ORDER NO. MD0506224C3

Service Manual

DVD Stereo System

SA-VK82DGCP
SA-VK82DGCS
SA-VK82DGS

Colour

(S)... Silver Type

Specifications

AMPLIFIER SECTION

RMS Output Power: Dolby Digital Mode

Main

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

Surround Ch

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

Center Ch

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

Subwoofer Ch

90 W per channel (4 Ω), 100 Hz, 10% THD

Total RMS Dolby Digital mode power

460 W

PMPO output power 5600 W

FM/AM TUNER, TERMINALS SECTION

Preset station FM 15 stations

AM 15 stations

Frequency Modulation (FM)

Frequency range 87.50 - 108.00 MHz (50 kHz step)

Sensitivity 2.5 µV (IHF)

S/N 26dB 2.2 µV

Antenna terminals 75 Ω (unbalanced)

Amplitude Modulation (AM)

Frequency range 522 - 1629 kHz (9 kHz step)

520 - 1630 kHz (10 kHz step)

AM Sensitivity S/N 20dB at 999 kHz

560 µV/m

Audio performance (Amplifier)

Input sensitivity/Input impedance

Aux 250 mV, 20 kΩ

Phone jack

Terminal Stereo, 3.5 mm jack

Mic jack

Sensitivity 0.7 mV, 600 Ω

Terminal Mono, 6.3 mm jack (2 system)

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

Erasing System AC Erase 100 kHz

Tape Speed 4.8 cm/s

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

Normal 35 Hz - 14 kHz

S/N Ratio 50 dB (A weighted)

Wow and Flutter 0.18 % (WRMS)

Fast Forward and Rewind Time Approx. 120 seconds with C-60 cassette tape

DISC SECTION

Disc played [8 cm or 12 cm]

(1) DVD (DVD-Video, DVD-Audio)

(2) DVD-RAM (DVD-VR, JPEG[*4],[*5])

(3) DVD-R (DVD-Video)

Panasonic

© 2005 Matsushita Electric Industrial Co. Ltd.. All rights reserved. Unauthorized copying and distribution is a violation of law.

(4) DVD-RW (DVD-Video)

+ R/RW (Video)

(5) CD,CD-R/RW [CD-DA, Video CD, SVCD[*1], MP3[*2],[*5], WMA[*3],[*5], JPEG[*4],[*5], HighMAT Level 2 (Audio and Image)]

[*1] Conforming to IEC62107

[*2] MPEG-1 Layer 3, MPEG-2 Layer 3

[*3] Windows Media Audio Ver.9.0. Class 2A

Not compatible with Multiple Bit Rate (MBR)

[*4] Exif Ver 2.1 JPEG Baseline files

Picture resolution: between 160 x 120 and 6144 x 4096 pixels (Sub sampling is 4:2:2 or 4:2:0)

[*5] The total combined maximum number of recognizable audio and picture contents and groups: 4000 audio and picture contents and 400 groups.

Pick up

Wavelength

CD 785 nm

DVD 662 nm

Audio output (Disc)

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

Audio performance (measurement at: Line out terminal)

Frequency response

CD-Audio 4 Hz to 20 kHz (+1 dB,-2 dB)

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: 525 (480)p/525 (480)i, PAL: 625 (576)p/625 (576)i]

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)

GENERAL

Power supply

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

Power consumption 365 W

Power consumption in standby mode:

0.9 W (approximate)

Dimensions (W x H x D) 250 x 330 x 348 mm

Mass 9.4 kg

Operating temperature range +5°C to +35°C

Operating humidity range 5% to 90% RH (no condensation)

SYSTEM

SC-VK82D (GCP) Music System: SF-VK82D (GCP)
Speakers: SB-VK82D (GC)

SC-VK82D (GCS) Music System: SF-VK82D (GCS)
Speakers: SB-VK82D (GC)

SC-VK82D (GS) Music System: SF-VK82D (GS)
Speakers: SB-VK82D (GC)

Music System	SF-VK82D GCP	SF-VK82D GCS	SF-VK82D GS
Music Center	SA-VK82D GCP-S	SA-VK82D GCS-S	SA-VK82D GS-S
Satellite Speakers	SB-PT82 GC-S	SB-PT82 GC-S	SB-PT82 GC-S

Speaker System	SB-PT82 GC-S
Surround Speakers	SB-PS82 GC-S
Center Speaker	SB-PC82 GC-S

Speaker System	SB-VK82D GC-S
Front Speakers	SB-VK82 GC-S
Subwoofer	SB-WVK82 GC-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.

MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Thomson multimedia.

Windows Media, and the Windows logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries.

WMA is a compression format developed by Microsoft Corporation. It achieves the same sound quality as MP3 with a file size that is smaller than that of MP3.

Designed for Windows Media™

HighMAT™ and the HighMAT logo are either trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

HDCD®, HDCD®, High Definition Compatible Digital® and Pacific Microsonics™ are either registered trademarks or trademarks of Pacific Microsonics, Inc. in the United States and/or other countries.

HDCD system manufactured under license from Pacific Microsonics, Inc. This product is covered by one or more of the following: In the USA: 5,479,168, 5,638,074, 5,640,161, 5,808,574, 5,838,274, 5,854,600, 5,864,311, 5,872,531, and in Australia: 669114, with other patents pending.

⚠ 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.

CONTENTS

1 Safety precautions for AC Cord (For GS only)

Note on AC power supply cord (For Saudi Arabia and Kuwait only)

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.

Figure A

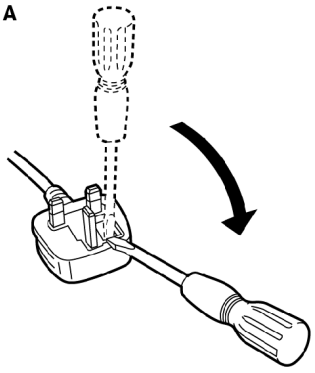
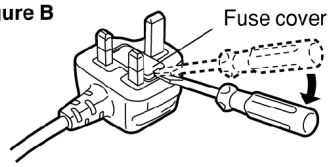


Figure B



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

Figure A

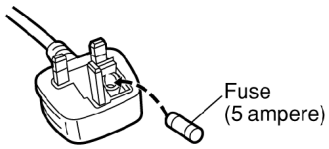
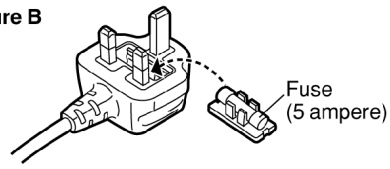


Figure B



2 Before Use (Caution)

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

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

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

3 Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C5815, C5818, C9513, C9533, C9534, C9816 and C9817 through a 10Ω, 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 100/110V at 50/60 Hz & AC 240V at 50Hz in NO SIGNAL (vol. min, at CD mode) should be ~500mA .

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.

5 Safety Precautions

5.1. 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.

5.1.1. 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 1MΩ and 5.2MΩ.

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

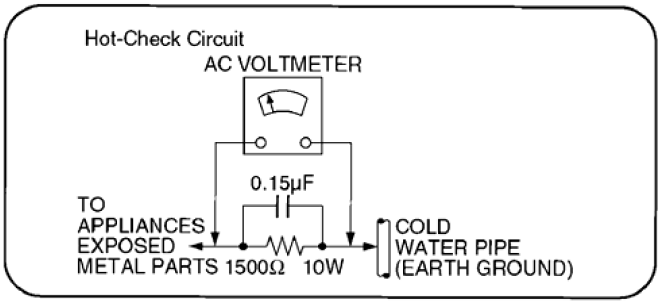


Figure 1

5.1.2. 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 1.5kΩ, 10 watts resistor, in parallel with a 0.15μF 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.

6 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 imporant for safety.
These parts are marked by ⚠ 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.

7 Handling the Lead-free Solder

7.1. About lead free solder (PbF)

Distinction of PbF P.C.B.:

P.C.B.s (manufactured) using lead free solder will have a PbF stamp on the P.C.B.

Caution:

- Pb free solder has a higher melting point than standard solder; Typically the melting point is 50 - 70°F (30 - 40°C) higher. Please use a high temperature soldering iron. In case of soldering iron with temperature control, please set it to 700 ± 20°F (370 ± 10°C).
- Pb free solder will tend to splash when heated too high (about 1100°F/600°C).
- When soldering or unsoldering, please completely remove all of the solder on the pins or solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.

8 Precaution of Laser Diode

Caution :

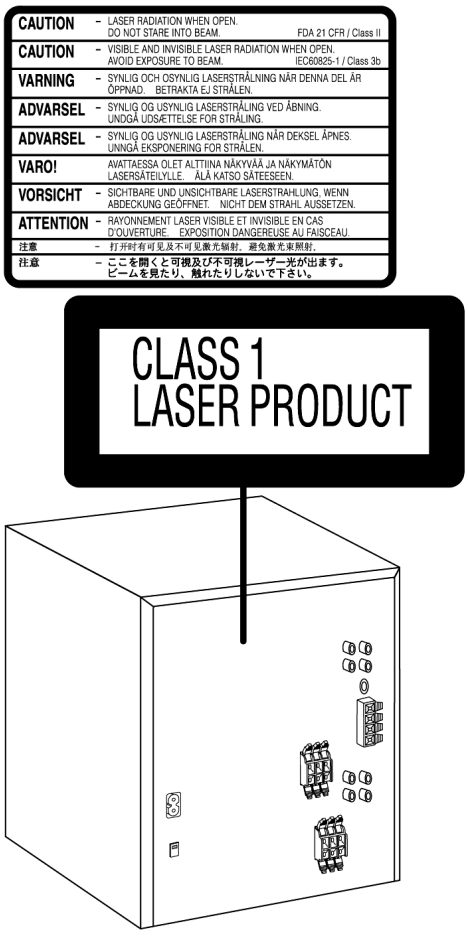
This product utilizes a laser diode with the unit turned "ON", invisible laser radiation is emitted from the pick up lens.
Wavelength : 785 nm(CD)/662 nm(DVD)
Maximum output radiation power from pick up : 100 µW/VDE

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



9 Cautions to be taken when handling Optical Pickup

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.

9.1. 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. 9.1 and Fig. 9.2)
3. Do not handle flexible cables forcibly as this may cause snapping. Handle the parts carefully (Refer to Fig. 9.1)
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. 9.1)

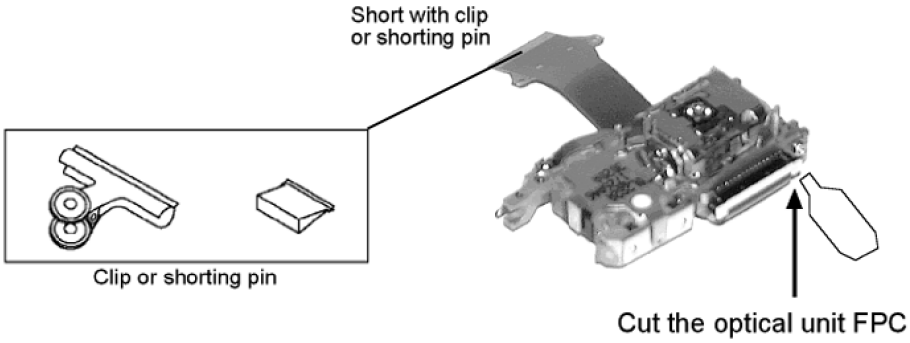


Fig. 9.1

9.2. Replacing Precautions for Optical Pickup Unit

DVD/CD 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.)

9.3. 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. 9.2)
2. Work place grounding

   Place a conductive material (conductive sheet) or iron board where optical pickup is placed. (Refer to Fig. 9.2)

Note :

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

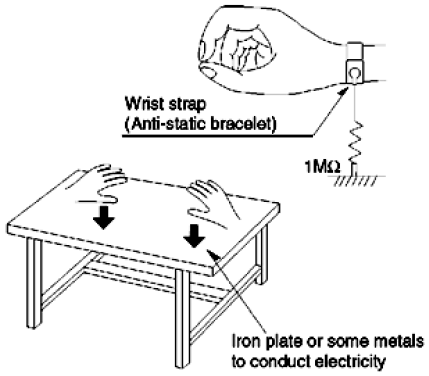
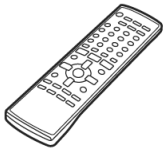
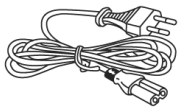


Fig. 9.2

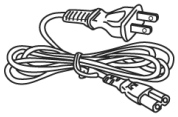
10 Accessories



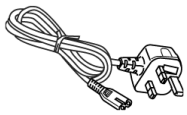
Remote control



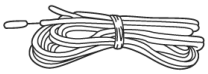
AC cord (For GCS only)



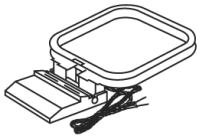
AC cord (For GS only)



AC cord (For GS only)

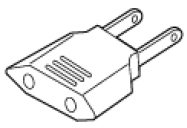


FM antenna



AM antenna

Video cable

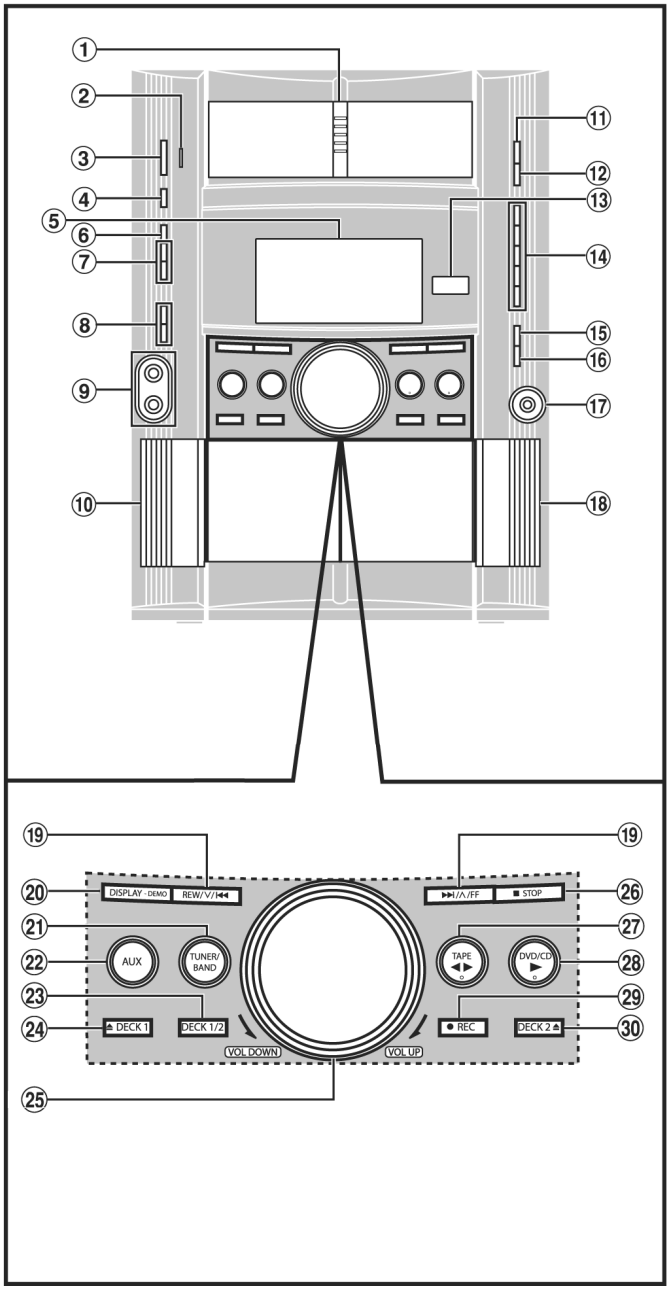


AC Plug Adaptor
(For GCP only)

11 Operation Procedures

Control reference guide

Main unit

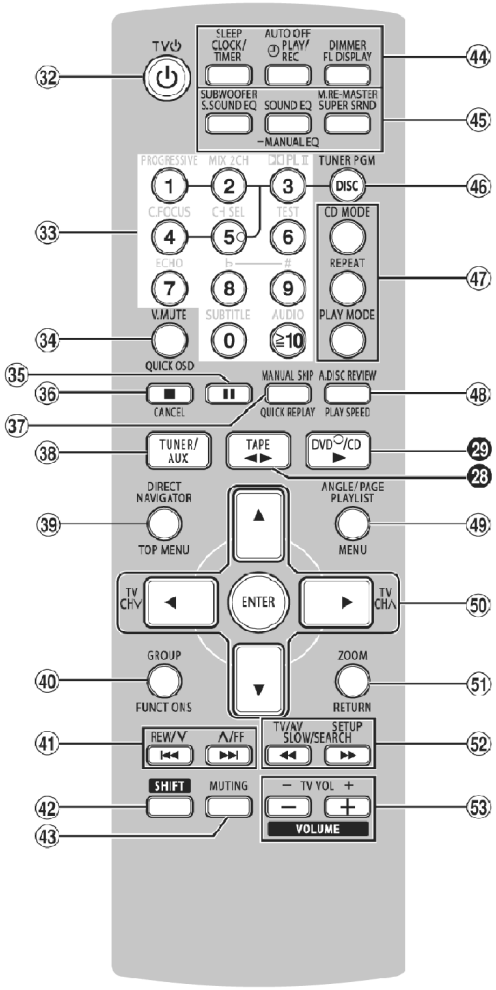


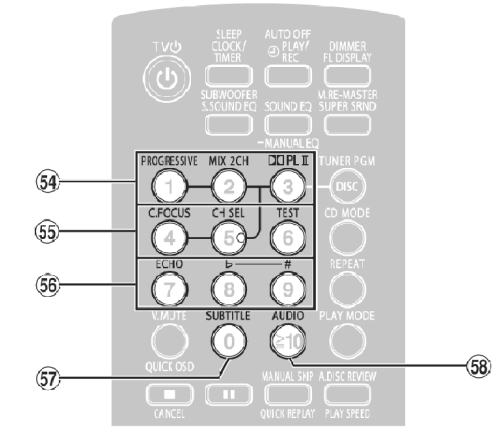
① **Disc drawer**
② **AC supply indicator [AC IN]**
This indicator lights when the unit is connected to the AC mains supply.
③ **Standby/on switch [⏻/I]**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
④ **Disc check button [DISC CHECK]**
⑤ **Display**
⑥ **Multi Re-master button [MULTI RE-MASTER]**
⑦ **Super surround button [SUPER SURROUND]**
Sound EQ button [SOUND EQ]
⑧ **Microphone volume level buttons [MIC LEVEL DOWN, UP]**
⑨ **Microphone jacks [MIC 1, 2]**
⑩ **Deck 1 cassette holder**
⑪ **Disc tray open/close button [⏏, OPEN/CLOSE]**
⑫ **Disc change button [⏏, DISC CHANGE]**
⑬ **Remote control signal sensor**
⑭ **DVD/CD direct play buttons [1–5]**
⑮ **Super sound EQ button [SUPER SOUND EQ]**
⑯ **Subwoofer button [SUBWOOFER]**
⑰ **Headphone jack [PHONES]**
⑱ **Deck 2 cassette holder**

Center console

⑲ **Disc skip/search/slow-motion play, tape fast-forward/ rewind, tune, time adjust buttons [REW/∨/I◀◀, ▶▶I/∧/FF]**
⑳ **Display mode, demonstration button [DISPLAY –DEMO]**
㉑ **Tuner/band select button [TUNER/BAND]**
㉒ **AUX button [AUX]**
㉓ **Deck 1/2 selection button [DECK 1/2]**
㉔ **Deck 1 open button [⏏ DECK 1]**
㉕ **Volume control [VOL DOWN, VOL UP]**
㉖ **Stop button [■ STOP]**
㉗ **Tape play/direction button [◀ ▶, TAPE]**
㉘ **DVD/CD play button [▶, DVD/CD]**
㉙ **Record button [● REC]**
㉚ **Deck 2 open button [DECK 2 ⏏]**

Remote control





Buttons such as ㉗ function in exactly the same way as the buttons on the main unit.

㉛ **Standby/on, TV power on/off button [⏻, TV⏻]**

㉜ **Numbered buttons [0 – 9, ≧10] [QUICK OSD, V.MUTE]**

㉝ **Quick OSD, Vocal mute button**

㉞ **Pause button [II]**

㉟ **Stop, Cancel button [■, CANCEL]**

㊱ **Manual skip, Quick replay button [MANUAL SKIP, QUICK REPLAY]**

㊲ **Tuner/aux button [TUNER/AUX]**

㊳ **Top menu, Direct navigator button [TOP MENU, DIRECT NAVIGATOR]**

㊴ **Functions, Group button [FUNCTIONS, GROUP]**

㊵ **Disc skip, tape fast-forward/rewind, preset channel select, time adjust buttons [I◄◄, REW/∨, ►►I, ∧/FF]**

㊶ **Shift button [SHIFT]**

To use functions labeled in orange:
While pressing [SHIFT], press the corresponding button.

㊷ **Muting button [MUTING]**

㊸ **Clock/timer, Sleep timer button [CLOCK/TIMER, SLEEP]**

Play/record timer, Auto off button [⏻PLAY/REC, AUTO OFF]

FL display, Dimmer button [FL DISPLAY, DIMMER]

㊹ **Super Sound EQ, Subwoofer button [S.SOUND EQ, SUBWOOFER]**

Sound EQ, Manual EQ button [SOUND EQ, –MANUAL EQ]

Super surround, Multi Re-master button [SUPER SRND, M.RE-MASTER]

㊺ **Disc select, Tuner program button [DISC, TUNER PGM]**

㊻ **CD mode button [CD MODE]**

Repeat button [REPEAT]

Play mode button [PLAY MODE]

㊼ **Advanced disc review, Play speed button [A.DISC REVIEW, PLAY SPEED]**

㊽ **Menu, Playlist, Angle/Page button [MENU, PLAYLIST, ANGLE/PAGE]**

㊾ **Cursor buttons [▲,▼,◄, ►], Enter button [ENTER]**

These buttons have the following functions.
[◄, ►] : TV channel select buttons [TV CH∨, TV CH∧]

㊿ **Return, Zoom button [RETURN, ZOOM]**

(51) **Slow/search, Tuning buttons [◄◄, ►►, SLOW/SEARCH]**

These buttons have the following functions.
[◄◄] : TV/AV input mode select button [TV/AV]
[►►] : Setup button [SETUP]

(52) **Volume buttons, TV volume buttons [–, +, VOLUME, – TV VOL +]**

(53) **Progressive video button [PROGRESSIVE]**

2 channel down-mixing button [MIX 2CH]

Dolby Pro Logic II button [□□ PLII]

(54) **Center focus button [C.FOCUS]**
Channel select button [CH SEL]
Test signal button [TEST]

(55) **Echo button [ECHO]**
Key control buttons [♭, #]

(56) **Subtitle button [SUBTITLE]**

(57) **Audio button [AUDIO]**

12 Disc information

Discs that can be played

Disc	Logo	Indication in these operating instructions	Remarks
DVD-RAM	DVD RAM RAM4.7	RAM	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, personal computers, etc.
		JPEG	Recorded using the DCF (Design rule for Camera File system) standard. • To play JPEG files, select "Play as Data Disc" in Other Menu.
DVD-Audio	DVD AUDIO	DVD-A	—
		DVD-V	Some DVD-Audio discs contain DVD-Video content. To play DVD-Video content, select "Play as DVD-Video" in Other Menu.
DVD-Video	DVD VIDEO DVD VIDEO	DVD-V	—
DVD-R (DVD-Video) DVD-RW (DVD-Video)	DVD R R4.7 DVD RW		Discs recorded and finalized※ on Panasonic DVD video recorders or DVD video cameras.
+R (Video)/ +RW (Video)	—		Discs recorded and finalized※ on DVD video recorders or DVD video cameras.
Video CD	COMPACT disc DIGITAL VIDEO	VCD	—
SVCD	COMPACT disc SUPER VIDEO		Conforming to IEC62107.
CD	COMPACT disc DIGITAL AUDIO COMPACT disc DIGITAL AUDIO TEXT	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 sound better because they are encoded with 20 bits, as compared with 16 bits for all other CDs.
CD-R CD-RW	—	WMA MP3 JPEG CD VCD	• This unit can play CD-R/RW (audio recording disc) recorded with the formats on the left. Close the sessions or finalize※ the disc after recording. • **HighMAT discs** WMA, MP3 or JPEG files only. To play without using the HighMAT function, select "Play as Data Disc" in Other Menu. • WMA This unit does not support Multiple Bit Rate (MBR: a file that contains the same content encoded at several different bit rates).

※ A process that allows play on compatible equipment.
• 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-ROM, CD-ROM, CDV, CD-G, SACD, Divx Video Discs and Photo CD, DVD-RAM that cannot be removed from their cartridge, 2.6-GB and 5.2-GB DVD-RAM, and "Chaoji VCD" available on the market including CVD, DVCD and SVCD that do not conform to IEC62107.

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

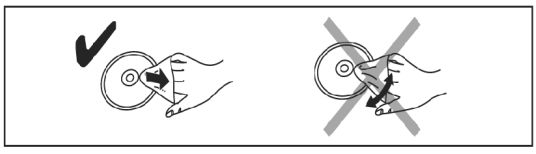
This unit automatically recognizes and decodes discs with these symbols.

DOLBY DIGITAL

DIGITAL dts SURROUND

■ To clean discs

Wipe with a damp cloth and then wipe dry.



■ Disc handling precautions

- Do not attach labels or stickers to discs (This may cause disc warping, rendering it unusable).
- Do not write on the label side with a ball-point pen or other writing instrument.
- Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
- Do not use scratch-proof protectors or covers.
- Do not use the following discs:
  – Discs with exposed adhesive from removed stickers or labels (rented discs, etc).
  – Discs that are badly warped or cracked.
  – Irregularly shaped discs, such as heart shapes.

■ 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.

Tips for making WMA/MP3 and JPEG discs (For CD-R, CD-RW)

- 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

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

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).

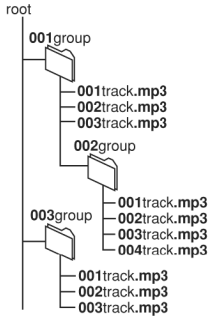
Files must have the extension:

".WMA" or ".wma"

".MP3" or ".mp3"

".JPG", ".jpg", ".JPEG" or ".jpeg"

e.g. MP3



WMA

- You cannot play WMA files that are copy protected.
- This unit does not support Multiple Bit Rate (MBR).

MP3

- This unit is not compatible with ID3 tags.
- Compatible sampling rate: 8, 11.02, 12, 16, 22.05, 24, 32, 44.1 and 48 kHz.

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 moving pictures, MOTION JPEG and other such formats, still pictures other than JPEG (e.g.: TIFF) or play pictures with attached audio.

13 About HighMAT

13.1. 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

13.2. Why take advantage of HighMAT?

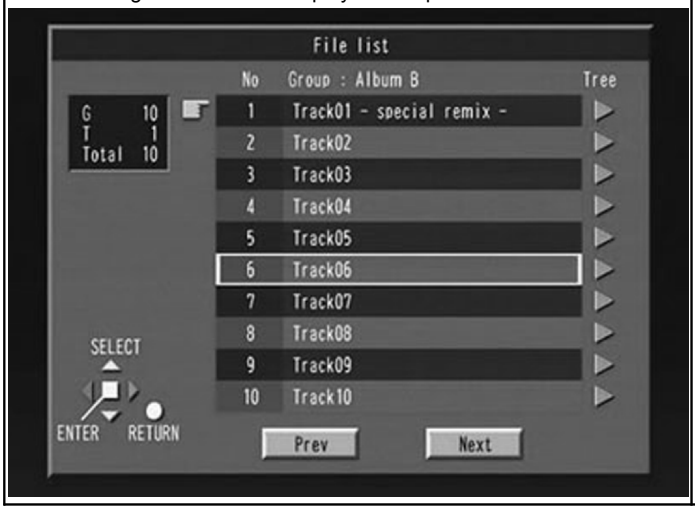
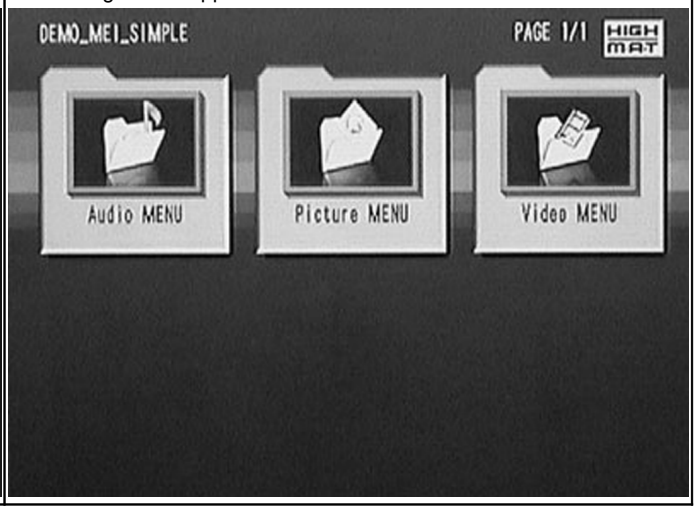
A Problem Defined:Today, when consumers create their own digital audio, video or photo collections on CD-R or other physical formats, there are numerous, inconsistent ways that devices read the data. For the consumer, the playback experience can be confusing:

- 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.

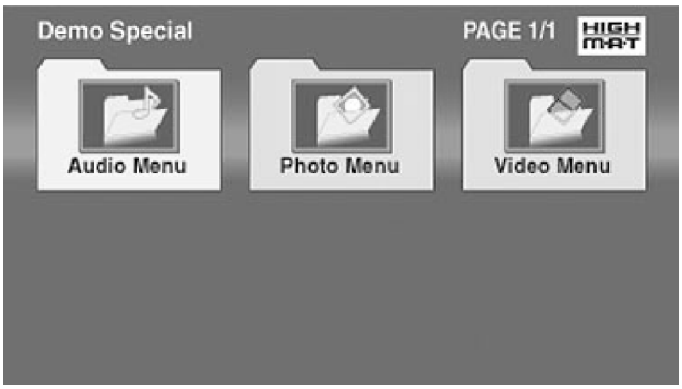
A Solution Created: HighMAT delivers a better digital media access experience by creating a standard approach for PCs to structure digital media on various physical formats and for playback devices to read the data.

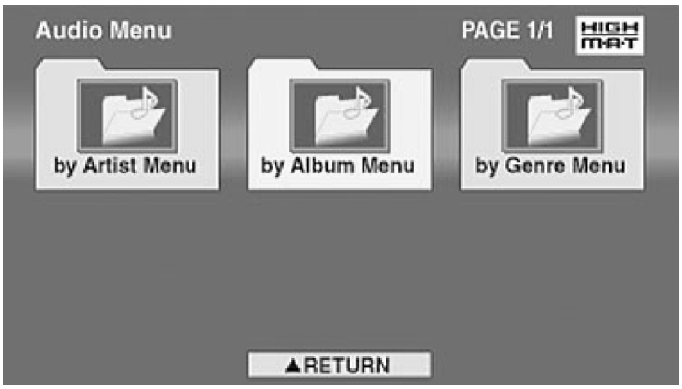
13.3. Benefits of HighMAT?

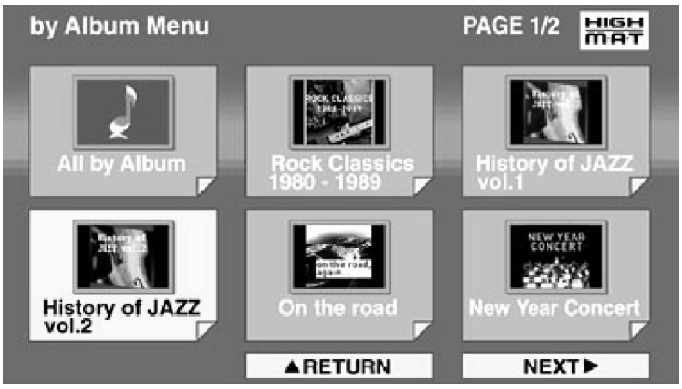
1 **Creating a HighMAT CD makes it easier to navigate different types of media you want to burn onto a CD (Photos, Music).**

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 inconsistant playback experince.	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.**

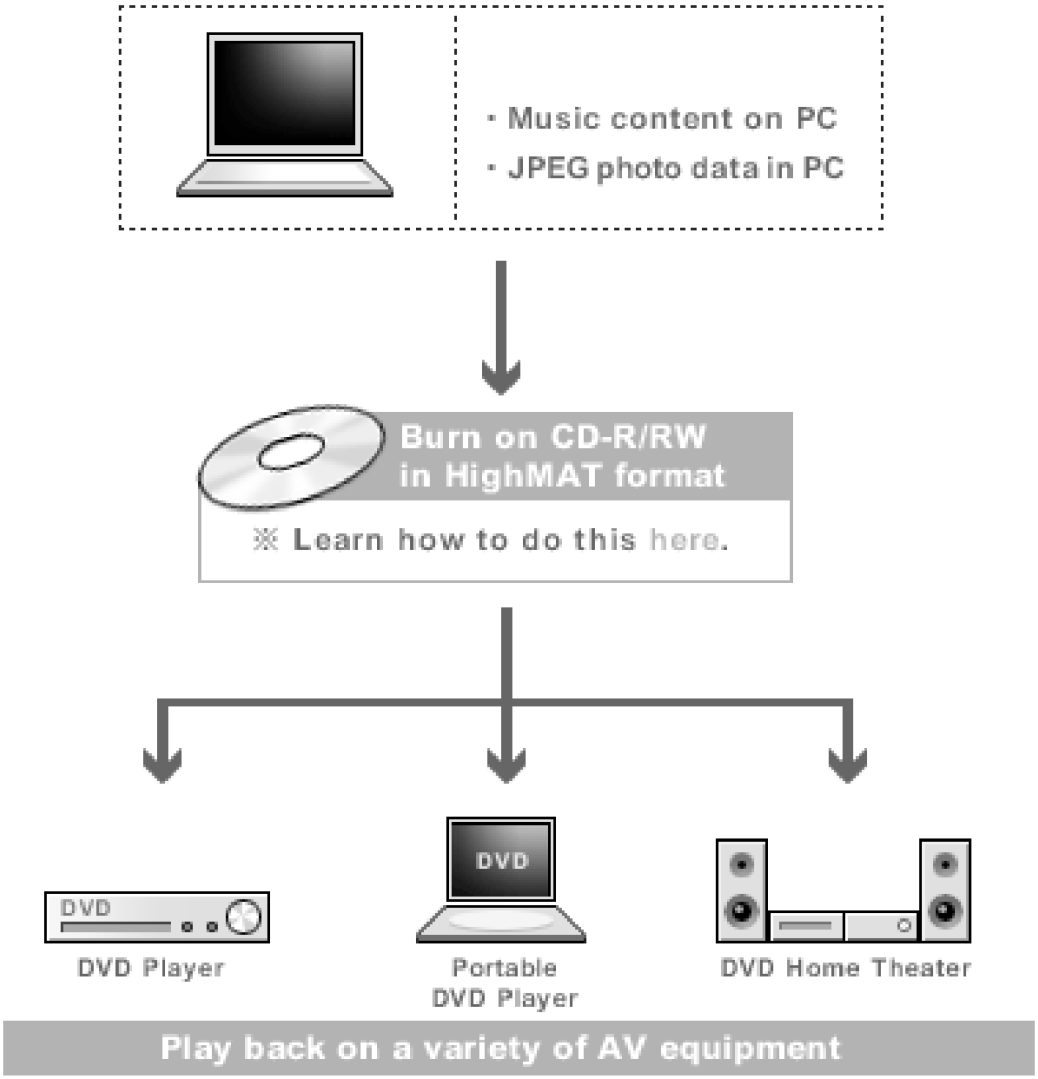






Easy navigation to access disc contents

3 HighMAT CDs can also work on other players.



HighMAT is now available for CD Burning and in Leading DVD PlayersHighMAT 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 CDsHighMAT 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.

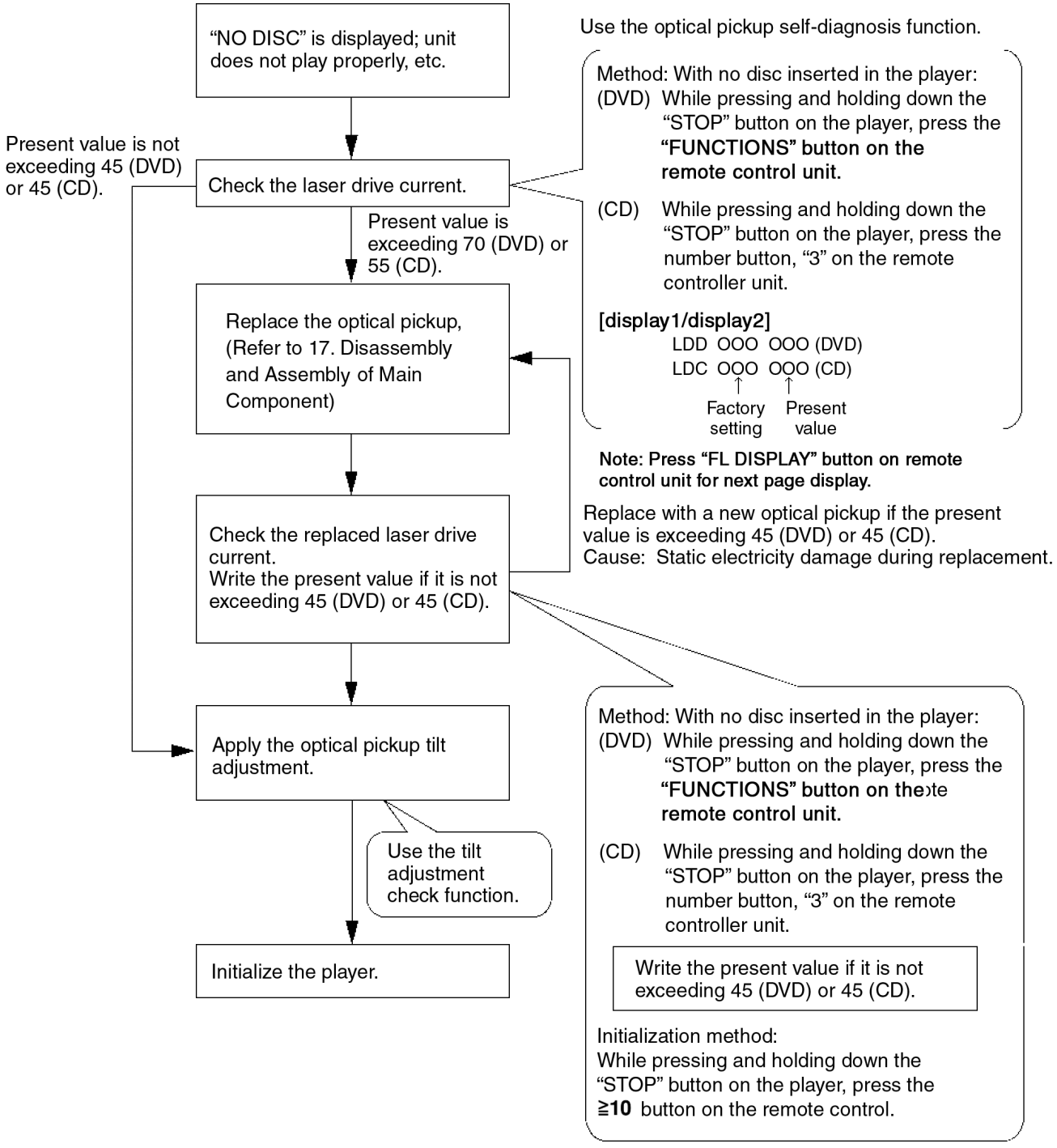
14 Optical Pickup Self-Diagnosis and Replacement Procedure

14.1. 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:

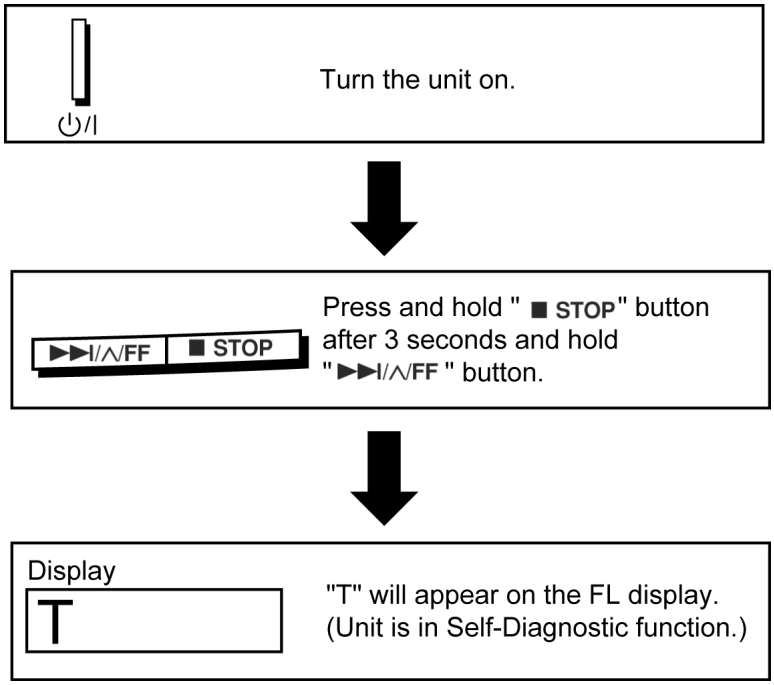
Start diagnosis within three minutes after turning on the power (as diagnosis fails when the unit becomes warm).



15 Self-Diagnosis Function

This unit is equipped with the self-diagnosis function, which displays an error when it occurs, for use during servicing.

15.1. Entering into Self-Diagnostic Mode



15.2. Automatic Displayed Error Codes

15.2.1. Automatic Display Function

For a power unit error, the code is automatically displayed.

F61: Automatically displayed on the LCD of the player.

15.2.2. Re-Display

· **For F61 Display**

– When the code, F61 is displayed, the power is automatically turned off.

– The code, F61 is displayed for three seconds, and then the current time appears.

– To retrieve the code, turn on the power button so that the code F61 appears, however, is switched to time display after three seconds, and the power is automatically turned off.

· **For F76 Display**

– The abnormalities is an output or the abnormalities in a power supply of POWER AMP IC.

15.2.3. Description of Error Code

15.2.3.1. F61

· **State, Condition**

When the power is turned on, the unit is automatically turned off. The power does not turn on.

· **Cause, Troubleshooting**

Power circuit system failure and/or direct current flown to speaker terminal
Identify the cause and replace with new parts.

15.3. Memorized Error Codes

15.3.1. Activating Self-Diagnosis Function and Displaying Method

1. Turn on the power.
2. Select DVD/CD function. With no DVD/CD inserted in the player, press ■ and hold down the button for at least two seconds, and press the “0” button on the remote control for at least two seconds in order to display “DVD_F---”.
3. Press the ■ button. If a memorized error is detected, the result of self diagnosis is displayed. (Ex.: T H15)

If several errors are detected, press the ■ button to display each.

15.3.2. Re-Display

- Press the power button to turn off the power, and then turn on the power.
- The details of self diagnosis are stored in the unit memory.
  To retrieve them, follow the procedure described the above, “Activating Self-Diagnosis Function and Displaying Method”.

15.4. Service Mode Table 1

Following modes are available with combinations of the pressed buttons on the player and on the remote controller unit.

Player	Remote Controller Unit	Usage
■ button	0	Error code display (Refer to the Item 15.5. DVD/CD Self-Diagnosis Error Code Description)
	5	Tilt adjustment (Jitter)
	6	Region number and broadcasting system check
	8	Bulit-in program version check (Micro-P)
	FUNCTIONS	DVD laser drive current check
	3	CD laser drive current check
	PAUSE	Writing of laser drive current value after replacement of optical pickup (Do use this function only when optical pickup is replaced.)
	≧10	Initialization of the player (factory setting is restored.) Used after replacement of micro-computer and its peripherals and printed circuit board.

15.5. DVD/CD Self-Diagnosis Error Code Description

Error Code	State, Conditon	Cause, Troubleshooting
H15	The disc tray cannot be opened: it closes spontaneously.	Disc tray open/close detection switch (S1001) failure. (Check and replace)
H16	The disc tray cannot be closed: it opens spontaneously.	

Error Code	Meaning	Details
U. H. Error		
U11	Focus servo failure	
H01	Tray loading failure	
H02	Spindle servo failure	(Spindle servo, DSC, SP motor, CLV servo failure)
H03	Traverse motor failure	
H04	Tracking servo error	
H05	Seek timeout failure	
DSC system		
F500	DSC failure	DSC stops due to servo failure. (Startup, focus failure, etc.)
F501	DSC not Ready failure	Communication failure between DSC and system computer (No communication because DSC does not move)
F502	DSC Time out failure	See F500.
F503	DSC communication failure	Communication failure (Result failure occurs after communication command is transmitted.)
F505	DSC Attention Error	See F500.
F506	Invalid media	Disc is placed upside down; TOC is unreadable or invalid disc is inserted.
Disc Code		
F103	Illegal highlight position	Disc standard is possibly illegal when highlight is displayed.
IIC Error		
F4FF	Forced initialization failure (Time out)	
F880	Unsuitable task number	When a message arrives from not existing task
F890	A message is sent during AV task transmission	During transmission of a message to AV task
F891	Unable to transmit a message to AV task	When transmission of a message to AV task starts
F893	DVD Module problem	Check for firmware version
F894	EEPROM failure	
F895	Firmware compatibility problem	Check for firm version for Main & DVD Module P.C.B.
F897	Initialization is not done properly	Follow proper steps for initialization & reset
F8A0	Unsuitable message command	When transmission of a message to AV task starts

15.6. Mode Table 2

Following modes are available with combinations of the pressed buttons on the player and on the remote controller unit.

Item	Operational Condition and Key Function	Details	Display	TO Exit Mode
Jitter display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button, “5” on the remote controller unit.	Jitter display Measures and displays jitter. Measurement is repeated every second. Read error counter starts at 0 at the mode setting, and increased by one as data read fails at target block. A small defect is allowed to correct by retry. Any possibility is counted as one increment. Repetitive errors after retry increase by two levels or more.	J[*1] xxx/yyy zz (display1/display2) [*1] : Jitter display mode [*2] : Jitter measurement value [*3] : Read error counter [*4] : Focus driving value Values are shown to one decimal place in the decimal digit. Focus driving value is displayed in the hexadecimal digit.	Press the STOP button on the player.
Error code display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button, “0” on the remote controller unit.	Error code display Displays the latest error code stored in EEPROM.	DVD_F--- *nn: Error history *--: Error number	Press the STOP button.
Measurement of laser current electricity initialization value	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the ❚❚ button on the remote controller unit. Press “FL Display” button for next page	Measurement of laser current electricity initialization value Memorizes each initialization value of DVD and CD in EEPROM.	LDO[*1]/xxx[*2] yyyy[*3] (display1/display2) [*1] : Laser current electricity measurement mode [*2] : DVD current electricity value [*3] : CD current electricity value Values are shown in the decimal digit. The above example indicates that the current electricity initialization value is 13mA at DVD laser and 32mA at CD laser when laser is turned on.	Automatically exits the mode after five seconds.
Measurement of DVD laser current electricity	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the FUNCTIONS button on the remote controller unit. Press “FL Display” button for next page	Measurement of DVD laser current electricity Measures DVD laser current electricity and displays the result together with the initialization value stored in EEPROM. After measurement, DVD laser is lit till the power is turned off (or goes off when the primary power is turned off).	LDD[*1]/xxx[*2] yyyy[*3] (display1/display2) [*1] : DVD laser current electricity measurement mode [*2] : Current electricity initialization value stored in EEPROM [*3] : Present value of current electricity Values are shown in the decimal digit. The above example indicates that the current electricity initialization value is 12mA and its present value is 14mA.	Automatically exits the mode after five seconds.
ADSC internal RAM display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button “1” or “2” on the remote controller unit.	ADSC internal RAM display Reads and displays the RAM value inside ADSC. The address is renewed when the CLEAR key is pressed so that the values at eleven points appear.	FB0_0000 Values are shown in the hexadecimal digit. The above example indicates that ADSC value at the address, FB0h is 0000h.	Press the STOP button on the player.

Item	Operational Condition and Key Function	Details	Display	TO Exit Mode
Measurement of CD laser current electricity	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button “3” on the remote controller unit. Press “FL Display” button for next page	Measurement of CD laser current electricity Measures CD laser current electricity and displays the result together with the initialization value stored in EEPROM. After measurement, CD laser is lit till the power is turned off (or goes off when the primary power is turned off).	LDC[*1]/xxx[*2] yyyy[*3] (display1/display2) [*1] : CD laser current electricity measurement mode [*2] : Current electricity initialization value stored in EEPROM [*3] : Present value of current electricity Values are shown in the decimal digit. The above example indicates the current electricity initialization value is 28mA and its present value is 26mA when laser is turned on.	Automatically exits the mode after five seconds.
User initialization	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button **≧10** on the remote controller unit.	User initialization The user setting recovers the factory setting.	“INIT”	Automatically exits the mode after five seconds.
Region display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button, “6” on the remote controller unit.	Region display	[s rr zzz] s : Panecon model type rr : Panecon release number zzz: Syscon release number	Automatically exits the mode after five seconds.
Firmware version display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button, “7” on the remote controller unit. Press “FL Display” button for next page	Firmware version display	rrr[*1] xx[*2] y[*3] zzz[*4] [*1] : Panel computer release number [*2] : System computer generation [*3] : System computer model type [*4] : System computer release number	Automatically exits the mode after five seconds.
Region and firmware display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button, “8” on the remote controller unit.	Region and firmware version display	x[*1] y[*2] z[*3] w[*4] [*1] : Region number [*2] : System computer generation [*3] : System computer model type [*4] : System computer release number	Automatically exits the mode after five seconds.
Laser use time	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the ▲ button on the remote controller unit. Press “FL Display” button for next page	Laser usage time Measures each for DVD and CD respectively.	T1_ _1234/5678 (display1/display2) The numbers in the left show usage time for DVD laser and those in the right for CD laser. The four-digit number is shown by the ten hours in the decimal digit. The number after 0000 is 9999.	Automatically exits the mode after five seconds.
Reset laser use time	While the usage time 1 is displayed, press and hold down the ■ button on the player and the ▼ button on the remote controller unit.	Laser usage time reset Resets both for DVD and CD at once.	T1_ _0000/0000 (display1/display2)	Automatically exits the mode after five seconds.

Item	Operational Condition and Key Function	Details	Display	TO Exit Mode
Spindle use time	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the ► button on the remote controller unit.	Spindle motor usage time	T2_00000 The four-digit number is shown by the ten hours in the decimal digit. The number after 00000 is 99999.	Automatically exits the mode after five seconds.
Reset spindle use time	While the usage time 2 is displayed, press and hold down the ■ button on the player and the ◄ button on the remote controller unit.	Usage time 2 reset Spindle motor usage time	T2_ _00000	Automatically exits the mode after five seconds.
Communication error display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the MENU button on the remote controller unit. Press “FL Display” button for next page	Displays frequency of communication errors between system computer firm IC and mechanical computer IC during DVD module.	ECC_ _ _ 00	Press the STOP or Open button on the player.

15.7. CR16 Mechanism Ageing Mode

To perform the ageing mode:

1. Enter into Test mode.
2. Press [3] button on remote control. It enters into ageing mode. (see below for ageing process)

Ageing process:

1. Tray 1 open.
2. It waits for one second (Note: Do not put any disc into the tray.
3. Tray close.
4. TOC READ (Reading incomplete)
5. Tray 2 open & repeat step 1 to step 4. (Process repeat until Tray 5)
6. Tray check.
7. Whole process complete (Counter on FL increase by 1)

Note: To exit ageing mode, press [POWER] button. The unit will power down. Do not unplug the power cord until FL display shows “GOODBYE”. This is to avoid tray jam problem.

15.8. Operation Lock Function

15.8.1. Setting

· Operation Lock Function

1. With the DVD/CD/ ► and POWER ON, and then press the [POWER] KEY on the remote control for 3 seconds to enter Lock mode B.

   [_LOCKED_] will be displayed for 3 seconds, and the current disc will begin playing.
2. Lock mode B primarily controls the selector and disc operations, and disenables for the following keys.

Note:

OPEN/CLOSE ▲ button are invalid and the player displays “_LOCKED_” while the lock function mode is entered.

· Prohibiting operation of selector and disk

1. Select the DVD/CD/ ► function.
2. Press and hold down the DVD/CD/ ► button on the player and the power button on the remote controller unit for at least three seconds. (The message, “_LOCKED_” appears when the function is activated.)

Note:

The following buttons are invalid and the player displays “_LOCKED_” while the lock function mode is entered.

Main unit: DISC CHECK, ≙, OPEN/CLOSE, ≙, DISC CHANGE, 1–5, REW/∨/I◄◄, ►►I/∧/FF, TUNER/BAND, AUX, ■ STOP, ◄►, TAPE, ● REC

Remote control: 0 – 9, ≧10, QUICK OSD, V.MUTE, II, ■, CANCEL, MANUAL SKIP, QUICK REPLAY, TUNER/AUX, ◄►, TAPE, FUNCTIONS, GROUP, SHIFT, REW/∨/I◄◄, ►►I/∧/FF, MUTING, CLOCK/TIMER, SLEEP, FL DISPLAY, DIMMER, DISC, TUNER PGM, CD MODE, REPEAT, A.DISC REVIEW, PLAY SPEED, RETURN, ZOOM, ◄◄, ►►, SLOW/SEARCH

15.9. Things to Do After Repair

Follow the procedure described below after repair.

1. While the power is on, press the ≙ button to close the tray.
2. Press the power button to turn off the power.
3. Unplug the power cable.

Note:

It is prohibited to unplug the power cable while the tray is opened and to close the tray manually.

16 Cautions To Be Taken During Servicing

16.1. Recovery after the dvd player is repaired

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

16.2. DVD Player Firmware Version Upgrade Process

Firmware of DVD player may upgrade to conform to improvement of its performance and quality including operational range, playability of non-standardized discs, etc. The version upgrade disc contains the recovery function, and the recovery disc is not necessary.

Note:

Version upgrade process cannot be complete if the AC power is cut off due to power failure and other occasions during the process. If this occurs, replace FLASH ROM IC and restart version upgrade. Version upgrade disc number is informed when ordered.

16.3. Firmware Version Upgrade Process by Using Disc and Recovery Process

- Recovery process
- Firmware version upgrade process

Both of the above procedures automatically start when the recovery disc is replayed.General CD-R disc allows version upgrade process and recovery process, making version upgrade through disc simple.
Recovery process: Optimization process of player after replacement of FLASH ROM, EEPROM, or module circuit board

Version upgrade process: Renewal of firmware for improvement of operational range and performance

16.4. Using Recovery Disc

16.4.1. Recovery Process

1. Insert the recovery disc (RFKZD03R005) to the player to replay.
2. The recovery process automatically starts, and a message of completion prompts on the screen.
3. Remove the disc.
4. Turn off the power.

16.4.2. Version Upgrade Process

1. Insert the recovery disc to the player to replay.
2. The version of player is automatically checked and prompts if necessary.
3. Select version upgrade process using the cursor keys on the remote controller unit. (Select YES or NO)
4. a. If YES is selected, the process starts.
   b. If NO is selected, only the recovery process is applied.
5. a. When the version upgrade process is complete, a message of completion appears on the screen. Remove the disc.
   b. Follow the instruction appearing on the screen, and remove the disc.
6. Turn off the power.

16.5. Total Usage Time Display

1. Details of Operation/Display

Total usage time of DVD/CD lasers
Time is shown by the ten hours in the decimal digit.

Total usage time of spindle motor
Time is shown by the ten hours in the decimal digit.

Keys for Operation:
Laser usage time: While the player is stopped and no disc is inserted, press both the ■ button on the player and the ▲ button on the remote controller unit.
Spindle motor usage time: While the player is stopped and no disc is inserted, press both the ■ button on the player and the ► button on the remote controller unit.

To reset the usage time, **while the usage time is displayed:**
Laser usage time: press both the ■ button on the player and the ▼ button on the remote controller unit.
Spindle motor usage time: press both the ■ button on the player and the ◄ button on the remote controller unit.

2. Purpose of Use

To obtain reference data of laser and spindle motor systems during failure diagnosis.
To check faulty parts during re-repair.

16.6. After replacement of DVD Module

Below steps is to be performed after changing of DVD Module

1. Press **≧10** on remote control while pressing “STOP” on main unit.
2. FL will display “INITIALIZE”.
3. Press “STOP” & “ENTER” on remote control (For reset of unit)
4. FL will display “DVD RESET” before change to TOC reading again.
5. Power off the set. Unplug AC cord & wait for few seconds.
6. Plug in AC cord & power on set.

17 Disassembly and Assembly of Main Component

“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 27), if necessary.

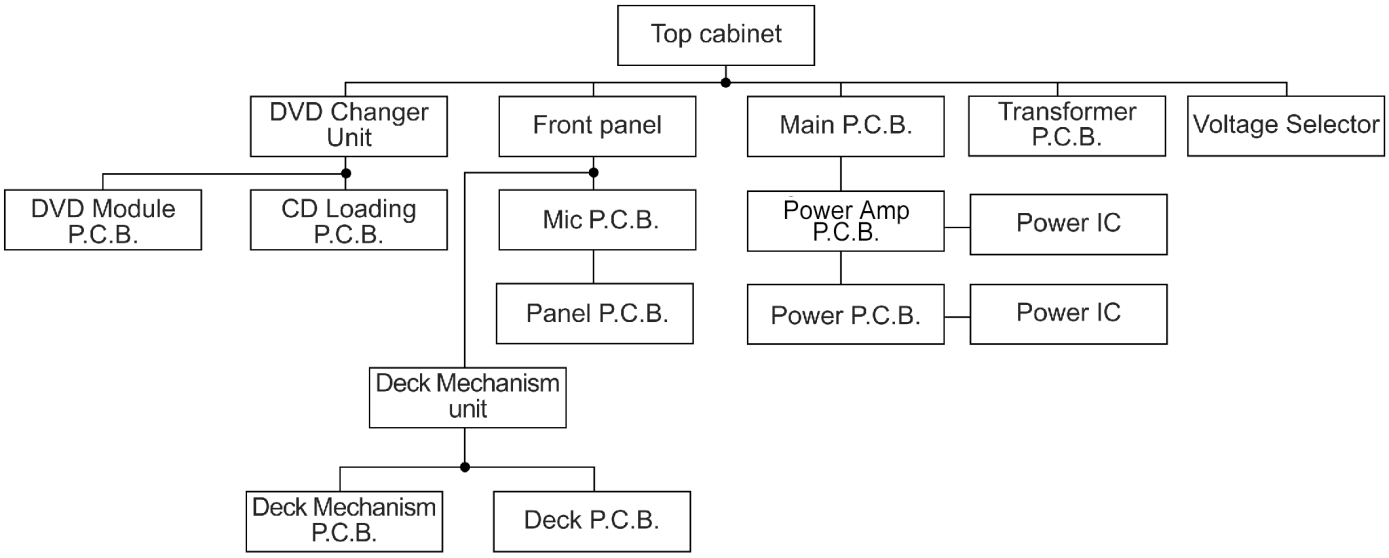
17.1. Disassembly steps

- **Disassembly of Top Cabinet**
- **Disassembly of Rear Panel**
- **Disassembly of DVD Changer Unit**
- **Disassembly of Main P.C.B.**
- **Disassembly of Power Amp P.C.B.**
- **Disassembly of Power P.C.B.**
- **Disassembly of Transformer P.C.B. & Voltage Selector**
- **Disassembly of Front Panel Unit**
- **Disassembly of Mic P.C.B. & Panel P.C.B.**
- **Disassembly of Deck Mechanism Unit**
- **Replacement for Deck P.C.B.**
- **Replacement for Traverse Deck**
- **Replacement for Optical Pickup Unit (DVD Mechanism)**
- **Procedure for removing CD loading mechanism**
- **CR16 mechanism disassembly procedure**
- **CR16 mechanism assembly procedure**
- **Disassembly for Traverse Unit**
- **Replacement for cassette lid**
- **Rectification for tape jam problem**

17.2. Disassembly flow chart

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

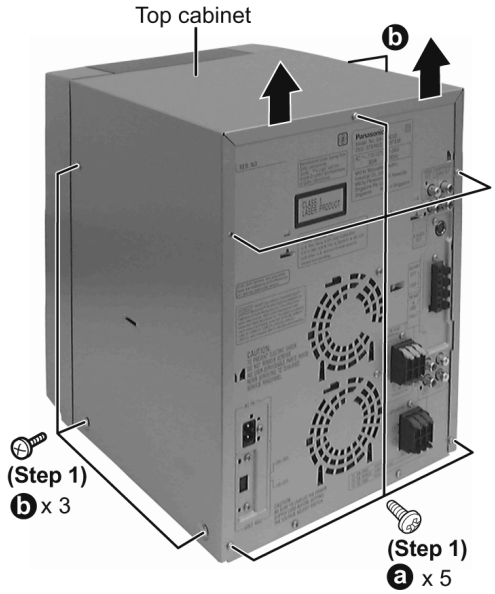
To assemble the unit, reverse the steps shown in the chart as below.



17.3. Disassembly of Top Cabinet

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

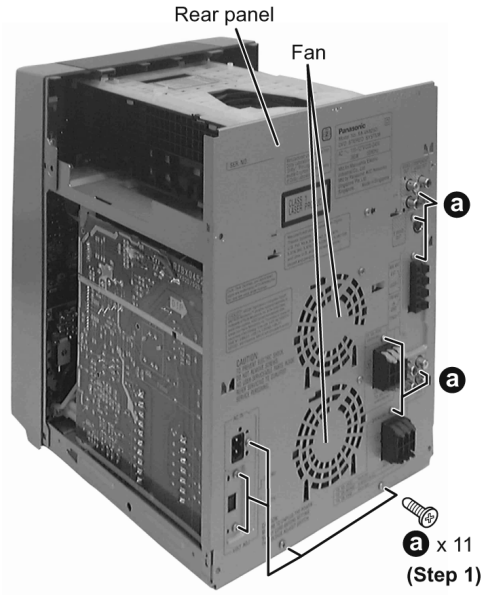
Step 2 Lift up both sides of the top cabinet, push the top cabinet towards the rear to remove the top cabinet.



17.4. Disassembly of Rear Panel

・Follow the (Step 1) - (Step 2) of Item 17.3 - Disassembly of Top Cabinet

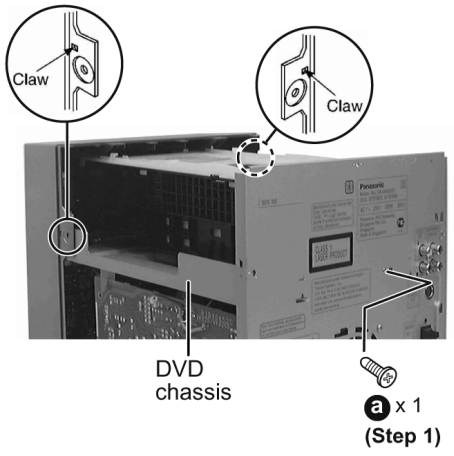
Step 1 Remove 11 screws and disconnect cables CN2810 and CN2813 (Fan) at rear panel as shown.



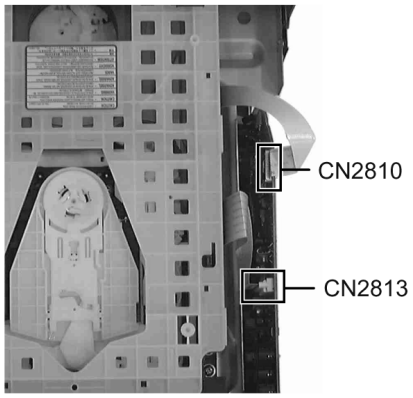
17.5. Disassembly of DVD Changer Unit

・Follow the (Step 1) - (Step 2) of Item 17.3 - Disassembly of Top Cabinet

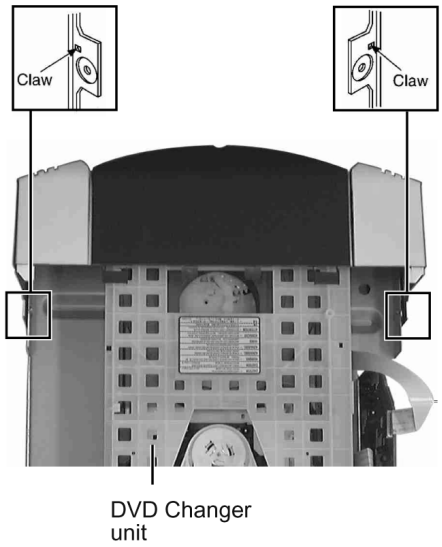
Step 1 Remove 1 screw at rear panel.

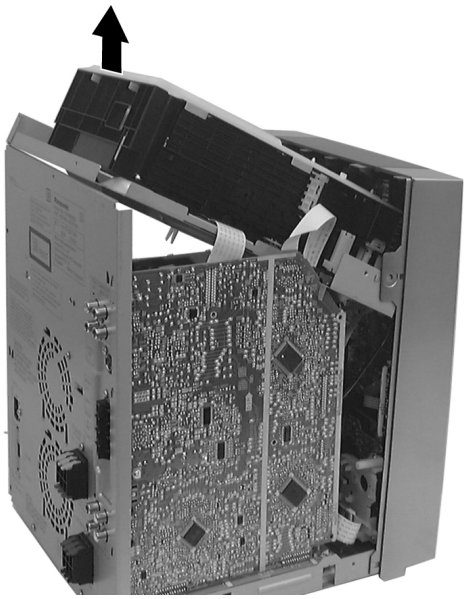


Step 2 Detach the FFC cables (CN2810 & CN2813).

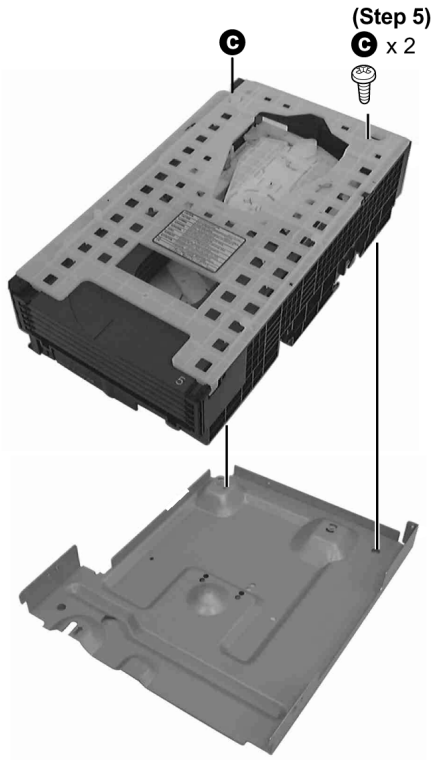


Step 3 Release the claws on both ends, and remove the DVD changer unit.





Step 4 Lift the DVD changer unit upwards.

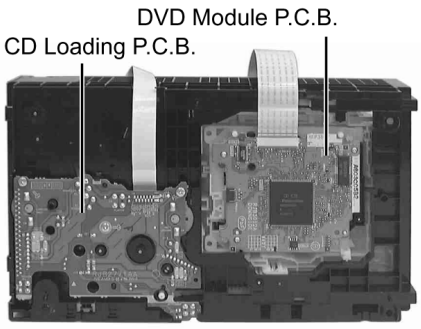


Step 5 Remove 2 screws.

Step 6 Remove the DVD chassis.

Step 7 Lay the unit.

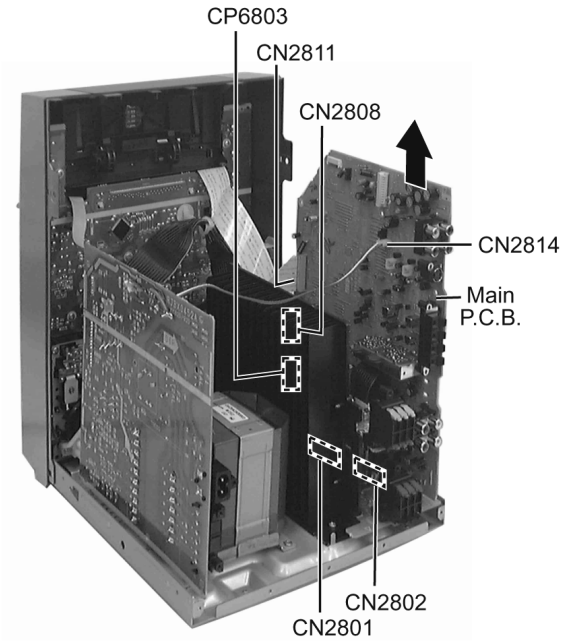
- For disassembly of DVD mechanism unit, please refer to Section 17.16 of this manual.



17.6. Disassembly of Main P.C.B.

- Follow the (Step 1) - (Step 2) of Item 17.3 - Disassembly of Top Cabinet
- Follow the (Step 1) of Item 17.4 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 4) of Item 17.5 - Disassembly of DVD Changer Unit

Step 1 Disconnect FFC cables (CP6803, CN2811, CN2808 and CN2814).

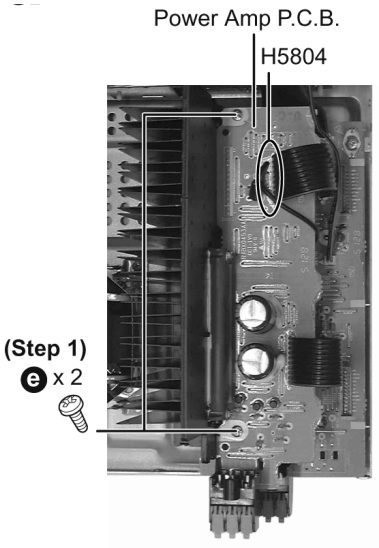


Step 2 Lift up Main P.C.B. by disconnecting connectors CN2801 & CN2802 as arrow shown above.

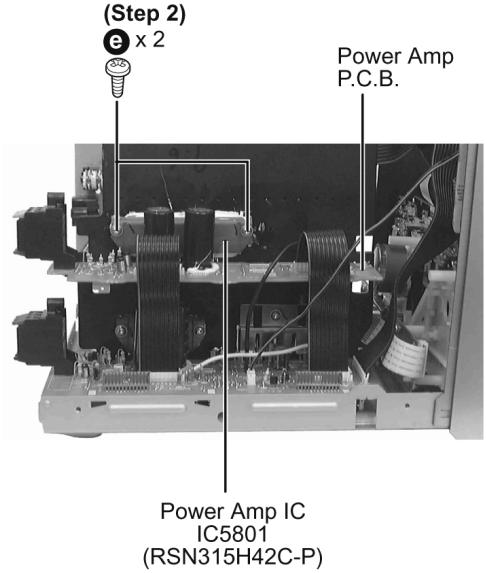
17.7. Disassembly of Power Amp P.C.B.

- Follow the (Step 1) - (Step 2) of Item 17.3 - Disassembly of Top Cabinet
- Follow the (Step 1) of Item 17.4 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 4) of Item 17.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 2) of Item 17.6 - Disassembly of Main P.C.B.

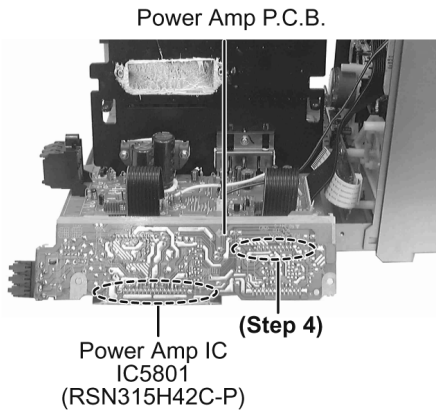
Step 1 Remove the 2 screws at Power Amp P.C.B..



Step 2 Remove the 2 screws at each Power Amp IC.



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



Step 4 Desolder wire at holder H5804.

· **Replacement of the Power Amp IC**

Repeat Step 1 - Step 3 of Section 17.7 - Disassembly of Power Amp P.C.B.

17.8. Disassembly of Power P.C.B.

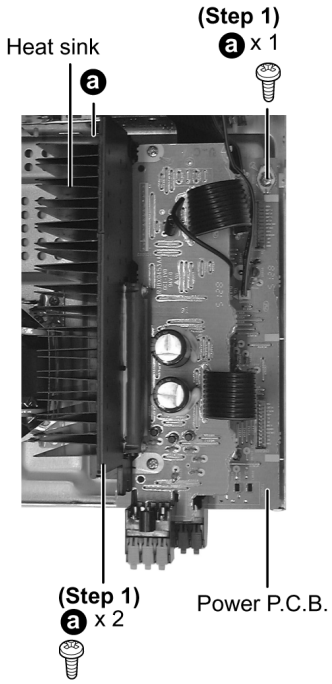
· Follow the (Step 1) - (Step 2) of Item 17.3 - Disassembly of Top Cabinet

· Follow the (Step 1) of Item 17.4 - Disassembly of Rear Panel

· Follow the (Step 1) - (Step 4) of Item 17.5 - Disassembly of DVD Changer Unit

· Follow the (Step 1) - (Step 2) of Item 17.6 - Disassembly of Main P.C.B.

Step 1 Remove the 2 screws at heat sink and 1 screw at Power P.C.B..

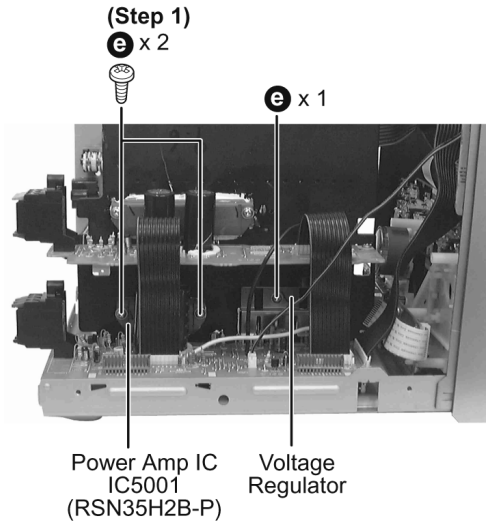


Note:

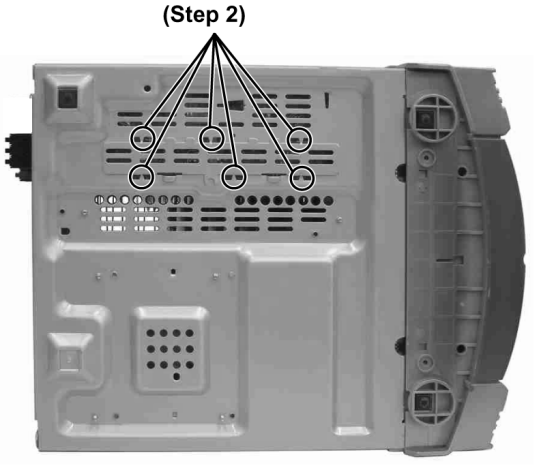
Insulate the Power P.C.B. with insulation material to avoid short circuit.

