

# Service Manual

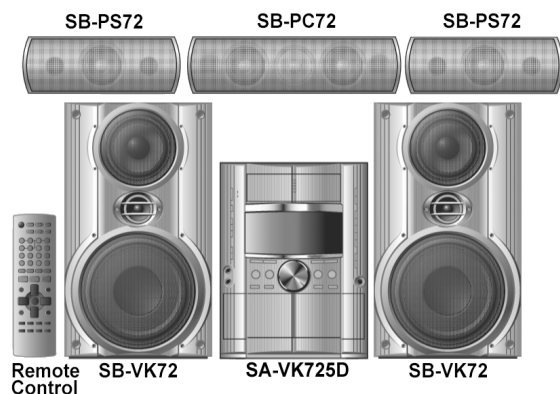
## DVD Stereo System



### SA-VK725DEE

Colour

(S)... Silver Type



## Specifications

### AMPLIFIER SECTION

RMS Output Power: Dolby Digital Mode

Main

70 W per channel (6  $\Omega$ ), 1 kHz, 10% THD

Surround Ch

55 W per channel (6  $\Omega$ ), 1 kHz, 10% THD

Center Ch

70 W per channel (6  $\Omega$ ), 1 kHz, 10% THD

Total RMS Dolby Digital mode power

320 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  $\mu$ V (IHF)

S/N 26 dB 2.2  $\mu$ V

Antenna terminals 75  $\Omega$  (unbalanced)

Amplitude Modulation (AM)

Frequency range 522 - 1629 kHz (9 kHz step)

AM Sensitivity S/N 20 dB at 999 kHz

560  $\mu$ V/m

Audio performance (Amplifier)

Input sensitivity/Input impedance

Aux 250 mV, 20 k $\Omega$

Phone jack

Terminal

Stereo, 3.5 mm jack

Mic jack

Sensitivity

0.7 mV, 600  $\Omega$

Terminal

Mono, 6.3 mm jack (2 system)

### CASSETTE DECK SECTION

Type

Auto-Reverse

Track system

4-Track, 2 Channel

Head Record/Playback

Solid permalloy head

Erasure

Double gap ferrite head

Motor

DC servo motor

Recording System

AC Bias 100 kHz

Erasing System

AC Erase 100 kHz

Tape Speed

4.8 cm/s

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

Normal

35 Hz - 14 kHz

S/N Ratio

50 dB (A weighted)

Wow and Flutter

0.18 % (WRMS)

Fast Forward and Rewind Time

Approx. 120 seconds with

C-60 cassette tape

### DISC SECTION

Disc played [8 cm or 12 cm]

(1) DVD (DVD-Video, DVD-Audio, DivX<sup>®</sup> 6,<sup>7</sup>)

(2) DVD-RAM (DVD-VR, JPEG<sup>®</sup> 4,<sup>7</sup>, MPEG4<sup>®</sup> 5,<sup>7</sup>, DivX<sup>®</sup> 6,<sup>7</sup>)

# Panasonic

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(3) DVD-R (DVD-Video, DivX<sup>\*6,7</sup>)

(4) DVD-RW (DVD-Video, DVD-VR, DivX<sup>\*6,7</sup>)

+ R/RW (Video)

(5) CD,CD-R/RW [CD-DA, Video CD, SVCD<sup>\*1</sup>, MP3<sup>\*2,\*7</sup>, WMA<sup>\*3,\*7</sup>, JPEG<sup>\*4,\*7</sup>, MPEG4<sup>\*5,\*7</sup>, DivX<sup>\*6,\*7</sup>, HighMAT Level 2 (Audio and Image)]

<sup>\*1</sup> Conforming to IEC62107

<sup>\*2</sup> MPEG-1 Layer 3, MPEG-2 Layer 3

<sup>\*3</sup> Windows Media Audio Ver.9.0. L3

Not compatible with Multiple Bit Rate (MBR)

<sup>\*4</sup> Exif Ver 2.1 JPEG Baseline files

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

<sup>\*5</sup> MPEG4 data recorded with Panasonic SD multi cameras or DVD video recorders.

Conforming to SD VIDEO specifications (ASF standard)/ MPEG4 (Simple Profile) video system/G.726 audio system

<sup>\*6</sup> DivX 3.11, 4.x, 5.x

GMC (Global Motion Compensation) is not supported

<sup>\*7</sup>The total combined maximum number of recognizable audio, picture and video contents and groups: 4000 audio ,picture and video contents and 400 groups.

Pick up

Wavelength

CD 785 nm

DVD 662 nm

Audio output (Disc)

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

Audio performance (measurement at: Line out terminal)

Frequency response

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

## VIDEO SECTION

Video system

Signal system PAL625/50, PAL525/60, NTSC

Composite video output

Output level 1 Vp-p (75 Ω)

Terminal Pin jack (1 system)

S-video output

Y output level 1 Vp-p (75 Ω)

C output level 0.3 Vp-p (75 Ω) (PAL)

0.286 Vp-p (75 Ω) (NTSC)

Terminal S terminal (1 system)

Component video output

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

Y output level 1 Vp-p (75 Ω)

P<sub>B</sub> output level 0.7 Vp-p (75 Ω)

P<sub>R</sub> output level 0.7 Vp-p (75 Ω)

Terminal

Pin jack (Y: green, P<sub>B</sub>: blue, P<sub>R</sub>: red) (1 system)

## GENERAL

Power supply

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

Power consumption

300 W

Power consumption in standby mode:

0.8 W (approximate)

Dimensions (W x H x D)

250 x 330 x 348 mm

Mass

8.8 kg

Operating temperature range

+5°C to +35°C

Operating humidity range

5% to 90% RH (no condensation)

## SYSTEM

SC-VK725D (EE-S)

Music System: SA-VK725D (EE-S)

Front Speakers: SB-VK72 (GC-S)

Satellite Speakers: SB-PT72 (EE-S)

|                           |                     |
|---------------------------|---------------------|
| <b>Satellite Speakers</b> | <b>SB-PT72EE-S</b>  |
| <b>Surround Speakers</b>  | <b>SB-PS72 GC-S</b> |
| <b>Center Speaker</b>     | <b>SB-PC72 GC-S</b> |

## Notes:

- Specifications are subject to change without notice. Mass and dimensions are approximate.
- 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 C5815, C5818, C9513, C9533, C9534, C9816 and C9817 through a 10 $\Omega$ , 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 at 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  $\infty$  .

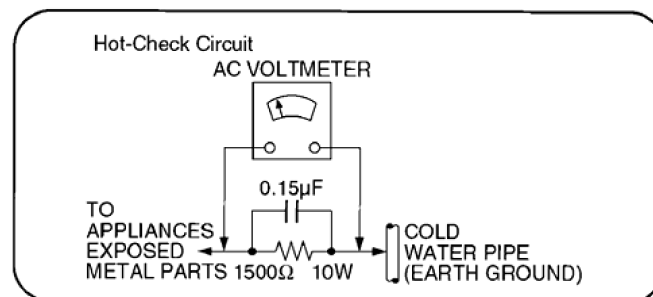


Figure 1

### 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  $\mu$ W/VDE

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

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

### CAUTION!

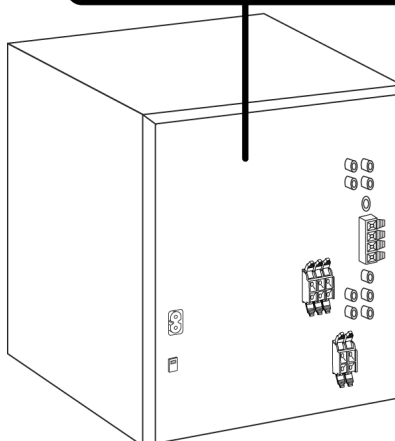
THIS PRODUCT UTILIZES A LASER.

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

### n Use of Caution Labels

|                  |                                                                                                  |                       |
|------------------|--------------------------------------------------------------------------------------------------|-----------------------|
| <b>CAUTION</b>   | ~ LASER RADIATION WHEN OPEN.<br>DO NOT STARE INTO BEAM.                                          | FDA 21 CFR / Class II |
| <b>CAUTION</b>   | ~ VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN.<br>AVOID EXPOSURE TO BEAM.                    | IEC60825-1 / Class 3b |
| <b>VARNING</b>   | ~ SYNLIIG OCH OSYNLIIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRÄKTA EJ STRÅLEN.              |                       |
| <b>ADVARSEL</b>  | ~ SYNLIIG OG OSYNLIIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSÆTTELSE FOR STRÅLING.                   |                       |
| <b>ADVARSEL</b>  | ~ SYNLIIG OG OSYNLIIG LASERSTRÅLING NÄR DEKSEL ÄPNES. UNNGÅ EKSPOSERING FOR STRÅLEN.             |                       |
| <b>VARO!</b>     | ~ AVATTAESSA OLET ALTTIINA NÄKYVÄÄ JA NÄKYMÄTÖN LASERSÄTEILYLLÄ. ÄLÄ KATSO SÄTEESEEN.            |                       |
| <b>VORSICHT</b>  | ~ SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN. |                       |
| <b>ATTENTION</b> | ~ RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.  |                       |
| <b>注意</b>        | ~ 打开时有可见及不可见激光辐射。避免激光照射。                                                                         |                       |
| <b>注意</b>        | ~ 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。                                                    |                       |

**CLASS 1  
LASER 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)

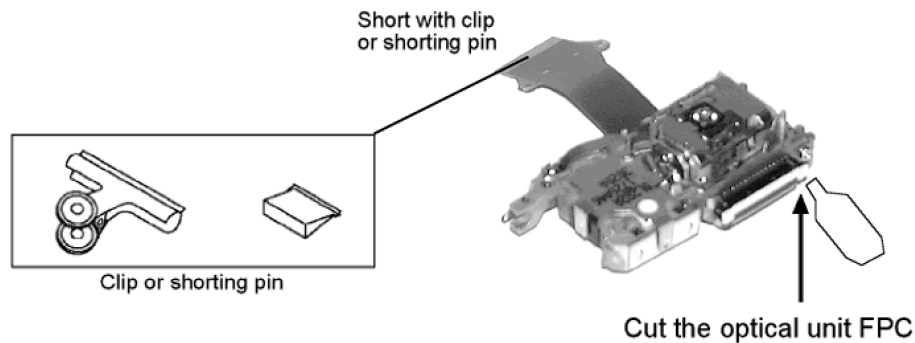


Fig. 7.1

### 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.

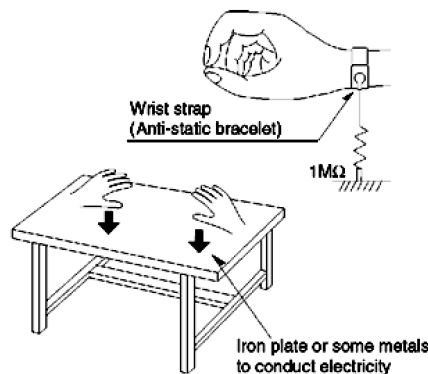
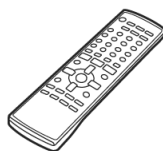
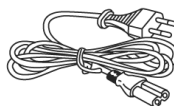


Fig. 7.2

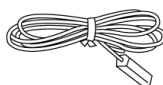
## 8 Accessories



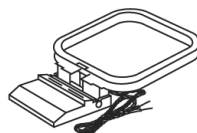
Remote control



AC cord



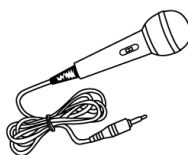
FM antenna



AM antenna



Video cable

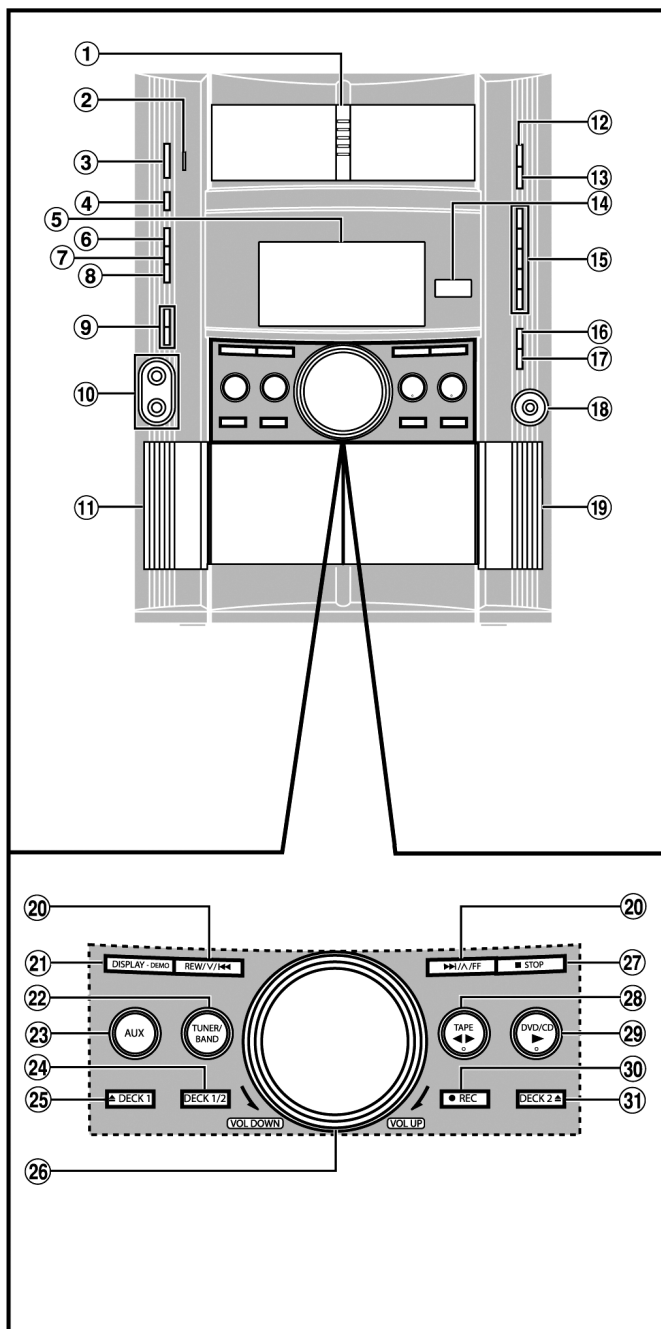


Mic

## 9 Operation Procedures

### Control reference guide

#### Main unit

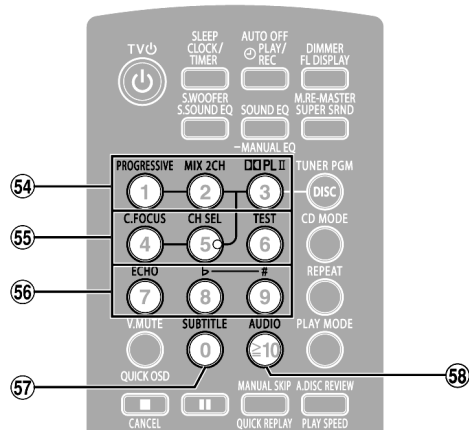
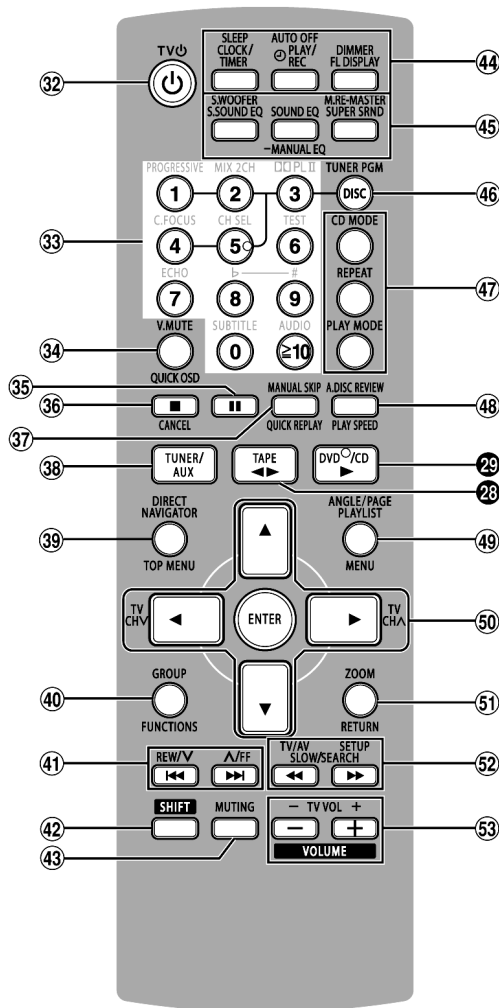


- ① Disc drawer
- ② AC supply indicator [AC IN]  
This indicator lights when the unit is connected to the AC mains supply.
- ③ Standby/on switch [⏻/⏻]  
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ④ Disc check button [DISC CHECK]
- ⑤ Display
- ⑥ Multi Re-master button [MULTI RE-MASTER]
- ⑦ Super surround button [SUPER SURROUND]
- ⑧ Sound EQ button [SOUND EQ]
- ⑨ Microphone volume level buttons [MIC LEVEL DOWN, UP]
- ⑩ Microphone jacks [MIC 1, 2]
- ⑪ Deck 1 cassette holder
- ⑫ Disc tray open/close button [⏏, OPEN/CLOSE]
- ⑬ Disc change button [⏏, DISC CHANGE]
- ⑭ Remote control signal sensor
- ⑮ DVD/CD direct play buttons [1–5]
- ⑯ Super sound EQ button [SUPER SOUND EQ]
- ⑰ Super woofer button [S.WOOFER]
- ⑱ Headphone jack [PHONES]
- ⑲ Deck 2 cassette holder

#### Center console

- ⑳ Disc skip/search/slow-motion play, tape fast-forward/rewind, tune, time adjust buttons [REW/⏮/⏪, ⏩/FF]
- ㉑ Display mode, demonstration button [DISPLAY – DEMO]
- ㉒ Tuner/band select button [TUNER/BAND]
- ㉓ AUX button [AUX]
- ㉔ Deck 1/2 selection button [DECK 1/2]
- ㉕ Deck 1 open button [⏏ DECK 1]
- ㉖ Volume control [VOL DOWN, VOL UP]
- ㉗ Stop button [■ STOP]
- ㉘ Tape play/direction button [⏮▶, TAPE]
- ㉙ DVD/CD play button [▶, DVD/CD]
- ㉚ Record button [● REC]
- ㉛ Deck 2 open button [DECK 2 ⏏]

## Remote control



Buttons such as 28 function in exactly the same way as the buttons on the main unit.

