

Service Manual

DVD Stereo System



SA-VK950EE

Colour

(S)... Silver Type

SB-WVK950 SB-VK950 SB-PC950 SB-VK950 SB-WVK950

REMOTE
CONTROL

SB-PS950 SA-VK950 SB-PS950

Notes: This model's DVD mechanism changer 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 - High Ch	110 W per channel (3 Ω), 1 kHz, 10% THD
Front - Low Ch	55 W per channel (6 Ω), 100 Hz, 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	880 W
PMPO output power	10000 W

■ FM/AM TUNER, TERMINALS SECTION

Preset stations	FM 15 stations AM 15 stations
Frequency Modulation (FM)	
Frequency range	87.50 MHz 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 kHz to 1629 kHz (9-kHz step)
AM sensitivity S/N 20 dB at 999 kHz	1000 μ V/m

Phone jack	
Terminal	Stereo, 3.5-mm jack
Mic jack	
Sensitivity	0.7 mV, 600 Ω
Terminal	Mono, 6.3-mm jack (2 system)
Music Port jack (Front)	
Sensitivity	100-mV, 4.7 k Ω
Terminal	Stereo, 3.5-mm jack

■ CASSETTE DECK SECTION

Type	Auto Reverse
Track system	4-Track, 2 Channel
Head Record/Playback	Solid permalloy head
Erasure	Double Gap Ferrite Head
Motor	DC Servo Motor
Recording system	AC Bias 100 kHz
Erase 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

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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

n DISC SECTION

Disc played [8 cm or 12 cm]

(1) DVD (DVD-Video, DivX^{#1,#2})

(2) DVD-RAM (DVD-VR, JPEG^{#2,#3}, MP3^{#2,#4}, MPEG4^{#2,#5}, DivX^{#1,#2})

(3) DVD-R (DVD-Video, DVD-VR, JPEG^{#2,#3}, MP3^{#2,#4}, MPEG4^{#2,#5}, DivX^{#1,#2})

(4) DVD-R DL (DVD-Video, DVD-VR)

(5) DVD-RW (DVD-Video, DVD-VR, JPEG^{#2,#3}, MP3^{#2,#4}, MPEG4^{#2,#5}, DivX^{#1,#2})

(6) +R/ +RW (Video)

(7) +R DL (Video)

(8) CD,CD-R/RW [CD-DA, Video CD, SVCD^{#6}, MP3^{#2,#4}, WMA^{#2,#7}, JPEG^{#2,#3}, MPEG4^{#2,#5}, DivX^{#1,#2}, HighMAT Level 2 (Audio and Image)]

^{#1} Plays all versions of DivX[®] video (including DivX^{®6}) with standard playback of DivX[®] media files. Certified to the DivX Home Theater Profile. GMC (Global Motion Compensation) is not supported.

^{#2} The total combined maximum number of recognizable audio, picture and video contents and groups: 4000 audio, picture and video contents and 400 groups.

^{#3} 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.

^{#4} MPEG-1 Layer 3, MPEG-2 Layer 3

^{#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} Conforming to IEC62107

^{#7} Windows Media Audio Ver. 9.0 L3

Not compatible with Multiple Bit Rate (MBR)

Pick up

Wavelength (DVD/CD) 662 nm/785 nm

Laser power (DVD/CD) CLASS 1 / CLASS 1M

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

n VIDEO SECTION

Video system

Signal system PAL625/50, PAL525/60, NTSC

Composite video output

Output level 1 Vp-p (75 Ω)

Terminal Pin jack (1 system)

S-video output

Y output level 1 Vp-p (75 Ω)

C output level 0.3 Vp-p (75 Ω) (PAL)

0.286 Vp-p (75 Ω) (NTSC)

Terminal S terminal (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)

n GENERAL

Power supply AC 230 V, 50Hz

Power consumption 360 W

Power consumption in standby mode:

0.5 W (approximate)

Dimensions (W x H x D)

250 x 330 x 334.6 mm

Mass

5.5 kg

Operating temperature range

+ 5 to + 35°C

Operating humidity range

5% to 90% RH (no condensation)

n SYSTEM

Music System	Music Center	Satellite Speakers
SF-VK950 EE	SA-VK950 EE	SB-PT950 GC

Speaker System	SB-PT950 GC
Surround Speakers	SB-PS950 GC
Center Speaker	SB-PC950 GC

Speaker System	SB-VK950 GC
Front Speakers	SB-VK950 GC1
Subwoofers	SB-WVK950 GC

For information on speaker system, please refer to the original Service Manual (Order No. MD0605195C3) for SB-VK950GC1-S, (Order No. MD0605194C3) for SB-PC950GC-S, (Order No. MD0605199C3) for SB-PS950GC-S & (Order No. MD0605200C3) for SB-WVK950GC-S..

Notes:

1. Specifications are subject to change without notice.

Mass and dimensions are approximate.

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



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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 $1M\Omega$ and $5.2M\Omega$.

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

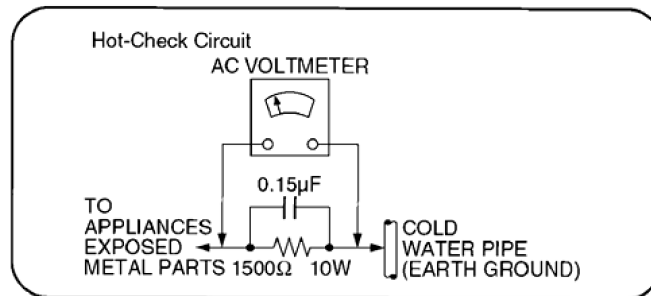


Figure 1

1.1.2. Leakage Current Hot Check (See Figure 1)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a $1.5k\Omega$, 10 watts resistor, in parallel with a $0.15\mu F$ 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

Note on AC power supply cord

Before use

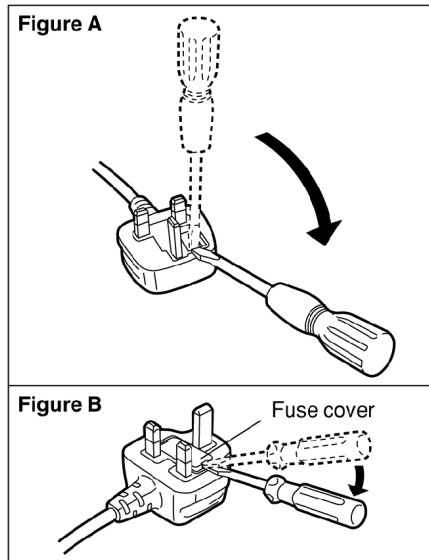
Remove the connector cover.

How to replace the fuse

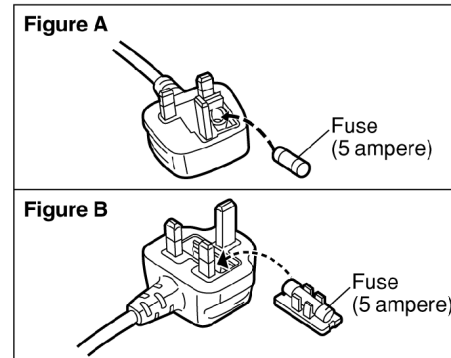
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.



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



1.3. Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C2254, C2256, C2288, C2289, C2632, C2721, C2725, C2811, C2815, C2817, C5512, C5513, C5514, C5712, C5713, C5715, C5718, C5790, C5805, C5806, C5807, C5914, C5916, C5917, C5929, C5930, C5971 and C5977 through a 10 Ω , 5W 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 230V, 50 Hz in NO SIGNAL (vol. min, at CD mode) should be ~500mA.

1.4. Protection Circuitry

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

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

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

If this occurs, follow the procedure outlines below:

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

Note :

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

2 Prevention of Electro Static 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).

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by $\triangle$ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

3 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.

3.1. Handling Optical Pickup

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. 3.1 and Fig. 3.2)
3. Do not handle flexible cables forcibly as this may cause snapping. Handle the parts carefully (Refer to Fig. 3.1)
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. 3.1)

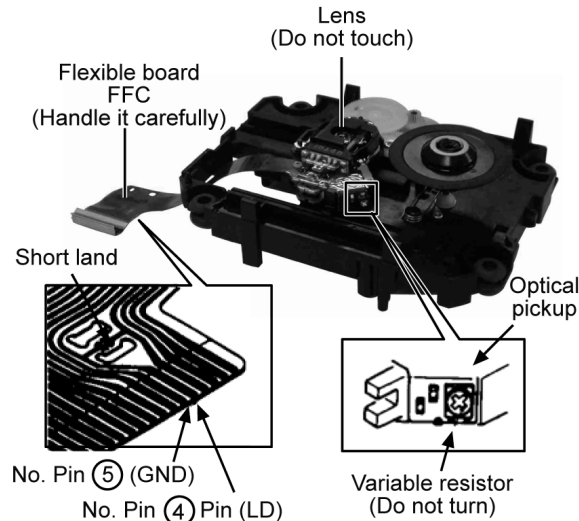


Fig 3.1

3.2. Replacing Precautions for Optical Pickup Unit

CD/DVD 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.)

3.3. 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. 3.2)

2. Work place grounding

Place a conductive material (conductive sheet) or ironboard where optical pickup is placed. (Refer to Fig. 3.2)

Note :

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

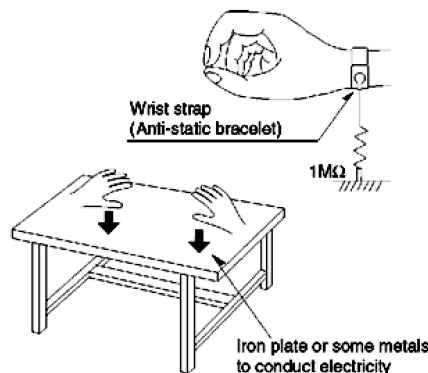


Fig. 3.2

4 Precaution of Laser Diode

Caution :

This product utilizes a laser diode with the unit turned "ON", invisible laser radiation is emitted from the pick up lens.

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

Maximum output radiation power from pick up : 100 μ W/VDE

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

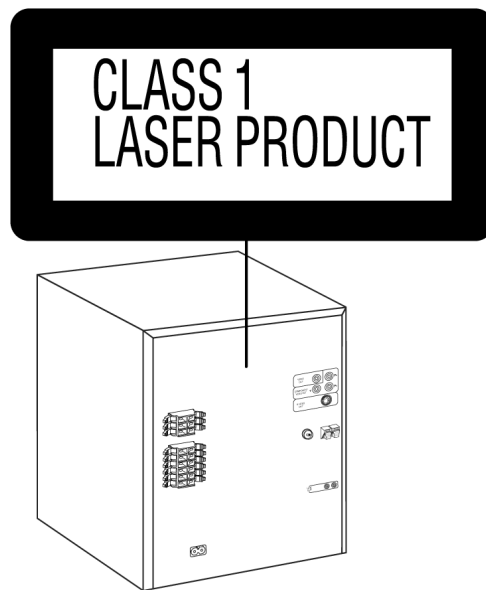
1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pick up unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pick up lens for a long time.

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.

n Use of Caution Labels



CAUTION	- LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM.	FDA 21 CFR / Class II
CAUTION	- CLASS 1M VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. - ISO9095 1 +A2/ Class 1M	
WARNING	- KLASSE 1M SYNLÄS OCH OSYNLÄS LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRÄKTA EJ STRÅLEN DIREKT GENOM OPTISKA INSTRUMENT.	
FORSIGTIG	- SYNLÄS OG OSYNLÄS LASERSTRÅLING KLASSE 1M. NÄR LAGET ER ÅBENT, UNDGÅ AT SE I OG PÅ MED OPTISKE INSTRUMENTER.	
VARO!	- AVANTAESSA OLET ALTTIIN LUKKAN 1M NÄKYVÄÄ JA NÄKYMÄTÖNTÄ LASERSÄTELYÄ. ÄLÄ KATSO OPTISELLA LAITTEELLA SUORAAN SÄTEESEEN.	
VORSICHT	- SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG KLASSE 1M. WENN ABDECKUNG GEÖFFNET, NICHT DIREKT MIT OPTISCHEN INSTRUMENTEN BETRACHTEN.	
ATTENTION	- RAYONNEMENT LASER VISIBLE ET INVISIBLE. CLASSE 1M. EN CAS D'OUVERTURE NE PAS REGARDER DIRECTEMENT À L'AIDE D'INSTRUMENTS D'OPTIQUE.	
注意	- ここを開くと可視及び不可視レーザー光が出ます。 ビームを見たり、触れたりしないでください。	
注意	- 打开时有可见及不可见激光辐射。避免光束照射。	GB7241 1-2001/GB 类

(Inside of product)

5 Warning

5.1. Service caution based on legal restrictions

5.1.1. 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)

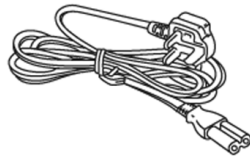
Note

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

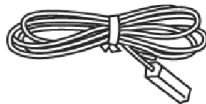
6 Accessories



Remote
control



AC power supply cord



FM indoor antenna



AM loop antenna



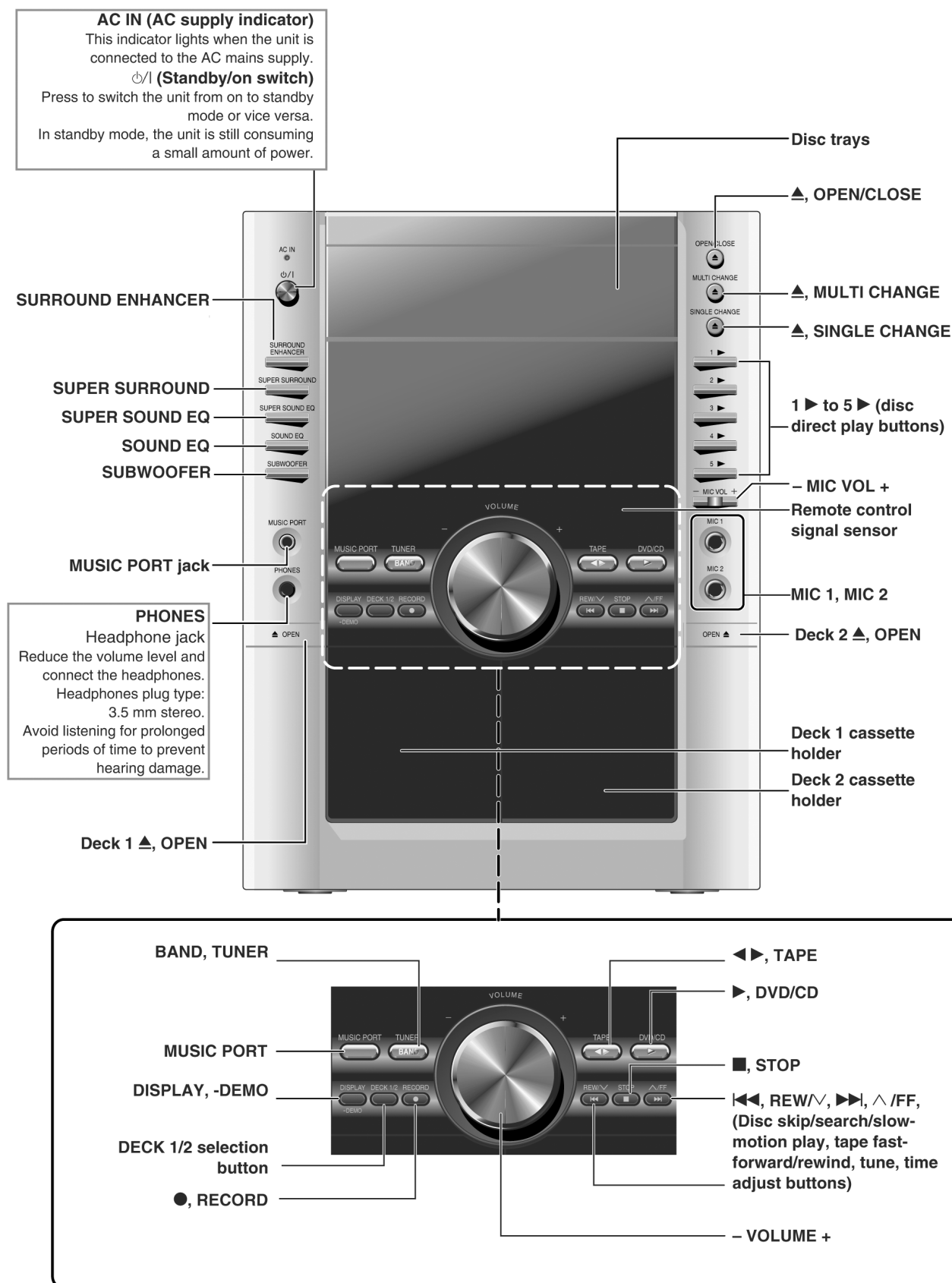
Video cable



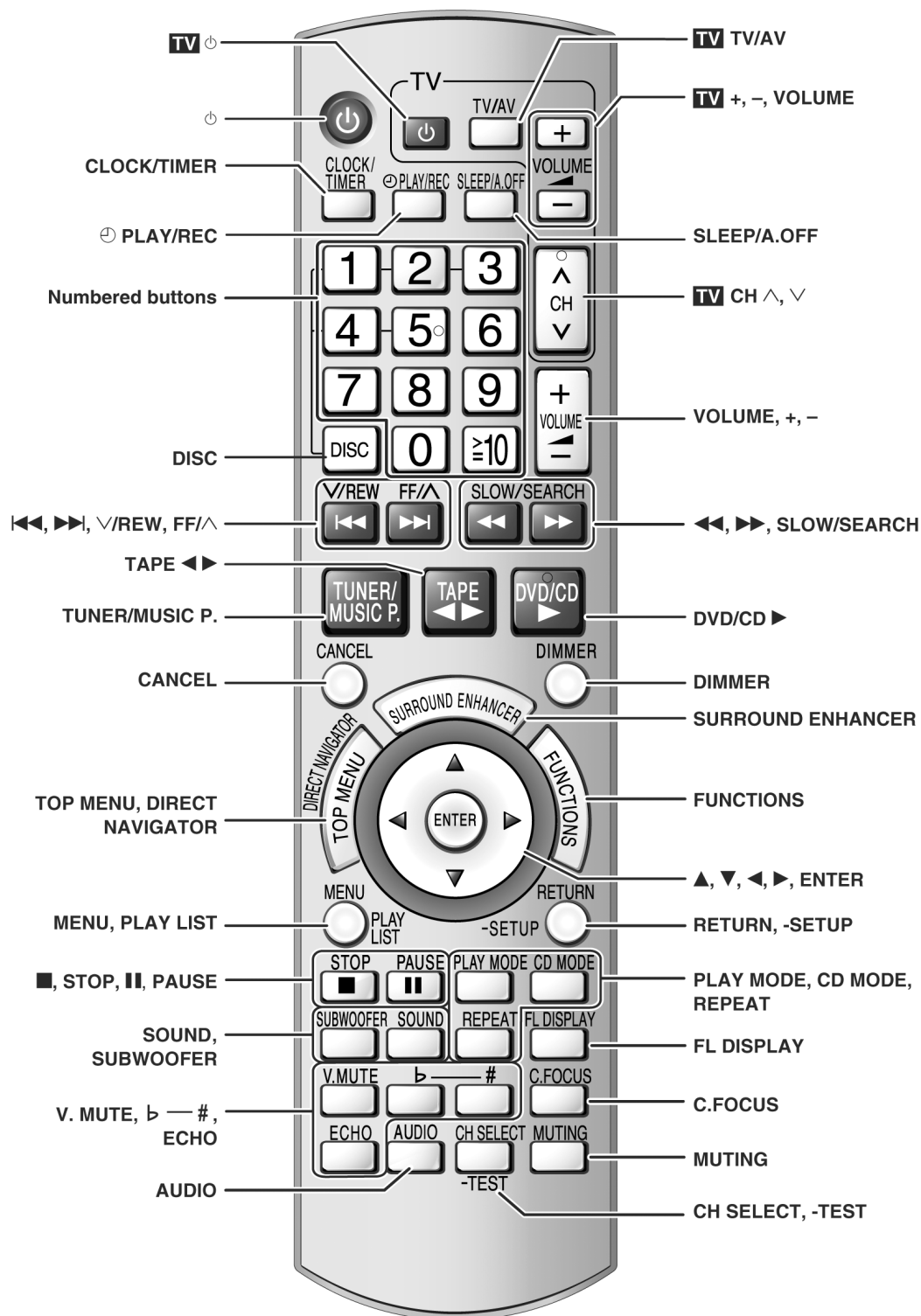
Mic

7 Operation Procedures

7.1. Main Unit Operation Control



7.2. Remote Control Operation Control



7.3. Disc Information

7.3.1. Disc Playability

Discs that can be played

Operations you can perform depend on the disc format. The following table shows the formats you can use and the indications used in these operating instructions. (e.g. **DVD-V**)

	DVD-V DVD-V —
	Video CD VCD • Including SVCD (Conforming to IEC62107).
	DVD-RAM DVD-VR MP3 JPEG MPEG4 DivX #3, #4 • DVD-VR Recorded with devices using Version 1.1 of the Video Recording Format (a unified video recording standard), such as DVD video recorders, DVD video cameras and personal computers. • JPEG Recorded with Panasonic SD multi cameras or DVD video recorders using the DCF (Design rule for Camera File system) Standard Version 1.0. • MPEG4 Recorded with the Panasonic SD multi cameras or DVD video recorders (conforming to SD VIDEO specifications (ASF standard)/MPEG (Simple Profile) video system/G.726 audio system).
  R DL	DVD-R (DVD-Video) ^{#1} / DVD-RW (DVD-Video) DVD-V • Discs recorded and finalized ^{#2} on DVD video recorders or DVD video cameras. DVD-R (VR) ^{#1} / DV-RW (VR) DVD-VR • Discs recorded and finalized ^{#2} on DVD video recorders or DVD video cameras using Version 1.1 or 1.2 (DVD-R only) of the Video Recording Format (a unified video recording standard). DVD-R/DVD-RW MP3 JPEG • Finalize ^{#2} the disc after recording. DVD-R (DivX Video)/DVD-RW (DivX Video) DivX #3, #4 • Finalize ^{#2} the disc after recording.
—	+R (Video) ^{#1} / +RW (Video) DVD-V • Discs recorded and finalized ^{#2} on DVD video recorders or DVD video cameras.
	CD CD WMA MP3 JPEG VCD MPEG4 DivX #3, #4 • This unit can play CD-R/RW recorded with the above formats. Close the sessions or finalize ^{#2} the disc after recording. • CD This unit is compatible with HDCD, but does not support the Peak Extend function (a function which expands the dynamic range of high level signals). HDCD-encoded CDs are encoded with 20 bits and sound better than CDs encoded with 16 bits. • WMA MP3 JPEG This unit also plays HighMAT discs. • WMA This unit does not support Multiple Bit Rate (MBR: an encoding process for audio content that produces an audio file encoded at several different bit rates).

^{#1} Includes single-sided, dual layer discs.

^{#2} A process that allows play on compatible equipment.

^{#3} Functions added with DivX Ultra are not supported.

^{#4} Plays all versions of DivX® video (including DivX®6) with standard playback of DivX® media files. Certified to the DivX Home Theater Profile. GMC (Global Motion Compensation) is not supported.

• It may not be possible to play the above discs in all cases due to the type of disc or condition of the recording.

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 cartridges, 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.

Playing DVDs and Video CDs

The producer of these discs can control how they are played so you may not always be able to control play as described in these operating instructions (for example if the play time is not displayed or if a Video CD has menus).
Read the disc's instructions carefully.

Audio format of DVDs

- This unit automatically recognizes and decodes discs with these symbols.



Note about using a DualDisc

- Do not use a DualDisc in this unit as it may not be possible to insert it correctly and it may get scratched or scraped.
- The "CD" sides of DualDiscs do not meet the CD-DA standard so it may not be possible to play them on this unit.

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.

7.3.2. To Play MP3/ WMA and still Pictures (JPEG/ tiff)

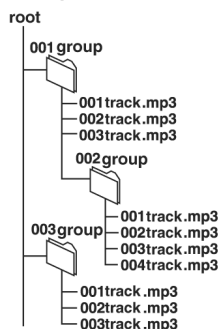
Tips for making data discs

- Discs must conform to ISO9660 level 1 or 2 (except for extended formats).
- This unit supports multi-session but if there are a lot of sessions it takes more time for play to start. Keep the number of sessions to a minimum to avoid this.
- When there are more than 8 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.

Naming folders and files

At the time of recording, prefix folder and file names with 3-digit numbers in the order you want to play them (this may not work at times).

Example: MP3



WMA

- WMA files must have the extension “.WMA” or “.wma”.
- You cannot play WMA files that are copy protected.
- This unit does not support Multiple Bit Rate (MBR).

MP3

- MP3 files must have the extension “.MP3” or “.mp3”.
- This unit is not compatible with ID3 tags.
- Compatible sampling rates: 8, 11.02, 12, 16, 22.05, 24, 32, 44.1 and 48 kHz.

JPEG

- JPEG files must have the extension “.JPG”, “.jpg”, “.JPEG” or “.jpeg”.
- To view JPEG files on this unit:
 - Take them on a digital camera that meets the DCF Standard (Design rule for Camera File system) Version 1.0. Some digital cameras have functions that are not supported by the DCF Standard Version 1.0 like automatic picture rotation which may render a picture unviewable.
 - Do not alter the files in any way or save them under a different name.
- This unit cannot display motion JPEG and other such formats, still pictures other than JPEG (e.g.:TIFF) or play associated sound.

MPEG4

- MPEG4 files must have the 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

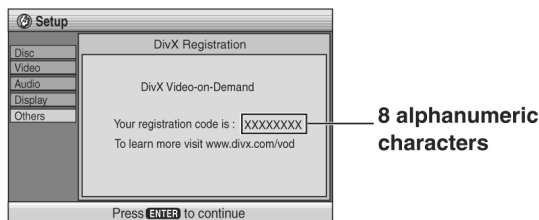
- DivX files must have the extension “.DIVX”, “.divx”, “.AVI”, or “.avi”.
- GMC (Global Motion Compensation) is not supported.
- DivX files greater than 2GB or with no index may not play properly on this unit.
- This unit supports all resolutions up to maximum of 720 x 480 (NTSC)/720 x 576 (PAL).
- You can select up to 8 audio soundtracks and subtitles on this unit.

7.4. 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



- 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" is displayed.)

When playing this content

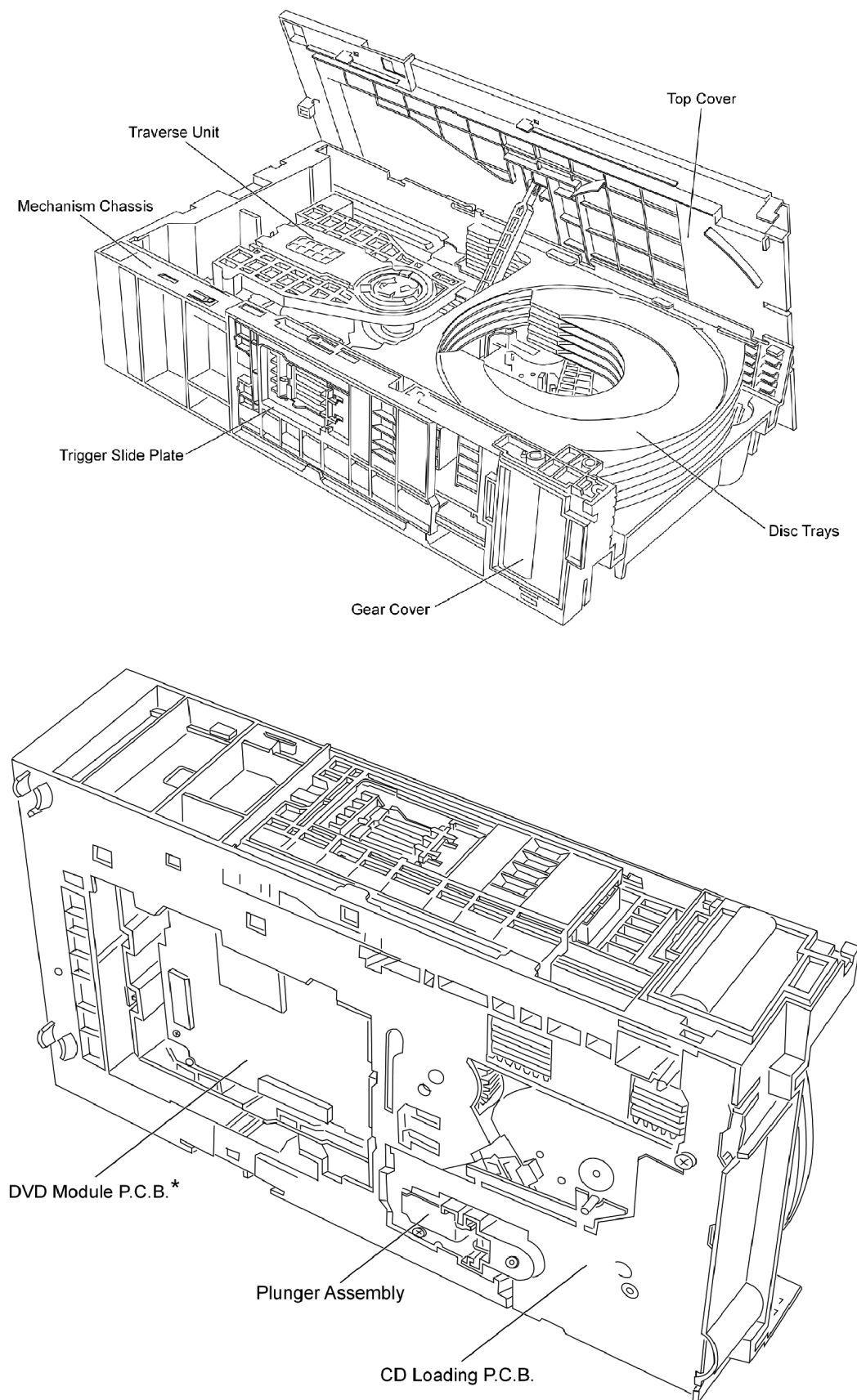
The number of remaining plays is reduced by one if

- you turn off the unit or press [-SETUP].
- you press [■, STOP]. (Press [⏸, PAUSE] to pause play.)
- you press [⏮, ⏭] or [⏮, ⏭] etc. and arrive at another content or the start of the content being played.

- Resume and Marker functions do not work.

8 New Features

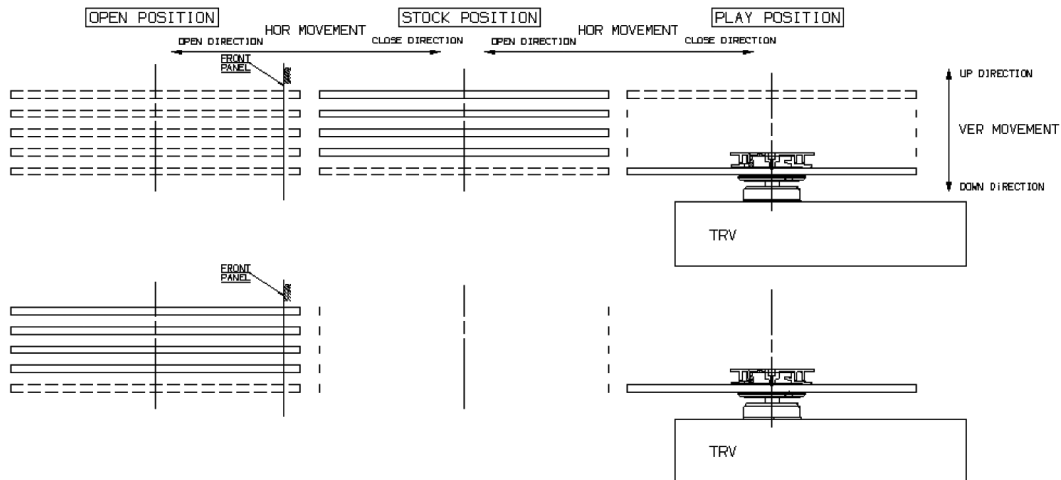
8.1. CRS1D Mechanism Overview



* Illustration for DVD Module P.C.B. (Applied models: VK450/650/750/850/950)

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. New CD/DVD Mechanism (CRS1D)

Note:

This service manual does not contain the following information for the mention CD/DVD Mechanism drive:

- 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 CD/DVD Mechanism drive.

Please refer to the original service manual (Order No. MD0603065A3) for the CD/DVD Mechanism Drive CRS1D.

8.2. Music Port

You can playback sound from portable audio equipment.

Sound from the speaker may be distorted if the portable audio equipment's equalizer (if any) is turned on. Turn it off before you plug into the MUSIC PORT jack.

Play

1 Connect the portable audio equipment.

Plug type: 3.5 mm stereo



Portable audio equipment

2 Press [TUNER/MUSIC P.]. (main unit: [MUSIC PORT])

The unit comes on.

Every time you press the button:

FM → AM → MUSIC P.

3 Play the portable audio equipment.

(For details, refer to the external unit's instruction manual.)

Recording

Recording preparation.

1 Press [TUNER/MUSIC P.]

2 Press [●, RECORD] on the main unit to start recording.

3 Play the portable audio equipment.

With reference to page 31 of the operating instruction manual.

9 About HighMAT

9.1. What's HighMAT?

Consumers worldwide are using PCs to create their own collections of music, photos and even video by burning them onto CDs. But how these collections can be experienced across different devices can be confusing to navigate, time consuming to access for a DVD player, and be incomplete in terms of music information available to the customer.

HighMAT offers a solution to this growing consumer problem. HighMAT dramatically improves the digital media experience on consumer electronic devices by delivering a simple, standardized approach that allows consumers who have created personal collections of digital music, photography and video on their PC to:

>> Create a HighMAT CD or DVD which can be easily played back on consumer electronics devices such as CD and DVD players, and car stereos.

>> Move digital media files (using recordable media such as CD-R and CD-RW) between the PC and various playback devices such as CD and DVD players.

A new standard for creating personal media on consumer electronic devices, HighMAT enable easier and more seamless interoperability between Windows PCs and devices designed for your living room, or the car.



HighMAT Audio

Products which display this logo are able to play back HighMAT audio content only (WMA, MP3)



HighMAT Audio and Image

Products which display this logo are able to play back HighMAT audio content (WMA, MP3) and still pictures (JPEG) only



HighMAT Audio, Image and Video

Products which display this logo are able to play back all three types of HighMAT content: Audio (WMA, MP3), still pictures (JPEG) and video (WMV, MPEG-4※)

※MPEG-4: support is optional

9.2. Why take advantage of HighMAT?

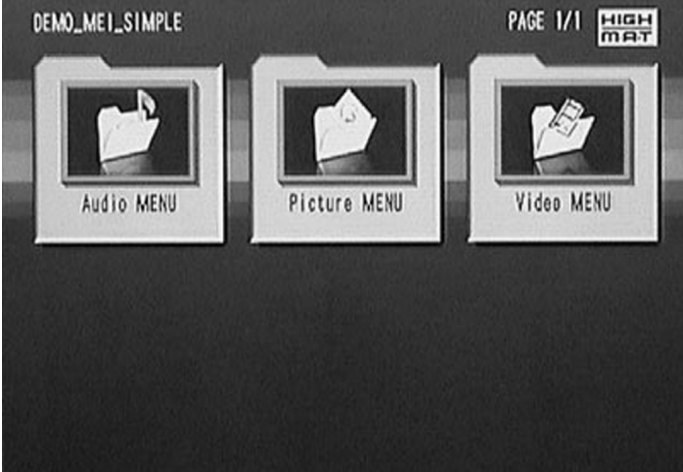
A Problem Defined: Today, when consumers create their own digital audio, video or photo collections on CD-R or other physical formats, there are numerous, inconsistent ways that devices read the data. For the consumer, the playback experience can be confusing:

- Many consumer electronics devices do not support playlists or advanced playback options such as the ability to access content by date or genre.
- The user interface for accessing the media and any associated information (including playlists, folders, music metadata and more) may vary between different devices.
- Large collections of music, videos or photos may take several minutes for a CD or DVD player to read.
- Discs may be unplayable because the compressed media format is not supported by the playback device or the disc layout is incompatible.

A Solution Created: HighMAT delivers a better digital media access experience by creating a standard approach for PCs to structure digital media on various physical formats and for playback devices to read the data.

9.3. Benefits of HighMAT?

- 1 **Creating a HighMAT CD makes it easier to navigate different types of media you want to burn onto a CD (Photos, Music).**

Conventional	HighMAT
Even though DVD player is CD-R/RW compatible, the inconsistent ways that various DVD players can read the music or photos files often leads to a confusing and inconsistent playback experience. 	HighMAT compatible products play content back with consistent interface. This includes products which are JPEG compatible products without HighMAT support. 

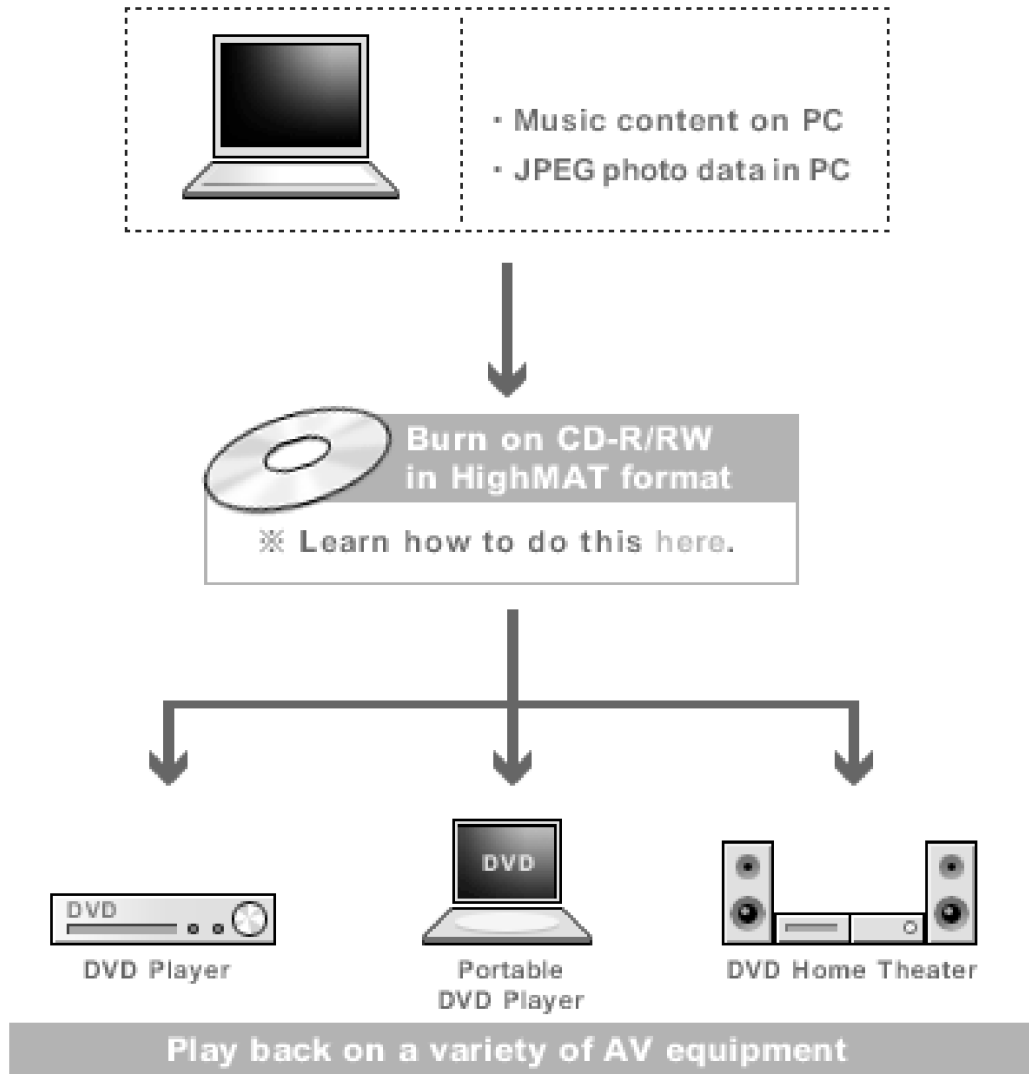
- 2 **Eliminates compatibility issues and delivers better more consistent access to more music information like artist, song name, genre and photo information (metadata) as well as provide faster access to large amounts of music and photo files burned on CDs.**



Easy navigation to access disc contents



3 HighMAT CDs can also work on other players.



HighMAT is now available for CD Burning and in Leading DVD Players. HighMAT is a new technology that is now available in leading software and consumer electronic devices to dramatically improve the digital media experience when you create homemade CDs. HighMAT delivers a simple, standardized way for PC software and consumer electronics devices to talk to each other and work better together.

When you create your homemade CDs with software that supports HighMAT CD burning, and then play them back on a DVD player that supports HighMAT, you get better, easier navigation. You get folders you can access with a single click of your DVD player's remote control. You can view important information about your music like full song names, artist titles, album names and genre. And you can get faster startup on your home entertainment device.

To enjoy the benefits of HighMAT, all you need is software that supports HighMAT for CD burning of music or photos, as well as a home entertainment device like a DVD player that supports HighMAT for playback. Always look for the HighMAT logo on your software or home entertainment device to ensure it supports the HighMAT experience.

10 Self diagnosis and special mode setting

This unit is equipped with functions for checking and inspecting namely: Self-Diagnostic and Test Mode.

10.1. Service Mode Summary Table

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

Below is the summary of major checking:

Player buttons	Remote control unit buttons	Application	Note
STOP	0	Error code display	(Refer to the section, "10.2.2 DVD Self Diagnostic Function-Error Code").
	5	Jitter checking	(Refer to the section "10.2.1 Service Mode Table 1 for more information").
	6	Region display and mode	(Refer to the section "10.2.1 Service Mode Table 1 for more information").
	7	Micro-processor firmware version check	
	FUNCTIONS	DVD laser drive current check	
	3	CD laser drive current check	
		Initial setting of laser drive current	
	≧10	Initialization of the player (factory setting is restored.) Used after replacement of micro-computer, FLASH ROM IC, EEPROM and HDMI module.	
	8	Region and Firmware version display	
	ENTER	DVD Module Reset (In Initialization Mode)	

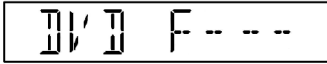
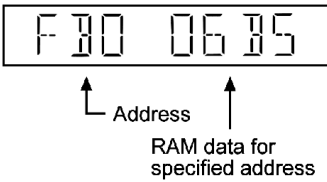
10.2. Service Mode Table 1

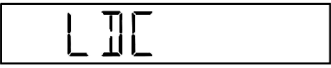
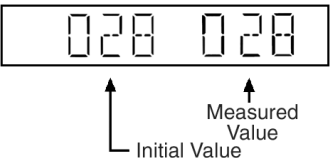
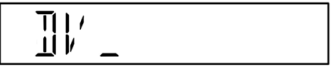
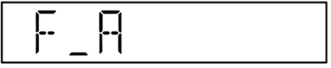
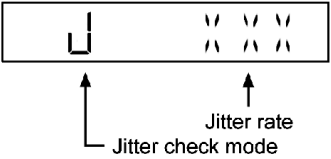
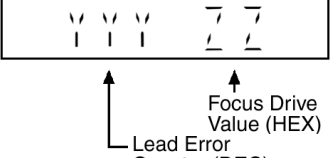
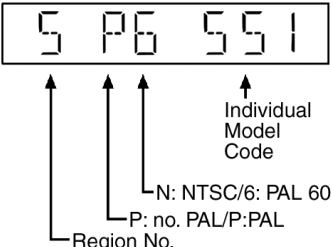
By pressing various button combinations on the player and remote control unit can activate the various service modes for checking.

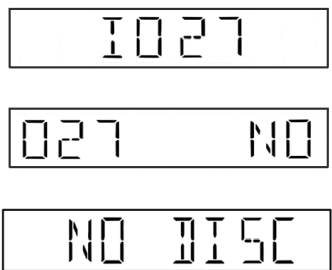
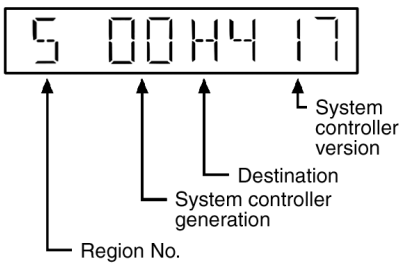
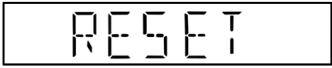
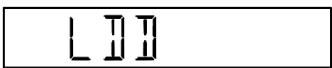
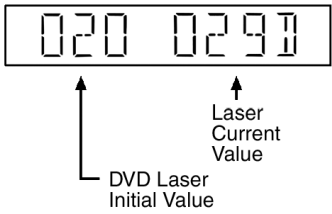
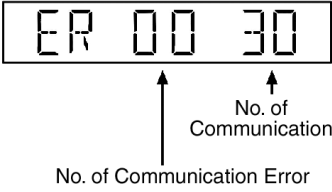
Special Note:

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).

10.2.1. Service Mode Table 1

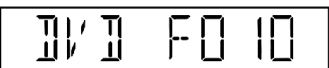
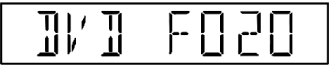
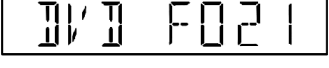
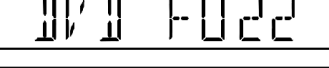
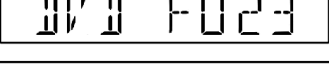
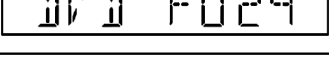
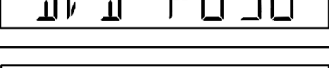
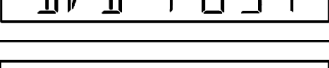
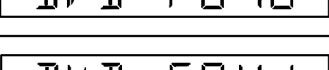
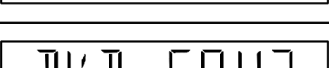
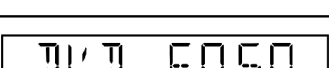
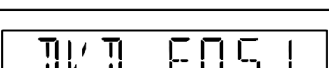
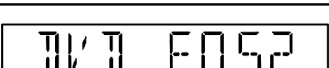
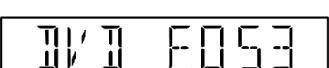
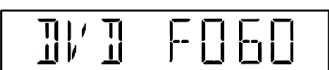
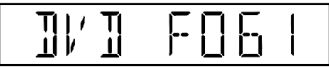
Item		FL Display	Key Operation
Mode Name	Description		Remote Control Key
Error code check	Error code check. The latest error code stored in the EEPROM IC is displayed.	 Error code (play_err) is expressed in the following convention. Error code = 0 x DAXX is expressed: DVDnn UXX Error code = 0 x DBXX is expressed: → DVDnn HXX Error code = 0 x DXXX is expressed: → DVDnn FXXX Error code = 0 x 0000 is expressed: → DVDnn F--- * "xx" denotes the error code →	In STOP (no disc) mode, press STOP button on the player, 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.
ADSC internal RAM data check	ADSC internal RAM data check. ADSC internal RAM data is read out and displayed.	 The value is shown in hexadecimal notation. The above example shows the data in ADSC address OFAh is 6901h.	In STOP (no disc) mode, press STOP button on the player, and "1" or "2" button on the remote control unit. Press STOP or PLAY button to exit.

Item		FL Display	Key Operation
Mode Name	Description		Remote Control Key
CD laser drive current measurement	CD laser drive current measurement. CD laser drive current 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. (It is also turned off when POWER button on the player is switched off.)	1. For CD laser drive current mode  2. The measurement Value (In decimal notation) 	In STOP (no disc) mode, press STOP button on the player, and "3" button on the remote control unit. Cancelled automatically 5 seconds later. Press "FL Display" button on remote control unit for next page (FL Display).
Device Name	Display the device name.	1.  2.  3. 	In STOP (no disc) mode, press STOP button on the player, and "4" 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.
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 retired 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.	1. For jitter measurement mode  2.  Jitter rate is shown in decimal notation to one place of decimal. Focus drive value is shown in hexadecimal notation.	In STOP (no disc) mode, press STOP button on the player, and "5" button on the remote control unit. Press STOP or OPEN button to exit. Press "FL DISPLAY" button on remote control unit for next page (FL Display).
Region display	Region display & mode		In STOP (no disc) mode, press STOP button on the player, and "6" button on the remote control unit. Cancelled automatically 5 seconds later.

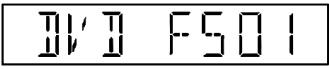
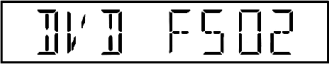
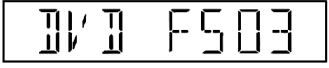
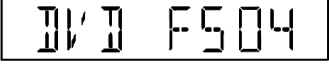
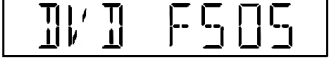
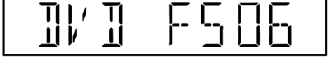
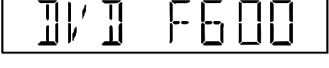
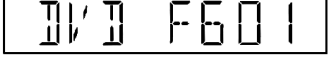
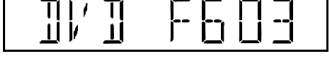
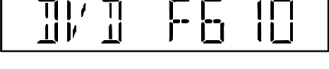
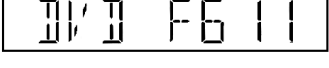
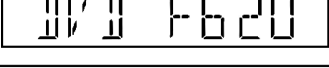
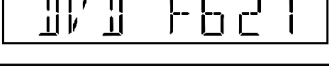
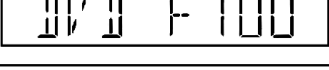
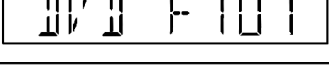
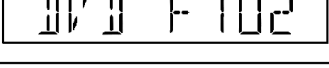
Item		FL Display	Key Operation
Mode Name	Description		Remote Control Key
Micro-processor firmware version display & EEPROM checksum display.	Micro-processor firmware version display & EEPROM checksum display.		In STOP (no disc) mode, press STOP button on the player, and "7" button on the remote control unit. Cancelled automatically 5 seconds later. Press "FL Display" button on remote control unit for next page. (FL Display) Refer to Section 10.3.1 for more information.
DVD module firmware version display	DVD module firmware version display is on the FL Display.		In STOP (no disc) mode, press STOP button on the player, and "8" button on the remote control unit. Cancelled automatically 5 seconds later.
Initialization	Initialization. User settings are cancelled and player is initialized to factory setting.		In STOP (no disc) mode, press STOP button on the player, and ≥ 10 button on the remote control unit.
DVD Module Reset	To reset DVD Module.		In initialisation mode, press and hold STOP button on the player followed by "Enter" button on the remote control. Cancelled automatically 5 seconds later.
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. (It is also turned off when POWER button on the player is switched off.)	1. For DVD laser drive current mode  2. The measurement value (In decimal notation)  The value denotes the current in decimal notation. The above example shows the initial current is 20mA and the measured value is 20mA.	In STOP (no disc) mode, press STOP button on the player, and FUNCTIONS button on the remote control unit. Cancelled automatically 5 seconds later. Press "FL Display" button on remote control unit for next page (FL Display) on values of DVD drive current.
Communication error display	Displays the frequency of communication errors between system control IC and mechanism control IC.		In STOP (no disc) mode, press STOP button on the player, and "MENU" button on the remote control unit. Cancelled automatically 5 seconds later.

