

Service Manual

DVD Stereo System



SA-VK860GC
SA-VK860GCS
SA-VK860GS

Colour

(K)... Black Type

REMOTE
CONTROL

SB-PC860 SB-WVK860



SB-PS860 SB-PS860



SB-PF860 SA-VK860 SB-PF860

Notes: This model's DVD changer mechanism unit is CRS1D. Please refer to the original Service Manual (Order No. MD0603065A3) for this mechanism.

Specifications

■ AMPLIFIER SECTION

RMS Output Power: Dolby Digital Mode

●Front Ch	110 W per channel (3 Ω), 1 kHz, 10% THD
●Surround Ch	110 W per channel (3 Ω), 1 kHz, 10% THD
●Center Ch	110 W per channel (3 Ω), 1 kHz, 10% THD
●Subwoofer Ch	110 W per channel (3 Ω), 100 Hz, 10% THD
●Total RMS Dolby Digital mode power	660 W
PMPO output power	7000 W

■ FM/AM TUNER, TERMINALS SECTION

Preset station	FM 20 stations AM 15 stations
Frequency Modulation (FM)	
●Frequency range	87.50 to 108.00 MHz (50 kHz step)
●Sensitivity	4.0 μ V (IHF)
●S/N 26 dB	2.2 μ V
●Antenna terminals	75 Ω (unbalanced)
Amplitude Modulation (AM)	
●Frequency range	522 to 1629 kHz (9 kHz step) 520 to 1630 kHz (10 kHz step)

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AM Sensitivity S/N 20 dB at 999 kHz

1000 µV/m

Music Port input jack

- Sensitivity 100 mV, 4.7 kΩ
- Terminal Stereo, 3.5 mm jack

Phone jack

- Terminal Stereo, 3.5 mm jack

Mic jack

- Sensitivity 0.7 mV, 600 Ω
- Terminal Mono, 6.3 mm jack (2 system)

AUX

- Sensitivity 2 V, 8 kΩ
- Terminal Stereo, RCA jack

USB Port

- USB standard USB 2.0 full speed
- Media file format support MP3 (*.mp3)
WMA (*.wma)
JPEG (*.jpg, *.jpeg)
MPEG4 (*.asf)
- USB device file system FAT12, FAT16, FAT32
- USB port power 500 mA (Max)

■ CASSETTE DECK SECTION

- Type 1 way, Auto Reverse
- Track system 4-Track, 2 Channel

Heads

- Record/Playback Solid permalloy head
- Erasure Double gap ferrite head

Motor

DC servo motor

Recording system

AC bias 100 kHz

Erasing system

AC erase 100 kHz

Tape speed

4.8 cm/s

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

- Normal 35 Hz to 14 kHz

S/N ratio

50 dB (A weighted)

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**[NTSC: 480p/480i, PAL: 576p/576i]**

- 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

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)

(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}, HighMAT Level 2 (Audio and Image)]^{#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 all versions of DivX[®] video (including DivX[®]6) with standard playback of DivX[®] media files. Certified to the DivX Stereo System Profile.^{#7} The total combined maximum number of recognizable audio, picture and video contents and groups: 4000 audio, picture and video contents and 400 groups.**Pick up**

Wavelength

●CD 785 nm

●DVD 662 nm

Laser power

●CD CLASS 1M

●DVD CLASS 1

Audio output (Disc)

●Number of channels (FL, FR, C, SL, SR, SW) 5.1 ch

Audio performance (measurement at: Rec out terminal)

●Frequency response (CD-Audio) 4 Hz to 20 kHz

■ GENERAL**Power supply**

●GC area: AC 220 to 240 V, 50/60 Hz

●GCS/GS areas: AC 110 to 127V/220 to 240 V, 50/60 Hz

Power consumption 290 W**Power consumption in standby mode**

0.9 W (approximate)

Dimensions (W x H x D)

250 x 330 x 334.6 mm

Mass

5.5 kg

Operating temperature range

+5°C to +35°C

Operating humidity range

5% to 90% RH (no condensation)

Notes:

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

SYSTEM

Complete system	SC-VK860GC	SC-VK860GCS	SC-VK860GS
Main system	SF-VK860GC	SF-VK860GCS	SF-VK860GS
*Speaker system	SB-VK860GC		

Main system	SF-VK860GC	SF-VK860GCS	SF-VK860GS
Main unit	SA-VK860GC	SA-VK860GCS	SA-VK860GS
**Speaker system	SB-PT860GC		

*Speaker system	SB-VK860GC
Front speakers	SB-PF860GC ^{*1}
Woofer speaker	SB-WVK860GC ^{*2}

**Speaker system	SB-PT860GC
Center speaker	SB-PC860GC ^{*3}
Surround speakers	SB-PS860GC ^{*4}

Refer to the respective original service manuals for *1, *2, *3, *4.
 This model uses CRS1D mechanism (DVD/CD changer mechanism).
 You can refer to the original service manual for information on this mechanism.



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Official DivX® Certified product.

Plays all versions of DivX® video (including DivX®6) with standard playback of DivX® media files.



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⚠ 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.

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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, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.1.1. Leakage Current Cold Check

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

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

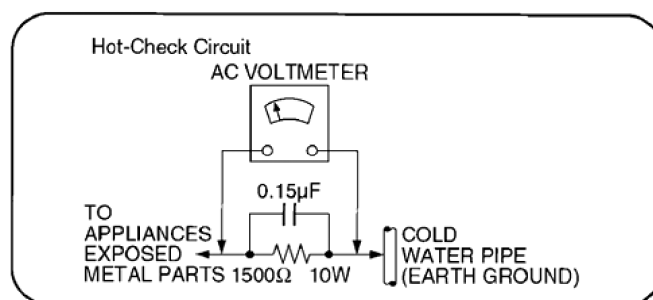


Figure 1

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 1.5 k Ω , 10 watts resistor, in parallel with a 0.15 μ F capacitor, 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 out 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.

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

Before use

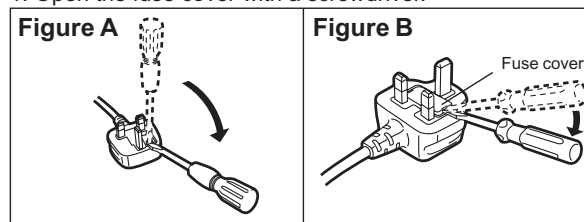
Remove the connector cover.

How to replace the fuse

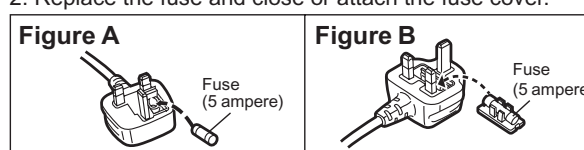
The location of the fuse differs according to the type of AC power plug (figures A and B). Confirm the AC power plug fitted and follow the instructions below.

Illustrations may differ from actual AC power plug.

1. Open the fuse cover with a screwdriver.



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



1.3. Before Use (For GCS/GS only)

Be sure to disconnect the AC Power Supply 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 110 V or 127 V, set to the "110 V~127 V" position.)

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

1.4. Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C2254, C2256, C2288, C2289, C2632, C2721, C2725, C2811, C2815, C2817, C5512, C5513, C5514, C5711 (Not applicable for GC), C5712, C5713, C5715, C5790 (Not applicable for GC), C5805, C5806, C5807, C5914, C5916, C5917, C5929, C5930, C5971 (Not applicable for GC), C5977 through a 10Ω, 1W resistor to ground.

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

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

Current consumption at AC 110~127 V, 60 Hz in NO SIGNAL (Volume min, at CD mode) should be ~750 mA. [For GCS/GS only]

Current consumption at AC 220~240 V, 50 Hz in NO SIGNAL (Volume min, at CD mode) should be ~500 mA.

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.

Table 1

Ref. No.	Part No.	Part Name & Description	Remarks
360	RAE2023Z-S	TRAVERSE UNIT	[M] $\triangle$
PC5703	B3PBA0000402	PHOTO COUPLER	[M] $\triangle$
PC5801	B3PBA0000402	PHOTO COUPLER	[M] $\triangle$
PC5805	B3PBA0000402	PHOTO COUPLER	[M] $\triangle$
PC5901	B3PBA0000402	PHOTO COUPLER	[M] $\triangle$
DZ5001	ERZV10V511CS	ZENER	[M] $\triangle$
TH5701	D4CAC8R00002	THERMISTOR	[M] $\triangle$
TH5750	D4CC11040013	THERMISTOR	[M] $\triangle$
TH5970	D4CAC8R00002	THERMISTOR	[M] $\triangle$ GCS/GS
L5001	ELF21N024A	LINE CHOKE COIL	[M] $\triangle$
L5701	ELF22V020A	LINE FILTER COIL	[M] $\triangle$ GCS/GS
L5701	ELF22V020C	LINE FILTER	[M] $\triangle$ GC
T5701	ETS42BJ1H6AC	MAIN TRANSFORMER	[M] $\triangle$
T5801	ETS19AB1Z6AG	SUB-TRANSFORMER	[M] $\triangle$
F1	K5D632BNA005	FUSE	[M] $\triangle$
FP5901	K5G102A00039	FUSE PROTECTOR	[M] $\triangle$
JK5970	K0ABLB000003	JACK VOLTAGE SELECTOR	[M] $\triangle$ GCS/GS
P5001	K2AA2B000011	AC INLET	[M] $\triangle$
A2	K2CQ2CA00007	AC CORD	[M] $\triangle$
A2	K2CT3CA00004	AC CORD	[M] $\triangle$ GS
R5000	ERDS1TJ474B	470K 1/2W	[M] $\triangle$
C5001	ECQU2A224MLC	0.22	[M] $\triangle$
C5701	F1BAF1020020	1000P	[M] $\triangle$
C5702	F1BAF1020020	1000P	[M] $\triangle$
C5704	ECQU2A224MLC	0.22	[M] $\triangle$

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

Some semiconductor (solid state) devices can be damaged easily by 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 electro static 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 aluminium foil, to prevent electrostatic charge build up 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 remover device. Some solder removal devices not classified as “anti-static (ESD protected)” can generate electrical charge 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, aluminium 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 body 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).

3 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 :

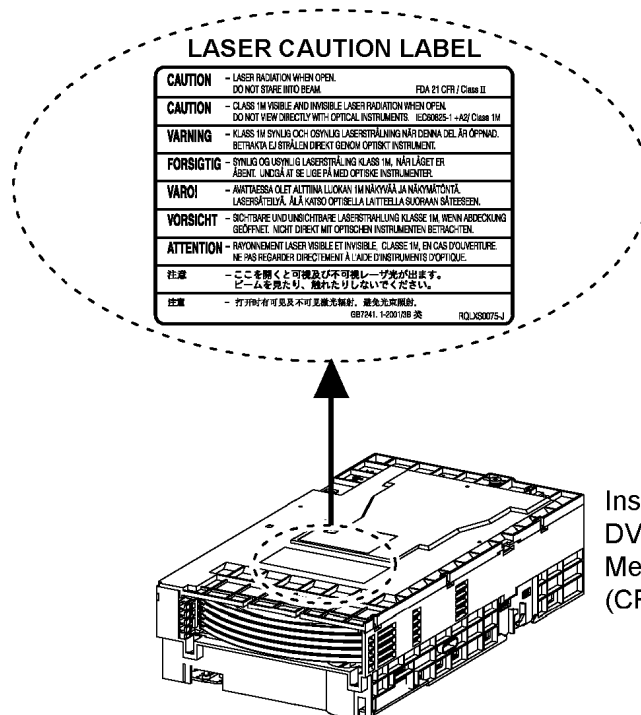
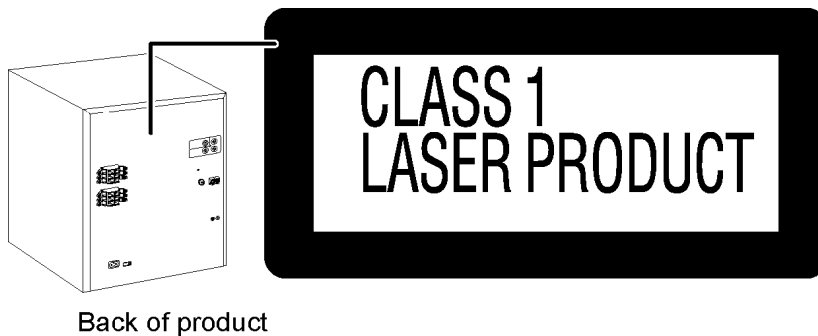
This product utilizes a laser diode with the unit turned on, invisible laser radiation is emitted from the pickup lens.

Wavelength : 662nm (DVD)/785nm (CD)

Maximum output radiation power from pickup : 100μW/VDE

Laser radiation from 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.



4 About Lead Free Solder (PbF)

4.1. Service caution based on legal restrictions

4.1.1. 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%

5 Handling Precautions for Traverse Unit

The laser diode used inside optical pickup could be destroyed due to static electricity as a potential difference is caused by electrostatic load discharged from clothes or human body. Handling the parts carefully to avoid electrostatic destruction during repair.

5.1. Handling Optical Pickup in Traverse Unit

1. Do not impact on optical pickup as the unit structurally uses an extremely precise technology.
2. Short-circuit the flexible cable of optical pickup remove from the circuit board using a short-circuit pin or clip in order to prevent laser diode from electrostatic destruction (Refer to Fig. 5.1 and Fig. 5.2)
3. Do not handle flexible cables forcibly as this may cause snapping. Handle the parts carefully (Refer to Fig. 5.1)
4. A new optical pickup is equipped with an anti-static flexible cable. After replacing and connecting to the flexible board, cut the anti-static flexible cable. (Refer to Fig. 5.1)

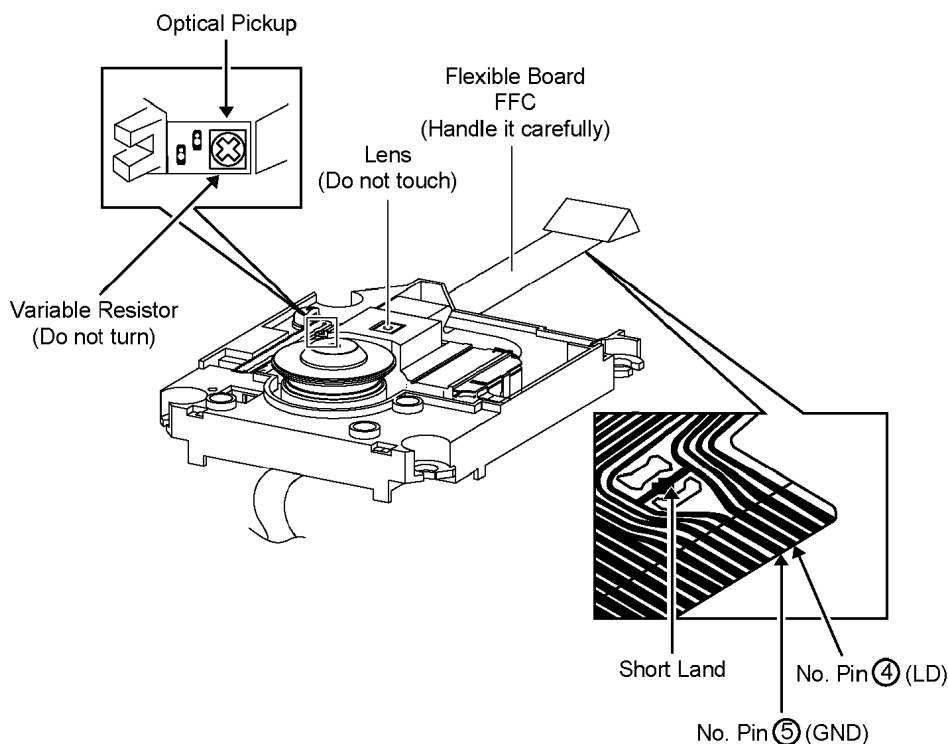


Fig. 5.1

5.2. Replacing Precautions for Optical Pickup Unit

Optical Pickup

The optical pickup by which part supply was carried out attaches the short clip to the flexible board for laser diode electrostatic discharge damage prevention. Please remove the short clip and be sure to check that the short land is open, before connecting. (Please remove solder, when the short land short-circuits.)

5.3. Grounding for Preventing Electrostatic Destruction

1. Human body grounding
Use the anti-static wrist strap to discharge the static electricity accumulated in your body. (Refer to Fig. 5.2)
2. Work place grounding
Place a conductive material (conductive sheet) or ironboard where optical pickup is placed. (Refer to Fig. 5.2)

Note :

Keep your clothes away from optical pickup as wrist strap does not release the static electricity charged in clothes.

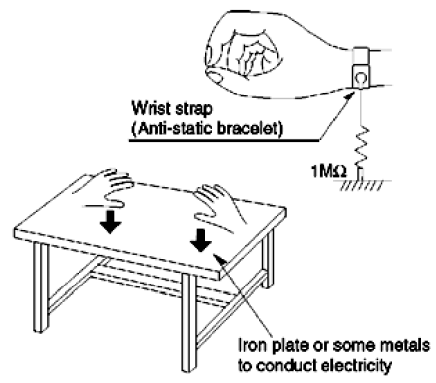
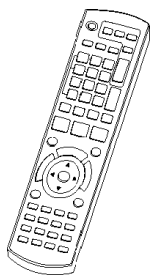


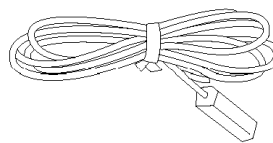
Fig. 5.2

6 Accessories

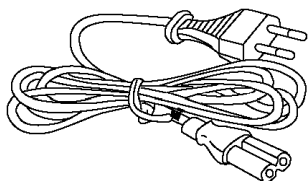
- Note: Refer to “Replacement Parts List” (Section 23) for the part number.



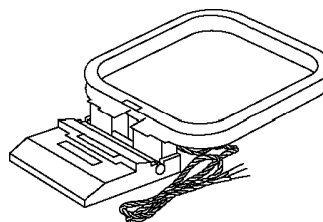
Remote control



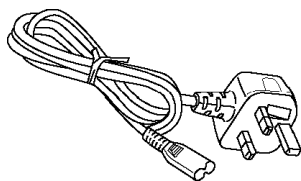
FM antenna wire



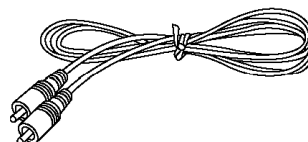
AC cord (For GC/GCS/GS)



AM loop antenna



AC cord (For GS only)

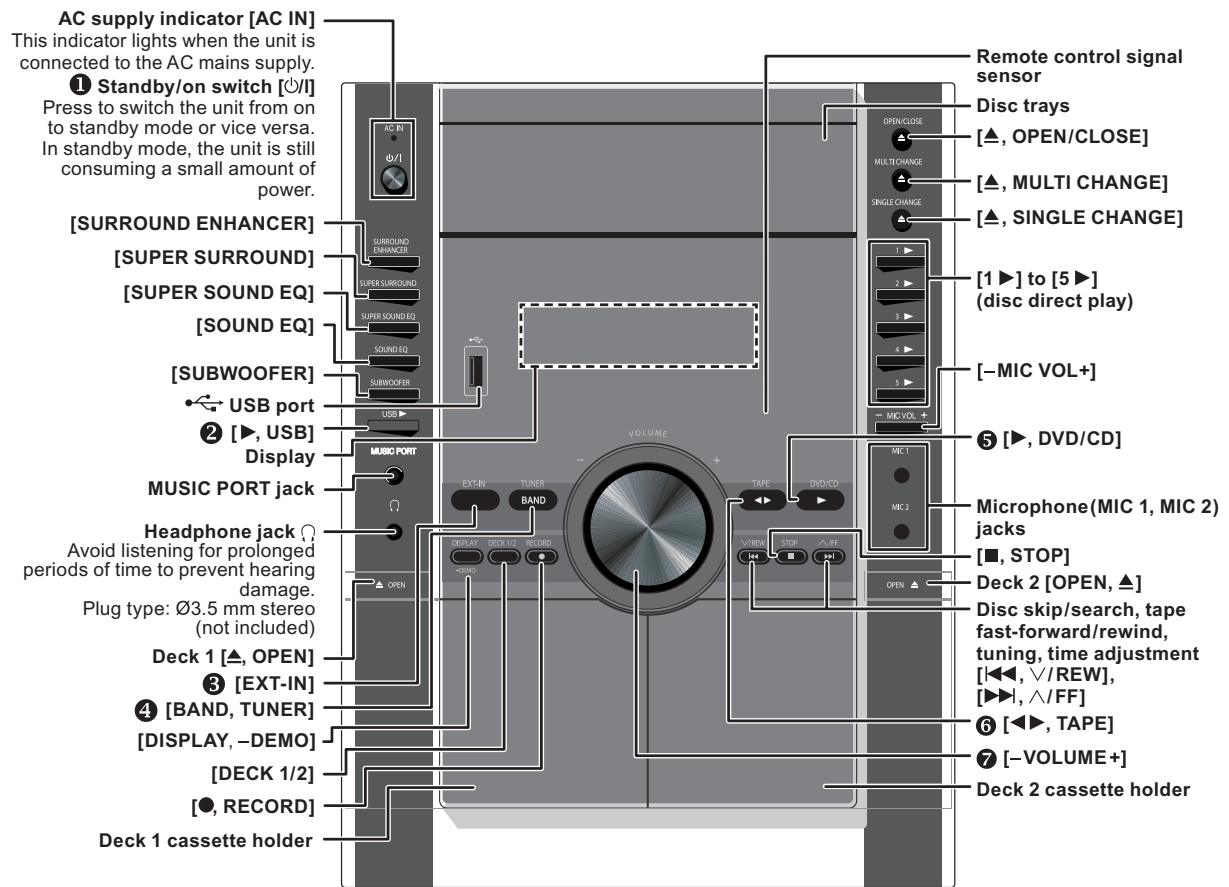


Video cable

7 Operation Procedures

7.1. Main Unit Key Buttons Operations

Refer to the numbers in parentheses for page reference. Buttons such as ❶ function the same as the controls on the remote control.



To select the desired display mode

Every time you press the button:

Normal → Peak hold → Reflection -
Off

Normal

Indicates strength of the sound in each tonal range.

Peak hold

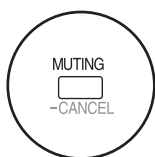
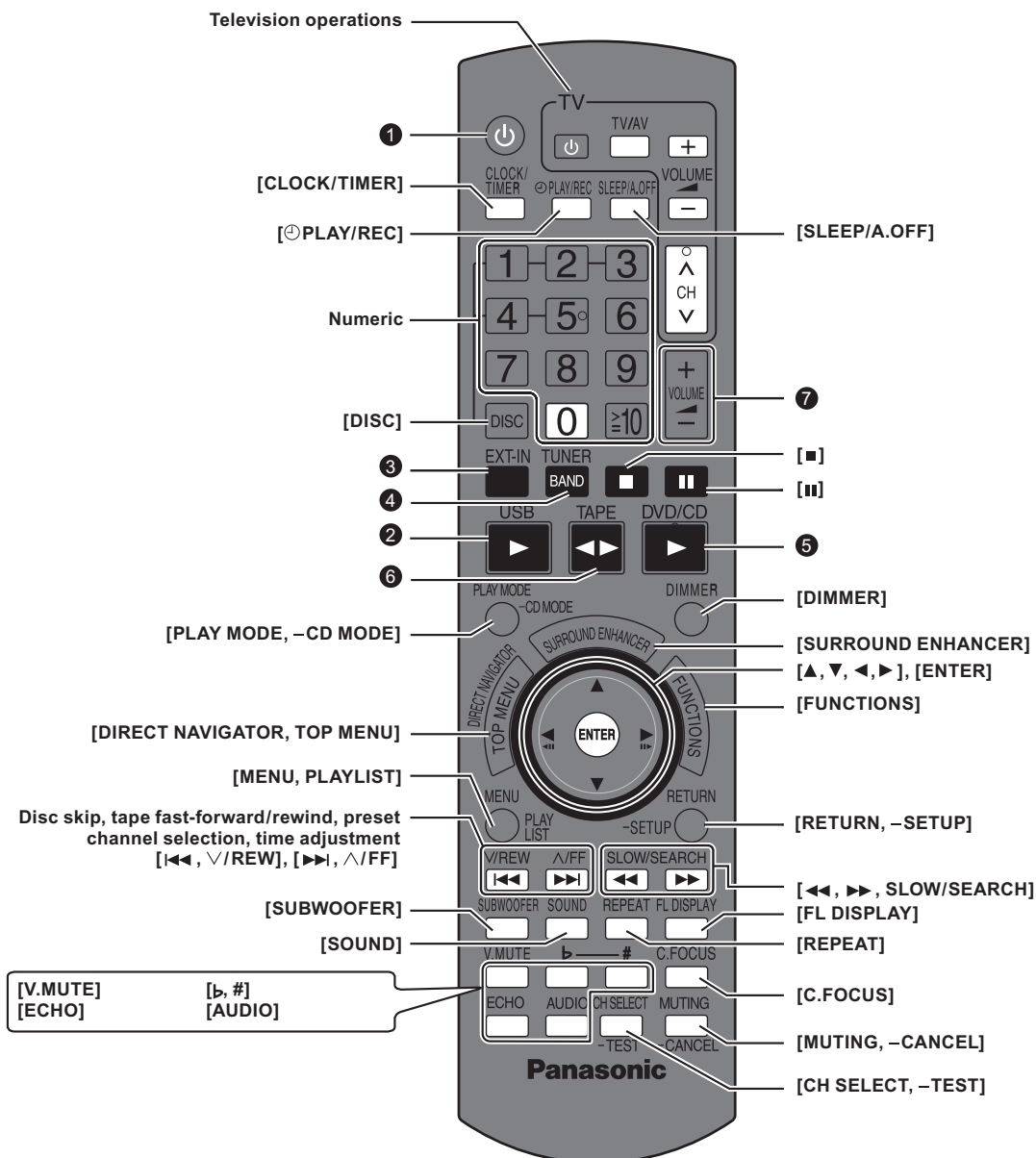
Peak sound value of each sound range (on display for about one second after it occurs).

Reflection

Indicates the strength of the sound in each tonal range (displayed in the opposite direction of normal mode).

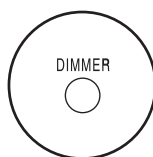
7.2. Remote Control Key Buttons Operations

Buttons labelled such as ❶ function in exactly the same way as the buttons on the main unit.



To mute the sound.

- Press the button to activate.
- Press the button again or adjust the volume to cancel.
- Muting is also canceled when you switch the unit to standby.



To dim the display panel.

Every time you press the button.

Setting	Effect
1	Display and ambient light dims
2	Display dims and ambient light is turned off
3	Original brightness

The display is dimmed, but brightens when you perform some operations.



This auto off function allows you to turn off the unit in disc or tape mode only after left unused for 10 minutes.

Every time you press the button:

SLEEP 30 → SLEEP 60 → SLEEP 90 → SLEEP 120
 SLEEP OFF ← **AUTO OFF** ←

- The setting is maintained even if the unit is turned off.
- If you select tuner or music port as the source, "AUTO OFF" turns off. It comes on again when you select disc or tape.

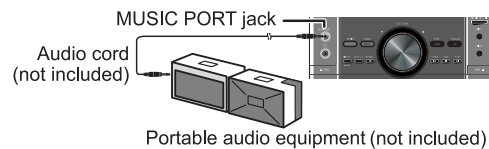
7.3. Portable Audio Equipment Connection & Operation

Before connection

- Disconnect the AC power supply cord.
- Turn off all equipment and read the appropriate operating instructions.
- The equipment connections described are examples only.
- Peripheral equipment and optional cables are sold separately unless otherwise indicated.

Connecting to a portable audio equipment

This feature enables you to enjoy music from a portable audio equipment.



EXT-IN Playing or recording from a portable audio equipment

Switch off the equalizer function (if there is any) of the portable audio equipment before you plug into the MUSIC PORT jack. Otherwise, sound from the speaker may be distorted.

- 1 Plug the audio cord into the MUSIC PORT jack and press [EXT-IN] to select "MUSIC PORT".**
MUSIC PORT ↔ AUX
- 2 For listening :** Proceed to step 3.
For recording : Press [●, RECORD] on the main unit to start recording.
- 3 Start playback from the portable audio equipment. (See the portable audio equipment's instruction manual.)**

7.4. USB Connection & Operation

The USB connectivity enables you to connect and play tracks or files from USB mass storage class devices. Typically, USB memory devices. (Bulk only transfer)

Preparation

Before connecting any USB mass storage device to the unit, ensure that the data stored therein has been backed up.

It is not recommended to use a USB extension cable. The USB device is not recognised by this unit.

1 Connect the USB mass storage device (not included).

USB enabled device
(not included)

It is not recommended to use a USB extension cable. The device connected via the cable will not be recognised by this unit.



2 Press [▶, USB] to begin playback.

3 Press [TOP MENU] or [MENU] to display the USB menu.

4 Press [▲, ▼, ◀, ▶] and then [ENTER] to select the desired item.

For other operating functions, they are similar as those described in "DISC OPERATIONS".

Compatible Devices

Devices which are defined as USB mass storage class:

- USB devices that support bulk only transfer.
- USB devices that support USB 2.0 full speed.

Supported Formats

	File name	File extension
Still pictures	JPG ^{×1}	.jpg .jpeg
Music	MP3 WMA	.mp3 .wma
Video	MPEG4 ^{×2}	.asf

^{×1} It may not be possible to play all the files due to the condition on how they were created.

^{×2} For Panasonic D-Snap/DIGA

Note:

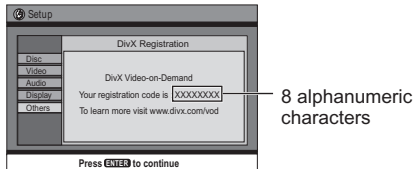
Maximum number of folders	400
Maximum number of files	4000
Maximum length of folder name	44
Maximum length of file name	44

- CBI (Control/Bulk/Interrupt) is not supported.
- Digital Cameras that use PTP protocol or which require additional program installation when connected to a PC are not supported.
- A device using NTFS file system is not supported. [Only FAT 12/16/32 (File Allocation Table 12/16/32) file system is supported].
- Depending on the sector size, some files may not work.
- It will not operate with Janus enabled MTP (Media Transfer Protocol) devices.
- Only one memory card will be selected when connecting a multi-port USB card reader. Typically the first memory card inserted.

7.5. About DivX VOD Content

DivX Video-on-Demand (VOD) content is encrypted for copyright protection. In order to play DivX VOD content on this unit, you first need to register the unit. Follow the online instructions for purchasing DivX VOD content to enter the unit's registration code and register the unit. For more information about DivX VOD, visit www.divx.com/vod.

Display the unit's registration code ("DivX Registration" in "Others" tab)



- We recommend that you make a note of this code for future reference.
- After playing DivX VOD content for the first time, another registration code is then displayed in "DivX Registration". Do not use this registration code to purchase DivX VOD content. If you use this code to purchase DivX VOD content, and then play the content on this unit, you will no longer be able to play any content that you purchased using the previous code.
- If you purchase DivX VOD content using a registration code different from this unit's code, you will not be able to play this content. ("Authorization Error" is displayed.)

Regarding DivX content that can only be played a set number of times

Some DivX VOD content can only be played a set number of times. When you play this content, the remaining number of plays is displayed. You cannot play this content when the number of remaining plays is zero. ("Rented Movie Expired" or "Rental Expired" is displayed.)

When playing this content

- The number of remaining plays is reduced by one if
 - you press [⏮] or press and hold [SETUP].
 - you press [⏸]. [Press [⏸] (pause) to pause play.]
 - you press [⏮, ⏭] (skip) or [⏮, ⏭] (search) etc. and arrive at another content or the start of the content being played.
- The "Resume" function and "Marker" functions will not work.

7.6. Disc Information

7.6.1. Disc Playability (Media)

■ Commercial discs

Disc	Logo	Indicated in these instructions by	Remarks
DVD-Video		DVD-V	High quality movie and music discs.
Video CD		VCD	Music discs with video. Including SVCD (Conforming to IEC62107).
CD		CD	Music discs.

■ Recorded discs (○: Playable, —: Not playable)

Disc	Logo	Recorded on a DVD video recorder, etc.		Recorded on a personal computer, etc.					Finalizing ^{※6}
		DVD-VR ^{※2}	DVD-V ^{※4}	WMA	MP3	JPEG	MPEG4 ^{※8}	DivX ^{※9}	
DVD-RAM		○	—	—	○	○	○	○	Not necessary
DVD-R/RW		○	○	—	○	○	○	○	Necessary
DVD-R DL		○ ^{※3}	○	—	—	—	—	—	Necessary
+R/+RW	—	—	(○) ^{※5}	—	—	—	—	—	Necessary
+R DL	—	—	(○) ^{※5}	—	—	—	—	—	Necessary
CD-R/RW ^{※1}	—	—	—	○	○	○	○	○	Necessary ^{※7}

- It may not be possible to play all the above-mentioned discs in some cases due to the type of disc, the condition of the recording, the recording method, or how the files were created. [Refer to Section 7.6.2. File Extension Type Support (WMA/MP3/JPEG/MPEG4/DivX)]

※1 This unit can play CD-R/RW recorded with CD-DA or Video CD format.

WMA MP3 JPEG This unit also plays HighMAT discs.

※2 Discs recorded on DVD video recorders or DVD video cameras, etc. using Version 1.1 of the Video Recording Format (a unified video recording standard).

※3 Discs recorded on DVD video recorders or DVD video cameras using Version 1.2 of the Video Recording Format (a unified video recording standard).

※4 Discs recorded on DVD video recorders or DVD video cameras using DVD-Video Format.

※5 Recorded using a format different from DVD-Video Format, therefore, some functions cannot be used.

※6 A process that allows play on compatible equipment. To play a disc that is displayed as "Necessary" on this unit, the disc must first be finalized on the device it was recorded on.

※7 Closing the session will also work.

※8 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].

※9 Functions added with DivX Ultra are not supported.

Note about using a DualDisc

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

■ Discs that cannot be played

DVD-RW version 1.0, DVD-Audio, DVD-ROM, CD-ROM, CDV, CD-G, SACD, Photo CD, DVD-RAM that cannot be removed from their cartridge, 2.6 GB and 5.2 GB DVD-RAM, and "Chaoji VCD" available on the market including CVD, DVCD and SVCD that do not conform to IEC62107.

■ Video systems

- This unit can play PAL and NTSC, but your television must match the system used on the disc.
- PAL discs cannot be correctly viewed on an NTSC television.
- This unit can convert NTSC signals to PAL 60 for viewing on a PAL television (Refer to "NTSC Disc Output" in "Video" tab of the OI book).

7.6.2. File Extension Type Support (WMA/MP3/JPEG/MPEG4/DivX)

- When there are more than eight groups, the eighth group onwards will be displayed on one vertical line in the menu screen.
- There may be differences in the display order on the menu screen and computer screen.
- This unit cannot play files recorded using packet write.

DVD-RAM

- Discs must conform to UDF 2.0.

DVD-R/RW

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

CD-R/RW

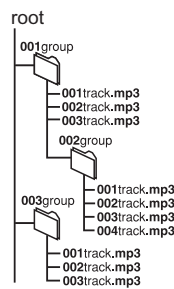
- Discs must conform to ISO9660 level 1 or 2 (except for extended formats).
- This unit supports multi-session but if there are many sessions it takes more time for play to start. Keep the number of sessions to a minimum to avoid this.

Naming folders and files

Files are treated as contents and folders are treated as groups on this unit.

At the time of recording, prefix folder and file names. This should be with numbers that have an equal number of digits, and should be done in the order you want to play them (this may not work at times). Files must have the extension (➡ see below).

Example: **MP3**



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

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

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

- Compatible compression rate: between 32 kbps and 320 kbps.
- This unit does not support ID3 tags.
- Compatible sampling rates:
 - DVD-RAM, DVD-R/RW: 11.02, 12, 22.05, 24, 44.1 and 48kHz
 - CD-R/RW: 8, 11.02, 12, 16, 22.05, 24, 32, 44.1 and 48kHz

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

- JPEG files taken on a digital camera that conform to DCF Standard (Design rule for Camera File system) Version 1.0 are displayed. Files that have been altered, edited or saved with computer picture editing software may not be displayed.
- This unit cannot display moving pictures, MOTION JPEG and other such formats, and still pictures other than JPEG (Example: TIFF), or play pictures with attached audio.

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

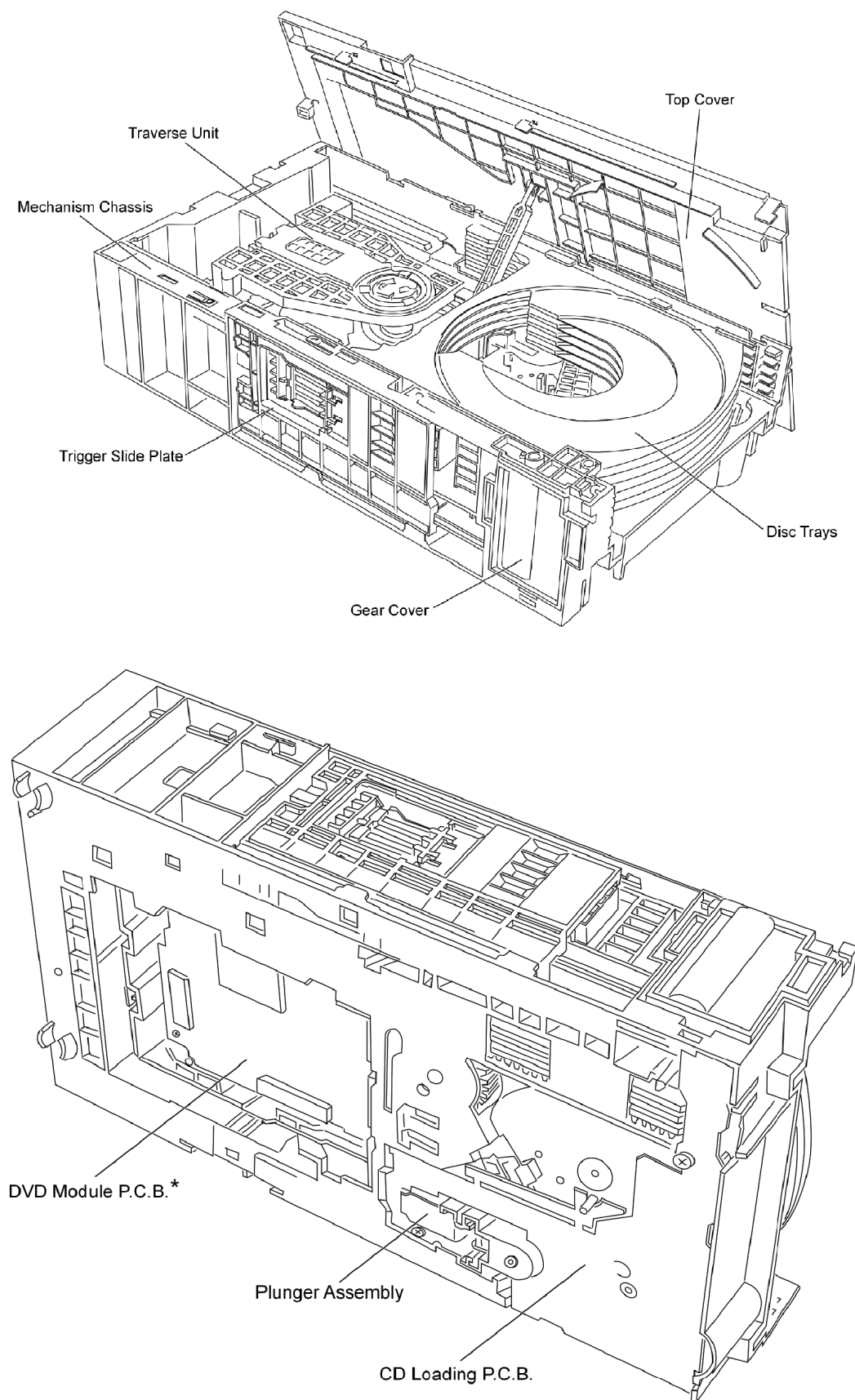
- You can play MPEG4 data [conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system] recorded with Panasonic SD multi cameras or DVD video recorders with this unit.
- The recording date may differ from that of the actual date.

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

- You can play all versions of DivX® video (including DivX®6) [DivX video system/MP3, Dolby Digital or MPEG audio system] with standard playback of DivX® media files. Functions added with DivX Ultra are not supported.
- DivX files greater than 2 GB or have no index may not be played properly on this unit.
- This unit supports all resolutions up to maximum of 720 x 480 (NTSC)/720 x 576 (PAL).
- You can select up to eight types of audio and subtitles on this unit.

8 DVD/CD Changer Mechanism Unit

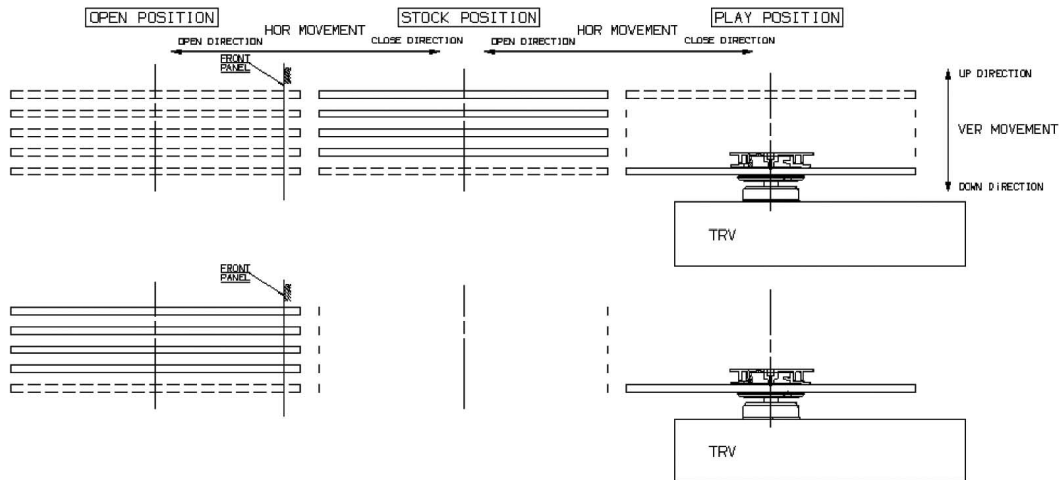
8.1. CRS1D Mechanism Overview



* Illustration for DVD Module P.C.B. (Applied models: VK460/660/760/860/960)

8.1.1. General Feature

- This is a five disc changer mechanism for CD/DVD. The outline figure is shown below.



- The mechanism has **"CHANGE WHILE PLAY"** function. It open other trays for disc exchanging while one tray is at PLAY position performing recording or reproducing.
- The mechanism can quickly change all trays with **"CHANGE ALL"** function. All trays can be move to OPEN position with one operation.
- There is no sensor to indicate presence of disc on any tray.

8.1.2. Hardware Composition

- Below is the hardware components of the mechanism

Name	Function
Open Switch (OPEN-SW)	The switch is used to detect normal tray opening The switch is used for detect tray being manually push/trigger when full open
Home Switch (HOME-SW)	Is used to detect cam gear home position
Close Sensor (CLOSE-SENSOR)	Used for normal single tray closing Used to detect cam gear rotate to Play Driving position
Play Switch (PLAY-SW)	Detect TRV clamping complete position
Stocking Switch (STOCK-SW)	Detect tray completely transfer for play position to stocking position
UD Sensor (UD-SENSOR)	Detect TRV vertical movement position
Top Switch (TOP-SW)	Detect a default position of TRV vertical movement position
Driver IC	To drive Motor
Motor	Main driving source for changer
Plunger	Switching the driving source from motor to: 1. Tray open/close 2. Drive tray to play/stock position and TRV vertical movement

8.1.3. Mechanism Operation

- This mechanism has the following state:
 - Driving of a tray to open/close
 - Up/down operation of a traverse performs a state changes of tray.

By using the plunger to lift/release of a switching gear, and the cam gear to lift/release the function gear the motor can be link to several gear trains to perform various operations.

- The functions that can be perform in this mechanism are described as below:

Condition	Explanation
Open current playing tray	The state to change current playing disc. All tray will be open at once and current tray at PLAY position will be expose.
Open All	The state where all trays being driven to OPEN position. The disc can be taken in or out from tray to tray by close tray one by one from top to bottom.
Stock	The state where the trays are stored in STOCK position
Play	The state where one of the tray 5 trays is being driven to PLAY position and clamped by traverse unit
Play & Open Tray-*	The state where one of the tray is in playing position performing recording or reproducing, other trays can be used (OPEN position) for disc exchanging without stopping the recording or reproducing process.

Condition	Explanation
Change	The state when one of the opened tray being driven from OPEN position to STOCK position and other opened trays remain still at OPEN position.
Close All	The state where all open trays will being driven from OPEN position to STOCK position, one by one from top to bottom

Note: * represent tray number (from 1 ~ 5)

8.1.4. DVD/CD Changer Mechanism Unit (CRS1D) Information

Note:

This service manual does not contain the following information for the mentioned DVD/CD changer mechanism unit:

- Schematic Diagram, Block Diagram and P.C.B. layout of CD/DVD Loading P.C.B.
- Part List for individual parts of the mechanism.
- Exploded View and Parts List for individual parts of the DVD/CD changer mechanism unit.

9 Self Diagnosis and Special Mode Setting

This unit is equipped with functions for checking and inspecting.

9.1. Service Mode Summary Table

9.1.1. Service Mode Summary Table (For DVD)

The service modes can be activated by pressing various button combination on the main unit and remote control unit.

Below is the summary for the various modes for checking:

Main buttons	Remote control unit buttons	Application	Note
[STOP]	[0]	Error code display.	(Refer to the section "9.2.1. Service Mode Table 1" for more information.)
	[5]	Jitter checking.	
	[PAUSE]	Initial setting of laser drive current.	
	[FUNCTIONS]	DVD laser drive current check.	(Refer to the section "9.2.2. Service Mode Table 2" for more information.)
	[1]	ADSC internal RAM data check.	
	[3]	CD laser drive current check.	
	[6]	Region display and mode.	(Refer to the section "9.2.3. Service Mode Table 3" for more information.)
	[7]	Micro-processor firmware version check.	
	[≥10]	Initialization of the player (factory setting is restored). Used after replacement of Micro-processor (DV5 LSI) IC, FLASH ROM IC (IC8651), EEPROM IC (IC8611) and DVD Module P.C.B.	
	[8]	DVD Module P.C.B. firmware version check.	(Refer to the section "9.2.4. Service Mode Table 4" for more information.)
	[MENU]	Communication error display.	
	[TOP MENU]	ECC error check.	
	[DISC]	CPPM/CRM keys check.	
	[ENTER]	DVD Module P.C.B. reset.	
	[▲]	Timer 1 check.	(Refer to the section "9.2.5. Service Mode Table 5" for more information.)
	[▼]	Timer 1 reset.	
	[▶]	Timer 2 check.	
	[◀]	Timer 2 reset.	

Note:

An error code will be canceled if a power supply is turned OFF.

*1: CPPM is the copy guard function beforehand written in the disk for protection of copyrights.

*2: CEC is the consumer electronic control used for high-level user control of HDMI-connected devices.

*3: HDCP is the specification developed to control digital audio & video contents transmission for DVI or HDMI connections.

9.1.2. Service Mode Summary Table (For Inspection)

Main buttons	Remote control unit buttons	Application	Note
[STOP] + [▲ /FF/▶▶▶]	-	Entering self-diagnostic mode.	(Refer to the section "9.3.1. Service Mode Table 1" for more information.)
In Self-diagnostic Mode	[1]	DVD/CD Changer Mechanism Reliability Test.	
	[SINGLE CHANGE]	Servicing the traverse unit.	
[STOP]	[4] + [7]	Entering doctor mode.	(Refer to the section "9.3.2. Service Mode Table 2" for more information.)
In Doctor Mode	[STOP] button on the main unit + [4] + [7]	Firmware version check.	
	[4]	Cold start.	
	[0]	Tape eject test.	
	[⏮] PLAY/REC	FL display test.	
	[DISC]	DVD/CD changer operation check.	(Refer to the section "9.3.3. Service Mode Table 3" for more information.)

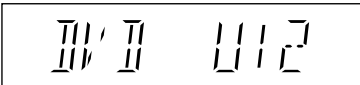
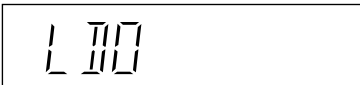
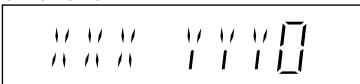
9.2. Service Mode Table (For DVD)

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

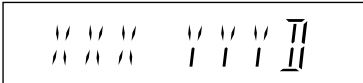
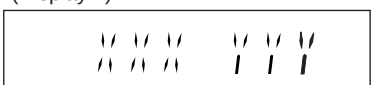
Special Note:

Due to the limitations of the no. characters that can be shown on FL Display, the "FL Display" button on the remote control unit is used to show the following page. (Display 1 / Display 2).

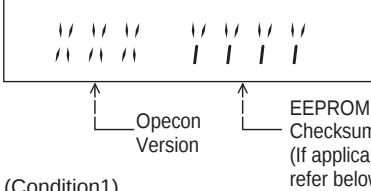
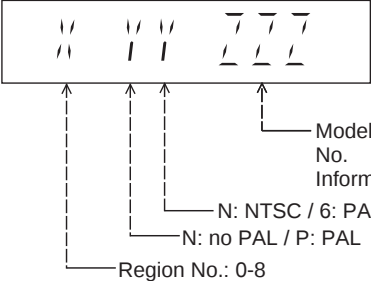
9.2.1. Service Mode Table 1

Item		FL Display	Key Operation
Mode Name	Description		Front Key
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 Jitter Rate 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 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).
Error code display	Error code check The latest error code stored in the EEPROM IC is displayed. Note: Refer to "Section 9.4 DVD Self Diagnostic Function-Error Code" for more detailed information on the error codes.	 U / H / F 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 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. Cancelled automatically 5 seconds later. To exit, press [POWER] button on main unit or remote control.
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 DVD Laser Identify as LDO mode 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 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.

9.2.2. Service Mode Table 2

Item		FL Display	Key Operation
Mode Name	Description		Front Key
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 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.
ADSC internal RAM data check	ADSC internal RAM data check. ADSC internal RAM data is read out and displayed.	 Address RAM Data for Specified Address The value is shown in hexadecimal notation. The above example shows the data in ADSC address FBoh is XXXXh.	In STOP (no disc) mode, press [STOP] button on the main unit, and [1] or [2] button on the remote control unit. To exit, press [STOP] button.
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 Value The above example shows the initial current is XXXmA and the measured value is YYYmA.	In 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)

9.2.3. Service Mode Table 3

Item		FL Display	Key Operation
Mode Name	Description		Front Key
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 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.		In STOP (no disc) mode, press [STOP] 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. 9.1 for "Video Design Information".	 Model No. Information N: NTSC / 6: PAL60 N: no PAL / P: PAL Region No.: 0-8	In STOP (no disc) mode, press [STOP] button on the main unit, and [6] button on the remote control unit. Cancelled automatically 5 seconds later.

Model Series	Country Region	Region Code	TV Broadcasting System	Product		
				Signal System (Default)	Region Display (Default)	OSD Menu Language
P, PC, PX	USA, Canada, PX	1	NTSC	NTSC (*A)	1PN	English, Spanish, Canadian French
(S)	Japan	2	NTSC	NTSC (*A)	2PN	Japanese, English
E	Europe	2	PAL	PAL (*C)	2P6	English, French, German, Spanish, Polish, Russian, Czech, Hungarian
EB, EG	Europe	2	PAL	PAL (*C)	2P6	English, French, German, Italian, Spanish, Polish, Swedish, Dutch
GC, GS	Middle East	2	PAL	PAL (*C)	2P6	English, French, German, Spanish, Polish, Russian, Czech, Hungarian
GCS, GD, GT, GCT	South East Asia, Korea, Taiwan	3	PAL NTSC	NTSC (*B)	3PN	English, Traditional Chinese
GN	New Zealand, Australia	4	PAL	PAL (*C)	4P6	English, French, German, Italian, Spanish, Polish, Swedish, Dutch
PL, GCP, LB	Central/South/Latin America	4	NTSC	NTSC (*D)	4PN	English, Spanish, French, Brazilian Portuguese
EE	CIS	5	SECAM	PAL (*C)	5P6	English, French, German, Spanish, Polish, Russian, Czech, Hungarian
GK	China	6	PAL	NTSC (*B)	6PN	English, 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	PAL60

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

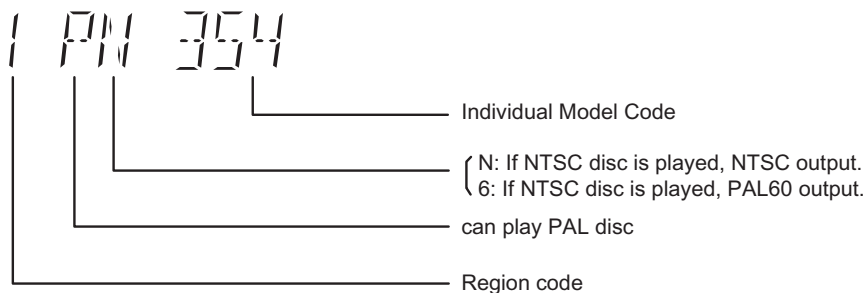


Fig. 9.1

9.2.4. Service Mode Table 4

Mode Name	Item	FL Display	Key Operation
	Description		Front Key
DVD Module P.C.B. firmware version display	DVD Module P.C.B. firmware 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 STOP (no disc) mode, press [STOP] button on the main unit, and [8] button on the remote control unit. Cancelled automatically 5 seconds later.
Communication error display	Displays frequency of communication errors between system control IC and mechanism control IC in the DVD Module P.C.B.		In STOP (no disc) mode, press [STOP] button on the main unit, and [MENU] button on the remote control unit. Cancelled automatically 5 seconds later.
ECC Error Check	ECC refers to Error Correction Code. It describes the error correction code that was carried out for the decoding of audio & video. FL Display sequence: Display 1→2.	(Display 1) (Display 2)	In STOP (no disc) mode, press [STOP] button on the main unit, and [TOP MENU] button on the remote control unit. Press [STOP] button to exit. Press [FL Display] on remote control unit for next page (FL Display).
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 STOP (no disc) mode, press [STOP] button on the main unit, and [DISC] button on the remote control unit. Cancelled automatically 5 seconds later.
DVD Module P.C.B. Reset	To reset DVD Module P.C.B. This process is used when the DVD Module P.C.B. or FLASH ROM IC is replaced with a new one.		While in initialization mode, press & hold [STOP] button on the main unit, follow by [ENTER] button on the remote control unit. Cancelled automatically 5 seconds later.

9.2.5. Service Mode Table 5

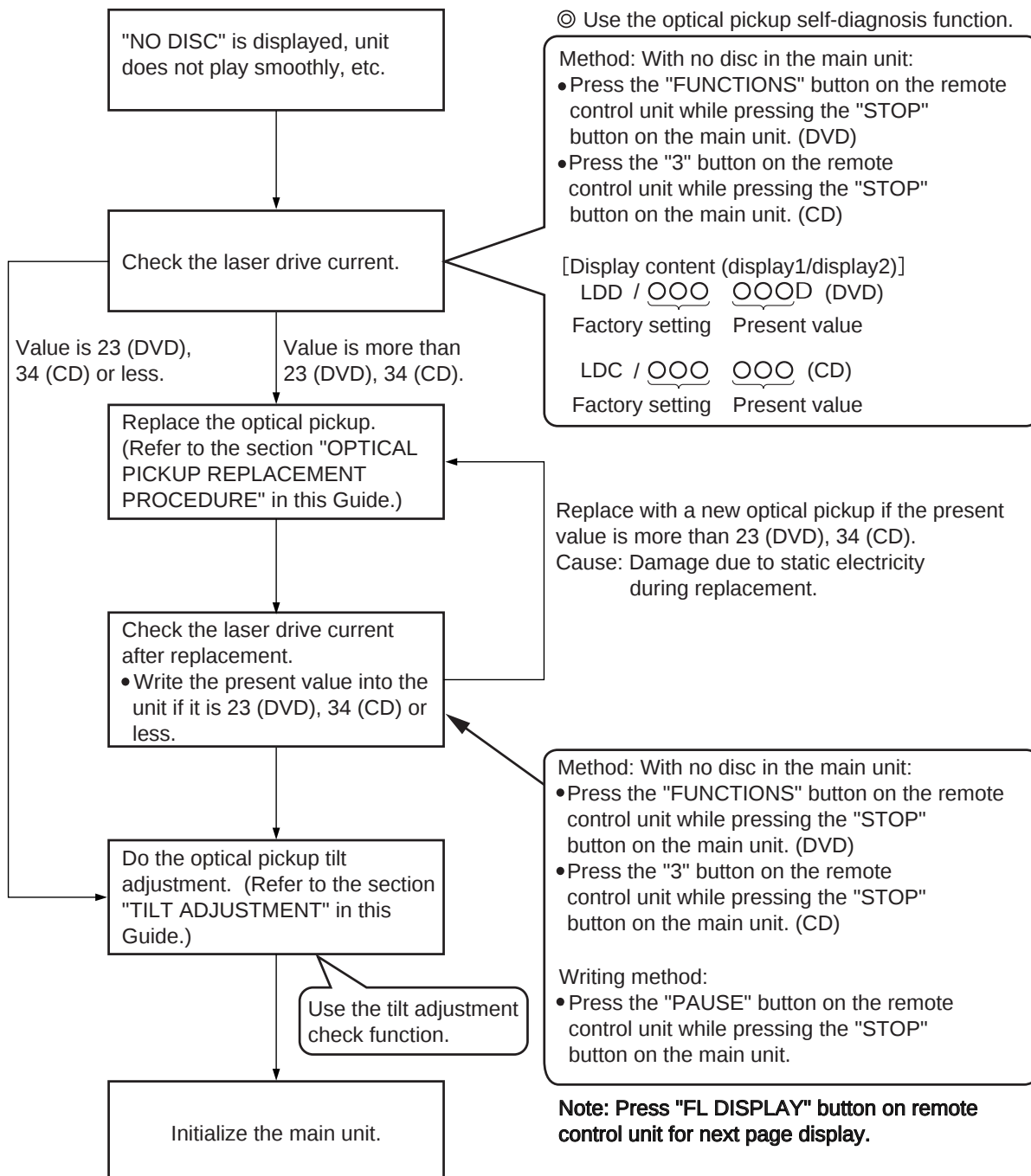
Item		FL Display	Key Operation
Mode Name	Description		Front Key
Timer 1 check	Timer 1 check Laser operation timer is measured separately for DVD laser and CD laser. FL Display sequence: Display 1→2.	(Display 1)  ↑ DVD laser usage time Shown to the above is DVD laser usage time, and to the below is CD 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)  ↑ CD laser usage time Time is shown in 4 digits of decimal notation in a unit of 10 hours. "0000" will follow "9999". (CD laser)	In 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 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.

9.2.6. Optical Pickup Unit Breakdown Diagnosis

The unit is equipped with the optical pickup self-diagnosis function and tilt adjustment check function. Follow the procedure described below during repair in order to perform self-diagnosis and tilt adjustment effectively. Especially when "NO DISC" is displayed, be sure to apply the self-diagnosis function before replacing with an optical pickup. Replacement of optical pickup generally requires when the present value of laser drive exceeds 23 (DVD) or 34 (CD).

Note:

Start diagnosis within three minutes after tuning on the power (as diagnosis fails when the unit becomes warm).



9.3. Service Mode Table (For Inspection)

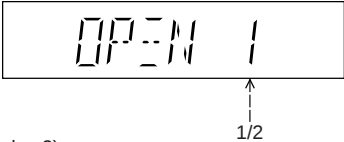
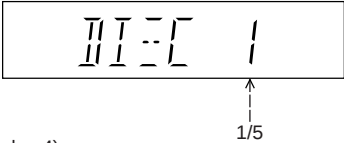
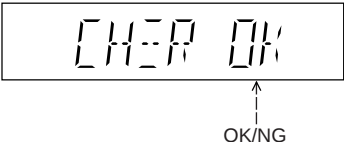
9.3.1. Service Mode Table 1

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Self-Diagnostic Mode	To enter into self-diagnostic checking for main unit.		In DVD/CD or tape mode (ensure no disc or cassette is inserted into DECK 1/2): Press and hold [STOP] button for two seconds, followed by [^/FF/▶▶] button on the main unit. To exit, press [⏻/I, AC IN] button on main unit or remote control unit.
DVD/CD Changer Reliability Test	To determine the reliability of DVD/CD Changer Mechanism Unit. (For more information, refer to Section 9.3.4. "DVD/CD Changer Unit Ageing Test Mode")	 The counter will increment by one. When reach 99999 will change to 00000	In DVD/CD mode (ensure no disc is inserted): In self-diagnostic mode, press [1] button on remote control. To exit, press [⏻/I, AC IN] button on the main unit or remote control unit. (The tray will return to PLAY position and then power off.)
SRVC_TRV	To unlock the traverse unit for service.	 1. All trays are set to "STOCK" position. 2. Mechanism set to tray 5. 3. Cam rear set to "HOME" position.	Select DVD/CD mode (ensure no disc is inserted): In self-diagnostic mode, press [SINGLE CHANGE] button on main unit. To exit, power off the main unit
Doctor Mode	To enter into Doctor Mode for checking of items. FL Display sequence: Display 1 -> 2 -> 3 -> 4	(Display 1) All segments of FL will light up. (Display 2) (Display 3) (Display 4) 	In DVD/CD mode, press [STOP] button on the main unit, followed by [4] and [7] button on the remote control unit. To exit, press [ENTER] button on the remote control unit or power off the main unit.

9.3.2. Service Mode Table 2

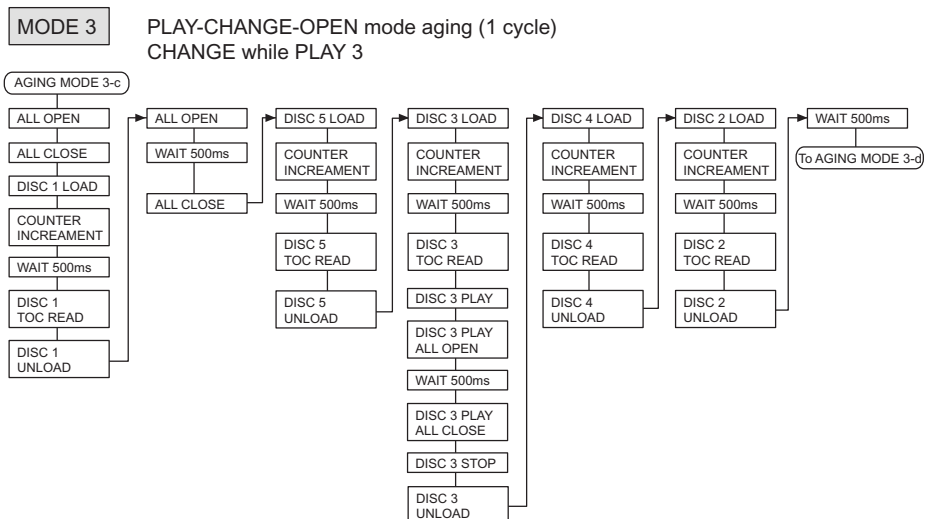
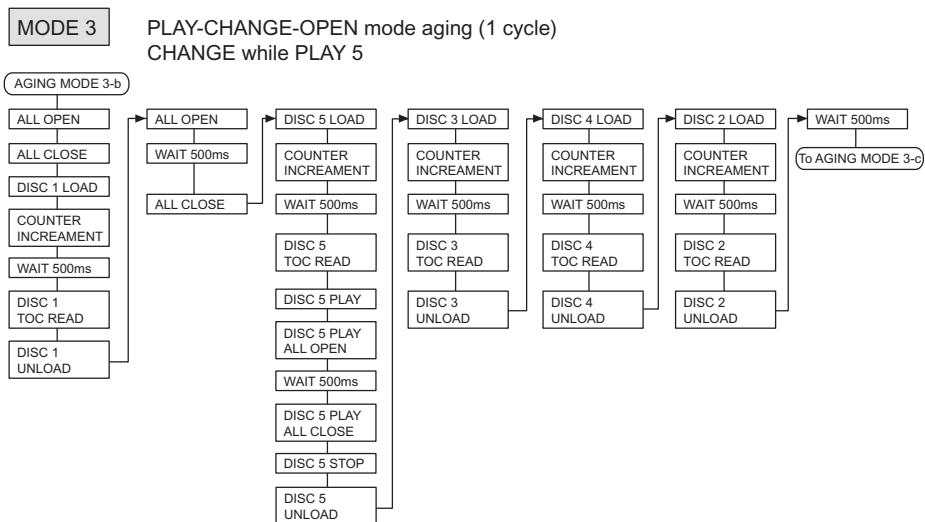
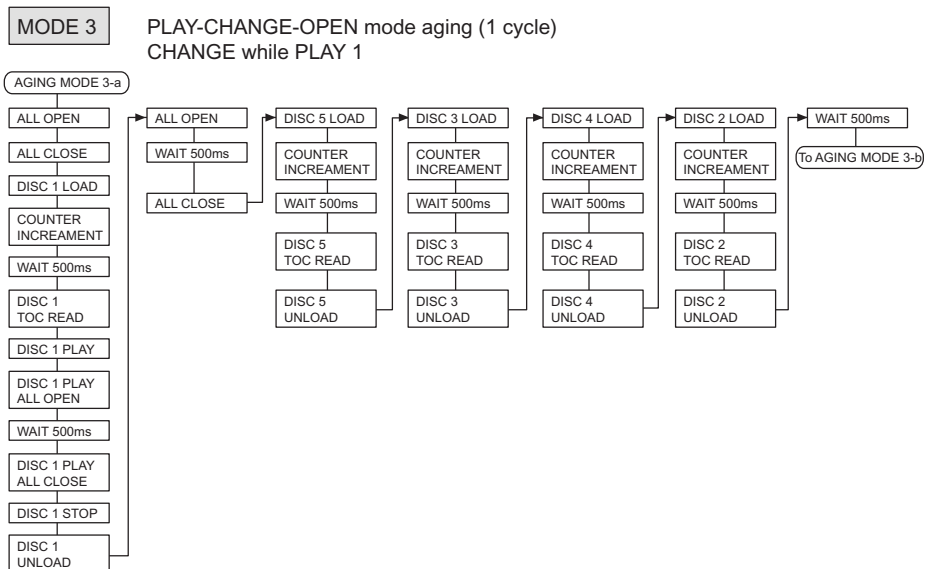
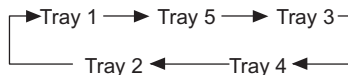
Item		FL Display	Key Operation
Mode Name	Description		Front Key
Firmware Version Check	To check the EEPROM checksum and Micro-P firmware version.	(Condition 1) Micro-processor Version If the version of the EEPROM does not match, [NG] is displayed. (Condition 2) Micro-processor Version (a) If there is NO EEPROM header string OR (b) If there is no EEPROM (no data is received by Micro-processor), [NO] is displayed. (Condition 3) Micro-processor EEPROM Checksum Version (If applicable) The checksum of EEPROM and firmware version will be displayed. (If applicable) * ROM correction ** Firmware version No.	In Doctor Mode, press [STOP] button on the main unit, followed by [4] and [7] on the remote control unit. To exit, press [ENTER] button on the remote control unit or power off the main unit.
Cold Start	For restart.		In Doctor Mode, press [4] on the remote control unit. To exit, press [ENTER] button on the remote control unit or power off the main unit.
Tape Ejected Test	To check on the eject function. (For DECK 1/2)	No display. Both deck will be ejected automatically.	In Doctor Mode, press [0] button on the remote control. To exit, press [ENTER] button on the remote control unit or power off the main unit.
FL Display Test	To check the FL segments display. (All segments will light up and LED will blink at 0.5 second interval).	All segments of FL Will light up	In Doctor Mode, press [PLAY/REC] button on the remote control unit. To exit, press [ENTER] button on the remote control unit or power off the main unit.

