

Service Manual

DVD Stereo System



Model No. **SA-VKX20GA**
SA-VKX20GC
SA-VKX20GS

Product Color: (K)...Black Type

Remote
Control



SB-AKX10

SA-VKX20

SB-AKX10

Notes: Please refer to the original service manual for:

- CD Mechanism Unit (DLS6E), Order No: PSG0909002AE
- Speaker System SB-AKX10PN-K, Order No: PSG1001001CE

WARNING

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

IMPORTANT SAFETY NOTICE

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

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1 Safety Precautions

1.1. General Guidelines

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

1.1.1. Leakage Current Cold Check

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

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

1.1.2. Leakage Current Hot Check

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

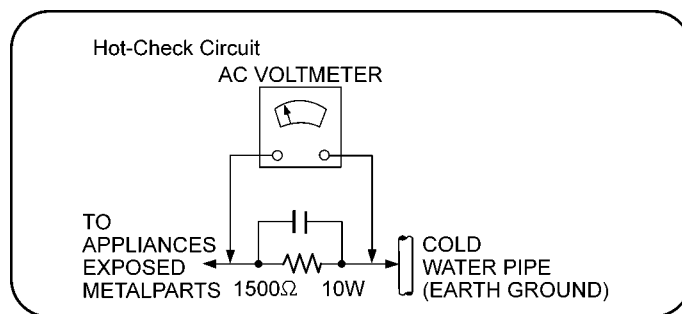


Figure 1

1.2. Before Use (For GA/GS 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: HOLLYLAND, INC, Type: 50T, F1, T6.3AL, 250V) (For GA/GS only)

CAUTION:

Replace with the same type fuse:
(Manufacturer: HOLLYLAND, INC, Type: 50T, F1, T4AL, 250V) (For GC 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 220~240 V, 50/60 Hz in Power ON, FM Tuner, No Signal, Volume minimal mode should be ~ 500 mA.

Current consumption at AC 110~127 V, 50/60 Hz in Power ON, FM Tuner, No Signal, Volume minimal mode should be ~ 750 mA (GA/GS).

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 BLK WIRE (VOLTAGE-SMPS)	GA/GS
$\triangle$	7	REXX1031	1P RED WIRE (VOLTAGE-SMPS)	GA/GS
$\triangle$	17	RGRX1003A-A1	REAR PANEL	GC
$\triangle$	17	RGRX1003B-A1	REAR PANEL	GS
$\triangle$	17	RGRX1003B-B1	REAR PANEL	GA
$\triangle$	39	RKMX1007-K	SIDE PANEL L	
$\triangle$	40	RKMX1008-K	SIDE PANEL R	
$\triangle$	58	RMQX1087	DECK COVER SHEET	
$\triangle$	401	RAEX1032Z-V	TRAVERSE UNIT	
$\triangle$	A2	K2CP2CA00001	AC CORD	GA
$\triangle$	A2	K2CQ2CA00007	AC CORD	GA/GC
$\triangle$	A2	K2CZ3YY00005	AC CORD	GS
$\triangle$	A3	RQTX1227-G	O/I BOOK (En/Pe/Ar)	GC/GS
$\triangle$	A3	RQTX1228-L	O/I BOOK (En)	GA
$\triangle$	PCB10	REPX0809L	SMPS P.C.B.	(RTL) GC
$\triangle$	PCB10	REPX0809M	SMPS P.C.B.	(RTL) GA/GS
$\triangle$	PCB11	REPX0809M	VOLTAGE SELECTOR P.C.B.	(RTL) GA/GS
$\triangle$	DZ5701	ERZV10V511CS	ZNR	
$\triangle$	S5701	K0ABCA000007	SW VOLT ADJ	GA/GS
$\triangle$	L5702	ELF22V020A	LINE FILTER	GC
$\triangle$	L5703	G0B612H00002	LINE FILTER	
$\triangle$	T4300	G4DYA0000214	SWITCHING TRANSFORMER	
$\triangle$	T5701	ETS39AG4M6AD	MAIN TRANSFORMER	
$\triangle$	T5751	ETS19AB2E6AG	SUB TRANSFORMER	
$\triangle$	F1	K5D402BK0007	FUSE	GC
$\triangle$	F1	K5D632BK0007	FUSE	GA/GS
$\triangle$	TH5702	D4CAA2R20001	THERMISTOR	
$\triangle$	TH5860	D4CC11040013	THERMISTOR	
$\triangle$	TH5900	D4CC11040013	THERMISTOR	
$\triangle$	P5701	K2AA2B000011	AC INLET	
$\triangle$	C5700	F1BAF471A013	470pF	GC
$\triangle$	C5701	F0CAF104A105	0.1uF	
$\triangle$	C5703	F0CAF224A105	0.22uF	

Safety	Ref. No.	Part No.	Part Name & Description	Remarks
⚠	C5704	F1BAF471A013	470pF	GA/GS
⚠	C5705	F1BAF471A013	470pF	GA/GS
⚠	C5706	F1BAF471A013	470pF	GC
⚠	C5707	F1BAF1020020	1000pF	GC
⚠	C5708	F1BAF1020020	1000pF	GC
⚠	C5708	F1BAF471A013	470pF	GA/GS

1.7. Caution for AC Cord (For GS Only)

For your safety, please read the following text carefully.

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

A 5-ampere fuse is fitted in this plug.

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

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

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

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

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

CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY. THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

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

If in any doubt please consult a qualified electrician.

IMPORTANT

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

Blue: Neutral, Brown: Live.

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

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

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

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

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

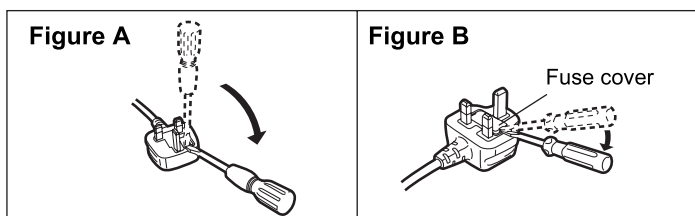
Remove the connector cover.

How to replace the fuse

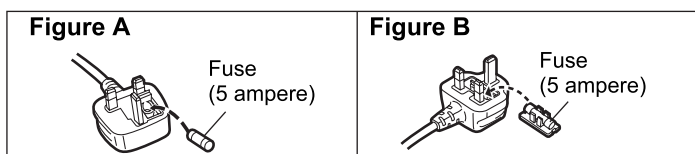
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.



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



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:

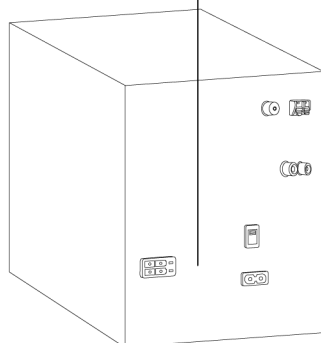
This product utilizes a laser diode with the unit turned “on”, invisible laser radiation is emitted from the pickup lens.

Wavelength: 655 nm (DVD)/790 nm (CD).

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

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

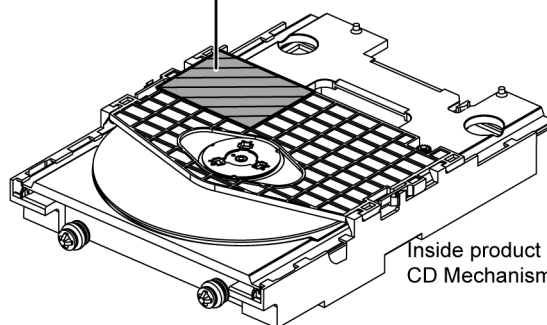
1. Do not disassemble the pickup unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pickup lens for a long time.



(Back of product)

LASER CAUTION LABEL

CAUTION	- CLASS 1M INVISIBLE LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. IEC60825-1 +A2/ Class 1M
WARNING	- KLASS 1M OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRÄKTA EJ STRÅLEN DIREKT GENOM OPTISKT INSTRUMENT.
FORSIGTIG	- USYNLIG LASERSTRÅLING KLASSE 1M. NÄR LÅGET ER ÅBENT. UNDGÅ AT SE LIGE PÅ MED OPTISKE INSTRUMENTER.
VARO!	- AVATTAESSA OLET ALTIINNA LUOKKAN 1M NÄKYMÄTÖNTÄ LASERSÄTELYÄ. ÄLÄ KATSO OPTISELLA LAITTEELLA SUORAAN SÄTEESEEN.
VORSICHT	- UNSICHTBARE LASERSTRÄHLUNG KLASSE 1M. WENN ABDECKUNG GEÖFFNET. NICHT DIREKT MIT OPTISCHEN INSTRUMENTEN BETRACHTEN.
ATTENTION	- RAYONNEMENT LASER INVISIBLE. CLASSE 1M. EN CAS D'OUVERTURE. NE PAS REGARDER DIRECTEMENT À L'AIDE D'INSTRUMENTS D'OPTIQUE.
PRECAUCIÓN	- RADIACIÓN LASER INVISIBLE DE CLASE 1M AL ESTAR ABIERTO. NO VEA DIRECTAMENTE CON INSTRUMENTOS ÓPTICOS.
注意	- ここを開くと不可視レーザー光が出ます。 ビームを視たり、触れたりしないでください。
注意	- 打开时有不可见激光辐射。避免光束照射。 GB7241.1-2001/08 类 RQLXS0105



Inside product on
CD Mechanism Unit (DLS6E)

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%

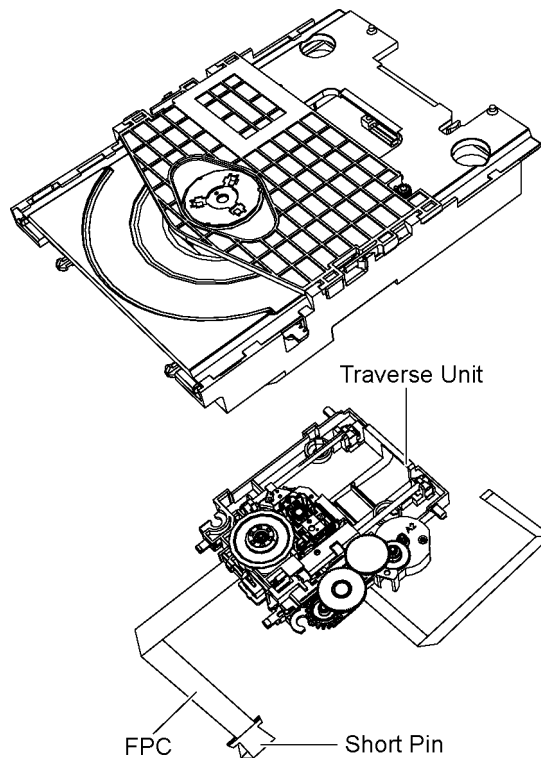
2.4. Handling Precautions for Traverse Unit

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

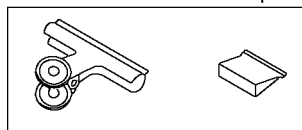
The laser diode in the optical pickup unit may be damaged due to electrostatic discharge generating from clothes or human body. Special care must be taken avoid caution to electrostatic discharge damage when servicing the laser diode.

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

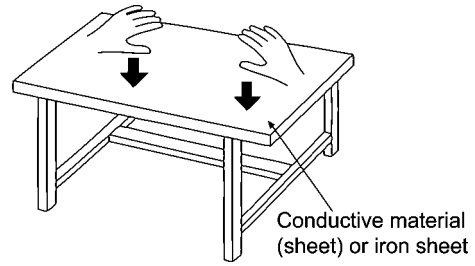
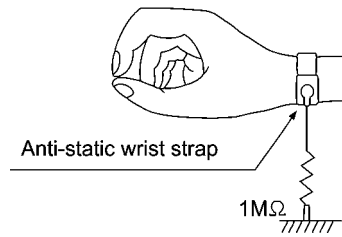
Some devices such as the DVD player use the optical pickup (laser diode) and the optical pickup will be damaged by static electricity in the working environment. Proceed servicing works under the working environment where grounding works is completed.

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.

- **DVD Mechanism unit (DLS6E):**

1) This model uses DVD Mechanism Unit (DLS6E).

- **DVD Module P.C.B.:**

1) The following components are supplied as an assembled part.

- EEPROM IC, IC8611 (RFKBX0885A)...GC/GS
- EEPROM IC, IC8611 (RFKBX0885B)...GA
- Flash Memory IC, IC8651 (RFKWMH61B3D0)

- **Micro-processor:**

1) The following components are supplied as an assembled part.

- Micro-processor IC, IC2800 (RFKWMVKX20GA)

- **Speaker system :**

1) This model uses speakers, SB-AKX10PN-K.

4 Specifications

■ AMPLIFIER SECTION

RMS Output Power Stereo mode:

Front Ch (both ch driven)

125 W per channel (4 Ω), 1 kHz, 10% THD

Total RMS Stereo mode power 250 W

PMPO output power 2800 W

■ FM/AM TUNER, TERMINALS SECTION

Preset station FM 30 stations
AM 15 stations

Frequency Modulation (FM)

Frequency range 87.50 to 108.00 MHz (50 kHz step)

Antenna terminals 75 Ω (unbalanced)

Amplitude Modulation (AM)

Frequency range 522 to 1629 kHz (9 kHz step)
520 to 1630 kHz (10 kHz step)

Digital audio output

Coaxial digital output Pin jack

Mic jack

Terminal Mono, 6.3 mm jack (2 system)

Sensitivity 0.7mV, 1.2kΩ

AUX

Terminal RCA jack

■ USB SECTION

USB Port

USB standard USB 2.0 full speed

Media file format support MP3 (*.mp3)

WMA (*.wma)

JPEG (*.jpg) (*.jpeg)

DivX (*.divx, *.avi)

MPEG4 (*.asf)

USB device file system FAT12, FAT16, FAT 32

USB Port power Max. 500 mA

Bit rate up to 4 Mbps (DivX)

USB Recording

Bit Rate 128 kbps

USB recording speed 1x

Recording file format MP3 (*.mp3)

■ CASSETTE DECK SECTION

Type 1 way

Track system Stereo

Recording system AC bias 84 kHz

Tape speed 4.8 cm/s

Overall frequency response (+3, -6 dB) at DECK OUT

Normal 50 Hz to 12 kHz

Wow and flutter 0.18 % (WRMS)

Fast forward and rewind time Approx. 120 seconds with
C-60 cassette tape

■ VIDEO SECTION

Video system PAL625/50, PAL525/60, NTSC

Composite video output

Output level 1 Vp-p (75 Ω)

Terminal Pin jack (1 system)

Component video output

Y output level 1 Vp-p (75 Ω)

P_B output level 0.7 Vp-p (75 Ω)

P_R output level 0.7 Vp-p (75 Ω)

Terminal output level Pin jack (Y: green, P_B: blue, P_R: red) (1 system)

■ DISC SECTION

Disc played [8 cm or 12 cm]

(1) DVD (DVD-Video, DivX^{*6,*7})

(2) DVD-RAM (DVD-VR, JPEG^{*4,*7}, MP3^{*2,*7}, MPEG4^{*5,*7}, DivX^{*6,*7})

(3) DVD-R (DVD-Video, DVD-VR, JPEG^{*4,*7}, MP3^{*2,*7}, MPEG4^{*5,*7}, DivX^{*6,*7})

(4) DVD-R DL (DVD-Video, DVD-VR, DivX^{*6,*7})

(5) DVD-RW (DVD-Video, DVD-VR, JPEG^{*4,*7}, MP3^{*2,*7}, MPEG4^{*5,*7}, DivX^{*6,*7})

(6) +R/ +RW (Video)

(7) +R DL (Video)

(8) CD,CD-R/RW (CD-DA, Video CD, SVCD^{*1}, MP3^{*2,*7}, WMA^{*3,*7}, JPEG^{*4,*7}, MPEG4^{*5,*7}, DivX^{*6,*7})

^{*1} Conforming to IEC62107

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

^{*3} Windows Media Audio Ver 9.0 L3

Not compatible with Multiple Bit Rate (MBR)

^{*4} Exif Ver 2.1 JPEG Baseline files

Picture resolution: between 160 x 120 and 6144 x 4096 pixels (Sub sampling is 4:0:0, 4:2:0, 4:2:2 or 4:4:4). Extremely long and narrow pictures may not be displayed.

^{*5} MPEG4 data recorded with the Panasonic SD multi cameras or DVD video recorders. Conforming to SD VIDEO specifications (ASF standard)/ MPEG4 (Simple Profile) video system/ G.726 audio system.

^{*6} Plays DivX[®] video.

^{*7} The total combined maximum number of recognizable audio, picture and video contents and groups: 4000 audio, picture and video contents and 255 groups (Excluding Root folder).

Pick up

Wavelength

CD 790 nm

DVD 655 nm

Laser Power CLASS 1M

Audio output (Disc)

Number of channels 2 channel (FL, FR)

FL = Front Left

FR = Front Right

■ GENERAL

Power supply

For GC only

AC 220 V to 240 V, 50/60 Hz

For GA/GS only

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

Power consumption

68 W

Power consumption in standby mode:

0.3 W (approx.)

Dimensions (W x H x D) 250 mm x 334 mm x 247 mm

Mass 3.5 kg

Operating temperature range +0 to +40°C

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

Notes:

1. Specifications are subject to changes without notice. Mass and dimensions are approximate.

2. Total harmonic distortion is measured by the digital spectrum analyzer.

■ System: SC-VKX20GA-K

Main Unit: SA-VKX20GA-K

Front Speakers: SB-AKX10PN-K

■ System: SC-VKX20GC-K

Main Unit: SA-VKX20GC-K

Front Speakers: SB-AKX10PN-K

■ System: SC-VKX20GS-K

Main Unit: SA-VKX20GS-K

Front Speakers: SB-AKX10PN-K

4.1. Others (Licenses)

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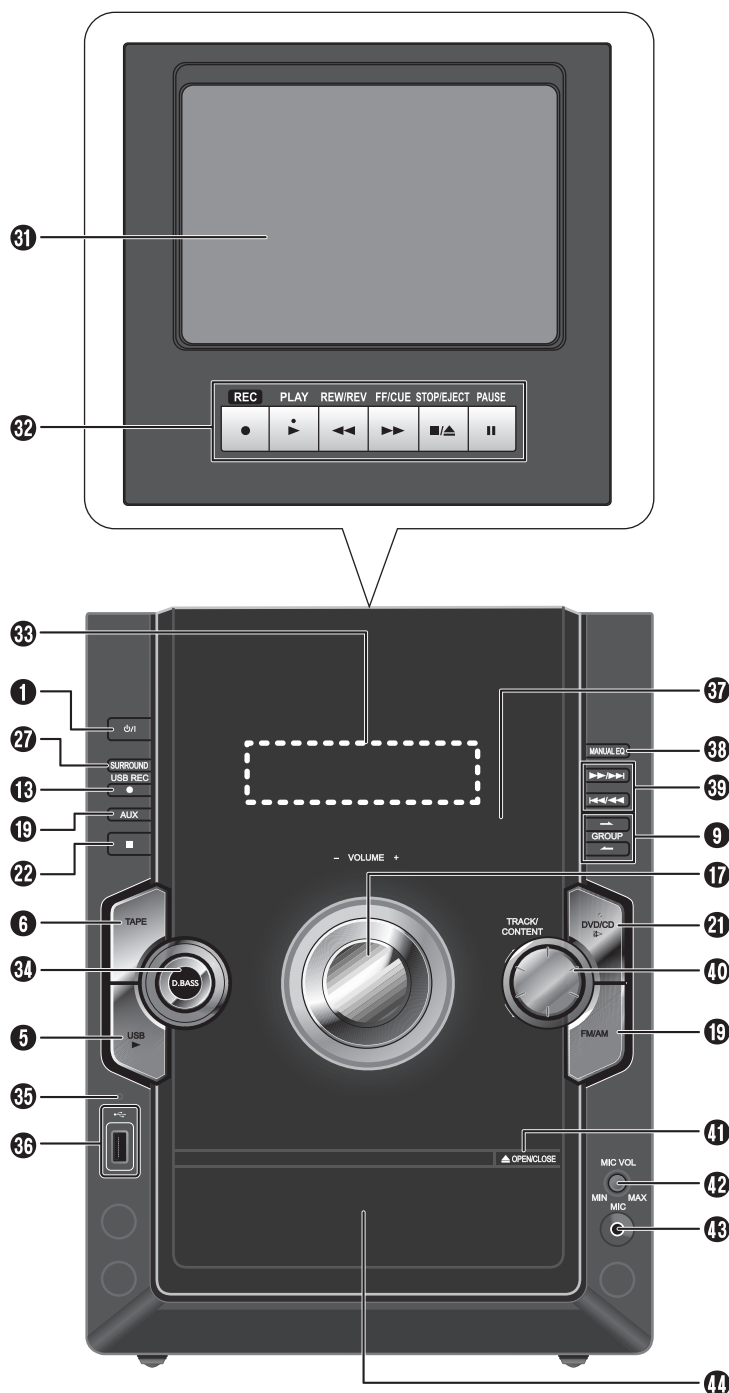
U.S. Patent Nos. 6,836,549; 6,381,747; 7,050,698; 6,516,132; and 5,583,936.

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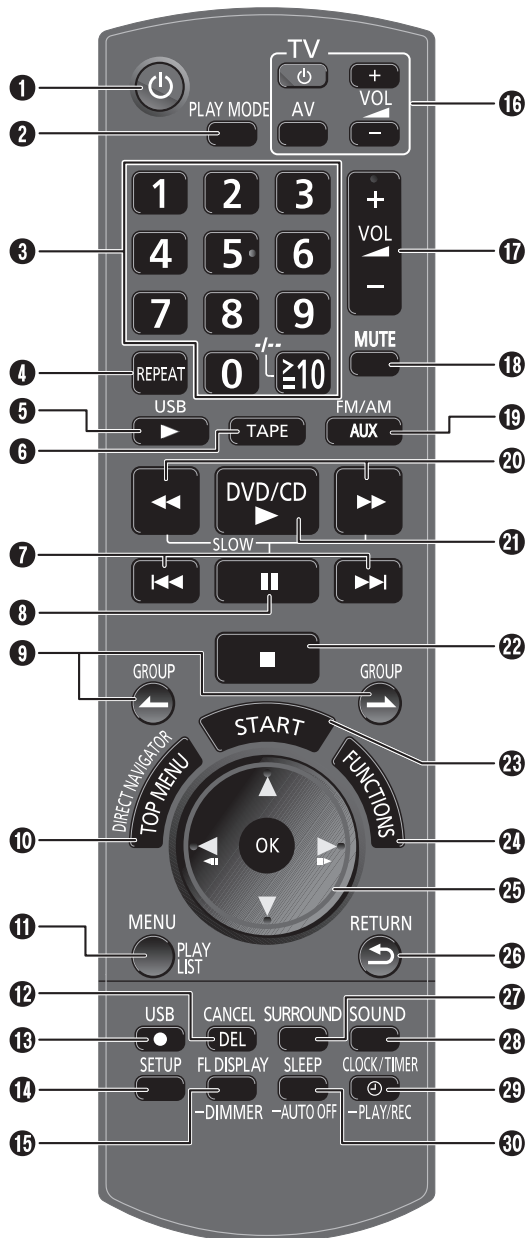
5 Location of Controls and Components

5.1. Main Unit Key Button Operation

- 21 Playback contents from a disc
- 22 Stop playback
- 23 Show the START menu
- 24 Show the on-screen menu
Select "BP 1" or "BP 2" for AM radio station
- 25 View frame-by-frame
Select or confirm item
Adjust the sound quality
- 26 Go back to the previous screen
- 27 Set the surround sound effect
- 28 Select the sound mode
- 29 Set the clock and timer
Start or cancel the play timer or record timer
- 30 Set the sleep timer
Set the auto off function
- 31 Cassette tape deck
- 32 Operate cassette tape playback and recording
- 33 Display panel
- 34 Set "D.Bass" function
- 35 USB recording indicator
- 36 USB port
- 37 Signal sensor of remote control
- 38 Set "MANUAL EQ" function
- 39 Skip track or content
Search track or content
Tune the radio station
- 40 Skip and play CD-DA track or MP3 and WMA content
- 41 Open or close the disc tray
- 42 Adjust the volume of the microphone
- 43 Microphone jack
- 44 Disc tray



5.2. Remote Control Key Button Operation



- 1 **Standby/on switch** [⏻], [⏻/I]
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- 2 Program playback, random playback
Select "MONO" for FM radio station
- 3 Numeric buttons
To set a 2-digit number
Example: 16: [≥10] → [1] → [6]
- 4 Repeat playback
- 5 Playback contents from a USB mass storage device
- 6 Select cassette tape mode
- 7 Skip track or content
Select preset radio stations
- 8 Pause playback
- 9 Skip group or folder
- 10 Show the disc top menu
Show the program list
- 11 Show the menu
Select frequency mode
Show the playlist
- 12 Cancel an item
Delete an item
- 13 Record contents to a USB mass storage device
- 14 Change the system settings
Select track divide mode for USB recording
- 15 View the information shown on the display panel
Decrease the brightness of the display panel!
Press and hold the button to use this function. To cancel, press and hold the button again.
- 16 **Operate a Panasonic TV** (applicable to some models only)
Point the remote control to a Panasonic TV:
[⏻]: Switch on or switch off the TV
[AV]: Change the video input mode of the TV
[+/-, VOL]: Adjust the volume of the TV
- 17 Adjust the volume of the system
- 18 **Mute the sound of the system**
Press the button again to cancel. "MUTE" is also cancelled when you adjust the volume or when you switch off the system.
- 19 Select FM or AM radio station
Select AUX mode
- 20 Playback in slow motion, search track or content
Tune the radio station

5.3. Disc Information

5.3.1. Disc Playability (Media)

Commercial discs

Type	Icon	Details
DVD-Video 	DVD-V	High quality video and audio discs
Video CD 	VCD	- Video discs - Including SVCD (conforms to IEC62107)
CD 	CD	Audio discs

Recorded discs

Type	Icon	Details
DVD-R/RW  	DVD-V DVD-VR MP3 JPEG MPEG4 DivX	- DVD-Video Format - Version 1.1 of the DVD Video Recording Format - MP3 format - JPEG format - MPEG4 format - DivX® format
DVD-R DL 	DVD-V DVD-VR DivX	- DVD-Video Format - Version 1.2 of the DVD Video Recording Format - DivX® format
+R/+RW/+R DL	DVD-V	+VR (+R/+RW Video Recording) Format
CD-R/RW	WMA MP3 JPEG MPEG4 DivX	- WMA format - MP3 format - JPEG format - MPEG4 format - DivX® format

- Before playback, finalise the disc on the equipment it was recorded on.
- It is not possible to play all the above-mentioned discs in some conditions because of:
 - The type of disc.
 - The condition of the recording.
 - The recording procedure.
 - How the files were made (➡ right, "Tips for making data discs").

Note on using a DualDisc

A DualDisc could possibly not playback if the side of the digital audio content does not meet the technical specifications of the Compact Disc Digital Audio (CD-DA) format.

Discs that cannot be played

Blu-ray, HD DVD, AVCHD discs, DVD-RW version 1.0, DVD-Audio, DVD-ROM, CD-ROM, CDV, CD-G, SACD, Photo CD, DVD-RAM, and "Chaoyi VCD" (including CVD, DVCD and SVCD) that do not conform to IEC62107.

Video systems

- This system can play discs with PAL and NTSC, but your TV must complement with the system used on the disc.
- Videos from PAL discs cannot be correctly shown on an NTSC TV.
- This system can convert NTSC signals to PAL60 to show video on a PAL TV.

Tips for making data discs

WMA (Extension: ".WMA", ".wma")

Disc: **CD-R/RW**

- Compatible compression rate: between 48 kbps and 320 kbps.
- You cannot play WMA files that are copy-protected.
- This system does not support Multiple Bit Rate (MBR).

MP3 (Extension: ".MP3", ".mp3")

Disc: **DVD-R/RW, CD-R/RW**

- This system does not support ID3 tags.
- Sampling frequency and compression rate:
 - DVD-R/RW: 11.02, 12, 22.05, 24 kHz (8 to 160 kbps), 44.1 and 48 kHz (32 to 320 kbps)
 - CD-R/RW: 8, 11.02, 12, 16, 22.05, 24 kHz (8 to 160 kbps), 32, 44.1 and 48 kHz (32 to 320 kbps)

JPEG (Extension: ".JPG", ".jpg", ".JPEG", ".jpeg")

Disc: **DVD-R/RW, CD-R/RW**

- JPEG files taken on a digital camera that conforms to DCF Standard (Design rule for Camera File system) Version 1.0 are shown.
 - Files that have been changed, edited or saved with a computer picture editing software are possibly not shown.
- This system cannot show moving pictures, MOTION JPEG and other such formats, still pictures other than JPEG (example: TIFF), or play pictures with attached audio.

MPEG4 (Extension: ".ASF", ".asf")

Disc: **DVD-R/RW, CD-R/RW**

- The recording date can be different from that of the actual date.

DivX (Extension: ".DIVX", ".divx", ".AVI", ".avi")

Disc: **DVD-R/R DL/RW, CD-R/RW**

- DivX files that are more than 2 GB or have no index can fail to play correctly on this system.
- This system supports all resolutions until a maximum of 720 x 480 (NTSC)/720 x 576 (PAL).
- You can select a maximum of eight types of audio and subtitles on this system.

- There can be differences in the display sequence on the menu screen and computer screen.
- This system cannot play files recorded using packet write.

DVD-R/RW

- Discs must conform to UDF bridge (UDF 1.02/ISO9660).
- This system does not support multi-session. Only the default session is played.

CD-R/RW

- Discs must conform to ISO9660 level 1 or 2 (except for extended formats).
- This system supports multi-session but if there are many sessions, it uses more time for playback to start. Keep the number of sessions to a minimum to prevent this.

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. Self-Diagnostic Mode Table

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

Special Note:

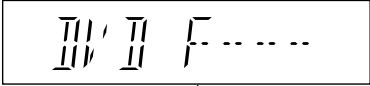
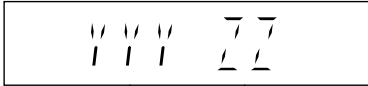
- Due to the limitations of the no. characters that can be shown on the FL Display, the "FL Display" button on the remote control unit can be used to show the two display pages. (Display 1 / Display 2).
- Refer to Section 5 for the section on "Control Key Buttons Operations".

6.2.1. Self-Diagnostic Mode Table 1

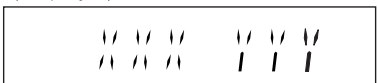
Self-Diagnostic Mode shall be started if an abnormal state occurs.

Item		FL Display	Key Operation										
Mode Name	Description												
Self-Diagnostic Mode	To enter into self-diagnostic.		In DVD/CD Mode: 1. Press and hold [STOP] button on the main unit for 2 secs. 2. Do not release [STOP] button, press & hold [▶▶/▶▶] on the main unit for 2 secs. 3. To exit, press [POWER,/I/O] button on main unit.										
Self-Diagnostic Error Code Display	For checking self-diagnostic error code display. (Disc Loader related and system related only. DVD unit related codes are not shown.)	If it doesn't memorize code, it shows "TNO-ERR" If it memorizes code, it shows "TF61___" Example: 	In Self-Diagnostic Mode: 1. Press [STOP] button on main unit.										
Clearance of memory	Clearance of memory contents from error/unusual/invalid codes.		In Self-Diagnostic Mode: 1. Press [STOP] button on remote control.										
AD Input Value Display	AD Input Value Display.	 AN0 AN1 AN2 AN3 Example of AD value: <table border="1"><thead><tr><th>AD input</th><th>Key line</th></tr></thead><tbody><tr><td>AN 0</td><td>Input KEY1</td></tr><tr><td>AN 1</td><td>Input KEY2</td></tr><tr><td>AN 2</td><td>Input KEY3</td></tr><tr><td>AN 3</td><td>DVD Region</td></tr></tbody></table>	AD input	Key line	AN 0	Input KEY1	AN 1	Input KEY2	AN 2	Input KEY3	AN 3	DVD Region	In Self-Diagnostic Mode: 1. Press [DVD/CD] button on main unit.
AD input	Key line												
AN 0	Input KEY1												
AN 1	Input KEY2												
AN 2	Input KEY3												
AN 3	DVD Region												

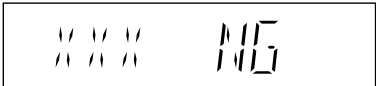
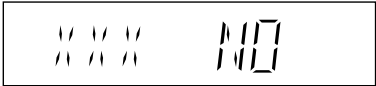
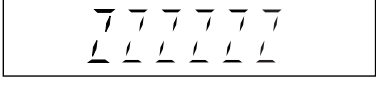
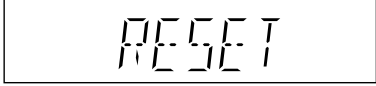
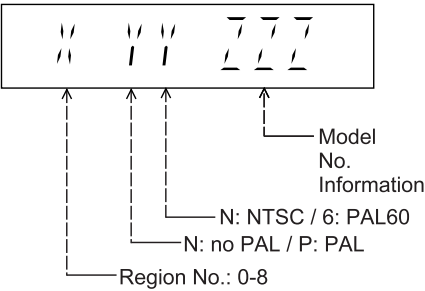
6.2.2. Self-Diagnostic Mode Table 2 (For DVD Module)

Item		FL Display	Key Operation
Mode Name	Description		
Error code check	Error code check The latest error code stored in the EEPROM IC is displayed. Note: Refer to "[Section 6.3] DVD Self Diagnostic Function-Error Code" for more detailed information on the error codes.	 F / H / U Error code (play_err) is expressed in the following convention. Error code = 0 x DAXX is expressed: → DVDnn U12 Error code = 0 x DBXX is expressed: → DVDnn H12 Error code = 0 x DXXX is expressed: → DVDnn F123 Error code = 0 x 0000 is expressed: → DVDnn F--- * "xx" denotes the error code	In DVD/CD STOP (no disc) Mode: Press [STOP] button on the main unit, and [0] button on the remote control unit. *With pointing of cursor up and down on display. To exit, press [POWER] button on main unit or remote control.
Jitter check	Jitter check. Jitter rate is measured and displayed. Measurement is repeatedly done in the cycle of one second. Read error counter starts from zero upon mode setting. When target block data failed to be read out, the counter advances by one increment. When the failure is caused by minor error, it may be corrected when retried to enable successful reading. In this case, the counter advances by one. When the error persists even after retry, the counter may jump by two or more. FL Display sequence: Display 1→2.	(Display 1)  Jitter Check Mode Jitter rate is shown in decimal notation to one place of decimal. Focus drive value is shown in hexadecimal notation. (Display 2)  Lead Error Counter Focus Drive Value	In DVD/CD STOP (no disc) Mode: Press [STOP] button on the main unit, and [5] button on the remote control unit. Press [STOP] button to exit. Press [FL Display] on remote control unit for next page (FL Display).
Initial setting of laser drive current	Initial setting of laser drive current. Initial current value for the DVD laser and CD laser is separately saved in the EEPROM IC. FL Display sequence: Display 1→2.	(Display 1)  Laser Current Measurement Mode The value denotes the current in decimal notation. (Display 2)  CD Laser Identify as LDO mode DVD Laser The above example shows the initial current is XXXmA and YYYmA for CD laser and DVD laser respectively when the laser is switched on.	In DVD/CD STOP (no disc) Mode: Press [STOP] button on the main unit, and [PAUSE] button on the remote control unit. Cancelled automatically 5 seconds later. Press [FL Display] on remote control unit for next page (FL Display) on values of laser drive current.

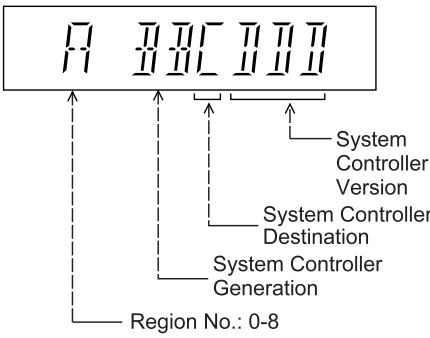
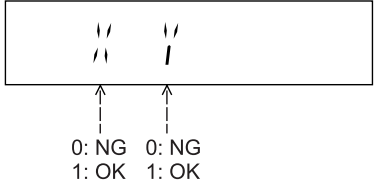
6.2.3. Self-Diagnostic Mode Table 3 (For DVD Module)

Item		FL Display	Key Operation
Mode Name	Description		
DVD laser drive current measurement	DVD laser drive current measurement. DVD laser drive current is measured and the result is displayed together with the initial value stored in the EEPROM IC. After the measurement, DVD laser emission is kept on. It is turned off when POWER key is switched off. FL Display sequence: Display 1→2.	(Display 1)  DVD laser current measurement mode The value denotes the current in decimal notation. (Display 2)  DVD Laser Initial Value DVD Laser Value Identify as LDD mode The above example shows the initial current is XXXmA and the measured value is YYYmA.	In DVD/CD STOP (no disc) Mode: Press [STOP] button on the main unit, and [FUNCTIONS] button on the remote control unit. Cancelled automatically 5 seconds later. Press [FL Display] on remote control unit for next page (FL Display) on values of dvd drive current.
CD laser drive current measurement	CD laser drive current measurement. CD laser drive current is measured and the result is displayed together with the initial value stored in the EEPROM IC. After the measurement, CD laser emission is kept on. It is turned off when POWER key is switched off. FL Display sequence: Display 1→2.	(Display 1)  CD Laser Current Measurement Mode The value denotes the current in decimal notation. (Display 2)  CD Laser Initial Value CD Laser Current Value The above example shows the initial current is XXXmA and the measured value is YYYmA.	In DVD/CD STOP (no disc) Mode: Press [STOP] button on the main unit, and [3] button on the remote control unit. Cancelled automatically 5 seconds later. Press [FL Display] on remote control unit for next page. (FL Display)

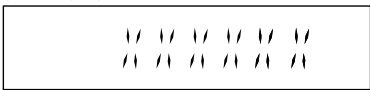
6.2.4. Self-Diagnostic Mode Table 4 (For DVD Module)

Item		FL Display	Key Operation
Mode Name	Description		
Micro-processor firmware version display & EEPROM checksum display.	Micro-processor firmware version display & EEPROM checksum display. EEPROM checksum is only available due to existence of EEPROM IC. Note: Condition 1/2/3 shows the state of EEPROM IC. It is indicated in Display 2. FL Display sequence: Display 1→2→3.	(Display 1)  (Display 2)  (Condition1)  If the version of the EEPROM does not match, [NG] is displayed. (Condition 2)  (a) If there is NO EEPROM header string OR (b) If there is no EEPROM (no data is received by Micro-processor), [NO] is displayed. (Condition 3)  If the EEPROM version matches, checksum [YYYY] is displayed. (Display 3) 	In DVD/CD STOP (no disc) Mode: Press [STOP] button on the main unit, and [7] button on the remote control unit. Cancelled automatically 5 seconds later. Press [FL Display] button on remote control unit for next page. (FL Display)
Initialization mode	Initialization. User settings are cancelled and player is initialized to factory setting. It is necessary when after replacement of Micro-processor (DV5 LSI) IC, FLASH ROM IC (IC8651), EEPROM IC (IC8611) & DVD Module P.C.B.	INIT Full Initialization 	In DVD/CD STOP (no disc) Mode: Press [STOP] button on the main unit, and [≥ 10] button on the remote control unit. Cancelled automatically 5 seconds later. In DVD/CD STOP (no disc) Mode: Press [ENTER] button on the main unit, and [≥ 10] button on the remote control unit. Cancelled automatically 5 seconds later.
Region display	Region code display, TV broadcasting system & the model no. information. Note: Refer to Fig. 6.2.7 for "Video Design Information".		In DVD/CD STOP (no disc) Mode: Press [STOP] button on the main unit, and [6] button on the remote control unit. Cancelled automatically 5 seconds later.

6.2.5. Self-Diagnostic Mode Table 5 (For DVD Module)

	Item	FL Display	Key Operation
Mode Name	Description		
Region & Version Display	Region & System Controller version is displayed on the FL Display. The firmware version can be updated using recovery disc. Note: It is necessary to check for firmware version before carrying out the version up using the disc.		In DVD/CD STOP (no disc) Mode: Press [STOP] button on the main unit, and [8] button on the remote control unit. Cancelled automatically 5 seconds later.
CPPM/CRM Keys Check	CPPM/CRM refers to the Content Protection for Recordable Media and Pre-Recorded Media. It displays the existence of the keys as "1" or "0". OK: Existing of keys. NG: Non existing of keys.		In DVD/CD STOP (no disc) Mode: Press [STOP] button on the main unit, and [SOUND] button on the remote control unit. Cancelled automatically 5 seconds later.

6.2.6. Self-Diagnostic Mode Table 6 (For DVD Module)

Item		FL Display	Key Operation
Mode Name	Description		
Timer 1 check	Timer 1 check Laser operation timer is measured separately for DVD laser and CD laser. FL Display sequence: Display 1→2.	(Display 1)  Shown to the above is DVD laser usage time, and to the below is CD laser usage time. Time is shown in 4 digits of decimal notation in a unit of 10 hours. "0000" will follow "9999". (DVD laser) (Display 2)  Time is shown in 4 digits of decimal notation in a unit of 10 hours. "0000" will follow "9999". (CD laser)	In DVD/CD STOP (no disc) Mode: Press [STOP] button on the main unit, and [▲] button on the remote control unit. Cancelled automatically 5 seconds later. Press [FL Display] button for next page of FL Display.
Timer 1 reset	Timer 1 reset Laser operation timer of both DVD laser and CD laser is reset all at once.	 Time is shown in 4 digits of decimal notation in a unit of 10 hours. It will clear to "0000" upon reset.	While displaying Timer 1 data, press [STOP] button on the main unit, and [▼] button on the remote control unit. Cancelled automatically 5 seconds later
Timer 2 check	Timer 2 check Spindle motor operation timer	 Time is shown in 5 digits of decimal notation in a unit of 1 hour. "00000" will follow "99999".	In DVD/CD STOP (no disc) Mode: Press [STOP] button on the main unit, and [▶] button on the remote control unit. Cancelled automatically 5 seconds later.
Timer 2 reset	Timer 2 reset Spindle motor operation timer	 Time is shown in 5 digits of decimal notation in a unit of 1 hour. It will be cleared to "00000" upon activating this.	While displaying Timer 2 data, press [STOP] button on the main unit, and [◀] button on the remote control unit. Cancelled automatically 5 seconds later.

6.2.7. Video Design Information

Model Series	Country Region	Region Code	TV Broadcasting System	Product			
				Signal System (Default)	Region Display (Default)	OSD Default	OSD Menu Language
P, PC, PX	USA, Canada, US Military	1	NTSC	NTSC (*A)	1PN	English	English (NA), Spanish (NA), Canadian, French
(S)	Japan	2	NTSC	NTSC (*A)	2PN	Japanese	Japanese, English
EP	Poland, E.Europe	2	PAL	PAL (*C)	2P6	English	English (EU), French, German, Spanish (EU), Polish, Russian, Czech, Hungarian
EB, EG, ES	UK, Germany, W.Europe	2	PAL	PAL (*C)	2P6	English	English (EU), French, German, Italian, Spanish (EU), Polish, Swedish, Dutch
GC, GS	Middle East, Africa, S.E.A	2	PAL	PAL (*C)	2P6	English	English (NA), French, German, Spanish (EU), Polish, Russian, Czech, Hungarian
GA, GD GT, GJ	South East Asia, Korea, Taiwan	3	PAL NTSC	NTSC (*B)	3PN	English	English (NA), Traditional Chinese
GN	New Zealand, Australia	4	PAL	PAL (*C)	4P6	English	English (EU), French, German, Italian, Spanish (EU), Polish, Swedish, Dutch
PN	Central & S.America, Brazil	4	NTSC	NTSC (*D)	4PN	Spanish	English (NA), Spanish (Panama), French, Brazilian Portuguese
PB	Central & S.America, Brazil	4	NTSC	NTSC (*D)	4PN	Portuguese	English (NA), Spanish (Panama), French, Brazilian Portuguese
PH, PU, PR	South/Central America, Argentina	4	NTSC	NTSC (*D)	4PN	English	English (NA), Spanish (Panama), French, Brazilian Portuguese
EE	CIS	5	SECAM	PAL (*C)	5P6	English	English (EU), French, German, Spanish (EU), Polish, Russian, Czech, Hungarian
GW	India	5	PAL	PAL (*C)	5P6	English	English (NA), Traditional Chinese
GK	China	6	PAL	NTSC (*B)	6PN	Simplified Chinese	English (NA), Simplified Chinese

NTSC (*A)

Source	Output
Screen Saver	NTSC
NTSC disc	NTSC
PAL disc	PAL (DVD-V)
	NTSC (DVD-A/VCD)

NTSC (*B)

Source	Output
Screen Saver	NTSC
NTSC disc	NTSC (default)
	PAL60
PAL disc	PAL

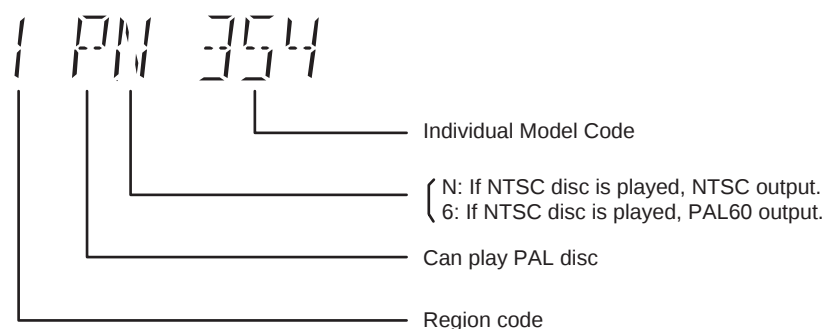
PAL (*C)

Source	Output
Screen Saver	PAL
NTSC disc	PAL60 (default)
	NTSC
PAL disc	PAL

NTSC (*D)

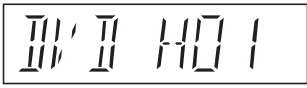
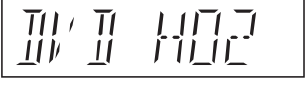
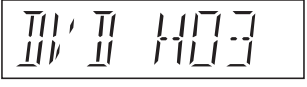
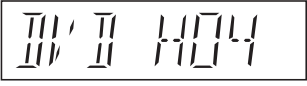
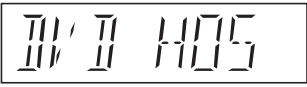
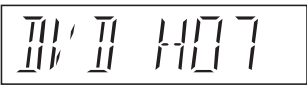
Source	Output
Screen Saver	NTSC
NTSC disc	NTSC
PAL disc	NTSC

Explanation of Display

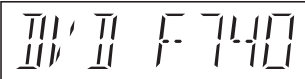
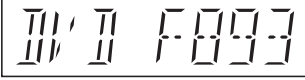
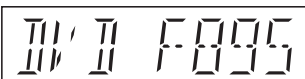
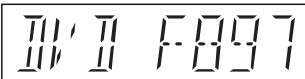


6.3. Self Diagnostic Function-Error Code

6.3.1. Mechanism Error Code Table (DLS6E)

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
H01	Tray loading error	The tray opening and closing is abnormal. CLOSE and OPEN of the tray cannot be carried out properly. Loading motor error, DV5 LSI IC (IC8001) error.		Press [■STOP] on main unit for next error. (OPEN time: OPEN → CLOSE → OPEN → H01 at CLOSE: CLOSE → OPEN → CLOSE H01)
H02	Spindle servo error	The spindle motor cannot start. Spindle servo error, DSC Disk motor error, CLVS failure.		Press [■STOP] on main unit for next error.
H03	Traverse motor error	The traverse is abnormal. TRV motor error.		Press [■STOP] on main unit for next error.
H04	Tracking servo error	Tracking coil NG (OPU unit abnormal).		Press [■STOP] on main unit for next error.
H05	Seek time out error	It is not possible to access the disc. TOC cannot read. Abnormal disc etc. Pickup abnormal or disk is dirty.		Press [■STOP] on main unit for next error.
H07	Spindle motor drive error	The spindle motor drive voltage is abnormally low.		Press [■STOP] on main unit for next error.
U11	Focus servo error	Focus coil, FE signal error. Disc may be dirty.		Press [■STOP] on main unit for next error. (Unfinalized DVD-R is likely to become U11.)

6.3.2. DVD Module Error Code Table

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
U702	HDMI/DVI I2C communication error	The communication error of I2C when connecting it with HDMI/DVI. For instance, when EDID information to which information on the TV set side has been described cannot be read, it is generated.		Press [■ STOP] on main unit for next error.
U703	HDMI/DVI attestation error	When attestation (HDCP) with the TV side fails when connecting it with HDMI/DVI, it is generated.		Press [■ STOP] on main unit for next error.
U704	HDMI/DVI SRM Error	It is generated at the equipment to which the TV set is connected with HDMI/DVI.		Press [■ STOP] on main unit for next error.
U705	HDMI/DVI SRM disk falsification check error	It is generated at the time of it is time when illegal the SRM data of the reproducing disk (verify error), when connecting it with HDMI/DVI.		Press [■ STOP] on main unit for next error.
F740	HDMI device key	I2C error when writing HDMI Key device into transmitter.		Press [■ STOP] on main unit for next error.
F893	FLASH ROM IC data falsification error	Firmware error, DV5.0 LSI IC (IC8651) error.		Press [■ STOP] on main unit for next error.
F894	EEPROM IC abnormality error	When failing in the access to EEPROM IC located in the Main P.C.B. (IC8611).		Press [■ STOP] on main unit for next error.
F895	Language area abnormal	Firmware version agreement check for factory preset setting failure prevention.		Press [■ STOP] on main unit for next error.
F897	Initialization error	Incomplete initialization after writing of new firmware (Factory preset setting failure prevention)		Press [■ STOP] on main unit for next error.
F899	The communication specification disagreement between micro-processor	Unsuitable combination of number of system com and panel com used. (Firmware)		Press [■ STOP] on main unit for next error.

6.3.3. Power Supply Error Code Table

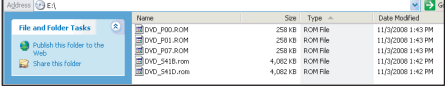
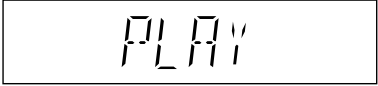
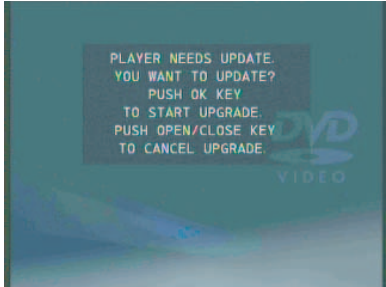
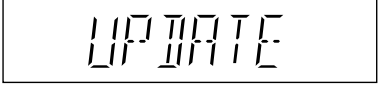
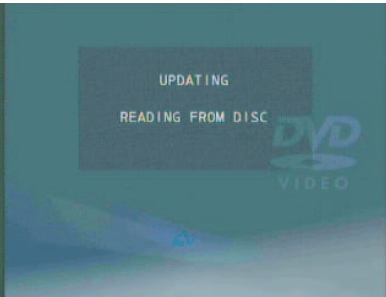
Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F61	Power Amp IC output abnormal	Upon power on, PCNT=HIGH, DCDET2=L after checking LSI.	F61	Press [■ STOP] on main unit for next error.
F76		DCDET1 = L (NG)	F76	
F61-76		Both DCDET1 and DCDET2 "L" (NG)	F61-F76	

6.3.4. Self-Diagnostic Error Code Table

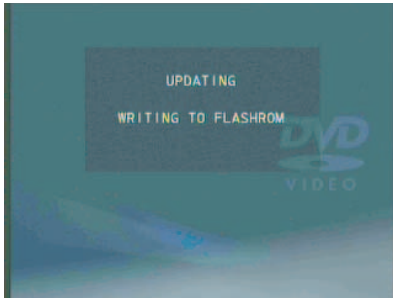
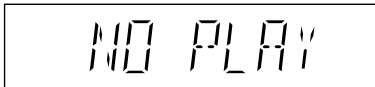
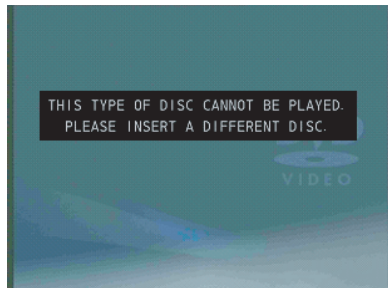
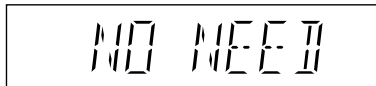
Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F15	REST SW abnormal	Under normal operation (Self-Diagnostic Mode inclusive), this error occurs when the REST SW ON is not detected within the specified time and shall be memorized.	F15	Press [■ STOP] on main unit for next error.
F26	Transmission error between CD servo LSI and microcomputer	Under normal operation (Self-Diagnostic Mode inclusive), this error occurs when the selection is set to CD and SENSE='H' is detected and SENSE='L' is not detected within a fail-safe time (20ms) after system command transmission was sent.	F26	Press [■ STOP] on main unit for next error.

6.4. Firmware Version-Up Information

6.4.1. Process Flow (1/3)

Item		FL/ GUI Display	Remarks
Process	Description		
1	Collect ROM Files (Copy files into CD-R/RW)	There are 2 files: A) Syscon ROM file type: - DVD_S52B.ROM (Sample) - DVD_S52D.ROM (Sample) (supports chinese fonts OSD display) B) Opecon ROM file type: - DVD_P10.ROM (Single tray)	User can put both files into the same root directory. DVD MODEL will choose the right ROM files to update its firmware.
2	Load disc into unit (To update rate)	Display 1:  FL Display 1.1:  GUI Display 1.1:  FL Display 1.2:  GUI Display 1.2:  GUI Display 1.3.1: 	All panel keys and remote controller keys, including [POWER] key, are invalid during CD Update. Caution: Make sure the powersupply during CD update. If the power supply cable is unplugged during update stage, CD update will fail. The DVD model can't work, and can't be recovered by CD update again.

6.4.2. Process Flow (2/3)

Item			FL/ GUI Display	Remarks
Process		Description		
		➔ <i>GUI Display 1.3.2:</i> UPDATING WRITING TO FLASHROM	GUI Display 1.3.2: 	
2-1	Check Correct ROM file type	ROM files doesn't fit to the product type. If the ROM files doesn't fit for the product type, then CD update "STOP" and display as below: ➔ <i>FL Display 2:</i> "NO PLAY" . ➔ <i>GUI Display 2 :</i> THIS TYPE OF DISC CANNOT BE PLAYER. PLEASE INSERT A DIFFERENT DISC.	FL Display 2:  GUI Display 2: 	Update stop (Wrong ROM Type)
2-2	Check ROM version type	Update not Necessary If the ROM files has the same (latest) version or an older version than the product: ➔ <i>FL Display 3:</i> "NO NEED" . ➔ <i>GUI Display 3:</i> THIS PLAYER DOES NOT REQUIRE THE UPDATE	FL Display 3:  GUI Display 3: 	Update stop (product has the latest firmware)

6.4.3. Process Flow (3/3)

Item		FL/ GUI Display	Remarks
Process	Description		
3	Update software (Opecon)	1. Update Failed If Opecon software update fail: → FL Display 3: "FAIL" . → GUI Display 3:"UPDATE FAIL"	Update stop.□ The theater set can't work, and can't be recovered by CD update again.
		2. Update Completed - If Opecon software update completes successfully: → FL Display 3: "GOOD" . → GUI Display 3: COMPLETED PLEASE EJECT THE DISC → Open the tray and take out the CD, the update procedure has been finished successfully. → Power off, then remove AC Cord.	The theater set will reboot automatically.

6.5. Sales Demonstration Lock Function

This function prevents discs from being lost when the unit is used for sales demonstrations by disabling the disc eject function. "LOCKED" is displayed on the unit, and ordinary operation is disabled.

6.5.1. Setting

• Prohibiting removal of disc

1. Select the DVD/CD function.
2. At POWER ON condition, press and hold down the [■] button and the [POWER] button on the main unit for at least three seconds. (The message, "LOCKED" appears when the function is activated.)

Note:

OPEN/CLOSE ▲ button is invalid and the main unit displays "LOCKED" while the lock function mode is entered.

• Prohibiting operation of selector and disc

1. Select the DVD/CD function.
2. At POWER ON condition, press and hold down the [▶] button and the [POWER] button on the main unit for at least three seconds. (The message, "LOCKED" appears when the function is activated.)

Note:

The following buttons are invalid and the main unit displays "LOCKED" while the lock function mode is entered.

Main unit	▲ OPEN/CLOSE, ■, , ◀◀/◀◀, ▶▶/▶▶, TAPE, USB ▶, DVD/CD ▶, FM/AM
Remote controller unit	EXT-IN, REPEAT, RADIO, NUMERIC KEYS 0-9, ≥10, ◀◀, ▶▶, ◀◀, ▶▶, ■, , ▶ RETURN, FUNCTIONS, FL DISPLAY, SLEEP, MUTE, MENU, USB ▶, TAPE, TOP MENU, SETUP, GROUP.

6.5.2. Cancellation

The lock can be cancelled by the same procedure as used in setting. ("UNLOCK" is displayed on cancellation) At normal Power ON/OFF the LOCKED condition is not cleared. However AC Power ON/OFF should clear LOCKED condition).

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 16.	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 ZJ2701(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 (IC4200) & DC/DC Converter IC (IC4000) faulty.	
	3	Photocoupler	3	PC5720 solder crack.	Refer to section 7.2.1 Fig.1 SMPS P.C.B..
		PC5720		dry joint, short circuit, open circuit.	
Set can ON working normally for some time then F76	1	Rectifier D5801	1a	Improper contact between D5801 to Heatsink	
		Rectifier D5802		Improper contact between D5802 to Heatsink	
	2	Thermistor TH5860	1b	Set trigger temperature protection.	

7.2.1. SMPS P.C.B.



7.2.2. Main P.C.B.

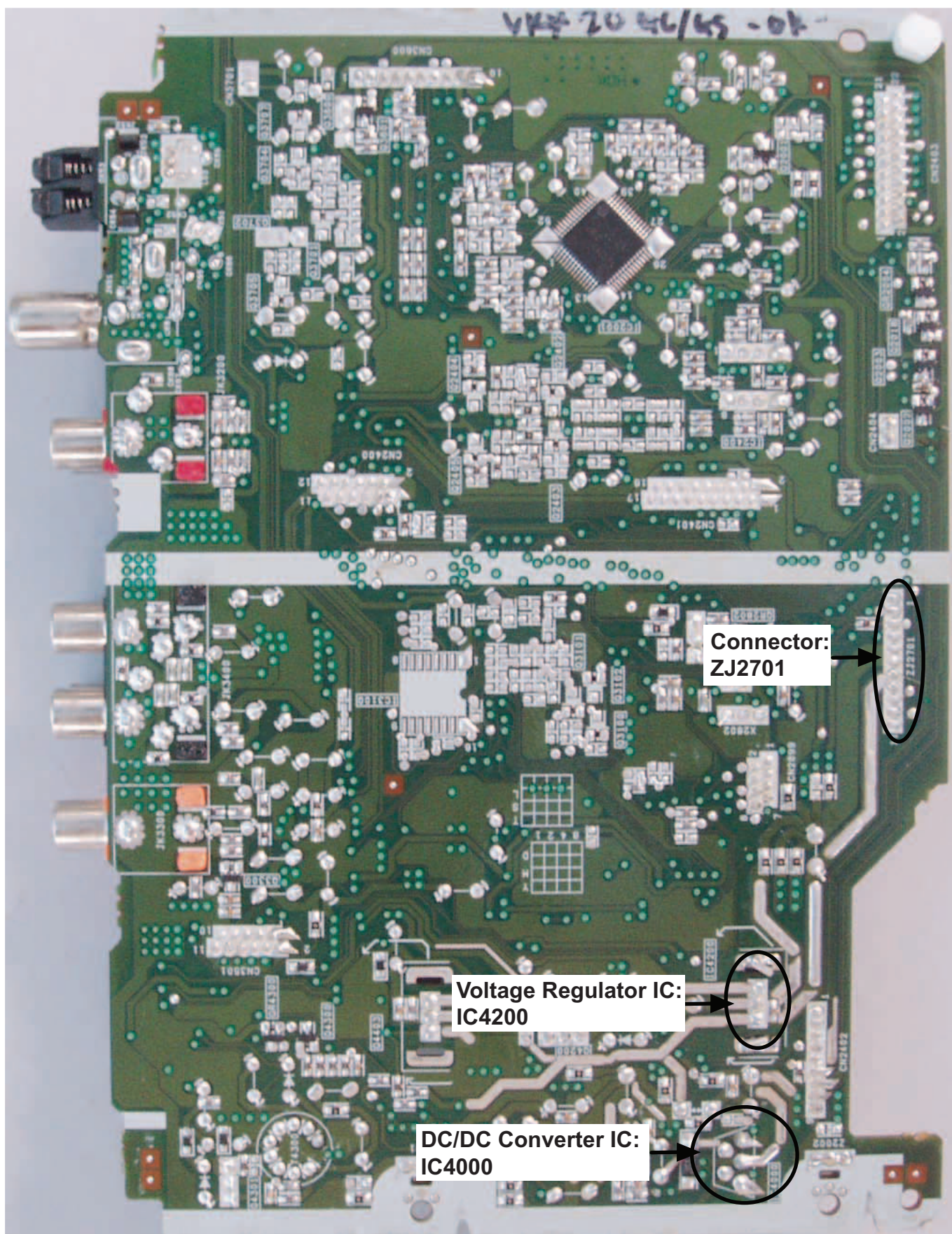


Fig. 2 Main P.C.B.

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)	REXX1158 (11P Cable Wire)	

9 Disassembly and Assembly Instructions

- Illustration is based on SA-VKX20GS-K.

Caution Note:

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

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

- During disassembly and assembly, please ensure proper service tools, equipments or jigs is being used.
- During replacement of component parts, please refer to the section of “Replacement Parts List” as described in the service manual.
- Select items from the following indexes when disassembly or replacement are required.
 - Disassembly of Side Panels
 - Disassembly of Top Cabinet Unit
 - Disassembly of Deck Mechanism Unit
 - Disassembly of Deck P.C.B.
 - Disassembly of Cassette Lid
 - 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 USB P.C.B.
 - Disassembly of CD Lid
 - Disassembly of Mic P.C.B.
 - Disassembly of Main P.C.B.
 - Replacement of Regulator IC (IC4200)
 - 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)
 - Replacement of DVD Module P.C.B.
 - Disassembly of DVD Mechanism Unit (DLS6E)
 - Disassembly of Rear Panel
 - Disassembly of Voltage Selector P.C.B.

