

Service Manual

CD Stereo System

Model No. **SA-AKX30PH**
SA-AKX30PN

Product Color: (K)...Black Type



Remote
Control



Notes: This model's CD Mechanism Unit is DLS6C. Please refer to the original service manual (Order No. MD0803034CE) for this mechanism

⚠ 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.

TABLE OF CONTENTS

	PAGE		PAGE
1 Safety Precautions -----	3	2.4. Handling Precautions for Traverse Unit -----	9
1.1. General Guidelines-----	3	3 Service Navigation -----	11
1.2. Before Use (For PH only)-----	3	3.1. Service Information-----	11
1.3. Caution For Fuse Replacement-----	3	4 Specifications -----	12
1.4. Before Repair and Adjustment -----	4	5 Location of Controls and Components -----	13
1.5. Protection Circuitry-----	4	5.1. Main Unit Key Button Operation-----	13
1.6. Safety Parts Information -----	4	5.2. Remote Control Key Button Operation -----	14
2 Warning -----	6	5.3. Media Information-----	15
2.1. Prevention of Electrostatic Discharge (ESD) to Electrostatic Sensitive (ES) Devices -----	6	6 Self-Diagnostic and Special Mode Setting -----	16
2.2. Precaution of Laser Diode-----	7	6.1. Cold-Start -----	16
2.3. Service caution based on Legal restrictions -----	8	6.2. Doctor Mode Table-----	17

Panasonic®

© Panasonic Corporation 2010. All rights reserved.
Unauthorized copying and distribution is a violation
of law.

6.3. Reliability Test Mode (CD Mechanism Unit (DLS6C))	19	14 Simplified Block Diagram	71
6.4. Self-Diagnostic Mode	20	14.1. Overall Simplified Block Diagram	71
6.5. Self-Diagnostic Error Code Table	21	14.2. D-Amp Block Diagram	72
7 Troubleshooting Guide	22	15 Block Diagram	73
7.1. Troubleshooting Guide for F61 and/or F76	22	15.1. Servo/System Control	73
7.2. Part Location	23	15.2. IC Terminal Chart (Servo/System Control)	74
7.3. D-Amp IC Operation & Control	26	15.3. Audio	75
8 Service Fixture & Tools	28	15.4. Power Amplifier	76
8.1. Service Tools and Equipment	28	15.5. Power Supply	77
9 Disassembly and Assembly Instructions	29	16 Wiring Connection Diagram	78
9.1. Disassembly Flow Chart	30	17 Schematic Diagram Notes	79
9.2. Main Components and P.C.B. Locations	31	18 Schematic Diagram	81
9.3. Disassembly of Top Cabinet	32	18.1. CD Servo Circuit	81
9.4. Disassembly of Tuner P.C.B.	32	18.2. Main Circuit	82
9.5. Disassembly of Front Panel Assembly	33	18.3. Jupiter Circuit	88
9.6. Disassembly of Panel P.C.B.	34	18.4. Panel Circuit	92
9.7. Disassembly of Remote Sensor P.C.B.	36	18.5. CD Open Button, Remote Sensor, Tuner, Music Port/Headphone Circuit	94
9.8. Disassembly of CD Open Button P.C.B.	36	18.6. D-Amp Circuit	95
9.9. Disassembly of Jupiter P.C.B.	37	18.7. SMPS Circuit	96
9.10. Disassembly of Music Port/Headphone P.C.B.	37	18.8. Voltage Selector Circuit (For PH Only)	98
9.11. Disassembly of CD Lid	38	19 Printed Circuit Board	99
9.12. Disassembly of Main P.C.B.	39	19.1. CD Servo & Voltage Selector P.C.B.	99
9.13. Replacement of Regulator IC (IC2010)	40	19.2. Main P.C.B.	100
9.14. Disassembly of D-Amp P.C.B.	41	19.3. Jupiter P.C.B.	101
9.15. Replacement of Audio Digital Amp IC (IC5900)	42	19.4. Panel P.C.B.	102
9.16. Disassembly of SMPS P.C.B.	44	19.5. CD Open Button, Remote Sensor, Tuner, Music Port/Headphone & D-Amp P.C.B.	103
9.17. Replacement of Switching Regulator IC (IC5701)	45	19.6. SMPS P.C.B. (For PH Only)	104
9.18. Replacement of Rectifier Diode (D5702)	47	19.7. SMPS P.C.B. (For PN Only)	105
9.19. Replacement of Regulator Diode (D5801)	48	20 Terminal Function of ICs	107
9.20. Replacement of Regulator Diode (D5802)	49	20.1. IC2003 (RFKWKX30PN): IC MICRO-PROCESSOR	107
9.21. Replacement of Regulator Diode (D5803)	50	20.2. IC6901(C0HBB0000057): IC FL Driver	108
9.22. Disassembly of CD Mechanism Unit (DLS6C)	51	21 Exploded View and Replacement Parts List	109
9.23. Disassembly of Rear Panel	53	21.1. Exploded View and Mechanical replacement Part List	109
9.24. Disassembly of Voltage Selector P.C.B. (For PH only)	54	21.2. Electrical Replacement Part List	115
9.25. Disassembly of CD Servo P.C.B.	55		
10 Replacement of Traverse Unit	56		
10.1. Disassembling Procedures	56		
10.2. Assembling Procedure	57		
11 Service Position	59		
11.1. Checking and Repairing of Main P.C.B.	59		
11.2. Checking and Repairing of D-Amp P.C.B.	59		
11.3. Checking and Repairing of Panel P.C.B.	59		
11.4. Checking and Repairing of Jupiter P.C.B.	59		
11.5. Checking and Repairing of SMPS P.C.B.	60		
12 Voltage & Waveform Chart	61		
12.1. CD SERVO P.C.B.	61		
12.2. Main P.C.B. (1/2)	62		
12.3. Main P.C.B. (2/2)	63		
12.4. Jupiter P.C.B. (1/3)	64		
12.5. Jupiter P.C.B. (2/3)	65		
12.6. Jupiter P.C.B. (3/3)	66		
12.7. Panel P.C.B.	66		
12.8. D-Amp P.C.B.	66		
12.9. SMPS P.C.B.	67		
12.10. Tuner P.C.B.	67		
12.11. Waveform Table (1/2)	68		
13 Illustration of ICs, Transistor and Diode	69		

1 Safety Precautions

1.1. General Guidelines

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

1.1.1. LEAKAGE CURRENT COLD CHECK

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

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

1.1.2. LEAKAGE CURRENT HOT CHECK

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

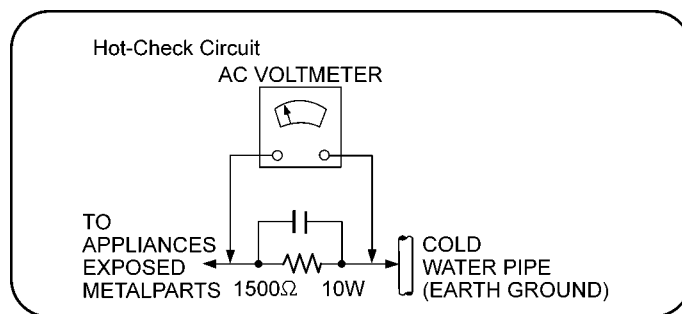


Figure 1

1.2. Before Use (For PH only)

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

Use a minus(-) screwdriver to set the voltage selector (on the rear panel) to the voltage setting for the area in which the unit will be used. (If the power supply in your area is 110V ~ 127V or 220V ~ 240V, set to the "110V ~ 127V or 220V ~ 240V" position.)

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

1.3. 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, 6.3A, 250V) (For PH only)

1.4. Before Repair and Adjustment

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

Caution:

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

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

Current consumption at AC 120 V, 60 Hz in NO SIGNAL mode volume minimal should be ~ 500 mA. (PN)

Current consumption at AC 110~127 V / 220~240 V, 50/60 Hz in NO SIGNAL mode volume minimal should be ~ 500 mA. (PH)

1.5. Protection Circuitry

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

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

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outlines below:

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

Note:

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

1.6. Safety Parts Information

Safety Parts List:

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

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

Safety	Ref. No.	Part No.	Part Name & Description	Remarks
$\triangle$	6	REXX1030	1P RED WIRE (VOLTAGE-SMPS)	PH
$\triangle$	7	REXX1031	1P BLACK WIRE (VOLTAGE-SMPS)	PH
$\triangle$	13	RGRX1002C-A3	REAR PANEL	PN
$\triangle$	13	RGRX1002D-A2	REAR PANEL	PH
$\triangle$	37	RKMX1003-K	TOP CABINET	
$\triangle$	401	RAEX0190Z-V	TRAVERSE UNIT	
$\triangle$	A2	K2CB2CB00021	AC CORD	PN
$\triangle$	A2	K2CQ2CA00007	AC CORD	PH
$\triangle$	A3	K2DAYYY00002	AC CORD	PH
$\triangle$	A3	RQTX1090-M	O/I BOOK (Sp)	PN
$\triangle$	A3	RQTX1091-M	O/I BOOK (Sp)	PH
$\triangle$	A3	RQTX1100-M	O/I BOOK (En)	PN
$\triangle$	PCB3	REPX0809A	SMPS P.C.B.	(RTL) PN
$\triangle$	PCB3	REPX0809C	SMPS P.C.B.	(RTL) PH
$\triangle$	PCB10	REPX0809C	VOLTAGE SELECTOR P.C.B.	(RTL) PH
$\triangle$	DZ5701	ERZV10V511CS	ZNR	
$\triangle$	S5701	K0ABCA000007	SW VOLTAGE SELECTOR	PH
$\triangle$	L5703	G0B612H00002	LINE FILTER	
$\triangle$	T5701	ETS39AG4M6AD	MAIN TRANSFORMER	PH
$\triangle$	T5701	ETS39AG4NGAD	MAIN TRANSFORMER	PN
$\triangle$	T5751	ETS19AB2E6AG	SUB TRANSFORMER	
$\triangle$	T6000	G4DYA0000214	SWITCHING TRANS	
$\triangle$	PC5701	B3PBA0000402	PHOTO COUPLER	
$\triangle$	PC5702	B3PBA0000402	PHOTO COUPLER	
$\triangle$	PC5720	B3PBA0000402	PHOTO COUPLER	
$\triangle$	PC5799	B3PBA0000402	PHOTO COUPLER	
$\triangle$	F1	K5D632BK0007	FUSE	PH
$\triangle$	F1	K5D802APA008	FUSE	PN
$\triangle$	TH5702	D4CAA2R20001	THERMISTOR	
$\triangle$	TH5860	D4CC11040013	THERMISTOR	
$\triangle$	TH5900	D4CC11040013	THERMISTOR	
$\triangle$	P5701	K2AA2B000011	AC INLET	PH
$\triangle$	P5701	K2AB2B000007	AC INLET	PN
$\triangle$	C2253	F1H1H470A004	47 μ F 50V	

Safety	Ref. No.	Part No.	Part Name & Description	Remarks
⚠	C2254	F1H1H470A004	47pF 50V	
⚠	C2263	F2A0J471A016	470uF 6.3V	
⚠	C5701	F0CAF334A105	0.33uF	
⚠	C5703	F0CAF104A105	0.1uF	PH
⚠	C5703	F0CAF224A105	0.22uF	PN
⚠	C5704	F1BAF1020020	1000pF	
⚠	C5705	F1BAF1020020	1000pF	
⚠	C5706	F1BAF1020020	1000pF	PH
⚠	C5707	F1BAF1020020	1000pF	PH
⚠	C5708	F1BAF1020020	1000pF	

2 Warning

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

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

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

Caution:

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

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

2.2. Precaution of Laser Diode

CAUTION:

THIS PRODUCT UTILIZES A LASER.

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

Caution:

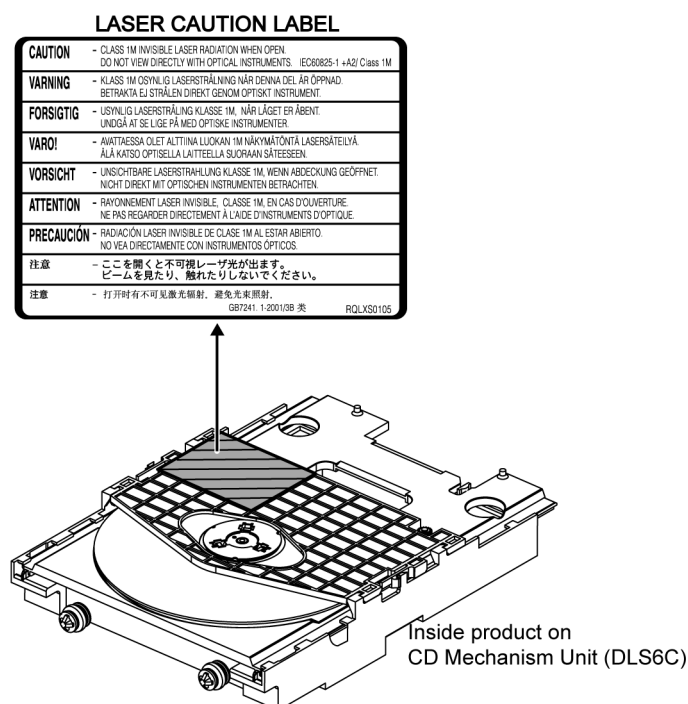
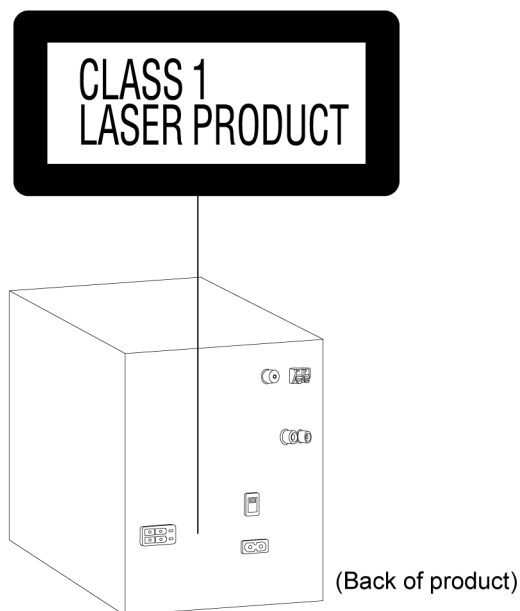
This product utilizes a laser diode with the unit turned “on”, invisible laser radiation is emitted from the pickup lens.

Wavelength: 785 nm (CD)

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

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

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



2.3. Service caution based on Legal restrictions

2.3.1. General description about Lead Free Solder (PbF)

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

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

Definition of PCB Lead Free Solder being used

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

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

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

Recommended Lead Free Solder (Service Parts Route.)

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

Note

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

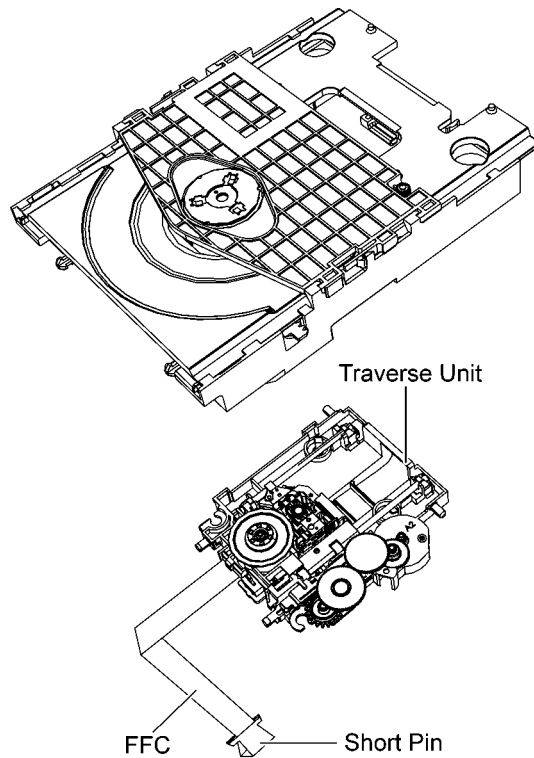
2.4. Handling Precautions for Traverse Unit

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

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

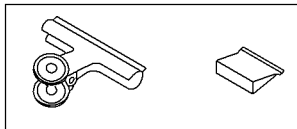
The laser diode in the optical pickup unit may be damaged due to electrostatic discharge generating from clothes or human body. Special care must be taken avoid caution to electrostatic discharge damage when servicing the laser diode.

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



[Caution]

Ground the cable with a clip or a short pin.



Clip or Short Pin

2.4.2. Grounding for electrostatic breakdown prevention

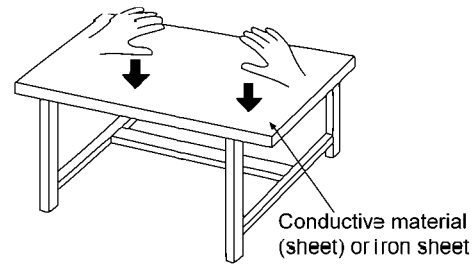
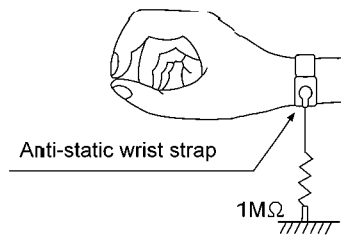
Some devices such as the DVD player use the optical pickup (laser diode) and the optical pickup will be damaged by static electricity in the working environment. Proceed servicing works under the working environment where grounding works is completed.

2.4.2.1. Worktable grounding

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

2.4.2.2. Human body grounding

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



3 Service Navigation

3.1. Service Information

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

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

- **CD Mechanism unit (DLS6C):**

- 1) This model uses CD Mechanism Unit (DLS6C).
- 2) This service manual does not contain the following information on CD Mechanism Unit (DLS6C)
 - Schematic Diagram, Block Diagram and P.C.B. layout of CD Mechanism Unit (DLS6C) P.C.B.
 - Parts List for individual parts of CD Mechanism Unit (DLS6C).
 - Exploded View and Part List for individual parts of CD Mechanism Unit (DLS6C).Please refer to original service manual (Order No. MD0803034CE)

- **Micro-processo:**

- 1) The following components are supplied as an assembled part.
 - Micro-processor IC, IC2300 (RFKWMAX30PN)

- **Speaker system :**

- 1) This model uses speakers, SB-AKX30PN-K (PSG1002019CE)

4 Specifications

■ AMPLIFIER SECTION

RMS output power stereo mode

Front Ch (both channels driven)
160 W per channel (3 Ω, 1 kHz, 10% THD)
Total RMS stereo mode power

350 W

PMPO output power

3500 W

■ FM/AM TUNER, TERMINALS SECTION

Preset station

FM 30 stations
AM 15 stations

Frequency Modulation (FM)

Frequency range
For PH only
87.50 to 108.00 MHz (50 kHz step)
For PN only
87.9 to 107.9 MHz (200 kHz step)
87.5 to 108.0 MHz (100 kHz step)

Antenna terminal (s)

75 Ω (unbalanced)

Amplitude Modulation (AM)

Frequency range
For PH only
522 to 1629 kHz (9 kHz step)
520 to 1630 kHz (10 kHz step)
For PN only
520 to 1710 kHz (10 kHz step)

AUX Input

RCA pin jack

Headphone jack

Terminal
Stereo, 3.5 mm jack
Output level (CD, 1 KHz, -20dB)
32 Ω (Max)

Music port (front)
Sensitivity
100 mV, 4.7k Ω

Terminal
Stereo, 3.5 mm jack

■ DISC SECTION

Discs played (8 cm or 12 cm)

- (1) CD-Audio (CD-DA)
- (2) CD-R/RW (CD-DA, MP3* formatted disc)
- (3) MP3*

*MPEG-1 layer 3, MPEG-2 Layer 3

Pick up

Wavelength
795 nm (CD)
Laser Power
CLASS 1 (CD)

Audio output (Disc)

Number of channels
2 (FL, FR)
FL = Front left channel
FR = Front right channel

■ USB SECTION

USB Port

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

USB recording

Bit Rate
128 kbps / 192kbps / 320kbps
USB recording speed
1x, 4x (CD only)
recording file format
MP3 (*.mp3)

Memory section

Memory

Memory size
2 GB
Memory File format
MP3 (*.mp3)

Memory recording

Bit Rate
128 kbps / 192 kbps / 320kbps
Memory Recording speed
1x, 4x, (CD only)
Recording file format
MP3 (*.mp3)
Capacity of total song recorded
510 song
(Use 128 kbps, approximately 1 song + 4 mins)

■ GENERAL

Power supply

For PH only
AC 110 to 127 V, 50 Hz
AC 220 to 240 V, 60 Hz

For PN only

AC 120 V, 60 Hz

Power Consumption

For PH only
72 W

For PN only

68 W

Dimensions (W x H x D)

250 mm x 336 mm x 245 mm

Mass

3.2 kg

Operating temperature range

0 °C to +40 °C

Operating humidity range

35% to 80% RH
(no condensation)

Power Consumption in standby mode

For PH only
0.3 W (Approximate)
For PN only
0.2 W (Approximate)

Notes

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

■ System: SC-AKX30PN-K

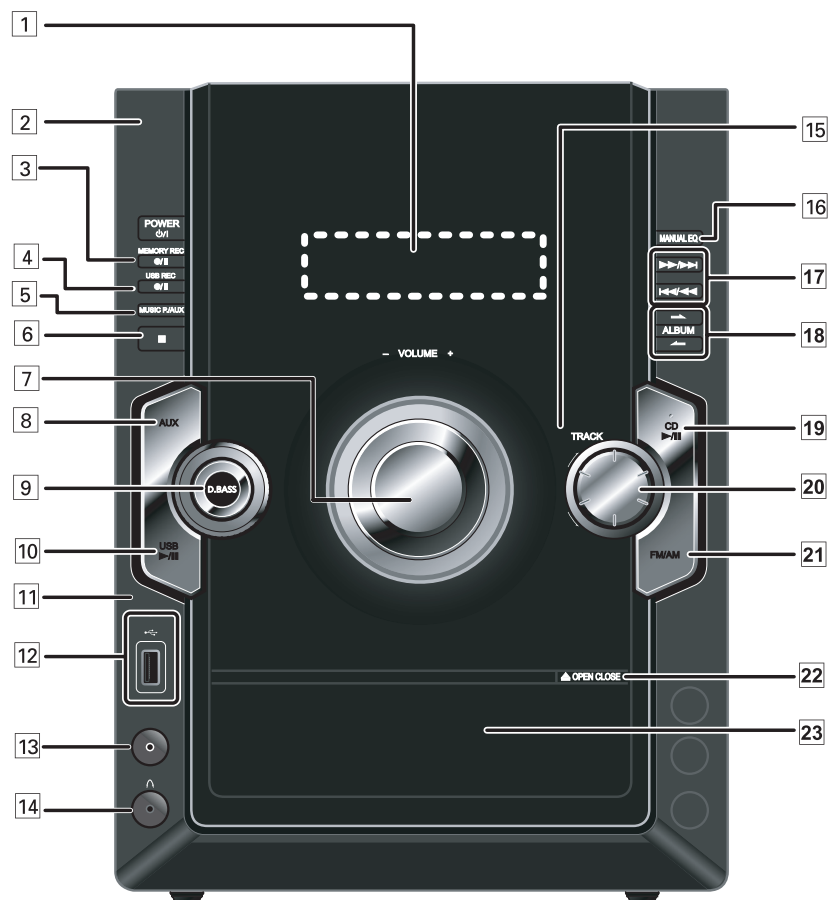
Main Unit: SA-AKX30PN-K
Front Speakers: SB-AKX30PN-K

■ System: SC-AKX30PH-K

Main Unit: SA-AKX30PH-K
Front Speakers: SB-AKX30PN-K

5 Location of Controls and Components

5.1. Main Unit Key Button Operation



1 Display Panel

2 Standby/on switch (⏻/⏻, POWER)

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.

3 Memory recording or pause.

4 USB recording or pause

5 Music Port/AUX selection

6 [■]
Stop function

7 Volume Control

8 Memory play or pause

9 D.BASS Selection

10 [USB, ▶/■]
USB play or pause

11 USB recording indicator

12 USB port

13 Music Port Jack

14 Headphone jack
Avoid listening for prolonged periods of time to prevent hearing damage. Excessive sound pressure from earphones and headphones can cause hearing loss. Plug type: $\phi 3.5\text{mm}$ stereo (not included)

15 Remote control signal sensor

16 [MANUAL EQ] selection

17 [◀◀/▶▶][▶▶/▶▶]
Track skip or search, fast-forward or rewind, tune or preset channel selection, sound quality adjustment, manual EQ setting (BASS & TREBLE)

18 Album selection

19 [CD, ▶/■]
Disc play and pause

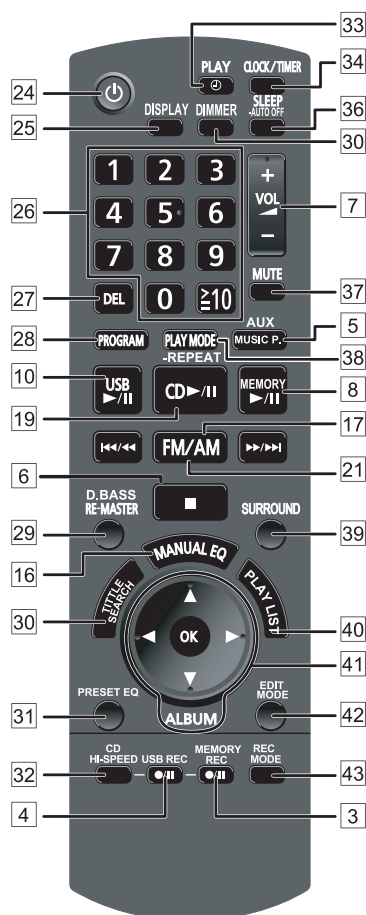
20 [Track]
Skip and play your desired track

21 Tuner (FM/AM) Selection

22 [▲, OPEN/CLOSE]
Disc tray open or close

23 Disc tray

5.2. Remote Control Key Button Operation



- | | | |
|---|---|-----------------------------|
| 3 Memory recording or pause | 25 Display function | 39 Surround selection |
| 4 USB recording or pause | 26 Numeric selection | 40 Play list function |
| 5 Music port / AUX selection | 27 Delete function | 41 Album selection |
| 6 Stop playback | 28 Program function | |
| 7 Volume control | 29 D.Bass RE-MASTER selection | 42 Edit mode selection |
| 8 Memory play or pause | 30 Title Search function | 43 Recording Mode Selection |
| 10 USB play or pause | 31 Preset EQ
Changing the sound quality | |
| 16 Manual EQ Selection | 32 CD 2 USB high-speed recording function | |
| 17 [◀◀/▶▶][▶▶/▶▶]
Track skip or search, fast-forward or rewind, tune or preset channel selection, sound quality adjustment, manual EQ setting (BASS & TREBLE) | 33 Play record timer | |
| 19 Disc play and pause | 34 Clock or timer setting | |
| 21 Tuner (FM/AM) selection | 35 Sleep timer / Auto off | |
| 24 Standby/on switch (⏻, POWER)
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. | 36 [DIMMER]
To dim the display panel | |
| | 37 Muting function | |
| | 38 Play Model Function | |

5.3. Media Information

NOTE about using a DualDisc

The digital audio content side of a DualDisc does not meet the technical specifications of the Compact Disc Digital Audio (CD-DA) format so playback may not be possible.

NOTE on MP3

- Files are treated as tracks and folders are treated as albums.
- This unit can access up to 999 tracks, 255 albums and 20 sessions.
- Disc must conform to ISO9660 level 1 or 2 (except for extended formats).
- To play in a certain order, prefix the folder and file names with 3-digits numbers in the order you want to play them.

Limitations on MP3 play

- If you have recorded MP3 on the same disc as CD-DA, only the format recorded in the first session can be played.
- Some MP3s may not be played due to the condition of the disc or recording.
- Recordings will not necessarily be played in the order you recorded them.

NOTE on CDs

- This unit can access up to 99 tracks.
- This unit can play MP3 files and CD-DA format audio CD-R/RW that have been finalized.
- It may not be able to play some CD-R/RW due to the condition of the recording.
- Do not use irregularly shaped disc.
- Do not use disc with labels and stickers that are coming off or with adhesive exuding from under labels and stickers.
- Do not attach extra labels or stickers on the disc.
- Do not write anything on the disc.

6 Self-Diagnostic and Special Mode Setting

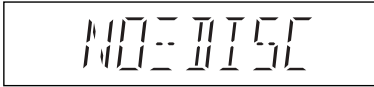
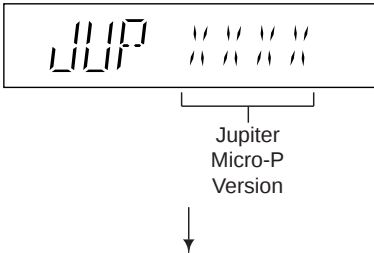
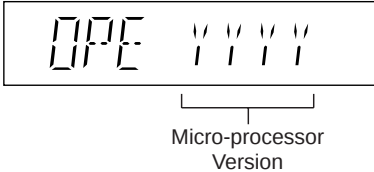
6.1. Cold-Start

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

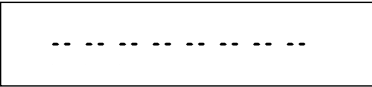
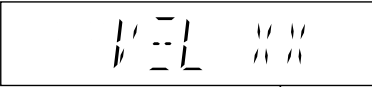
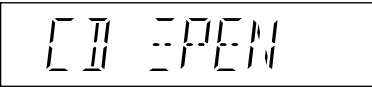
1. Unplug AC power cord
2. Press & hold [POWER] button
3. Plug AC power cord while [POWER] button being pressed
FL Display will show “_ _ _ _ _ _ _ _”
4. Release [POWER] button

6.2. Doctor Mode Table

6.2.1. Doctor Mode Table 1

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Doctor Mode	To enter into Doctor Mode		1. In CD Mode: Press [■] button on main unit follow by [4] and [7] on remote control. 2. To exit, press [OK] button on remote control or press [POWER, ⏻/I] button on main unit or remote control.
Micro-P Version Display	To check the firmware version for Jupiter & Microprocessor IC. Display 1 will display for 2 secs, followed by display 2.	Display 1:  Display 2: 	In Doctor Mode: 1. Press [2] button on remote control.

6.2.2. Doctor Mode Table 2

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Cold Start	To active cold start upon next AC power up when reset start is execute the next time.		In Doctor Mode: 1. Press [DISPLAY] button on remote control.
Volume Setting Check	To check the volume setting of a main unit.	 Press [7]: VOLUME50 Press [8]: VOLUME35 Press [9]: VOLUME0 Press [PLAY MODE]: VOLUME30	In Doctor Mode: 1. Press [7],[8],[9], [PLAY MODE] button on remote control.
FL Display Check	To check the FL segment display All segment will light up while all LED blink at 0.5s, intervals.(if any)		In Doctor mode: 1. Press [1] button on remote control.
CD Open Check	To excute CD OPEN operation.		In Doctor mode: 1. Press [DEL] button on remote control.
DLS6 Reliability Test (Loading)	To determine DLS6 Open/Close operation. In this mode, the tray will open & close. Note: Refer to Section 6.3 Fig 1 for process flow.	 The counter will increment by one. When reach 9999 will change to 0000	In Doctor Mode: 1.Press [>10], follow by [1] and [1] buttons on remote control.

6.3. Reliability Test Mode (CD Mechanism Unit (DLS6C))

Below is the process flow chart of the aging test for the CD Mechanism Unit (DLS6C).

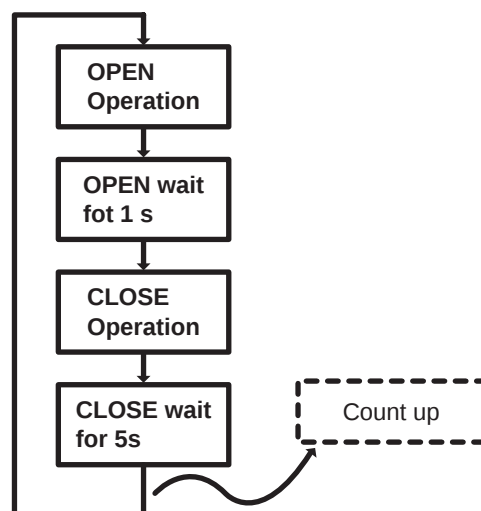
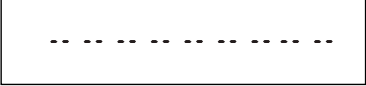


Fig. 1. Reliability Test (Loading)

6.4. Self-Diagnostic Mode

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Service Mode	To enter into Service Mode		In CD Mode: 1.Press and hold [■-DEMO] button on main unit for 2 secs. 2.Do not release [■-DEMO] button, press & hold [▶▶/▶▶] on the remote control for 2 secs. 3.To exit, press [POWER,⏻/I] button on main unit.
Error Code History	Chacking the records for Error Code. If there's no error code.Display will remain as[T]		In Service Mode: 1.Press [1] button on remote control. 2.To clear history,press & hold [0] for 5 seconds or more
Software Display Version.	To check for following: 1)System Version. 2)Jupiter Micro-processor Version. 3) Opecon Version.	 ↓  ↓ 	In Service Mode: 1.Press[2] button on remote control. 2.Press[2] button on remote control. 3.Press[2] button on remote control.
USB Error Code History	To check for USB error Codes.	 History number	In Service Mode: 1.Press[5] button on remote control. 2.To clear history,press & hold [0] for 5 seconds or more.
Cold Start	To reset to default setting.		In service Mode: 1.Press[3] button on remote control for 2 secs.

6.5. Self-Diagnostic Error Code Table

Self-Diagnostic Function (Refer Section 6.4. Self-Diagnostic Mode) provides information on any problems occurring for the unit and its respective components by displaying the error codes. These error code such as U**, H** and F** are stored in memory and held unless it is cleared.

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

6.5.1. Power Supply Error Code Table

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F61	Power Amp IC output abnormal	Upon power on, PCNT=HIGH, DCDET2=L after checking LSI.	F 61	Press [■-DEMO] on main unit for next error.
F76		DCDET1 = L (NG)	F 76	
F61-76		Both DCDET1 and DCDET2 L (NG)	F 61-F 76	

6.5.2. Mechanism Error Code Table (CD Mechanism Unit (DLS6C))

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F15	CD REST SW Abnormal	CD traverse position initial setting operation fail safe time is over (10 sec) waiting for REST SW to turn on.	F 15	Press [■/-DEMO] on main unit for next error.
F26	Communication between CD servo LSI and micro-p abnormal.	At the time of switching to CD function,SENSE = H shall be detected using DTMS system setting command. If the error is memorized when SENSE = L is not detected within fail safe timer time (20ms), [F26] shall be displayed simultaneously.This display shall be retained if the power is ON and at CD function. If this error occurs, CD operation afterwards shall not be executed as in the case of [NO DISC].	F 26 NO DISC	Press [■/-DEMO] on main unit for next error.
H15	CD Open SW Abnormal	During normal operation CD OPEN SW On fail to be detected with 3 sec.	H 15	Press [■/-DEMO] on main unit for next error.
H16	CD closing SW abnormal	During Closing operation,if "POS_SW_CEN" is not detected within 3 sec.	H 16	Press [■/-DEMO]on main unit for next error.

7 Troubleshooting Guide

7.1. Troubleshooting Guide for F61 and/or F76

This section illustrates the checking procedures when upon detecting the error of “F61” and/or “F76” after power up of the unit. It is for purpose of troubleshooting and checking in SMPS, D-Amp & Main P.C.B.

Symptom	Checking Items		Possible Fault(s)		Remarks
Set cannot ON	1	AC Cord	1	Faulty AC Cord, Loose connection	Refer to section 7.2.1 Fig.1 SMPS P.C.B..
	2	AC Inlet, P5701	2	P5701 solder crack, dry joint.	
	3	Fuse, F1	3	Fuse, F1 Open	
	4	Photocoupler	4	PC5702/PC5799 solder crack.	
		PC5702, PC5799		Dry joint, short circuit, open circuit.	
	5	Switching IC, IC5701	5	IC5701 Faulty.	
Set can ON then F61	6	Switching IC, IC5799	6	IC5799 Faulty.	Refer to section 7.2.3 Fig 3 D-Amp P.C.B..
	1	Speaker Output	1	Faulty speaker unit, Loose connection, Short.	
	2	D-AMP circuit	2a	D-AMP IC, IC5900 defective. (DC voltage of +/-30V detected at speaker output)	
Set can ON then F76	1	Transformer T5701	1a	Short circuit between Pin 14 and Pin 15.	Refer to section 7.2.1 Fig.1 SMPS P.C.B..
			1b	Short circuit between Pin 15 and Pin 16.	
			1c	Short circuit between Pin 16 and Pin 17.	
	2	DC-DC Circuit	2a	Check cable wire connection between connector CN2014(At Main P.C.B) & connector CN5802 (At SMPS P.C.B)	Refer to section 7.2.2 Fig.2 Main P.C.B..
			2b	Voltage regulator IC (IC2010) & DC/DC Converter IC (IC2011) faulty.	
	3	Photocoupler	3	PC5720 solder crack.	
		PC5720		dry joint, short circuit, open circuit.	Refer to section 7.2.1 Fig.1 SMPS P.C.B..
	1	Rectifier D5801	1a	Improper contact between D5801 to Heatsink	
		Rectifier D5802		Improper contact between D5802 to Heatsink	
Set can ON working normally for some time then F76	2	Thermistor TH5860	1b	Set trigger temperature protection.	

7.2.1. SMPS P.C.B.

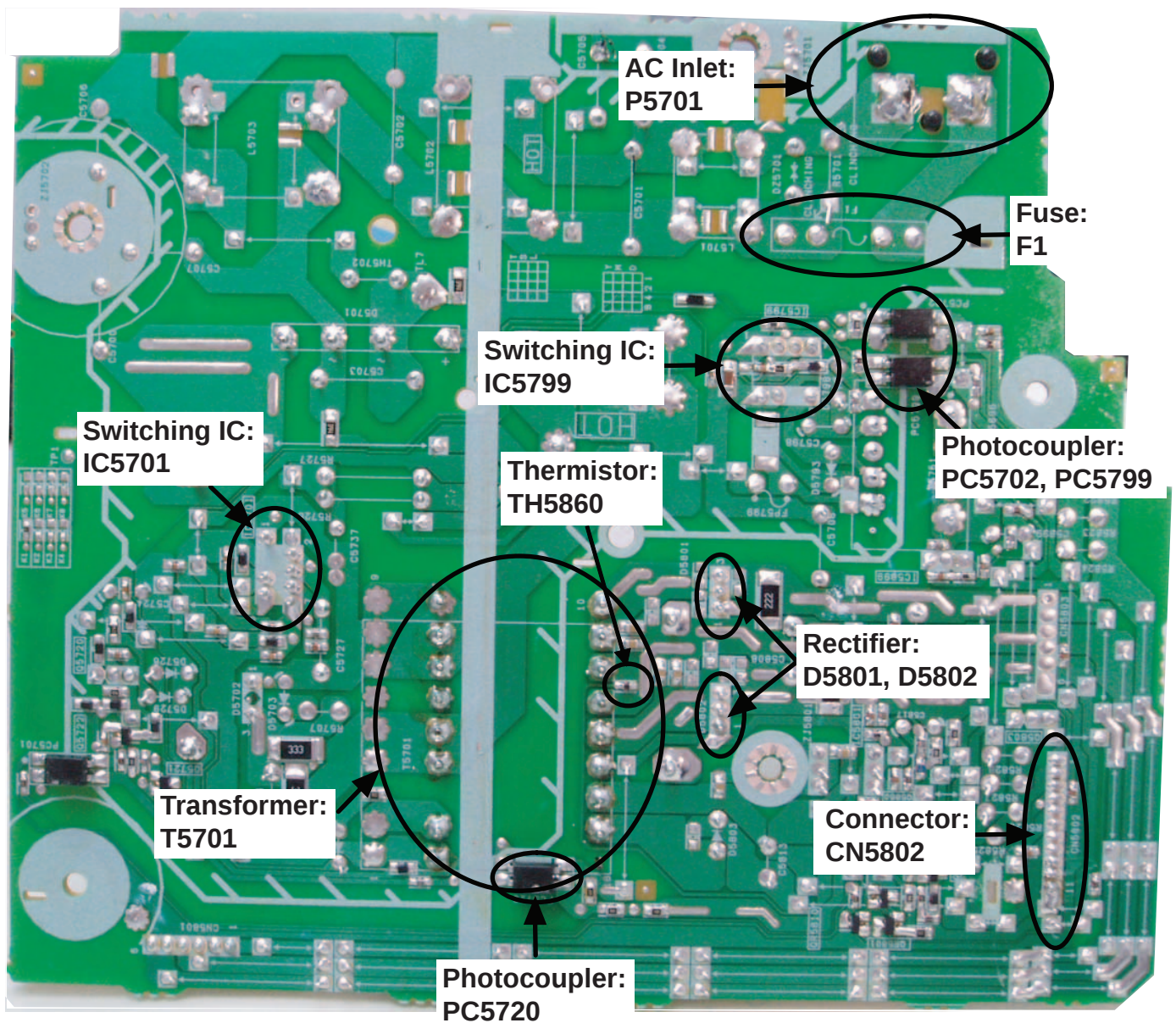


Fig. 1 SMPS P.C.B.

7.2.2. Main P.C.B.

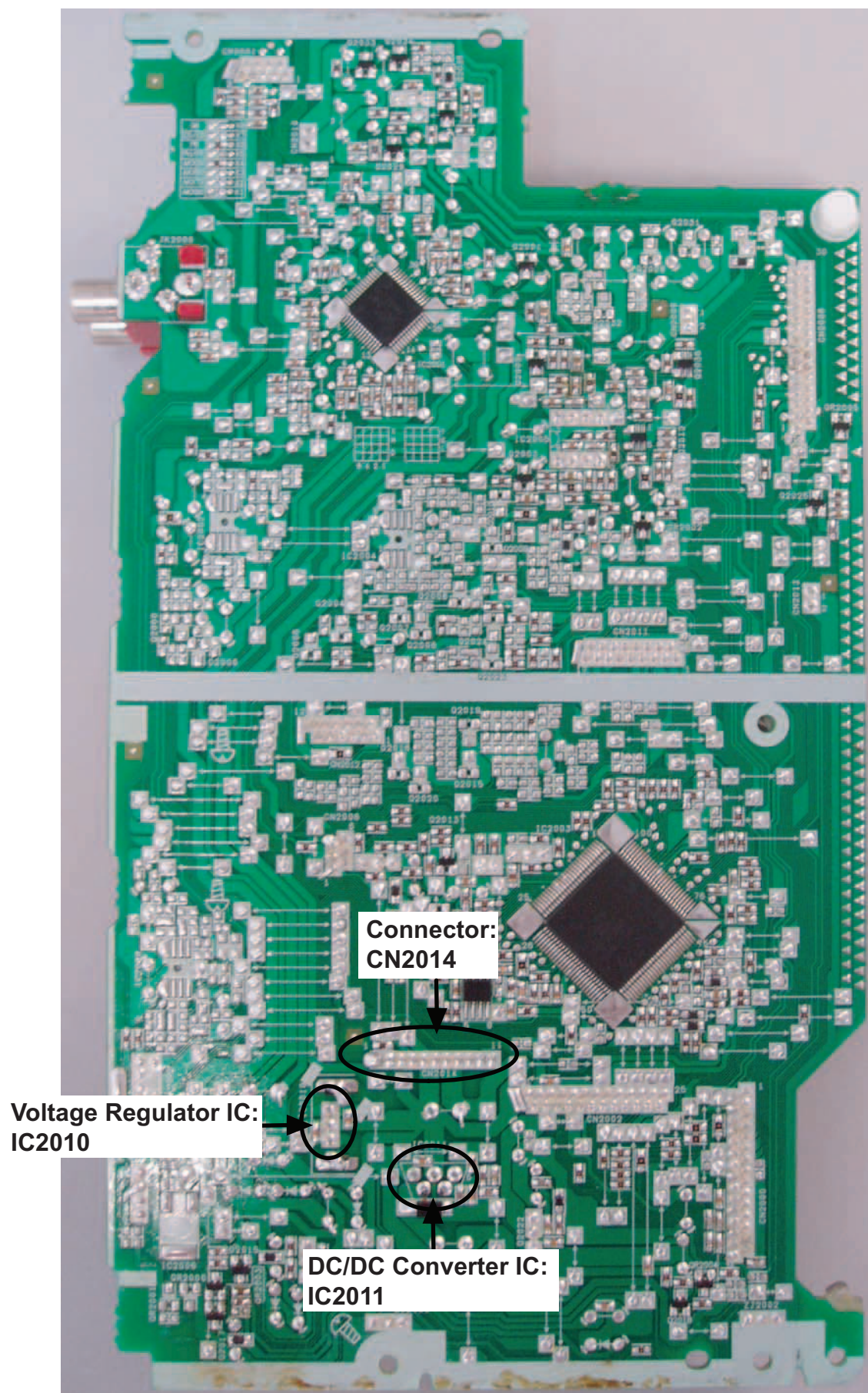


Fig. 2 Main P.C.B.

25

7.3. D-Amp IC Operation & Control

D-AMP IC Operation & Control

- 1) D-AMP IC (C1AB0000497) was used for this model.
- 2) Three control pins (signal send from micro-processor IC) were used to control the D-AMP IC operation such as muting, standby and normal operation. They are described as below: -

No	Pin no	Signal name	Function
1	4	F_HOP	Frequency Hop control.
2	6	MODE_DA	Digital Amp On/Off control.
3	3	MUTE_F	Digital Amp Muting control

Table 1: Digital AMP Pin Control.

Here is detailed description of the three control pins for the D-AMP IC

A) **MODE_DA** & **MUTE_F** were used to switch the D-AMP IC in the following muting status:

- L(Low/OFF): Standby / OFF
- H (High/ON): Operating or Mute

Below is the logic for the two pins used for the control of the D-AMP IC.

No	MODE_DA	MUTE_F	Digital AMP IC mode status
1	L	X	OFF (0V)
2	H	H	Mute (2.5V)
3	H	L	Operating(5V)

Table 2: Digital AMP IC Mode Status.

Note: Standby/OFF condition of D.AMP IC is available / activated only during the following event: Switching of Frequency Hoping, power off and start up (when the unit is undergoing the transition from standby to normal operation mode)

B) **F_HOP** is used to control the D-AMP operation to avoid interference with AM source by controlling the frequency source used. It will switch from one frequency to the other, depending on the tuned AM frequency.

For 9 KHz Step

AM Band Frequency	F_HOP	Switching Frequency
522 ~ 558	L	301
567 ~ 639	H	350
648 ~ 855	L	301
864 ~ 945	H	350
954 ~ 1152	L	301
1161 ~ 1242	H	350
1251 ~ 1449	L	301
1458 ~ 1539	H	350
1548 ~ 1629	L	301

Table 3: F_HOP Control during 9 kHz Step

For 10 KHz Step

AM Band Frequency	F_HOP	Switching Frequency
520 ~ 560	L	301
570 ~ 640	H	350
650 ~ 860	L	301
870 ~ 950	H	350
960 ~ 1160	L	301

1170 ~ 1250	H	350
1260 ~ 1450	L	301
1460 ~ 1540	H	350
1550 ~ 1710	L	301

Table 4: F HOP Control during 10 kHz Step

Note: During activating, the 3 control pins namely MUTE_F, MUTE_A and MODE_DA must be used to cover the “Pop” sound cause by F-HOP switching.

8 Service Fixture & Tools

8.1. Service Tools and Equipment

Prepare service tools before process service position.

Service Tools		Remarks
Main P.C.B. (CN2014) - SMPS P.C.B. (CN5802)	REXX0189 (11P Cable Wire)	

9 Disassembly and Assembly Instructions

Caution Note:

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

**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 Tuner P.C.B.
 - Disassembly of Front Panel Assembly
 - Disassembly of Panel P.C.B.
 - Disassembly of Remote Sensor P.C.B.
 - Disassembly of CD Open Button P.C.B.
 - Disassembly of Jupiter P.C.B.
 - Disassembly of Music Port/Headphone P.C.B.
 - Disassembly of CD Lid
 - Disassembly of Main P.C.B.
 - Replacement of Regulator IC (IC2010)
 - Disassembly of D-Amp P.C.B.
 - Replacement of Audio Digital Amp IC (IC5900)
 - Disassembly of SMPS P.C.B.
 - Replacement of Switching Regulator IC (IC5701)
 - Replacement of Regulator Diode (D5702)
 - Replacement of Regulator Diode (D5801)
 - Replacement of Regulator Diode (D5802)
 - Replacement of Regulator Diode (D5803)
 - Disassembly of CD Mechanism Unit (DLS6C)
 - Disassembly of CD Servo P.C.B.
 - Disassembly of Rear Panel
 - Disassembly of Voltage Selector P.C.B. (For PH only)

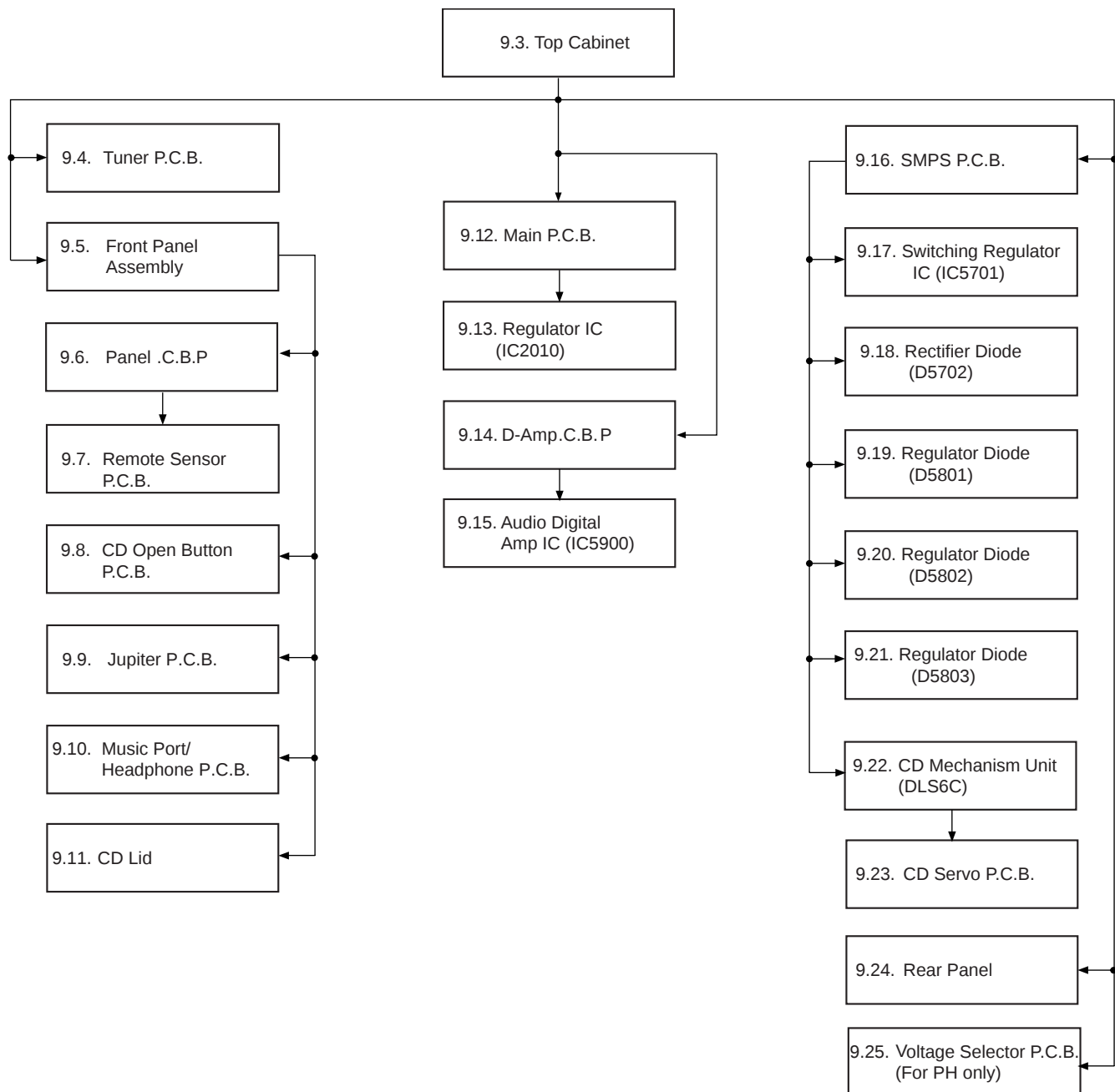
CAUTION NOTE:

Please use original screw and at correct locations.

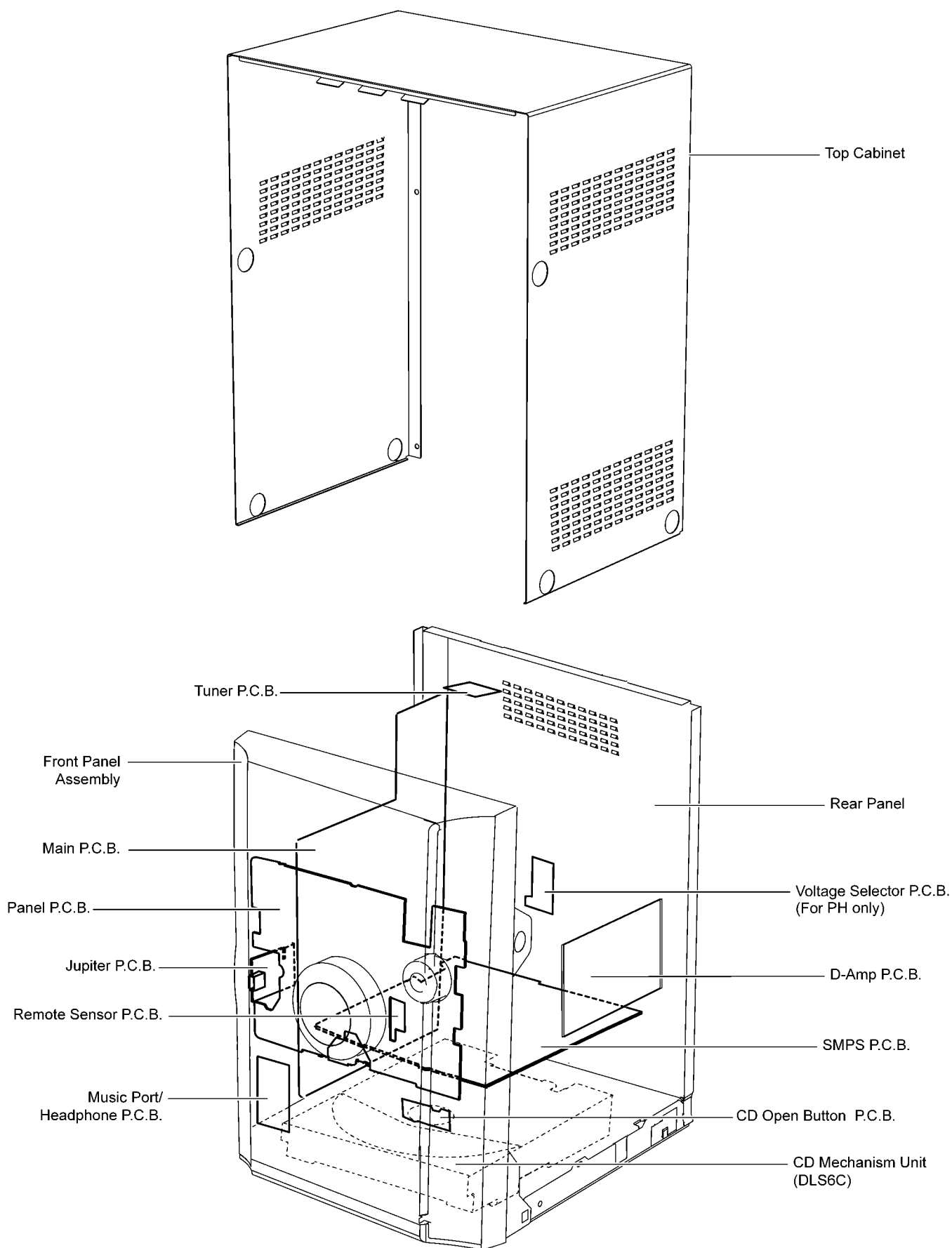
Below shown is part no. of different screw types used:

- | | |
|------------------------|----------------------|
| a :RHD30007-K2J | e :RHD26046-L |
| b :RHD30119-S | f :RHDX031008 |
| c :RHDX30005-1 | g :XTN2+6GFJ |
| d :XTB3+10JFJ | |

9.1. Disassembly Flow Chart

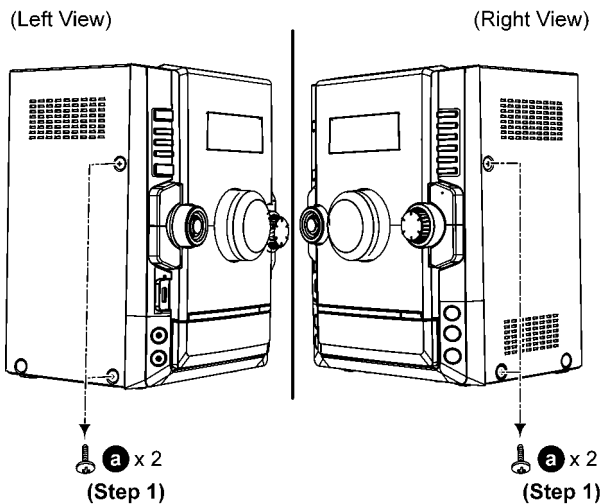


9.2. Main Components and P.C.B. Locations



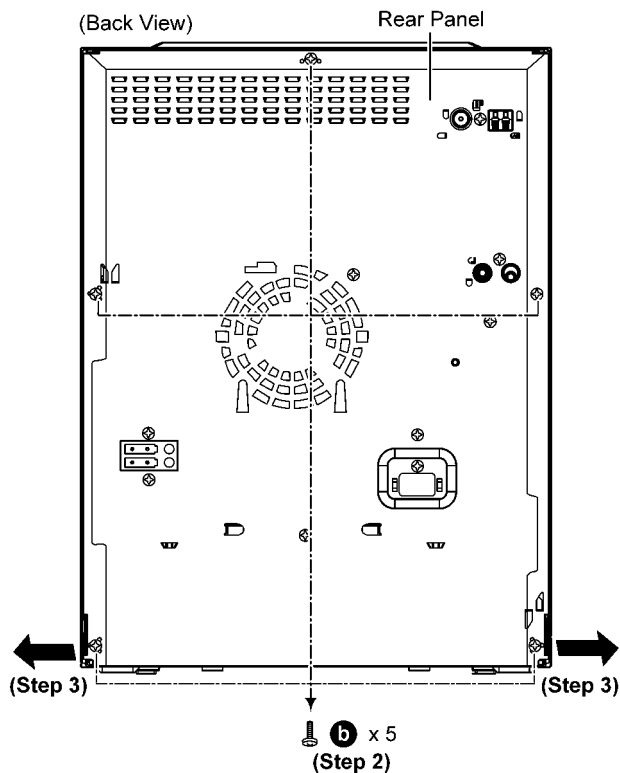
9.3. Disassembly of Top Cabinet

Step 1 Remove 2 screws on each side.