9.3.3. Service Mode Table 3

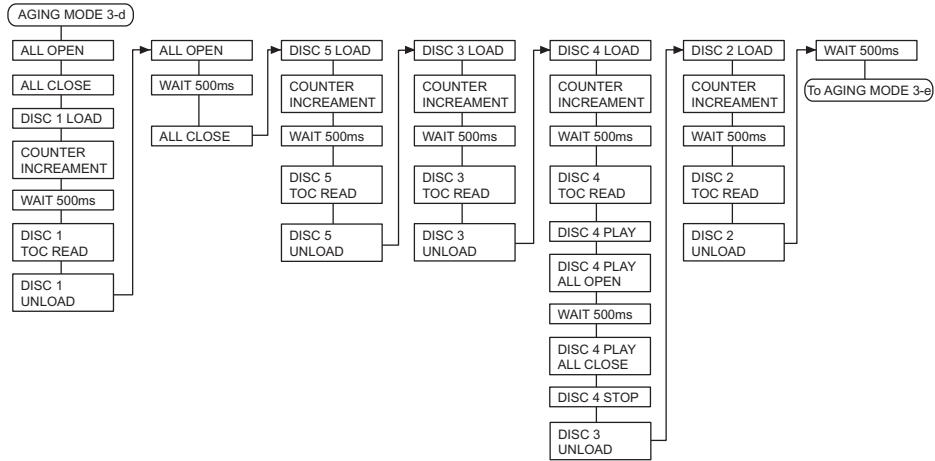
Item		FL Display	Key Operation
Mode Name	Description		Front Key
DVD/CD Changer Operation Check	To check the operation of changer unit for disc change. FL Display sequence: Display 1 -> 2 -> 3 -> 4 -> 5	(Display 1)  (Display 2)  (Display 3)  (Display 4)  (Display 5)  If the changer is not working, it will show "NG"	In Doctor Mode, press [DISC] button on the remote control unit. To exit, press [ENTER] button on the remote control unit or power off the main unit.

9.3.4. CD/DVD changer unit ageing test mode

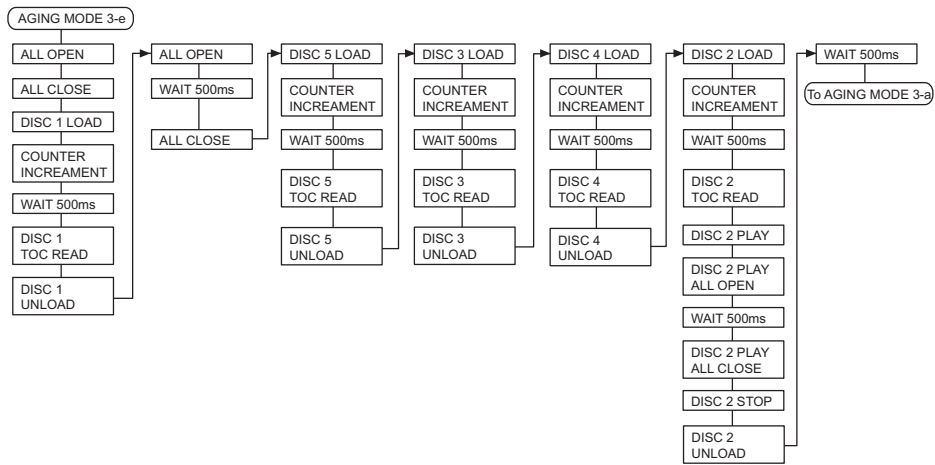
Below is the process flow chart of ageing for the CD/DVD changer unit. (CRS1D)



MODE 3 PLAY-CHANGE-OPEN mode aging (1 cycle)
CHANGE while PLAY 4

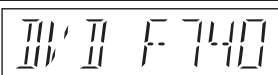
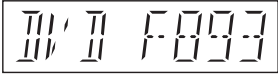
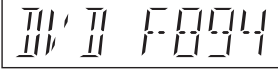
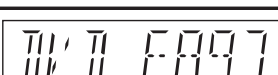
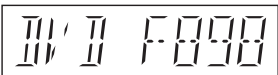
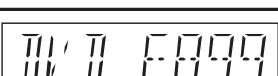


MODE 3 PLAY-CHANGE-OPEN mode aging (1 cycle)
CHANGE while PLAY 2

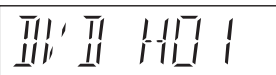
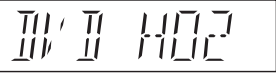
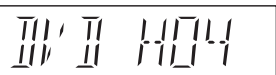
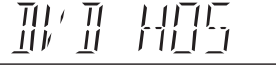
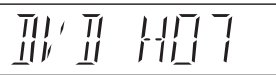
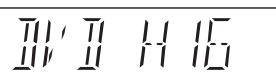
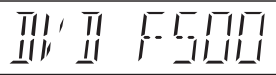
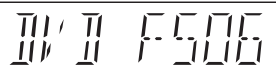
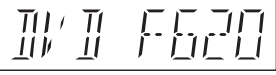
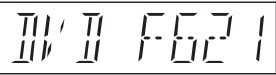


9.4. DVD Self Diagnostic Function-Error Code

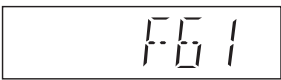
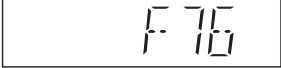
9.4.1. DVD Module Error Code Table

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 Riborcerar	It is generated at the equipment to which the TV set is Riborced when connecting it 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 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 DVD Module 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.
F896	No existence model	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.
F898	Disagreement of hardware and software	Unsuitable combination of AV Decoder, SDRAM & FLASH ROM IC (firmware).		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. (Frimware)		Press [■ STOP] on main unit for next error.

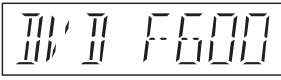
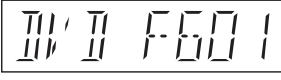
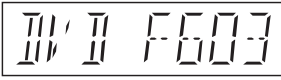
9.4.2. Mechanism Error Code Table

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 servo/motor is abnormal. The FG pulse is abnormal. CLV servo error.		Press [■ STOP] on main unit for next error.
H03	Traverse servo error	The traverse is abnormal. (Traverse servo, DV5 LSI IC (IC8001), TRV motor error.)		Press [■ STOP] on main unit for next error.
H04	Tracking servo error	Tracking coil NG (OPU unit abnormal), DV5 LSI IC (IC8001) error.		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. (TRV motor error, DV5 LSI IC (IC8001) error.)		Press [■ STOP] on main unit for next error.
H07	Driver IC thermal shut down	The spindle motor is abnormal. (short between brushes)		Press [■ STOP] on main unit for next error.
H15	Disc tray open detection switch failure	The disc tray cannot be opened & it closes spontaneously.		Press [■ STOP] on main unit for next error.
H16	Disc tray close detection switch failure	The disc tray cannot be closed & it opens spontaneously.		Press [■ STOP] on main unit for next error.
U11	Focus servo error	Focus coil, FE signal error.		Press [■ STOP] on main unit for next error. (Unfinalized DVD-R is likely to become U11.)
U15	Unfinalized DVD-R			
F500	DSC error	DV5 LSI IC (IC8001) stops in the occurrence of servo error (startup, focus error, etc)		Press [■ STOP] on main unit for next error.
F506	Invalid media	Disc is flipped over, TOC unreadable, incompatible disc.		Press [■ STOP] on main unit for next error.
F620	OPU unit abnormality temperature	Laser protection at high temperature.		Press [■ STOP] on main unit for next error.
F621	OPU unit circuitry temperature	Laser protection at circuit failure.		Press [■ STOP] on main unit for next error.

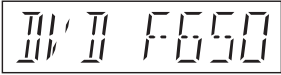
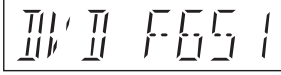
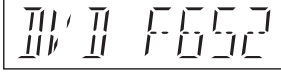
9.4.3. Power Supply Error Code Table

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F61	The abnormalities in an output or power supply circuit of POWER AMP	In normal operation, when DCDET2 goes to "L" (Low) (Not during POWER OFF condition), F61 appears on FL Display and PCONT goes to "L" (Low). This is due to speaker output has DC voltage or fan is not working.		Press [■ STOP] on main unit for next error.
F76	Abnormality in the output voltage of stabilized power supply	In normal operation when DCDET1 is detected "L" (Low) for two consecutive times, F76 is displayed on FL for 2 seconds and after that PCONT will be turned to "L" (Low). This is due to any of the DC voltages (+9V, +7V, -7V, +5V, +5.3V etc.) not available.		Press [■ STOP] on main unit for next error.

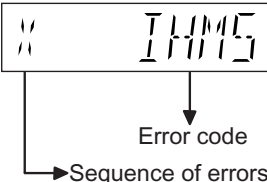
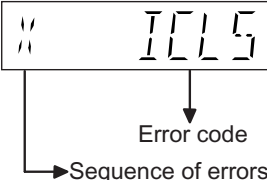
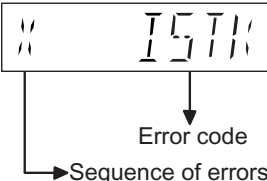
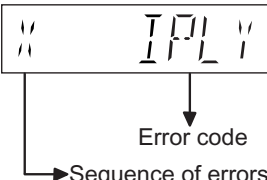
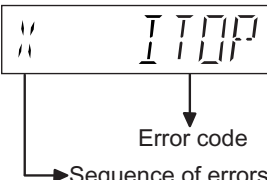
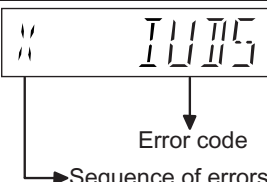
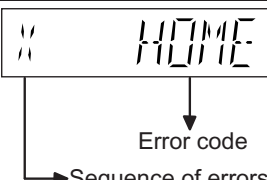
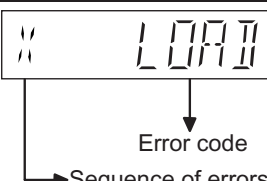
9.4.4. ECC Error Code Table

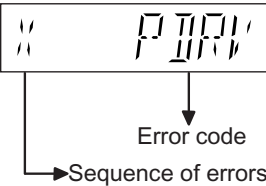
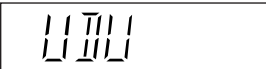
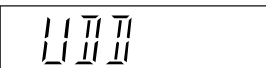
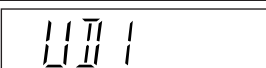
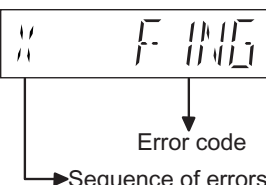
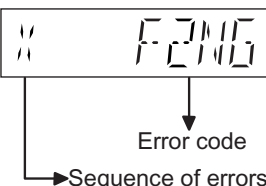
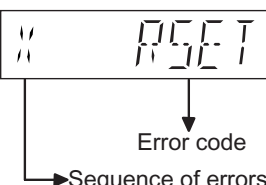
Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F600	Administrative information cannot be acquired by the recovery error.	It becomes impossible NaviPack etc. were done, and not to be able to acquire necessary information in the navigation's changing due to wound etc. of DISC, and to have done the reproduction transition.		Press [■ STOP] on main unit for next error.
F601	Irregular sector ID was demanded.	It tried to access the position that did not exist on DISC by the recording error etc. of authoring.		Press [■ STOP] on main unit for next error.
F603	KEYDET cannot be acquired by the recovery error.	The data for decoding copyright protection (CSS) cannot be acquired due to wound etc. of DISC, and it is not possible to reproduce.		Press [■ STOP] on main unit for next error.

9.4.5. USB Error Code Table

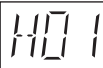
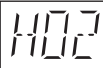
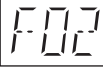
Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F650	USB device: Devices other than mass storage	Devices other than the mass storage class are connected.		Press [■ STOP] on main unit for next error.
F651	USB device: Non-Full Speed Device	The device that the transfer rate did not correspond to Full Speed was connected.		Press [■ STOP] on main unit for next error.
F652	USB device: Interface NG	The device in the interface (subclass) outside correspondence was connected. (correspondence interface) 001b: Reduced Block Commands (RBC) 010b: SFF-8020i. MMC-2 (ATAPI) 110b: SCSI transparent command set.		Press [■ STOP] on main unit for next error.
F655	USB device: Overcurrent detection	The overcurrent of 500mA or more was detected in VDD USB, and the USB device driver function was intercepted. (To intercept the current.)		Press [■ STOP] on main unit for next error.

9.4.6. CD/DVD Changer Mechanism Error Code Table

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
IHMS	Cam gear abnormality	Cam gear does not rotate to "HOME" position		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit for next error.
ICSL	Cam gear/gear units abnormal	Cam gear does not rotate to "PLAY" driving position and hence does not drive playing tray to "STOCK" position.		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit for next error.
ISTK	Drive rack/gear assembly abnormal	The tray drive rack does not move to "STOCK" position. (Tray does not move to "STOCK" position)		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit for next error.
IPLY	Drive rack/gear assembly abnormal	The tray drive rack does not move to "PLAY" position. (Tray does not move to "PLAY" position)		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit for next error.
ITOP	UD assembly	UD rack does not move to front position. This lead to UD base not raise to top position		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit for next error.
IUDS	UD assembly	After TOP SW is detected, UD rack does not move into tray 1 position.		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit for next error.
HOME	Cam gear/gear assembly abnormal	Cam gear does not move to "HOME" position under the following conditions: 1. After tray is loaded to "PLAY" position. 2. After tray is loaded to "STOCK" position.		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit for next error.
LOAD	Tray drive assembly abnormal	Tray unit does not move from "STOCK" to "PLAY" position.		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit for next error.

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
PDRV	Cam gear/gear assembly abnormal	Cam gear does not move from "HOME" to "PLAY" drive position.		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit for next error.
UDU	UD base assembly abnormal	UD base assembly does not move upwards from tray 5 to tray 2.		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit for next error.
UDD	UD base assembly abnormal	UD base assembly does not move downwards from tray 1 to tray 5.		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit for next error.
UD1	UD base assembly abnormal	UD base assembly does not move to tray 1.		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit for next error.
F1NG	Fail - safe mode. (For open/close tray unit(s))	When the tray open operation is performed, it fails to open. It will automatically close all trays after the time-out by the microprocessor. During this time when it fails, the error code will appear.		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit for next error.
F2NG	Fail - safe mode. (For open/close tray unit(s))	When the tray open operation is performed, it fails to close. It will automatically close all trays after the time-out by the microprocessor. During this time when it fails, the error code will appear.		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit for next error.
RSET	Cam gear jam/close sensor faulty	During tray re-open, the cam gear will rotate in the opposite direction to reset the cam gear position. When it fails, the error code will appear.		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit for next error.

9.4.7. Deck Mechanism Error Code Table

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
H01	Mode switch abnormal (Plunger and capstan motor)	Detection of switch for "On" when the deck mechanism is in the driving mode. Detection time at 1.6ms in 6 times interval.		For Deck Mechanism Unit (Deck 1/2). Press [■ STOP] on the main unit for next error. To exit, press [POWER] button on the main unit. Normal operation shall be executed upon next powering on of the main unit.
H02	REC_INHF switch abnormal	Detection of switch for presence of the FORWARD recording tab when a cassette is loaded into the deck. Detection time is 20ms at 2 times interval.		For Deck Mechanism Unit (Deck 1/2). Press [■ STOP] on the main unit for next error. To exit, press [POWER] button on the main unit. Normal operation shall be executed upon next powering on of the main unit.
H03	HALF switch abnormal	Detection of switch for "ON" state when a cassette is loaded into the deck. Detection time is 20ms at 2 times interval. When no cassette is loaded, it shall be in "OFF" state.		For Deck Mechanism Unit (Deck 1/2). Press [■ STOP] on the main unit for next error. To exit, press [POWER] button on the main unit. Normal operation shall be executed upon next powering on of the main unit.
F01	Reel pulse abnormal	Detection of switch for the reel pulse signal toggling between high and low.		For Deck Mechanism Unit (Deck 1/2). Press [■ STOP] on the main unit for next error. To exit, press [POWER] button on the main unit. Normal operation shall be executed upon next powering on of the main unit.
F02	TPS abnormal	Tape position detection signal. It is abnormal condition when the tape ends before the checking is completed.		For Deck Mechanism Unit (Deck 1/2). Press [■ STOP] on the main unit for next error. To exit, press [POWER] button on the main unit. Normal operation shall be executed upon next powering on of the main unit.

9.5. 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.

9.5.1. Setting

- **Prohibiting removal of disc**

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

Note:

OPEN/CLOSE , MULTI CHANGE , SINGLE CHANGE , TAPE , TUNER/BAND, EXT-IN, RECORD  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" mode.
2. At POWER ON condition, press and hold down the DVD/CD  button and the AC IN  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  , MULTI CHANGE  , SINGLE CHANGE  , 1  , 2  , 3  , 4  , 5  , STOP  ,  /FF  ,  /REW  , TAPE  , TUNER/BAND, EXT-IN, RECORD 
Remote controller unit	NUMERIC KEYS 0~9, ≥ 10  ,  ,  ,  /FF  ,  /REW  , SLOW/SEARCH   , FUNCTIONS, RETURN/SETUP, FL DISPLAY, MUTING/CANCEL, MENU/PLAY LIST, CH SELECT/TEST, EXT-IN, TUNER/BAND, CLOCK/TIMER, SLEEP/A. OFF, DISC, TAPE  , REPEAT, AUDIO.

9.5.2. Cancellation

The lock can be cancelled by the same procedure as used in setting. ("UNLOCKED" is displayed on cancellation. Disconnecting the power cable from power outlet does not cancel the lock.)

9.6. Service Precautions

9.6.1. Recovery after the DVD player is repaired

- When the FLASH ROM IC or DVD Module P.C.B. is replaced, carry out the recovery processing to optimize the drive.
Playback the recovery disk to process the recovery automatically.
- Recovery disc (Product number: RFKZD03R005) [SPG]
- Performing recovery process
 1. Load the recovery disc RFKZD03R005 on to the player and run it.
 2. Recovery is performed automatically. When it is finished, a message appears on the screen.
 3. Remove the recovery disc.
 4. Turn off the power.
 5. Initialize the main unit.

9.6.2. Firmware version-up of the DVD player

- The firmware of the DVD player may be renewed to improve the quality including operability and playability to the substandard discs.processing to optimize the drive.
The recovery disc has also firmware version-up.
- After version-up, recovery processing is executed automatically.
- Part number of the recovery disc for version-up will be noticed when it is supplied.
- Updating firmware
 1. Load the recovery disc on to the player and run it.
 2. Firmware version of the player is automatically checked. Appropriate message appears whenever necessary.
 3. Using remote controller's cursor key, select whether version updating is to be done or not. (Selection of Yes/No)
 4. a. If Yes is selected, version updating is performed.
b. If No is selected, only recovery is performed.

5. a. When updating is finished, remove the disc according to the message appearing on the screen.
b. Remove the disc according to the message appearing on the screen.
6. Turn off the power.

Note:

If the AC power supply is shut out during version-up due to a power failure, the version-up is improperly carried out. In such a case, replace the FLASH ROM IC and carry out the version-up again.

9.6.3. DVD Module P.C.B. Reset

- When after replacing FLASH ROM IC or DVD Module P.C.B., FL displays error code “DVD F897”. This means the unit is not initialized properly and the following process needs to be carry out.
- Procedures:
 1. Press ≥ 10 on remote control while pressing “STOP” button on main unit. (To enter into initialization)
 2. FL display show “INIT”
 3. While still pressing “STOP” button on main unit, press “ENTER” on remote control. (To reset the unit)
 4. FL will display “RESET” before FL display will change to TOC reading again.
 5. Power off unit. Unplug the AC cord.
 6. Power on the unit. It should be no problem. If problem persist check on the DVD Module P.C.B. or FLASH ROM IC.

10 Assembling and Disassembling

“ATTENTION SERVICER”

Be careful when disassembling and servicing.

Some chassis components may have sharp edges.

Special Note:

1. This model uses a DVD/CD changer mechanism unit (CRS1D). In this following section does not contain the necessary assembly and disassembly information except the assembly and disassembly of the traverse unit. Kindly refer to the original service manual for the DVD/CD changer mechanism unit. (Order No. MD0603065A3).
2. This section describes the disassembly procedures for all the major printed circuit boards and main components.
3. Before the disassembly process was carried out, do take special note that all safety precautions are to be carried out. (Ensure that no AC power supply is connected during disassembling.)
4. For assembly after operation checks or replacement, reverse the respective procedures.
Special reassembly procedures are described only when required.
5. The Switch Regulator IC may have high temperature after prolonged use.
6. Use caution when removing the top cabinet and avoid touching heat sinks located in the unit.

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

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

- Disassembly of Top Cabinet
- Disassembly of DVD/CD Changer Mechanism Unit
- Disassembly of DVD Module P.C.B.
- Disassembly of USB Relay P.C.B.
- Disassembly of Rear Panel
- Disassembly of Main P.C.B.
- Replacement of Regulator IC (IC2810)
- Disassembly of Front Panel
- Disassembly of Mic P.C.B.
- Disassembly of Panel P.C.B.
- Disassembly of Tact Switch P.C.B.
- Disassembly of USB P.C.B.
- Replacement CD Lid
- Disassembly of Deck Mechanism Unit
- Replacement Cassette Lid
- Disassembly of Deck P.C.B.
- Disassembly of D-Amp P.C.B. & Speaker P.C.B.
- Replacement of Digital Amp IC (IC5100)
- Disassembly of SMPS P.C.B.
- Replacement of Switch Regulator IC (IC5701)
- Replacement of Regulator Diode (D5904/D5905)
- Replacement of Regulator Diode (D5702)
- Disassembly of Traverse Unit
- Disassembly of Traverse Deck (DT69U3)
- Disassembly of Deck Mechanism
- Disassembly of Pinch Roller F Assembly & Head Block Unit
- Disassembly of Disassembly of Capstan Motor Assembly, Capstan Belt A, Capstan Belt B & Winding Belt

- Installation of Belt
- Rectification for Tape Jam problem

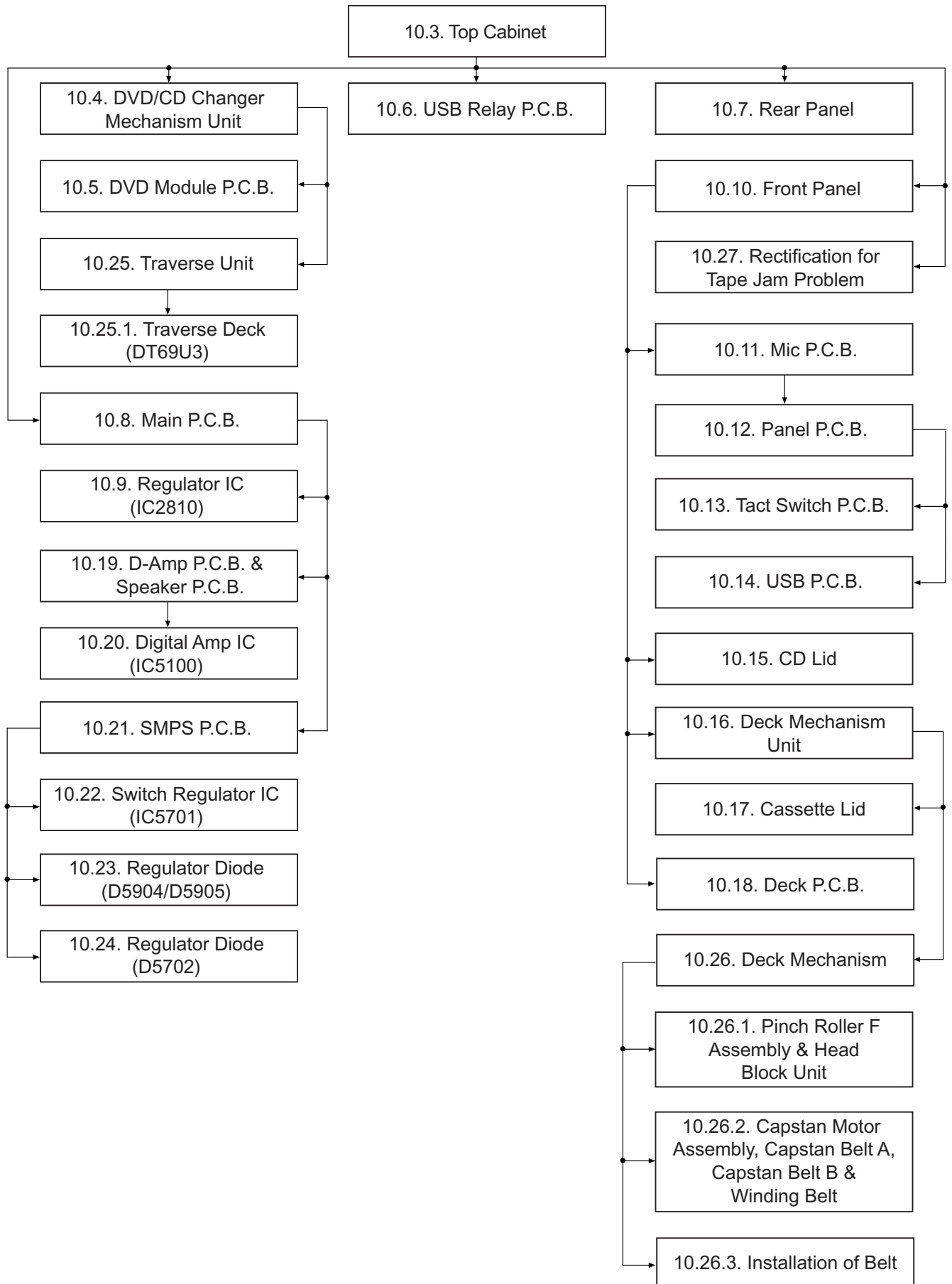
CAUTION NOTE:

Please use original screw and at correct locations.

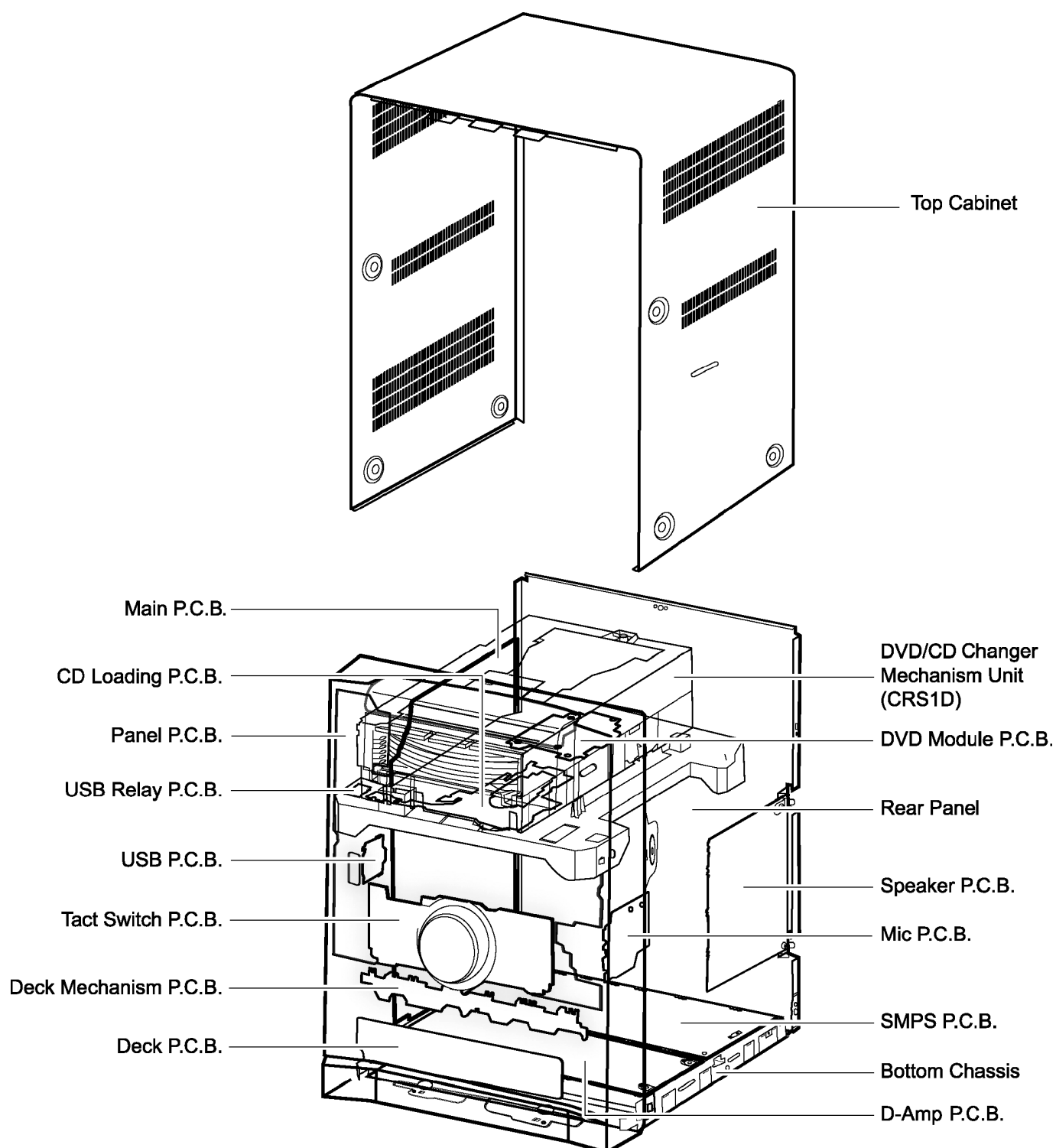
Below shown is the part no. of different screw types used:

- | | |
|------------------------|------------------------|
| a :RHD30007-K2J | g :RHD30008 |
| b :RHD30119-S | h :RHD26046-L |
| c :XTW3+12TFJ | i :XTV3+10GFJ-M |
| d :XTV2+6GFJ | j :XTW2+5LFJ |
| e :XTB3+8JFJ | k :XTW26+10SFJ |
| f :XTWS3+6TFJ | |

10.1. Disassembly Flow Chart

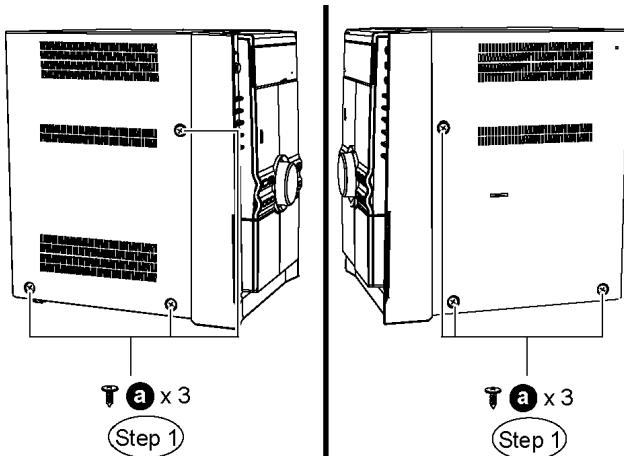


10.2. Main Components and P.C.B. Locations

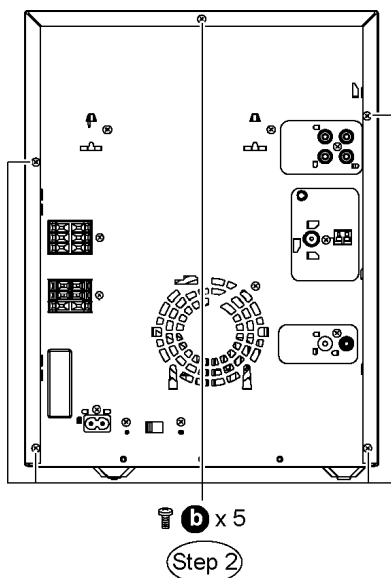


10.3. Disassembly of Top Cabinet

Step 1 Remove 3 screws at each side of the top cabinet.



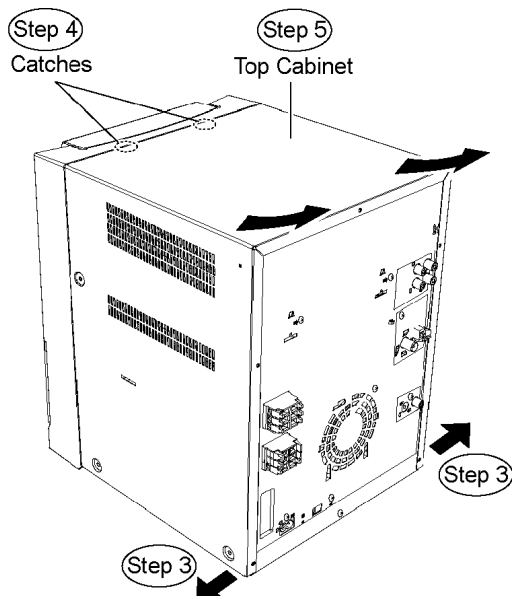
Step 2 Remove 5 screws.



Step 3 Lift the sides of the top cabinet outwards.

Step 4 Push the top cabinet in the direction of arrows to release the catches.

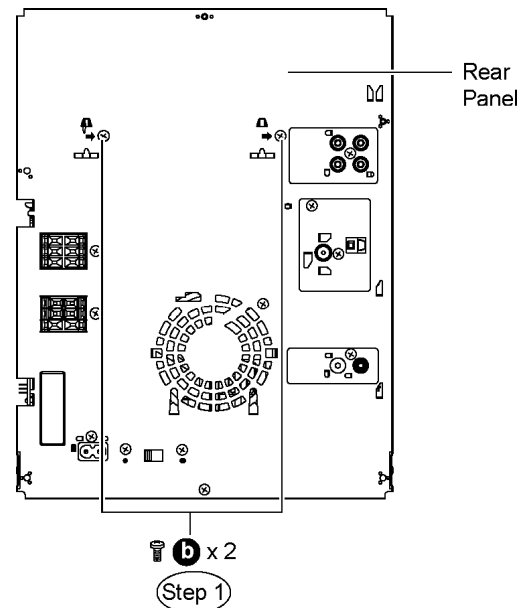
Step 5 Remove top cabinet.



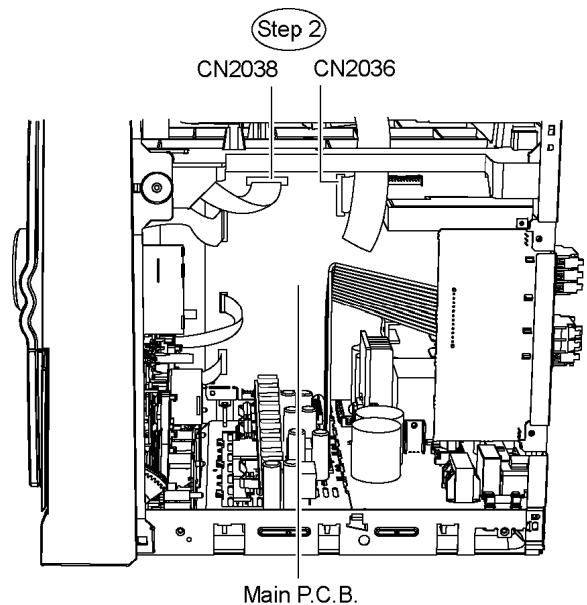
10.4. Disassembly of the DVD/CD Changer Mechanism Unit

• Follow (Step 1) to (Step 5) of Item 10.3.

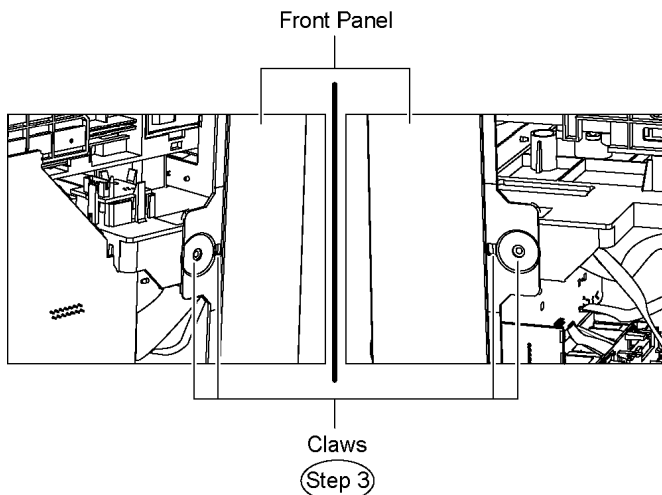
Step 1 Remove 2 screws at the rear panel.



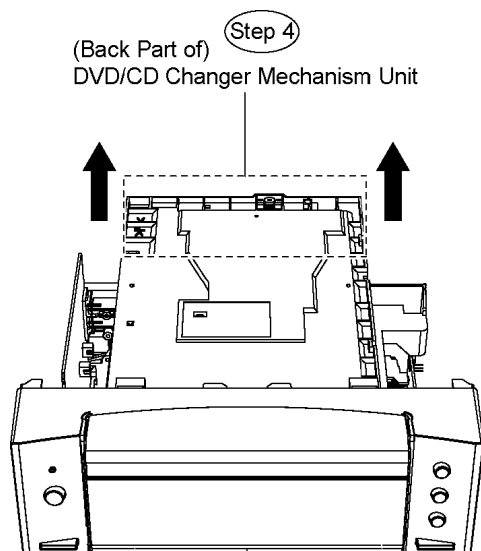
Step 2 Detach FFC cables at the connectors (CN2036 & CN2038) on Main P.C.B.



Step 3 Release the claws at each side of the front panel.

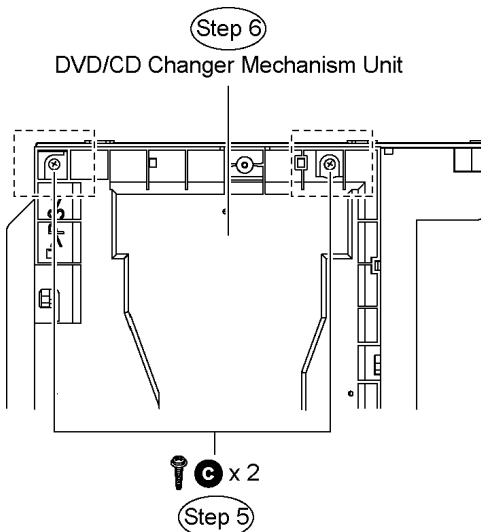


Step 4 Lift up the back part of the DVD/CD changer mechanism unit to remove it in the direction of arrows.



Step 5 Remove 2 screws.

Step 6 Remove the DVD/CD changer mechanism unit.



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

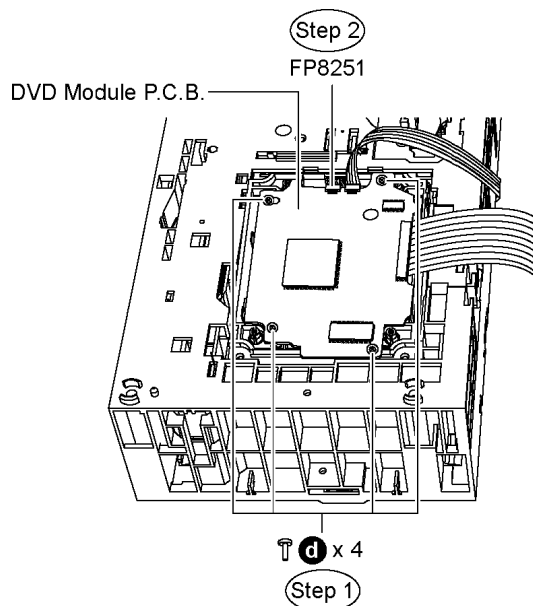
Important notes: Ensure all the trays are in the “STOCK”

position before proceeding to the disassembly of DVD Module P.C.B. For procedures to set the trays in “STOCK” position, please refer to original Service Manual for CRS1D, Section 4.3. Setting the trays in “STOCK” position, Order No. MD0603065A3.

- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 6) of Item 10.4.

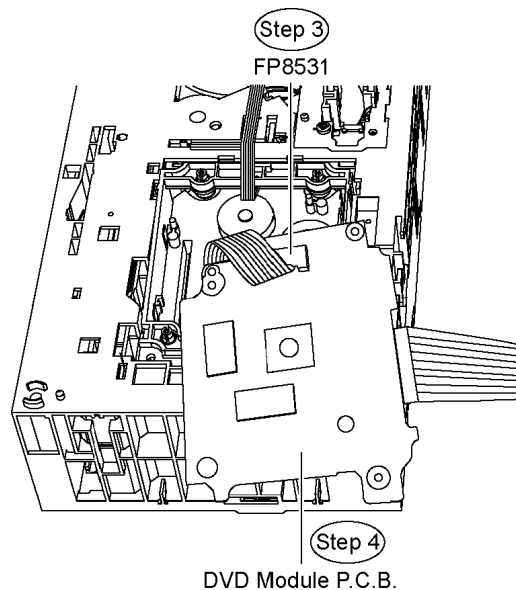
Step 1 Remove 4 screws from DVD Module P.C.B.

Step 2 Lift up DVD Module P.C.B. to detach FFC cable at the connector (FP8251).



Step 3 Flip over DVD Module P.C.B. to detach FFC cable at the connector (FP8531).

Step 4 Remove DVD Module P.C.B.



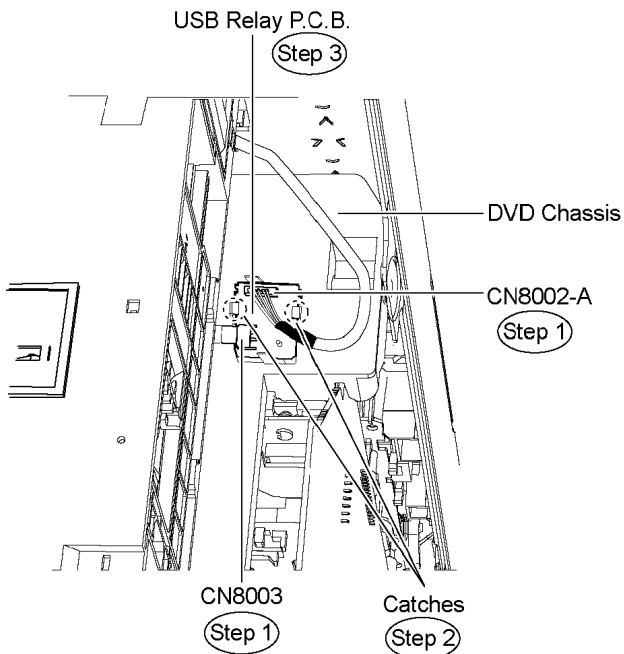
10.6. Disassembly of USB Relay P.C.B.

- Follow (Step 1) to (Step 5) of Item 10.3.

Step 1 Detach FFC cables at the connectors (CN8002-A & CN8003) on USB Relay P.C.B.

Step 2 Release the catches.

Step 3 Remove USB Relay P.C.B. from the DVD chassis.



10.7. Disassembly of Rear Panel

- Follow (Step 1) to (Step 5) of Item 10.3.

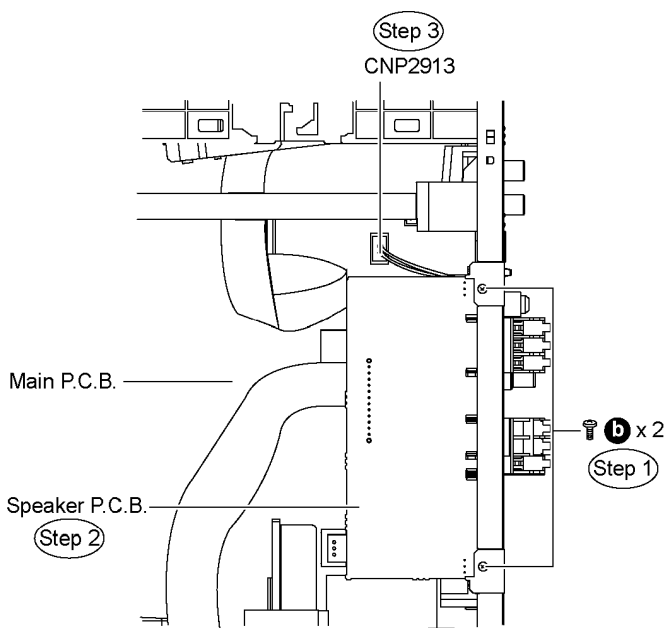
- Disassembly of Speaker P.C.B.

Step 1 Remove 2 screws from Speaker P.C.B.

Step 2 Remove Speaker P.C.B. from the rear panel.

- Disassembly of Rear Panel

Step 3 Detach cables at the fan connector (CNP2913) on Main P.C.B.

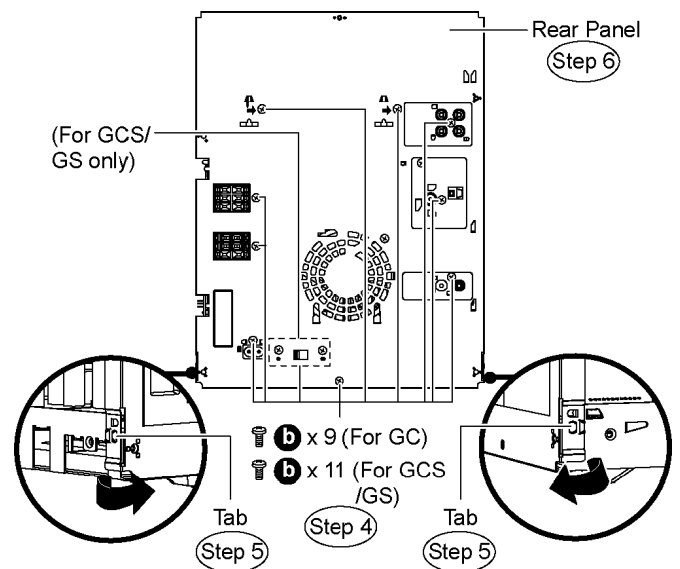


Step 4 Remove 11 screws at the rear panel. (For GCS/GS)

Step 4 Remove 9 screws at the rear panel. (For GC only)

Step 5 Release the tab at each side of the rear panel in the direction of arrow.

Step 6 Remove the rear panel.

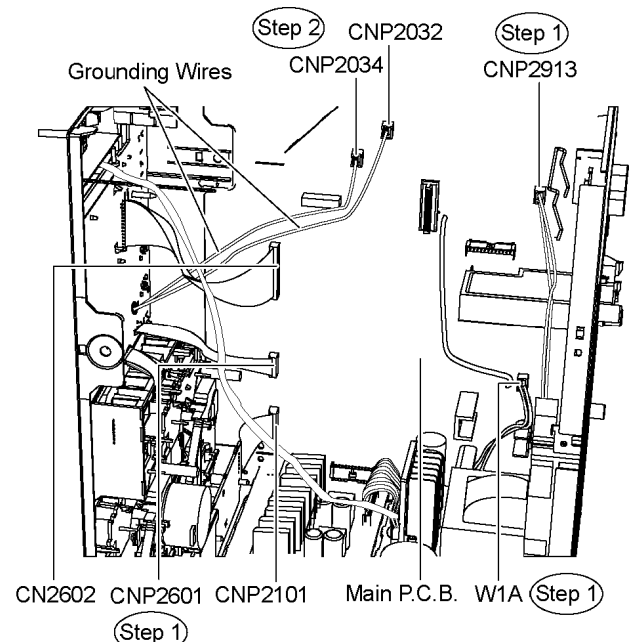


10.8. Disassembly of Main P.C.B.

- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 4) of Item 10.4.

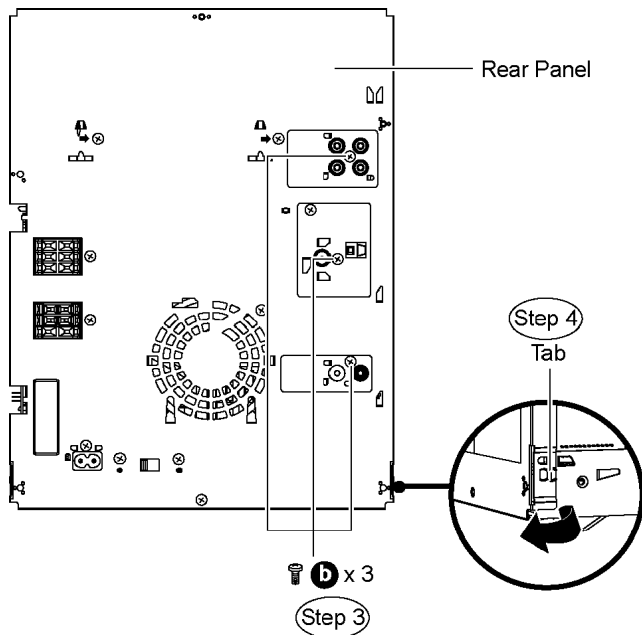
Step 1 Detach FFC cables from the connectors (CN2602, CNP2101, CNP2601, CNP2913 & W1A) on Main P.C.B.

Step 2 Detach the grounding wires from the connectors (CNP2032 & CNP2034) on Main P.C.B.



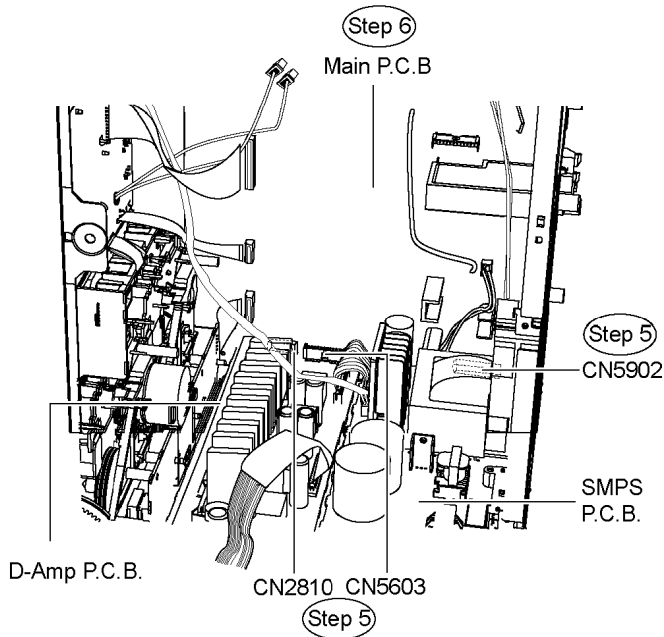
Step 3 Remove 3 screws at the rear panel.

Step 4 Release the tab of the rear panel in the direction of arrows.



Step 5 Detach Main P.C.B. at the connectors (CN2810 & CN5603) on D-Amp. P.C.B and (CN5902) on SMPS P.C.B.

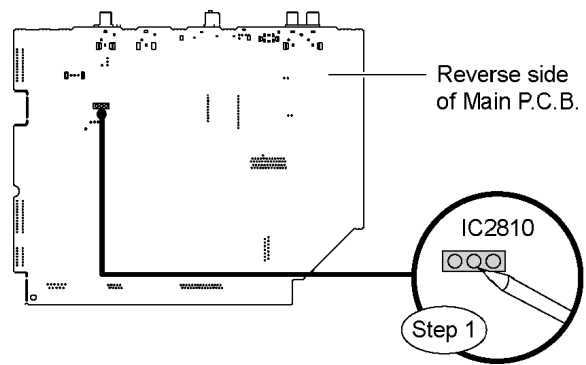
Step 6 Remove Main P.C.B.



10.9. Replacement of Regulator IC (IC2810)

- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 4) of Item 10.4.
- Follow (Step 1) to (Step 6) of Item 10.8.

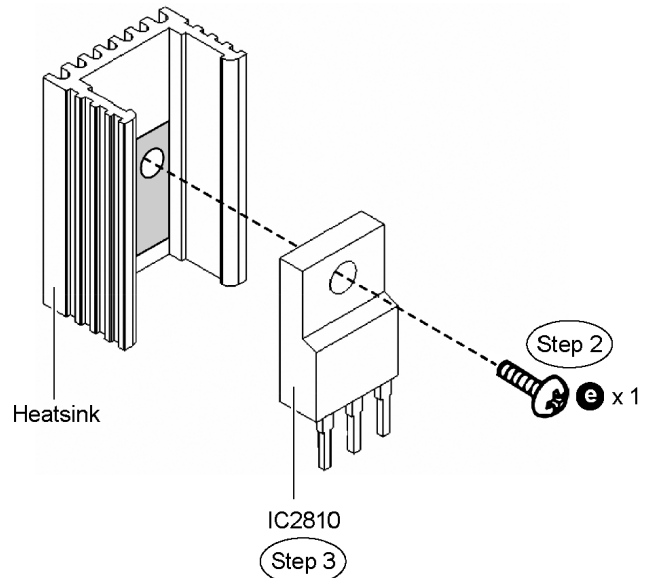
Step 1 Desolder pins of the regulator IC (IC2810) at the reverse side of Main P.C.B.



Step 2 Remove 1 screw.

Step 3 Remove the regulator IC (IC2810) from the heatsink.

Caution: Handle the heatsink with caution due to its high temperature after prolonged use. Touching it may lead to injuries.

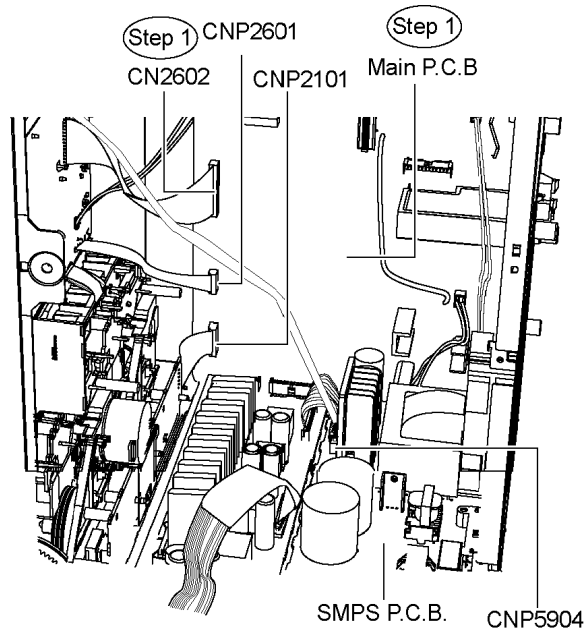


Note : Refer to the diagram of Main P.C.B. (Section 10.8.) for location of the part.

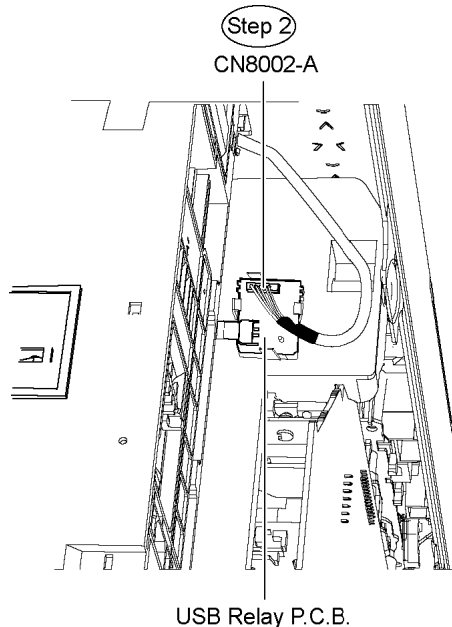
10.10. Disassembly of Front Panel

- Follow (Step 1) to (Step 5) of Item 10.3.

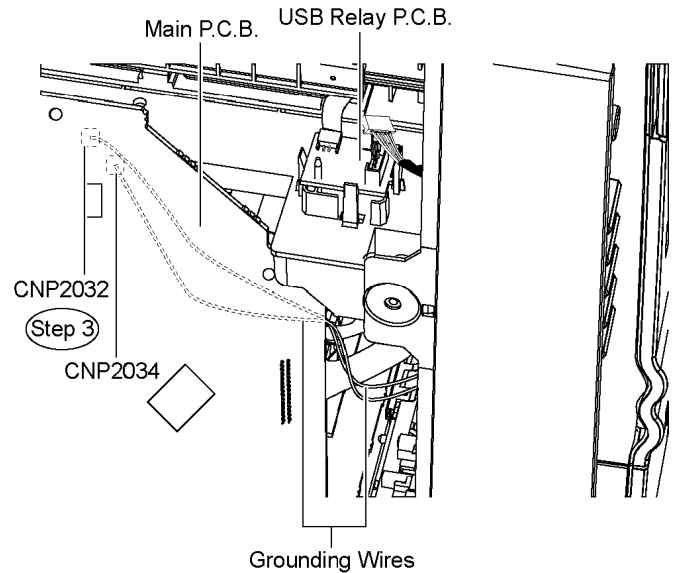
Step 1 Detach FFC cables at the connectors (CN2602, CNP2101 & CNP2601) on Main P.C.B. and (CNP5904) on SMPS P.C.B.



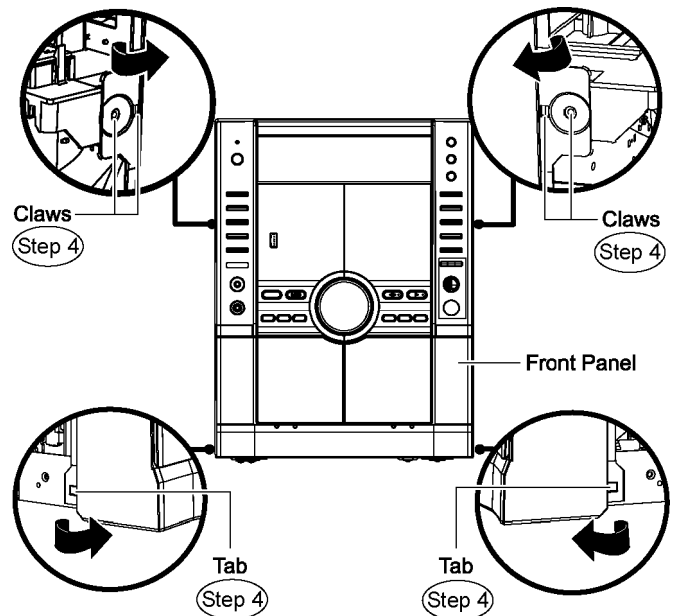
Step 2 Detach FFC cable at the connector (CN8002-A) on USB Relay P.C.B.



Step 3 Detach the grounding wires from the connectors (CNP2032 & CNP2034) on Main P.C.B.

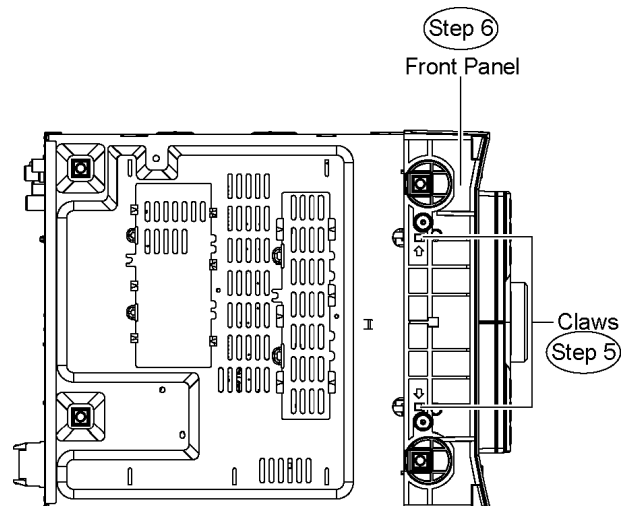


Step 4 Release the claws and tab at each side of the front panel in the direction of arrows.



Step 5 Release the claws at the bottom part of the front panel.

Step 6 Remove the front panel.



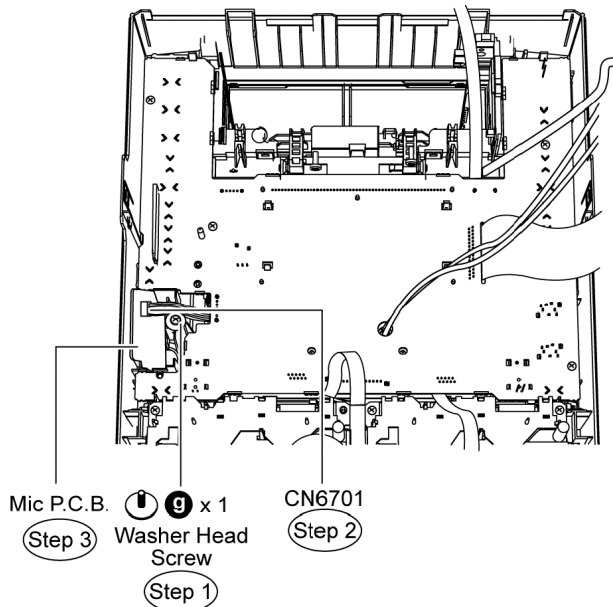
10.11. Disassembly of Mic P.C.B.

- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 6) of Item 10.10.

Step 1 Remove the washer head screw.

Step 2 Detach cable at the connector (CN6701) on the Mic P.C.B.

Step 3 Remove Mic P.C.B.

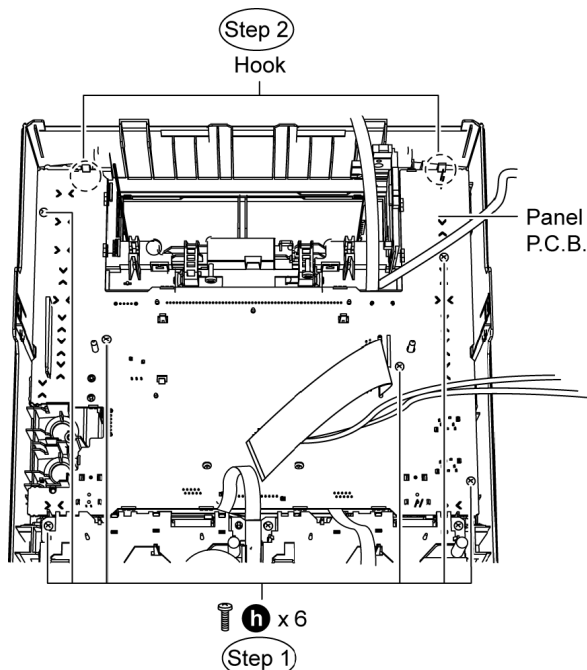


10.12. Disassembly of Panel P.C.B

- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 6) of Item 10.10.
- Follow (Step 1) to (Step 3) of Item 10.11.

Step 1 Remove 6 screws from Panel P.C.B.

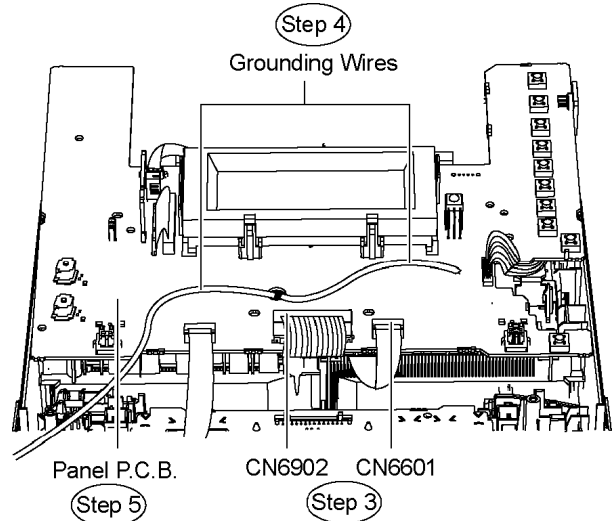
Step 2 Release the two hooks.



Step 3 Flip Panel P.C.B to another side to detach cables at the connectors (CN6902 & CN6601) on Panel P.C.B.

Step 4 Remove the grounding wires.

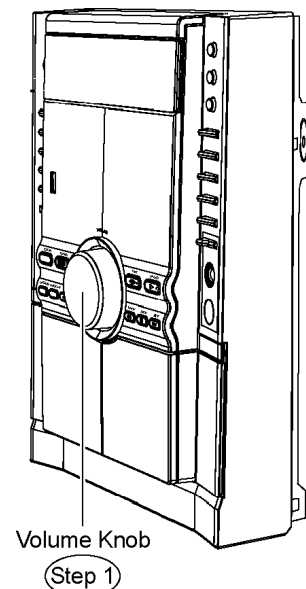
Step 5 Remove Panel P.C.B.



10.13. Disassembly of Tact Switch P.C.B

- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 6) of Item 10.10.
- Follow (Step 1) to (Step 3) of Item 10.11.
- Follow (Step 1) to (Step 5) of Item 10.12.

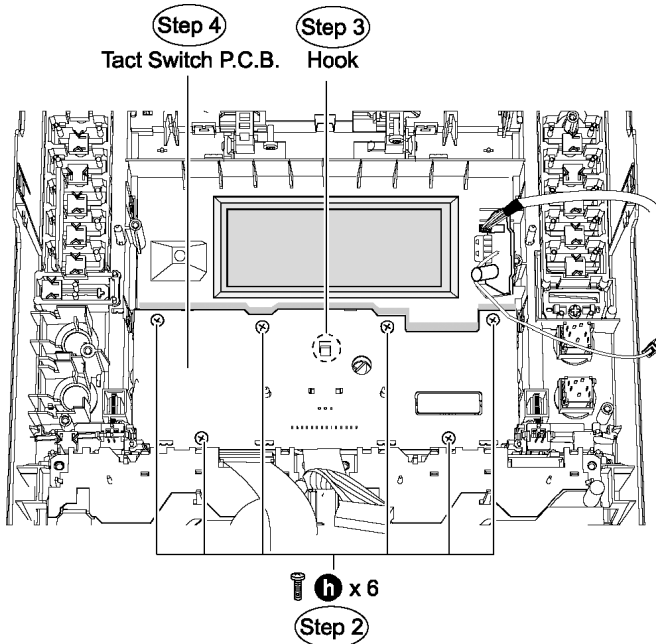
Step 1 Remove the volume knob.