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

33 Numbered buttons [0 – 9, ≥10]

34 Quick OSD, Vocal mute button [QUICK OSD, V.MUTE]

35 Pause button [⏸]

36 Stop, Cancel button [■, CANCEL]

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

38 Tuner/aux button [TUNER/AUX]

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

40 Functions, Group button [FUNCTIONS, GROUP]

41 Disc skip, tape fast-forward/rewind, preset channel select, time adjust buttons [⏮, REW/V, ⏭, I, ^/FF]

42 Shift button [SHIFT]

To use functions labeled in orange:

While pressing [SHIFT], press the corresponding button.

43 Muting button [MUTING]

44 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]

45 Super Sound EQ, Super woofer button [S.SOUND EQ, S.WOOFER]

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

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

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

46 [DISC, TUNER PGM]

47 CD mode button [CD MODE]

Repeat button [REPEAT]

Play mode button [PLAY MODE]

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

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

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

These buttons have the following functions.

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

51 Return, Zoom button [RETURN, ZOOM]

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

These buttons have the following functions.

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

[▶▶] : Setup button [SETUP]

53 Volume buttons, TV volume buttons [–, +, VOLUME, – TV VOL +]

54 Progressive video button [PROGRESSIVE] 2 channel down-mixing button [MIX 2CH]

Dolby Pro Logic II button [DOLBY PLII]

55 Center focus button [C.FOCUS] Channel select button [CH SEL] Test signal button [TEST]

56 Echo button [ECHO] Key control buttons [b, #]

57 Subtitle button [SUBTITLE]

58 Audio button [AUDIO]

# 10 Disc information

## 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 with Panasonic SD multi cameras or DVD video recorders using the DCF (Design rule for Camera File system) Standard Version 1.0.                                                                                                                                                                                                                                                                                                                                                                                        |
|                                            |                                                                                     | MPEG4                                                          | Recorded with Panasonic SD multi cameras or DVD video recorders [conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system].                                                                                                                                                                                                                                                                                                                                                  |
|                                            |                                                                                     | DivX <sup>®1</sup>                                             | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| DVD-Audio                                  |    | DVD-A                                                          | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                            |                                                                                     | DVD-V                                                          | Some DVD-Audio discs contain DVD-Video content. To play DVD-Video content, select "Play as DVD-Video" in Other Menu.                                                                                                                                                                                                                                                                                                                                                                                                            |
| DVD-Video                                  |    | DVD-V                                                          | —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| DVD-R (DVD-Video)/<br>DVD-RW (DVD-Video)   |    |                                                                | Discs recorded and finalized <sup>®2</sup> on Panasonic DVD video recorders or DVD video cameras.                                                                                                                                                                                                                                                                                                                                                                                                                               |
| +R (Video)/<br>+RW (Video)                 | —                                                                                   |                                                                | Discs recorded and finalized <sup>®2</sup> on DVD video recorders or DVD video cameras.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DVD-R (DivX Video)/<br>DVD-RW (DivX Video) |   | DivX <sup>®1</sup>                                             | Finalize <sup>®2</sup> the disc after recording.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DVD-RW (DVD-VR)                            |  | DVD-RW (VR)                                                    | Discs recorded and finalized <sup>®2</sup> on DVD video recorders or DVD video cameras using Version 1.1 of the Video Recording Format (a unified video recording standard).                                                                                                                                                                                                                                                                                                                                                    |
| 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<br>CD-RW                              | —                                                                                   | WMA<br>MP3<br>JPEG<br>CD<br>MPEG4<br>DivX <sup>®1</sup><br>VCD | <ul style="list-style-type: none"> <li>This unit can play CD-R/RW (audio recording disc) recorded with the formats on the left. Close the sessions or finalize<sup>®2</sup> the disc after recording.</li> <li><b>HighMAT discs</b><br/>WMA, MP3 or JPEG files only.<br/>To play without using the HighMAT function, select "Play as Data Disc" in Other Menu.</li> <li><b>WMA</b> This unit does not support Multiple Bit Rate (MBR: a file that contains the same content encoded at several different bit rates).</li> </ul> |

<sup>®1</sup> Created using DivX ver.3.11, 4.x, 5.x [DivX video system/MP3, Dolby Digital or MPEG audio system].

<sup>®2</sup> 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, the recording method and how the files were created.

### Discs that cannot be played

Version 1.0 of DVD-RW, DVD-ROM, CD-ROM, CDV, CD-G, SACD 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.

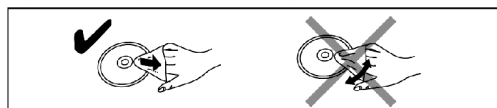
### Audio format of DVDs

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).

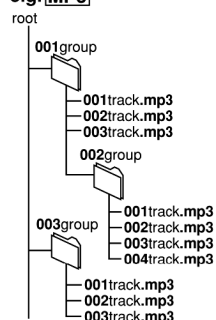
Files must have the extension:

“.WMA” or “.wma”

“.MP3” or “.mp3”

“.JPG”, “.jpg”, “.JPEG” or “.jpeg”

e.g. **MP3**

**WMA**

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

**MP3**

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

**JPEG**

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

# 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, 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?

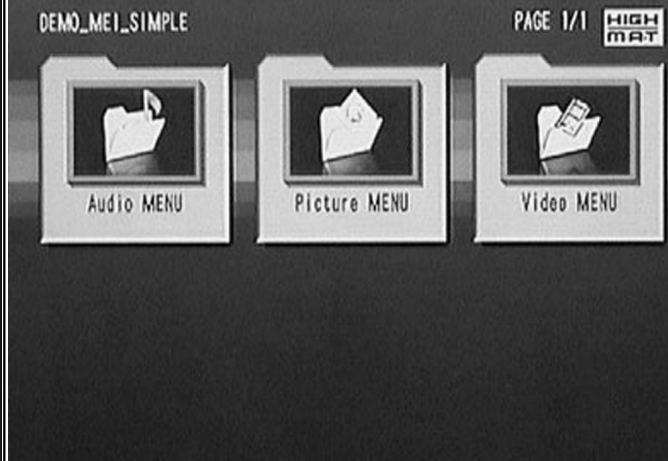
**A Problem Defined:** Today, when consumers create their own digital audio, video or photo collections on CD-R or other physical formats, there are numerous, inconsistent ways that devices read the data. For the consumer, the playback experience can be confusing:

- 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                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>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.</p>  | <p>HighMAT compatible products play content back with consistent interface. This includes products which are JPEG compatible products without HighMAT support.</p>  |

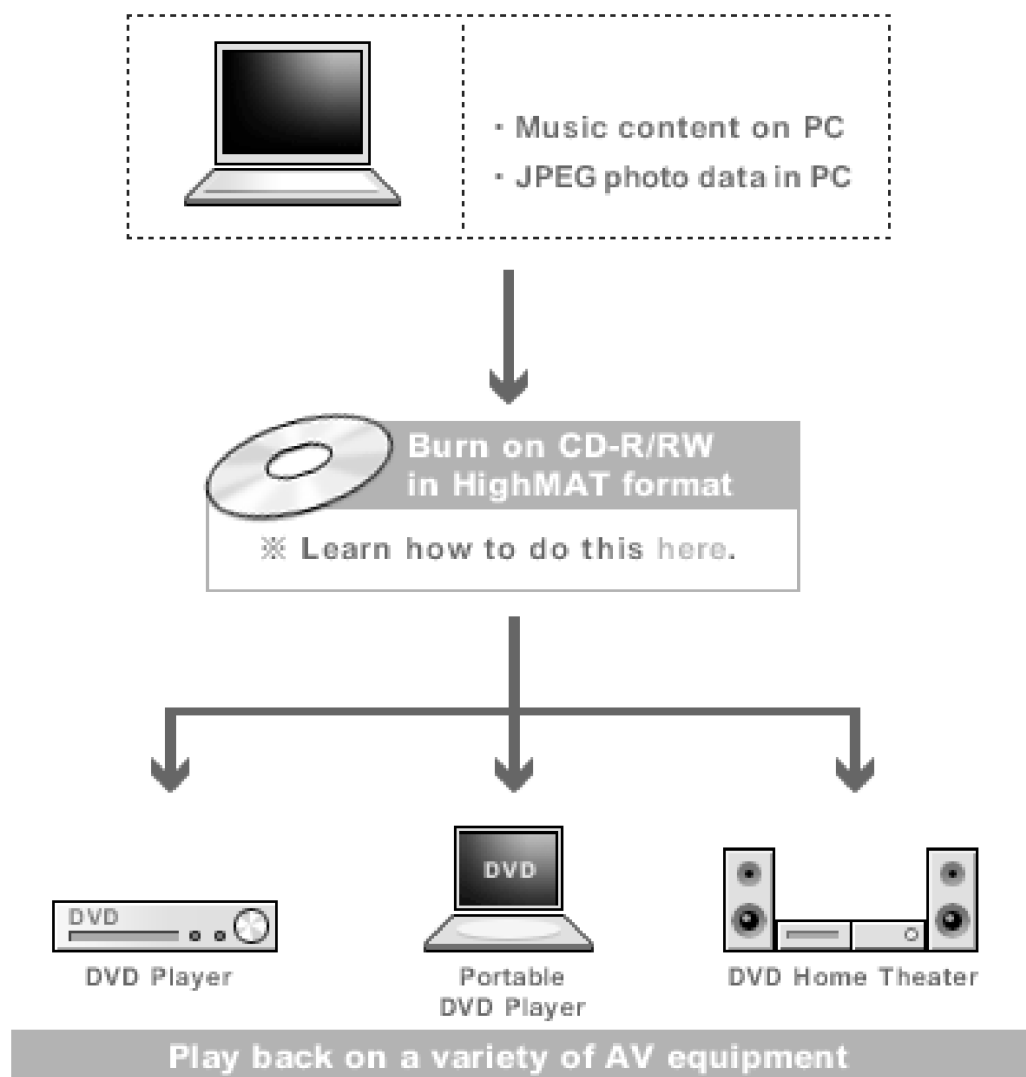
- 2 **Eliminates compatibility issues and delivers better more consistent access to more music information like artist, song name, genre and photo information (metadata) as well as provide faster access to large amounts of music and photo files burned on CDs.**



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.

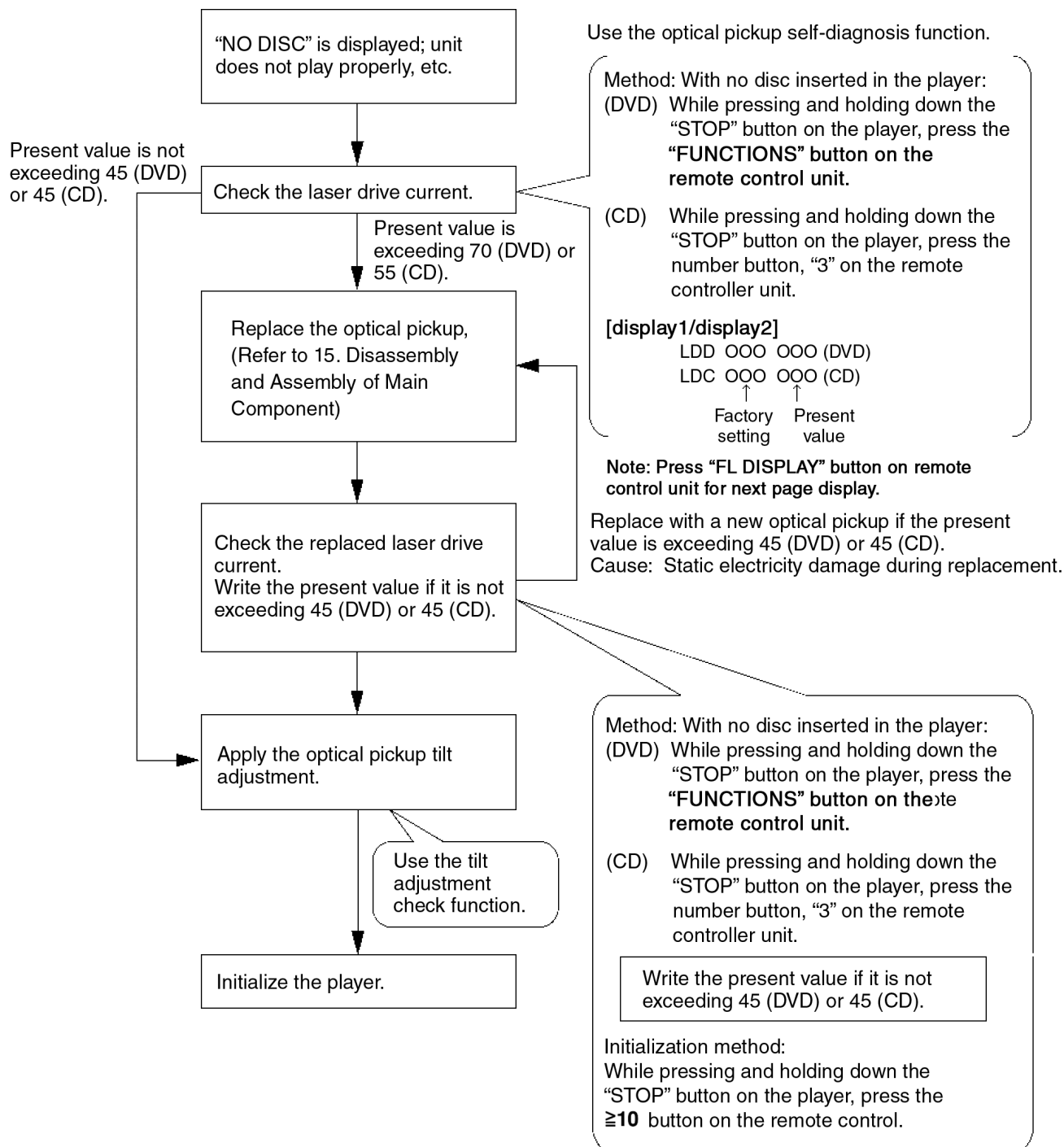
# 12 Optical Pickup Self-Diagnosis and Replacement Procedure

## 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:

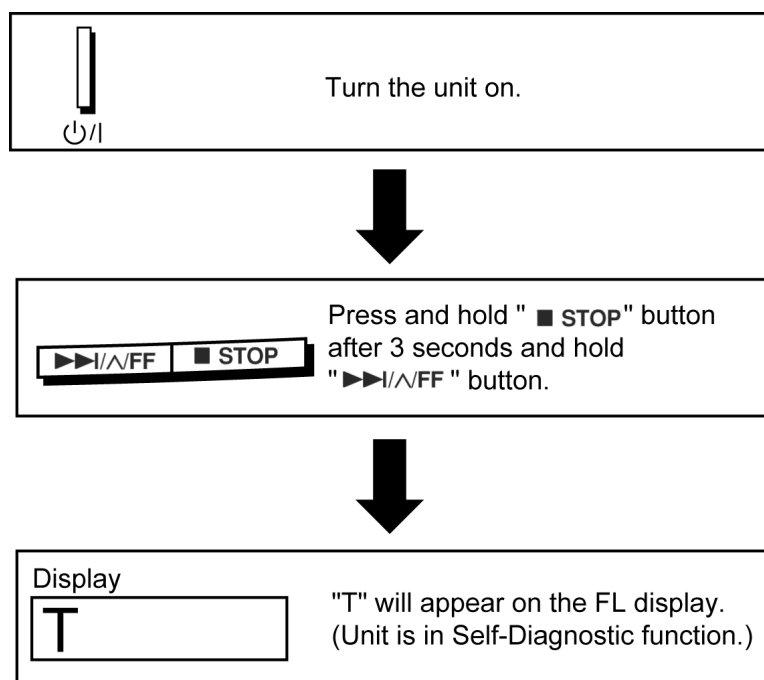
Start diagnosis within three minutes after turning on the power (as diagnosis fails when the unit becomes warm).