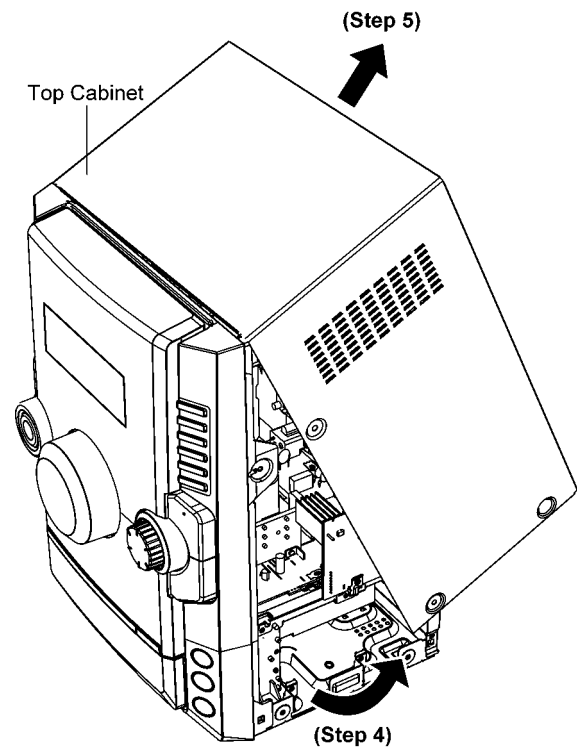
Step 2 Remove 5 screws.

Step 3 Slightly pull both side of Top Cabinet outwards as arrow shown.

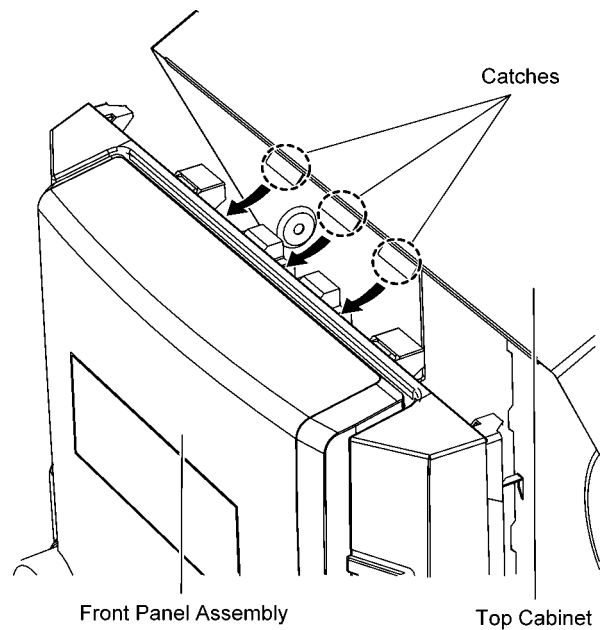


Step 4 Slightly lift up both side of Top Cabinet in an outward direction as shown.

Step 5 Remove Top Cabinet.



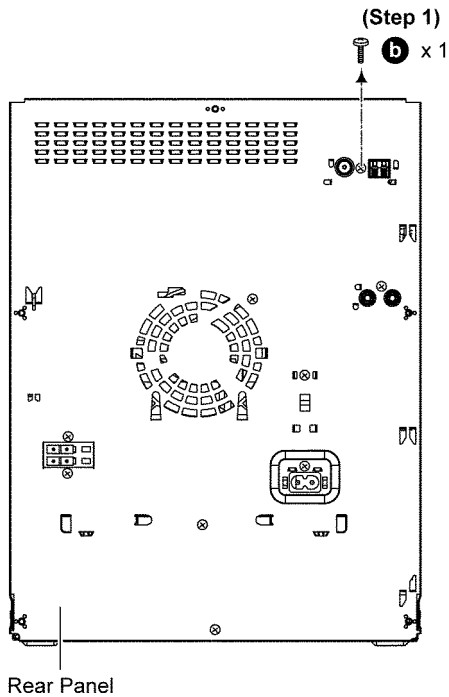
Caution: During assembling, ensure that the Top Cabinet catches are properly located into Front Panel Assembly as shown.



9.4. Disassembly of Tuner P.C.B.

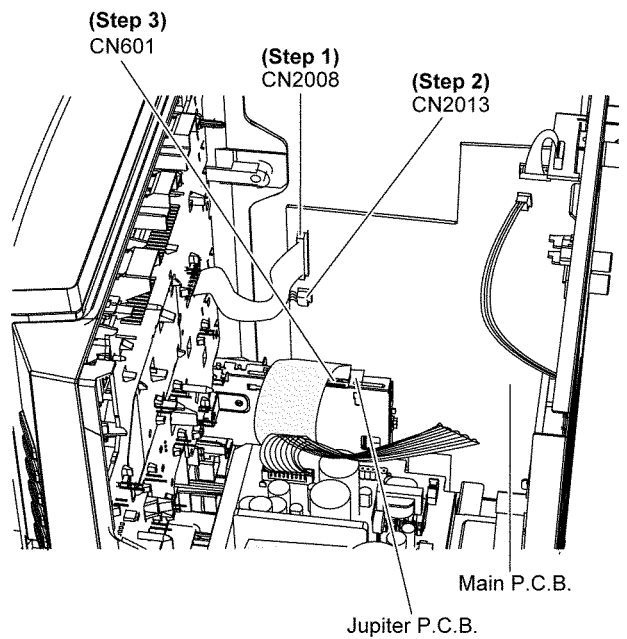
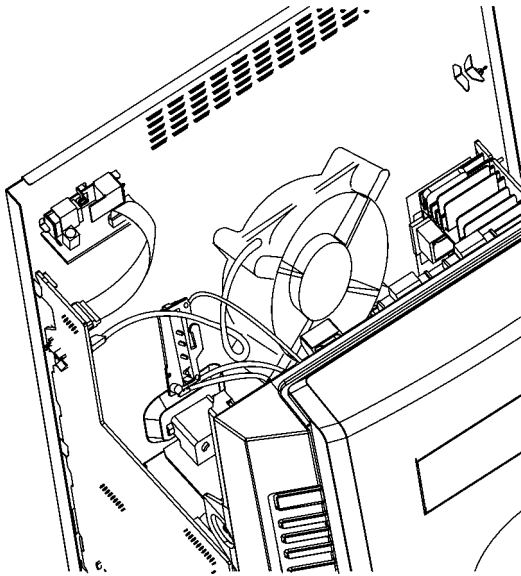
• Refer to "Disassembly of Top Cabinet".

Step 1 Remove 1 screw.



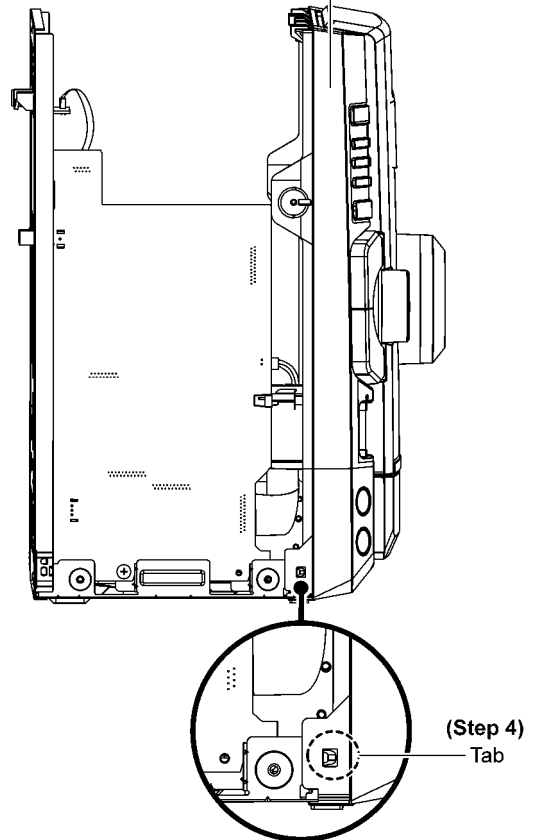
Step 2 Detach 9P FFC at the connector (CN51) on Tuner P.C.B..

Step 3 Remove Tuner P.C.B..



Step 4 Release tab at left side of Front Panel Assembly.

Front Panel Assembly



9.5. Disassembly of Front Panel Assembly

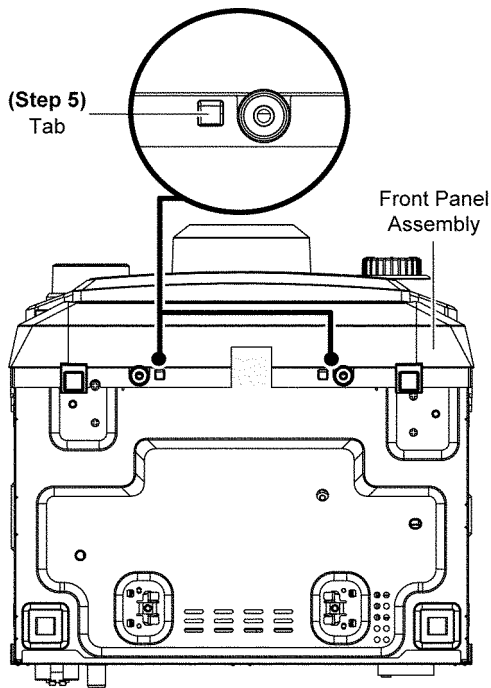
• Refer to “Disassembly of Top Cabinet”.

Step 1 Detach 32P FFC at the connector (CN2008) on Main P.C.B.

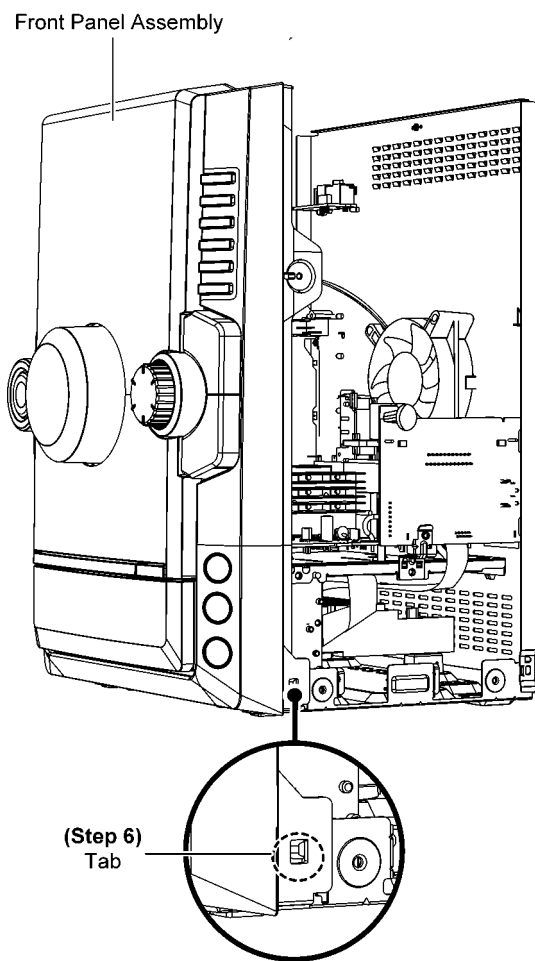
Step 2 Detach 2P wire at the connector (CN2013) on Main P.C.B.

Step 3 Detach 30P FFC at the connector (CN601) on Jupiter P.C.B.

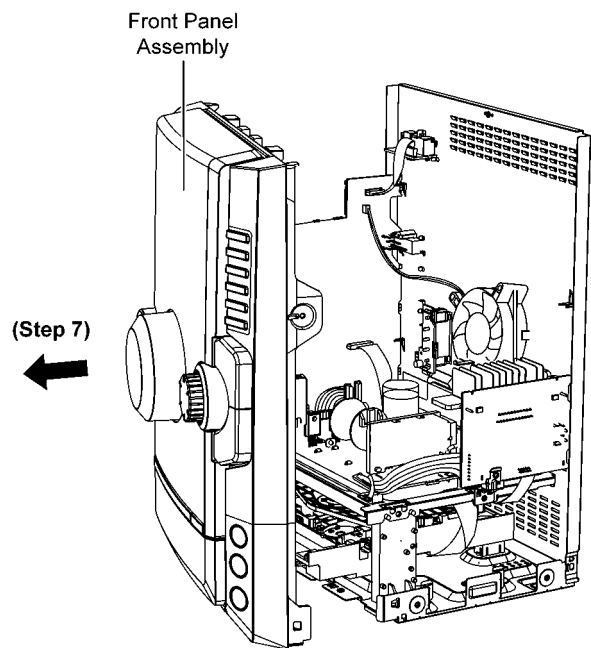
Step 5 Release tab at bottom.



Step 6 Release tab at right side.



Step 7 Remove Front Panel Assembly.

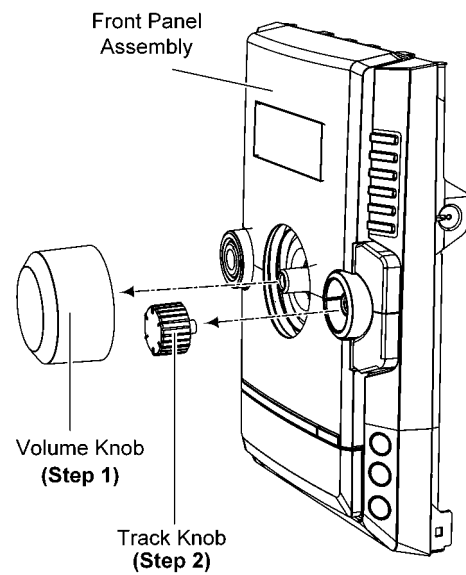


9.6. Disassembly of Panel P.C.B.

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

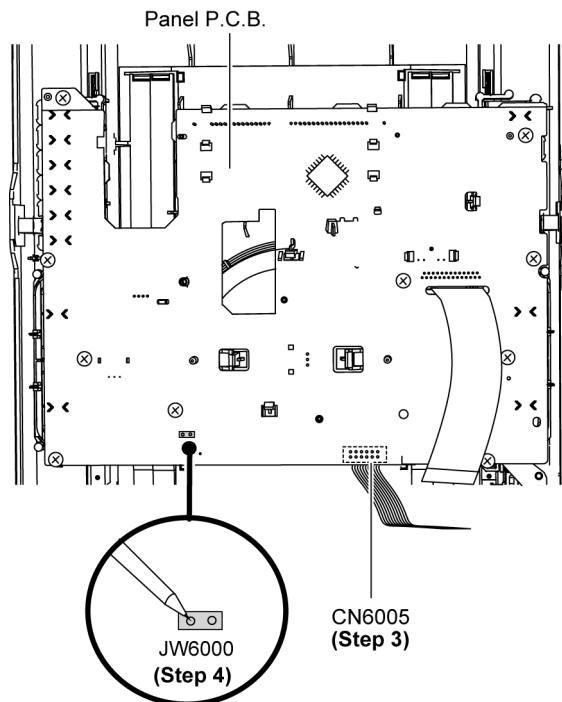
Step 1 Remove the Volume Knob.

Step 2 Remove the Track Knob.

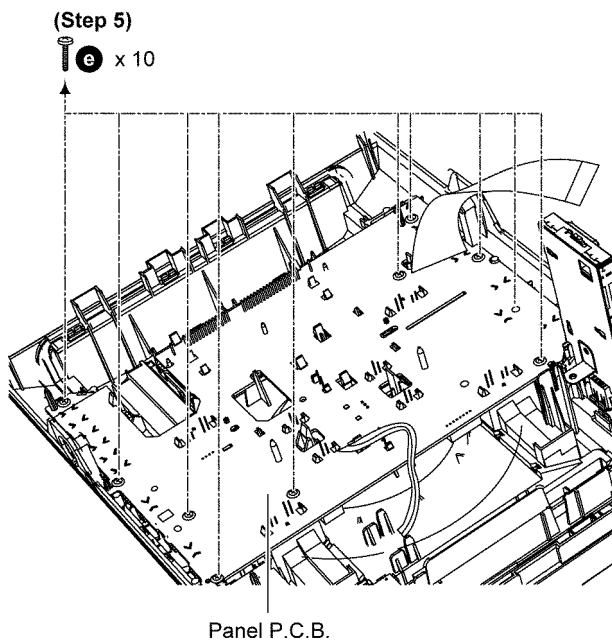


Step 3 Detach 8P Cable Wire at the connector (CN6005) on Panel P.C.B..

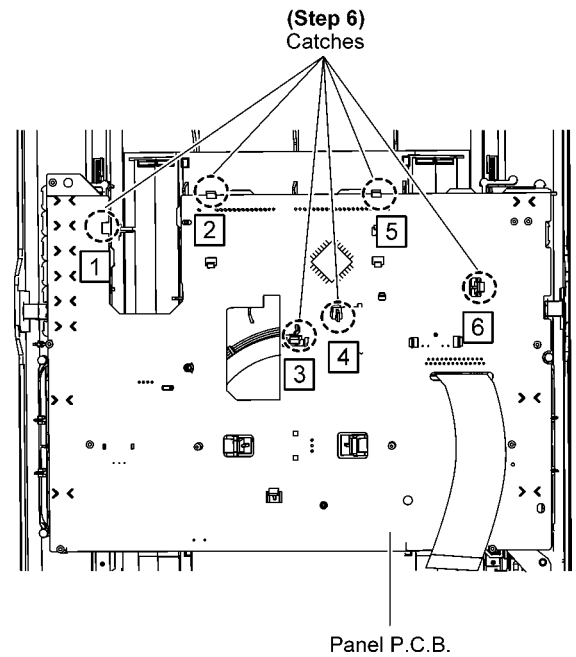
Step 4 Desolder 2 pins at (JW6000) on Panel P.C.B..



Step 5 Remove 10 screws.

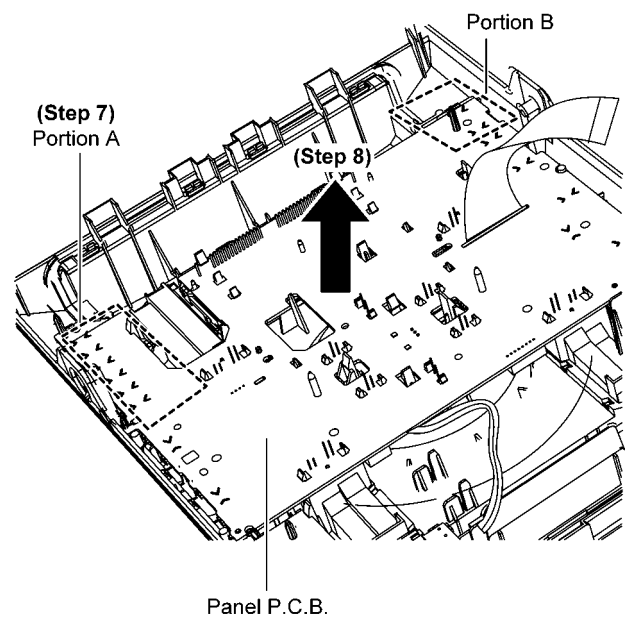


Step 6 Release catches by following the sequences (1-6).

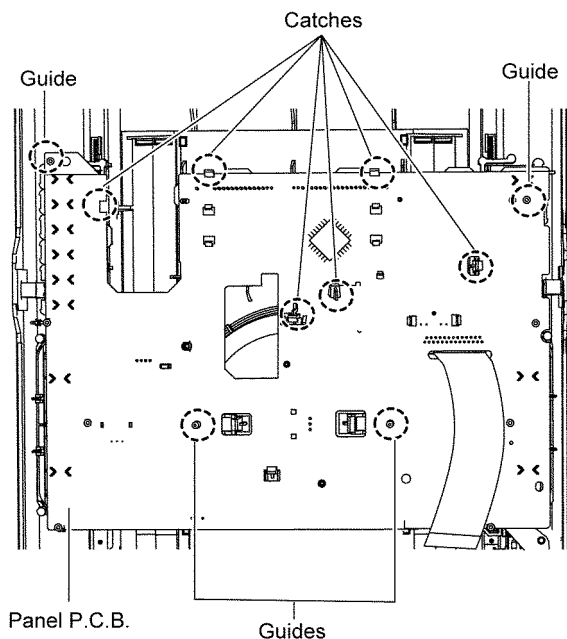


Step 7 Slightly release portion A of panel P.C.B. from Front Panel Assembly.

Step 8 Remove Panel P.C.B..



Caution: During assembling, ensure that Panel P.C.B. is seated properly through the Guides & fully caught.

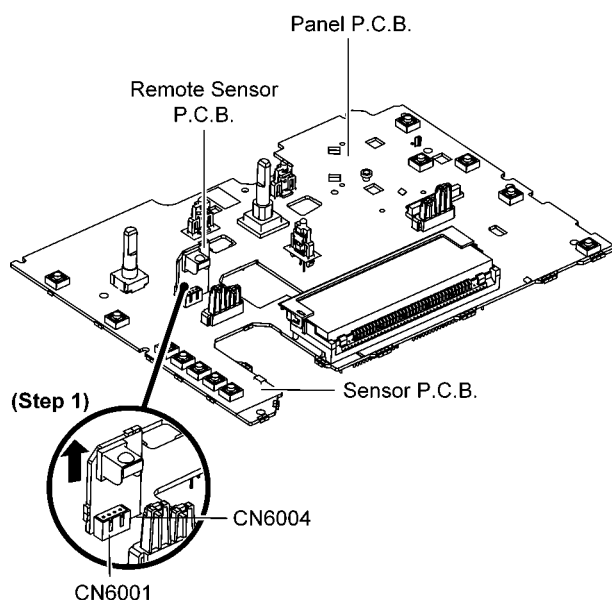


9.7. Disassembly of Remote Sensor P.C.B.

- Refer to "Disassembly of Top Cabinet Assembly".
- Refer to "Disassembly of Front Panel Assembly".
- Refer to "Disassembly of Panel P.C.B.".

Step 1 Remove Remote Sensor P.C.B..

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

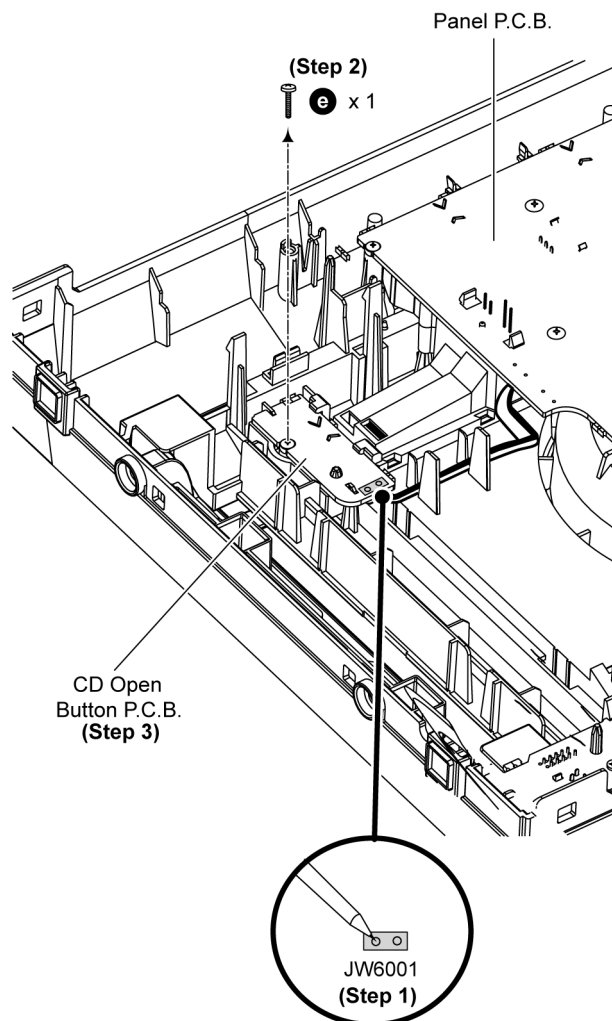


9.8. Disassembly of CD Open Button P.C.B.

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

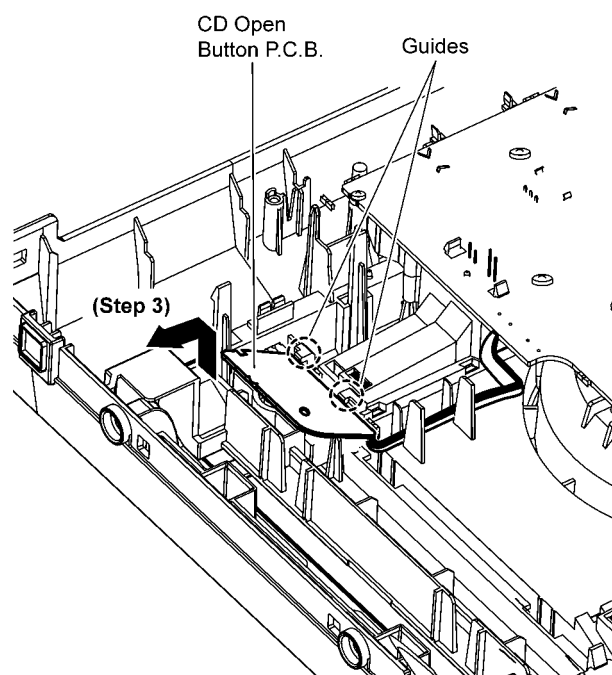
Step 1 Desolder 2 pins (JW6001) on CD Open Button P.C.B..

Step 2 Remove 1 screw.



Step 3 Lift up slightly and remove CD Open Button P.C.B. as arrow shown.

Caution: During assembling, ensure that CD Open Button P.C.B. is properly located and seated under the guides.

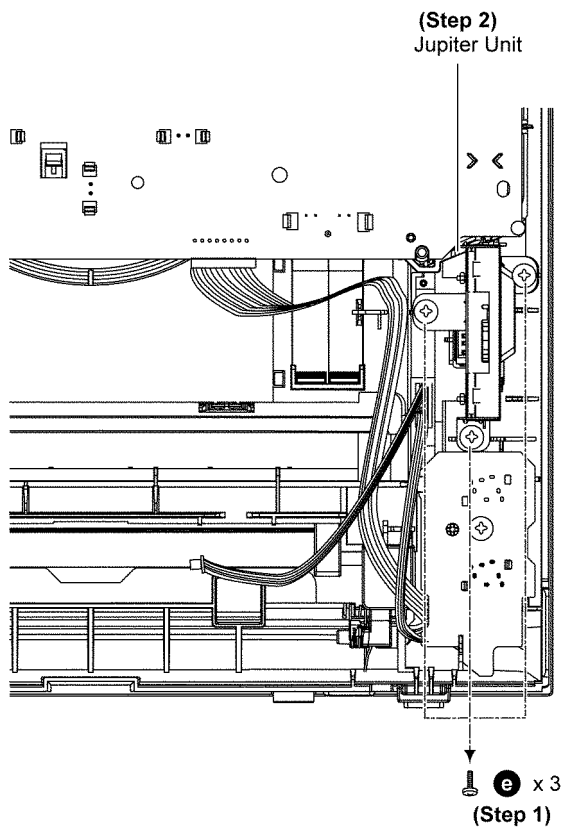


9.9. Disassembly of Jupiter P.C.B.

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

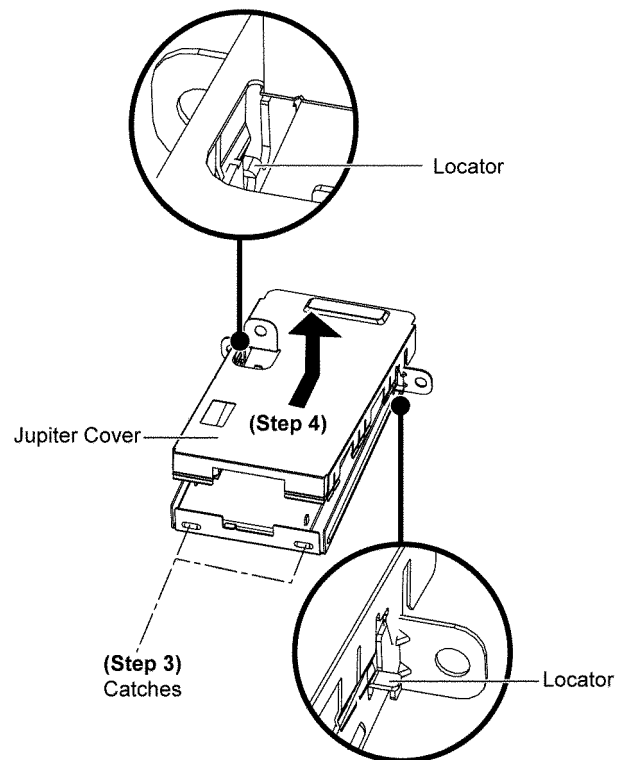
Step 1 Remove 3 screws.

Step 2 Remove Jupiter Unit.



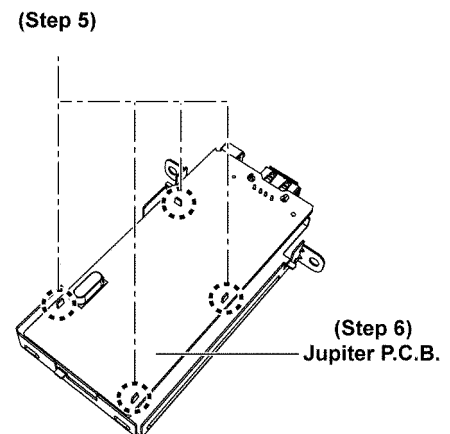
Step 3 Release 2 catches.

Step 4 Slightly lift up the Jupiter Cover to release from 2 locators.



Step 5 Desolder 4 pins.

Step 6 Remove the Jupiter P.C.B..

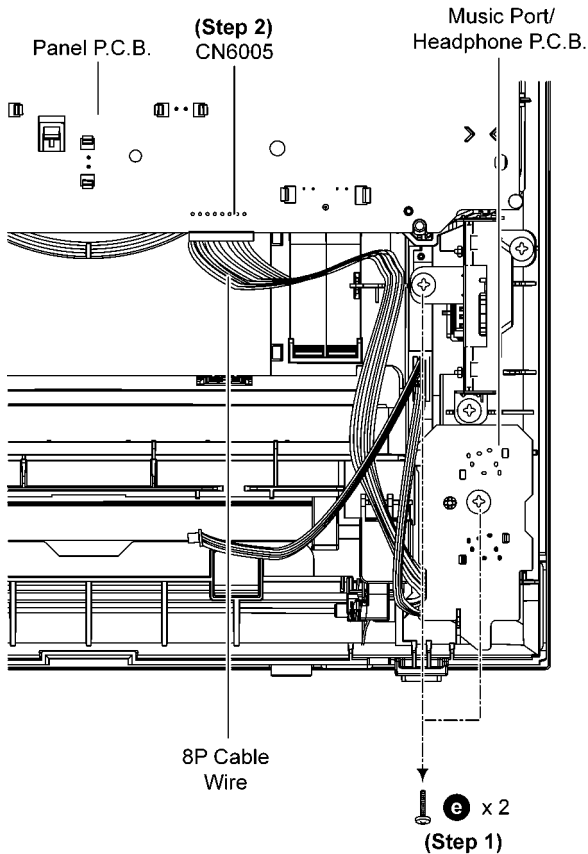


9.10. Disassembly of Music Port/ Headphone P.C.B.

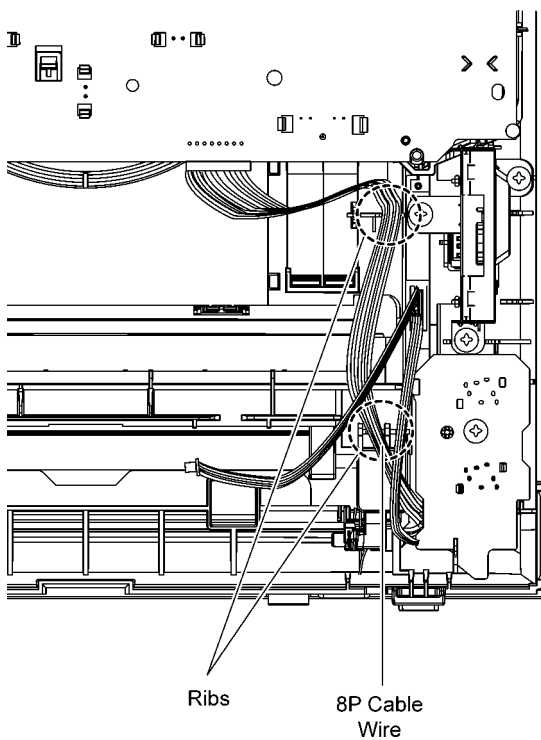
- Refer to “Disassembly of Top Cabinet”.
- Refer to “Disassembly of Front Panel Assembly”.

Step 1 Remove 2 screws.

Step 2 Detach 8P Cable Wire at the connector (CN6005) on Panel P.C.B..



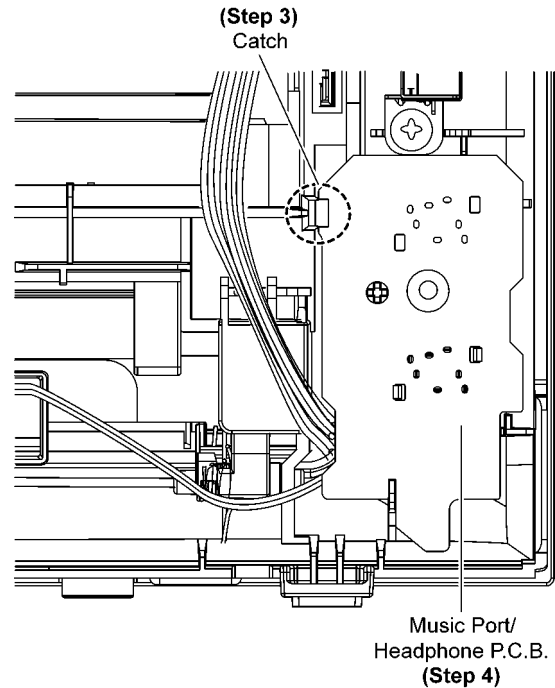
Caution: During assembling, ensure that 8P Cable wire is dressed into Ribs properly.



Step 3 Release 1 catch.

Step 4 Remove Music Port/Headphone P.C.B..

Caution: During assembling, ensure that Music Port/Headphone P.C.B. is properly located & fully caught onto Front Panel.

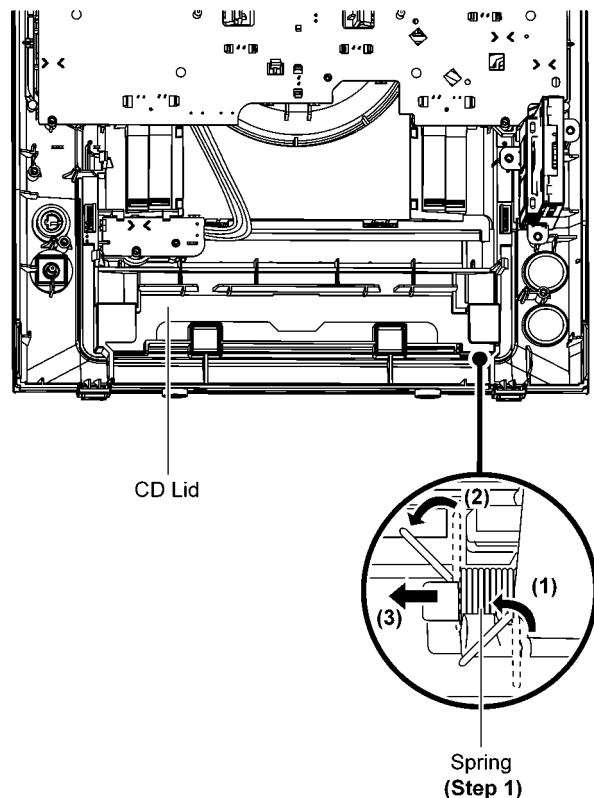


9.11. Disassembly of CD Lid

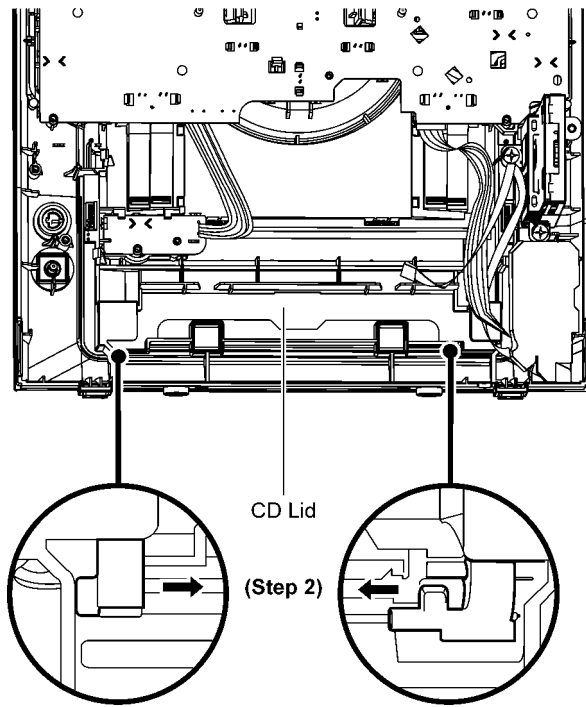
- Refer to "Disassembly of Top Cabinet".
- Refer to "Disassembly of Front Panel Assembly".

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

Caution: During assembling, ensure that the spring is assembly at right position.



Step 2 Remove CD Lid as arrow shown.



9.12. Disassembly of Main P.C.B.

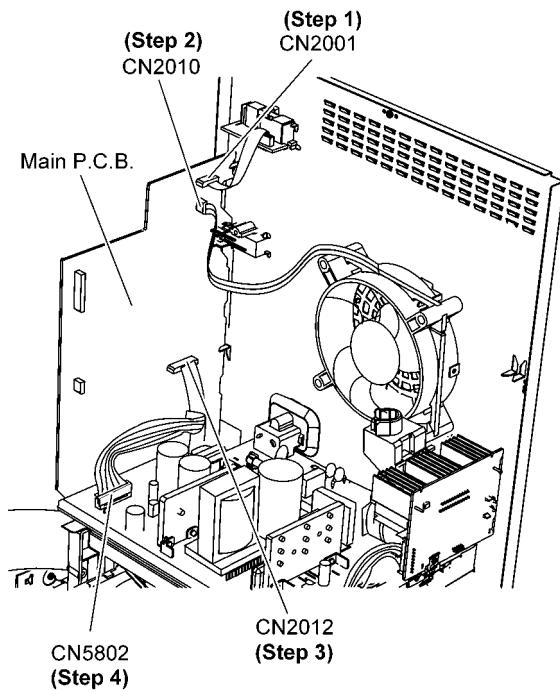
- Refer to “Disassembly of Top Cabinet”.
- Refer to “Disassembly of Front Panel Assembly”.

Step 1 Detach 9P FFC at the connector (CN2001) on Main P.C.B..

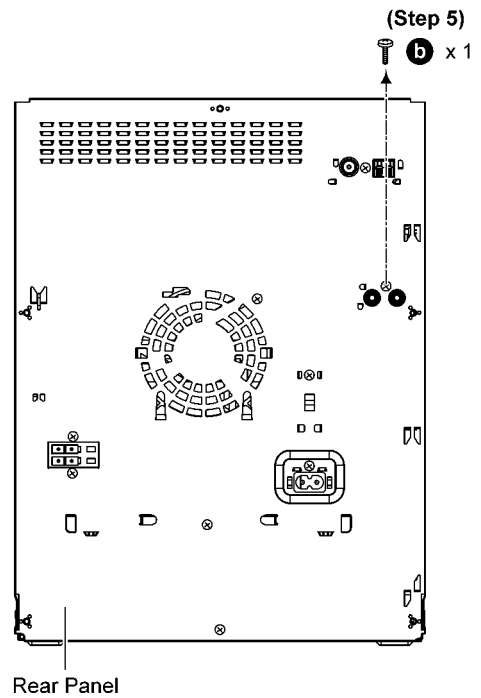
Step 2 Detach 2P Wire at the connector (CN2010) on Main P.C.B..

Step 3 Detach 12P FFC at the connector (CN2012) on Main P.C.B..

Step 4 Detach 11P Cable Wire at the connector (CN5802) on SMPS P.C.B..

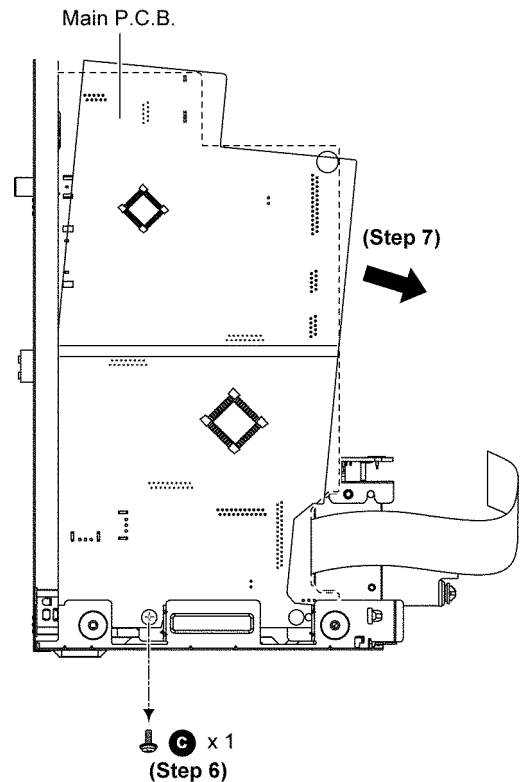


Step 5 Remove 1 screw.



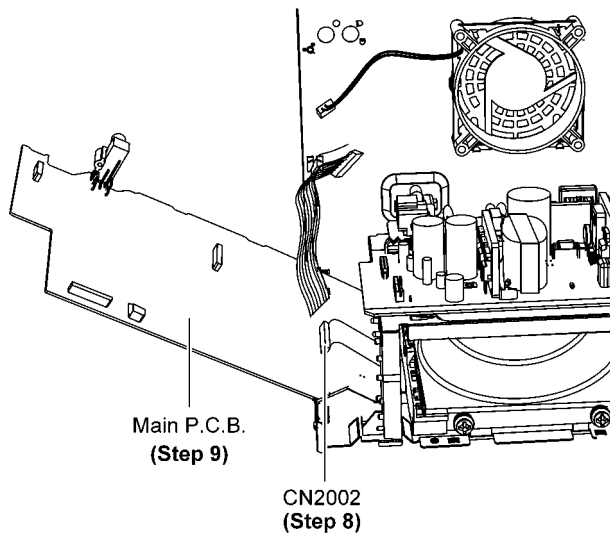
Step 6 Remove 1 screws.

Step 7 Detach Main P.C.B. from Rear Panel according to arrow shown.

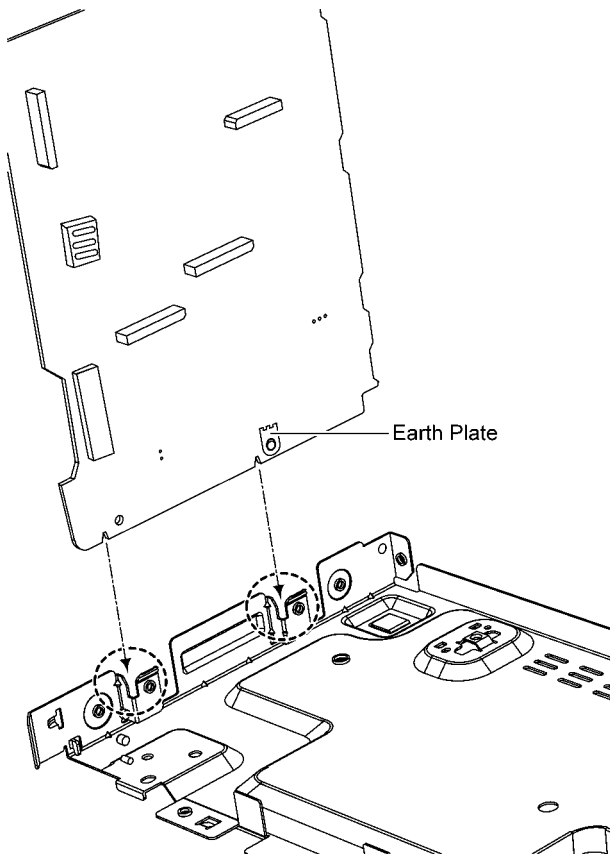


Step 8 Detach 22P FFC at the connector (CN2002) on Main P.C.B..

Step 9 Remove Main P.C.B..



Caution: During assembling, ensure that earth plate is bended flat against the Main P.C.B. properly when inserted to locators.

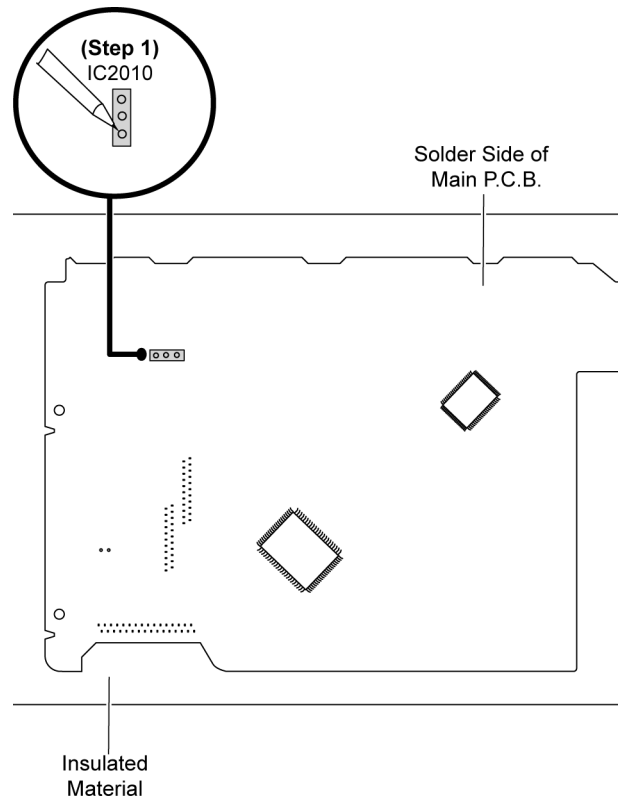


9.13. Replacement of Regulator IC (IC2010)

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

9.13.1. Disassembly of Regulator IC (IC2010)

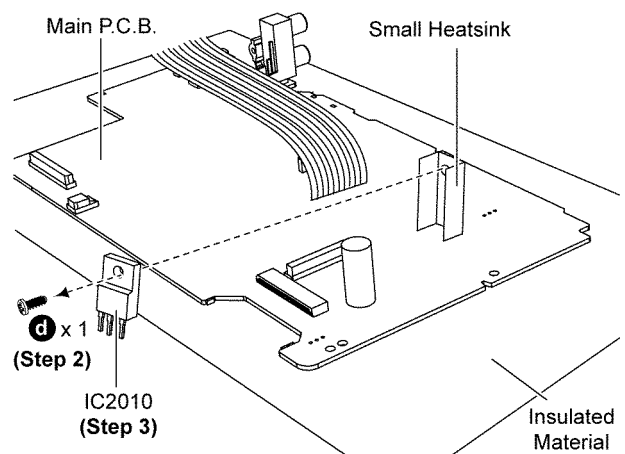
Step 1 Desolder pins of the Regulator IC (IC2010) on the solder side of Main P.C.B..



Step 2 Remove 1 screw.

Step 3 Remove the Regulator IC (IC2010) from the Main P.C.B..

Caution: Avoid touching the Small Heatsink due to its high temperature after prolong use. Touching it may lead to injuries.



9.13.2. Assembly of Regulator IC (IC2010)

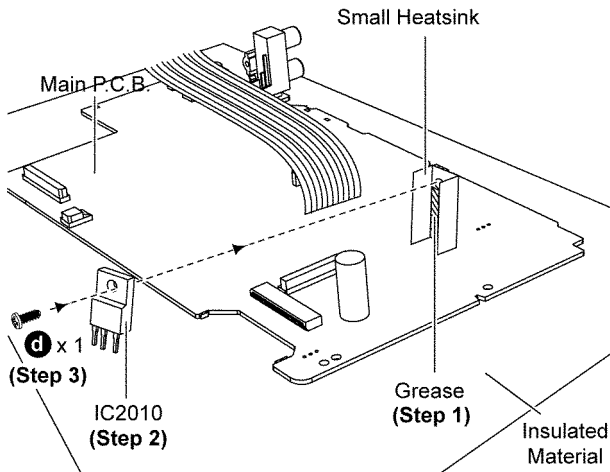
Step 1 Apply grease to the Small Heatsink.

Step 2 Mount the Regulator IC (IC2010) on Main P.C.B..

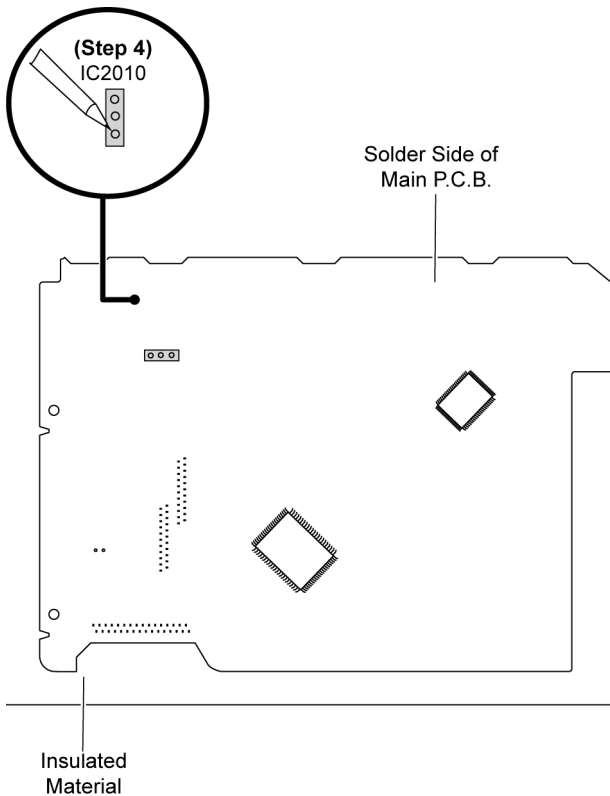
Caution: Ensure pins of the Regulator IC (IC2010) are properly seated on Main P.C.B..

Step 3 Screw the Regulator IC (IC2010) to the Small Heatsink.

Caution: Ensure the Regulator IC (IC2010) is tightly screwed to the Small Heatsink.



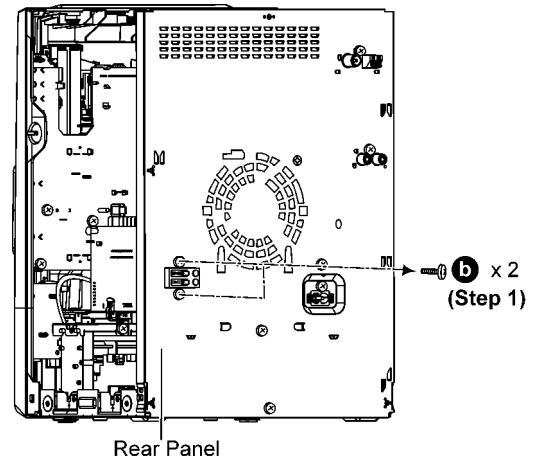
Step 4 Solder pins of the Regulator IC (IC2010) on the solder side of Main P.C.B..



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

• Refer to “Disassembly of Top Cabinet”.

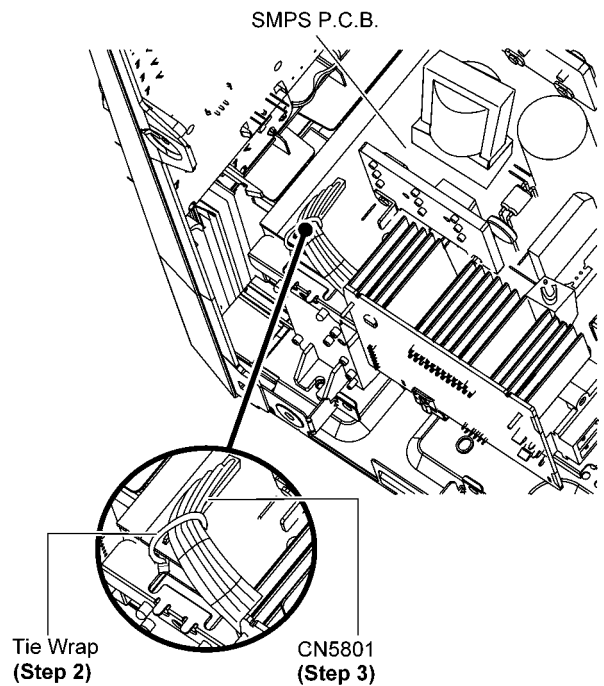
Step 1 Remove 2 screws.



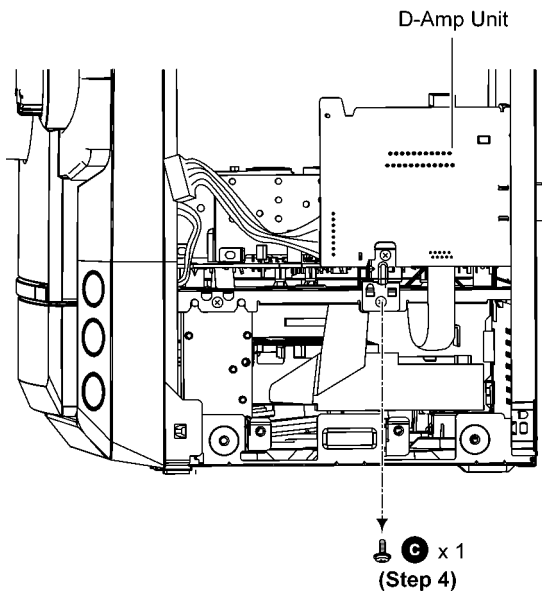
Step 2 Cut the Tie Wrap.

Caution: During assembling, tie the 6P Cable wire with the Tie Wrap to SMPS P.C.B. as diagram shown.

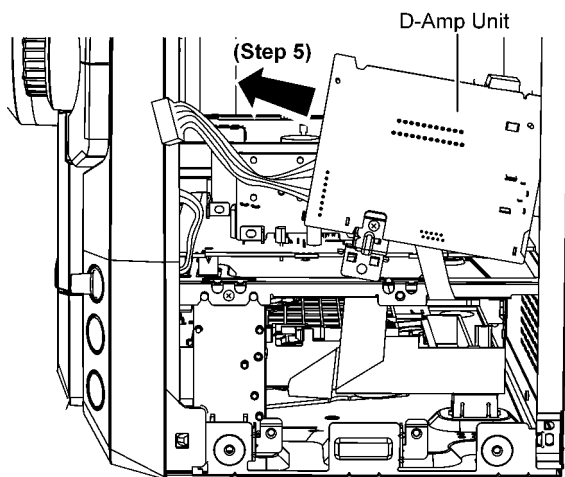
Step 3 Detach 6P Cable Wire at the connector (CN5801) on SMPS P.C.B.



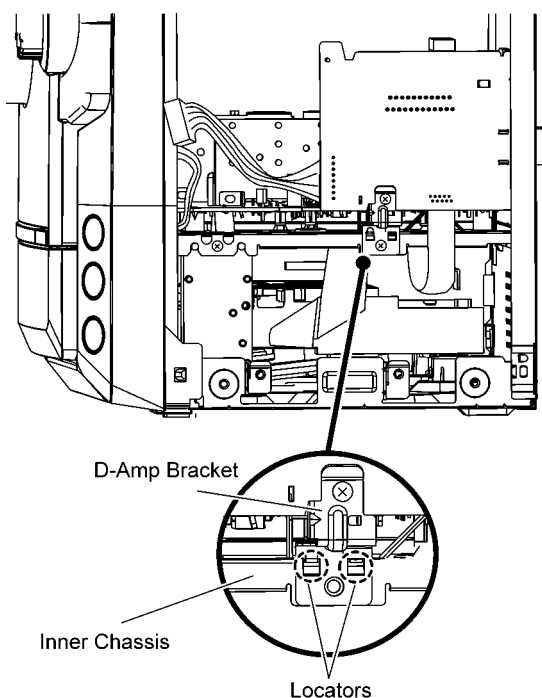
Step 4 Remove 1 screw.