· **Replacement of the Power Amp IC or Voltage Regulator**

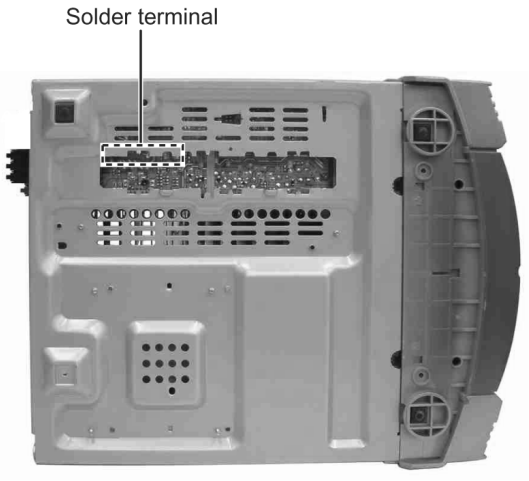
Step 1 Remove 2 screws at the Power Amp IC and or 1 screw to Voltage Regulator.



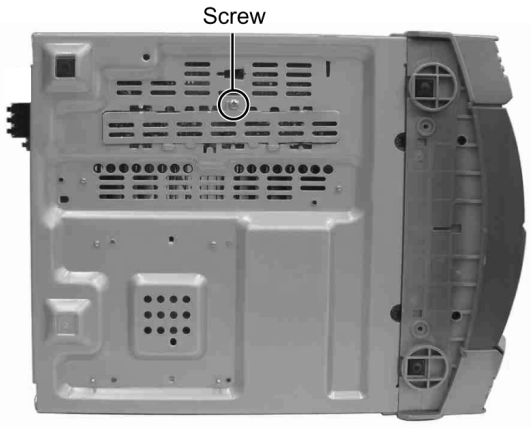
Step 2 Break the joints with a metal cutter as shown below.



Step 3 Unsolder the terminals to replace the components.



Step 4 Fix back the cut portion with a screw as shown.

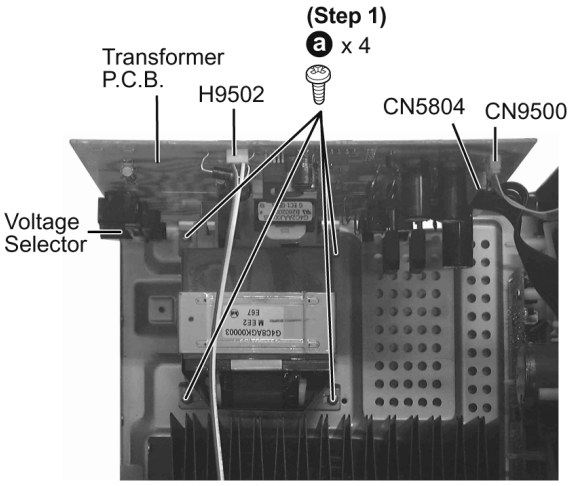


17.9. Disassembly of Transformer P.C.B. & Voltage Selector

- Follow the (Step 1) - (Step 2) of Item 17.3 - Disassembly of Top Cabinet
- Follow the (Step 1) of Item 17.4 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 4) of Item 17.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 2) of Item 17.6 - Disassembly of Main P.C.B.
- Follow the (Step 1) of Item 17.8 - Disassembly of Power P.C.B.

Step 1 Remove 4 screws.

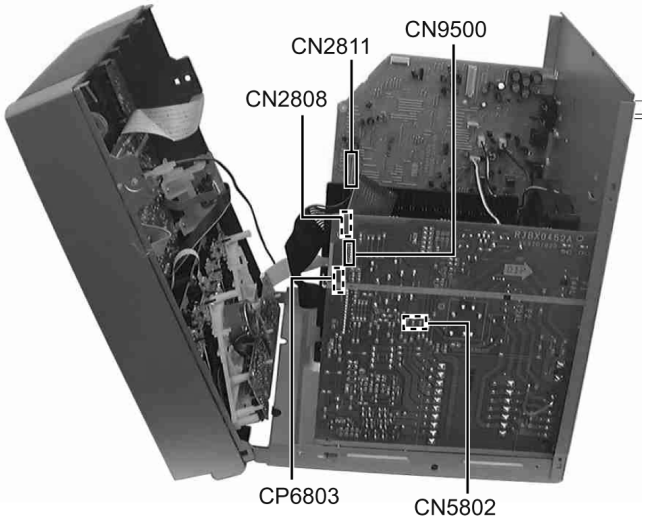
Step 2 Disconnect connectors CN5804, CN9500 & H9502.



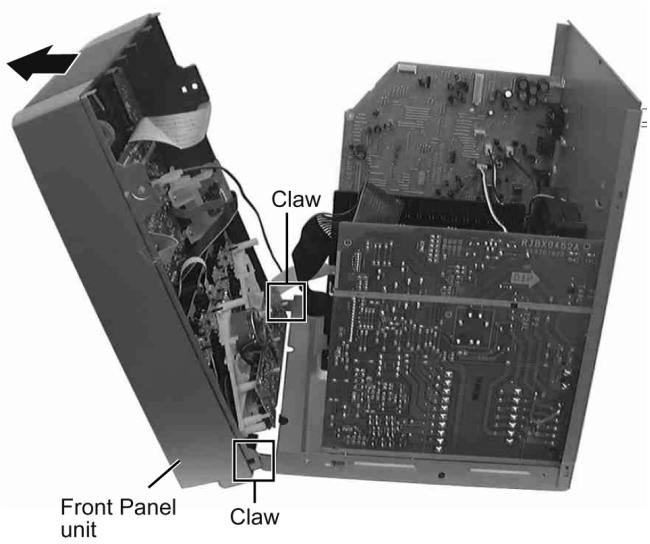
17.10. Disassembly of Front Panel Unit

- Follow the (Step 1) - (Step 2) of Item 17.3 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 17.5 - Disassembly of DVD Changer Unit

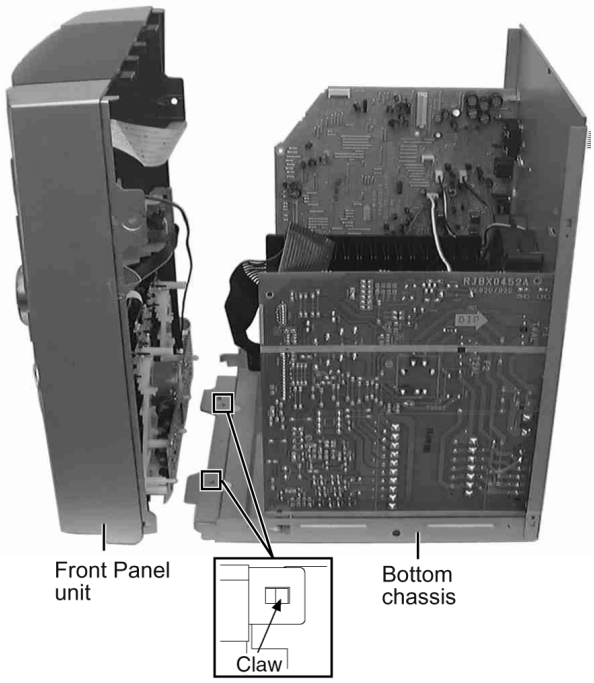
Step 1 Disconnect connectors CN9500, CN2811, CN2808, CP6803 & CN5802.



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



Step 3 Press the 2 catch holders on both sides of the front panel unit to release the claws.



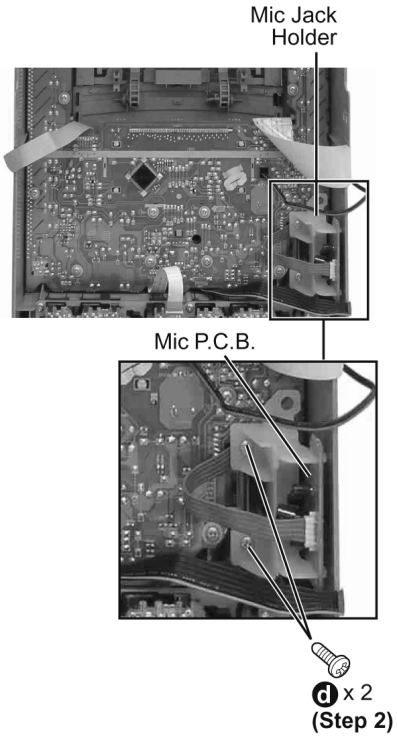
Step 4 Remove the front panel unit.

Note: Ensure 2 claws on bottom chassis is properly and fully catched to the front panel holes.

17.11. Disassembly for Mic P.C.B. & Panel P.C.B.

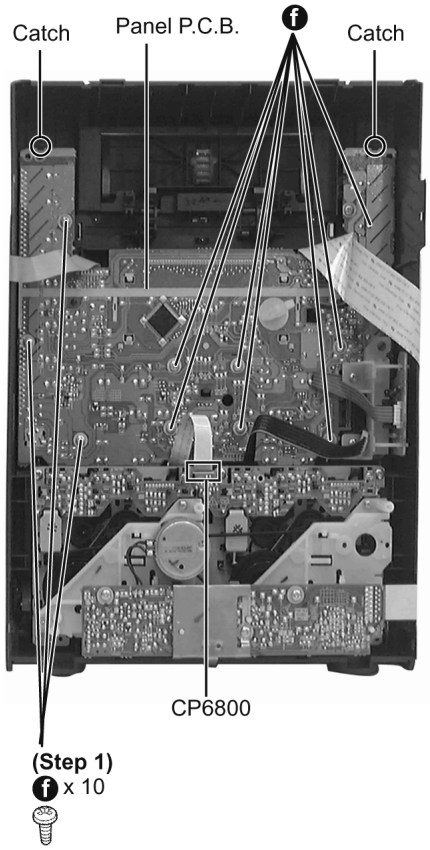
- Follow the (Step 1) - (Step 2) of Item 17.3 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 17.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 17.10 - Disassembly of Front Panel Unit

Step 1 Remove volume knob.



Step 2 Remove 2 screws.

Step 3 Lift up Mic Jack holder.



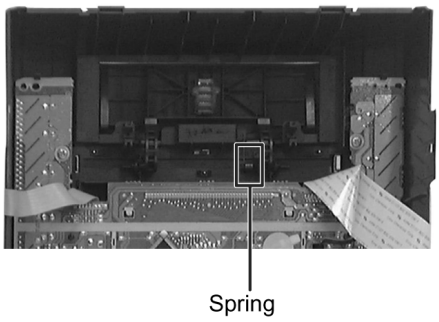
Step 4 Remove 10 screws.

Step 5 Disconnect FFC cable at CP6800.

Step 6 Release 2 catches.

17.11.1. Disassembly of Lid

Step 1 Lift the spring sideward.



Step 2 Remove Lid.

Note: Do not misplace the spring.

- Disassembly of Panel P.C.B.

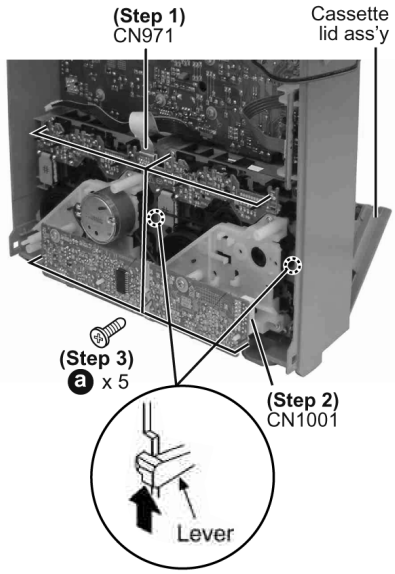
17.12. Disassembly of Deck Mechanism Unit

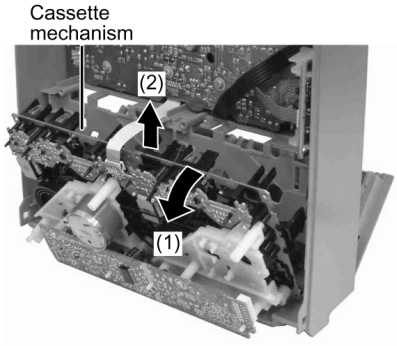
- Follow the (Step 1) - (Step 2) of Item 17.3 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 6) of Item 17.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 17.10 - Disassembly of Front Panel Unit

Step 1 Detach FFC wire CN971.

Step 2 Disconnect FFC flat cable from the connector CN1001.

Step 3 Remove the 5 screws.





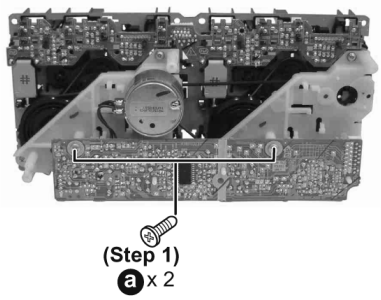
Step 4 Push the lever upward, and then open the cassette lid ass'y (For DECK1 and DECK2).

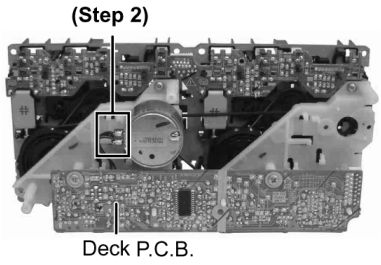
Step 5 Tilt the cassette mechanism unit in the direction of arrow (1), and then remove it in the direction of arrow (2).

17.13. Replacement for Deck P.C.B.

- Follow the (Step 1) - (Step 2) of Item 17.3 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 6) of Item 17.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 17.10 - Disassembly of Front Panel Unit
- Follow the (Step 1) - (Step 5) of Item 17.12 - Disassembly of Deck Mechanism Unit

Step 1 Remove 2 screws.





Step 3 Remove Deck P.C.B.

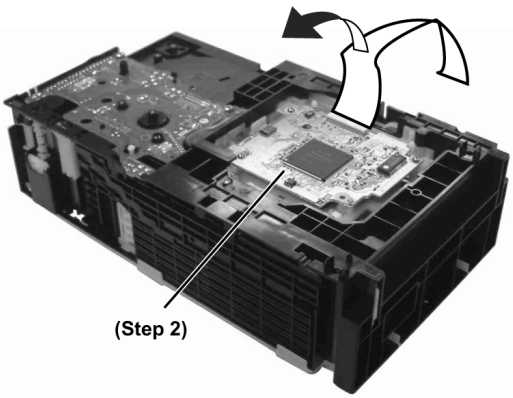
Step 2 Unsolder the motor terminals.

17.14. Replacement for Traverse Deck

- Follow the (Step 1) - (Step 2) of Item 17.3 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 7) of Item 17.5 - Disassembly of DVD Changer Unit

Step 1 Move ribs at both sides to the arrow direction (The vertical rack (R) slides and the groove opens).

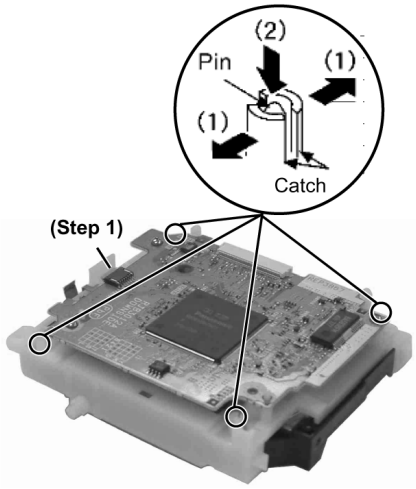
Step 2 Remove DVD traverse deck by rotating to the arrow direction.



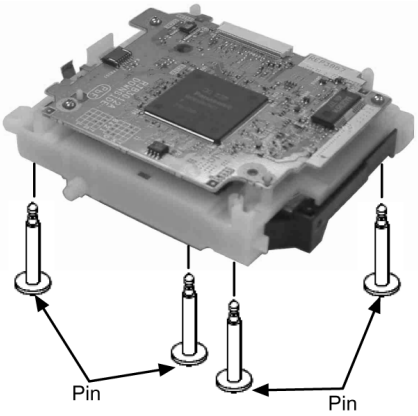
17.15. Replacement for Optical Pickup Unit (DVD mechanism)

- Follow the (Step 1) - (Step 2) of Item 17.3 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 7) of Item 17.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 2) of Item 17.14 - Replacement of Traverse Deck

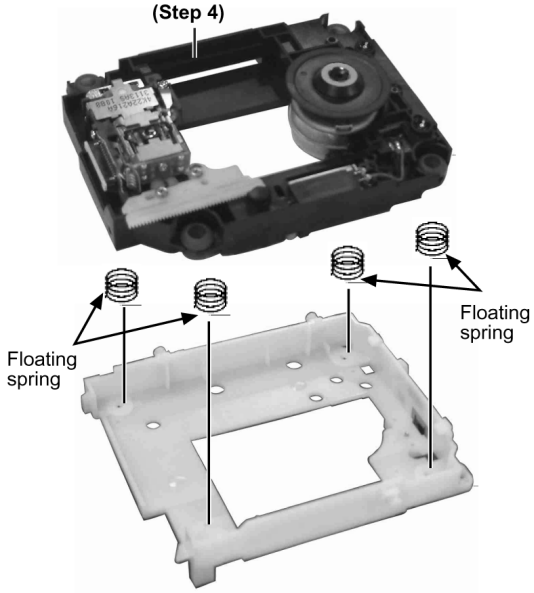
Step 1 Pull out FFC.



Step 2 Widening the catch, push the pin in.

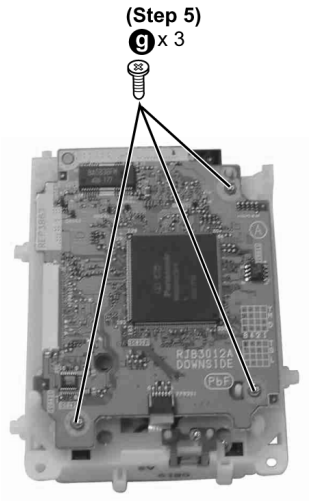


Step 3 Remove 4 pins.



Step 4 Remove the traverse deck.

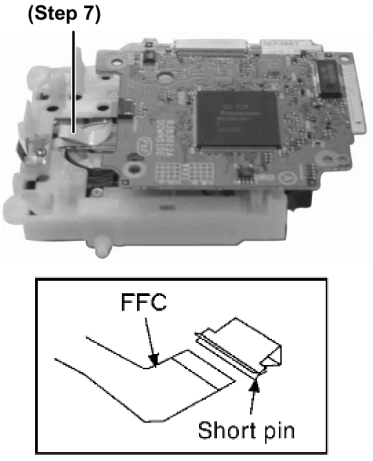
Note: As floating springs (4 pieces) come off at the same time, be careful not to lose them.



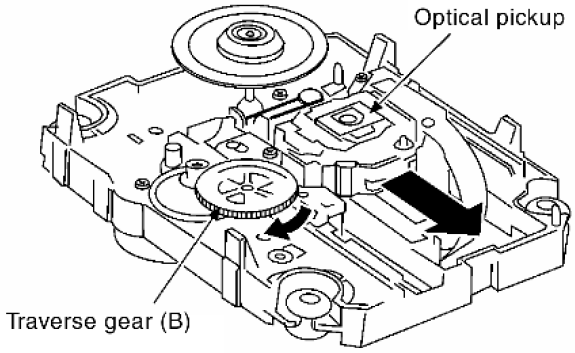
Step 6 Remove the dvd module board and turn it over.

Step 7 Pull FFC out from the connector.

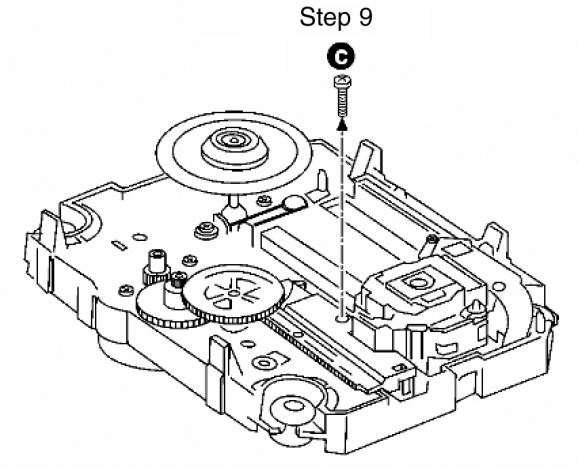
Note: Insert a short pin into FFC of the optical pickup. [See “Notice on handling of the optical pickup”].



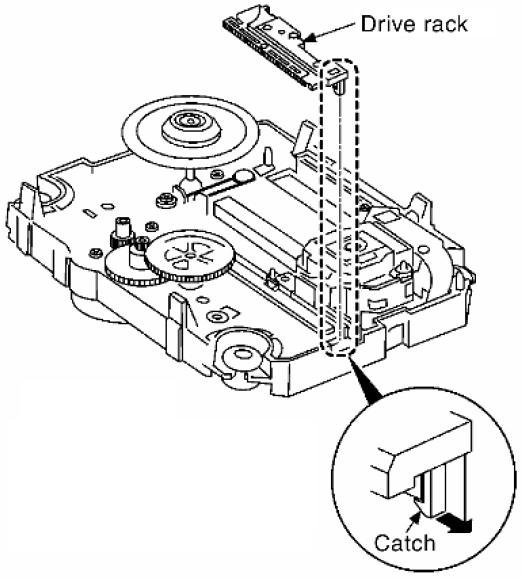
Step 8 Rotate the traverse deck (B) to the arrow direction and shift the optical pickup to the furthest backward.



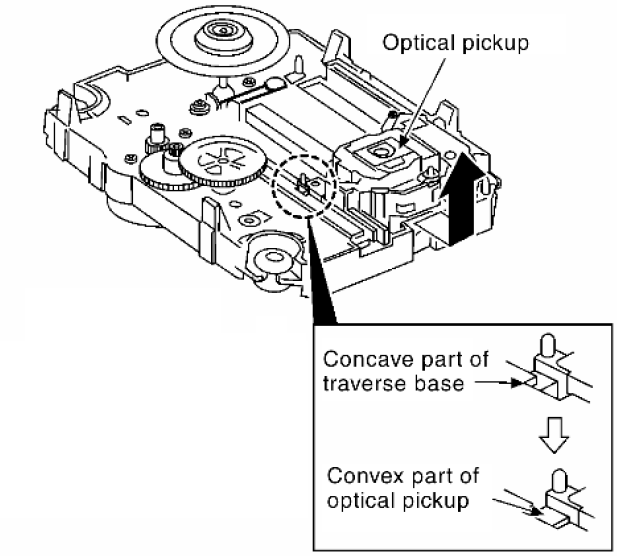
Step 9 Remove 1 screw.

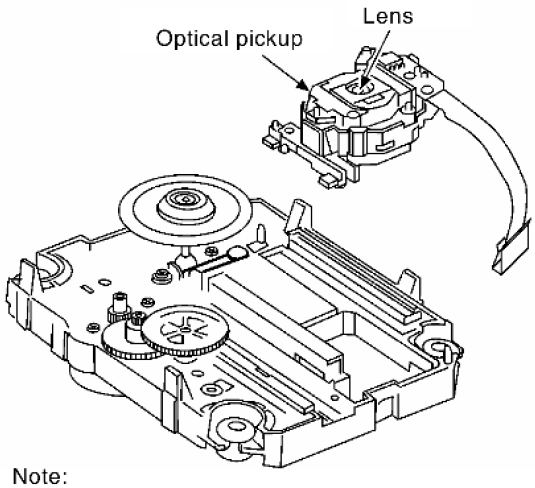


Step 10 Remove the catch of the drive rack, and take out the drive rack.



Step 11 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

17.16. Procedure for removing CD loading mechanism

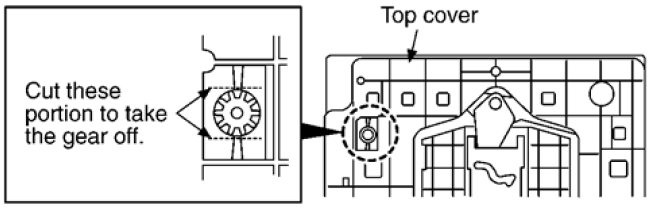
1. Turn off by pressing power SW in the body.
2. Unplug AC power cord after the indication of [GOOD-BYE], then disassemble the body.
3. Disassemble the body, and take out CD loading mechanism.
4. Perform disassembly according to the following procedure for disassembly.

17.17. CR16 mechanism disassembly procedure

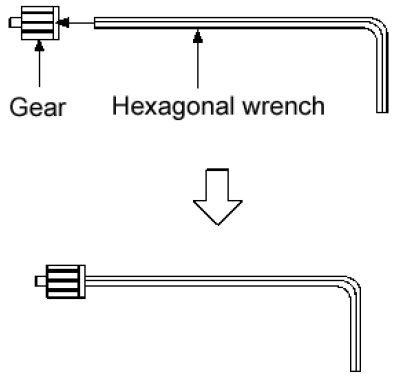
17.17.1. Gear for servicing information

- This unit has a gear which used for checking items (open/close of disc tray, up/down operation of traverse unit by manually) when servicing. (For gear information, that is described on the items for disassembly procedures.)
- For preparation of gear (for servicing), perform the procedures as follows.
- In case of re-servicing the same set, the “gear for servicing” may be took off because it had been used. So, the “gear for servicing” must be stored.

1. Remove the gear attached to top cover of CD loading mechanism.



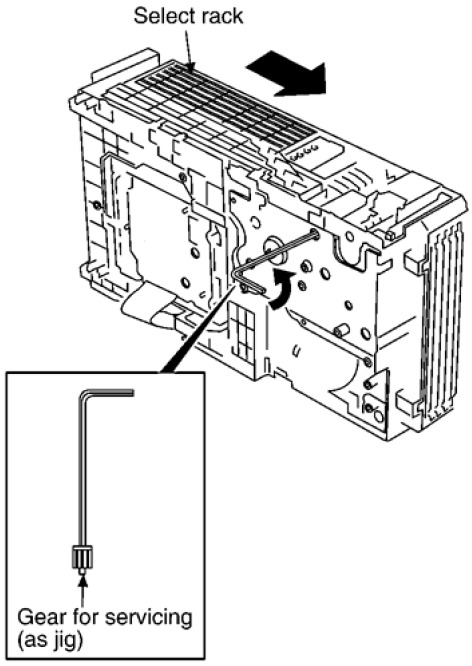
2. Insert the hexagonal wrench (2.5mm) into the gear.



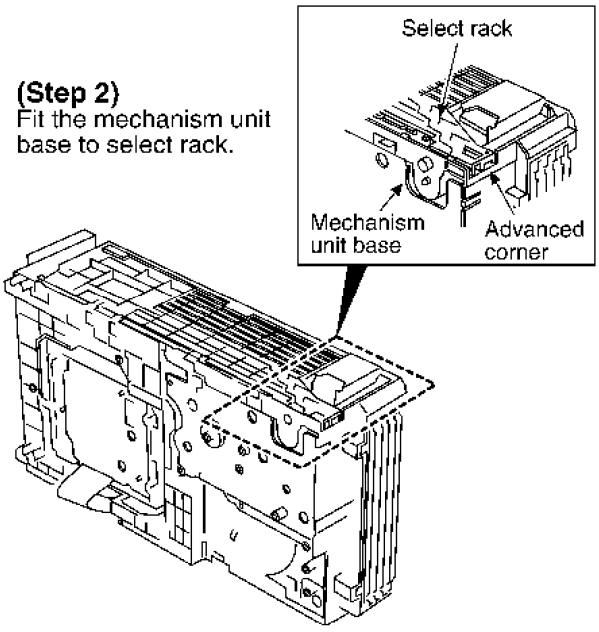
(Preparation of gear as jig is completed)

17.17.2. Replacement for the disc tray

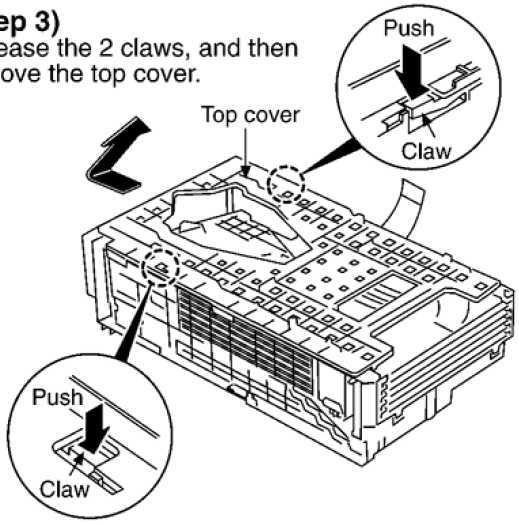
(Step 1)
Rotate the gear for servicing and move the select rack to advanced corner.



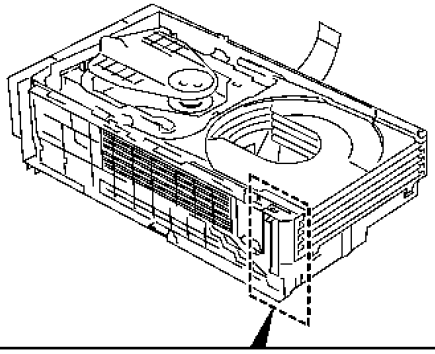
(Step 2)
Fit the mechanism unit base to select rack.

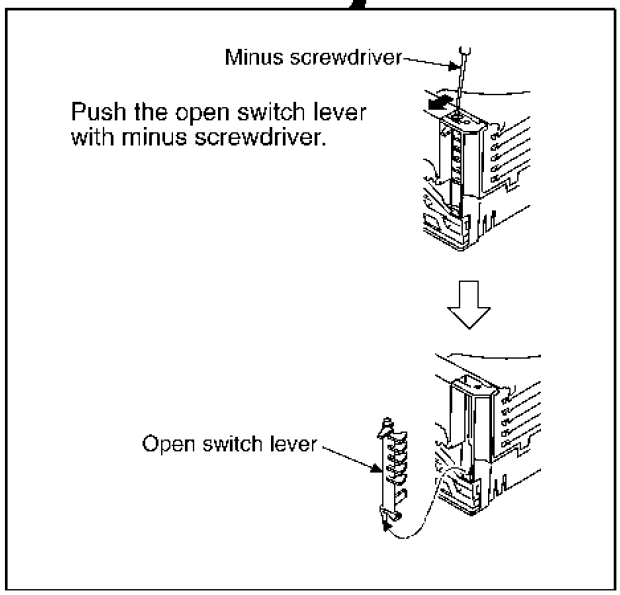


(Step 3)
Release the 2 claws, and then remove the top cover.

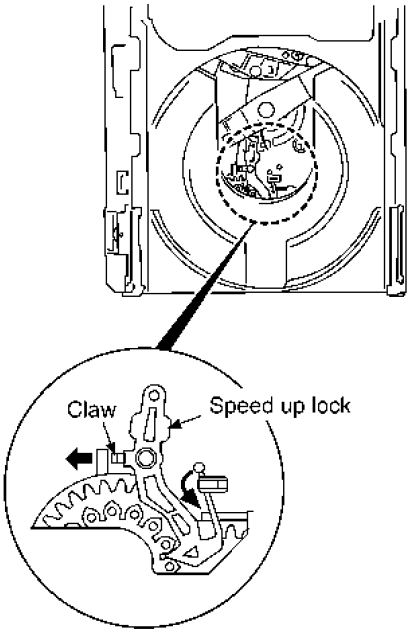


(Step 4)
Remove the open switch lever.





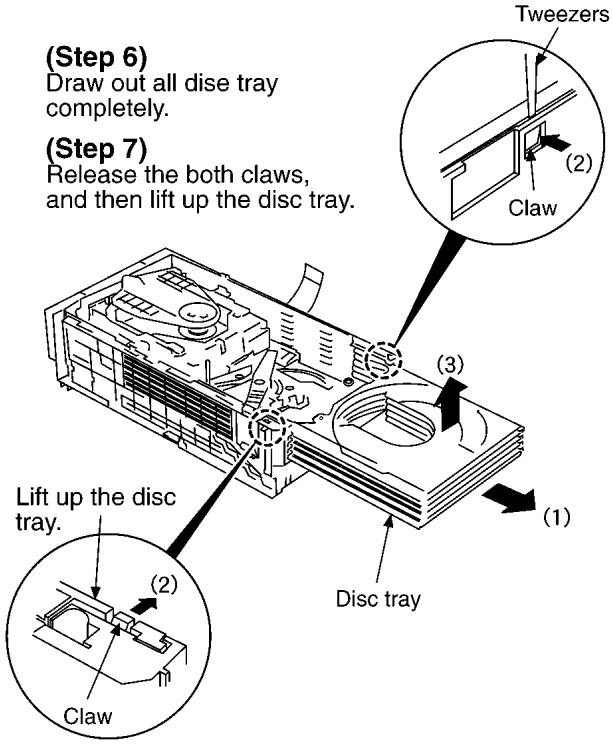
(Step 5)
Release the claw, and then remove the speed up lock.



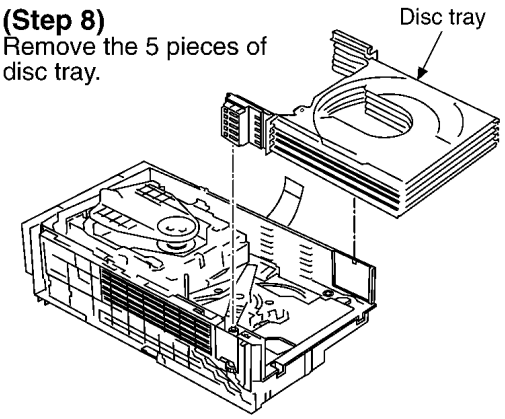
Insert the tweezers between the mechanism base and disc tray, and then lift up the disc tray.

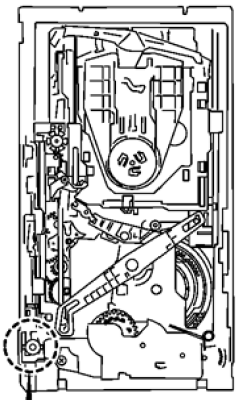
(Step 6)
Draw out all dise tray completely.

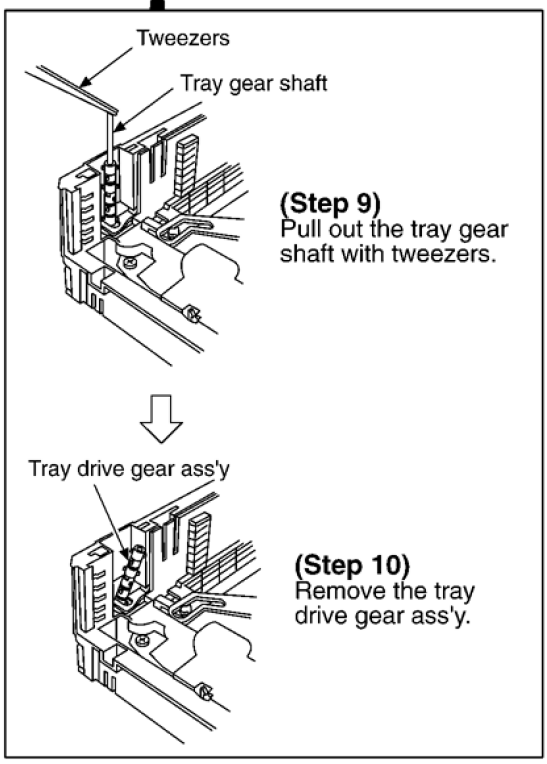
(Step 7)
Release the both claws, and then lift up the disc tray.



(Step 8)
Remove the 5 pieces of disc tray.





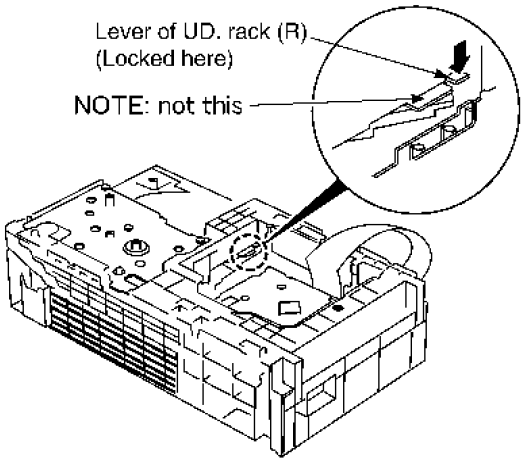


17.17.3. Replacement for the traverse deck

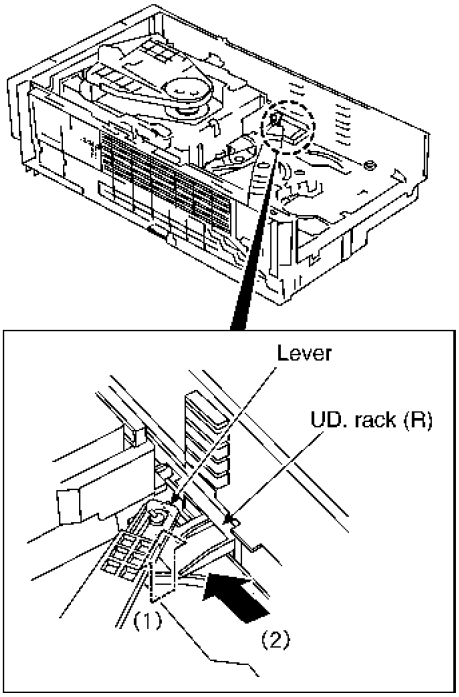
・Follow the **(Step 1)** - **(Step 10)** of item 17.17.2.

(Step 1)
Confirm the position for lever of UD. rack (R) to remove traverse unit.

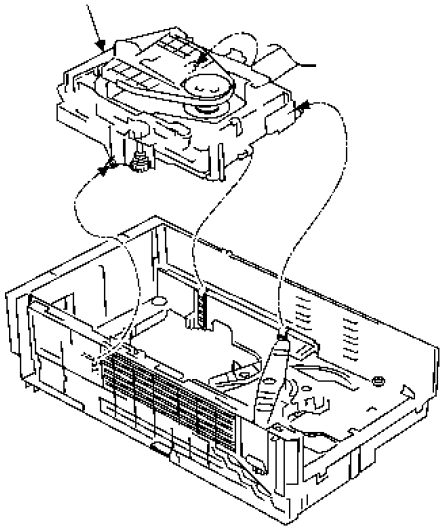
(Step 2)
Turn the unit over. (Upside: P.C.B.)



(Step 3)
Turn the unit over again, slide UD. rack (R) while pushing up the lever from the bottom.

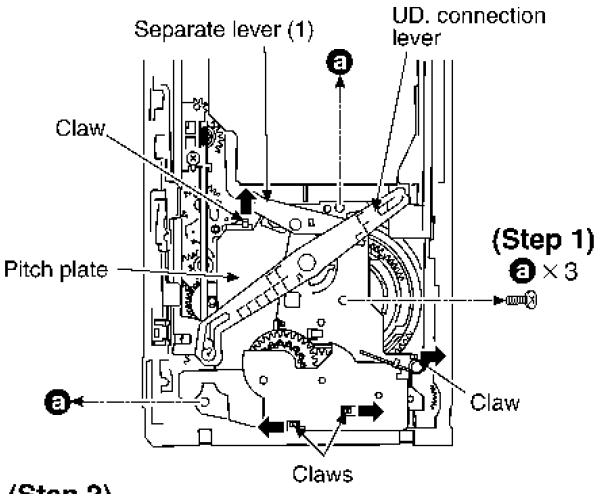


(Step 4)
Remove the traverse unit.



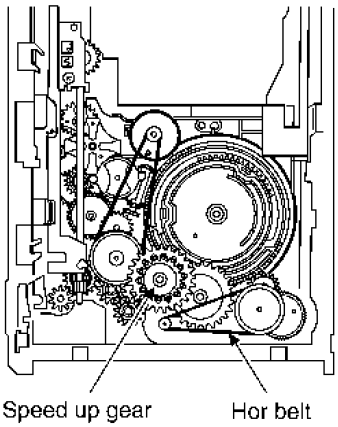
17.17.4. Disassembly for CD loading unit

- Follow the **(Step 1)** - **(Step 10)** of item 17.17.2.
- Follow the **(Step 1)** - **(Step 4)** of item 17.17.3.

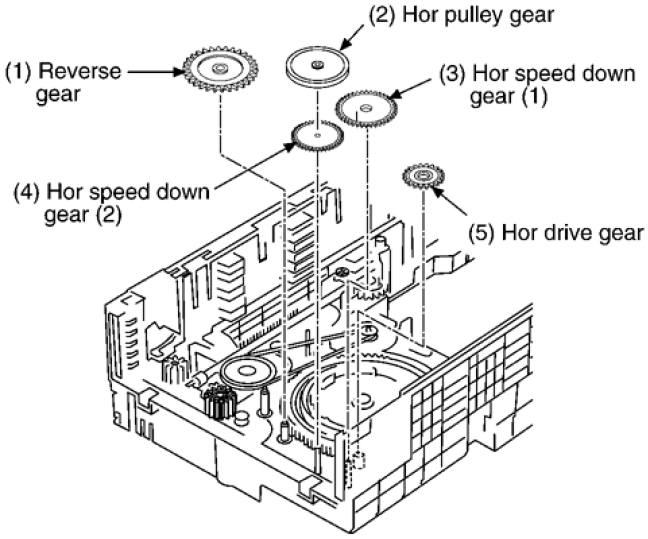


(Step 2)
Release the 4 claws, and then remove the pitch plate together with separate lever (1) and UD. connection lever.

(Step 3)
Remove the speed up gear and hor belt.

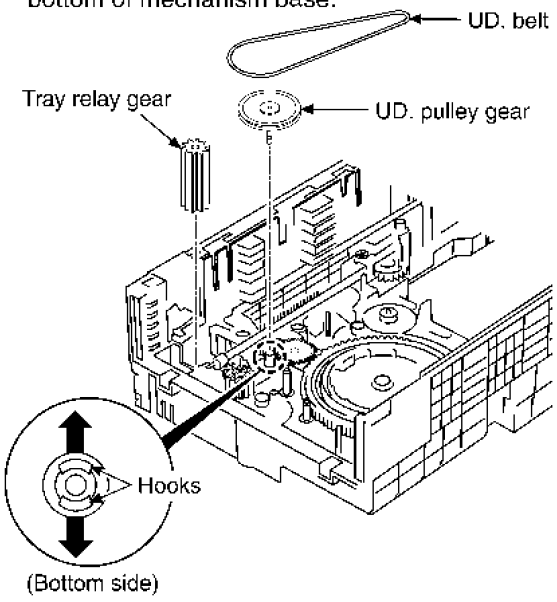


(Step 4)
Remove the reverse gear, hor pulley gear, hor speed down gear (1), hor speed down gear (2) and hor drive gear.

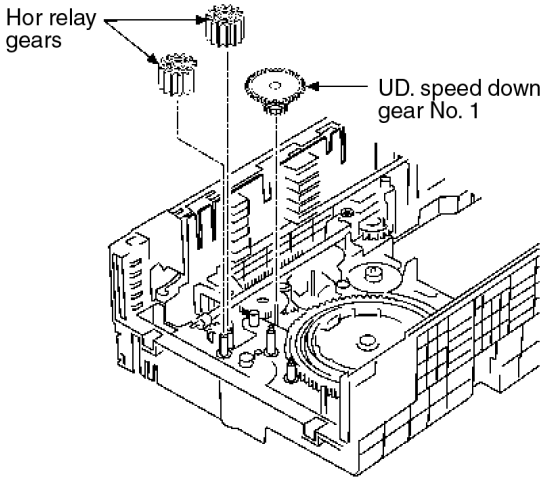


(Step 5)
Remove the UD. belt and tray relay gear.

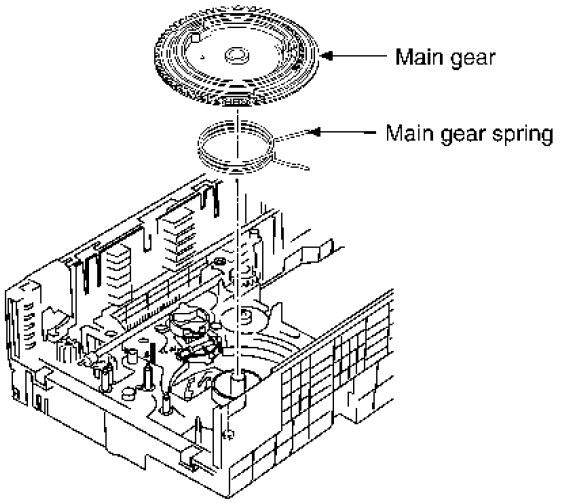
(Step 6)
Pull out the UD. pulley gear, loosen 2 hooks of the bottom of mechanism base.



(Step 7)
Remove the 2 hor relay gears and UD. speed down gear No. 1.

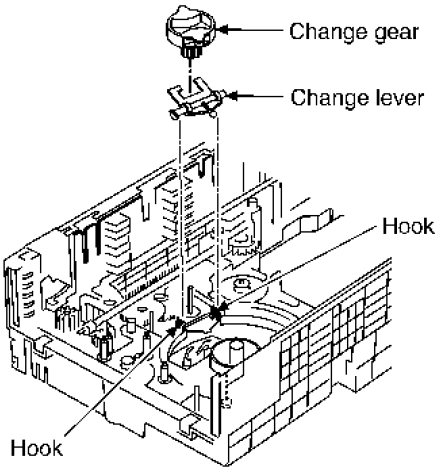


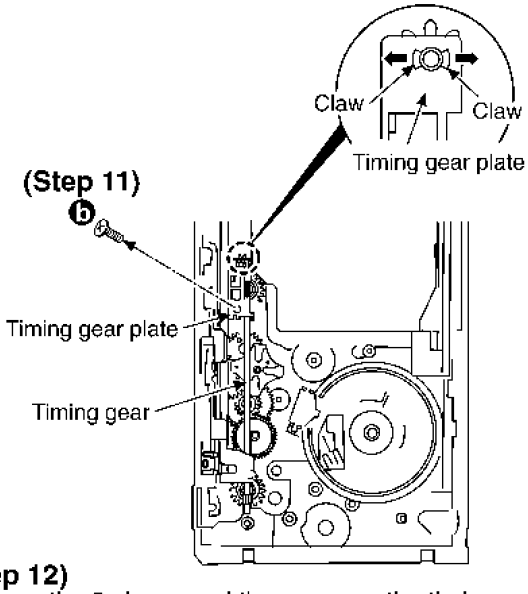
(Step 8)
Remove the main gear and main gear spring.



(Step 9)
Remove the change gear.

(Step 10)
Raise the change lever upright, and pull it out of hook.

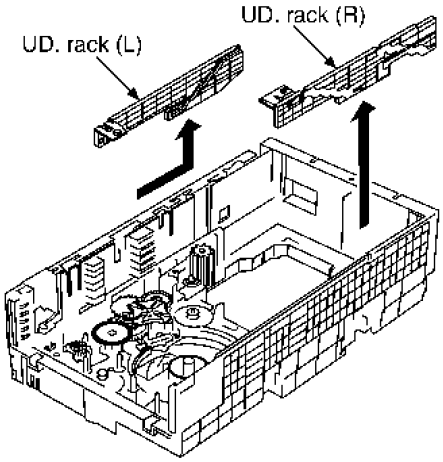




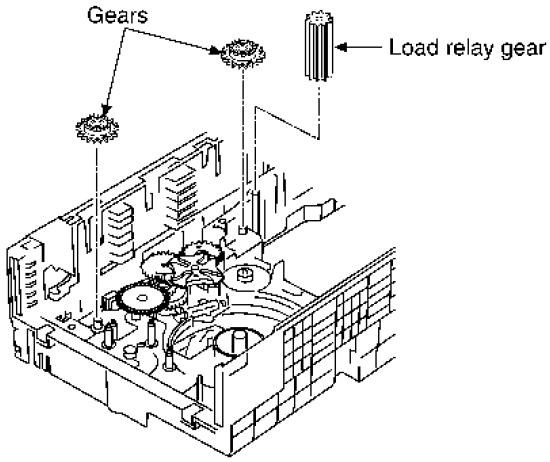
(Step 12)
Release the 2 claws, and then remove the timing gear and timing gear plate.

(Step 13)
Move the UD. rack (L) to backward, and then remove it.

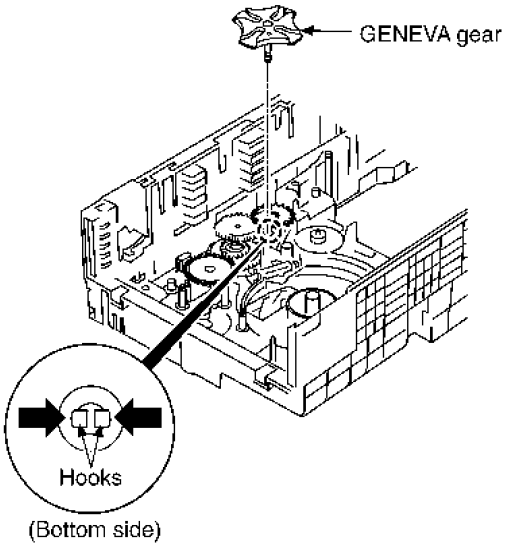
(Step 14)
Remove the UD. rack (R).



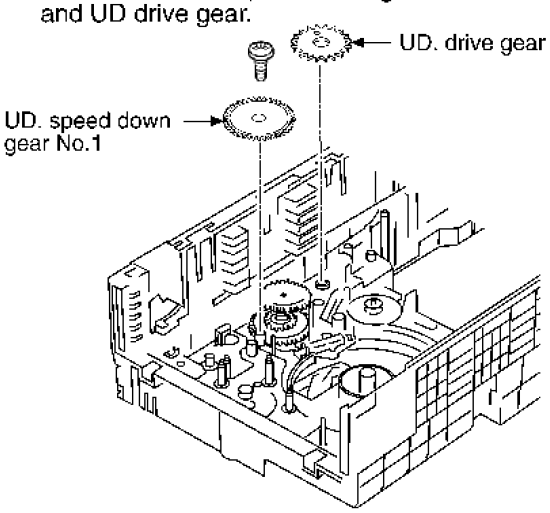
(Step 15)
Remove the 2 gears and load relay gear.



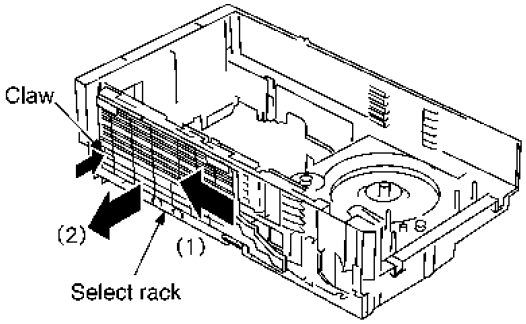
(Step 16)
Pull out the GENEVA gear, loosen 2 hooks of the bottom of mechanism base.

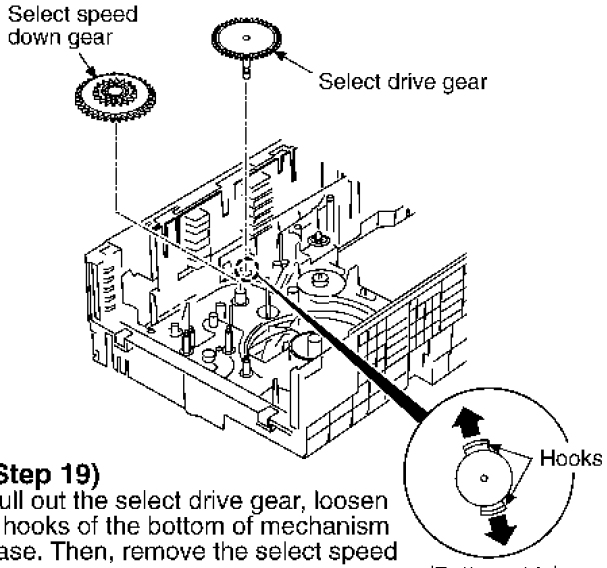


(Step 17)
Remove the UD. speed down gear No.1 and UD drive gear.



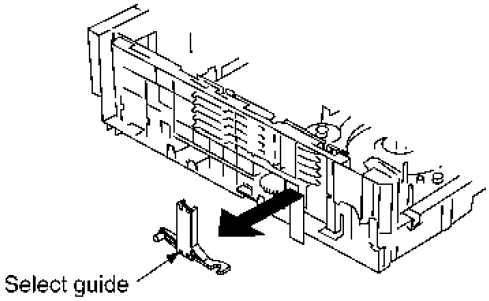
(Step 18)
Slide the select rack to the edge direction of the arrow (1). Push the claw and pull out to arrow (2) while sliding the select rack to the arrow (1).



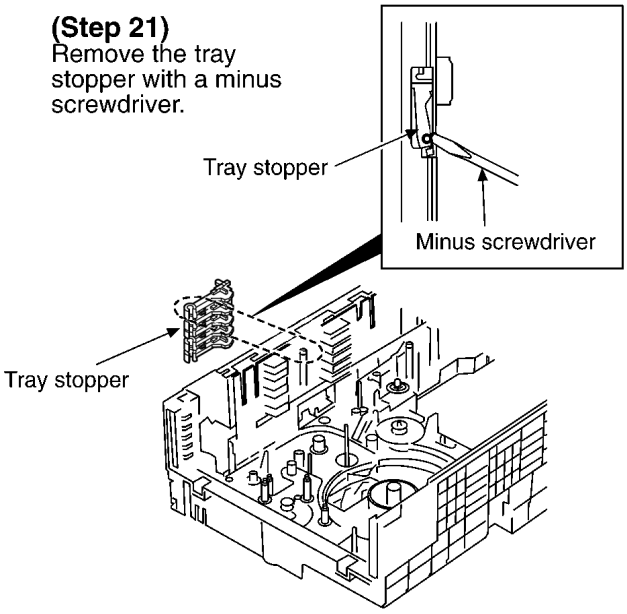


(Step 19)
Pull out the select drive gear, loosen 2 hooks of the bottom of mechanism base. Then, remove the select speed down gear.

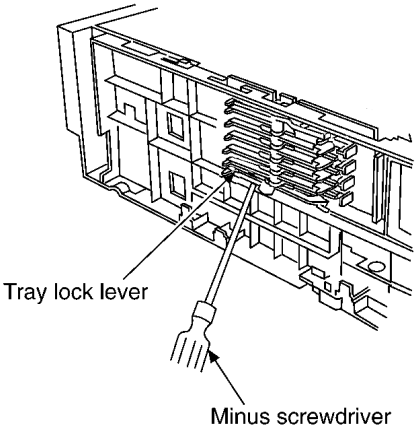
(Step 20)
Remove the select guide after sliding upside.



(Step 21)
Remove the tray stopper with a minus screwdriver.



(Step 22)
Remove the bottom of the tray lock lever with a minus screwdriver and others.

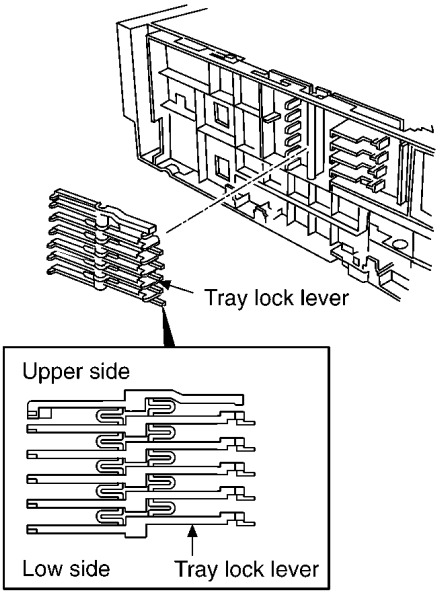


17.18. CR16 mechanism assembly procedure

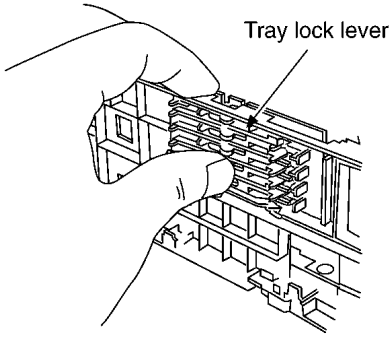
The following specified greases and/or oil must be applied when some specific parts are changed.

1. Floil grease (VFK1298) : The floil grease must be applied to tray, tray (L) and tray (R).
2. Hanarl oil (VFK1700) : The hanarl oil must be applied to any parts with grease other than the said parts.

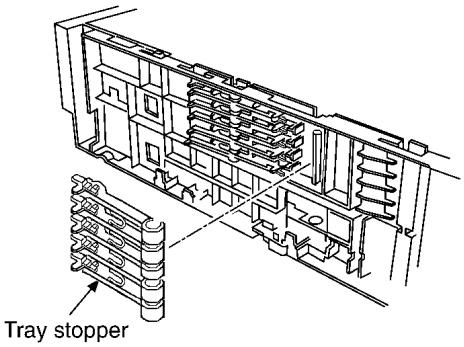
(Step 1)
Install the tray lock lever to mechanism base.



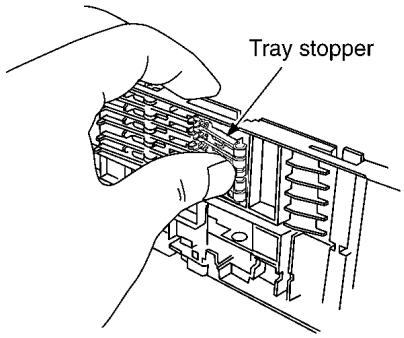
(Step 2)
Push the tray lock lever with a hand and install it.



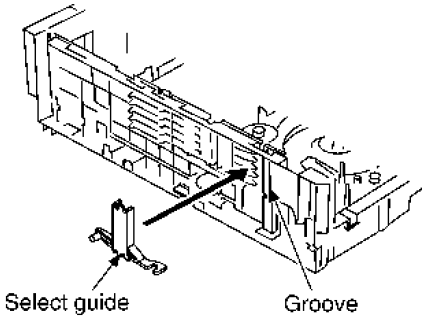
(Step 3)
Install the tray stopper to mechanism bese.



(Step 4)
Push the tray stopper with a hand and install it.

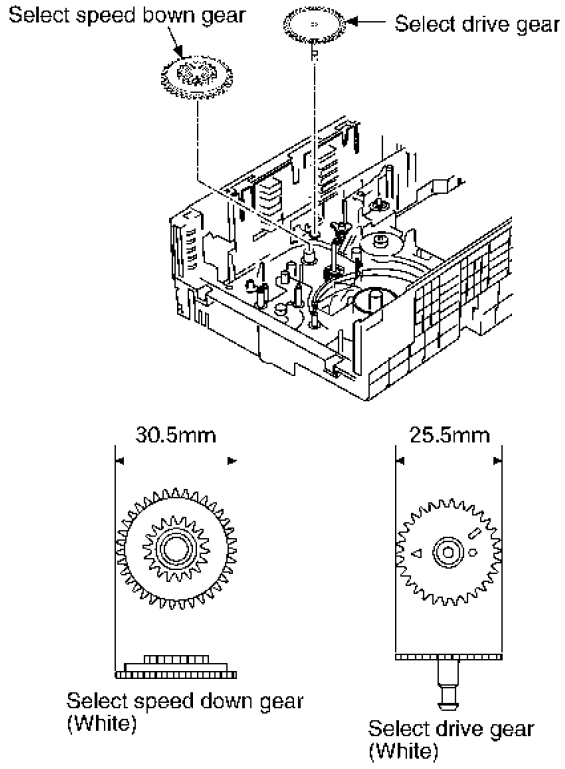


(Step 5)
Insert the select guide with a groove of the mechanism base and move it below.

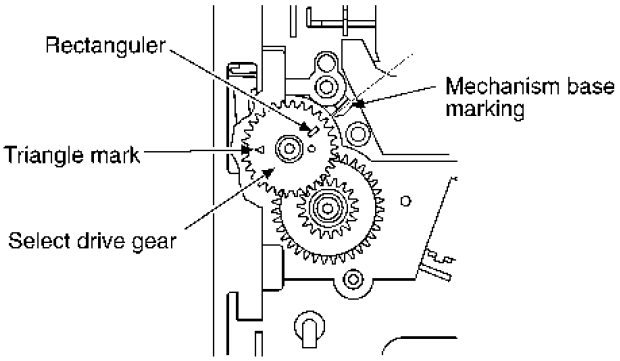


(Step 6)
Install the select speed down gear to mechanism base.

(Step 7)
Install the select drive gear to mechanism base.

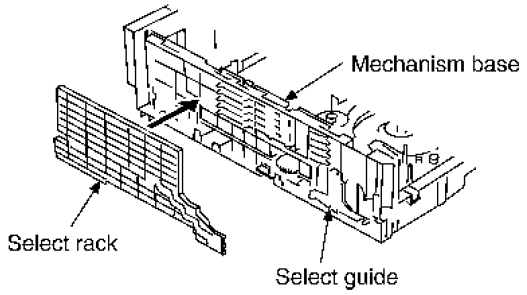


(Step 8)
Fit a mechanism base marking to the rectanguler mark of gear so that the triangle mark can indicate the sideward direction.

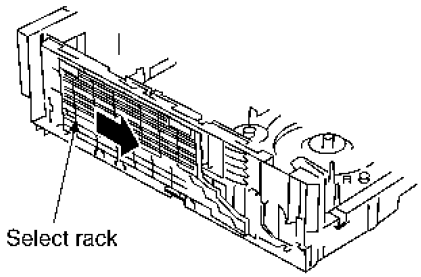


(Step 9)
Install the select rack to mechanism base.
(Checking items before the installation.
1. Check select guide is completely in lowest position.
2. Check its phase of select drive gear is correct position.(Rectangle/Triangular mark)(Refer to Step 8))

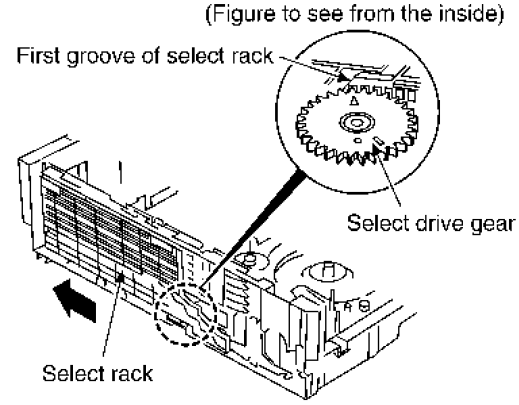
1. Put a select rack down with it fitted to its circumference of mechanism base.



2. Slide the select rack with it's pushing to a little right direction and install it.

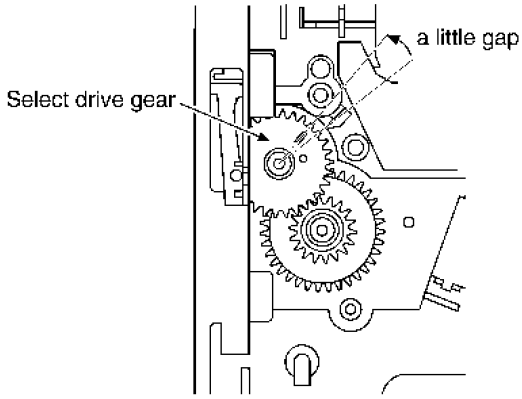


(Figure to see from the inside)

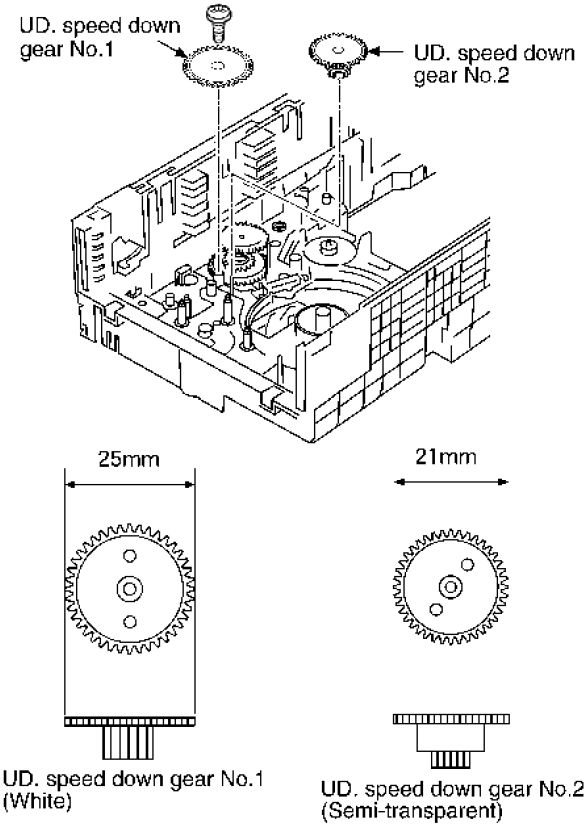


3. Check whether its end of triangular mark is in first groove of select rack, after fixing.
4. After insertion of select rack, continue the following work until the indication that it gose forward. And, all the while it must be checked that select rack is in the extreme end.

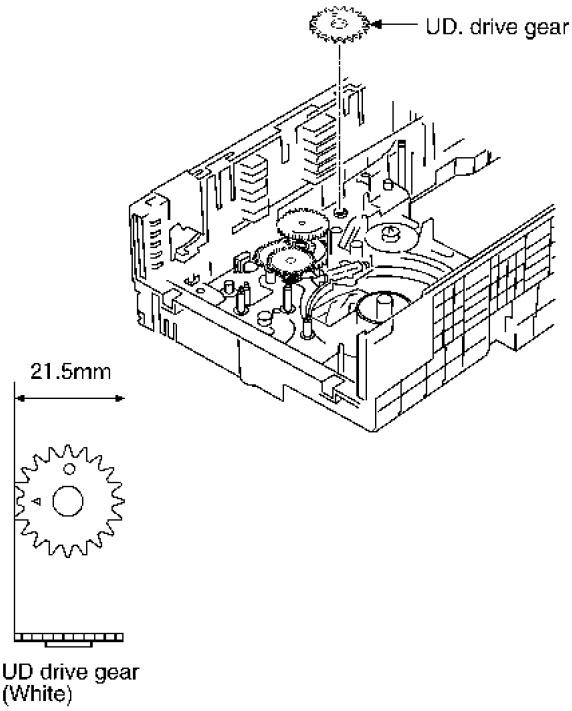
5. After insertion the select rack, the marking of select gear has a little gap when it is in the extreme end.



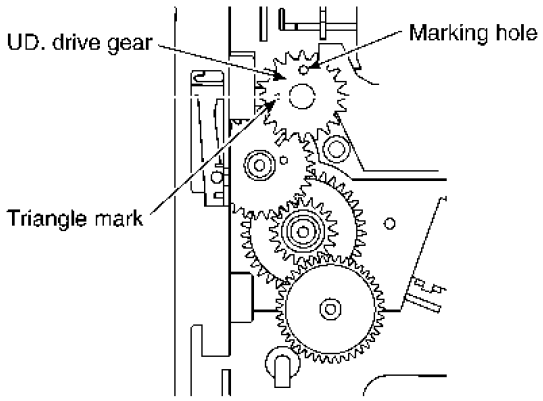
(Step 10)
Install the UD. speed down gear No.1 and UD. speed down gear No.2.



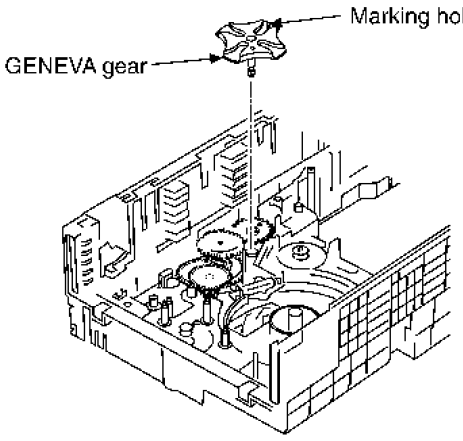
(Step 11)
Install the UD. drive gear to mechanism base.

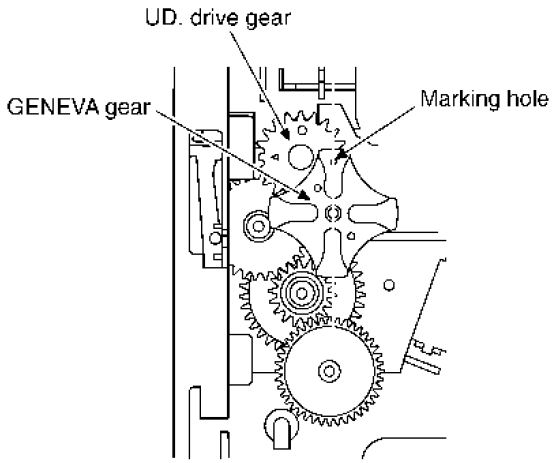


(Step 12)
Insert the UD. drive gear with its marking hole upward. At that time, its triangle mark should be sideways.

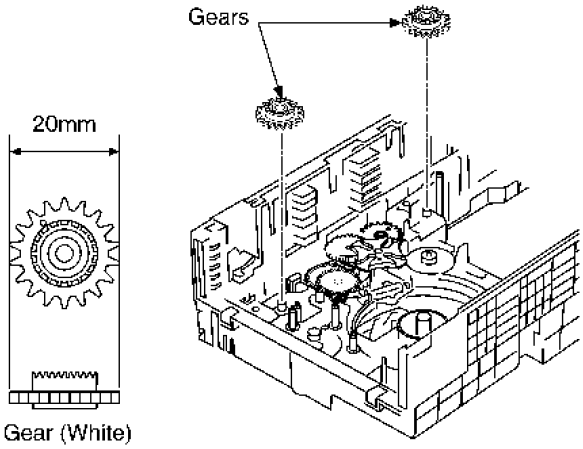


(Step 13)
Insert the GENEVA gear with its marking hole upward, and fix it by 2 hooks on bottom of mechanism base. At that time, UD. drive gear mustn't be moved.

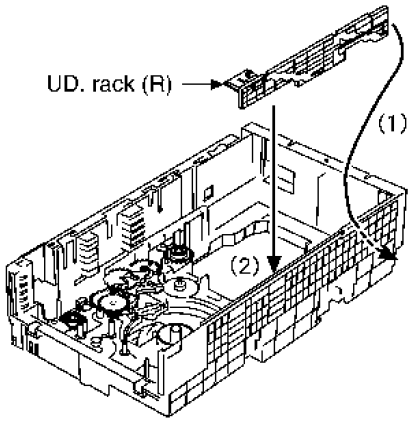




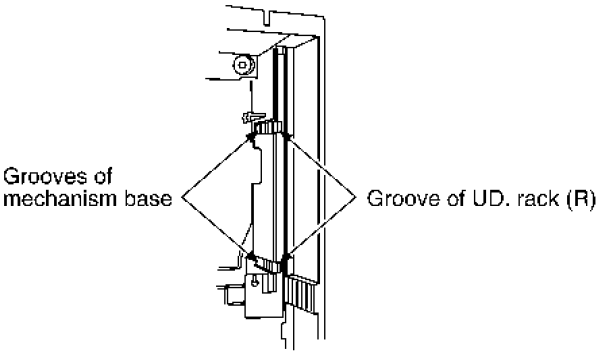
(Step 14)
Install the 2 gears to mechanism base.

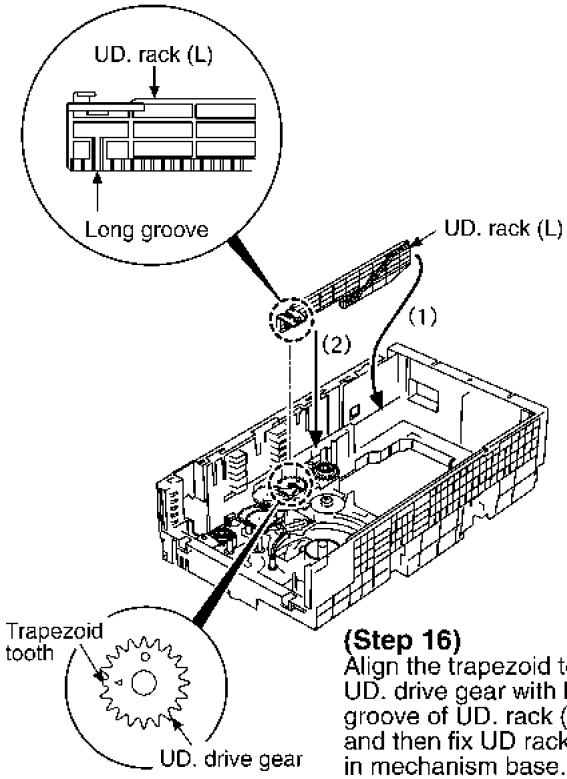


(Step 15)
Insert the UD. rack (R) to (2) from arrow (1).



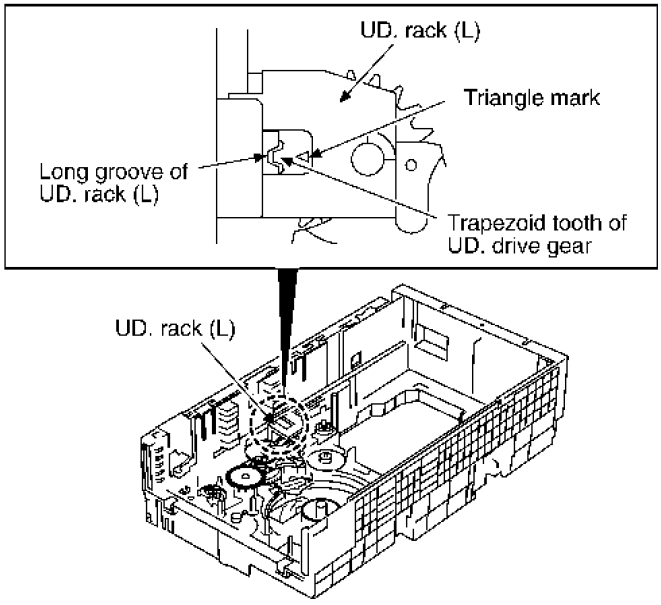
NOTE:
Put a groove of the mechanism base to the UD. rack (R).



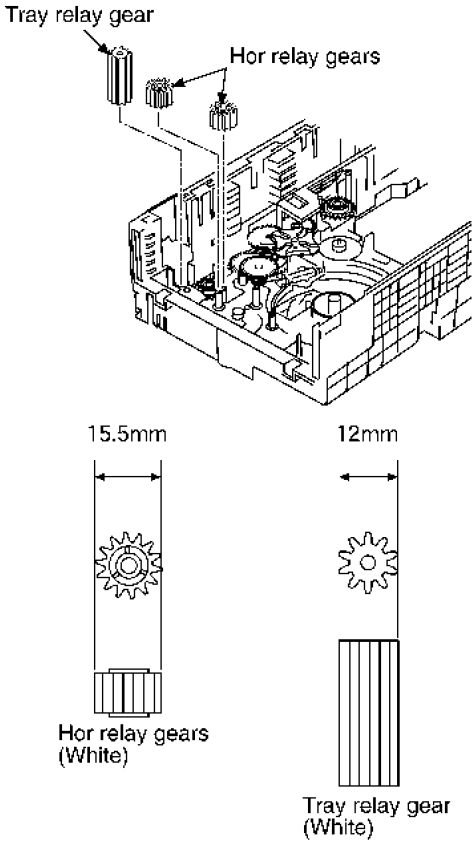


(Step 16)
Align the trapezoid tooth of UD. drive gear with long groove of UD. rack (L), and then fix UD rack (L) in mechanism base.