## 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



### 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)                                                                                                               |
|                                                                                          | FUNCTIONS              | DVD laser drive current check                                                                                                                          |
|                                                                                          | 3                      | CD laser drive current check                                                                                                                           |
|                                                                                          | PAUSE                  | Writing of laser drive current value after replacement of optical pickup<br>(Do use this function only when optical pickup is replaced.)               |
|                                                                                          | $\geq 10$              | Initialization of the player (factory setting is restored.)<br>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.<br>(Check and replace) |
| H16        | The disc tray cannot be closed: it opens spontaneously.  |                                                                               |

| Error Code  | Meaning                                       | Details                                                                                               |
|-------------|-----------------------------------------------|-------------------------------------------------------------------------------------------------------|
| U. H. Error |                                               |                                                                                                       |
| U11         | Focus servo failure                           |                                                                                                       |
| H01         | Tray loading failure                          |                                                                                                       |
| H02         | Spindle servo failure                         | (Spindle servo, DSC, SP motor, CLV servo failure)                                                     |
| H03         | Traverse motor failure                        |                                                                                                       |
| H04         | Tracking servo error                          |                                                                                                       |
| H05         | Seek timeout failure                          |                                                                                                       |
| DSC system  |                                               |                                                                                                       |
| F500        | DSC failure                                   | DSC stops due to servo failure.<br>(Startup, focus failure, etc.)                                     |
| F501        | DSC not Ready failure                         | Communication failure between DSC and system computer<br>(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<br>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 <sup>*1</sup> xxx/yyy zz (display1/display2)<br><sup>*1</sup> : Jitter display mode<br><sup>*2</sup> : Jitter measurement value<br><sup>*3</sup> : Read error counter<br><sup>*4</sup> : Focus driving value<br><br>Values are shown to one decimal place in the decimal digit. Focus driving value is displayed in the hexadecimal digit.                                                                                                                 | Press the STOP button on the player.             |
| Error code display                                            | While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button, "0" on the remote controller unit.                                              | Error code display<br>Displays the latest error code stored in EEPROM.                                                                                                                                                                                                                                                                                       | DVD_F---<br><sup>*nn</sup> : Error history<br><sup>*--</sup> : Error number                                                                                                                                                                                                                                                                                                                                                                                  | Press the STOP button.                           |
| Measurement of laser current electricity initialization value | While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the ■ button on the remote controller unit.<br><br>Press "FL Display" button for next page         | Measurement of laser current electricity initialization value<br>Memorizes each initialization value of DVD and CD in EEPROM.                                                                                                                                                                                                                                | LDO <sup>*1</sup> /xxx <sup>*2</sup> yyyy <sup>*3</sup><br>(display1/display2)<br><br><sup>*1</sup> : Laser current electricity measurement mode<br><sup>*2</sup> : DVD current electricity value<br><sup>*3</sup> : CD current electricity value<br><br>Values are shown in the decimal digit. The above example indicates that the current electricity initialization value is 13mA at DVD laser and 32mA at CD laser when laser is turned on.             | Automatically exits the mode after five seconds. |
| Measurement of DVD laser current electricity                  | While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the FUNCTIONS button on the remote controller unit.<br><br>Press "FL Display" button for next page | Measurement of DVD laser current electricity<br>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 <sup>*1</sup> /xxx <sup>*2</sup> yyyy <sup>*3</sup><br>(display1/display2)<br><br><sup>*1</sup> : DVD laser current electricity measurement mode<br><sup>*2</sup> : Current electricity initialization value stored in EEPROM<br><sup>*3</sup> : Present value of current electricity<br><br>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<br>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<br><br>Values are shown in the hexadecimal digit. The above example indicates that ADSC value at the address, FB0h is 0000h.                                                                                                                                                                                                                                                                                                                        | Press the STOP button on the player.             |

| Item                                        | Operational Condition and Key Function                                                                                                                                                                                                                                                                                                                                 | Details                                                                                                                                                                                                                                                                                   | Display                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | TO Exit Mode                                     |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Measurement of CD laser current electricity | While the player is stopped and no disc is inserted, press and hold down the  button on the player and the number button "3" on the remote controller unit.<br><br>Press "FL Display" button for next page                                                                            | Measurement of CD laser current electricity<br>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 <sup>*1</sup> /xxx <sup>*2</sup> yyyy <sup>*3</sup><br>(display1/display2)<br><br><sup>*1</sup> : CD laser current electricity measurement mode<br><sup>*2</sup> : Current electricity initialization value stored in EEPROM<br><sup>*3</sup> : Present value of current electricity<br><br>Values are shown in the decimal digit. The above example indicates the current electricity initialization value is 28mA and its present value is 26mA when laser is turned on. | Automatically exits the mode after five seconds. |
| User initialization                         | While the player is stopped and no disc is inserted, press and hold down the  button on the player and the number button $\geq 10$ on the remote controller unit.                                                                                                                     | User initialization<br>The user setting recovers the factory setting.                                                                                                                                                                                                                     | "INIT"                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Automatically exits the mode after five seconds. |
| Region display                              | While the player is stopped and no disc is inserted, press and hold down the  button on the player and the number button, "6" on the remote controller unit.                                                                                                                          | Region display                                                                                                                                                                                                                                                                            | [s rr zzz]<br><br>s : Panecon model type<br>rr : Panecon release number<br>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.<br><br>Press "FL Display" button for next page                                                                         | Firmware version display                                                                                                                                                                                                                                                                  | rrr <sup>*1</sup> xx <sup>*2</sup> y <sup>*3</sup> zzz <sup>*4</sup><br><br><sup>*1</sup> : Panel computer release number<br><sup>*2</sup> : System computer generation<br><sup>*3</sup> : System computer model type<br><sup>*4</sup> : System computer release number                                                                                                                                                                                                        | Automatically exits the mode after five seconds. |
| Region and firmware display                 | While the player is stopped and no disc is inserted, press and hold down the  button on the player and the number button, "8" on the remote controller unit.                                                                                                                        | Region and firmware version display                                                                                                                                                                                                                                                       | x <sup>*1</sup> y <sup>*2</sup> z <sup>*3</sup> w <sup>*4</sup><br><br><sup>*1</sup> : Region number<br><sup>*2</sup> : System computer generation<br><sup>*3</sup> : System computer model type<br><sup>*4</sup> : 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.<br><br>Press "FL Display" button for next page | Laser usage time<br>Measures each for DVD and CD respectively.                                                                                                                                                                                                                            | T1_ _1234/5678<br>(display1/display2)<br><br>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<br>Resets both for DVD and CD at once.                                                                                                                                                                                                                             | T1_ _0000/0000<br>(display1/display2)                                                                                                                                                                                                                                                                                                                                                                                                                                          | Automatically exits the mode after five seconds. |

| Item                        | Operational Condition and Key Function                                                                                                                                                                                                                                                                              | Details                                                                                                                  | Display                                                                                                                | TO Exit Mode                                     |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Spindle use time            | While the player is stopped and no disc is inserted, press and hold down the  button on the player and the  button on the remote controller unit. | Spindle motor usage time                                                                                                 | T2_00000<br><br>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<br>Spindle motor usage time                                                                           | T2_ _00000                                                                                                             | Automatically exits the mode after five seconds. |
| Communication error display | While the player is stopped and no disc is inserted, press and hold down the  button on the player and the MENU button on the remote controller unit.<br><br>Press "FL Display" button for next page                               | Displays frequency of communication errors between system computer firm IC and mechanical computer IC during DVD module. | ECC_ _ _ 00                                                                                                            | Press the STOP or Open button on the player.     |

## 13.7. CR16 Mechanism Ageing Mode

To perform the ageing mode:

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

Ageing process:

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

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

## 13.8. Operation Lock Function

### 13.8.1. Setting

#### • Operation Lock Function

1. With the DVD/CD/  and POWER ON, and then press the [POWER] KEY on the remote control for 3 seconds to enter Lock mode B.  
[ \_LOCKED\_ ] will be displayed for 3 seconds, and the current disc will begin playing.
2. Lock mode B primarily controls the selector and disc operations, and disenable for the following keys.

#### Note:

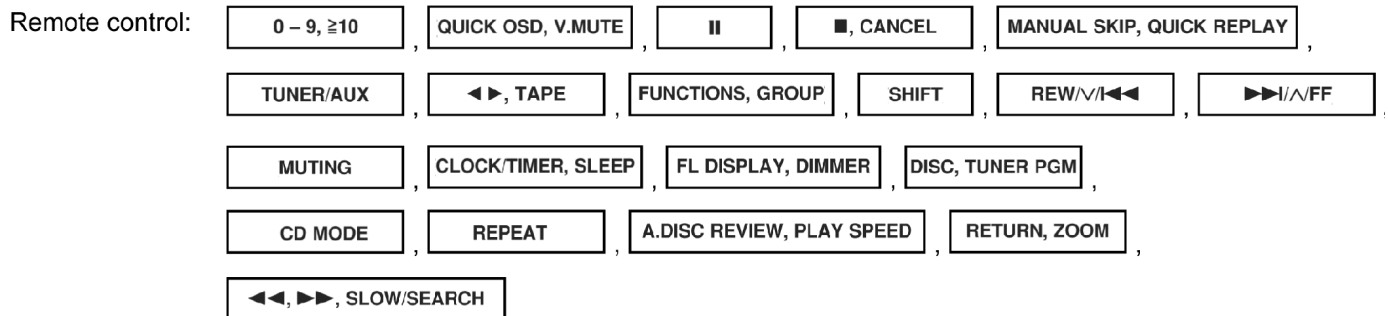
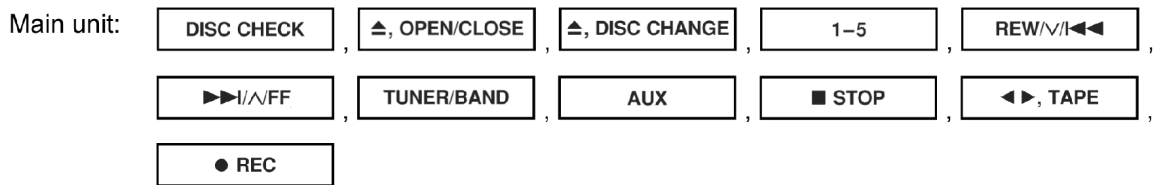
OPEN/CLOSE  button are invalid and the player displays " \_LOCKED\_ " while the lock function mode is entered.

#### • Prohibiting operation of selector and disk

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

#### Note:

The following buttons are invalid and the player displays " \_LOCKED\_ " while the lock function mode is entered.



## 13.9. Things to Do After Repair

Follow the procedure described below after repair.

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

### Note:

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

## 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<br>Time is shown by the ten hours in the decimal digit. |
| T2 1 2 3 4      | Total usage time of spindle motor<br>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 25), if necessary.

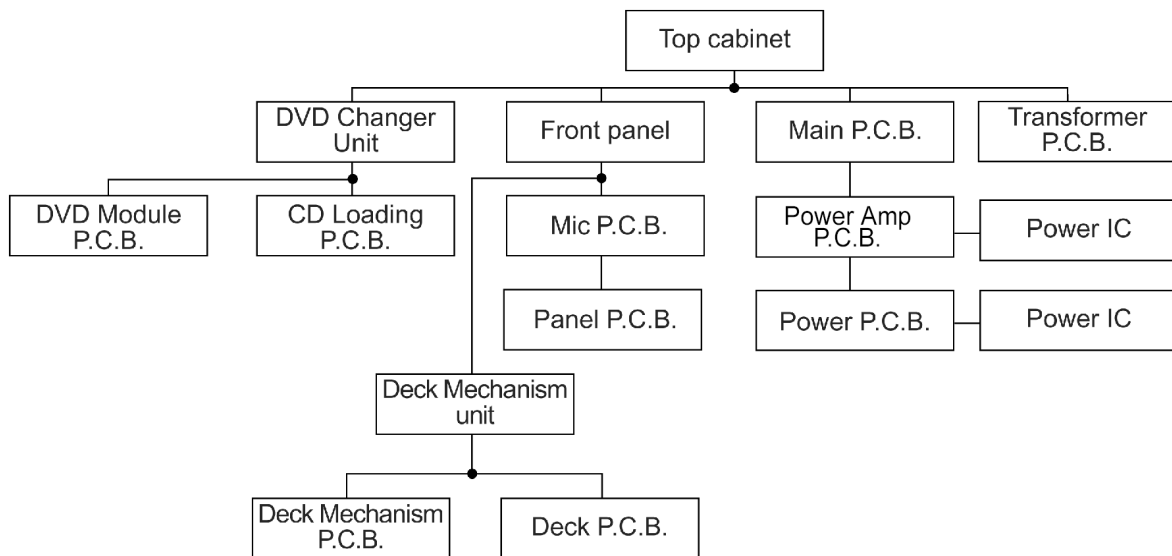
## 15.1. Disassembly steps

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

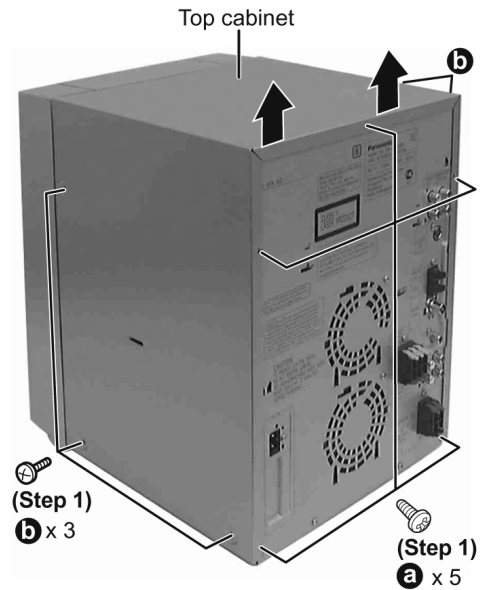
To assemble the unit, reverse the steps shown in the chart as below.