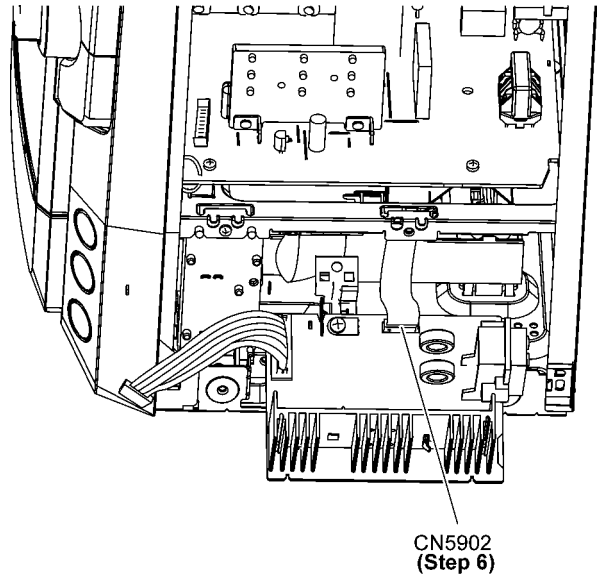
Step 5 Slightly lift up & remove D-Amp Unit as arrow shown.



Caution: During assembling, ensure that D-Amp Bracket is seated on the locator of Inner Chassis properly.



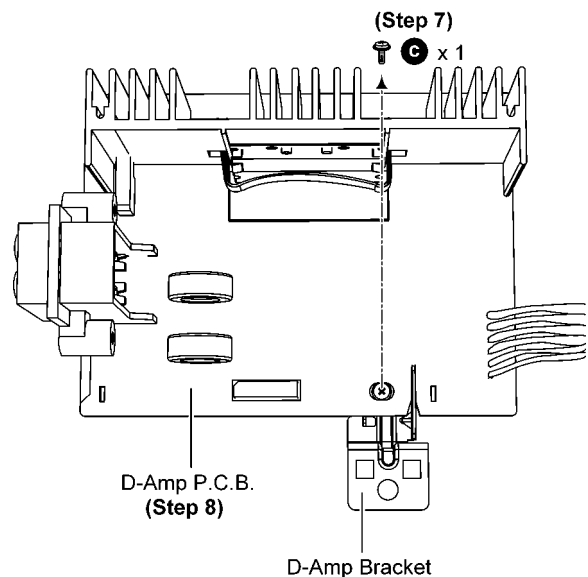
Step 6 Detach 12P FFC at the connector (CN5902) on D-Amp P.C.B..



Step 7 Remove 1 screw.

Step 8 Remove D-Amp P.C.B.

Caution: Keep the D-Amp Bracket in safe place, place it back during assembling.

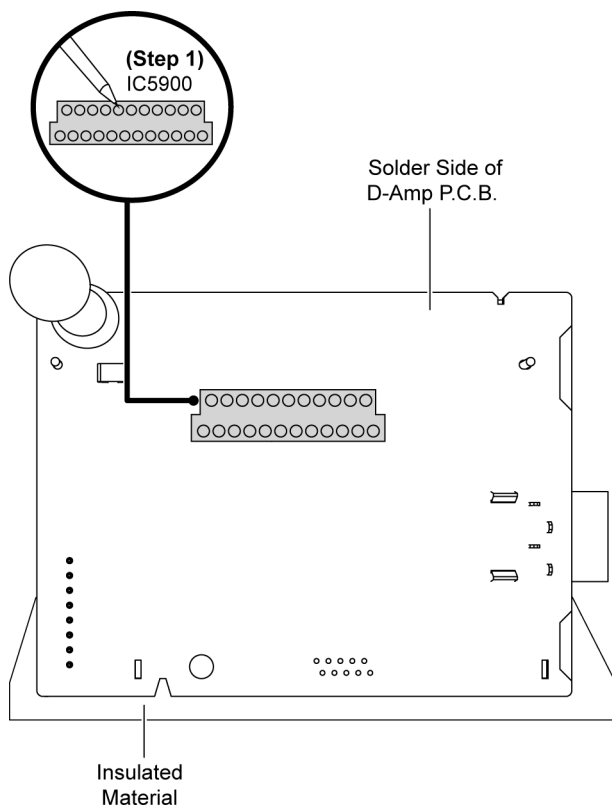


9.15. Replacement of Audio Digital Amp IC (IC5900)

• Refer to "Disassembly of D-Amp P.C.B.".

9.15.1. Disassembly of Audio Digital Amp IC (IC5900)

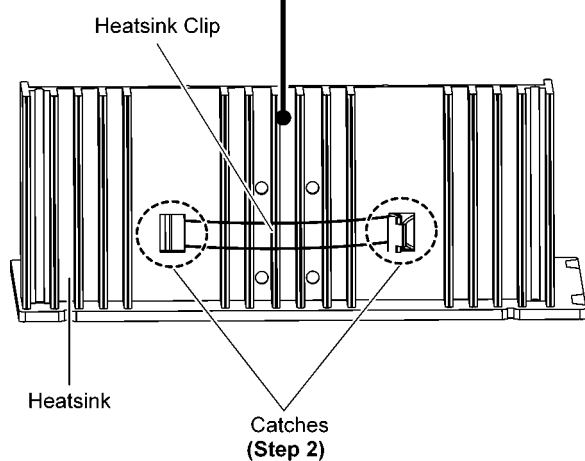
Step 1 Desolder pins of the Regulator IC (IC5900) on the solder side of D-Amp P.C.B..



Step 2 Release 2 catches of Heatsink Clip.

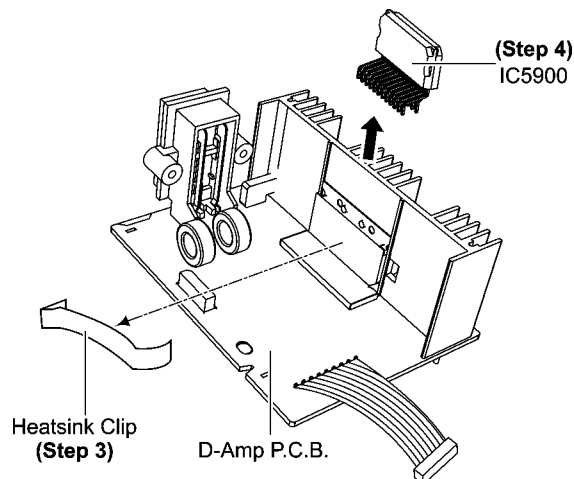
Caution: During releasing of 2 catches, avoid touching the Heatsink, due to high temperature.

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



Step 3 Remove Heatsink Clip.

Step 4 Remove Audio Digital Amp IC (IC5900).



9.15.2. Assembly of Audio Digital Power Amp IC (IC5900)

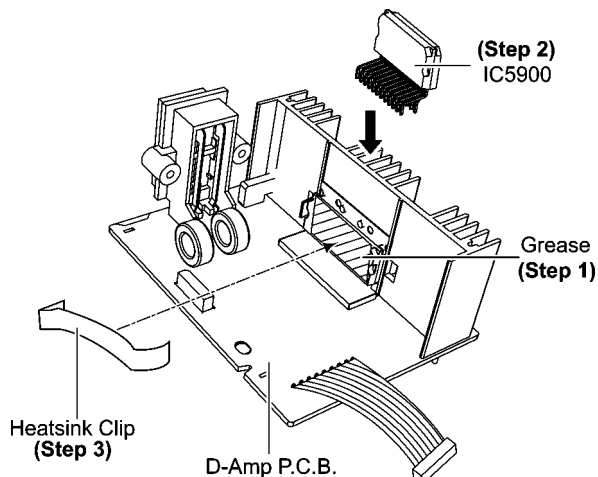
Step 1 Apply grease to the Heatsink.

Step 2 Install the Audio Digital Amp IC (IC5900) on D-Amp P.C.B.

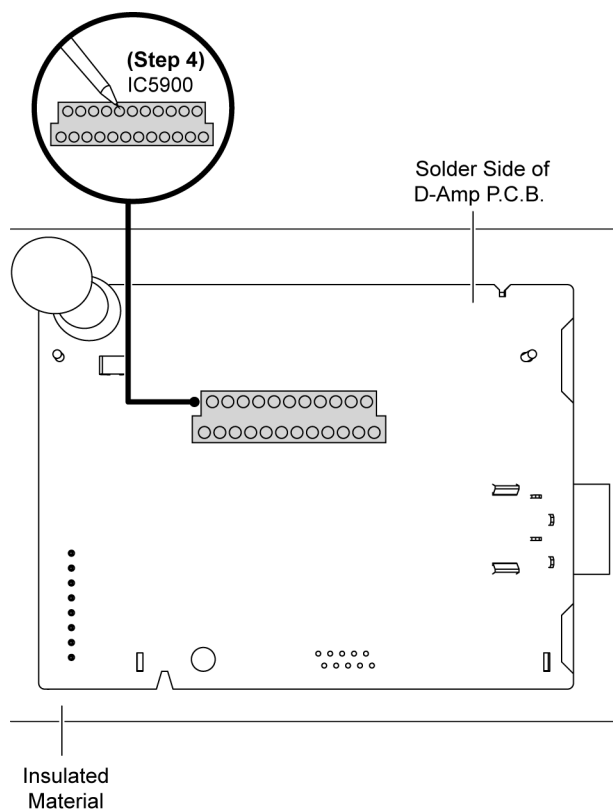
Caution: Ensure pins of the Audio Digital Amp IC (IC5900) are properly seated on D-Amp P.C.B.

Step 3 Install Heatsink Clip to the Heatsink.

Caution: During assembling, ensure that Heatsink Clip is caught onto Heatsink properly.



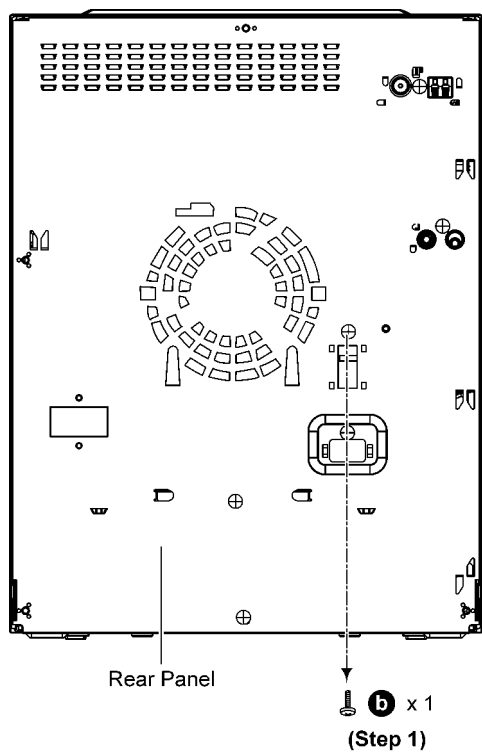
Step 4 Solder pins of the Audio Digital Amp IC (IC5900) on the solder side of D-Amp P.C.B..



9.16. Disassembly of SMPS P.C.B.

- Refer to "Disassembly of Top Cabinet."
- Refer to "Disassembly of Front Panel Assembly".
- Refer to "Disassembly of D-Amp P.C.B."

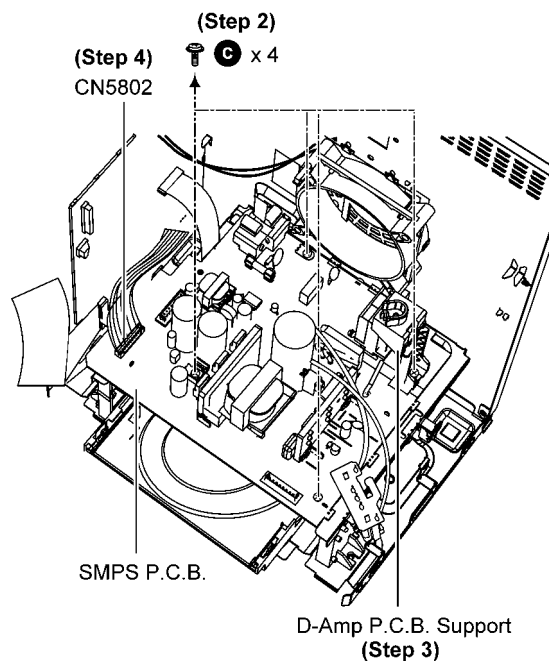
Step 1 Remove 1 screw.



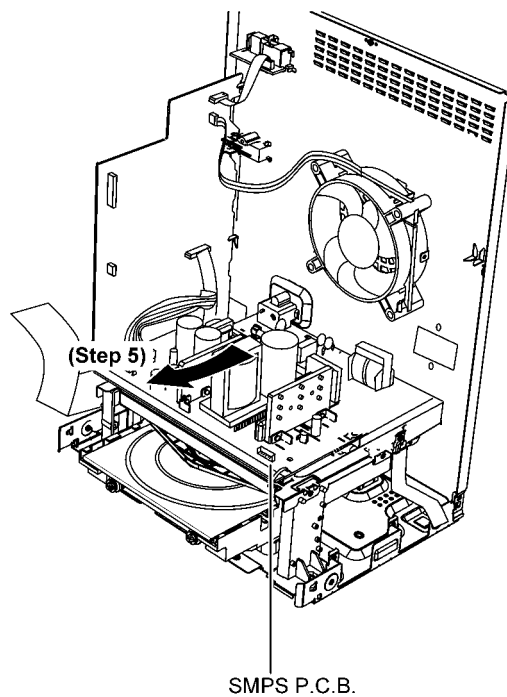
Step 2 Remove 4 screws.

Step 3 Remove D-Amp P.C.B. Support.

Step 4 Detach 11P cable wire at the connector (CN5802) on SMPS P.C.B..



Step 5 Lift up to remove SMPS P.C.B..



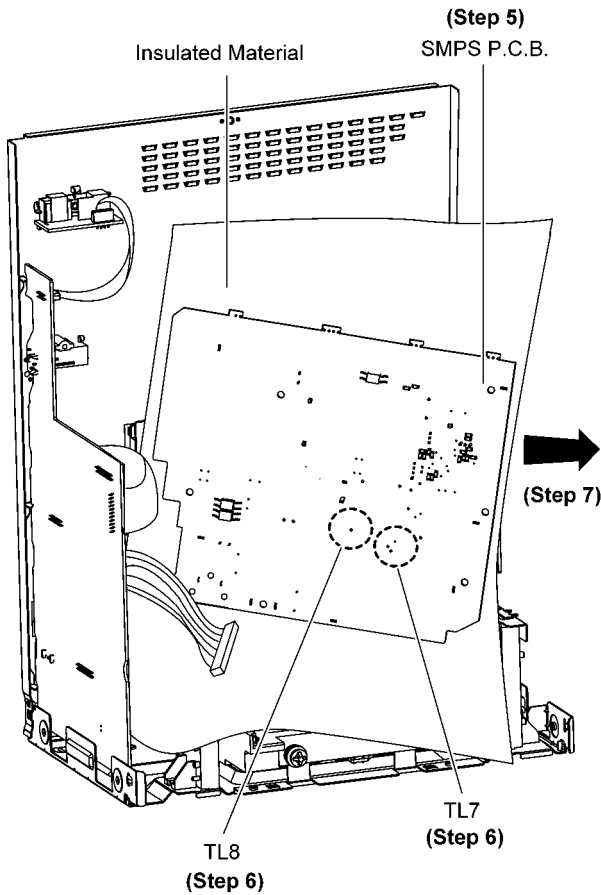
- For PH only

Step 5 Flip the SMPS P.C.B. and position it according to diagram shown.

Caution: Insulated Material is required in order to insulated SMPS P.C.B. from other parts.

Step 6 Desolder 2 Wire pins, Black TL7 (Black), TL8 (Red) wires pin.

Step 7 Remove SMPS P.C.B..

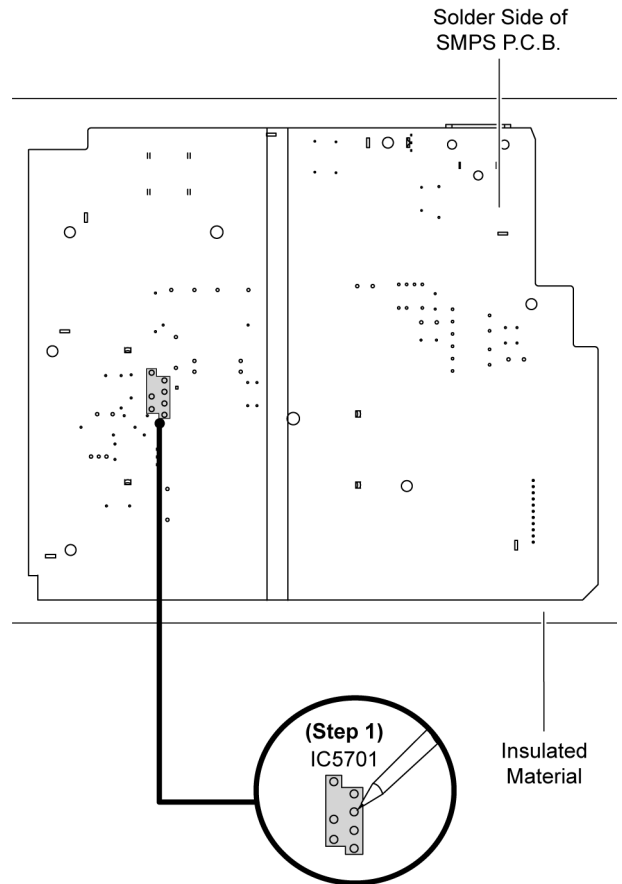


9.17. Replacement of Switching Regulator IC (IC5701)

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

9.17.1. Disassembly of Switching Regulator IC (IC5701)

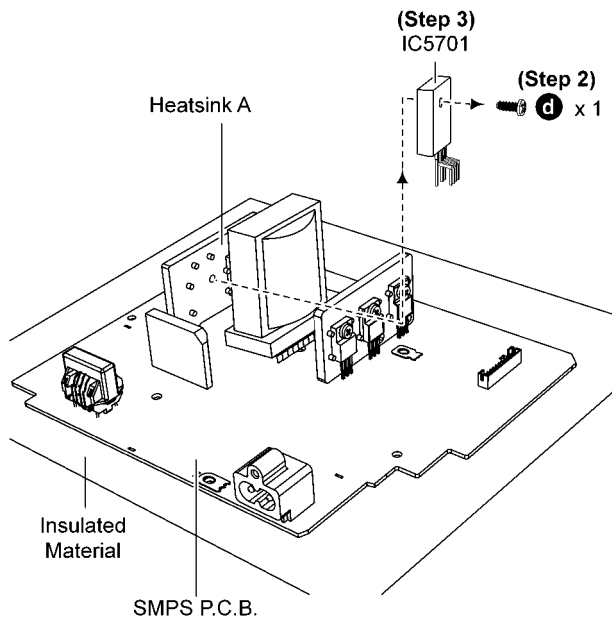
Step 1 Desolder pins of the Switching Regulator IC (IC5701) on the solder side of SMPS P.C.B..



Step 2 Remove 1 screw from the Switching Regulator IC (IC5701).

Step 3 Remove the Switching Regulator IC (IC5701) from the Heatsink A.

Caution: Avoid touching the Heatsink A due to its high temperature after prolonged use. Touching it may lead to injuries.



9.17.2. Assembly of Switching Regulator IC (IC5701)

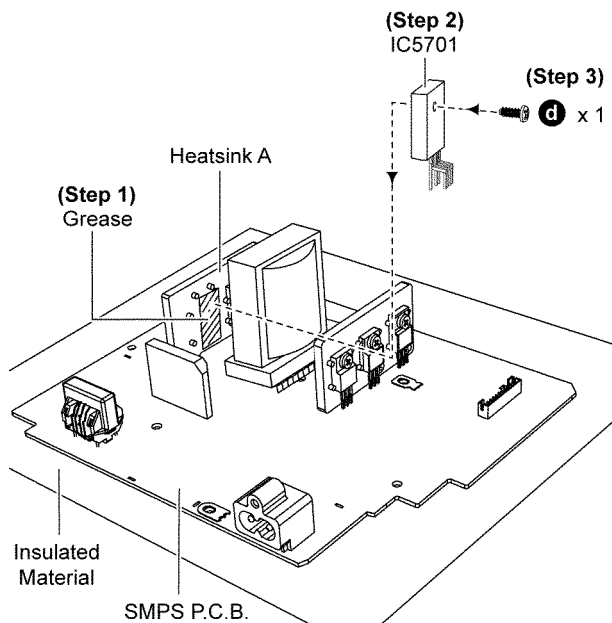
Step 1 Apply grease to the Heatsink A.

Step 2 Install the Switching Regulator IC (IC5701) to the SMPS P.C.B..

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

Step 3 Screw the Switching Regulator IC (IC5701) to the Heatsink A.

Caution: Ensure the Switching Regulator IC (IC5701) is tightly screwed to the Heatsink A.



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



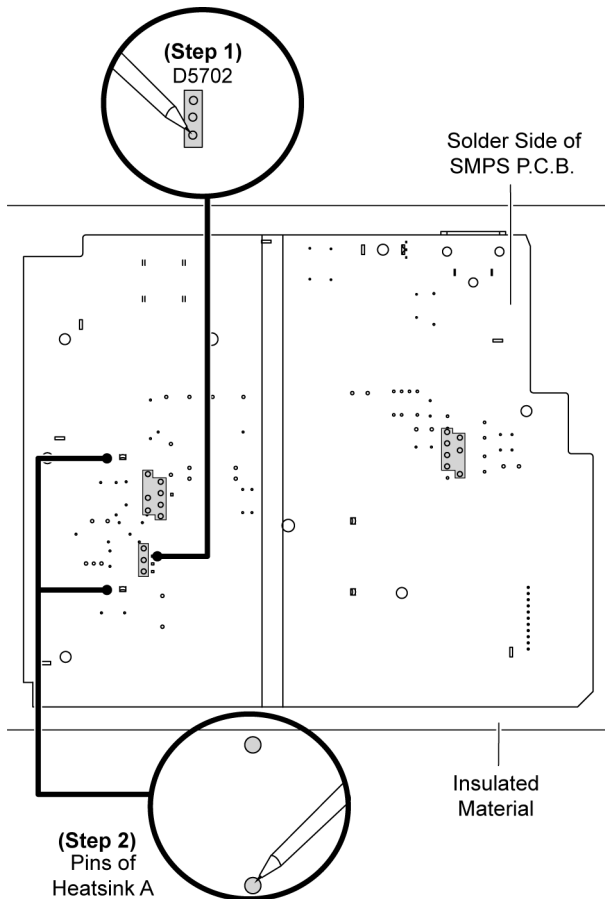
9.18. Replacement of Rectifier Diode (D5702)

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

9.18.1. Disassembly of Rectifier Diode (D5702)

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

Step 2 Desolder pins of the Heatsink A.



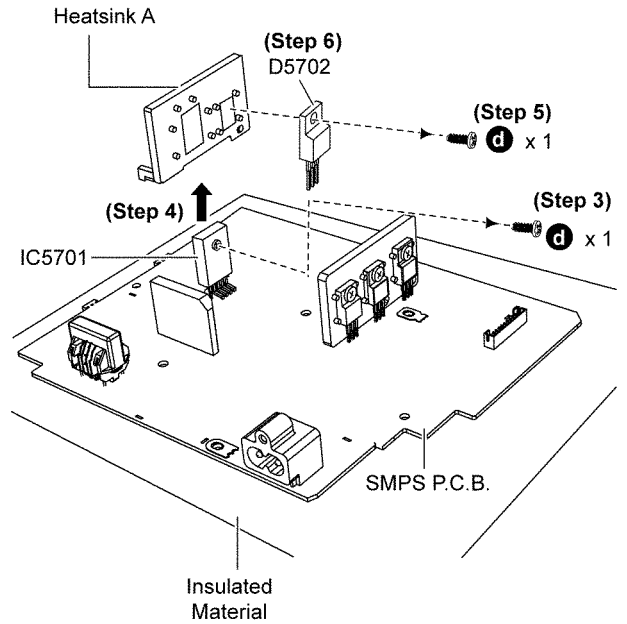
Step 3 Remove 1 screw from the Switching Regulator IC (IC5701).

Step 4 Remove the Heatsink A with Rectifier Diode (D5702).

Step 5 Remove 1 screw from the Rectifier Diode (D5702).

Step 6 Remove the Rectifier Diode (D5702) from the Heatsink A.

Caution: Avoid touching the Heatsink A due to its high temperature after prolonged use. Touching it may lead to injuries.



9.18.2. Assembly of Rectifier Diode (D5702)

Step 1 Apply grease to the Heatsink A.

Step 2 Screw the Rectifier Diode (D5702) to the Heatsink A.

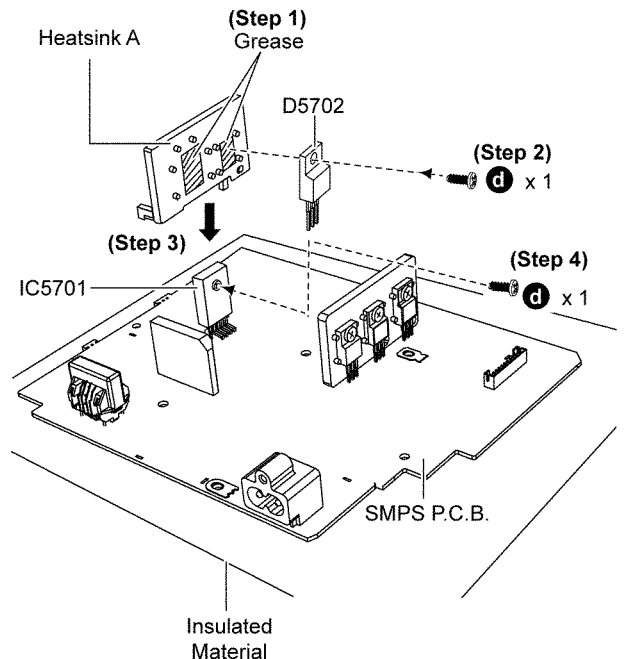
Caution: Ensure the Rectifier Diode (D5702) is tightly screwed to the Heatsink A.

Step 3 Install the Heatsink A with Rectifier Diode (D5702) on SMPS P.C.B. in the direction of arrow.

Caution: Ensure the Heatsink A with Rectifier Diode (D5702) are properly seated on SMPS P.C.B.

Step 4 Screw the Switching Regulator IC (IC5701) to the Heatsink A.

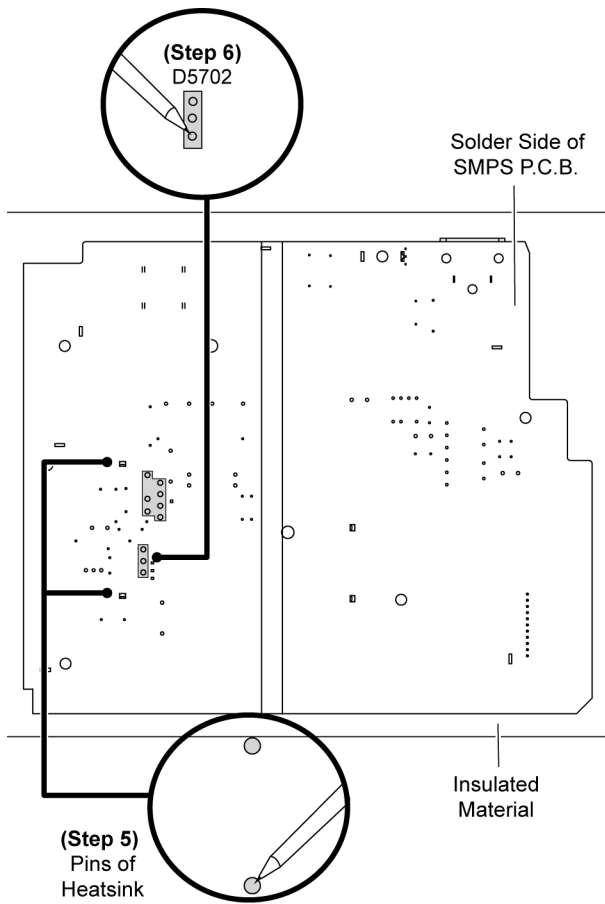
Caution: Ensure that Switching Regulator IC (IC5701) is tightly screwed to the Heatsink A.



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

Step 6 Solder pins of the Heatsink A on the solder side of SMPS P.C.B..

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

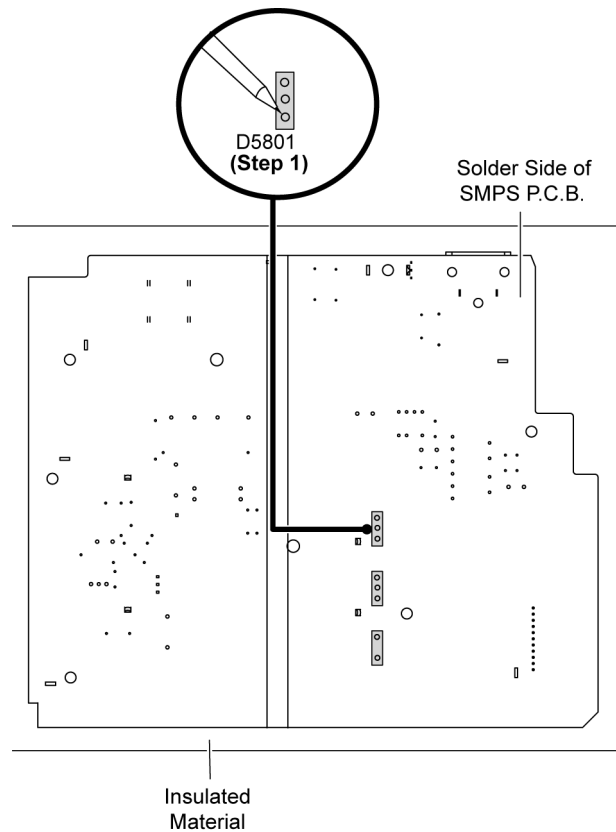


9.19. Replacement of Regulator Diode (D5801)

• Refer to "Disassembly of SMPS P.C.B..".

9.19.1. Disassembly of Regulator Diode (D5801)

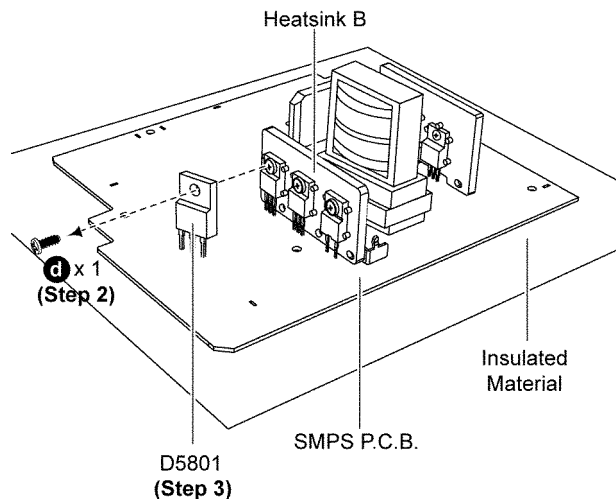
Step 1 Desolder pins of the Regulator Diode (D5801) on the solder side of SMPS P.C.B..



Step 2 Remove 1 screw from the Regulator Diode (D5801).

Step 3 Remove the Regulator Diode (D5801) from the SMPS P.C.B..

Caution: Avoid touching the Heatsink B due to its high temperature after prolonged use. Touching it may lead to injuries.



9.19.2. Assembly of Regulator Diode (D5801)

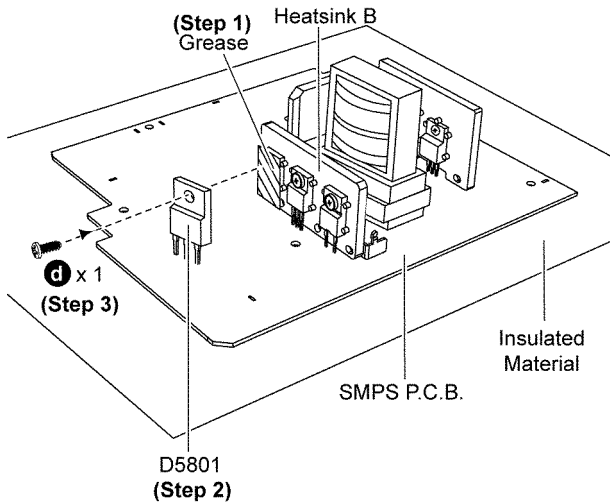
Step 1 Apply grease to the Heatsink B.

Step 2 Install the Regulator Diode (D5801) on SMPS P.C.B.

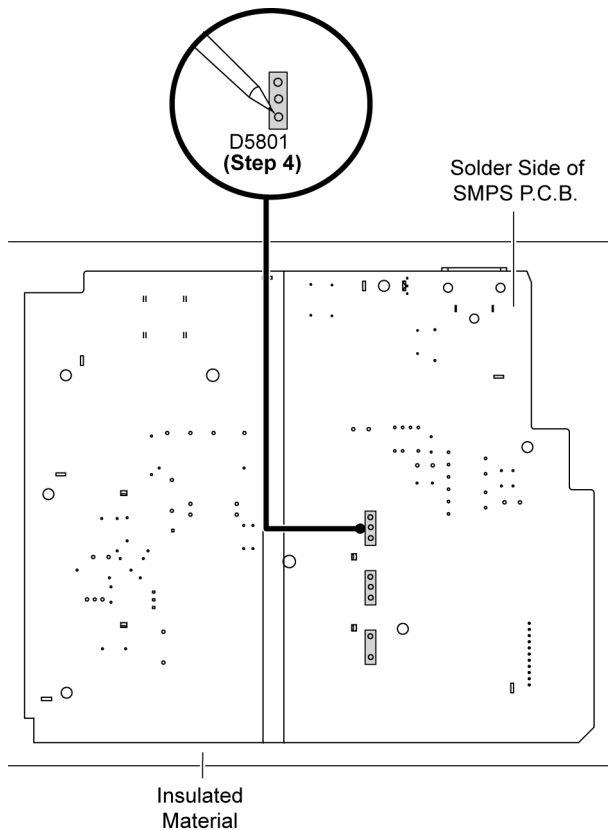
Caution: Ensure pins of the Regulator Diode (D5801) is properly seated on SMPS P.C.B.

Step 3 Screw the Regulator Diode (D5801) to the Heatsink B.

Caution: Ensure the Regulator Diode (D5801) is tightly screwed to the Heatsink B.



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

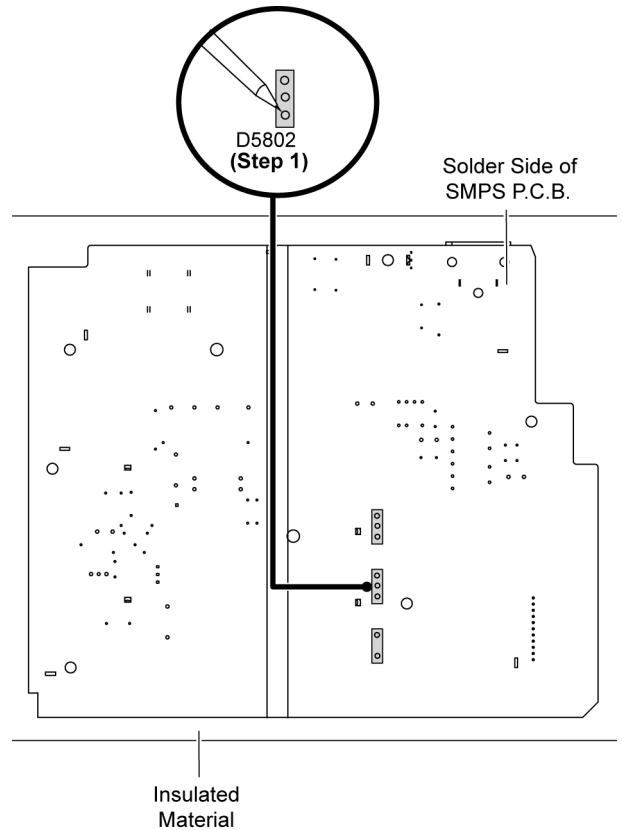


9.20. Replacement of Regulator Diode (D5802)

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

9.20.1. Disassembly of Regulator Diode (D5802)

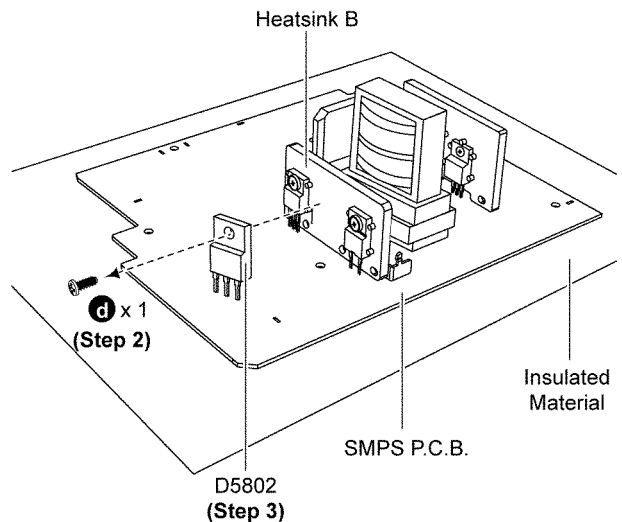
Step 1 Desolder pins of the Regulator Diode (D5802) on the solder side of SMPS P.C.B.



Step 2 Remove 1 screw from the Regulator Diode (D5802).

Step 3 Remove the Regulator Diode (D5802) from SMPS P.C.B..

Caution: Avoid touching the Heatsink B due to its high temperature after prolonged use. Touching it may lead to injuries.



9.20.2. Assembly of Regulator Diode (D5802)

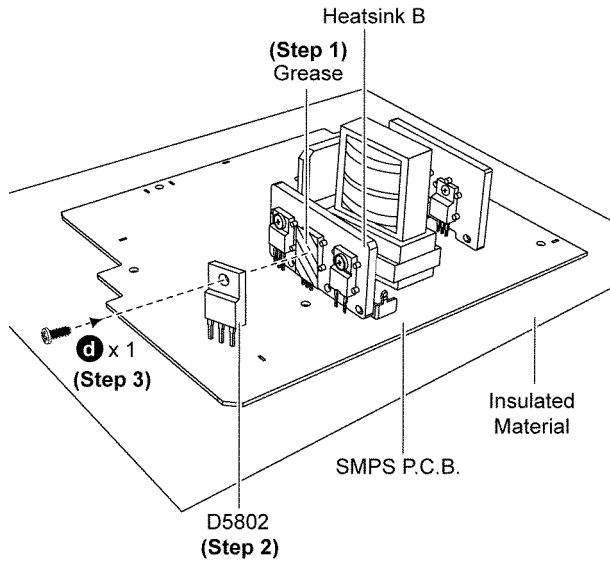
Step 1 Apply grease to the Heatsink B.

Step 2 Install the Regulator Diode (D5802) on SMPS P.C.B..

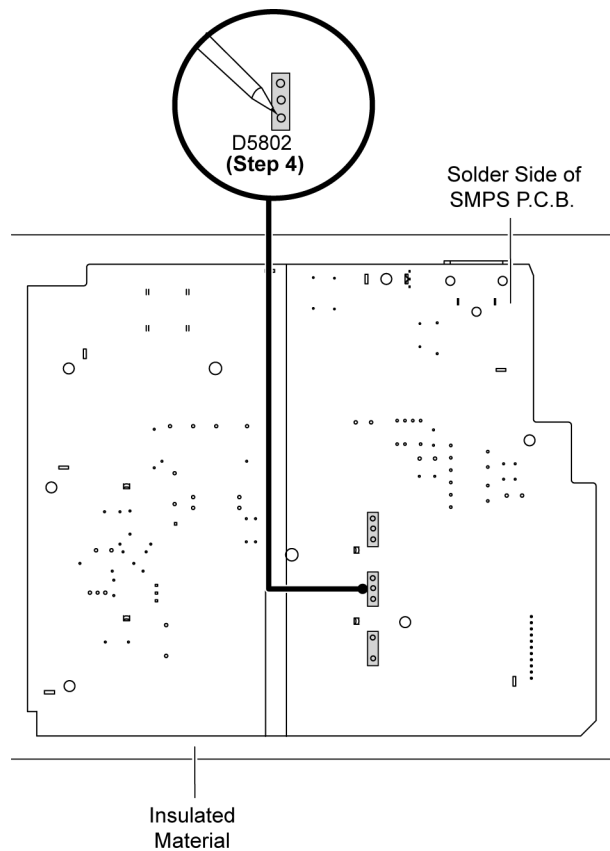
Caution: Ensure pins of the Regulator Diode (D5802) is properly seated on SMPS P.C.B.

Step 3 Screw the Regulator Diode (D5802) to the Heatsink B.

Caution: Ensure the Regulator Diode (D5802) is tightly screwed to the Heatsink B.



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

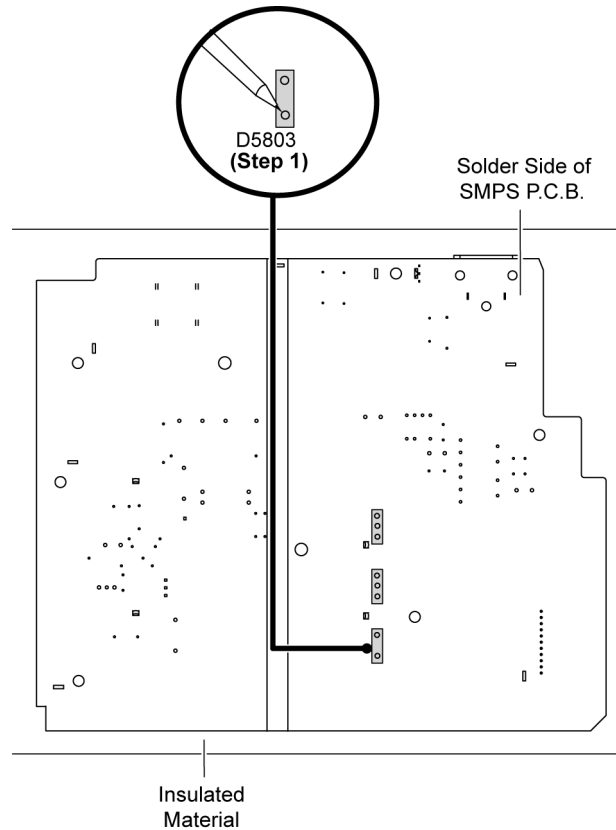


9.21. Replacement of Regulator Diode (D5803)

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

9.21.1. Disassembly of Regulator Diode (D5803)

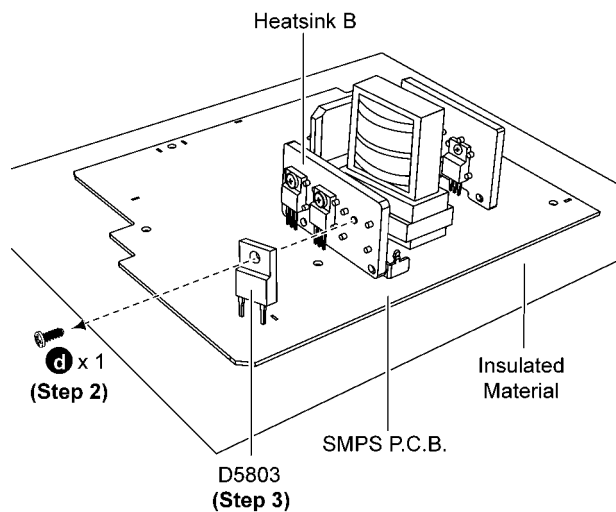
Step 1 Desolder pins of the Regulator Diode (D5803) on the solder side of SMPS P.C.B.



Step 2 Remove 1 screw from the Regulator Diode (D5803).

Step 3 Remove the Regulator Diode (D5803) from the SMPS P.C.B..

Caution: Avoid touching the Heatsink B due to its high temperature after prolonged use. Touching it may lead to injuries.



9.21.2. Assembly of Regulator Diode (D5803)

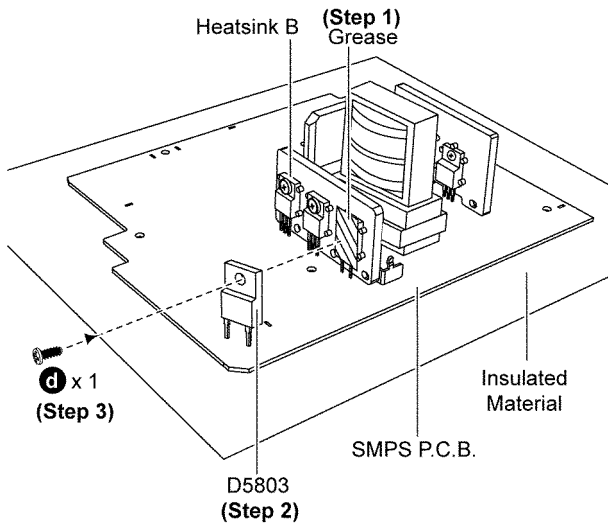
Step 1 Apply grease to the Heatsink B.

Step 2 Install Regulator Diode (D5803) on SMPS P.C.B.

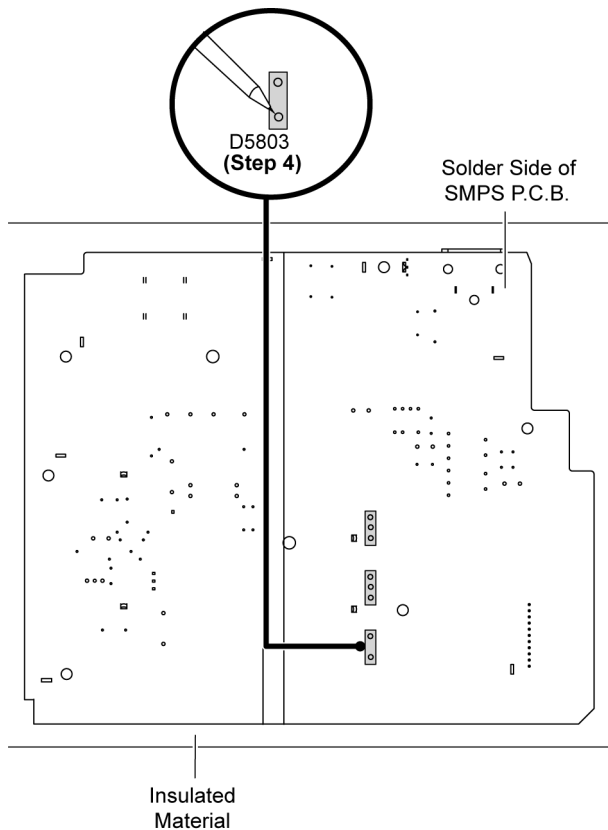
Caution: Ensure pins of the Regulator Diode (D5803) are properly seated on SMPS P.C.B.

Step 3 Screw the regulator diode (D5803) to the Heatsink B.

Caution: Ensure the Regulator Diode (D5803) is tightly screwed to the Heatsink B.



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



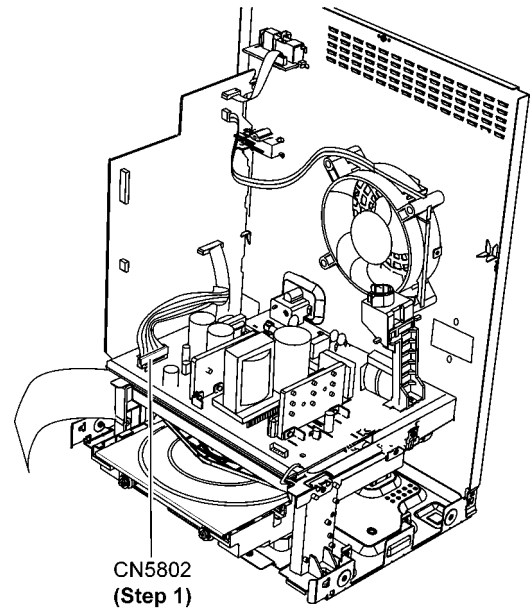
9.22. Disassembly of CD Mechanism Unit (DLS6C)

• Refer to "Disassembly of Top Cabinet".

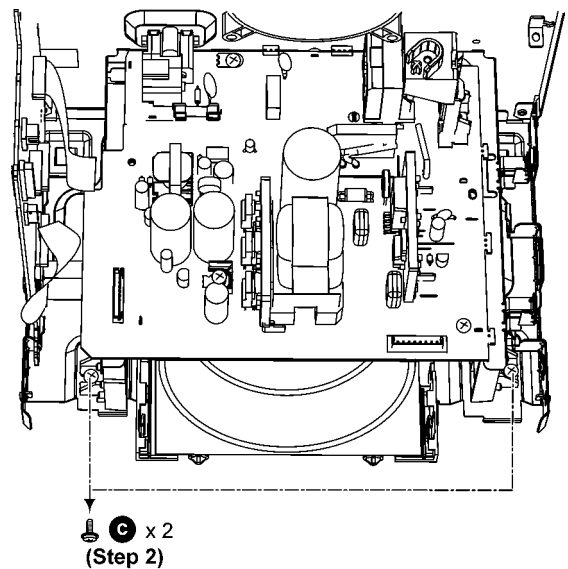
• Refer to "Disassembly of Front Panel Assembly".

• Refer to "Disassembly of D-Amp P.C.B.".

Step 1 Detach 11P Wire at the connector (CN5802) on SMPS P.C.B..



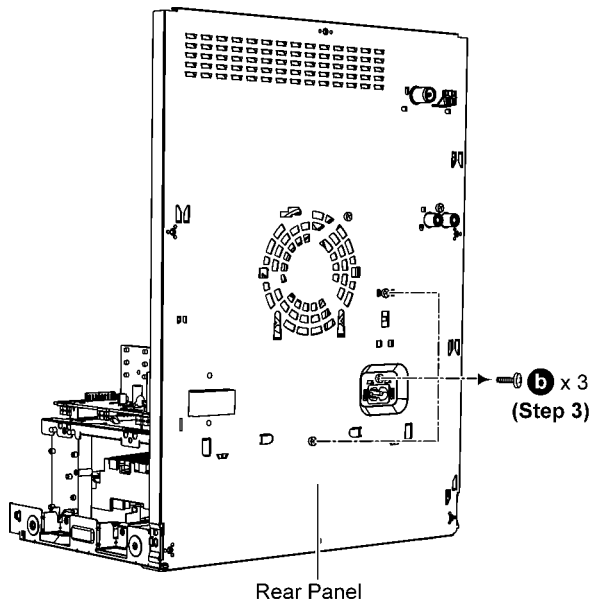
Step 2 Remove 2 screws.



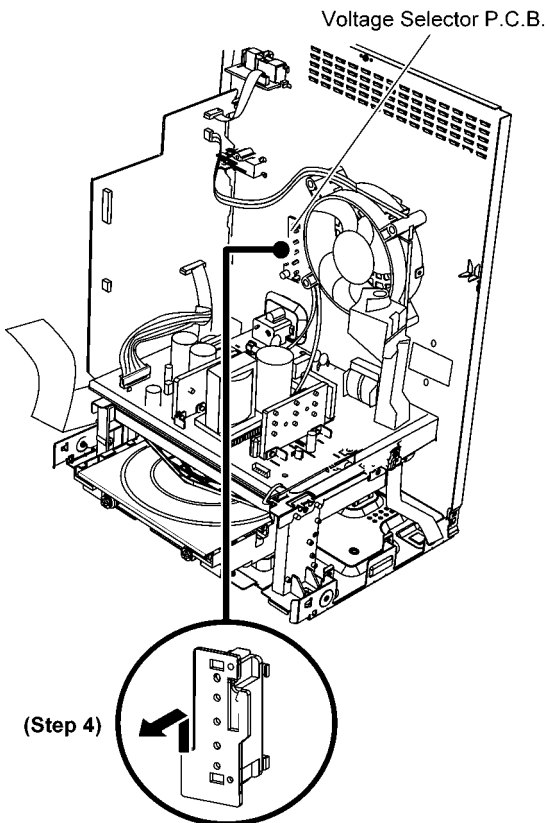
Step 3 Remove 3 screws (For PH only).

Step 3 Remove 2 screws (For PN only).

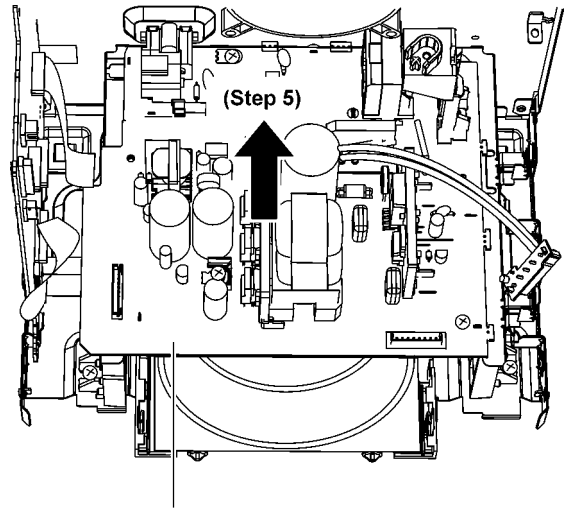
(PH)



Step 4 Detach Voltage Selector P.C.B. from Rear Panel as arrow shown (For PH only).

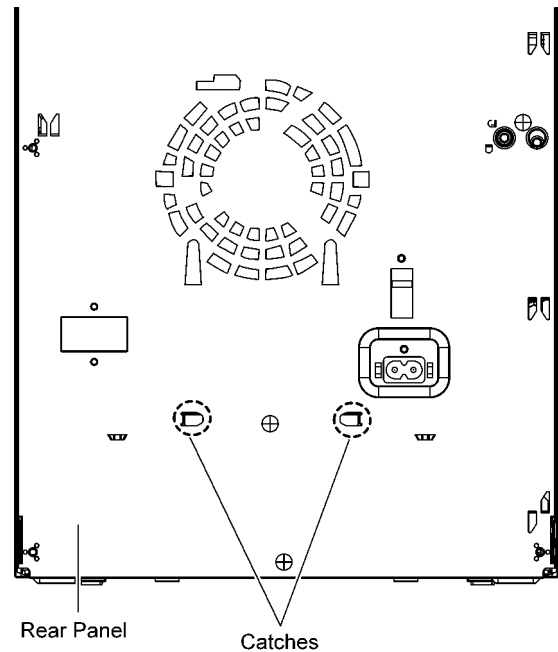


Step 5 Lift up SMPS Inner Chassis Unit.



SMPS Inner Chassis Unit

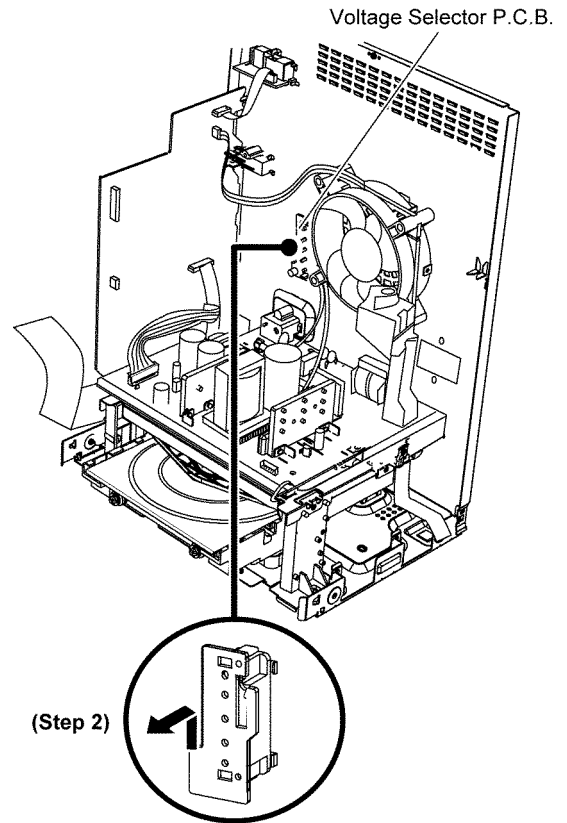
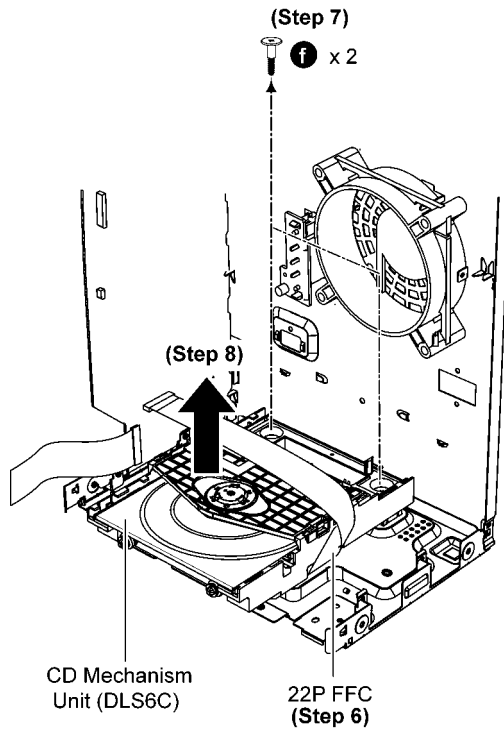
Caution: During assembling, ensure that SMPS Inner Chassis is caught onto Rear Panel properly.



Step 6 Detach 22P FFC from CD Mechanism Unit (DLS6C).

Step 7 Remove 2 screws.

Step 8 Remove CD Mechanism Unit (DLS6C).