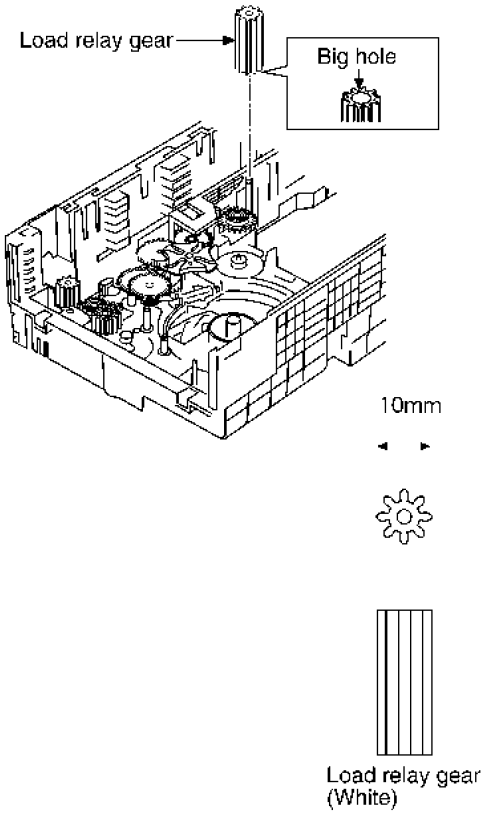
(Figure to see from the upper side)



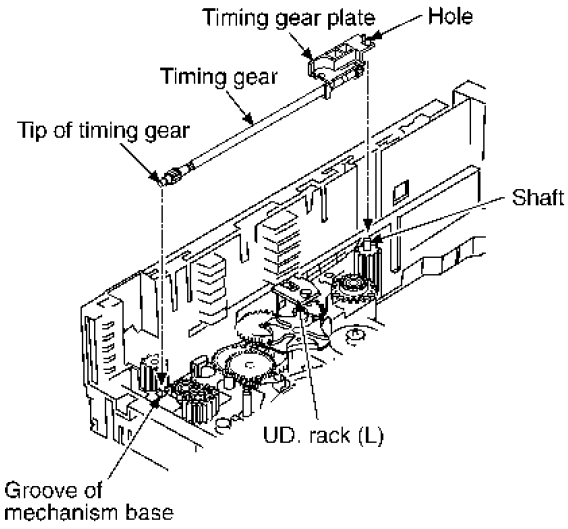
(Step 17)
Install the tray relay gear and 2 hor relay gears.



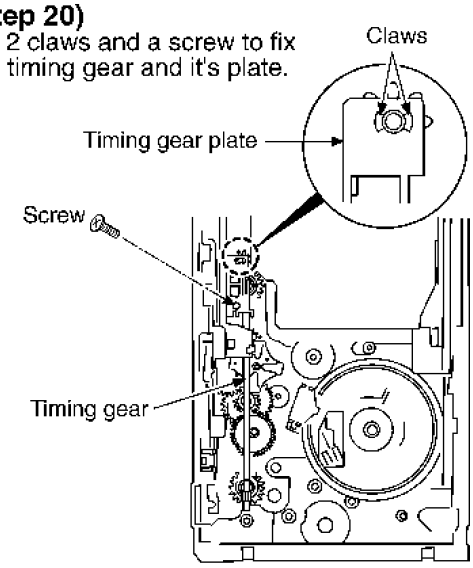
(Step 18)
Install the load relay gear to mechanism base.
(Fit load relay gear with its big hole downward.)



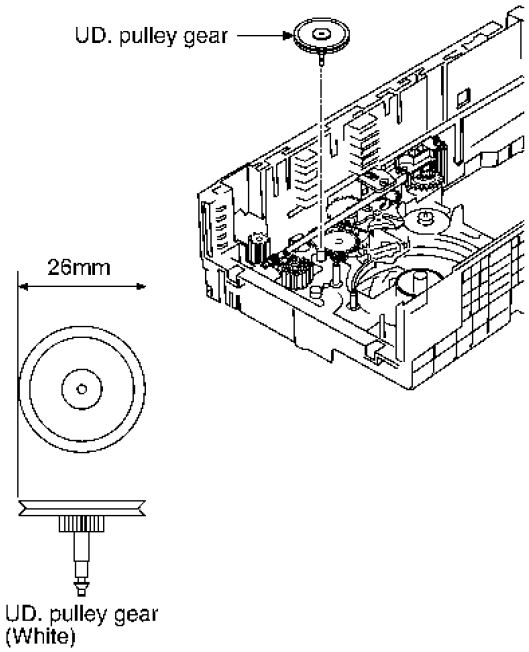
(Step 19)
Put on the top of the timing gear, then, install the timing gear and it's plate.
At that time avoid the UD. rack (L).



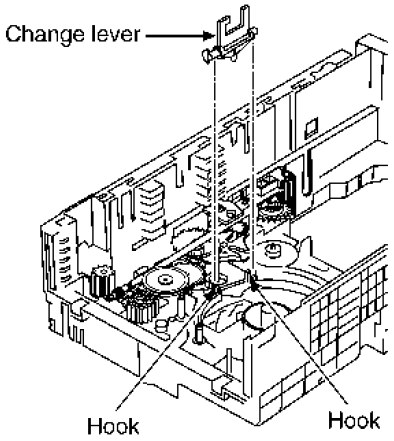
(Step 20)
Fix 2 claws and a screw to fix the timing gear and it's plate.



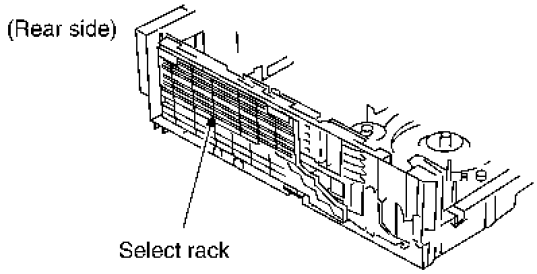
(Step 21)
Install the UD. pulley gear to mechanism base.

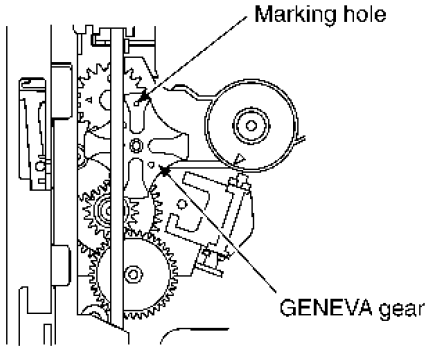


(Step 22)
Insert the change lever with it upright.

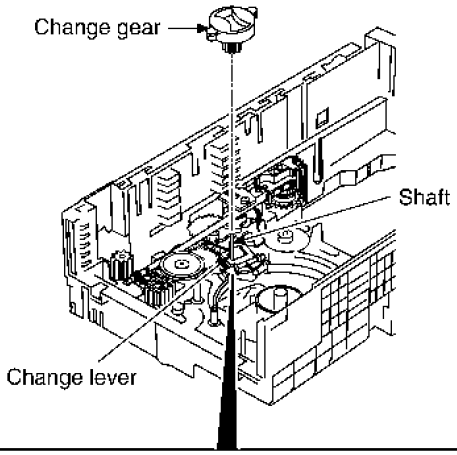


(Step 23)
Be sure the notice of bellow before fixing the change gear.
1. Select track should be in the rear of mechanism base.
2. Its hole of GENEVA gear should turn up.

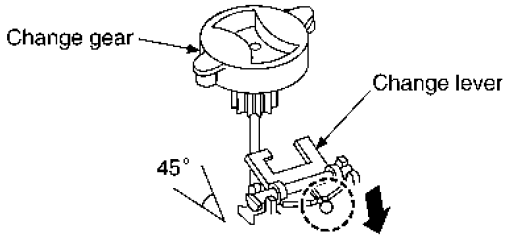




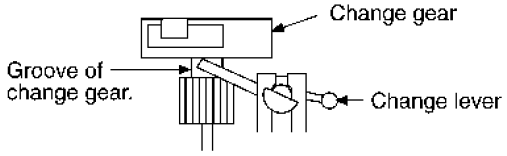
(Step 24)
Install the change gear as insert the change lever into the groove of change gear.



1. Pushing the ○ part and pull up the change lever 45°.

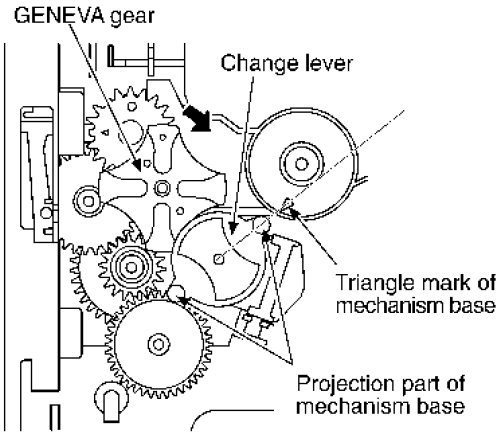


2. Insert the change lever into the groove of change gear.

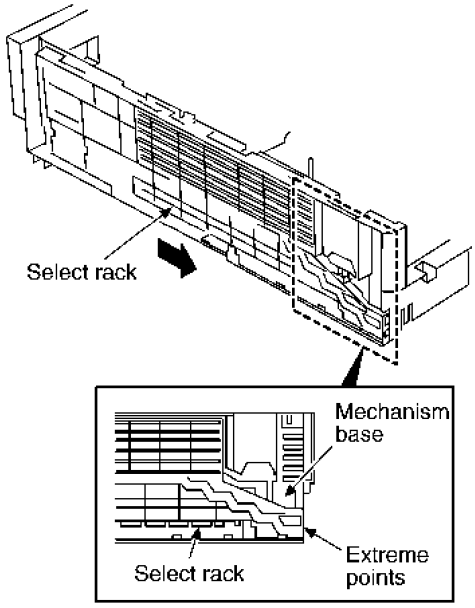


(Step 25)
Put change gear down with projection part of change gear fitted to triangle mark of mechanism base, when fixing change gear.
At that time, check change gear is inserted into the groove of change lever.

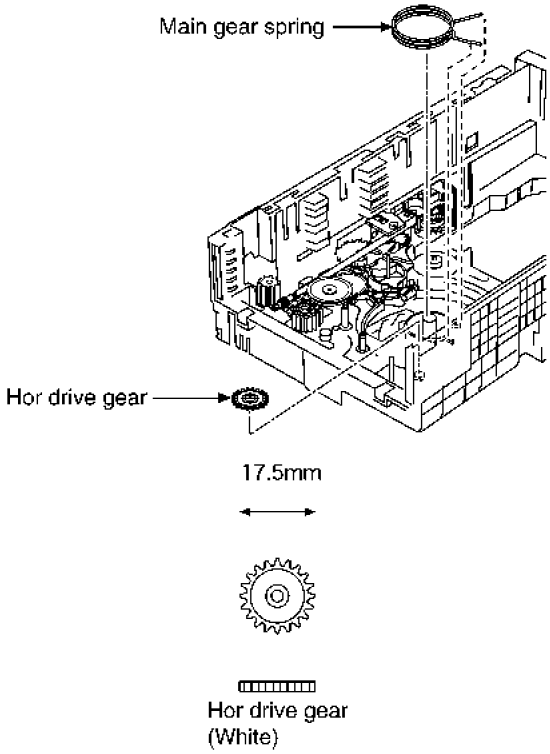
(Step 26)
Lastly, turn GENEVA gear clockwise slightly and drop change gear to mechanism base.



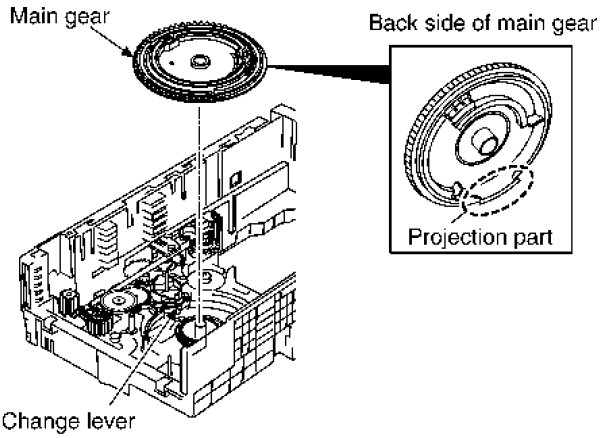
(Step 27)
Move the select rack smoothly forward manually until 2 extreme points of both select track and mechanism base.



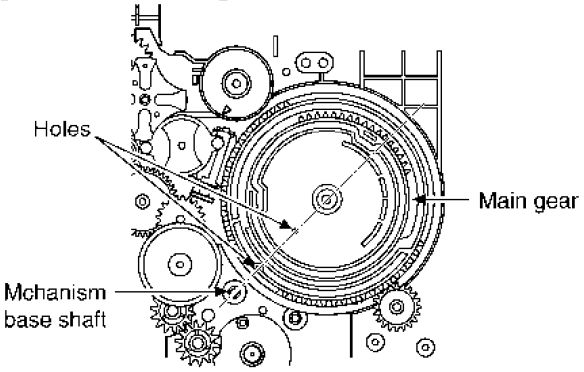
(Step 28)
Install the main gear spring and hor drive gear.



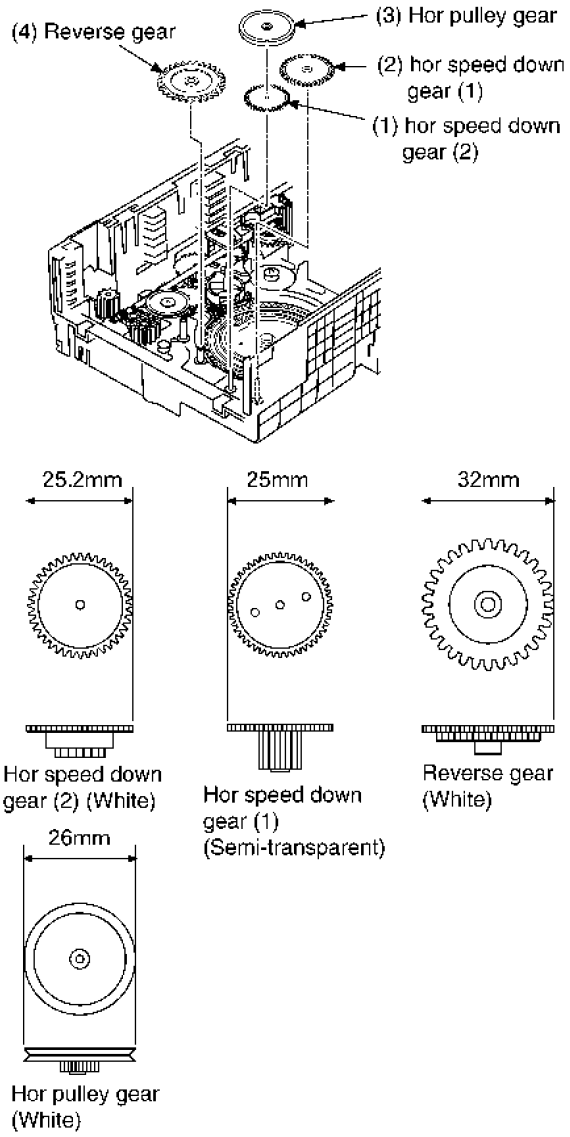
(Step 29)
Don't bring change lever into touch to projection part of main gear, when fixing main gear in mechanism base.



(Step 30)
After that, turn main gear so that 2 holes inside main gear would be in alignment with mechanism base.

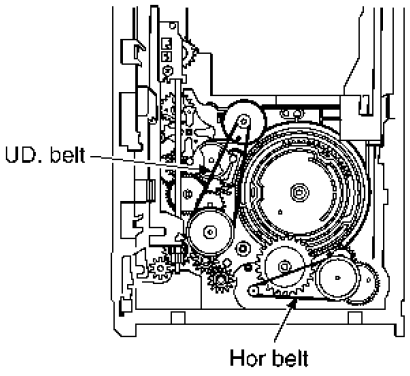


(Step 31)
Install the hor speed down gear (2), hor speed down gear (1), hor pullry gear and reverse gear.

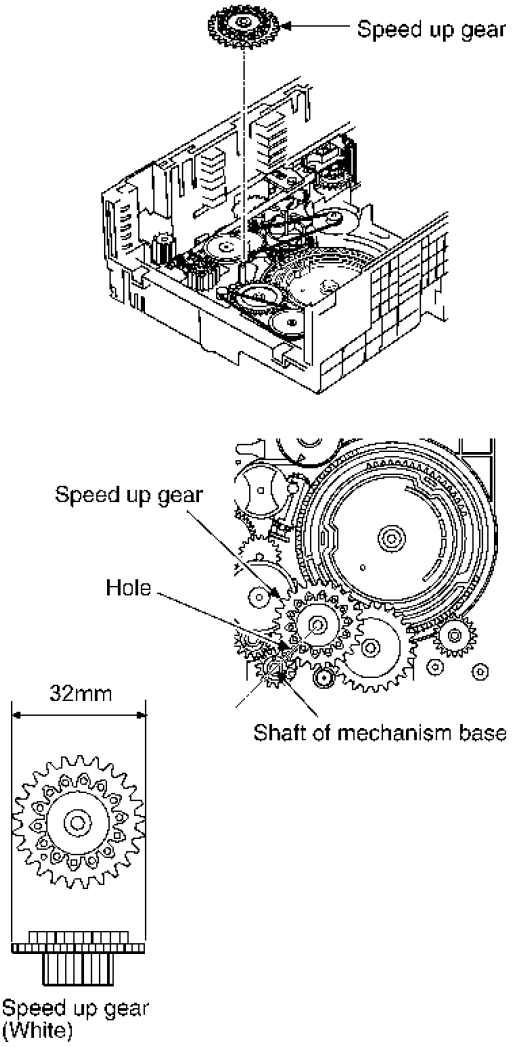


(Step 32)
Install the UD. belt and hor belt.

NOTE:
1. Take care not apply the grease to the belt.
2. Install the belt without twist.

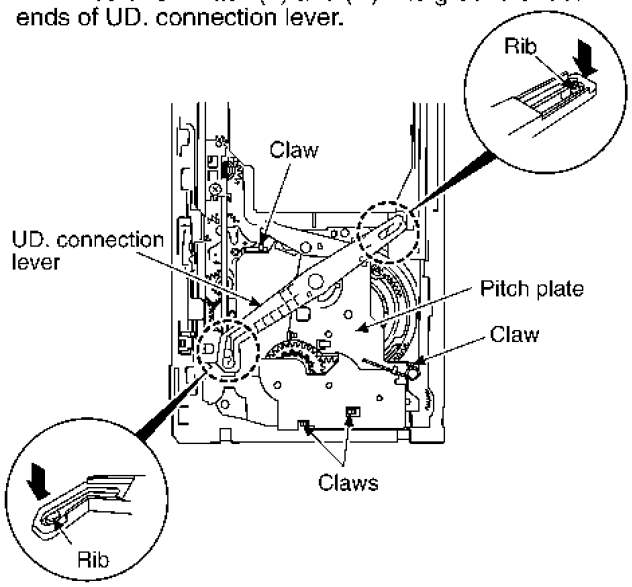


(Step 33)
Install speed up gear to its shaft of mechanism base with 2 fitting.

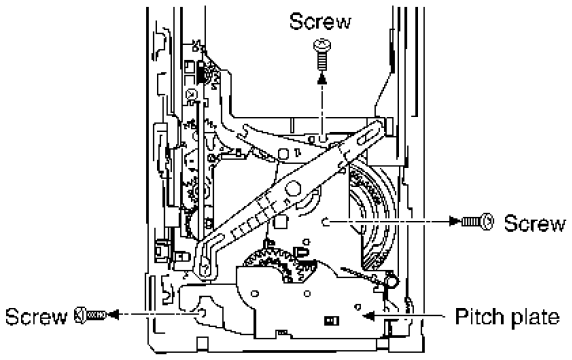


(Step 34)
Install the pitch plate. (The 4 claws should be latched.)

(Step 35)
Fix 2 ribs of UD. rack (L) and (R) into groove of both ends of UD. connection lever.

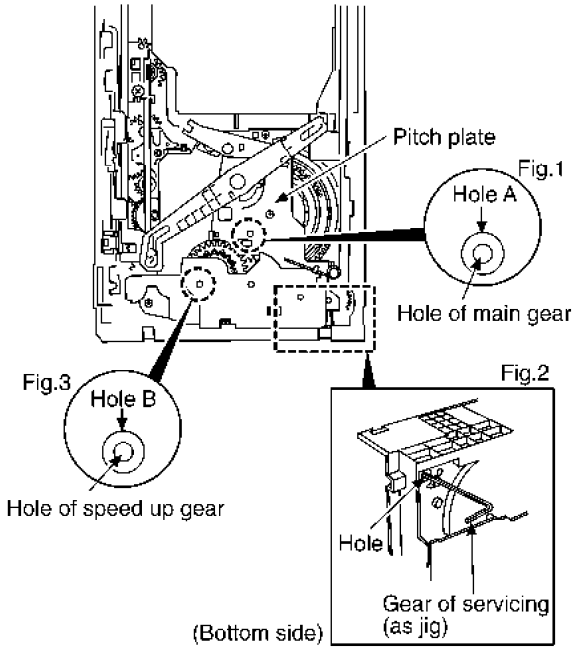


(Step 36)
Fixed it by three screws further.

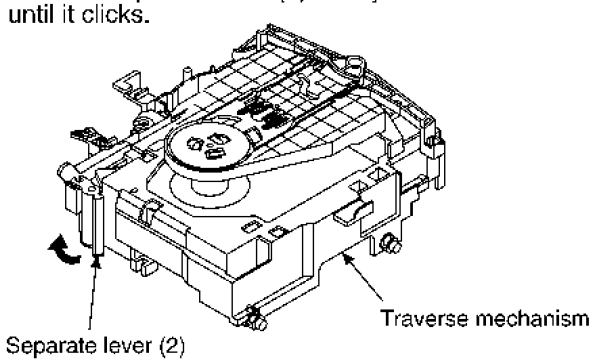


(Step 37)
Be sure the notice of below before fixing the traverse mechanism.

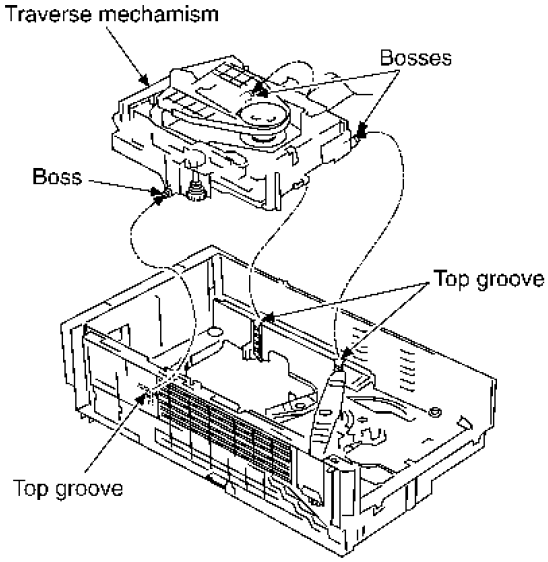
1. Check that 2 holes of both pitch plate and main gear is fitted. (Refer to Fig.1)
   If it's not fitted, put the gear for servicing in the hole of the bottom side and adjust it. (Refer to Fig.2)
2. Check that 2 holed of both pitch plate and speed up gear is futted. (Refer Fig.3)
   If it's not fitted turn the speed up gear to adjust it.



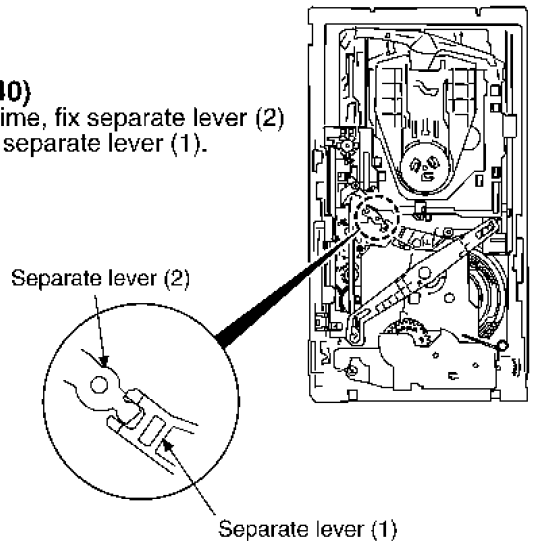
(Step 38)
Turn the separate lever (2) slowly toward left side until it clicks.



(Step 39)
Fix the left boss into the top groove of the UD. rack (L) and fix 2 bosses into the groove of the UD. rack (R).

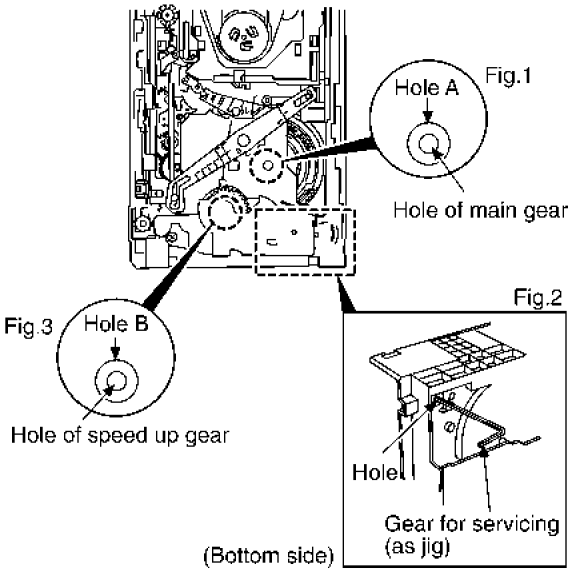


(Step 40)
At that time, fix separate lever (2) into the separate lever (1).

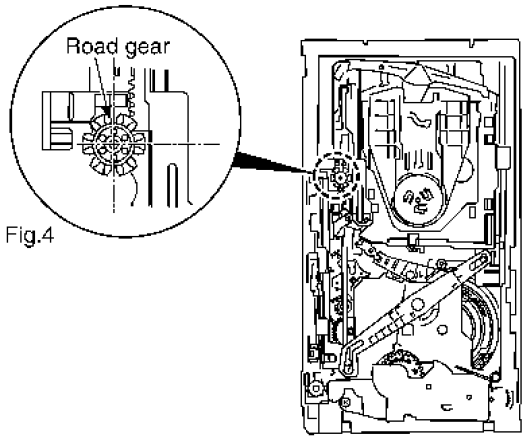


(Step 41)
After the traverse mechanism fixed,
confirm the phase in order below.

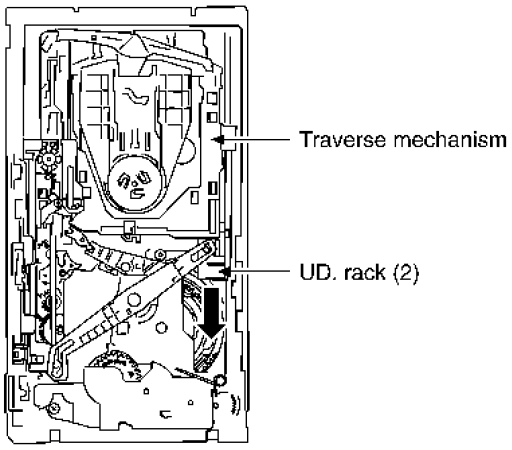
1. Check that 2 holes of both pitch plate and main gear is fitted. (Refer to Fig.1)
   If it's not fitted, put the gear for servicing in the hole of the bottom side and adjust it. (Refer to Fig.2)
2. Check that 2 holed of both pitch plate and speed up gear is futted. (Refer Fig.3)
   If it's not fitted turn the speed up gear to adjust it.



3. In the cog of road gear, the groove with it's cutting halfway set side ward. (Refer to Fig.4)
   Remove the traverse mechanism again when it is not set side ward and install it after adjustment of inserting position.
   NOTE: By this time, do not adjust to rotate the road gear.

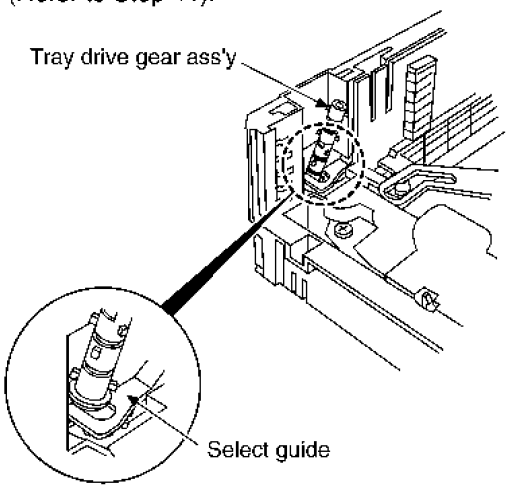


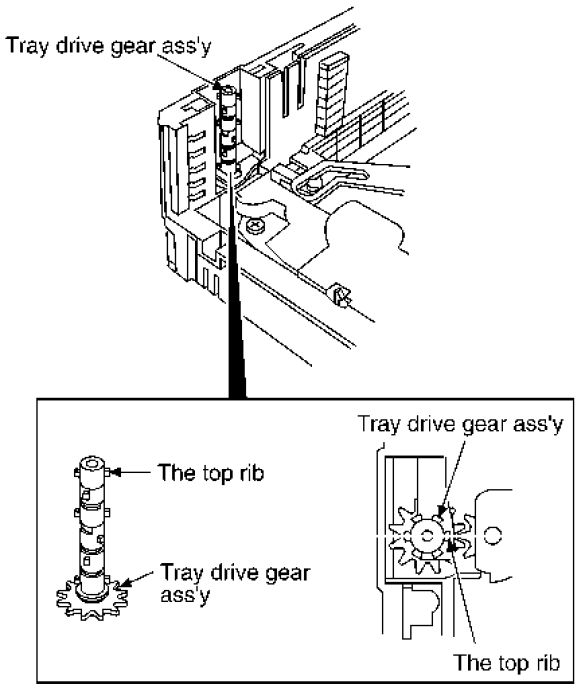
(Step 42)
After insertion of traverse mechanism, pull the UD. rack (R) on this side that each phase is "OK" and then lock the traverse mechanism.



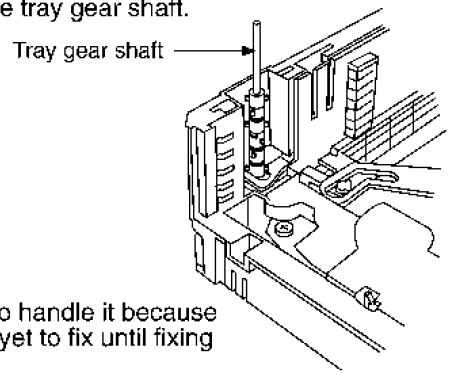
(Step 43)
Install the tray drive gear to select guide.
(Install the top rib of the tray drive gear with side ward.)

NOTE:
Confirm the each phase surely before install the tray drive gear. (Refer to Step 41).



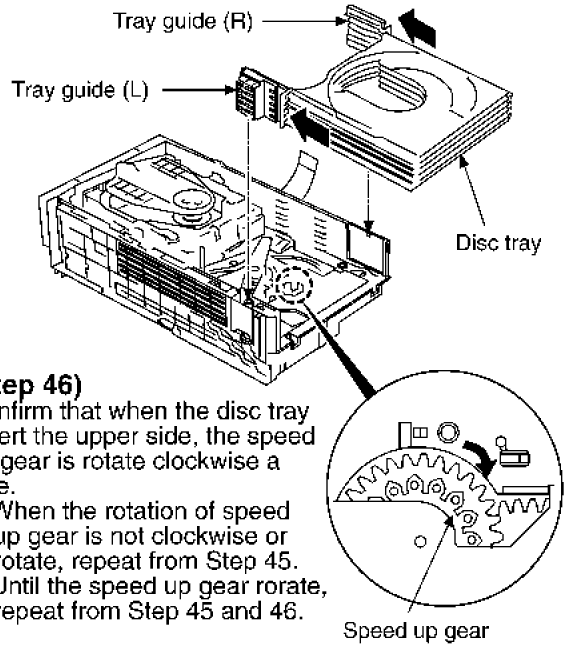


(Step 44)
Insert the tray gear shaft.



NOTE:
Be careful to handle it because the shaft is yet to fix until fixing top cover.

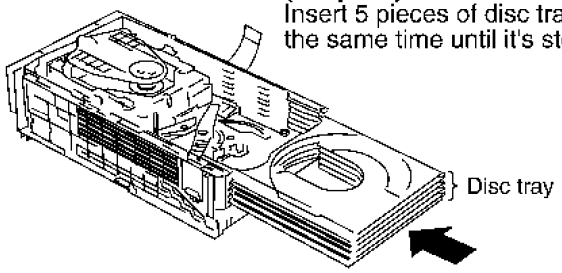
(Step 45)
Move the tray guide (R) and (L) to direction of arrow that fixed (stopped) it and install 5 pieces of disc tray.



(Step 46)
Confirm that when the disc tray insert the upper side, the speed up gear is rotate clockwise a little.
- When the rotation of speed up gear is not clockwise or rotate, repeat from Step 45.
- Until the speed up gear rorate, repeat from Step 45 and 46.

NOTE:
While keeping all postion, install 5 pieces of disc tray.

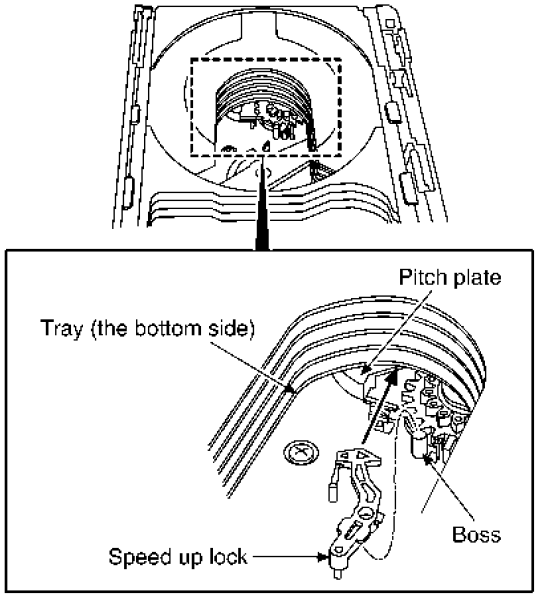
(Step 47)
Insert 5 pieces of disc tray at the same time until it's stop.



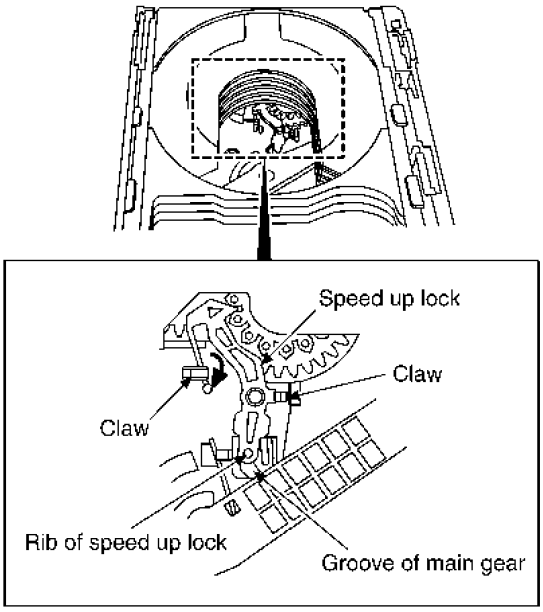
(Step 48)
Turn the traverse side 180°.

(Step 49)
While install the tip of speed up lock beween tray (No.1) of the most lower side and pitch plate for the time being.
(Do not to insert the cog of speed up gear), insert it to boss.

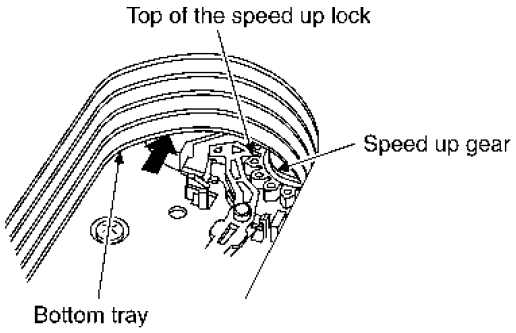
NOTE:
At that time, do not move the tray.
(See the tray the most front side)



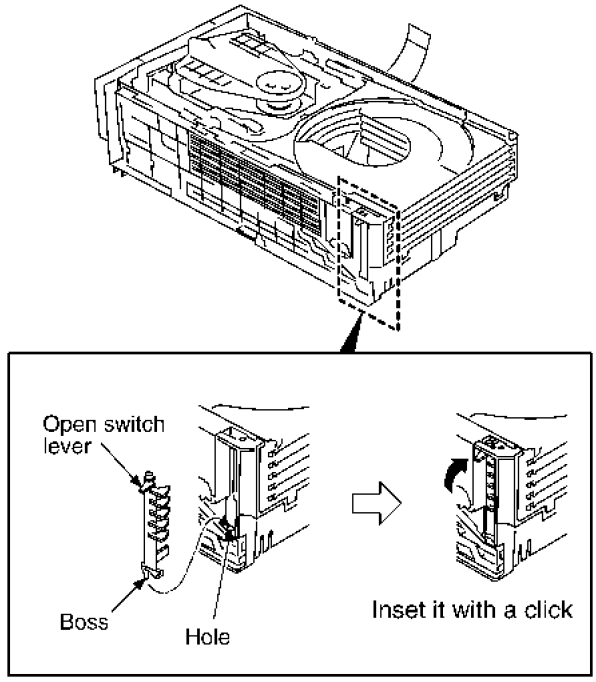
(Step 50)
Insert the rib of speed up lock into a groove of main gear, and lock it with 2 claws.



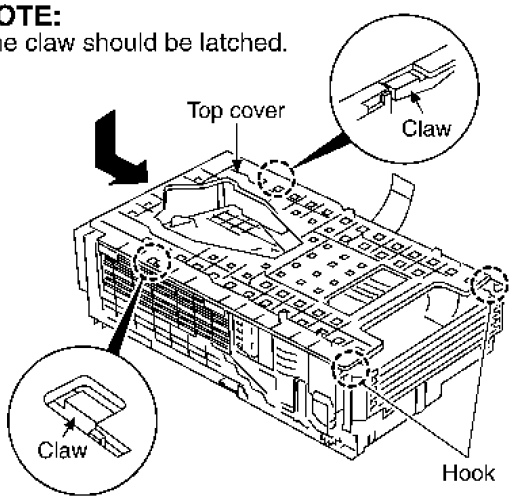
(Step 51)
Move the bottom tray to the arrow while pushing the top of the speed up gear. And insert it to a cog of the speed up gear.



(Step 52)
Install the open switch lever.
(Put the boss into the hole of the mechanism base.)



(Step 53)
Install the top cover.
Fix it into hooks and slide direction to the arrow.
NOTE:
The claw should be latched.

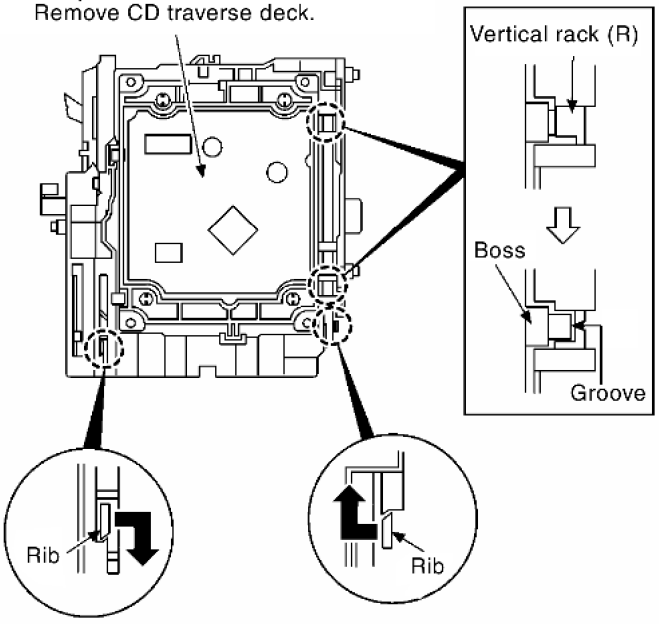


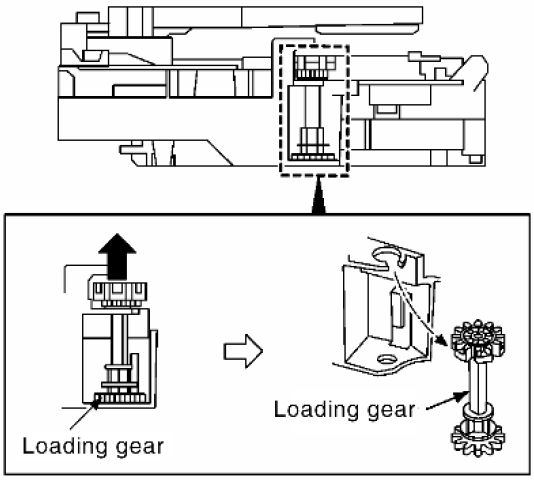
17.19. Disassembly for Traverse Unit

- Follow the **(Step 1)** - **(Step 10)** of item 17.17.2
- Follow the **(Step 1)** - **(Step 4)** of item 17.17.3

Step 1
Shift ribs of both side to the arrow direction.
(A vertical rack (R) slides and groove opens)

Step 2
Remove CD traverse deck.

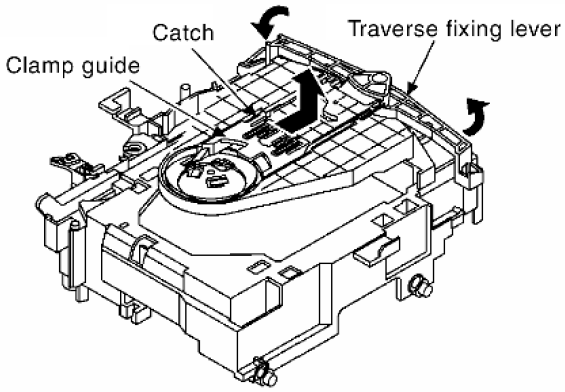




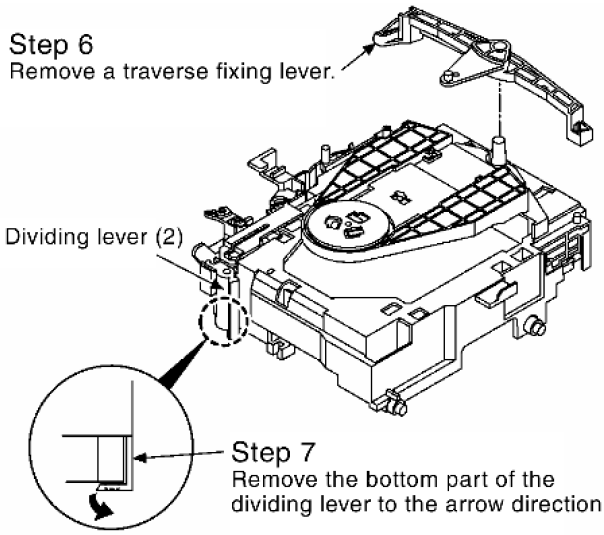
Step 3
Lift a loading gear slightly and pull out.

Step 4
Fixing lever to the arrow direction, rotate a traverse.

Step 5
Remove catch and take out a clamp guide.

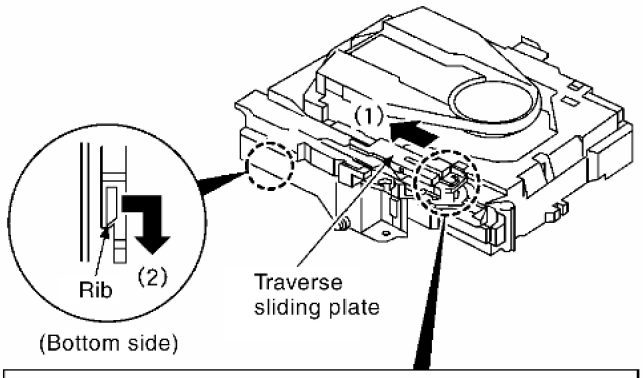


Step 6
Remove a traverse fixing lever.

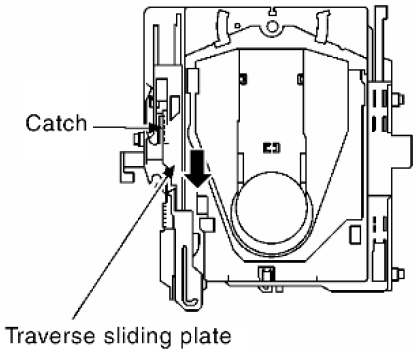


Step 7
Remove the bottom part of the dividing lever to the arrow direction.

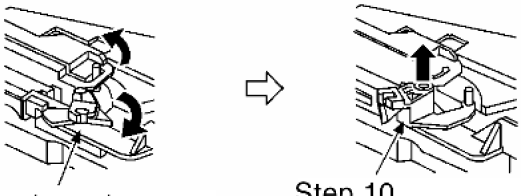
Step 8
Slide a traverse sliding plate to the arrow direction (1), and shift a rib to the arrow direction (2).



Step 11
Holding the catch down, slide a traverse sliding plate to the arrow direction and remove it.



Step 9
Shifting a traverse sliding plate slightly and rotate a tray change lever.

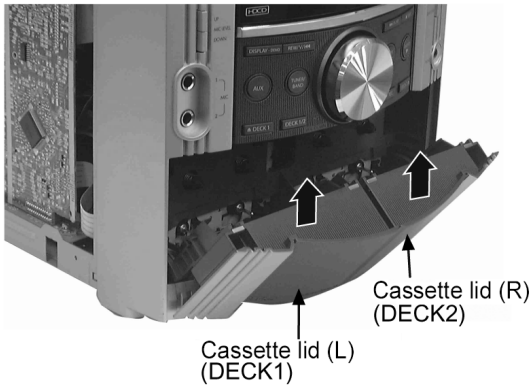


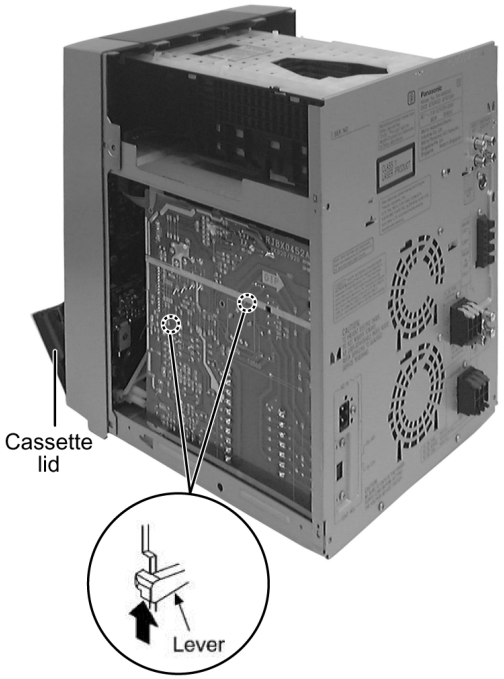
Step 10
Remove a tray change lever.

17.20. Replacement for cassette lid

・Follow the (Step 1) - (Step 2) of Item 17.3 - Disassembly of Top Cabinet

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



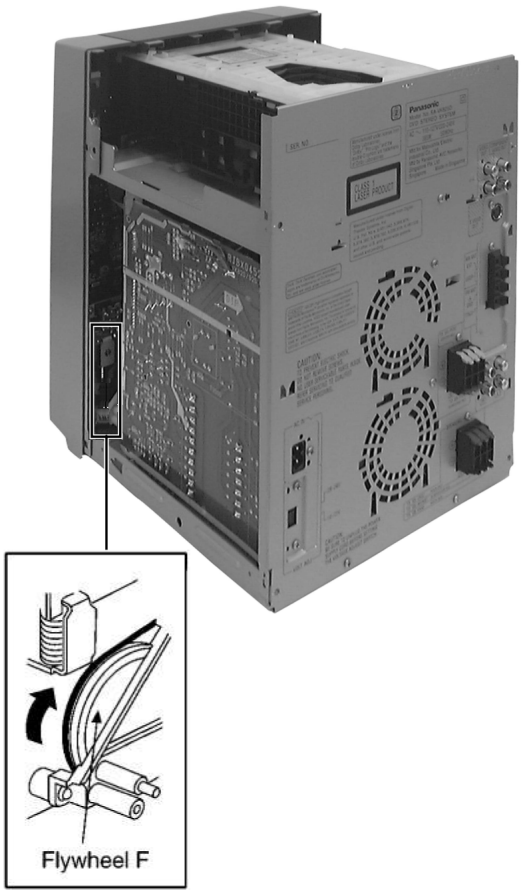


Step 2 Push up the cassette lid (L/R) in the direction of arrow. (For DECK1 and DECK2).

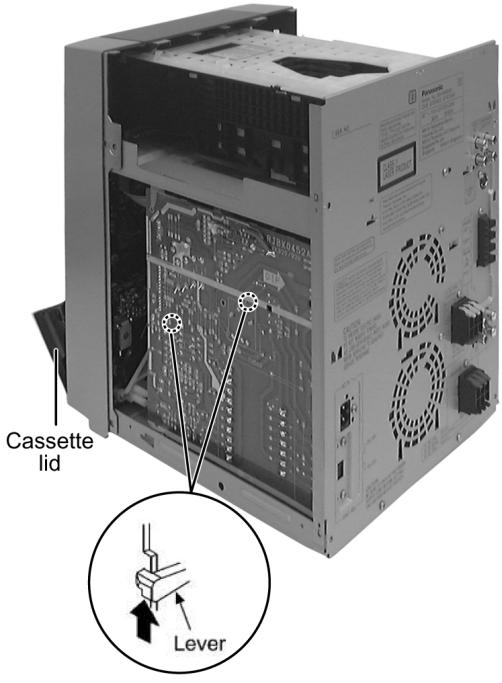
17.21. Rectification for tape jam problem

・Follow the (Step 1) - (Step 2) of Item 17.3 - 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.



18 Checking for major P.C.Bs

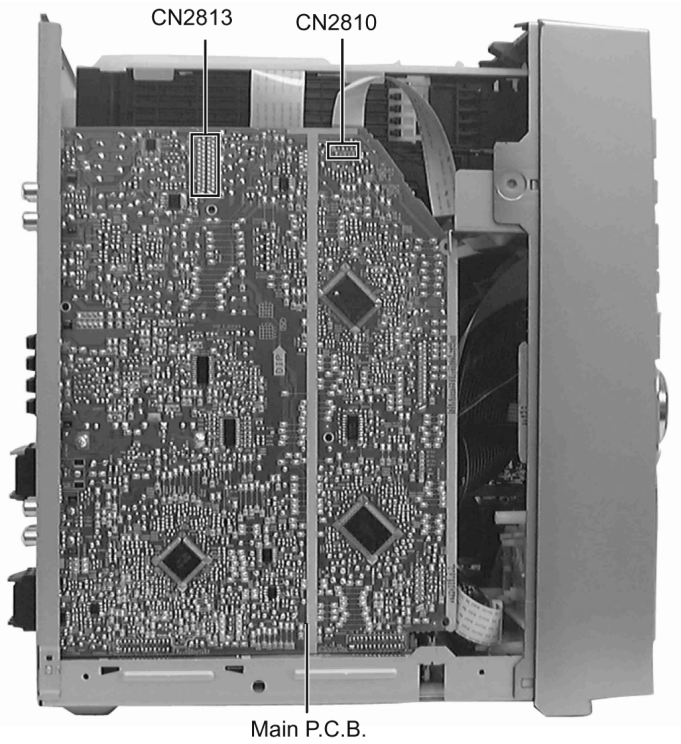
Note:

Checking of all major P.C.Bs (Main P.C.B., Panel P.C.B., Transformer P.C.B., Deck P.C.B., Deck Mechanism P.C.B., Mic P.C.B., Power P.C.B. and Power Amp P.C.B.) can be carried out using below procedures.

For the disassembling procedures, refer to Section 17.

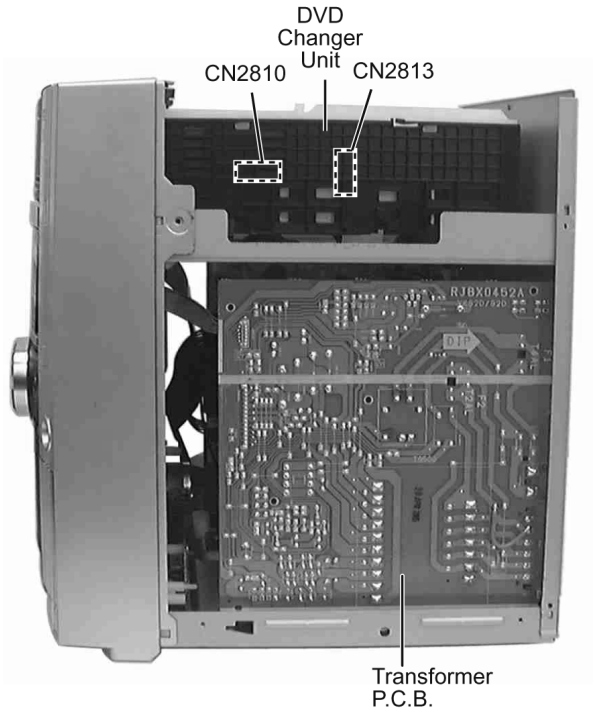
18.1. Checking of Main P.C.B.

1. Remove Top Cabinet.
2. Disassemble DVD Changer Unit.
3. Connect FFC cables (CN2810 & CN2813) from Main P.C.B.



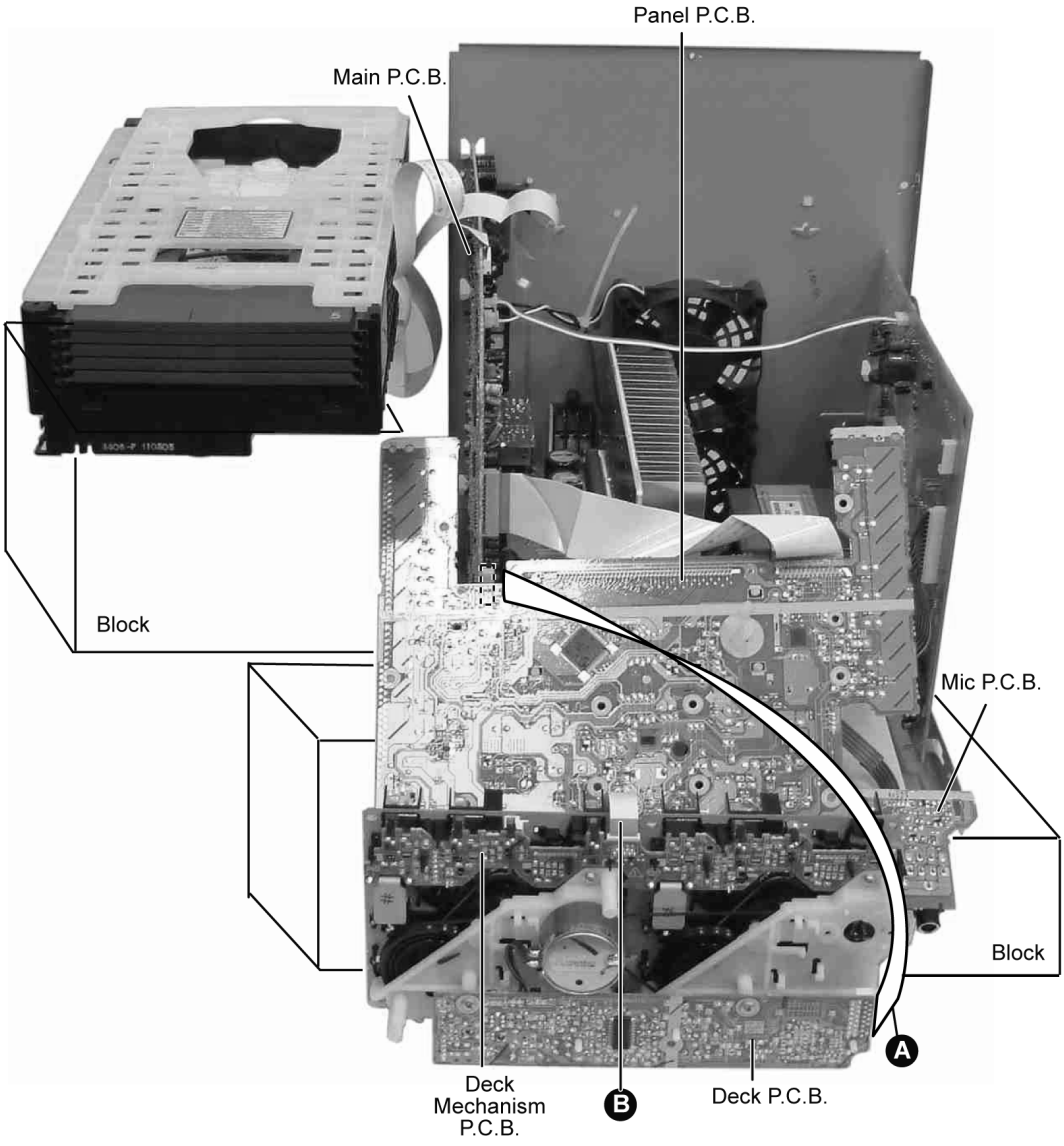
18.2. Checking of Transformer P.C.B.

1. Remove Top Cabinet.
2. Disassemble DVD Changer Unit.
3. Connect FFC cables (CN2810 & CN2813) from Main P.C.B..



18.3. Checking of Panel, Deck & Deck Mechanism P.C.B.

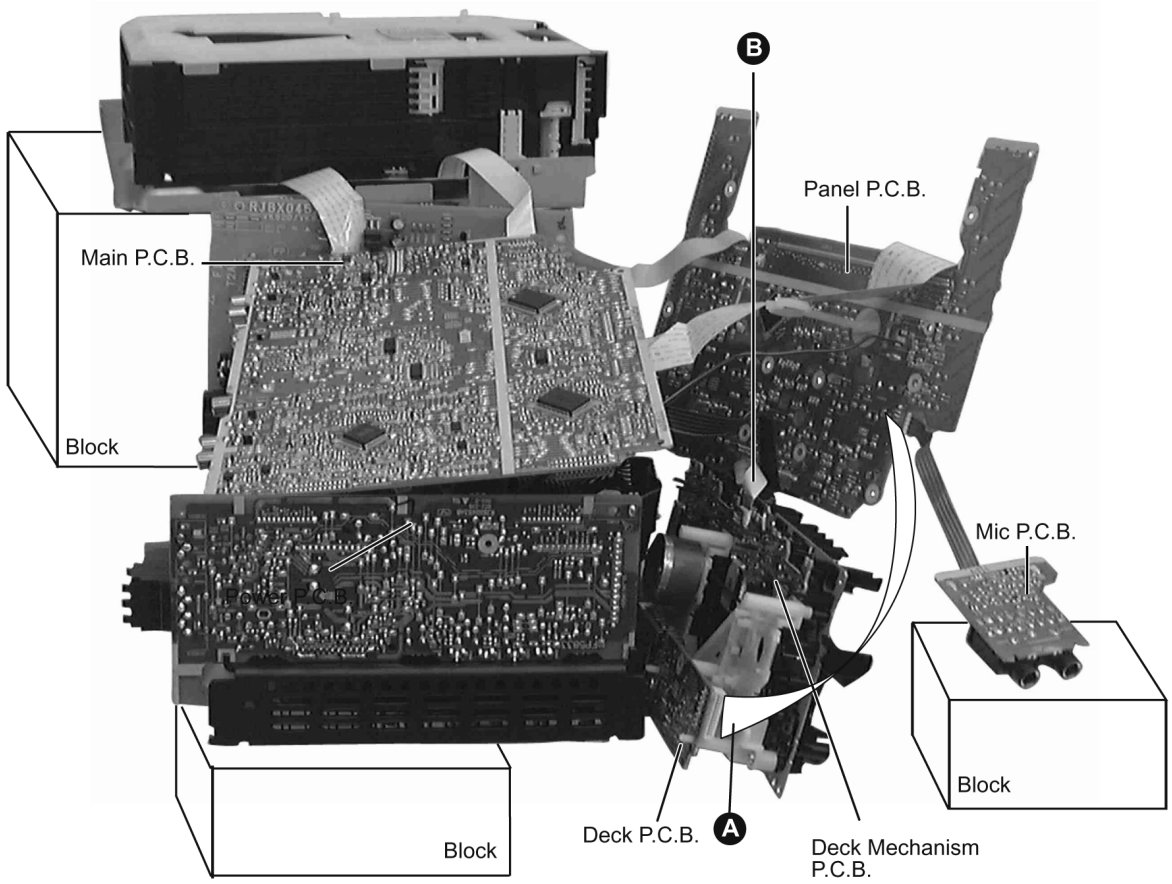
1. Remove Top Cabinet.
2. Disassemble DVD Changer Unit.
3. Disassemble Front Panel Unit.
4. Remove volume knob and Mic Jack Holder.
5. Disassemble Panel P.C.B.
6. Disassemble Deck Mechanism Unit.
7. Use the extension cable (A) to reconnect (CN1001) Deck P.C.B. and (CP6803) Main P.C.B.
8. Use the extension cable (B) to reconnect (CP6800) Panel P.C.B. and (CN971) Deck Mechanism P.C.B.



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)

18.4. Checking of Power P.C.B.

1. Remove Top Cabinet and Rear Panel.
2. Disassemble DVD Changer Unit.
3. Remove 4 screws at Transformer P.C.B..
4. Remove 2 screws at heat sink and 1 screw at Power P.C.B.
5. Flip the Power P.C.B.
6. Insulate the Power P.C.B. with insulation material to avoid short circuit.
7. Use the extension cable (A) to reconnect (CN1001) Deck P.C.B. and (CP6803) Main P.C.B.



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)

19 Measurements and Adjustments

19.1. Cassette Deck Section

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

19.1.1. 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 acrews 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 to the azimuth adjusting screw.

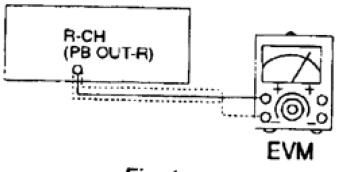


Fig. 1

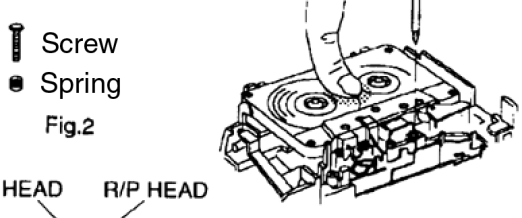


Fig.2

Fig. 3

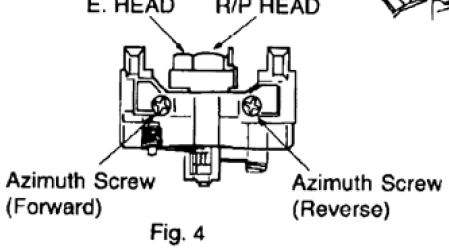


Fig. 4

19.1.2. 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: 2940 ~ 3060 Hz (NORMAL speed)

4. After alignment, assure that the output frequency of the DECK 1 FWD are within ±60 Hz of the value of the output frequency of DECK 2 FWD.

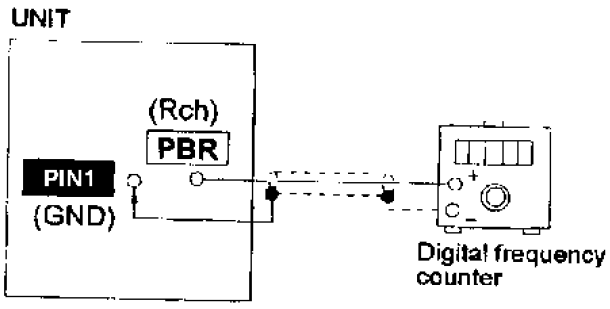


Fig. 1

19.1.3. 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 “I REC/STOP” key).
3. Measure and make sure that the output is within the standard value.

Bias voltage for Deck 2 14±4mV (Normal)

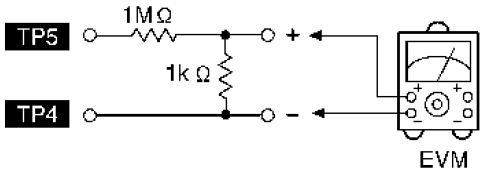


Fig. 2

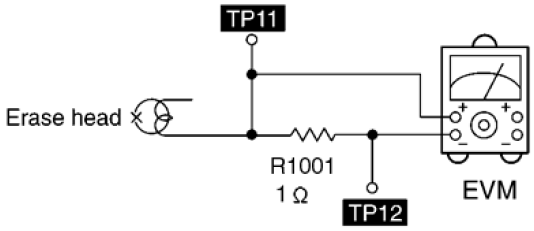


Fig. 3

19.1.4. 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 (I use “REC/STOP” key).
3. Adjust L1002 so that the output frequency is within the standard value.

Standard Value: 89 ~ 110 kHz

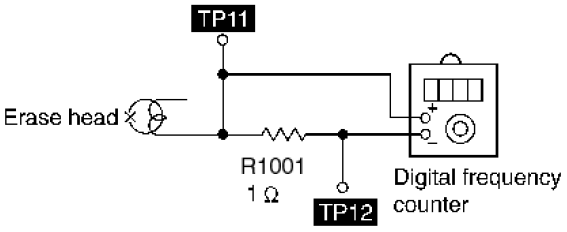


Fig. 4

19.2. Tuner Section

19.2.1. AM-IF Alignment

1. Connect the instrument as shown in Fig. 5.
2. Set the unit to AM mode.
3. Apply signal as shown in Fig. 5 from AM-SG.
4. Adjust Z2602 so that the output frequency is maximized in Fig. 6.

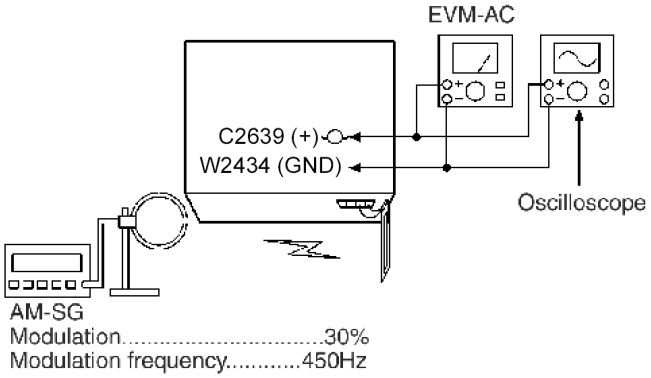


Fig. 5

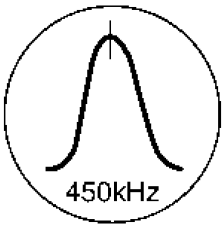


Fig. 6

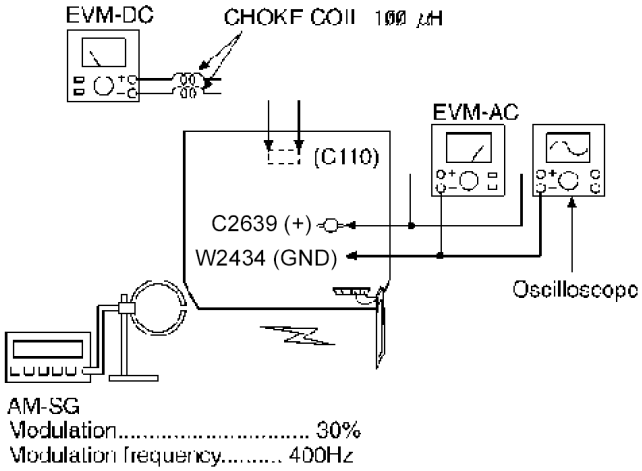


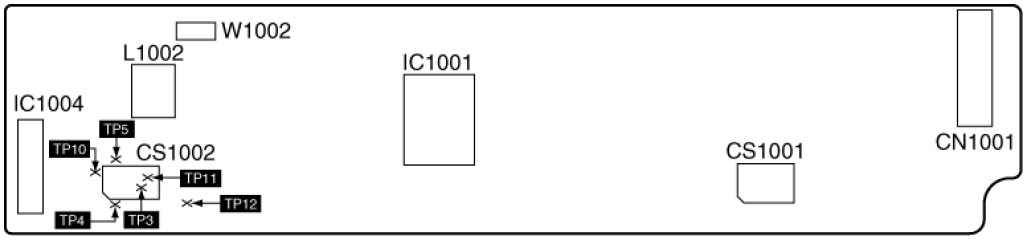
Fig. 7

19.2.2. AM RF Adjustment

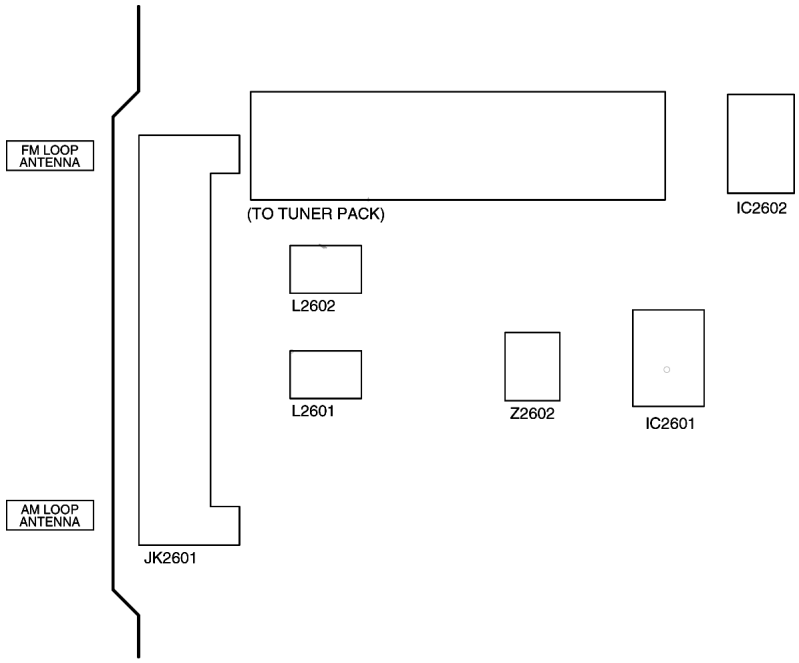
1. Connect the instrument as shown in Fig. 7.
2. Set the unit to AM mode.
3. Set AM-SG to 520kHz.
4. Receive 520kHz in the unit.
5. Adjust L2601 (OSC) so that the EVM-AC is maximized.
6. Set AM-SG to 600Hz.
7. Receive 600Hz in the unit.
8. Adjust L2601 (ANT) so that the EVM-SG is maximized.
9. Set AM-SG to 520kHz.
10. Receive 520kHz in the unit.
11. Adjust L2602 (OSC) so that the EVM-DC value is with 1.1±0.5V.