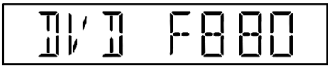
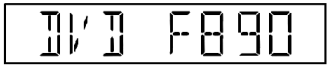
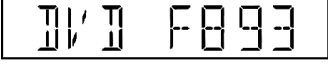
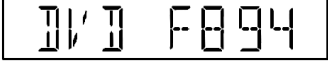
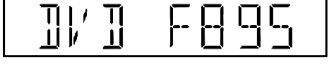
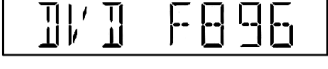
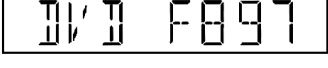
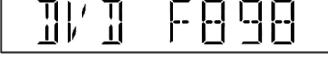
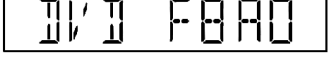
Item		FL Display	Key Operation
Mode Name	Description		Remote Control Key
Initial setting of laser drive current	Initial setting of laser drive current. Initial current value for each of DVD laser and CD laser is separately saved in the EEPROM IC.	1. For DVD/CD drive current mode  2. The measurement value (In decimal notation)  The value denotes the current in decimal notation. The above example shows the initial current 20mA and 23mA for DVD laser and CD laser respectively when the laser is switched on.	In STOP (no disc) mode, press STOP button on the player, and PAUSE button on the remote control unit. Cancelled automatically 5 seconds later. Press "FL Display" button on remote control unit for next page (FL Display) on values of laser drive current.
ECC error display	ECC decode error display.	 	In STOP (no disc) mode, press STOP button on the player, and TOP MENU button on the remote control unit. Cancelled automatically 5 seconds later. Press "FL Display" button on remote control unit for next page (FL Display) on values of laser drive current.
Time 1 check	Timer 1 check. Laser operation time is measured separately for DVD laser and CD laser. Press "FL Display" button for next page of FL Display (to show CD laser time).	 Shown to the left is DVD laser time, and to the right CD laser time. Time is shown in 4 digits of decimal notation in a unit of 10 hours. "0000" will follow "9999".	In STOP (no disc) mode, press STOP button on the player, and "▲" button on the remote control unit. Cancelled automatically 5 seconds later.
Timer 1 reset	Timer 1 reset. Laser operation time of both DVD laser and CD laser is reset all at once.	T1_0000/0000 (display1/display2)  Shown to the left is DVD laser time, and to the right CD laser time. Time is shown in 4 digits of decimal notation in a unit of 10 hours.	While display Timer 1 data, press STOP button on the player, and "▼" button on the remote control unit. Cancelled automatically 5 seconds later.
Timer 2 check	Timer 2 check. Spindle motor operation timer. Press "FL Display" button for next page of FL Display.	 Time is shown in 5 digits of decimal notation in a unit of 10 hours. "0000" will follow "9999".	In STOP (no disc) mode, press STOP button on the player, 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 10 hours.	While display Timer 2 data, press STOP button on the player, and "◀" button on the remote control unit. Cancelled automatically 5 seconds later.

10.2.2. DVD Self-Diagnostic Function Error Code

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F010	DVD Media disk	A specification value is size from the PARENTAL LOCK value of the appointed country.		Press [■, STOP] on main unit for next error.
F020	DVD Media disk	There is no TT_SRPT. (RLBN is 0).		Press [■, STOP] on main unit for next error.
F021	DVD Media disk	The number of TT_SRP is 0.		Press [■, STOP] on main unit for next error.
F022	DVD Media disk	A specification value. It is size from the number of TT_SRP.		Press [■, STOP] on main unit for next error.
F023	DVD Media disk	VTSN or in agreement with VTS_TTN. There is no SRP.		Press [■, STOP] on main unit for next error.
F024	DVD Media disk	A specification value. It is size from TT_SRP. PTT_Ns		Press [■, STOP] on main unit for next error.
F030	DVD Media disk	The number of TTU_SRP is 0.		Press [■, STOP] on main unit for next error.
F031	DVD Media disk	A specification value. It is size from the number of TTU_SRP.		Press [■, STOP] on main unit for next error.
F040	DVD Media disk	The number of SRP1 is 0.		Press [■, STOP] on main unit for next error.
F041	DVD Media disk	The number of PGCI_SRP is 0.		Press [■, STOP] on main unit for next error.
F042	DVD Media disk	A specification value. It is size from the number of PGCI_SRP.		Press [■, STOP] on main unit for next error.
F043	DVD Media disk	It is in agreement with Menu ID. There is no PGCI_SRP.		Press [■, STOP] on main unit for next error.
F050	DVD Media disk	The number of TMAP_SRP is 0.		Press [■, STOP] on main unit for next error.
F051	DVD Media disk	A specification value. It is size from the number of TMAP_SRP.		Press [■, STOP] on main unit for next error.
F052	DVD Media disk	Specification TMAP_SA is 0.		Press [■, STOP] on main unit for next error.
F053	DVD Media disk	The number of MAP_EN is 0.		Press [■, STOP] on main unit for next error.
F060	DVD Media disk	Although C_POSIT exists, it is in PGC. There is no PGMAP.		Press [■, STOP] on main unit for next error.
F061	DVD Media disk	Although C_POSIT exists, it is in PGC. There is no PGMAP.		Press [■, STOP] on main unit for next error.

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F062	DVD Media disk	A specification value inside of PGC. It is size from the number of PGCs.		Press [■, STOP] on main unit for next error.
F063	DVD Media disk	Although C_POSIT exists, it is in PGC. There is no C_PBIT.		Press [■, STOP] on main unit for next error.
F064	DVD Media disk	Although C_POSIT exists, it is in PGC. The number of PGCs is 0.		Press [■, STOP] on main unit for next error.
F065	DVD Media disk	Specification A cell number is 0.'		Press [■, STOP] on main unit for next error.
F066	DVD Media disk	A specification value inside of PGC. It is size from the number of Cell(s).		Press [■, STOP] on main unit for next error.
F067	DVD Media disk	A blocked cell is present.		Press [■, STOP] on main unit for next error.
F070	DVD Media disk	There is no NV_PACK data.		Press [■, STOP] on main unit for next error.
F080	DVD Media disk	Under reference. There is no Cell number.		Press [■, STOP] on main unit for next error.
F0E0	DVD Media disk	For [used as a DFD object] a user guide. A PGC control file < impossible.		Press [■, STOP] on main unit for next error.
F0E1	DVD Media disk	DFD main microcomputer. Compatibility with a DFD type < download is impossible.		Press [■, STOP] on main unit for next error.
F0E2	DVD Media disk	DFD download start. PGC reproduction error.		Press [■, STOP] on main unit for next error.
F0E3	DVD Media disk	Waiting for the completion of DFD download. PGC reproduction error.		Press [■, STOP] on main unit for next error.
F0E4	DVD Media disk	At the time of DFD download AVDEC.		Press [■, STOP] on main unit for next error.
F0E5	DVD Media disk	It is the farm file lead error at the time of DFD download.		Press [■, STOP] on main unit for next error.
F0E6	DVD Media disk	DFD alteration check error of the read firmware.		Press [■, STOP] on main unit for next error.
F0F0	DVD Media disk	There is no farm file used as a DFD object and it is downloading needlessly.		Press [■, STOP] on main unit for next error.
F0F1	DVD Media disk	The firware which is in agreement with DFD download conditions < unnecessary.		Press [■, STOP] on main unit for next error.
F103	Illegal highlight Position	Big possibility of disc specification violation during highlight display		Press [■, STOP] on main unit for next error.
F4FF	Force initialize failure (time out)	Timeout when force initialization fails		Press [■, STOP] on main unit for next error.

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F500	DSC error	DSC (IC8251) stops in the occurrence of servo error (startup, focus error, etc.)		Press [■, STOP] on main unit for next error.
F501	DSC not Ready error	DSC-system computer communication error (Communication failure caused by idling of DSC)		Press [■, STOP] on main unit for next error.
F502	DSC Time out error	Similar as F500		Press [■, STOP] on main unit for next error.
F503	DSC communication Failure	Communication error (result error occurred although communication command was sent)		Press [■, STOP] on main unit for next error.
F504	Abnormal adjusting DSC data slice offset			Press [■, STOP] on main unit for next error.
F505	DSC Attention error	Similar as F500		Press [■, STOP] on main unit for next error.
F506	Invalid media	Disc is flipped over, TOC unreadable, incompatible disc media		Press [■, STOP] on main unit for next error.
F600	Access failure to management information caused by demodulation error	Operation stopped because navigation data is not accessible caused by the demodulation defect		Press [■, STOP] on main unit for next error.
F601	Indeterminate sector ID requested	Operation stopped caused by the request to access abnormal ID data		Press [■, STOP] on main unit for next error.
F602	Access failure to LEAD-IN caused by demodulation error	LEAD IN data unreadable		Press [■, STOP] on main unit for next error.
F603	Access failure to KEYDET caused by demodulation error	Access failure to CSS data of disc		Press [■, STOP] on main unit for next error.
F610	ODC abnormality	No permission for command execution		Press [■, STOP] on main unit for next error.
F611	No CRC OK for a specific time (CD)	Access failure to seek address in CD series		Press [■, STOP] on main unit for next error.
F612	No CRC OK for a specific time (DVD)	Access failure to ID data in DVD series		Press [■, STOP] on main unit for next error.
F620	Laser safeguard: high temperature condition	High temperature of the laser guide unit (OPU unit)		Press [■, STOP] on main unit for next error.
F621	Laser safeguard: circuit failure condition	Circuitry failure of the laser guide unit (OPU unit)		Press [■, STOP] on main unit for next error.
F700	MBX overflow	When replying message to disc manager		Press [■, STOP] on main unit for next error.
F701	Message command does not end	Next message is sent before replying to disc manager		Press [■, STOP] on main unit for next error.
F702	Message command changes	Message is changed before it is sent as a reply to disc manager		Press [■, STOP] on main unit for next error.

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F880	Task number is not appropriate	Message coming from a non-existing task		Press [■, STOP] on main unit for next error.
F890	Sending message when message is being sent to AV task	Sending message to AV task		Press [■, STOP] on main unit for next error.
F891	Message couldn't be sent to AV task	Begin sending message to AV task		Press [■, STOP] on main unit for next error.
F893	FLASH ROM IC problem	FLASH ROM IC installed is not operating properly (Necessary replacement of FLASH ROM IC) or firmware problem		Press [■, STOP] on main unit for next error.
F894	EEPROM abnormality	EEPROM IC installed is not operating in normal condition (EEPROM contains necessary data)		Press [■, STOP] on main unit for next error.
F895	Region setting abnormality	Firm version agreement check for factory preset setting failure prevention. Check region setting & re-initialize		Press [■, STOP] on main unit for next error.
F896	No existence model	Firm version agreement check for factory preset setting failure prevention		Press [■, STOP] on main unit for next error.
F897	Initialize is not completed	Initialize completion check for 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 and FLASH ROM (firmware)		Press [■, STOP] on main unit for next error.
F8A0	Message command is not appropriate	Message command is not suitable		Press [■, STOP] on main unit for next error.

Note:

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

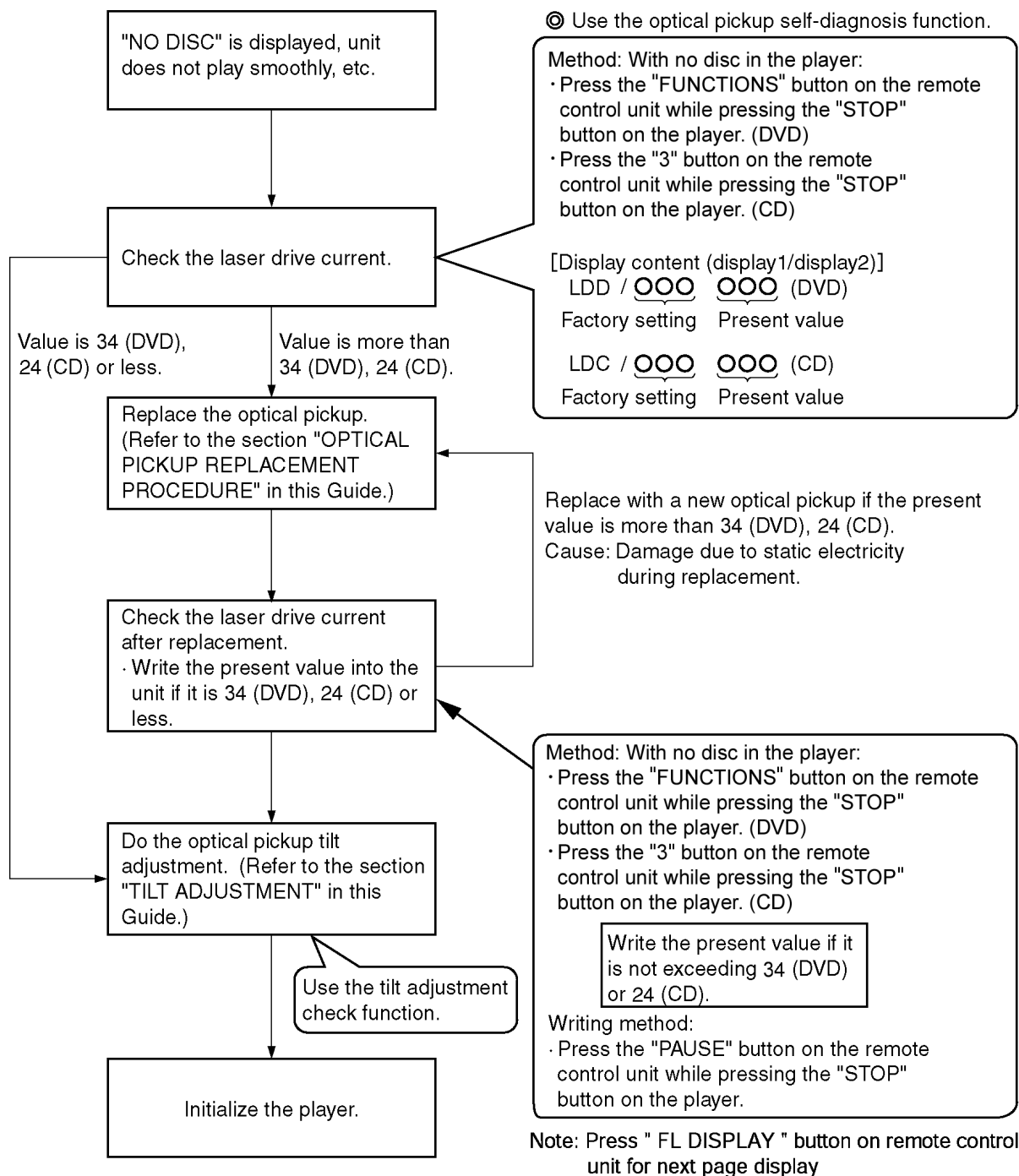
*1: CPPM is the copy guard function beforehand written in the disk for protection of copyrights.

10.2.3. Optical Pickup Breakdown Diagnosis

This unit is equipped with the optical pickup self-diagnosis function and the 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 45 (DVD) or 45 (CD).

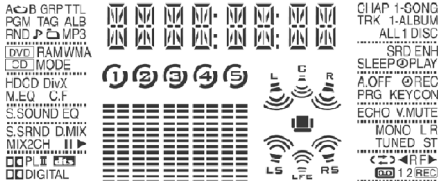
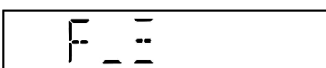
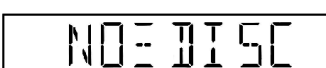
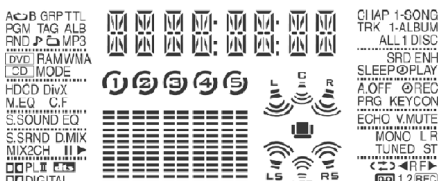
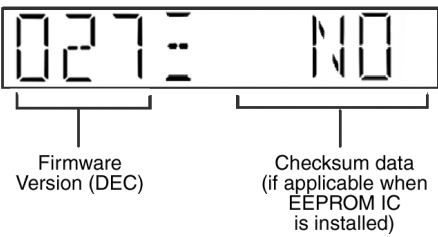
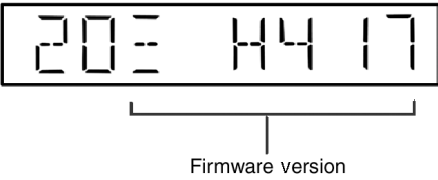
Note:

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



10.3. Special Mode Table 2

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Self -Diagnostic Mode	To enter into self diagnostic checking for main unit.	T I	1. Select [DVD/CD ►] for DVD/CD mode. (Ensure no disc is inserted into the drive unit.) 2. Press and hold [■, STOP] button for 3 seconds follow by [^/FF/►►]. To exit, press [@/I, AC IN] button on main unit or remote control.
CD Changer Reliability Test (CRS1D)	To determine the reliability of CD/DVD Changer Unit. (For more information, refer to section 10.3.2)	00001 The counter will increment by one. When reach 99999 will change to 00000.	In Self-Diagnostic Mode: 1. Select [DVD/CD ►] for CD mode. 2. Press [1] on remote control.. To exit, press [@/I, AC IN] button on main unit or remote control. (The tray will return to PLAY position and then power off)

Item		FL Display	Key Operation
Mode Name	Description		Front Key
Doctor Mode	To enter into "Doctor Mode" for purpose of checking various functions of the main unit (Example: Micro-p Firmware version & EEPROM IC check etc)	1. FL will light up for all segments  2. Device display  3.  4. In doctor mode (under CD mode)  1. All segments will light up for 1 second.	In CD mode: 1. Press [■, STOP] button on main unit follow by [4] and [7] on remote control. (Ensure no disc is inserted into drive unit.) To exit, press [ENTER] button on remote control or [⏻/I, AC IN] button on main unit or remote control. Note: In firmware version & checksum data (EEPROM IC) displayed when the buttons is pressed twice.
Cold Start	Initialize backup data and start the micro-processor.	 1. All segments will light up for 1 second.	In doctor mode: 1. Press [4] on remote control. To exit, press [ENTER] button on remote control or [⏻/I, AC IN] button on main unit or remote control.
FL Display Test	To check the FL segments display (All segments will light up and LED will blink at 0.5 second interval)		In doctor mode: 1. Press [PLAY/REC] button on remote control.
Tape Eject Test	To check on the tape eject function (For deck 1/2)	Both deck will be eject automatically.	In doctor mode: 1. Press [0] button on remote control.
Firmware version check & EEPROM IC Information	To display the micro-processor firmware version & checksum date when there is an EEPROM IC installed	1. Firmware version display & the EEPROM. 	In doctor mode: 1. Press [■, STOP] button on main unit follow by [4] and [7] on remote control. To exit, press [ENTER] button on remote control or [⏻/I, AC IN] button on main unit or remote control. Refer to Section 10.3.1 for more information.
Firmware version checking (For DVD Module)	To display the firmware version for the DVD Module (Firmware is loaded to FLASH ROM IC)		In doctor mode: 1. Press [■, STOP] button on main unit follow by [CANCEL] on remote control. To exit, press [ENTER] button on remote control or [⏻/I, AC IN] button on main unit or remote control. H417: For GC/ GS region J417: For GCS/ GCT region

10.3.1. EEPROM Checksum (ROM Correction)

Purpose: To check for microprocessor firmware version and EEPROM checksum (ROM correction).

Below are the procedures for this mode.

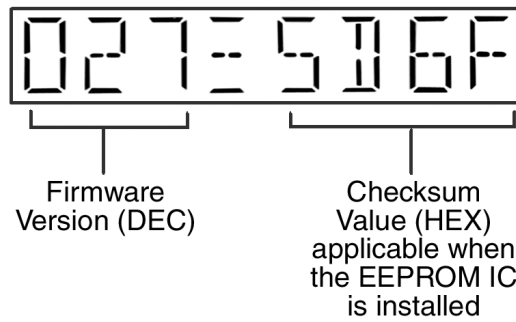
Step 1: Enter into Doctor mode (for more information, refer to section 10.3 on the key operation to enter into this mode).

Step 2: Check for firmware version and EEPROM checksum (By pressing STOP button on main unit followed by "4" and "7" on remote control).

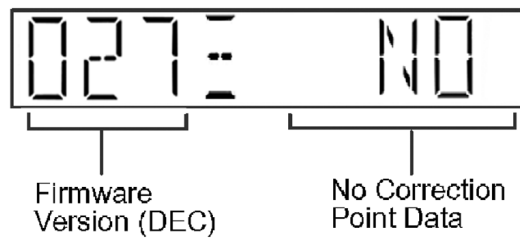
- When entering into DOCTOR MODE, the firmware version and checksum data of EEPROM (if applicable) will appear on FL

display. Below is the information on the EEPROM IC (ROM correction) under 3 possible situations:

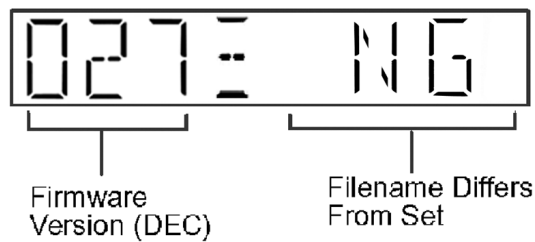
1. In the case that the correction point existence data is other than 0 (ie. correction file exists), EEPROM checksum display for the microprocessor shall be made after calculating checksum by summing up the content of data area from EEPROM IC.



2. In the case when no EEPROM IC is installed. It is display as below (no display of checksum data)



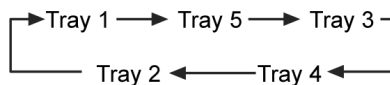
3. In cases that the filename is different even though a EEPROM is installed, or no correction file exists, [NG] shall be displayed (the correction point existence data is set to 0 at this condition).



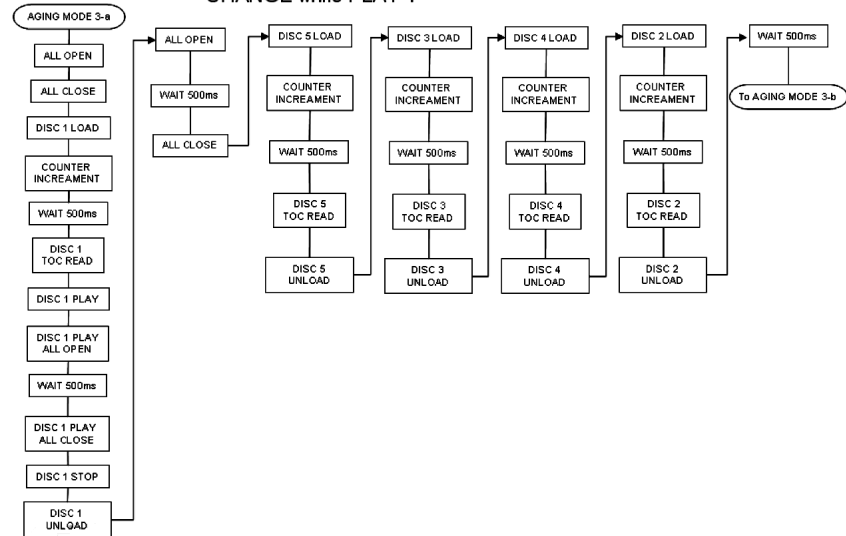
Note: Microprocessor firmware refers to version number for microprocessor IC located on PANEL P.C.B.. It is subject to change which would be updated accordingly. ROM correction checksum refers to the HEX code that is displayed upon key buttons pressed if an EEPROM is loaded in the unit.

10.3.2. CD/DVD changer unit ageing test mode

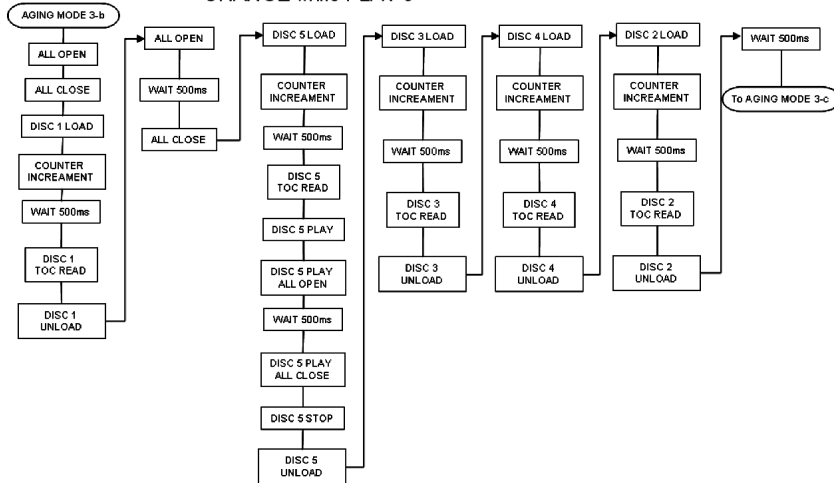
Below is the process flow chart of ageing for the CD/DVD changer unit. (CRS1D)



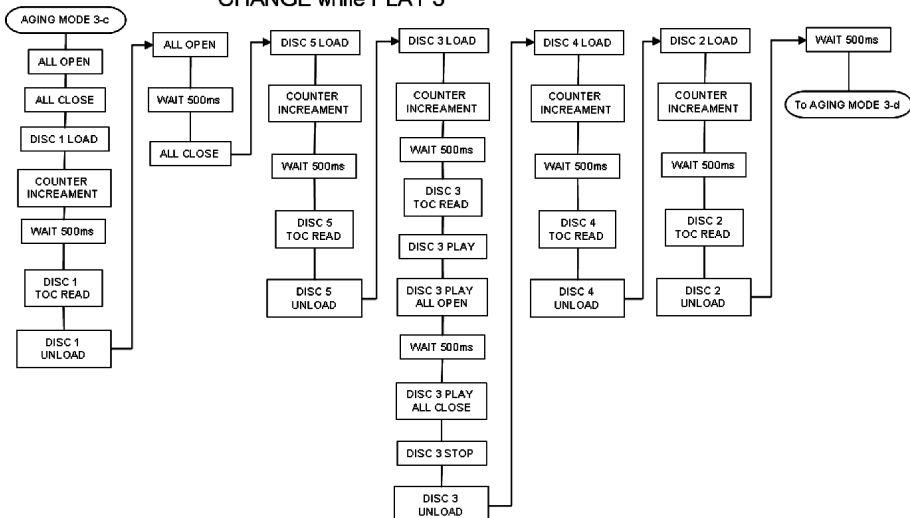
Mode 3 PLAY-CHANGE-OPEN mode aging (1 cycle) CHANGE while PLAY 1

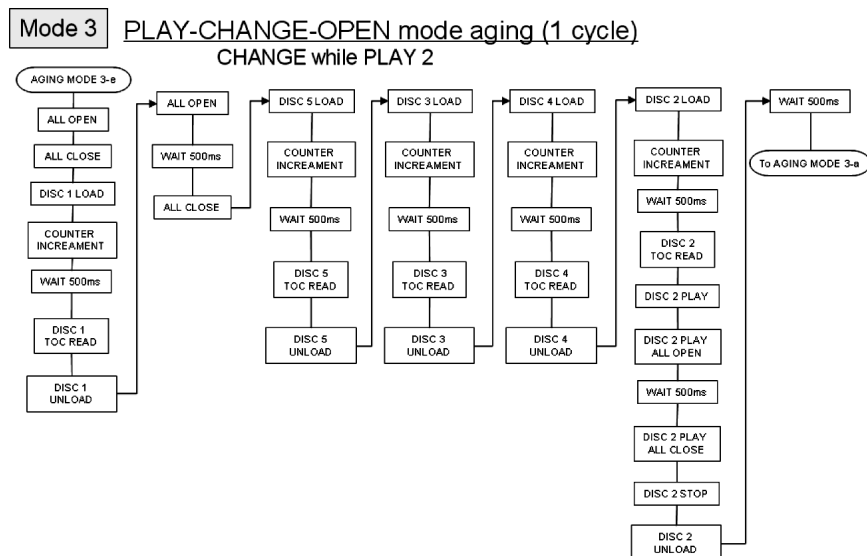
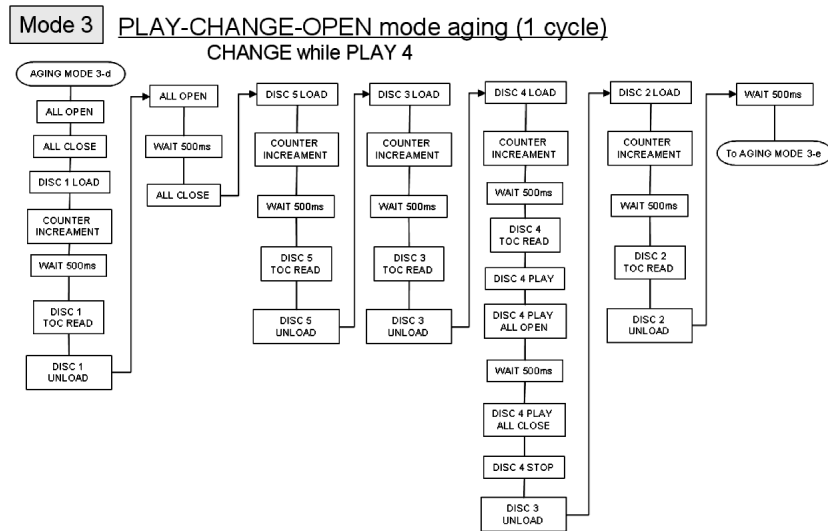


Mode 3 PLAY-CHANGE-OPEN mode aging (1 cycle) CHANGE while PLAY 5



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



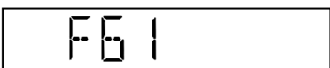
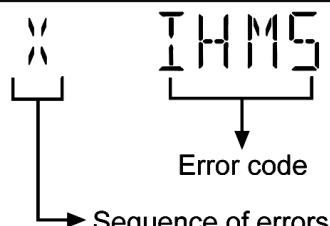
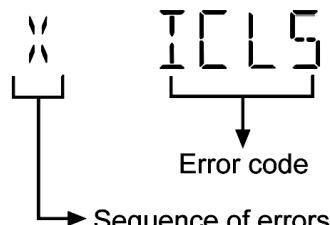
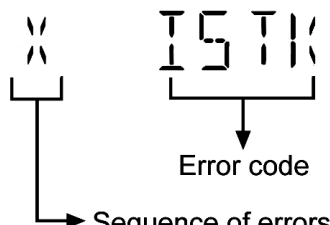
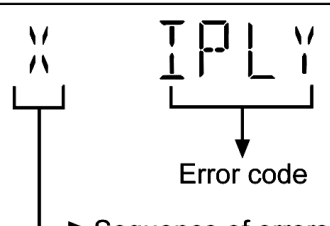
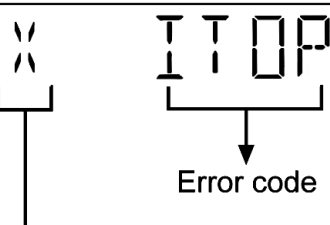
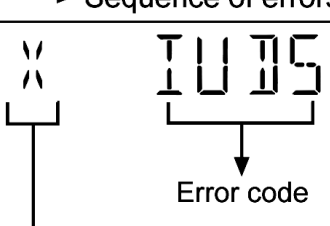
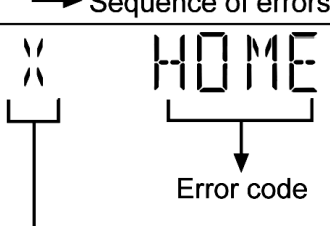


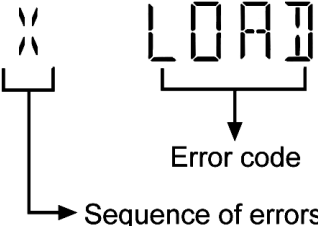
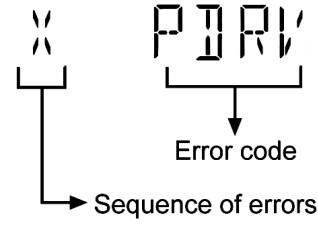
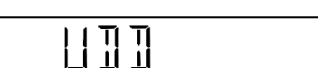
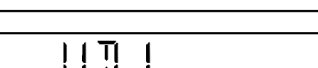
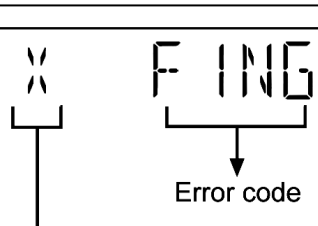
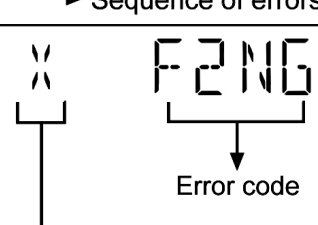
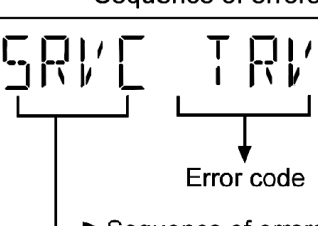
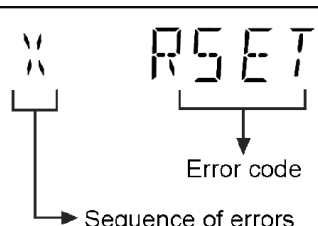
10.3.3. Error Code Table

Self-Diagnosis Function (refer Section 10.3) provides information on any problems occurring for the unit and its respective components by displaying the error codes. These error code such as U**, H** and F** are stored in memory and held unless it is cleared.

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

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
H01	Mode SW, plunger and capstan motor abnormal	The tray is not able to open.	H01	For deck mechanism unit (For deck 1/2). Press [■, STOP] on main unit for next error.
H02	Rec INH SW abnormal	(Spindle servo, DSC (IC8251) Spindle motor, CLV servo error)	H02	For deck mechanism unit (For deck 2). Press [■, STOP] on main unit for next error.
H03	HALF SW abnormal	(Traverse motor, IC8251)	H03	For deck mechanism unit (For deck 1/2). Press [■, STOP] on main unit for next error.
F15	RESET SW abnormal	REST SW: ON is not detected within the specified time.	F15	For DVD unit (For Traverse). Press [■, STOP] on main unit for next error.
F26	Transmission error between CD Servo LSI IC and microprocessor IC	When set to CD mode, the sense signal does not turn "Low", a fail safe time after system command transmission is sent.	F26	For DVD unit (For Traverse). Press [■, STOP] on main unit for next error.

Error Code	Diagnosis Contents	Description of error	Automatic FL Display	Remarks
F61	Power Amp IC output abnormal	Upon power on, PCONT=HIGH, DCDET=L after checking LSI.		For power. Press [■, STOP] on main unit for next error.
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 direction. 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 following conditions 1. After tray is load to "PLAY" position. 2. After tray is unload to "STOCK" 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
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.
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 close operation is performed, it fails to close. It will automatically open 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.
SRVC_TRV	To unlock the traverse unit for service	1. All trays set to "STOCK" position 2. Mechanism set to tray 5 3. Cam gear set to "HOME" position		For CD/DVD changer unit (CRS1D). Press [SINGLE CHANGE] on main unit.
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.

CRS1D Error Code display

1. The errors that occurred in CRS1D Mechanism can be recalled and displayed, in the order of the occurrence under self-diagnostic (Refer to Section 10.3 for procedures to enter this mode).

- Only the first 5 errors will be memorized (in backup memory). The subsequent error shall be ignored and not memorize.

For system with EEPROM as memory backup, memory space in EEPROM is necessary.

2. To display all error code memorized

In CRS1D Self-Diagnostic mode, press [SINGLE CHANGE] to display subsequence error code.

It shall repeat after reaching error no. 5.

e.g.:

[1 _ _ _ I H M S] → [SINGLE CHANGE]

[2 _ _ _ I T O P] → [SINGLE CHANGE]

[3 _ _ _ H O M E] → [SINGLE CHANGE]

[4 _ _ _ L O A D] → [SINGLE CHANGE]

[5 _ _ _ _ U D D] → [SINGLE CHANGE]

3. To clear the error code memory

In CRS1D Self-Diagnostic mode, long press [SINGLE CHANGE] key (2s or more)

11 Assembling and Disassembling

11.1. Caution

Special Note:

This model uses a new CD/DVD changer unit CRS1D. In this following section does not contain the necessary disassembly & assembly information for the CD/DVD changer unit (CRS1D) except the disassembly & assembly of traverse unit. Kindly refer to the original service manual for the CD/DVD changer unit. (Order No. MD0603065A3).

“ATTENTION SERVICER”

Some chassis components may have sharp edges. Be careful when disassembling and servicing.

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures.
Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.
4. Refer to the Parts No. on the page of “Parts Location and Replacement Parts List” (Section 25), if necessary.

Warning :-

This product uses a laser diode. Refer to caution statement Precaution of Laser Diode.

Caution:

After replacing of CD/DVD Changer Unit, ageing test is necessary. Please confirm operation for CD/DVD Changer Unit.

Caution:

Original screws should be used.

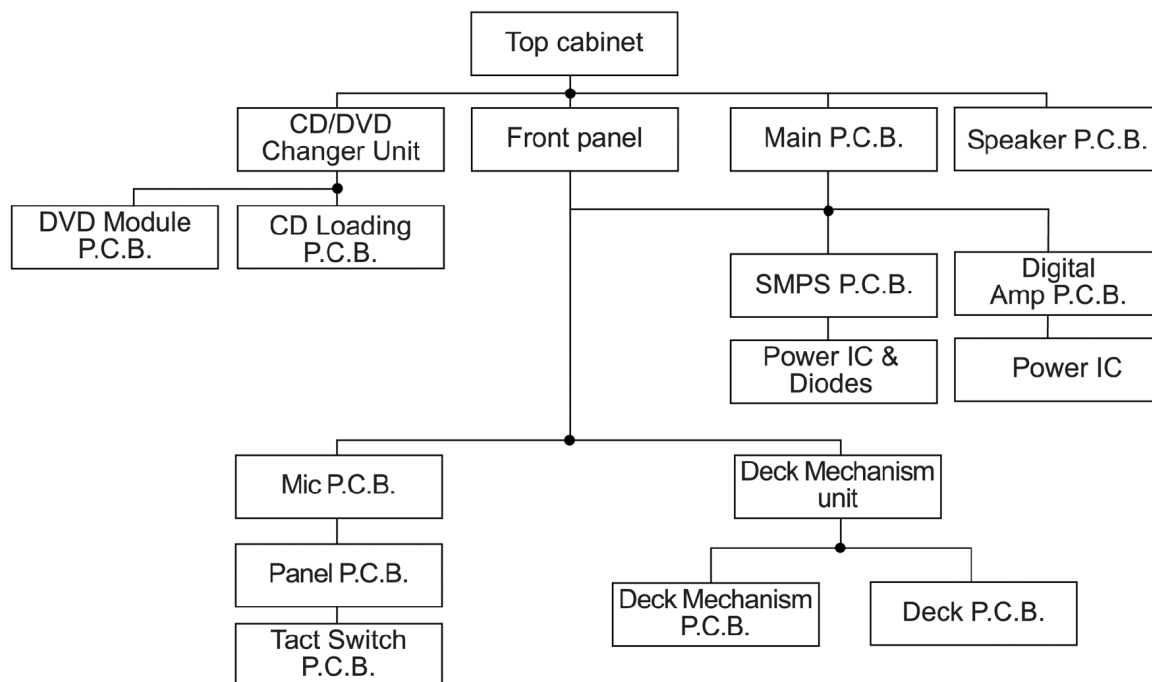
Below is the list of disassembly sections

- Disassembly of Top Cabinet
- Disassembly of CD/DVD Changer Unit
- Disassembly of Rear Panel
- Disassembly of Main P.C.B.
- Disassembly of Front Panel Unit
- Disassembly of SMPS P.C.B.
- Replacement of Power Amp IC (SMPS P.C.B.)
- Disassembly of Digital Amp P.C.B.
- Replacement for Power Amp IC (Digital Amp P.C.B.)
- Disassembly of Panel P.C.B., Mic P.C.B. & Tact Switch P.C.B.
- Disassembly of Deck Mechanism Unit
- Disassembly of Deck P.C.B.
- Disassembly of Traverse Unit
- Disassembly of Optical Pickup Unit (CD/DVD Mechanism)
- Disassembly of Deck Mechanism
- Replacement for cassette lid
- Rectification for tape jam problem

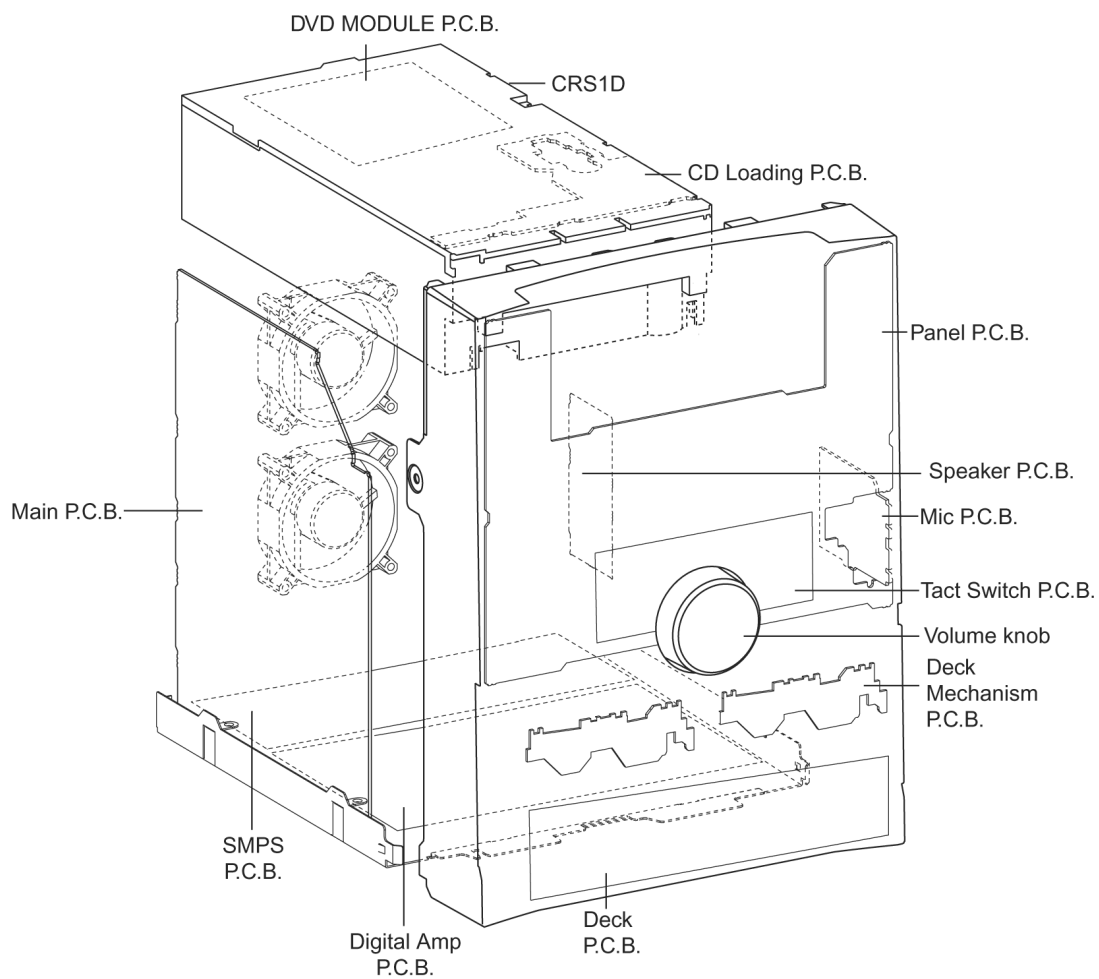
11.2. Disassembly flow chart

The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing.

To assemble the unit, reverse the steps shown in the chart as below.



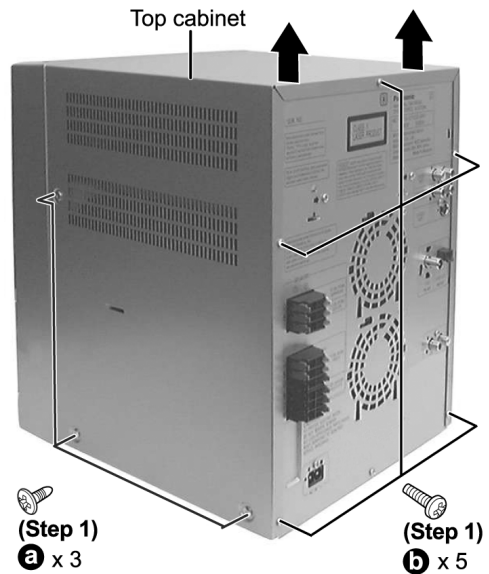
11.3. Main Parts Location



11.4. Disassembly of Top Cabinet

Step 1 Remove 3 screws at each side and 5 screws at rear panel.

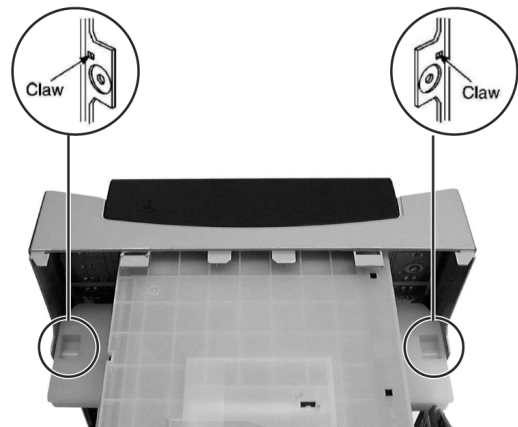
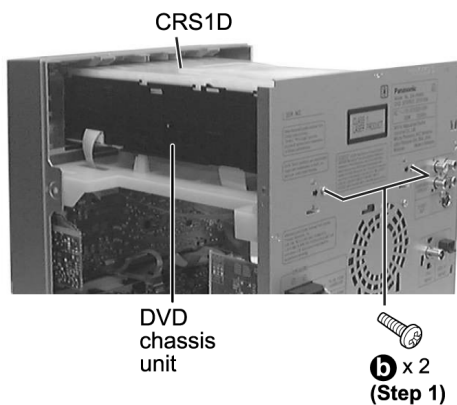
Step 2 Lift up both sides of the top cabinet, push the top cabinet towards the rear to remove the top cabinet.



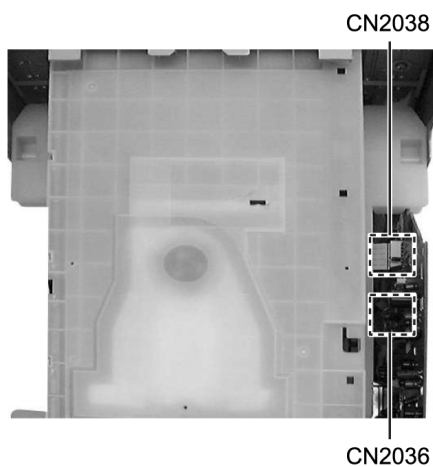
11.5. Disassembly of CD/DVD Changer Unit (CRS1D)

• Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly of Top Cabinet

Step 1 Remove 2 screws at rear panel.



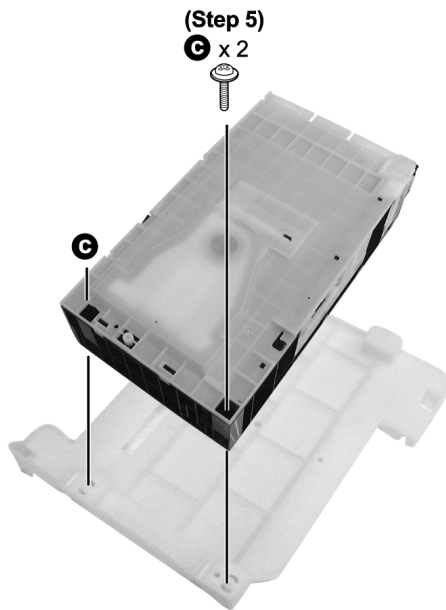
Step 2 Detach the FFC cables (CN2038 & CN2036).



Step 3 Release the claws on both ends.

Step 4 Lift the CD/DVD changer unit upwards to remove it.

Disassembly of Mecha Chassis



Step 5 Remove 2 screws.

Step 6 Remove the Mecha Chassis.

Note:

For disassembly & assembly of traverse unit, please refer to section 11.16 of this service manual. Please refer to original Service Manual for the Disassembly and Assembly of the CD/DVD Changer Unit (CRS1D), section 5.

11.6. Disassembly of Rear Panel

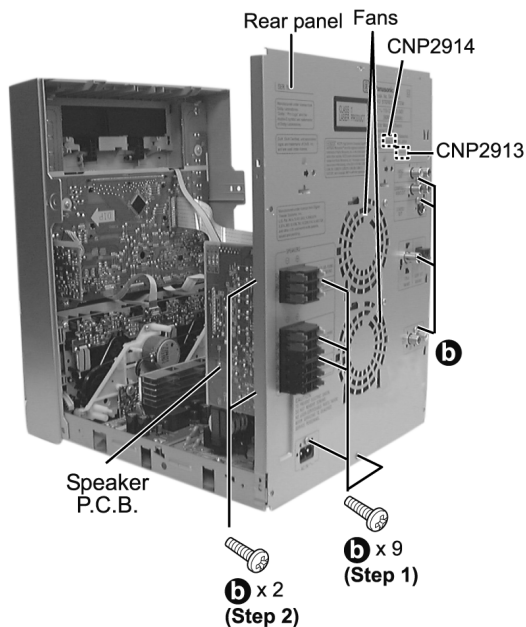
- Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 11.5 - Disassembly of CD/DVD Changer Unit

Step 1 Remove 9 screws.

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

Step 3 Detach the fan connector CNP2913 & CNP2914 from Main P.C.B..

Step 4 Remove rear panel.

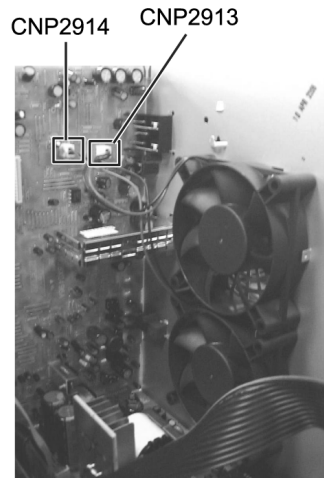
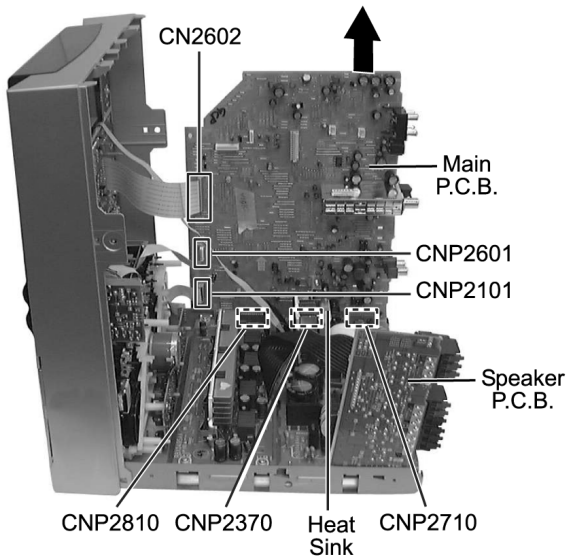


11.7. Disassembly of Main P.C.B.

- Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 11.5 - Disassembly of CD/DVD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 11.6 - Disassembly of Rear Panel

Step 1 Disconnect FFC cables (CN2803, CNP2601 and CNP2602).

Step 3 Remove Main P.C.B.



Caution:

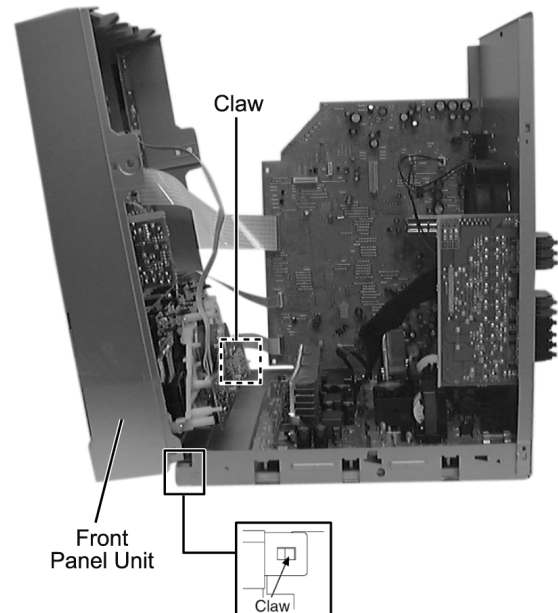
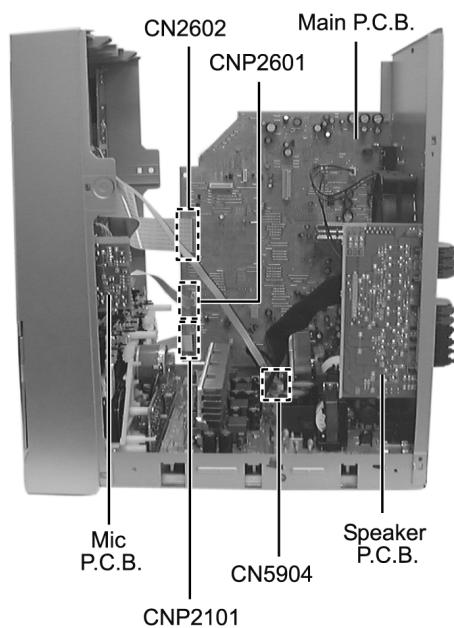
1. Ensure the wires dressing must be at the top side to prevent for wire touching heat sink unit.
2. The wire at upper fan connect to CNP2913.
3. The wire at lower fan connect to CNP2914.

Step 2 Detach 3 connectors (CNP2810, CNP2370 & CNP2710).