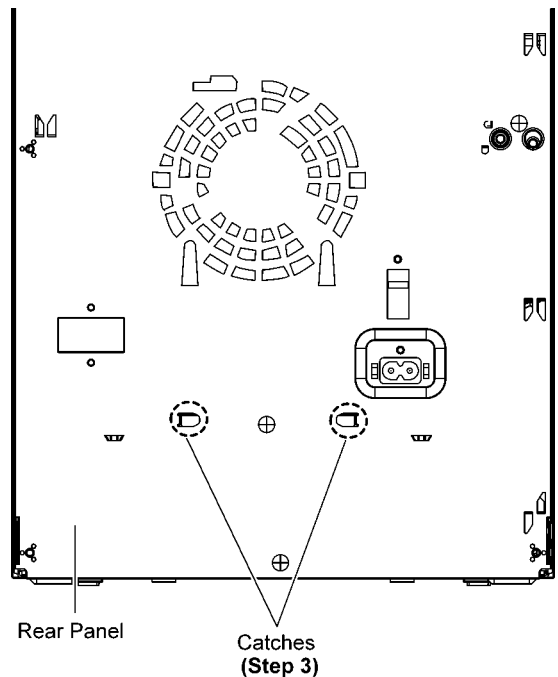
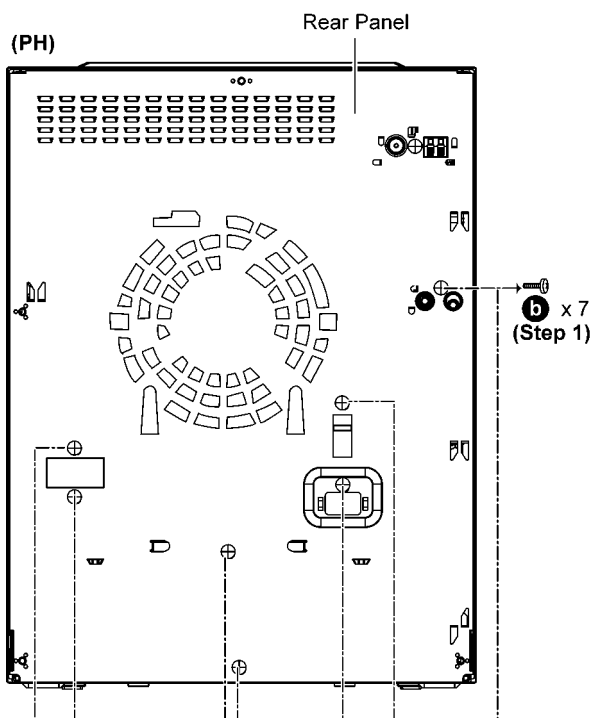
9.23. Disassembly of Rear Panel

- Refer to "Disassembly of Top Cabinet".
- Refer to "Disassembly of Tuner P.C.B.".

Step 1 Remove 7 screws (For PH only).

Step 1 Remove 6 screws (For PN only).

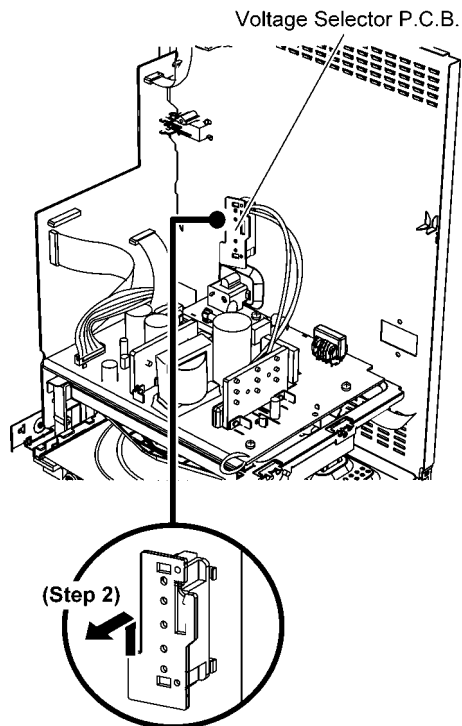
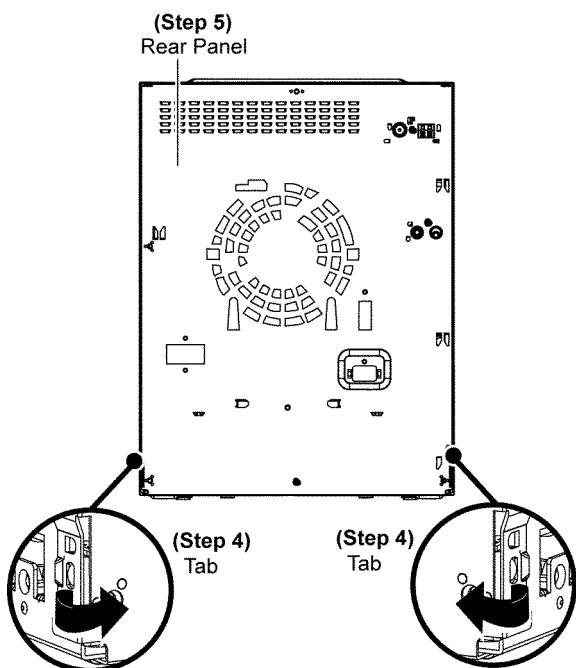
Step 3 Lift up SMPS Inner Chassis Unit to release the catch between the SMPS Inner Chassis Unit & the Rear Panel.



Step 2 Detach Voltage Selector P.C.B. from Rear Panel as arrow shown (For PH only).

Step 4 Release 2 tabs.

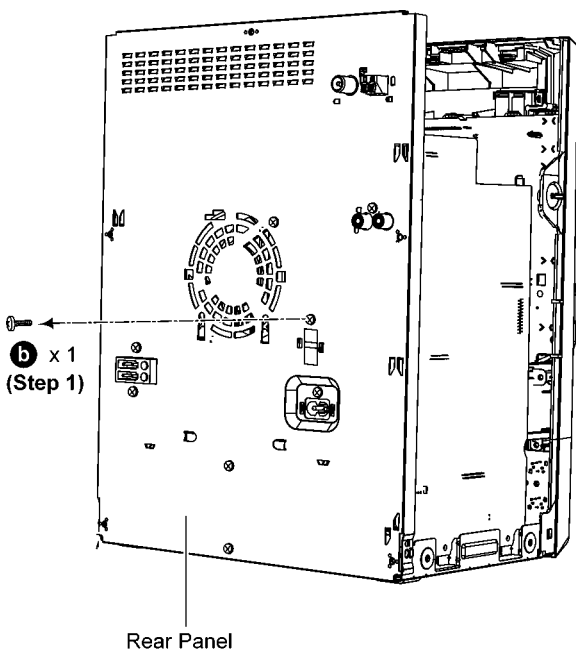
Step 5 Remove Rear Panel.



9.24. Disassembly of Voltage Selector P.C.B. (For PH only)

• Refer to “Disassembly of Top Cabinet”.

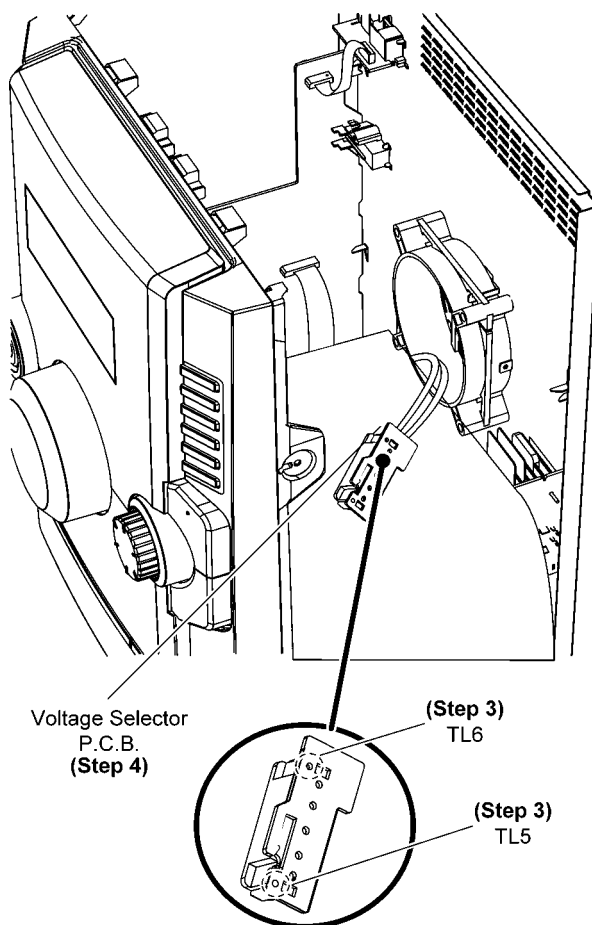
Step 1 Remove 1 screws.



Step 2 Detach Voltage Selector P.C.B. from Rear Panel.

Step 3 Desolder 2 Wire pins, TL5 (Black), TL6 (Red) on the Voltage Selector P.C.B..

Step 4 Remove Voltage Selector P.C.B..

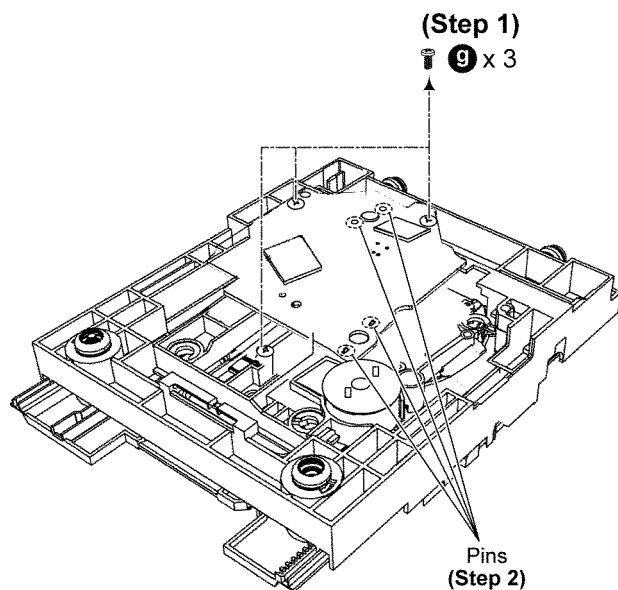


9.25. Disassembly of CD Servo P.C.B.

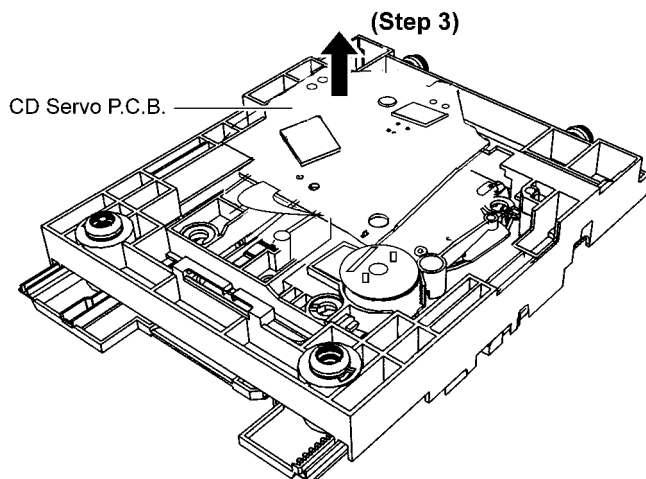
• Refer to “Disassembly of CD Mechanism Unit (DLS6C)”.

Step 1 Remove 3 screws.

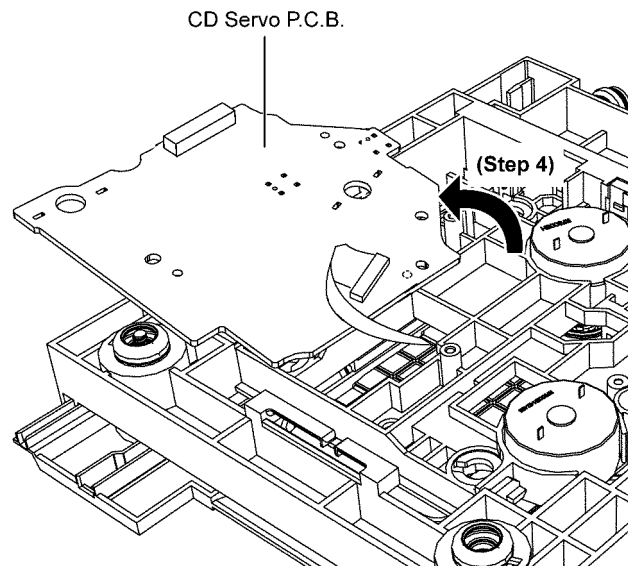
Step 2 Desolder 4 pins.



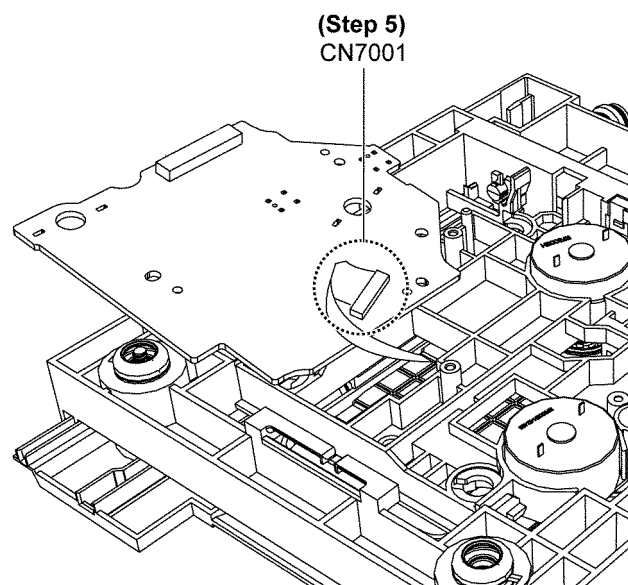
Step 3 Slightly lift up the CD Servo P.C.B.



Step 4 Flip the CD Servo P.C.B.



Step 5 Detach 16P FPC at the connector (CN7001) on CD Servo P.C.B.

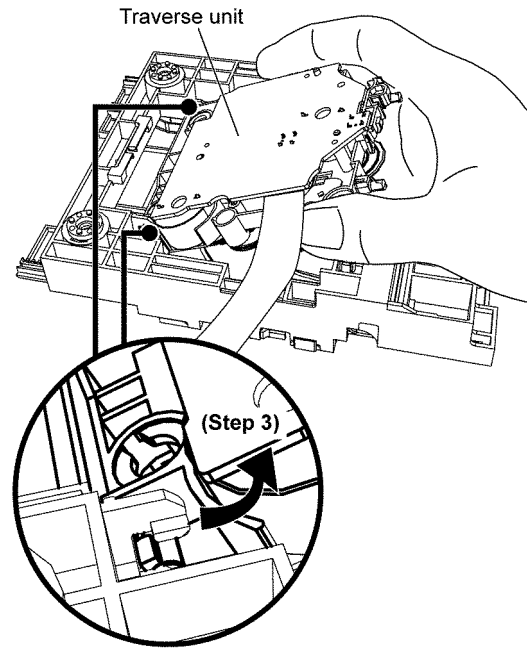
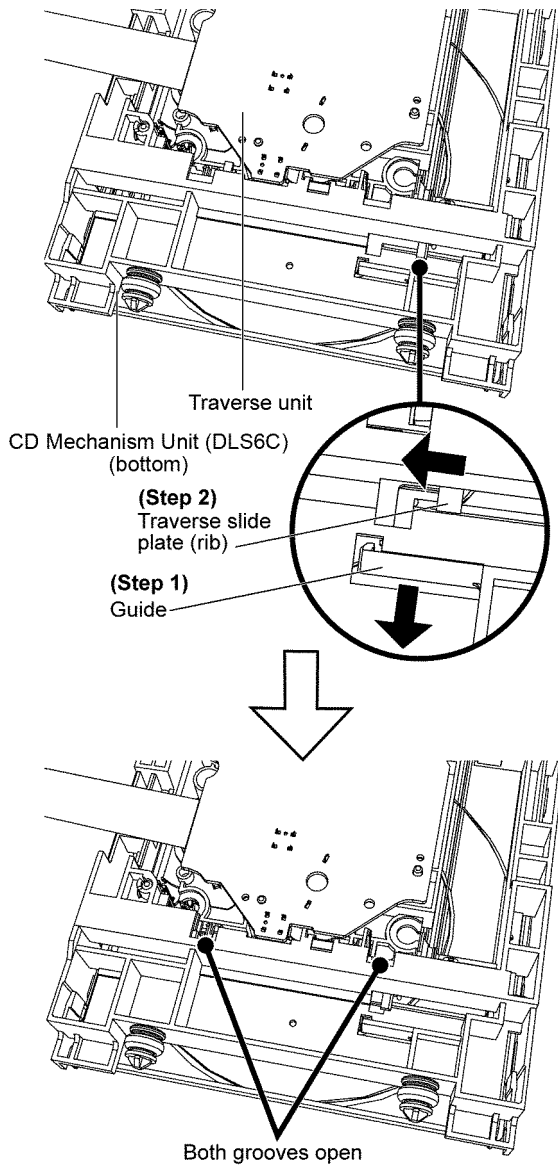


10 Replacement of Traverse Unit

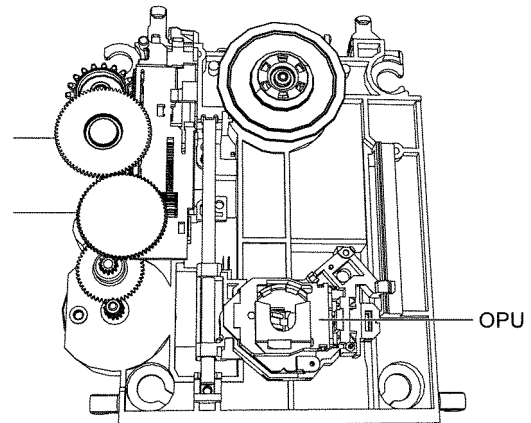
10.1. Disassembling Procedures

Step 1 Release the guide.

Step 2 Push the Traverse Slide Plate (rib), ensure both grooves are opened.



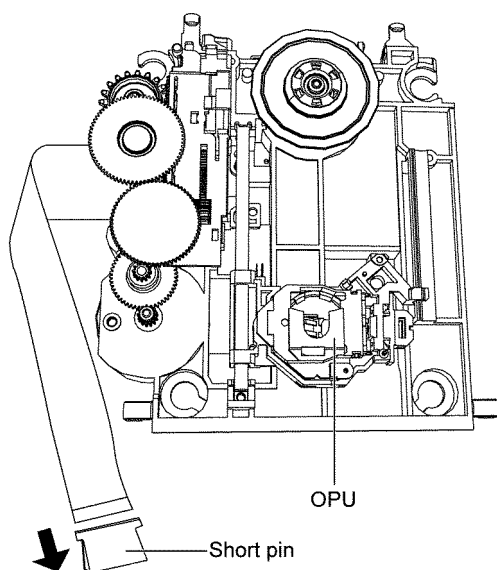
Caution: Ensure the OPU is face upwards, avoid touching the surface of the traverse unit.



Step 3 Slide out the Traverse Unit as arrow shown.

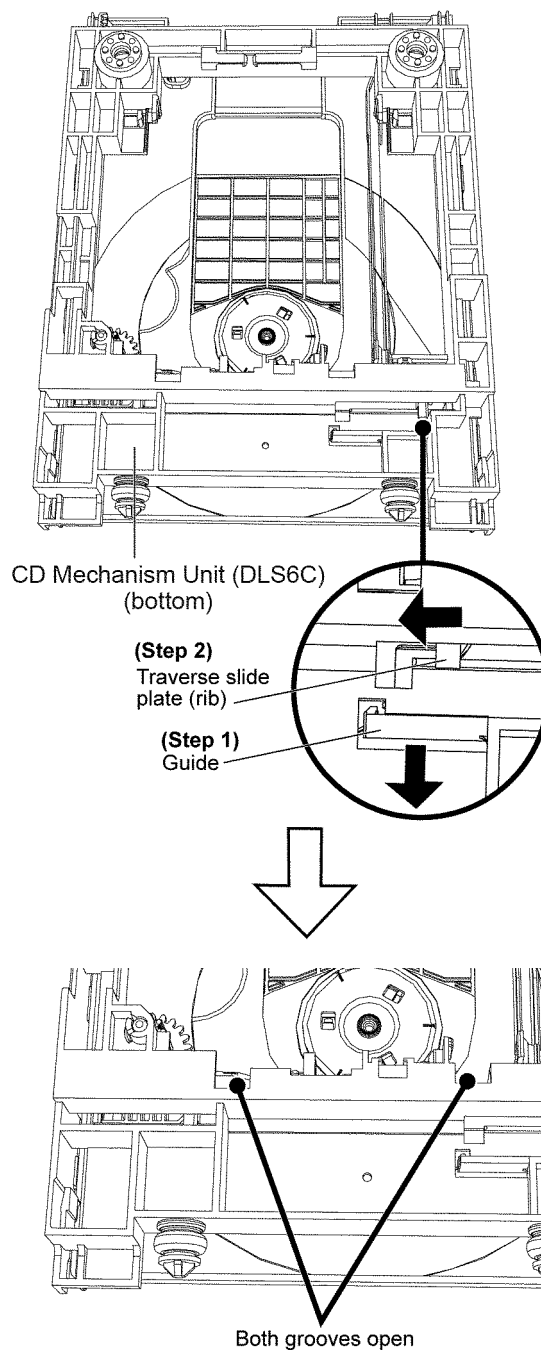
10.2. Assembling Procedure

Caution: Removal of the short pin is necessary for replacement of new traverse unit.



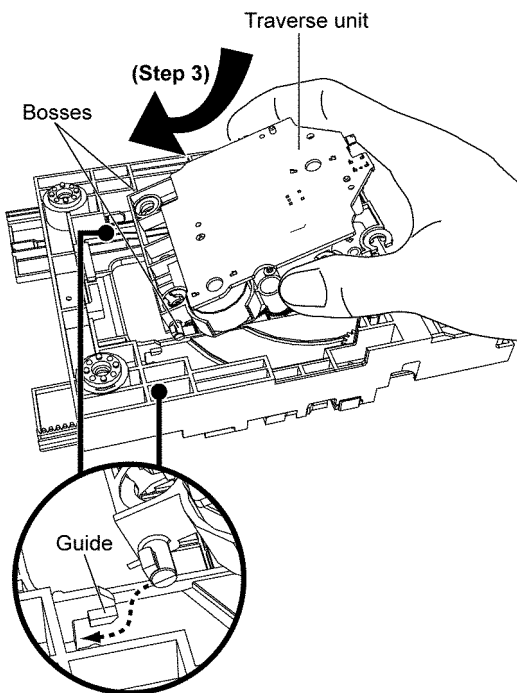
Step 1 Release the guide.

Step 2 Push the Traverse Slide Plate (rib), ensure both grooves are opened.



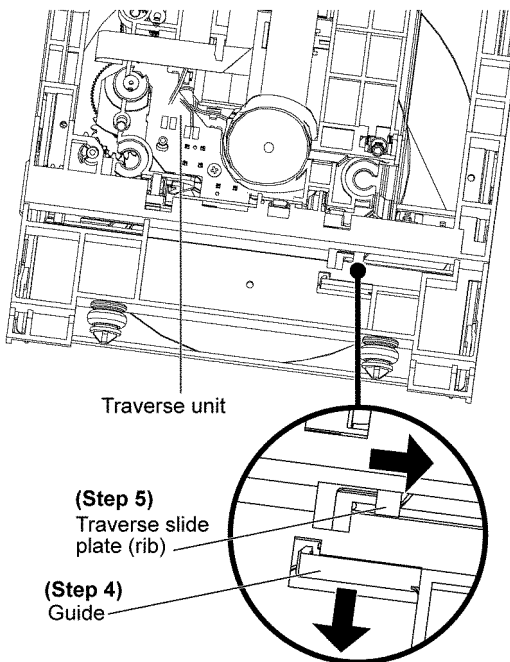
Step 3 Slot the Traverse Unit at approximately 45° into the mecha chassis as arrow shown.

Caution: Ensure the bosses fix exactly onto the guides.



Step 4 Release the guide.

Step 5 Push the Traverse Slide Plate (rib) to lock the Traverse Unit in.



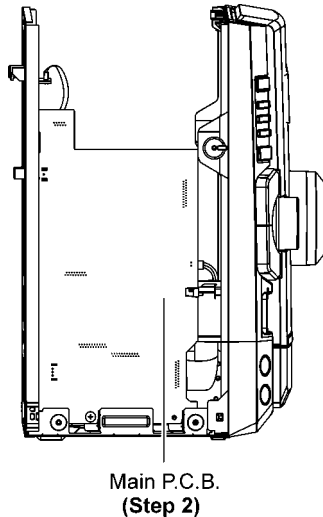
11 Service Position

Note: For description of the disassembly procedures, see the Section 9.

11.1. Checking and Repairing of Main P.C.B.

Step 1 Remove Top Cabinet.

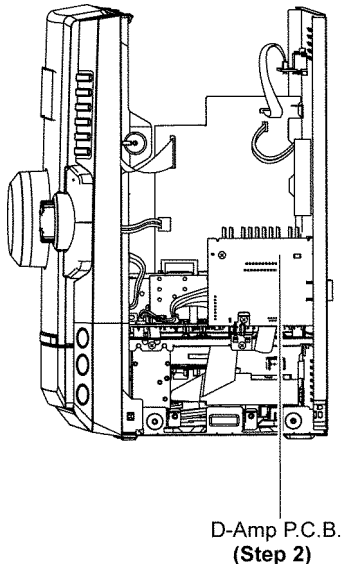
Step 2 Main P.C.B. can be checked & repaired at its original position.



11.2. Checking and Repairing of D-Amp P.C.B.

Step 1 Remove Top Cabinet.

Step 2 D-Amp P.C.B. can be checked & repaired at its original position.



11.3. Checking and Repairing of Panel P.C.B.

Step 1 Remove Top Cabinet.

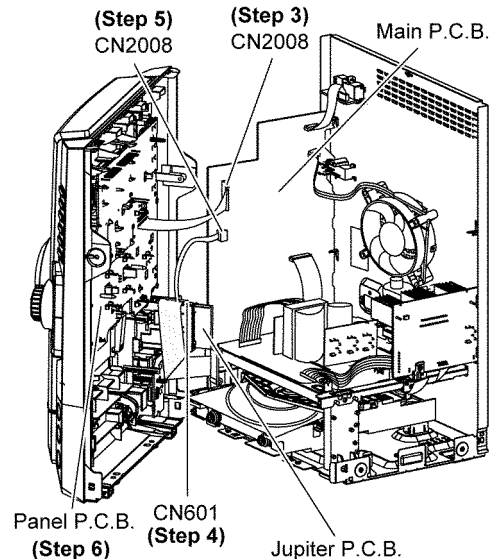
Step 2 Remove Front Panel Assembly.

Step 3 Attach 32P FFC to the connector (CN2008) on Main P.C.B..

Step 4 Attach 30P FFC to the connector (CN601) on Jupiter P.C.B..

Step 5 Attach 2P Cable Wire at the connector (CN2013) on Main P.C.B..

Step 6 Panel P.C.B. can be checked and repaired as diagram shown.



11.4. Checking and Repairing of Jupiter P.C.B.

Step 1 Remove Top Cabinet.

Step 2 Remove Front Panel Assembly.

Step 3 Remove Jupiter P.C.B..

Step 4 Position Front Panel Assembly as diagram shown.

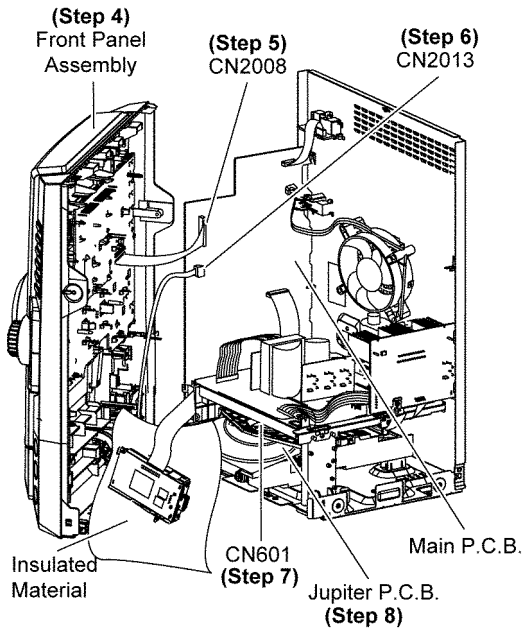
Step 5 Attach 32P FFC to the connector (CN2008) on Main P.C.B..

Step 6 Attach 2P Cable Wire to the connector (CN2013) on Main P.C.B..

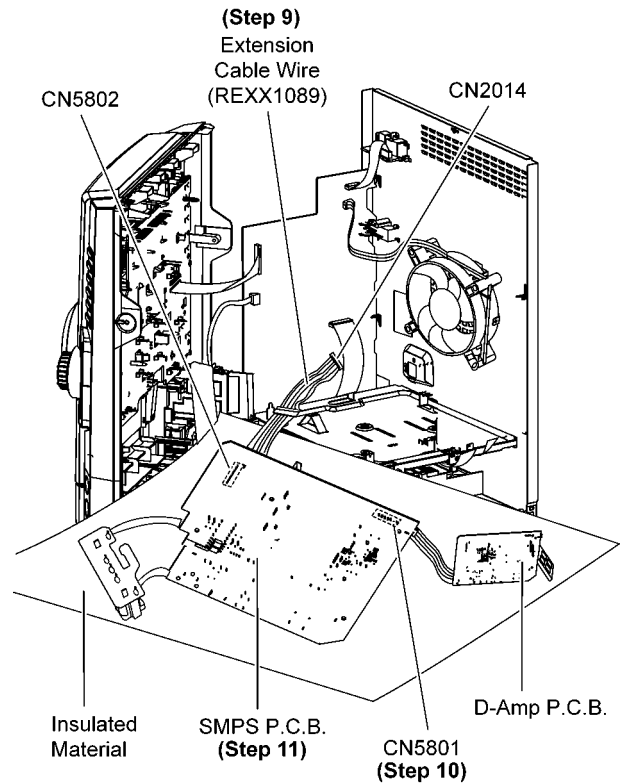
Step 7 Attach 30P FFC to the connector (CN601) on Jupiter P.C.B..

Caution: Insulated Material is required to insulate Jupiter P.C.B. from other parts.

Step 8 Jupiter P.C.B. can be checked and repaired as diagram shown.

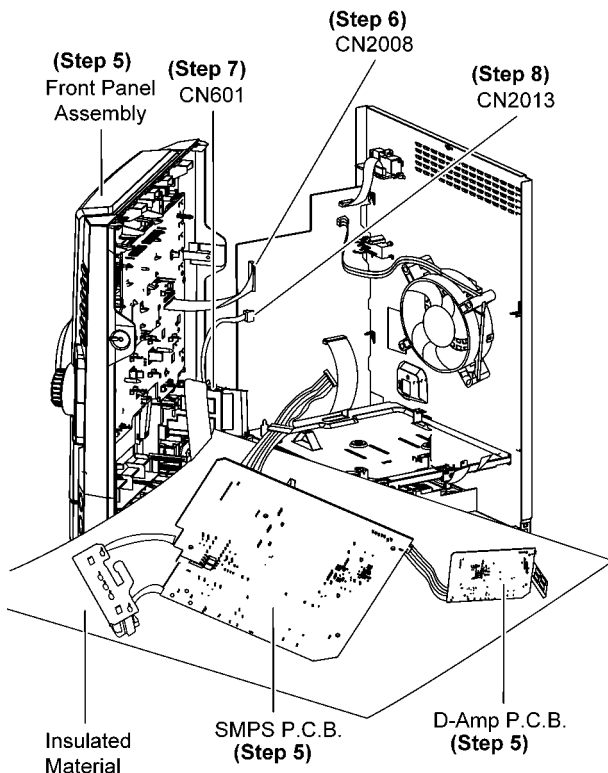


Step 9 Extend the Cable Wire with extension Cable Wire (REXX1089) (11P Cable Wire from CN2014 to CN5802).
Step 10 Connect 6P Cable Wire to the connector (CN5801) on SMPS P.C.B..
Step 11 SMPS P.C.B. can be checked & repaired as diagram shown.



11.5. Checking and Repairing of SMPS P.C.B.

- Step 1** Remove Top Cabinet.
Step 2 Remove Front Panel Assembly.
Step 3 Remove D-Amp P.C.B..
Step 4 Remove SMPS P.C.B..
Step 5 Position Front Panel Assembly, SMPS P.C.B. & D-Amp P.C.B. as diagram shown.
Caution: Insulated Material is required to insulate SMPS P.C.B. from other parts.
Step 6 Attach 32P FFC to the connector (CN2008) on Main P.C.B..
Step 7 Attach 30P FFC to the connector (CN601) on Jupiter P.C.B..
Step 8 Attach 2P Cable Wire to the connector (CN2013) on Main P.C.B..



12 Voltage & Waveform Chart

Note:

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

12.1. CD SERVO P.C.B.

REF NO.	IC7001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	0	0	0	0	0	0	3.5	1.5	0	0	0	1.7	1.7	1.4	1.7	1.8	1.7	1.7	1.7
STANDBY	0	0	0	0	0	0	0	3.5	1.5	0	0	0	1.7	1.7	1.4	1.7	1.8	1.7	1.7	1.7
REF NO.	IC7001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	2.0	2.0	1.8	1.8	1.8	1.8	0.2	2.6	3.4	2.0	1.7	1.3	1.8	1.2	1.3	1.3	1.7	0	0
STANDBY	0	2.0	2.0	1.8	1.8	1.8	1.8	0.2	2.6	3.4	2.0	1.7	1.3	1.8	1.2	1.3	1.3	1.7	0	0
REF NO.	IC7001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0	1.7	0.9	1.4	1.4	0.7	2.0	3.5	1.6	0	1.3	1.6	3.1	0.9	1.5	1.5	1.7	1.7	1.7	0
STANDBY	0	1.7	0.9	1.4	1.4	0.7	2.0	3.5	1.6	0	1.3	1.6	3.1	0.9	1.5	1.5	1.7	1.7	1.7	0
REF NO.	IC7001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	0	1.5	3.5	0	0	0	3.4	3.4	3.4	0.1	0.1	0	0	1.7	3.5	3.4	0	0	0	0
STANDBY	0	1.5	3.5	0	0	0	3.4	3.4	3.4	0.1	0.1	0	0	1.7	3.5	3.4	0	0	0	0
REF NO.	IC7002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.6	0	1.6	0	0	0	0	0	0	7.7	4.4	3.5	3.6	3.6	3.5	3.8	3.7	3.6	7.7	0
STANDBY	1.7	0	1.7	3.3	0	0	0	0	0	7.7	4.0	4.0	3.6	3.6	3.6	3.6	3.6	3.6	7.7	0
REF NO.	IC7002																			
MODE	21	22	23	24	25	26	27	28	29	30										
CD PLAY	7.7	0	0	0	7.7	1.6	1.6	1.6	0	0										
STANDBY	7.7	0	0	0	7.7	1.7	1.7	1.7	0	0										
REF NO.	Q7601																			
MODE	E	C	B																	
CD PLAY	3.1	2.0	2.4																	
STANDBY	3.4	0	3.4																	

SA-AKX30PH/PN CD SERVO P.C.B.

12.2. Main P.C.B. (1/2)

REF NO.	IC2001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	4.2	4.4	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.6	4.6	4.6	4.6	0	3.2	3.3
STANDBY	0	4.4	4.5	4.4	4.5	4.5	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	0	3.2	3.3
REF NO.	IC2001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	9.0	4.6	4.5	4.6	0.8	4.6	4.6	4.6	4.6	4.6	4.5	4.5	4.5	4.5	4.5	4.4	4.4	4.5	0	4.3
STANDBY	9.1	4.6	4.6	4.6	0.7	4.5	4.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	0	4.6
REF NO.	IC2001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52								
CD PLAY	0	4.4	0	4.5	4.4	4.5	4.4	0	0	4.4	0	4.5								
STANDBY	0	4.6	0	4.6	4.6	4.6	4.6	0	0	4.6	0	4.6								
REF NO.	IC2003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	3.2	3.2	0.1	3.2	0	0	0	3.2	3.2	0	1.5	1.5	0	1.0	1.6	3.3	1.7	3.2	3.2
STANDBY	0	3.2	3.2	0.1	3.3	0	0	0	3.3	3.3	0	1.5	1.5	0	1.1	1.7	3.3	1.8	3.3	3.3
REF NO.	IC2003																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	3.2	3.2	3.3	0	3.2	0	1.8	3.3	0	3.3	0	0	0	0	0	0	1.8	0	0	0
STANDBY	3.3	3.2	3.2	0	3.2	0	1.8	3.3	0	3.3	0	0	0	0	0	0	1.8	0	0	0
REF NO.	IC2003																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0	0	0	0	0	0	0	0	0.7	0	0.3	3.2	3.2	0	0	0	0	0	0	0
STANDBY	0	0	0	0	0	0	0	3.3	1.4	0	0.2	3.0	3.0	0	0	0	0	0	0	0
REF NO.	IC2003																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	0	0	0	0	0	0	0	0	3.3	0	3.3	0	0	0	3.3	3.3	3.4	3.3	0	0
STANDBY	0	0	0	0	0	0	0	0	3.3	0	3.2	0	0	0	3.2	3.2	3.3	3.2	0	3.2
REF NO.	IC2003																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0	0	3.3	0	0	3.3	0	0	3.3	0	0	0	0	0.7	3.1	2.1	0.8	3.1	3.1	3.1
STANDBY	2.5	0	3.2	0	3.2	3.2	0	0	3.2	0	0	0	0	0.8	3.2	2.2	0.8	3.2	3.2	3.2
REF NO.	IC2005																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	6.0	6.0	6.0	0	5.8	5.8	5.8	11.7												
STANDBY	5.7	5.9	5.9	0	5.9	5.9	5.9	11.9												
REF NO.	IC2007																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	0	0	0.9	0	3.3												
STANDBY	0	0	0	0	0	2.1	0	3.3												

SA-AKX30PH/PN MAIN P.C.B.

12.3. Main P.C.B. (2/2)

REF NO.	IC2010																		
MODE	1	2	3																
CD PLAY	16.3	0	12.1																
STANDBY	16.3	0	12.1																
REF NO.	IC2011																		
MODE	1	2	3	4	5														
CD PLAY	16.3	5.2	0	1.0	2.7														
STANDBY	16.4	5.2	0	1.0	2.7														
REF NO.	Q2001			Q2002			Q2003			Q2011									
MODE	E	C	B		E	C	B		E	C	B		E	C	B				
CD PLAY	0	0	0		0	0	0		0	0	0		0	3.2	0				
STANDBY	0	0	0		0	0	0		0	0	0		0	3.2	0				
REF NO.	Q2012						Q2013			Q2014			Q2017						
MODE	1	2	3	4	5	6	E	C	B		E	C	B		E	C	B		
CD PLAY	0	-1.1	0	0	-0.9	0	0	0.1	3.3		2.6	3.3	3.3		0.3	3.2	0		
STANDBY	0	0.7	0	0	0.7	0	0	0.1	3.3		2.6	3.3	3.3		0.4	3.3	0		
REF NO.	Q2018			Q2022			Q2021			Q2025			Q2027						
MODE	E	C	B		E	C	B		E	C	B		E	C	B				
CD PLAY	4.3	5.2	5.0		3.5	5.2	4.1		0	16.3	0		16.3	0	16.2		12.1	8.6	12.0
STANDBY	4.3	5.1	5.0		3.5	5.2	4.2		0	16.3	0		16.5	0	16.5		11.9	8.6	12.0
REF NO.	Q2029			Q2033			Q2034			Q2035									
MODE	E	C	B		E	C	B		E	C	B		E	C	B				
CD PLAY	0	11.7	0.5		0	3.0	0		0	0	0.6		0.2	6.9	-0.1				
STANDBY	0	12.0	0.5		0	3.1	0		0	0	0.6		0.2	7.1	-0.1				
REF NO.	Q2036						QR2002			QR2003			QR2004						
MODE	1	2	3	4	5	6	E	C	B		E	C	B		E	C	B		
CD PLAY	0	-1.2	0	0	-1.6	0	0	-1.9	0		0	3.3	0.4		0	5.1	0		
STANDBY	0	0.7	0	0	0.7	0	1.5	1.4	0		0	3.2	0.3		0	5.0	0		
REF NO.	QR2005																		
MODE	E	C	B																
CD PLAY	0	3.2	0																
STANDBY	0	3.1	0																

SA-AKX30PH/PN MAIN P.C.B.

12.4. Jupiter P.C.B. (1/3)

REF NO.	IC503																			
MODE	1	2	3	4	5															
CD PLAY	5.2	0	0	0	0															
STANDBY	5.2	0	0	0	0															
REF NO.	IC551																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
CD PLAY	2.6	2.6	0	2.6	0	5.2	3.4	0	1.3	1.7	1.7	1.7	3.3	3.4	0	0				
STANDBY	2.6	2.6	0	2.6	0	5.2	3.4	0	1.3	1.7	1.7	1.7	3.3	3.4	0	0				
REF NO.	IC552																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
CD PLAY	1.7	1.7	0.9	1.7	3.3	0	0	5.2	5.2	2.6	2.6	2.6	0	5.2	0	0				
STANDBY	1.7	1.7	0.9	1.7	3.3	0	0	5.2	5.2	2.6	2.6	2.6	0	5.2	0	0				
REF NO.	IC701																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	0	0	0	0	0	0	0	0	0	3.4	3.4	0	3.4	0.8	0	0	0	0	0
STANDBY	0	0	0	0	0	0	0	0	0	0	3.4	3.4	0	3.4	0.7	0	0	0	0	0
REF NO.	IC701																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	0	0	0	0	3.4	0	3.4	3.4	0.7	3.4	0.7	3.4	0.7	3.4	0.7	3.4	3.4	0.7	3.4
STANDBY	0	0	0	0	0	3.4	0	3.4	3.4	0.5	3.4	0.7	3.4	0.7	3.4	0.7	3.4	3.4	0.7	3.4
REF NO.	IC701																			
MODE	41	42	43	44	45	46	47	48												
CD PLAY	0.8	3.4	0.8	3.4	0	0	0	0												
STANDBY	0.7	3.4	0.7	3.4	0	0	0	0												
REF NO.	IC751																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.4	1.5	3.4	1.5	1.5	0	1.5	1.6	3.4	1.4	1.7	0	1.4	3.4	3.3	3.4	3.4	3.4	3.4	0.1
STANDBY	3.4	1.5	3.4	1.5	1.5	0	1.5	1.6	3.4	1.4	1.7	0	1.4	3.4	3.3	3.4	3.4	3.4	3.4	0.1
REF NO.	IC751																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0.4	0	0	0	0	0	3.4	0	0	0	0	0	0	0	0	0	3.4	1.6	3.3	0
STANDBY	0.4	0	0	0	0	0	3.4	0	0	0	0	0	0	0	0	0	3.4	1.6	3.3	0
REF NO.	IC751																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54						
CD PLAY	0	1.3	3.4	1.4	1.4	0	1.4	1.7	3.4	1.4	1.7	0	1.4	0						
STANDBY	0	1.3	3.4	1.4	1.4	0	1.4	1.7	3.4	1.4	1.7	0	1.4	0						
REF NO.	IC801																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	0	0	0	0	3.4	0	0	0	0	0	0	3.4	0	0	0	0	0	3.4	1.6
STANDBY	0	0	0	0	0	3.4	0	0	0	0	0	0	3.4	0	0	0	0	0	3.4	1.6

SA-AKX30PH/PN JUPITER P.C.B.

12.5. Jupiter P.C.B. (2/3)

REF NO.	IC801																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	1.6	1.2	3.4	0	3.4	3.4	3.4	3.3	3.4	0	3.4	3.3	3.4	1.4	1.5	1.4	1.4	0	1.4	1.4
STANDBY	1.6	1.2	3.4	0	3.4	3.4	3.4	3.3	3.4	0	3.4	3.3	3.4	1.4	1.5	1.4	1.4	0	1.4	1.4
REF NO.	IC801																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	1.4	1.3	1.2	3.4	1.4	1.5	1.4	1.5	0	1.4	1.4	1.4	1.4	3.4	3.4	0.7	0	3.4	0.7	0
STANDBY	1.4	1.3	1.2	3.4	1.4	1.5	1.4	1.5	0	1.4	1.4	1.4	1.4	3.4	3.4	0.7	0	3.4	0.7	0
REF NO.	IC801																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	0	1.7	0	0	0	0	3.4	0	3.4	3.4	3.3	3.4	3.4	1.2	3.4	3.3	3.4	3.4	0.4	3.4
STANDBY	0	1.7	0	0	0	0	3.4	0	3.4	3.4	3.3	3.4	3.4	1.2	3.4	3.3	3.4	3.4	0.4	3.4
REF NO.	IC801																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0	3.3	3.4	3.4	0.9	0	0	0	0	0	0	0	0	0	3.4	0	1.2	0.3	0	0
STANDBY	0	3.3	3.4	3.4	0.9	0	0	0	0	0	0	0	0	0	3.4	0	1.2	0.3	0	0
REF NO.	IC801																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
CD PLAY	0	3.4	0	0	0	0	0	0	0	0	3.1	2.9	3.4	0	1.7	0	1.7	0.5	1.7	1.2
STANDBY	0	3.4	0	0	0	0	0	0	0	0	3.1	2.9	3.4	0	1.7	0	1.7	0.5	1.7	1.2
REF NO.	IC801																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
CD PLAY	0.2	0	0	0	0	1.3	3.4	3.4	3.4	3.4	1.2	3.4	3.4	0	3.4	3.4	3.4	0	0	3.4
STANDBY	0.2	0	0	0	0	1.3	3.4	3.4	3.4	3.4	1.2	3.4	3.4	0	3.4	3.4	3.4	0	0	3.4
REF NO.	IC801																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
CD PLAY	0	0	0	0	0	1.2	0	0	0	3.4	3.4	3.4	3.4	0	0	0	0	0	0	0
STANDBY	0	0	0	0	0	1.2	0	0	0	3.4	3.4	3.4	3.4	0	0	0	0	0	0	0
REF NO.	IC801																			
MODE	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
CD PLAY	0	0	0	0	0	3.4	1.2	0	0	0	0	0	3.4	3.4	3.4	3.4	3.4	3.4	0	0
STANDBY	0	0	0	0	0	3.4	1.2	0	0	0	0	0	3.4	3.4	3.4	3.4	3.4	3.4	0	0
REF NO.	IC801																			
MODE	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
CD PLAY	3.4	0	0	1.2	3.4	3.4	3.4	3.4	3.4	0	0	3.4	3.4	3.4	3.4	3.4	3.4	0	3.4	3.4
STANDBY	3.4	0	0	1.2	3.4	3.4	3.4	3.4	3.4	0	0	3.4	3.4	3.4	3.4	3.4	3.4	0	3.4	3.4
REF NO.	IC801																			
MODE	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216				
CD PLAY	0	1.2	1.6	1.6	0	1.2	0	0	0	3.4	0	0	1.2	0	0	3.4				
STANDBY	0	1.2	1.6	1.6	0	1.2	0	0	0	3.4	0	0	1.2	0	0	3.4				

SA-AKX30PH/PN JUPITER P.C.B.

12.6. Jupiter P.C.B. (3/3)

REF NO.	IC802																			
MODE	1	2	3	4	5															
CD PLAY	3.0	0	0	1.2	3.0															
STANDBY	3.0	0	0	1.2	3.0															

REF NO.	Q801																			
MODE	E	C	B																	
CD PLAY	0	3.9	0																	
STANDBY	0	3.9	0																	

SA-AKX30PH/PN JUPITER P.C.B.

12.7. Panel P.C.B.

REF NO.	IC6000																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0.1	0.1	0.1	0.1	2.0	0.8	0	3.4	3.4	0.1	0.1	0.1	3.5	-14.4	-14.3	-18.2	-22.1	-20.2	-22.1	-18.2
STANDBY	0.1	0.1	0.1	0.1	2.0	1.1	0	3.4	3.4	0.1	0.1	0	3.5	-12.5	-16.3	-14.3	-22.1	-20.2	-22.1	-12.4

REF NO.	IC6000																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	-12.4	-22.1	-22.1	-20.1	-14.2	-22.1	-18.2	-22.1	-24.1	-24.6	-22.5	-22.4	-22.4	-22.4	-22.4	-22.4	-22.4	-22.4	-22.4	-22.4
STANDBY	-12.4	-22.1	-22.1	-20.1	-12.2	-20.1	-13.3	-22.1	-24.1	-24.6	-22.5	-22.4	-22.4	-22.4	-22.4	-22.4	-22.4	-22.4	-22.4	-22.4

REF NO.	IC6000																			
MODE	41	42	43	44																
CD PLAY	-22.4	-22.4	3.5	0.1																
STANDBY	-22.4	-22.4	3.5	0.1																

REF NO.	Q6005																			
MODE	E	C	B																	
CD PLAY	0	16.5	-0.1																	
STANDBY	0	16.7	-0.1																	

SA-AKX30PH/PN PANEL P.C.B.

12.8. D-Amp P.C.B.

REF NO.	IC5900																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	-29.6	7.7	0	34.9	0	-35.0	-26.4	35.2	8.8	-0.2	-35.2	-25.1	-35.2	-0.2	8.8	35.2	-35.0	-35.0	0	34.9
STANDBY	-29.7	7.7	0	34.8	0	-35.0	-26.5	35.1	8.9	-0.1	-35.2	-25.2	-35.2	-0.1	8.9	35.1	-35.0	-35.0	0	34.8

REF NO.	IC5900																			
MODE	21	22	23																	
CD PLAY	7.7	0	4.6																	
STANDBY	7.7	0	2.5																	

REF NO.	Q5901				Q5902				Q5903				Q5905				Q5906			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	-35.0	-29.1	-34.9		5.2	5.2	4.6		0	0	0.7		0	4.6	0		0	3.3	0	
STANDBY	-35.0	-29.1	-35.0		5.2	5.2	4.6		0	0	0.7		0	0	0.7		0	3.3	0	

REF NO.	Q5907				QR5900				QR5901											
MODE	E	C	B		E	C	B		E	C	B									
CD PLAY	0	3.3	0		0	5.2	0		5.2	-34.5	5.2									
STANDBY	0	3.3	0		0	5.2	0		5.2	-34.6	5.2									

SA-AKX30PH/PN D-AMP P.C.B.

12.9. SMPS P.C.B.

REF NO.	IC5701																			
MODE	1	2	3	4	5	6	7													
CD PLAY	164.8	0	0	19.1	0.1	1.4	0.5													
STANDBY	164.8	0	0	19.1	0.1	1.4	0.5													

REF NO.	IC5799																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	5.9	1.0	2.3	11.0	164.2	0	0	0												
STANDBY	5.9	1.0	2.3	11.0	164.2	0	0	0												

REF NO.	IC5801																			
MODE	1	2	3																	
CD PLAY	-2.0	-32.5	-35.2																	
STANDBY	-2.0	-32.6	-35.2																	

REF NO.	IC5899																			
MODE	1	2	3																	
CD PLAY	2.3	2.5	0																	
STANDBY	2.3	2.5	0																	

REF NO.	Q5720				Q5721				Q5722				Q5803				Q5860			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	7.3	8.5	7.6		19.7	19.7	19.0		0	19.6	0.2		0	35.2	0		1.3	0	0.7	
STANDBY	7.4	8.6	7.7		19.7	19.7	19.0		0	19.6	0.2		0	35.2	0		1.3	0	0.7	

REF NO.	Q5861				Q5862				Q5898				QR5801				QR5802			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	0	0.7		0	3.3	0		0	2.1	0.4		0	3.1	-3.0		0	3.3	6.6	
STANDBY	0	3.3	0		0	3.3	0		0	2.1	0.4		0	3.1	-2.9		0	3.3	6.6	

REF NO.	QR5810																			
MODE	E	C	B																	
CD PLAY	0	0.1	3.1																	
STANDBY	0	0.1	3.1																	

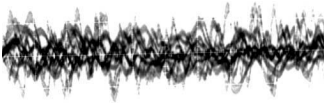
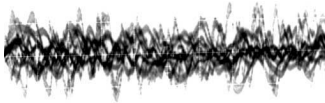
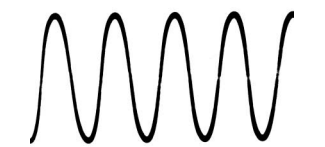
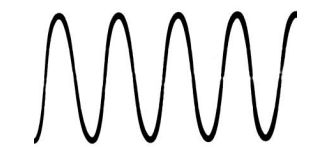
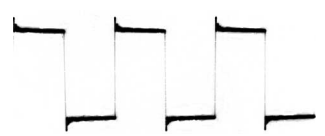
SA-AKX30PH/PN SMPS P.C.B.

12.10. Tuner P.C.B.

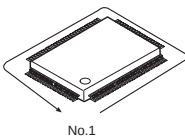
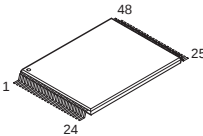
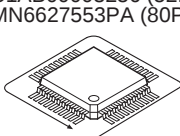
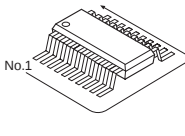
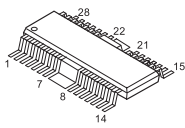
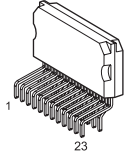
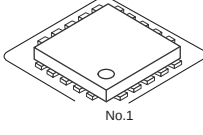
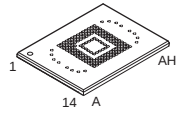
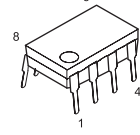
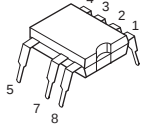
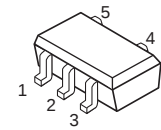
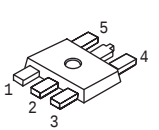
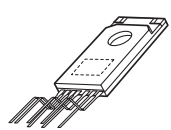
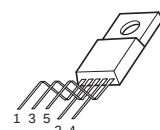
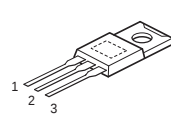
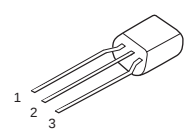
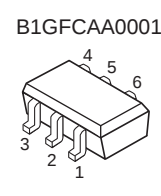
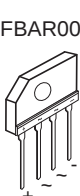
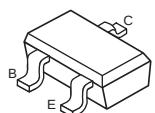
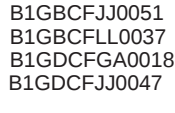
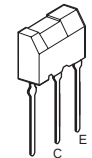
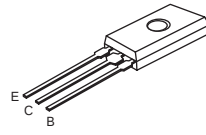
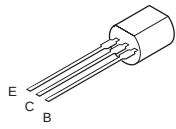
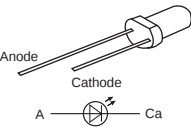
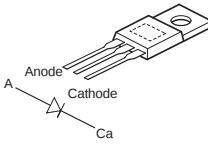
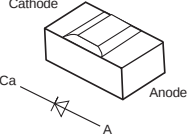
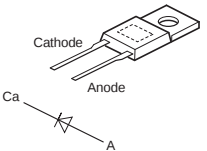
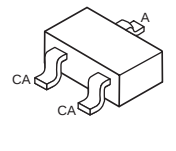
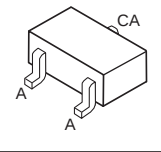
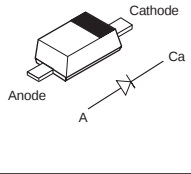
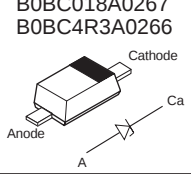
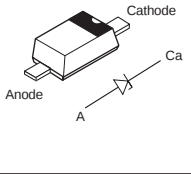
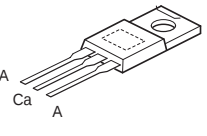
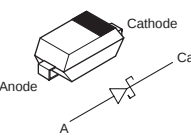
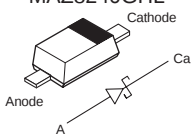
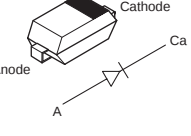
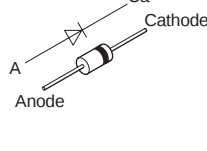
REF NO.	IC52																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	1.5	3.0	3.0	0	0	0	0	3.3	0	3.3	3.3	1.4	0.3	0.3	0.3	3.3	0	0	0
STANDBY	0	1.5	3.0	3.0	0	0	0	0	3.3	0	3.3	3.3	1.4	0.3	0.3	0.3	3.3	0	0	0

SA-AKX30PH/PN TUNER P.C.B.