Step 2 Remove 6 screws from Tact Switch P.C.B.

Step 3 Release the hook.

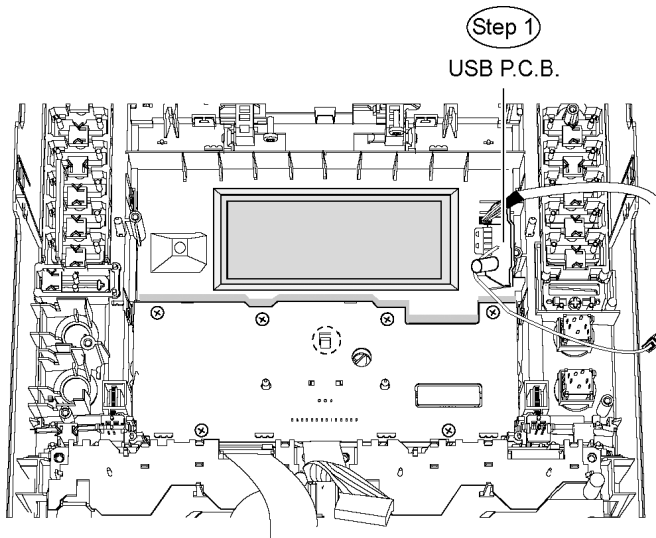
Step 4 Remove Tact Switch P.C.B.



10.14. Disassembly of USB P.C.B

- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 6) of Item 10.10.
- Follow (Step 1) to (Step 3) of Item 10.11.
- Follow (Step 1) to (Step 5) of Item 10.12.

Step 1 Remove USB P.C.B. from the front panel.



10.15. Replacement of CD Lid

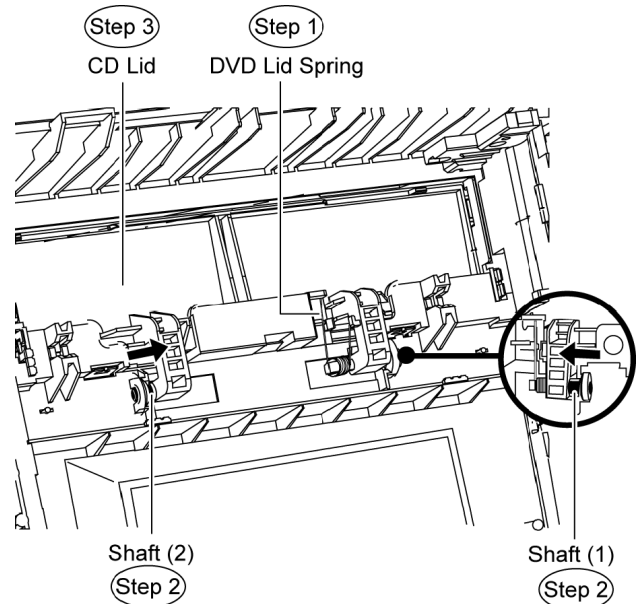
- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 6) of Item 10.10.

- Disassembly of DVD Lid Spring

Step 1 Lift the DVD lid spring sideward.

Step 2 Move the shaft (1) & (2) in the direction of arrow.

Step 3 Remove the CD lid.



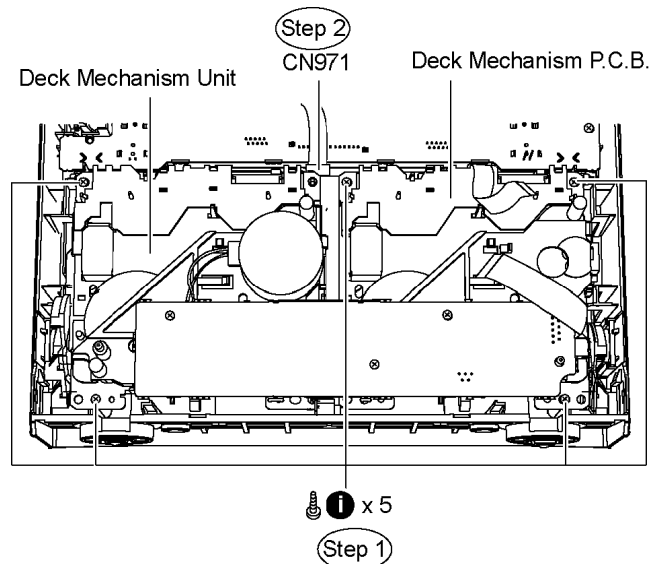
Note: Do not misplace the DVD lid spring. Store it in safe place.

10.16. Disassembly of Deck Mechanism Unit

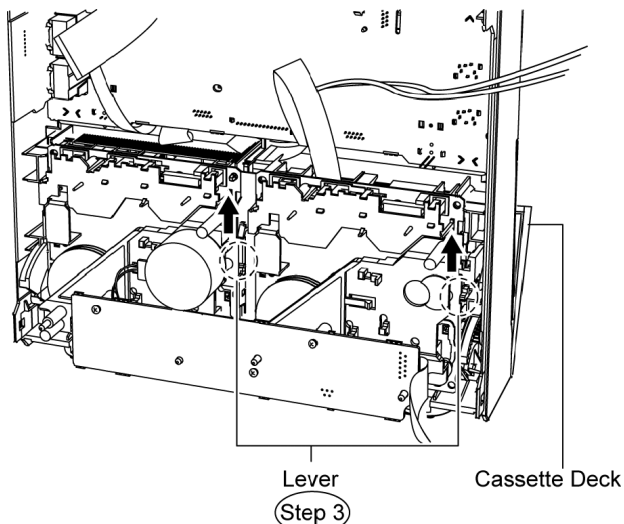
- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 6) of Item 10.10.

Step 1 Remove 5 screws.

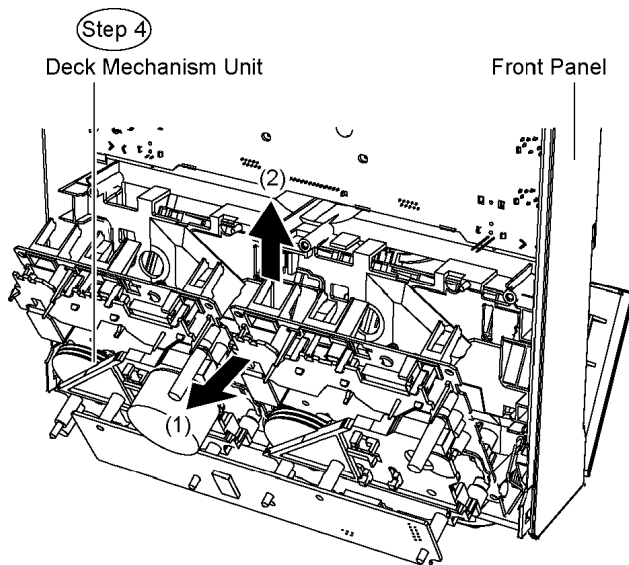
Step 2 Detach FFC cable at the connector (CN971) on Deck Mechanism P.C.B.



Step 3 Push the levers upward to open the the cassette decks (DECK1 & DECK 2).

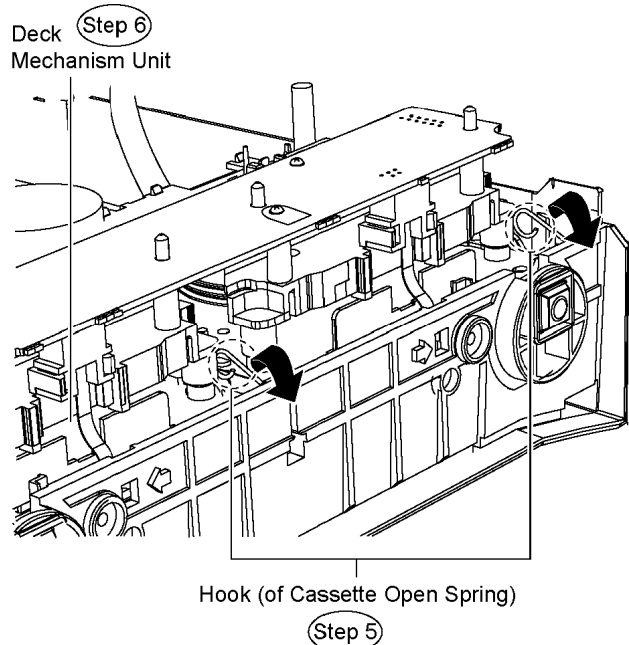


Step 4 Detach the deck mechanism unit from the front panel in the direction of arrow (1) & (2).



Step 5 Release the hook of the cassette open springs in the direction of arrow.

Step 6 Remove the deck mechanism unit.



Note: Do not misplace the cassette open spring. Store it in safe place.

10.17. Replacement of Cassette Lid

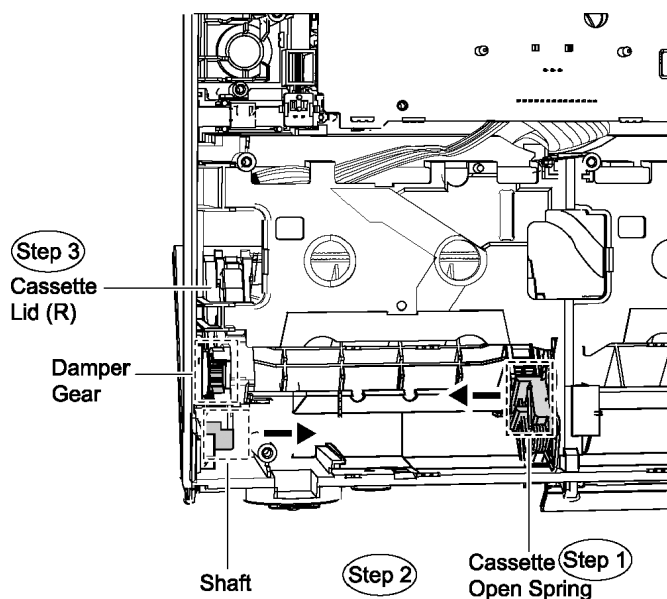
- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 6) of Item 10.10.
- Follow (Step 1) to (Step 6) of Item 10.16.

Step 1 Lift the cassette open spring sideward.

Note: Do not misplace the cassette open spring. Store it in safe place.

Step 2 Move the shaft of the cassette lid (R) from the damper gear in the direction of arrow.

Step 3 Remove the cassette lid (R).



Note: For replacement of cassette lid (L), follow the (Step 1) to (Step 3).

10.18. Disassembly of Deck P.C.B

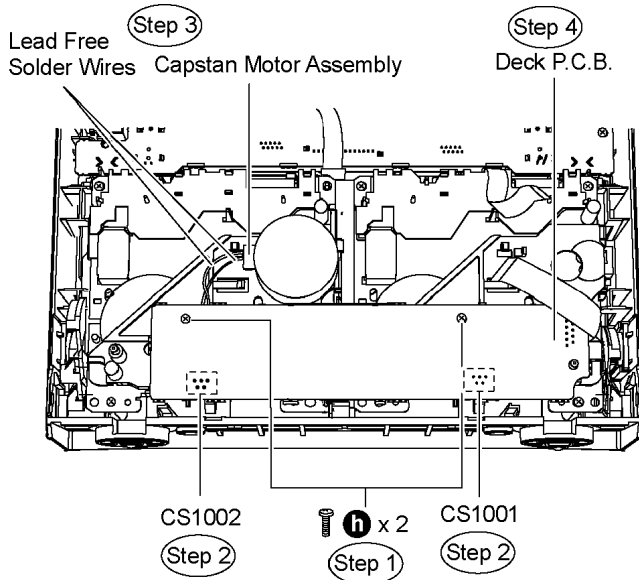
- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 6) of Item 10.10.

Step 1 Remove 2 screws from Deck P.C.B.

Step 2 Desolder pins of the connectors (CS1001 & CS1002) on Deck P.C.B.

Step 3 Desolder pins of the lead free solder wires at the capstan motor assembly.

Step 4 Remove Deck P.C.B.

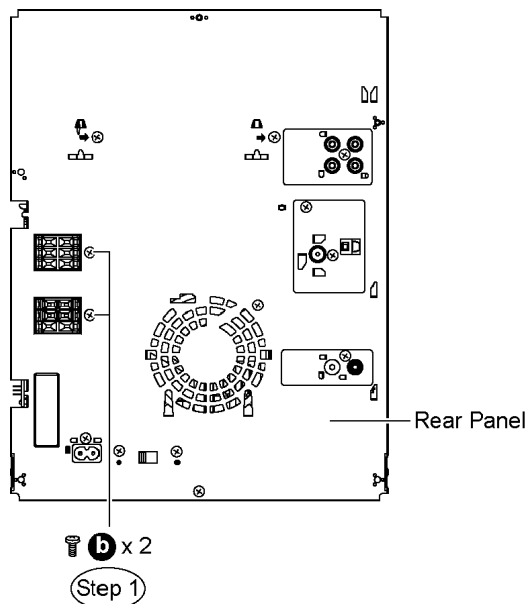


10.19. Disassembly of D-Amp P.C.B. & Speaker P.C.B.

- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 4) of Item 10.4.
- Follow (Step 1) to (Step 6) of Item 10.8.

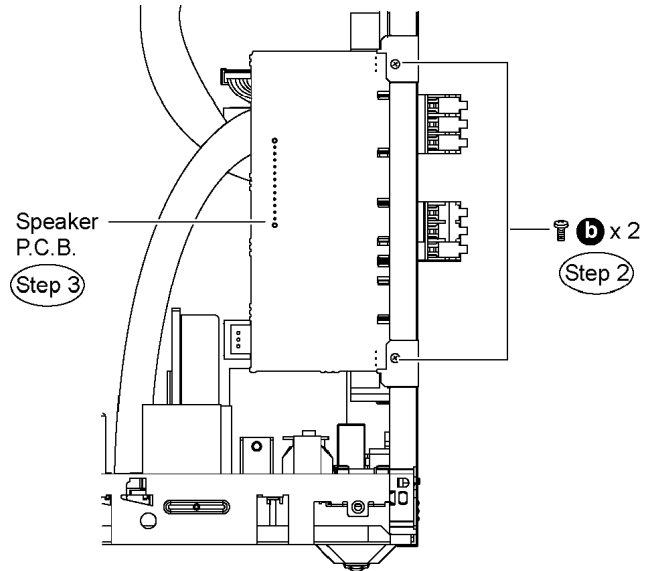
- Disassembly of Speaker P.C.B.

Step 1 Remove 2 screws at the rear panel.



Step 2 Remove 2 screws from Speaker P.C.B.

Step 3 Remove Speaker P.C.B.

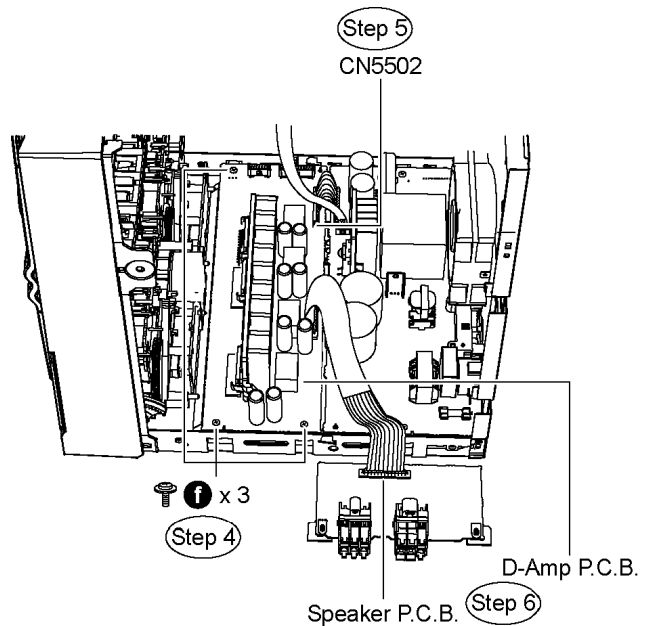


- Disassembly of D-Amp P.C.B.

Step 4 Remove 3 screws .

Step 5 Detach cable at the connector (CN5502) on D-Amp P.C.B.

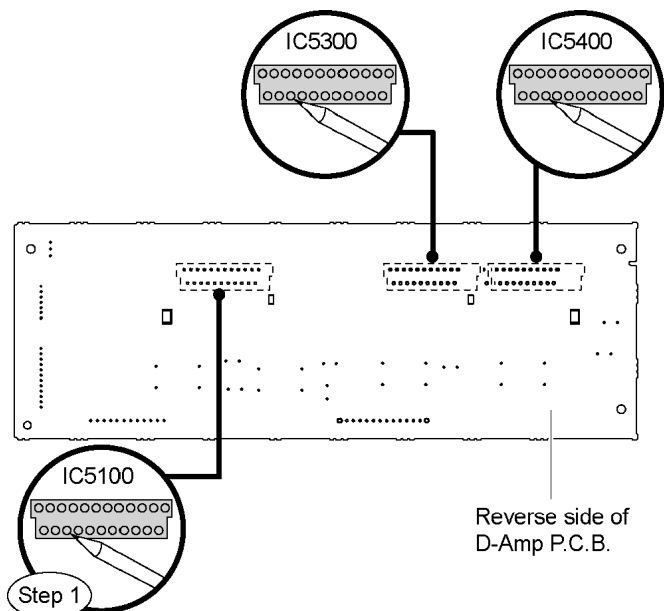
Step 6 Remove D-Amp P.C.B. with Speaker P.C.B.



10.20. Replacement of Digital Amp IC (IC5100)

- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 4) of Item 10.4.
- Follow (Step 1) to (Step 6) of Item 10.8.
- Follow (Step 1) to (Step 7) of Item 10.19.

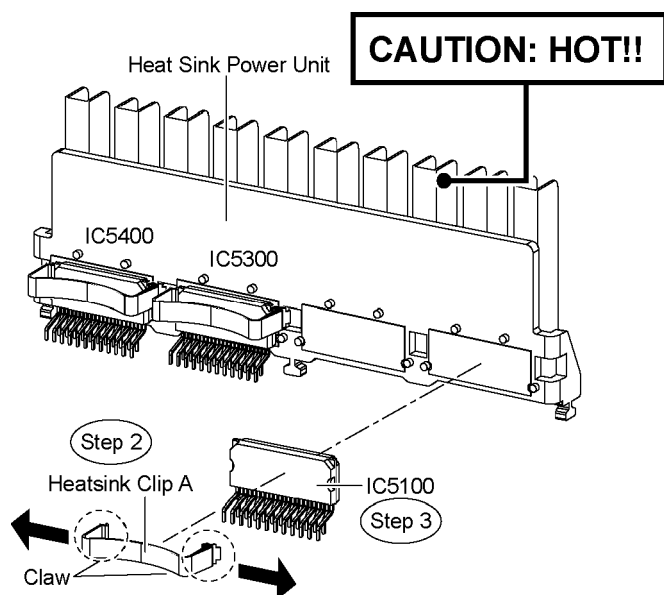
Step 1 Desolder pins of the Digital Amp IC (IC5100) at the reverse side of D-Amp P.C.B.



Step 2 Remove the heatsink clip A by releasing its claws in the direction of arrows.

Step 3 Remove the Digital Amp IC (IC5100) from the heat sink power unit.

Caution : Handle the heat sink power unit with caution due to its high temperature after prolonged use. Touching it may lead to injuries.



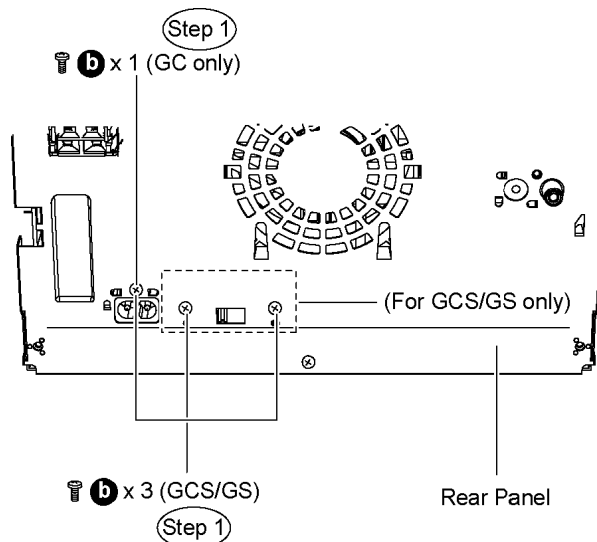
Note: For replacement of other digital amp IC (IC5300/IC5400), repeat the (Step 1) to (Step 3). Refer to diagrams of D-Amp P.C.B. (Section 10.19) for the location of the parts.

10.21. Disassembly of SMPS P.C.B.

- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 4) of Item 10.4.
- Follow (Step 1) to (Step 6) of Item 10.8.

Step 1 Remove 3 screws at the rear panel. (For GCS/GS)

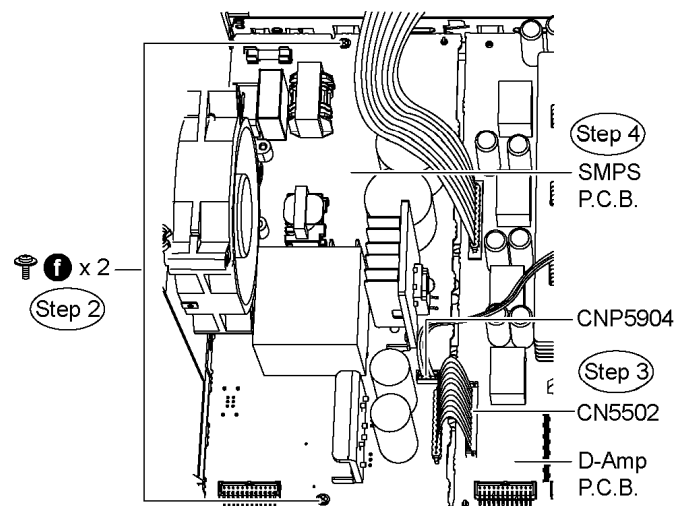
Step 1 Remove 1 screw at the rear panel. (For GC only)



Step 2 Remove 2 screws from SMPS P.C.B.

Step 3 Detach cables from the connectors (CN5502) on D-Amp P.C.B and (CNP5904) on SMPS P.C.B.

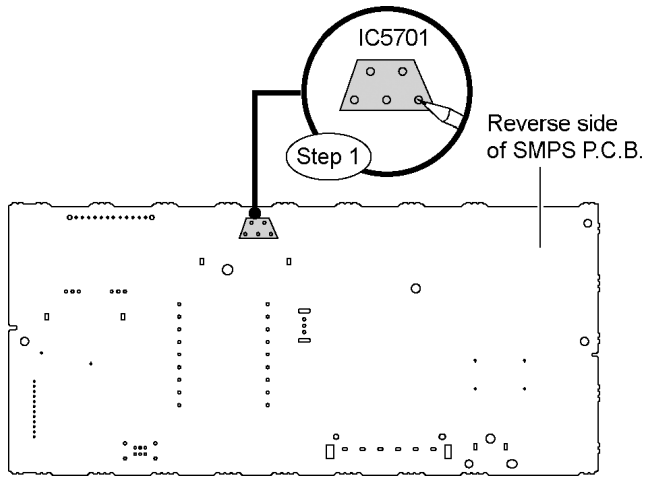
Step 4 Remove SMPS P.C.B.



10.22. Replacement of Switch Regulator IC (IC5701)

- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 4) of Item 10.4.
- Follow (Step 1) to (Step 6) of Item 10.8.
- Follow (Step 1) to (Step 4) of Item 10.21.

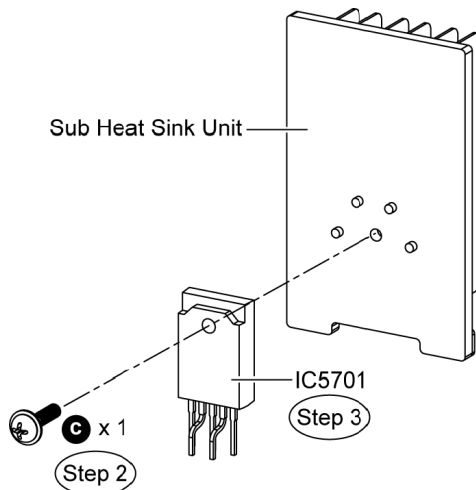
Step 1 Desolder pins of the switch regulator IC (IC5701) at the reverse side of SMPS P.C.B.



Step 2 Remove 1 screw.

Step 3 Remove the switch regulator IC (IC5701) from the sub heat sink unit.

Caution : Handle the sub heat sink unit with caution due to its high temperature after prolonged use. Touching it may lead to injuries.

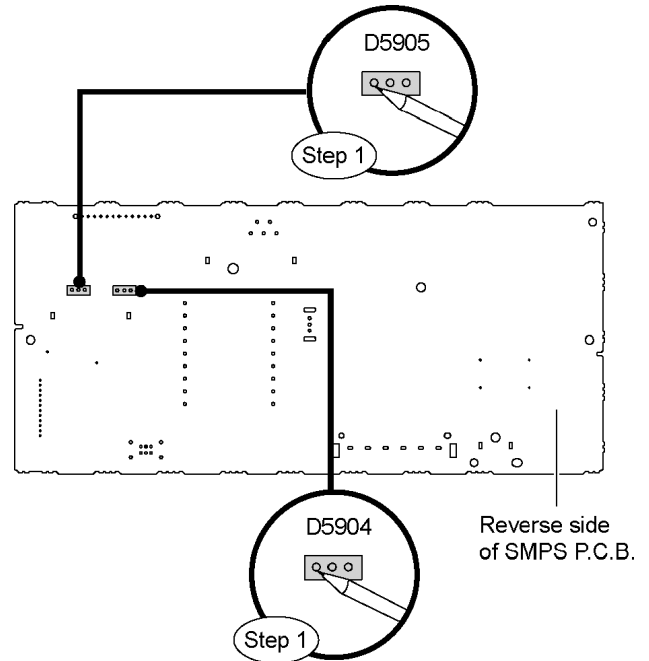


Note: Refer to the diagram of SMPS P.C.B. (Section 10.21) for the location of the part.

10.23. Replacement of Regulator Diode (D5904/D5905)

- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 4) of Item 10.4.
- Follow (Step 1) to (Step 6) of Item 10.8.
- Follow (Step 1) to (Step 4) of Item 10.21.

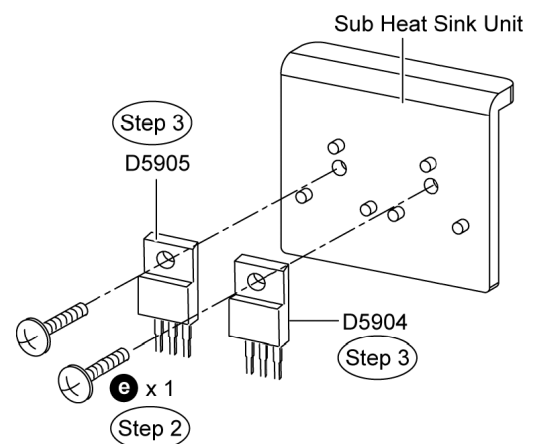
Step 1 Desolder pins of the regulator diode (D5904/D5905) at the reverse side of SMPS P.C.B.



Step 2 Remove 1 screw.

Step 3 Remove the regulator diode (D5904/D5905) from the sub heat sink unit.

Caution : Handle the sub heat sink unit with caution due to its high temperature after prolonged use. Touching it may lead to injuries.

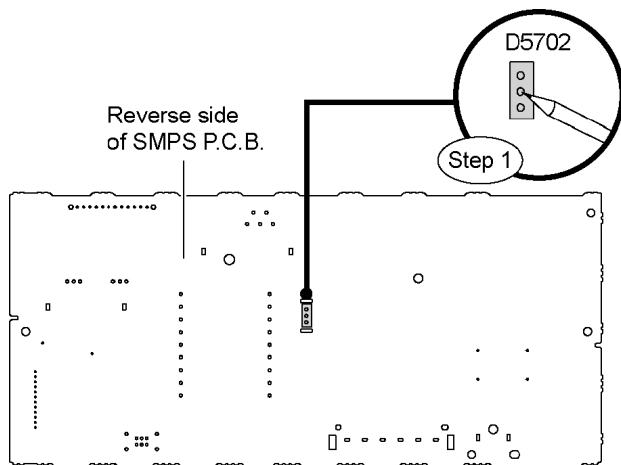


Note: Refer to the diagram of SMPS P.C.B. (Section 10.21) for the location of the parts.

10.24. Replacement of Regulator Diode (D5702)

- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 4) of Item 10.4.
- Follow (Step 1) to (Step 6) of Item 10.8.
- Follow (Step 1) to (Step 4) of Item 10.21.

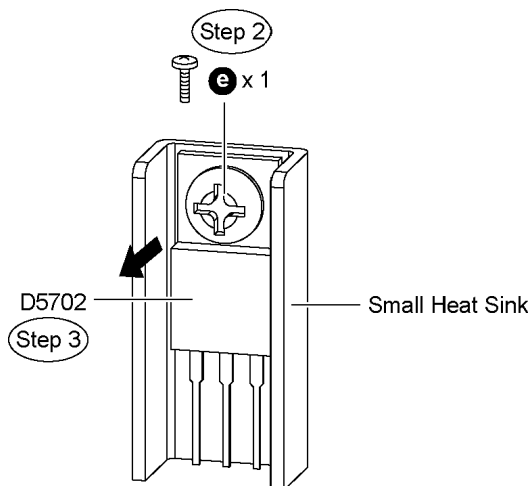
Step 1 Desolder pins of the regulator diode (D5702) at the reverse side of SMPS P.C.B.



Step 2 Remove 1 screw.

Step 3 Remove the regulator diode (D5702) from the small heat sink.

Caution : Handle the small heat sink with caution due to its high temperature after prolonged use. Touching it may lead to injuries.



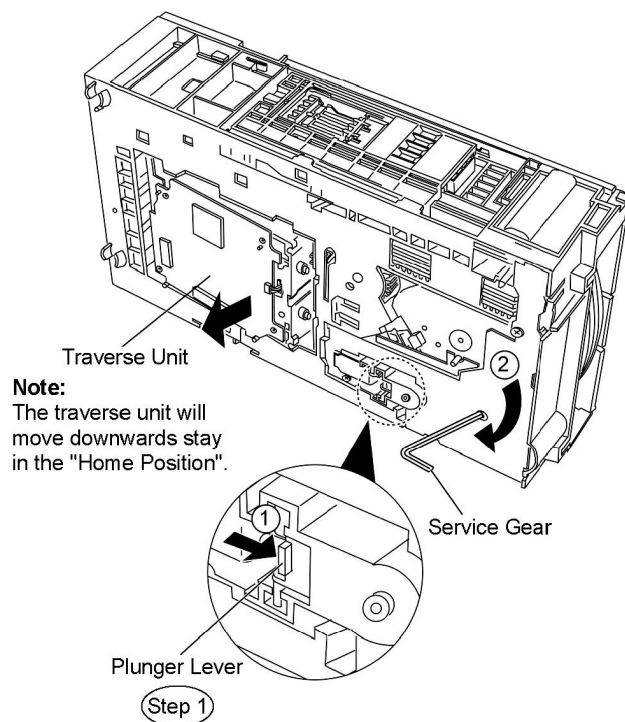
Note: Refer to the diagram of SMPS P.C.B. (Section 10.21) for the location of the part.

10.25. Disassembly of Traverse Unit

Important notes: Ensure all the trays are in the "STOCK" position before proceeding to the disassembly of the traverse unit. For procedures to set the trays in "STOCK" position, please refer to original Service Manual for CRS1D, Section 4.3. Setting the trays in "STOCK" position, Order No. MD0603065A3.

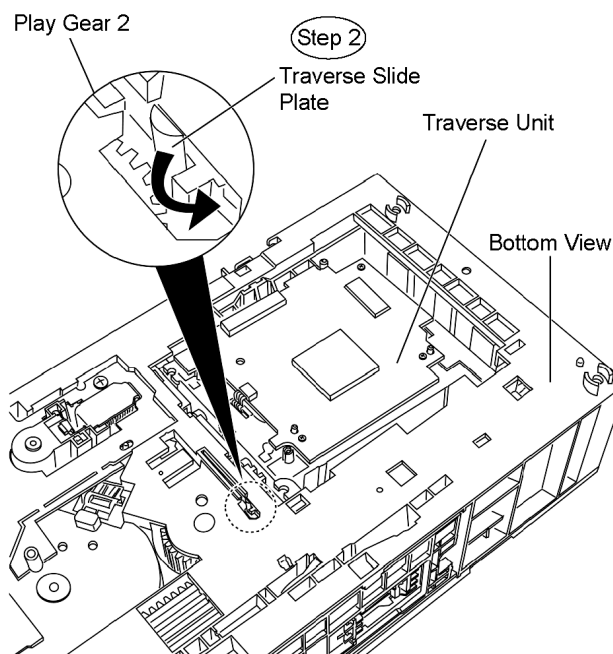
- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 6) of Item 10.4.

Step 1 Press the plunger lever in the direction of arrow (1).

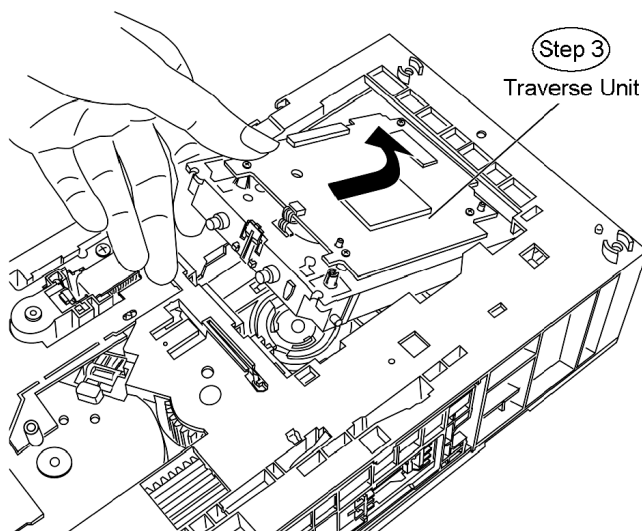


Step 2 Push the traverse slide plate in the direction of arrow.

Caution:
Do not damage the Play Gear 2 when pushing the Traverse Slide Plate.

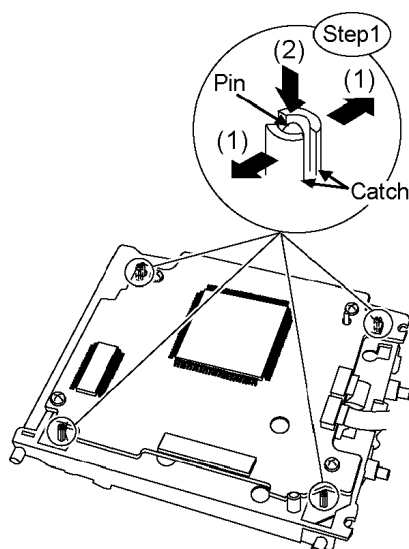


Step 3 Remove the traverse unit in the direction of arrow.



10.25.1. Disassembly of Traverse Deck (DT69U3)

Step 1 Release the catch in the direction of arrows (1) and press the pin in the direction of arrow (2).

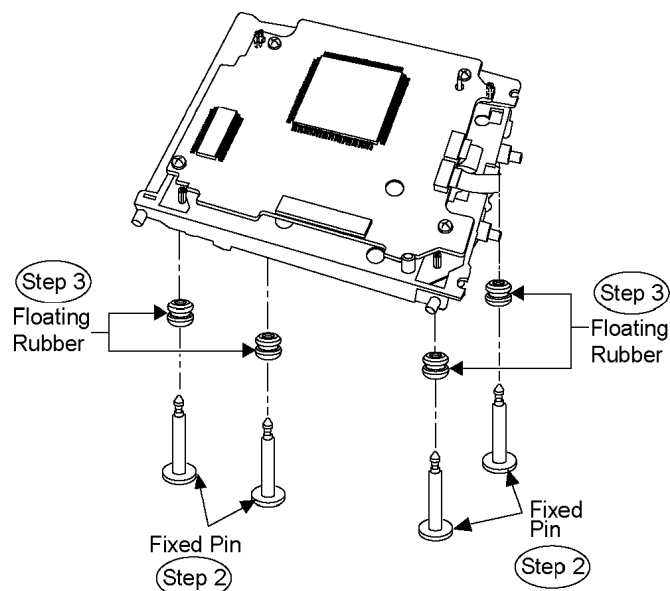


Step 2 Remove the 4 fixed pins.

Note: Keep the fixed pins in safe location for assembling.

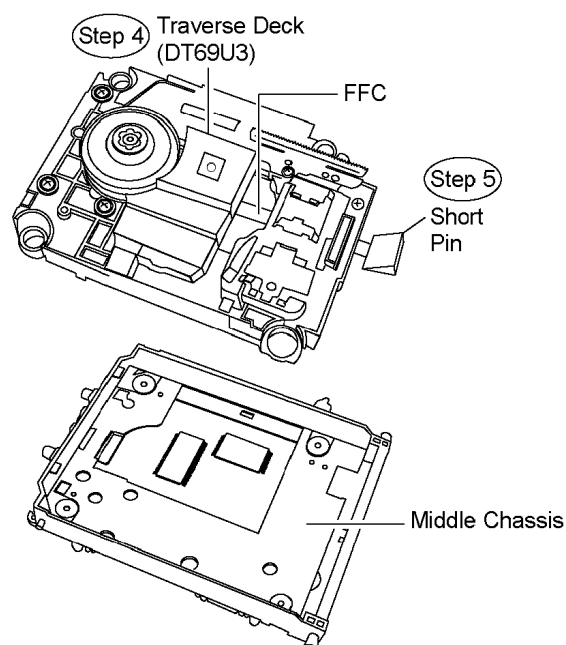
Step 3 Remove the floating rubbers.

Caution Note: As floating rubbers (4 pieces) come off at the same time, be careful not to lose them.



Step 4 Remove the traverse deck (DT69U3) from the middle chassis.

Step 5 Insert a short pin into the FFC.



10.26. Disassembly of Deck Mechanism

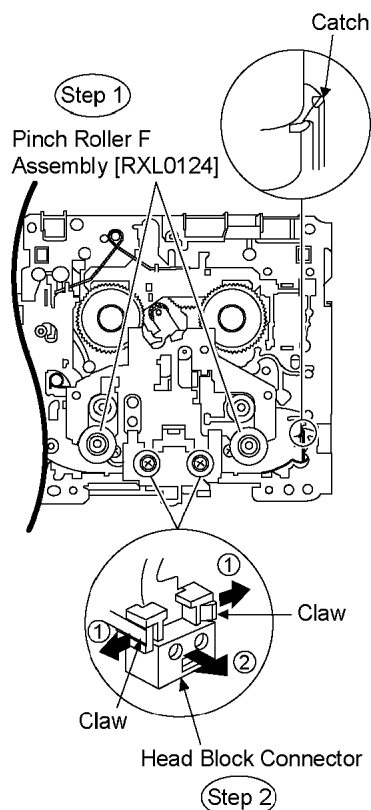
- Follow (Step 1) to (Step 5) of Item 10.3.
- Follow (Step 1) to (Step 6) of Item 10.10.
- Follow (Step 1) to (Step 6) of Item 10.16.

10.26.1. Disassembly of Pinch Roller F Assembly & Head Block Unit

* The mechanism as shown below is for DECK1. For DECK 2, perform the same procedures.

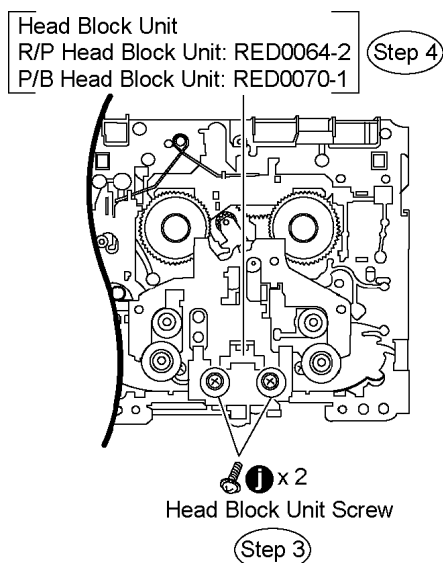
Step 1 Release the catch, and then remove the pinch roller (F).

Step 2 Release 2 claws in the direction of arrow (1) and detach the head block unit connector in the direction of arrow (2).



Step 3 Remove 2 head block unit screws.

Step 4 Remove the head block unit.

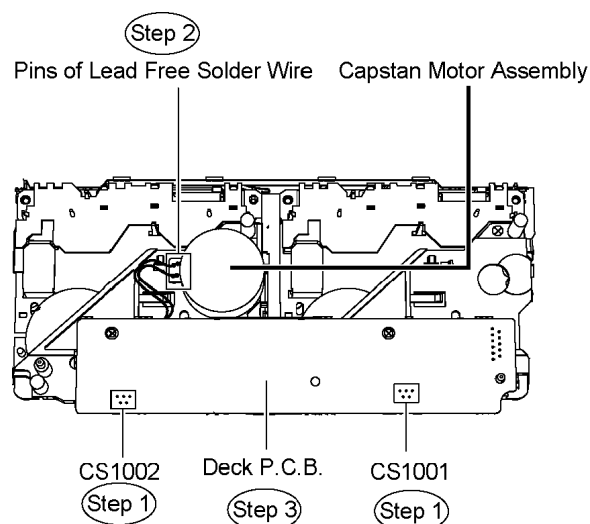


10.26.2. Disassembly of Capstan Motor Assembly, Capstan Belt A, Capstan Belt B & Winding Belt

Step 1 Detach the head block unit connector (CS1001 & CS1002) by desoldering their pins.

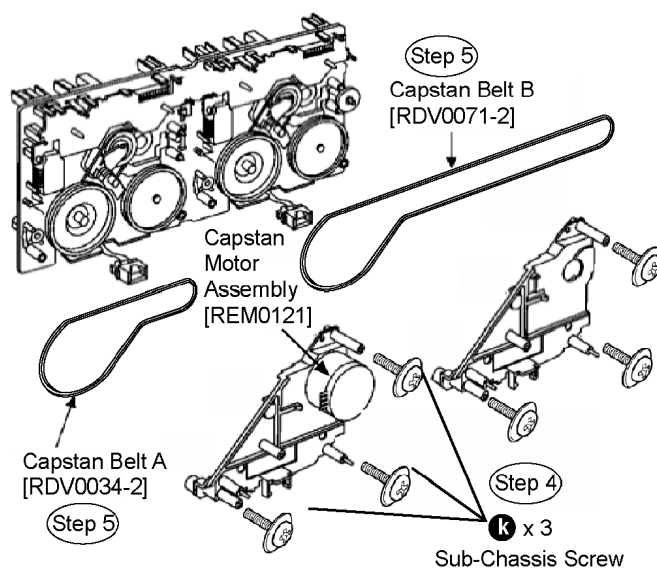
Step 2 Desolder pins of the lead free solder wire at capstan motor assembly.

Step 3 Remove Deck P.C.B.



Step 4 Remove 3 sub-chassis screws. (for DECK 1 & 2)

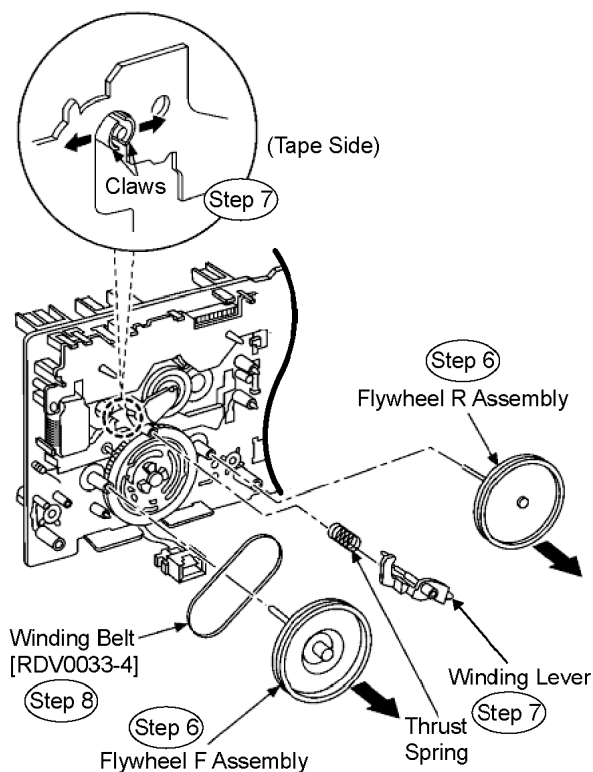
Step 5 Remove the capstan belt A and B.



Step 6 Remove the flywheel F and R assembly.

Step 7 Release the claws in the direction of arrows and remove the winding lever and thrust spring.

Step 8 Remove the winding belt.



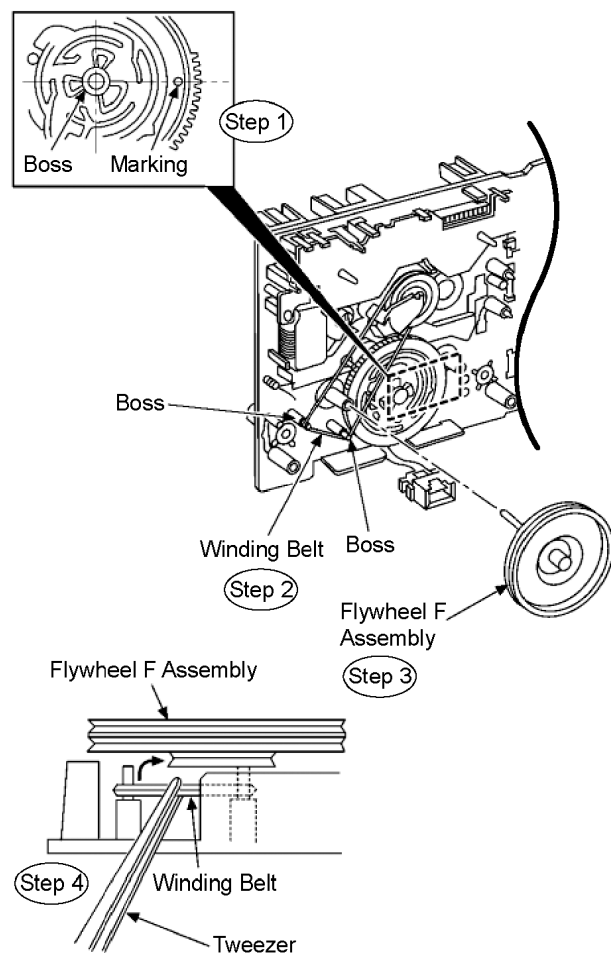
10.26.3. Installation of Belt

Step 1 The boss and marking should be positioned horizontally.

Step 2 Put the winding belt on the pulley temporarily.

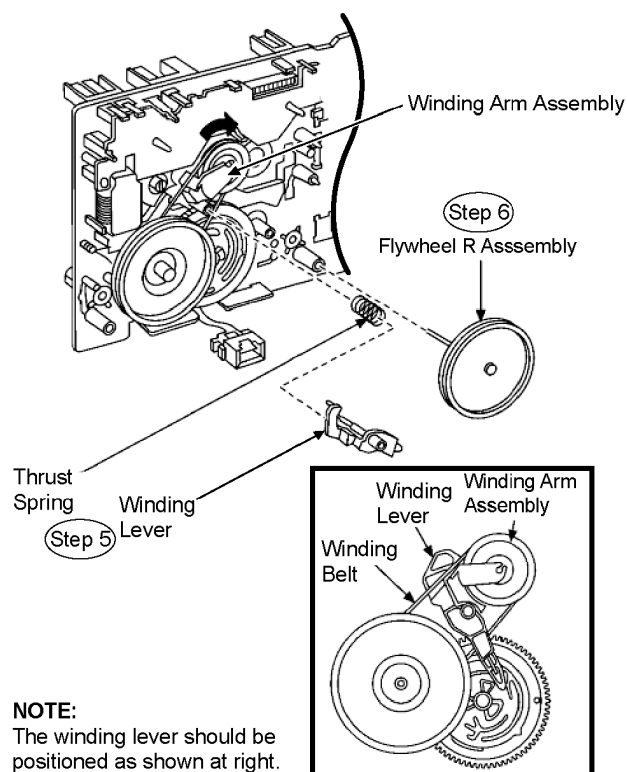
Step 3 Install the flywheel F assembly.

Step 4 Put the winding belt on the flywheel F.

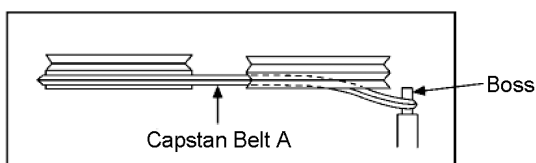
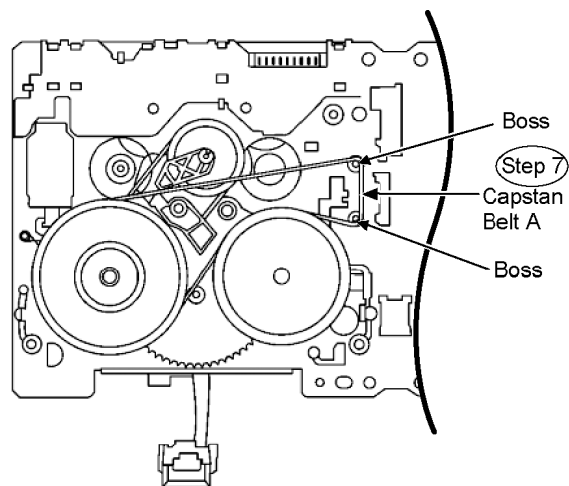


Step 5 Install the winding lever and thrust spring while pressing the winding arm assembly in the direction of arrow.

Step 6 Install the flywheel R assembly.



Step 7 Put the capstan belt A temporarily as shown below.

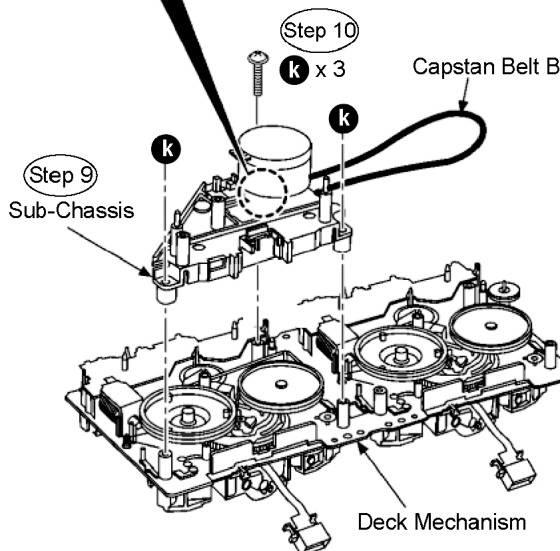
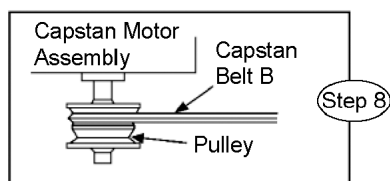


(Side View)

Step 8 Put the capstan belt B on the capstan motor assembly pulley.

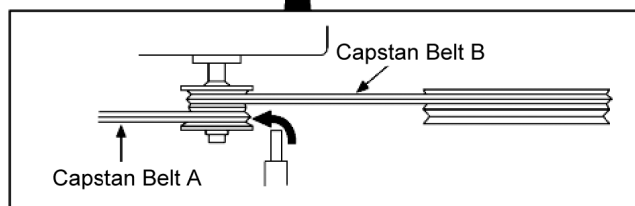
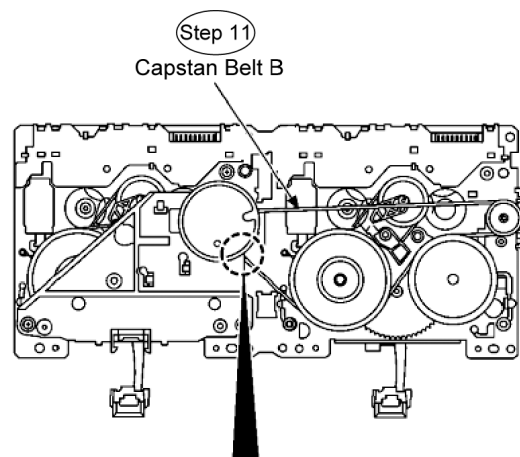
Step 9 Install the sub-chassis to the deck mechanism, and then tighten screws.

Step 10 Install 3 screws.



Step 11 Put the capstan belt B as shown below.

Step 12 Put the capstan belt A on the capstan motor assembly pulley.



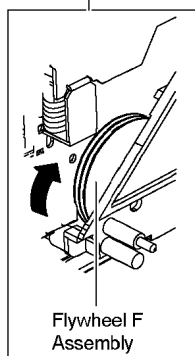
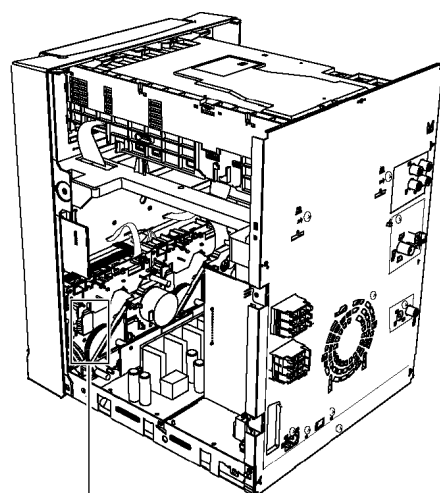
(Step 12)

10.27. Rectification for Tape Jam Problem

- Follow (Step 1) to (Step 5) of Item 10.3.

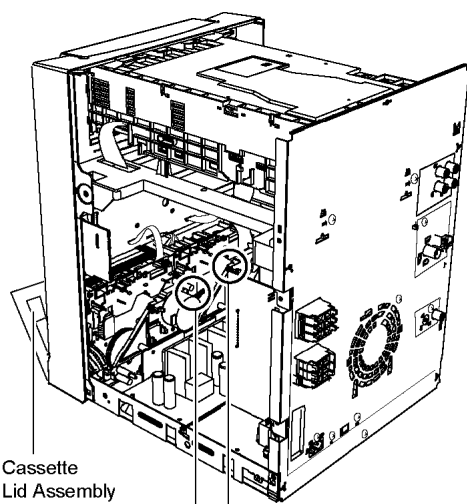
Note: If a cassette tape cannot be removed from the deck (the tape is caught by the capstan or pinch roller during playback or recording):

Step 1 Rotate the flywheel F assembly in the direction of the arrow to remove it.

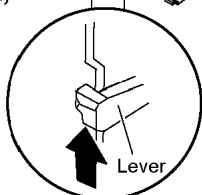


Step 1

Step 2 Push the lever upward and open the cassette lid. Remove the cassette tape.



Cassette
Lid Assembly



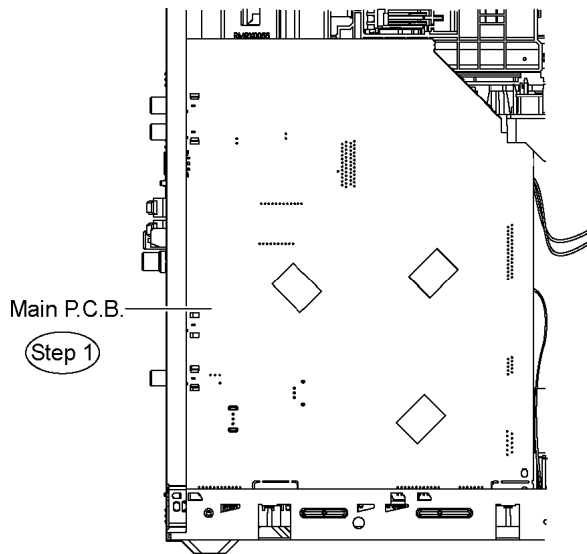
Step 2

Lever

11 Service Position

11.1. Checking & Repairing Main P.C.B.

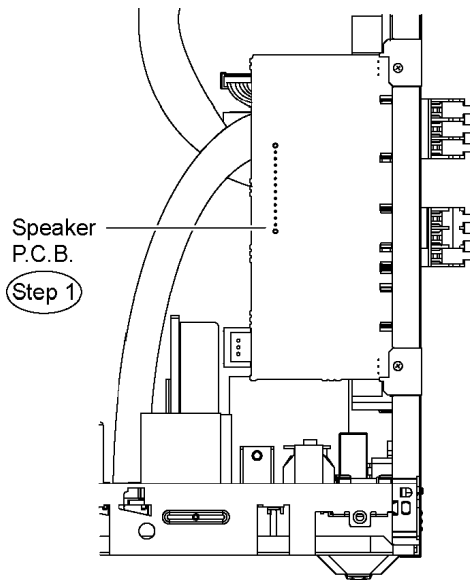
Step 1 Remove the top cabinet to service Main P.C.B.



Note : Main P.C.B can be checked at its original position.

11.2. Checking & Repairing Speaker P.C.B.

Step 1 Remove the top cabinet to service Speaker P.C.B.



Note : Speaker P.C.B can be checked at its original position.

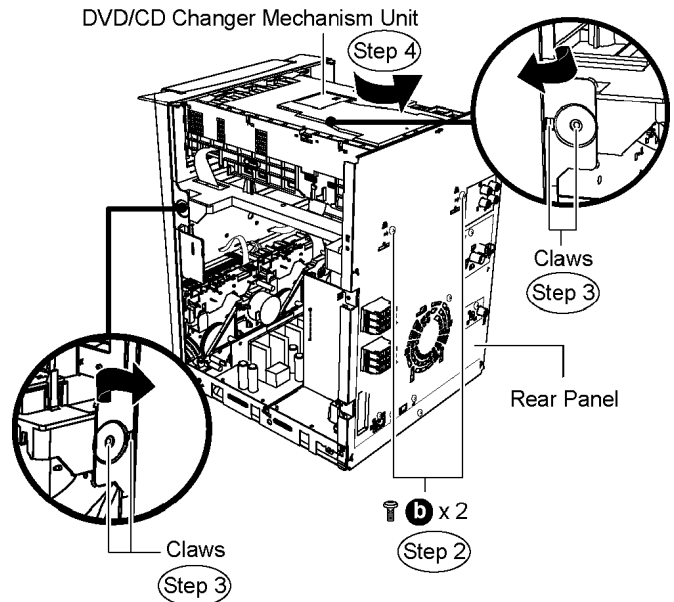
11.3. Checking & Repairing Panel P.C.B.

Step 1 Remove the top cabinet.

Step 2 Remove 2 screws at the rear panel.

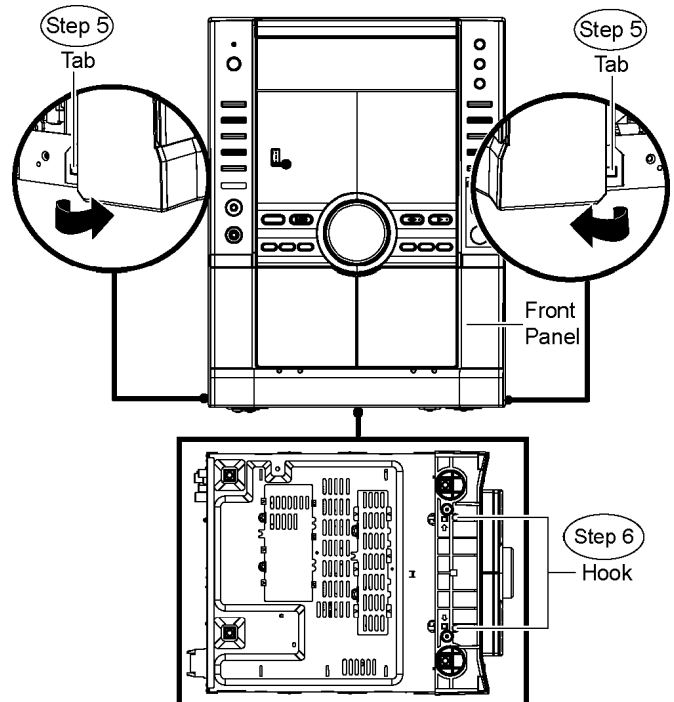
Step 3 Release the claws at each side the front panel.

Step 4 Detach the DVD/CD changer mechanism unit in the direction of arrow.



Step 5 Release the tab at each side of the front panel.

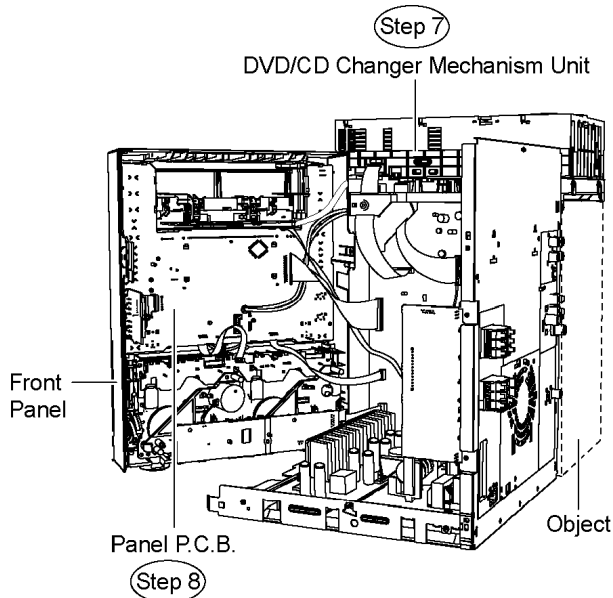
Step 6 Release the hooks at the bottom of the front panel.



Step 7 Position the DVD/CD changer mechanism unit according to the diagram shown.

Note : An object (eg. box) can be placed beneath the DVD/CD changer mechanism unit to adjust its position height.

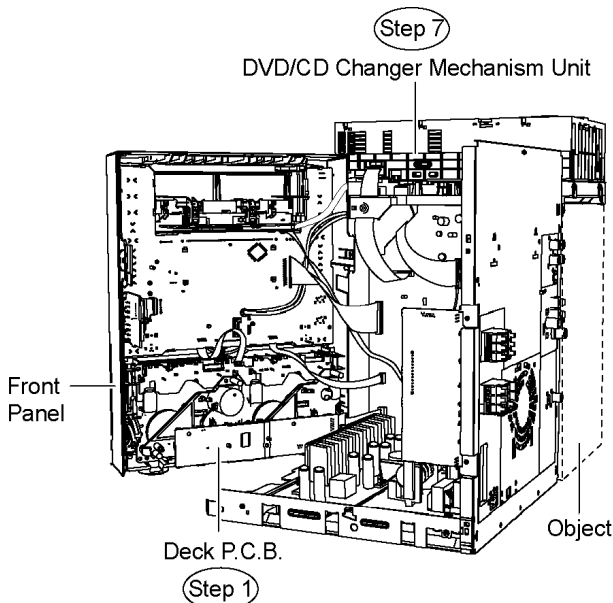
Step 8 Move one side of the front panel slightly forward to service Panel P.C.B.



11.4. Checking & Repairing Deck P.C.B.

- Follow (Step 1) to (Step 7) of Item 11.3.

Step 1 Move one side of the front panel slightly forward to check Deck P.C.B.

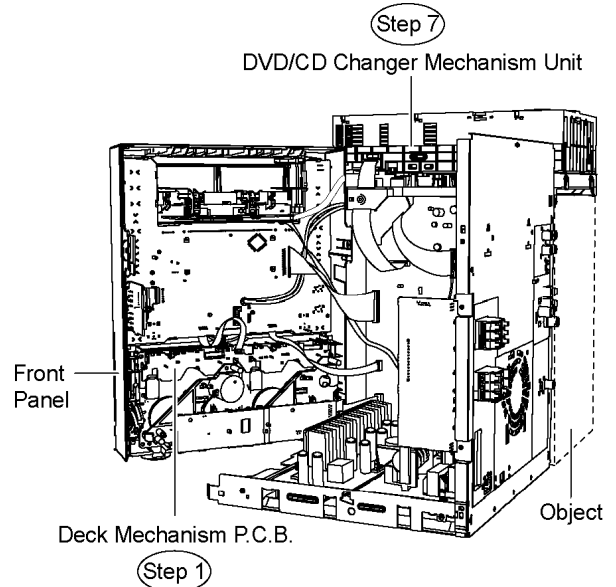


Note : An object (eg. box) can be placed beneath the DVD/CD changer mechanism unit to adjust its position height.

11.5. Checking & Repairing Deck Mechanism P.C.B.

- Follow (Step 1) to (Step 7) of Item 11.3.

Step 1 Move one side of the front panel slightly forward to check Deck Mechanism P.C.B .

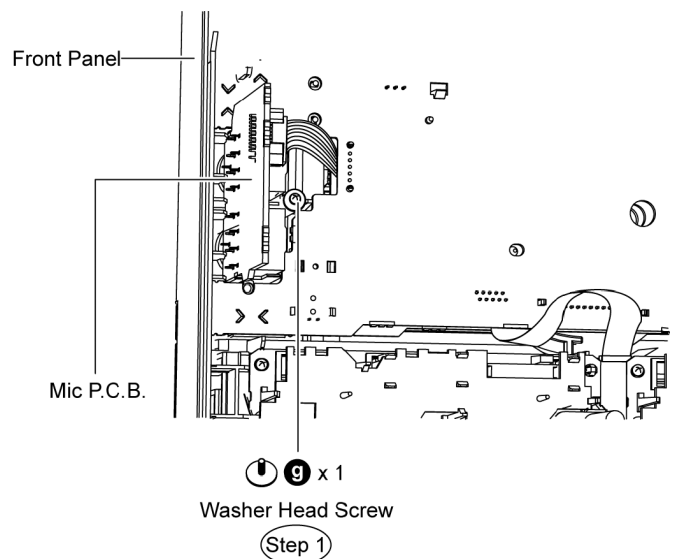


Note : An object (eg. box) can be placed beneath the DVD/CD changer mechanism unit to adjust its position height.

11.6. Checking & Repairing Mic P.C.B.

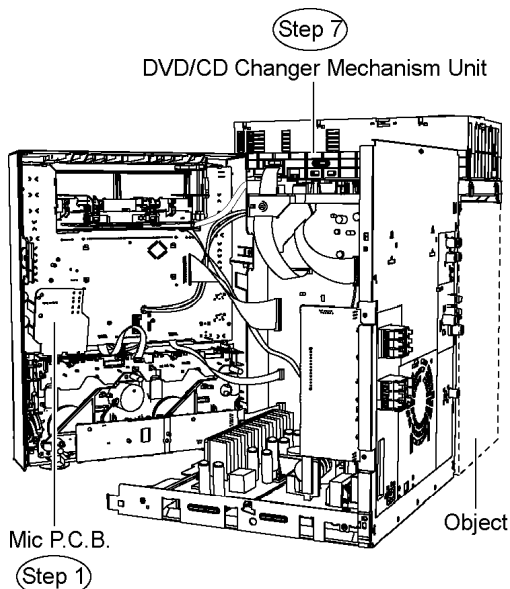
- Follow (Step 1) to (Step 7) of Item 11.3.