11.8. Disassembly of Front Panel Unit

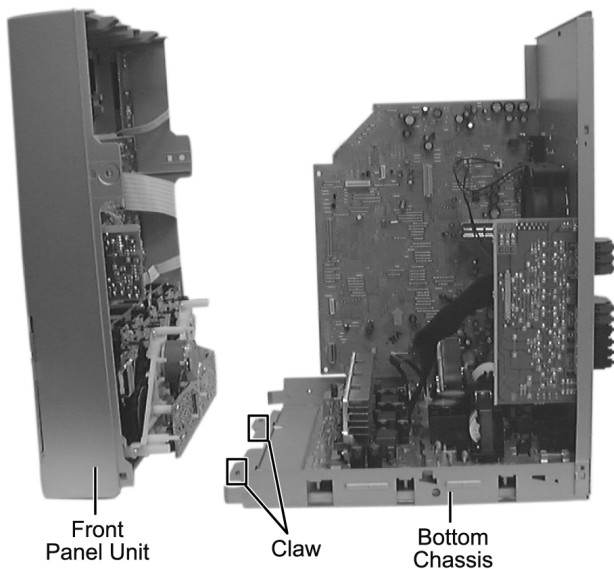
- Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 11.5 - Disassembly of CD/DVD Changer Unit

Step 1 Disconnect connectors (CN2602, CNP2601, CNP2101 and CN5904).



Step 3 Release 2 claws.

Step 2 Bent the front panel unit slightly forward as shown.



Step 4 Remove the front panel unit.

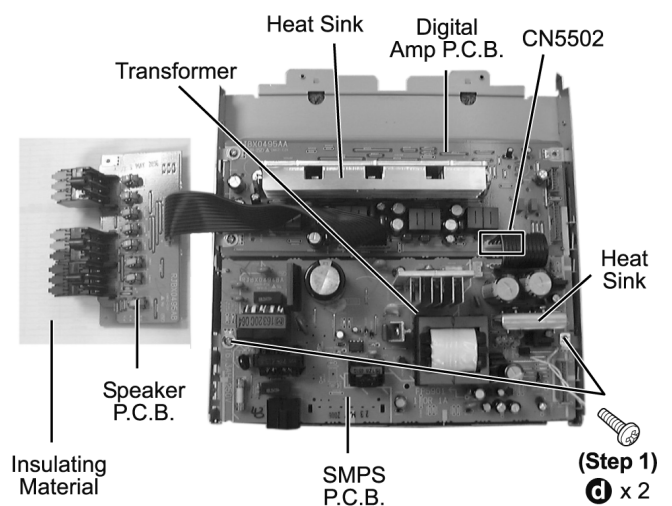
Note: Ensure 2 claws located at the bottom chassis is seated into the 2 slots at bottom of front panel at 2 catches (one on each side) of bottom chassis to be aligned to front panel's slot. Assembly is secured upon hearing clicking sound.

11.9. Disassembly of SMPS P.C.B.

- Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 11.5 - Disassembly of CD/DVD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 11.6 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 3) of Item 11.7 - Disassembly of Main P.C.B.
- Follow the (Step 1) - (Step 4) of Item 11.8 - Disassembly of Front Panel Unit

Step 1 Disconnect connector (CN5502 at Digital Amp P.C.B.).

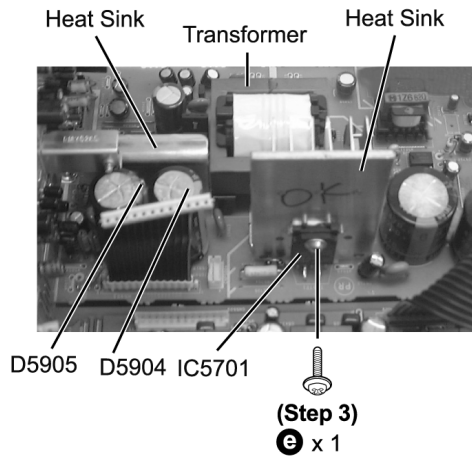
Step 2 Remove 2 screws.



11.10. Replacement of Power Amp IC (SMPS P.C.B.)

- Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 11.5 - Disassembly of CD/DVD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 11.6 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 3) of Item 11.7 - Disassembly of Main P.C.B.
- Follow the (Step 1) - (Step 4) of Item 11.8 - Disassembly of Front Panel Unit

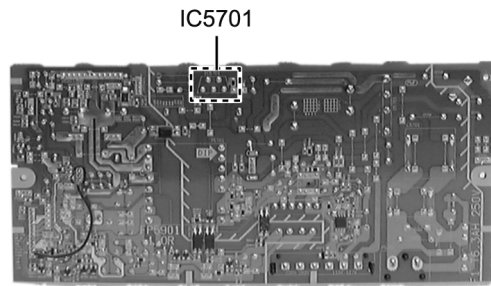
Step 1 Remove 1 screw.



Step 2 Flip over the SMPS P.C.B..

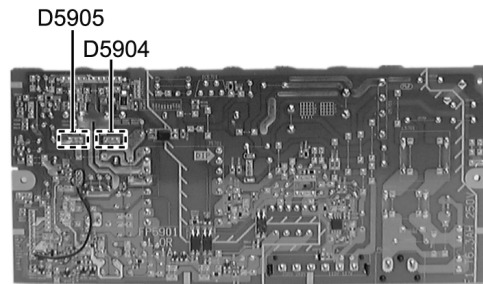
Step 3 Desolder IC5701.

Step 4 Remove IC5701.



• Relacement of Regulator Diodes

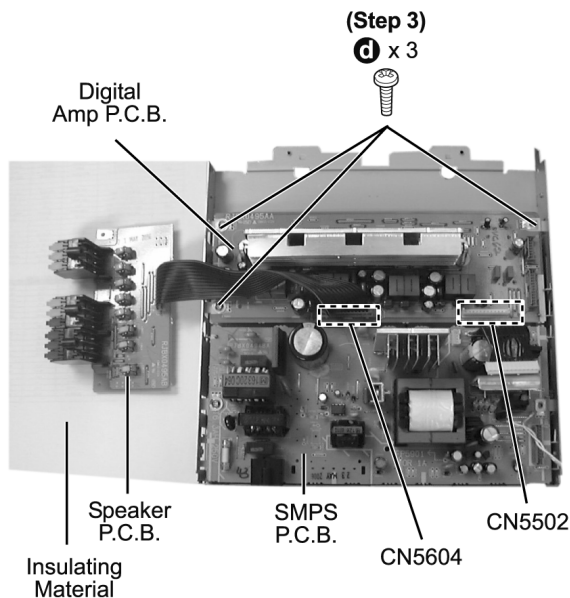
Step 1 Desolder D5904 & D5905.



11.11. Disassembly of Digital Amp P.C.B.

- Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 11.5 - Disassembly of CD/DVD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 11.6 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 3) of Item 11.7 - Disassembly of Main P.C.B.
- Follow the (Step 1) - (Step 4) of Item 11.8 - Disassembly of Front Panel Unit

Step 1 Detach cable CN5604.



Step 2 Disconnect connector CN5502.

Step 3 Remove the 3 screws on Digital Amp P.C.B..

Step 4 Remove Digital Amp P.C.B..

Note:

When assembling, make sure P.C.B. slot insert to bottom chassis guide.

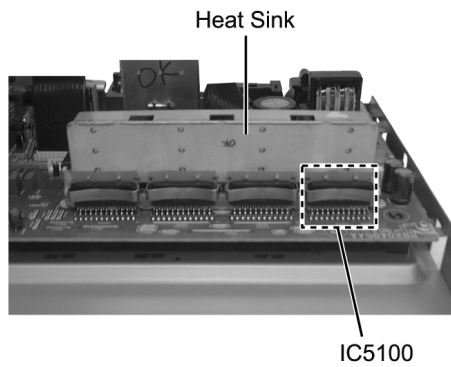
11.12. Replacement for Power Amp IC (Digital Amp P.C.B.)

- Follow the (Step 1) - (Step 3) of Item 11.11 - Disassembly of Digital Amp P.C.B.

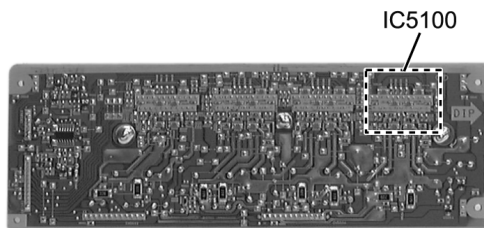
Replacement of Power Amp IC (IC5100)

Step 1 Remove IC clip.

- IC5100



Step 2 Flip over the P.C.B..



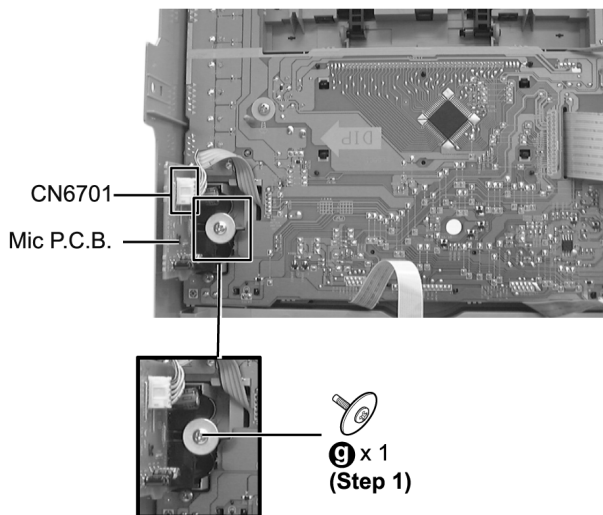
Step 3 Desolder Power Amp IC IC5100.

Step 4 Remove the Power Amp IC.

11.13. Disassembly of Panel P.C.B., Mic P.C.B. & Tact Switch P.C.B.

- Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 11.5 - Disassembly of CD/DVD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 11.8 - Disassembly of Front Panel Unit

Step 1 Remove 1 screw.

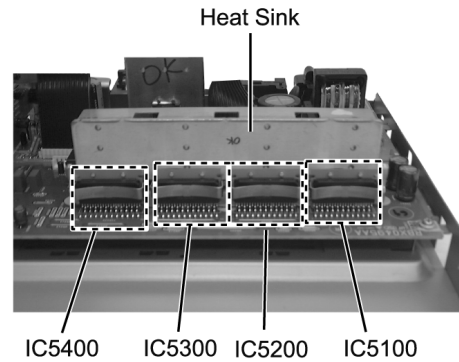


Step 2 Disconnect connector CN6701 at Mic P.C.B..

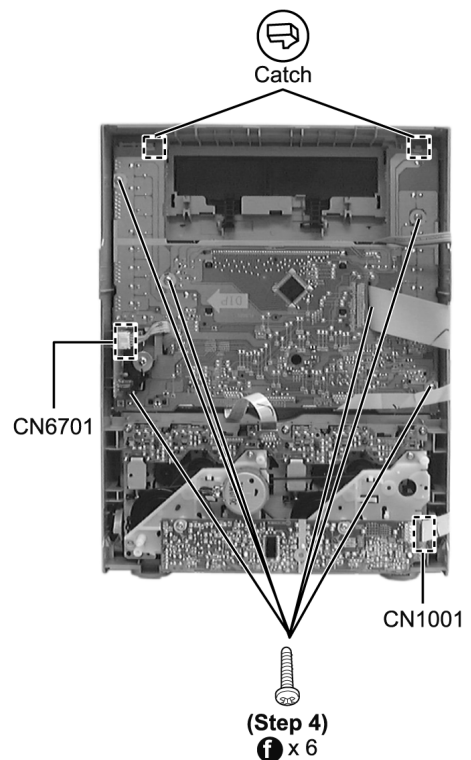
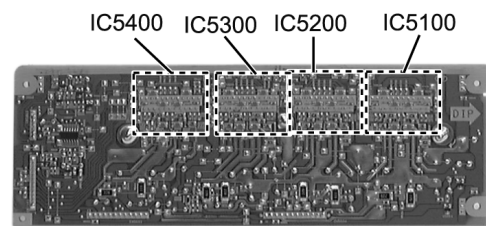
Step 3 Lift up the Mic P.C.B. to remove it.

Step 4 Remove 6 screws.

Replacement of Power Amp ICs (IC5200/ IC5300/ IC5400)



Repeat (Step 1) - (Step 4) of Item 11.11 for removal of IC5200/ IC5300/IC5400.



Step 5 Release 2 catches.

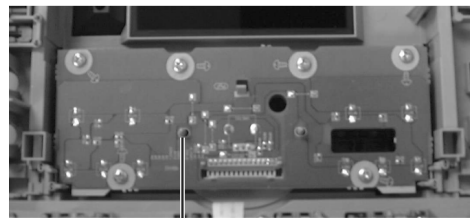
Step 6 Remove Panel P.C.B..

11.13.1. Disassembly of Tact Switch P.C.B.

Step 7 Remove the Volume knob.



Step 8 Remove 6 screws..



Tact Switch P.C.B.

11.13.2. Disassembly of Lid

Step 1 Lift the spring sideward.



Spring

Step 2 Remove Lid.

Note: Do not misplace the spring.

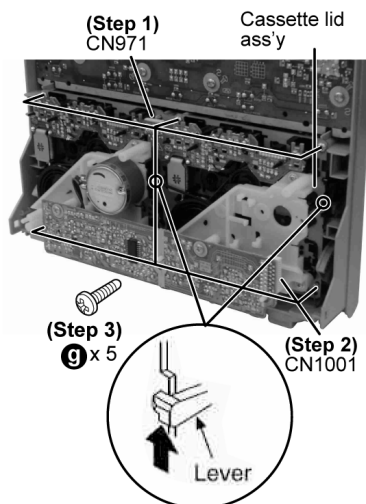
11.14. Disassembly of Deck mechanism unit

- Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 11.5 - Disassembly of CD/DVD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 11.8 - Disassembly of Front Panel Unit

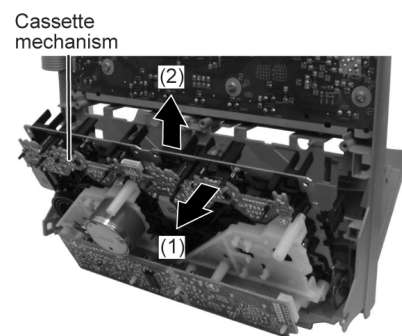
Step 1 Detach FFC cable (CN971).

Step 2 Disconnect FFC cable (CN1001).

Step 3 Remove the 5 screws.



Step 4 Push the lever upward, and then open the cassette lid ass'y (For DECK1 and DECK2).



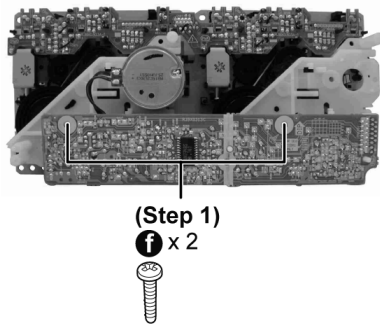
Step 5 Tilt the cassette mechanism unit in the direction of arrow (1), and then remove it in the direction of arrow (2).

Note: For disassembly of parts for deck mechanism unit, refer to Section 11.18.

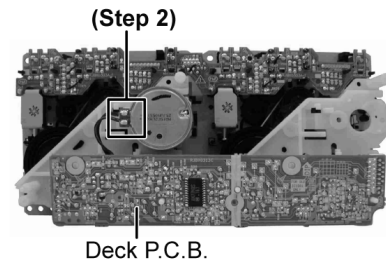
11.15. Disassembly of Deck P.C.B.

- Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 11.5 - Disassembly of CD/DVD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 11.8 - Disassembly of Front Panel Unit

Step 1 Remove 2 screws.



Step 2 Desolder wire at deck motor terminals (W1002).



Step 3 Remove Deck P.C.B.

11.16. Disassembly of Traverse Unit

- Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 11.5 - Disassembly of CD/DVD Changer Unit

Important notes: Ensure all the trays are in the “STOCK” position before proceeding to the disassemble of 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.

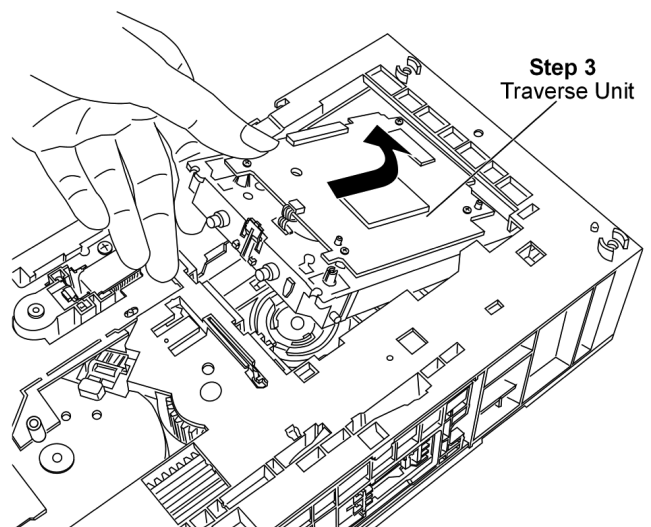
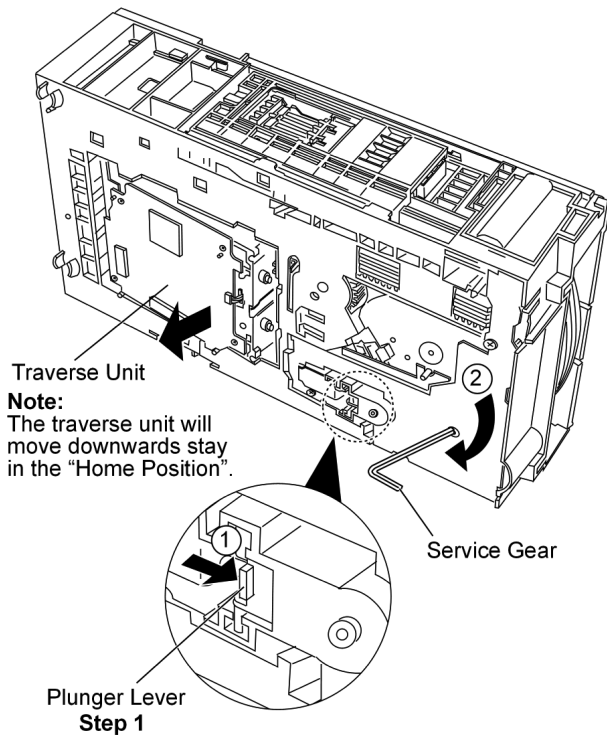
Caution:
Do not damage the Play Gear 2 when pushing the Traverse Slide Plate.

Play Gear 2

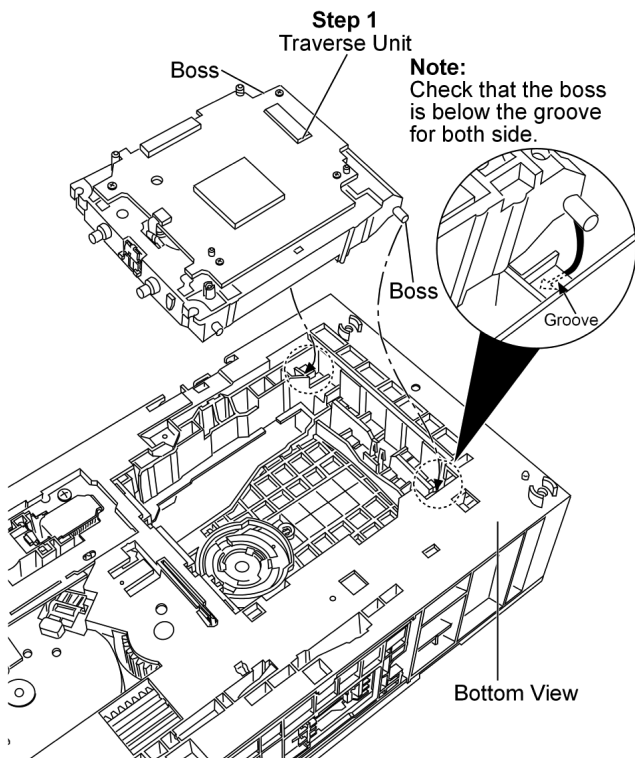
Step 2
Traverse Slide Plate

Traverse Unit

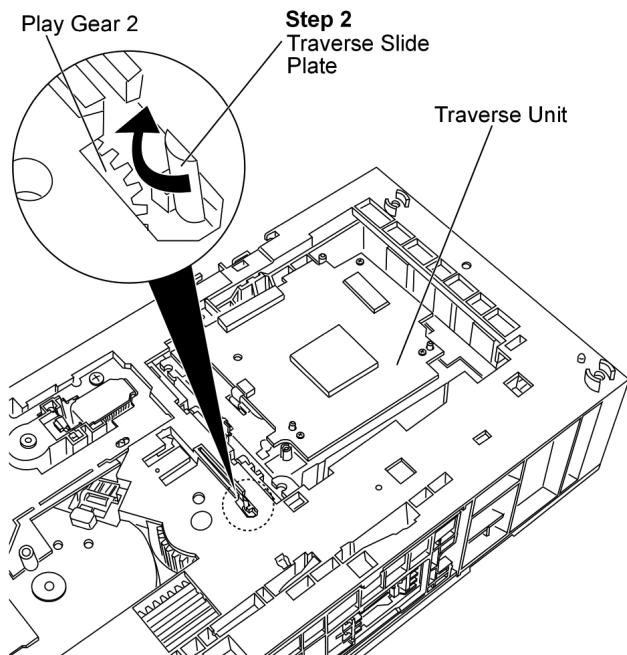
Bottom View



- Assembly of Traverse Unit



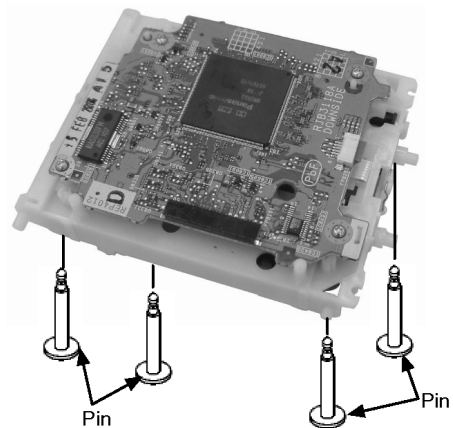
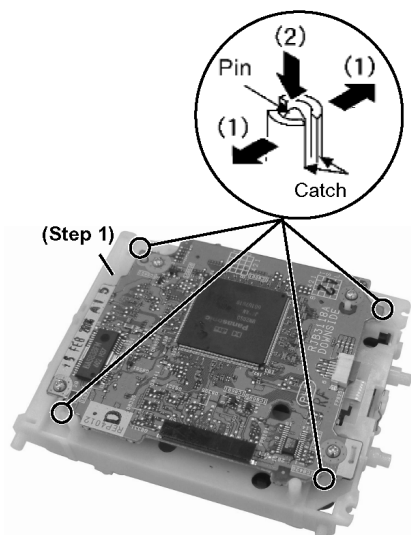
Caution:
Do not damage the Play Gear 2 when pushing the Traverse Slide Plate.



11.17. Disassembly of optical pickup unit (CD/DVD mechanism)

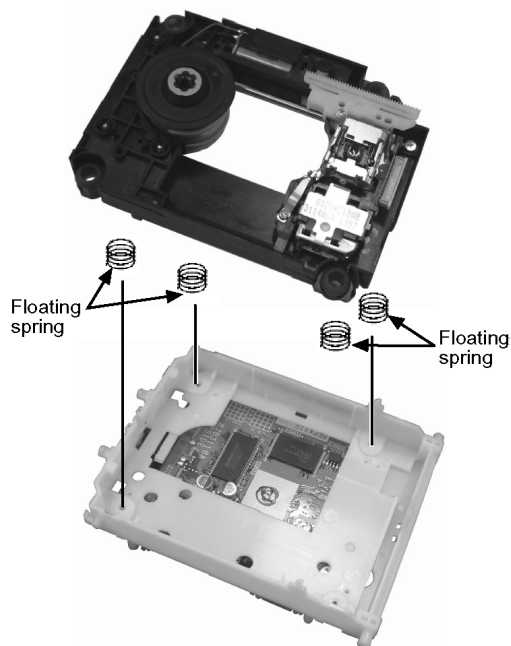
- Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 11.5 - Disassembly of CD/DVD Changer Unit
- Follow the (Step 1) - (Step 2) of Item 11.16 - Disassembly of Traverse Unit

Step 1 Pull out FFC.



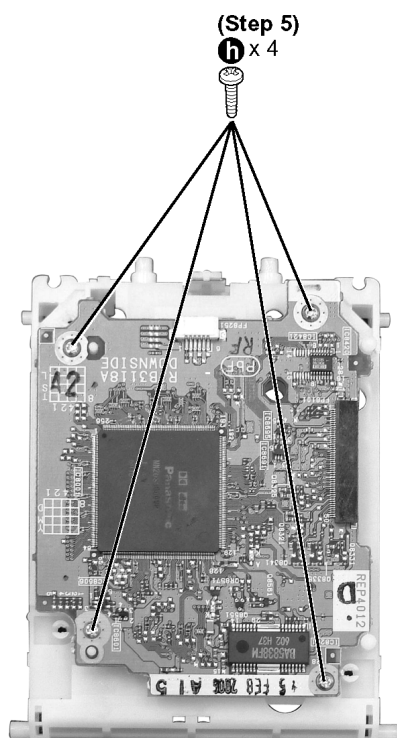
Step 3 Remove 4 pins.

Step 2 Widening the catch, push the pin in.



Step 4 Remove the traverse deck.

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

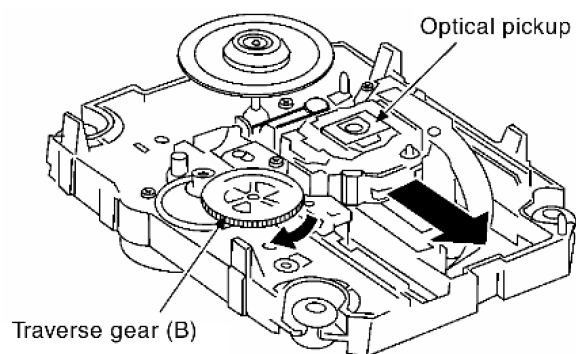


Step 5 Remove 4 screws.

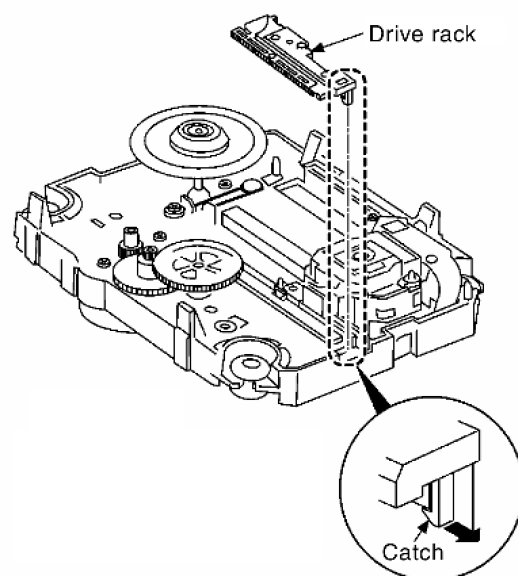
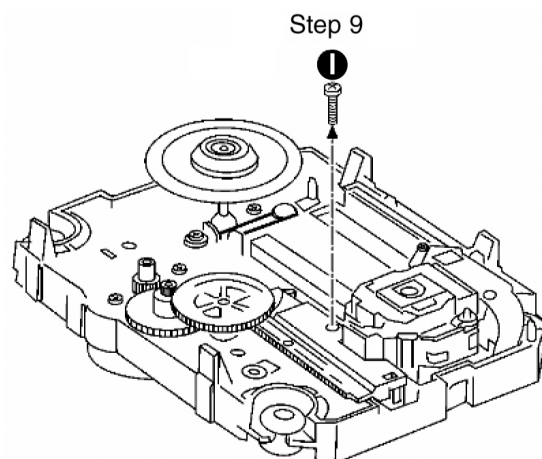
Step 6 Remove the DVD Servo P.C.B. and turn it over.

Note: Insert a short pin into FFC of the optical pickup.

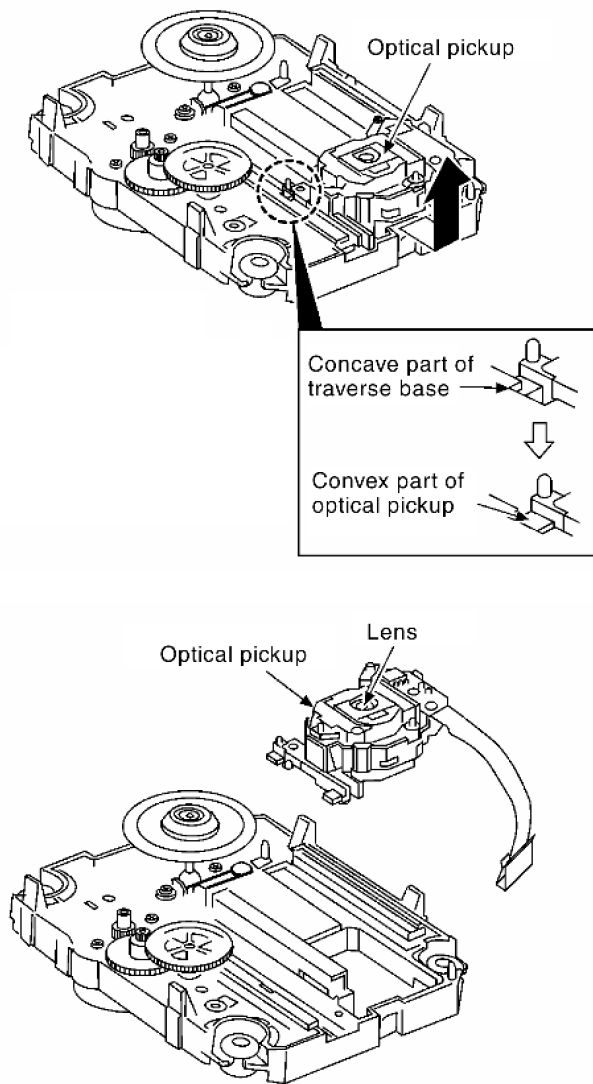
Step 7 Rotate the traverse deck (B) to the arrow direction and shift the optical pickup to the furthest backward.



Step 8 Remove the catch of the drive rack, and take out the drive rack.



Step 9 Place the convex part of an optical pickup to the concave part of a traverse base, then take out the optical pickup.



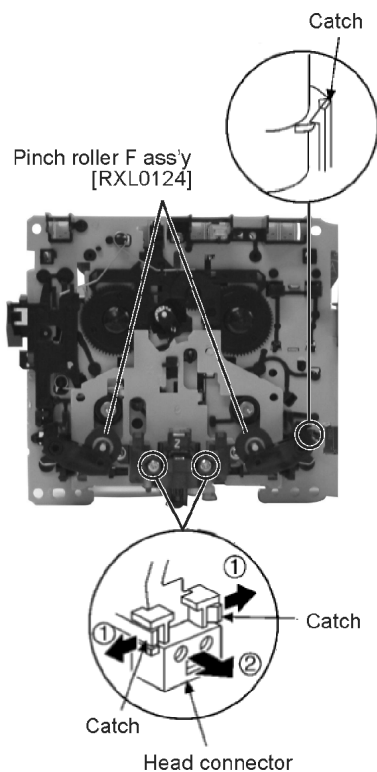
Note:
Do not touch the lens of the optical pickup

11.18. Disassembly of Deck Mechanism

- Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 11.5 - Disassembly of CD/DVD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 11.8 - Disassembly of Front Panel Unit
- Follow the (Step 1) - (Step 5) of Item 11.14 - Disassembly of Deck Mechanism Unit

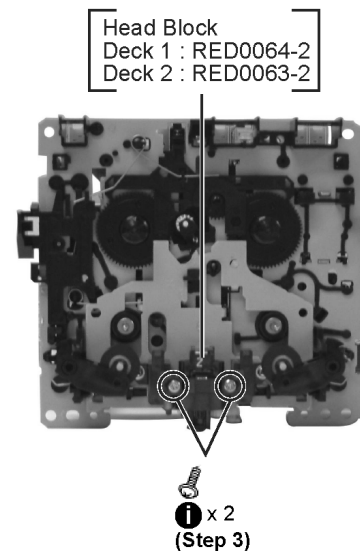
11.18.1. Disassembly of the pinch roller ass'y and head block

* 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 and detach the head block connector.



Step 3 Remove 2 screws.

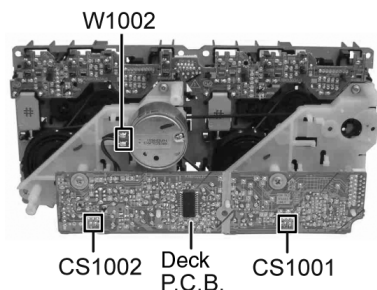
Step 4 Remove head block.

11.18.2. Disassembly of capstan motor ass'y, capstan belt A, capstan belt B and winding belt

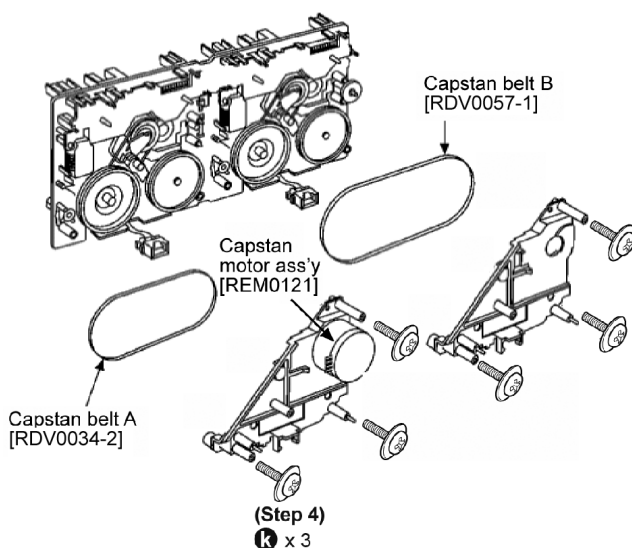
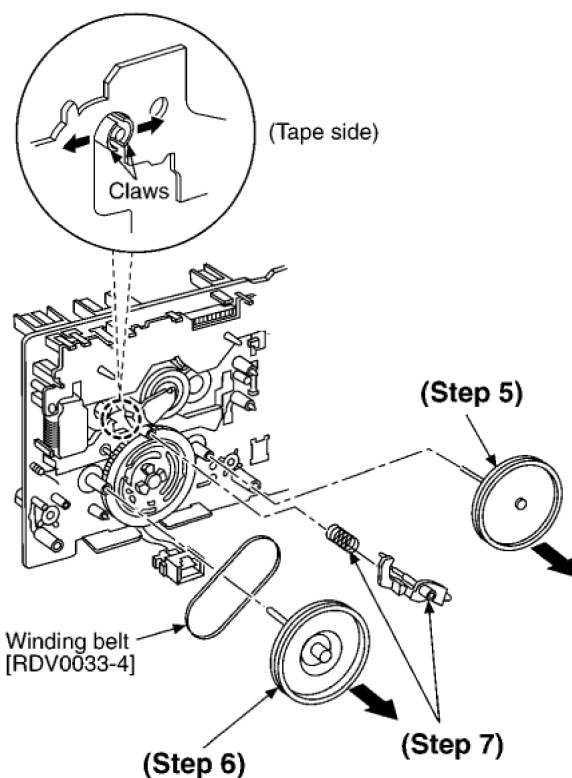
Step 1 Detach the head block connector (Deck P.C.B.).

Step 2 Desolder wire(W1002) at motor assembly.

Step 3 Remove Deck P.C.B.



Step 5 Remove capstan belt A/B.



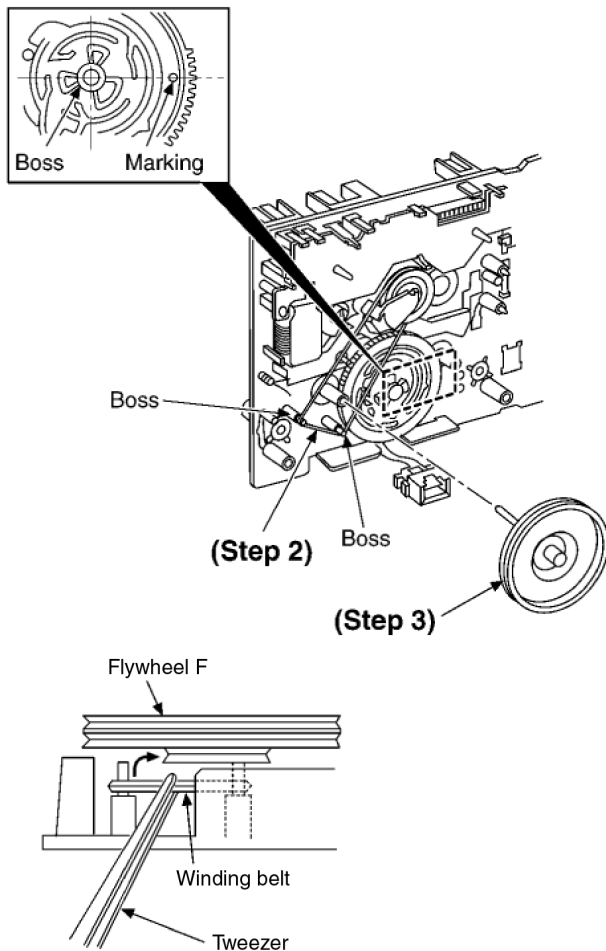
Step 4 Remove 3 screws (for deck 1 & 2).

Step 6 Remove the flywheel R.

Step 7 Release the claw and remove the winding lever and spring.

[Installation of the belt]

Step 1 The boss and marking should be positioned horizontally.



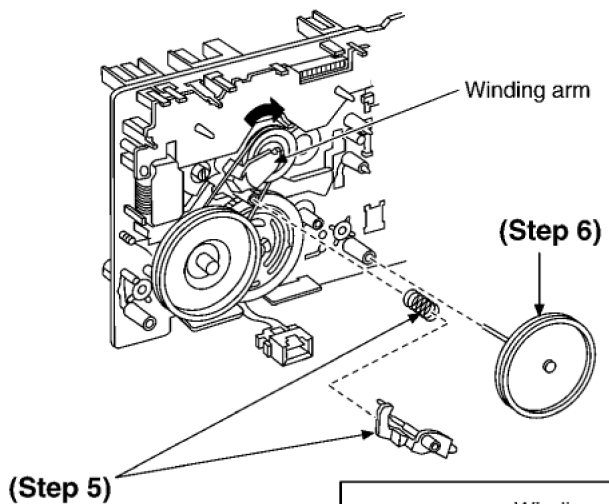
Step 2 Put the winding belt on the pulley temporarily.

Step 3 Install the flywheel F.

Step 4 Put the winding belt on the flywheel F.

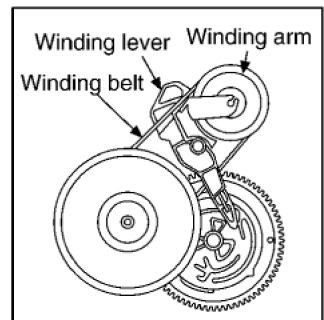
Step 5 Install the winding lever and spring while pressing the winding arm in the direction of arrow.

Step 6 Install the flywheel R.

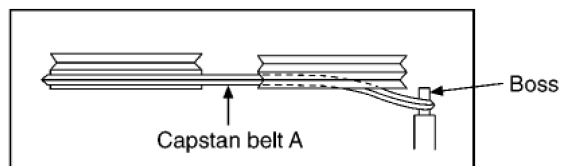
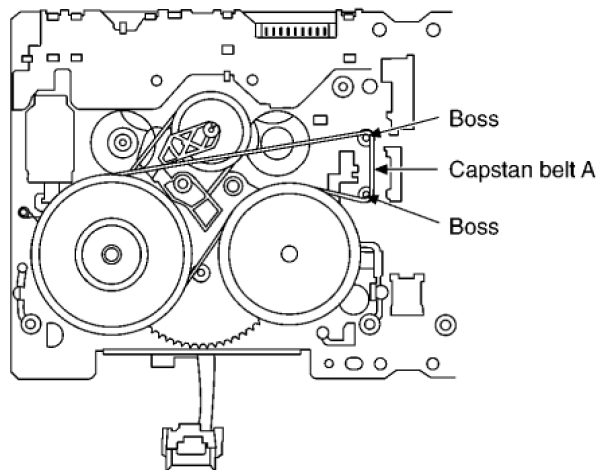


NOTE:

The winding lever should be positioned as shown below.



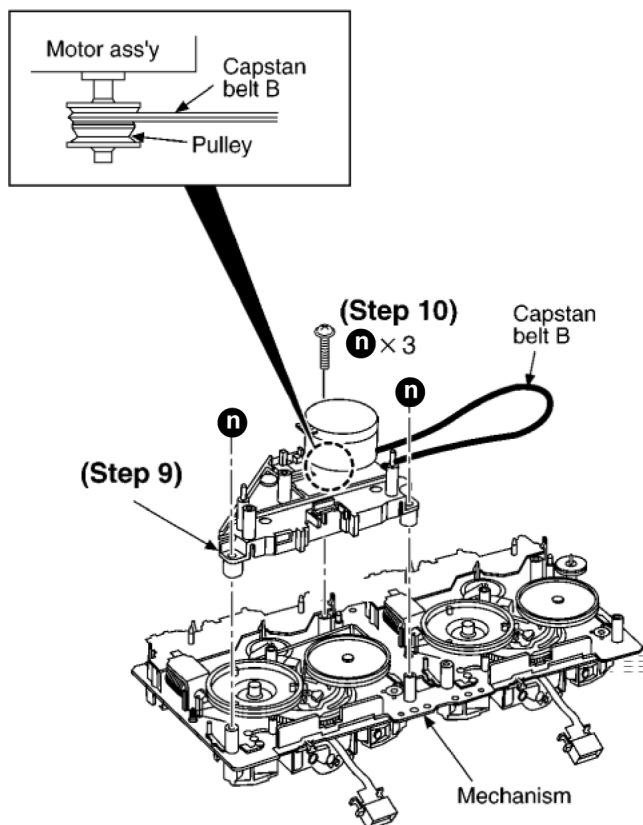
Step 7 Put the capstan belt A temporarily as shown below.



(Side view)

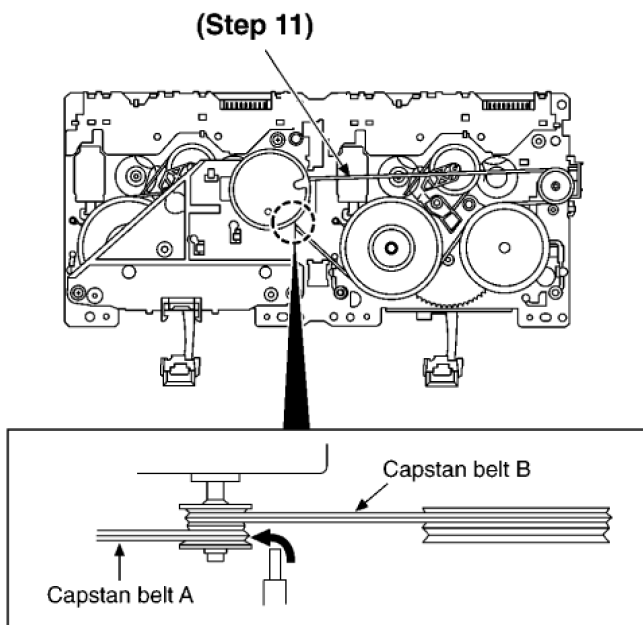
Step 8 Put the capstan belt B on the motor ass'y pulley.

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



Step 10 Install 3 screws.

Step 11 Put the capstan belt B as shown below.

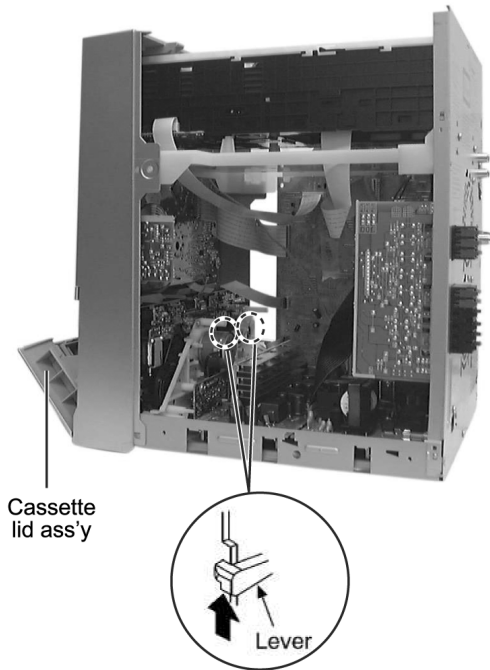


Step 12 Put the capstan belt A on the motor ass'y pulley.

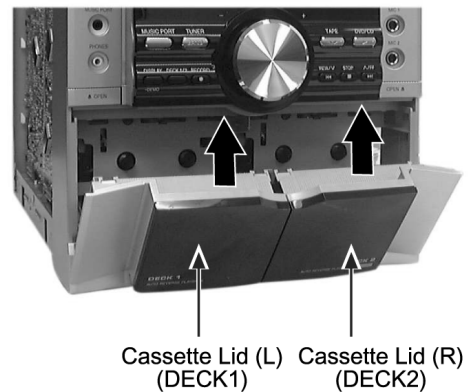
11.19. Replacement for cassette lid

· Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly of Top Cabinet

Step 1 Lift up the lever upward, open the cassette deck. (For DECK1 and DECK2)



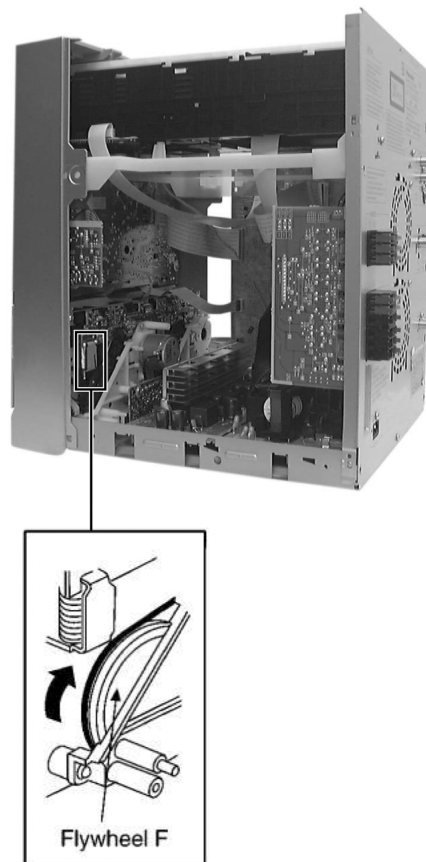
Step 2 Push up the cassette lid (L/R) in the direction of arrow. (For DECK1 and DECK2).



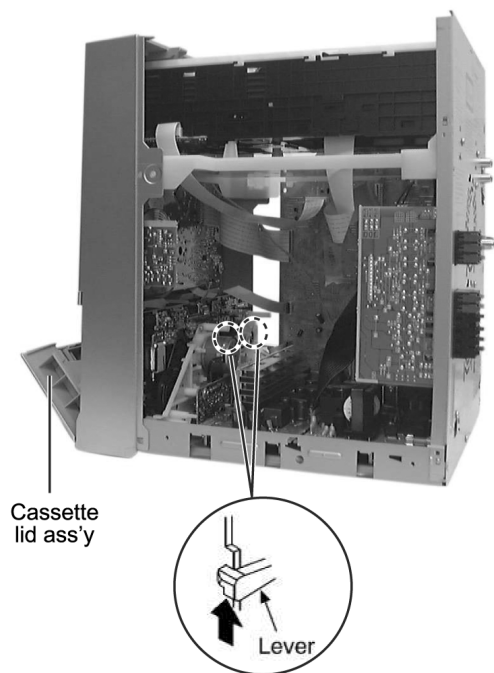
11.20. Rectification for tape jam problem

· Follow the (Step 1) - (Step 2) of Item 11.4 - Disassembly of Top Cabinet

Step 1 If a cassette tape cannot be removed from the deck (the tape is caught by the capstan or pinch roller during playback or recording), rotate the flywheel F in the direction of the arrow to remove it.



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



12 Service Fixture and Tools

Service Tools	
Extension FFC	
(A) Deck P.C.B. - Main P.C.B.	REEX0485 (14 Pins)
(B) Panel P.C.B. - Deck Mechanism P.C.B.	REEX0484 (10 Pins)

13 Service Positions

Note: For description of the disassembly procedures, see the Section 11.

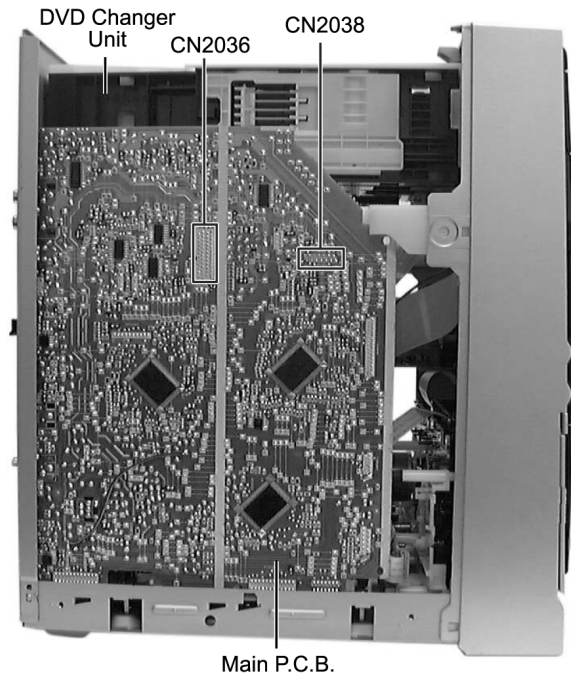
13.1. Checking and Repairing of Main P.C.B.

1. Remove Top cabinet

Remove 3 screws on L/R side.

Remove 5 screws on rear panel.

Remove top cabinet.



13.2. Checking and Repairing of SMPS P.C.B. & Digital Amp P.C.B.

1. Remove Top cabinet

- Remove 3 screws on L/R side.
- Remove 5 screws on rear panel.
- Remove top cabinet.

2. Remove CD/DVD Changer Unit (CRS1D)

- Remove 2 screws.
- Remove CD/DVD Changer Unit (CRS1D).

3. Remove Rear Panel

- Remove 9 screws.
- Remove 2 screws at Speaker P.C.B..
- Remove rear panel.

4. Disassemble Front Panel unit

- Disconnect 4 connectors (CN2602, CNP2601, CNP2101 & CN5904).
- Remove Front Panel Unit.

5. Disassemble Main P.C.B.

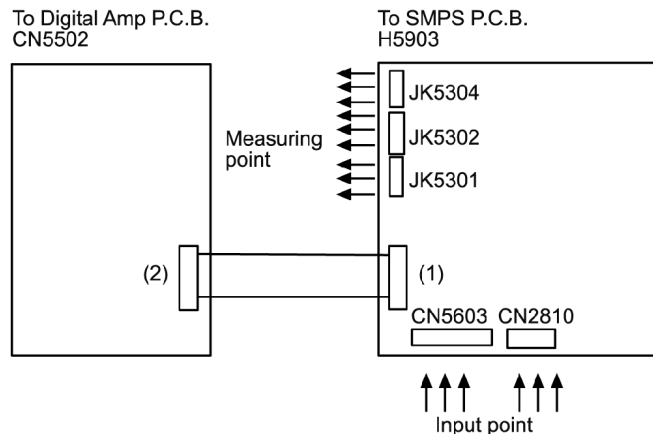
- Detach 3 connectors (CNP2810, CNP2370 & CNP2710).
- Remove Main P.C.B..

6. Remove Bottom Chassis

- Remove 2 screws at SMPS P.C.B..
- Remove 3 screws at Digital Amp P.C.B..
- Remove bottom Chassis.