12.11. Waveform Table (1/2)

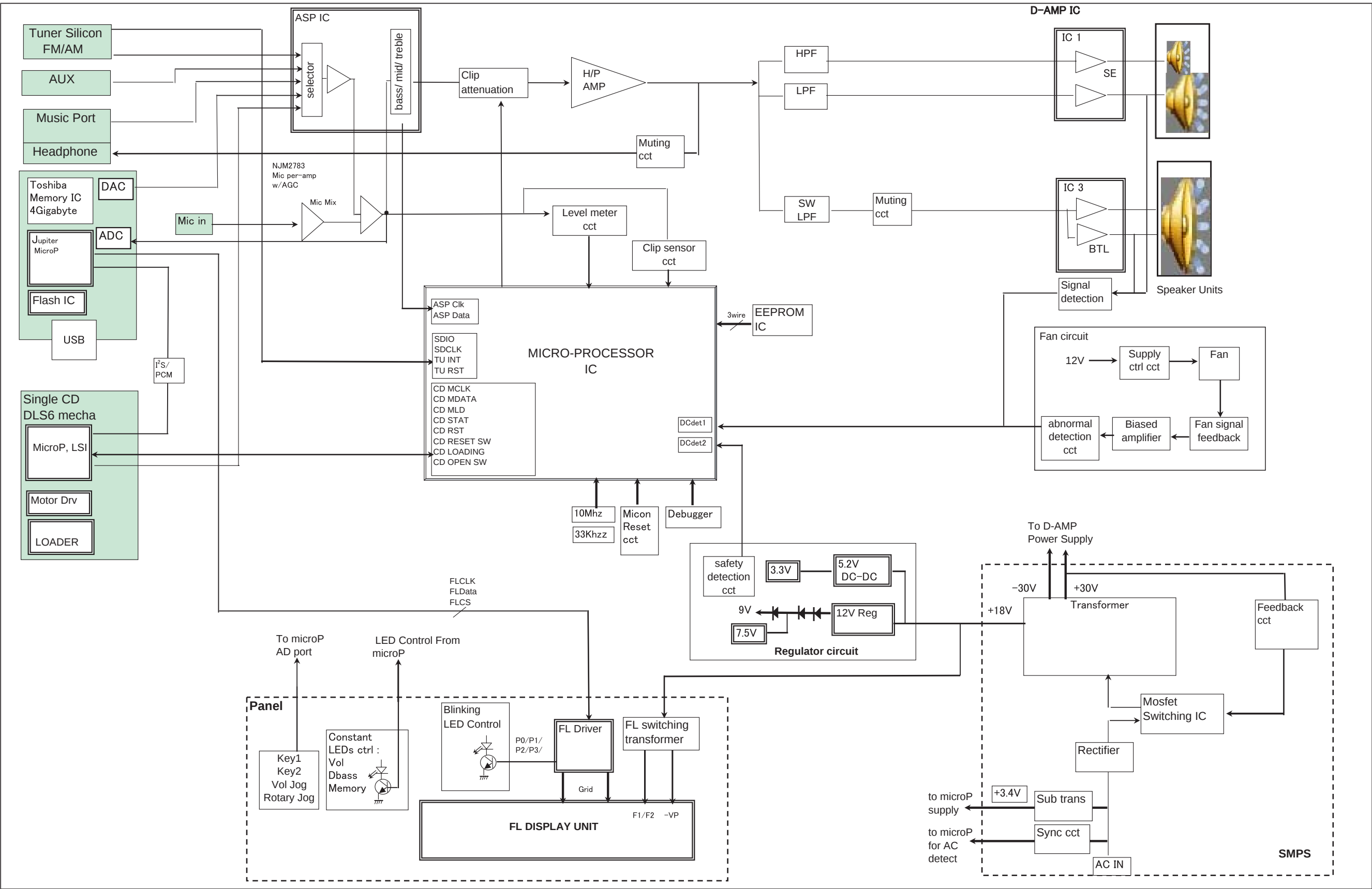
WF No. IC52-2,13,14 (TUNER)  0.1Vp-p(200usec/div)	WF No. IC2001-2,38 (PLAY)  4Vp-p(200usec/div)	WF No. IC2001-3,37 (TUNER)  0.2Vp-p(200usec/div)	WF No. IC2001-4,36 (PLAY)  1.3Vp-p(200usec/div)
WF No. IC2001-17,22 (PLAY)  2Vp-p(200usec/div)	WF No. IC2001-44,47 (PLAY)  2.4Vp-p(200usec/div)	WF No. IC2003-12 (PLAY)  3.6Vp-p(50nsec/div)	WF No. IC2003-13 (PLAY)  2.2Vp-p(50nsec/div)
WF No. IC2003-15 (PLAY)  1.4Vp-p(5usec/div)	WF No. IC2003-16 (PLAY)  2.8Vp-p(5usec/div)	WF No. IC2005-1 (PLAY)  1.8Vp-p(200usec/div)	WF No. IC2005-7 (PLAY)  2Vp-p(100usec/div)
WF No. IC5900-2,21 (PLAY)  1.9Vp-p(200usec/div)	WF No. IC5900-10,14 (PLAY)  100Vp-p(1usec/div)	WF No. IC6000-5 (PLAY)  1.5Vp-p(1usec/div)	WF No. IC7001-49,52 (PLAY)  2.4Vp-p(100nsec/div)
WF No. IC7001-73 (PLAY)  4.8Vp-p(20nsec/div)	WF No. IC7001-74 (PLAY)  1.9Vp-p(20nsec/div)		

13 Illustration of ICs, Transistor and Diode

 RFKWMAX30PN (100P) MN2WS0042NA (216P)	 C3FBMG00041 (48P)		 C0HBB0000057 (44P) C1AB00003256 (52P) MN6627553PA (80P)		 C0FBAK000026 (16P) C0FBBK000027 (16P) CABQG000097 (54P) C3EBFY000006 (8P)	
 BA5948FPE2 (28P)	 C1BA00000497 (23P)	 VUEALLPT031 (20P)	 C3FBXY000016	 C0AABB000125 (8P)	 MIP2F20MSSCF (8P)	
 C0DBZHE00026	 C0DBZYY00293	 C5HACY00004 (7P) C5HACY00005 (7P)	 C0DAAYG00001 (5P)	 C0CAAKG00046	 C0DABFC00002 C0DAEMZ00001	
 B1GFCAA0001	 B0FBAR000043	 B1ABEB000002 B1ADCE000012 B1ADCF000001		 B1ABGC000005 B1ABCF000176 B1GBCFGN0016 B1GBCFJJ0051 B1GBCFLL0037 B1GDCFGA0018 B1GDCFJJ0047		
 B1BABK000001		 B1BABG000007 B1BACD000018				
 B1AAJC000019 B1ACKD000006	 B3AAA0001031	 B0ZAZ0000052		 B3ABB0000322		
 B0HFRJ000012		 B0ADCJ000020				
 B1GBCFJN0038	 B0ACCK000012 B0ACCK000005 B0JCCD000002 B0JCMD000022 MA2YF8000L		 B0BC01000014 B0BC018A0267 B0BC4R3A0266		 B0BC010A0007 B0BC019A0007 B0BC035A0007 B0BC2R4A0006 B0BC6R100010 B0BC9R000008	
 B0ABSM000008	 B0JCPD000025	 MAZ8056GML MAZ8240GHL		 B0HCSP000001		
 B0EAKM000117 B0EAMM000057 B0HAMP000094 B0JAME000114						

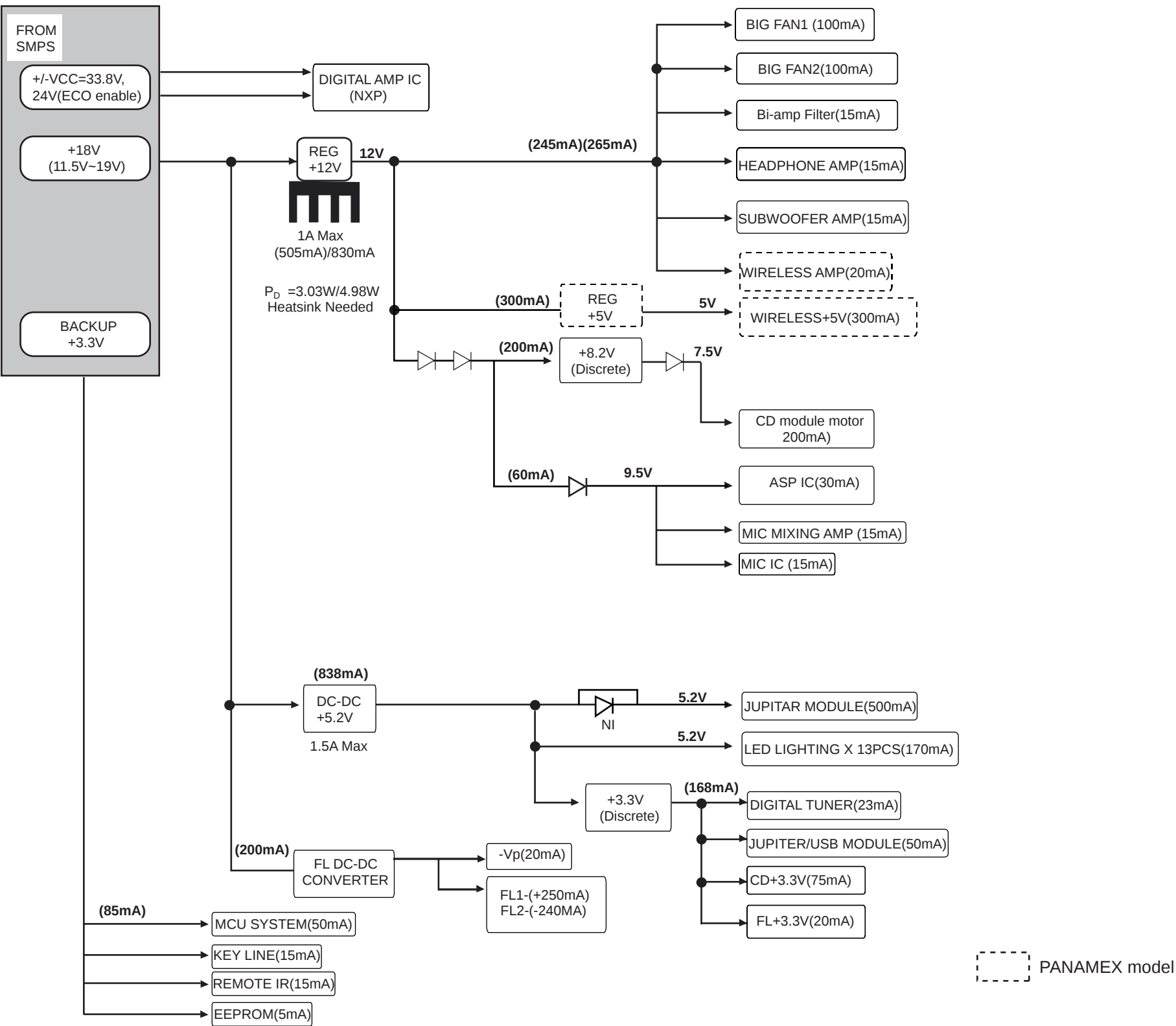
14 Simplified Block Diagram

14.1. Overall Simplified Block Diagram

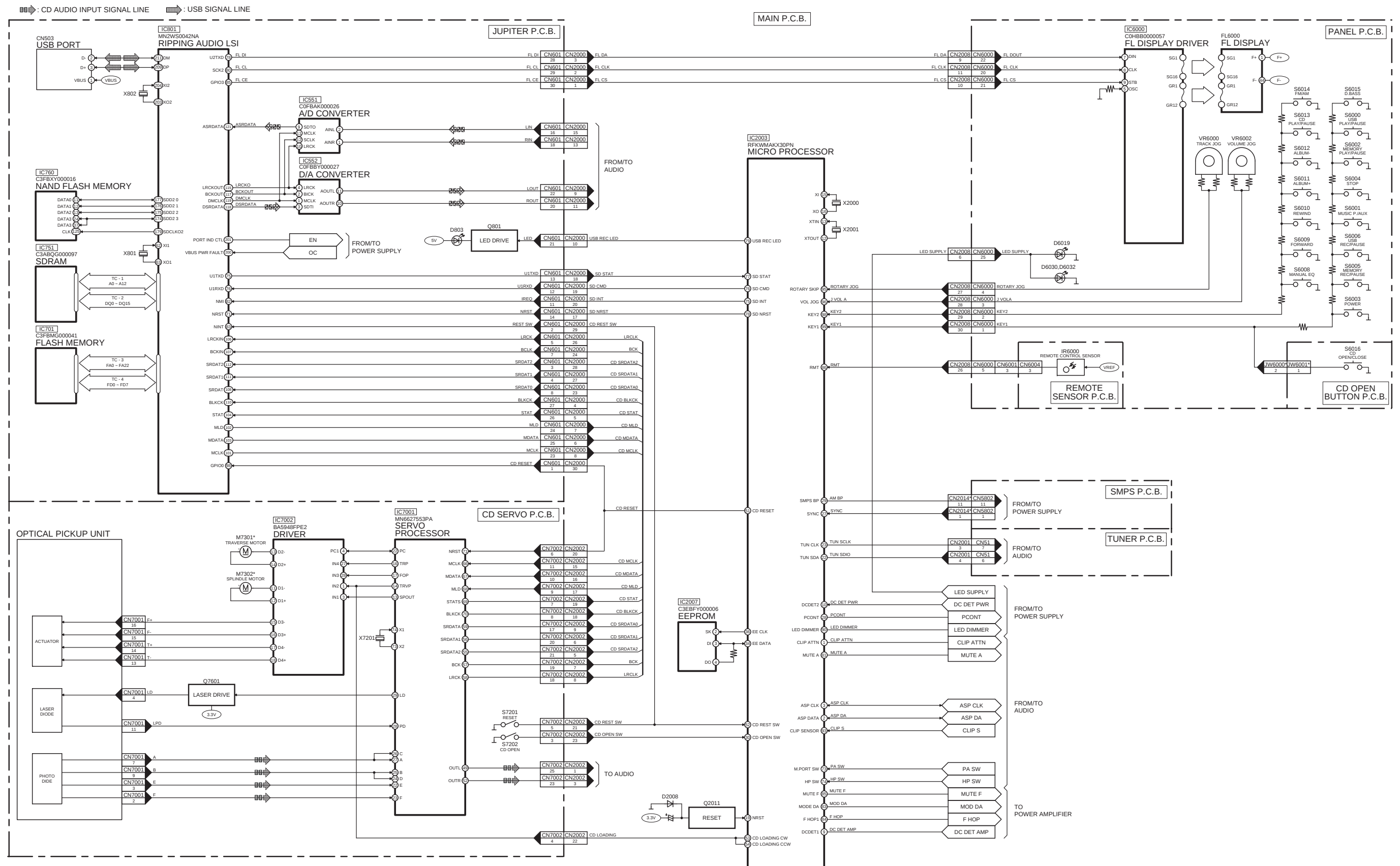


14.2. D-Amp Block Diagram

Block Connection Diagram



15.1. Servo/System Control



SA-AKX30PH/PN SERVO/SYSTEM CONTROL BLOCK DIAGRAM

15.2. IC Terminal Chart (Servo/System Control)

TC	IC751 / SDRAM		SIGNAL NAME	IC801 / RIPPING AUDIO LSI	
	PORT NAME	PIN NO		PIN NO	PORT NAME
1	A0	23	A0	5	SDRA0
	A1	24	A1	4	SDRA1
	A2	25	A2	3	SDRA2
	A3	26	A3	2	SDRA3
	A4	29	A4	7	SDRA4
	A5	30	A5	8	SDRA5
	A6	31	A6	9	SDRA6
	A7	32	A7	10	SDRA7
	A8	33	A8	15	SDRA8
	A9	34	A9	16	SDRA9
	A10	22	A10	11	SDRA10
	A11	35	A11	17	SDRA11
	A12	36	A12	18	SDRA12

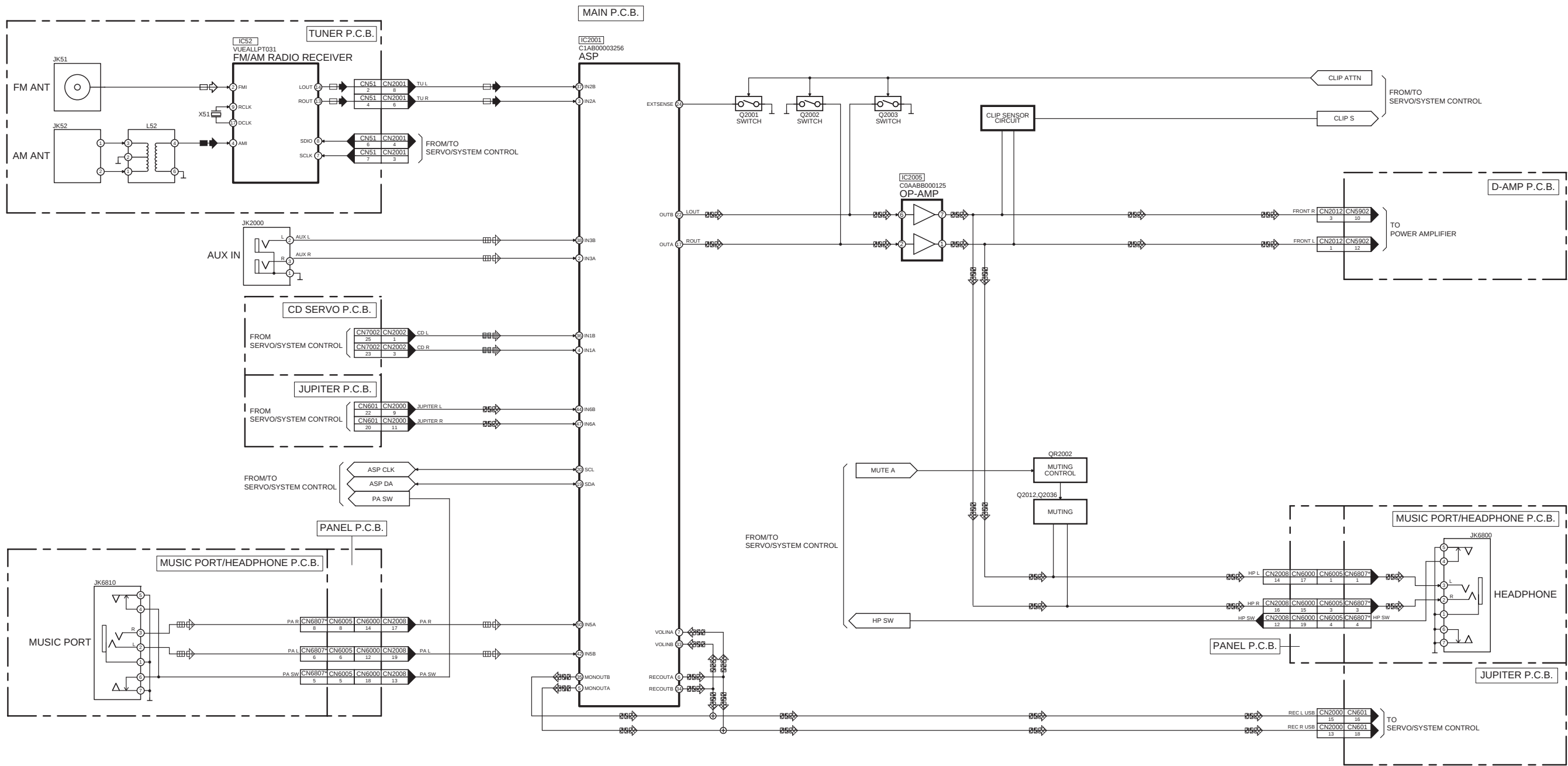
TC	IC751 / SDRAM		SIGNAL NAME	IC801 / RIPPING AUDIO LSI	
	PORT NAME	PIN NO		PIN NO	PORT NAME
2	DQ0	2	DQ0	48	SDRD0
	DQ1	4	DQ1	47	SDRD1
	DQ2	5	DQ2	46	SDRD2
	DQ3	7	DQ3	45	SDRD3
	DQ4	8	DQ4	37	SDRD4
	DQ5	10	DQ5	36	SDRD5
	DQ6	11	DQ6	35	SDRD6
	DQ7	13	DQ7	34	SDRD7
	DQ8	42	DQ8	39	SDRD8
	DQ9	44	DQ9	40	SDRD9
	DQ10	45	DQ10	41	SDRD10
	DQ11	47	DQ11	42	SDRD11
	DQ12	48	DQ12	50	SDRD12
	DQ13	50	DQ13	51	SDRD13
	DQ14	51	DQ14	52	SDRD14
	DQ15	53	DQ15	53	SDRD15

TC	IC701 / FLASH MEMORY		SIGNAL NAME	IC801 / RIPPING AUDIO LSI	
	PORT NAME	PIN NO		PIN NO	PORT NAME
3	DQ15	45	FA0	154	HIR0
	A0	25	FA1	155	HIR1
	A1	24	FA2	156	HIR2
	A2	23	FA3	158	HIB0
	A3	22	FA4	149	NHINT
	A4	21	FA5	165	DACK1
	A5	20	FA6	164	DRQ1
	A6	19	FA7	162	DACK2
	A7	18	FA8	161	DRQ2
	A8	8	FA9	159	GPIO5
	A9	7	FA10	160	GPIO4
	A10	6	FA11	168	RCVCLK
	A11	5	FA12	169	RCVSTART
	A12	4	FA13	170	RCVDATA
	A13	3	FA14	171	RCVWAIT
	A14	2	FA15	138	HID8
	A15	1	FA16	139	HID9
	A16	48	FA17	142	HID10
	A17	17	FA18	143	HID11
	A18	16	FA19	144	HID12
	A19	9	FA20	145	HID13
	A20	10	FA21	147	HID14
	A21	13	FA22	148	HID15

TC	IC701 / FLASH MEMORY		SIGNAL NAME	IC801 / RIPPING AUDIO LSI	
	PORT NAME	PIN NO		PIN NO	PORT NAME
4	DQ0	29	FD0	128	HID0
	DQ1	31	FD1	129	HID1
	DQ2	33	FD2	130	HID2
	DQ3	35	FD3	132	HID3
	DQ4	38	FD4	133	HID4
	DQ5	40	FD5	135	HID5
	DQ6	42	FD6	136	HID6
	DQ7	44	FD7	137	HID7

15.3. Audio

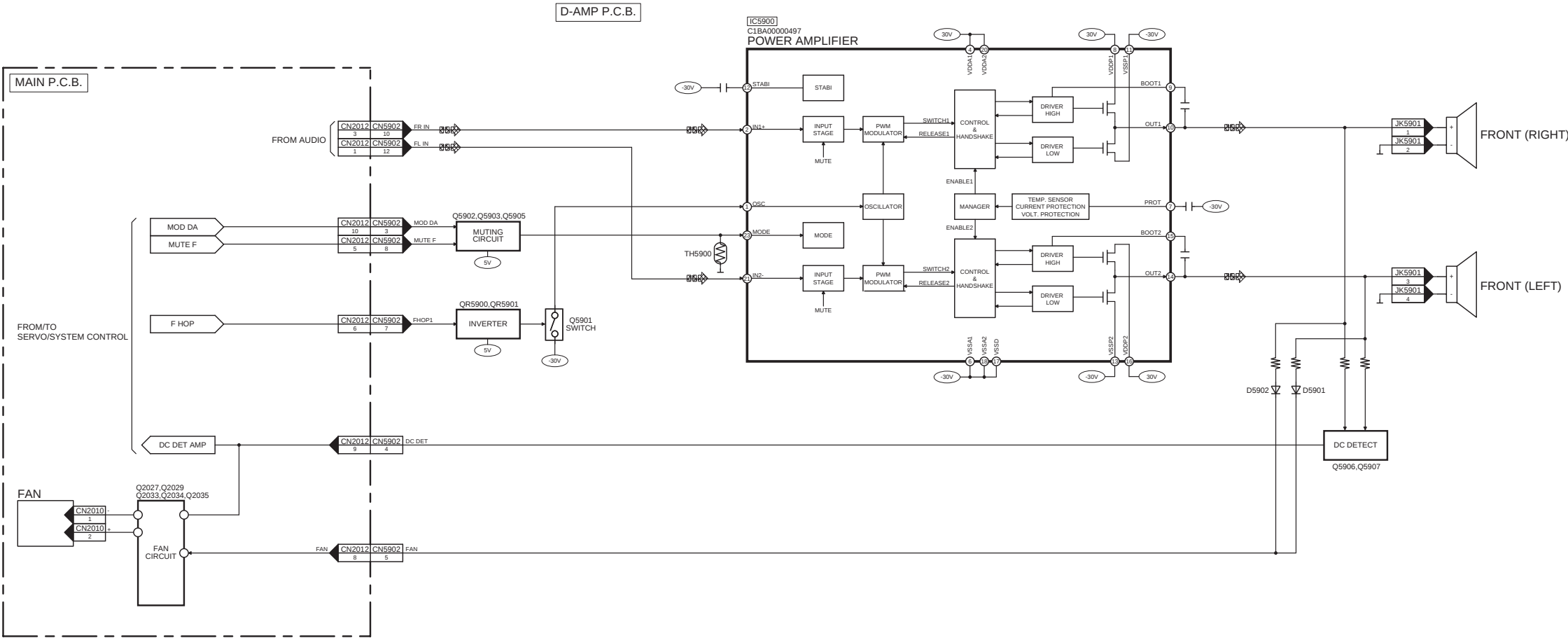
 : CD AUDIO INPUT SIGNAL LINE
  : AUX/MUSIC PORT AUDIO INPUT SIGNAL LINE
  : AUDIO OUTPUT SIGNAL LINE
  : AM SIGNAL LINE
  : FM SIGNAL LINE
  : AM/FM SIGNAL LINE



SA-AKX30PH/PN AUDIO BLOCK DIAGRAM

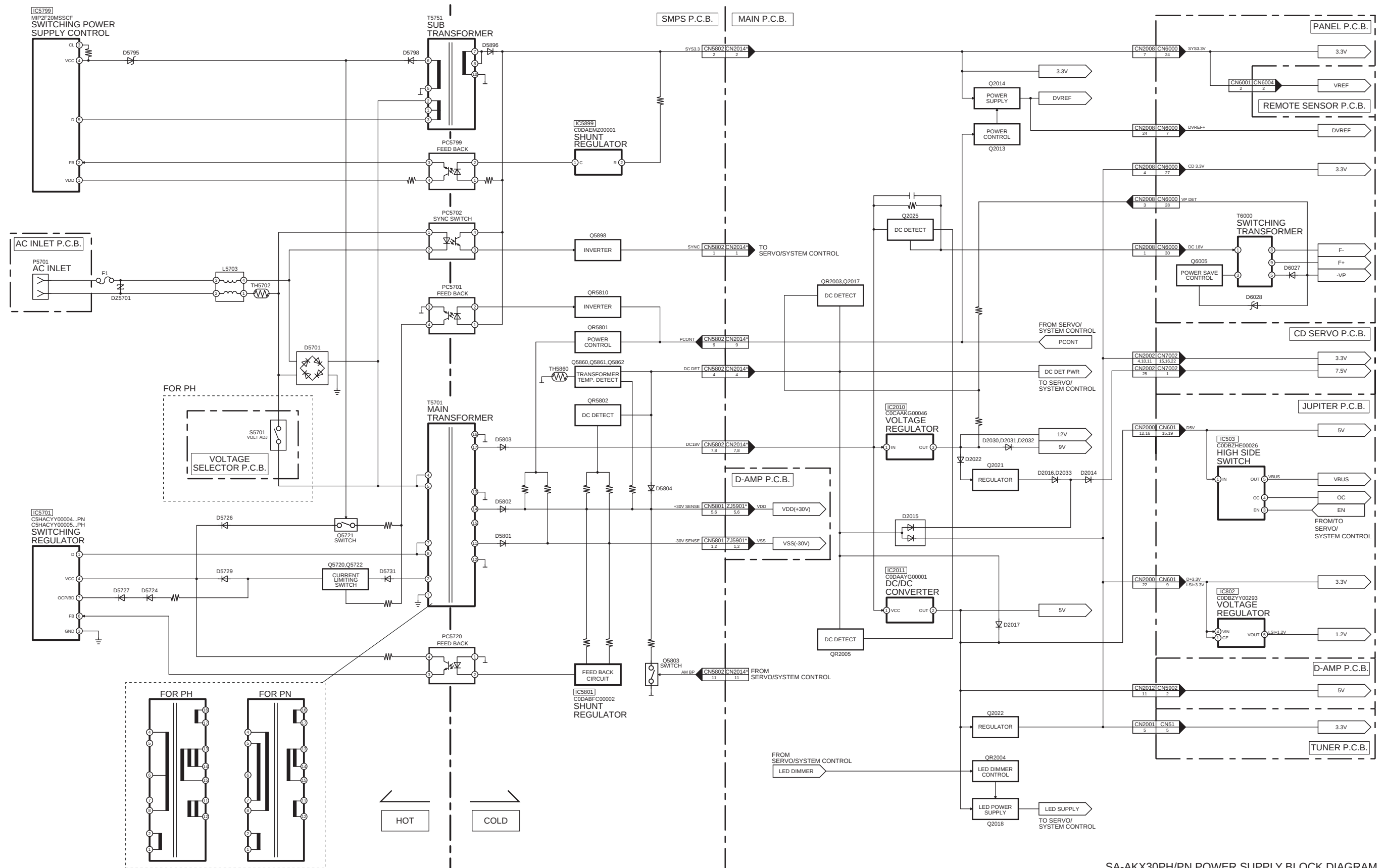
15.4. Power Amplifier

 : AUDIO OUTPUT SIGNAL LINE



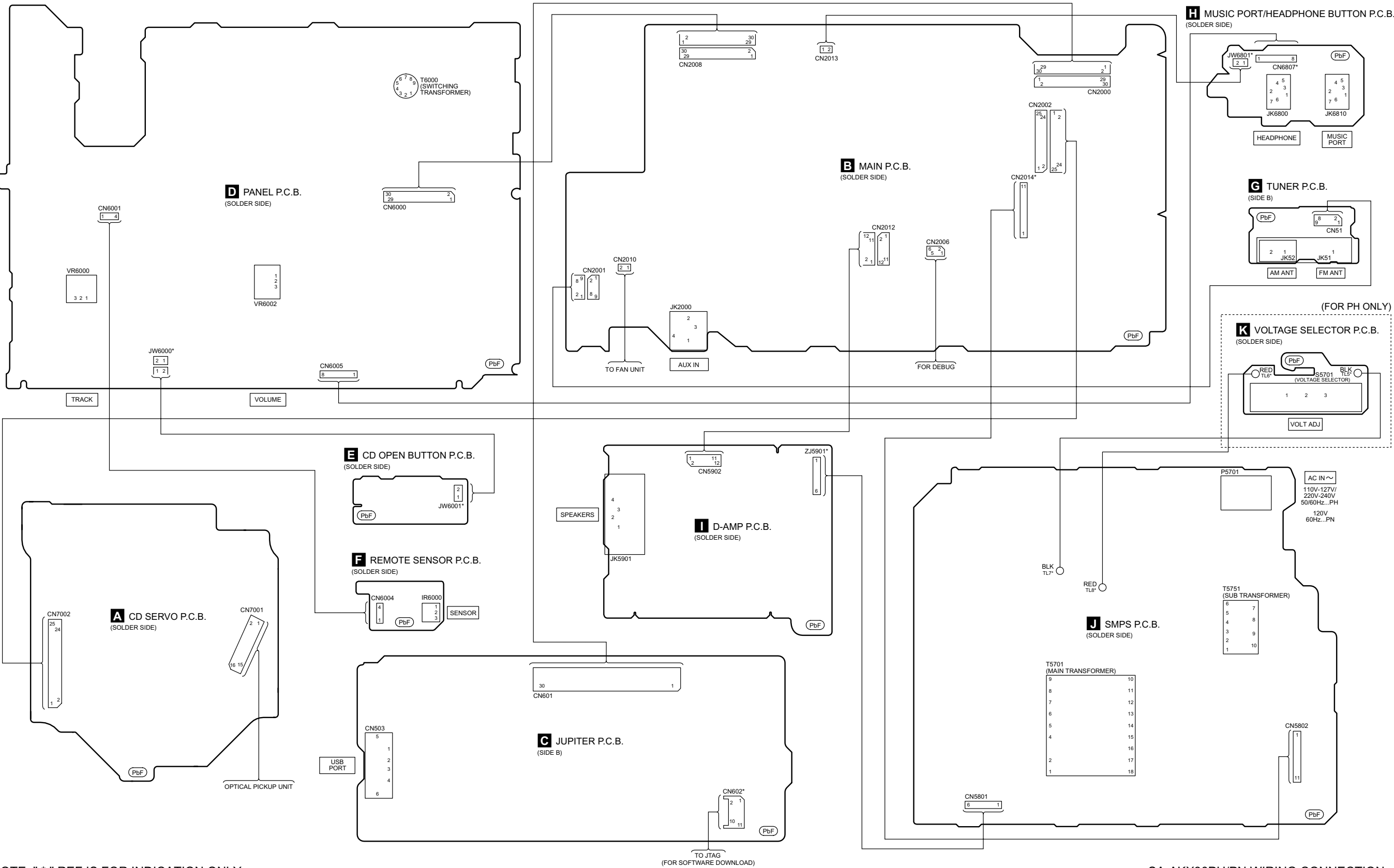
SA-AKX30PH/PN POWER AMPLIFIER BLOCK DIAGRAM

15.5. Power Supply



SA-AKX30PH/PN POWER SUPPLY BLOCK DIAGRAM

16 Wiring Diagram



NOTE: " * " REF IS FOR INDICATION ONLY.

SA-AKX30PH/PN WIRING CONNECTION

17 Schematic Diagram Notes

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

Notes:

S5701:	Voltage ADJ switch (For PH only).
S6000:	USB Play/Pause (USB ►/) switch.
S6001:	Music P./Aux.
S6002:	Memory Play/Pause (Memory ►/) switch.
S6003:	Power switch (⏻/I).
S6004:	Stop (■) switch.
S6005:	Memory Rec/Pause (Memory ●/) switch.
S6005:	USB Rec/Pause (USB ●/) switch.
S6008:	Manual EQ switch.
S6009:	Forward (►►/►►►) switch.
S6010:	Rewind (◄◄/◄◄◄) switch.
S6011:	Album + switch.
S6012:	Album - switch.
S6013:	CD Play/Pause (CD ►/) switch.
S6014:	FM/AM switch.
S6015:	D.BASS switch.
S6016:	CD Open/Close switch (▲).
S7201:	Reset switch.
S7202:	CD Open switch.
VR6000:	Track Jog.
VR6002:	Volume Jog.

- Important safety notice:

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

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

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

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

AC rated voltage capacitors:

For PN only:

C5701, C5703, C5704, C5705, C5708

For PH only:

C5701, 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 μ F, unless otherwise noted. F=Farads, pF=pico-Farad.

• Coil

Unit of inductance is H, unless otherwise noted.

• *

REF IS FOR INDICATION ONLY.

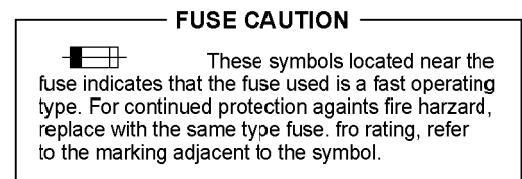
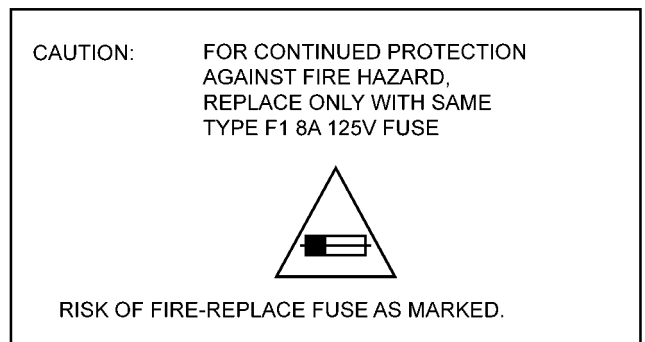
- Voltage and signal line

—	: +B signal line
---	: -B signal line
⏮	: CD Audio input signal line
⏭	: AUX/Music Port Audio input signal line
⏮	: Audio output signal line
⏭	: USB signal line
◻➡	: FM/AM signal line
■➡	: AM signal line
◻➡	: FM signal line

- For PH only



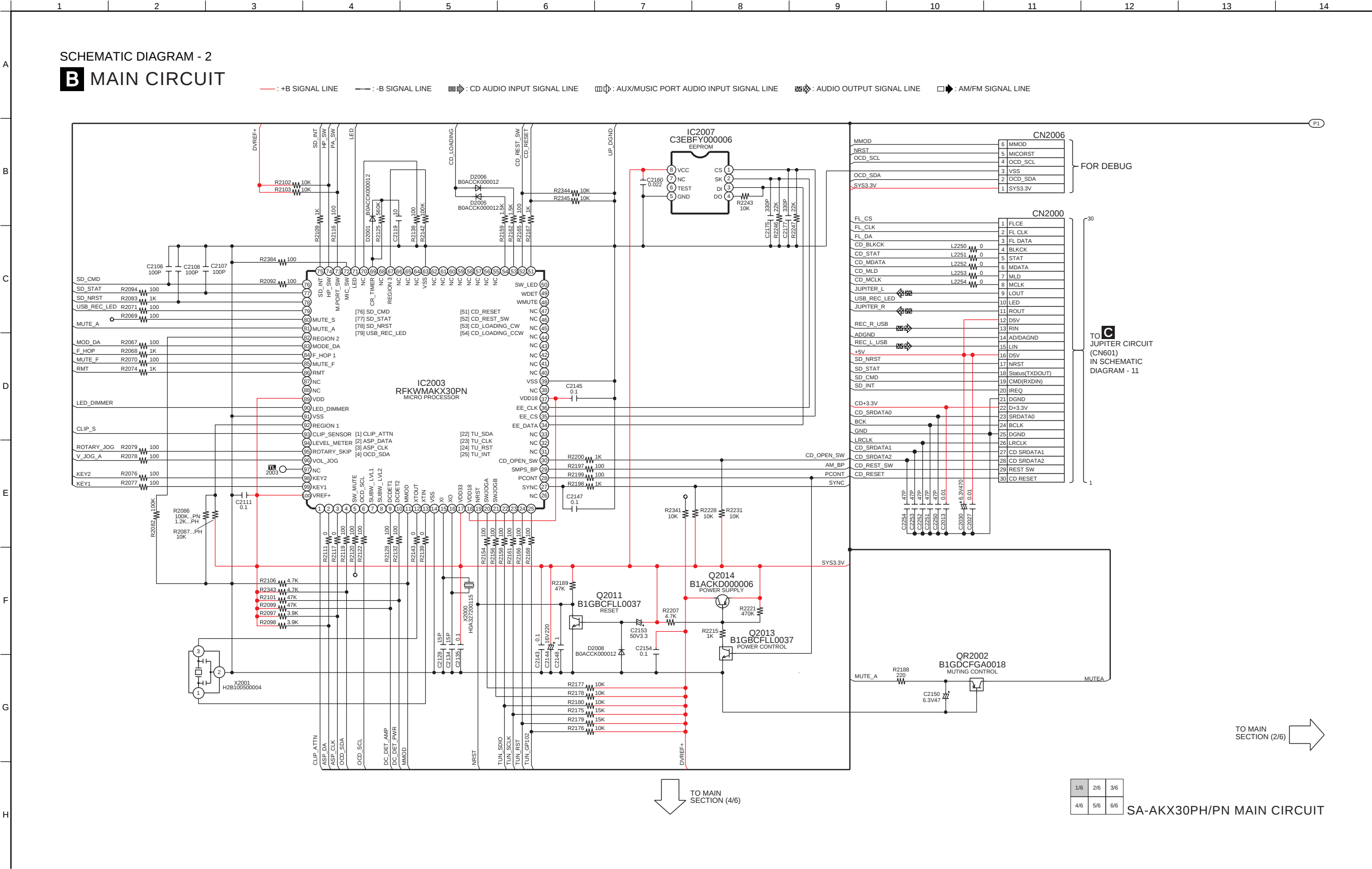
- For PN only



18.1. CD Servo Circuit

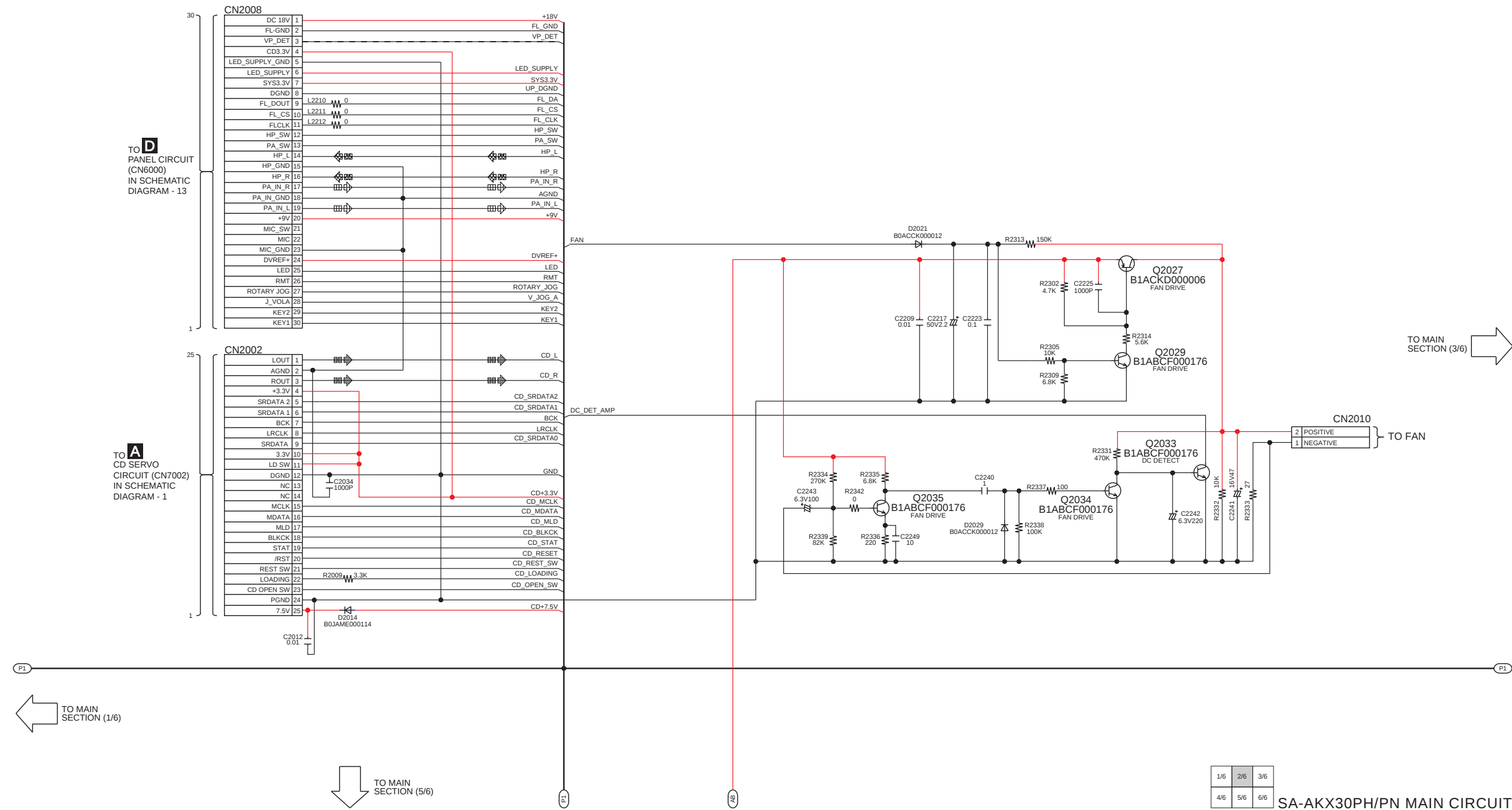


18.2. Main Circuit



SCHEMATIC DIAGRAM - 3
B MAIN CIRCUIT

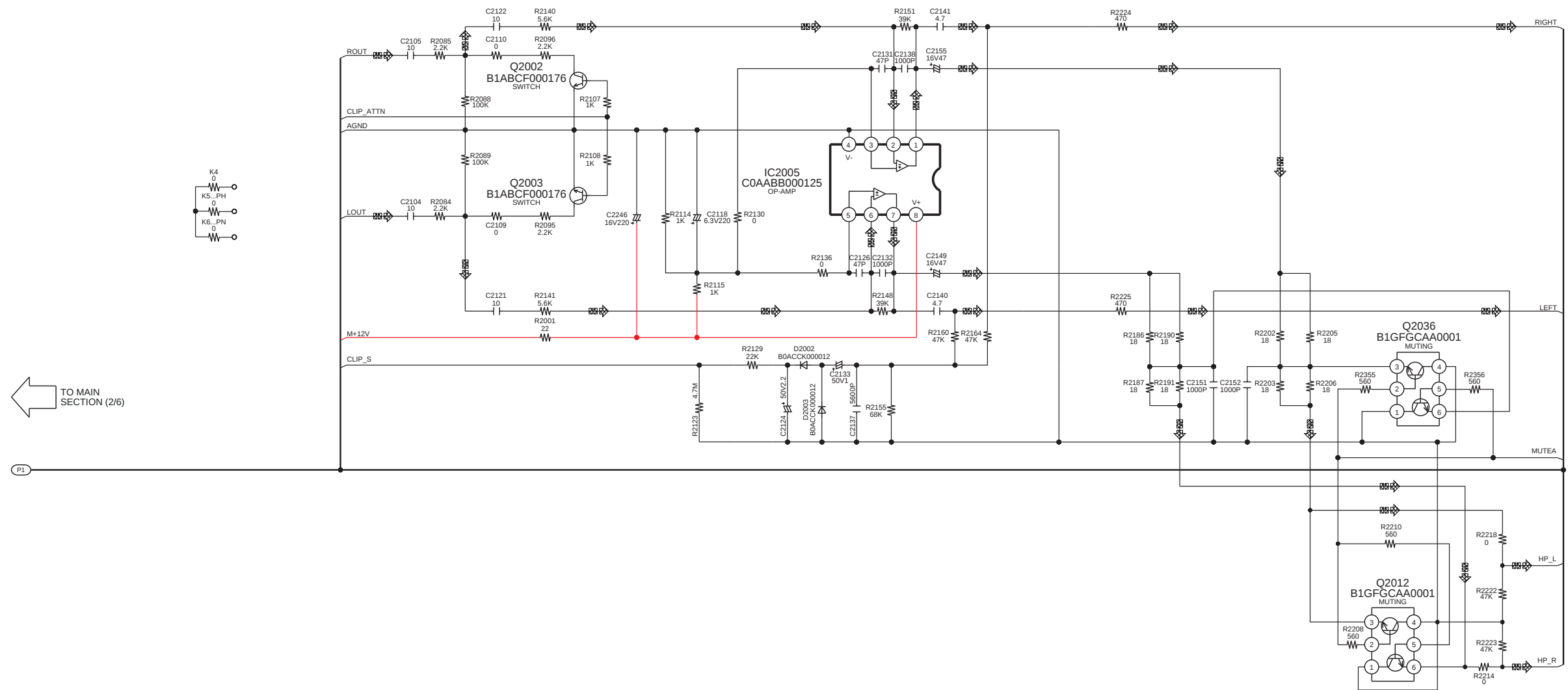
—+ : +B SIGNAL LINE —- : -B SIGNAL LINE : CD AUDIO INPUT SIGNAL LINE : AUX/MUSIC PORT AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : AM/FM SIGNAL LINE



SCHEMATIC DIAGRAM - 4

B MAIN CIRCUIT

— : +B SIGNAL LINE — : -B SIGNAL LINE : CD AUDIO INPUT SIGNAL LINE : AUX/MUSIC PORT AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : AM/FM SIGNAL LINE



← TO MAIN
SECTION (2/6)

↓ TO MAIN
SECTION (6/6)

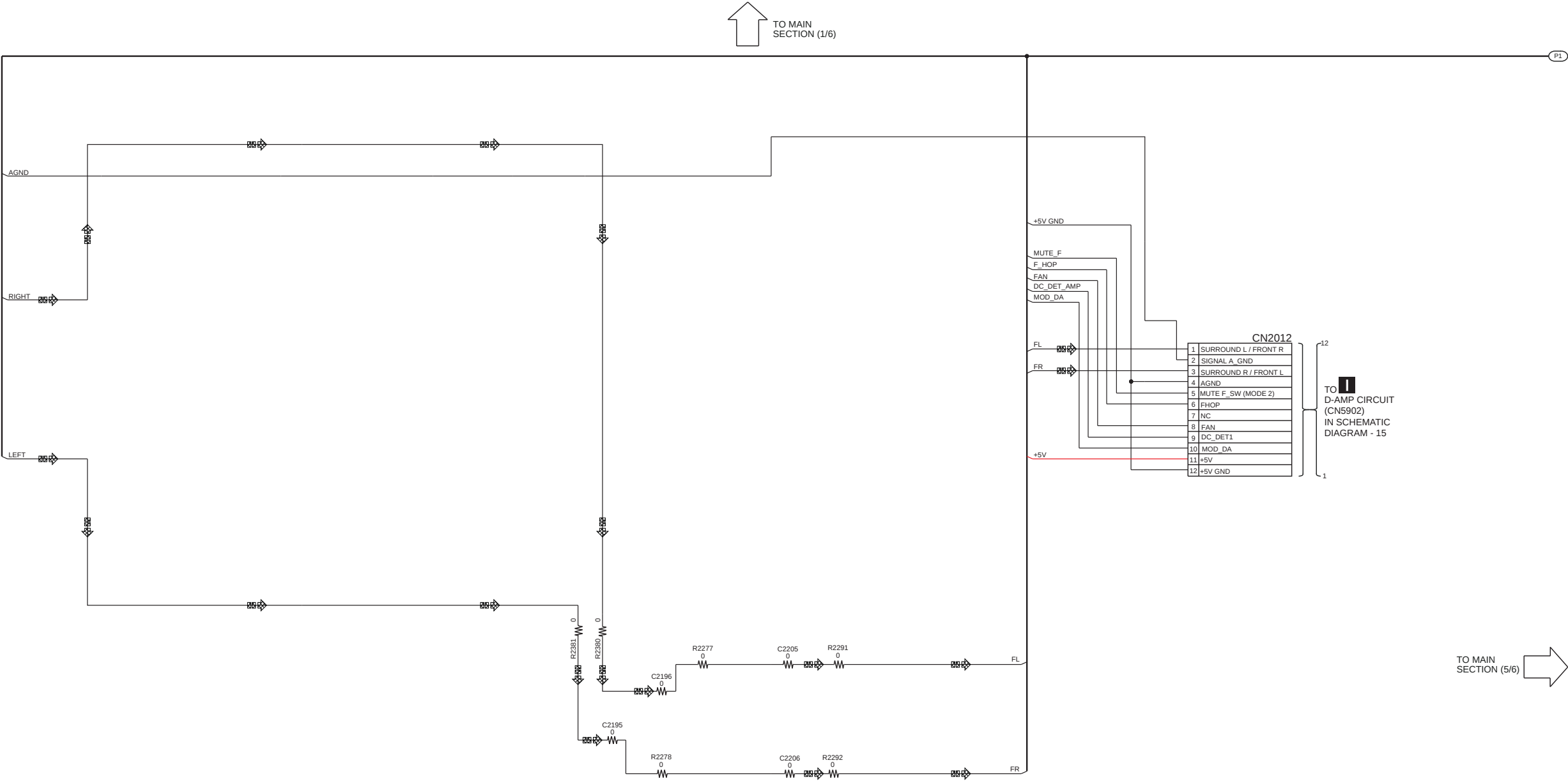
1/6	2/6	3/6
4/6	5/6	6/6

SA-AKX30PH/PN MAIN CIRCUIT

SCHEMATIC DIAGRAM - 5

B MAIN CIRCUIT

— : +B SIGNAL LINE — : -B SIGNAL LINE  : CD AUDIO INPUT SIGNAL LINE  : AUX/MUSIC PORT AUDIO INPUT SIGNAL LINE  : AUDIO OUTPUT SIGNAL LINE  : AM/FM SIGNAL LINE



CN2012

1	SURROUND L / FRONT R
2	SIGNAL A. GND
3	SURROUND R / FRONT L
4	AGND
5	MUTE F. SW (MODE 2)
6	FHOP
7	NC
8	FAN
9	DC_DET1
10	MOD_DA
11	+5V
12	+5V GND

TO **I**
D-AMP CIRCUIT
(CN5902)
IN SCHEMATIC
DIAGRAM - 15

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

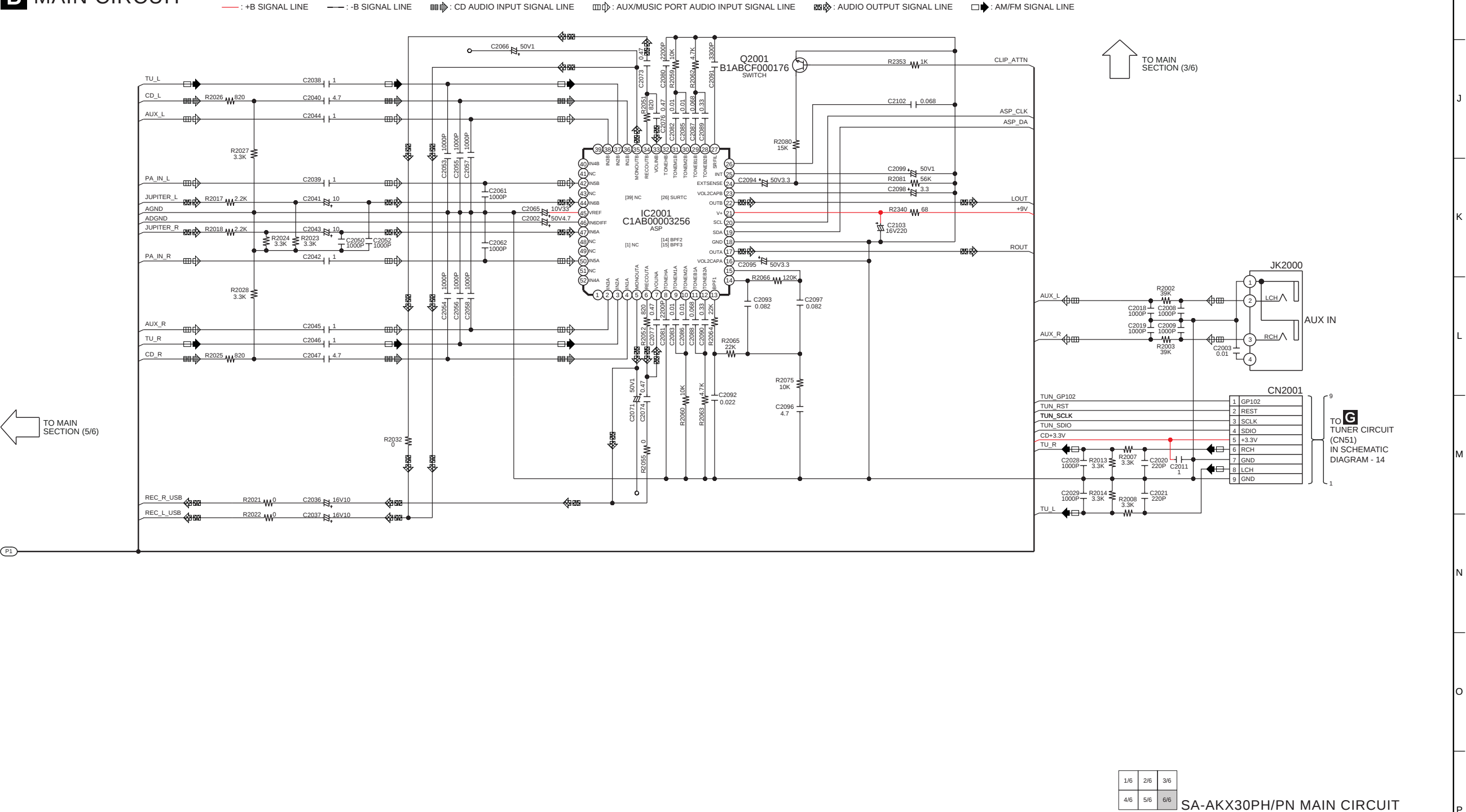
SA-AKX30PH/PN MAIN CIRCUIT

B MAIN CIRCUIT

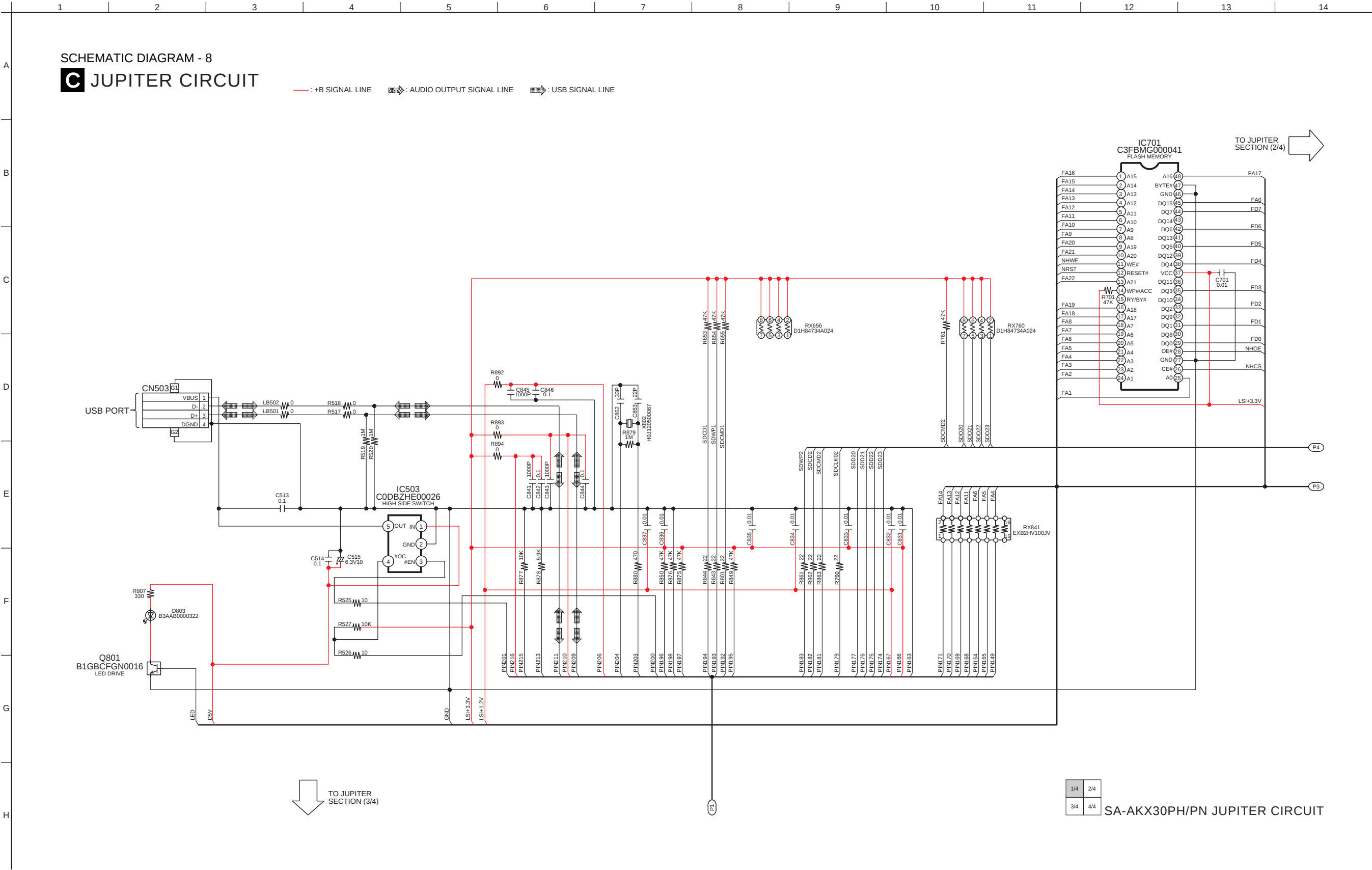


SCHEMATIC DIAGRAM - 7

B MAIN CIRCUIT



18.3. Jupiter Circuit

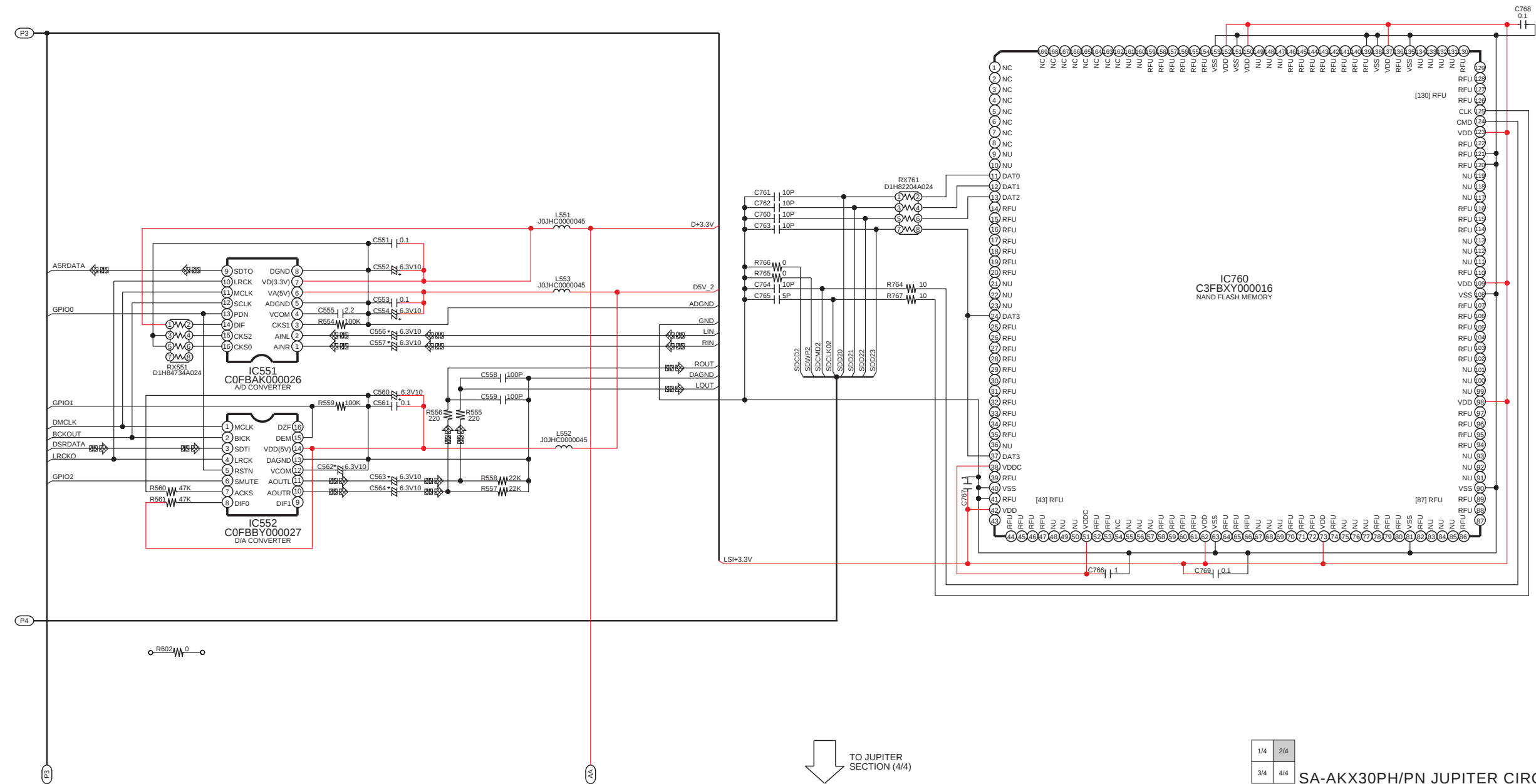


SCHEMATIC DIAGRAM - 9

C JUPITER CIRCUIT

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

← TO JUPITER SECTION (1/4)