19.3. Alignment Points

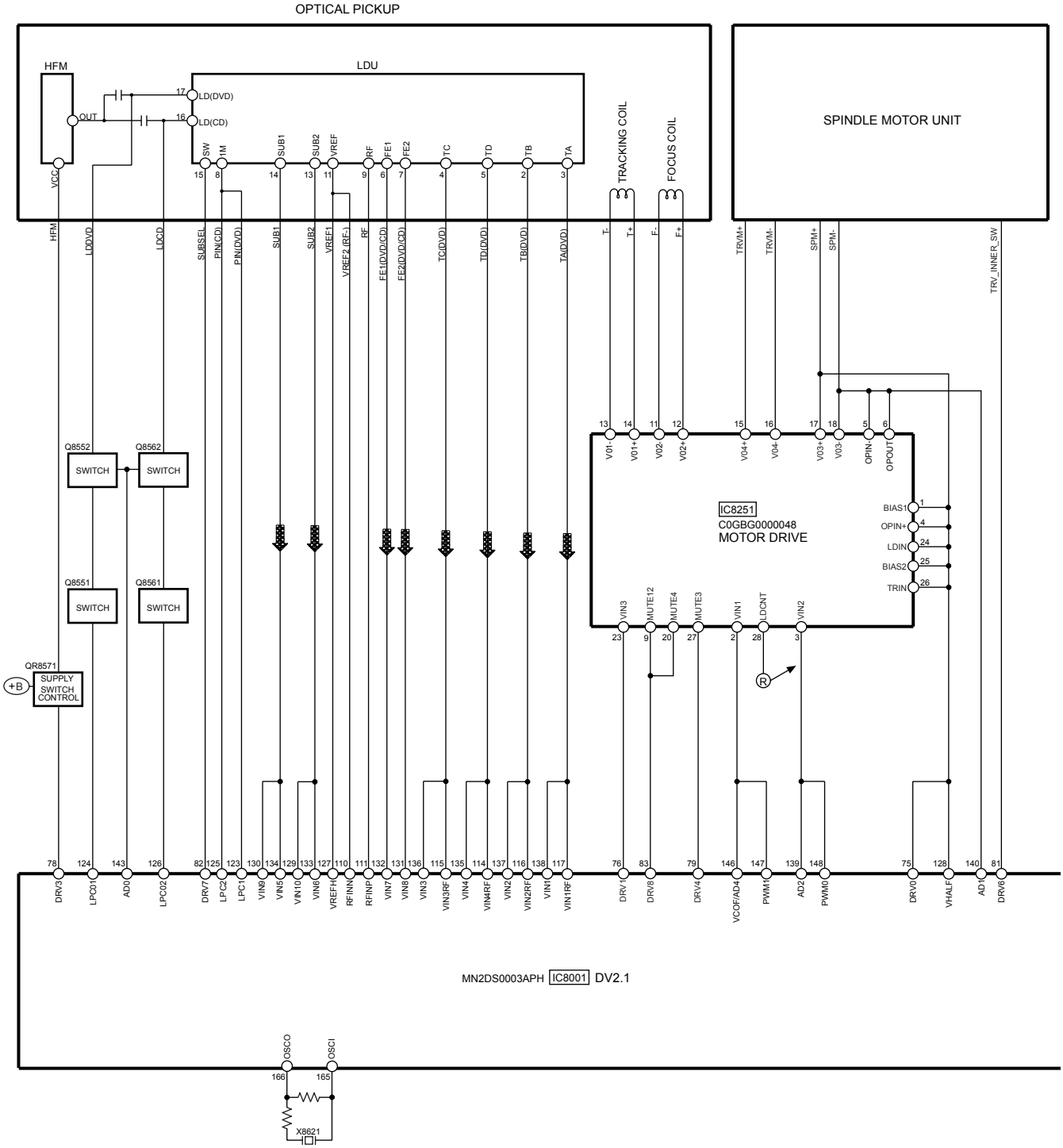
19.3.1. Cassette Deck Section

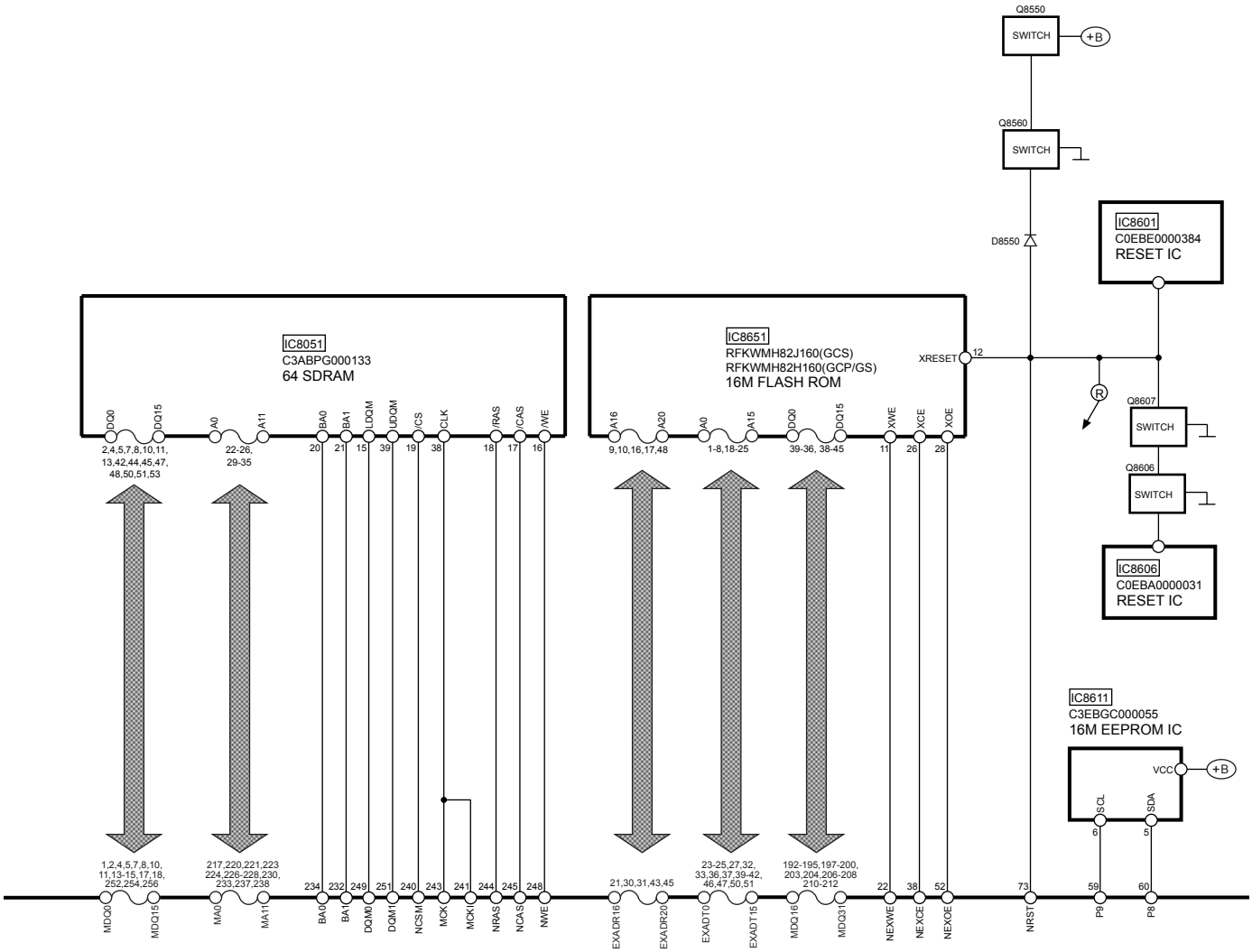


19.3.2. Adjustment Point

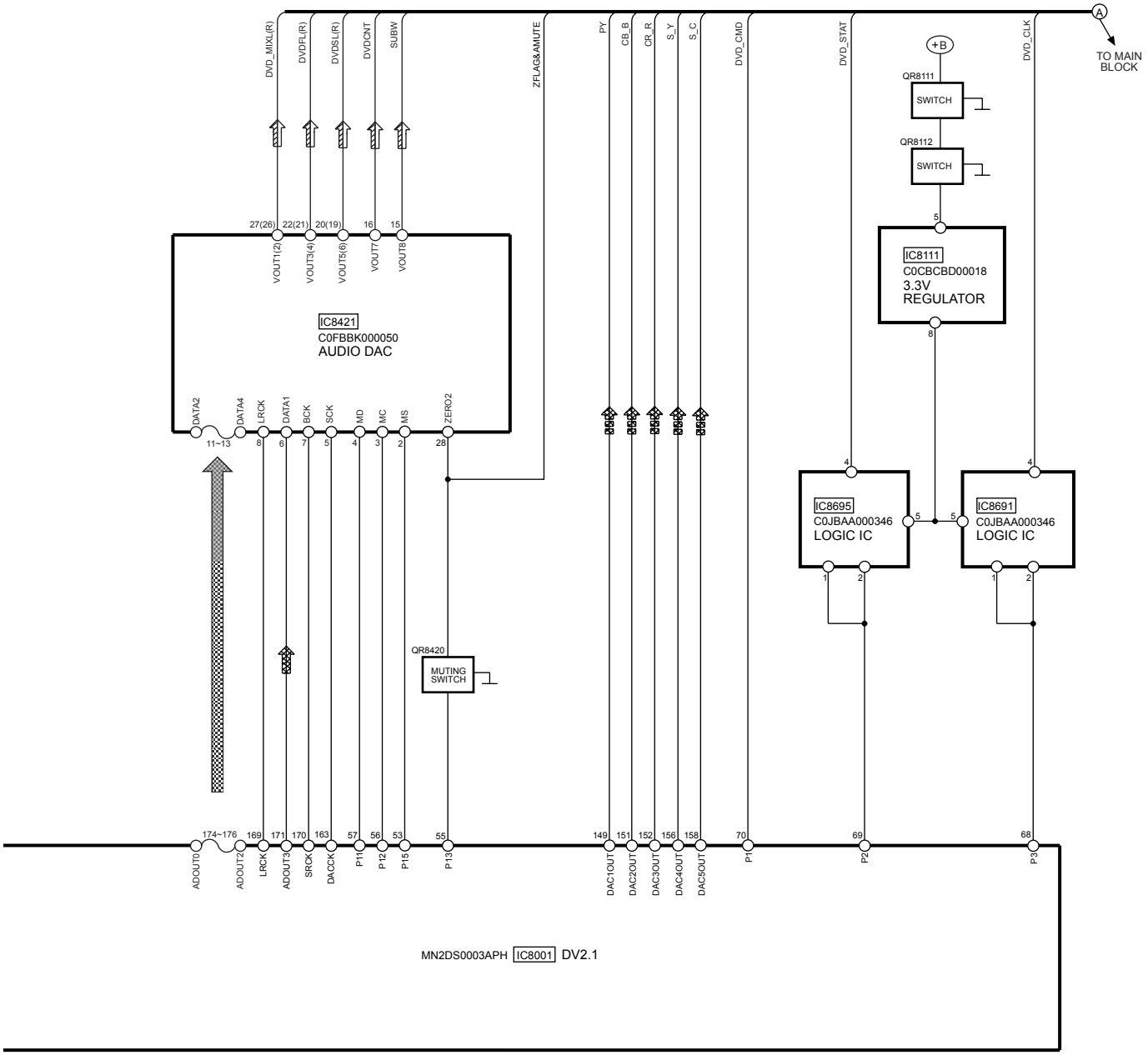


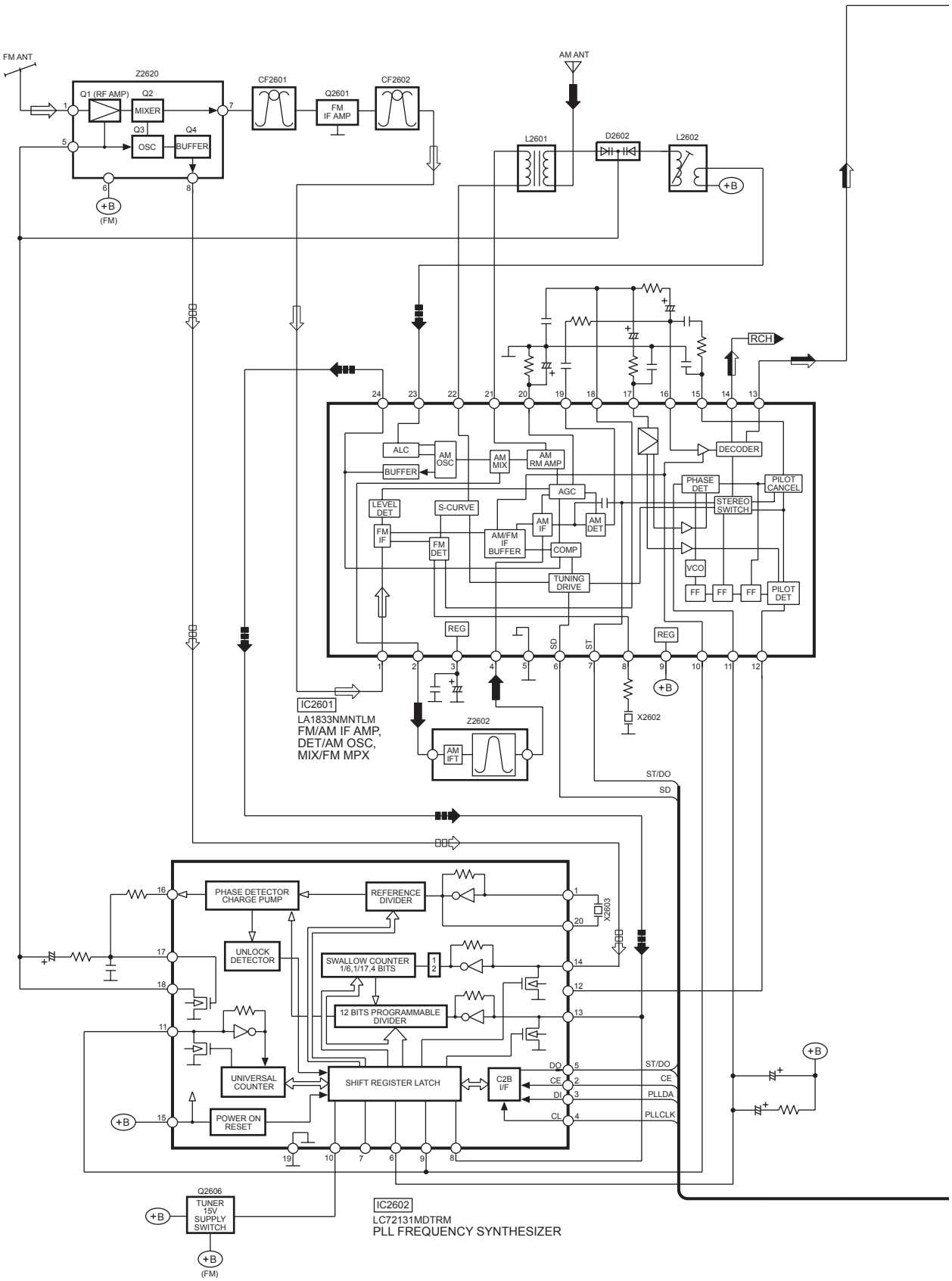
20 Block Diagram

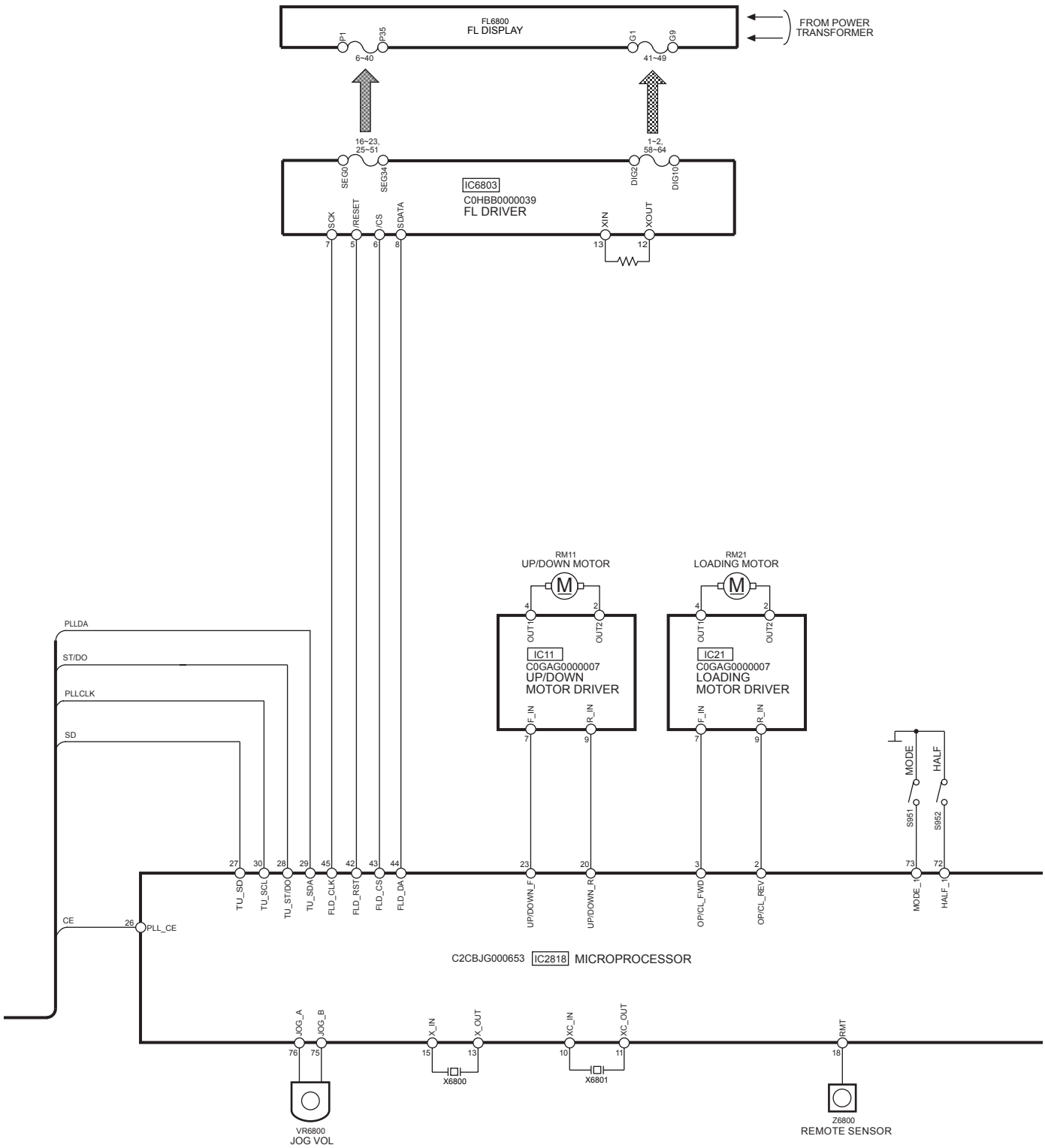


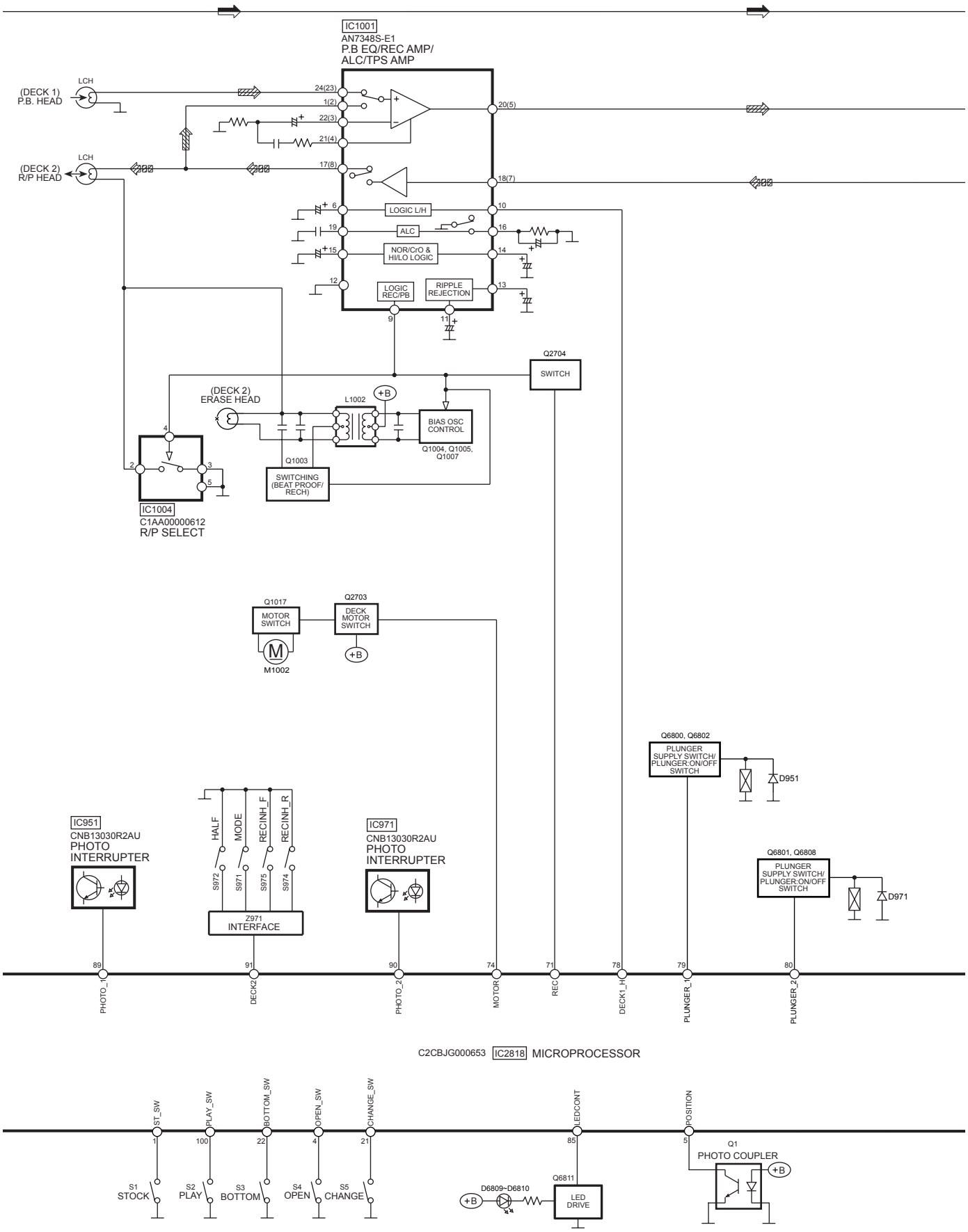


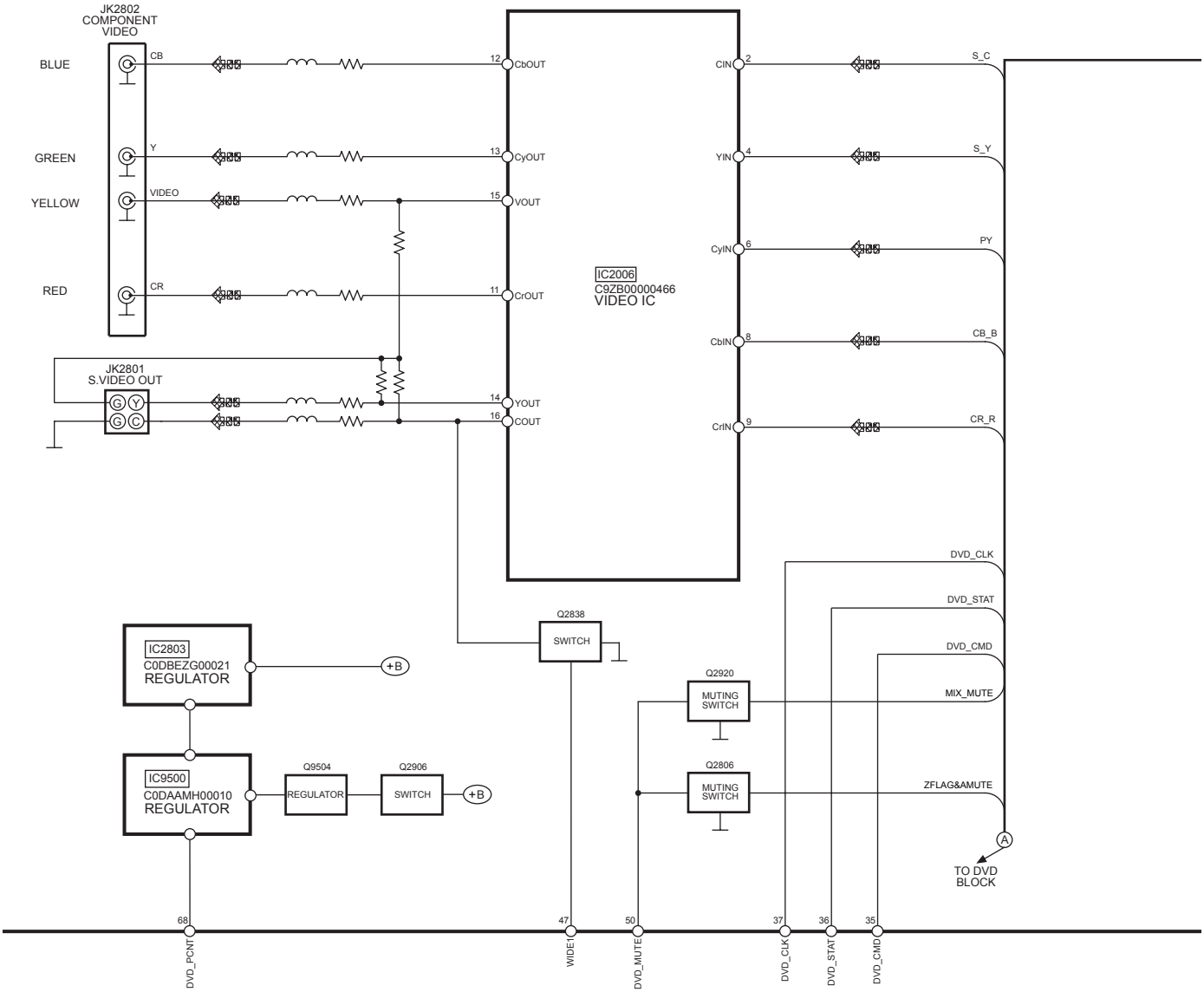
MN2DS0003APH IC8001 DV2.1


DVD_MIXL(R)
DVDFL(R)
DVDSL(R)
DVDCNT
SUBW
ZFLAG&AMUTE
PY
CB_B
CR_R
S_Y
S_C
DVD_CMD
DVD_STAT
DVD_CLK
A
TO MAIN BLOCK
+B
QR8111
SWITCH
QR8112
SWITCH
27(26)
22(21)
20(19)
16
15
VOUT1(2)
VOUT3(4)
VOUT5(6)
VOUT7
VOUT8
IC8111
C0CBCBD00018
3.3V
REGULATOR
IC8421
C0FBBK000050
AUDIO DAC
DATA2
DATA4
LRCK
DATA1
BCK
SCK
MD
MC
MS
ZERO2
11~13
8
6
7
5
4
3
2
28
IC8695
C0JBAA000346
LOGIC IC
IC8691
C0JBAA000346
LOGIC IC
QR8420
MUTING SWITCH
174~176
169
171
170
163
57
56
53
55
149
151
152
156
158
70
69
68
ADOUT0
ADOUT2
LRCK
ADOUT3
SRCK
DACCK
P11
P12
P15
P13
DAC1OUT
DAC2OUT
DAC3OUT
DAC4OUT
DAC5OUT
P1
P2
P3
MN2DS0003APH IC8001 DV2.1

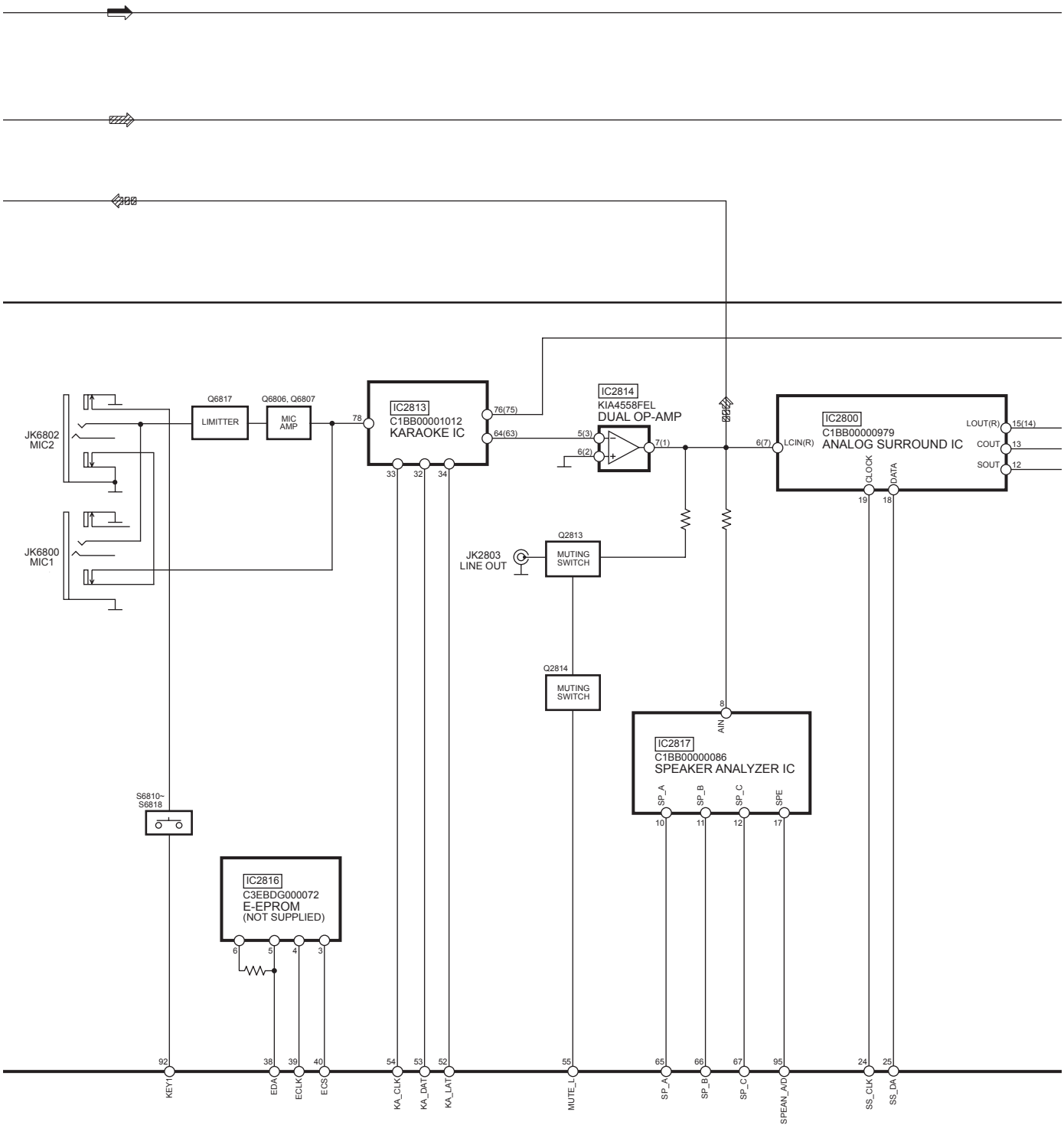

FM ANT
Z2620
Q1 (RF AMP)
Q2
MIXER
Q3
OSC
Q4
BUFFER
+B
(FM)
CF2601
Q2601
FM
IF AMP
CF2602
AM ANT
L2601
D2602
L2602
RCH
ALC
AM
OSC
BUFFER
AM
MIX
AM
RM AMP
AGC
DECODER
PHASE
DET
PILOT
CANCEL
STEREO
SWITCH
LEVEL
DET
S-CURVE
FM
IF
FM
DET
AM/FM
IF
BUFFER
AM
IF
AM
DET
COMP
VCO
TUNING
DRIVE
FF
FF
FF
PILOT
DET
REG
SD
ST
REG
IC2601
LA1833NMNTLM
FM/AM IF AMP,
DET/AM OSC,
MIX/FM MPX
Z2602
AM
IFT
X2602
ST/DO
SD
PHASE DETECTOR
CHARGE PUMP
REFERENCE
DIVIDER
X2603
UNLOCK
DETECTOR
SWALLOW COUNTER
1/6,1/17,4 BITS
12 BITS PROGRAMMABLE
DIVIDER
UNIVERSAL
COUNTER
SHIFT REGISTER LATCH
C2B
I/F
DO
CE
DI
CL
ST/DO
CE
PLLDA
PLLCLK
POWER ON
RESET
+B
Q2606
TUNER
15V
SUPPLY
SWITCH
+B
(FM)
IC2602
LC72131MDTRM
PLL FREQUENCY SYNTHESIZER


FL6800
FL DISPLAY
P1
P35
6~40
G1
G9
41~49
FROM POWER TRANSFORMER
16~23, 25~51
1~2, 58~64
SEG0
SEG34
DIG2
DIG10
IC6803
C0HBB0000039
FL DRIVER
SCK
/RESET
/CS
SDATA
XIN
XOUT
RM11
UP/DOWN MOTOR
RM21
LOADING MOTOR
OUT1
OUT2
IC11
C0GAG0000007
UP/DOWN MOTOR DRIVER
IC21
C0GAG0000007
LOADING MOTOR DRIVER
F_IN
R_IN
MODE
HALF
S951
S952
PLLDA
ST/DO
PLLCLK
SD
CE
PLL_CE
TU_SD
TU_SCL
TU_ST/DO
TU_SDA
FLD_CLK
FLD_RST
FLD_CS
FLD_DA
UP/DOWN_F
UP/DOWN_R
OP/CL_FWD
OP/CL_REV
MODE_I
HALF_I
C2CBJG000653
IC2818
MICROPROCESSOR
JOG_A
JOG_B
X_IN
X_OUT
XC_IN
XC_OUT
RMT
X6800
X6801
VR6800
JOG VOL
Z6800
REMOTE SENSOR

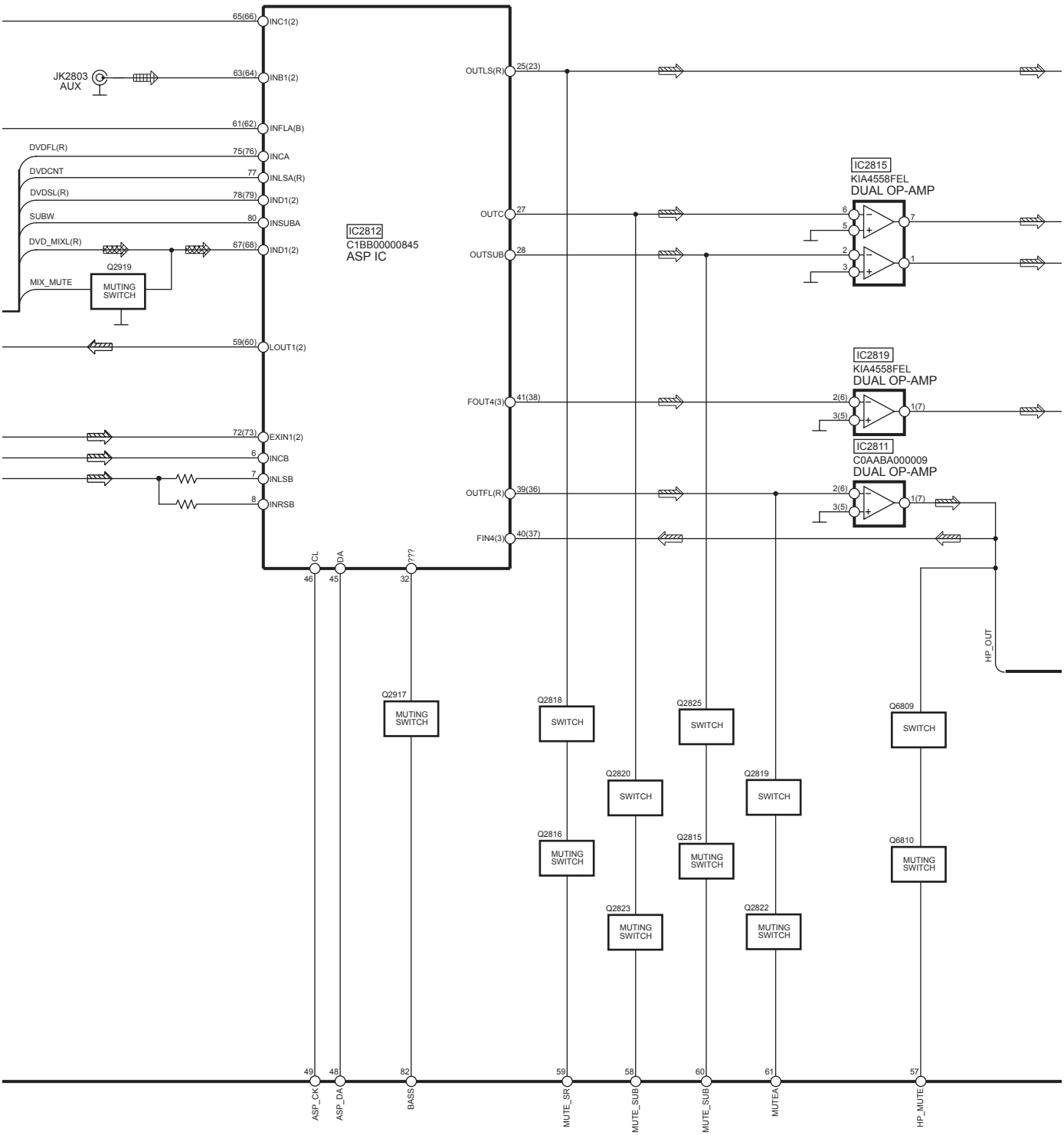

IC1001
AN7348S-E1
P.B EQ/REC AMP/
ALC/TPS AMP
(DECK 1)
P.B. HEAD
LCH
(DECK 2)
R/P HEAD
LCH
LOGIC L/H
ALC
NOR/CrO &
HI/LO LOGIC
LOGIC
REC/PB
RIPPLE
REJECTION
Q2704
SWITCH
(DECK 2)
ERASE HEAD
L1002
+B
BIAS OSC
CONTROL
Q1004, Q1005,
Q1007
Q1003
SWITCHING
(BEAT PROOF/
RECH)
IC1004
C1AA00000612
R/P SELECT
Q1017
MOTOR
SWITCH
Q2703
DECK
MOTOR
SWITCH
+B
M
M1002
Q6800, Q6802
PLUNGER
SUPPLY SWITCH/
PLUNGER:ON/OFF
SWITCH
D951
IC951
CNB13030R2AU
PHOTO
INTERRUPTER
HALF
MODE
RECINH_F
RECINH_R
S972
S971
S975
S974
Z971
INTERFACE
IC971
CNB13030R2AU
PHOTO
INTERRUPTER
Q6801, Q6808
PLUNGER
SUPPLY SWITCH/
PLUNGER:ON/OFF
SWITCH
D971
PHOTO_1
DECK2
PHOTO_2
MOTOR
REC
DECK1_H
PLUNGER_1
PLUNGER_2
C2CBJG000653
IC2818
MICROPROCESSOR
ST_SW
PLAY_SW
BOTTOM_SW
OPEN_SW
CHANGE_SW
LEDCONT
POSITION
S1
STOCK
S2
PLAY
S3
BOTTOM
S4
OPEN
S5
CHANGE
D6809~D6810
Q6811
LED
DRIVE
Q1
PHOTO COUPLER
+B



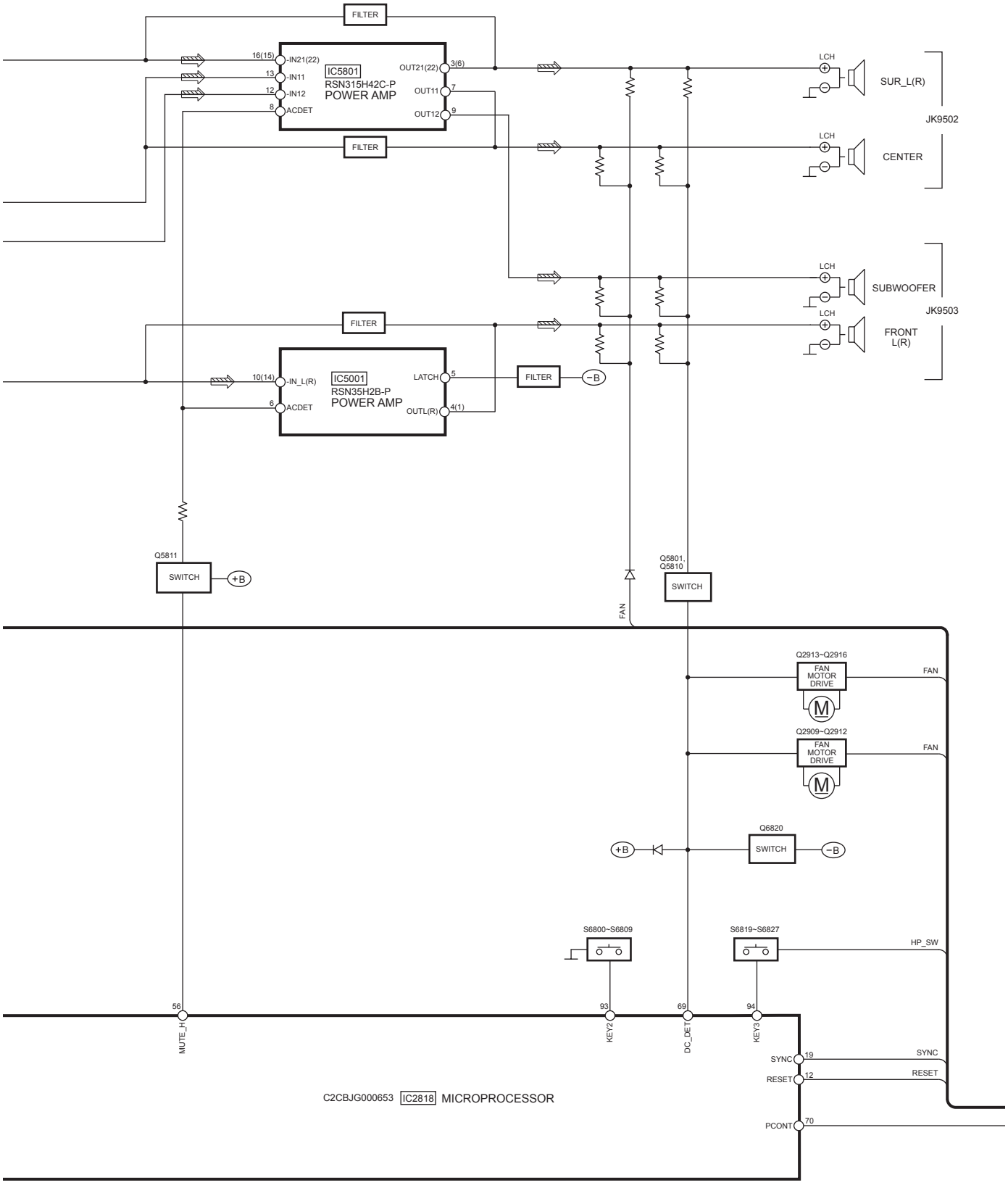
C2CBJG000653 IC2818 MICROPROCESSOR

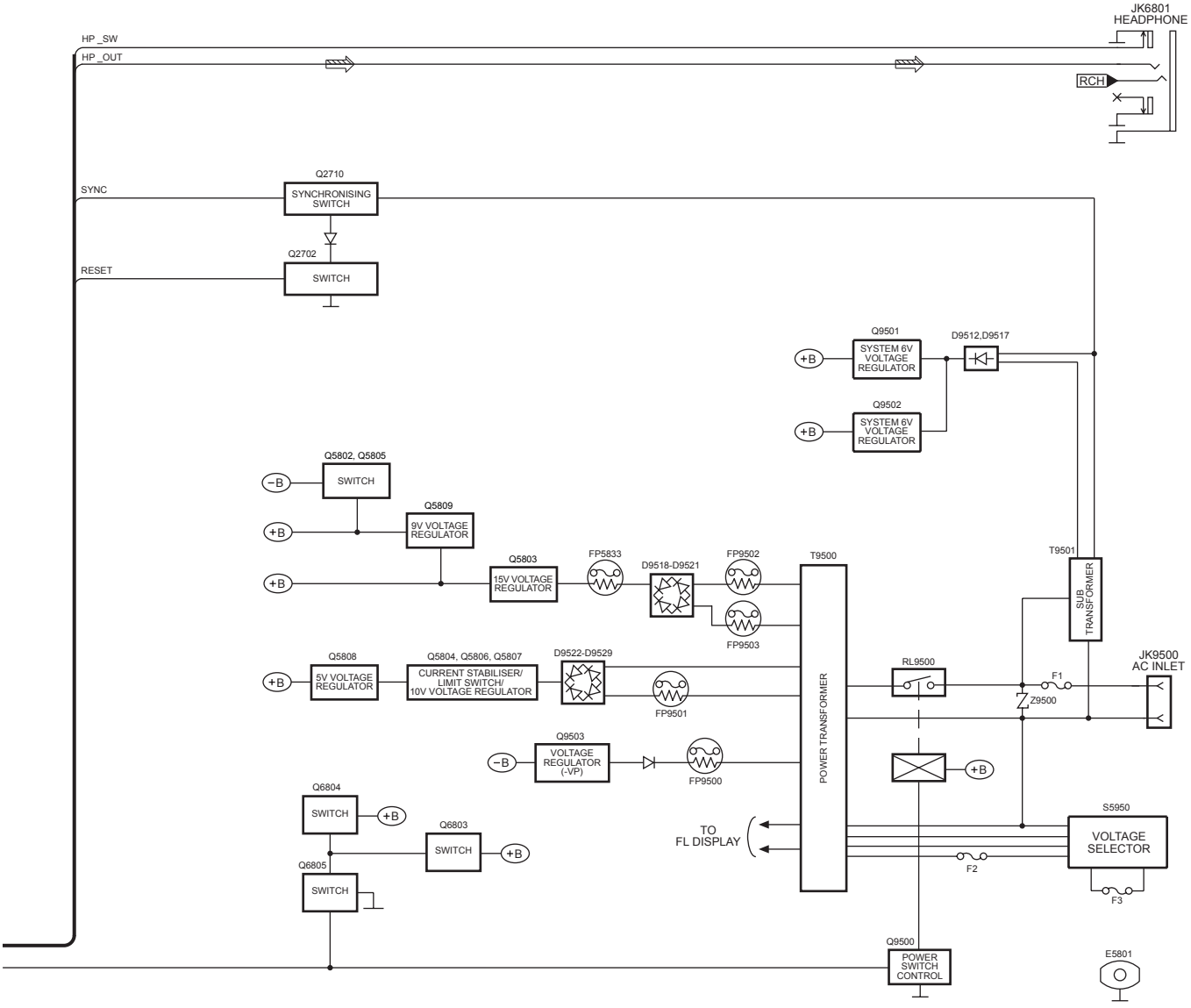


C2CBJG000653 IC2818 MICROPROCESSOR



C2CBJG000653 IC2818 MICROPROCESSOR


FILTER
IC5801
RSN315H42C-P
POWER AMP
16(15) IN21(22)
13 IN11
12 IN12
8 ACDET
OUT21(22) 3(6)
OUT11 7
OUT12 9
LCH
SUR_L(R)
JK9502
CENTER
SUBWOOFER
JK9503
FRONT L(R)
IC5001
RSN35H2B-P
POWER AMP
10(14) IN_L(R)
6 ACDET
LATCH 5
OUTL(R) 4(1)
−B
Q5811
SWITCH
+B
Q5801, Q5810
FAN
Q2913~Q2916
FAN MOTOR DRIVE
Q2909~Q2912
Q6820
S6800~S6809
S6819~S6827
HP_SW
56 MUTE_H
93 KEY2
69 DC_DET
94 KEY3
SYNC 19
RESET 12
PCONT 70
C2CBJG000653 IC2818 MICROPROCESSOR



SIGNAL LINES

: MAIN SIGNAL LINE	: CD SIGNAL LINE	: AM SIGNAL LINE	: PLAYBACK SIGNAL LINE
: FM OSC SIGNAL LINE	: AM OSC SIGNAL LINE	: FM/AM SIGNAL LINE	: RECORD SIGNAL LINE
: FM SIGNAL LINE	: AUX SIGNAL LINE	: CD-DA (AUDIO/VIDEO) SIGNAL LINE	: DVD (AUDIO) SIGNAL LINE
			: DVD (VIDEO) SIGNAL LINE

( ) Indicates the Pin No. of Right Channel.

NOTE : Signal Lines are applicable to the Left Channel only.

21 Voltage Measurement

This section is not available at time of issue.

22 Schematic Diagram

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

Note:

S1 : Stock Switch
S2 : Play Switch
S3 : Bottom Switch
S4 : Open Switch
S5 : Change Switch
S951 : Mode Switch
S952 : Half Switch
S971 : Mode Switch
S972 : Half Switch
S974 : Recinh_R Switch
S975 : Recinh_F Switch
S5950 : Voltage Selector Switch
S6800 : DVD/CD Switch
S6801 : Tape Switch
S6802 : Tuner/Band Switch
S6803 : AUX Switch
S6804 : Deck 1 Switch
S6805 : Display/Demo Switch
S6806 : Deck 2 Switch
S6807 : Rew Switch
S6808 : FF Switch
S6809 : Stop Switch
S6810 : AC In Switch
S6811 : Disc Check Switch
S6812 : Multi Re-Master Switch
S6813 : Super Surround Switch
S6814 : Mic Up Switch
S6815 : Mic Down Switch
S6816 : Deck 1/2 Switch
S6817 : Rec Switch
S6818 : Sound EQ Switch
S6819 : Open/Close Switch
S6820 : Disc Change Switch
S6821 : Disc 5 Switch
S6822 : Disc 4 Switch
S6823 : Disc 3 Switch
S6824 : Disc 2 Switch
S6825 : Disc 1 Switch
S6826 : Super Sound EQ Switch
S6827 : Subwoofer Switch
VR6800 : VR Volume Jog

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.
- **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.

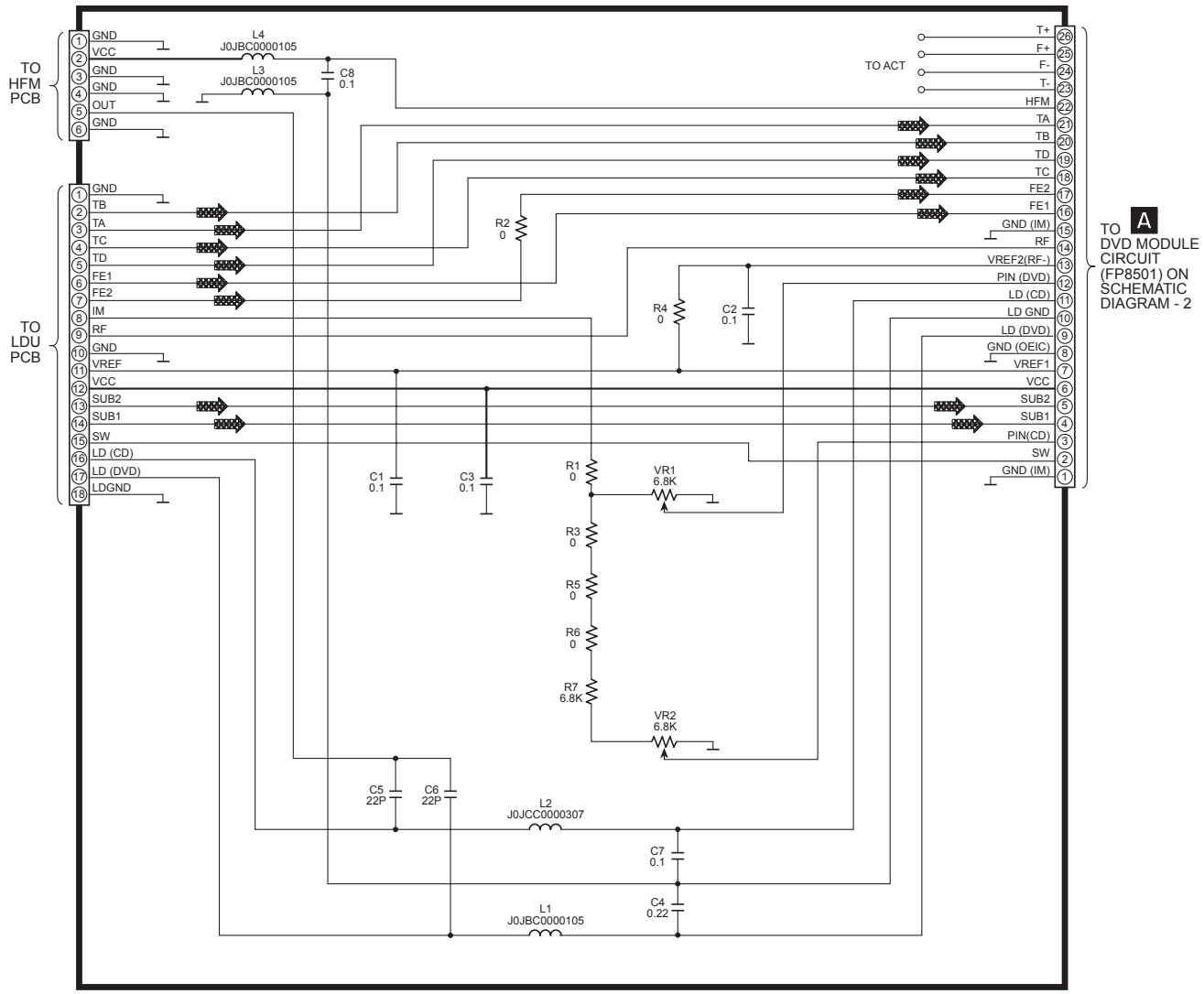
22.1. Optical Pickup Unit Circuit

SCHEMATIC DIAGRAM - 1

OPTICAL PICKUP UNIT CIRCUIT

: +B SIGNAL LINE

: CD-DA SIGNAL LINE

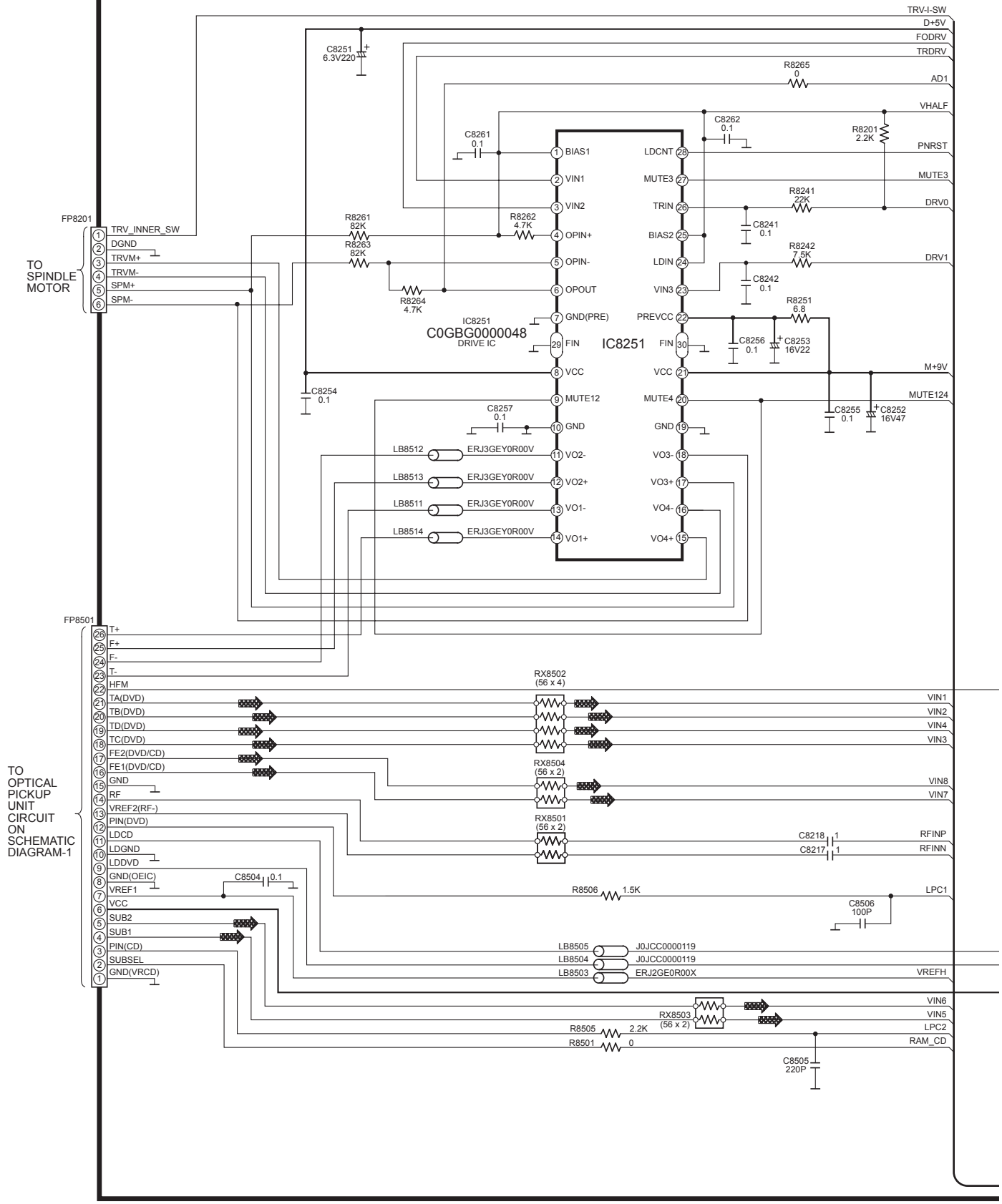


22.2. (A) DVD Module Circuit

SCHEMATIC DIAGRAM - 2

A DVD MODULE CIRCUIT

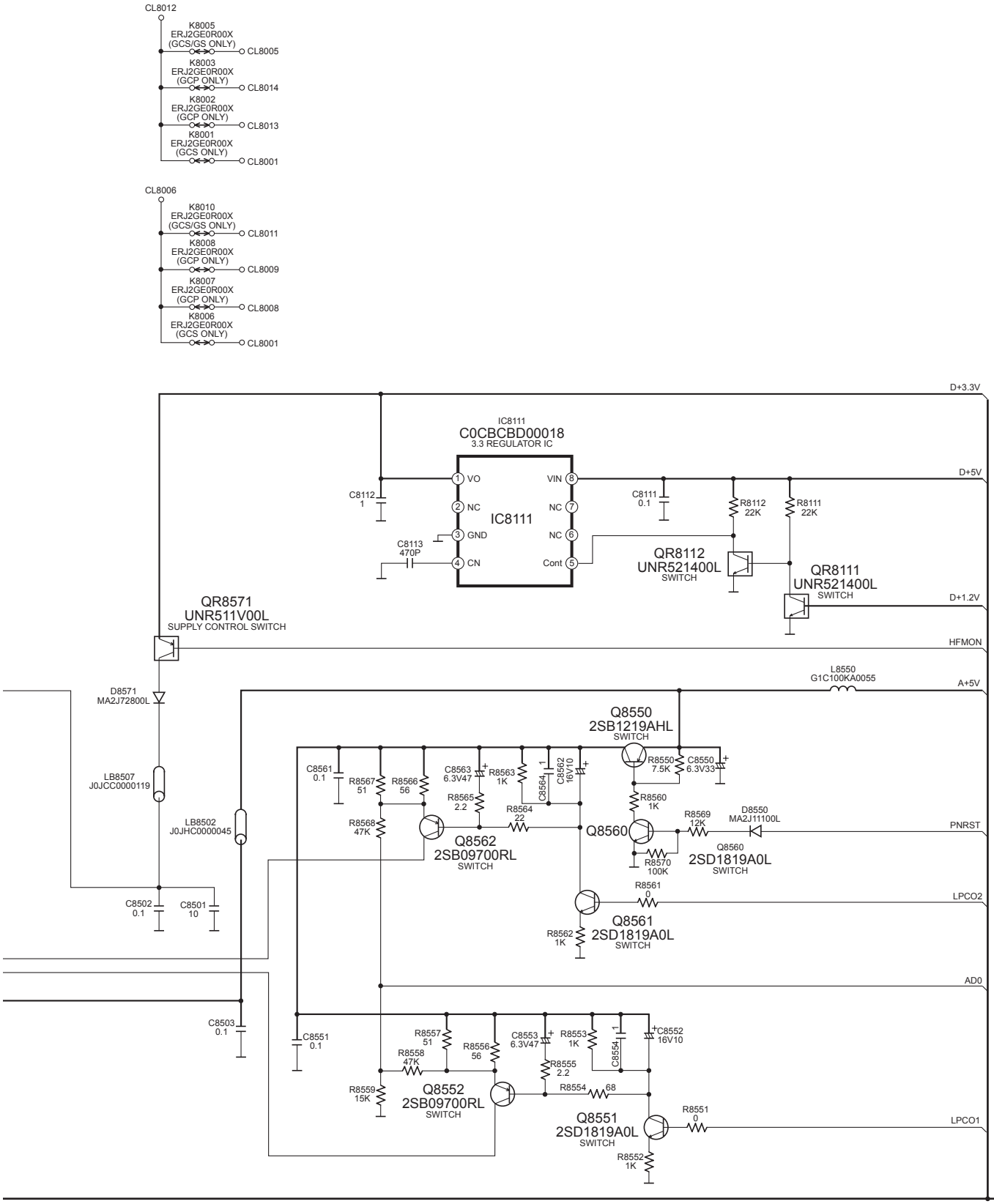
: +B SIGNAL LINE : CD-DA SIGNAL LINE



SCHEMATIC DIAGRAM - 3

A DVD MODULE CIRCUIT

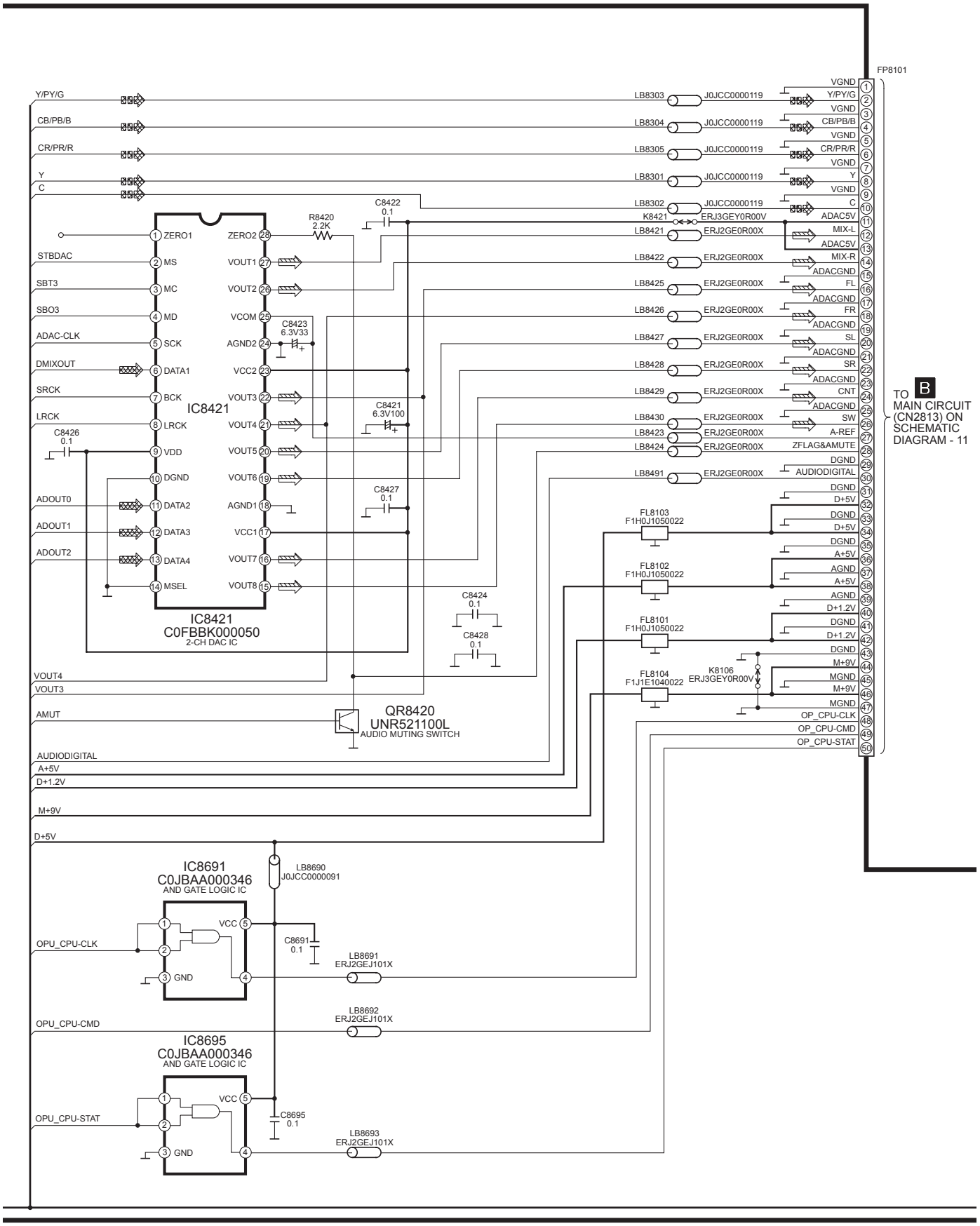
——— : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 4

A DVD MODULE CIRCUIT

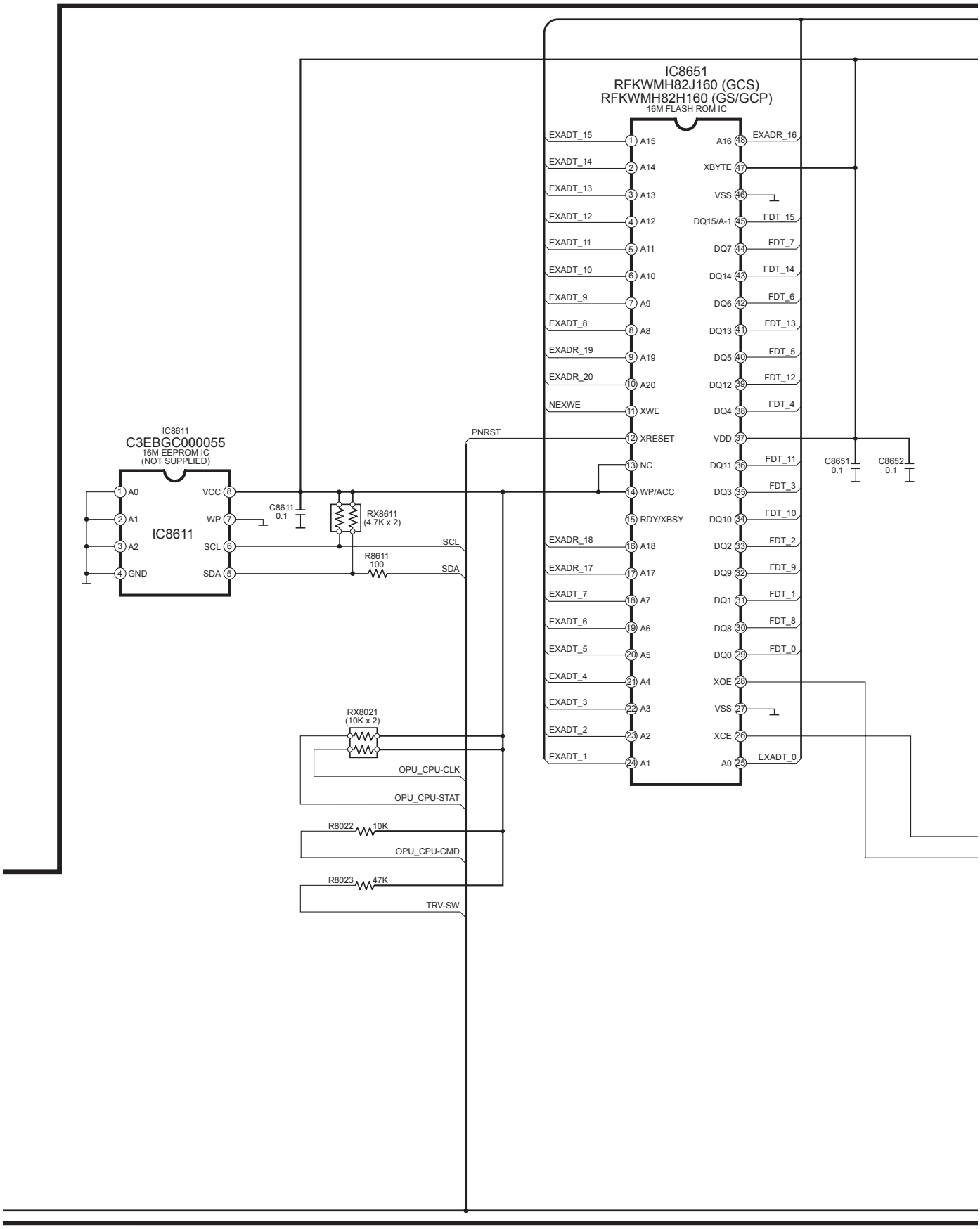
: MAIN SIGNAL LINE
: +B SIGNAL LINE
: DVD VIDEO SIGNAL LINE
: DVD AUDIO SIGNAL LINE



SCHEMATIC DIAGRAM - 5

A DVD MODULE CIRCUIT

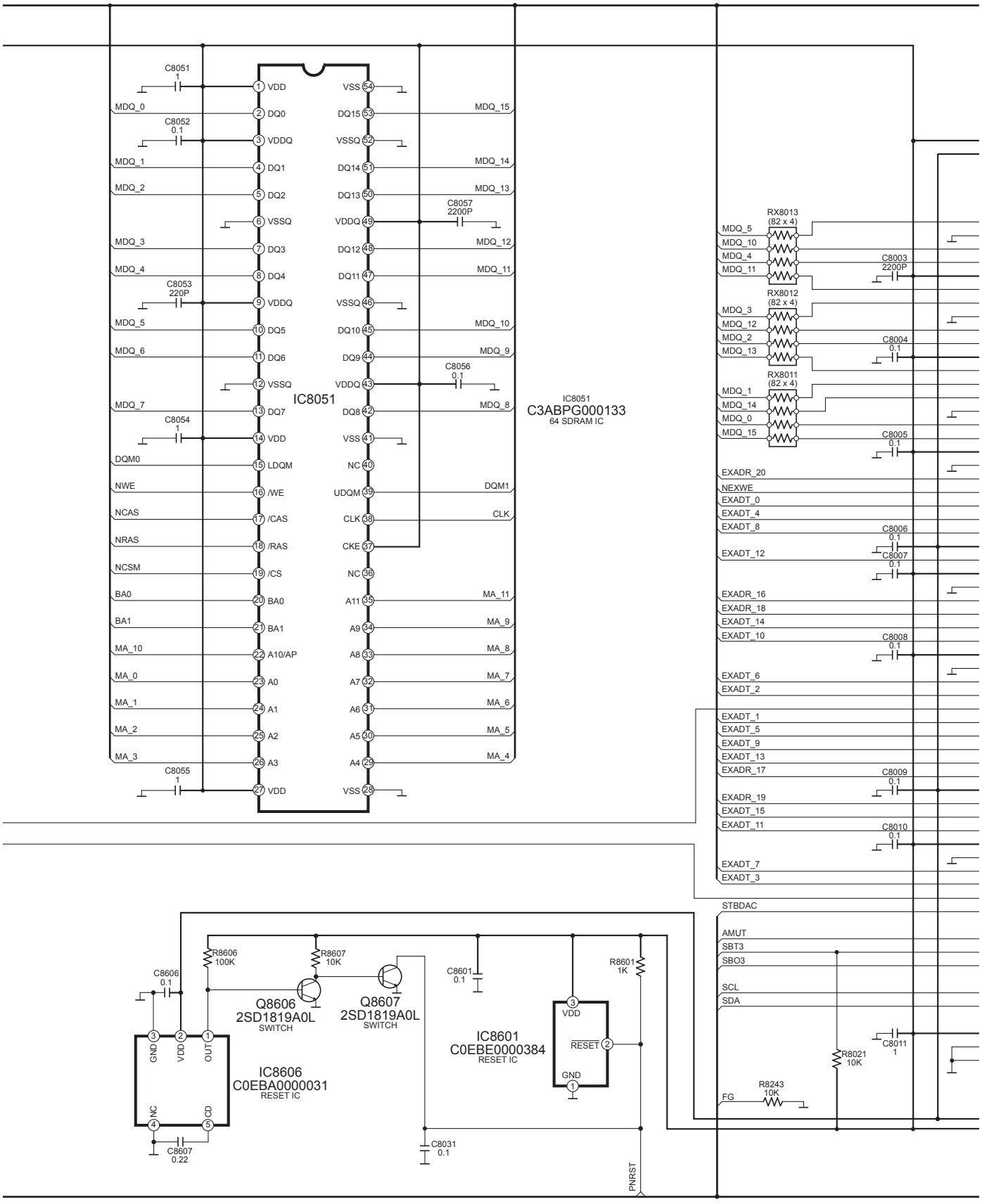
——— : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 6