Step 1 Move one side of the front panel slightly forward to remove the washer head screw from Mic P.C.B .



Step 2 Position Mic P.C.B according to the diagram shown.

Note : An object (eg. box) can be placed beneath the DVD/CD changer mechanism unit to adjust its position height.



Note : Insulate Mic P.C.B from other parts with insulating material (eg. plastic).

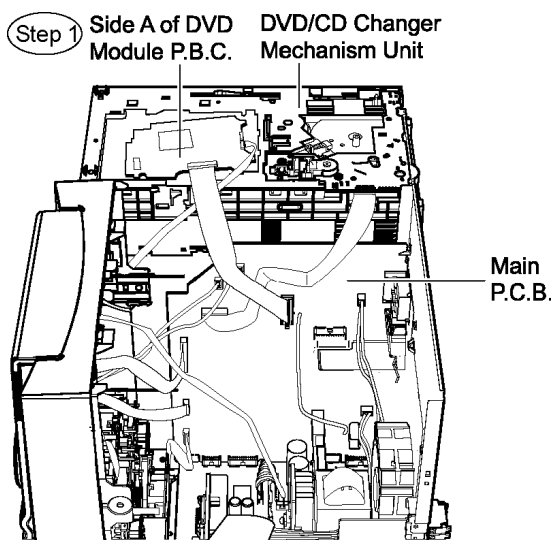
11.7. Checking & Repairing DVD Module P.C.B.

Important notes: Ensure all the trays are in the “STOCK” position before proceeding to the disassembly of the traverse unit. For procedures to set the trays in “STOCK” position, please refer to original Service Manual for CRS1D, Section 4.3. Setting the trays in “STOCK” position, Order No. MD0603065A3.

- Follow (Step 1) to (Step 7) of Item 11.3.

- Disassembly of Side A of DVD Module P.C.B.

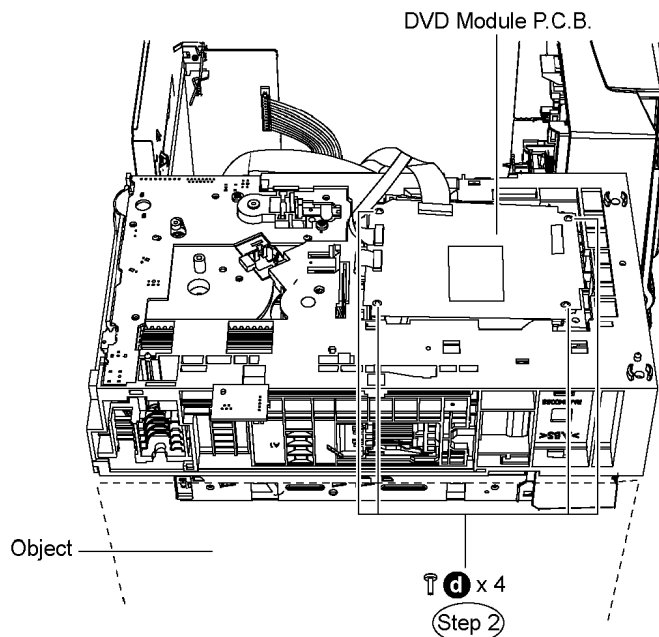
Step 1 Flip over the DVD/CD changer mechanism unit and position it according to the diagram shown to service side A of DVD Module P.C.B.



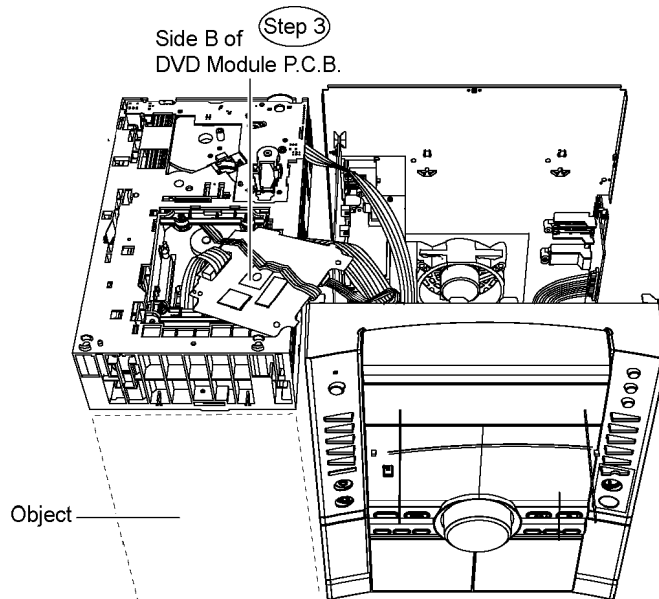
Note : Side A of DVD Module P.C.B can be checked at its original position.

- Disassembly of Side B of DVD Module P.C.B.

Step 2 Remove 4 screws from DVD Module P.C.B.



Step 3 Flip over DVD Module P.C.B. to the side B and position it according to the diagram shown.



Note : An object (eg. box) can be placed beneath the DVD/CD changer mechanism unit to adjust its position height.

11.8. Checking & Repairing D-Amp P.C.B.

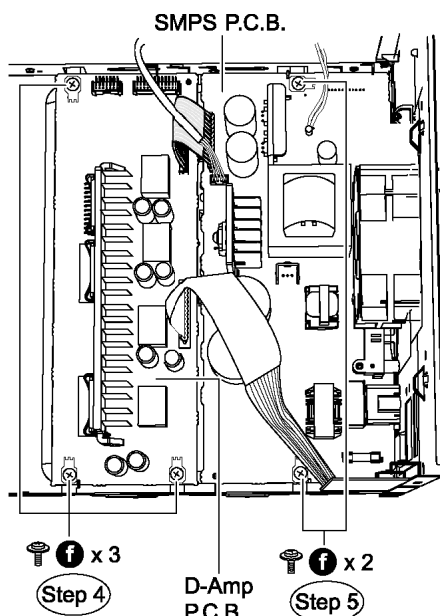
Step 1 Remove the top cabinet.

Step 2 Remove the DVD/CD changer mechanism unit.

Step 3 Remove Main P.C.B.

Step 4 Remove 3 screws from the D-Amp P.C.B.

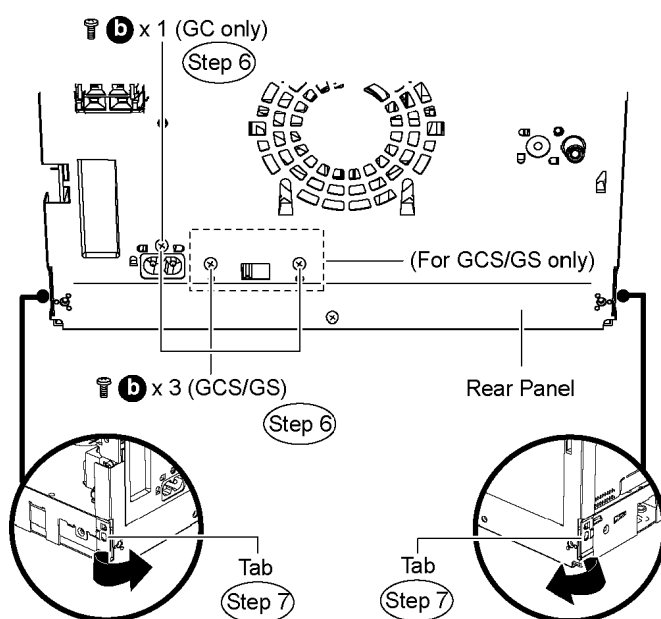
Step 5 Remove 2 screws from the SMPS P.C.B.



Step 6 Remove 3 screws at the rear panel. (For GCS/GS)

Step 6 Remove 1 screw at the rear panel. (For GC only)

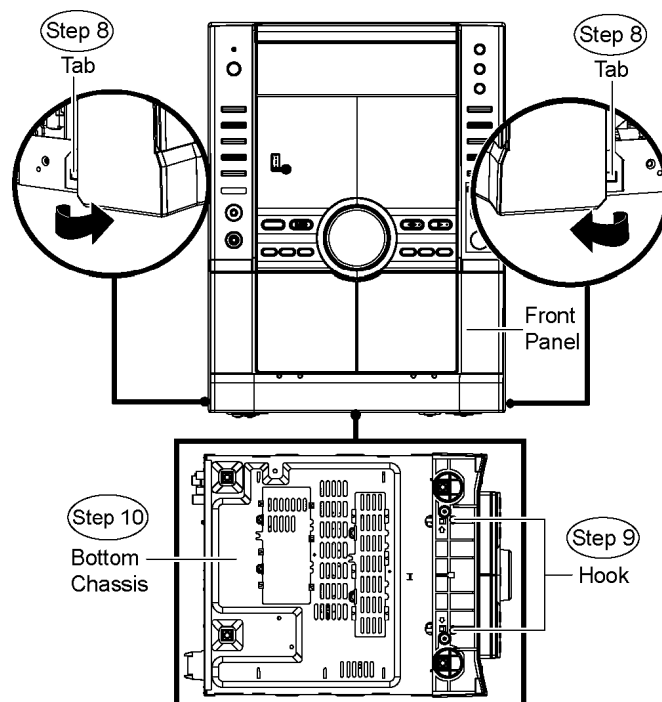
Step 7 Release the tab at each side of the rear panel in the direction of arrow.



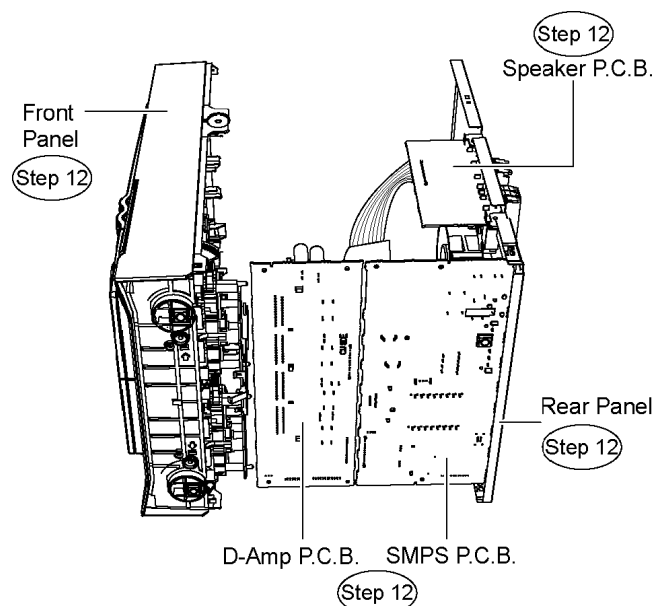
Step 8 Release the tab at each side of the front panel in the direction of arrow.

Step 9 Release the 2 hooks at the bottom part of the front panel.

Step 10 Remove the bottom chassis.

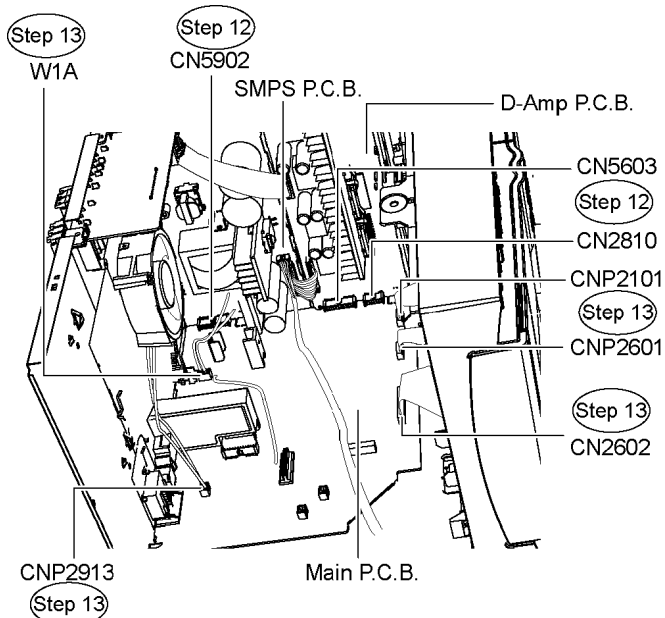


Step 11 Flip the unit (including the front panel, rear panel, D-Amp P.C.B., SMPS P.C.B. & Speaker P.C.B.) vertically and position it according to the diagram shown.



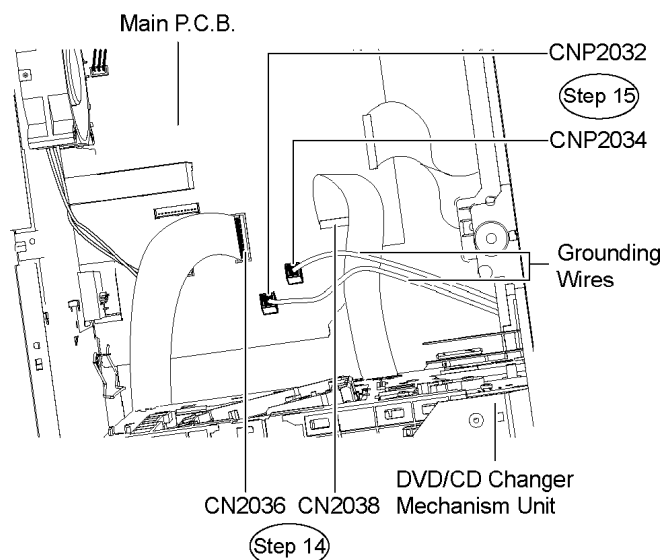
Step 12 Connect Main P.C.B at the connectors (CN2810 & CN5603) on D-Amp P.C.B and (CN5902) on SMPS P.C.B.

Step 13 Connect cables at the connectors (CN2602, CNP2101, CNP2601, CNP2913 & W1A) on Main P.C.B.

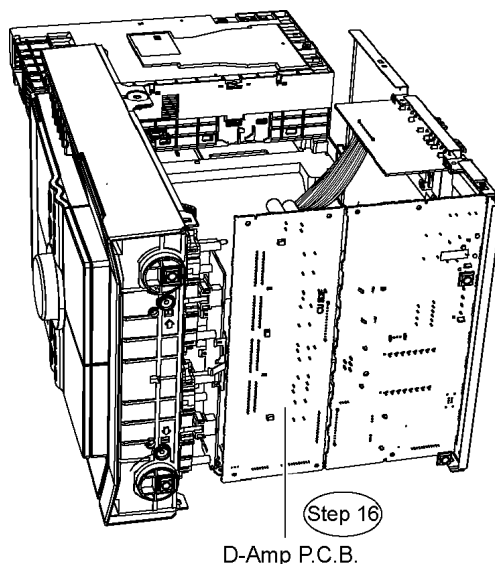


Step 14 Connect DVD/CD changer mechanism unit at the connectors (CN2036 & CN2038) on Main P.C.B.

Step 15 Connect the grounding wires to the connectors (CNP2032 & CNP2034) on Main P.C.B.



Step 16 Position D-Amp P.C.B. according to the diagram shown.

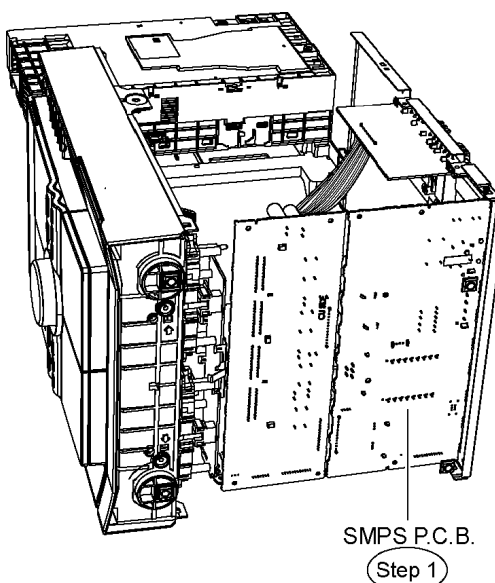


Note : Insulate D-Amp P.C.B from other parts with insulating material (eg.plastic).

11.9. Checking & Repairing SMPS P.C.B.

- Follow (Step 1) to (Step 15) of Item 11.8.

Step 1 Position SMPS P.C.B according to the diagram shown.



Note : Insulate SMPS P.C.B from other parts with insulating material (eg.plastic).

12 Adjustment Procedures

12.1. Cassette Deck Section

- Measurement Condition
 - Reverse-mode selector switch: 
 - Tape edit: NORMAL
 - Make sure head, capstan and press roller are clean.
 - Judgeable room temperature 20 ± 5 °C (68 ± 9 °F)
- Measuring instrument
 - EVM (DC Electronic volmeter)
 - Digital frequency counter
- Test Tape
 - Tape speed gain adjustment (3 kHz, -10 dB); QZZCWAT

12.1.1. Head Azimuth Adjustment (Deck 1/2)

Caution:

- Please replace both azimuth adjustment screw and springs simultaneously when readjusting the head azimuth. (shown in Fig. 2) Even if you wish to readjust the head azimuth without replacing the screws and springs, a fine adjustment to the azimuth screw and spring.
 - Please remove the screw-locking bond left on the head base when replacing the azimuth screw.
 - If you wish to readjust the head azimuth, be sure to adjust with adhering the cassette tape closely to the mechanism by pushing the center of cassette tape with your finger. (shown in Fig. 3)
1. Playback the azimuth adjustment portion (8 kHz, -20dB) of the test tape (QZZCFM) in the forward play mode. Vary the azimuth adjustment screw until the output of the R-CH (PB OUT-R) are maximized.
 2. Perform the same adjustment in the reverse play mode.
 3. After the adjustment, apply screwlock (NEJI-LOCK) to the azimuth adjusting screw. Screw-Lock applied on the screw must be more than 180° around screw.

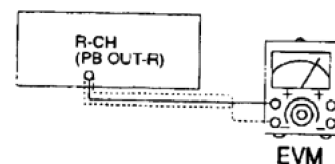


Fig. 1

- Screw
- Spring

Fig. 2

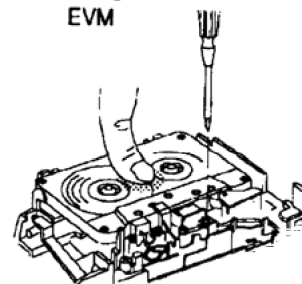


Fig. 3

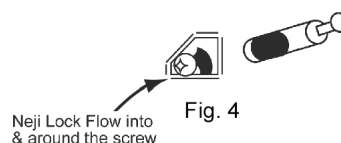
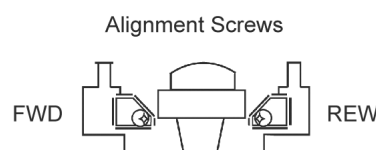


Fig. 4

12.1.2. Tape Speed Adjustment (Deck 1/2)

1. Set the tape edit button to "NORMAL" position.
2. Insert the test tape (QZZCWAT) to DECK 2 and playback (FWD side) the middle portion of it.
3. Adjust Motor VR (DECK 2) for the output value shown below.

Adjustment target: 2910 ~ 3090 Hz (NORMAL speed)

4. After alignment, assure that the output frequency of the DECK 1 FWD are within ± 90 Hz of the value of the output frequency of DECK 2 FWD.

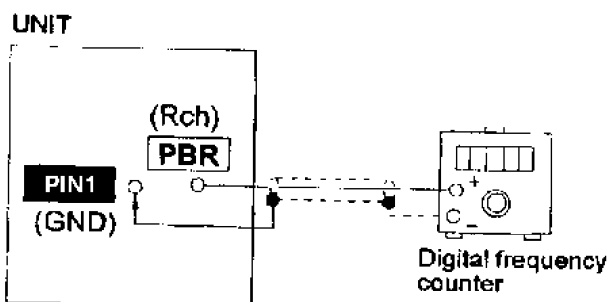


Fig. 1

12.1.3. Bias Voltage Check

1. Set the unit "AUX" position.
2. Insert the Normal blank tape (QZZCRA) into DECK 2 and the unit to "REC" mode (use , REC key).
3. Measure and make sure that the output is within the standard value.

Bias voltage for Deck 2

14±4mV (Normal)

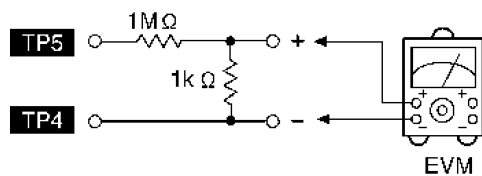


Fig. 2

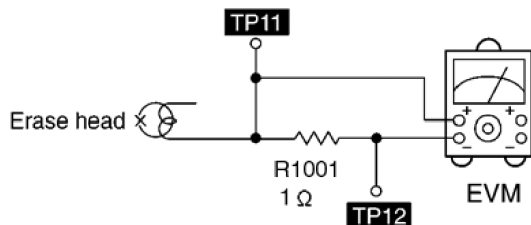


Fig. 3

12.1.4. Bias Frequency Adjustment (Deck 1/2)

1. Set the unit to "AUX" position.
2. Insert the Normal blank tape (QZZCRA) into DECK 2 and set the unit to "REC" mode (use **REC** key).
3. Adjust L1002 so that the output frequency is within the standard value.

Standard Value: 89 ~ 110 kHz

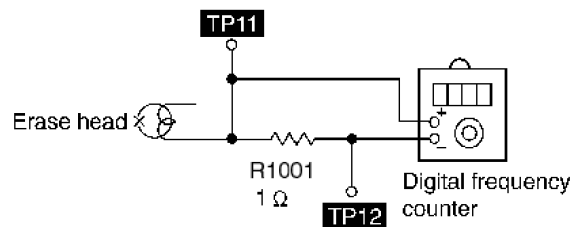


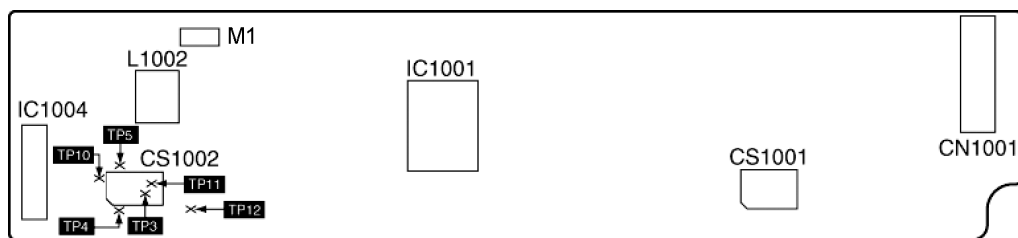
Fig. 4

12.2. Tuner section

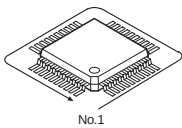
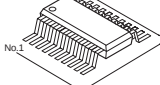
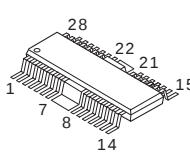
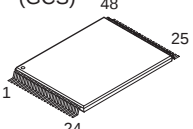
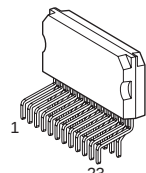
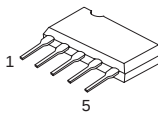
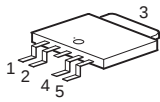
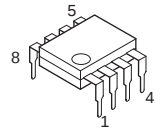
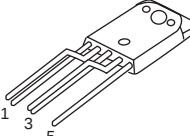
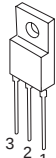
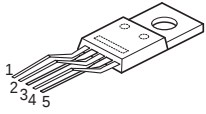
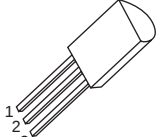
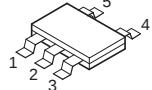
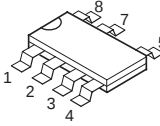
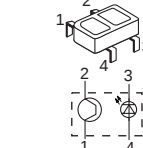
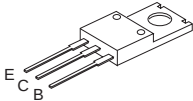
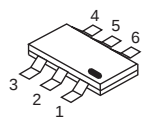
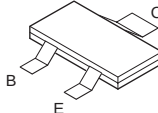
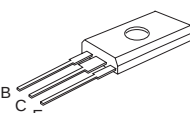
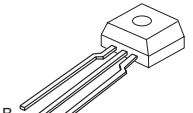
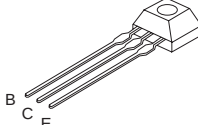
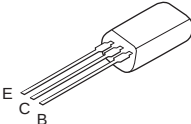
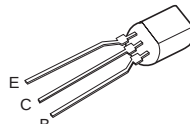
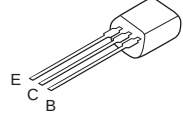
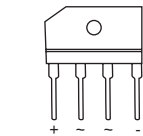
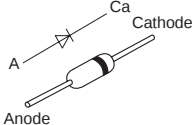
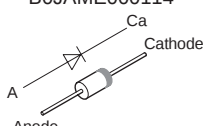
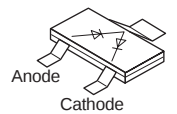
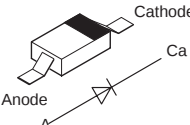
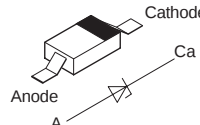
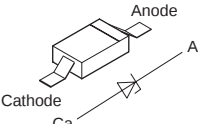
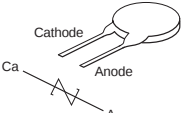
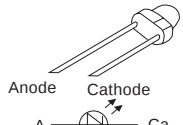
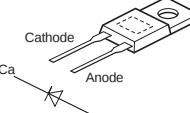
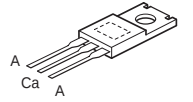
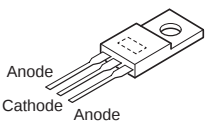
No adjustment is required.

12.3. Alignment Points

12.3.1. Cassette Deck Section



13 Illustration of ICs, Transistors and Diodes

 MN2DS0018MP (216P) C1BB00001012 (80P) C1BB00001098 (100P) C2CBYY000470 (100P) C0HBB0000064 (64P)	AN7348S-E1 (24P) C0ABBA000168 (8P) C0ABBB000230 (8P) C0ABCB000052 (14P) C0DBZY000002 (8P) 		C0CBCBD00018 (8P) C0EBA0000029 (4P) C0FBBK000050 (28P) C0JBAB000011 (14P) C0JBAB000908 (6P) C0JBAR000326 (16P) C1BB00000086 (18p) C3ABPG000145 (54P) C9ZB00000461 (32P)		C0GBG0000048 	RFKWMHB02320 (GC/GS) RFKWMHB03320 (GCS) 
C1BA00000487 	C1AA00000612 	C0DBEHG00006 	C0AABB000125 	C5HABZZ00125 	C0CAAKG00013 	
C0DAAMH00012 	C0DABFC00002 	C0EBE0000456 C0JBAA000502 	C0DABYY00002 	CNB13030R2AU 	B1BACG000023 B1BCCG000002 	
XP0621400L 		B1ABCF000176 B1ABEB000002 B1ADCF000001 B1ADGB000008 B1GBCFJN0033 B1GBCFJJ0051 B1GDCFJJ0047 B1ABCF000011		B1ADCE000012 B1GBCFLL0037 B1GDCFGA0018 UNR511V00L UNR521100L 2SB1218ARL 2SD1819A0L	B1BACD000018 B1BCCD000019 	B1ACCF000094 B1GCCFGA0006 
B1AAGC000007 	2SC3940ARA 	2SB0621AHA 	B1AAKD000014 B1AARC000003 B1ACKD000006 	B0FBAR000041 	MA2C16500E MA2J72800L 	
B0EAKM000117 B0EAMM000057 B0JAME000114 	B0ADCJ000020 	B0ACCE000003 B0ACCK000005 B0BC02900004 B0BC9R1A0218 ERJ6GEY0R00V MA2J11100L 			B0BC010A0007 B0BC3R400001 B0BC5R600003 B0BC5R000009 B0BC7R500001 B0JCPD000025 	
 B0BC3R700004 B0BC4R0A0006 B0BC01600013 B0BC01700015 B0BC8R100004		ERZV10V511CS 	B3ADA0000129 B3AEA0000083 B3AAA0000803 		B0HFRJ000012 	B0HBSM000043 
B0ZAZ0000052 						

14 Voltage and Waveform Chart

Note:

Circuit voltage and waveform described herein shall be regarded as reference information when probing defect point, because it may differ from an actual measuring value due to difference of Measuring instrument and its measuring condition and product itself.

14.1. DVD Module P.C.B.

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	1.2	1.4	1.5	0	0	3.4	1.8	1.3	1.4	1.2	1.3	0	1.1	1	0	3.4	1.3	1.1	1.9	0.7
Ref No.	IC8001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0.6	0.4	2.3	0.5	1.4	2.6	2	0.8	1.8	0.7	3.4	0	3.4	0.7	1.1	1.5	1.6	1.8	1.4	2
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	1.8	0	0	1.3	0	3.4	3.4	3.4	3.4	1.7	0	3.4	2.8	2.8	3	3.4	3.2	3.2	0	3.2
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	0.1	0	0	0.8	0.1	1.9	1.6	0	3.2	3.2	0	3.2	3.2	0	0.1	0	0	0	0	0
Ref No.	IC8001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0	0	0	1.2	3.2	0.8	2.3	0	1.8	0	0.5	1.8	3.3	2.2	2.2	1.8	1.8	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	0.4	0.1	0.2	1.9	3.3	0	2.2	1.7	2.6	2.6	2.6	2.6	2.7	2.7	2.4	2.5	2.5	2.5
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	1.8	2.0	2	1.7	0	1.7	1.7	3.4	0.9	0.9	0.4	3.3	2.4	1	1	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	1.5	1.7	1.7	0.9	1.7	0	3.4	1.5	1.6	0	1.3	3	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	3.2	2.9	3.1	0	3.4	3.2	3.1	3	3	3.1	3	0	3.4	3.2	3	3.1	2.9	2.9	2.9
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	1.6	3.4	1.6	0	1.3	3.3	3.3	3.2	3.1	0.1	2.1	0	0	3	1.5	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	3.4	0.1	2.2	0.1	0	3.4	0.3	1.6	1.6	0	1.2	1.8	2.7	2.5	1.4	1				
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	3.3	2.9	3.3	3.1	3.0	0.1	3.1	3.3	3.3	3	3	0	2.9	3.3	2.6	3.3	3.2	3.2	3.1	1.8

SA-VK860GC/GCS/GS DVD MODULE P.C.B.

14.2. Main P.C.B.

Ref No.	IC2000																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	5	0	0	2.2	4.8	1.5	0	1.5	2.2	0	1.5	0	2.2	4.8	2.2	5	2.2	2.2	0	2.2
STANDBY	5	0	0	2.2	4.8	1.5	0	1.5	2.2	0	1.5	0	2.2	4.8	2.2	5	2.2	2.2	0	2.2
Ref No.	IC2000																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32								
CD PLAY	2.2	0	1.4	1.4	0	1.4	1.4	0	1.4	1.4	0	2.3								
STANDBY	2.2	0	1.4	1.4	0	1.4	1.4	0	1.4	1.4	0	2.3								
Ref No.	IC2200																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC2200																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC2200																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0	0	0	0	0	0	0	0	1.5	0	0	0	0.1	0	-	0	0	0	0	0
STANDBY	0	0	0	0	0	0	0	0	1.5	0	0	0	0.1	0	-	0	0	0	0	0
Ref No.	IC2200																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	0	0	0	0	5.2	0	4.8	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDBY	0	0	0	0	5.2	0	4.8	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC2200																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0	0	0	0	-7	7.1	0	0	0.1	0.2	-	0	-	0	0.1	0	0	0	0	0
STANDBY	0	0	0	0	-7	7.1	0	0	0.1	0	-	0	-	0	0.1	0	0	0	0	0
Ref No.	IC2210																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	2.6	2.6	2.6	2.6	2.6	0	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	0.6	0.6	0.6	2.6
STANDBY	2.6	2.6	2.6	2.6	2.6	1.8	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	0.6	0.6	0.6	2.6
Ref No.	IC2210																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	2.6	2.6	0	5.2	0	0	0	0	1.4	5.1	0	0	0	0	0	0	0	0	2.6	2.6
STANDBY	2.6	2.6	0	5.2	0	0	0	0	1.4	5.1	0	0	0	0	0	0	0	0	2.6	2.6
Ref No.	IC2210																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	2.6	2.6	2.6	0	0.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	0	5.2	2.6	2.6	2.5	2.5	2.6
STANDBY	2.6	2.6	2.6	0	0.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	0	5.2	2.6	2.6	2.5	2.5	2.6
Ref No.	IC2210																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6
STANDBY	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Ref No.	IC2300																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-7	0	0	0	7.1												
STANDBY	0	0	0	-7	0	0	0	7.1												
Ref No.	IC2340																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-7	0	0	0	7.1												
STANDBY	0	0	0	-7	0	0	0	7.1												
Ref No.	IC2380																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-7	0	0	0	7.1												
STANDBY	0	0	0	-7	0	0	0	7.1												
Ref No.	IC2401																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
CD PLAY	2.6	1.5	2.6	-	2.6	-	2.6	2.6	5.1	0.8	0.8	0.6	-	5.1	-	0	0.5	0		
STANDBY	2.6	1.5	2.6	-	2.6	-	2.6	2.6	5.1	0.8	0.8	0.6	-	5.1	-	0	0.5	0		
Ref No.	IC2500																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
CD PLAY	0	0	0	7.1	0	0	0	0	0	0	-7	0	0	0						
STANDBY	0	0	0	7.1	0	0	0	0	0	0	-7	0	0	0						
Ref No.	IC2501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
CD PLAY	0	0	0	7.1	0	0	0	0	0	0	-7	0	0	0						
STANDBY	0	0	0	7.1	0	0	0	0	0	0	-7	0	0	0						
Ref No.	IC2502																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
CD PLAY	0	0	0	0	0	0	-7	0	0	0	0	0	0	0	0	7.1				
STANDBY	0	0	0	0	0	0	-7	0	0	0	0	0	0	0	0	7.1				

Ref No.	IC2600																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	5	0	0	0	0.1	0.1	0	2	3.5	1.1	0.7	5.1	-	0	-	5.2	5.2	5.1	1.4	0
STANDBY	5	0	0	0	0.1	0.1	0	2	3.5	1.1	0.7	5.1	-	0	-	5.2	5.2	5.1	1.4	0
Ref No.	IC2600																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	0.2	5	0	0	0	5.1	5.1	5.1	5.1	0	0	0	0	2.7	4.1	4.5	0	0	0
STANDBY	0	0.2	5	0	0	0	5.1	5.1	5.1	5.1	0	0	0	0	2.7	4.1	4.5	0	0	0
Ref No.	IC2600																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0	5.2	4.2	0.1	4.9	0	5.2	0	5.2	0	0	0	0	0	0	0	0	0	0	0
STANDBY	0	5.2	4.2	0.1	4.9	0	5.2	0	5.2	0	0	0	0	0	0	0	0	0	5.1	0
Ref No.	IC2600																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	5.2	5.2	0	0	0.8	0.8	0.5	5.1	5.1	5.1	5.2	5.1	5.1	5.2	5	5	0	3.8	0	0
STANDBY	5.2	5.2	0	0	0.8	0.8	0.5	5.1	5.1	5.1	5.2	5.1	5.1	5.2	5	5	0	3.8	0	0
Ref No.	IC2600																			
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	4.7	5.1	0	0	0	5.1	4.3	0.5	4.7	3.9	4.3	4.3	0.5	0	3.5	5.1	5.2	5
STANDBY	0	0	4.7	5.1	0	0	0	5.1	4.3	0.5	4.7	3.9	4.3	4.3	0.5	0	3.5	5.1	5.2	5
Ref No.	IC2660										IC2720					IC2810				
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5		1	2	3	
CD PLAY	-	5.1	0	0	0	0	0	-			17.1	5.2	0	1	3.2		17.1	0	12	
STANDBY	-	5.1	0	0	0	0	0	-			17.1	5.2	0	1	3.2		17.1	0	12	
Ref No.	Q2000					Q2001					Q2002					Q2110				
MODE	E	C	B			E	C	B			E	C	B			E	C	B		
CD PLAY	0	0	4.2			0	12	0			12	0	12			4.7	-	5.2		
STANDBY	0	3.6	0			0	12	0			12	0	12			4.7	-	5.1		
Ref No.	Q2200					Q2201					Q2202					Q2340				
MODE	E	C	B			E	C	B			E	C	B			E	C	B		
CD PLAY	0	-1.7	0			0	0	-1.7			0	0	-1.7			0	0	-4.7		
STANDBY	1.7	-1.7	0			0	0	0.6			0	0	0.6			0	0	0.6		
Ref No.	Q2342					Q2370					Q2371					Q2500				
MODE	E	C	B			E	C	B			E	C	B			E	C	B		
CD PLAY	0	-4.7	0			0	0	0.7			1.5	1.5	0			0	0	0.6		
STANDBY	1.5	1.5	0			0	0	0.1			1.5	1.5	0			0	0	0.6		
Ref No.	Q2502					Q2503					Q2504					Q2505				
MODE	E	C	B			E	C	B			E	C	B			E	C	B		
CD PLAY	0	0	-4.7			0	0	0.7			0	0	0.6			0	0	-4.7		
STANDBY	0	0	0.6			0	0	0.7			0	0	0.6			0	0	0.6		
Ref No.	Q2700					Q2701					Q2702					Q2710				
MODE	E	C	B			E	C	B			E	C	B			E	C	B		
CD PLAY	5.1	5.1	4.4			0	0	4.5			5.1	5.1	4.3			3.2	4.7	3.8		
STANDBY	5.1	5.1	4.4			0	0	4.5			5.1	5.1	4.3			6.2	4.7	3.8		
Ref No.	Q2810					Q2900					Q2902					Q2904				
MODE	E	C	B			E	C	B			E	C	B			E	C	B		
CD PLAY	5.6	6.2	9			12	0	12			0	12	0			0	0	0.2		
STANDBY	5.6	6.2	9.1			12.1	0	12			0	12	0			0	0	0.2		
Ref No.	Q2913					Q2915					Q8030					Q8031				
MODE	E	C	B			E	C	B			E	C	B			E	C	B		
CD PLAY	6.3	0.5	6			0	4.6	-2.1			0	0	0			0	0	-3.5		
STANDBY	6.3	0.9	6.1			0	4.6	-2.1			0	0	0			0	0	0.7		
Ref No.	QR8031																			
MODE	E	C	B																	
CD PLAY	0	-3.5	0																	
STANDBY	1.8	1.8	0																	

SA-VK860GC/GCS/GS MAIN P.C.B.

14.3. Panel P.C.B.

Ref No.	IC6701																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	-28.2	-24.8	-21.3	-17.9	-21.4	-14.5	-24.8	-21.3	-24.7	-24.7	-21.3	-24.7	-23.1	-24.7	-21.3	-24.7	-24.7	-28	-18	-21.3
STANDBY	-28.2	-24.8	-21.3	-17.9	-21.4	-14.5	-24.8	-21.3	-24.7	-24.7	-21.3	-24.7	-23.1	-24.7	-21.3	-24.7	-24.7	-28	-18	-21.3
Ref No.	IC6701																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	-21.3	-21.3	-24.8	-28.1	-28.1	-24.8	-21.8	-28.1	-28.1	-21.3	-25	-25.2	-25	-25	-25	-25	-25	-25.1	-25.1	-25.1
STANDBY	-21.3	-21.3	-24.8	-28.1	-28.1	-24.8	-21.8	-28.1	-28.1	-21.3	-25	-25.2	-25	-25	-25	-25	-25	-25.1	-25.1	-25.1
Ref No.	IC6701																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	-28	-28	-28	-28	-28	-28	-28	-28	0	2.2	2.1	5.1	4.2	4.8	0.1	4.7	0	0	-7.6	-11
STANDBY	-28	-28	-28	-28	-28	-28	-28	-28	0	2.2	2.1	5.1	4.2	4.8	0.1	4.7	0	0	-7.6	-11
Ref No.	IC6701																			
MODE	61	62	63	64																
CD PLAY	-17.9	-17.9	-28	-21.3																
STANDBY	-21.3	-21.3	-17.9	-24.8																
Ref No.	IC6702																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-7	0	0	0	7.1												
STANDBY	0	0	0	-7	0	0	0	7.1												
Ref No.	Q6601					Q6602					Q6603					Q6604				
MODE	E	C	B			E	C	B			E	C	B			E	C	B		
CD PLAY	0	12	0			0	12	0			12	0	12			12	0	12		
STANDBY	0	12	0			0	12	0			12	0	12			12	0	12		
Ref No.	Q6702					Q6703					Q6704					Q6705				
MODE	E	C	B			E	C	B			E	C	B			E	C	B		
CD PLAY	0	5.1	-1.1			0	0.1	5			0	0.1	5			0	0.1	5		
STANDBY	0	5.1	-1.1			0	0.1	5			0	0.1	5			0	0.1	5		
Ref No.	Q6802					Q6803														
MODE	E	C	B			E	C	B												
CD PLAY	0	0	0			0	-2.2	0												
STANDBY	0	0	0.7			1.1	1.1	0												

SA-VK860GC/GCS/GS PANEL P.C.B.

14.4. Deck/Deck Mechanism & Mic P.C.B.

Ref No.	IC1001																			
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	0.6	5.5	5.5	2.8	0	0.3	0	1.9	7.2	0	11.3	0	0	0	0.3	0	0.2	5.4
STANDBY	0	0	0.4	0.4	0.2	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0.1
Ref No.	IC1001																			
MODE	21	22	23	24																
CD PLAY	6.3	0.7	0	0																
STANDBY	0.3	0.3	0	0																
Ref No.	IC1004																			
MODE	1	2	3	4																
CD PLAY	7.9	0	0	0																
STANDBY	0	0	0	0																
Ref No.	Q1003					Q1004					Q1005					Q1007				
MODE	E	C	B			E	C	B			E	C	B			E	C	B		
CD PLAY	0	-0.1	0			0	15.3	0			0	15.3	0			0	0	0		
STANDBY	0	0	0			0	0	0			0	0	0			0	0	0		

SA-VK860GC/GCS/GS DECK P.C.B.

Ref No.	IC951																			
MODE	1	2	3	4																
CD PLAY	0.7	5	4.2	5.3																
STANDBY	0	0	0	0																
Ref No.	IC971																			
MODE	1	2	3	4																
CD PLAY	0.5	0	3.9	5																
STANDBY	0	0	0	0																

SA-VK860GC/GCS/GS DECK MECHANISM P.C.B.

Ref No.	Q6901					Q6902					Q6903									
MODE	E	C	B			E	C	B			E	C	B							
CD PLAY	2.4	4	3			0.1	1.5	0.7			4.5	6.3	5							
STANDBY	2.4	4	3			0.1	1.5	0.7			4.5	6.4	5							

SA-VK860GC/GCS/GS MIC P.C.B.

14.5. D-Amp P.C.B.

Ref.No.	IC5100																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	2.5	0	0	29.2	0	-29.2	-21	29.6	11.1	-0.2	-29.5	-16.9	-29.5	-0.3	11	29.5	-29.2	-29.2	0	29.2
STANDBY	0.2	0	0	0.5	0	-0.5	0.3	0.5	0.3	0	-0.4	0.1	-0.4	0	0	0.5	-0.4	-0.4	0	0.5
Ref.No.	IC5100																			
MODE	21	22	23																	
CD PLAY	0	-0.1	6																	
STANDBY	0	0	0																	
Ref.No.	IC5300																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	2.5	0	0	29.2	0	-29.2	-21	29.6	11.1	-0.2	-29.5	-16.9	-29.5	-0.3	11	29.5	-29.2	-29.2	0	29.2
STANDBY	0.2	0	0	0.5	0	-0.5	0.3	0.5	0.3	0	-0.4	0.1	-0.4	0	0	0.5	-0.4	-0.4	0	0.5
Ref.No.	IC5300																			
MODE	21	22	23																	
CD PLAY	0	-0.1	6																	
STANDBY	0	0	0																	
Ref.No.	IC5400																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	2.5	0	0	29.2	0	-29.2	-21	29.6	11.1	-0.2	-29.5	-16.9	-29.5	-0.3	11	29.5	-29.2	-29.2	0	29.2
STANDBY	0.2	0	0	0.5	0	-0.5	0.3	0.5	0.3	0	-0.4	0.1	-0.4	0	0	0.5	-0.4	-0.4	0	0.5
Ref.No.	IC5400																			
MODE	21	22	23																	
CD PLAY	0	-0.1	6																	
STANDBY	0	0	0																	
Ref.No.	IC5500																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
CD PLAY	0.1	0	2.5	2.7	0	2.5	0	5.3	0	2.5	2.7	5.3	0	5.3						
STANDBY	0	0.5	0.2	0.2	0.2	0.2	0	0.2	0	0.2	0.2	0.1	0	0.4						
Ref.No.	Q5500				Q5501				Q5550				Q5551				Q5600			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	2.7	-0.8	5.4		2.7	2.6	1.7		0	5.1	0		0	5.1	0		5.5	5.5	0	
STANDBY	0.2	-1.5	0.2		0.2	1	0.2		0	0.5	0		0	0.5	0		0.4	0	0.4	
Ref.No.	Q5601				Q5602				Q5603											
MODE	E	C	B		E	C	B		E	C	B									
CD PLAY	0	0	0.7		0	5.3	-0.3		0	5.2	-0.3									
STANDBY	0	0.4	0		0	0	0		0	0	0									

SA-VK860GC/GCS/GS D-AMP P.C.B.

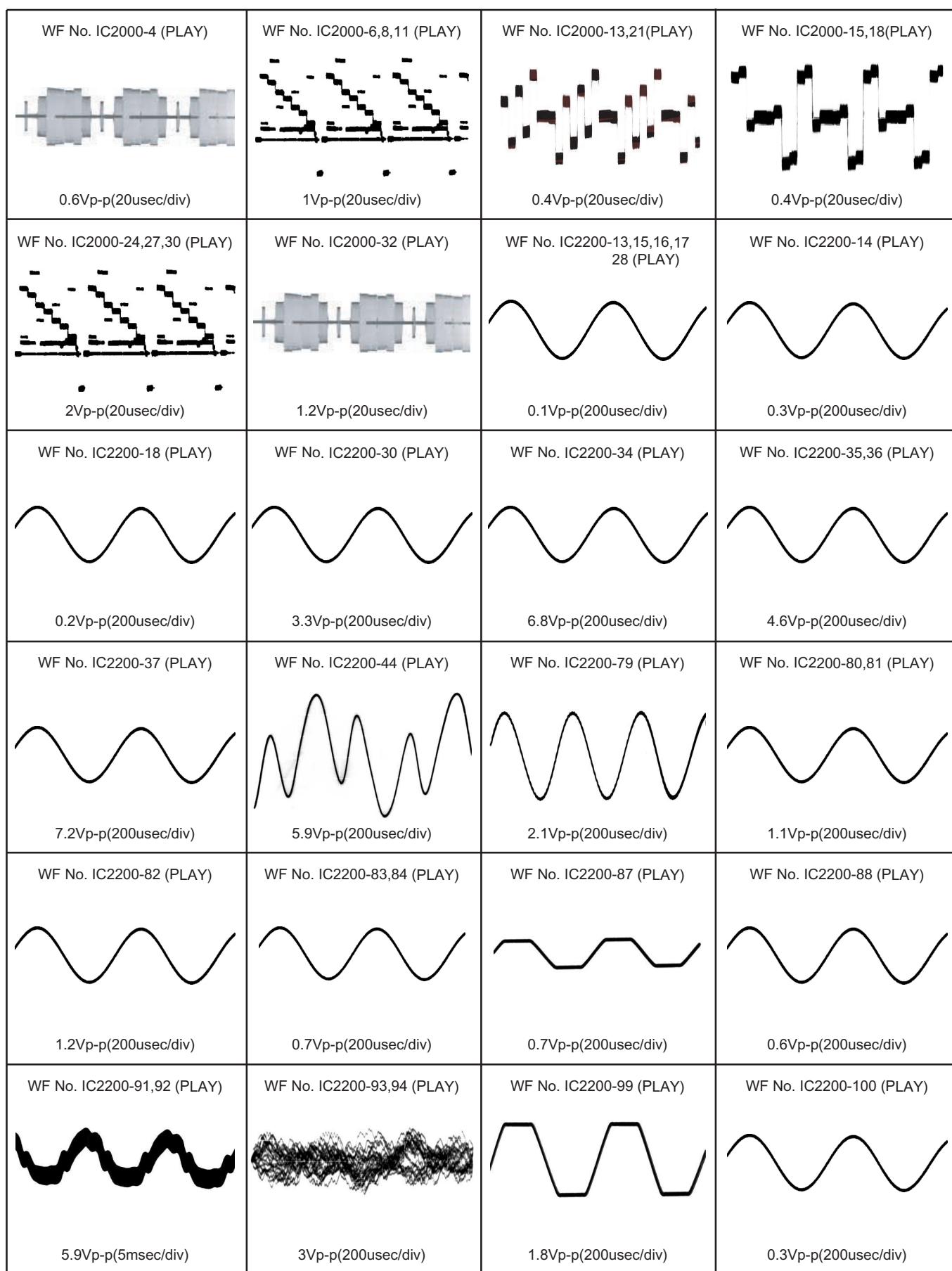
14.6. SMPS P.C.B.

Ref.No.	IC5701								IC5790											
MODE	1	2	3	4	5				1	2	3	4	5	6	7	8				
CD PLAY	-30.3	-30.7	30.4	-27.6	-30.7				-30.6	-30.6	-30.7	-30.3	-27.5	-29.4	-26.6	-26.3				
STANDBY	-30.4	-30.7	30.4	-27.7	-30.8				-30.6	-30.6	-30.7	-30.5	-27.8	-29.8	-26.8	-26.7				
Ref.No.	IC5801								IC5901											
MODE	1	2	3	4	5	6	7	8		1	2	3								
CD PLAY	-30.4	-26.6	-30.4	-30.3	30.3	-	30.4	30.3		-11.3	-29.6	-27								
STANDBY	-30.8	-27	-30.7	-30.3	30.4	-	30.4	30.3		-11.3	-29.6	-27								
Ref.No.	Q5502				Q5503				Q5504				Q5701				Q5702			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	7.1	19.5	7.7		15.1	16.6	15.7		-7	-19.4	-7.5		-29.1	-29	-29.6		-21.6	-20.4	-20.9	
STANDBY	7.1	19.9	7.7		15.3	16.7	15.9		-7	-20	-7.5		-29.3	-29.1	-29.5		-21.7	-20.5	-21	
Ref.No.	Q5704				Q5705				Q5750				Q5751				Q5752			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	-21.6	-20.4	-20.9		0	0.1	4.5		1.3	0	0.7		0	0.1	0.6		0	5	0.1	
STANDBY	-21.7	-20.5	-21		0	0.1	4.5		1.3	0	0.7		0	0.1	0.6		0	5	0.1	
Ref.No.	Q5802				Q5804				Q5925				Q5928				Q5970			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	3.6	4.7	4.2		0	1.2	0.5		0	29.5	0		-28.2	-29.6	-28.8		-30.7	-30.8	-30.4	
STANDBY	3.6	4.7	4.2		0	1.3	0.5		0	29.5	0		-28.2	-29.6	-28.8		-30.7	-30.8	-30.6	
Ref.No.	Q5971																			
MODE	E	C	B																	
CD PLAY	0	-7.5	-0.5																	
STANDBY	0	-7.5	-0.6																	
Ref.No.	QR5500				QR5502				QR5503											
MODE	E	C	B		E	C	B		E	C	B									
CD PLAY	0	5	0		0	5	0		0	5	-2.6									
STANDBY	0	5	0		0	5	0		0	5	-2.6									

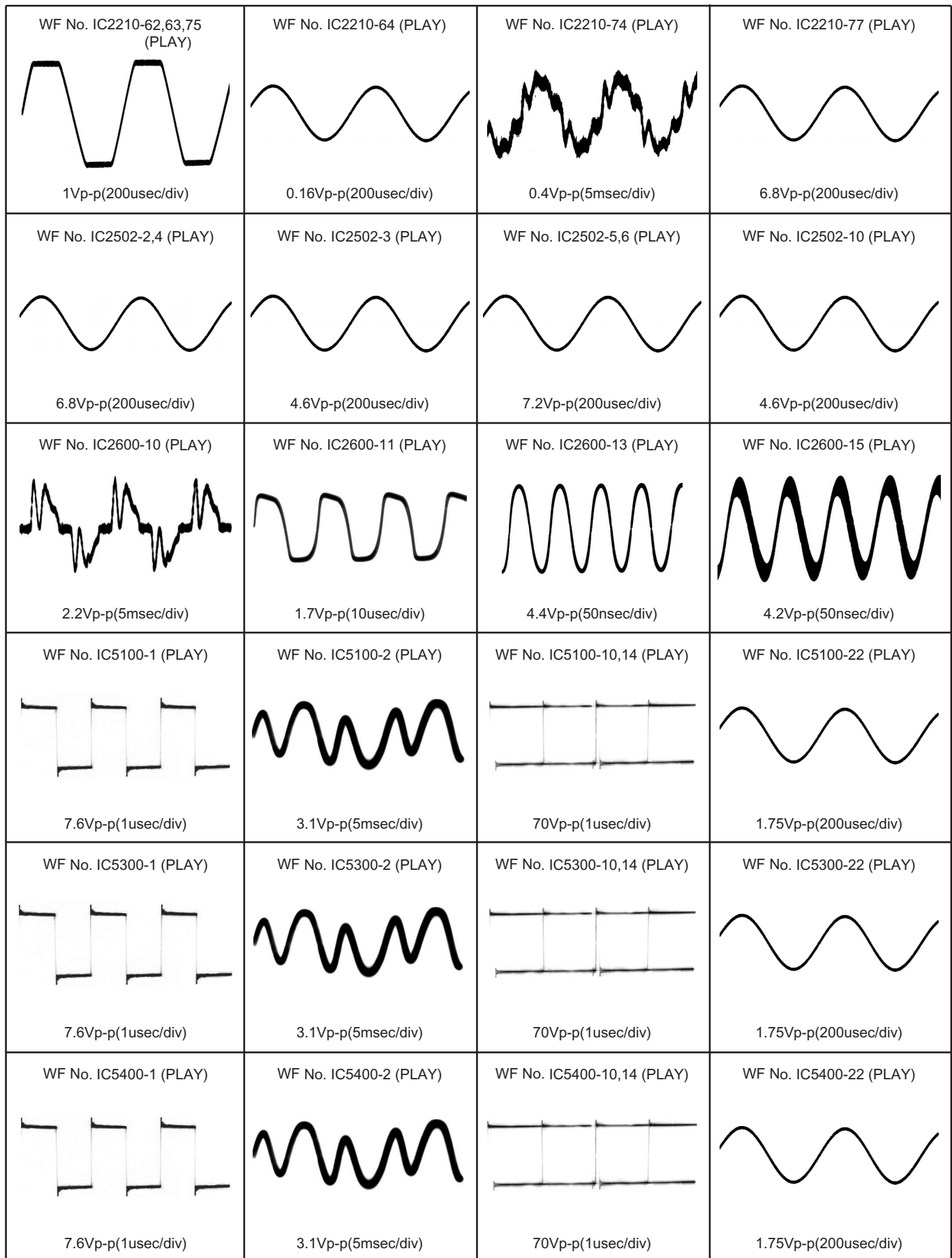
SA-VK860GC/GCS/GS SMPS P.C.B.

14.7. Waveform Chart

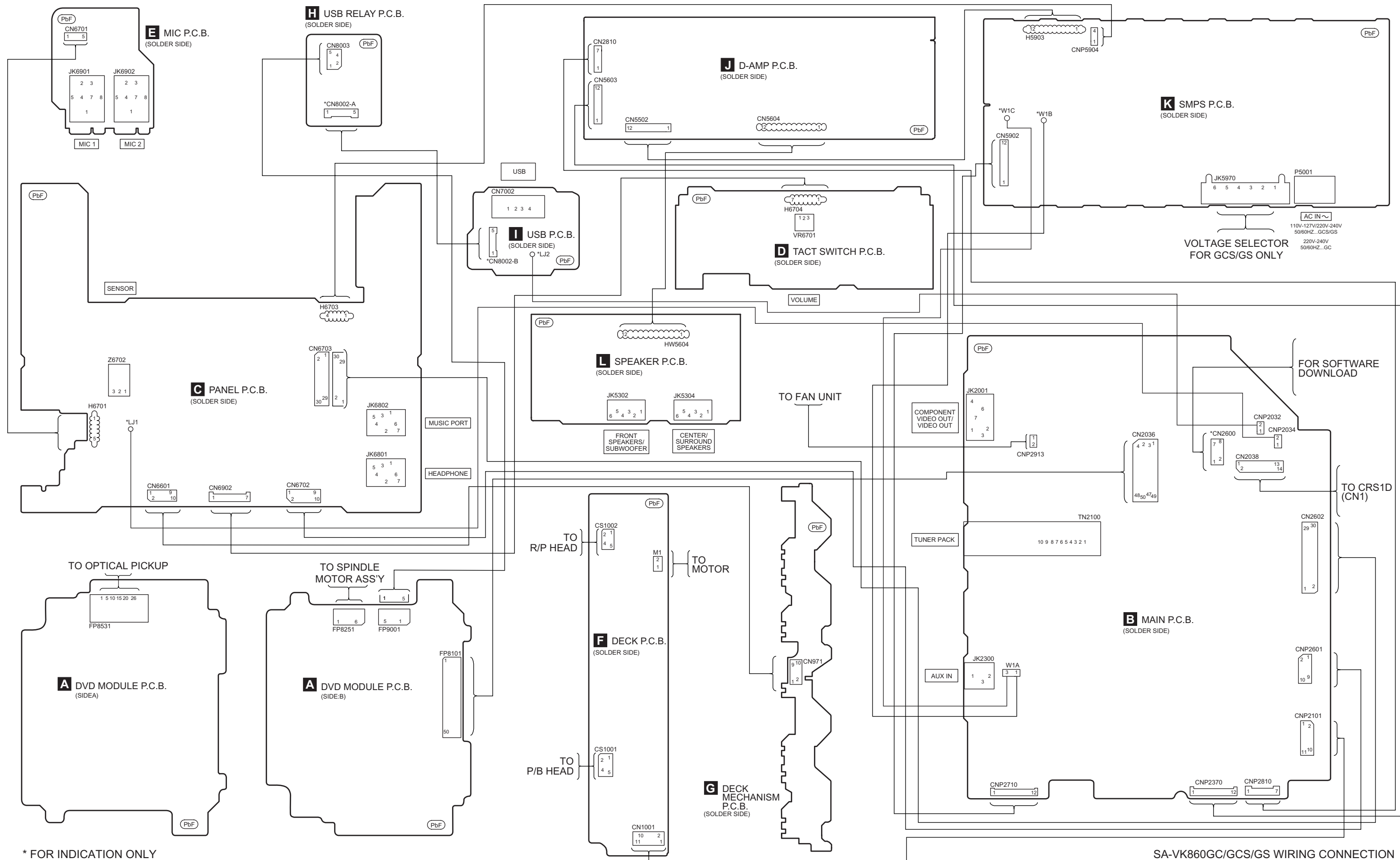
14.7.1. Waveform 1



14.7.2. Waveform 2



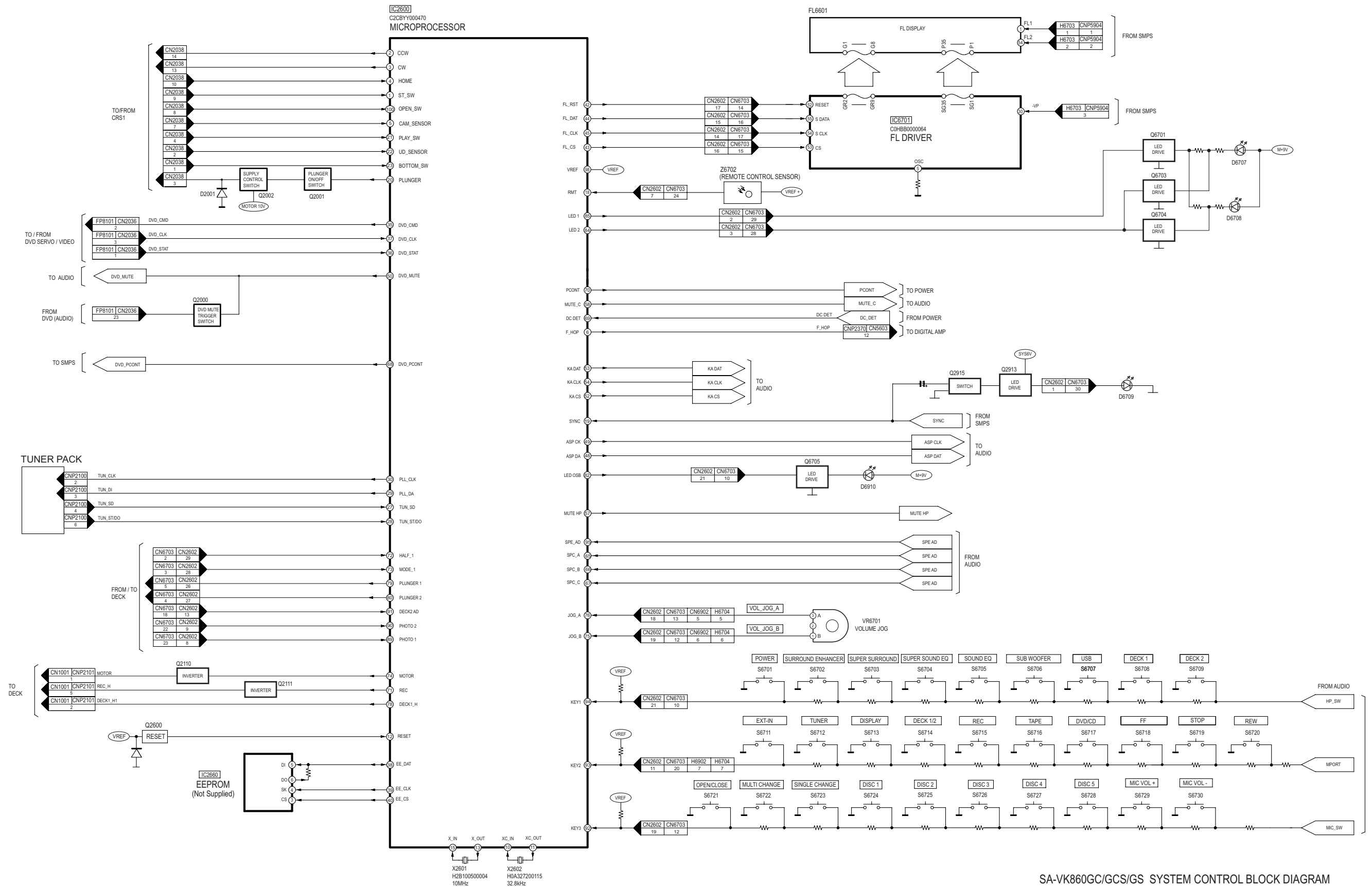
15 Wiring Connection Diagram



SA-VK860GC/GCS/GS WIRING CONNECTION

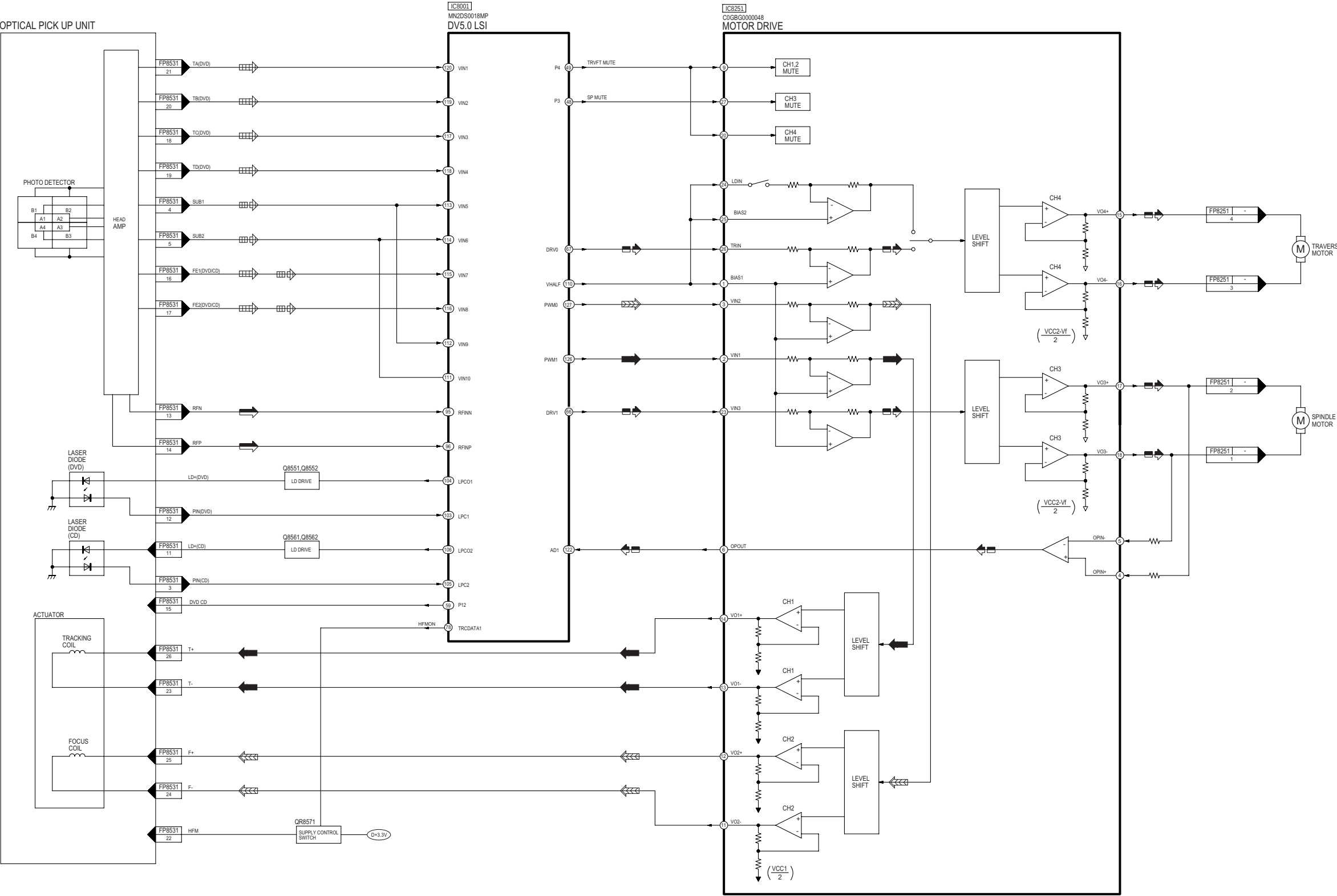
16 Block Diagram

16.1. System Control



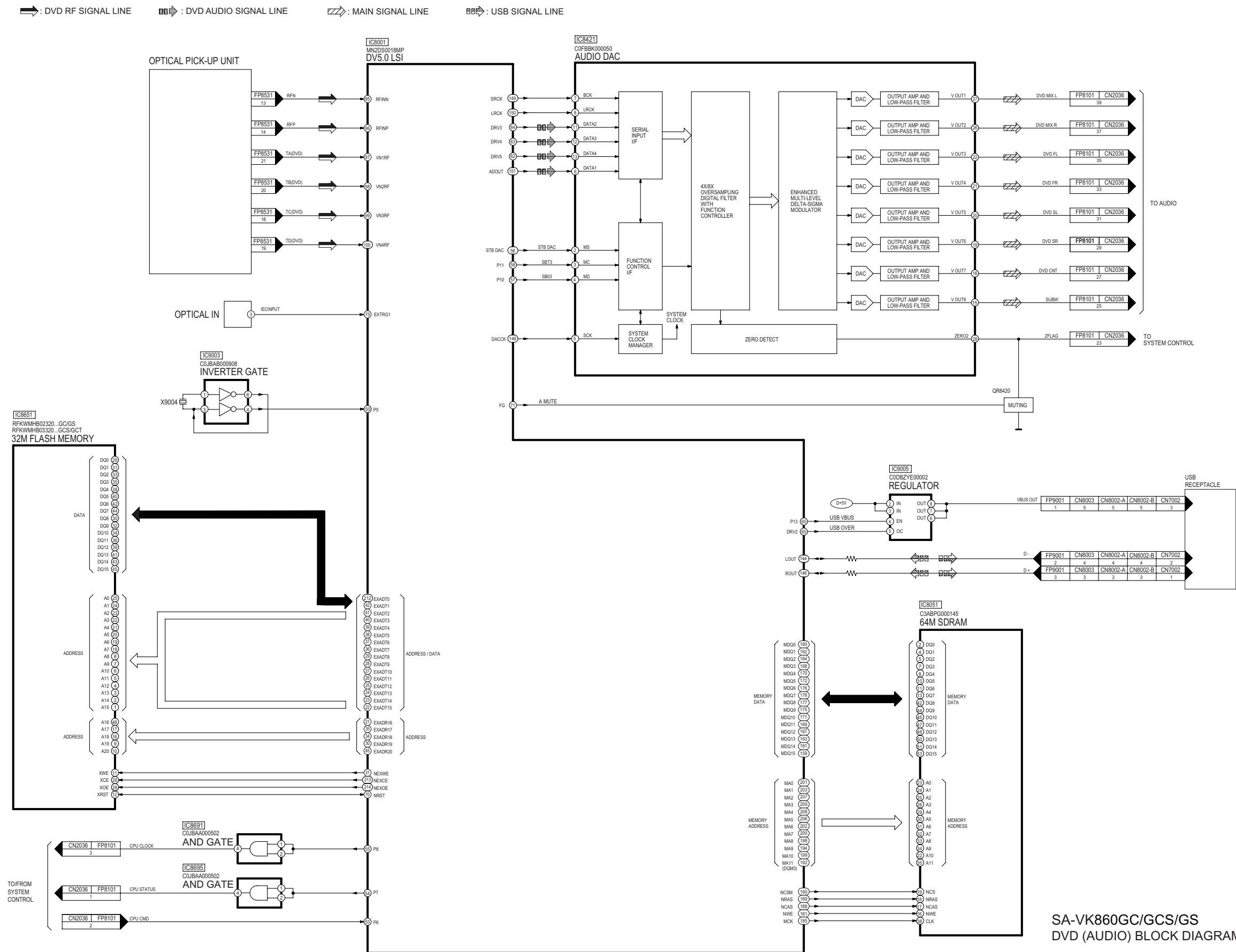
16.2. DVD (Servo)

