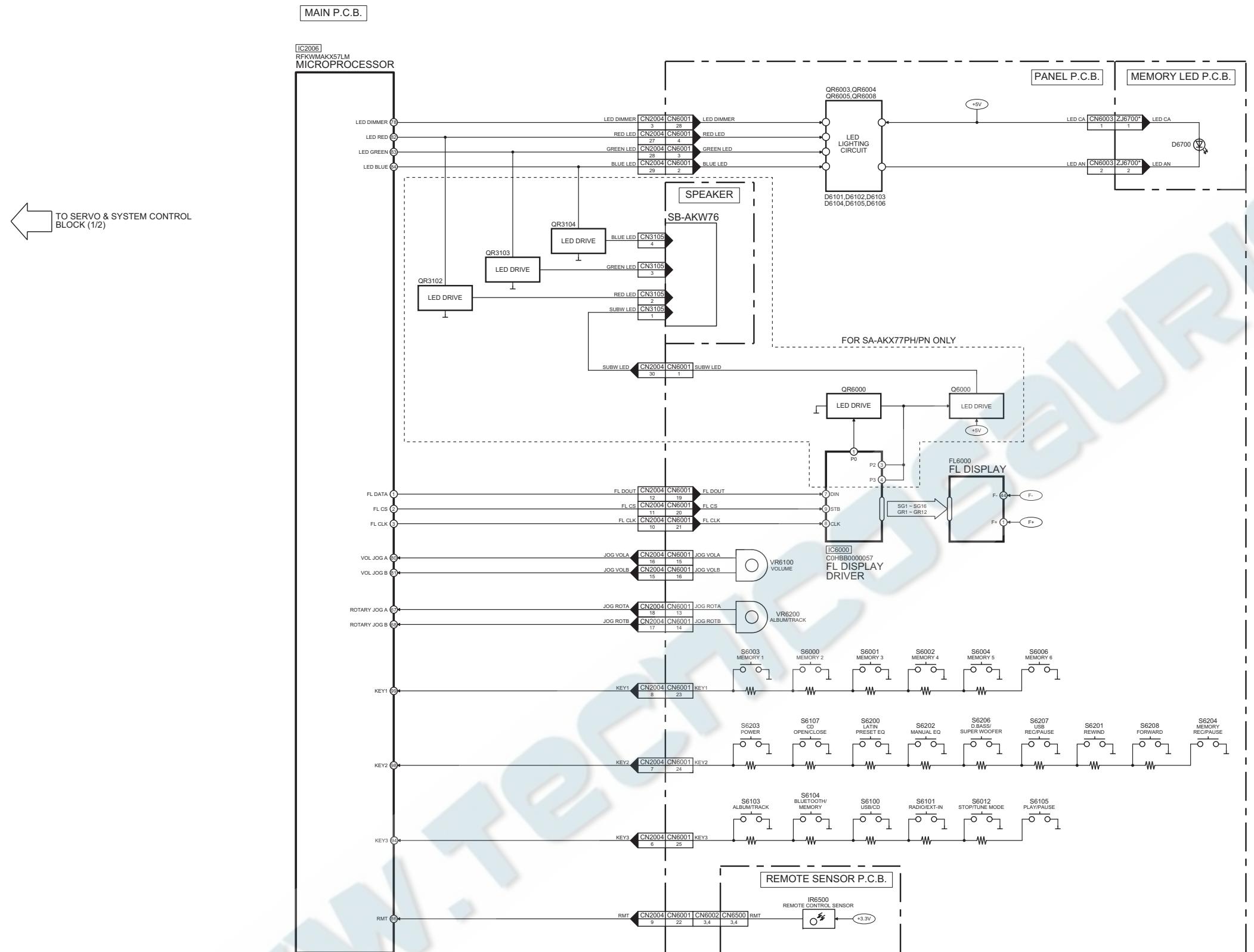
12.1. Servo & System Control



NOTE: "*" REF IS FOR INDICATION ONLY

SA-AKX57PN, SA-AKX77PH/PN SERVO & SYSTEM CONTROL (1/2) BLOCK DIAGRAM

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

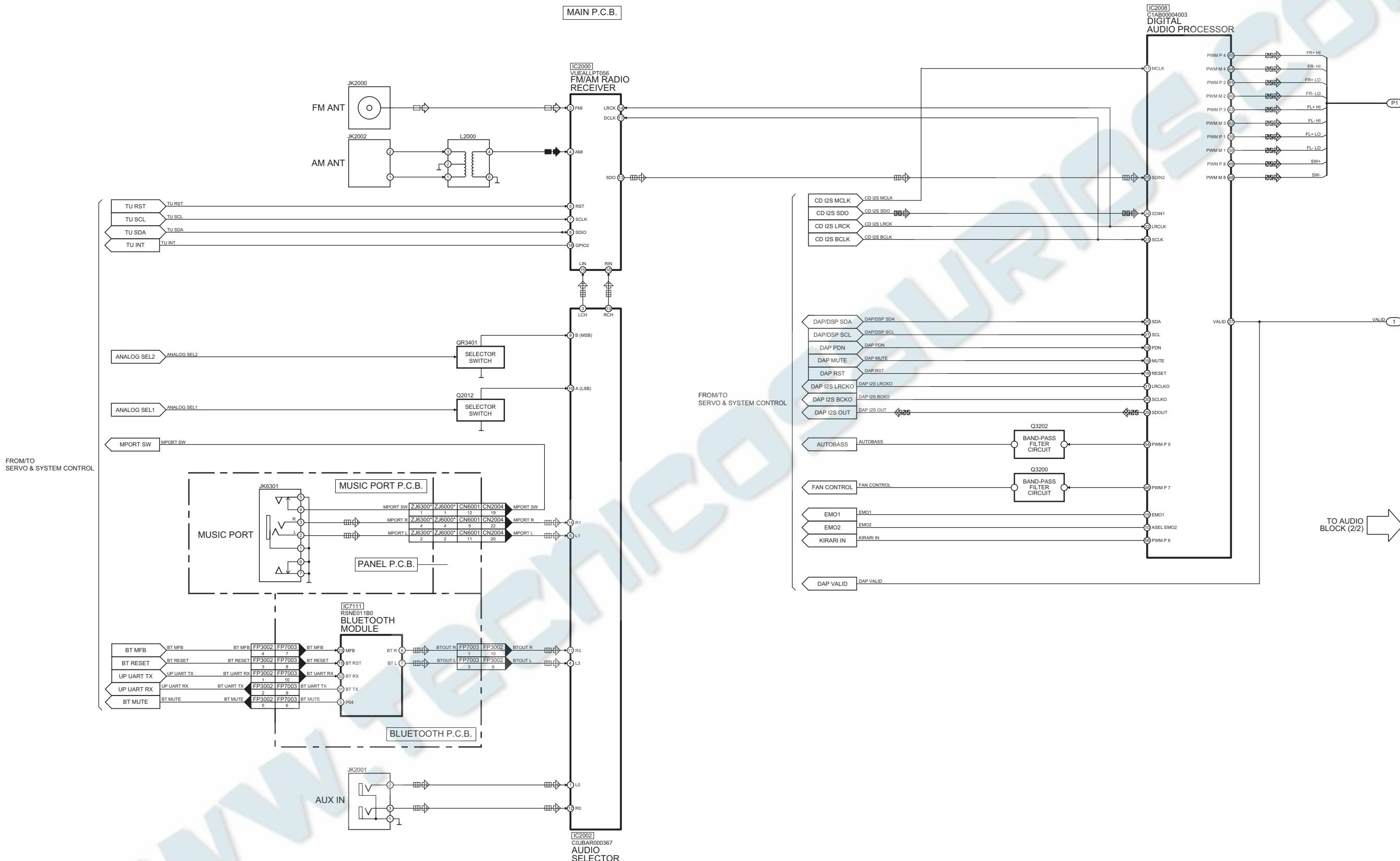


NOTE: "*" REF IS FOR INDICATION ONLY

SA-AKX57PN, SA-AKX77PH/PN SERVO & SYSTEM CONTROL (2/2) BLOCK DIAGRAM

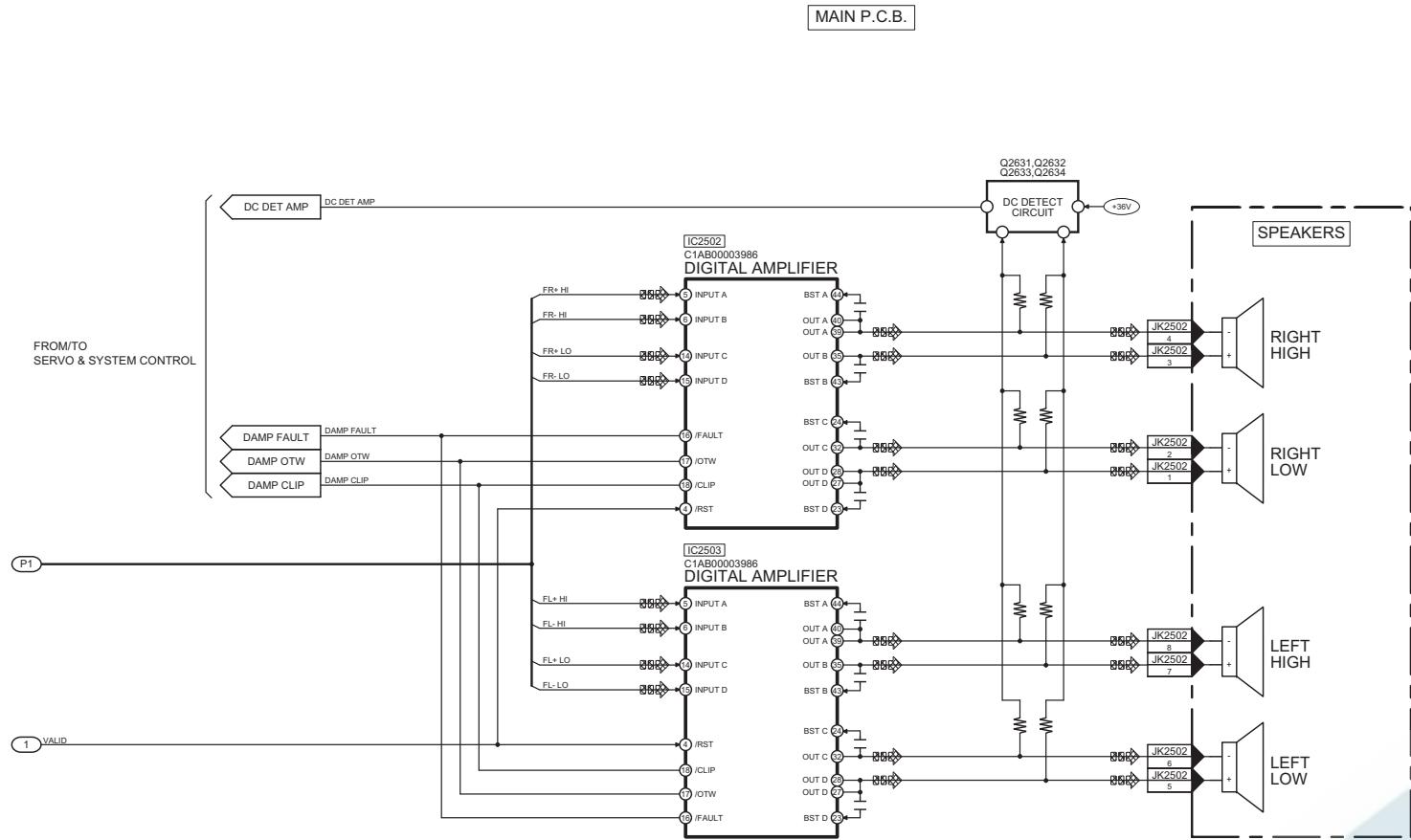
12.2. Audio

CD AUDIO INPUT SIGNAL LINE TUNER/MUSIC PORT/AUX/MIC AUDIO INPUT SIGNAL LINE AUDIO OUTPUT SIGNAL LINE AM SIGNAL LINE FM SIGNAL LINE



SA-AKX57PN AUDIO (1/2) BLOCK DIAGRAM

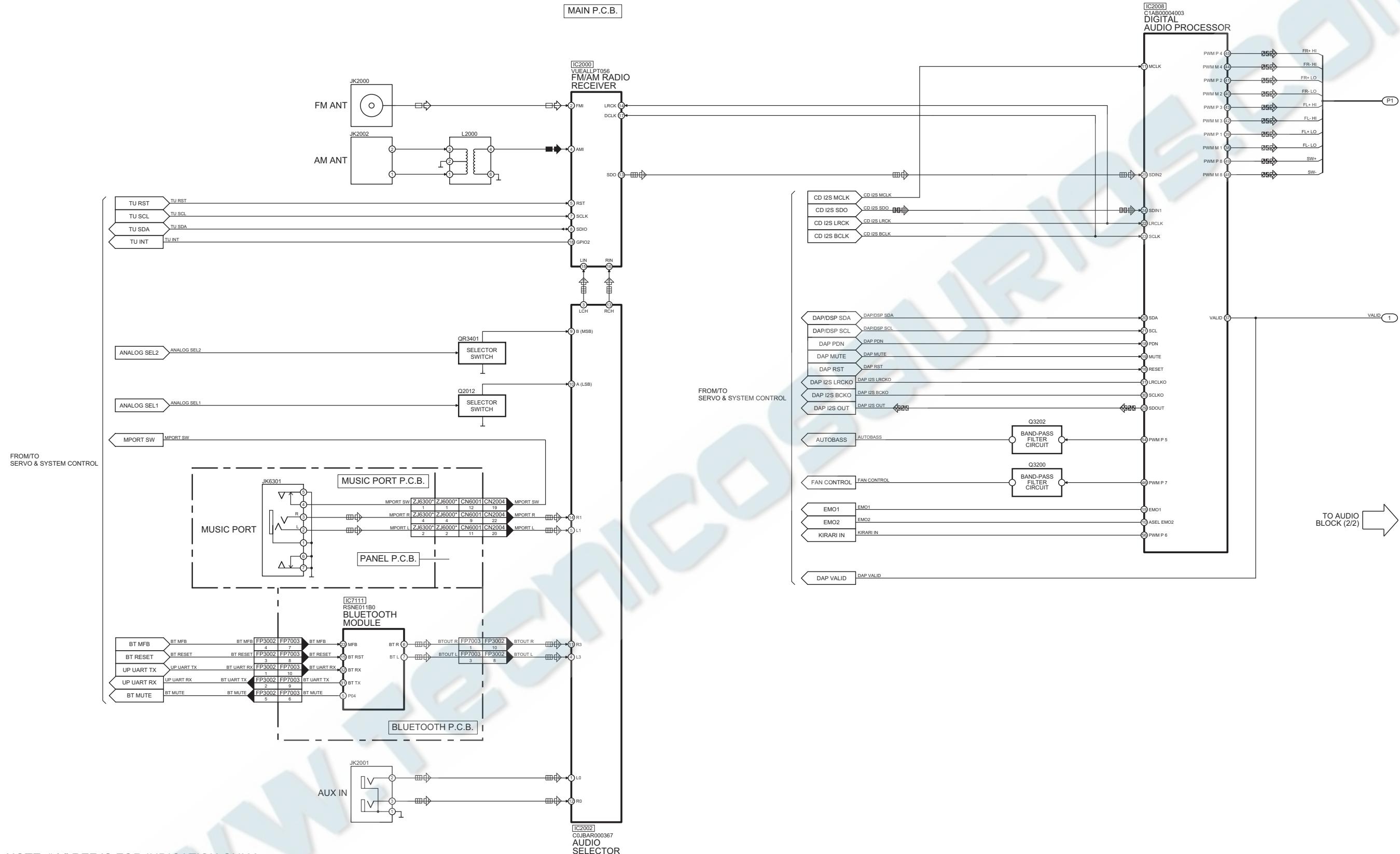
CD AUDIO INPUT SIGNAL LINE TUNER/MUSIC PORT/AUX/MIC AUDIO INPUT SIGNAL LINE AUDIO OUTPUT SIGNAL LINE AM SIGNAL LINE FM SIGNAL LINE



TO AUDIO BLOCK (1/2)

SA-AKX57PN AUDIO (2/2) BLOCK DIAGRAM

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

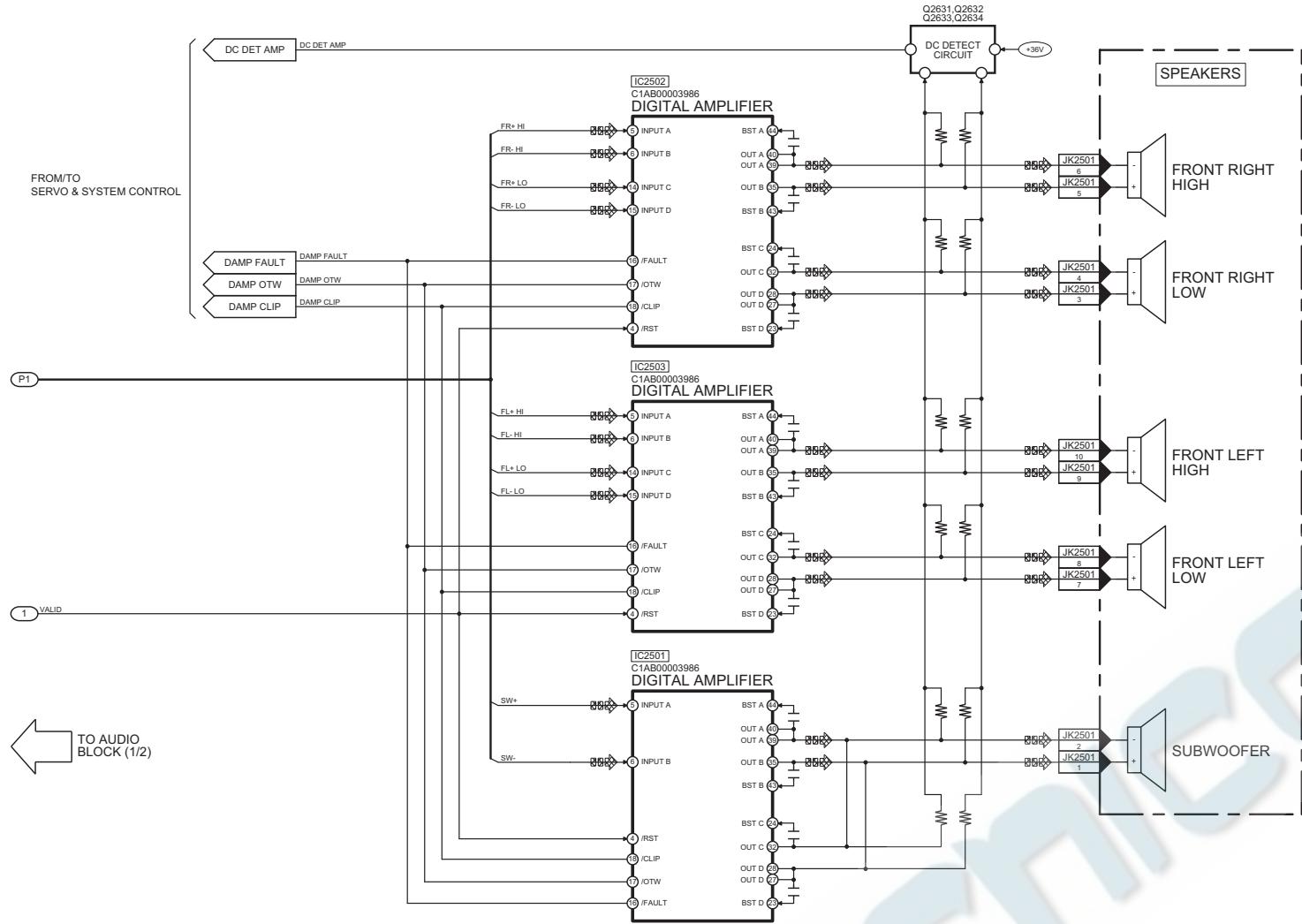


NOTE: * REF IS FOR INDICATION ONLY

SA-AKX77PH/PN AUDIO (1/2) BLOCK DIAGRAM

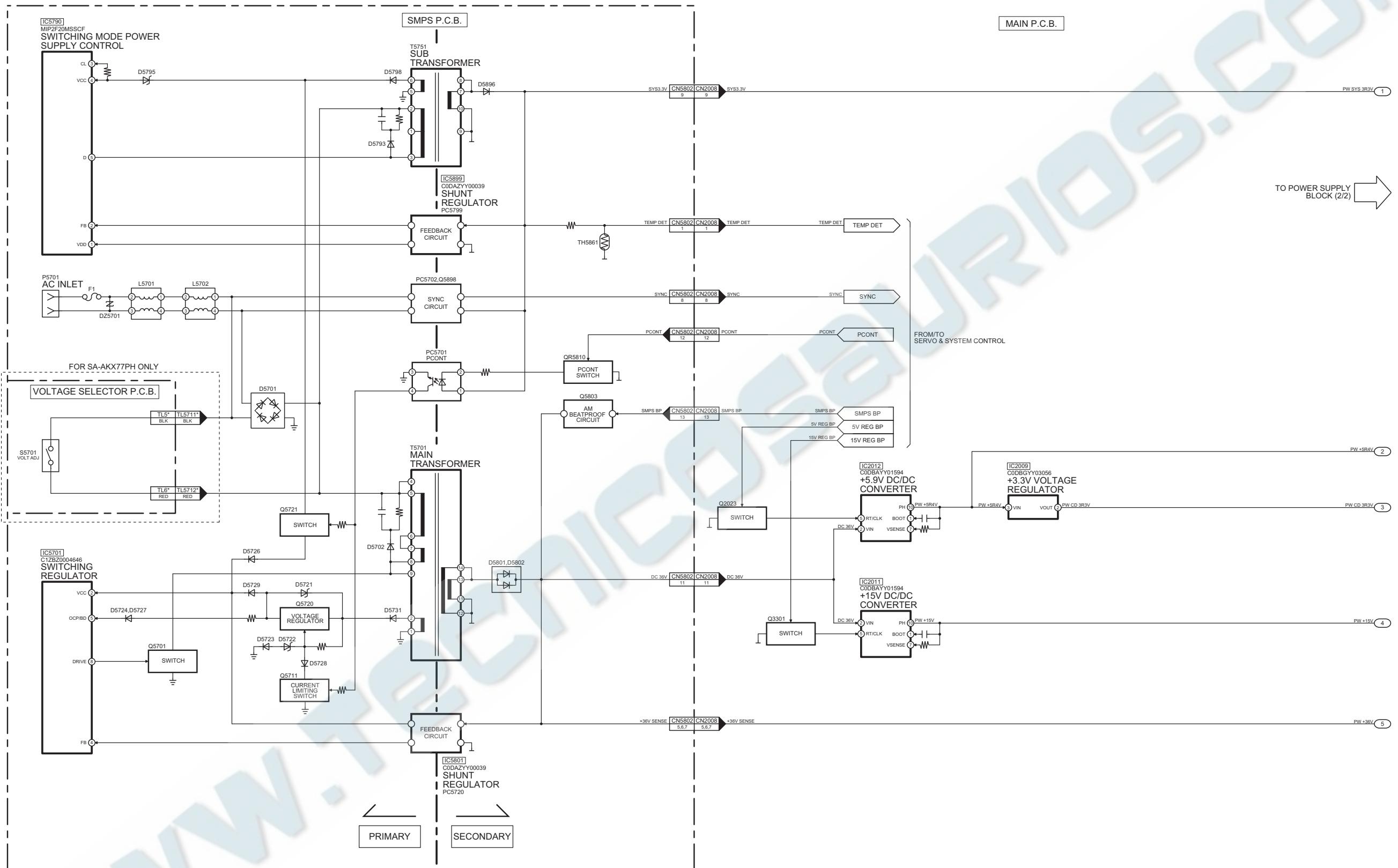
CD AUDIO INPUT SIGNAL LINE TUNER/MUSIC PORT/AUX/MIC AUDIO INPUT SIGNAL LINE AUDIO OUTPUT SIGNAL LINE AM SIGNAL LINE FM SIGNAL LINE

MAIN P.C.B.