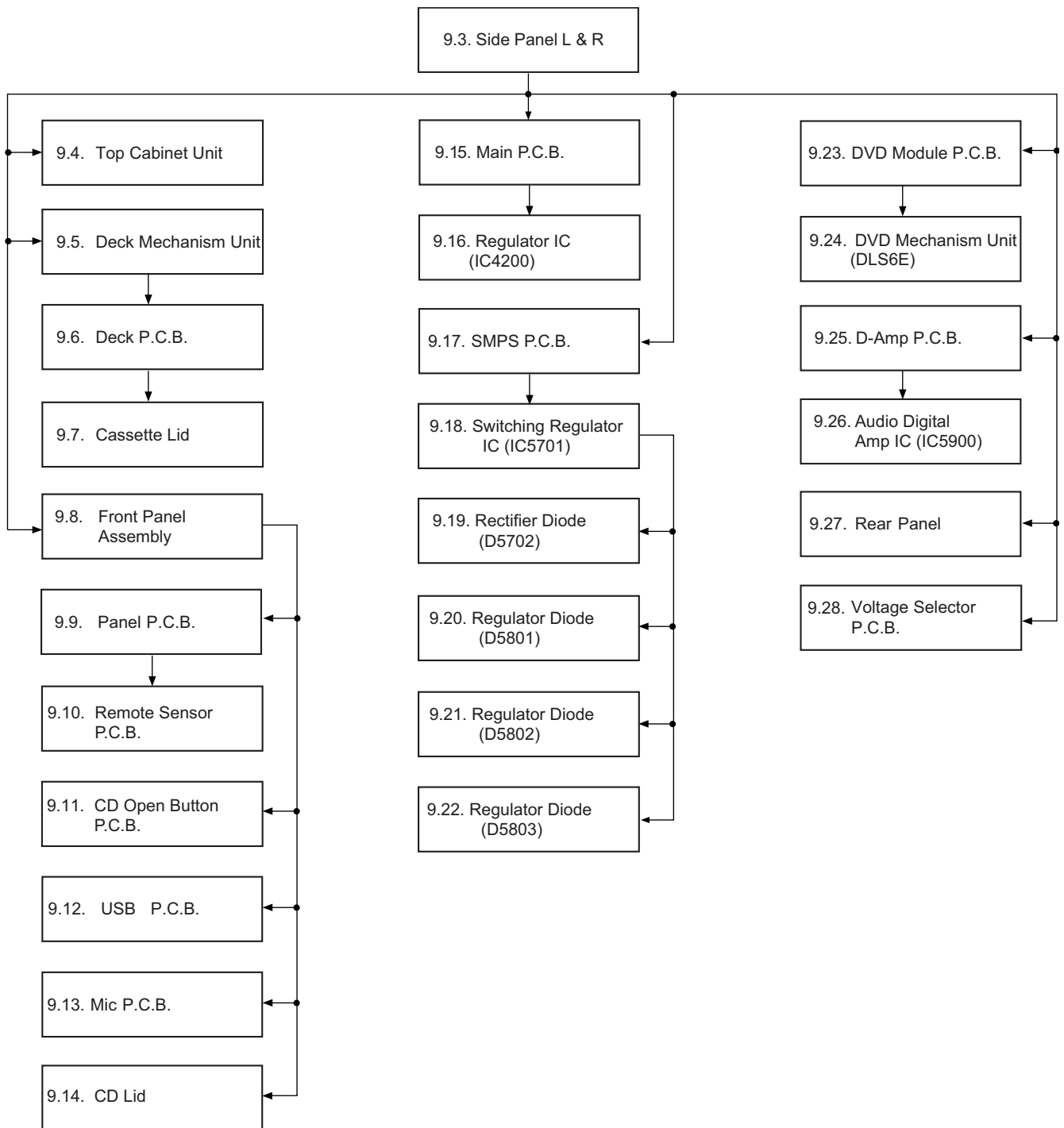
CAUTION NOTE:

Please use original screw and at correct locations.

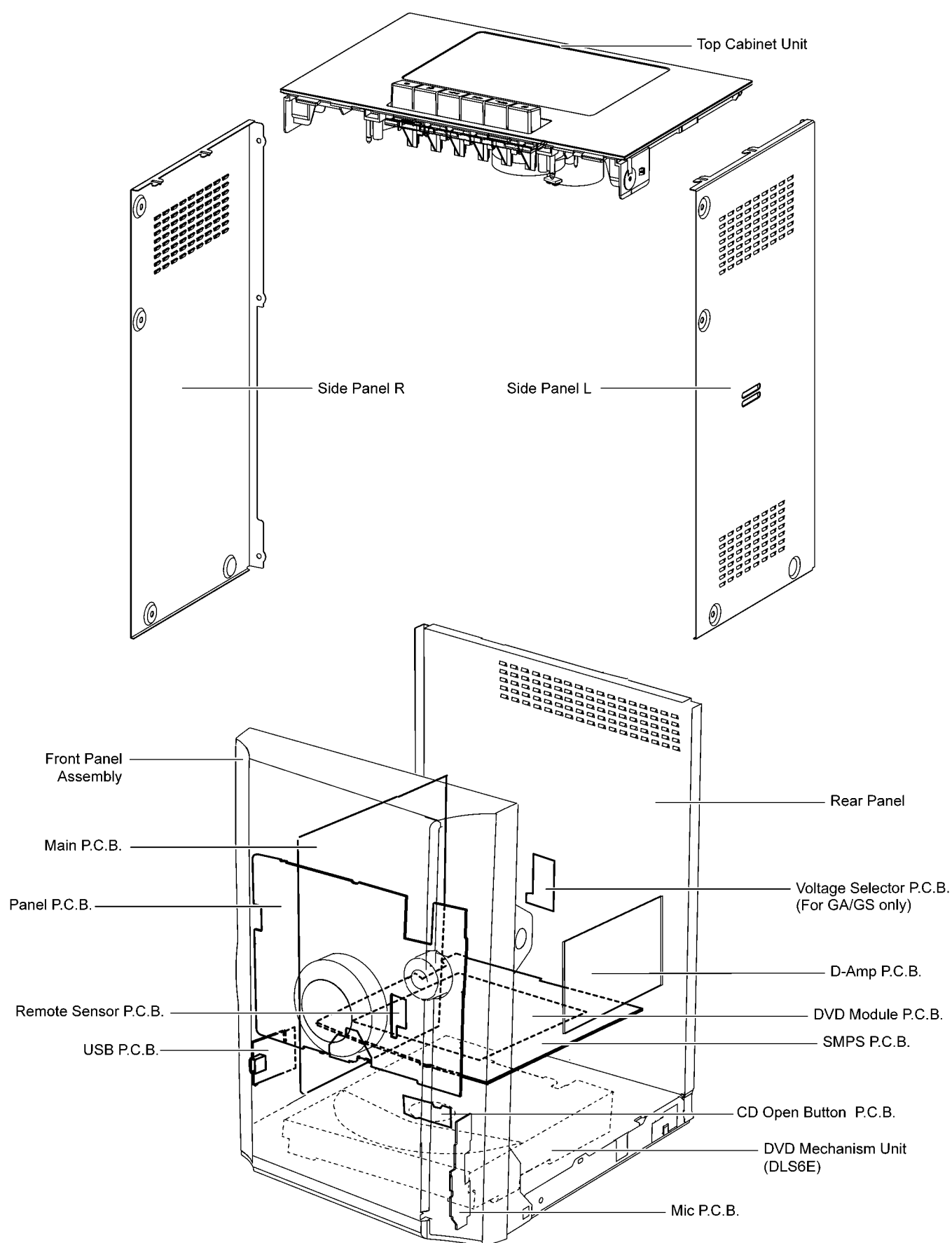
Below shown is part no. of different screw types used:

- | | |
|------------------------|----------------------|
| a :RHD30119-S | f :RHD26046-L |
| b :RHD30007-K2J | g :RHD30008 |
| c :XTV3+10GFJ-M | h :XTB3+10JFJ |
| d :XTN2+14GFJ | i :RHD3031004 |
| e :RHDX30005-1 | |

9.1. Disassembly Flow Chart

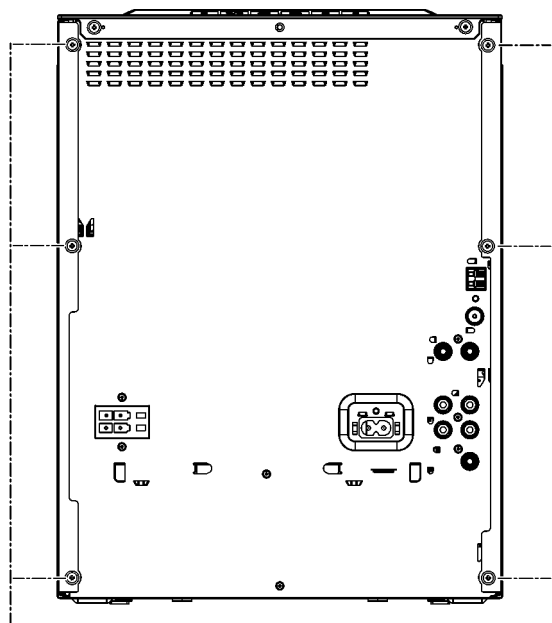


9.2. Main Components and P.C.B. Locations



9.3. Disassembly of Side Panels

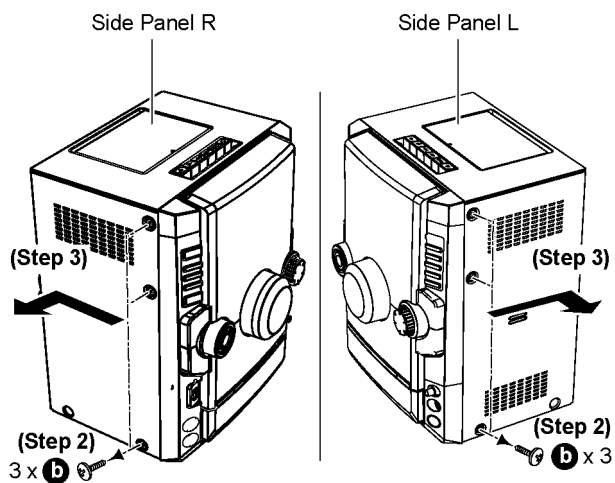
Step 1 Remove 6 screws.



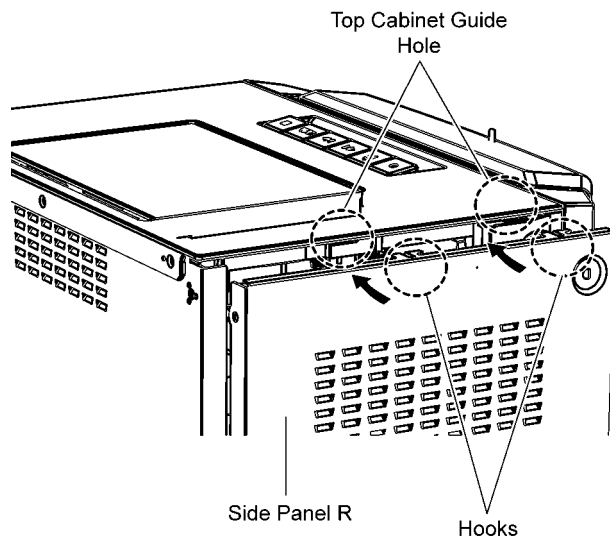
a x 6
(Step 1)

Step 2 Remove 6 screws on Side Panel Left & Right.

Step 3 Remove Side Panel Left & Right as arrow shown.



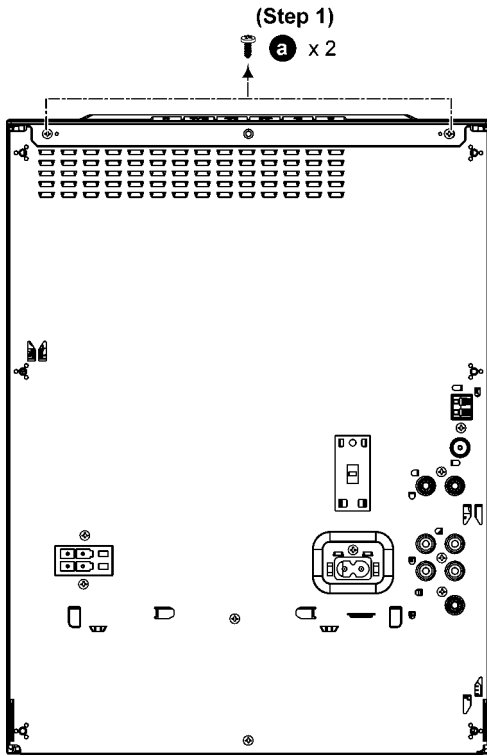
Caution: During assembling, ensure that the Side Panel Left & Right hooks are slotted into Top Cabinet Guide Hole properly.



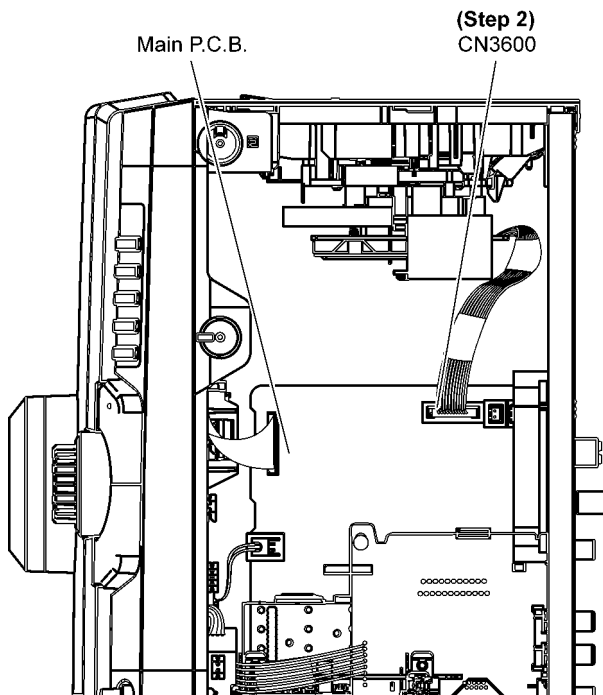
9.4. Disassembly of Top Cabinet Unit

• Refer to “Disassembly of Side Panels”.

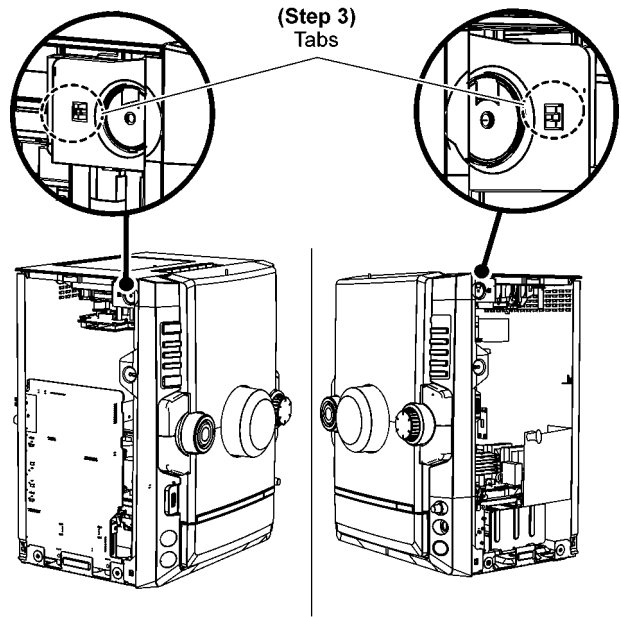
Step 1 Remove 2 screws.



Step 2 Detach 10P Cable Wire at the connector (CN3600) on Main P.C.B..

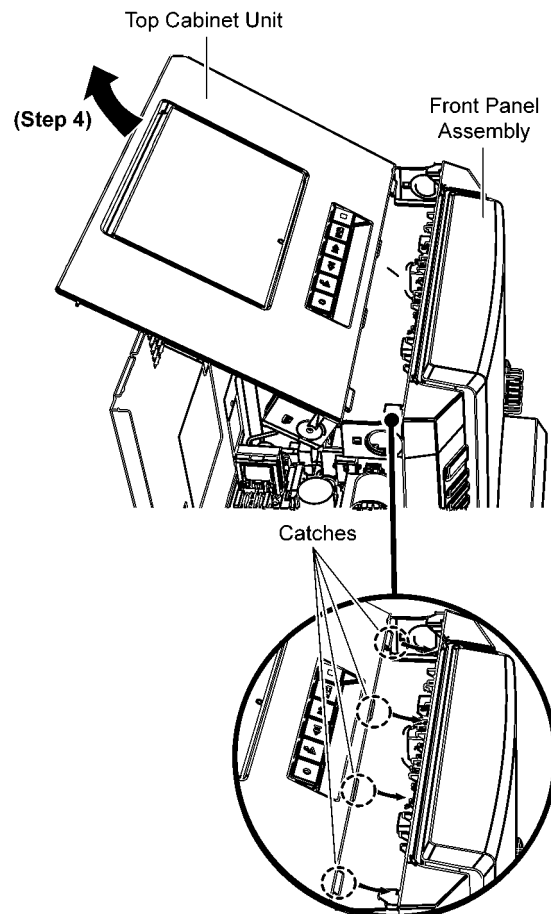


Step 3 Release tabs at both sides of Front Panel Assembly.



Step 4 Remove Top Cabinet Unit as arrow shown.

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

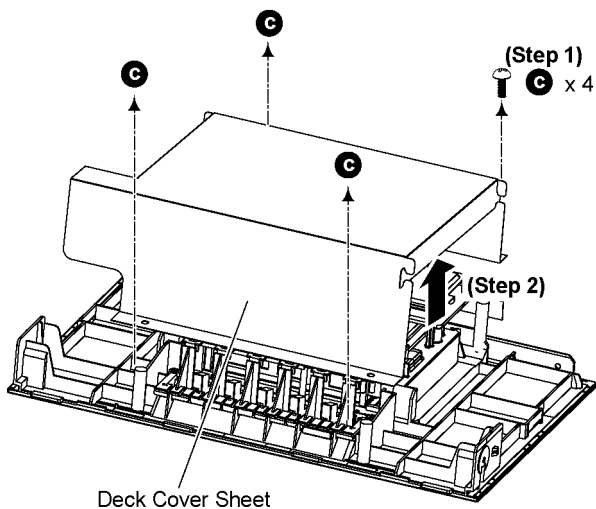


9.5. Disassembly of Deck Mechanism Unit

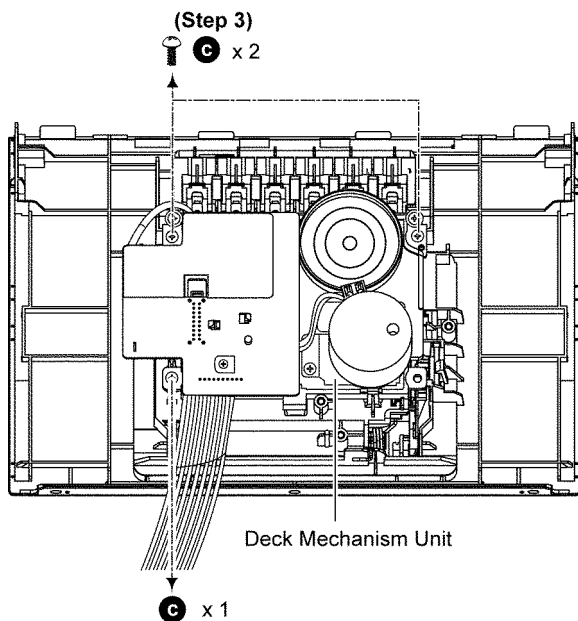
- Refer to “Disassembly of Side Panels”.
- Refer to “Disassembly of Top Cabinet Unit”.

Step 1 Remove 4 screws.

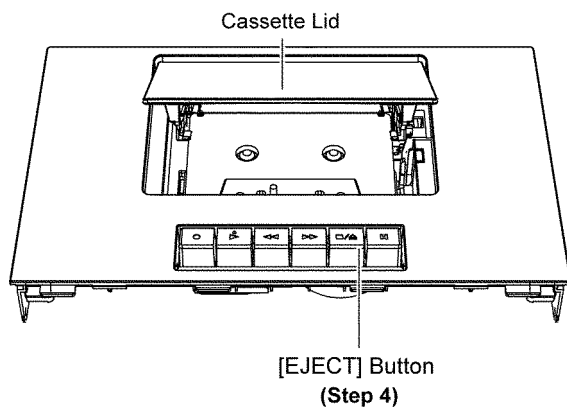
Step 2 Remove Deck Cover Sheet.



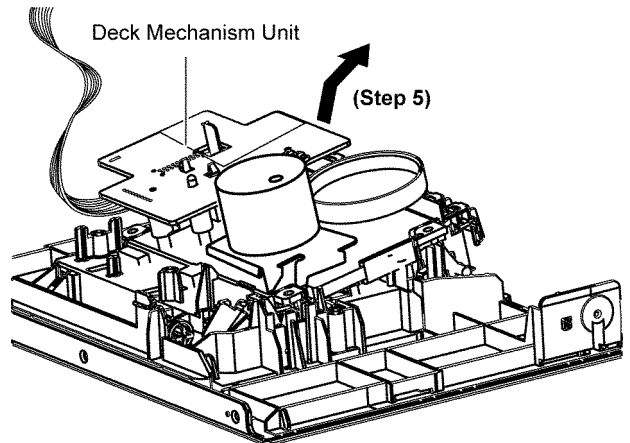
Step 3 Remove 3 screws.



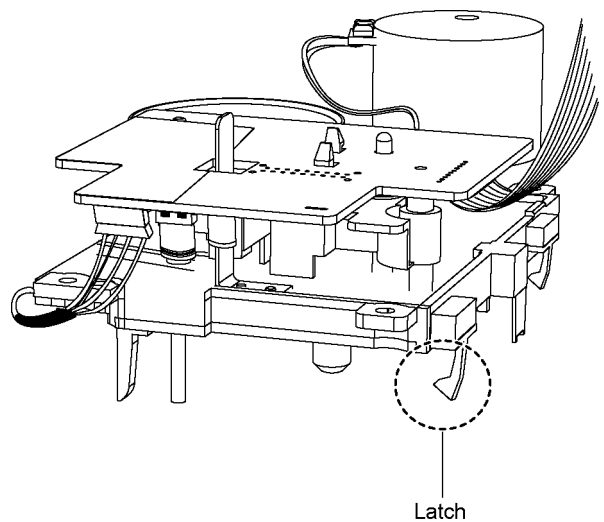
Step 4 Press [EJECT] button to open Cassette Lid.



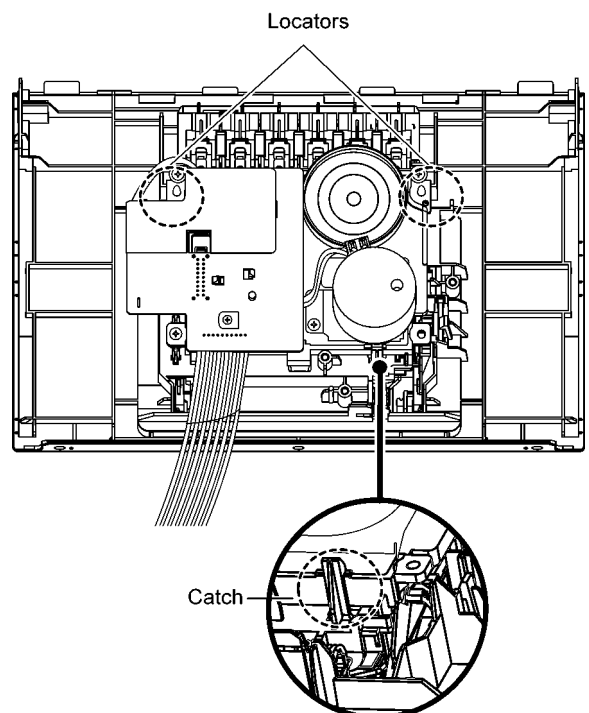
Step 5 Ensure the Cassette Lid is not close, lift up the Mechanism slightly as shown & remove the Deck Mechanism Unit.



Caution 1: During removing, be careful not to break the other small latch on the left side of Mechanism.



Caution 2: During assembling, ensure the Deck Mechanism Unit is properly located & seated under the catch.



9.6. Disassembly of Deck P.C.B.

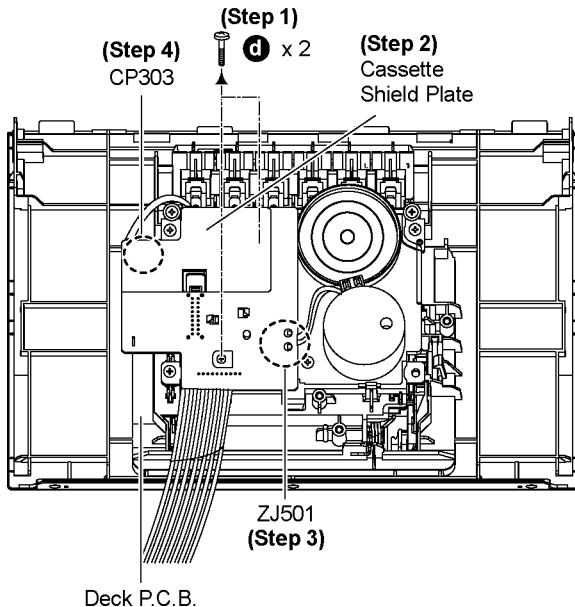
- Refer to "Disassembly of Side Panels.
- Refer to "Disassembly of Top Cabinet Unit".

Step 1 Remove 2 screws.

Step 2 Remove Cassette Shield Plate.

Step 3 Desolder 2P Wire at (ZJ501) on the Deck P.C.B..

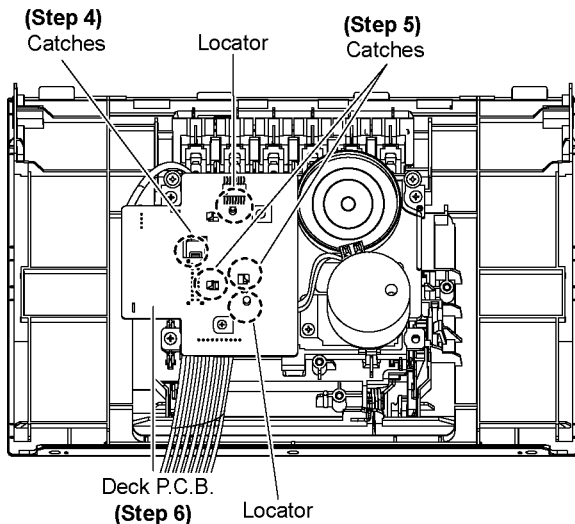
Step 4 Detach 4P Wire at the connector (CP303) on Deck P.C.B..



Caution: During assembling, ensure that Deck P.C.B. is seated properly at the locator.

Step 5 Release 3 catches on Deck P.C.B..

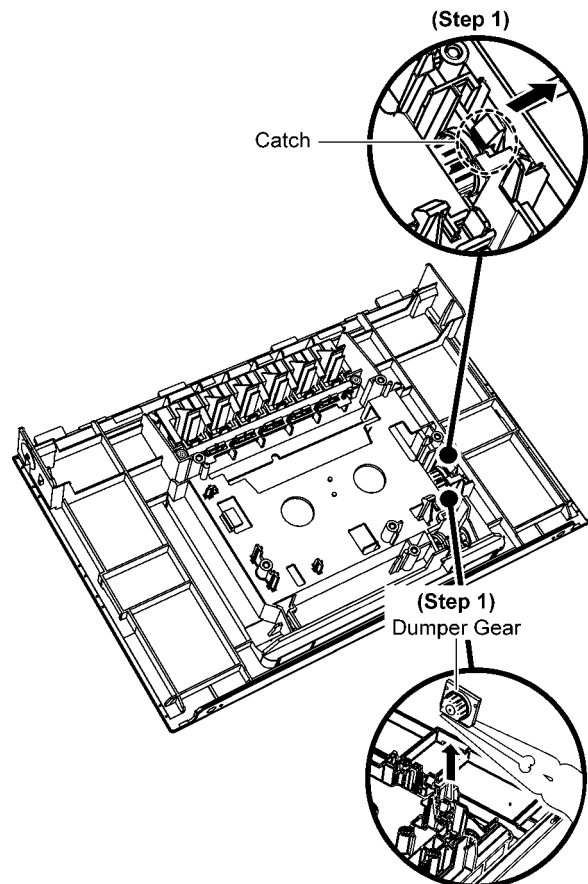
Step 6 Remove Deck P.C.B..



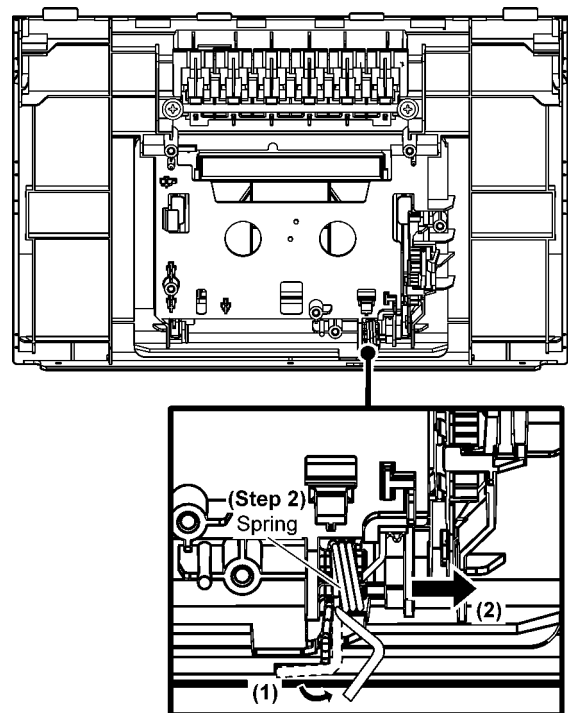
9.7. Disassembly of Cassette Lid

- Refer to "Disassembly of Side Panels.
- Refer to "Disassembly of Top Cabinet Unit".
- Refer to "Disassembly of Deck Mechanism Unit".

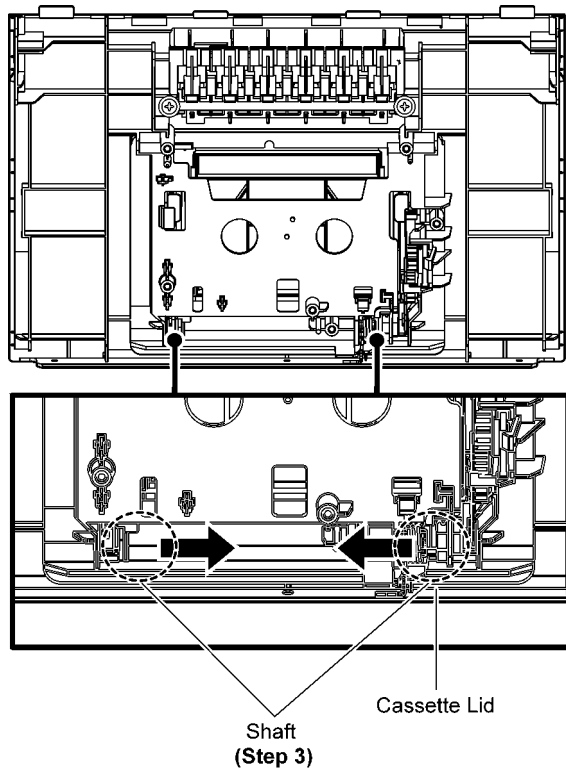
Step 1 Release 1 catch & remove Dumper Gear as shown.



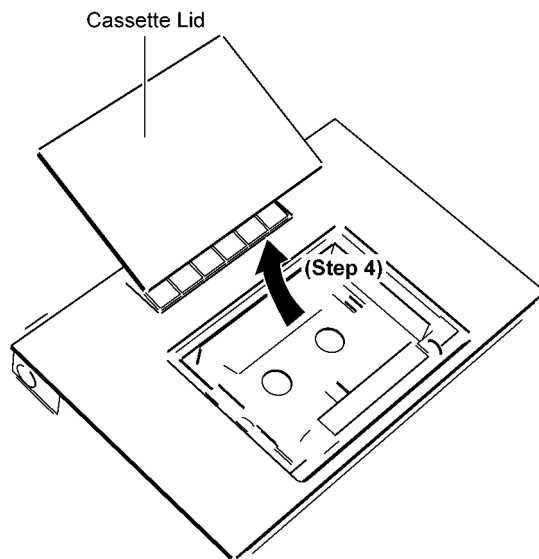
Step 2 Release the Spring from the slot & remove the spring as arrow shown.



Step 3 Push the shafts of Cassette Lid inward as arrow shown.



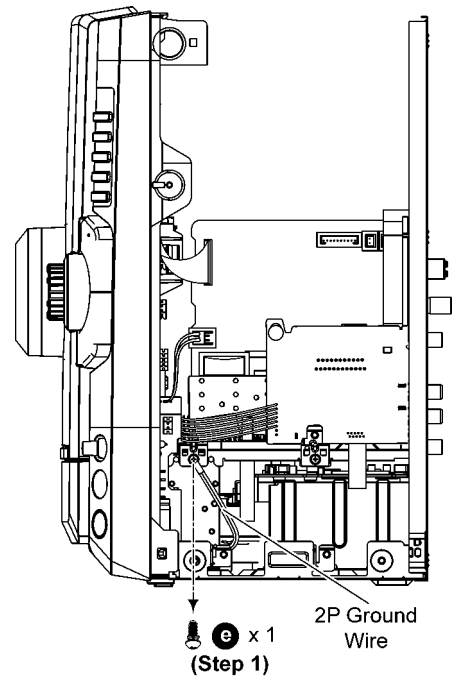
Step 4 Remove Cassette Lid as arrow shown.



9.8. Disassembly of Front Panel Assembly

- Refer to "Disassembly of Side Panels."
- Refer to "Disassembly of Top Cabinet Unit".

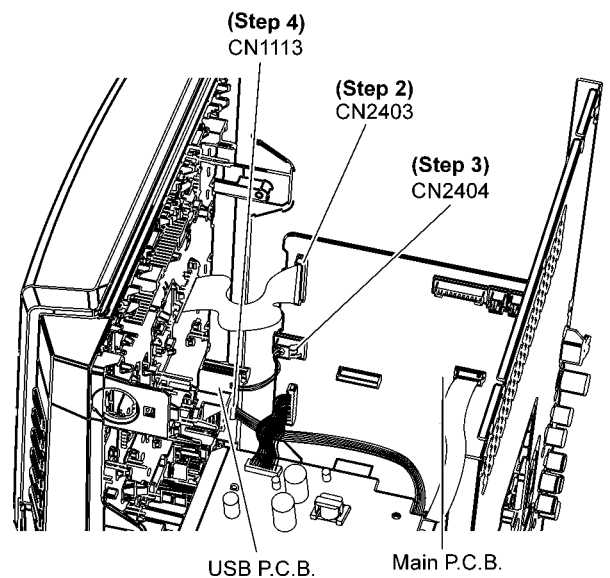
Step 1 Remove 1 screw.



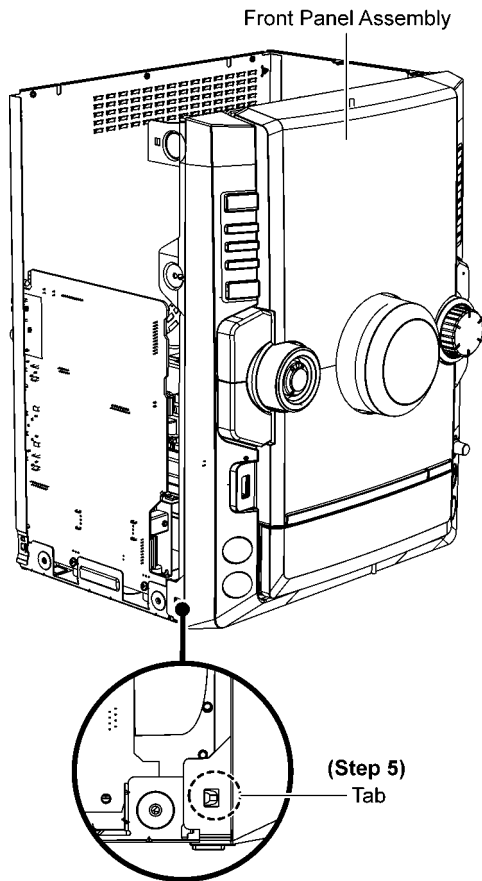
Step 2 Detach 22P FFC at the connector (CN2403) on Main P.C.B..

Step 3 Detach 2P Cable Wire at the connector (CN2404) on Main P.C.B..

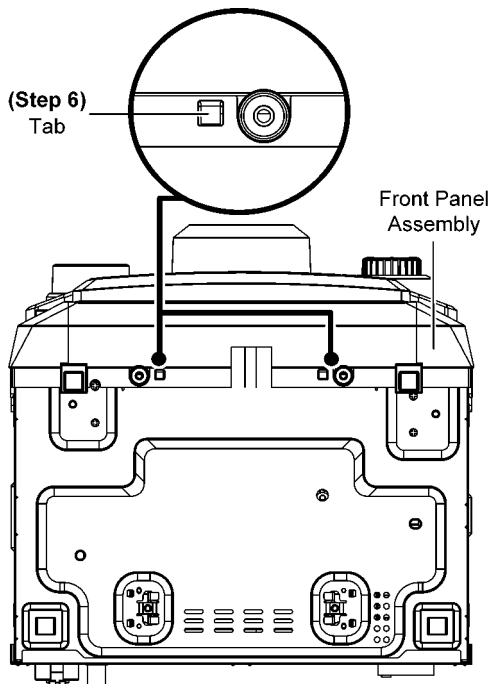
Step 4 Detach 5P Cable Wire at the connector (CN1113) on USB P.C.B..



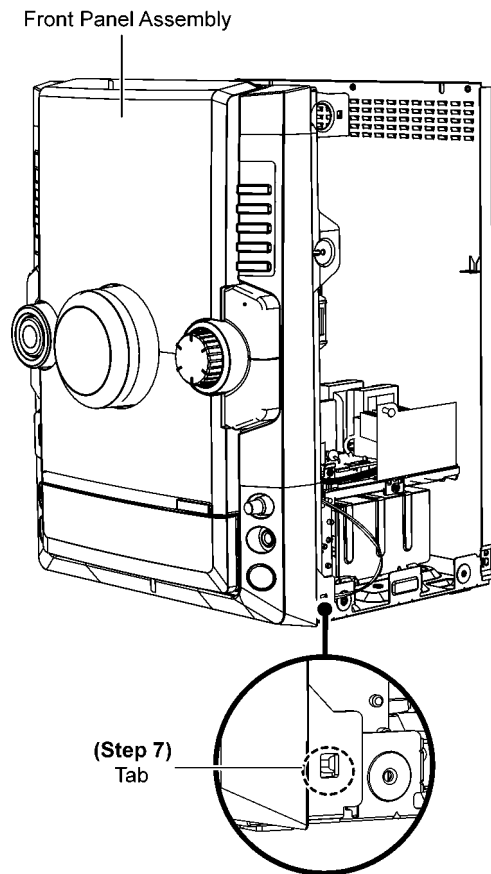
Step 5 Release tab at left side of Front Panel Assembly.



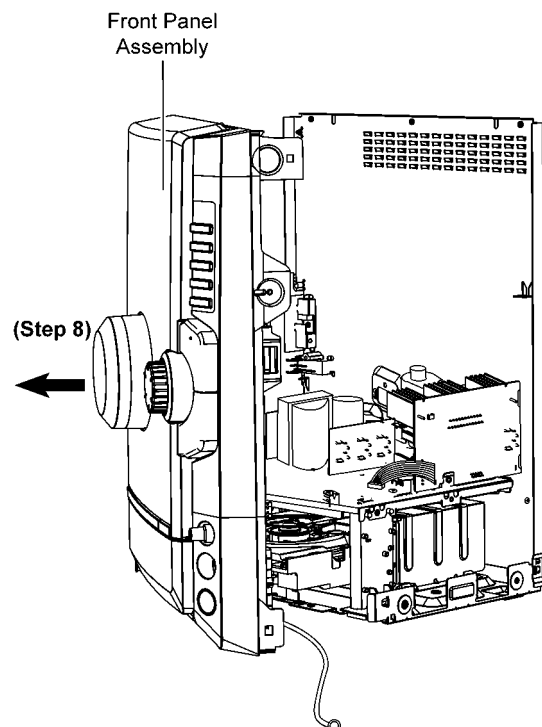
Step 6 Release tab at bottom.



Step 7 Release tab at right side.



Step 8 Remove Front Panel Assembly.

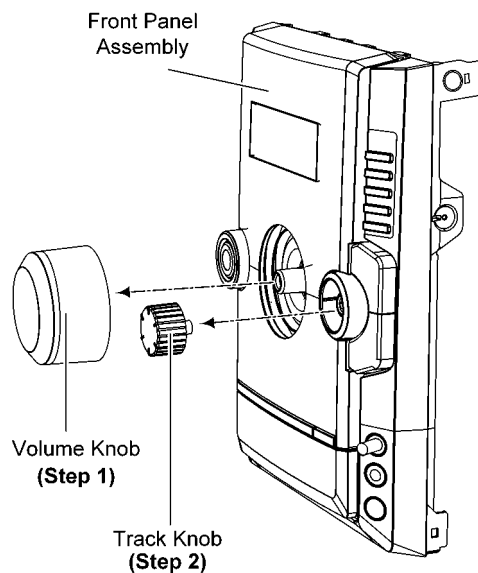


9.9. Disassembly of Panel P.C.B.

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

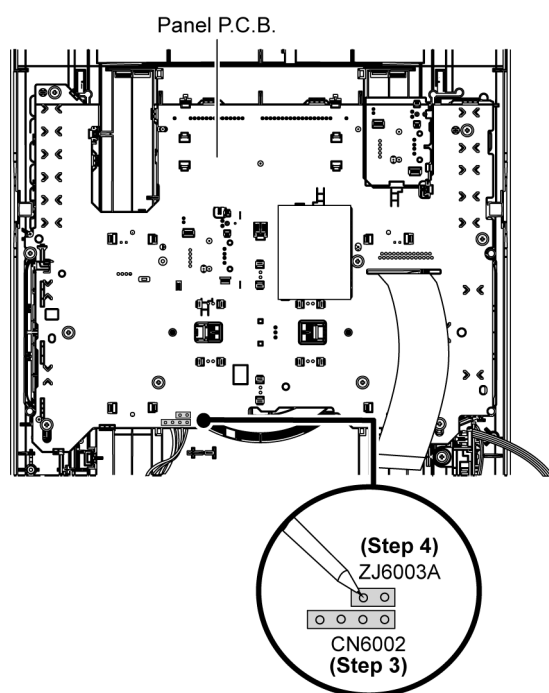
Step 1 Remove the Volume Knob.

Step 2 Remove the Track Knob.

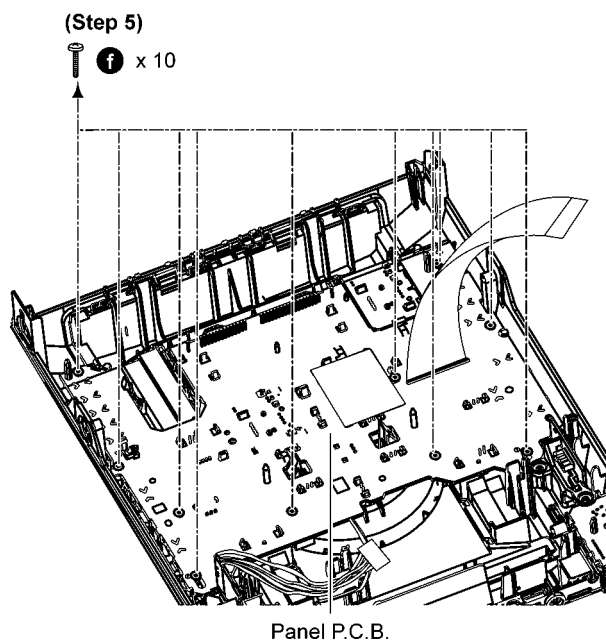


Step 3 Detach 5P Cable Wire at the connector (CN6002) on Panel P.C.B..

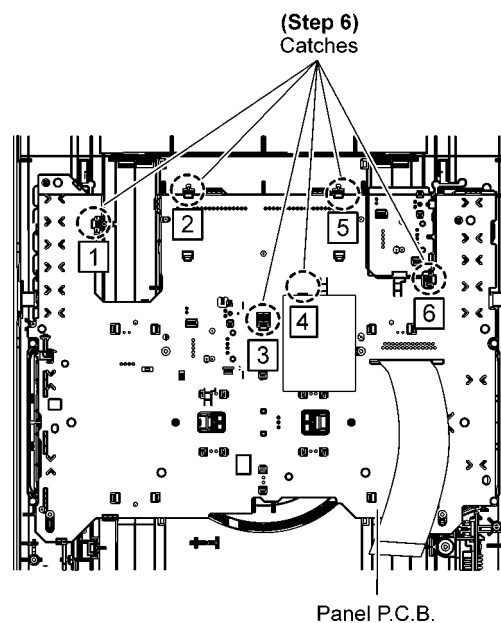
Step 4 Desolder 2 pins at (ZJ6003A) on Panel P.C.B..



Step 5 Remove 10 screws.

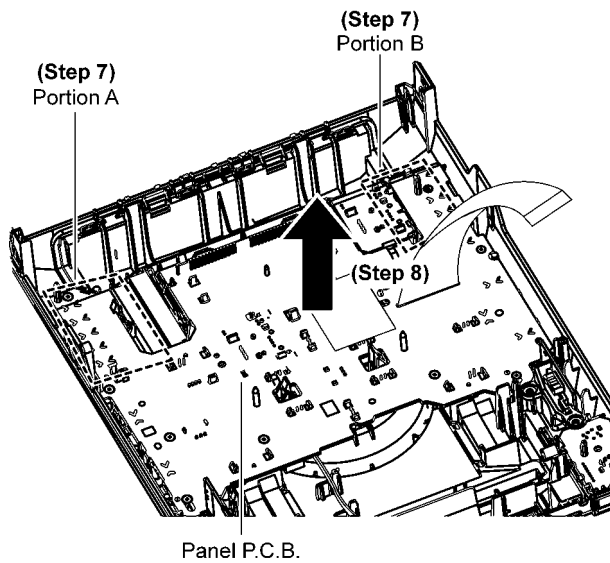


Step 6 Release catches by following the sequences (1-6).

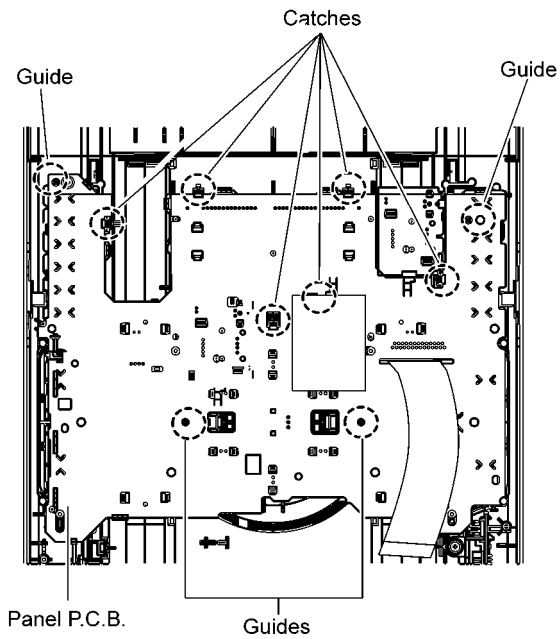


Step 7 Slightly release portion A & B of panel P.C.B. from Front Panel Assembly.

Step 8 Remove Panel P.C.B..



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

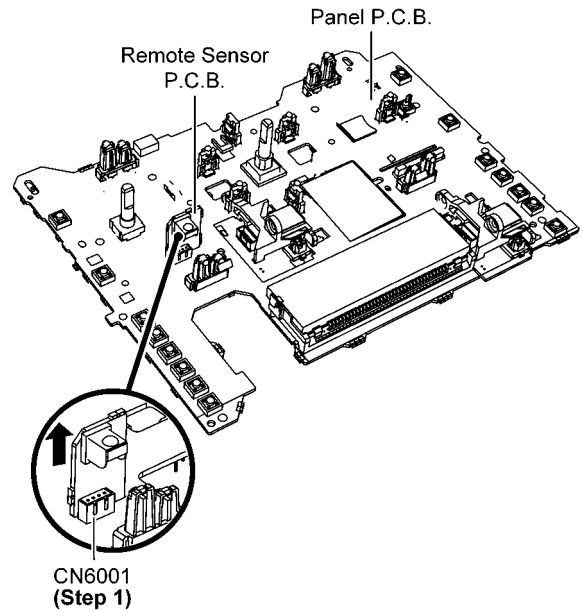


9.10. Disassembly of Remote Sensor P.C.B.

- Refer to "Disassembly of Side Panels".
- Refer to "Disassembly of Top Cabinet Unit".
- 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..

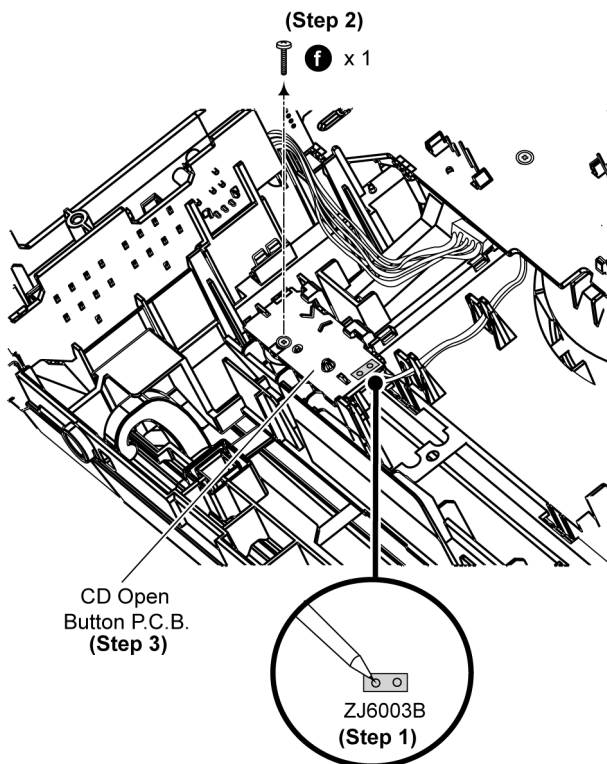


9.11. Disassembly of CD Open Button P.C.B.

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

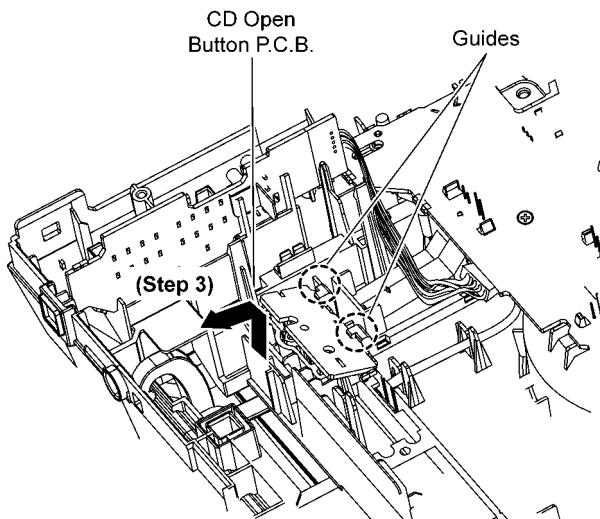
Step 1 Desolder 2 pins (ZJ6003B) on CD Open Button P.C.B..

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.

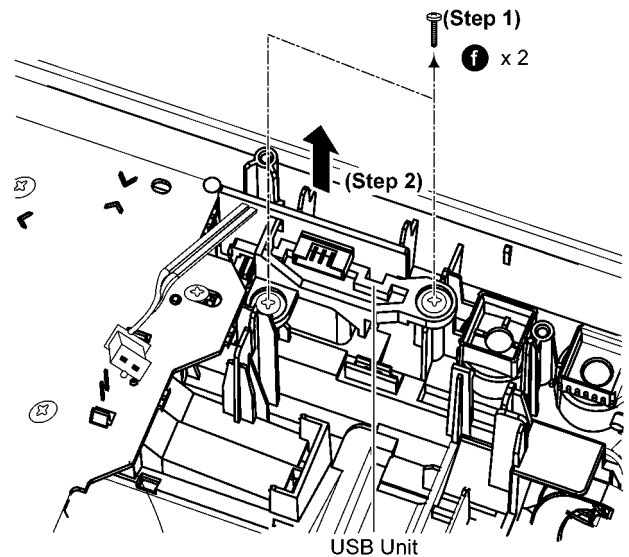


9.12. Disassembly of USB P.C.B.

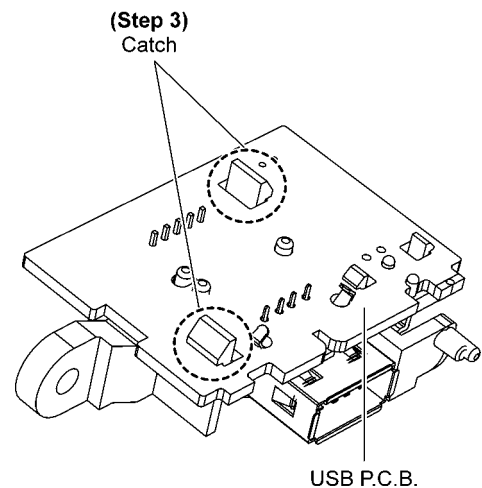
- Refer to “Disassembly of Side Panels”.
- Refer to “Disassembly of Top Cabinet Unit”.
- Refer to “Disassembly of Front Panel Assembly”.

Step 1 Remove 2 screws.

Step 2 Remove USB Unit.



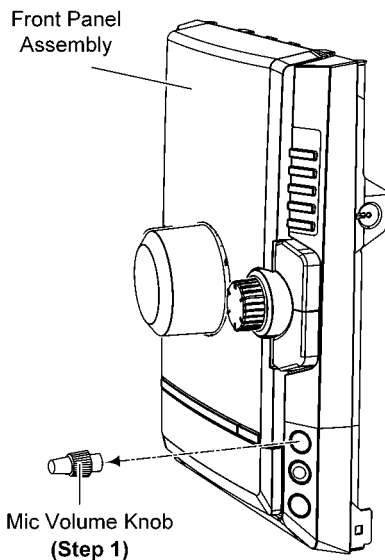
Step 3 Release 2 catches & remove USB P.C.B..



9.13. Disassembly of Mic P.C.B.

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

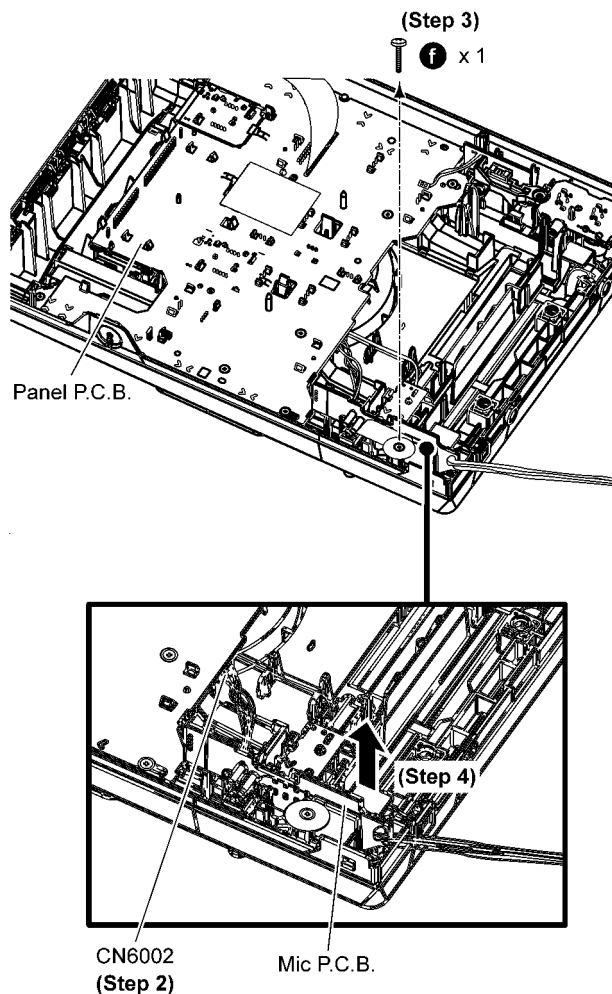
Step 1 Remove Mic Volume Knob.



Step 2 Detach 5P Cable Wire at the connector (CN6002) on Panel P.C.B..

Step 3 Remove 1 screw.

Step 4 Remove Mic P.C.B..

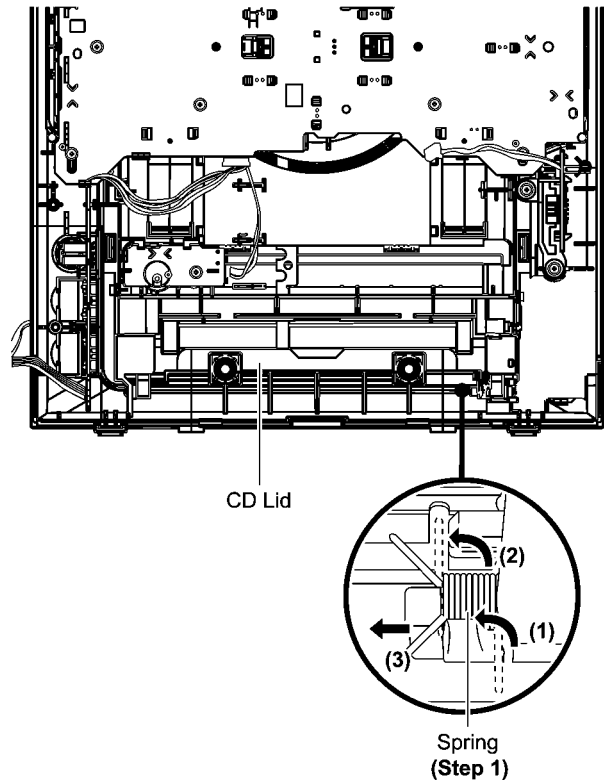


9.14. Disassembly of CD Lid

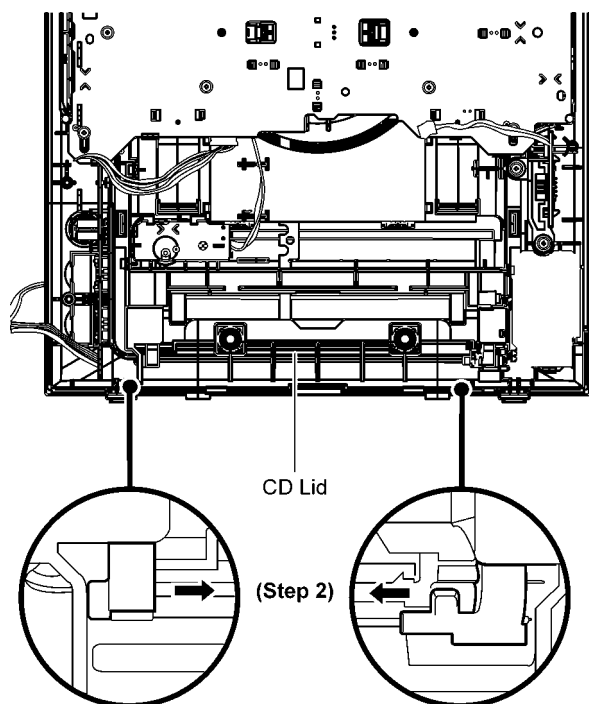
- Refer to "Disassembly of Side Panels".
- Refer to "Disassembly of Top Cabinet Unit".
- Refer to "Disassembly of Front Panel Assembly".

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.

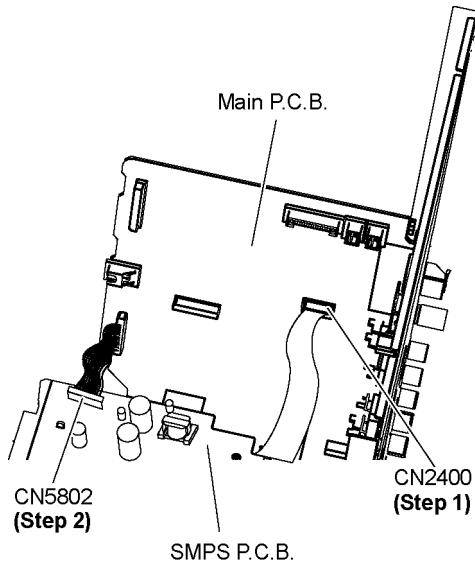


9.15. Disassembly of Main P.C.B.

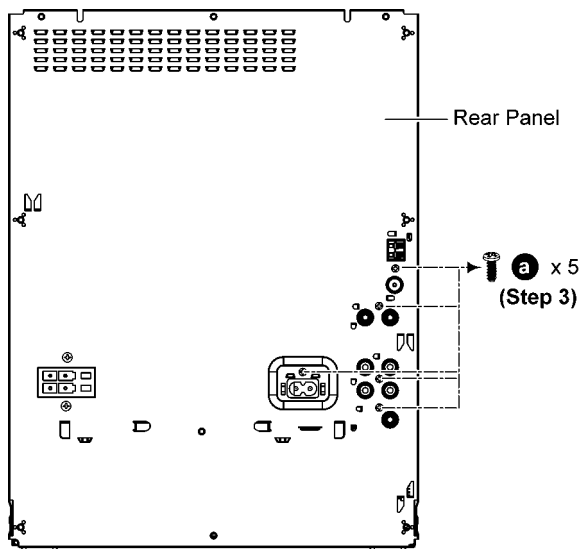
- Refer to “Disassembly of Side Panels”.
- Refer to “Disassembly of Top Cabinet Unit”.
- Refer to “Disassembly of Front Panel Assembly”.

Step 1 Detach 12P FFC at the connector (CN2400) on Main P.C.B..

Step 2 Detach 11P Cable Wire at the connector (CN5802) on SMPS P.C.B..

