

Service Manual

DVD Stereo System



SA-VK62DEE

Colour

(S)... Silver Type



Remote Control SB-VK62

SA-VK62D

SB-VK62

Specifications

■ AMPLIFIER SECTION

RMS Output Power Stereo Mode both channels driven:

10% Total Harmonic Distortion

1 kHz Front CH 110 W per channel (4 Ω)

Total RMS Stereo mode power 220 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 μ V (IHF)

S/N 26dB 2.2 μ V

Antenna terminals 75 Ω (unbalanced)

Amplitude Modulation (AM)

Frequency range 522 - 1629 kHz (9 kHz step)

AM Sensitivity S/N 20dB at 1000 kHz
560 μ V/m

Audio performance (Amplifier)

Input sensitivity/Input impedance

Aux 250 mV, 12 k Ω

Digital audio output

Optical digital output Optical terminal

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

Heads

Record/playback

Solid permalloy head

Erasure

Double gap ferrite head

Motor

DC servo motor

Recording system

AC bias 100 kHz

Erasing system

AC erase 100 kHz

Tape speed

4.8 cm/s

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

Normal

35 Hz - 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)

(2) DVD-RAM (DVD-VR, JPEG^{*4, *5})

(3) DVD-R/RW (DVD-Video)

+R/RW (Video)

(4) 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

Panasonic

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*² Compatible compression rate: between 32 kbps and 320 kbps

*³ Compatible compression rate: between 48 kbps and 320 kbps

*⁴ Exif Ver 2.1 JPEG Baseline files

Picture resolution: between 320 x 240 and 6144 x 4096 pixels (Sub sampling is 4:2:2 or 4:2:0)

*⁵ The total combined maximum of recognizable audio, picture and movie contents and groups: 4000 audio, picture and movie contents and 400 groups.

Pick up

Wavelength

CD 785 nm

DVD 662 nm

Audio output (Disc)

Number of channels (FL, FR) 2 ch (stereo)

n VIDEO SECTION

Video 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

Y output level 1 Vp-p (75 Ω)

P_B output level 0.7 Vp-p (75 Ω)

P_R output level 0.7 Vp-p (75 Ω)

Terminal

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

n GENERAL

Power supply AC 230 V, 50Hz

Power consumption 193 W

Power consumption in standby mode:

0.9 W (approximate)

Dimensions (W x H x D) 250 x 364 x 330 mm

Mass 8 kg

Operating temperature range +5 to +35°C

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

n SYSTEM

SC-VK62D(EE)

Music Center: SA-VK62D (EE)

Speaker: SB-VK62 (GC)

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.

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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.



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⚠ WARNING

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

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1 Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C5820, C5840 and C5950 through a 10 Ω , 5W resistor to ground. DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices. After repairs are completed, restore power gradually using a variac, to avoid overcurrent. Current consumption at AC 230V, 50Hz in NO SIGNAL (vol. min, at CD mode) should be ~500mA .

2 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.

3 Safety Precautions

3.1. 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.

3.1.1. Leakage Current Cold Check

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

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

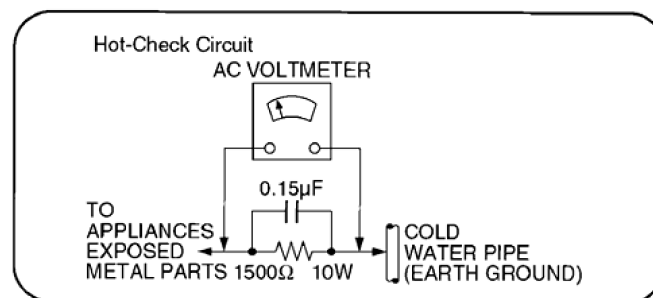


Figure 1

3.1.2. Leakage Current Hot Check (See Figure 1)

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

4 Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by electricity. Such components commonly are called

Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor “chip” components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

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

Caution

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

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

IMPORTANT SAFETY NOTICE

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

5 Handling the Lead-free Solder

5.1. 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.

6 Precaution of Laser Diode

Caution :

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

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

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

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

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

ACHTUNG :

Dieses Produkt enthält eine Laserdiode. Im eingeschalteten Zustand wird unsichtbare Laserstrahlung von der Lasereinheit abgestrahlt.

Wellenlänge : 785nm(CD)/662 nm(DVD)

Maximale Strahlungsleistung der Lasereinheit :100 μ W/VDE

Die Strahlung an der Lasereinheit ist ungefährlich, wenn folgende Punkte beachtet werden:

1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinheit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlinse blicken.
4. Nicht über längere Zeit in die Fokussierlinse blicken.

ADVARSEL: I dette a apparat anvendes laser.

CAUTION!

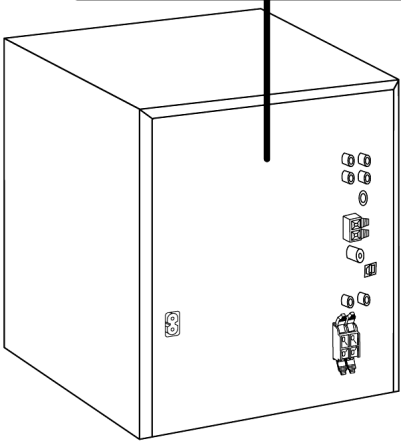
THIS PRODUCT UTILIZES A LASER.

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

n Use of caution label

CAUTION	- LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM.	FDA 21 CFR / Class II
CAUTION	- VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.	IEC60825-1 / Class 3b
VARNING	- SYNLIK OCH OSYNLIK LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRÄKTA EJ STRÅLEN.	
ADVARSEL	- SYNLIK OG USYNLIK LASERSTRÅLING VED ÅBNING. UNNGÅ UDSÆTTELSE FOR STRÅLING.	
ADVARSEL	- SYNLIK OG USYNLIK LASERSTRÅLING NÄR DEKSEL ÄPNES. UNNGÅ EKSPOSERING FOR STRÅLEN.	
VARO!	- AVATTAESSA OLET ALTIINNA NÄKYVÄÄ JA NÄKYMÄTÖN LASERSTEILYLLÄ. ÄLÄ KATSO SÄTEESEEN.	
VORSICHT	- SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.	
ATTENTION	- RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.	
注意	- 打开时有可见及不可见激光辐射。避免激光照射。	
注意	- ここを開くと可視及び不可視レーザー光が出ます。 ビームを見たり、触れたりしないで下さい。	RQLXS0054

(Inside of product)



7 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.

7.1. 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. 7.1 and Fig. 7.2)
3. Do not handle flexible cables forcibly as this may cause snapping. Handle the parts carefully (Refer to Fig. 7.1)
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. 7.1)

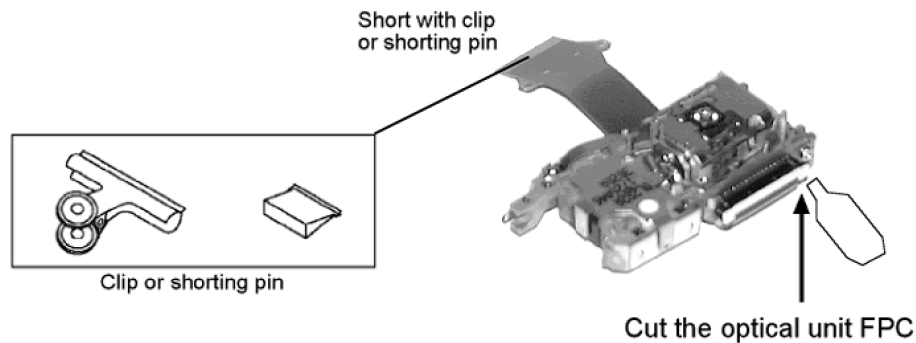


Fig. 7.1

7.2. 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.)

7.3. 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. 7.2)
2. Work place grounding
Place a conductive material (conductive sheet) or iron board where optical pickup is placed. (Refer to Fig. 7.2)

Note :

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

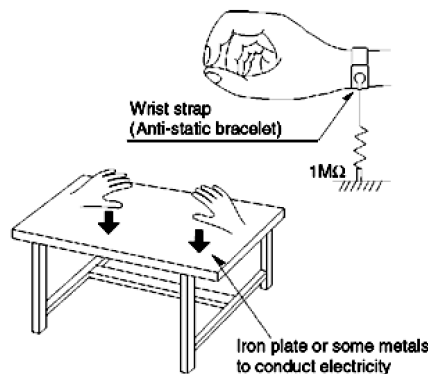
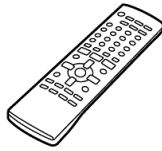
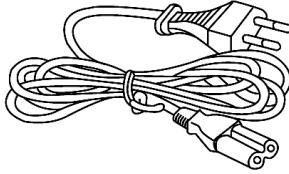


Fig. 7.2

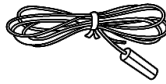
8 Accessories



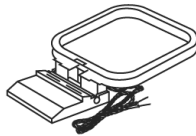
Remote control



AC power supply cord



FM indoor antenna



AM loop antenna

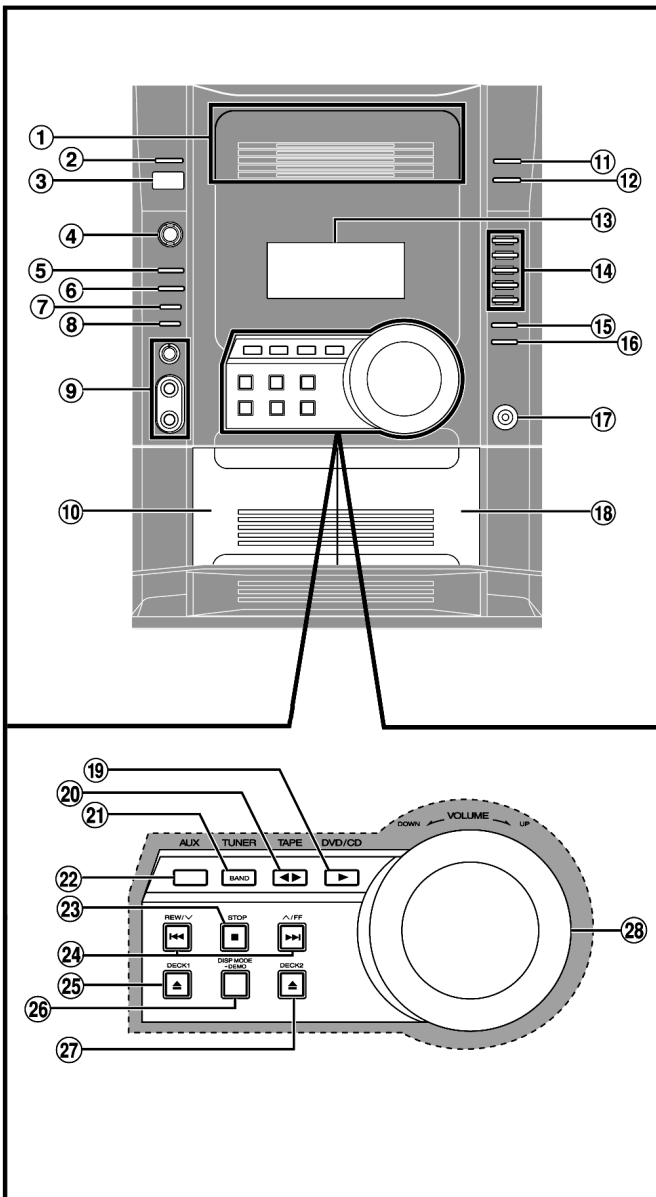


Video cable

9 Operation Procedures

Control reference guide

Main unit

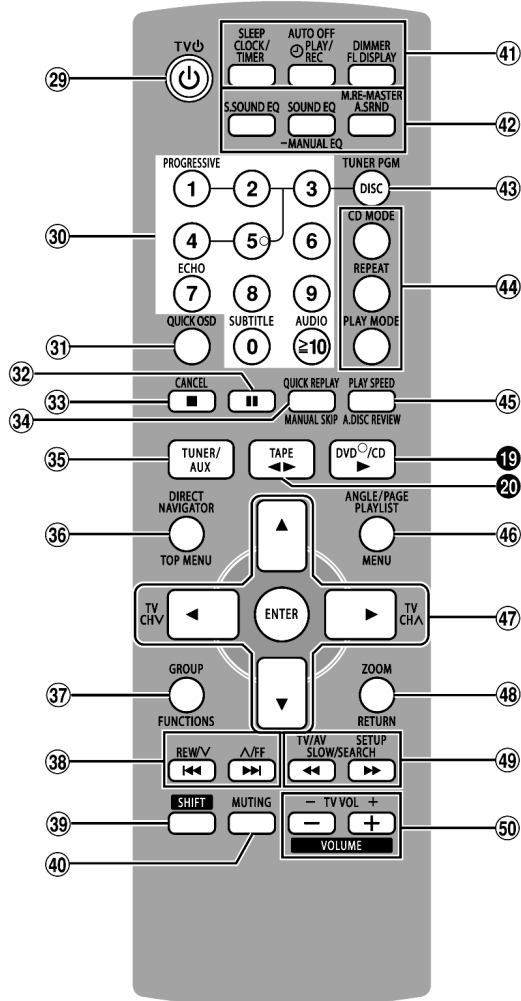


- ① Disc drawer
- ② Disc check button [DISC CHECK]
- ③ Remote control signal sensor
- ④ AC supply indicator [AC IN]
This indicator lights when the unit is connected to the AC mains supply.
- Standby/on switch [⏻/⏻]**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ⑤ Multi Re-master button [MULTI RE-MASTER]
- ⑥ Advanced surround button [ADVANCED SURROUND]
- ⑦ Deck 1/2 selection button [DECK 1/2]
- ⑧ Record button [● REC]
- ⑨ Microphone volume control [MIC VOL MIN, MAX]
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 Display
- ⑭ DVD/CD direct play buttons [1–5]
- ⑮ Super sound EQ button [SUPER SOUND EQ]
- ⑯ Sound EQ button [SOUND EQ]
- ⑰ Headphone jack [PHONES]
- ⑱ Deck 2 cassette holder

Center console

- ⑲ DVD/CD play button [▶, DVD/CD]
- ⑳ Tape play/direction button [◀▶, TAPE]
- ㉑ Tuner/band select button [BAND, TUNER]
- ㉒ AUX button [AUX]
- ㉓ Stop button [■, STOP]
- ㉔ Disc skip/search/slow-motion play, tape fast-forward/rewind, tune, time adjust buttons [◀◀, REW/∨, ▶▶, ∨/FF]
- ㉕ Deck 1 open button [▲, DECK1]
- ㉖ Display mode, demonstration button [DISP MODE, -DEMO]
- ㉗ Deck 2 open button [▲, DECK2]
- ㉘ Volume control [VOLUME DOWN, UP]

Remote control



Buttons such as ① function in exactly the same way as the buttons on the main unit.

②9 Standby/on, TV power on/off button [⏻, TV⏻]

③0 Numbered buttons [0 – 9, ≥10]

These buttons have the following functions.

[1] : Progressive video button [PROGRESSIVE]

[7] : Echo button [ECHO]

[0] : Subtitle button [SUBTITLE]

[≥10] : Audio button [AUDIO]

③1 Quick OSD button [QUICK OSD]

③2 Pause button [II]

③3 Stop, Cancel button [■, CANCEL]

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

③5 Tuner/aux button [TUNER/AUX]

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

③7 Functions, Group button [FUNCTIONS, GROUP]

③8 Disc skip, tape fast-forward/rewind, preset channel select, time adjust buttons [◀◀, REW/V, ▶▶, I, ^/FF]

③9 Shift button [SHIFT]

To use functions labeled in orange:

While pressing [SHIFT], press the corresponding button.

④0 Muting button [MUTING]

④1 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]

④2 Super Sound EQ button [S.SOUND EQ]

Sound EQ, Manual EQ button [SOUND EQ, –MANUAL EQ]
Advanced surround, Multi Re-master button [A.SRND, M.RE-MASTER]

④3 Disc select, Tuner program button [DISC, TUNER PGM]

④4 CD mode button [CD MODE]

Repeat button [REPEAT]

Play mode button [PLAY MODE]

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

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

④7 Cursor buttons [▲, ▼, ◀, ▶],
Enter button [ENTER]

These buttons have the following functions.

[◀, ▶] : TV channel select buttons [TV CH▼, TV CH▲]

④8 Return, Zoom button [RETURN, ZOOM]

④9 Slow/search, Tuning buttons [◀◀, ▶▶, SLOW/SEARCH]

These buttons have the following functions.

[◀◀] : TV/AV input mode select button [TV/AV]

[▶▶] : Setup button [SETUP]

⑤0 Volume buttons, TV volume buttons

[–, +, VOLUME, – TV VOL +]

10 Disc information

Discs that can be played			
Disc	Logo	Indication in these operating instructions	Remarks
DVD-RAM		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-Video		DVD-V	—
DVD-R (DVD-Video) DVD-RW (DVD-Video)			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		VCD	—
SVCD			Conforming to IEC62107.
CD		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-Audio, 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.

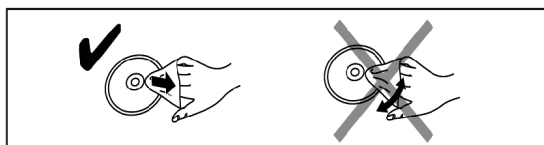
Audio format of DVDs

This unit automatically recognizes and decodes discs with these symbols.



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”

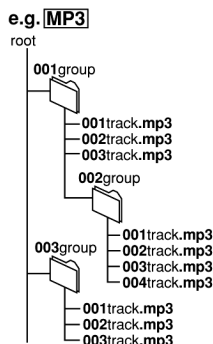
“.JPG”, “.jpg”, “.JPEG” or “.jpeg”

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.

11 About HighMAT

11.1. 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

11.2. Why take advantage of HighMAT?

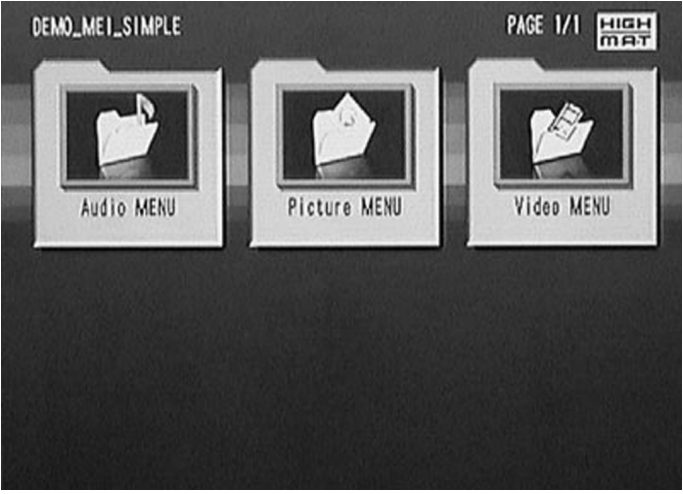
A Problem Defined: Today, when consumers create their own digital audio, video or photo collections on CD-R or other physical formats, there are numerous, inconsistent ways that devices read the data. For the consumer, the playback experience can be confusing:

- 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.

11.3. Benefits of HighMAT?

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

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

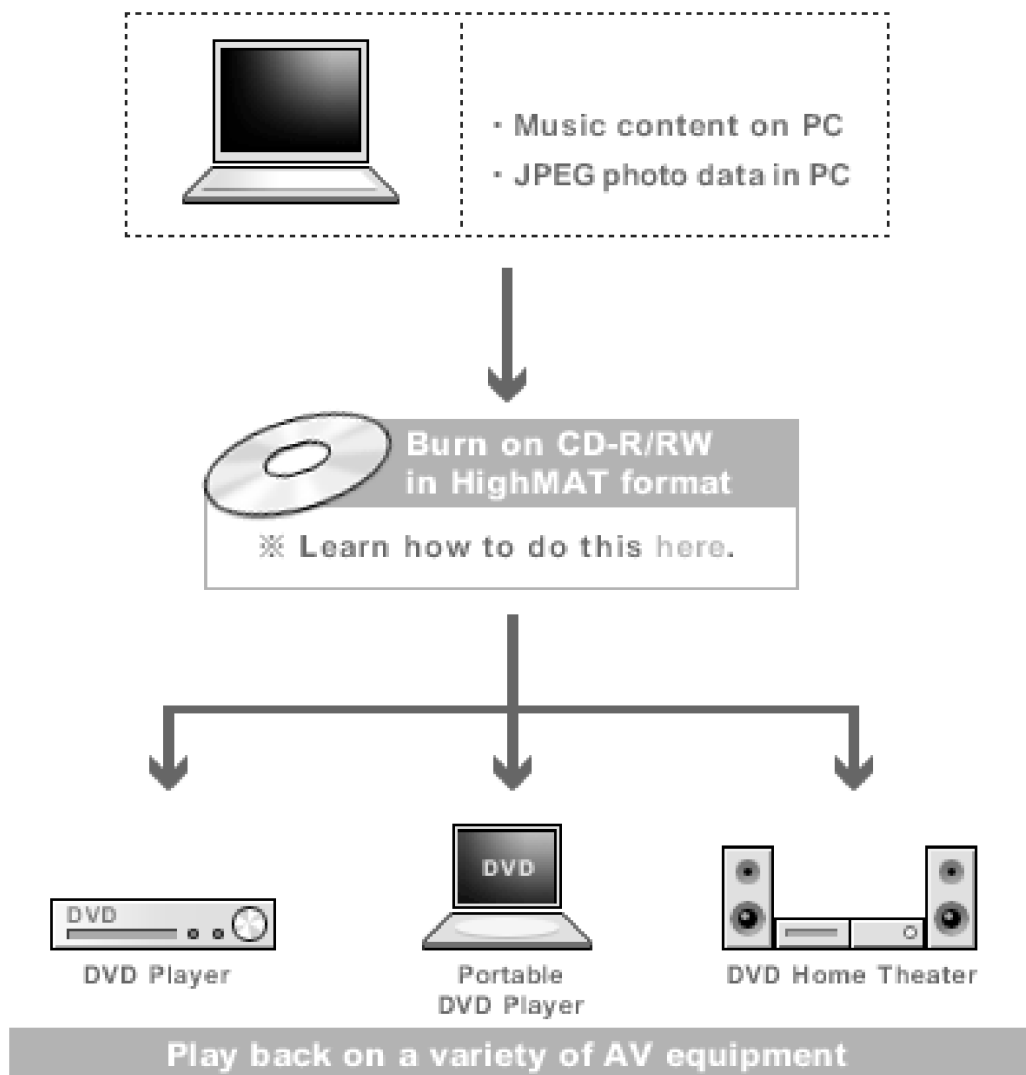
2 Eliminates compatibility issues and delivers better more consistent access to more music information like artist, song name, genre and photo information (metadata) as well as provide faster access to large amounts of music and photo files burned on CDs.



Easy navigation to access disc contents



3 HighMAT CDs can also work on other players.



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

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

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

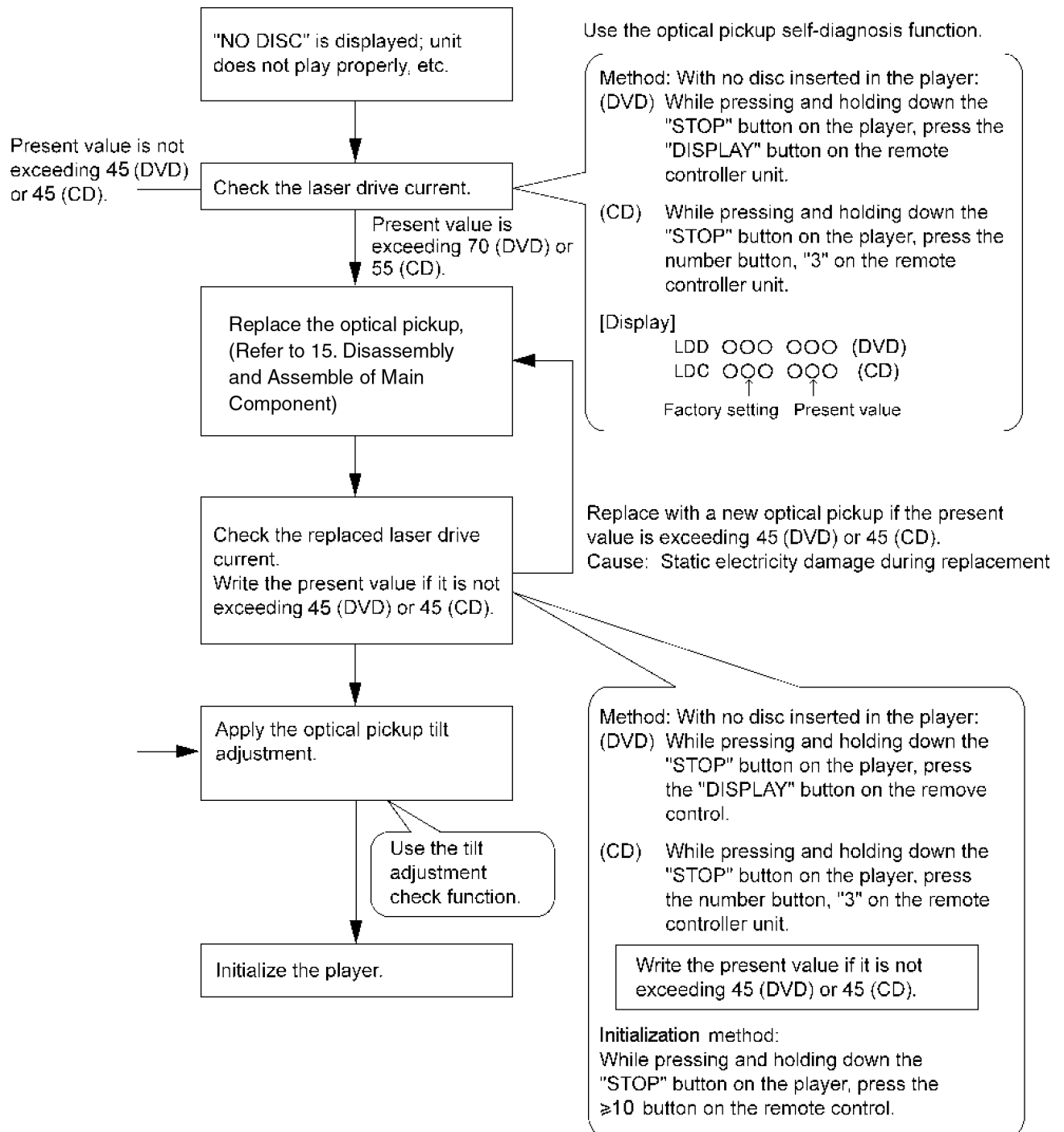
12 Optical Pickup Self-Diagnosis and Replacement Procedure

12.1. 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:

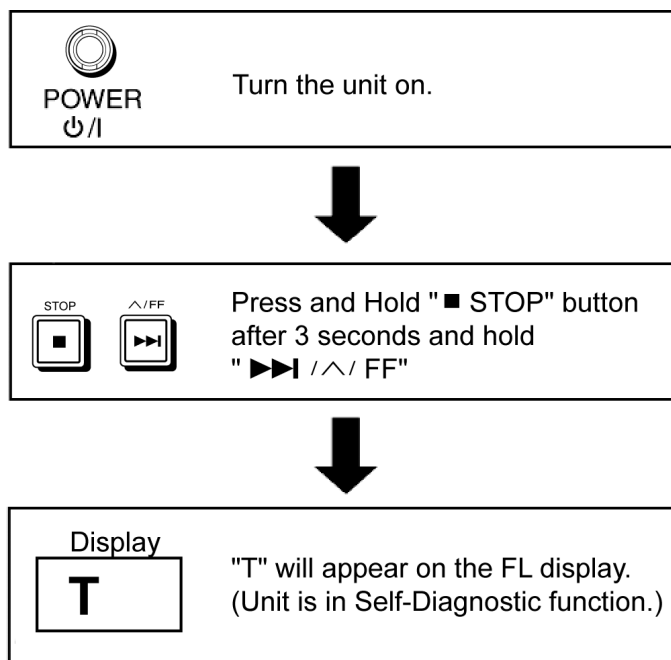
Start diagnosis within three minutes after turning on the power (as diagnosis fails when the unit becomes warm).



13 Self-Diagnosis Function

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

13.1. Entering into Self-Diagnostic Mode



Press "3" on remote control to start the ageing test.

13.2. Automatic Displayed Error Codes

13.2.1. Automatic Display Function

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

F61: Automatically displayed on the LCD of the player.

13.2.2. 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.

13.2.3. Description of Error Code

13.2.3.1. 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.

13.3. Memorized Error Codes

13.3.1. 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.

13.3.2. 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".

13.4. 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 13.5. DVD/CD Self-Diagnosis Error Code Description)
	5	Tilt adjustment (Jitter)
	6	Region number and broadcasting system check
	8	Built-in program version check (Micro-P)
	DISPLAY	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.

13.5. 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	
H06	Power supply error	
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

13.6. 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 ^{*2} _yy ^{*3} _zz ^{*4} ^{*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 or OPEN button.
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.	DVDnn_F--- ^{*nn} : Error history ^{*--} : Error number DVD 01 FOBF	Press the OPEN 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.	Measurement of laser current electricity initialization value Memorizes each initialization value of DVD and CD in EEPROM.	LDO ^{*1} _013 ^{*2} _032 ^{*3} ^{*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 DISPLAY button on the remote controller unit.	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} _012 ^{*2} _014 ^{*3} ^{*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 or OPEN button.
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.	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} _032 ^{*2} _032 ^{*3} ^{*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.

Item	Operational Condition and Key Function	Details	Display	TO Exit Mode
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"	-
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	[xx yy zz] s : Panecon model type rrr : Panecon release number x : Syscon generation (45) y: Syscon model type 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.	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	xx yy zz ^{*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.	Laser usage time Measures each for DVD and CD respectively.	T1 1234 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	Automatically exits the mode after five seconds.
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_0000	Automatically exits the mode after five seconds.
User reset	While the player is stopped and no disc is inserted, press "STOP" & "ENTER" on remote control.	Reset the unit.	"DVD RESET"	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.	Displays frequency of communication errors between system computer firm IC and mechanical computer IC during DVD module.	ECC 00	Automatically exits the mode after five seconds.

13.7. Doctor Mode set up

1. Turn on power for the unit.
2. Select DVD/CD Mode. Ensure no disc is inserted in the unit.

3. Press and hold [STOP] button on main unit at least 3 seconds, follow by [3] on the remote control. It enters into doctor mode.
4. Press [POWER] button on main unit or remote control to exit doctor mode.

13.8. CR16 Mechanism Ageing Mode

To perform the ageing mode:

1. Enter into doctor mode. (Refer to Section 13.7 Doctor Mode set up) as mentioned above.
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.

13.9. Tray Lock Function

13.9.1. Setting

• Disc Lock Function

1. With the SELECTOR on DVD/CD and POWER ON, hold down the [■ STOP] KEY on the main unit, and then press the [POWER] KEY on the remote control for 3 seconds to enter to Lock mode A. [_ _ LOCKED _] will be displayed for 3 seconds, and then current disc will begin playing.
2. In Lock mode A, the following key is disabled.
[OPEN/CLOSE]

• Operation Lock Function

1. With the SELECTOR on DVD/CD and POWER ON, hold down the [CD PLAY] KEY on the main unit, 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:

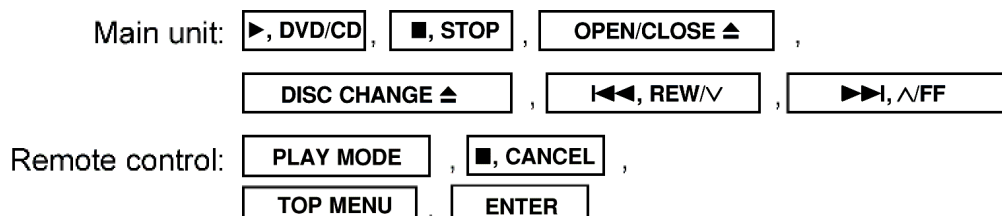
OPEN/CLOSE ▲ button are invalid and the player displays "___LOCKED_" while the lock function mode is entered.

• Prohibiting operation of selector and disk

1. Select the DVD/CD function.
2. Press and hold down the ► 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.



13.10. 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.

14 Cautions To Be Taken During Servicing

14.1. 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.

14.2. 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.

14.3. 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

14.4. Using Recovery Disc

14.4.1. 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.

14.4.2. 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.

14.5. Total Usage Time Display

1. Details of Operation/Display

1 2 3 4 5 6 7 8	Total usage time of DVD/CD lasers Time is shown by the ten hours in the decimal digit.
T2 1 2 3 4	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.

14.6. 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.

15 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 24), if necessary.

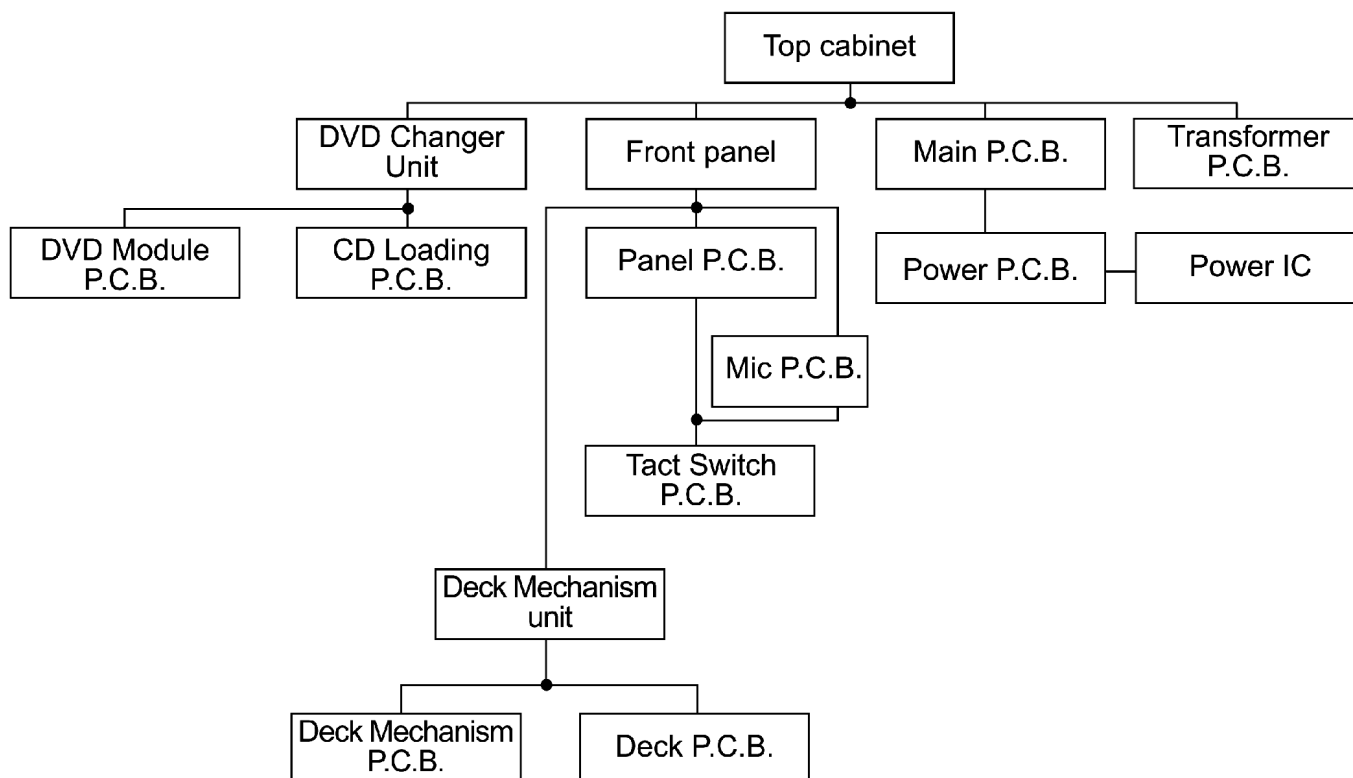
15.1. Disassembly steps

- Disassembly of Top Cabinet
- Disassembly of Real Panel
- Disassembly of DVD Changer Unit
- Disassembly of Main P.C.B.
- Disassembly of Power P.C.B.
- Disassembly of Transformer P.C.B.
- Disassembly of Front Panel Unit
- Disassembly of Panel P.C.B. & Mic P.C.B.
- Disassembly of Tact Switch P.C.B.
- Disassembly of Deck Mechanism Unit
- 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 ass’y
- Rectification for tape jam problem

15.2. Disassembly flow chart

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

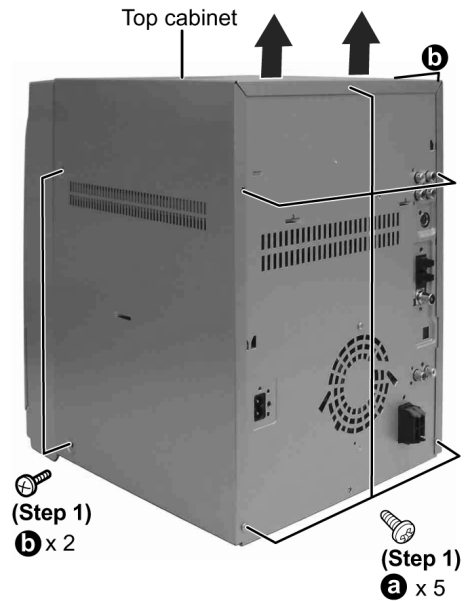
To assemble the unit, reverse the steps shown in the chart as below.



15.3. Disassembly of Top Cabinet

Step 1 Remove 2 screws at each side and 5 screws at rear panel.

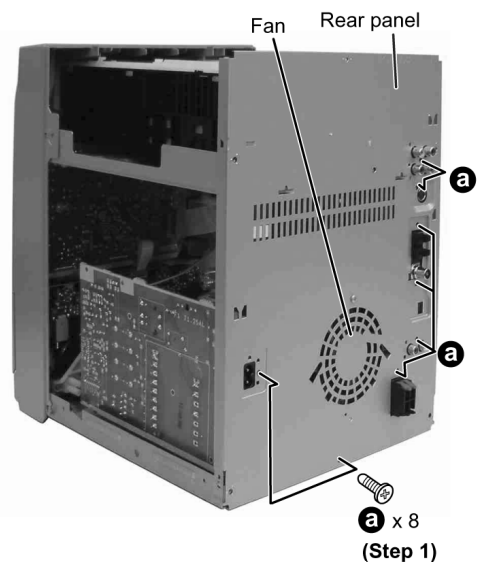
Step 2 Lift up both sides of the top cabinet, push the top cabinet towards the rear and remove the top cabinet.



15.4. Disassembly of Rear Panel

· Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet

Step 1 Remove 8 screws and disconnect wire CN2810 (Fan) at rear cabinet as shown.

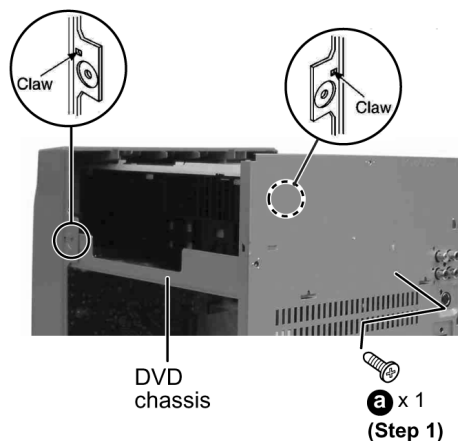


15.5. Disassembly of DVD Changer Unit

· Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet

Step 1 Remove one screw at rear panel.

Step 2 Detach the FFC wires (CN2801 & CN2805).



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



Step 4 Lift the DVD changer unit upwards.

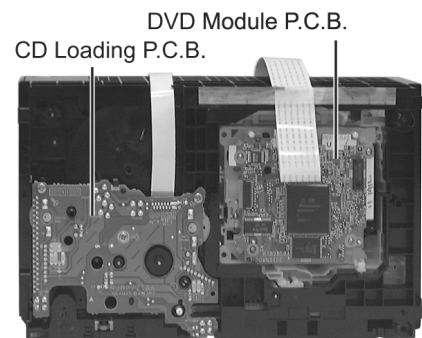
Step 5 Remove 2 screws.



Step 6 Remove the mechanism unit cover.

Step 7 Lay the unit.

· For disassembly of DVD mechanism unit, please refer to Section 15.16 of this manual.

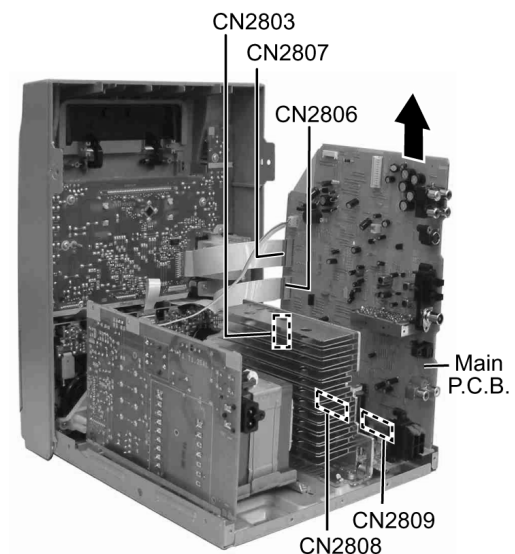


15.6. Disassembly of Main P.C.B.

- Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet
- Follow the (Step 1) of Item 15.4 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 3) of Item 15.5 - Disassembly of DVD Changer Unit

Step 1 Detach CN2810 (Fan).

Step 2 Disconnect FFC wires CN2803, CN2806 and CN2807 from Main P.C.B.

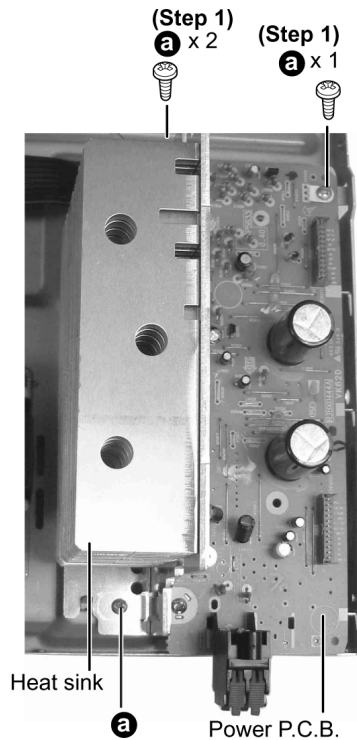


Step 3 Lift up Main P.C.B. by disconnecting connectors CN2808 & CN2809 as arrow shown above.

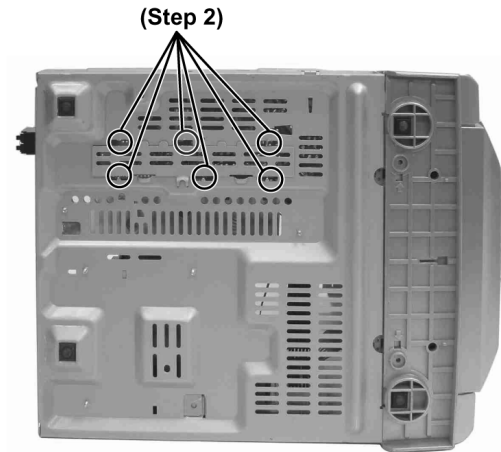
15.7. Disassembly of Power P.C.B.

- Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet
- Follow the (Step 1) of Item 15.4 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 3) of Item 15.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 3) of Item 15.6 - Disassembly of Main P.C.B.

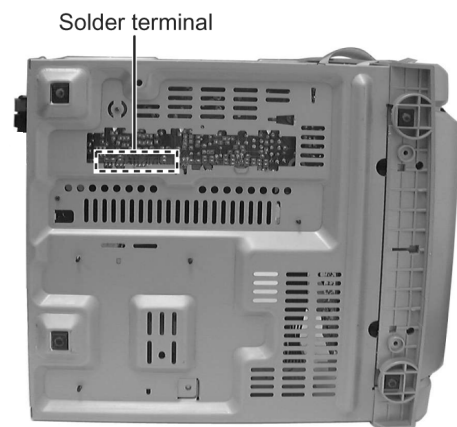
Step 1 Remove the 2 screws fixed at heat sink and 1 screw fixed at Power P.C.B..



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



Step 3 Unsolder the terminals of Power Amp IC, transistor and replace the components.

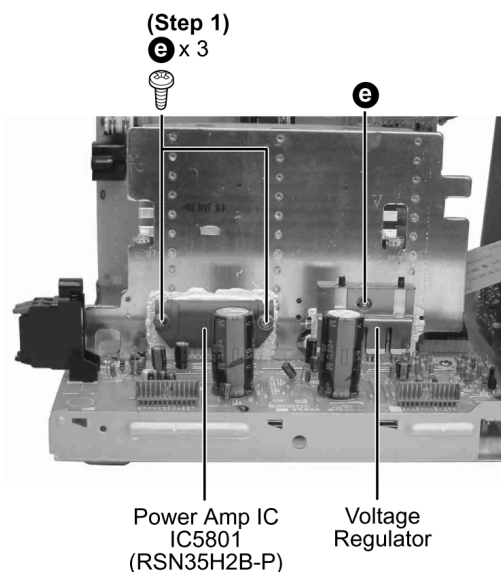


Note:

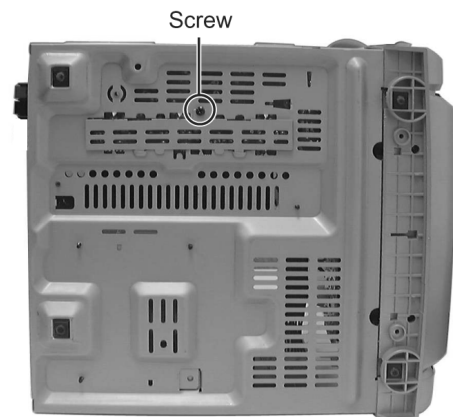
Insulate the Power P.C.B. with insulation material to avoid short circuit.

- **Replacement of the Power Amplifier IC/ Voltage Regulator**

Step 1 Remove 2 screws fixed to the Power Amplifier IC and 1 screw to Voltage Regulator.



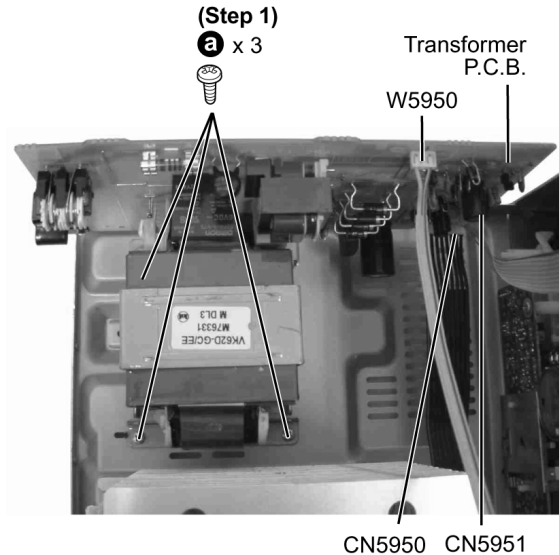
Step 4 Fix back the cut portion with a screw as shown.



15.8. Disassembly of Transformer P.C.B.

- Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet
- Follow the (Step 1) of Item 15.4 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 3) of Item 15.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 3) of Item 15.6 - Disassembly of Main P.C.B.
- Follow the (Step 1) of Item 15.7 - Disassembly of Power P.C.B.

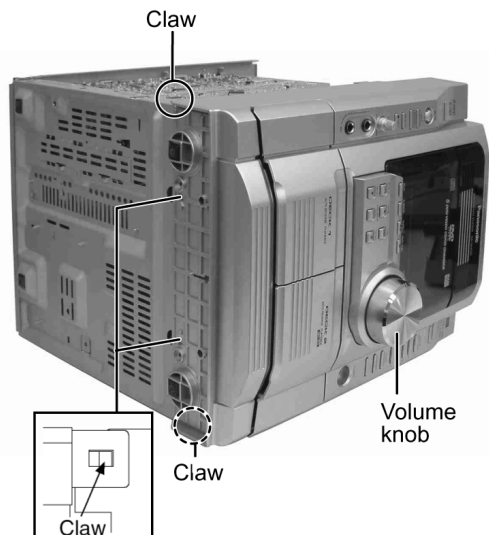
Step 1 Remove 3 screws, disconnect connectors W5950, CN5950 & CN5951.



15.9. Disassembly of Front Panel Unit

- Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet
- Follow the (Step 1) of Item 15.4 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 3) of Item 15.5 - Disassembly of DVD Changer Unit

Step 1 Lay the unit as shown below.



Step 2 Release 2 claws at bottom and 2 claws each side, draw the front panel ass'y forward.

Step 3 Remove the volume knob.

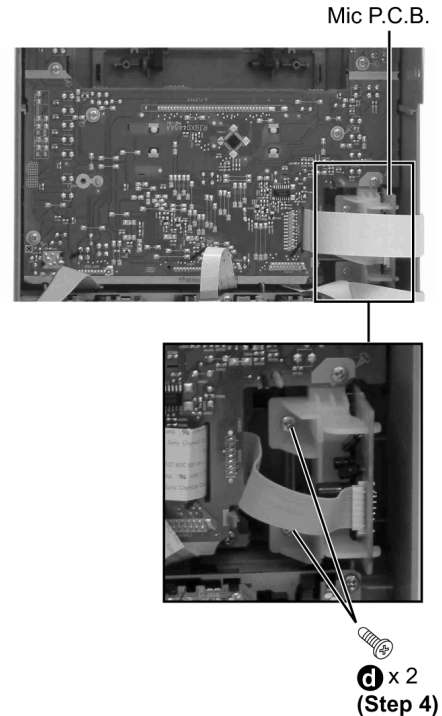
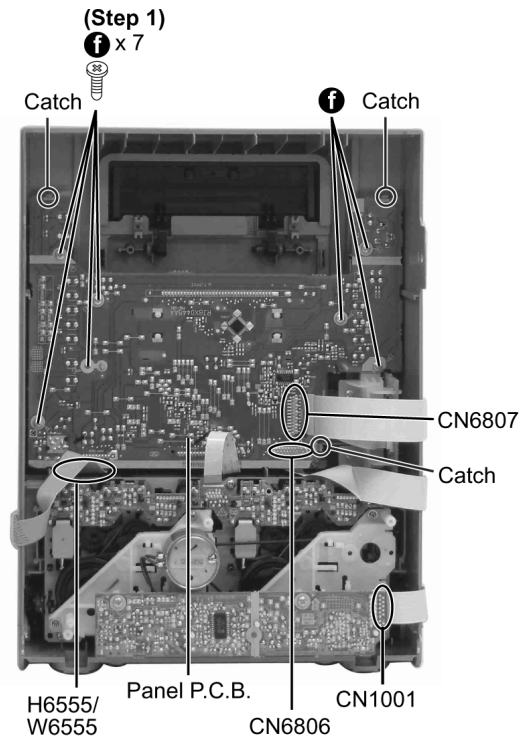
15.10. Disassembly for Panel P.C.B. & Mic P.C.B.

- Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet
- Follow the (Step 1) of Item 15.4 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 3) of Item 15.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 3) of Item 15.9 - Disassembly of Front Panel Unit

Step 1 Remove 7 screws.

- **Disassembly of Mic P.C.B.**

Step 2 Disconnect connectors (H6555/W6555, CN1001, CN6806 and CN6807).



Step 4 Remove 2 screws.

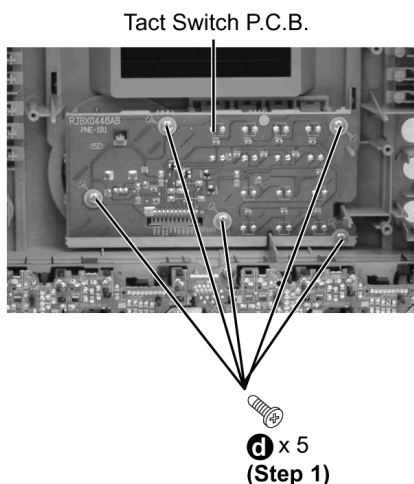
Step 5 Lift up Mic P.C.B. to remove it.

Step 3 Release 3 catches.

15.11. Disassembly for Tact Switch P.C.B.

- Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet
- Follow the (Step 1) of Item 15.4 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 3) of Item 15.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 3) of Item 15.9 - Disassembly of Front Panel Unit
- Follow the (Step 1) - (Step 5) of Item 15.10 - Disassembly of Panel P.C.B. & Mic P.C.B.

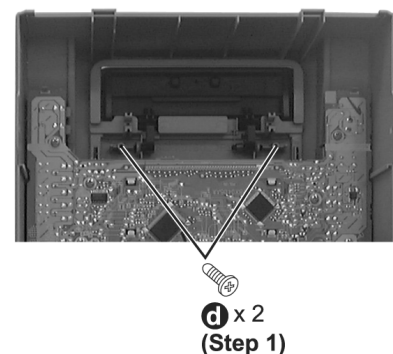
Step 1 Remove 5 screws.



Step 2 Draw Tact Switch P.C.B. forward.

15.11.1. Disassembly of Lid

Step 1 Remove 2 screws.



Step 2 Lift the spring sideward.

Step 3 Remove Lid.

Note: Do not misplace the spring.

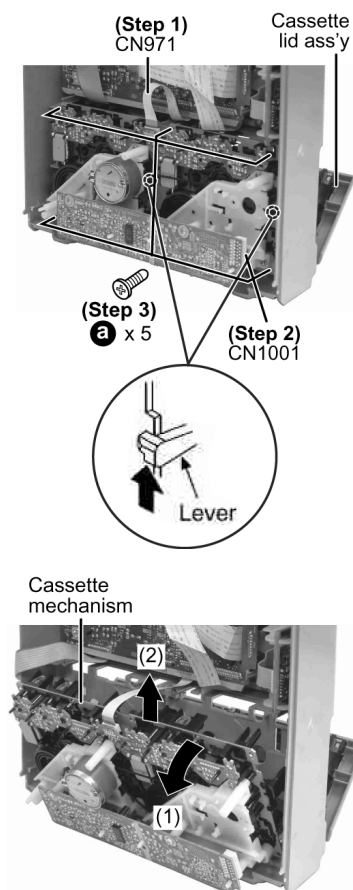
15.12. Disassembly of Deck Mechanism Unit

- Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet
- Follow the (Step 1) of Item 15.4 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 6) of Item 15.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 3) of Item 15.9 - 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.