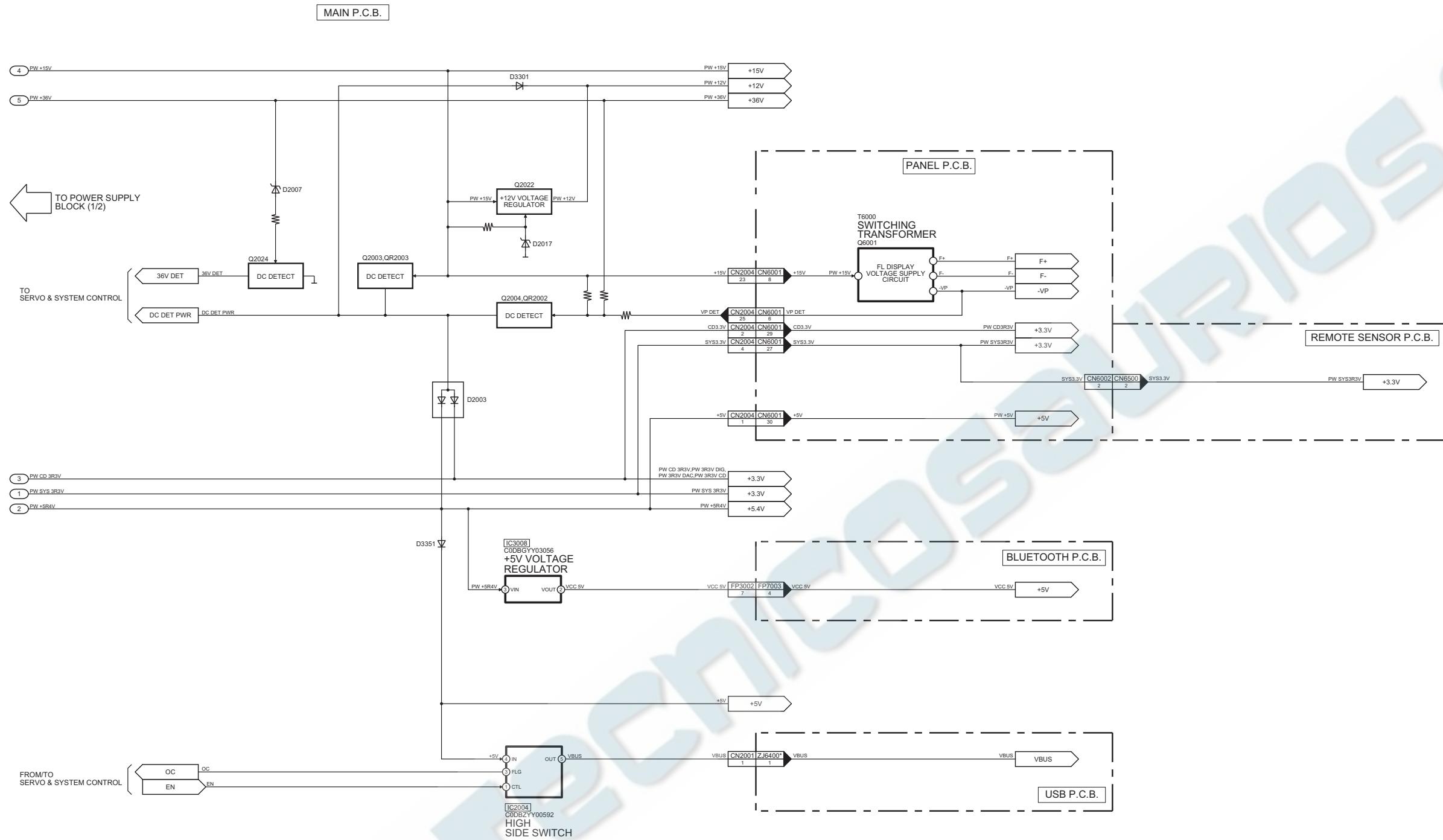
SA-AKX77PH/PN AUDIO (2/2) BLOCK DIAGRAM

12.3. Power Supply



NOTE: * REF IS FOR INDICATION ONLY

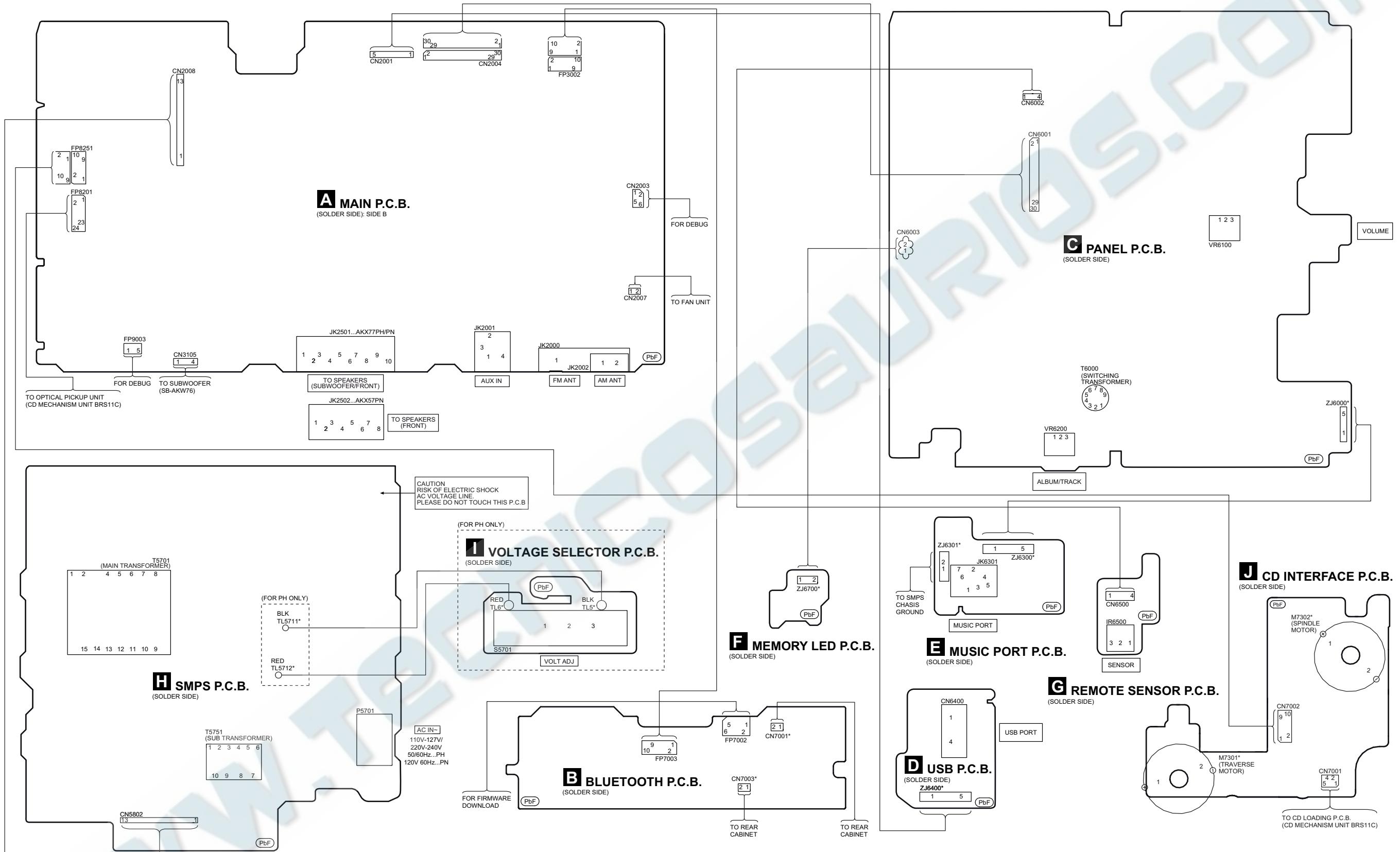
SA-AKX57PN, SA-AKX77PH/PN POWER SUPPLY (1/2) BLOCK DIAGRAM



NOTE: "*" REF IS FOR INDICATION ONLY

SA-AKX57PN, SA-AKX77PH/PN POWER SUPPLY (2/2) BLOCK DIAGRAM

13 Wiring Connection Diagram



NOTE: "*" REF IS FOR INDICATION ONLY.

SA-AKX57PN, SA-AKX77PH/PN WIRING CONNECTION DIAGRAM

14 Schematic Diagram

14.1. Schematic Diagram Notes

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

Notes:

S5701:	Voltage Selector (For PH only).
S6000:	Memory 2 switch.
S6001:	Memory 3 switch.
S6002:	Memory 4 switch.
S6003:	Memory 1 switch.
S6004:	Memory 5 switch.
S6006:	Memory 6 switch.
S6012:	Stop (■) / Tune switch.
S6100:	USB/CD switch.
S6101:	Radio/EXT-IN switch.
S6103:	Album/Track switch.
S6104:	Bluetooth/Memory switch.
S6105:	Play/Pause (▶ / ■) switch.
S6107:	CD Open/Close (▲) switch.
S6200:	Latin/Preset EQ switch.
S6201:	Rewind (◀◀ / ◀◀) switch.
S6202:	Manual EQ switch.
S6203:	Power (⎓/⎓) switch.
S6204:	Memory Rec/Pause switch.
S6206:	D.Bass - Superwoofer switch.
S6207:	USB Rec/Pause switch.
S6208:	Forward (▶▶ / ▶▶) switch.
S7201:	Reset switch.
VR6100:	Volume Jog.
VR6200:	Control Jog.

- Important safety notice:

Components identified by  mark have special characteristics important for safety.

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

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

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

AC rated voltage capacitors: C5701, C5702, C5703, C5704, C5705, C5706, C5707, C5708

• 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=picofarad.

• Coil

Unit of inductance is H, unless otherwise noted.

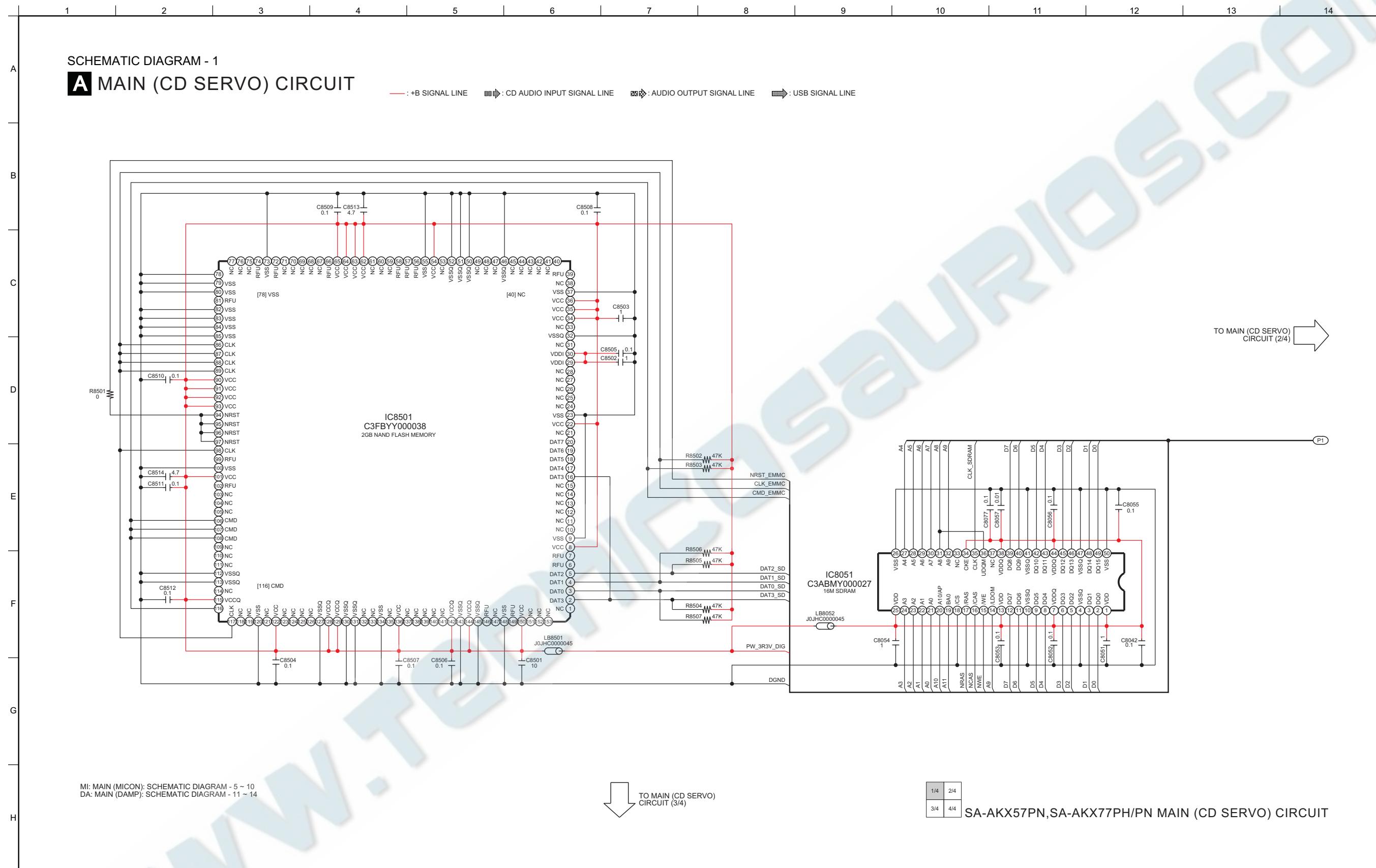
• *

REF IS FOR INDICATION ONLY.

• Voltage and signal line

	: +B signal line
	: -B signal line
	: CD Audio input signal line
	: Tuner/Music Port/AUX/Bluetooth Audio input signal line
	: Audio output signal line
	: USB signal line
	: AM signal line
	: FM signal line

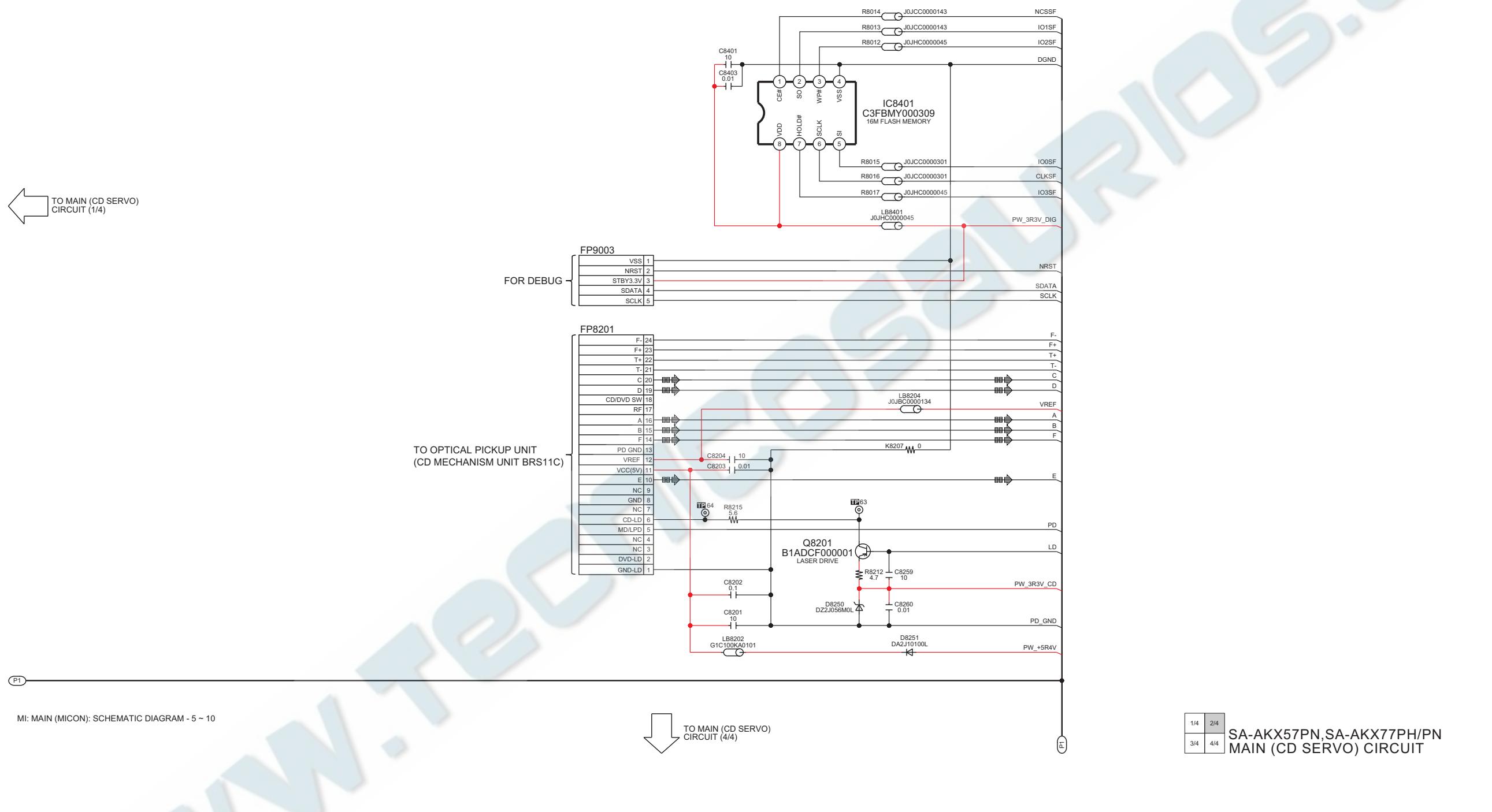
14.2. MAIN (CD Servo) Circuit



SCHEMATIC DIAGRAM - 2

A MAIN (CD SERVO) CIRCUIT

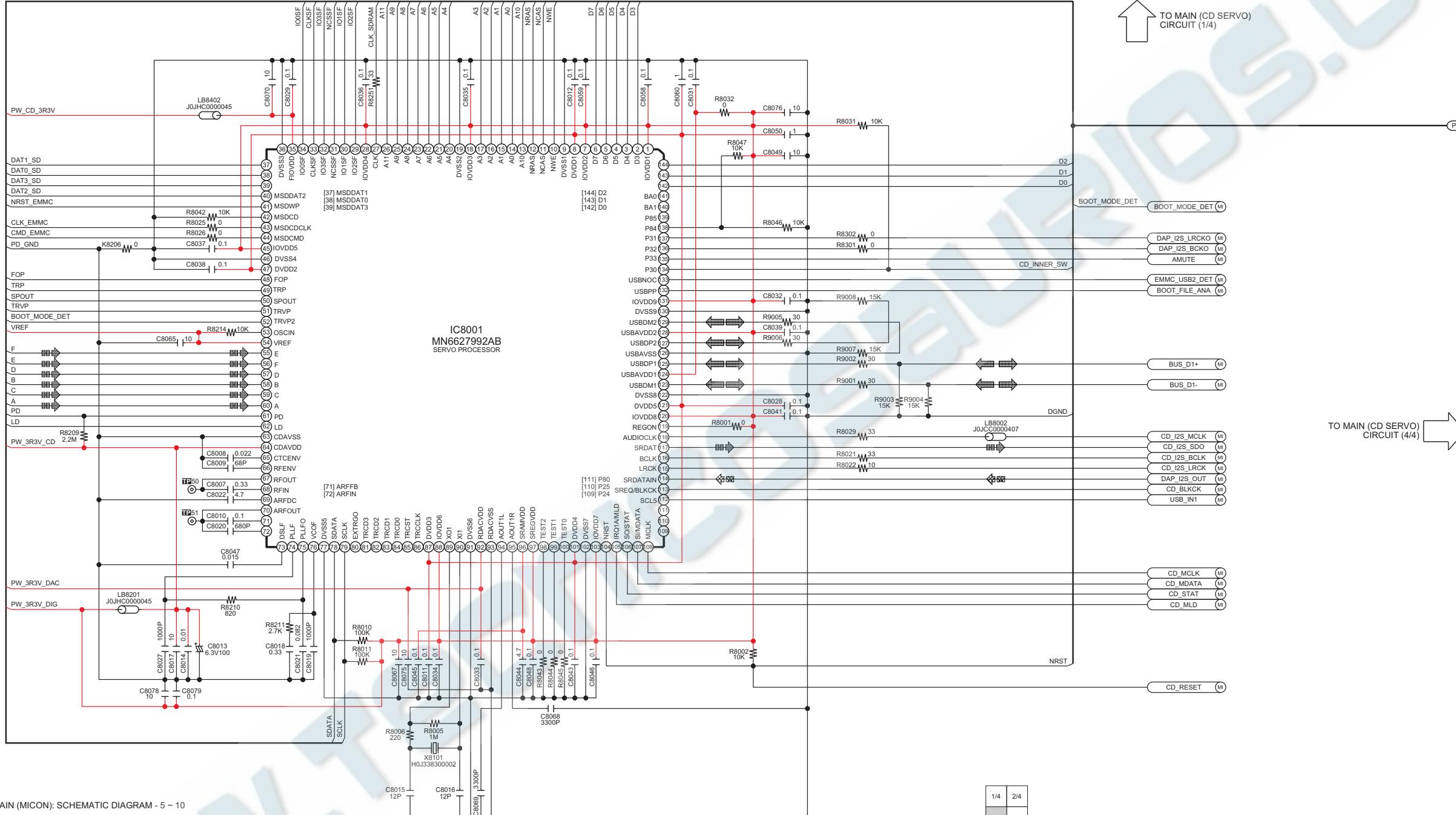
— : +B SIGNAL LINE □: CD AUDIO INPUT SIGNAL LINE □: AUDIO OUTPUT SIGNAL LINE ─: USB SIGNAL LINE