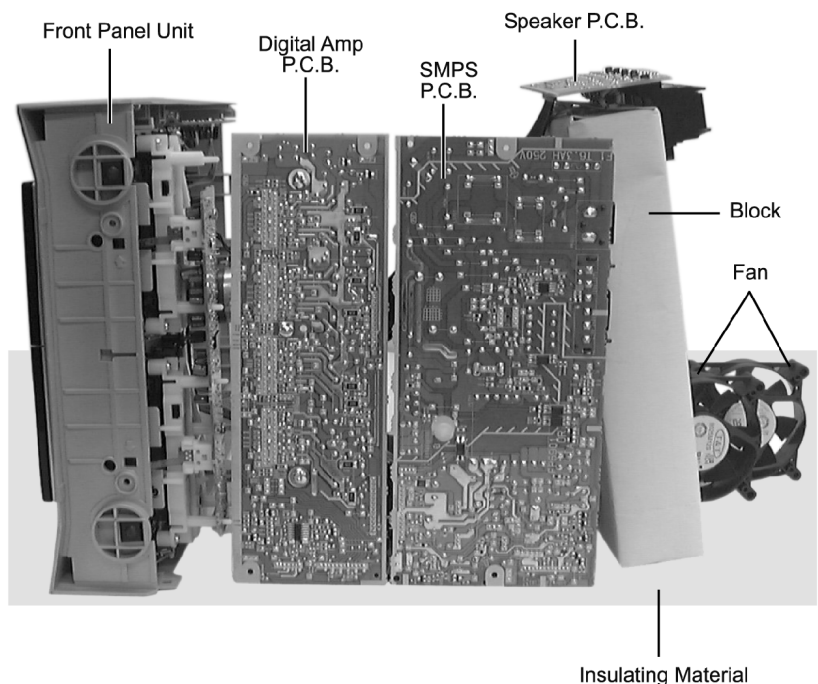
7. Connect Main P.C.B., Fans & Front Panel Unit

Connect 3 connectors CNP2810, CNP2370 & CNP2710 at SMPS P.C.B. & Digital Amp P.C.B..
 Connect 3 connectors to CN2602, CNP2601 and CNP2101 at Main P.C.B..
 Connect wire to CN5904 at SMPS P.C.B..
 Rotate the unit to horizontal.
 Connect 2 fans (upper fan connect to CNP2913 & lower fan connect to CNP2914).



(1) Connect H5903 (SMPS P.C.B.) to connector CN5502 (Digital Amp P.C.B.)

(2) Connect CN5502 (Digital Amp P.C.B.) to H5903 (SMPS P.C.B.)



13.3. Checking and Repairing of Panel, Deck & Deck Mechanism P.C.B.

1. Remove Top cabinet

Remove 3 screws on L/R side.

Remove 5 screws on rear panel.

Remove top cabinet.

2. Disassemble CD/DVD Changer Unit (CRS1D)

Remove 2 screws.

Remove CD/DVD Changer Unit (CRS1D).

3. Disassemble Front Panel unit

Disconnect 4 connectors (CN2602, CNP2601, CNP2101 & CN5904).

Remove Front Panel Unit.

4. Disassemble Panel P.C.B.

Remove 1 screw at Mic P.C.B..

Lift up the Mic P.C.B.

Remove 6 screws at Panel P.C.B..

5. Connect Panel P.C.B., CRS1D & Deck Mechanism

Connect 10P FFC cable (REEX0484) between CN971 to CN6601.

Connect 11P FFC cable between CN2101 to CN1001.

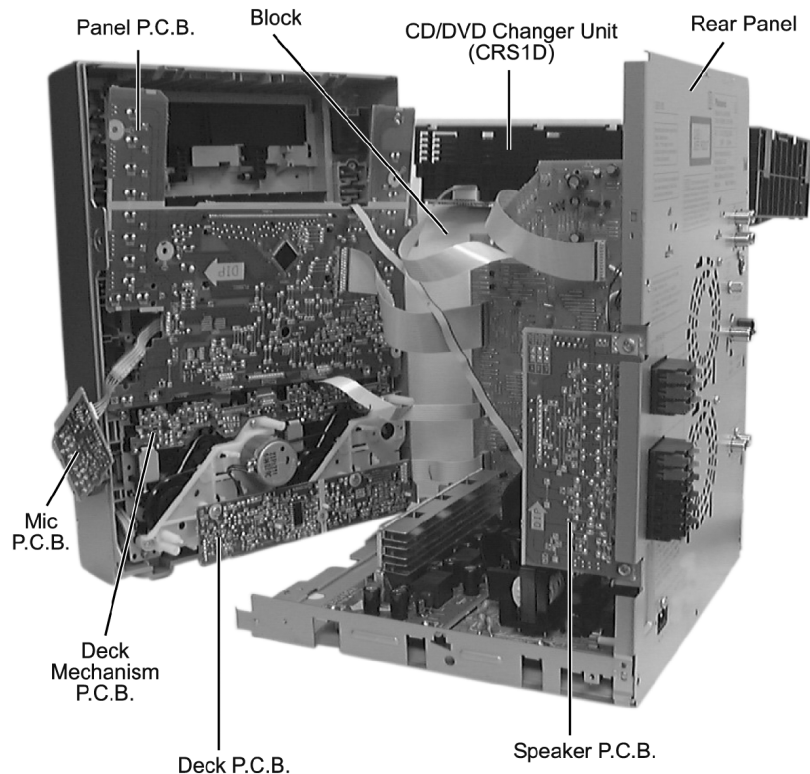
Connect 14P FFC cable between H6702 to CNP2601.

Connect 30P FFC cable between CN6703 to CN2602.

Connect 3P wires to CN5904.

Connect FFC cable between CN1 to CN2038.

Connect FFC cable between FP8101 to CN2036.



14 Adjustment Procedures

14.1. Cassette Deck Section

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

14.1.1. 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.

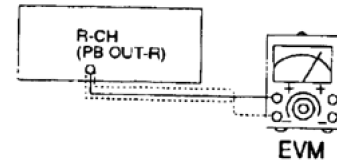


Fig. 1

- Screw
- Spring

Fig. 2

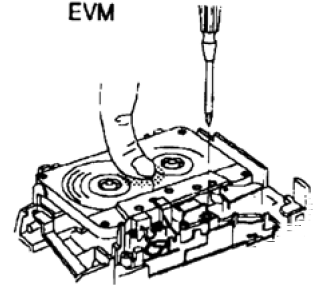


Fig. 3

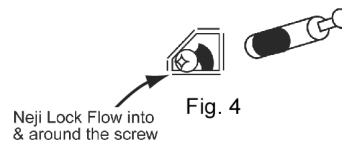
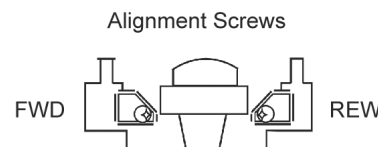


Fig. 4

14.1.2. 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.

UNIT

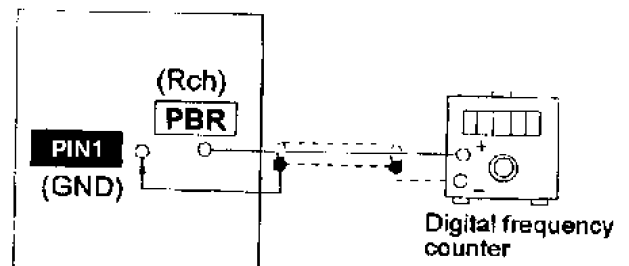


Fig. 1

14.1.3. 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

$14 \pm 4\text{mV}$ (Normal)

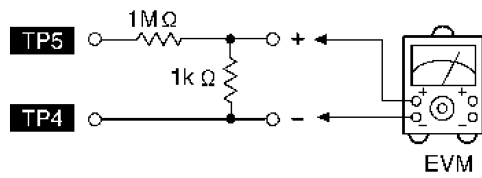


Fig. 2

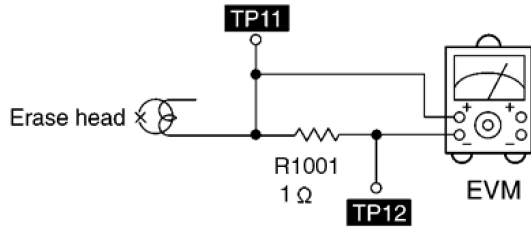


Fig. 3

14.1.4. 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

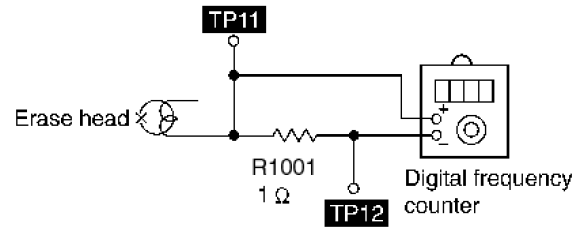


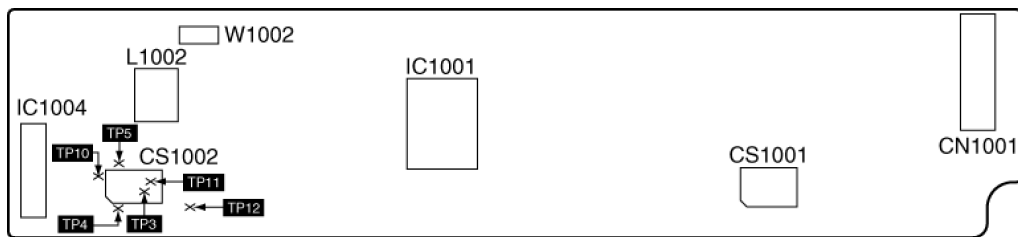
Fig. 4

14.2. Tuner section

No adjustment is required.

14.3. Alignment Points

14.3.1. Cassette Deck Section



15 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.

15.1. DVD Module P.C.B.

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	0.2	0.2	3.4	0.1	0.1	0.1	0.1	3.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	3.4	2.6	2.6	2.6	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ref No.	IC8001																				
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
CD PLAY	0.2	1.3	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.2	3.4	1.2	1.2	1.2	1.2	1.2	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ref No.	IC8001																				
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	
CD PLAY	0.2	0.2	3.4	0.2	1.3	1.2	0.2	0.2	3.4	3.4	2.5	0.2	3.5	1.5	3.5	1.1	2.2	1.2	1.5	2.3	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ref No.	IC8001																				
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	
CD PLAY	1.5	2.3	1.8	2.6	0.2	3.5	3.5	0.2	0	0.2	0.2	0.2	2.7	2.7	3.1	3.1	3.4	3	0.2	0.2	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0.2	0.2	1.3	3.4	0.2	0.2	3.5	3.5	3.5	2.1	1.7	0.2	3.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ref No.	IC8001																				
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	
CD PLAY	0.2	3.4	1	0.2	2.5	1.9	0.1	0.2	1.9	3.4	0.2	0.2	2	2	1.8	1.8	1.8	1.8	3.4	2	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ref No.	IC8001																				
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	
CD PLAY	1.2	0.2	0.6	0.2	0.2	2	2.4	1.8	2.7	2.7	2.7	2.7	2.7	2.7	2.5	2.6	2.6	2.6	2	2	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	1.8	1.8	0.2	1.8	1.8	3.5	0.9	1	0.5	3.4	1.9	1.1	1.1	1.9	0.1	0.5	1	3.5	0.1	3.5	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	0.1	1.7	1.8	0.2	1.4	1.7	1.8	1.8	1	0.2	0.2	1	1.8	0.2	3.5	0.2	0.2	0.2	0.2	0.2	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	0.2	0.2	0.2	3.5	0.2	0.2	3.5	3.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	3.5	3.1	3.1	3	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ref No.	IC8001																				
MODE	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	
CD PLAY	3.3	3	3.2	3.5	0.2	3.3	3.2	3	3.3	3.1	3	3.2	3	3.4	0.1	3	2.9	1.3	2.7	2.7	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ref No.	IC8001																				
MODE	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	
CD PLAY	3.3	0.1	1.7	3.4	1.7	0.1	3.3	3.3	3.2	0.1	2	0.1	0.1	1.3	1.8	0.1	0.1	0.1	3.4	1.6	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ref No.	IC8001																				
MODE	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256					
CD PLAY	0.1	1.7	0.3	1.7	0.3	1.6	1.6	0.1	3.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1					
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Ref No.	IC8251																				
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
CD PLAY	1.8	1.7	1.7	2.4	2.4	2	0.1	5	3.4	0	2.6	2.6	2.6	2.6	5.4	5.5	6.2	4.6	0.1	3.4	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ref No.	IC8251																				
MODE	21	22	23	24	25	26	27	28													
CD PLAY	11.1	10.9	1.9	1.7	1.7	1.7	3.4	5													
STANDBY	0	0	0	0	0	0	0	0													

Ref No.	IC8601																			
MODE	1	2	3	4																
CD PLAY	3.4	1.3	0.1	0																
STANDBY	0	0	0	0																
Ref No.	IC8606																			
MODE	1	2	3	4	5															
CD PLAY	3.4	3.4	0.1	0.1	0															
STANDBY	0	0	0	0	0															
Ref No.	IC8691																			
MODE	1	2	3	4	5															
CD PLAY	3.1	3.1	0.1	4.5	5															
STANDBY	0	0	0	0	0															
Ref No.	IC8695																			
MODE	1	2	3	4	5															
CD PLAY	2.8	2.8	0.1	4.2	5															
STANDBY	0	0	0	0	0															
Ref No.	Q8551				Q8561				QR8571											
MODE	E	C	B		E	C	B		E	C	B									
CD PLAY	0.1	5.1	0.2		1.4	3.9	2		3.4	3.3	0.2									
STANDBY	0	0	0		0	0	0		0	0	0									

15.2. Main P.C.B.

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	4.9	0	0	2.1	4.7	1.5	0	1.5	2.1	0	1.5	0	2.1	4.7	2.1	4.9	2.2	2.2	0	2.2	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0.3	0	0.1	0.1	0	0.1	
Ref No.	IC2000																				
MODE	21	22	23	24	25	26	27	28	29	30	31	32									
CD PLAY	2.2	0	1.3	1.3	0	1.3	1.3	0	1.4	1.4	0	2.2									
STANDBY	0.1	0	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0	0.1									
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	0.1	0.1	0	0.1	0	0.1	0.1	0	0.1	0	0.2	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	0.3	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	0	1.4	0	0	0.1	0	0	0	0	0	0	0	
STANDBY	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0.1	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	5.1	0	4.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
STANDBY	0	0	0	0	0	0.1	0.1	0	0	0	0	0.2	0	0	0.2	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	0.1	0	0	0	0	0	0	0	0	0	0	
STANDBY	0	0	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0	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	1.4	2.6	2.6	2.6	2.6	2.6	2.6	0	2.6	2.6	2.6	0.6	0.6	0.6	2.6	
STANDBY	0	0	-0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	5.1	0	0	0	0	1.4	5.1	0	0	0	0	0	0	0	0	2.6	2.6	
STANDBY	0	0	0	0.1	0	0	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	
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	0.5	0.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	0	5.1	2.5	2.6	2.5	2.5	2.6	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0.1	0.1	0	0	0	0	
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	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	-0.2	0.1	0.1	0	0.1	0.2	0	
Ref No.	IC2300																				
MODE	1	2	3	4	5	6	7	8													
CD PLAY	0	0	0	-7	0	0	0	7													
STANDBY	0	0	0	0.1	0	0	0	0.1													
Ref No.	IC2340																				
MODE	1	2	3	4	5	6	7	8													
CD PLAY	0	0	0	-7	0	0	0	7													
STANDBY	0	0	0	0.1	0	0	0	0													

Ref No.	IC2401																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
CD PLAY	2.5	1.5	2.5	0	2.5	0	2.5	2.5	5	0.8	0.8	0.5	0	5	0	0	0.1	0		
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0.1	0	-0.1	-0.2	0	0	0	0	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	0.1	0	0	-0.1	0	0	0	0	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	3.7	0	0	0	0	0	0	7.1				
STANDBY	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0.1				
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	5.1	2.2	3.4	1.5	0.7	5.1	2.6	0	2.5	5.2	5.2	5.2	2.8	0
STANDBY	0	0	0	0	0	0	0	1.3	0	0.6	0.7	5.3	2.6	0	2.5	5.3	5.3	5.2	2.8	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	0.1	0	0	0	0	5.1	5.1	5.1	5.1	0	0	0	0	2.6	3.9	4.2	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.	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	5.1	4.2	0.1	4.8	0	5.1	0	5.1	3.4	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.	IC2600																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	5.1	5.1	0	0	0.8	0.8	0.5	5.1	5.1	5.1	5.1	5	5	5.1	0	5	0	5	0	0
STANDBY	0	5.3	0	0	0	0	0	0	0.6	0	0	0	0	0	0	0	0	0	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	2.5	0	0	5.1	0	0	5.1	0	0.3	0.4	4.7	3.5	4.3	4.3	0.1	0	3.1	5.1	5.1	5
STANDBY	2.6	0	4.8	0	0	0	5.3	0	0	0	0	3.6	4.4	4.4	0	0	3.2	5.3	5.3	0
Ref No.	IC2660																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	5.1	0	0	0	0	0	0												

STANDBY	0	5.3	0	0	0	0	0	0	0										
Ref No.	IC2720																		
MODE	1	2	3	4	5														
CD PLAY	16.7	5.2	0	1	3.2														
STANDBY	18.3	0	0	0	0														
Ref No.	Q2000			Q2001			Q2002			Q2003			Q2110						
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
CD PLAY	0.1	0.1	4.1		0	12	0		12	0.1	12		0	0	4.7		4.7	-2.7	5.2
STANDBY	0	0	0		0	0.1	0		0.1	0	0.1		0	6	0		0.1	-1	0
Ref No.	Q2111			Q2200			Q2201			Q2202			Q2300						
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
CD PLAY	4.7	0	5.2		0.1	-1.6	0		0	0	-1.7		0	0	-1.7		0	0	-3.1
STANDBY	0.1	0	0		0	0	0		0	0	0		0	0	0		0	0	-1.8
Ref No.	Q2301			Q2302			Q2340			Q2341			Q2342						
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
CD PLAY	0	0	-3.6		0	-3.6	0		0	0	-4.7		0	0	-4.7		0	-4.8	0
STANDBY	0	0	-1.5		0	-1.5	0		0	0	0		0	0	0.1		0	0.1	0
Ref No.	Q2370			Q2371			Q2500			Q2501			Q2502						
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
CD PLAY	0	0	-4.7		0	-4.7	0		0	0	0.6		1.4	1.4	0		0	0	0.6
STANDBY	0	0	0.1		0	0.1	0		0	0	0.1		0	0	0		0	0	0
Ref No.	Q2503			Q2504			Q2505			Q2600			Q2700						
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
CD PLAY	0	0	0.6		0	0	0.6		0	0	0.6		0	5.2	0		5.1	5.1	4.4
STANDBY	0	0	0		0	0	0.1		0	0	0		0	5.3	0		5.3	5.3	4.5
Ref No.	Q2701			Q2702			Q2710			Q2711			Q2810						
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
CD PLAY	0	0	4.5		5.1	5.1	4.4		2.9	3.6	3.6		4.8	5	4.8		5.5	6.2	8.9
STANDBY	0	5.3	0		5.3	0	5.3		0	0	0		0	0	0		0.3	0.2	0.2
Ref No.	Q2900			Q2901			Q2902			Q2903			Q2904						
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
CD PLAY	12	0	12		12	0	12		0	0	0.2		0	12	0.1		0	0.6	0.2
STANDBY	0.1	0	0.1		0.1	0	0.1		0	0.1	0		0	0.1	0		0	0	0
Ref No.	Q2905			Q2906			Q2907			Q2912			Q2913						
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
CD PLAY	0	0	0.2		0	5.1	0		0	5.1	0		0	1.6	0		6.4	0.9	6
STANDBY	0	0	0		0	0.6	0		0	0.5	0		0	1.5	0		5.6	2.9	5.2

15.3. Panel P.C.B.

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	-24.6	-24.6	-24.6	-21.2	-24.6	-24.6	-24.6	-24.6	-24.6	-24.6	-24.6	-17.3	-14.3	-17.3	-28	-26.5	-28.1	-21.2	-17.8	
STANDBY	0.2	0.2	0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0	0.2	0.2	0.2	
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	-17.8	-21.2	-28	-24.6	-28	-24.6	-28	-21.6	-28	-28	-24.9	-24.9	-25.2	-24.9	-24.9	-24.9	-24.9	-25	-24.9	-28	
STANDBY	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
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	0	0	5.1	0	0	0	0	0	0	0	0	
STANDBY	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0	0.2	0	0	0	0	0	0	0.1	0	0	0	
Ref No.	IC6701																				
MODE	61	62	63	64																	
CD PLAY	-17.9	-17.9	-28	-24.6																	
STANDBY	0.2	0.2	0.2	0.2																	
Ref No.	IC6702																				
MODE	1	2	3	4	5	6	7	8													
CD PLAY	0	0	0	-7	0	0	0	7													
STANDBY	0	0	0	0.1	0	0	0	0.1													
Ref No.	Q6601			Q6602			Q6603			Q6604			Q6701								
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B		
CD PLAY	0	12	0		0	12	0		12.1	0	12		12.1	0	12		0	0.1	0		
STANDBY	0	0.1	0		0	0.1	0		0.1	0	0.1		0.1	0	0.1		0	0.3	0		
Ref No.	Q6702			Q6703			Q6704			Q6801			Q6802								
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B		
CD PLAY	0	5.1	-1		0	0.1	5		0	0.1	5		0	0	-2.3		0	0	-2.3		
STANDBY	0	0.6	0.1		0	0.2	0		0	0.1	0		0	0	0		0	0	0		
Ref No.	Q6803																				
MODE	E	C	B																		
CD PLAY	0	-2.3	0																		
STANDBY	0	0	0																		

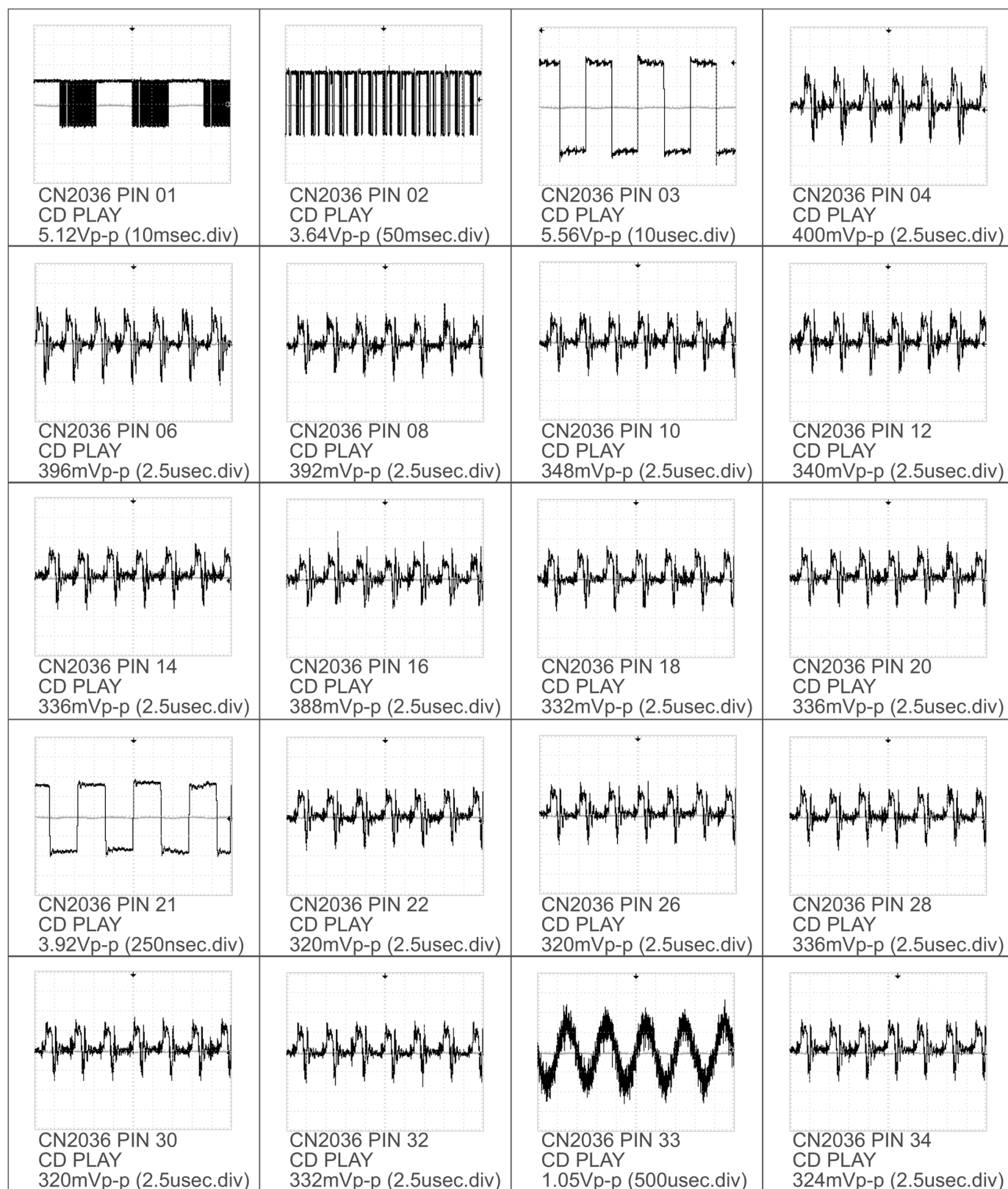
15.4. Deck P.C.B. & Deck Mechanism P.C.B.

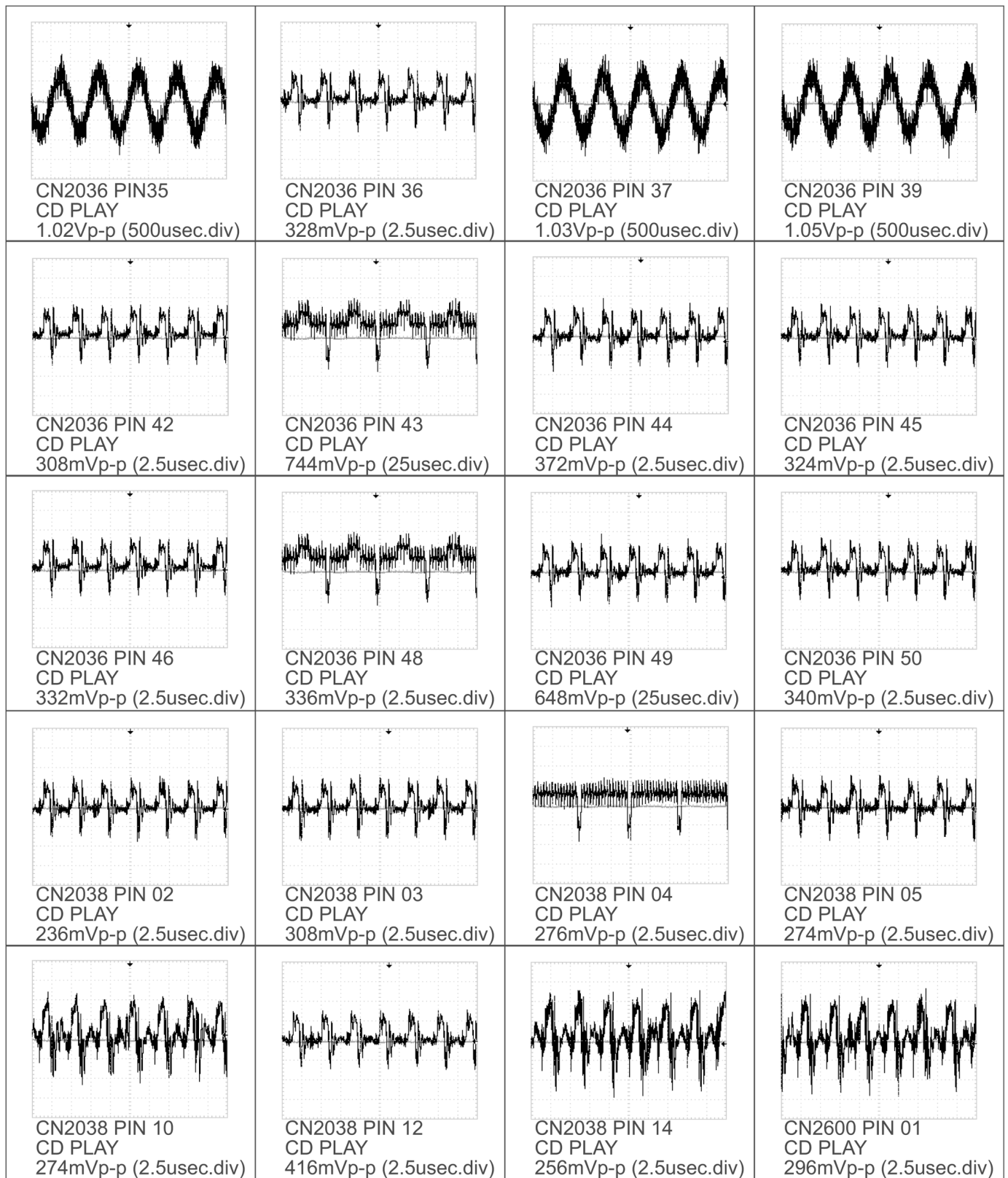
DECK P.C.B																					
Ref No.		IC1001																			
MODE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY		0	0	0.6	5.5	5.5	2.8	0	0.3	0	1.9	7.2	0	11.3	0	0	0	0.3	0	0.2	5.4
STANDBY		0	0	0.4	0.4	0.2	0.2	0	0	0	0	0	0	0	0	0	0	0.3	0	0.2	0.1
Ref No.		IC1001																			
MODE		21	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	5															
CD PLAY		7.9	0	0	0	0															
STANDBY		0	0	0	0	0															
Ref No.		Q1003				Q1004				Q1005				Q1007				Q1017			
MODE		E	C	B		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		0	11.6	-0.6	
STANDBY		0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	
DECK MECHANISM 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																

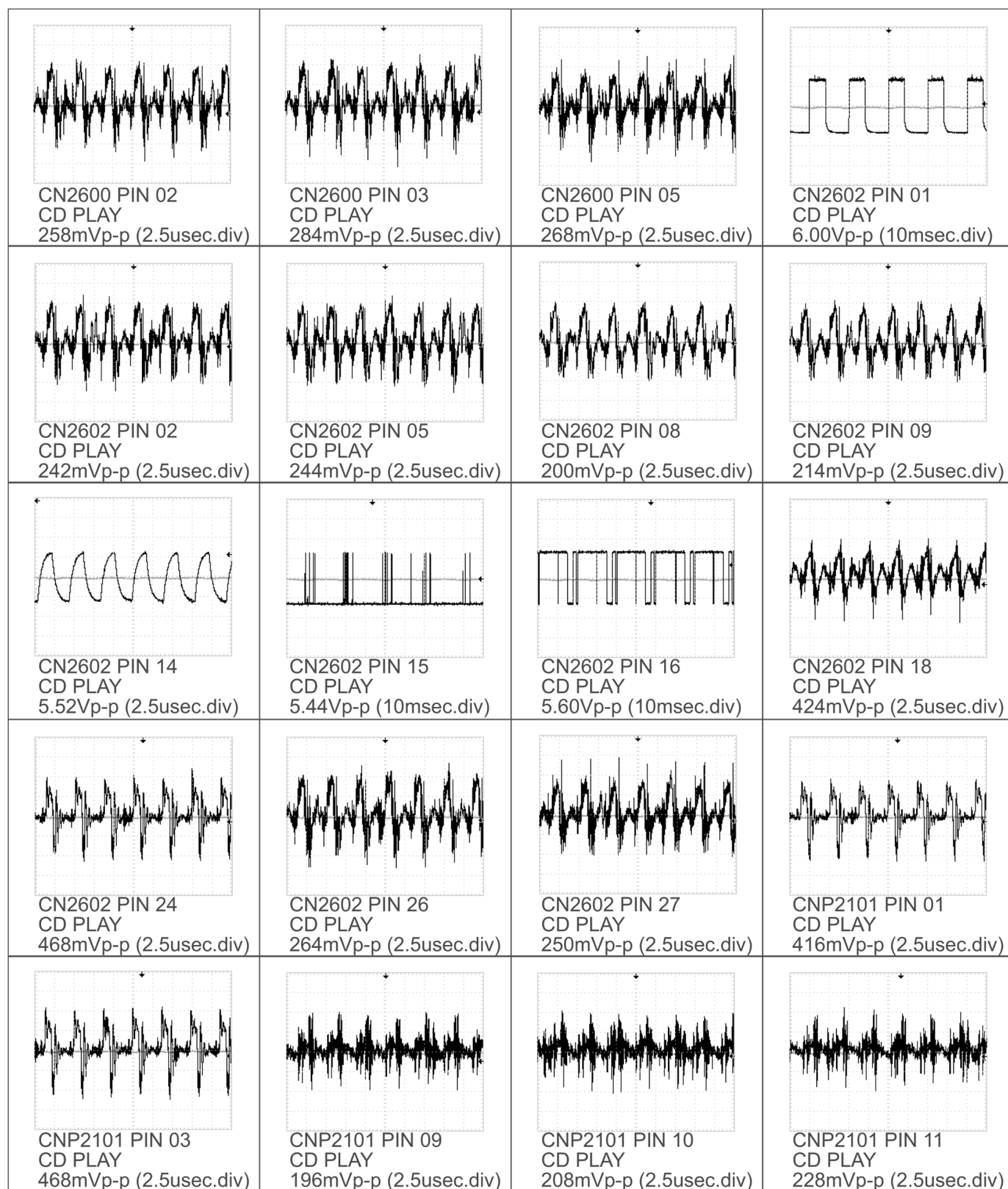
15.5. Damp P.C.B. & Mic P.C.B.

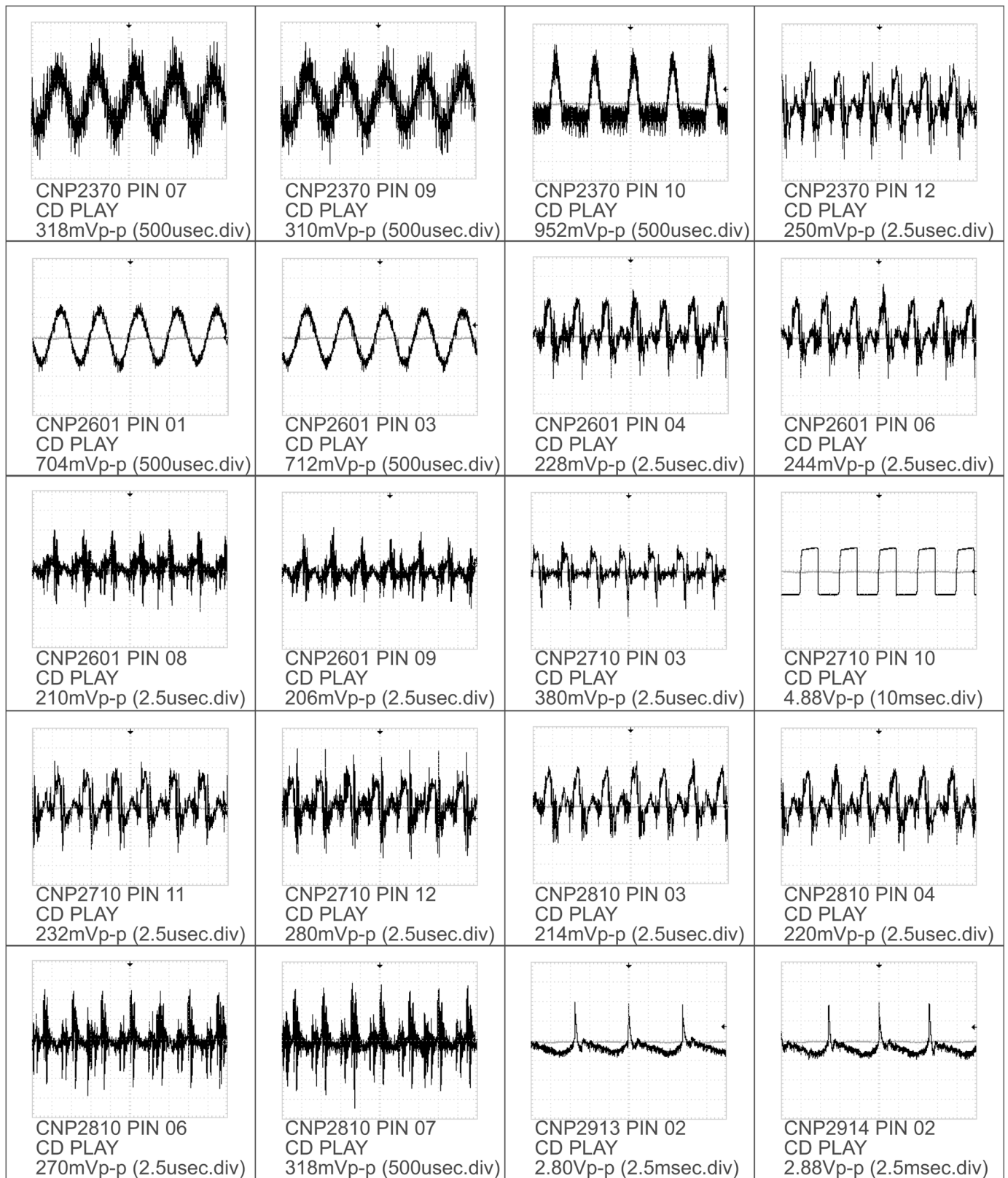
DAMP P.C.B																						
Ref No.	IC5100																					
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
CD PLAY	2.5	0	0	29.2	0	-29.2	-21	29.6	11.1	-0.2	-29.5	-16.9	-29.5	-0.3	11	29.5	-29.2	-29.2	0	29.2		
STANDBY	0.2	0	0	0.5	0	-0.5	0.3	0.5	0.3	0	-0.4	0.1	-0.4	0	0	0.5	-0.4	-0.4	0	0.5		
Ref No.	IC5100																					
MODE	21	22	23																			
CD PLAY	0	-0.1	6																			
STANDBY	0	0	0																			
Ref No.	IC5200																					
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.	IC5200																					
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	5.2	-0.3		0	5.2	-0.3											
STANDBY	0	0.4	0		0	0	0		0	0	0											
MIC P.C.B																						
Ref No.	Q6901				Q6902				Q6903													
MODE	E	C	B		E	C	B		E	C	B											
CD PLAY	3.2	4.7	3.7		0	1.3	0.6		4.6	6.2	5.1											
STANDBY	0	0.1	0.1		0	0.1	0.1		0	0.1	0.1											