▢▢▢▢: CD HEAD SIGNAL LINE ➡: DVD RF SIGNAL LINE ➡: TRACKING ERROR SIGNAL LINE
▢▢▢▢: DVD HEAD SIGNAL LINE ➡: MOTOR DRIVE SIGNAL LINE >>>>: FOCUS ERROR SIGNAL LINE



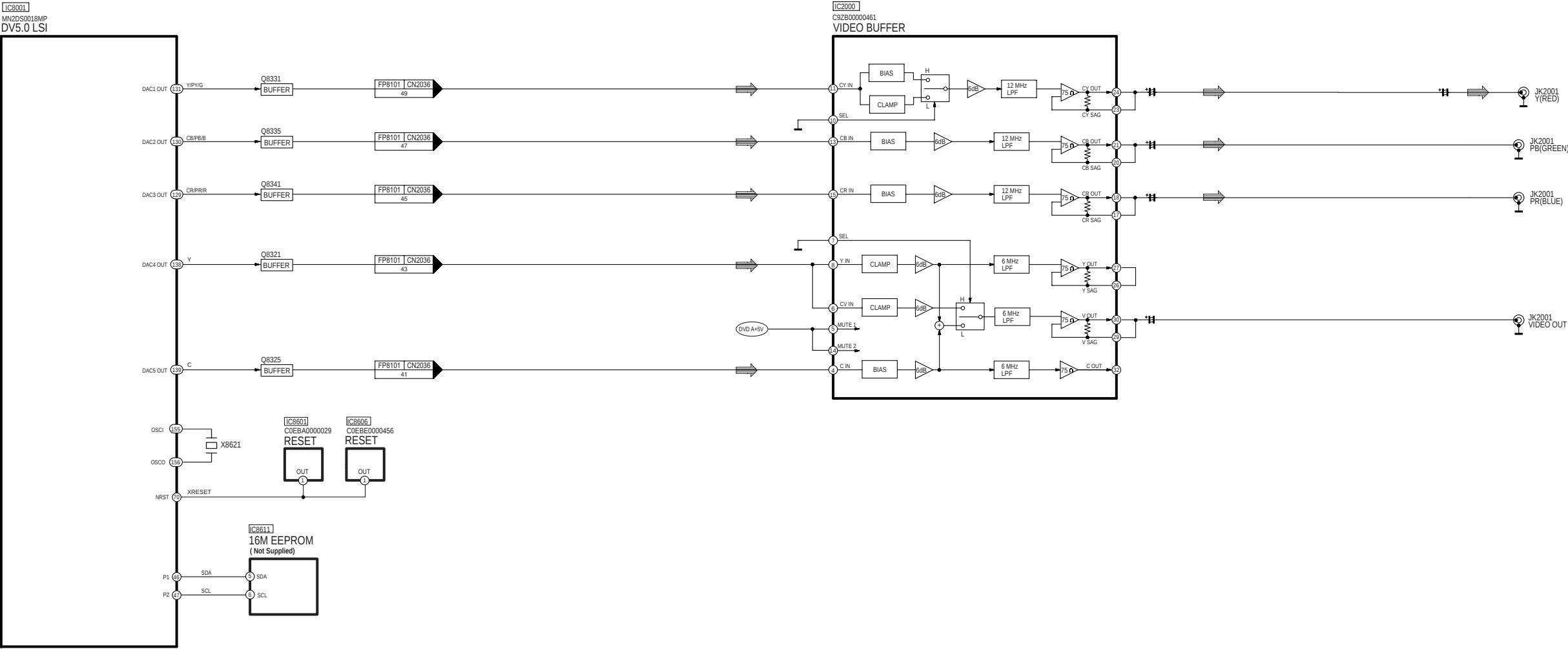
SA-VK860GC/GCS/GS DVD (SERVO) BLOCK DIAGRAM

16.3. DVD (Audio)

SA-VK860GC/GCS/GS
DVD (AUDIO) BLOCK DIAGRAM

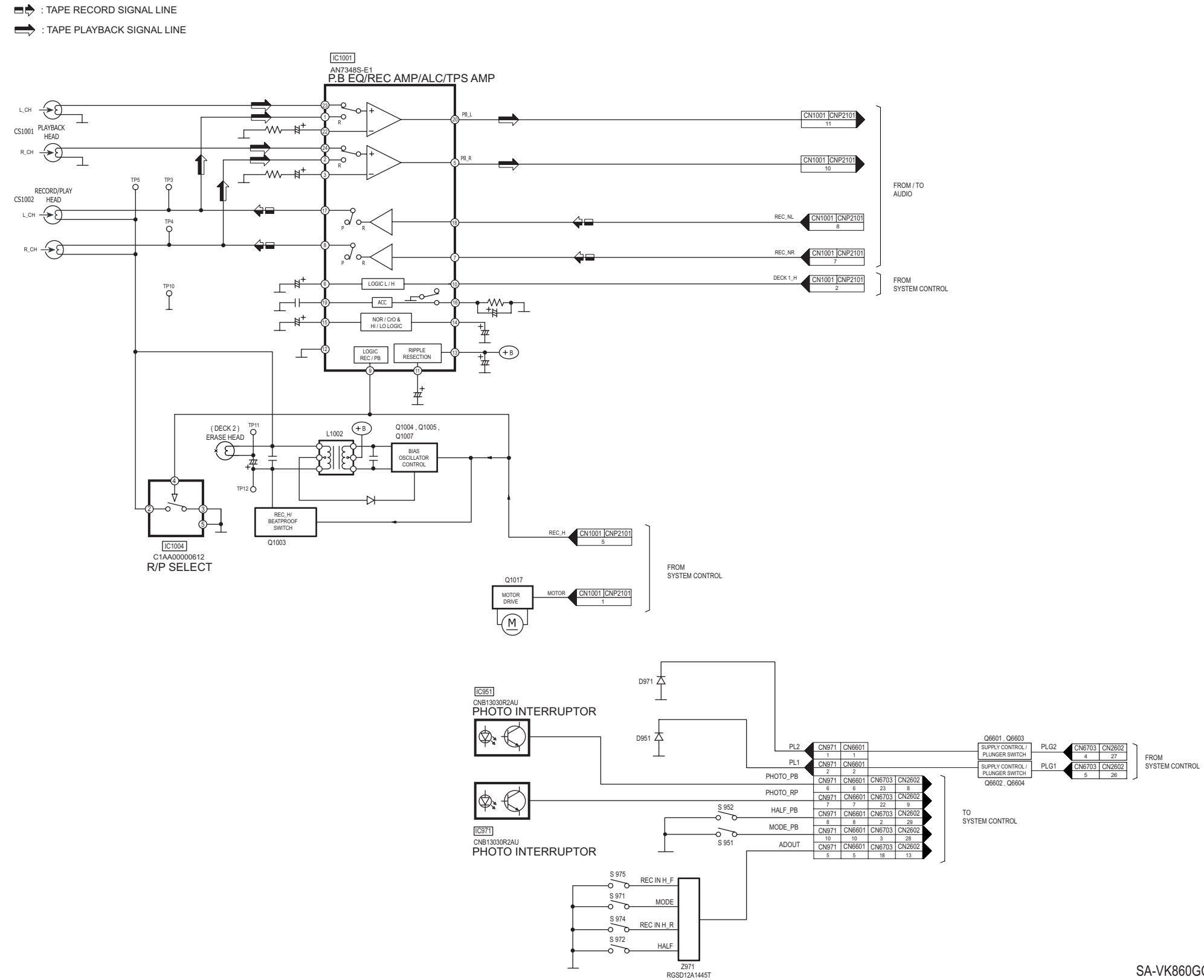
16.4. DVD (Video)

⇒ : DVD VIDEO SIGNAL LINE

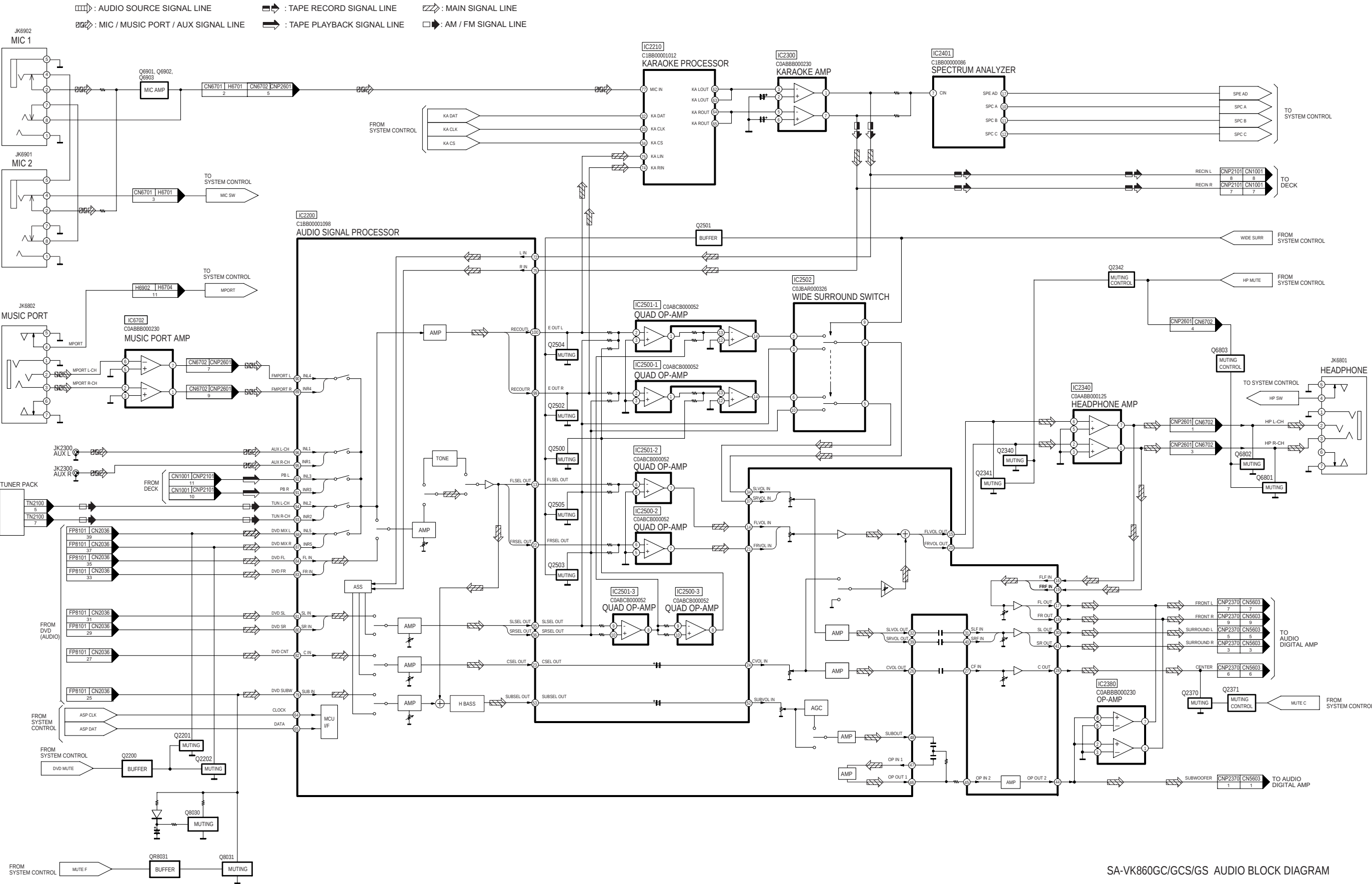


SA-VK860GC/GCS/GS DVD (VIDEO) BLOCK DIAGRAM

16.5. Deck

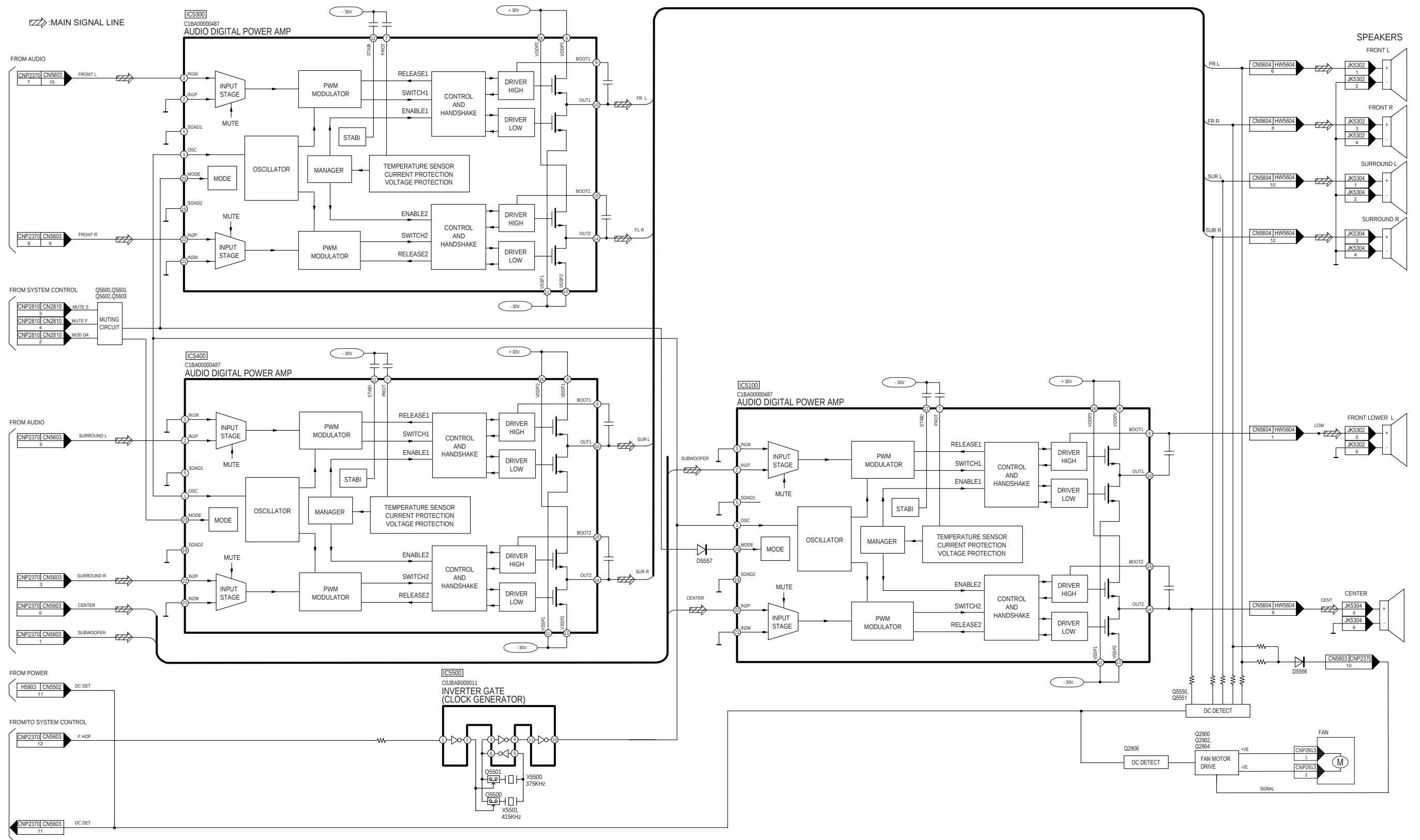


16.6. Audio



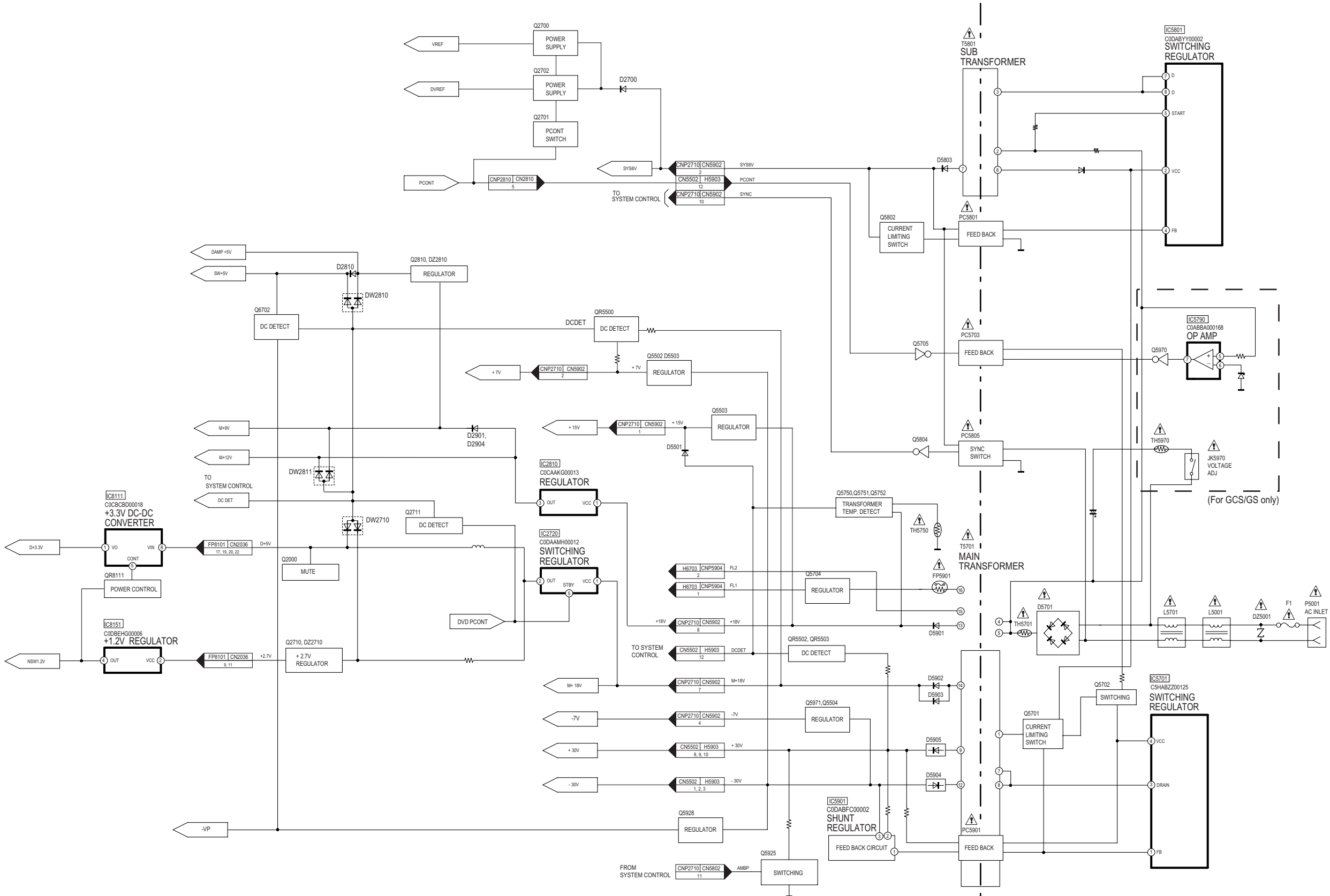
SA-VK860GC/GCS/GS AUDIO BLOCK DIAGRAM

16.7. Audio Digital Amp



SA-VK860GC/GCS/GS AUDIO DIGITAL AMP BLOCK DIAGRAM

16.8. Power



SA-VK860GC/GCS/GS POWER BLOCK DIAGRAM

17 Schematic Diagram Notes

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

Notes:

S951	MODE Switch
S952	HALF Switch
S971	MODE Switch
S972	HALF Switch
S974	RECINH_R Switch
S975	RECINH_F Switch
S6701	POWER Switch (AC IN )
S6702	SURROUND ENHANCER Switch
S6703	SUPER SURROUND Switch
S6704	SUPER SOUND EQ Switch
S6705	SOUND EQ Switch
S6706	SUB WOOFER Switch
S6707	USB Switch (USB )
S6708	DECK1 Switch (OPEN )
S6709	DECK2 Switch (OPEN )
S6711	EXT-IN Switch
S6712	TUNER Switch (TUNER/BAND)
S6713	DISPLAY Switch (DISPLAY/-DEMO)
S6714	DECK1/2 Switch
S6715	RECORD Switch (RECORD )
S6716	TAPE Switch (TAPE )
S6717	DVD/CD Switch (DVD/CD )
S6718	 /FF Switch ( /FF )
S6719	STOP Switch (STOP )
S6720	 /REW Switch ( /REW )
S6721	OPEN/CLOSE Switch (OPEN/CLOSE )
S6722	MULTI CHANGE Switch (MULTI CHANGE )
S6723	SINGLE CHANGE Switch (SINGLE CHANGE )
S6724	DISC1 Switch (1 )
S6725	DISC2 Switch (2 )
S6726	DISC3 Switch (3 )
S6727	DISC4 Switch (4 )
S6728	DISC5 Switch (5 )
S6729	MIC VOL + Switch (MIC VOL )
S6730	MIC VOL - Switch (MIC VOL )
VR6701	VR VOLUME JOG ( VOLUME )

• 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 Capacitor, the part no. and values will be indicated in the Schematic Diagram.

AC rated voltage capacitor:

C5001, C5701, C5702, C5704

• Resistor

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

• Capacitor

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

• Coil

Unit of inductance is H, unless otherwise noted.

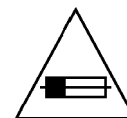
• *

For indication only.

• Voltage and signal line

	: +B signal line
	: -B signal line
	: USB signal line
	: DVD RF/Tape Playback signal line
	: Motor Drive/Tape Record signal line
	: DVD Audio signal line
	: DVD Video signal line
	: CD Head signal line
	: DVD Head signal line
	: Main signal line
	: Tracking Error signal line
	: Focus Error signal line
	: FM signal line
	: AUX/Music Port/Mic signal line

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



RISK OF FIRE-REPLACE FUSE AS MARKED.

FUSE CAUTION

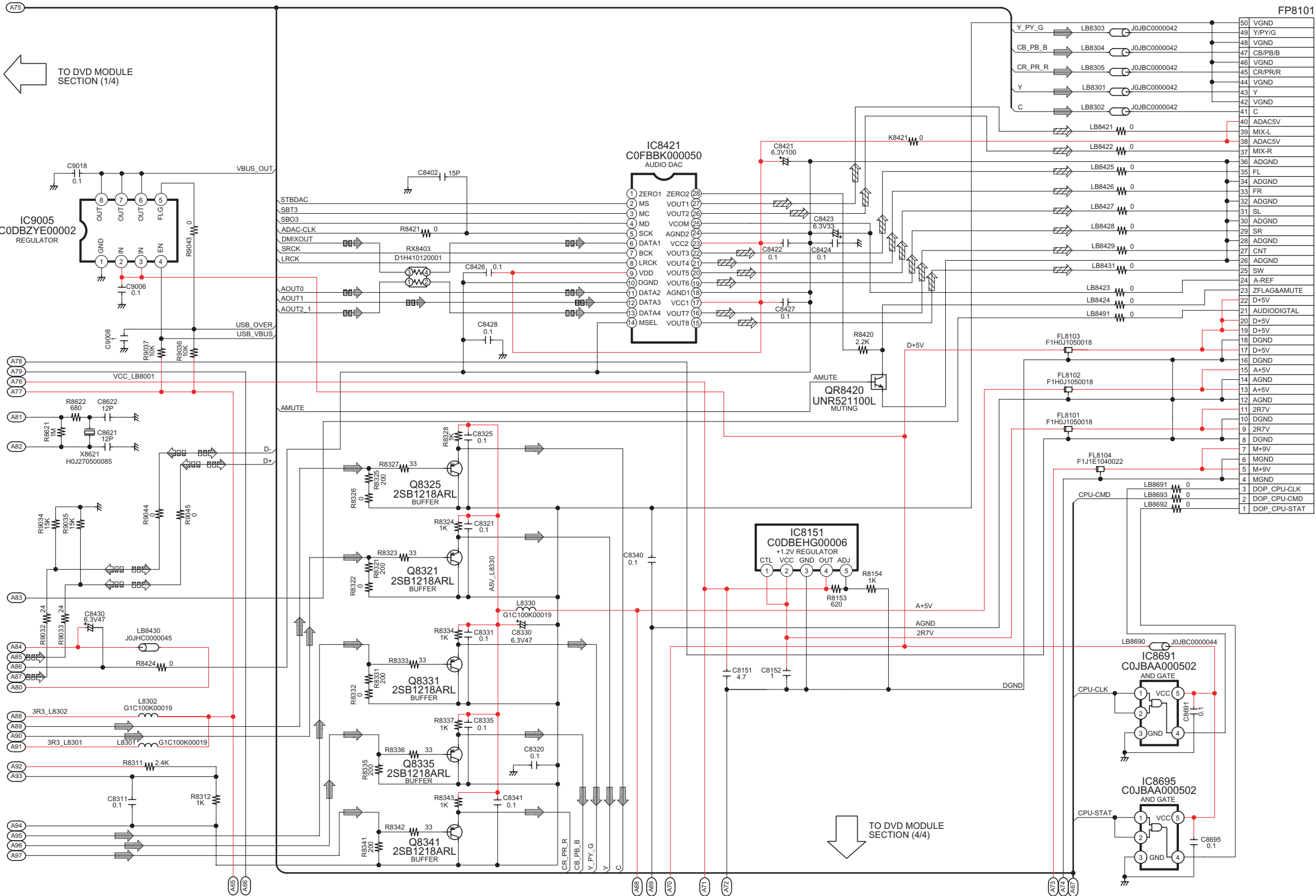


These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection against fire hazard, replace with the same type fuse. For fuse rating, refer to the marking adjacent to the symbol.

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

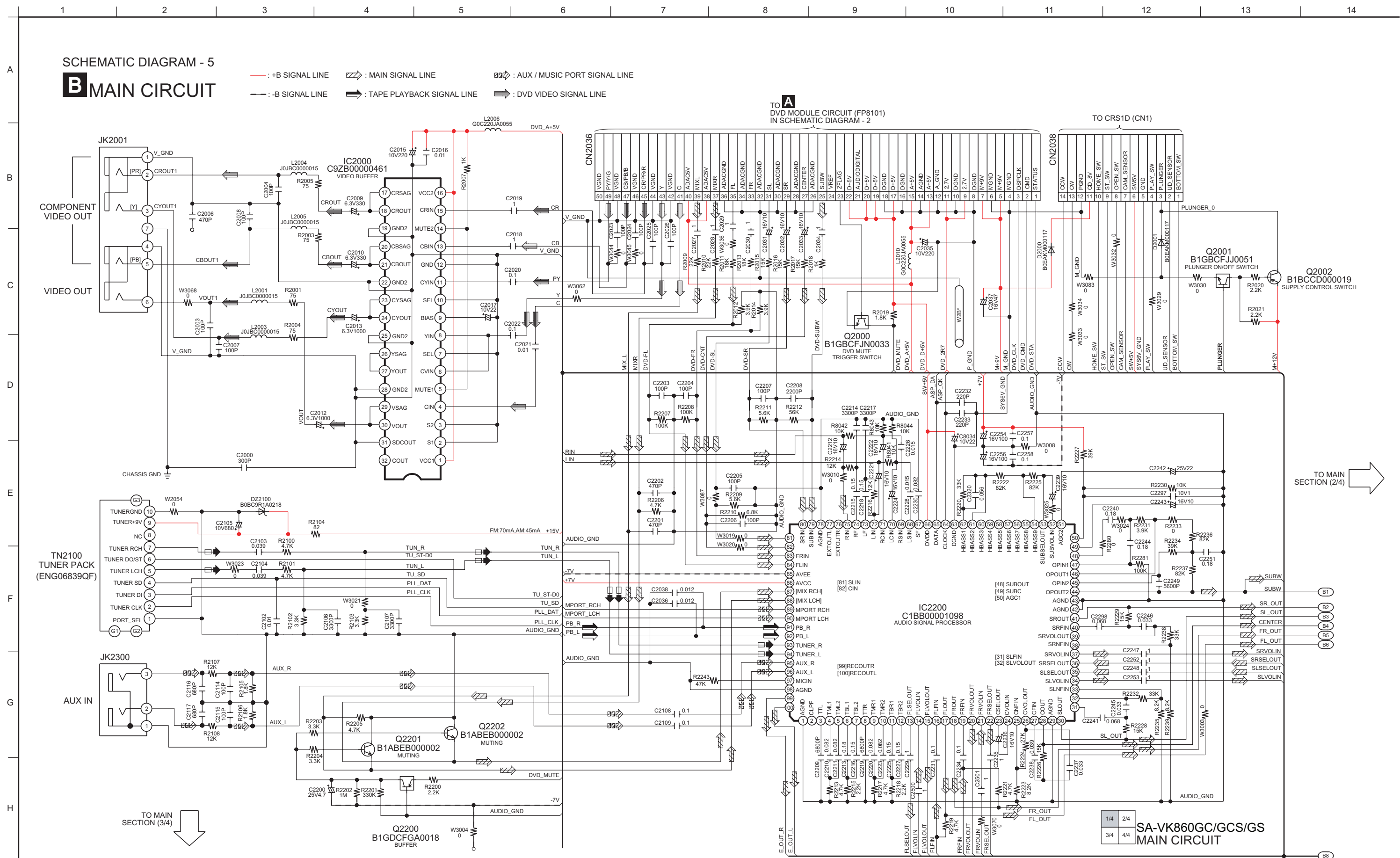
SCHEMATIC DIAGRAM - 2

A DVD MODULE CIRCUIT





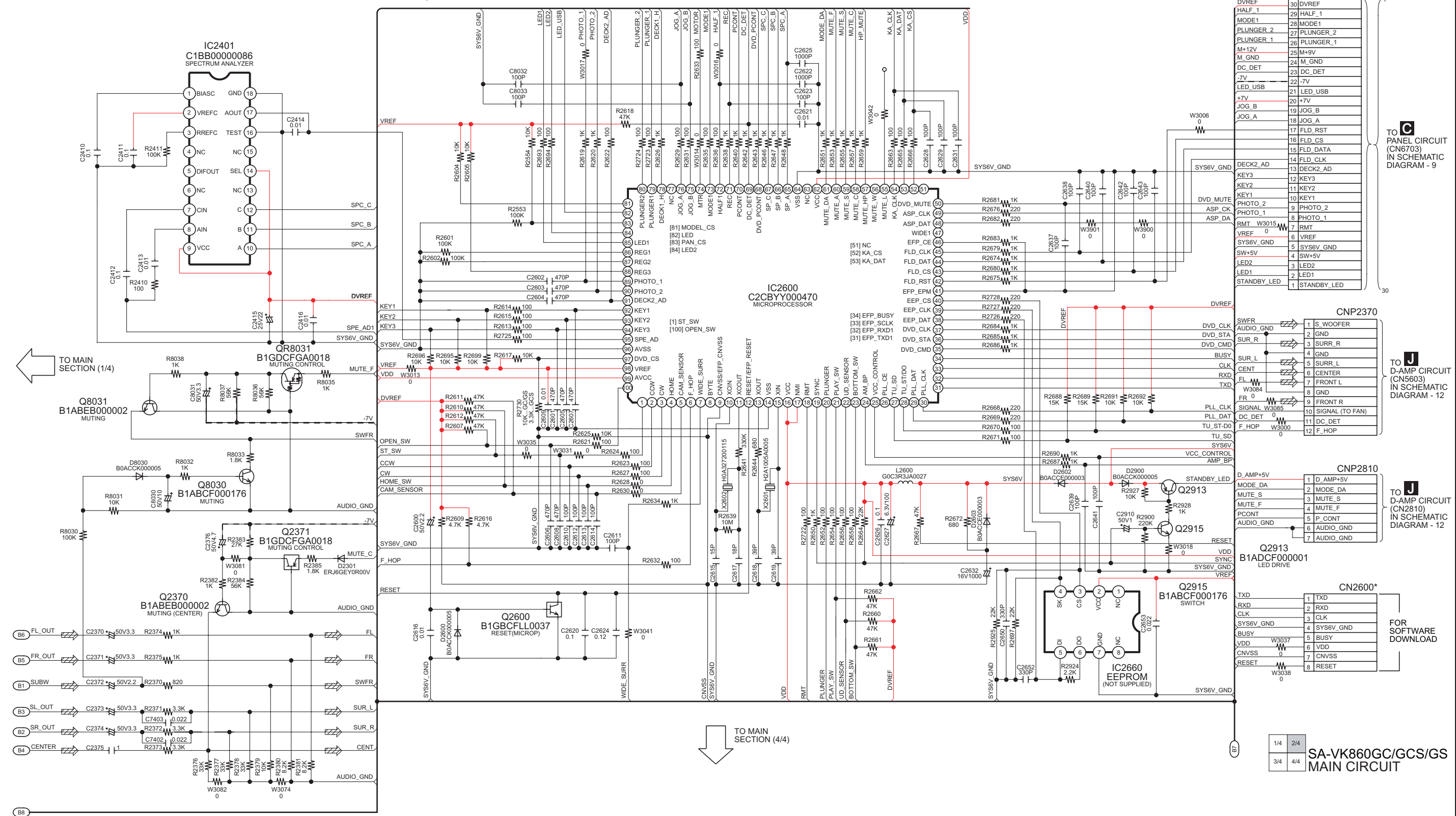
18.2. Main Circuit



SCHEMATIC DIAGRAM - 6

B MAIN CIRCUIT

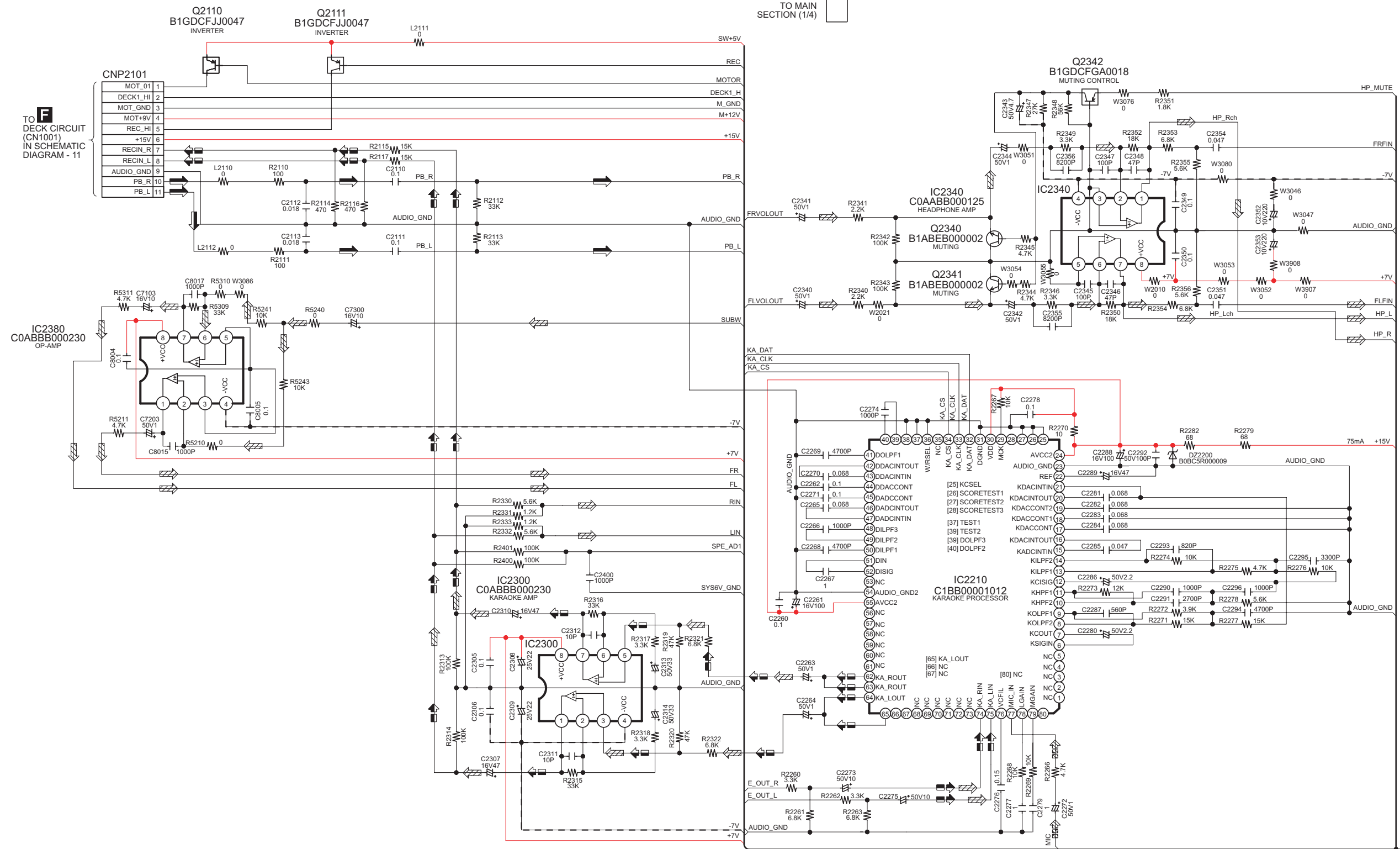
— : +B SIGNAL LINE - - - : -B SIGNAL LINE  : MAIN SIGNAL LINE

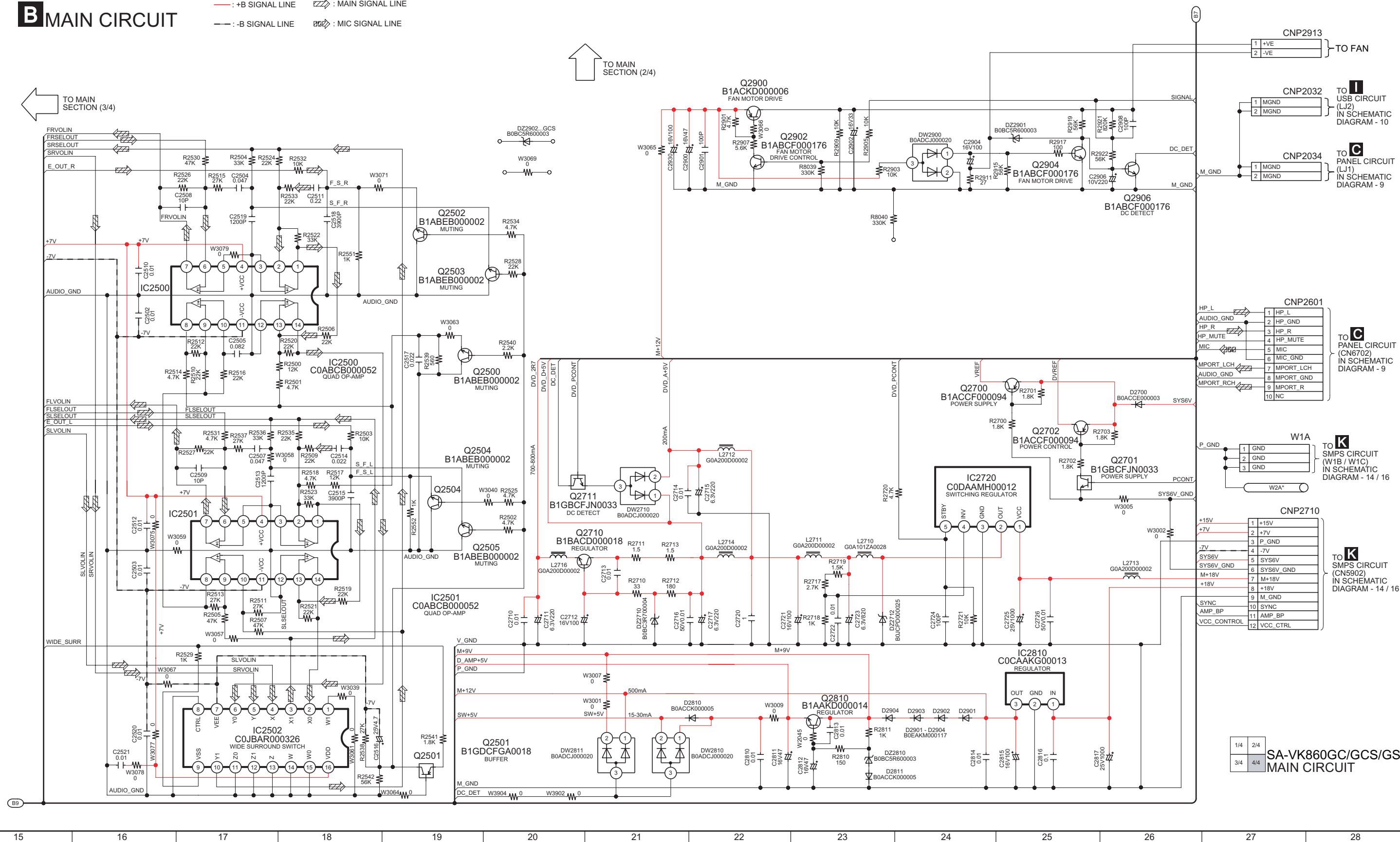
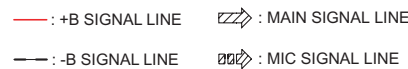


SCHEMATIC DIAGRAM - 7

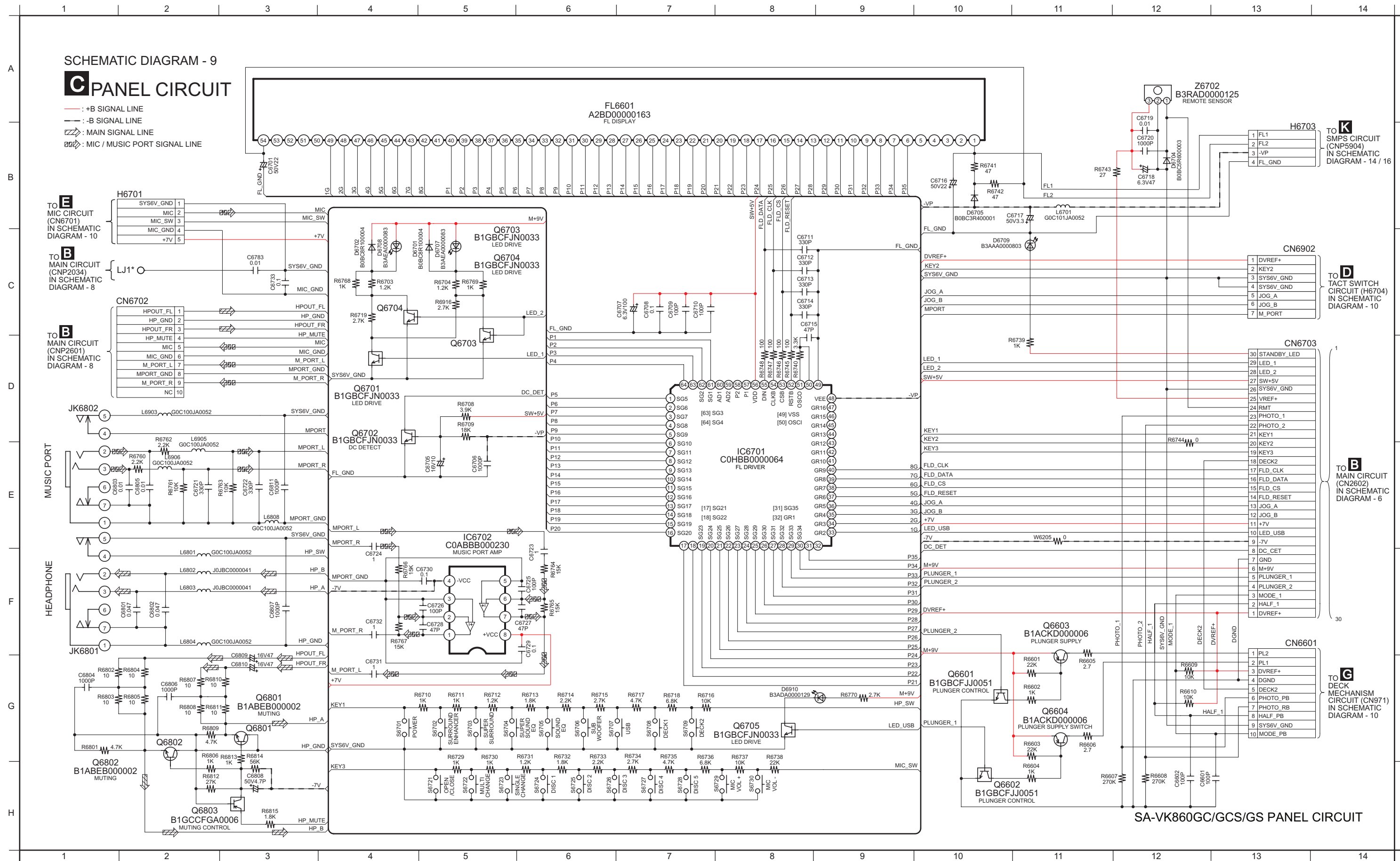
B MAIN CIRCUIT

— : +B SIGNAL LINE  : TAPE RECORD SIGNAL LINE  : MIC / MUSIC PORT SIGNAL LINE
 - - - : -B SIGNAL LINE  : TAPE PLAYBACK SIGNAL LINE  : MAIN SIGNAL LINE





18.3. Panel Circuit

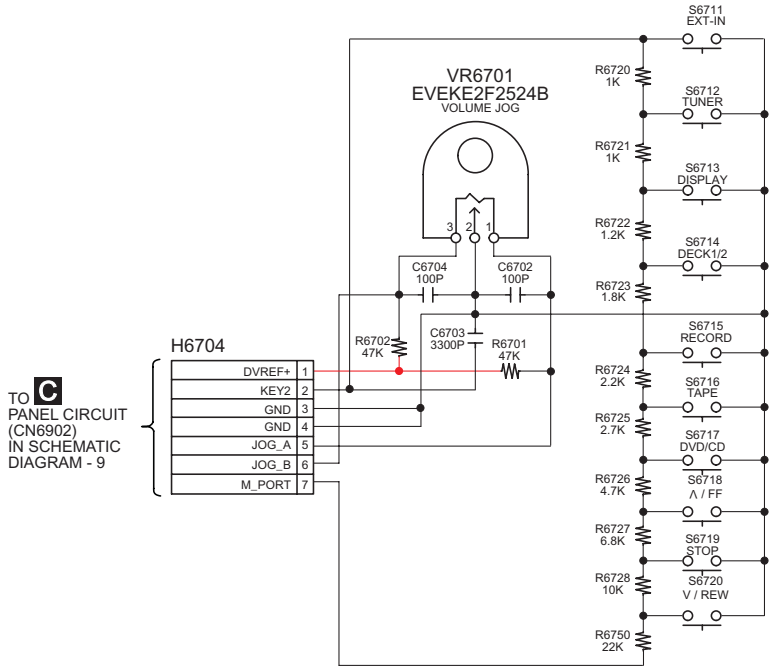


18.4. Tact Switch/Mic/Deck Mechanism/USB Relay/USB Circuit

SCHEMATIC DIAGRAM - 10

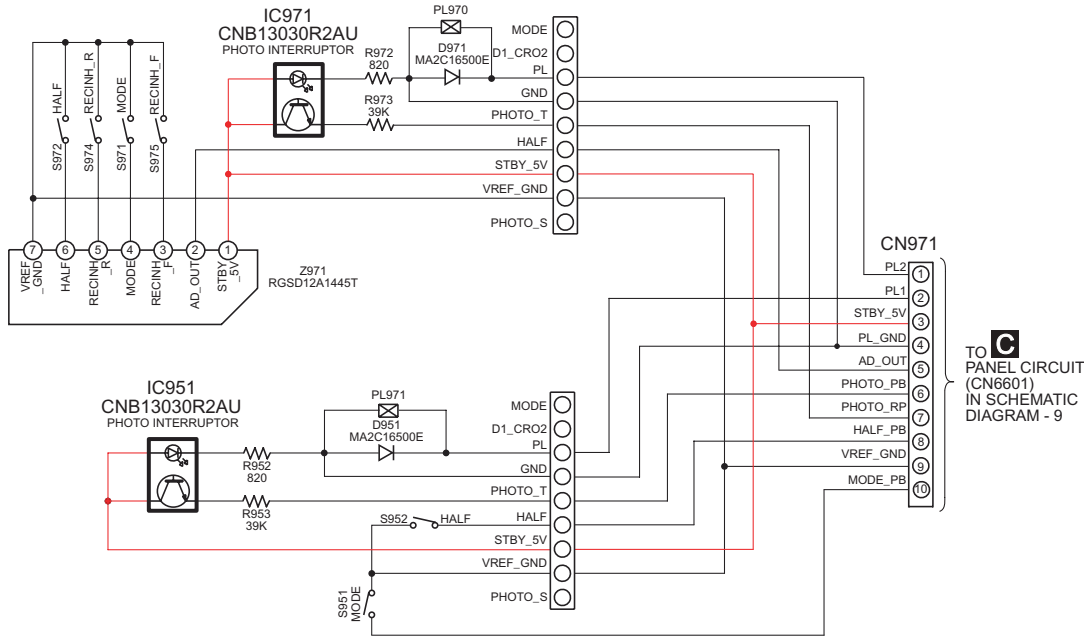
D TACT SWITCH CIRCUIT

— : +B SIGNAL LINE



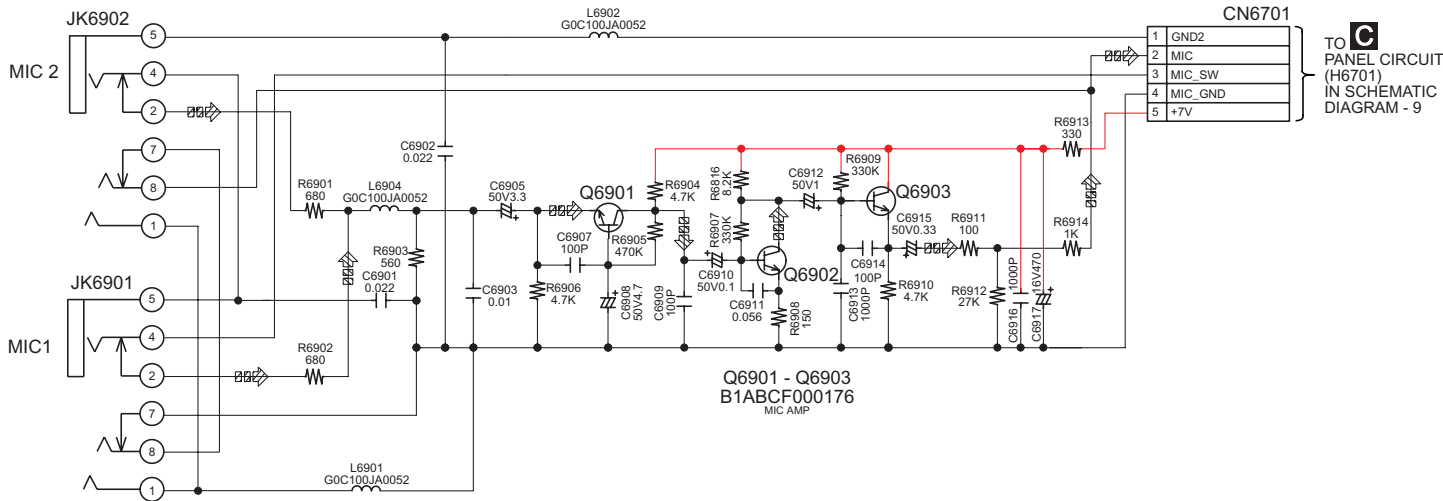
G DECK MECHANISM CIRCUIT

— : +B SIGNAL LINE



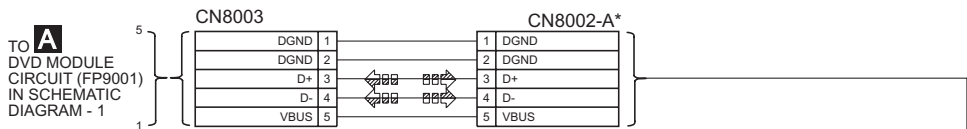
E MIC CIRCUIT

— : +B SIGNAL LINE — : MIC SIGNAL LINE



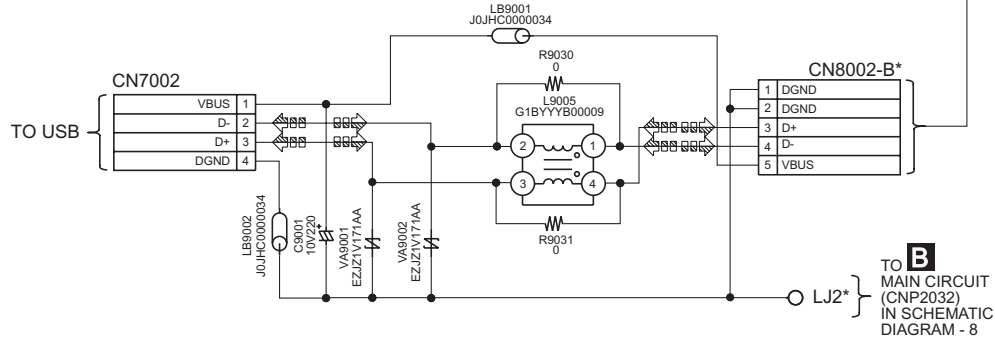
H USB RELAY CIRCUIT

— : USB SIGNAL LINE



I USB CIRCUIT

— : USB SIGNAL LINE

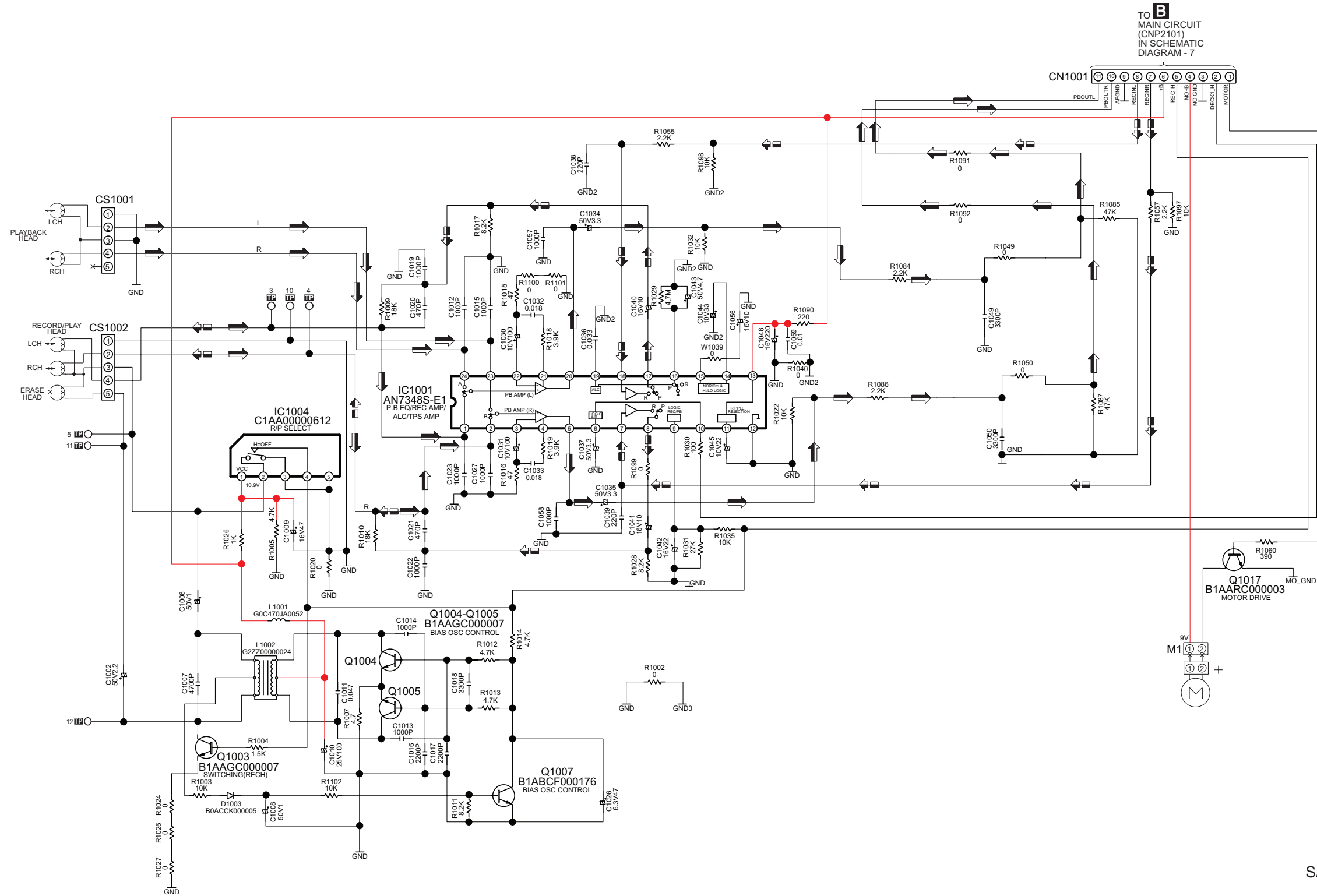


18.5. Deck Circuit

SCHEMATIC DIAGRAM - 11

F DECK CIRCUIT

— : +B SIGNAL LINE  : TAPE RECORD SIGNAL LINE  : TAPE PLAYBACK SIGNAL LINE

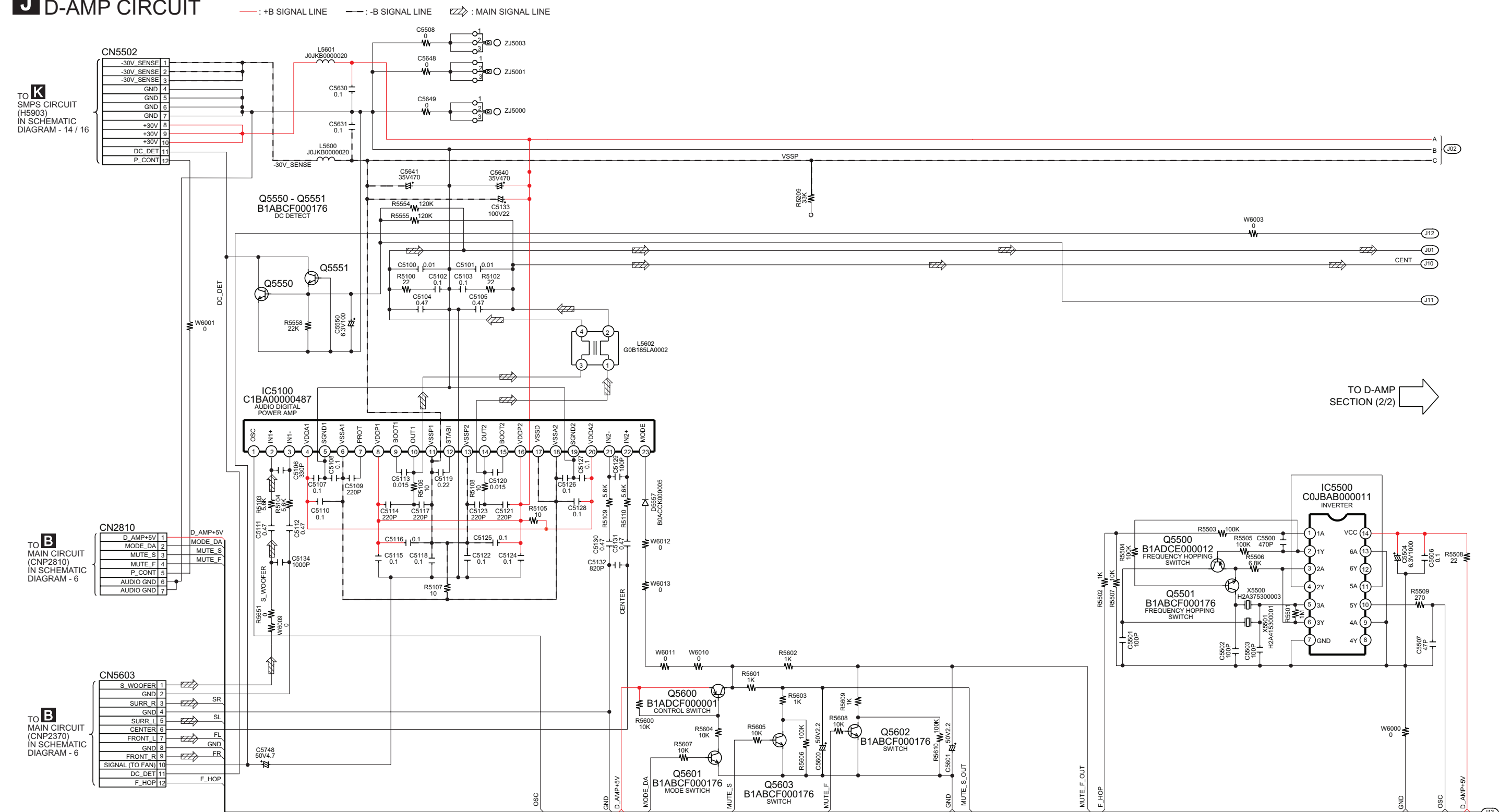


SA-VK860GC/GCS/GS DECK CIRCUIT

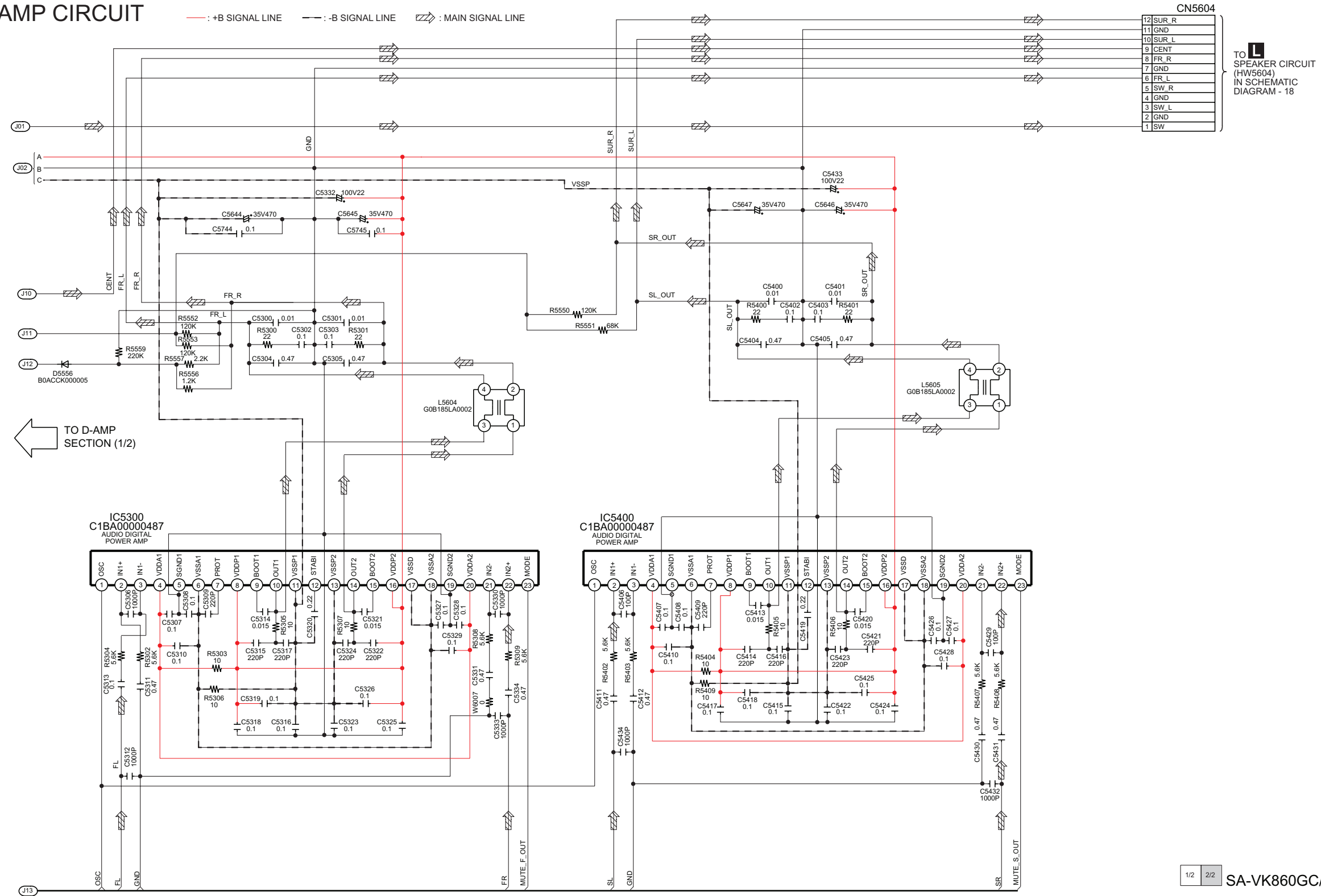
18.6. D-Amp Circuit

SCHEMATIC DIAGRAM - 12

J D-AMP CIRCUIT



SCHEMATIC DIAGRAM - 13

J D-AMP CIRCUIT

1/2

2/2

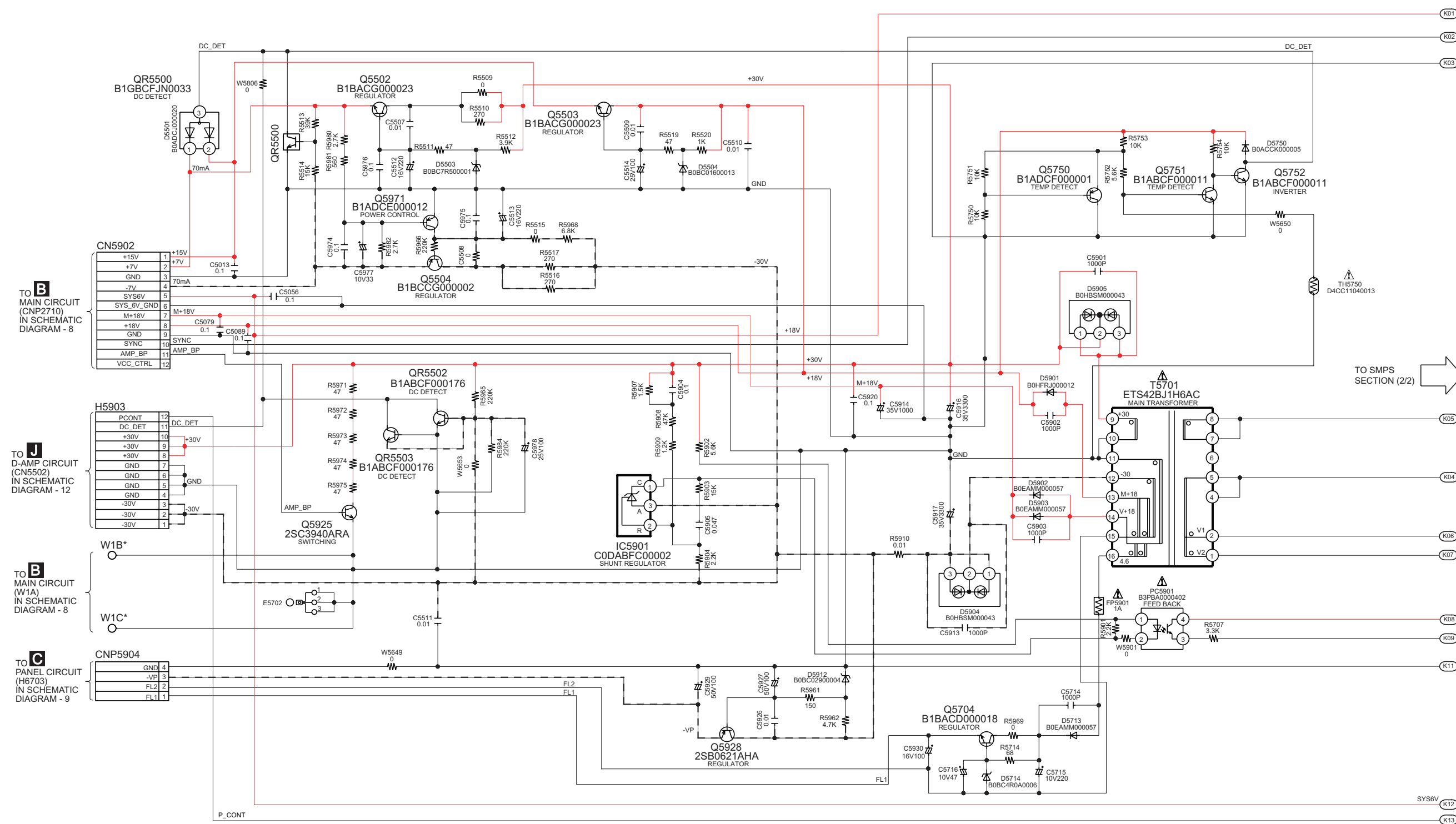
SA-VK860GC/GCS/GS D-AMP CIRCUIT

18.7. SMPS Circuit

SCHEMATIC DIAGRAM - 14

K SMPS CIRCUIT (FOR GC ONLY)