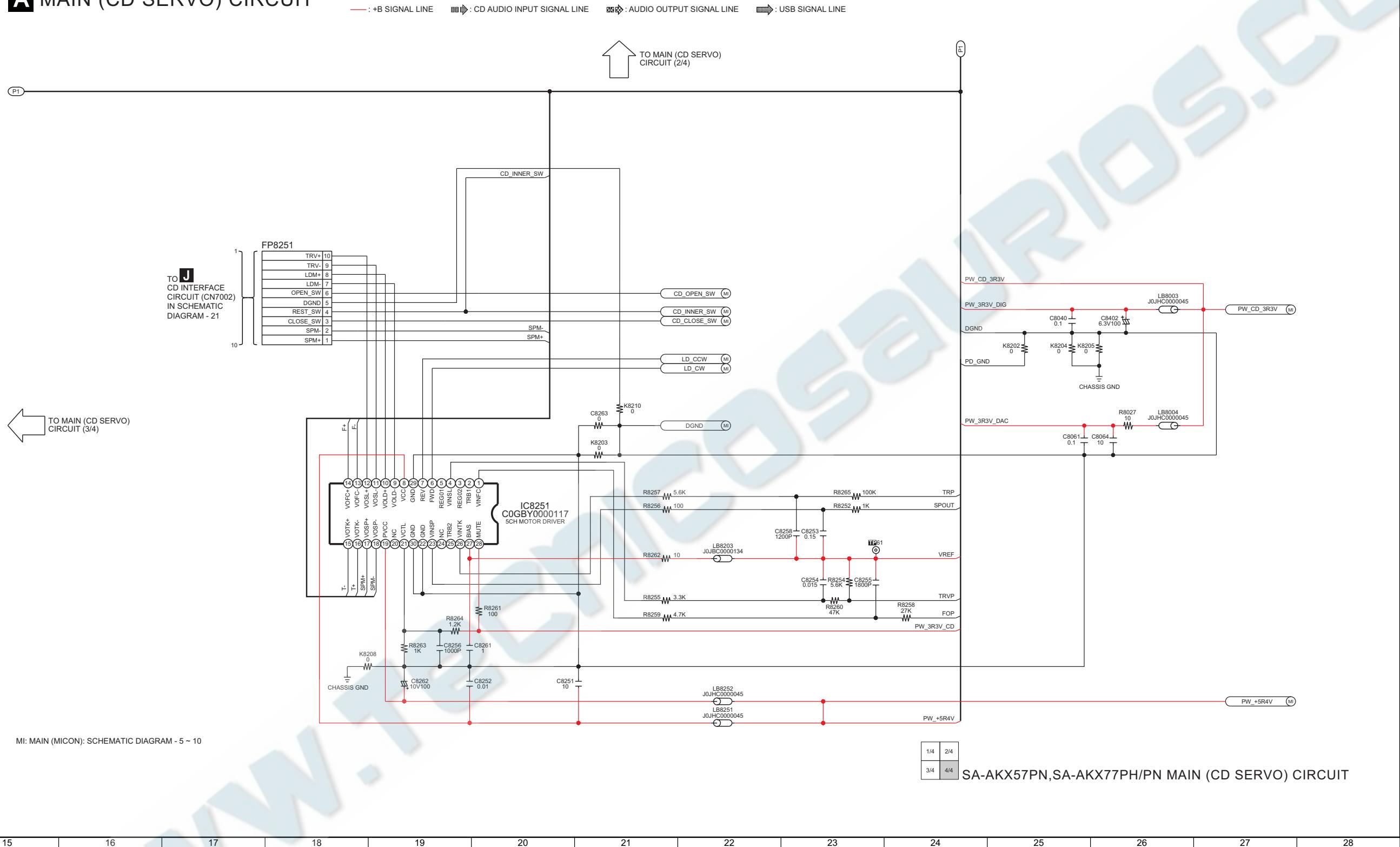
SCHEMATIC DIAGRAM - 3

A MAIN (CD SERVO) CIRCUIT

— : +B SIGNAL LINE □—□ : CD AUDIO INPUT SIGNAL LINE □—□ : AUDIO OUTPUT SIGNAL LINE ━━━ : USB SIGNAL LINE



SCHEMATIC DIAGRAM - 4

A MAIN (CD SERVO) CIRCUIT

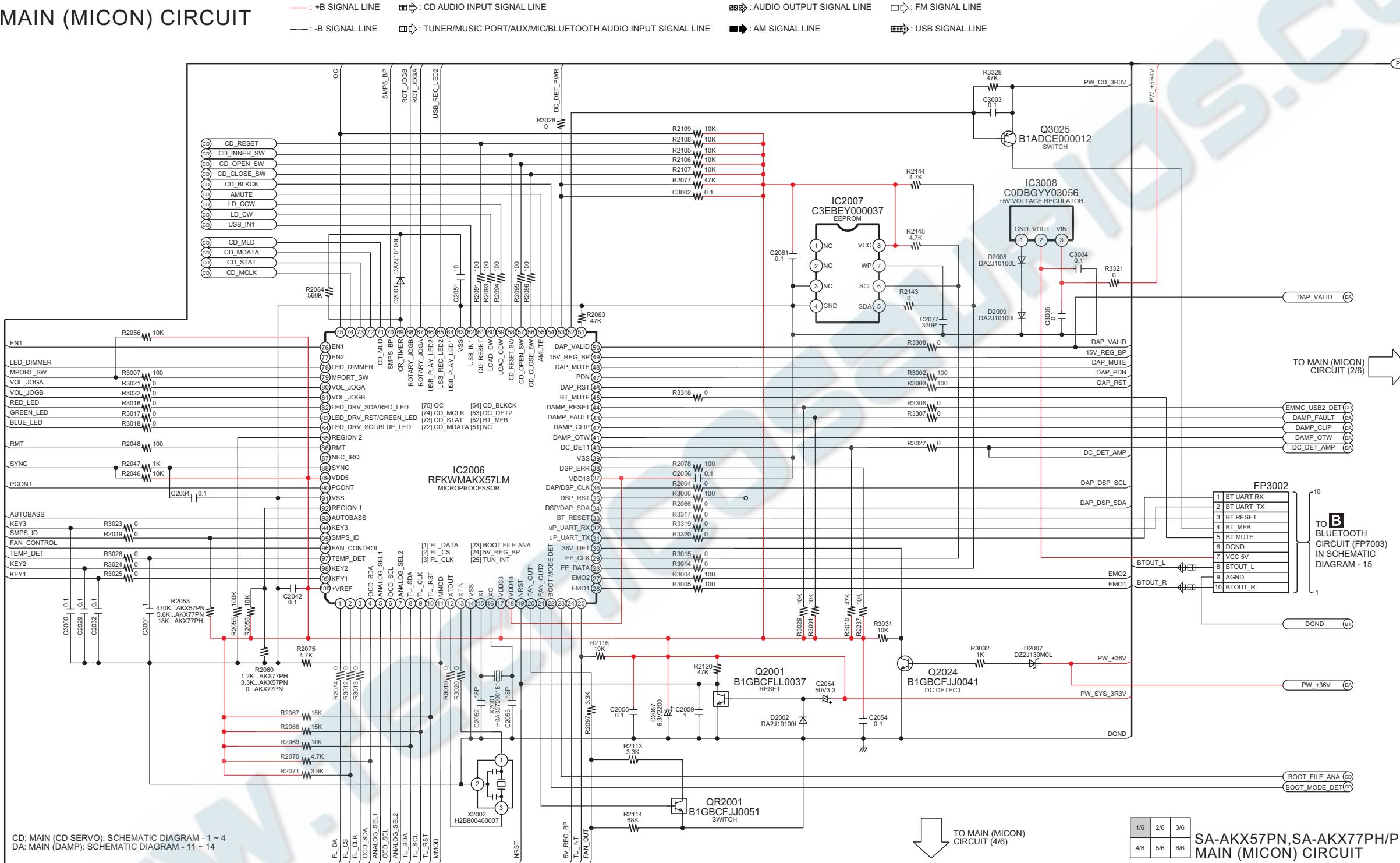
15 16 17 18 19 20 21 22 23 24 25 26 27 28

14.3. MAIN (Micon) Circuit

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14

SCHEMATIC DIAGRAM - 5

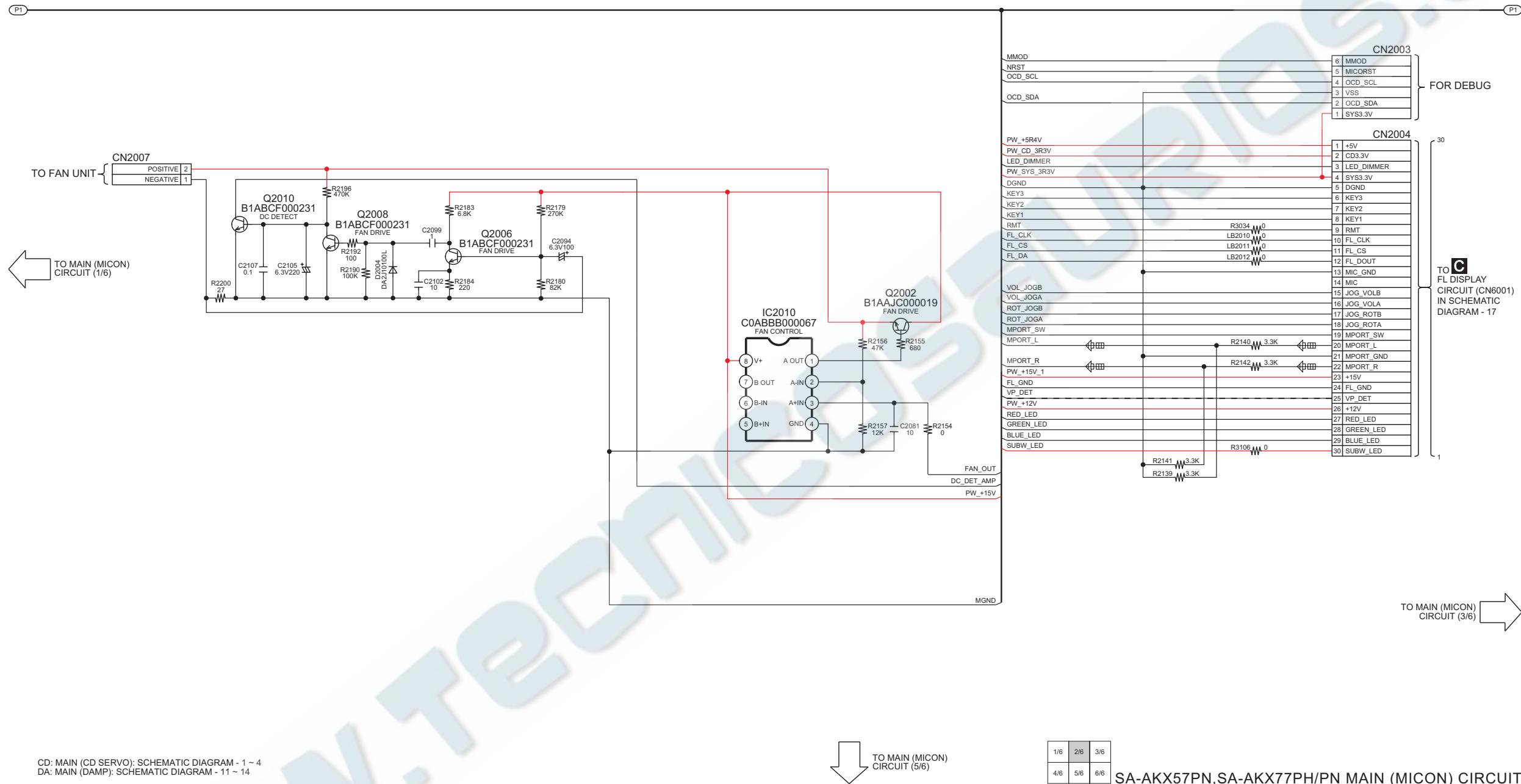
A MAIN (MICON) CIRCUIT



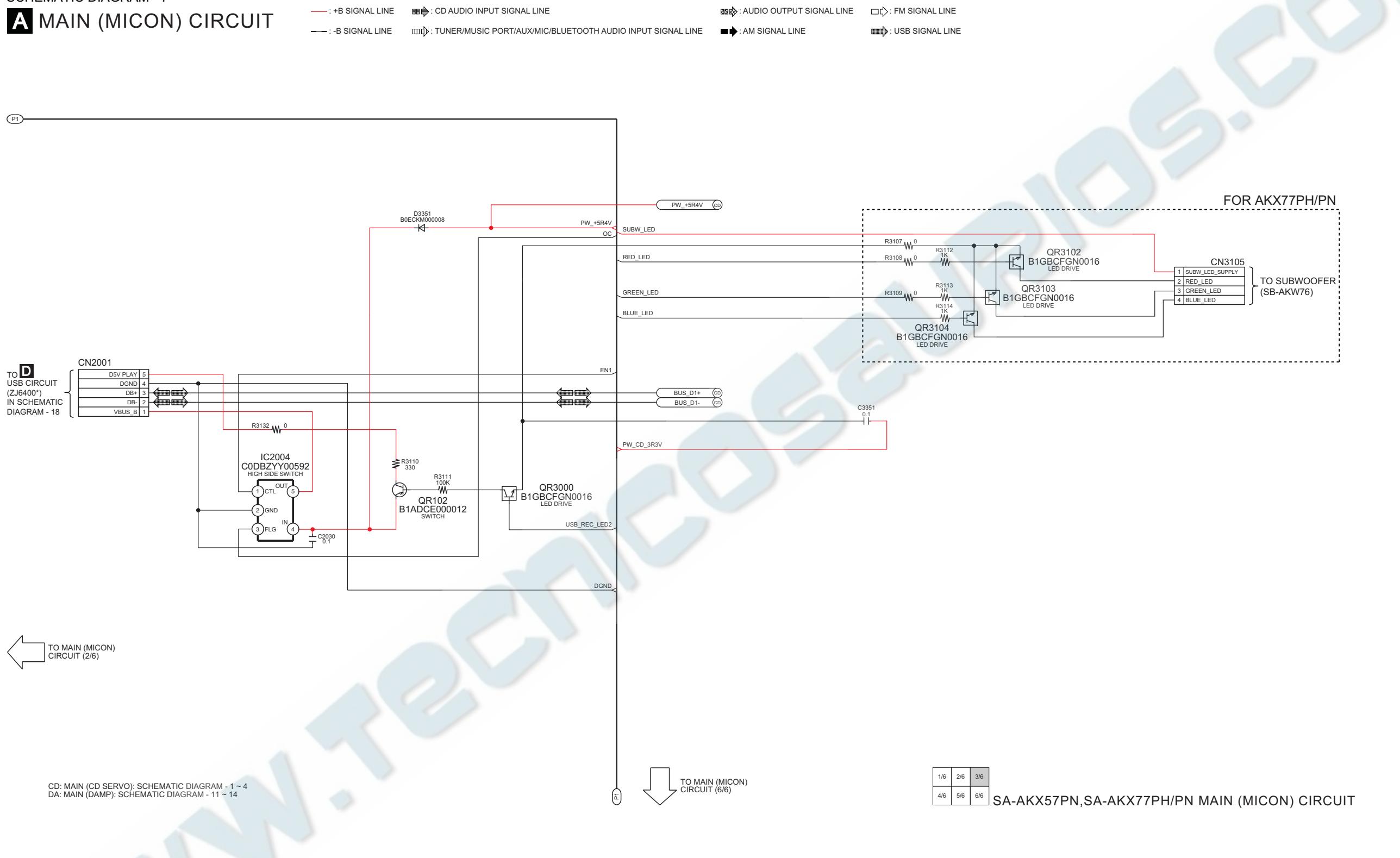
SCHEMATIC DIAGRAM - 6

A MAIN (MICON) CIRCUIT

— : +B SIGNAL LINE ──► : CD AUDIO INPUT SIGNAL LINE
 — : -B SIGNAL LINE ──► : TUNER/MUSIC PORT/AUX/MIC/BLUETOOTH AUDIO INPUT SIGNAL LINE
 ■ : AUDIO OUTPUT SIGNAL LINE □ : FM SIGNAL LINE
 ■ : AM SIGNAL LINE ──► : USB SIGNAL LINE