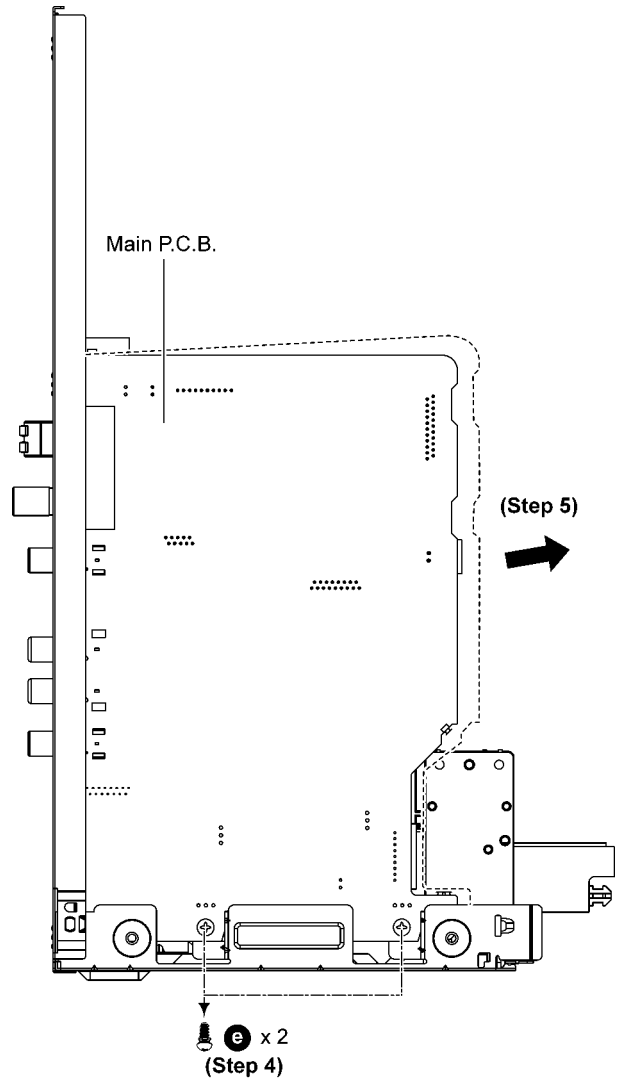


Step 3 Remove 5 screws.



Step 4 Remove 2 screws.

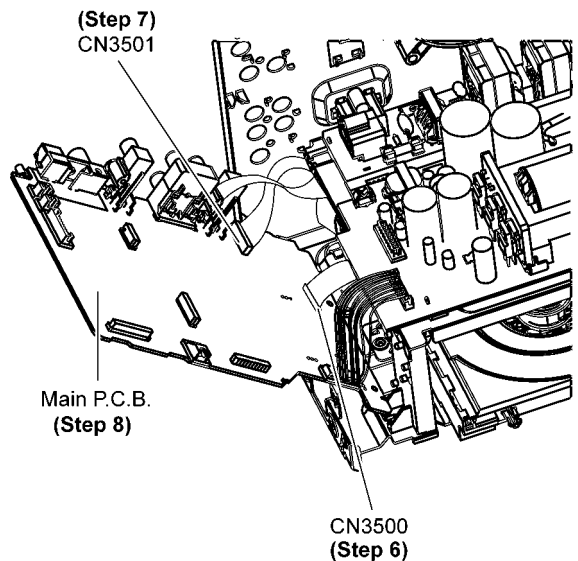
Step 5 Detach Main P.C.B. from Rear Panel according to arrow shown.



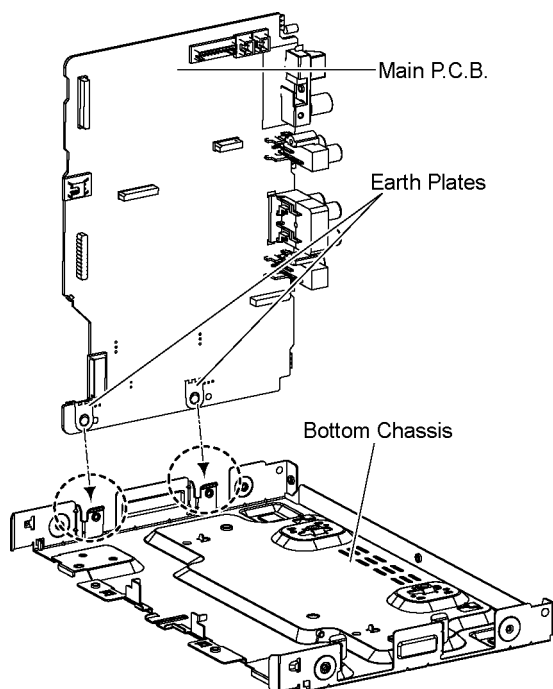
Step 6 Detach 50P FFC at the connector (CN3500) on Main P.C.B..

Step 7 Detach 11P FFC at the connector (CN3501) on Main P.C.B..

Step 8 Remove Main P.C.B..



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

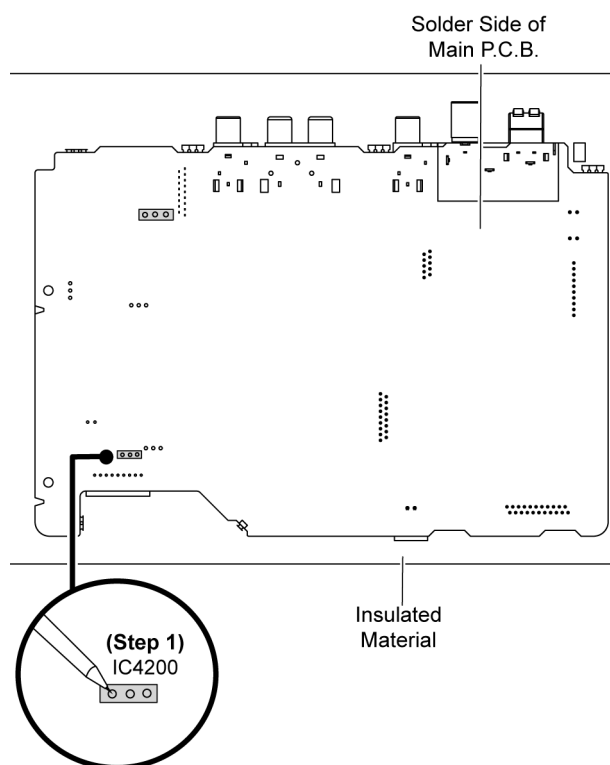


9.16. Replacement of Regulator IC (IC4200)

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

9.16.1. Disassembly of Regulator IC (IC4200)

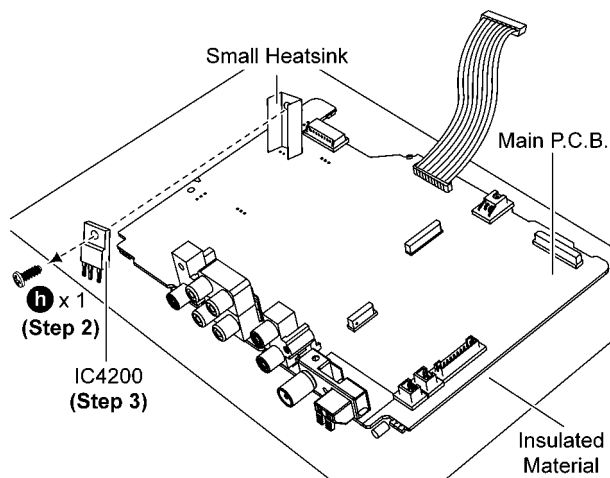
Step 1 Desolder pins of the Regulator IC (IC4200) on the solder side of Main P.C.B..



Step 2 Remove 1 screw.

Step 3 Remove the Regulator IC (IC4200) 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.



9.16.2. Assembly of Regulator IC (IC4200)

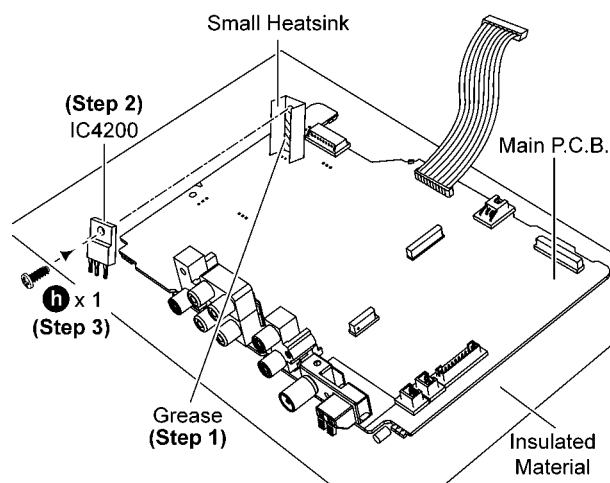
Step 1 Apply grease to the Small Heatsink.

Step 2 Mount the Regulator IC (IC4200) on Main P.C.B..

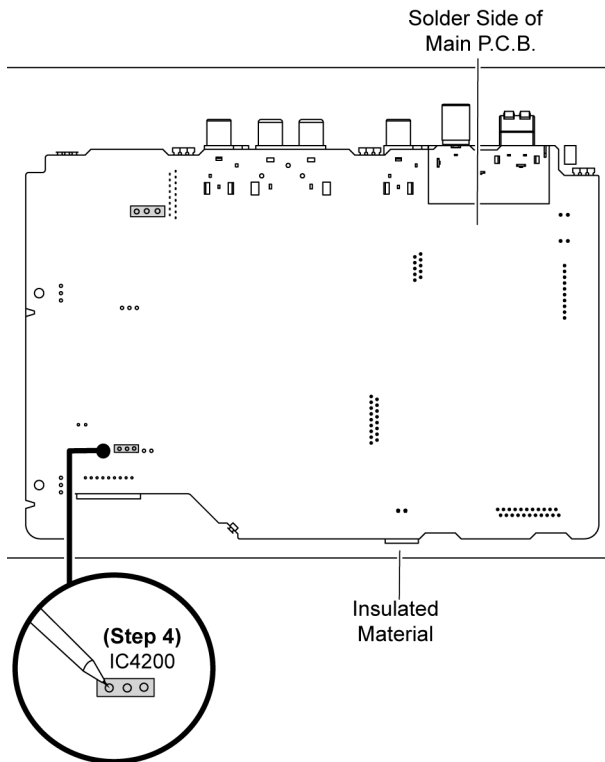
Caution: Ensure pins of the Regulator IC (IC4200) are properly seated on Main P.C.B..

Step 3 Screw the Regulator IC (IC4200) to the Small Heatsink.

Caution: Ensure the Regulator IC (IC4200) is tightly screwed to the Small Heatsink.



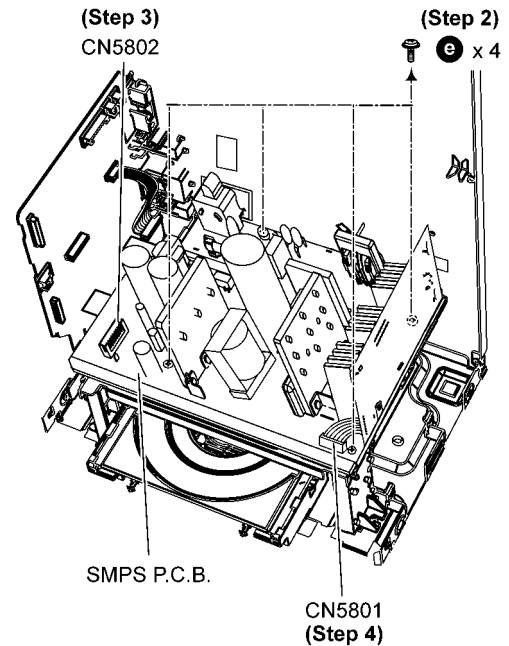
Step 4 Solder pins of the Regulator IC (IC4200) on the solder side of Main P.C.B..



Step 2 Remove 4 screws.

Step 3 Detach 11P Cable Wire at the connector (CN5802) on SMPS P.C.B..

Step 4 Detach 6P Cable Wire at the connector (CN5801) on D-Amp P.C.B..

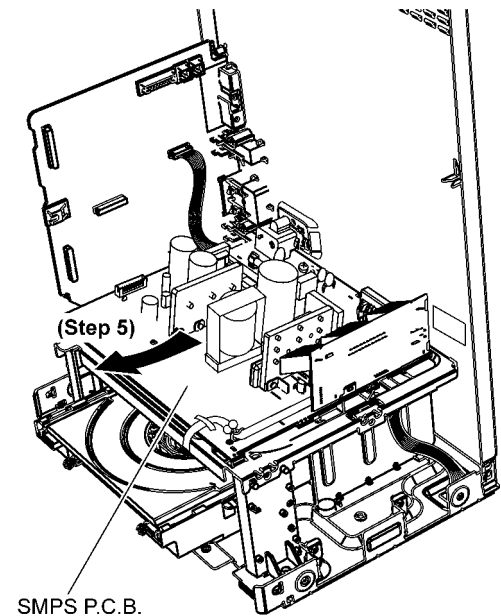
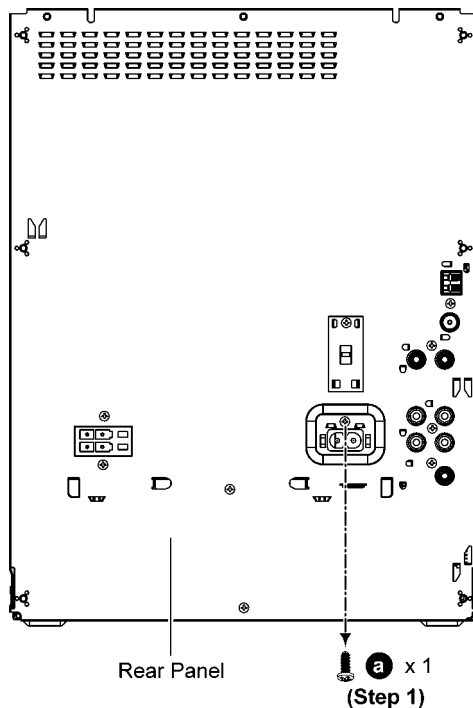


Step 5 Lift up to remove SMPS P.C.B..

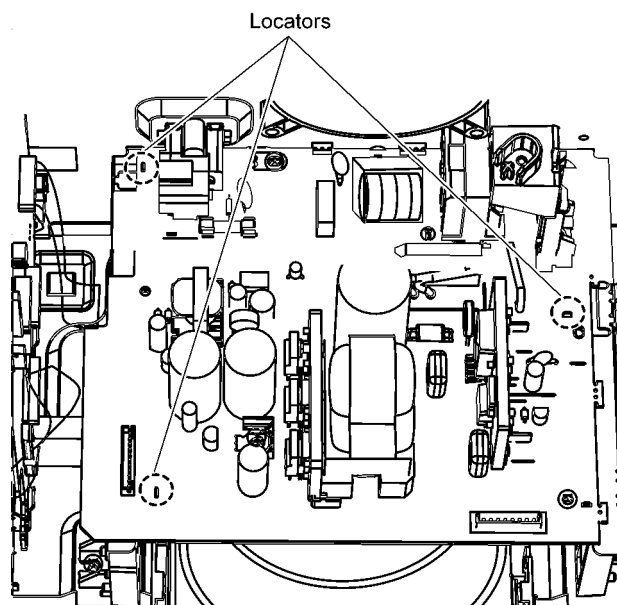
9.17. Disassembly of SMPS P.C.B.

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

Step 1 Remove 1 screw.



Caution: During assembling, ensure SMPS P.C.B. is properly located.

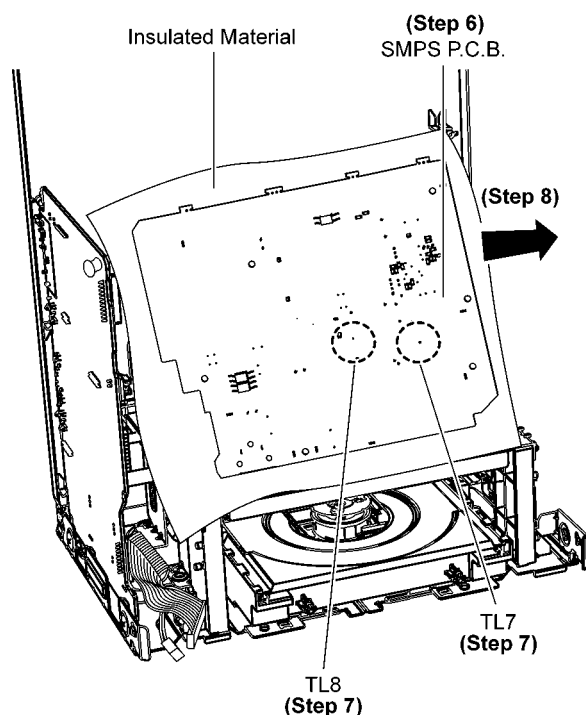


Step 6 Flip the SMPS P.C.B. and position it according to diagram shown.

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

Step 7 Desolder 2 Wire pins, Black TL7 (Black), TL8 (Red) wires pin.

Step 8 Remove SMPS P.C.B..



9.18. Replacement of Switching Regulator IC (IC5701)

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

9.18.1. Disassembly of Switching Regulator IC (IC5701)

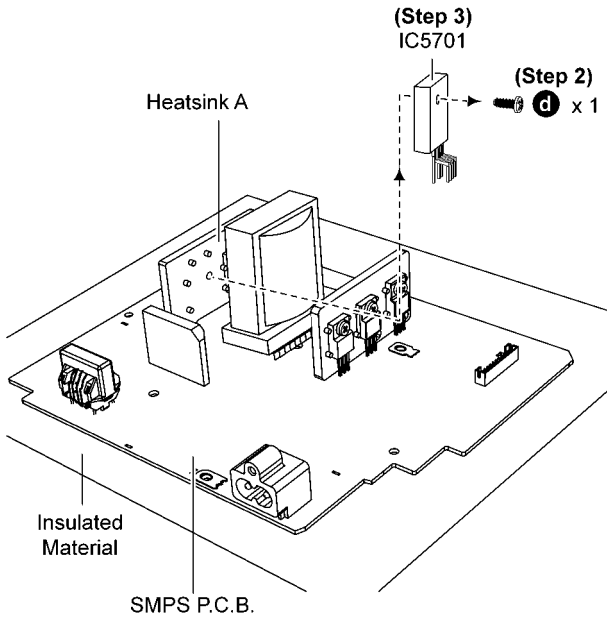
Step 1 Desolder pins of the Switching Regulator IC (IC5701) on the solder side of SMPS P.C.B..



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 porlonged use. Touching it may lead to injuries.



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



9.18.2. Assembly of Switching Regulator IC (IC5701)

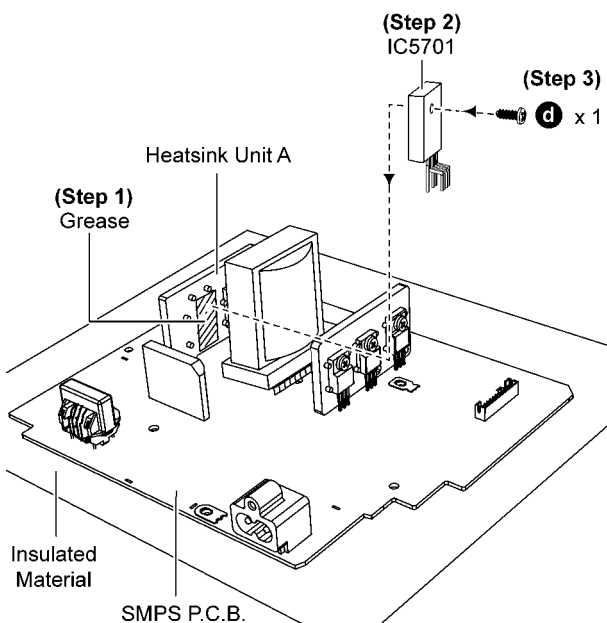
Step 1 Apply grease to the Heatsink A.

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.



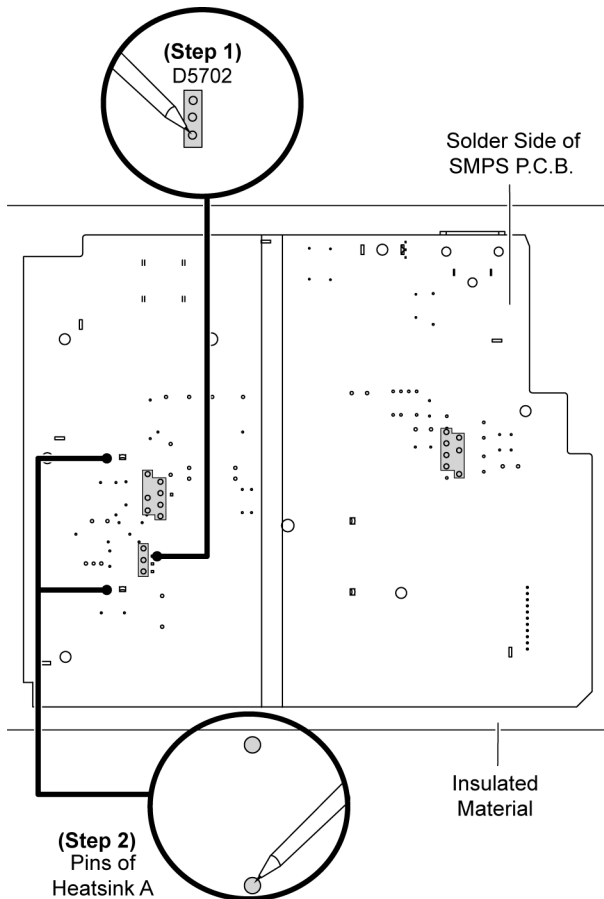
9.19. Replacement of Rectifier Diode (D5702)

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

9.19.1. 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.



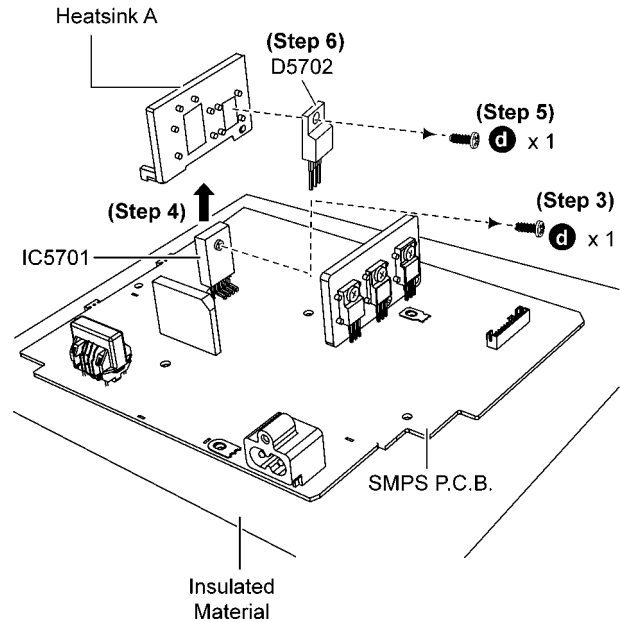
Step 3 Remove 1 screw from the Switching Regulator IC (IC5701).

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.



9.19.2. Assembly of Rectifier Diode (D5702)

Step 1 Apply grease to the Heatsink A.

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

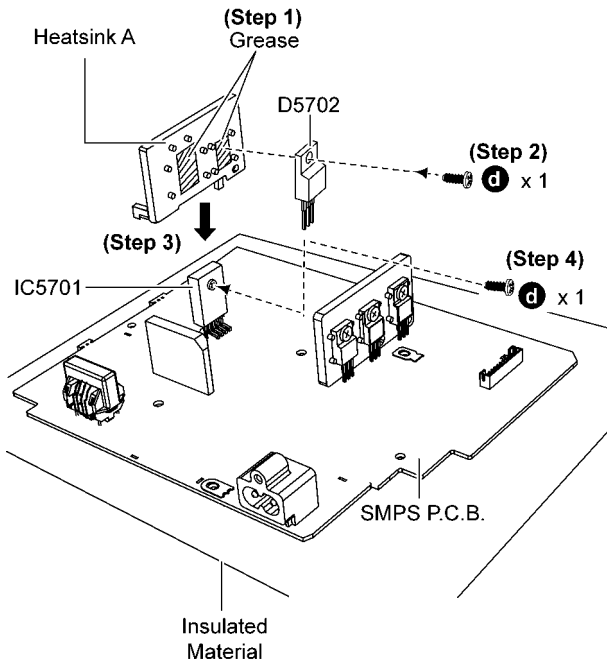
Caution: Ensure the Rectifier Diode (D5702) is tightly screwed to the Heatsink A.

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.

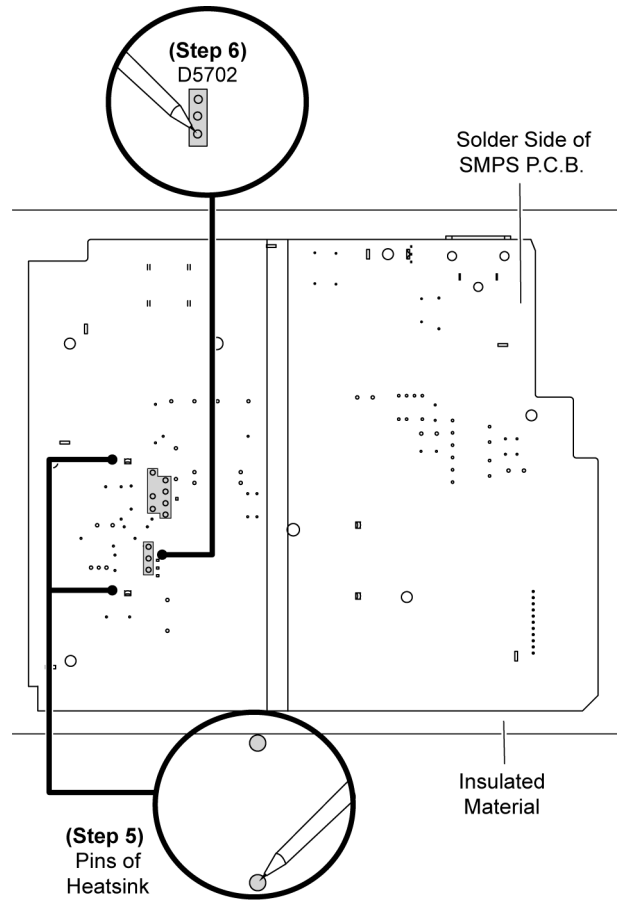
Caution: Ensure that Switching Regulator IC (IC5701) is tightly screwed to the Heatsink A.



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..

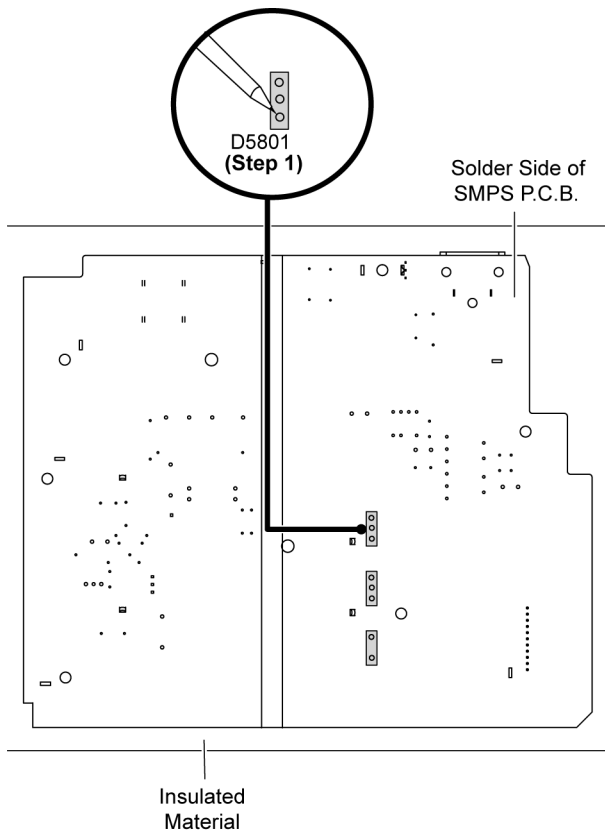


9.20. Replacement of Regulator Diode (D5801)

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

9.20.1. Disassembly of Regulator Diode (D5801)

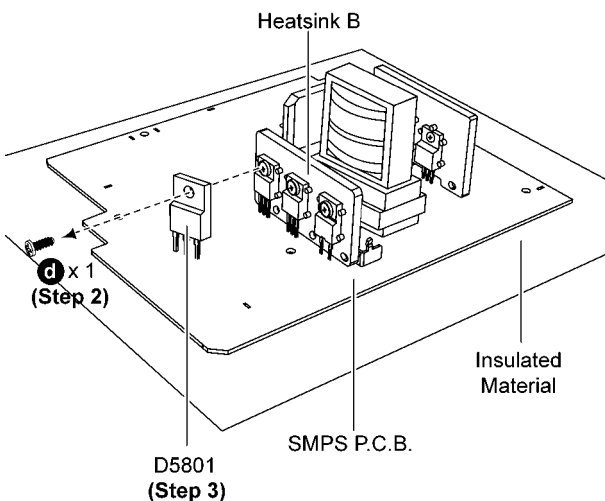
Step 1 Desolder pins of the Regulator Diode (D5801) on the solder side of SMPS P.C.B.



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.



9.20.2. Assembly of Regulator Diode (D5801)

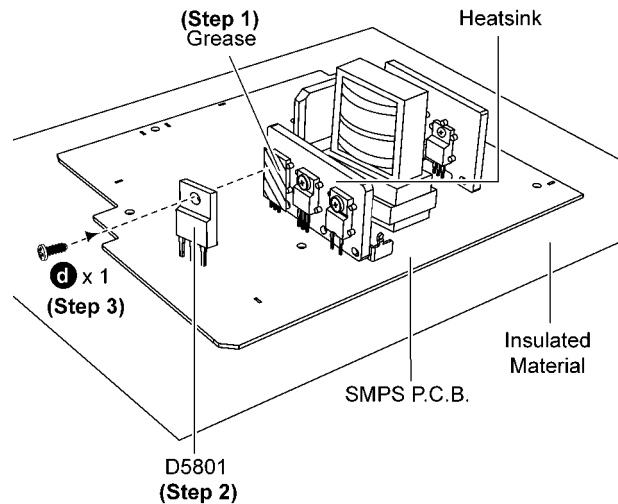
Step 1 Apply grease to the Heatsink B.

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

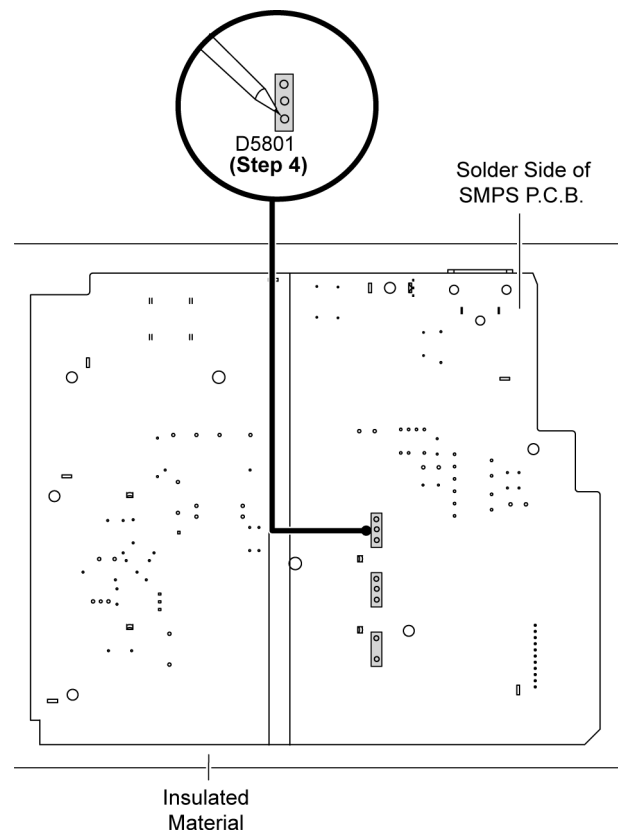
Caution: Ensure pins of the Regulator Diode (D5801) is properly seated on SMPS P.C.B.

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..

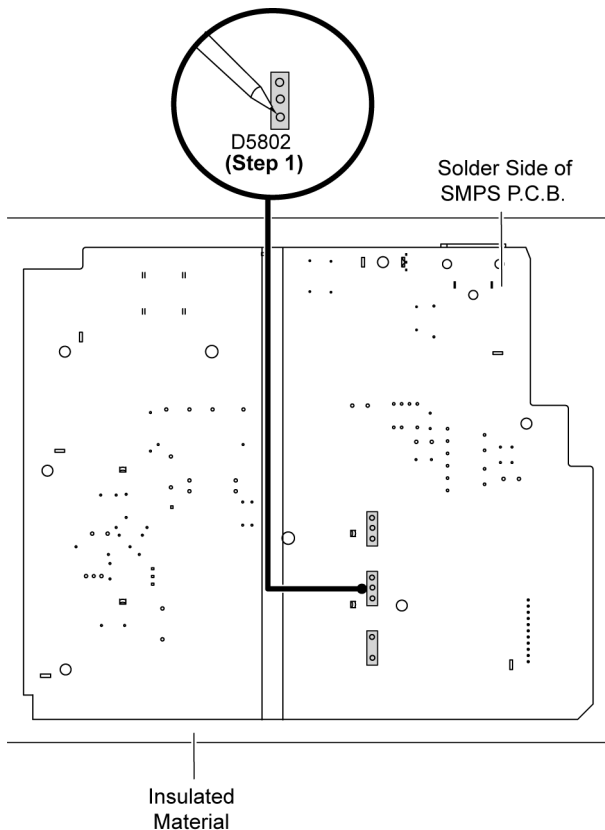


9.21. Replacement of Regulator Diode (D5802)

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

9.21.1. Disassembly of Regulator Diode (D5802)

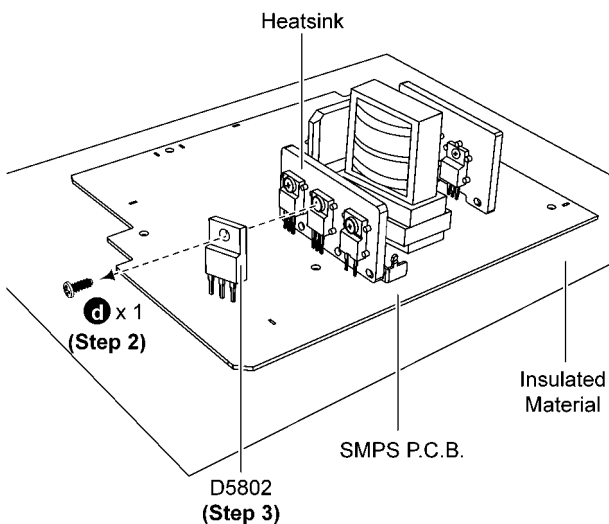
Step 1 Desolder pins of the Regulator Diode (D5802) on the solder side of SMPS P.C.B.



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.



9.21.2. Assembly of Regulator Diode (D5802)

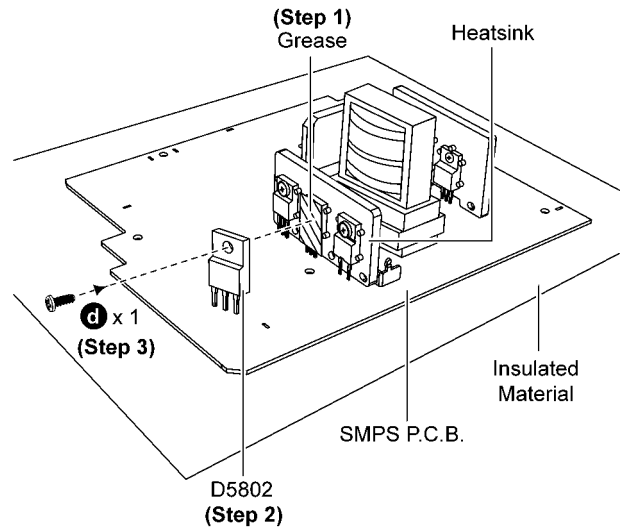
Step 1 Apply grease to the Heatsink B.

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

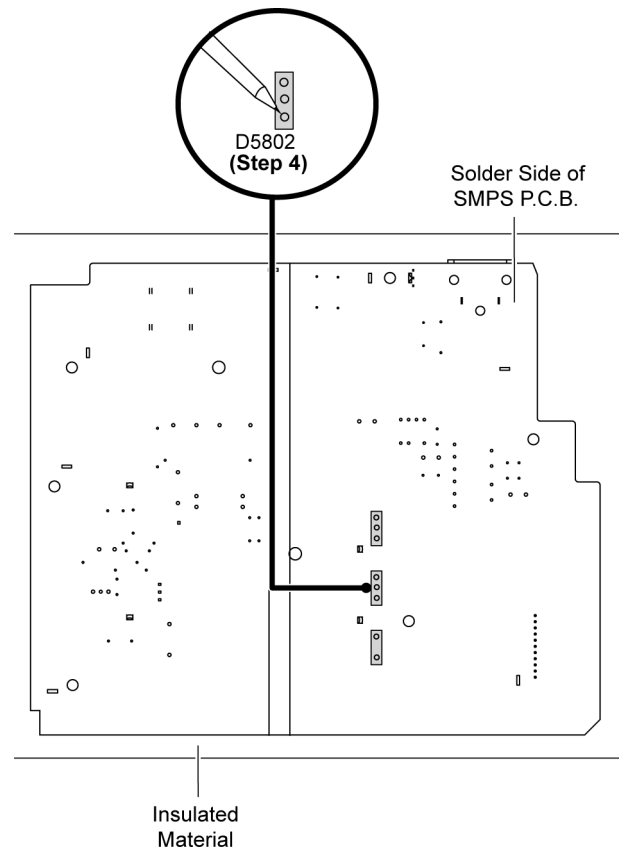
Caution: Ensure pins of the Regulator Diode (D5802) is properly seated on SMPS P.C.B.

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..

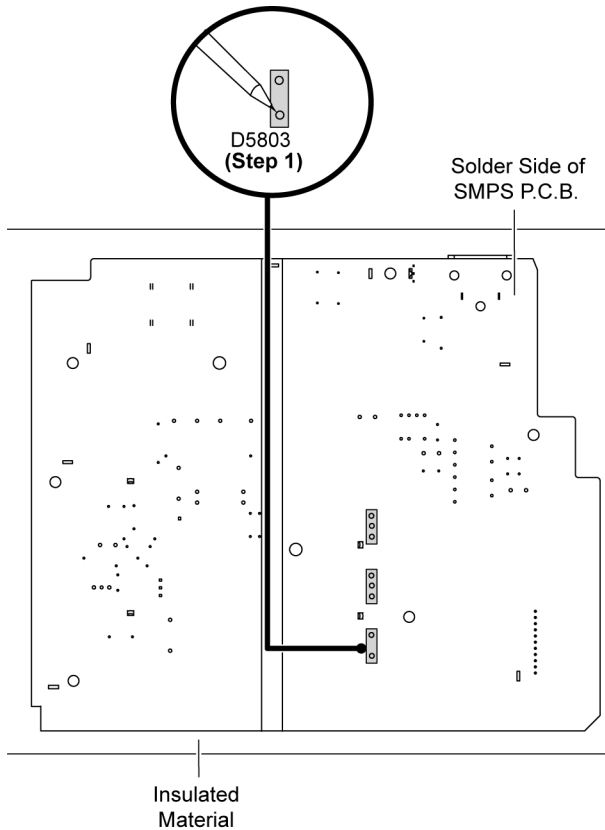


9.22. Replacement of Regulator Diode (D5803)

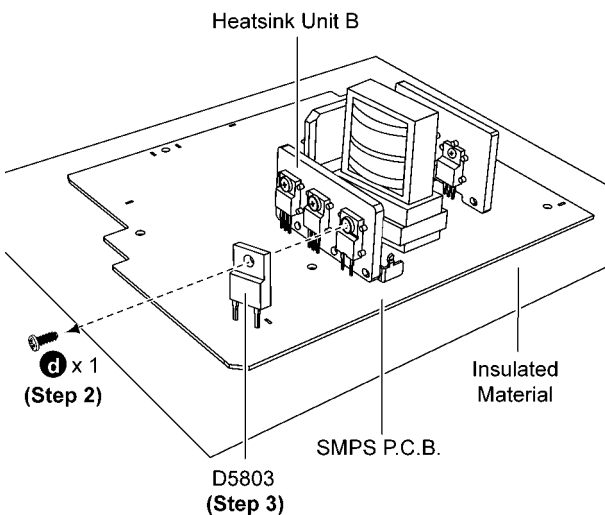
- Refer to “Disassembly of SMPS P.C.B.”.

9.22.1. 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.



9.22.2. Assembly of Regulator Diode (D5803)

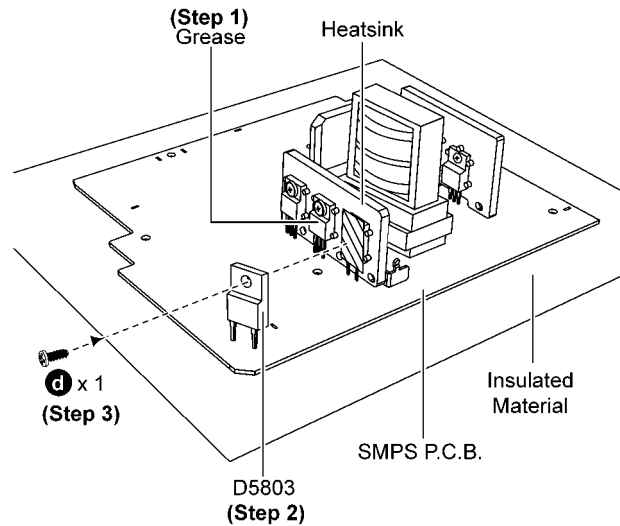
Step 1 Apply grease to the Heatsink B.

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

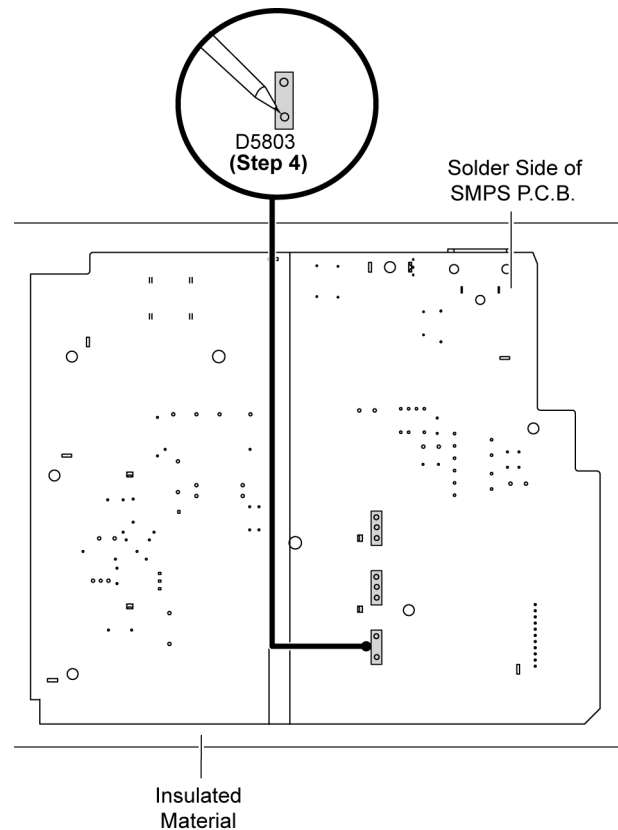
Caution: Ensure pins of the Regulator Diode (D5803) are properly seated on SMPS P.C.B.

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

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



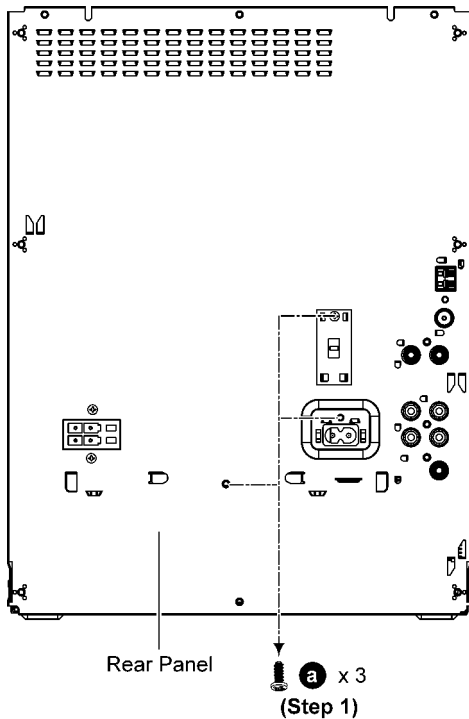
Step 4 Solder pins of the Regulator Diode (D5803) on the solder side of SMPS P.C.B.



9.23. Disassembly of DVD Module P.C.B.

- Refer to “Disassembly of Side Panels”.
- Refer to “Disassembly of Top Cabinet Unit”.
- Refer to “Disassembly of Front Panel Assembly”.
- Refer to “Disassembly of D-Amp P.C.B.”.

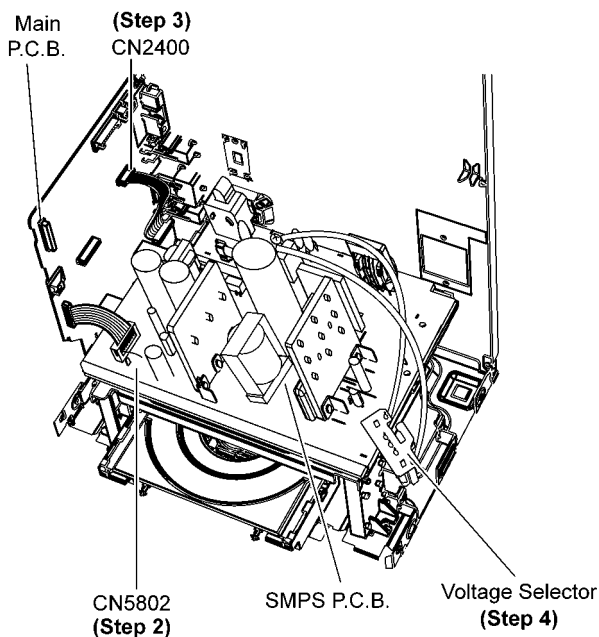
Step 1 Remove 3 screws.



Step 2 Detach 11P Cable Wire at the connector (CN5802) on SMPS P.C.B..

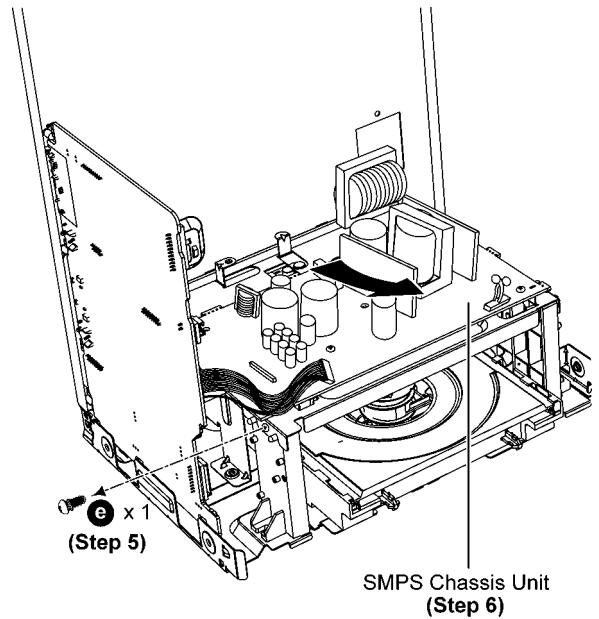
Step 3 Detach 12P FFC at the connector (CN2400) on Main P.C.B..

Step 4 Detach Voltage Selector from Rear Panel.

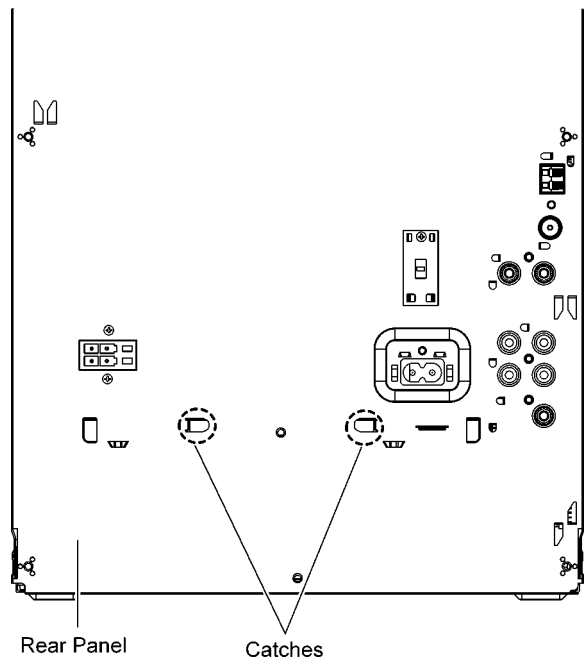


Step 5 Remove 1 screw.

Step 6 Lift up SMPS Chassis Unit.



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



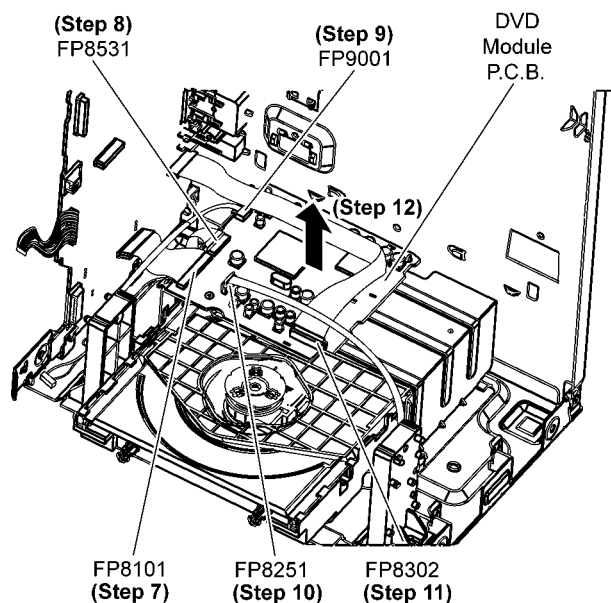
Step 7 Detach 50P FFC at the connector (FP8101) on DVD Module P.C.B..

Step 8 Detach 24P FFC at the connector (FP8531) on DVD Module P.C.B..

Step 9 Detach 5P Cable Wire at the connector (FP9001) on DVD Module P.C.B..

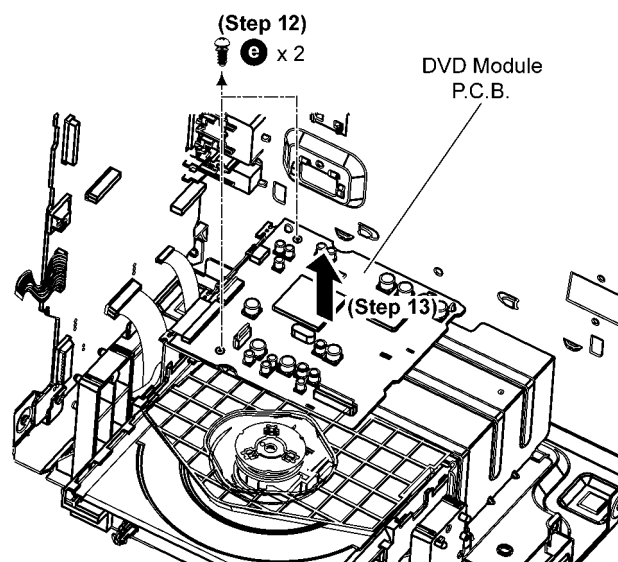
Step 10 Detach 7P FFC at the connector (FP8251) on DVD Module P.C.B..

Step 11 Detach 11P FFC at the connector (FP8302) on DVD Module P.C.B..

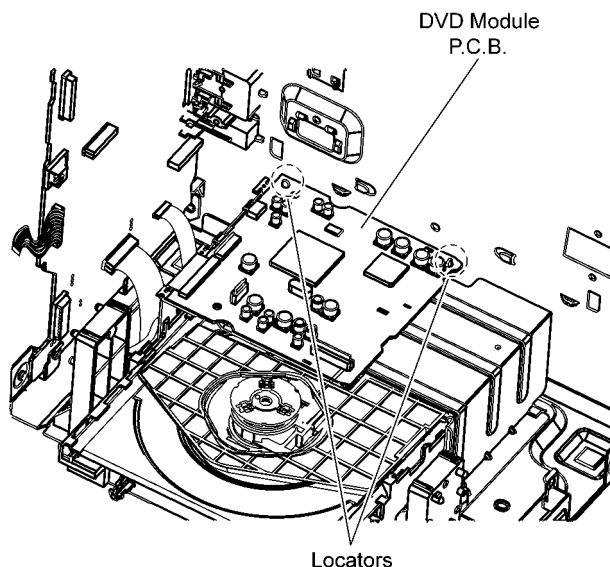


Step 12 Remove 2 screws.

Step 13 Remove DVD Module P.C.B..



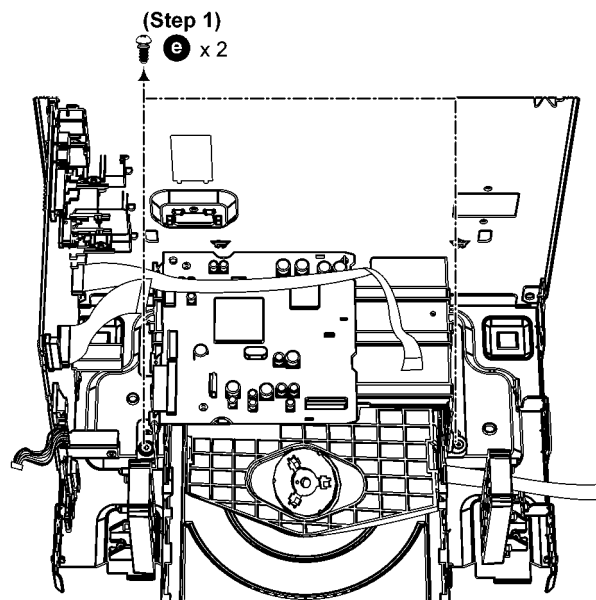
Caution: During assembling, ensure that DVD Module P.C.B. is seated properly at the locators.



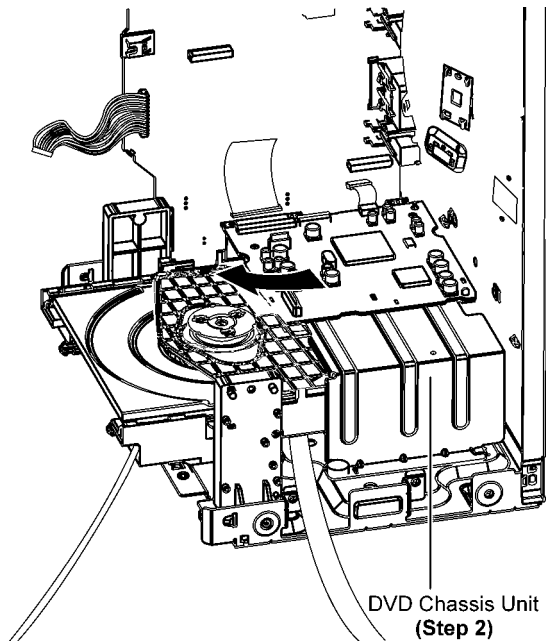
9.24. Disassembly of DVD Mechanism Unit (DLS6E)

- Refer to "Disassembly of Side Panels".
- Refer to "Disassembly of Top Cabinet Unit".
- Refer to "Disassembly of Front Panel Assembly".
- Refer to "Disassembly of D-Amp P.C.B.".
- Refer to (Step 1) to (Step 10) of item 9.25.

Step 1 Remove 2 screws.

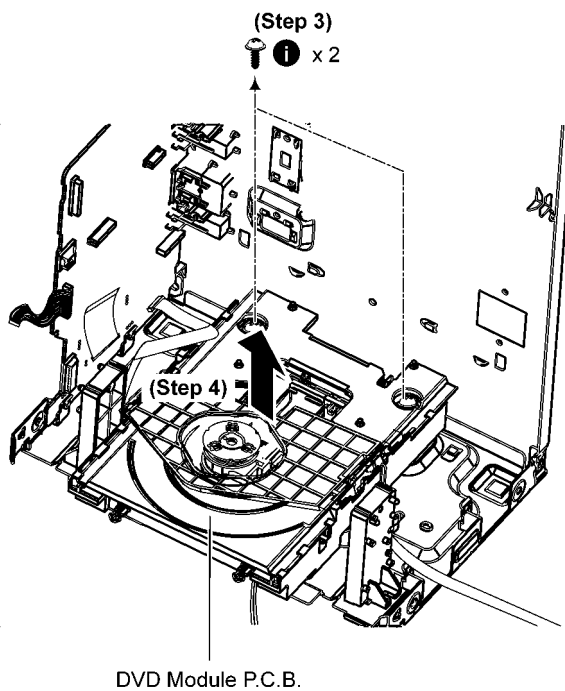


Step 2 Lift up DVD Chassis Unit.



Step 3 Remove 2 screws.

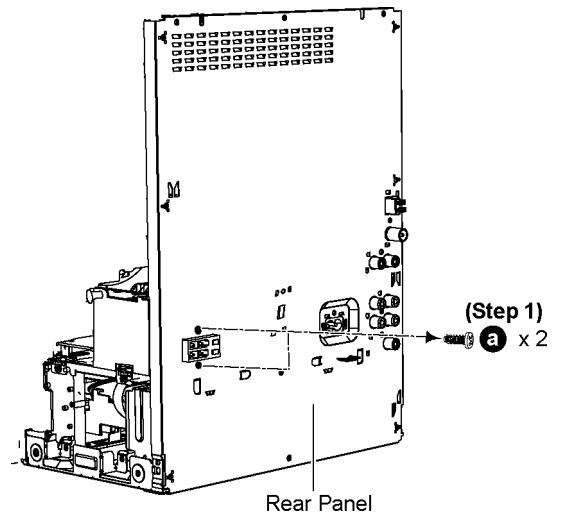
Step 4 Remove DVD Mechanism Unit (DLS6E).



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

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

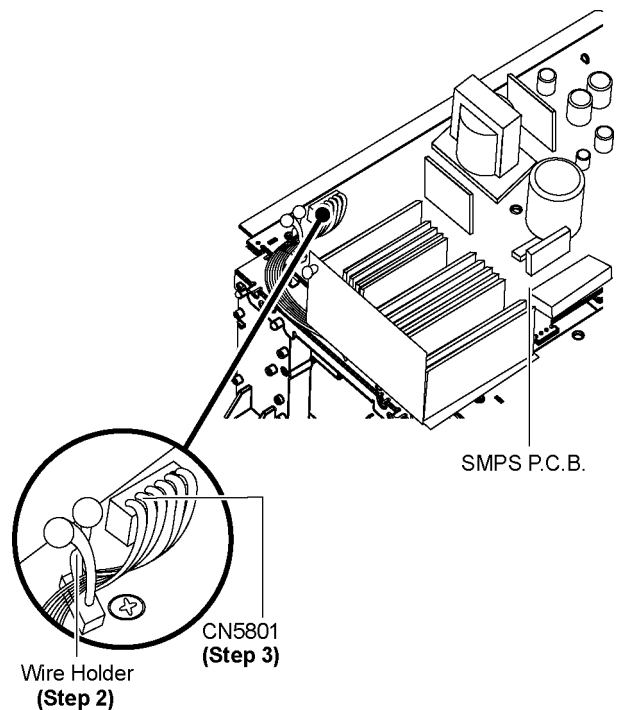
Step 1 Remove 2 screws.



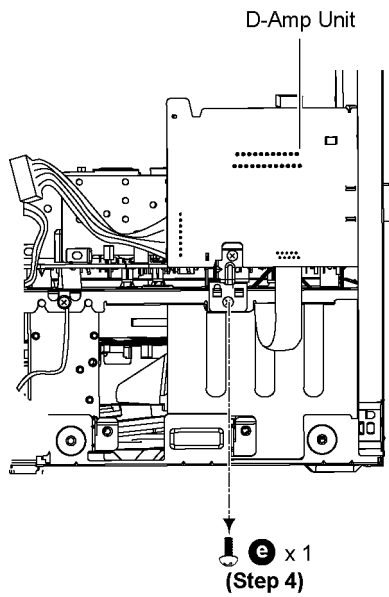
Step 2 Release the Wire Holder.

Caution: During assembling, ensure that 6P Cable Wire is well secured by the Wire Holder.

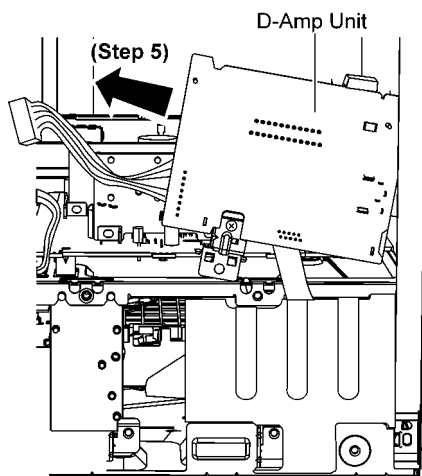
Step 3 Detach 6P Cable Wire at the connector (CN5801) on SMPS P.C.B.



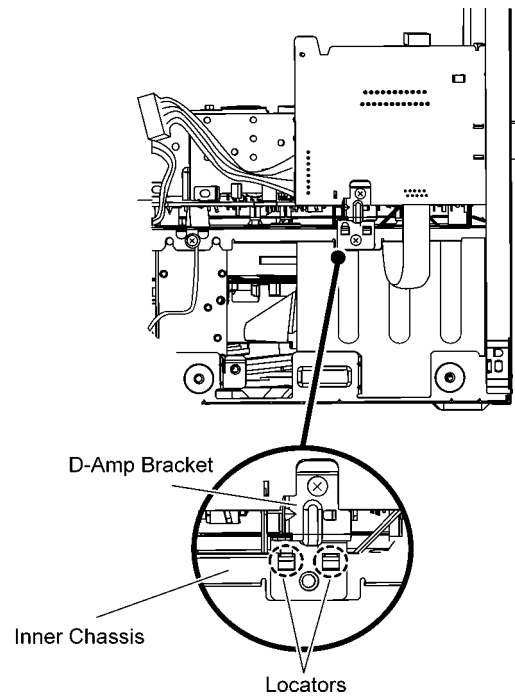
Step 4 Remove 1 screw.



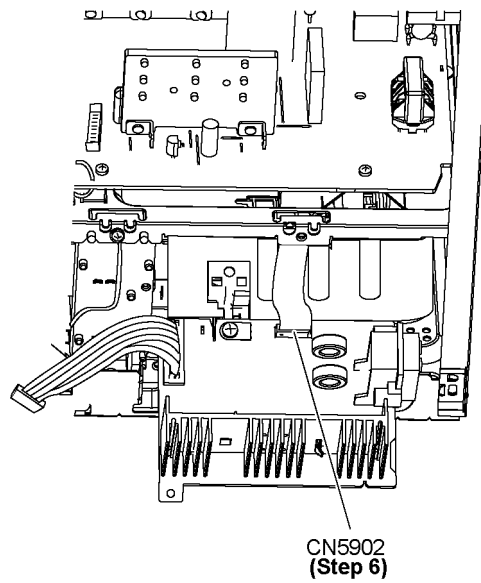
Step 5 Slightly lift up & remove D-Amp Unit as arrow shown.