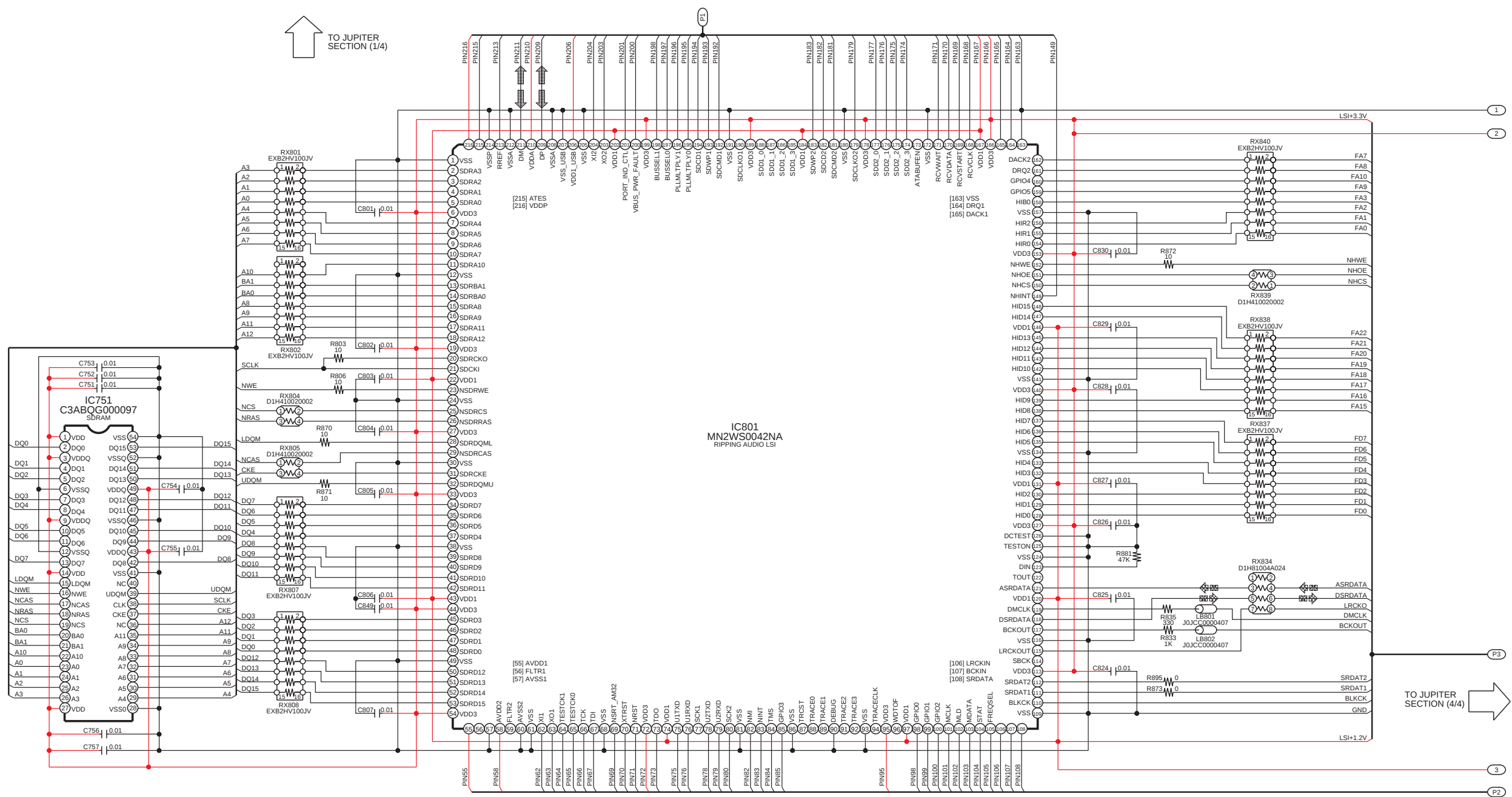
↓ TO JUPITER SECTION (4/4)

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

SA-AKX30PH/PN JUPITER CIRCUIT

SCHEMATIC DIAGRAM - 10
C JUPITER CIRCUIT

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

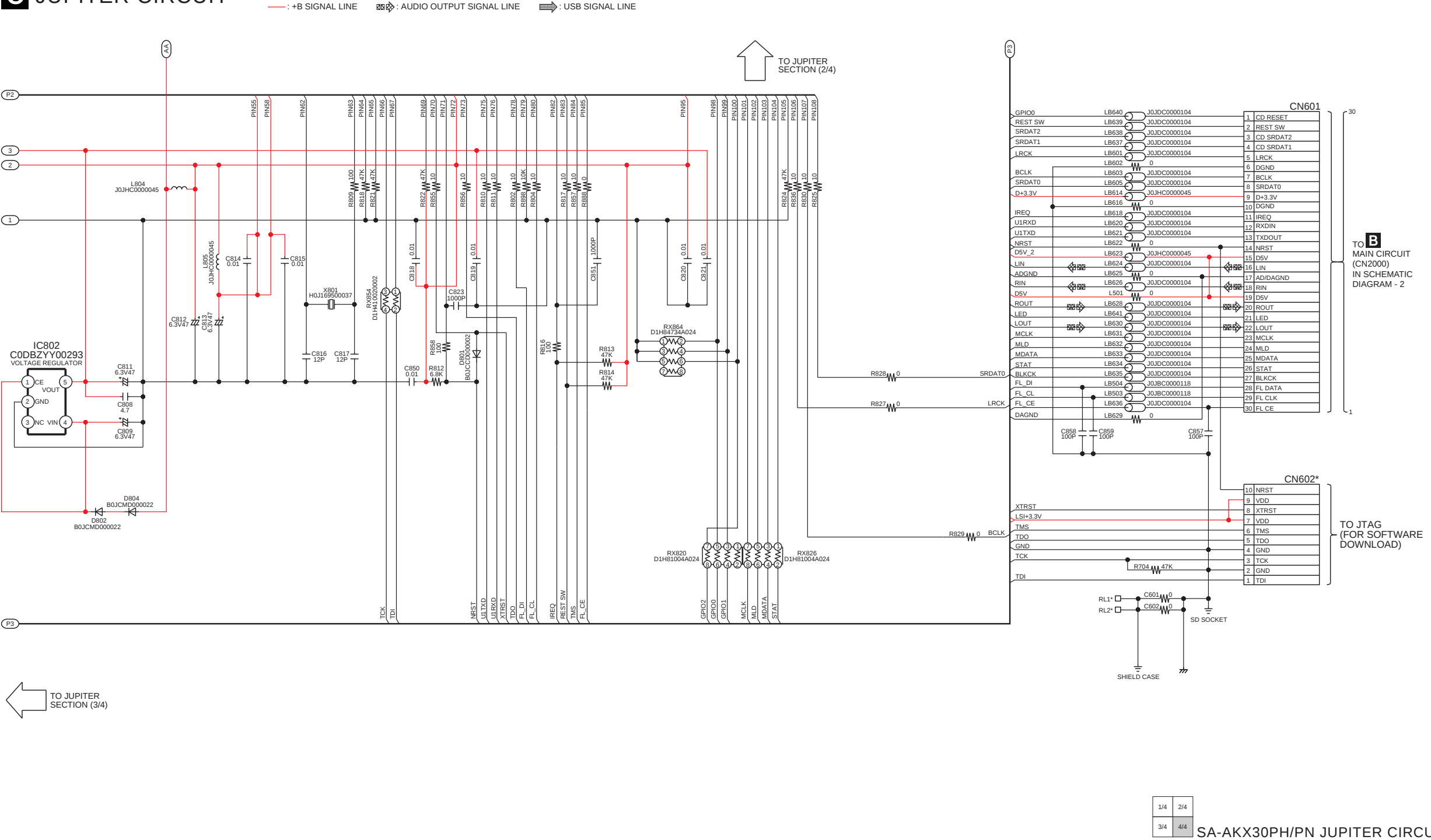


1/4	2/4
3/4	4/4

SA-AKX30PH/PN JUPITER CIRCUIT

SCHEMATIC DIAGRAM - 11

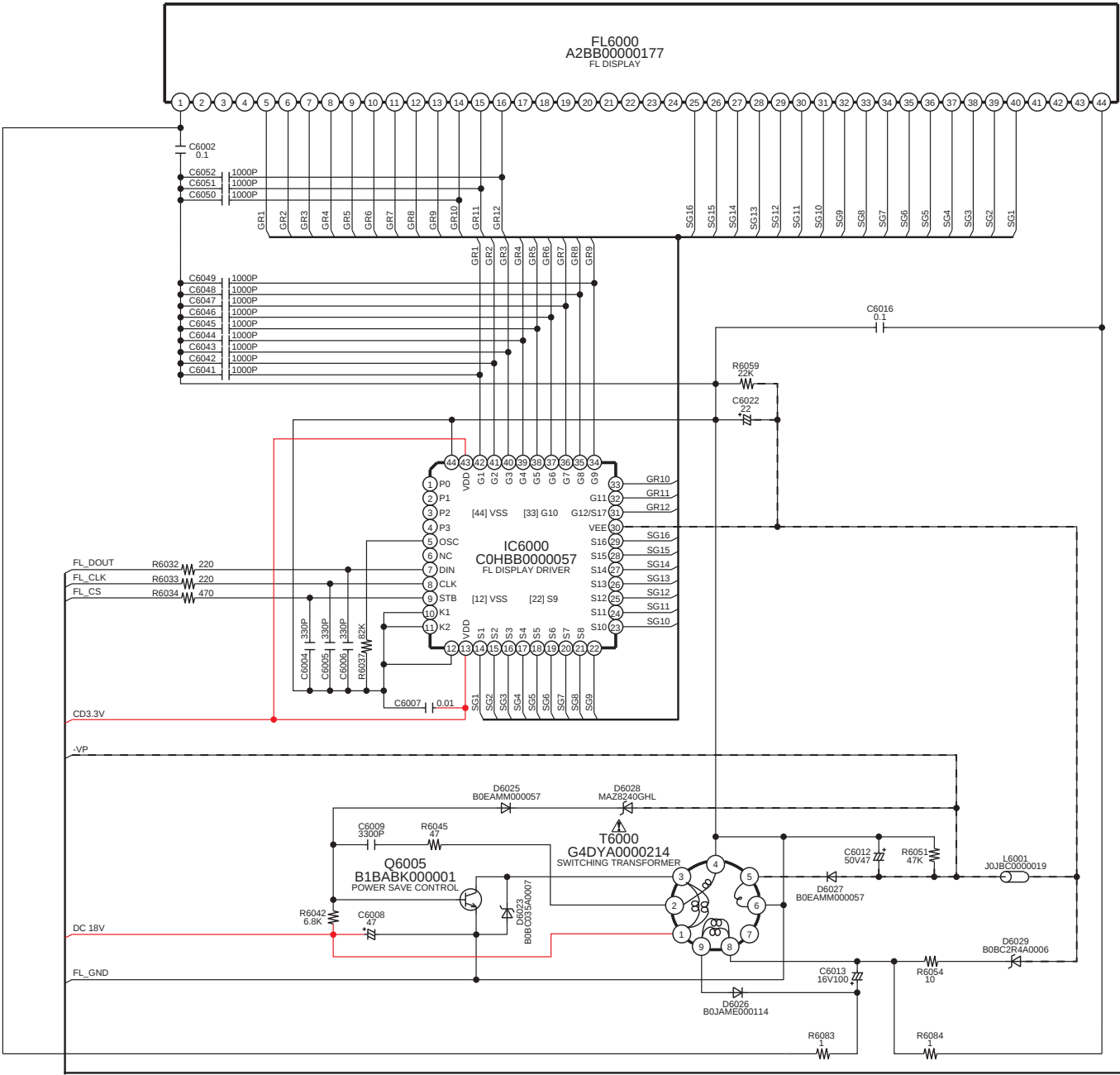
C JUPITER CIRCUIT



18.4. Panel Circuit

SCHEMATIC DIAGRAM - 12
D PANEL CIRCUIT

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



TO PANEL SECTION (2/2) 

D PANEL CIRCUIT

The schematic diagram illustrates the internal circuitry of the AKX30PH/PN panel. It features a central processing area with various components including resistors (R6016-R6022, R6001-R6007, R6056-R6075), capacitors (C6019-C6023, C6010-C6011), diodes (D5019, D5030, D5032), and connectors (CN6000, CN6001, CN6005). The circuit is divided into several functional blocks, each labeled with a letter in a box (A, B, C, D, E, F, G, H) and a corresponding schematic diagram reference. The components are interconnected to form a complex network of signals and power lines. The diagram also includes a legend for the components and a list of components used in the circuit.

Legend:

- 1/2: 1/2
- 2/2: 2/2

Components:

- R6016: 1.2K
- R6017: 1.5K
- R6018: 2.2K
- R6019: 3.3K
- R6020: 4.7K
- R6021: 6.8K
- R6022: 15K
- R6001: 1.2K
- R6002: 1.5K
- R6003: 2.2K
- R6004: 3.3K
- R6005: 4.7K
- R6006: 6.8K
- R6007: 15K
- R6056: 10K
- R6057: 22K
- R6058: 12K
- R6059: 10K
- R6060: 180
- R6061: 0
- R6062: 180
- R6063: 180
- R6064: 0
- R6065: 0
- R6066: 0
- R6067: 0
- R6068: 0
- R6069: 0
- R6070: 0
- R6071: 0
- R6072: 0
- R6073: 0
- R6074: 0
- R6075: 3.3K
- R6076: 3.3K
- R6077: 15K
- R6078: 15K
- R6079: 15K
- R6080: 15K
- R6081: 15K
- R6082: 15K
- R6083: 15K
- R6084: 15K
- R6085: 15K
- R6086: 15K
- R6087: 15K
- R6088: 15K
- R6089: 15K
- R6090: 15K
- R6091: 15K
- R6092: 15K
- R6093: 15K
- R6094: 15K
- R6095: 15K
- R6096: 15K
- R6097: 15K
- R6098: 15K
- R6099: 15K
- R6100: 15K
- R6101: 15K
- R6102: 15K
- R6103: 15K
- R6104: 15K
- R6105: 15K
- R6106: 15K
- R6107: 15K
- R6108: 15K
- R6109: 15K
- R6110: 15K
- R6111: 15K
- R6112: 15K
- R6113: 15K
- R6114: 15K
- R6115: 15K
- R6116: 15K
- R6117: 15K
- R6118: 15K
- R6119: 15K
- R6120: 15K
- R6121: 15K
- R6122: 15K
- R6123: 15K
- R6124: 15K
- R6125: 15K
- R6126: 15K
- R6127: 15K
- R6128: 15K
- R6129: 15K
- R6130: 15K
- R6131: 15K
- R6132: 15K
- R6133: 15K
- R6134: 15K
- R6135: 15K
- R6136: 15K
- R6137: 15K
- R6138: 15K
- R6139: 15K
- R6140: 15K
- R6141: 15K
- R6142: 15K
- R6143: 15K
- R6144: 15K
- R6145: 15K
- R6146: 15K
- R6147: 15K
- R6148: 15K
- R6149: 15K
- R6150: 15K
- R6151: 15K
- R6152: 15K
- R6153: 15K
- R6154: 15K
- R6155: 15K
- R6156: 15K
- R6157: 15K
- R6158: 15K
- R6159: 15K
- R6160: 15K
- R6161: 15K
- R6162: 15K
- R6163: 15K
- R6164: 15K
- R6165: 15K
- R6166: 15K
- R6167: 15K
- R6168: 15K
- R6169: 15K
- R6170: 15K
- R6171: 15K
- R6172: 15K
- R6173: 15K
- R6174: 15K
- R6175: 15K
- R6176: 15K
- R6177: 15K
- R6178: 15K
- R6179: 15K
- R6180: 15K
- R6181: 15K
- R6182: 15K
- R6183: 15K
- R6184: 15K
- R6185: 15K
- R6186: 15K
- R6187: 15K
- R6188: 15K
- R6189: 15K
- R6190: 15K
- R6191: 15K
- R6192: 15K
- R6193: 15K
- R6194: 15K
- R6195: 15K
- R6196: 15K
- R6197: 15K
- R6198: 15K
- R6199: 15K
- R6200: 15K
- R6201: 15K
- R6202: 15K
- R6203: 15K
- R6204: 15K
- R6205: 15K
- R6206: 15K
- R6207: 15K
- R6208: 15K
- R6209: 15K
- R6210: 15K
- R6211: 15K
- R6212: 15K
- R6213: 15K
- R6214: 15K
- R6215: 15K
- R6216: 15K
- R6217: 15K
- R6218: 15K
- R6219: 15K
- R6220: 15K
- R6221: 15K
- R6222: 15K
- R6223: 15K
- R6224: 15K
- R6225: 15K
- R6226: 15K
- R6227: 15K
- R6228: 15K
- R6229: 15K
- R6230: 15K
- R6231: 15K
- R6232: 15K
- R6233: 15K
- R6234: 15K
- R6235: 15K
- R6236: 15K
- R6237: 15K
- R6238: 15K
- R6239: 15K
- R6240: 15K
- R6241: 15K
- R6242: 15K
- R6243: 15K
- R6244: 15K
- R6245: 15K
- R6246: 15K
- R6247: 15K
- R6248: 15K
- R6249: 15K
- R6250: 15K
- R6251: 15K
- R6252: 15K
- R6253: 15K
- R6254: 15K
- R6255: 15K
- R6256: 15K
- R6257: 15K
- R6258: 15K
- R6259: 15K
- R6260: 15K
- R6261: 15K
- R6262: 15K
- R6263: 15K
- R6264: 15K
- R6265: 15K
- R6266: 15K
- R6267: 15K
- R6268: 15K
- R6269: 15K
- R6270: 15K
- R6271: 15K
- R6272: 15K
- R6273: 15K
- R6274: 15K
- R6275: 15K
- R6276: 15K
- R6277: 15K
- R6278: 15K
- R6279: 15K
- R6280: 15K
- R6281: 15K
- R6282: 15K
- R6283: 15K
- R6284: 15K
- R6285: 15K
- R6286: 15K
- R6287: 15K
- R6288: 15K
- R6289: 15K
- R6290: 15K
- R6291: 15K
- R6292: 15K
- R6293: 15K
- R6294:

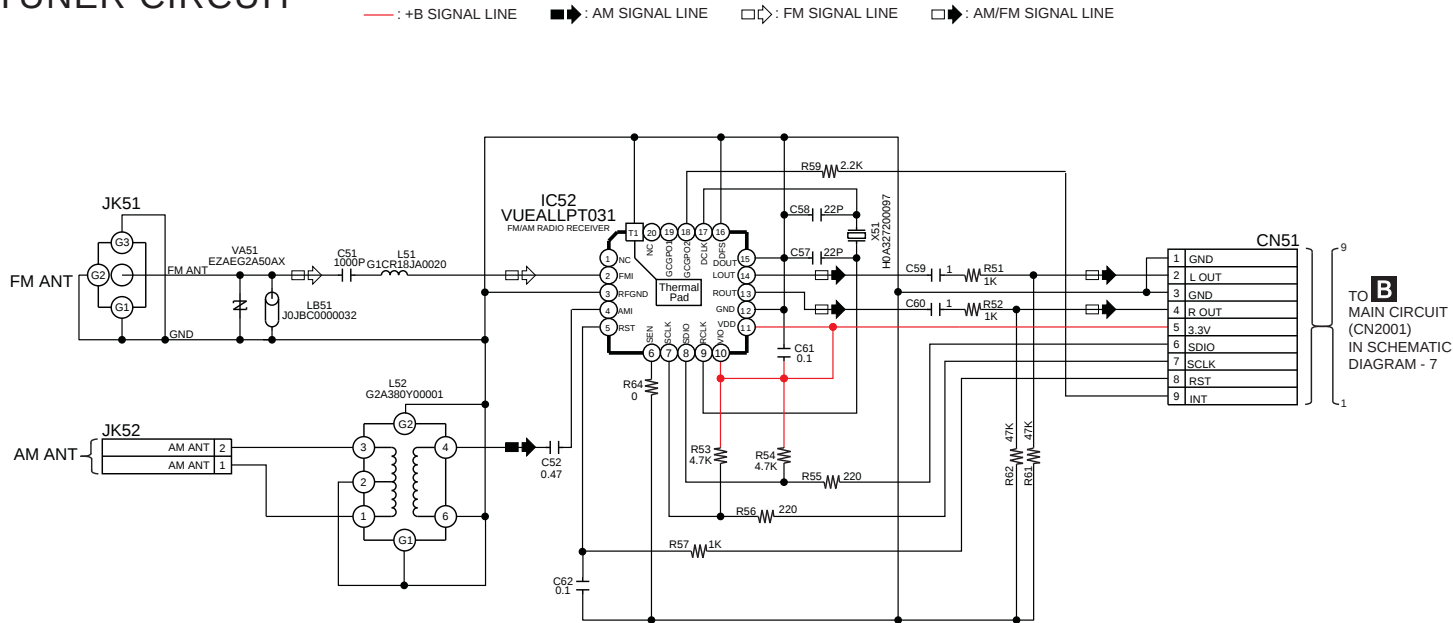
18.5. CD Open Button, Remote Sensor, Tuner, Music Port/Headphone Circuit

SCHEMATIC DIAGRAM - 14

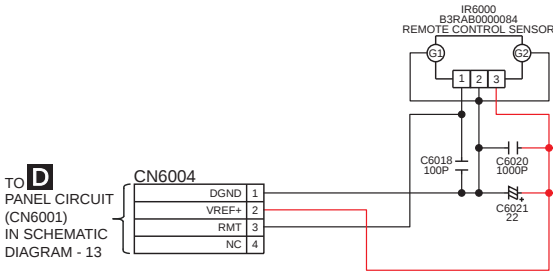
E CD OPEN BUTTON CIRCUIT



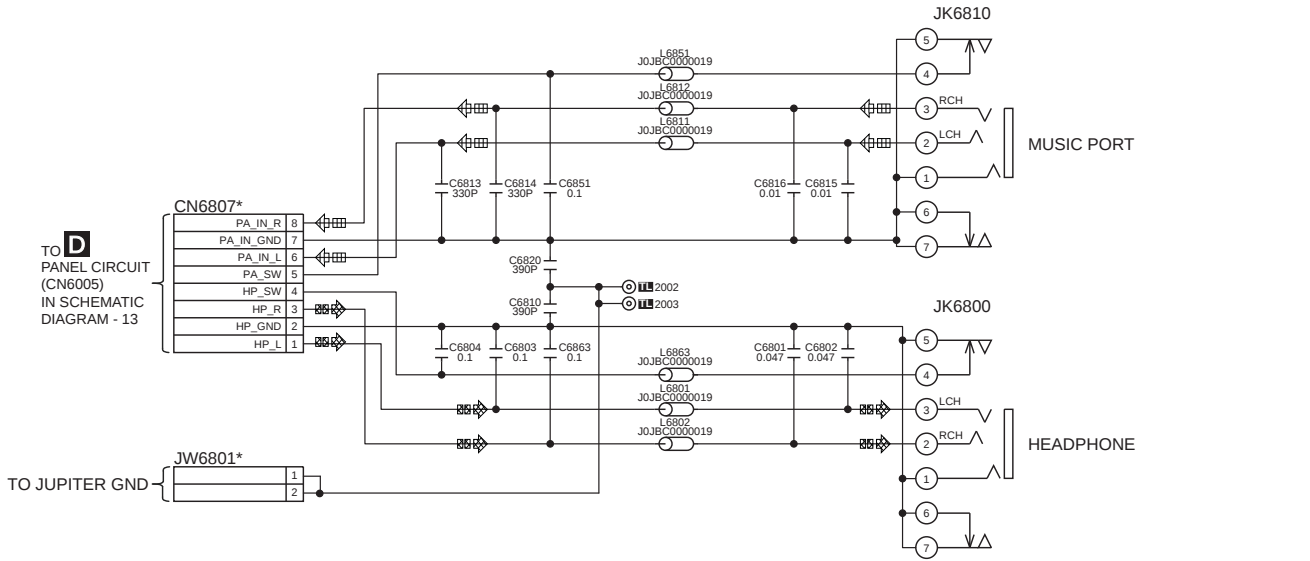
G TUNER CIRCUIT



F REMOTE SENSOR CIRCUIT

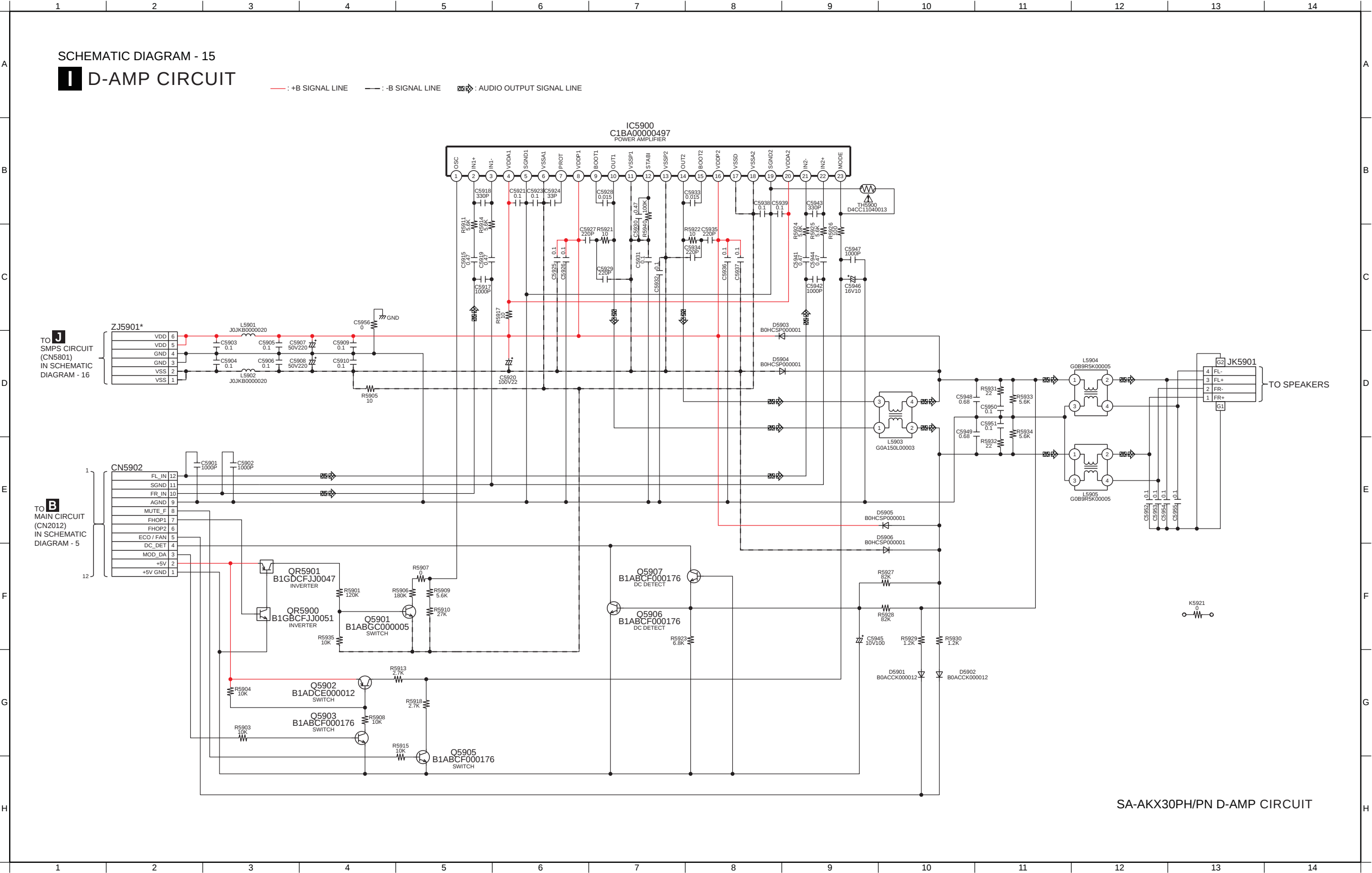


H MUSIC PORT/HEADPHONE CIRCUIT

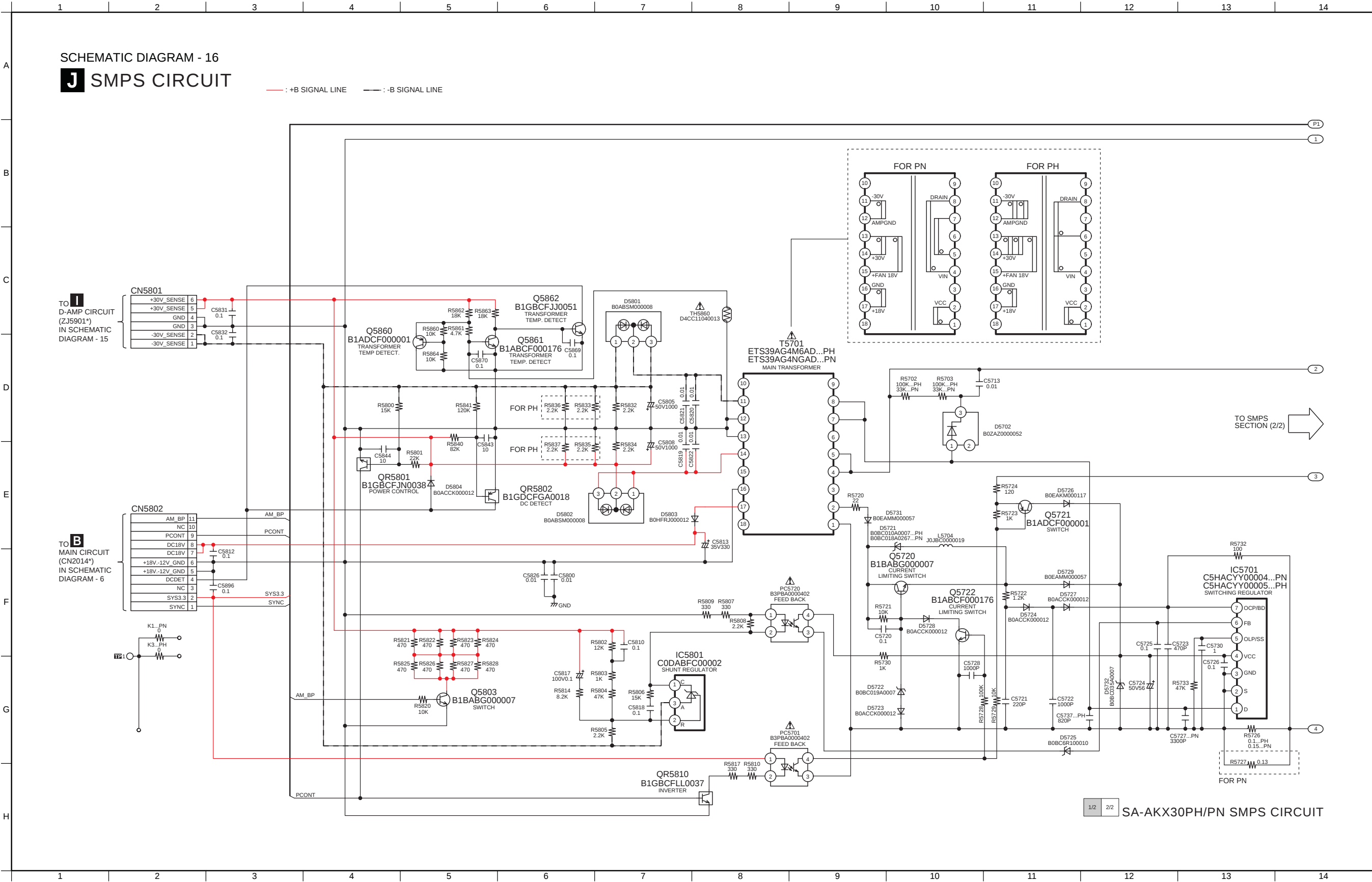


SA-AKX30PH/PN CD OPEB BUTTON / REMOTE SENSOR / TUNER / MUSIC PORT/HEADPHONE CIRCUIT

18.6. D-Amp Circuit

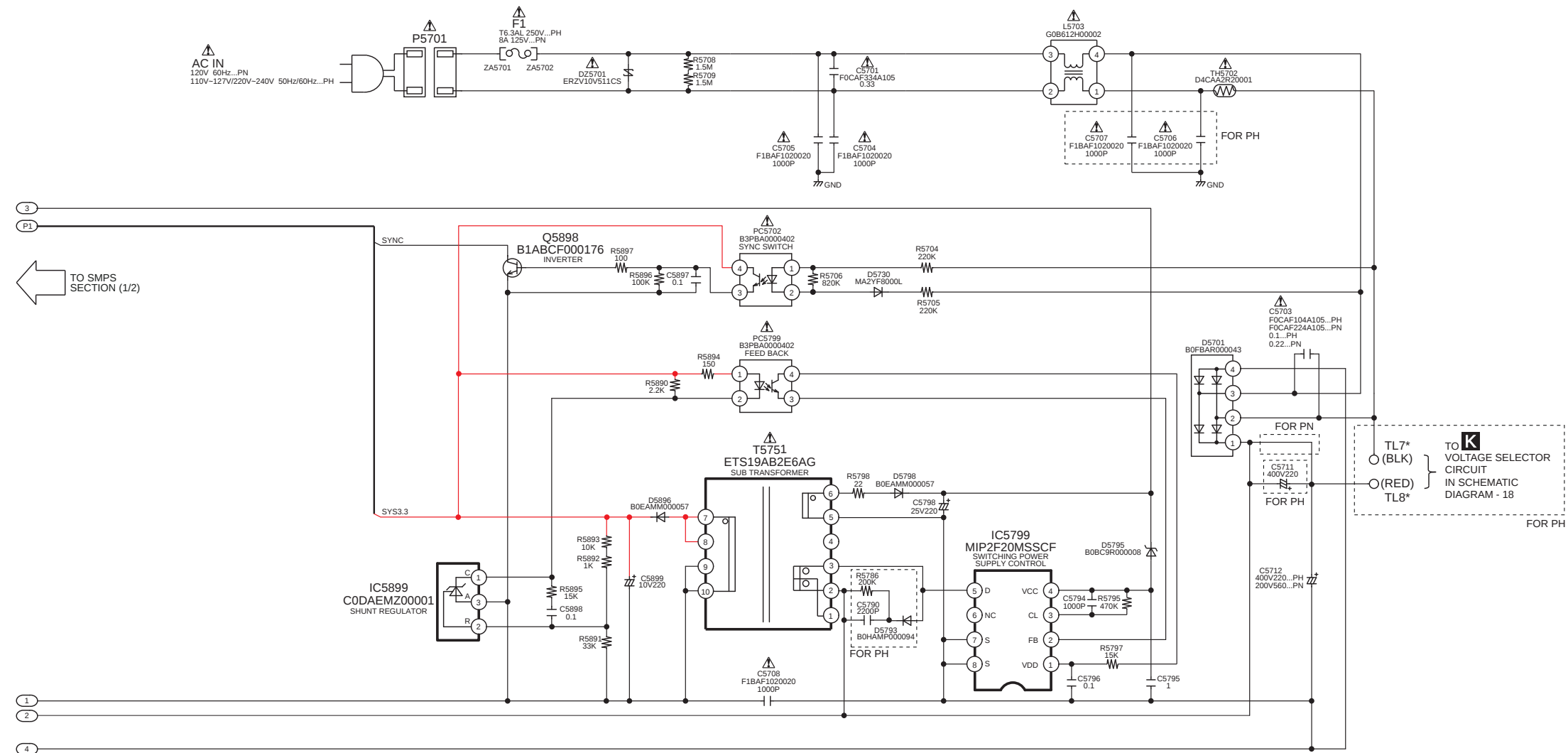


18.7. SMPS Circuit

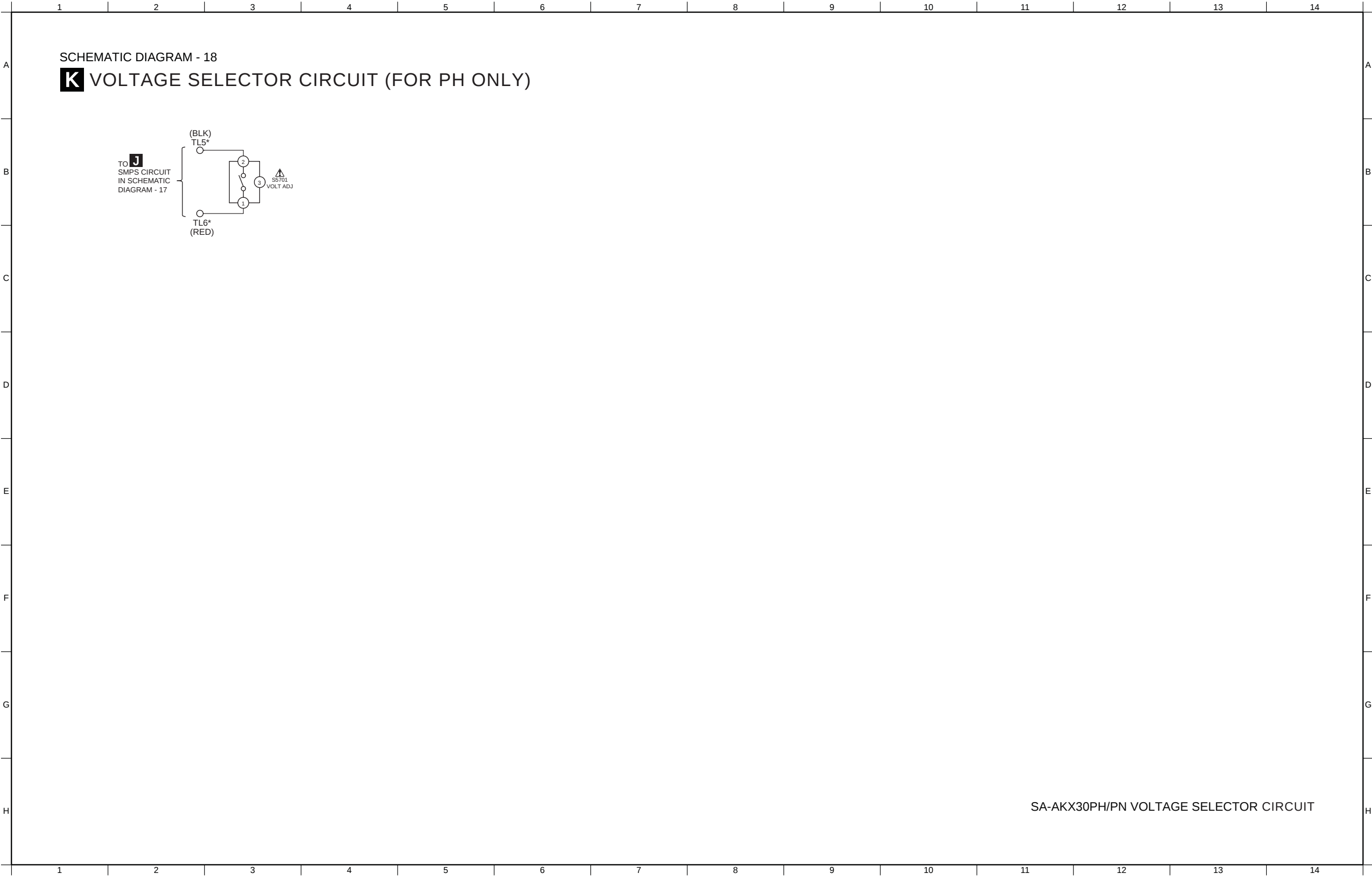


SCHEMATIC DIAGRAM - 17
J SMPS CIRCUIT

— : +B SIGNAL LINE — : -B SIGNAL LINE



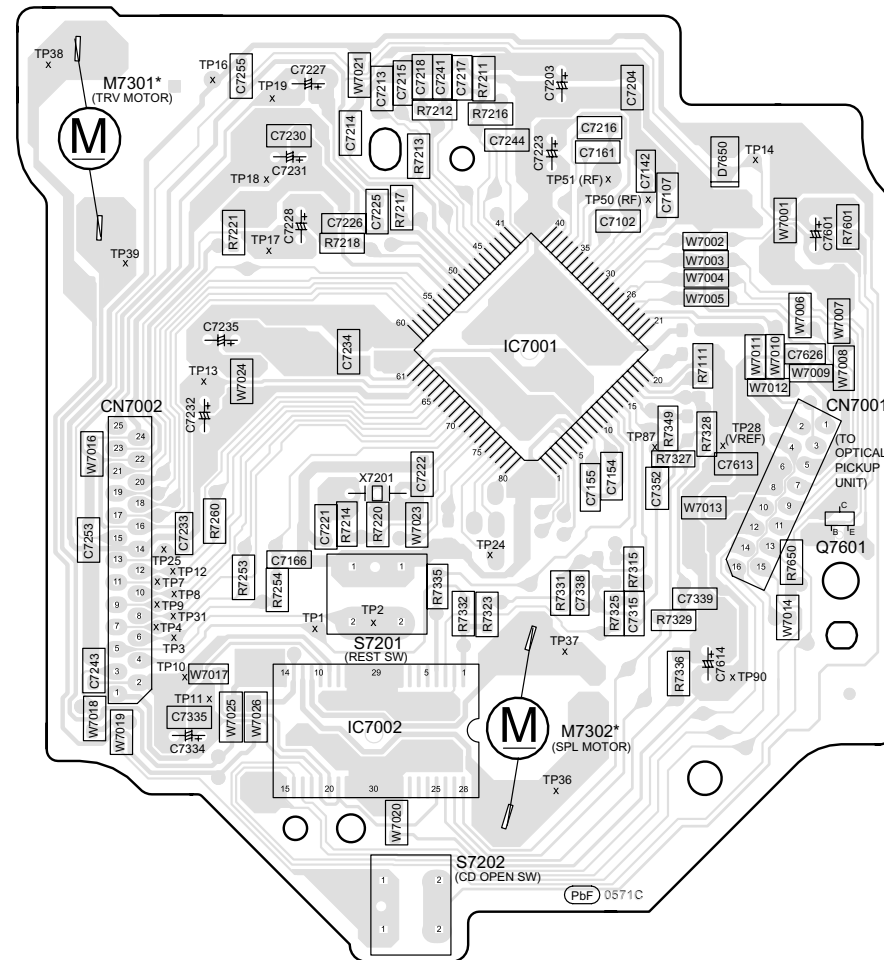
18.8. Voltage Selector Circuit (For PH Only)



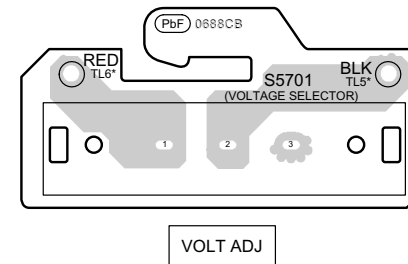
19 Printed Circuit Board

19.1. CD Servo & Voltage Selector P.C.B.

A CD SERVO P.C.B. (REPX0739A)



K VOLTAGE SELECTOR P.C.B. (REPX0809C...PH)

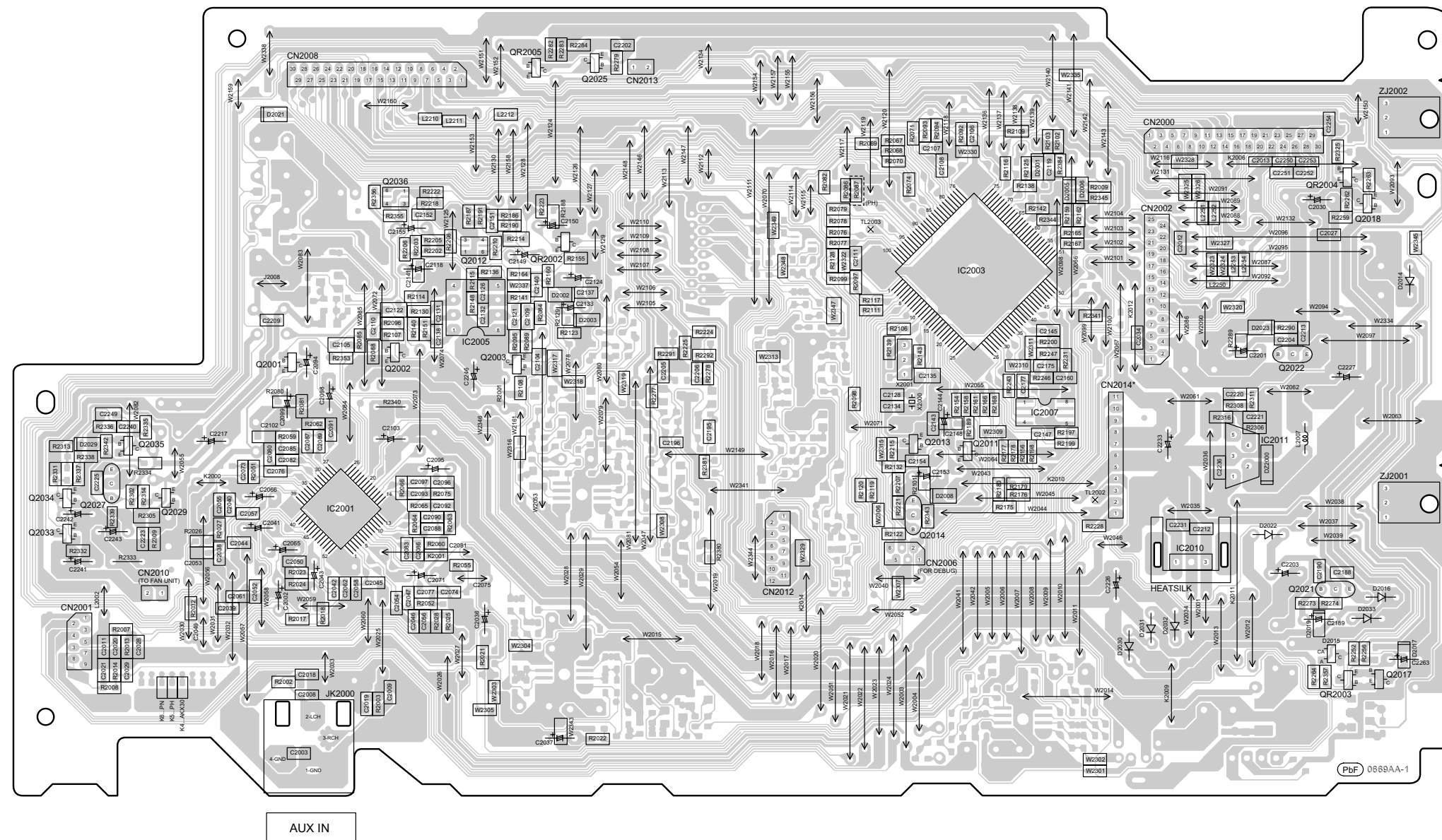


NOTE: " * " REF IS FOR INDICATION ONLY.

SA-AKX30PH/PN
CD SERVO / VOLTAGE SELECTOR P.C.B.

A
B
C
D
E
F
G
H

B MAIN P.C.B. (REPX0815KA...PH)
(REPX0815HA...PN)

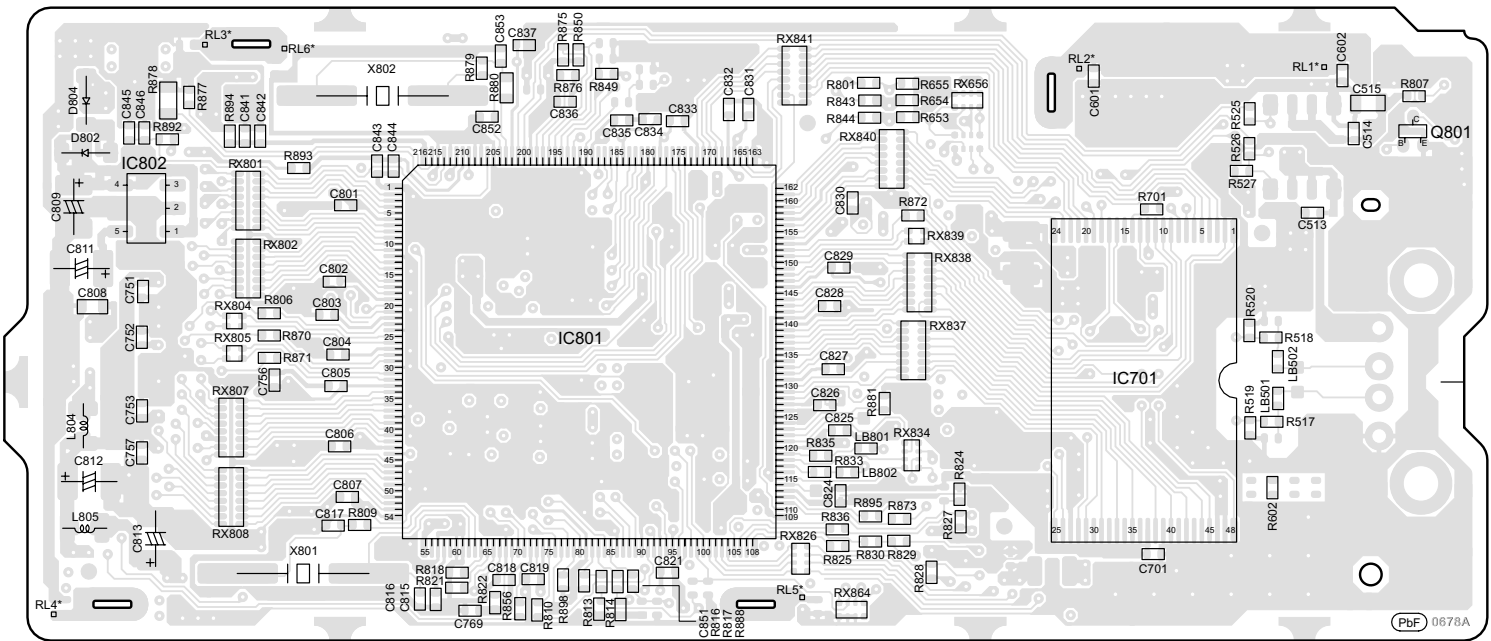


NOTE: " * " REF IS FOR INDICATION ONLY.

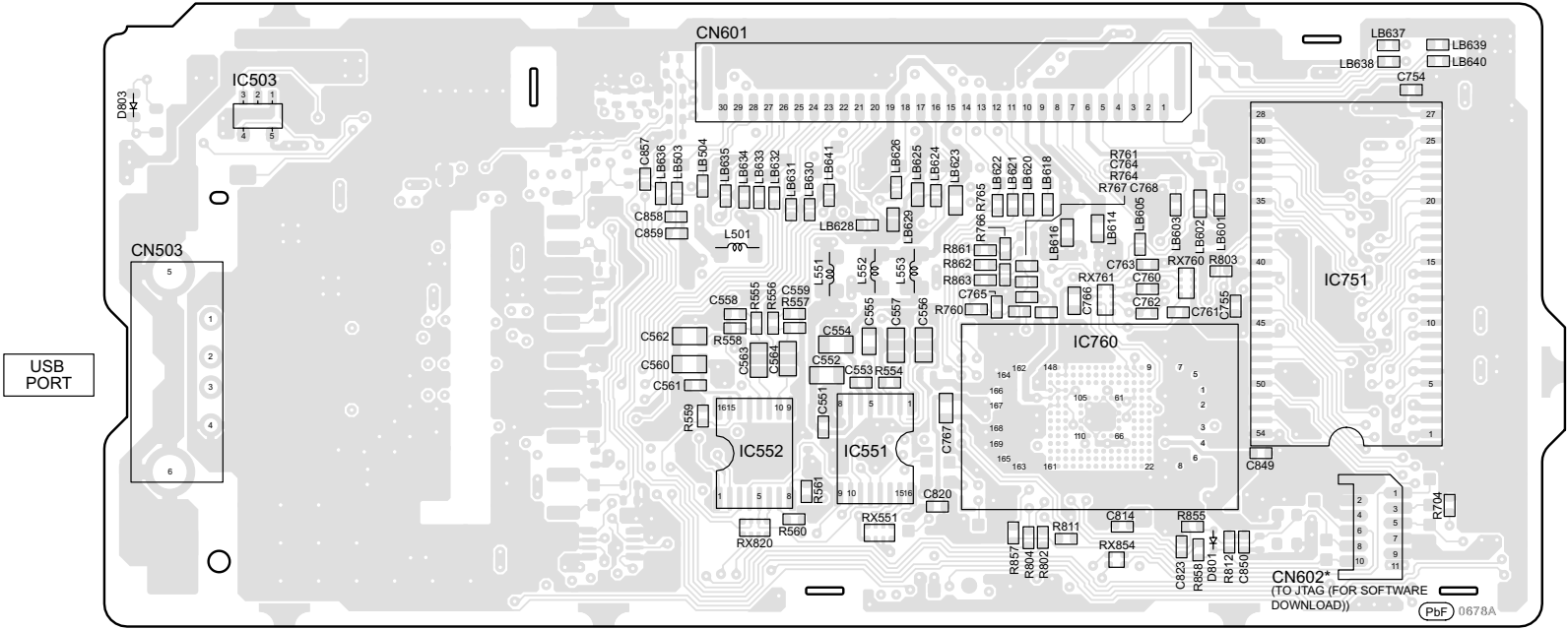
SA-AKX30PH/PN
MAIN P.C.B.