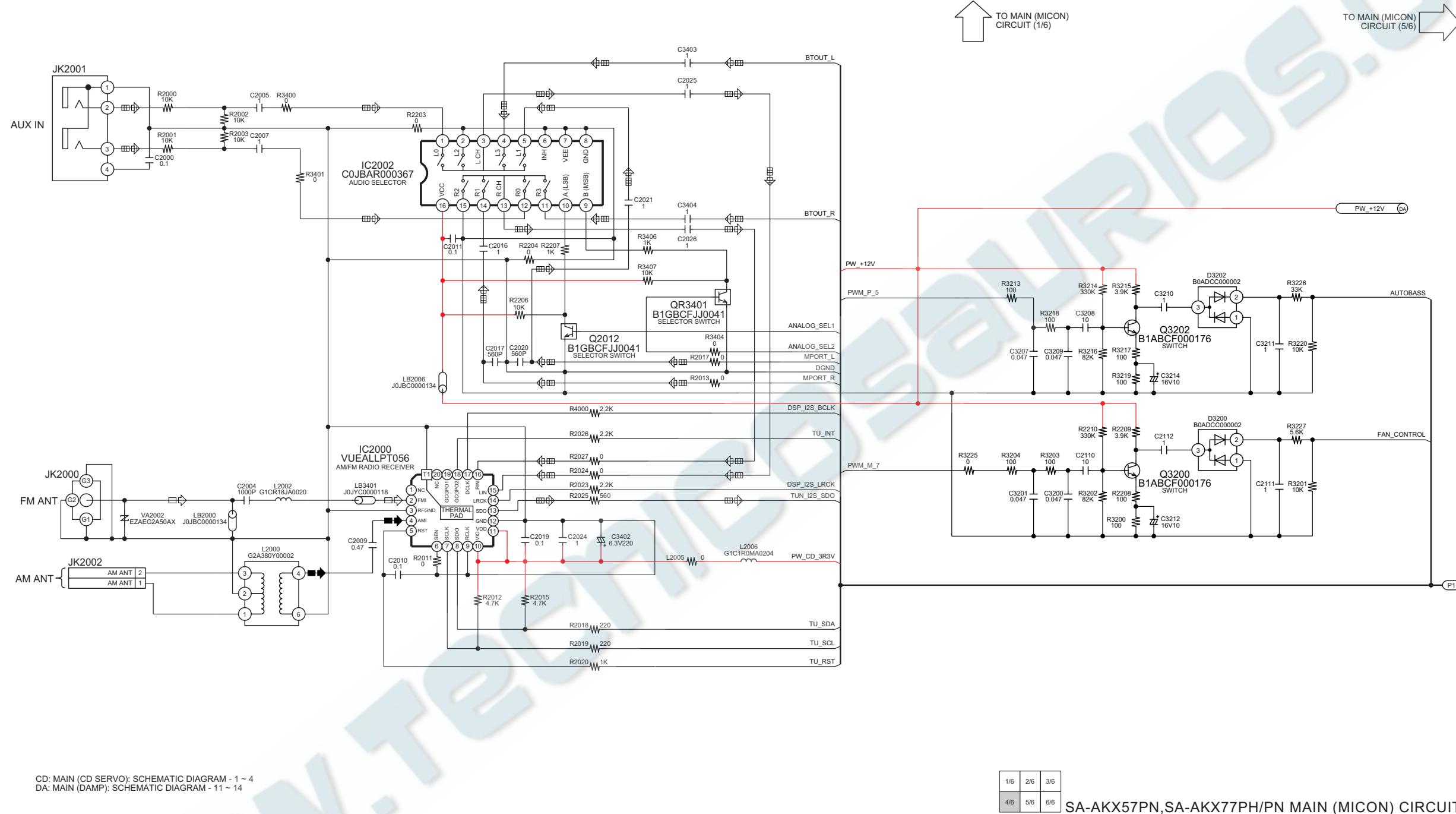
SCHEMATIC DIAGRAM - 7

A MAIN (MICON) CIRCUIT

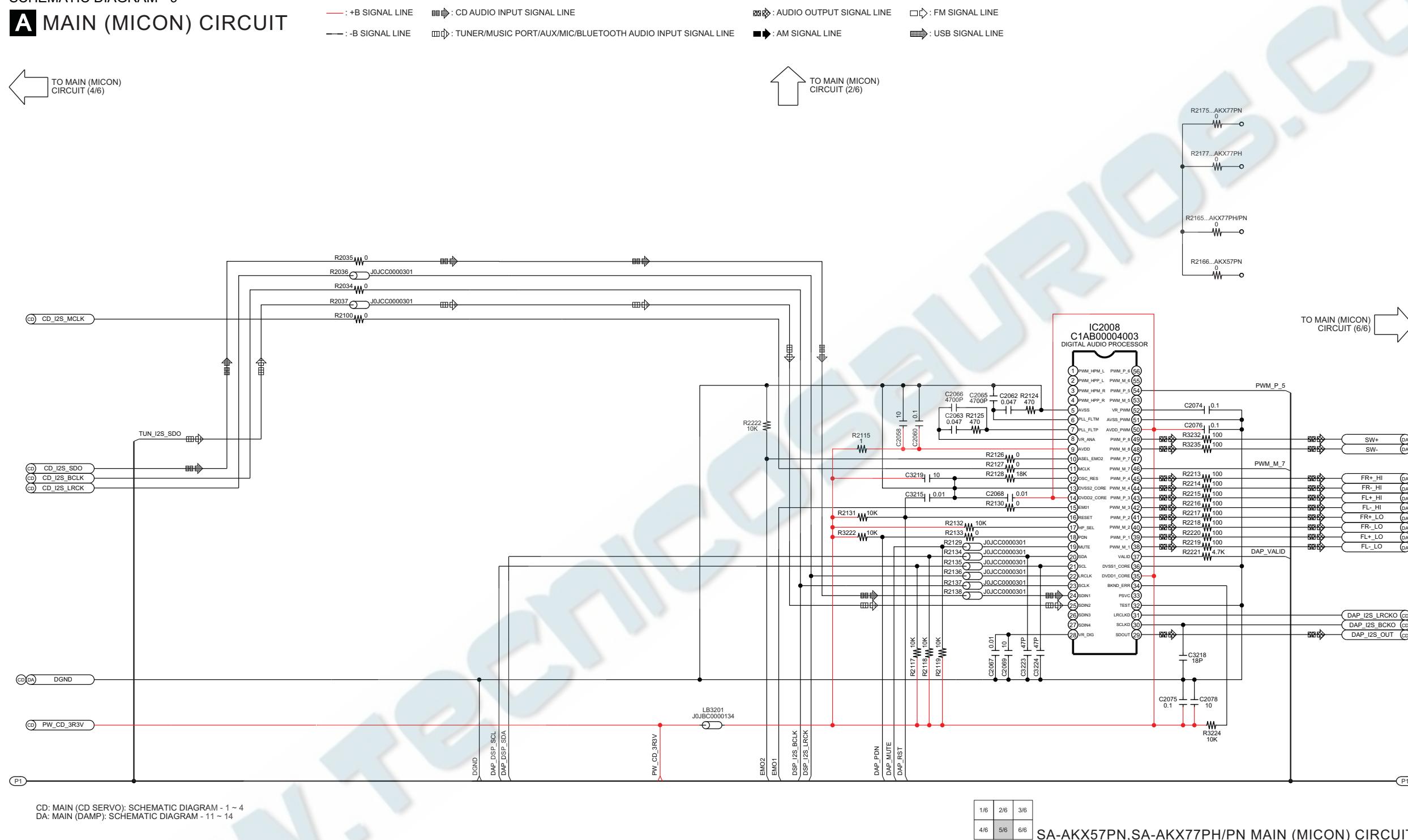
SCHEMATIC DIAGRAM - 8

A MAIN (MICON) CIRCUIT

: +B SIGNAL LINE : CD AUDIO INPUT SIGNAL LINE
 : -B SIGNAL LINE : TUNER/MUSIC PORT/AUX/MIC/BLUETOOTH AUDIO INPUT SIGNAL LINE
 : : AUDIO OUTPUT SIGNAL LINE : FM SIGNAL LINE
 : : AM SIGNAL LINE : USB SIGNAL LINE