### 15.3. Disassembly of Top Cabinet

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

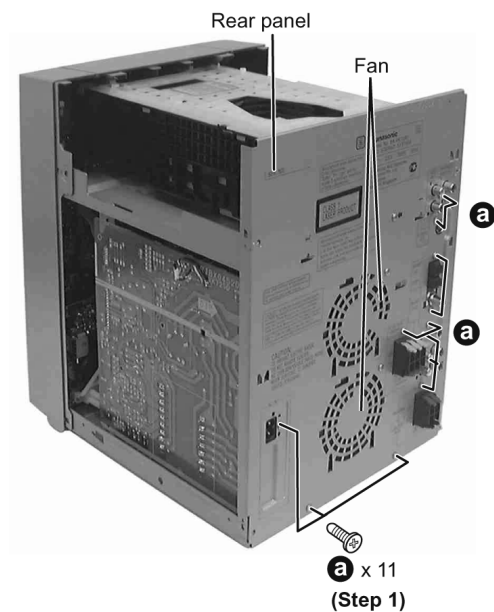
**Step 2** Lift up both sides of the top cabinet, push the top cabinet towards the rear to remove the top cabinet.



### 15.4. Disassembly of Rear Panel

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

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

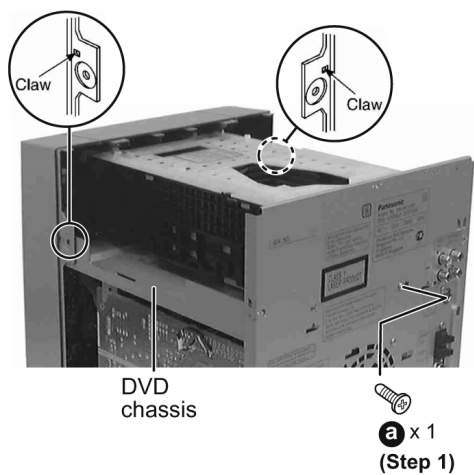


### 15.5. Disassembly of DVD Changer Unit

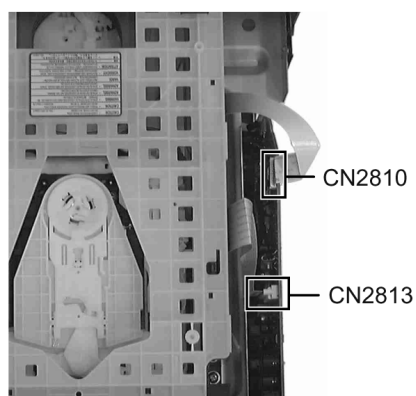
· Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet

**Step 1** Remove 1 screw at rear panel.

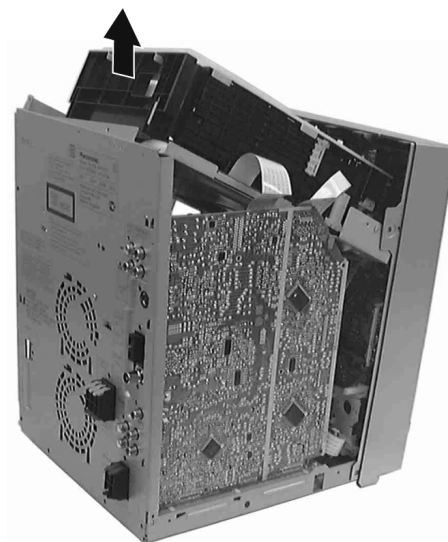
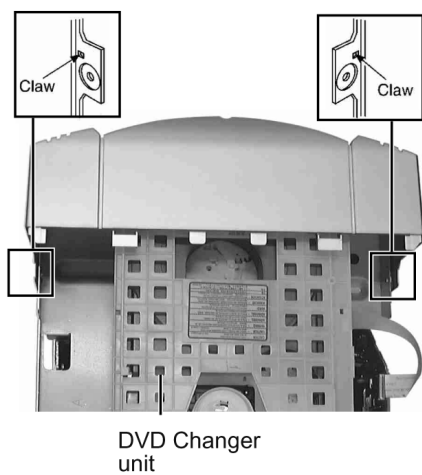




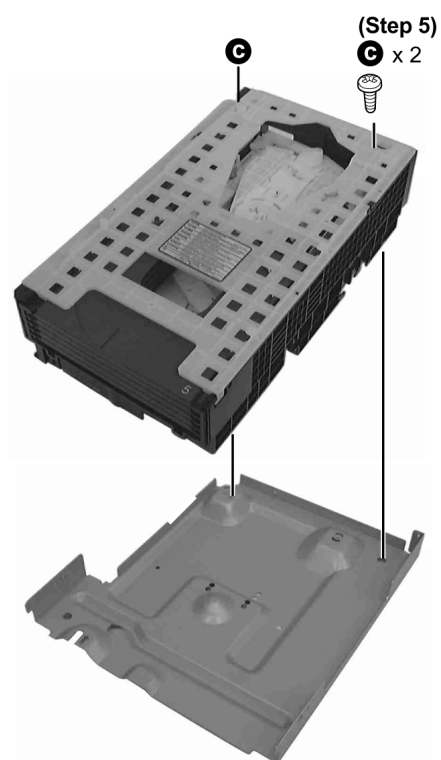
**Step 2** Detach the FFC cables (CN2810 & CN2813).



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



**Step 4** Lift the DVD changer unit upwards.

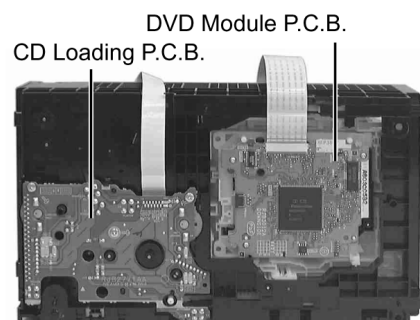


**Step 5** Remove 2 screws.

**Step 6** Remove the DVD chassis.

**Step 7** Lay the unit.

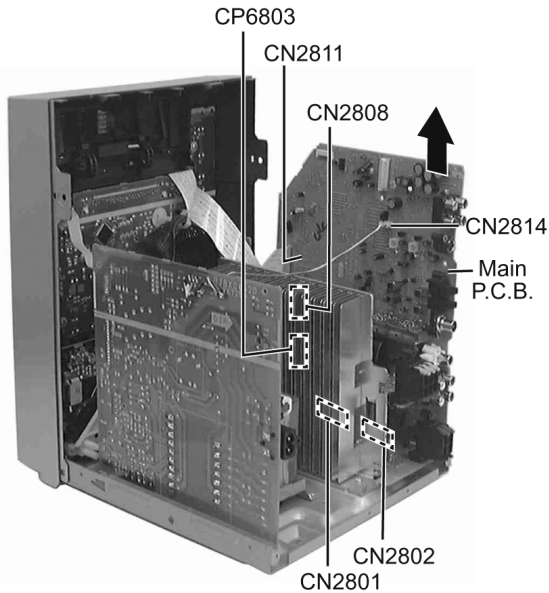
• For disassembly of DVD mechanism unit, please refer to Section 15.16 of this manual.



## 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 4) of Item 15.5 - Disassembly of DVD Changer Unit

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

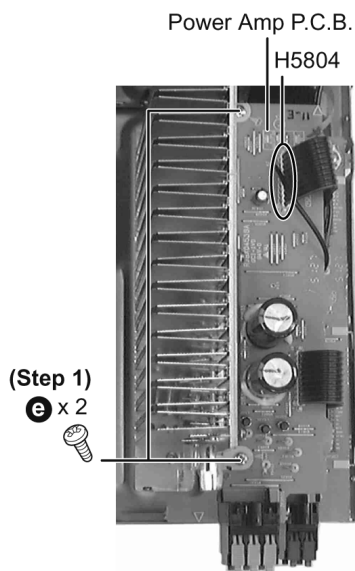


**Step 2** Lift up Main P.C.B. by disconnecting connectors CN2801 & CN2802 as arrow shown above.

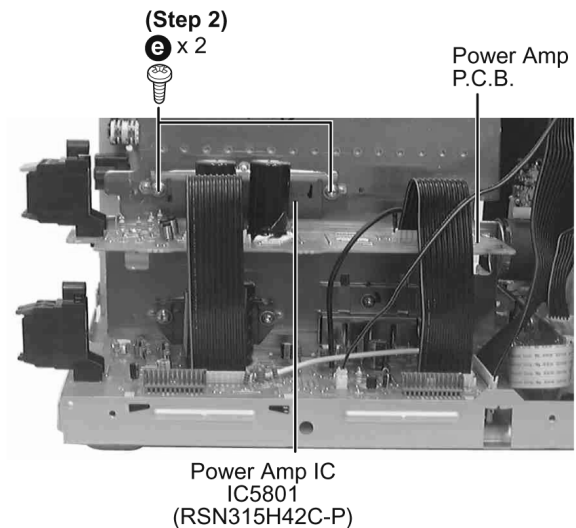
## 15.7. Disassembly of Power Amp P.C.B.

- 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 4) of Item 15.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 2) of Item 15.6 - Disassembly of Main P.C.B.

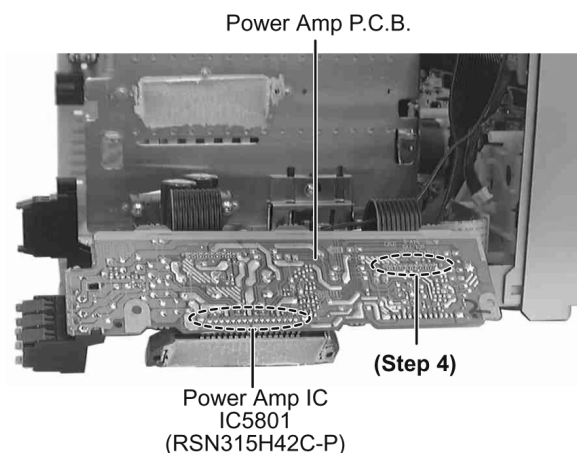
**Step 1** Remove the 2 screws at Power Amp P.C.B..



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



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



**Step 4** Desolder wire at holder H5804.

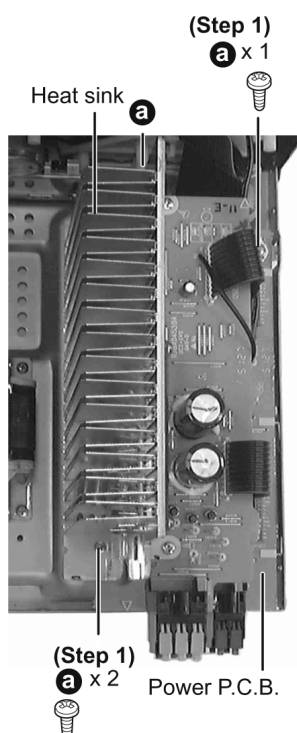
• **Replacement of the Power Amp IC**

Repeat Step 1 - Step 3 of Section 15.7 - Disassembly of Power Amp P.C.B.

## 15.8. 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 4) of Item 15.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 2) of Item 15.6 - Disassembly of Main P.C.B.

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

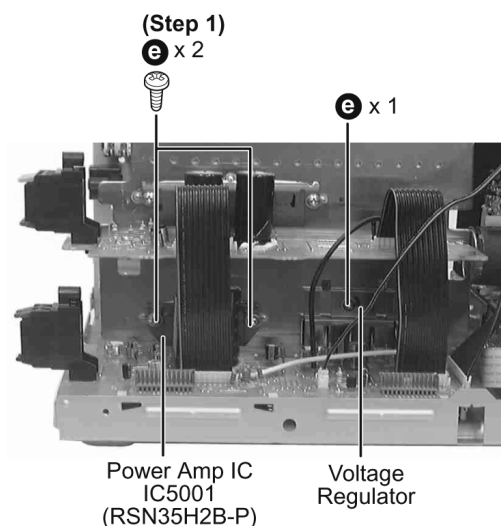


**Note:**

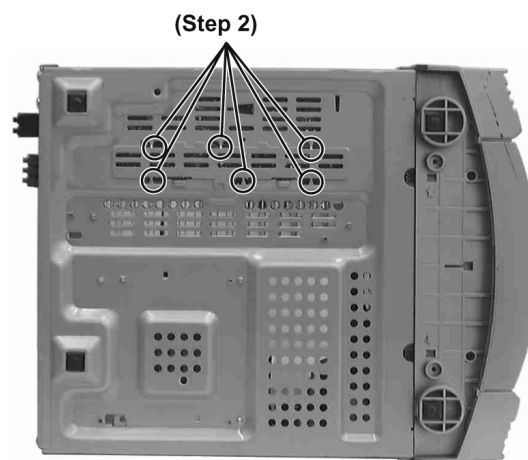
Insulate the Power P.C.B. with insulation material to avoid short circuit.

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

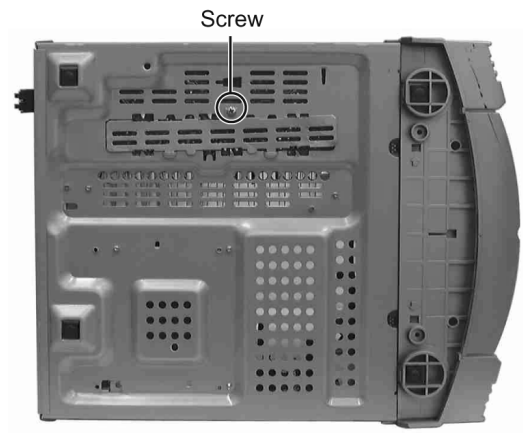
**Step 1** Remove 2 screws at the Power Amp IC and or 1 screw to Voltage Regulator.



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



**Step 3** Unsolder the terminals to replace the components.



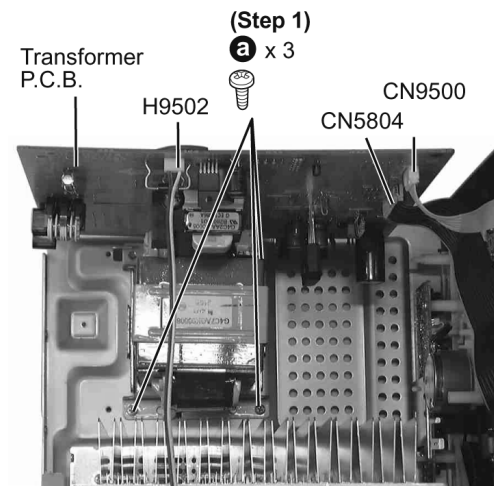
**Step 4** Fix back the cut portion with a screw as shown.

## 15.9. 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 4) of Item 15.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 2) of Item 15.6 - Disassembly of Main P.C.B.
- Follow the (Step 1) of Item 17.8 - Disassembly of Power P.C.B.

**Step 1** Remove 4 screws.

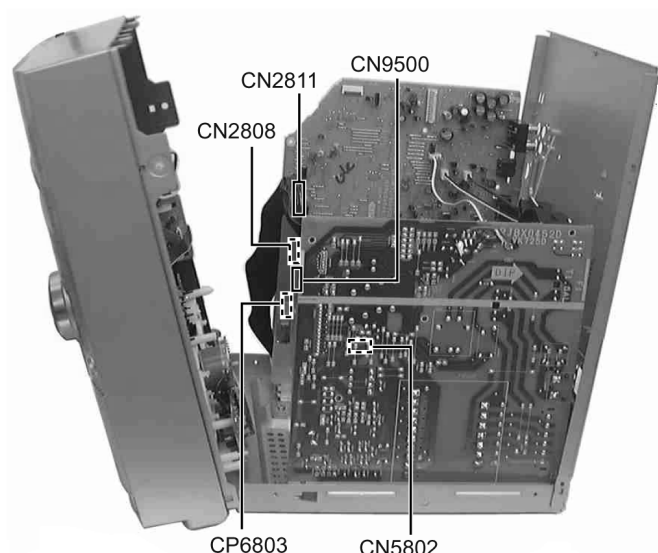
**Step 2** Disconnect connectors CN5804, CN9500 & H9502.