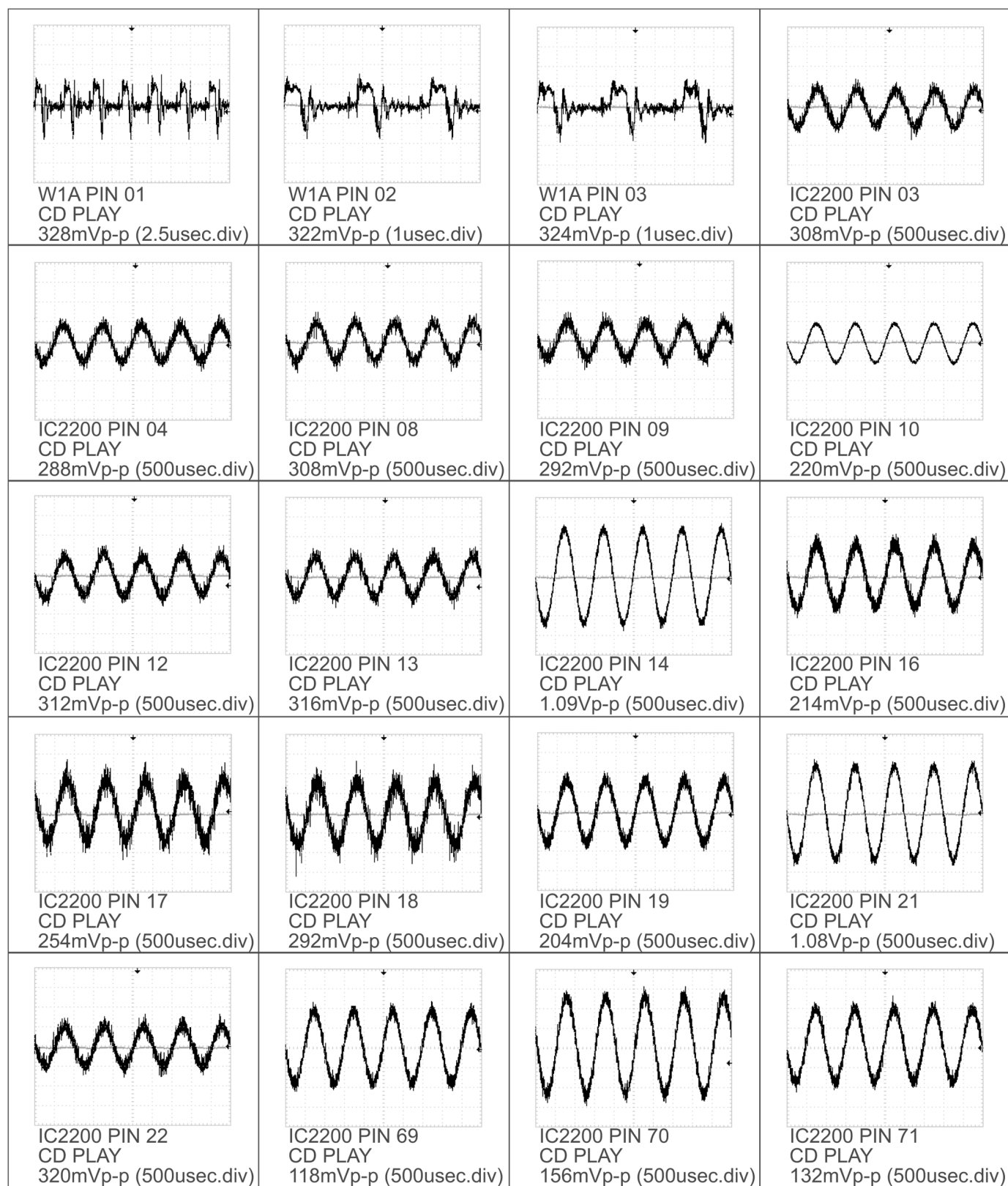
15.6. Waveform Chart

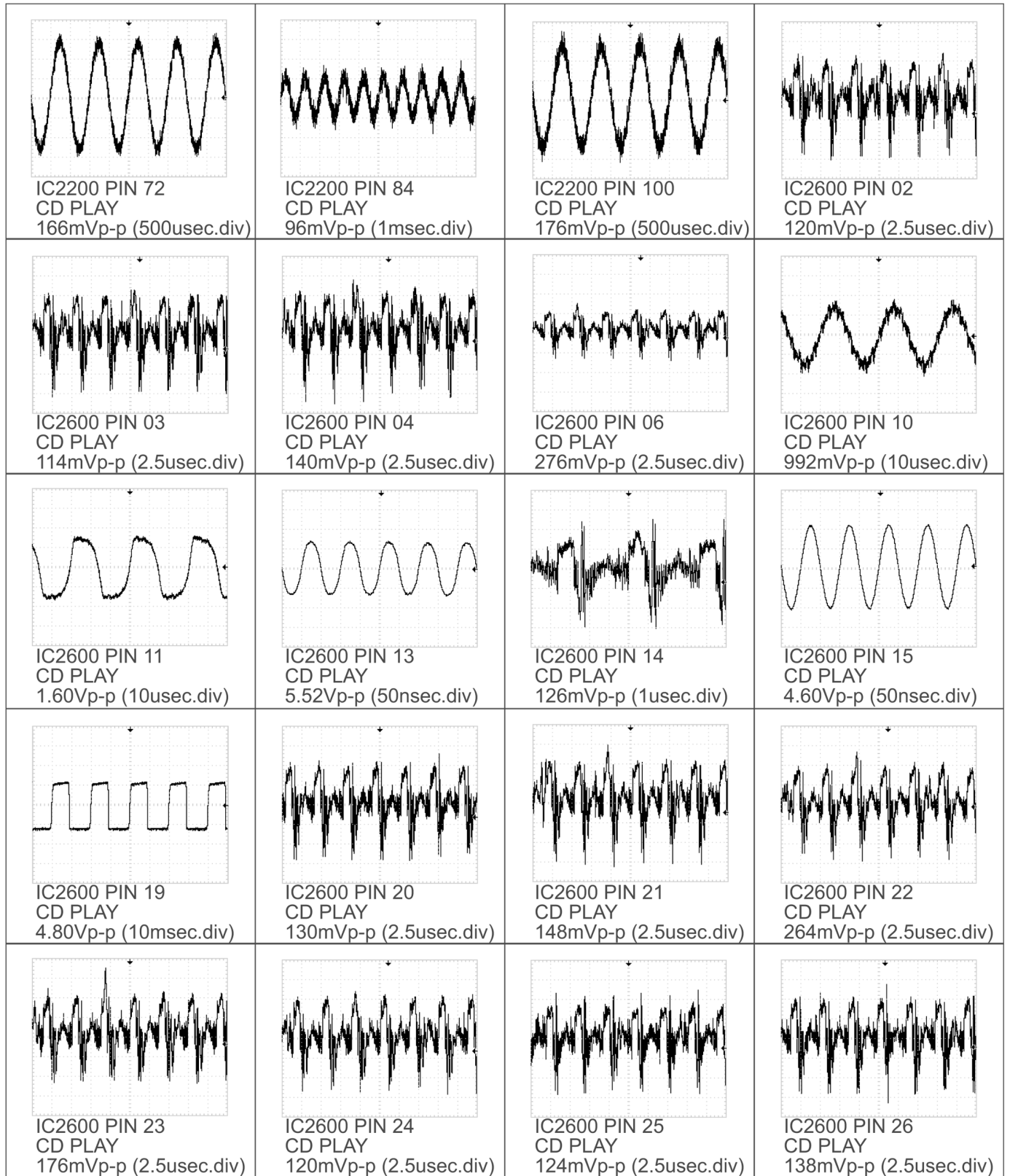


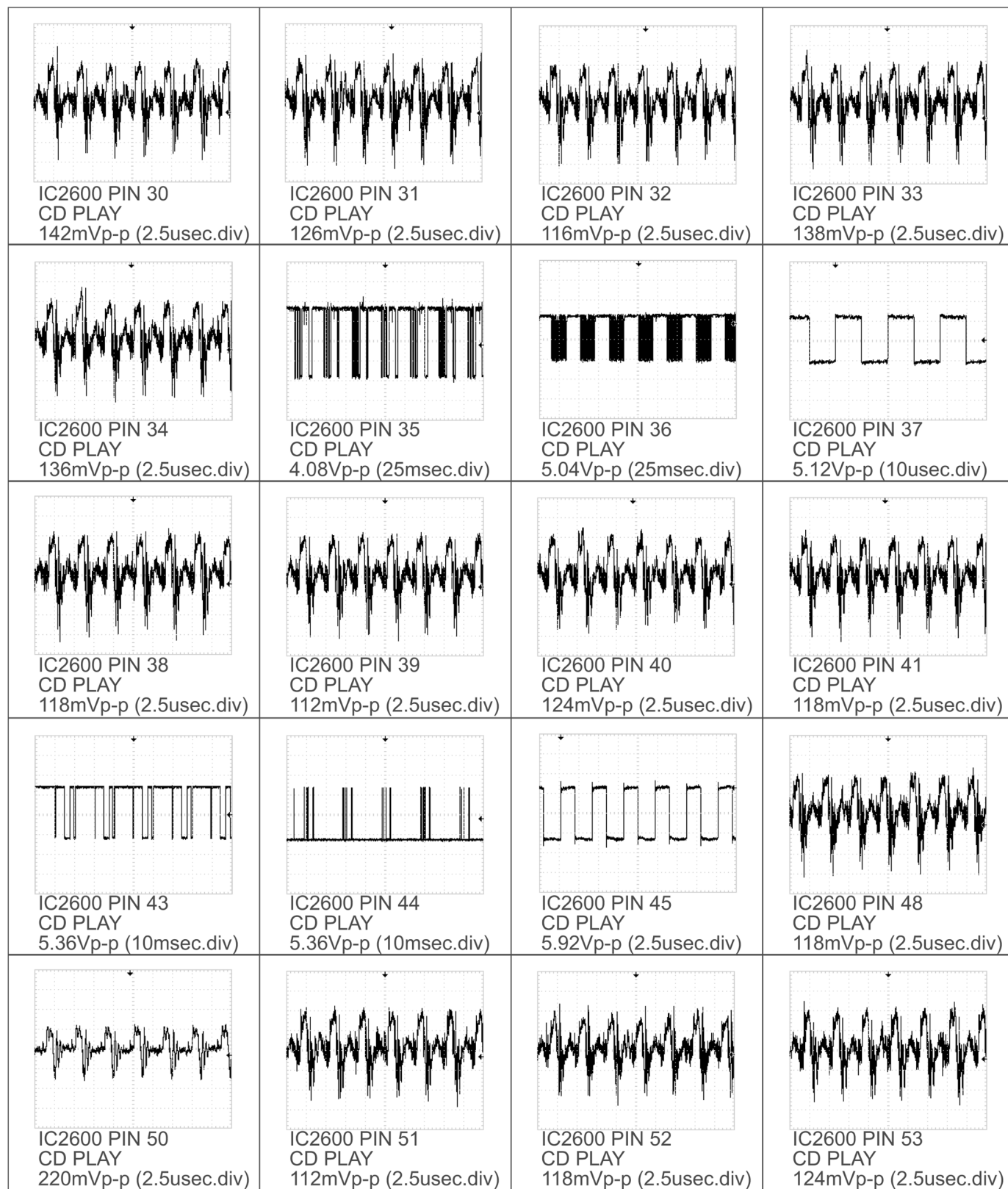


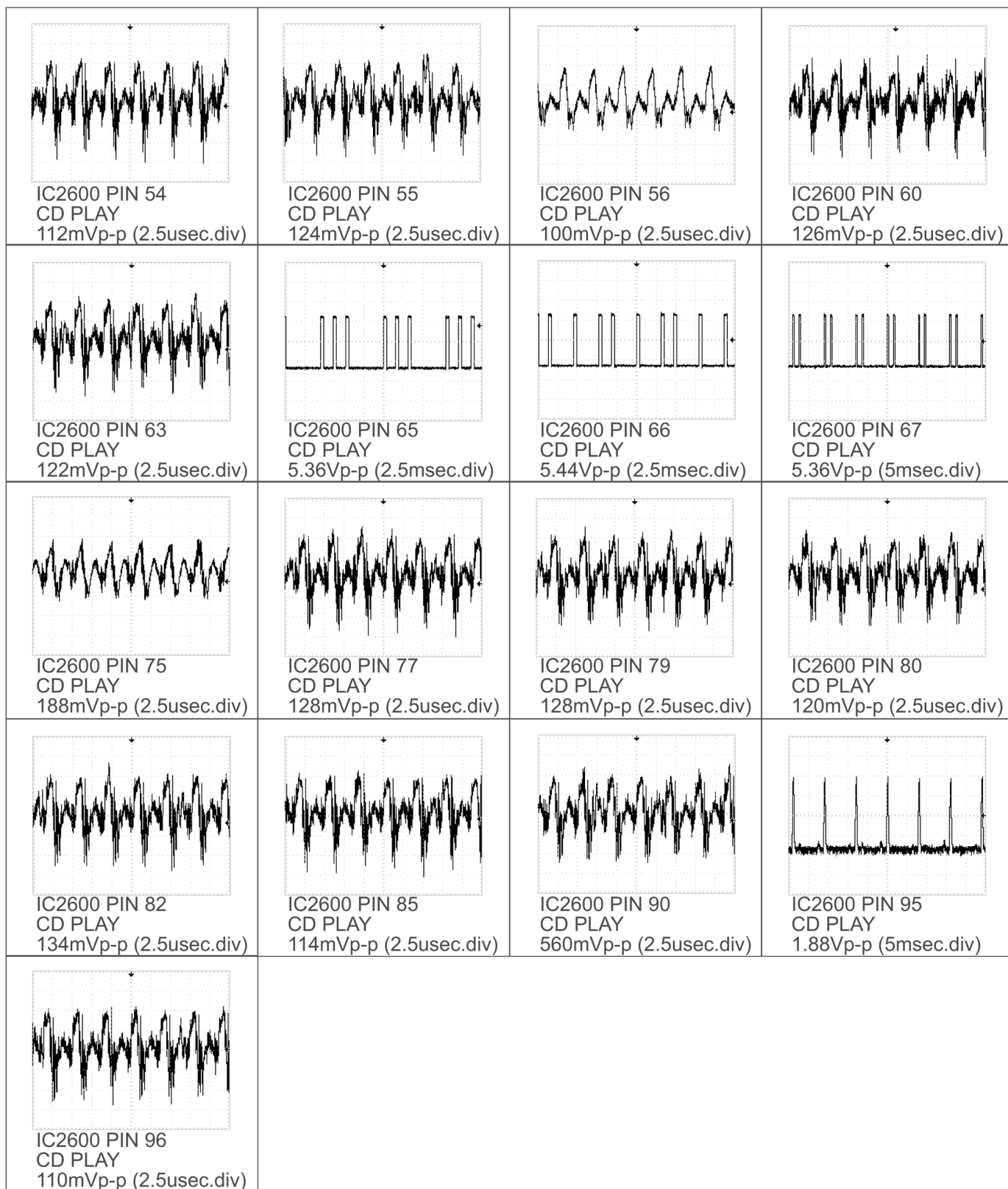




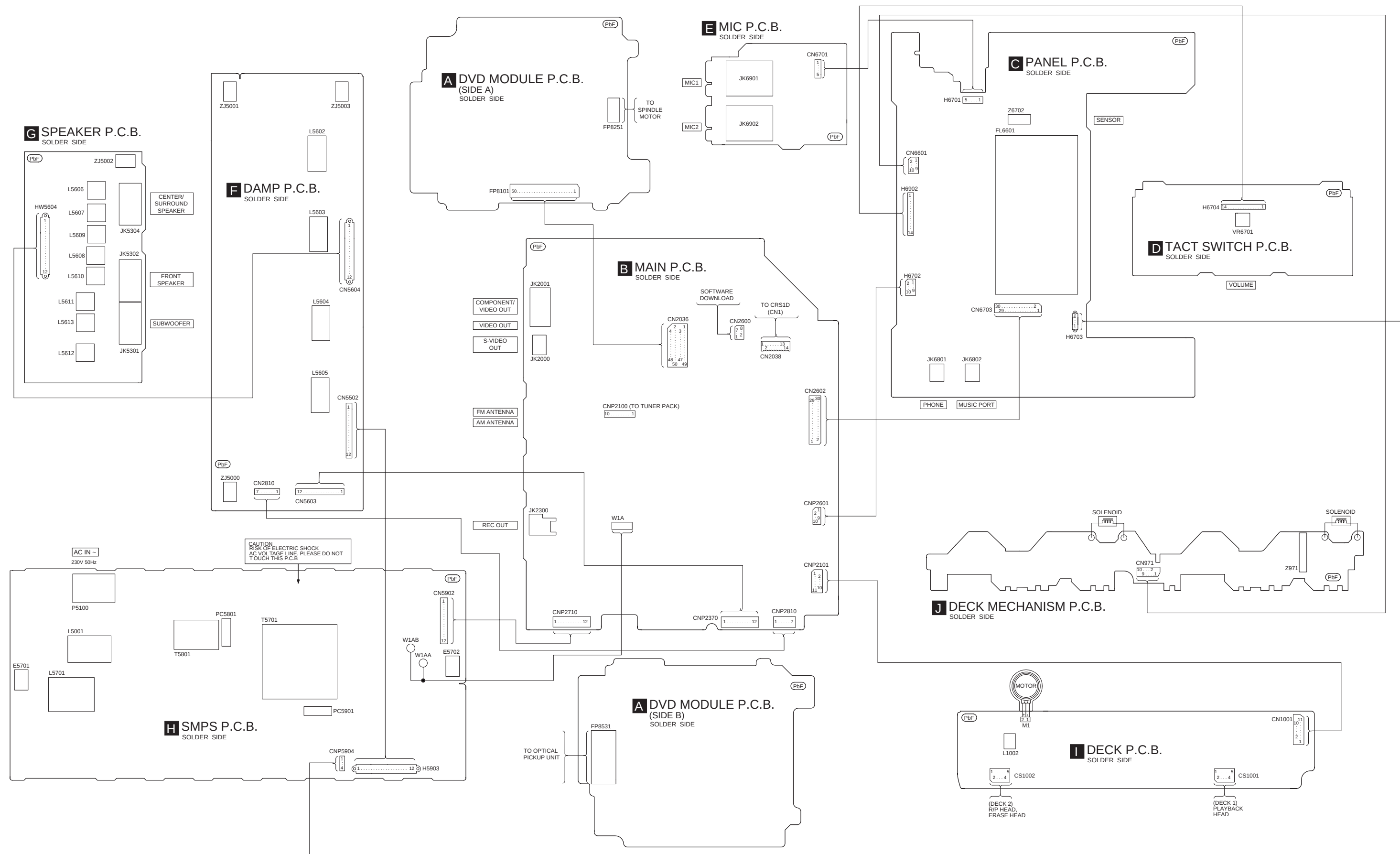




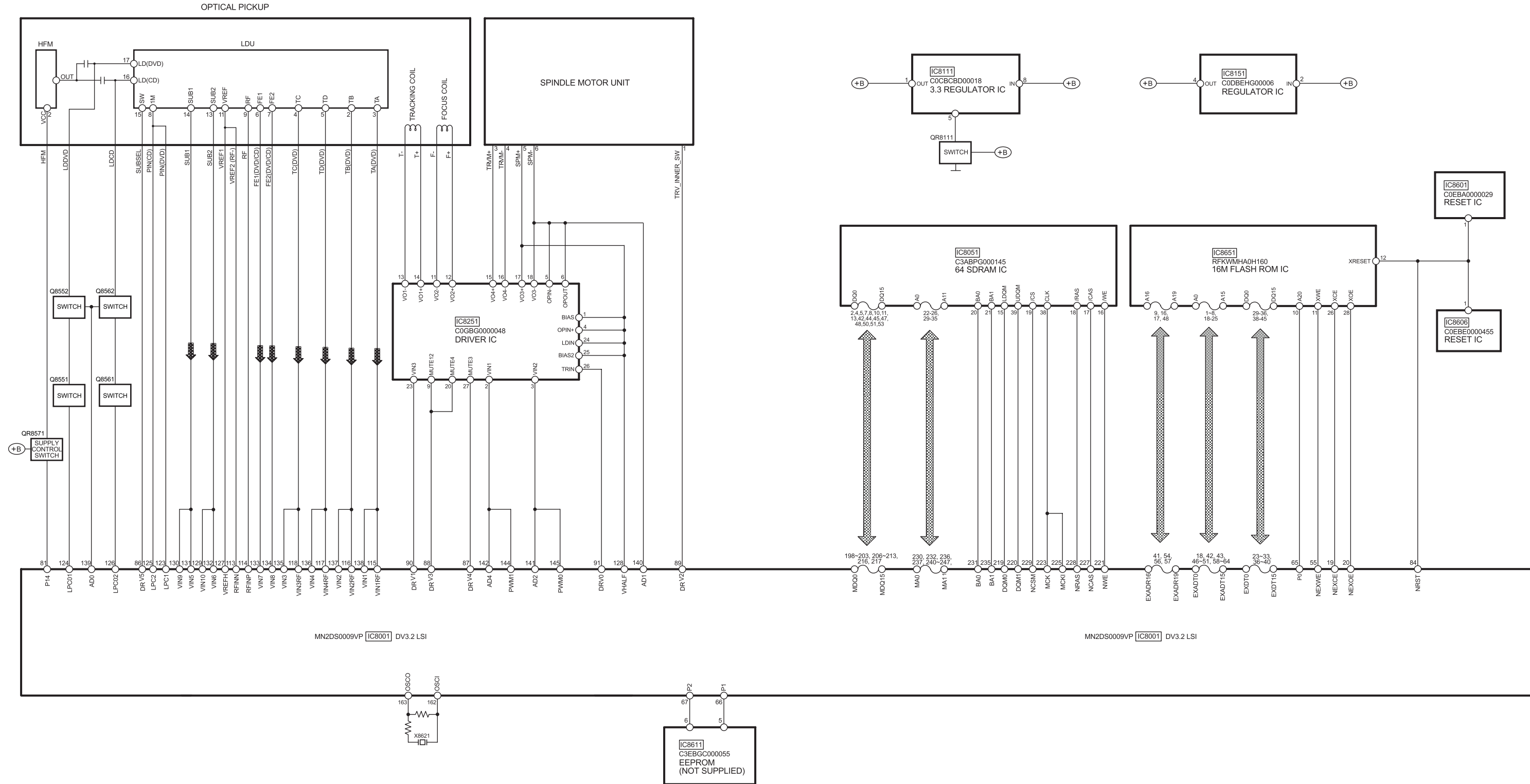


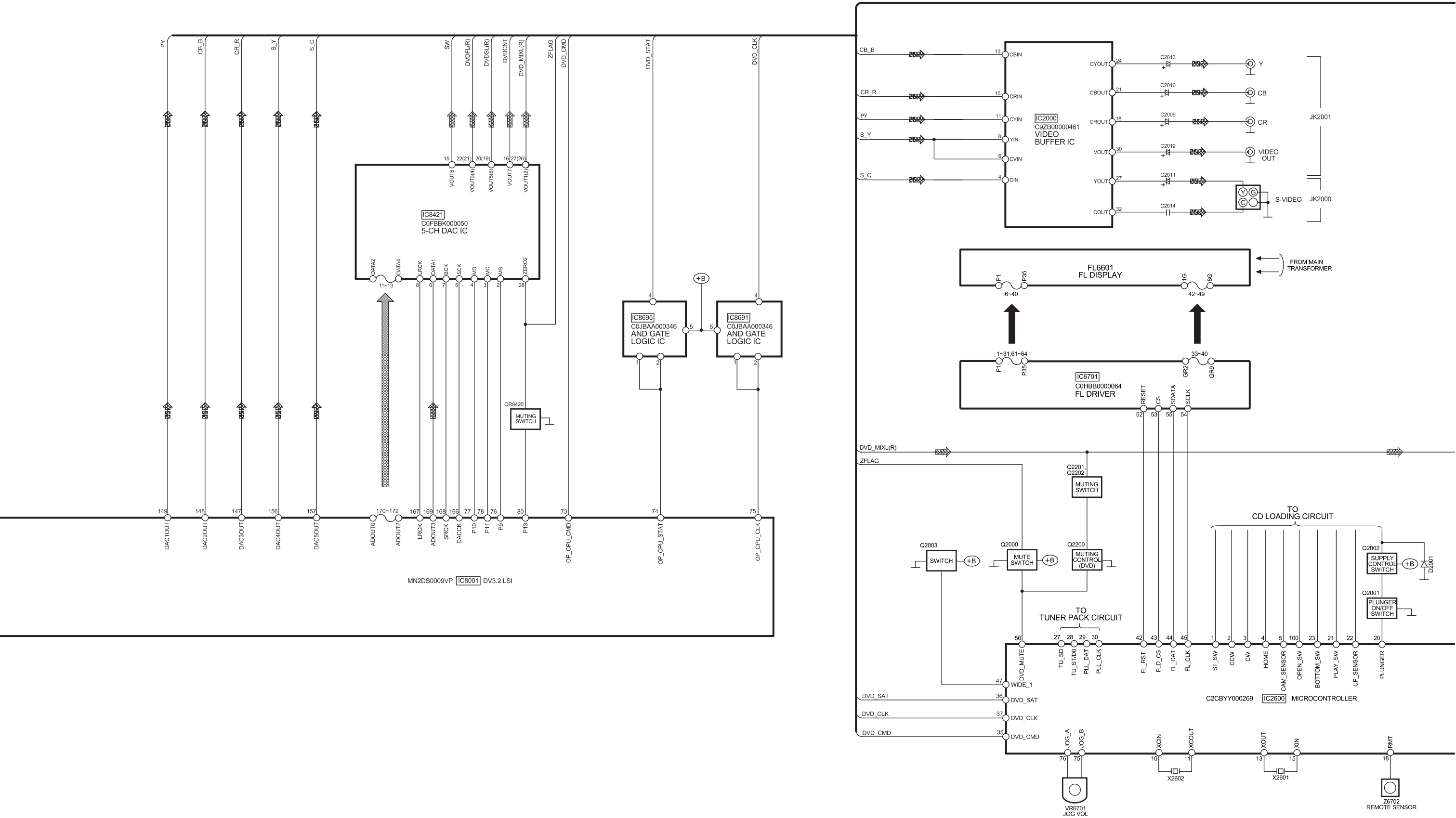


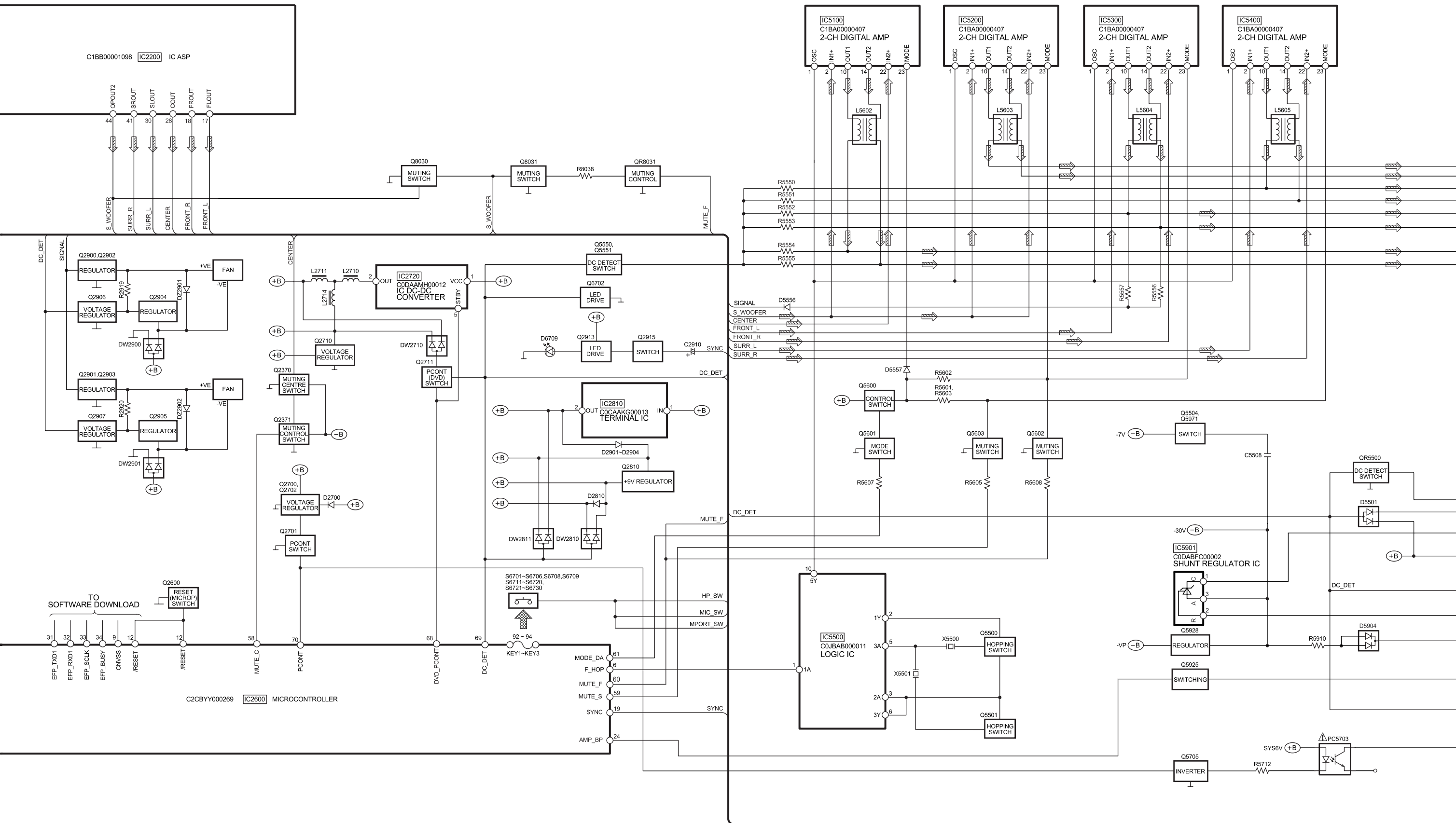
16 Wiring Connection Diagram

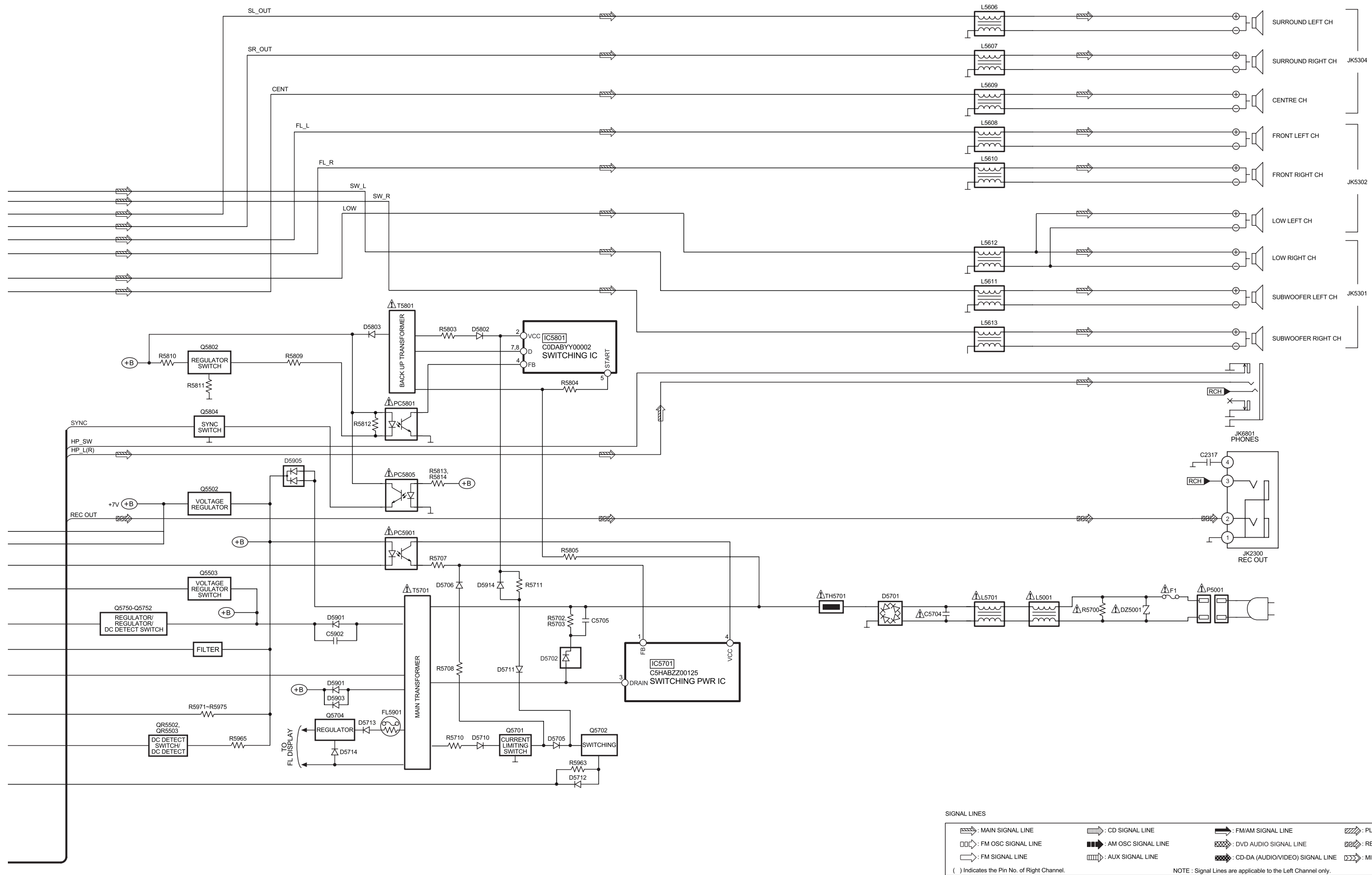


17 Block Diagram









18 Notes of Schematic Diagrams

(All schematic diagrams may be modified at any time with the development of the new technology)

S951	: MODE Switch
S952	: HALF Switch
S971	: MODE Switch
S972	: HALF Switch
S974	: RECINH_R Switch
S975	: RECINH_F Switch
S6701	: POWER Switch
S6702	: SURR ENHANCER Switch
S6703	: SUPER SURR Switch
S6704	: SUPER SOUND EQ Switch
S6705	: SOUND EQ Switch
S6706	: SUB WOOFER Switch
S6708	: DECK1 Switch
S6709	: DECK2 Switch
S6711	: MUSIC PORT Switch
S6712	: TUNER Switch
S6713	: DISPLAY Switch
S6714	: DECK1/2 Switch
S6715	: REC Switch
S6716	: TAPE Switch
S6717	: DVD/CD Switch
S6718	: FF Switch
S6719	: STOP Switch
S6720	: REW Switch
S6721	: OPEN/CLOSE Switch
S6722	: MULTI CHANGE Switch
S6723	: SINGLE CHANGE Switch
S6724	: DISC1 Switch
S6725	: DISC2 Switch
S6726	: DISC3 Switch
S6727	: DISC4 Switch
S6728	: DISC5 Switch
S6729	: MIC UP Switch
S6730	: MIC DOWN Switch
VR6701	: VR VOLUME JOG

• Importance 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.

Caution !

IC, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

- Cover the parts boxes made of plastics with aluminium foil.
- Put a conductive mat on the work table.
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.

19 Schematic Diagram

19.1. Optical Pickup Unit Circuit

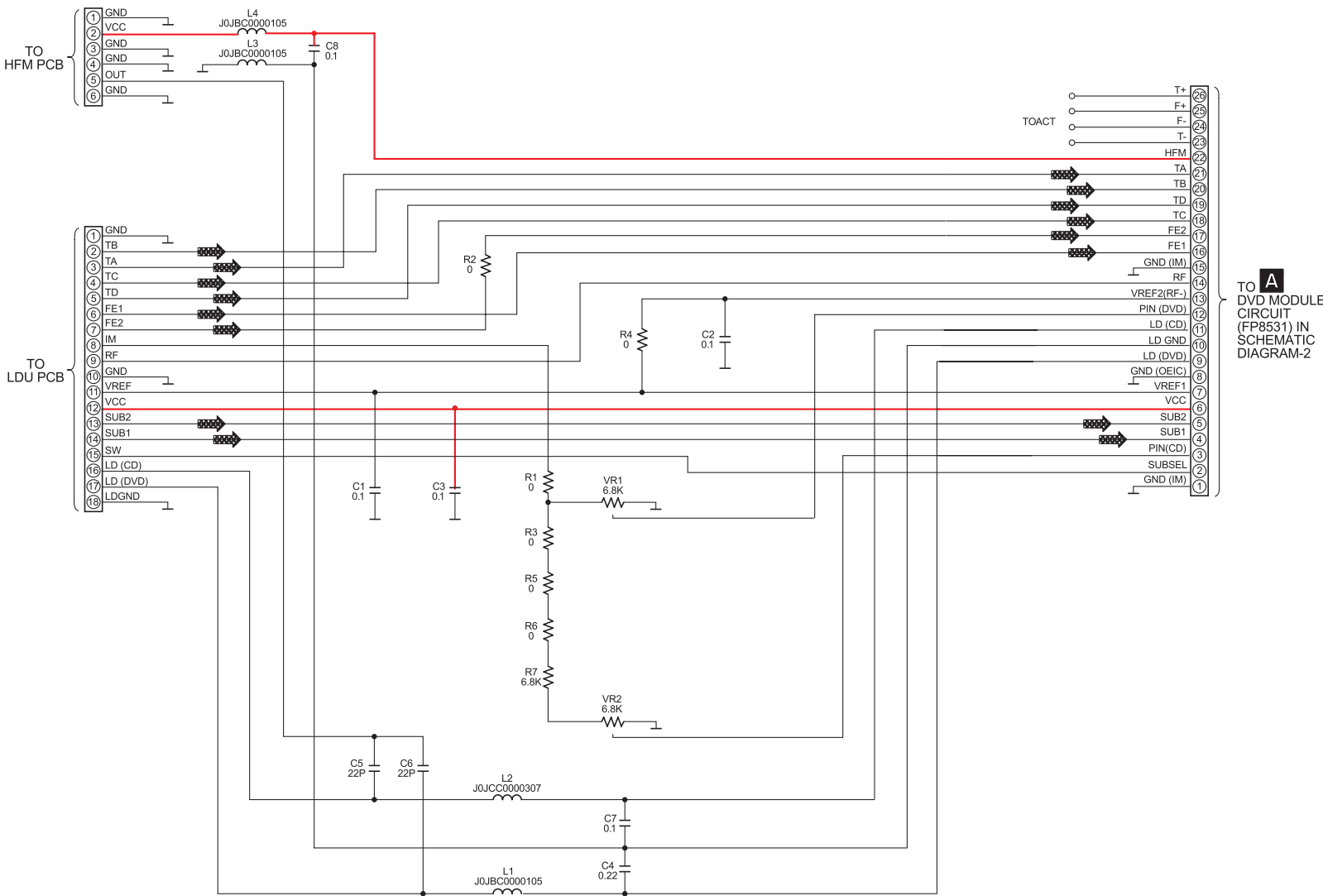
SCHEMATIC DIAGRAM - 1



OPTICAL PICKUP UNIT CIRCUIT

— : +B SIGNAL LINE

▨ : CD-DA SIGNAL LINE

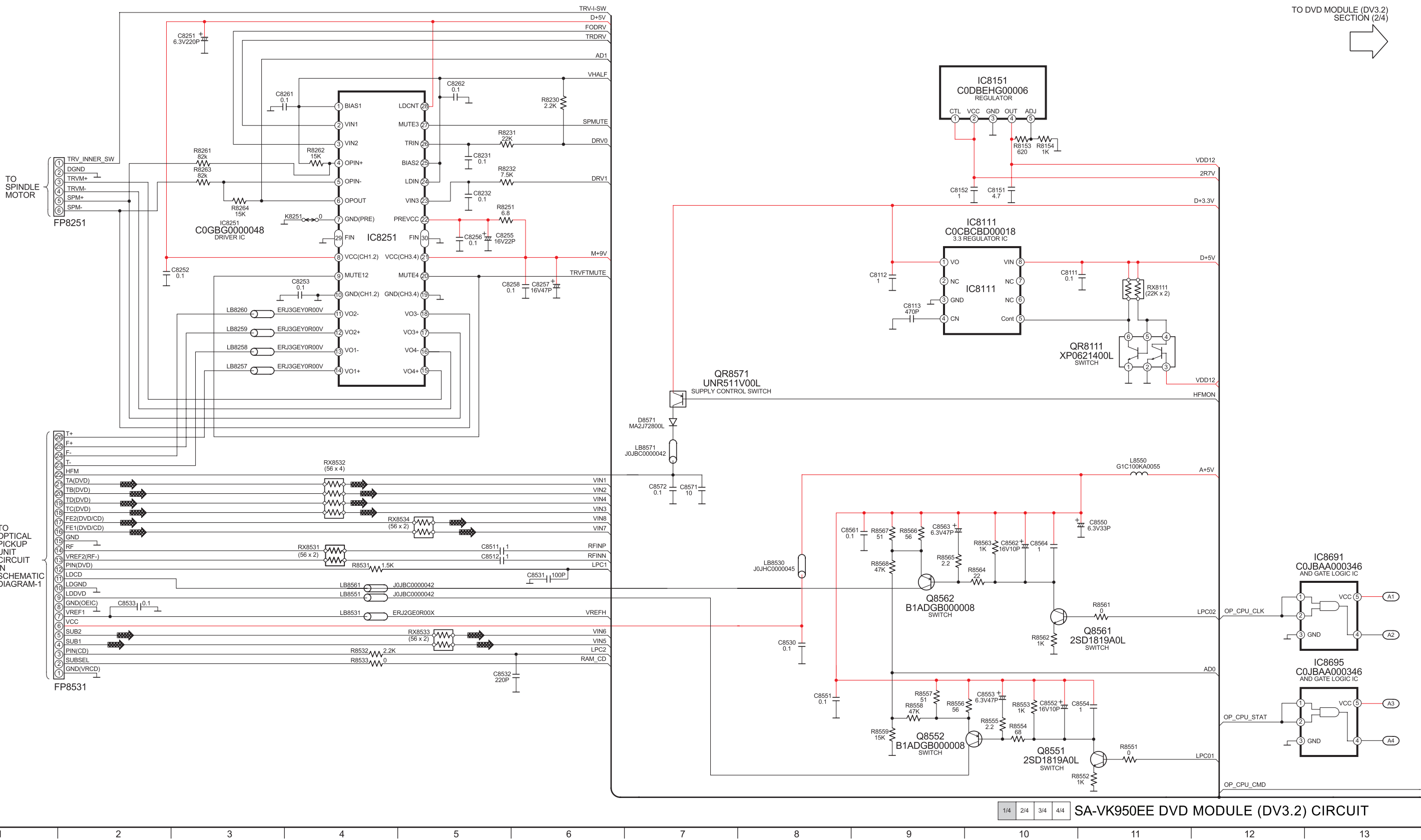


19.2. (A) DVD Module (DV3.2) Circuit

SCHEMATIC DIAGRAM - 2

A DVD MODULE (DV3.2) CIRCUIT

— : +B SIGNAL LINE  : CD-DA SIGNAL LINE

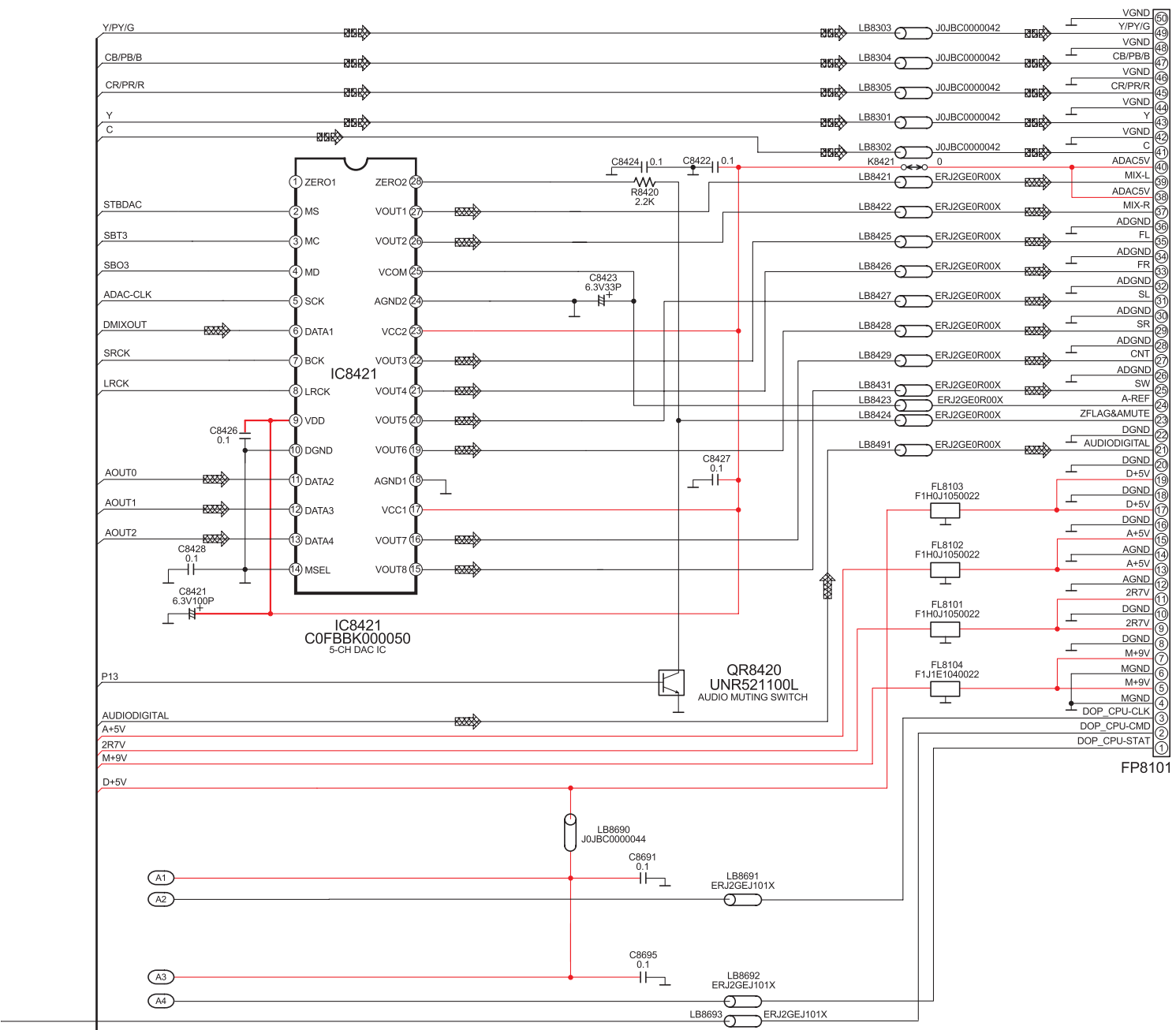


SCHEMATIC DIAGRAM - 3

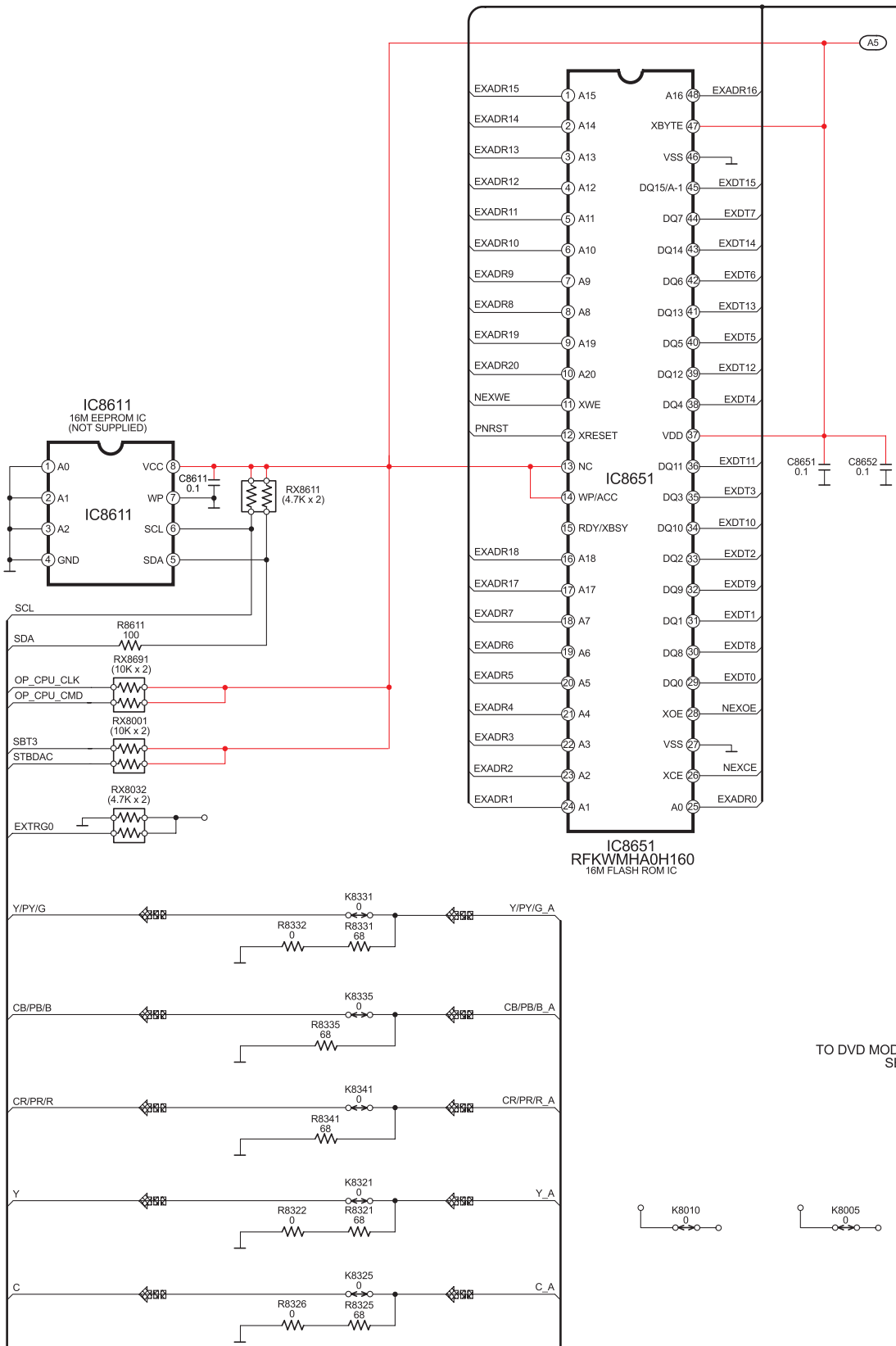
A DVD MODULE (DV3.2) CIRCUIT

— : +B SIGNAL LINE
— : DVD VIDEO SIGNAL LINE
— : DVD AUDIO SIGNAL LINE

TO DVD MODULE (DV3.2)
SECTION (1/4)



B
TO MAIN CIRCUIT
(CN2036) IN
SCHEMATIC
DIAGRAM-6



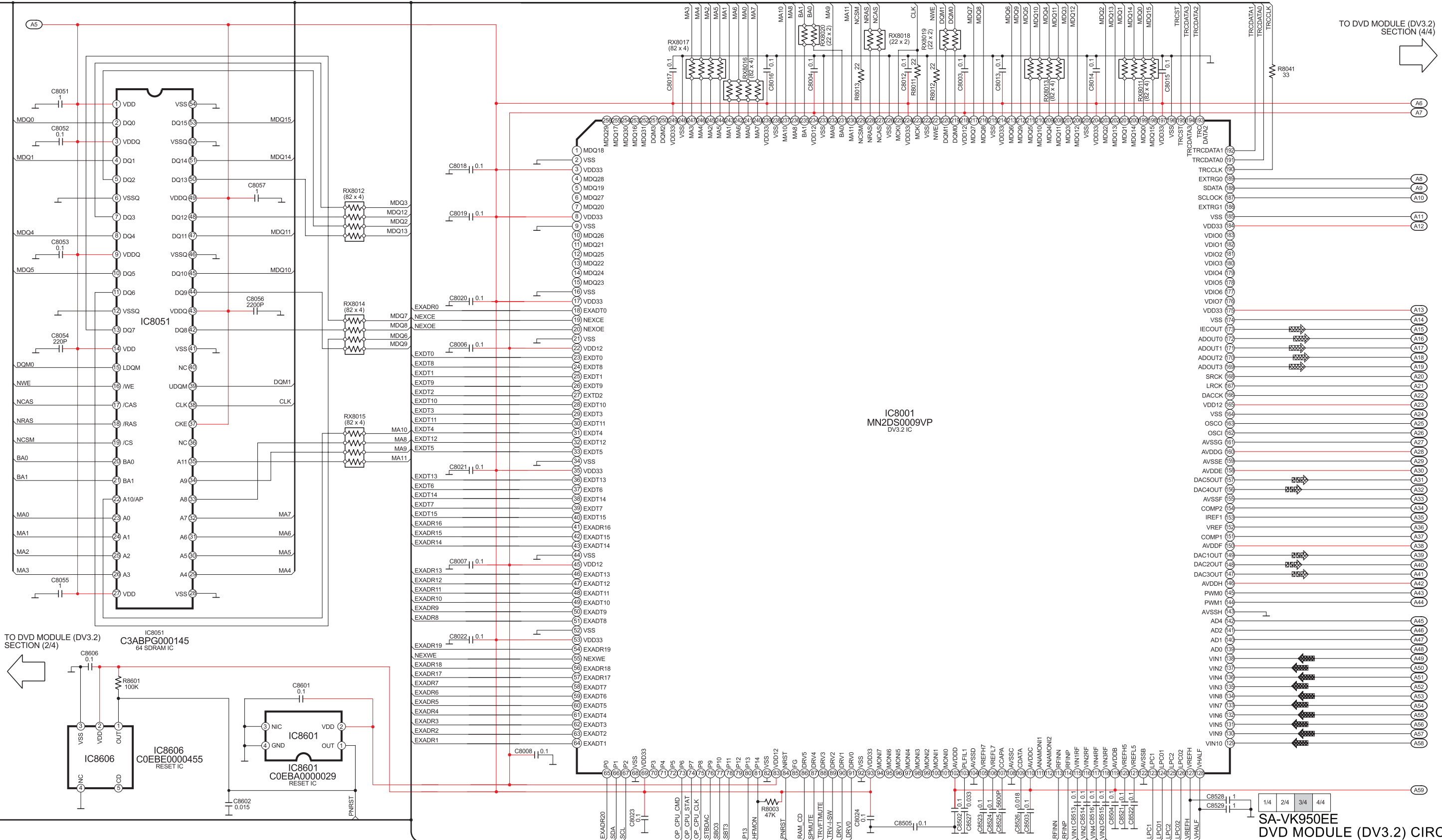
TO DVD MODULE (DV3.2)
SECTION (3/4)



SCHEMATIC DIAGRAM - 4

A DVD MODULE (DV3.2) CIRCUIT

— : +B SIGNAL LINE : CD-DA SIGNAL LINE : DVD AUDIO SIGNAL LINE : DVD VIDEO SIGNAL LINE

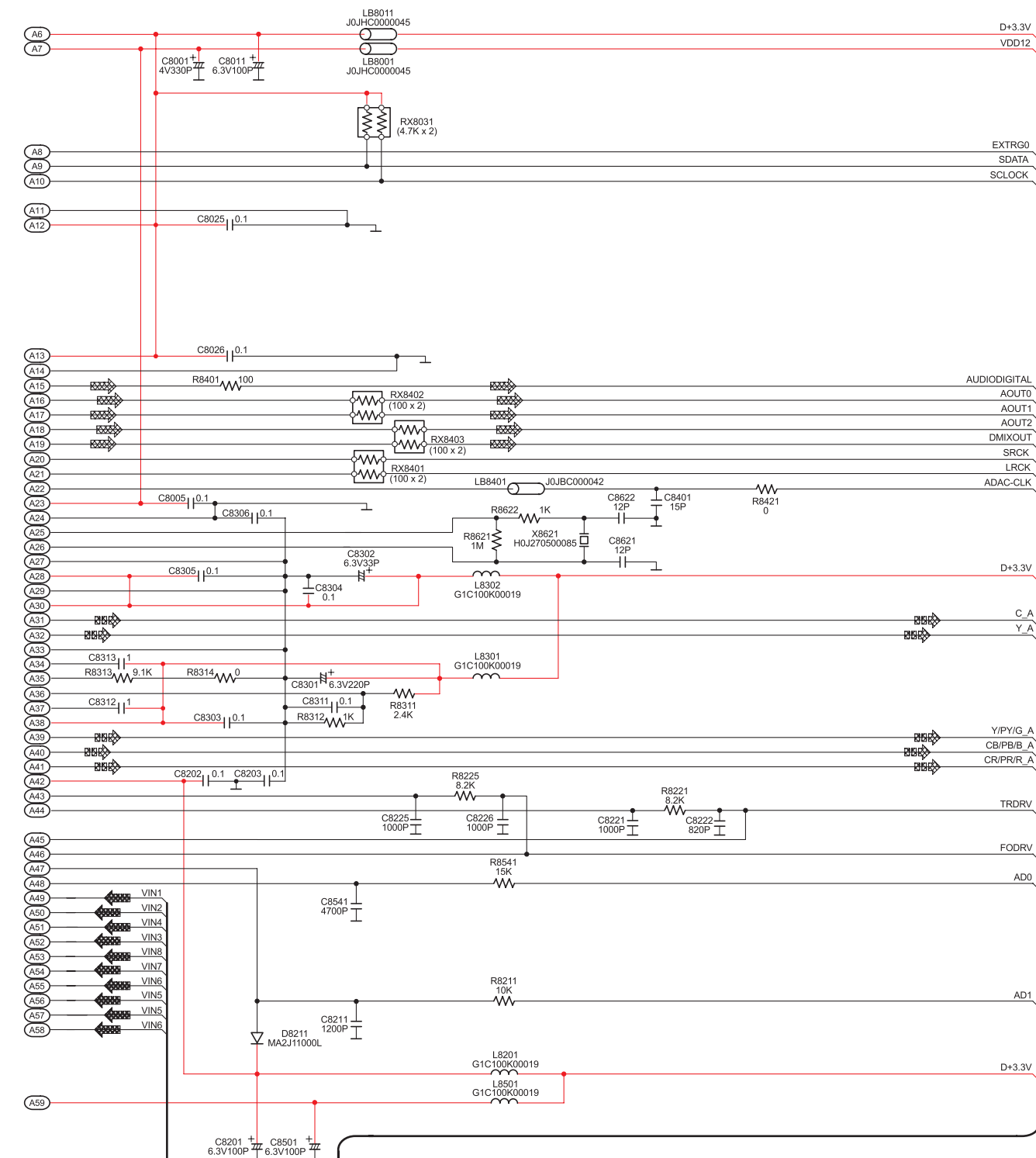


SCHEMATIC DIAGRAM - 5

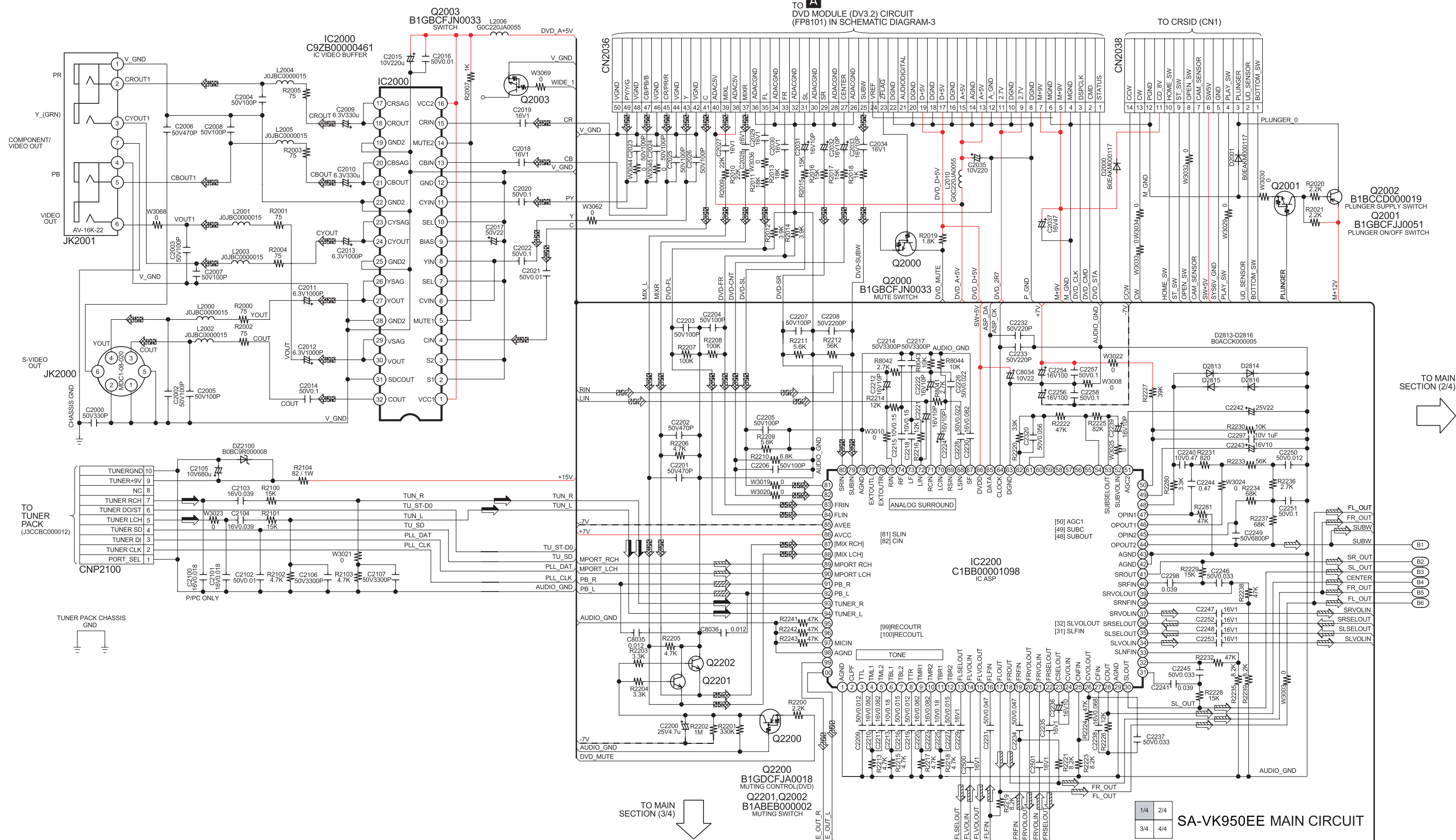
A DVD MODULE (DV3.2) CIRCUIT

 : CD-DA SIGNAL LINE  : DVD VIDEO SIGNAL LINE
 : +B SIGNAL LINE  : DVD AUDIO SIGNAL LINE

TO DVD MODULE (DV3.2)
SECTION (3/4)



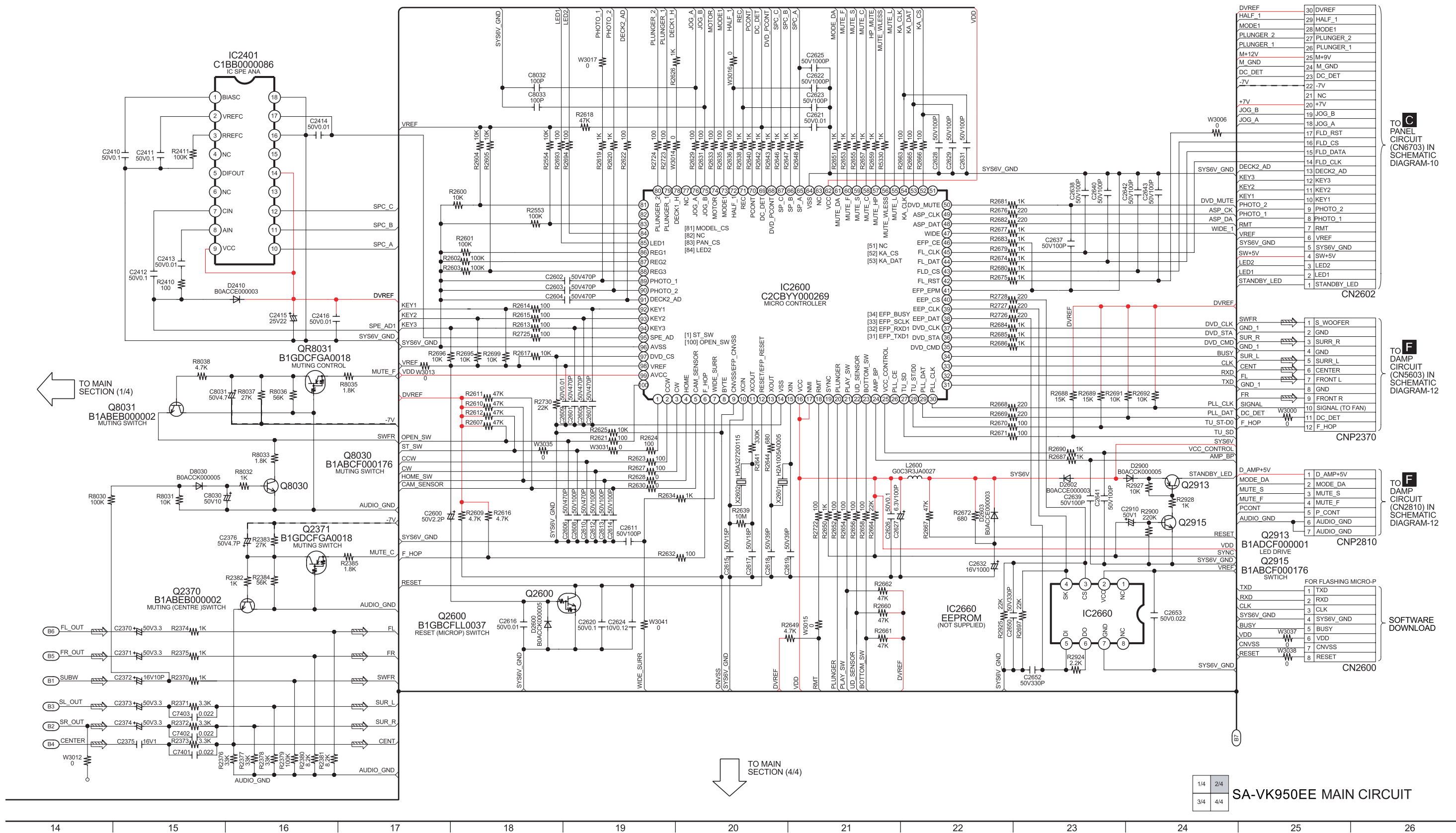
B MAIN CIRCUIT



SCHEMATIC DIAGRAM - 7

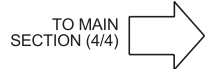
B MAIN CIRCUIT

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



B MAIN CIRCUIT

TO MAIN
SECTION (1/4)