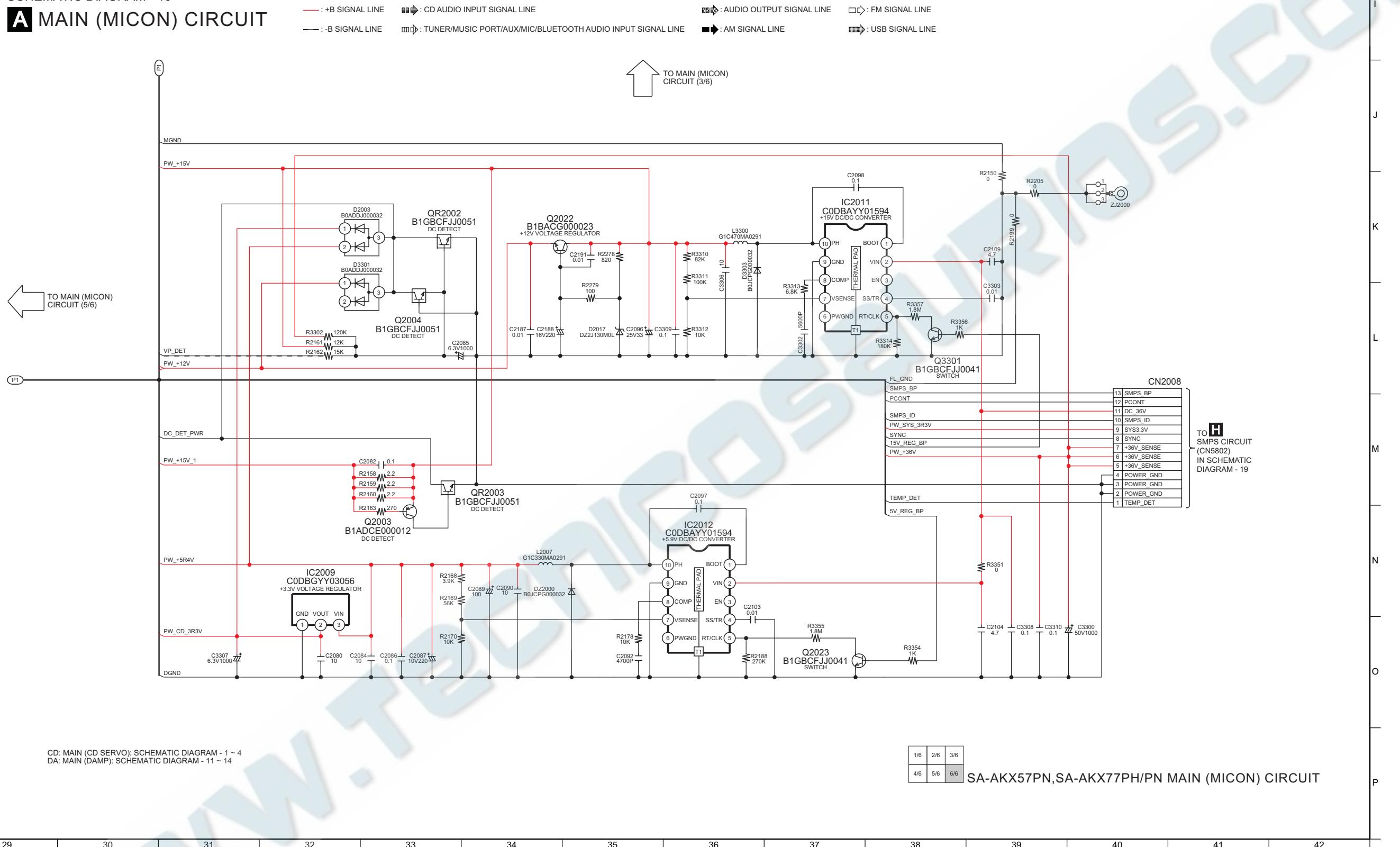


SCHEMATIC DIAGRAM - 9

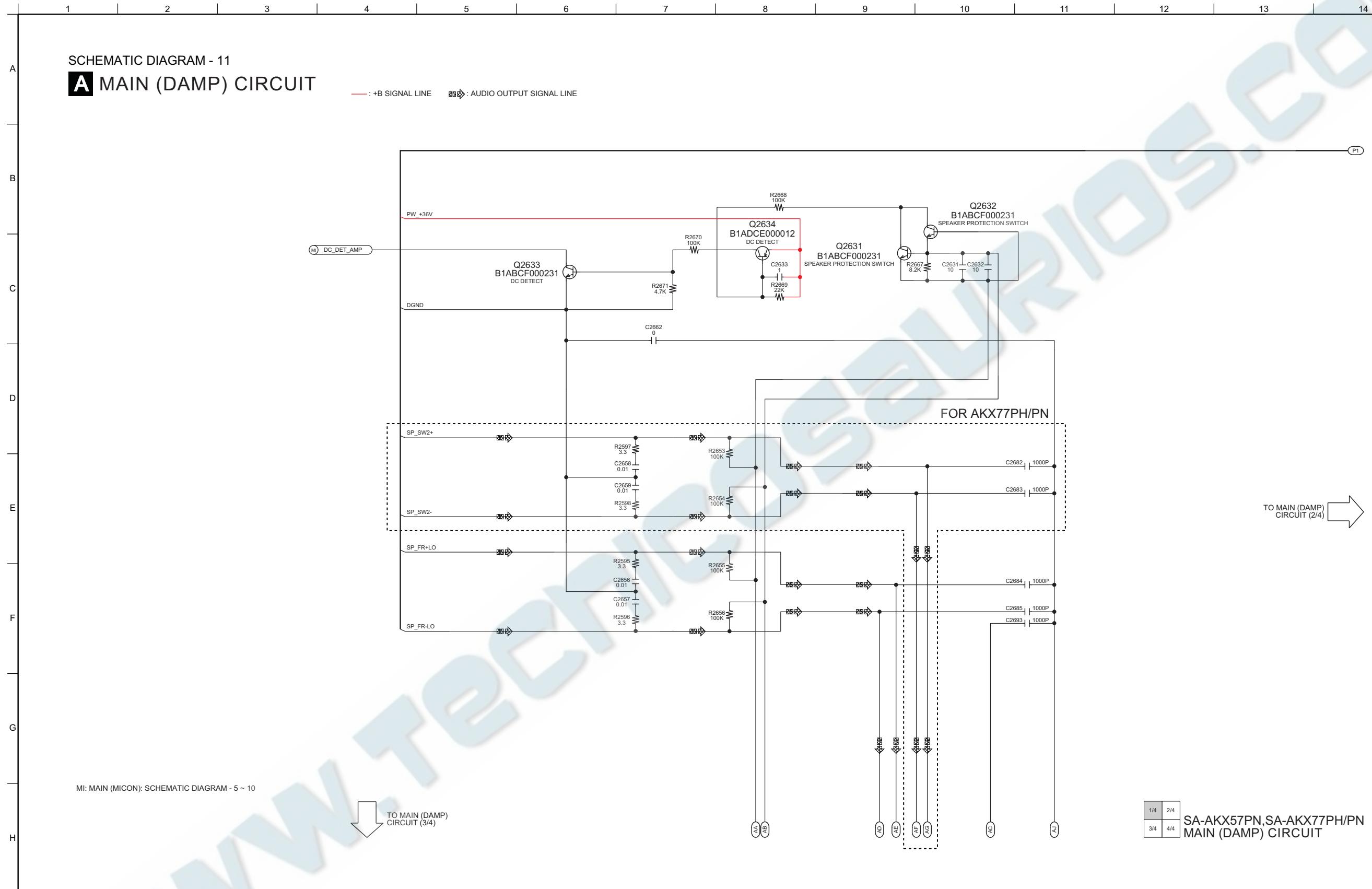
A MAIN (MICON) CIRCUIT

15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28

SCHEMATIC DIAGRAM - 10

A MAIN (MICON) CIRCUIT

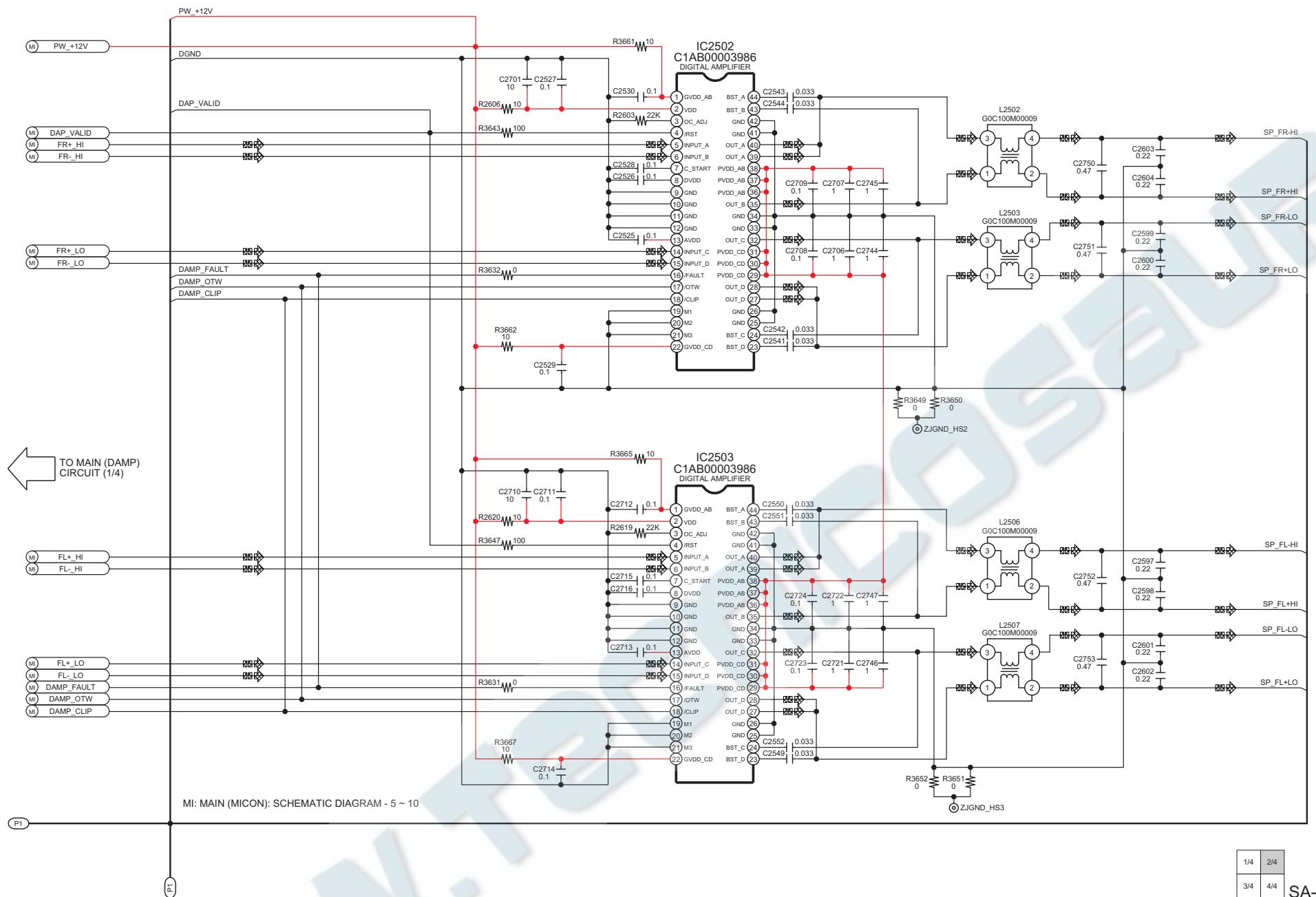
14.4. MAIN (Damp) Circuit



SCHEMATIC DIAGRAM - 12

A MAIN (DAMP) CIRCUIT

— : +B SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE



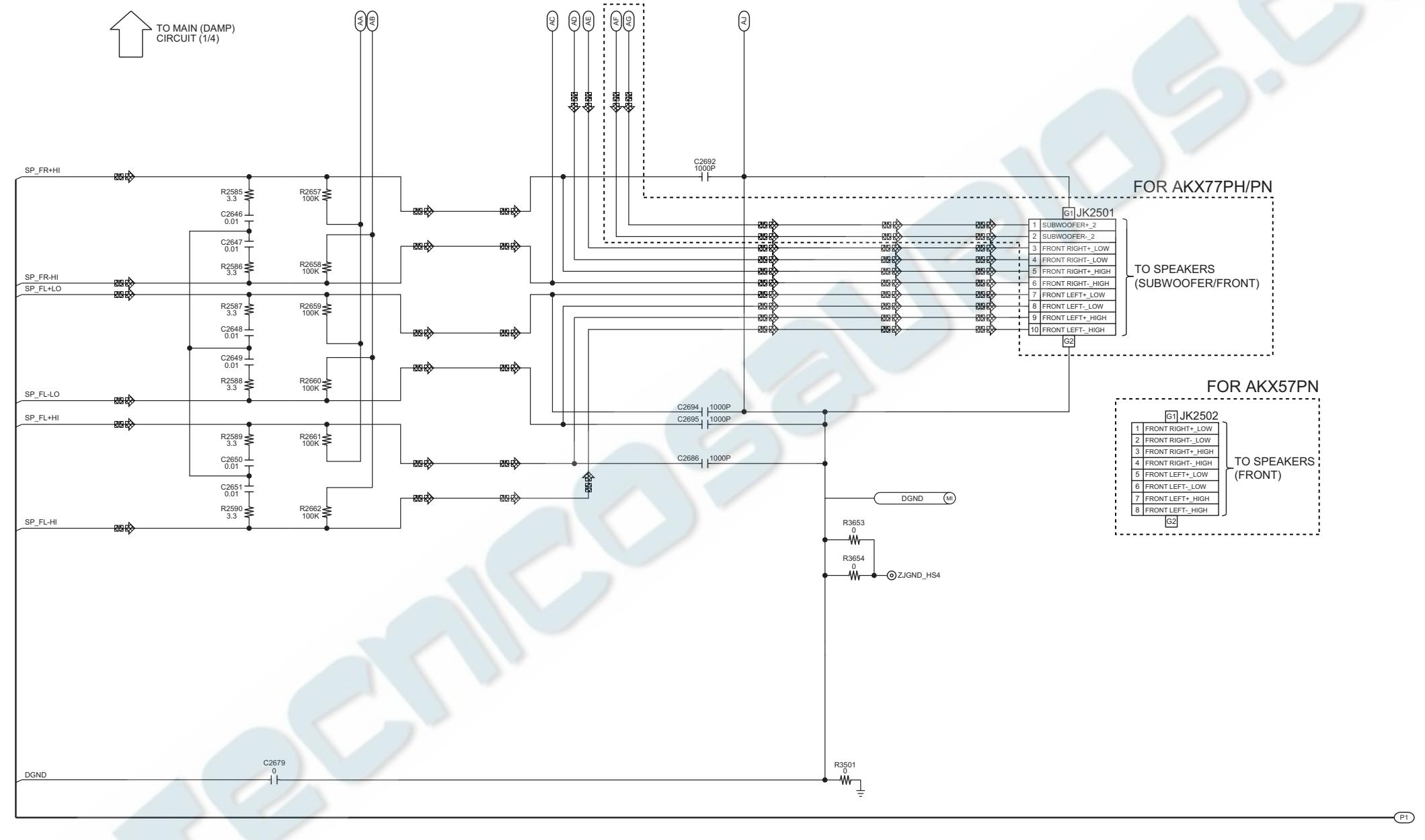
1/4	2/4
3/4	4/4

SA-AKX57PN,SA-AKX77PH/PN MAIN (DAMP) CIRCUIT

SCHEMATIC DIAGRAM - 13

A MAIN (DAMP) CIRCUIT

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

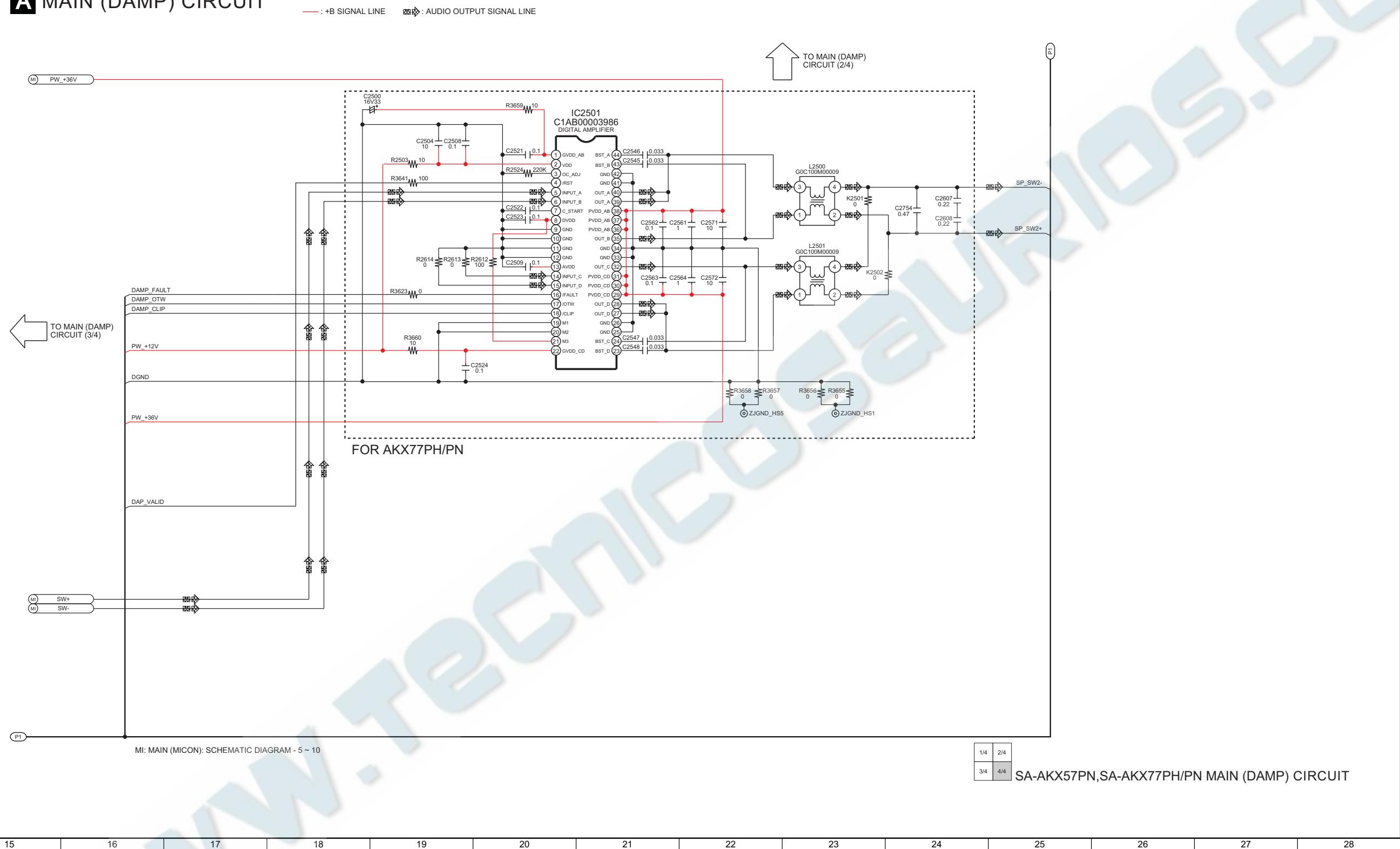


MI: MAIN (MICON): SCHEMATIC DIAGRAM - 5 ~ 10

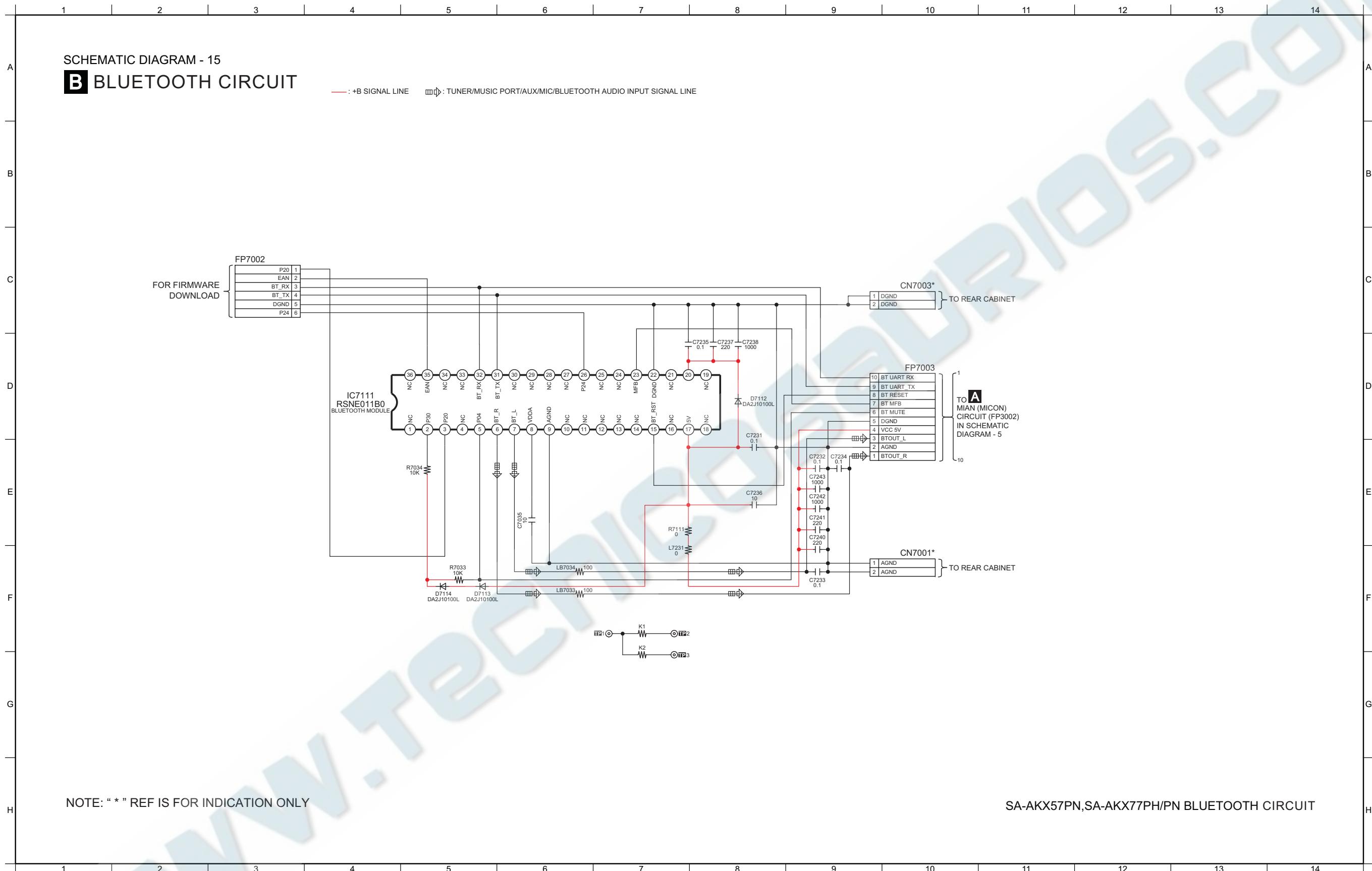
1/4	2/4
3/4	4/4

SA-AKX57PN,SA-AKX77PH/PN MAIN (DAMP) CIRCUIT

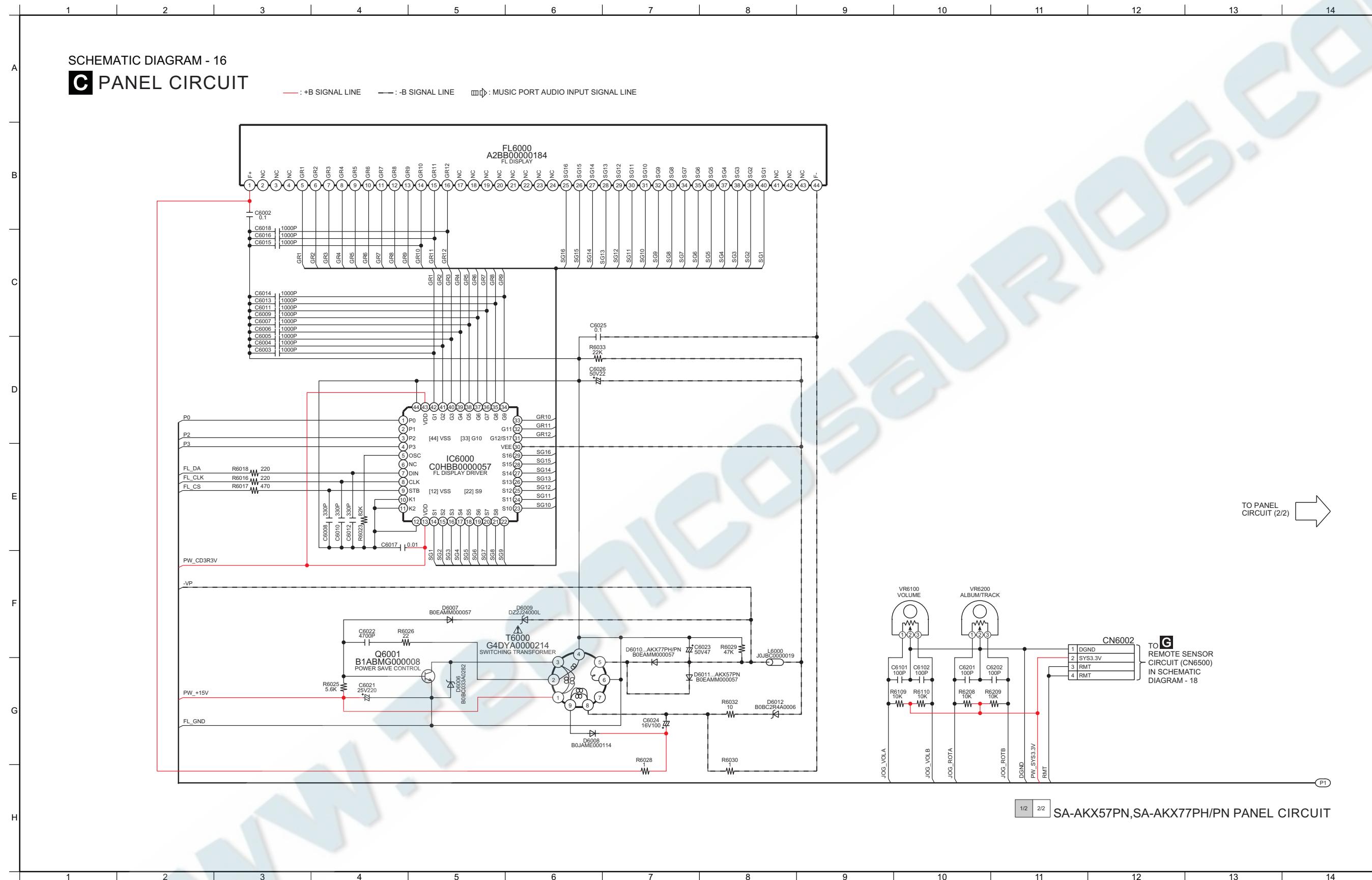
SCHEMATIC DIAGRAM - 14

A MAIN (DAMP) CIRCUIT

14.5. Bluetooth Circuit



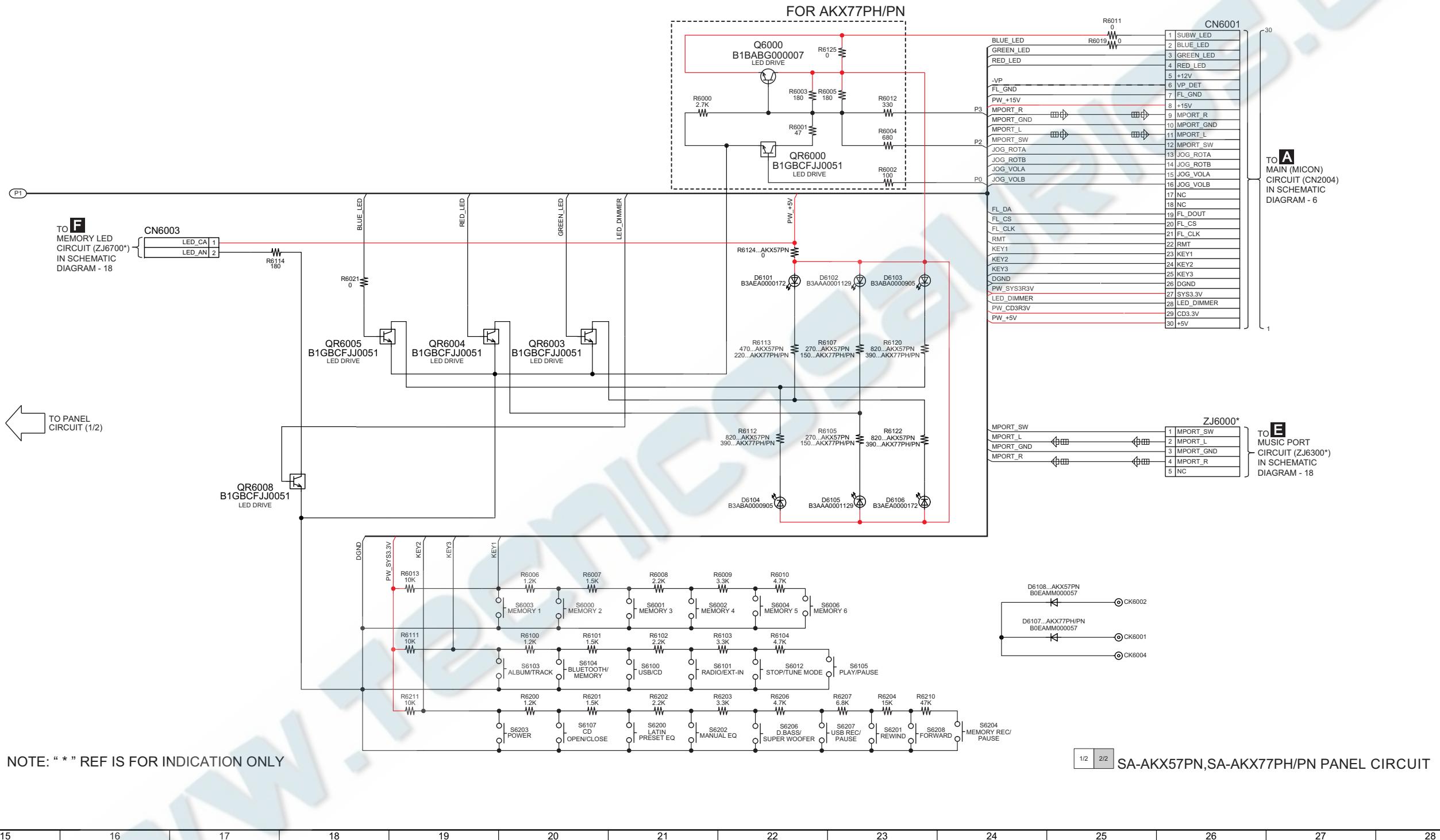
14.6. Panel Circuit



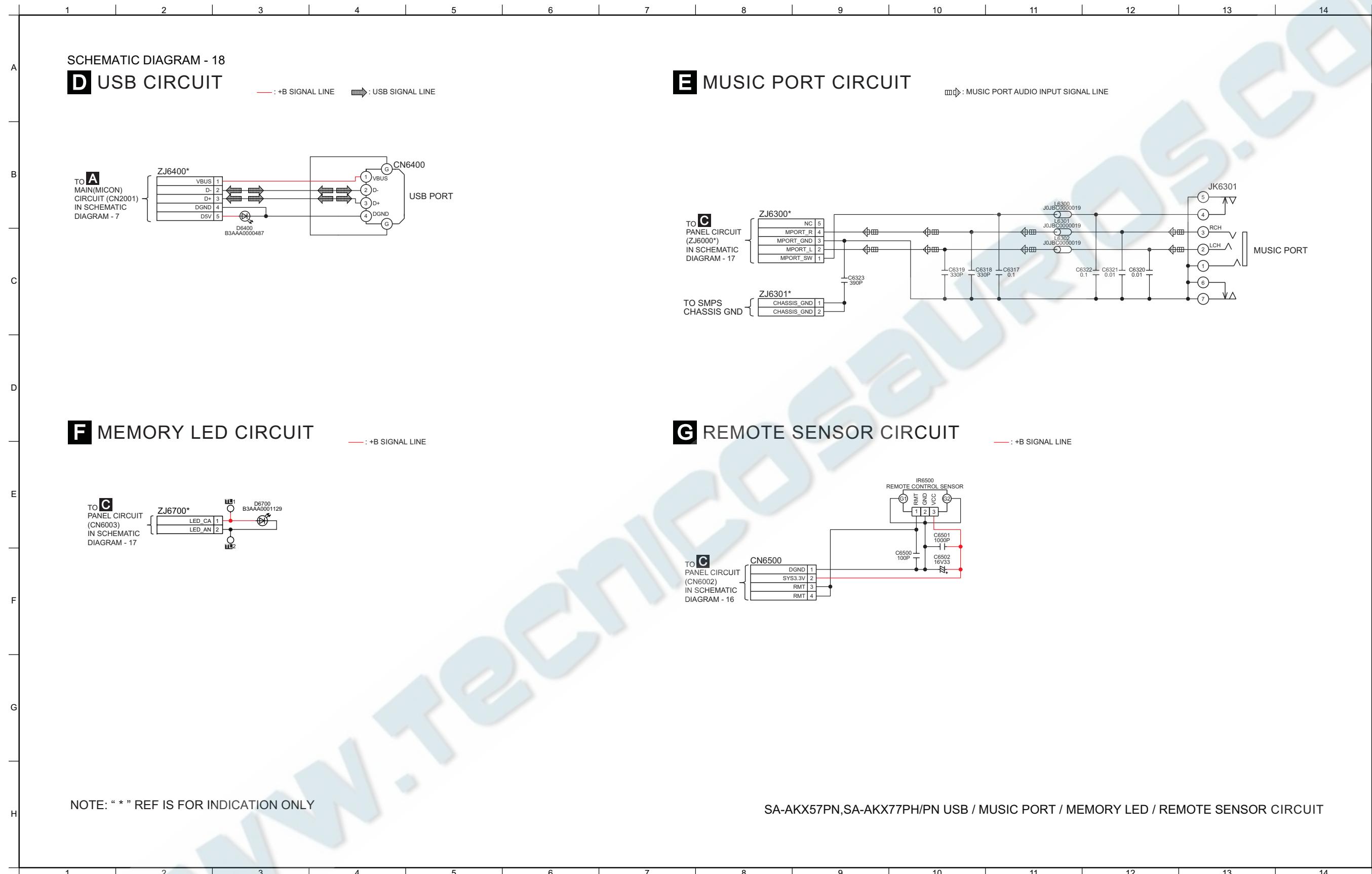
SCHEMATIC DIAGRAM - 17

C PANEL CIRCUIT

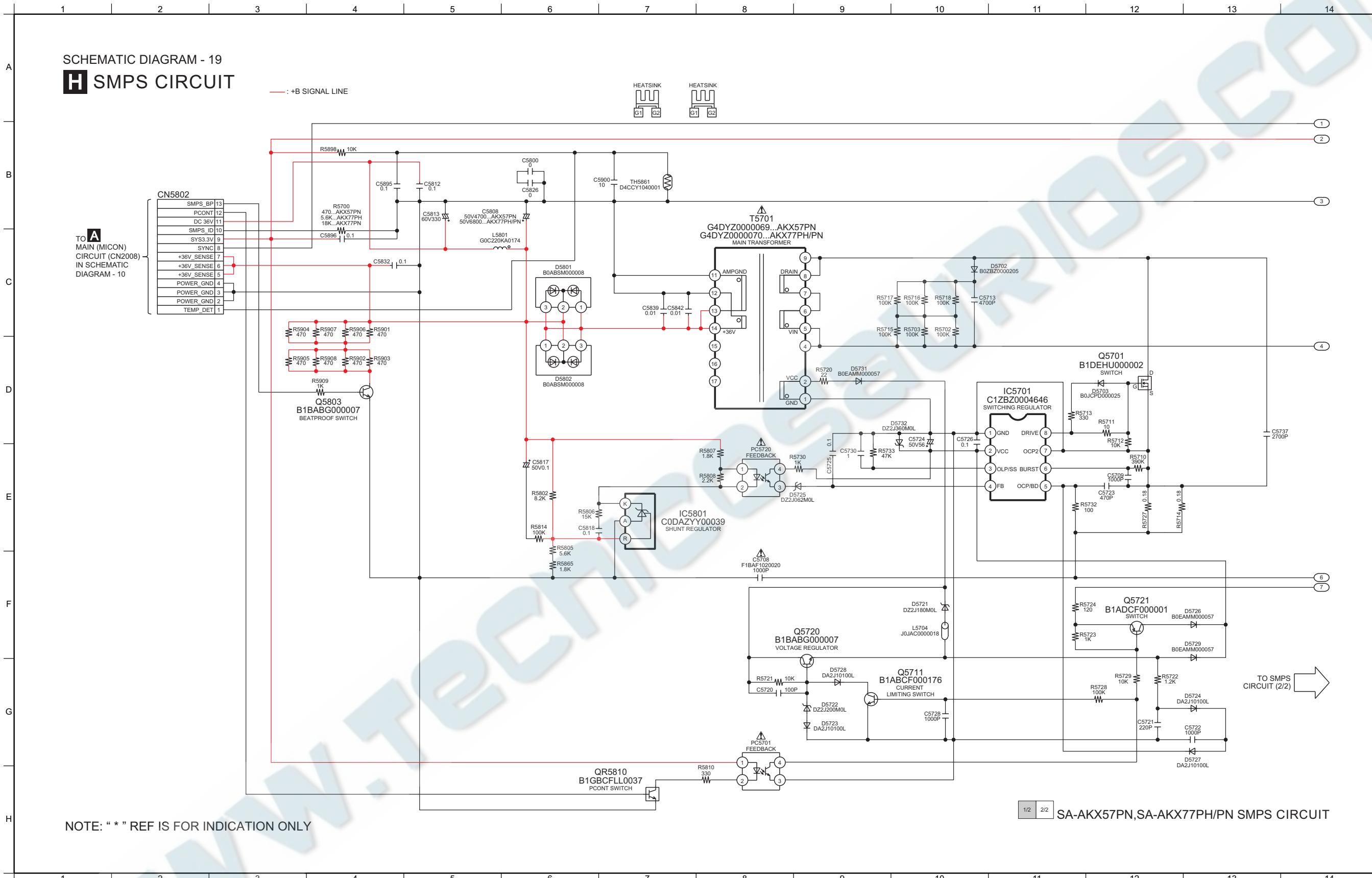
— : +B SIGNAL LINE — : -B SIGNAL LINE MUSIC PORT AUDIO INPUT SIGNAL LINE