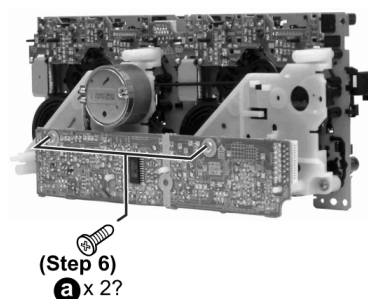


Step 4 Push the lever upward, and then open the cassette lid ass'y (For DECK1 and DECK2).

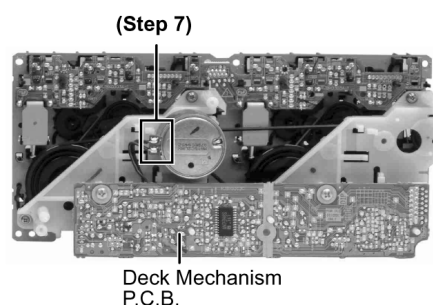
Step 5 Tilt the cassette mechanism unit in the direction of arrow (1), and then remove it in the direction of arrow (2).

- For replacement of Deck Mechanism P.C.B.

Step 6 Remove 3 screws.



Step 7 Unsolder the motor terminals.

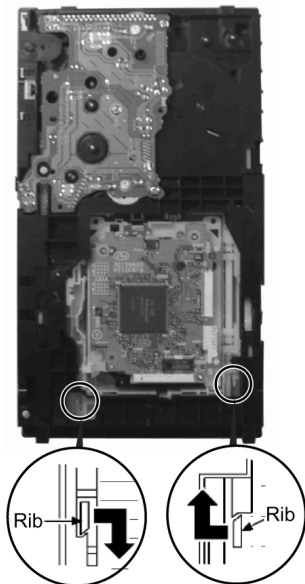


Step 8 Remove Deck Mechanism P.C.B.

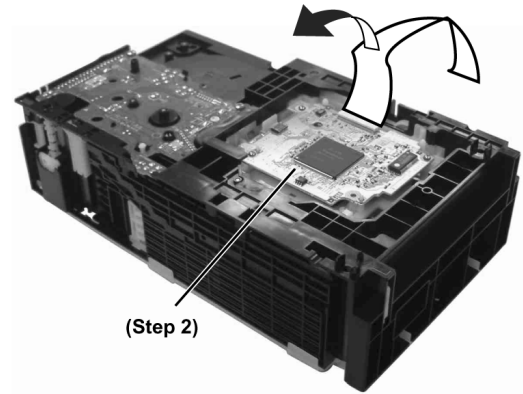
15.13. Replacement for Traverse Deck

- Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet
- Follow the (Step 1) of Item 15.4 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 7) of Item 15.5 - 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).



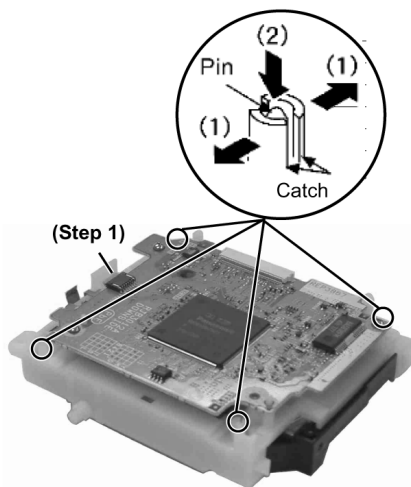
Step 2 Remove DVD traverse deck by rotating to the arrow direction.



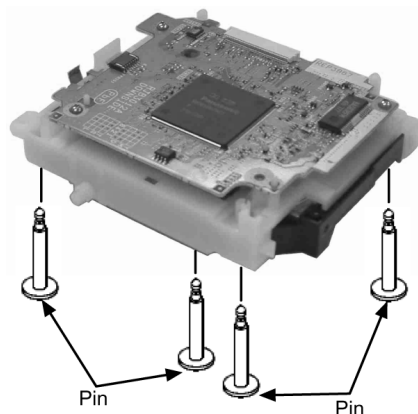
15.14. Replacement for Optical Pickup Unit (DVD mechanism)

- Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet
- Follow the (Step 1) of Item 15.4 - Disassembly of Rear Panel
- Follow the (Step 1) - (Step 7) of Item 15.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 2) of Item 15.13 - Replacement of Traverse Deck

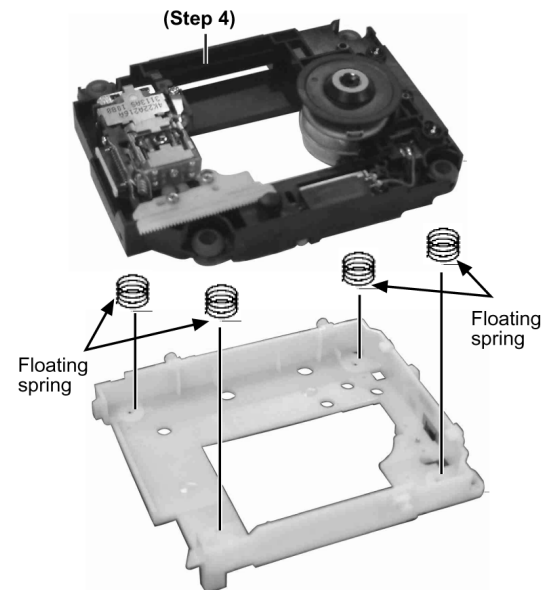
Step 1 Pull out FFC.



Step 2 Widening the catch, push the pin in.

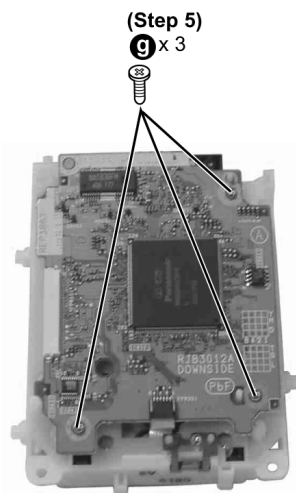


Step 3 Remove 4 pins.



Step 4 Remove the traverse deck.

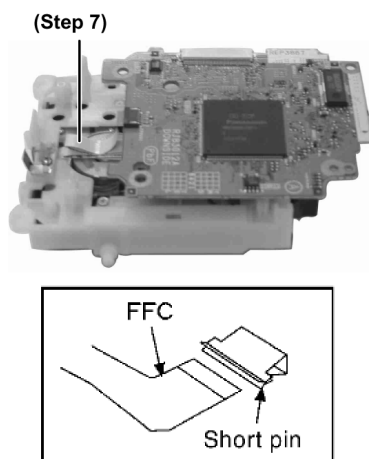
Note: As floating springs (4 pieces) come off at the same time, be careful not to lose them.



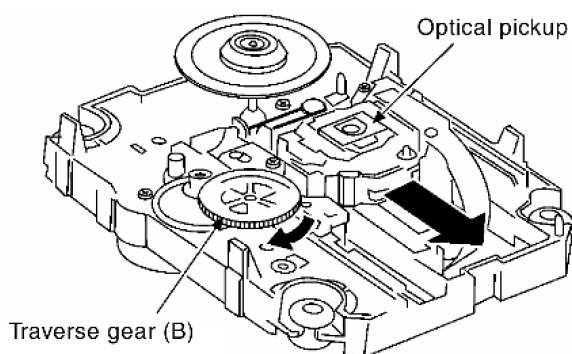
Step 6 Remove the dvd module board and turn it over.

Step 7 Pull FFC out from the connector.

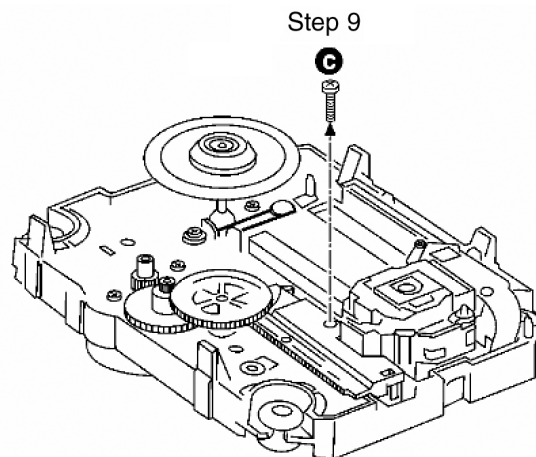
Note: Insert a short pin into FFC of the optical pickup. [See "Notice on handling of the optical pickup"].



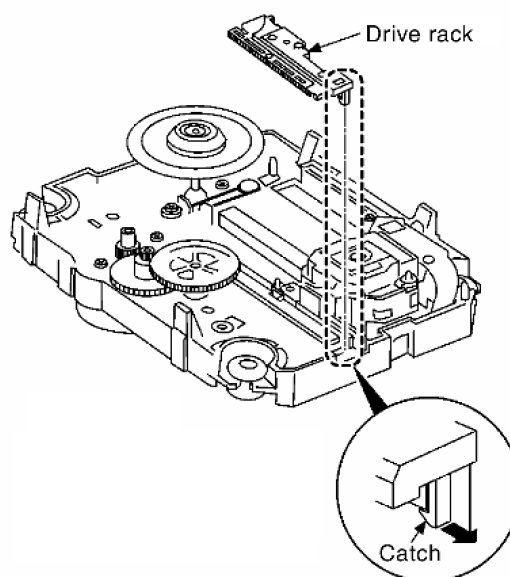
Step 8 Rotate the traverse deck (B) to the arrow direction and shift the optical pickup to the furthest backward.



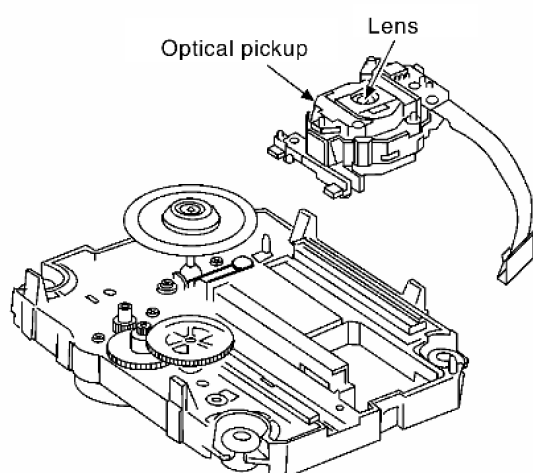
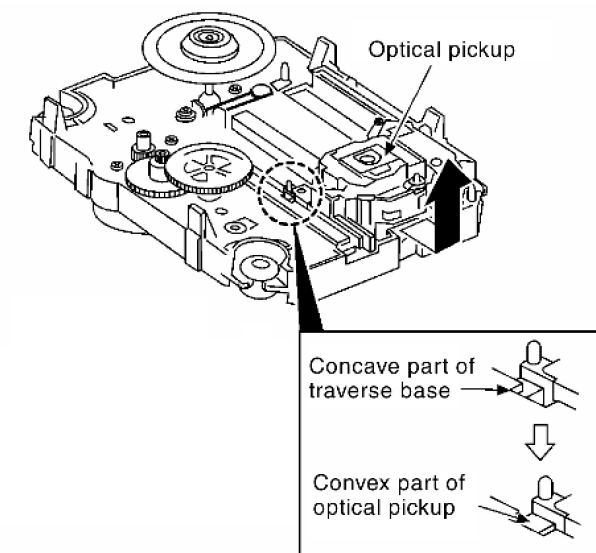
Step 9 Remove 1 screw.



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

15.15. Procedure for removing CD loading mechanism

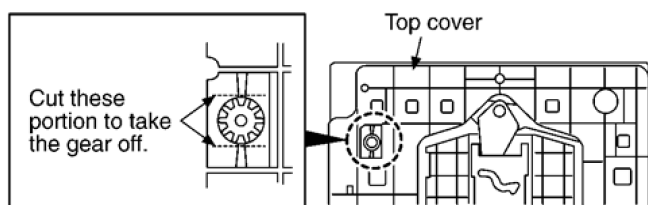
1. Turn off by pressing power SW in the body.
2. Unplug AC power cord after the indication of [GOOD-BYE], then disassemble the body.
3. Disassemble the body, and take out CD loading mechanism.
4. Perform disassembly according to the following procedure for disassembly.

15.16. CR16 mechanism disassembly procedure

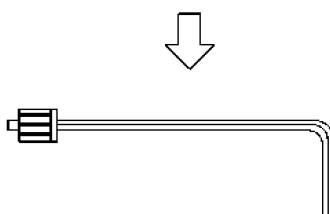
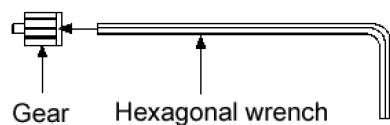
15.16.1. Gear for servicing information

- 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.

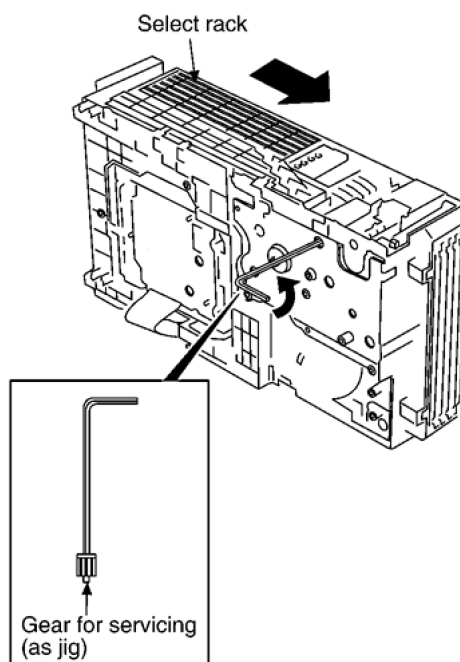


(Preparation of gear as jig is completed)

15.16.2. Replacement for the disc tray

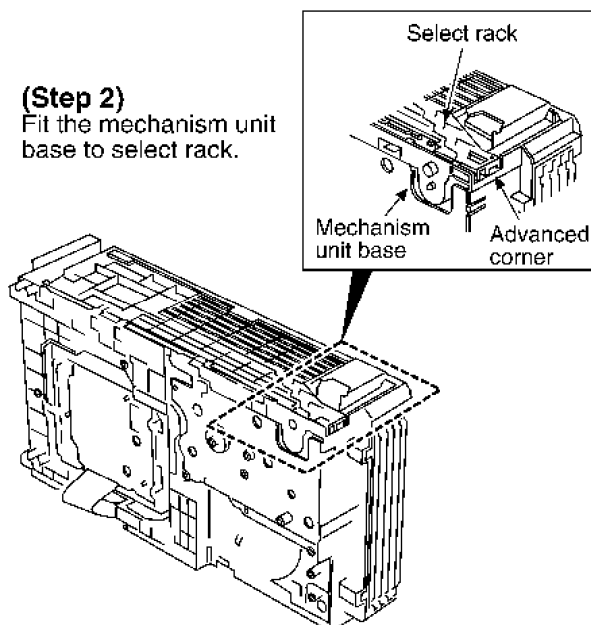
(Step 1)

Rotate the gear for servicing and move the select rack to advanced corner.



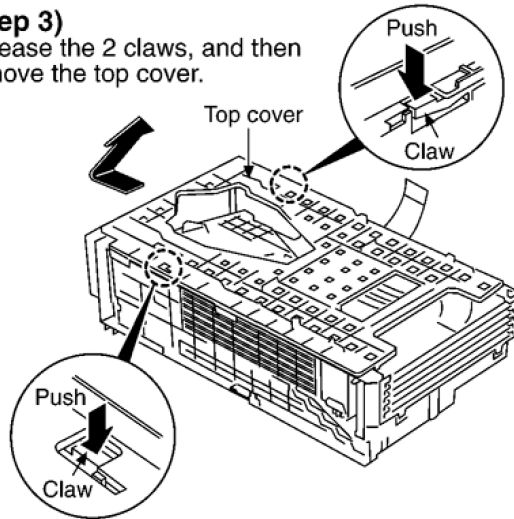
(Step 2)

Fit the mechanism unit base to select rack.

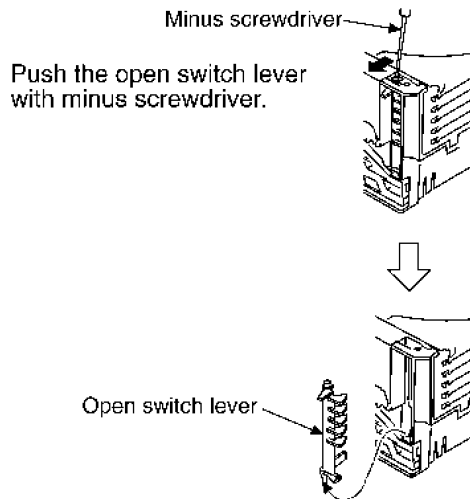
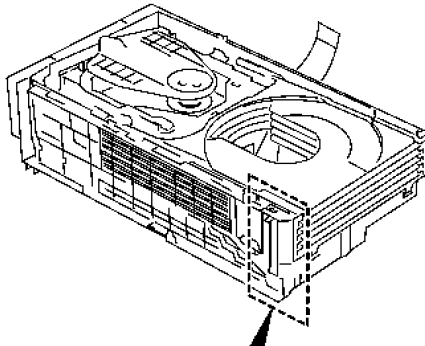


(Step 3)

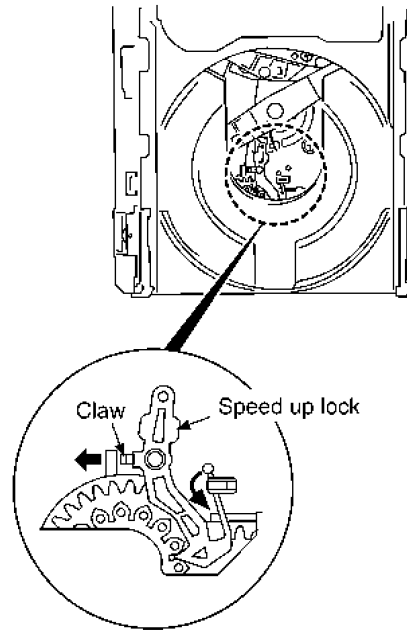
Release the 2 claws, and then remove the top cover.

**(Step 4)**

Remove the open switch lever.

**(Step 5)**

Release the claw, and then remove the speed up lock.



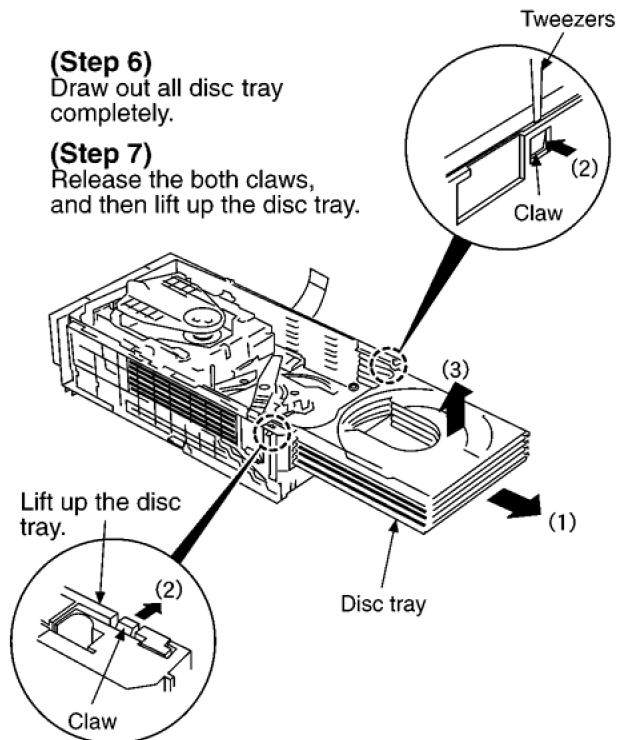
Insert the tweezers between the mechanism base and disc tray, and then lift up the disc tray.

(Step 6)

Draw out all disc tray completely.

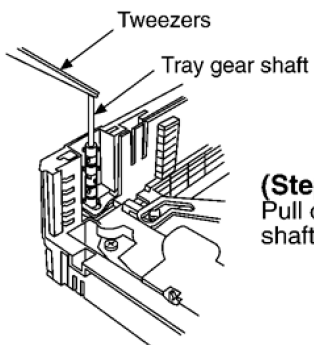
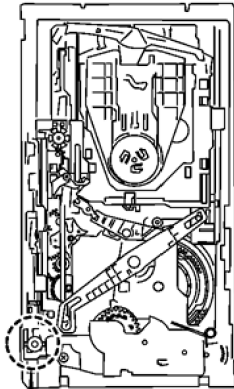
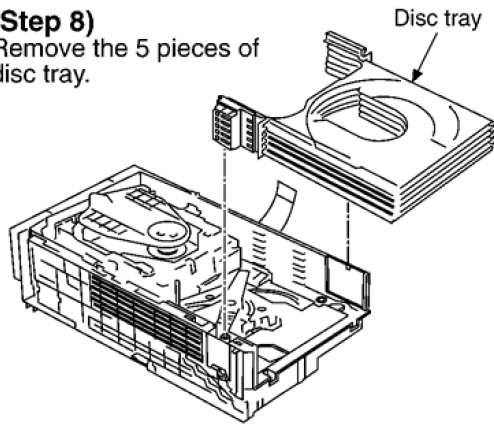
(Step 7)

Release the both claws, and then lift up the disc tray.



(Step 8)

Remove the 5 pieces of disc tray.

**(Step 9)**

Pull out the tray gear shaft with tweezers.

**(Step 10)**

Remove the tray drive gear ass'y.

15.16.3. Replacement for the traverse deck

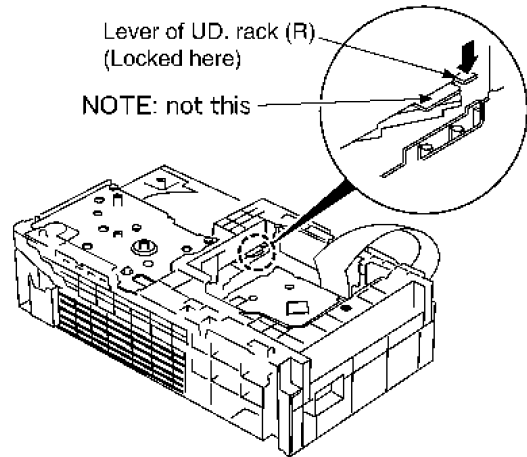
• Follow the **(Step 1)** - **(Step 10)** of item 15.16.2.

(Step 1)

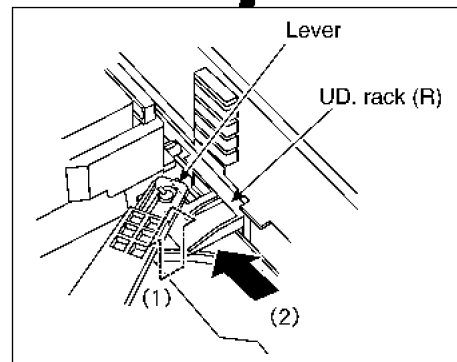
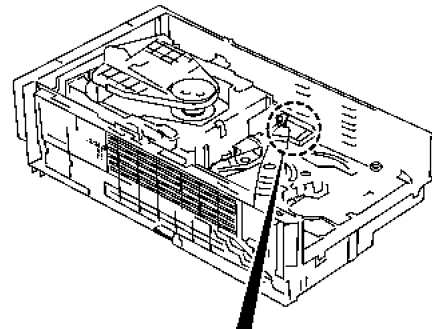
Confirm the position for lever of UD. rack (R) to remove traverse unit.

(Step 2)

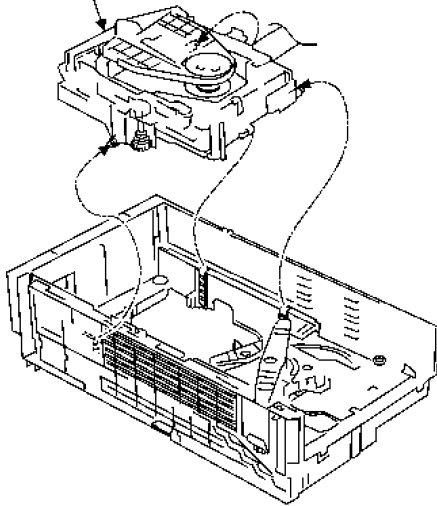
Turn the unit over. (Upside: P.C.B.)

**(Step 3)**

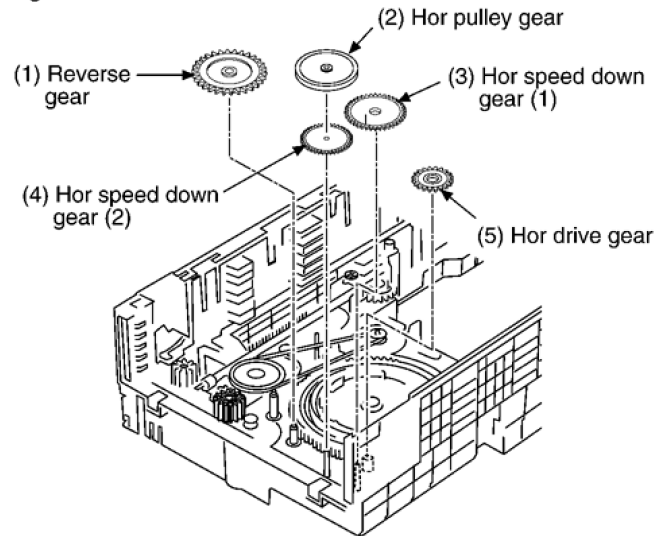
Turn the unit over again, slide UD. rack (R) while pushing up the lever from the bottom.



(Step 4)
Remove the traverse unit.

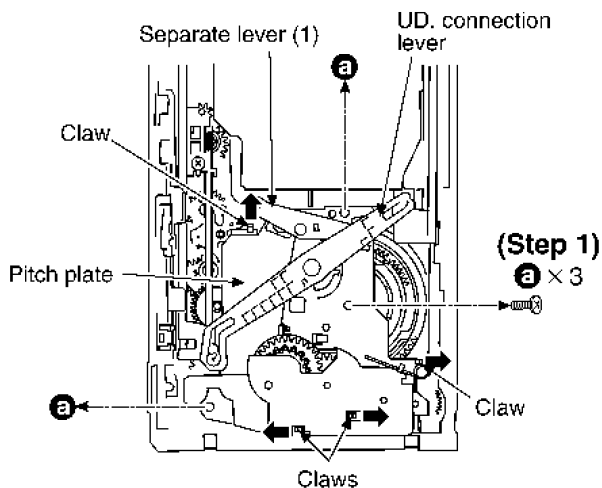


(Step 4)
Remove the reverse gear, hor pulley gear, hor speed down gear (1), hor speed down gear (2) and hor drive gear.



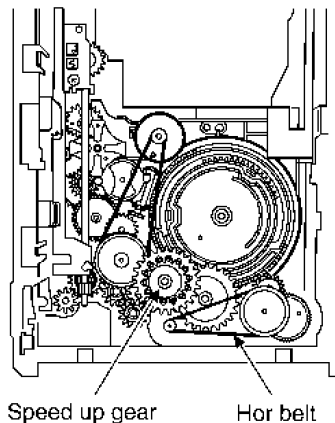
15.16.4. Disassembly for CD loading unit

- Follow the **(Step 1) - (Step 10)** of item 15.16.2.
- Follow the **(Step 1) - (Step 4)** of item 15.16.3.



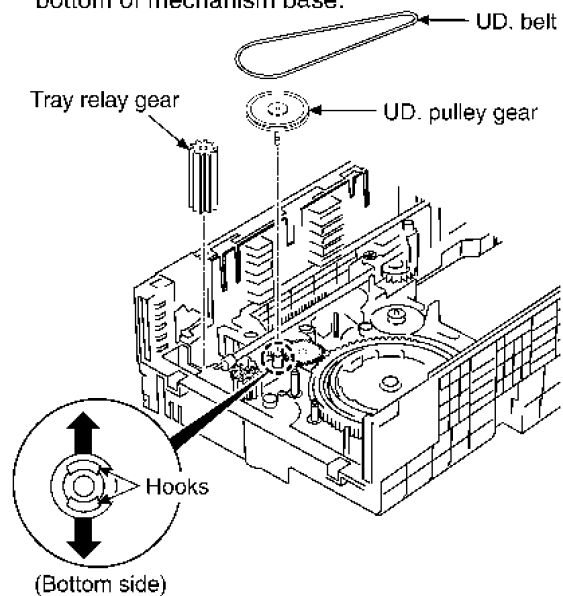
(Step 2)
Release the 4 claws, and then remove the pitch plate together with separate lever (1) and UD. connection lever.

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



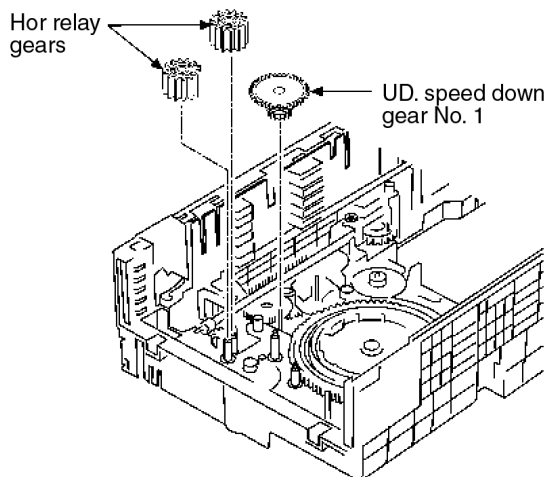
(Step 5)
Remove the UD. belt and tray relay gear.

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

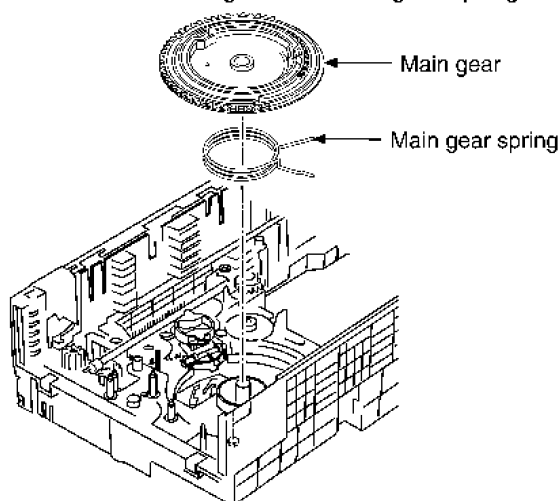


(Step 7)

Remove the 2 hor relay gears and UD. speed down gear No. 1.

**(Step 8)**

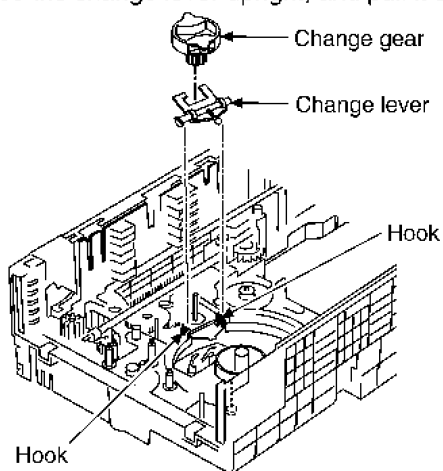
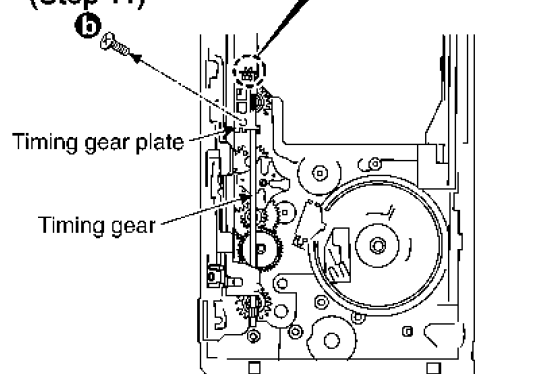
Remove the main gear and main gear spring.

**(Step 9)**

Remove the change gear.

(Step 10)

Raise the change lever upright, and pull it out of hook.

**(Step 11)****(Step 12)**

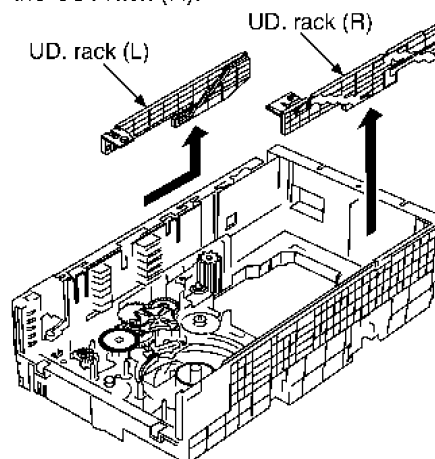
Release the 2 claws, and then remove the timing gear and timing gear plate.

(Step 13)

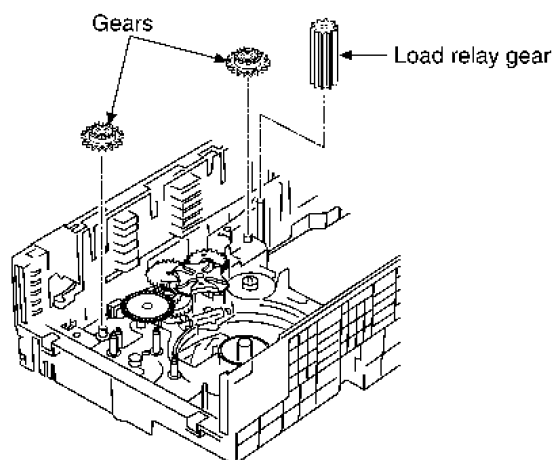
Move the UD. rack (L) to backward, and then remove it.

(Step 14)

Remove the UD. rack (R).

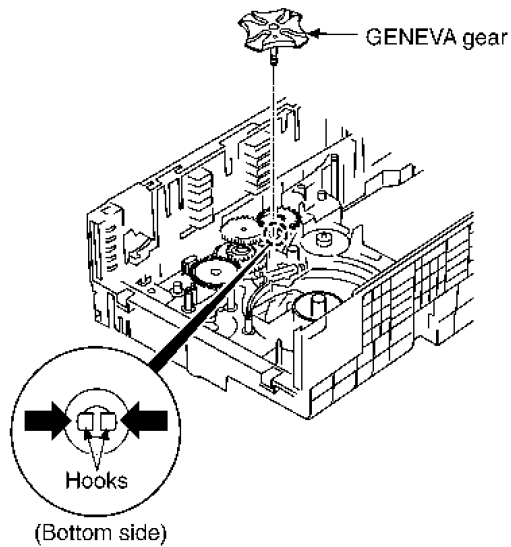
**(Step 15)**

Remove the 2 gears and load relay gear.

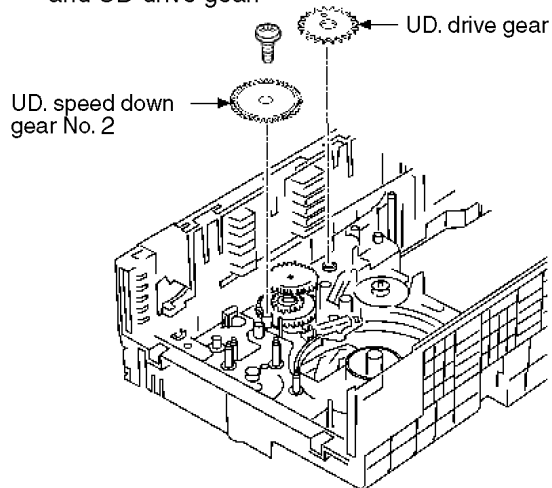


(Step 16)

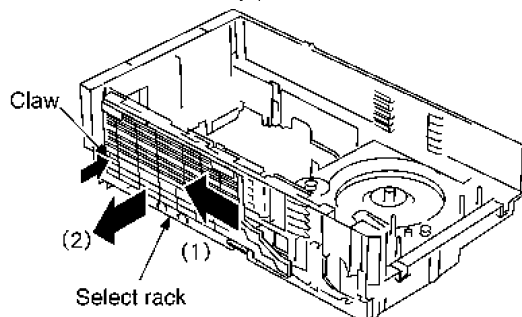
Pull out the GENEVA gear, loosen 2 hooks of the bottom of mechanism base.

**(Step 17)**

Remove the UD. speed down gear No. 2 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).

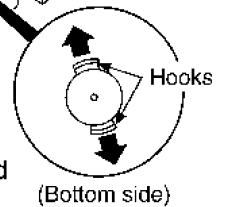


Select speed
down gear

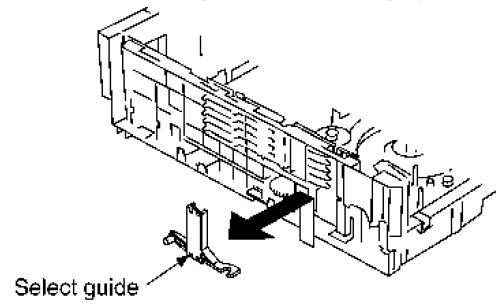
Select drive gear

(Step 19)

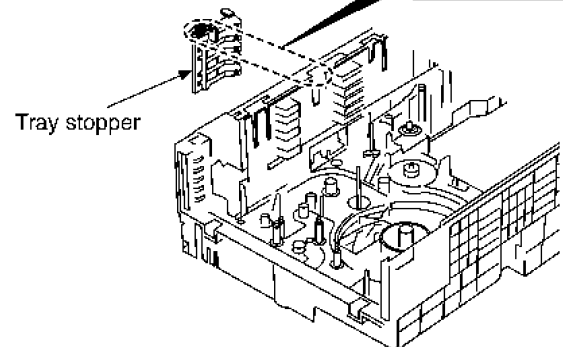
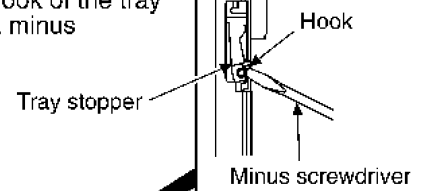
Pull out the select drive gear, loosen 2 hooks of the bottom of mechanism base. Then, remove the select speed down gear.

**(Step 20)**

Remove the select guide after sliding upside.

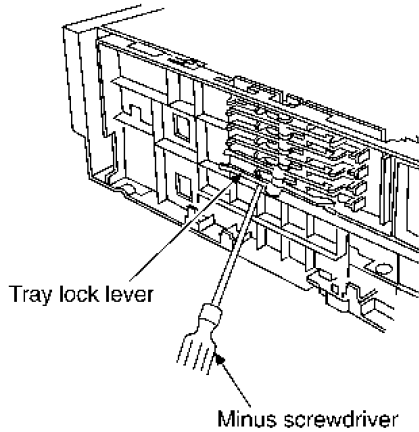
**(Step 21)**

Remove the hook of the tray stopper with a minus screwdriver.

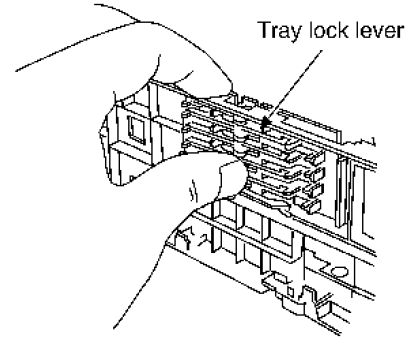


(Step 22)

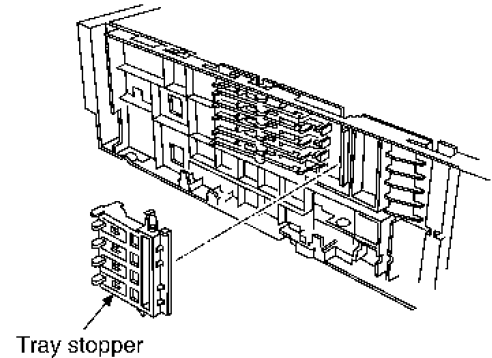
Remove the bottom of the tray lock lever with a minus screwdriver and others.

**(Step 2)**

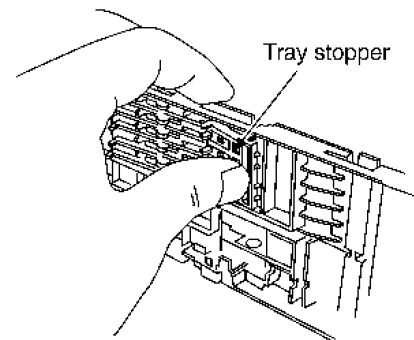
Push the tray lock lever with a hand and install it.

**(Step 3)**

Install the tray stopper to mechanism base.

**(Step 4)**

Push the tray stopper with a hand and install it.



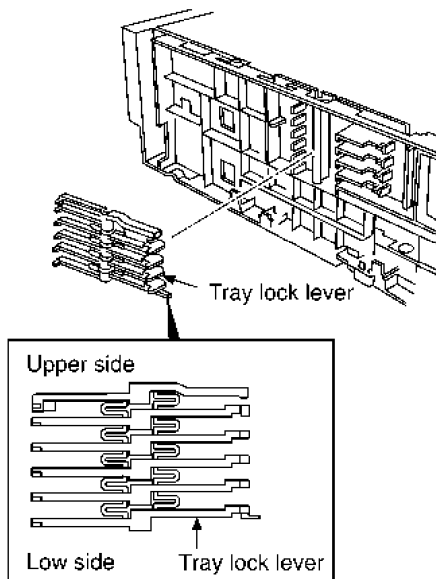
15.17. CR16 mechanism assembly procedure

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

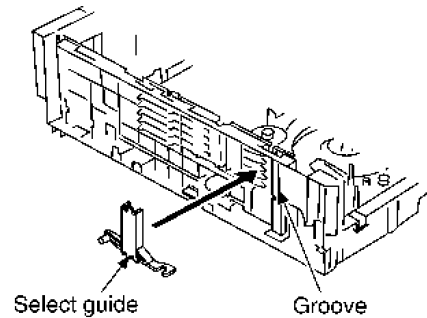
1. Floil grease (VFK1298) : The floil grease must be applied to tray, tray (L) and tray (R).
2. Hanarl oil (VFK1700) : The hanarl oil must be applied to any parts with grease other than the said parts.

(Step 1)

Install the tray lock lever to mechanism base.

**(Step 5)**

Insert the select guide with a groove of the mechanism base and move it below.



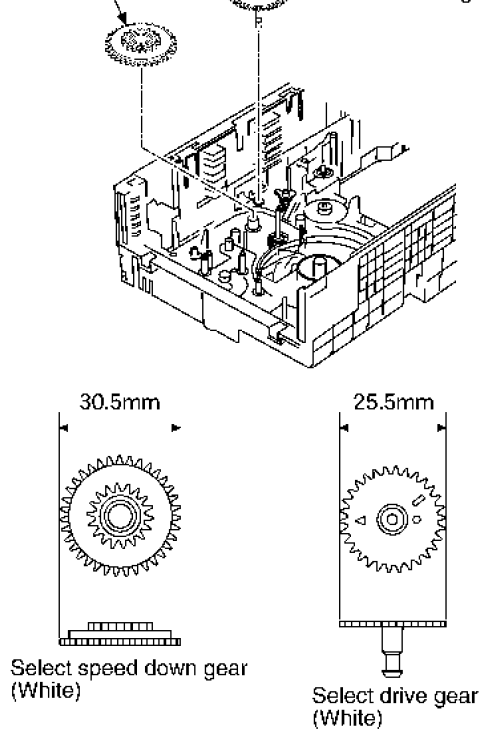
(Step 6)

Install the select speed down gear to mechanism base.

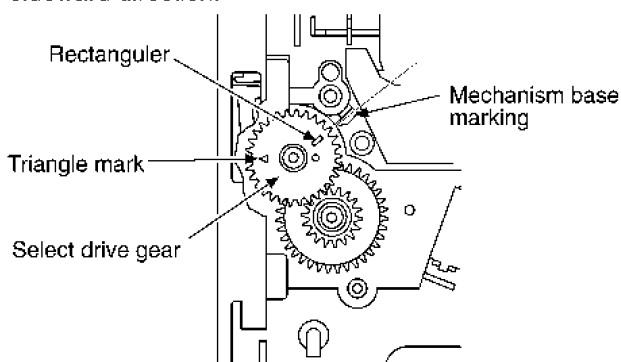
(Step 7)

Install the select drive gear to mechanism base.

Select speed down gear Select drive gear

**(Step 8)**

Fit a mechanism base marking to the rectangular mark of gear so that the triangle mark can indicate the sideward direction.

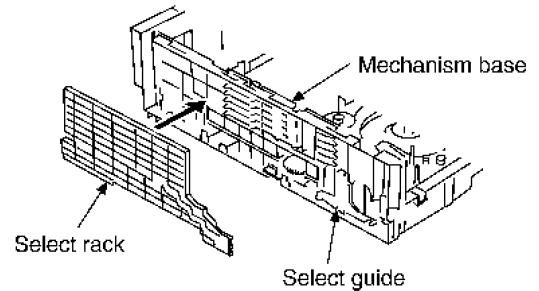
**(Step 9)**

Install the select rack to mechanism base.

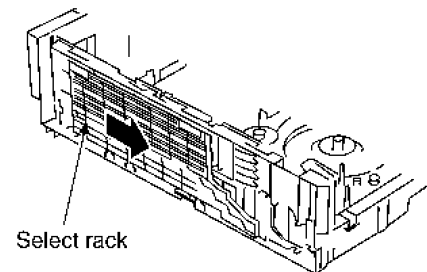
(Checking items before the installation.

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)

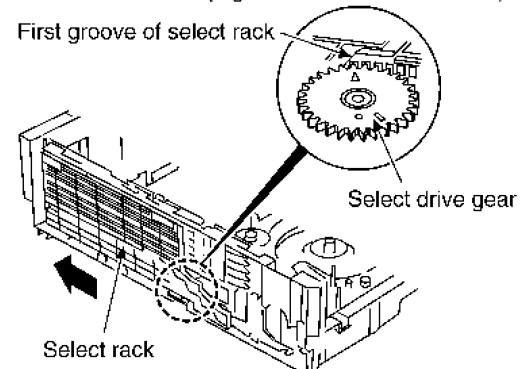
1. Put a select rack down with it fitted to its circumference of mechanism base.



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

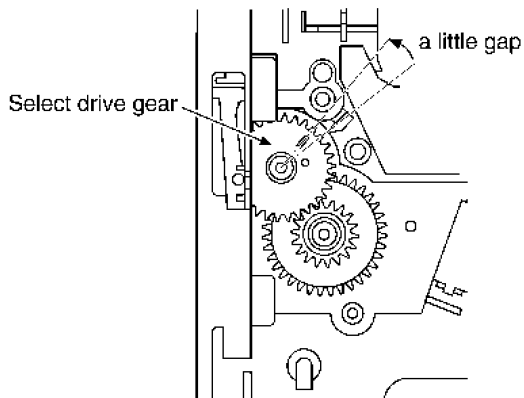


(Figure to see from the inside)



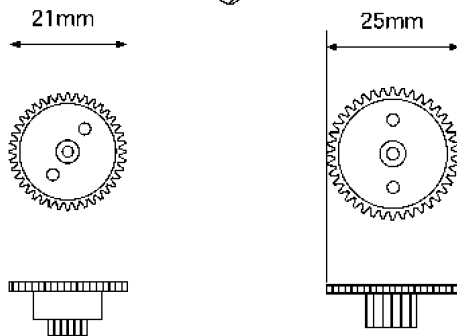
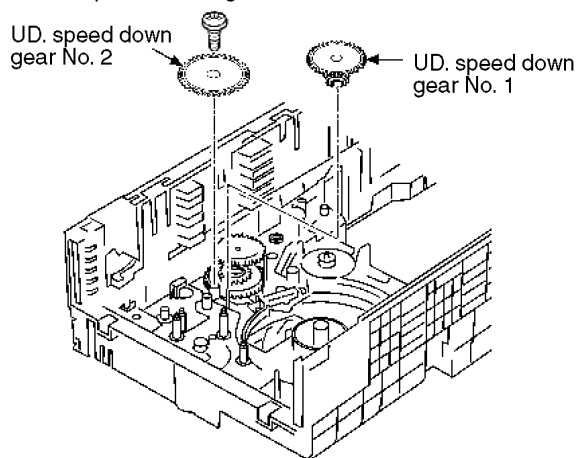
3. Check whether its end of triangular mark is in first groove of select rack, after fixing.
4. After insertion of select rack, continue the following work until the indication that it gose forward. And, all the while it must be checked that select rack is in the extreme end.

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. 2 and UD. speed down gear No. 1

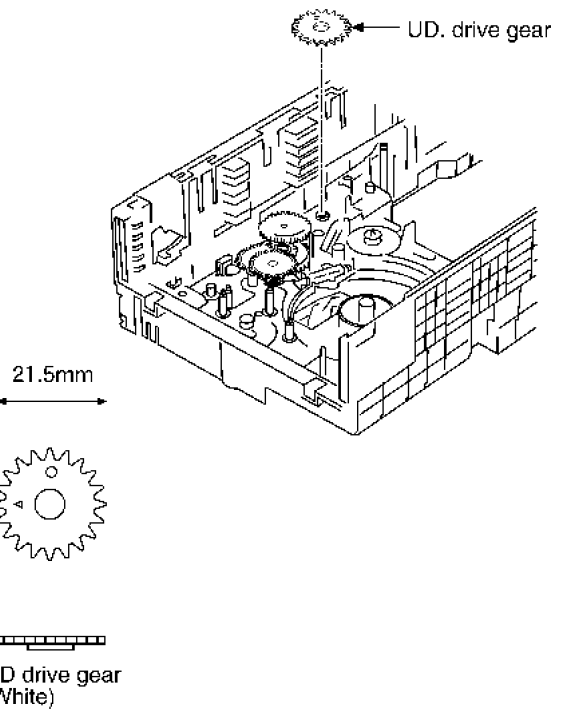


UD. speed down gear No. 1
(Semi-transparent)

UD. speed down gear No. 2
(White)

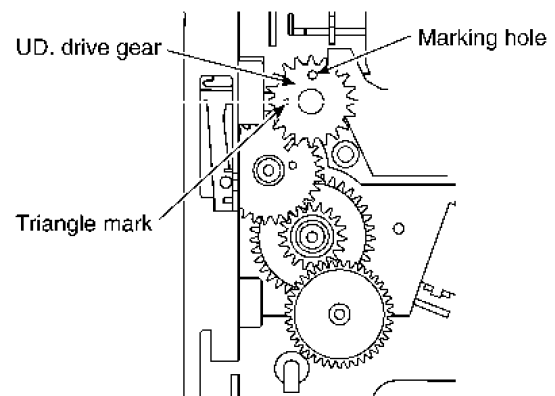
(Step 11)

Install the UD. drive gear to mechanism base.



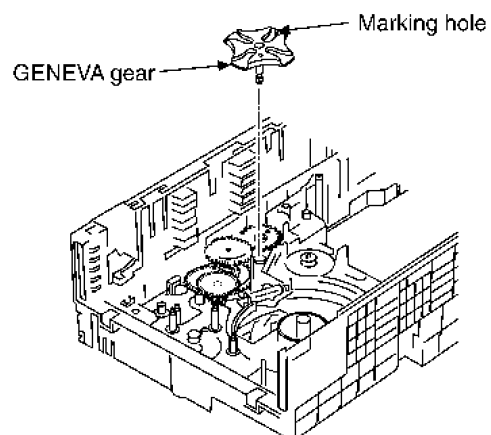
(Step 12)

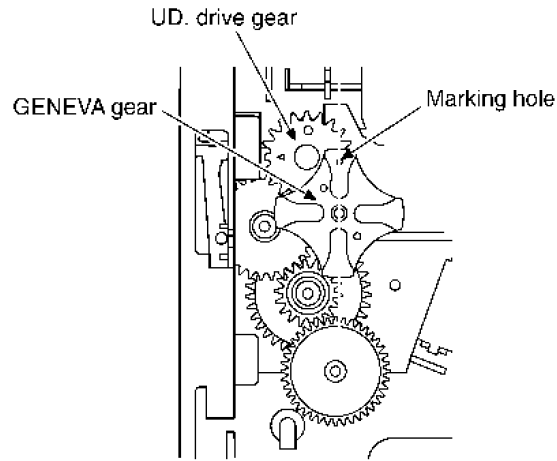
Insert the UD. drive gear with its marking hole upward. At that time, its triangle mark should be sideways.



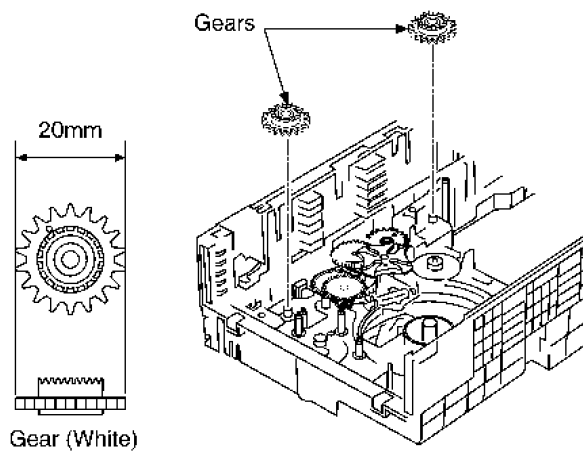
(Step 13)

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.