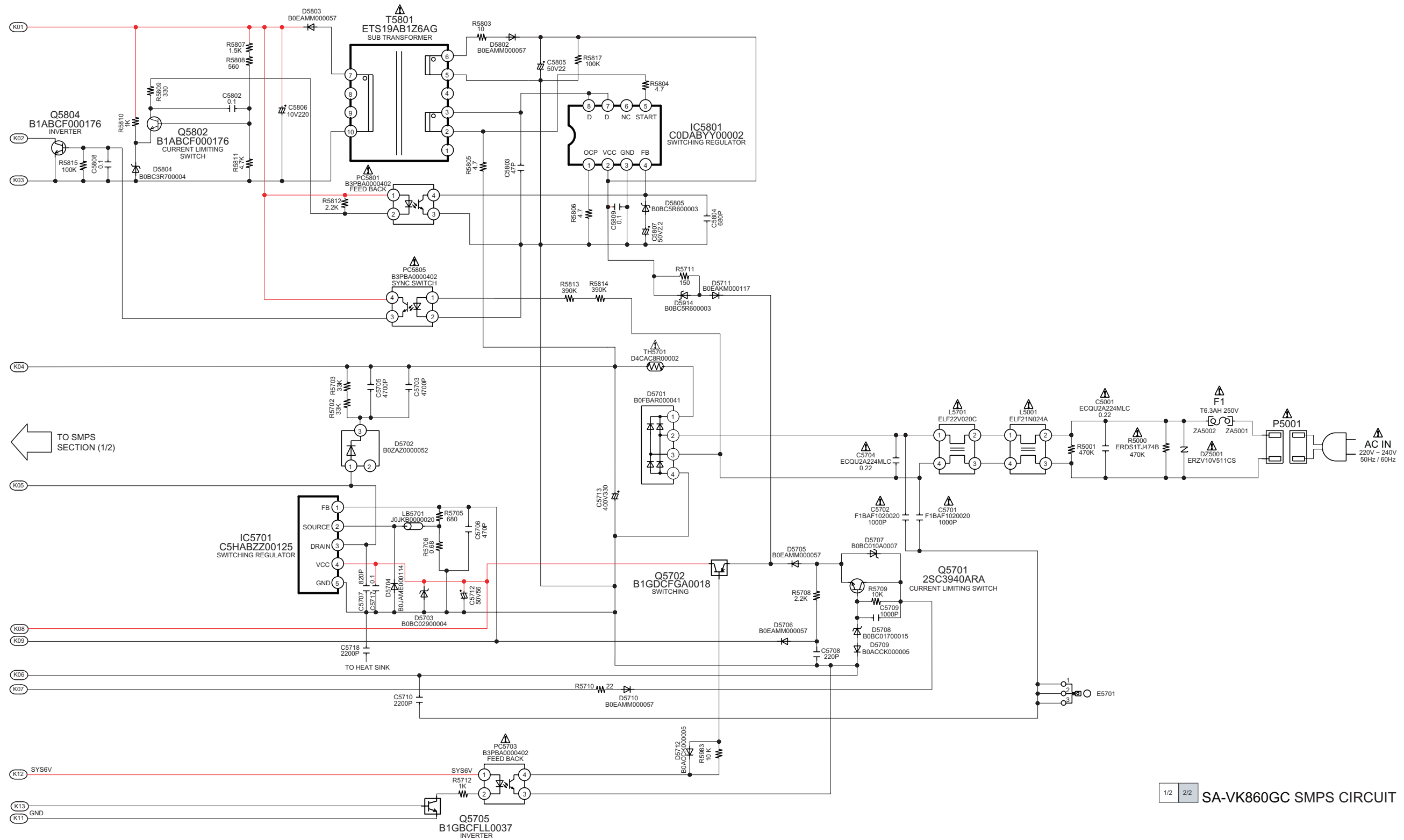
—: +B SIGNAL LINE —: -B SIGNAL LINE



SCHEMATIC DIAGRAM - 15

K SMPS CIRCUIT (FOR GC ONLY)

— : +B SIGNAL LINE — : -B SIGNAL LINE



1/2 2/2 SA-VK860GC SMPS CIRCUIT

K SMPS CIRCUIT (FOR GCS/GS ONLY)

—: +B SIGNAL LINE —: -B SIGNAL LINE



K SMPS CIRCUIT (FOR GCS/GS ONLY)

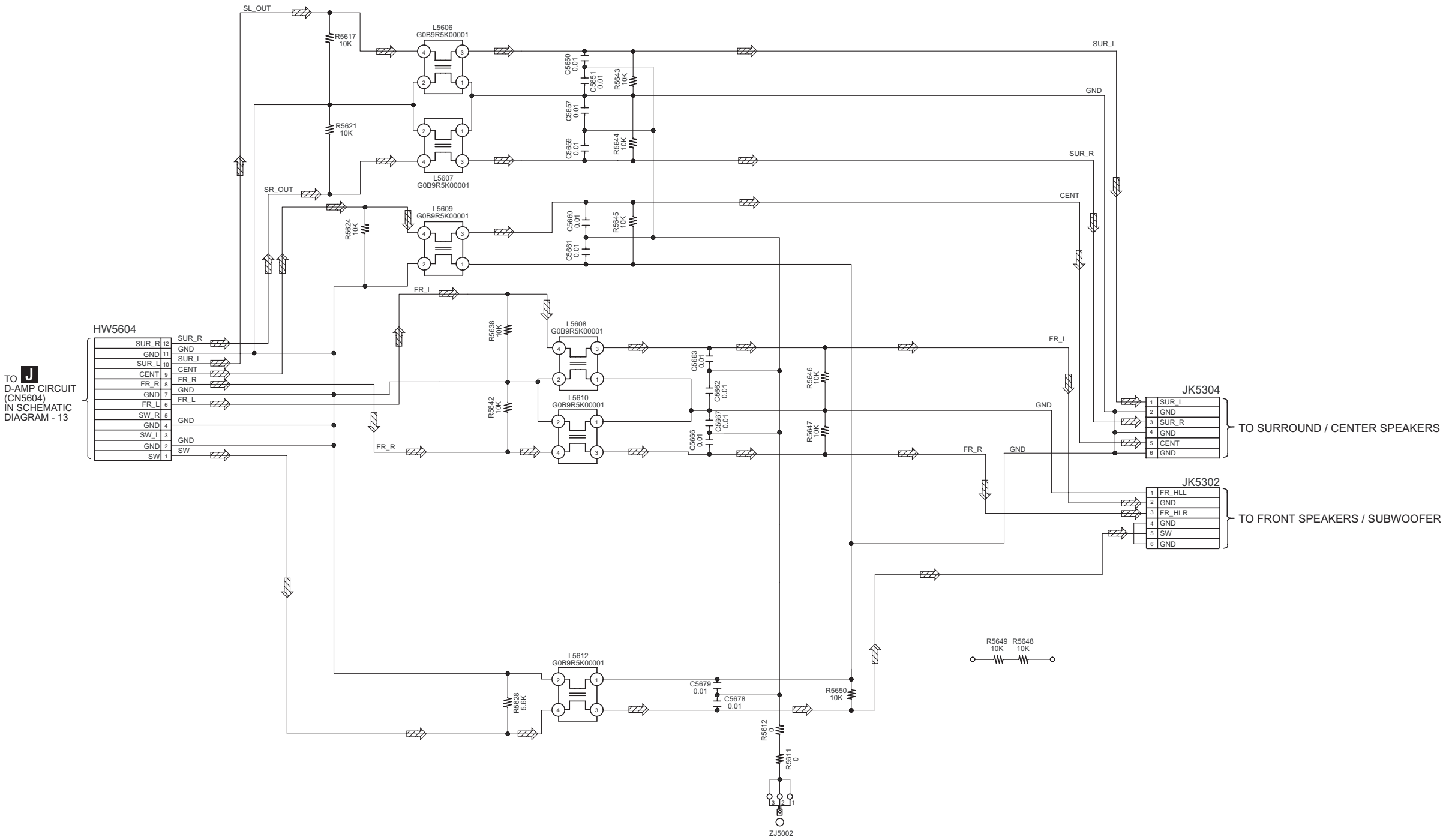


18.8. Speaker/Optical Pickup Unit Circuit

SCHEMATIC DIAGRAM - 18

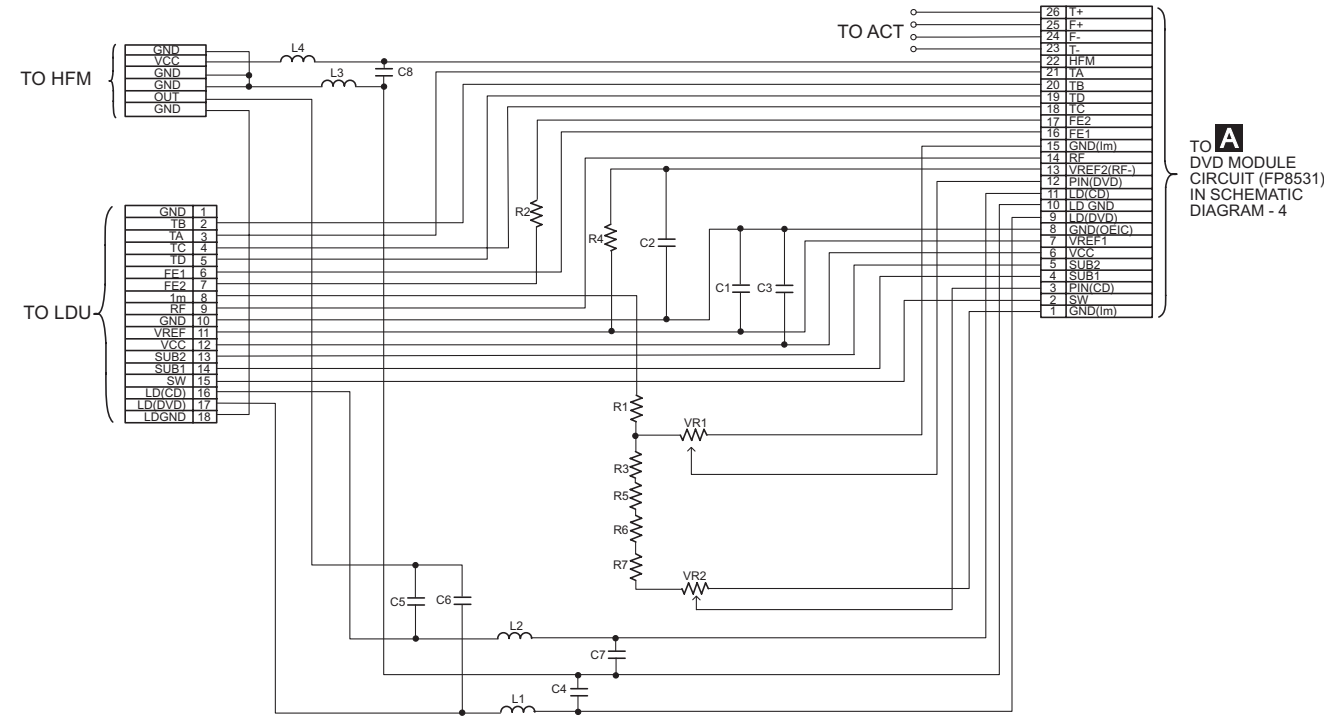
L SPEAKER CIRCUIT

— : +B SIGNAL LINE — : -B SIGNAL LINE ≡ : MAIN SIGNAL LINE



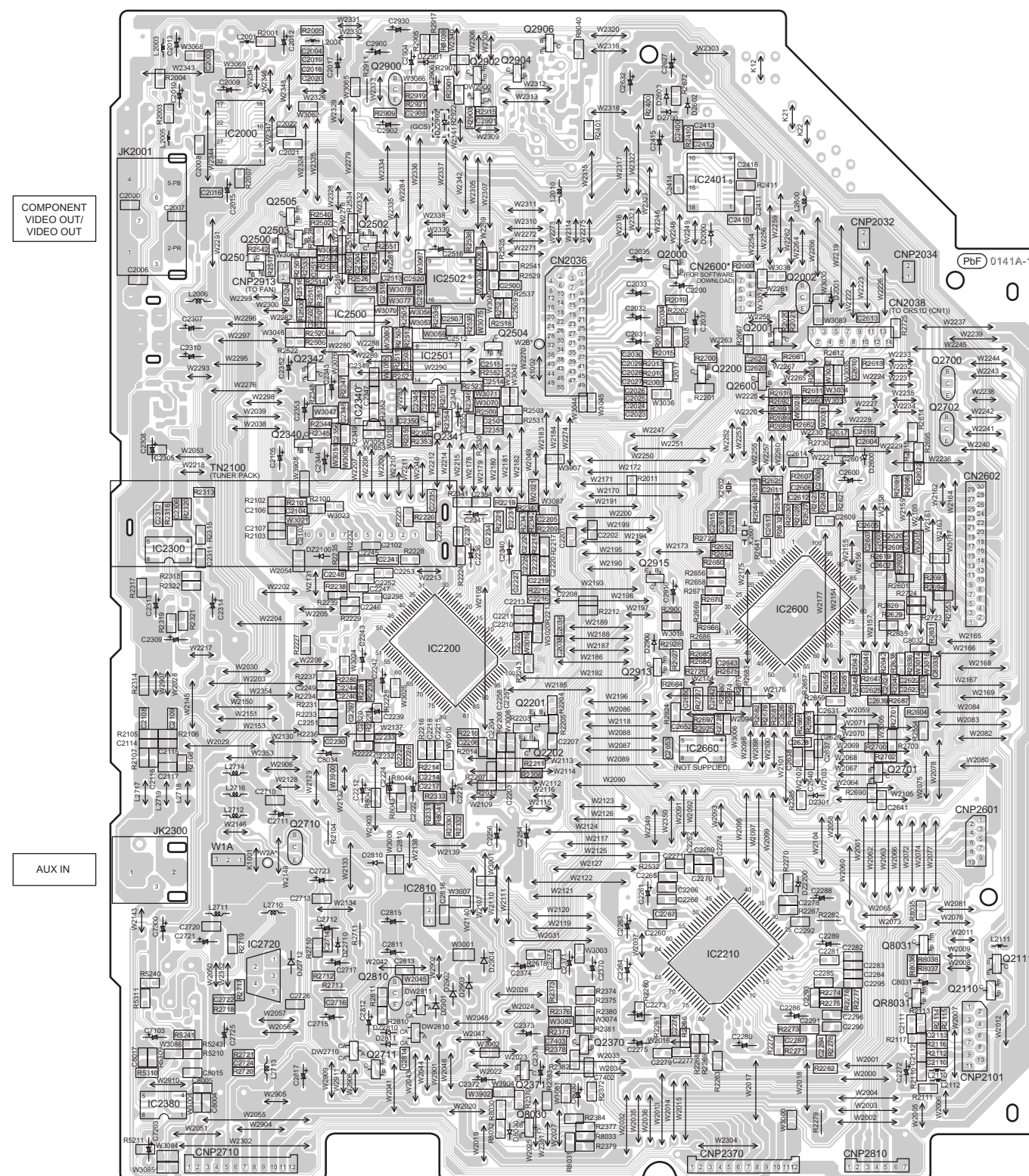
SCHEMATIC DIAGRAM - 19

 OPTICAL PICKUP UNIT CIRCUIT
(FOR REFERENCE ONLY)



19.2. Main P.C.B.

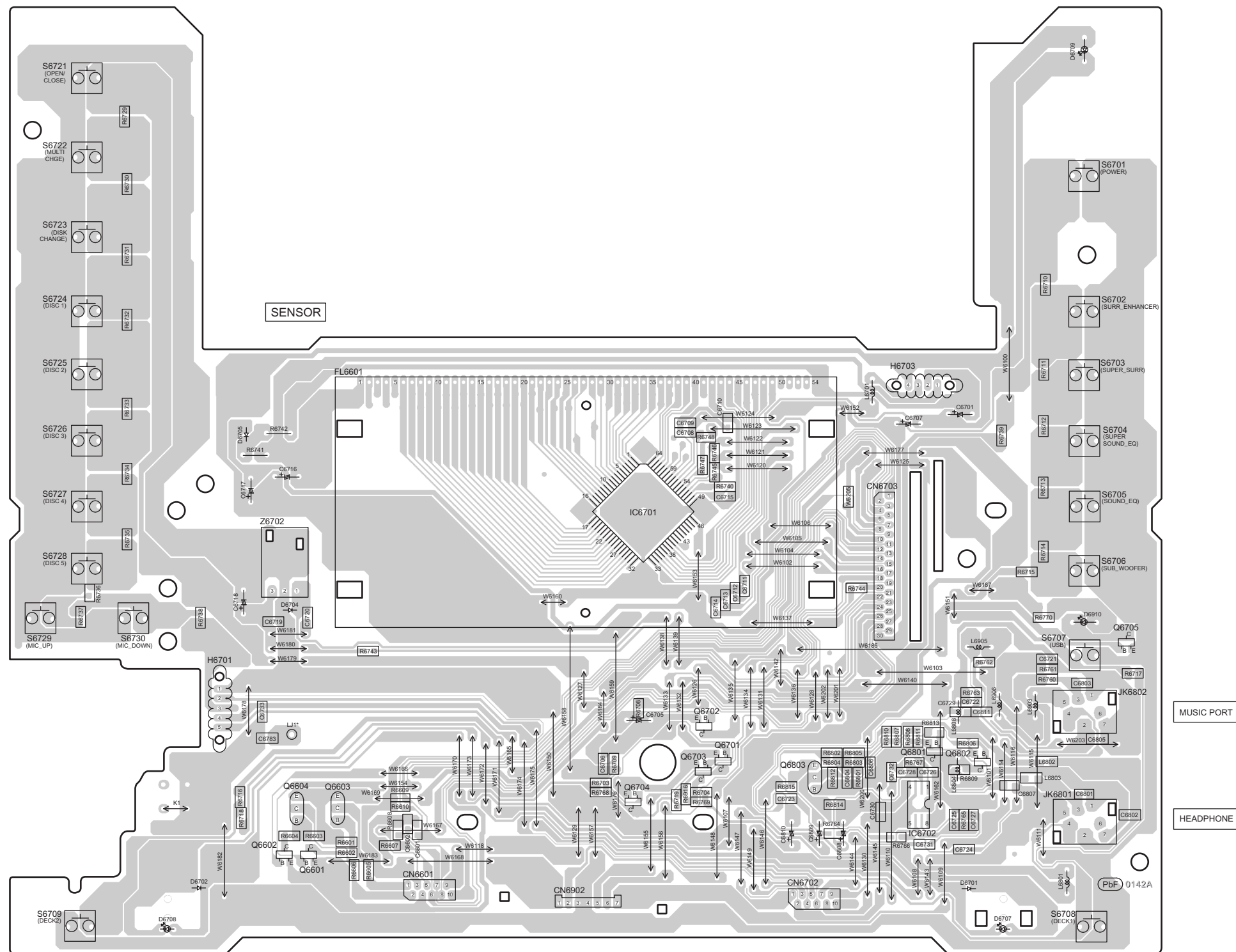
B MAIN P.C.B. (REPV0141E...GC/GS, REPV0141M...GCS)



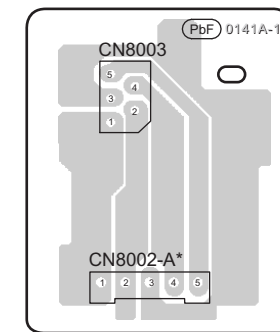
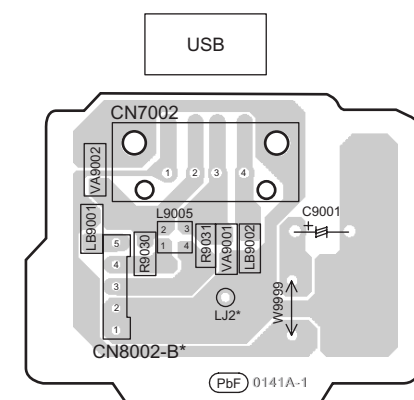
*FOR INDICATION ONLY

SA-VK860GC/GCS/GS
MAIN P.C.B.

19.3. Panel/USB Relay/USB P.C.B.

C PANEL P.C.B. (REPV0142A)

*FOR INDICATION ONLY

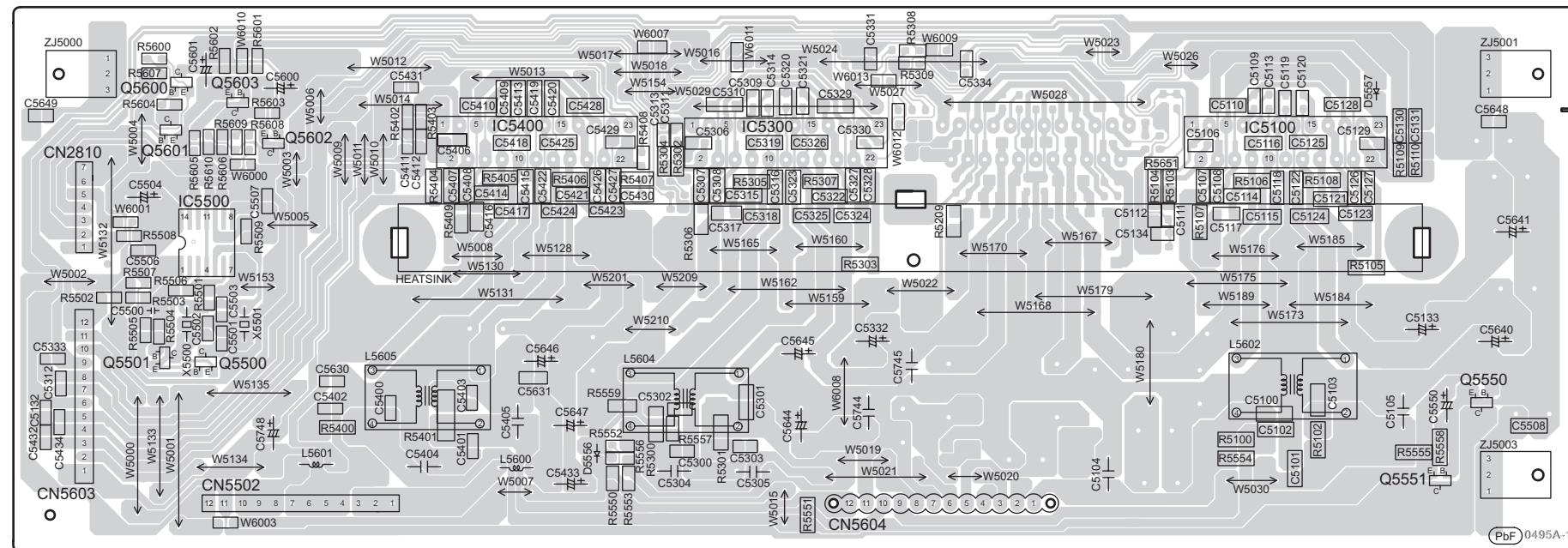
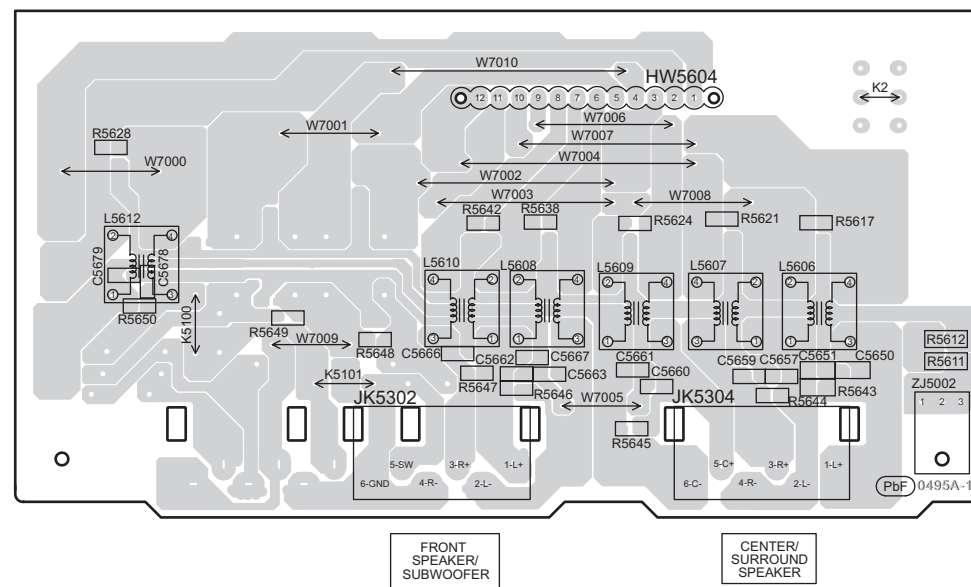
H USB RELAY P.C.B.
(REPV0141E...GC/GS)
(REPV0141M...GCS)**I** USB P.C.B.
(REPV0141E...GC/GS)
(REPV0141M...GCS)SA-VK860GC/GCS/GS
PANEL/USB RELAY/USB P.C.B.

The diagram illustrates the front panel layout of a VCR. Key components and their locations are as follows:

- Connectors:** S6711 (M_PORT), S6712 (TUNER), S6713 (DISPLAY), S6714 (DECK 1/2), S6715 (REC), S6716 (TAPE), S6717 (DVD/CD), S6718 (FF), S6719 (STOP), S6720 (REW).
- Resistors:** R6721, R6722, R6723, R6724, R6725, R6726, R6727, R6728, R6750.
- Capacitors:** C6701, C6702, C6703, C6704.
- Microcontroller:** VR6701.
- Display:** W6204.
- Volume Control:** W6164.
- Other Labels:** W6119, W6161, W6162, W6163, W6204, H6704.
- Model and Material:** PbF 0142A.

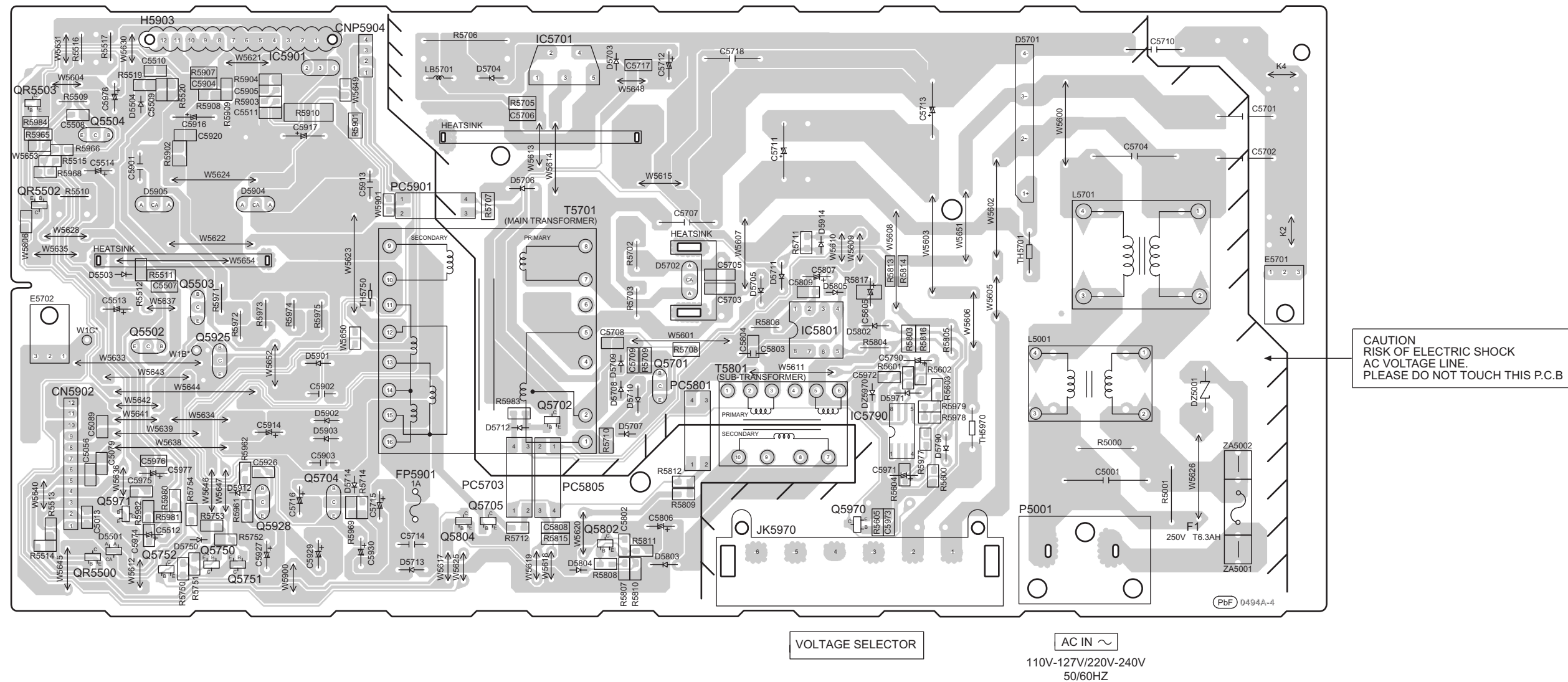
The schematic diagram illustrates the main board layout, featuring several integrated circuits (ICs) and their associated components. The components are distributed across the board, with labels indicating their specific functions and locations. The layout includes various resistors, capacitors, and other electronic components, all interconnected to form a functional circuit. The board is labeled with dimensions and part numbers, providing a detailed view of the hardware configuration.

19.5. D-Amp/Speaker P.C.B.

J D-AMP P.C.B. (REPV0144B)**L** SPEAKER P.C.B. (REPV0144B)

19.6. SMPS P.C.B.

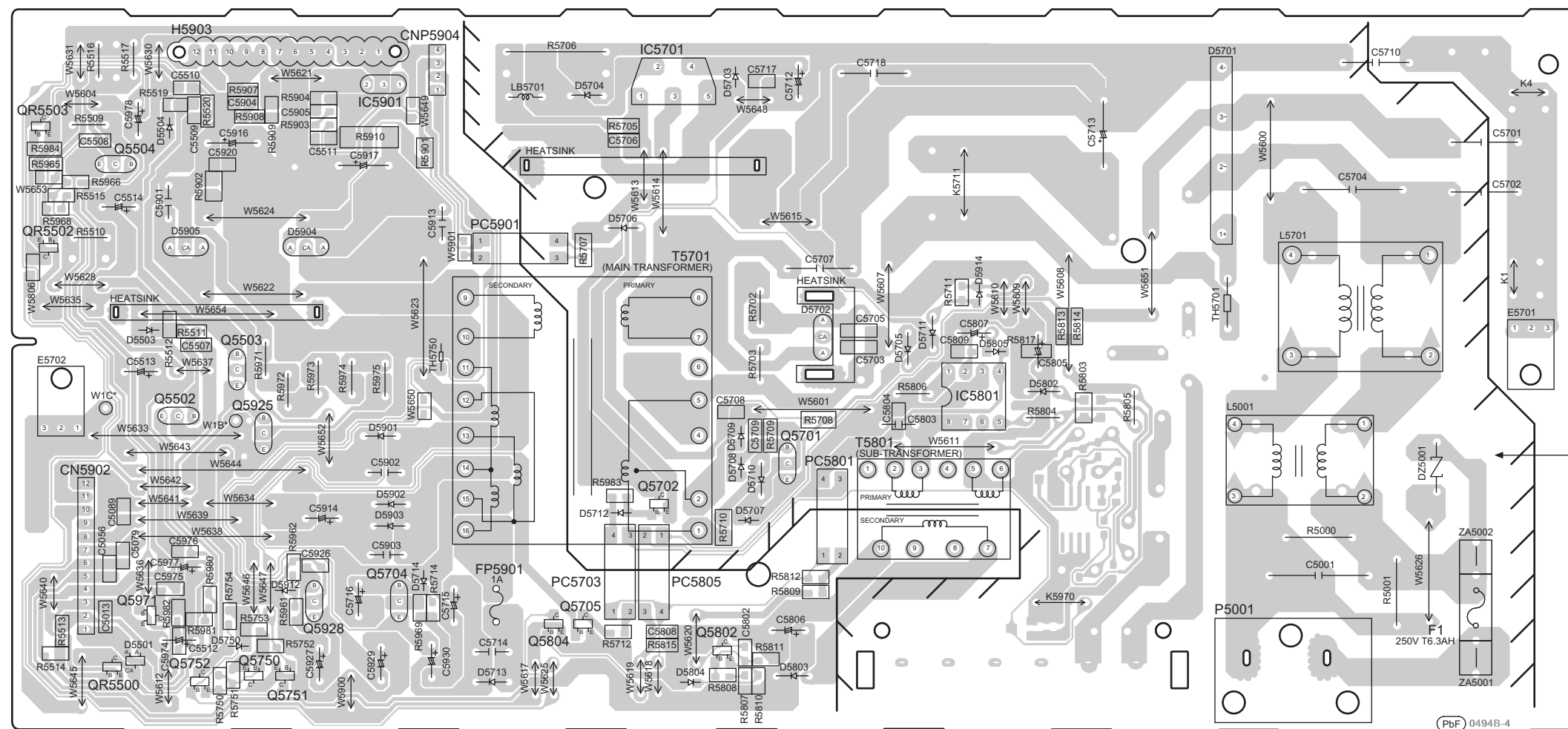
K SMPS P.C.B. (REPV0143C...GCS/GS)



* FOR INDICATION ONLY

SA-VK860GCS/GS
SMPS P.C.B.

K SMPS P.C.B. (REPV0143D...GC)



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

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

* FOR INDICATION ONLY

SA-VK860GC
SMPS P.C.B.

20 Basic Troubleshooting Guide

20.1. Basic Troubleshooting Guide for Traverse Unit (DVD Module P.C.B)

Problems	Checking Points	Checking Components
1) Distorted picture or abnormal sound is heard during the initialization	a) Check SDRAM address, data bus, CLK and other control signals waveform	IC8051
	b) Check video signals	LB8301, R8321, R8322, LB8302, R8325, R8326
	c) Check audio DAC circuitry * Compare the above with OK condition HDMI module P.C.B.	IC8421 *Check for solder short and/or component missing/damaged
2) No TOC / Long TOC	a) Check motor driver circuitry (+5V)	IC8251 Pin 8, 21
	b) Check laser drive circuitry (Voltages & current)	Q8551, Q8552, Q8561, Q8562
	c) Check LSI IC connection to motor drive circuitry *Compare the above with OK condition HDMI Module P.C.B.	IC8001 Pin 144, 145 * Check for solder short and/or component missing/damaged
3) Disc not spinning 4) Traverse not moving 5) Traverse and spindle abnormal movement	a) Check connection from HDMI Module to Traverse unit	FP8251
	b) Check motor driver circuitry on the voltages and control signals *Compare the above with OK condition HDMI Module P.C.B.	IC8251 *Check for solder short and/or component damaged
6) Cannot read the disc but spindle motor is spinning - Cannot read CD/DVD	a) Check laser drive circuitry (voltages and current) - Check CD Laser Drive - Check DVD Laser Drive * Check voltages and LD current and compare with OK condition HDMI Module P.C.B.	Q8551, Q8552, LB8531 (For DVD Laser Drive current) Q8561, Q8562, LB8561 (For CD Laser Drive current)
7) Block Noise during play	a) Check SDRAM address and data bus signal	IC8051
8) Jitter out of specification	a) Check LD current b) Check OPU (Change to other unit and confirmed operating condition)	OPU Unit (Traverse unit), FPC connection
9) Cannot read data from USB	a) Check USB connector & FFC b) Check LSI O/P c) Check IC supply (+5V)	FP9001 IC8001 Pin 144, 146 IC9005 Pin 2, 3

21 Terminal Function of IC

21.1. IC2600 (C2CBYY000470): System Control IC

Pin No.	Signal Name	I/O	Function
1	ST_SW	I	Stock Switch for CRS1
2	CCW	O	CRS1 Motor CCW
3	CW	O	CRS1 Motor CW
4	HOME	I	HOME Switch for CRS1
5	CAM_SENSOR	I	Close Switch for CRS1
6	F_HOP	O	F_HOP for Digital Amplifier
7	WIDE_SURR	O	Wide Surround
8	BYTE	I	BYTE
9	CNVSS/EFP_CN VSS	-	FLASH MODE TERMINAL(Connect to Ground) via 10KΩ
10	XCIN	-	SUB CLOCK INPUT (32.768 kHz)
11	XCOUT	-	SUB CLOCK OUTPUT (32.768 kHz)
12	RESET/ERP_RE SET	I	SYSTEM RESET INPUT (ACTIVE L)
13	XOUT	-	Main Clock Output (10 MHZ)
14	VSS	-	Ground (0V)
15	XIN	-	Main Clock Input (10 MHZ)
16	VCC	-	POWER SUPPLY (5V)
17	NMI	-	Connect to VCC, External Interrupt I/P
18	RMT	I	Remocon Input
19	SYNC	I	AC Failure Detect
20	PLUNGER	O	PLUNGER for CRS1
21	PLAY_SW	I	Play Switch for CRS1
22	UD_SENSOR	I	UD Sensor for CRS1
23	BOTTOM_SW	I	Bottom Switch for CRS1
24	AM_BP	O	AM Beat Proof
25	VCC_CONTROL	O	POWER SUPPLY CONTROL
26	PLL_CE	O	PLL Chip Select
27	TU_SD	I	Signal Detect Input from TUNER
28	TU_ST/DO	I	TUNER IF Data/Stereo Input
29	PLL_DAT	O	PLL DATA-DI Input of TUNER
30	PLL_CLK	O	PLL TUNER Clock Signal
31	EFP_TXD1	O	Transmit signal for flash micro-p
32	EFP_RXD1	O	Receive signal for flash micro-p
33	EFP_SCLK	O	Clock signal for flash micro-p
34	EFP_BUSY	O	Busy signal for flash micro-p
35	DVD_CMD	O	CMD signal for the DVD Module
36	DVD_STA	I	STATUS signal from the DVD Module
37	DVD_CLK	I	CLK signal for the DVD Module
38	EEP_DAT	O/I	DATA Signal for the EEPROM
39	EEP_CLK	O	CLOCK Signal for the EEPROM
40	EEP_CS	O	CHIP SELECT Signal for the EEPROM
41	EFP_EPM	O	For Flash
42	FLD_RST	O	Reset Signal for the FL Driver
43	FLD_CS	O	Latch Signal for the FL Driver
44	FLD_DAT	O	Data input for the FL Driver
45	FLD_CLK	O	Clock Signal for the FL Driver
46	EFP_CE	O	For Flash
47	WIDE1	O	S. Video Output Control
48	ASP_DAT	O	DATA signal for 6ch ASP
49	ASP_CLK	O	CLOCK signal for 6ch ASP
50	DVD_MUTE	I	Signal from DVD module control mute circuit
51	NC	-	No Connection
52	KA_CS	O	Karaoke Latch
53	KA_DAT	O	Karaoke Data
54	KA_CLK	O	Karaoke Clock
55	MUTE_L	O	Mute control of Line Out
56	MUTE_W	O	MUTE Wireless (VK750 PANAMEX)
57	MUTE_HP	O	Head Phone Mute signal
58	MUTE_C	O	Center Control Mute Signal

Pin No.	Signal Name	I/O	Function
59	MUTE_S	O	Surround Control Mute Signal
60	MUTE_A	O	Front Control Mute Signal
61	MUTE_DA	O	Digital Amplifier Mute Signal
62	VCC	-	POWER SUPPLY (5V)
63	NC	-	No Connection
64	VSS	-	Ground (0V)
65	SP_A	O	Control Speana IC's Port A
66	SP_B	O	Control Speana IC's Port B
67	SP_C	O	Control Speana IC's Port C
68	DVD_PCONT	O	Control Signal for the Power for the DVD MODULE
69	DC_DET	I	Signal from the DC Detection circuit
70	PCONT	O	Control Signal for the Power Control Relay
71	REC	O	Deck Recording Control (Recording = L)
72	HALF1	I	Half switch signal from DECK1
73	MODE1	I	Mode switch signal from DECK1
74	MTR	O	Deck Motor Control (L=OFF; H=ON)
75	JOG_B	I	Signal B from Volume JOG
76	JOG_A	I	Signal A from Volume JOG
77	NC	-	No Connection
78	DECK1_H	O	High when Deck1 playback head is selected
79	PLUNGER1	O	Deck1 Plunger Control (L=OFF; H=ON)
80	PLUNGER2	O	Deck2 Plunger Control (L=OFF; H=ON)
81	MODEL_CS	I	To select Model when power on (VK760/VK860=H; VK960=L)
82	LED	-	USB LED
83	PAN_CS	I	Panamex CS (H:Panamex, L:VK950/750/850)
84	LED2	O	LED Control2
85	LED1	O	LED Control1
86	REG1	I	Tuner Region Setting 1
87	REG2	I	Tuner Region Setting 2
88	REG3	I	Tuner Region Setting 3
89	PHOTO_1	AD(I)	Rotation Detection Signal (Deck 1)
90	PHOTO_2	AD(I)	Rotation Detection Signal (Deck 2)
91	DECK2_AD	AD(I)	AD input from DECK2 (RINHf/MODE2/RINHr/HALF2)
92	KEY1	AD(I)	Key 1 line input
93	KEY2	AD(I)	Key 2 line input
94	KEY3	AD(I)	Key 3 line input
95	SPE_AD	AD(I)	Signal from Speana IC's OUT port
96	AVSS	-	ANALOG POWER SUPPLY INPUT
97	DVD_CS	AD(I)	DVD Region Setting
98	VREF	-	REFERENCE VOLTAGE INPUT
99	AVCC	-	ANALOG POWER SUPPLY INPUT
100	OPEN_SW	I	Open Switch for CRS1

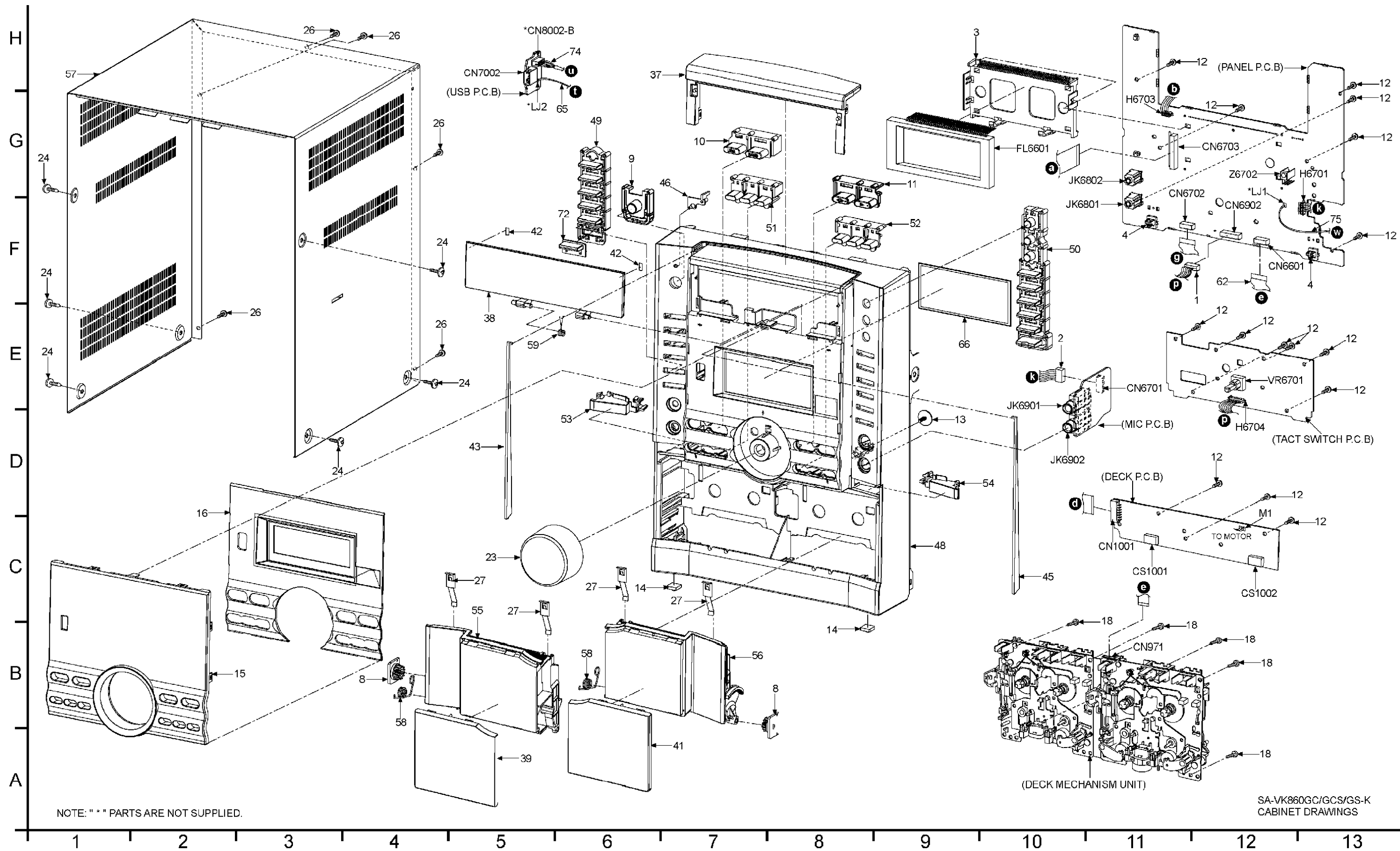
21.2. IC6701 (C0HBB0000064): FL Driver IC

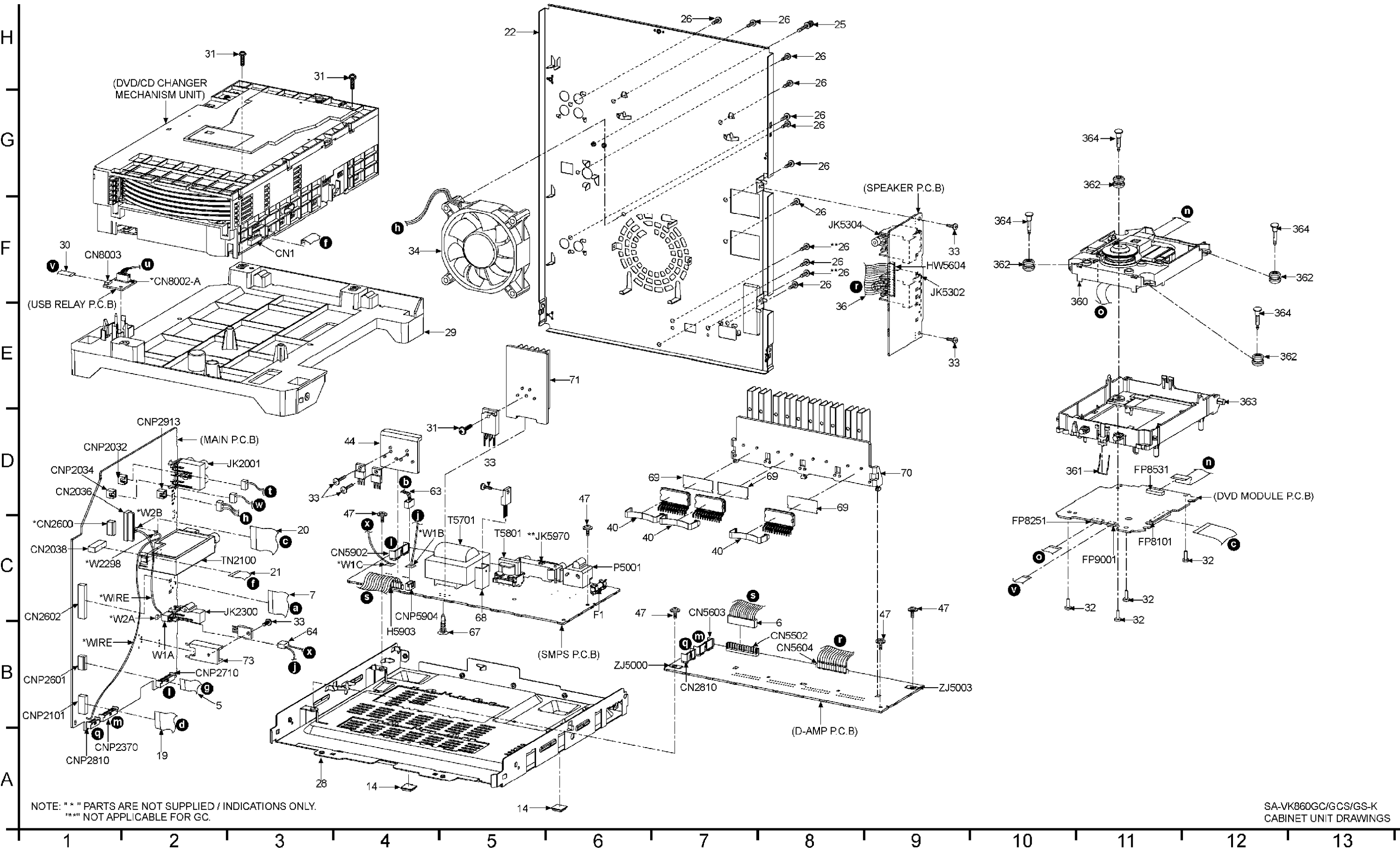
Pin No.	Terminal Name	I/O	Function
1	SG5	O	Segment driver output pin 5
2	SG6	O	Segment driver output pin 6
3	SG7	O	Segment driver output pin 7
4	SG8	O	Segment driver output pin 8
5	SG9	O	Segment driver output pin 9
6	SG10	O	Segment driver output pin 10
7	SG11	O	Segment driver output pin 11
8	SG12	O	Segment driver output pin 12
9	SG13	O	Segment driver output pin 13
10	SG14	O	Segment driver output pin 14
11	SG15	O	Segment driver output pin 15
12	SG16	O	Segment driver output pin 16
13	SG17	O	Segment driver output pin 17
14	SG18	O	Segment driver output pin 18
15	SG19	O	Segment driver output pin 19
16	SG20	O	Segment driver output pin 20
17	SG21	O	Segment driver output pin 21
18	SG22	O	Segment driver output pin 22
19	SG23	O	Segment driver output pin 23
20	SG24	O	Segment driver output pin 24
21	SG25	O	Segment driver output pin 25
22	SG26	O	Segment driver output pin 26
23	SG27	O	Segment driver output pin 27
24	SG28	O	Segment driver output pin 28
25	SG29	O	Segment driver output pin 29
26	SG30	O	Segment driver output pin 30
27	SG31	O	Segment driver output pin 31
28	SG32	O	Segment driver output pin 32
29	SG33	O	Segment driver output pin 33
30	SG34	O	Segment driver output pin 34
31	SG35	O	Segment driver output pin 35
32	GR1	O	Grid driver output pin 1
33	GR2	O	Grid driver output pin 2
34	GR3	O	Grid driver output pin 3
35	GR4	O	Grid driver output pin 4
36	GR5	O	Grid driver output pin 5
37	GR6	O	Grid driver output pin 6
38	GR7	O	Grid driver output pin 7
39	GR8	O	Grid driver output pin 8
40	GR9	O	Grid driver output pin 9
41	GR10	O	Grid driver output pin 10
42	GR11	O	Grid driver output pin 11
43	GR12	O	Grid driver output pin 12
44	GR13	O	Grid driver output pin 13
45	GR14	O	Grid driver output pin 14
46	GR15	O	Grid driver output pin 15
47	GR16	O	Grid driver output pin 16
48	VEE	-	Power supply
49	VSS	-	Ground pin
50	OSCI	I	Oscillator input pin
51	OSCO	O	Oscillator output pin
52	RSTB	I	Reset input pin. When this pin is set to "LOW", all functions are initialized.
53	CSB	I	Chip select input pin. When this pin is set to "HIGH LEVEL", the serial data transfer is disabled
54	CLKB	I	Shift clock input pin.
			The serial data is shifted at the rising edge of CLKB.
55	DIN	I	Serial data input pin
56	VDD	-	Positive power supply
57	P1	O	General purpose output pin
58	P2	O	General purpose output pin

Pin No.	Terminal Name	I/O	Function
59	AD2	O	Segment driver output pin
60	AD1	O	Segment driver output pin
61	SG1	O	Segment driver output pin 1
62	SG2	O	Segment driver output pin 2
63	SG3	O	Segment driver output pin 3
64	SG4	O	Segment driver output pin 4

22 Exploded Views

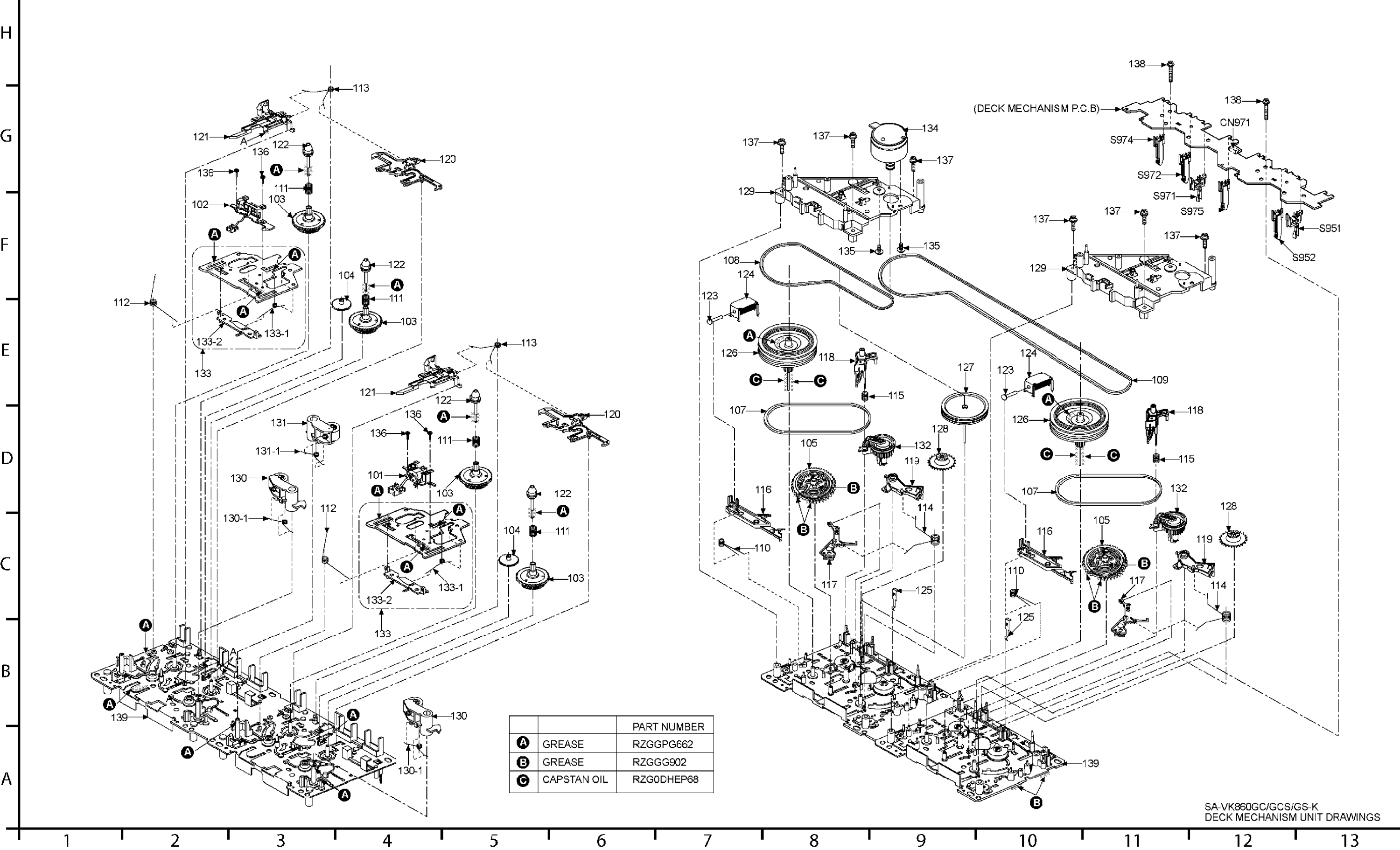
22.1. Cabinet Parts Location



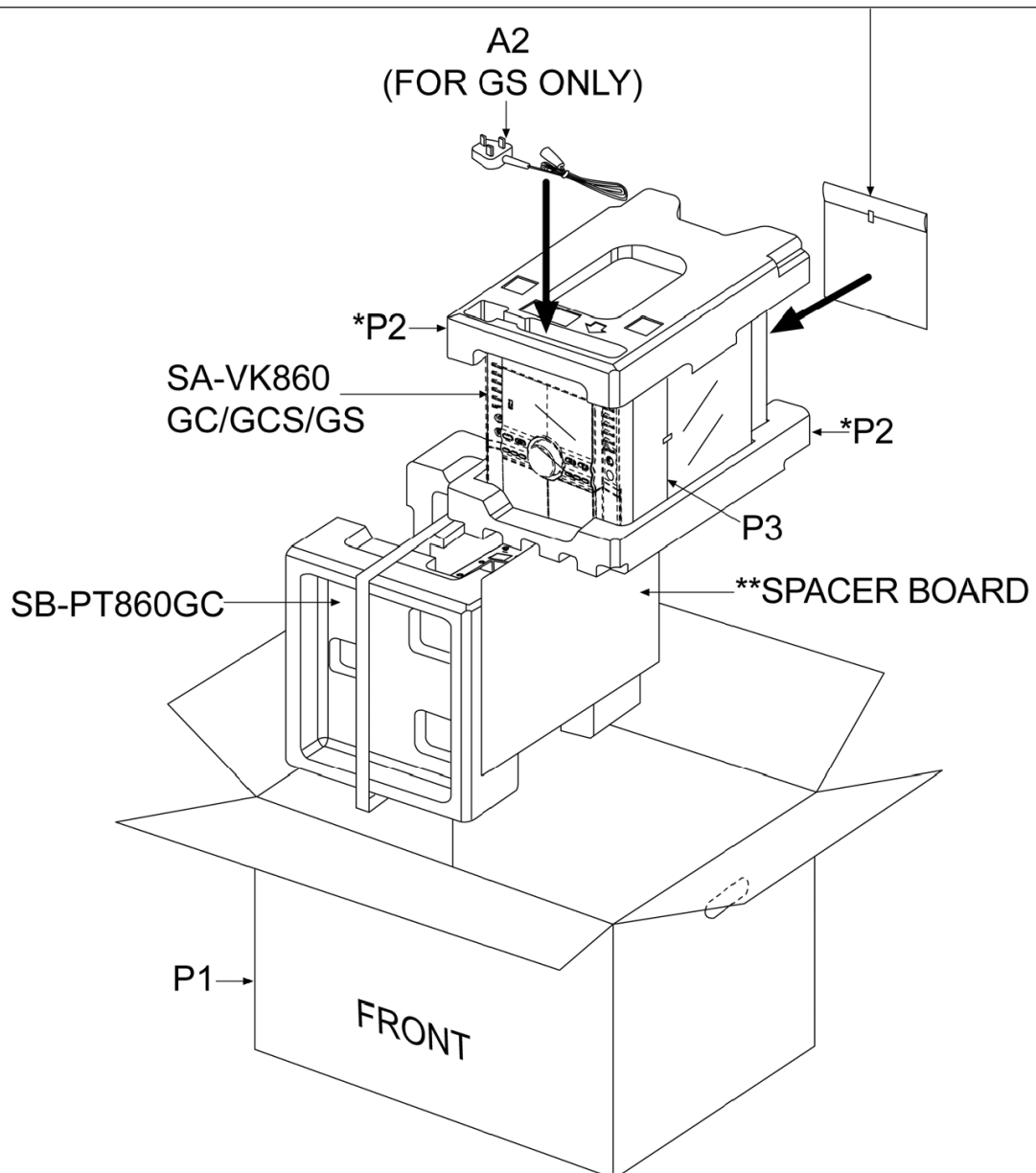
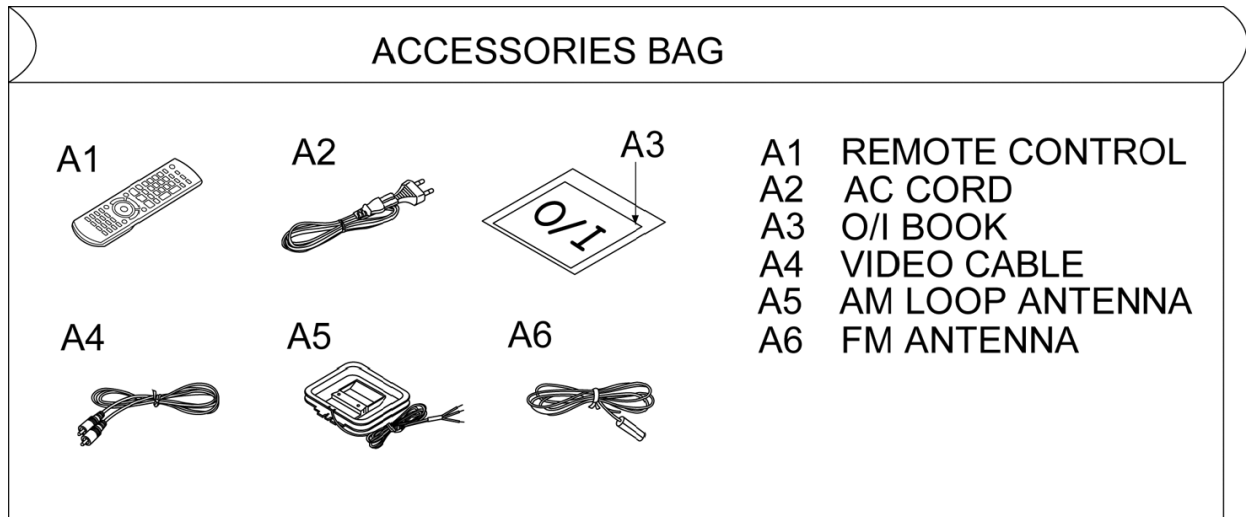


SA-VK860GC/GCS/GS-K
CABINET UNIT DRAWINGS

22.2. Deck Mechanism Unit Parts Location (RAA4901-S)



22.3. Packaging (SF-VK860)



*P2 — POLYFOAM TOP
 — POLYFOAM BOTTOM

NOTE: "***" PARTS ARE NOT SUPPLIED.