A DVD MODULE CIRCUIT

——— : +B SIGNAL LINE

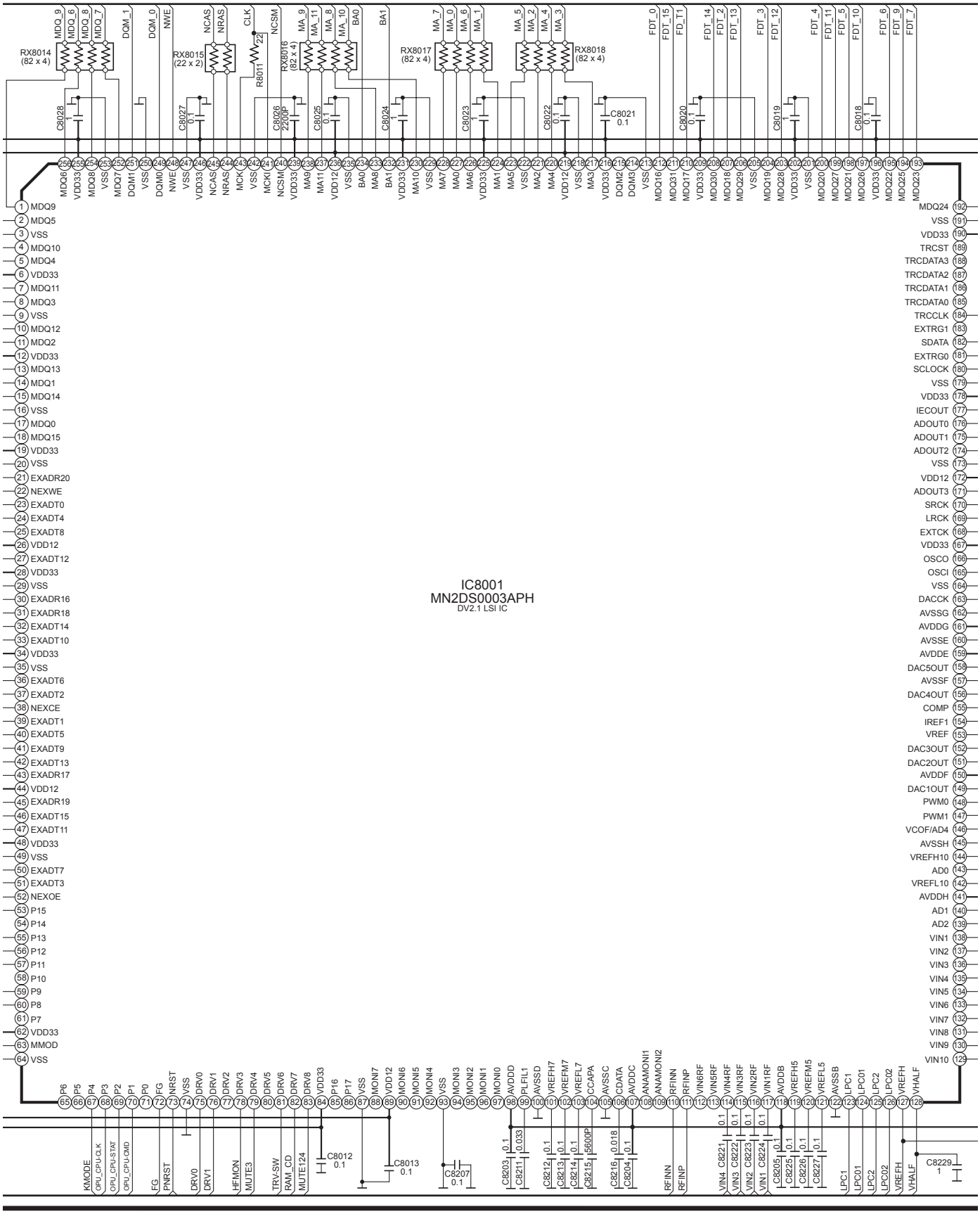


SCHEMATIC DIAGRAM - 7

A

DVD MODULE CIRCUIT

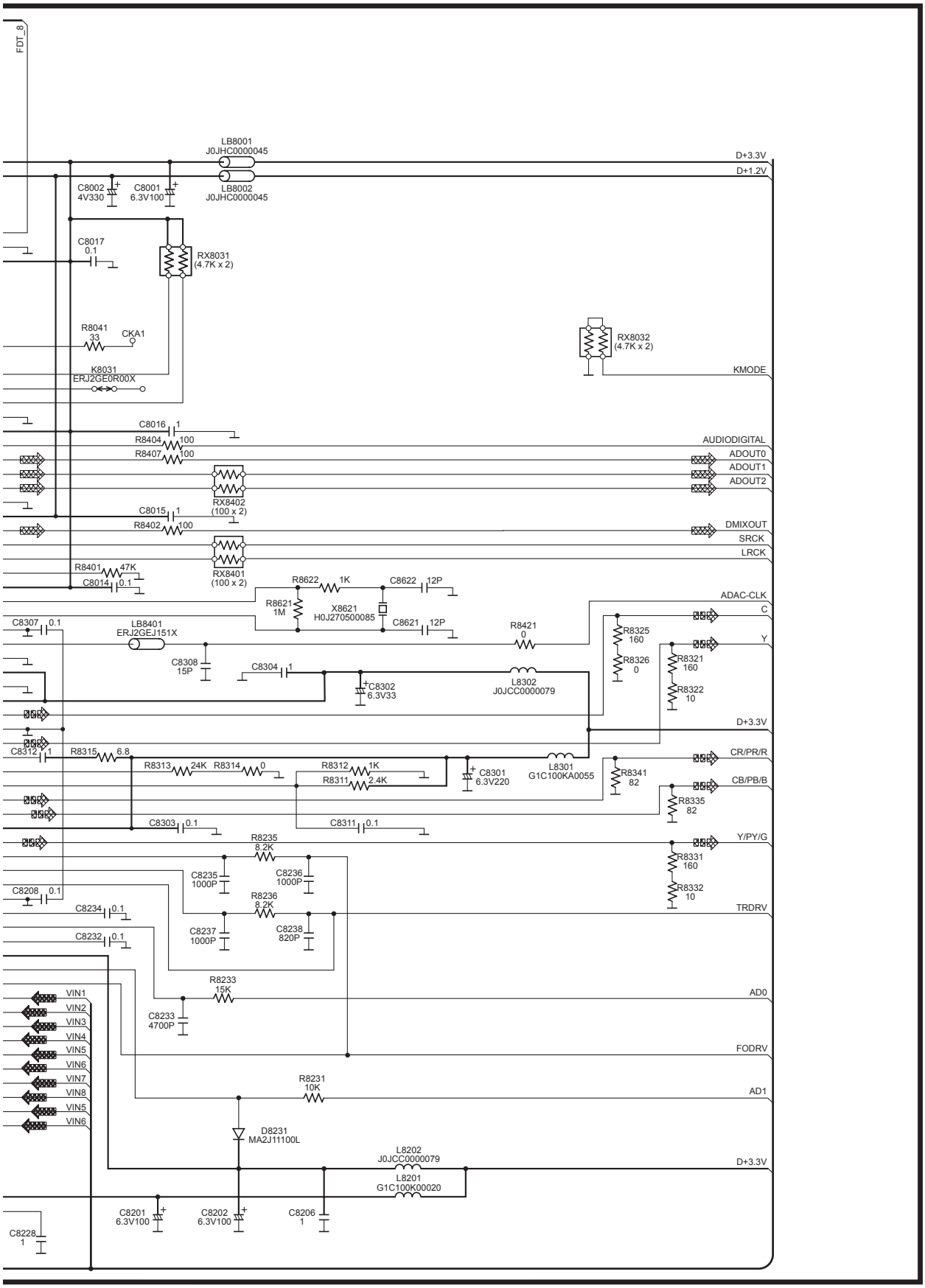
: +B SIGNAL LINE



SCHEMATIC DIAGRAM - 8

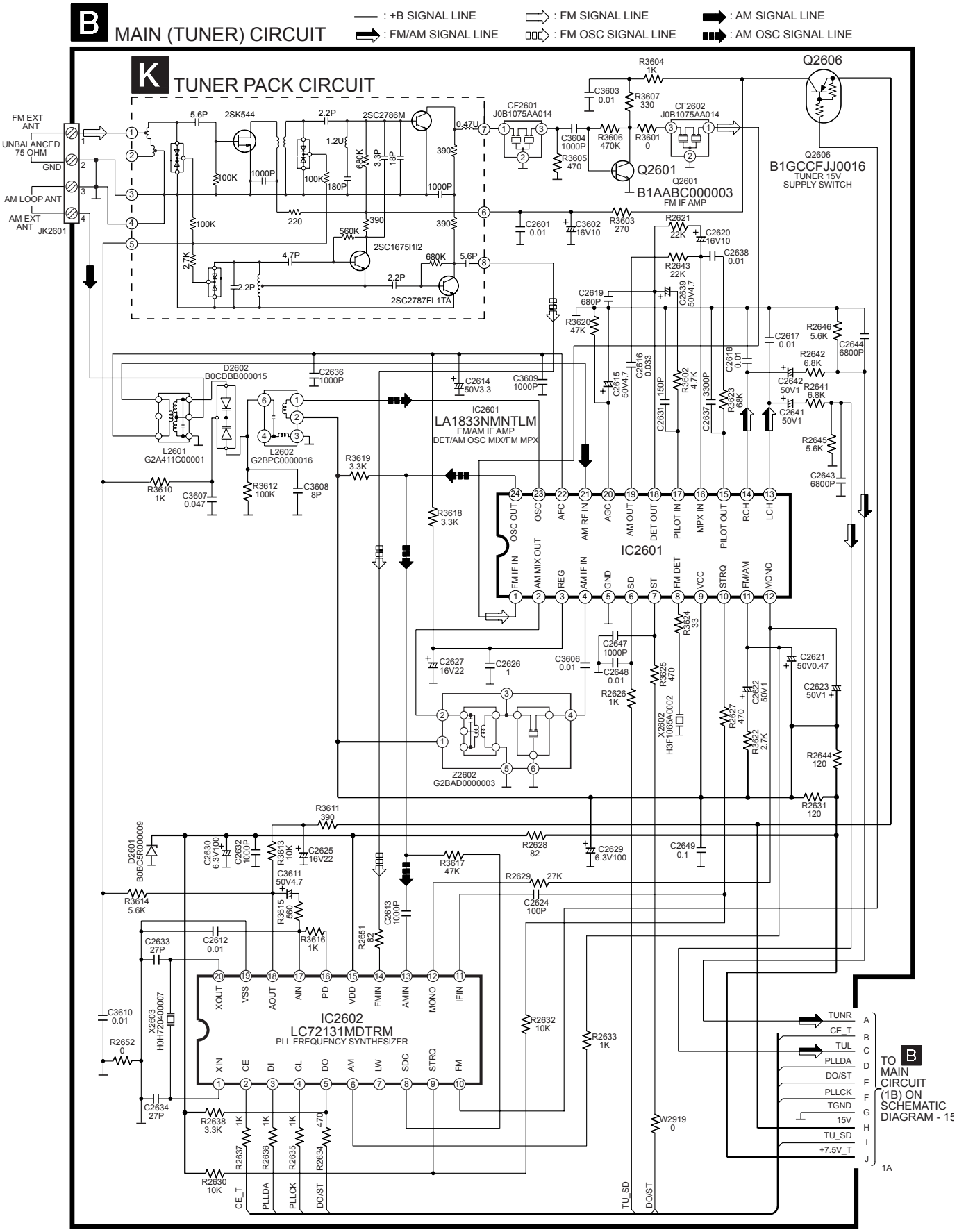
A DVD MODULE CIRCUIT

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



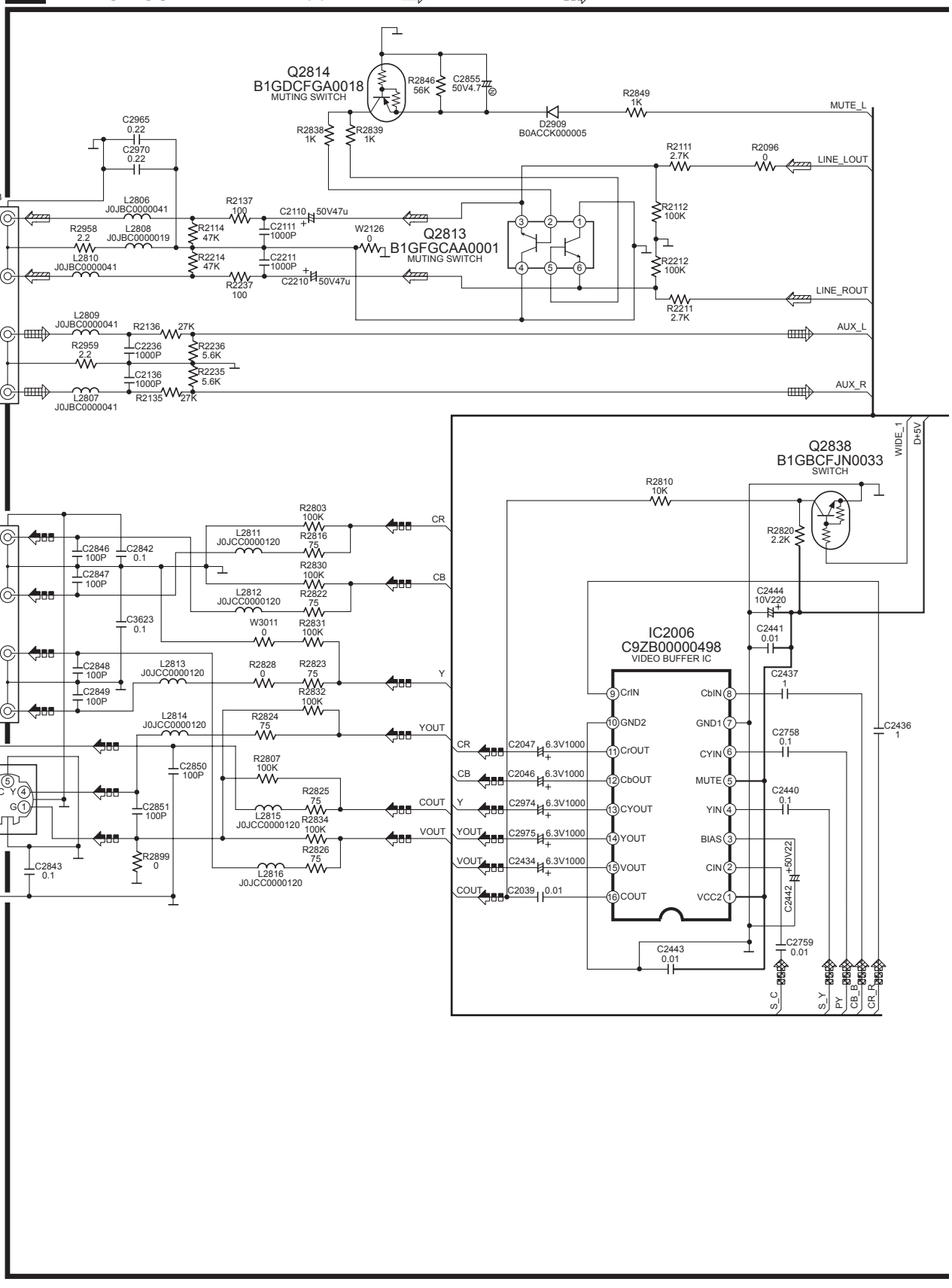
22.3. (B) Main (Tuner) Circuit

SCHEMATIC DIAGRAM - 9



22.4. (B) Main Circuit

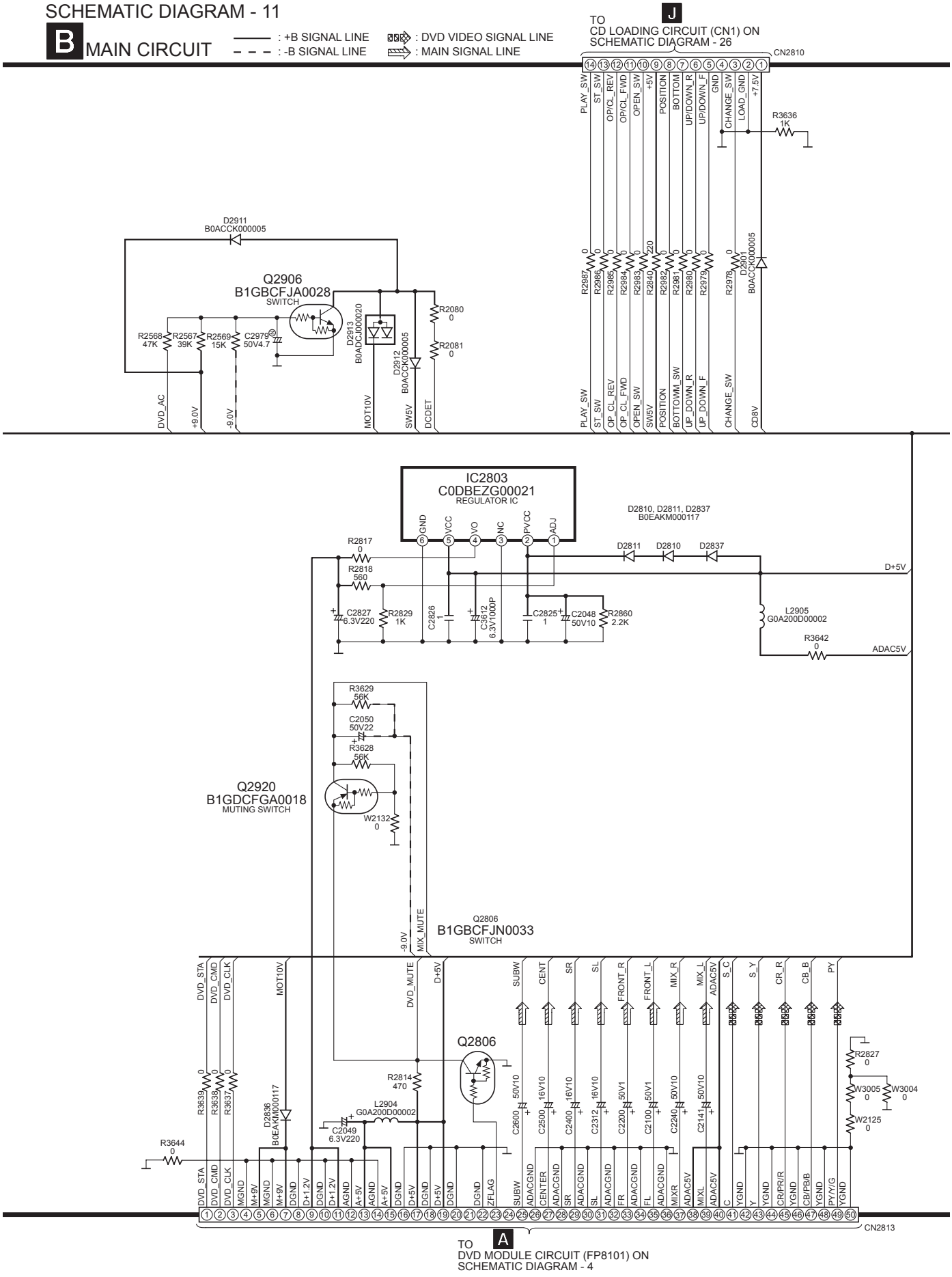
SCHEMATIC DIAGRAM - 10



SCHEMATIC DIAGRAM - 11

B MAIN CIRCUIT

——— : +B SIGNAL LINE
– – – : -B SIGNAL LINE
: DVD VIDEO SIGNAL LINE
: MAIN SIGNAL LINE

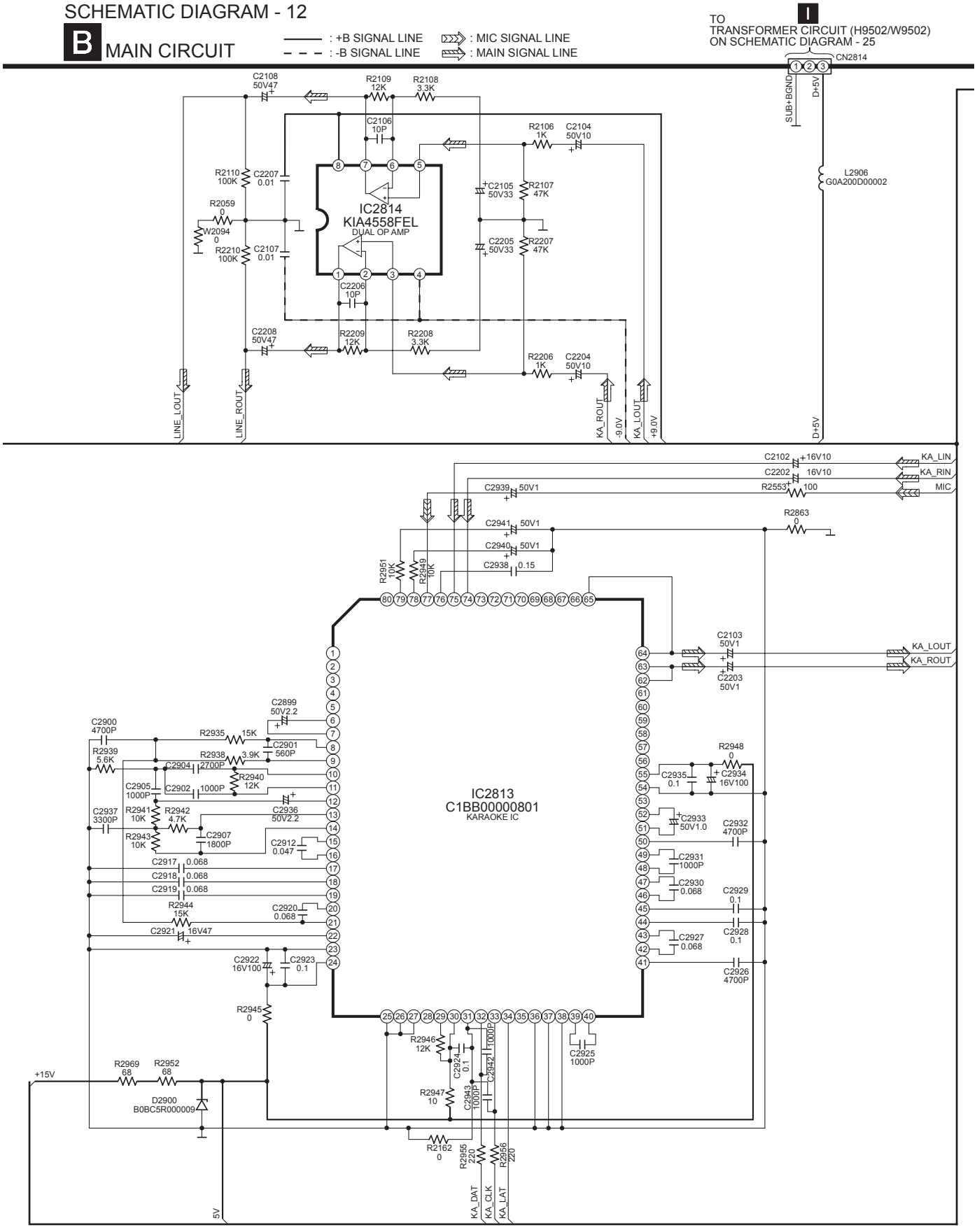


SCHEMATIC DIAGRAM - 12

B MAIN CIRCUIT

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

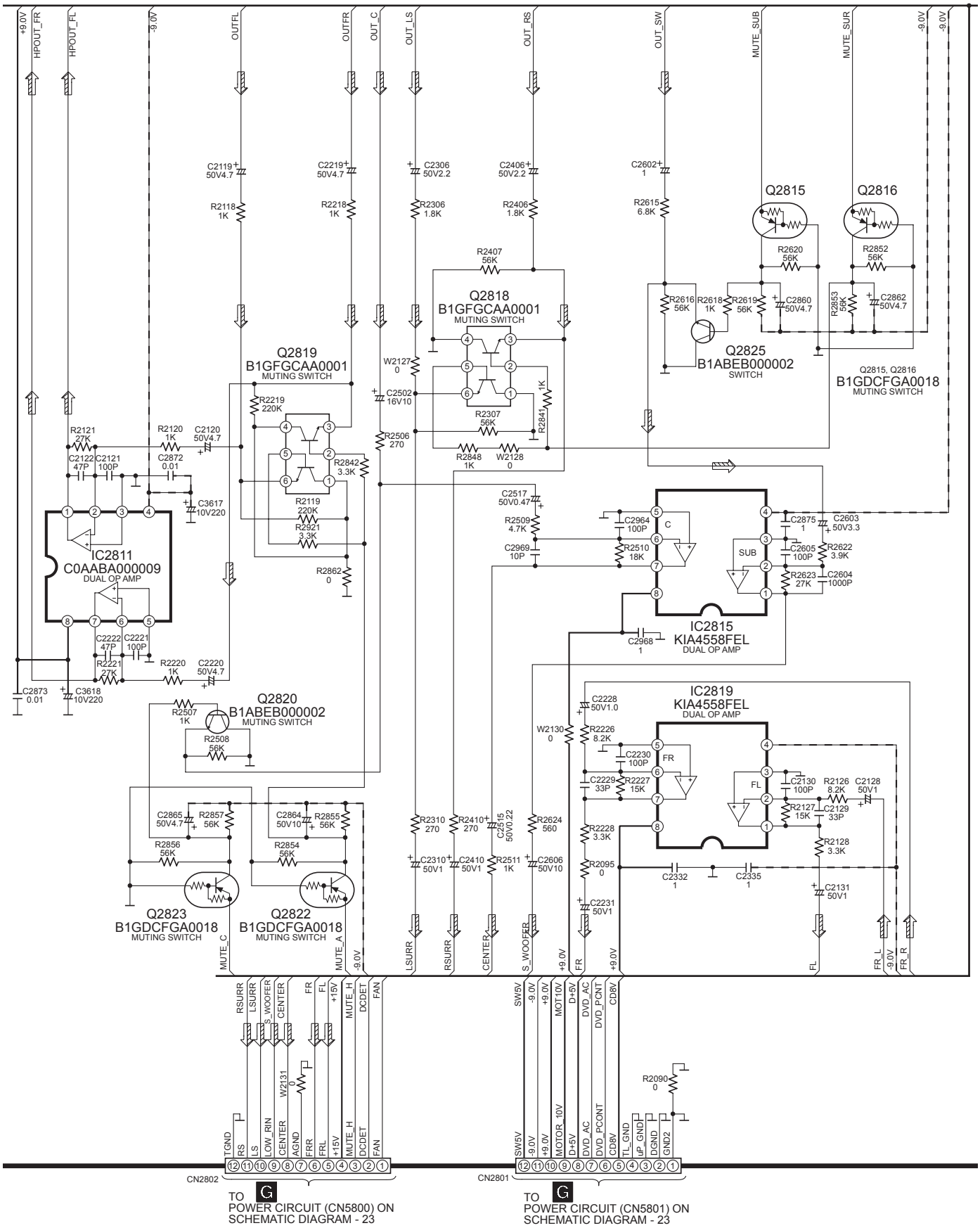
TO
TRANSFORMER CIRCUIT (H9502/W9502)
ON SCHEMATIC DIAGRAM - 25



SCHEMATIC DIAGRAM - 13

B MAIN CIRCUIT

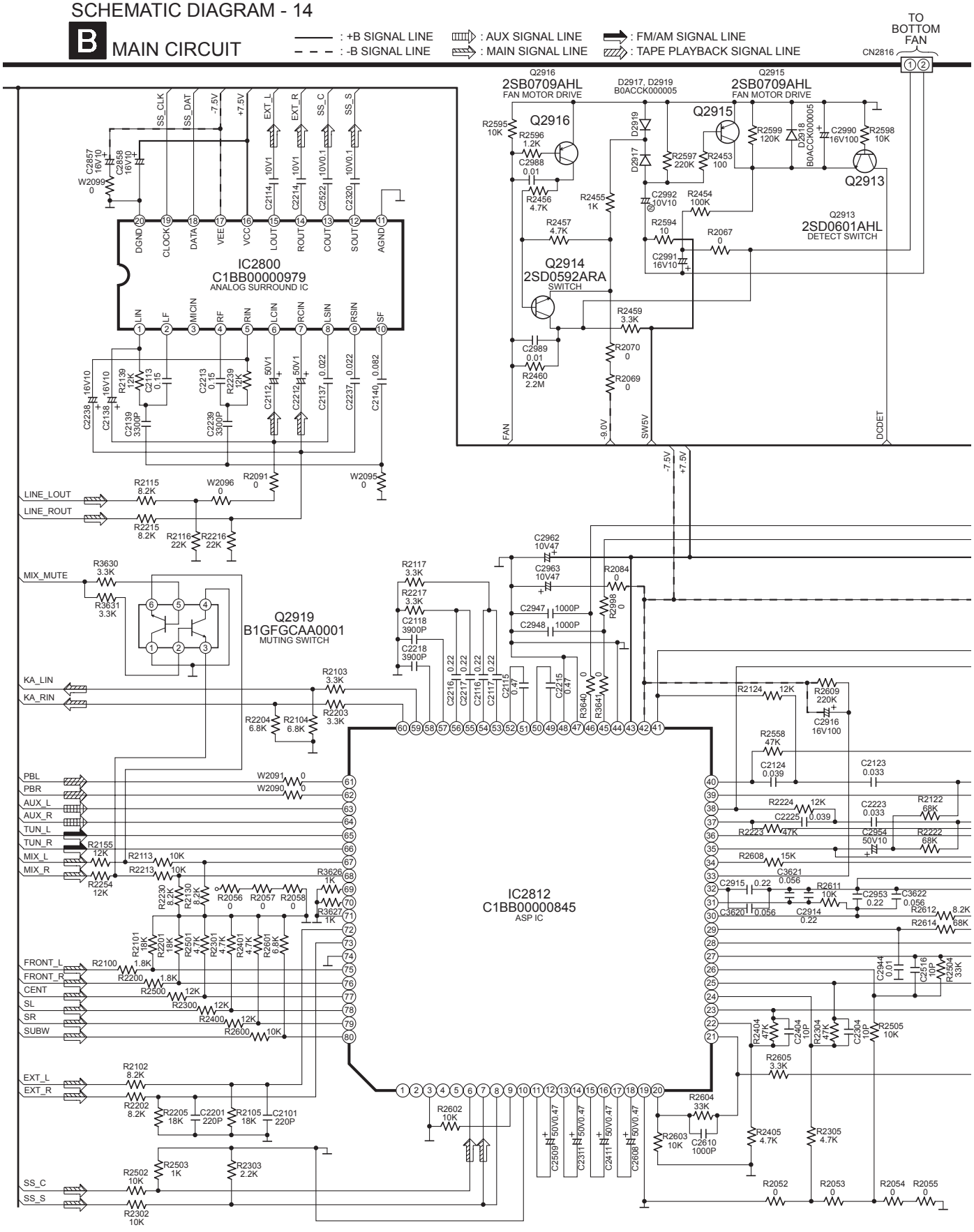
——— : +B SIGNAL LINE
– – – : -B SIGNAL LINE
⇨ : MAIN SIGNAL LINE



SCHEMATIC DIAGRAM - 14

B MAIN CIRCUIT

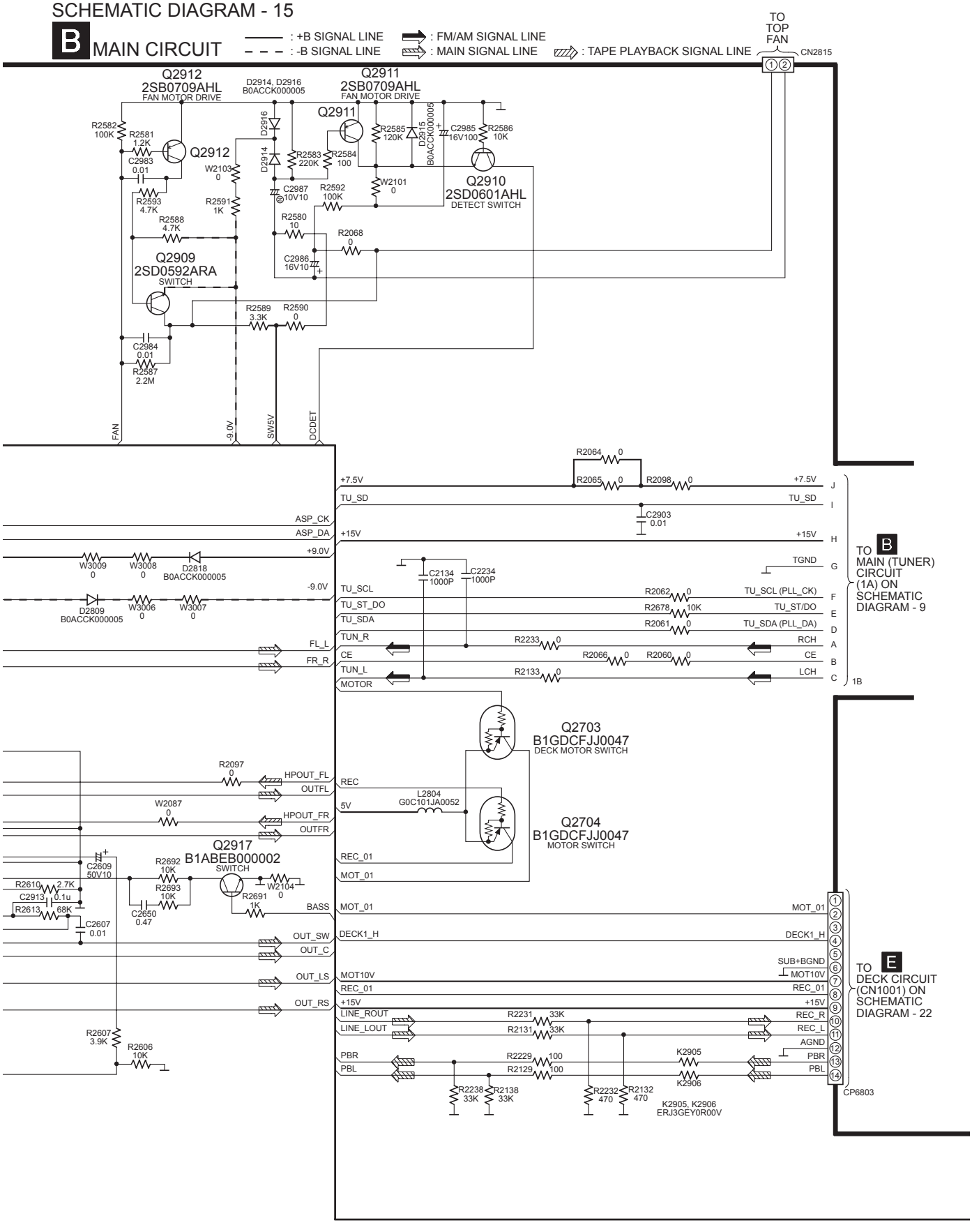
: +B SIGNAL LINE
: -B SIGNAL LINE
: AUX SIGNAL LINE
: MAIN SIGNAL LINE
: FM/AM SIGNAL LINE
: TAPE PLAYBACK SIGNAL LINE



SCHEMATIC DIAGRAM - 15

B MAIN CIRCUIT

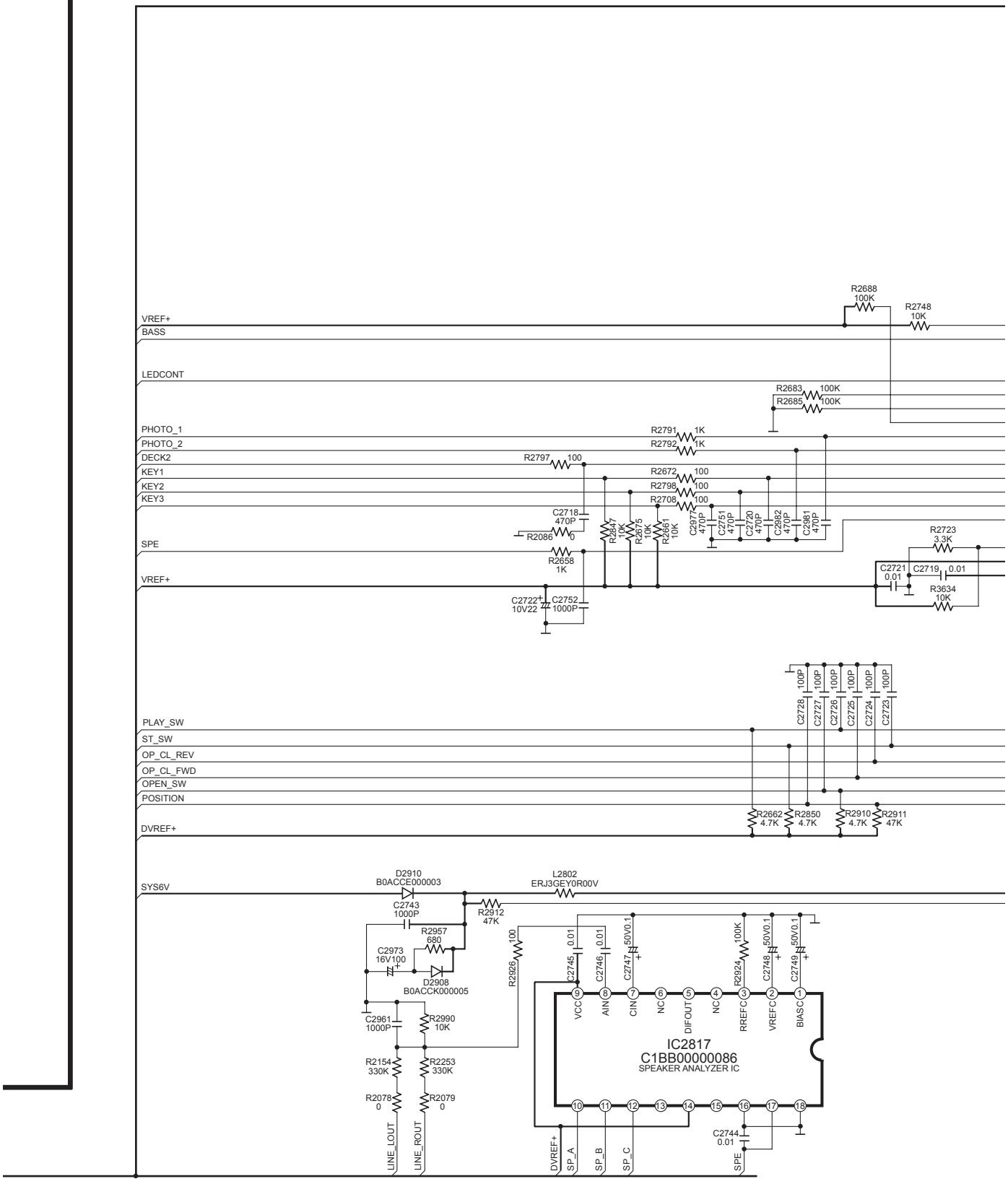
——— : +B SIGNAL LINE
– – – : -B SIGNAL LINE
: FM/AM SIGNAL LINE
: MAIN SIGNAL LINE
: TAPE PLAYBACK SIGNAL LINE



SCHEMATIC DIAGRAM - 16

B MAIN CIRCUIT

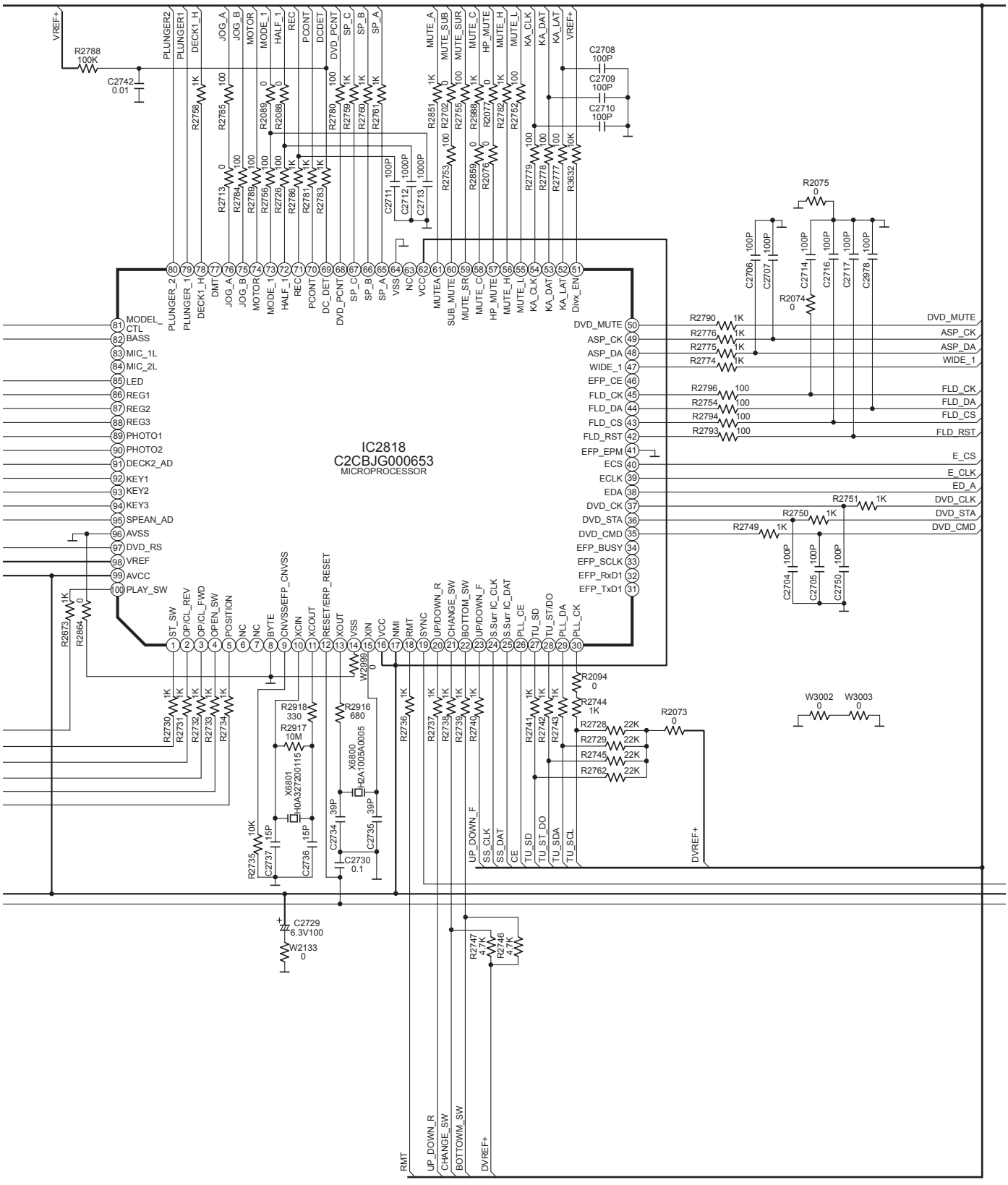
—— : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 17

B MAIN CIRCUIT

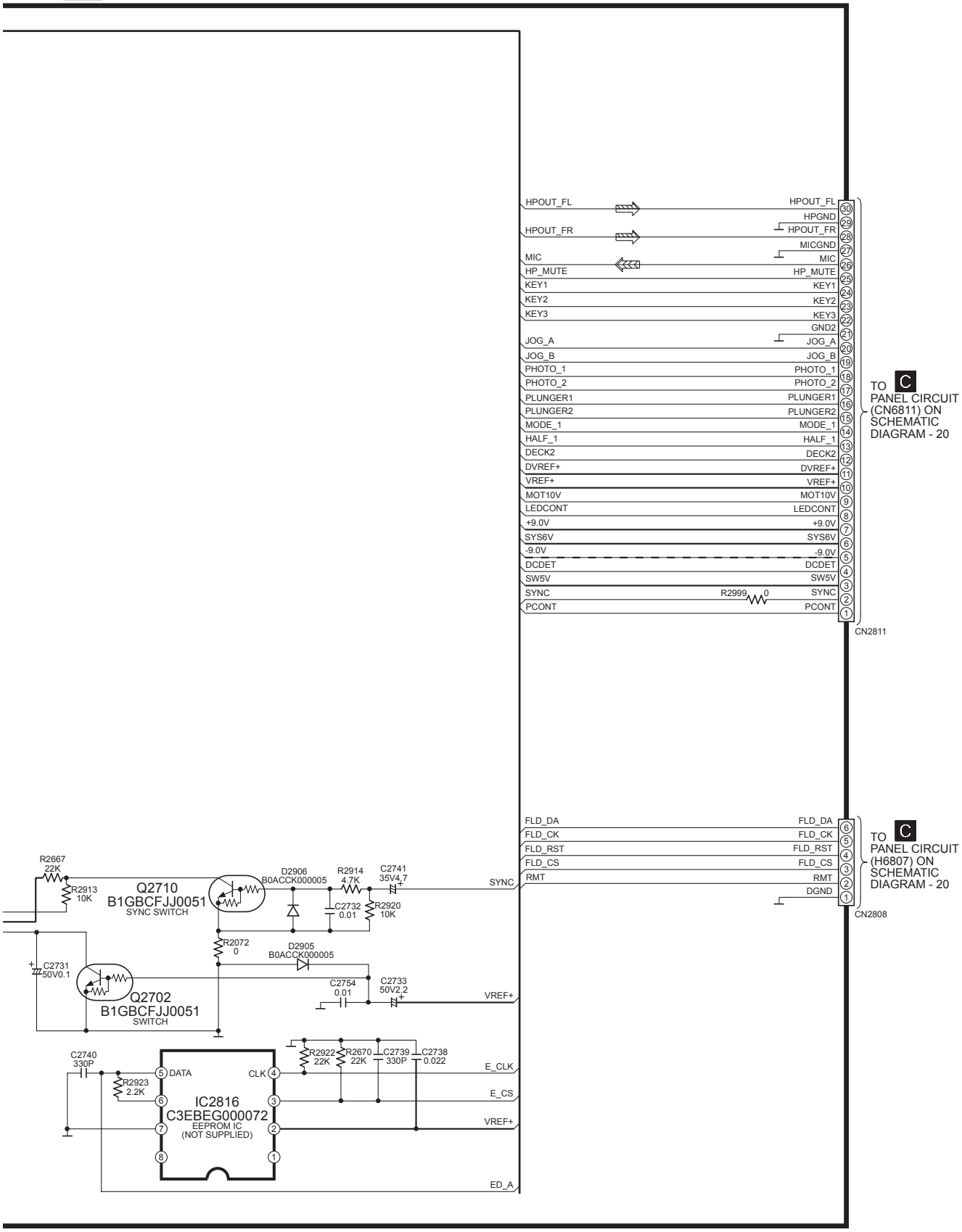
—— : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 18

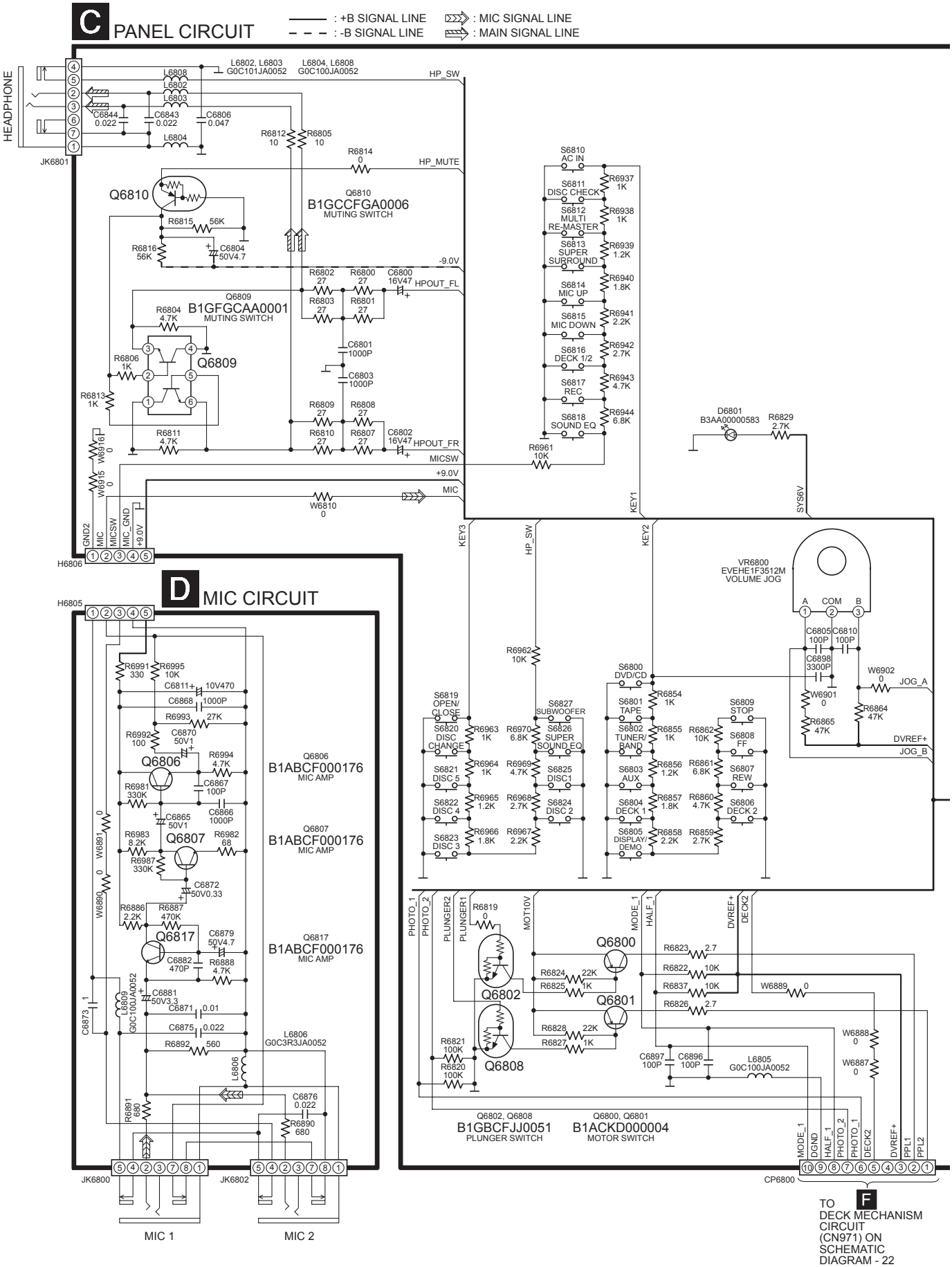
B MAIN CIRCUIT

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



22.5. (C) Panel Circuit & (D) Mic Circuit

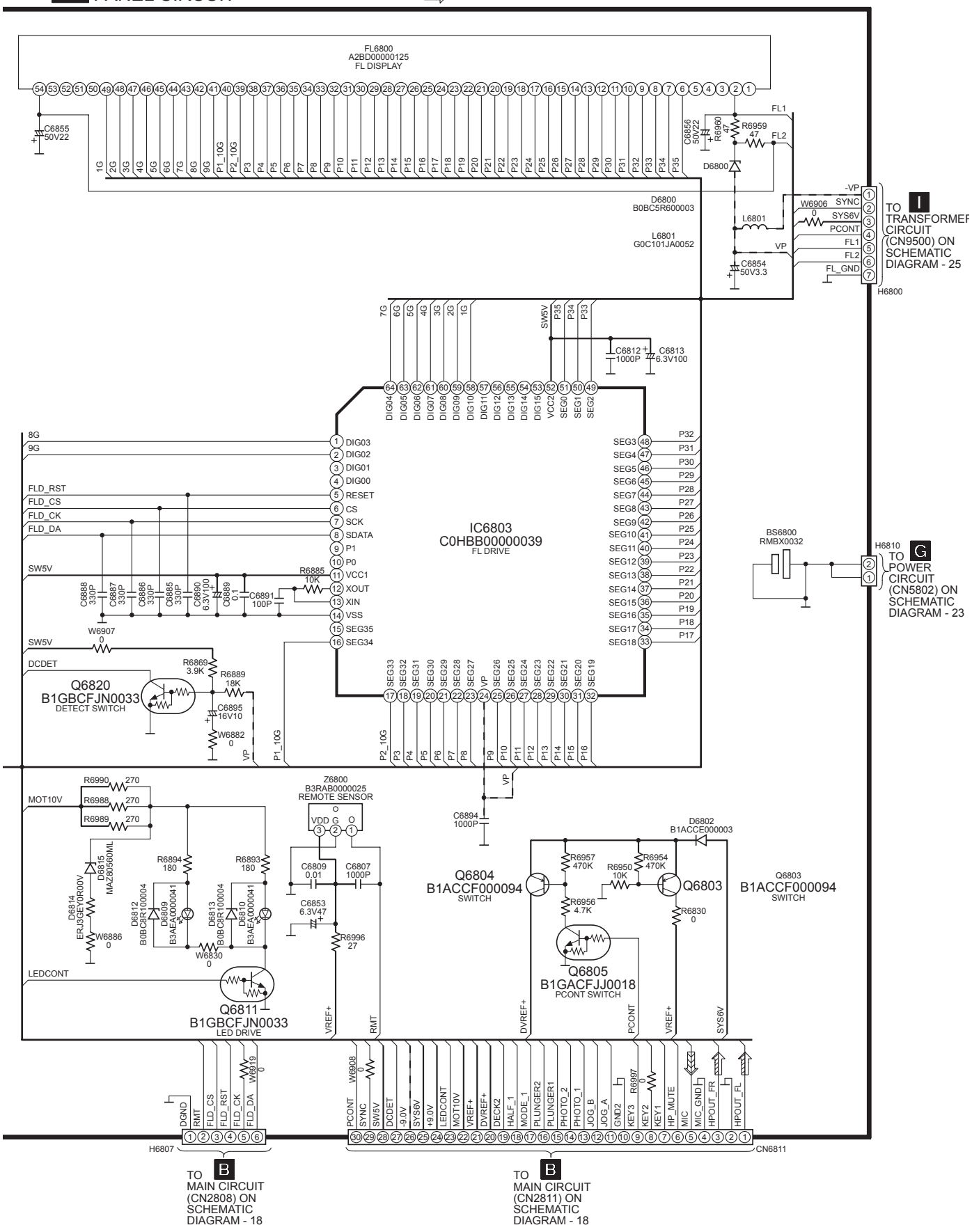
SCHEMATIC DIAGRAM - 19



SCHEMATIC DIAGRAM - 20

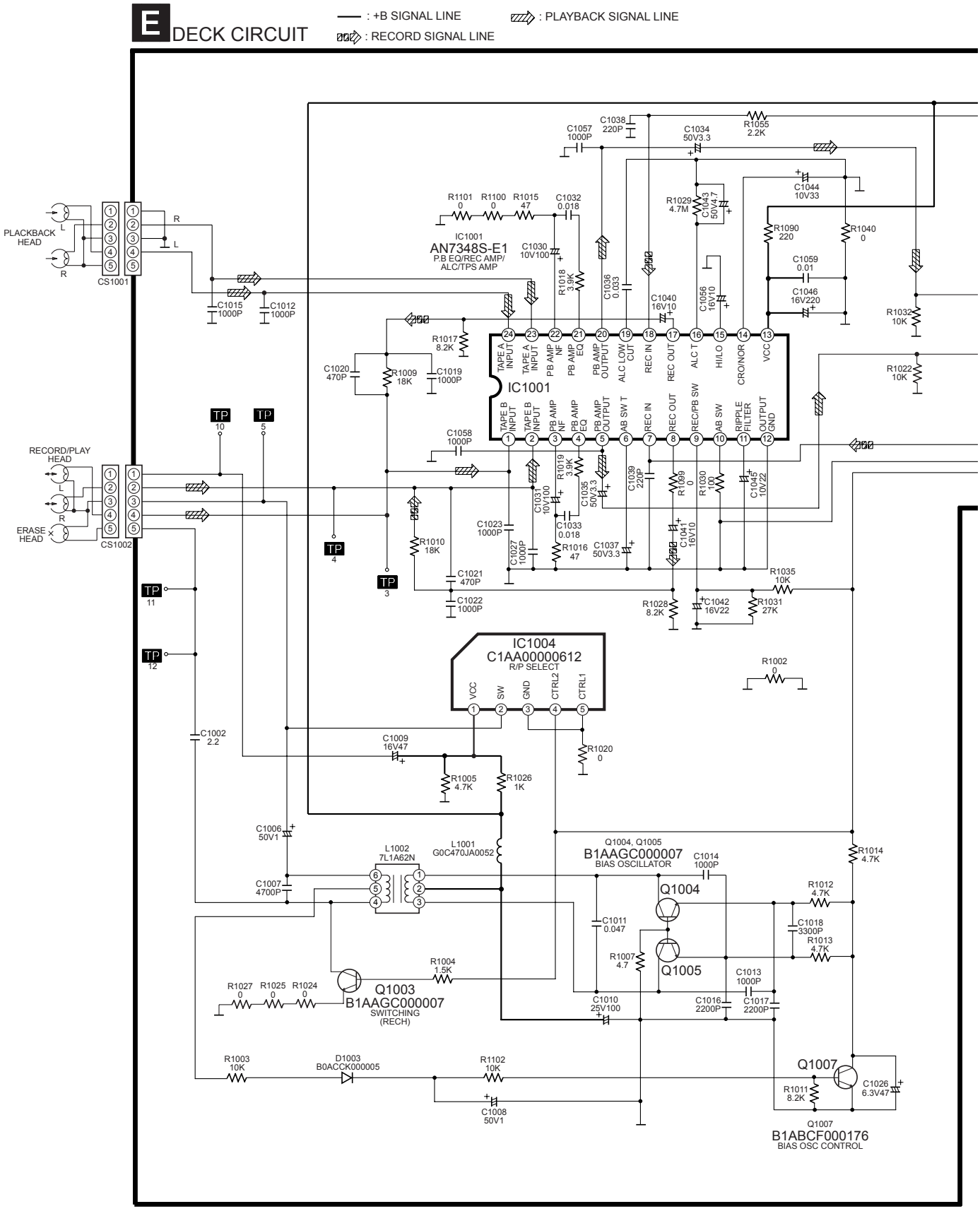
C PANEL CIRCUIT

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



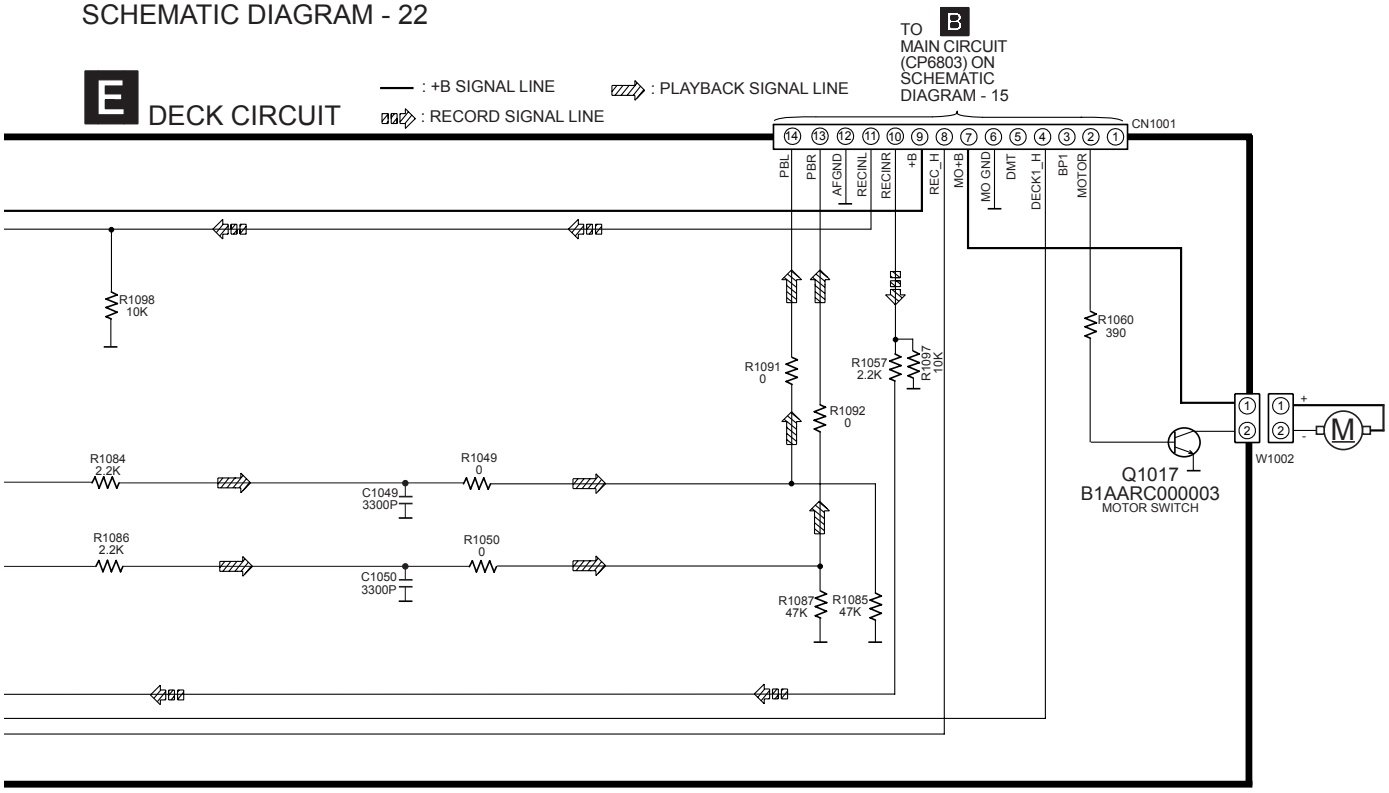
22.6. (E) Deck Circuit & (F) Deck Mechanism Circuit

SCHEMATIC DIAGRAM - 21

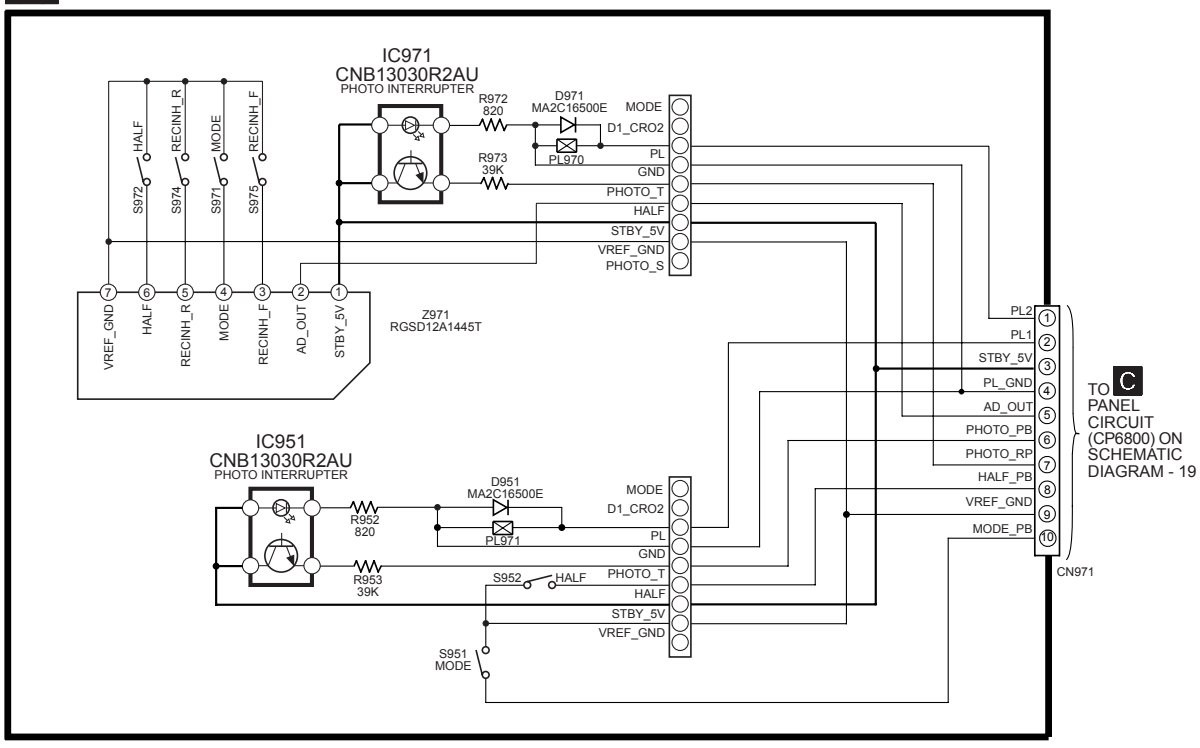


SCHEMATIC DIAGRAM - 22

E DECK CIRCUIT



F DECK MECHANISM CIRCUIT

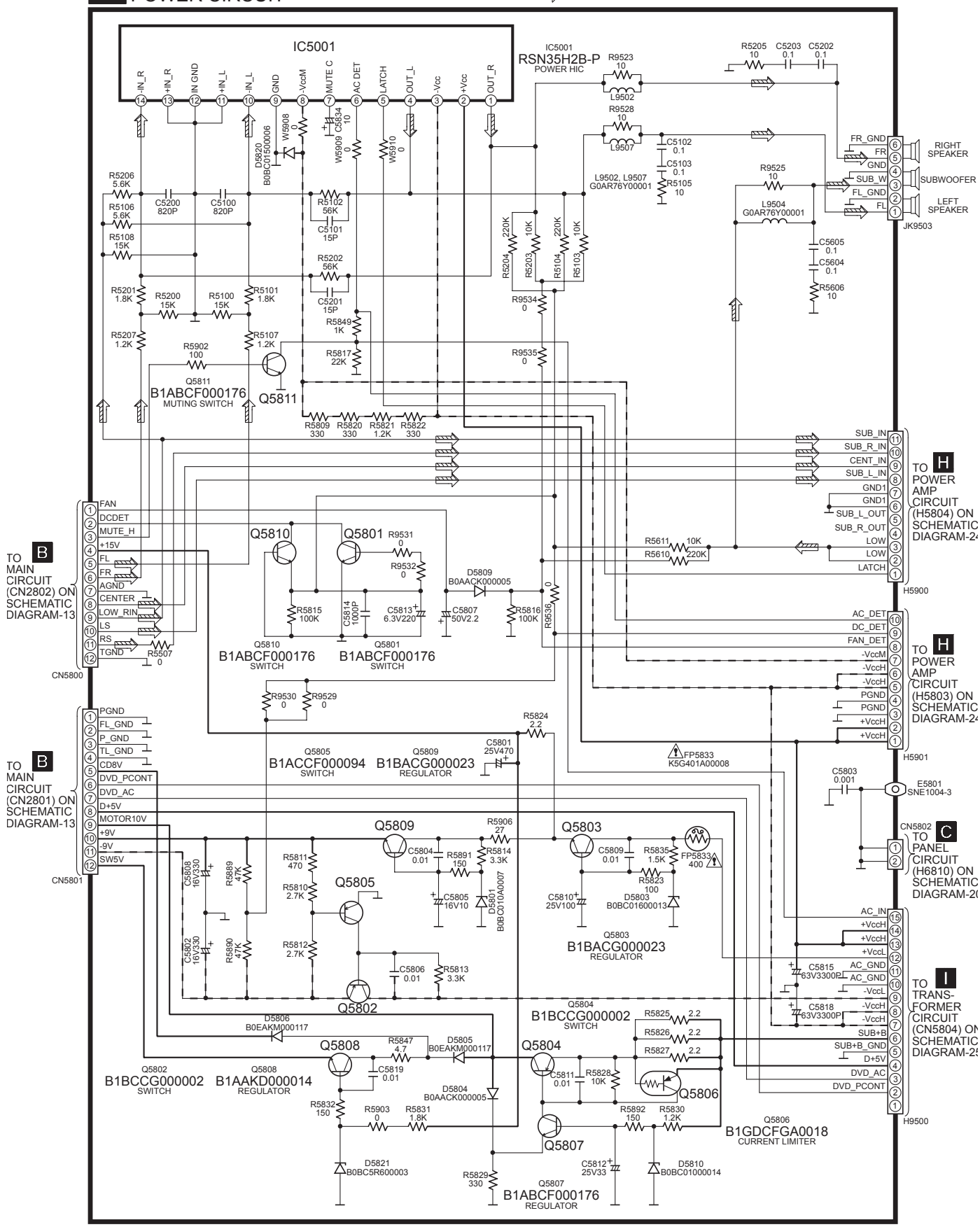


22.7. (G) Power Circuit

SCHEMATIC DIAGRAM - 23

G POWER CIRCUIT

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

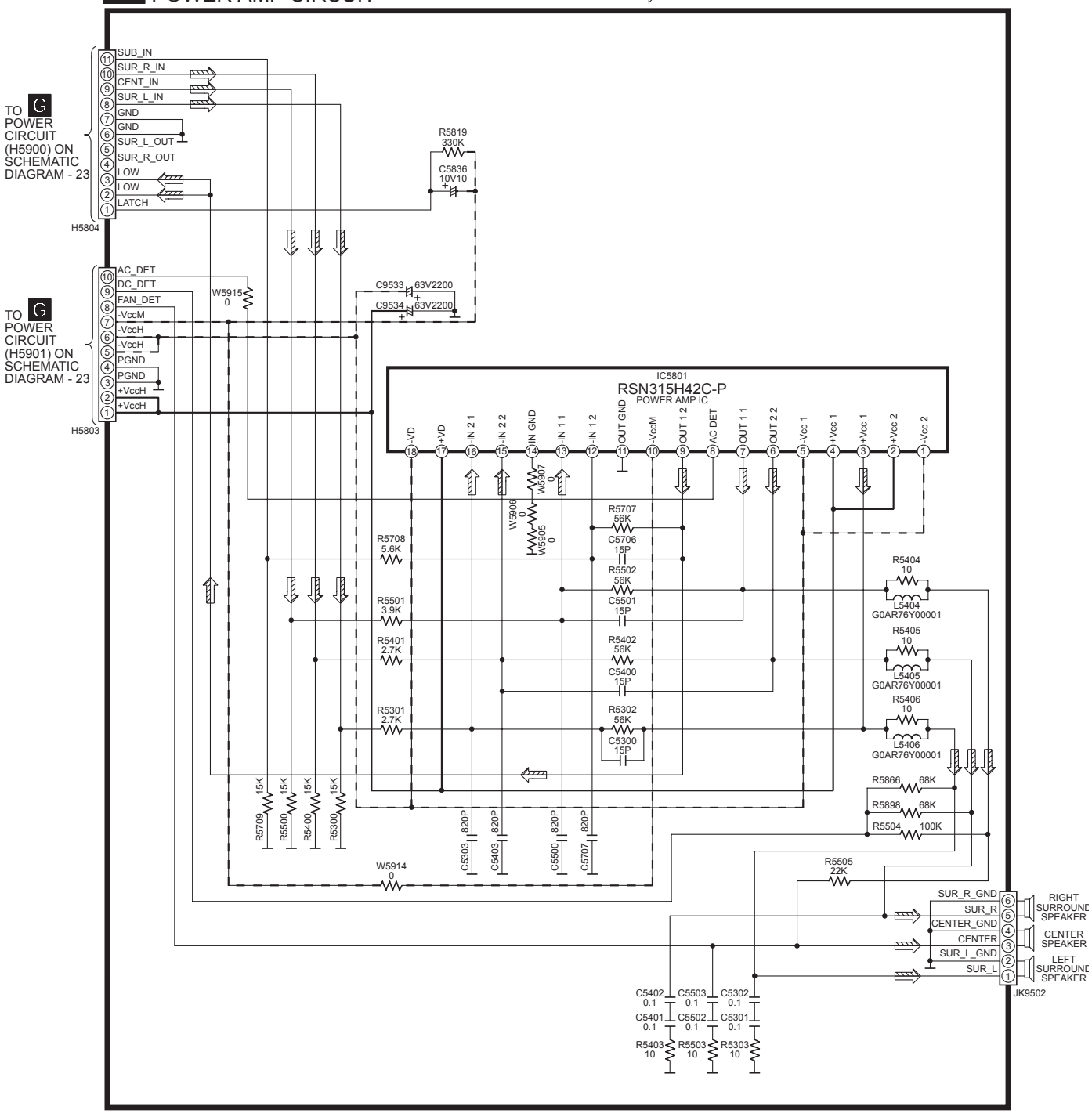


22.8. (H) Power Amp Circuit

SCHEMATIC DIAGRAM - 24

H POWER AMP CIRCUIT

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



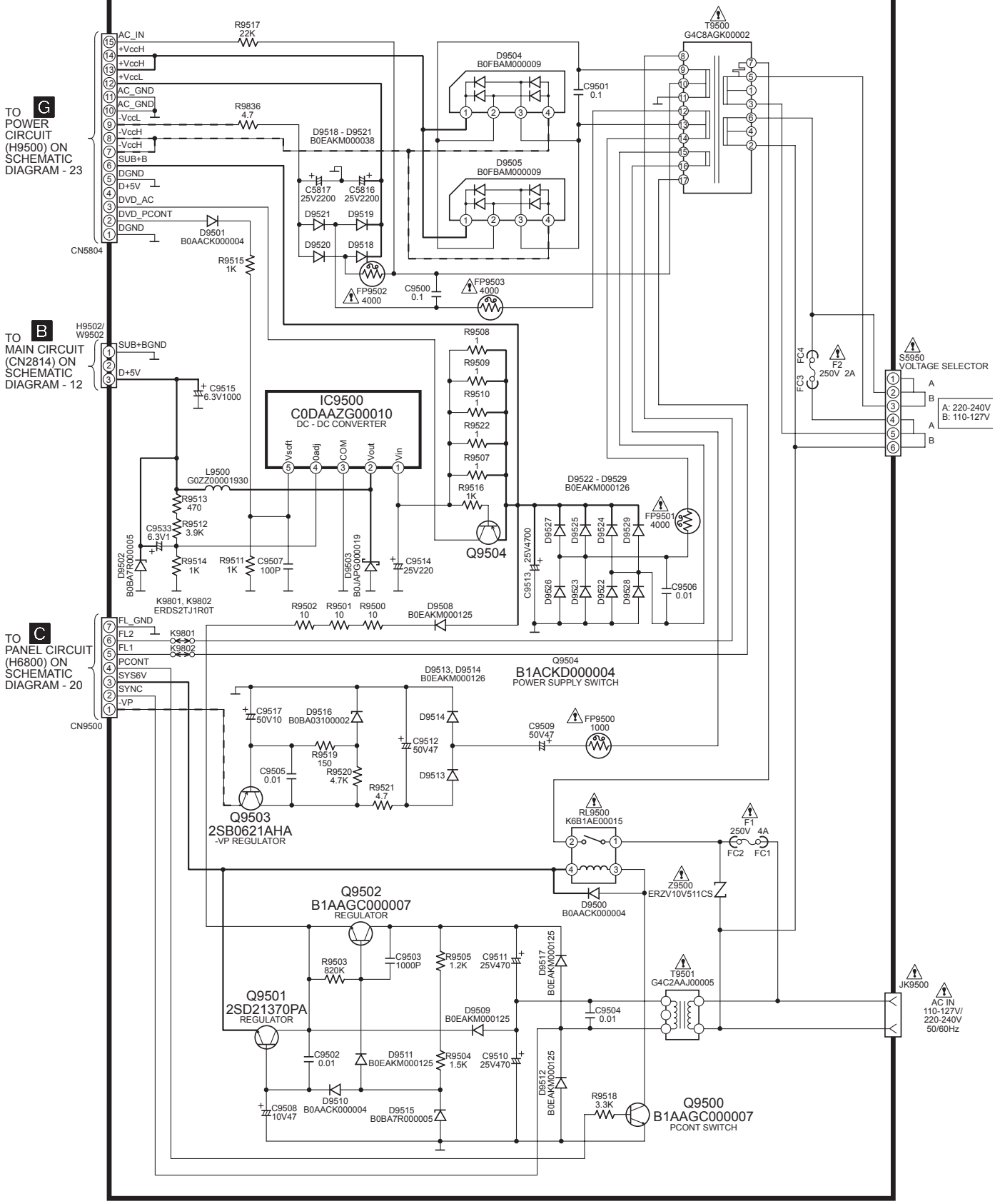
22.9. (I) Transformer Circuit

SCHEMATIC DIAGRAM - 25

I TRANSFORMER CIRCUIT

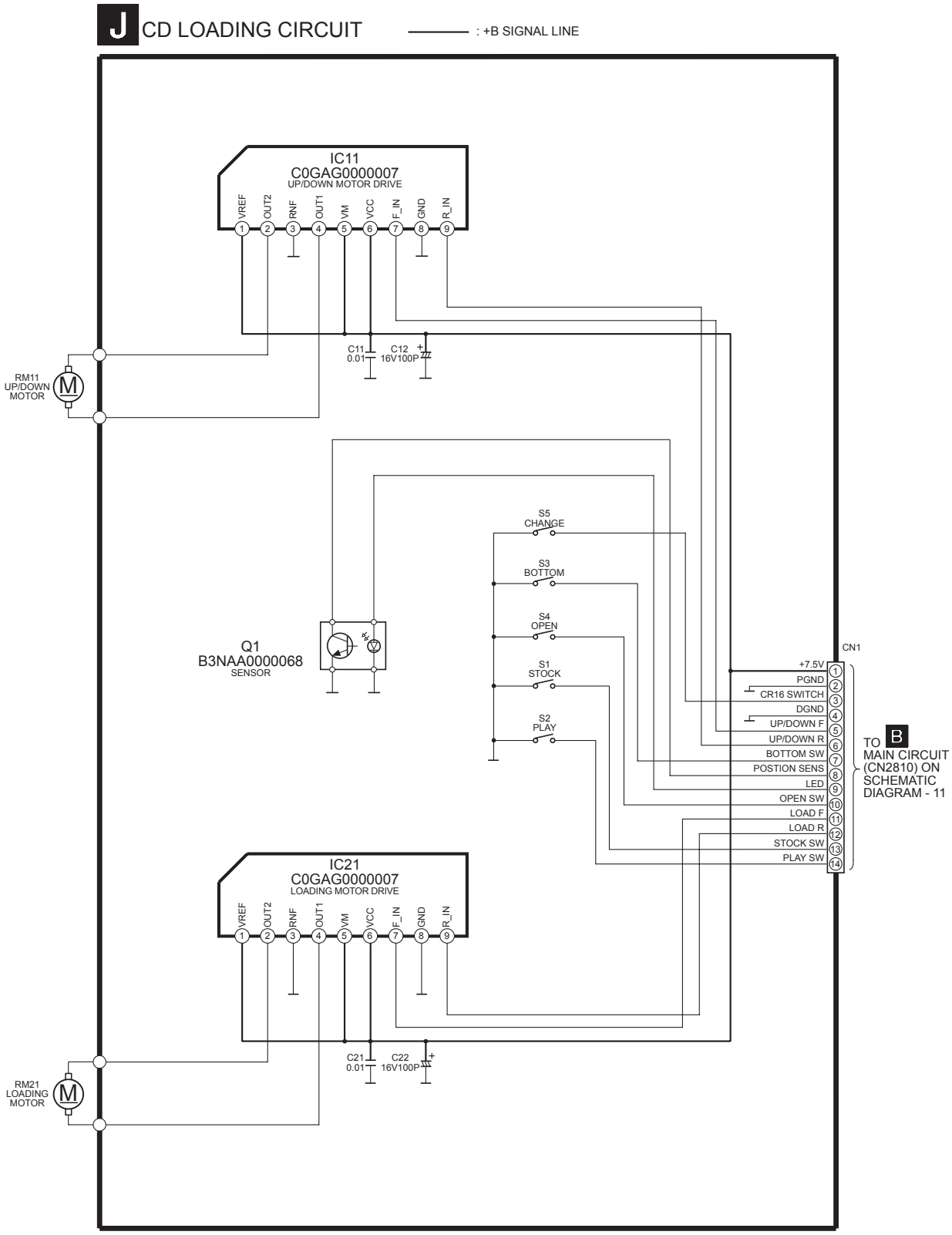
——— : +B SIGNAL LINE

- - - - : -B SIGNAL LINE



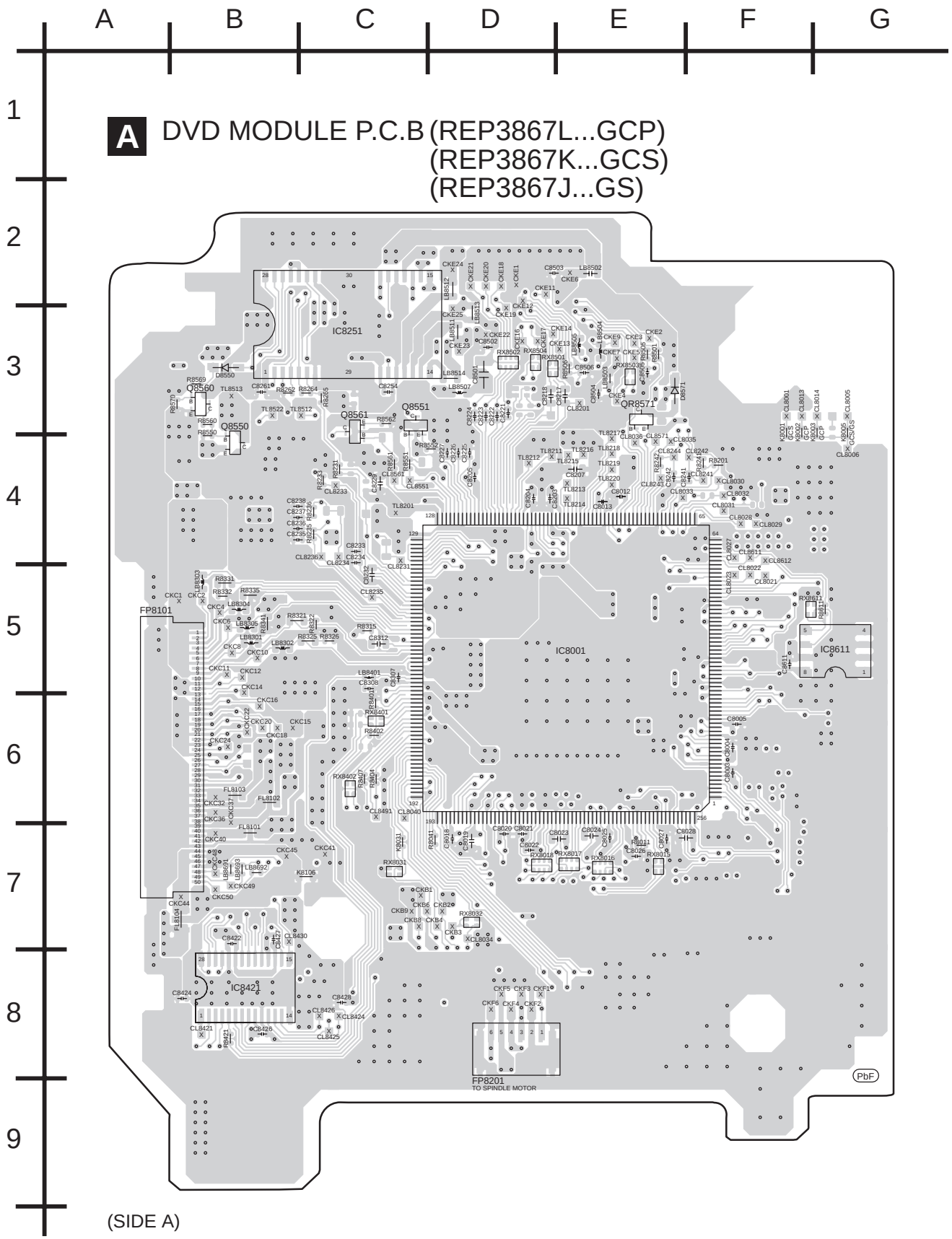
22.10. (J) CD Loading Circuit

SCHEMATIC DIAGRAM - 26



23 Printed Circuit Board

23.1. (A) DVD Module P.C.B. (Side: A & B)