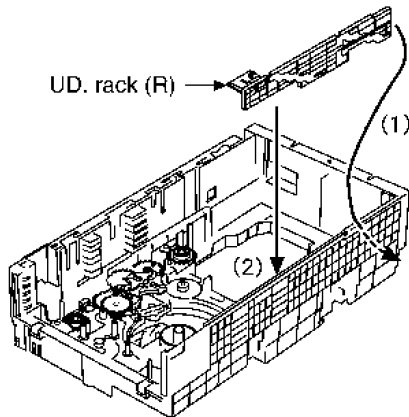


**(Step 14)**

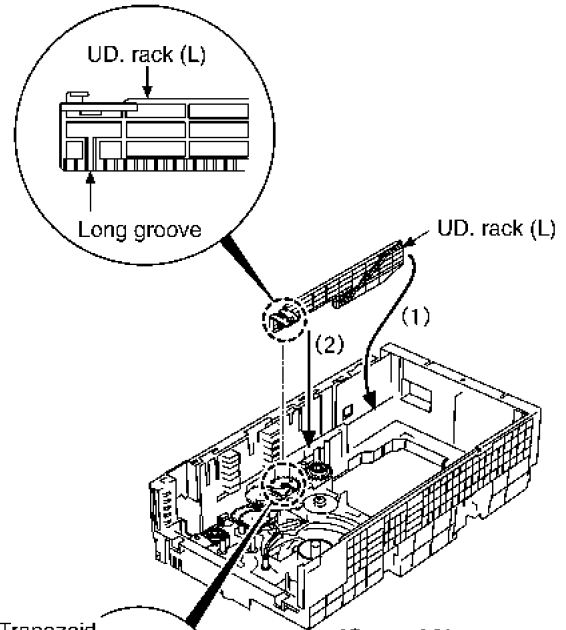
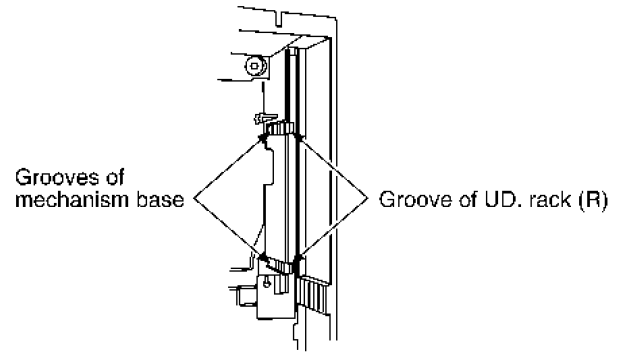
Install the 2 gears to mechanism base.

**(Step 15)**

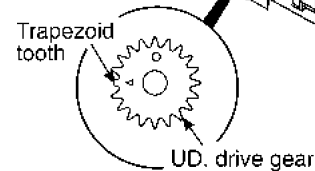
Insert the UD. rack (R) to (2) from arrow (1).

**NOTE:**

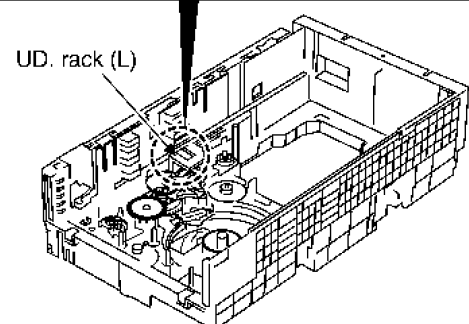
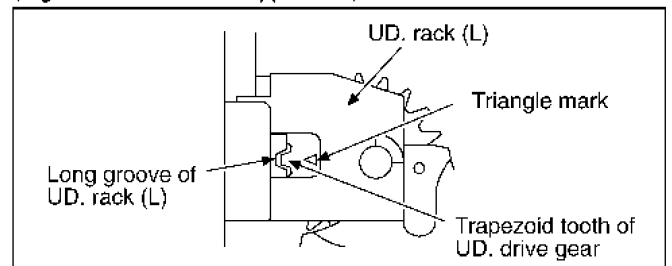
Put a groove of the mechanism base to the UD. rack (R).

**(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.

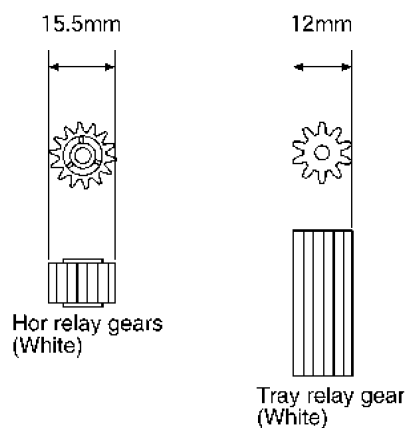
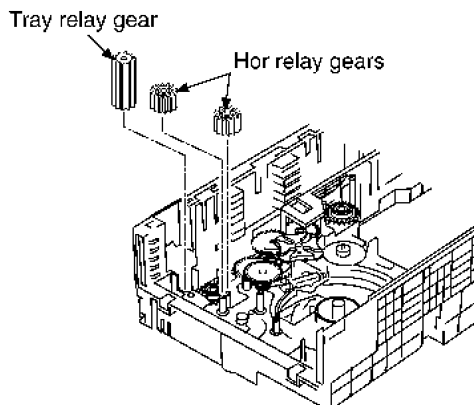


(Figure to see from the upper side)

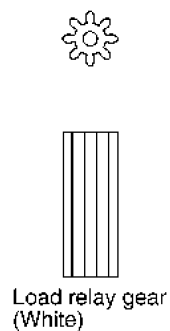
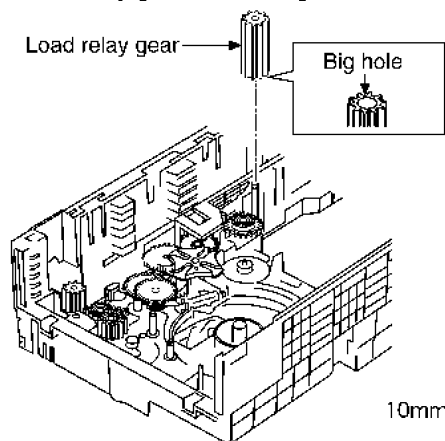


(Step 17)

Install the tray relay gear and 2 hor relay gears.

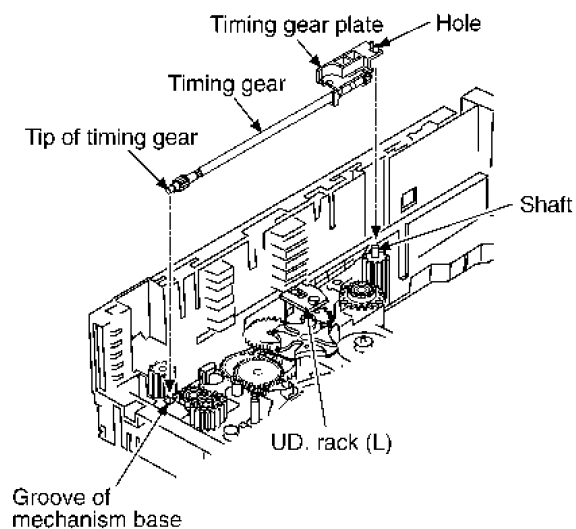
**(Step 18)**

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

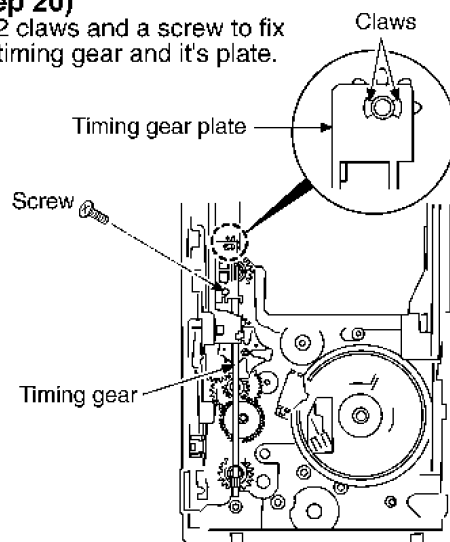
**(Step 19)**

Put on the top of the timing gear, then, install the timing gear and its plate.

At that time avoid the UD. rack (L).

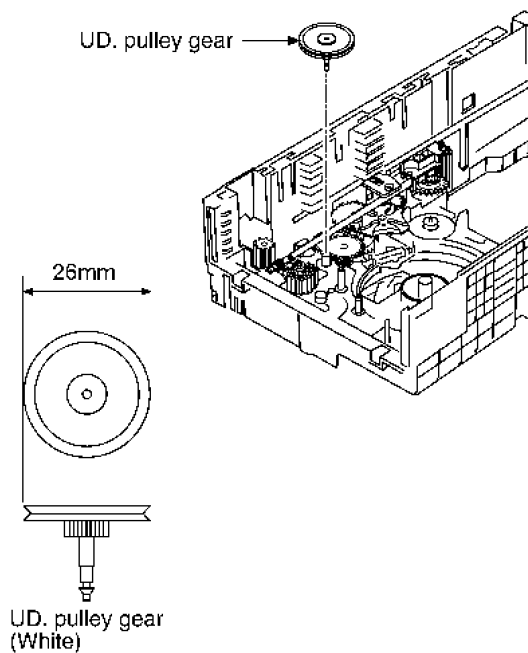
**(Step 20)**

Fix 2 claws and a screw to fix the timing gear and its plate.

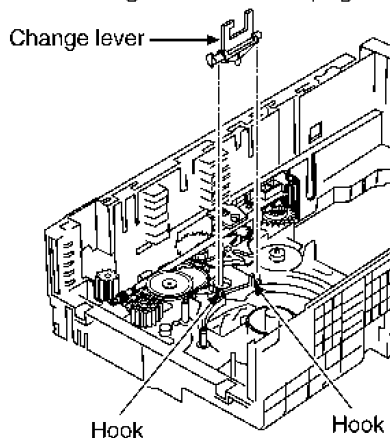


(Step 21)

Install the UD. pulley gear to mechanism base.

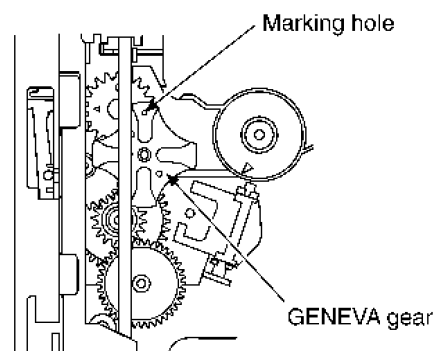
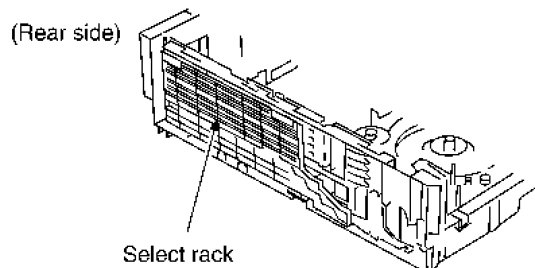
**(Step 22)**

Insert the change lever with it upright.

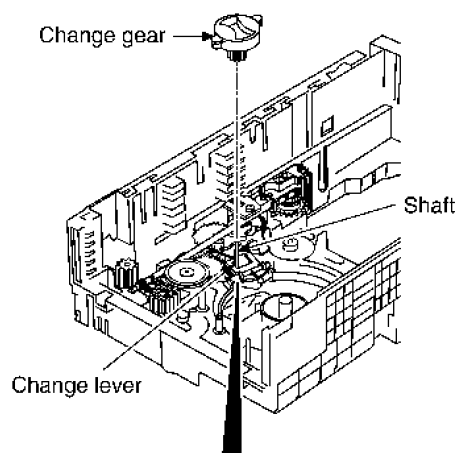
**(Step 23)**

Be sure the notice of below before fixing the change gear.

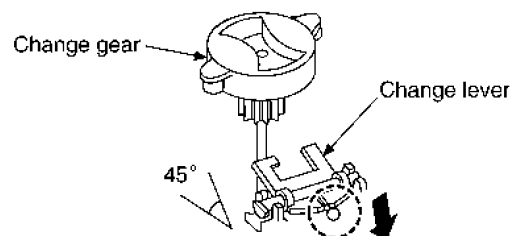
1. Select track should be in the rear of mechanism base.
2. Its hole of GENEVA gear should turn up.

**(Step 24)**

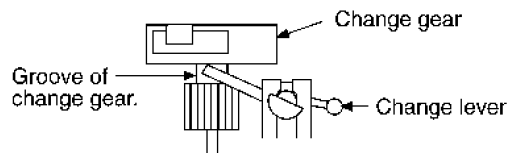
Install the change gear as insert the change lever into the groove of change gear.



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



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



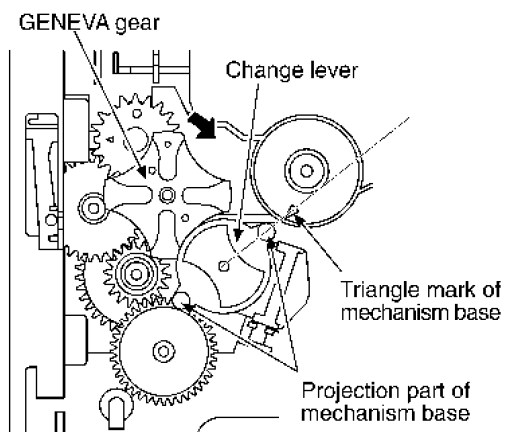
(Step 25)

Put change gear down with projection part of change gear fitted to triangle mark of mechanism base, when fixing change gear.

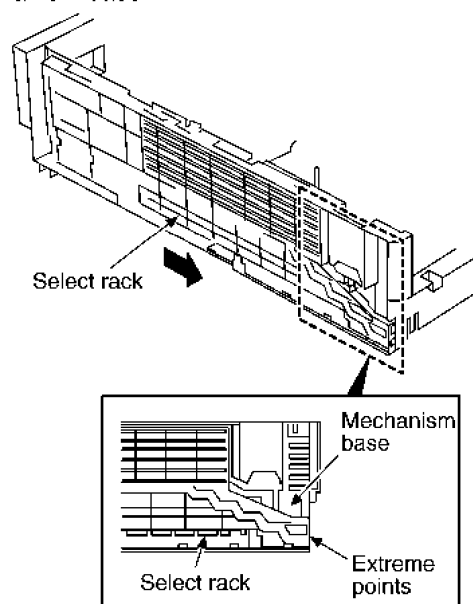
At that time, check change gear is inserted into the groove of change lever.

(Step 26)

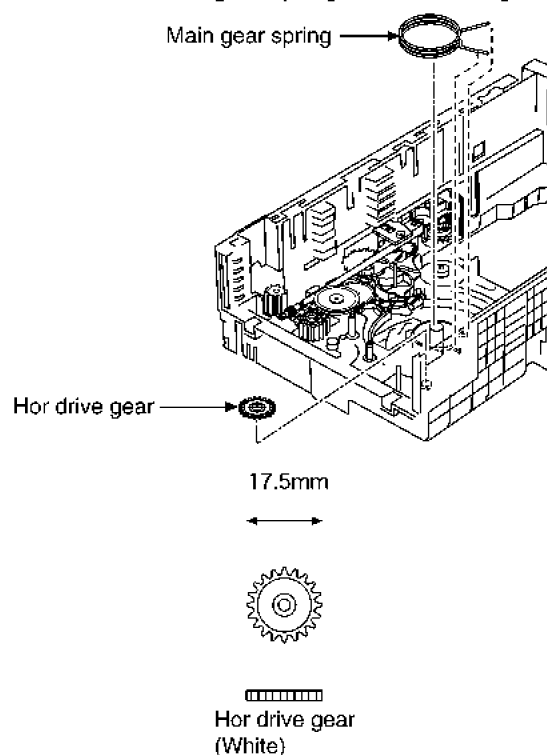
Lastly, turn GENEVA gear clockwise slightly and drop change gear to mechanism base.

**(Step 27)**

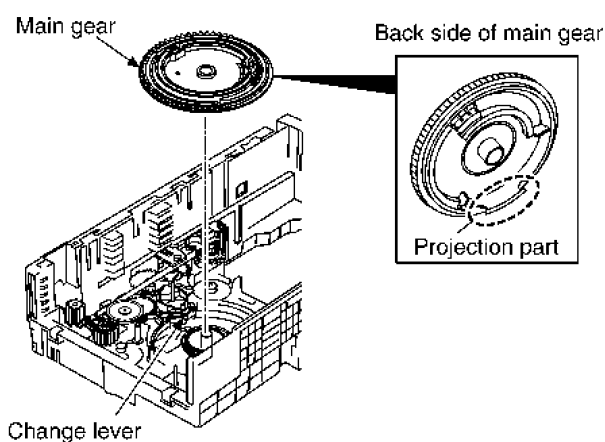
Move the select rack smoothly forward manually until 2 extreme points of both select track and mechanism base.

**(Step 28)**

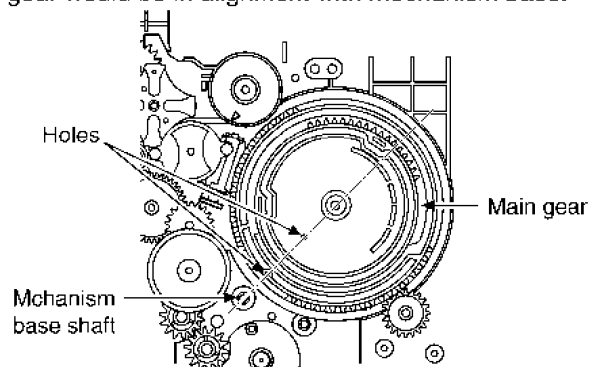
Install the main gear spring and hor drive gear.

**(Step 29)**

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

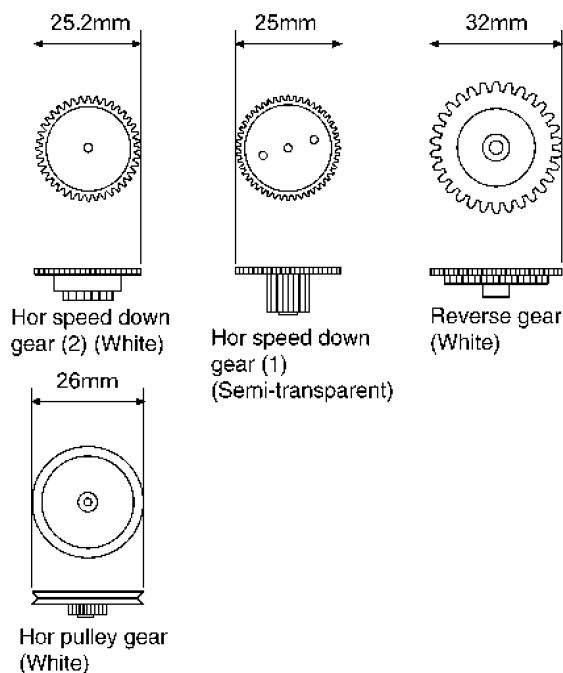
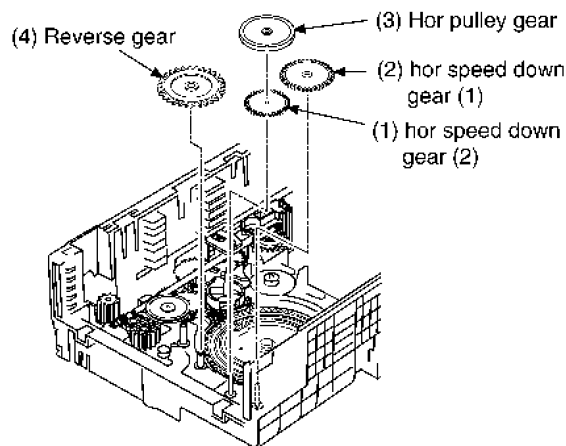
**(Step 30)**

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



(Step 31)

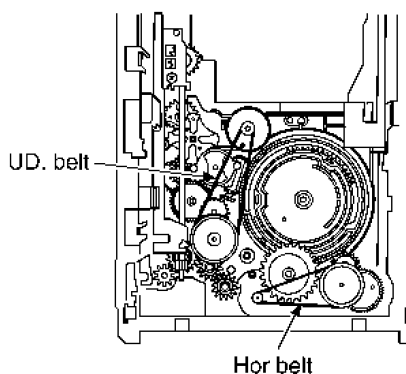
Install the hor speed down gear (2), hor speed down gear (1), hor pulley gear and reverse gear.

**(Step 32)**

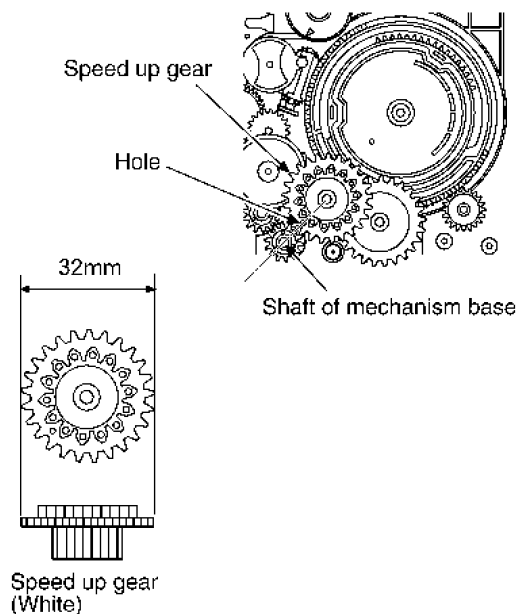
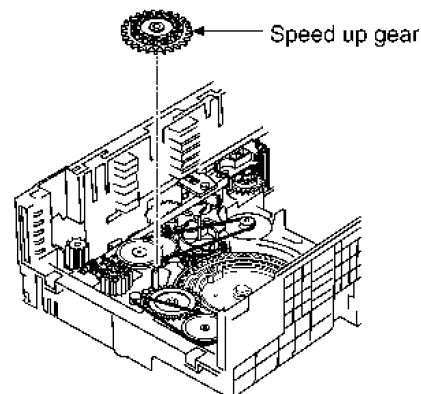
Install the UD. belt and hor belt.

NOTE:

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

**(Step 33)**

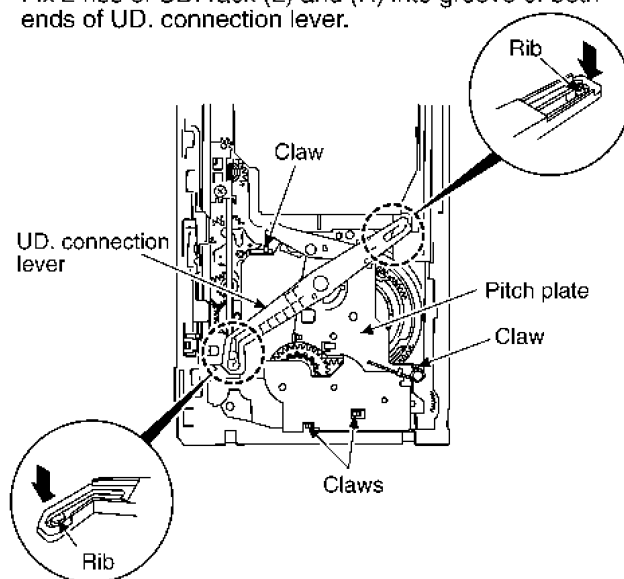
Install speed up gear to its shaft of mechanism base with 2 fitting.

**(Step 34)**

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

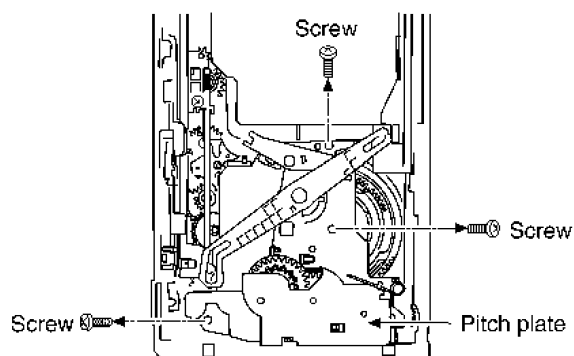
(Step 35)

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



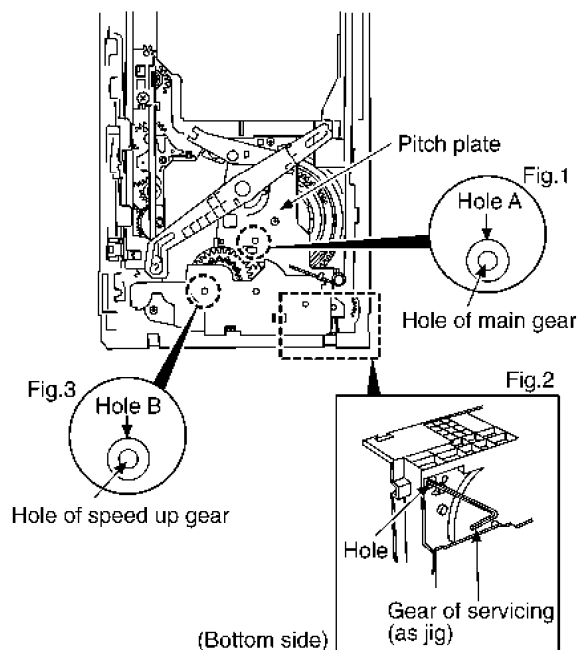
(Step 36)

Fixed it by three screws further.

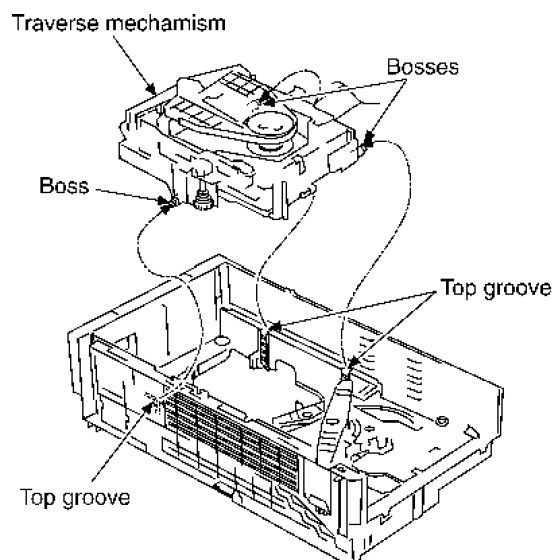
**(Step 37)**

Be sure the notice of below before fixing the traverse mechanism.

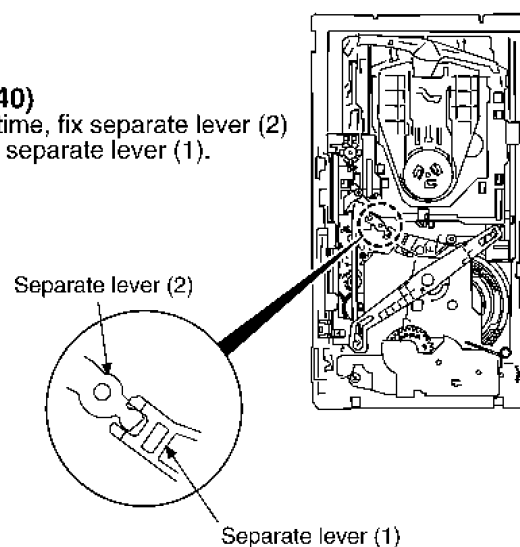
1. Check that 2 holes of both pitch plate and main gear is fitted. (Refer to Fig.1)
If it's not fitted, put the gear for servicing in the hole of the bottom side and adjust it. (Refer to Fig.2)
2. Check that 2 holes of both pitch plate and speed up gear is fitted. (Refer Fig.3)
If it's not fitted turn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

**(Step 39)**

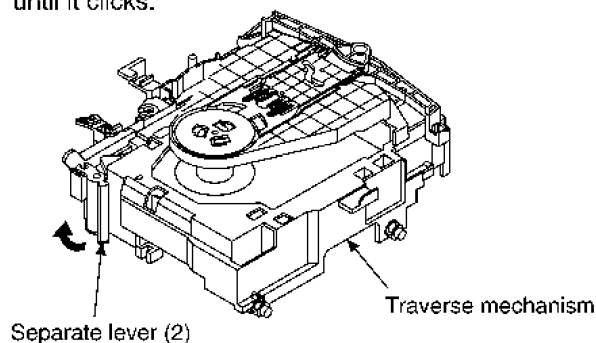
Fix the left boss into the top groove of the UD. rack (L) and fix 2 bosses into the groove of the UD. rack (R).

**(Step 40)**

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

**(Step 38)**

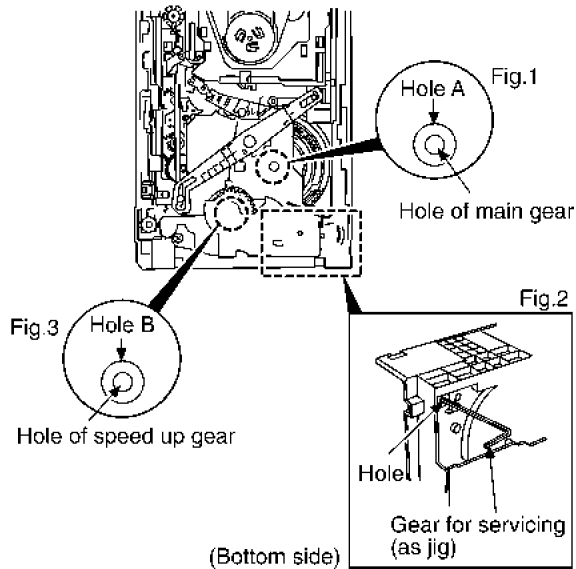
Turn the separate lever (2) slowly toward left side until it clicks.



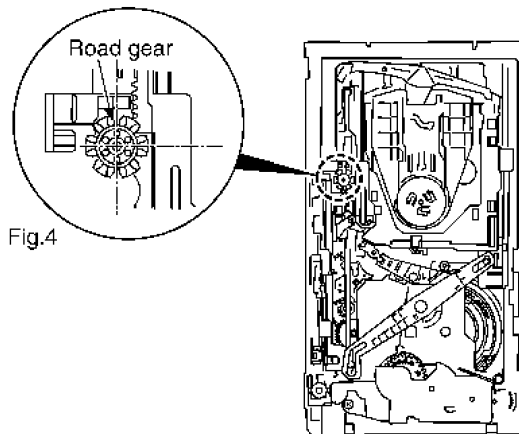
(Step 41)

After the traverse mechanism fixed, confirm the phase in order below.

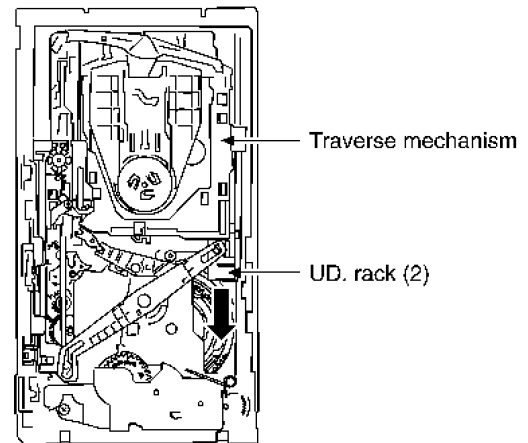
1. Check that 2 holes of both pitch plate and main gear is fitted. (Refer to Fig.1)
If it's not fitted, put the gear for servicing in the hole of the bottom side and adjust it. (Refer to Fig.2)
2. Check that 2 holes of both pitch plate and speed up gear is fitted. (Refer Fig.3)
If it's not fitted turn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

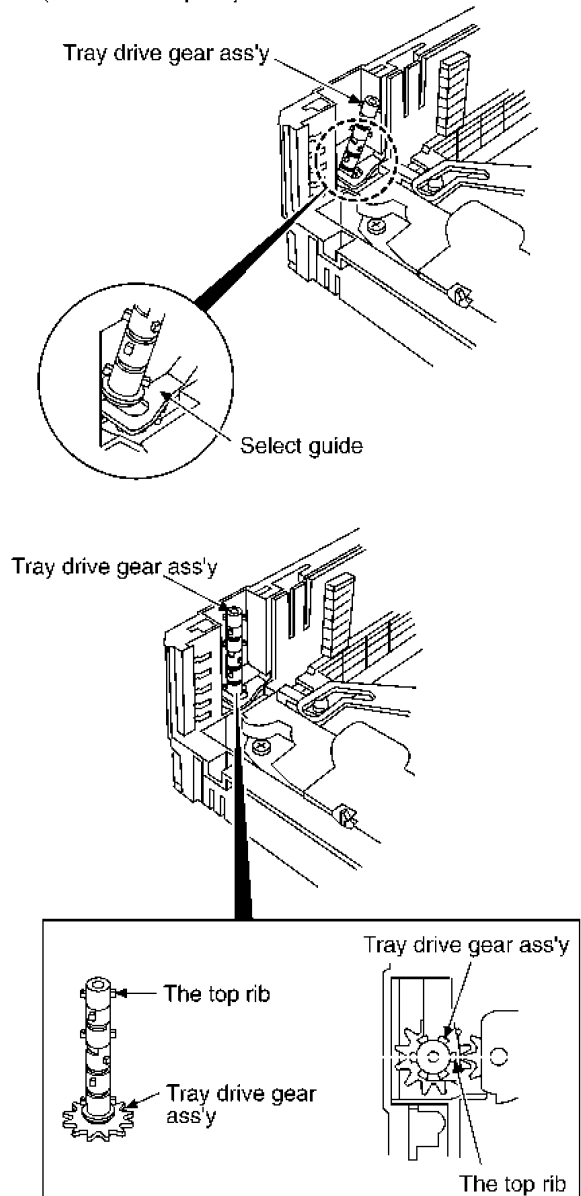
After insertion of traverse mechanism, pull the UD. rack (R) on this side that each phase is "OK" and then lock the traverse mechanism.

**(Step 43)**

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

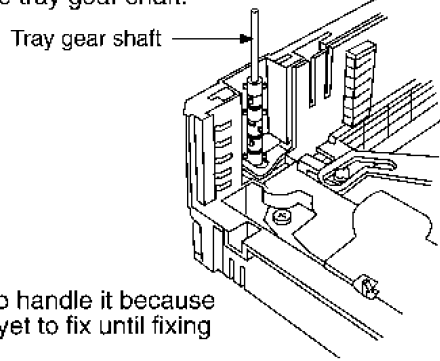
NOTE:

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



(Step 44)

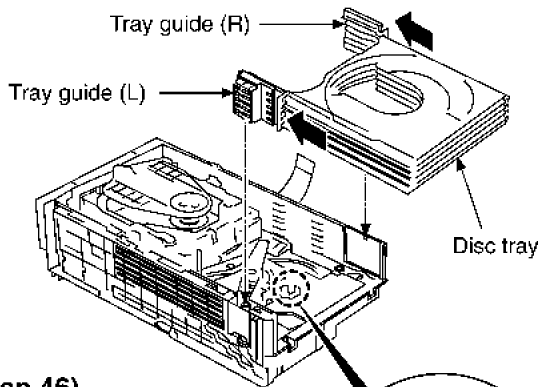
Insert the tray gear shaft.

**NOTE:**

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

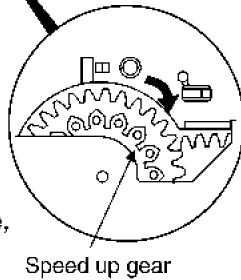
(Step 45)

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

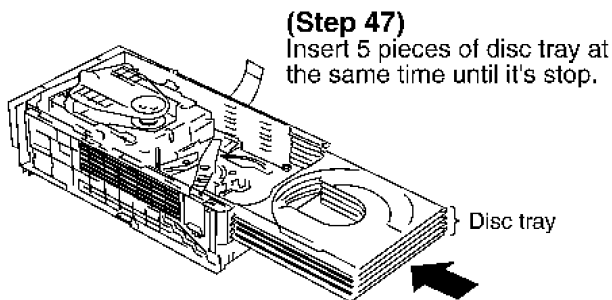
**(Step 46)**

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 rotate, repeat from Step 45 and 46.

**NOTE:**

While keeping all position, install 5 pieces of disc tray.

**(Step 47)**

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

(Step 48)

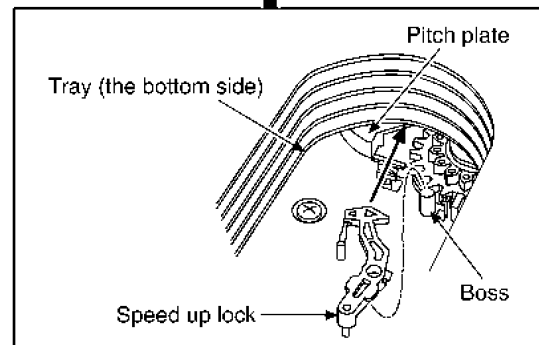
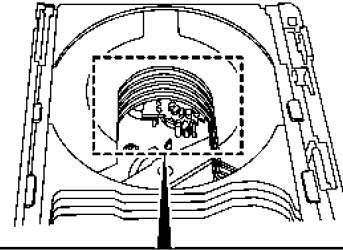
Turn the traverse side 180°.

(Step 49)

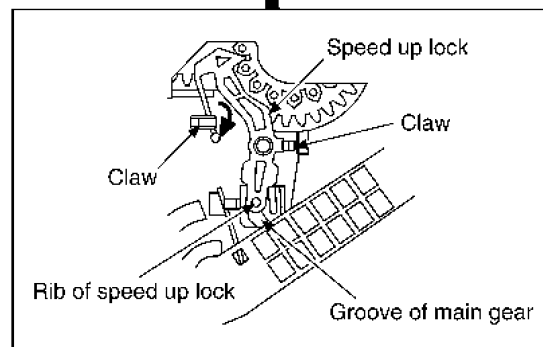
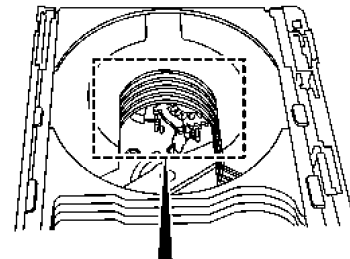
While install the tip of speed up lock between tray (No.1) of the most lower side and pitch plate for the time being. (Do not to insert the cog of speed up gear), insert it to boss.

NOTE:

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

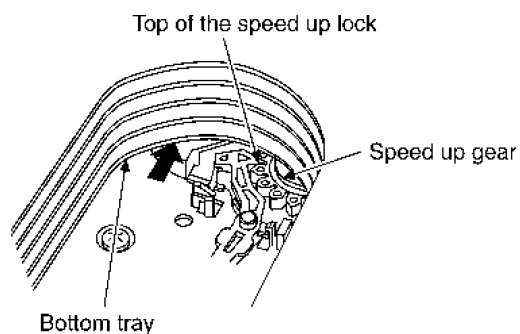
**(Step 50)**

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



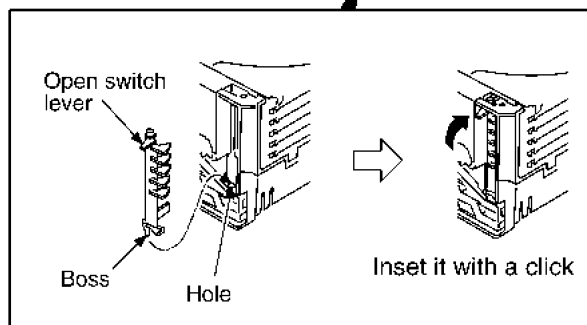
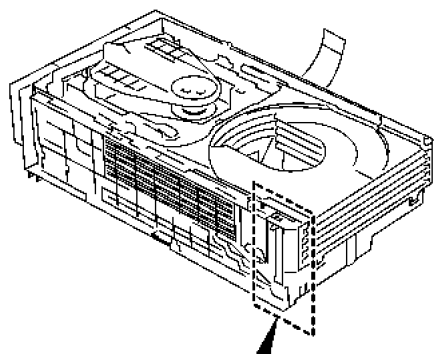
(Step 51)

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.)

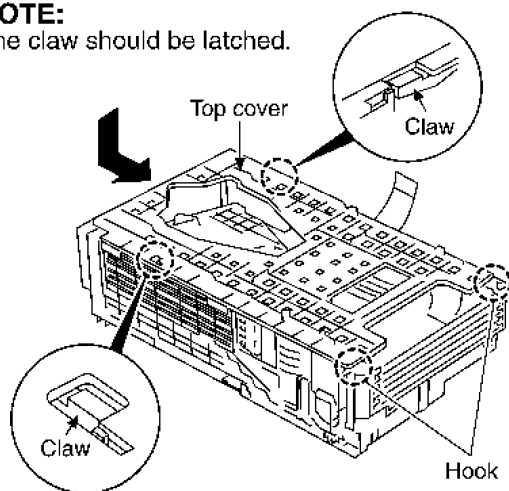
**(Step 53)**

Install the top cover.

Fix it into hooks and slide direction to the arrow.

NOTE:

The claw should be latched.



15.18. Disassembly for Traverse Unit

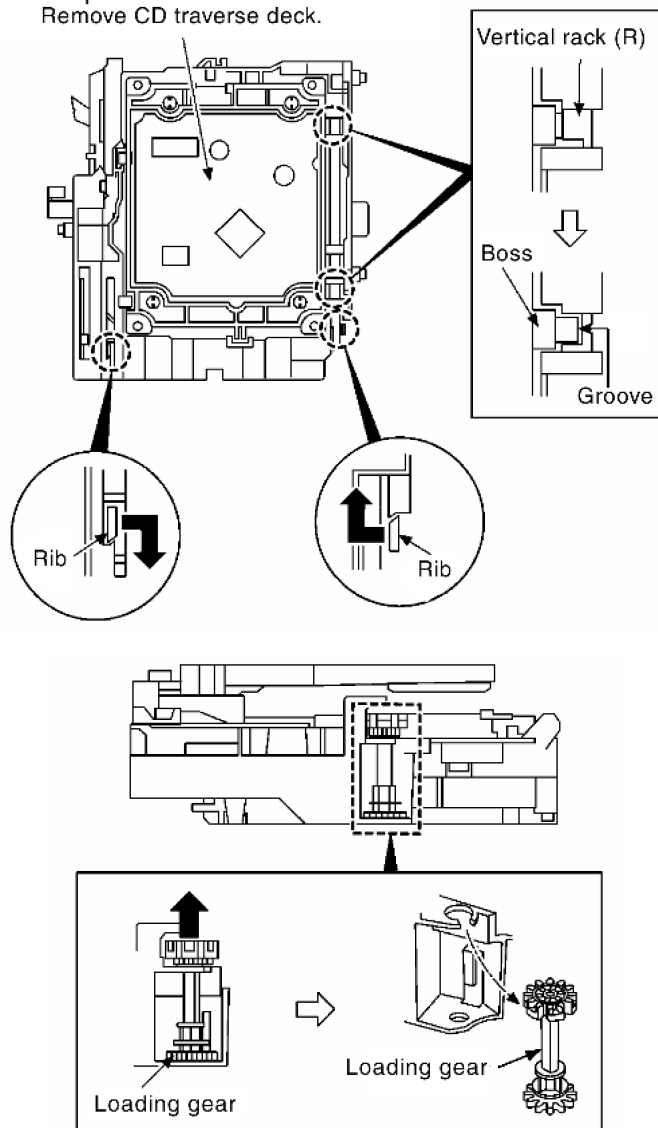
- Follow the **(Step 1)** - **(Step 10)** of item 15.16.2
- Follow the **(Step 1)** - **(Step 4)** of item 15.16.3

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

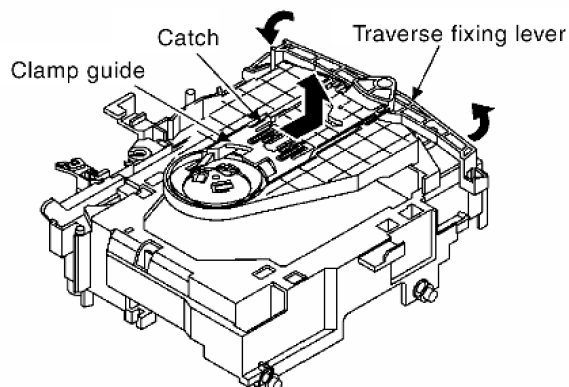
Lift a loading gear slightly and pull out.

Step 4

Fixing lever to the arrow direction, rotate a traverse.

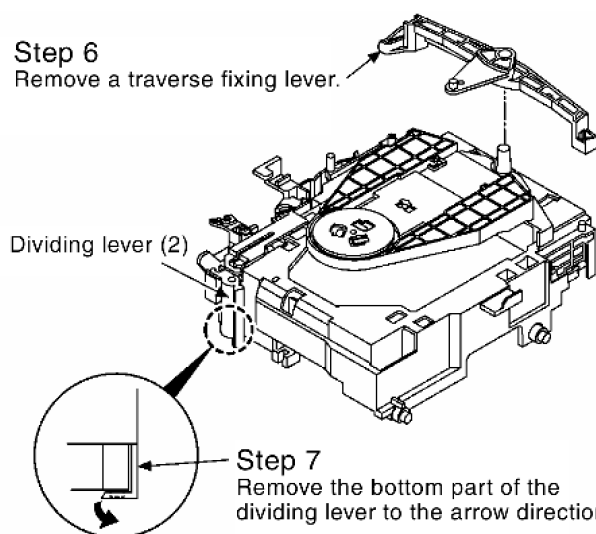
Step 5

Remove catch and take out a clamp guide.



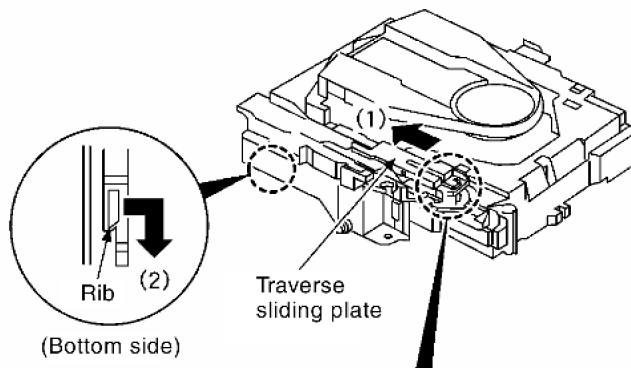
Step 6

Remove a traverse fixing lever.

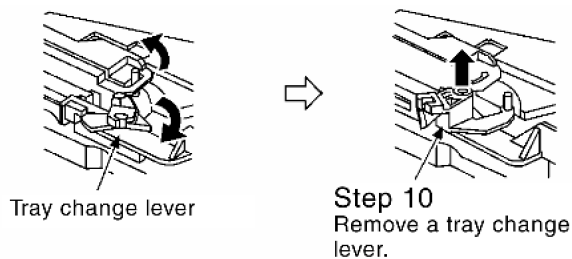


Step 8

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

**Step 9**

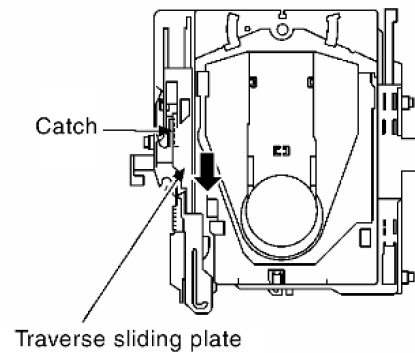
Shifting a traverse sliding plate slightly and rotate a tray change lever.



Step 10
Remove a tray change lever.

Step 11

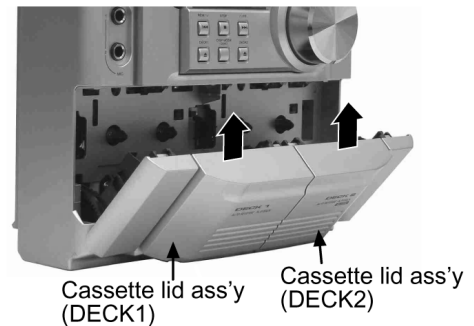
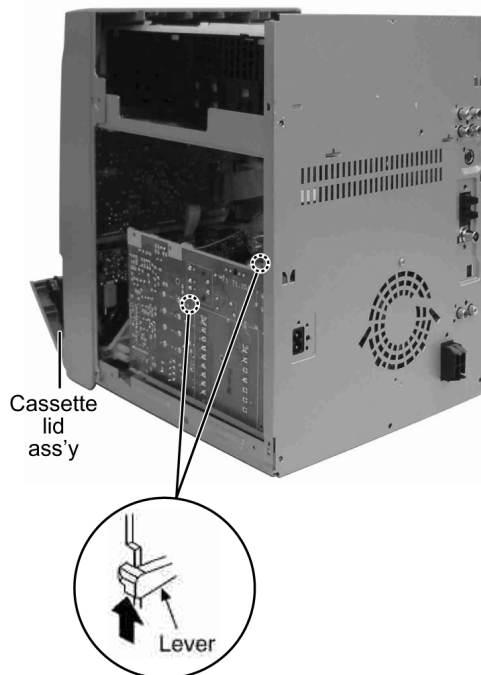
Holding the catch down, slide a traverse sliding plate to the arrow direction and remove it.



15.19. Replacement for the cassette lid ass'y

· Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet

Step 1 Lift up the lever upward, open the cassette lid ass'y.
(For DECK1 and DECK2)

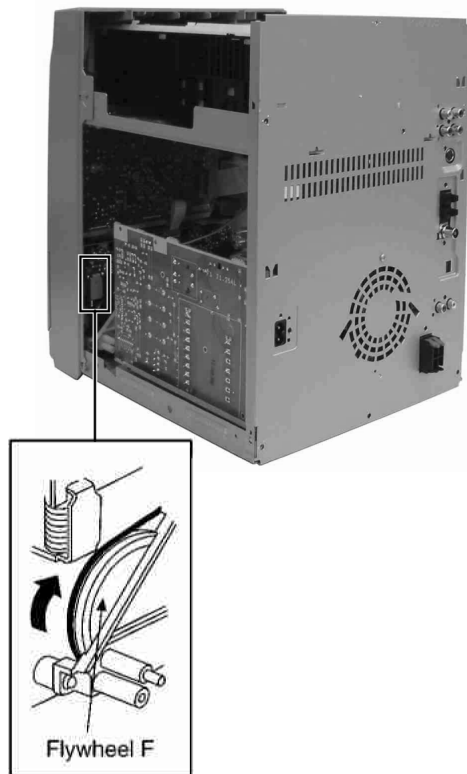


Step 2 Push up the cassette lid ass'y in the direction of arrow.
(For DECK1 and DECK2).

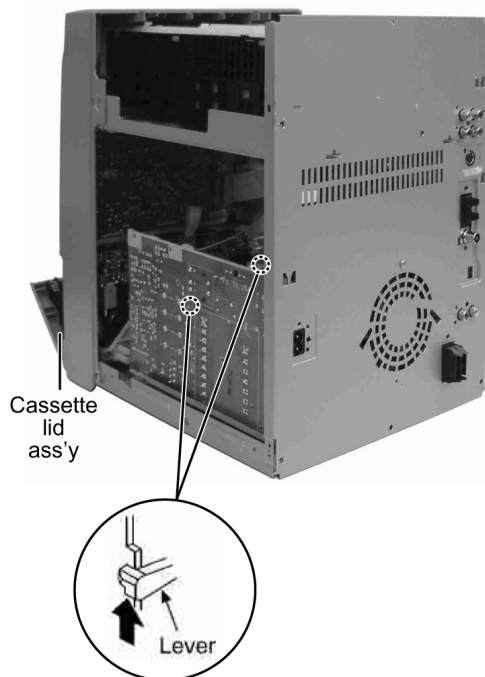
15.20. Rectification for tape jam problem

· Follow the (Step 1) - (Step 2) of Item 15.3 - 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 ass'y. Remove the cassette tape.



16 Checking for major P.C.Bs

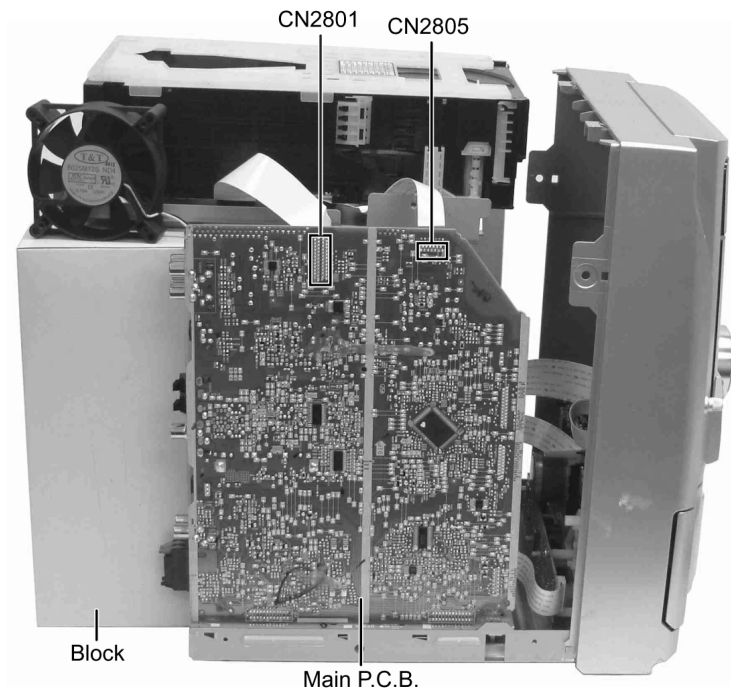
Note:

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., Tact Switch P.C.B., Mic P.C.B. and Power P.C.B.) can be carried out using below procedures.

For the disassembling procedures, refer to Section 15.