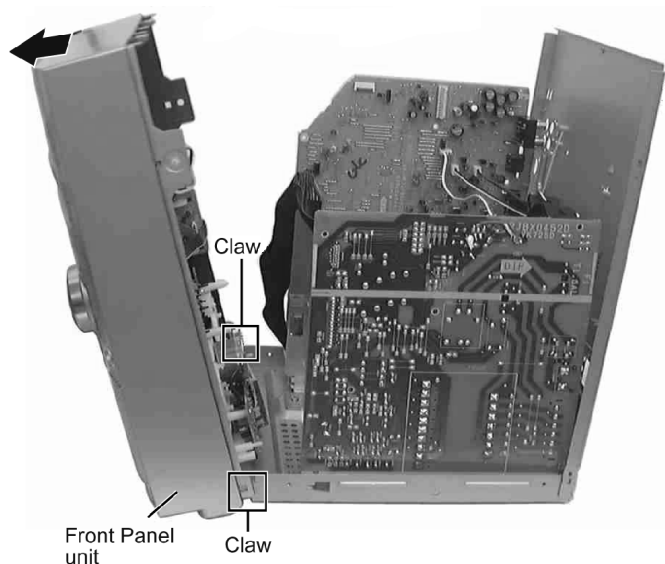
## 15.10. Disassembly of Front Panel Unit

- Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 15.5 - Disassembly of DVD Changer Unit

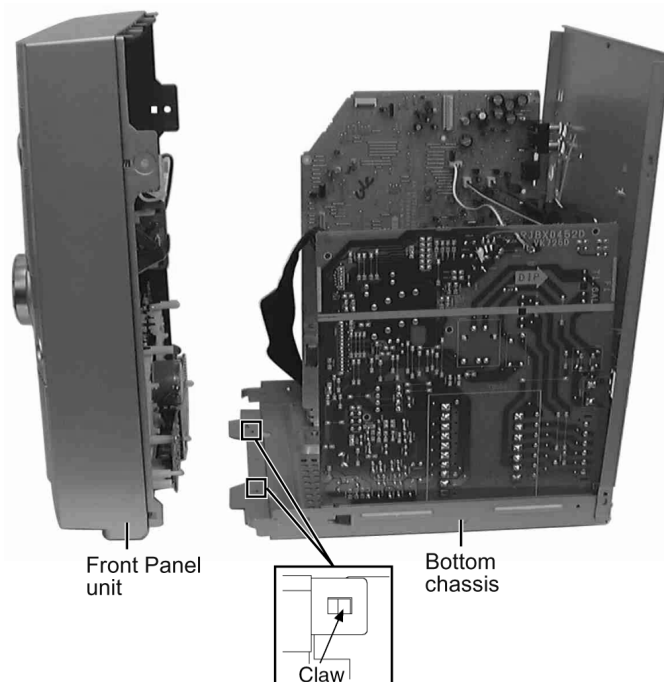
**Step 1** Disconnect connectors CN9500, CN2811, CN2808, CP6803 & CN5802.



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



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



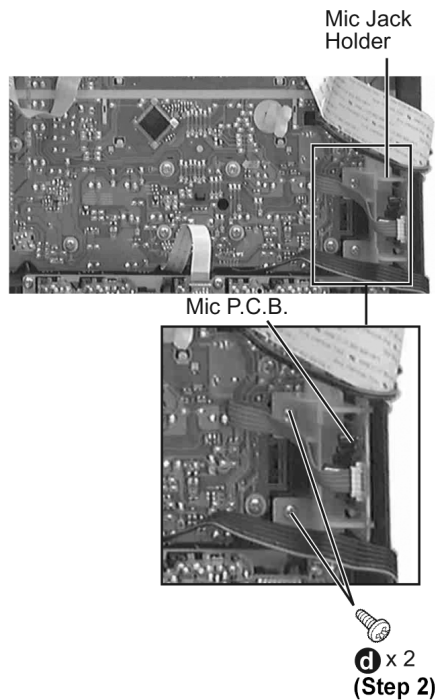
**Step 4** Remove the front panel unit.

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

## 15.11. Disassembly for Mic P.C.B. & Panel P.C.B.

- Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 4) of Item 15.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 15.10 - Disassembly of Front Panel Unit

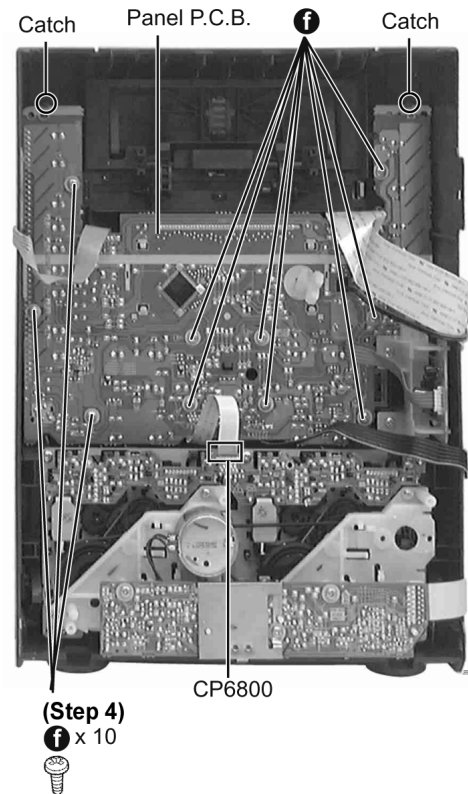
**Step 1** Remove volume knob.



**Step 2** Remove 2 screws.

**Step 3** Lift up Mic Jack holder.

• **Disassembly of Panel P.C.B.**



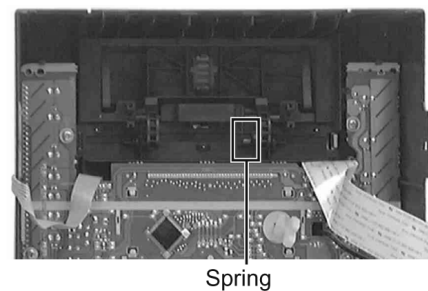
**Step 4** Remove 10 screws.

**Step 5** Disconnect FFC cable at CP6800.

**Step 6** Release 2 catches.

### 15.11.1. Disassembly of Lid

**Step 1** Lift the spring sideward.



**Step 2** Remove Lid.

**Note:** Do not misplace the spring.

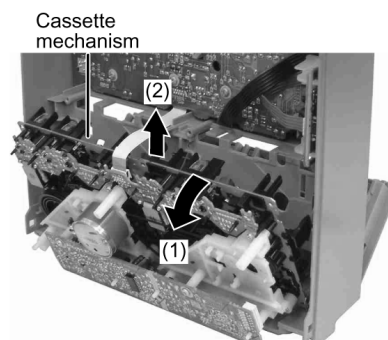
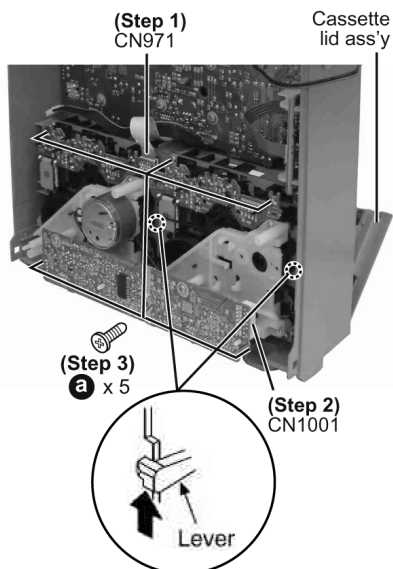
## 15.12. Disassembly of Deck Mechanism Unit

- Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 6) of Item 15.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 15.10 - Disassembly of Front Panel Unit

**Step 1** Detach FFC wire CN971.

**Step 2** Disconnect FFC flat cable from the connector CN1001.

**Step 3** Remove the 5 screws.



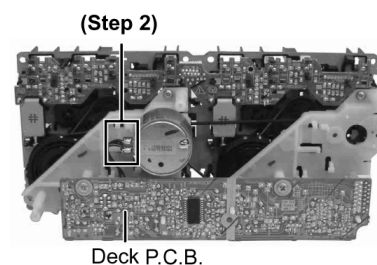
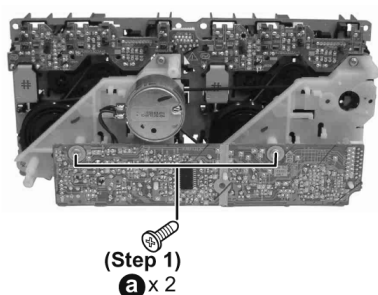
**Step 4** Push the lever upward, and then open the cassette lid ass'y (For DECK1 and DECK2).

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

## 15.13. Replacement for Deck P.C.B.

- Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 6) of Item 15.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 4) of Item 15.10 - Disassembly of Front Panel Unit
- Follow the (Step 1) - (Step 5) of Item 15.12 - Disassembly of Deck Mechanism Unit

**Step 1** Remove 2 screws.



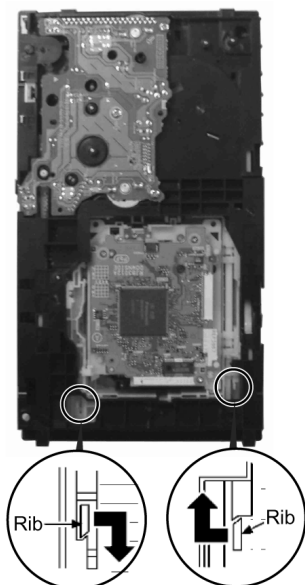
**Step 3** Remove Deck P.C.B.

**Step 2** Unsolder the motor terminals.

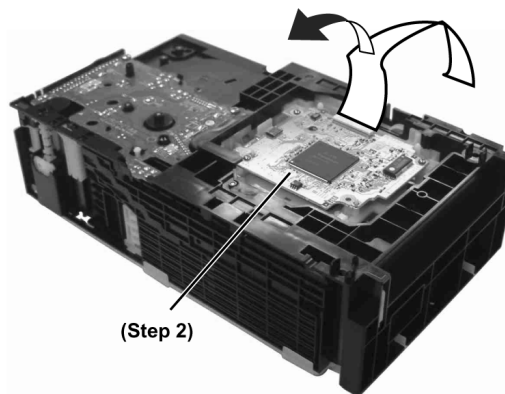
## 15.14. Replacement for Traverse Deck

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



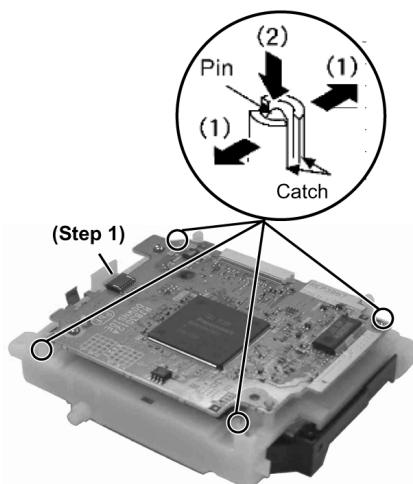
**Step 2** Remove DVD traverse deck by rotating to the arrow direction.



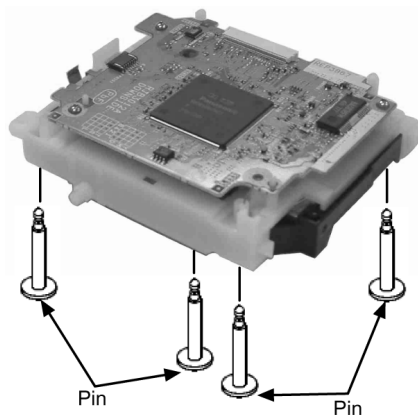
## 15.15. Replacement for Optical Pickup Unit (DVD mechanism)

- Follow the (Step 1) - (Step 2) of Item 15.3 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 7) of Item 15.5 - Disassembly of DVD Changer Unit
- Follow the (Step 1) - (Step 2) of Item 15.14 - Replacement of Traverse Deck

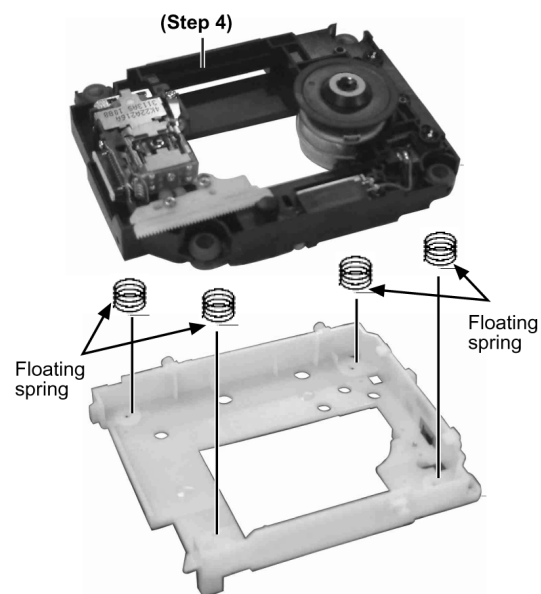
**Step 1** Pull out FFC.



**Step 2** Widening the catch, push the pin in.



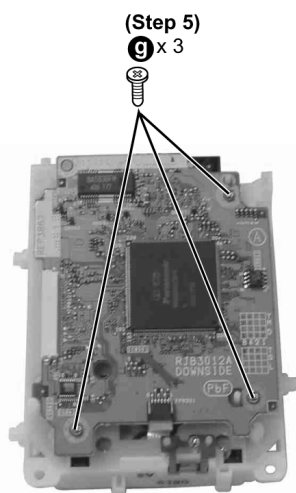
**Step 3** Remove 4 pins.



**Step 4** Remove the traverse deck.

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

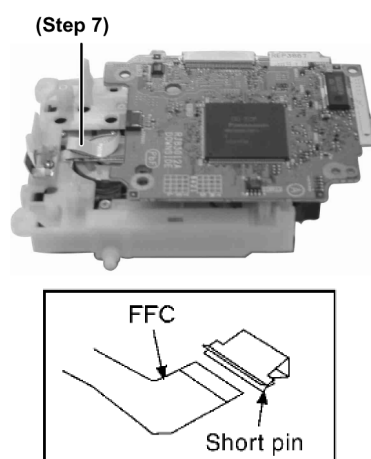




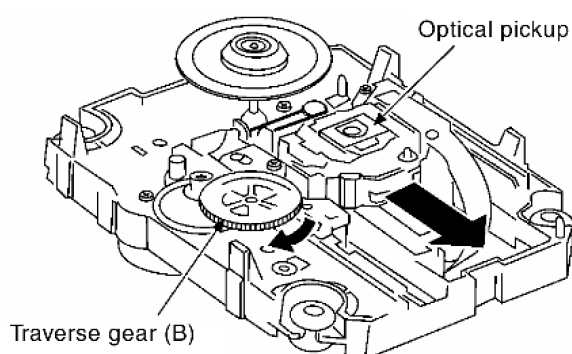
**Step 6** Remove the dvd module board and turn it over.

**Step 7** Pull FFC out from the connector.

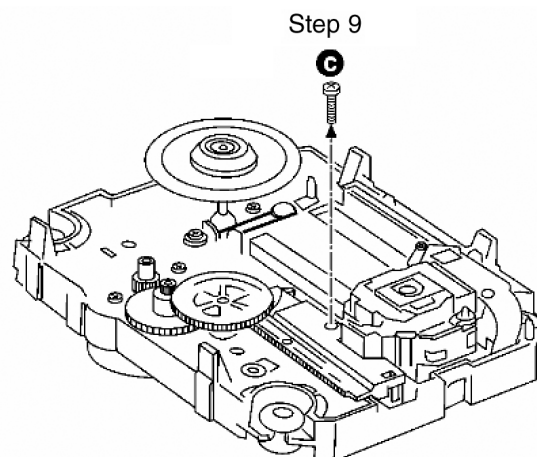
Note: Insert a short pin into FFC of the optical pickup. [See "Notice on handling of the optical pickup"].



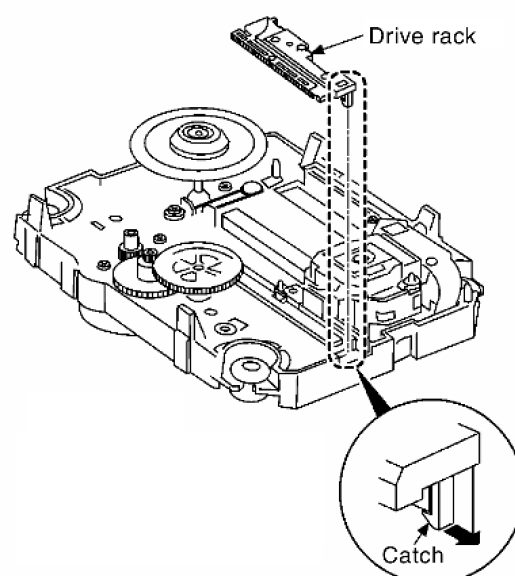
**Step 8** Rotate the traverse deck (B) to the arrow direction and shift the optical pickup to the furthest backward.