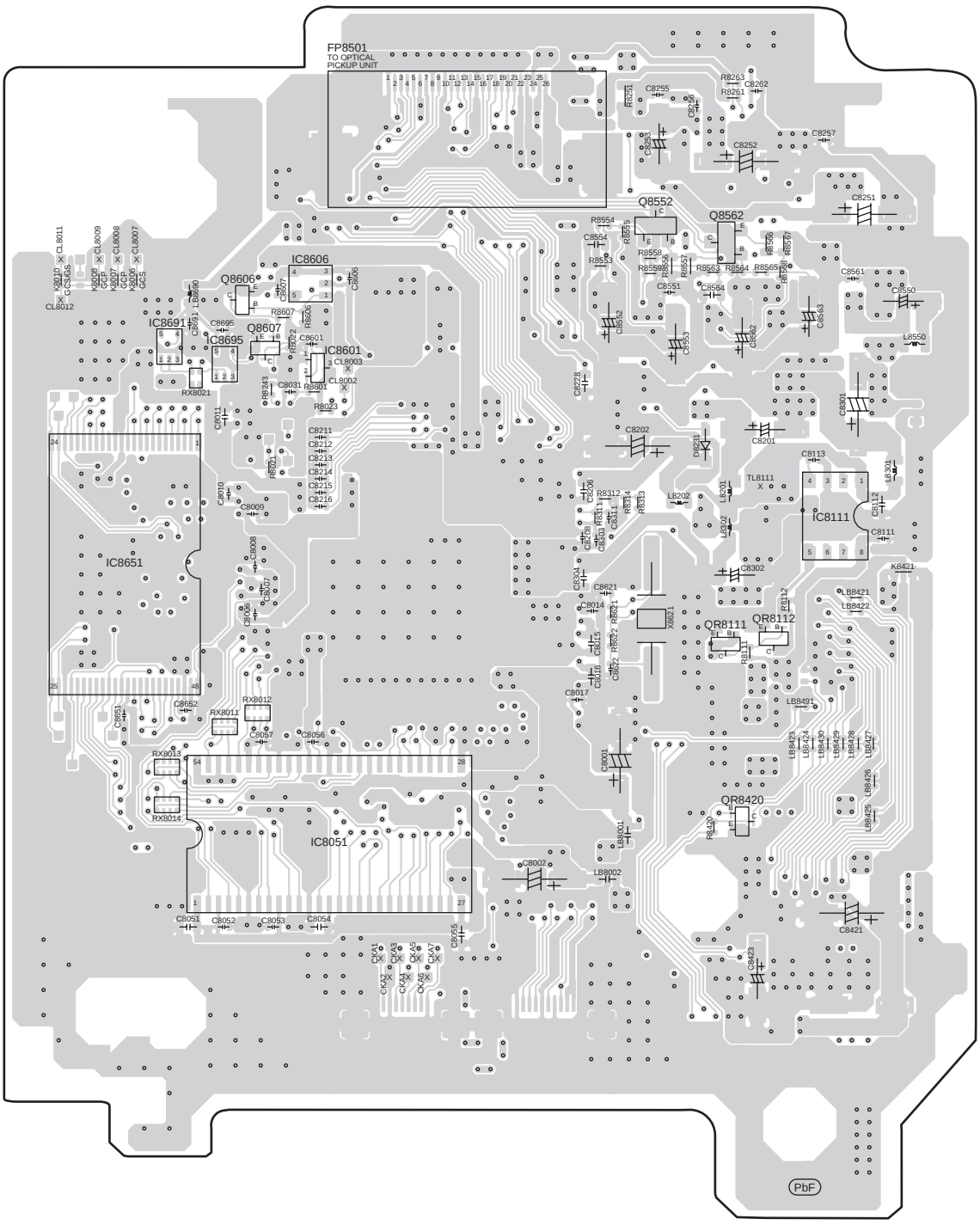


(SIDE A)

A B C D E F G

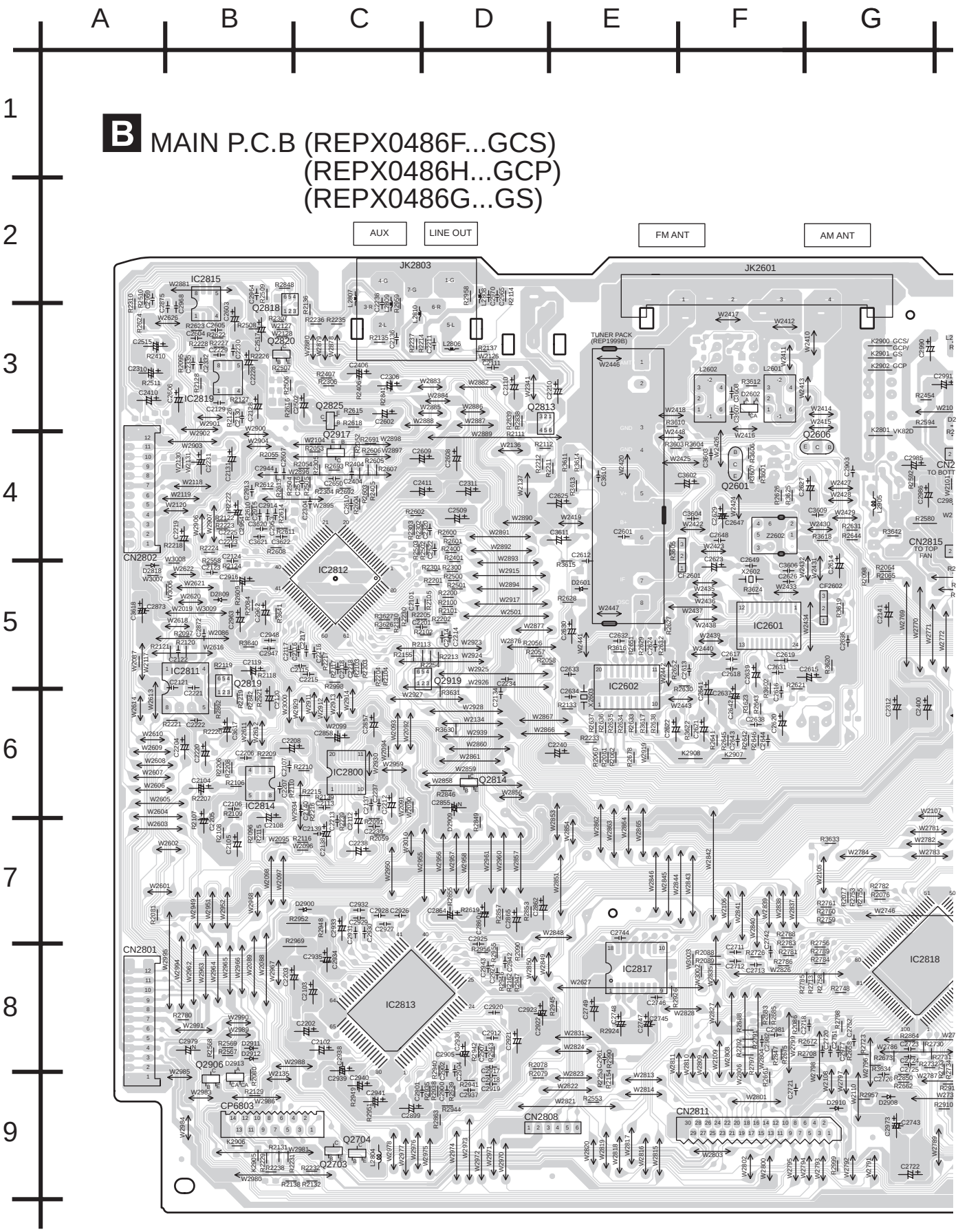
1 2 3 4 5 6 7 8 9

A DVD MODULE P.C.B (REP3867L...GCP)
(REP3867K...GCS)
(REP3867J...GS)

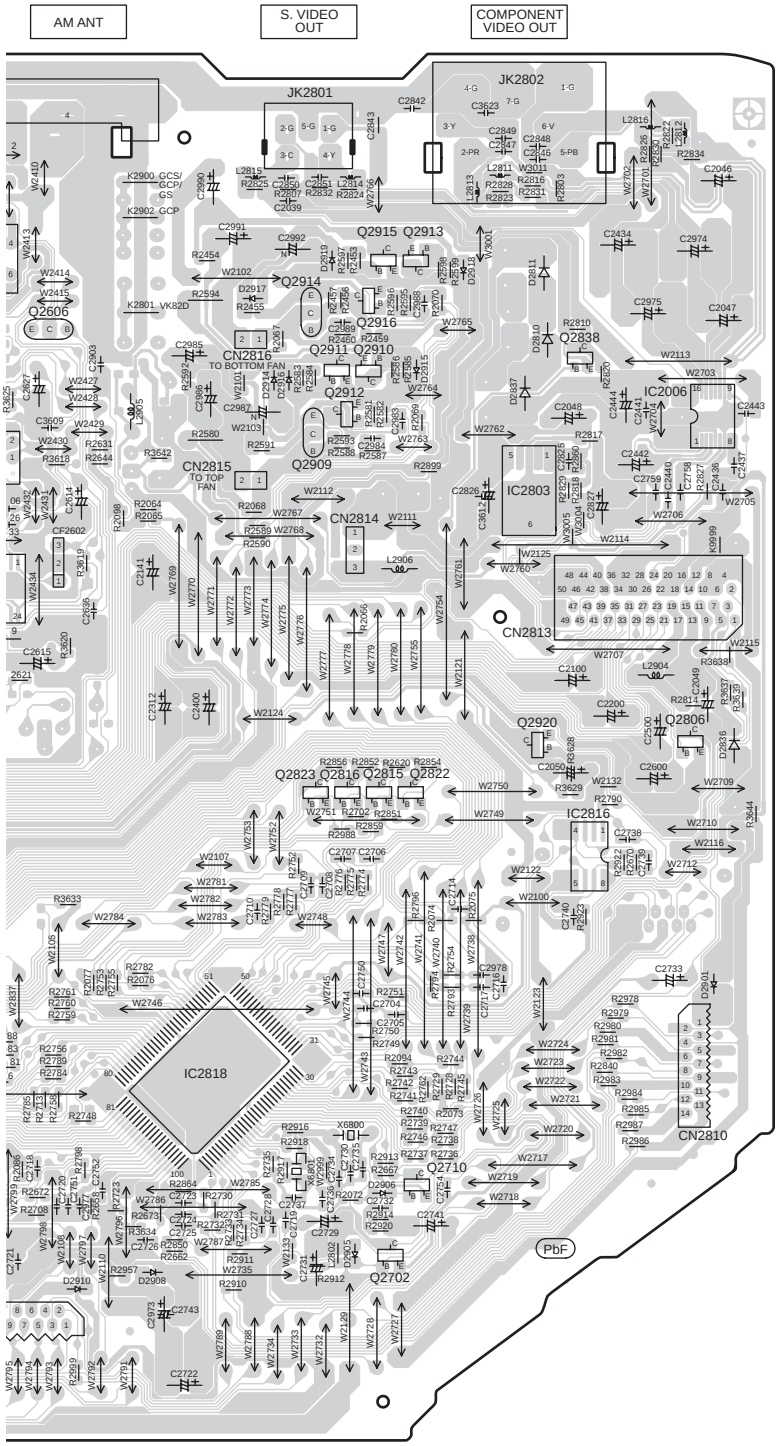


(SIDE B)

23.2. (B) Main P.C.B.

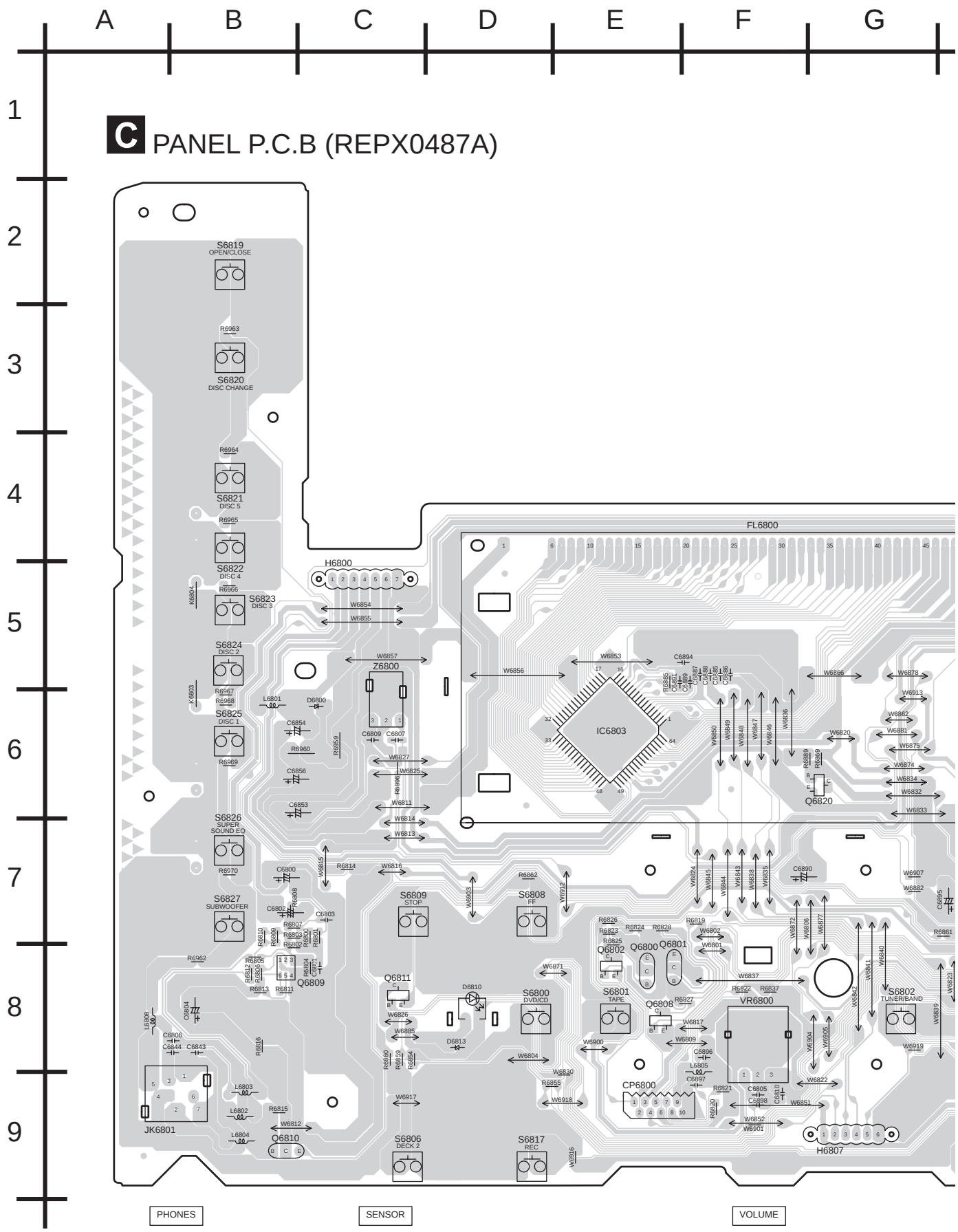


G H I J K L M

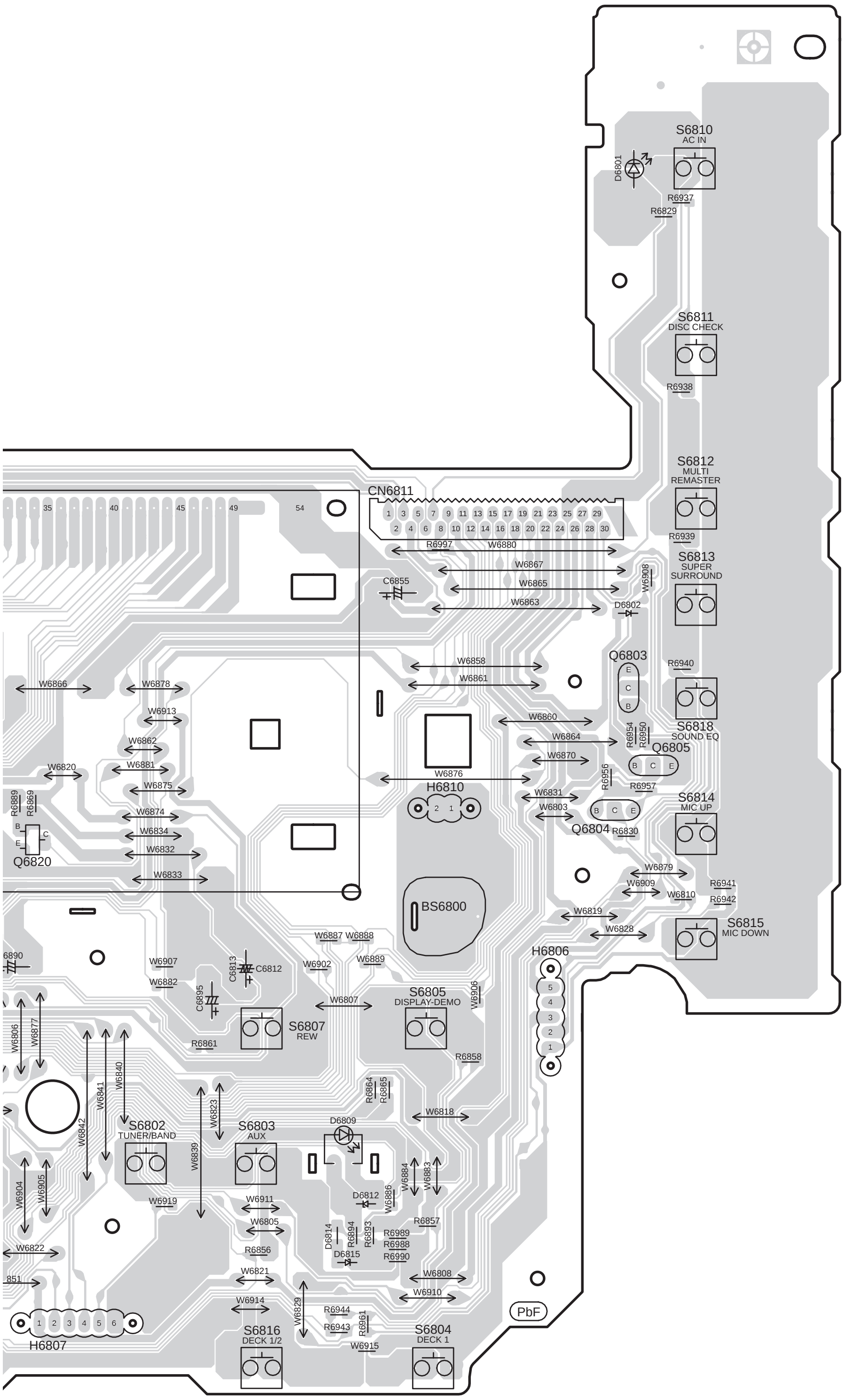

AM ANT
S. VIDEO OUT
COMPONENT VIDEO OUT
JK2801
JK2802
IC2818
IC2803
IC2816
IC2006
CN2810
CN2813
CN2814
CN2815
CN2816
TO BOTTOM FAN
TO TOP FAN
Q2606
Q2914
Q2915
Q2913
Q2916
Q2911
Q2910
Q2912
Q2909
Q2838
Q2920
Q2806
Q2823
Q2816
Q2815
Q2822
Q2710
Q2702
PbF

23.3. (C) Panel P.C.B.

C PANEL P.C.B (REPX0487A)

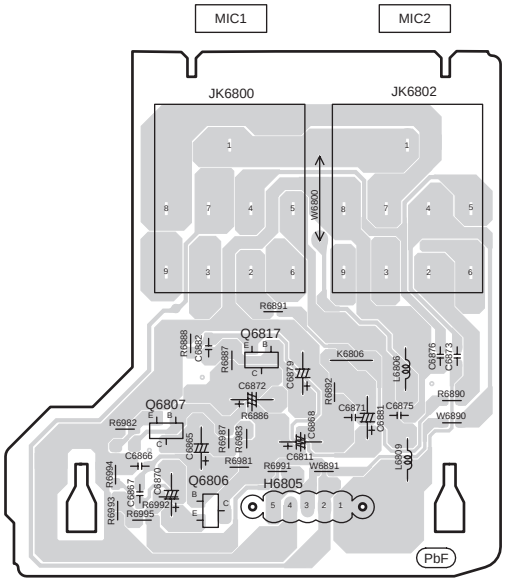


G H I J K L M

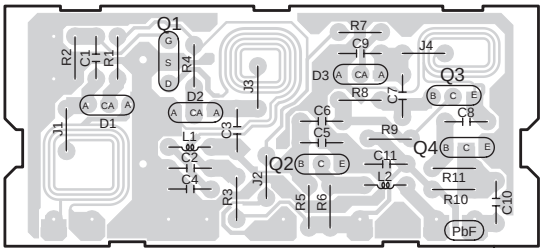

S6810
AC IN
S6811
DISC CHECK
S6812
MULTI REMASTER
S6813
SUPER SURROUND
S6818
SOUND EQ
S6814
MIC UP
S6815
MIC DOWN
CN6811
H6810
BS6800
H6806
S6805
DISPLAY-DEMO
S6807
REW
S6802
TUNER/BAND
S6803
AUX
S6816
DECK 1/2
S6804
DECK 1
H6807
Q6820
Q6803
Q6805
Q6804
PbF

23.4. (D) Mic P.C.B. & (K) Tuner Pack P.C.B.

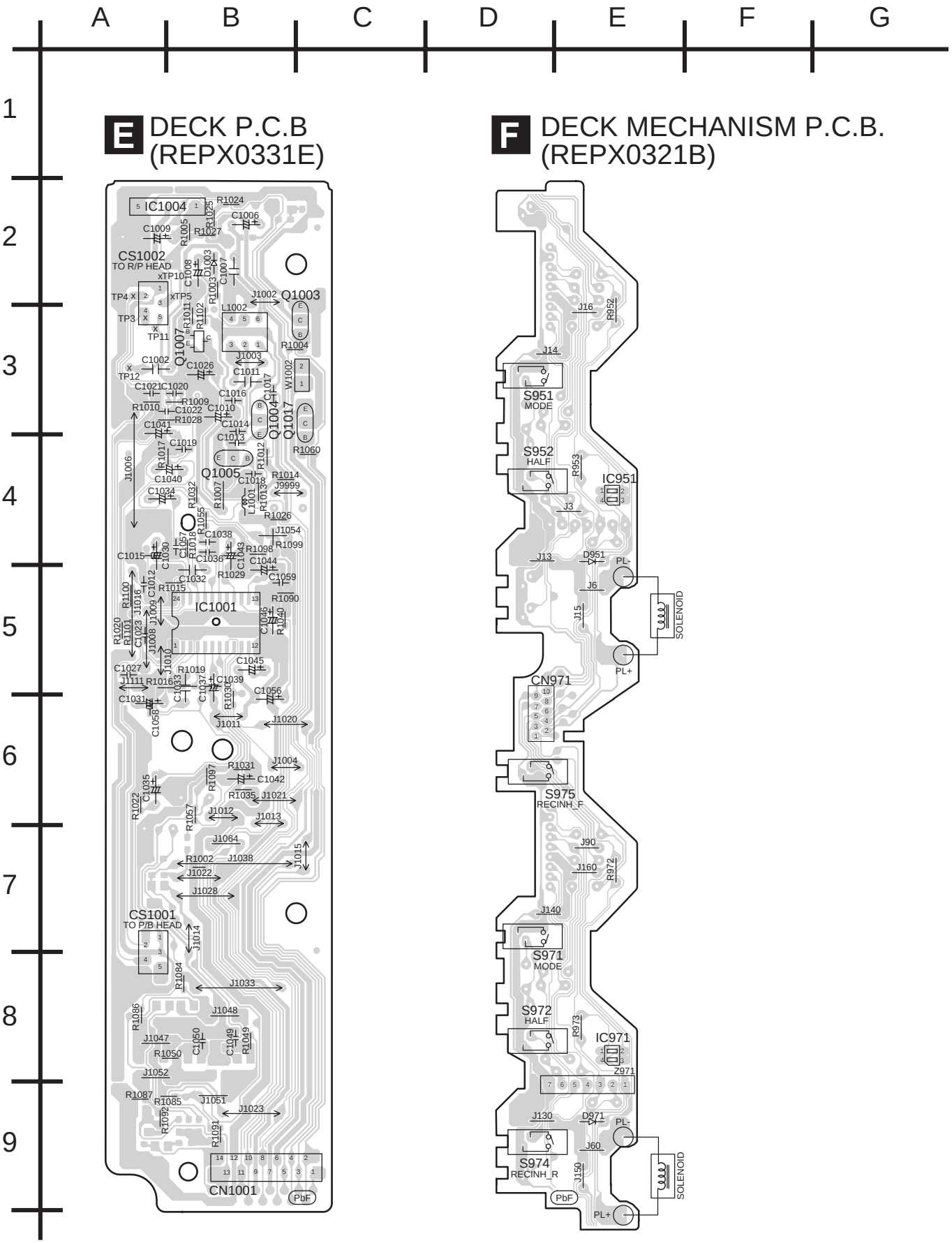
D MIC P.C.B (REPX0487A)



K TUNER PACK P.C.B (REP1999B)

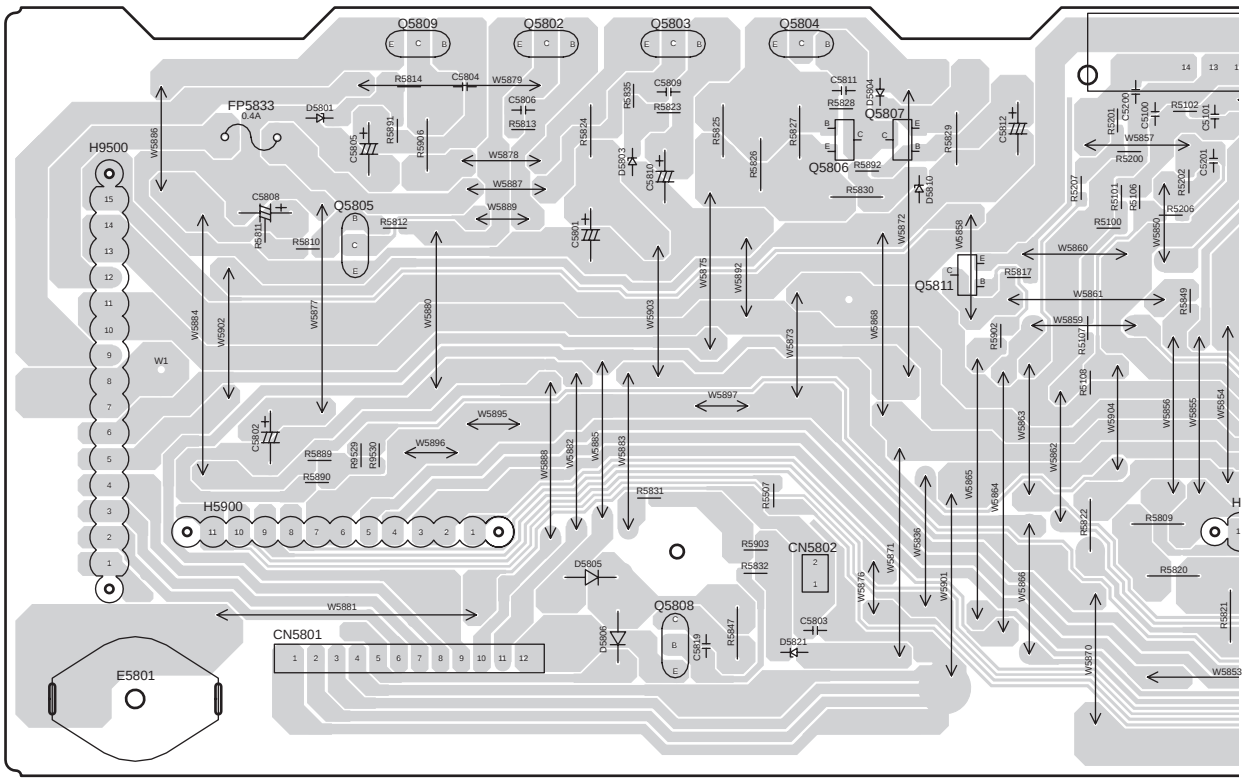


23.5. (E) Deck P.C.B. & (F) Deck Mechanism P.C.B.

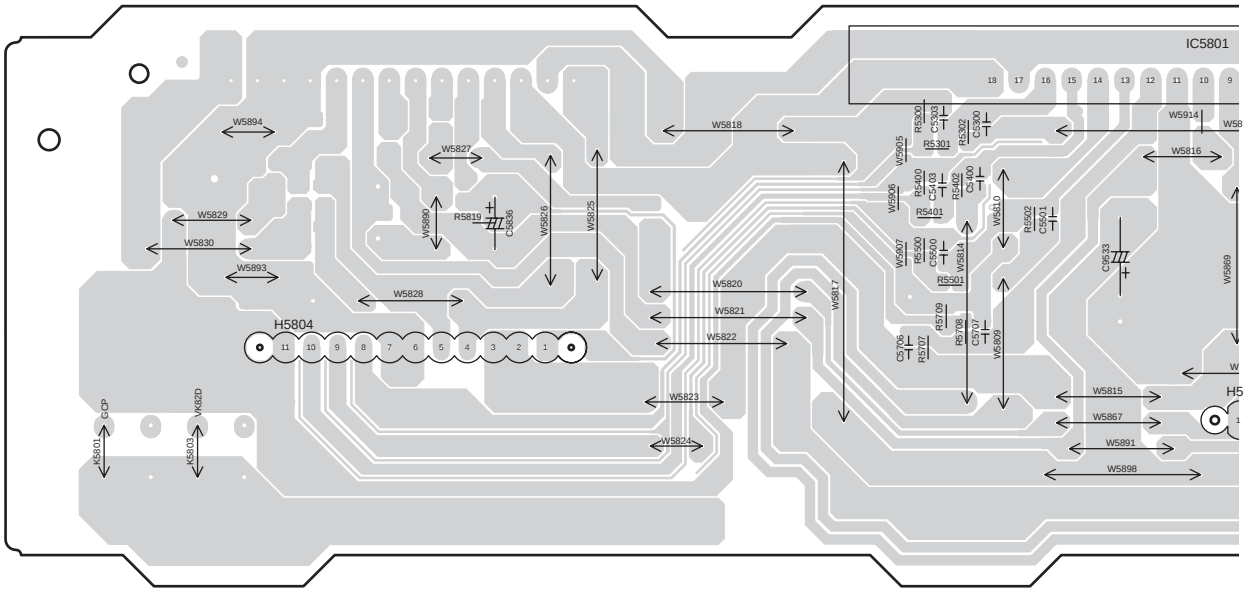


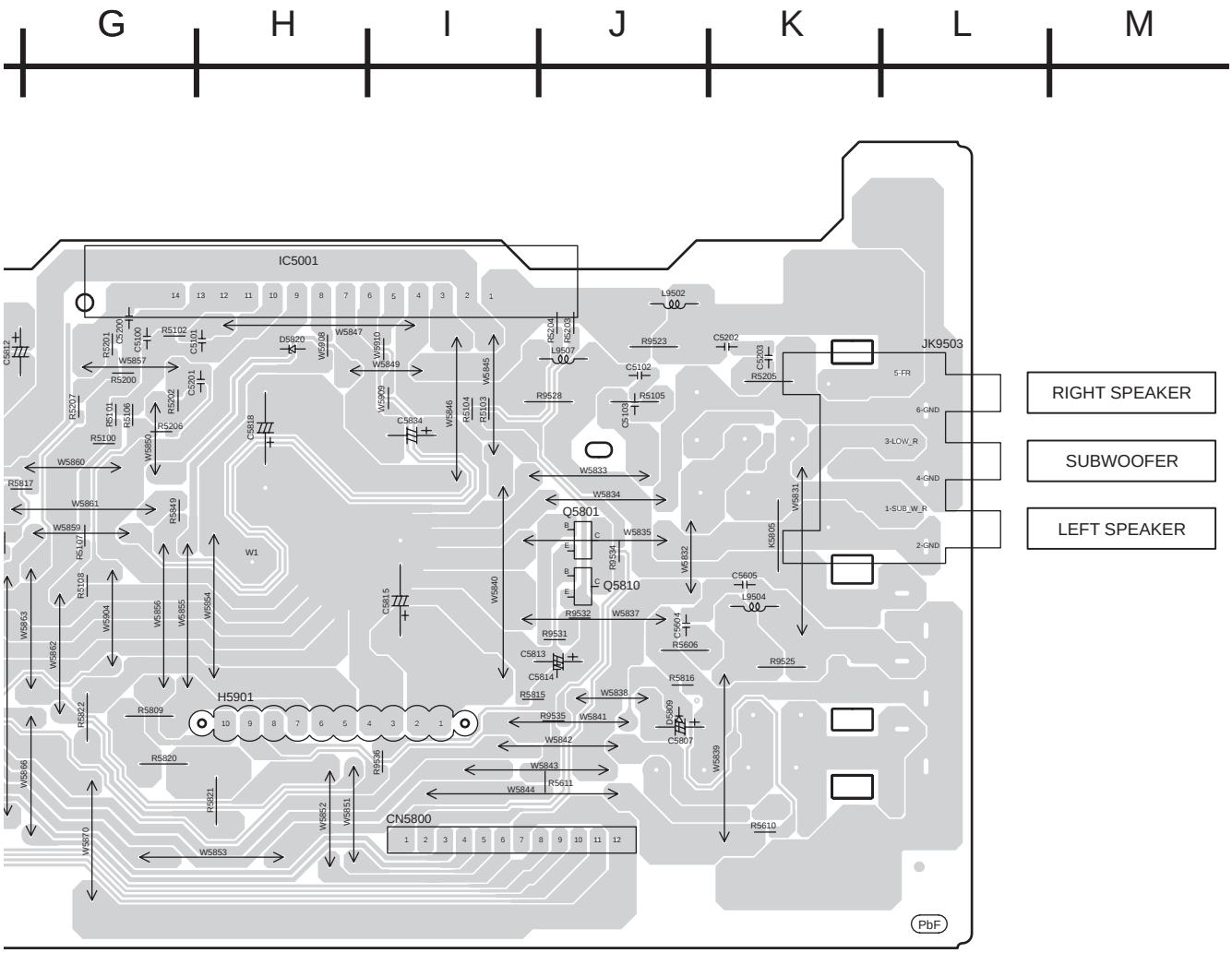
23.6. (G) Power P.C.B. & (H) Power Amp P.C.B.

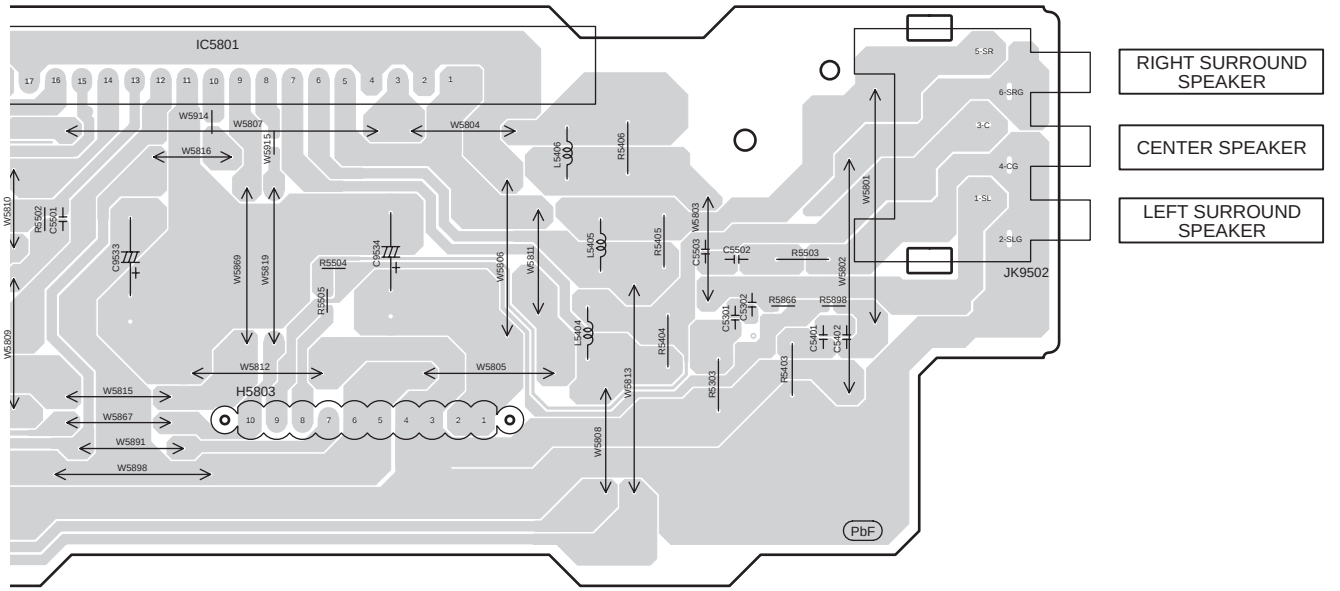
G POWER P.C.B (REPX0488B)



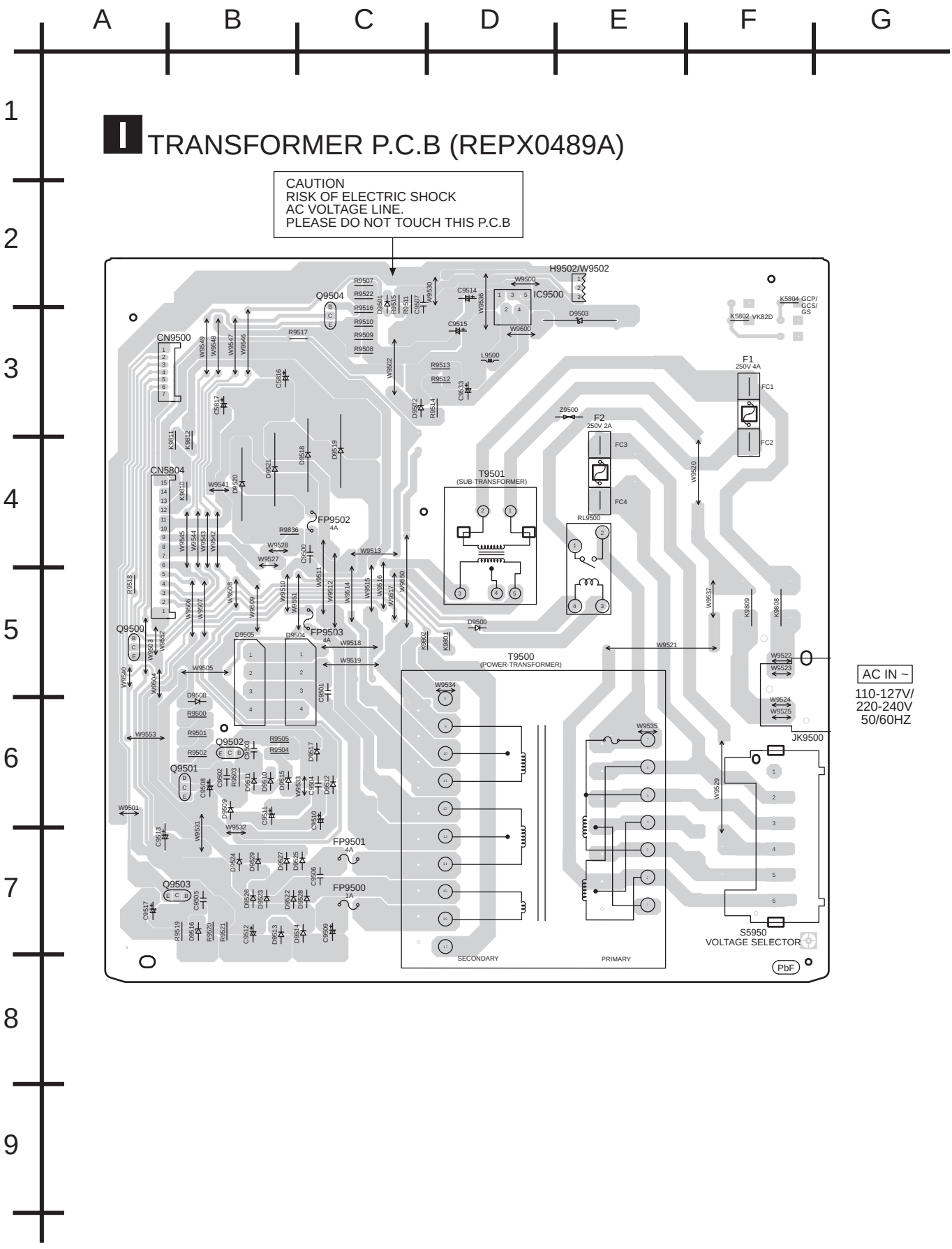
H POWER AMP P.C.B (REPX0488B)



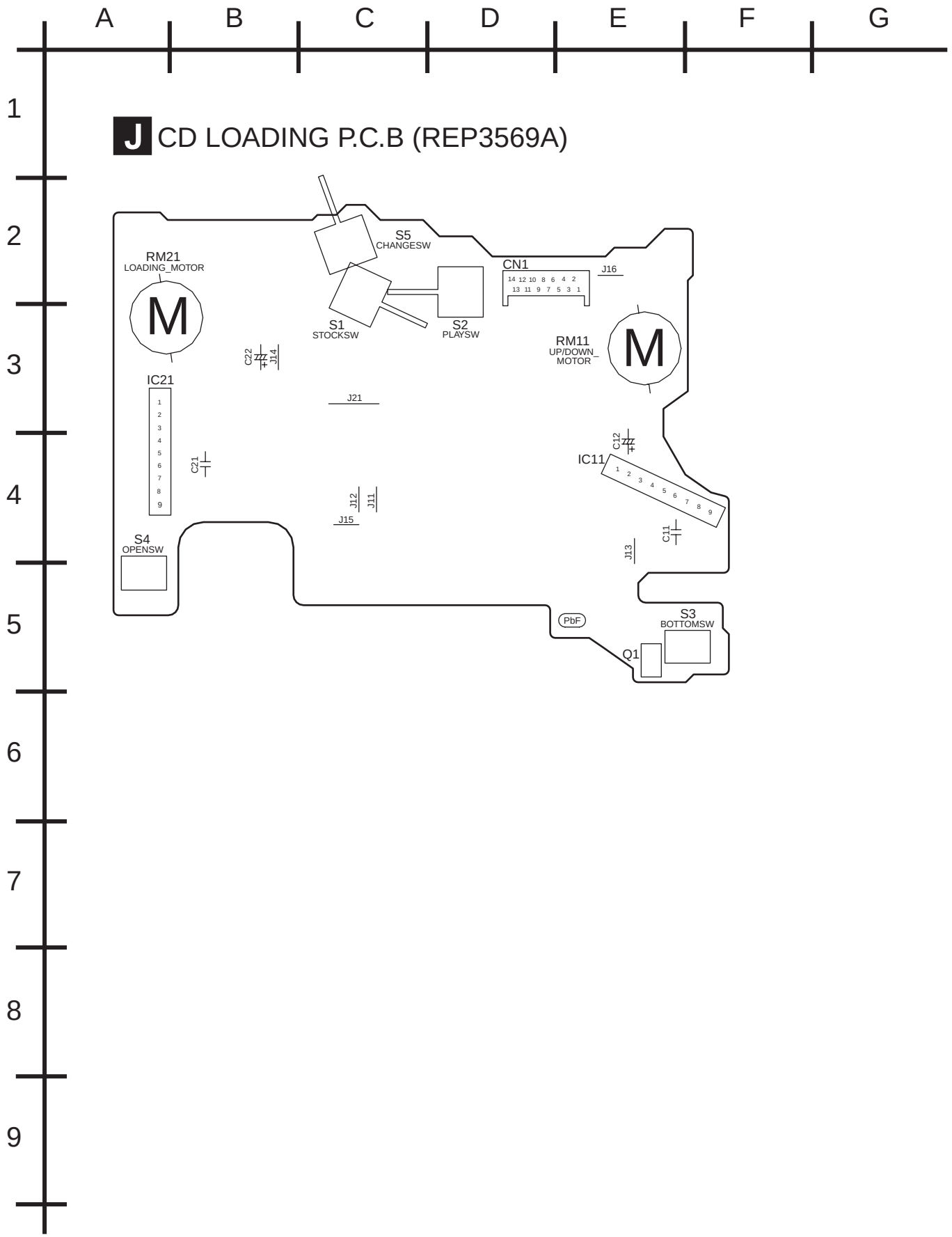

G
H
I
J
K
L
M
IC5001
JK9503
5-FR
6-GND
3-LOW_R
4-GND
1-SUB_W_R
2-GND
RIGHT SPEAKER
SUBWOOFER
LEFT SPEAKER
Q5801
Q5810
H5901
CN5800
PbF


IC5801
JK9502
5-SR
6-SRG
3-C
4-CG
1-SL
2-SLG
RIGHT SURROUND SPEAKER
CENTER SPEAKER
LEFT SURROUND SPEAKER
H5803
PbF

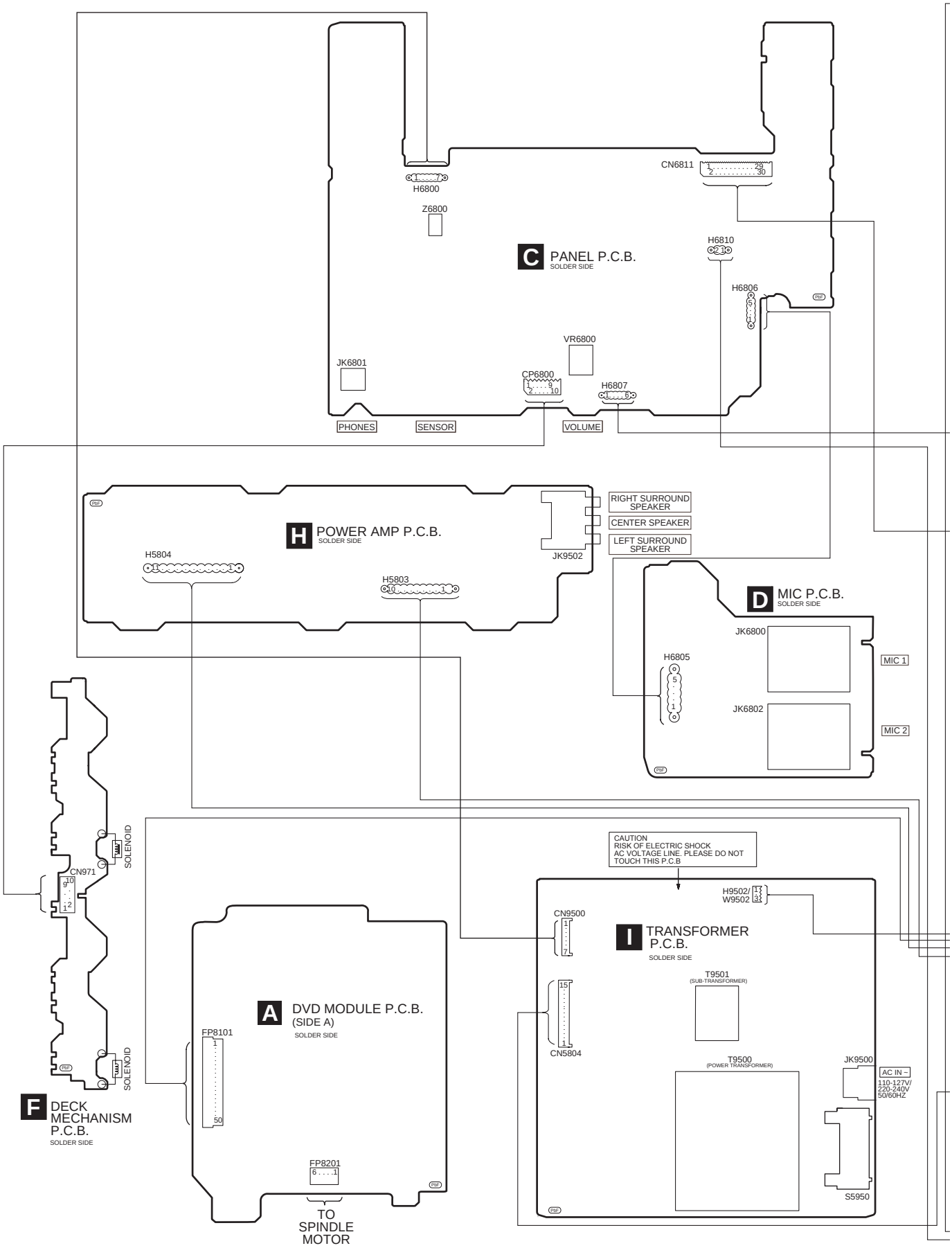
23.7. (I) Transformer P.C.B.

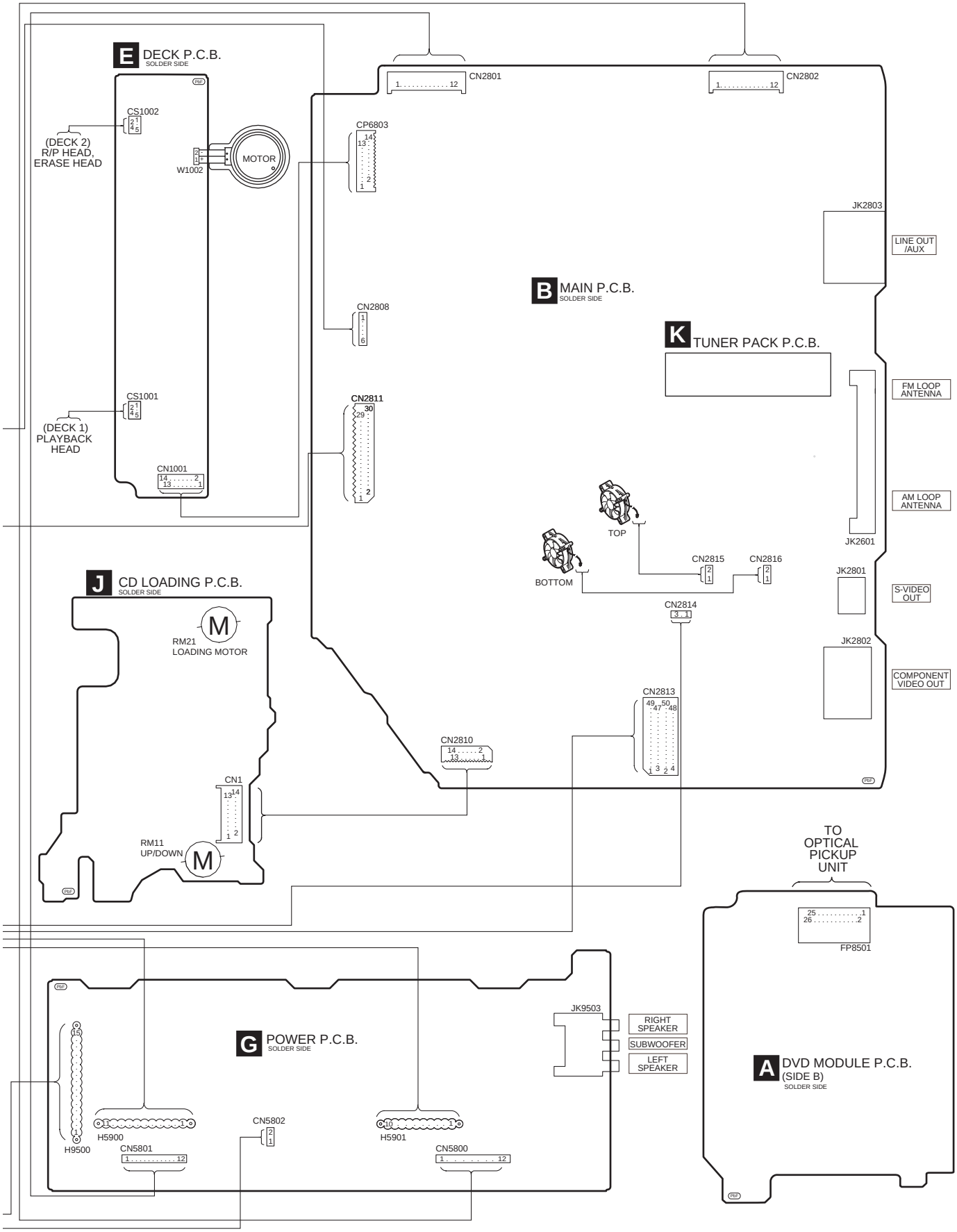


23.8. (J) CD Loading P.C.B.



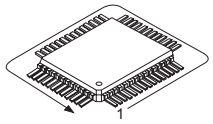
24 Wiring Connection Diagram



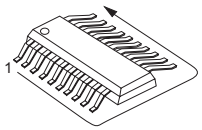

E DECK P.C.B.
SOLDER SIDE
CS1002
(DECK 2)
R/P HEAD,
ERASE HEAD
W1002
MOTOR
CS1001
(DECK 1)
PLAYBACK
HEAD
CN1001
CP6803
CN2808
CN2811
CN2801
CN2802
B MAIN P.C.B.
SOLDER SIDE
JK2803
LINE OUT
/AUX
K TUNER PACK P.C.B.
FM LOOP
ANTENNA
AM LOOP
ANTENNA
JK2601
TOP
BOTTOM
CN2815
CN2816
JK2801
S-VIDEO
OUT
CN2814
JK2802
COMPONENT
VIDEO OUT
J CD LOADING P.C.B.
SOLDER SIDE
RM21
LOADING MOTOR
CN2813
CN2810
CN1
RM11
UP/DOWN
TO
OPTICAL
PICKUP
UNIT
FP8501
G POWER P.C.B.
SOLDER SIDE
JK9503
RIGHT
SPEAKER
SUBWOOFER
LEFT
SPEAKER
A DVD MODULE P.C.B.
(SIDE B)
SOLDER SIDE
H9500
H5900
CN5801
CN5802
H5901
CN5800

25 Illustration of ICs, Transistors and Diodes

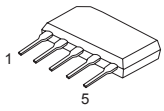
C0HBB0000039 (64P)
MN2DS0003APH (256P)
C2CBJG000653 (100P)
C1BB00000845 (56P)
C1BB00000801 (80P)



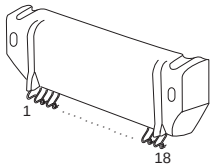
AN7348S-E1 (24P)
C0FBBK000050 (28P)
C1BB00000086 (18P)
C3ABPG000133 (54P)
KIA4558FEL(8P)
LA1833NMNTLM (24P)
LC72131MDTRM (20P)



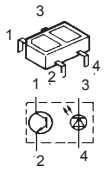
C1AA00000612



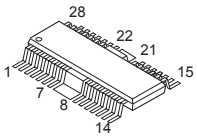
RSN315H42C-P



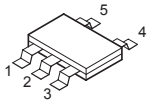
CNB13030R2AU



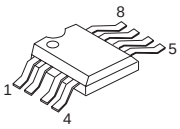
C0GBG0000048



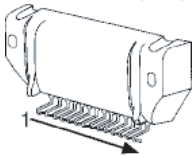
C0EBA0000031
C0JBAA000346



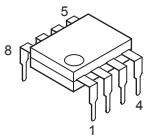
C0CBCBD00018 (8P)



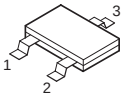
RSN35H2B-P (14P)



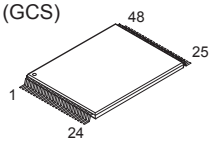
C0AABA000009



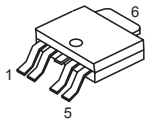
C0EBE0000384



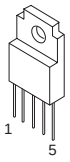
RFKWMH82H160-(GCP & GS)
RFKWMH82J160-(GCS)



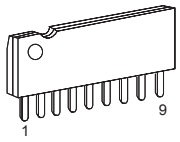
C0DBEZG00021 (6P)



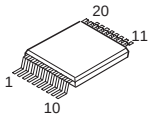
C0DAAZG00012



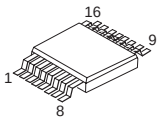
C0GAG0000007 (9P)



C1BB00000979



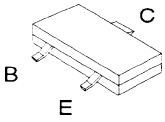
C9ZB00000498



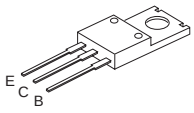
2SB0709AHL
2SD0601AHL
2SB09700RL
2SB1219AHL
2SD1819A0L
B1ABCF000176
B1ABEB000002

B1GBCFJA0028
B1GBCFJJ0051
B1GBCFJN0033
B1GDCFGA0018
B1GDCFJJ0047
UNR521400L
UNR521100L

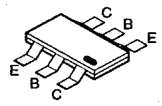
UNR511V00L



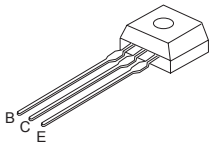
B1BACG000023
B1BCCG000002



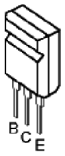
B1GFGCAA0001



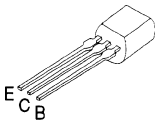
B1ACCF000094
B1GCCFJJ0016



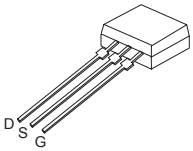
2SD21370PA



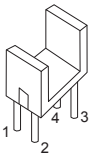
B1AAKD000014
B1ACKD000004
B1AARC000003



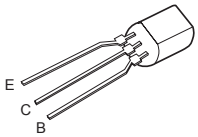
2SK544F-AC



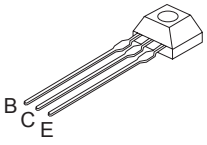
B3NAA0000068



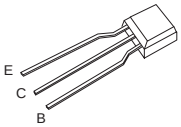
2SB0621AHA
2SD0592ARA



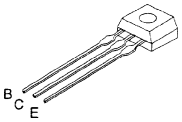
B1GACFJJ0018



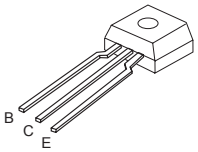
B1AABC000003
B1AAGC000007



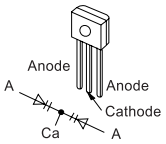
B1AAAC000016
B1AAAD000015



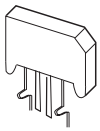
B1GCCFGA0006



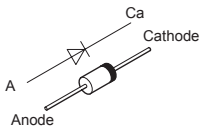
B0CDBB000015
B0CBAD000004



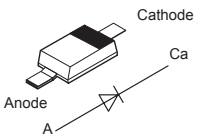
B0FBAM000009



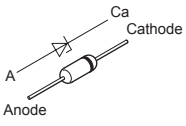
B0EAMM000038
B0EAKM000117
B0EAKM000125
B0EAKM000126



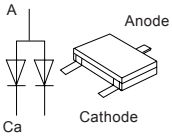
B0ACCE000003
B0BC010A0007
B0BC01600013
MA2J11100L



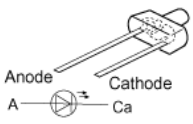
B0BA7R000005



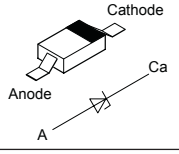
B0ADCJ000020



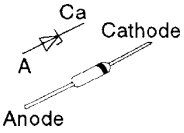
B3AAA0000583
B3AEA0000041



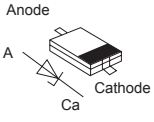
MAZ80560ML
B0BC8R100004



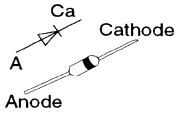
B0BA03100002

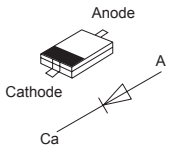
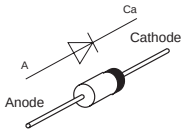


B0BC5R600003
B0BC5R000009
B0BC01500006
B0BC01000014



B0AACK000004
MA2C16500E



B0ACCK000005 MA2J72800L 	B0JAPG000019 	

26 Terminal Function of IC

26.1. IC2818 (C2CBJG000653) System Microprocessor

Pin No.	Mark	I/O	Function
1	ST_SW	I	Stock Switch of Changer
2	OP/CL_REV	O	Reverse control signal for OPEN/CLOSE motor
3	OP/CL_FWD	O	Forward control signal for OPEN/CLOSE motor
4	OPEN_SW	I	Signal from tray OPEN Switch
5	POSITION	I	Signal from of Position Detection sensor
6	N.C.	-	No Connection
7	N.C.	-	No Connection
8	BYTE	I	VSS (GND)
9	CNVSS/EFP_CNVSS	-	FLASH MODE TERMINAL (Connected to Ground) via 10 kΩ
10	XCIN	-	SUB CLOCK INPUT (32.768 kHz)
11	XCOUT	-	SUB CLOCK OUTPUT (32.768 kHz)
12	RESET/ERP_RESET	I	SYSTEM RESET INPUT (ACTIVE L)
13	XOUT	-	MAIN CLOCK OUTPUT (10 MHz)
14	VSS	-	GND (0V)
15	XIN	-	MAIN CLOCK INPUT (10 MHz)
16	VCC	-	POWER SUPPLY (5V)
17	NMI	I	CONNECT TO VCC, EXTERNAL INTERRUPT I/P
18	RMT	I	REMOCON INPUT
19	SYNC	I	AC FAILURE DETECT INPUT
20	Up/Down R	O	Changer Motor 2 Reverse Control
21	Change SW	I	Changer Change Switch
22	BOTTOM SW	I	CHANGER BOTTOM SWITCH
23	UP/DOWN F	O	Changer Motor 2 Forward Control
24	S.Surr IC_CLK	O	Clock signal for super surround IC
25	S.Surr IC_DAT	O	Data signal for super surround IC
26	PLL_CE	O	PLL Chip Select
27	TU-SD	I	SIGNAL DET Input from Tuner
28	TU_ST/DO	I	Tuner IF Data/Stereo Input
29	PLL_DA	O	PLL DATA - DI INPUT of Tuner
30	PLL_CK	O	Clock Signal for the PLL Tuner
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_CK	I	CLK signal for the DVD Module
38	EDA	O/I	DATA Signal for the EEPROM
39	ECLK	O	CLOCK Signal for the EEPROM
40	ECS	O	CHIP SELECT Signal for the EEPROM
41	EFP_EPM	O	For Flash
42	FLD_RST	O	Reset Signal for the FL DRIVER
43	FLD_CS	O	Latch Signal for the FL DRIVER
44	FLD_DA	O	Data input for the FL DRIVER
45	FLD_CK	O	Clock Signal for the FL DRIVER
46	EFP_CE	O	For Flash
47	Wide1	O	S-Video output control
48	ASP_DA	O	DATA signal for 6ch VOL ASP
49	ASP_CK	O	CLOCK signal for 6ch VOL ASP
50	DVD_MUTE	I	Signal from DVD module control mute circuit
51	DivX_EN	I	DivX_EN
52	KA_LAT	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_H	O	HIC MUTE
57	HP_MUTE	O	Head Phone Mute signal
58	MUTE_C	O	Port for Mute control of Center
59	MUTE_SR	O	Port for Mute Control of SL/SR
60	SUB_MUTE	O	Subwoofer Mute Signal
61	MUTE_A	O	Mute Control for FL/FR
62	VCC	-	Power Supply 5.0V
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_PCT	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 (L=OFF; H=ON)
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	DMT	O	Deck Mute at mecha Transition (L=Mute Off; H=MUTE On)
78	DECK1_H	I	Stock Switch of Changer
79	PLUNGER 1	O	Deck 1 Plunger Control (L=OFF; H=ON)
80	PLUNGER 2	O	Deck 2 Plunger Control (L=OFF; H=ON)

Pin No.	Mark	I/O	Function
81	Model_CTL	I	To select Model when power on (VK72=L; VK82/92=H)
82	BASS	O	Port to control SSEQ-2
83	MIC_1L	I	Port to control Mic Level Up
84	MIC_2L	I	Port to control Mic Level Down
85	LED	O	Port to Control LED
86	REG1	I	Tuner Region Setting 1
87	REG2	I	Tuner Region Setting 2
88	REG3	I	Tuner Region Setting 3
89	PHOTO_1	A/D I	Rotating Detection Signal (Deck 1)
90	PHOTO_2	A/D I	Rotating Detection Signal (Deck 2)
91	DECK2_AD	A/D I	AD input from DECK2 (RINHF/MODE2/RINHR/HALF2
92-94	KEY1-KEY3	A/D I	Key 1 to Key 3 input
95	SPEANA_AD	A/D I	Signal from Speana IC's OUT port
96	AVSS	-	ANALOG POWER SUPPLY INPUT
97	DVD_RS	A/D I	DVD Region Setting
98	VREF	-	REFERENCE VOLTAGE INPUT
99	AVcc	-	ANALOG POWER SUPPLY INPUT
100	PLAY_SW	I	Play Switch

27 Parts Location and Replacement Parts List

Notes:

- Important safety notice:

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

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

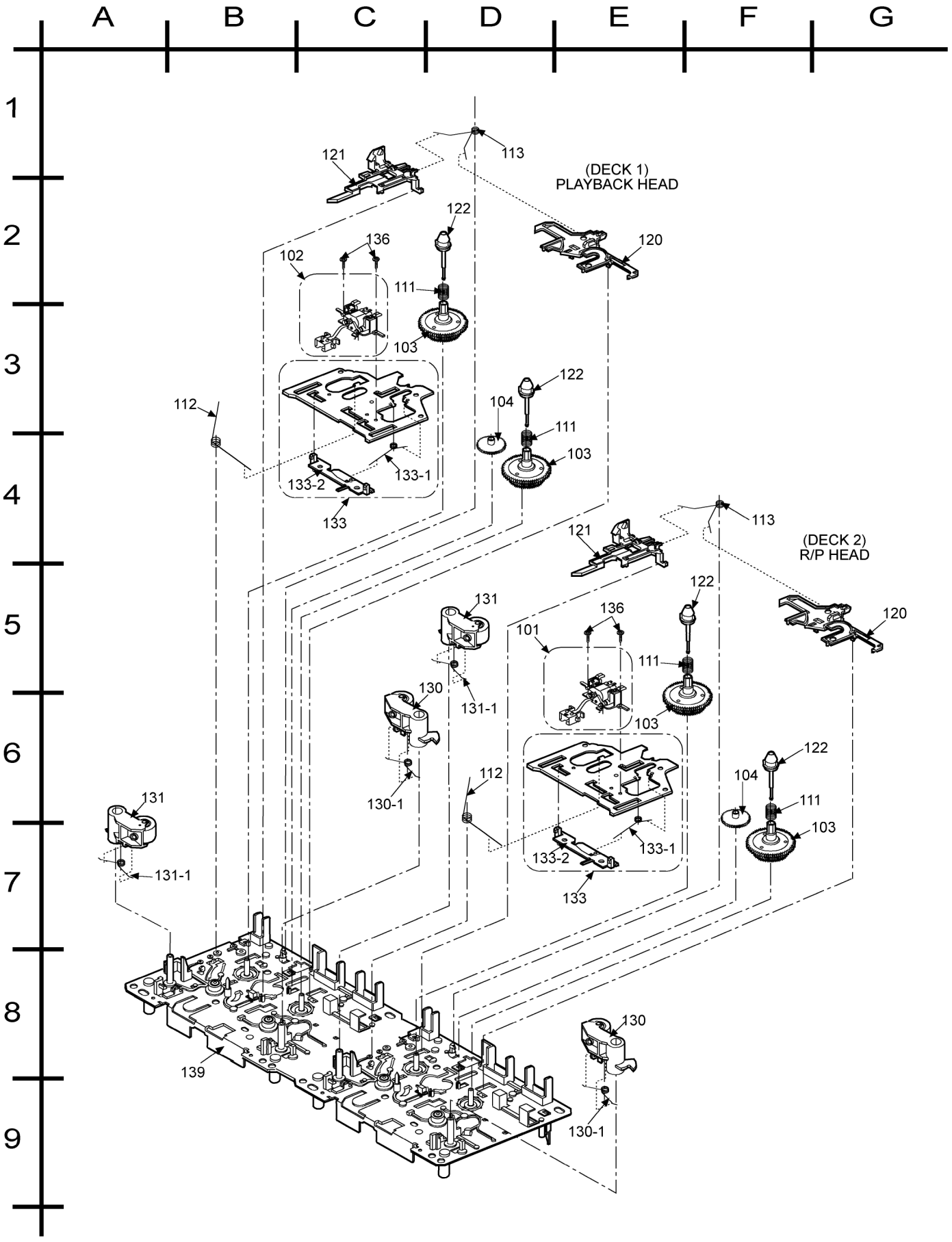
  When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.
- The parenthesized indications in the Remarks columns specify the areas or colour. (Refer to the cover page for area or colour)