TO **C**
PANEL
CIRCUIT
(H6702) IN
SCHEMATIC
DIAGRAM-10

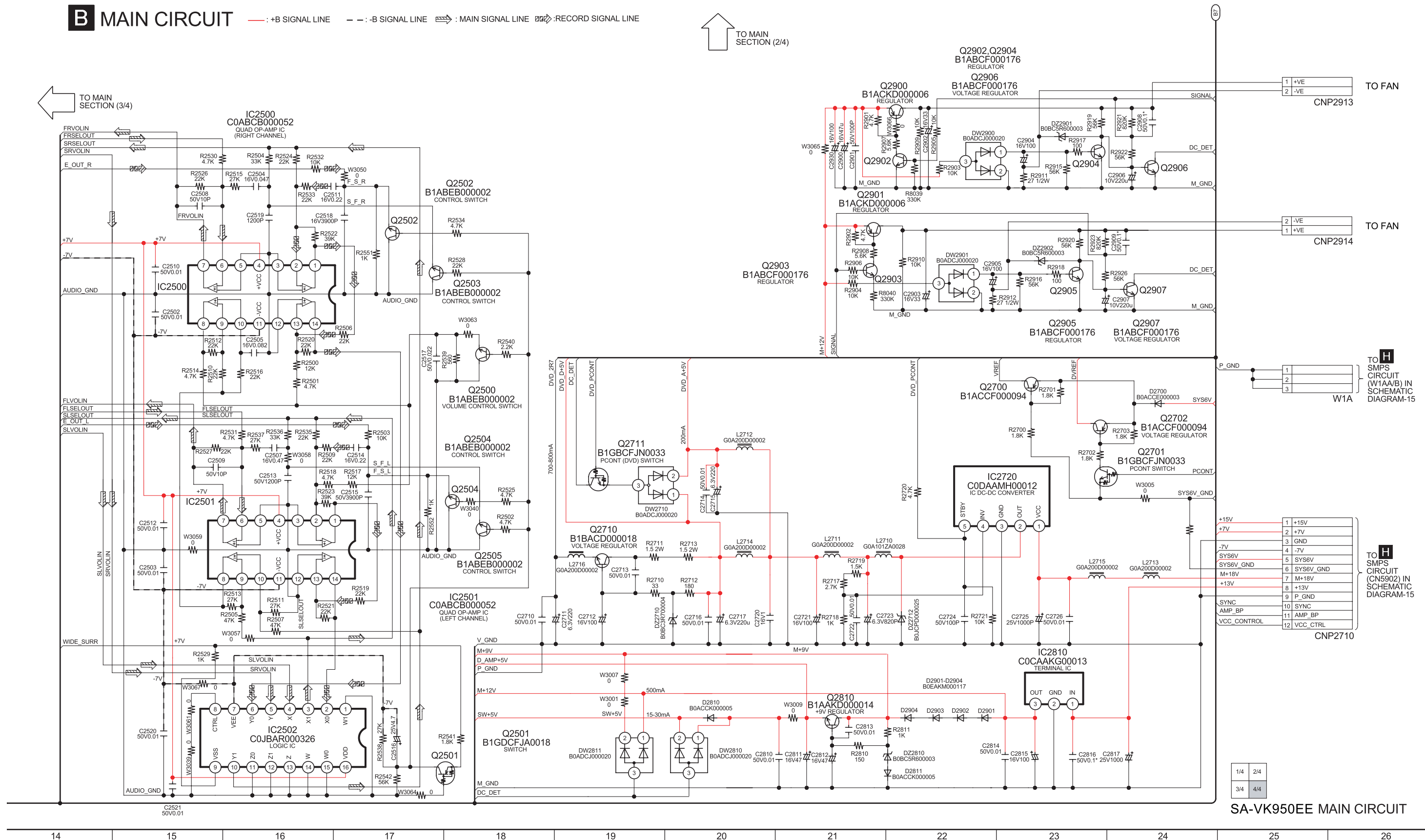
SCHEMATIC DIAGRAM - 9

B MAIN CIRCUIT

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

↑ TO MAIN SECTION (2/4)

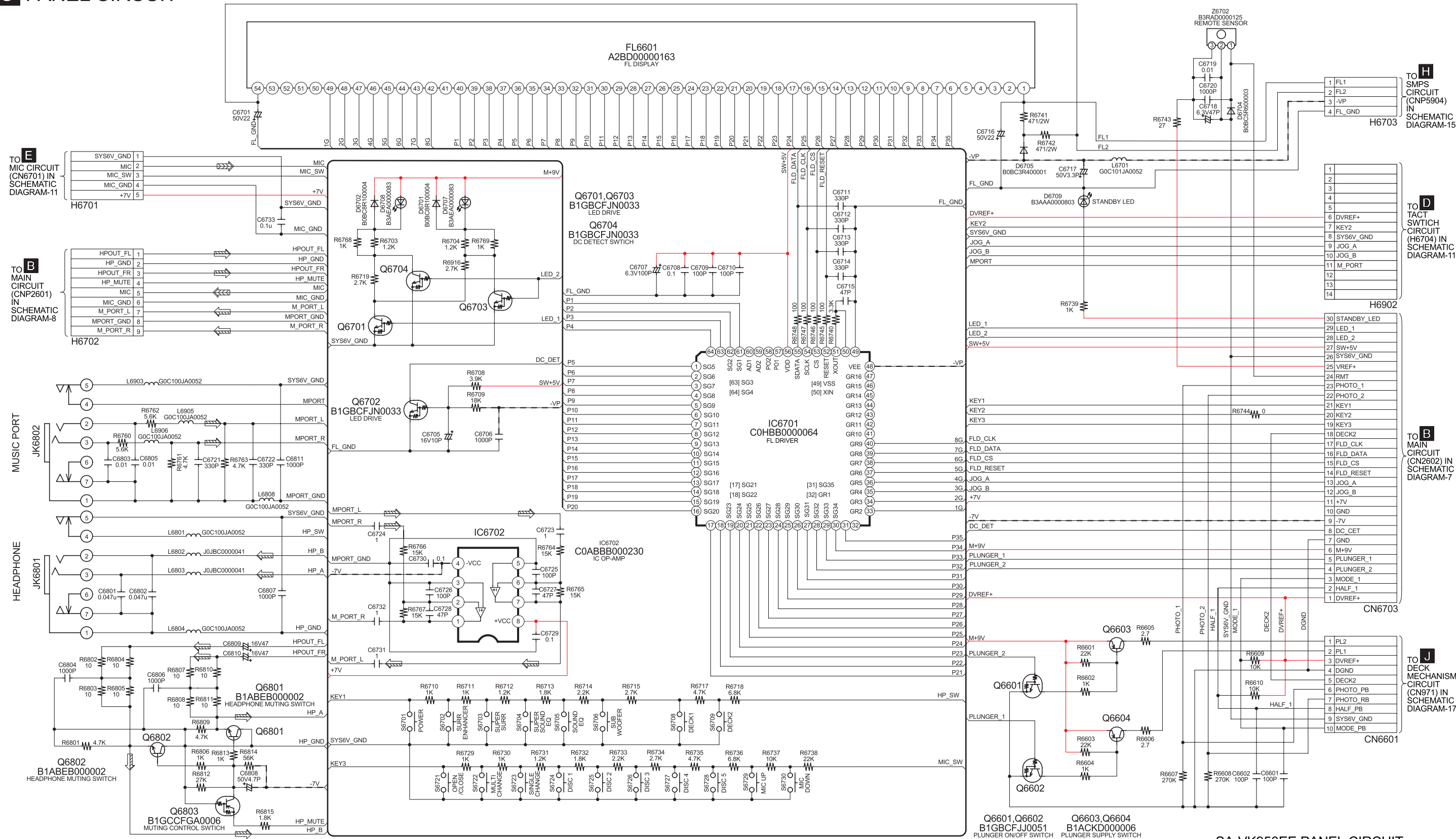
← TO MAIN SECTION (3/4)



SA-VK950EE MAIN CIRCUIT

C PANEL CIRCUIT

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



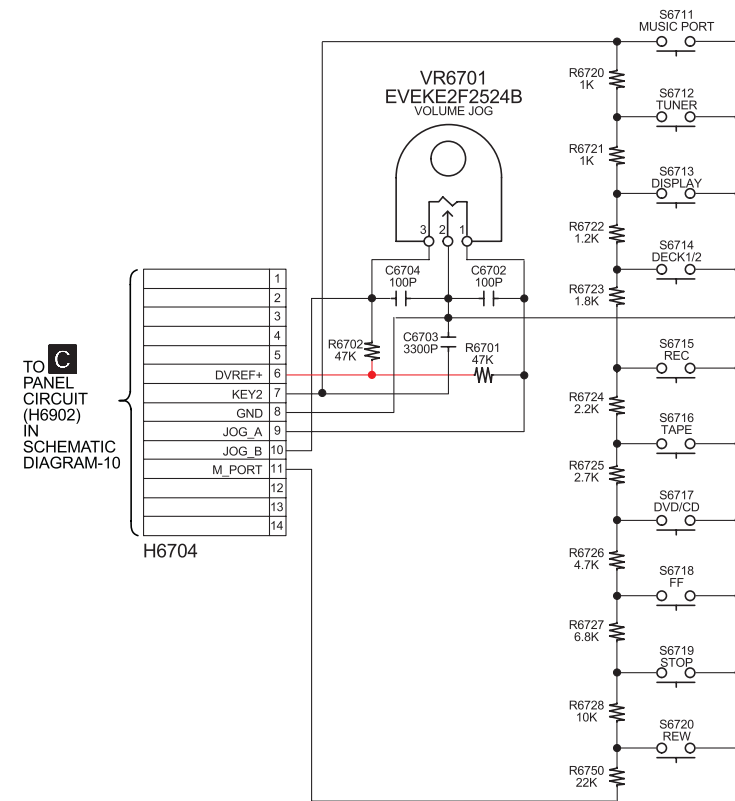
SA-VK950EE PANEL CIRCUIT

19.5. (D) Tact Switch Circuit & (E) Mic Circuit

SCHEMATIC DIAGRAM - 11

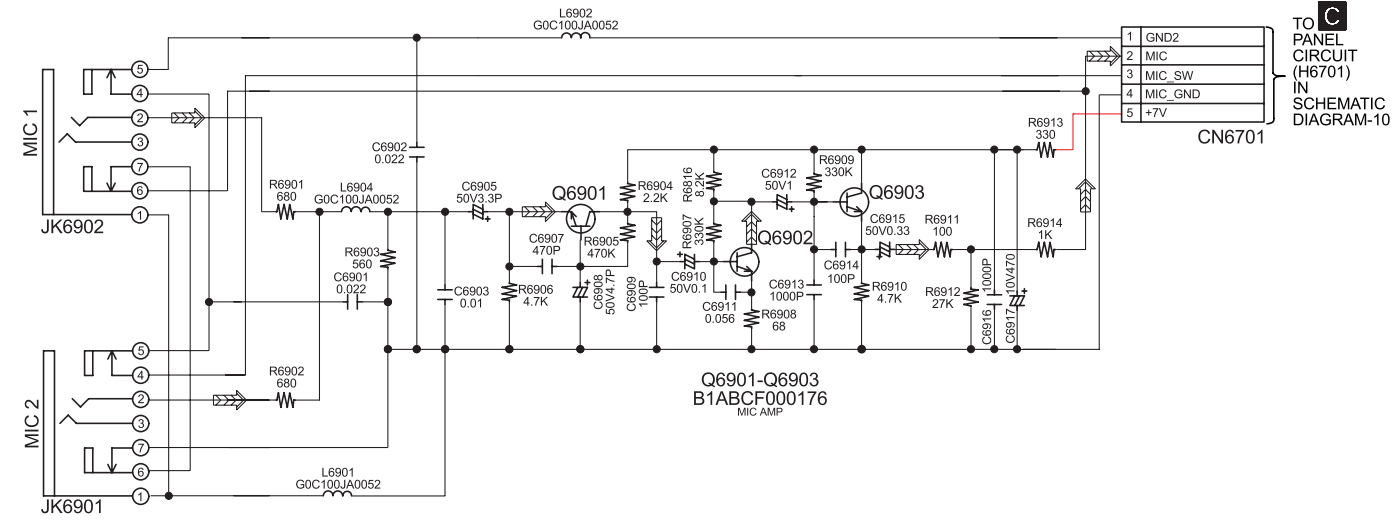
D TACT SWITCH CIRCUIT

— : +B SIGNAL LINE

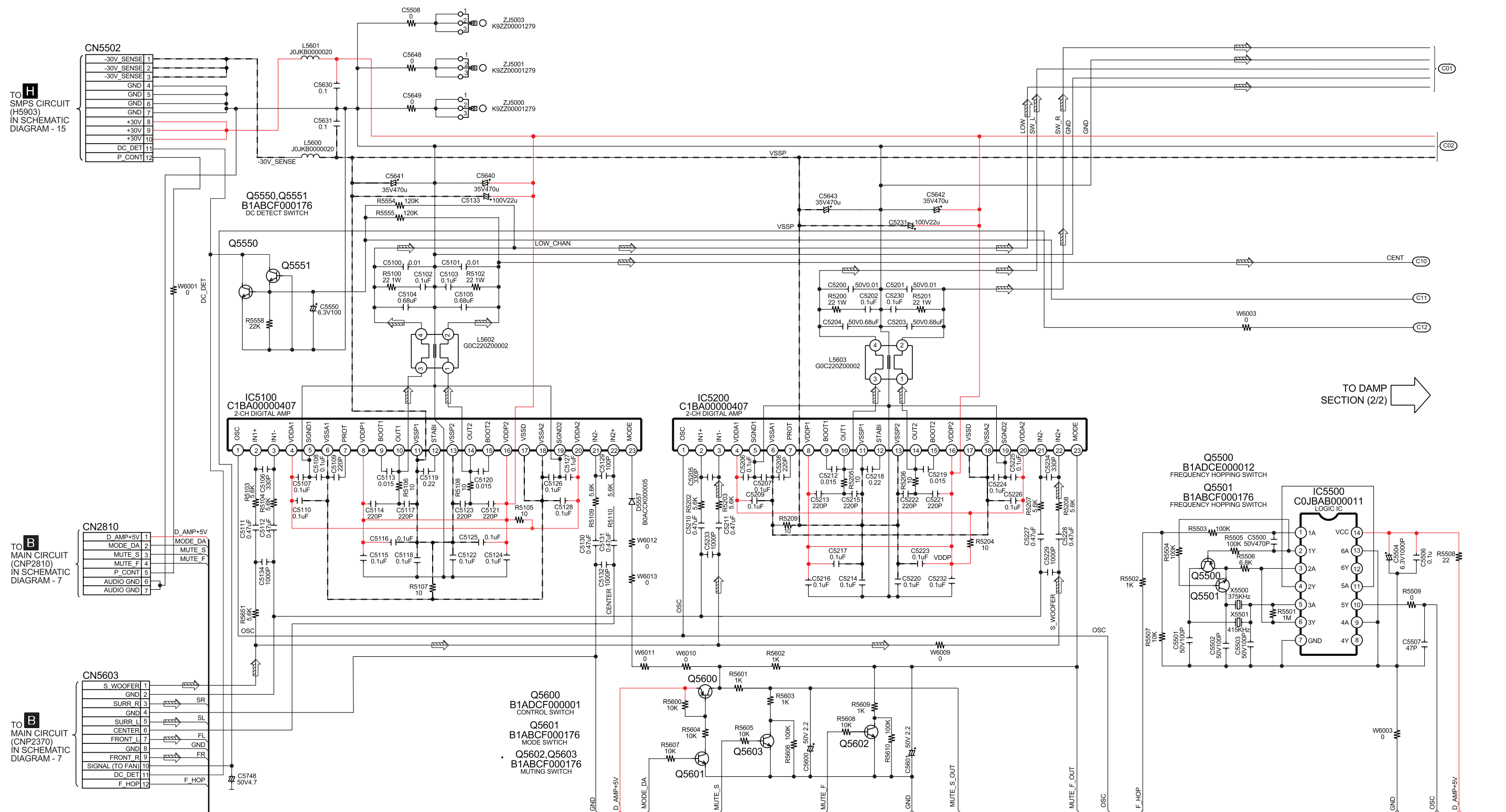


E MIC CIRCUIT

— : +B SIGNAL LINE : MIC SIGNAL LINE



F DAMP CIRCUIT



F DAMP CIRCUIT

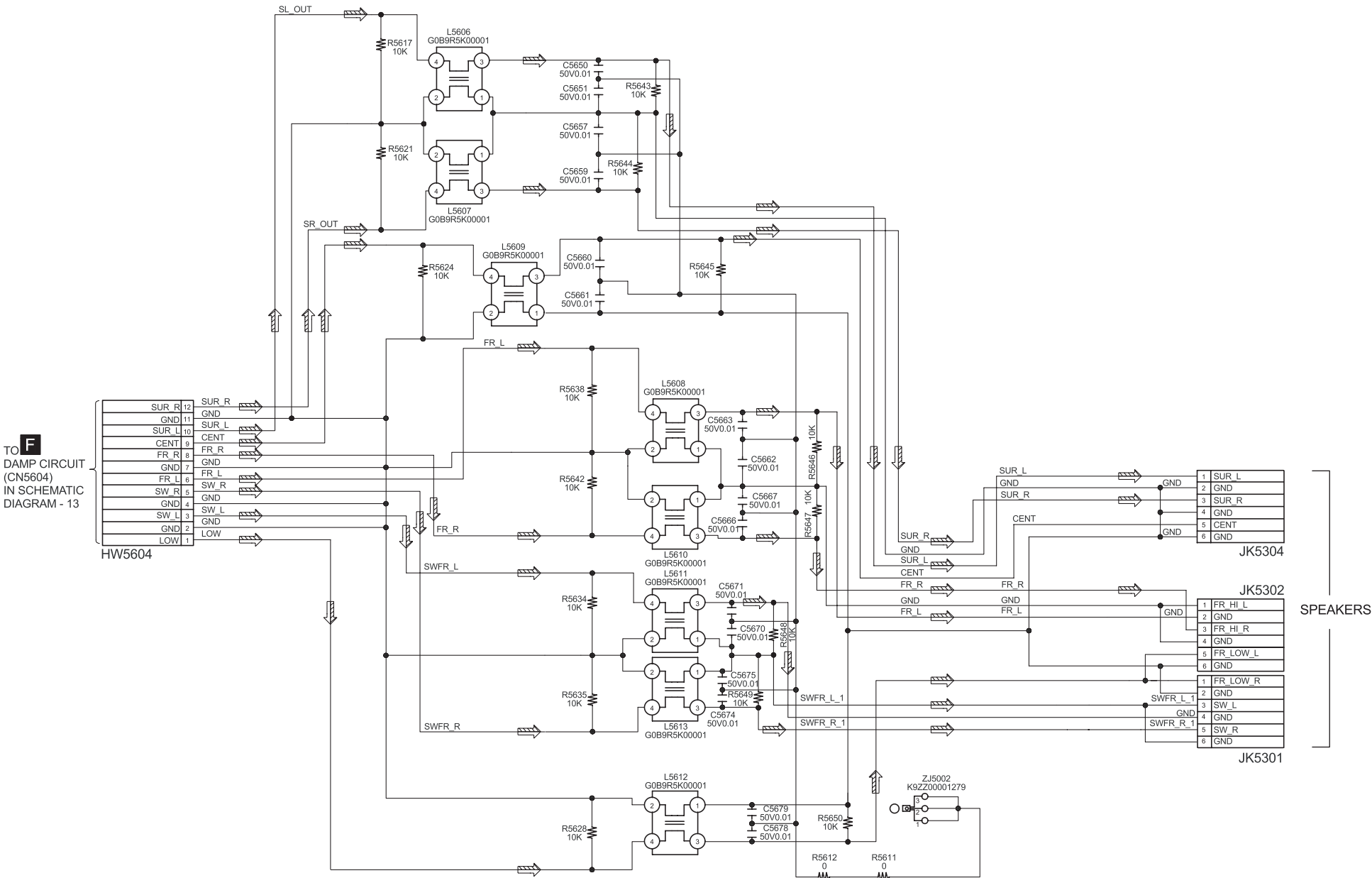


19.7. (G) Speaker Circuit

SCHEMATIC DIAGRAM - 14

G SPEAKER CIRCUIT

⇒ : MAIN SIGNAL LINE
- - : -B SIGNAL LINE

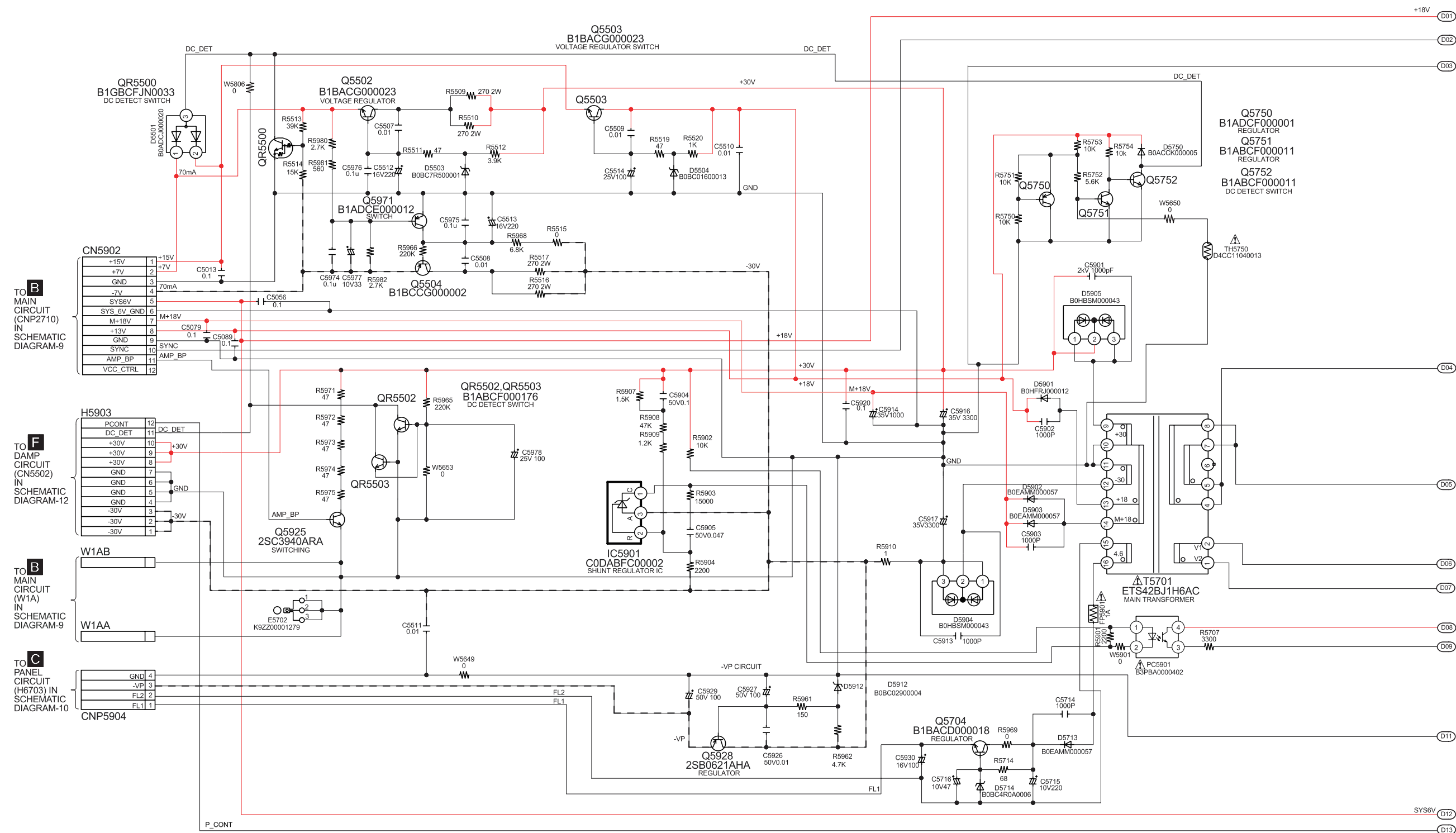


19.8. (H) SMPS Circuit

SCHEMATIC DIAGRAM - 15

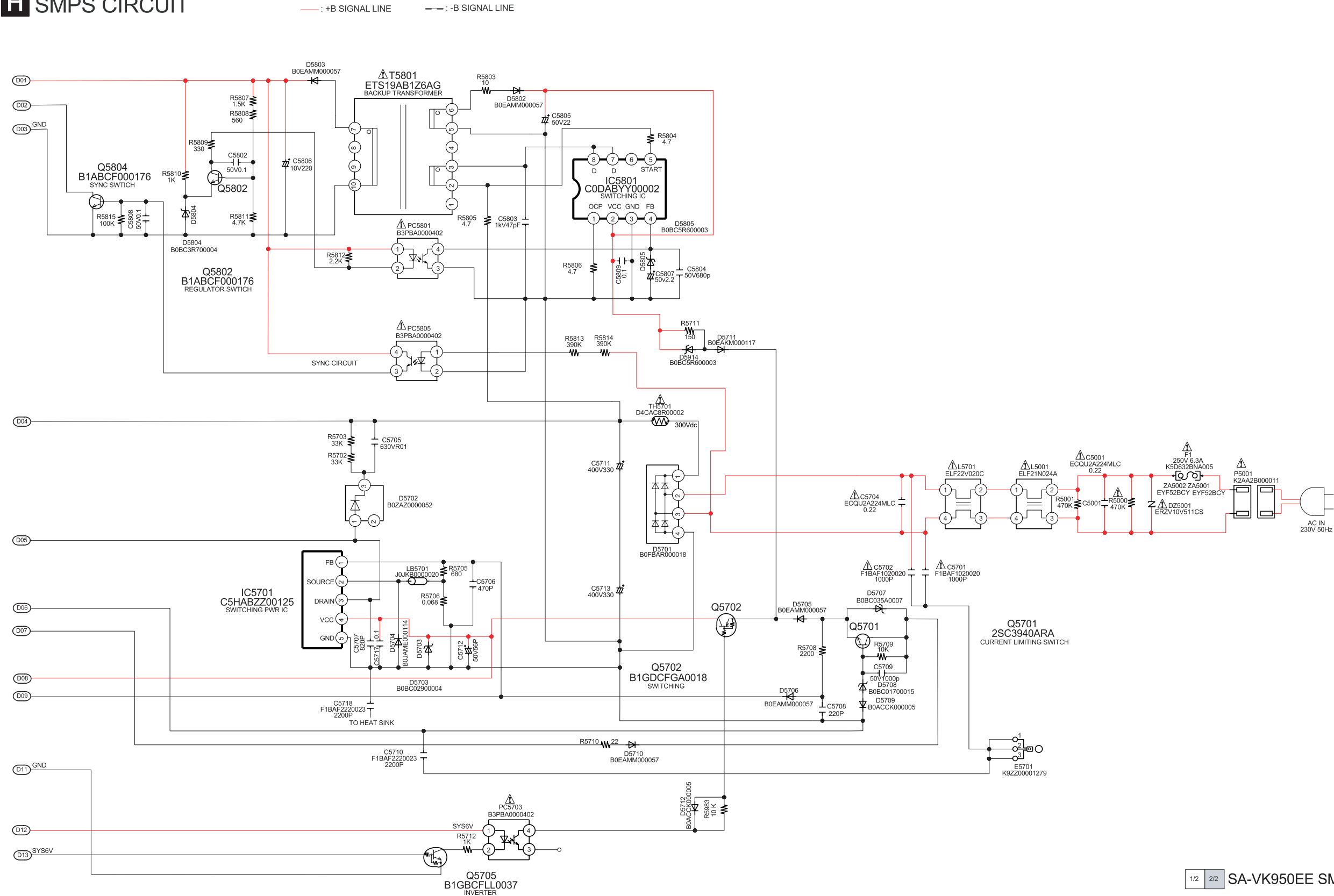
H SMPS CIRCUIT

SMPS CIRCUIT



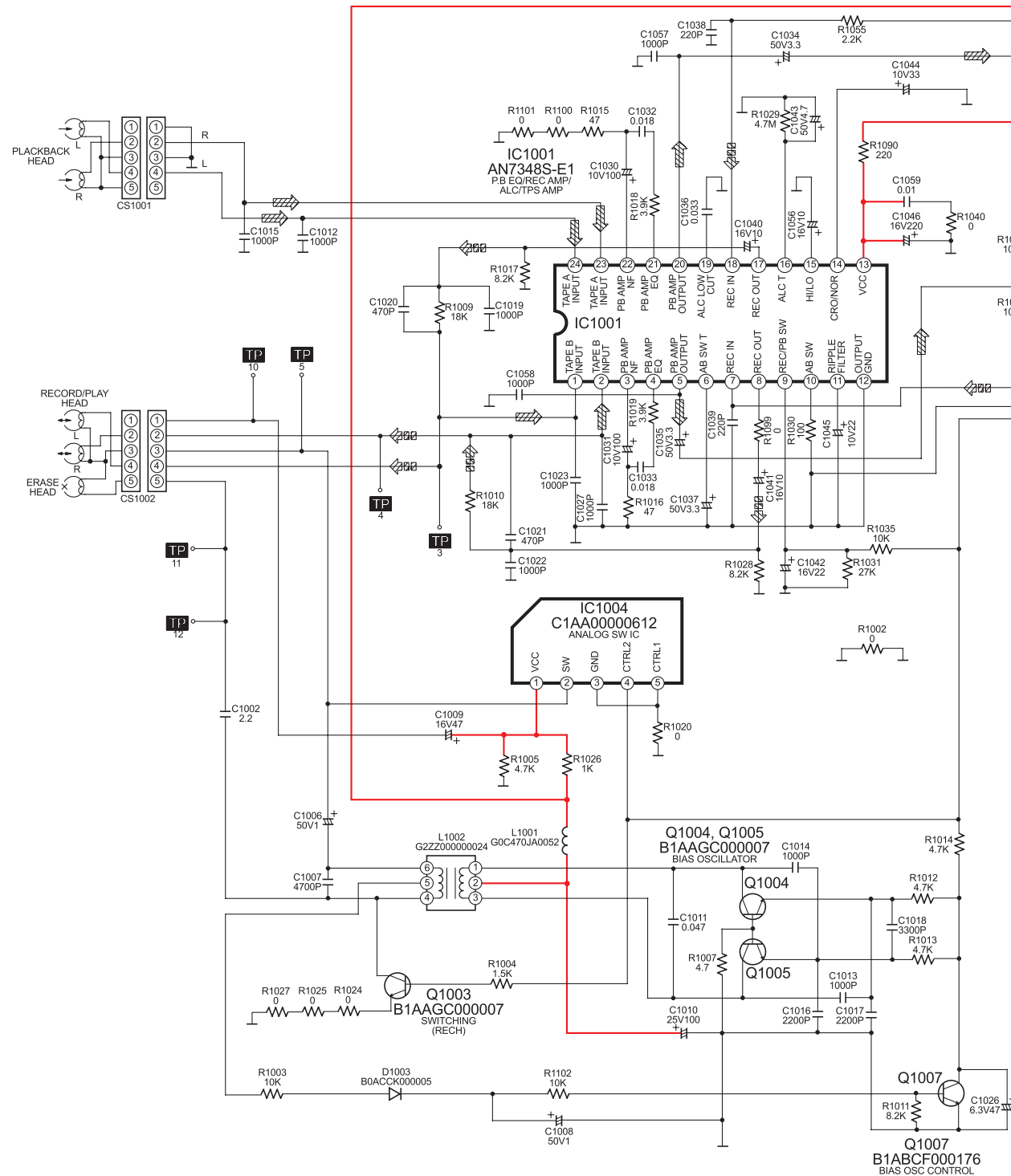
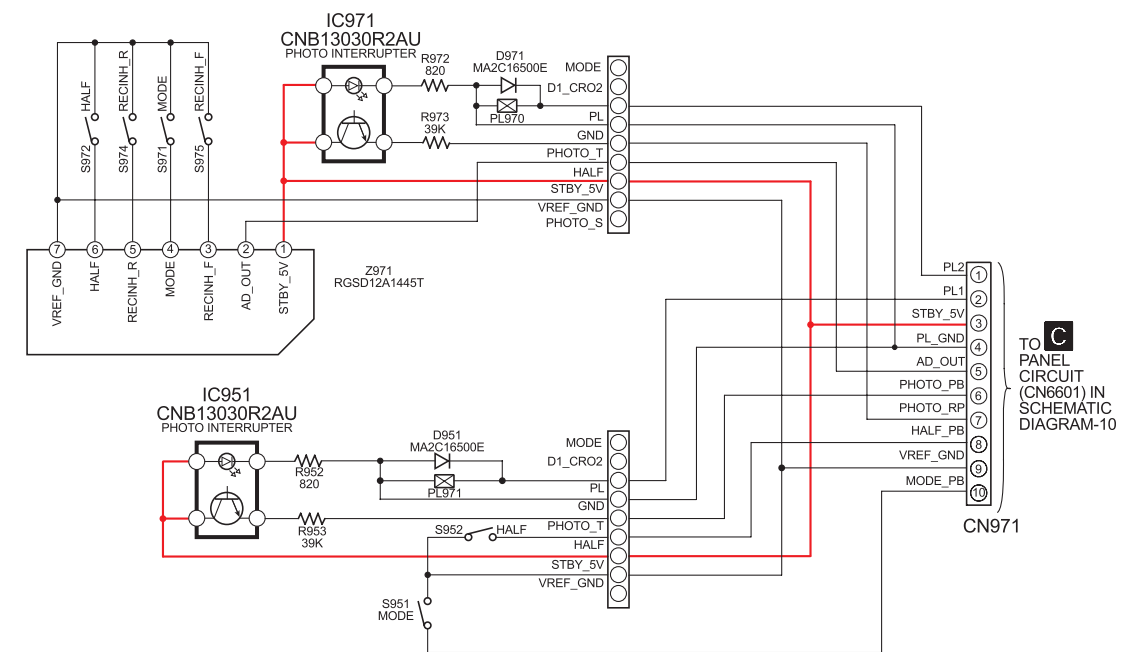
SCHEMATIC DIAGRAM - 16

SMPS CIRCUIT



19.9. (I) Deck Circuit & (J) Deck Mechanism Circuit

SCHEMATIC DIAGRAM - 17

I DECK CIRCUIT— : +B SIGNAL  : PLAYBACK SIGNAL  : RECORD SIGNAL LINE**J** DECK MECHANISM CIRCUIT

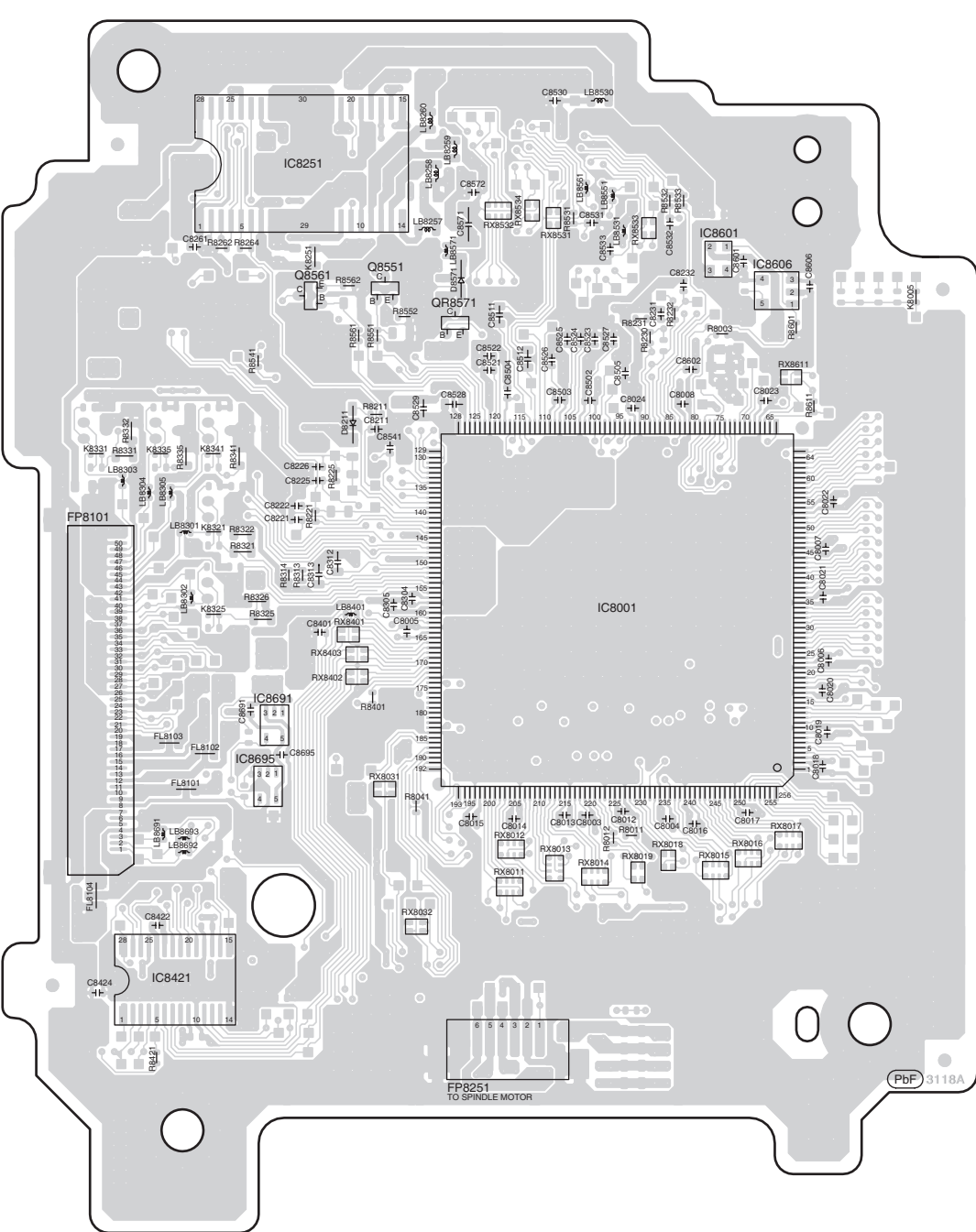
SA-VK950EE DECK MECHANISM/DECK CIRCUIT

20 Printed Circuit Board

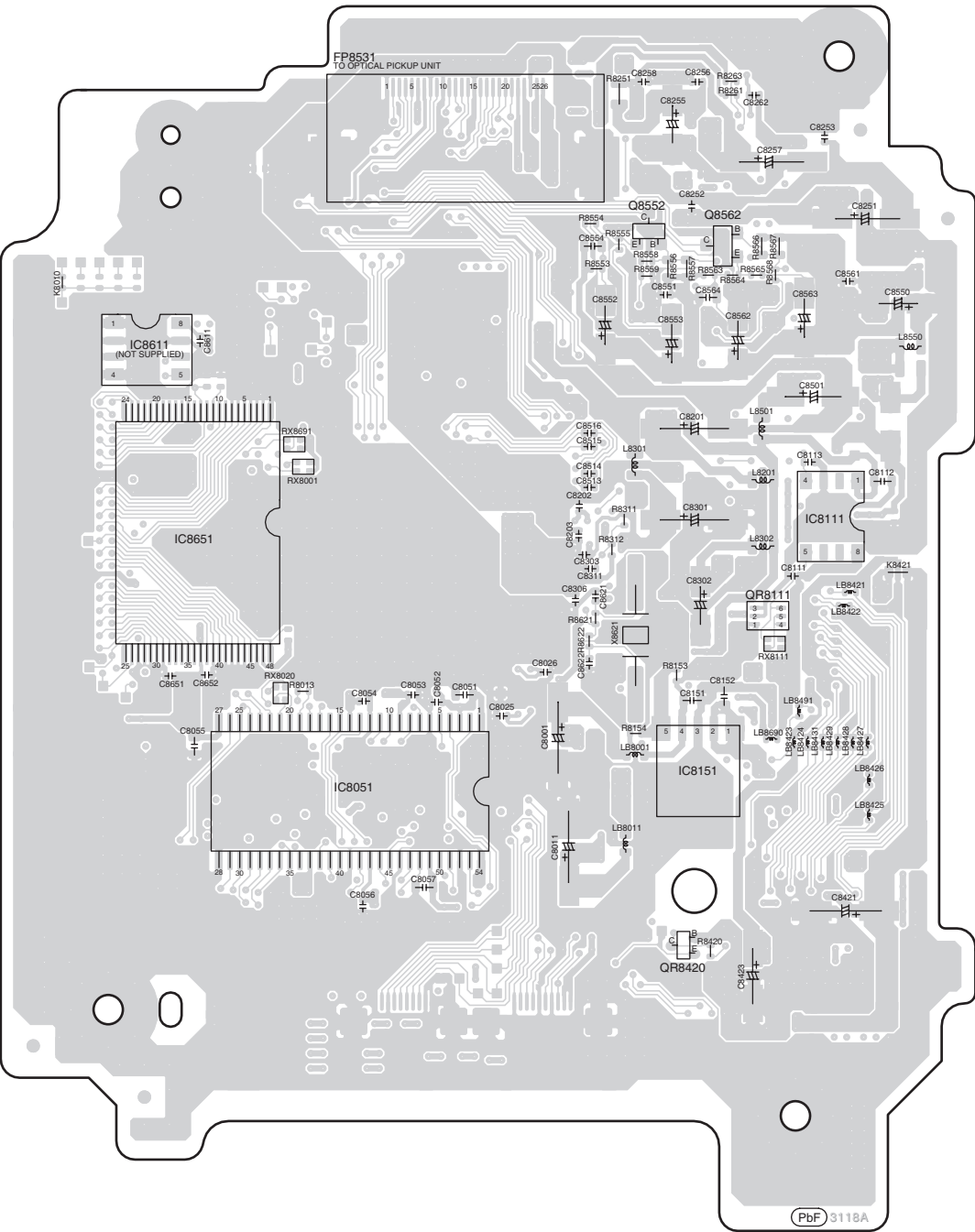
Note: Circuit board diagrams may be modified at any time with the development of new technology.

20.1. (A) DVD Module P.C.B. (Side A & B)

A DVD MODULE P.C.B (REP4012F)

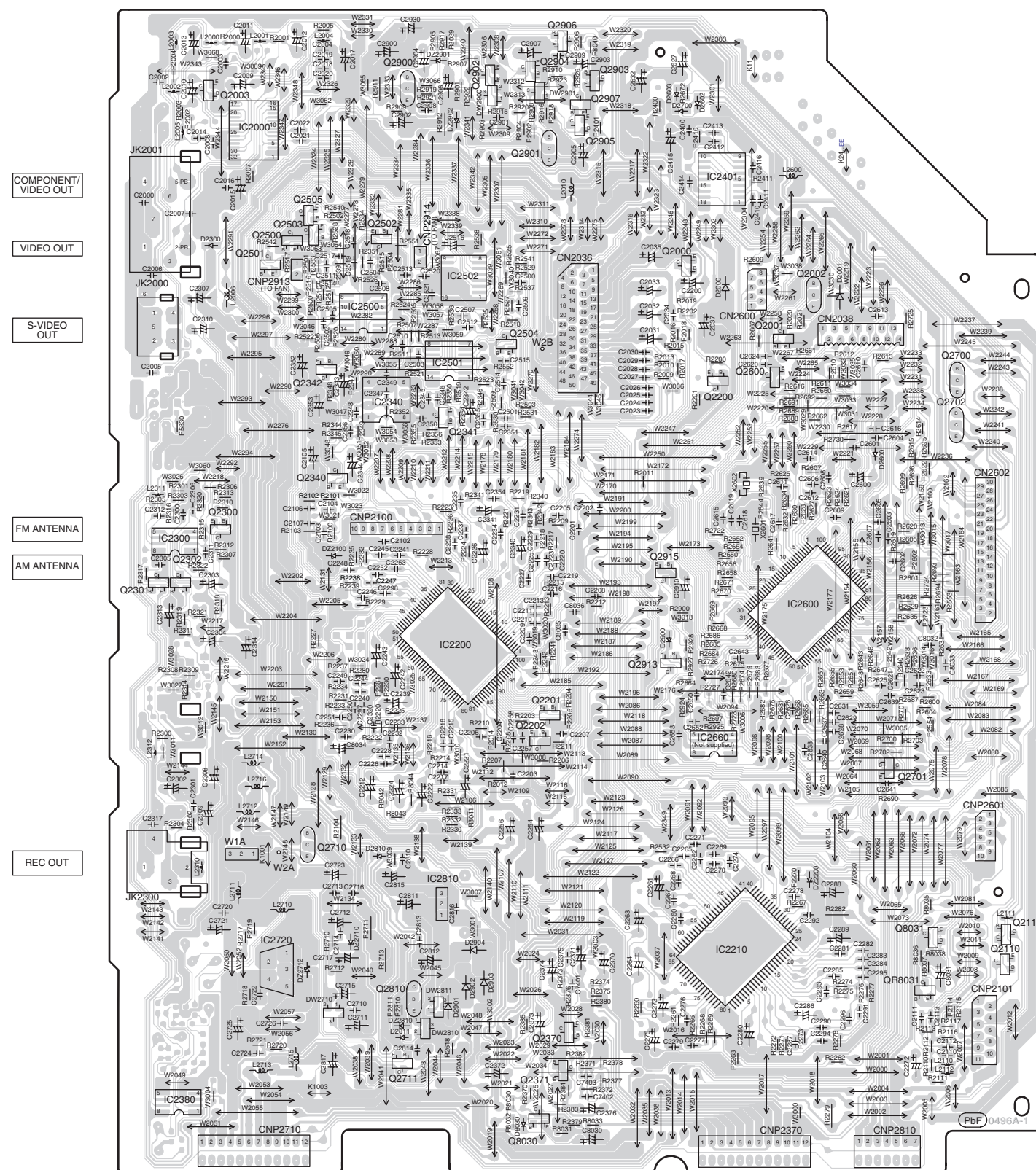


(SIDE A)



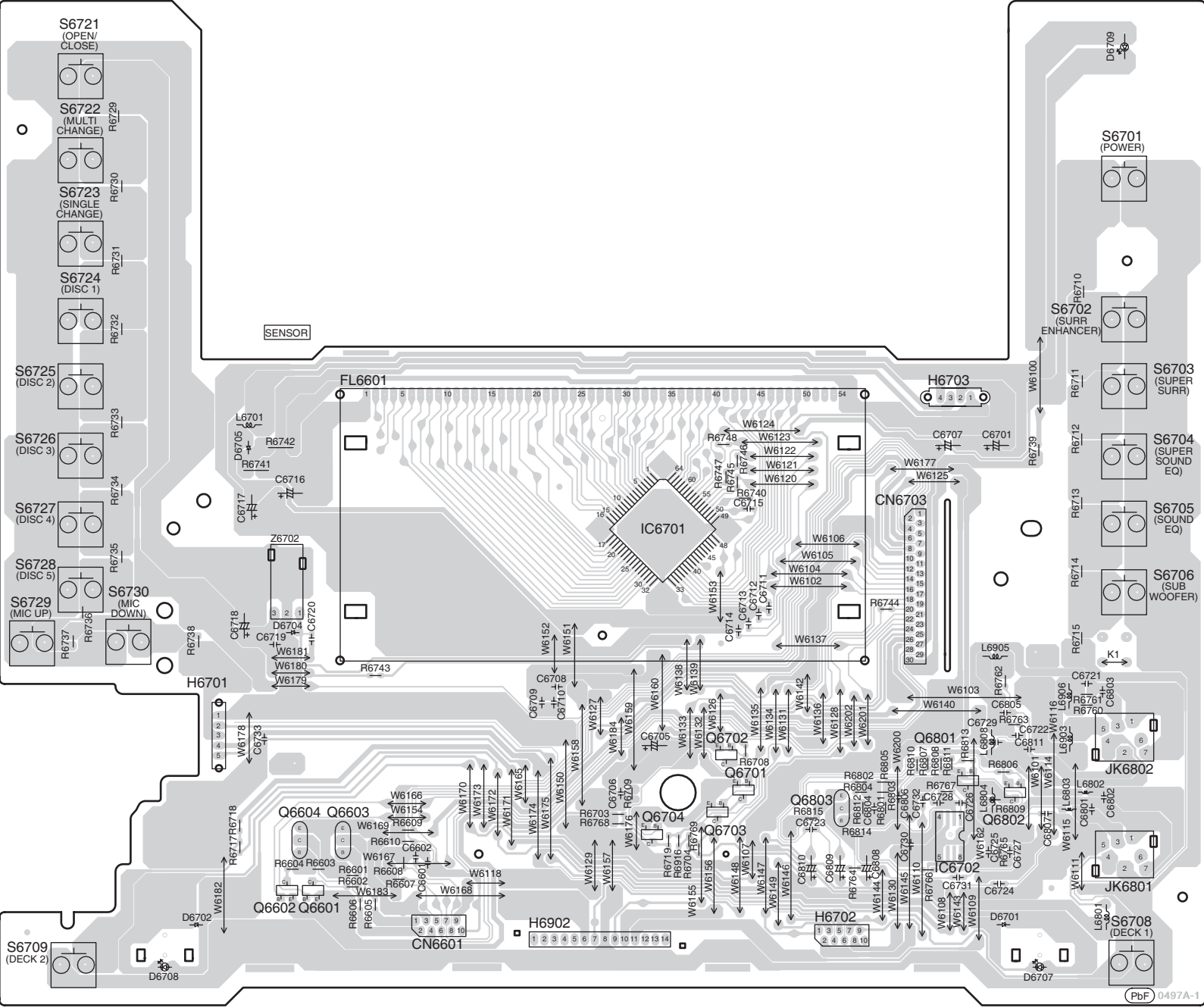
(SIDE B)

B MAIN P.C.B (REPX0545D)



20.3. (C) Panel P.C.B.

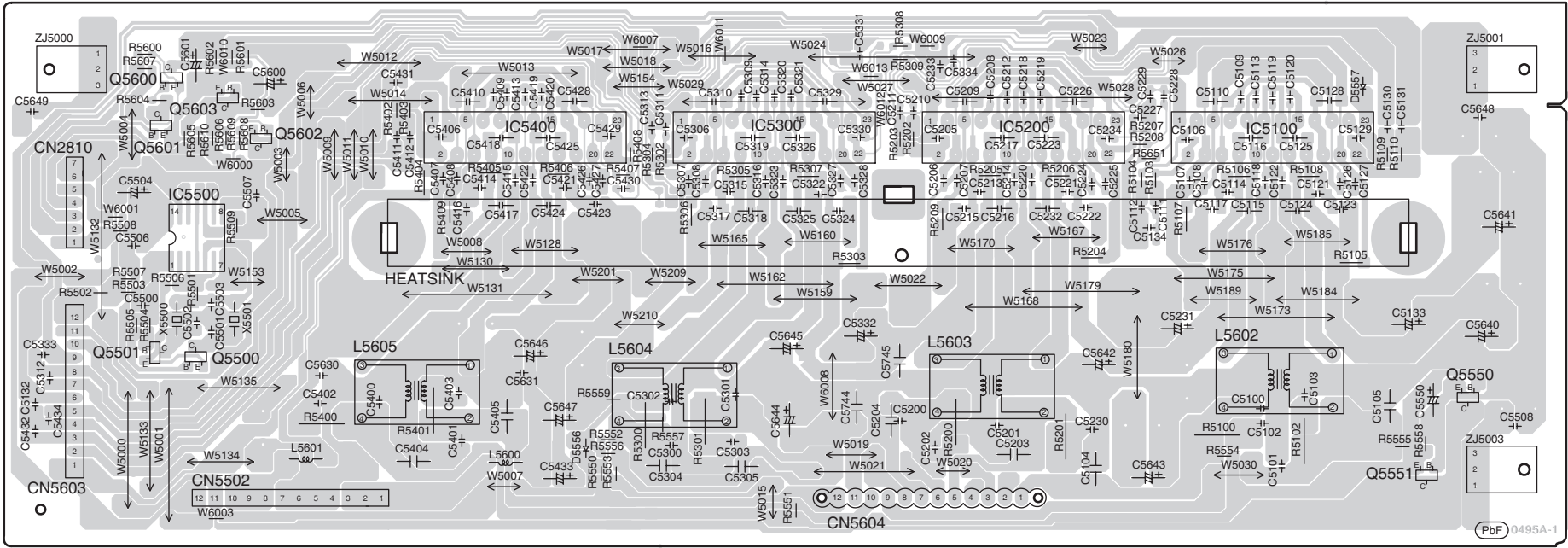
C PANEL P.C.B (REPX0546A)



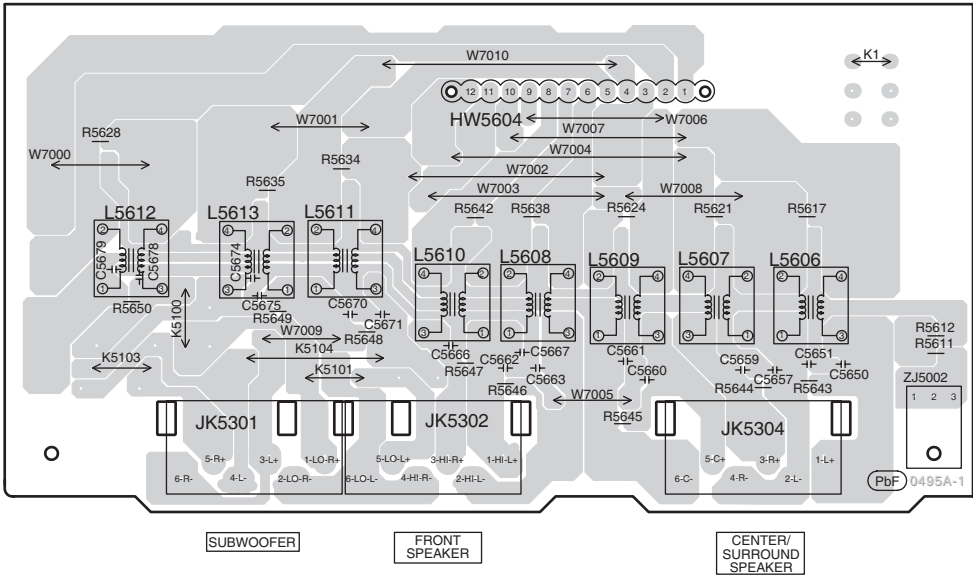


20.5. (F) Damp P.C.B. & (G) Speaker P.C.B.