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



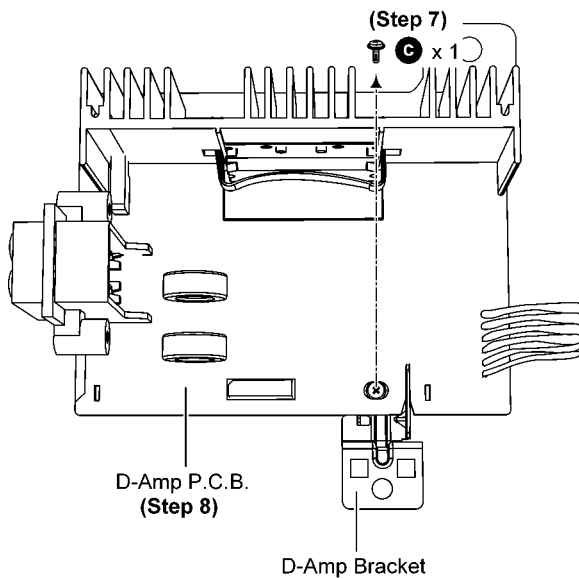
Step 6 Detach 12P FFC at the connector (CN5902) on D-Amp P.C.B..



Step 7 Remove 1 screw.

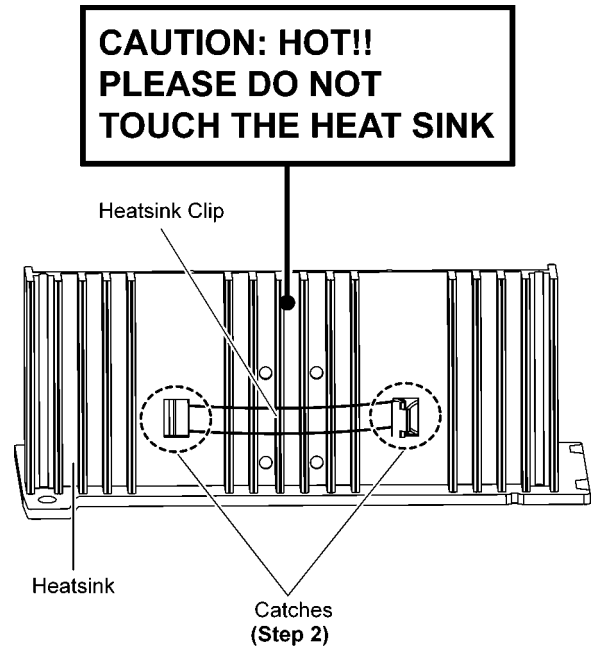
Step 8 Remove D-Amp P.C.B.

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



Step 2 Release 2 catches of Heatsink Clip.

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

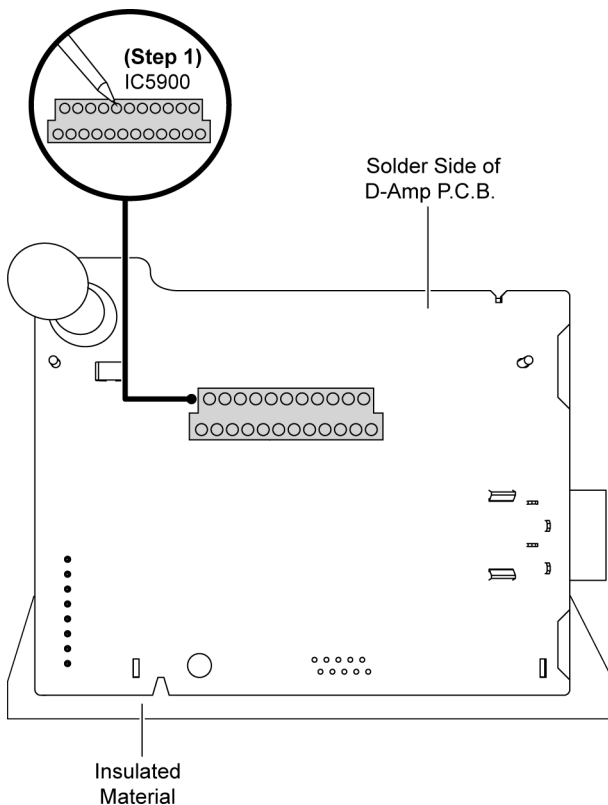


9.26. Replacement of Audio Digital Amp IC (IC5900)

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

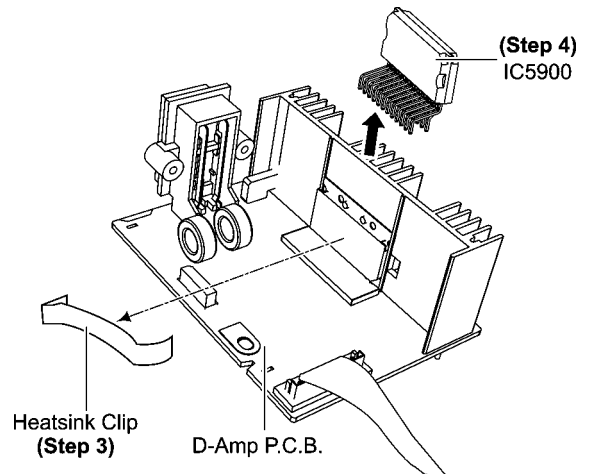
9.26.1. Disassembly of Audio Digital Amp IC (IC5900)

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



Step 3 Remove Heatsink Clip.

Step 4 Remove Audio Digital Amp IC (IC5900).



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

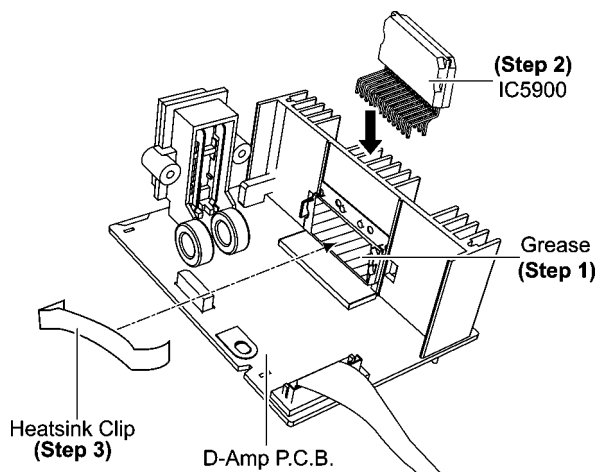
Step 1 Apply grease to the Heatsink.

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

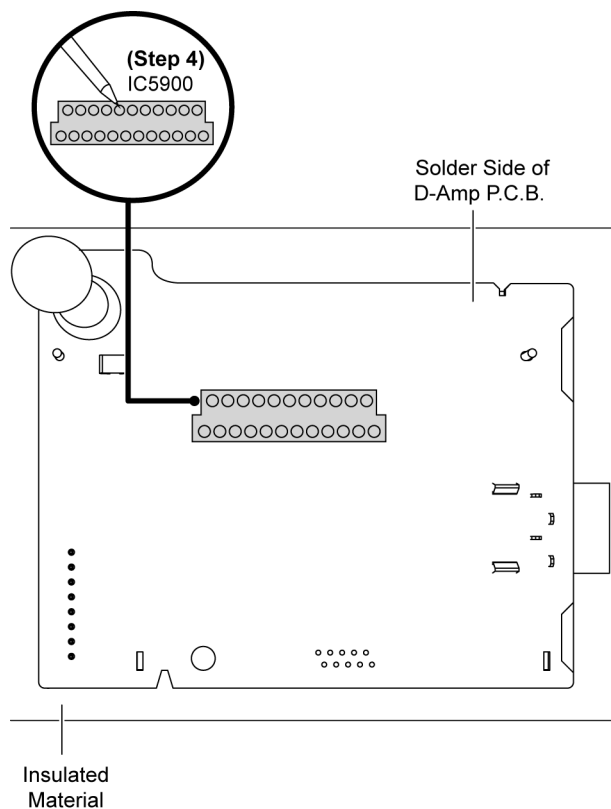
Caution: Ensure pins of the Audio Digital Amp IC (IC5900) are properly seated on D-Amp P.C.B.

Step 3 Install Heatsink Clip to the Heatsink.

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



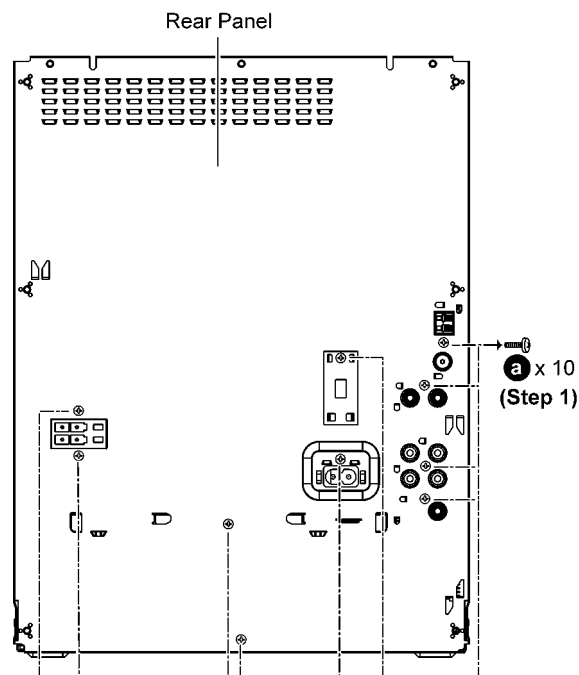
Step 4 Solder pins of the Audio Digital Amp IC (IC5900) on the solder side of D-Amp P.C.B..



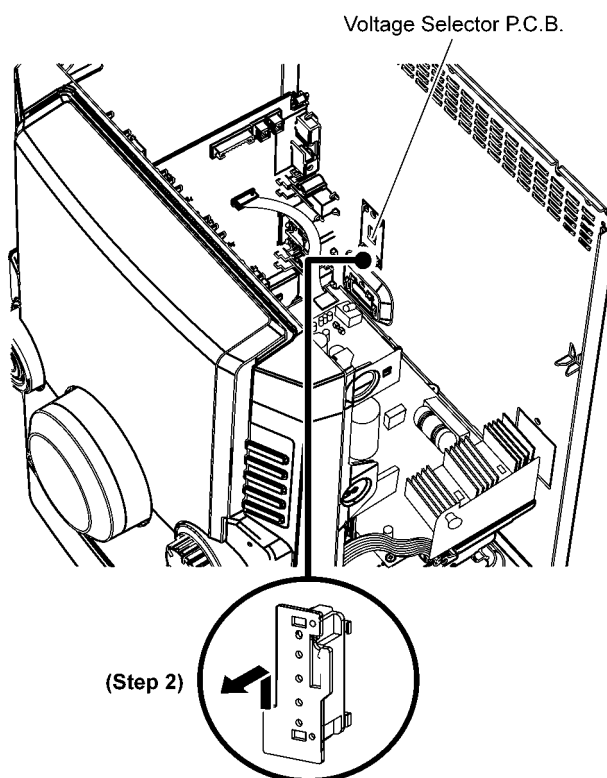
9.27. Disassembly of Rear Panel

- Refer to "Disassembly of Side Panels".
- Refer to "Disassembly of Top Cabinet Unit".

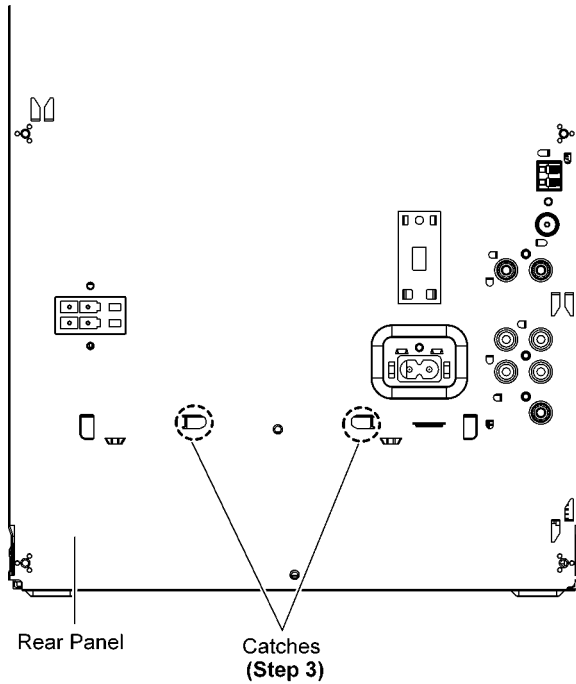
Step 1 Remove 10 screws.



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

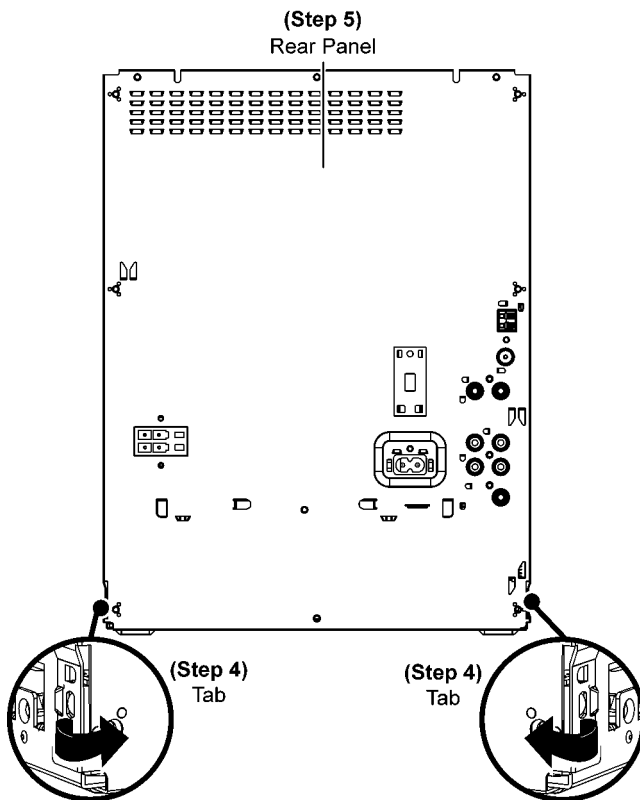


Step 3 Lift up SMPS Inner Chassis Unit to release the catch between the SMPS Inner Chassis Unit & the Rear Panel.



Step 4 Release 2 tabs.

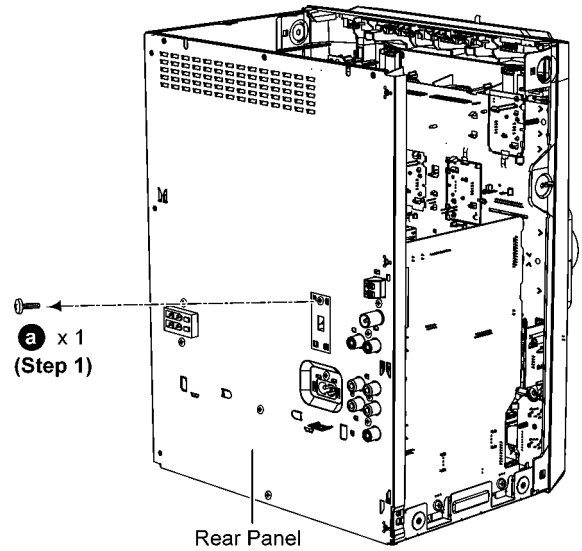
Step 5 Remove Rear Panel.



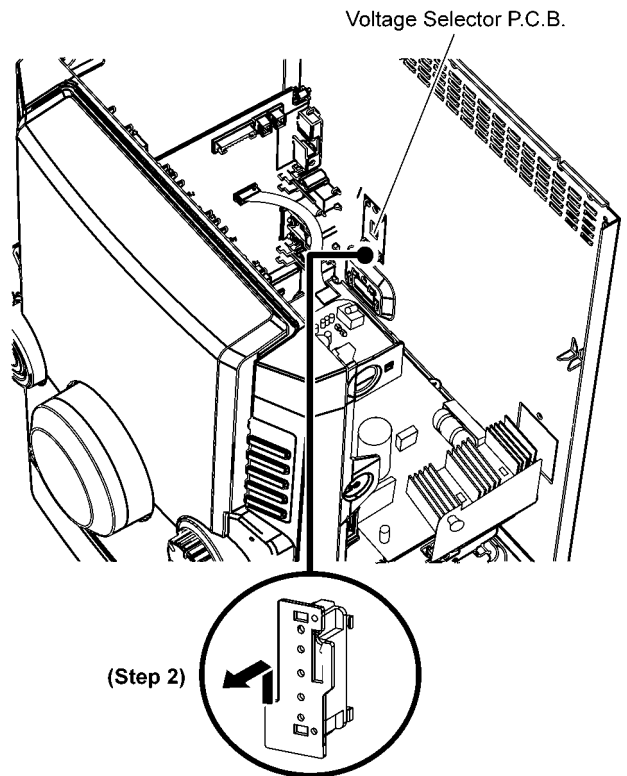
9.28. Disassembly of Voltage Selector P.C.B.

- Refer to "Disassembly of Side Panels".
- Refer to "Disassembly of Top Cabinet Unit".

Step 1 Remove 1 screws.

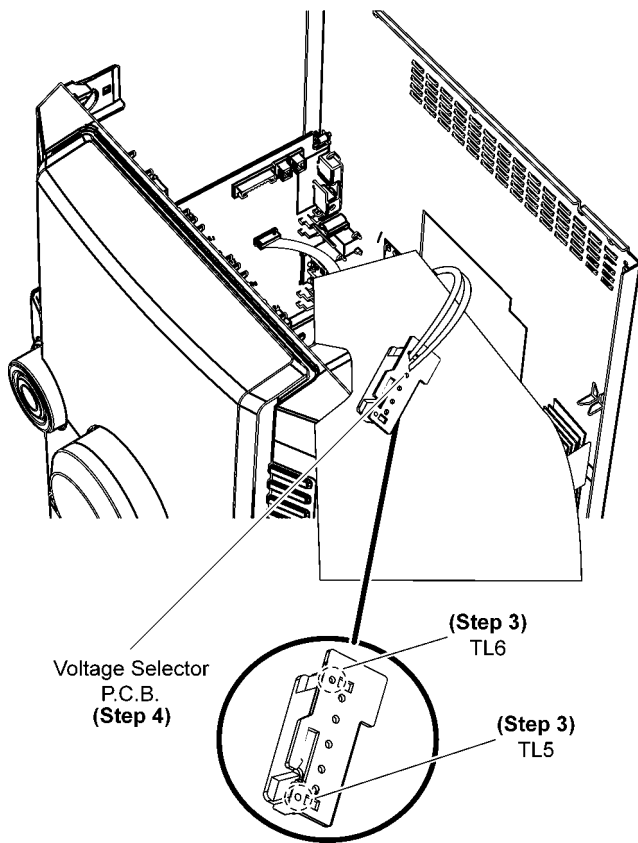


Step 2 Detach Voltage Selector P.C.B. from Rear Panel.



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..

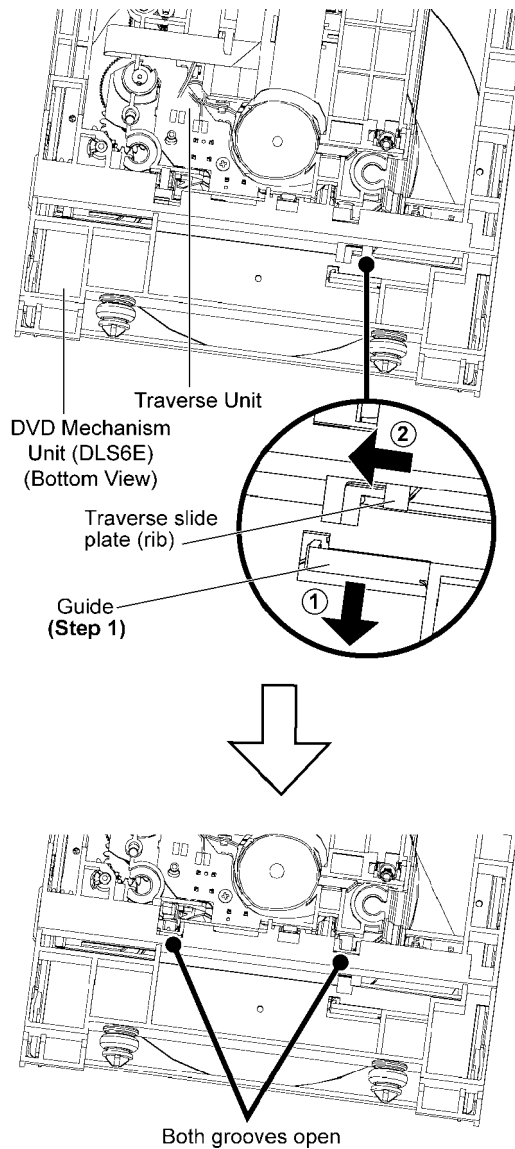


10 Replacement of Traverse Unit

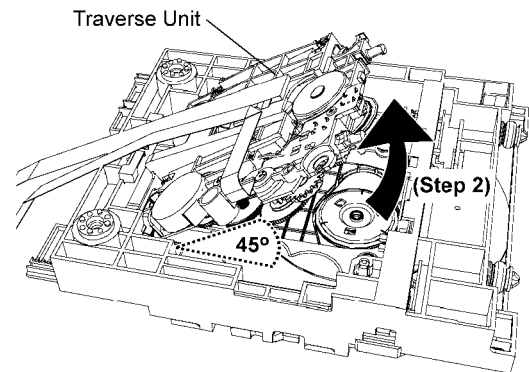
10.1. Disassembly of Traverse Unit

- Refer to “Disassembly of DVD Mechanism Unit (DLS6E)”.

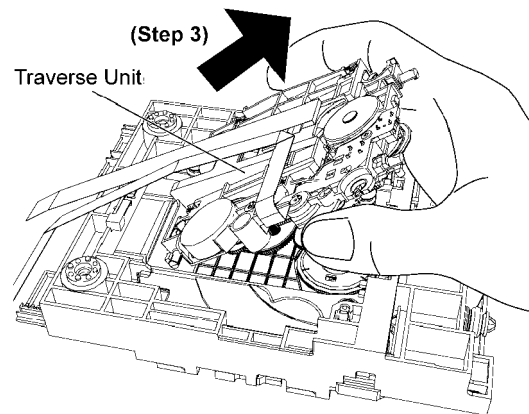
Step 1 Release the guide and slide the traverse slide plate (rib) as arrows shown.



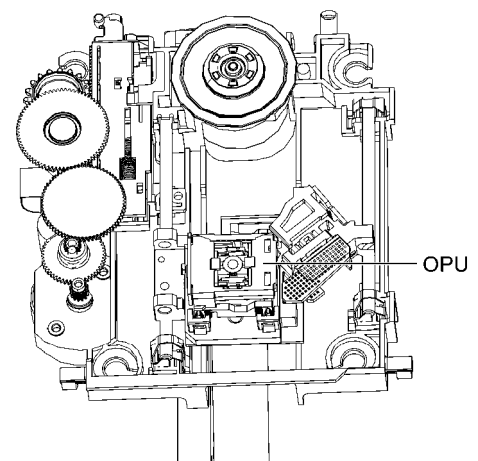
Step 2 Lift up the Traverse unit approximately 45° as shown.



Step 3 Slide out the Traverse unit as arrow shown.

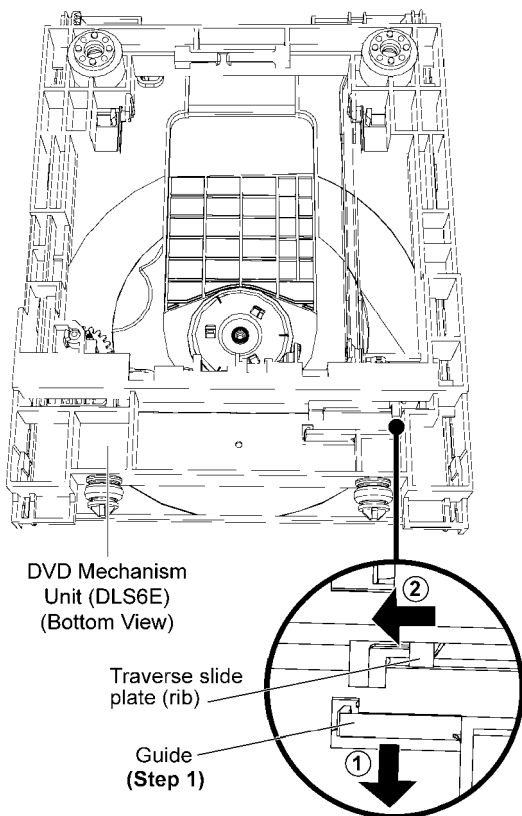


Caution: Do not touch the surface of the Traverse unit and place it so that the OPU is on top.



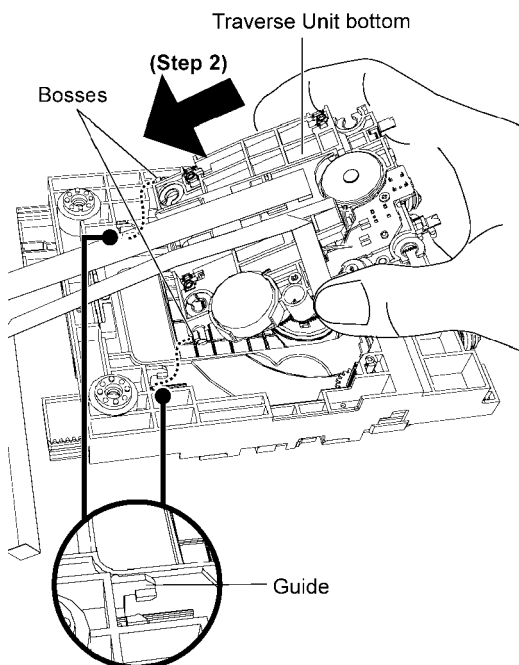
10.2. Assembly of Traverse Unit

Step 1 Release the guide and slide the traverse slide plate (rib) as arrows shown.

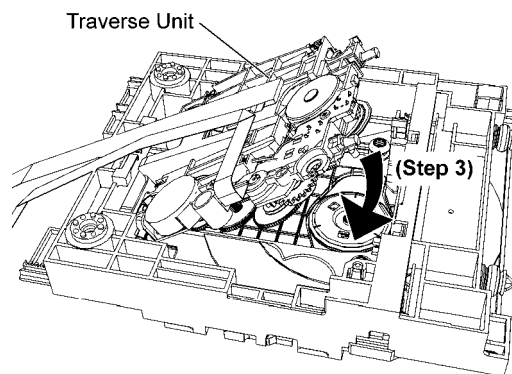


Step 2 Slot the traverse unit approximately 45° into the mecha chassis as arrow shown.

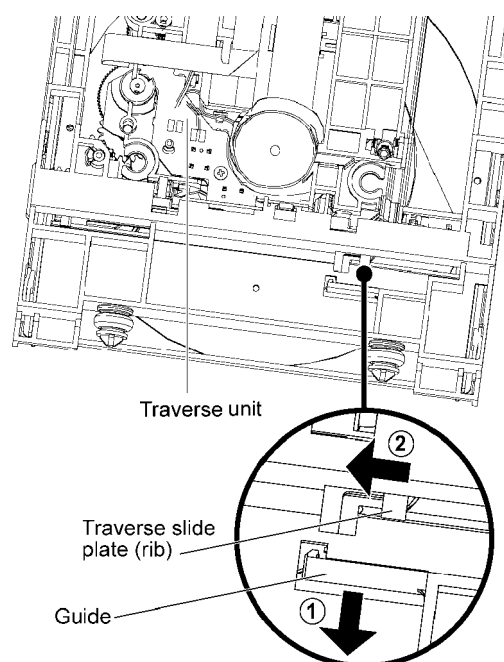
Note: Ensure the bosses fix exactly onto the guides.



Step 3 Place down the traverse unit as arrow shown.



Step 4 Release the guide and slide the traverse slide plate (rib) in the direction of arrows shown to lock in the traverse unit.



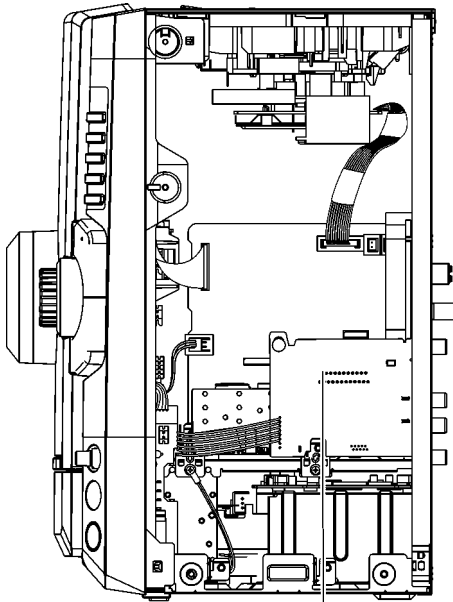
11 Service Position

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

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

Step 1 Remove Side Panels.

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



D-Amp P.C.B.
(Step 2)

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

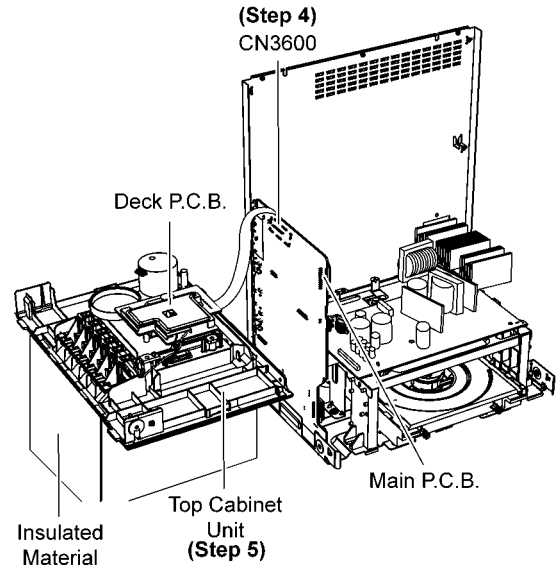
Step 1 Remove Side Panels.

Step 2 Remove Top Cabinet Unit.

Step 3 Remove Front Panel Assembly.

Step 4 Position Top Cabinet Unit on the insulated material.

Step 5 Attach 10P Cable Wire to the connector (CN3600) on Main P.C.B..

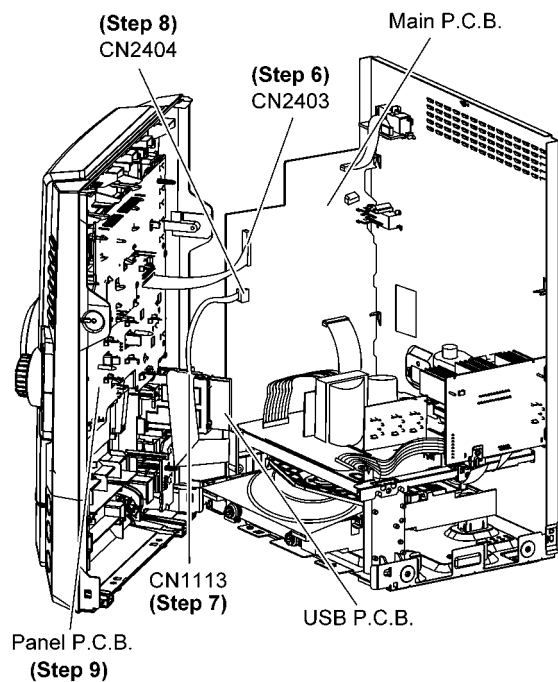


Step 6 Attach 22P FFC to the connector (CN2403) on Main P.C.B..

Step 7 Attach 5P Cable Wire to the connector (CN1113) on USB P.C.B..

Step 8 Attach 2P Cable Wire at the connector (CN2404) on Main P.C.B..

Step 9 Panel P.C.B. can be checked and repaired as diagram shown.



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

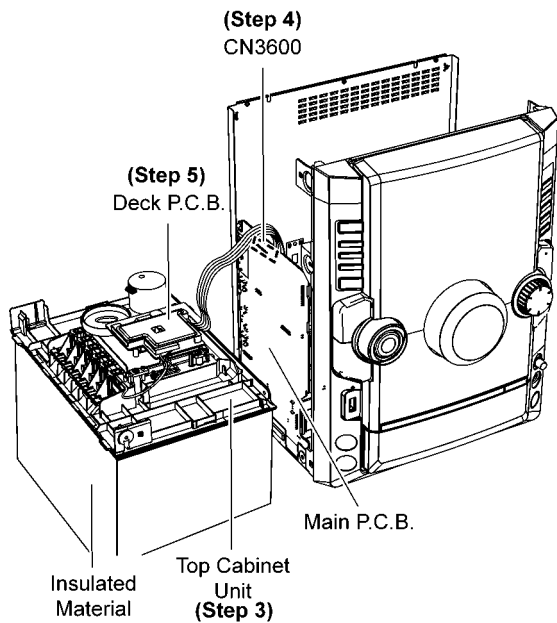
Step 1 Remove Side Panels.

Step 2 Remove Front Panel Assembly.

Step 3 Position Top Cabinet Unit on the insulated material.

Step 4 Attach 10P Cable Wire to the connector (CN3600) on Main P.C.B..

Step 5 Deck P.C.B. can be checked and repaired as diagram shown.



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

Step 1 Remove Side Panels.

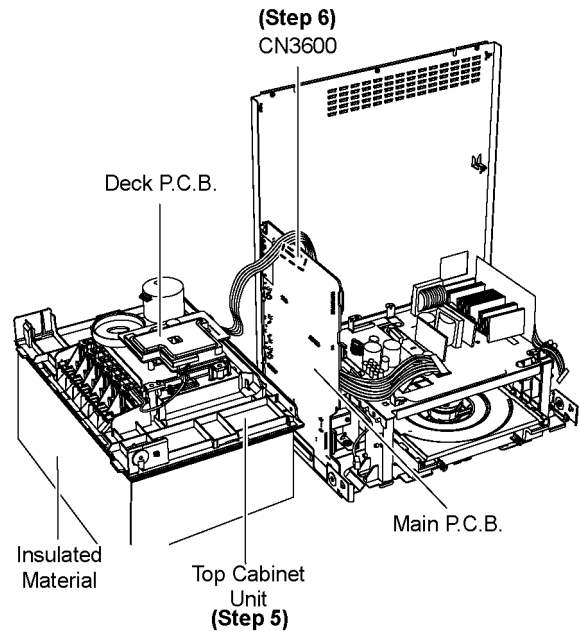
Step 2 Remove Top Cabinet Unit.

Step 3 Remove Front Panel Assembly.

Step 4 Remove SMPS P.C.B..

Step 5 Position Top Cabinet Unit on the insulated material.

Step 6 Attach 10P Cable Wire to the connector (CN3600) on Main P.C.B..



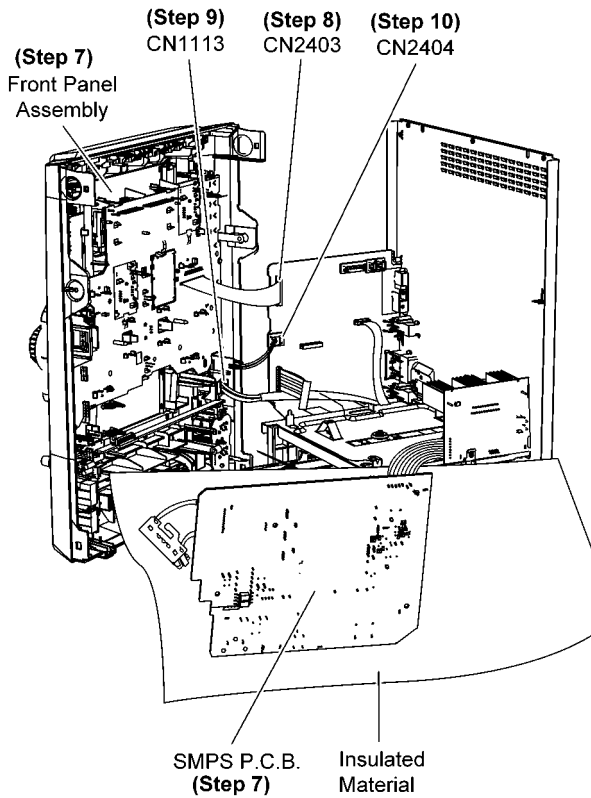
Step 7 Position Front Panel Assembly, SMPS P.C.B. as diagram shown.

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

Step 8 Attach 22P FFC to the connector (CN2403) on Main P.C.B..

Step 9 Attach 5P Cable Wire to the connector (CN1113) on USB P.C.B..

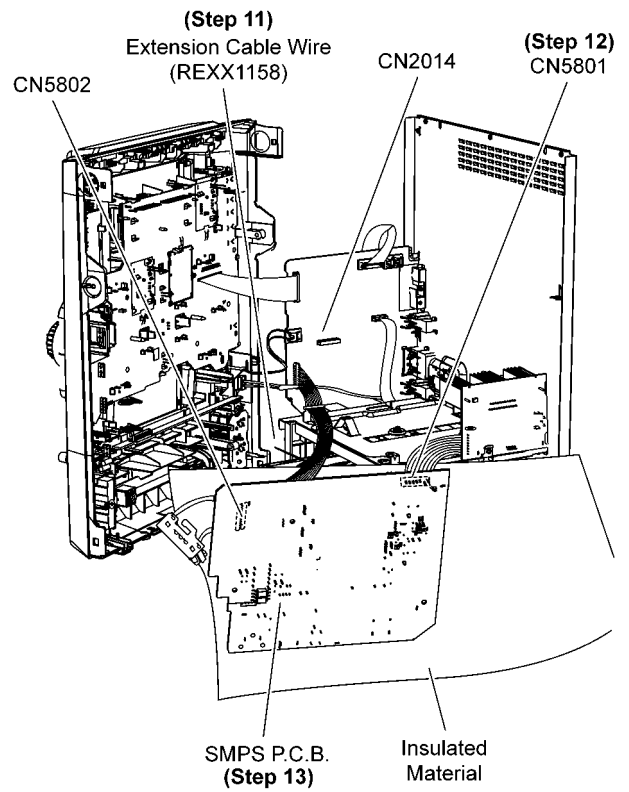
Step 10 Attach 2P Cable Wire at the connector (CN2404) on Main P.C.B..



Step 11 Extend the cable with Extension Cable Wire (REXX1158) (11P Cable Wire from ZJ2701 to CN5802).

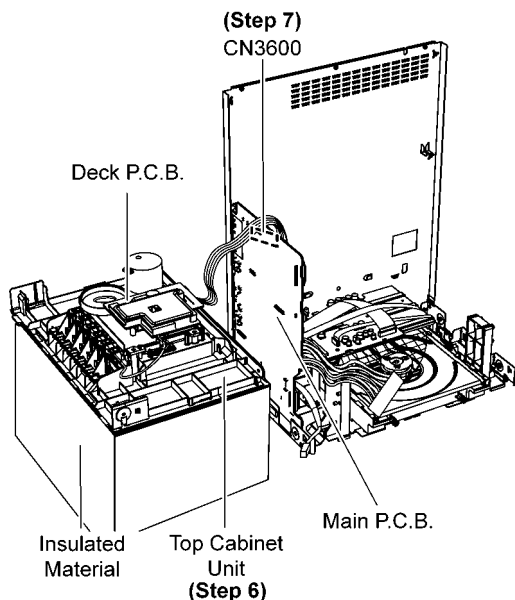
Step 12 Connect 6P Cable Wire to the connector (CN5801) on SMPS P.C.B..

Step 13 SMPS P.C.B. can be checked and repaired as diagram shown.



11.5. Checking and Repairing of DVD Module P.C.B. Side A

- Step 1** Remove Side Panels.
Step 2 Remove Top Cabinet Unit.
Step 3 Remove Front Panel Assembly.
Step 4 Remove D-Amp Unit.
Step 5 Remove SMPS Chassis Unit.
Step 6 Position Top Cabinet Unit on the insulated material.
Step 7 Attach 10P Cable Wire to the connector (CN3600) on Main P.C.B..



Step 8 Position Front Panel Assembly, SMPS P.C.B. & D-Amp Unit as diagram shown.

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

Step 9 Attach 22P FFC to the connector (CN2403) on Main P.C.B..

Step 10 Attach 5P Cable Wire to the connector (CN1113) on USB P.C.B..

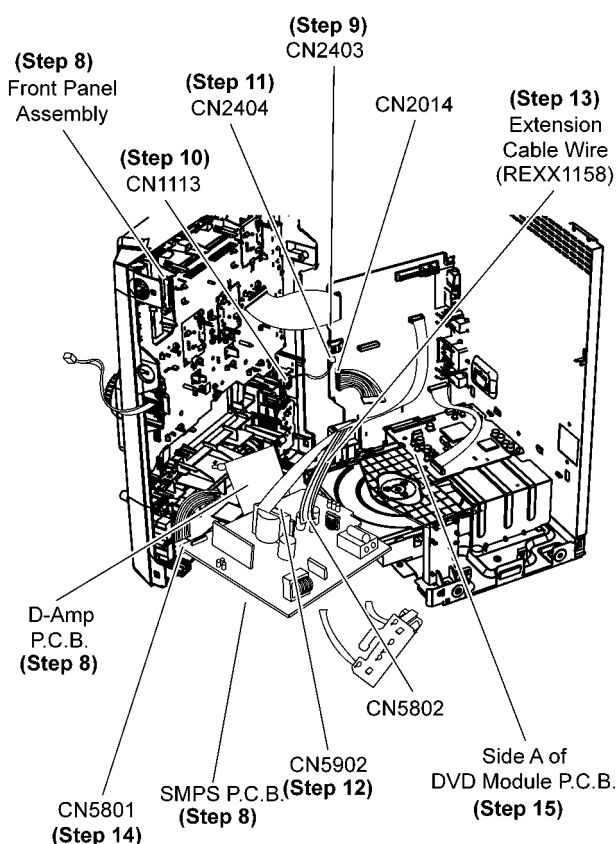
Step 11 Attach 2P Cable Wire at the connector (CN2404) on Main P.C.B..

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

Step 13 Extend the cable with Extension Cable Wire (REXX1158) (11P Cable Wire from ZJ2701 to CN5802).

Step 14 Connect 6P Cable Wire to the connector (CN5801) on SMPS P.C.B..

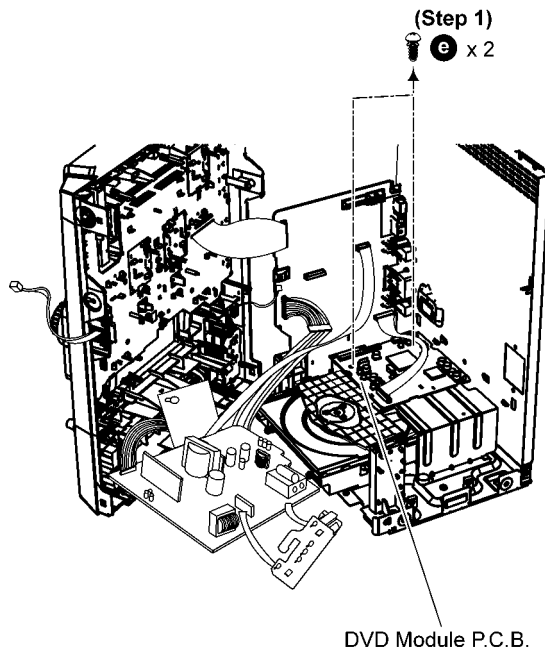
Step 15 DVD Module P.C.B. Side A can be checked and repaired as diagram shown.



11.6. Checking and Repairing of DVD Module P.C.B. Side B

• Refer to (Step 1) to (Step 14) of Item 11.5.

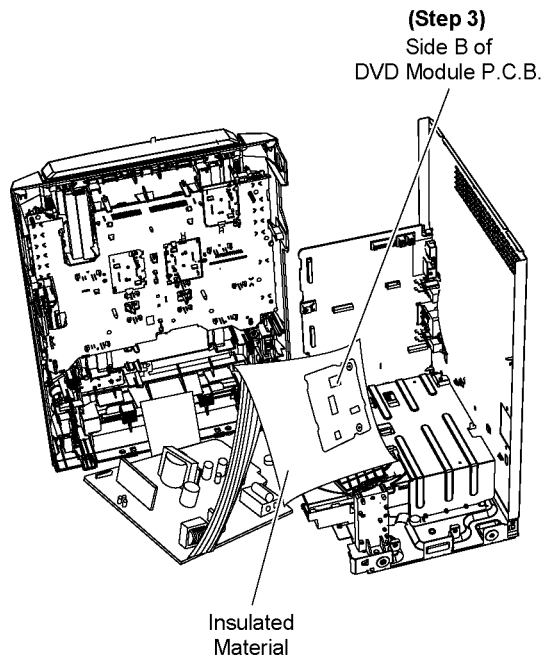
Step 1 Remove 2 screws.



Step 2 Flip the DVD Module P.C.B. as diagram shown.

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

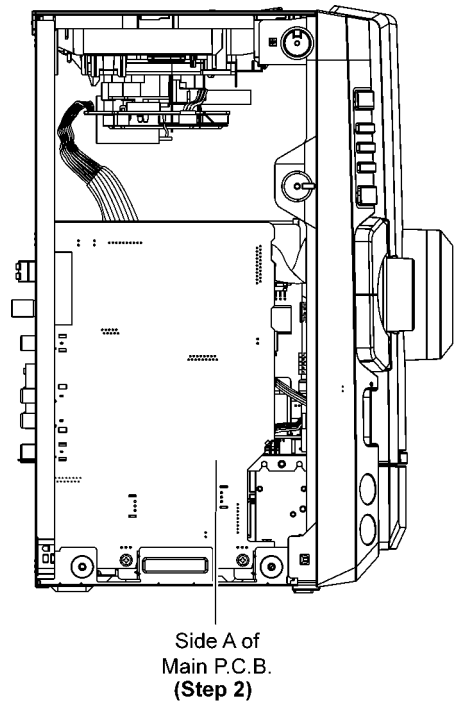
Step 3 DVD Module P.C.B. Side B can be checked and repaired as diagram shown.



11.7. Checking and Repairing of Main P.C.B. Side A

Step 1 Remove Side Panels.

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



11.8. Checking and Repairing Side B of Main P.C.B.

Step 1 Remove Side Panels.

Step 2 Remove Top Cabinet Unit.

Step 3 Remove Front Panel Assembly.

Step 4 Remove D-Amp P.C.B..

Step 5 Remove Main P.C.B..

Step 6 Attach 10P Cable wire to the connector (CN3600) on Main P.C.B..

Step 7 Attach 22P FFC to the connector (CN2403) on Main P.C.B..

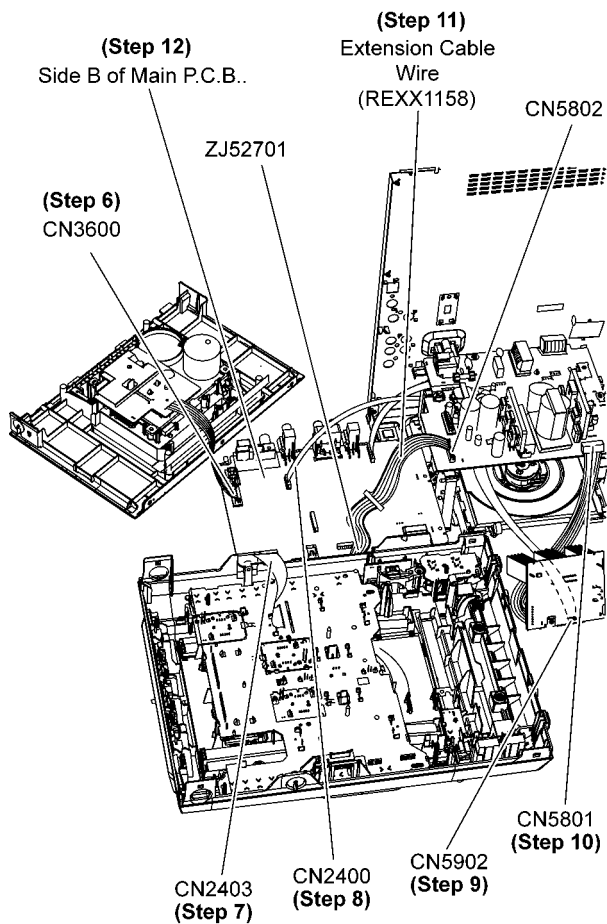
Step 8 Attach 12P FFC to the connector (CN2400) on Main P.C.B..

Step 9 Attach 12P FFC to the connector (CN5902) on D-Amp P.C.B..

Step 10 Attach 6P Cable wire to the connector (CN5801) on SMPS P.C.B..

Step 11 Extend the cable with Extension Cable Wire (REXX1158) (11P Cable Wire from ZJ2701 to CN5802).

Step 12 Main P.C.B. Side B can be checked & repaired as diagram shown.



12 Measurements & Adjustments

12.1. Deck Mechanism Section

• HEAD AZIMUTH ALIGNMENT

TEST TAPE	INDICATOR (ELECTRONIC VOLTME-TER or OSCILLOSCOPE)	ADJUSTMENT	REMARKS
QZZCAB (~ 3 dB)	Headphone Jack (32Ω) Fabricate the plug as shown in Fig. 1 and then connect the lead wires of the plug to the measuring instrument.	Azimuth Screw (Shown in Fig. 2)	1. Insert the test tape (QZZCAB) and start playback at maximum volume & equalize at "FLAT". 2. Adjust the azimuth screw for maximum waveform on the oscil-loscope and the similar output on L and R channels. 3. When adjusting the aizmuth in the reverse direction, repeat the adjustment several times because of a little slip on the for-ward direction side.

Caution:

- Please remove the screw-locking bond left on the head base when replacing the azimuth screw.
- After the adjustment, apply screwlock to the azimuth adjusting screw. (Screw-locking bond: RZZ0L01).
- Minimum screw-lock apply on screws must be 180° around the screw.

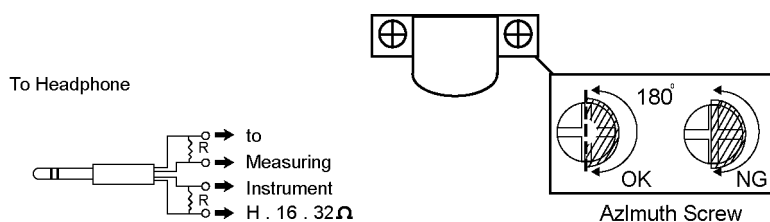


Fig. 1

Fig. 2

• TAPE SPEED CHECKING

TEST TAPE	INDICATOR (ELECTRONIC VOLTME-TER or OSCILLOSCOPE)	ADJUSTMENT	SPECIFICATION	REMARKS
QZZCWAT (3kHz, -10 dB)	Headphone Jack (32Ω) Fabricate the plug as shown in Fig. 3 and then connect the lead wires of the plug to the measuring instrument.	Motor VR. (Shown in Fig. 4)	3000±90Hz	1. Insert the test tape (QZZCWAT) and start play-back. 2. Check the output at headphone or speaker.

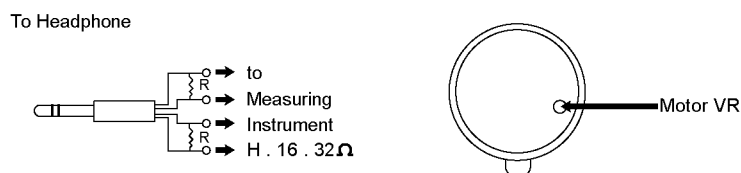


Fig. 3

Fig. 4

13 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.

13.1. Main P.C.B. (1/3)

REF NO. MODE	IC52																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TUNER	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDBY	0	0	0	0	0	0	0	0	3.1	3.1	0	0	0	0	0	0	0	0	0	0

REF NO. MODE	IC2001																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.5	4.4	4.5	4.4	4.5	4.5	4.5	4.4	4.5	0	3.3	3.3
STANDBY	0	4.4	4.4	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	0	4.5	4.5	0	0	3.3

REF NO. MODE	IC2001																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	8.8	4.5	4.5	4.5	0.7	4.5	0	0	0	0	4.5	0	4.5	4.5	0	0	0	0	0	0
STANDBY	8.8	4.4	4.5	0.7	0.7	4.5	0	4.5	4.5	0	0	4.5	4.5	4.5	4.5	0	0	0	0	4.5

REF NO. MODE	IC2001																			
	41	42	43	44	45	46	47	48	49	50	51	52								
CD PLAY	0	0	0	0	4.5	0	0	0	0	4.4	0	4.4								
STANDBY	0	4.4	0	4.4	4.5	4.5	4.4	0	0	4.4	0	4.4								

REF NO. MODE	IC2150																			
	1	2	3	4	5	6	7	8												
CD PLAY	4.6	4.8	4.8	0	4.8	4.8	4.8	9.7												
STANDBY	4.8	4.8	4.8	0	4.8	4.8	4.8	9.7												

REF NO. MODE	IC2151																			
	1	2	3	4	5	6	7	8												
CD PLAY	4.9	4.9	4.8	0	4.8	4.9	4.7	9.7												
STANDBY	4.7	4.9	4.7	0	4.8	4.9	4.9	9.7												

REF NO. MODE	IC2400																			
	1	2	3	4	5	6	7	8												
CD PLAY	5.9	5.8	5.6	0	5.9	5.6	5.9	11.7												
STANDBY	5.8	5.8	5.7	0	5.8	6.0	5.8	11.8												

REF NO. MODE	IC2800																			
	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	0.7	3.3	0	0	0	1.6	3.3	3.3	0	0	1.9
STANDBY	0	0	0	0	0	0	0	0	0	0.6	0.7	3.3	1.6	0	3.3	3.3	3.3	3.3	0	0

REF NO. MODE	IC2800																			
	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	3.3	0	0	0	0	3.2	3.2	0	1.1	1.1	1.1	1.6	2.8	3.0	0	0	0
STANDBY	0	0	0	3.3	0	0	0	0	3.3	3.3	0	1.1	1.1	1.0	1.7	2.8	3.0	0	0	0

REF NO. MODE	IC2800																			
	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	3.3	3.3	0	0	0	0	0	0	0	3.3	0	3.3	3.3	0	0	0	0
STANDBY	0	0	0	3.3	3.3	3.3	0	0	0	0	0	3.3	3.3	0	3.3	3.3	0	0	0	0

SA-VKX20GA/GC/GS MAIN P.C.B.

13.2. Main P.C.B. (2/3)

REF NO. MODE	IC2950																			
CD PLAY	1	2	3	4	5	6	7	8												
STANDBY	0	0	0	0	0	1.3	0	3.3												
REF NO. MODE	IC3400																			
CD PLAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STANDBY	5.0	0	0	2.2	2.2	1.5	0	1.5	1.8	0	1.4	0	1.9	4.4	2.1	4.9	2.0	2.2	0	2.1
STANDBY	5.0	0	0	2.1	4.8	1.4	0	1.4	2.1	0	1.4	0	2.0	4.8	0	0	2.2	2.2	0	2.2
REF NO. MODE	IC3400																			
CD PLAY	21	22	23	24	25	26	27	28	29	30	31	32								
STANDBY	2.1	0	1.7	1.6	0	1.5	1.5	0	1.4	1.4	0	2.2								
STANDBY	2.2	0	1.3	1.3	0	1.2	1.2	0	1.3	1.3	0	2.2								
REF NO. MODE	IC3501																			
CD PLAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STANDBY	1.7	1.7	1.3	1.7	3.3	0	5.1	0	5.0	2.5	2.5	0	0	4.9	0	0				
STANDBY	1.7	1.7	0	1.7	3.3	0	5.1	0	4.8	2.3	2.4	0	0	5.1	0	5.0				
REF NO. MODE	IC4000																			
CD PLAY	1	2	3	4	5															
STANDBY	16.1	5.3	0	1.0	2.8															
STANDBY	16.4	5.3	0	1.0	2.8															
REF NO. MODE	IC4100																			
CD PLAY	1	2	3	4	5															
STANDBY	5.2	0	5.2	0	3.3															
STANDBY	5.2	0	5.2	0	3.3															
REF NO. MODE	IC4200																			
CD PLAY	1	2	3																	
STANDBY	16.1	0	12.0																	
STANDBY	16.1	0	12.0																	
REF NO. MODE	Q2001				Q2018				Q2050				Q2800				Q2960			
CD PLAY	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
STANDBY	0	0	0		4.3	5.2	5		0.8	0	0.2		3.4	3.3	2.6		0	0	0.7	
STANDBY	0	0	0		4.3	5.2	5		0.8	0	0.2		3.4	3.3	2.6		0	0	0.7	
SA-VKX20GA/GC/GS MAIN P.C.B																				

SA-VKX20GA/GC/GS MAIN P.C.B.

13.3. Main P.C.B. (3/3)

REF NO.	Q3300				Q3301				Q3302											
MODE	E	C	B		E	C	B		1	2	3	4	5	6						
CD PLAY	2.5	5.0	1.8		5.0	-1.1	0		0	-1.5	0	0	-1.5	0						
STANDBY	2.5	5.0	1.8		2.6	2.5	1.0		0	0.7	0	0	0.7	0						
REF NO.	Q4002							Q3500				Q3501				Q3502				
MODE	1	2	3	4	5	6		E	C	B		E	C	B		E	C	B		
CD PLAY	5.1	5.1	0	5.2	5.1	5.0		3.3	1.7	3.3		0	1.7	0		0	0	4.3		
STANDBY	5.1	5.1	0	5.2	4.9	5.1		3.3	1.7	3.3		0	1.7	0		0	3.3	0		
REF NO.	Q3600				Q3601				Q4001				Q4200				Q4300			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	12.0	1.1	11.9		0	11.9	0		4.8	4.1	3.1		9.2	10.5	9.8		16.1	0	16	
STANDBY	12.0	1.1	11.9		0	11.9	0		5.0	4.0	3.2		9.2	10.5	9.8		16.4	0	16.3	
REF NO.	Q4301				Q4403				QR2004				QR2800				QR2801			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	15.9	0		9.7	11.3	10.4		0	5	0		0	3.3	3.3		0.2	0	0.8	
STANDBY	0	15.9	0		9.7	11.3	10.4		0	5	0		3.4	3.3	3.3		0.2	0	0.8	
REF NO.	QR2802				QR3500				QR3501				QR4003				QR4004			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	0	3.2		0	4.3	0		0	4.3	0		0	3.3	0		0	2.9	0	
STANDBY	0	0	3.2		0	0	5.0		0	0	0		0	3.3	0		0	3.3	0	
REF NO.	QR4005				QR4300															
MODE	E	C	B		E	C	B													
CD PLAY	0	0	3.3		0	3.3	0													
STANDBY	0	0	3.3		0	3.3	0													
REF NO.	Q2002				Q2003															
MODE	E	C	B		E	C	B													
USB PLAY	5.2	0	5		0	5.0	0													

SA-VKX20GA/GC/GS MAIN P.C.B.

13.4. DVD Module P.C.B. (1/3)

REF NO.	IC8001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	0	0	3.4	0	3.4	0	0	1.7	0	0	0.7	0.7	0.6	0	3.4	0.4	0.8	0	1.3
REF NO.	IC8001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	1.5	1.3	2.0	1.7	2.5	2.6	2.6	1.8	0.9	1.1	3.4	0.1	3.4	2.4	1.3	1.3	1.8	2.6	2.6	1.4
REF NO.	IC8001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	1.9	2.7	0	1.3	0	3.3	3.3	3.4	3.4	1.7	0	3.4	1.9	2.8	3.0	3.4	3.4	3.4	0.6	3.4
REF NO.	IC8001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	1.6	0	0	0.9	3.4	2.0	1.7	0	3.4	3.1	0	3.4	3.4	0	0.3	0	3.4	3.4	3.4	3.4
REF NO.	IC8001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0	0	1.3	3.4	0.9	2.4	0	1.9	0	0.5	1.8	3.4	1.4	1.4	1.9	1.9	1.7	1.7	1.7	1.7
REF NO.	IC8001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
CD PLAY	0	0	0	0	0	2.1	3.3	0	2.3	1.7	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4
REF NO.	IC8001																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
CD PLAY	1.9	2.0	1.7	1.7	0	1.7	1.8	3.4	0.9	0.9	0.4	3.4	2.4	1.0	1.0	2.4	0	0.4	0.9	0
REF NO.	IC8001																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
CD PLAY	3.4	3.4	0	0	0	0	3.4	1.6	1.7	1.7	0.9	1.7	0	3.4	1.5	1.6	1.5	1.3	2.9	3.1
REF NO.	IC8001																			
MODE	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
CD PLAY	2.9	2.8	3.1	2.8	0.1	3.4	2.8	3.1	3.1	2.9	2.9	3.2	0	3.4	2.8	3.1	3.1	2.8	2.7	2.7
REF NO.	IC8001																			
MODE	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
CD PLAY	3.3	0	1.5	3.4	1.6	0	1.3	3.3	3.3	3.2	3.6	0	1.9	0	0	3.4	1.6	0	0	1.6
REF NO.	IC8001																			
MODE	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216				
CD PLAY	0	1.7	0.3	0	3.4	1.7	0	1.5	1.9	0.1	1.3	2.5	2.9	2.8	3.4	0				
REF NO.	IC8051																			
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	3.2	3.4	3.2	3.2	3.2	3.1	3.4	3.2	3.2	0	3.2	0	3.0	3.4	3.3	3.3	3.3	3.3	1.9
SA-VKX20GA/GC/GS DVD MODULE P.C.B.																				

13.5. DVD Module P.C.B. (2/3)

REF NO.	IC8051																			
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	0	0	0.5	0.6	1.5	3.4	0	0	1.9	1.7	1.6	0	0	0	0	3.4	1.6	2.9	0
REF NO.	IC8051																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54						
CD PLAY	0	3.2	3.4	3.2	3.2	0	3.2	3.2	3.4	3.2	3.1	0	3.1	0						
REF NO.	IC8111																			
MODE	1	2	3	4	5	6	7													
CD PLAY	5.1	3.3	5.1	0	0	3.4	1.2													
REF NO.	IC8251																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.7	1.7	1.7	2.3	2.3	2.2	0	5.1	3.4	0	2.4	2.8	2.5	2.7	4.2	4.3	5.4	3.1	0	3.4
REF NO.	IC8251																			
MODE	21	22	23	24	25	26	27	28												
CD PLAY	8.9	8.8	1.8	1.7	1.7	1.7	3.4	3.4												
REF NO.	IC8422																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
CD PLAY	0	0	0	2.6	0	5.2	5.2	0	1.8	1.7	1.6	1.7	3.3	0	5.2	0				
REF NO.	IC8611																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	0	3.2	3.3	0	3.4												
REF NO.	IC8651																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.0	1.2	1.7	1.7	1.2	0	1.5	1.6	0	3.3	3.4	3.3	3.3	3.4	1.0	0	0	0	3.4	3.4
REF NO.	IC8651																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	3.4	0	3.4	0	3.4	3.4	0	3.4	3.4	0	0	0	3.4	0	3.4	3.4	3.4	0	0	3.4
REF NO.	IC8651																			
MODE	41	42	43	44	45	46	47	48												
CD PLAY	3.4	3.4	0	3.4	0	0	3.4	0												
REF NO.	IC9001																			
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	1.7	1.7	1.4	1.8	1.3	1.3	2.1	0	2.6	2.1	1.4	1.9	1.9	1.5	1.6	1.7	1.6	3.4
REF NO.	IC9002																			
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	1.5	1.2	1.2	1.7	1.6	1.1	1.0	0	3.0	1.0	1.2	1.7	1.7	1.2	1.2	1.5	1.6	3.4
SA-VKX20GA/GC/GS DVD MODULE P.C.B.																				