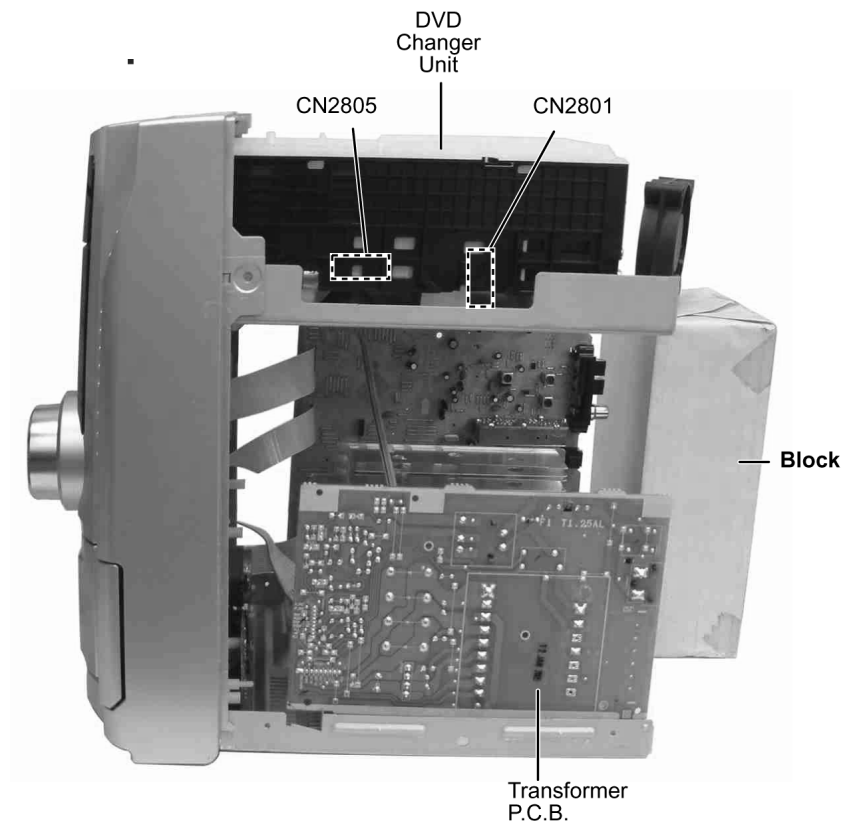
16.1. Checking of Main P.C.B.

1. Remove Top Cabinet and Rear Panel.
2. Remove CD Lid.
3. Disassemble DVD Mechanism Unit.
4. Connect FFC wires (CN2801 & CN2805) from DVD Mechanism Unit.



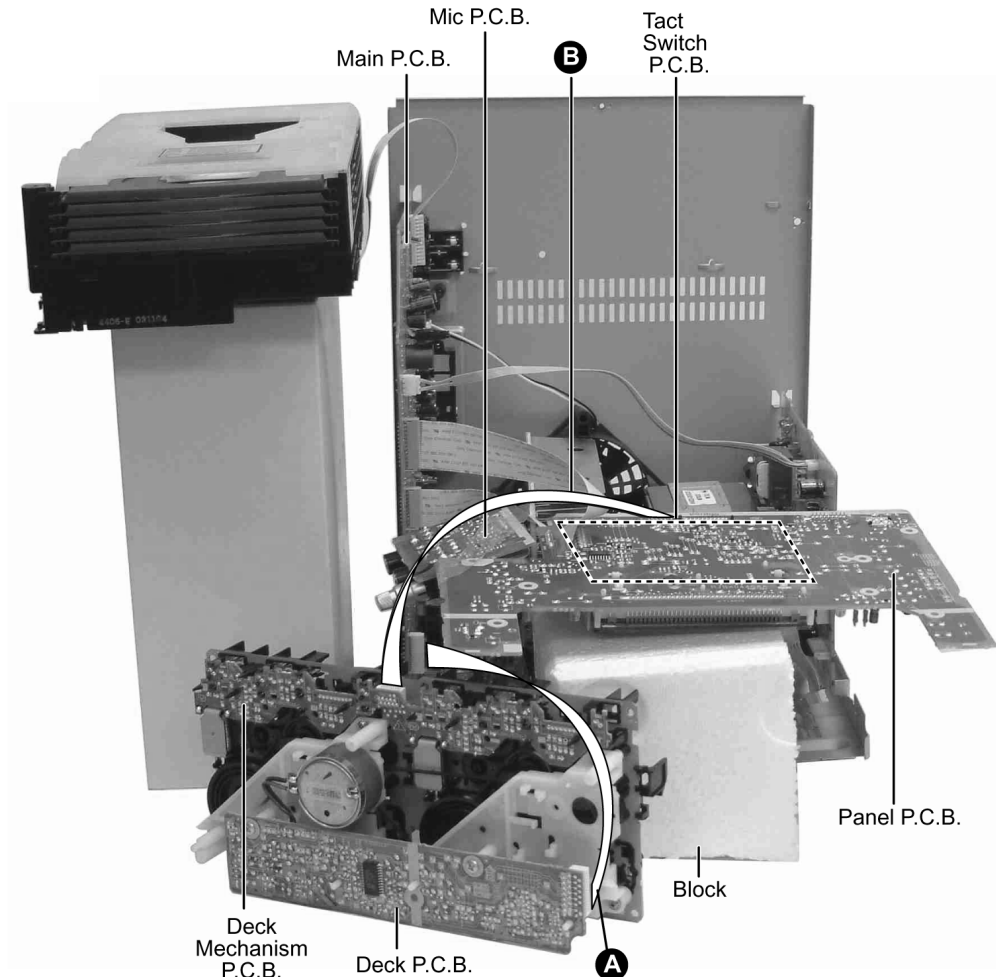
16.2. Checking of Transformer P.C.B.

1. Remove Top Cabinet and Rear Panel.
2. Remove CD Lid.
3. Disassemble DVD Mechanism Unit.
4. Connect FFC wires (CN2801 & CN2805) from DVD Mechanism Unit.



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

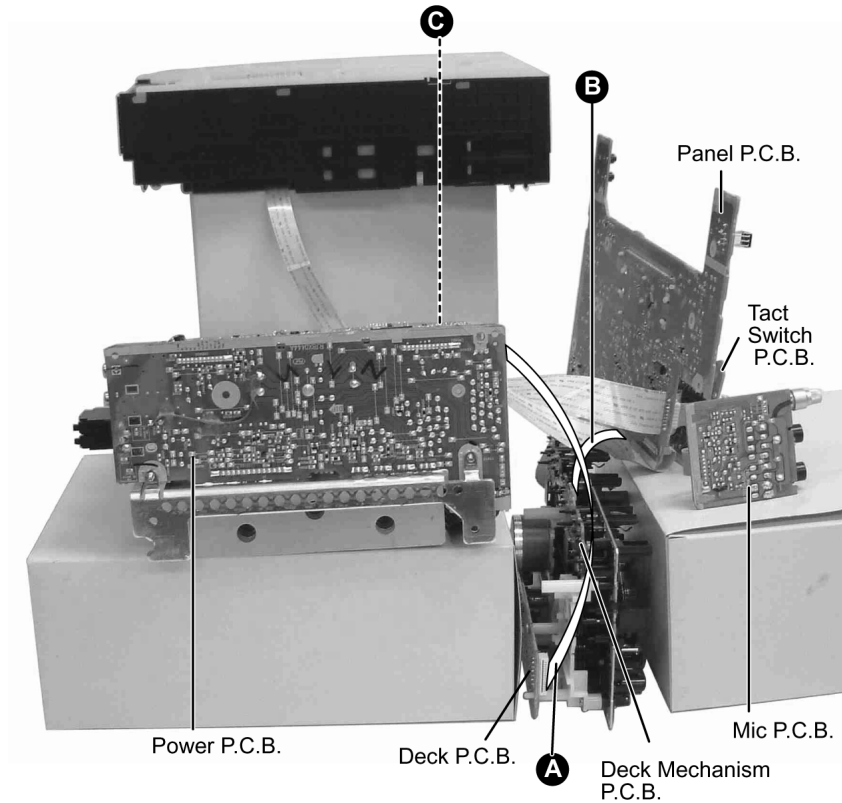
1. Remove Top Cabinet.
2. Remove CD Lid.
3. Disassemble DVD Mechanism Unit.
4. Remove volume knob at Front Panel Unit.
5. Disassemble Panel P.C.B.
6. Disassemble Deck Mechanism Unit.
7. Use the extension cable (A) to reconnect (CN1001) Deck P.C.B. and (CN2803) Main P.C.B.
8. Use the extension cable (B) to reconnect (CP6401) 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)

16.4. Checking of Power P.C.B.

1. Remove Top Cabinet and Rear Panel.
2. Remove CD Lid.
3. Disassemble DVD Mechanism Unit.
4. Remove 3 screws at Transformer P.C.B..
5. Remove 2 screws at heat sink and 1 screw at Power P.C.B.
6. Flip the Power P.C.B.
7. Insulate the Power P.C.B. with insulation material to avoid short circuit.
8. Use the extension cable (A) to reconnect (CN1001) Deck P.C.B. and (CN2803) Main P.C.B.
9. Use the extension cable (B) to reconnect (CP6401) Panel P.C.B. and (CN971) Deck Mechanism P.C.B.
10. Use the extension cable (C) to reconnect (H5850/W5950) Power P.C.B. and (CN5950) Transformer 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)
(C) Power P.C.B. - Transformer P.C.B.	RFKAK330 (9 Pins)

17 Measurements and Adjustments

17.1. Cassette Deck Section

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

17.1.1. Head Azimuth Adjustment (Deck 1/2)

Caution:

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

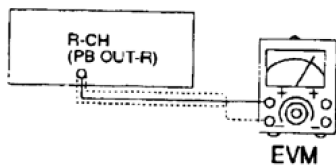


Fig. 1

-  Screw
-  Springs

Fig. 2

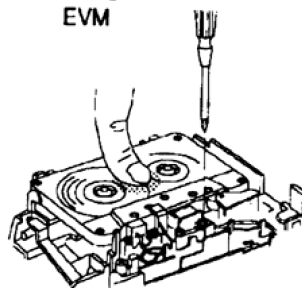


Fig. 3

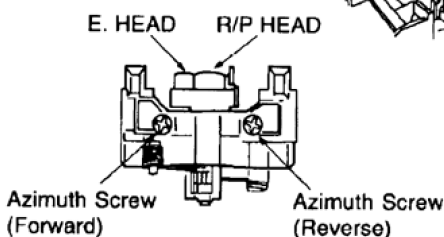


Fig. 4

17.1.2. 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.

UNIT

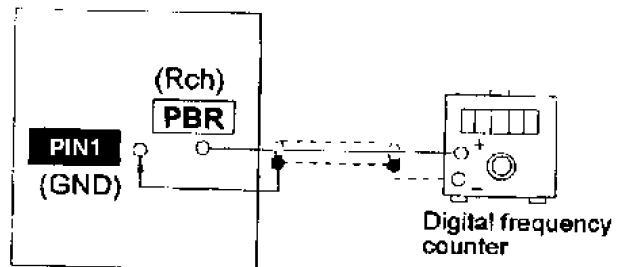


Fig. 1

17.1.3. 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 "1 REC/STOP" key).
3. Measure and make sure that the output is within the standard value.

Bias voltage for Deck 2

14 $\pm$ 4mV (Normal)

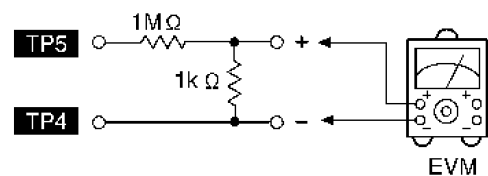


Fig. 2

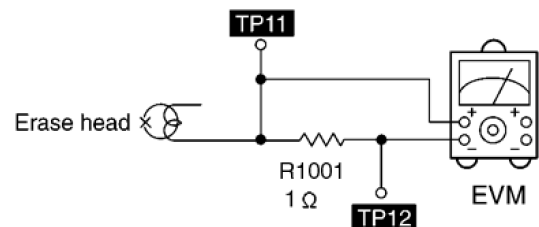


Fig. 3

17.1.4. 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

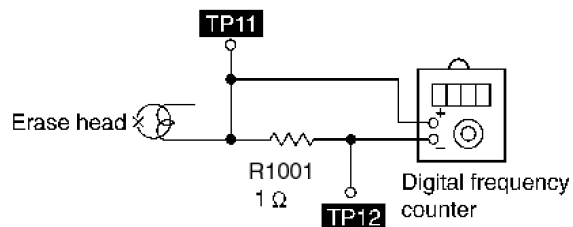


Fig. 4

17.2. Tuner Section

17.2.1. 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.

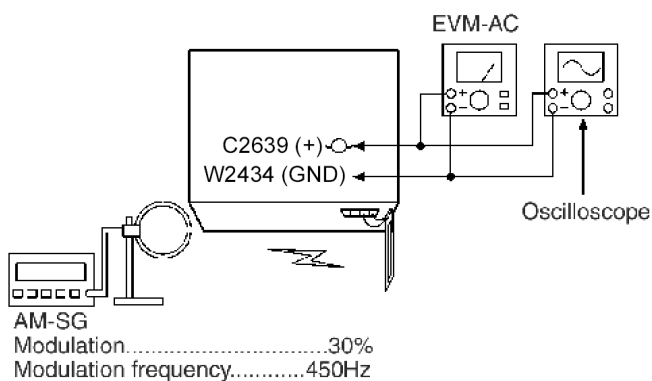


Fig. 5

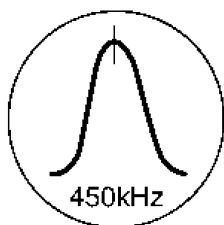


Fig. 6

17.2.2. 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 $1.1 \pm 0.5V$.

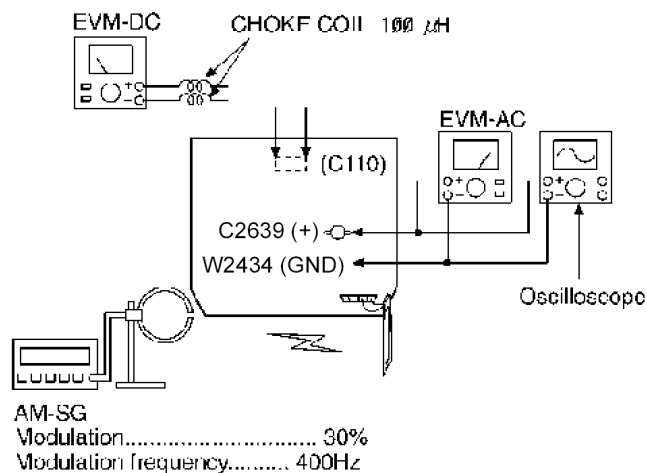
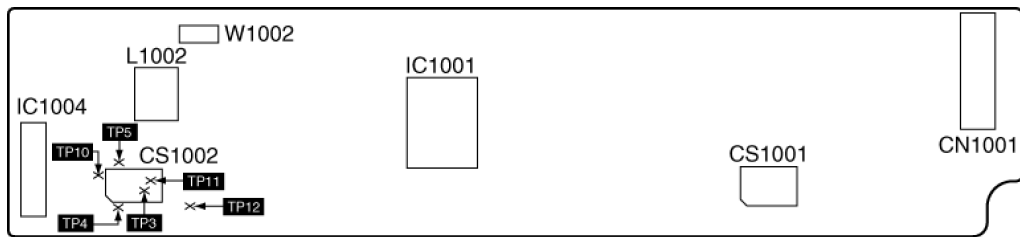


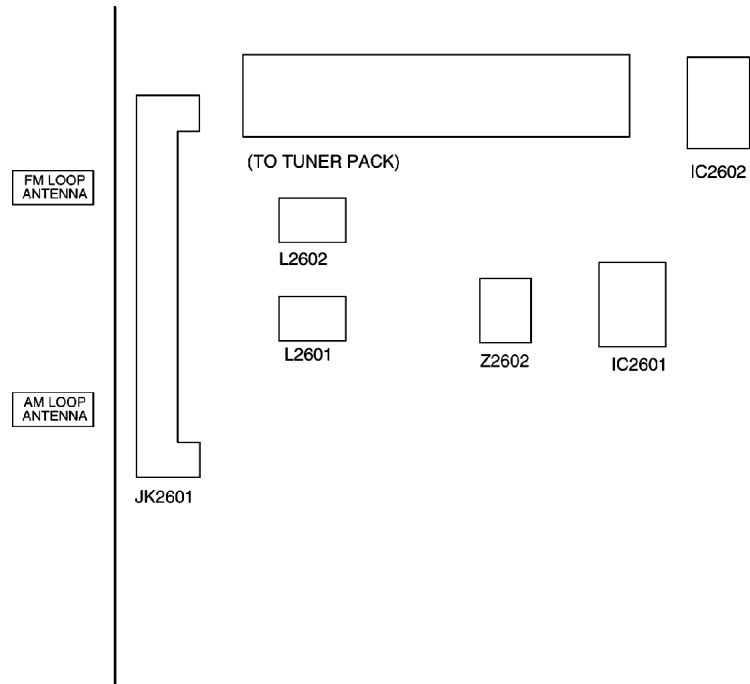
Fig. 7

17.3. Alignment Points

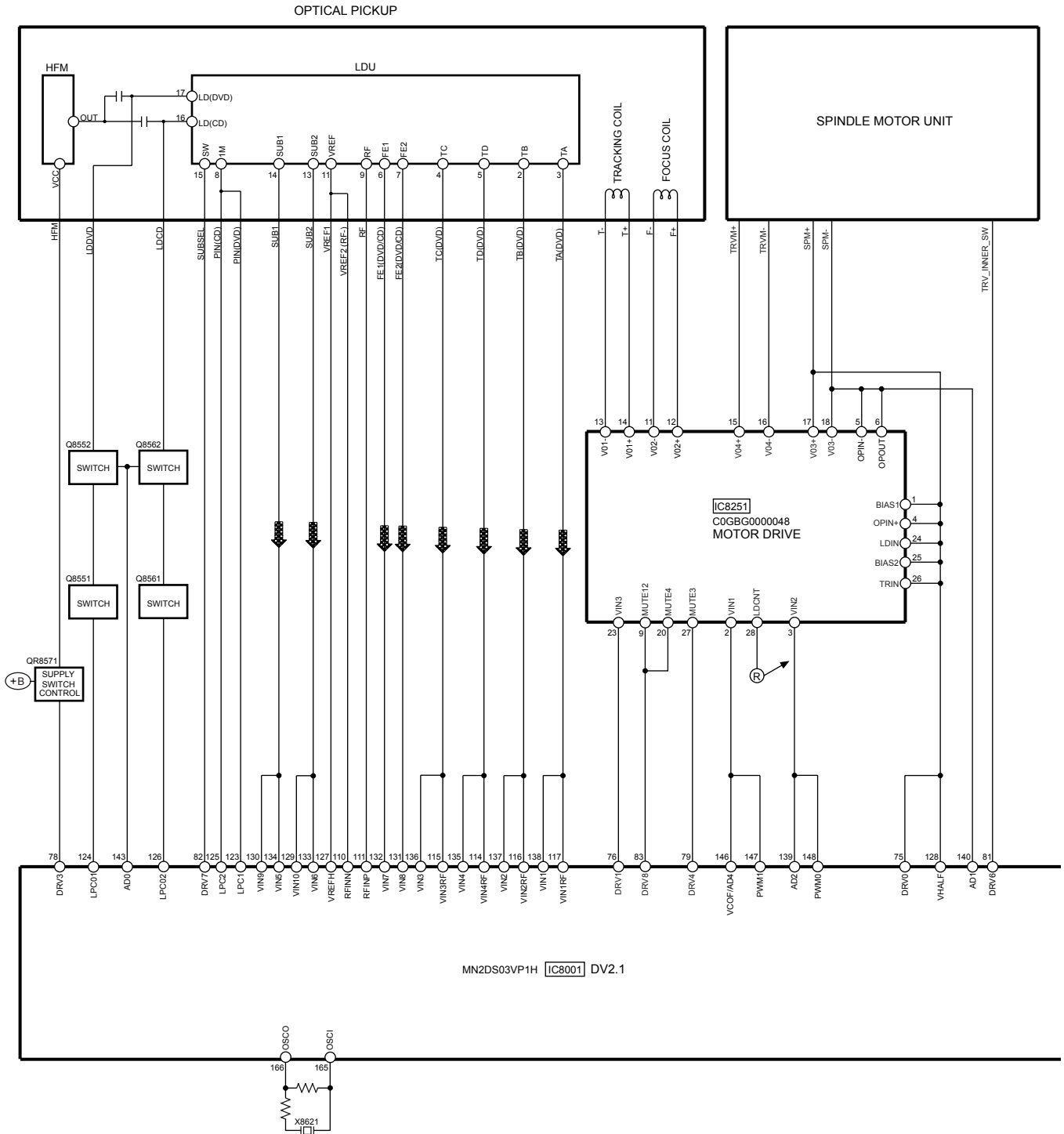
17.3.1. Cassette Deck Section

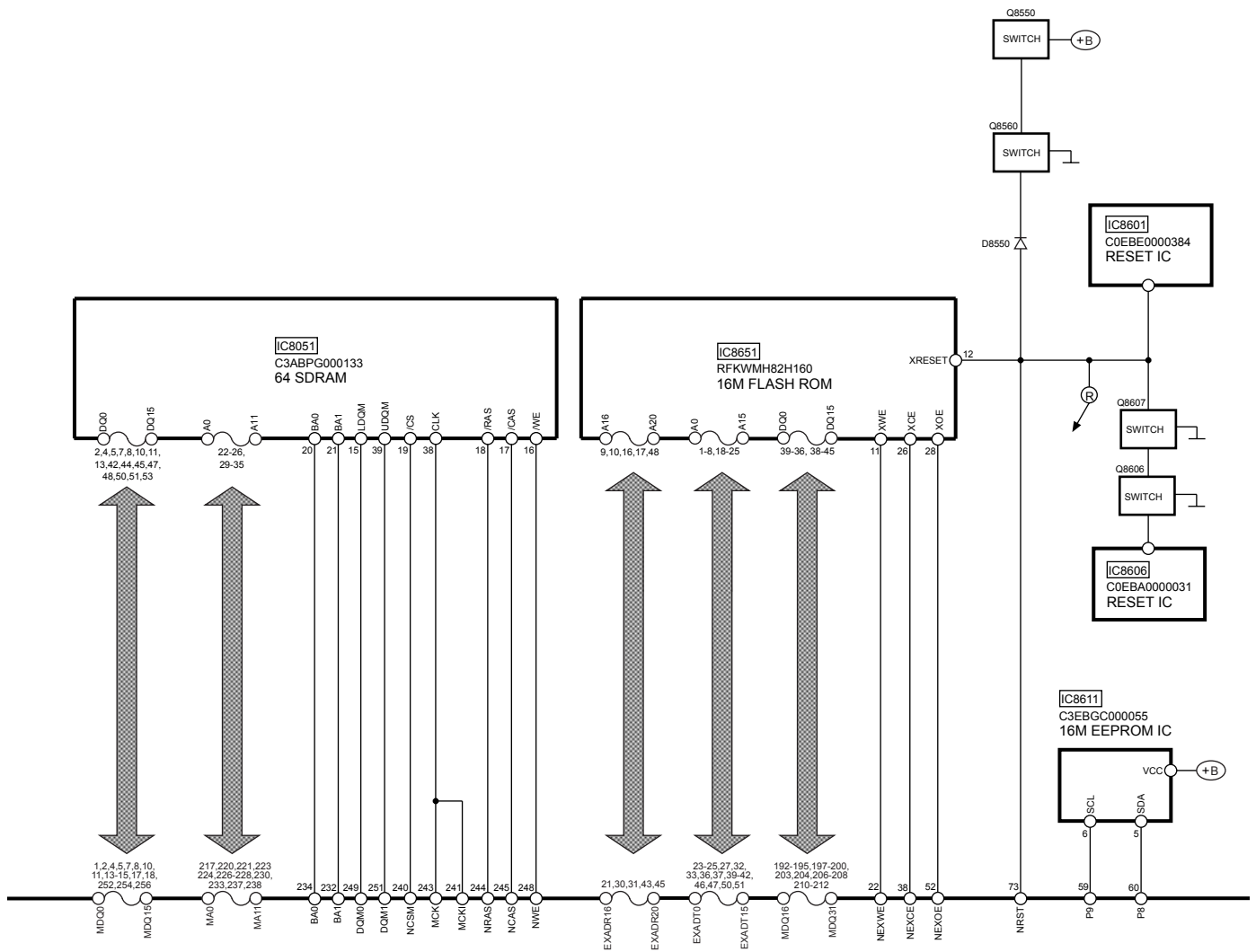


17.3.2. Adjustment Point

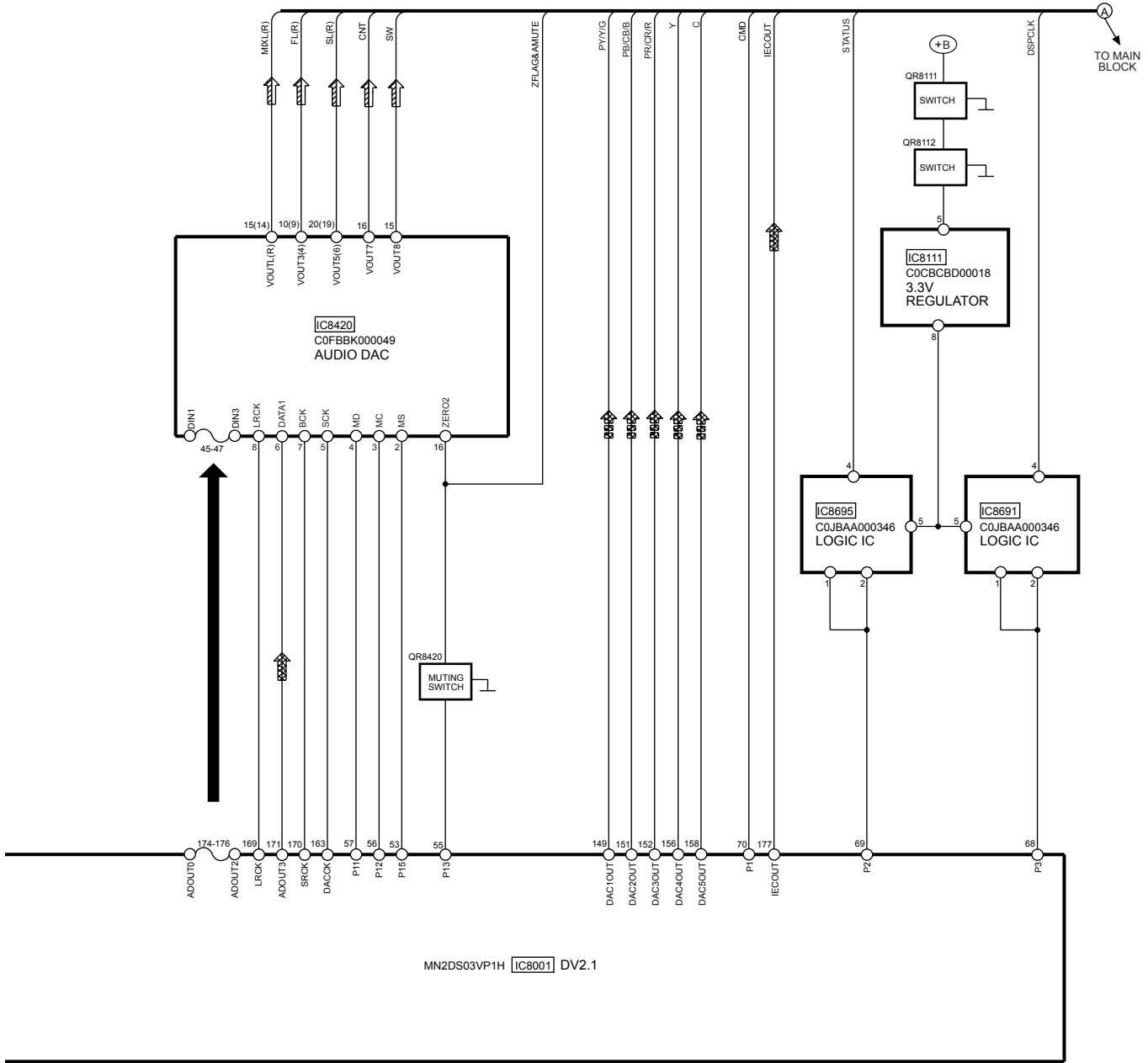


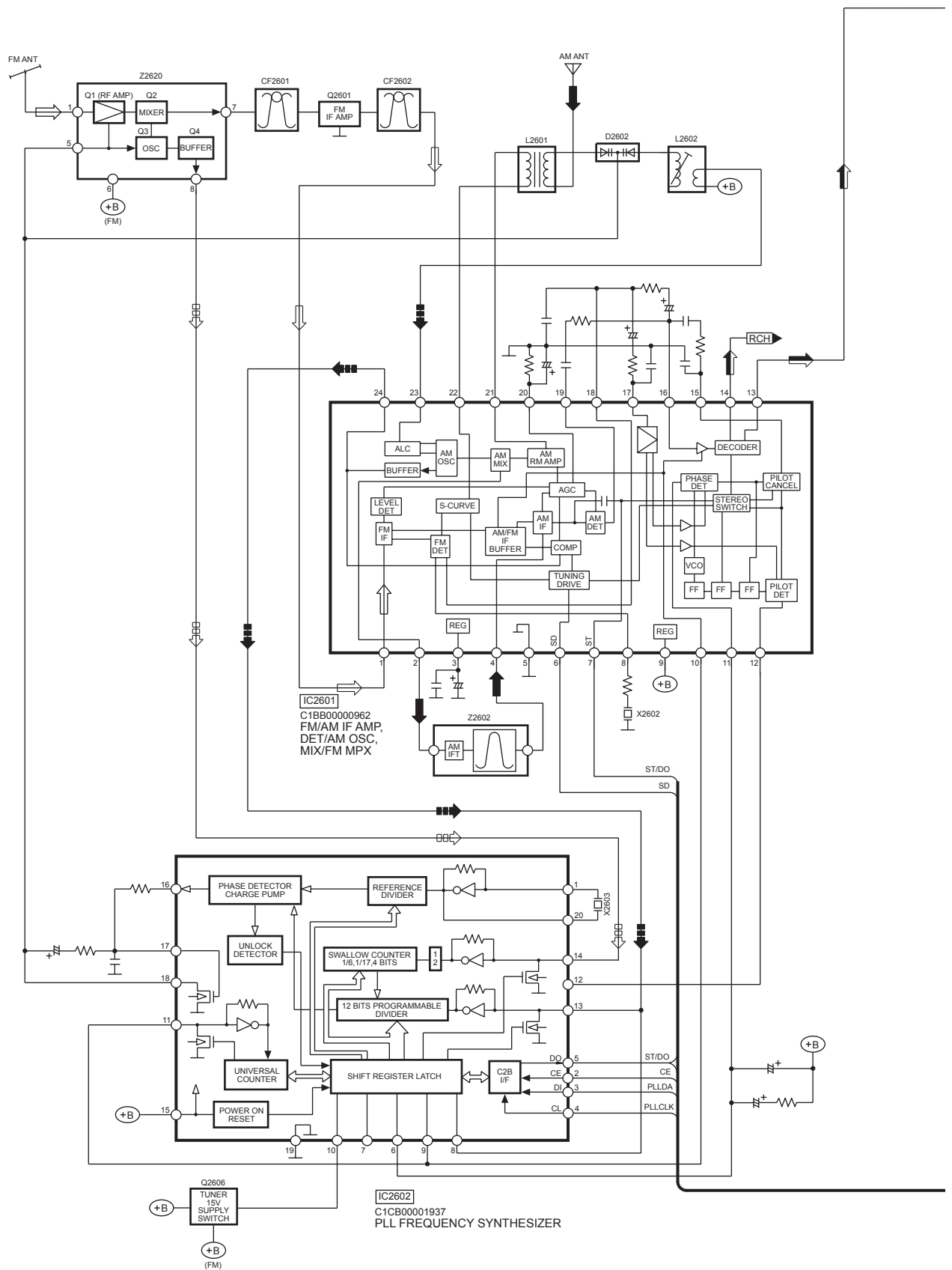
18 Block Diagram

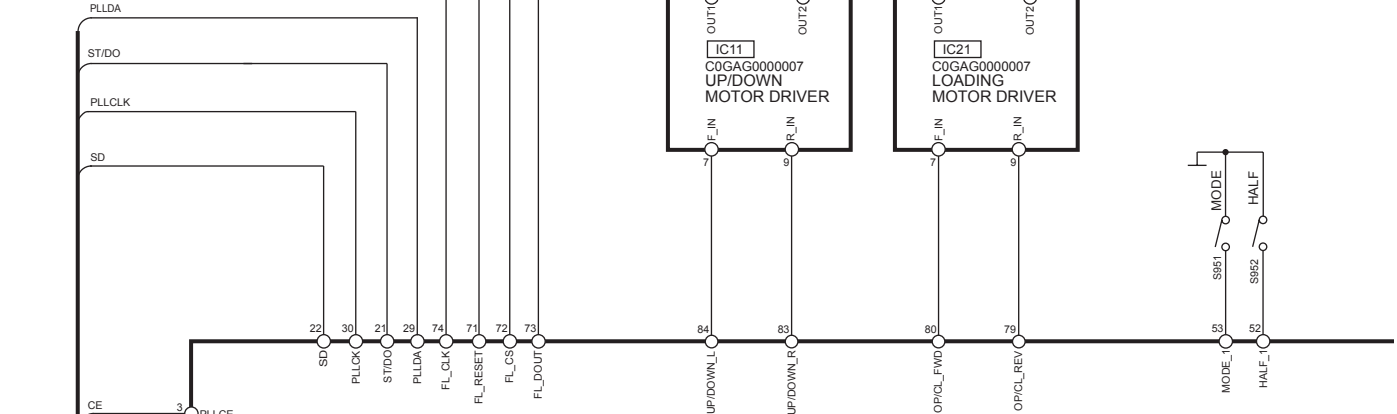


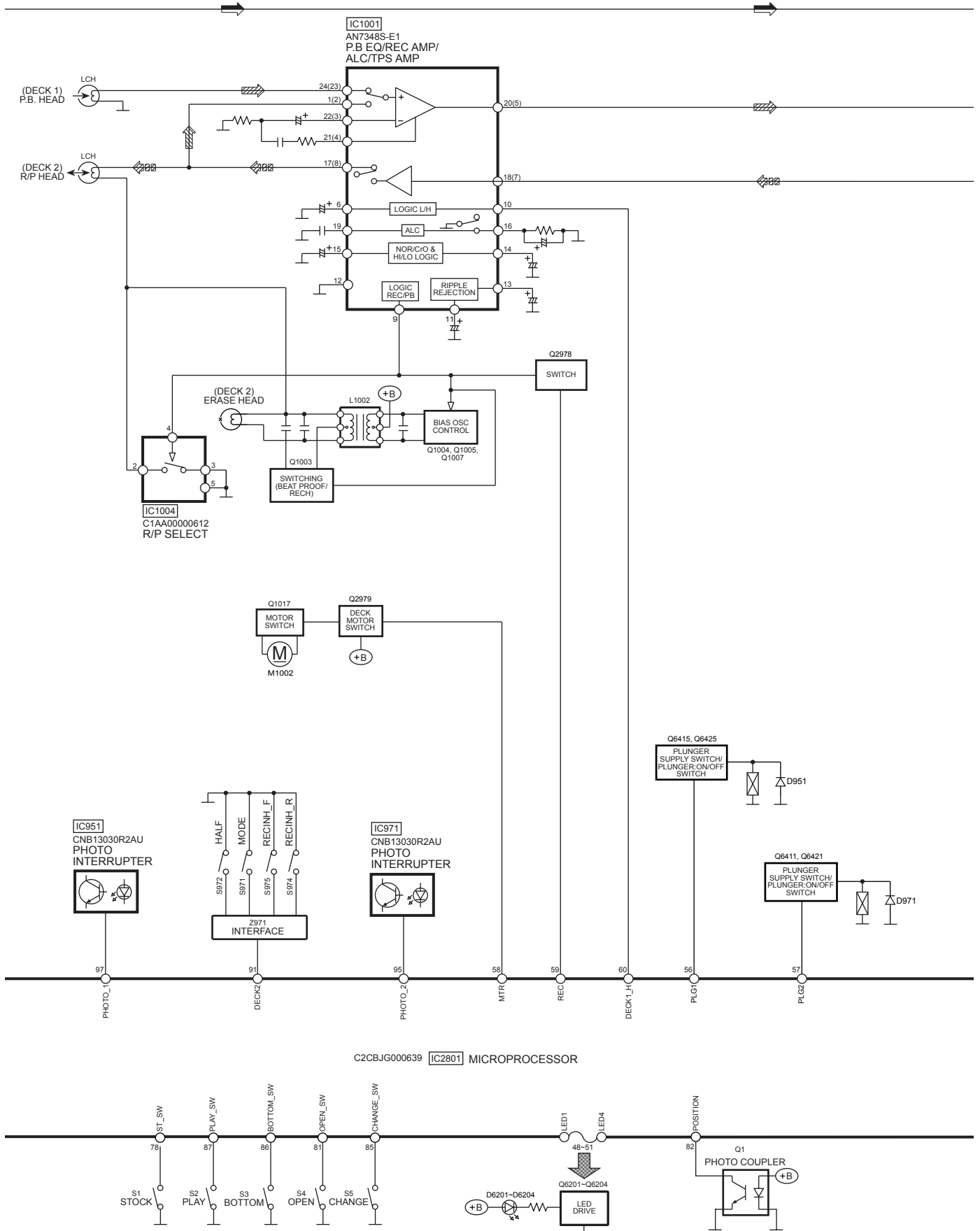


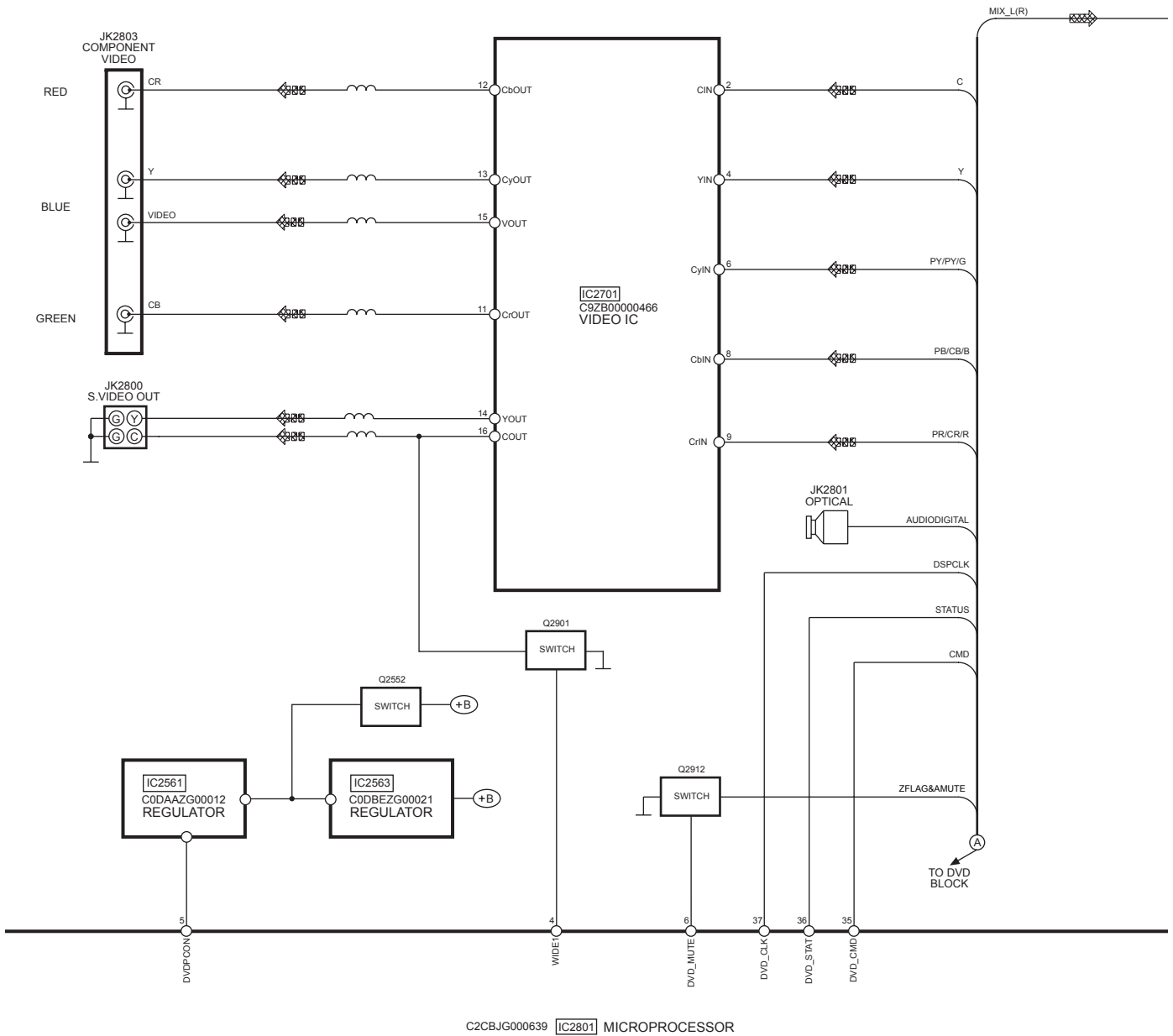
MN2DS03VP1H IC8001 DV2.1

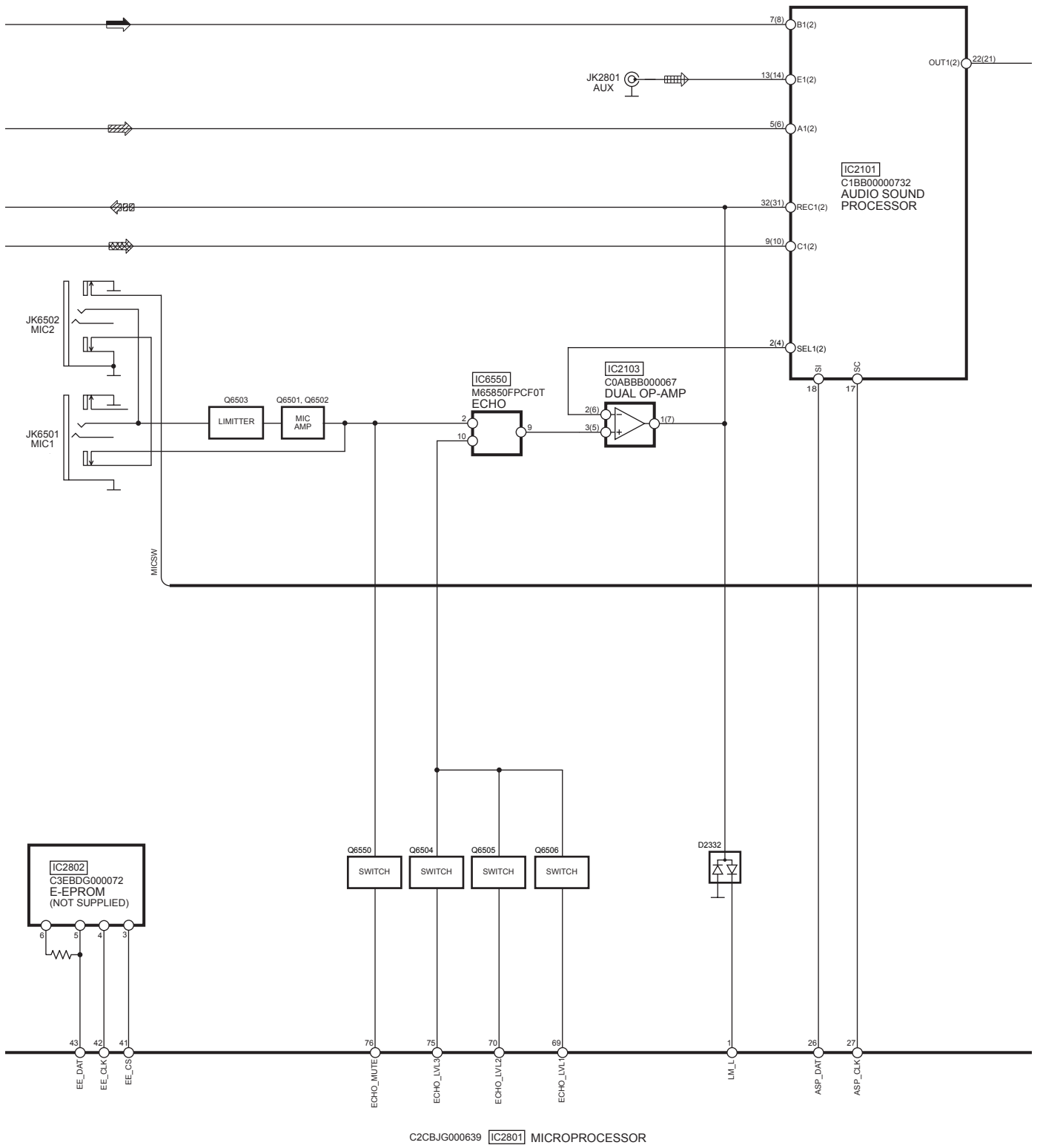


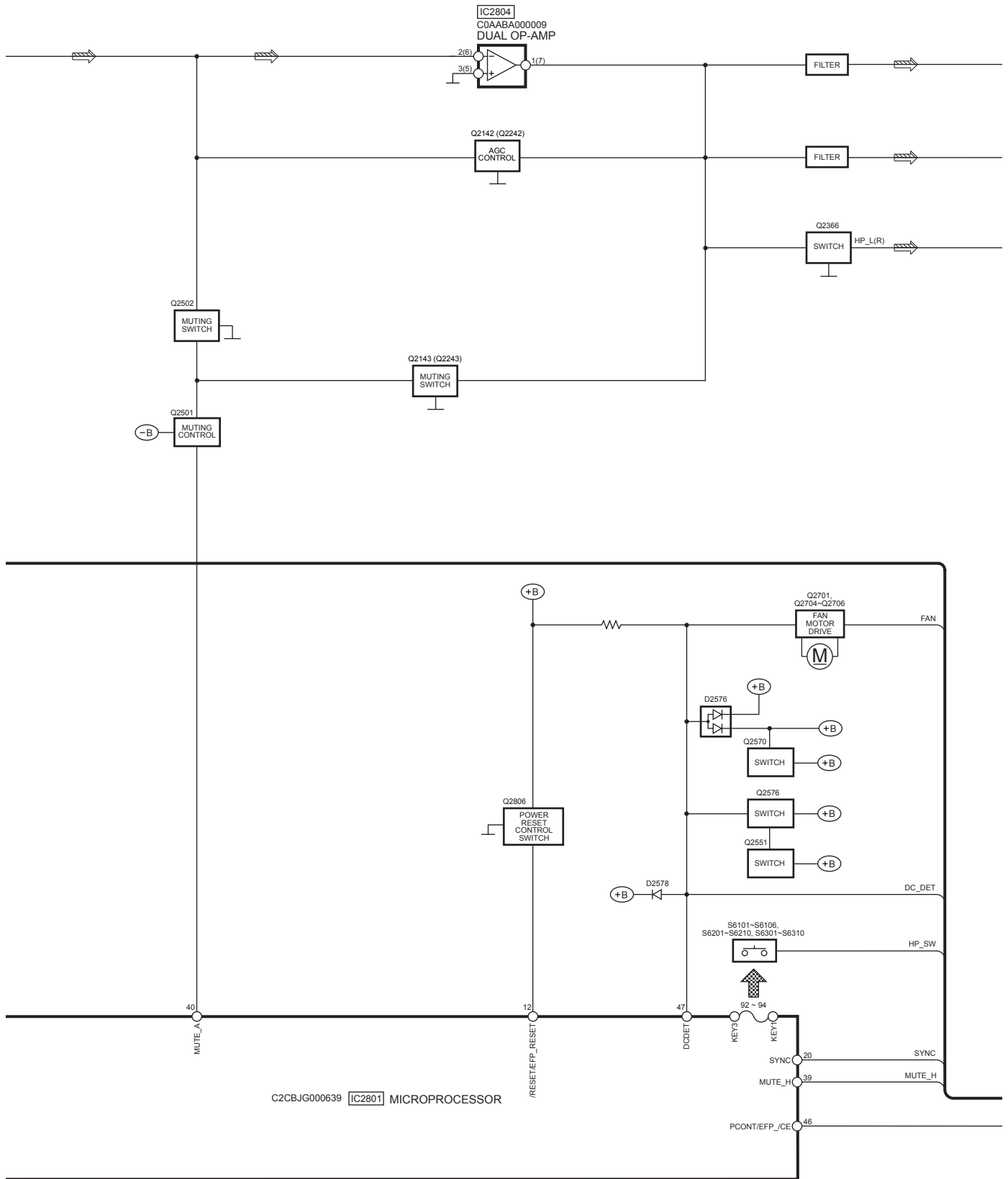


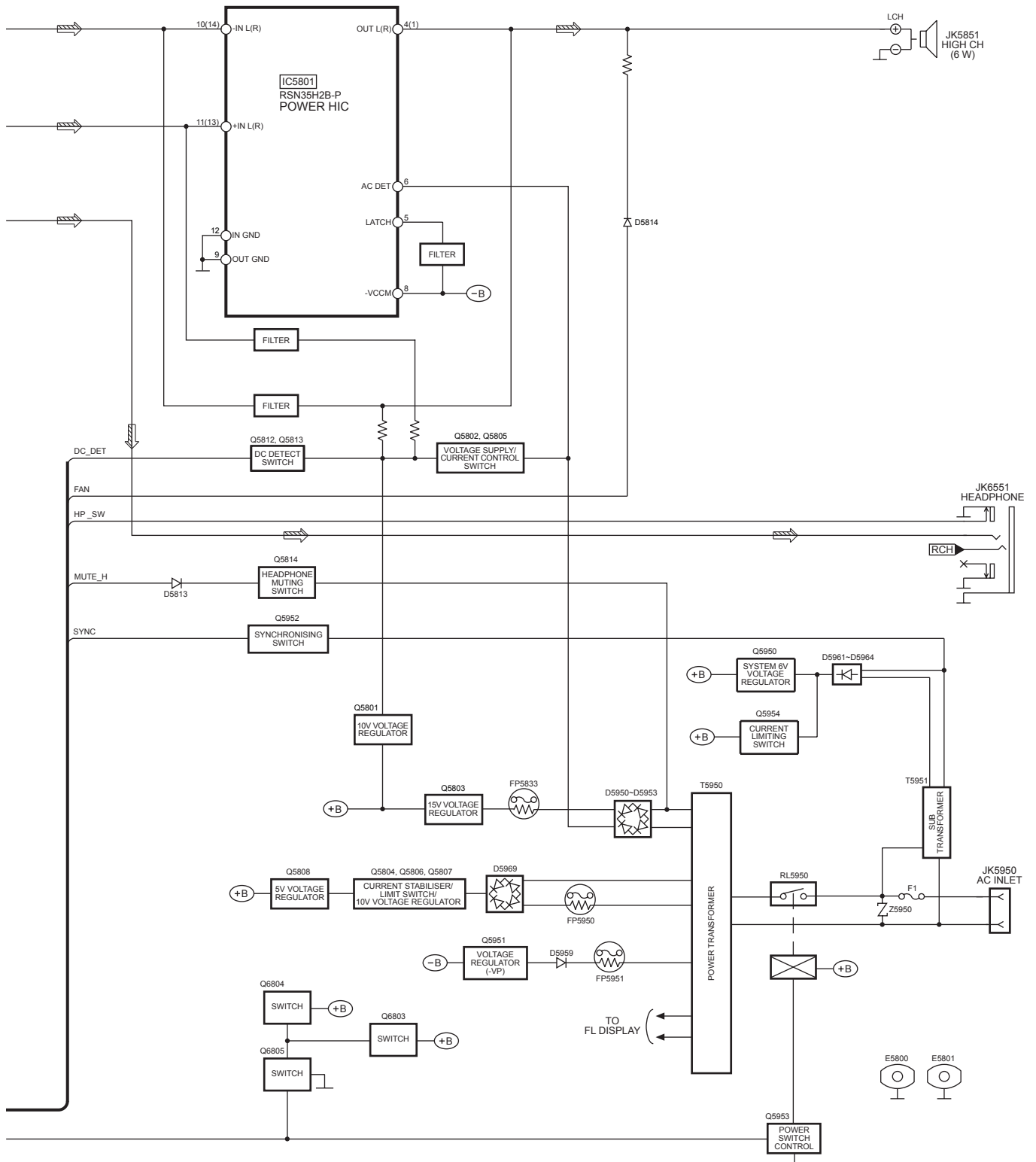












SIGNAL LINES

	: 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.

19 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
S6101	: Power Switch
S6102	: Disc Check Switch
S6103	: Multi Remaster Switch
S6104	: Surround Advanced Switch
S6105	: Deck1/2 Switch
S6106	: Rec Switch
S6201	: DVD/CD Switch
S6202	: Tape Switch
S6203	: Tuner Switch
S6204	: Aux Switch
S6205	: Deck 1 Switch
S6206	: Display Switch
S6207	: Deck 2 Switch
S6208	: Rew Switch
S6209	: FF Switch
S6210	: Stop Switch
S6301	: Open/Close Switch
S6302	: Disc Change Switch
S6303	: Disc 5 Switch
S6304	: Disc 4 Switch
S6305	: Disc 3 Switch
S6306	: Disc 2 Switch
S6307	: Disc 1 Switch
S6309	: S.SEQ Switch
S6310	: Sound EQ Switch
VR6201	: VR Volume Jog
VR6501	: VR Mic

- 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.

- 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.