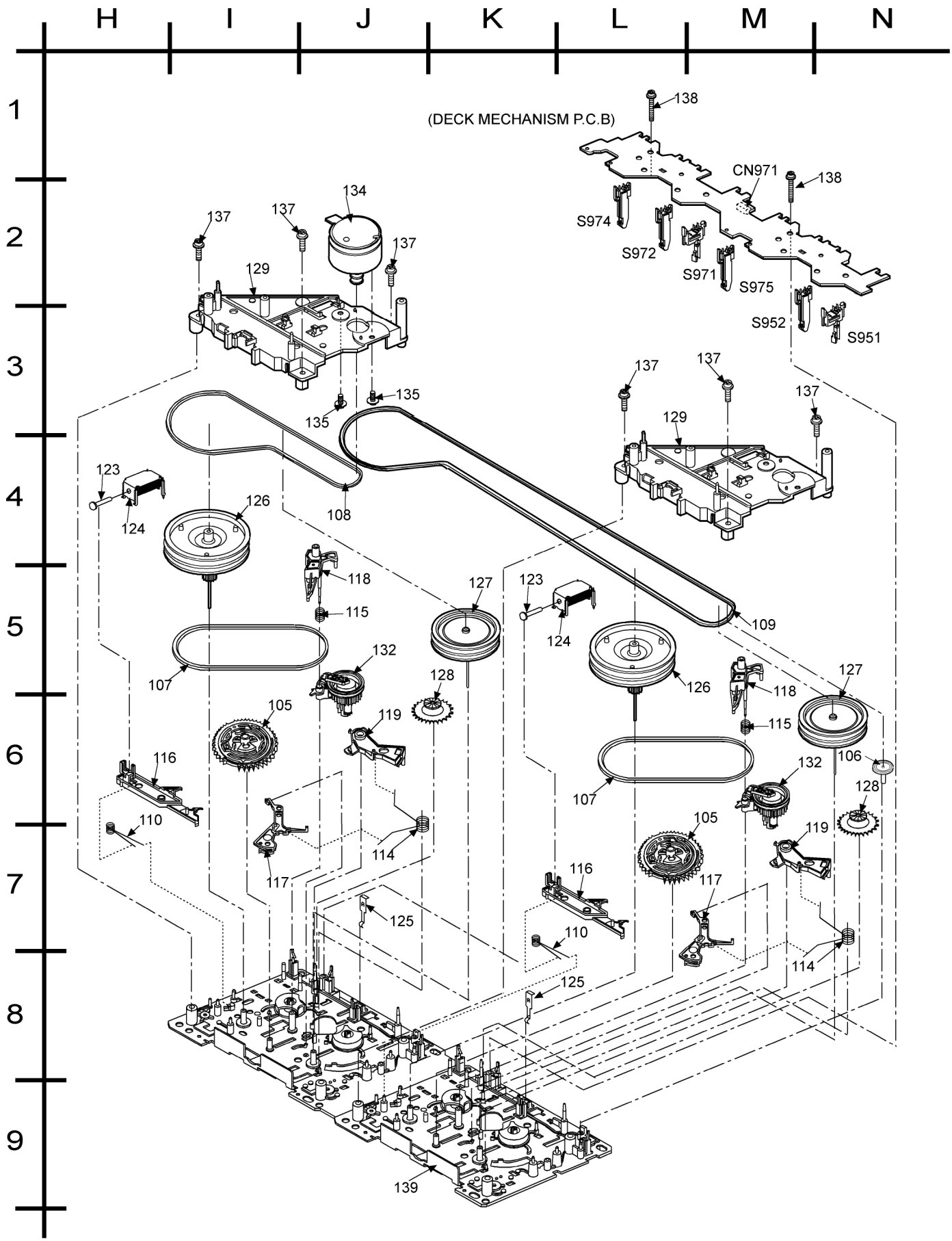
  Parts without these indications can be used for all areas.
- Warning: This product uses a laser diode. Refer to caution statements on "Precaution of Laser Diode".
- Capacitor values are in microfarads (μF) unless specified otherwise, P= Pico-farads (pF), F= Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM).
- The marking (RTL) indicates that the Retention Time is limited for this items. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of a availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
- [M] markings in the Remarks columns indicates parts supplied by **PAVCSG.**
- [SPG] markings in the Remarks columns indicates parts that are supplied by **PAVC**.
- Reference for O/I book languages are as follows:

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

27.1. Deck Mechanism (RAA3413-S)

27.1.1. Deck Mechanism Parts Location



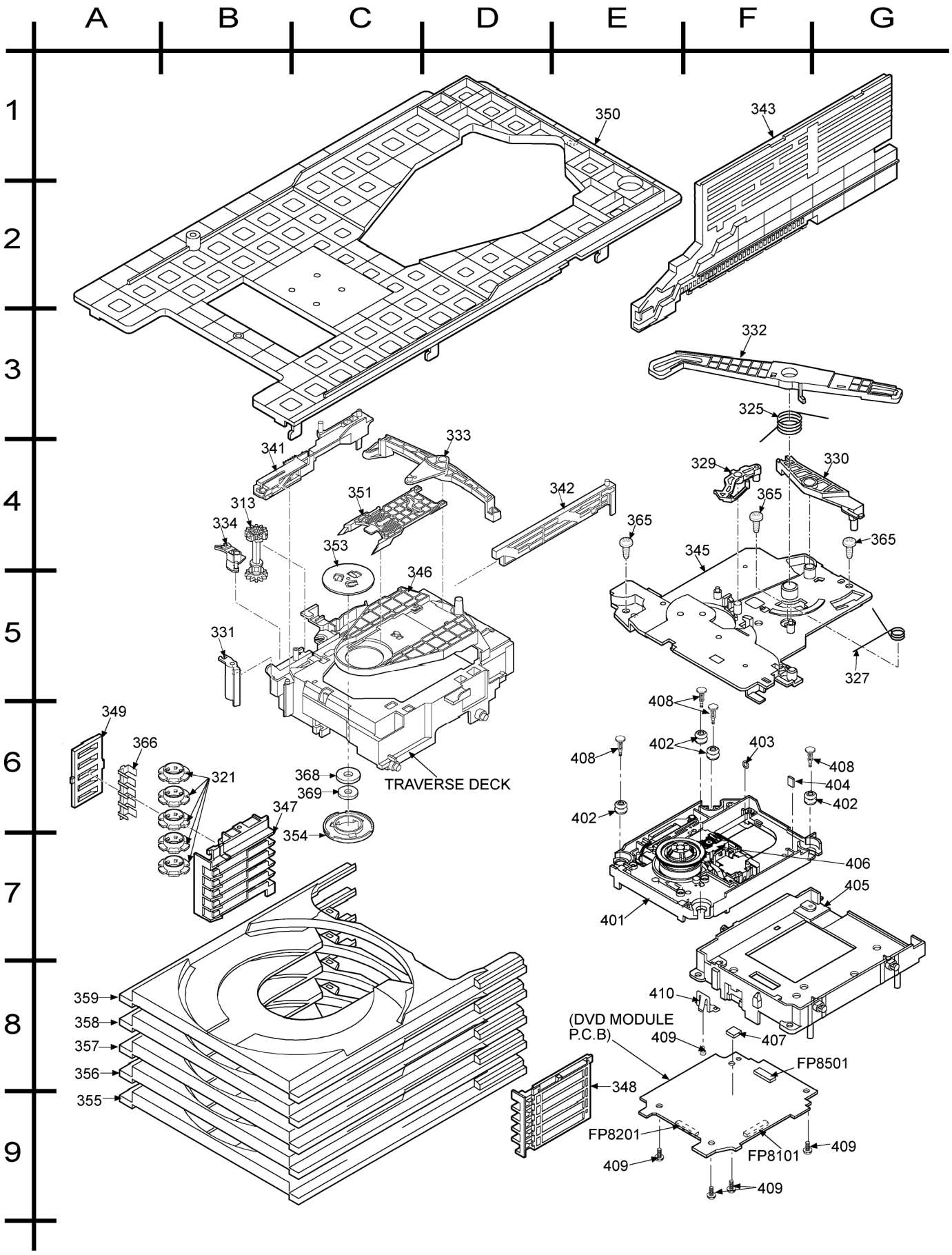

H
I
J
K
L
M
N
1
2
3
4
5
6
7
8
9
(DECK MECHANISM P.C.B)
138
CN971
138
S974
S972
S971
S975
S952
S951
134
137
137
137
129
135
135
108
137
137
137
129
123
124
126
118
115
127
123
124
109
107
132
128
126
118
127
105
119
115
106
116
132
128
107
105
110
114
117
119
116
117
125
110
125
114
139

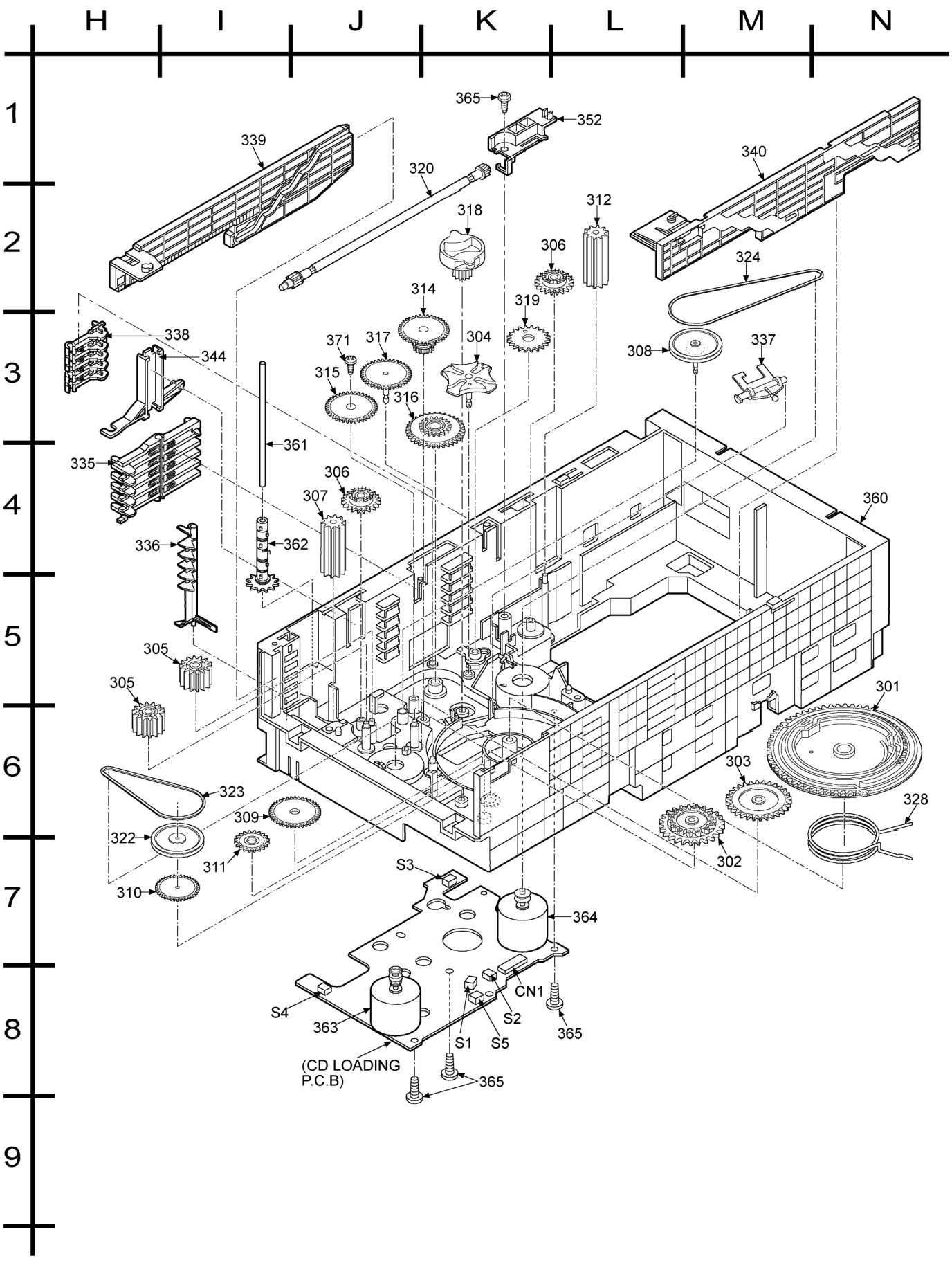
27.1.2. Deck Mechanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CASSETTE DECK	
101	RED0064	R/P HEAD BLOCK UNIT	[M]
102	RED0063	P/B HEAD BLOCK UNIT	[M]
103	RDG0300	REEL BASE GEAR	[M]
104	RDG0301	WINDING RELAY GEAR	[M]
105	RDK0026	MAIN GEAR	[M]
106	RDR0029-3	RELAY PULLEY	[M]
107	RDV0033-4	WINDING BELT	[M]
108	RDV0034-2	CAPSTAN BELT A	[M]
109	RDV0057	MAIN BELT B	[M]
110	RMB0312	TRIGGER LEVER SPRING	[M]
111	RMB0400	REEL SPRING	[M]
112	RMB0403	HEAB PANEL SPRING	[M]
113	RMB0404	BRAKE ROD SPRING	[M]
114	RMB0406	FR LEVER SPRING	[M]
115	RMB0408	THRUST SPRING	[M]
116	RML0370	TRIGGER LEVER	[M]
117	RML0371	FR LEVER	[M]
118	RML0372	WINDING LEVER	[M]
119	RML0374	EJECT LEVER	[M]
120	RMM0131	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	RXF0049	FLYWHEEL F ASS'Y	[M]
127	RXF0050	FLYWHEEL R ASS'Y	[M]
128	RXG0040	FF RELAY GEAR ASS'Y	[M]
129	RMK0283A-J	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	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	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]

27.2. DVD Loading Mechanism

27.2.1. DVD Loading Mechanism Parts Location



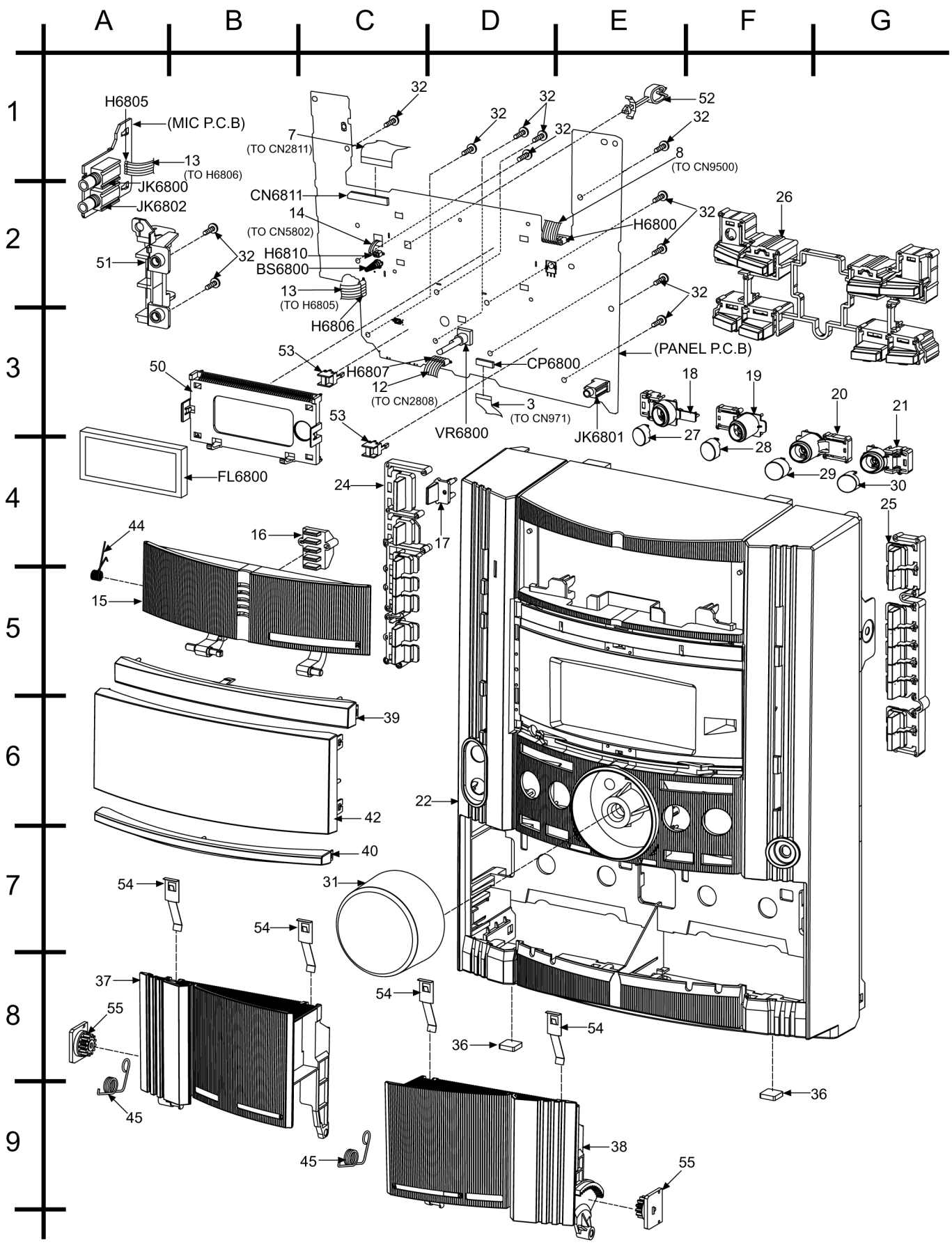

H
I
J
K
L
M
N
1
2
3
4
5
6
7
8
9
365
352
339
320
340
318
312
306
324
314
319
338
344
371
317
304
315
316
308
337
361
335
306
307
360
336
362
305
305
301
303
323
309
328
322
311
302
310
S3
364
CN1
S4
363
S2
S1
S5
365
(CD LOADING
P.C.B)
365

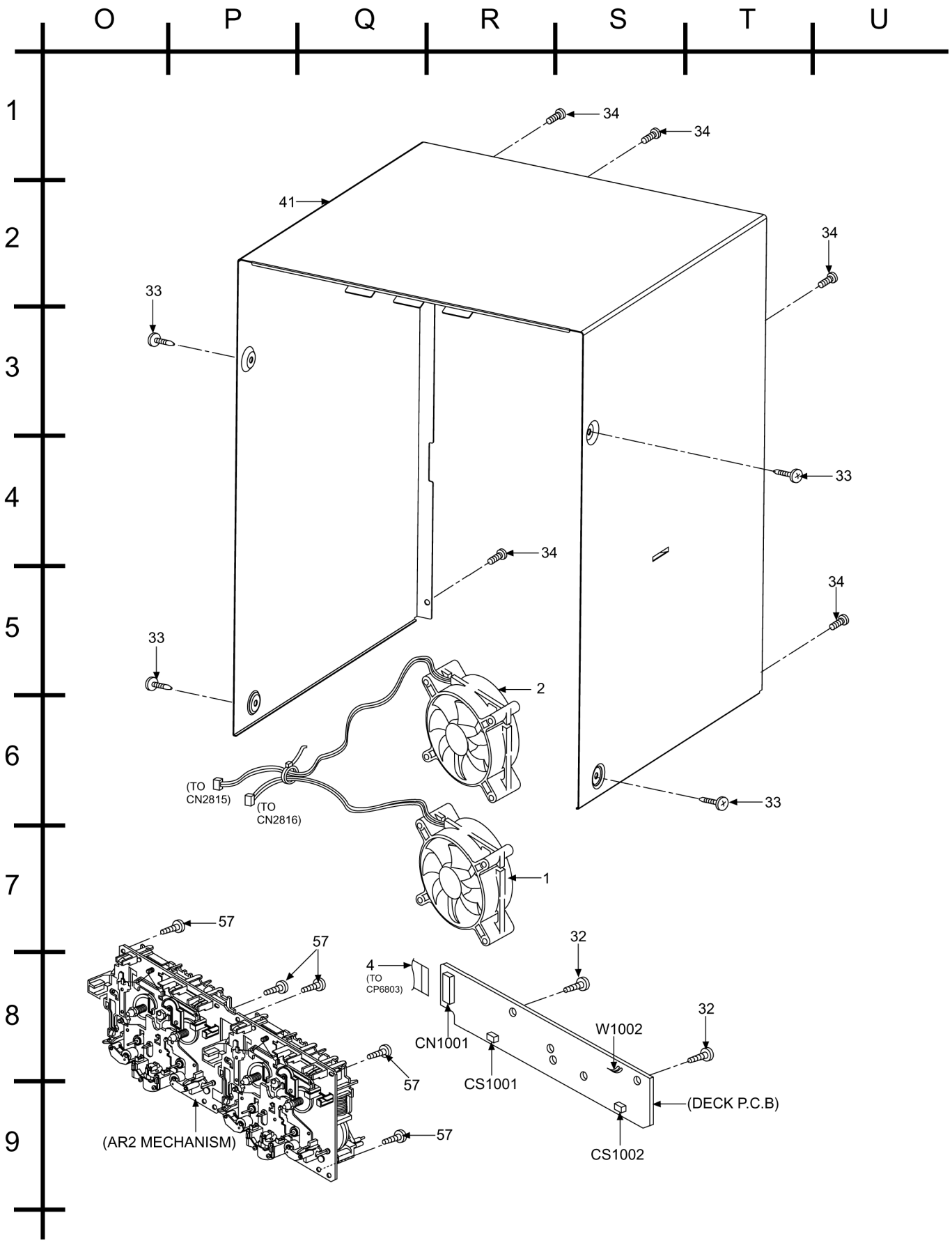
27.2.2. DVD Loading Mechanism Parts List

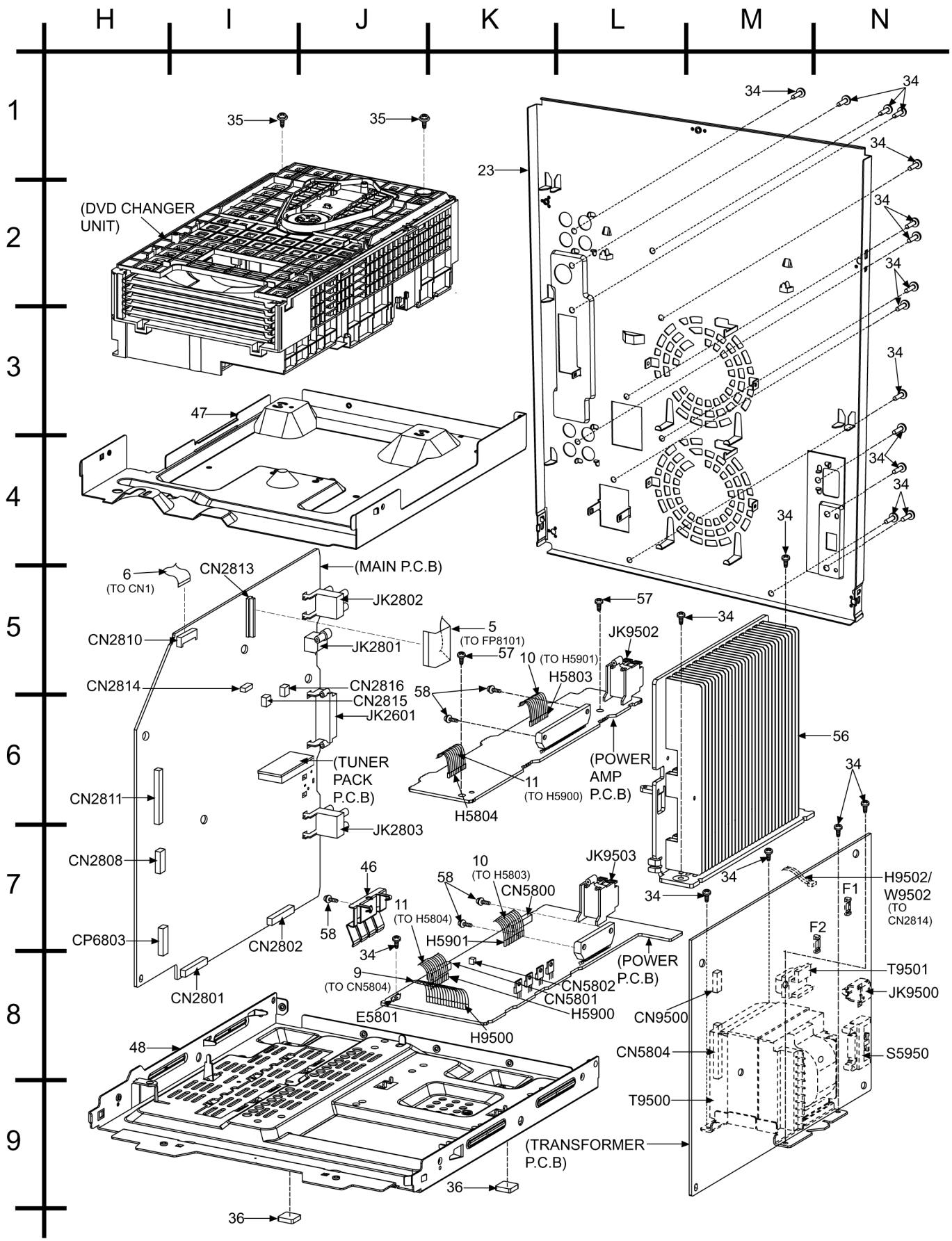
Ref. No.	Part No.	Part Name & Description	Remarks
		TRAVERSE DECK	
301	RDG0519	MAIN GEAR	[M]
302	RDG0520	SPEED UP GEAR	[M]
303	RDG0521	REVERSE GEAR	[M]
304	RDG0522	GENEVA GEAR	[M]
305	RDG0523	HOR RELAY GEAR	[M]
306	RDG0525	CROWN GEAR	[M]
307	RDG0526	TRAY RELAY GEAR	[M]
308	RDG0527	UD PULLEY GEAR	[M]
309	RDG0528	HOR SPEED DOWN GEAR	[M]
310	RDG0529	HOR SPEED DOWN GEAR	[M]
311	RDG0530	HOR DRIVE GEAR	[M]
312	RDG0531	LOAD RELAY GEAR	[M]
313	RDG0532	LOAD GEAR	[M]
314	RDG0535	UD SPEED DOWN GEAR	[M]
315	RDG0534	UD SPEED DOWN GEAR	[M]
316	RDG0536	SELECT SPEED DOWN GEAR	[M]
317	RDG0537-1	SELECT DRIVE GEAR	[M]
318	RDG0538-1	CHANGE GEAR	[M]
319	RDG0539	UD DRIVE GEAR	[M]
320	RDG0540	TIMING GEAR	[M]
321	RDG0542	TRAY GEAR	[M]
322	RDG0543	HOR PULLEY GEAR	[M]
323	RDV0068	HOR BELT	[M]
324	RDV0069	UD BELT	[M]
325	RME0344-1	UD ASSIST SPRING	[M]
327	RME0363-1	LIMIT SPRING	[M]
328	RME0368-1	MAIN GEAR SPRING	[M]
329	RML0616	SPEED UP LOCK	[M]
330	RML0617-2	SEPARATE LEVER 1	[M]
331	RML0618-1	SEPARATE LEVER 2	[M]
332	RML0619-1	UD. CONNECTION LEVER	[M]
333	RML0620	TRV.CONNECT LEVER	[M]
334	RML0621-2	TRAY CHG. LEVER	[M]
335	RML0702	TRAY LOCK LEVER	[M]
336	RML0623	OPEN SW. LEVER	[M]
337	RML0624	CHG. LEVER	[M]
338	RML0701	TRAY STOPPER	[M]
339	RMM0239-1	UD.RACK [L]	[M]
340	RMM0240	UD.RACK [R]	[M]
341	RMM0290	TRV.SLIDE PLATE [L]	[M]
342	RMM0242-1	TRV.SLIDE PLATE [R]	[M]
343	RMM0243	SELECT RACK	[M]
344	RMM0244	SELECT GUIDE	[M]
345	RMQ1051-2	PITCH PLATE	[M]
346	RMQ1461	UD BASE	[M]
347	RMQ1056	TRAY GUIDE [L]	[M]
348	RMQ1057	TRAY GUIDE [R]	[M]
349	RMQ1058	GEAR HOLDER	[M]
350	RMQ1059-2	TOP COVER	[M]
351	RMQ1060	CLAMP GUIDE	[M]
352	RMQ1061	TG.PLATE	[M]
353	RMR1531-X	FIXTURE	[M]
354	RMR1446-X	CLAMPER	[M]
355	RMR1714A-H	TRAY NO. 1	[M]
356	RMR1714B-H	TRAY NO. 2	[M]
357	RMR1714C-H	TRAY NO. 3	[M]
358	RMR1714D-H	TRAY NO. 4	[M]
359	RMR1714E-H	TRAY NO. 5	[M]
360	RFKNAPM77MDS	MECHA BASE ASS'Y	[M]
361	RMS0762	TRAY GEAR SHAFT	[M]
362	RXG0053	TRAY DRIVE GEAR ASSY	[M]
363	RXQ0803	LOADING MOTOR ASSY	[M]
364	RXQ0804	UD MOTOR ASSY	[M]
365	XTB3+10JFJ	SCREW	[M]
366	RMC0472	TRAY SPRING	[M]
368	XWG6FFY	BACK YOKE	[M]
369	JSM0048	MAGNET	[M]
371	RHD26045-L	SCREW	[M]
401	RAE2012Z-S	DU69U TRAVERSE UNIT	[M]
402	RMG0598-A	FLOATING RUBBER	[M]
403	RMG0617-H	CUSHION RUBBER A	[M]
404	RMG0618-H	CUSHION RUBBER B	[M]
405	RMR1596-X2	MIDDLE CHASSIS	[M]
406	RXQ1252	DVD OPU SUB ASS'Y	[M]
407	RMX0290	PLASTIC SHEET	[M]
408	RMS0789	FIXED PIN	[M]
409	XTV2+6GFJ	SCREW	[M]
410	RMC0387	SUPPORT SPRING	[M]

27.3. Cabinet

27.3.1. Cabinet Parts Location




O
P
Q
R
S
T
U
1
2
3
4
5
6
7
8
9
34
34
41
34
33
33
34
34
33
2
(TO CN2815)
(TO CN2816)
33
1
57
57
57
57
(AR2 MECHANISM)
4
(TO CP6803)
CN1001
CS1001
32
32
W1002
(DECK P.C.B)
CS1002


H
I
J
K
L
M
N
1
2
3
4
5
6
7
8
9
35
35
(DVD CHANGER UNIT)
23
34
47
6 (TO CN1)
CN2813
(MAIN P.C.B)
JK2802
CN2810
JK2801
5 (TO FP8101)
57
10 (TO H5901)
H5803
CN2814
CN2816
CN2815
JK2601
58
JK9502
57
34
56
(TUNER PACK P.C.B)
11 (TO H5900)
H5804
(POWER AMP P.C.B)
CN2811
JK2803
CN2808
46
10 (TO H5803)
58
CN5800
JK9503
11 (TO H5804)
H5901
CP6803
CN2802
CN2801
34
9 (TO CN5804)
CN5802
CN5801
H5900
E5801
H9500
(POWER P.C.B)
H9502/ W9502 (TO CN2814)
F1
F2
T9501
JK9500
CN9500
CN5804
S5950
T9500
48
(TRANSFORMER P.C.B)
36
36

27.3.2. Cabinet Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	L6FALEFH0023	FAN	[M]
2	L6FALEFH0030	FAN	[M]
3	REEX0202	10P FFC (PANEL)	[M]
4	REEX0211	14P FFC WIRE (DECK)	[M]
5	REEX0454	50P FCC WIRE (DVD)	[M]
6	REEX0455	14P FFC WIRE (DVD)	[M]
7	REEX0470	30P FFC WIRE (PANEL)	[M]
8	REXX0476	7P (2MM) FLAT WIRE	[M]
9	REXX0477	15P FLAT WIRE	[M]
10	REXX0478	10P FLAT WIRE	[M]
11	REXX0493	11P FLAT WIRE	[M]
12	REXX0483	6P (2MM) FLAT WIRE	[M]
13	REXX0486	5P (2MM) FLAT WIRE	[M]
14	REXX0491	2P WIRE (PANEL)	[M]
15	RGKX0315-1S	CD LID	[M]
16	RGLX0112-D	CD LID ORNAMENT	[M]
17	RGLX0113-Q	POWER LIGHT CHIP	[M]
18	RGLX0116-Q	F/BTN A (AUX)	[M]
19	RGLX0117-Q	F/BTN B (FM)	[M]
20	RGLX0118-Q	F/BTN C (TAPE)	[M]
21	RGLX0119-Q	F/BTN D (CD/DVD)	[M]
22	RGPX0198F-1S	FRONT PANEL	[M]
23	RGRX0052B-A	REAR PANEL	[M]GCS
23	RGRX0052B-B	REAR PANEL	[M]GS
23	RGRX0052B-C	REAR PANEL	[M]GCP
24	RGUX0630-S	POWER BUTTON	[M]
25	RGUX0631-S	CD CONTROL BUTTON	[M]
26	RGUX0632-1S	CONTROL BUTTON	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
27	RGUX0633-1S	F/BTN CAP A (AUX)	[M]
28	RGUX0634-1S	F/BTN CAP B (FM)	[M]
29	RGUX0635-1S	F/BTN CAP C (TAPE)	[M]
30	RGUX0636-1S	F/BTN CAP D (CD/DVD)	[M]
31	RGWX0072-S	VOLUME KNOB	[M]
32	RHD26046	SCREW	[M]
33	RHD30004-2S	SCREW	[M]
34	RHD30119-S	SCREW	[M]
35	RHDX30006	STEP SCREW	[M]
36	RKA0072-KJ	LEG CUSHION	[M]
37	RKFX0129-1S1	CASS LID L	[M]
38	RKFX0130-1S	CASS LID R	[M]
39	RGKX0316-S	FL ORNAMENT UPPER	[M]
40	RGKX0317-S	FL ORNAMENT LOWER	[M]
41	RKMX0105C-S	TOP CABINET (BENT)	[M]
42	RKWX0252F-V	FL WINDOW	[M]
44	RMBX0033	CD LID OPEN SPRING	[M]
45	RMBX0036	CASS OPEN SPRING	[M]
46	RMCX0021-J	TRANSISTOR CLIP	[M]
47	RMKX0109A-1	DVD CHASSIS	[M]
48	RMKX0111	BOTTOM CHASSIS	[M]
50	RMNX0110	FL HOLDER	[M]
51	RMNX0133-1	MIC JACK HOLDER	[M]
52	RMNX0159	WIRE CLAMPER	[M]
53	RMNX0160	LED HOLDER	[M]
54	RUS757ZAA	CASS HALF SPRING	[M]
55	RXGX0002	DAMPER GEAR	[M]
56	RXXX0065	HEAT SINK UNIT	[M]
57	XTB3+10JFJ	SCREW	[M]
58	XTW3+15TFJ	SCREW	[M]

27.4. Electrical Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PRINTED CIRCUIT BOARD	
	REP3867L	DVD MODULE P.C.B. (SIDE: A)	[M](RTL)GCP
	REP3867K	DVD MODULE P.C.B. (SIDE: A)	[M](RTL)GCS
	REP3867J	DVD MODULE P.C.B. (SIDE: A)	[M](RTL)GS
	REP3867L	DVD MODULE P.C.B. (SIDE: B)	[M](RTL)GCP
	REP3867K	DVD MODULE P.C.B. (SIDE: B)	[M](RTL)GCS
	REP3867J	DVD MODULE P.C.B. (SIDE: B)	[M](RTL)GS
	REPX0486F	MAIN P.C.B.	[M](RTL)GCS
	REPX0486H	MAIN P.C.B.	[M](RTL)GCP
	REPX0486G	MAIN P.C.B.	[M](RTL)GS
	REPX0487A	PANEL P.C.B.	[M](RTL)
	REPX0487A	MIC P.C.B.	[M](RTL)
	REP1999B	TUNER PACK P.C.B.	[M](RTL)
	REPX0331E	DECK P.C.B.	[M](RTL)
	REPX0321B	DECK MECHANISM P.C.B.	[M](RTL)
	REPX0488B	POWER P.C.B.	[M](RTL)
	REPX0488B	POWER AMP P.C.B.	[M](RTL)
	REPX0489A	TRANSFORMER P.C.B.	[M](RTL)
	REP3569A	CD LOADING P.C.B.	[M](RTL)
		INTEGRATED CIRCUITS	
IC11	C0GAG0000007	IC UP/DOWN MOTOR DRIVER	[M]
IC21	C0GAG0000007	IC LOADING MOTOR DRIVER	[M]
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 R/P SELECT	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
IC2006	C9ZB00000498	IC VIDEO	[M]
IC2601	LA1833NMNTLM	IC FM/AM IF AMP,DET/AM OSC,MIX/FM MPX	[M]
IC2602	LC72131MDTRM	IC PLL FREQUENCY SYNTHESIZER	[M]
IC2800	C1BB00000979	IC ANALOG SURROUND	[M]
IC2803	C0DBEZG00021	IC REGULATOR	[M]
IC2811	C0AABA000009	IC DUAL OP-AMP	[M]
IC2812	C1BB00000845	IC ASP	[M]
IC2813	C1BB00000801	IC KARAOKE	[M]
IC2814	KIA4558FEL	IC DUAL OP-AMP	[M]
IC2815	KIA4558FEL	IC DUAL OP-AMP	[M]
IC2817	C1BB00000086	IC SPEAKER ANALYZER	[M]
IC2818	C2CBJG000653	IC MICROPROCESSOR	[M]
IC2819	KIA4558FEL	IC DUAL OP-AMP	[M]
IC5001	RSN35H2B-P	IC POWER AMP	[M]
IC5801	RSN315H42C-P	IC POWER AMP	[M]
IC6803	C0HBB0000039	IC FL DRIVER	[M]
IC8001	MN2DS0003APH	IC DV2.1	[M]
IC8051	C3ABPG000133	IC 64 SDRAM	[M]
IC8111	C0CBCBD00018	IC 3.3V REGULATOR	[M]
IC8251	C0GBG0000048	IC MOTOR DRIVE	[M]
IC8421	C0FBBK000050	IC AUDIO DAC	[M]
IC8601	C0EBE0000384	IC RESET	[M]
IC8606	C0EBA0000031	IC RESET	[M]
IC8651	RFKWMH82H160	IC 16M FLASH ROM	[SPG]GCP/GS
IC8651	RFKWMH82J160	IC 16M FLASH ROM	[SPG]GCS
IC8691	C0JBAA000346	IC LOGIC	[M]
IC8695	C0JBAA000346	IC LOGIC	[M]
IC9500	C0DAAZG00012	IC REGULATOR	[M]
		TRANSISTORS	
Q1	2SK544F-AC	TRANSISTOR	[M]
Q1	B3NAA0000068	TRANSISTOR	[M]
Q2	B1AAAC000016	TRANSISTOR	[M]
Q3	B1AAAD000015	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q4	B1AAAD000015	TRANSISTOR	[M]
Q1003	B1AAGC000007	TRANSISTOR	[M]
Q1004	B1AAGC000007	TRANSISTOR	[M]
Q1005	B1AAGC000007	TRANSISTOR	[M]
Q1007	B1ABCF000176	TRANSISTOR	[M]
Q1017	B1AARC000003	TRANSISTOR	[M]
Q2601	B1AABC000003	TRANSISTOR	[M]
Q2606	B1GCCFJJ0016	TRANSISTOR	[M]
Q2702	B1GBCFJJ0051	TRANSISTOR	[M]
Q2703	B1GDCFJJ0047	TRANSISTOR	[M]
Q2704	B1GDCFJJ0047	TRANSISTOR	[M]
Q2710	B1GBCFJJ0051	TRANSISTOR	[M]
Q2806	B1GBCFJN0033	TRANSISTOR	[M]
Q2813	B1GFGCAA0001	TRANSISTOR	[M]
Q2814	B1GDCFGA0018	TRANSISTOR	[M]
Q2815	B1GDCFGA0018	TRANSISTOR	[M]
Q2816	B1GDCFGA0018	TRANSISTOR	[M]
Q2818	B1GFGCAA0001	TRANSISTOR	[M]
Q2819	B1GFGCAA0001	TRANSISTOR	[M]
Q2820	B1ABEB000002	TRANSISTOR	[M]
Q2822	B1GDCFGA0018	TRANSISTOR	[M]
Q2823	B1GDCFGA0018	TRANSISTOR	[M]
Q2825	B1ABEB000002	TRANSISTOR	[M]
Q2838	B1GBCFJN0033	TRANSISTOR	[M]
Q2906	B1GBCFJA0028	TRANSISTOR	[M]
Q2909	2SD0592ARA	TRANSISTOR	[M]
Q2910	2SD0601AHL	TRANSISTOR	[M]
Q2911	2SB0709AHL	TRANSISTOR	[M]
Q2912	2SB0709AHL	TRANSISTOR	[M]
Q2913	2SD0601AHL	TRANSISTOR	[M]
Q2914	2SD0592ARA	TRANSISTOR	[M]
Q2915	2SB0709AHL	TRANSISTOR	[M]
Q2916	2SB0709AHL	TRANSISTOR	[M]
Q2917	B1ABEB000002	TRANSISTOR	[M]
Q2919	B1GFGCAA0001	TRANSISTOR	[M]
Q2920	B1GDCFGA0018	TRANSISTOR	[M]
Q5801	B1ABCF000176	TRANSISTOR	[M]
Q5802	B1BCCG000002	TRANSISTOR	[M]
Q5803	B1BACG000023	TRANSISTOR	[M]
Q5804	B1BCCG000002	TRANSISTOR	[M]
Q5805	B1ACCF000094	TRANSISTOR	[M]
Q5806	B1GDCFGA0018	TRANSISTOR	[M]
Q5807	B1ABCF000176	TRANSISTOR	[M]
Q5808	B1AAKD000014	TRANSISTOR	[M]
Q5809	B1BACG000023	TRANSISTOR	[M]
Q5810	B1ABCF000176	TRANSISTOR	[M]
Q5811	B1ABCF000176	TRANSISTOR	[M]
Q6800	B1ACKD000004	TRANSISTOR	[M]
Q6801	B1ACKD000004	TRANSISTOR	[M]
Q6802	B1GBCFJJ0051	TRANSISTOR	[M]
Q6803	B1ACCF000094	TRANSISTOR	[M]
Q6804	B1ACCF000094	TRANSISTOR	[M]
Q6805	B1GACFJJ0018	TRANSISTOR	[M]
Q6806	B1ABCF000176	TRANSISTOR	[M]
Q6807	B1ABCF000176	TRANSISTOR	[M]
Q6808	B1GBCFJJ0051	TRANSISTOR	[M]
Q6809	B1GFGCAA0001	TRANSISTOR	[M]
Q6810	B1GCCFGA0006	TRANSISTOR	[M]
Q6811	B1GBCFJN0033	TRANSISTOR	[M]
Q6817	B1ABCF000176	TRANSISTOR	[M]
Q6820	B1GBCFJN0033	TRANSISTOR	[M]
Q8550	2SB1219AHL	TRANSISTOR	[M]
Q8551	2SD1819A0L	TRANSISTOR	[M]
Q8552	2SB09700RL	TRANSISTOR	[M]
Q8560	2SD1819A0L	TRANSISTOR	[M]
Q8561	2SD1819A0L	TRANSISTOR	[M]
Q8562	2SB09700RL	TRANSISTOR	[M]
Q8606	2SD1819A0L	TRANSISTOR	[M]
Q8607	2SD1819A0L	TRANSISTOR	[M]
Q9500	B1AAGC000007	TRANSISTOR	[M]
Q9501	2SD21370PA	TRANSISTOR	[M]
Q9502	B1AAGC000007	TRANSISTOR	[M]
Q9503	2SB0621AHA	TRANSISTOR	[M]
Q9504	B1ACKD000004	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
QR8111	UNR521400L	CHIP TRANSISTOR	[M]
QR8112	UNR521400L	CHIP TRANSISTOR	[M]
QR8420	UNR521100L	CHIP TRANSISTOR	[M]
QR8571	UNR511V00L	CHIP TRANSISTOR	[M]
		DIODES	
D1	B0CBAD000004	DIODE	[M]
D2	B0CBAD000004	DIODE	[M]
D3	B0CBAD000004	DIODE	[M]
D951	MA2C16500E	DIODE	[M]
D971	MA2C16500E	DIODE	[M]
D1003	B0ACCK000005	DIODE	[M]
D2601	B0BC5R000009	DIODE	[M]
D2602	B0CDBB000015	DIODE	[M]
D2809	B0ACCK000005	DIODE	[M]
D2810	B0EAKM000117	DIODE	[M]
D2811	B0EAKM000117	DIODE	[M]
D2818	B0ACCK000005	DIODE	[M]
D2836	B0EAKM000117	DIODE	[M]
D2837	B0EAKM000117	DIODE	[M]
D2900	B0BC5R000009	DIODE	[M]
D2901	B0ACCK000005	DIODE	[M]
D2905	B0ACCK000005	DIODE	[M]
D2906	B0ACCK000005	DIODE	[M]
D2908	B0ACCK000005	DIODE	[M]
D2909	B0ACCK000005	DIODE	[M]
D2910	B0ACCE000003	DIODE	[M]
D2911	B0ACCK000005	DIODE	[M]
D2912	B0ACCK000005	DIODE	[M]
D2913	B0ADCJ000020	DIODE	[M]
D2914	B0ACCK000005	DIODE	[M]
D2915	B0ACCK000005	DIODE	[M]
D2916	B0ACCK000005	DIODE	[M]
D2917	B0ACCK000005	DIODE	[M]
D2918	B0ACCK000005	DIODE	[M]
D2919	B0ACCK000005	DIODE	[M]
D5801	B0BC010A0007	DIODE	[M]
D5803	B0BC01600013	DIODE	[M]
D5804	B0ACCK000005	DIODE	[M]
D5805	B0EAKM000117	DIODE	[M]
D5806	B0EAKM000117	DIODE	[M]
D5809	B0ACCK000005	DIODE	[M]
D5810	B0BC01000014	DIODE	[M]
D5820	B0BC01500006	DIODE	[M]
D5821	B0BC5R600003	DIODE	[M]
D6800	B0BC5R600003	DIODE	[M]
D6801	B3AAA0000583	DIODE	[M]
D6802	B0ACCE000003	DIODE	[M]
D6809	B3AEA0000041	DIODE	[M]
D6810	B3AEA0000041	DIODE	[M]
D6812	B0BC8R100004	DIODE	[M]
D6813	B0BC8R100004	DIODE	[M]
D6815	MAZ80560ML	DIODE	[M]
D8231	MA2J11100L	DIODE	[M]
D8550	MA2J11100L	DIODE	[M]
D8571	MA2J72800L	DIODE	[M]
D9500	B0AACK000004	DIODE	[M]
D9501	B0AACK000004	DIODE	[M]
D9502	B0BA7R000005	DIODE	[M]
D9503	B0JAPG000019	DIODE	[M]
D9504	B0FBAM000009	DIODE	[M]
D9505	B0FBAM000009	DIODE	[M]
D9508	B0EAKM000125	DIODE	[M]
D9509	B0EAKM000125	DIODE	[M]
D9510	B0AACK000004	DIODE	[M]
D9511	B0EAKM000125	DIODE	[M]
D9512	B0EAKM000125	DIODE	[M]
D9513	B0EAKM000126	DIODE	[M]
D9514	B0EAKM000126	DIODE	[M]
D9515	B0BA7R000005	DIODE	[M]
D9516	B0BA03100002	DIODE	[M]
D9517	B0EAKM000125	DIODE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
D9518	B0EAMM000038	DIODE	[M]
D9519	B0EAMM000038	DIODE	[M]
D9520	B0EAMM000038	DIODE	[M]
D9521	B0EAMM000038	DIODE	[M]
D9522	B0EAKM000126	DIODE	[M]
D9523	B0EAKM000126	DIODE	[M]
D9524	B0EAKM000126	DIODE	[M]
D9525	B0EAKM000126	DIODE	[M]
D9526	B0EAKM000126	DIODE	[M]
D9527	B0EAKM000126	DIODE	[M]
D9528	B0EAKM000126	DIODE	[M]
D9529	B0EAKM000126	DIODE	[M]
		CHIP INDUCTORS	
LB8001	J0JHC0000045	CHIP INDUCTOR	[M]
LB8002	J0JHC0000045	CHIP INDUCTOR	[M]
LB8301	J0JCC0000119	CHIP INDUCTOR	[M]
LB8302	J0JCC0000119	CHIP INDUCTOR	[M]
LB8303	J0JCC0000119	CHIP INDUCTOR	[M]
LB8304	J0JCC0000119	CHIP INDUCTOR	[M]
LB8305	J0JCC0000119	CHIP INDUCTOR	[M]
LB8401	ERJ2GEJ151X	CHIP RESISTOR	[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]
LB8427	ERJ2GE0R00X	CHIP JUMPER	[M]
LB8428	ERJ2GE0R00X	CHIP JUMPER	[M]
LB8429	ERJ2GE0R00X	CHIP JUMPER	[M]
LB8430	ERJ2GE0R00X	CHIP JUMPER	[M]
LB8491	ERJ2GE0R00X	CHIP JUMPER	[M]
LB8502	J0JHC0000045	CHIP INDUCTOR	[M]
LB8503	ERJ2GE0R00X	CHIP JUMPER	[M]
LB8504	J0JCC0000119	CHIP INDUCTOR	[M]
LB8505	J0JCC0000119	CHIP INDUCTOR	[M]
LB8507	J0JCC0000119	CHIP INDUCTOR	[M]
LB8511	ERJ3GEY0R00V	CHIP JUMPER	[M]
LB8512	ERJ3GEY0R00V	CHIP JUMPER	[M]
LB8513	ERJ3GEY0R00V	CHIP JUMPER	[M]
LB8514	ERJ3GEY0R00V	CHIP JUMPER	[M]
LB8690	J0JCC0000091	FILTER	[M]
LB8691	ERJ2GEJ101X	CHIP RESISTOR	[M]
LB8692	ERJ2GEJ101X	CHIP RESISTOR	[M]
LB8693	ERJ2GEJ101X	CHIP RESISTOR	[M]
		VARIABLE RESISTORS	
VR6800	EVEHE1F3512M	VR VOLUME JOG	[M]
		SWITCHES	
S1	K0L1BA000065	SW STOCK	[M]
S2	K0L1BA000065	SW STOCK	[M]
S3	K0L1BA000078	SW BOTTOM	[M]
S4	RSH1A045-1A	SW OPEN	[M]
S5	K0L1BA000065	SW CHANGE	[M]
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]
S5950	K0ABLB000003	SW AC VOLTAGE SELECTOR	[M] ⚠
S6800	K0H1BA000502	SW DVD/CD	[M]
S6801	K0H1BA000502	SW TAPE	[M]
S6802	K0H1BA000502	SW TUNER/BAND	[M]
S6803	K0H1BA000502	SW AUX	[M]
S6804	K0H1BA000502	SW DECK 1	[M]
S6805	K0H1BA000502	SW DISPLAY/DEMO	[M]
S6806	K0H1BA000502	SW DECK 2	[M]
S6807	K0H1BA000502	SW REW	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
S6808	K0H1BA000502	SW FF	[M]
S6809	K0H1BA000502	SW STOP	[M]
S6810	K0H1BA000502	SW AC IN	[M]
S6811	K0H1BA000502	SW DISC CHECK	[M]
S6812	K0H1BA000502	SW MULTI RE-MASTER	[M]
S6813	K0H1BA000502	SW SUPER SURROUND	[M]
S6814	K0H1BA000502	SW MIC UP	[M]
S6815	K0H1BA000502	SW MIC DOWN	[M]
S6816	K0H1BA000502	SW DECK 1/2	[M]
S6817	K0H1BA000502	SW REC	[M]
S6818	K0H1BA000502	SW SOUND EQ	[M]
S6819	K0H1BA000502	SW OPEN/CLOSE	[M]
S6820	K0H1BA000502	SW DISC CHANGE	[M]
S6821	K0H1BA000502	SW DISC 5	[M]
S6822	K0H1BA000502	SW DISC 4	[M]
S6823	K0H1BA000502	SW DISC 3	[M]
S6824	K0H1BA000502	SW DISC 2	[M]
S6825	K0H1BA000502	SW DISC 1	[M]
S6826	K0H1BA000502	SW SUPER SOUND EQ	[M]
S6827	K0H1BA000502	SW SUBWOOFER	[M]
		CONNECTORS	
CN1	K1MN14B00066	14P FFC CONNECTOR	[M]
CN971	K1MN10B00104	10P FFC CONNECTOR	[M]
CN1001	K1MN14B00058	14P CONNECTOR	[M]
CN2801	K1KB12B00036	12P CONNECTOR	[M]
CN2802	K1KB12B00036	12P CONNECTOR	[M]
CN2808	K1KA06A00308	6P CONNECTOR	[M]
CN2810	K1MN14BA0004	14P CONNECTOR	[M]
CN2811	K1MN30A00046	30P FFC CONNECTOR	[M]
CN2813	K1MN50A00008	50P CONNECTOR	[M]
CN2814	K1KA03AA0301	3P CONNECTOR	[M]
CN2815	K1KA02AA0186	2P CONNECTOR	[M]
CN2816	K1KA02AA0186	2P CONNECTOR	[M]
CN5800	K1KA12AA0424	12P CONNECTOR	[M]
CN5801	K1KA12AA0424	12P CONNECTOR	[M]
CN5802	K1KA02A00375	2P CONNECTOR	[M]
CN5804	K1KA15AA0319	15P CONNECTOR	[M]
CN6811	K1MN30BA0167	30P CONNECTOR	[M]
CN9500	K1KA07A00184	7P CONNECTOR	[M]
CP6800	K1MN10B00104	10P FFC CONNECTOR	[M]
CP6803	K1MN14A00049	14P FFC CONNECTOR	[M]
CS1001	K1MN05A00039	5P CONNECTOR	[M]
CS1002	K1MN05A00039	5P CONNECTOR	[M]
FP8101	K1MN50B00031	50P CONNECTOR	[M]
FP8201	K1MN06B00080	6P CONNECTOR	[M]
FP8501	K1MN26B00094	26P CONNECTOR	[M]
		CERAMIC FILTERS	
CF2601	J0B1075AA014	FM CERAMIC FILTER	[M]
CF2602	J0B1075AA014	FM CERAMIC FILTER	[M]
		COILS & TRANSFORMERS	
L1	G0C1R2KA0029	AXIAL COIL	[M]
L2	G0CR47KA0029	AXIAL COIL	[M]
L1001	G0C470JA0052	RF CHOKE COIL	[M]
L1002	7L1A62N	BIAS OSC COIL	[M]
L2601	G2A411C00001	AM COIL	[M]
L2602	G2BPC0000016	OSCILLATOR COIL	[M]
L2802	ERJ3GEY0R00V	CHIP JUMPER	[M]
L2804	G0C101JA0052	INDUCTOR	[M]
L2806	J0JBC0000041	CHIP INDUCTOR	[M]
L2807	J0JBC0000041	CHIP INDUCTOR	[M]
L2808	J0JBC0000019	CHIP INDUCTOR	[M]
L2809	J0JBC0000041	CHIP INDUCTOR	[M]
L2810	J0JBC0000041	CHIP INDUCTOR	[M]
L2811	J0JCC0000120	CHIP INDUCTOR	[M]
L2812	J0JCC0000120	CHIP INDUCTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
L2813	J0JCC0000120	CHIP INDUCTOR	[M]
L2814	J0JCC0000120	CHIP INDUCTOR	[M]
L2815	J0JCC0000120	CHIP INDUCTOR	[M]
L2816	J0JCC0000120	CHIP INDUCTOR	[M]
L2904	G0A200D00002	COIL	[M]
L2905	G0A200D00002	COIL	[M]
L2906	G0A200D00002	COIL	[M]
L5404	G0AR76Y00001	CHOKE COIL	[M]
L5405	G0AR76Y00001	CHOKE COIL	[M]
L5406	G0AR76Y00001	CHOKE COIL	[M]
L6801	G0C101JA0052	INDUCTOR	[M]
L6802	G0C101JA0052	INDUCTOR	[M]
L6803	G0C101JA0052	INDUCTOR	[M]
L6804	G0C100JA0052	INDUCTOR	[M]
L6805	G0C100JA0052	INDUCTOR	[M]
L6806	G0C3R3JA0052	COIL	[M]
L6808	G0C100JA0052	INDUCTOR	[M]
L6809	G0C100JA0052	INDUCTOR	[M]
L8201	G1C100K00020	CHIP INDUCTOR	[M]
L8202	J0JCC0000079	FILTER	[M]
L8301	G1C100KA0055	CHIP INDUCTOR	[M]
L8302	J0JCC0000079	FILTER	[M]
L8550	G1C100KA0055	CHIP INDUCTOR	[M]
L9500	G0A101G00022	COIL	[M]
L9502	G0AR76Y00001	CHOKE COIL	[M]
L9504	G0AR76Y00001	CHOKE COIL	[M]
L9507	G0AR76Y00001	CHOKE COIL	[M]
T9500	G4C8AGK00003	TRANSFORMER	[M] ⚠
T9501	G4C2AAJ00005	BACK-UP TRANSFORMER	[M] ⚠
		COMPONENT COMBINATIONS	
Z971	RGSD12A1445T	RADA RESISTOR	[M]
Z2602	G2BAD0000003	AM IFT	[M]
Z6800	B3RAB0000025	REMOTE SENSOR	[M]
Z9500	ERZV10V511CS	ZENER	[M] ⚠
BS6800	RMBX0032	GROUND SPRING	[M]
		RELAY	
RL9500	K6B1AEA00015	POWER RELAY	[M] ⚠
		OSCILLATORS	
X2602	H3F1065A0002	DISCRIMINATOR	[M]
X2603	H0H720400005	CRYSTAL OSCILLATOR	[M]
X6800	H2A1005A0005	10MHZ RESONATOR	[M]
X6801	H0A327200115	CRYSTAL OSCILLATOR	[M]
X8621	H0J270500085	CRYSTAL OSCILLATOR	[M]
		DISPLAY TUBES	
FL6800	A2BD00000125	FL DISPLAY	[M]
FL8101	F1H0J1050022	CHIP CAPACITOR	[M]
FL8102	F1H0J1050022	CHIP CAPACITOR	[M]
FL8103	F1H0J1050022	CHIP CAPACITOR	[M]
FL8104	F1J1E1040022	CHIP CAPACITOR	[M]
		FUSES	
F1	K5D402BLA013	FUSE 250V T4AL	[M] ⚠
F2	K5D202BLA013	FUSE 2.0A	[M] ⚠
		FUSE HOLDERS	
FC1	K3GE1BA00021	FUSE CLIP	[M]
FC2	K3GE1BA00021	FUSE CLIP	[M]
FC3	K3GE1BA00021	FUSE CLIP	[M]
FC4	K3GE1BA00021	FUSE CLIP	[M]
		FUSE PROTECTORS	

Ref. No.	Part No.	Part Name & Description	Remarks
FP5833	K5G401A00008	FUSE PROTECTOR	[M] ⚠
FP9500	K5G102A00023	FUSE PROTECTOR	[M] ⚠
FP9501	K5G402A00025	FUSE PROTECTOR	[M] ⚠
FP9502	K5G402A00025	FUSE PROTECTOR	[M] ⚠
FP9503	K5G402A00025	FUSE PROTECTOR	[M] ⚠
		HOLDERS	
H5803	K1YF10000006	10P WIRE HOLDER	[M]
H5804	K1YF11000004	11P WIRE HOLDER	[M]
H5900	K1YF11000004	11P WIRE HOLDER	[M]
H5901	K1YF10000006	10P WIRE HOLDER	[M]
H6800	RMR0316	7P WIRE HOLDER	[M]
H6805	K1YF05000001	5P CABLE HOLDER	[M]
H6806	K1YF05000001	5P CABLE HOLDER	[M]
H6807	K1YF06000001	6P CONNECTOR	[M]
H6810	K1YZ02000015	2P WIRE HOLDER	[M]
H9500	K1YF15000004	15P WIRE HOLDER	[M]
H9502	REXX0481	2P FLAT WIRE (W9502)	[M]
		JACKS	
JK2601	K4BC04B00105	JK ANTENNA	[M]
JK2801	K1CB105B0039	JK S-VIDEO	[M]
JK2802	K2HA408B0061	JK COMP/VIDEO	[M]
JK2803	K2HA204B0166	JK PIN RCA	[M]
JK6800	K2HB102J0038	JK	[M]
JK6801	K2HC103A0024	JK SMALL SIGN	[M]
JK6802	K2HB102J0038	JK	[M]
JK9500	K2AA2B000011	JK AC INLET	[M] ⚠
JK9502	K4BC06B00063	JK 6P SPEAKER	[M]
JK9503	K4BC06B00049	JK SPEAKER	[M]
		EARTH TERMINAL	
E5801	SNE1004-3	EARTH TERMINAL	[M]
		WIRES	
W1	REU13W125XX	WIRE	[M]
W1002	RWJ0102050CK	MOTOR WIRE	[M]
		CHIP JUMPERS	
W2087	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2090	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2091	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2094	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2095	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2096	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2099	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2101	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2103	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2104	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2125	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2126	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2127	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2128	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2130	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2131	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2132	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2133	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2919	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2999	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]
W3011	ERJ3GEY0R00V	CHIP JUMPER	[M]
W5905	ERJ3GEY0R00V	CHIP JUMPER	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
W5906	ERJ3GEY0R00V	CHIP JUMPER	[M]
W5907	ERJ3GEY0R00V	CHIP JUMPER	[M]
W5908	ERJ3GEY0R00V	CHIP JUMPER	[M]
W5909	ERJ3GEY0R00V	CHIP JUMPER	[M]
W5910	ERJ3GEY0R00V	CHIP JUMPER	[M]
W5914	ERJ3GEY0R00V	CHIP JUMPER	[M]
W5915	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6810	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6830	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6882	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6886	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6887	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6888	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6889	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6890	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6891	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6901	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6902	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6906	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6907	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6908	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6915	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6916	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6919	ERJ3GEY0R00V	CHIP JUMPER	[M]
D6814	ERJ3GEY0R00V	DIODE	[M]
		RESISTORS	
R1	ERDS2TJ104T	100K 1/4W	[M]
R2	ERDS2TJ104T	100K 1/4W	[M]
R3	ERDS2TJ221T	220 1/4W	[M]
R4	ERDS2TJ104T	100K 1/4W	[M]
R5	ERDS2TJ564T	560K 1/4W	[M]
R6	ERDS2TJ391T	390 1/4W	[M]
R7	ERDS2TJ272T	2.7K 1/4W	[M]
R8	ERDS2TJ684T	680K 1/4W	[M]
R9	ERDS2TJ391T	390 1/4W	[M]
R10	ERDS2TJ391T	390 1/4W	[M]
R11	ERDS2TJ684T	680K 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	ERJ3GEYJ152V	1.5K 1/16W	[M]
R1005	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1007	ERD25FVJ4R7T	4.7 1/4W	[M]
R1009	ERJ3GEYJ183V	18K 1/16W	[M]
R1010	ERJ3GEYJ183V	18K 1/16W	[M]
R1011	ERJ3GEYJ822V	8.2K 1/16W	[M]
R1012	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1013	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1014	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1015	ERJ3GEYJ470V	47 1/16W	[M]
R1016	ERJ3GEYJ470V	47 1/16W	[M]
R1017	ERJ3GEYJ822V	8.2K 1/16W	[M]
R1018	ERJ3GEYJ392V	3.9K 1/16W	[M]
R1019	ERJ3GEYJ392V	3.9K 1/16W	[M]
R1020	ERJ3GEY0R00V	0 1/16W	[M]
R1022	ERJ3GEYJ103V	10K 1/16W	[M]
R1024	ERJ3GEY0R00V	0 1/16W	[M]
R1025	ERJ3GEY0R00V	0 1/16W	[M]
R1026	ERJ3GEYJ102V	1K 1/16W	[M]
R1027	ERJ3GEY0R00V	0 1/16W	[M]
R1028	ERJ3GEYJ822V	8.2K 1/16W	[M]
R1029	ERJ3GEYJ475V	4.7M 1/16W	[M]
R1030	ERJ3GEYJ101V	100 1/16W	[M]
R1031	ERJ3GEYJ273V	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]