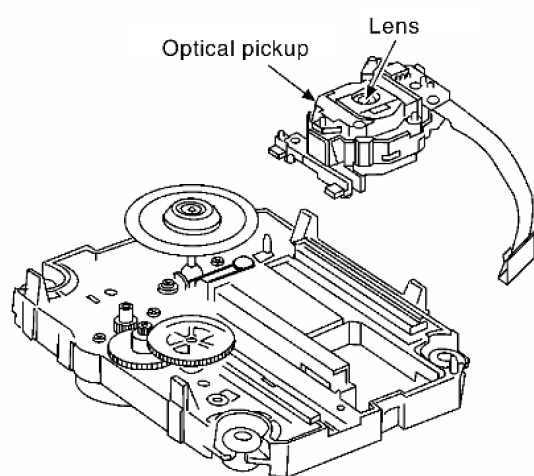
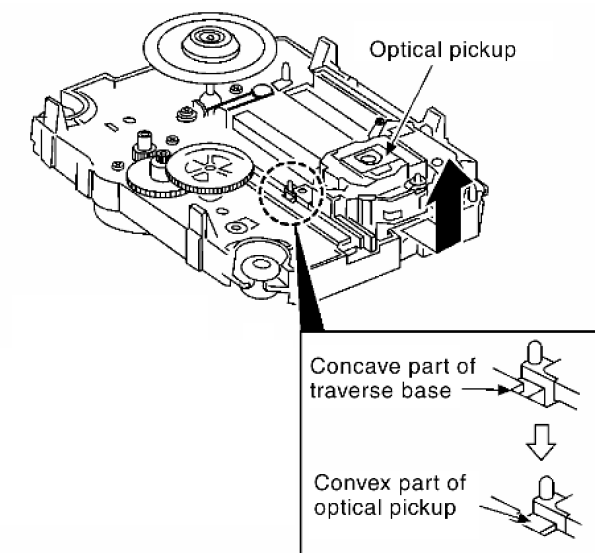
**Step 9** Remove 1 screw.



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



**Step 11** Place the convex part of an optical pickup to the concave part of a traverse base, then take out the optical pickup.



Note:  
Do not touch the lens of the optical pickup

## 15.16. Procedure for removing CD loading mechanism

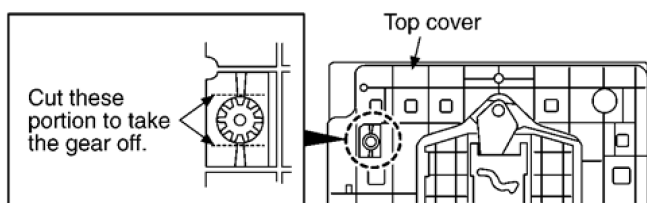
1. Turn off by pressing power SW in the body.
2. Unplug AC power cord after the indication of [GOOD-BYE], then disassemble the body.
3. Disassemble the body, and take out CD loading mechanism.
4. Perform disassembly according to the following procedure for disassembly.

## 15.17. CR16 mechanism disassembly procedure

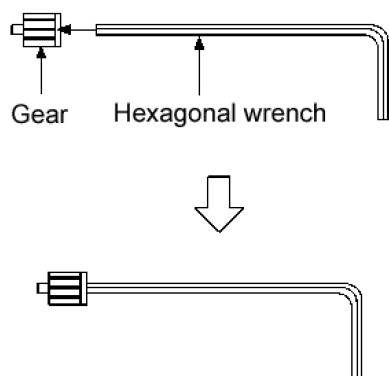
### 15.17.1. Gear for servicing information

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

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



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

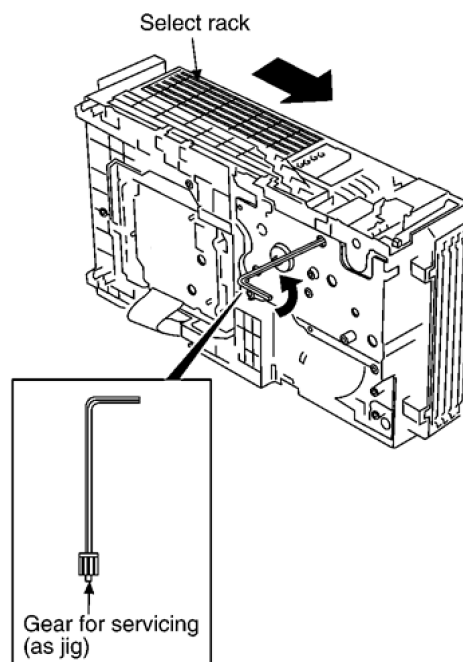


(Preparation of gear as jig is completed)

### 15.17.2. Replacement for the disc tray

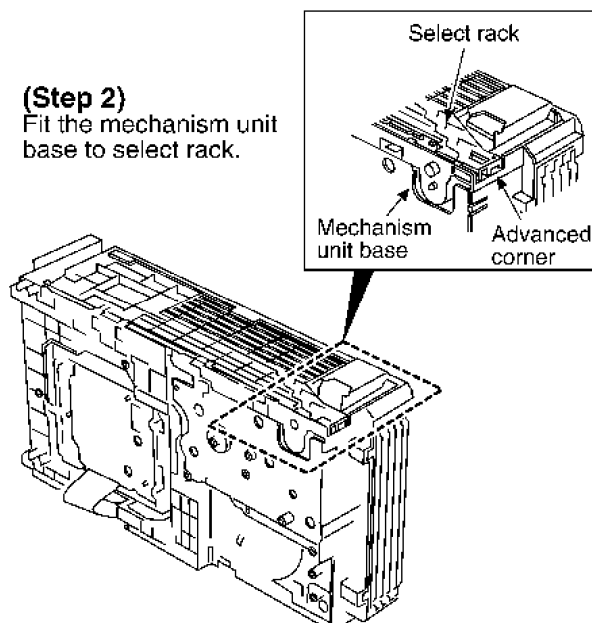
#### (Step 1)

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



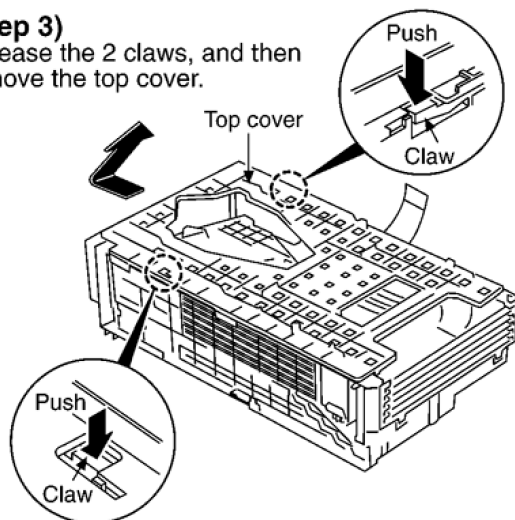
#### (Step 2)

Fit the mechanism unit base to select rack.

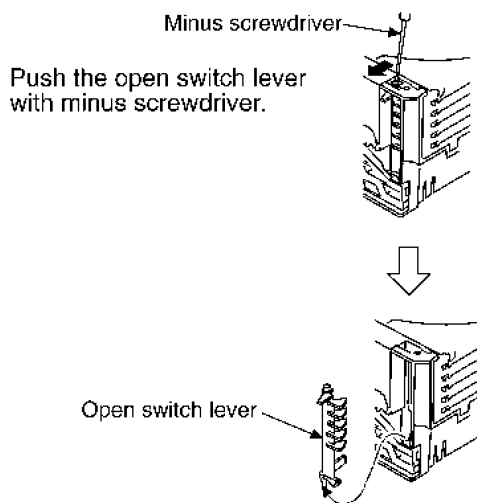
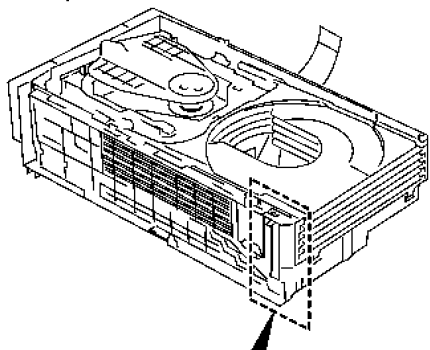


**(Step 3)**

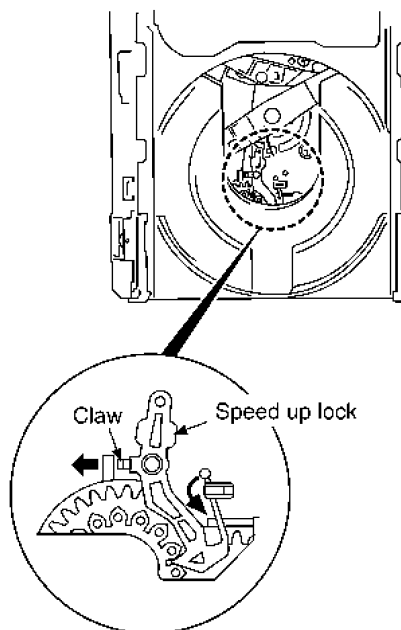
Release the 2 claws, and then remove the top cover.

**(Step 4)**

Remove the open switch lever.

**(Step 5)**

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



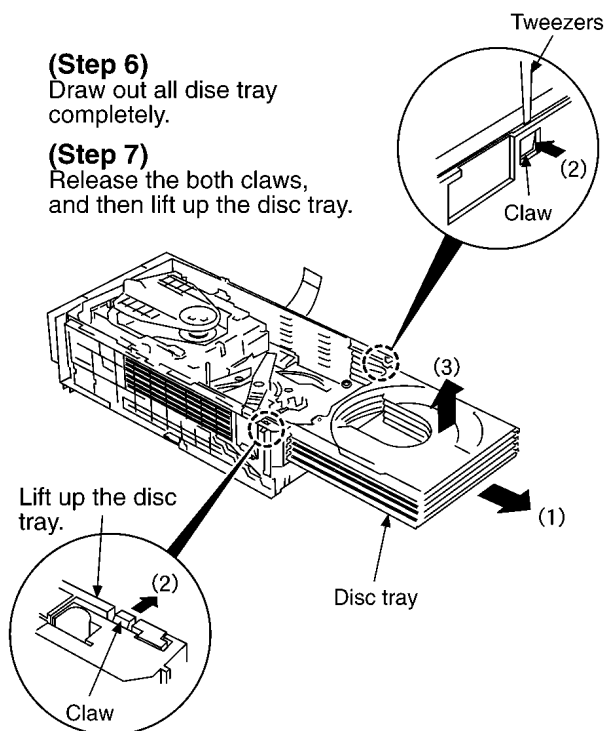
Insert the tweezers between the mechanism base and disc tray, and then lift up the disc tray.

**(Step 6)**

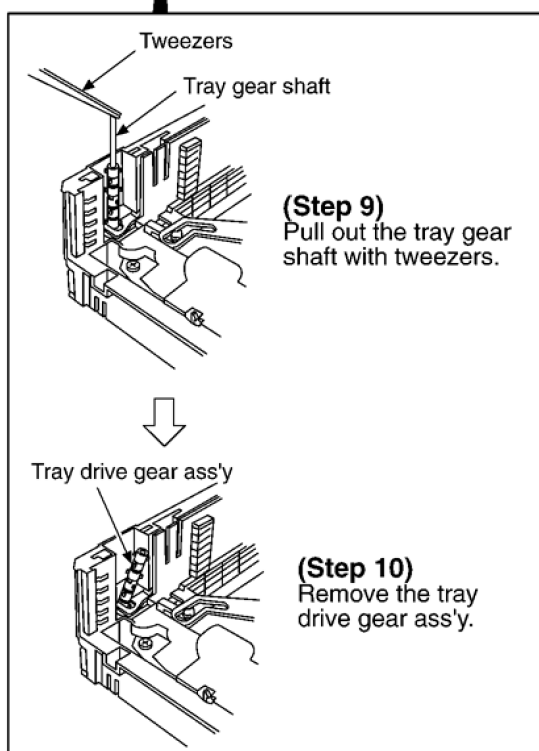
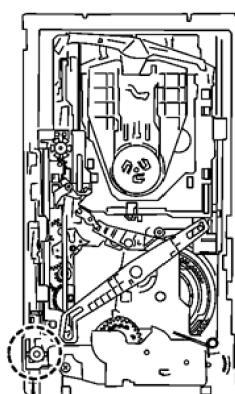
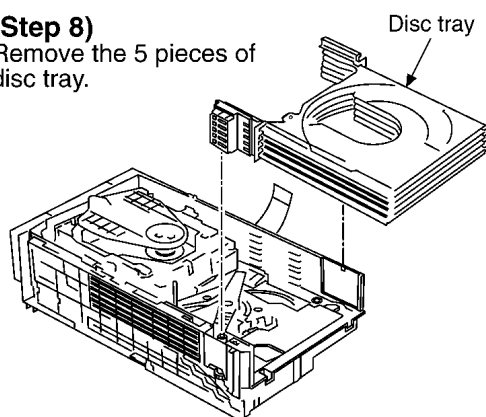
Draw out all disc tray completely.

**(Step 7)**

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



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

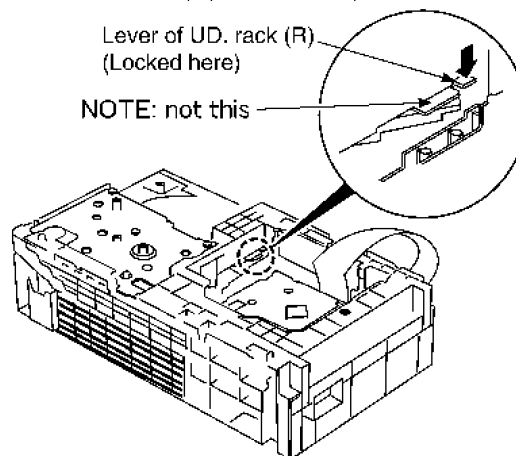


### 15.17.3. Replacement for the traverse deck

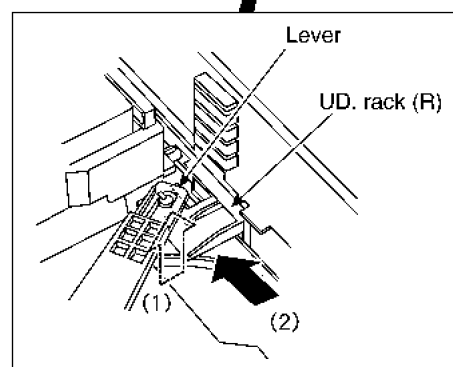
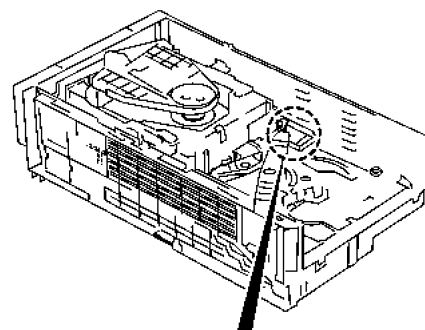
Follow the **(Step 1)** - **(Step 10)** of item 15.17.2.

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

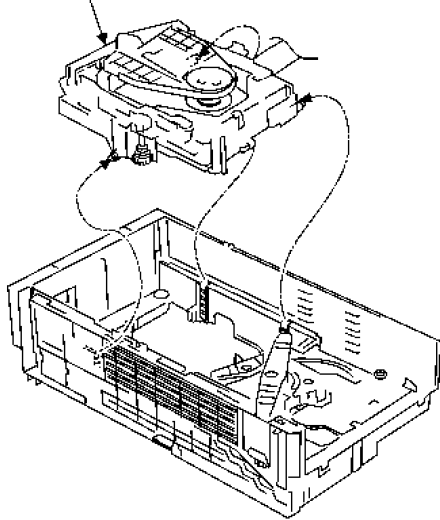
**(Step 2)**  
Turn the unit over. (Upside: P.C.B.)