13.6. DVD Module P.C.B. (3/3)

REF NO. MODE	IC9003																			
CD PLAY	1.6	0	1.7	1.7	3.4	1.7														
REF NO. MODE	IC9006																			
CD PLAY	5.2	0	0	3.4	1.7															
REF NO. MODE	Q8321				Q8325				Q8331				Q8335				Q8341			
CD PLAY	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	4.4	0	0		4.4	0	0		4.4	0	0		4.4	0	0		4.4	0	0	
REF NO. MODE	Q8551				Q8552				Q8561				Q8562				Q8563			
CD PLAY	E	C	B		E	C	B		E	C	B		E	C	B		S	D	G	
CD PLAY	0	5.0	0		5.0	0	5.0		1.8	3.2	2.6		3.8	1.9	3.2		0	0	4.3	
REF NO. MODE	Q8564				Q8565				QR9030											
CD PLAY	S	D	G		E	C	B		E	C	B									
CD PLAY	0	0.2	0		0	4.3	0		3.4	0.1	3.4									
SA-VKX20GA/GC/GS DVD MODULE P.C.B.																				

SA-VKX20GA/GC/GS DVD MODULE P.C.B.

13.7. 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	3.3	3.3	3.3	2.3	1.1	0.3	2.8	2.2	0	0	0	0	0	0	0	0	-22.2	-24.1	0
STANDBY	0	3.1	3.1	3.1	2.1	1.0	0.3	2.7	2.1	0	0	0	0	-20	-22	-24.2	-22.3	-24.2	-20	-20
REF NO.	IC6000																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	0	-22.2	-24.1	-14.6	-18.4	-14.7	-24.1	-20.3	-24.5	-22.5	-22.5	-22.5	-22.5	0	-22.4	-22.4	-22.4	-22.4	-22.4
STANDBY	-18	-24.2	-22.3	-24.2	-21	-21	-19	-24.2	-22	-24.6	-22.6	-22.5	-22.5	-22.5	-22.5	0	-22.5	-22.5	-22.5	-22.5
REF NO.	IC6000																			
MODE	41	42	43	44																
CD PLAY	-22.4	-22.4	3.1	0																
STANDBY	-22.5	-22.5	3.3	0																

SA-VKX20GA/GC/GS PANEL P.C.B.

13.8. Mic P.C.B.

REF NO.	IC6500																		
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14					
CD PLAY	4.9	4.4	0	4.8	4.8	4.8	4.9	0	9.7	4.8	1.4	0	9.5	0					
STANDBY	4.9	4.8	4.8	4.8	0	4.9	4.9	0	9.7	4.8	1.4	0	0	4.8					

SA-VKX20GA/GC/GS MIC P.C.B.

13.9. Deck P.C.B.

REF NO. MODE	IC2																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14					
CD PLAY	4.4	4.4	0	0	9.3	4.6	9.3	0	4.6	4.6	0	4.6	0	0.2					
STANDBY	4.4	4.4	0	0	9.3	4.6	9.3	0	4.6	4.6	0	4.6	0	0.2					

REF NO. MODE	Q133				Q233				Q321										
	E	C	B		E	C	B		E	C	B								
CD PLAY	0	0	0		0	0	0		0.2	2.9	0.8								
STANDBY	0	0	0		0	0	0		0	2.9	0.8								

SA-VKX20GA/GC/GS DECK P.C.B.

13.10. D-Amp P.C.B.

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

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

REF NO. MODE	Q5901				Q5902				Q5903				Q5905				Q5906			
	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. MODE	Q5907				QR5900				QR5901											
	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-VKX20GA/GC/GS D-AMP P.C.B.

13.11. SMPS P.C.B.

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

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	12.2	2.0	3.0																
STANDBY	12.2	2.0	3.0																

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		0	3.1	-28.0		0	3.3	-28.0
STANDBY	0	3.3	0		0	3.3	0		0	2.1	0		0	3.1	-28.0		0	3.3	-28.0

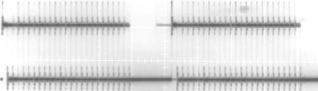
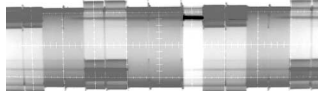
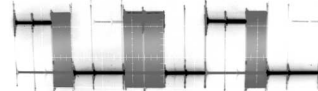
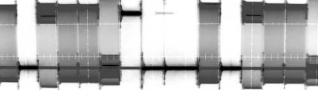
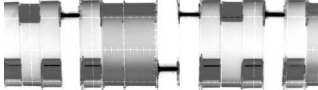
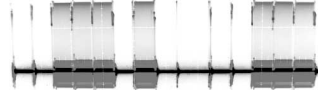
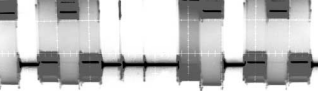
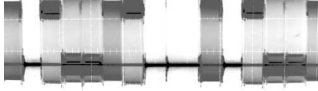
REF NO.	QR5810																		
MODE	E	C	B																
CD PLAY	0	0	3.1																
STANDBY	0	0	3.1																

SA-VKX20GA/GC/GS SMPS P.C.B.

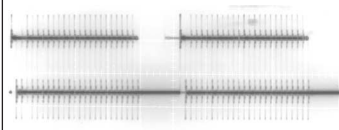
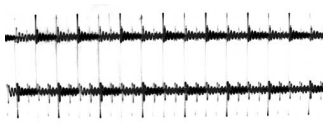
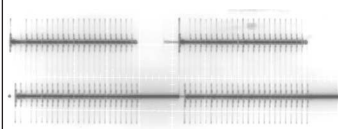
13.12. Waveform Table (1/3)

WF No. IC52-2,13,14 (TUNER) 0.1Vp-p(5msec/div)	WF No. IC2001-2,38 (PLAY) 1.8Vp-p(200usec/div)	WF No. IC2001-3,37 (PLAY) 0.2Vp-p(200usec/div)	WF No. IC2001-5 (PLAY) 4Vp-p(200usec/div)
WF No. IC2001-6,7 (PLAY) 0.2Vp-p(200usec/div)	WF No. IC2001-44 (PLAY) 0.3Vp-p(200usec/div)	WF No. IC2001-47 (PLAY) 1.6Vp-p(200usec/div)	WF No. IC2150-1,3,5,7 (TUNER) 0.4Vp-p(1msec/div)
WF No. IC2800-10 (PLAY) 2.5Vp-p(5msec/div)	WF No. IC2800-11 (PLAY) 1.75Vp-p(10msec/div)	WF No. IC2800-13 (PLAY) 3Vp-p(50nsec/div)	WF No. IC2800-15 (PLAY) 2Vp-p(50nsec/div)
WF No. IC3400-4 (PLAY) 1Vp-p(20usec/div)	WF No. IC3400-8,11 (PLAY) 1Vp-p(20usec/div)	WF No. IC3400-13 (PLAY) 0.8Vp-p(20usec/div)	WF No. IC3400-15 (PLAY) 0.8Vp-p(20usec/div)
WF No. IC3400-17 (PLAY) 1.5Vp-p(20usec/div)	WF No. IC3400-21 (PLAY) 1.5Vp-p(20usec/div)	WF No. IC3400-24,27 (PLAY) 1Vp-p(20usec/div)	WF No. IC3400-30(PLAY) 2.5Vp-p(20usec/div)

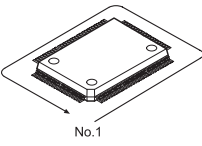
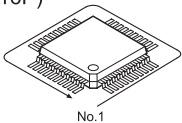
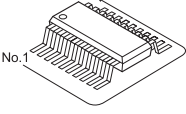
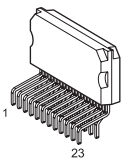
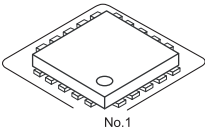
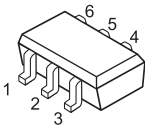
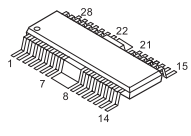
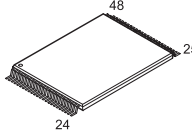
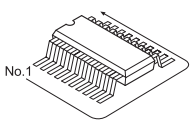
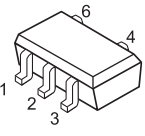
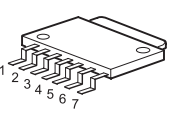
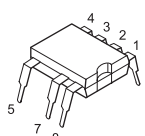
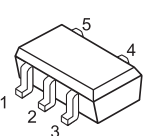
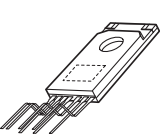
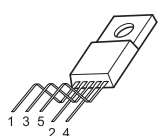
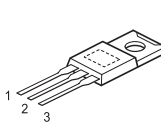
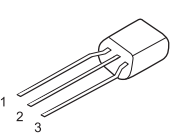
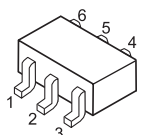
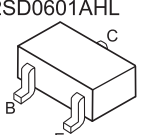
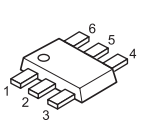
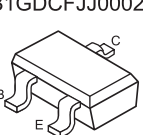
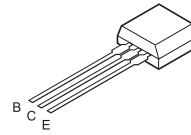
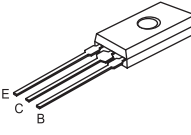
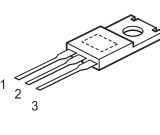
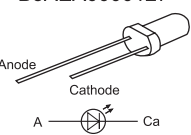
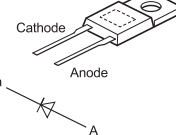
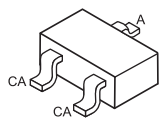
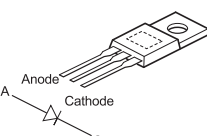
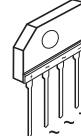
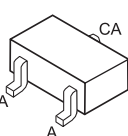
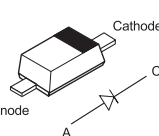
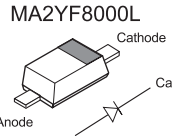
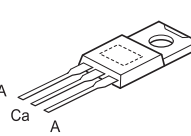
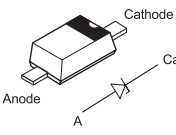
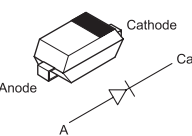
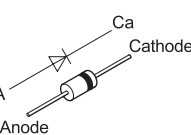
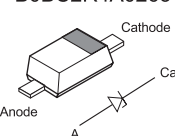
13.13. Waveform Table (2/3)

WF No. IC3400-32 (PLAY)  2Vp-p(20usec/div)	WF No. IC3501-3 (PLAY)  4Vp-p(20usec/div)	WF No. IC3501-10 (PLAY)  3.5Vp-p(20usec/div)	WF No. IC3501-11 (PLAY)  0.6Vp-p(20usec/div)
WF No. IC5900-2,21 (PLAY)  1.9Vp-p(200usec/div)	WF No. IC5900-10,14 (PLAY)  100Vp-p(1usec/div)	WF No. IC8001-9 (PLAY)  6.4Vp-p(5usec/div)	WF No. IC8001-10 (PLAY)  6.4Vp-p(5usec/div)
WF No. IC8001-11 (PLAY)  6Vp-p(5usec/div)	WF No. IC8001-12 (PLAY)  6.8Vp-p(5usec/div)	WF No. IC8001-13 (PLAY)  6.4Vp-p(5usec/div)	WF No. IC8001-14 (PLAY)  6.8Vp-p(5usec/div)
WF No. IC8001-17 (PLAY)  6.4Vp-p(5usec/div)	WF No. IC8001-18 (PLAY)  6.4Vp-p(5usec/div)	WF No. IC8001-59 (PLAY)  0.4Vp-p(500nsec/div)	WF No. IC8001-62,63,64 (PLAY)  5.2Vp-p(500nsec/div)
WF No. IC8001-129 (PLAY)  0.76Vp-p(10usec/div)	WF No. IC8001-130 (PLAY)  0.8Vp-p(10usec/div)	WF No. IC8001-131,138 (PLAY)  1.1Vp-p(20usec/div)	WF No. IC8001-139 (PLAY)  1Vp-p(20usec/div)

13.14. Waveform Table (3/3)

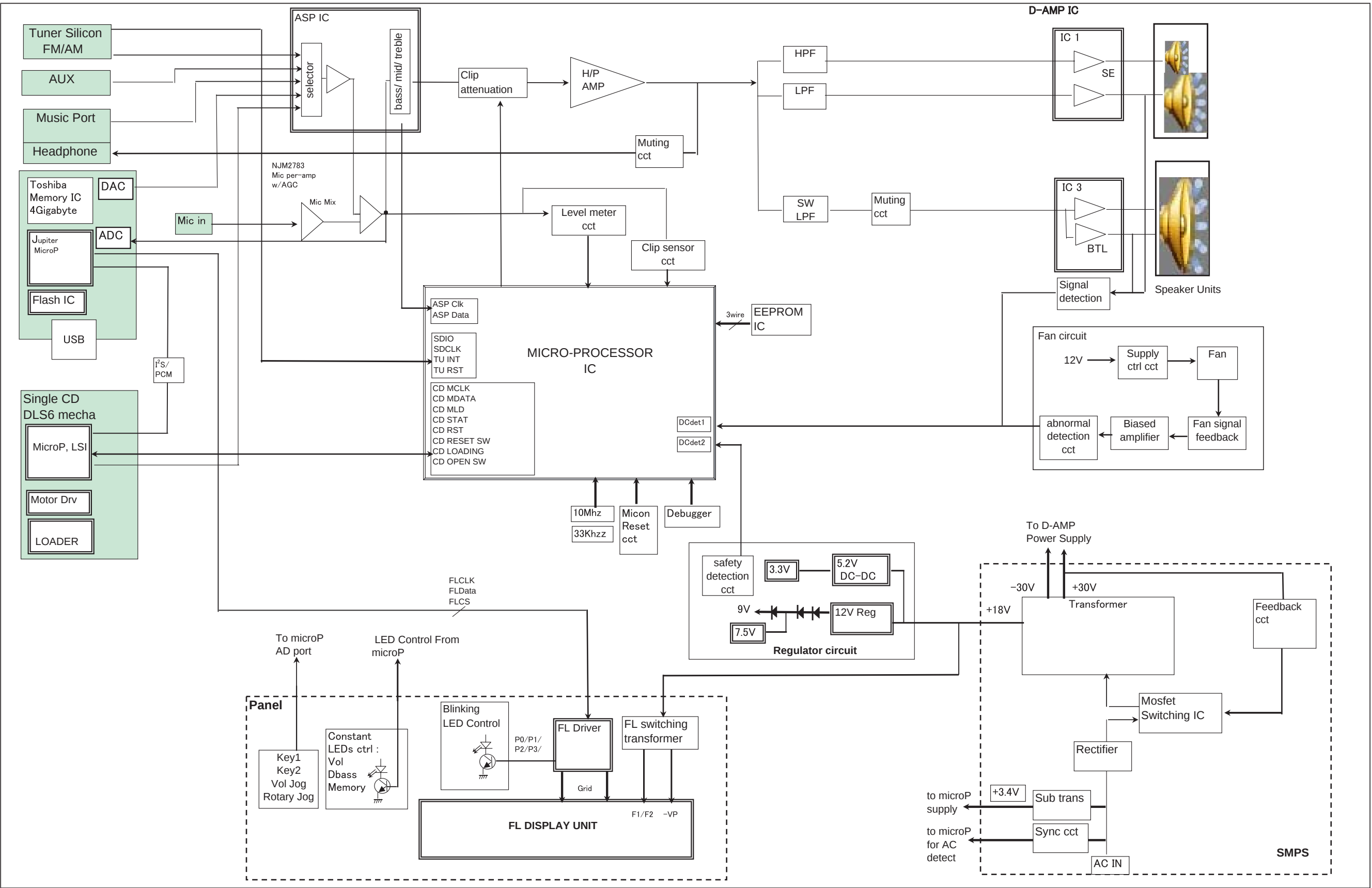
WF No. IC8001-151 (PLAY)  5.6Vp-p(2usec/div)	WF No. IC8001-152 (PLAY)  6Vp-p(1usec/div)	WF No. IC8422-1 (PLAY)  1.5Vp-p(500usec/div)	WF No. IC8422-2 (PLAY)  0.15Vp-p(500usec/div)
WF No. IC8422-9 (PLAY)  9.2Vp-p(500nsec/div)			

14 Illustration of ICs, Transistor and Diode

RFKWMVKX20GA (100P) 	C0HBB0000061 (44P) C1AB00003256 (52P) MN2DS0018MP (216P) 	RFKBX0885A (8P) RFKBX0885B (8P) 	C0AABB000125 (8P) C0ABBB000230 (8P) C0FBAK000026 (16P) C0FBBK000071 (16P) C1AB00003130 (14P) C1BB00000083 (14P) C3EBFY000006 (8P) C3ABPG000160 (54P) C9ZB00000461 (32P)	C1BA00000497 (23P) 	VUEALLPT031 (20P) 
C0JBAB0000908 	C0GBG0000048 (28P) 	RFKWMH61B3D0 (48P) 	C0JBAZ002999 (20P) 	C0DBZYY00311 	C0DBFZG000001 (7P) 
MIP2F20MSSCF (8P) 	C0DBFYY00049 	C5HACYY00005 (7P) 	C0DAAYH00001 (5P) 	C0CAAKG00046 	C0DABFC00002 C0DAEMZ00001 
B1HBECA00004 B1GFGCAA0001 	B1ABDF000026 B1CFHA000002 2SD0601AHL 	B1CBPD000001 	B1GDCFGA0018 B1GDCFJJ0047 B1GDCFJJ0002 	B1ABEB000002 B1ABGC000005 B1ABCF000176 B1ADCF000001 B1ADCE000012 B1ADGB000008 B1GBCFJN0033 B1GBCFJJ0051 B1GBCFLL0037	B1BABK000001 
B1ACCF000094 	B1BAG0000007 	B1BACG000023 	B3AAA0001031 B3AEA0000131 B3AEA0000127 	B0HFRJ000012 	B0ADCC000002 
B0ZAZ0000052 	B0FBAR000043 	B1ADDF000012 B1GBCFJN0038 	B0ACCK000012 	B0BC010A0265 B0BC015A0264 MA2YF8000L 	B0ABSM000008 
	B0BC010A0007 B0BC010A0269 B0BC019A0007 B0BC024A0267 B0BC035A0007 B0BC036A0264 B0BC5R1A0266 B0BC6R100010 B0BC9R000008	B0JCPD000025 B0HCSP000001 		B0EAKM000117 B0EAMM000057 B0JAME000114 B0HAMP000094	B0BC018A0267 B0BC2R4A0263 

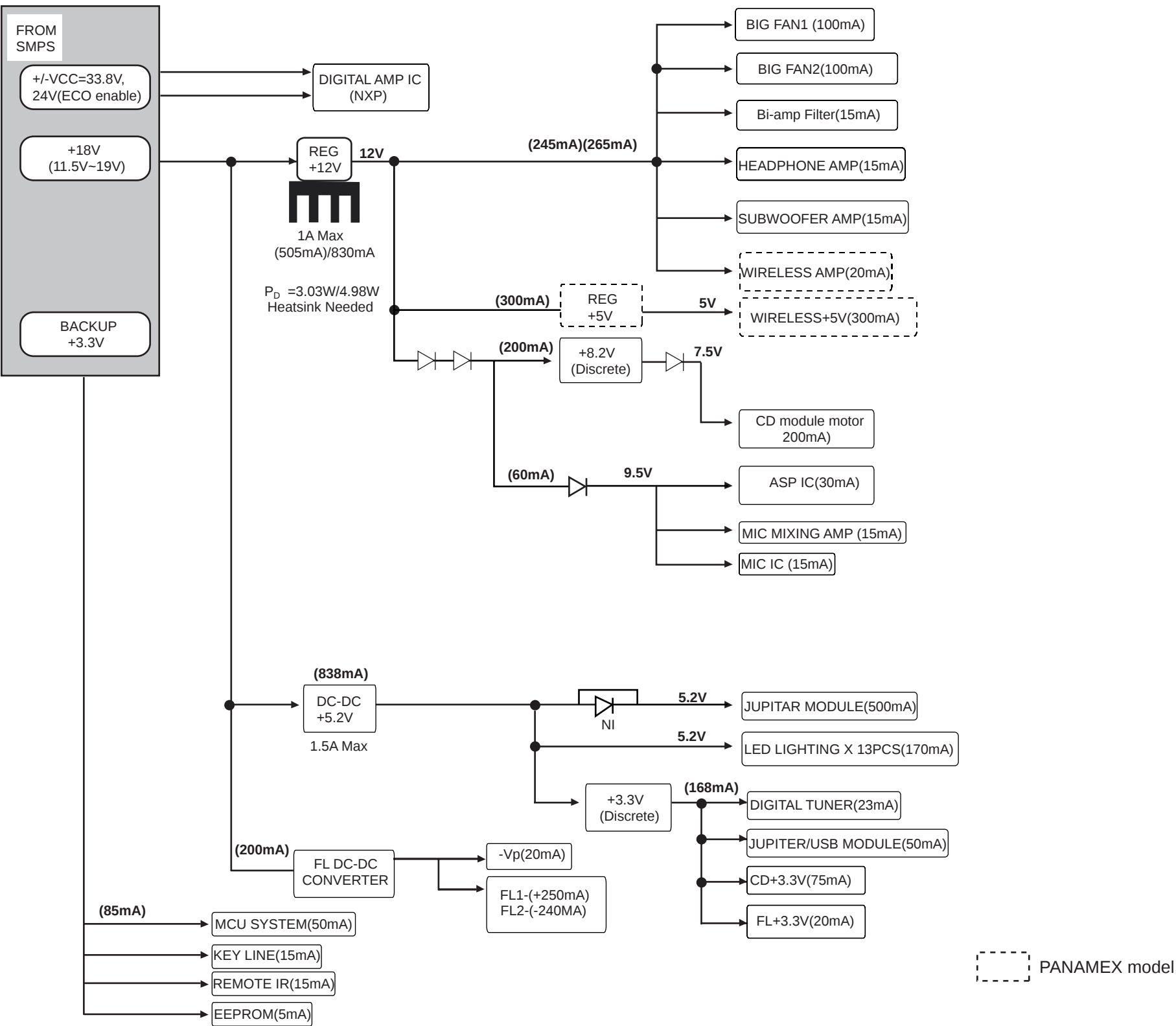
15 Simplified Block Diagram

15.1. Overall Simplified Block Diagram



15.2. D-Amp Block Diagram

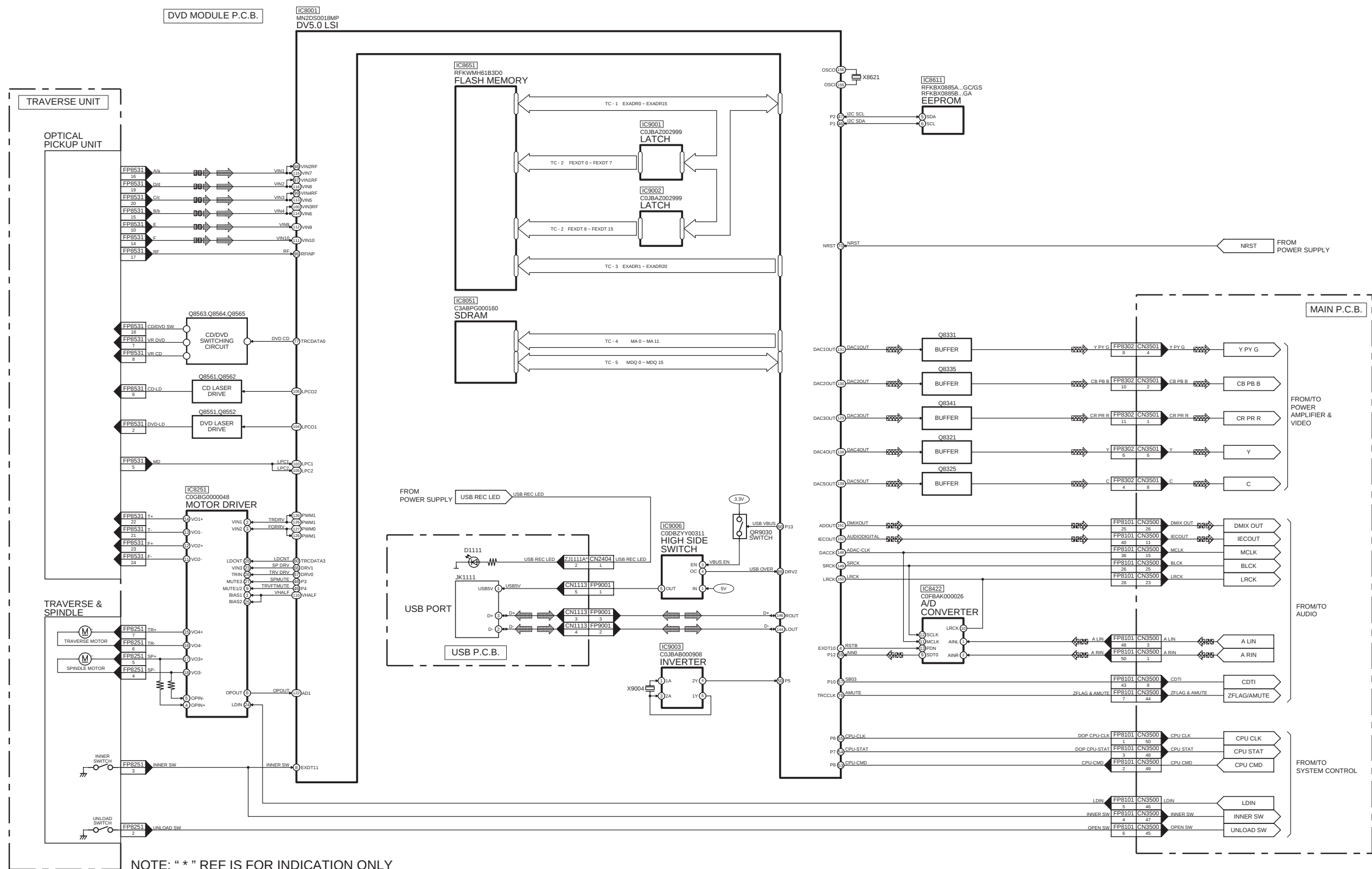
Block Connection Diagram



16 Block Diagram

16.1. DVD Module

⬅️ : CD/DVD AUDIO INPUT SIGNAL LINE ➡️ : CD/DVD VIDEO INPUT SIGNAL LINE 🔊 : AUDIO OUTPUT SIGNAL LINE 📺 : VIDEO OUTPUT SIGNAL LINE 🖱️ : USB SIGNAL LINE



SA-VKX20GA/GC/GS DVD MODULE BLOCK DIAGRAM

16.2. IC Terminal Chart

TC	SIGNAL NAME	IC8001 DV5.0 LSI		IC8651 FLASH MEMORY		IC9001 LATCH		IC9002 LATCH	
		PIN NO	PORT NAME	PIN NO	PORT NAME	PIN NO	PORT NAME	PIN NO	PORT NAME
1	EXADR0 DT0	212	EXADT0	29	DQ0	2	D1	-	-
	EXADR1 DT15	42	EXADT1	45	DQ15	3	D2	-	-
	EXADR2 DT7	41	EXADT2	44	DQ7	4	D3	-	-
	EXADR3 DT14	40	EXADT3	43	DQ14	5	D4	-	-
	EXADR4 DT6	39	EXADT4	42	DQ6	6	D5	-	-
	EXADR5 DT13	38	EXADT5	41	DQ13	7	D6	-	-
	EXADR6 DT5	37	EXADT6	40	DQ5	8	D7	-	-
	EXADR7 DT12	36	EXADT7	39	DQ12	9	D8	-	-
	EXADR8 DT4	29	EXADT8	38	DQ4	-	-	2	D1
	EXADR9 DT11	28	EXADT9	36	DQ11	-	-	3	D2
	EXADR10 DT3	27	EXADT10	35	DQ3	-	-	4	D3
	EXADR11 DT10	26	EXADT11	34	DQ10	-	-	5	D4
	EXADR12 DT2	25	EXADT12	33	DQ2	-	-	6	D5
	EXADR13 DT9	24	EXADT13	32	DQ9	-	-	7	D6
	EXADR14 DT1	23	EXADT14	31	DQ1	-	-	8	D7
	EXADR15 DT8	22	EXADT15	30	DQ8	-	-	9	D8

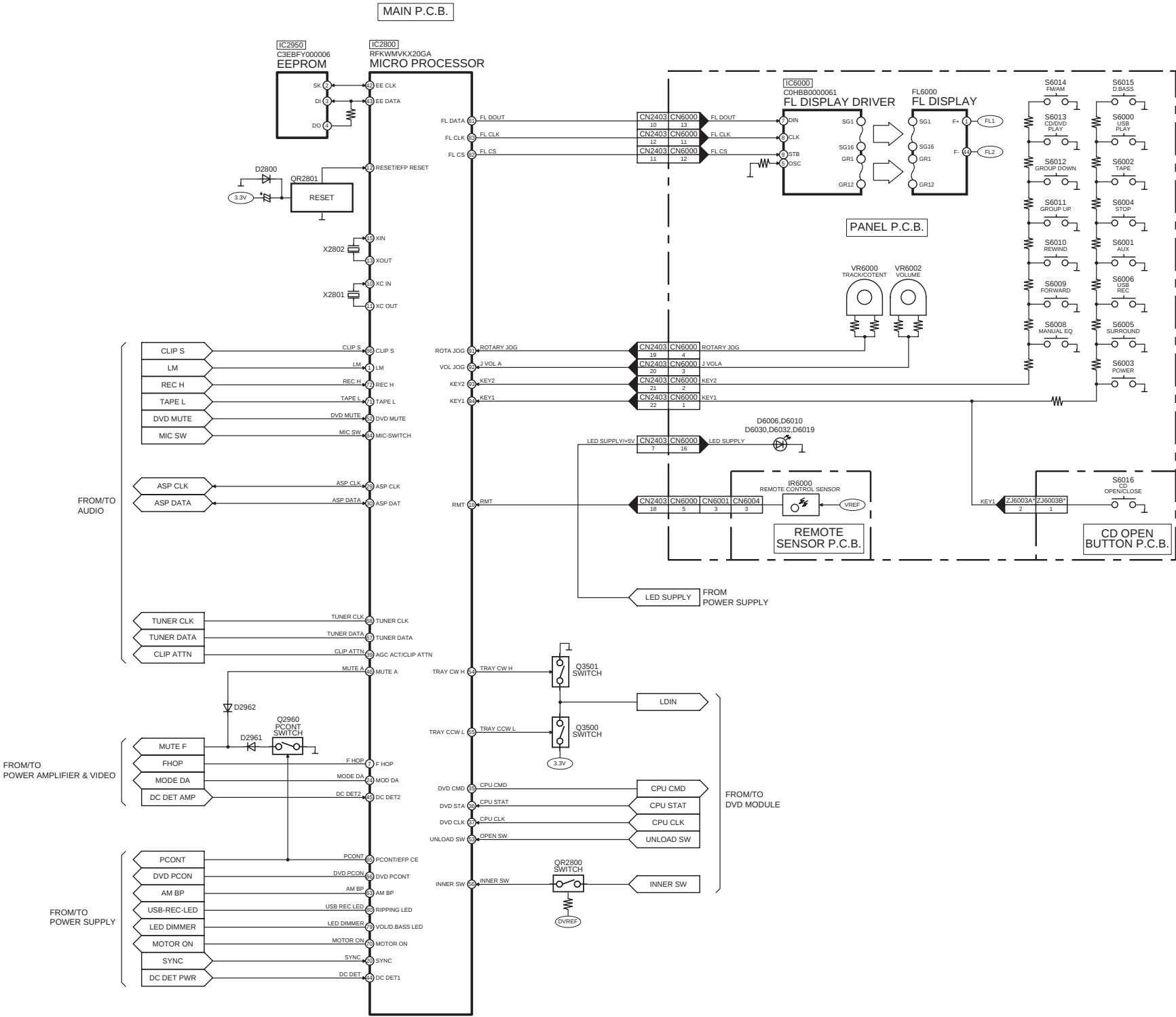
TC	IC8001 DV5.0 LSI		SIGNAL NAME	IC8051 SDRAM	
	PORT NAME	PIN NO		PIN NO	PORT NAME
4	MA0	201	MA 0	23	A0
	MA1	203	MA 1	24	A1
	MA2	207	MA 2	25	A2
	MA3	209	MA 3	26	A3
	MA4	208	MA 4	29	A4
	MA5	206	MA 5	30	A5
	MA6	202	MA 6	31	A6
	MA7	200	MA 7	32	A7
	MA8	198	MA 8	33	A8
	MA9	194	MA 9	34	A9
	MA10	199	MA 10	22	A10
	MA11	192	MA 11	35	A11

TC	SIGNAL NAME	IC8651 FLASH MEMORY		IC9001 LATCH		IC9002 LATCH	
		PIN NO	PORT NAME	PIN NO	PORT NAME	PIN NO	PORT NAME
2	FEXDT 0	25	A0	19	Q1	-	-
	FEXDT 1	24	A1	18	Q2	-	-
	FEXDT 2	23	A2	17	Q3	-	-
	FEXDT 3	22	A3	16	Q4	-	-
	FEXDT 4	21	A4	15	Q5	-	-
	FEXDT 5	20	A5	14	Q6	-	-
	FEXDT 6	19	A6	13	Q7	-	-
	FEXDT 7	18	A7	12	Q8	-	-
	FEXDT 8	8	A8	-	-	19	Q1
	FEXDT 9	7	A9	-	-	18	Q2
	FEXDT 10	6	A10	-	-	17	Q3
	FEXDT 11	5	A11	-	-	16	Q4
	FEXDT 12	4	A12	-	-	15	Q5
	FEXDT 13	3	A13	-	-	14	Q6
	FEXDT 14	2	A14	-	-	13	Q7
	FEXDT 15	1	A15	-	-	12	Q8

TC	IC8001 DV5.0 LSI		SIGNAL NAME	IC8051 SDRAM	
	PORT NAME	PIN NO		PIN NO	PORT NAME
5	MDQ0	160	MDQ 0	2	DQ0
	MDQ1	162	MDQ 1	4	DQ1
	MDQ2	164	MDQ 2	5	DQ2
	MDQ3	168	MDQ 3	7	DQ3
	MDQ4	170	MDQ 4	8	DQ4
	MDQ5	172	MDQ 5	10	DQ5
	MDQ6	176	MDQ 6	11	DQ6
	MDQ7	178	MDQ 7	13	DQ7
	MDQ8	177	MDQ 8	42	DQ8
	MDQ9	175	MDQ 9	44	DQ9
	MDQ10	171	MDQ 10	45	DQ10
	MDQ11	169	MDQ 11	47	DQ11
	MDQ12	167	MDQ 12	48	DQ12
	MDQ13	163	MDQ 13	50	DQ13
	MDQ14	161	MDQ 14	51	DQ14
	MDQ15	159	MDQ 15	53	DQ15

TC	IC8001 DV5.0 LSI		SIGNAL NAME	IC8651 FLASH MEMORY	
	PORT NAME	PIN NO		PIN NO	PORT NAME
3	EXADR16	21	C0A0	48	A16
	EXADR17	35	C0A1	17	A17
	EXADR18	34	C0A2	16	A18
	EXADR19	30	C0A3	9	A19
	EXADR20	45	C0A4	10	A20

16.3. System Control

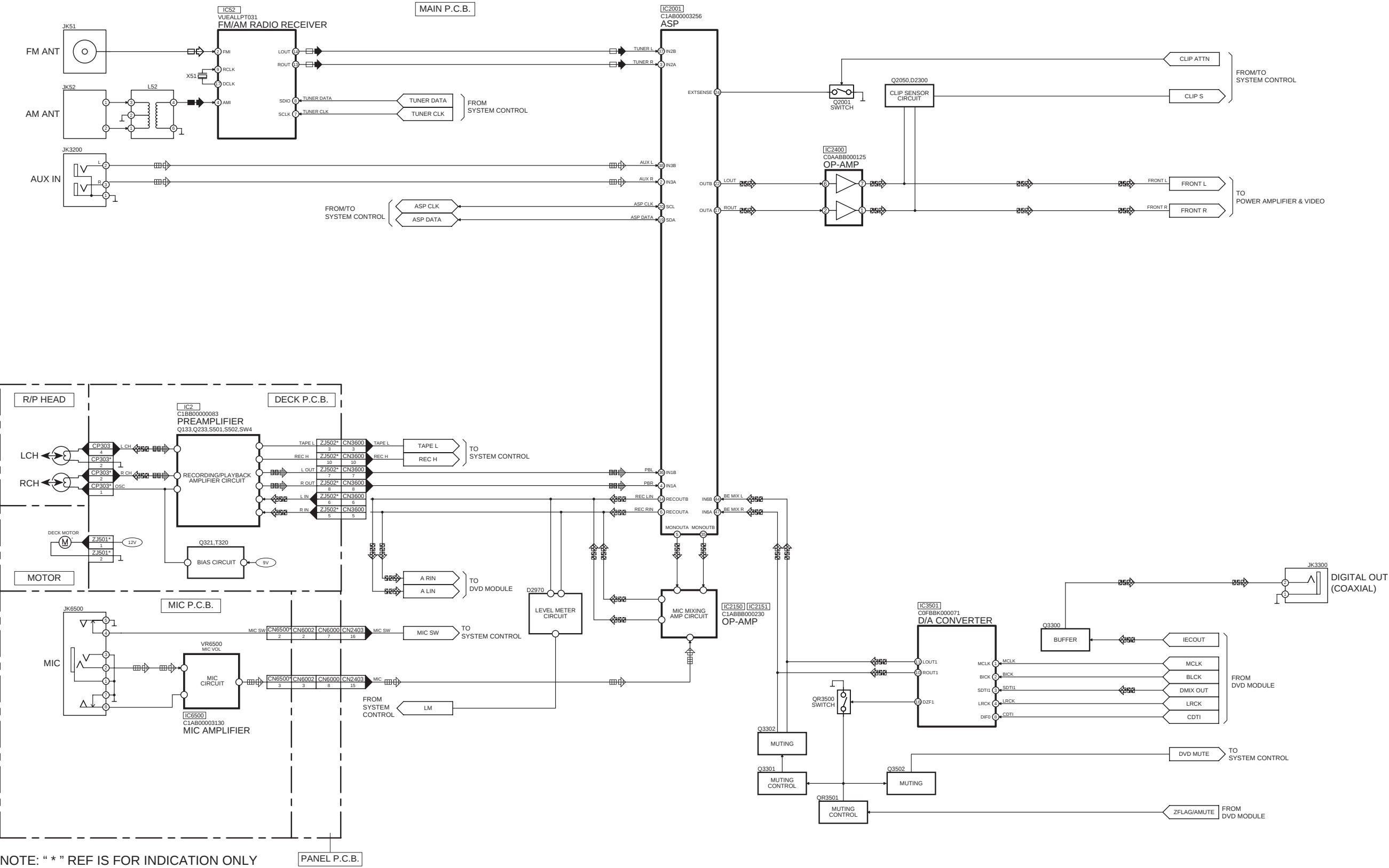


NOTE: “ * ” REF IS FOR INDICATION ONLY

SA-VKX20GA/GC/GS SYSTEM CONTROL BLOCK DIAGRAM

16.4. Audio

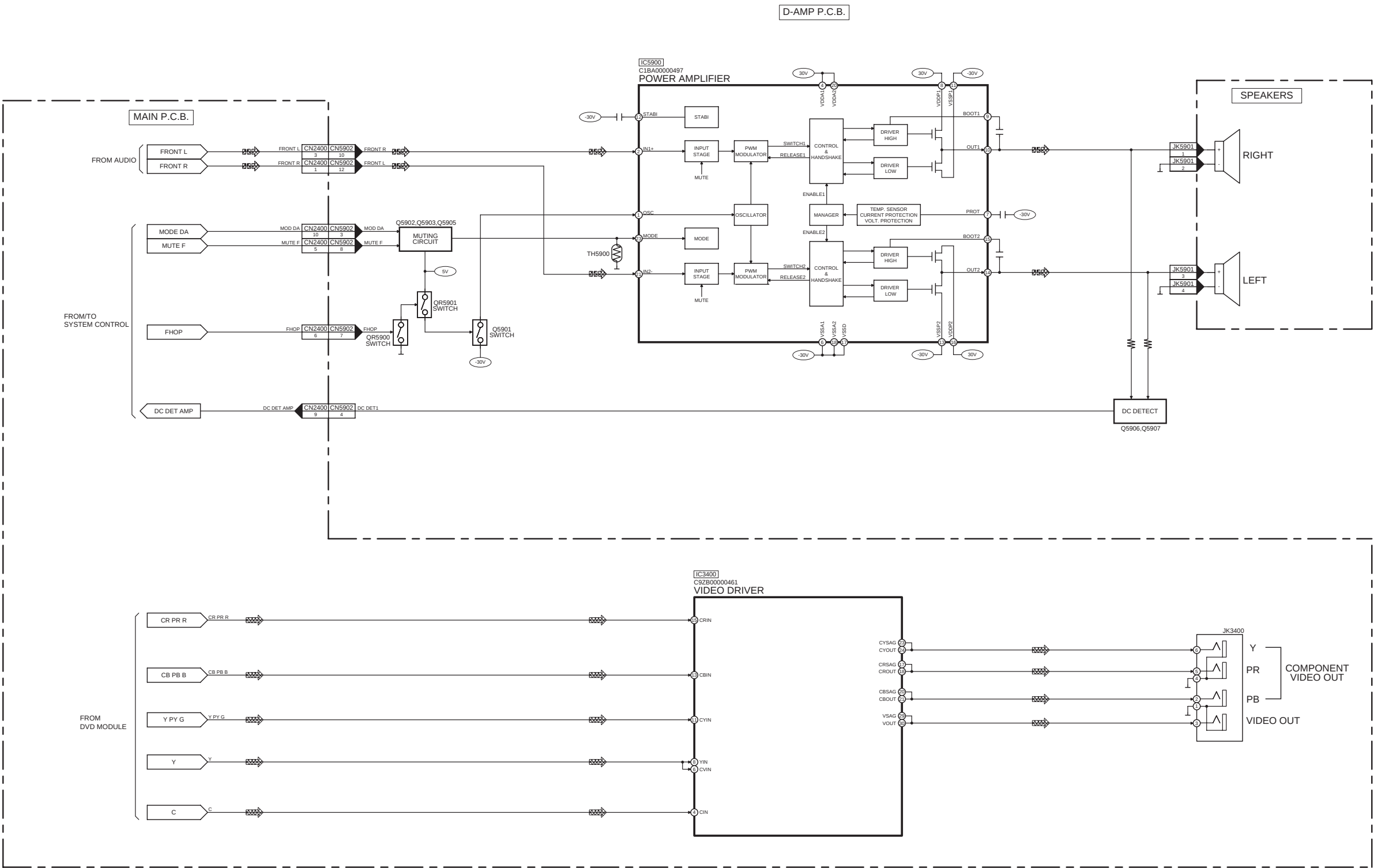
 : TAPE AUDIO INPUT SIGNAL LINE
  : AUX/MIC AUDIO INPUT SIGNAL LINE
  : AUDIO OUTPUT SIGNAL LINE
  : AM SIGNAL LINE
  : FM SIGNAL LINE
  : AM/FM SIGNAL LINE



SA-VKX20GA/GC/GS AUDIO BLOCK DIAGRAM

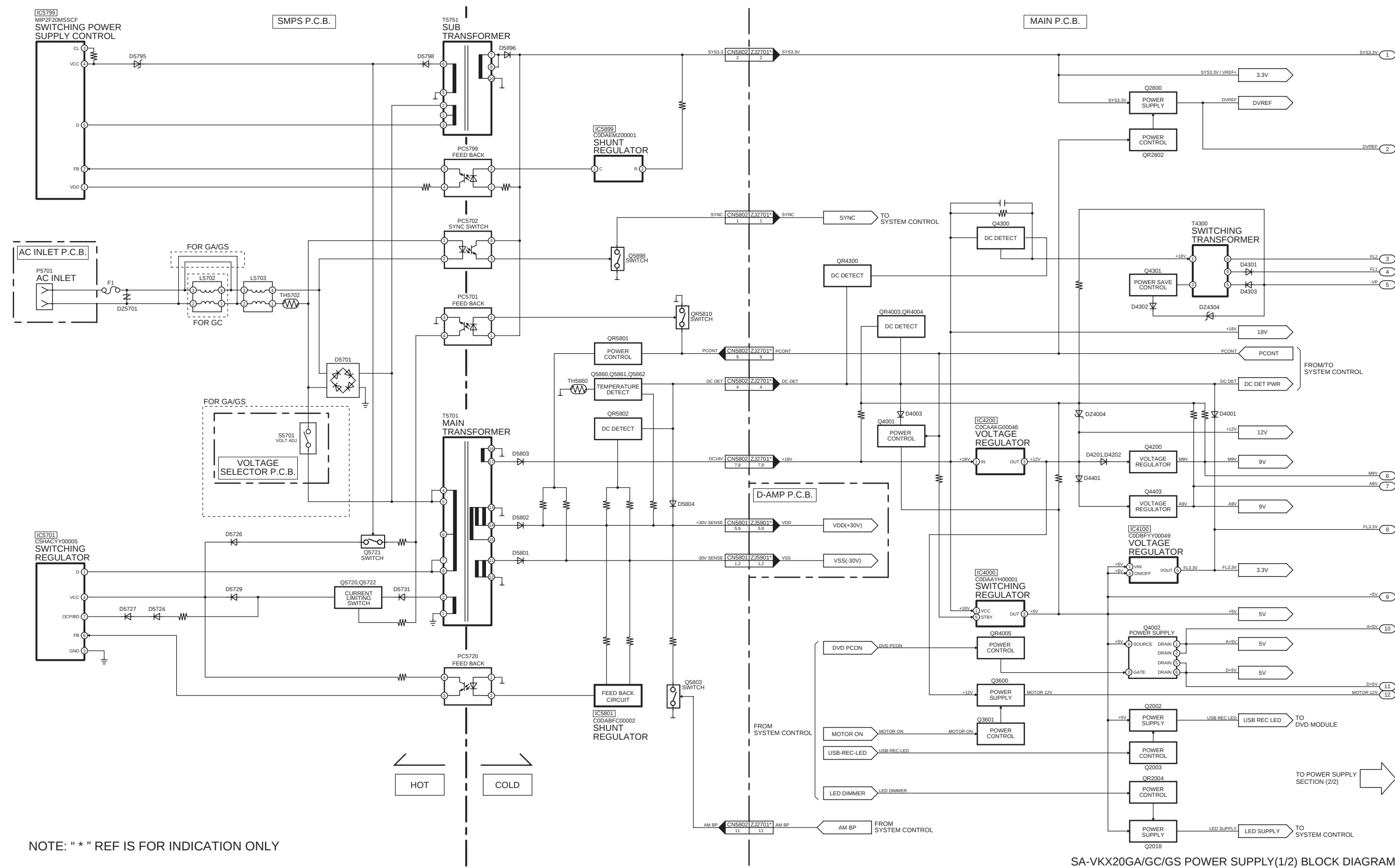
16.5. Power Amplifier & Video

 : AUDIO OUTPUT SIGNAL LINE
  : VIDEO OUTPUT SIGNAL LINE

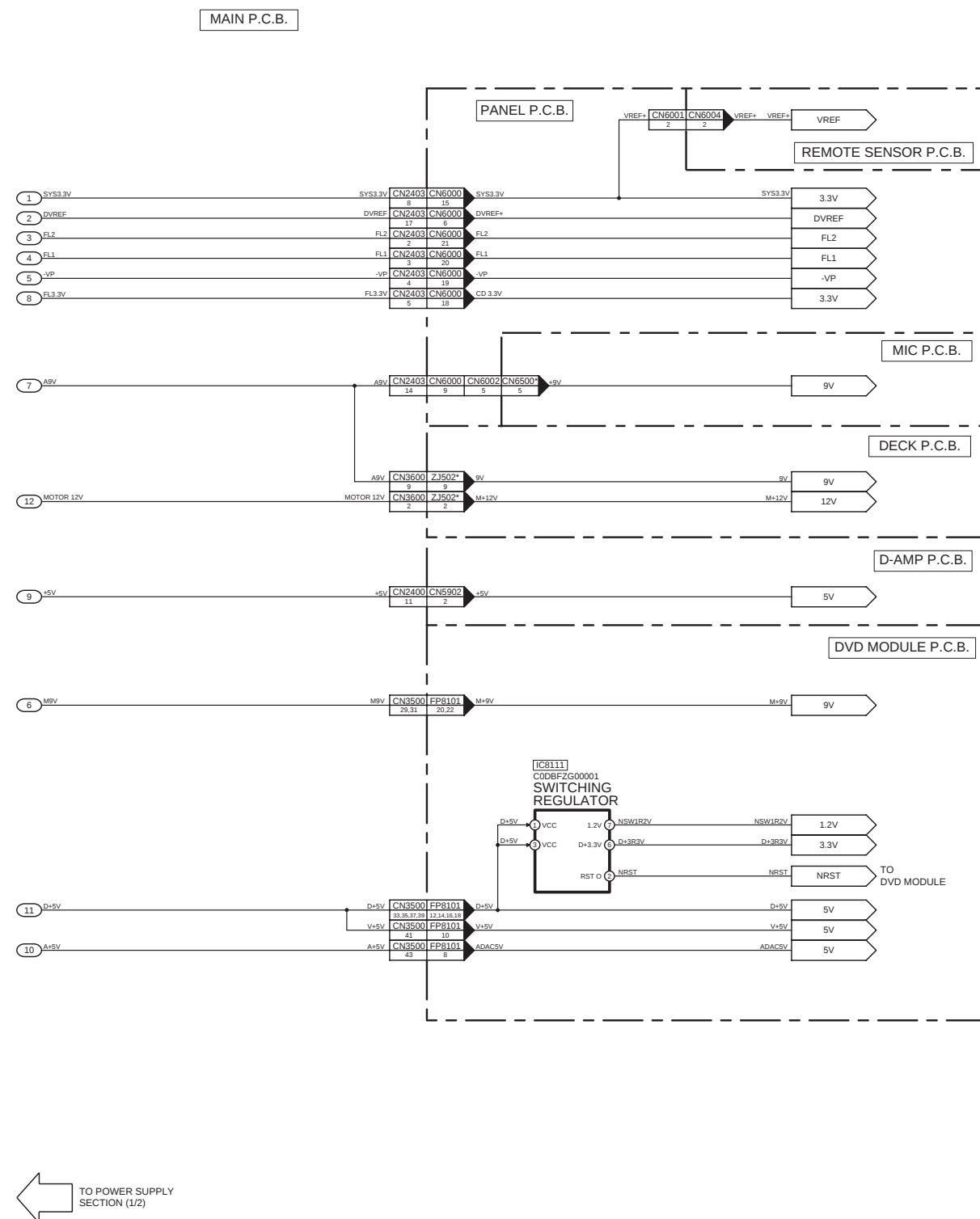


SA-VKX20GA/GC/GS POWER AMPLIFIER & VIDEO BLOCK DIAGRAM

16.6. Power Supply

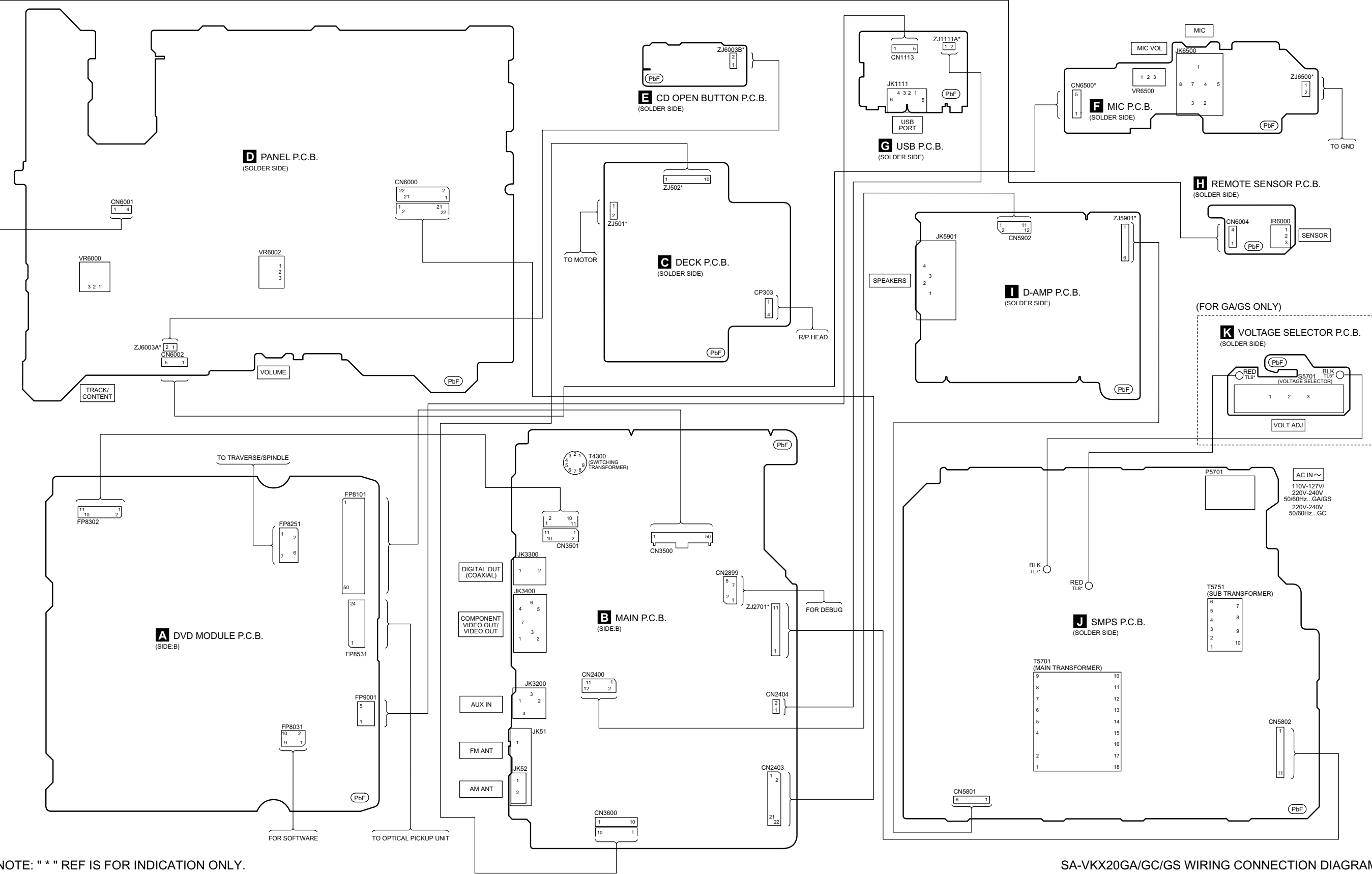


NOTE: " * " REF IS FOR INDICATION ONLY



NOTE: “ * ” REF IS FOR INDICATION ONLY

17 Wiring Diagram



SA-VKX20GA/GC/GS WIRING CONNECTION DIAGRAM

18 Schematic Diagram

18.1. Schematic Diagram Notes

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

Notes:

S501:	Leaf switch.
S502:	Cue/Rev switch.
SW4:	Recording/Playback switch.
S6000:	USB Play (▶) switch.
S6001:	Aux switch.
S6002:	Tape switch.
S6003:	Power switch (⏻).
S6004:	Stop (■) switch.
S6005:	Surround switch.
S6006:	USB Rec (●) switch.
S6008:	Manual EQ switch.
S6009:	Forward (▶▶▶/▶▶▶) switch.
S6010:	Rewind (◀◀◀/◀◀◀) switch.
S6011:	Group Up (↗) switch.
S6012:	Group Down (↘) switch.
S6013:	CD/DVD Play (▶) switch.
S6014:	FM/AM switch.
S6015:	D.BASS switch.
S6016:	CD Open/Close switch (▲).
VR6000:	TRACK/CONTENT Jog.
VR6002:	VOLUME JOG.
VR6500:	MIC VOL JOG.
S5701:	VOLT ADJ (GA/GS only).

- 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 GA/GS only:

C5701, C5703, C5704, C5705, C5708

For GC only:

C5700, C5701, C5703, C5706, C5707, C5708

- Resistor

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

- Capacitor

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

- Coil

Unit of inductance is H, unless otherwise noted.

- *

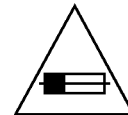
REF IS FOR INDICATION ONLY.

- Voltage and signal line

—	: +B signal line
---	: -B signal line
⏮	: CD/DVD/Tape Audio input signal line
⏭	: CD/DVD Video input signal line
⏮	: AUX/Mic Audio input signal line
⏭	: Audio output signal line
⏮	: Video output signal line
⏭	: USB signal line
⏮	: AM/FM signal line
⏭	: AM signal line
⏮	: FM signal line

- For GA/GS only

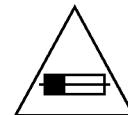
CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE F1 T6.3AL 250V FUSE



RISK OF FIRE-REPLACE FUSE AS MARKED.

- For GC only

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



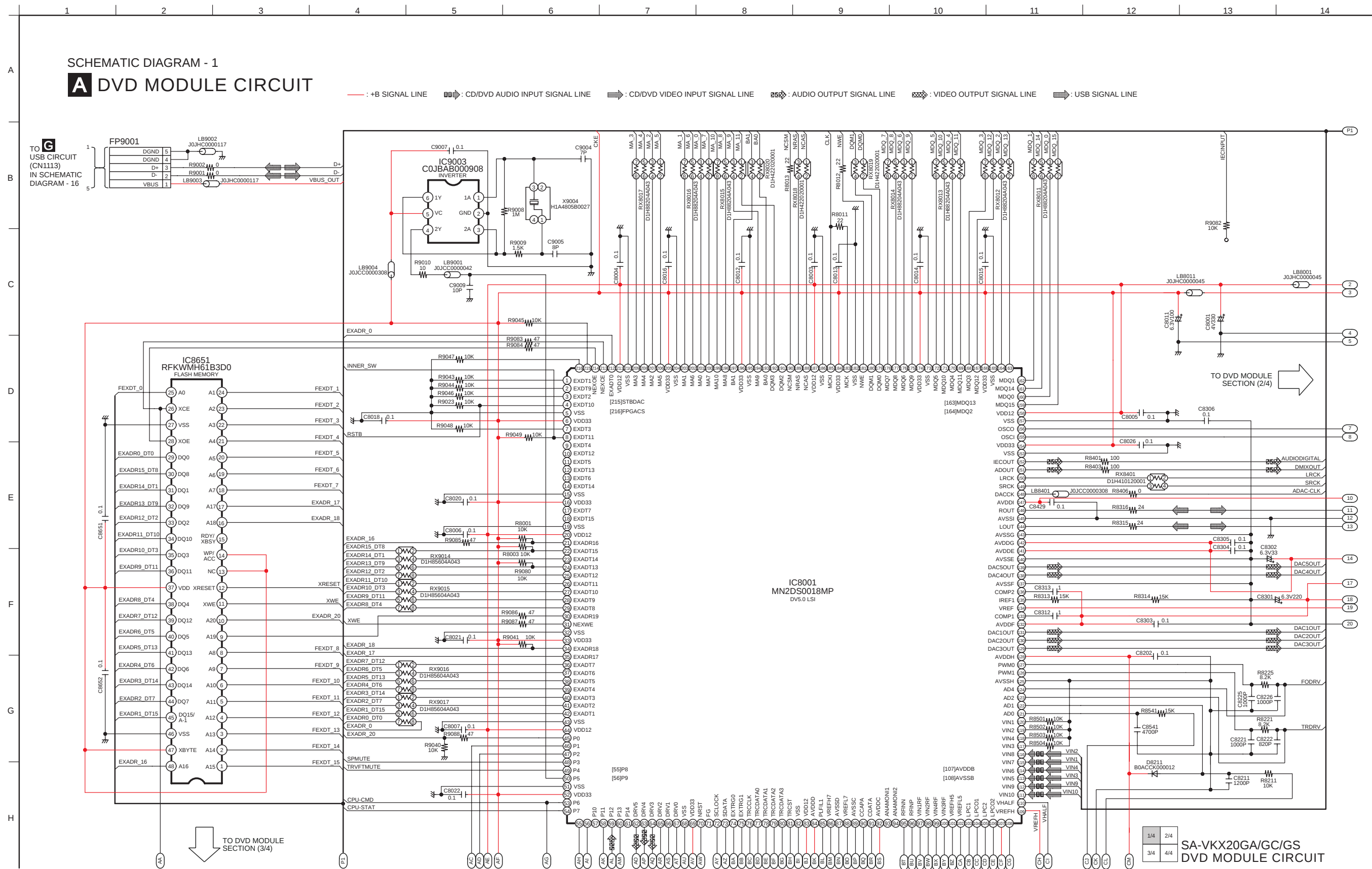
RISK OF FIRE-REPLACE FUSE AS MARKED.