SF-VK860GC/GCS/GS-K
 PACKAGING DRAWINGS

23 Replacement Parts List

Notes:

- Important safety notice:

Components identified by $\triangle$ mark have special characteristics important for safety.

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

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

- The parenthesized indications in the Remarks columns specify the areas or colour. (Refer to the cover page for area or colour)

Parts without these indications can be used for all areas.

- Warning: This product uses a laser diode. Refer to caution statements on "Precaution of Laser Diode".

- Capacitor values are in microfarads (μF) unless specified otherwise, P= Pico-farads (pF), F= Farads.

- Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM).

- The marking (RTL) indicates that the Retention Time is limited for this items. 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 a availability is dependent 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.

- [M] markings in the Remarks columns indicates parts supplied by **PAVCSG**.

- [SPG] markings in the Remarks columns indicates parts that are supplied by **PAVC**.

- Reference for O/I book languages are as follows:

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

23.1. Component Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	REXX0505	7P FLAT WIRE (PAN-SUBPAN)	[M]
2	REXX0528-1	5P FLAT WIRE (PAN-MIC)	[M]
3	RMNX0189-1	FL HOLDER	[M]
4	RMNX0190	LED HOLDER	[M]
5	REEX0740	10P FFC WIRE (MN-PAN)	[M]
6	REXX0530	12P FLAT WIRE (SMPS-DAMP)	[M]
7	REEX0744	30P FFC WIRE (MN-PAN)	[M]
8	RXGX0002	DAMPER GEAR	[M]
9	RGUX0679-1S	POWER BUTTON	[M]
10	RGUX0682-1S	FUNCTION BUTTON L	[M]
11	RGUX0683-1S	FUNCTION BUTTON R	[M]
12	RHD26046-L	SCREW	[M]
13	RHD30008	WASHER HEAD SCREW	[M]
14	RKA0072-KJ	LEG CUSHION	[M]
15	RKWX0073-H	FL WINDOW	[M]
16	RMVX0094C-K	FL WINDOW (BACKGROUND)	[M]
18	XTV3+10GFJ-M	SCREW	[M]
19	REEX0568	11P FFC WIRE (DK-MN)	[M]
20	REEX0654	50P FFC WIRE (MN-DVD)	[M]
21	REEX0747	14P FFC WIRE (MN-CDLD)	[M]
22	RGRX0059U-A	REAR PANEL	[M]GC
22	RGRX0059V-A	REAR PANEL	[M]GS
22	RGRX0059V-B	REAR PANEL	[M]GCS
23	RGWX0072-S	VOLUME KNOB	[M]
24	RHD30007-K2J	SCREW	[M]
25	RHD30070	EARTH TERMINAL SCREW	[M]
26	RHD30119-S	SCREW	[M]
27	RUS757ZAA	CASS HALF SPRING	[M]
28	RMKX0120-1	BOTTOM CHASSIS	[M]
29	RMKX0119-1	DVD CHASSIS	[M]
30	REEV0187	5P FFC WIRE (USB-CDLD)	[M]
31	XTW3+12TFJ	SCREW	[M]
32	XTV2+6GFJ	SCREW	[M]
33	XTB3+8JFJ	SCREW	[M]
34	L6FALEFH0023	DC FAN	[M]
36	REXV0101	12P FLAT WIRE (DAMP-SPK)	[M]
37	RGKX0367A-K	TOP ORNAMENT	[M]
38	RGKX0368N-K	CD LID	[M]
39	RGKX0369-1K	CASS LID ORNAMENT L	[M]
40	RMX00035	HEATSINK CLIP A	[M]
41	RGKX0370-K	CASS LID ORNAMENT R	[M]
42	RMG0547-K	CUSHION	[M]
43	RGLX0136-Q	LIGHTING PIECE L	[M]
44	RXXX0080	SUB HEAT SINK UNIT	[M]
45	RGLX0137-Q	LIGHTING PIECE R	[M]
46	RGLX0138-Q	POWER LIGHT PIECE	[M]
47	XTWS3+6TFJ	SCREW	[M]
48	RGPX0256F-K	FRONT PANEL	[M]
49	RGUV0181-K	USB SOUND BUTTON	[M]
50	RGUX0681-K	CD CONTROL BUTTON	[M]
51	RGUX0684-K1	CONTROL BUTTON L	[M]
52	RGUX0685-K1	CONTROL BUTTON R	[M]
53	RGUX0686-K	DECK BUTTON L	[M]
54	RGUX0687-K	DECK BUTTON R	[M]
55	RKFX0133-K	CASS.LID L	[M]
56	RKFX0134-K	CASS.LID R	[M]
57	RKMX0130A-K1J	TOP CABINET (BENT)	[M]
58	RMBX0036	CASS OPEN SPRING	[M]
59	RMBX0049	DVD LID SPRING	[M]
62	REEX0739	10P FFC WIRE (PAN-DKMECH)	[M]
63	REXX0529-1	4P FLAT WIRE (PAN-SMPS)	[M]
64	REXX0544	2P FLAT WIRE (MN-SMPS)	[M]
65	REXV0098	1_2P WIRE (USB-MN)	[M]
66	RKWX0264	FILTER	[M]
67	RMNX0019	LOCKING SUPPORT	[M]
68	RMV0285	SMALL HEAT SINK	[M]
69	RMZX0036	IC INSULATOR A	[M]
70	RXXV0055	HEAT SINK POWER UNIT	[M]
71	RXXX0079-1	SUB HEAT SINK UNIT	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
72	RGLV0075-Q	USB LIGHT PIECE	[M]
73	TUC25628	SMALL HEATSINK	[M]
74	REXV0087	5P WIRE (USB-USBRLY)	[M]
75	REXV0100	1_2P WIRE (PAN-MN)	[M]
		CASSETTE DECK	
101	RED0064-2	R/P HEAD BLOCK UNIT	[M]
102	RED0070-1	P/B HEAD BLOCK UNIT	[M]
103	RDG0300	REEL BASE GEAR	[M]
104	RDG0301	WINDING RELAY GEAR	[M]
105	RDK0026-4	MAIN GEAR	[M]
107	RDV0033-4	WINDING BELT	[M]
108	RDV0034-2	CAPSTAN BELT A	[M]
109	RDV0071-2	CAPSTAN BELT B	[M]
110	RMB0312	TRIGGER LEVER SPRING	[M]
111	RMB0400	REEL SPRING	[M]
112	RMB0403	HEAD PANEL SPRING	[M]
113	RMB0404	BRAKE ROD SPRING	[M]
114	RMB0406-5	FR LEVER SPRING	[M]
115	RMB0408	THRUST SPRING	[M]
116	RML0370-4	TRIGGER LEVER	[M]
117	RML0371	FR LEVER	[M]
118	RML0372-2	WINDING LEVER	[M]
119	RML0374-2	EJECT LEVER	[M]
120	RMM0131-1	BRAKE ROD	[M]
121	RMM0133-1	EJECT ROD	[M]
122	RMQ0519	REEL HUB	[M]
123	RMS0398-1	MOVING CORE	[M]
124	RSJ0003	SOLENOID ASS'Y	[M]
125	RMC0061	PACK SPRING	[M]
126	RXF0061-1	FLYWHEEL F ASS'Y	[M]
127	RXF0062-1	FLYWHEEL R ASS'Y	[M]
128	RXG0040	FF RELAY GEAR ASS'Y	[M]
129	RMK0283A-2	SUB-CHASSIS	[M]
130	RXL0124	PINCH ROLLER F ASS'Y	[M]
130-1	RMB0401	PINCH ARM SPRING F	[M]
131	RXL0125	PINCH ROLLER R ASS'Y	[M]
131-1	RMB0402	PINCH ARM SPRING R	[M]
132	RXL0126	WINDING ARM ASS'Y	[M]
133	RXQ0412-3	HEAD PANEL ASS'Y	[M]
133-1	RMB0405-1	FR ROD SPRING	[M]
133-2	RMM0132-1	FR ROD	[M]
134	REM0121	CAP MOTOR ASS'Y	[M]
135	RHD26022-1	MOTOR SCREW	[M]
136	XTW2+5LFJ	HEAD BLOCK UNIT SCREW	[M]
137	XTW26+10SFJ	SUB-CHASSIS SCREW	[M]
138	XYC2+JF17FJ	PCB EARTH SCREW	[M]
139	RFKJAA4901-S	CHASSIS ASS'Y	[M]
		TRAVERSE DECK	
360	RAE2023Z-S	TRAVERSE UNIT	[M] △
361	RMEX0041	MIDDLE CHASSIS SPRING	[M]
362	RMG0598-A	FLOATING RUBBER	[M]
363	RMRX0066	MIDDLE CHASSIS	[M]
364	RMS0789	FIXED PIN	[M]
		PRINTED CIRCUIT BOARDS	
	REPV0141E	MAIN/USB RELAY/USB P.C.B.	[M] (RTL)GC/GS
	REPV0141M	MAIN/USB RELAY/USB P.C.B.	[M] (RTL)GC/S
	REPV0142A	PANEL/TACT SWITCH/MIC/DECK P.C.B.	[M] (RTL)
	REPV0144B	D-AMP/SPEAKER P.C.B.	[M] (RTL)
	REPV0143C	SMPS P.C.B.	[M] (RTL)GC/S/GS
	REPV0143D	SMPS P.C.B.	[M] (RTL)GC

Ref. No.	Part No.	Part Name & Description	Remarks
	REPX0321B	DECK MECHANISM P.C.B.	[M] (RTL)
	REPX0562H	DVD MODULE P.C.B.	[M] (RTL)GC /GS
	REPX0562J	DVD MODULE P.C.B.	[M] (RTL)GC S
		INTEGRATED CIRCUITS	
IC951	CNB13030R2AU	IC PHOTO INTERRUPTOR	[M]
IC971	CNB13030R2AU	IC PHOTO INTERRUPTOR	[M]
IC1001	AN7348S-E1	IC P.B EQ/REC AMP/ALC/TPS AMP	[M]
IC1004	C1AA00000612	IC R/P SELECT	[M]
IC2000	C9ZB00000461	IC VIDEO BUFFER	[M]
IC2200	C1BB00001098	IC AUDIO SIGNAL PROCESSOR	[M]
IC2210	C1BB00001012	IC KARAOKE PROCESSOR	[M]
IC2300	C0ABBB000230	IC KARAOKE AMP	[M]
IC2340	C0AABB000125	IC HEADPHONE AMP	[M]
IC2380	C0ABBB000230	IC OP-AMP	[M]
IC2401	C1BB00000086	IC SPECTRUM ANALYZER	[M]
IC2500	C0ABCB000052	IC QUAD OP-AMP	[M]
IC2501	C0ABCB000052	IC QUAD OP-AMP	[M]
IC2502	C0JBAR000326	IC WIDE SURROUND SWITCH	[M]
IC2600	C2CBYY000470	IC MICROPROCESSOR	[M]
IC2720	C0DAAMH00012	IC SWITCHING REGULATOR	[M]
IC2810	C0CAAKG00013	IC REGULATOR	[M]
IC5100	C1BA00000487	IC AUDIO DIGITAL POWER AMP	[M]
IC5300	C1BA00000487	IC AUDIO DIGITAL POWER AMP	[M]
IC5400	C1BA00000487	IC AUDIO DIGITAL POWER AMP	[M]
IC5500	C0JBAB000011	IC INVERTER	[M]
IC5701	C5HABZZ00125	IC SWITCHING REGULATOR	[M]
IC5790	C0ABBA000168	IC OP AMP	[M]GCS/ GS
IC5801	C0DABYY00002	IC SWITCHING REGULATOR	[M]
IC5901	C0DABFC00002	IC SHUNT REGULATOR	[M]
IC6701	C0HBB0000064	IC FL DRIVER	[M]
IC6702	C0ABBB000230	IC MUSIC PORT AMP	[M]
IC8001	MN2DS0018MP	IC DV5.0 LSI	[M]
IC8051	C3ABPG000145	IC 64M SDRAM	[M]
IC8111	C0CBCBD00018	IC +3.3V DC-DC CONVERTER	[M]
IC8151	C0DBEHG00006	IC +1.2V REGULATOR	[M]
IC8251	C0GBG0000048	IC MOTOR DRIVE	[M]
IC8421	C0FBBK000050	IC AUDIO DAC	[M]
IC8601	C0EBA0000029	IC RESET	[M]
IC8606	C0EBE0000456	IC RESET	[M]
IC8651	RFKWMHB02320	IC 32M FLASH MEMORY	[SPG]GC /GS
IC8651	RFKWMHB03320	IC 32M FLASH MEMORY	[SPG]GC S
IC8691	C0JBAA000502	IC AND GATE	[M]
IC8695	C0JBAA000502	IC AND GATE	[M]
IC9003	C0JBAB000908	IC INVERTER GATE	[M]
IC9005	C0DBZYE00002	IC REGULATOR	[M]
		TRANSISTORS	
Q1003	B1AAGC000007	TRANSISTOR	[M]
Q1004	B1AAGC000007	TRANSISTOR	[M]
Q1005	B1AAGC000007	TRANSISTOR	[M]
Q1007	B1ABCF000176	TRANSISTOR	[M]
Q1017	B1AARC000003	TRANSISTOR	[M]
Q2000	B1GBCFJN0033	TRANSISTOR	[M]
Q2001	B1GBCFJJ0051	TRANSISTOR	[M]
Q2002	B1BCCD000019	TRANSISTOR	[M]
Q2110	B1GDCFJJ0047	TRANSISTOR	[M]
Q2111	B1GDCFJJ0047	TRANSISTOR	[M]
Q2200	B1GDCFGA0018	TRANSISTOR	[M]
Q2201	B1ABEB000002	TRANSISTOR	[M]
Q2202	B1ABEB000002	TRANSISTOR	[M]
Q2340	B1ABEB000002	TRANSISTOR	[M]
Q2341	B1ABEB000002	TRANSISTOR	[M]
Q2342	B1GDCFGA0018	TRANSISTOR	[M]
Q2370	B1ABEB000002	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q2371	B1GDCFGA0018	TRANSISTOR	[M]
Q2500	B1ABEB000002	TRANSISTOR	[M]
Q2501	B1GDCFGA0018	TRANSISTOR	[M]
Q2502	B1ABEB000002	TRANSISTOR	[M]
Q2503	B1ABEB000002	TRANSISTOR	[M]
Q2504	B1ABEB000002	TRANSISTOR	[M]
Q2505	B1ABEB000002	TRANSISTOR	[M]
Q2600	B1GBCFLL0037	TRANSISTOR	[M]
Q2700	B1ACCF000094	TRANSISTOR	[M]
Q2701	B1GBCFJN0033	TRANSISTOR	[M]
Q2702	B1ACCF000094	TRANSISTOR	[M]
Q2710	B1BACD000018	TRANSISTOR	[M]
Q2711	B1GBCFJN0033	TRANSISTOR	[M]
Q2810	B1AAKD000014	TRANSISTOR	[M]
Q2900	B1ACKD000006	TRANSISTOR	[M]
Q2902	B1ABCF000176	TRANSISTOR	[M]
Q2904	B1ABCF000176	TRANSISTOR	[M]
Q2906	B1ABCF000176	TRANSISTOR	[M]
Q2913	B1ADCF000001	TRANSISTOR	[M]
Q2915	B1ABCF000176	TRANSISTOR	[M]
Q5500	B1ADCE000012	TRANSISTOR	[M]
Q5501	B1ABCF000176	TRANSISTOR	[M]
Q5502	B1BACG000023	TRANSISTOR	[M]
Q5503	B1BACG000023	TRANSISTOR	[M]
Q5504	B1BCCG000002	TRANSISTOR	[M]
Q5550	B1ABCF000176	TRANSISTOR	[M]
Q5551	B1ABCF000176	TRANSISTOR	[M]
Q5600	B1ADCF000001	TRANSISTOR	[M]
Q5601	B1ABCF000176	TRANSISTOR	[M]
Q5602	B1ABCF000176	TRANSISTOR	[M]
Q5603	B1ABCF000176	TRANSISTOR	[M]
Q5701	2SC3940ARA	TRANSISTOR	[M]
Q5702	B1GDCFGA0018	TRANSISTOR	[M]
Q5704	B1BACD000018	TRANSISTOR	[M]
Q5705	B1GBCFLL0037	TRANSISTOR	[M]
Q5750	B1ADCF000001	TRANSISTOR	[M]
Q5751	B1ABCF000011	TRANSISTOR	[M]
Q5752	B1ABCF000011	TRANSISTOR	[M]
Q5802	B1ABCF000176	TRANSISTOR	[M]
Q5804	B1ABCF000176	TRANSISTOR	[M]
Q5925	2SC3940ARA	TRANSISTOR	[M]
Q5928	2SB0621AHA	TRANSISTOR	[M]
Q5970	B1ABCF000176	TRANSISTOR	[M]GCS/ GS
Q5971	B1ADCE000012	TRANSISTOR	[M]
Q6601	B1GBCFJJ0051	TRANSISTOR	[M]
Q6602	B1GBCFJJ0051	TRANSISTOR	[M]
Q6603	B1ACKD000006	TRANSISTOR	[M]
Q6604	B1ACKD000006	TRANSISTOR	[M]
Q6701	B1GBCFJN0033	TRANSISTOR	[M]
Q6702	B1GBCFJN0033	TRANSISTOR	[M]
Q6703	B1GBCFJN0033	TRANSISTOR	[M]
Q6704	B1GBCFJN0033	TRANSISTOR	[M]
Q6705	B1GBCFJN0033	TRANSISTOR	[M]
Q6801	B1ABEB000002	TRANSISTOR	[M]
Q6802	B1ABEB000002	TRANSISTOR	[M]
Q6803	B1GCCFGA0006	TRANSISTOR	[M]
Q6901	B1ABCF000176	TRANSISTOR	[M]
Q6902	B1ABCF000176	TRANSISTOR	[M]
Q6903	B1ABCF000176	TRANSISTOR	[M]
Q8030	B1ABCF000176	TRANSISTOR	[M]
Q8031	B1ABEB000002	TRANSISTOR	[M]
Q8321	2SB1218ARL	TRANSISTOR	[M]
Q8325	2SB1218ARL	TRANSISTOR	[M]
Q8331	2SB1218ARL	TRANSISTOR	[M]
Q8335	2SB1218ARL	TRANSISTOR	[M]
Q8341	2SB1218ARL	TRANSISTOR	[M]
Q8551	2SD1819A0L	TRANSISTOR	[M]
Q8552	B1ADGB000008	TRANSISTOR	[M]
Q8561	2SD1819A0L	TRANSISTOR	[M]
Q8562	B1ADGB000008	TRANSISTOR	[M]
QR5500	B1GBCFJN0033	CHIP TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
QR5502	B1ABCF000176	SILICON TRANSISTOR	[M]
QR5503	B1ABCF000176	SILICON TRANSISTOR	[M]
QR8031	B1GDCFGA0018	CHIP TRANSISTOR	[M]
QR8111	XP0621400L	CHIP TRANSISTOR	[M]
QR8420	UNR521100L	TRANSISTOR	[M]
QR8571	UNR511V00L	TRANSISTOR	[M]
PC5703	B3PBA0000402	PHOTO COUPLER	[M] △
PC5801	B3PBA0000402	PHOTO COUPLER	[M] △
PC5805	B3PBA0000402	PHOTO COUPLER	[M] △
PC5901	B3PBA0000402	PHOTO COUPLER	[M] △
		DIODES	
D951	MA2C16500E	DIODE	[M]
D971	MA2C16500E	DIODE	[M]
D1003	B0ACCK000005	DIODE	[M]
D2000	B0EAKM000117	DIODE	[M]
D2001	B0EAKM000117	DIODE	[M]
D2301	ERJ6GEY0R00V	DIODE	[M]
D2600	B0ACCK000005	DIODE	[M]
D2602	B0ACCE000003	DIODE	[M]
D2603	B0ACCE000003	DIODE	[M]
D2700	B0ACCE000003	DIODE	[M]
D2810	B0ACCK000005	DIODE	[M]
D2811	B0ACCK000005	DIODE	[M]
D2900	B0ACCK000005	DIODE	[M]
D2901	B0EAKM000117	DIODE	[M]
D2902	B0EAKM000117	DIODE	[M]
D2903	B0EAKM000117	DIODE	[M]
D2904	B0EAKM000117	DIODE	[M]
D5501	B0ADCJ000020	DIODE	[M]
D5503	B0BC7R500001	DIODE	[M]
D5504	B0BC01600013	DIODE	[M]
D5556	B0ACCK000005	DIODE	[M]
D5557	B0ACCK000005	DIODE	[M]
D5701	B0FBAR000041	DIODE	[M]
D5702	B0ZAZ0000052	DIODE	[M]
D5703	B0BC02900004	DIODE	[M]
D5704	B0JAME000114	DIODE	[M]
D5705	B0EAMM000057	DIODE	[M]
D5706	B0EAMM000057	DIODE	[M]
D5707	B0BC010A0007	DIODE	[M]
D5708	B0BC01700015	DIODE	[M]
D5709	B0ACCK000005	DIODE	[M]
D5710	B0EAMM000057	DIODE	[M]
D5711	B0EAKM000117	DIODE	[M]
D5712	B0ACCK000005	DIODE	[M]
D5713	B0EAMM000057	DIODE	[M]
D5714	B0BC4R0A0006	DIODE	[M]
D5750	B0ACCK000005	DIODE	[M]
D5790	B0EAMM000057	DIODE	[M] GCS/GS
D5802	B0EAMM000057	DIODE	[M]
D5803	B0EAMM000057	DIODE	[M]
D5804	B0BC3R700004	DIODE	[M]
D5805	B0BC5R600003	DIODE	[M]
D5901	B0HFRJ000012	DIODE	[M]
D5902	B0EAMM000057	DIODE	[M]
D5903	B0EAMM000057	DIODE	[M]
D5904	B0HBSM000043	DIODE	[M]
D5905	B0HBSM000043	DIODE	[M]
D5912	B0BC02900004	DIODE	[M]
D5914	B0BC5R600003	DIODE	[M]
D5971	B0EAMM000057	DIODE	[M] GCS/GS
D6701	B0BC8R100004	DIODE	[M]
D6702	B0BC8R100004	DIODE	[M]
D6704	B0BC5R600003	DIODE	[M]
D6705	B0BC3R400001	DIODE	[M]
D6707	B3AEA0000083	DIODE	[M]
D6708	B3AEA0000083	DIODE	[M]
D6709	B3AAA00000803	DIODE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
D6910	B3ADA0000129	DIODE	[M]
D8030	B0ACCK000005	DIODE	[M]
D8211	MA2J11100L	DIODE	[M]
D8571	MA2J72800L	DIODE	[M]
DW2710	B0ADCJ000020	DUAL CHIP DIODE	[M]
DW2810	B0ADCJ000020	DUAL CHIP DIODE	[M]
DW2811	B0ADCJ000020	DUAL CHIP DIODE	[M]
DW2900	B0ADCJ000020	DUAL CHIP DIODE	[M]
DZ2100	B0BC9R1A0218	CHIP ZENER DIODE	[M]
DZ2200	B0BC5R000009	CHIP ZENER DIODE	[M]
DZ2710	B0BC3R700004	CHIP ZENER DIODE	[M]
DZ2712	B0JCPD000025	DIODE	[M]
DZ2810	B0BC5R600003	CHIP ZENER DIODE	[M]
DZ2901	B0BC5R600003	CHIP ZENER DIODE	[M]
DZ2902	B0BC5R600003	CHIP ZENER DIODE	[M] GCS
DZ5001	ERZV10V511CS	ZENER	[M] △
DZ5970	B0BC5R000009	CHIP ZENER DIODE	[M] GCS/GS
		VARIABLE RESISTORS	
VR6701	EVEKE2F2524B	VOLUME ENCODER	[M]
VA9001	EZJZ1V171AA	CHIP VARISTOR	[M]
VA9002	EZJZ1V171AA	CHIP VARISTOR	[M]
		SWITCHES	
S951	K0J1BB000017	SW MODE	[M]
S952	K0J1BB000021	SW HALF	[M]
S971	K0J1BB000017	SW MODE	[M]
S972	K0J1BB000021	SW HALF	[M]
S974	K0J1BB000021	SW RECINH_R	[M]
S975	K0J1BB000021	SW RECINH_F	[M]
S6701	EVQ21405RJ	SW POWER	[M]
S6702	EVQ21405RJ	SW SURROUND ENHANCER	[M]
S6703	EVQ21405RJ	SW SUPER SURROUND	[M]
S6704	EVQ21405RJ	SW SUPER SOUND EQ	[M]
S6705	EVQ21405RJ	SW SOUND EQ	[M]
S6706	EVQ21405RJ	SW SUB WOOFER	[M]
S6707	EVQ21405RJ	SW USB	[M]
S6708	EVQ21405RJ	SW DECK1	[M]
S6709	EVQ21405RJ	SW DECK2	[M]
S6711	EVQ21405RJ	SW EXT-IN	[M]
S6712	EVQ21405RJ	SW TUNER	[M]
S6713	EVQ21405RJ	SW DISPLAY	[M]
S6714	EVQ21405RJ	SW DECK1/2	[M]
S6715	EVQ21405RJ	SW RECORD	[M]
S6716	EVQ21405RJ	SW TAPE	[M]
S6717	EVQ21405RJ	SW DVD/CD	[M]
S6718	EVQ21405RJ	SW ▲ /FF	[M]
S6719	EVQ21405RJ	SW STOP	[M]
S6720	EVQ21405RJ	SW ▼ /REW	[M]
S6721	EVQ21405RJ	SW OPEN/CLOSE	[M]
S6722	EVQ21405RJ	SW MULTI CHANGE	[M]
S6723	EVQ21405RJ	SW SINGLE CHANGE	[M]
S6724	EVQ21405RJ	SW DISC 1	[M]
S6725	EVQ21405RJ	SW DISC 2	[M]
S6726	EVQ21405RJ	SW DISC 3	[M]
S6727	EVQ21405RJ	SW DISC 4	[M]
S6728	EVQ21405RJ	SW DISC 5	[M]
S6729	EVQ21405RJ	SW MIC VOL +	[M]
S6730	EVQ21405RJ	SW MIC VOL -	[M]
		CONNECTORS	
CN971	K1MN10B00104	10P FFC CONNECTOR	[M]
CN1001	K1MN11B00016	11P CONNECTOR	[M]
CN2036	K1MY50AA0029	50P CONNECTOR	[M]
CN2038	K1MN14A00049	14P FFC CONNECTOR	[M]
CN2602	K1MN30AA0004	30P CONNECTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
CN2810	K1KA07AA0031	7P CONNECTOR	[M]
CN5502	K1KA12AA0319	12P CONNECTOR	[M]
CN5603	K1KA12AA0031	12P CONNECTOR	[M]
CN5604	K1YF12000002	12P WIRE HOLDER	[M]
CN5902	K1KA12AA0031	12P CONNECTOR	[M]
CN6601	K1MN10B00104	10P FFC CONNECTOR	[M]
CN6701	K1KA05AA0193	5P CONNECTOR	[M]
CN6702	K1MN10B00104	10P FFC CONNECTOR	[M]
CN6703	K1MN30AA0004	30P CONNECTOR	[M]
CN6902	K1KA07AA0193	7P CONNECTOR	[M]
CN7002	K1FY104B0011	4P USB CONNECTOR	[M]
CN8003	K1MY05BA0130	5P CONNECTOR	[M]
CNP2032	K1KA02AA0186	2P CONNECTOR	[M]
CNP2034	K1KA02AA0186	2P CONNECTOR	[M]
CNP2101	K1MN11A00008	11P CONNECTOR	[M]
CNP2370	K1KB12B00037	12P CONNECTOR	[M]
CNP2601	K1MN10AA0003	10P FFC CONNECTOR	[M]
CNP2710	K1KB12B00037	12P CONNECTOR	[M]
CNP2810	K1KB07A00018	7P CONNECTOR	[M]
CNP2913	K1KA02AA0186	2P FAN CONNECTOR	[M]
CNP5904	K1KA04AA0193	4P CONNECTOR	[M]
CS1001	K1MY05AA0043	5P CONNECTOR	[M]
CS1002	K1MY05AA0043	5P CONNECTOR	[M]
FP8101	K1MN50BA0173	50P FFC CONNECTOR	[M]
FP8251	K1MN06BA0148	6P CONNECTOR	[M]
FP8531	K1MY26BA0025	26P CONNECTOR	[M]
FP9001	K1MN05BA0148	5P CONNECTOR	[M]
W1A	K1KA03AA0190	3P CONNECTOR	[M]
		THERMISTORS	
TH5701	D4CAC8R00002	THERMISTOR	[M] △
TH5750	D4CC11040013	THERMISTOR	[M] △
TH5970	D4CAC8R00002	THERMISTOR	[M] △ GCS/GS
		COILS & TRANSFORMERS	
L1001	G0C470JA0052	RF CHOKE COIL	[M]
L1002	G2ZZ00000024	BIAS OCS COIL	[M]
L2001	J0JBC0000015	CHIP INDUCTOR	[M]
L2003	J0JBC0000015	CHIP INDUCTOR	[M]
L2004	J0JBC0000015	CHIP INDUCTOR	[M]
L2005	J0JBC0000015	CHIP INDUCTOR	[M]
L2006	G0C220JA0055	CHOKE COIL	[M]
L2010	G0C220JA0055	CHOKE COIL	[M]
L2110	ERJ3GEY0R00V	CHIP JUMPER	[M]
L2111	ERJ3GEY0R00V	CHIP JUMPER	[M]
L2112	ERJ3GEY0R00V	CHIP JUMPER	[M]
L2600	G0C3R3JA0027	COIL	[M]
L2710	G0A101ZA0028	CHOKE COIL	[M]
L2711	G0A200D00002	RF CHOKE COIL	[M]
L2712	G0A200D00002	RF CHOKE COIL	[M]
L2713	G0A200D00002	RF CHOKE COIL	[M]
L2714	G0A200D00002	RF CHOKE COIL	[M]
L2716	G0A200D00002	RF CHOKE COIL	[M]
L5001	ELF21N024A	LINE CHOKE COIL	[M] △
L5600	J0JKB0000020	EMI BEAD CORE	[M]
L5601	J0JKB0000020	EMI BEAD CORE	[M]
L5602	G0B185LA0002	COIL	[M]
L5604	G0B185LA0002	COIL	[M]
L5605	G0B185LA0002	COIL	[M]
L5606	G0B9R5K00001	CHOKE COIL	[M]
L5607	G0B9R5K00001	CHOKE COIL	[M]
L5608	G0B9R5K00001	CHOKE COIL	[M]
L5609	G0B9R5K00001	CHOKE COIL	[M]
L5610	G0B9R5K00001	CHOKE COIL	[M]
L5612	G0B9R5K00001	CHOKE COIL	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
L5701	ELF22V020A	LINE FILTER COIL	[M] △ GCS/GS
L5701	ELF22V020C	LINE FILTER	[M] △ GC
L6701	G0C101JA0052	INDUCTOR	[M]
L6801	G0C100JA0052	INDUCTOR	[M]
L6802	J0JBC0000041	CHIP INDUCTOR	[M]
L6803	J0JBC0000041	CHIP INDUCTOR	[M]
L6804	G0C100JA0052	INDUCTOR	[M]
L6808	G0C100JA0052	INDUCTOR	[M]
L6901	G0C100JA0052	INDUCTOR	[M]
L6902	G0C100JA0052	INDUCTOR	[M]
L6903	G0C100JA0052	INDUCTOR	[M]
L6904	G0C100JA0052	INDUCTOR	[M]
L6905	G0C100JA0052	INDUCTOR	[M]
L6906	G0C100JA0052	INDUCTOR	[M]
L8201	G1C100K00019	CHIP COIL	[M]
L8301	G1C100K00019	CHIP COIL	[M]
L8302	G1C100K00019	CHIP COIL	[M]
L8330	G1C100K00019	CHIP COIL	[M]
L8501	G1C100K00019	CHIP COIL	[M]
L8550	G1C100KA0055	CHIP INDUCTOR	[M]
L9005	G1BYYYB00009	MODE CHOKE COIL	[M]
		CHIP INDUCTORS	
LB5701	J0JKB0000020	EMI BEAD CORE	[M]
LB8001	J0JHC0000045	CHIP INDUCTOR	[M]
LB8011	J0JHC0000045	CHIP INDUCTOR	[M]
LB8257	ERJ3GEY0R00V	CHIP RESISTOR	[M]
LB8258	ERJ3GEY0R00V	CHIP RESISTOR	[M]
LB8259	ERJ3GEY0R00V	CHIP RESISTOR	[M]
LB8260	ERJ3GEY0R00V	CHIP RESISTOR	[M]
LB8301	J0JBC0000042	CHIP BEAD	[M]
LB8302	J0JBC0000042	CHIP BEAD	[M]
LB8303	J0JBC0000042	CHIP BEAD	[M]
LB8304	J0JBC0000042	CHIP BEAD	[M]
LB8305	J0JBC0000042	CHIP BEAD	[M]
LB8401	J0JBC0000042	CHIP BEAD	[M]
LB8421	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8422	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8423	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8424	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8425	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8426	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8427	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8428	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8429	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8430	J0JHC0000045	CHIP INDUCTOR	[M]
LB8431	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8491	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8530	J0JHC0000045	CHIP INDUCTOR	[M]
LB8531	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8551	J0JBC0000042	CHIP BEAD	[M]
LB8561	J0JBC0000042	CHIP BEAD	[M]
LB8571	J0JBC0000042	CHIP BEAD	[M]
LB8690	J0JBC0000044	HIGH LOSS INDUCTOR	[M]
LB8691	ERJ2GEJ101X	CHIP RESISTOR	[M]
LB8692	ERJ2GEJ101X	CHIP RESISTOR	[M]
LB8693	ERJ2GEJ101X	CHIP RESISTOR	[M]
LB9001	J0JCC0000119	FERRITE BEAD	[M]
LB9001	J0JHC0000034	CHIP FERRITE BEAD	[M]
LB9002	J0JHC0000034	CHIP FERRITE BEAD	[M]
		TRANSFORMERS	
T5701	ETS42BJ1H6AC	MAIN TRANSFORMER	[M] △
T5801	ETS19AB1Z6AG	SUB-TRANSFORMER	[M] △
TN2100	ENG06839QF	TUNER PACK	[M]
		COMPONENT COMBINATION	