14.7. USB, Music Port, Memory LED & Remote Sensor Circuit



14.8. SMPS Circuit



15

16

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23

24

25

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27

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A

B

C

D

E

F

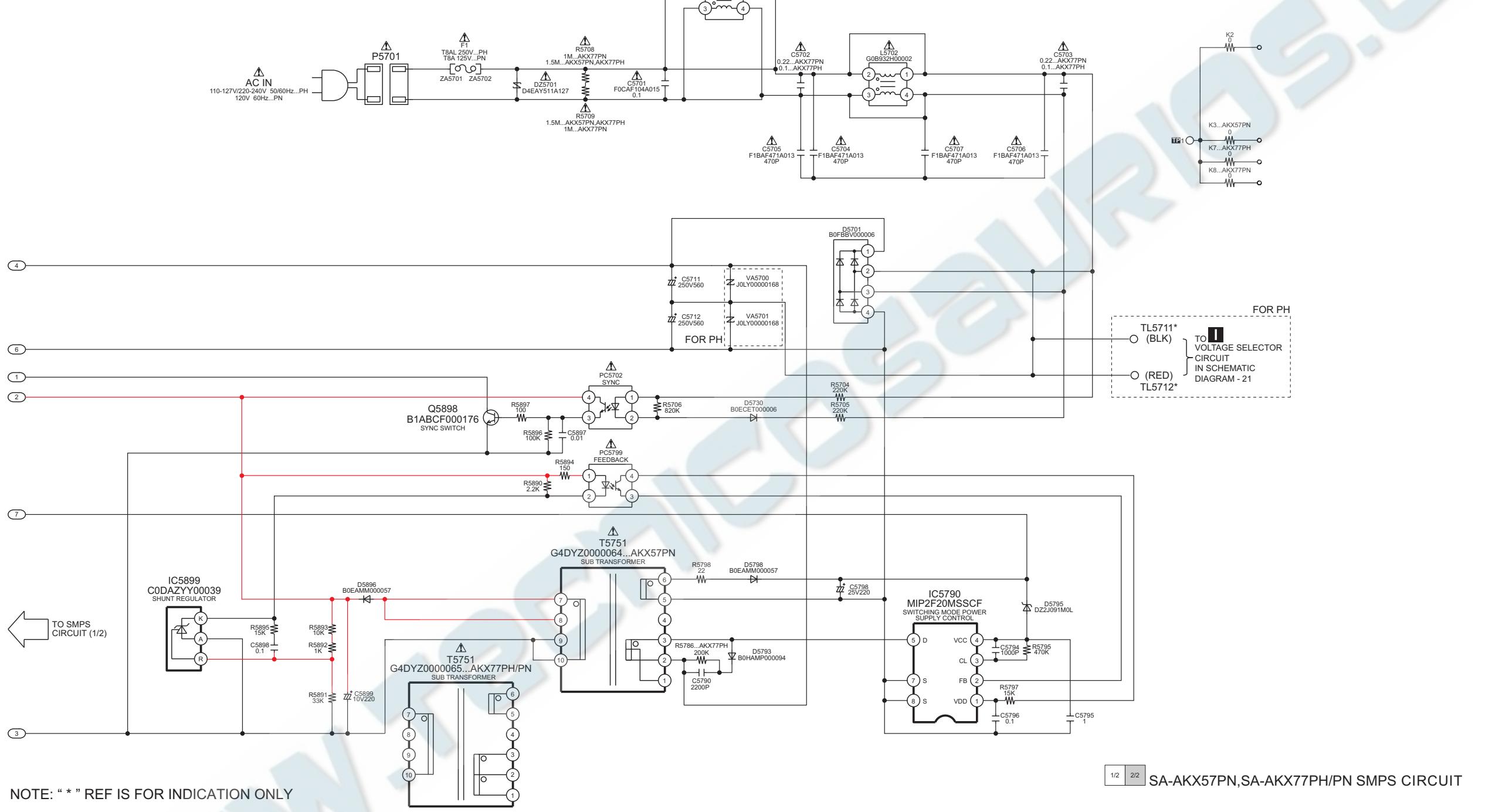
G

H

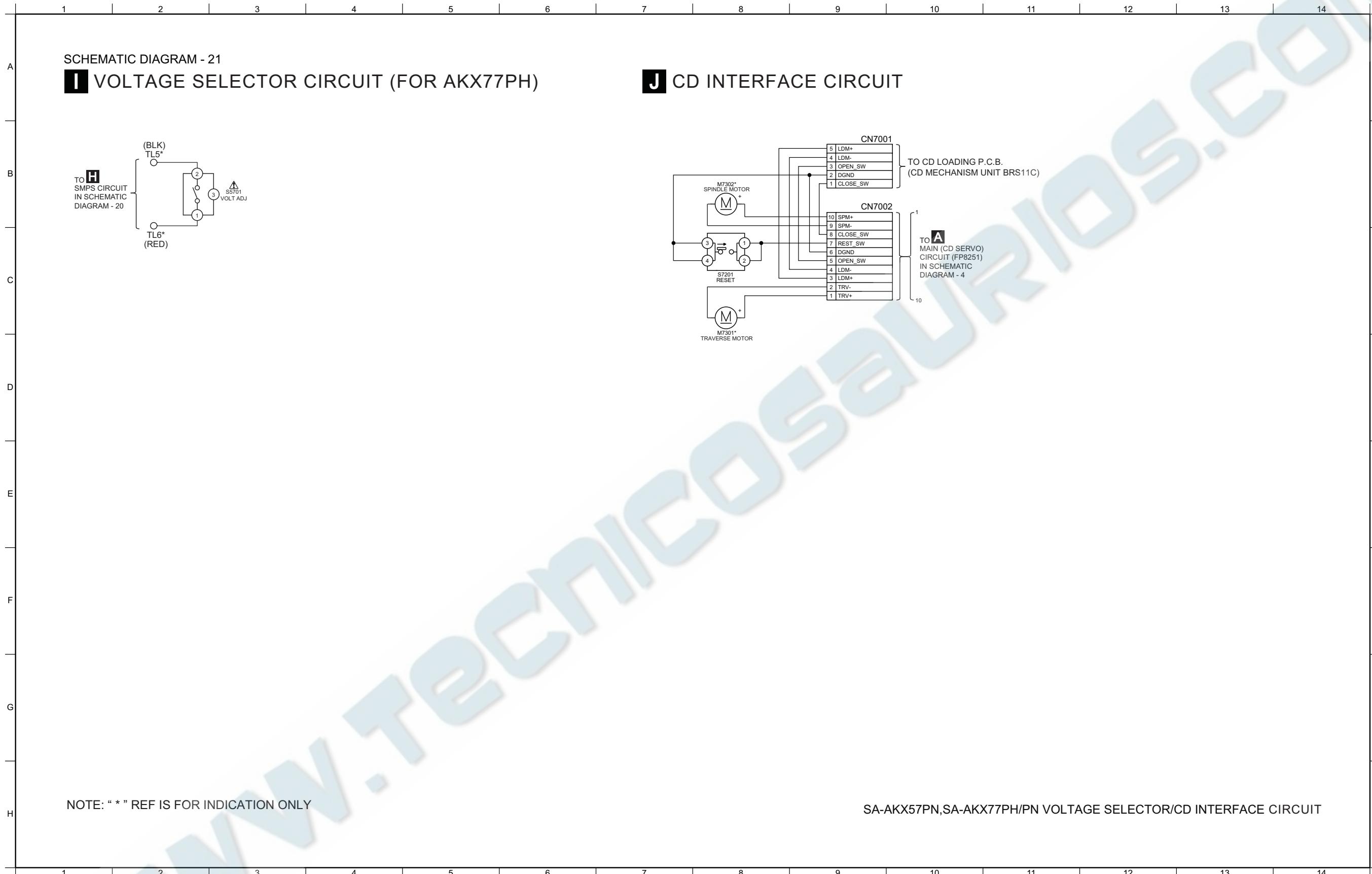
SCHEMATIC DIAGRAM - 20

H SMPS CIRCUIT

— : +B SIGNAL LINE

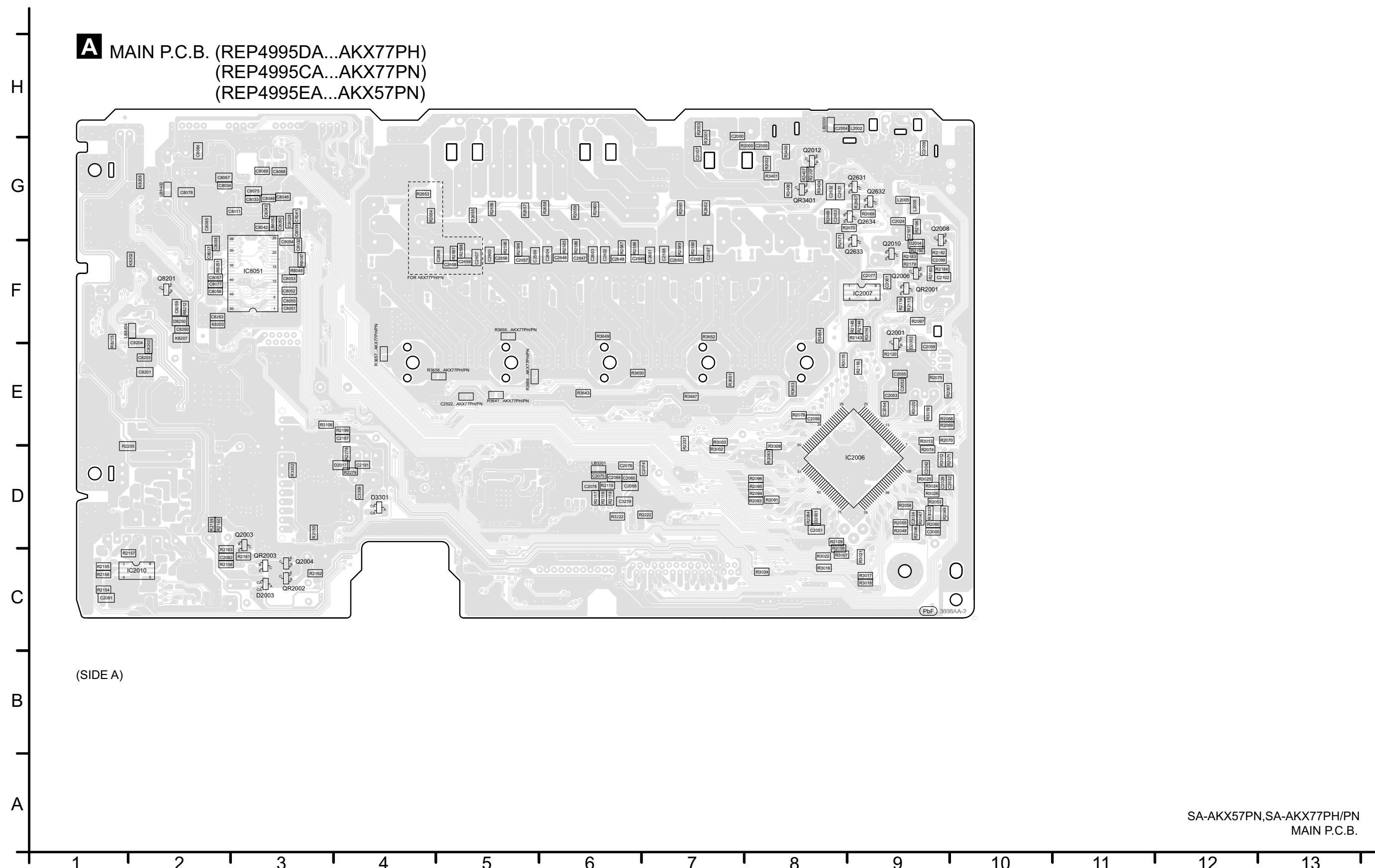


14.9. Voltage Selector & CD Interface Circuit

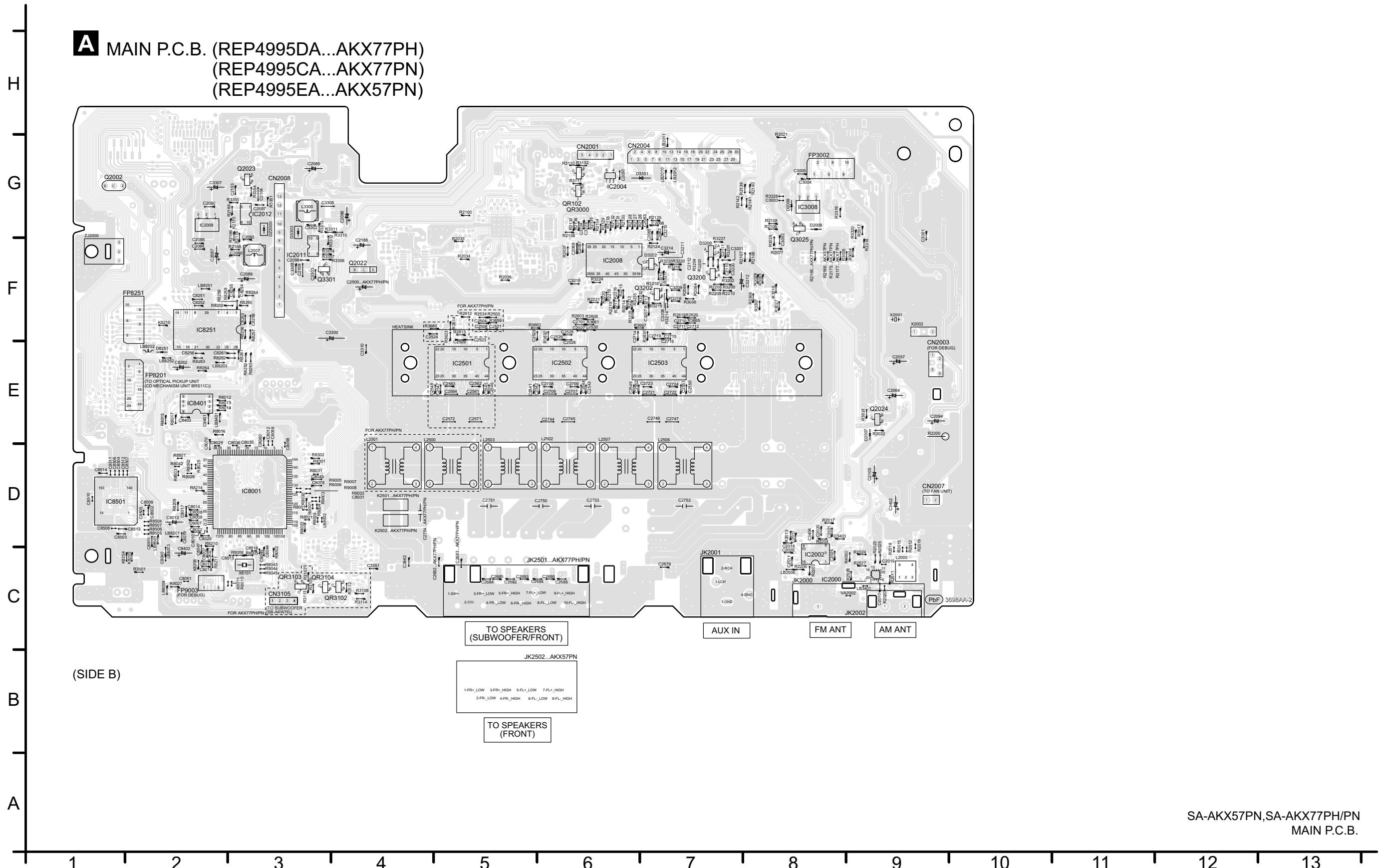


15 Printed Circuit Board

15.1. Main P.C.B.



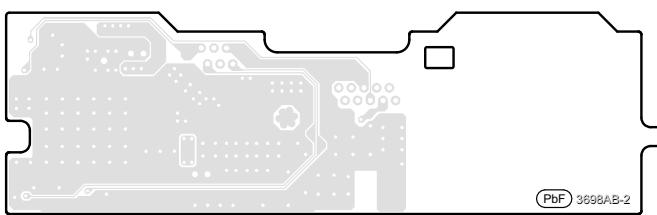
**A MAIN P.C.B. (REP4995DA...AKX77PH)
(REP4995CA...AKX77PN)
(REP4995EA...AKX57PN)**



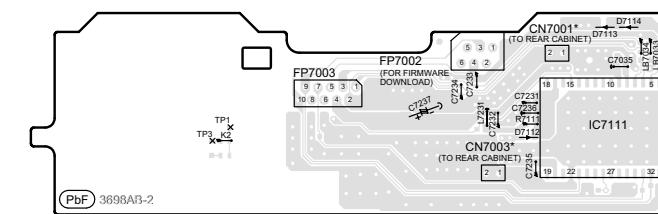
SA-AKX57PN, SA-AKX77PH/PN
MAIN P.C.B.

15.2. Bluetooth, Remote Sensor & CD Interface P.C.B.

B BLUETOOTH P.C.B. (REP4995DB...AKX77PH)
 (REP4995CB...AKX77PN)
 (REP4995EB...AKX57PN)

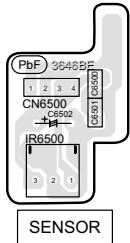


(SIDE A)



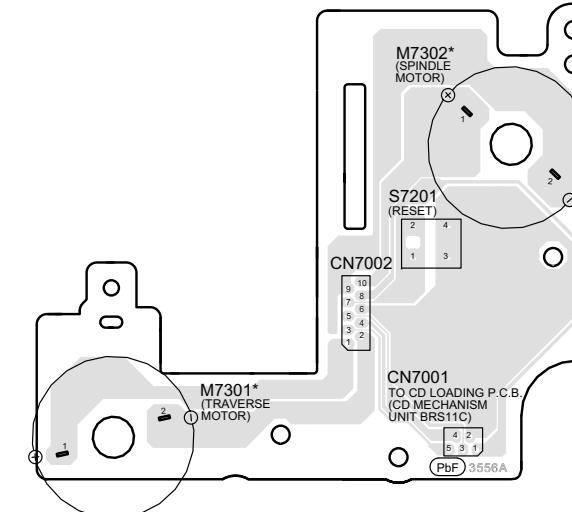
(SIDE B)

G REMOTE SENSOR P.C.B. (REP4884AE...AKX77PH/PN)
 (REP4884BE...AKX57PN)



NOTE: " * " REF IS FOR INDICATION ONLY.