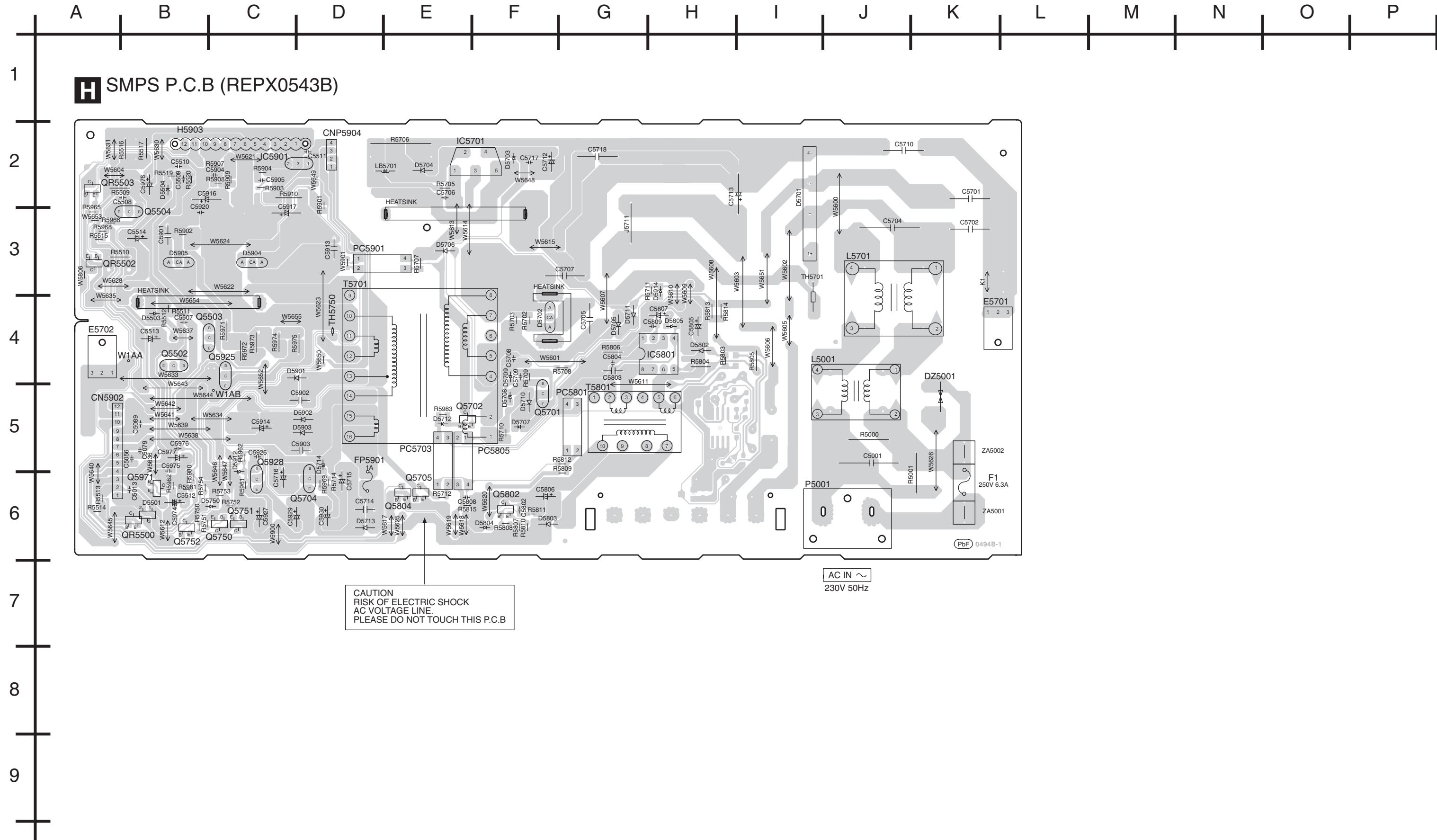
F DAMP P.C.B (REPX0544A)



G SPEAKER P.C.B (REPX0544A)



20.6. (H) SMPS P.C.B.



21 Basic Troubleshooting Guide for Backend Module

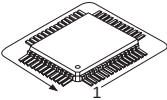
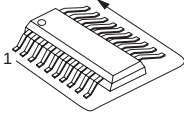
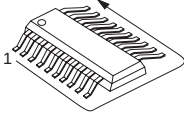
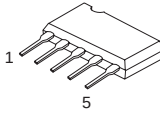
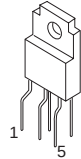
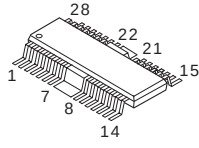
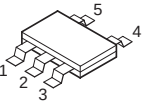
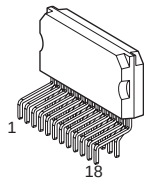
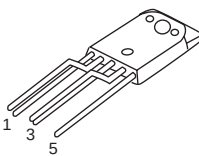
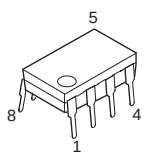
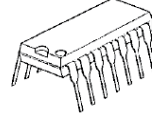
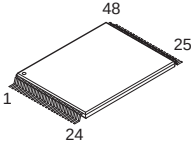
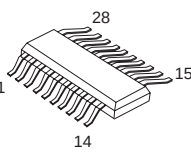
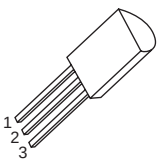
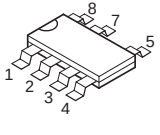
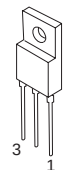
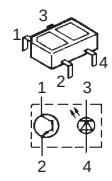
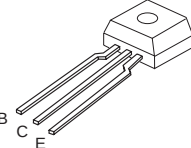
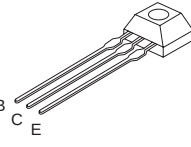
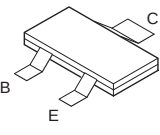
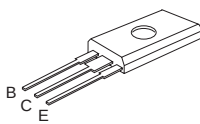
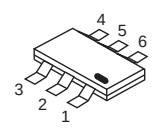
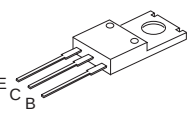
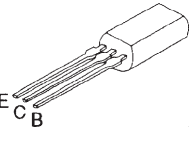
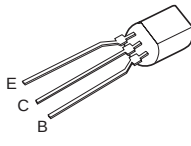
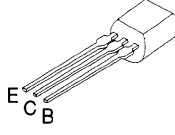
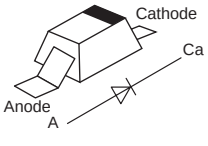
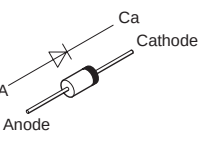
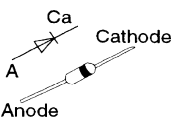
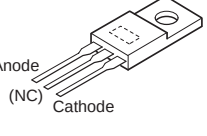
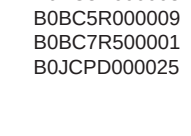
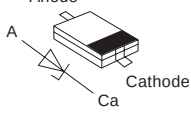
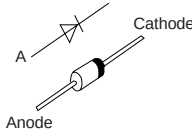
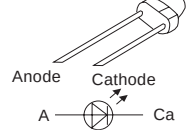
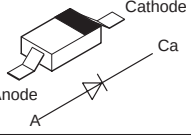
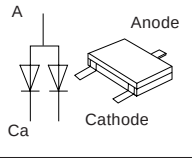
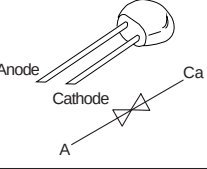
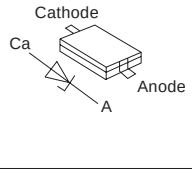
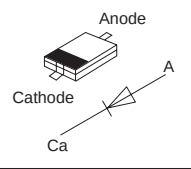
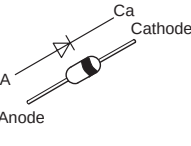
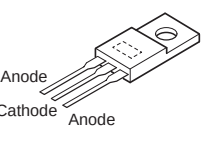
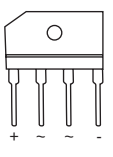
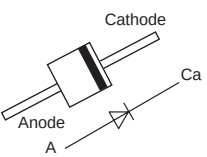
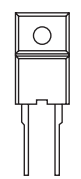
21.1. Firmware and Key Download

Problems	Checking Points	Checking Components
1) Firmware downloading fails. 2) CPPM/CPRM key download fails.	a) Check supply voltages on ICs pins. b) Check oscillation frequency and level. c) Check reset signal and power voltage rise time. d) Check Flash ROM address and data bus. e) Check SDRAM address and data bus, CLK and other control signals waveform. f) Check EEPROM CLK and data line. * Compare the above with OK condition Module.	IC8111, IC8651, IC8001, IC8051, IC8151 X8621, C8621, C8622, R8621, R8622 IC8601 IC8651 IC8051 IC8611 * Check for solder short and/or component missing/damaged.

21.2. Initialisation and Playability

Problems	Checking Points	Checking Components
1) No DVD logo screen saver.	a) Check supply voltages (3.3V and 1.2V). b) Check video signals especially Luminance, Y signal. c) Check SDRAM, EEPROM and Flash ROM for solder short.	IC8111, IC8151 LB8301, R8321, R8322 IC8051, IC8611, IC8651
2) Picture black and white only.	a) Check C (Chroma) signal if using Composite S-Video. b) Check P _b and P _r signal if using Component.	LB8302 LB8304, LB8305
3) Distorted picture and abnormal sound is heard during initialisation.	a) Check SDRAM address and data bus, CLK and other control signals waveform. b) Check video signals. c) Check audio DAC circuitry. * Compare the above with OK condition Module.	IC8051 LB8301, R8321, R8322, LB8302, R8325, R8326 IC8421 * Check for solder short and/or component missing/damaged.
4) No TOC/ Long TOC	a) Check motor driver circuitry (voltages). b) Check laser drive circuitry (voltages and current). c) Check LSI connection to motor drive circuitry. * Compare the above with OK condition Module.	IC8251 Q8550, Q8551, Q8552, Q8560, Q8561, Q8562 IC8001 * Check for solder short and/or component missing/damaged.
5) Disc not spinning. 6) Traverse not moving. 7) Traverse and spindle abnormal movement.	a) Check connection from Backend Module to Traverse Unit. b) Check motor driver circuitry on voltages and control signals. * Compare the above with OK condition Module.	FP8251, FP8531, IC8251 M+9V=FP8101(PIN 5/7), IC8251(PIN21) * Check for solder short and/or component damaged.
8) Cannot read disc but spindle is spinning - Cannot read CD - Cannot read 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 Module.	Q8550, Q8551, Q8552, Q8560, Q8561, Q8562 Q8550, Q8560, Q8561, Q8562 Q8550, Q8551, Q8552, Q8560 * Check for solder short and/or component missing/damaged.
9) Block noise during play.	a) Check SDRAM address and data bus signal. * Compare the above with OK condition Module.	IC8051 * Check for solder short and/or component damaged.
10) DVD Audio no audio output	a) CPPM key download NG, check test point for CPPM key download. b) Check EEPROM. * Check test point damaged or broken pattern.	IC8611 * Check for component damaged.
11) No audio	a) Check audio signal IC8421(5.1 ch) b) Check audio DAC control signals. c) Check Zero Flag and A-Mute signal. * Compare the above with OK condition Module.	(MIXL/MIXR/FL/FR) LB8421, LB8422, LB8425, LB8426 (SURL/SURR/CEN/SW) LB8427, LB8428, LB8429, LB8431 (IC8421) Pin 5, 6, 7 & 8 QR8420, LB8424 * Check for solder short and/or component missing/damaged.

22 Illustration of ICs, Transistors and Diodes

MN2DS0009VP (256P) C1BB00001012 (80P) C1BB00001098 (100P) C2CBYY000269 (100P) C0HBB0000064 (64P) 	AN7348S-E1 (24P) C0ABBB000230 (8P) C0CBCBD000018 (8P) C0JBAB000011 (14P) C3ABPG000145 (54P) C0JBAR000326(16P) C1BB00000086 (18p) 	C0EBA0000029 (4P) C9ZB00000461 (32P) 	C1AA00000612 C0DBEHG00006 	C0DAAMH00012 	C0GBG0000048 
C0EBE0000455 C0JBAA000346 	C1BA00000407 	C5HABZZ00125 	C0AABB000125 C0ABBA000168 	C0ABCB000052 	RFKWMHA0H160 (48P) 
C0FBBK000050 	C0DABFC00002 	C0DABYY00002 	C0CAAKG00013 	CNB13030R2AU 	B1ACCF000094 B1GCCFGA0006 
B1AAGC000007 	2SD1819A0L B1ABCF000176 B1ABEB000002 B1ADCF000001 B1ADGB000008 B1GBCFJN0033 B1GBCFJJ0051 B1GDCFJJ0047	UNR521100L UNR511V00L B1ABCF000011 B1ADCE000012 B1GBCFLL0037 B1GDCFGA0018		B1BACD000018 B1BCCD000019 	XP0621400L 
B1BACG000023 B1BCCG000002 	2SC3940ARA 	2SB0621AHA 	B1AAKD000014 B1AARC000003 B1ACKD000006 	B0BC3R400001 B0BC035A0007 	B0EAKM000117 
MA2J72800L 	B0ZAZ0000052 	B0BC5R600003 B0BC5R000009 B0BC7R500001 B0JCPD000025 		B0BC02900004 	B3AEA0000083 B3AAA0000803 
B0ACCE000003 MA2J11100L 	B0ADCJ000020 	ERZV10V511CS 	B0BC3R700004 B0BC4R0A0006 B0BC01600013 B0BC9R000008 B0BC01700015 B0BC8R100004 	B0ACCK000005 	
MA2C16500E 	B0HBSM000043 	B0FBAR000018 	B0EAMM000057 B0JAME000114 	B0HFRJ000012 	

23 Terminal Function of IC

23.1. IC2600 (C2CBYY000269) System Microprocessor

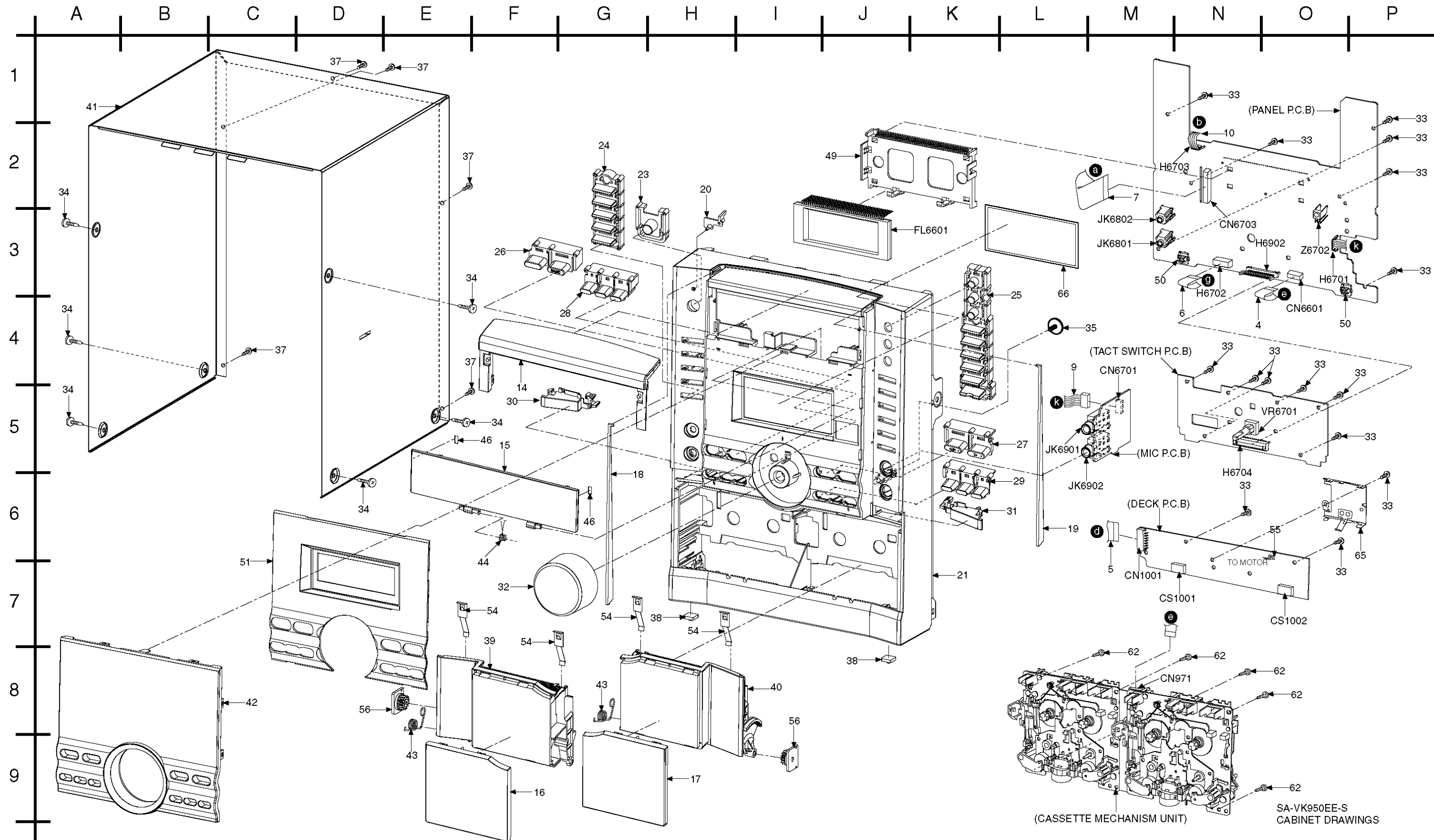
Pin No.	Mark	I/O	Function
1	ST_SW	I	Stock Switch for CRS1
2	CCW	O	CRS1 Motor CCW
3	CW	O	CRS1 Motor CW
4	HOME	I	HOME Switch for CRS1
5	CAM_SENSOR	I	Close Switch for CRS1
6	F_HOP	O	F_HOP for Digital amplifier
7	WIDE_SURR	O	Wide Surround
8	BYTE	I	BYTE
9	CNVSS	-	Flash Mode Terminal (Connect to Ground) via 10k Ω
10	XCin	-	SUB CLOCK INPUT (32.768 kHz)
11	XCut	-	SUB CLOCK OUTPUT (32.768 kHz)
12	RESET	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	AMP_BP	O	AM BEAT Control
25	VCC_CONTROL	I/O	VCC 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

Pin No.	Mark	I/O	Function
44	FLD_DAT	O	Data input for the FL Driver
45	FLD_CLK	O	Clock Signal for the FL Driver
46	EFP_CE		For Flash
47	WIDE	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	N.C.	-	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_WLESS	O	Mute wireless
57	MUTE_HP	O	Head Phone Mute signal
58	MUTE_C	O	Center Control Mute Signal
59	MUTE_S	O	Surround Control Mute Signal
60	MUTE_F	O	Front Control Mute Signal
61	MUTE_DA	O	Digital Amplifier Mute Signal
62	Vcc	-	POWER SUPPLY (5V)
63	N.C.	-	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	MOTOR	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	N.C.	-	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 (VK750=H; VK850/950=L)
82	N.C.	-	No connection
83	(VK750LM-S)	I	CSCH: Panamex, L:VK950/750/850
84	LED2	-	LED Control 2
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	I	Rotation Detection Signal (Deck 1)
90	PHOTO_2	I	Rotation Detection Signal (Deck 2)

Pin No.	Mark	I/O	Function
91	DECK2_AD	I	AD input from DECK2 (RINHF/MODE2/RINHR/HALF2)
92-94	KEY1-KEY3	I	Key 1 to key 3 line input
95	SPE_AD	I	Signal from Speana IC's OUT port
96	AVss	-	ANALOG POWER SUPPLY INPUT
97	DVD_CS	I	DVD Region Settting
98	Vref	-	REFERENCE VOLTAGE INPUT
99	AVcc	-	ANALOG POWER SUPPLY INPUT
100	OPEN_SW	I	Open Switch for CRS1

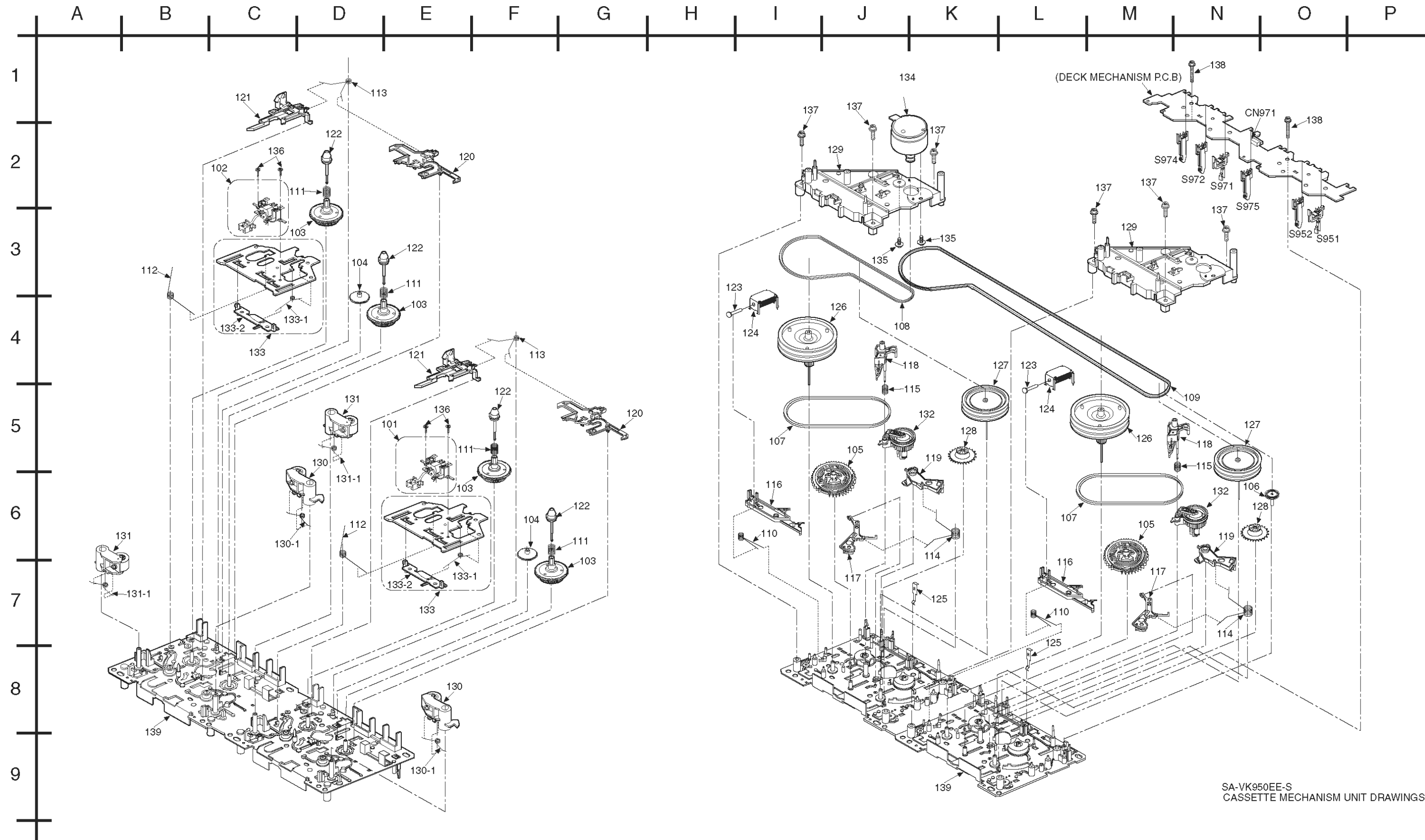
24 Exploded Views

24.1. Cabinet Parts Location





24.2. Deck Mechanism Parts Location (RAA3413-1S)



24.3. Packaging

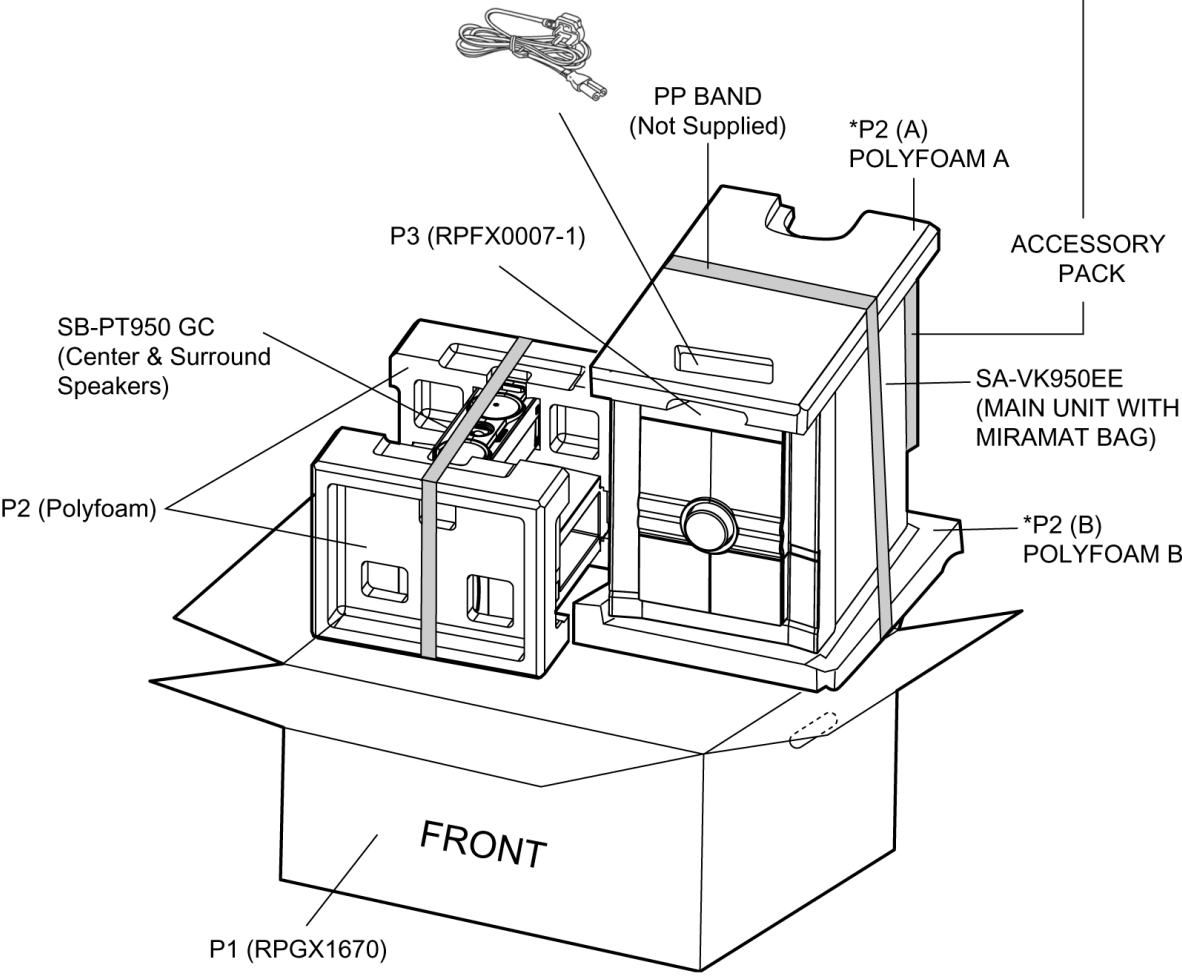
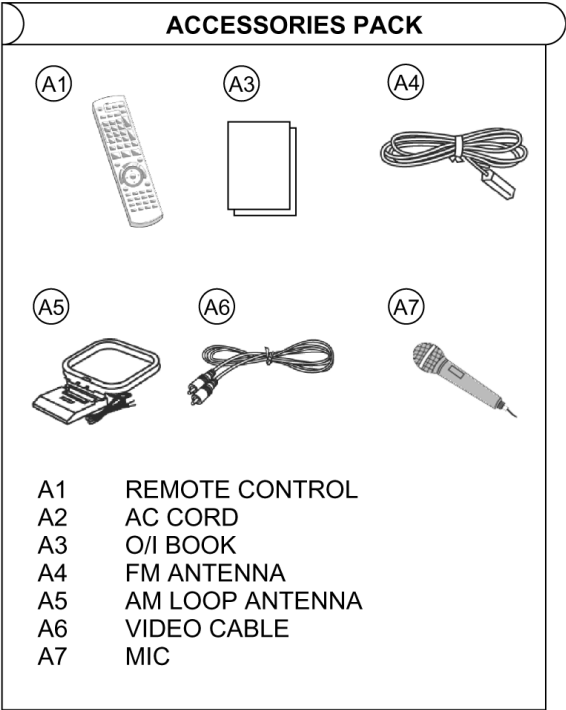
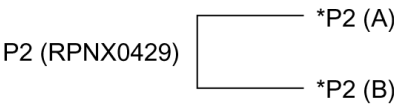
24.3.1. For SF-VK950 EE

SF-VK950 EE

Music Center	SA-VK950 EE
Satellite Speakers	SB-PT950 GC

SB-PT950 GC

Surround Speakers	SB-PS950 GC
Center Speaker	SB-PC950 GC



24.3.2. For SB-VK950GC

Note: This diagram is for illustration only. For more information, please refer to Original Service Manual for Speaker System.

Order No. MD0605195C3 (SB-VK950GC1)/

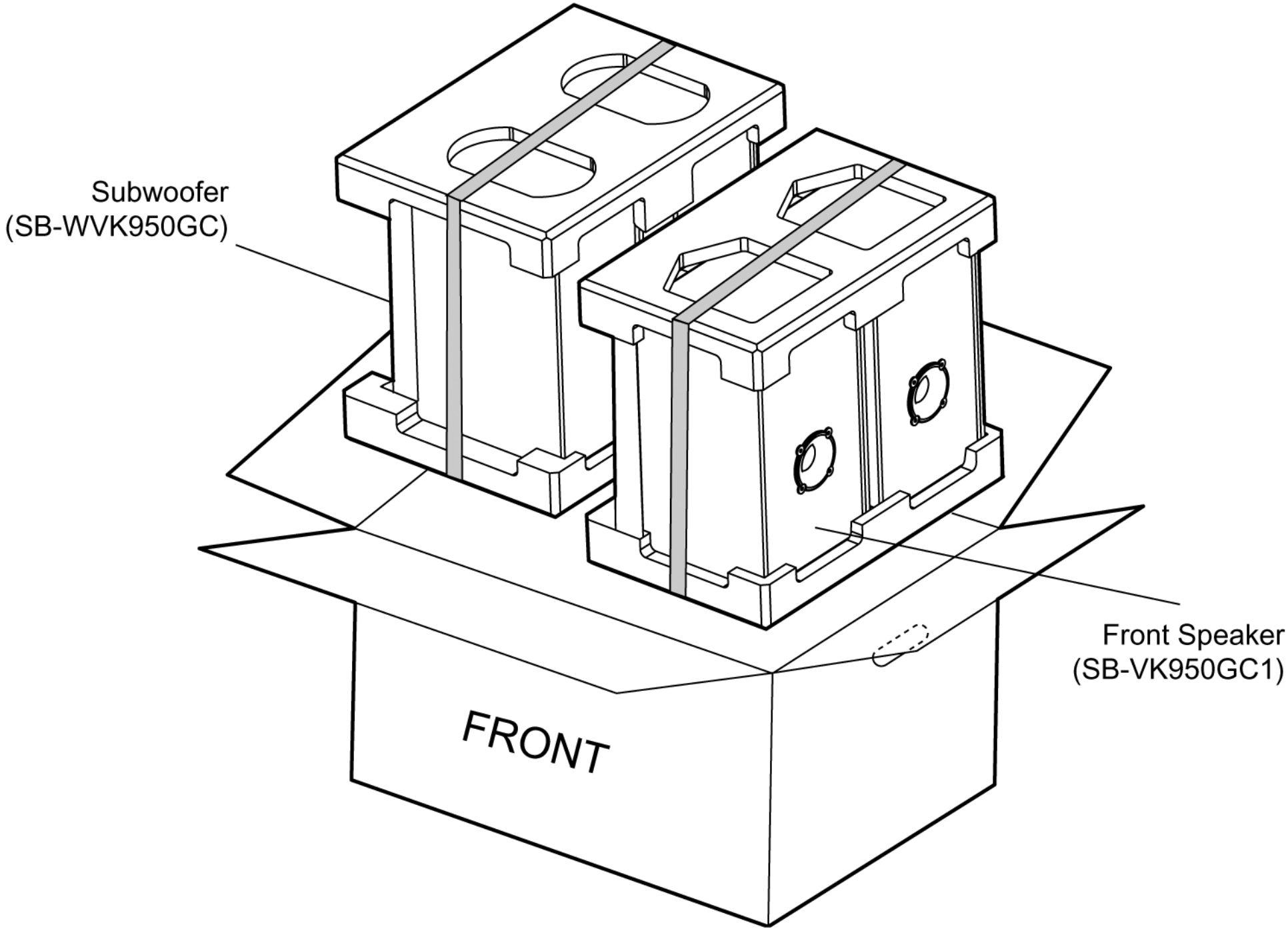
Order No. MD0605194C3 (SB-PC950GC)/

Order No. MD0605199C3 (SB-PS950GC)/

Order No. MD0605200C3 (SB-WVK950GC)

SB-VK950 GC

Front Speakers	SB-VK950 GC1
Subwoofers	SB-WVK950 GC



25 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 (μ F) 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:	Ukraine				

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	J3CCBC000012	TUNER PACK	[M]
2	L6FALEFH0023	DC FAN	[M]
3	REEX0212-2	14P WIRE	[M]
4	REEX0567	10P FFC WIRE	[M]
5	REEX0568	11P FFC WIRE	[M]
6	REEX0614	10P FFC WIRE	[M]
7	REEX0617	30P FFC WIRE	[M]
8	REEX0654	50P FFC WIRE	[M]
9	REXX0528	5P FLAT WIRE	[M]
10	REXX0529-1	4P FLAT WIRE	[M]
11	REXX0530	12P FLAT WIRE	[M]
12	REXX0533	12P FLAT WIRE	[M]
13	REXX0544	2P FLAT WIRE	[M]
14	RGKX0367-K	TOP ORNAMENT	[M]
15	RGKX0368A-K	CD LID	[M]
16	RGKX0369-K	CASSETTE LID ORN L	[M]
17	RGKX0370-K	CASSETTE LID ORN R	[M]
18	RGLX0136-Q	LIGHTING PIECE L	[M]
19	RGLX0137-Q	LIGHTING PIECE R	[M]
20	RGLX0138-Q	POWER LIGHT PIECE	[M]
21	RGPX0256B-S1	FRONT PANEL	[M]
22	RGRX0059D-BB	REAR PANEL	[M]
23	RGUX0679-1S	POWER BUTTON	[M]
24	RGUX0680A-S	SOUND BUTTON	[M]
25	RGUX0681-S	CD CONTROL BUTTON	[M]
26	RGUX0682-1S	FUNCTION BUTTON L	[M]
27	RGUX0683-1S	FUNCTION BUTTON R	[M]
28	RGUX0684-K	CONTROL BUTTON L	[M]
29	RGUX0685-K	CONTROL BUTTON R	[M]
30	RGUX0686-S	DECK BUTTON L	[M]
31	RGUX0687-S	DECK BUTTON R	[M]
32	RGWX0072-S	VOLUME KNOB	[M]
33	RHD26046-L	SCREW	[M]
34	RHD30007-1SJ	SCREW	[M]
35	RHD30008	WASHER HEAD SCREW	[M]
36	RHD30070	EARTH TERMINAL SCREW	[M]
37	RHD30119-S	SCREW	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
38	RKA0072-KJ	LEG CUSHION	[M]
39	RKFX0133-S	CASSETTE LID L	[M]
40	RKFX0134-S	CASSETTE LID R	[M]
41	RKMX0130A-S	TOP CABINET	[M]
42	RKWX0263-H	FL WINDOW	[M]
43	RMBX0036	CASS OPEN SPRING	[M]
44	RMBX0049	DVD LID SPRING	[M]
45	RMCX0035	HEATSINK CLIP A	[M]
46	RMG0547-K	CUSHION	[M]
47	RMKX0119	DVD CHASSIS	[M]
48	RMKX0120	BOTTOM CHASSIS	[M]
49	RMNX0189	FL HOLDER	[M]
50	RMNX0190	LED HOLDER	[M]
51	RMVX0094A-K	FL WINDOW BACKGROUND	[M]
52	RMVX0285	HEAT SINK	[M]
53	RMZX0026-1	IC INSULATOR A	[M]
54	RUS757ZAA	CASS HALF SPRING	[M]
55	RWJ0102050CK	WIRE MAIN (TO MECHA MOTOR)	[M]
56	RXGX0002	DAMPER GEAR	[M]
57	RXXX0078	HEAT SINK POWER UNIT	[M]
58	RXXX0079	SUB HEAT SINK UNIT	[M]
59	RXXX0080	SUB HEAT SINK	[M]
60	TUC25628	SMALL HEATSINK	[M]
61	XTB3+8JFJ	SCREW	[M]
62	XTV3+10GFJ-M	SCREW	[M]
63	XTW3+12TFJ	SCREW	[M]
64	XTWS3+6TFJ	SCREW	[M]
65	RSQX0006-2	DECK SHIELD PLATE	[M]
66	RKWX0264	FILTER	[M]
67	RMNX0019	LOCKING SUPPORT	[M]
		CASSETTE DECK	
101	RED0064-2	R/P HEAD BLOCK UNIT	[M]
102	RED0063-2	P/B HEAD BLOCK UNIT	[M]
103	RDG0300	REEL BASE GEAR	[M]
104	RDG0301	WINDING RELAY GEAR	[M]
105	RDK0026-4	MAIN GEAR	[M]
106	RDR0029-4	RELAY PULLEY	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
107	RDV0033-4	WINDING BELT	[M]
108	RDV0034-2	CAPSTAN BELT A	[M]
109	RDV0057-1	MAIN 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	PLUNGER 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	FR ROD SPRING	[M]
133-2	RMM0132	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	RFKJXED70-K	MAIN CHASSIS	[M]
		TRAVERSE DECK	
360	RAE2018W-S	DT69U3 BLOCK	[M]
361	RMG0598-A	FLOATING RUBBER	[M]
362	RMG0617-H	CUSHION RUBBER A	[M]
363	RMG0618-H	CUSHION RUBBER B	[M]
364	RMRX0066	MIDDLE CHASSIS	[M]
365	RMS0789	FIXED PIN	[M]
366	RXQ0946	TRAVERSE MOTOR ASS'Y	[M]
367	RXQ1389	DVD OPU SUB ASS'Y	[M]
368	RMEX0041	MIDDLE CHASSIS SPR.	[M]
369	XTV2+6GFJ	SCREW	[M]
		PRINTED CIRCUIT BOARD	
	REP4012F	DVD MODULE P.C.B.	[M] (RTL)
	REPX0545D	MAIN P.C.B.	[M] (RTL)
	REPX0546A	PANEL P.C.B.	[M] (RTL)
	REPX0546A	TACT SWITCH P.C.B.	[M] (RTL)
	REPX0544A	DAMP P.C.B.	[M] (RTL)
	REPX0544A	SPEAKER P.C.B.	[M] (RTL)
	REPX0543B	SMPS P.C.B.	[M] (RTL)
	REPX0546A	MIC P.C.B.	[M] (RTL)
	REPX0331F	DECK P.C.B.	[M] (RTL)
	REPX0321B	DECK MECHANISM P.C.B.	[M] (RTL)
		INTEGRATED CIRCUITS	
IC951	CNB13030R2AU	IC PHOTO INTERRUPTER	[M]
IC971	CNB13030R2AU	IC PHOTO INTERRUPTER	[M]
IC1001	AN7348S-E1	IC P.B EQ/ REC AMP/ ALC/ TPS AMP	[M]
IC1004	C1AA00000612	IC ANALOG SW	[M]
IC2000	C9ZB00000461	IC VIDEO BUFFER	[M]
IC2200	C1BB00001098	IC ASP	[M]
IC2210	C1BB00001012	IC KOK	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
IC2300	C0ABBB000230	IC OP-AMP	[M]
IC2340	C0AABB000125	IC OP-AMP	[M]
IC2401	C1BB00000086	IC SPE ANA	[M]
IC2500	C0ABCB000052	IC QUAD OP-AMP (RIGHT CHANNEL)	[M]
IC2501	C0ABCB000052	IC QUAD OP-AMP (LEFT CHANNEL)	[M]
IC2502	C0JBAR000326	IC LOGIC	[M]
IC2600	C2CBYY000269	IC MICRO CONTROLLER	[M]
IC2720	C0DAAMH00012	IC DC-DC CONVERTER	[M]
IC2810	C0CAAKG00013	IC TERMINAL	[M]
IC5100	C1BA00000407	IC 2-CH DIGITAL AMP	[M]
IC5200	C1BA00000407	IC 2-CH DIGITAL AMP	[M]
IC5300	C1BA00000407	IC 2-CH DIGITAL AMP	[M]
IC5400	C1BA00000407	IC 2-CH DIGITAL AMP	[M]
IC5500	C0JBAB000011	IC LOGIC	[M]
IC5701	C5HABZZ00125	IC SWITCHING POWER	[M]
IC5801	C0DABYY00002	IC SWITCHING	[M]
IC5901	C0DABFC00002	IC SHUNT REGULATOR	[M]
IC6701	C0HBB0000064	IC FL DRIVER	[M]
IC6702	C0ABBB000230	IC OP-AMP	[M]
IC8001	MN2DS0009VP	IC DV3.2	[M]
IC8051	C3ABPG000145	IC 64 SDRAM	[M]
IC8111	C0CBCBD00018	IC 3.3 REGULATOR	[M]
IC8151	C0DBEHG00006	IC REGULATOR	[M]
IC8251	C0GBG0000048	IC DRIVER	[M]
IC8421	C0FBK0000050	IC 5-CH DAC	[M]
IC8601	C0EBA0000029	IC RESET	[M]
IC8606	C0EBE0000455	IC RESET	[M]
IC8651	RFKWMHA0H160	IC 16M FLASH ROM	[SPG]
IC8691	C0JBAA000346	IC AND GATE LOGIC	[M]
IC8695	C0JBAA000346	IC AND GATE LOGIC	[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]
Q2003	B1GBCFJN0033	TRANSISTOR	[M]
Q2110	B1GDCFJJ0047	TRANSISTOR	[M]
Q2111	B1GDCFJJ0047	TRANSISTOR	[M]
Q2200	B1GDCFGA0018	TRANSISTOR	[M]
Q2201	B1ABEB000002	TRANSISTOR	[M]
Q2202	B1ABEB000002	TRANSISTOR	[M]
Q2300	B1ABEB000002	TRANSISTOR	[M]
Q2301	B1ABEB000002	TRANSISTOR	[M]
Q2302	B1GDCFGA0018	TRANSISTOR	[M]
Q2340	B1ABEB000002	TRANSISTOR	[M]
Q2341	B1ABEB000002	TRANSISTOR	[M]
Q2342	B1GDCFGA0018	TRANSISTOR	[M]
Q2370	B1ABEB000002	TRANSISTOR	[M]
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]
Q2901	B1ACKD000006	TRANSISTOR	[M]
Q2902	B1ABCF000176	TRANSISTOR	[M]
Q2903	B1ABCF000176	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q2904	B1ABCF000176	TRANSISTOR	[M]
Q2905	B1ABCF000176	TRANSISTOR	[M]
Q2906	B1ABCF000176	TRANSISTOR	[M]
Q2907	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]
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]
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]
Q8551	2SD1819A0L	TRANSISTOR	[M]
Q8552	B1ADGB000008	TRANSISTOR	[M]
Q8561	2SD1819A0L	TRANSISTOR	[M]
Q8562	B1ADGB000008	TRANSISTOR	[M]
QR5500	B1GBCFJN0033	CHIP TRANSISTOR	[M]
QR5502	B1ABCF000176	CHIP TRANSISTOR	[M]
QR5503	B1ABCF000176	CHIP TRANSISTOR	[M]
QR8031	B1GDCFGA0018	CHIP TRANSISTOR	[M]
QR8111	XP0621400L	CHIP TRANSISTOR	[M]
QR8420	UNR521100L	DIGE TRANSISTOR	[M]
QR8571	UNR511V00L	DIGE TRANSISTOR	[M]
		DIODES	
D951	MA2C16500E	DIODE	[M]
D971	MA2C16500E	DIODE	[M]
D1003	B0ACCK000005	DIODE	[M]
D2000	B0EAKM000117	DIODE	[M]
D2001	B0EAKM000117	DIODE	[M]
D2300	B0ACCK000005	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]

Ref. No.	Part No.	Part Name & Description	Remarks
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	B0FBAR000018	DIODE	[M]
D5702	B0ZAZ0000052	DIODE	[M]
D5703	B0BC02900004	DIODE	[M]
D5704	B0JAME000114	DIODE	[M]
D5705	B0EAMM000057	DIODE	[M]
D5706	B0EAMM000057	DIODE	[M]
D5707	B0BC035A0007	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]
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]
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	B3AAA0000803	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]
DW2901	B0ADCJ000020	DUAL CHIP DIODE	[M]
DZ2100	B0BC9R000008	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]
DZ5001	ERZV10V511CS	ZENER	[M] 
		VARIABLE RESISTOR	
VR6701	EVEKE2F2524B	VR VOLUME JOG	[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 SURR ENHANCER	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
S6703	EVQ21405RJ	SW SUPER SURR	[M]
S6704	EVQ21405RJ	SW SUPER SOUND EQ	[M]
S6705	EVQ21405RJ	SW SOUND EQ	[M]
S6706	EVQ21405RJ	SW SUB WOOFER	[M]
S6708	EVQ21405RJ	SW DECK1	[M]
S6709	EVQ21405RJ	SW DECK2	[M]
S6711	EVQ21405RJ	SW MUSIC PORT	[M]
S6712	EVQ21405RJ	SW TUNER	[M]
S6713	EVQ21405RJ	SW DISPLAY	[M]
S6714	EVQ21405RJ	SW DECK1/2	[M]
S6715	EVQ21405RJ	SW REC	[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 DISC1	[M]
S6725	EVQ21405RJ	SW DISC2	[M]
S6726	EVQ21405RJ	SW DISC3	[M]
S6727	EVQ21405RJ	SW DISC4	[M]
S6728	EVQ21405RJ	SW DISC5	[M]
S6729	EVQ21405RJ	SW MIC UP	[M]
S6730	EVQ21405RJ	SW MIC DOWN	[M]
		CONNECTORS	
CN1	K1MN14A00049	14P FFC CONNECTOR	[M]
CN971	K1MN10B00104	10P FFC CONNECTOR	[M]
CN1001	K1MN11B00016	11P CONNECTOR	[M]
CN2036	K1MY50AA0029	50P CONNECTOR	[M]
CN2038	K1MN14A00049	14P FFC CONNECTOR	[M]
CN2600	K1MN08A00064	8P CONNECTOR	[M]
CN2602	K1MN30AA0004	30P CONNECTOR	[M]
CN2810	K1KA07AA0297	7P CONNECTOR	[M]
CN5502	K1KA12AA0319	12P CONNECTOR	[M]
CN5603	K1KA12AA0424	12P CONNECTOR	[M]
CN5604	K1YF12000002	12P WIRE HOLDER	[M]
CN5902	K1KA12AA0424	12P CONNECTOR	[M]
CN6601	K1MN10B00104	10P FFC CONNECTOR	[M]
CN6701	K1KA05AA0193	5P CONNECTOR	[M]
CN6703	K1MN30AA0004	30P CONNECTOR	[M]
CNP2100	K1KA10AA0031	10P CONNECTOR	[M]
CNP2101	K1MN11A00008	11P CONNECTOR	[M]
CNP2370	K1KB12B00036	12P CONNECTOR	[M]
CNP2601	K1MN10AA0003	10P FFC CONENCTOR	[M]
CNP2710	K1KB12B00036	12P CONNECTOR	[M]
CNP2810	K1KB07B00020	7P CONNECTOR	[M]
CNP2913	K1KA02AA0186	FAN CONNECTOR	[M]
CNP2914	K1KA02AA0186	FAN CONNECTOR	[M]
CNP5904	K1KA04AA0193	7P CONNECTOR	[M]
CS1001	K1MY05AA0043	5P CONNECTOR	[M]
CS1002	K1MY05AA0043	5P CONNECTOR	[M]
FP8101	K1MN50BA0173	50P FFC CONNECTOR	[M]
FP8251	K1MN06BA0148	6P FFC CONNECTOR	[M]
FP8531	K1MY26BA0025	26P CONNECTOR	[M]
W1A	K1KA03AA0190	3P CONNECTOR	[M]
		THERMISTORS	
TH5701	D4CAC8R00002	THERMISTOR	[M] △
TH5750	D4CC11040013	THERMISTOR	[M] △
		COILS & TRANSFORMERS	
L1001	G0C470JA0052	RF CHOKE COIL	[M]
L1002	G2ZZ00000024	BIAS OCS COIL	[M]
L2000	J0JBC0000015	CHIP INDUCTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
L2001	J0JBC0000015	CHIP INDUCTOR	[M]
L2002	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]
L2310	J0JBC0000019	CHIP INDUCTOR	[M]
L2311	J0JBC0000019	CHIP INDUCTOR	[M]
L2312	J0JBC0000019	CHIP INDUCTOR	[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]
L2715	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	G0C220Z00002	COIL	[M]
L5603	G0C220Z00002	COIL	[M]
L5604	G0C220Z00002	COIL	[M]
L5605	G0C220Z00002	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]
L5611	G0B9R5K00001	CHOKE COIL	[M]
L5612	G0B9R5K00001	CHOKE COIL	[M]
L5613	G0B9R5K00001	CHOKE COIL	[M]
L5701	ELF22V020C	COIL	[M] △
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]
L8501	G1C100K00019	CHIP COIL	[M]
L8550	G1C100KA0055	CHIP INDUCTOR	[M]
LB5701	J0JKB0000020	EMI BEAD CORE	[M]
LB8001	J0JHC0000045	CHIP INDUCTOR	[M]
LB8011	J0JHC0000045	CHIP INDUCTOR	[M]
LB8257	ERJ3GEY0R00V	CHIP JUMPER	[M]
LB8258	ERJ3GEY0R00V	CHIP JUMPER	[M]
LB8259	ERJ3GEY0R00V	CHIP JUMPER	[M]
LB8260	ERJ3GEY0R00V	CHIP JUMPER	[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 JUMPER	[M]
LB8422	ERJ2GE0R00X	CHIP JUMPER	[M]
LB8423	ERJ2GE0R00X	CHIP JUMPER	[M]
LB8424	ERJ2GE0R00X	CHIP JUMPER	[M]
LB8425	ERJ2GE0R00X	CHIP JUMPER	[M]
LB8426	ERJ2GE0R00X	CHIP JUMPER	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
LB8427	ERJ2GE0R00X	CHIP JUMPER	[M]
LB8428	ERJ2GE0R00X	CHIP JUMPER	[M]
LB8429	ERJ2GE0R00X	CHIP JUMPER	[M]
LB8431	ERJ2GE0R00X	CHIP JUMPER	[M]
LB8491	ERJ2GE0R00X	CHIP JUMPER	[M]
LB8530	J0JHC0000045	CHIP INDUCTOR	[M]
LB8531	ERJ2GE0R00X	CHIP JUMPER	[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]
T5701	ETS42BJ1H6AC	SW TRANSFORMER	[M] △
T5801	ETS19AB1Z6AG	SW TRANSFORMER	[M] △
COMPONENT COMBINATIONS			
Z971	RGSD12A1445T	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]
PH1	B3NAA0000120	PHOTO INTERRUPTER	[M]
PH2	B3NAA0000120	PHOTO INTERRUPTER	[M]
PC5703	B3PBA0000402	PHOTO COUPLER	[M] △
PC5801	B3PBA0000402	PHOTO COUPLER	[M] △
PC5805	B3PBA0000402	PHOTO COUPLER	[M] △
PC5901	B3PBA0000402	PHOTO COUPLER	[M] △
OSCILLATORS			
X2601	H2A1005A0005	RESONATOR	[M]
X2602	H0A327200115	CRYSTAL	[M]
X5500	H2A375300003	CRYSTAL OSCILLATOR	[M]
X5501	H2A415300001	CRYSTAL OSCILLATOR	[M]
X8621	H0J270500085	CRYSTAL	[M]
DISPLAY TUBES			
FL6601	A2BD00000163	FL	[M]
FL8101	F1H0J1050022	CHIP CAPACITOR	[M]
FL8102	F1H0J1050022	CHIP CAPACITOR	[M]
FL8103	F1H0J1050022	CHIP CAPACITOR	[M]
FL8104	F1J1E1040022	CHIP CAPACITOR	[M]
FUSE			
F1	K5D632BNA005	FUSE 6.3A 250V	[M] △
FUSE PROTECTOR			
FP5901	K5G102A00039	FUSE PROTECTOR	[M] △
HOLDERS			
H5903	K1YF12000004	12P WIRE HOLDER	[M]
H6701	K1YZ05000005	5P CABLE HOLDER	[M]
H6702	K1MN10B00104	10P FFC CONNECTOR	[M]
H6703	K1ZZ00000832	4P CONNECTOR	[M]
H6704	K1KA14AA0481	14P CONNECTOR	[M]
H6902	K1KB14C00004	14P CONNECTOR	[M]
HW5604	K1YF12000002	12P WIRE HOLDER	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
JACKS			
JK2000	K1AY105B0002	JK S VIDEO	[M]
JK2001	K2HA408B0083	JK COMP/VIDEO	[M]
JK2300	K2HA204B0153	JK REC OUT	[M]
JK5301	K4AC06B00008	JK SPEAKER	[M]
JK5302	K4AA06B00009	JK SPEAKER	[M]
JK5304	K4BC06B00063	JK 6P SPEAKER	[M]
JK6801	K2HC103A0024	JK HP	[M]
JK6802	K2HC1YYA0002	JK MUSIC PORT	[M]
JK6901	K2HB102J0038	JK MIC 1	[M]
JK6902	K2HB102J0038	JK MIC 2	[M]
P5001	K2AA2B000011	JK AC INLET	[M] △
EARTH TERMINAL			
E5701	K9ZZ00001279	EARTH PLATE	[M]
E5702	K9ZZ00001279	EARTH PLATE	[M]
CHIP JUMPERS			
W3000	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3001	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3002	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3003	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3004	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3005	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3006	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3007	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3008	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3009	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3010	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3011	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3012	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3013	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3014	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3015	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3016	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3017	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3018	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3019	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3020	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3021	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3022	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3023	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3024	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3025	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3026	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3027	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3028	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3029	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3030	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3031	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3032	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3033	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3034	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3035	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3036	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3037	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3038	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3039	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3040	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3041	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3042	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3044	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3045	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3046	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3047	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3048	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3049	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3050	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3051	ERJ3GEY0R00V	CHIP JUMPER	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
W3052	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3053	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3054	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3055	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3056	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3057	ERJ6GEY0R00V	CHIP JUMPER	[M]
W3058	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3059	ERJ6GEY0R00V	CHIP JUMPER	[M]
W3060	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3061	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3062	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3063	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3064	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3065	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3066	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3067	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3068	ERJ3GEY0R00V	CHIP JUMPER	[M]
W3069	ERJ3GEY0R00V	CHIP JUMPER	[M]
W5649	ERJ3GEY0R00V	CHIP JUMPER	[M]
W5650	ERJ3GEY0R00V	CHIP JUMPER	[M]
W5653	ERJ3GEY0R00V	CHIP JUMPER	[M]
W5806	ERJ3GEY0R00V	CHIP JUMPER	[M]
W5901	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6000	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6001	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6003	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6007	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6009	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6010	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6011	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6012	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6013	ERJ3GEY0R00V	CHIP JUMPER	[M]
		PACKING MATERIALS	
P1	RPGX1670	PACKING CASE	[M]
P2	RPNX0429	POLYFOAM	[M]
P3	RPFX0007-1	MIRAMAT BAG	[M]
		ACCESSORIES	
A1	EUR7662YH0	REMOTE CONTROLLER	[M]
A1-1	UR76EC5903A	R/C BATTERY COVER	[M]
A2	K2CQ2CA00002	AC CORD	[M] △
A3	RQTV0149-R	O/I BOOK (Ru/ Ur)	[M]
A4	RSA0007-L	FM ANTENNA WIRE	[M]
A5	N1DAAA00002	AM LOOP ANTENNA	[M]
A6	K2KA2CA00011	VIDEO CABLE	[M]
A7	RP-VK21E-K	MIC	[M]
		RESISTORS	
R1	D0AE102JA048	1K 1/4W	[M]
R2	D0AE101JA048	100 1/4W	[M]
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	D0GB472JA041	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	D0GB472JA041	4.7K 1/16W	[M]
R1013	D0GB472JA041	4.7K 1/16W	[M]
R1014	D0GB472JA041	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]