19.3. Jupiter P.C.B.

C JUPITER P.C.B. (REPX0823B)



(SIDE A)



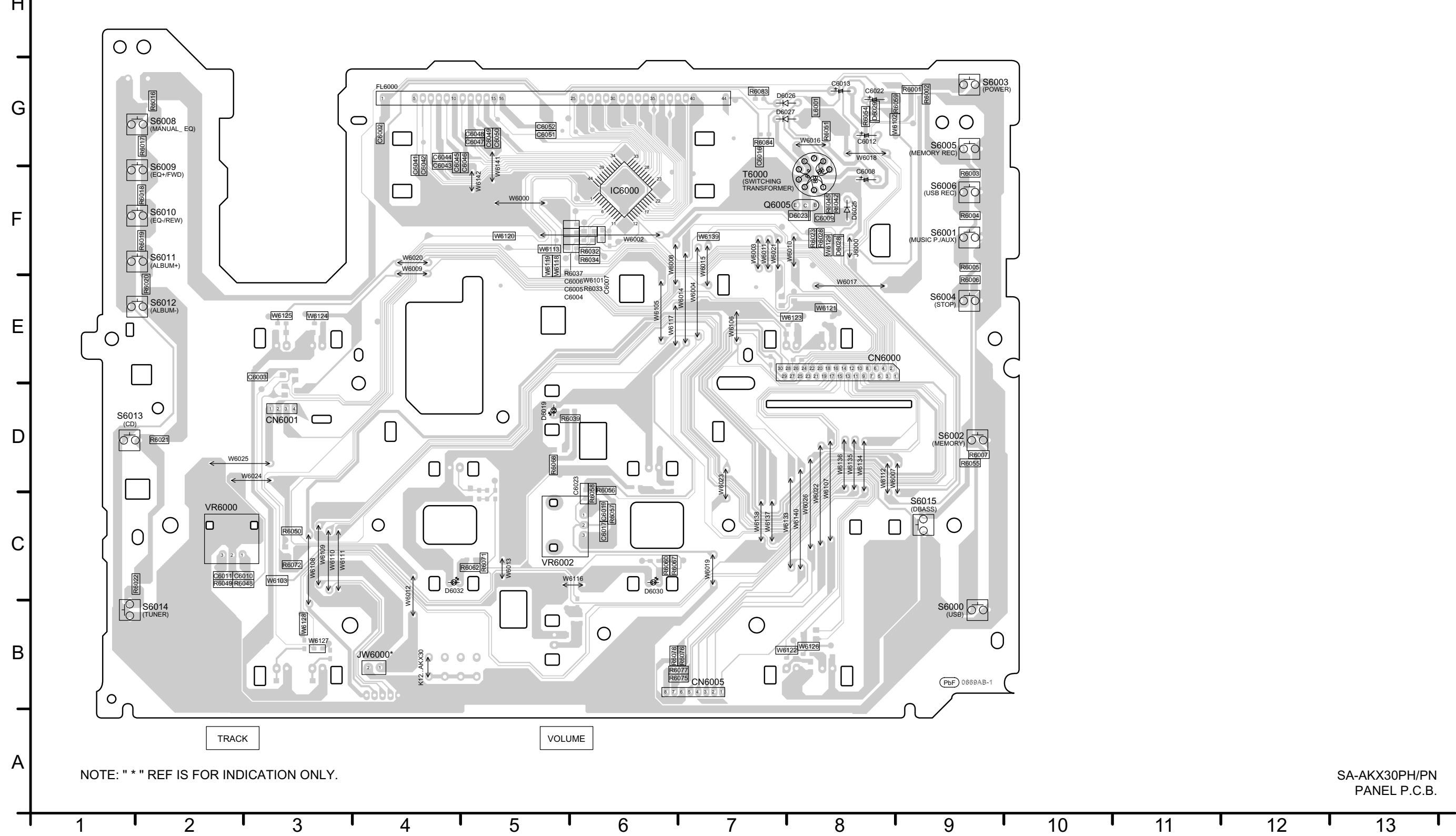
(SIDE B)

NOTE: " * " REF IS FOR INDICATION ONLY.

SA-AKX30PH/PN
JUPITER P.C.B.

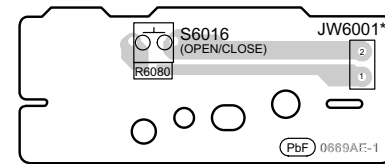
19.4. Panel P.C.B.

D PANEL P.C.B. (REPX0815KB...PH)
(REPX0815HB...PN)

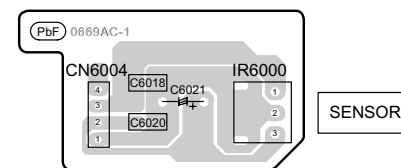


19.5. CD Open Button, Remote Sensor, Tuner, Music Port/Headphone & D-Amp P.C.B.

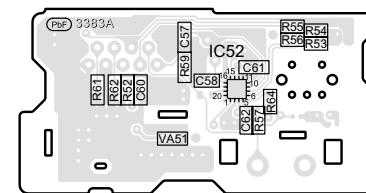
E CD OPEN BUTTON P.C.B. (REPX0815KB...PH)
(REPX0815HB...PN)



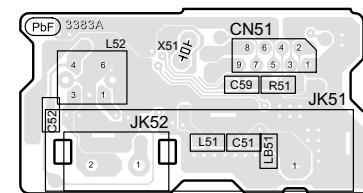
F REMOTE SENSOR P.C.B. (REPX0815KB...PH)
(REPX0815HB...PN)



G TUNER P.C.B. (REP4557A)



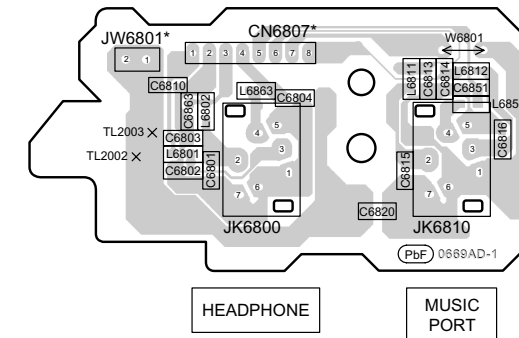
(SIDE A)



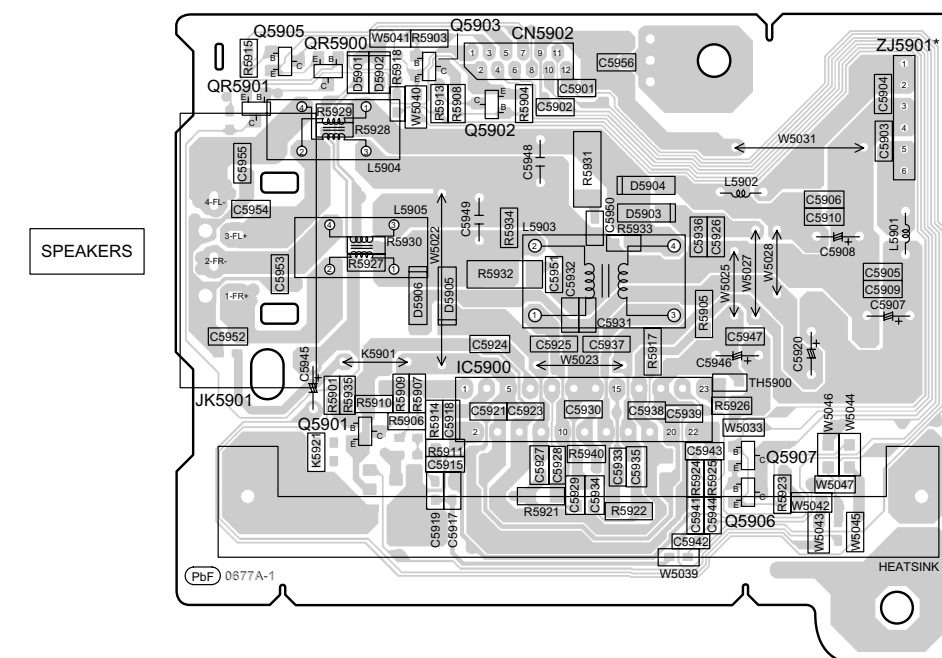
(SIDE B)

NOTE: " * " REF IS FOR INDICATION ONLY.

H MUSIC PORT/HEADPHONE P.C.B. (REPX0815KB...PH)
(REPX0815HB...PN)



I D-AMP P.C.B. (REPX0822B)

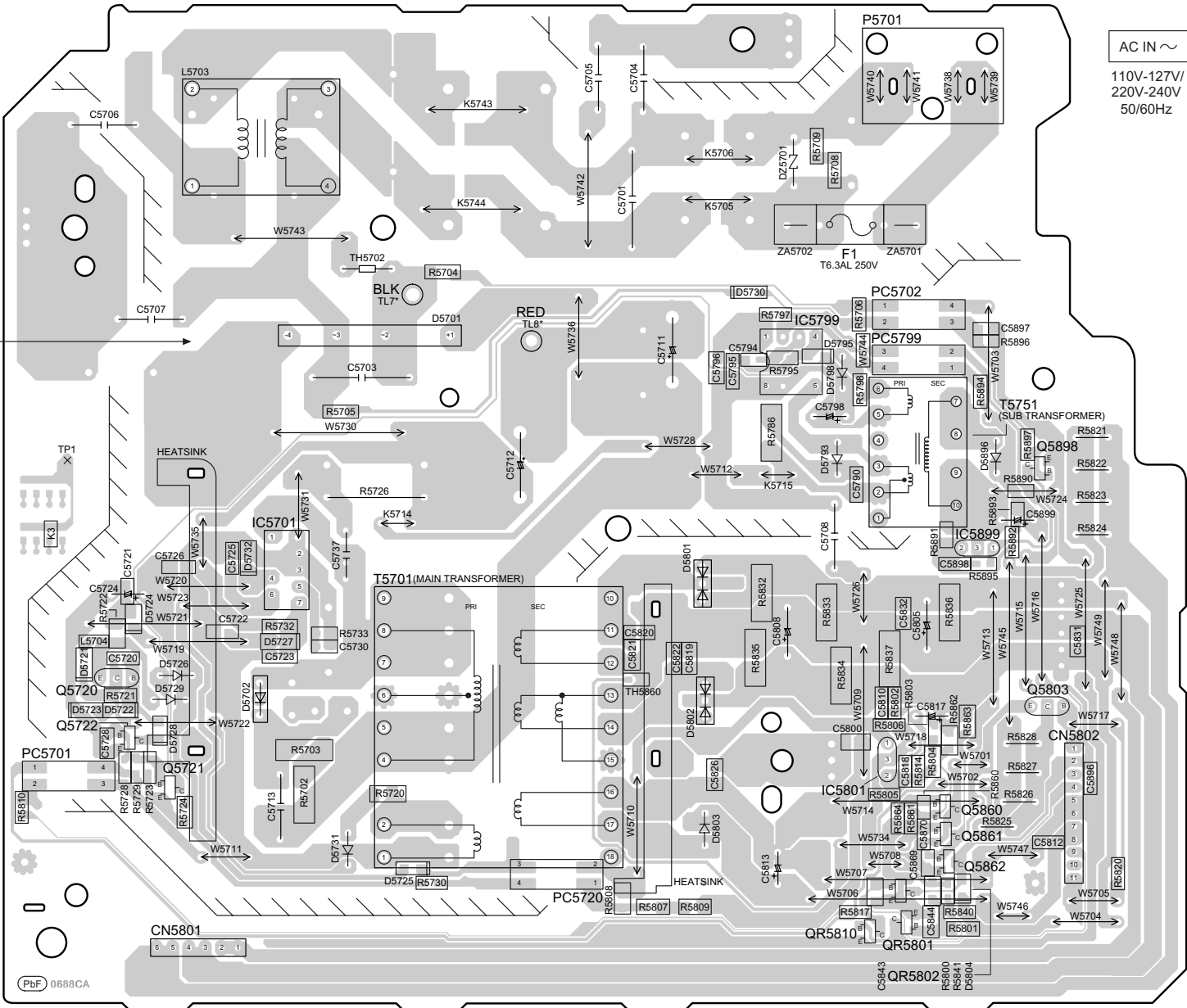


SA-AKX30PH/PN
CD OPEN BUTTON / REMOTE SENSOR / TUNER / MUSIC PORT/HEADPHONE / D-AMP P.C.B.

19.6. SMPS P.C.B. (For PH Only)

J SMPS P.C.B. (REPX0809C...PH)

CAUTION
RISK OF ELECTRIC SHOCK
AC VOLTAGE LINE.
PLEASE DO NOT TOUCH THIS P.C.B



NOTE: " * " REF IS FOR INDICATION ONLY.

SA-AKX30PH/PN
SMPS P.C.B.

20 Terminal Function of ICs

20.1. IC2003 (RFKWAKX30PN): IC MICRO-PROCESSOR

Pin No.	Terminal Name	I/O	Function
1	CLIP_ATTEN	O	To level down output to reduce distortion
2	ASP_DATA	O	ASP Communication line
3	ASP_CLK	O	ASP Communication line
4	OCD_SDA	O	Flashing of Micro-P communication line
5	SW_MUTE	O	Not used
6	OCD_SCL	O	Flashing of Micro-P communication line
7	SW_LVL1	-	Not connected
8	SW_LVL2	-	Not connected
9	DCDET1	I	Detect of DAmpl faulty (F61)
10	DCDET2	I	Detect of Power Supply & SMPS faulty (F76)
11	MMOD	I	Flashing of Micro-P communication line
12	XTOUT	O	Resonator Oscillation . 10Mhz
13	XTIN	I	Resonator Oscillation . 10Mhz
14	VSS	-	Ground
15	XI	I	crystal clk Oscillation .32.7khz
16	XO	O	crystal clk Oscillation .32.7khz
17	VDD33	-	3.3V supply
18	VDD18	-	1.8V supply
19	NSRT	I	Reset for Micro-P for programme initialize
20	SWJOGA	I	Not used
21	SWJOGB	I	Not used
22	TU_SDA	O	Tuner communication line
23	TU_CLK	O	Tuner communication line
24	TU_RST	O	Tuner communication line
25	TU_INT	I	Tuner communication line
26	NC	-	No Connection
27	SYNC	I	Pulse wave from SMPS to detect of AC plug in or out
28	PCONT	O	To switch on all power supply.Active Hi
29	SMPS_BP	O	To shift SMPS switching freq from interference
30	CD_OPEN_SW	I	To detect Open SW
31	NC	-	No Connection
32	NC	-	No Connection
33	NC	-	No Connection
34	EE_DATA	O	EEPROM communication line
35	EE_CS	O	EEPROM communication line
36	EE_CLK	O	EEPROM communication line
37	VDD18	-	1.8V Supply
38	NC	-	No Connection
39	VSS	-	Ground
40	NC	-	No Connection
41	NC	-	No Connection
42	NC	-	No Connection
43	NC	-	No Connection
44	NC	-	No Connection
45	NC	-	No Connection
46	NC	-	No Connection
47	NC	-	No Connection
48	WMUTE	O	Not used
49	WDET	I	Not used
50	SW_LED	O	Not used

Pin No.	Terminal Name	I/O	Function
51	CD_RESET	O	CD Reset pin
52	CD_RESET_SW	I	To detect CD Reset SW
53	CD_LOADING_CW	O	CD loading clockwise
54	CD_LOADING_CCW	O	CD loading counterclockwise
55	NC	-	No Connection
56	NC	-	No Connection
57	NC	-	No Connection
58	NC	-	No Connection
59	NC	-	No Connection
60	NC	-	No Connection
61	NC	-	No Connection
62	NC	-	No Connection
63	VSS	-	Ground
64	NC	-	No Connection
65	NC	-	No Connection
66	NC	-	No Connection
67	REGION3	I	Country region setting
68	NC	-	No Connection
69	CR_TIMER	I	CR timer pin
70	NC	-	No Connection
71	LED	O	Not used
72	MIC_SW	I	Not used
73	M.PORT_SW	I	To detect of MPort Jack connectivity . Active Hi
74	HP_SW	I	To detect of Headphone Jack connectivity . Active Hi
75	SD_INT	O	Jupiter and CD Communication line interrupt
76	SD_CMD	O	Jupiter & CD Communication line UART (TX)
77	SD_STAT	I	Jupiter & CD Communication line UART (RX)
78	SD_Nrst	O	Jupiter & CD Communication line NRST
79	USB_REC_LED	O	To activate LED blinking effect when USB recording
80	MUTE_S	O	Not used
81	MUTE_A	O	Muting Control
82	REGION2	I	Country region setting
83	MODE_DA	O	To activate DAmpl. Active Hi
84	F_HOP1	O	To shift DAmpl switching freq from interference to AM freq
85	MUTE_F	O	To mute DAmpl for speaker output muting
86	RMT	I	Remote controller detection communication line
87	NC	-	No Connection
88	NC	-	No Connection
89	VDD	-	3.3V Supply
90	LED_DIMMER	O	Dim down the LED when dimmer on . Active Lo
91	VSS	-	Ground
92	REGION1	I	Country region setting
93	CLIP_SENSOR	I	To detect signal & distortion by level adjustment
94	LEVEL_METER	I	To detect signal level for LED light up/off
95	ROTARY_SKIP	I	To detect rotary pulse for track search
96	VOL_JOG	I	To detect vol jog for volume control
97	NC	-	No Connection
98	KEY2	I	To detect Manual EQ/FF/RWD/Album+/-/CD/AM/FM/button
99	KEY1	I	To detect Power/Memory/USB/MPort/Stop/DBass button
100	VREF+	-	3.3V Supply

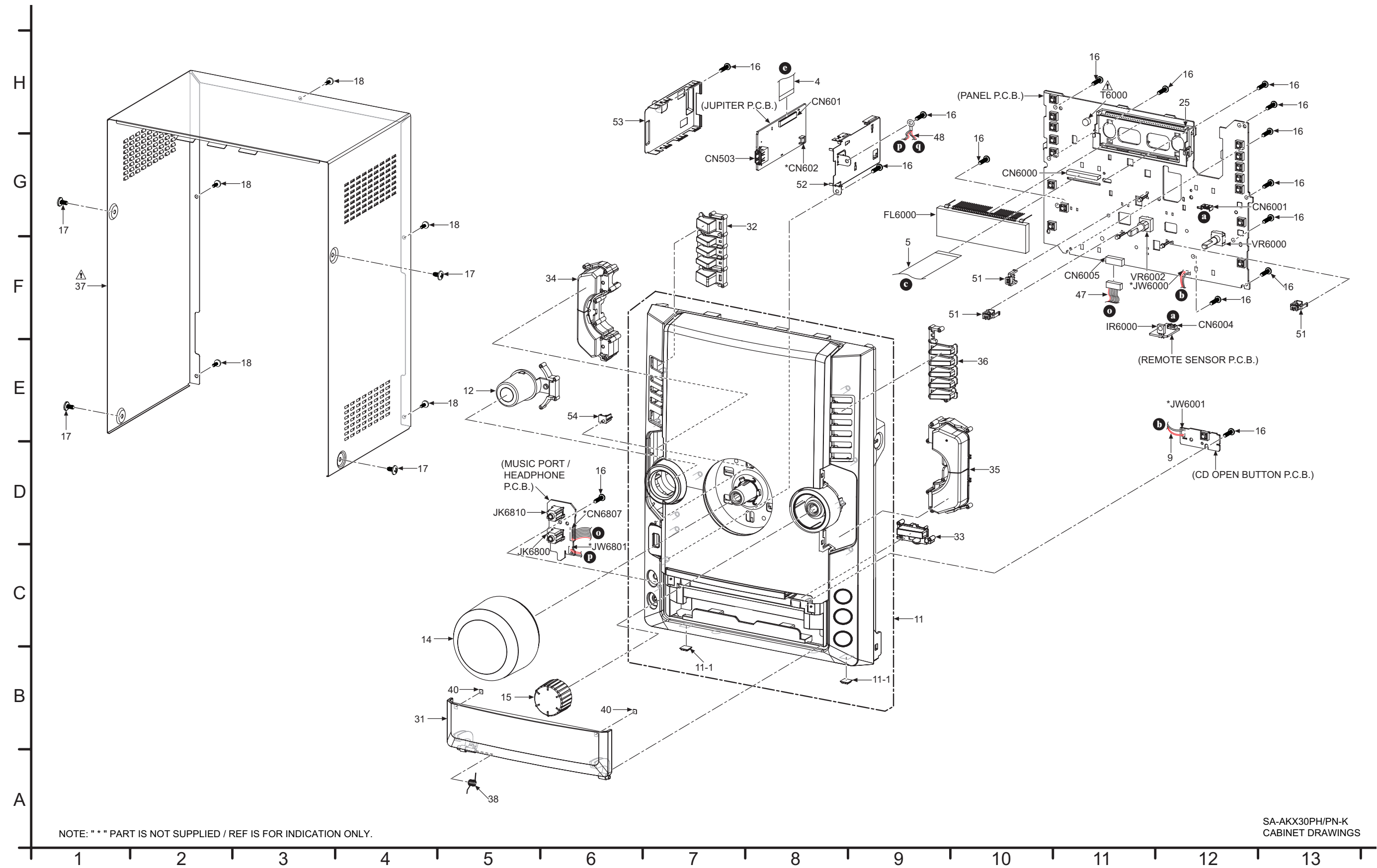
20.2. IC6901(C0HBB0000057): IC FL Driver

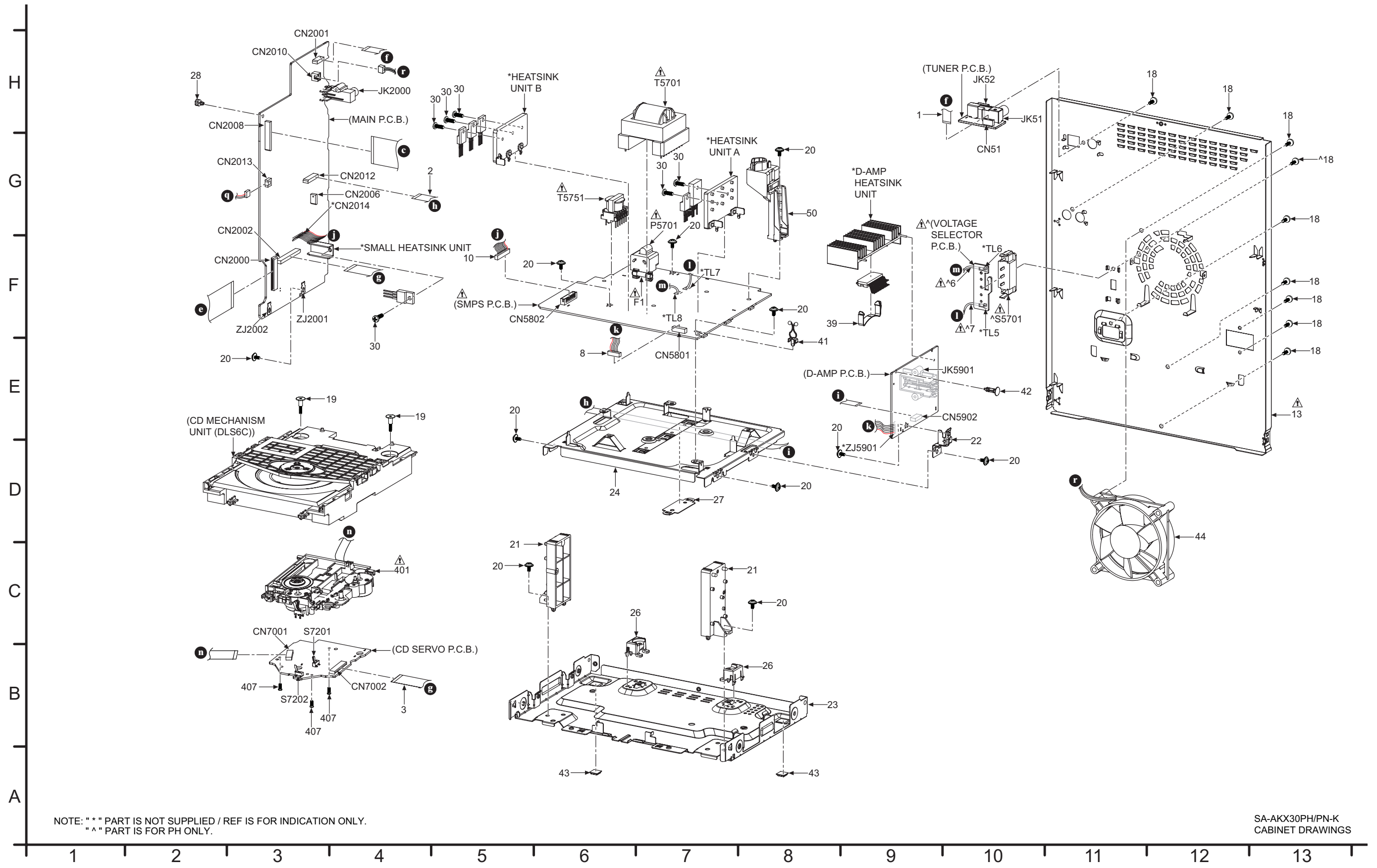
Pin No.	Terminal Name	I/O	Function
1	P0	-	No Connection
2	P1	-	No Connection
3	P2	-	No Connection
4	P3	-	No Connection
5	OSC	I	Oscillator Input
6	NC	-	No Connection
7	DIN	I	Data Input
8	CLK	I	Clock Input
9	STB	I	Serial Interface Strobe
10	K1	-	Key Data Input 1 (No Connection)
11	K2	-	Key Data Input 2 (No Connection)
12	VSS	-	GND
13	VDD	-	Power Supply (+5V)
14	S1	O	Segment Output 18
15	S2	O	Segment Output 17
16	S3	O	Segment Output 16
17	S4	O	Segment Output 15
18	S5	O	Segment Output 14
19	S6	O	Segment Output 13
20	S7	O	Segment Output 12
21	S8	O	Segment Output 11
22	S9	O	Segment Output 10
23	S10	O	Segment Output 9
24	S11	O	Segment Output 8
25	S12	O	Segment Output 7
26	S13	O	Segment Output 6
27	S14	O	Segment Output 5
28	S15	O	Segment Output 4
29	S16	O	Segment Output 3
30	VEE	-	Voltage Supply
31	G12	O	Segment Output 2
32	G11	O	Segment Output 1
33	G10	O	Grid Segment Output 1
34	G9	O	Grid Segment Output 2
35	G8	O	Grid Segment Output 3
36	G7	O	Grid Segment Output 4
37	G6	O	Grid Segment Output 5
38	G5	O	Grid Segment Output 6
39	G4	O	Grid Segment Output 7
40	G3	O	Grid Segment Output 8
41	G2	O	Grid Segment Output 9
42	G1	O	Grid Segment Output 10
43	VDD	-	Voltage Supply (+5V)
44	VSS	-	GND

21 Exploded View and Replacement Parts List

21.1. Exploded View and Mechanical replacement Part List

21.1.1. Cabinet Parts Location

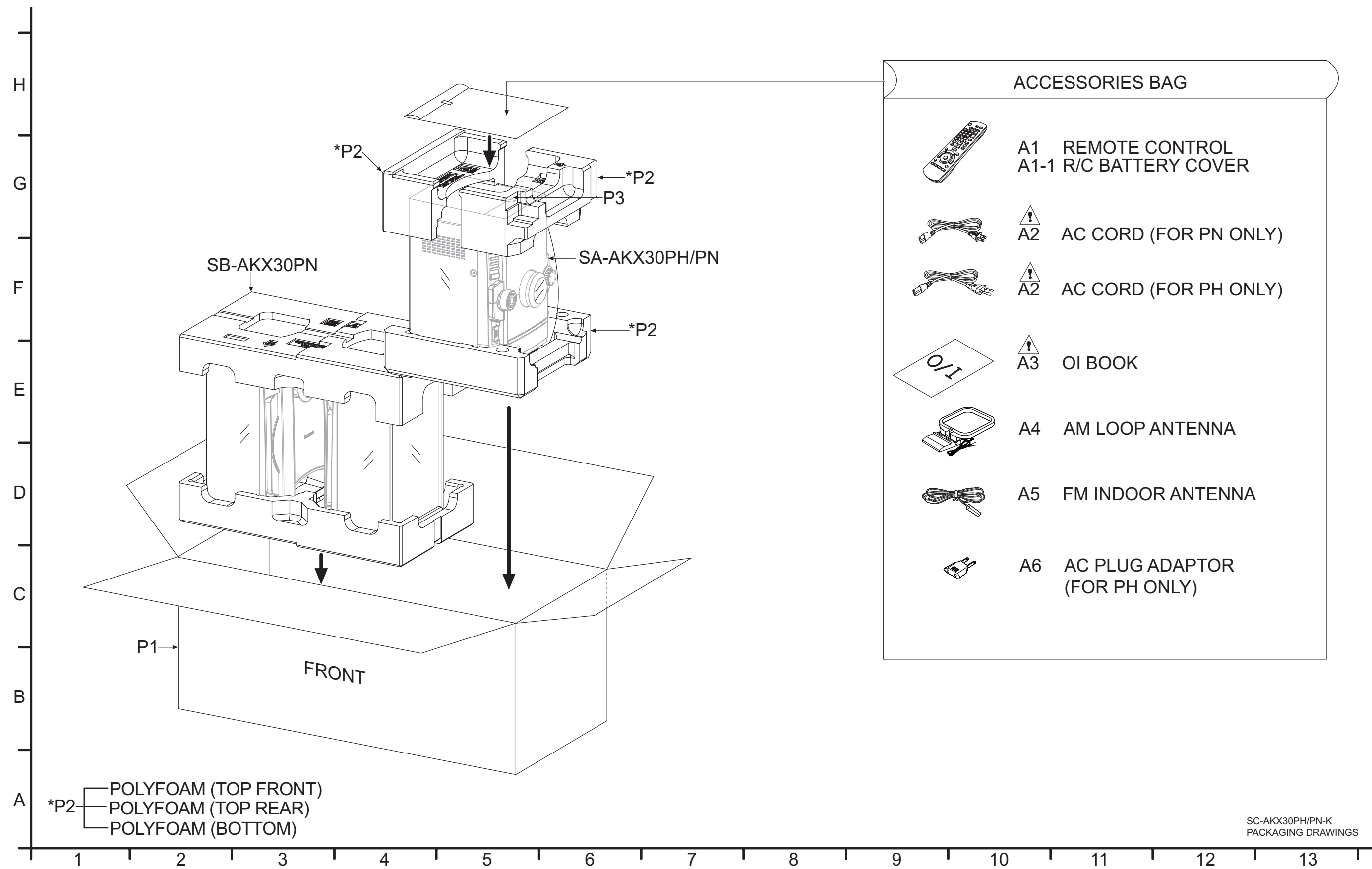




NOTE: " * " PART IS NOT SUPPLIED / REF IS FOR INDICATION ONLY.
 " ^ " PART IS FOR PH ONLY.

SA-AKX30PH/PN-K
 CABINET DRAWINGS

21.1.2. Packaging



21.1.3. Mechanical Replacement Part List

Important Safety Notice

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

RTL (Retention Time Limited)

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

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

Note:

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

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

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			CABINET AND CHASSIS		
	1	REEX1001	9P FFC (MAIN-TUNER)	1	
	2	REEX1147	12P FFC (MAIN-DAMP)	1	
	3	REEX1162	25P FFC (Main to CD)	1	
	4	REEX1164	30P FFC (Main to Jupiter)	1	
	5	REEX1165	32P FFC (MAIN-PANEL)	1	
	6	REXX1030	1P RED WIRE (VOLTAGE-SMPS)	1	PH
	7	REXX1031	1P BLACK WIRE (VOLTAGE-SMPS)	1	PH
	8	REXX1040	6P CABLE WIRE (DAMP-SMPS)	1	
	9	REXX1076	2P CABLE WIRE (PANEL-CD OPEN BUTTON)	1	
	10	REXX1089	11P CABLE WIRE (SMPS-MAIN)	1	
	11	RFKGA30PHK	FRONT PANEL ASS'Y	1	
	11-1	RKAX0042-K	LEG CUSHION	2	
	12	RYPX0321H-S	DYNAMIC BASS BUTTON UNIT	1	
	13	RGRX1002C-A3	REAR PANEL	1	PN
	13	RGRX1002D-A2	REAR PANEL	1	PH
	14	RGWX0112-S1	VOLUME KNOB	1	
	15	RGWX0113-S	SKIP KNOB	1	
	16	RHD26046-L	SCREW	15	
	17	RHD30007-K2J	SCREW	4	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	18	RHD30119-S	SCREW	14	PH
	18	RHD30119-S	SCREW	13	PN
	19	RHD3031008	SCREW	2	
	20	RHD30005-1	SCREW	11	
	21	RMAX0333-2	CHASSIS SUPPORT	2	
	22	RMAX1002	D-AMP BRACKET	1	
	23	RMKX1005	BOTTOM CHASSIS	1	
	24	RMKX1006	INNER CHASSIS	1	
	25	RMNV0079-1	FL HOLDER	1	
	26	RMQX0382-2	MECHA HOLDER	2	
	27	RMQX1041-Q	SUPPORT SHEET	1	
	28	RMR0502A-W	PCB SUPPORT	1	
	30	XTB3+10JFJ	SCREW	6	
	31	RGKX1030B-K	CD LID	1	
	32	RGUX1007A-K	POWER BUTTON	1	
	33	RGUX1009-K	CD OPEN BUTTON	1	
	34	RGUX1010A-S	MAIN CONTROL BUTTON L	1	
	35	RGUX1011-S	MAIN CONTROL BUTTON R	1	
	36	RGUX1016-K	MANUAL EQ BUTTON	1	
	37	RKMX1003-K	TOP CABINET	1	
	38	RMBX1002	CD LID OPEN SPRING	1	
	39	RMGX0035	HEATSINK CLIP A	1	
	40	RMGX0033	CUSHION RUBBER	2	
	41	RMNX1025	WIRE HOLDER	1	
	42	RMQ1702	PCB SPACER	1	
	43	RKAX0042-K	LEG CUSHION	2	
	44	L6FALEPH0030	FAN UNIT ASS'Y	1	
	47	REXX1088	8P CABLE WIRE (PANEL-MUSIC PORT/HEADPHONE)	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	48	REXX1090	2P CABLE WIRE (MUSIC PORT/ HEADPHONE-SD SHIELD PLATE A)	1	
	50	RMXX1016	FAN FIXTURE	1	
	51	RMNX0151	LED HOLDER	3	
	52	RSCX0207A-1	SD SHIELD PLATE A	1	
	53	RSCX0208B	SD SHIELD PLATE B	1	
	54	RGLX1005-Q	USB REC LIGHT PIECE	1	
			TRAVERSE DECK		
⚠	401	RAEX0190Z-V	TRAVERSE UNIT	1	
	407	XTN2+6GFJ	SCREW	3	
			PACKING MATERI- ALS		
	P1	RPGX3073	PACKING CASE	1	PN
	P1	RPGX3074	PACKING CASE	1	PH
	P2	RPNX1008	POLYFOAM	1	
	P3	RPF0198	MIRAMAT SHEET	1	
			ACCESSORIES		
	A1	N2QAYB000501	REMOTE CONTROL	1	
	A1-1	RKK-PT470EBK	R/C BATTERY COVER	1	
⚠	A2	K2CB2CB00021	AC CORD	1	PN
⚠	A2	K2CQ2CA00007	AC CORD	1	PH
⚠	A3	K2DAYYY00002	AC CORD	1	PH
⚠	A3	RQTX1090-M	O/I BOOK (Sp)	1	PN
⚠	A3	RQTX1091-M	O/I BOOK (Sp)	1	PH
⚠	A3	RQTX1100-M	O/I BOOK (En)	1	PN
	A4	N1DY0000010	AM LOOP ANTENNA	1	
	A5	RSAX0002	FM INDOOR ANTENNA	1	
	A6	K2DAYYY00002	AC PLUG ADAPTER	1	PH

21.2. Electrical Replacement Part List

Important Safety Notice

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

RTL (Retention Time Limited)

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

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

Note:

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

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			PRINTED CIRCUIT BOARDS		
	PCB1	REP4557A	TUNER P.C.B.	1	(RTL)
	PCB2	REPX0739A	CD SERVO P.C.B.	1	(RTL)
$\triangle$	PCB3	REPX0809A	SMPS P.C.B.	1	(RTL) PN
$\triangle$	PCB3	REPX0809C	SMPS P.C.B.	1	(RTL) PH
	PCB4	REPX0815KA	MAIN P.C.B.	1	(RTL) PH
	PCB4	REPX0815HA	MAIN P.C.B.	1	(RTL) PN
	PCB5	REPX0815KB	PANEL P.C.B.	1	(RTL) PH
	PCB5	REPX0815HB	PANEL P.C.B.	1	(RTL) PN
	PCB6	REPX0815KB	CD OPEN BUTTON P.C.B.	1	(RTL) PH
	PCB6	REPX0815HB	CD OPEN BUTTON P.C.B.	1	(RTL) PN
	PCB7	REPX0815KB	REMOTE SENSOR P.C.B.	1	(RTL) PH
	PCB7	REPX0815HB	REMOTE SENSOR P.C.B.	1	(RTL) PN
	PCB8	REPX0823B	JUPITER P.C.B.	1	(RTL)
	PCB9	REPX0822B	D-AMP P.C.B.	1	(RTL)
$\triangle$	PCB10	REPX0809C	VOLTAGE SELECTOR P.C.B.	1	(RTL) PH
	PCB11	REPX0815KB	MUSIC PORT/HEADPHONE P.C.B.	1	(RTL) PH
	PCB11	REPX0815HB	MUSIC PORT/HEADPHONE P.C.B.	1	(RTL) PN
			INTEGRATED CIRCUITS		
	IC52	VUEALLPT031	IC	1	[SPG]
	IC503	C0DBZHE00026	IC	1	
	IC551	C0FBAK000026	IC	1	
	IC552	C0FBY000027	IC	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	IC701	C3FBMG000041	IC	1	
	IC751	C3ABQG000097	IC	1	
	IC760	C3FBXY000016	IC	1	
	IC801	MN2WS0042NA	IC	1	
	IC802	C0DBZY000293	IC	1	
	IC2001	C1AB00003256	IC	1	
	IC2003	RFKWMAKX30PN	IC	1	
	IC2005	C0AABB000125	IC	1	
	IC2007	C3EBFY000006	IC	1	
	IC2010	C0CAAKG00046	IC	1	
	IC2011	C0DAAYG00001	IC	1	
	IC5701	C5HACY000004	IC	1	PN
	IC5701	C5HACY000005	IC	1	PH
	IC5799	MIP2F20MSSCF	IC	1	
	IC5801	C0DABFC00002	IC	1	
	IC5899	C0DAEMZ00001	IC	1	
	IC5900	C1BA00000497	IC	1	
	IC6000	C0HBB0000057	IC	1	
	IC7001	MN6627553PA	IC	1	
	IC7002	BA5948FPE2	IC	1	
			TRANSISTORS		
	Q801	B1GBCFGN0016	TRANSISTOR	1	
	Q2001	B1ABCF000176	TRANSISTOR	1	
	Q2002	B1ABCF000176	TRANSISTOR	1	
	Q2003	B1ABCF000176	TRANSISTOR	1	
	Q2011	B1GBCFLL0037	TRANSISTOR	1	
	Q2012	B1GFGCAA0001	TRANSISTOR	1	
	Q2013	B1GBCFLL0037	TRANSISTOR	1	
	Q2014	B1ACKD000006	TRANSISTOR	1	
	Q2017	B1GBCFJJ0051	TRANSISTOR	1	
	Q2018	B1ABEB000002	TRANSISTOR	1	
	Q2021	B1BACD000018	TRANSISTOR	1	
	Q2022	B1AAJC000019	TRANSISTOR	1	
	Q2025	B1ADCE000012	TRANSISTOR	1	
	Q2027	B1ACKD000006	TRANSISTOR	1	
	Q2029	B1ABCF000176	TRANSISTOR	1	
	Q2033	B1ABCF000176	TRANSISTOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	Q2034	B1ABCF000176	TRANSISTOR	1	
	Q2035	B1ABCF000176	TRANSISTOR	1	
	Q2036	B1GFGCA0001	TRANSISTOR	1	
	Q5720	B1BABG000007	TRANSISTOR	1	
	Q5721	B1ADCF000001	TRANSISTOR	1	
	Q5722	B1ABCF000176	TRANSISTOR	1	
	Q5803	B1BABG000007	TRANSISTOR	1	
	Q5860	B1ADCF000001	TRANSISTOR	1	
	Q5861	B1ABCF000176	TRANSISTOR	1	
	Q5862	B1GBCFJJ0051	TRANSISTOR	1	
	Q5898	B1ABCF000176	TRANSISTOR	1	
	Q5901	B1ABGC000005	TRANSISTOR	1	
	Q5902	B1ADCE000012	TRANSISTOR	1	
	Q5903	B1ABCF000176	TRANSISTOR	1	
	Q5905	B1ABCF000176	TRANSISTOR	1	
	Q5906	B1ABCF000176	TRANSISTOR	1	
	Q5907	B1ABCF000176	TRANSISTOR	1	
	Q6005	B1BABK000001	TRANSISTOR	1	
	Q7601	B1ADCF000001	TRANSISTOR	1	
	QR2002	B1GDCFGA0018	TRANSISTOR	1	
	QR2003	B1GBCFJJ0051	TRANSISTOR	1	
	QR2004	B1GBCFJJ0051	TRANSISTOR	1	
	QR2005	B1GBCFJJ0051	TRANSISTOR	1	
	QR5801	B1GBCFJJ0038	TRANSISTOR	1	
	QR5802	B1GDCFGA0018	TRANSISTOR	1	
	QR5810	B1GBCFLL0037	TRANSISTOR	1	
	QR5900	B1GBCFJJ0051	TRANSISTOR	1	
	QR5901	B1GDCFJJ0047	TRANSISTOR	1	
			DIODES		
	D801	B0JCCD000002	DIODE	1	
	D802	B0JCMD000022	DIODE	1	
	D803	B3AB0000322	DIODE	1	
	D804	B0JCMD000022	DIODE	1	
	D2001	B0ACCK000012	DIODE	1	
	D2002	B0ACCK000012	DIODE	1	
	D2003	B0ACCK000012	DIODE	1	
	D2005	B0ACCK000012	DIODE	1	
	D2006	B0ACCK000012	DIODE	1	
	D2008	B0ACCK000012	DIODE	1	
	D2014	B0JAME000114	DIODE	1	
	D2015	B0ADCJ000020	DIODE	1	
	D2016	B0EAKM000117	DIODE	1	
	D2017	B0ACCK000005	DIODE	1	
	D2019	B0BC01000014	DIODE	1	
	D2021	B0ACCK000012	DIODE	1	
	D2022	B0EAKM000117	DIODE	1	
	D2023	B0BC4R3A0266	DIODE	1	
	D2029	B0ACCK000012	DIODE	1	
	D2030	B0EAKM000117	DIODE	1	
	D2031	B0EAKM000117	DIODE	1	
	D2032	B0EAKM000117	DIODE	1	
	D2033	B0EAKM000117	DIODE	1	
	D5701	B0FBAR000043	DIODE	1	
	D5702	B0ZAZ0000052	DIODE	1	
	D5721	B0BC010A0007	DIODE	1	PH
	D5721	B0BC018A0267	DIODE	1	PN
	D5722	B0BC019A0007	DIODE	1	
	D5723	B0ACCK000012	DIODE	1	
	D5724	B0ACCK000012	DIODE	1	
	D5725	B0BC6R100010	DIODE	1	
	D5726	B0EAKM000117	DIODE	1	
	D5727	B0ACCK000012	DIODE	1	
	D5728	B0ACCK000012	DIODE	1	
	D5729	B0EAMM000057	DIODE	1	
	D5730	MA2YF8000L	DIODE	1	
	D5731	B0EAMM000057	DIODE	1	
	D5732	B0BC035A0007	DIODE	1	
	D5793	B0HAMP000094	DIODE	1	PH
	D5795	B0BC9R000008	DIODE	1	
	D5798	B0EAMM000057	DIODE	1	
	D5801	B0ABSM000008	DIODE	1	
	D5802	B0ABSM000008	DIODE	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	D5803	B0HFRJ000012	DIODE	1	
	D5804	B0ACCK000012	DIODE	1	
	D5896	B0EAMM000057	DIODE	1	
	D5901	B0ACCK000012	DIODE	1	
	D5902	B0ACCK000012	DIODE	1	
	D5903	B0HCSP000001	DIODE	1	
	D5904	B0HCSP000001	DIODE	1	
	D5905	B0HCSP000001	DIODE	1	
	D5906	B0HCSP000001	DIODE	1	
	D6019	B3AAA0001031	DIODE	1	
	D6023	B0BC035A0007	DIODE	1	
	D6025	B0EAMM000057	DIODE	1	
	D6026	B0JAME000114	DIODE	1	
	D6027	B0EAMM000057	DIODE	1	
	D6028	MAZ8240GHL	DIODE	1	
	D6029	B0BC2R4A0006	DIODE	1	
	D6030	B3AAA0001031	DIODE	1	
	D6032	B3AAA0001031	DIODE	1	
	D7650	MAZ8056GML	DIODE	1	
	DZ2000	B0JCPD000025	DIODE	1	
⚠	DZ5701	ERZV10V511CS	ZNR	1	
			VARIABLE RESISTORS		
	VA51	EZAEG2A50AX	ESD SUPPRESSOR	1	
			VARIABLE RESISTORS		
	VR6000	K9AA012Y0004	TRACK JOG	1	
	VR6002	EVEKE2F3524B	VOLUME JOG	1	
			SWITCHES		
⚠	S5701	K0ABCA000007	SW VOLTAGE SELECTOR	1	PH
	S6000	EVQ21405RJ	SW USB PLAY/PAUSE	1	
	S6001	EVQ21405RJ	SW MUSIC PORT	1	
	S6002	EVQ21405RJ	SW MEMORY PLAY/PAUSE	1	
	S6003	EVQ21405RJ	SW POWER	1	
	S6004	EVQ21405RJ	SW STOP	1	
	S6005	EVQ21405RJ	SW MEMORY REC/PAUSE	1	
	S6006	EVQ21405RJ	SW USB REC/PAUSE	1	
	S6008	EVQ21405RJ	SW MANUAL EQ	1	
	S6009	EVQ21405RJ	SW FORWARD	1	
	S6010	EVQ21405RJ	SW REWIND	1	
	S6011	EVQ21405RJ	SW ALBUM +	1	
	S6012	EVQ21405RJ	SW ALBUM -	1	
	S6013	EVQ21405RJ	SW CD PLAY/PAUSE	1	
	S6014	EVQ21405RJ	SW FM/AM	1	
	S6015	EVQ21405RJ	SW D.BASS	1	
	S6016	EVQ21405RJ	SW CD OPEN/CLOSE	1	
	S7201	RSH1A045-1A	SW RESET	1	
	S7202	RSH1A045-1A	SW CD OPEN	1	
			CONNECTORS		
	CN51	K1MN09AA0003	9P CONNECTOR	1	
	CN503	K1FY104B0011	USB CONNECTOR	1	
	CN601	K1MY30BA0046	30P CONNECTOR	1	
	CN2000	K1MN30BA0005	30P CONNECTOR	1	
	CN2001	K1MN09AA0003	9P CONNECTOR	1	
	CN2002	K1MN25AA0004	25P CONNECTOR	1	
	CN2006	K1MY06AA0124	6P CONNECTOR	1	
	CN2008	K1MN30AA0004	30P CONNECTOR	1	
	CN2010	K1KA02AA0186	2P CONNECTOR	1	
	CN2012	K1MN12AA0003	12P CONNECTOR	1	
	CN2013	K1KA02BA0125	2P CONNECTOR	1	
	CN5801	K1KA06AA0180	6P CONNECTOR	1	
	CN5802	K1KA11AA0194	11P CONNECTOR	1	
	CN5902	K1MN12AA0003	12P CONNECTOR	1	
	CN6000	K1MN30AA0004	30P CONNECTOR	1	
	CN6001	K1KA04AA0031	4P CONNECTOR	1	
	CN6004	K1KB04A00046	4P CONNECTOR	1	
	CN6005	K1KA08BA0061	8P CONNECTOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	CN7001	K1MN16B00154	16P CONNECTOR	1	
	CN7002	K1MN25B00019	25P CONNECTOR	1	
			COILS AND INDUCTORS		
	L51	G1CR18JA0020	INDUCTOR	1	
	L52	G2A380Y00001	ANTENNA COIL	1	
	L551	J0JHC0000045	INDUCTOR	1	
	L552	J0JHC0000045	INDUCTOR	1	
	L553	J0JHC0000045	INDUCTOR	1	
	L804	J0JHC0000045	INDUCTOR	1	
	L805	J0JHC0000045	INDUCTOR	1	
	L2007	G0A101ZA0028	CHOKE COIL	1	
⚠	L5703	G0B612H00002	LINE FILTER	1	
	L5704	J0JBC0000019	INDUCTOR	1	
	L5901	J0JKB0000020	INDUCTOR	1	
	L5902	J0JKB0000020	INDUCTOR	1	
	L5903	G0A150L00003	CHOKE COIL	1	
	L5904	G0B9R5K00005	LINE FILTER	1	
	L5905	G0B9R5K00005	LINE FILTER	1	
	L6001	J0JBC0000019	INDUCTOR	1	
	L6801	J0JBC0000019	INDUCTOR	1	
	L6802	J0JBC0000019	INDUCTOR	1	
	L6811	J0JBC0000019	INDUCTOR	1	
	L6812	J0JBC0000019	INDUCTOR	1	
	L6851	J0JBC0000019	INDUCTOR	1	
	L6863	J0JBC0000019	INDUCTOR	1	
	LB51	J0JBC0000032	INDUCTOR	1	
	LB503	J0JBC0000118	INDUCTOR	1	
	LB504	J0JBC0000118	INDUCTOR	1	
	LB601	J0JDC0000104	INDUCTOR	1	
	LB603	J0JDC0000104	INDUCTOR	1	
	LB605	J0JDC0000104	INDUCTOR	1	
	LB614	J0JHC0000045	INDUCTOR	1	
	LB618	J0JDC0000104	INDUCTOR	1	
	LB620	J0JDC0000104	INDUCTOR	1	
	LB621	J0JDC0000104	INDUCTOR	1	
	LB623	J0JHC0000045	INDUCTOR	1	
	LB624	J0JDC0000104	INDUCTOR	1	
	LB626	J0JDC0000104	INDUCTOR	1	
	LB628	J0JDC0000104	INDUCTOR	1	
	LB630	J0JDC0000104	INDUCTOR	1	
	LB631	J0JDC0000104	INDUCTOR	1	
	LB632	J0JDC0000104	INDUCTOR	1	
	LB633	J0JDC0000104	INDUCTOR	1	
	LB634	J0JDC0000104	INDUCTOR	1	
	LB635	J0JDC0000104	INDUCTOR	1	
	LB636	J0JDC0000104	INDUCTOR	1	
	LB637	J0JDC0000104	INDUCTOR	1	
	LB638	J0JDC0000104	INDUCTOR	1	
	LB639	J0JDC0000104	INDUCTOR	1	
	LB640	J0JDC0000104	INDUCTOR	1	
	LB641	J0JDC0000104	INDUCTOR	1	
	LB801	J0JCC0000407	INDUCTOR	1	
	LB802	J0JCC0000407	INDUCTOR	1	
			TRANSFORMERS		
⚠	T5701	ETS39AG4M6AD	MAIN TRANSFORMER	1	PH
⚠	T5701	ETS39AG4NGAD	MAIN TRANSFORMER	1	PN
⚠	T5751	ETS19AB2E6AG	SUB TRANSFORMER	1	
⚠	T6000	G4DYA0000214	SWITCHING TRANS	1	
			PHOTO COUPLERS		
⚠	PC5701	B3PBA0000402	PHOTO COUPLER	1	
⚠	PC5702	B3PBA0000402	PHOTO COUPLER	1	
⚠	PC5720	B3PBA0000402	PHOTO COUPLER	1	
⚠	PC5799	B3PBA0000402	PHOTO COUPLER	1	
			EARTH PLATES		
	ZJ2001	K9ZZ00001279	EARTH PLATE	1	
	ZJ2002	K9ZZ00001279	EARTH PLATE	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			COMPONENT COMBINATION		
	IR6000	B3RAB0000084	REMOTE CONTROL SENSOR	1	
			OSCILLATORS		
	X51	H0A327200097	CRYSTAL OSCILLATOR	1	
	X801	H0J169500037	CRYSTAL OSCILLATOR	1	
	X802	H0J120500067	CRYSTAL OSCILLATOR	1	
	X2000	H0A327200115	CRYSTAL OSCILLATOR	1	
	X2001	H2B100500004	CRYSTAL OSCILLATOR	1	
	X7201	H0H169500013	CRYSTAL OSCILLATOR	1	
			FL DISPLAY		
	FL6000	A2BB00000177	LCD DISPLAY	1	
			FUSES		
⚠	F1	K5D632BK0007	FUSE	1	PH
⚠	F1	K5D802APA008	FUSE	1	PN
			FUSE HOLDERS		
	ZA5701	K3GE1ZZ00001	FUSE HOLDER	1	
	ZA5702	K3GE1ZZ00001	FUSE HOLDER	1	
			THERMISTORS		
⚠	TH5702	D4CAA2R20001	THERMISTOR	1	
⚠	TH5860	D4CC11040013	THERMISTOR	1	
⚠	TH5900	D4CC11040013	THERMISTOR	1	
			JACKS		
	JK51	K4ZZ02000103	JK FM ANT	1	
	JK52	K4AC02B00042	JK AM ANT	1	
	JK2000	K2HA204B0153	JK AUX	1	
	JK5901	K4AL04B00001	JK SPEAKER	1	
	JK6800	K2HC103A0031	JK MIC	1	
	JK6810	K2HC1YYA0002	JK MUSIC PORT	1	
⚠	P5701	K2AA2B000011	AC INLET	1	PH
⚠	P5701	K2AB2B000007	AC INLET	1	PN
			CHIP JUMPERS		
	K1	D0GBR00JA008	0 1/16W	1	PN
	K3	D0GBR00JA008	0 1/16W	1	PH
	K4	D0GBR00JA008	0 1/16W	1	
	K5	D0GBR00JA008	0 1/16W	1	PH
	K6	D0GBR00JA008	0 1/16W	1	PN
	K5921	D0GBR00JA008	0 1/16W	1	
	L2210	D0GBR00JA008	0 1/16W	1	
	L2211	D0GBR00JA008	0 1/16W	1	
	L2212	D0GBR00JA008	0 1/16W	1	
	L2250	D0GBR00JA008	0 1/16W	1	
	L2251	D0GBR00JA008	0 1/16W	1	
	L2252	D0GBR00JA008	0 1/16W	1	
	L2253	D0GBR00JA008	0 1/16W	1	
	L2254	D0GBR00JA008	0 1/16W	1	
	L501	D0GDR00JA017	0 1/10W	1	
	LB501	ERJ2GE0R00X	0 1/16W	1	
	LB502	ERJ2GE0R00X	0 1/16W	1	
	LB602	D0GBR00JA008	0 1/16W	1	
	LB616	D0GBR00JA008	0 1/16W	1	
	LB622	ERJ2GE0R00X	0 1/16W	1	
	LB625	D0GBR00JA008	0 1/16W	1	
	LB629	D0GBR00JA008	0 1/16W	1	
	W2301	D0GBR00JA008	0 1/16W	1	
	W2302	D0GBR00JA008	0 1/16W	1	
	W2303	D0GBR00JA008	0 1/16W	1	
	W2304	D0GBR00JA008	0 1/16W	1	
	W2305	D0GBR00JA008	0 1/16W	1	
	W2306	D0GBR00JA008	0 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	W2307	D0GBR00JA008	0 1/16W	1	
	W2308	D0GBR00JA008	0 1/16W	1	
	W2309	D0GDR00JA017	0 1/10W	1	
	W2310	D0GDR00JA017	0 1/10W	1	
	W2311	D0GBR00JA008	0 1/16W	1	
	W2313	D0GBR00JA008	0 1/16W	1	
	W2315	D0GBR00JA008	0 1/16W	1	
	W2316	D0GBR00JA008	0 1/16W	1	
	W2317	D0GDR00JA017	0 1/10W	1	
	W2318	D0GBR00JA008	0 1/16W	1	
	W2319	D0GBR00JA008	0 1/16W	1	
	W2320	D0GBR00JA008	0 1/16W	1	
	W2322	D0GBR00JA008	0 1/16W	1	
	W2323	D0GBR00JA008	0 1/16W	1	
	W2324	D0GBR00JA008	0 1/16W	1	
	W2325	D0GDR00JA017	0 1/10W	1	
	W2326	D0GDR00JA017	0 1/10W	1	
	W2327	D0GDR00JA017	0 1/10W	1	
	W2328	D0GDR00JA017	0 1/10W	1	
	W2329	D0GDR00JA017	0 1/10W	1	
	W2330	D0GBR00JA008	0 1/16W	1	
	W2335	D0GBR00JA008	0 1/16W	1	
	W2337	D0GBR00JA008	0 1/16W	1	
	W2343	D0GDR00JA017	0 1/10W	1	
	W2345	D0GBR00JA008	0 1/16W	1	
	W2347	D0GDR00JA017	0 1/10W	1	
	W2348	D0GBR00JA008	0 1/16W	1	
	W2349	D0GDR00JA017	0 1/10W	1	
	W5033	D0GBR00JA008	0 1/16W	1	
	W5039	D0GBR00JA008	0 1/16W	1	
	W5040	D0GDR00JA017	0 1/10W	1	
	W5041	D0GBR00JA008	0 1/16W	1	
	W5042	D0GDR00JA017	0 1/10W	1	
	W5043	D0GDR00JA017	0 1/10W	1	
	W5044	D0GDR00JA017	0 1/10W	1	
	W5045	D0GBR00JA008	0 1/16W	1	
	W5046	D0GDR00JA017	0 1/10W	1	
	W5047	D0GBR00JA008	0 1/16W	1	
	W5744	D0GBR00JA008	0 1/16W	1	
	W6101	D0GDR00JA017	0 1/10W	1	
	W6102	D0GDR00JA017	0 1/10W	1	
	W6103	D0GDR00JA017	0 1/10W	1	
	W6113	D0GBR00JA008	0 1/16W	1	
	W6118	D0GBR00JA008	0 1/16W	1	
	W6119	D0GDR00JA017	0 1/10W	1	
	W6120	D0GBR00JA008	0 1/16W	1	
	W6121	D0GBR00JA008	0 1/16W	1	
	W6122	D0GBR00JA008	0 1/16W	1	
	W6123	D0GBR00JA008	0 1/16W	1	
	W6124	D0GBR00JA008	0 1/16W	1	
	W6125	D0GBR00JA008	0 1/16W	1	
	W6126	D0GBR00JA008	0 1/16W	1	
	W6127	D0GBR00JA008	0 1/16W	1	
	W6128	D0GBR00JA008	0 1/16W	1	
	W6129	D0GBR00JA008	0 1/16W	1	
	W6139	D0GBR00JA008	0 1/16W	1	
	W7001	D0GDR00JA017	0 1/10W	1	
	W7002	D0GBR00JA008	0 1/16W	1	
	W7003	D0GBR00JA008	0 1/16W	1	
	W7004	D0GBR00JA008	0 1/16W	1	
	W7005	D0GBR00JA008	0 1/16W	1	
	W7006	D0GBR00JA008	0 1/16W	1	
	W7007	D0GDR00JA017	0 1/10W	1	
	W7008	D0GBR00JA008	0 1/16W	1	
	W7009	D0GBR00JA008	0 1/16W	1	
	W7010	D0GBR00JA008	0 1/16W	1	
	W7011	D0GBR00JA008	0 1/16W	1	
	W7012	D0GBR00JA008	0 1/16W	1	
	W7013	D0GBR00JA008	0 1/16W	1	
	W7014	D0GBR00JA008	0 1/16W	1	
	W7016	D0GBR00JA008	0 1/16W	1	
	W7017	D0GBR00JA008	0 1/16W	1	
	W7018	D0GBR00JA008	0 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	W7019	D0GBR00JA008	0 1/16W	1	
	W7020	D0GBR00JA008	0 1/16W	1	
	W7021	D0GBR00JA008	0 1/16W	1	
	W7023	D0GBR00JA008	0 1/16W	1	
	W7024	D0GBR00JA008	0 1/16W	1	
	W7025	D0GDR00JA017	0 1/10W	1	
	W7026	D0GDR00JA017	0 1/10W	1	
			RESISTORS		
	R51	D0GB102JA008	1K 1/16W	1	
	R52	D0GB102JA008	1K 1/16W	1	
	R53	D0GA472JA023	4.7K 1/16W	1	
	R54	D0GA472JA023	4.7K 1/16W	1	
	R55	D0GA221JA023	220 1/16W	1	
	R56	D0GB221JA007	220 1/10W	1	
	R57	D0GA102JA023	1K 1/16W	1	
	R59	D0GB222JA008	2.2K 1/16W	1	
	R61	D0GB473JA008	47K 1/16W	1	
	R62	D0GB473JA008	47K 1/16W	1	
	R64	D0GBR00JA008	0 1/16W	1	
	R517	ERJ2GE0R00X	0 1/16W	1	
	R518	ERJ2GE0R00X	0 1/16W	1	
	R519	D0GA105JA023	1M 1/16W	1	
	R520	D0GA105JA023	1M 1/16W	1	
	R525	D0GA100JA023	10 1/16W	1	
	R526	D0GA100JA023	10 1/16W	1	
	R527	D0GA103JA023	10K 1/16W	1	
	R554	D0GA104JA023	100K 1/16W	1	
	R555	D0GA221JA023	220 1/16W	1	
	R556	D0GA221JA023	220 1/16W	1	
	R557	D0GA223JA023	22K 1/16W	1	
	R558	D0GA223JA023	22K 1/16W	1	
	R559	D0GA104JA023	100K 1/16W	1	
	R560	D0GA473JA023	47K 1/16W	1	
	R561	D0GA473JA023	47K 1/16W	1	
	R602	ERJ2GE0R00X	0 1/16W	1	
	R653	D0GA473JA023	47K 1/16W	1	
	R654	D0GA473JA023	47K 1/16W	1	
	R655	D0GA473JA023	47K 1/16W	1	
	R701	D0GA473JA023	47K 1/16W	1	
	R704	D0GA473JA023	47K 1/16W	1	
	R760	D0GA220JA023	22 1/16W	1	
	R761	D0GA473JA023	47K 1/16W	1	
	R764	D0GA100JA023	10 1/16W	1	
	R765	ERJ2GE0R00X	0 1/16W	1	
	R766	ERJ2GE0R00X	0 1/16W	1	
	R767	D0GA100JA023	10 1/16W	1	
	R801	D0GA220JA023	22 1/16W	1	
	R802	D0GA100JA023	10 1/16W	1	
	R803	D0GA100JA023	10 1/16W	1	
	R804	D0GA100JA023	10 1/16W	1	
	R806	D0GA100JA023	10 1/16W	1	
	R807	D0GA331JA023	330 1/16W	1	
	R809	D0GA101JA023	100 1/16W	1	
	R810	D0GA100JA023	10 1/16W	1	
	R811	D0GA100JA023	10 1/16W	1	
	R812	D0GA682JA023	6.8K 1/16W	1	
	R813	D0GA473JA023	47K 1/16W	1	
	R814	D0GA473JA023	47K 1/16W	1	
	R816	D0GA101JA023	100 1/16W	1	
	R817	D0GA100JA023	10 1/16W	1	
	R818	D0GA473JA023	47K 1/16W	1	
	R821	D0GA473JA023	47K 1/16W	1	
	R822	D0GA473JA023	47K 1/16W	1	
	R824	D0GA473JA023	47K 1/16W	1	
	R825	D0GA100JA023	10 1/16W	1	
	R827	ERJ2GE0R00X	0 1/16W	1	
	R828	ERJ2GE0R00X	0 1/16W	1	
	R829	ERJ2GE0R00X	0 1/16W	1	
	R830	D0GA100JA023	10 1/16W	1	
	R833	D0GA102JA023	1K 1/16W	1	
	R835	D0GA331JA023	330 1/16W	1	
	R836	D0GA100JA023	10 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R843	D0GA220JA023	22 1/16W	1	
	R844	D0GA220JA023	22 1/16W	1	
	R849	D0GA473JA023	47K 1/16W	1	
	R850	D0GA473JA023	47K 1/16W	1	
	R855	D0GA100JA023	10 1/16W	1	
	R856	D0GA100JA023	10 1/16W	1	
	R857	D0GA100JA023	10 1/16W	1	
	R858	D0GA101JA023	100 1/16W	1	
	R861	D0GA220JA023	22 1/16W	1	
	R862	D0GA220JA023	22 1/16W	1	
	R863	D0GA220JA023	22 1/16W	1	
	R870	D0GA100JA023	10 1/16W	1	
	R871	D0GA100JA023	10 1/16W	1	
	R872	D0GA100JA023	10 1/16W	1	
	R873	ERJ2GE0R00X	0 1/16W	1	
	R875	D0GA473JA023	47K 1/16W	1	
	R876	D0GA473JA023	47K 1/16W	1	
	R877	D0GA103JA023	10K 1/16W	1	
	R878	D1BD5901A030	5.9K 1/10W	1	
	R879	D0GA105JA023	1M 1/16W	1	
	R880	D0GB471JA008	470 1/16W	1	
	R881	D0GA473JA023	47K 1/16W	1	
	R888	ERJ2GE0R00X	0 1/16W	1	
	R892	ERJ2GE0R00X	0 1/16W	1	
	R893	ERJ2GE0R00X	0 1/16W	1	
	R894	ERJ2GE0R00X	0 1/16W	1	
	R895	ERJ2GE0R00X	0 1/16W	1	
	R898	D0GA103JA023	10K 1/16W	1	
	R2001	D0AF220JA039	22 1/4W	1	
	R2002	D0GB393JA008	39K 1/16W	1	
	R2003	D0GB393JA008	39K 1/16W	1	
	R2007	D0GB332JA008	3.3K 1/16W	1	
	R2008	D0GB332JA008	3.3K 1/16W	1	
	R2009	D0GB332JA008	3.3K 1/16W	1	
	R2013	D0GB332JA008	3.3K 1/16W	1	
	R2014	D0GB332JA008	3.3K 1/16W	1	
	R2017	D0GB222JA008	2.2K 1/16W	1	
	R2018	D0GB222JA008	2.2K 1/16W	1	
	R2021	D0GBR00JA008	0 1/16W	1	
	R2022	D0GBR00JA008	0 1/16W	1	
	R2023	D0GB332JA008	3.3K 1/16W	1	
	R2024	D0GB332JA008	3.3K 1/16W	1	
	R2025	D0GB821JA008	820 1/16W	1	
	R2026	D0GB821JA008	820 1/16W	1	
	R2027	D0GB332JA008	3.3K 1/16W	1	
	R2028	D0GB332JA008	3.3K 1/16W	1	
	R2032	D0GBR00JA008	0 1/16W	1	
	R2051	D0GB821JA008	820 1/16W	1	
	R2052	D0GB821JA008	820 1/16W	1	
	R2055	D0GBR00JA008	0 1/16W	1	
	R2059	D0GB103JA008	10K 1/16W	1	
	R2060	D0GB103JA008	10K 1/16W	1	
	R2062	D0GB472JA008	4.7K 1/16W	1	
	R2063	D0GB472JA008	4.7K 1/16W	1	
	R2064	D0GB223JA008	22K 1/16W	1	
	R2065	D0GB223JA008	22K 1/16W	1	
	R2066	D0GB124JA008	120K 1/16W	1	
	R2067	D0GB101JA008	100 1/16W	1	
	R2068	D0GB102JA008	1K 1/16W	1	
	R2069	D0GB101JA008	100 1/16W	1	
	R2070	D0GB101JA008	100 1/16W	1	
	R2071	D0GB101JA008	100 1/16W	1	
	R2074	D0GB102JA008	1K 1/16W	1	
	R2075	D0GB103JA008	10K 1/16W	1	
	R2076	D0GB101JA008	100 1/16W	1	
	R2077	D0GB101JA008	100 1/16W	1	
	R2078	D0GB101JA008	100 1/16W	1	
	R2079	D0GB101JA008	100 1/16W	1	
	R2080	D0GB153JA008	15K 1/16W	1	
	R2081	D0GB563JA008	56K 1/16W	1	
	R2082	D0GB104JA008	100K 1/16W	1	
	R2084	D0GB222JA008	2.2K 1/16W	1	
	R2085	D0GB222JA008	2.2K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R2086	D0GB104JA008	100K 1/16W	1	PN
	R2086	D0GB122JA008	1.2K 1/16W	1	PH
	R2087	D0GB103JA008	10K 1/16W	1	PH
	R2088	D0GB104JA008	100K 1/16W	1	
	R2089	D0GB104JA008	100K 1/16W	1	
	R2092	D0GB101JA008	100 1/16W	1	
	R2093	D0GB102JA008	1K 1/16W	1	
	R2094	D0GB101JA008	100 1/16W	1	
	R2095	D0GB222JA008	2.2K 1/16W	1	
	R2096	D0GB222JA008	2.2K 1/16W	1	
	R2097	D0GB392JA008	3.9K 1/16W	1	
	R2098	D0GB392JA008	3.9K 1/16W	1	
	R2099	D0GB473JA008	47K 1/16W	1	
	R2101	D0GB473JA008	47K 1/16W	1	
	R2102	D0GB103JA008	10K 1/16W	1	
	R2103	D0GB103JA008	10K 1/16W	1	
	R2106	D0GB472JA008	4.7K 1/16W	1	
	R2107	D0GB102JA008	1K 1/16W	1	
	R2108	D0GB102JA008	1K 1/16W	1	
	R2109	D0GB102JA008	1K 1/16W	1	
	R2111	D0GBR00JA008	0 1/16W	1	
	R2114	D0GB102JA008	1K 1/16W	1	
	R2115	D0GB102JA008	1K 1/16W	1	
	R2116	D0GB101JA008	100 1/16W	1	
	R2117	D0GBR00JA008	0 1/16W	1	
	R2119	D0GB101JA008	100 1/16W	1	
	R2120	D0GB101JA008	100 1/16W	1	
	R2122	D0GB101JA008	100 1/16W	1	
	R2123	D0GB475JA008	4.7M 1/16W	1	
	R2125	D0GB564JA008	5.6K 1/16W	1	
	R2128	D0GB101JA008	100 1/16W	1	
	R2129	D0GB223JA008	22K 1/16W	1	
	R2130	D0GBR00JA008	0 1/16W	1	
	R2132	D0GB101JA008	100 1/16W	1	
	R2136	D0GBR00JA008	0 1/16W	1	
	R2138	D0GB101JA008	100 1/16W	1	
	R2139	D0GBR00JA008	0 1/16W	1	
	R2140	D0GB562JA008	5.6K 1/16W	1	
	R2141	D0GB562JA008	5.6K 1/16W	1	
	R2142	D0GB104JA008	100K 1/16W	1	
	R2143	D0GBR00JA008	0 1/16W	1	
	R2148	D0GB393JA008	39K 1/16W	1	
	R2151	D0GB393JA008	39K 1/16W	1	
	R2154	D0GB101JA008	100 1/16W	1	
	R2155	D0GB683JA008	68K 1/16W	1	
	R2156	D0GB101JA008	100 1/16W	1	
	R2158	D0GB101JA008	100 1/16W	1	
	R2159	D0GB152JA008	1.5K 1/16W	1	
	R2160	D0GB473JA008	47K 1/16W	1	
	R2161	D0GB101JA008	100 1/16W	1	
	R2162	D0GB152JA008	1.5K 1/16W	1	
	R2164	D0GB473JA008	47K 1/16W	1	
	R2165	D0GB101JA008	100 1/16W	1	
	R2166	D0GB101JA008	100 1/16W	1	
	R2167	D0GB102JA008	1K 1/16W	1	
	R2168	D0GB101JA008	100 1/16W	1	
	R2175	D0GB153JA008	15K 1/16W	1	
	R2176	D0GB103JA008	10K 1/16W	1	
	R2177	D0GB103JA008	10K 1/16W	1	
	R2178	D0GB103JA008	10K 1/16W	1	
	R2179	D0GB153JA008	15K 1/16W	1	
	R2180	D0GB103JA008	10K 1/16W	1	
	R2186	D0GB180JA008	18 1/16W	1	
	R2187	D0GB180JA008	18 1/16W	1	
	R2188	D0GB221JA007	220 1/10W	1	
	R2189	D0GB473JA008	47K 1/16W	1	
	R2190	D0GB180JA008	18 1/16W	1	
	R2191	D0GB180JA008	18 1/16W	1	
	R2197	D0GB101JA008	100 1/16W	1	
	R2198	D0GB102JA008	1K 1/16W	1	
	R2199	D0GB101JA008	100 1/16W	1	
	R2200	D0GB102JA008	1K 1/16W	1	
	R2202	D0GB180JA008	18 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R2203	D0GB180JA008	18 1/16W	1	
	R2205	D0GB180JA008	18 1/16W	1	
	R2206	D0GB180JA008	18 1/16W	1	
	R2207	D0GB472JA008	4.7K 1/16W	1	
	R2208	D0GB561JA008	560 1/16W	1	
	R2210	D0GB561JA008	560 1/16W	1	
	R2214	D0GDR00JA017	0 1/10W	1	
	R2215	D0GB102JA008	1K 1/16W	1	
	R2218	D0GDR00JA017	0 1/10W	1	
	R2221	D0GB474JA008	470K 1/16W	1	
	R2222	D0GB473JA008	47K 1/16W	1	
	R2223	D0GB473JA008	47K 1/16W	1	
	R2224	D0GB471JA008	470 1/16W	1	
	R2225	D0GB471JA008	470 1/16W	1	
	R2228	D0GB103JA008	10K 1/16W	1	
	R2231	D0GB103JA008	10K 1/16W	1	
	R2243	D0GB103JA008	10K 1/16W	1	
	R2246	D0GB223JA008	22K 1/16W	1	
	R2247	D0GB223JA008	22K 1/16W	1	
	R2252	D0GB153JA008	15K 1/16W	1	
	R2256	D0GB183JA008	18K 1/16W	1	
	R2259	D0GB473JA008	47K 1/16W	1	
	R2262	D0GB102JA008	1K 1/16W	1	
	R2263	D0GB272JA008	2.7K 1/16W	1	
	R2264	D0GB123JA008	12K 1/16W	1	
	R2273	D0GB101JA008	100 1/16W	1	
	R2274	D0GB391JA008	390 1/16W	1	
	R2277	D0GBR00JA008	0 1/16W	1	
	R2278	D0GBR00JA008	0 1/16W	1	
	R2279	D0GB271JA008	270 1/16W	1	
	R2282	D0GB2R2JA007	2.2 1/10W	1	
	R2283	D0GB2R2JA007	2.2 1/10W	1	
	R2284	D0GB2R2JA007	2.2 1/10W	1	
	R2289	D0GB180JA008	18 1/16W	1	
	R2290	D0GB271JA008	270 1/16W	1	
	R2291	D0GBR00JA008	0 1/16W	1	
	R2292	D0GBR00JA008	0 1/16W	1	
	R2302	D0GB472JA008	4.7K 1/16W	1	
	R2305	D0GD103JA017	10K 1/10W	1	
	R2306	D0HB102ZA002	1K 1/16W	1	
	R2308	ERJ3RBD272V	2.7K 1/16W	1	
	R2309	D0GB682JA008	6.8K 1/16W	1	
	R2311	D0HB152ZA002	1.5K 1/16W	1	
	R2313	D0GB154JA008	150K 1/16W	1	
	R2314	D0GB562JA008	5.6K 1/16W	1	
	R2316	D0GB105JA008	1M 1/16W	1	
	R2325	D0GB101JA008	100 1/16W	1	
	R2331	D0GB474JA008	470K 1/16W	1	
	R2332	D0GB103JA008	10K 1/16W	1	
	R2333	D0AF270JA039	27 1/4W	1	
	R2334	D0GB274JA007	270K 1/16W	1	
	R2335	D0GB682JA008	6.8K 1/16W	1	
	R2336	D0GB221JA007	220 1/10W	1	
	R2337	D0GB101JA008	100 1/16W	1	
	R2338	D0GB104JA008	100K 1/16W	1	
	R2339	D0GB823JA008	82K 1/16W	1	
	R2340	D0AF680JA039	68 1/4W	1	
	R2341	D0GB103JA008	10K 1/16W	1	
	R2342	D0GBR00JA008	0 1/16W	1	
	R2343	D0GB472JA008	4.7K 1/16W	1	
	R2344	D0GB103JA008	10K 1/16W	1	
	R2345	D0GB103JA008	10K 1/16W	1	
	R2353	D0GB102JA008	1K 1/16W	1	
	R2355	D0GB561JA008	560 1/16W	1	
	R2356	D0GB561JA008	560 1/16W	1	
	R2357	D0GBR00JA008	0 1/16W	1	
	R2380	D0GBR00JA008	0 1/16W	1	
	R2381	D0GBR00JA008	0 1/16W	1	
	R2384	D0GB101JA008	100 1/16W	1	
	R5702	D0GZ104JA012	100K 1W	1	PH
	R5702	D0GZ333JA012	33K 1W	1	PN
	R5703	D0GZ104JA012	100K 1W	1	PH
	R5703	D0GZ333JA012	33K 1W	1	PN