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

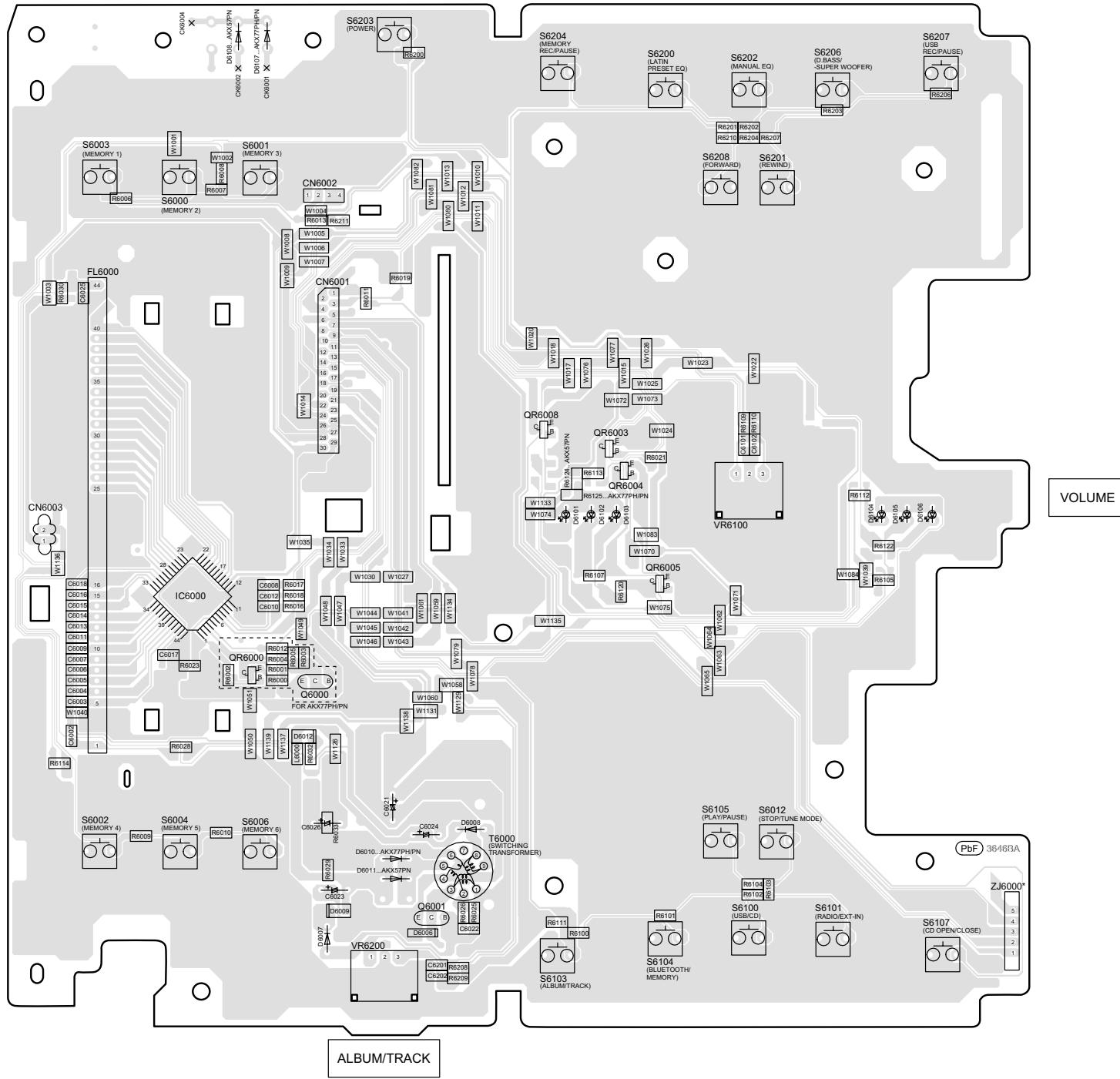


SA-AKX57PN, SA-AKX77PH/PN
 BLUETOOTH / REMOTE SENSOR / CD INTERFACE P.C.B.

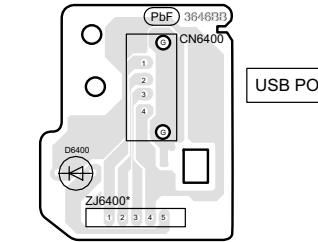
1 2 3 4 5 6 7 8 9 10 11 12 13

15.3. Panel, USB, Music Port & Memory LED P.C.B.

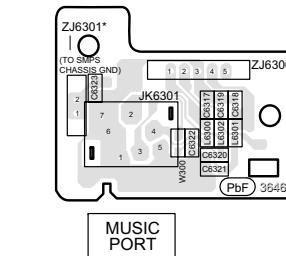
C PANEL P.C.B. (REP4884AA...AKX77PH/PN)
(REP4884BA...AKX57PN)



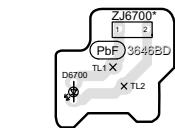
D USB P.C.B. (REP4884AB...AKX77PH/PN)
(REP4884BB...AKX57PN)



E MUSIC PORT P.C.B. (REP4884AA...AKX77PH/PN)
(REP4884BA...AKX57PN)



F MEMORY LED P.C.B. (REP4884AA...AKX77PH/PN)
(REP4884BA...AKX57PN)

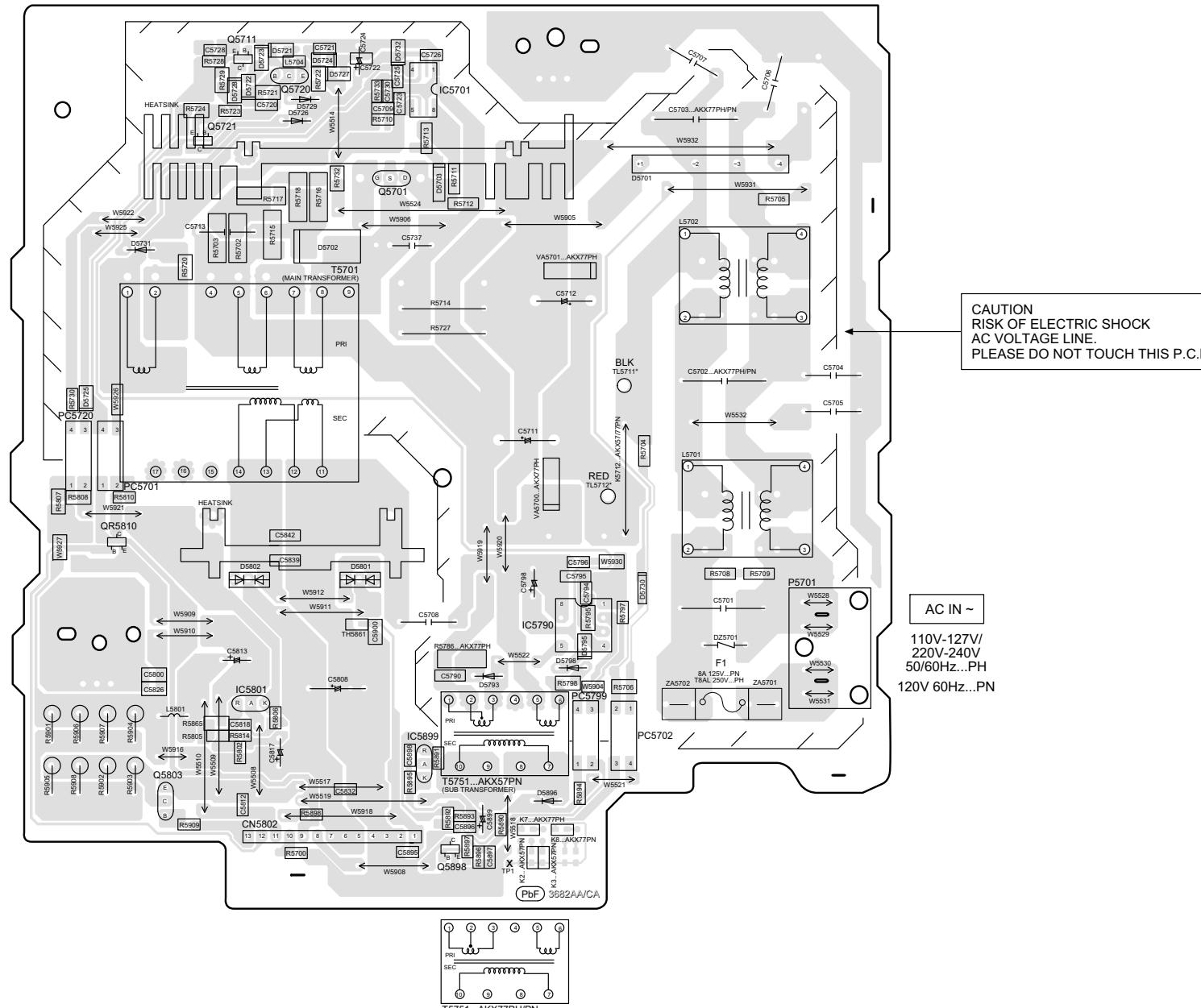


SA-AKX57PN, SA-AKX77PH/PN
PANEL / USB / MUSIC PORT / MEMORY LED P.C.B.

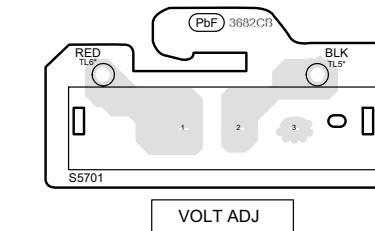
1 2 3 4 5 6 7 8 9 10 11 12 13

15.4. SMPS & Voltage Selector P.C.B.

H SMPS P.C.B. (REP4965G...AKX77PH)
(REP4965H...AKX77PN)
(REP4965J...AKX57PN)



I VOLTAGE SELECTOR P.C.B. (REP4965G...AKX77PH)



SA-AKX57PN, SA-AKX77PH/PN
SMPS / VOLTAGE SELECTOR P.C.B.

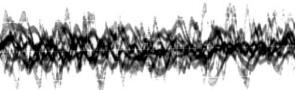
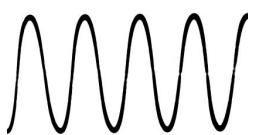
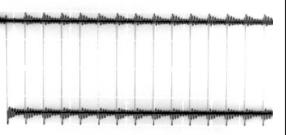
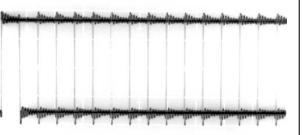
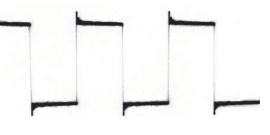
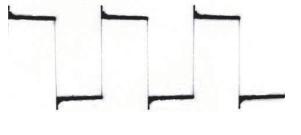
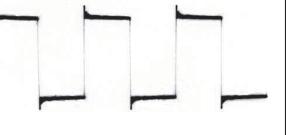
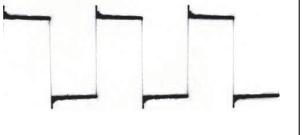
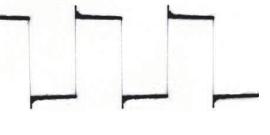
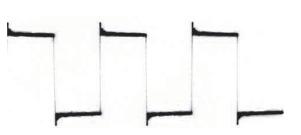
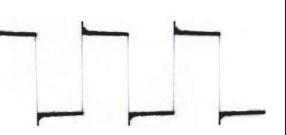
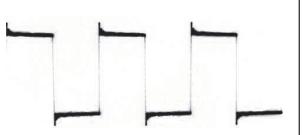
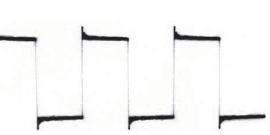
1 2 3 4 5 6 7 8 9 10 11 12 13

16.1.8. SMPS P.C.B.

REF NO.		IC5701															
MODE		1	2	3	4	5	6	7	8								
POWER ON	0	28.0	0	1.4	3.1	3.1	0	8.0									
STANDBY	0	28.0	0	1.4	3.1	3.1	0	8.0									
REF NO.		IC5790															
MODE		1	2	3	4	5	6	7	8								
POWER ON	5.9	1.0	2.3	11.0	160.2	0	0	0									
STANDBY	5.9	1.0	2.3	11.0	160.2	0	0	0									
REF NO.		IC5801															
MODE		K	A	R													
POWER ON	32.0	0	2.5														
STANDBY	32.0	0	2.5														
REF NO.		IC5899															
MODE		K	A	R													
POWER ON	32.0	0	2.5														
STANDBY	32.0	0	2.5														
REF NO.		Q5701			Q5711			Q5720			Q5721			Q5803			
MODE		S	D	G		E	C	B		E	C	B		E	C	B	
POWER ON	0	3.1	8.0		0	0	2.0		28.0	28.0	0		0	28.0	2.0		
STANDBY	0	3.1	8.0		0	0	2.0		28.0	28.0	0		0	28.0	2.0		
REF NO.		Q5898			QR5810												
MODE		E	C	B		E	C	B									
POWER ON	0	2.0	2.8		0	0	3.0										
STANDBY	0	2.0	2.8		0	0	3.0										

SA-AKX57PN, SA-AKX77PH/PN SMPS P.C.B.

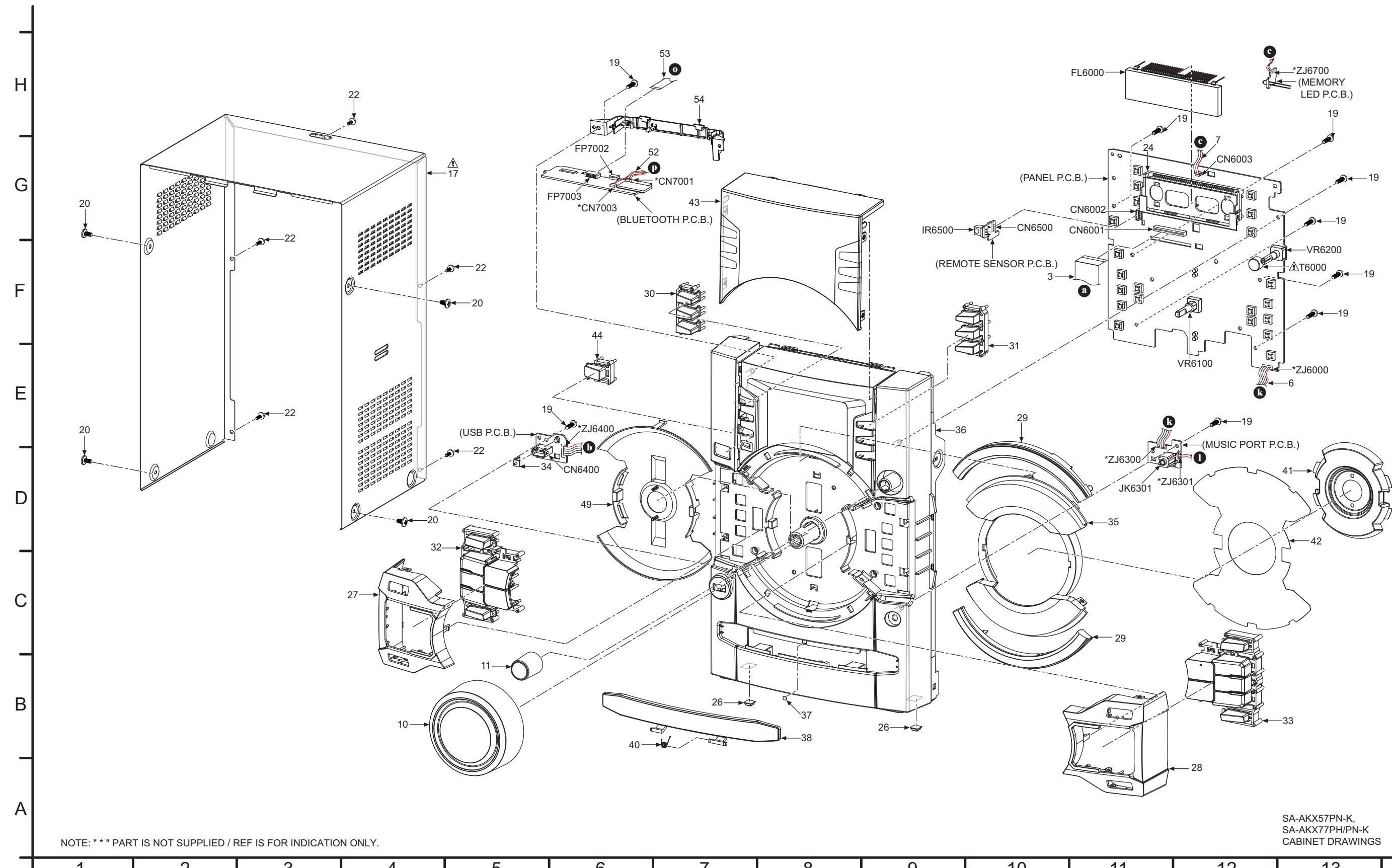
16.1.9. Waveform Table

WF No. IC2000-2,4,13 (TUNER) 	WF No. IC2006-12 (PLAY) 	WF No. IC2006-13 (PLAY) 	WF No. IC2006-15 (PLAY) 
0.1Vp-p(200usec/div)	3.8Vp-p(50nsec/div)	4Vp-p(50nsec/div)	2Vp-p(10usec/div)
WF No. IC2006-16 (PLAY) 	WF No. IC2008-24 (PLAY) 	WF No. IC2008-27 (PLAY) 	WF No. IC2008-38,39,40,41,42,43,44,45,46,48,49 (PLAY) 
3.8Vp-p(10usec/div)	1.8Vp-p(50usec/div)	3.2Vp-p(1usec/div)	5.2Vp-p(1usec/div)
WF No. IC2501-5,6,14,15 (PLAY) 	WF No. IC2501-27,28,32,35 (PLAY) 	WF No. IC2501-39,40 (PLAY) 	WF No. IC2502-5,6,14,15 (PLAY) 
1.6Vp-p(1usec/div)	28Vp-p(500nsec/div)	28Vp-p(1usec/div)	1.6Vp-p(1usec/div)
WF No. IC2502-27,28,32,35 (PLAY) 	WF No. IC2502-39,40 (PLAY) 	WF No. IC2503-5,6,14,15 (PLAY) 	WF No. IC2503-27,28,32,35 (PLAY) 
28Vp-p(500nsec/div)	28Vp-p(1usec/div)	1.6Vp-p(1usec/div)	28Vp-p(500nsec/div)
WF No. IC2503-39,40 (PLAY) 	WF No. IC6000-5 (PLAY) 		
28Vp-p(1usec/div)	1.5Vp-p(2usec/div)		

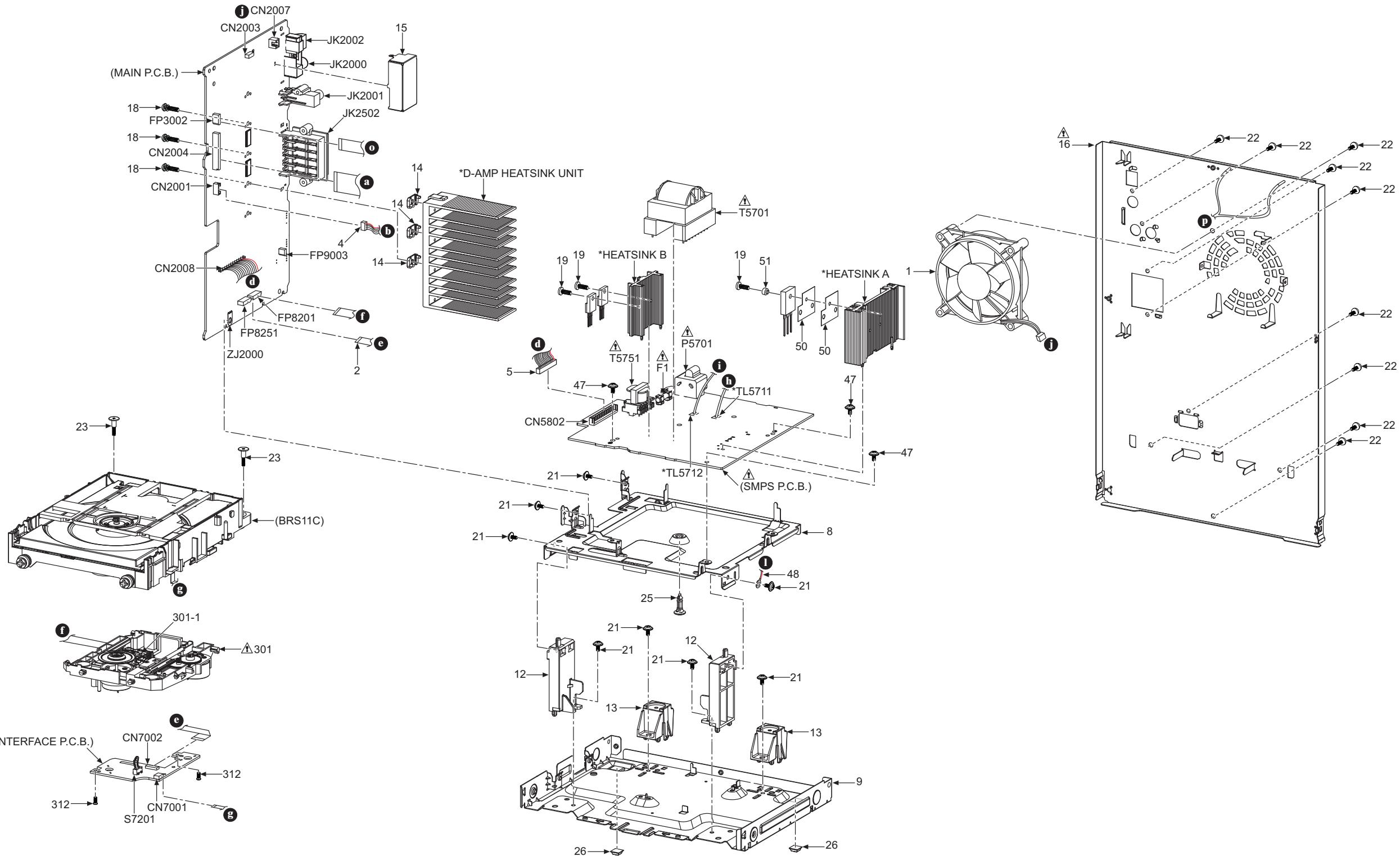
17 Exploded View and Replacement Parts List