Ref. No.	Part No.	Part Name & Description	Remarks
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	D0GB222JA041	2.2K 1/16W	[M]
R1057	D0GB222JA041	2.2K 1/16W	[M]
R1060	D0GB391JA041	390 1/16W	[M]
R1084	D0GB222JA041	2.2K 1/16W	[M]
R1085	D0GB473JA041	47K 1/16W	[M]
R1086	D0GB222JA041	2.2K 1/16W	[M]
R1087	D0GB473JA041	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	ERJ3GEY0R00V	0 1/16W	[M]
R1101	ERJ3GEY0R00V	0 1/16W	[M]
R1102	ERJ3GEYJ103V	10K 1/16W	[M]
R2000	ERJ3GEYJ750V	75 1/16W	[M]
R2001	ERJ3GEYJ750V	75 1/16W	[M]
R2002	ERJ3GEYJ750V	75 1/16W	[M]
R2003	ERJ3GEYJ750V	75 1/16W	[M]
R2004	ERJ3GEYJ750V	75 1/16W	[M]
R2005	ERJ3GEYJ750V	75 1/16W	[M]
R2007	ERJ3GEYJ102V	1K 1/16W	[M]
R2009	ERJ3GEYJ223V	22K 1/16W	[M]
R2010	ERJ3GEYJ223V	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	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2020	D0GB222JA041	2.2K 1/16W	[M]
R2021	D0GB222JA041	2.2K 1/16W	[M]
R2100	ERJ3GEYJ153V	15K 1/16W	[M]
R2101	ERJ3GEYJ153V	15K 1/16W	[M]
R2102	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2103	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2104	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2105	ERG1S820E	82 1W	[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	D0GB471JA041	470 1/16W	[M]
R2115	D0GB153JA007	15K 1/16W	[M]
R2116	D0GB471JA041	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	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2206	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2207	D0GB104JA007	100K 1/16W	[M]
R2208	D0GB104JA007	100K 1/16W	[M]
R2209	D0GB562JA007	5.6K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2210	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2211	D0GB562JA007	5.6K 1/16W	[M]
R2212	D0GB563JA007	56K 1/16W	[M]
R2213	D0GB472JA041	4.7K 1/16W	[M]
R2214	D0GB123JA007	12K 1/16W	[M]
R2215	D0GB472JA041	4.7K 1/16W	[M]
R2216	D0GB123JA007	12K 1/16W	[M]
R2217	D0GB472JA041	4.7K 1/16W	[M]
R2218	D0GB472JA041	4.7K 1/16W	[M]
R2219	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2220	D0GB333JA007	33K 1/16W	[M]
R2221	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2222	ERJ3GEYJ473V	47K 1/16W	[M]
R2223	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2224	D0GB473JA041	47K 1/16W	[M]
R2225	ERJ3GEYJ823V	82K 1/16W	[M]
R2226	D0GB123JA007	12K 1/16W	[M]
R2227	ERJ3GEYJ393V	39K 1/16W	[M]
R2228	D0GB153JA007	15K 1/16W	[M]
R2229	D0GB153JA007	15K 1/16W	[M]
R2230	ERJ3GEYJ103V	10K 1/16W	[M]
R2231	D0GB821JA007	820 1/16W	[M]
R2232	D0GB473JA041	47K 1/16W	[M]
R2233	D0GB563JA007	56K 1/16W	[M]
R2234	D0GB683JA007	68K 1/16W	[M]
R2235	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2236	D0GB272JA007	2.7K 1/16W	[M]
R2237	D0GB683JA007	68K 1/16W	[M]
R2238	D0GB473JA041	47K 1/16W	[M]
R2239	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2241	ERJ3GEYJ473V	47K 1/16W	[M]
R2242	ERJ3GEYJ473V	47K 1/16W	[M]
R2243	ERJ3GEYJ473V	47K 1/16W	[M]
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	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2267	ERJ3GEYJ103V	10K 1/16W	[M]
R2268	ERJ3GEYJ103V	10K 1/16W	[M]
R2269	ERJ3GEYJ103V	10K 1/16W	[M]
R2270	ERJ3GEYJ100V	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	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2276	ERJ3GEYJ103V	10K 1/16W	[M]
R2277	ERJ3GEYJ153V	15K 1/16W	[M]
R2278	D0GB562JA007	5.6K 1/16W	[M]
R2279	D0AF680JA039	68 1/4W	[M]
R2280	D0GB332JA007	3.3K 1/16W	[M]
R2281	ERJ3GEYJ473V	47K 1/16W	[M]
R2282	D0AF680JA039	68 1/4W	[M]
R2300	D0GB2R2JA007	2.2 1/16W	[M]
R2301	D0GB473JA041	47K 1/16W	[M]
R2302	D0GB473JA041	47K 1/16W	[M]
R2303	ERJ3GEYJ101V	100 1/16W	[M]
R2304	ERJ3GEYJ101V	100 1/16W	[M]
R2305	ERJ3GEYJ102V	1K 1/16W	[M]
R2306	ERJ3GEYJ102V	1K 1/16W	[M]
R2307	D0GB104JA007	100K 1/16W	[M]
R2308	D0GB104JA007	100K 1/16W	[M]
R2309	D0GB272JA007	2.7K 1/16W	[M]
R2310	D0GB272JA007	2.7K 1/16W	[M]
R2311	D0GB273JA007	27K 1/16W	[M]
R2312	ERJ3GEYJ102V	1K 1/16W	[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	D0GB473JA041	47K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2320	D0GB473JA041	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	ERJ3GEYJ152V	1.5K 1/16W	[M]
R2332	D0GB562JA007	5.6K 1/16W	[M]
R2333	ERJ3GEYJ152V	1.5K 1/16W	[M]
R2340	D0GB222JA041	2.2K 1/16W	[M]
R2341	D0GB222JA041	2.2K 1/16W	[M]
R2342	D0GB104JA007	100K 1/16W	[M]
R2343	D0GB104JA007	100K 1/16W	[M]
R2344	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2345	ERJ3GEYJ472V	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	D0GB393JA007	39K 1/16W	[M]
R2351	D0GB182JA007	1.8K 1/16W	[M]
R2352	D0GB393JA007	39K 1/16W	[M]
R2353	ERJ3GEYJ123V	12K 1/16W	[M]
R2354	ERJ3GEYJ123V	12K 1/16W	[M]
R2355	D0GB562JA007	5.6K 1/16W	[M]
R2356	D0GB562JA007	5.6K 1/16W	[M]
R2370	ERJ3GEYJ102V	1K 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	D0GB104JA007	100K 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]
R2501	D0GB472JA041	4.7K 1/16W	[M]
R2502	D0GB472JA041	4.7K 1/16W	[M]
R2503	ERJ3GEYJ103V	10K 1/16W	[M]
R2504	D0GB333JA007	33K 1/16W	[M]
R2505	D0GB473JA041	47K 1/16W	[M]
R2506	D0GB223JA041	22K 1/16W	[M]
R2507	D0GB473JA041	47K 1/16W	[M]
R2509	ERJ3GEYJ223V	22K 1/16W	[M]
R2510	D0GB223JA041	22K 1/16W	[M]
R2511	D0GB273JA007	27K 1/16W	[M]
R2512	D0GB223JA041	22K 1/16W	[M]
R2513	D0GB273JA007	27K 1/16W	[M]
R2514	D0GB472JA041	4.7K 1/16W	[M]
R2515	ERJ3GEYJ273V	27K 1/16W	[M]
R2516	D0GB223JA041	22K 1/16W	[M]
R2517	D0GB123JA007	12K 1/16W	[M]
R2518	D0GB472JA041	4.7K 1/16W	[M]
R2519	D0GB223JA041	22K 1/16W	[M]
R2520	D0GB223JA041	22K 1/16W	[M]
R2521	ERJ3GEYJ223V	22K 1/16W	[M]
R2522	D0GB393JA007	39K 1/16W	[M]
R2523	D0GB393JA007	39K 1/16W	[M]
R2524	D0GB223JA041	22K 1/16W	[M]
R2525	D0GB472JA041	4.7K 1/16W	[M]
R2526	D0GB223JA041	22K 1/16W	[M]
R2527	D0GB223JA041	22K 1/16W	[M]
R2528	D0GB223JA041	22K 1/16W	[M]
R2529	ERJ3GEYJ102V	1K 1/16W	[M]
R2530	D0GB472JA041	4.7K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2531	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2532	ERJ3GEYJ103V	10K 1/16W	[M]
R2533	ERJ3GEYJ223V	22K 1/16W	[M]
R2534	D0GB472JA041	4.7K 1/16W	[M]
R2535	D0GB223JA041	22K 1/16W	[M]
R2536	D0GB333JA007	33K 1/16W	[M]
R2537	ERJ3GEYJ273V	27K 1/16W	[M]
R2538	ERJ3GEYJ273V	27K 1/16W	[M]
R2539	D0GB561JA007	560 1/16W	[M]
R2540	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2541	D0GB182JA007	1.8K 1/16W	[M]
R2542	ERJ3GEYJ563V	56K 1/16W	[M]
R2543	ERJ3GEY0R00V	0 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]
R2600	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	D0GB473JA041	47K 1/16W	[M]
R2609	D0GB472JA041	4.7K 1/16W	[M]
R2610	D0GB473JA041	47K 1/16W	[M]
R2611	D0GB473JA041	47K 1/16W	[M]
R2612	D0GB473JA041	47K 1/16W	[M]
R2613	D0GB101JA007	100 1/16W	[M]
R2614	D0GB101JA007	100 1/16W	[M]
R2615	D0GB101JA007	100 1/16W	[M]
R2616	D0GB472JA041	4.7K 1/16W	[M]
R2617	ERJ3GEYJ103V	10K 1/16W	[M]
R2618	D0GB473JA041	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]
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	D0GB473JA041	47K 1/16W	[M]
R2661	D0GB473JA041	47K 1/16W	[M]
R2662	D0GB473JA041	47K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2663	D0GB101JA007	100 1/16W	[M]
R2664	D0GB223JA041	22K 1/16W	[M]
R2665	D0GB101JA007	100 1/16W	[M]
R2666	D0GB101JA007	100 1/16W	[M]
R2667	D0GB473JA041	47K 1/16W	[M]
R2668	ERJ3GEYJ221V	220 1/16W	[M]
R2669	ERJ3GEYJ221V	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	ERJ3GEYJ221V	220 1/16W	[M]
R2677	ERJ3GEYJ102V	1K 1/16W	[M]
R2679	ERJ3GEYJ102V	1K 1/16W	[M]
R2680	ERJ3GEYJ102V	1K 1/16W	[M]
R2681	ERJ3GEYJ102V	1K 1/16W	[M]
R2682	ERJ3GEYJ221V	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	ERJ3GEYJ153V	15K 1/16W	[M]
R2689	ERJ3GEYJ153V	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	D0GB223JA041	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 2W	[M]
R2712	D0GB181JA007	180 1/16W	[M]
R2713	ERX2SJ1R5E	1.5 2W	[M]
R2717	D0GB272JA007	2.7K 1/16W	[M]
R2718	ERJ3GEYJ102V	1K 1/16W	[M]
R2719	D0GB152JA007	1.5K 1/16W	[M]
R2720	D0GB472JA041	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	ERJ3GEYJ221V	220 1/16W	[M]
R2727	ERJ3GEYJ221V	220 1/16W	[M]
R2728	ERJ3GEYJ221V	220 1/16W	[M]
R2730	D0GB223JA007	22K 1/16W	[M]
R2810	D0GB151JA007	150 1/16W	[M]
R2811	ERJ3GEYJ102V	1K 1/16W	[M]
R2900	D0GB224JA007	220K 1/16W	[M]
R2901	D0GB472JA041	4.7K 1/16W	[M]
R2902	D0GB472JA041	4.7K 1/16W	[M]
R2903	ERJ3GEYJ103V	10K 1/16W	[M]
R2904	ERJ3GEYJ103V	10K 1/16W	[M]
R2905	ERJ3GEYJ103V	10K 1/16W	[M]
R2906	ERJ3GEYJ103V	10K 1/16W	[M]
R2907	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2908	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2909	ERJ3GEYJ103V	10K 1/16W	[M]
R2910	ERJ3GEYJ103V	10K 1/16W	[M]
R2911	D0AF270JA039	27 1/4W	[M]
R2912	D0AF270JA039	27 1/4W	[M]
R2915	D0GB563JA007	56K 1/16W	[M]
R2916	D0GB563JA007	56K 1/16W	[M]
R2917	D0GB101JA007	100 1/16W	[M]
R2918	D0GB101JA007	100 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2919	D0GB563JA007	56K 1/16W	[M]
R2920	D0GB563JA007	56K 1/16W	[M]
R2921	ERJ3GEYJ824V	820K 1/16W	[M]
R2922	D0GB563JA007	56K 1/16W	[M]
R2923	ERJ3GEYJ824V	820K 1/16W	[M]
R2924	D0GB222JA041	2.2K 1/16W	[M]
R2925	D0GB223JA041	22K 1/16W	[M]
R2926	D0GB563JA007	56K 1/16W	[M]
R2927	ERJ3GEYJ103V	10K 1/16W	[M]
R2928	ERJ3GEYJ102V	1K 1/16W	[M]
R5000	ERDS1TJ474	470K 1/2W	[M] △
R5001	ERDS1TJ474	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]
R5200	ERJ1TYJ220U	22 1/8W	[M]
R5201	ERJ1TYJ220U	22 1/8W	[M]
R5202	D0GB562JA007	5.6K 1/16W	[M]
R5203	D0GB562JA007	5.6K 1/16W	[M]
R5204	ERJ8GEYJ100V	10 1/8W	[M]
R5205	ERJ8GEYJ100V	10 1/8W	[M]
R5206	ERJ8GEYJ100V	10 1/8W	[M]
R5207	D0GB562JA007	5.6K 1/16W	[M]
R5208	D0GB562JA007	5.6K 1/16W	[M]
R5209	ERJ8GEYJ100V	10 1/8W	[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	D0GB562JA007	5.6K 1/16W	[M]
R5330	ERJ3GEYJ102V	1K 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]
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	ERG2SJ271E	270 2W	[M]
R5509	ERJ3GEYJ000V	0 1/16W	[M]
R5510	ERG2SJ271E	270 2W	[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	ERJ3GEYJ000V	0 1/16W	[M]
R5516	ERG2SJ271E	270 2W	[M]
R5517	ERG2SJ271E	270 2W	[M]
R5519	ERJ3GEYJ470V	47 1/16W	[M]
R5520	ERJ3GEYJ102V	1K 1/16W	[M]
R5550	D0GB124JA007	120K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
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	D0GB222JA041	2.2K 1/16W	[M]
R5558	D0GB223JA041	22K 1/16W	[M]
R5559	D0GB224JA007	220K 1/16W	[M]
R5600	ERJ3GEYJ103V	10K 1/16W	[M]
R5601	ERJ3GEYJ102V	1K 1/16W	[M]
R5602	ERJ3GEYJ102V	1K 1/16W	[M]
R5603	ERJ3GEYJ102V	1K 1/16W	[M]
R5604	ERJ3GEYJ103V	10K 1/16W	[M]
R5605	ERJ3GEYJ103V	10K 1/16W	[M]
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	ERJ3GEYJ000V	0 1/16W	[M]
R5612	ERJ3GEYJ000V	0 1/16W	[M]
R5617	ERJ3GEYJ103V	10K 1/16W	[M]
R5621	ERJ3GEYJ103V	10K 1/16W	[M]
R5624	ERJ3GEYJ103V	10K 1/16W	[M]
R5628	ERJ3GEYJ103V	10K 1/16W	[M]
R5634	ERJ3GEYJ103V	10K 1/16W	[M]
R5635	ERJ3GEYJ103V	10K 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	D0GB562JA007	5.6K 1/16W	[M]
R5702	ERJ6GEYJ333V	33K 1/10W	[M]
R5703	ERJ6GEYJ333V	33K 1/10W	[M]
R5705	ERJ6GEYJ681V	680 1/10W	[M]
R5706	ERX2LJ68MP	RESISTOR	[M]
R5707	ERJ6GEYJ332V	3.3K 1/10W	[M]
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	ERDS1FVJ4R7T	4.7 1/2W	[M]
R5805	ERDS1FVJ4R7T	4.7 1/2W	[M]
R5806	ERDS1FVJ4R7T	4.7 1/2W	[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	D0GB472JA041	4.7K 1/16W	[M]
R5812	D0GB222JA041	2.2K 1/16W	[M]
R5813	ERJ8GEYJ394V	390K 1/8W	[M]
R5814	ERJ8GEYJ394V	390K 1/8W	[M]
R5815	D0GB104JA007	100K 1/16W	[M]
R5901	ERJ6GEYJ222V	2.2K 1/10W	[M]
R5902	ERJ6GEYJ103V	10K 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]

Ref. No.	Part No.	Part Name & Description	Remarks
R5909	ERJ3GEYG122V	1.2K 1/16W	[M]
R5910	ERJ3GEYG122V	1.2K 1/16W	[M]
R5961	D0GB151JA007	150 1/16W	[M]
R5962	D0GB472JA041	4.7K 1/16W	[M]
R5965	D0GB224JA007	220K 1/16W	[M]
R5966	D0GB224JA007	220K 1/16W	[M]
R5968	ERJ3GEYJ682V	6.8K 1/16W	[M]
R5969	ERJ3GEY0R00V	0 1/16W	[M]
R5971	ERG2SJ470E	47 2W	[M]
R5972	ERG2SJ470E	47 2W	[M]
R5973	ERG2SJ470E	47 2W	[M]
R5974	ERG2SJ470E	47 2W	[M]
R5975	ERG2SJ470E	47 2W	[M]
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]
R6601	D0GB223JA041	22K 1/16W	[M]
R6602	ERJ3GEYJ102V	1K 1/16W	[M]
R6603	D0GB223JA041	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	D0GB473JA041	47K 1/16W	[M]
R6702	D0GB473JA041	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]
R6711	ERJ3GEYJ102V	1K 1/16W	[M]
R6712	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6713	D0GB182JA007	1.8K 1/16W	[M]
R6714	D0GB222JA041	2.2K 1/16W	[M]
R6715	D0GB272JA007	2.7K 1/16W	[M]
R6717	D0GB472JA041	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	D0GB222JA041	2.2K 1/16W	[M]
R6725	D0GB272JA007	2.7K 1/16W	[M]
R6726	D0GB472JA041	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	D0GB222JA041	2.2K 1/16W	[M]
R6734	D0GB272JA007	2.7K 1/16W	[M]
R6735	D0GB472JA041	4.7K 1/16W	[M]
R6736	ERJ3GEYJ682V	6.8K 1/16W	[M]
R6737	ERJ3GEYJ103V	10K 1/16W	[M]
R6738	D0GB223JA041	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	ERJ3GEY0R00V	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	D0GB562JA007	5.6K 1/16W	[M]
R6761	D0GB472JA041	4.7K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R6762	D0GB562JA007	5.6K 1/16W	[M]
R6763	D0GB472JA041	4.7K 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]
R6801	D0GB472JA041	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	D0GB472JA041	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	D0GB222JA041	2.2K 1/16W	[M]
R6905	D0GB474JA041	470K 1/16W	[M]
R6906	D0GB472JA041	4.7K 1/16W	[M]
R6907	D0GB334JA007	330K 1/16W	[M]
R6908	D0GB680JA007	68 1/16W	[M]
R6909	D0GB334JA007	330K 1/16W	[M]
R6910	D0GB472JA041	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]
R8003	ERJ2GEJ473X	47K 2W	[M]
R8011	ERJ2GEJ220X	22 2W	[M]
R8012	ERJ2GEJ220X	22 2W	[M]
R8013	ERJ2GEJ220X	22 2W	[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	D0GB182JA007	1.8K 1/16W	[M]
R8036	D0GB563JA007	56K 1/16W	[M]
R8037	D0GB273JA007	27K 1/16W	[M]
R8038	D0GB472JA041	4.7K 1/16W	[M]
R8039	D0GB334JA007	330K 1/16W	[M]
R8040	D0GB334JA007	330K 1/16W	[M]
R8041	D0GB272JA007	2.7K 1/16W	[M]
R8041	ERJ2GEJ330X	33 2W	[M]
R8042	D0GB272JA007	2.7K 1/16W	[M]
R8043	ERJ3GEYJ103V	10K 1/16W	[M]
R8044	ERJ3GEYJ103V	10K 1/16W	[M]
R8153	ERJ2RHD621X	620 2W	[M]
R8154	ERJ2RHD102X	1K 2W	[M]
R8211	ERJ2GEJ103X	10K 2W	[M]
R8221	ERJ2GEJ822X	8.2K 2W	[M]
R8225	ERJ2GEJ822X	8.2K 2W	[M]
R8230	ERJ2GEJ222X	2.2K 2W	[M]
R8231	ERJ2GEJ223X	22K 2W	[M]
R8232	ERJ2GEJ752X	7.5K 2W	[M]
R8251	ERJ6GEYJ6R8V	6.8 1/10W	[M]
R8261	ERJ2GEJ823X	82K 2W	[M]
R8262	ERJ2GEJ153X	15K 2W	[M]
R8263	ERJ2GEJ823X	82K 2W	[M]
R8264	ERJ2GEJ153X	15K 2W	[M]
R8311	ERJ2RHD242X	2.4K 2W	[M]
R8312	ERJ2RHD102X	1K 2W	[M]
R8313	ERJ2RHD912X	9.1K 2W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R8314	ERJ2GE0R00X	0 2W	[M]
R8321	ERJ3RED680V	68 3W	[M]
R8322	ERJ3GEY0R00V	0 1/16W	[M]
R8325	ERJ3RED680V	68 3W	[M]
R8326	ERJ3GEY0R00V	0 1/16W	[M]
R8331	ERJ3RED680V	68 3W	[M]
R8332	ERJ3GEY0R00V	0 1/16W	[M]
R8335	ERJ3RED680V	68 3W	[M]
R8341	ERJ3RED680V	68 3W	[M]
R8401	ERJ2GEJ101X	100 2W	[M]
R8420	ERJ2GEJ222X	2.2K 2W	[M]
R8421	ERJ2GE0R00X	0 2W	[M]
R8531	ERJ2GEJ152X	1.5K 2W	[M]
R8532	ERJ2GEJ222X	2.2K 2W	[M]
R8533	ERJ2GE0R00X	0 2W	[M]
R8541	ERJ2GEJ153X	15K 2W	[M]
R8551	ERJ2GE0R00X	0 2W	[M]
R8552	ERJ2GEJ102X	1K 2W	[M]
R8553	ERJ2GEJ102X	1K 2W	[M]
R8554	ERJ2GEJ680X	68 2W	[M]
R8555	ERJ2GEJ2R2X	2.2 2W	[M]
R8556	ERJ3GEYJ560V	56 1/16W	[M]
R8557	ERJ3GEYJ510V	51 1/16W	[M]
R8558	ERJ2GEJ473X	47K 2W	[M]
R8559	ERJ2GEJ153X	15K 2W	[M]
R8561	ERJ2GE0R00X	0 2W	[M]
R8562	ERJ2GEJ102X	1K 2W	[M]
R8563	ERJ2GEJ102X	1K 2W	[M]
R8564	ERJ2GEJ220X	22 2W	[M]
R8565	ERJ2GEJ2R2X	2.2 2W	[M]
R8566	ERJ3GEYJ560V	56 1/16W	[M]
R8567	ERJ3GEYJ510V	51 1/16W	[M]
R8568	ERJ2GEJ473X	47K 2W	[M]
R8601	ERJ2GEJ104X	100K 2W	[M]
R8611	ERJ2GEJ101X	100 2W	[M]
R8621	ERJ2GEJ105X	1M 2W	[M]
R8622	ERJ2RHD102X	1K 2W	[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]
K8005	ERJ2GE0R00X	CHIP JUMPER	[M]
K8010	ERJ2GE0R00X	CHIP JUMPER	[M]
K8251	ERJ3GEY0R00V	CHIP JUMPER	[M]
K8321	ERJ2GE0R00X	CHIP JUMPER	[M]
K8325	ERJ2GE0R00X	CHIP JUMPER	[M]
K8331	ERJ2GE0R00X	CHIP JUMPER	[M]
K8335	ERJ2GE0R00X	CHIP JUMPER	[M]
K8341	ERJ2GE0R00X	CHIP JUMPER	[M]
K8421	ERJ3GEY0R00V	CHIP JUMPER	[M]
		CAPACITORS	

Ref. No.	Part No.	Part Name & Description	Remarks
C1	ECEA1CKA101B	100 16V	[M]
C1002	ECEA1HKN2R2B	2.2 50V	[M]
C1006	ECA1HAK010XB	1 50V	[M]
C1007	F0A2A472A034	4700P 100V	[M]
C1008	ECA1HAK010XB	1 50V	[M]
C1009	ECA1CAK470XB	47 16V	[M]
C1010	ECA1EAM101XB	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	ECA0JAK470XB	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	ECA1HAK3R3XB	3.3 50V	[M]
C1035	ECA1HAK3R3XB	3.3 50V	[M]
C1036	F1H1C333A071	0.033 16V	[M]
C1037	ECA1HAK3R3XB	3.3 50V	[M]
C1038	F1H1H221A748	220P 50V	[M]
C1039	F1H1H221A748	220P 50V	[M]
C1040	ECA1CAK100XB	10 16V	[M]
C1041	ECA1CAK100XB	10 16V	[M]
C1042	ECA1CAK220XB	22 16V	[M]
C1043	ECA1HAK4R7XB	4.7 50V	[M]
C1044	ECA1AAK330XB	33 10V	[M]
C1045	ECA1AAK220XB	22 10V	[M]
C1046	ECA1CAM221XB	220 16V	[M]
C1049	F1H1H332A013	3300P 50V	[M]
C1050	F1H1H332A013	3300P 50V	[M]
C1056	ECA1CAK100XB	10 16V	[M]
C1057	F1H1H102A219	1000P 50V	[M]
C1058	F1H1H102A219	1000P 50V	[M]
C1059	F1H1H103A219	0.01 50V	[M]
C2000	F1H1H331A013	330P 50V	[M]
C2002	F1H1H101A230	100P 50V	[M]
C2003	F1H1H101A230	100P 50V	[M]
C2004	F1H1H101A230	100P 50V	[M]
C2005	F1H1H101A230	100P 50V	[M]
C2006	F1H1H471A219	470P 50V	[M]
C2007	F1H1H101A230	100P 50V	[M]
C2008	F1H1H101A230	100P 50V	[M]
C2009	ECA0JM331B	330 6.3V	[M]
C2010	ECA0JM331B	330 6.3V	[M]
C2011	F2A0J102A130	1000 6.3V	[M]
C2012	F2A0J102A130	1000 6.3V	[M]
C2013	F2A0J102A130	1000 6.3V	[M]
C2014	ECJ1VB1H104K	0.1 50V	[M]
C2015	ECEA1AKA221B	220 10V	[M]
C2016	F1H1H103A219	0.01 50V	[M]
C2017	ECEA1AKA220B	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]

Ref. No.	Part No.	Part Name & Description	Remarks
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]
C2037	ECA1CAK470XB	47 16V	[M]
C2102	F1H1H103A219	0.01 50V	[M]
C2103	ECJ1VB1C393K	0.039 16V	[M]
C2104	ECJ1VB1C393K	0.039 16V	[M]
C2105	EEUFM1A681B	680P 10V	[M]
C2106	F1H1H332A013	3300P 50V	[M]
C2107	F1H1H332A013	3300P 50V	[M]
C2110	ECJ1VB1H104K	0.1 50V	[M]
C2111	ECJ1VB1H104K	0.1 50V	[M]
C2112	D0GB154JA007	RESISTOR	[M]
C2113	D0GB154JA007	RESISTOR	[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	ECJ1VB1H123K	0.012 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	ECJ1VB1H153K	0.015 50V	[M]
C2217	F1H1H332A013	3300P 50V	[M]
C2218	F1H1A154A001	0.15 10V	[M]
C2219	ECJ1VB1H123K	0.012 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	ECJ1VB1A184K	0.18 10V	[M]
C2226	ECJ1VB1H223K	0.022 50V	[M]
C2227	ECJ1VB1H153K	0.015 50V	[M]
C2228	ECJ1VB1H223K	0.022 50V	[M]
C2229	ECJ1VB1C105K	1 16V	[M]
C2230	ECJ1VB1C823K	0.082 16V	[M]
C2231	ECJ1VB1H473K	0.047 50V	[M]
C2232	F1H1H221A748	220P 50V	[M]
C2233	F1H1H221A748	220P 50V	[M]
C2234	ECJ1VB1H473K	0.047 50V	[M]
C2235	ECJ1VB1C105K	1 16V	[M]
C2236	F2A1C1000018	10 16V	[M]
C2237	ECJ1VB1H333K	0.033 50V	[M]
C2238	ECJ1VB1C683K	0.068 16V	[M]
C2239	F2A1C1000018	10 16V	[M]
C2240	ECJ1VB1A474K	0.47 10V	[M]
C2241	ECJ1VB1C393K	0.039 16V	[M]
C2242	ECEA1EKS220B	22 25V	[M]
C2243	F2A1C1000018	10 16V	[M]
C2244	ECJ1VB1A474K	0.47 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	F1H1H682A219	6800P 50V	[M]
C2250	ECJ1VB1H123K	0.012 50V	[M]
C2251	ECJ1VB1H104K	0.1 50V	[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]

Ref. No.	Part No.	Part Name & Description	Remarks
C2258	ECJ1VB1H104K	0.1 50V	[M]
C2260	ECJ1VB1H104K	0.1 50V	[M]
C2261	ECEA1CKA101B	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	ECA1HAK100XB	10 50V	[M]
C2274	F1H1H102A219	1000P 50V	[M]
C2275	ECA1HAK100XB	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	ECJ1VB1C393K	0.039 16V	[M]
C2300	F1H1H102A219	1000P 50V	[M]
C2301	F1H1H102A219	1000P 50V	[M]
C2302	F2A1C470A016	47 16V	[M]
C2303	F2A1C470A016	47 16V	[M]
C2304	F2A1H4R7A014	4.7 50V	[M]
C2305	ECJ1VB1H104K	0.1 50V	[M]
C2306	ECJ1VB1H104K	0.1 50V	[M]
C2307	F2A1C470A016	47 16V	[M]
C2308	ECEA1EKS220B	22 25V	[M]
C2309	ECEA1EKS220B	22 25V	[M]
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]
C2317	F1H1H103A219	0.01 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	ECJ1VC1H470J	47P 50V	[M]
C2347	F1H1H101A230	100P 50V	[M]
C2348	ECJ1VC1H470J	47P 50V	[M]
C2349	ECJ1VB1H104K	0.1 50V	[M]
C2350	ECJ1VB1H104K	0.1 50V	[M]
C2351	F1H1C333A071	0.033 16V	[M]
C2352	ECEA1AKA221B	220 10V	[M]
C2353	ECEA1AKA221B	220 10V	[M]
C2354	F1H1C333A071	0.033 16V	[M]
C2355	ECJ1VB1H562K	5600P 50V	[M]
C2356	ECJ1VB1H562K	5600P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2370	ECEA1HKS3R3B	3.3 50V	[M]
C2371	ECEA1HKS3R3B	3.3 50V	[M]
C2372	F2A1C1000018	10 16V	[M]
C2373	ECEA1HKS3R3B	3.3 50V	[M]
C2374	ECEA1HKS3R3B	3.3 50V	[M]
C2375	ECJ1VB1C105K	1 16V	[M]
C2376	F2A1H4R7A014	4.7 50V	[M]
C2400	FlH1H102A219	1000P 50V	[M]
C2410	ECJ1VB1H104K	0.1 50V	[M]
C2411	ECJ1VB1H104K	0.1 50V	[M]
C2412	ECJ1VB1H104K	0.1 50V	[M]
C2413	FlH1H103A219	0.01 50V	[M]
C2414	FlH1H103A219	0.01 50V	[M]
C2415	ECEA1EKS220B	22 25V	[M]
C2416	FlH1H103A219	0.01 50V	[M]
C2500	ECJ1VB1C105K	1 16V	[M]
C2501	ECJ1VB1C105K	1 16V	[M]
C2502	FlH1H103A219	0.01 50V	[M]
C2503	FlH1H103A219	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	FlH1H103A219	0.01 50V	[M]
C2511	ECJ1VB1C224K	0.22 16V	[M]
C2512	FlH1H103A219	0.01 50V	[M]
C2513	ECJ1VB1H122K	1200P 50V	[M]
C2514	FlH1C223A001	0.022 16V	[M]
C2515	FlH1H392A013	3900P 50V	[M]
C2516	ECEA1EKA4R7B	4.7 25V	[M]
C2517	ECJ1VB1H223K	0.022 50V	[M]
C2518	FlH1H392A013	3900P 50V	[M]
C2519	ECJ1VB1H122K	1200P 50V	[M]
C2520	FlH1H103A219	0.01 50V	[M]
C2521	FlH1H103A219	0.01 50V	[M]
C2600	F2A1H2R2A013	2.2 50V	[M]
C2601	FlH1H471A219	470P 50V	[M]
C2602	FlH1H471A219	470P 50V	[M]
C2603	FlH1H471A219	470P 50V	[M]
C2604	FlH1H471A219	470P 50V	[M]
C2605	FlH1H471A219	470P 50V	[M]
C2606	FlH1H471A219	470P 50V	[M]
C2607	FlH1H471A219	470P 50V	[M]
C2608	ECJ1VC1H101K	100P 50V	[M]
C2609	FlH1H103A219	0.01 50V	[M]
C2610	ECJ1VC1H101K	100P 50V	[M]
C2611	ECJ1VC1H101K	100P 50V	[M]
C2612	ECJ1VC1H101K	100P 50V	[M]
C2613	ECJ1VC1H101K	100P 50V	[M]
C2614	ECJ1VC1H101K	100P 50V	[M]
C2615	ECJ1VC1H150J	15P 50V	[M]
C2616	FlH1H103A219	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	FlH1H103A219	0.01 50V	[M]
C2622	FlH1H102A219	1000P 50V	[M]
C2623	ECJ1VC1H101K	100P 50V	[M]
C2624	ECJ1VB1A124K	0.12 10V	[M]
C2625	FlH1H102A219	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]

Ref. No.	Part No.	Part Name & Description	Remarks
C2643	ECJ1VC1H101K	100P 50V	[M]
C2650	FlH1H331A013	330P 50V	[M]
C2652	FlH1H331A013	330P 50V	[M]
C2653	ECJ1VB1H223K	0.022 50V	[M]
C2710	FlH1H103A219	0.01 50V	[M]
C2711	ECA0JAK221XB	220 6.3V	[M]
C2712	ECEA1CKA101B	100 16V	[M]
C2713	FlH1H103A219	0.01 50V	[M]
C2714	FlH1H103A219	0.01 50V	[M]
C2715	ECA0JAK221XB	220 6.3V	[M]
C2716	FlH1H103A219	0.01 50V	[M]
C2717	ECA0JAK221XB	220 6.3V	[M]
C2720	ECJ1VB1C105K	1 16V	[M]
C2721	ECEA1CKA101B	100 16V	[M]
C2722	FlH1H103A219	0.01 50V	[M]
C2723	EEUFC0J821B	820P 6.3V	[M]
C2724	FlH1H101A230	100P 50V	[M]
C2725	EEUFC1E102B	1000P 25V	[M]
C2726	FlH1H103A219	0.01 50V	[M]
C2810	FlH1H103A219	0.01 50V	[M]
C2811	F2A1C470A016	47 16V	[M]
C2812	F2A1C470A016	47 16V	[M]
C2813	FlH1H103A219	0.01 50V	[M]
C2814	FlH1H103A219	0.01 50V	[M]
C2815	ECEA1CKA101B	100 16V	[M]
C2816	ECJ1VB1H104K	0.1 50V	[M]
C2817	ECA1EM102B	1000 25V	[M]
C2900	ECA1CAK470XB	47 16V	[M]
C2901	FlH1H101A230	100P 50V	[M]
C2902	ECA1CAK330XB	33 16V	[M]
C2903	ECA1CAK330XB	33 16V	[M]
C2904	ECA1CM101B	100 16V	[M]
C2905	ECA1CM101B	100 16V	[M]
C2906	ECEA1AKA221B	220 10V	[M]
C2907	ECEA1AKA221B	220 10V	[M]
C2908	FlH1H101A230	100P 50V	[M]
C2909	FlH1H101A230	100P 50V	[M]
C2910	ECA1HAK010XB	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	FlH1H103A219	0.01 50V	[M]
C5101	FlH1H103A219	0.01 50V	[M]
C5102	ECJ1VB1H104K	0.1 50V	[M]
C5103	ECJ1VB1H104K	0.1 50V	[M]
C5104	ECQV1H684JL3	0.68 50V	[M]
C5105	ECQV1H684JL3	0.68 50V	[M]
C5106	FlH1H331A013	330P 50V	[M]
C5107	ECJ1VB1H104K	0.1 50V	[M]
C5108	ECJ1VB1H104K	0.1 50V	[M]
C5109	ECJ1VC1H221J	220P 50V	[M]
C5110	FlK2A1040007	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	FlK2A1040007	0.1 100V	[M]
C5116	FlK2A1040007	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	FlK2A1040007	0.1 100V	[M]
C5125	FlK2A1040007	0.1 100V	[M]
C5126	ECJ1VB1H104K	0.1 50V	[M]
C5127	ECJ1VB1H104K	0.1 50V	[M]
C5128	FlK2A1040007	0.1 100V	[M]
C5129	FlH1H101A230	100P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C5130	ECJ1VB1A474K	0.47 10V	[M]
C5131	ECJ1VB1A474K	0.47 10V	[M]
C5132	F1H1H102A219	1000P 50V	[M]
C5133	ECA2AM220B	22 100V	[M]
C5134	F1H1H102A219	1000P 50V	[M]
C5200	F1H1H103A219	0.01 50V	[M]
C5201	F1H1H103A219	0.01 50V	[M]
C5202	ECJ1VB1H104K	0.1 50V	[M]
C5203	ECQV1H684JL3	0.68 50V	[M]
C5204	ECQV1H684JL3	0.68 50V	[M]
C5205	F1H1H331A013	330P 50V	[M]
C5206	ECJ1VB1H104K	0.1 50V	[M]
C5207	ECJ1VB1H104K	0.1 50V	[M]
C5208	ECJ1VC1H221J	220P 50V	[M]
C5209	F1K2A1040007	0.1 100V	[M]
C5210	ECJ1VB1A474K	0.47 10V	[M]
C5211	ECJ1VB1A474K	0.47 10V	[M]
C5212	ECJ1VB1H153K	0.015 50V	[M]
C5213	ECJ2VC2A221J	220P 100V	[M]
C5214	ECJ1VB1H104K	0.1 50V	[M]
C5215	ECJ2VC2A221J	220P 100V	[M]
C5216	F1K2A1040007	0.1 100V	[M]
C5217	F1K2A1040007	0.1 100V	[M]
C5218	ECJ1VB1C224K	0.22 16V	[M]
C5219	ECJ1VB1H153K	0.015 50V	[M]
C5220	ECJ1VB1H104K	0.1 50V	[M]
C5221	ECJ2VC2A221J	220P 100V	[M]
C5222	ECJ2VC2A221J	220P 100V	[M]
C5223	F1K2A1040007	0.1 100V	[M]
C5224	ECJ1VB1H104K	0.1 50V	[M]
C5225	ECJ1VB1H104K	0.1 50V	[M]
C5226	F1K2A1040007	0.1 100V	[M]
C5227	ECJ1VB1A474K	0.47 10V	[M]
C5228	ECJ1VB1A474K	0.47 10V	[M]
C5229	F1H1H102A219	1000P 50V	[M]
C5230	ECJ1VB1H104K	0.1 50V	[M]
C5231	ECA2AM220B	22 100V	[M]
C5232	F1K2A1040007	0.1 100V	[M]
C5233	F1H1H102A219	1000P 50V	[M]
C5234	F1H1H331A013	330P 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	ECQV1H684JL3	0.68 50V	[M]
C5305	ECQV1H684JL3	0.68 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	ECA2AM220B	22 100V	[M]
C5333	F1H1H102A219	1000P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
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	ECQV1H684JL3	0.68 50V	[M]
C5405	ECQV1H684JL3	0.68 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]
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	ECA2AM220B	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	ECA1EM101B	100 25V	[M]
C5550	ECA0JAK101XB	100 6.3V	[M]
C5600	ECA1HAK2R2XB	2.2 50V	[M]
C5601	ECA1HAK2R2XB	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]
C5642	F2A1V471A141	470 35V	[M]
C5643	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]

Ref. No.	Part No.	Part Name & Description	Remarks
C5663	F1H1H103A219	0.01 50V	[M]
C5666	F1H1H103A219	0.01 50V	[M]
C5667	F1H1H103A219	0.01 50V	[M]
C5670	F1H1H103A219	0.01 50V	[M]
C5671	F1H1H103A219	0.01 50V	[M]
C5674	F1H1H103A219	0.01 50V	[M]
C5675	F1H1H103A219	0.01 50V	[M]
C5678	F1H1H103A219	0.01 50V	[M]
C5679	F1H1H103A219	0.01 50V	[M]
C5701	F1BAF1020020	1000	[M] △
C5702	F1BAF1020020	1000	[M] △
C5704	ECQU2A224MLC	0.22	[M] △
C5705	ECQE6103KF	0.01 630V	[M]
C5706	F1H1H471A219	470P 50V	[M]
C5707	ECKE3D821KBP	820P 2000V	[M]
C5708	F1H1H221A748	220P 50V	[M]
C5709	F1H1H102A219	1000P 50V	[M]
C5710	F1BAF2220023	2200	[M]
C5711	EETUQ2G331JJ	330 400V	[M]
C5712	F2A1H5600009	56 50V	[M]
C5713	EETUQ2G331JJ	330 400V	[M]
C5714	F1B3D102A002	1000P 2000V	[M]
C5715	ECA1AAK221XB	220 10V	[M]
C5716	ECA1AAK470XB	47 10V	[M]
C5717	ECJ1VB1H104K	0.1 50V	[M]
C5718	F1BAF2220023	2200	[M]
C5744	ECQE2104KF3	0.1 250V	[M]
C5745	ECQE2104KF3	0.1 250V	[M]
C5748	ECA1HAK4R7XB	4.7 50V	[M]
C5802	ECJ1VB1H104K	0.1 50V	[M]
C5803	ECCN3A470KGE	47P 1000V	[M]
C5804	ECJ1VB1H681K	680P 50V	[M]
C5805	ECA1HAK220XB	22 50V	[M]
C5806	ECA1AAK221XB	220 10V	[M]
C5807	ECA1HAK2R2XB	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	ECA1VAM102XB	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	ECA1HM101B	100 50V	[M]
C5929	ECA1HM101B	100 50V	[M]
C5930	ECEA1CKA101B	100 16V	[M]
C5974	ECJ1VB1C104K	0.1 16V	[M]
C5975	ECJ1VB1C104K	0.1 16V	[M]
C5976	ECJ1VB1C104K	0.1 16V	[M]
C5977	ECEA1AKA330B	33 10V	[M]
C5978	ECA1EM101B	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]

Ref. No.	Part No.	Part Name & Description	Remarks
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]
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]
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	F1H1H471A219	470P 50V	[M]
C6908	F2A1H4R7A014	4.7 50V	[M]
C6909	ECJ1VC1H101K	100P 50V	[M]
C6910	ECA1HAKOR1XB	0.1 50V	[M]
C6911	ECJ1VB1C563K	0.056 16V	[M]
C6912	F2A1H1R0A013	1 50V	[M]
C6913	F1H1H102A219	1000P 50V	[M]
C6914	ECJ1VC1H101K	100P 50V	[M]
C6915	ECA1HAKR33XB	0.33 50V	[M]
C6916	F1H1H102A219	1000P 50V	[M]
C6917	ECA1CAM471XB	470 16V	[M]
C7401	ECJ1VB1H223K	0.022 50V	[M]
C7402	ECJ1VB1H223K	0.022 50V	[M]
C7403	ECJ1VB1H223K	0.022 50V	[M]
C8001	F2G0G331A012	330 4V	[M]
C8003	ECJ0EF1C104Z	0.1 16V	[M]
C8004	ECJ0EF1C104Z	0.1 16V	[M]
C8005	ECJ0EF1C104Z	0.1 16V	[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]
C8016	ECJ0EF1C104Z	0.1 16V	[M]
C8017	ECJ0EF1C104Z	0.1 16V	[M]
C8018	ECJ0EF1C104Z	0.1 16V	[M]
C8019	ECJ0EF1C104Z	0.1 16V	[M]
C8020	ECJ0EF1C104Z	0.1 16V	[M]
C8021	ECJ0EF1C104Z	0.1 16V	[M]
C8022	ECJ0EF1C104Z	0.1 16V	[M]
C8023	ECJ0EF1C104Z	0.1 16V	[M]
C8024	ECJ0EF1C104Z	0.1 16V	[M]
C8025	ECJ0EF1C104Z	0.1 16V	[M]
C8026	ECJ0EF1C104Z	0.1 16V	[M]
C8030	F2A1H100A234	10 50V	[M]
C8031	F2A1H4R7A014	4.7 50V	[M]
C8032	F1H1H101A230	100P 50V	[M]
C8033	F1H1H101A230	100P 50V	[M]
C8034	ECEA1AKA220B	22 10V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C8035	ECJ1VB1H123K	0.012 50V	[M]
C8036	ECJ1VB1H123K	0.012 50V	[M]
C8051	ECJ1VB0J105K	10 6.3V	[M]
C8052	F1G1A1040006	0.1 10V	[M]
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	F1G1A1040006	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	F1G1A1040006	0.1 10V	[M]
C8203	F1G1A1040006	0.1 10V	[M]
C8211	ECJ0EB1E122K	1200P 25V	[M]
C8221	ECJ0EB1E102K	1000P 25V	[M]
C8222	ECJ0EB1E821K	820P 25V	[M]
C8225	ECJ0EB1E102K	1000P 25V	[M]
C8226	ECJ0EB1E102K	1000P 25V	[M]
C8231	F1G1A1040006	0.1 10V	[M]
C8232	F1G1A1040006	0.1 10V	[M]
C8251	F2G0J221A065	220 6.3V	[M]
C8252	ECJ0EF1C104Z	0.1 16V	[M]
C8253	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	F1G1A1040006	0.1 10V	[M]
C8304	F1G1A1040006	0.1 10V	[M]
C8305	F1G1A1040006	0.1 10V	[M]
C8306	F1G1A1040006	0.1 10V	[M]
C8311	F1G1A1040006	0.1 10V	[M]
C8312	ECJ1VB0J105K	1 6.3V	[M]
C8313	ECJ1VB0J105K	1 6.3V	[M]
C8401	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]
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	F1G1A1040006	0.1 10V	[M]
C8514	F1G1A1040006	0.1 10V	[M]
C8515	F1G1A1040006	0.1 10V	[M]
C8516	F1G1A1040006	0.1 10V	[M]
C8521	F1G1A1040006	0.1 10V	[M]
C8522	F1G1A1040006	0.1 10V	[M]
C8523	ECJ0EF1C104Z	0.1 16V	[M]
C8524	ECJ0EF1C104Z	0.1 16V	[M]
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]

Ref. No.	Part No.	Part Name & Description	Remarks
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	F1K1A1060017	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]