FUSE CAUTION



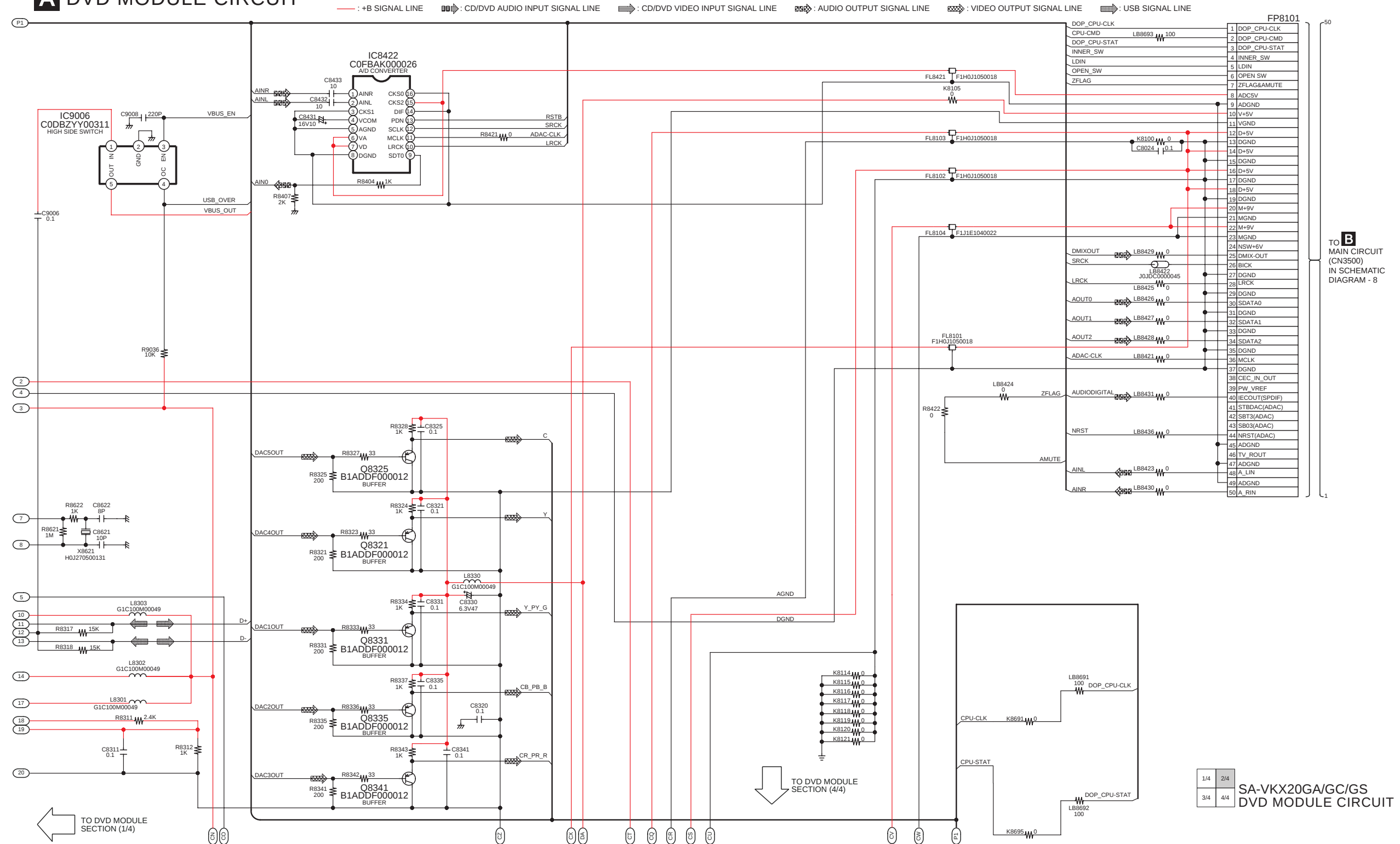
These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection against fire hazard, replace with the same type fuse. For rating, refer to the marking adjacent to the symbol.

18.2. DVD Module Circuit



SCHEMATIC DIAGRAM - 2

A DVD MODULE CIRCUIT



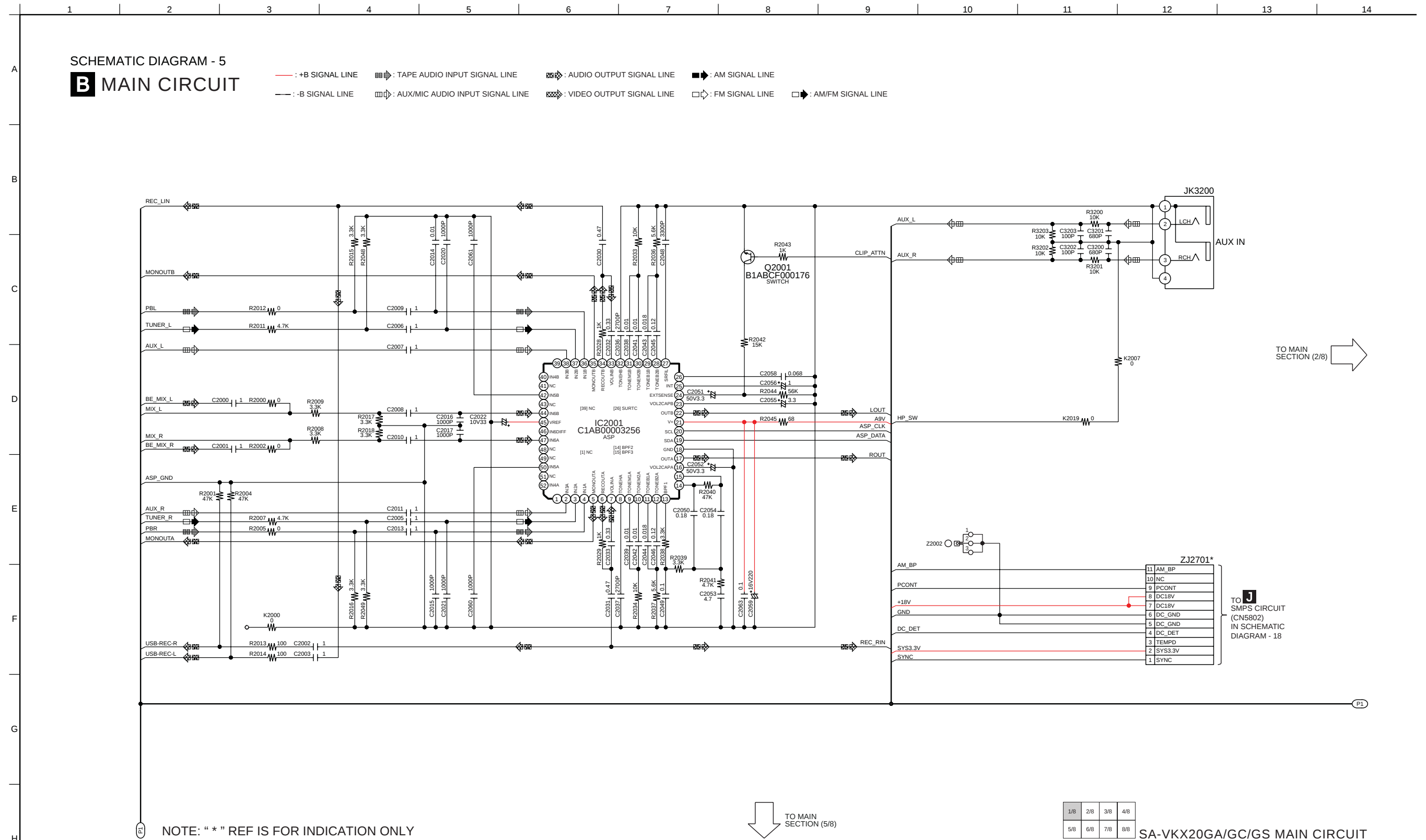
A DVD MODULE CIRCUIT



A DVD MODULE CIRCUIT



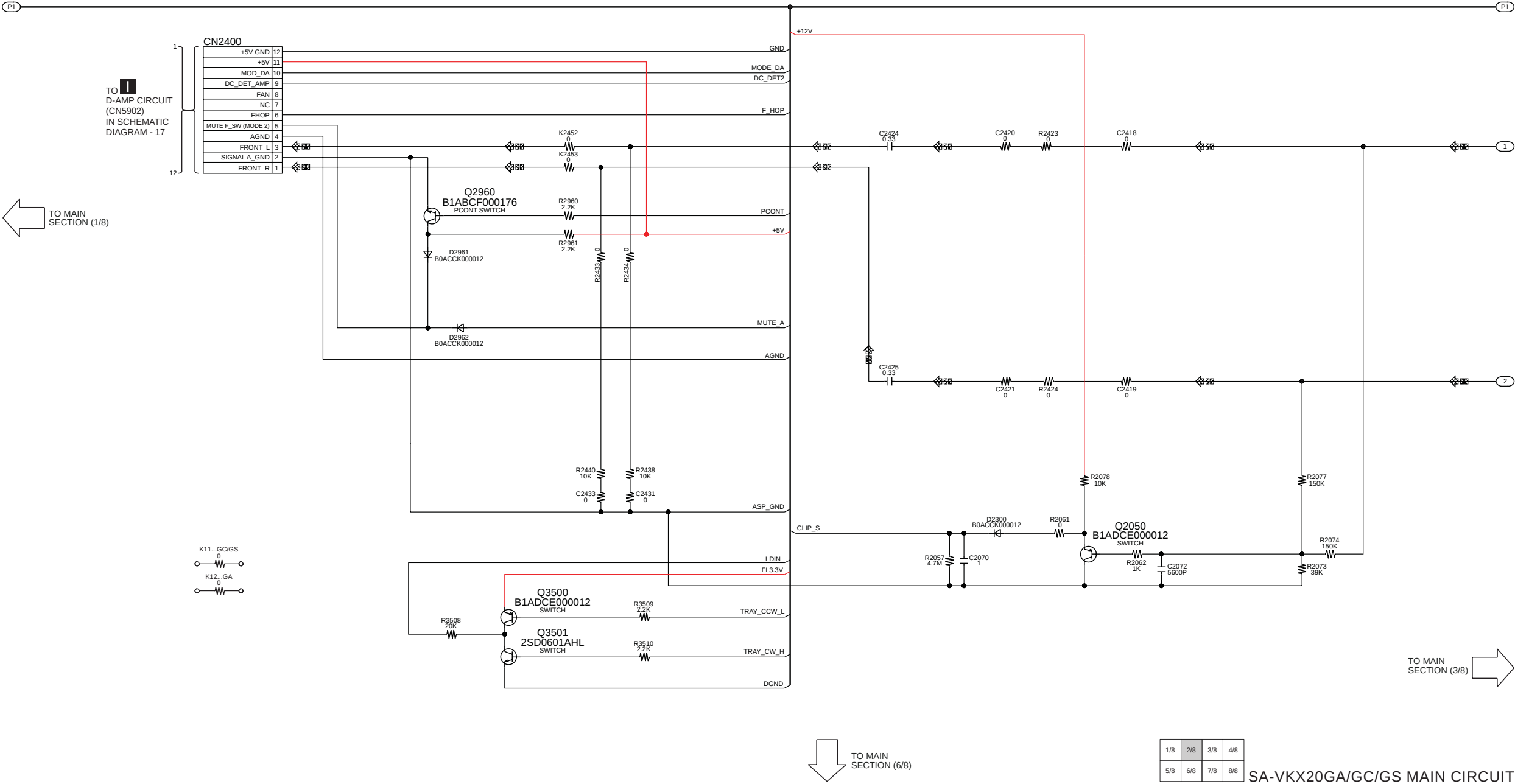
18.3. Main Circuit



SCHEMATIC DIAGRAM - 6

B MAIN CIRCUIT

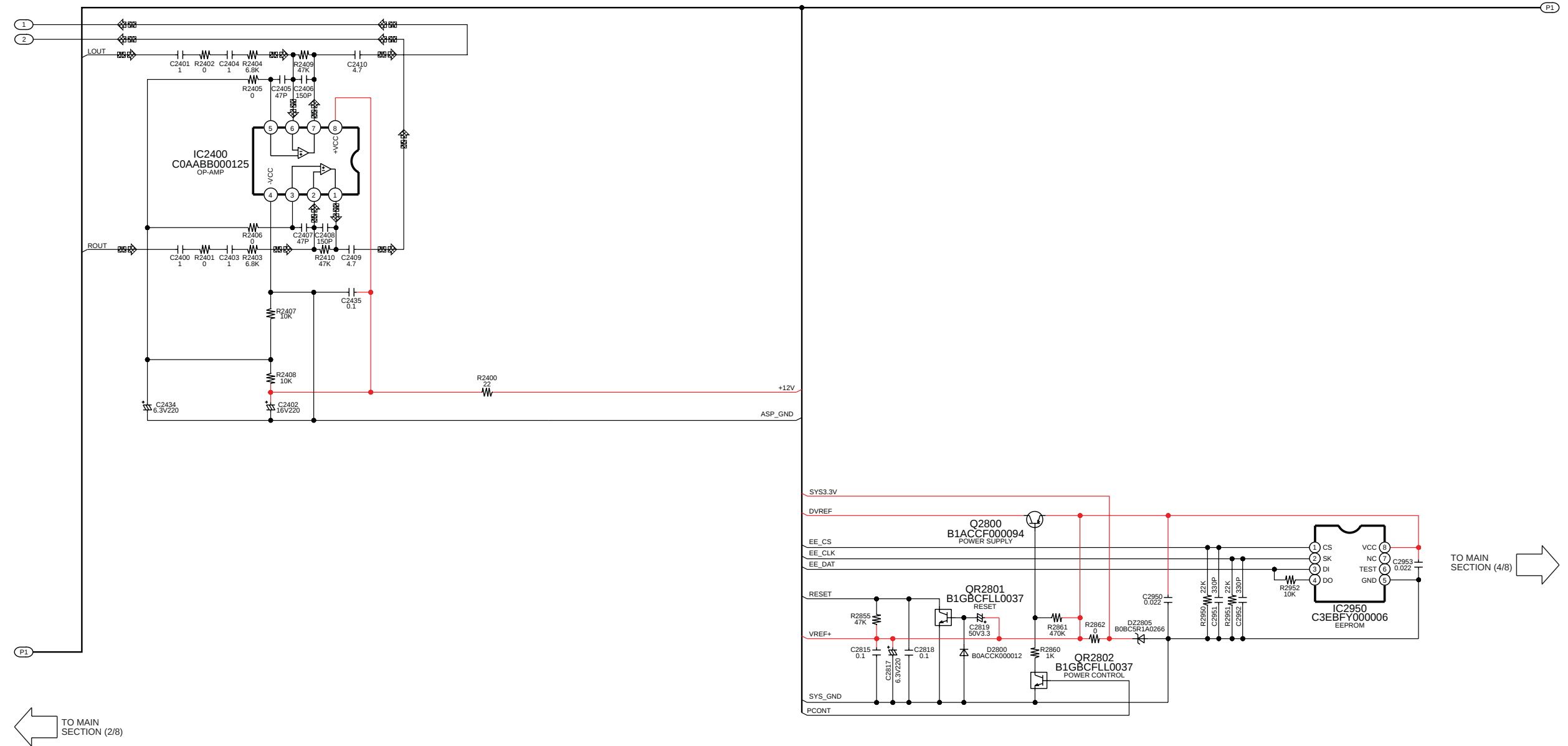
- : +B SIGNAL LINE
- : TAPE AUDIO INPUT SIGNAL LINE
- : AUDIO OUTPUT SIGNAL LINE
- : AM SIGNAL LINE
- : -B SIGNAL LINE
- : AUX/MIC AUDIO INPUT SIGNAL LINE
- : VIDEO OUTPUT SIGNAL LINE
- : FM SIGNAL LINE
- : AM/FM SIGNAL LINE



SCHEMATIC DIAGRAM - 7

B MAIN CIRCUIT

- : +B SIGNAL LINE  : TAPE AUDIO INPUT SIGNAL LINE  : AUDIO OUTPUT SIGNAL LINE  : AM SIGNAL LINE
— : -B SIGNAL LINE  : AUX/MIC AUDIO INPUT SIGNAL LINE  : VIDEO OUTPUT SIGNAL LINE  : FM SIGNAL LINE  : AM/FM SIGNAL LINE



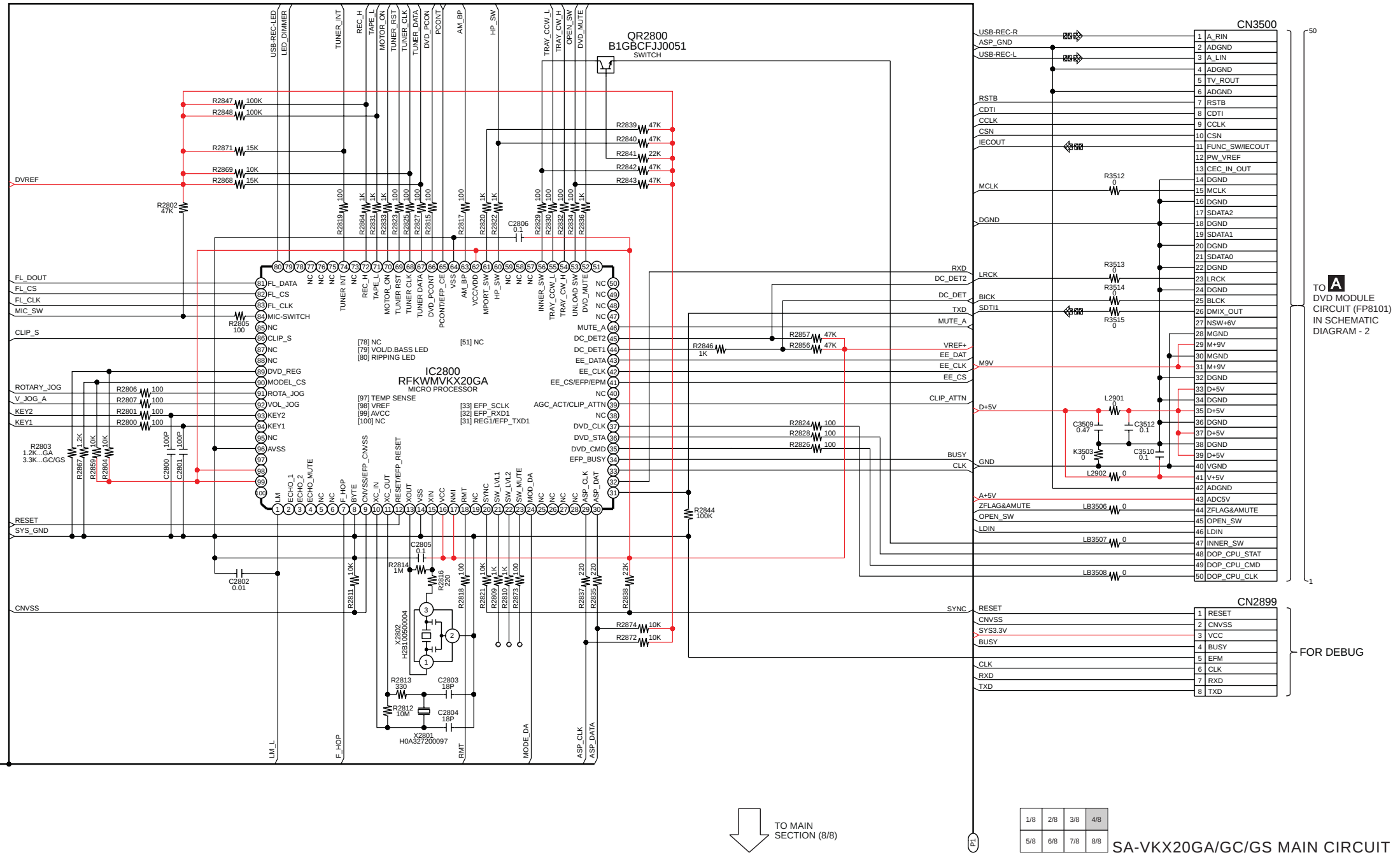
TO MAIN
SECTION (2/8)

TO MAIN
SECTION (7/8)

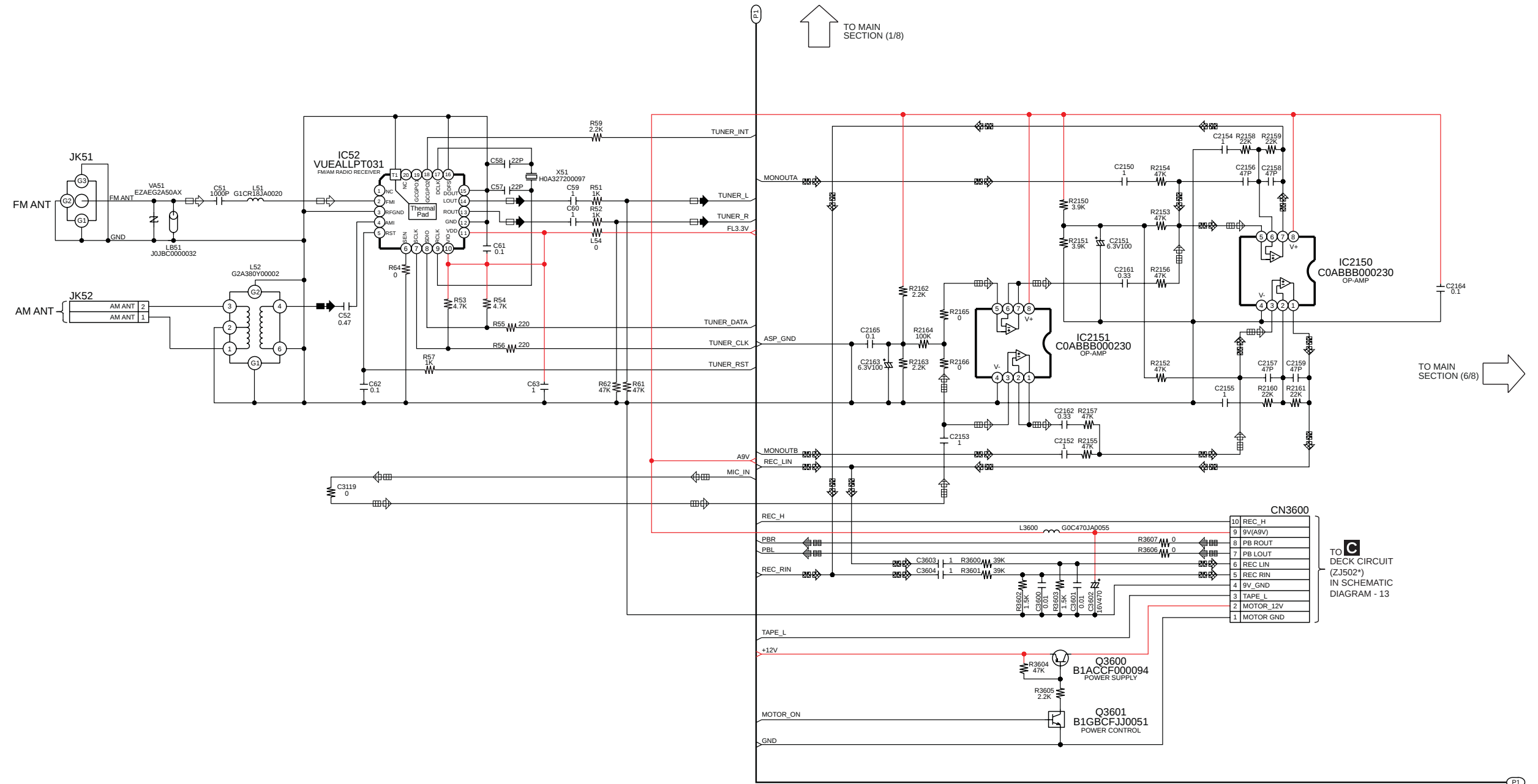
1/8	2/8	3/8	4/8
5/8	6/8	7/8	8/8

SA-VKX20GA/GC/GS MAIN CIRCUIT

B MAIN CIRCUIT



B MAIN CIRCUIT



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

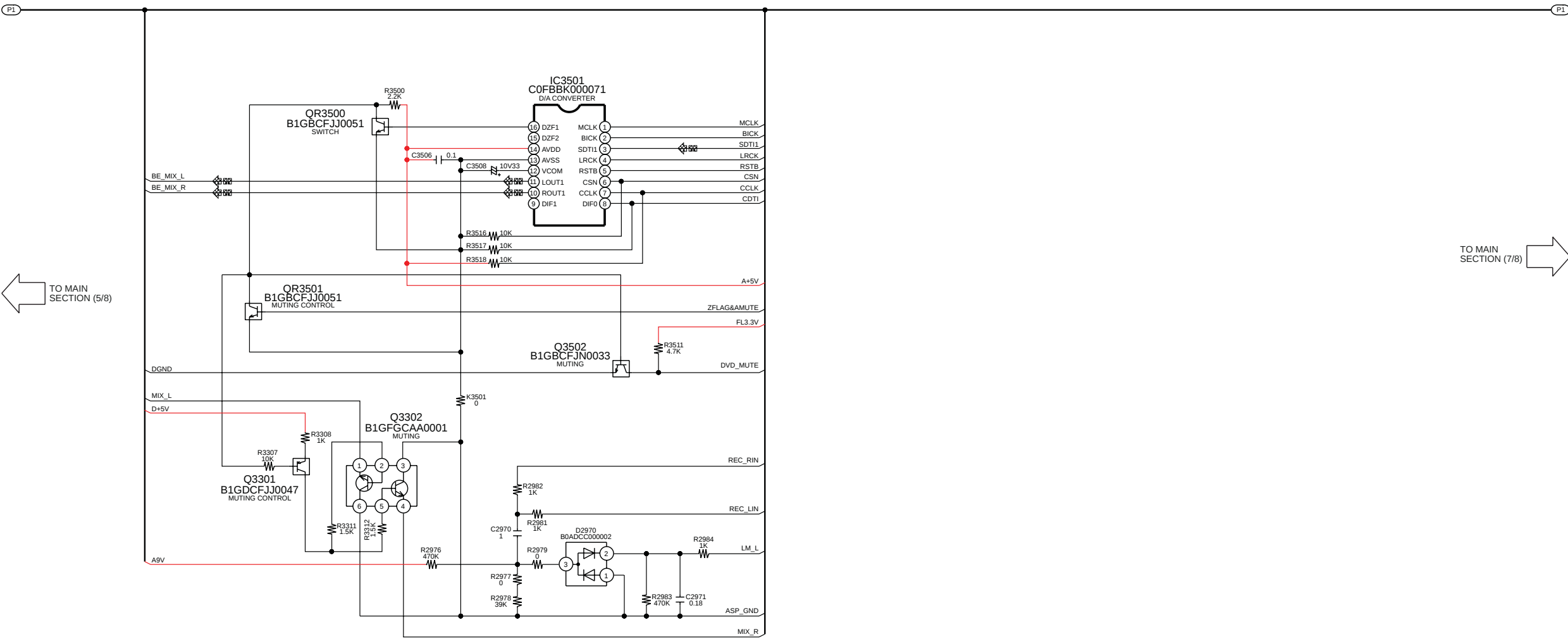
SA-VKX20GA/GC/GS MAIN CIRCUIT

SCHEMATIC DIAGRAM - 10

B MAIN CIRCUIT

— : +B SIGNAL LINE : TAPE AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : AM SIGNAL LINE
— : -B SIGNAL LINE : AUX/MIC AUDIO INPUT SIGNAL LINE : VIDEO OUTPUT SIGNAL LINE : FM SIGNAL LINE : AM/FM SIGNAL LINE

↑ TO MAIN
SECTION (2/8)

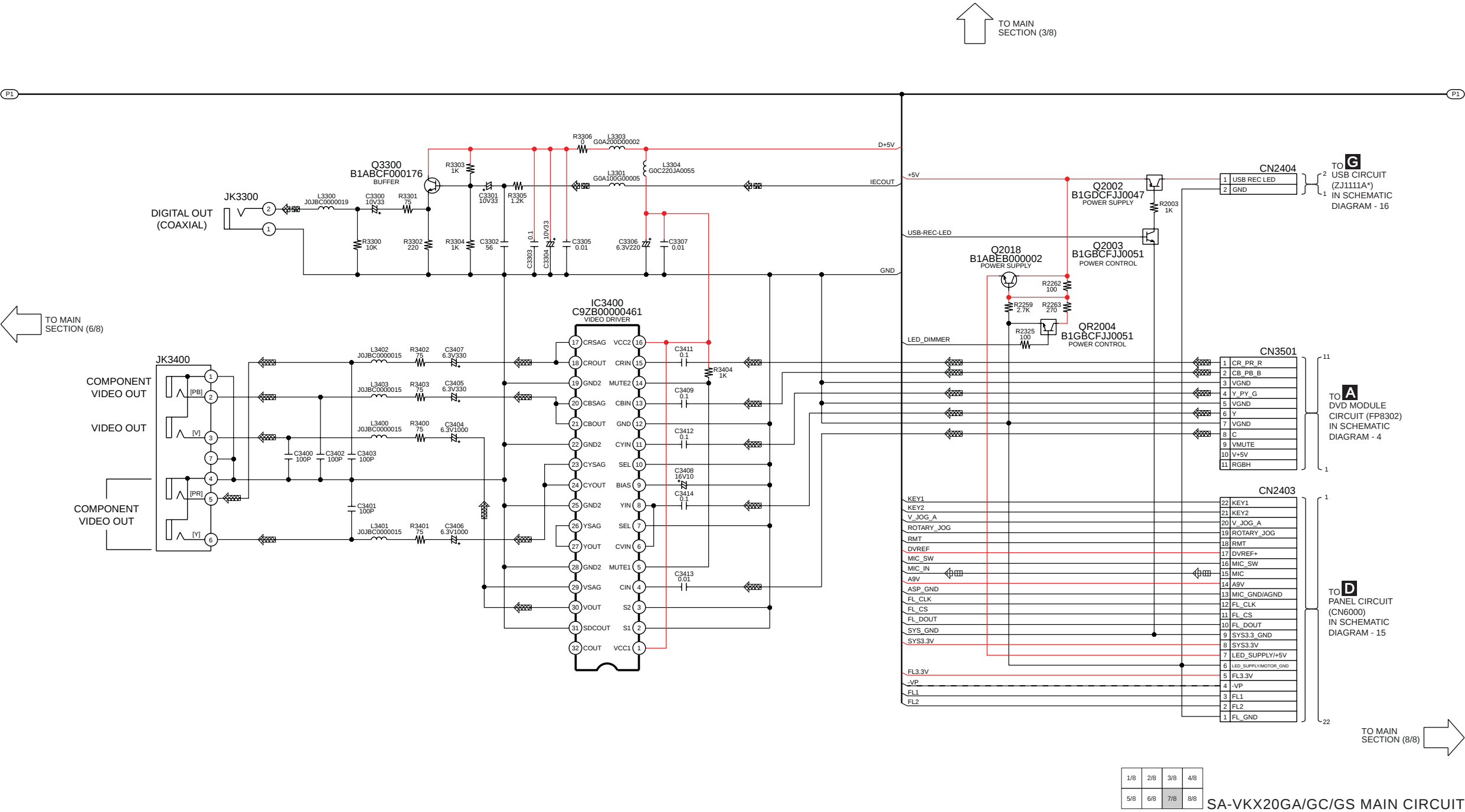


1/8	2/8	3/8	4/8
5/8	6/8	7/8	8/8

SA-VKX20GA/GC/GS MAIN CIRCUIT

SCHEMATIC DIAGRAM - 11
B MAIN CIRCUIT

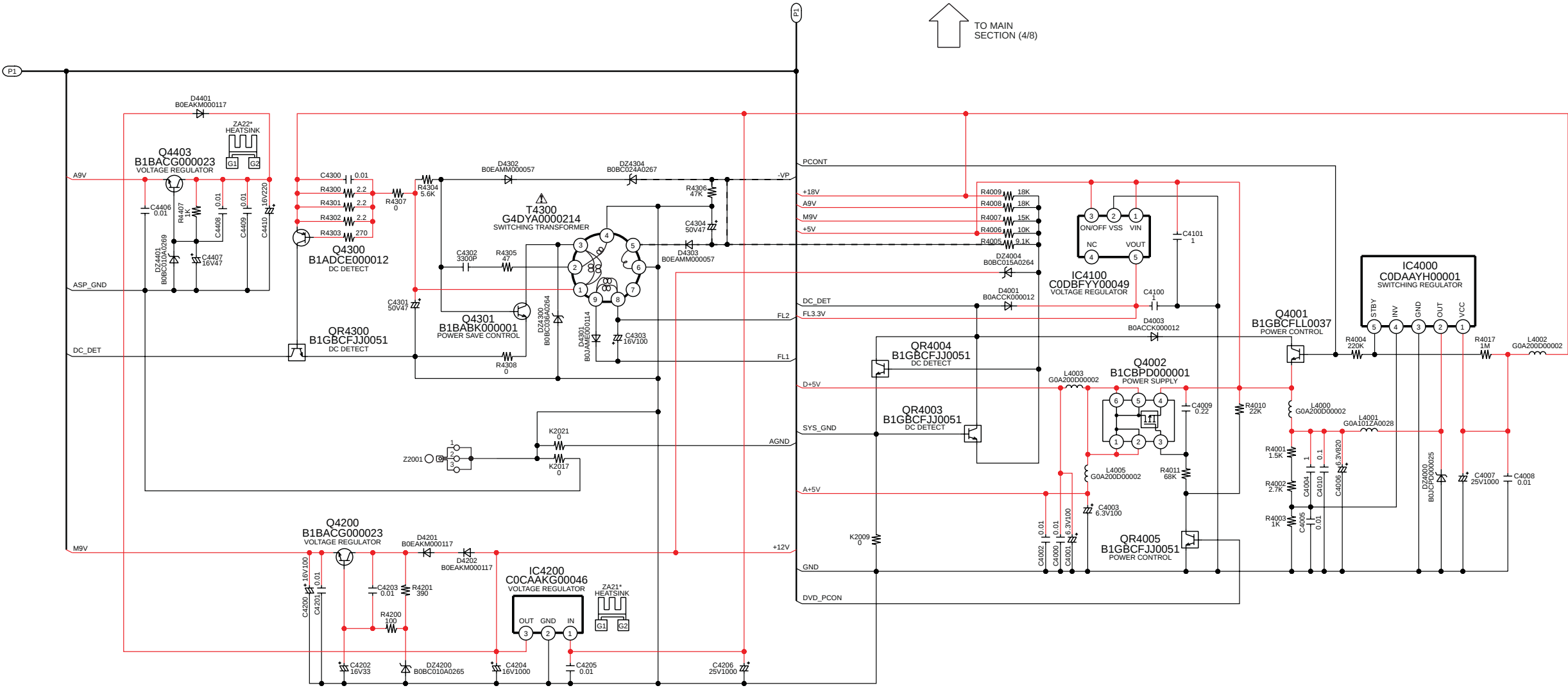
— : +B SIGNAL LINE : TAPE AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : AM SIGNAL LINE
— : -B SIGNAL LINE : AUX/MIC AUDIO INPUT SIGNAL LINE : VIDEO OUTPUT SIGNAL LINE : FM SIGNAL LINE : AM/FM SIGNAL LINE



SCHEMATIC DIAGRAM - 12

B MAIN CIRCUIT

— : +B SIGNAL LINE : TAPE AUDIO INPUT SIGNAL LINE : AUDIO OUTPUT SIGNAL LINE : AM SIGNAL LINE
— : -B SIGNAL LINE : AUX/MIC AUDIO INPUT SIGNAL LINE : VIDEO OUTPUT SIGNAL LINE : FM SIGNAL LINE : AM/FM SIGNAL LINE



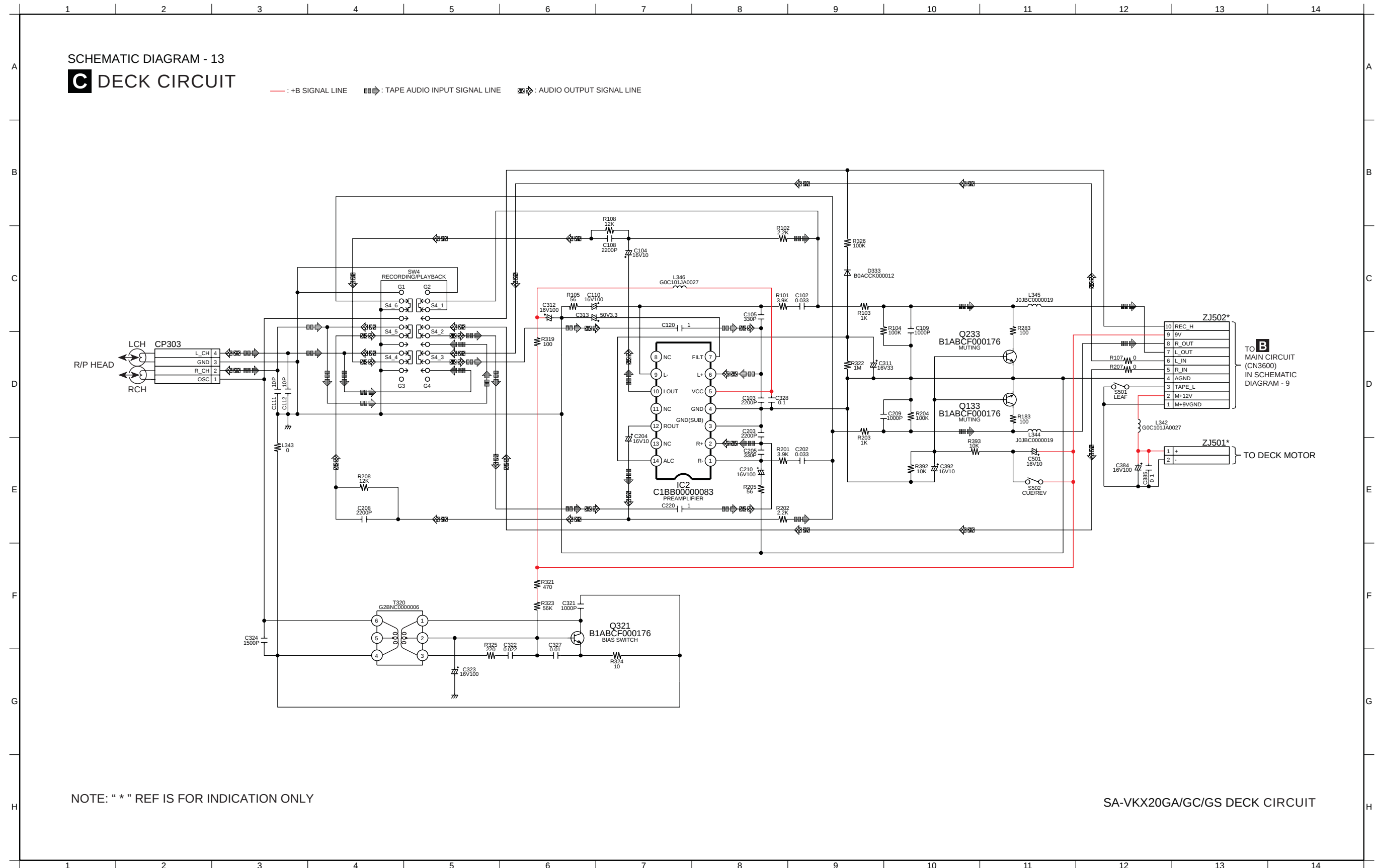
TO MAIN
SECTION (7/8)

NOTE: " * " REF IS FOR INDICATION ONLY

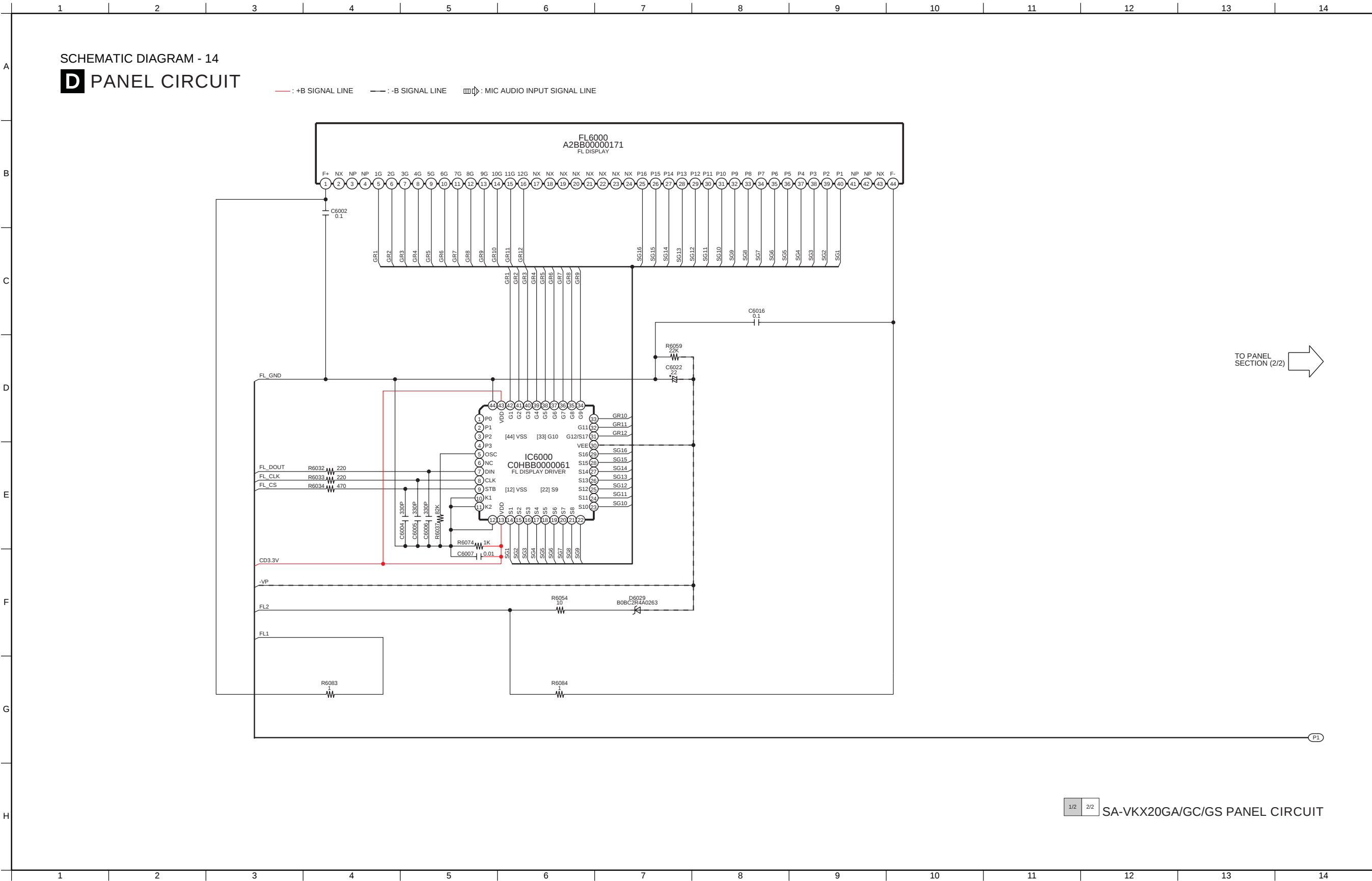
1/8	2/8	3/8	4/8
5/8	6/8	7/8	8/8

SA-VKX20GA/GC/GS MAIN CIRCUIT

18.4. Deck Circuit

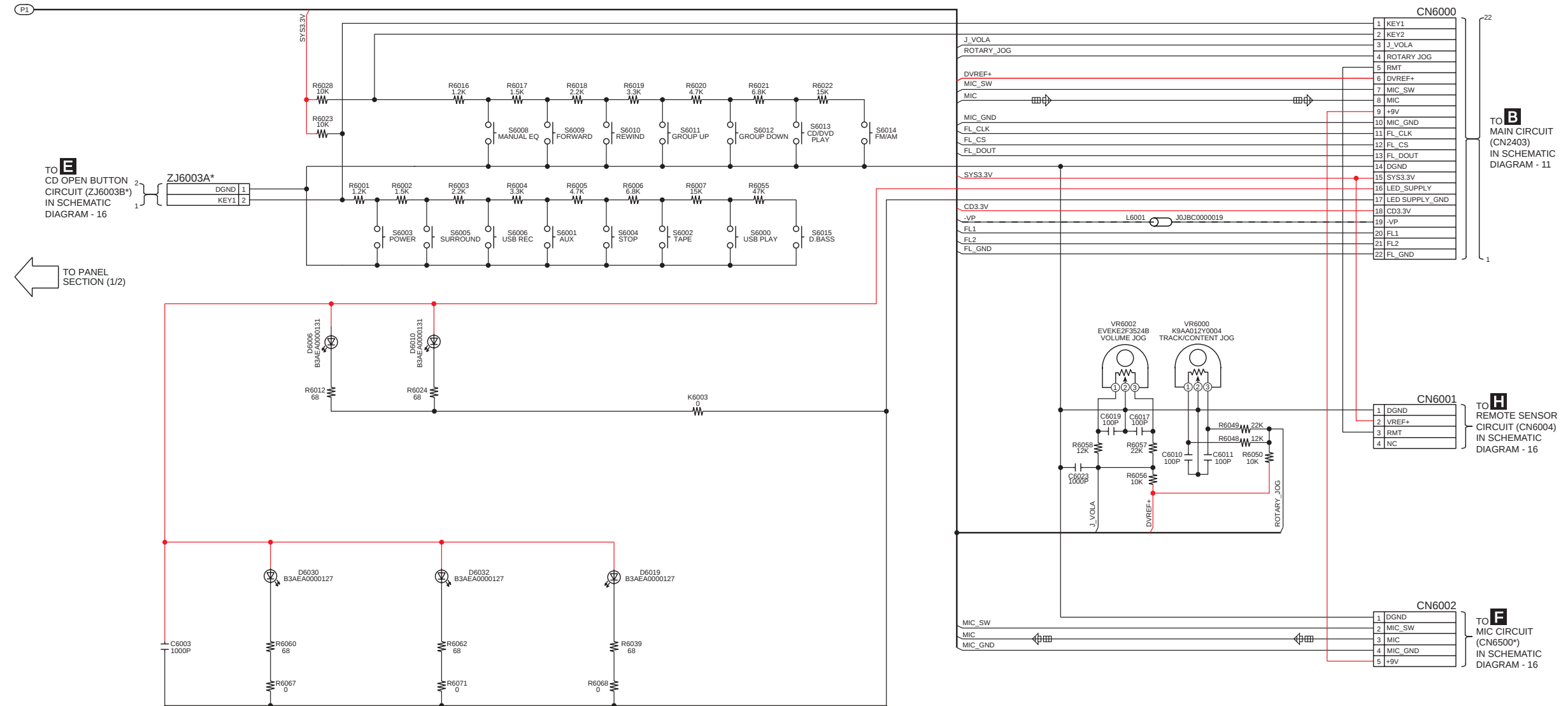


18.5. Panel Circuit



SCHEMATIC DIAGRAM - 15 D PANEL CIRCUIT

— +B SIGNAL LINE — -B SIGNAL LINE : MIC AUDIO INPUT SIGNAL LINE



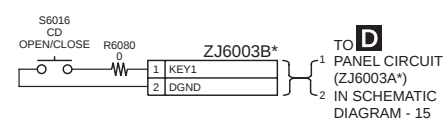
NOTE: " * " REF IS FOR INDICATION ONLY

1/2 2/2 SA-VKX20GA/GC/GS PANEL CIRCUIT

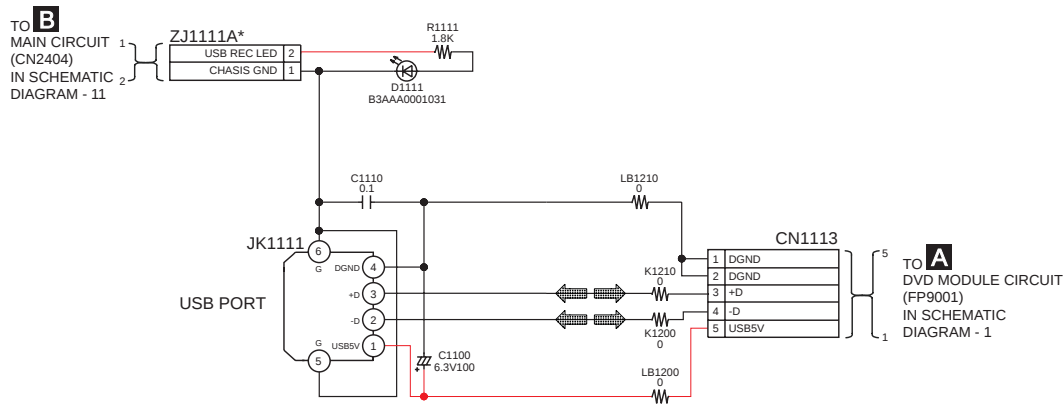
18.6. CD Open Button, Mic, USB & Remote Sensor Circuit

SCHEMATIC DIAGRAM - 16

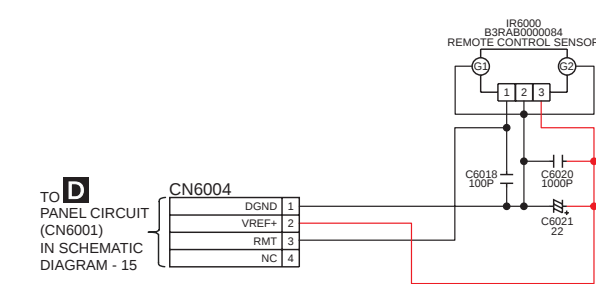
E CD OPEN BUTTON CIRCUIT



G USB CIRCUIT

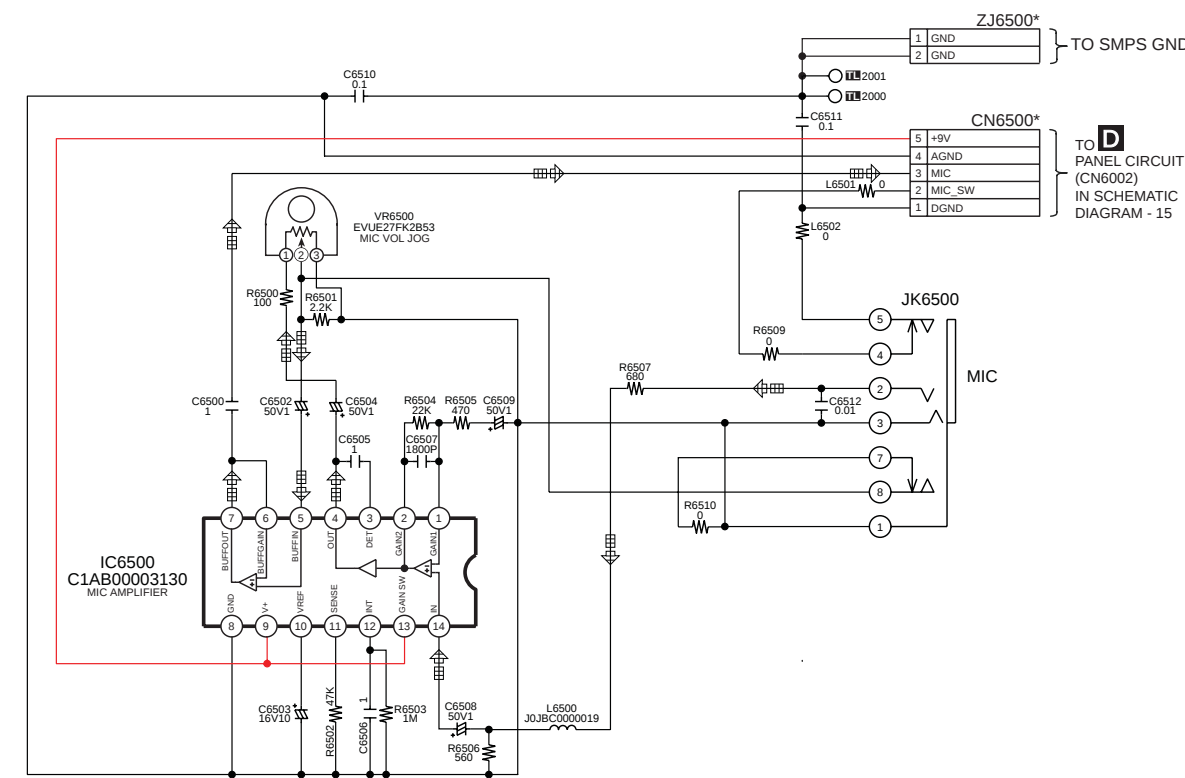


H REMOTE SENSOR CIRCUIT



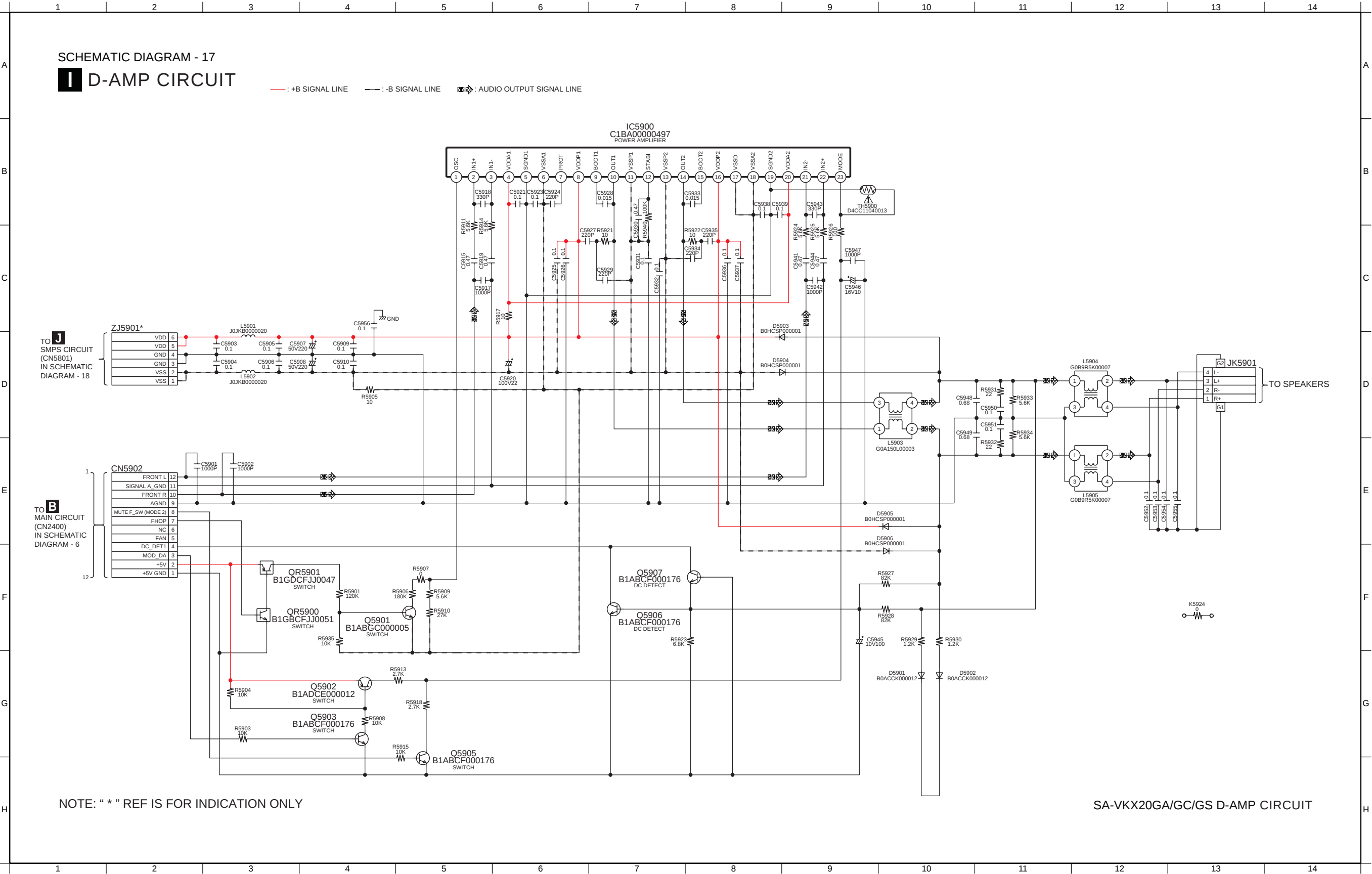
NOTE: " * " REF IS FOR INDICATION ONLY

F MIC CIRCUIT

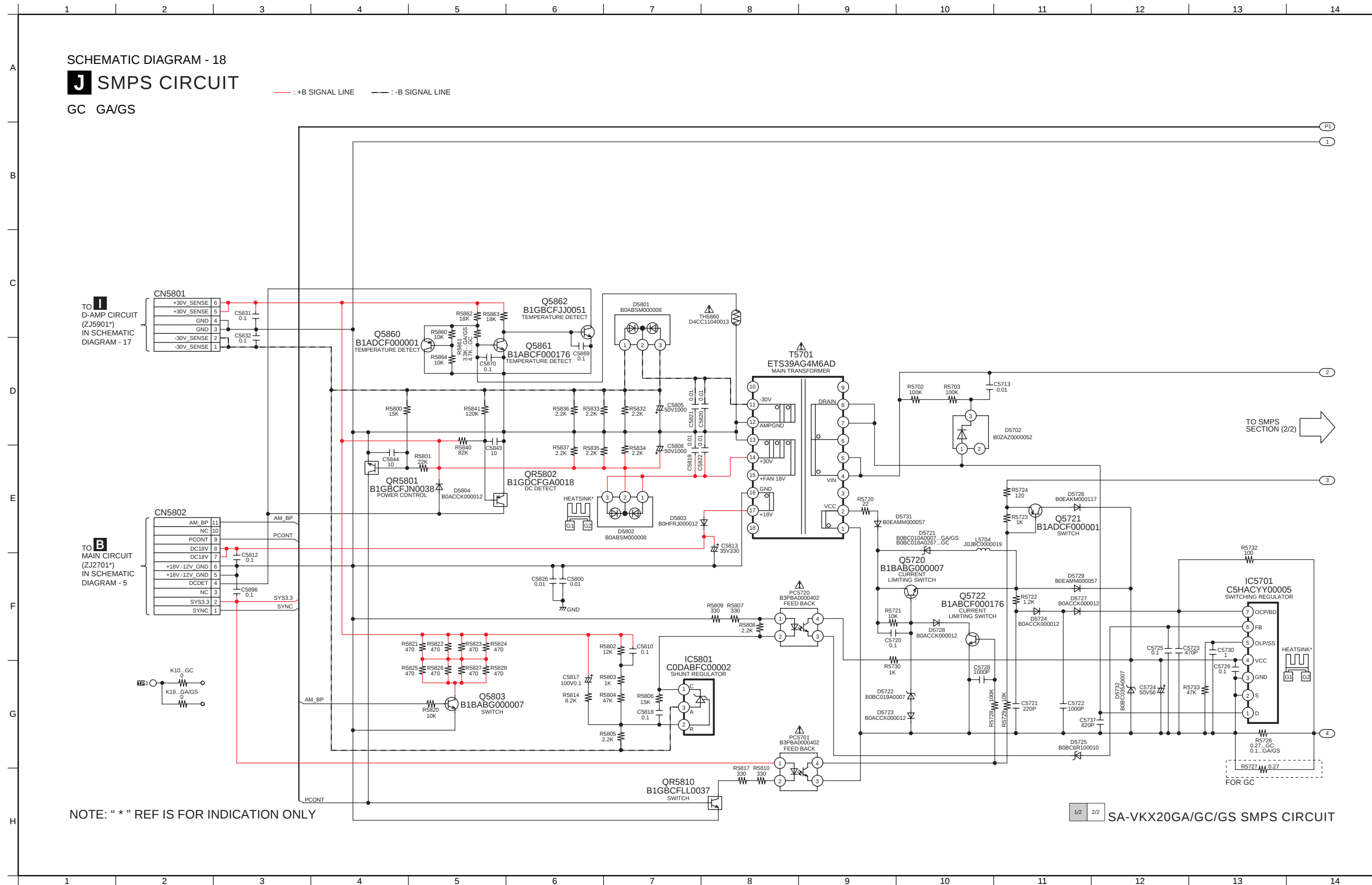


SA-VKX20GA/GC/GS CD OPEN BUTTON / MIC / USB / REMOTE SENSOR CIRCUIT

18.7. D-Amp Circuit



18.8. SMPS Circuit

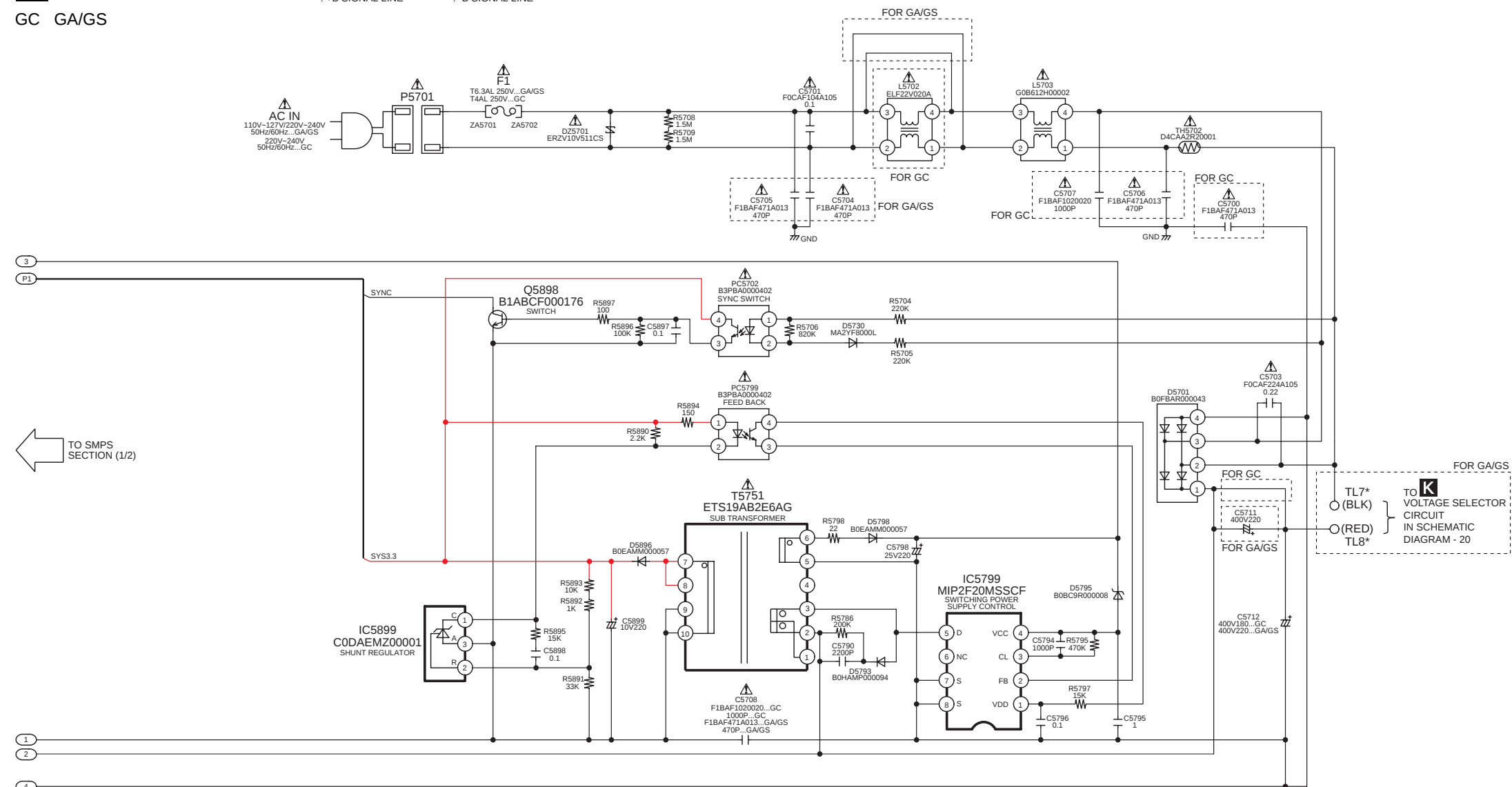


SCHEMATIC DIAGRAM - 19

J SMPS CIRCUIT

GC GA/GS

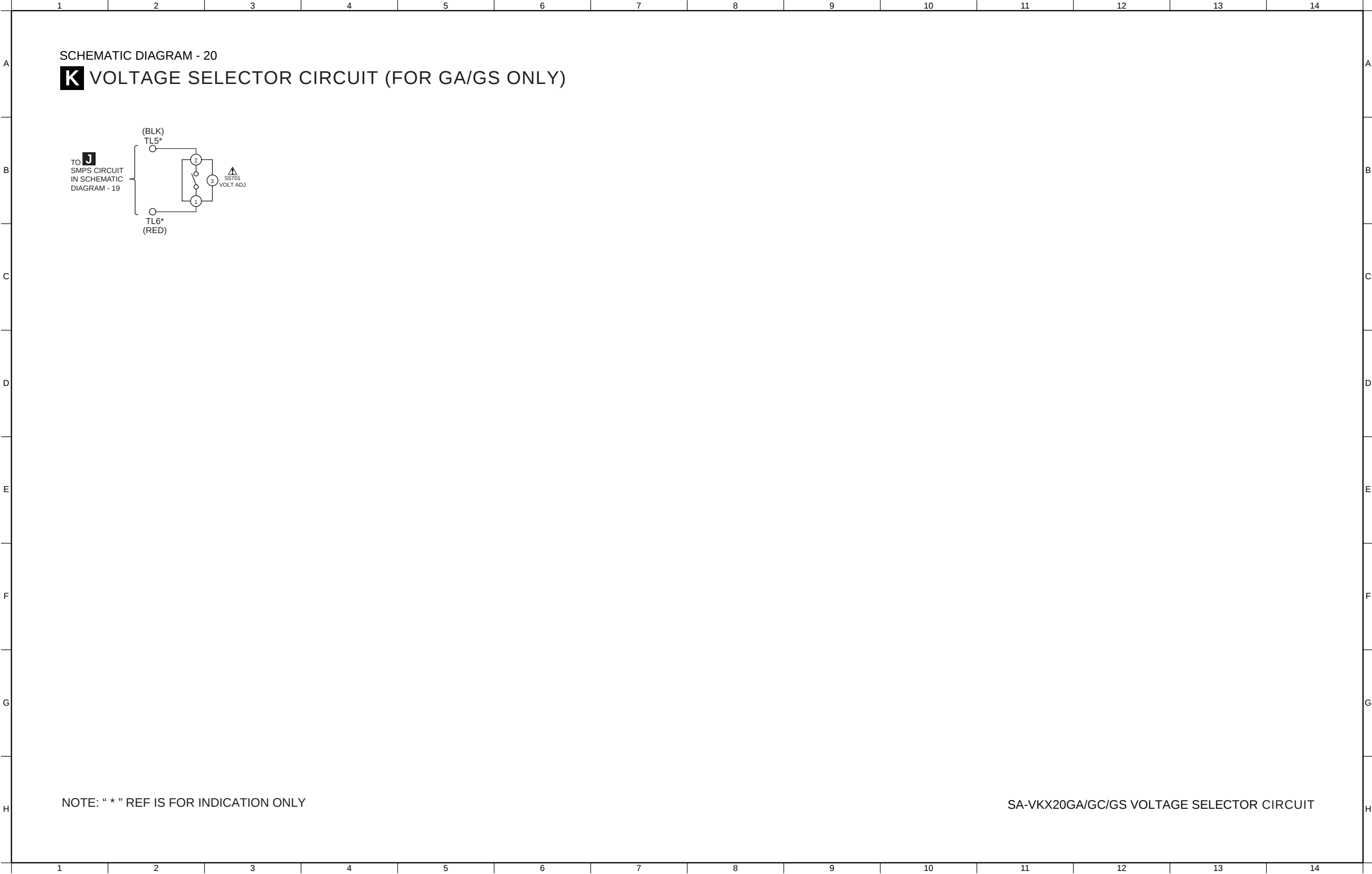
— : +B SIGNAL LINE — : -B SIGNAL LINE



NOTE: " * " REF IS FOR INDICATION ONLY

1/2 2/2 SA-VKX20GA/GC/GS SMPS CIRCUIT

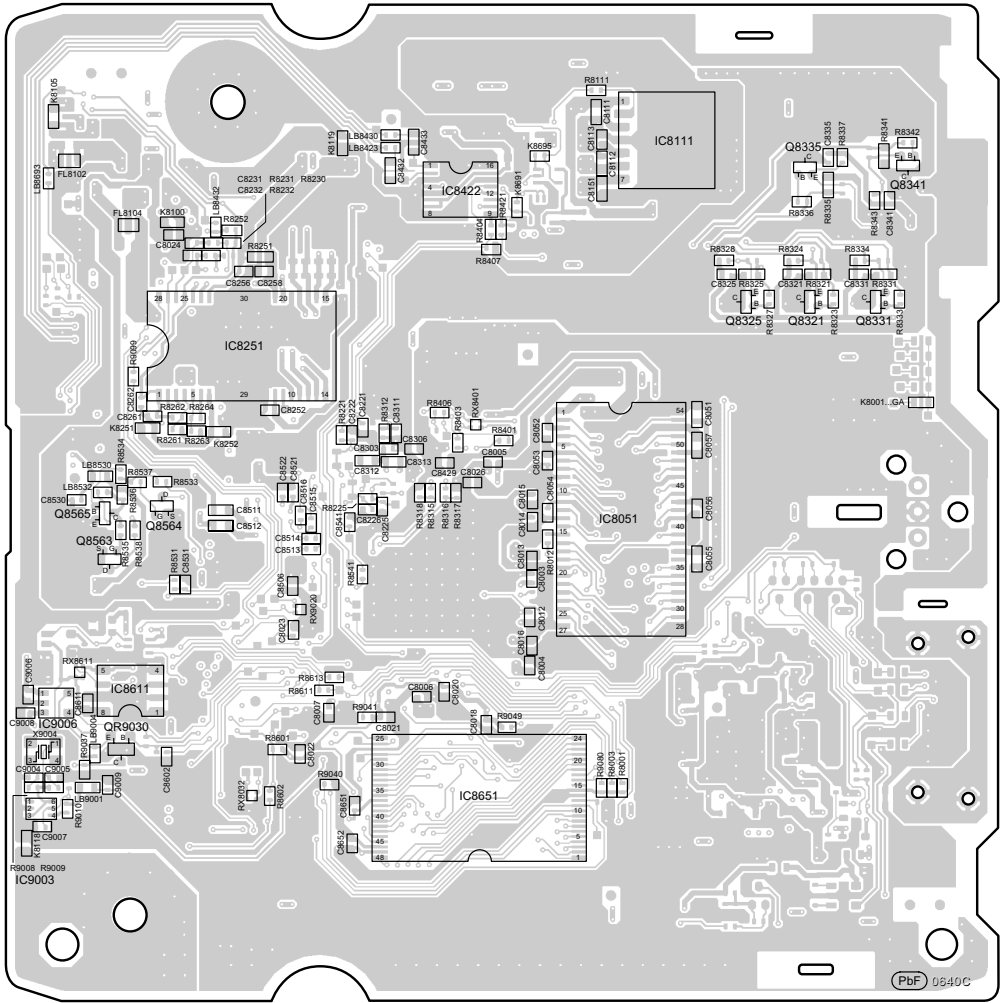
18.9. Voltage Selector Circuit (For GA/GS Only)