17.1. Exploded View and Mechanical Replacement Part List

17.1.1. Cabinet Parts Location



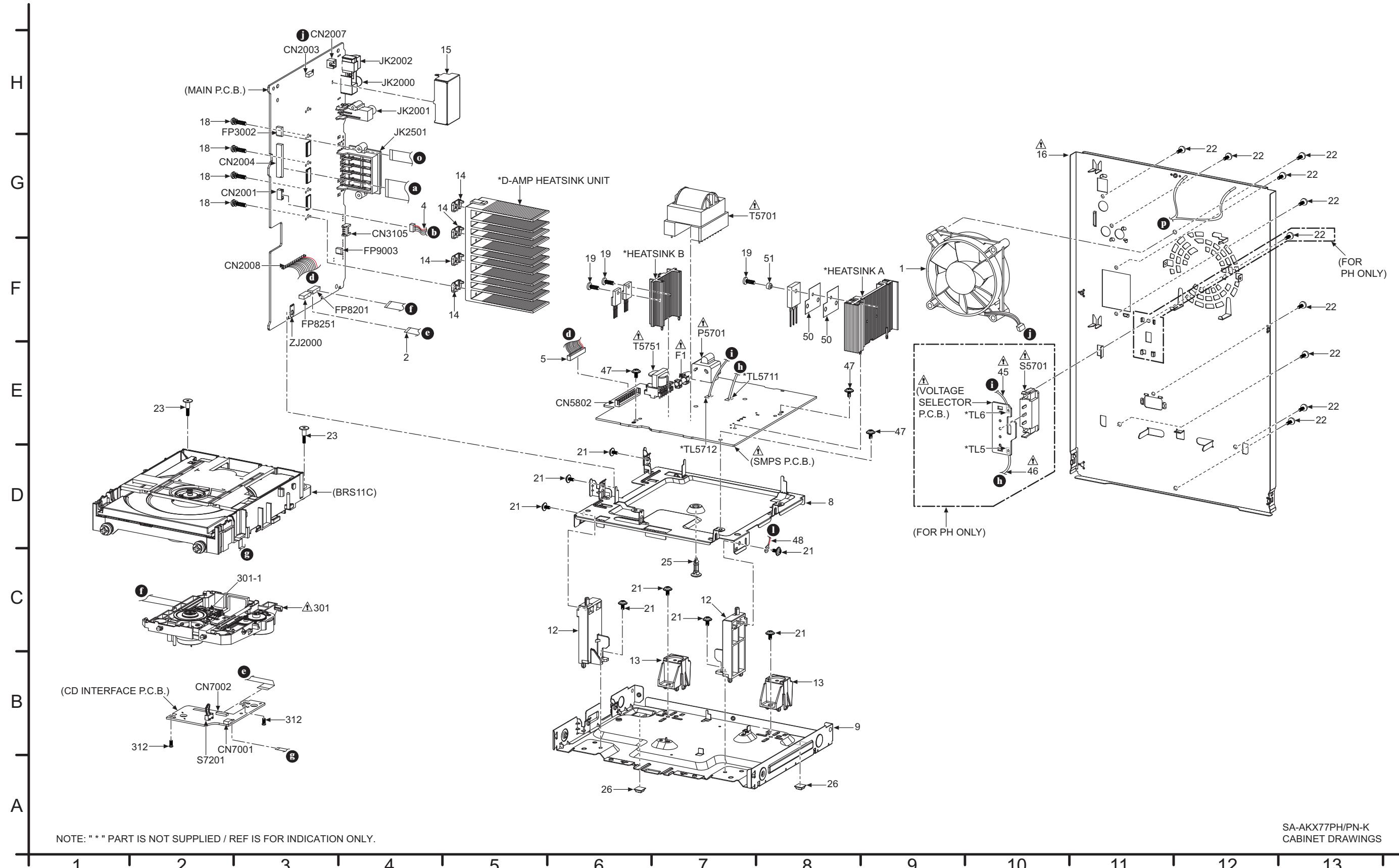
SA-AKX57PN-K,
SA-AKX77PH/PN-K
CABINET DRAWINGS



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

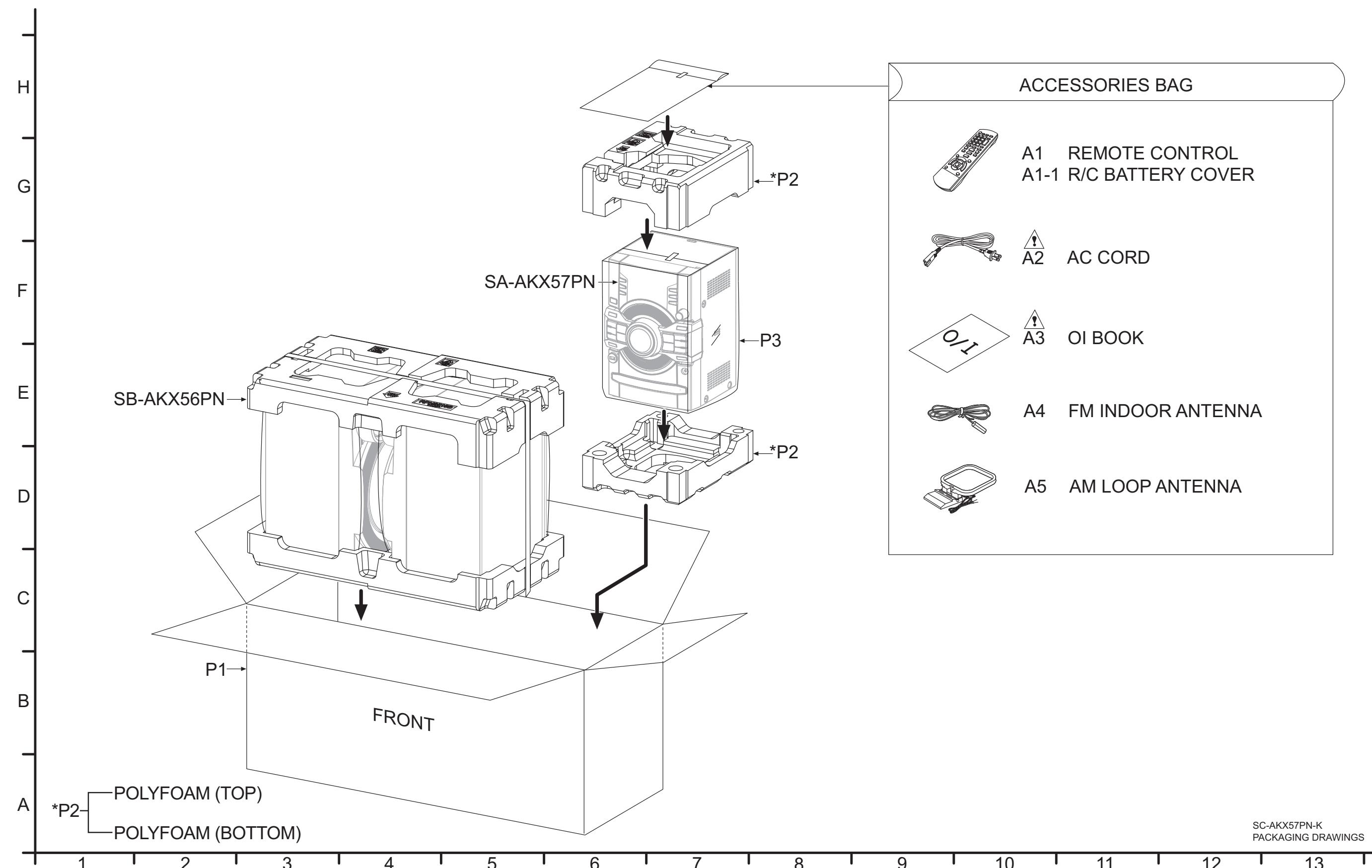
SA-AKX57PN-K
CABINET DRAWINGS

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



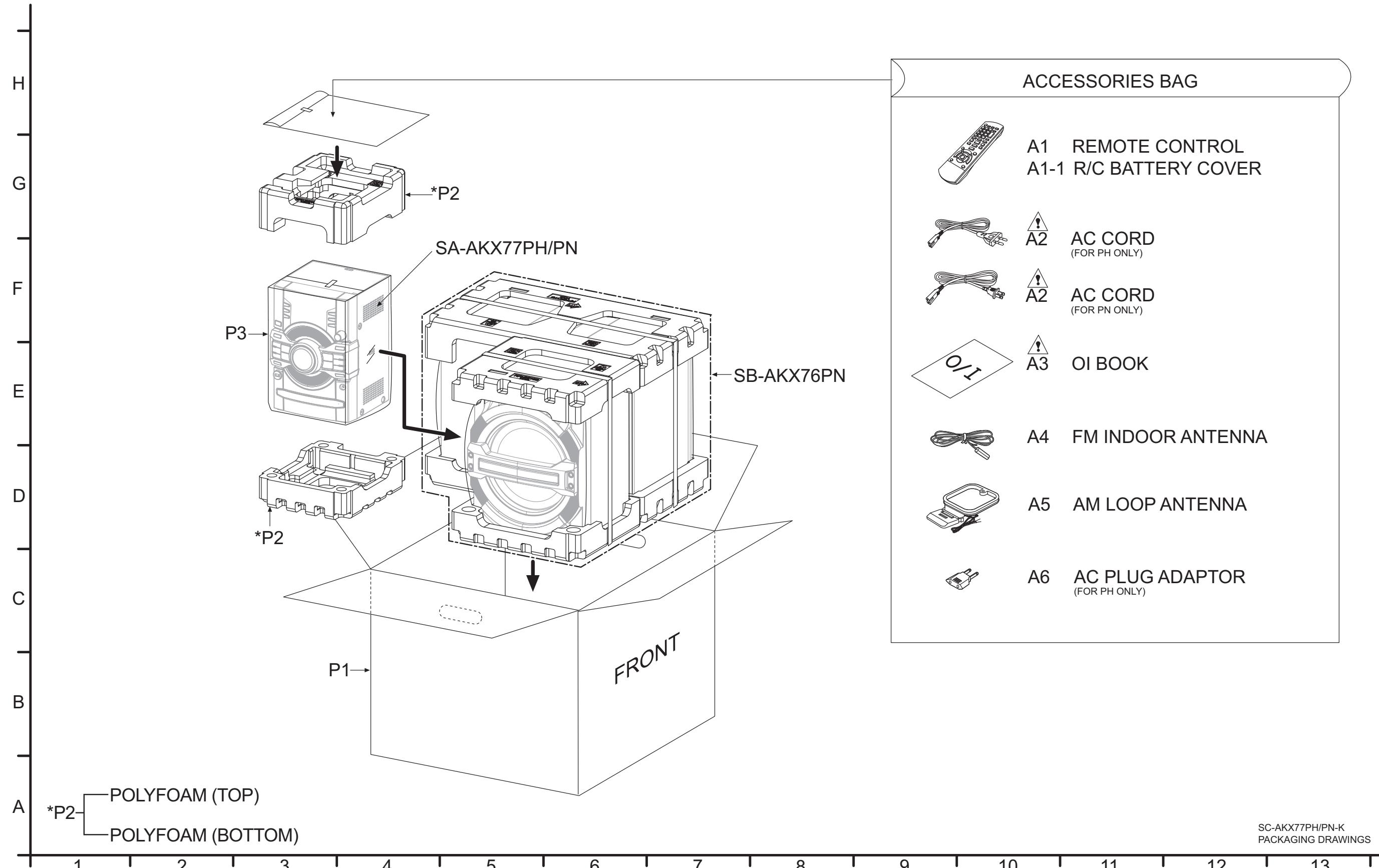
SA-AKX77PH/PN-K
CABINET DRAWINGS

17.1.2. Packaging (SC-AKX57PN)



SC-AKX57PN-K
PACKAGING DRAWINGS

17.1.3. Packaging (SC-AKX77PN/PH)



17.1.4. Mechanical Replacement Part List

Important Safety Notice

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

RTL (Retention Time Limited)

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

After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention.

After the end of this period, the assembly will no longer be available.

Note:

- When replacing any of these components, be sure to use only manufacturer's specified parts shown in the replacement part list.
- The parenthesized indications on the Remarks column specify the destination & product color (Refer to the cover page for the information).
- Parts without these indications shall be used for all areas.
- This product uses a laser diode. Refer to "Precaution of Laser Diode".
- All parts mentioned are supplied by 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	L6FALEFH0030	FAN UNIT ASS'Y		1	
2	REE1730	10P FFC (MAIN-CD INTERFACE)		1	
3	REE1761	30P FFC (MAIN-PANEL)		1	
4	REX1589	5P CABLE WIRE (USB-MAIN)		1	
5	REX1562-1	13P CABLE WIRE (SMPS-MAIN)		1	
6	REX1587	5P CABLE WIRE (MUSIC PORT-PANEL)		1	
7	REX1594	2P CABLE WIRE (MEMORY LED-PANEL)		1	
8	RMK0841	INNER CHASSIS		1	
9	RMKX1031A-1	BOTTOM CHASSIS		1	
10	RGW0428-S1	VOLUME KNOB		1	
11	RGW0435-K	SKIP KNOB		1	
12	RMA2442	CHASSIS SUPPORT		2	
13	RMQ2134	MECHA HOLDER		2	
14	RMZX1022-1	HEATSINK SPACER		3	AKX57PN
	RMZX1022-1	HEATSINK SPACER		4	AKX77PH, AKX77PN
15	RSC1230	TUNER SHIELD		1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	16	RGR0443E-C1A	REAR PANEL	1	AKX77PN
	16	RGR0443F-BA	REAR PANEL	1	AKX77PH
	16	RGR0443G-C1A	REAR PANEL	1	AKX57PN
	17	RKM0713-K1	TOP CABINET	1	
	18	RHD26043-1	SCREW	3	AKX57PN
	18	RHD26043-1	SCREW	4	AKX77PH, AKX77PN
	19	RHD26046-L	SCREW	12	
	20	RHD30007-K2J	SCREW	4	
	21	RHD30111-31	SCREW	8	
	22	RHD30119-S	SCREW	14	AKX57PN, AKX77PN
	22	RHD30119-S	SCREW	15	AKX77PH
	23	RHDX031008	SCREW	2	
	24	RMNV0079-1	FL HOLDER	1	
	25	RMNX0298	PCB SPACER	1	
	26	RKAX0042-K	LEG CUSHION	4	
	27	RGK2479-S	LEFT FUNCTION ORNAMENT	1	
	28	RGK2480-S	RIGHT FUNCTION ORNAMENT	1	
	29	RGK2449-K	RING ORNAMENT TOP/BOTTOM	2	AKX57PN
	29	RGK2449-S	RING ORNAMENT TOP/BOTTOM	2	AKX77PH, AKX77PN
	30	RGU2851-S1	LEFT PLAYLIST BUTTON	1	
	31	RGU2852-S1	RIGHT PLAYLIST BUTTON	1	
	32	RGU2882A-S1	LEFT FUNCTION BUTTON	1	
	33	RGU2883C-S1	RIGHT FUNCTION BUTTON		

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	34	RGL0785-Q	USB REC LIGHT PCS	1	
	35	RKW1027-Q	CENTER ORNAMENT	1	
	36	RFKGAKX77LK	FRONT PANEL ASS'Y	1	AKX77PH, AKX77PN
	36	RFKGAKX57LK	FRONT PANEL ASS'Y	1	AKX57PN
	37	RMGX0033A-K	CD LID CUSHION	1	
	38	RGK2438A-K	CD LID	1	
	40	RMB0930	CD LID SPRING	1	
	41	RGQ0741-W	VOLUME LIGHT DIFFUSER	1	
	42	RGQ0744-W	VOLUME LIGHT SHEET	1	
	43	RKW1025-Q	FL WINDOW	1	
	44	RGU2848-K	POWER BUTTON	1	
⚠	45	REXX1123-K	1P RED WIRE (VOLTAGE SELECTOR-SMPS)	1	AKX77PH
⚠	46	REXX1122-K	1P BLACK WIRE (VOLTAGE SELECTOR-SMPS)	1	AKX77PH
	47	RHDX30005-J	SCREW	3	
	48	REXX1159-1	2P GRD WIRE (MUSIC PORT - INNER CHASSIS)	1	
	49	RGC0050-W1	VOLUME LIGHT REFLECTOR	1	
	50	RMZ1362	IC INSULATION SHEET	2	
	51	RMZ1363-1	IN INSULATOR TUBE	1	
	52	REX1647	4P CABLE WIRE (BLUETOOTH - REAR CABINET)	1	
	53	REE1848	10P FFC (BT-MAIN)	1	
	54	RMN1070	BLUETOOTH HOLDER	1	
			TRAVERSE DECK		
⚠	301	RAE1036Z-V	TRAVERSE ASS'Y	1	
	301-1	L1BBE0000007	OPTICAL HEADS	1	
	312	XTN2+6GFJ	SCREW	2	
			PACKING MATERIALS		
P1	RPG0H04	PACKING CASE	1	AKX77PN	
P1	RPG0H05	PACKING CASE	1	AKX77PH	
P1	RPG0H27	PACKING CASE	1	AKX57PN	
P2	RPN2516	POLYFOAM	1	AKX77PH, AKX77PN	
P2	RPN2514	POLYFOAM	1	AKX57PN	
P3	RPFX0198-1	MIRAMAT	1		
		ACCESSORIES			
A1	N2QAYB000915	REMOTE CONTROL	1		
A1-1	RKK-PM500EBK	R/C BATTERY COVER	1		
⚠	A2	K2CB2CB00022	AC CORD	1	AKX57PN, AKX77PN
⚠	A2	K2CQ2YY00119	AC CORD	1	AKX77PH
⚠	A3	RQT9858-M	O/I BOOK (Sp/En)	1	
	A4	RSAX0002	FM INDOOR ANTENNA	1	
	A5	N1DYYYY00011	AM LOOP ANTENNA	1	
	A6	K2DAYYY00002	AC PLUG ADAPTOR	1	AKX77PH

17.2. Electrical Replacement Parts List

Important Safety Notice

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

RTL (Retention Time Limited)

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

After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention.

After the end of this period, the assembly will no longer be available.

Note:

- When replacing any of these components, be sure to use only manufacturer's specified parts shown in the replacement part list.
- The parenthesized indications on the Remarks column specify the destination & product color (Refer to the cover page for the information).
- Parts without these indications shall be used for all areas.
- This product uses a laser diode. Refer to "Precaution of Laser Diode".
- Capacitor value are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF), F=Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1000 (OHM).
- All parts mentioned are supplied by 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 CIRCUIT BOARDS		
	PCB1	REP4995EA	MAIN P.C.B.	1	(RTL)AKX77PN
	PCB2	REP4995EB	BLUETOOTH P.C.B.	1	(RTL)AKX77PN
	PCB1	REP4995CA	MAIN P.C.B.	1	(RTL)AKX77PN
	PCB2	REP4995CB	BLUETOOTH P.C.B.	1	(RTL)AKX77PN
	PCB1	REP4995DA	MAIN P.C.B.	1	(RTL)AKX77PH
	PCB2	REP4995DB	BLUETOOTH P.C.B.	1	(RTL)AKX77PH
	PCB3	REP4884BA	PANEL P.C.B.	1	(RTL)AKX57PN
	PCB4	REP4884BB	USB P.C.B.	1	(RTL)AKX57PN
	PCB5	REP4884BA	MUSIC PORT P.C.B.	1	(RTL)AKX57PN
	PCB6	REP4884BA	MEMORY LED P.C.B.	1	(RTL)AKX57PN
	PCB7	REP4884BE	REMOTE SENSOR P.C.B.	1	(RTL)AKX57PN
	PCB3	REP4884AA	PANEL P.C.B.	1	(RTL)AKX77PH, AKX77PN
	PCB4	REP4884AB	USB P.C.B.	1	(RTL)AKX77PH, AKX77PN
	PCB5	REP4884AA	MUSIC PORT P.C.B.	1	(RTL)AKX77PH, AKX77PN
	PCB6	REP4884AA	MEMORY LED P.C.B.	1	(RTL)AKX77PH, AKX77PN
	PCB7	REP4884AE	REMOTE SENSOR P.C.B.	1	(RTL)AKX77PH, AKX77PN
△	PCB8	REP4965J	SMPS P.C.B.	1	(RTL)AKX57PN
△	PCB8	REP4965H	SMPS P.C.B.	1	(RTL)AKX77PN
△	PCB8	REP4965G	SMPS P.C.B.	1	(RTL)AKX77PH

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
△	PCB9	REP4965G	VOLTAGE SELECTOR P.C.B.	1	(RTL)AKX77PH
	PCB10	REP4945A	CD INTERFACE P.C.B.	1	(RTL)
	PCB11	REP4676A	CD LOADING P.C.B.	1	(RTL)
	PCB12	RSNE011B0	BLUETOOTH MODULE P.C.B.		
			INTERGRATED CIRCUITS		
	IC2000	VUEALLPT056	IC	1	(E.S.D), [SPG]
	IC2002	C0JBAR000367	IC	1	(E.S.D)
	IC2004	C0DBZYY00592	IC	1	(E.S.D)
	IC2006	RFKWMAXX57LM	IC	1	(E.S.D), JIGS & ADJ
	IC2007	C3EBEY000037	IC	1	(E.S.D)
	IC2008	C1AB00004003	IC	1	(E.S.D)
	IC2009	C0DBGYY03056	IC	1	(E.S.D)
	IC2010	C0ABB000067	IC	1	(E.S.D)
	IC2011	C0DBAYY01594	IC	1	(E.S.D)
	IC2012	C0DBAYY01594	IC	1	(E.S.D)
	IC2501	C1AB00003986	IC	1	(E.S.D) AKX77PH, AKX77PN
	IC2502	C1AB00003986	IC	1	(E.S.D)
	IC2503	C1AB00003986	IC	1	(E.S.D)
	IC3008	C0DBGYY03056	IC	1	(E.S.D)
	IC5701	C1ZBZ0004646	IC	1	(E.S.D)
	IC5790	MIP2F20MSSCF	IC	1	(E.S.D)
	IC5801	C0DAZYY00039	IC	1	(E.S.D)
	IC5899	C0DAZYY00039	IC	1	(E.S.D)
	IC6000	C0HBB0000057	IC	1	(E.S.D)
	IC7111	RSNE011B0	IC	1	(E.S.D)
	IC8001	MN6627992AB	IC	1	(E.S.D)

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C8511	F1G1A1040006	0.1uF 10V	1	
	C8512	F1G1A1040006	0.1uF 10V	1	
	C8513	F1H0J4750005	4.7uF 6.3V	1	
	C8514	F1H0J4750005	4.7uF 6.3V	1	