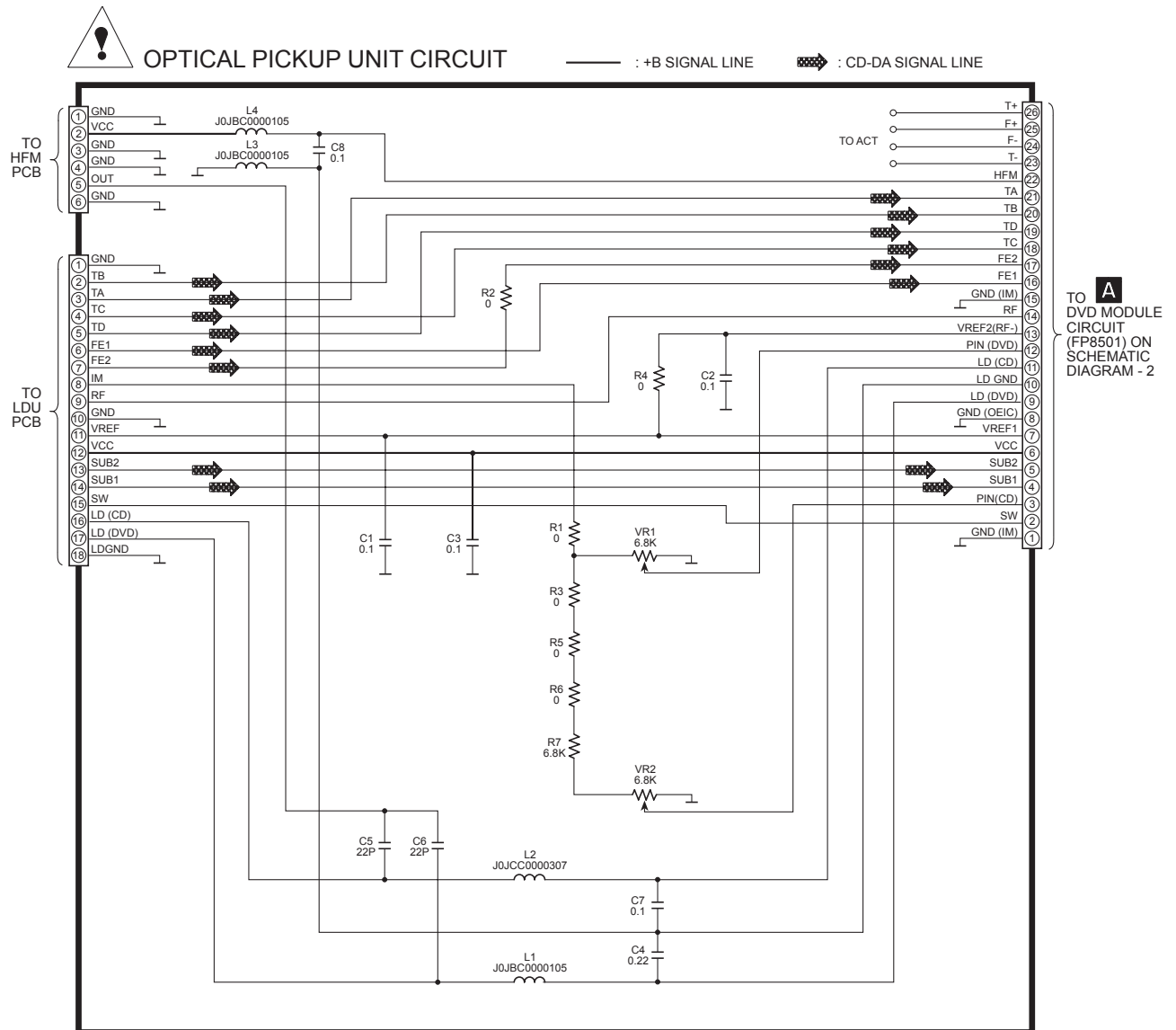
Caution !

IC, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

19.1. Optical Pickup Unit Circuit

SCHEMATIC DIAGRAM - 1



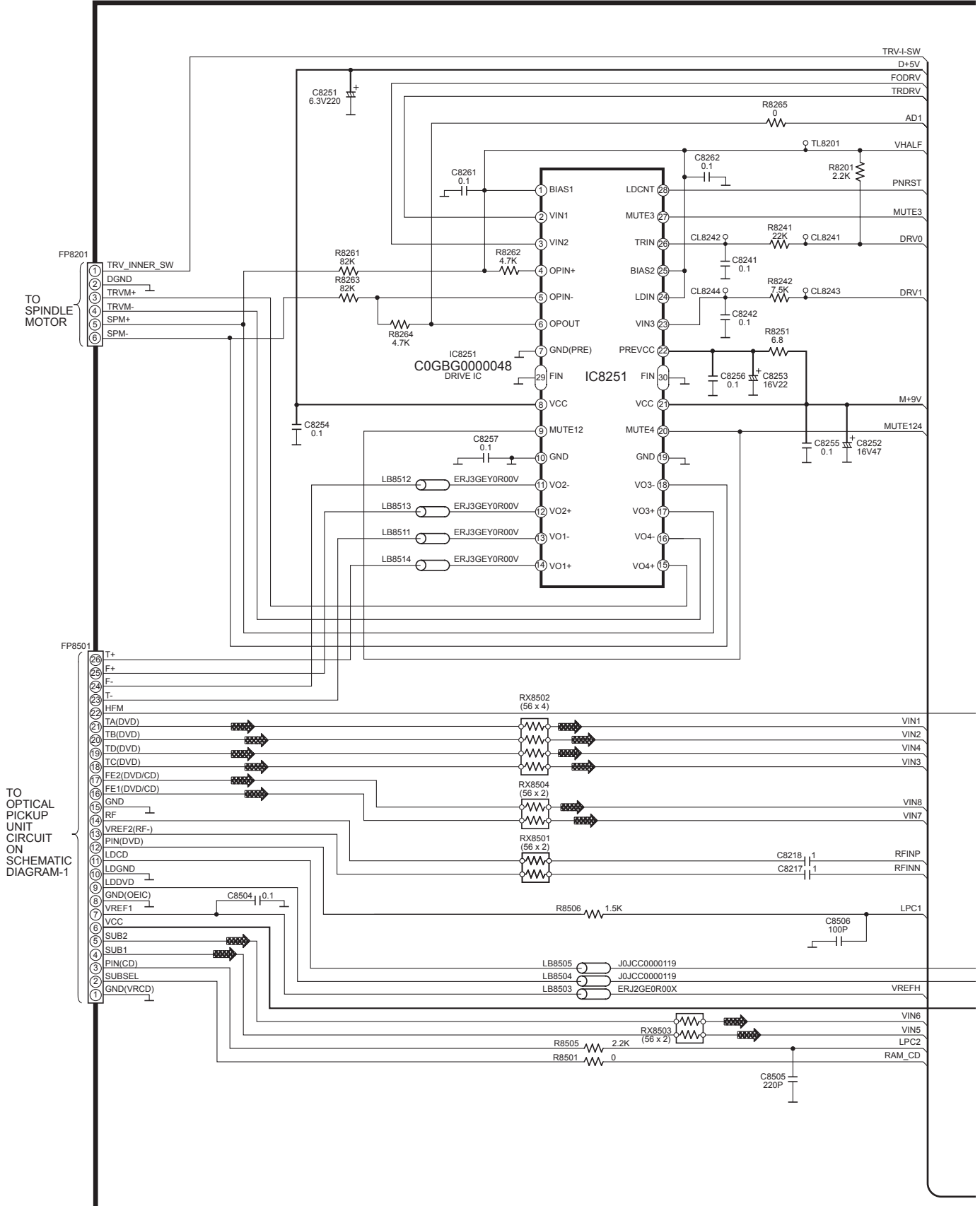
19.2. DVD Module Circuit

SCHEMATIC DIAGRAM - 2

A

DVD MODULE CIRCUIT

— : +B SIGNAL LINE

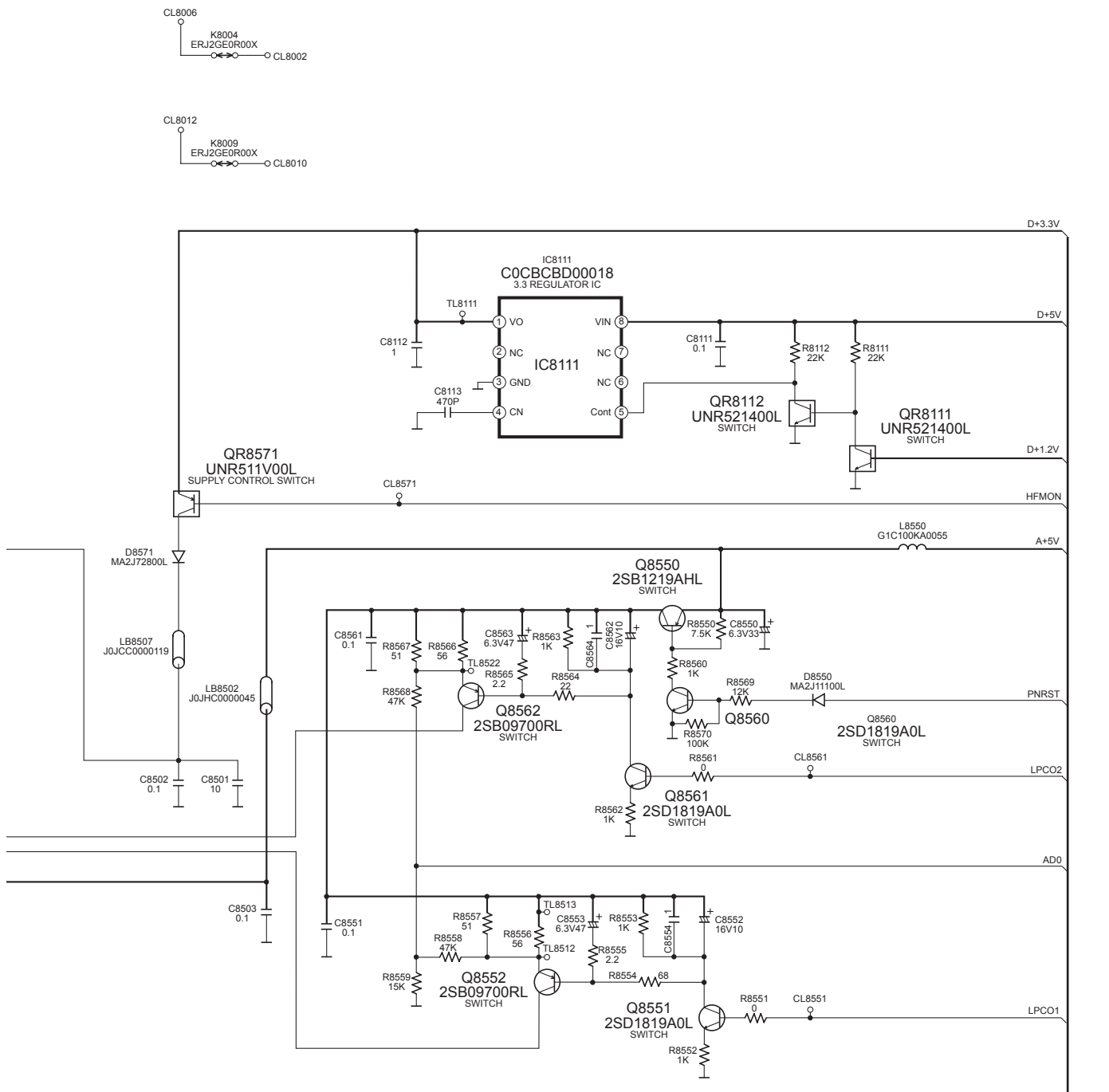
 : CD-DA SIGNAL LINE


SCHEMATIC DIAGRAM - 3

A

DVD MODULE CIRCUIT

———— : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 4

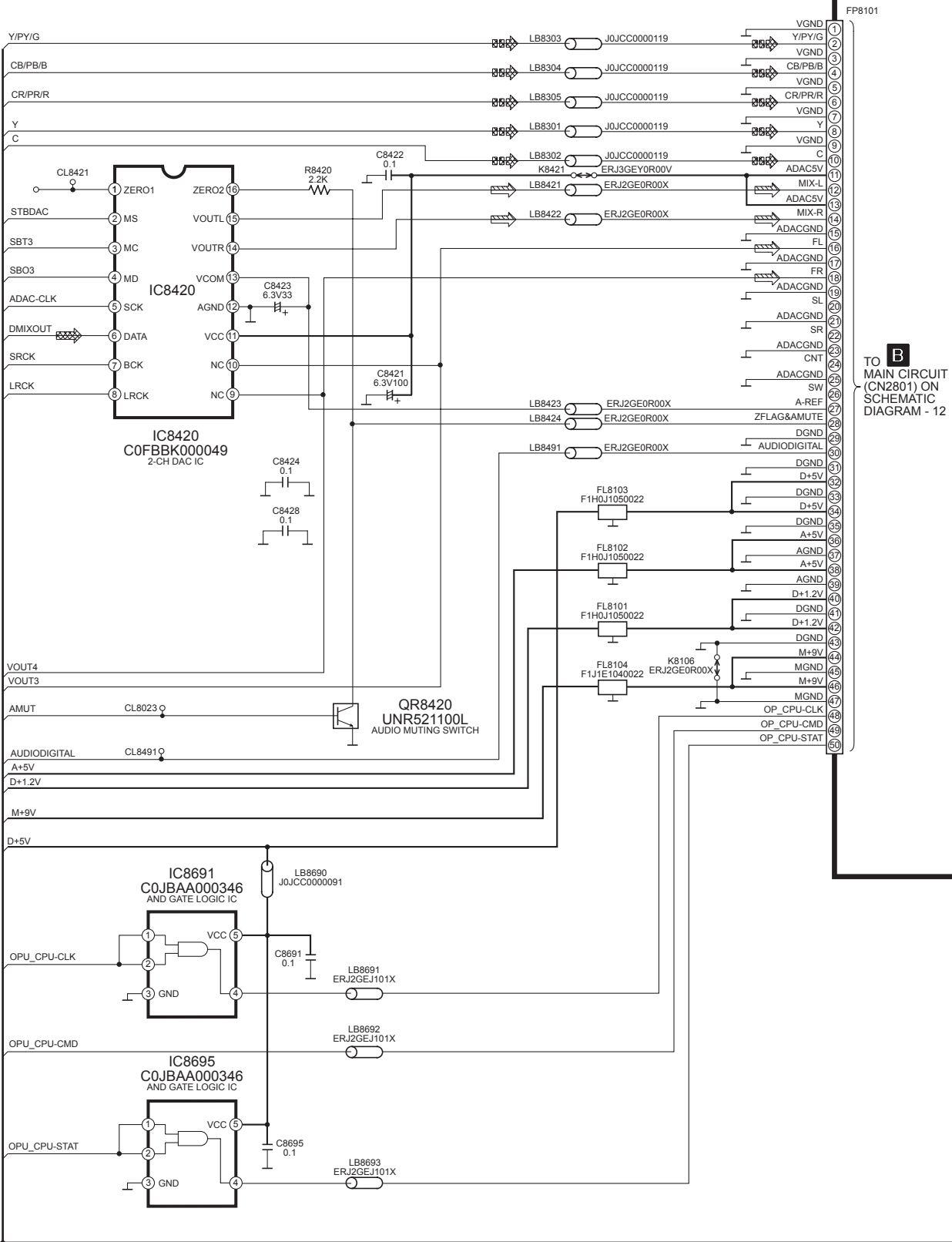
A

DVD MODULE CIRCUIT

 : MAIN SIGNAL LINE

 : +B SIGNAL LINE

 : DVD VIDEO SIGNAL LINE

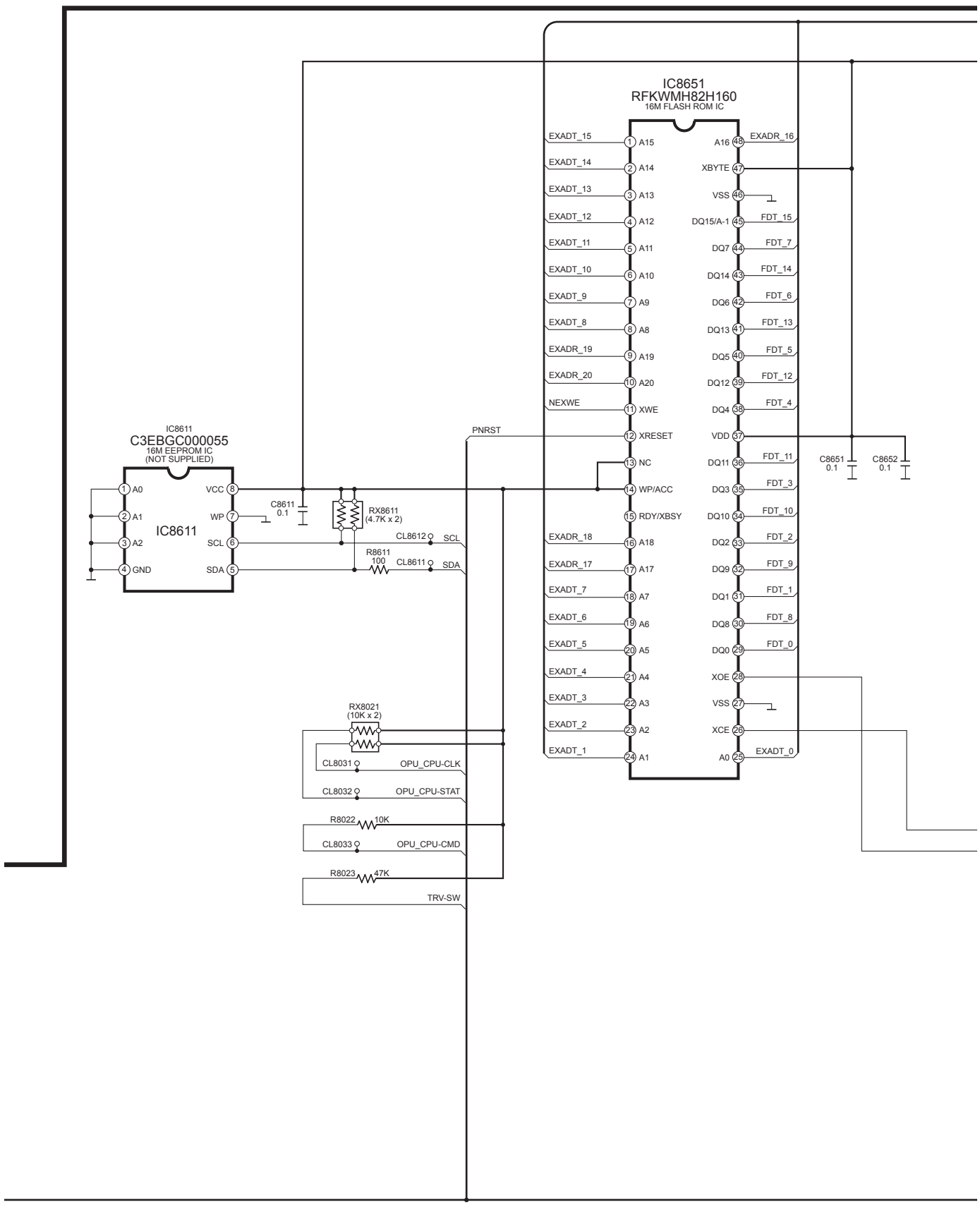
 : DVD AUDIO SIGNAL LINE


SCHEMATIC DIAGRAM - 5

A

DVD MODULE CIRCUIT

———— : +B SIGNAL LINE

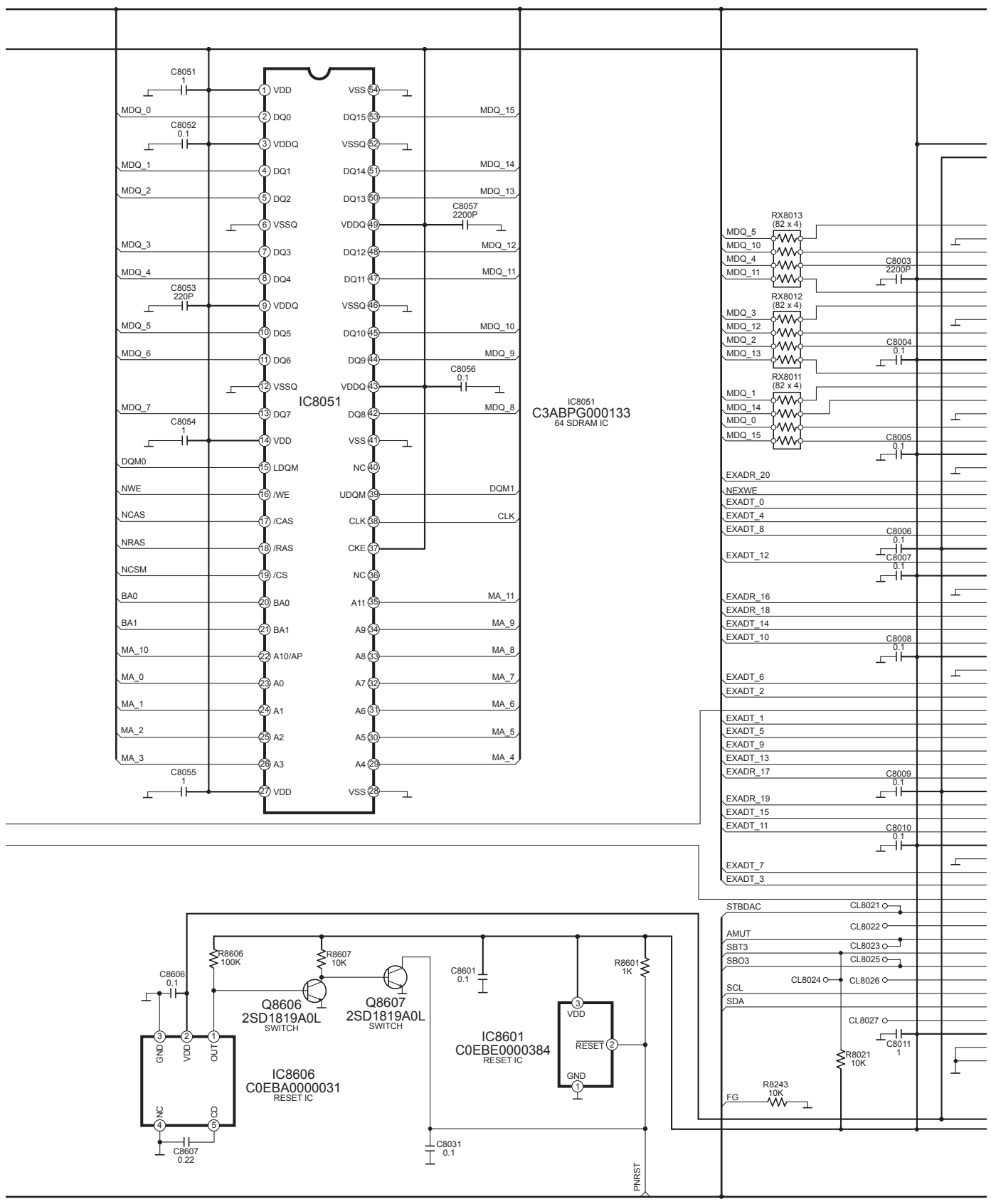


SCHEMATIC DIAGRAM - 6

A

DVD MODULE CIRCUIT

———— : +B SIGNAL LINE

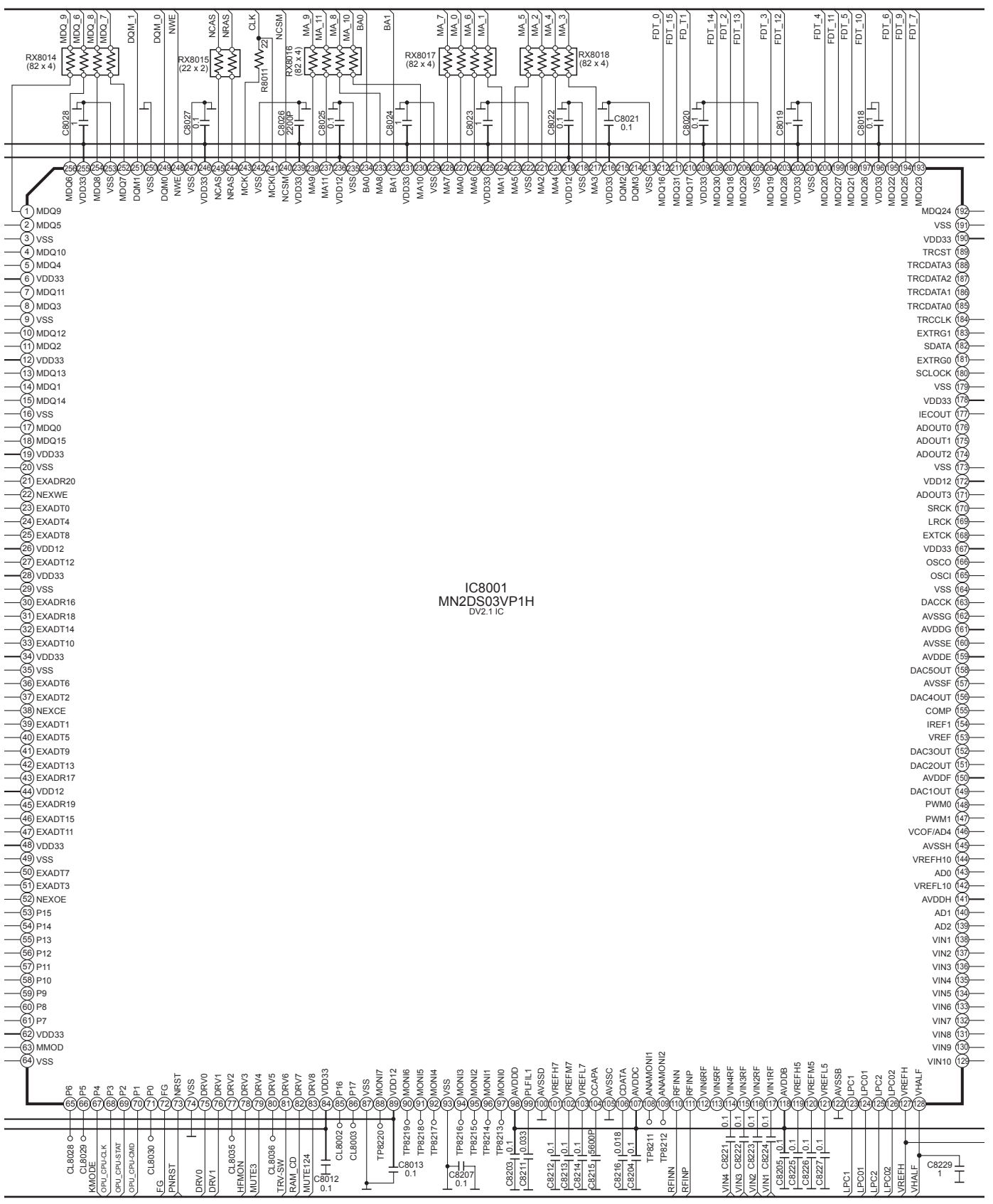


SCHEMATIC DIAGRAM - 7

A

DVD MODULE CIRCUIT

: +B SIGNAL LINE



SCHEMATIC DIAGRAM - 8

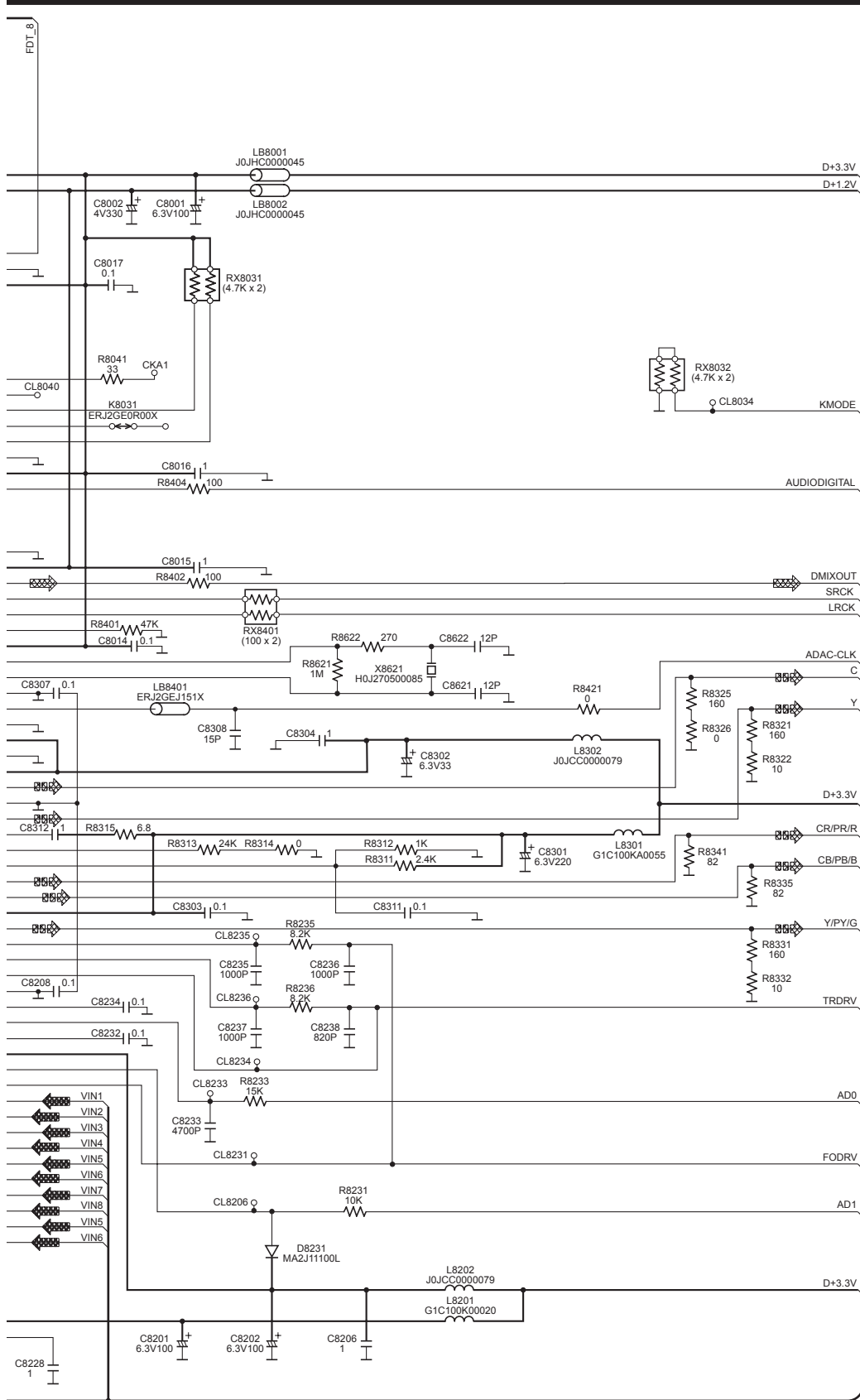
A

 DVD MODULE CIRCUIT

 : CD-DA SIGNAL LINE

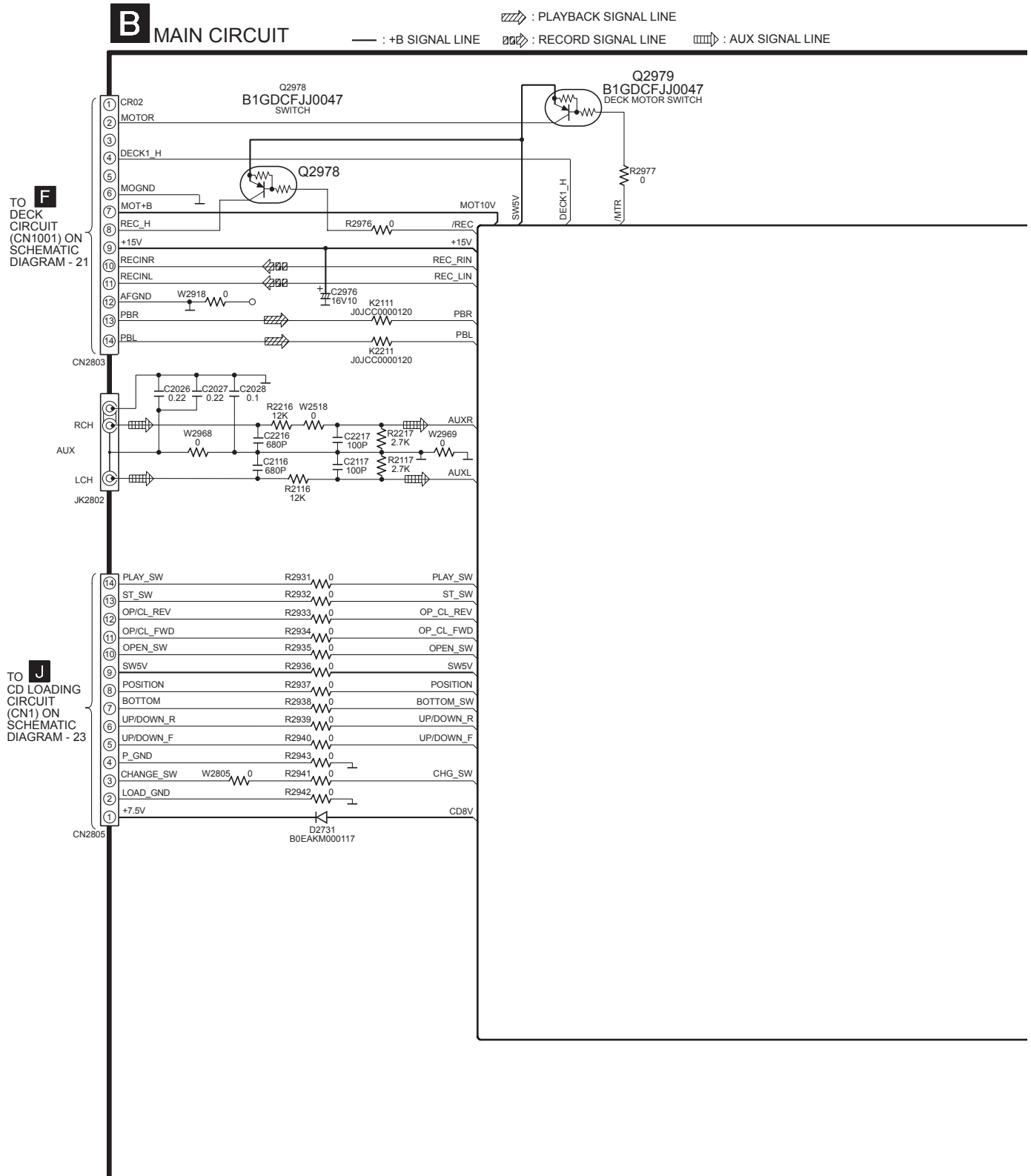
 : DVD VIDEO SIGNAL LINE

 : +B SIGNAL LINE

 : DVD AUDIO SIGNAL LINE


19.4. (B) Main Circuit

SCHEMATIC DIAGRAM - 10

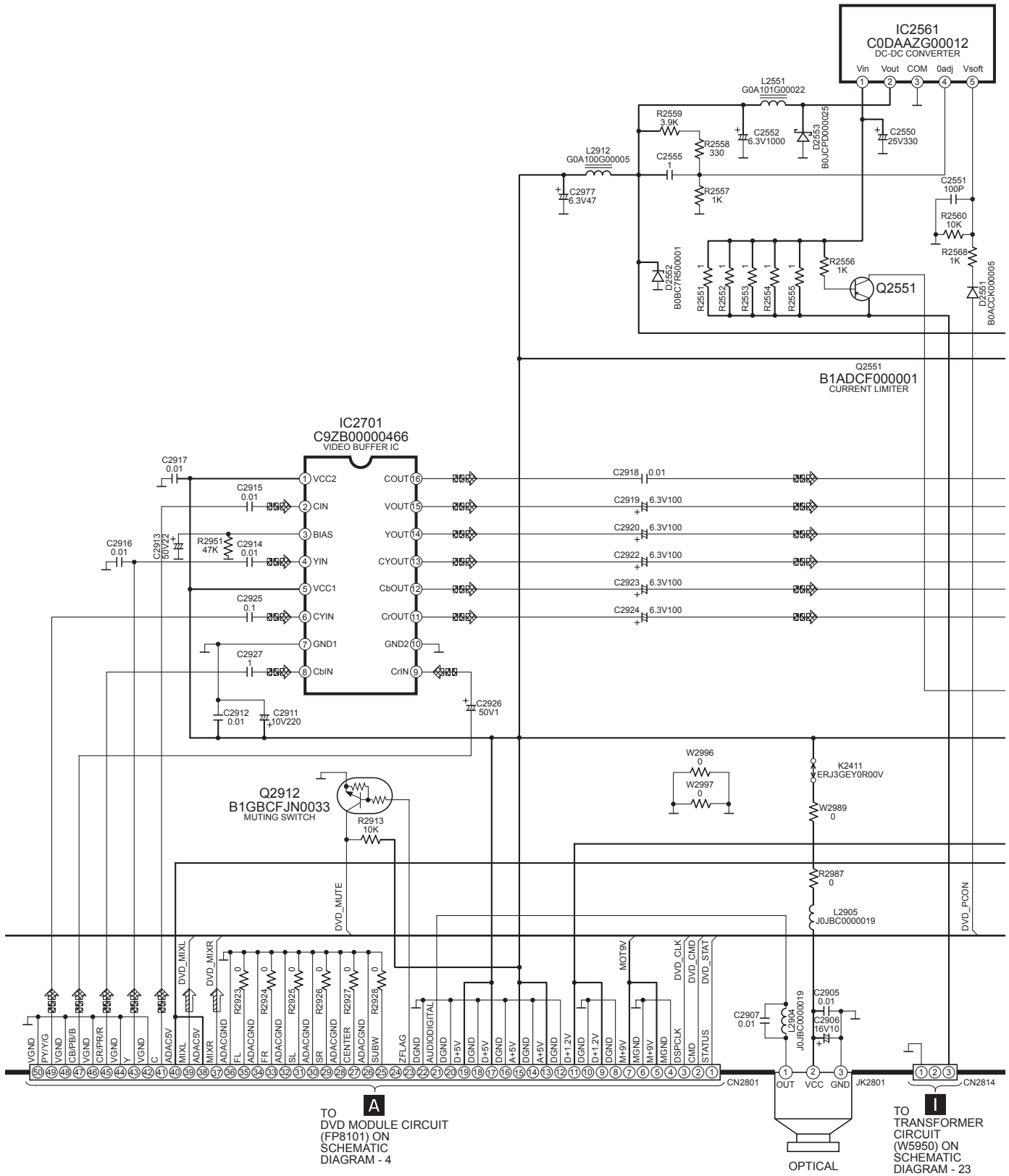


SCHEMATIC DIAGRAM - 12

B MAIN CIRCUIT

 : MAIN SIGNAL LINE

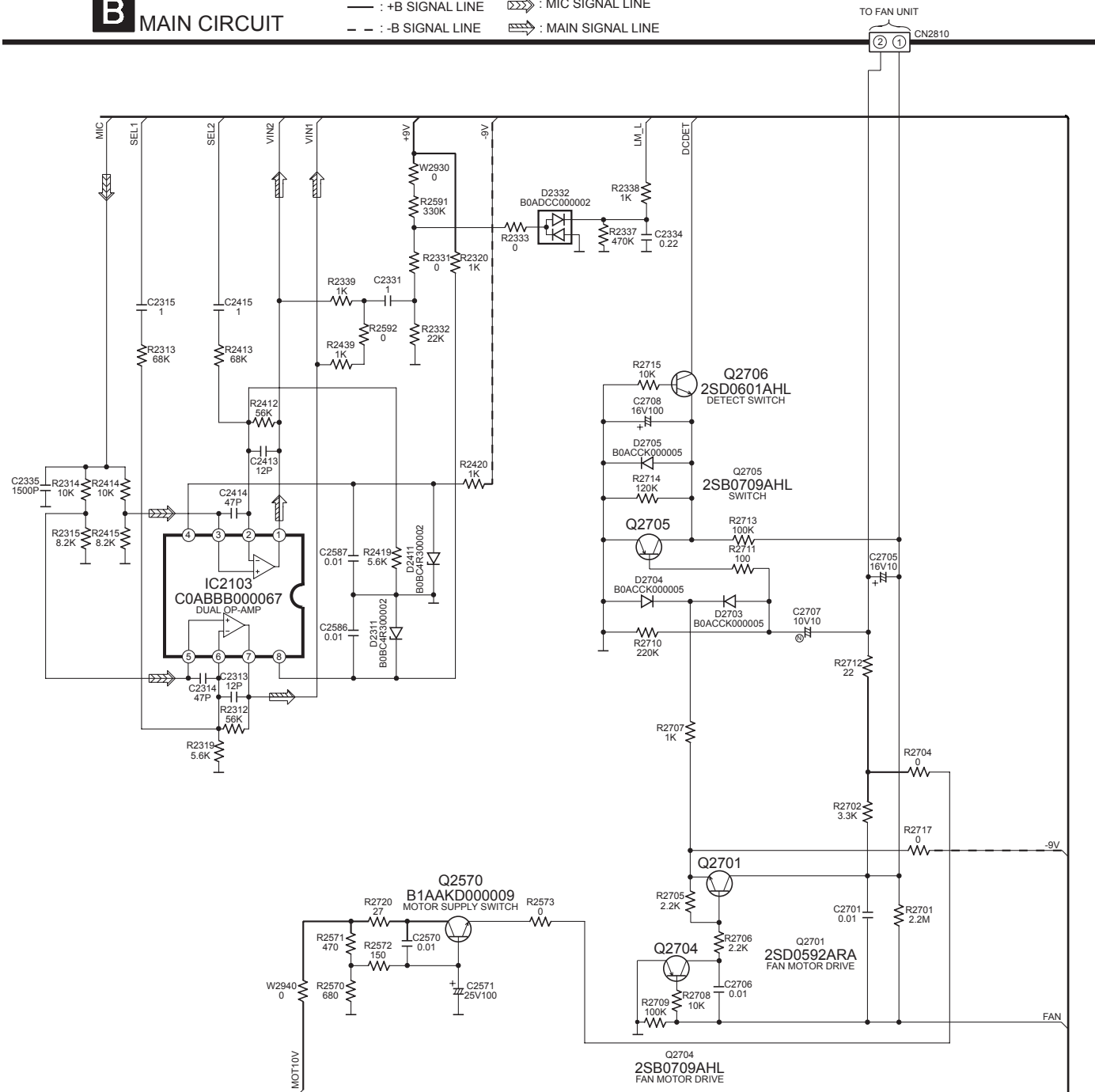
 : +B SIGNAL LINE

 : DVD VIDEO SIGNAL LINE


SCHEMATIC DIAGRAM - 14

B MAIN CIRCUIT

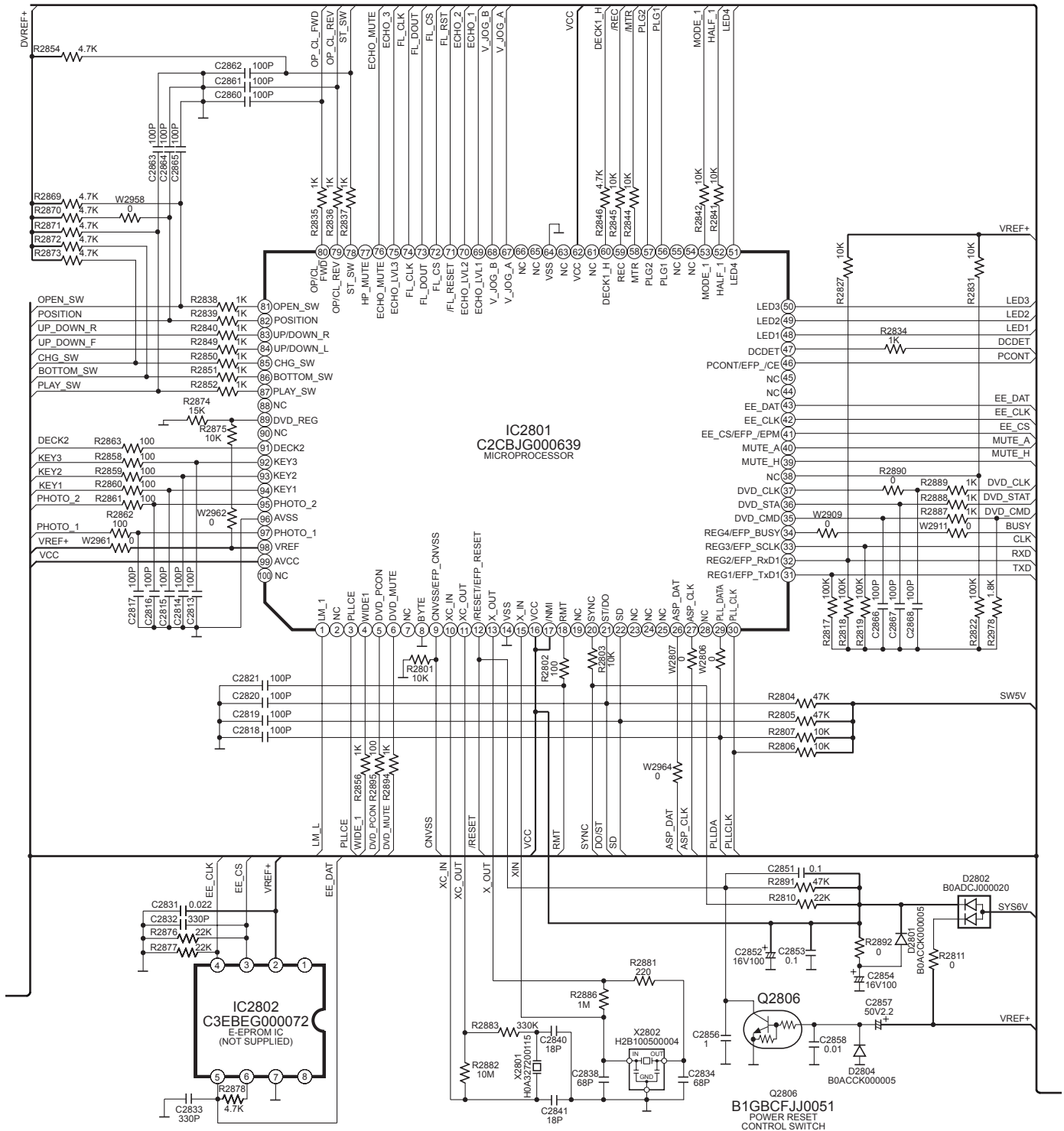
— : +B SIGNAL LINE $\Rightarrow$: MIC SIGNAL LINE
 - - : -B SIGNAL LINE $\Rightarrow$: MAIN SIGNAL LINE