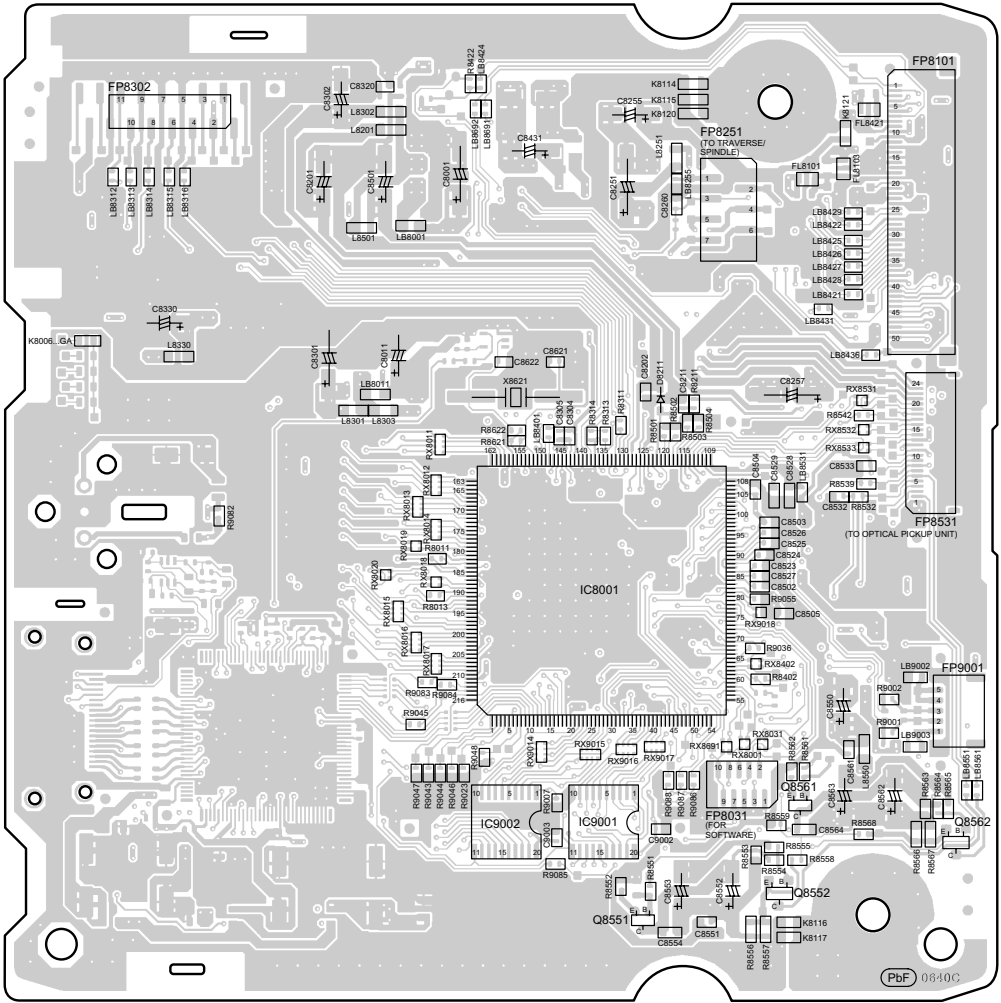
19 Printed Circuit Board

19.1. DVD Module P.C.B.

A DVD MODULE P.C.B. (RFK BX0885A...GC/GS)
(RFK BX0885B...GA)



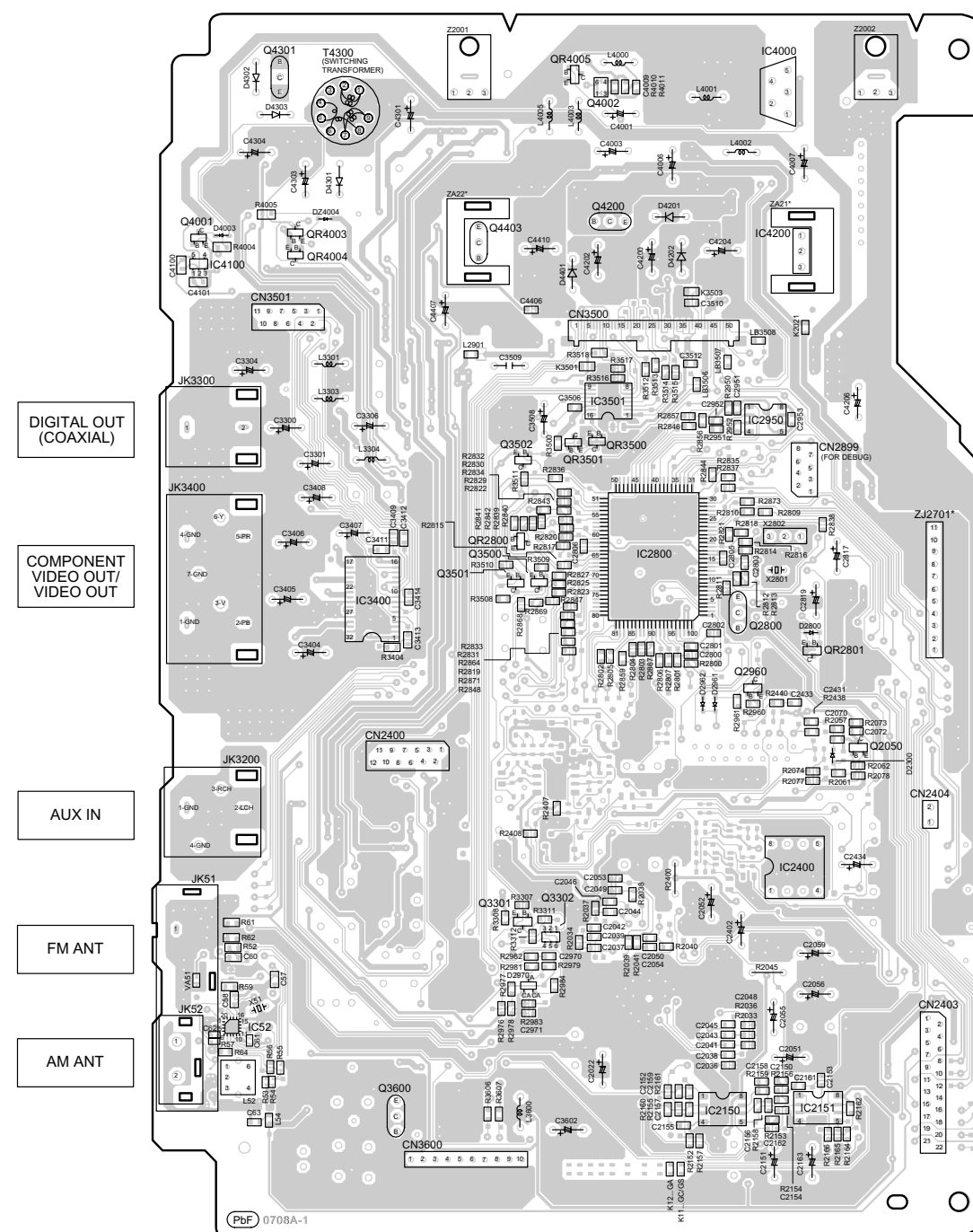
(SIDE A)



(SIDE B)

A vertical scale with labels A, B, C, D, E, F, G, H from bottom to top.

NOTE: " * " REF IS FOR INDICATION ONLY.

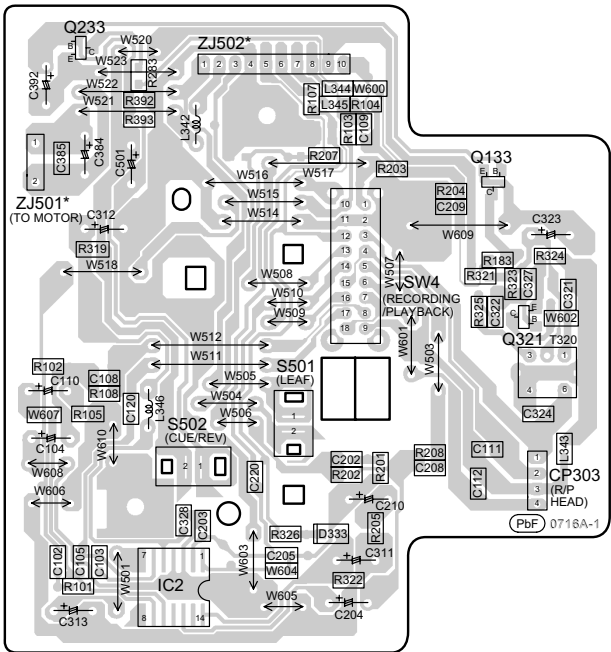


(SIDE B)

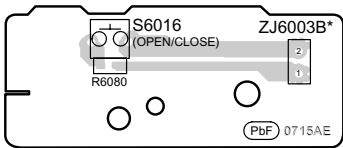
SA-VKX20GA/GC/GS
MAIN P.C.B.

19.3. Deck, CD Open Button, Mic, USB & Remote Sensor P.C.B.

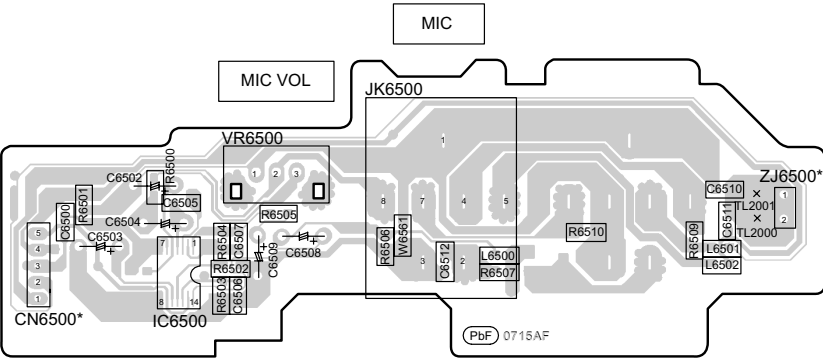
C DECK P.C.B. (REPX0878A)



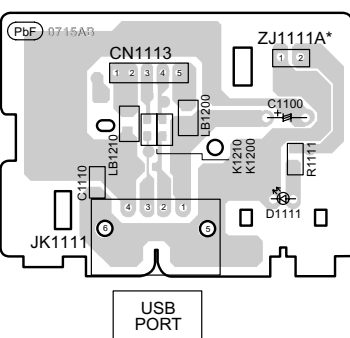
E CD OPEN BUTTON P.C.B. (REPX0877AA)



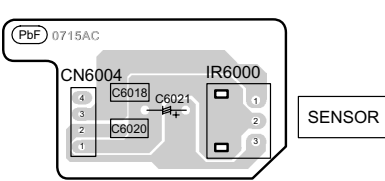
F MIC P.C.B. (REPX0877AF)



G USB P.C.B. (REPX0877AB)



H REMOTE SENSOR P.C.B. (REPX0877AC)

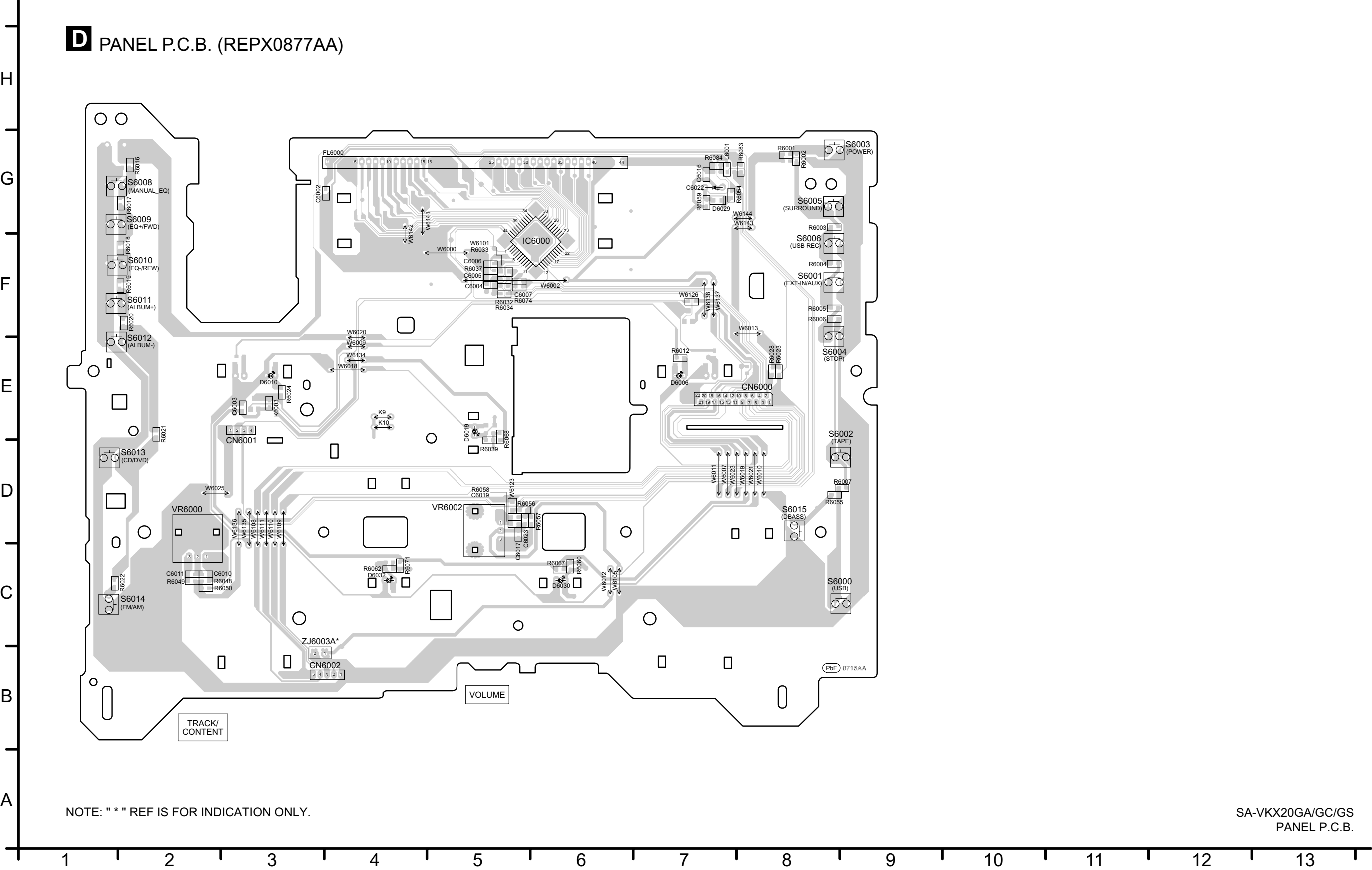


NOTE: " * " REF IS FOR INDICATION ONLY.

SA-VKX20GA/GC/GS
DECK / CD OPEN BUTTON / MIC / USB / REMOTE SENSOR P.C.B.

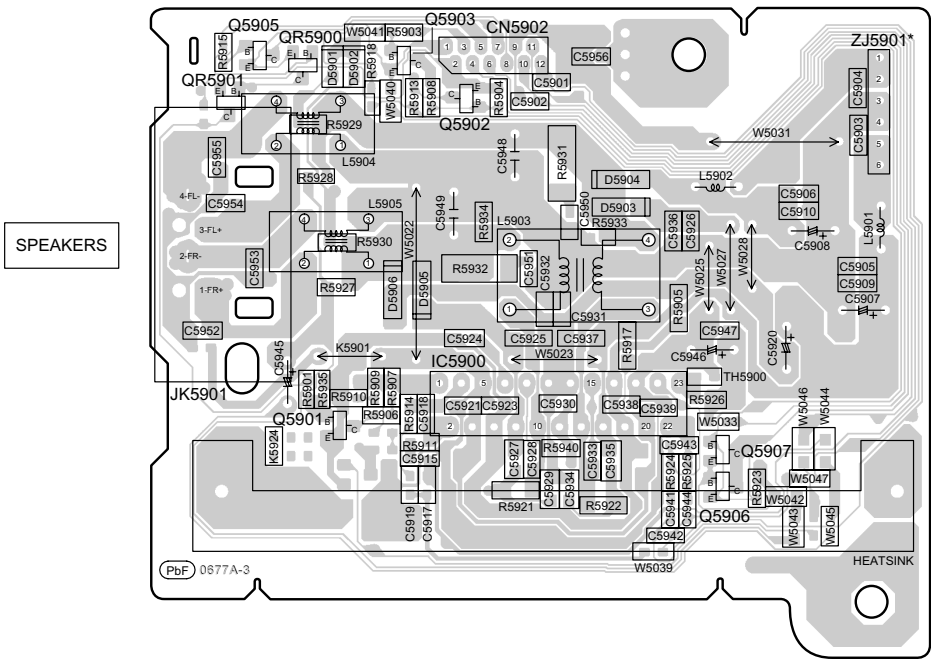
19.4. Panel P.C.B.

D PANEL P.C.B. (REPX0877AA)

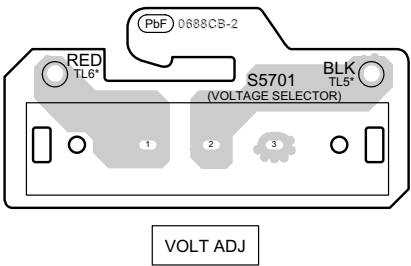


19.5. D-Amp & Voltage Selector P.C.B.

I D-AMP P.C.B. (REPX0822D)



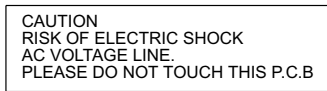
K VOLTAGE SELECTOR P.C.B. (REPX0809M...GA/GS)



NOTE: " * " REF IS FOR INDICATION ONLY.

SA-VKX20GA/GC/GS
D-AMP / VOLTAGE SELECTOR P.C.B.

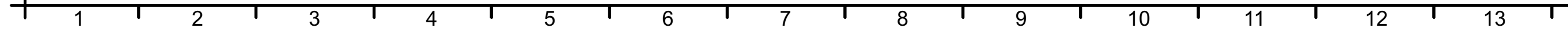
A vertical number line with tick marks labeled A, B, C, D, E, F, G, and H from bottom to top.



AC IN ~
220V-240V
50/60Hz

SA-VKX20GA/GC/GS
SMPS P.C.B.

A vertical number line with tick marks labeled A, B, C, D, E, F, G, and H from bottom to top.

SA-VKX20GA/GC/GS
SMPS P.C.B.

20 Terminal Function of ICs

20.1. IC2800 (RFKWMVKX20GA): IC MICRO-PROCESSOR

Pin No.	Terminal Name	I/O	Description
1	LM	I	Level Meter Left
2	ECHO_1	O	ECHO Level Control 1
3	ECHO_2	O	ECHO Level Control 2
4	ECHO_MUTE	O	ECHO Muting
5	NC	-	No Connection
6	NC	-	No Connection
7	F_HOP	O	F_Hop for Digital Amplifier
8	BYTE	-	External Data Bus Width Select Input (Connect to Ground)
9	CNVSS/EFP_CNVSS	-	Flash Mode Terminal (Connected to Ground)
10	XC_IN	-	32.768 kHz Sub Clock
11	XC_OUT	-	32.768 kHz Sub Clock
12	RESET/EFP_RESET	-	Reset Input (ACTIVE L)
13	XOUT	-	10 Mhz Main Clock
14	VSS	-	Ground (0V)
15	XIN	-	10 Mhz Main Clock
16	VCC	-	Power Supply (+3.3V)
17	NMI	-	Connect to Vcc (+3.3V)
18	RMT	I	Remote Control Input
19	NC	-	No Connection
20	SYNC	I	AC Failure Detect Input
21	SW_LVL1	O	Subwoofer Level 1
22	SW_LVL2	O	Subwoofer Level 2
23	SW_MUTE	O	Subwoofer Muting
24	MOD_DA	O	Digital Amplifier Muting
25	NC	-	No Connection
26	NC	-	No Connection
27	NC	-	No Connection
28	NC	-	No Connection
29	ASP_CLK	I/O	ASP CLOCK
30	ASP_DAT	I/O	ASP DATA
31	REG1/EFP_TXD1	I	TUNER Region Setting 1
32	EFP_RXD1	I	EFP (for programming)
33	EFP_SCLK	I	EFP CLOCK (for programming)
34	EFP_BUSY	I	EFP BUSY
35	DVD_CMD	O	CMD Signal for DVD Module
36	DVD_STA	I	STATUS Signal from DVD module
37	DVD_CLK	I	CLOCK Signal from DVD module
38	NC	-	No Connection
39	AGC_ACT/ CLIP_ATTEN	O	AGC action output
40	NC	-	No Connection
41	EE_CS/EFP/EPM	O	EEPROM Chip Select
42	EE_CLK	O/I	EEPROM CLOCK
43	EE_DATA	O/I	EEPROM DATA
44	DC_DET 1	I	DC Detect Input (PWR)
45	DC_DET 2	I	DC Detect Input (AMP)
46	MUTE_A	O	Audio Mute
47	NC	-	No Connection
48	NC	-	No Connection
49	NC	-	No Connection
50	NC	-	No Connection
51	NC	-	No Connection
52	DVD_Mute	I	Signal from DVD module control mute circuit
53	UNLOAD SW	I	DLS6 Unload Switch Signal
54	TRAY_CW_H	O	DLS6 Tray Open Signal

Pin No.	Terminal Name	I/O	Description
55	TRAY_CCW_L	O	DLS6 Tray Close Signal
56	INNER_SW	I	Inner Switch for DLS6 and OPU
57	NC	-	No Connection
58	NC	-	No Connection
59	NC	-	No Connection
60	HP_SW	I	Head Phone Detection
61	MPORT_SW	I	Music Port Detection
62	VCC/ VDD	-	Power Supply (+5V)
63	AM_BP	O	AM Beaf Proof
64	VSS	-	Ground (0V)
65	PCONT/EFP_CE	O	Main Transformer Control Output
66	DVD_PCONT	O	Power Control pin for DVD Module
67	TUNER DATA	O	TUNER DATA
68	TUNER CLK	O	TUNER CLK
69	TUNER RST	O	TUNER RST
70	MOTOR_ON	O	Motor ON (TAPE)
71	TAPE_L	I	Tape control
72	REC_H	I	REC_H for Tape recording
73	NC	-	No Connection
74	TUNER INT	I	Silicon Tuner Interrupt
75	NC	-	No Connection
76	NC	-	No Connection
77	NC	-	No Connection
78	NC	-	No Connection
79	VOL/D.BASS LED	O	LED for Vol/H.Bass
80	RIPPING LED	O	LED for USB ripping
81	FL_DATA	O	Serial Data to FL Driver
82	FL_CS	O	FL Driver Chip Select
83	FL_CLK	O	Serial Clock to FL Driver
84	MIC-SWITCH	I	Mic Switch
85	NC	-	No Connection
86	CLIP_S	I	Clip_Sensor
87	NC	-	No Connection
88	NC	-	No Connection
89	DVD_REG	AD IN	DVD Region Setting
90	MODEL_CS	AD IN	Model_Selector (X42/62/82)
91	ROTA_JOG	I	Rotary Jog
92	VOL_JOG	I	Volume Jog
93	KEY2	I	Keyline 2 Input
94	KEY1	I	Keyline 1 input
95	NC	-	No Connection
96	AVSS	-	Analog Power Supply Input (Connect to Ground)
97	NC	-	No Connection
98	VREF	-	Reference for A-D (+5V)
99	AVCC	-	Analog Power Supply Input
100	NC	-	No Connection

20.2. IC6000(C0HBB0000061): IC FL Driver

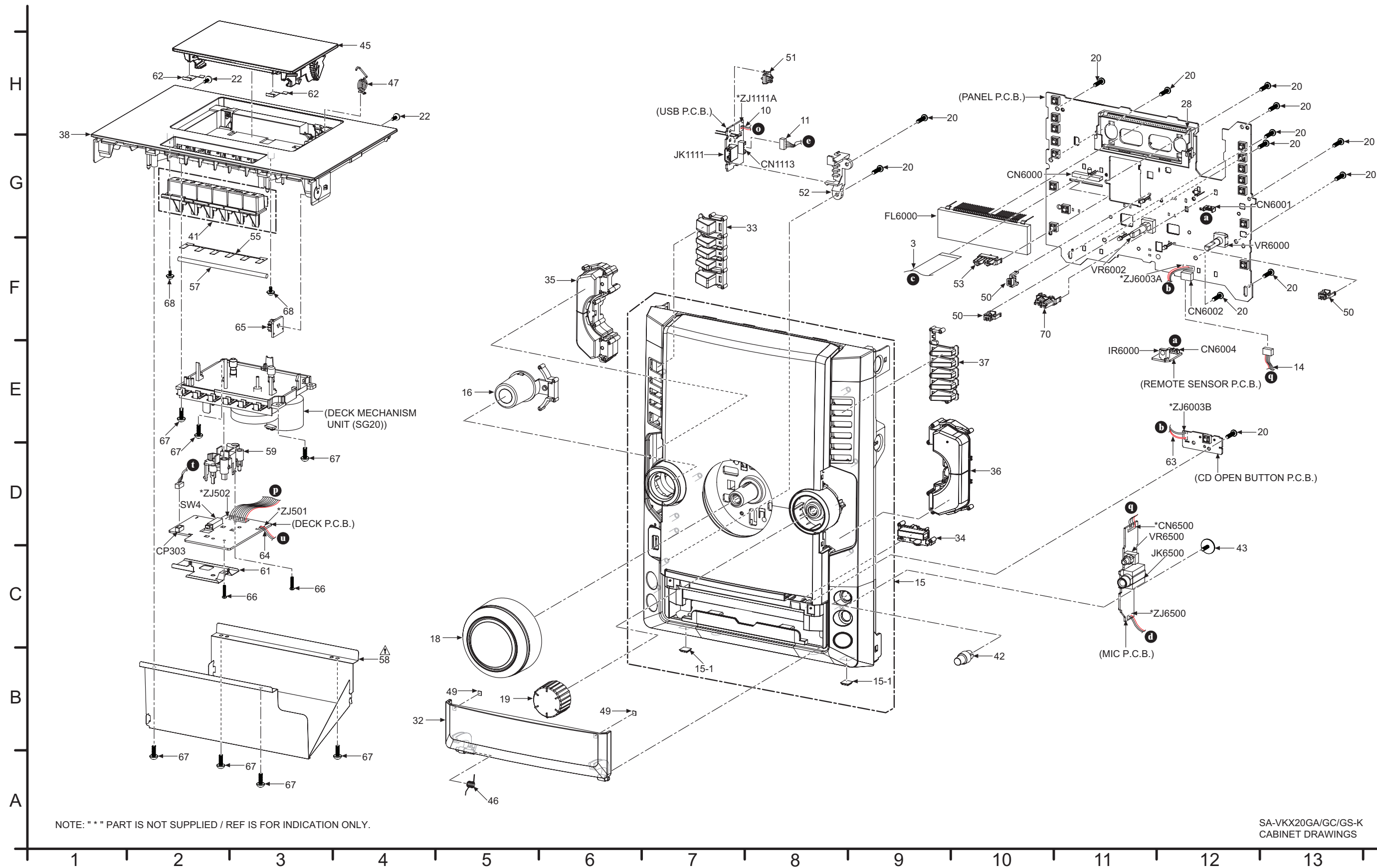
Pin No.	Terminal Name	I/O	Function
1	P0	-	No Connection
2	P1	-	No Connection
3	P2	-	No Connection
4	P3	-	No Connection
5	OSC	I	Oscillator Input
6	NC	-	No Connection
7	DIN	I	Data Input
8	CLK	I	Clock Input

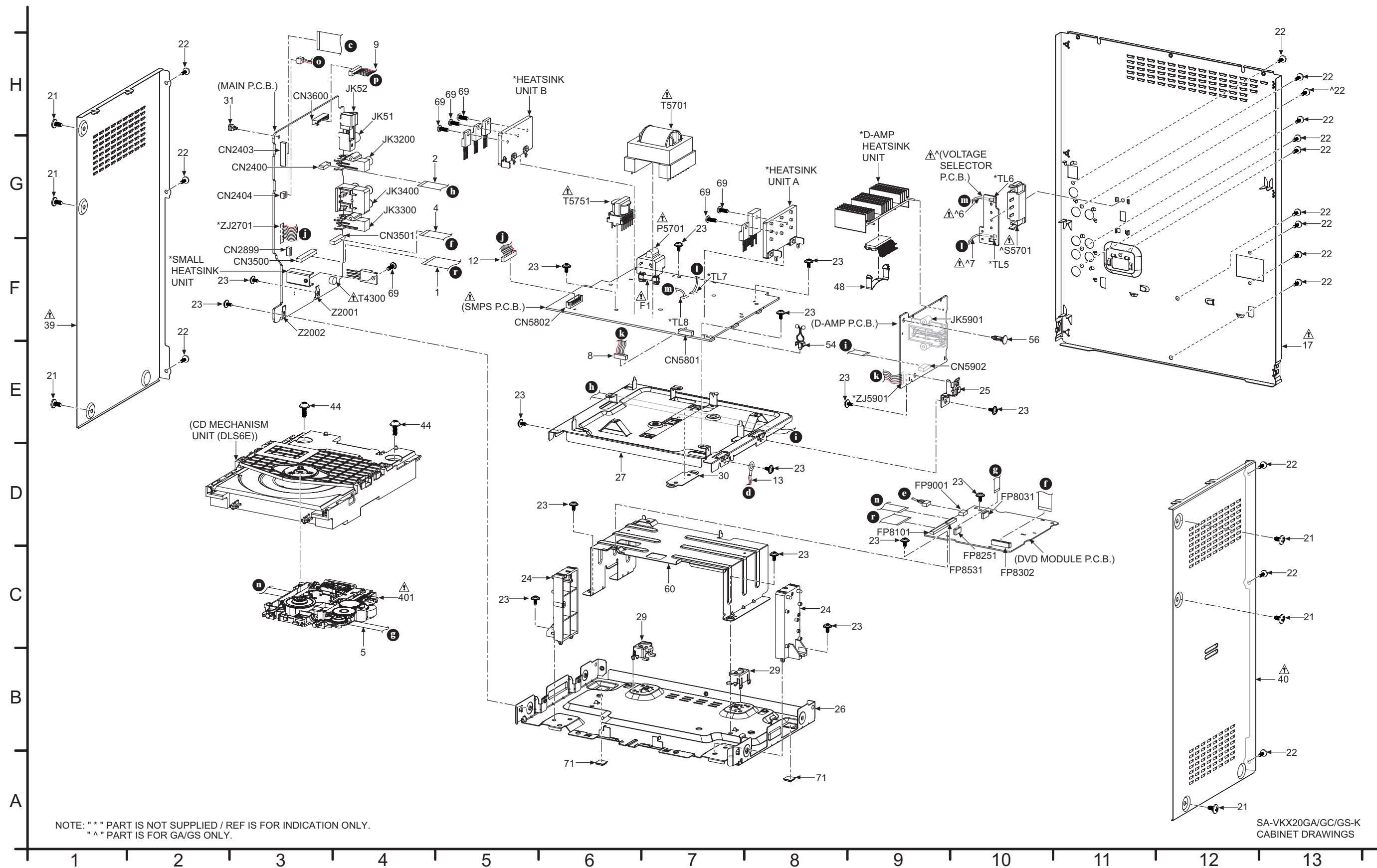
Pin No.	Terminal Name	I/O	Function
9	STB	I	Serial Interface Strobe
10	K1	-	Key Data Input 1 (No Connection)
11	K2	-	Key Data Input 2 (No Connection)
12	VSS	-	GND
13	VDD	-	Power Supply (+5V)
14	S1	O	Segment Output 18
15	S2	O	Segment Output 17
16	S3	O	Segment Output 16
17	S4	O	Segment Output 15
18	S5	O	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/S17	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

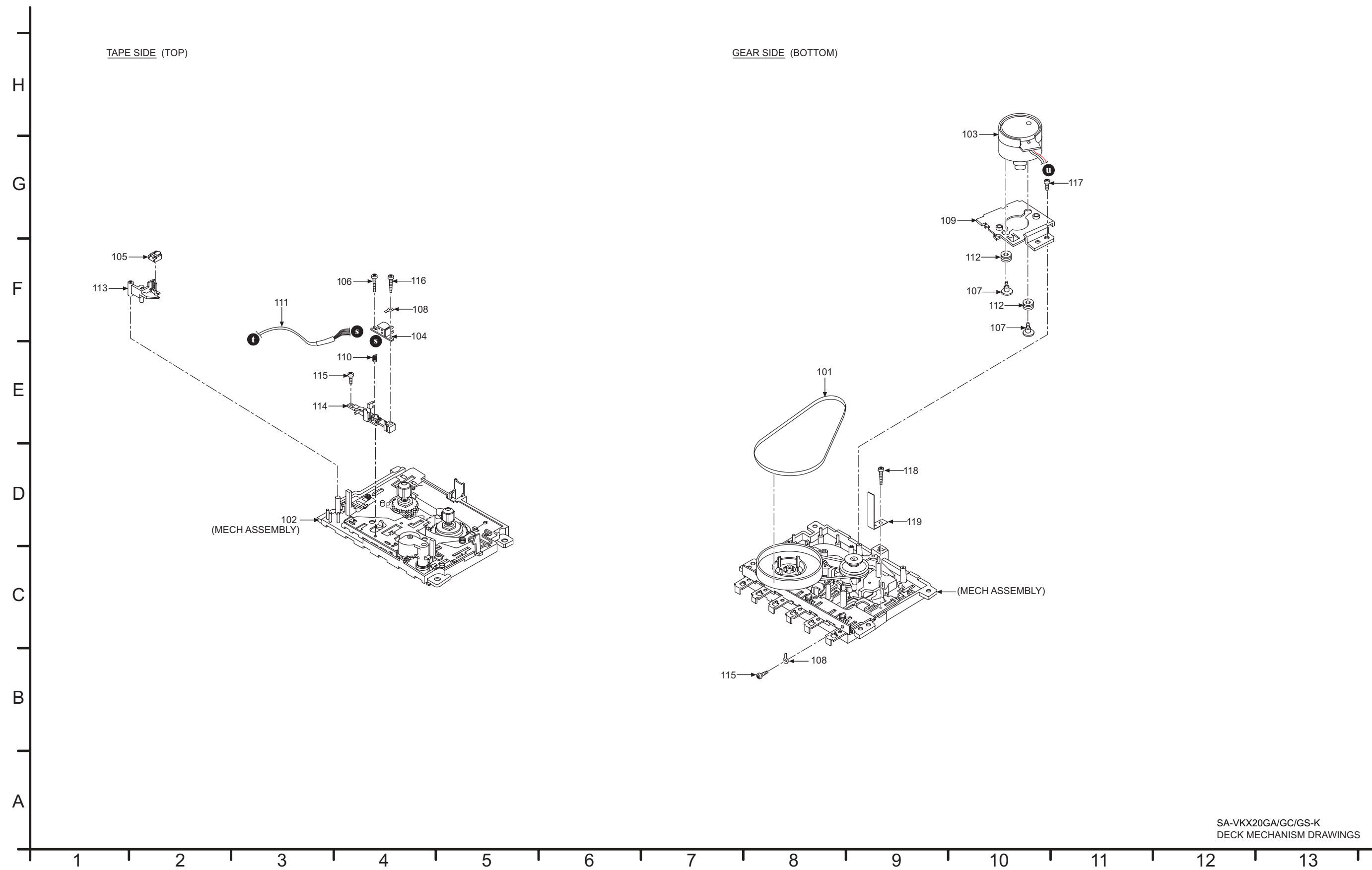
21.1. Exploded View and Mechanical replacement Part List

21.1.1. Cabinet Parts Location



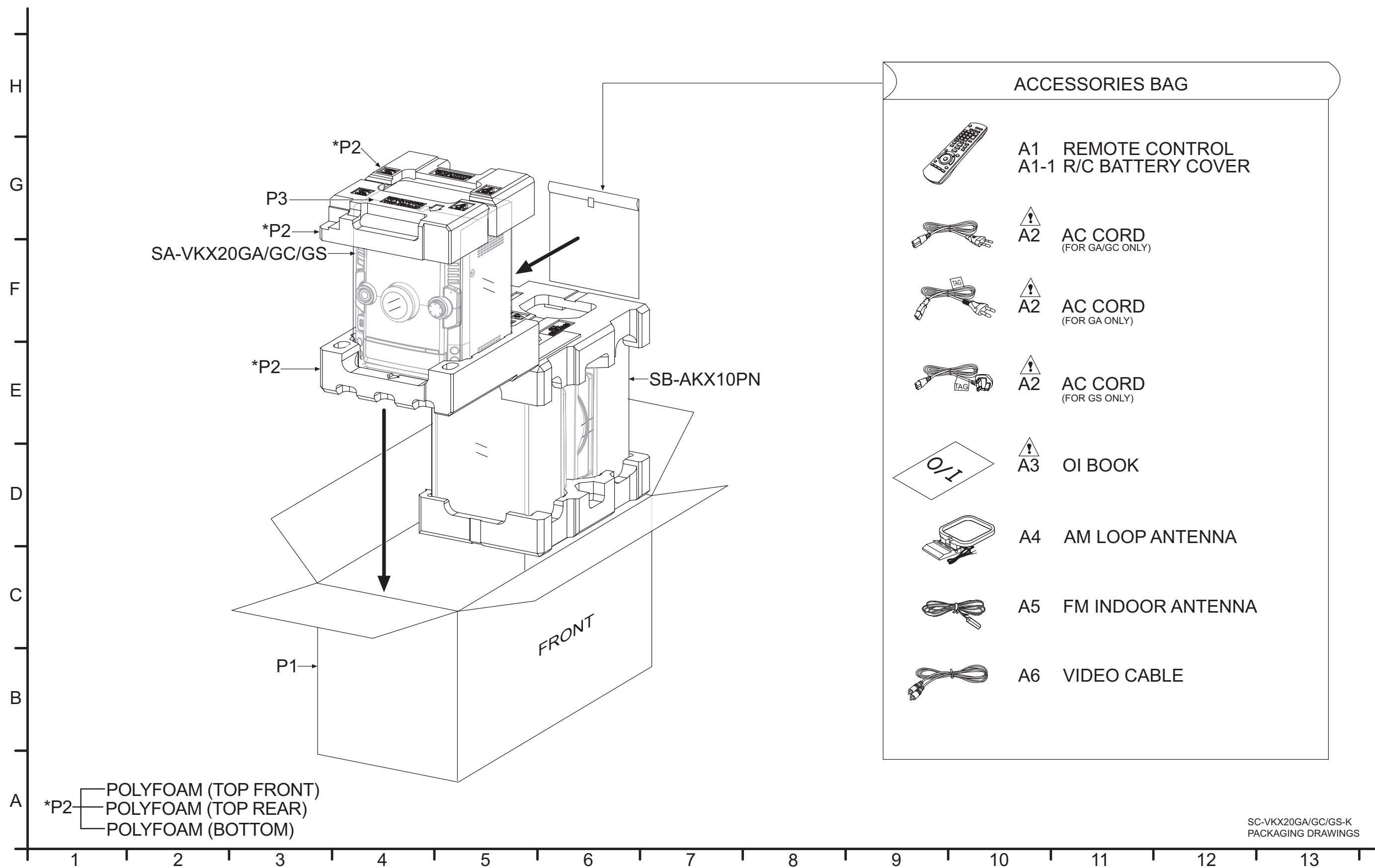


21.1.2. Deck Mechanism (RAA0945A-N)



SA-VKX20GA/GC/GS-K
DECK MECHANISM DRAWINGS

21.1.3. Packaging



21.1.4. Mechanical Replacement Part List

Important Safety Notice

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

RTL (Retention Time Limited)

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

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

Note:

- When replacing any of these components, be sure to use only manufacturer's specified parts shown in the replacement part list.
- The parenthesized indications on the Remarks column specify the destination & product color (Refer to the cover page for the information).
- Parts without these indications shall be used for all areas.
- This product uses a laser diode. Refer to "Precaution of Laser Diode".
- 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	REEX1027	50P FFC (MAIN-DVD MODULE)	1	
	2	REEX1147	12P FFC (MAIN-DAMP)	1	
	3	REEX1205	22P FFC (MAIN-PANEL)	1	
	4	REEX1206	11P FFC (DVD MODULE-MAIN)	1	
	5	REEX1207	7P FFC (DVD MODULE-CD MECHA)	1	
Δ	6	REXX1030	1P BLK WIRE (VOLTAGE-SMPS)	1	GA/GS
Δ	7	REXX1031	1P RED WIRE (VOLTAGE-SMPS)	1	GA/GS
	8	REXX1156	6P CABLE WIRE (DAMP-SMPS)	1	
	9	REXX1151	10P CABLE WIRE (MAIN-DECK)	1	
	10	REXX1154	2P CABLE WIRE (USB-MAIN)	1	
	11	REXX1155	5P CABLE WIRE (DVD MODULE-USB)	1	
	12	REXX1158	11P CABLE WIRE (SMPS-MAIN)	1	
	13	REXX1159	2P CABLE WIRE (MIC-INNER CHASSIS)	1	
	14	REXX1161	5P CABLE WIRE (MIC-PANEL)	1	
	15	RFKGVKX20GAK	FRONT PANEL ASS'Y	1	
	15-1	RKAX0042-K	LEG CUSHION	2	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	16	RYPX0321J-S2	DYNAMIC BASS BUTTON UNIT	1	
Δ	17	RGRX1003A-A1	REAR PANEL	1	GC
Δ	17	RGRX1003B-A1	REAR PANEL	1	GS
Δ	17	RGRX1003B-B1	REAR PANEL	1	GA
	18	RGWX0112-1S	VOLUME KNOB	1	
	19	RGWX0113-S	SKIP KNOB	1	
	20	RHD26046-L	SCREW	13	
	21	RHD30007-K2J	SCREW	6	
	22	RHD30119-S	SCREW	17	GC
	22	RHD30119-S	SCREW	14	GA/GS
	23	RHD30005-1	SCREW	16	
	24	RMAX0333-3	CHASSIS SUPPORT	2	
	25	RMAX1002-1	D-AMP BRACKET	1	
	26	RMXX1005A	BOTTOM CHASSIS	1	
	27	RMXX1006-1	INNER CHASSIS	1	
	28	RMNV0079-1	FL HOLDER	1	
	29	RMQX0382-2	MECHA HOLDER	2	
	30	RMQX1041-Q	SUPPORT SHEET	1	
	31	RMR0502A-W	PCB SUPPORT	1	
	32	RGKX1030D-K	CD LID	1	
	33	RGUX1007D-K	POWER BUTTON	1	
	34	RGUX1009-K1	CD OPEN BUTTON	1	
	35	RGUX1010B-S	MAIN CONTROL BUTTON L	1	
	36	RGUX1011A-S	MAIN CONTROL BUTTON R	1	
	37	RGUX1016-K	MANUAL EQ BUTTON	1	
	38	RKMX1006-K1	TOP CASSETTE BASE	1	
Δ	39	RKMX1007-K	SIDE PANEL L	1	
Δ	40	RKMX1008-K	SIDE PANEL R	1	
	41	RGUX1028-K1	MECHA BUTTON	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	42	RGWX0056-1K1	MIC VOL KNOB	1	
	43	RHD30008	SCREW	1	
	44	RHD3031008	SCREW	2	
	45	RKFX1002-K1	CASSETTE LID	1	
	46	RMBX1002	CD LID OPEN SPRING	1	
	47	RMBX1015	CASSETTE LID SPRING	1	
	48	RMXX0035	HEATSINK CLIP A	1	
	49	RMGX0033	CUSHION RUBBER	2	
	50	RMNX0151	LED HOLDER	3	
	51	RMNX0190	LED HOLDER	1	
	52	RMNX0287B	USB JACK HOLDER	1	
	53	RMNX1006	LED HOLDER L	1	
	54	RMNX1025	WIRE HOLDER	1	
	55	RMQ0649-J	MECHA BUTTON SUPPORT SHEET	1	
	56	RMQ1702	PCB SUPPORT	1	
	57	RMQX1081	REVOLVING ROD	1	
⚠	58	RMQX1087	DECK COVER SHEET	1	
	59	RMR0368-2	PCB CHASSIS	1	
	60	RSCX1044	BACK END CHASSIS	1	
	61	RSCX1055-1	CASSETTE SHIELD PLATE	1	
	62	RUS757ZAA	CASSETTE HALF SPRING	2	
	63	RWJA002100XX	2P CABLE WIRE (PANEL-CD OPEN BUTTON)	1	
	64	RWJC002060XX	2P CABLE WIRE (DECK-MOTOR)	1	
	65	RXGX0002	DAMPER GEAR	1	
	66	XTN2+14GFJ	SCREW	2	
	67	XTV3+10GFJ-M	SCREW	7	
	68	XTW3+W8TFJ	SCREW	2	
	69	XTB3+10JFJ	SCREW	6	
	70	RMNX1007	LED HOLDER R	1	
	71	RKAX0042-K	LEG CUSHION	2	
			CASSETTE DECK		
	101	RDV0021-2	CAPSTAN BELT	1	
	102	RXX0215-J1	MECHA ASS'Y	1	
	103	RFKPVBK20GCK	MOTOR ASS'Y	1	
	104	RBR4CM006-T	R/P HEAD	1	
	105	RD-JHP001-N1	ERASE HEAD	1	
	106	RHD20049-1	SCREW	1	
	107	RHD26002-1	SCREW	2	
	108	RJR0033	EARTH LUG	2	
	109	RMA0108-1	MOTOR BRACKET A	1	
	110	RMB0059	AZIMUTH SPRING	1	
	111	REXN0021	4P CABLE WIRE (R/P HEAD-DECK)	1	
	112	RMG0102-1	MOTOR CUSHION	2	
	113	RML0080-2	ERASE HEAD ARM	1	
	114	RMR0149-1	HEAD BASE	1	
	115	XTN2+4FFJ	SCREW	1	
	116	XTN2+8FFJ	SCREW	1	
	117	XTN26+8JFJ	SCREW	1	
	118	XTN2+6JFJ	SCREW	1	
	119	RMEN0005-1	R/P SPRING	1	
			TRAVERSE DECK		
⚠	401	RAEX1032Z-V	TRAVERSE UNIT	1	
			PACKING MATERIALS		
	P1	RPGX3392	PACKING CASE	1	GC
	P1	RPGX3393	PACKING CASE	1	GS
	P1	RPGX3394	PACKING CASE	1	GA
	P2	RPNX1019	POLYFOAM	1	
	P3	RPF0198	MIRAMAT SHEET	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
			ACCESSORIES		
	A1	N2QAYB000567	REMOTE CONTROL	1	
	A1-1	RKK-PT470EBK	R/C BATTERY COVER	1	
⚠	A2	K2CP2CA00001	AC CORD	1	GA
⚠	A2	K2CQ2CA00007	AC CORD	1	GA/GC
⚠	A2	K2CZ3YY00005	AC CORD	1	GS
⚠	A3	RQTX1227-G	O/I BOOK (En/Pe/Ar)	1	GC/GS
⚠	A3	RQTX1228-L	O/I BOOK (En)	1	GA
	A4	N1DY0000010	AM LOOP ANTENNA	1	
	A5	RSAX0002	FM INDOOR ANTENNA	1	
	A6	K2KA2BA00001	VIDEO CABLE	1	