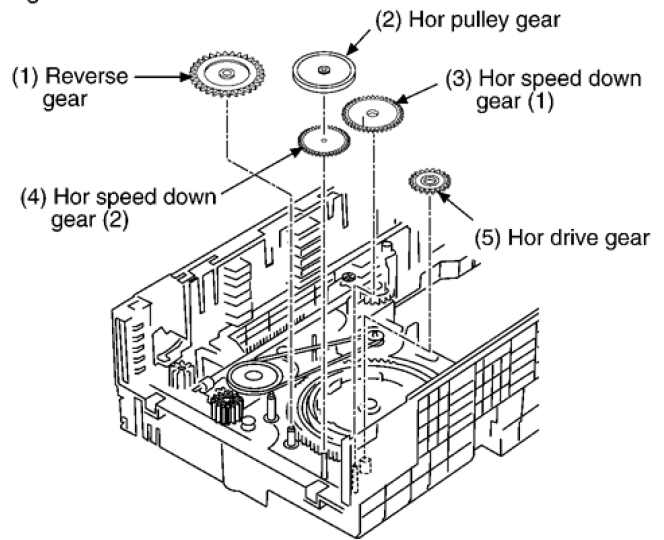
**(Step 3)**  
Turn the unit over again, slide UD. rack (R) while pushing up the lever from the bottom.



**(Step 4)**  
Remove the traverse unit.

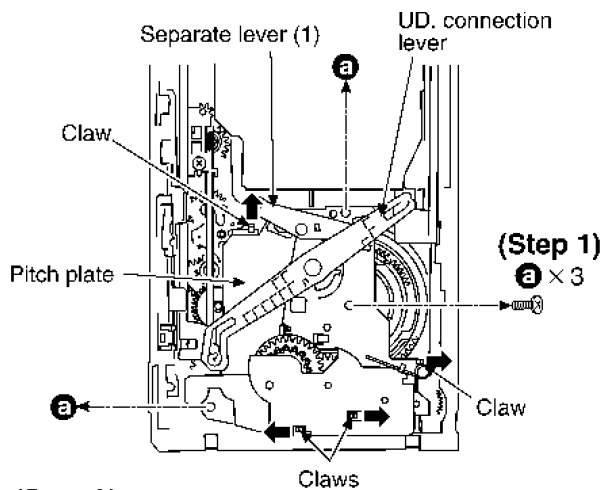


**(Step 4)**  
Remove the reverse gear, hor pulley gear, hor speed down gear (1), hor speed down gear (2) and hor drive gear.



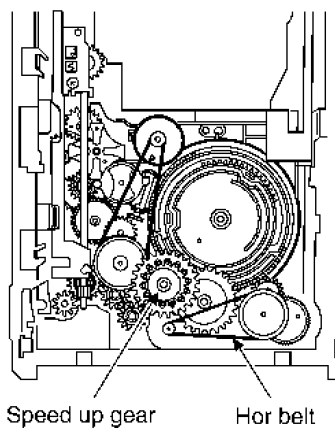
#### 15.17.4. Disassembly for CD loading unit

- Follow the **(Step 1)** - **(Step 10)** of item 15.17.2.
- Follow the **(Step 1)** - **(Step 4)** of item 15.17.3.



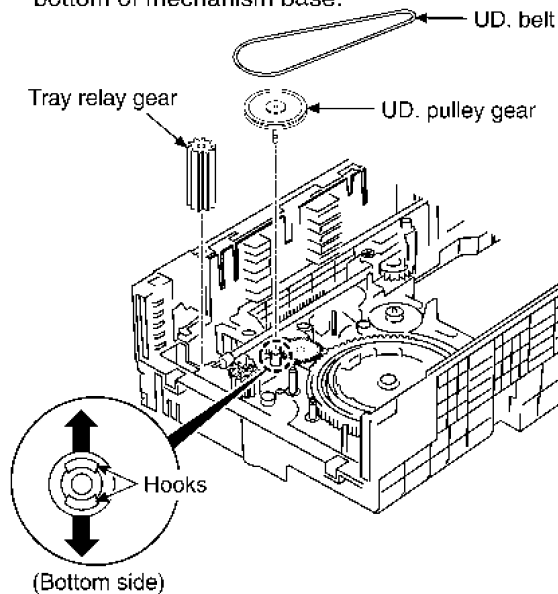
**(Step 2)**  
Release the 4 claws, and then remove the pitch plate together with separate lever (1) and UD. connection lever.

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



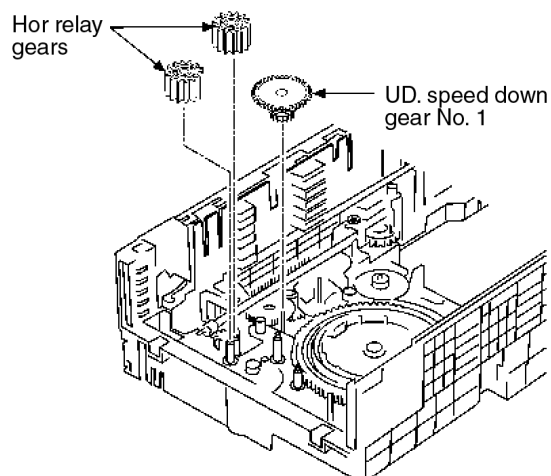
**(Step 5)**  
Remove the UD. belt and tray relay gear.

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

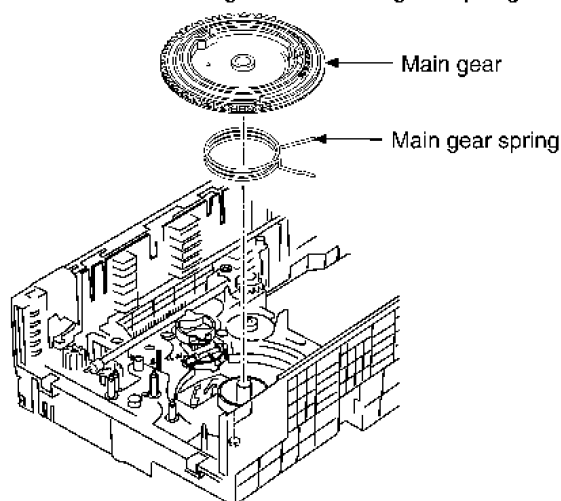


**(Step 7)**

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

**(Step 8)**

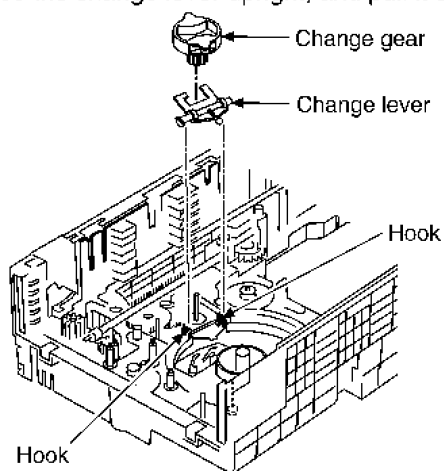
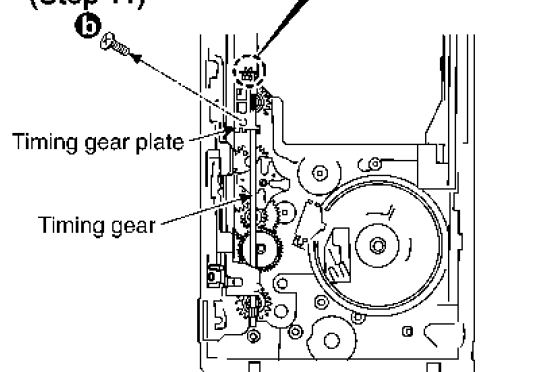
Remove the main gear and main gear spring.

**(Step 9)**

Remove the change gear.

**(Step 10)**

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

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

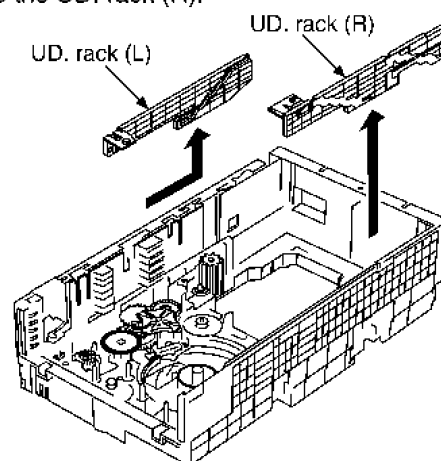
Release the 2 claws, and then remove the timing gear and timing gear plate.

**(Step 13)**

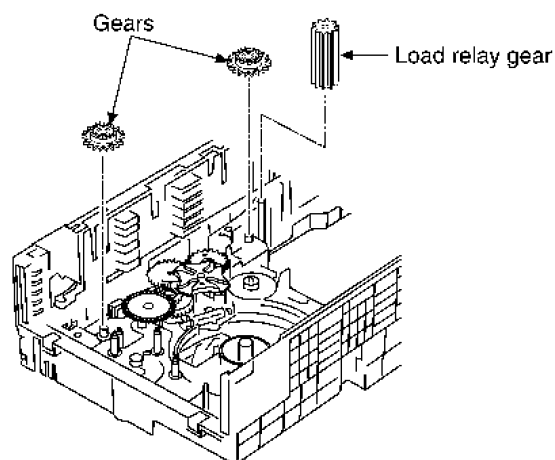
Move the UD. rack (L) to backward, and then remove it.

**(Step 14)**

Remove the UD. rack (R).

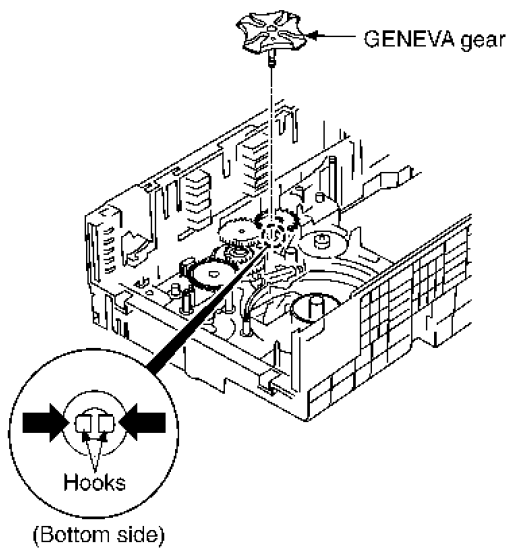
**(Step 15)**

Remove the 2 gears and load relay gear.

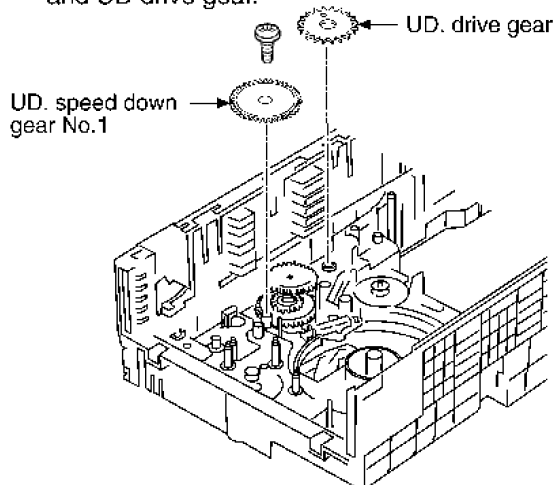


**(Step 16)**

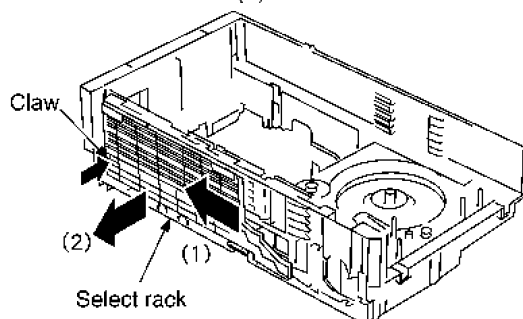
Pull out the GENEVA gear, loosen 2 hooks of the bottom of mechanism base.

**(Step 17)**

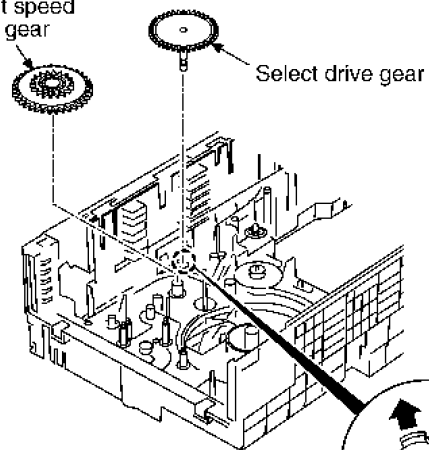
Remove the UD. speed down gear No.1 and UD drive gear.

**(Step 18)**

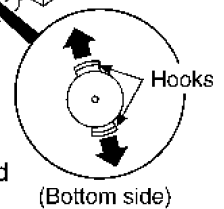
Slide the select rack to the edge direction of the arrow (1). Push the claw and pull out to arrow (2) while sliding the select rack to the arrow (1).



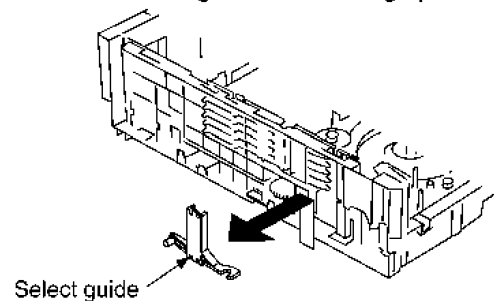
Select speed down gear

**(Step 19)**

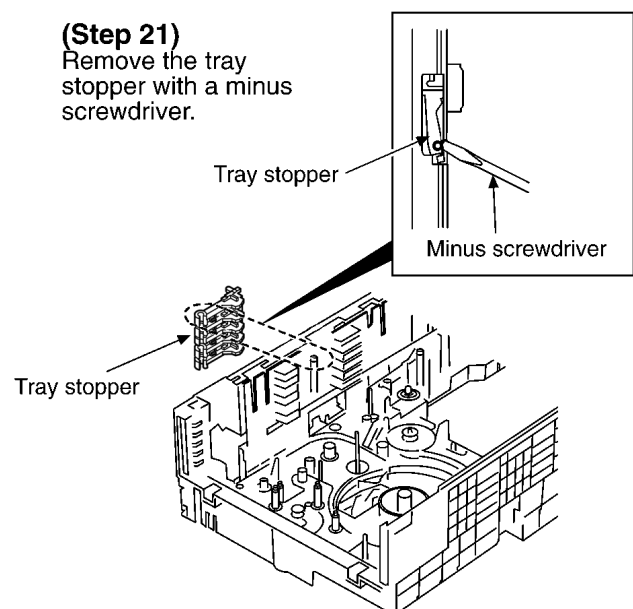
Pull out the select drive gear, loosen 2 hooks of the bottom of mechanism base. Then, remove the select speed down gear.

**(Step 20)**

Remove the select guide after sliding upside.

**(Step 21)**

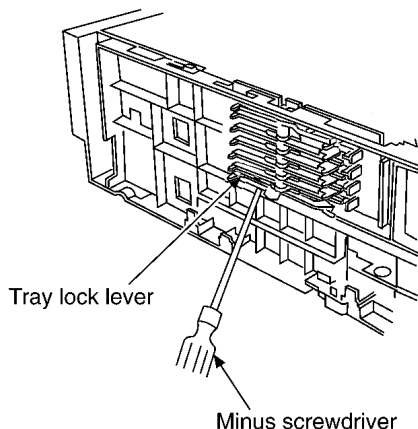
Remove the tray stopper with a minus screwdriver.



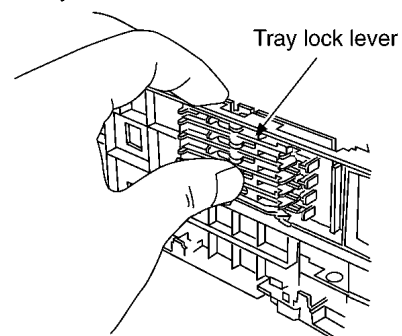


**(Step 22)**

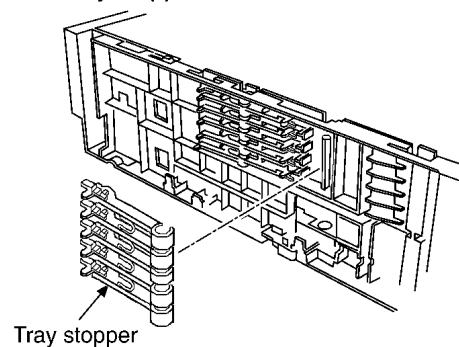
Remove the bottom of the tray lock lever with a minus screwdriver and others.