SCHEMATIC DIAGRAM - 15

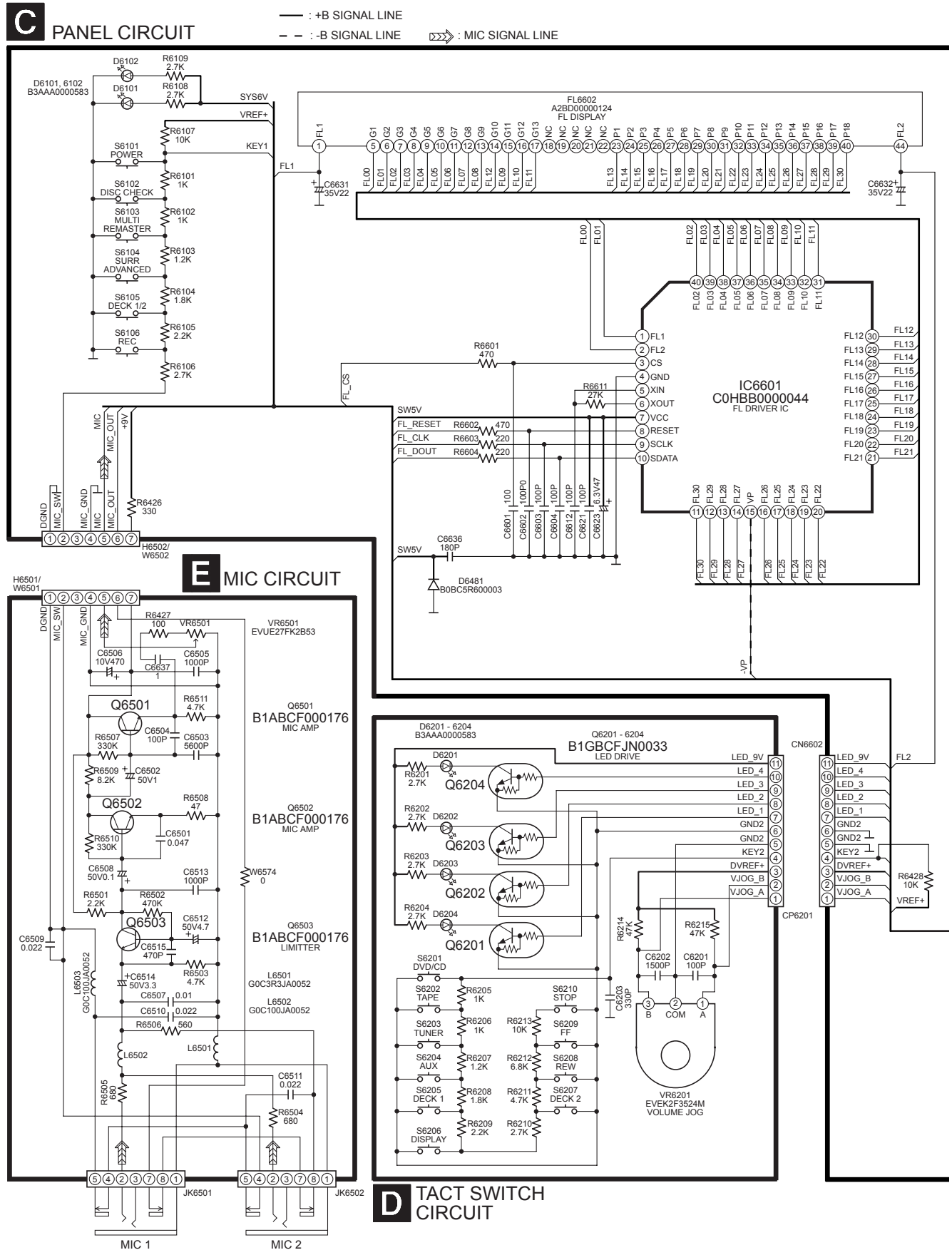
B MAIN CIRCUIT

— : +B SIGNAL LINE



19.5. (C) Panel Circuit , (D) Tact Switch Circuit & (E) Mic Circuit

SCHEMATIC DIAGRAM - 17



SCHEMATIC DIAGRAM - 18

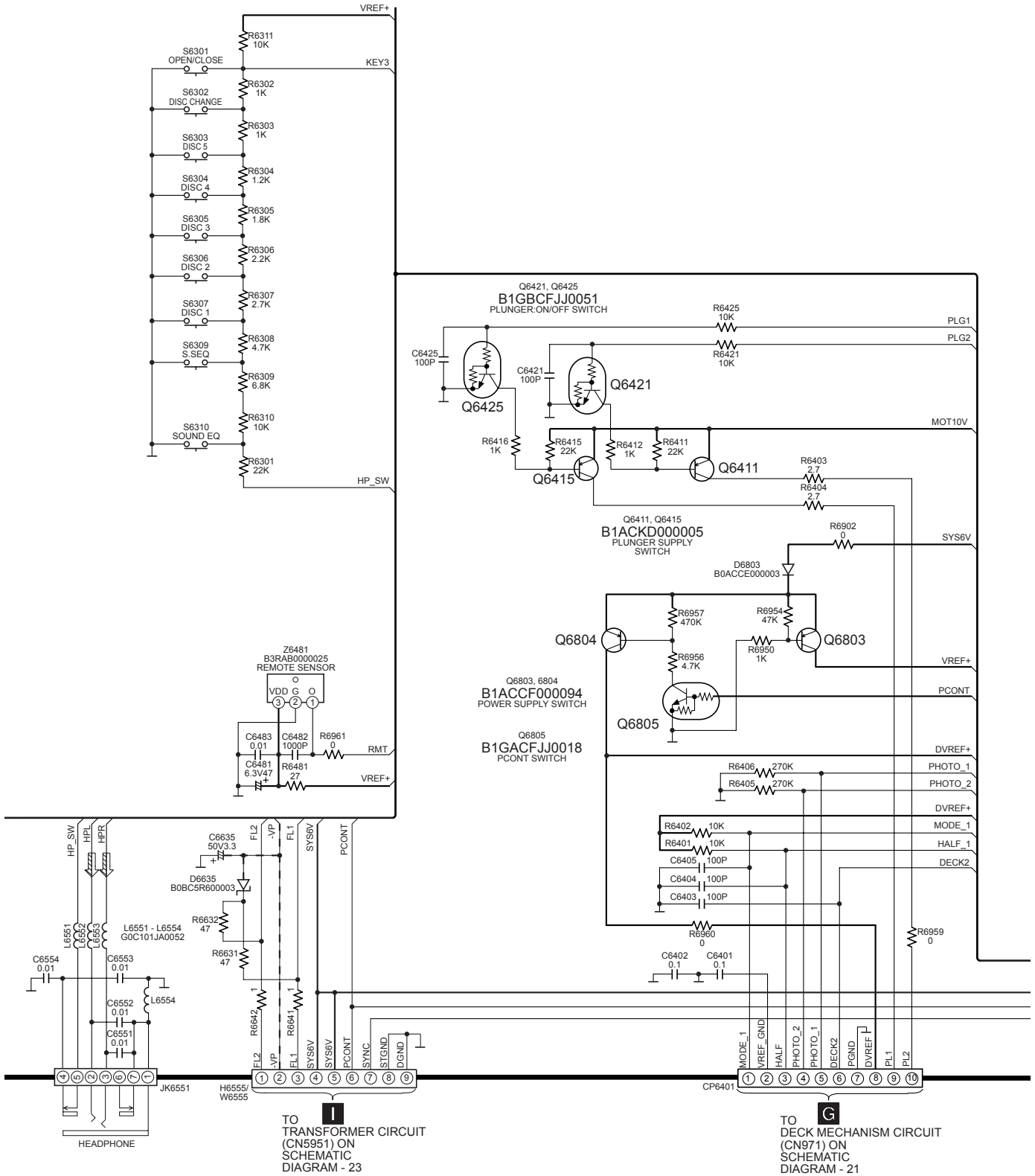
C

PANEL CIRCUIT

— : +B SIGNAL LINE

- - : -B SIGNAL LINE

⇒ : MAIN SIGNAL LINE



SCHEMATIC DIAGRAM - 19

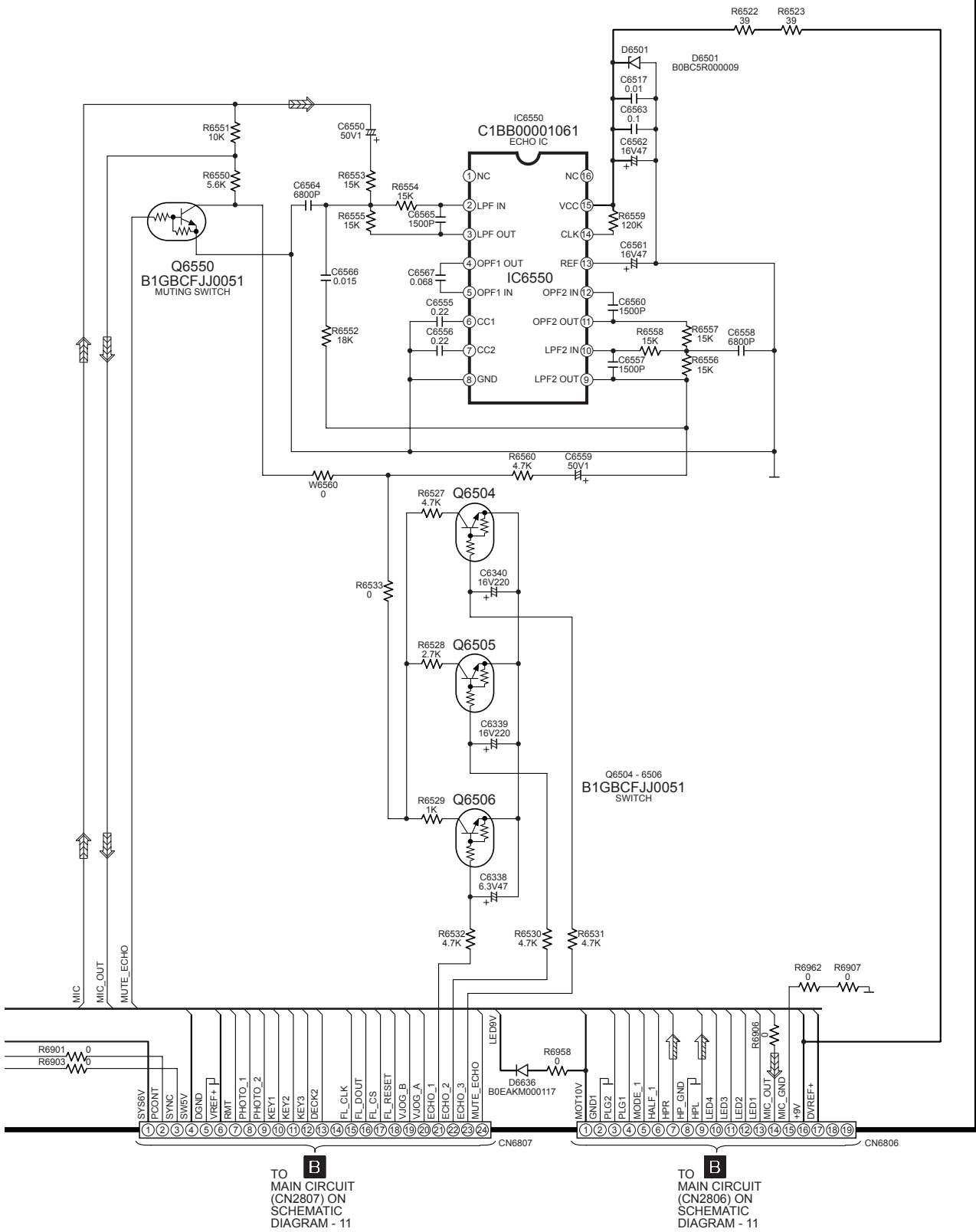
C

PANEL CIRCUIT

— : +B SIGNAL LINE

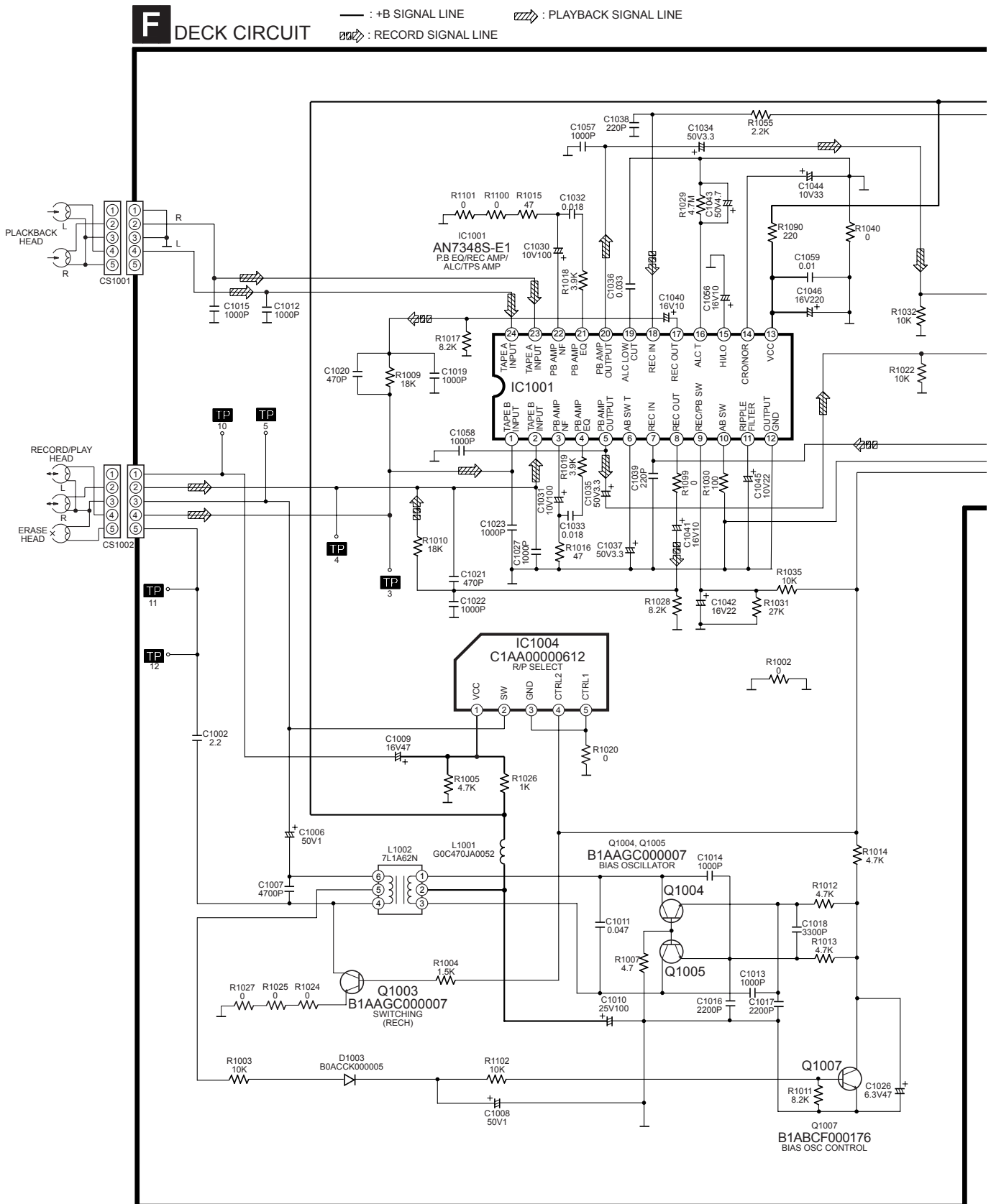
⇨ : MIC SIGNAL LINE

⇨ : MAIN SIGNAL LINE



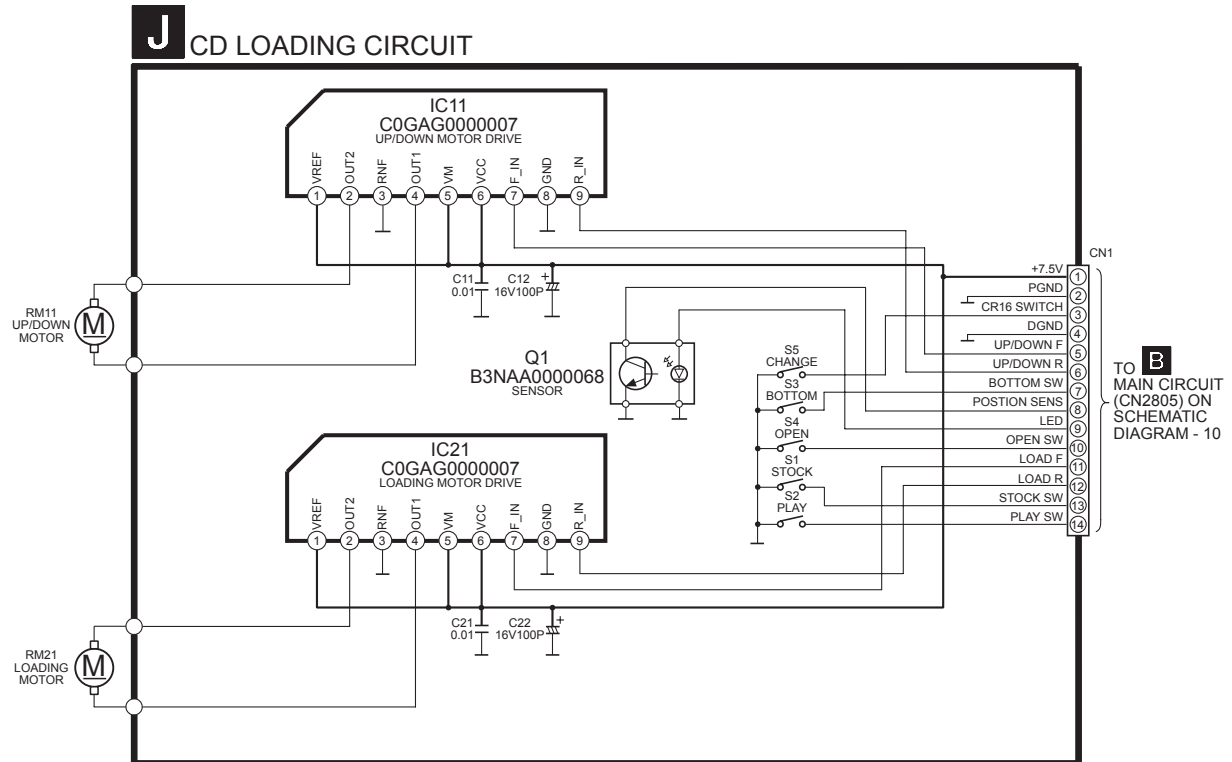
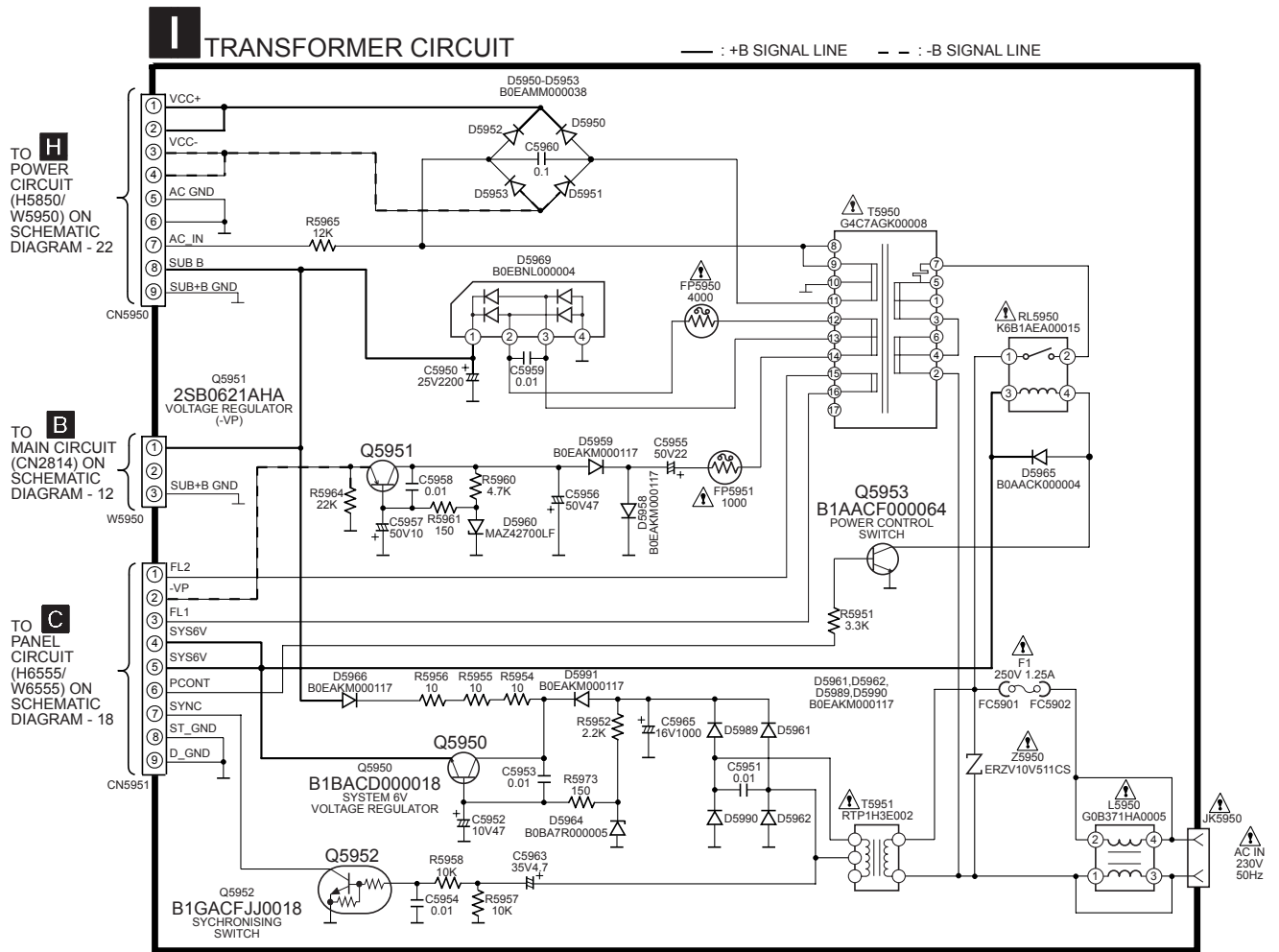
19.6. (F) Deck Circuit & (G) Deck Mechanism Circuit

SCHEMATIC DIAGRAM - 20



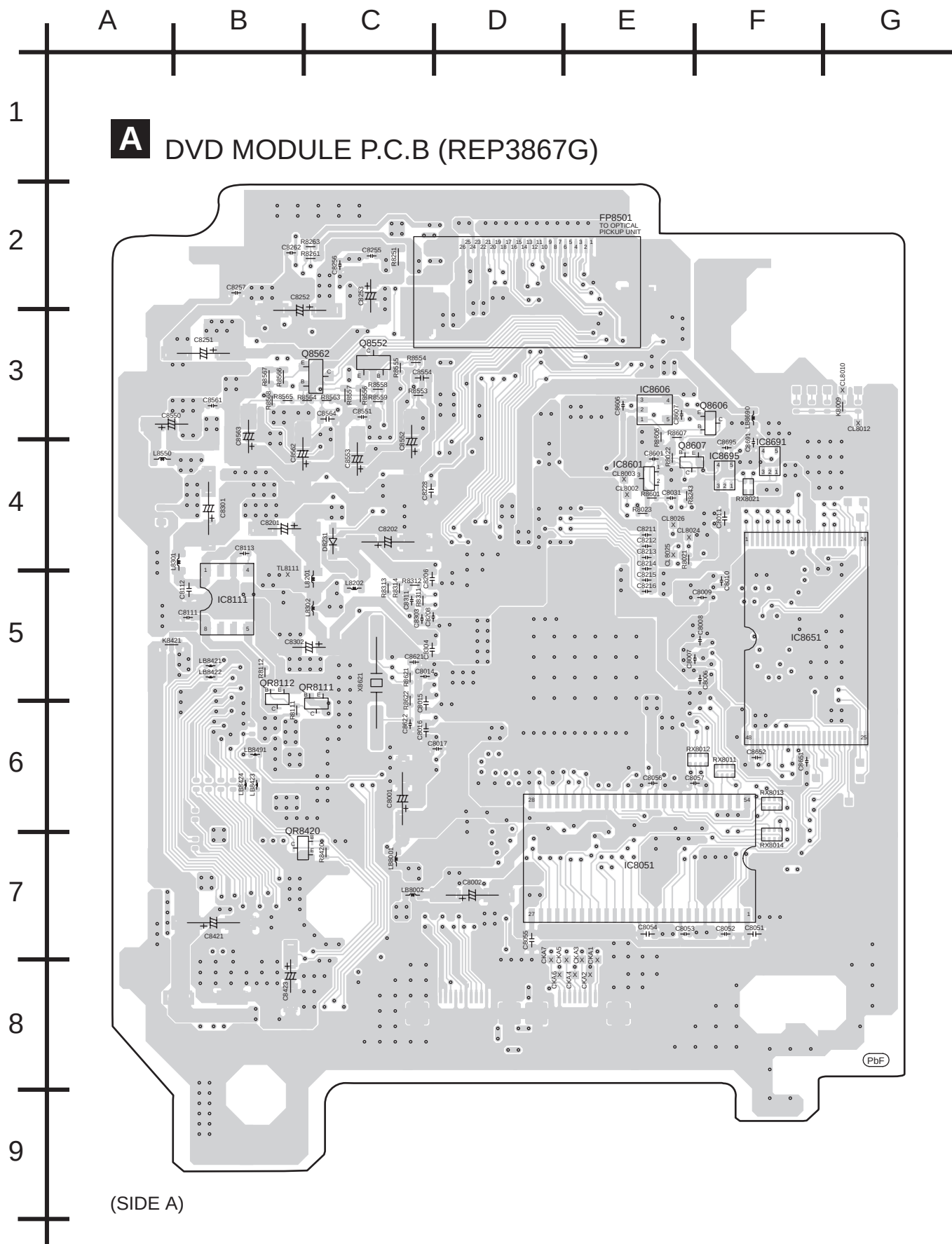
19.8. (I) Transformer Circuit & (J) CD Loading Circuit

SCHEMATIC DIAGRAM - 23



20 Printed Circuit Board

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



1

2

3

4

5

6

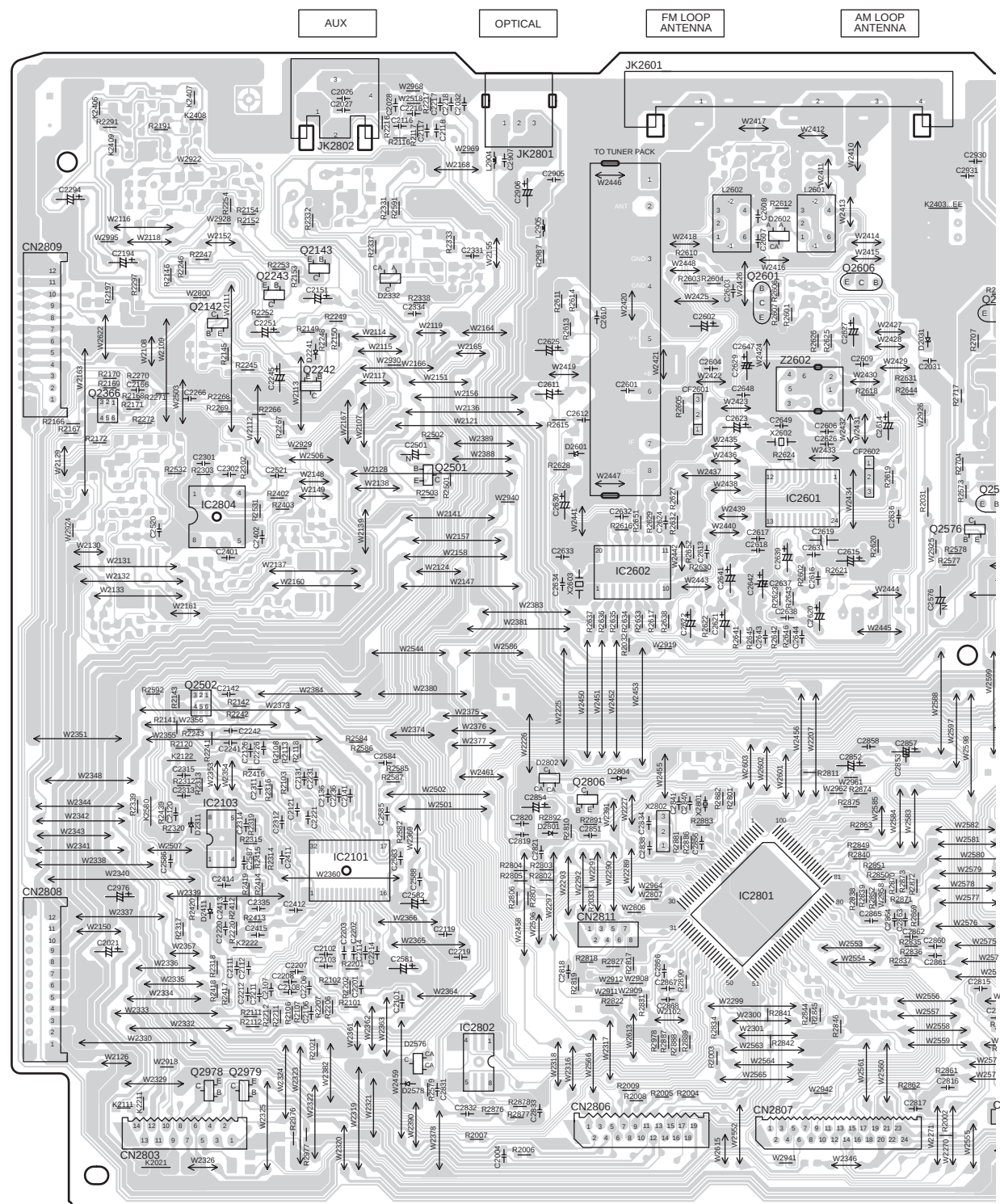
7

8

9

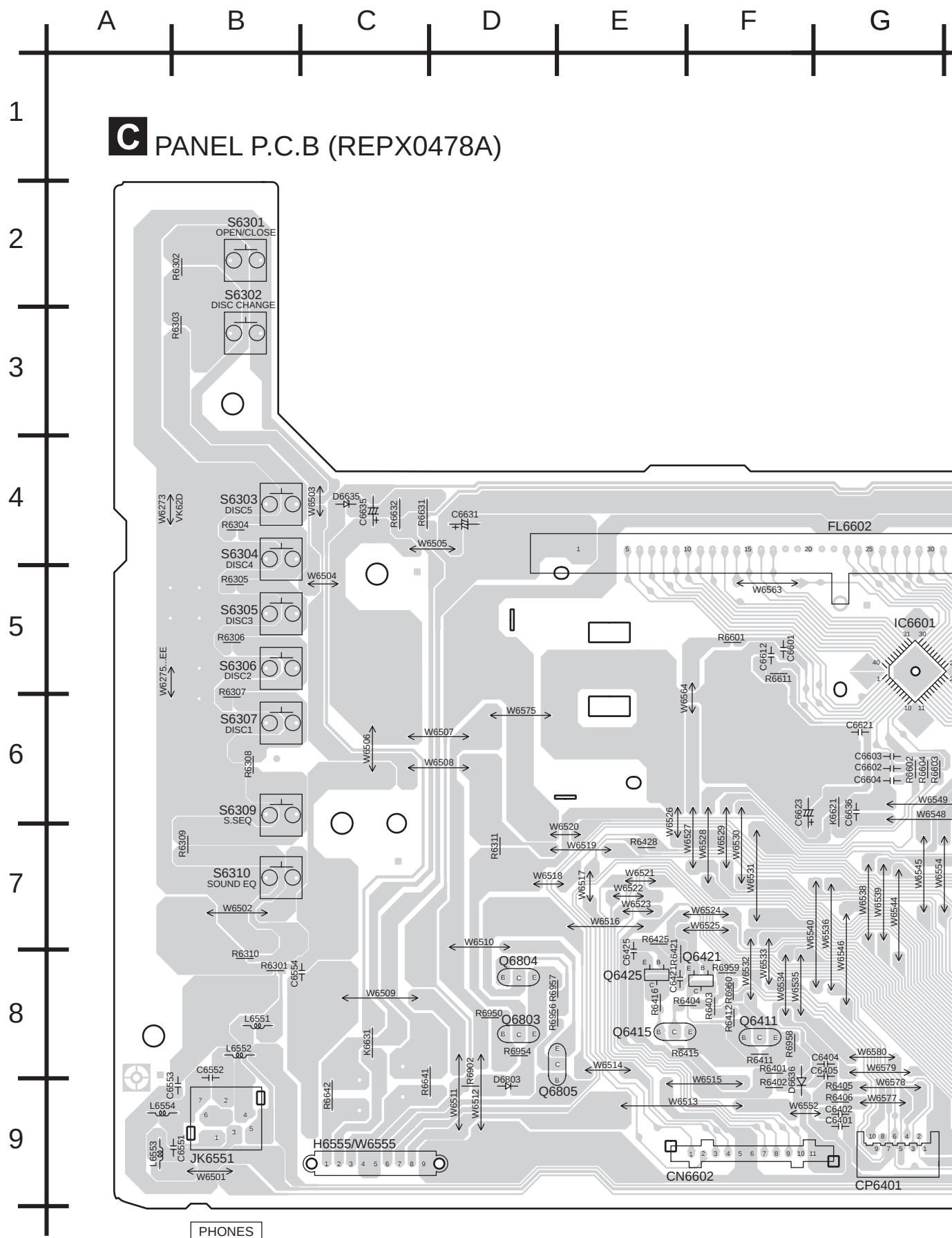
PbF

B MAIN P.C.B (REPX0477B)



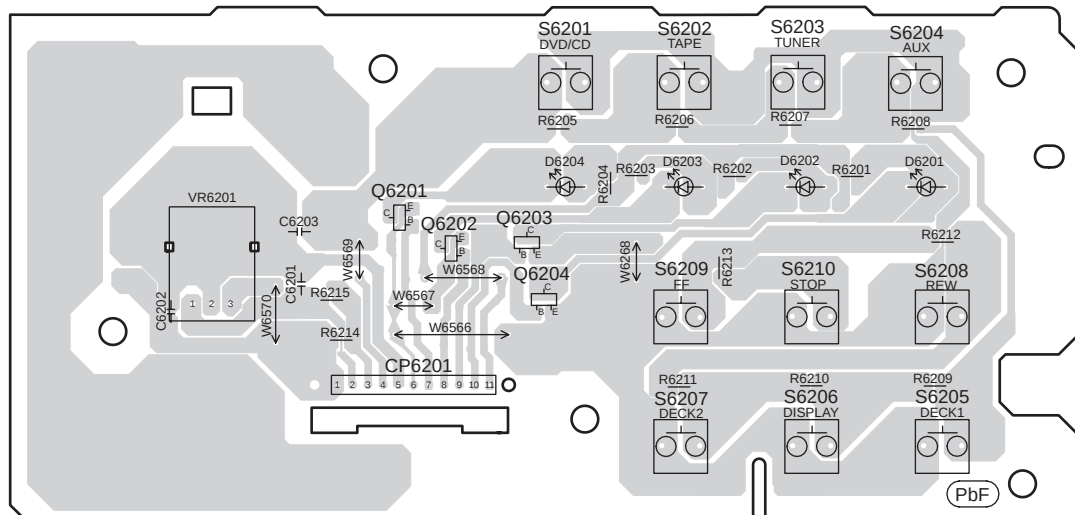


20.3. (C) Panel P.C.B.

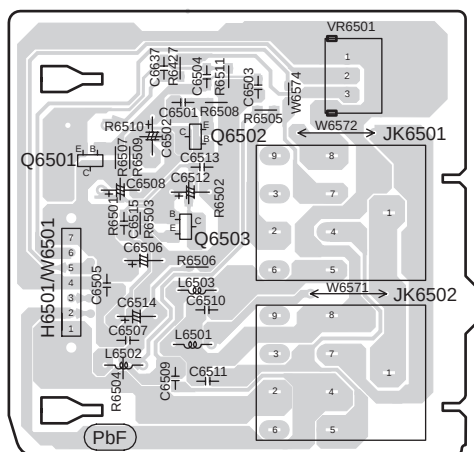
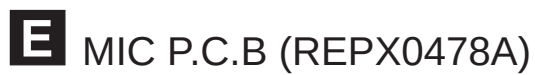




20.4. (D) Tact P.C.B. & (E) Mic P.C.B.



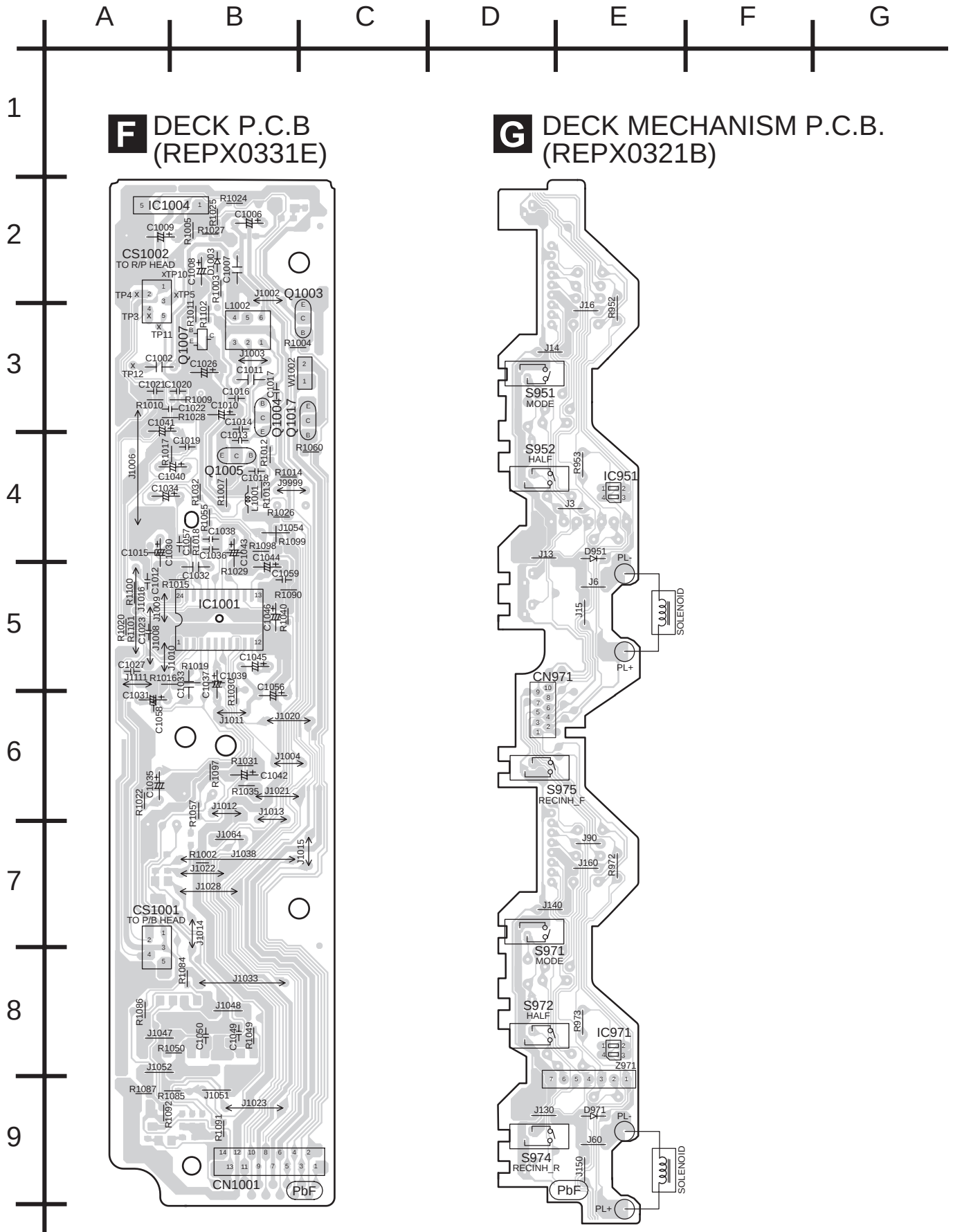
VOLUME



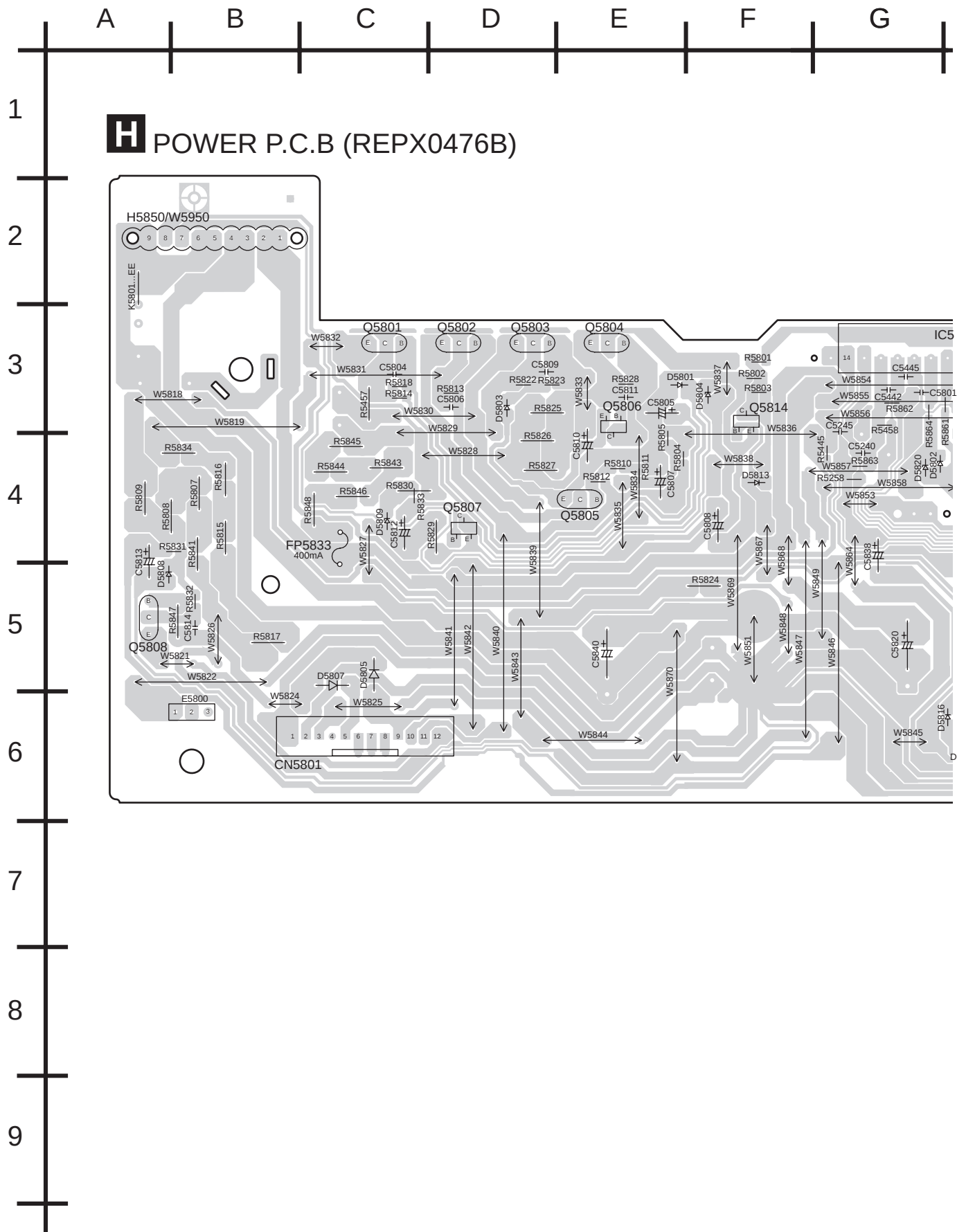
MIC1

MIC2

20.5. (F) Deck P.C.B. & (G) Deck Mechanism P.C.B.



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

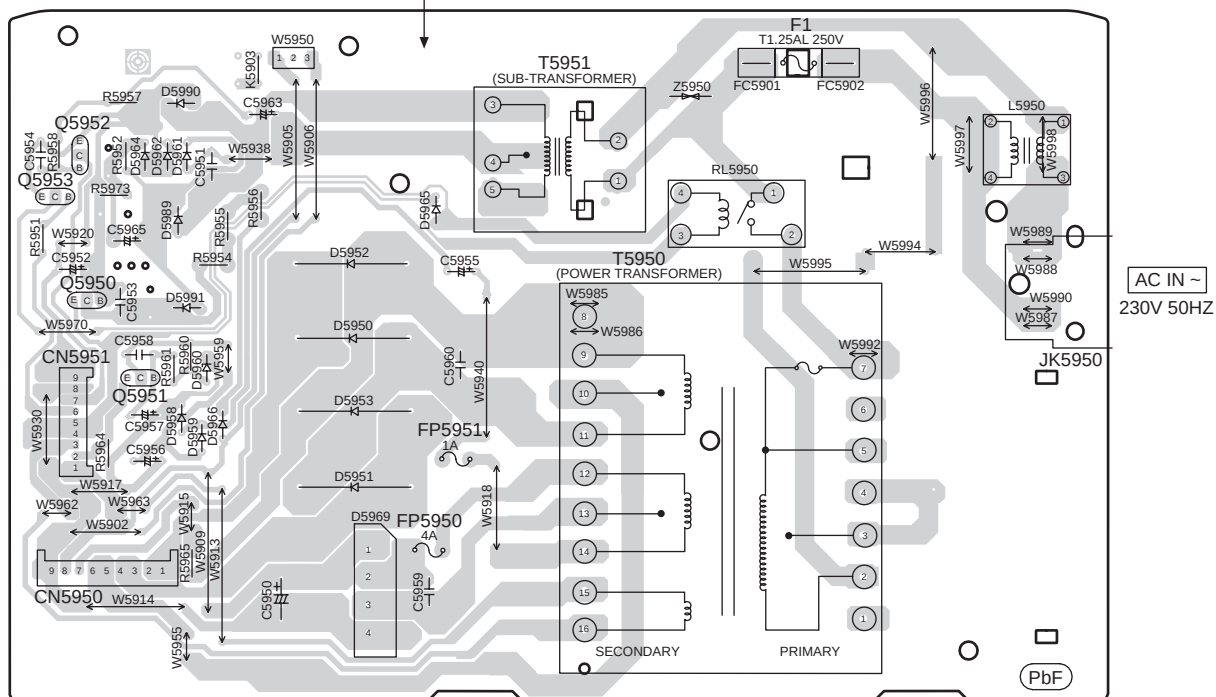




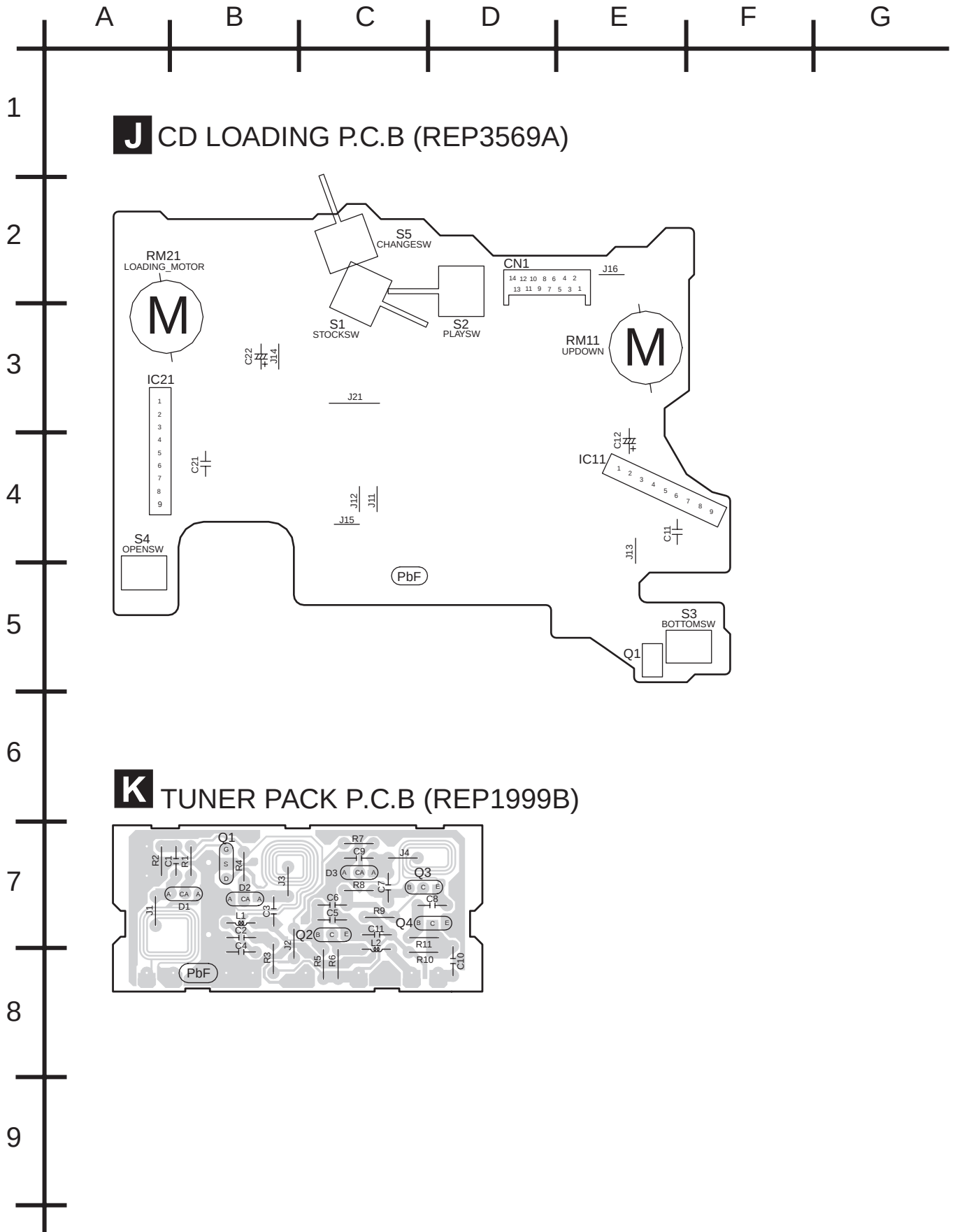
20.7. (I) Transformer P.C.B.

TRANSFORMER P.C.B (REPX0479B)

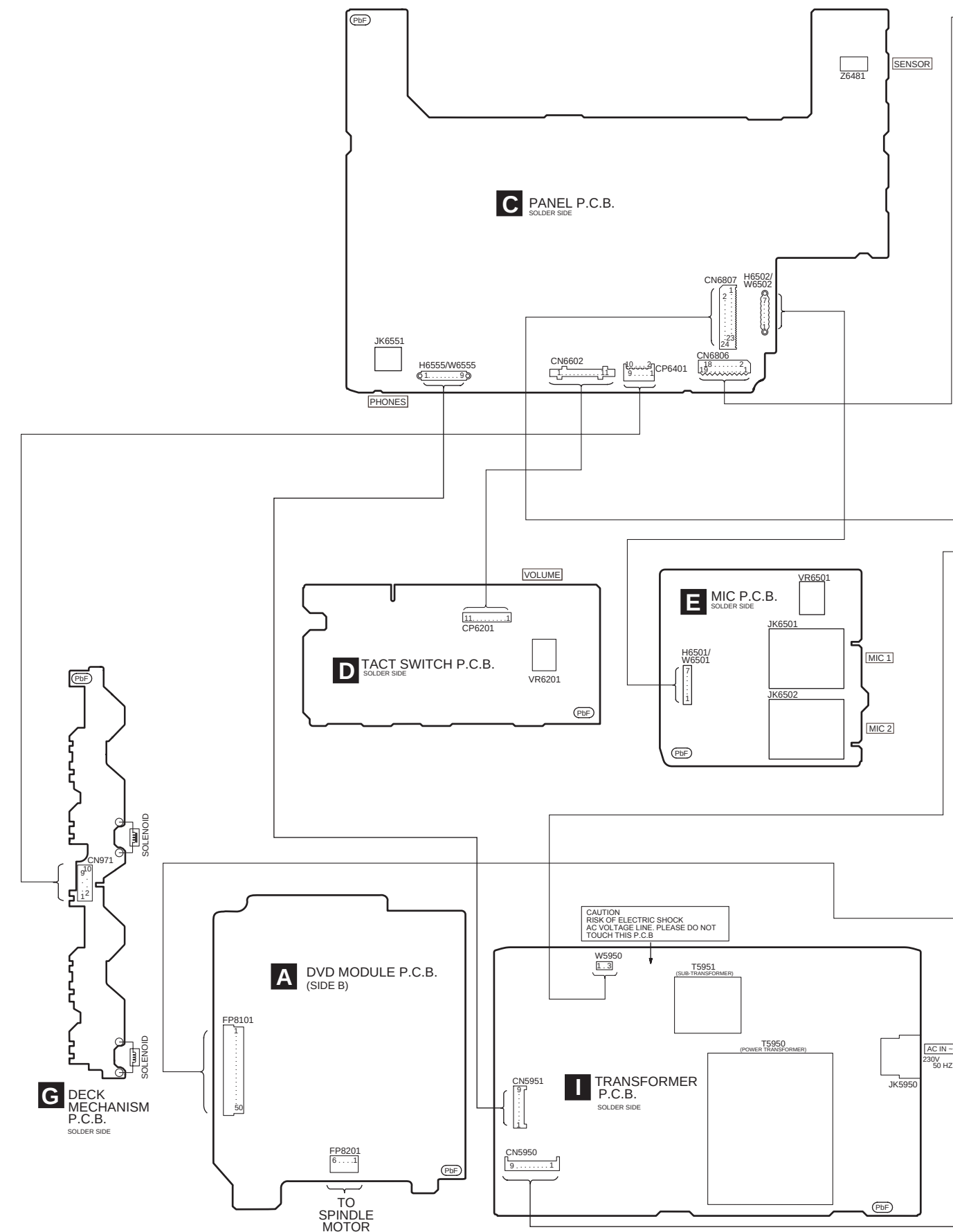
CAUTION
RISK OF ELECTRIC SHOCK
AC VOLTAGE LINE.
PLEASE DO NOT TOUCH THIS P.C.B

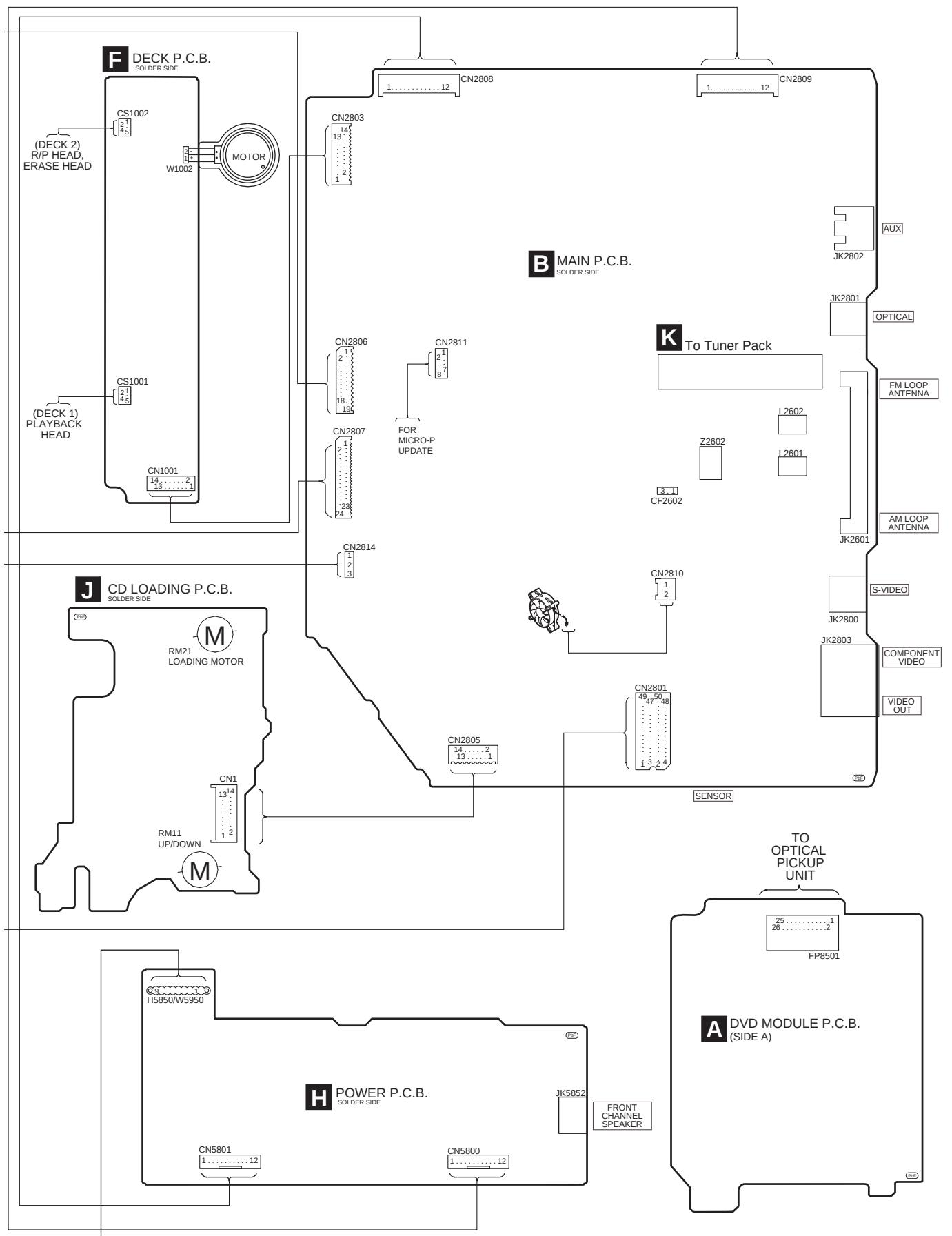


20.8. (J) CD Loading P.C.B. & (K) Tuner Pack P.C.B.