Ref. No.	Part No.	Part Name & Description	Remarks
R1050	ERJ3GEY0R00V	0 1/16W	[M]
R1055	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1057	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1060	ERJ3GEYJ391V	390 1/16W	[M]
R1084	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1085	ERJ3GEYJ473V	47K 1/16W	[M]
R1086	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1087	ERJ3GEYJ473V	47K 1/16W	[M]
R1090	ERJ3GEYJ221V	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]
R2052	ERJ3GEY0R00V	0 1/16W	[M]
R2053	ERJ3GEY0R00V	0 1/16W	[M]
R2054	ERJ3GEY0R00V	0 1/16W	[M]
R2055	ERJ3GEY0R00V	0 1/16W	[M]
R2056	ERJ3GEY0R00V	0 1/16W	[M]
R2057	ERJ3GEY0R00V	0 1/16W	[M]
R2058	ERJ3GEY0R00V	0 1/16W	[M]
R2059	ERJ3GEY0R00V	0 1/16W	[M]
R2060	ERJ3GEY0R00V	0 1/16W	[M]
R2061	ERJ3GEY0R00V	0 1/16W	[M]
R2062	ERJ3GEY0R00V	0 1/16W	[M]
R2064	ERJ3GEY0R00V	0 1/16W	[M]
R2065	ERJ3GEY0R00V	0 1/16W	[M]
R2066	ERJ3GEY0R00V	0 1/16W	[M]
R2067	ERJ3GEY0R00V	0 1/16W	[M]
R2068	ERJ3GEY0R00V	0 1/16W	[M]
R2069	ERJ3GEY0R00V	0 1/16W	[M]
R2070	ERJ3GEY0R00V	0 1/16W	[M]
R2072	ERJ3GEY0R00V	0 1/16W	[M]
R2073	ERJ3GEY0R00V	0 1/16W	[M]
R2074	ERJ3GEY0R00V	0 1/16W	[M]
R2075	ERJ3GEY0R00V	0 1/16W	[M]
R2076	ERJ3GEY0R00V	0 1/16W	[M]
R2077	ERJ3GEY0R00V	0 1/16W	[M]
R2078	ERJ3GEY0R00V	0 1/16W	[M]
R2079	ERJ3GEY0R00V	0 1/16W	[M]
R2080	ERJ3GEY0R00V	0 1/16W	[M]
R2081	ERJ3GEY0R00V	0 1/16W	[M]
R2084	ERJ3GEY0R00V	0 1/16W	[M]
R2086	ERJ3GEY0R00V	0 1/16W	[M]
R2088	ERJ3GEY0R00V	0 1/16W	[M]
R2089	ERJ3GEY0R00V	0 1/16W	[M]
R2090	ERJ3GEY0R00V	0 1/16W	[M]
R2091	ERJ3GEY0R00V	0 1/16W	[M]
R2094	ERJ3GEY0R00V	0 1/16W	[M]
R2095	ERJ3GEY0R00V	0 1/16W	[M]
R2096	ERJ3GEY0R00V	0 1/16W	[M]
R2097	ERJ3GEY0R00V	0 1/16W	[M]
R2098	ERJ3GEY0R00V	0 1/16W	[M]
R2100	ERJ3GEYJ183V	18K 1/16W	[M]
R2101	ERJ3GEYJ183V	18K 1/16W	[M]
R2102	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2103	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2104	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2105	ERJ3GEYJ183V	18K 1/16W	[M]
R2106	ERJ3GEYJ102V	1K 1/16W	[M]
R2107	ERJ3GEYJ473V	47K 1/16W	[M]
R2108	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2109	ERJ3GEYJ123V	12K 1/16W	[M]
R2110	ERJ3GEYJ104V	100K 1/16W	[M]
R2111	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2112	ERJ3GEYJ104V	100K 1/16W	[M]
R2113	ERJ3GEYJ103V	10K 1/16W	[M]
R2114	ERJ3GEYJ473V	47K 1/16W	[M]
R2115	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2116	ERJ3GEYJ223V	22K 1/16W	[M]
R2117	ERJ3GEYJ332V	3.3K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2118	ERJ3GEYJ102V	1K 1/16W	[M]
R2119	ERJ3GEYJ224V	220K 1/16W	[M]
R2120	ERJ3GEYJ102V	1K 1/16W	[M]
R2121	ERJ3GEYJ273V	27K 1/16W	[M]
R2122	ERJ3GEYJ683V	68K 1/16W	[M]
R2124	ERJ3GEYJ123V	12K 1/16W	[M]
R2126	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2127	ERJ3GEYJ153V	15K 1/16W	[M]
R2128	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2129	ERJ3GEYJ101V	100 1/16W	[M]
R2130	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2131	ERJ3GEYJ333V	33K 1/16W	[M]
R2132	ERJ3GEYJ471V	470 1/16W	[M]
R2133	ERJ3GEY0R00V	0 1/16W	[M]
R2135	ERJ3GEYJ273V	27K 1/16W	[M]
R2136	ERJ3GEYJ273V	27K 1/16W	[M]
R2137	ERJ3GEYJ101V	100 1/16W	[M]
R2138	ERJ3GEYJ333V	33K 1/16W	[M]
R2139	ERJ3GEYJ123V	12K 1/16W	[M]
R2154	ERJ3GEYJ334V	330K 1/16W	[M]
R2155	ERJ3GEYJ123V	12K 1/16W	[M]
R2162	ERJ3GEY0R00V	0 1/16W	[M]
R2200	ERJ3GEYJ183V	18K 1/16W	[M]
R2201	ERJ3GEYJ183V	18K 1/16W	[M]
R2202	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2203	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2204	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2205	ERJ3GEYJ183V	18K 1/16W	[M]
R2206	ERJ3GEYJ102V	1K 1/16W	[M]
R2207	ERJ3GEYJ473V	47K 1/16W	[M]
R2208	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2209	ERJ3GEYJ123V	12K 1/16W	[M]
R2210	ERJ3GEYJ104V	100K 1/16W	[M]
R2211	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2212	ERJ3GEYJ104V	100K 1/16W	[M]
R2213	ERJ3GEYJ103V	10K 1/16W	[M]
R2214	ERJ3GEYJ473V	47K 1/16W	[M]
R2215	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2216	ERJ3GEYJ223V	22K 1/16W	[M]
R2217	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2218	ERJ3GEYJ102V	1K 1/16W	[M]
R2219	ERJ3GEYJ224V	220K 1/16W	[M]
R2220	ERJ3GEYJ102V	1K 1/16W	[M]
R2221	ERJ3GEYJ273V	27K 1/16W	[M]
R2222	ERJ3GEYJ683V	68K 1/16W	[M]
R2223	ERJ3GEYJ473V	47K 1/16W	[M]
R2224	ERJ3GEYJ123V	12K 1/16W	[M]
R2226	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2227	ERJ3GEYJ153V	15K 1/16W	[M]
R2228	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2229	ERJ3GEYJ101V	100 1/16W	[M]
R2230	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2231	ERJ3GEYJ333V	33K 1/16W	[M]
R2232	ERJ3GEYJ471V	470 1/16W	[M]
R2233	ERJ3GEY0R00V	0 1/16W	[M]
R2235	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2236	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2237	ERJ3GEYJ101V	100 1/16W	[M]
R2238	ERJ3GEYJ333V	33K 1/16W	[M]
R2239	ERJ3GEYJ123V	12K 1/16W	[M]
R2253	ERJ3GEYJ334V	330K 1/16W	[M]
R2254	ERJ3GEYJ123V	12K 1/16W	[M]
R2300	ERJ3GEYJ123V	12K 1/16W	[M]
R2301	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2302	ERJ3GEYJ103V	10K 1/16W	[M]
R2303	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2304	ERJ3GEYJ473V	47K 1/16W	[M]
R2305	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2306	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2307	ERJ3GEYJ563V	56K 1/16W	[M]
R2310	ERJ3GEYJ271V	270 1/16W	[M]
R2400	ERJ3GEYJ123V	12K 1/16W	[M]
R2401	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2404	ERJ3GEYJ473V	47K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2405	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2406	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2407	ERJ3GEYJ563V	56K 1/16W	[M]
R2410	ERJ3GEYJ271V	270 1/16W	[M]
R2453	ERJ3GEYJ101V	100 1/16W	[M]
R2454	ERJ3GEYJ104V	100K 1/16W	[M]
R2455	ERJ3GEYJ102V	1K 1/16W	[M]
R2456	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2457	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2459	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2460	ERJ3GEYJ225V	2.2M 1/16W	[M]
R2500	ERJ3GEYJ123V	12K 1/16W	[M]
R2501	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2502	ERJ3GEYJ103V	10K 1/16W	[M]
R2503	ERJ3GEYJ102V	1K 1/16W	[M]
R2504	ERJ3GEYJ333V	33K 1/16W	[M]
R2505	ERJ3GEYJ103V	10K 1/16W	[M]
R2506	ERJ3GEYJ271V	270 1/16W	[M]
R2507	ERJ3GEYJ102V	1K 1/16W	[M]
R2508	ERJ3GEYJ563V	56K 1/16W	[M]
R2509	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2510	ERJ3GEYJ183V	18K 1/16W	[M]
R2511	ERJ3GEYJ102V	1K 1/16W	[M]
R2553	ERJ3GEYJ101V	100 1/16W	[M]
R2558	ERJ3GEYJ473V	47K 1/16W	[M]
R2567	ERJ3GEYJ393V	39K 1/16W	[M]
R2568	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2569	ERJ3GEYJ153V	15K 1/16W	[M]
R2580	ERDS1FVJ100T	10 1/2W	[M]
R2581	ERJ3GEYJ122V	1.2K 1/16W	[M]
R2582	ERJ3GEYJ104V	100K 1/16W	[M]
R2583	ERJ3GEYJ224V	220K 1/16W	[M]
R2584	ERJ3GEYJ101V	100 1/16W	[M]
R2585	ERJ3GEYJ124V	120K 1/16W	[M]
R2586	ERJ3GEYJ103V	10K 1/16W	[M]
R2587	ERJ3GEYJ225V	2.2M 1/16W	[M]
R2588	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2589	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2590	ERJ3GEY0R00V	0 1/16W	[M]
R2591	ERJ3GEYJ102V	1K 1/16W	[M]
R2592	ERJ3GEYJ104V	100K 1/16W	[M]
R2593	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2594	ERDS1FVJ100T	10 1/2W	[M]
R2595	ERJ3GEYJ104V	100K 1/16W	[M]
R2596	ERJ3GEYJ122V	1.2K 1/16W	[M]
R2597	ERJ3GEYJ224V	220K 1/16W	[M]
R2598	ERJ3GEYJ103V	10K 1/16W	[M]
R2599	ERJ3GEYJ124V	120K 1/16W	[M]
R2600	ERJ3GEYJ103V	10K 1/16W	[M]
R2601	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2602	ERJ3GEYJ103V	10K 1/16W	[M]
R2603	ERJ3GEYJ103V	10K 1/16W	[M]
R2604	ERJ3GEYJ333V	33K 1/16W	[M]
R2605	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2606	ERJ3GEYJ103V	10K 1/16W	[M]
R2607	ERJ3GEYJ392V	3.9K 1/16W	[M]
R2608	ERJ3GEYJ153V	15K 1/16W	[M]
R2609	ERJ3GEYJ224V	220K 1/16W	[M]
R2610	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2611	ERJ3GEYJ104V	100K 1/16W	[M]
R2612	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2613	ERJ3GEYJ683V	68K 1/16W	[M]
R2614	ERJ3GEYJ683V	68K 1/16W	[M]
R2615	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2616	ERJ3GEYJ563V	56K 1/16W	[M]
R2618	ERJ3GEYJ102V	1K 1/16W	[M]
R2619	ERJ3GEYJ563V	56K 1/16W	[M]
R2620	ERJ3GEYJ563V	56K 1/16W	[M]
R2621	ERJ3GEYJ223V	22K 1/16W	[M]
R2622	ERJ3GEYJ392V	3.9K 1/16W	[M]
R2623	ERJ3GEYJ273V	27K 1/16W	[M]
R2624	ERJ3GEYJ561V	560 1/16W	[M]
R2626	ERJ3GEYJ102V	1K 1/16W	[M]
R2627	ERJ3GEYJ471V	470 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2628	ERJ3GEYJ820V	82 1/16W	[M]
R2629	ERJ3GEYJ273V	27K 1/16W	[M]
R2630	ERJ3GEYJ103V	10K 1/16W	[M]
R2631	ERJ3GEYJ121V	120 1/16W	[M]
R2632	ERJ3GEYJ103V	10K 1/16W	[M]
R2633	ERJ3GEYJ102V	1K 1/16W	[M]
R2634	ERJ3GEYJ471V	470 1/16W	[M]
R2635	ERJ3GEYJ102V	1K 1/16W	[M]
R2636	ERJ3GEYJ102V	1K 1/16W	[M]
R2637	ERJ3GEYJ102V	1K 1/16W	[M]
R2638	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2641	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2642	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2643	ERJ3GEYJ223V	22K 1/16W	[M]
R2644	ERJ3GEYJ121V	120 1/16W	[M]
R2645	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2646	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2651	ERJ3GEYJ820V	82 1/16W	[M]
R2652	ERJ3GEY0R00V	0 1/16W	[M]
R2658	ERJ3GEYJ102V	1K 1/16W	[M]
R2661	ERJ3GEYJ103V	10K 1/16W	[M]
R2662	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2667	ERJ3GEYJ223V	22K 1/16W	[M]
R2670	ERJ3GEYJ223V	22K 1/16W	[M]
R2672	ERJ3GEYJ101V	100 1/16W	[M]
R2673	ERJ3GEYJ102V	1K 1/16W	[M]
R2675	ERJ3GEYJ103V	10K 1/16W	[M]
R2678	ERJ3GEYJ103V	10K 1/16W	[M]
R2683	ERJ3GEYJ104V	100K 1/16W	[M]
R2685	ERJ3GEYJ104V	100K 1/16W	[M]
R2688	ERJ3GEYJ103V	10K 1/16W	[M]
R2691	ERJ3GEYJ102V	1K 1/16W	[M]
R2692	ERJ3GEYJ103V	10K 1/16W	[M]
R2693	ERJ3GEYJ103V	10K 1/16W	[M]
R2702	ERJ3GEY0R00V	0 1/16W	[M]
R2708	ERJ3GEYJ101V	100 1/16W	[M]
R2713	ERJ3GEY0R00V	0 1/16W	[M]
R2723	ERJ3GEYJ103V	10K 1/16W	[M]GS
R2723	ERJ3GEYJ223V	22K 1/16W	[M]GCP
R2723	ERJ3GEYJ332V	3.3K 1/16W	[M]GCS
R2726	ERJ3GEYJ101V	100 1/16W	[M]
R2728	ERJ3GEYJ223V	22K 1/16W	[M]
R2729	ERJ3GEYJ223V	22K 1/16W	[M]
R2730	ERJ3GEYJ102V	1K 1/16W	[M]
R2731	ERJ3GEYJ102V	1K 1/16W	[M]
R2732	ERJ3GEYJ102V	1K 1/16W	[M]
R2733	ERJ3GEYJ102V	1K 1/16W	[M]
R2734	ERJ3GEYJ102V	1K 1/16W	[M]
R2735	ERJ3GEYJ103V	10K 1/16W	[M]
R2736	ERJ3GEYJ102V	1K 1/16W	[M]
R2737	ERJ3GEYJ102V	1K 1/16W	[M]
R2738	ERJ3GEYJ102V	1K 1/16W	[M]
R2739	ERJ3GEYJ102V	1K 1/16W	[M]
R2740	ERJ3GEYJ102V	1K 1/16W	[M]
R2741	ERJ3GEYJ102V	1K 1/16W	[M]
R2742	ERJ3GEYJ102V	1K 1/16W	[M]
R2743	ERJ3GEYJ102V	1K 1/16W	[M]
R2744	ERJ3GEYJ102V	1K 1/16W	[M]
R2745	ERJ3GEYJ223V	22K 1/16W	[M]
R2746	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2747	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2748	ERJ3GEYJ103V	10K 1/16W	[M]
R2749	ERJ3GEYJ102V	1K 1/16W	[M]
R2750	ERJ3GEYJ102V	1K 1/16W	[M]
R2751	ERJ3GEYJ102V	1K 1/16W	[M]
R2752	ERJ3GEYJ101V	100 1/16W	[M]
R2753	ERJ3GEYJ101V	100 1/16W	[M]
R2754	ERJ3GEYJ101V	100 1/16W	[M]
R2755	ERJ3GEYJ101V	100 1/16W	[M]
R2756	ERJ3GEYJ101V	100 1/16W	[M]
R2758	ERJ3GEYJ102V	1K 1/16W	[M]
R2759	ERJ3GEYJ102V	1K 1/16W	[M]
R2760	ERJ3GEYJ102V	1K 1/16W	[M]
R2761	ERJ3GEYJ102V	1K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2762	ERJ3GEYJ223V	22K 1/16W	[M]
R2774	ERJ3GEYJ102V	1K 1/16W	[M]
R2775	ERJ3GEYJ102V	1K 1/16W	[M]
R2776	ERJ3GEYJ102V	1K 1/16W	[M]
R2777	ERJ3GEYJ101V	100 1/16W	[M]
R2778	ERJ3GEYJ101V	100 1/16W	[M]
R2779	ERJ3GEYJ101V	100 1/16W	[M]
R2780	ERJ3GEYJ101V	100 1/16W	[M]
R2781	ERJ3GEYJ102V	1K 1/16W	[M]
R2782	ERJ3GEYJ102V	1K 1/16W	[M]
R2783	ERJ3GEYJ102V	1K 1/16W	[M]
R2784	ERJ3GEYJ101V	100 1/16W	[M]
R2785	ERJ3GEYJ101V	100 1/16W	[M]
R2786	ERJ3GEYJ102V	1K 1/16W	[M]
R2788	ERJ3GEYJ104V	100K 1/16W	[M]
R2789	ERJ3GEYJ101V	100 1/16W	[M]
R2790	ERJ3GEYJ102V	1K 1/16W	[M]
R2791	ERJ3GEYJ102V	1K 1/16W	[M]
R2792	ERJ3GEYJ102V	1K 1/16W	[M]
R2793	ERJ3GEYJ101V	100 1/16W	[M]
R2794	ERJ3GEYJ101V	100 1/16W	[M]
R2796	ERJ3GEYJ101V	100 1/16W	[M]
R2797	ERJ3GEYJ101V	100 1/16W	[M]
R2798	ERJ3GEYJ101V	100 1/16W	[M]
R2803	ERJ3GEYJ104V	100K 1/16W	[M]
R2807	ERJ3GEYJ104V	100K 1/16W	[M]
R2810	ERJ3GEYJ103V	10K 1/16W	[M]
R2814	ERJ3GEYJ471V	470 1/16W	[M]
R2816	ERJ3GEYJ750V	75 1/16W	[M]
R2817	ERJ3GEY0R00V	0 1/16W	[M]
R2818	ERJ3GEYJ561V	560 1/16W	[M]
R2820	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2822	ERJ3GEYJ750V	75 1/16W	[M]
R2823	ERJ3GEYJ750V	75 1/16W	[M]
R2824	ERJ3GEYJ750V	75 1/16W	[M]
R2825	ERJ3GEYJ750V	75 1/16W	[M]
R2826	ERJ3GEYJ750V	75 1/16W	[M]
R2827	ERJ3GEY0R00V	0 1/16W	[M]
R2828	ERJ3GEY0R00V	0 1/16W	[M]
R2829	ERJ3GEYJ102V	1K 1/16W	[M]
R2830	ERJ3GEYJ104V	100K 1/16W	[M]
R2831	ERJ3GEYJ104V	100K 1/16W	[M]
R2832	ERJ3GEYJ104V	100K 1/16W	[M]
R2834	ERJ3GEYJ104V	100K 1/16W	[M]
R2838	ERJ3GEYJ102V	1K 1/16W	[M]
R2839	ERJ3GEYJ102V	1K 1/16W	[M]
R2840	ERJ3GEYJ221V	220 1/16W	[M]
R2841	ERJ3GEYJ102V	1K 1/16W	[M]
R2842	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2846	ERJ3GEYJ563V	56K 1/16W	[M]
R2847	ERJ3GEYJ103V	10K 1/16W	[M]
R2848	ERJ3GEYJ102V	1K 1/16W	[M]
R2849	ERJ3GEYJ102V	1K 1/16W	[M]
R2850	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2851	ERJ3GEYJ102V	1K 1/16W	[M]
R2852	ERJ3GEYJ563V	56K 1/16W	[M]
R2853	ERJ3GEYJ563V	56K 1/16W	[M]
R2854	ERJ3GEYJ563V	56K 1/16W	[M]
R2855	ERJ3GEYJ563V	56K 1/16W	[M]
R2856	ERJ3GEYJ563V	56K 1/16W	[M]
R2857	ERJ3GEYJ563V	56K 1/16W	[M]
R2859	ERJ3GEY0R00V	0 1/16W	[M]
R2860	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2862	ERJ3GEY0R00V	0 1/16W	[M]
R2863	ERJ3GEY0R00V	0 1/16W	[M]
R2864	ERJ3GEY0R00V	0 1/16W	[M]
R2899	ERJ3GEY0R00V	0 1/16W	[M]
R2910	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2911	ERJ3GEYJ473V	47K 1/16W	[M]
R2912	ERJ3GEYJ473V	47K 1/16W	[M]
R2913	ERJ3GEYJ103V	10K 1/16W	[M]
R2914	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2916	ERJ3GEYJ681V	680 1/16W	[M]
R2917	ERJ3GEYJ106V	10M 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2918	ERJ3GEYJ331V	330 1/16W	[M]
R2920	ERJ3GEYJ103V	10K 1/16W	[M]
R2921	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2922	ERJ3GEYJ223V	22K 1/16W	[M]
R2923	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2924	ERJ3GEYJ104V	100K 1/16W	[M]
R2926	ERJ3GEYJ101V	100 1/16W	[M]
R2935	ERJ3GEYJ153V	15K 1/16W	[M]
R2938	ERJ3GEYJ392V	3.9K 1/16W	[M]
R2939	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2940	ERJ3GEYJ123V	12K 1/16W	[M]
R2941	ERJ3GEYJ103V	10K 1/16W	[M]
R2942	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2943	ERJ3GEYJ103V	10K 1/16W	[M]
R2944	ERJ3GEYJ153V	15K 1/16W	[M]
R2945	ERJ3GEY0R00V	0 1/16W	[M]
R2946	ERJ3GEYJ123V	12K 1/16W	[M]
R2947	ERJ3GEYJ100V	10 1/16W	[M]
R2948	ERJ3GEY0R00V	0 1/16W	[M]
R2949	ERJ3GEYJ103V	10K 1/16W	[M]
R2951	ERJ3GEYJ103V	10K 1/16W	[M]
R2952	ERDS1FVJ680T	68 1/2W	[M]
R2955	ERJ3GEYJ221V	220 1/16W	[M]
R2956	ERJ3GEYJ221V	220 1/16W	[M]
R2957	ERJ3GEYJ681V	680 1/16W	[M]
R2958	ERJ3GEYJ2R2V	2.2 1/16W	[M]
R2959	ERJ3GEYJ2R2V	2.2 1/16W	[M]
R2969	ERDS1FVJ680T	68 1/2W	[M]
R2978	ERJ3GEY0R00V	0 1/16W	[M]
R2979	ERJ3GEY0R00V	0 1/16W	[M]
R2980	ERJ3GEY0R00V	0 1/16W	[M]
R2981	ERJ3GEY0R00V	0 1/16W	[M]
R2982	ERJ3GEY0R00V	0 1/16W	[M]
R2983	ERJ3GEY0R00V	0 1/16W	[M]
R2984	ERJ3GEY0R00V	0 1/16W	[M]
R2985	ERJ3GEY0R00V	0 1/16W	[M]
R2986	ERJ3GEY0R00V	0 1/16W	[M]
R2987	ERJ3GEY0R00V	0 1/16W	[M]
R2988	ERJ3GEYJ102V	1K 1/16W	[M]
R2990	ERJ3GEYJ103V	10K 1/16W	[M]
R2998	ERJ3GEY0R00V	0 1/16W	[M]
R2999	ERJ3GEY0R00V	0 1/16W	[M]
R3601	ERJ3GEY0R00V	0 1/16W	[M]
R3602	ERJ3GEYJ472V	4.7K 1/16W	[M]
R3603	ERJ3GEYJ271V	270 1/16W	[M]
R3604	ERJ3GEYJ102V	1K 1/16W	[M]
R3605	ERJ3GEYJ471V	470 1/16W	[M]
R3606	ERJ3GEYJ474V	470K 1/16W	[M]
R3607	ERJ3GEYJ331V	330 1/16W	[M]
R3610	ERJ3GEYJ102V	1K 1/16W	[M]
R3611	ERJ3GEYJ391V	390 1/16W	[M]
R3612	ERJ3GEYJ104V	100K 1/16W	[M]
R3613	ERJ3GEYJ103V	10K 1/16W	[M]
R3614	ERJ3GEYJ562V	5.6K 1/16W	[M]
R3615	ERJ3GEYJ561V	560 1/16W	[M]
R3616	ERJ3GEYJ102V	1K 1/16W	[M]
R3617	ERJ3GEYJ473V	47K 1/16W	[M]
R3618	ERJ3GEYJ332V	3.3K 1/16W	[M]
R3619	ERJ3GEYJ332V	3.3K 1/16W	[M]
R3620	ERJ3GEYJ473V	47K 1/16W	[M]
R3622	ERJ3GEYJ272V	2.7K 1/16W	[M]
R3623	ERJ3GEYJ683V	68K 1/16W	[M]
R3624	ERJ3GEYJ330V	33 1/16W	[M]
R3625	ERJ3GEYJ471V	470 1/16W	[M]
R3626	ERJ3GEYJ102V	1K 1/16W	[M]
R3627	ERJ3GEYJ102V	1K 1/16W	[M]
R3628	ERJ3GEYJ563V	56K 1/16W	[M]
R3629	ERJ3GEYJ563V	56K 1/16W	[M]
R3630	ERJ3GEYJ332V	3.3K 1/16W	[M]
R3631	ERJ3GEYJ332V	3.3K 1/16W	[M]
R3633	ERJ3GEYJ103V	10K 1/16W	[M]
R3634	ERJ3GEYJ103V	10K 1/16W	[M]
R3637	ERJ3GEY0R00V	0 1/16W	[M]
R3638	ERJ3GEY0R00V	0 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R3639	ERJ3GEY0R00V	0 1/16W	[M]
R3640	ERJ3GEY0R00V	0 1/16W	[M]
R3641	ERJ3GEY0R00V	0 1/16W	[M]
R3642	ERJ3GEY0R00V	0 1/16W	[M]
R3644	ERJ3GEY0R00V	0 1/16W	[M]
R5100	ERJ3GEYJ153V	15K 1/16W	[M]
R5101	ERJ3GEYJ182V	1.8K 1/16W	[M]
R5102	ERJ3GEYJ563V	56K 1/16W	[M]
R5103	ERJ3GEYJ103V	10K 1/16W	[M]
R5104	ERJ3GEYJ224V	220K 1/16W	[M]
R5105	ERDS1FVJ100T	10 1/2W	[M]
R5106	ERJ3GEYJ562V	5.6K 1/16W	[M]
R5107	ERJ3GEYJ122V	1.2K 1/16W	[M]
R5108	ERJ3GEYJ153V	15K 1/16W	[M]
R5200	ERJ3GEYJ153V	15K 1/16W	[M]
R5201	ERJ3GEYJ182V	1.8K 1/16W	[M]
R5202	ERJ3GEYJ563V	56K 1/16W	[M]
R5203	ERJ3GEYJ103V	10K 1/16W	[M]
R5204	ERJ3GEYJ224V	220K 1/16W	[M]
R5205	ERDS1FVJ100T	10 1/2W	[M]
R5206	ERJ3GEYJ562V	5.6K 1/16W	[M]
R5207	ERJ3GEYJ122V	1.2K 1/16W	[M]
R5300	ERJ3GEYJ153V	15K 1/16W	[M]
R5301	ERJ3GEYJ682V	6.8K 1/16W	[M]
R5302	ERJ3GEYJ563V	56K 1/16W	[M]
R5303	ERDS1FVJ100T	10 1/2W	[M]
R5400	ERJ3GEYJ153V	15K 1/16W	[M]
R5401	ERJ3GEYJ682V	6.8K 1/16W	[M]
R5402	ERJ3GEYJ563V	56K 1/16W	[M]
R5403	ERDS1FVJ100T	10 1/2W	[M]
R5404	ERDS1FVJ100T	10 1/2W	[M]
R5405	ERDS1FVJ100T	10 1/2W	[M]
R5406	ERDS1FVJ100T	10 1/2W	[M]
R5500	ERJ3GEYJ153V	15K 1/16W	[M]
R5501	ERJ3GEYJ822V	8.2K 1/16W	[M]
R5502	ERJ3GEYJ563V	56K 1/16W	[M]
R5503	ERDS1FVJ100T	10 1/2W	[M]
R5504	ERJ3GEYJ104V	100K 1/16W	[M]
R5505	ERJ3GEYJ223V	22K 1/16W	[M]
R5507	ERJ3GEY0R00V	0 1/16W	[M]
R5606	ERDS1FVJ100T	10 1/2W	[M]
R5610	ERJ3GEYJ103V	10K 1/16W	[M]
R5611	ERJ3GEYJ224V	220K 1/16W	[M]
R5707	ERJ3GEYJ563V	56K 1/16W	[M]
R5708	ERJ3GEYJ182V	1.8K 1/16W	[M]
R5709	ERJ3GEYJ153V	15K 1/16W	[M]
R5809	ERDS1FVJ331T	330 1/2W	[M]
R5810	ERJ3GEYJ272V	2.7K 1/16W	[M]
R5811	ERJ3GEYJ471V	470 1/16W	[M]
R5812	ERJ3GEYJ272V	2.7K 1/16W	[M]
R5813	ERJ3GEYJ332V	3.3K 1/16W	[M]
R5814	ERJ3GEYJ332V	3.3K 1/16W	[M]
R5815	ERJ3GEYJ104V	100K 1/16W	[M]
R5816	ERJ3GEYJ104V	100K 1/16W	[M]
R5817	ERJ3GEYJ223V	22K 1/16W	[M]
R5819	ERJ3GEYJ334V	330K 1/16W	[M]
R5820	ERDS1FVJ331T	330 1/2W	[M]
R5821	ERDS1FVJ122T	1.2K 1/2W	[M]
R5822	ERDS1FVJ331T	330 1/2W	[M]
R5823	ERJ3GEYJ101V	100 1/16W	[M]
R5824	ERDS1FVJ2R2T	2.2 1/2W	[M]
R5825	ERDS1FVJ2R2T	2.2 1/2W	[M]
R5826	ERDS1FVJ2R2T	2.2 1/2W	[M]
R5827	ERDS1FVJ2R2T	2.2 1/2W	[M]
R5828	ERJ3GEYJ103V	10K 1/16W	[M]
R5829	ERDS1FVJ331T	330 1/2W	[M]
R5830	ERDS1FVJ122T	1.2K 1/2W	[M]
R5831	ERJ3GEYJ182V	1.8K 1/16W	[M]
R5832	ERJ3GEYJ151V	150 1/16W	[M]
R5835	ERJ3GEYJ152V	1.5K 1/16W	[M]
R5847	ERDS1FVJ4R7T	4.7 1/2W	[M]
R5849	ERJ3GEYJ102V	1K 1/16W	[M]
R5866	ERJ3GEYJ683V	68K 1/16W	[M]
R5889	ERJ3GEYJ473V	47K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R5890	ERJ3GEYJ473V	47K 1/16W	[M]
R5891	ERJ3GEYJ151V	150 1/16W	[M]
R5892	ERJ3GEYJ151V	150 1/16W	[M]
R5898	ERJ3GEYJ683V	68K 1/16W	[M]
R5902	ERJ3GEYJ101V	100 1/16W	[M]
R5903	ERJ3GEY0R00V	0 1/16W	[M]
R5906	ERDS1FVJ270T	27 1/2W	[M]
R6800	ERJ3GEYJ270V	27 1/16W	[M]
R6801	ERJ3GEYJ270V	27 1/16W	[M]
R6802	ERJ3GEYJ270V	27 1/16W	[M]
R6803	ERJ3GEYJ270V	27 1/16W	[M]
R6804	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6805	ERJ3GEYJ100V	10 1/16W	[M]
R6806	ERJ3GEYJ102V	1K 1/16W	[M]
R6807	ERJ3GEYJ270V	27 1/16W	[M]
R6808	ERJ3GEYJ270V	27 1/16W	[M]
R6809	ERJ3GEYJ270V	27 1/16W	[M]
R6810	ERJ3GEYJ270V	27 1/16W	[M]
R6811	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6812	ERJ3GEYJ100V	10 1/16W	[M]
R6813	ERJ3GEYJ102V	1K 1/16W	[M]
R6814	ERJ3GEY0R00V	0 1/16W	[M]
R6815	ERJ3GEYJ563V	56K 1/16W	[M]
R6816	ERJ3GEYJ563V	56K 1/16W	[M]
R6819	ERJ3GEY0R00V	0 1/16W	[M]
R6820	ERJ3GEYJ104V	100K 1/16W	[M]
R6821	ERJ3GEYJ104V	100K 1/16W	[M]
R6822	ERJ3GEYJ103V	10K 1/16W	[M]
R6823	ERJ3GEYJ2R7V	2.7 1/16W	[M]
R6824	ERJ3GEYJ223V	22K 1/16W	[M]
R6825	ERJ3GEYJ102V	1K 1/16W	[M]
R6826	ERJ3GEYJ2R7V	2.7 1/16W	[M]
R6827	ERJ3GEYJ102V	1K 1/16W	[M]
R6828	ERJ3GEYJ223V	22K 1/16W	[M]
R6829	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6830	ERJ3GEY0R00V	0 1/16W	[M]
R6837	ERJ3GEYJ103V	10K 1/16W	[M]
R6854	ERJ3GEYJ102V	1K 1/16W	[M]
R6855	ERJ3GEYJ102V	1K 1/16W	[M]
R6856	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6857	ERJ3GEYJ182V	1.8K 1/16W	[M]
R6858	ERJ3GEYJ222V	2.2K 1/16W	[M]
R6859	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6860	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6861	ERJ3GEYJ682V	6.8K 1/16W	[M]
R6862	ERJ3GEYJ103V	10K 1/16W	[M]
R6864	ERJ3GEYJ473V	47K 1/16W	[M]
R6865	ERJ3GEYJ473V	47K 1/16W	[M]
R6869	ERJ3GEYJ392V	3.9K 1/16W	[M]
R6885	ERJ3GEYJ103V	10K 1/16W	[M]
R6886	ERJ3GEYJ222V	2.2K 1/16W	[M]
R6887	ERJ3GEYJ474V	470K 1/16W	[M]
R6888	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6889	ERJ3GEYJ183V	18K 1/16W	[M]
R6890	ERJ3GEYJ681V	680 1/16W	[M]
R6891	ERJ3GEYJ681V	680 1/16W	[M]
R6892	ERJ3GEYJ561V	560 1/16W	[M]
R6893	ERJ3GEYJ181V	180 1/16W	[M]
R6894	ERJ3GEYJ181V	180 1/16W	[M]
R6937	ERJ3GEYJ102V	1K 1/16W	[M]
R6938	ERJ3GEYJ102V	1K 1/16W	[M]
R6939	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6940	ERJ3GEYJ182V	1.8K 1/16W	[M]
R6941	ERJ3GEYJ222V	2.2K 1/16W	[M]
R6942	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6943	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6944	ERJ3GEYJ682V	6.8K 1/16W	[M]
R6950	ERJ3GEYJ103V	10K 1/16W	[M]
R6954	ERJ3GEYJ474V	470K 1/16W	[M]
R6956	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6957	ERJ3GEYJ474V	470K 1/16W	[M]
R6959	ERD2FCVG470T	47 1/4W	[M]
R6960	ERD2FCVG470T	47 1/4W	[M]
R6961	ERJ3GEYJ103V	10K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R6962	ERJ3GEYJ103V	10K 1/16W	[M]
R6963	ERJ3GEYJ102V	1K 1/16W	[M]
R6964	ERJ3GEYJ102V	1K 1/16W	[M]
R6965	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6966	ERJ3GEYJ182V	1.8K 1/16W	[M]
R6967	ERJ3GEYJ222V	2.2K 1/16W	[M]
R6968	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6969	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6970	ERJ3GEYJ682V	6.8K 1/16W	[M]
R6981	ERJ3GEYJ334V	330K 1/16W	[M]
R6982	ERJ3GEYJ680V	68 1/16W	[M]
R6983	ERJ3GEYJ822V	8.2K 1/16W	[M]
R6987	ERJ3GEYJ334V	330K 1/16W	[M]
R6988	ERJ3GEYJ271V	270 1/16W	[M]
R6989	ERJ3GEYJ271V	270 1/16W	[M]
R6990	ERJ3GEYJ271V	270 1/16W	[M]
R6991	ERJ3GEYJ331V	330 1/16W	[M]
R6992	ERJ3GEYJ101V	100 1/16W	[M]
R6993	ERJ3GEYJ273V	27K 1/16W	[M]
R6994	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6995	ERJ3GEYJ102V	1K 1/16W	[M]
R6996	ERJ3GEYJ270V	27 1/16W	[M]
R6997	ERJ3GEY0R00V	0 1/16W	[M]
R8011	ERJ2GEJ220X	22 2W	[M]
R8021	ERJ2GEJ103X	10K 2W	[M]
R8022	ERJ2GEJ103X	10K 2W	[M]
R8023	ERJ2GEJ473X	47K 2W	[M]
R8041	ERJ2GEJ330X	33 2W	[M]
R8111	ERJ2GEJ223X	22K 2W	[M]
R8112	ERJ2GEJ223X	22K 2W	[M]
R8201	ERJ2GEJ222X	2.2K 2W	[M]
R8231	ERJ2GEJ103X	10K 2W	[M]
R8233	ERJ2GEJ153X	15K 2W	[M]
R8235	ERJ2GEJ822X	8.2K 2W	[M]
R8236	ERJ2GEJ822X	8.2K 2W	[M]
R8241	ERJ2GEJ223X	22K 2W	[M]
R8242	ERJ2GEJ752X	7.5K 2W	[M]
R8243	ERJ2GEJ103X	10K 2W	[M]
R8251	ERJ6GEYJ6R8V	6.8 1/10W	[M]
R8261	ERJ2GEJ823X	82K 2W	[M]
R8262	ERJ2GEJ472X	4.7K 2W	[M]
R8263	ERJ2GEJ823X	82K 2W	[M]
R8264	ERJ2GEJ472X	4.7K 2W	[M]
R8265	ERJ2GE0R00X	0 2W	[M]
R8311	ERJ2RHD242X	2.4K 2W	[M]
R8312	ERJ2RHD102X	1K 2W	[M]
R8313	ERJ2RHD243X	24K 2W	[M]
R8314	ERJ2GE0R00X	0 2W	[M]
R8315	ERJ2GEJ6R8X	6.8 2W	[M]
R8321	ERJ3RBD161V	160 3W	[M]
R8322	ERJ2RKD100X	10 2W	[M]
R8325	ERJ3RBD161V	160 3W	[M]
R8326	ERJ2GE0R00X	0 2W	[M] GCP
R8326	ERJ2GEJ100X	10 2W	[M] GCS/GS
R8331	ERJ3RBD161V	160 3W	[M]
R8332	ERJ2RKD100X	10 2W	[M]
R8335	ERJ3RED820V	82 3W	[M]
R8341	ERJ3RED820V	82 3W	[M]
R8401	ERJ2GEJ473X	47K 2W	[M]
R8402	ERJ2GEJ101X	100 2W	[M]
R8404	ERJ2GEJ101X	100 2W	[M]
R8407	ERJ2GEJ101X	100 2W	[M]
R8420	ERJ2GEJ222X	2.2K 2W	[M]
R8421	ERJ2GE0R00X	0 2W	[M]
R8501	ERJ2GE0R00X	0 2W	[M]
R8505	ERJ2GEJ222X	2.2K 2W	[M]
R8506	ERJ2GEJ152X	1.5K 2W	[M]
R8550	ERJ2GEJ752X	7.5K 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]

Ref. No.	Part No.	Part Name & Description	Remarks
R8556	ERJ3GEYJ560V	56 1/16W	[M]
R8557	ERJ3GEYJ510V	51 1/16W	[M]
R8558	ERJ2GEJ473X	47K 2W	[M]
R8559	ERJ2GEJ153X	15K 2W	[M]
R8560	ERJ2GEJ102X	1K 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]
R8569	ERJ2GEJ123X	12K 2W	[M]
R8570	ERJ2GEJ104X	100K 2W	[M]
R8601	ERJ2GEJ102X	1K 2W	[M]
R8606	ERJ2GEJ104X	100K 2W	[M]
R8607	ERJ2GEJ103X	10K 2W	[M]
R8611	ERJ2GEJ101X	100 2W	[M]
R8621	ERJ2GEJ105X	1M 2W	[M]
R8622	ERJ2RHD102X	1K 2W	[M]
R9500	ERDS1FVJ100T	10 1/2W	[M]
R9501	ERDS1FVJ100T	10 1/2W	[M]
R9502	ERDS1FVJ100T	10 1/2W	[M]
R9503	ERDS2TJ824T	820K 1/4W	[M]
R9504	ERDS2TJ152T	1.5K 1/4W	[M]
R9505	ERDS2TJ122T	1.2K 1/4W	[M]
R9507	ERDS2TJ1R0T	1 1/4W	[M]
R9508	ERDS2TJ1R0T	1 1/4W	[M]
R9509	ERDS2TJ1R0T	1 1/4W	[M]
R9510	ERDS2TJ1R0T	1 1/4W	[M]
R9511	ERDS2TJ103T	10K 1/4W	[M]
R9512	ERDS2TJ392T	3.9K 1/4W	[M]
R9513	ERDS2TJ471T	470 1/4W	[M]
R9514	ERDS2TJ102T	1K 1/4W	[M]
R9515	ERDS2TJ102T	1K 1/4W	[M]
R9516	ERDS2TJ102T	1K 1/4W	[M]
R9517	ERDS2TJ223T	22K 1/4W	[M]
R9518	ERDS2TJ332T	3.3K 1/4W	[M]
R9519	ERDS2TJ151T	150 1/4W	[M]
R9520	ERDS2TJ472T	4.7K 1/4W	[M]
R9521	ERD2FCVJ4R7T	4.7 1/4W	[M]
R9522	ERDS2TJ1R0T	1 1/4W	[M]
R9523	ERDS1FVJ100T	10 1/2W	[M]
R9525	ERDS1FVJ100T	10 1/2W	[M]
R9528	ERDS1FVJ100T	10 1/2W	[M]
R9529	ERJ3GEY0R00V	0 1/16W	[M]
R9530	ERJ3GEY0R00V	0 1/16W	[M]
R9531	ERJ3GEY0R00V	0 1/16W	[M]
R9532	ERJ3GEY0R00V	0 1/16W	[M]
R9534	ERJ3GEY0R00V	0 1/16W	[M]
R9535	ERJ3GEY0R00V	0 1/16W	[M]
R9536	ERJ3GEY0R00V	0 1/16W	[M]
R9836	ERD2FCVJ4R7T	4.7 1/4W	[M]
RX8011	D1H88204A024	CHIP RESISTOR	[M]
RX8012	D1H88204A024	CHIP RESISTOR	[M]
RX8013	D1H88204A024	CHIP RESISTOR	[M]
RX8014	D1H88204A024	CHIP RESISTOR	[M]
RX8015	D1H422020001	CHIP RESISTOR	[M]
RX8016	D1H88204A024	CHIP RESISTOR	[M]
RX8017	D1H88204A024	CHIP RESISTOR	[M]
RX8018	D1H88204A024	CHIP RESISTOR	[M]
RX8021	D1H410320002	CHIP RESISTOR	[M]
RX8031	D1H447220001	CHIP RESISTOR	[M]
RX8032	D1H447220001	CHIP RESISTOR	[M]
RX8401	D1H410120001	CHIP RESISTOR	[M]
RX8402	D1H410120001	CHIP RESISTOR	[M]
RX8501	D1H456020001	CHIP RESISTOR	[M]
RX8502	D1H85604A024	CHIP RESISTOR	[M]
RX8503	D1H456020001	CHIP RESISTOR	[M]
RX8504	D1H456020001	CHIP RESISTOR	[M]
RX8611	D1H447220001	CHIP RESISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
K2905	ERJ3GEY0R00V	CHIP JUMPER	[M]
K2906	ERJ3GEY0R00V	CHIP JUMPER	[M]
K8001	ERJ2GE0R00X	CHIP JUMPER	[M] GCS
K8002	ERJ2GE0R00X	CHIP JUMPER	[M] GCP
K8003	ERJ2GE0R00X	CHIP JUMPER	[M] GCP
K8005	ERJ2GE0R00X	CHIP JUMPER	[M] GCS/GS
K8006	ERJ2GE0R00X	CHIP JUMPER	[M] GCS
K8007	ERJ2GE0R00X	CHIP JUMPER	[M] GCP
K8008	ERJ2GE0R00X	CHIP JUMPER	[M] GCP
K8010	ERJ2GE0R00X	CHIP JUMPER	[M] GCS/GS
K8031	ERJ2GE0R00X	CHIP JUMPER	[M]
K8106	ERJ3GEY0R00V	CHIP JUMPER	[M]
K8421	ERJ3GEY0R00V	CHIP JUMPER	[M]
K9801	ERDS2TJ1R0T	RESISTOR	[M]
K9802	ERDS2TJ1R0T	RESISTOR	[M]
		CAPACITORS	
C1	F1D1H5R6A017	5.6P 50V	[M]
C2	F1D1H102A029	1000P 50V	[M]
C3	F1D1H2R2A017	2.2P 50V	[M]
C4	F1D1H181A012	180P 50V	[M]
C5	F1D1H5R6A017	5.6P 50V	[M]
C6	F1D1H3R3A017	3.3P 50V	[M]
C7	F1D1H4R7A017	4.7P 50V	[M]
C8	F1D1H3R3A017	3.3P 50V	[M]
C9	F1D1H2R2A017	2.2P 50V	[M]
C10	F1D1H180A015	18P 50V	[M]
C11	F1D1E103A001	0.01 25V	[M]
C11	F1D1H102A029	1000P 50V	[M]
C12	F2A1C101A234	100 16V	[M]
C21	F1D1E103A001	0.01 25V	[M]
C22	F2A1C101A234	100 16V	[M]
C1002	ECEA1HKN2R2B	2.2 50V	[M]
C1006	ECEA1HKA010B	1 50V	[M]
C1007	F0A2A472A034	4700P 100V	[M]
C1008	ECEA1HKA010B	1 50V	[M]
C1009	ECEA1CKA470B	47 16V	[M]
C1010	ECA1EM101B	100 25V	[M]
C1011	ECQV1H473JZ3	0.047 50V	[M]
C1012	ECJ1VB1H102K	1000P 50V	[M]
C1013	ECJ1VB1H102K	1000P 50V	[M]
C1014	ECJ1VB1H102K	1000P 50V	[M]
C1015	ECJ1VB1H102K	1000P 50V	[M]
C1016	ECJ1VB1H222K	2200P 50V	[M]
C1017	ECJ1VB1H222K	2200P 50V	[M]
C1018	ECJ1VB1H332K	3300P 50V	[M]
C1019	ECJ1VB1H102K	1000P 50V	[M]
C1020	ECJ1VB1H471K	470P 50V	[M]
C1021	ECJ1VB1H471K	470P 50V	[M]
C1022	ECJ1VB1H102K	1000P 50V	[M]
C1023	ECJ1VB1H102K	1000P 50V	[M]
C1026	ECEA0JKA470B	47 6.3V	[M]
C1027	ECJ1VB1H102K	1000P 50V	[M]
C1030	ECEA1AKA101B	100 10V	[M]
C1031	ECA1AM101B	100 10V	[M]
C1032	F1C1C183A023	0.018 16V	[M]
C1033	F1C1C183A023	0.018 16V	[M]
C1034	ECEA1HKA3R3B	3.3 50V	[M]
C1035	ECEA1HKA3R3B	3.3 50V	[M]
C1036	ECJ1VB1C333K	0.033 16V	[M]
C1037	ECEA1HKA3R3B	3.3 50V	[M]
C1038	ECJ1VB1H221K	220P 50V	[M]
C1039	ECJ1VB1H221K	220P 50V	[M]
C1040	ECEA1CKA100B	10 16V	[M]
C1041	ECEA1CKA100B	10 16V	[M]
C1042	ECEA1CKA220B	22 16V	[M]
C1043	ECEA1HKA4R7B	4.7 50V	[M]
C1044	ECEA1AKA330B	33 10V	[M]
C1045	ECEA1AKA220B	22 10V	[M]
C1046	ECA1CM221B	220 16V	[M]
C1049	ECJ1VB1H332K	3300P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C1050	ECJ1VB1H332K	3300P 50V	[M]
C1056	ECEA1CKA100B	10 16V	[M]
C1057	ECJ1VB1H102K	1000P 50V	[M]
C1058	ECJ1VB1H102K	1000P 50V	[M]
C1059	ECJ1VB1H103K	0.01 50V	[M]
C2039	ECJ1VB1H103K	0.01 50V	[M]
C2046	F2A0J102A130	1000P 6.3V	[M]
C2047	F2A0J102A130	1000P 6.3V	[M]
C2048	ECEA1HKA100B	10 50V	[M]
C2049	ECA0JM221B	220 6.3V	[M]
C2050	ECEA1HKA220B	22 50V	[M]
C2100	ECEA1HKA010B	1 50V	[M]
C2101	ECJ1VB1H221K	220P 50V	[M]
C2102	ECEA1CKA100B	10 16V	[M]
C2103	ECEA1CKA100B	10 16V	[M]
C2104	ECEA1CKA100B	10 16V	[M]
C2105	ECEA1HKA330B	33 50V	[M]
C2106	ECJ1VC1H100D	10P 50V	[M]
C2107	ECJ1VB1C103K	0.01 16V	[M]
C2108	ECEA1HKA470B	47 50V	[M]
C2110	ECEA1HKA470B	47 50V	[M]
C2111	ECJ1VC1H102J	1000P 50V	[M]
C2112	ECEA1HKA010B	1 50V	[M]
C2113	ECJ1VB1A154K	0.15 10V	[M]
C2114	ECJ1VB1A105K	1 10V	[M]
C2115	ECJ1VF1C474Z	0.47 16V	[M]
C2116	ECUV1C224KBV	0.22 16V	[M]
C2117	ECUV1C224KBV	0.22 16V	[M]
C2118	ECJ1VB1H392K	3900P 50V	[M]
C2119	ECEA1HKA4R7B	4.7 50V	[M]
C2120	ECEA1HKA4R7B	4.7 50V	[M]
C2121	ECJ1VC1H101K	100P 50V	[M]
C2122	ECJ1VC1H470K	47P 50V	[M]
C2123	ECJ1VB1C333K	0.033 16V	[M]
C2124	ECJ1VB1C393K	0.039 16V	[M]
C2128	ECEA1HKA010B	1 50V	[M]
C2129	ECJ1VC1H330J	33P 50V	[M]
C2130	ECJ1VC1H101K	100P 50V	[M]
C2131	ECEA1HKA010B	1 50V	[M]
C2134	ECJ1VB1H102K	1000P 50V	[M]
C2136	ECJ1VC1H102J	1000P 50V	[M]
C2137	ECJ1VB1H223K	0.022 50V	[M]
C2138	ECEA1CKA100B	10 16V	[M]
C2139	ECJ1VB1H332K	3300P 50V	[M]
C2140	ECJ1VB1C823K	0.082 16V	[M]
C2141	ECEA1HKA100B	10 50V	[M]
C2200	ECEA1HKA010B	1 50V	[M]
C2201	ECJ1VB1H221K	220P 50V	[M]
C2202	ECEA1CKA100B	10 16V	[M]
C2203	ECEA1CKA100B	10 16V	[M]
C2204	ECEA1CKA100B	10 16V	[M]
C2205	ECEA1HKA330B	33 50V	[M]
C2206	ECJ1VC1H100D	10P 50V	[M]
C2207	ECJ1VB1C103K	0.01 16V	[M]
C2208	ECEA1HKA470B	47 50V	[M]
C2210	ECEA1HKA470B	47 50V	[M]
C2211	ECJ1VC1H102J	1000P 50V	[M]
C2212	ECEA1HKA010B	1 50V	[M]
C2213	ECJ1VB1A154K	0.15 10V	[M]
C2214	ECJ1VB1A105K	1 10V	[M]
C2215	ECJ1VF1C474Z	0.47 16V	[M]
C2216	ECUV1C224KBV	0.22 16V	[M]
C2217	ECUV1C224KBV	0.22 16V	[M]
C2218	ECJ1VB1H392K	3900P 50V	[M]
C2219	ECEA1HKA4R7B	4.7 50V	[M]
C2220	ECEA1HKA4R7B	4.7 50V	[M]
C2221	ECJ1VC1H101K	100P 50V	[M]
C2222	ECJ1VC1H470K	47P 50V	[M]
C2223	ECJ1VB1C333K	0.033 16V	[M]
C2225	ECJ1VB1C393K	0.039 16V	[M]
C2228	ECEA1HKA010B	1 50V	[M]
C2229	ECJ1VC1H330J	33P 50V	[M]
C2230	ECJ1VC1H101K	100P 50V	[M]
C2231	ECEA1HKA010B	1 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2234	ECJ1VB1H102K	1000P 50V	[M]
C2236	ECJ1VC1H102J	1000P 50V	[M]
C2237	ECJ1VB1H223K	0.022 50V	[M]
C2238	ECEA1CKA100B	10 16V	[M]
C2239	ECJ1VB1H332K	3300P 50V	[M]
C2240	ECEA1HKA100B	10 50V	[M]
C2304	ECJ1VC1H100D	10P 50V	[M]
C2306	ECEA1HKA2R2B	2.2 50V	[M]
C2310	ECEA1HKA010B	1 50V	[M]
C2311	ECEA1HKAR47B	0.47 50V	[M]
C2312	ECEA1CKA100B	10 16V	[M]
C2320	ECJ1VB1C104K	0.1 16V	[M]
C2332	ECJ1VB1A105K	1 10V	[M]
C2335	ECJ1VB1A105K	1 10V	[M]
C2400	ECEA1CKA100B	10 16V	[M]
C2404	ECJ1VC1H100D	10P 50V	[M]
C2406	ECEA1HKA2R2B	2.2 50V	[M]
C2410	ECEA1HKA010B	1 50V	[M]
C2411	ECEA1HKAR47B	0.47 50V	[M]
C2434	F2A0J102A130	1000P 6.3V	[M]
C2436	ECJ1VB1A105K	1 10V	[M]
C2437	ECJ1VB1A105K	1 10V	[M]
C2440	ECJ1VB1C104K	0.1 16V	[M]
C2441	ECJ1VB1H103K	0.01 50V	[M]
C2442	ECEA1HKA220B	22 50V	[M]
C2443	ECJ1VB1H103K	0.01 50V	[M]
C2444	ECEA1AKA221B	220 10V	[M]
C2500	ECEA1CKA100B	10 16V	[M]
C2502	ECEA1CKA100B	10 16V	[M]
C2509	ECEA1HKAR47B	0.47 50V	[M]
C2515	ECEA1HKAR22B	0.22 50V	[M]
C2516	ECJ1VC1H100D	10P 50V	[M]
C2517	ECEA1HKAR47B	0.47 50V	[M]
C2522	ECJ1VB1C104K	0.1 16V	[M]
C2600	ECEA1HKA100B	10 50V	[M]
C2601	ECJ1VB1H103K	0.01 50V	[M]
C2602	ECEA1HKA010B	1 50V	[M]
C2603	ECEA1HKA3R3B	3.3 50V	[M]
C2604	ECJ1VB1H102K	1000P 50V	[M]
C2605	ECJ1VC1H101K	100P 50V	[M]
C2606	ECEA1HKA100B	10 50V	[M]
C2607	ECJ1VB1C104K	0.1 16V	[M]
C2608	ECEA1HKAR47B	0.47 50V	[M]
C2609	ECEA1HKA100B	10 50V	[M]
C2610	ECJ1VC1H102J	1000P 50V	[M]
C2612	ECJ1VB1H103K	0.01 50V	[M]
C2613	ECJ1VB1H102K	1000P 50V	[M]
C2614	ECEA1HKA3R3B	3.3 50V	[M]
C2615	ECEA1HKA4R7B	4.7 50V	[M]
C2616	ECJ1VB1C333K	0.033 16V	[M]
C2617	ECJ1VB1H103K	0.01 50V	[M]
C2618	ECJ1VB1H103K	0.01 50V	[M]
C2619	F0A2A681A010	680P 100V	[M]
C2620	ECEA1CKA100B	10 16V	[M]
C2621	ECEA1HKAR47B	0.47 50V	[M]
C2622	ECEA1HKA010B	1 50V	[M]
C2623	ECEA1HKA010B	1 50V	[M]
C2624	ECJ1VC1H101K	100P 50V	[M]
C2625	ECEA1CKA220B	22 16V	[M]
C2626	ECJ2VF1C105Z	1 16V	[M]
C2627	ECEA1CKA220B	22 16V	[M]
C2629	ECA0JM101B	100 6.3V	[M]
C2630	ECA0JM101B	100 6.3V	[M]
C2631	ECJ1VC1H151J	150P 50V	[M]
C2632	ECJ1VB1H102K	1000P 50V	[M]
C2633	ECJ1VC1H270J	27P 50V	[M]
C2634	ECJ1VC1H270J	27P 50V	[M]
C2636	ECJ1VB1H102K	1000P 50V	[M]
C2637	ECJ1VB1H332K	3300P 50V	[M]
C2638	ECJ1VB1H103K	0.01 50V	[M]
C2639	ECEA1HKA4R7B	4.7 50V	[M]
C2641	ECEA1HKA010B	1 50V	[M]
C2642	ECEA1HKA010B	1 50V	[M]
C2643	ECJ1VB1H682K	6800P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2644	ECJ1VB1H682K	6800P 50V	[M]
C2647	ECJ1VB1H102K	1000P 50V	[M]
C2648	ECJ1VB1H103K	0.01 50V	[M]
C2649	ECJ1VB1C104K	0.1 16V	[M]
C2650	ECJ1VB1A474K	0.47 10V	[M]
C2704	ECJ1VC1H101K	100P 50V	[M]
C2705	ECJ1VC1H101K	100P 50V	[M]
C2706	ECJ1VC1H101K	100P 50V	[M]
C2707	ECJ1VC1H101K	100P 50V	[M]
C2708	ECJ1VC1H101K	100P 50V	[M]
C2709	ECJ1VC1H101K	100P 50V	[M]
C2710	ECJ1VC1H101K	100P 50V	[M]
C2711	ECJ1VC1H101K	100P 50V	[M]
C2712	ECJ1VB1H102K	1000P 50V	[M]
C2713	ECJ1VB1H102K	1000P 50V	[M]
C2714	ECJ1VC1H101K	100P 50V	[M]
C2716	ECJ1VC1H101K	100P 50V	[M]
C2717	ECJ1VC1H101K	100P 50V	[M]
C2718	ECJ1VB1H471K	470P 50V	[M]
C2719	ECJ1VB1H103K	0.01 50V	[M]
C2720	ECJ1VB1H471K	470P 50V	[M]
C2721	ECJ1VB1H103K	0.01 50V	[M]
C2722	ECEA1AKA220B	22 10V	[M]
C2723	ECJ1VC1H101K	100P 50V	[M]
C2724	ECJ1VC1H101K	100P 50V	[M]
C2725	ECJ1VC1H101K	100P 50V	[M]
C2726	ECJ1VC1H101K	100P 50V	[M]
C2727	ECJ1VC1H101K	100P 50V	[M]
C2728	ECJ1VC1H101K	100P 50V	[M]
C2729	ECEA0JKA101B	100 6.3V	[M]
C2730	ECJ1VB1H104K	0.1 50V	[M]
C2731	ECEA1HKA0R1B	0.1 50V	[M]
C2732	ECJ1VB1H103K	0.01 50V	[M]
C2733	ECEA1HKA2R2B	2.2 50V	[M]
C2734	ECJ1VC1H390J	39P 50V	[M]
C2735	ECJ1VC1H390J	39P 50V	[M]
C2736	ECJ1VC1H150J	15P 50V	[M]
C2737	ECJ1VC1H150J	15P 50V	[M]
C2738	ECJ1VB1C223K	0.022 16V	[M]
C2739	ECJ1VC1H331J	330P 50V	[M]
C2740	ECJ1VC1H331J	330P 50V	[M]
C2741	ECEA1VKA4R7B	4.7 35V	[M]
C2742	ECJ1VB1H103K	0.01 50V	[M]
C2743	ECJ1VB1H102K	1000P 50V	[M]
C2744	ECJ1VB1H103K	0.01 50V	[M]
C2745	ECJ1VB1H103K	0.01 50V	[M]
C2746	ECJ1VB1H103K	0.01 50V	[M]
C2747	ECEA1HKA0R1B	0.1 50V	[M]
C2748	ECEA1HKA0R1B	0.1 50V	[M]
C2749	ECEA1HKA0R1B	0.1 50V	[M]
C2750	ECJ1VC1H101K	100P 50V	[M]
C2751	ECJ1VB1H471K	470P 50V	[M]
C2752	ECJ1VB1H102K	1000P 50V	[M]
C2754	ECJ1VB1H103K	0.01 50V	[M]
C2758	ECJ1VB1C104K	0.1 16V	[M]
C2759	ECJ1VB1H103K	0.01 50V	[M]
C2825	ECJ1VB1A105K	1 10V	[M]
C2826	ECJ1VB1A105K	1 10V	[M]
C2827	ECEA0JKA221B	220 6.3V	[M]
C2842	ECJ1VB1C104K	0.1 16V	[M]
C2843	ECJ1VB1C104K	0.1 16V	[M]
C2846	ECJ1VC1H101K	100P 50V	[M]
C2847	ECJ1VC1H101K	100P 50V	[M]
C2848	ECJ1VC1H101K	100P 50V	[M]
C2849	ECJ1VC1H101K	100P 50V	[M]
C2850	ECJ1VC1H101K	100P 50V	[M]
C2851	ECJ1VC1H101K	100P 50V	[M]
C2855	ECEA1HKN4R7B	4.7 50V	[M]
C2857	ECEA1CKA100B	10 16V	[M]
C2858	ECEA1CKA100B	10 16V	[M]
C2860	ECEA1HKA4R7B	4.7 50V	[M]
C2862	ECEA1HKA4R7B	4.7 50V	[M]
C2864	ECEA1HKA100B	10 50V	[M]
C2865	ECEA1HKA4R7B	4.7 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2872	ECJ1VB1E103K	0.01 25V	[M]
C2873	ECJ1VB1E103K	0.01 25V	[M]
C2875	ECJ1VF1A105Z	1 10V	[M]
C2899	ECEA1HKA2R2B	2.2 50V	[M]
C2900	ECJ1VB1H472K	4700P 50V	[M]
C2901	ECJ1VB1H561K	560P 50V	[M]
C2902	ECJ1VB1H102K	1000P 50V	[M]
C2903	ECJ1VB1E103K	0.01 25V	[M]
C2904	ECJ1VB1H272K	2700P 50V	[M]
C2905	ECJ1VB1H102K	1000P 50V	[M]
C2907	ECJ1VB1H182K	1800P 50V	[M]
C2912	ECJ2VF1E473Z	0.047 25V	[M]
C2913	ECJ1VB1H104K	0.1 50V	[M]
C2914	ECJ1VB1A224K	0.22 10V	[M]
C2915	ECJ1VB1A224K	0.22 10V	[M]
C2916	ECEA1CKA101B	100 16V	[M]
C2917	ECJ1VB1C683K	0.068 16V	[M]
C2918	ECJ1VB1C683K	0.068 16V	[M]
C2919	ECJ1VB1C683K	0.068 16V	[M]
C2920	ECJ1VB1C683K	0.068 16V	[M]
C2921	ECEA1CKA470B	47 16V	[M]
C2922	ECEA1CKA101B	100 16V	[M]
C2923	ECJ1VB1H104K	0.1 50V	[M]
C2924	ECJ1VB1H104K	0.1 50V	[M]
C2925	ECJ1VB1H102K	1000P 50V	[M]
C2926	ECJ1VB1H472K	4700P 50V	[M]
C2927	ECJ1VB1C683K	0.068 16V	[M]
C2928	ECJ1VB1H104K	0.1 50V	[M]
C2929	ECJ1VB1H104K	0.1 50V	[M]
C2930	ECJ1VB1C683K	0.068 16V	[M]
C2931	ECJ1VB1H102K	1000P 50V	[M]
C2932	ECJ1VB1H472K	4700P 50V	[M]
C2933	ECEA1HKA010B	1 50V	[M]
C2934	ECEA1CKA101B	100 16V	[M]
C2935	ECJ1VB1H104K	0.1 50V	[M]
C2936	ECEA1HKA2R2B	2.2 50V	[M]
C2937	ECJ1VB1H332K	3300P 50V	[M]
C2938	ECJ2VB1C154K	0.15 16V	[M]
C2939	ECEA1HKA010B	1 50V	[M]
C2940	ECEA1HKA010B	1 50V	[M]
C2941	ECEA1HKA010B	1 50V	[M]
C2942	ECJ1VB1H102K	1000P 50V	[M]
C2943	ECJ1VB1H102K	1000P 50V	[M]
C2944	ECJ1VB1C103K	0.01 16V	[M] GCP/GS
C2944	ECJ1VB1H682K	6800P 50V	[M] GCS
C2947	ECJ1VC1H102J	1000P 50V	[M]
C2948	ECJ1VC1H102J	1000P 50V	[M]
C2953	ECJ1VB1A224K	0.22 10V	[M]
C2954	ECEA1HKA100B	10 50V	[M]
C2961	ECJ1VC1H102J	1000P 50V	[M]
C2962	ECEA1CKA470B	47 16V	[M]
C2963	ECEA1CKA470B	47 16V	[M]
C2964	ECJ1VC1H101K	100P 50V	[M]
C2965	ECJ1VB1A224K	0.22 10V	[M]
C2968	ECJ1VB1A105K	1 10V	[M]
C2969	ECJ1VC1H100D	10P 50V	[M]
C2970	ECJ1VB1A224K	0.22 10V	[M]
C2973	ECA1CM101B	100 16V	[M]
C2974	F2A0J102A130	1000P 6.3V	[M]
C2975	F2A0J102A130	1000P 6.3V	[M]
C2977	ECJ1VB1H471K	470P 50V	[M]
C2978	ECJ1VC1H101K	100P 50V	[M]
C2979	ECEA1HKN4R7B	4.7 50V	[M]
C2981	ECJ1VB1H471K	470P 50V	[M]
C2982	ECJ1VB1H471K	470P 50V	[M]
C2983	ECJ1VB1H103K	0.01 50V	[M]
C2984	ECJ1VB1H103K	0.01 50V	[M]
C2985	ECEA1CKA101B	100 16V	[M]
C2986	ECA1CM100B	10 16V	[M]
C2987	ECEA1AKN100B	10 10V	[M]
C2988	ECJ1VB1H103K	0.01 50V	[M]
C2989	ECJ1VB1H103K	0.01 50V	[M]
C2990	ECEA1CKA101B	100 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2991	ECA1CM100B	10 16V	[M]
C2992	ECEA1AKN100B	10 10V	[M]
C3602	ECEA1CKA100B	10 16V	[M]
C3603	ECJ1VB1H103K	0.01 50V	[M]
C3604	ECJ1VB1H102K	1000P 50V	[M]
C3606	ECJ1VB1H103K	0.01 50V	[M]
C3607	ECJ1VB1E473K	0.047 25V	[M]
C3608	ECJ1VC1H080D	8P 50V	[M]
C3609	ECJ1VB1H102K	1000P 50V	[M]
C3610	ECJ1VB1H103K	0.01 50V	[M]
C3611	ECEA1HKA4R7B	4.7 50V	[M]
C3612	F2A0J102A130	1000P 6.3V	[M]
C3617	ECEA1AKA221B	220 10V	[M]
C3618	ECEA1AKA221B	220 10V	[M]
C3620	ECJ1VB1C563K	0.056 16V	[M]
C3621	ECJ1VB1C563K	0.056 16V	[M]
C3622	ECJ1VB1C563K	0.056 16V	[M]
C3623	ECJ1VB1C104K	0.1 16V	[M]
C5100	ECJ1VB1H821K	820P 50V	[M]
C5101	ECJ1VC1H150J	15P 50V	[M]
C5102	ECJ1VB1H104K	0.1 50V	[M]
C5103	ECJ1VB1H104K	0.1 50V	[M]
C5200	ECJ1VB1H821K	820P 50V	[M]
C5201	ECJ1VC1H150J	15P 50V	[M]
C5202	ECJ1VB1H104K	0.1 50V	[M]
C5203	ECJ1VB1H104K	0.1 50V	[M]
C5300	ECJ1VC1H150J	15P 50V	[M]
C5301	ECJ1VB1H104K	0.1 50V	[M]
C5302	ECJ1VB1H104K	0.1 50V	[M]
C5303	ECJ1VB1H821K	820P 50V	[M]
C5400	ECJ1VC1H150J	15P 50V	[M]
C5401	ECJ1VB1H104K	0.1 50V	[M]
C5402	ECJ1VB1H104K	0.1 50V	[M]
C5403	ECJ1VB1H821K	820P 50V	[M]
C5500	ECJ1VB1H821K	820P 50V	[M]
C5501	ECJ1VC1H150J	15P 50V	[M]
C5502	ECJ1VB1H104K	0.1 50V	[M]
C5503	ECJ1VB1H104K	0.1 50V	[M]
C5604	ECJ1VB1H104K	0.1 50V	[M]
C5605	ECJ1VB1H104K	0.1 50V	[M]
C5706	ECJ1VC1H150J	15P 50V	[M]
C5707	ECJ1VB1H821K	820P 50V	[M]
C5801	F2A1E471A205	470P 25V	[M]
C5802	ECA1CM331B	330 16V	[M]
C5803	ECJ1VB1H102K	1000P 50V	[M]
C5804	ECJ1VB1H103K	0.01 50V	[M]
C5805	ECA1CM101B	100 16V	[M]
C5806	ECJ1VB1H103K	0.01 50V	[M]
C5807	ECEA1HKA2R2B	2.2 50V	[M]
C5808	ECA1CM331B	330 16V	[M]
C5809	ECJ1VB1H103K	0.01 50V	[M]
C5810	ECA1EM101B	100 25V	[M]
C5811	ECJ1VB1H103K	0.01 50V	[M]
C5812	ECEA1EKA330B	33 25V	[M]
C5813	ECEA0JKA221B	220 6.3V	[M]
C5814	ECJ1VB1H103K	0.01 50V	[M]
C5815	F2A1J332A306	3300P 63V	[M]
C5816	ECA1EM222B	2200 25V	[M]
C5817	ECA1EM222B	2200 25V	[M]
C5818	F2A1J332A306	3300P 63V	[M]
C5819	ECJ1VB1H103K	0.01 50V	[M]
C5834	ECEA1HKA010B	1 50V	[M]
C5836	ECEA2AU100B	10 100V	[M]
C6800	ECEA1CKA470B	47 16V	[M]
C6801	ECJ1VB1H102K	1000P 50V	[M]
C6802	ECEA1CKA470B	47 16V	[M]
C6803	ECJ1VB1H102K	1000P 50V	[M]
C6804	ECEA1HKA4R7B	4.7 50V	[M]
C6805	ECJ1VC1H101K	100P 50V	[M]
C6806	ECJ2VF1E473Z	0.047 25V	[M]
C6807	ECJ1VB1H102K	1000P 50V	[M]
C6809	ECJ1VB1H103K	0.01 50V	[M]
C6810	ECJ1VC1H101K	100P 50V	[M]
C6811	ECA1CM471B	470 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C6812	ECJ1VB1H102K	1000P 50V	[M]
C6813	ECEA0JKA101B	100 6.3V	[M]
C6843	ECJ1VB1C223K	0.022 16V	[M]
C6844	ECJ1VB1C223K	0.022 16V	[M]
C6853	ECEA0JKA470B	47 6.3V	[M]
C6854	ECEA1HKA3R3B	3.3 50V	[M]
C6855	ECEA1HKA220B	22 50V	[M]
C6856	ECEA1HKA220B	22 50V	[M]
C6865	ECEA1HKA010B	1 50V	[M]
C6866	ECJ1VB1H102K	1000P 50V	[M]
C6867	ECJ1VC1H101K	100P 50V	[M]
C6868	ECJ1VB1H102K	1000P 50V	[M]
C6870	ECEA1HKA010B	1 50V	[M]
C6871	ECJ1VB1H103K	0.01 50V	[M]
C6872	ECEA1HKAR33B	0.33 50V	[M]
C6873	ECJ1VB1C105K	1 16V	[M]
C6875	ECJ1VB1C223K	0.022 16V	[M]
C6876	ECJ1VB1C223K	0.022 16V	[M]
C6879	ECEA1HKA4R7B	4.7 50V	[M]
C6881	ECEA1HKA3R3B	3.3 50V	[M]
C6882	ECJ1VB1H471K	470P 50V	[M]
C6885	ECJ1VB1H331K	330P 50V	[M]
C6886	ECJ1VB1H331K	330P 50V	[M]
C6887	ECJ1VB1H331K	330P 50V	[M]
C6888	ECJ1VB1H331K	330P 50V	[M]
C6889	ECJ1VB1H104K	0.1 50V	[M]
C6890	ECEA0JKA101B	100 6.3V	[M]
C6891	ECJ1VC1H101K	100P 50V	[M]
C6894	ECJ1VB1H102K	1000P 50V	[M]
C6895	ECA1CAK100XB	10 16V	[M]
C6896	ECJ1VC1H101K	100P 50V	[M]
C6897	ECJ1VC1H101K	100P 50V	[M]
C6898	ECJ1VB1H332K	3300P 50V	[M]
C8001	F2G0J101A066	100P 6.3V	[M]
C8002	F2G0G331A012	330P 4V	[M]
C8003	ECJ0EB1E222K	2200P 25V	[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]
C8009	ECJ0EF1C104Z	0.1 16V	[M]
C8010	ECJ0EF1C104Z	0.1 16V	[M]
C8011	ECJ1VB0J105K	1 6.3V	[M]
C8012	ECJ0EF1C104Z	0.1 16V	[M]
C8013	ECJ0EF1C104Z	0.1 16V	[M]
C8014	ECJ0EF1C104Z	0.1 16V	[M]
C8015	ECJ1VB0J105K	1 6.3V	[M]
C8016	ECJ1VB0J105K	1 6.3V	[M]
C8017	ECJ0EF1C104Z	0.1 16V	[M]
C8018	ECJ0EF1C104Z	0.1 16V	[M]
C8019	ECJ1VB0J105K	1 6.3V	[M]
C8020	ECJ0EF1C104Z	0.1 16V	[M]
C8021	ECJ0EF1C104Z	0.1 16V	[M]
C8022	ECJ0EF1C104Z	0.1 16V	[M]
C8023	ECJ1VB0J105K	1 6.3V	[M]
C8024	ECJ1VB0J105K	1 6.3V	[M]
C8025	ECJ0EF1C104Z	0.1 16V	[M]
C8026	ECJ0EB1E222K	2200P 25V	[M]
C8027	ECJ0EF1C104Z	0.1 16V	[M]
C8028	ECJ1VB0J105K	10 6.3V	[M]
C8031	ECJ0EF1C104Z	0.1 16V	[M]
C8051	ECJ1VB0J105K	1 6.3V	[M]
C8052	ECJ0EF1C104Z	0.1 16V	[M]
C8053	ECJ0EC1H221J	220P 50V	[M]
C8054	ECJ1VB0J105K	1 6.3V	[M]
C8055	ECJ1VB0J105K	1 6.3V	[M]
C8056	ECJ0EF1C104Z	0.1 16V	[M]
C8057	ECJ0EB1E222K	2200P 25V	[M]
C8111	ECJ0EB1A104K	0.1 10V	[M]
C8112	ECJ1VB0J105K	1 6.3V	[M]
C8113	ECJ0EB1E471K	470P 25V	[M]
C8201	F2H0J101A003	100P 6.3V	[M]
C8202	F2G0J101A066	100P 6.3V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C8203	ECJ0EF1C104Z	0.1 16V	[M]
C8204	ECJ0EF1C104Z	0.1 16V	[M]
C8205	ECJ0EF1C104Z	0.1 16V	[M]
C8206	ECJ1VB0J105K	1 6.3V	[M]
C8207	ECJ1VF1C104Z	0.1 16V	[M]
C8208	ECJ0EF1C104Z	0.1 16V	[M]
C8211	ECJ0EB1A333K	0.033 10V	[M]
C8212	ECJ0EF1C104Z	0.1 16V	[M]
C8213	ECJ0EF1C104Z	0.1 16V	[M]
C8214	ECJ0EF1C104Z	0.1 16V	[M]
C8215	ECJ0EB1E562K	5600P 25V	[M]
C8216	ECJ0EB1C183K	0.018 16V	[M]
C8217	ECJ1VB0J105K	1 6.3V	[M]
C8218	ECJ1VB0J105K	1 6.3V	[M]
C8221	ECJ0EB1A104K	0.1 10V	[M]
C8222	ECJ0EB1A104K	0.1 10V	[M]
C8223	ECJ0EB1A104K	0.1 10V	[M]
C8224	ECJ0EB1A104K	0.1 10V	[M]
C8225	ECJ0EF1C104Z	0.1 16V	[M]
C8226	ECJ0EF1C104Z	0.1 16V	[M]
C8227	ECJ0EF1C104Z	0.1 16V	[M]
C8228	ECJ1VB0J105K	1 6.3V	[M]
C8229	ECJ1VB0J105K	1 6.3V	[M]
C8232	ECJ1VF1C104Z	0.1 16V	[M]
C8233	ECJ0EB1E472K	4700P 25V	[M]
C8234	ECJ0EF1C104Z	0.1 16V	[M]
C8235	ECJ0EB1H102K	1000P 50V	[M]
C8236	ECJ0EB1H102K	1000P 50V	[M]
C8237	ECJ0EB1H102K	1000P 50V	[M]
C8238	ECJ0EB1H821K	820P 50V	[M]
C8241	ECJ0EB1A104K	0.1 10V	[M]
C8242	ECJ0EB1A104K	0.1 10V	[M]
C8251	F2G0J221A065	220P 6.3V	[M]
C8252	F2G1C470A076	47P 16V	[M]
C8253	F2H1C220A003	22P 16V	[M]
C8254	ECJ0EF1C104Z	0.1 16V	[M]
C8255	ECJ0EF1C104Z	0.1 16V	[M]
C8256	ECJ0EF1C104Z	0.1 16V	[M]
C8257	ECJ0EF1C104Z	0.1 16V	[M]
C8261	ECJ0EF1C104Z	0.1 16V	[M]
C8262	ECJ0EF1C104Z	0.1 16V	[M]
C8301	F2H0J2210006	220P 6.3V	[M]
C8302	F2H0J330A003	33P 6.3V	[M]
C8303	ECJ0EF1C104Z	0.1 16V	[M]
C8304	ECJ1VB0J105K	1 6.3V	[M]
C8307	ECJ0EF1C104Z	0.1 16V	[M]
C8308	ECJ0EC1H150J	15P 50V	[M]
C8311	ECJ0EF1C104Z	0.1 16V	[M]
C8312	ECJ1VB0J105K	1 6.3V	[M]
C8421	F2G0J101A083	100P 6.3V	[M]
C8422	ECJ0EF1C104Z	0.1 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C8423	F2G0J330A083	33P 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	ECJ3YB1A106M	10 10V	[M]
C8502	ECJ0EF1C104Z	0.1 16V	[M]
C8503	ECJ0EF1C104Z	0.1 16V	[M]
C8504	ECJ0EF1C104Z	0.1 16V	[M]
C8505	ECJ0EC1H221J	220P 50V	[M]
C8506	ECJ0EC1H101J	100P 50V	[M]
C8550	F2H0J330A003	33P 6.3V	[M]
C8551	ECJ0EF1C104Z	0.1 16V	[M]
C8552	F2G1C100A072	10P 16V	[M]
C8553	F2H0J470A003	47P 6.3V	[M]
C8554	ECJ1VB0J105K	1 6.3V	[M]
C8561	ECJ0EF1C104Z	0.1 16V	[M]
C8562	F2G1C100A072	10P 16V	[M]
C8563	F2H0J470A003	47P 6.3V	[M]
C8564	ECJ1VB0J105K	1 6.3V	[M]
C8601	ECJ0EF1C104Z	0.1 16V	[M]
C8606	ECJ0EF1C104Z	0.1 16V	[M]
C8607	ECJ0EB0J224K	0.22 6.3V	[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]
C9500	ECQE1104KF3	0.1 100V	[M]
C9501	ECQE1104KF3	0.1 100V	[M]
C9502	ECKR1H103MD5	0.01 50V	[M]
C9503	ECKR1H102ZF5	1000P 50V	[M]
C9504	F1B1H103A153	0.01 50V	[M]
C9505	ECKR1H103MD5	0.01 50V	[M]
C9506	F1B2H103A060	0.01 500V	[M]
C9507	F1D1H101A012	100P 50V	[M]
C9508	ECEA1AKA470B	47 10V	[M]
C9509	ECA1HM470B	47 50V	[M]
C9510	F2A1E471A205	470P 25V	[M]
C9511	F2A1E471A205	470P 25V	[M]
C9512	ECA1HM470B	47 50V	[M]
C9513	ECA1EM472B	4700 25V	[M]
C9514	EEUFC1E102B	1000P 25V	[M]
C9515	ECA0JM102B	1000 6.3V	[M]
C9517	ECEA1HKA100B	10 50V	[M]
C9533	ECA1JM222B	2200 63V	[M]
C9533	ECEA1HKA010B	1 50V	[M]
C9534	ECA1JM222B	2200 63V	[M]

27.5. Packing Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGX1474	PACKING CASE	[M]GS
P1	RPGX1475	PACKING CASE	[M]GCS
P1	RPGX1477	PACKING CASE	[M]GCP
P2	RPNX0330	POLYFOAM	[M]
P3	RPFX0007	MIRAMAT BAG	[M]
		ACCESSORIES	
A1	N2QAJB000142	REMOTE CONTROL	[M]
A1-1	RKK-HTR0051K	R/C BATTERY COVER	[M]
A2	K2CA2CA00031	AC CORD	[M]GS ⚠
A2	K2CQ2CA00002	AC CORD	[M]GCP/GCS ⚠
A2	RJA0053-3X	AC CORD	[M]GS ⚠
A3	RQT8169-L	O/I BOOK (En)	[M]GCS/GS

Ref. No.	Part No.	Part Name & Description	Remarks
A3	RQT8170-A	O/I BOOK (Ar/Pe)	[M]GS
A3	RQT8172-M	O/I BOOK (Sp)	[M]GCP
A4	RSA0006-J	FM ANTENNA	[M]
A5	N1DAAAA00001	AM ANTENNA	[M]
A6	K2KA2BA00001	VIDEO CABLE	[M]
A7	K2DA42E00001	AC PLUG ADAPTOR	[M]GCP

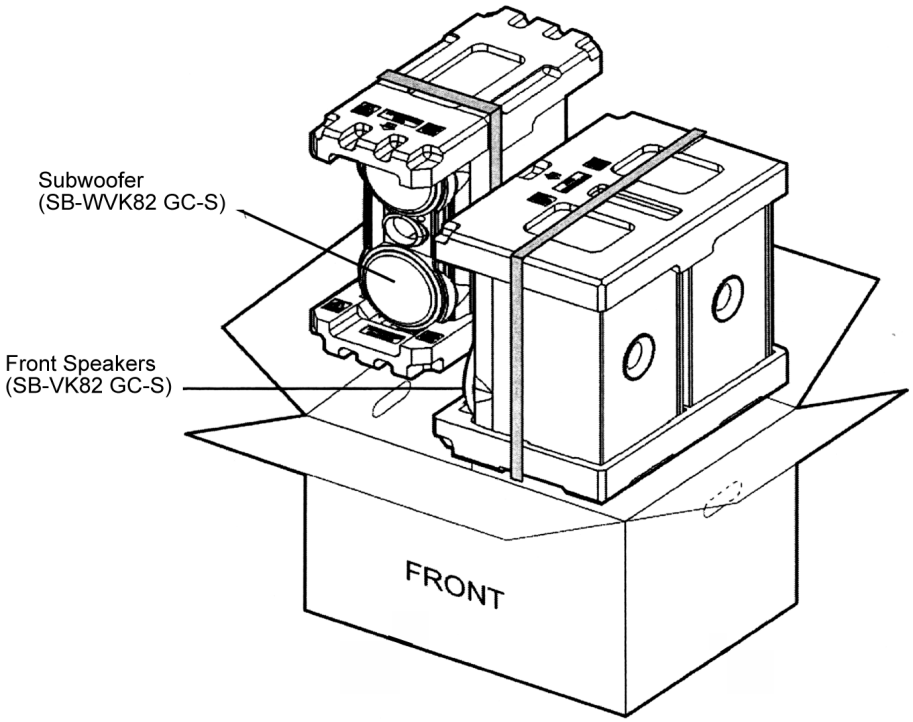
27.6. Packaging

27.6.1. Packaging (SB-VK82DGC-S)

This section consists of the packaging information for SB-VK82DGC-S. Below is the table for speaker combination. For information on the speakers model, please refer to its respective original service manual.

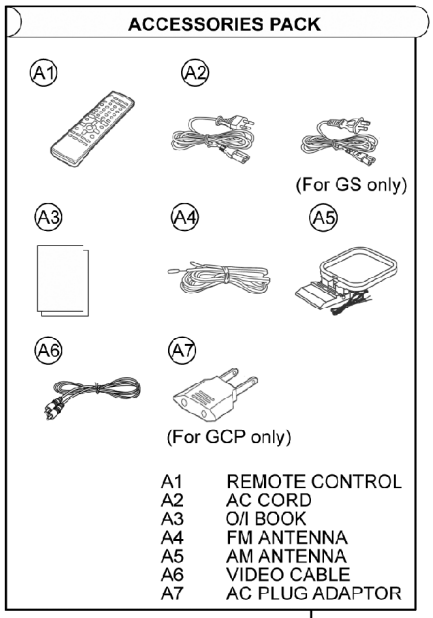
SB-VK82DGC-S

Front Speakers	SB-VK82GC-S
Subwoofer	SB-WVK82GC-S



27.6.2. Packaging (SF-VK82DGCP, SF-VK82DGCS & SF-VK82DGS)

This section consists of the packaging information for SF-VK82DGCP, SF-VK82DGCS & SF-VK82DGS. Below is the table for system combination. For information on the speakers model, please refer to its respective original service manual.



	SF-VK82DGCP-S	SF-VK82DGCS-S	SF-VK82DGS-S
Main Unit	SA-VK82DGCP-S	SA-VK82DGCS-S	SA-VK82DGS-S
Satellite Speakers	SB-PT82GC-S	SB-PT82GC-S	SB-PT82GC-S

SB-PT82GC-S

Surround Speakers	SB-PS82GC-S
Center Speaker	SB-PC82GC-S