Ref. No.	Part No.	Part Name & Description	Remarks
Z971	R6SD12A1445T	RADA RESISTOR	[M]
Z6702	B3RAD0000125	REMOTE SENSOR	[M]
ZA5001	EYF52BCY	FUSE CLIP	[M]
ZA5002	EYF52BCY	FUSE CLIP	[M]
ZJ5000	K9ZZ00001279	EARTH PLATE	[M]
ZJ5001	K9ZZ00001279	EARTH PLATE	[M]
ZJ5002	K9ZZ00001279	EARTH PLATE	[M]
ZJ5003	K9ZZ00001279	EARTH PLATE	[M]
M1	RWJ0102050CK	MAIN TO MECHA MOTOR	[M]
		OSCILLATORS	
X2601	H2A1005A0005	10MHZ RESONATOR	[M]
X2602	H0A327200115	CRYSTAL OSCILLATOR	[M]
X5500	H2A375300003	CRYSTAL OSCILLATOR	[M]
X5501	H2A415300001	CRYSTAL OSCILLATOR	[M]
X8621	H0J270500085	CRYSTAL OSCILLATOR	[M]
X9004	H1A4805B0027	CRYSTAL OSCILLATOR	[M]
		DISPLAY TUBE	
FL6601	A2BD00000163	FL DISPLAY	[M]
FL8101	F1H0J1050018	CHIP CAPACITOR	[M]
FL8102	F1H0J1050018	CHIP CAPACITOR	[M]
FL8103	F1H0J1050018	CHIP CAPACITOR	[M]
FL8104	F1J1E1040022	CHIP CAPACITOR	[M]
		FUSE	
F1	K5D632BNA005	FUSE	[M] △
		FUSE PROTECTOR	
FP5901	K5G102A00039	FUSE PROTECTOR	[M] △
		HOLDERS	
H5903	K1YF12000004	12P WIRE HOLDER	[M]
H6701	K1YZ05000005	5P CABLE HOLDER	[M]
H6703	K1ZZ00000832	4P CONNECTOR	[M]
H6704	K1YZ07000001	7P WIRE HOLDER	[M]
HW5604	K1YF12000002	12P WIRE HOLDER	[M]
		JACKS	
JK2001	K2HA408B0083	JACK COMPONENT/VIDEO	[M]
JK2300	K2HA204B0153	JACK AUX	[M]
JK5302	K4AC06B00008	JACK SPEAKER WFR/FRT	[M]
JK5304	K4BC06B00063	JACK SPEAKER CTR/SUR	[M]
JK5970	K0ABL0000003	JACK VOLTAGE SELECTOR	[M] △ GCS/GS
JK6801	K2HC103A0024	JACK HEADPHONE	[M]
JK6802	K2HC1YYA0002	JACK MUSIC PORT	[M]
JK6901	K2HB102J0038	JACK MIC 1	[M]
JK6902	K2HB102J0038	JACK MIC 2	[M]
P5001	K2AA2B000011	AC INLET	[M] △
		EARTH TERMINALS	
E5701	K9ZZ00001279	EARTH PLATE	[M]
E5702	K9ZZ00001279	EARTH PLATE	[M]
		PACKING MATERIALS	
P1	RPGV0439	PACKING CASE	[M]GC
P1	RPGV0440	PACKING CASE	[M]GS
P1	RPGV0449	PACKING CASE	[M]GCS
P2	RPNX0429-1	POLYFOAM	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
P3	RPFX0198	MIRAMAT SHEET	[M]
		ACCESSORIES	
A1	N2QAYB000167	REMOTE CONTROL	[M]
A1-1	RKK-NC9GCS	R/C BATTERY COVER	[M]
A2	K2CQ2CA00007	AC CORD	[M] △
A2	K2CT3CA00004	AC CORD	[M] △ GS
A3	RQTV0239-1L	O/I BOOK (EN)	[M]GCS
A3	RQTV0240-1K	O/I BOOK (CN)	[M]GCS
A3	RQTV0241-1G	O/I BOOK (EN)	[M]GC/G S
A4	K2KA2CA00011	VIDEO CABLE	[M]
A5	N1DAAA000002	AM LOOP ANTENNA	[M]
A6	RSA0007-L1	FM ANTENNA WIRE	[M]
		RESISTORS	
R952	ERDS2TJ821T	820 1/4W	[M]
R953	ERDS2TJ393T	39K 1/4W	[M]
R972	ERDS2TJ821T	820 1/4W	[M]
R973	ERDS2TJ393T	39K 1/4W	[M]
R1002	ERJ3GEY0R00V	0 1/16W	[M]
R1003	ERJ3GEYJ103V	10K 1/16W	[M]
R1004	D0GB152JA007	1.5K 1/16W	[M]
R1005	D0GB472JA007	4.7K 1/16W	[M]
R1007	ERD25FVJ4R7T	4.7 1/4W	[M]
R1009	D0GB183JA007	18K 1/16W	[M]
R1010	D0GB183JA007	18K 1/16W	[M]
R1011	ERJ3GEYJ822V	8.2K 1/16W	[M]
R1012	D0GB472JA007	4.7K 1/16W	[M]
R1013	D0GB472JA007	4.7K 1/16W	[M]
R1014	D0GB472JA007	4.7K 1/16W	[M]
R1015	D0GB470JA008	47 1/16W	[M]
R1016	D0GB470JA008	47 1/16W	[M]
R1017	ERJ3GEYJ822V	8.2K 1/16W	[M]
R1018	D0GB392JA007	3.9K 1/16W	[M]
R1019	D0GB392JA007	3.9K 1/16W	[M]
R1020	ERJ3GEY0R00V	0 1/16W	[M]
R1022	ERJ3GEYJ103V	10K 1/16W	[M]
R1024	ERJ3GEY0R00V	0 1/16W	[M]
R1025	ERJ3GEY0R00V	0 1/16W	[M]
R1026	ERJ3GEYJ102V	1K 1/16W	[M]
R1027	ERJ3GEY0R00V	0 1/16W	[M]
R1028	ERJ3GEYJ822V	8.2K 1/16W	[M]
R1029	D0GB475JA007	4.7M 1/16W	[M]
R1030	D0GB101JA007	100 1/16W	[M]
R1031	D0GB273JA007	27K 1/16W	[M]
R1032	ERJ3GEYJ103V	10K 1/16W	[M]
R1035	ERJ3GEYJ103V	10K 1/16W	[M]
R1040	ERJ3GEY0R00V	0 1/16W	[M]
R1049	ERJ3GEY0R00V	0 1/16W	[M]
R1050	ERJ3GEY0R00V	0 1/16W	[M]
R1055	D0GB222JA007	2.2K 1/16W	[M]
R1057	D0GB222JA007	2.2K 1/16W	[M]
R1060	D0GB391JA041	390 1/16W	[M]
R1084	D0GB222JA007	2.2K 1/16W	[M]
R1085	D0GB473JA007	47K 1/16W	[M]
R1086	D0GB222JA007	2.2K 1/16W	[M]
R1087	D0GB473JA007	47K 1/16W	[M]
R1090	D0GB221JA041	220 1/16W	[M]
R1091	ERJ3GEY0R00V	0 1/16W	[M]
R1092	ERJ3GEY0R00V	0 1/16W	[M]
R1097	ERJ3GEYJ103V	10K 1/16W	[M]
R1098	ERJ3GEYJ103V	10K 1/16W	[M]
R1099	ERJ3GEY0R00V	0 1/16W	[M]
R1100	ERJ6GEY0R00V	0 1/10W	[M]
R1101	ERJ6GEY0R00V	0 1/10W	[M]
R1102	ERJ3GEYJ103V	10K 1/16W	[M]
R2001	ERJ3GEYJ750V	75 1/16W	[M]
R2003	ERJ3GEYJ750V	75 1/16W	[M]
R2004	ERJ3GEYJ750V	75 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2005	ERJ3GEYJ750V	75 1/16W	[M]
R2007	ERJ3GEYJ102V	1K 1/16W	[M]
R2009	D0GB223JA007	22K 1/16W	[M]
R2010	D0GB223JA007	22K 1/16W	[M]
R2011	D0GB183JA007	18K 1/16W	[M]
R2012	D0GB392JA007	3.9K 1/16W	[M]
R2013	D0GB183JA007	18K 1/16W	[M]
R2014	D0GB392JA007	3.9K 1/16W	[M]
R2015	D0GB153JA007	15K 1/16W	[M]
R2016	D0GB153JA007	15K 1/16W	[M]
R2017	D0GB153JA007	15K 1/16W	[M]
R2018	ERJ3GEYJ102V	1K 1/16W	[M]
R2019	D0GB182JA007	1.8K 1/16W	[M]
R2020	D0GB222JA007	2.2K 1/16W	[M]
R2021	D0GB222JA007	2.2K 1/16W	[M]
R2100	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2101	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2102	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2103	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2104	ERG1SJ820E	82 1W	[M]
R2105	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2106	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2107	ERJ3GEYJ123V	12K 1/16W	[M]
R2108	ERJ3GEYJ123V	12K 1/16W	[M]
R2110	D0GB101JA007	100 1/16W	[M]
R2111	D0GB101JA007	100 1/16W	[M]
R2112	D0GB333JA007	33K 1/16W	[M]
R2113	D0GB333JA007	33K 1/16W	[M]
R2114	D0GB471JA007	470 1/16W	[M]
R2115	D0GB153JA007	15K 1/16W	[M]
R2116	D0GB471JA007	470 1/16W	[M]
R2117	D0GB153JA007	15K 1/16W	[M]
R2200	D0GB222JA007	2.2K 1/16W	[M]
R2201	D0GB334JA007	330K 1/16W	[M]
R2202	D0GB105JA007	1M 1/16W	[M]
R2203	D0GB332JA007	3.3K 1/16W	[M]
R2204	D0GB332JA007	3.3K 1/16W	[M]
R2205	D0GB472JA007	4.7K 1/16W	[M]
R2206	D0GB472JA007	4.7K 1/16W	[M]
R2207	D0GB104JA007	100K 1/16W	[M]
R2208	D0GB104JA007	100K 1/16W	[M]
R2209	D0GB562JA007	5.6K 1/16W	[M]
R2210	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2211	D0GB562JA007	5.6K 1/16W	[M]
R2212	D0GB563JA007	56K 1/16W	[M]
R2213	D0GB472JA007	4.7K 1/16W	[M]
R2214	D0GB123JA007	12K 1/16W	[M]
R2215	D0GB222JA007	2.2K 1/16W	[M]
R2216	D0GB123JA007	12K 1/16W	[M]
R2217	D0GB472JA007	4.7K 1/16W	[M]
R2218	D0GB222JA007	2.2K 1/16W	[M]
R2219	D0GB472JA007	4.7K 1/16W	[M]
R2220	D0GB333JA007	33K 1/16W	[M]
R2221	D0GB472JA007	4.7K 1/16W	[M]
R2222	D0GB823JA007	82K 1/16W	[M]
R2223	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2224	D0GB273JA007	27K 1/16W	[M]
R2225	D0GB823JA007	82K 1/16W	[M]
R2226	D0GB153JA007	15K 1/16W	[M]
R2227	D0GB393JA007	39K 1/16W	[M]
R2228	D0GB153JA007	15K 1/16W	[M]
R2229	D0GB153JA007	15K 1/16W	[M]
R2230	ERJ3GEYJ103V	10K 1/16W	[M]
R2231	D0GB392JA007	3.9K 1/16W	[M]
R2232	D0GB333JA007	33K 1/16W	[M]
R2233	ERJ3GEY0R00V	0 1/16W	[M]
R2234	D0GB393JA007	39K 1/16W	[M]
R2235	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2236	D0GB823JA007	82K 1/16W	[M]
R2237	D0GB823JA007	82K 1/16W	[M]
R2238	D0GB333JA007	33K 1/16W	[M]
R2239	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2243	D0GB473JA007	47K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2260	D0GB332JA007	3.3K 1/16W	[M]
R2261	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2262	D0GB332JA007	3.3K 1/16W	[M]
R2263	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2266	D0GB472JA007	4.7K 1/16W	[M]
R2267	ERJ3GEYJ103V	10K 1/16W	[M]
R2268	ERJ3GEYJ103V	10K 1/16W	[M]
R2269	ERJ3GEYJ103V	10K 1/16W	[M]
R2270	D0GB100JA007	10 1/16W	[M]
R2271	D0GB153JA007	15K 1/16W	[M]
R2272	D0GB392JA007	3.9K 1/16W	[M]
R2273	D0GB123JA007	12K 1/16W	[M]
R2274	ERJ3GEYJ103V	10K 1/16W	[M]
R2275	D0GB472JA007	4.7K 1/16W	[M]
R2276	ERJ3GEYJ103V	10K 1/16W	[M]
R2277	D0GB153JA007	15K 1/16W	[M]
R2278	D0GB562JA007	5.6K 1/16W	[M]
R2279	D0AF680JA039	68 1/4W	[M]
R2280	ERJ3GEY0R00V	0 1/16W	[M]
R2281	D0GB104JA007	100K 1/16W	[M]
R2282	D0AF680JA039	68 1/4W	[M]
R2313	D0GB104JA007	100K 1/16W	[M]
R2314	D0GB104JA007	100K 1/16W	[M]
R2315	D0GB333JA007	33K 1/16W	[M]
R2316	D0GB333JA007	33K 1/16W	[M]
R2317	D0GB332JA007	3.3K 1/16W	[M]
R2318	D0GB332JA007	3.3K 1/16W	[M]
R2319	D0GB473JA007	47K 1/16W	[M]
R2320	D0GB473JA007	47K 1/16W	[M]
R2321	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2322	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2330	D0GB562JA007	5.6K 1/16W	[M]
R2331	D0GB122JA008	1.2K 1/16W	[M]
R2332	D0GB562JA007	5.6K 1/16W	[M]
R2333	D0GB122JA008	1.2K 1/16W	[M]
R2340	D0GB222JA007	2.2K 1/16W	[M]
R2341	D0GB222JA007	2.2K 1/16W	[M]
R2342	D0GB104JA007	100K 1/16W	[M]
R2343	D0GB104JA007	100K 1/16W	[M]
R2344	D0GB472JA007	4.7K 1/16W	[M]
R2345	D0GB472JA007	4.7K 1/16W	[M]
R2346	D0GB332JA007	3.3K 1/16W	[M]
R2347	D0GB273JA007	27K 1/16W	[M]
R2348	D0GB563JA007	56K 1/16W	[M]
R2349	D0GB332JA007	3.3K 1/16W	[M]
R2350	D0GB183JA007	18K 1/16W	[M]
R2351	D0GB182JA007	1.8K 1/16W	[M]
R2352	D0GB183JA007	18K 1/16W	[M]
R2353	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2354	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2355	D0GB562JA007	5.6K 1/16W	[M]
R2356	D0GB562JA007	5.6K 1/16W	[M]
R2370	D0GB821JA007	820 1/16W	[M]
R2371	D0GB332JA007	3.3K 1/16W	[M]
R2372	D0GB332JA007	3.3K 1/16W	[M]
R2373	D0GB332JA007	3.3K 1/16W	[M]
R2374	ERJ3GEYJ102V	1K 1/16W	[M]
R2375	ERJ3GEYJ102V	1K 1/16W	[M]
R2376	D0GB333JA007	33K 1/16W	[M]
R2377	D0GB333JA007	33K 1/16W	[M]
R2378	D0GB333JA007	33K 1/16W	[M]
R2379	ERJ3GEYJ103V	10K 1/16W	[M]
R2380	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2381	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2382	ERJ3GEYJ102V	1K 1/16W	[M]
R2383	D0GB273JA007	27K 1/16W	[M]
R2384	D0GB563JA007	56K 1/16W	[M]
R2385	D0GB182JA007	1.8K 1/16W	[M]
R2400	D0GB104JA007	100K 1/16W	[M]
R2401	D0GB104JA007	100K 1/16W	[M]
R2410	D0GB101JA007	100 1/16W	[M]
R2411	D0GB104JA007	100K 1/16W	[M]
R2500	D0GB123JA007	12K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2501	D0GB472JA007	4.7K 1/16W	[M]
R2502	D0GB472JA007	4.7K 1/16W	[M]
R2503	ERJ3GEYJ103V	10K 1/16W	[M]
R2504	D0GB333JA007	33K 1/16W	[M]
R2505	D0GB473JA007	47K 1/16W	[M]
R2506	D0GB223JA007	22K 1/16W	[M]
R2507	D0GB473JA007	47K 1/16W	[M]
R2509	D0GB223JA007	22K 1/16W	[M]
R2510	D0GB223JA007	22K 1/16W	[M]
R2511	D0GB273JA007	27K 1/16W	[M]
R2512	D0GB223JA007	22K 1/16W	[M]
R2513	D0GB273JA007	27K 1/16W	[M]
R2514	D0GB472JA007	4.7K 1/16W	[M]
R2515	D0GB273JA007	27K 1/16W	[M]
R2516	D0GB223JA007	22K 1/16W	[M]
R2517	D0GB123JA007	12K 1/16W	[M]
R2518	D0GB472JA007	4.7K 1/16W	[M]
R2519	D0GB223JA007	22K 1/16W	[M]
R2520	D0GB223JA007	22K 1/16W	[M]
R2521	D0GB223JA007	22K 1/16W	[M]
R2522	D0GB333JA007	33K 1/16W	[M]
R2523	D0GB333JA007	33K 1/16W	[M]
R2524	D0GB223JA007	22K 1/16W	[M]
R2525	D0GB472JA007	4.7K 1/16W	[M]
R2526	D0GB223JA007	22K 1/16W	[M]
R2527	D0GB223JA007	22K 1/16W	[M]
R2528	D0GB223JA007	22K 1/16W	[M]
R2529	ERJ3GEYJ102V	1K 1/16W	[M]
R2530	D0GB472JA007	4.7K 1/16W	[M]
R2531	D0GB472JA007	4.7K 1/16W	[M]
R2532	ERJ3GEYJ103V	10K 1/16W	[M]
R2533	D0GB223JA007	22K 1/16W	[M]
R2534	D0GB472JA007	4.7K 1/16W	[M]
R2535	D0GB223JA007	22K 1/16W	[M]
R2536	D0GB333JA007	33K 1/16W	[M]
R2537	D0GB273JA007	27K 1/16W	[M]
R2538	D0GB273JA007	27K 1/16W	[M]
R2539	D0GB561JA007	560 1/16W	[M]
R2540	D0GB222JA007	2.2K 1/16W	[M] GC/GS
R2540	ERJ3GEYJ222V	2.2K 1/16W	[M] GCS
R2541	D0GB182JA007	1.8K 1/16W	[M]
R2542	D0GB563JA007	56K 1/16W	[M]
R2551	ERJ3GEYJ102V	1K 1/16W	[M]
R2552	ERJ3GEYJ102V	1K 1/16W	[M]
R2553	D0GB104JA007	100K 1/16W	[M]
R2554	ERJ3GEYJ103V	10K 1/16W	[M]
R2601	D0GB104JA007	100K 1/16W	[M]
R2602	D0GB104JA007	100K 1/16W	[M]
R2604	ERJ3GEYJ103V	10K 1/16W	[M]
R2605	ERJ3GEYJ103V	10K 1/16W	[M]
R2607	D0GB473JA007	47K 1/16W	[M]
R2609	D0GB472JA007	4.7K 1/16W	[M]
R2610	D0GB473JA007	47K 1/16W	[M]
R2611	D0GB473JA007	47K 1/16W	[M]
R2612	D0GB473JA007	47K 1/16W	[M]
R2613	D0GB101JA007	100 1/16W	[M]
R2614	D0GB101JA007	100 1/16W	[M]
R2615	D0GB101JA007	100 1/16W	[M]
R2616	D0GB472JA007	4.7K 1/16W	[M]
R2617	ERJ3GEYJ103V	10K 1/16W	[M]
R2618	D0GB473JA007	47K 1/16W	[M]
R2619	ERJ3GEYJ102V	1K 1/16W	[M]
R2620	ERJ3GEYJ102V	1K 1/16W	[M]
R2621	D0GB101JA007	100 1/16W	[M]
R2622	D0GB101JA007	100 1/16W	[M]
R2623	D0GB101JA007	100 1/16W	[M]
R2624	D0GB101JA007	100 1/16W	[M]
R2625	ERJ3GEYJ103V	10K 1/16W	[M]
R2626	ERJ3GEYJ102V	1K 1/16W	[M]
R2627	D0GB101JA007	100 1/16W	[M]
R2628	ERJ3GEY0R00V	0 1/16W	[M]
R2629	D0GB101JA007	100 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2630	ERJ3GEY0R00V	0 1/16W	[M]
R2631	D0GB101JA007	100 1/16W	[M]
R2632	D0GB101JA007	100 1/16W	[M]
R2633	D0GB101JA007	100 1/16W	[M]
R2634	ERJ3GEYJ102V	1K 1/16W	[M]
R2635	D0GB101JA007	100 1/16W	[M]
R2636	D0GB101JA007	100 1/16W	[M]
R2638	ERJ3GEYJ102V	1K 1/16W	[M]
R2639	D0GB106JA007	10M 1/16W	[M]
R2640	ERJ3GEYJ102V	1K 1/16W	[M]
R2641	D0GB334JA007	330K 1/16W	[M]
R2642	ERJ3GEYJ102V	1K 1/16W	[M]
R2643	ERJ3GEYJ102V	1K 1/16W	[M]
R2644	ERJ3GEYJ681V	680 1/16W	[M]
R2646	ERJ3GEYJ102V	1K 1/16W	[M]
R2647	ERJ3GEYJ102V	1K 1/16W	[M]
R2648	ERJ3GEYJ102V	1K 1/16W	[M]
R2650	ERJ3GEYJ102V	1K 1/16W	[M]
R2651	ERJ3GEYJ102V	1K 1/16W	[M]
R2652	D0GB101JA007	100 1/16W	[M]
R2653	ERJ3GEYJ102V	1K 1/16W	[M]
R2654	D0GB101JA007	100 1/16W	[M]
R2655	ERJ3GEYJ102V	1K 1/16W	[M]
R2656	D0GB101JA007	100 1/16W	[M]
R2657	ERJ3GEYJ102V	1K 1/16W	[M]
R2658	D0GB101JA007	100 1/16W	[M]
R2659	ERJ3GEYJ102V	1K 1/16W	[M]
R2660	D0GB473JA007	47K 1/16W	[M]
R2661	D0GB473JA007	47K 1/16W	[M]
R2662	D0GB473JA007	47K 1/16W	[M]
R2663	D0GB101JA007	100 1/16W	[M]
R2664	D0GB223JA007	22K 1/16W	[M]
R2665	D0GB101JA007	100 1/16W	[M]
R2666	D0GB101JA007	100 1/16W	[M]
R2667	D0GB473JA007	47K 1/16W	[M]
R2668	D0GB221JA041	220 1/16W	[M]
R2669	D0GB221JA041	220 1/16W	[M]
R2670	D0GB101JA007	100 1/16W	[M]
R2671	D0GB101JA007	100 1/16W	[M]
R2672	ERJ3GEYJ681V	680 1/16W	[M]
R2674	ERJ3GEYJ102V	1K 1/16W	[M]
R2675	ERJ3GEYJ102V	1K 1/16W	[M]
R2676	D0GB221JA041	220 1/16W	[M]
R2679	ERJ3GEYJ102V	1K 1/16W	[M]
R2680	ERJ3GEYJ102V	1K 1/16W	[M]
R2681	ERJ3GEYJ102V	1K 1/16W	[M]
R2682	D0GB221JA041	220 1/16W	[M]
R2683	ERJ3GEYJ102V	1K 1/16W	[M]
R2684	ERJ3GEYJ102V	1K 1/16W	[M]
R2685	ERJ3GEYJ102V	1K 1/16W	[M]
R2686	ERJ3GEYJ102V	1K 1/16W	[M]
R2687	ERJ3GEYJ102V	1K 1/16W	[M]
R2688	D0GB153JA007	15K 1/16W	[M]
R2689	D0GB153JA007	15K 1/16W	[M]
R2690	ERJ3GEYJ102V	1K 1/16W	[M]
R2691	ERJ3GEYJ103V	10K 1/16W	[M]
R2692	ERJ3GEYJ103V	10K 1/16W	[M]
R2693	D0GB101JA007	100 1/16W	[M]
R2694	D0GB101JA007	100 1/16W	[M]
R2695	ERJ3GEYJ103V	10K 1/16W	[M]
R2696	ERJ3GEYJ103V	10K 1/16W	[M]
R2697	D0GB223JA007	22K 1/16W	[M]
R2699	ERJ3GEYJ103V	10K 1/16W	[M]
R2700	D0GB182JA007	1.8K 1/16W	[M]
R2701	D0GB182JA007	1.8K 1/16W	[M]
R2702	D0GB182JA007	1.8K 1/16W	[M]
R2703	D0GB182JA007	1.8K 1/16W	[M]
R2710	D0GB330JA007	33 1/16W	[M]
R2711	ERX2SJ1R5E	1.5 1/32W	[M]
R2712	D0GB181JA007	180 1/16W	[M]
R2713	ERX2SJ1R5E	1.5 1/32W	[M]
R2717	D0GB272JA007	2.7K 1/16W	[M]
R2718	ERJ3GEYJ102V	1K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2719	D0GB152JA007	1.5K 1/16W	[M]
R2720	D0GB472JA007	4.7K 1/16W	[M]
R2721	ERJ3GEYJ103V	10K 1/16W	[M]
R2722	D0GB101JA007	100 1/16W	[M]
R2723	D0GB101JA007	100 1/16W	[M]
R2724	D0GB101JA007	100 1/16W	[M]
R2725	D0GB101JA007	100 1/16W	[M]
R2726	D0GB221JA041	220 1/16W	[M]
R2727	D0GB221JA041	220 1/16W	[M]
R2728	D0GB221JA041	220 1/16W	[M]
R2730	D0GB332JA007	3.3K 1/16W	[M] GCS
R2730	ERJ3GEYJ103V	10K 1/16W	[M] GC/G S
R2810	D0GB151JA007	150 1/16W	[M]
R2811	ERJ3GEYJ102V	1K 1/16W	[M]
R2900	D0GB224JA007	220K 1/16W	[M]
R2901	D0GB472JA007	4.7K 1/16W	[M]
R2903	ERJ3GEYJ103V	10K 1/16W	[M]
R2905	ERJ3GEYJ103V	10K 1/16W	[M]
R2907	D0GB562JA007	5.6K 1/16W	[M]
R2909	ERJ3GEYJ103V	10K 1/16W	[M]
R2911	D0AF270JA039	27 1/4W	[M]
R2915	D0GB563JA007	56K 1/16W	[M]
R2917	D0GB101JA007	100 1/16W	[M]
R2919	D0GB563JA007	56K 1/16W	[M]
R2921	ERJ3GEYJ824V	820K 1/16W	[M]
R2922	D0GB563JA007	56K 1/16W	[M]
R2924	D0GB222JA007	2.2K 1/16W	[M]
R2925	D0GB223JA007	22K 1/16W	[M]
R2927	ERJ3GEYJ103V	10K 1/16W	[M]
R2928	ERJ3GEYJ102V	1K 1/16W	[M]
R5000	ERDS1TJ474B	470K 1/2W	[M] △
R5001	ERDS1TJ474B	470K 1/2W	[M]
R5100	ERJ1TYJ220U	22 1/8W	[M]
R5102	ERJ1TYJ220U	22 1/8W	[M]
R5103	D0GB562JA007	5.6K 1/16W	[M]
R5104	D0GB562JA007	5.6K 1/16W	[M]
R5105	ERJ8GEYJ100V	10 1/8W	[M]
R5106	ERJ8GEYJ100V	10 1/8W	[M]
R5107	ERJ8GEYJ100V	10 1/8W	[M]
R5108	ERJ8GEYJ100V	10 1/8W	[M]
R5109	D0GB562JA007	5.6K 1/16W	[M]
R5110	D0GB562JA007	5.6K 1/16W	[M]
R5209	D0GB333JA007	33K 1/16W	[M]
R5210	ERJ3GEY0R00V	0 1/16W	[M]
R5211	D0GB472JA007	4.7K 1/16W	[M]
R5240	ERJ3GEY0R00V	0 1/16W	[M]
R5241	ERJ3GEYJ103V	10K 1/16W	[M]
R5243	ERJ3GEYJ103V	10K 1/16W	[M]
R5300	ERJ1TYJ220U	22 1/8W	[M]
R5301	ERJ1TYJ220U	22 1/8W	[M]
R5302	D0GB562JA007	5.6K 1/16W	[M]
R5303	ERJ8GEYJ100V	10 1/8W	[M]
R5304	D0GB562JA007	5.6K 1/16W	[M]
R5305	ERJ8GEYJ100V	10 1/8W	[M]
R5306	ERJ8GEYJ100V	10 1/8W	[M]
R5307	ERJ8GEYJ100V	10 1/8W	[M]
R5308	D0GB562JA007	5.6K 1/16W	[M]
R5309	D0GB333JA007	33K 1/16W	[M]
R5309	D0GB562JA007	5.6K 1/16W	[M]
R5310	ERJ3GEY0R00V	0 1/16W	[M]
R5311	D0GB472JA007	4.7K 1/16W	[M]
R5400	ERJ1TYJ220U	22 1/8W	[M]
R5401	ERJ1TYJ220U	22 1/8W	[M]
R5402	D0GB562JA007	5.6K 1/16W	[M]
R5403	D0GB562JA007	5.6K 1/16W	[M]
R5404	ERJ8GEYJ100V	10 1/8W	[M]
R5405	ERJ8GEYJ100V	10 1/8W	[M]
R5406	ERJ8GEYJ100V	10 1/8W	[M]
R5407	D0GB562JA007	5.6K 1/16W	[M]
R5408	D0GB562JA007	5.6K 1/16W	[M]
R5409	ERJ8GEYJ100V	10 1/8W	[M]
R5501	D0GB105JA007	1M 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R5502	ERJ3GEYJ102V	1K 1/16W	[M]
R5503	D0GB104JA007	100K 1/16W	[M]
R5504	D0GB104JA007	100K 1/16W	[M]
R5505	D0GB104JA007	100K 1/16W	[M]
R5506	ERJ3GEYJ682V	6.8K 1/16W	[M]
R5507	ERJ3GEYJ103V	10K 1/16W	[M]
R5508	D0GB220JA007	22 1/16W	[M]
R5509	ER62SJ271E	270 1/32W	[M]
R5509	ERJ3GEY0R00V	0 1/16W	[M]
R5510	ER62SJ271E	270 1/32W	[M]
R5511	ERJ3GEYJ470V	47 1/16W	[M]
R5512	D0GB392JA007	3.9K 1/16W	[M]
R5513	D0GB393JA007	39K 1/16W	[M]
R5514	D0GB153JA007	15K 1/16W	[M]
R5515	ERJ3GEY0R00V	0 1/16W	[M]
R5516	ER62SJ271E	270 1/32W	[M]
R5517	ER62SJ271E	270 1/32W	[M]
R5519	ERJ3GEYJ470V	47 1/16W	[M]
R5520	ERJ3GEYJ102V	1K 1/16W	[M]
R5550	D0GB124JA007	120K 1/16W	[M]
R5551	D0GB683JA007	68K 1/16W	[M]
R5552	D0GB124JA007	120K 1/16W	[M]
R5553	D0GB124JA007	120K 1/16W	[M]
R5554	D0GB124JA007	120K 1/16W	[M]
R5555	D0GB124JA007	120K 1/16W	[M]
R5556	ERJ3GEYJ122V	1.2K 1/16W	[M]
R5557	D0GB222JA007	2.2K 1/16W	[M]
R5558	D0GB223JA007	22K 1/16W	[M]
R5559	D0GB224JA007	220K 1/16W	[M]
R5600	ERJ3GEYJ103V	10K 1/16W	[M]
R5600	ERJ3GEYJ223V	22K 1/16W	[M] GCS/ GS
R5601	ERJ3GEYJ102V	1K 1/16W	[M]
R5601	ERJ3GEYJ223V	22K 1/16W	[M] GCS/ GS
R5602	ERJ3GEYJ102V	1K 1/16W	[M]
R5602	ERJ3GEYJ223V	22K 1/16W	[M] GCS/ GS
R5603	ERJ3GEYJ102V	1K 1/16W	[M]
R5603	ERJ3GEYJ473V	47K 1/16W	[M] GCS/ GS
R5604	ERJ3GEYJ103V	10K 1/16W	[M]
R5604	ERJ3GEYJ563V	56K 1/16W	[M] GCS/ GS
R5605	ERJ3GEYJ103V	10K 1/16W	[M]
R5605	ERJ3GEYJ222V	2.2K 1/16W	[M] GCS/ GS
R5606	D0GB104JA007	100K 1/16W	[M]
R5607	ERJ3GEYJ103V	10K 1/16W	[M]
R5608	ERJ3GEYJ103V	10K 1/16W	[M]
R5609	ERJ3GEYJ102V	1K 1/16W	[M]
R5610	D0GB104JA007	100K 1/16W	[M]
R5611	ERJ3GEY0R00V	0 1/16W	[M]
R5612	ERJ3GEY0R00V	0 1/16W	[M]
R5617	ERJ3GEYJ103V	10K 1/16W	[M]
R5621	ERJ3GEYJ103V	10K 1/16W	[M]
R5624	ERJ3GEYJ103V	10K 1/16W	[M]
R5628	ERJ3GEYJ562V	5.6K 1/16W	[M]
R5638	ERJ3GEYJ103V	10K 1/16W	[M]
R5642	ERJ3GEYJ103V	10K 1/16W	[M]
R5643	ERJ3GEYJ103V	10K 1/16W	[M]
R5644	ERJ3GEYJ103V	10K 1/16W	[M]
R5645	ERJ3GEYJ103V	10K 1/16W	[M]
R5646	ERJ3GEYJ103V	10K 1/16W	[M]
R5647	ERJ3GEYJ103V	10K 1/16W	[M]
R5648	ERJ3GEYJ103V	10K 1/16W	[M]
R5649	ERJ3GEYJ103V	10K 1/16W	[M]
R5650	ERJ3GEYJ103V	10K 1/16W	[M]
R5651	ERJ3GEY0R00V	0 1/16W	[M]
R5702	ER62SJ333E	33K 1/32W	[M]
R5703	ER62SJ333E	33K 1/32W	[M]
R5705	ERJ6GEYJ681V	680 1/10W	[M]
R5706	ERX2LJ68MP	0.68 1/32W	[M]
R5707	ERJ6GEYJ332V	3.3K 1/10W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R5708	ERJ6GEYJ222V	2.2K 1/10W	[M]
R5709	ERJ6GEYJ103V	10K 1/10W	[M]
R5710	ERJ6GEYJ220V	22 1/10W	[M]
R5711	D0GB151JA007	150 1/16W	[M]
R5712	ERJ3GEYJ102V	1K 1/16W	[M]
R5714	D0GB680JA007	68 1/16W	[M]
R5750	ERJ3GEYJ103V	10K 1/16W	[M]
R5751	ERJ3GEYJ103V	10K 1/16W	[M]
R5752	D0GB562JA007	5.6K 1/16W	[M]
R5753	ERJ3GEYJ103V	10K 1/16W	[M]
R5754	ERJ3GEYJ103V	10K 1/16W	[M]
R5803	ERJ6GEYJ100V	10 1/10W	[M]
R5804	D0AF4R7JA105	4.7 1/4W	[M]
R5805	D0AF4R7JA105	4.7 1/4W	[M]
R5806	D0AF4R7JA105	4.7 1/4W	[M]
R5807	ERJ3GEYJ152V	1.5K 1/16W	[M]
R5808	D0GB561JA007	560 1/16W	[M]
R5809	D0GB331JA007	330 1/16W	[M]
R5810	ERJ3GEYJ102V	1K 1/16W	[M]
R5811	D0GB472JA007	4.7K 1/16W	[M]
R5812	D0GB222JA007	2.2K 1/16W	[M]
R5813	ERJ8GEYJ394V	390K 1/8W	[M]
R5814	ERJ8GEYJ394V	390K 1/8W	[M]
R5815	D0GB104JA007	100K 1/16W	[M]
R5816	ERJ3GEYJ100V	10 1/16W	[M]GCS/GS
R5817	ERJ6GEYJ104V	100K 1/10W	[M]
R5901	ERJ6GEYJ222V	2.2K 1/10W	[M]
R5902	ERJ6GEYJ562V	5.6K 1/10W	[M]
R5903	ERJ3GEYJ153V	15K 1/16W	[M]
R5904	ERJ3GEYJ222V	2.2K 1/16W	[M]
R5907	ERJ3GEYJ152V	1.5K 1/16W	[M]
R5908	ERJ3GEYJ473V	47K 1/16W	[M]
R5909	ERJ3GEYJ122V	1.2K 1/16W	[M]
R5910	ERJM1WSF10MU	0.01 1W	[M]
R5961	D0GB151JA007	150 1/16W	[M]
R5962	D0GB472JA007	4.7K 1/16W	[M]
R5965	ERJ3GEYJ224V	220K 1/16W	[M]
R5966	ERJ3GEYJ224V	220K 1/16W	[M]
R5968	ERJ3GEYJ682V	6.8K 1/16W	[M]
R5969	ERJ3GEYJ000V	0 1/16W	[M]
R5971	ERG2SJ470E	47 1/32W	[M]
R5972	ERG2SJ470E	47 1/32W	[M]
R5973	ERG2SJ470E	47 1/32W	[M]
R5974	ERG2SJ470E	47 1/32W	[M]
R5975	ERG2SJ470E	47 1/32W	[M]
R5977	ERJ3GEYJ394V	390K 1/16W	[M]GCS/GS
R5978	ERJ3GEYJ394V	390K 1/16W	[M]GCS/GS
R5979	ERJ3GEYJ394V	390K 1/16W	[M]GCS/GS
R5980	D0GB272JA007	2.7K 1/16W	[M]
R5981	D0GB561JA007	560 1/16W	[M]
R5982	D0GB272JA007	2.7K 1/16W	[M]
R5983	D0GB103JA007	10K 1/16W	[M]
R5984	D0GB224JA007	220K 1/16W	[M]
R6601	D0GB223JA007	22K 1/16W	[M]
R6602	ERJ3GEYJ102V	1K 1/16W	[M]
R6603	D0GB223JA007	22K 1/16W	[M]
R6604	ERJ3GEYJ102V	1K 1/16W	[M]
R6605	ERJ3GEYJ2R7V	2.7 1/16W	[M]
R6606	ERJ3GEYJ2R7V	2.7 1/16W	[M]
R6607	D0GB274JA007	270K 1/16W	[M]
R6608	D0GB274JA007	270K 1/16W	[M]
R6609	ERJ3GEYJ103V	10K 1/16W	[M]
R6610	ERJ3GEYJ103V	10K 1/16W	[M]
R6701	D0GB473JA007	47K 1/16W	[M]
R6702	D0GB473JA007	47K 1/16W	[M]
R6703	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6704	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6708	D0GB392JA007	3.9K 1/16W	[M]
R6709	D0GB183JA007	18K 1/16W	[M]
R6710	ERJ3GEYJ102V	1K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R6711	ERJ3GEYJ102V	1K 1/16W	[M]
R6712	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6713	D0GB182JA007	1.8K 1/16W	[M]
R6714	D0GB222JA007	2.2K 1/16W	[M]
R6715	D0GB272JA007	2.7K 1/16W	[M]
R6716	ERJ3GEYJ103V	10K 1/16W	[M]
R6717	D0GB472JA007	4.7K 1/16W	[M]
R6718	ERJ3GEYJ682V	6.8K 1/16W	[M]
R6719	D0GB272JA007	2.7K 1/16W	[M]
R6720	ERJ3GEYJ102V	1K 1/16W	[M]
R6721	ERJ3GEYJ102V	1K 1/16W	[M]
R6722	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6723	D0GB182JA007	1.8K 1/16W	[M]
R6724	D0GB222JA007	2.2K 1/16W	[M]
R6725	D0GB272JA007	2.7K 1/16W	[M]
R6726	D0GB472JA007	4.7K 1/16W	[M]
R6727	ERJ3GEYJ682V	6.8K 1/16W	[M]
R6728	ERJ3GEYJ103V	10K 1/16W	[M]
R6729	ERJ3GEYJ102V	1K 1/16W	[M]
R6730	ERJ3GEYJ102V	1K 1/16W	[M]
R6731	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6732	D0GB182JA007	1.8K 1/16W	[M]
R6733	D0GB222JA007	2.2K 1/16W	[M]
R6734	D0GB272JA007	2.7K 1/16W	[M]
R6735	D0GB472JA007	4.7K 1/16W	[M]
R6736	ERJ3GEYJ682V	6.8K 1/16W	[M]
R6737	ERJ3GEYJ103V	10K 1/16W	[M]
R6738	D0GB223JA007	22K 1/16W	[M]
R6739	ERJ3GEYJ102V	1K 1/16W	[M]
R6740	D0GB332JA007	3.3K 1/16W	[M]
R6741	ERD2FCVG470T	47 1/4W	[M]
R6742	ERD2FCVG470T	47 1/4W	[M]
R6743	D0GB270JA007	27 1/16W	[M]
R6744	ERJ3GEYJ000V	0 1/16W	[M]
R6745	D0GB101JA007	100 1/16W	[M]
R6746	D0GB101JA007	100 1/16W	[M]
R6747	D0GB101JA007	100 1/16W	[M]
R6748	D0GB101JA007	100 1/16W	[M]
R6750	ERJ3GEYJ223V	22K 1/16W	[M]
R6760	ERJ3GEYJ222V	2.2K 1/16W	[M]
R6761	ERJ3GEYJ103V	10K 1/16W	[M]
R6762	ERJ3GEYJ222V	2.2K 1/16W	[M]
R6763	ERJ3GEYJ103V	10K 1/16W	[M]
R6764	D0GB153JA007	15K 1/16W	[M]
R6765	D0GB153JA007	15K 1/16W	[M]
R6766	D0GB153JA007	15K 1/16W	[M]
R6767	D0GB153JA007	15K 1/16W	[M]
R6768	ERJ3GEYJ102V	1K 1/16W	[M]
R6769	ERJ3GEYJ102V	1K 1/16W	[M]
R6770	D0GB272JA007	2.7K 1/16W	[M]
R6801	D0GB472JA007	4.7K 1/16W	[M]
R6802	D0GB100JA007	10 1/16W	[M]
R6803	D0GB100JA007	10 1/16W	[M]
R6804	D0GB100JA007	10 1/16W	[M]
R6805	D0GB100JA007	10 1/16W	[M]
R6806	ERJ3GEYJ102V	1K 1/16W	[M]
R6807	D0GB100JA007	10 1/16W	[M]
R6808	D0GB100JA007	10 1/16W	[M]
R6809	D0GB472JA007	4.7K 1/16W	[M]
R6810	D0GB100JA007	10 1/16W	[M]
R6811	D0GB100JA007	10 1/16W	[M]
R6812	D0GB273JA007	27K 1/16W	[M]
R6813	ERJ3GEYJ102V	1K 1/16W	[M]
R6814	D0GB563JA007	56K 1/16W	[M]
R6815	D0GB182JA007	1.8K 1/16W	[M]
R6816	D0GB822JA007	8.2K 1/16W	[M]
R6901	ERJ3GEYJ681V	680 1/16W	[M]
R6902	ERJ3GEYJ681V	680 1/16W	[M]
R6903	D0GB561JA007	560 1/16W	[M]
R6904	D0GB472JA007	4.7K 1/16W	[M]
R6905	D0GB474JA041	470K 1/16W	[M]
R6906	D0GB472JA007	4.7K 1/16W	[M]
R6907	D0GB334JA007	330K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R6908	D0GB151JA007	150 1/16W	[M]
R6909	D0GB334JA007	330K 1/16W	[M]
R6910	D0GB472JA007	4.7K 1/16W	[M]
R6911	D0GB101JA007	100 1/16W	[M]
R6912	D0GB273JA007	27K 1/16W	[M]
R6913	D0GB331JA007	330 1/16W	[M]
R6914	ERJ3GEYJ102V	1K 1/16W	[M]
R6916	D0GB272JA007	2.7K 1/16W	[M]
R8002	ERJ2GEJ103X	10K 1/32W	[M]
R8011	ERJ2GEJ220X	22 1/32W	[M]
R8012	ERJ2GEJ220X	22 1/32W	[M]
R8013	ERJ2GEJ220X	22 1/32W	[M]
R8030	D0GB104JA007	100K 1/16W	[M]
R8031	ERJ3GEYJ103V	10K 1/16W	[M]
R8032	ERJ3GEYJ102V	1K 1/16W	[M]
R8033	D0GB182JA007	1.8K 1/16W	[M]
R8035	D0GB102JA007	1K 1/16W	[M]
R8036	D0GB563JA007	56K 1/16W	[M]
R8037	D0GB563JA007	56K 1/16W	[M]
R8038	D0GB102JA007	1K 1/16W	[M]
R8039	D0GB334JA007	330K 1/16W	[M]
R8040	D0GB334JA007	330K 1/16W	[M]
R8041	ERJ2GEJ330X	33 1/32W	[M]
R8041	ERJ3GEYJ103V	10K 1/16W	[M]
R8042	ERJ2GEJ103X	10K 1/32W	[M]
R8042	ERJ3GEYJ103V	10K 1/16W	[M]
R8043	ERJ3GEYJ103V	10K 1/16W	[M]
R8044	ERJ3GEYJ103V	10K 1/16W	[M]
R8153	ERJ2RHD621X	620 1/16W	[M]
R8154	ERJ2RHD102X	1K 1/16W	[M]
R8211	ERJ2GEJ103X	10K 1/32W	[M]
R8221	ERJ2GEJ822X	8.2K 1/32W	[M]
R8225	ERJ2GEJ822X	8.2K 1/32W	[M]
R8230	ERJ2GEJ222X	2.2K 1/32W	[M]
R8231	ERJ2GEJ223X	22K 1/32W	[M]
R8232	ERJ2GEJ752X	7.5K 1/32W	[M]
R8233	ERJ2GEJ222X	2.2K 1/32W	[M]
R8251	ERJ6GEYJ6R8V	6.8 1/10W	[M]
R8261	ERJ2GEJ823X	82K 1/32W	[M]
R8262	ERJ2GEJ153X	15K 1/32W	[M]
R8263	ERJ2GEJ823X	82K 1/32W	[M]
R8264	ERJ2GEJ153X	15K 1/32W	[M]
R8266	ERJ2GE0R00X	0 1/32W	[M]
R8311	ERJ2RHD242X	2.4K 1/16W	[M]
R8312	ERJ2RHD102X	1K 1/16W	[M]
R8313	ERJ2RHD153X	15K 1/16W	[M]
R8314	ERJ2RHD153X	15K 1/16W	[M]
R8321	ERJ3RBD201V	200 1/16W	[M]
R8322	ERJ3GEY0R00V	0 1/16W	[M]
R8323	ERJ2GEJ330X	33 1/32W	[M]
R8324	ERJ2RHD102X	1K 1/16W	[M]
R8325	ERJ3RBD201V	200 1/16W	[M]
R8326	ERJ3GEY0R00V	0 1/16W	[M]
R8327	ERJ2GEJ330X	33 1/32W	[M]
R8328	ERJ2RHD102X	1K 1/16W	[M]
R8331	ERJ3RBD201V	200 1/16W	[M]
R8332	ERJ3GEY0R00V	0 1/16W	[M]
R8333	ERJ2GEJ330X	33 1/32W	[M]
R8334	ERJ2RHD102X	1K 1/16W	[M]
R8335	ERJ3RBD201V	200 1/16W	[M]
R8336	ERJ2GEJ330X	33 1/32W	[M]
R8337	ERJ2RHD102X	1K 1/16W	[M]
R8341	ERJ3RBD201V	200 1/16W	[M]
R8342	ERJ2GEJ330X	33 1/32W	[M]
R8343	ERJ2RHD102X	1K 1/16W	[M]
R8401	ERJ2GEJ101X	100 1/32W	[M]
R8420	ERJ2GEJ222X	2.2K 1/32W	[M]
R8421	ERJ2GE0R00X	0 1/32W	[M]
R8424	ERJ2GE0R00X	0 1/32W	[M]
R8531	ERJ2GEJ152X	1.5K 1/32W	[M]
R8532	ERJ2GEJ222X	2.2K 1/32W	[M]
R8533	ERJ2GE0R00X	0 1/32W	[M]
R8541	ERJ2GEJ153X	15K 1/32W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R8551	ERJ2GE0R00X	0 1/32W	[M]
R8552	ERJ2GEJ102X	1K 1/32W	[M]
R8553	ERJ2GEJ102X	1K 1/32W	[M]
R8554	ERJ2GEJ680X	68 1/32W	[M]
R8555	ERJ2GEJ2R2X	2.2 1/32W	[M]
R8556	ERJ3GEYJ560V	56 1/16W	[M]
R8557	ERJ3GEYJ510V	51 1/16W	[M]
R8558	ERJ2GEJ473X	47K 1/32W	[M]
R8559	ERJ2GEJ153X	15K 1/32W	[M]
R8561	ERJ2GE0R00X	0 1/32W	[M]
R8562	ERJ2GEJ102X	1K 1/32W	[M]
R8563	ERJ2GEJ102X	1K 1/32W	[M]
R8564	ERJ2GEJ220X	22 1/32W	[M]
R8565	ERJ2GEJ2R2X	2.2 1/32W	[M]
R8566	ERJ3GEYJ560V	56 1/16W	[M]
R8567	ERJ3GEYJ510V	51 1/16W	[M]
R8568	ERJ2GEJ473X	47K 1/32W	[M]
R8601	ERJ2GEJ104X	100K 1/32W	[M]
R8611	ERJ2GEJ101X	100 1/32W	[M]
R8621	ERJ2GEJ105X	1M 1/32W	[M]
R8622	ERJ2RHD681X	680 1/16W	[M]
R9008	ERJ2GEJ105X	1M 1/32W	[M]
R9009	ERJ2RHD102X	1K 1/16W	[M]
R9030	ERJ3GEY0R00V	0 1/16W	[M]
R9031	ERJ3GEY0R00V	0 1/16W	[M]
R9032	ERJ2RKD240X	24 1/16W	[M]
R9033	ERJ2RKD240X	24 1/16W	[M]
R9034	ERJ2GEJ153X	15K 1/32W	[M]
R9035	ERJ2GEJ153X	15K 1/32W	[M]
R9036	ERJ2GEJ103X	10K 1/32W	[M]
R9037	ERJ2GEJ103X	10K 1/32W	[M]
R9040	ERJ2GEJ103X	10K 1/32W	[M]
R9042	ERJ2GEJ103X	10K 1/32W	[M]
R9043	ERJ2GE0R00X	0 1/32W	[M]
R9044	ERJ2GE0R00X	0 1/32W	[M]
R9045	ERJ2GE0R00X	0 1/32W	[M]
R9080	ERJ2GEJ103X	10K 1/32W	[M]
RX8001	D1H410320002	CHIP RESISTOR	[M]
RX8011	D1H88204A024	CHIP RESISTOR	[M]
RX8012	D1H88204A024	CHIP RESISTOR	[M]
RX8013	D1H88204A024	CHIP RESISTOR	[M]
RX8014	D1H88204A024	CHIP RESISTOR	[M]
RX8015	D1H88204A024	CHIP RESISTOR	[M]
RX8016	D1H88204A024	CHIP RESISTOR	[M]
RX8017	D1H88204A024	CHIP RESISTOR	[M]
RX8018	D1H422020001	CHIP RESISTOR	[M]
RX8019	D1H422020001	CHIP RESISTOR	[M]
RX8020	D1H422020001	CHIP RESISTOR	[M]
RX8031	D1H447220001	CHIP RESISTOR	[M]
RX8032	D1H447220001	CHIP RESISTOR	[M]
RX8111	D1H422320002	CHIP RESISTOR	[M]
RX8401	D1H410120001	CHIP RESISTOR	[M]
RX8402	D1H410120001	CHIP RESISTOR	[M]
RX8403	D1H410120001	CHIP RESISTOR	[M]
RX8531	D1H456020001	CHIP RESISTOR	[M]
RX8532	D1H85604A024	CHIP RESISTOR	[M]
RX8533	D1H456020001	CHIP RESISTOR	[M]
RX8534	D1H456020001	CHIP RESISTOR	[M]
RX8611	D1H447220001	CHIP RESISTOR	[M]
RX8691	D1H410320002	CHIP RESISTOR	[M]
K8001	ERJ2GE0R00X	CHIP RESISTOR	[M] GCS
K8006	ERJ2GE0R00X	CHIP RESISTOR	[M] GCS
K8251	ERJ3GEY0R00V	CHIP RESISTOR	[M]
K8421	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W1039	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2010	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2021	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2045	ERJ8GEY0R00V	CHIP RESISTOR	[M]
W2054	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W3000	ERJ3GEY0R00V	CHIP RESISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
W3001	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W3002	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3003	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3004	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3005	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3006	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3007	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W3008	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3009	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3010	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3013	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3014	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3015	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3016	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3017	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3018	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3019	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3020	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3021	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3023	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3024	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3025	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3029	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3030	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3031	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3032	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3033	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3034	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3035	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3036	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3037	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3038	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3039	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3040	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3041	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3042	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3044	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3045	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3046	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3047	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W3051	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3052	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W3053	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3054	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3055	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3057	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W3058	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3059	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W3061	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3062	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3063	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3064	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3065	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3066	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3067	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3068	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3069	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3070	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3071	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3074	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3075	ERJ8GEY0R00V	CHIP RESISTOR	[M]
W3076	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W3077	ERJ8GEY0R00V	CHIP RESISTOR	[M]
W3078	ERJ8GEY0R00V	CHIP RESISTOR	[M]
W3079	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3080	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W3081	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3082	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W3083	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3084	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W3085	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W3086	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3087	ERJ3GEY0R00V	CHIP RESISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
W3900	ERJ8GEY0R00V	CHIP RESISTOR	[M]
W3901	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3902	ERJ8GEY0R00V	CHIP RESISTOR	[M]
W3904	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W3907	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3908	ERJ8GEY0R00V	CHIP RESISTOR	[M]
W5649	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W5650	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W5653	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W5806	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W5901	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W6000	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W6001	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W6003	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W6007	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W6009	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W6010	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W6011	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W6012	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W6013	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W6205	ERJ3GEY0R00V	CHIP RESISTOR	[M]
		CAPACITORS	
C1002	ECEA1HKN2R2B	2.2 50V	[M]
C1006	F2A1H1R0A234	1 50V	[M]
C1007	F0A2A472A034	4700P 100V	[M]
C1008	F2A1H1R0A234	1 50V	[M]
C1009	F2A1C470A234	47 16V	[M]
C1010	F2A1E1010056	100 25V	[M]
C1011	ECQV1H473JL3	0.047 50V	[M]
C1012	F1H1H102A219	1000P 50V	[M]
C1013	F1H1H102A219	1000P 50V	[M]
C1014	F1H1H102A219	1000P 50V	[M]
C1015	F1H1H102A219	1000P 50V	[M]
C1016	F1H1H222A013	2200P 50V	[M]
C1017	F1H1H222A013	2200P 50V	[M]
C1018	F1H1H332A013	3300P 50V	[M]
C1019	F1H1H102A219	1000P 50V	[M]
C1020	F1H1H471A219	470P 50V	[M]
C1021	F1H1H471A219	470P 50V	[M]
C1022	F1H1H102A219	1000P 50V	[M]
C1023	F1H1H102A219	1000P 50V	[M]
C1026	F2A0J470A245	47 6.3V	[M]
C1027	F1H1H102A219	1000P 50V	[M]
C1030	ECEA1AKA101B	100 10V	[M]
C1031	ECEA1AKA101B	100 10V	[M]
C1032	F1C1C183A023	0.018 16V	[M]
C1033	F1C1C183A023	0.018 16V	[M]
C1034	F2A1H3R3A145	3.3 50V	[M]
C1035	F2A1H3R3A145	3.3 50V	[M]
C1036	F1H1C333A071	0.033 16V	[M]
C1037	F2A1H3R3A145	3.3 50V	[M]
C1038	F1H1H221A748	220P 50V	[M]
C1039	F1H1H221A748	220P 50V	[M]
C1040	F2A1C100A234	10 16V	[M]
C1041	F2A1C100A234	10 16V	[M]
C1042	F2A1C220A234	22 16V	[M]
C1043	F2A1H4R7A234	4.7 50V	[M]
C1044	F2A1A330A204	33 10V	[M]
C1045	F2A1A220A204	22 10V	[M]
C1046	F2A1C221A236	220 16V	[M]
C1049	F1H1H332A013	3300P 50V	[M]
C1050	F1H1H332A013	3300P 50V	[M]
C1056	F2A1C100A234	10 16V	[M]
C1057	F1H1H102A219	1000P 50V	[M]
C1058	F1H1H102A219	1000P 50V	[M]
C1059	F1H1H103A219	0.01 50V	[M]
C2000	F1H1H331A013	330P 50V	[M]
C2003	F1H1H101A230	100P 50V	[M]
C2004	F1H1H101A230	100P 50V	[M]
C2006	F1H1H471A219	470P 50V	[M]
C2007	F1H1H101A230	100P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2008	F1H1H101A230	100P 50V	[M]
C2009	F2A0J331A183	330 6.3V	[M]
C2010	F2A0J331A183	330 6.3V	[M]
C2012	F2A0J102A130	1000 6.3V	[M]
C2013	F2A0J102A130	1000 6.3V	[M]
C2015	ECEA1AKA221B	220 10V	[M]
C2016	F1H1H103A219	0.01 50V	[M]
C2017	F2A1A220A149	22 10V	[M]
C2018	ECJ1VB1C105K	1 16V	[M]
C2019	ECJ1VB1C105K	1 16V	[M]
C2020	ECJ1VB1H104K	0.1 50V	[M]
C2021	F1H1H103A219	0.01 50V	[M]
C2022	ECJ1VB1H104K	0.1 50V	[M]
C2023	F1H1H101A230	100P 50V	[M]
C2024	F1H1H101A230	100P 50V	[M]
C2025	F1H1H101A230	100P 50V	[M]
C2026	F1H1H101A230	100P 50V	[M]
C2027	ECJ1VB1C105K	1 16V	[M]
C2028	ECJ1VB1C105K	1 16V	[M]
C2029	ECJ1VB1C105K	1 16V	[M]
C2030	ECJ1VB1C105K	1 16V	[M]
C2031	F2A1C1000018	10 16V	[M]
C2032	F2A1C1000018	10 16V	[M]
C2033	F2A1C1000018	10 16V	[M]
C2034	ECJ1VB1C105K	1 16V	[M]
C2035	ECEA1AKA221B	220 10V	[M]
C2036	ECJ1VB1H123K	0.012 50V	[M]
C2037	F2A1C470A234	47 16V	[M]
C2038	ECJ1VB1H123K	0.012 50V	[M]
C2102	F1H1H103A219	0.01 50V	[M]
C2103	ECJ1VB1C393K	0.039 16V	[M]
C2104	ECJ1VB1C393K	0.039 16V	[M]
C2105	EEUFM1A681B	680 10V	[M]
C2106	F1H1H332A013	3300P 50V	[M]
C2107	F1H1H332A013	3300P 50V	[M]
C2108	ECJ1VB1C104K	0.1 16V	[M]
C2109	ECJ1VB1C104K	0.1 16V	[M]
C2110	ECJ1VB1H104K	0.1 50V	[M]
C2111	ECJ1VB1H104K	0.1 50V	[M]
C2112	ECJ1VB1H183K	0.018 50V	[M]
C2113	ECJ1VB1H183K	0.018 50V	[M]
C2114	ECJ1VC1H101K	100P 50V	[M]
C2115	ECJ1VC1H101K	100P 50V	[M]
C2116	ECJ1VB1H681K	680P 50V	[M]
C2117	ECJ1VB1H681K	680P 50V	[M]
C2200	ECEA1EKA4R7B	4.7 25V	[M]
C2201	F1H1H471A219	470P 50V	[M]
C2202	F1H1H471A219	470P 50V	[M]
C2203	F1H1H101A230	100P 50V	[M]
C2204	F1H1H101A230	100P 50V	[M]
C2205	F1H1H101A230	100P 50V	[M]
C2206	F1H1H101A230	100P 50V	[M]
C2207	F1H1H101A230	100P 50V	[M]
C2208	F1H1H222A013	2200P 50V	[M]
C2209	F1H1H682A219	6800P 50V	[M]
C2210	ECJ1VB1C823K	0.082 16V	[M]
C2211	ECJ1VB1C823K	0.082 16V	[M]
C2212	F2A1C1000018	10 16V	[M]
C2213	ECJ1VB1A184K	0.18 10V	[M]
C2214	F1H1H332A013	3300P 50V	[M]
C2215	F1H1A154A001	0.15 10V	[M]
C2216	F1H1C154A002	0.15 16V	[M]
C2217	F1H1H332A013	3300P 50V	[M]
C2218	F1H1A154A001	0.15 10V	[M]
C2219	F1H1H682A219	6800P 50V	[M]
C2220	ECJ1VB1C823K	0.082 16V	[M]
C2221	F2A1C1000018	10 16V	[M]
C2222	F2A1C1000018	10 16V	[M]
C2223	ECJ1VB1C823K	0.082 16V	[M]
C2224	F2A1C1000018	10 16V	[M]
C2225	F1H1A154A001	0.15 10V	[M]
C2226	ECJ1VB1H153K	0.015 50V	[M]
C2227	F1H1C154A002	0.15 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2228	ECJ1VB1H153K	0.015 50V	[M]
C2229	ECJ1VB1C105K	1 16V	[M]
C2230	ECJ1VB1C823K	0.082 16V	[M]
C2231	ECJ1VB1H104K	0.1 50V	[M]
C2232	F1H1H221A748	220P 50V	[M]
C2233	F1H1H221A748	220P 50V	[M]
C2234	ECJ1VB1H104K	0.1 50V	[M]
C2235	ECJ1VB1C105K	1 16V	[M]
C2236	F2A1C1000018	10 16V	[M]
C2237	ECJ1VB1H333K	0.033 50V	[M]
C2238	ECJ1VB1C393K	0.039 16V	[M]
C2239	F2A1C1000018	10 16V	[M]
C2240	ECJ1VB1A184K	0.18 10V	[M]
C2241	ECJ1VB1C683K	0.068 16V	[M]
C2242	F2A1E220A202	22 25V	[M]
C2243	F2A1C1000018	10 16V	[M]
C2244	ECJ1VB1A184K	0.18 10V	[M]
C2245	ECJ1VB1H333K	0.033 50V	[M]
C2246	F1H1C333A071	0.033 16V	[M]
C2247	ECJ1VB1C105K	1 16V	[M]
C2248	ECJ1VB1C105K	1 16V	[M]
C2249	ECJ1VB1H562K	5600P 50V	[M]
C2251	ECJ1VB1A184K	0.18 10V	[M]
C2252	ECJ1VB1C105K	1 16V	[M]
C2253	ECJ1VB1C105K	1 16V	[M]
C2254	ECA1CM101B	100 16V	[M]
C2256	ECA1CM101B	100 16V	[M]
C2257	ECJ1VB1H104K	0.1 50V	[M]
C2258	ECJ1VB1H104K	0.1 50V	[M]
C2260	ECJ1VB1H104K	0.1 50V	[M]
C2261	F2A1C101A147	100 16V	[M]
C2262	ECJ1VB1H104K	0.1 50V	[M]
C2263	F2A1H1R0A234	1 50V	[M]
C2264	F2A1H1R0A234	1 50V	[M]
C2265	ECJ1VB1C683K	0.068 16V	[M]
C2266	F1H1H102A219	1000P 50V	[M]
C2267	ECJ1VB1C105K	1 16V	[M]
C2268	ECJ1VB1H472K	4700P 50V	[M]
C2269	ECJ1VB1H472K	4700P 50V	[M]
C2270	ECJ1VB1C683K	0.068 16V	[M]
C2271	ECJ1VB1H104K	0.1 50V	[M]
C2272	ECEA1HKA010B	1 50V	[M]
C2273	F2A1H100A145	10P 50V	[M]
C2274	F1H1H102A219	1000P 50V	[M]
C2275	F2A1H100A145	10 50V	[M]
C2276	F1H1A154A001	0.15 10V	[M]
C2277	ECJ1VB1C105K	1 16V	[M]
C2278	ECJ1VB1H104K	0.1 50V	[M]
C2279	ECJ1VB1C105K	1 16V	[M]
C2280	F2A1H2R2A013	2.2 50V	[M]
C2281	ECJ1VB1C683K	0.068 16V	[M]
C2282	ECJ1VB1C683K	0.068 16V	[M]
C2283	ECJ1VB1C683K	0.068 16V	[M]
C2284	ECJ1VB1C683K	0.068 16V	[M]
C2285	ECJ1VB1H473K	0.047 50V	[M]
C2286	F2A1H2R2A013	2.2 50V	[M]
C2287	ECJ1VB1H561K	560P 50V	[M]
C2288	ECA1CM101B	100 16V	[M]
C2289	F2A1C470A016	47 16V	[M]
C2290	F1H1H102A219	1000P 50V	[M]
C2291	ECJ1VB1H272K	2700P 50V	[M]
C2292	F1H1H101A230	100P 50V	[M]
C2293	ECJ1VB1H821K	820P 50V	[M]
C2294	ECJ1VB1H472K	4700P 50V	[M]
C2295	F1H1H332A013	3300P 50V	[M]
C2296	F1H1H102A219	1000P 50V	[M]
C2297	ECJ1VB1A105K	1 10V	[M]
C2298	ECJ1VB1C683K	0.068 16V	[M]
C2305	ECJ1VB1H104K	0.1 50V	[M]
C2306	ECJ1VB1H104K	0.1 50V	[M]
C2307	F2A1C470A016	47 16V	[M]
C2308	F2A1E220A202	22 25V	[M]
C2309	F2A1E220A202	22 25V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2310	F2A1C470A016	47 16V	[M]
C2311	ECJ1VC1H100D	10P 50V	[M]
C2312	ECJ1VC1H100D	10P 50V	[M]
C2313	ECEA1HKA330B	33 50V	[M]
C2314	ECEA1HKA330B	33 50V	[M]
C2320	F1H1H563A748	0.056 50V	[M]
C2340	ECEA1HKA010B	1 50V	[M]
C2341	ECEA1HKA010B	1 50V	[M]
C2342	ECEA1HKA010B	1 50V	[M]
C2343	F2A1H4R7A014	4.7 50V	[M]
C2344	ECEA1HKA010B	1 50V	[M]
C2345	F1H1H101A230	100P 50V	[M]
C2346	F1H1H470A230	47P 50V	[M]
C2347	F1H1H101A230	100P 50V	[M]
C2348	F1H1H470A230	47P 50V	[M]
C2349	ECJ1VB1H104K	0.1 50V	[M]
C2350	ECJ1VB1H104K	0.1 50V	[M]
C2351	ECJ1VB1C473K	0.047 16V	[M]
C2352	ECEA1AKA221B	220 10V	[M]
C2353	ECEA1AKA221B	220 10V	[M]
C2354	ECJ1VB1C473K	0.047 16V	[M]
C2355	ECJ1VB1H822K	8200P 50V	[M]
C2356	ECJ1VB1H822K	8200P 50V	[M]
C2370	F2A1H3R3A145	3.3 50V	[M]
C2371	F2A1H3R3A145	3.3 50V	[M]
C2372	F2A1H2R2A145	2.2 50V	[M]
C2373	F2A1H3R3A145	3.3 50V	[M]
C2374	F2A1H3R3A145	3.3 50V	[M]
C2375	ECJ1VB1C105K	10 16V	[M]
C2376	F2A1H4R7A014	4.7 50V	[M]
C2400	F1H1H102A219	1000P 50V	[M]
C2410	ECJ1VB1H104K	0.1 50V	[M]
C2411	ECJ1VB1H104K	0.1 50V	[M]
C2412	ECJ1VB1H104K	0.1 50V	[M]
C2413	F1H1H103A219	0.01 50V	[M]
C2414	F1H1H103A219	0.01 50V	[M]
C2415	F2A1E220A202	22 25V	[M]
C2416	F1H1H103A219	0.01 50V	[M]
C2500	ECJ1VB1C105K	1 16V	[M]
C2501	ECJ1VB1C105K	1 16V	[M]
C2502	F1H1H103A219	0.01 50V	[M]
C2503	F1H1H103A219	0.01 50V	[M]
C2504	ECJ1VB1C473K	0.047 16V	[M]
C2505	ECJ1VB1C823K	0.082 16V	[M]
C2507	ECJ1VB1C473K	0.047 16V	[M]
C2508	ECJ1VC1H100D	10P 50V	[M]
C2509	ECJ1VC1H100D	10P 50V	[M]
C2510	F1H1H103A219	0.01 50V	[M]
C2511	ECJ1VB1C224K	0.22 16V	[M]
C2512	F1H1H103A219	0.01 50V	[M]
C2513	ECJ1VB1H122K	1200P 50V	[M]
C2514	F1H1C223A001	0.022 16V	[M]
C2515	F1H1H392A013	3900P 50V	[M]
C2516	ECEA1EKA4R7B	4.7 25V	[M]
C2517	ECJ1VB1H223K	0.022 50V	[M]
C2518	F1H1H392A013	3900P 50V	[M]
C2519	ECJ1VB1H122K	1200P 50V	[M]
C2520	F1H1H103A219	0.01 50V	[M]
C2521	F1H1H103A219	0.01 50V	[M]
C2600	F2A1H2R2A013	2.2P 50V	[M]
C2601	F1H1H471A219	470P 50V	[M]
C2602	F1H1H471A219	470P 50V	[M]
C2603	F1H1H471A219	470P 50V	[M]
C2604	F1H1H471A219	470P 50V	[M]
C2605	F1H1H471A219	470P 50V	[M]
C2606	F1H1H471A219	470P 50V	[M]
C2607	F1H1H471A219	470P 50V	[M]
C2608	ECJ1VC1H101K	100P 50V	[M]
C2609	F1H1H103A219	0.01 50V	[M]
C2610	ECJ1VC1H101K	100P 50V	[M]
C2611	ECJ1VC1H101K	100P 50V	[M]
C2612	ECJ1VC1H101K	100P 50V	[M]
C2613	ECJ1VC1H101K	100P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2614	ECJ1VC1H101K	100P 50V	[M]
C2615	ECJ1VC1H150J	15P 50V	[M]
C2616	F1H1H103A219	0.01 50V	[M]
C2617	ECJ1VC1H180J	18P 50V	[M]
C2618	ECJ1VC1H390J	39P 50V	[M]
C2619	ECJ1VC1H390J	39P 50V	[M]
C2620	ECJ1VB1H104K	0.1 50V	[M]
C2621	F1H1H103A219	0.01 50V	[M]
C2622	F1H1H102A219	1000P 50V	[M]
C2623	ECJ1VC1H101K	100P 50V	[M]
C2624	ECJ1VB1A124K	0.12 10V	[M]
C2625	F1H1H102A219	1000P 50V	[M]
C2626	ECJ1VB1H104K	0.1 50V	[M]
C2627	F2A0J101A013	100 6.3V	[M]
C2628	ECJ1VC1H101K	100P 50V	[M]
C2629	ECJ1VC1H101K	100P 50V	[M]
C2631	ECJ1VC1H101K	100P 50V	[M]
C2632	ECA1CM102B	1000 16V	[M]
C2637	ECJ1VC1H101K	100P 50V	[M]
C2638	ECJ1VC1H101K	100P 50V	[M]
C2639	ECJ1VC1H101K	100P 50V	[M]
C2640	ECJ1VC1H101K	100P 50V	[M]
C2641	ECJ1VC1H101K	100P 50V	[M]
C2642	ECJ1VC1H101K	100P 50V	[M]
C2643	ECJ1VC1H101K	100P 50V	[M]
C2650	F1H1H331A013	330P 50V	[M]
C2652	F1H1H331A013	330P 50V	[M]
C2653	ECJ1VB1H223K	0.022 50V	[M]
C2710	F1H1H103A219	0.01 50V	[M]
C2711	F2A0J221A167	220 6.3V	[M]
C2712	F2A1C101A147	100 16V	[M]
C2713	F1H1H103A219	0.01 50V	[M]
C2714	F1H1H103A219	0.01 50V	[M]
C2715	ECA0JM221B	220 6.3V	[M]
C2716	F1H1H103A219	0.01 50V	[M]
C2717	ECA0JM221B	220 6.3V	[M]
C2720	ECJ1VB1C105K	1 16V	[M]
C2721	F2A1C101A147	100 16V	[M]
C2722	F1H1H103A219	0.01 50V	[M]
C2723	EEUFC0J821B	820 6.3V	[M]
C2724	F1H1H101A230	100P 50V	[M]
C2725	EEUFC1E102B	1000 25V	[M]
C2726	F1H1H103A219	0.01 50V	[M]
C2810	F1H1H103A219	0.01 50V	[M]
C2811	F2A1C470A016	47 16V	[M]
C2812	F2A1C470A016	47 16V	[M]
C2813	F1H1H103A219	0.01 50V	[M]
C2814	F1H1H103A219	0.01 50V	[M]
C2815	F2A1C101A147	100 16V	[M]
C2816	ECJ1VB1H104K	0.1 50V	[M]
C2817	ECA1EM102B	1000 25V	[M]
C2900	F2A1C470A234	47 16V	[M]
C2901	F1H1H101A230	100P 50V	[M]
C2902	F2A1C330A234	33 16V	[M]
C2904	ECA1CM101B	100 16V	[M]
C2906	ECEA1AKA221B	220 10V	[M]
C2908	F1H1H101A230	100P 50V	[M]
C2910	F2A1H1R0A234	1 50V	[M]
C2930	ECA1CM101B	100 16V	[M]
C5001	ECQU2A224MLC	0.22	[M] △
C5013	ECJ1VB1H104K	0.1 50V	[M]
C5056	ECJ1VB1H104K	0.1 50V	[M]
C5079	ECJ1VB1H104K	0.1 50V	[M]
C5089	ECJ1VB1H104K	0.1 50V	[M]
C5100	F1H1H103A219	0.01 50V	[M]
C5101	F1H1H103A219	0.01 50V	[M]
C5102	ECJ1VB1H104K	0.1 50V	[M]
C5103	ECJ1VB1H104K	0.1 50V	[M]
C5104	ECQV1H474JL3	0.47 50V	[M]
C5105	ECQV1H474JL3	0.47 50V	[M]
C5106	F1H1H331A013	330P 50V	[M]
C5107	ECJ1VB1H104K	0.1 50V	[M]
C5108	ECJ1VB1H104K	0.1 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C5109	ECJ1VC1H221J	220P 50V	[M]
C5110	F1K2A1040007	0.1 100V	[M]
C5111	ECJ1VB1A474K	0.47 10V	[M]
C5112	ECJ1VB1A474K	0.47 10V	[M]
C5113	ECJ1VB1H153K	0.015 50V	[M]
C5114	ECJ2VC2A221J	220P 100V	[M]
C5115	F1K2A1040007	0.1 100V	[M]
C5116	F1K2A1040007	0.1 100V	[M]
C5117	ECJ2VC2A221J	220P 100V	[M]
C5118	ECJ1VB1H104K	0.1 50V	[M]
C5119	ECJ1VB1C224K	0.22 16V	[M]
C5120	ECJ1VB1H153K	0.015 50V	[M]
C5121	ECJ2VC2A221J	220P 100V	[M]
C5122	ECJ1VB1H104K	0.1 50V	[M]
C5123	ECJ2VC2A221J	220P 100V	[M]
C5124	F1K2A1040007	0.1 100V	[M]
C5125	F1K2A1040007	0.1 100V	[M]
C5126	ECJ1VB1H104K	0.1 50V	[M]
C5127	ECJ1VB1H104K	0.1 50V	[M]
C5128	F1K2A1040007	0.1 100V	[M]
C5129	F1H1H101A230	100P 50V	[M]
C5130	ECJ1VB1A474K	0.47 10V	[M]
C5131	ECJ1VB1A474K	0.47 10V	[M]
C5132	ECJ1VB1H821K	820P 50V	[M]
C5133	F2A2A2200013	22 100V	[M]
C5134	F1H1H102A219	1000P 50V	[M]
C5300	F1H1H103A219	0.01 50V	[M]
C5301	F1H1H103A219	0.01 50V	[M]
C5302	ECJ1VB1H104K	0.1 50V	[M]
C5303	ECJ1VB1H104K	0.1 50V	[M]
C5304	ECQV1H474JL3	0.47 50V	[M]
C5305	ECQV1H474JL3	0.47 50V	[M]
C5306	F1H1H102A219	1000P 50V	[M]
C5307	ECJ1VB1H104K	0.1 50V	[M]
C5308	ECJ1VB1H104K	0.1 50V	[M]
C5309	ECJ1VC1H221J	220P 50V	[M]
C5310	F1K2A1040007	0.1 100V	[M]
C5311	ECJ1VB1A474K	0.47 10V	[M]
C5312	F1H1H102A219	1000P 50V	[M]
C5313	ECJ1VB1H104K	0.1 50V	[M]
C5314	ECJ1VB1H153K	0.015 50V	[M]
C5315	ECJ2VC2A221J	220P 100V	[M]
C5316	ECJ1VB1H104K	0.1 50V	[M]
C5317	ECJ2VC2A221J	220P 100V	[M]
C5318	F1K2A1040007	0.1 100V	[M]
C5319	F1K2A1040007	0.1 100V	[M]
C5320	ECJ1VB1C224K	0.22 16V	[M]
C5321	ECJ1VB1H153K	0.015 50V	[M]
C5322	ECJ2VC2A221J	220P 100V	[M]
C5323	ECJ1VB1H104K	0.1 50V	[M]
C5324	ECJ2VC2A221J	220P 100V	[M]
C5325	F1K2A1040007	0.1 100V	[M]
C5326	F1K2A1040007	0.1 100V	[M]
C5327	ECJ1VB1H104K	0.1 50V	[M]
C5328	ECJ1VB1H104K	0.1 50V	[M]
C5329	F1K2A1040007	0.1 100V	[M]
C5330	F1H1H102A219	1000P 50V	[M]
C5331	ECJ1VB1A474K	0.47 10V	[M]
C5332	F2A2A2200013	22 100V	[M]
C5333	F1H1H102A219	1000P 50V	[M]
C5334	ECJ1VB1A474K	0.47 10V	[M]
C5400	F1H1H103A219	0.01 50V	[M]
C5401	F1H1H103A219	0.01 50V	[M]
C5402	ECJ1VB1H104K	0.1 50V	[M]
C5403	ECJ1VB1H104K	0.1 50V	[M]
C5404	ECQV1H474JL3	0.47 50V	[M]
C5405	ECQV1H474JL3	0.47 50V	[M]
C5406	F1H1H101A230	100P 50V	[M]
C5407	ECJ1VB1H104K	0.1 50V	[M]
C5408	ECJ1VB1H104K	0.1 50V	[M]
C5409	ECJ1VC1H221J	220P 50V	[M]
C5410	F1K2A1040007	0.1 100V	[M]
C5411	ECJ1VB1A474K	0.47 10V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C5412	ECJ1VB1A474K	0.47 10V	[M]
C5413	ECJ1VB1H153K	0.015 50V	[M]
C5414	ECJ2VC2A221J	220P 100V	[M]
C5415	ECJ1VB1H104K	0.1 50V	[M]
C5416	ECJ2VC2A221J	220P 100V	[M]
C5417	F1K2A1040007	0.1 100V	[M]
C5418	F1K2A1040007	0.1 100V	[M]
C5419	ECJ1VB1C224K	0.22 16V	[M]
C5420	ECJ1VB1H153K	0.015 50V	[M]
C5421	ECJ2VC2A221J	220P 100V	[M]
C5422	ECJ1VB1H104K	0.1 50V	[M]
C5423	ECJ2VC2A221J	220P 100V	[M]
C5424	F1K2A1040007	0.1 100V	[M]
C5425	F1K2A1040007	0.1 100V	[M]
C5426	ECJ1VB1H104K	0.1 50V	[M]
C5427	ECJ1VB1H104K	0.1 50V	[M]
C5428	F1K2A1040007	0.1 100V	[M]
C5429	F1H1H101A230	100P 50V	[M]
C5430	ECJ1VB1A474K	0.47 10V	[M]
C5431	ECJ1VB1A474K	0.47 10V	[M]
C5432	F1H1H102A219	1000P 50V	[M]
C5433	F2A2A2200013	22 100V	[M]
C5434	F1H1H102A219	1000P 50V	[M]
C5500	F1H1H471A219	470P 50V	[M]
C5501	ECJ1VC1H101K	100P 50V	[M]
C5502	ECJ1VC1H101K	100P 50V	[M]
C5503	ECJ1VC1H101K	100P 50V	[M]
C5504	F2A0J102A247	1000 6.3V	[M]
C5506	ECJ1VB1H104K	0.1 50V	[M]
C5507	F1H1H103A219	0.01 50V	[M]
C5507	F1H1H470A230	47P 50V	[M]
C5508	ERJ3GEY0R00V	0 1/16W	[M]
C5508	F1H1H103A219	0.01 50V	[M]
C5509	F1H1H103A219	0.01 50V	[M]
C5510	F1H1H103A219	0.01 50V	[M]
C5511	F1H1H103A219	0.01 50V	[M]
C5512	F2A1C221A019	220 16V	[M]
C5513	F2A1C221A019	220 16V	[M]
C5514	F2A1E1010056	100 25V	[M]
C5550	F2A0J101A167	100 6.3V	[M]
C5600	F2A1H2R2A145	2.2 50V	[M]
C5601	F2A1H2R2A145	2.2 50V	[M]
C5630	ECJ1VB1H104K	0.1 50V	[M]
C5631	ECJ1VB1H104K	0.1 50V	[M]
C5640	F2A1V471A141	470 35V	[M]
C5641	F2A1V471A141	470 35V	[M]
C5644	F2A1V471A141	470 35V	[M]
C5645	F2A1V471A141	470 35V	[M]
C5646	F2A1V471A141	470 35V	[M]
C5647	F2A1V471A141	470 35V	[M]
C5648	ERJ3GEY0R00V	0 1/16W	[M]
C5649	ERJ3GEY0R00V	0 1/16W	[M]
C5650	F1H1H103A219	0.01 50V	[M]
C5651	F1H1H103A219	0.01 50V	[M]
C5657	F1H1H103A219	0.01 50V	[M]
C5659	F1H1H103A219	0.01 50V	[M]
C5660	F1H1H103A219	0.01 50V	[M]
C5661	F1H1H103A219	0.01 50V	[M]
C5662	F1H1H103A219	0.01 50V	[M]
C5663	F1H1H103A219	0.01 50V	[M]
C5666	F1H1H103A219	0.01 50V	[M]
C5667	F1H1H103A219	0.01 50V	[M]
C5678	F1H1H103A219	0.01 50V	[M]
C5679	F1H1H103A219	0.01 50V	[M]
C5701	F1BAF1020020	1000P	[M] △
C5702	F1BAF1020020	1000P	[M] △
C5703	F1K2J472A010	4700P 250V	[M]
C5704	ECQU2A224MLC	0.22	[M] △
C5705	F1K2J472A010	4700P 250V	[M]
C5706	F1H1H471A219	470P 50V	[M]
C5707	ECKE3D152KBP	1500P 2000V	[M] GCS/ GS
C5707	ECKE3D821KBP	820P 2000V	[M] GC

Ref. No.	Part No.	Part Name & Description	Remarks
C5708	F1H1H221A748	220P 50V	[M]
C5709	F1H1H102A219	1000P 50V	[M]
C5710	F1BAF2220023	2200P	[M]
C5711	EETUQ2G331JJ	330 400V	[M]GCS/GS
C5712	F2A1H5600009	56 50V	[M]
C5713	EETUQ2G331JJ	330 400V	[M]
C5714	F1B3D102A002	1000P 2000V	[M]
C5715	ECA1AAK221XB	220 10V	[M]
C5716	F2A1A470A204	47 10V	[M]
C5717	ECJ1VB1H104K	0.1 50V	[M]
C5718	F1BAF2220023	2200P	[M]
C5744	ECQE2104KF3	0.1 250V	[M]
C5745	ECQE2104KF3	0.1 250V	[M]
C5748	F2A1H4R7A234	4.7 50V	[M]
C5790	F2A1H220A234	22 50V	[M]GCS/GS
C5802	ECJ1VB1H104K	0.1 50V	[M]
C5803	ECCN3A470KGE	47P 1000V	[M]
C5804	ECJ1VB1H681K	680P 50V	[M]
C5805	F2A1H220A234	22 50V	[M]
C5806	ECA1AAK221XB	220 10V	[M]
C5807	F2A1H2R2A145	2.2 50V	[M]
C5808	ECJ1VB1H104K	0.1 50V	[M]
C5809	ECJ1VB1H104K	0.1 50V	[M]
C5901	F1B3D102A002	1000P 2000V	[M]
C5902	F1B3D102A002	1000P 2000V	[M]
C5903	F1B3D102A002	1000P 2000V	[M]
C5904	ECJ1VB1H104K	0.1 50V	[M]
C5905	ECJ1VB1H473K	0.047 50V	[M]
C5913	F1B3D102A002	1000P 2000V	[M]
C5914	ECA1VAM102XE	1000 35V	[M]
C5916	F2A1V3320011	3300 35V	[M]
C5917	F2A1V3320011	3300 35V	[M]
C5920	ECJ1VB1H104K	0.1 50V	[M]
C5926	F1H1H103A219	0.01 50V	[M]
C5927	F2A1H1010039	100 50V	[M]
C5929	F2A1H1010039	100 50V	[M]
C5930	F2A1C101A147	100 16V	[M]
C5971	F2A1H2R2A145	2.2 50V	[M]GCS/GS
C5972	ECJ1VB1H104K	0.1 50V	[M]GCS/GS
C5973	ECJ1VB1H104K	0.1 50V	[M]GCS/GS
C5974	ECJ1VB1C104K	0.1 16V	[M]
C5975	ECJ1VB1C104K	0.1 16V	[M]
C5976	ECJ1VB1C104K	0.1 16V	[M]
C5977	ECEA1AKA330B	33 10V	[M]
C5978	F2A1E1010056	100 25V	[M]
C6601	ECJ1VC1H101K	100P 50V	[M]
C6602	ECJ1VC1H101K	100P 50V	[M]
C6701	ECEA1HKA220B	22 50V	[M]
C6702	ECJ1VC1H101K	100P 50V	[M]
C6703	F1H1H332A013	3300P 50V	[M]
C6704	ECJ1VC1H101K	100P 50V	[M]
C6705	F2A1C100A234	10 16V	[M]
C6706	F1H1H102A219	1000P 50V	[M]
C6707	F2A0J101A013	100 6.3V	[M]
C6708	ECJ1VB1H104K	0.1 50V	[M]
C6709	ECJ1VC1H101K	100P 50V	[M]
C6710	ECJ1VC1H101K	100P 50V	[M]
C6711	F1H1H331A013	330P 50V	[M]
C6712	F1H1H331A013	330P 50V	[M]
C6713	F1H1H331A013	330P 50V	[M]
C6714	F1H1H331A013	330P 50V	[M]
C6715	ECJ1VC1H470K	47P 50V	[M]
C6716	ECEA1HKA220B	22 50V	[M]
C6717	F2A1H3R3A013	3.3 50V	[M]
C6718	F2A0J470A013	47 6.3V	[M]
C6719	F1H1H103A219	0.01 50V	[M]
C6720	F1H1H102A219	1000P 50V	[M]
C6721	ECJ2VB1H331K	330P 50V	[M]
C6722	ECJ2VB1H331K	330P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C6723	ECJ1VB1C105K	1 16V	[M]
C6724	ECJ1VB1C105K	1 16V	[M]
C6725	ECJ1VC1H101J	100P 50V	[M]
C6726	ECJ1VC1H101J	100P 50V	[M]
C6727	ECJ1VC1H470J	47P 50V	[M]
C6728	ECJ1VC1H470J	47P 50V	[M]
C6729	ECJ1VB1C104K	0.1 16V	[M]
C6730	ECJ1VB1C104K	0.1 16V	[M]
C6731	ECJ1VB1C105K	1 16V	[M]
C6732	ECJ1VB1C105K	1 16V	[M]
C6733	ECJ1VB1C104K	0.1 16V	[M]
C6783	F1H1H103A219	0.01 50V	[M]
C6801	ECJ1VB1H473K	0.047 50V	[M]
C6802	ECJ1VB1H473K	0.047 50V	[M]
C6803	ECJ1VB1H103K	0.01 50V	[M]
C6804	F1H1H102A219	1000P 50V	[M]
C6805	ECJ1VB1H103K	0.01 50V	[M]
C6806	F1H1H102A219	1000P 50V	[M]
C6807	F1H1H102A219	1000P 50V	[M]
C6808	F2A1H4R7A014	4.7 50V	[M]
C6809	F2A1C470A016	47 16V	[M]
C6810	F2A1C470A016	47 16V	[M]
C6811	F1H1H102A219	1000P 50V	[M]
C6901	ECJ1VB1H223K	0.022 50V	[M]
C6902	ECJ1VB1H223K	0.022 50V	[M]
C6903	F1H1H103A219	0.01 50V	[M]
C6905	F2A1H3R3A013	3.3 50V	[M]
C6907	F1H1H101A230	100P 50V	[M]
C6908	F2A1H4R7A014	4.7 50V	[M]
C6909	ECJ1VC1H101K	100P 50V	[M]
C6910	F2A1HR10A234	10 50V	[M]
C6911	ECJ1VB1C563K	0.056 16V	[M]
C6912	F2A1H1R0A013	1 50V	[M]
C6913	F1H1H102A219	1000P 50V	[M]
C6914	ECJ1VC1H101K	100P 50V	[M]
C6915	F2A1HR33A145	0.33 50V	[M]
C6916	F1H1H102A219	1000P 50V	[M]
C6917	F2A1C471A236	470 16V	[M]
C7103	F2A1C1000018	10 16V	[M]
C7203	F2A1H1R0A234	1 50V	[M]
C7300	F2A1C1000018	10 16V	[M]
C7402	ECJ1VB1H223K	0.022 50V	[M]
C7403	ECJ1VB1H223K	0.022 50V	[M]
C8001	EEE0GA331WP	330 4V	[M]
C8002	ECJ0EF1C104Z	0.1 16V	[M]
C8003	ECJ0EF1C104Z	0.1 16V	[M]
C8004	ECJ0EF1C104Z	0.1 16V	[M]
C8004	ECJ1VB1H104K	0.1 50V	[M]
C8005	ECJ0EF1C104Z	0.1 16V	[M]
C8005	ECJ1VB1H104K	0.1 50V	[M]
C8006	ECJ0EF1C104Z	0.1 16V	[M]
C8007	ECJ0EF1C104Z	0.1 16V	[M]
C8008	ECJ0EF1C104Z	0.1 16V	[M]
C8011	F2G0J101A066	100 6.3V	[M]
C8012	ECJ0EF1C104Z	0.1 16V	[M]
C8013	ECJ0EF1C104Z	0.1 16V	[M]
C8014	ECJ0EF1C104Z	0.1 16V	[M]
C8015	ECJ0EF1C104Z	0.1 16V	[M]
C8015	F1H1H102A219	1000P 50V	[M]
C8016	ECJ0EF1C104Z	0.1 16V	[M]
C8017	F1H1H102A219	1000P 50V	[M]
C8018	ECJ0EF1C104Z	0.1 16V	[M]
C8020	ECJ0EF1C104Z	0.1 16V	[M]
C8021	ECJ0EF1C104Z	0.1 16V	[M]
C8022	ECJ0EF1C104Z	0.1 16V	[M]
C8026	ECJ0EF1C104Z	0.1 16V	[M]
C8030	F2A1H100A234	10 50V	[M]
C8031	F2A1H3R3A145	3.3 50V	[M]
C8032	F1H1H101A230	100P 50V	[M]
C8033	F1H1H101A230	100P 50V	[M]
C8034	F2A1A220A149	22 10V	[M]
C8051	ECJ1VB0J105K	1 6.3V	[M]
C8052	ECJ0EB1A104K	0.1 10V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C8053	ECJ0EF1C104Z	0.1 16V	[M]
C8054	ECJ0EC1H221J	220P 50V	[M]
C8055	ECJ1VB0J105K	1 6.3V	[M]
C8056	ECJ0EB1E222K	2200P 25V	[M]
C8057	ECJ1VB0J105K	1 6.3V	[M]
C8111	ECJ0EB1A104K	0.1 10V	[M]
C8112	ECJ1VB0J105K	1 6.3V	[M]
C8113	ECJ0EB1E471K	470P 25V	[M]
C8151	ECJ1VB0J475K	4.7 6.3V	[M]
C8152	ECJ1VB1C105K	1 16V	[M]
C8201	F2G0J101A066	100 6.3V	[M]
C8202	ECJ0EB1A104K	0.1 10V	[M]
C8203	ECJ0EB1A104K	0.1 10V	[M]
C8211	ECJ0EB1E122K	1200P 25V	[M]
C8221	ECJ0EB1E102K	1000P 25V	[M]
C8222	ECJ0EB1E102K	1000P 25V	[M]
C8225	ECJ0EB1E102K	1000P 25V	[M]
C8226	ECJ0EB1E821K	820P 25V	[M]
C8231	ECJ0EB1A104K	0.1 10V	[M]
C8232	ECJ0EB1A104K	0.1 10V	[M]
C8251	F2G0J221A065	220 6.3V	[M]
C8252	ECJ0EF1C104Z	0.1 16V	[M]
C8253	ECJ0EF1C104Z	0.1 16V	[M]
C8254	ECJ0EF1C104Z	0.1 16V	[M]
C8255	F2G1C220A037	22 16V	[M]
C8256	ECJ0EF1C104Z	0.1 16V	[M]
C8257	F2G1C470A076	47 16V	[M]
C8258	ECJ0EF1C104Z	0.1 16V	[M]
C8261	ECJ0EF1C104Z	0.1 16V	[M]
C8262	ECJ0EF1C104Z	0.1 16V	[M]
C8301	F2G0J221A031	220 6.3V	[M]
C8302	F2G0J330A031	33 6.3V	[M]
C8303	ECJ0EB1A104K	0.1 10V	[M]
C8304	ECJ0EB1A104K	0.1 10V	[M]
C8305	ECJ0EB1A104K	0.1 10V	[M]
C8306	ECJ0EB1A104K	0.1 10V	[M]
C8311	ECJ0EB1A104K	0.1 10V	[M]
C8312	ECJ1VB0J105K	1 6.3V	[M]
C8313	ECJ1VB0J105K	1 6.3V	[M]
C8320	ECJ0EF1C104Z	0.1 16V	[M]
C8321	ECJ0EB1A104K	0.1 10V	[M]
C8325	ECJ0EB1A104K	0.1 10V	[M]
C8330	F2G0J470A031	47 6.3V	[M]
C8331	ECJ0EB1A104K	0.1 10V	[M]
C8335	ECJ0EB1A104K	0.1 10V	[M]
C8340	ECJ0EF1C104Z	0.1 16V	[M]
C8341	ECJ0EB1A104K	0.1 10V	[M]
C8401	ECJ0EC1H150J	15P 50V	[M]
C8402	ECJ0EC1H150J	15P 50V	[M]
C8421	F2G0J101A083	100 6.3V	[M]
C8422	ECJ0EF1C104Z	0.1 16V	[M]
C8423	F2G0J330A083	33 6.3V	[M]
C8424	ECJ0EF1C104Z	0.1 16V	[M]
C8426	ECJ0EF1C104Z	0.1 16V	[M]
C8427	ECJ0EF1C104Z	0.1 16V	[M]
C8428	ECJ0EF1C104Z	0.1 16V	[M]
C8429	ECJ0EF1C104Z	0.1 16V	[M]
C8430	F2G0J470A031	47 6.3V	[M]
C8501	F2G0J101A031	100 6.3V	[M]
C8502	ECJ0EF1C104Z	0.1 16V	[M]
C8503	ECJ0EF1C104Z	0.1 16V	[M]
C8504	ECJ0EF1C104Z	0.1 16V	[M]
C8505	ECJ0EF1C104Z	0.1 16V	[M]
C8511	ECJ1VB0J105K	1 6.3V	[M]
C8512	ECJ1VB0J105K	1 6.3V	[M]
C8513	ECJ0EB1A104K	0.1 10V	[M]
C8514	ECJ0EB1A104K	0.1 10V	[M]
C8515	ECJ0EB1A104K	0.1 10V	[M]
C8516	ECJ0EB1A104K	0.1 10V	[M]
C8521	ECJ0EB1A104K	0.1 10V	[M]
C8522	ECJ0EB1A104K	0.1 10V	[M]
C8523	ECJ0EF1C104Z	0.1 16V	[M]
C8524	ECJ0EF1C104Z	0.1 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C8525	ECJ0EB1C562K	5600P 16V	[M]
C8526	ECJ0EB1C183K	0.018 16V	[M]
C8527	ECJ0EB1A333K	0.033 10V	[M]
C8528	ECJ1VB0J105K	1 6.3V	[M]
C8529	ECJ1VB0J105K	1 6.3V	[M]
C8530	ECJ0EF1C104Z	0.1 16V	[M]
C8531	ECJ0EC1H101J	100P 50V	[M]
C8532	ECJ0EC1H221J	220P 50V	[M]
C8533	ECJ0EF1C104Z	0.1 16V	[M]
C8541	ECJ0EB1E472K	4700P 25V	[M]
C8550	F2G0J330A031	33 6.3V	[M]
C8551	ECJ0EF1C104Z	0.1 16V	[M]
C8552	F2G1C100A072	10 16V	[M]
C8553	F2G0J470A031	47 6.3V	[M]
C8554	ECJ1VB0J105K	1 6.3V	[M]
C8561	ECJ0EF1C104Z	0.1 16V	[M]
C8562	F2G1C100A072	10 16V	[M]
C8563	F2G0J470A031	47 6.3V	[M]
C8564	ECJ1VB0J105K	1 6.3V	[M]
C8571	ECJ3YB1A106M	10 10V	[M]
C8572	ECJ0EF1C104Z	0.1 16V	[M]
C8601	ECJ0EF1C104Z	0.1 16V	[M]
C8602	ECJ0EB1C153K	0.015 16V	[M]
C8606	ECJ0EF1C104Z	0.1 16V	[M]
C8611	ECJ0EF1C104Z	0.1 16V	[M]
C8621	ECJ0EC1H120J	12P 50V	[M]
C8622	ECJ0EC1H120J	12P 50V	[M]
C8651	ECJ0EF1C104Z	0.1 16V	[M]
C8652	ECJ0EF1C104Z	0.1 16V	[M]
C8691	ECJ0EF1C104Z	0.1 16V	[M]
C8695	ECJ0EF1C104Z	0.1 16V	[M]
C9001	F2A1A221A206	220 10V	[M]
C9004	ECJ0EC1H070D	7P 50V	[M]
C9005	ECJ0EC1H070D	7P 50V	[M]
C9006	ECJ0EB1A104K	0.1 10V	[M]
C9007	ECJ0EF1C104Z	0.1 16V	[M]
C9008	ECJ1VB0J105K	1 6.3V	[M]
C9018	ECJ0EB1A104K	0.1 10V	[M]