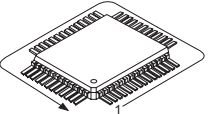
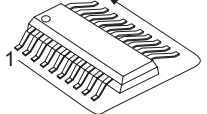
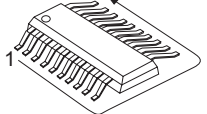
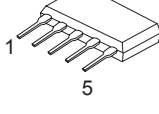
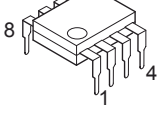
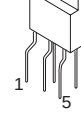
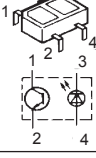
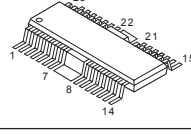
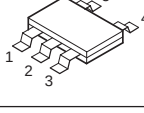
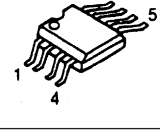
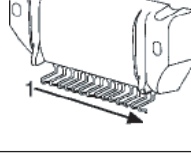
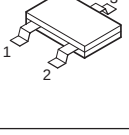
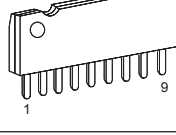
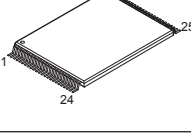
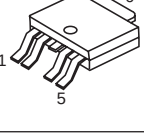
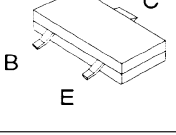
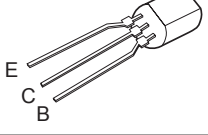
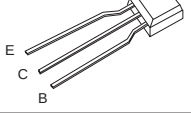
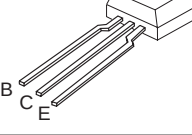
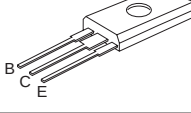
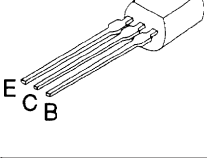
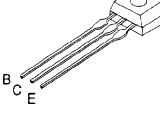
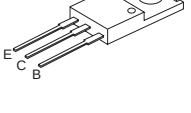
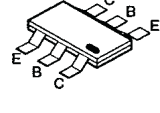
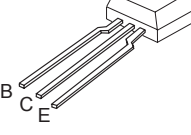
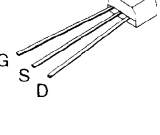
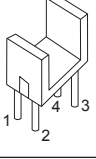
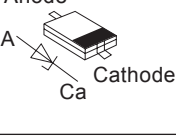
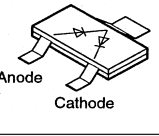
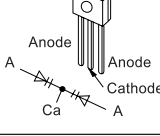
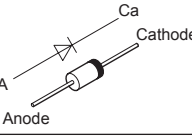
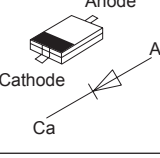
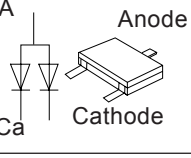
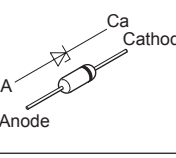
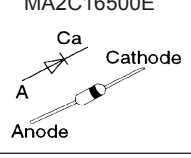
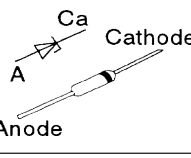
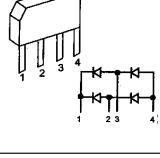
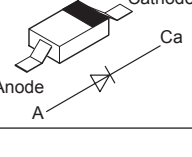
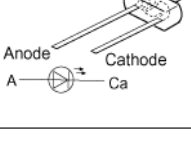


21 Wiring Connection Diagram





22 Illustration of ICs, Transistors and Diodes

C2CBJG000639 (100P) C0HBBB000044 (40P) MN2DS03VP1H (256P) 	AN7348S-E1 (24P) C0FBBK000049 (16P) C0CBCBD000018 (8P) C1BB00000732 (32P) C1BB00001061 (16P) C3ABPG000133 (54P) C9ZB00000466 (16P) 	LA1833NMNTLM (24P) LC72131MDTRM (20P) 	C1AA00000612 	C0AABA000009 	C0DAAZG00012 
CNB13030R2AU 	C0GBG0000048 	C0EBA0000031 C0JBAA000346 	C0ABBB000067 	RSN35H2B-P (14P) 	C0EBE0000384 
C0GAG0000007 (9P) 	RFKWMH82H160 	C0DBEZG00021 (6P) 	2SB0709AHL 2SD0601AHL 2SB09700RL 2SB1219AHL 2SD1819A0L B1ADCF000001 B1ABEB000002 	B1GBCFJA0028 B1GBCFJN0033 B1GBCFJJ0051 B1GDCFJJ0047 UNR521100L UNR521400L UNR511V00L 	B1ABCF000176 B1GDCFGA0018 
2SB0621AHA 2SD0592ARA 	B1AABC000003 	B1AACF000064 	B1BACD000018 	B1ACKD000005 B1AAKD000009 B1AAKD000014 B1AARC000003 B1GCCFJJ0016 	
B1AAGC000007 B1AAAC000016 B1AAD000015 	B1BACG000023 B1BCCG000002 	B1GFGCAA0001 	B1ACCF000094 	2SK544F-AC 	B1GACFJJ0018 
B3NAA0000068 	B0BC5R600003 B0BC5R000009 B0BC7R500001 B0BC01500006 B0BC01000014 B0JCPD000025 	Anode Cathode 	B0ADCC000002 	B0CDBB000015 B0CBAD000004 	B0EAMM000038 B0EAKM000117 
B0ACKK000005 	B0ADCJ000020 	B0BA7R000005 	B0AACK000004 MA2J72800L MA2C16500E 	MTZJ30ATA 	B0EBNL000004 
B0BC4R300002 B0ACCE000003 MA2J11100L 	B3AAA0000583 				

23 Terminal Function of IC

23.1. IC2801 (C2CBJG000639) System Microprocessor

Pin No.	Mark	I/O	Function
1	LM_1	I	Lever Meter Left
2	N.C.	-	No Connection
3	PLL_CE	-	PLL Chip Select
4	WIDE1	O	S.VIDEO output control
5	DVD_PCON	O	Power control pin for DVD module
6	DVD_MUTE	I	Signal from DVD module control mute circuit
7	N.C.	-	No Connection
8	BYTE	-	External Data Bus Width Select Input (Connect to Ground)
9	CNVss/EFP_RESET	-	Flash Mode Terminal (Connected to Ground)
10	XCIN	-	32.768 kHz Sub Clock
11	XCOUT	-	32.768 kHz Sub Clock
12	/RESET EFP_RESET	-	Reset Input (ACTIVE L)
13	XOUT	-	10 MHz Main Clock
14	VSS	-	Ground (0V)
15	XIN	-	10 MHz Main Clock
16	VCC	-	Power Supply (+5V)
17	/NMI	-	Connect to VCC (+5V)
18	RMT	I	Remote Control Input
19	N.C.	-	No Connection
20	SYNC	I	AC Failure Detect Input
21	ST/DO	I	Tuner IF Data/Stereo Input
22	SD	I	Tuner Signal Detect Input
23	N.C.	-	No Connection
24	N.C.	-	No Connection
25	N.C.	-	No Connection
26	APD_DAT	O	ASP DATA
27	ASP_CLK	O	ASP CLOSK
28	N.C.	-	No Connection
29	PLL_DATA	O	PLL DATA
30	PLL_CLK	O	PLL CLK
31	REG 1/EFP_TxD1	I	REGION SETTING 1 (Tuner)
32	REG 2/EFP_RxD1	I	REGION SETTING 2 (Tuner)
33	REG 3/EFP_SCLK	I	REGION SETTING 3 (Tuner)
34	REG 4/EFP_BUSY	I	REGION SETTING 4 (Optical Out)
35	DVD_CMD	O	CMD signal for the DVD Module
36	DVD_STA	I	STATUS signal from the DVD Module
37	DVD_CLK	I	CLCOK signal for the DVD Module
38	N.C.	-	No Connection
39	MUTE_H	O	HIC Mute
40	MUTE_A	O	Audio Mute
41	EE_CS/EFP_/EPM	O	EEPROM Chip Select
42	EE_CLK	O	EEPROM CLOCK
43	EE_DAT	I/O	EEPROM DATA
44	N.C.	-	No Connection
45	N.C.	-	No Connection
46	PCONT/EFP_/CE	O	Main Transformer Control Output
47	DCDET	I	DC Detect Input
48	LED1	O	No Connection LED1 for DVD/CD

Pin No.	Mark	I/O	Function
49	LED2	O	No Connection LED2 for TAPE
50	LED3	O	No Connection LED3 for TUNER
51	LED4	O	No Connection LED4 for AUX
52	HALF_1	I	DECK 1 HALF PLAYBACK INPUT
53	MODE_1	I	DECK 1 MODE PLAYBACK INPUT
54	N.C.	-	No Connection
55	N.C.	-	No Connection
56	PLG1	O	DECK 1 plunger control
57	PLG2	O	DECK 2 plunger control
58	MTR	O/I	DECK motor control ("L" for Motor ON)
59	REC	O/I	L when record circuit is operating
60	DECK1_H	O	H when DECK 1 P/B head is selected
61	N.C.	-	No Connection
62	Vcc	-	Power Supply (+5V)
63	N.C.	-	No Connection
64	Vss	-	Ground (0V)
65	N.C.	-	No Connection
66	N.C.	-	No Connection
67	V_JOG_B	I	Volume Jog A
68	V_JOG_A	I	Volume Jog B
69	ECHO_LVL1	O	ECHO level control 1
70	ECHO_LVL2	O	ECHO level control 2
71	/FL_RESET	O	Reset Input (ACTIVE L)
72	FL_CS	I/O	FL Driver Chip Select
73	FL_DOUT	O	Serial Data To FL Driver (Output)
74	FL_CLK	I/O	Serial Clock To FL Driver
75	ECHO_LVL3	O	ECHO level control 3
76	ECHO_MUTE	O	Control ECHO On/Off
77	HP_MUTE	O	Control Head phone On/Off
78	ST_SW	I	Stock Switch of Changer
79	OP/CL_REV	O	OPEN/CLOSE motor reverse
80	OP/CL_FWD	O	OPEN/CLOSE motor forward
81	OPEN_SW	I	Signal from rotary tray open switch
82	POSITION	I	Signal from position detection sensor
83	Up/Down_R	O	Up/Down motor reverse control
84	Up/Down F	O	Up/Down Motor forward control
85	CHANGE_SW	I	Changer Change Switch
86	Bottom_SW	I	Changer bottom Switch
87	PLAY_SW	I	Changer Play Switch
88	N.C.	-	No Connection
89	DVD_REG	A/D I	DVD Region setting
90	N.C.	-	No Connection
91	DECK2	A/D I	DECK CONDITION INPUT 2 R_INHF/MODE2/HALF2
92-94	KEY3-KEY1	A/D I	KEY 3 to KEY 1 INPUT
95	PHOTO_2	A/D I	Rotation Detection Signal (DECK2)
96	AVss	-	Analog Power Supply Input (Connect to GND)

Pin No.	Mark	I/O	Function
97	PHOTO_1	A/D I	Rotation Detection Signal (DECK 1)
98	VREF	-	Reference for A-D (5V)
99	AVcc	-	Analog Power Supply Input
100	N.C.	-	No Connection

24 Parts Location and Replacement Parts List

Notes:

- Important safety notice:
Components identified by $\triangle$ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardent (resistors), high-quality sound (capacitors), low noise (resistors), etc are used.
When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.
- The parenthesized indications in the Remarks columns specify the areas or colour. (Refer to the cover page for area or colour)
Parts without these indications can be used for all areas.
- Warning: This product uses a laser diode. Refer to caution statements on "Precaution of Laser Diode".

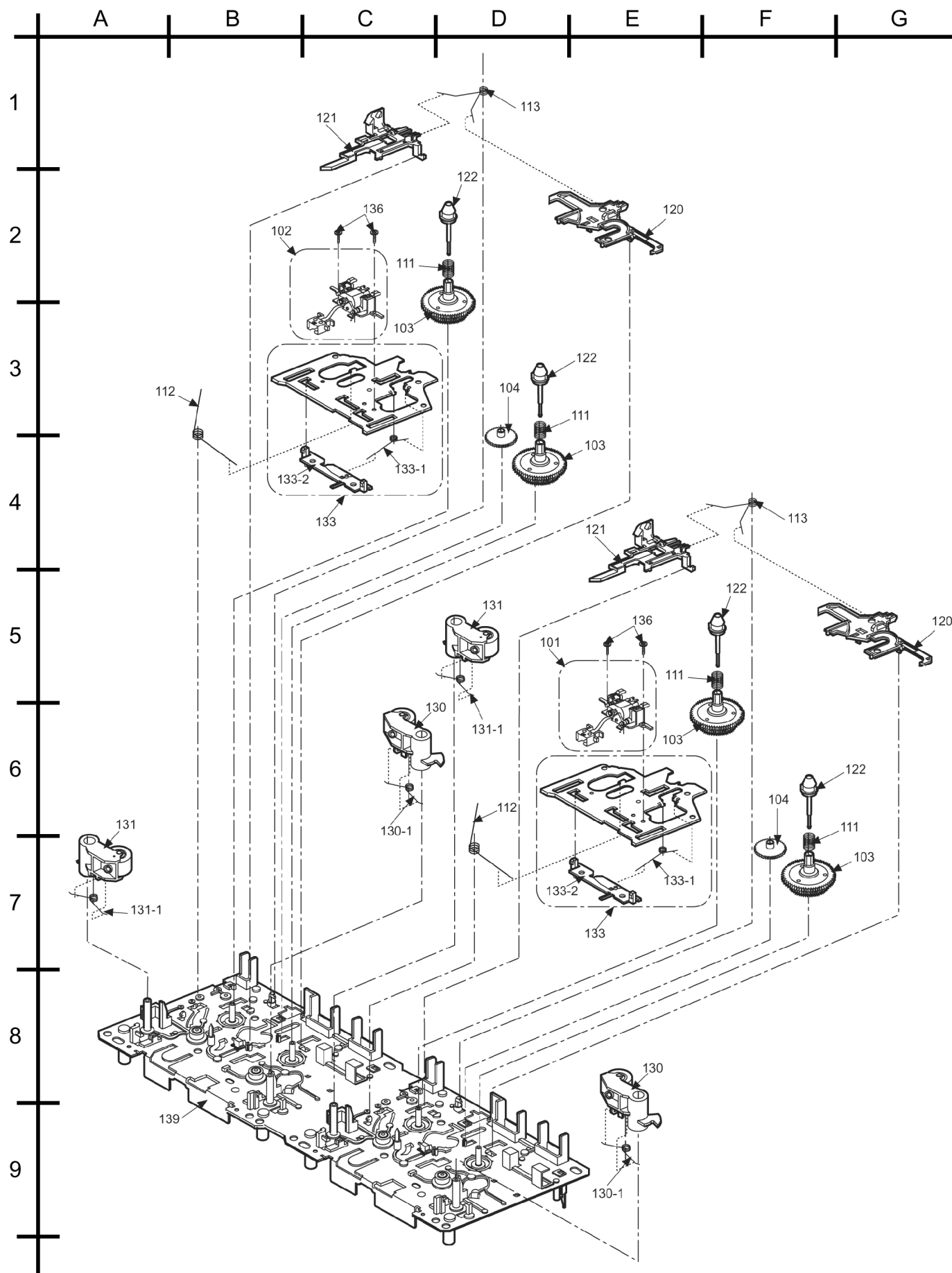
ACHTUNG:

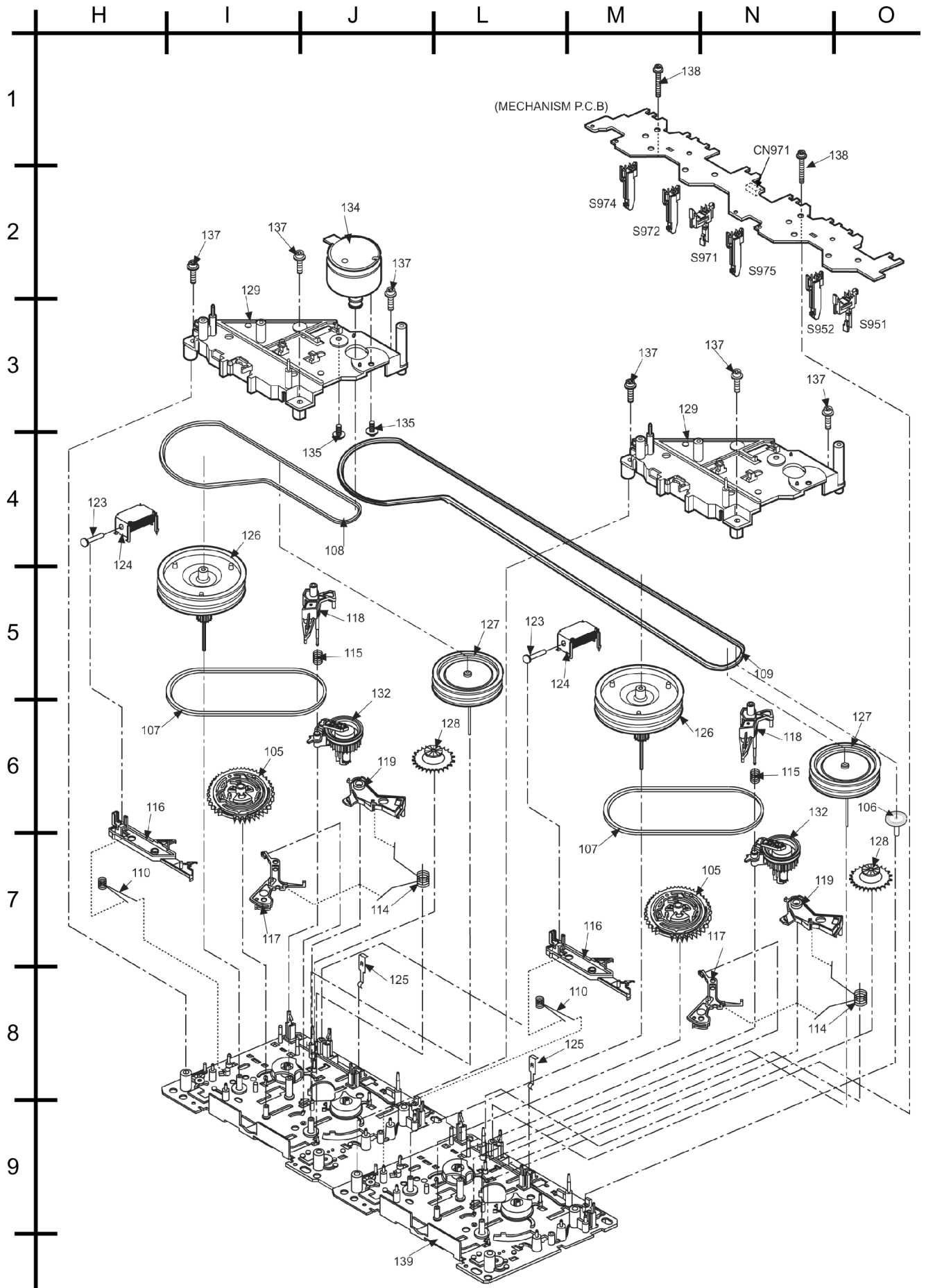
- Die Lasereinheit nicht zerlegen.
- Die Lasereinheit darf nur gegen eine vom Hersteller spezifizierte Einheit ausgetauscht werden.
- Capacitor values are in microfarads (μF) unless specified otherwise, P= Pico-farads (pF), F= Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1,000 (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				

24.1. Deck Mechanism (RAA3413-S)

24.1.1. Deck Mechanism Parts Location



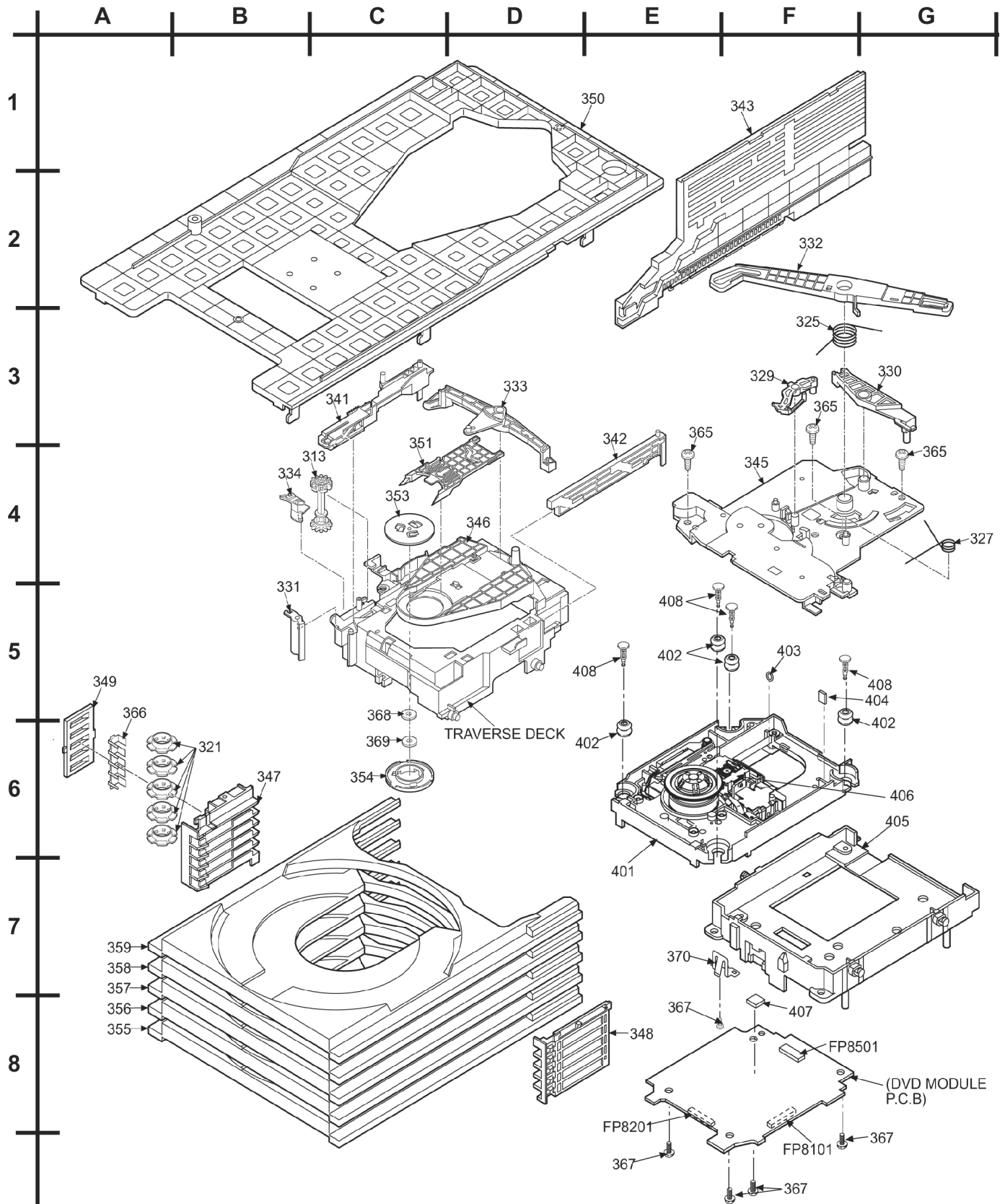


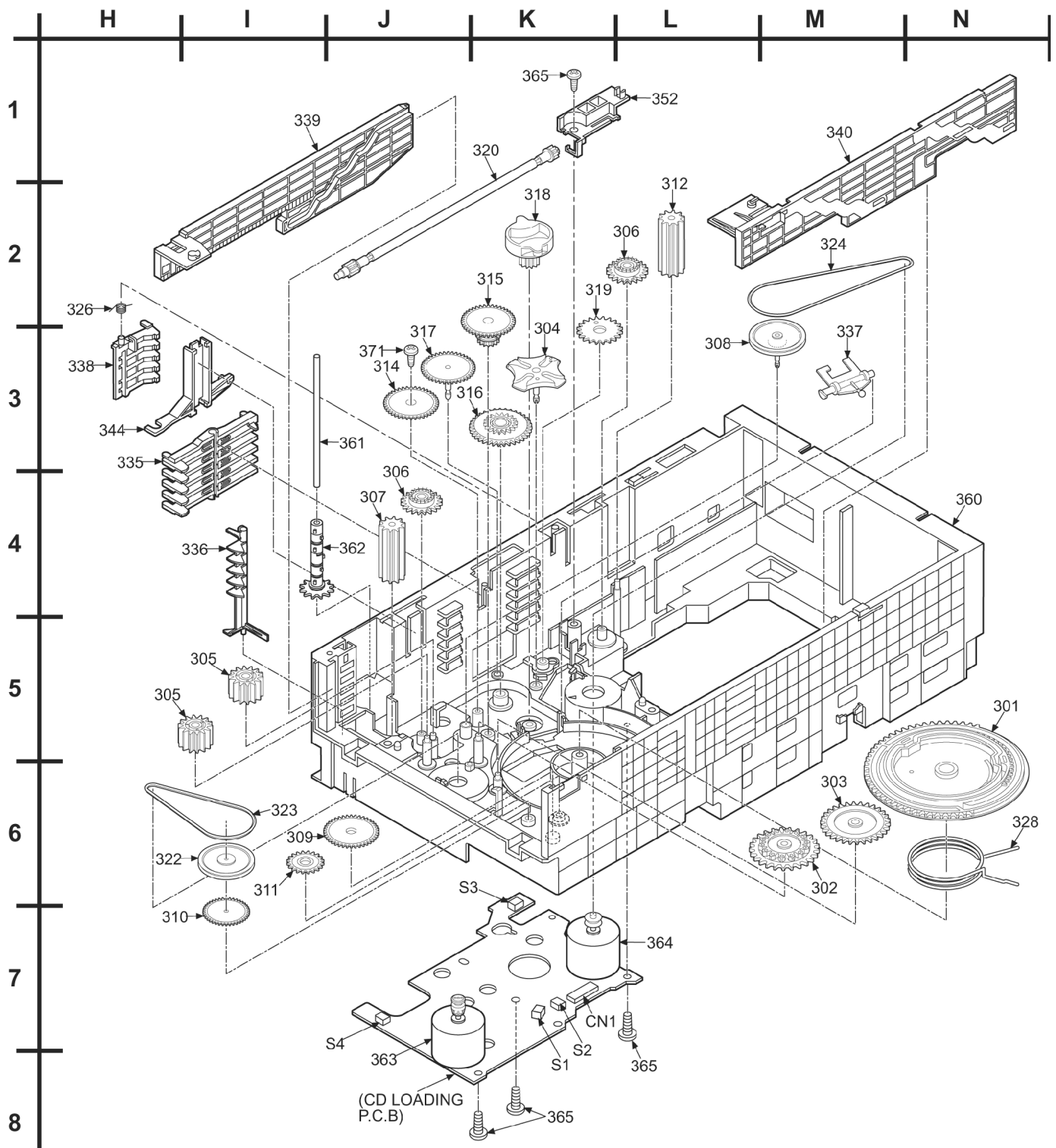
24.1.2. Deck Mechanism Parts List

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	HEAD 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]

24.2. DVD Loading Mechanism

24.2.1. DVD Loading Mechanism Parts Location





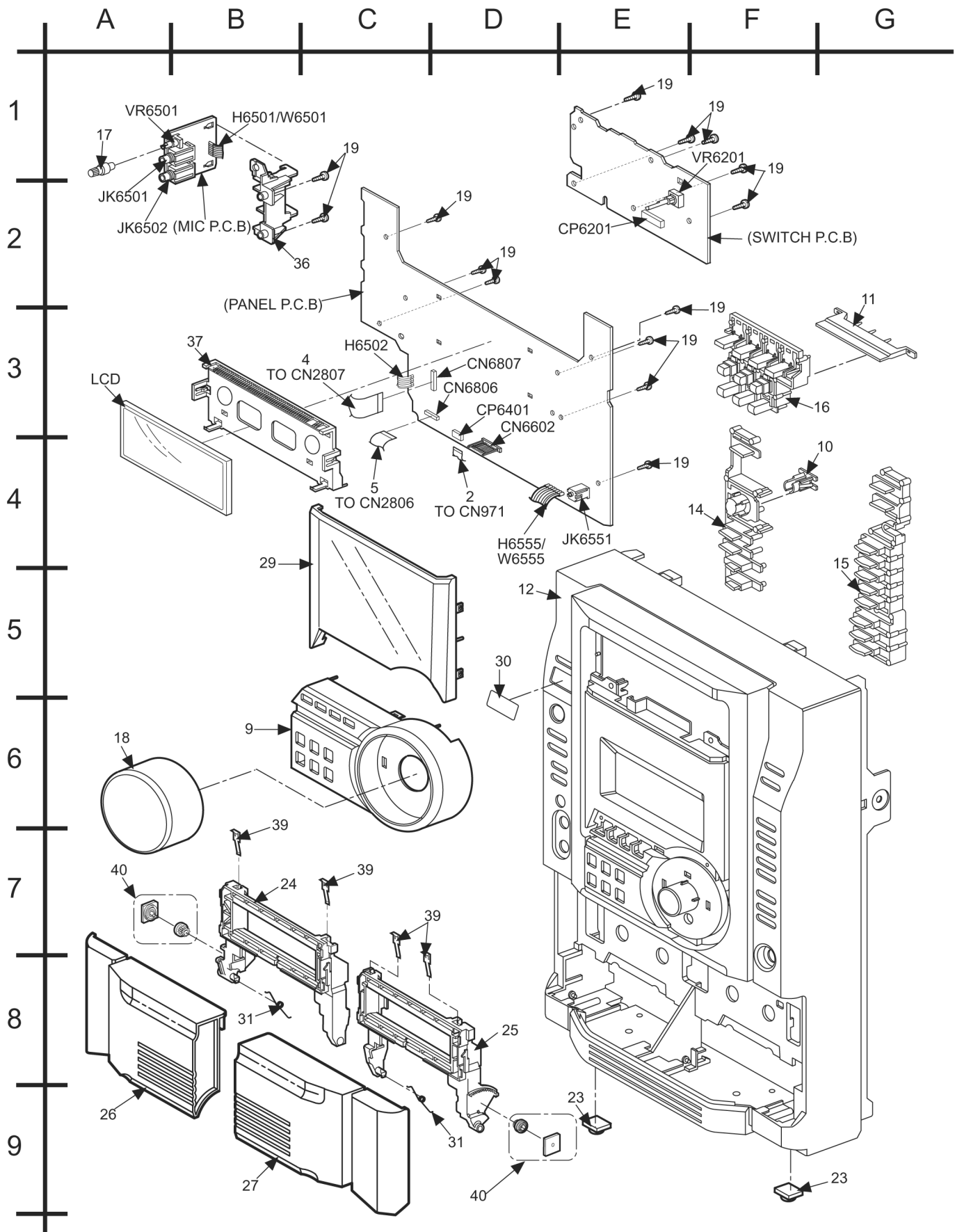
24.2.2. DVD Loading Mechanism Parts List

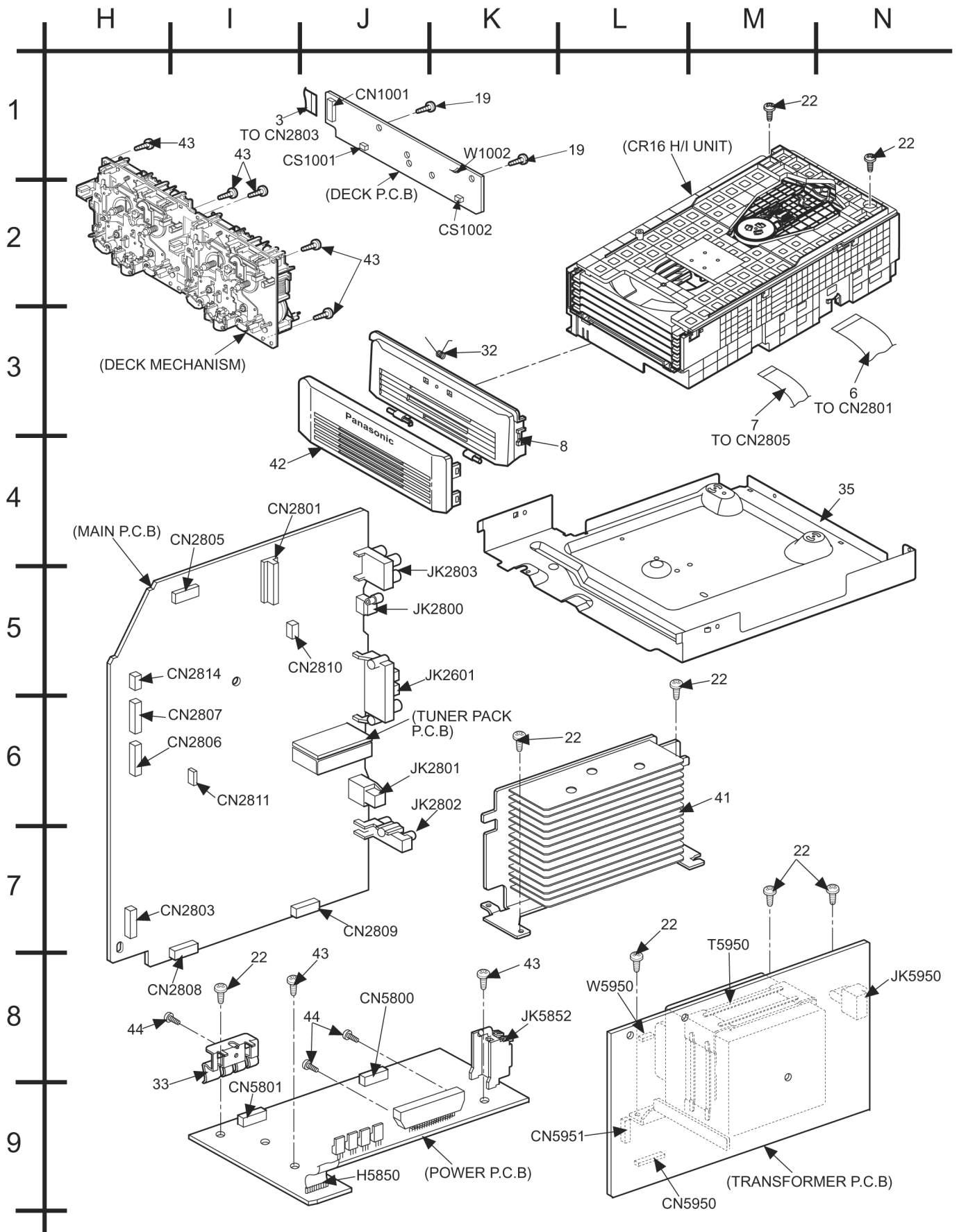
Ref. No.	Part No.	Part Name & Description	Remarks
		TRAVERSE DECK	
301	RDG0519	MAIN GEAR	[M]
302	RDG0520	SPEED UP GEAR	[M]
303	RDG0521	REVERSE GEAR	[M]
304	RDG0522	GENEVA GEAR	[M]
305	RDG0523	HOR RELAY GEAR	[M]
306	RDG0525	CROWN GEAR	[M]
307	RDG0526	TRAY RELAY GEAR	[M]
308	RDG0527	UD PULLEY GEAR	[M]
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]
326	RME0361	TRAY STOPPER 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	RML0622-1	TRAY LOCK LEVER	[M]
336	RML0623	OPEN SW. LEVER	[M]
337	RML0624	CHG. LEVER	[M]
338	RML0637	TRAY STOPPER	[M]
339	RMM0239-1	UD.RACK (L)	[M]
340	RMM0240	UD.RACK (R)	[M]
341	RMM0241-1	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	RMQ1209	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	RMR1407A-H8	TRAY NO. 1	[M]
356	RMR1407B-H8	TRAY NO. 2	[M]
357	RMR1407C-H8	TRAY NO. 3	[M]
358	RMR1407D-H8	TRAY NO. 4	[M]
359	RMR1407E-H8	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+10J	SCREW	[M]
366	RMC0472	TRAY SPRING	[M]
367	XTV2+6GFJ	SCREW	[M]
368	XWG6FFY	BACK YOKE	[M]

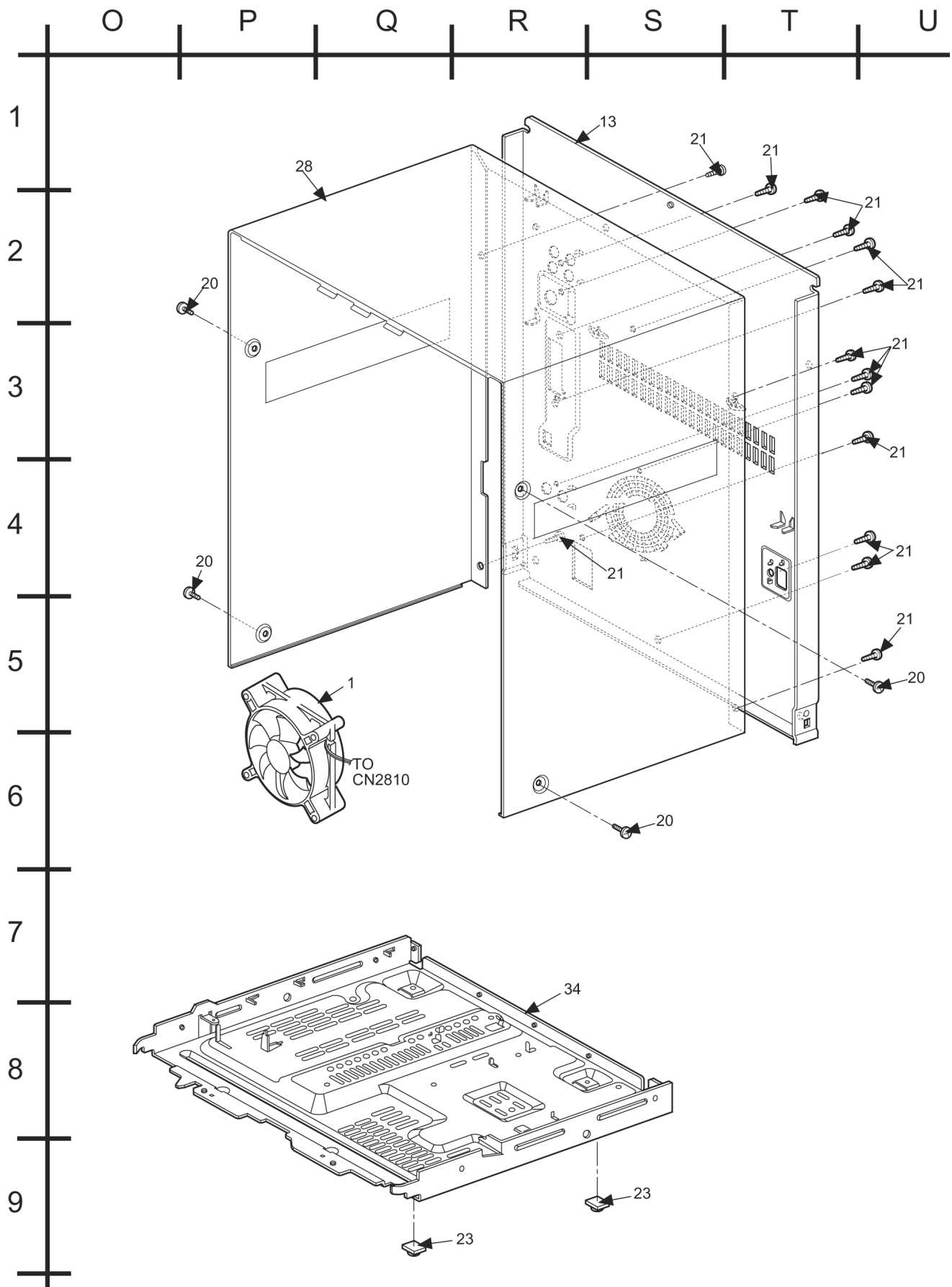
Ref. No.	Part No.	Part Name & Description	Remarks
369	JSM0048	MAGNET	[M]
370	RMC0387	SUPPORT SPRING	[M]
371	RHD26045-L	SCREW	[M]
401	RAE2012Z-S	DU69U BLK AFTER ALIGN	[M]
402	RMG0598-A	FLOATING RUBBER	[M]
403	RMG0617-H	CUSHION RUBBER A	[M]
404	RMG0618-H	CUSHION RUBBER B	[M]
405	RMR1596-X2	MIDDLE CHASSIS	[M]
406	RXQ1252	DVD OPU SUB ASS'Y	[M]
407	RMX0290	PLASTIC SHEET	[M]
408	RMS0789	FIXED PIN	[M]

24.3. Cabinet

24.3.1. Cabinet Parts Location







24.3.2. Cabinet Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	L6FALEFH0030	FAN	[M]
2	REEX0202	10P FCC (PANEL)	[M]
3	REEX0211	14P FCC WIRE (DECK)	[M]
4	REEX0452	24P FCC (PANEL-MAIN)	[M]
5	REEX0453	19P FCC (PANEL-MAIN)	[M]
6	REEX0454	50P FCC WIRE (DVD)	[M]
7	REEX0455	14P FCC WIRE (DVD)	[M]
8	RGKX0274-S	CD LID	[M]
9	RGKX0275-1S1	CONTROL PANEL	[M]
10	RGLX0095-Q	POWER LIGHT CHIP	[M]
11	RGLX0096-Q	CONTROL PANEL LIGHT	[M]
12	RGPX0160D2S1	FRONT PANEL	[M]
13	RGRX0042LA1B	REAR PANEL	[M]
14	RGUX0583-S	POWER BUTTON	[M]
15	RGUX0584A-S	CD CONTROL BUTTON	[M]
16	RGUX0585-2S	FUNCTION BUTTON	[M]
17	RGWX0056-S	MIC VOLUME KNOB	[M]
18	RGWX0072-S	VOLUME KNOB	[M]
19	RHD26046	SCREW	[M]
20	RHD30004-2S	SCREW	[M]
21	RHD30119-S	SCREW	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
22	RHDX30006	STEP SCREW	[M]
23	RKA0072-KJ	LEG CUSHION	[M]
24	RKFX0093-K	CASS. HOLDER (L)	[M]
25	RKFX0094-K	CASS. HOLDER (R)	[M]
26	RKFX0123-2S	CASS LID L	[M]
27	RKFX0124-2S	CASS LID R	[M]
28	RKM0105B-S1	TOP CABINET (BEND)	[M]
29	RKWX0236A-H3	FL WINDOW	[M]
30	RKWX0238-S	REMOTE SENSOR WINDOW	[M]
31	RMBX0021	CASS OPEN SPRING	[M]
32	RMBX0033	CD LID OPEN SPRING	[M]
33	RMCX0021	TRANSISTOR CLIP	[M]
34	RMKX0099-2	BOTTOM CHASSIS	[M]
35	RMKX0109	DVD CHASSIS	[M]
36	RMNX0133	MIC JACK HOLDER	[M]
37	RMNX0138	FL HOLDER	[M]
39	RUS757ZAA	CASSETTE HALF SPRING	[M]
40	RXGX0002	DAMPER GEAR	[M]
41	RXXX0057	HEAT SINK UNIT	[M]
42	RYQX0131C-S1	CD LID UNIT	[M]
43	XTB3+10JFJ	SCREW	[M]
44	XTW3+15TFJ	SCREW (TBZP)	[M]

24.4. Electrical Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PRINTED CIRCUIT BOARD	
	REP3867G	DVD MODULE P.C.B. (SIDE: A)	[M] (RTL)
	REP3867G	DVD MODULE P.C.B. (SIDE: B)	[M] (RTL)
	REPX0477B	MAIN P.C.B.	[M] (RTL)
	REPX0478A	PANEL P.C.B.	[M] (RTL)
	REPX0478A	TACT SWITCH P.C.B.	[M] (RTL)
	REPX0478A	MIC P.C.B.	[M] (RTL)
	REPX0331E	DECK P.C.B.	[M] (RTL)
	REPX0321B	DECK MECHANISM P.C.B.	[M] (RTL)
	REPX0476B	POWER P.C.B.	[M] (RTL)
	REPX0479B	TRANSFORMER P.C.B.	[M] (RTL)
	REP3569A	CD LOADING P.C.B.	[M] (RTL)
	REP1999B	TUNER PACK P.C.B.	[M] (RTL)
		INTEGRATED CIRCUITS	
IC11	C0GAG0000007	IC UP/DOWN MOTOR DRIVE	[M]
IC21	C0GAG0000007	IC LOADING MOTOR DRIVE	[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]
IC2101	C1BB00000732	IC AUDIO SOUND PROCESSOR	[M]
IC2103	C0ABBB000067	IC DUAL OP-AMP	[M]
IC2561	C0DAAZG00012	IC DC-DC CONVERTER	[M]
IC2563	C0DBEZG00021	IC REGULATOR	[M]
IC2601	LA1833NMNTLM	IC FM/AM IF AMP ,DET/AM OSC MIX/FM MPX	[M]
IC2602	LC72131MDTRM	IC PLL FREQUENCY SYNTHESIZER	[M]
IC2701	C9ZB00000466	IC VIDEO BUFFER	[M]
IC2801	C2CBJG000639	IC MIRCOPROCESSOR	[M]
IC2804	C0AABA000009	IC DUAL OP-AMP	[M]
IC5801	RSN35H2B-P	IC POWER HIC	[M]
IC6550	C1BB00001061	IC ECHO	[M]
IC6601	C0HBB0000044	IC FL DRIVER	[M]
IC8001	MN2DS03VP1H	IC DV2.1	[M]
IC8051	C3ABPG000133	IC 64 SDRAM	[M]
IC8111	C0CBCBD00018	IC 3.3 REGULATOR	[M]
IC8251	C0GBG0000048	IC DRIVE	[M]
IC8420	C0FBBK000049	IC 2-CH DAC	[M]
IC8601	C0EBE0000384	IC RESET	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
IC8606	C0EBA0000031	IC RESET	[M]
IC8651	RFKWMH82H160	IC 16M FLASH ROM	[SPG]
IC8691	C0JBAA000346	IC AND GATE LOGIC	[M]
IC8695	C0JBAA000346	IC AND GATE LOGIC	[M]
		TRANSISTORS	
Q1	2SK544F-AC	TRANSISTOR	[M]
Q1	B3NAA0000068	TRANSISTOR	[M]
Q2	B1AAAC000016	TRANSISTOR	[M]
Q3	B1AAAD000015	TRANSISTOR	[M]
Q4	B1AAAD000015	TRANSISTOR	[M]
Q1003	B1AAGC000007	TRANSISTOR	[M]
Q1004	B1AAGC000007	TRANSISTOR	[M]
Q1005	B1AAGC000007	TRANSISTOR	[M]
Q1007	B1ABCF000176	TRANSISTOR	[M]
Q1017	B1AARC000003	TRANSISTOR	[M]
Q2142	B1ABCF000176	TRANSISTOR	[M]
Q2143	B1ABEB000002	TRANSISTOR	[M]
Q2242	B1ABCF000176	TRANSISTOR	[M]
Q2243	B1ABEB000002	TRANSISTOR	[M]
Q2366	B1GFGCAA0001	TRANSISTOR	[M]
Q2501	B1GDCFJJ0047	TRANSISTOR	[M]
Q2502	B1GFGCAA0001	TRANSISTOR	[M]
Q2551	B1ADCF000001	TRANSISTOR	[M]
Q2552	B1ACKD000005	TRANSISTOR	[M]
Q2570	B1AAKD000009	TRANSISTOR	[M]
Q2576	B1GBCFJA0028	TRANSISTOR	[M]
Q2601	B1AABC000003	TRANSISTOR	[M]
Q2606	B1GCCFJJ0016	TRANSISTOR	[M]
Q2701	2SD0592ARA	TRANSISTOR	[M]
Q2704	2SB0709AHL	TRANSISTOR	[M]
Q2705	2SB0709AHL	TRANSISTOR	[M]
Q2706	2SD0601AHL	TRANSISTOR	[M]
Q2806	B1GBCFJJ0051	TRANSISTOR	[M]
Q2901	B1GBCFJN0033	TRANSISTOR	[M]
Q2912	B1GBCFJN0033	TRANSISTOR	[M]
Q2978	B1GDCFJJ0047	TRANSISTOR	[M]
Q2979	B1GDCFJJ0047	TRANSISTOR	[M]
Q5801	B1BACG000023	TRANSISTOR	[M]
Q5802	B1BCCG000002	TRANSISTOR	[M]
Q5803	B1BACG000023	TRANSISTOR	[M]
Q5804	B1BCCG000002	TRANSISTOR	[M]
Q5805	B1ACCF000094	TRANSISTOR	[M]
Q5806	B1GDCFGA0018	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q5807	B1ABCF000176	TRANSISTOR	[M]
Q5808	B1AAKD000014	TRANSISTOR	[M]
Q5812	B1ABCF000176	TRANSISTOR	[M]
Q5813	B1ABCF000176	TRANSISTOR	[M]
Q5814	B1ABCF000176	TRANSISTOR	[M]
Q5950	B1BACD000018	TRANSISTOR	[M]
Q5951	2SB0621AHA	TRANSISTOR	[M]
Q5952	B1GACFJJ0018	TRANSISTOR	[M]
Q5953	B1AACF000064	TRANSISTOR	[M]
Q6201	B1GBCFJN0033	TRANSISTOR	[M]
Q6202	B1GBCFJN0033	TRANSISTOR	[M]
Q6203	B1GBCFJN0033	TRANSISTOR	[M]
Q6204	B1GBCFJN0033	TRANSISTOR	[M]
Q6411	B1ACKD000005	TRANSISTOR	[M]
Q6415	B1ACKD000005	TRANSISTOR	[M]
Q6421	B1GBCFJJ0051	TRANSISTOR	[M]
Q6425	B1GBCFJJ0051	TRANSISTOR	[M]
Q6501	B1ABCF000176	TRANSISTOR	[M]
Q6502	B1ABCF000176	TRANSISTOR	[M]
Q6503	B1ABCF000176	TRANSISTOR	[M]
Q6504	B1GBCFJJ0051	TRANSISTOR	[M]
Q6505	B1GBCFJJ0051	TRANSISTOR	[M]
Q6506	B1GBCFJJ0051	TRANSISTOR	[M]
Q6550	B1GBCFJJ0051	TRANSISTOR	[M]
Q6803	B1ACCF000094	TRANSISTOR	[M]
Q6804	B1ACCF000094	TRANSISTOR	[M]
Q6805	B1GACFJJ0018	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]
QR8111	UNR521400L	TRANSISTOR	[M]
QR8112	UNR521400L	TRANSISTOR	[M]
QR8420	UNR521100L	TRANSISTOR	[M]
QR8571	UNR511V00L	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]
D2031	B0BC7R500001	DIODE	[M]
D2241	B0ACCK000005	DIODE	[M]
D2311	B0BC4R300002	DIODE	[M]
D2332	B0ADCC000002	DIODE	[M]
D2411	B0BC4R300002	DIODE	[M]
D2551	B0ACCK000005	DIODE	[M]
D2552	B0BC7R500001	DIODE	[M]
D2553	B0JCPD000025	DIODE	[M]
D2555	B0EAKM000117	DIODE	[M]
D2556	B0EAKM000117	DIODE	[M]
D2557	B0EAKM000117	DIODE	[M]
D2576	B0ADCJ000020	DIODE	[M]
D2578	B0ACCK000005	DIODE	[M]
D2601	B0BC5R000009	DIODE	[M]
D2602	B0CDBB000015	DIODE	[M]
D2703	B0ACCK000005	DIODE	[M]
D2704	B0ACCK000005	DIODE	[M]
D2705	B0ACCK000005	DIODE	[M]
D2731	B0EAKM000117	DIODE	[M]
D2801	B0ACCK000005	DIODE	[M]
D2802	B0ADCJ000020	DIODE	[M]
D2804	B0ACCK000005	DIODE	[M]
D2911	B0ACCK000005	DIODE	[M]
D5801	B0BC01000014	DIODE	[M]
D5802	B0BC01500006	DIODE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
D5803	B0BC01500006	DIODE	[M]
D5804	B0ACCK000005	DIODE	[M]
D5805	B0EAKM000117	DIODE	[M]
D5807	B0EAKM000117	DIODE	[M]
D5808	B0BC5R600003	DIODE	[M]
D5809	B0BC01000014	DIODE	[M]
D5813	B0ACCK000005	DIODE	[M]
D5814	B0ACCK000005	DIODE	[M]
D5815	B0ACCK000005	DIODE	[M]
D5816	B0ACCK000005	DIODE	[M]
D5820	B0BC01500006	DIODE	[M]
D5950	B0EAMM000038	DIODE	[M]
D5951	B0EAMM000038	DIODE	[M]
D5952	B0EAMM000038	DIODE	[M]
D5953	B0EAMM000038	DIODE	[M]
D5958	B0EAKM000117	DIODE	[M]
D5959	B0EAKM000117	DIODE	[M]
D5960	MTZJ30ATA	DIODE	[M]
D5961	B0EAKM000117	DIODE	[M]
D5962	B0EAKM000117	DIODE	[M]
D5964	B0BA7R000005	DIODE	[M]
D5965	B0AACK000004	DIODE	[M]
D5966	B0EAKM000117	DIODE	[M]
D5969	B0EBNL000004	DIODE	[M]
D5989	B0EAKM000117	DIODE	[M]
D5990	B0EAKM000117	DIODE	[M]
D5991	B0EAKM000117	DIODE	[M]
D6101	B3AAA0000583	DIODE	[M]
D6102	B3AAA0000583	DIODE	[M]
D6201	B3AAA0000583	DIODE	[M]
D6202	B3AAA0000583	DIODE	[M]
D6203	B3AAA0000583	DIODE	[M]
D6204	B3AAA0000583	DIODE	[M]
D6481	B0BC5R600003	DIODE	[M]
D6501	B0BC5R000009	DIODE	[M]
D6635	B0BC5R600003	DIODE	[M]
D6636	B0EAKM000117	DIODE	[M]
D6803	B0ACCE000003	DIODE	[M]
D8231	MA2J11100L	DIODE	[M]
D8550	MA2J11100L	DIODE	[M]
D8571	MA2J72800L	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 RESISTOR	[M]
LB8422	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8423	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8424	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8491	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8502	J0JHC0000045	CHIP INDUCTOR	[M]
LB8503	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8504	J0JCC0000119	CHIP INDUCTOR	[M]
LB8505	J0JCC0000119	CHIP INDUCTOR	[M]
LB8507	J0JCC0000119	CHIP INDUCTOR	[M]
LB8511	ERJ3GEY0R00V	CHIP RESISTOR	[M]
LB8512	ERJ3GEY0R00V	CHIP RESISTOR	[M]
LB8513	ERJ3GEY0R00V	CHIP RESISTOR	[M]
LB8514	ERJ3GEY0R00V	CHIP RESISTOR	[M]
LB8690	J0JCC0000091	FILTER	[M]
LB8691	ERJ2GEJ101X	CHIP RESISTOR	[M]
LB8692	ERJ2GEJ101X	CHIP RESISTOR	[M]
LB8693	ERJ2GEJ101X	CHIP RESISTOR	[M]
		VARIABLE RESISTORS	
VR6201	EVEKE2F3524M	VR VOLUME JOG	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
VR6501	EVUE27FK2B53	VR MIC	[M]
		SWITCHES	
S1	K0L1BA000065	SW STOCK	[M]
S2	K0L1BA000065	SW PLAY	[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]
S6101	K0H1BA000502	SW POWER	[M]
S6102	K0H1BA000502	SW DISC CHECK	[M]
S6103	K0H1BA000502	SW MULTI REMASTER	[M]
S6104	K0H1BA000502	SW SURROUND ADVANCED	[M]
S6105	K0H1BA000502	SW DECK 1/2	[M]
S6106	K0H1BA000502	SW REC	[M]
S6201	K0H1BA000502	SW DVD/CD	[M]
S6202	K0H1BA000502	SW TAPE	[M]
S6203	K0H1BA000502	SW TUNER	[M]
S6204	K0H1BA000502	SW AUX	[M]
S6205	K0H1BA000502	SW DECK 1	[M]
S6206	K0H1BA000502	SW DISPLAY	[M]
S6207	K0H1BA000502	SW DECK 2	[M]
S6208	K0H1BA000502	SW REW	[M]
S6209	K0H1BA000502	SW FF	[M]
S6210	K0H1BA000502	SW STOP	[M]
S6301	K0H1BA000502	SW OPEN/CLOSE	[M]
S6302	K0H1BA000502	SW DISC CHANGE	[M]
S6303	K0H1BA000502	SW DISC 5	[M]
S6304	K0H1BA000502	SW DISC 4	[M]
S6305	K0H1BA000502	SW DISC 3	[M]
S6306	K0H1BA000502	SW DISC 2	[M]
S6307	K0H1BA000502	SW DISC 1	[M]
S6309	K0H1BA000502	SW S.SQ	[M]
S6310	K0H1BA000502	SW SOUND EQ	[M]
		CONNECTORS	
CN1	K1MN14B00066	14P FFC CONNECTOR	[M]
CN971	K1MN10B00104	10P FFC CONNECTOR	[M]
CN1001	K1MN14B00058	14P CONNECTOR	[M]
CN2801	K1MN50A00008	50P CONNECTOR	[M]
CN2803	RJS1A9414-1	14P CONNECTOR	[M]
CN2805	K1MN14BA0004	14P CONNECTOR	[M]
CN2806	K1MN19A00027	19P FFC CONNECTOR	[M]
CN2807	K1MN24A00060	24P FFC CONNECTOR	[M]
CN2808	K1KB12B00036	12P CONNECTOR	[M]
CN2809	K1KB12B00036	12P CONNECTOR	[M]
CN2810	K1KA02A00008	2P CONNECTOR	[M]
CN2811	RJS2A5608	8P FFC CONNECTOR	[M]
CN2814	K1KA03A00083	3P CONNECTOR	[M]
CN5800	K1KA12A00184	12P CONNECTOR	[M]
CN5801	K1KA12A00184	12P CONNECTOR	[M]
CN5950	K1KA09A00227	9P CONNECTOR	[M]
CN5951	K1KA09A00047	9P CONNECTOR	[M]
CN6602	K1KA11B00033	11P CONNECTOR	[M]
CN6806	K1MN19A00027	19P FFC CONNECTOR	[M]
CN6807	K1MN24A00060	24P FFC CONNECTOR	[M]
CP6201	RJU071H11M	11P CONNECTOR	[M]
CP6401	K1MN10B00104	10P 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]