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 (uF) unless specified otherwise, P=Pico-farads (pF), F=Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1000 (OHM).
- All parts mentioned are supplied by 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 CIRCUITS BOARDS		
	PCB1	RFKBX0885A	DVD MODULE P.C.B.	1	GC/GS
	PCB1	RFKBX0885B	DVD MODULE P.C.B.	1	GA
	PCB2	REPX0873A	MAIN P.C.B.	1	(RTL) GC/GS
	PCB2	REPX0873B	MAIN P.C.B.	1	(RTL) GA
	PCB3	REPX0877AA	PANEL P.C.B.	1	(RTL)
	PCB4	REPX0877AA	CD OPEN BUTTON P.C.B.	1	(RTL)
	PCB5	REPX0877AB	USB P.C.B.	1	(RTL)
	PCB6	REPX0877AC	REMOTE SENSOR P.C.B.	1	(RTL)
	PCB7	REPX0877AF	MIC P.C.B.	1	(RTL)
	PCB8	REPX0878A	DECK P.C.B.	1	(RTL)
	PCB9	REPX0822D	D-AMP P.C.B.	1	(RTL)
$\triangle$	PCB10	REPX0809L	SMPS P.C.B.	1	(RTL) GC
$\triangle$	PCB10	REPX0809M	SMPS P.C.B.	1	(RTL) GA/GS
$\triangle$	PCB11	REPX0809M	VOLTAGE SELECTOR P.C.B.	1	(RTL) GA/GS
			INTEGRATED CIRCUITS		
	IC2	C1BB00000083	IC	1	
	IC52	VUEALLPT031	IC	1	[SPG]
	IC2001	C1AB00003256	IC	1	
	IC2150	C0ABBB000230	IC	1	
	IC2151	C0ABBB000230	IC	1	
	IC2400	C0AABB000125	IC	1	
	IC2800	RFKWMVKX20GA	IC	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	IC2950	C3EBFY000006	IC	1	
	IC3400	C9ZB00000461	IC	1	
	IC3501	C0FBBK000071	IC	1	
	IC4000	C0DAAYH00001	IC	1	
	IC4100	C0DBFYY00049	IC	1	
	IC4200	C0CAAKG00046	IC	1	
	IC5701	C5HACYY00005	IC	1	
	IC5799	MIP2F20MSSCF	IC	1	
	IC5801	C0DABFC00002	IC	1	
	IC5899	C0DAEMZ00001	IC	1	
	IC5900	C1BA00000497	IC	1	
	IC6000	C0HBB0000061	IC	1	
	IC6500	C1AB00003130	IC	1	
	IC8001	MN2DS0018MP	IC	1	
	IC8051	C3ABPG000160	IC	1	
	IC8111	C0DBFZG00001	IC	1	
	IC8251	C0GBG0000048	IC	1	
	IC8422	C0FBAK000026	IC	1	
	IC8611	RFKBX0885A	IC	1	GC/GS
	IC8611	RFKBX0885B	IC	1	GA
	IC8651	RFKWMH61B3D0	IC	1	[SPG]
	IC9001	C0JBAZ002999	IC	1	
	IC9002	C0JBAZ002999	IC	1	
	IC9003	C0JBAB000908	IC	1	
	IC9006	C0DBZYY00311	IC	1	
			TRANSISTORS		
	Q133	B1ABCF000176	TRANSISTOR	1	
	Q233	B1ABCF000176	TRANSISTOR	1	
	Q321	B1ABCF000176	TRANSISTOR	1	
	Q2001	B1ABCF000176	TRANSISTOR	1	
	Q2002	B1GDCFJJ0047	TRANSISTOR	1	
	Q2003	B1GBCFJJ0051	TRANSISTOR	1	
	Q2018	B1ABEB000002	TRANSISTOR	1	
	Q2050	B1ADCE000012	TRANSISTOR	1	
	Q2800	B1ACCF000094	TRANSISTOR	1	
	Q2960	B1ABCF000176	TRANSISTOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	Q3300	B1ABCF000176	TRANSISTOR	1	
	Q3301	B1GDCFJJ0047	TRANSISTOR	1	
	Q3302	B1GFGCAA0001	TRANSISTOR	1	
	Q3500	B1ADCE000012	TRANSISTOR	1	
	Q3501	2SD0601AHL	TRANSISTOR	1	
	Q3502	B1GBCFJN0033	TRANSISTOR	1	
	Q3600	B1ACCF000094	TRANSISTOR	1	
	Q3601	B1GBCFJJ0051	TRANSISTOR	1	
	Q4001	B1GBCFLL0037	TRANSISTOR	1	
	Q4002	B1CBPD000001	TRANSISTOR	1	
	Q4200	B1BACG000023	TRANSISTOR	1	
	Q4300	B1ADCE000012	TRANSISTOR	1	
	Q4301	B1BABK000001	TRANSISTOR	1	
	Q4403	B1BACG000023	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	
	Q8321	B1ADDF000012	TRANSISTOR	1	
	Q8325	B1ADDF000012	TRANSISTOR	1	
	Q8331	B1ADDF000012	TRANSISTOR	1	
	Q8335	B1ADDF000012	TRANSISTOR	1	
	Q8341	B1ADDF000012	TRANSISTOR	1	
	Q8551	B1ABDF000026	TRANSISTOR	1	
	Q8552	B1ADGB000008	TRANSISTOR	1	
	Q8561	B1ABDF000026	TRANSISTOR	1	
	Q8562	B1ADGB000008	TRANSISTOR	1	
	Q8563	B1CFHA000002	TRANSISTOR	1	
	Q8564	B1CFHA000002	TRANSISTOR	1	
	Q8565	B1ABDF000026	TRANSISTOR	1	
	QR2004	B1GBCFJJ0051	TRANSISTOR	1	
	QR2800	B1GBCFJJ0051	TRANSISTOR	1	
	QR2801	B1GBCFLL0037	TRANSISTOR	1	
	QR2802	B1GBCFLL0037	TRANSISTOR	1	
	QR3500	B1GBCFJJ0051	TRANSISTOR	1	
	QR3501	B1GBCFJJ0051	TRANSISTOR	1	
	QR4003	B1GBCFJJ0051	TRANSISTOR	1	
	QR4004	B1GBCFJJ0051	TRANSISTOR	1	
	QR4005	B1GBCFJJ0051	TRANSISTOR	1	
	QR4300	B1GBCFJJ0051	TRANSISTOR	1	
	QR5801	B1GBCFJN0038	TRANSISTOR	1	
	QR5802	B1GDCFGA0018	TRANSISTOR	1	
	QR5810	B1GBCFLL0037	TRANSISTOR	1	
	QR5900	B1GBCFJJ0051	TRANSISTOR	1	
	QR5901	B1GDCFJJ0047	TRANSISTOR	1	
	QR9030	B1GDCFJJ0002	TRANSISTOR	1	
			DIODES		
	D333	B0ACCK000012	DIODE	1	
	D1111	B3AAA0001031	DIODE	1	
	D2300	B0ACCK000012	DIODE	1	
	D2800	B0ACCK000012	DIODE	1	
	D2961	B0ACCK000012	DIODE	1	
	D2962	B0ACCK000012	DIODE	1	
	D2970	B0ADCC000002	DIODE	1	
	D4001	B0ACCK000012	DIODE	1	
	D4003	B0ACCK000012	DIODE	1	
	D4201	B0EAKM000117	DIODE	1	
	D4202	B0EAKM000117	DIODE	1	
	D4301	B0JAME000114	DIODE	1	
	D4302	B0EAMM000057	DIODE	1	
	D4303	B0EAMM000057	DIODE	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	D4401	B0EAKM000117	DIODE	1	
	D5701	B0FBAR000043	DIODE	1	
	D5702	B0ZAZ0000052	DIODE	1	
	D5721	B0BC010A0007	DIODE	1	GA/GS
	D5721	B0BC018A0267	DIODE	1	GC
	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	
	D5795	B0BC9R000008	DIODE	1	
	D5798	B0EAMM000057	DIODE	1	
	D5801	B0ABSM000008	DIODE	1	
	D5802	B0ABSM000008	DIODE	1	
	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	
	D6006	B3AEA0000131	DIODE	1	
	D6010	B3AEA0000131	DIODE	1	
	D6019	B3AEA0000127	DIODE	1	
	D6029	B0BC2R4A0263	DIODE	1	
	D6030	B3AEA0000127	DIODE	1	
	D6032	B3AEA0000127	DIODE	1	
	D8211	B0ACCK000012	DIODE	1	
	DZ2805	B0BC5R1A0266	DIODE	1	
	DZ4000	B0JCPD000025	DIODE	1	
	DZ4004	B0BC015A0264	DIODE	1	
	DZ4200	B0BC010A0265	DIODE	1	
	DZ4300	B0BC036A0264	DIODE	1	
	DZ4304	B0BC024A0267	DIODE	1	
	DZ4401	B0BC010A0269	DIODE	1	
⚠	DZ5701	ERZV10V511CS	ZNR	1	
			VARISTOR		
	VA51	EZAEG2A50AX	ESD SUPPRESSOR	1	
			VARIABLE RESIS- TORS		
	VR6000	K9AA012Y0004	TRACK/CONTENT JOG	1	
	VR6002	EVEKE2F3524B	VOLUME JOG	1	
	VR6500	EVUE27FK2B53	MIC VOL JOG	1	
			SWITCHES		
	S501	K0J1BB000032	SW LEAF	1	
	S502	K0J1BB000031	SW CUE/REV	1	
⚠	S5701	K0ABCA000007	SW VOLT ADJ	1	GA/GS
	S6000	EVQ21405RJ	SW USB PLAY	1	
	S6001	EVQ21405RJ	SW AUX	1	
	S6002	EVQ21405RJ	SW TAPE	1	
	S6003	EVQ21405RJ	SW POWER	1	
	S6004	EVQ21405RJ	SW STOP	1	
	S6005	EVQ21405RJ	SW SURROUND	1	
	S6006	EVQ21405RJ	SW USB REC	1	
	S6008	EVQ21405RJ	SW MANUAL EQ	1	
	S6009	EVQ21405RJ	SW FORWARD	1	
	S6010	EVQ21405RJ	SW REMIND	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	S6011	EVQ21405RJ	SW GROUP UP	1	
	S6012	EVQ21405RJ	SW GROUP DOWN	1	
	S6013	EVQ21405RJ	SW CD/DVD PLAY	1	
	S6014	EVQ21405RJ	SW FM/AM	1	
	S6015	EVQ21405RJ	SW D.BASS	1	
	S6016	EVQ21405RJ	SW CD OPEN/CLOSE	1	
	SW4	K0F162A00001	SW RECORDING/ PLAYBACK	1	
			CONNECTORS		
	CN1113	K1KA05BA0061	5P CONNECTOR	1	
	CN2400	K1MY12AA0124	12P CONNECTOR	1	
	CN2403	K1MY22AA0124	22P CONNECTOR	1	
	CN2404	K1KA02AA0186	2P CONNECTOR	1	
	CN2899	K1MY08AA0124	8P CONNECTOR	1	
	CN3500	K1MN50AA0082	50P CONNECTOR	1	
	CN3501	K1MY11AA0124	11P CONNECTOR	1	
	CN3600	K1KA10AA0194	10P CONNECTOR	1	
	CN5801	K1KA06AA0180	6P CONNECTOR	1	
	CN5802	K1KA11AA0194	11P CONNECTOR	1	
	CN5902	K1MY12AA0124	12P CONNECTOR	1	
	CN6000	K1MY22AA0124	22P CONNECTOR	1	
	CN6001	K1KA04AA0031	4P CONNECTOR	1	
	CN6002	K1KA05BA0061	5P CONNECTOR	1	
	CN6004	K1KB04A00046	4P CONNECTOR	1	
	CP303	K1KA04AA0193	4P CONNECTOR	1	
	FP8031	K1MY10AA0021	10P CONNECTOR	1	
	FP8101	K1MN50BA0173	50P CONNECTOR	1	
	FP8251	K1MN07AA0076	7P CONNECTOR	1	
	FP8302	K1MN11AA0076	11P CONNECTOR	1	
	FP8531	K1MN24BA0197	24P CONNECTOR	1	
	FP9001	K1KA05BA0014	5P CONNECTOR	1	
			COILS AND INDUC- TORS		
	L51	G1CR18JA0020	INDUCTOR	1	
	L52	G2A380Y00002	ANTENNA COIL	1	
	L342	G0C101JA0027	INDUCTOR	1	
	L344	J0JBC0000019	INDUCTOR	1	
	L345	J0JBC0000019	INDUCTOR	1	
	L346	G0C101JA0027	INDUCTOR	1	
	L3300	J0JBC0000019	INDUCTOR	1	
	L3301	G0A100G00005	CHOKE COIL	1	
	L3303	G0A200D00002	CHOKE COIL	1	
	L3304	G0C220JA0055	INDUCTOR	1	
	L3400	J0JBC0000015	INDUCTOR	1	
	L3401	J0JBC0000015	INDUCTOR	1	
	L3402	J0JBC0000015	INDUCTOR	1	
	L3403	J0JBC0000015	INDUCTOR	1	
	L3600	G0C470JA0055	INDUCTOR	1	
	L4000	G0A200D00002	CHOKE COIL	1	
	L4001	G0A101ZA0028	CHOKE COIL	1	
	L4002	G0A200D00002	CHOKE COIL	1	
	L4003	G0A200D00002	CHOKE COIL	1	
	L4005	G0A200D00002	CHOKE COIL	1	
⚠	L5702	ELF22V020A	LINE FILTER	1	GC
⚠	L5703	G0B612H00002	LINE FILTER	1	
	L5704	J0JBC0000019	INDUCTOR	1	
	L5901	J0JKB0000020	INDUCTOR	1	
	L5902	J0JKB0000020	INDUCTOR	1	
	L5903	G0A150L00003	CHOKE COIL	1	
	L5904	G0B9R5K00007	INDUCTOR	1	
	L5905	G0B9R5K00007	INDUCTOR	1	
	L6001	J0JBC0000019	INDUCTOR	1	
	L6500	J0JBC0000019	INDUCTOR	1	
	L8201	G1C100M00049	INDUCTOR	1	
	L8251	G1C100M00049	INDUCTOR	1	
	L8301	G1C100M00049	INDUCTOR	1	
	L8302	G1C100M00049	INDUCTOR	1	
	L8303	G1C100M00049	INDUCTOR	1	
	L8330	G1C100M00049	INDUCTOR	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	L8501	G1C100M00049	INDUCTOR	1	
	L8550	G1C100M00049	INDUCTOR	1	
	LB51	J0JBC0000032	INDUCTOR	1	
	LB8001	J0JHC0000045	INDUCTOR	1	
	LB8011	J0JHC0000045	INDUCTOR	1	
	LB8401	J0JCC0000308	INDUCTOR	1	
	LB8422	J0JDC0000045	INDUCTOR	1	
	LB8530	J0JHC0000045	INDUCTOR	1	
	LB8532	J0JDC0000045	INDUCTOR	1	
	LB8551	J0JDC0000045	INDUCTOR	1	
	LB8561	J0JDC0000045	INDUCTOR	1	
	LB9001	J0JCC0000042	INDUCTOR	1	
	LB9002	J0JHC0000117	INDUCTOR	1	
	LB9003	J0JHC0000117	INDUCTOR	1	
	LB9004	J0JCC0000308	INDUCTOR	1	
			AM IFT COIL		
	T320	G2BNC0000006	AM IFT COIL	1	
			TRANSFORMERS		
⚠	T4300	G4DYA0000214	SWITCHING TRANS- FORMER	1	
⚠	T5701	ETS39AG4M6AD	MAIN TRANSFORMER	1	
⚠	T5751	ETS19AB2E6AG	SUB TRANSFORMER	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		
	Z2001	K9ZZ00001279	EARTH PLATE	1	
	Z2002	K9ZZ00001279	EARTH PLATE	1	
			COMPONENT COMBI- NATION		
	IR6000	B3RAB0000084	REMOTE CONTROL SENSOR	1	
			OSCILLATORS		
	X51	H0A327200097	CRYSTAL OSCILLA- TOR	1	
	X2801	H0A327200097	CRYSTAL OSCILLA- TOR	1	
	X2802	H2B100500004	CRYSTAL OSCILLA- TOR	1	
	X8621	H0J270500131	CRYSTAL OSCILLA- TOR	1	
	X9004	H1A4805B0027	CRYSTAL OSCILLA- TOR	1	
			FL DISPLAY		
	FL6000	A2BB00000171	LCD DISPLAY	1	
				1	
			FUSES	1	
⚠	F1	K5D402BK0007	FUSE	1	GC
⚠	F1	K5D632BK0007	FUSE	1	GA/GS
			FUSE HOLDERS		
	ZA5701	K3GE1ZZ00001	FUSE HOLDER	1	
	ZA5702	K3GE1ZZ00001	FUSE HOLDER	1	
			THERMISTORS		

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
⚠	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	
	JK1111	K1FY104B0011	USB CONNECTOR	1	
	JK3200	K2HA204B0153	JK AUX IN	1	
	JK3300	K2HA1YYB0004	JK DIGITAL OUT	1	
	JK3400	K2HA4YYB0002	JK VIDEO OUT	1	
	JK5901	K4AL04B00001	JK SPEAKER	1	
	JK6500	K2HB1YYA0003	JK MIC	1	
⚠	P5701	K2AA2B000011	AC INLET	1	
			CHIP JUMPERS		
	C2418	D0GDR00JA017	0 1/10W	1	
	C2419	D0GDR00JA017	0 1/10W	1	
	C2420	D0GBR00JA008	0 1/16W	1	
	C2421	D0GBR00JA008	0 1/16W	1	
	C2431	D0GBR00JA008	0 1/16W	1	
	C2433	D0GBR00JA008	0 1/16W	1	
	K10	D0GBR00JA008	0 1/16W	1	GC
	K11	D0GBR00JA008	0 1/16W	1	GC/GS
	K12	D0GBR00JA008	0 1/16W	1	GA
	K19	D0GBR00JA008	0 1/16W	1	GA/GS
	K1200	D0GBR00JA008	0 1/16W	1	
	K1210	D0GBR00JA008	0 1/16W	1	
	K2000	D0GDR00JA017	0 1/10W	1	
	K2007	D0GDR00JA017	0 1/10W	1	
	K2009	D0GDR00JA017	0 1/10W	1	
	K2017	D0GDR00JA017	0 1/10W	1	
	K2019	D0GBR00JA008	0 1/16W	1	
	K2021	D0GDR00JA017	0 1/10W	1	
	K2452	D0GBR00JA008	0 1/16W	1	
	K2453	D0GBR00JA008	0 1/16W	1	
	K3501	D0GDR00JA017	0 1/10W	1	
	K3503	D0GDR00JA017	0 1/10W	1	
	K5924	D0GBR00JA008	0 1/16W	1	
	K6003	D0GBR00JA008	0 1/16W	1	
	K8001	D0GBR00JA008	0 1/16W	1	GA
	K8006	D0GBR00JA008	0 1/16W	1	GA
	K8100	D0GBR00JA008	0 1/16W	1	
	K8105	D0GBR00JA008	0 1/16W	1	
	K8114	D0GBR00JA008	0 1/16W	1	
	K8115	D0GBR00JA008	0 1/16W	1	
	K8116	D0GBR00JA008	0 1/16W	1	
	K8117	D0GBR00JA008	0 1/16W	1	
	K8118	D0GBR00JA008	0 1/16W	1	
	K8119	D0GBR00JA008	0 1/16W	1	
	K8120	D0GBR00JA008	0 1/16W	1	
	K8121	D0GBR00JA008	0 1/16W	1	
	K8251	D0GBR00JA008	0 1/16W	1	
	K8252	D0GBR00JA008	0 1/16W	1	
	K8691	D0GAR00J0008	0 1/16W	1	
	K8695	D0GAR00J0008	0 1/16W	1	
	L54	D0GBR00JA008	0 1/16W	1	
	L343	D0GBR00JA008	0 1/16W	1	
	L2901	D0GDR00JA017	0 1/10W	1	
	L2902	D0GDR00JA017	0 1/10W	1	
	L6501	D0GBR00JA008	0 1/16W	1	
	L6502	D0GBR00JA008	0 1/16W	1	
	LB1200	D0GDR00JA017	0 1/10W	1	
	LB1210	D0GDR00JA017	0 1/10W	1	
	LB3506	D0GBR00JA008	0 1/16W	1	
	LB3507	D0GBR00JA008	0 1/16W	1	
	LB3508	D0GBR00JA008	0 1/16W	1	
	LB8255	D0GAR00J0008	0 1/16W	1	
	LB8312	D0GAR00J0008	0 1/16W	1	
	LB8313	D0GAR00J0008	0 1/16W	1	
	LB8314	D0GAR00J0008	0 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	LB8315	D0GAR00J0008	0 1/16W	1	
	LB8316	D0GAR00J0008	0 1/16W	1	
	LB8421	D0GAR00J0008	0 1/16W	1	
	LB8423	D0GAR00J0008	0 1/16W	1	
	LB8424	D0GAR00J0008	0 1/16W	1	
	LB8425	D0GAR00J0008	0 1/16W	1	
	LB8426	D0GAR00J0008	0 1/16W	1	
	LB8427	D0GAR00J0008	0 1/16W	1	
	LB8428	D0GAR00J0008	0 1/16W	1	
	LB8429	D0GAR00J0008	0 1/16W	1	
	LB8430	D0GAR00J0008	0 1/16W	1	
	LB8431	D0GAR00J0008	0 1/16W	1	
	LB8432	D0GAR00J0008	0 1/16W	1	
	LB8436	D0GAR00J0008	0 1/16W	1	
	LB8531	D0GAR00J0008	0 1/16W	1	
	W600	D0GBR00JA008	0 1/16W	1	
	W602	D0GBR00JA008	0 1/16W	1	
	W604	D0GBR00JA008	0 1/16W	1	
	W607	D0GBR00JA008	0 1/16W	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	
	W6123	D0GDR00JA017	0 1/10W	1	
	W6126	D0GBR00JA008	0 1/16W	1	
	W6561	D0GBR00JA008	0 1/16W	1	
			RESISTORS		
	LB8691	D0GA101JA023	100 1/16W	1	
	LB8692	D0GA101JA023	100 1/16W	1	
	LB8693	D0GA101JA023	100 1/16W	1	
	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	
	R101	D0GB392JA008	3.9K 1/16W	1	
	R102	D0GB222JA008	2.2K 1/16W	1	
	R103	D0GB102JA008	1K 1/16W	1	
	R104	D0GB104JA008	100K 1/16W	1	
	R105	D0GB560JA008	56 1/16W	1	
	R107	D0GBR00JA008	0 1/16W	1	
	R108	D0GB123JA008	12K 1/16W	1	
	R183	D0GB101JA008	100 1/16W	1	
	R201	D0GB392JA008	3.9K 1/16W	1	
	R202	D0GB222JA008	2.2K 1/16W	1	
	R203	D0GB102JA008	1K 1/16W	1	
	R204	D0GB104JA008	100K 1/16W	1	
	R205	D0GB560JA008	56 1/16W	1	
	R207	D0GBR00JA008	0 1/16W	1	
	R208	D0GB123JA008	12K 1/16W	1	
	R283	D0GB101JA008	100 1/16W	1	
	R319	D0GB101JA008	100 1/16W	1	
	R321	D0GB471JA008	470 1/16W	1	
	R322	D0GB105JA008	1M 1/16W	1	
	R323	D0GB563JA008	56K 1/16W	1	
	R324	D0GB100JA008	10 1/16W	1	
	R325	D0GB221JA007	220 1/10W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R326	D0GB104JA008	100K 1/16W	1	
	R392	D0GB103JA008	10K 1/16W	1	
	R393	D0GB103JA008	10K 1/16W	1	
	R1111	D0GB182JA008	1.8K 1/16W	1	
	R2000	D0GBR00JA008	0 1/16W	1	
	R2001	D0GB473JA008	47K 1/16W	1	
	R2002	D0GBR00JA008	0 1/16W	1	
	R2003	D0GB102JA008	1K 1/16W	1	
	R2004	D0GB473JA008	47K 1/16W	1	
	R2005	D0GBR00JA008	0 1/16W	1	
	R2007	D0GB472JA008	4.7K 1/16W	1	
	R2008	D0GB332JA008	3.3K 1/16W	1	
	R2009	D0GB332JA008	3.3K 1/16W	1	
	R2011	D0GB472JA008	4.7K 1/16W	1	
	R2012	D0GBR00JA008	0 1/16W	1	
	R2013	D0GB101JA008	100 1/16W	1	
	R2014	D0GB101JA008	100 1/16W	1	
	R2015	D0GB332JA008	3.3K 1/16W	1	
	R2016	D0GB332JA008	3.3K 1/16W	1	
	R2017	D0GB332JA008	3.3K 1/16W	1	
	R2018	D0GB332JA008	3.3K 1/16W	1	
	R2028	D0GB102JA008	1K 1/16W	1	
	R2029	D0GB102JA008	1K 1/16W	1	
	R2033	D0GB103JA008	10K 1/16W	1	
	R2034	D0GB103JA008	10K 1/16W	1	
	R2036	D0GB562JA008	5.6K 1/16W	1	
	R2037	D0GB562JA008	5.6K 1/16W	1	
	R2038	D0GB332JA008	3.3K 1/16W	1	
	R2039	D0GB332JA008	3.3K 1/16W	1	
	R2040	D0GB473JA008	47K 1/16W	1	
	R2041	D0GB472JA008	4.7K 1/16W	1	
	R2042	D0GB153JA008	15K 1/16W	1	
	R2043	D0GB102JA008	1K 1/16W	1	
	R2044	D0GB563JA008	56K 1/16W	1	
	R2045	D0AF680JA039	68 1/4W	1	
	R2048	D0GB332JA008	3.3K 1/16W	1	
	R2049	D0GB332JA008	3.3K 1/16W	1	
	R2057	D0GB475JA008	4.7M 1/16W	1	
	R2061	D0GBR00JA008	0 1/16W	1	
	R2062	D0GB102JA008	1K 1/16W	1	
	R2073	D0GB393JA008	39K 1/16W	1	
	R2074	D0GB154JA008	150K 1/16W	1	
	R2077	D0GB154JA008	150K 1/16W	1	
	R2078	D0GB103JA008	10K 1/16W	1	
	R2150	D0GB392JA008	3.9K 1/16W	1	
	R2151	D0GB392JA008	3.9K 1/16W	1	
	R2152	D0GB473JA008	47K 1/16W	1	
	R2153	D0GB473JA008	47K 1/16W	1	
	R2154	D0GB473JA008	47K 1/16W	1	
	R2155	D0GB473JA008	47K 1/16W	1	
	R2156	D0GB473JA008	47K 1/16W	1	
	R2157	D0GB473JA008	47K 1/16W	1	
	R2158	D0GB223JA008	22K 1/16W	1	
	R2159	D0GB223JA008	22K 1/16W	1	
	R2160	D0GB223JA008	22K 1/16W	1	
	R2161	D0GB223JA008	22K 1/16W	1	
	R2162	D0GB222JA008	2.2K 1/16W	1	
	R2163	D0GB222JA008	2.2K 1/16W	1	
	R2164	D0GB104JA008	100K 1/16W	1	
	R2165	D0GBR00JA008	0 1/16W	1	
	R2166	D0GBR00JA008	0 1/16W	1	
	R2259	D0GB272JA008	2.7K 1/16W	1	
	R2262	D0GB101JA008	100 1/16W	1	
	R2263	D0GB271JA008	270 1/16W	1	
	R2325	D0GB101JA008	100 1/16W	1	
	R2400	D0AF220JA039	22 1/4W	1	
	R2401	D0GBR00JA008	0 1/16W	1	
	R2402	D0GBR00JA008	0 1/16W	1	
	R2403	D0GB682JA008	6.8K 1/16W	1	
	R2404	D0GB682JA008	6.8K 1/16W	1	
	R2405	D0GBR00JA008	0 1/16W	1	
	R2406	D0GBR00JA008	0 1/16W	1	
	R2407	D0GB103JA008	10K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R2408	D0GB103JA008	10K 1/16W	1	
	R2409	D0GB473JA008	47K 1/16W	1	
	R2410	D0GB473JA008	47K 1/16W	1	
	R2423	D0GBR00JA008	0 1/16W	1	
	R2424	D0GBR00JA008	0 1/16W	1	
	R2433	D0GBR00JA008	0 1/16W	1	
	R2434	D0GBR00JA008	0 1/16W	1	
	R2438	D0GB103JA008	10K 1/16W	1	
	R2440	D0GB103JA008	10K 1/16W	1	
	R2800	D0GB101JA008	100 1/16W	1	
	R2801	D0GB101JA008	100 1/16W	1	
	R2802	D0GB473JA008	47K 1/16W	1	
	R2803	D0GB122JA008	1.2K 1/16W	1	GA
	R2803	D0GB332JA008	3.3K 1/16W	1	GC/GS
	R2804	D0GB103JA008	10K 1/16W	1	
	R2805	D0GB101JA008	100 1/16W	1	
	R2806	D0GB101JA008	100 1/16W	1	
	R2807	D0GB101JA008	100 1/16W	1	
	R2809	D0GB102JA008	1K 1/16W	1	
	R2810	D0GB102JA008	1K 1/16W	1	
	R2811	D0GB103JA008	10K 1/16W	1	
	R2812	D0GB106JA008	10M 1/16W	1	
	R2813	D0GB331JA008	330 1/16W	1	
	R2814	D0GB105JA008	1M 1/16W	1	
	R2815	D0GB101JA008	100 1/16W	1	
	R2816	D0GB221JA007	220 1/10W	1	
	R2817	D0GB101JA008	100 1/16W	1	
	R2818	D0GB101JA008	100 1/16W	1	
	R2819	D0GB101JA008	100 1/16W	1	
	R2820	D0GB102JA008	1K 1/16W	1	
	R2821	D0GB103JA008	10K 1/16W	1	
	R2822	D0GB102JA008	1K 1/16W	1	
	R2823	D0GB101JA008	100 1/16W	1	
	R2824	D0GB101JA008	100 1/16W	1	
	R2825	D0GB101JA008	100 1/16W	1	
	R2826	D0GB101JA008	100 1/16W	1	
	R2827	D0GB101JA008	100 1/16W	1	
	R2828	D0GB101JA008	100 1/16W	1	
	R2829	D0GB101JA008	100 1/16W	1	
	R2830	D0GB101JA008	100 1/16W	1	
	R2831	D0GB102JA008	1K 1/16W	1	
	R2832	D0GB101JA008	100 1/16W	1	
	R2833	D0GB102JA008	1K 1/16W	1	
	R2834	D0GB101JA008	100 1/16W	1	
	R2835	D0GB221JA007	220 1/10W	1	
	R2836	D0GB102JA008	1K 1/16W	1	
	R2837	D0GB221JA007	220 1/10W	1	
	R2838	D0GB223JA008	22K 1/16W	1	
	R2839	D0GB473JA008	47K 1/16W	1	
	R2840	D0GB473JA008	47K 1/16W	1	
	R2841	D0GB223JA008	22K 1/16W	1	
	R2842	D0GB473JA008	47K 1/16W	1	
	R2843	D0GB473JA008	47K 1/16W	1	
	R2844	D0GB104JA008	100K 1/16W	1	
	R2846	D0GB102JA008	1K 1/16W	1	
	R2847	D0GB104JA008	100K 1/16W	1	
	R2848	D0GB104JA008	100K 1/16W	1	
	R2855	D0GB473JA008	47K 1/16W	1	
	R2856	D0GB473JA008	47K 1/16W	1	
	R2857	D0GB473JA008	47K 1/16W	1	
	R2859	D0GB103JA008	10K 1/16W	1	
	R2860	D0GB102JA008	1K 1/16W	1	
	R2861	D0GB474JA008	470K 1/16W	1	
	R2862	D0GBR00JA017	0 1/10W	1	
	R2864	D0GB102JA008	1K 1/16W	1	
	R2867	D0GB122JA008	1.2K 1/16W	1	
	R2868	D0GB153JA008	15K 1/16W	1	
	R2869	D0GB103JA008	10K 1/16W	1	
	R2871	D0GB153JA008	15K 1/16W	1	
	R2872	D0GB103JA008	10K 1/16W	1	
	R2873	D0GB101JA008	100 1/16W	1	
	R2874	D0GB103JA008	10K 1/16W	1	
	R2950	D0GB223JA008	22K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R2951	D0GB223JA008	22K 1/16W	1	
	R2952	D0GB103JA008	10K 1/16W	1	
	R2960	D0GB222JA008	2.2K 1/16W	1	
	R2961	D0GB222JA008	2.2K 1/16W	1	
	R2976	D0GB474JA008	470K 1/16W	1	
	R2977	D0GBR00JA008	0 1/16W	1	
	R2978	D0GB393JA008	39K 1/16W	1	
	R2979	D0GBR00JA008	0 1/16W	1	
	R2981	D0GB102JA008	1K 1/16W	1	
	R2982	D0GB102JA008	1K 1/16W	1	
	R2983	D0GB474JA008	470K 1/16W	1	
	R2984	D0GB102JA008	1K 1/16W	1	
	R3200	D0GB103JA008	10K 1/16W	1	
	R3201	D0GB103JA008	10K 1/16W	1	
	R3202	D0GB103JA008	10K 1/16W	1	
	R3203	D0GB103JA008	10K 1/16W	1	
	R3300	D0GB103JA008	10K 1/16W	1	
	R3301	D0GB750JA008	75 1/16W	1	
	R3302	D0GB221JA007	220 1/10W	1	
	R3303	D0GB102JA008	1K 1/16W	1	
	R3304	D0GB102JA008	1K 1/16W	1	
	R3305	D0GB122JA008	1.2K 1/16W	1	
	R3306	D0GBR00JA008	0 1/16W	1	
	R3307	D0GB103JA008	10K 1/16W	1	
	R3308	D0GB102JA008	1K 1/16W	1	
	R3311	D0GB152JA008	1.5K 1/16W	1	
	R3312	D0GB152JA008	1.5K 1/16W	1	
	R3400	D0GB750JA008	75 1/16W	1	
	R3401	D0GB750JA008	75 1/16W	1	
	R3402	D0GB750JA008	75 1/16W	1	
	R3403	D0GB750JA008	75 1/16W	1	
	R3404	D0GB102JA008	1K 1/16W	1	
	R3500	D0GB222JA008	2.2K 1/16W	1	
	R3508	D0GB203JA008	20K 1/16W	1	
	R3509	D0GB222JA008	2.2K 1/16W	1	
	R3510	D0GB222JA008	2.2K 1/16W	1	
	R3511	D0GB472JA008	4.7K 1/16W	1	
	R3512	D0GBR00JA008	0 1/16W	1	
	R3513	D0GBR00JA008	0 1/16W	1	
	R3514	D0GBR00JA008	0 1/16W	1	
	R3515	D0GBR00JA008	0 1/16W	1	
	R3516	D0GB103JA008	10K 1/16W	1	
	R3517	D0GB103JA008	10K 1/16W	1	
	R3518	D0GB103JA008	10K 1/16W	1	
	R3600	D0GB393JA008	39K 1/16W	1	
	R3601	D0GB393JA008	39K 1/16W	1	
	R3602	D0GB152JA008	1.5K 1/16W	1	
	R3603	D0GB152JA008	1.5K 1/16W	1	
	R3604	D0GB473JA008	47K 1/16W	1	
	R3605	D0GB222JA008	2.2K 1/16W	1	
	R3606	D0GBR00JA008	0 1/16W	1	
	R3607	D0GBR00JA008	0 1/16W	1	
	R4001	D0GB152JA008	1.5K 1/16W	1	
	R4002	D0GB272JA008	2.7K 1/16W	1	
	R4003	D0GB102JA008	1K 1/16W	1	
	R4004	D0GB224JA008	220K 1/16W	1	
	R4005	D0GB912JA041	9.1K 1/16W	1	
	R4006	D0GB103JA008	10K 1/16W	1	
	R4007	D0GB153JA008	15K 1/16W	1	
	R4008	D0GB183JA008	18K 1/16W	1	
	R4009	D0GB183JA008	18K 1/16W	1	
	R4010	D0GB223JA008	22K 1/16W	1	
	R4011	D0GB683JA008	68K 1/16W	1	
	R4017	D0GB105JA008	1M 1/16W	1	
	R4200	D0GB101JA008	100 1/16W	1	
	R4201	D0GB391JA008	390 1/16W	1	
	R4300	D0GB2R2JA007	2.2 1/10W	1	
	R4301	D0GB2R2JA007	2.2 1/10W	1	
	R4302	D0GB2R2JA007	2.2 1/10W	1	
	R4303	D0GB271JA008	270 1/16W	1	
	R4304	D0GB562JA008	5.6K 1/16W	1	
	R4305	D0GB470JA008	47 1/16W	1	
	R4306	D0GB473JA008	47K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R4307	D0GDR00JA017	0 1/10W	1	
	R4308	D0GBR00JA008	0 1/16W	1	
	R4407	D0GB102JA008	1K 1/16W	1	
	R5702	D0GZ104JA012	100K 1W	1	
	R5703	D0GZ104JA012	100K 1W	1	
	R5704	ERJ8GEYJ224V	220K 1/4W	1	
	R5705	ERJ8GEYJ224V	220K 1/4W	1	
	R5706	D0GD824JA017	820K 1/10W	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	ERX2SJR27P	0.27 2W	1	GC
	R5726	ERX2SJR10P	0.1 2W	1	GA/GS
	R5727	ERX2SJR27P	0.27 2W	1	GC
	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	
	R5795	D0GD474JA017	470K 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	
	R5834	D0GZ222JA012	2.2K 1W	1	
	R5835	D0GZ222JA012	2.2K 1W	1	
	R5836	D0GZ222JA012	2.2K 1W	1	
	R5837	D0GZ222JA012	2.2K 1W	1	
	R5840	D0GB823JA008	82K 1/16W	1	
	R5841	D0GB124JA008	120K 1/16W	1	
	R5860	ERJ3GEYF103V	10K 1/10W	1	
	R5861	ERJ3GEYF332V	3.3K 1/10W	1	GA/GS
	R5861	ERJ3GEYF472V	4.7K 1/10W	1	GC
	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	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	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	
	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	
	R6012	D0GB680JA008	68 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	
	R6024	D0GB680JA008	68 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	D0GB680JA008	68 1/16W	1	
	R6048	D0GB123JA008	12K 1/16W	1	
	R6049	D0GB223JA008	22K 1/16W	1	
	R6050	D0GB103JA008	10K 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	D0GB680JA008	68 1/16W	1	
	R6062	D0GB680JA008	68 1/16W	1	
	R6067	D0GBR00JA008	0 1/16W	1	
	R6068	D0GBR00JA008	0 1/16W	1	
	R6071	D0GBR00JA008	0 1/16W	1	
	R6074	D0GB102JA008	1K 1/16W	1	
	R6080	D0GBR00JA008	0 1/16W	1	
	R6083	D0GB1R0JA008	1.0 1/16W	1	
	R6084	D0GB1R0JA008	1.0 1/16W	1	
	R6500	D0GB101JA008	100 1/16W	1	
	R6501	D0GB222JA008	2.2K 1/16W	1	
	R6502	D0GB473JA008	47K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R6503	D0GB105JA008	1M 1/16W	1	
	R6504	D0GB223JA008	22K 1/16W	1	
	R6505	D0GB471JA008	470 1/16W	1	
	R6506	D0GB561JA008	560 1/16W	1	
	R6507	D0GB681JA008	680 1/16W	1	
	R6509	D0GBR00JA008	0 1/16W	1	
	R6510	D0GBR00JA008	0 1/16W	1	
	R8001	D0GA103JA023	10K 1/16W	1	
	R8003	D0GA103JA023	10K 1/16W	1	
	R8011	D0GA220JA023	22 1/16W	1	
	R8012	D0GA220JA023	22 1/16W	1	
	R8013	D0GA220JA023	22 1/16W	1	
	R8111	D0GAR00J0008	0 1/16W	1	
	R8211	D0GA103JA023	10K 1/16W	1	
	R8221	D0GA822JA023	8.2K 1/16W	1	
	R8225	D0GA822JA023	8.2K 1/16W	1	
	R8230	D0GA222JA023	2.2K 1/16W	1	
	R8231	D0GA752JA023	7.5K 1/16W	1	
	R8232	D0GA752JA023	7.5K 1/16W	1	
	R8251	D0GD6R8JA017	6.8 1/10W	1	
	R8252	D0GA103JA023	10K 1/16W	1	
	R8261	D0GA823JA023	82K 1/16W	1	
	R8262	D0GA153JA023	15K 1/16W	1	
	R8263	D0GA823JA023	82K 1/16W	1	
	R8264	D0GA153JA023	15K 1/16W	1	
	R8311	ERJ2RHD242X	2.4K 1/16W	1	
	R8312	ERJ2RHD102X	1K 1/16W	1	
	R8313	ERJ2RHD153X	15K 1/16W	1	
	R8314	ERJ2RHD153X	15K 1/16W	1	
	R8315	ERJ2RKD240X	24 1/16W	1	
	R8316	ERJ2RKD240X	24 1/16W	1	
	R8317	D0GA153JA023	15K 1/16W	1	
	R8318	D0GA153JA023	15K 1/16W	1	
	R8321	ERJ3RBD201V	200 1/16W	1	
	R8323	D0GA330JA023	33 1/16W	1	
	R8324	D0GA102JA023	1K 1/16W	1	
	R8325	ERJ3RBD201V	200 1/16W	1	
	R8327	D0GA330JA023	33 1/16W	1	
	R8328	D0GA102JA023	1K 1/16W	1	
	R8331	ERJ3RBD201V	200 1/16W	1	
	R8333	D0GA330JA023	33 1/16W	1	
	R8334	D0GA102JA023	1K 1/16W	1	
	R8335	ERJ3RBD201V	200 1/16W	1	
	R8336	D0GA330JA023	33 1/16W	1	
	R8337	D0GA102JA023	1K 1/16W	1	
	R8341	ERJ3RBD201V	200 1/16W	1	
	R8342	D0GA330JA023	33 1/16W	1	
	R8343	D0GA102JA023	1K 1/16W	1	
	R8401	D0GA101JA023	100 1/16W	1	
	R8402	D0GA101JA023	100 1/16W	1	
	R8403	D0GA101JA023	100 1/16W	1	
	R8404	D0GA102JA023	1K 1/16W	1	
	R8406	D0GAR00J0008	0 1/16W	1	
	R8407	ERJ2GEJ202X	2.0K 1/16W	1	
	R8421	D0GAR00J0008	0 1/16W	1	
	R8422	D0GAR00J0008	0 1/16W	1	
	R8501	D0GA103JA023	10K 1/16W	1	
	R8502	D0GA103JA023	10K 1/16W	1	
	R8503	D0GA103JA023	10K 1/16W	1	
	R8504	D0GA103JA023	10K 1/16W	1	
	R8531	D0GA152JA023	1.5K 1/16W	1	
	R8532	D0GA222JA023	2.2K 1/16W	1	
	R8533	D0GAR00J0008	0 1/16W	1	
	R8534	D0GA103JA023	10K 1/16W	1	
	R8535	D0GA104JA023	100K 1/16W	1	
	R8536	D0GA103JA023	10K 1/16W	1	
	R8537	D0GAR00J0008	0 1/16W	1	
	R8538	D0GAR00J0008	0 1/16W	1	
	R8539	D0GAR00J0008	0 1/16W	1	
	R8541	D0GA153JA023	15K 1/16W	1	
	R8542	D0GAR00J0008	0 1/16W	1	
	R8551	D0GAR00J0008	0 1/16W	1	
	R8552	D0GA102JA023	1K 1/16W	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	R8553	D0GA102JA023	1K 1/16W	1	
	R8554	D0GA680JA023	68 1/16W	1	
	R8555	D0GA2R2JA023	2.2 1/16W	1	
	R8556	D0GB560JA008	56 1/16W	1	
	R8557	D0GB510JA008	51 1/16W	1	
	R8558	D0GA473JA023	47K 1/16W	1	
	R8559	D0GA153JA023	15K 1/16W	1	
	R8561	D0GAR00J0008	0 1/16W	1	
	R8562	D0GA102JA023	1K 1/16W	1	
	R8563	D0GA102JA023	1K 1/16W	1	
	R8564	D0GA220JA023	22 1/16W	1	
	R8565	D0GA2R2JA023	2.2 1/16W	1	
	R8566	D0GB560JA008	56 1/16W	1	
	R8567	D0GB510JA008	51 1/16W	1	
	R8568	D0GA473JA023	47K 1/16W	1	
	R8601	D0GA104JA023	100K 1/16W	1	
	R8602	D0GAR00J0008	0 1/16W	1	
	R8611	D0GA101JA023	100 1/16W	1	
	R8613	D0GA101JA023	100 1/16W	1	
	R8621	D0GA105JA023	1M 1/16W	1	
	R8622	ERJ2RHD102X	1K 1/16W	1	
	R9001	D0GAR00J0008	0 1/16W	1	
	R9002	D0GAR00J0008	0 1/16W	1	
	R9007	D0GA103JA023	10K 1/16W	1	
	R9008	D0GA105JA023	1M 1/16W	1	
	R9009	D0GA152JA023	1.5K 1/16W	1	
	R9010	D0GA100JA023	10 1/16W	1	
	R9023	D0GA103JA023	10K 1/16W	1	
	R9036	D0GA103JA023	10K 1/16W	1	
	R9037	D0GA103JA023	10K 1/16W	1	
	R9040	D0GA103JA023	10K 1/16W	1	
	R9041	D0GA103JA023	10K 1/16W	1	
	R9043	D0GA103JA023	10K 1/16W	1	
	R9044	D0GA103JA023	10K 1/16W	1	
	R9045	D0GA103JA023	10K 1/16W	1	
	R9046	D0GA103JA023	10K 1/16W	1	
	R9047	D0GA103JA023	10K 1/16W	1	
	R9048	D0GA103JA023	10K 1/16W	1	
	R9049	D0GA103JA023	10K 1/16W	1	
	R9055	D0GA472JA023	4.7K 1/16W	1	
	R9080	D0GA103JA023	10K 1/16W	1	
	R9082	D0GA103JA023	10K 1/16W	1	
	R9083	D0GA470JA023	47 1/16W	1	
	R9084	D0GA470JA023	47 1/16W	1	
	R9085	D0GA470JA023	47 1/16W	1	
	R9086	D0GA470JA023	47 1/16W	1	
	R9087	D0GA470JA023	47 1/16W	1	
	R9088	D0GA470JA023	47 1/16W	1	
	R9099	D0GAR00J0008	0 1/16W	1	
			RESISTOR NET- WORKS		
	RX8001	D1H410320002	RESISTOR NETWORK	1	
	RX8011	D1H88204A043	RESISTOR NETWORK	1	
	RX8012	D1H88204A043	RESISTOR NETWORK	1	
	RX8013	D1H88204A043	RESISTOR NETWORK	1	
	RX8014	D1H88204A043	RESISTOR NETWORK	1	
	RX8015	D1H88204A043	RESISTOR NETWORK	1	
	RX8016	D1H88204A043	RESISTOR NETWORK	1	
	RX8017	D1H88204A043	RESISTOR NETWORK	1	
	RX8018	D1H422020001	RESISTOR NETWORK	1	
	RX8019	D1H422020001	RESISTOR NETWORK	1	
	RX8020	D1H422020001	RESISTOR NETWORK	1	
	RX8031	D1H447220001	RESISTOR NETWORK	1	
	RX8032	D1H447220001	RESISTOR NETWORK	1	
	RX8401	D1H410120001	RESISTOR NETWORK	1	
	RX8402	D1H410120001	RESISTOR NETWORK	1	
	RX8531	D1H456020001	RESISTOR NETWORK	1	
	RX8532	D1H456020001	RESISTOR NETWORK	1	
	RX8533	D1H456020001	RESISTOR NETWORK	1	
	RX8611	D1H447220001	RESISTOR NETWORK	1	
	RX8691	D1H410320002	RESISTOR NETWORK	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	RX9014	D1H85604A043	RESISTOR NETWORK	1	
	RX9015	D1H85604A043	RESISTOR NETWORK	1	
	RX9016	D1H85604A043	RESISTOR NETWORK	1	
	RX9017	D1H85604A043	RESISTOR NETWORK	1	
	RX9018	D1H447220001	RESISTOR NETWORK	1	
	RX9020	D1H447220001	RESISTOR NETWORK	1	
			CAPACITORS		
	C51	F1H1H102A219	1000pF 50V	1	
	C52	F1H1A474A001	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	
	C63	F1H0J1050012	1uF 6.3V	1	
	C102	F1H1H333A220	0.033uF 50V	1	
	C103	F1H1H222A013	2200pF 50V	1	
	C104	F2A1C100A207	10uF 16V	1	
	C105	F1H1H331A013	330pF 50V	1	
	C108	F1H1H222A013	2200pF 50V	1	
	C109	F1H1H102A219	1000pF 50V	1	
	C110	F2A1C101A208	100uF 16V	1	
	C111	F1H1H100A230	10pF 50V	1	
	C112	F1H1H100A230	10pF 50V	1	
	C120	F1H0J1050012	1uF 6.3V	1	
	C202	F1H1H333A220	0.033uF 50V	1	
	C203	F1H1H222A013	2200pF 50V	1	
	C204	F2A1C100A207	10uF 16V	1	
	C205	F1H1H331A013	330pF 50V	1	
	C208	F1H1H222A013	2200pF 50V	1	
	C209	F1H1H102A219	1000pF 50V	1	
	C210	F2A1C101A208	100uF 16V	1	
	C220	F1H0J1050012	1uF 6.3V	1	
	C311	F2A1C330B453	33uF 16V	1	
	C312	F2A1C101A155	100uF 16V	1	
	C313	F2A1H3R3A213	3.3uF 50V	1	
	C321	F1H1H102A219	1000pF 50V	1	
	C322	F1H1H223A219	0.022uF 50V	1	
	C323	F2A1C101A208	100uF 16V	1	
	C324	F1H1H152A219	1500pF 50V	1	
	C327	F1H1H103A219	0.01uF 50V	1	
	C328	F1H1C104A042	0.1uF 16V	1	
	C384	F2A1C101A208	100uF 16V	1	
	C385	F1H1C104A042	0.1uF 16V	1	
	C392	F2A1C100A207	10uF 16V	1	
	C501	F2A1C100A207	10uF 16V	1	
	C1100	F2A0J101A208	100uF 6.3V	1	
	C1110	F1H1H104A013	0.1uF 50V	1	
	C2000	F1H0J1050012	1uF 6.3V	1	
	C2001	F1H0J1050012	1uF 6.3V	1	
	C2002	F1H0J1050012	1uF 6.3V	1	
	C2003	F1H0J1050012	1uF 6.3V	1	
	C2005	F1H0J1050012	1uF 6.3V	1	
	C2006	F1H0J1050012	1uF 6.3V	1	
	C2007	F1H0J1050012	1uF 6.3V	1	
	C2008	F1H0J1050012	1uF 6.3V	1	
	C2009	F1H0J1050012	1uF 6.3V	1	
	C2010	F1H0J1050012	1uF 6.3V	1	
	C2011	F1H0J1050012	1uF 6.3V	1	
	C2013	F1H0J1050012	1uF 6.3V	1	
	C2014	F1H1H103A219	0.01uF 50V	1	
	C2015	F1H1H102A219	1000pF 50V	1	
	C2016	F1H1H102A219	1000pF 50V	1	
	C2017	F1H1H102A219	1000pF 50V	1	
	C2020	F1H1H102A219	1000pF 50V	1	
	C2021	F1H1H102A219	1000pF 50V	1	
	C2022	F2A1A330B138	33uF 10V	1	
	C2030	F1H1A474A025	0.47uF 10V	1	
	C2031	F1H1A474A025	0.47uF 10V	1	
	C2032	F1H1A334A036	0.33uF 10V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C2033	F1H1A334A036	0.33uF 10V	1	
	C2036	F1H1H272A013	2700pF 50V	1	
	C2037	F1H1H272A013	2700pF 50V	1	
	C2038	F1H1H103A219	0.01uF 50V	1	
	C2039	F1H1H103A219	0.01uF 50V	1	
	C2041	F1H1H103A219	0.01uF 50V	1	
	C2042	F1H1H103A219	0.01uF 50V	1	
	C2043	F1H1H183A219	0.018uF 50V	1	
	C2044	F1H1H183A219	0.018uF 50V	1	
	C2045	F1H1A124A012	0.12uF 10V	1	
	C2046	F1H1A124A012	0.12uF 10V	1	
	C2048	F1H1H332A219	3300pF 50V	1	
	C2049	F1H1C104A042	0.1uF 16V	1	
	C2050	F1H1A184A012	0.18uF 10V	1	
	C2051	F2A1H3R3A213	3.3uF 50V	1	
	C2052	F2A1H3R3A213	3.3uF 50V	1	
	C2053	F1H0J4750004	4.7uF 6.3V	1	
	C2054	F1H1A184A012	0.18uF 10V	1	
	C2055	F2A1H3R3A213	3.3uF 50V	1	
	C2056	F2A1H1R0A213	1.0uF 50V	1	
	C2058	F1H1C683A087	0.068uF 16V	1	
	C2059	F2A1C221A209	220uF 16V	1	
	C2060	F1H1H102A219	1000pF 50V	1	
	C2061	F1H1H102A219	1000pF 50V	1	
	C2063	F1H1C104A042	0.1uF 16V	1	
	C2070	F1H0J1050012	1uF 6.3V	1	
	C2072	F1H1H562A219	5600pF 50V	1	
	C2150	F1H0J1050012	1uF 6.3V	1	
	C2151	F2A0J101A208	100uF 6.3V	1	
	C2152	F2A0J101A208	1uF 6.3V	1	
	C2153	F1H0J1050012	1uF 6.3V	1	
	C2154	F1H0J1050012	1uF 6.3V	1	
	C2155	F1H0J1050012	1uF 6.3V	1	
	C2156	F1H1H470A230	47pF 50V	1	
	C2157	F1H1H470A230	47pF 50V	1	
	C2158	F1H1H470A230	47pF 50V	1	
	C2159	F1H1H470A230	47pF 50V	1	
	C2161	F1H1A334A036	0.33uF 10V	1	
	C2162	F1H1A334A036	0.33uF 10V	1	
	C2163	F2A0J101A208	100uF 6.3V	1	
	C2164	F1H1C104A042	0.1uF 16V	1	
	C2165	F1H1C104A042	0.1uF 16V	1	
	C2400	F1H0J1050012	1uF 6.3V	1	
	C2401	F1H0J1050012	1uF 6.3V	1	
	C2402	F2A1C221A209	220uF 16V	1	
	C2403	F1H0J1050012	1uF 6.3V	1	
	C2404	F1H0J1050012	1uF 6.3V	1	
	C2405	F1H1H470A230	47pF 50V	1	
	C2406	F1H1H151A792	150pF 50V	1	
	C2407	F1H1H470A230	47pF 50V	1	
	C2408	F1H1H151A792	150pF 50V	1	
	C2409	F1H0J4750004	4.7uF 6.3V	1	
	C2410	F1H0J4750004	4.7uF 6.3V	1	
	C2424	F1H1A334A036	0.33uF 10V	1	
	C2425	F1H1A334A036	0.33uF 10V	1	
	C2434	F2A0J221A211	220uF 6.3V	1	
	C2435	F1H1C104A042	0.1uF 16V	1	
	C2800	F1H1H101A230	100pF 50V	1	
	C2801	F1H1H101A230	100pF 50V	1	
	C2802	F1H1H103A219	0.01uF 50V	1	
	C2803	F1H1H180A230	18pF 50V	1	
	C2804	F1H1H180A230	18pF 50V	1	
	C2805	F1H1C104A042	0.1uF 16V	1	
	C2806	F1H1C104A042	0.1uF 16V	1	
	C2815	F1H1C104A042	0.1uF 16V	1	
	C2817	F2A0J221A211	220uF 6.3V	1	
	C2818	F1H1C104A042	0.1uF 16V	1	
	C2819	F2A1H3R3A213	3.3uF 50V	1	
	C2950	F1H1H223A219	0.022uF 50V	1	
	C2951	F1H1H331A219	330pF 50V	1	
	C2952	F1H1H331A219	330pF 50V	1	
	C2953	F1H1H223A219	0.022uF 50V	1	
	C2970	F1H0J1050012	1uF 6.3V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C2971	F1H1A184A012	0.18uF 10V	1	
	C3119	D0GBR00JA008	0 1/16W	1	
	C3200	F1H1H681A013	680pF 50V	1	
	C3201	F1H1H681A013	680pF 50V	1	
	C3202	F1H1H101A230	100pF 50V	1	
	C3203	F1H1H101A230	100pF 50V	1	
	C3300	F2A1A330B138	33uF 10V	1	
	C3301	F2A1A330B138	33uF 10V	1	
	C3302	F1H1H560A230	56pF 50V	1	
	C3303	F1H1C104A042	0.1uF 16V	1	
	C3304	F2A1A330B138	33uF 10V	1	
	C3305	F1H1H103A219	0.01uF 50V	1	
	C3306	F2A0J221A211	220uF 6.3V	1	
	C3307	F1H1H103A219	0.01uF 50V	1	
	C3400	F1H1H101A230	100pF 50V	1	
	C3401	F1H1H101A230	100pF 50V	1	
	C3402	F1H1H101A230	100pF 50V	1	
	C3403	F1H1H101A230	100pF 50V	1	
	C3404	F2A0J102A130	1000uF 6.3V	1	
	C3405	F2A0J331A183	330uF 6.3V	1	
	C3406	F2A0J102A130	1000uF 6.3V	1	
	C3407	F2A0J331A183	330uF 6.3V	1	
	C3408	F2A1C100A207	10uF 16V	1	
	C3409	F1H1C104A042	0.1uF 16V	1	
	C3411	F1H1C104A042	0.1uF 16V	1	
	C3412	F1H1C104A042	0.1uF 16V	1	
	C3413	F1H1H103A219	0.01uF 50V	1	
	C3414	F1H1C104A042	0.1uF 16V	1	
	C3506	F1H1C104A042	0.1uF 16V	1	
	C3508	F2A1A330B138	33uF 10V	1	
	C3509	ECQV1H474JL3	0.47uF 50V	1	
	C3510	F1H1C104A042	0.1uF 16V	1	
	C3512	F1H1C104A042	0.1uF 16V	1	
	C3600	F1H1H103A219	0.01uF 50V	1	
	C3601	F1H1H103A219	0.01uF 50V	1	
	C3602	F2A1C471B457	470uF 16V	1	
	C3603	F1H0J1050012	1uF 6.3V	1	
	C3604	F1H0J1050012	1uF 6.3V	1	
	C4000	F1H1H103A219	0.01uF 50V	1	
	C4001	F2A0J101A208	100uF 6.3V	1	
	C4002	F1H1H103A219	0.01uF 50V	1	
	C4003	F2A0J101A208	100uF 6.3V	1	
	C4004	F1H0J1050012	1uF 6.3V	1	
	C4005	F1H1H103A219	0.01uF 50V	1	
	C4006	EEUFC0J821B	820uF 6.3V	1	
	C4007	F2A1E102B396	1000uF 25V	1	
	C4008	F1H1H103A219	0.01uF 50V	1	
	C4009	F1H1A224A007	0.22uF 10V	1	
	C4010	F1H1C104A042	0.1uF 16V	1	
	C4100	F1H0J1050012	1uF 6.3V	1	
	C4101	F1H0J1050012	1uF 6.3V	1	
	C4200	F2A1C101A208	100uF 16V	1	
	C4201	F1H1H103A219	0.01uF 50V	1	
	C4202	F2A1C330A234	33uF 16V	1	
	C4203	F1H1H103A219	0.01uF 50V	1	
	C4204	F2A1C102B459	1000uF 16V	1	
	C4205	F1H1H103A219	0.01uF 50V	1	
	C4206	F2A1E102B396	1000uF 25V	1	
	C4300	F1H1H103A219	0.01uF 50V	1	
	C4301	F2A1H470A147	47uF 50V	1	
	C4302	F1H1H332A013	3300pF 50V	1	
	C4303	F2A1C101A208	100uF 16V	1	
	C4304	F2A1H470A147	47uF 50V	1	
	C4406	F1H1H103A219	0.01uF 50V	1	
	C4407	F2A1C470B455	47uF 16V	1	
	C4408	F1H1H103A219	0.01uF 50V	1	
	C4409	F1H1H103A219	0.01uF 50V	1	
	C4410	F2A1C221A209	220uF 16V	1	
△	C5700	F1BAF471A013	470pF	1	GC
△	C5701	F0CAF104A105	0.1uF	1	
△	C5703	F0CAF224A105	0.22uF	1	
△	C5704	F1BAF471A013	470pF	1	GA/GS
△	C5705	F1BAF471A013	470pF	1	GA/GS

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
⚠	C5706	F1BAF471A013	470pF	1	GC
⚠	C5707	F1BAF1020020	1000pF	1	GC
⚠	C5708	F1BAF1020020	1000pF	1	GC
⚠	C5708	F1BAF471A013	470pF	1	GA/GS
	C5711	F2B2G2210012	220uF 400V	1	GA/GS
	C5712	F2B2G1810011	180uF 400V	1	GC
	C5712	F2B2G2210012	220uF 400V	1	GA/GS
	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	
	C5728	F1H1H102A219	1000pF 50V	1	
	C5730	F1H1E105A116	1uF 25V	1	
	C5737	ECKE3D821KBP	820pF 2000V	1	
	C5790	F1K2J2220002	2200pF 630V	1	
	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	F1H1H221A219	220pF 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	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C5934	F1J2A221A030	220pF 100V	1	
	C5935	F1J2A221A030	220pF 100V	1	
	C5936	F1H1H104A013	0.1uF 50V	1	
	C5937	F1K2A1040007	0.1uF 100V	1	
	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	F1H1H104A013	0.1uF 50V	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	
	C6010	F1H1H101A230	100pF 50V	1	
	C6011	F1H1H101A230	100pF 50V	1	
	C6016	F1H1H104A013	0.1uF 50V	1	
	C6017	F1H1H101A230	100pF 50V	1	
	C6018	F1H1H101A230	100pF 50V	1	
	C6019	F1H1H101A230	100pF 50V	1	
	C6020	F1H1H102A219	1000pF 50V	1	
	C6021	F2A1H220A216	22uF 50V	1	
	C6022	F2A1H220A216	22uF 50V	1	
	C6023	F1H1H102A219	1000pF 50V	1	
	C6500	F1H1C105A008	1uF 16V	1	
	C6502	F2A1H1R0A213	1.0uF 50V	1	
	C6503	F2A1C100A207	10uF 16V	1	
	C6504	F2A1H1R0A213	1.0uF 50V	1	
	C6505	F1H1C105A008	1uF 16V	1	
	C6506	F1H1C105A097	1uF 16V	1	
	C6507	F1H1H182A219	1800pF 50V	1	
	C6508	F2A1H1R0A213	1.0uF 50V	1	
	C6509	F2A1H1R0A213	1.0uF 50V	1	
	C6510	F1H1C104A042	0.1uF 16V	1	
	C6511	F1H1C104A042	0.1uF 16V	1	
	C6512	F1H1H103A219	0.01uF 50V	1	
	C8001	EEE0GA331WP	330uF 4V	1	
	C8003	F1G1C104A083	0.1uF 16V	1	
	C8004	F1G1C104A083	0.1uF 16V	1	
	C8005	F1G1C104A083	0.1uF 16V	1	
	C8006	F1G1C104A083	0.1uF 16V	1	
	C8007	F1G1C104A083	0.1uF 16V	1	
	C8011	F2G0J101A031	100uF 6.3V	1	
	C8012	F1G1C104A083	0.1uF 16V	1	
	C8013	F1G1C104A083	0.1uF 16V	1	
	C8014	F1G1C104A083	0.1uF 16V	1	
	C8015	F1G1C104A083	0.1uF 16V	1	
	C8016	F1G1C104A083	0.1uF 16V	1	
	C8018	F1G1C104A083	0.1uF 16V	1	
	C8020	F1G1C104A083	0.1uF 16V	1	
	C8021	F1G1C104A083	0.1uF 16V	1	
	C8022	F1G1C104A083	0.1uF 16V	1	
	C8023	F1G1C104A083	0.1uF 16V	1	
	C8024	F1G1C104A083	0.1uF 16V	1	
	C8026	F1G1C104A083	0.1uF 16V	1	
	C8051	F1H0J1050013	1uF 6.3V	1	
	C8052	F1G1A1040006	0.1uF 10V	1	
	C8053	F1G1C104A083	0.1uF 16V	1	
	C8054	F1G1H221A444	220pF 50V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C8055	F1H0J1050013	1uF 6.3V	1	
	C8056	F1G1E2220001	2200pF 25V	1	
	C8057	F1H0J1050013	1uF 6.3V	1	
	C8111	F1J1A106A043	10uF 10V	1	
	C8112	F1H0J1050013	1uF 6.3V	1	
	C8113	F1G1E2220001	2200pF 25V	1	
	C8151	F1H0J4750005	4.7uF 6.3V	1	
	C8201	F2G0J101A031	100uF 6.3V	1	
	C8202	F1G1A1040006	0.1uF 10V	1	
	C8211	F1G1E1220001	1200pF 25V	1	
	C8221	F1G1E1020001	1000pF 25V	1	
	C8222	F1G1E8210002	820pF 25V	1	
	C8225	F1G1E1020001	1000pF 25V	1	
	C8226	F1G1E1020001	1000pF 25V	1	
	C8231	F1G1A1040006	0.1uF 10V	1	
	C8232	F1G1A1040006	0.1uF 10V	1	
	C8251	F2G0J221A031	220uF 6.3V	1	
	C8252	F1G1C104A083	0.1uF 16V	1	
	C8255	F2G1C220A037	22uF 16V	1	
	C8256	F1G1C104A083	0.1uF 16V	1	
	C8257	F2G1C4700061	47uF 16V	1	
	C8258	F1G1C104A083	0.1uF 16V	1	
	C8260	F1G1H221A459	220pF 50V	1	
	C8261	F1G1C104A083	0.1uF 16V	1	
	C8262	F1G1C104A083	0.1uF 16V	1	
	C8301	F2G0J221A031	220uF 6.3V	1	
	C8302	F2G0J330A031	33uF 6.3V	1	
	C8303	F1G1A1040006	0.1uF 10V	1	
	C8304	F1G1A1040006	0.1uF 10V	1	
	C8305	F1G1A1040006	0.1uF 10V	1	
	C8306	F1G1A1040006	0.1uF 10V	1	
	C8311	F1G1A1040006	0.1uF 10V	1	
	C8312	F1H0J1050013	1uF 6.3V	1	
	C8313	F1H0J1050013	1uF 6.3V	1	
	C8320	F1G1C104A083	0.1uF 16V	1	
	C8321	F1G1A1040006	0.1uF 10V	1	
	C8325	F1G1A1040006	0.1uF 10V	1	
	C8330	F2G0J470A031	47uF 6.3V	1	
	C8331	F1G1A1040006	0.1uF 10V	1	
	C8335	F1G1A1040006	0.1uF 10V	1	
	C8341	F1G1A1040006	0.1uF 10V	1	
	C8429	F1G1C104A083	0.1uF 16V	1	
	C8431	F2G1C1000054	10uF 16V	1	
	C8432	F1J1A106A043	10uF 10V	1	
	C8433	F1J1A106A043	10uF 10V	1	
	C8501	F2G0J101A031	100uF 6.3V	1	
	C8502	F1G1C104A083	0.1uF 16V	1	
	C8503	F1G1C104A083	0.1uF 16V	1	
	C8504	F1G1C104A083	0.1uF 16V	1	
	C8505	F1G1C104A083	0.1uF 16V	1	
	C8506	F1G1C104A083	0.1uF 16V	1	
	C8511	F1H0J1050013	1uF 6.3V	1	
	C8512	F1H0J1050013	1uF 6.3V	1	
	C8513	F1G1A1040006	0.1uF 10V	1	
	C8514	F1G1A1040006	0.1uF 10V	1	
	C8515	F1G1A1040006	0.1uF 10V	1	
	C8516	F1G1A1040006	0.1uF 10V	1	
	C8521	F1G1A1040006	0.1uF 10V	1	
	C8522	F1G1A1040006	0.1uF 10V	1	
	C8523	F1G1C104A083	0.1uF 16V	1	
	C8524	F1G1C104A083	0.1uF 16V	1	
	C8525	F1G1C562A039	5600pF 16V	1	
	C8526	F1G1C183A039	0.018uF 16V	1	
	C8527	F1G1A333A013	0.033uF 10V	1	
	C8528	F1H0J1050013	1uF 6.3V	1	
	C8529	F1H0J1050013	1uF 6.3V	1	
	C8530	F1G1C104A083	0.1uF 16V	1	
	C8531	F1G1H101A566	100pF 50V	1	
	C8532	F1G1H221A444	220pF 50V	1	
	C8533	F1G1C104A083	0.1uF 16V	1	
	C8541	F1G1E4720002	4700pF 25V	1	
	C8550	F2G0J330A031	33uF 6.3V	1	
	C8551	F1G1C104A083	0.1uF 16V	1	

Safety	Ref. No.	Part No.	Part Name & Description	Qty	Remarks
	C8552	F2G1C1000054	10uF 16V	1	
	C8553	F2G0J470A031	47uF 6.3V	1	
	C8554	F1H0J1050013	1uF 6.3V	1	
	C8561	F1G1C104A083	0.1uF 16V	1	
	C8562	F2G1C1000054	10uF 16V	1	
	C8563	F2G0J470A031	47uF 6.3V	1	
	C8564	F1H0J1050013	1uF 6.3V	1	
	C8602	F1G1C153A039	0.015uF 16V	1	
	C8611	F1G1C104A083	0.1uF 16V	1	
	C8621	F1G1H100A565	10pF 50V	1	
	C8622	F1G1H8R0A456	8pF 50V	1	
	C8651	F1G1C104A083	0.1uF 16V	1	
	C8652	F1G1C104A083	0.1uF 16V	1	
	C9002	F1G1C104A083	0.1uF 16V	1	
	C9003	F1G1C104A083	0.1uF 16V	1	
	C9004	F1G1H7R0A445	7pF 50V	1	
	C9005	F1G1H8R0A456	8pF 50V	1	
	C9006	F1G1A1040006	0.1uF 10V	1	
	C9007	F1G1C104A083	0.1uF 16V	1	
	C9008	F1G1H221A444	220pF 50V	1	
	C9009	F1G1H100A565	10pF 50V	1	
	FL8101	F1H0J1050018	1uF 6.3V	1	
	FL8102	F1H0J1050018	1uF 6.3V	1	
	FL8103	F1H0J1050018	1uF 6.3V	1	
	FL8104	F1J1E1040022	0.1uF 25V	1	
	FL8421	F1H0J1050018	1uF 6.3V	1	