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R5704	ERJ8GEYJ224V	220K 1/4W	1	
	R5705	ERJ8GEYJ224V	220K 1/4W	1	
	R5706	ERJ6GEYJ824V	820K 1/8W	1	
	R5708	ERJ8GEYJ155V	1.5M 1/4W	1	
	R5709	ERJ8GEYJ155V	1.5M 1/4W	1	
	R5720	D0GD220JA017	22 1/10W	1	
	R5721	D0GD103JA017	10K 1/10W	1	
	R5722	D0GD122JA017	1.2K 1/10W	1	
	R5723	D0GB102JA008	1K 1/16W	1	
	R5724	D0GD121JA017	120 1/10W	1	
	R5726	ERX2SZJR10P	0.1 2W	1	PH
	R5726	ERX2SZJR15P	0.15 2W	1	PN
	R5727	ERX2SZJR13P	0.13 2W	1	PN
	R5728	D0GB104JA008	100K 1/16W	1	
	R5729	D0GD103JA017	10K 1/10W	1	
	R5730	D0GB102JA008	1K 1/16W	1	
	R5732	D0GB101JA008	100 1/16W	1	
	R5733	D0GB473JA008	47K 1/16W	1	
	R5786	D0GZ204JA012	200k 1W	1	PH
	R5795	D0GD474JA017	4.7K 1/10W	1	
	R5797	D0GB153JA008	15K 1/16W	1	
	R5798	D0GB220JA008	22 1/16W	1	
	R5800	D0GD153JA017	15K 1/10W	1	
	R5801	D0GD223JA017	22K 1/10W	1	
	R5802	D0HB123ZA002	12K 1/16W	1	
	R5803	D0HB102ZA002	1K 1/16W	1	
	R5804	D1BD4702A077	47K 1/10W	1	
	R5805	ERJ3RBD222V	2.2K 1/16W	1	
	R5806	D0GB153JA008	15K 1/16W	1	
	R5807	D0GD331JA017	330 1/10W	1	
	R5808	D0GD222JA017	2.2K 1/10W	1	
	R5809	D0GD331JA017	330 1/10W	1	
	R5810	D0GB331JA008	330 1/16W	1	
	R5814	D0GB822JA008	8.2K 1/16W	1	
	R5817	D0GB331JA008	330 1/16W	1	
	R5820	D0GB103JA008	10K 1/16W	1	
	R5821	ERG2SJ471E	470 2W	1	
	R5822	ERG2SJ471E	470 2W	1	
	R5823	ERG2SJ471E	470 2W	1	
	R5824	ERG2SJ471E	470 2W	1	
	R5825	ERG2SJ471E	470 2W	1	
	R5826	ERG2SJ471E	470 2W	1	
	R5827	ERG2SJ471E	470 2W	1	
	R5828	ERG2SJ471E	470 2W	1	
	R5832	D0GZ222JA012	2.2K 1W	1	
	R5833	D0GZ222JA012	2.2K 1W	1	PH
	R5834	D0GZ222JA012	2.2K 1W	1	
	R5835	D0GZ222JA012	2.2K 1W	1	PH
	R5836	D0GZ222JA012	2.2K 1W	1	PH
	R5837	D0GZ222JA012	2.2K 1W	1	PH
	R5840	D0GB823JA008	82K 1/16W	1	
	R5841	D0GB124JA008	120K 1/16W	1	
	R5860	ERJ3GEYF103V	10K 1/10W	1	
	R5861	ERJ3GEYF472V	4.7K 1/10W	1	
	R5862	D0GD183JA017	18K 1/10W	1	
	R5863	D0GD183JA017	18K 1/10W	1	
	R5864	ERJ3GEYF103V	10K 1/10W	1	
	R5890	D0GB222JA008	2.2K 1/16W	1	
	R5891	ERJ3RBD333V	33K 1/16W	1	
	R5892	D0HB102ZA002	1K 1/16W	1	
	R5893	ERJ3RBD103V	10K 1/16W	1	
	R5894	D0GB151JA008	150 1/16W	1	
	R5895	D0GB153JA008	15K 1/16W	1	
	R5896	D0GB104JA008	100K 1/16W	1	
	R5897	D0GB101JA008	100 1/16W	1	
	R5901	D0GB124JA008	120K 1/16W	1	
	R5903	D0GB103JA008	10K 1/16W	1	
	R5904	D0GB103JA008	10K 1/16W	1	
	R5905	D0GF100JA014	10 1/10W	1	
	R5906	D0GB184JA008	180K 1/16W	1	
	R5907	D0GBR00JA008	0 1/16W	1	
	R5908	D0GB103JA008	10K 1/16W	1	
	R5909	ERJ3RBD562V	5.6K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R5910	ERJ3RBD273V	27K 1/16W	1	
	R5911	D0GB562JA008	5.6K 1/16W	1	
	R5913	ERJ3RBD272V	2.7K 1/16W	1	
	R5914	D0GB562JA008	5.6K 1/16W	1	
	R5915	D0GB103JA008	10K 1/16W	1	
	R5917	D0GF100JA014	10 1/10w	1	
	R5918	ERJ3RBD272V	2.7K 1/16W	1	
	R5921	D0GF100JA014	10 1/10w	1	
	R5922	D0GF100JA014	10 1/10w	1	
	R5923	D0GB682JA008	6.8K 1/16W	1	
	R5924	D0GB562JA008	5.6K 1/16W	1	
	R5925	D0GB562JA008	5.6K 1/16W	1	
	R5926	D0GB101JA008	100 1/16W	1	
	R5927	D0GB823JA008	82K 1/16W	1	
	R5928	D0GB823JA008	82K 1/16W	1	
	R5929	D0GB122JA008	1.2K 1/16W	1	
	R5930	D0GB122JA008	1.2K 1/16W	1	
	R5931	ERJ1TYJ220U	22 1/2W	1	
	R5932	ERJ1TYJ220U	22 1/2W	1	
	R5933	D0GB562JA008	5.6K 1/16W	1	
	R5934	D0GB562JA008	5.6K 1/16W	1	
	R5935	D0GB103JA008	10K 1/16W	1	
	R5940	D0GB104JA008	100K 1/16W	1	
	R6001	D0GB122JA008	1.2K 1/16W	1	
	R6002	D0GB152JA008	1.5K 1/16W	1	
	R6003	D0GB222JA008	2.2K 1/16W	1	
	R6004	D0GB332JA008	3.3K 1/16W	1	
	R6005	D0GB472JA008	4.7K 1/16W	1	
	R6006	D0GB682JA008	6.8K 1/16W	1	
	R6007	D0GB153JA008	15K 1/16W	1	
	R6016	D0GB122JA008	1.2K 1/16W	1	
	R6017	D0GB152JA008	1.5K 1/16W	1	
	R6018	D0GB222JA008	2.2K 1/16W	1	
	R6019	D0GB332JA008	3.3K 1/16W	1	
	R6020	D0GB472JA008	4.7K 1/16W	1	
	R6021	D0GB682JA008	6.8K 1/16W	1	
	R6022	D0GB153JA008	15K 1/16W	1	
	R6023	D0GB103JA008	10K 1/16W	1	
	R6028	D0GB103JA008	10K 1/16W	1	
	R6032	D0GB221JA007	220 1/10W	1	
	R6033	D0GB221JA007	220 1/10W	1	
	R6034	D0GB471JA008	470 1/16W	1	
	R6037	D0GB823JA008	82K 1/16W	1	
	R6039	D0GB181JA008	180 1/16W	1	
	R6042	D0GB682JA008	6.8K 1/16W	1	
	R6045	D0GB470JA008	47 1/16W	1	
	R6048	D0GB123JA008	12K 1/16W	1	
	R6049	D0GB223JA008	22K 1/16W	1	
	R6050	D0GB103JA008	10K 1/16W	1	
	R6051	D0GB473JA008	47K 1/16W	1	
	R6054	D0GB100JA008	10 1/16W	1	
	R6055	D0GB473JA008	47K 1/16W	1	
	R6056	D0GB103JA008	10K 1/16W	1	
	R6057	D0GB223JA008	22K 1/16W	1	
	R6058	D0GB123JA008	12K 1/16W	1	
	R6059	D0GB223JA008	22K 1/16W	1	
	R6060	D0GB181JA008	180 1/16W	1	
	R6062	D0GB181JA008	180 1/16W	1	
	R6067	D0GBR00JA008	0 1/16W	1	
	R6068	D0GBR00JA008	0 1/16W	1	
	R6071	D0GBR00JA008	0 1/16W	1	
	R6072	D0GBR00JA008	0 1/16W	1	
	R6075	D0GB332JA008	3.3K 1/16W	1	
	R6076	D0GB332JA008	3.3K 1/16W	1	
	R6077	D0GB153JA008	15K 1/16W	1	
	R6078	D0GB153JA008	15K 1/16W	1	
	R6080	D0GBR00JA008	0 1/16W	1	
	R6083	D0GB1R0JA008	1.0 1/16W	1	
	R6084	D0GB1R0JA008	1.0 1/16W	1	
	R7111	D0GB103JA008	10K 1/16W	1	
	R7211	D0GB823JA008	82K 1/16W	1	
	R7212	D0GB821JA008	820 1/16W	1	
	R7213	D0GB272JA008	2.7K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R7214	D0GB271JA008	270 1/16W	1	
	R7216	D0GB103JA008	10K 1/16W	1	
	R7217	D0GB102JA008	1K 1/16W	1	
	R7218	D0GB102JA008	1K 1/16W	1	
	R7220	D0GB105JA008	1M 1/16W	1	
	R7221	D0GB101JA008	100 1/16W	1	
	R7253	D0GB100JA008	10 1/16W	1	
	R7254	D0GB102JA008	1K 1/16W	1	
	R7260	D0GB101JA008	100 1/16W	1	
	R7315	D0GB332JA008	3.3K 1/16W	1	
	R7323	D0GB682JA008	6.8K 1/16W	1	
	R7325	D0GB331JA008	330 1/16W	1	
	R7327	D0GB102JA008	1K 1/16W	1	
	R7328	D0GB103JA008	10K 1/16W	1	
	R7329	D0GB102JA008	1K 1/16W	1	
	R7331	D0GB273JA008	27K 1/16W	1	
	R7332	D0GB102JA008	1K 1/16W	1	
	R7335	D0GB101JA008	100 1/16W	1	
	R7336	D0GB100JA008	10 1/16W	1	
	R7349	D0GB183JA008	18K 1/16W	1	
	R7601	D0GB4R7JA008	4.7 1/16W	1	
	R7650	D0GB5R6JA008	5.6 1/16W	1	
			RESISTOR NET- WORKS		
	RX551	D1H84734A024	RESISTOR NETWORK	1	
	RX656	D1H84734A024	RESISTOR NETWORK	1	
	RX760	D1H84734A024	RESISTOR NETWORK	1	
	RX761	D1H82204A024	RESISTOR NETWORK	1	
	RX801	EXB2HV100JV	RESISTOR NETWORK	1	
	RX802	EXB2HV100JV	RESISTOR NETWORK	1	
	RX804	D1H410020002	RESISTOR NETWORK	1	
	RX805	D1H410020002	RESISTOR NETWORK	1	
	RX807	EXB2HV100JV	RESISTOR NETWORK	1	
	RX808	EXB2HV100JV	RESISTOR NETWORK	1	
	RX820	D1H81004A024	RESISTOR NETWORK	1	
	RX826	D1H81004A024	RESISTOR NETWORK	1	
	RX834	D1H81004A024	RESISTOR NETWORK	1	
	RX837	EXB2HV100JV	RESISTOR NETWORK	1	
	RX838	EXB2HV100JV	RESISTOR NETWORK	1	
	RX839	D1H410020002	RESISTOR NETWORK	1	
	RX840	EXB2HV100JV	RESISTOR NETWORK	1	
	RX841	EXB2HV100JV	RESISTOR NETWORK	1	
	RX854	D1H410020002	RESISTOR NETWORK	1	
	RX864	D1H84734A024	RESISTOR NETWORK	1	
			CAPACITORS		
	C51	F1H1H102A219	1000pF 50V	1	
	C52	F1H1A474A025	0.47uF 10V	1	
	C57	F1H1H220A230	22pF 50V	1	
	C58	F1H1H220A230	22pF 50V	1	
	C59	F1H1A105A025	1uF 10V	1	
	C60	F1H1A105A025	1uF 10V	1	
	C61	F1G1C104A077	0.1uF 16V	1	
	C62	F1G1C104A077	0.1uF 16V	1	
	C513	F1G1A1040006	0.1uF 10V	1	
	C514	F1G1A1040006	0.1uF 10V	1	
	C515	F1J0J106A004	10uF 6.3V	1	
	C551	F1G1A1040006	0.1uF 10V	1	
	C552	F1J0J106A004	10uF 6.3V	1	
	C553	F1G1A1040006	0.1uF 10V	1	
	C554	F1J0J106A004	10uF 6.3V	1	
	C555	F1H1A225A051	2.2uF 10V	1	
	C556	F1J0J106A004	10uF 6.3V	1	
	C557	F1J0J106A004	10uF 6.3V	1	
	C558	F1G1H101A566	100pF 50V	1	
	C559	F1G1H101A566	100pF 50V	1	
	C560	F1J0J106A004	10uF 6.3V	1	
	C561	F1G1A1040006	0.1uF 10V	1	
	C562	F1J0J106A004	10uF 6.3V	1	
	C563	F1J0J106A004	10uF 6.3V	1	
	C564	F1J0J106A004	10uF 6.3V	1	
	C601	ERJ2GE0R00X	0 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C602	ERJ2GE0R00X	0 1/16W	1	
	C701	F1G1C1030007	0.01uF 16V	1	
	C751	F1G1C1030007	0.01uF 16V	1	
	C752	F1G1C1030007	0.01uF 16V	1	
	C753	F1G1C1030007	0.01uF 16V	1	
	C754	F1G1C1030007	0.01uF 16V	1	
	C755	F1G1C1030007	0.01uF 16V	1	
	C756	F1G1C1030007	0.01uF 16V	1	
	C757	F1G1C1030007	0.01uF 16V	1	
	C760	F1G1H100A565	10pF 50V	1	
	C761	F1G1H100A565	10pF 50V	1	
	C762	F1G1H100A565	10pF 50V	1	
	C763	F1G1H100A565	10pF 50V	1	
	C764	F1G1H100A565	10pF 50V	1	
	C765	F1G1H5R0A445	5.0pF 50V	1	
	C766	F1H1A105A025	1uF 10V	1	
	C767	F1H1A105A025	1uF 10V	1	
	C768	F1G1A1040006	0.1uF 10V	1	
	C769	F1G1A1040006	0.1uF 10V	1	
	C801	F1G1C1030007	0.01uF 16V	1	
	C802	F1G1C1030007	0.01uF 16V	1	
	C803	F1G1C1030007	0.01uF 16V	1	
	C804	F1G1C1030007	0.01uF 16V	1	
	C805	F1G1C1030007	0.01uF 16V	1	
	C806	F1G1C1030007	0.01uF 16V	1	
	C807	F1G1C1030007	0.01uF 16V	1	
	C808	F1H0J4750004	4.7uF 6.3V	1	
	C809	F3G0J476A030	47uF 6.3V	1	
	C811	F3G0J476A030	47uF 6.3V	1	
	C812	F3G0J476A030	47uF 6.3V	1	
	C813	F3G0J476A030	47uF 6.3V	1	
	C814	F1G1C1030007	0.01uF 16V	1	
	C815	F1G1C1030007	0.01uF 16V	1	
	C816	F1G1H120A565	12pF 50V	1	
	C817	F1G1H120A565	12pF 50V	1	
	C818	F1G1C1030007	0.01uF 16V	1	
	C819	F1G1C1030007	0.01uF 16V	1	
	C820	F1G1C1030007	0.01uF 16V	1	
	C821	F1G1C1030007	0.01uF 16V	1	
	C823	F1G1E1020001	1000pF 25V	1	
	C824	F1G1C1030007	0.01uF 16V	1	
	C825	F1G1C1030007	0.01uF 16V	1	
	C826	F1G1C1030007	0.01uF 16V	1	
	C827	F1G1C1030007	0.01uF 16V	1	
	C828	F1G1C1030007	0.01uF 16V	1	
	C829	F1G1C1030007	0.01uF 16V	1	
	C830	F1G1C1030007	0.01uF 16V	1	
	C831	F1G1C1030007	0.01uF 16V	1	
	C832	F1G1C1030007	0.01uF 16V	1	
	C833	F1G1C1030007	0.01uF 16V	1	
	C834	F1G1C1030007	0.01uF 16V	1	
	C835	F1G1C1030007	0.01uF 16V	1	
	C836	F1G1C1030007	0.01uF 16V	1	
	C837	F1G1C1030007	0.01uF 16V	1	
	C841	F1G1E1020001	1000pF 25V	1	
	C842	F1G1A1040006	0.1uF 10V	1	
	C843	F1G1E1020001	1000pF 25V	1	
	C844	F1G1A1040006	0.1uF 10V	1	
	C845	F1G1E1020001	1000pF 25V	1	
	C846	F1G1A1040006	0.1uF 10V	1	
	C849	F1G1C1030007	0.01uF 16V	1	
	C850	F1G1C1030007	0.01uF 16V	1	
	C851	F1G1E1020001	1000pF 25V	1	
	C852	F1G1H330A565	33pF 50V	1	
	C853	F1G1H220A565	22pF 50V	1	
	C857	F1G1H101A566	100pF 50V	1	
	C858	F1G1H101A566	100pF 50V	1	
	C859	F1G1H101A566	100pF 50V	1	
	C2002	F2A1H4R7A213	4.7uF 50V	1	
	C2003	F1H1H103A219	0.01uF 50V	1	
	C2008	F1H1H102A219	1000pF 50V	1	
	C2009	F1H1H102A219	1000pF 50V	1	
	C2011	F1H0J1050012	1uF 6.3V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C2012	F1H1H103A219	0.01uF 50V	1	
	C2013	F1H1H103A219	0.01uF 50V	1	
	C2018	F1H1H102A219	1000pF 50V	1	
	C2019	F1H1H102A219	1000pF 50V	1	
	C2020	F1H1H2210001	220pF 50V	1	
	C2021	F1H1H2210001	220pF 50V	1	
	C2027	F1H1H103A219	0.01uF 50V	1	
	C2028	F1H1H102A219	1000pF 50V	1	
	C2029	F1H1H102A219	1000pF 50V	1	
	C2030	F2A0J471A016	470uF 6.3V	1	
	C2034	F1H1H102A219	1000pF 50V	1	
	C2036	F2A1C100A207	10uF 16V	1	
	C2037	F2A1C100A207	10uF 16V	1	
	C2038	F1H0J1050012	1uF 6.3V	1	
	C2039	F1H0J1050012	1uF 6.3V	1	
	C2040	F1H0J4750004	4.7uF 6.3V	1	
	C2041	F2A1H100A236	10uF 50V	1	
	C2042	F1H0J1050012	1uF 6.3V	1	
	C2043	F2A1H100A236	10uF 50V	1	
	C2044	F1H0J1050012	1uF 6.3V	1	
	C2045	F1H0J1050012	1uF 6.3V	1	
	C2046	F1H0J1050012	1uF 6.3V	1	
	C2047	F1H0J4750004	4.7uF 6.3V	1	
	C2050	F1H1H102A219	1000pF 50V	1	
	C2052	F1H1H102A219	1000pF 50V	1	
	C2053	F1H1H102A219	1000pF 50V	1	
	C2054	F1H1H102A219	1000pF 50V	1	
	C2055	F1H1H102A219	1000pF 50V	1	
	C2056	F1H1H102A219	1000pF 50V	1	
	C2057	F1H1H102A219	1000pF 50V	1	
	C2058	F1H1H102A219	1000pF 50V	1	
	C2061	F1H1H102A219	1000pF 50V	1	
	C2062	F1H1H102A219	1000pF 50V	1	
	C2065	F2A1A330A159	33uF 10V	1	
	C2066	F2A1H1R0A213	1.0uF 50V	1	
	C2071	F2A1H1R0A213	1.0uF 50V	1	
	C2073	F1H1A474A025	0.47uF 10V	1	
	C2074	F1H1A474A025	0.47uF 10V	1	
	C2076	F1H1A474A025	0.47uF 10V	1	
	C2077	F1H1A474A025	0.47uF 10V	1	
	C2080	F1H1H222A219	2200pF 50V	1	
	C2081	F1H1H222A219	2200pF 50V	1	
	C2082	F1H1H103A219	0.01uF 50V	1	
	C2083	F1H1H103A219	0.01uF 50V	1	
	C2085	F1H1H103A219	0.01uF 50V	1	
	C2086	F1H1H103A219	0.01uF 50V	1	
	C2087	F1H1C683A087	0.068uF 16V	1	
	C2088	F1H1C683A087	0.068uF 16V	1	
	C2089	F1H1A334A036	0.33uF 10V	1	
	C2090	F1H1A334A036	0.33uF 10V	1	
	C2091	F1H1H332A013	3300pF 50V	1	
	C2092	F1H1H223A219	0.022uF 50V	1	
	C2093	F1H1C823A001	0.082uF 16V	1	
	C2094	F2A1H3R3A213	3.3uF 50V	1	
	C2095	F2A1H3R3A213	3.3uF 50V	1	
	C2096	F1H0J4750004	4.7uF 6.3V	1	
	C2097	F1H1C823A001	0.082uF 16V	1	
	C2098	F2A1H3R3A213	3.3uF 50V	1	
	C2099	F2A1H1R0A213	1.0uF 50V	1	
	C2102	F1H1C683A087	0.068uF 16V	1	
	C2103	F2A1C221A019	220uF 16V	1	
	C2104	F1J0J106A020	10uF 6.3V	1	
	C2105	F1J0J106A020	10uF 6.3V	1	
	C2106	F1H1H101A720	100pF 50V	1	
	C2107	F1H1H101A720	100pF 50V	1	
	C2108	F1H1H101A720	100pF 50V	1	
	C2109	D0GDR00JA017	0 1/10W	1	
	C2110	D0GDR00JA017	0 1/10W	1	
	C2111	F1H1C104A042	0.1uF 16V	1	
	C2118	F2A0J221A181	220uF 6.3V	1	
	C2119	F1J0J106A020	10uF 6.3V	1	
	C2121	F1J0J106A020	10uF 6.3V	1	
	C2122	F1J0J106A020	10uF 6.3V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C2124	F2A1H2R2A234	2.2uF 50V	1	
	C2126	F1H1H470A004	47pF 50V	1	
	C2128	F1H1H1500009	15pF 50V	1	
	C2131	F1H1H470A004	47pF 50V	1	
	C2132	F1H1H102A219	1000pF 50V	1	
	C2133	F2A1H1R0A213	1.0uF 50V	1	
	C2134	F1H1H1500009	15pF 50V	1	
	C2135	F1J1H104A459	0.1uF 50V	1	
	C2137	F1H1H562A219	5600pF 50V	1	
	C2138	F1H1H102A219	1000pF 50V	1	
	C2140	F1H0J4750004	4.7uF 6.3V	1	
	C2141	F1H0J4750004	4.7uF 6.3V	1	
	C2143	F1H1C104A042	0.1uF 16V	1	
	C2144	F2A1C221A019	220uF 16V	1	
	C2145	F1H1C104A042	0.1uF 16V	1	
	C2147	F1H1C104A042	0.1uF 16V	1	
	C2148	F1H0J1050012	1uF 6.3V	1	
	C2149	F2A1C470A180	47uF 16V	1	
	C2150	F2A0J470A167	47uF 6.3V	1	
	C2151	F1H1H102A219	1000pF 50V	1	
	C2152	F1H1H102A219	1000pF 50V	1	
	C2153	F2A1H3R3A213	3.3uF 50V	1	
	C2154	F1H1C104A042	0.1uF 16V	1	
	C2155	F2A1C470A180	47uF 16V	1	
	C2160	F1H1H223A219	0.022uF 50V	1	
	C2175	F1H1H331A013	330pF 50V	1	
	C2177	F1H1H331A013	330pF 50V	1	
	C2188	F1H1H103A219	0.01uF 50V	1	
	C2189	F2A1C330A234	33uF 16V	1	
	C2190	F1H1H103A219	0.01uF 50V	1	
	C2195	D0GBR00JA008	0 1/16W	1	
	C2196	D0GBR00JA008	0 1/16W	1	
	C2201	F2A1A330A159	33uF 10V	1	
	C2202	F1H1H103A219	0.01uF 50V	1	
	C2203	F2A1C471A498	470uF 16V	1	
	C2204	F1H1H103A219	0.01uF 50V	1	
	C2205	D0GBR00JA008	0 1/16W	1	
	C2206	D0GBR00JA008	0 1/16W	1	
	C2209	F1H1H103A219	0.01uF 50V	1	
	C2212	F1H1H103A219	0.01uF 50V	1	
	C2213	F1H1H103A219	0.01uF 50V	1	
	C2217	F2A1H2R2A234	2.2uF 50V	1	
	C2220	F1H1A474A025	0.47uF 10V	1	
	C2221	F1H1H103A219	0.01uF 50V	1	
	C2223	F1H1C104A042	0.1uF 16V	1	
	C2225	F1H1H102A219	1000pF 50V	1	
	C2226	F2A1C102A019	1000uF 16V	1	
	C2227	EEUFC0J821B	820uF 6.3V	1	
	C2231	F1H1H103A219	0.01uF 50V	1	
	C2233	F2A1E102A207	1000uF 25V	1	
	C2236	F1H1H103A219	0.01uF 50V	1	
	C2240	F1H0J1050012	1uF 6.3V	1	
	C2241	F2A1C470A180	47uF 16V	1	
	C2242	F2A0J221A181	220uF 6.3V	1	
	C2243	F2A0J101A181	100uF 6.3V	1	
	C2246	F2A1C221A019	220uF 16V	1	
	C2249	F1J0J106A020	10uF 6.3V	1	
	C2250	F1H1H470A004	47pF 50V	1	
	C2251	F1H1H470A004	47pF 50V	1	
	C2252	F1H1H470A004	47pF 50V	1	
⚠	C2253	F1H1H470A004	47pF 50V	1	
⚠	C2254	F1H1H470A004	47pF 50V	1	
⚠	C2263	F2A0J471A016	470uF 6.3V	1	
⚠	C5701	F0CAF334A105	0.33uF	1	
⚠	C5703	F0CAF104A105	0.1uF	1	PH
⚠	C5703	F0CAF224A105	0.22uF	1	PN
⚠	C5704	F1BAF1020020	1000pF	1	
⚠	C5705	F1BAF1020020	1000pF	1	
⚠	C5706	F1BAF1020020	1000pF	1	PH
⚠	C5707	F1BAF1020020	1000pF	1	PH
⚠	C5708	F1BAF1020020	1000pF	1	
	C5711	F2B2G2210012	220uF 400V	1	PH

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C5712	F2B2D5610008	560uF 200V	1	PN
	C5712	F2B2G2210012	220uF 400V	1	PH
	C5713	F0C2J1030007	0.01uF 630V	1	
	C5720	F1H1H104A013	0.1uF 50V	1	
	C5721	F1H1H2210001	220pF 50V	1	
	C5722	F1H1H102A219	1000pF 50V	1	
	C5723	F1H1H471A219	470pF 50V	1	
	C5724	F2A1H5600009	56uF 50V	1	
	C5725	F1H1H104A013	0.1uF 50V	1	
	C5726	F1H1H104A013	0.1uF 50V	1	
	C5727	F1B3A3320012	3300pF 1000V	1	PN
	C5728	F1H1H102A219	1000pF 50V	1	
	C5730	F1H1E105A116	1uF 25V	1	
	C5737	ECKE3D821KBP	820pF 2000V	1	PH
	C5790	F1K2J2220002	2200pF 630V	1	PH
	C5794	F1H1H102A219	1000pF 50V	1	
	C5795	F1K1H105A149	1uF 50V	1	
	C5796	F1H1H104A013	0.1uF 50V	1	
	C5798	F2A1E2210050	220uF 25V	1	
	C5800	F1J2E1030004	0.01uF 250V	1	
	C5805	F2A1H102B126	1000uF 50V	1	
	C5808	F2A1H102B126	1000uF 50V	1	
	C5810	F1H1H104A013	0.1uF 50V	1	
	C5812	F1H1H104A013	0.1uF 50V	1	
	C5813	F2A1V331B150	330uF 35V	1	
	C5817	F2A2AR100002	0.10uF 100V	1	
	C5818	F1H1H104A013	0.1uF 50V	1	
	C5819	F1J2E1030004	0.01uF 250V	1	
	C5820	F1J2E1030004	0.01uF 250V	1	
	C5821	F1J2E1030004	0.01uF 250V	1	
	C5822	F1J2E1030004	0.01uF 250V	1	
	C5826	F1J2E1030004	0.01uF 250V	1	
	C5831	F1H1H104A013	0.1uF 50V	1	
	C5832	F1H1H104A013	0.1uF 50V	1	
	C5843	F1J1A106A043	10uF 10V	1	
	C5844	F1J1A106A043	10uF 10V	1	
	C5869	F1H1H104A013	0.1uF 50V	1	
	C5870	F1H1H104A013	0.1uF 50V	1	
	C5896	F1H1H104A013	0.1uF 50V	1	
	C5897	F1H1H104A013	0.1uF 50V	1	
	C5898	F1H1H104A013	0.1uF 50V	1	
	C5899	F2A1A2210063	220uF 10V	1	
	C5901	F1H1H102A219	1000pF 50V	1	
	C5902	F1H1H102A219	1000pF 50V	1	
	C5903	F1H1H104A013	0.1uF 50V	1	
	C5904	F1H1H104A013	0.1uF 50V	1	
	C5905	F1H1H104A013	0.1uF 50V	1	
	C5906	F1H1H104A013	0.1uF 50V	1	
	C5907	F2A1H221B436	220uF 50V	1	
	C5908	F2A1H221B436	220uF 50V	1	
	C5909	F1H1H104A013	0.1uF 50V	1	
	C5910	F1H1H104A013	0.1uF 50V	1	
	C5915	F1H1A474A001	0.47uF 10V	1	
	C5917	F1H1H102A219	1000pF 50V	1	
	C5918	F1H1H331A013	330pF 50V	1	
	C5919	F1H1A474A001	0.47uF 10V	1	
	C5920	F2A2A220A388	22uF 100V	1	
	C5921	F1H1H104A013	0.1uF 50V	1	
	C5923	F1H1H104A013	0.1uF 50V	1	
	C5924	F1H1H330A230	33pF 50V	1	
	C5925	F1K2A1040007	0.1uF 100V	1	
	C5926	F1H1H104A013	0.1uF 50V	1	
	C5927	F1J2A221A030	220pF 100V	1	
	C5928	F1H1H153A219	0.015uF 50V	1	
	C5929	F1J2A221A030	220pF 100V	1	
	C5930	F1H1C474A140	0.47uF 16V	1	
	C5931	F1H1H104A013	0.1uF 50V	1	
	C5932	F1H1H104A013	0.1uF 50V	1	
	C5933	F1H1H153A219	0.015uF 50V	1	
	C5934	F1J2A221A030	220pF 100V	1	
	C5935	F1J2A221A030	220pF 100V	1	
	C5936	F1H1H104A013	0.1uF 50V	1	
	C5937	F1K2A1040007	0.1uF 100V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C5938	F1H1H104A013	0.1uF 50V	1	
	C5939	F1H1H104A013	0.1uF 50V	1	
	C5941	F1H1A474A001	0.47uF 10V	1	
	C5942	F1H1H102A219	1000pF 50V	1	
	C5943	F1H1H331A013	330pF 50V	1	
	C5944	F1H1A474A001	0.47uF 10V	1	
	C5945	F2A1A101A159	100uF 10V	1	
	C5946	F2A1C100A234	10uF 16V	1	
	C5947	F1H1H102A219	1000pF 50V	1	
	C5948	ECQV1H684JL3	0.68uF 50V	1	
	C5949	ECQV1H684JL3	0.68uF 50V	1	
	C5950	F1H1H104A013	0.1uF 50V	1	
	C5951	F1H1H104A013	0.1uF 50V	1	
	C5952	F1H1H104A013	0.1uF 50V	1	
	C5953	F1H1H104A013	0.1uF 50V	1	
	C5954	F1H1H104A013	0.1uF 50V	1	
	C5955	F1H1H104A013	0.1uF 50V	1	
	C5956	D0GBR00JA008	0 1/16W	1	
	C6002	F1H1H104A013	0.1uF 50V	1	
	C6003	F1H1H102A219	1000pF 50V	1	
	C6004	F1H1H331A013	330pF 50V	1	
	C6005	F1H1H331A013	330pF 50V	1	
	C6006	F1H1H331A013	330pF 50V	1	
	C6007	F1H1H103A219	0.01uF 50V	1	
	C6008	F2A1H470A147	47uF 50V	1	
	C6009	F1H1H332A219	3300pF 50V	1	
	C6010	F1H1H101A230	100pF 50V	1	
	C6011	F1H1H101A230	100pF 50V	1	
	C6012	F2A1H470A147	47uF 50V	1	
	C6013	F2A1C101A155	100uF 16V	1	
	C6016	F1H1H104A013	0.1uF 50V	1	
	C6017	F1H1H101A720	100pF 50V	1	
	C6018	F1H1H101A720	100pF 50V	1	
	C6019	F1H1H101A720	100pF 50V	1	
	C6020	F1H1H102A219	1000pF 50V	1	
	C6021	F2A1H220A182	22uF 50V	1	
	C6022	F2A1H220A182	22uF 50V	1	
	C6023	F1H1H102A219	1000pF 50V	1	
	C6041	F1H1H102A219	1000pF 50V	1	
	C6042	F1H1H102A219	1000pF 50V	1	
	C6043	F1H1H102A219	1000pF 50V	1	
	C6044	F1H1H102A219	1000pF 50V	1	
	C6045	F1H1H102A219	1000pF 50V	1	
	C6046	F1H1H102A219	1000pF 50V	1	
	C6047	F1H1H102A219	1000pF 50V	1	
	C6048	F1H1H102A219	1000pF 50V	1	
	C6049	F1H1H102A219	1000pF 50V	1	
	C6050	F1H1H102A219	1000pF 50V	1	
	C6051	F1H1H102A219	1000pF 50V	1	
	C6052	F1H1H102A219	1000pF 50V	1	
	C6801	F1H1H473A220	0.047uF 50V	1	
	C6802	F1H1H473A220	0.047uF 50V	1	
	C6803	F1H1C104A041	0.1uF 16V	1	
	C6804	F1H1C104A041	0.1uF 16V	1	
	C6810	F1H1H391A013	390pF 50V	1	
	C6813	F1H1H331A219	330pF 50V	1	
	C6814	F1H1H331A219	330pF 50V	1	
	C6815	F1H1H103A013	0.01uF 50V	1	
	C6816	F1H1H103A013	0.01uF 50V	1	
	C6820	F1H1H391A013	390pF 50V	1	
	C6851	F1H1C104A008	0.1uF 16V	1	
	C6863	F1H1C104A008	0.1uF 16V	1	
	C7102	F1H1A474A025	0.47uF 10V	1	
	C7107	F1H1H223A219	0.022uF 50V	1	
	C7142	F1H1H332A013	3300pF 50V	1	
	C7154	F1H1C104A042	0.1uF 16V	1	
	C7155	F1H1C104A042	0.1uF 16V	1	
	C7161	F1H1C104A042	0.1uF 16V	1	
	C7166	F1H1H103A219	0.01uF 50V	1	
	C7203	F2A0J221A200	220uF 6.3V	1	
	C7204	F1H1C104A042	0.1uF 16V	1	
	C7213	F1H1A334A036	0.33uF 10V	1	
	C7214	F1H1H102A219	1000pF 50V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C7215	F1H1H102A219	1000pF 50V	1	
	C7216	F1H1H681A013	680pF 50V	1	
	C7217	F1H1C104A042	0.1uF 16V	1	
	C7218	F1H1C823A001	0.082uF 16V	1	
	C7221	F1H1H150A971	15pF 50V	1	
	C7222	F1H1H150A971	15pF 50V	1	
	C7223	F2A1H4R70037	4.7uF 50V	1	
	C7225	F1H1H102A219	1000pF 50V	1	
	C7226	F1H1H102A219	1000pF 50V	1	
	C7227	ECA1HAK010XI	1uF 50V	1	
	C7228	ECA1HAK010XI	1uF 50V	1	
	C7230	F1H1C104A042	0.1uF 16V	1	
	C7231	F2A0J221A200	220uF 6.3V	1	
	C7232	F2A0J221A200	220uF 6.3V	1	
	C7233	F1H1C104A008	0.1uF 16V	1	
	C7234	F1H1C104A042	0.1uF 16V	1	
	C7235	ECEA1CKA100I	10uF 16V	1	
	C7241	F1H1H102A219	1000pF 50V	1	
	C7243	F1H1C104A008	0.1uF 16V	1	
	C7244	F1H1C153A001	0.015uF 16V	1	
	C7253	F1H1H471A219	470pF 50V	1	
	C7255	F1H1C104A042	0.1uF 16V	1	
	C7315	F1H1A474A025	0.47uF 10V	1	
	C7334	ECEA1AKA221I	220uF 10V	1	
	C7335	F1H1C104A008	0.1uF 16V	1	
	C7338	F1H1E2730002	0.027uF 25V	1	
	C7339	F1H1C183A001	0.018uF 16V	1	
	C7352	F1H1C183A001	0.018uF 16V	1	
	C7601	ECEA0JKA330I	33uF 6.3V	1	
	C7613	F1H1C104A042	0.1uF 16V	1	
	C7614	F2A0J101A209	100uF 6.3V	1	
	C7626	F1H1C104A042	0.1uF 16V	1	