Ref. No.	Part No.	Part Name & Description	Remarks
		CERAMIC FILTERS	
CF2601	J0B1075AA014	FM CERAMIC FILTER	[M]
CF2602	J0B1075AA014	FM CERAMIC FILTER	[M]
		COILS & TRANSFORMERS	
L1	RLQZP1R2KT-Y	COIL	[M]
L2	RLQZPR47KT-Y	COIL	[M]
L1001	G0C470JA0052	RF CHOKE COIL	[M]
L1002	7L1A62N	BIAS OSC COIL	[M]
L2551	G0A101G00022	COIL	[M]
L2601	G2A411C00001	AM COIL	[M]
L2602	G2BPC0000016	OSCILLATOR COIL	[M]
L2901	J0JCC0000120	CHIP INDUCTOR	[M]
L2902	J0JCC0000120	CHIP INDUCTOR	[M]
L2903	J0JCC0000120	CHIP INDUCTOR	[M]
L2904	J0JBC0000019	CHIP INDUCTOR	[M]
L2905	J0JBC0000019	CHIP INDUCTOR	[M]
L2906	J0JCC0000120	CHIP INDUCTOR	[M]
L2907	J0JCC0000120	CHIP INDUCTOR	[M]
L2908	J0JCC0000120	CHIP INDUCTOR	[M]
L2912	G0A100G00005	INDUCTOR	[M]
L5201	G0AR76Y00001	CHOKE COIL	[M]
L5401	G0AR76Y00001	CHOKE COIL	[M]
L5950	G0B371HA0005	LINE FILTER	[M]
L6501	G0C3R3JA0052	COIL	[M]
L6502	G0C100JA0052	INDUCTOR	[M]
L6503	G0C100JA0052	INDUCTOR	[M]
L6551	G0C100JA0052	INDUCTOR	[M]
L6552	G0C101JA0052	INDUCTOR	[M]
L6553	G0C101JA0052	INDUCTOR	[M]
L6554	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]
T5950	G4C7AGK00008	POWER TRANSFERMER	[M] 
T5951	RTP1H3E002	BACK UP TRANSFORMER	[M] 
		COMPONENT COMBINATIONS	
Z971	RGSD12A1445T	RADA RESISTOR	[M]
Z2602	G2BAD0000003	AM IFT	[M]
Z5950	ERZV10V511CS	ZENER	[M] 
Z6481	B3RAB0000025	REMOTE SENSOR	[M]
		RELAY	
RL5950	K6B1AEA00015	POWER RELAY	[M] 
		OSCILLATORS	
X2602	H3F1065A0002	DISCRIMINATOR	[M]
X2603	H0H720400005	CRYSTAL OSCILLATOR	[M]
X2801	H0A327200115	CRYSTAL OSCILLATOR	[M]
X2802	H2B100500004	CERAMIC RESONATORS	[M]
X8621	H0J270500085	CRYSTAL	[M]
		DISPLAY TUBES	
FL6602	A2BD00000124	FL	[M]
FL8101	F1H0J1050022	CHIP CAPACITOR	[M]
FL8102	F1H0J1050022	CHIP CAPACITOR	[M]
FL8103	F1H0J1050022	CHIP CAPACITOR	[M]
FL8104	F1J1E1040022	CHIP CAPACITOR	[M]
		FUSE	
F1	K5D122BLA014	FUSE 1.25A	[M] 
		FUSE HOLDERS	

Ref. No.	Part No.	Part Name & Description	Remarks
FC5901	K3GE1BA00021	FUSE CLIP	[M]
FC5902	K3GE1BA00021	FUSE CLIP	[M]
		FUSE PROTECTORS	
FP5833	K5G400A00001	FUSE PROTECTOR	[M] △
FP5950	K5G402A00025	FUSE PROTECTOR	[M] △
FP5951	K5G102A00023	FUSE PROTECTOR	[M] △
		HOLDERS	
H5850	RJS1A5509	9P CABLE HOLDER	[M]
H6501	RMR0316	7P WIRE HOLDER	[M]
H6502	RMR0316	7P WIRE HOLDER	[M]
H6555	K1YZ09000002	WIRE HOLDER	[M]
		JACKS	
JK2601	K4BC03A00008	JK ANETENNA	[M]
JK2800	K1CB105B0039	JK S-VIDEO	[M]
JK2801	B3RAA0000010	JK OPTICAL	[M]
JK2802	K2HA204B0153	JK	[M]
JK2803	K2HA408B0061	JK	[M]
JK5852	K4BC04B00084	JK SPEAKER	[M]
JK5950	K2AA2B000011	JK AC INLET	[M] △
JK6501	K2HB102J0038	JK	[M]
JK6502	K2HB102J0038	JK	[M]
JK6551	K2HC103A0024	JK	[M]
		EARTH TERMINALS	
E5800	K4CZ01000027	TERMINAL	[M]
E5801	RSQX0001-1	EARTH PLATE	[M]
		WIRES	
W1002	RWJ0102050CK	MOTOR WIRE	[M]
W5950	REXX0325	9P FLAT WIRE	[M]
W5950	REXX0479	2P CONNECTOR WIRE	[M]
W6501	REXX0413	MIC TO PANEL (W6502)	[M]
W6555	REXX0324	9P FLAT WIRE	[M]
		CHIP RESISTORS	
W2518	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2800	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2805	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2806	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2807	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2908	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2909	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2911	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2912	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2918	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2919	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2922	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2924	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2925	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2926	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2928	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2929	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2930	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2932	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2940	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2941	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2942	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2958	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2961	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2962	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2964	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2968	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2969	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2979	ERJ3GEY0R00V	CHIP JUMPER	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
W2980	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2981	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2989	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2993	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2995	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2996	ERJ3GEY0R00V	CHIP JUMPER	[M]
W2997	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6560	ERJ3GEY0R00V	CHIP JUMPER	[M]
W6574	ERJ3GEY0R00V	CHIP JUMPER	[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]
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]

Ref. No.	Part No.	Part Name & Description	Remarks
R2001	ERJ3GEY0R00V	0 1/16W	[M]
R2002	ERJ3GEY0R00V	0 1/16W	[M]
R2003	ERJ3GEY0R00V	0 1/16W	[M]
R2004	ERJ3GEY0R00V	0 1/16W	[M]
R2005	ERJ3GEY0R00V	0 1/16W	[M]
R2006	ERJ3GEY0R00V	0 1/16W	[M]
R2007	ERJ3GEY0R00V	0 1/16W	[M]
R2008	ERJ3GEY0R00V	0 1/16W	[M]
R2009	ERJ3GEY0R00V	0 1/16W	[M]
R2021	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2031	ERDS1FVJ270T	27 1/2W	[M]
R2032	ERJ3GEYJ103V	10K 1/16W	[M]
R2033	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2101	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2102	ERJ3GEYJ122V	1.2K 1/16W	[M]
R2103	ERJ3GEYJ123V	12K 1/16W	[M]
R2106	ERJ3GEYJ101V	100 1/16W	[M]
R2107	ERJ3GEYJ473V	47K 1/16W	[M]
R2108	ERJ3GEYJ123V	12K 1/16W	[M]
R2111	ERJ3GEYJ103V	10K 1/16W	[M]
R2112	ERJ3GEYJ223V	22K 1/16W	[M]
R2113	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2116	ERJ3GEYJ123V	12K 1/16W	[M]
R2117	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2118	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2120	ERJ3GEYJ102V	1K 1/16W	[M]
R2141	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2142	ERJ3GEYJ152V	1.5K 1/16W	[M]
R2143	ERJ3GEYJ104V	100K 1/16W	[M]
R2145	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2146	ERJ3GEYJ102V	1K 1/16W	[M]
R2149	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2150	ERJ3GEY0R00V	0 1/16W	[M]
R2152	ERJ3GEYJ681V	680 1/16W	[M]
R2153	ERJ3GEYJ152V	1.5K 1/16W	[M]
R2154	ERJ3GEYJ104V	100K 1/16W	[M]
R2166	ERJ3GEYJ220V	22 1/16W	[M]
R2167	ERJ3GEYJ220V	22 1/16W	[M]
R2168	ERJ3GEYJ220V	22 1/16W	[M]
R2169	ERJ3GEYJ220V	22 1/16W	[M]
R2170	ERJ3GEY0R00V	0 1/16W	[M]
R2171	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2172	ERJ3GEYJ561V	560 1/16W	[M]
R2191	ERJ3GEY0R00V	0 1/16W	[M]
R2197	ERJ3GEYJ331V	330 1/16W	[M]
R2201	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2202	ERJ3GEYJ122V	1.2K 1/16W	[M]
R2206	ERJ3GEYJ101V	100 1/16W	[M]
R2207	ERJ3GEYJ473V	47K 1/16W	[M]
R2211	ERJ3GEYJ103V	10K 1/16W	[M]
R2212	ERJ3GEYJ223V	22K 1/16W	[M]
R2216	ERJ3GEYJ123V	12K 1/16W	[M]
R2217	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2220	ERJ3GEYJ102V	1K 1/16W	[M]
R2241	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2242	ERJ3GEYJ152V	1.5K 1/16W	[M]
R2243	ERJ3GEYJ104V	100K 1/16W	[M]
R2245	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2246	ERJ3GEYJ102V	1K 1/16W	[M]
R2247	ERJ3GEYJ104V	100K 1/16W	[M]
R2248	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2249	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2252	ERJ3GEYJ681V	680 1/16W	[M]
R2253	ERJ3GEYJ152V	1.5K 1/16W	[M]
R2254	ERJ3GEYJ104V	100K 1/16W	[M]
R2266	ERJ3GEYJ220V	22 1/16W	[M]
R2267	ERJ3GEYJ220V	22 1/16W	[M]
R2268	ERJ3GEYJ220V	22 1/16W	[M]
R2269	ERJ3GEYJ220V	22 1/16W	[M]
R2270	ERJ3GEY0R00V	0 1/16W	[M]
R2271	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2272	ERJ3GEYJ561V	560 1/16W	[M]
R2291	ERJ3GEY0R00V	0 1/16W	[M]
R2297	ERJ3GEYJ331V	330 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2302	ERJ3GEYJ103V	10K 1/16W	[M]
R2303	ERJ3GEYJ104V	100K 1/16W	[M]
R2312	ERJ3GEYJ563V	56K 1/16W	[M]
R2313	ERJ3GEYJ683V	68K 1/16W	[M]
R2314	ERJ3GEYJ103V	10K 1/16W	[M]
R2315	ERJ3GEYJ823V	82K 1/16W	[M]
R2316	ERJ3GEYJ102V	1K 1/16W	[M]
R2317	ERJ3GEYJ104V	100K 1/16W	[M]
R2318	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2319	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2320	ERJ3GEYJ102V	1K 1/16W	[M]
R2331	ERJ3GEY0R00V	0 1/16W	[M]
R2332	ERJ3GEYJ393V	39K 1/16W	[M]
R2333	ERJ3GEY0R00V	0 1/16W	[M]
R2337	ERJ3GEYJ474V	470K 1/16W	[M]
R2338	ERJ3GEYJ102V	1K 1/16W	[M]
R2339	ERJ3GEYJ102V	1K 1/16W	[M]
R2402	ERJ3GEYJ103V	10K 1/16W	[M]
R2403	ERJ3GEYJ104V	100K 1/16W	[M]
R2412	ERJ3GEYJ563V	56K 1/16W	[M]
R2413	ERJ3GEYJ683V	68K 1/16W	[M]
R2414	ERJ3GEYJ103V	10K 1/16W	[M]
R2415	ERJ3GEYJ823V	82K 1/16W	[M]
R2416	ERJ3GEYJ102V	1K 1/16W	[M]
R2417	ERJ3GEYJ104V	100K 1/16W	[M]
R2418	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2419	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2420	ERJ3GEYJ102V	1K 1/16W	[M]
R2439	ERJ3GEYJ102V	1K 1/16W	[M]
R2501	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2502	ERJ3GEYJ563V	56K 1/16W	[M]
R2503	ERJ3GEYJ273V	27K 1/16W	[M]
R2531	ERJ3GEY0R00V	0 1/16W	[M]
R2532	ERJ3GEY0R00V	0 1/16W	[M]
R2551	ERJ3GEYJ1R0V	1 1/16W	[M]
R2552	ERJ3GEYJ1R0V	1 1/16W	[M]
R2553	ERJ3GEYJ1R0V	1 1/16W	[M]
R2554	ERJ3GEYJ1R0V	1 1/16W	[M]
R2555	ERJ3GEYJ1R0V	1 1/16W	[M]
R2556	ERJ3GEYJ102V	1K 1/16W	[M]
R2557	ERJ3GEYJ102V	1K 1/16W	[M]
R2558	ERJ3GEYJ331V	330 1/16W	[M]
R2559	ERJ3GEYJ392V	3.9K 1/16W	[M]
R2560	ERJ3GEYJ103V	10K 1/16W	[M]
R2562	ERJ3GEYJ221V	220 1/16W	[M]
R2563	ERJ3GEYJ392V	3.9K 1/16W	[M]
R2565	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2566	ERJ3GEYJ102V	1K 1/16W	[M]
R2567	ERJ3GEYJ681V	680 1/16W	[M]
R2568	ERJ3GEYJ102V	1K 1/16W	[M]
R2570	ERJ3GEYJ681V	680 1/16W	[M]
R2571	ERJ3GEYJ471V	470 1/16W	[M]
R2572	ERJ3GEYJ151V	150 1/16W	[M]
R2573	ERJ3GEY0R00V	0 1/16W	[M]
R2576	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2577	ERJ3GEYJ393V	39K 1/16W	[M]
R2578	ERJ3GEYJ153V	15K 1/16W	[M]
R2579	ERJ3GEYJ473V	47K 1/16W	[M]
R2582	ERJ3GEY0R00V	0 1/16W	[M]
R2584	ERJ3GEYJ334V	330K 1/16W	[M]
R2585	ERJ3GEYJ334V	330K 1/16W	[M]
R2586	ERJ3GEYJ122V	1.2K 1/16W	[M]
R2587	ERJ3GEYJ122V	1.2K 1/16W	[M]
R2591	ERJ3GEYJ334V	330K 1/16W	[M]
R2592	ERJ3GEY0R00V	0 1/16W	[M]
R2601	ERJ3GEY0R00V	0 1/16W	[M]
R2602	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2603	ERJ3GEYJ271V	270 1/16W	[M]
R2604	ERJ3GEYJ102V	1K 1/16W	[M]
R2605	ERJ3GEYJ471V	470 1/16W	[M]
R2606	ERJ3GEYJ474V	470K 1/16W	[M]
R2607	ERJ3GEYJ331V	330 1/16W	[M]
R2610	ERJ3GEYJ102V	1K 1/16W	[M]
R2611	ERJ3GEYJ391V	390 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2612	ERJ3GEYJ104V	100K 1/16W	[M]
R2613	ERJ3GEYJ103V	10K 1/16W	[M]
R2614	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2615	ERJ3GEYJ561V	560 1/16W	[M]
R2616	ERJ3GEYJ102V	1K 1/16W	[M]
R2617	ERJ3GEYJ473V	47K 1/16W	[M]
R2618	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2619	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2620	ERJ3GEYJ473V	47K 1/16W	[M]
R2621	ERJ3GEYJ223V	22K 1/16W	[M]
R2622	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2623	ERJ3GEYJ683V	68K 1/16W	[M]
R2624	ERJ3GEYJ330V	33 1/16W	[M]
R2625	ERJ3GEYJ471V	470 1/16W	[M]
R2626	ERJ3GEYJ102V	1K 1/16W	[M]
R2627	ERJ3GEYJ471V	470 1/16W	[M]
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	ERJ3GEYJ104V	100K 1/16W	[M]
R2646	ERJ3GEYJ104V	100K 1/16W	[M]
R2651	ERJ3GEYJ820V	82 1/16W	[M]
R2652	ERJ3GEY0R00V	0 1/16W	[M]
R2701	ERJ3GEYJ225V	2.2M 1/16W	[M]
R2702	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2704	ERJ3GEY0R00V	0 1/16W	[M]
R2705	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2706	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2707	ERJ3GEYJ102V	1K 1/16W	[M]
R2708	ERJ3GEYJ103V	10K 1/16W	[M]
R2709	ERJ3GEYJ104V	100K 1/16W	[M]
R2710	ERJ3GEYJ224V	220K 1/16W	[M]
R2711	ERJ3GEYJ101V	100 1/16W	[M]
R2712	ERDS1FVJ220T	22 1/2W	[M]
R2713	ERJ3GEYJ104V	100K 1/16W	[M]
R2714	ERJ3GEYJ124V	120K 1/16W	[M]
R2715	ERJ3GEYJ103V	10K 1/16W	[M]
R2717	ERJ3GEY0R00V	0 1/16W	[M]
R2720	ERDS1FVJ270T	27 1/2W	[M]
R2801	ERJ3GEYJ103V	10K 1/16W	[M]
R2802	ERJ3GEYJ101V	100 1/16W	[M]
R2803	ERJ3GEYJ103V	10K 1/16W	[M]
R2804	ERJ3GEYJ473V	47K 1/16W	[M]
R2805	ERJ3GEYJ473V	47K 1/16W	[M]
R2806	ERJ3GEYJ103V	10K 1/16W	[M]
R2807	ERJ3GEYJ103V	10K 1/16W	[M]
R2810	ERJ3GEYJ223V	22K 1/16W	[M]
R2811	ERJ3GEY0R00V	0 1/16W	[M]
R2817	ERJ3GEYJ104V	100K 1/16W	[M]
R2818	ERJ3GEYJ104V	100K 1/16W	[M]
R2819	ERJ3GEYJ104V	100K 1/16W	[M]
R2822	ERJ3GEYJ104V	100K 1/16W	[M]
R2827	ERJ3GEYJ103V	10K 1/16W	[M]
R2831	ERJ3GEYJ103V	10K 1/16W	[M]
R2834	ERJ3GEYJ102V	1K 1/16W	[M]
R2835	ERJ3GEYJ102V	1K 1/16W	[M]
R2836	ERJ3GEYJ102V	1K 1/16W	[M]
R2837	ERJ3GEYJ102V	1K 1/16W	[M]
R2838	ERJ3GEYJ102V	1K 1/16W	[M]
R2839	ERJ3GEYJ102V	1K 1/16W	[M]
R2840	ERJ3GEYJ102V	1K 1/16W	[M]
R2841	ERJ3GEYJ103V	10K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2842	ERJ3GEYJ103V	10K 1/16W	[M]
R2844	ERJ3GEYJ103V	10K 1/16W	[M]
R2845	ERJ3GEYJ103V	10K 1/16W	[M]
R2846	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2849	ERJ3GEYJ102V	1K 1/16W	[M]
R2850	ERJ3GEYJ102V	1K 1/16W	[M]
R2851	ERJ3GEYJ102V	1K 1/16W	[M]
R2852	ERJ3GEYJ102V	1K 1/16W	[M]
R2854	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2856	ERJ3GEYJ102V	1K 1/16W	[M]
R2858	ERJ3GEYJ101V	100 1/16W	[M]
R2859	ERJ3GEYJ101V	100 1/16W	[M]
R2860	ERJ3GEYJ101V	100 1/16W	[M]
R2861	ERJ3GEYJ101V	100 1/16W	[M]
R2862	ERJ3GEYJ101V	100 1/16W	[M]
R2863	ERJ3GEYJ101V	100 1/16W	[M]
R2869	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2870	ERJ3GEYJ473V	47K 1/16W	[M]
R2871	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2872	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2873	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2874	ERJ3GEYJ153V	15K 1/16W	[M]
R2875	ERJ3GEYJ103V	10K 1/16W	[M]
R2876	ERJ3GEYJ223V	22K 1/16W	[M]
R2877	ERJ3GEYJ223V	22K 1/16W	[M]
R2878	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2881	ERJ3GEYJ221V	220 1/16W	[M]
R2882	ERJ3GEYJ106V	10M 1/16W	[M]
R2883	ERJ3GEYJ334V	330K 1/16W	[M]
R2886	ERJ3GEYJ105V	1M 1/16W	[M]
R2887	ERJ3GEYJ102V	1K 1/16W	[M]
R2888	ERJ3GEYJ102V	1K 1/16W	[M]
R2889	ERJ3GEYJ102V	1K 1/16W	[M]
R2890	ERJ3GEY0R00V	0 1/16W	[M]
R2891	ERJ3GEYJ473V	47K 1/16W	[M]
R2892	ERJ3GEY0R00V	0 1/16W	[M]
R2894	ERJ3GEYJ102V	1K 1/16W	[M]
R2895	ERJ3GEYJ101V	100 1/16W	[M]
R2901	D0HB750ZA003	75 3W	[M]
R2902	D0HB750ZA003	75 3W	[M]
R2903	D0HB750ZA003	75 3W	[M]
R2906	ERJ3GEYJ104V	100K 1/16W	[M]
R2907	ERJ3GEYJ104V	100K 1/16W	[M]
R2908	ERJ3GEYJ104V	100K 1/16W	[M]
R2909	D0HB750ZA003	75 3W	[M]
R2910	D0HB750ZA003	75 3W	[M]
R2911	ERJ3GEY0R00V	0 1/16W	[M]
R2912	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2913	ERJ3GEYJ103V	10K 1/16W	[M]
R2914	ERJ3GEYJ103V	10K 1/16W	[M]
R2915	D0HB750ZA003	75 3W	[M]
R2920	ERJ3GEYJ104V	100K 1/16W	[M]
R2921	ERJ3GEYJ104V	100K 1/16W	[M]
R2922	ERJ3GEYJ104V	100K 1/16W	[M]
R2923	ERJ3GEY0R00V	0 1/16W	[M]
R2924	ERJ3GEY0R00V	0 1/16W	[M]
R2925	ERJ3GEY0R00V	0 1/16W	[M]
R2926	ERJ3GEY0R00V	0 1/16W	[M]
R2927	ERJ3GEY0R00V	0 1/16W	[M]
R2928	ERJ3GEY0R00V	0 1/16W	[M]
R2931	ERJ3GEY0R00V	0 1/16W	[M]
R2932	ERJ3GEY0R00V	0 1/16W	[M]
R2933	ERJ3GEY0R00V	0 1/16W	[M]
R2934	ERJ3GEY0R00V	0 1/16W	[M]
R2935	ERJ3GEY0R00V	0 1/16W	[M]
R2936	ERJ3GEYJ221V	220 1/16W	[M]
R2937	ERJ3GEY0R00V	0 1/16W	[M]
R2938	ERJ3GEY0R00V	0 1/16W	[M]
R2939	ERJ3GEY0R00V	0 1/16W	[M]
R2940	ERJ3GEY0R00V	0 1/16W	[M]
R2941	ERJ3GEY0R00V	0 1/16W	[M]
R2942	ERJ3GEY0R00V	0 1/16W	[M]
R2943	ERJ3GEY0R00V	0 1/16W	[M]
R2951	ERJ3GEYJ473V	47K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2976	ERJ3GEY0R00V	0 1/16W	[M]
R2977	ERJ3GEY0R00V	0 1/16W	[M]
R2978	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2987	ERJ3GEY0R00V	0 1/16W	[M]
R5245	ERJ3GEYJ272V	2.7K 1/16W	[M]
R5246	ERJ3GEYJ153V	15K 1/16W	[M]
R5247	ERJ3GEYJ562V	5.6K 1/16W	[M]
R5249	ERJ3GEYJ683V	68K 1/16W	[M]
R5252	ERJ3GEYJ104V	100K 1/16W	[M]
R5256	ERDS1FVJ100T	10 1/2W	[M]
R5257	ERJ3GEYJ334V	330K 1/16W	[M]
R5258	ERJ3GEYJ563V	56K 1/16W	[M]
R5445	ERJ3GEYJ562V	5.6K 1/16W	[M]
R5447	ERJ3GEYJ272V	2.7K 1/16W	[M]
R5448	ERJ3GEYJ153V	15K 1/16W	[M]
R5449	ERJ3GEYJ683V	68K 1/16W	[M]
R5452	ERJ3GEYJ224V	220K 1/16W	[M]
R5456	ERDS1FVJ100T	10 1/2W	[M]
R5457	ERDS1FVJ270T	27 1/2W	[M]
R5458	ERJ3GEYJ563V	56K 1/16W	[M]
R5801	ERJ3GEYJ103V	10K 1/16W	[M]
R5802	ERJ3GEYJ223V	22K 1/16W	[M]
R5803	ERJ3GEY0R00V	0 1/16W	[M]
R5804	ERJ3GEYJ473V	47K 1/16W	[M]
R5805	ERJ3GEYJ473V	47K 1/16W	[M]
R5806	ERJ3GEYJ104V	100K 1/16W	[M]
R5807	ERDS1FVJ331T	330 1/2W	[M]
R5808	ERDS1FVJ331T	330 1/2W	[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	ERDS1FVJ180T	18 1/2W	[M]
R5816	ERDS1FVJ180T	18 1/2W	[M]
R5817	ERDS1FVJ180T	18 1/2W	[M]
R5818	ERJ3GEYJ151V	150 1/16W	[M]
R5822	ERJ3GEYJ332V	3.3K 1/16W	[M]
R5823	ERJ3GEYJ471V	470 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	ERJ3GEYJ222V	2.2K 1/16W	[M]
R5832	ERJ3GEYJ151V	150 1/16W	[M]
R5833	ERJ3GEYJ151V	150 1/16W	[M]
R5834	ERDS1FVJ180T	18 1/2W	[M]
R5841	ERDS1FVJ331T	330 1/2W	[M]
R5843	ERDS1FVJ6R8T	6.8 1/2W	[M]
R5844	ERDS1FVJ6R8T	6.8 1/2W	[M]
R5845	ERDS1FVJ6R8T	6.8 1/2W	[M]
R5846	ERDS1FVJ6R8T	6.8 1/2W	[M]
R5847	ERDS1FVJ220T	22 1/2W	[M]
R5848	ERDS1FVJ6R8T	6.8 1/2W	[M]
R5853	ERJ3GEYJ224V	220K 1/16W	[M]
R5855	ERJ3GEYJ223V	22K 1/16W	[M]
R5857	ERJ3GEYJ223V	22K 1/16W	[M]
R5861	ERJ3GEY0R00V	0 1/16W	[M]
R5862	ERJ3GEY0R00V	0 1/16W	[M]
R5863	ERJ3GEY0R00V	0 1/16W	[M]
R5864	ERJ3GEY0R00V	0 1/16W	[M]
R5876	ERJ3GEY0R00V	0 1/16W	[M]
R5877	ERJ3GEY0R00V	0 1/16W	[M]
R5951	ERDS2TJ332T	3.3K 1/4W	[M]
R5952	ERDS2TJ222T	2.2K 1/4W	[M]
R5954	ERDS1FVJ100T	10 1/2W	[M]
R5955	ERDS1FVJ100T	10 1/2W	[M]
R5956	ERDS1FVJ100T	10 1/2W	[M]
R5957	ERDS2TJ103T	10K 1/4W	[M]
R5958	ERDS2TJ103T	10K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R5960	ERDS2TJ472T	4.7K 1/4W	[M]
R5961	ERDS2TJ151T	150 1/4W	[M]
R5964	ERDS2TJ223T	22K 1/4W	[M]
R5965	ERDS2TJ222T	2.2K 1/4W	[M]
R5973	ERDS2TJ151T	150 1/4W	[M]
R6101	ERJ3GEYJ102V	1K 1/16W	[M]
R6102	ERJ3GEYJ102V	1K 1/16W	[M]
R6103	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6104	ERJ3GEYJ182V	1.8K 1/16W	[M]
R6105	ERJ3GEYJ222V	2.2K 1/16W	[M]
R6106	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6107	ERJ3GEYJ103V	10K 1/16W	[M]
R6108	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6109	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6201	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6202	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6203	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6204	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6205	ERJ3GEYJ102V	1K 1/16W	[M]
R6206	ERJ3GEYJ102V	1K 1/16W	[M]
R6207	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6208	ERJ3GEYJ182V	1.8K 1/16W	[M]
R6209	ERJ3GEYJ222V	2.2K 1/16W	[M]
R6210	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6211	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6212	ERJ3GEYJ682V	6.8K 1/16W	[M]
R6213	ERJ3GEYJ103V	10K 1/16W	[M]
R6214	ERJ3GEYJ473V	47K 1/16W	[M]
R6215	ERJ3GEYJ473V	47K 1/16W	[M]
R6301	ERJ3GEYJ223V	22K 1/16W	[M]
R6302	ERJ3GEYJ102V	1K 1/16W	[M]
R6303	ERJ3GEYJ102V	1K 1/16W	[M]
R6304	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6305	ERJ3GEYJ182V	1.8K 1/16W	[M]
R6306	ERJ3GEYJ222V	2.2K 1/16W	[M]
R6307	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6308	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6309	ERJ3GEYJ682V	6.8K 1/16W	[M]
R6310	ERJ3GEYJ103V	10K 1/16W	[M]
R6311	ERJ3GEYJ103V	10K 1/16W	[M]
R6401	ERJ3GEYJ103V	10K 1/16W	[M]
R6402	ERJ3GEYJ103V	10K 1/16W	[M]
R6403	ERJ3GEYJ2R7V	2.7 1/16W	[M]
R6404	ERJ3GEYJ2R7V	2.7 1/16W	[M]
R6405	ERJ3GEYJ274V	270K 1/16W	[M]
R6406	ERJ3GEYJ274V	270K 1/16W	[M]
R6411	ERJ3GEYJ223V	22K 1/16W	[M]
R6412	ERJ3GEYJ102V	1K 1/16W	[M]
R6415	ERJ3GEYJ223V	22K 1/16W	[M]
R6416	ERJ3GEYJ102V	1K 1/16W	[M]
R6421	ERJ3GEYJ103V	10K 1/16W	[M]
R6425	ERJ3GEYJ103V	10K 1/16W	[M]
R6426	ERJ3GEYJ331V	330 1/16W	[M]
R6427	ERJ3GEYJ101V	100 1/16W	[M]
R6428	ERJ3GEYJ103V	10K 1/16W	[M]
R6481	ERJ3GEYJ270V	27 1/16W	[M]
R6501	ERJ3GEYJ222V	2.2K 1/16W	[M]
R6502	ERJ3GEYJ474V	470K 1/16W	[M]
R6503	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6504	ERJ3GEYJ681V	680 1/16W	[M]
R6505	ERJ3GEYJ681V	680 1/16W	[M]
R6506	ERJ3GEYJ561V	560 1/16W	[M]
R6507	ERJ3GEYJ334V	330K 1/16W	[M]
R6508	ERJ3GEYJ221V	220 1/16W	[M]
R6509	ERJ3GEYJ822V	8.2K 1/16W	[M]
R6510	ERJ3GEYJ334V	330K 1/16W	[M]
R6511	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6522	ERJ3GEYJ390V	39 1/16W	[M]
R6523	ERJ3GEYJ390V	39 1/16W	[M]
R6527	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6528	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6529	ERJ3GEYJ102V	1K 1/16W	[M]
R6530	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6531	ERJ3GEYJ472V	4.7K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R6532	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6533	ERJ3GEY0R00V	0 1/16W	[M]
R6550	ERJ3GEYJ562V	5.6K 1/16W	[M]
R6551	ERJ3GEYJ103V	10K 1/16W	[M]
R6552	ERJ3GEYJ183V	18K 1/16W	[M]
R6553	ERJ3GEYJ153V	15K 1/16W	[M]
R6554	ERJ3GEYJ153V	15K 1/16W	[M]
R6555	ERJ3GEYJ153V	15K 1/16W	[M]
R6556	ERJ3GEYJ153V	15K 1/16W	[M]
R6557	ERJ3GEYJ153V	15K 1/16W	[M]
R6558	ERJ3GEYJ153V	15K 1/16W	[M]
R6559	ERJ3GEYJ124V	120K 1/16W	[M]
R6560	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6601	ERJ3GEYJ471V	470 1/16W	[M]
R6602	ERJ3GEYJ471V	470 1/16W	[M]
R6603	ERJ3GEYJ221V	220 1/16W	[M]
R6604	ERJ3GEYJ221V	220 1/16W	[M]
R6611	ERJ3GEYJ273V	27K 1/16W	[M]
R6631	ERD2FCVG470T	47 1/4W	[M]
R6632	ERD2FCVG470T	47 1/4W	[M]
R6641	ERDS1FVJ1R0T	1 1/2W	[M]
R6642	ERDS1FVJ1R0T	1 1/2W	[M]
R6901	ERJ3GEY0R00V	0 1/16W	[M]
R6902	ERJ3GEY0R00V	0 1/16W	[M]
R6903	ERJ3GEY0R00V	0 1/16W	[M]
R6906	ERJ3GEY0R00V	0 1/16W	[M]
R6907	ERJ3GEY0R00V	0 1/16W	[M]
R6950	ERJ3GEYJ102V	1K 1/16W	[M]
R6954	ERJ3GEYJ473V	47K 1/16W	[M]
R6956	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6957	ERJ3GEYJ474V	470K 1/16W	[M]
R6958	ERJ3GEY0R00V	0 1/16W	[M]
R6959	ERJ3GEY0R00V	0 1/16W	[M]
R6960	ERJ3GEY0R00V	0 1/16W	[M]
R6961	ERJ3GEY0R00V	0 1/16W	[M]
R6962	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	ERJ2GEJ100X	10 2W	[M]
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]
R8420	ERJ2GEJ222X	2.2K 2W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
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]
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]
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]
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]
K2111	J0JCC0000120	CHIP INDUCTOR	[M]
K2211	J0JCC0000120	CHIP INDUCTOR	[M]
K2406	ERJ3GEY0R00V	CHIP RESISTOR	[M]
K2407	ERJ3GEY0R00V	CHIP RESISTOR	[M]
K2408	ERJ3GEY0R00V	CHIP RESISTOR	[M]
K2409	ERJ3GEY0R00V	CHIP RESISTOR	[M]
K2411	ERJ3GEY0R00V	CHIP RESISTOR	[M]
K5253	ERDS1FVJ100T	1/2W RESISTOR	[M]
K5453	ERDS1FVJ100T	1/2W RESISTOR	[M]
K8004	ERJ2GE0R00X	CHIP RESISTOR	[M]
K8009	ERJ2GE0R00X	CHIP RESISTOR	[M]
K8031	ERJ2GE0R00X	CHIP RESISTOR	[M]
K8106	ERJ3GEY0R00V	CHIP RESISTOR	[M]
K8421	ERJ3GEY0R00V	CHIP 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]

Ref. No.	Part No.	Part Name & Description	Remarks
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	BCA1EM101B	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	BCA1AM101B	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	BCA1CM221B	220 16V	[M]
C1049	ECJ1VB1H332K	3300P 50V	[M]
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]
C2004	ECJ1VB1C104K	0.1 16V	[M]
C2021	BCA1CM101B	100 16V	[M]
C2026	ECUV1C224KBV	0.22 16V	[M]
C2027	ECUV1C224KBV	0.22 16V	[M]
C2028	ECJ1VB1C104K	0.1 16V	[M]
C2031	ECJ1VB1H103K	0.01 50V	[M]
C2032	ECJ1VB1H103K	0.01 50V	[M]
C2101	ECJ1VB1C105K	1 16V	[M]
C2102	ECJ1VB1C104K	0.1 16V	[M]
C2103	ECJ1VB1H102K	1000P 50V	[M]
C2106	ECJ1VB1H332K	3300P 50V	[M]
C2107	ECJ1VB1C104K	0.1 16V	[M]
C2108	ECJ1VB1H102K	1000P 50V	[M]
C2111	ECJ1VB1C104K	0.1 16V	[M]
C2112	ECJ1VB1H102K	1000P 50V	[M]
C2114	ECJ1VB1H103K	0.01 50V	[M]
C2116	ECJ1VB1H681K	680P 50V	[M]
C2117	ECJ1VC1H101K	100P 50V	[M]
C2118	ECJ1VB1C104K	0.1 16V	[M]
C2119	ECJ1VB1H102K	1000P 50V	[M]
C2120	ECJ1VB1C105K	1 16V	[M]
C2121	ECUV1C224KBV	0.22 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2126	ECUV1C224KBV	0.22 16V	[M]
C2131	ECJ1VF1C474Z	0.47 16V	[M]
C2136	ECJ1VF1C474Z	0.47 16V	[M]
C2141	ECJ1VB1C105K	1 16V	[M]
C2142	ECJ1VB1C105K	1 16V	[M]
C2151	BCA1CM100B	10 16V	[M]
C2166	ECJ1VB1H102K	1000P 50V	[M]
C2194	ECEA1HKA010B	1 50V	[M]
C2201	ECJ1VB1C105K	1 16V	[M]
C2202	ECJ1VB1C104K	0.1 16V	[M]
C2203	ECJ1VB1H102K	1000P 50V	[M]
C2206	ECJ1VB1H332K	3300P 50V	[M]
C2207	ECJ1VB1C104K	0.1 16V	[M]
C2208	ECJ1VB1H102K	1000P 50V	[M]
C2211	ECJ1VB1C104K	0.1 16V	[M]
C2212	ECJ1VB1H102K	1000P 50V	[M]
C2214	ECJ1VB1H103K	0.01 50V	[M]
C2216	ECJ1VB1H681K	680P 50V	[M]
C2217	ECJ1VC1H101K	100P 50V	[M]
C2218	ECJ1VB1C104K	0.1 16V	[M]
C2219	ECJ1VB1H102K	1000P 50V	[M]
C2220	ECJ1VB1C105K	1 16V	[M]
C2221	ECJ1VB1H473K	0.047 50V	[M]
C2226	ECJ1VB1H473K	0.047 50V	[M]
C2231	ECJ1VB1H473K	0.047 50V	[M]
C2236	ECJ1VB1H473K	0.047 50V	[M]
C2241	ECJ1VB1C105K	1 16V	[M]
C2242	ECJ1VB1C105K	1 16V	[M]
C2245	BCA1CM100B	10 16V	[M]
C2251	BCA1CM100B	10 16V	[M]
C2266	ECJ1VB1H102K	1000P 50V	[M]
C2294	ECEA1HKA010B	1 50V	[M]
C2301	ECJ1VC1H100J	10P 50V	[M]
C2302	ECJ1VC1H470J	47P 50V	[M]
C2311	ECUV1C224KBV	0.22 16V	[M]
C2312	ECJ1VF1C474Z	0.47 16V	[M]
C2313	ECJ1VC1H120J	12P 50V	[M]
C2314	ECJ1VC1H470J	47P 50V	[M]
C2315	ECJ1VB1C105K	1 16V	[M]
C2331	ECJ1VB1C105K	1 16V	[M]
C2334	ECJ1VB1C105K	1 16V	[M]
C2335	ECJ1VB1H152K	1500P 50V	[M]
C2401	ECJ1VC1H100J	10P 50V	[M]
C2402	ECJ1VC1H470J	47P 50V	[M]
C2411	ECUV1C224KBV	0.22 16V	[M]
C2412	ECJ1VF1C474Z	0.47 16V	[M]
C2413	ECJ1VC1H120J	12P 50V	[M]
C2414	ECJ1VC1H470J	47P 50V	[M]
C2415	ECJ1VB1C105K	1 16V	[M]
C2501	ECEA1HKN2R2B	2.2 50V	[M]
C2520	ECJ1VB1H103K	0.01 50V	[M]
C2521	ECJ1VB1H103K	0.01 50V	[M]
C2550	F2A1E3310051	330P 25V	[M]
C2551	ECJ1VC1H101K	100P 50V	[M]
C2552	F2A0J102A130	1000P 6.3V	[M]
C2553	BCA1CM101B	100 6.3V	[M]
C2554	ECJ1VB1H103K	0.01 50V	[M]
C2555	ECJ1VB1A105K	1 10V	[M]
C2557	ECJ1VB1A105K	1 10V	[M]
C2558	ECJ1VB1A105K	1 10V	[M]
C2559	F2A0J471A201	470P 6.3V	[M]
C2562	ECEA0JKA470B	47 6.3V	[M]
C2570	ECJ1VB1C103K	0.01 16V	[M]
C2571	BCA1EM101B	100 25V	[M]
C2576	ECEA1HKN4R7B	4.7 50V	[M]
C2581	BCA1CM101B	100 16V	[M]
C2582	BCA1CM101B	100 16V	[M]
C2583	ECUV1C224KBV	0.22 16V	[M]
C2584	ECJ1VB1H221K	220P 50V	[M]
C2585	ECJ1VB1H221K	220P 50V	[M]
C2586	ECJ1VB1H103K	0.01 50V	[M]
C2587	ECJ1VB1H103K	0.01 50V	[M]
C2588	ECJ1VB1C104K	0.1 16V	[M]
C2601	ECJ1VB1H103K	0.01 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2602	ECEA1CKA100B	10 16V	[M]
C2603	ECJ1VB1H103K	0.01 50V	[M]
C2604	ECJ1VB1H102K	1000P 50V	[M]
C2606	ECJ1VB1H103K	0.01 50V	[M]
C2607	ECJ1VB1E473K	0.047 25V	[M]
C2608	ECJ1VC1H080D	8P 50V	[M]
C2609	ECJ1VB1H102K	1000P 50V	[M]
C2610	ECJ1VB1H103K	0.01 50V	[M]
C2611	ECEA1HKA4R7B	4.7 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]
C2644	ECJ1VB1H682K	6800P 50V	[M]
C2647	ECJ1VB1H102K	1000P 50V	[M]
C2648	ECJ1VB1H103K	0.01 50V	[M]
C2649	ECJ1VF1C104Z	0.1 16V	[M]
C2701	ECJ1VB1H103K	0.01 50V	[M]
C2705	ECEA1CKA100B	10 16V	[M]
C2706	ECJ1VB1E103K	0.01 25V	[M]
C2707	ECEA1AKN100B	10 10V	[M]
C2708	ECEA1CKA101B	100 16V	[M]
C2813	ECJ1VC1H101K	100P 50V	[M]
C2814	ECJ1VC1H101K	100P 50V	[M]
C2815	ECJ1VC1H101K	100P 50V	[M]
C2816	ECJ1VC1H101K	100P 50V	[M]
C2817	ECJ1VC1H101K	100P 50V	[M]
C2818	ECJ1VC1H101K	100P 50V	[M]
C2819	ECJ1VC1H101K	100P 50V	[M]
C2820	ECJ1VC1H101K	100P 50V	[M]
C2821	ECJ1VC1H101K	100P 50V	[M]
C2831	ECJ1VB1C223K	0.022 16V	[M]
C2832	ECJ1VB1H331K	330P 50V	[M]
C2833	ECJ1VB1H331K	330P 50V	[M]
C2834	ECJ1VC1H680J	68P 50V	[M]
C2838	ECJ1VC1H680J	68P 50V	[M]
C2840	ECJ1VC1H180J	18P 50V	[M]
C2841	ECJ1VC1H180J	18P 50V	[M]
C2851	ECJ1VB1C104K	0.1 16V	[M]
C2852	ECA1CM101B	100 16V	[M]
C2853	ECJ1VB1C104K	0.1 16V	[M]
C2854	ECA1CM101B	100 16V	[M]
C2856	ECJ1VB1C105K	1 16V	[M]
C2857	ECEA1HKA2R2B	2.2 50V	[M]
C2858	ECJ1VB1H103K	0.01 50V	[M]
C2860	ECJ1VC1H101K	100P 50V	[M]
C2861	ECJ1VC1H101K	100P 50V	[M]
C2862	ECJ1VC1H101K	100P 50V	[M]
C2863	ECJ1VC1H101K	100P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2864	ECJ1VC1H101K	100P 50V	[M]
C2865	ECJ1VC1H101K	100P 50V	[M]
C2866	ECJ1VC1H101K	100P 50V	[M]
C2867	ECJ1VC1H101K	100P 50V	[M]
C2868	ECJ1VC1H101K	100P 50V	[M]
C2901	ECJ1VB1H471K	470P 50V	[M]
C2902	ECJ1VB1H471K	470P 50V	[M]
C2903	ECJ1VB1H104K	0.1 50V	[M]
C2904	ECJ1VB1H471K	470P 50V	[M]
C2905	ECJ1VB1H103K	0.01 50V	[M]
C2906	ECEA1CKA100B	10 16V	[M]
C2907	ECJ1VB1H103K	0.01 50V	[M]
C2908	ECJ1VB1H471K	470P 50V	[M]
C2909	ECJ1VB1H471K	470P 50V	[M]
C2910	ECJ1VB1H471K	470P 50V	[M]
C2911	ECEA1AKA221B	220 10V	[M]
C2912	ECJ1VB1H103K	0.01 50V	[M]
C2913	ECEA1HKA220B	22 50V	[M]
C2914	ECJ1VB1C104K	0.1 16V	[M]
C2915	ECJ1VB1H103K	0.01 50V	[M]
C2916	ECJ1VC1H101K	100P 50V	[M]
C2917	ECJ1VB1H103K	0.01 50V	[M]
C2918	ECJ1VB1H103K	0.01 50V	[M]
C2919	F2A0J102A130	1000P 6.3V	[M]
C2920	F2A0J102A130	1000P 6.3V	[M]
C2922	F2A0J102A130	1000P 6.3V	[M]
C2923	F2A0J102A130	1000P 6.3V	[M]
C2924	F2A0J102A130	1000P 6.3V	[M]
C2925	ECJ1VB1C104K	0.1 16V	[M]
C2926	ECEA1HKA010B	1 50V	[M]
C2927	ECJ1VB1C105K	1 16V	[M]
C2930	ECJ1VB1C104K	0.1 16V	[M]
C2931	ECJ1VB1C104K	0.1 16V	[M]
C2932	ECJ1VB1C104K	0.1 16V	[M]
C2933	ECJ1VB1C104K	0.1 16V	[M]
C2976	ECA1CM100B	10 16V	[M]
C2977	ECEA0JKA470B	47 6.3V	[M]
C5240	ECJ1VB1H102K	1000P 50V	[M]
C5241	ECJ1VC1H390K	39P 50V	[M]
C5245	ECJ1VB1H821K	820P 50V	[M]
C5246	ECJ1VB1H103K	0.01 50V	[M]
C5248	ECJ1VB1H103K	0.01 50V	[M]
C5249	ECJ1VB1H103K	0.01 50V	[M]
C5250	ECJ1VB1H473K	0.047 50V	[M]
C5251	ECEA2AU100B	10 100V	[M]
C5252	ECEA1HKA010B	1 50V	[M]
C5441	ECJ1VC1H390K	39P 50V	[M]
C5442	ECJ1VB1H102K	1000P 50V	[M]
C5445	ECJ1VB1H821K	820P 50V	[M]
C5446	ECJ1VB1H103K	0.01 50V	[M]
C5450	ECJ1VB1H473K	0.047 50V	[M]
C5451	ECEA2AU100B	10 100V	[M]
C5452	ECEA1HKA010B	1 50V	[M]
C5801	ECJ1VB1H103K	0.01 50V	[M]
C5802	ECEA0JKA221B	220 6.3V	[M]
C5803	ECJ1VB1H102K	1000P 50V	[M]
C5804	ECJ1VB1H103K	0.01 50V	[M]
C5805	ECA1CM101B	100 16V	[M]
C5806	ECJ1VB1H103K	0.01 50V	[M]
C5807	ECEA1CKA100B	10 16V	[M]
C5808	ECEA1CKA100B	10 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	ECEA1EKA100B	10 25V	[M]
C5814	ECJ1VB1H103K	0.01 50V	[M]
C5820	ECA1JM222B	2200 63V	[M]
C5838	ECEA1HKA2R2B	2.2 50V	[M]
C5840	ECA1JM222B	2200 63V	[M]
C5950	ECA1EM332B	3300 25V	[M]
C5951	F1B1H103A153	0.01 50V	[M]
C5952	ECEA1AKA470B	47 10V	[M]
C5953	ECKR1H103MD5	0.01 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C5954	F1B1H103A153	0.01 50V	[M]
C5955	ECA1HM220B	22 50V	[M]
C5956	ECA1HM470B	47 50V	[M]
C5957	ECA1HM100B	10 50V	[M]
C5958	ECKR1H103MD5	0.01 50V	[M]
C5959	F1B1H103A153	0.01 50V	[M]
C5960	ECQE2104KF3	0.1 250V	[M]
C5963	ECEA1VKA4R7B	4.7 35V	[M]
C5965	ECA1CM102B	1000 16V	[M]
C6201	ECJ1VC1H101K	100P 50V	[M]
C6202	ECJ1VB1H152K	1500P 50V	[M]
C6203	ECJ1VB1H332K	3300P 50V	[M]
C6401	ECJ1VB1H104K	0.1 50V	[M]
C6402	ECJ1VB1H103K	0.01 50V	[M]
C6403	ECJ1VC1H101K	100P 50V	[M]
C6404	ECJ1VC1H101K	100P 50V	[M]
C6405	ECJ1VC1H101K	100P 50V	[M]
C6421	ECJ1VC1H101K	100P 50V	[M]
C6425	ECJ1VC1H101K	100P 50V	[M]
C6481	ECEA0JKA470B	47 6.3V	[M]
C6482	ECJ1VB1H102K	1000P 50V	[M]
C6483	ECJ1VB1H103K	0.01 50V	[M]
C6501	ECJ2VF1E473Z	0.047 25V	[M]
C6502	ECEA1HKA010B	1 50V	[M]
C6503	ECJ1VB1H562K	5600P 50V	[M]
C6504	ECJ1VC1H101K	100P 50V	[M]
C6505	ECJ1VB1H102K	1000P 50V	[M]
C6506	ECA1CM471B	470 16V	[M]
C6507	ECJ1VB1H103K	0.01 50V	[M]
C6508	ECEA1HKA0R1B	0.1 50V	[M]
C6509	ECJ1VB1E223K	0.022 25V	[M]
C6510	ECJ1VB1C223K	0.022 16V	[M]
C6511	ECJ1VB1C223K	0.022 16V	[M]
C6512	ECEA1HKA4R7B	4.7 50V	[M]
C6513	ECJ1VB1H102K	1000P 50V	[M]
C6514	ECEA1HKA3R3B	3.3 50V	[M]
C6515	ECJ1VB1H471K	470P 50V	[M]
C6517	ECJ1VB1C103K	0.01 16V	[M]
C6550	ECEA1HKA010B	1 50V	[M]
C6551	ECJ1VB1C223K	0.022 16V	[M]
C6552	ECJ1VB1C223K	0.022 16V	[M]
C6553	ECJ2VF1E473Z	0.047 25V	[M]
C6554	ECJ1VB1E103K	0.01 25V	[M]
C6555	ECUV1C224KBV	0.22 16V	[M]
C6556	ECUV1C224KBV	0.22 16V	[M]
C6557	ECJ1VB1H152K	1500P 50V	[M]
C6558	ECJ1VB1H682K	6800P 50V	[M]
C6559	ECEA1HKA010B	1 50V	[M]
C6560	ECJ1VB1C683K	0.068 16V	[M]
C6561	ECA1CM470B	47 16V	[M]
C6562	ECA1CM470B	47 16V	[M]
C6563	ECJ1VB1C104K	0.1 16V	[M]
C6564	ECJ1VB1H682K	6800P 50V	[M]
C6565	ECJ1VB1H152K	1500P 50V	[M]
C6566	ECJ1VB1H153K	0.015 50V	[M]
C6567	ECJ1VB1C683K	0.068 16V	[M]
C6601	ECJ1VC1H101K	100P 50V	[M]
C6602	ECJ1VB1H102K	1000P 50V	[M]
C6603	ECJ1VC1H101K	100P 50V	[M]
C6604	ECJ1VC1H101K	100P 50V	[M]
C6612	ECJ1VC1H390J	39P 50V	[M]
C6621	ECJ1VC1H101K	100P 50V	[M]
C6623	ECEA0JKA470B	47 6.3V	[M]
C6631	ECEA1VKA220B	22 35V	[M]
C6632	ECEA1VKA220B	22 35V	[M]
C6635	ECEA1HKA3R3B	3.3 50V	[M]
C6636	ECJ1VC1H101K	100P 50V	[M]
C6637	ECJ1VB1C105K	1 16V	[M]
C6638	ECEA0JKA470B	47 6.3V	[M]
C6639	ECA1CM221B	220 16V	[M]
C6640	ECA1CM221B	220 16V	[M]
C8001	F2G0J101A066	100P 6.3V	[M]
C8002	F2G0G331A012	330P 4V	[M]
C8003	ECJ0EB1E222K	2200P 25V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
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	1 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]
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]

Ref. No.	Part No.	Part Name & Description	Remarks
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]
C8423	F2G0J330A083	33P 6.3V	[M]
C8424	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]

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

24.5. Packing Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGX1461	PACKING CASE	[M]
P2	RPNX0329	POLYFOAM SET	[M]
P3	RPFXX0007	MIRAMAT BAG	[M]
		ACCESSORIES	

Ref. No.	Part No.	Part Name & Description	Remarks
A1	N2QAJB000138	REMOTE CONTROL	[M]
A1-1	RKK-HTR0283	R/C BATTERY COVER	[M]
A2	K2CQ2CA00002	AC CORD	[M] △
A3	RQT8093-2R	O/I BOOK (Ru/Ur)	[M]
A4	RSA0007-L	FM ANTENNA	[M]
A5	N1DAAA00001	AM LOOP ANTENNA	[M]
A6	K2KA2CA00011	VIDEO CABLE	[M]

24.6. Packaging