**(Step 2)**

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

**(Step 3)**

Install the tray stopper to mechanism base.



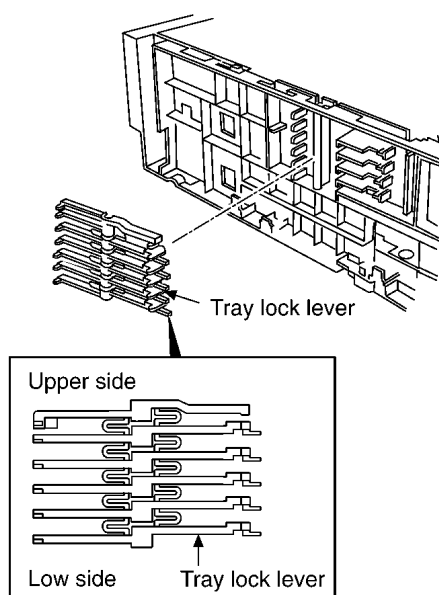
## 15.18. CR16 mechanism assembly procedure

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

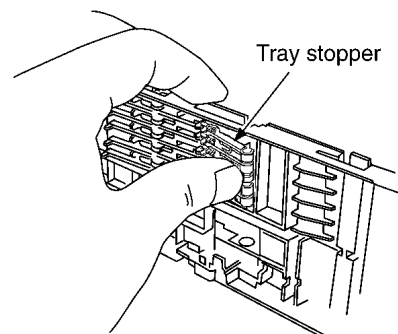
1. Floil grease (VFK1298) : The floil grease must be applied to tray, tray (L) and tray (R).
2. Hanarl oil (VFK1700) : The hanarl oil must be applied to any parts with grease other than the said parts.

**(Step 1)**

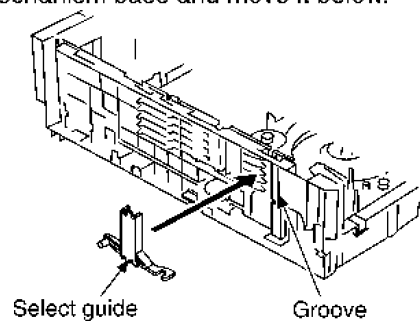
Install the tray lock lever to mechanism base.

**(Step 4)**

Push the tray stopper with a hand and install it.

**(Step 5)**

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



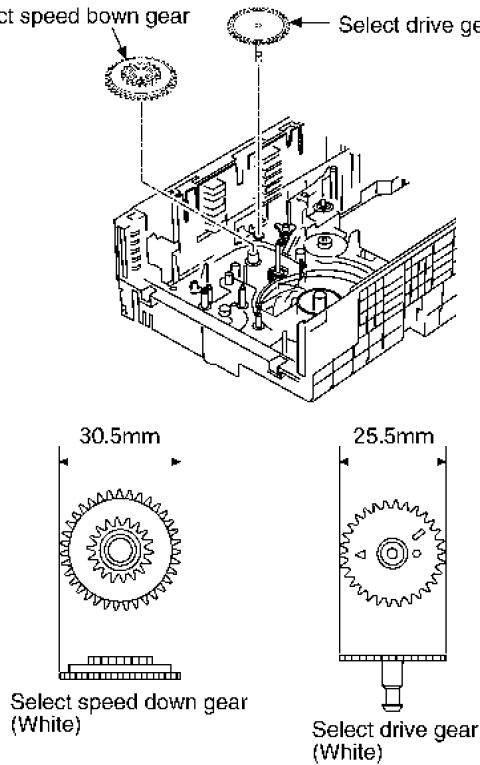
**(Step 6)**

Install the select speed down gear to mechanism base.

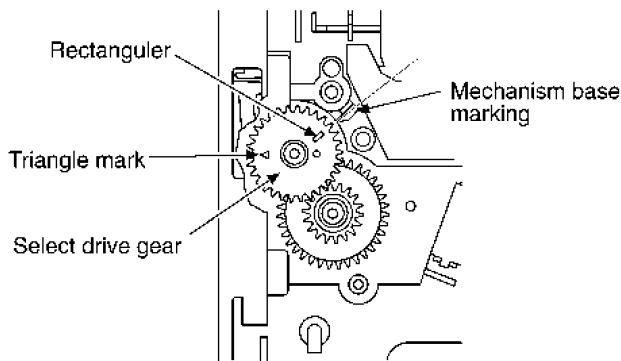
**(Step 7)**

Install the select drive gear to mechanism base.

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.

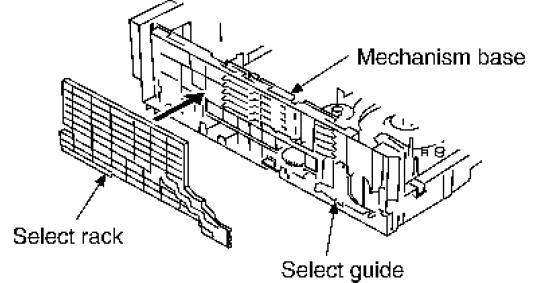
**(Step 9)**

Install the select rack to mechanism base.

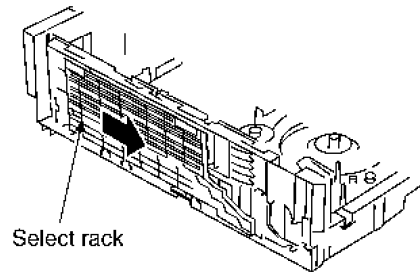
(Checking items before the installation.)

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)

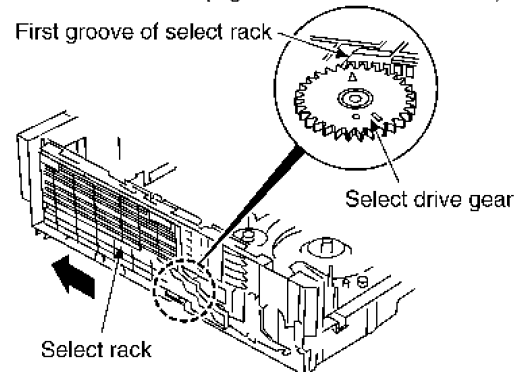
1. Put a select rack down with it fitted to its circumference of mechanism base.



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

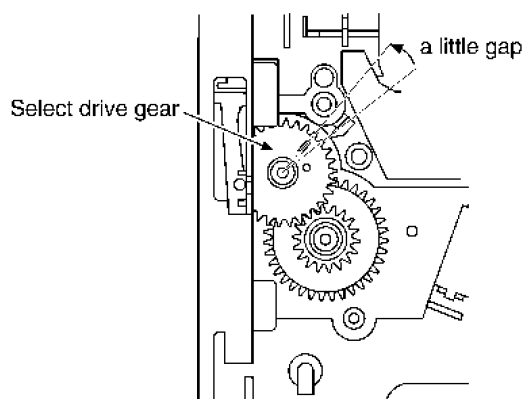


(Figure to see from the inside)



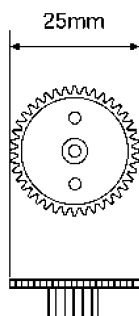
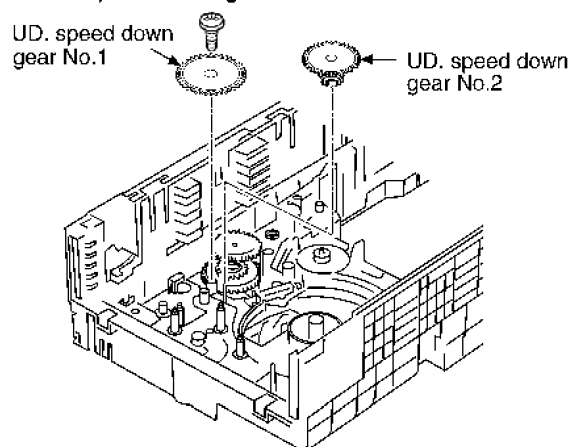
3. Check whether its end of triangular mark is in first groove of select rack, after fixing.
4. After insertion of select rack, continue the following work until the indication that it gese forward. And, all the while it must be checked that select rack is in the extreme end.

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

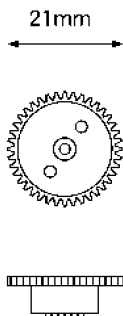


### (Step 10)

Install the UD. speed down gear No.1 and UD. speed down gear No.2.



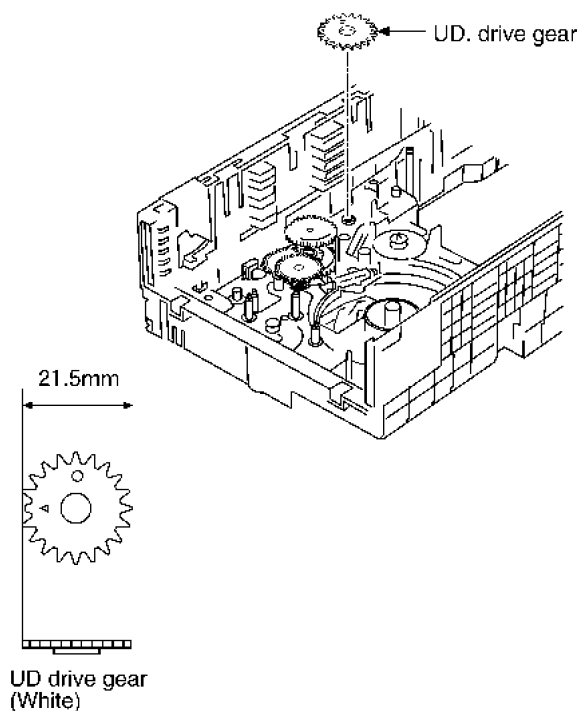
UD. speed down gear No.1  
(White)



UD. speed down gear No.2  
(Semi-transparent)

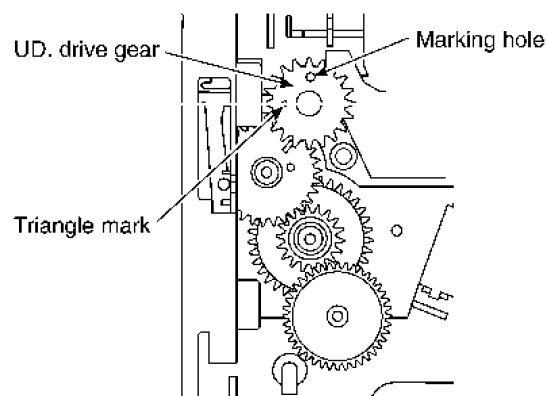
### (Step 11)

Install the UD. drive gear to mechanism base.



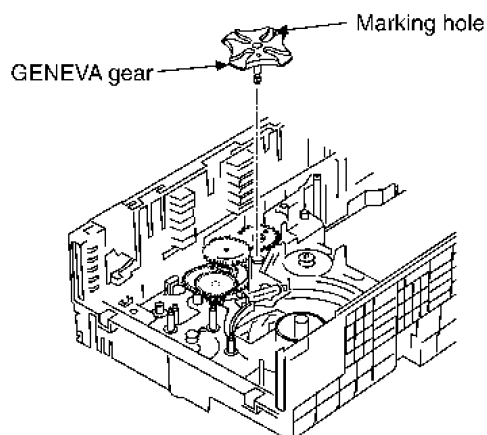
### (Step 12)

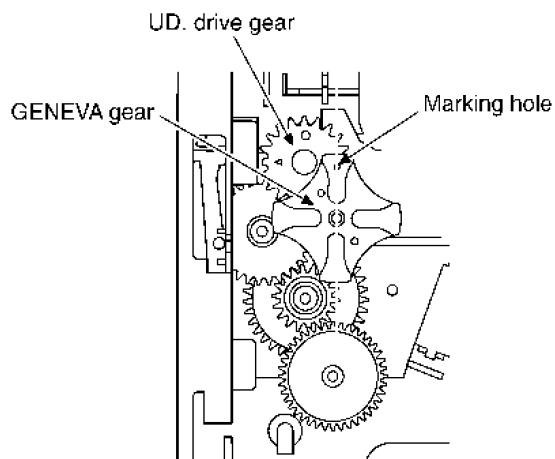
Insert the UD. drive gear with its marking hole upward. At that time, its triangle mark should be sideways.



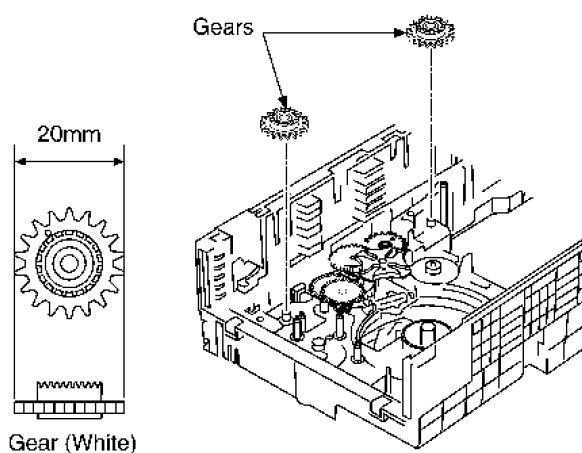
### (Step 13)

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.

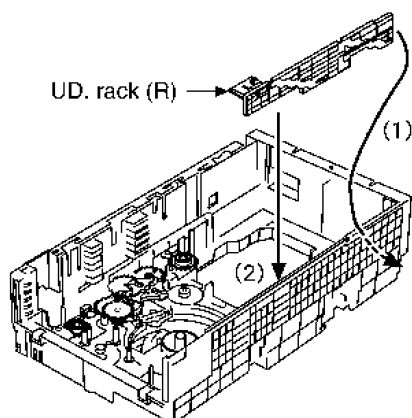




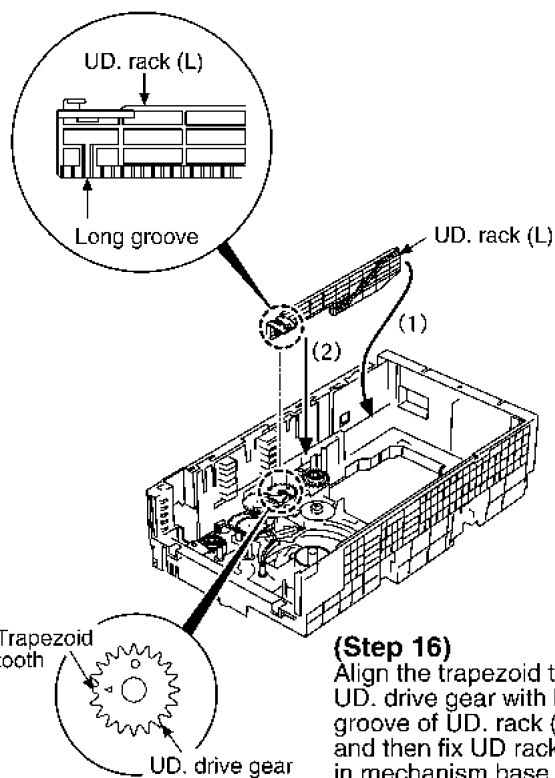
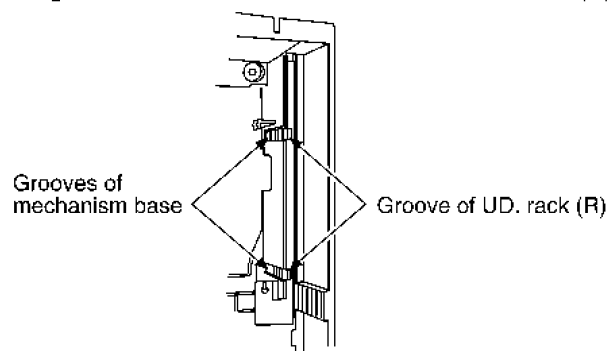
**(Step 14)**  
Install the 2 gears to mechanism base.



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

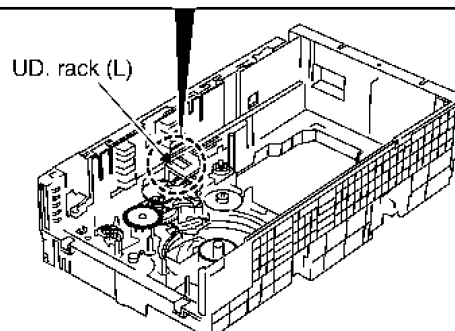
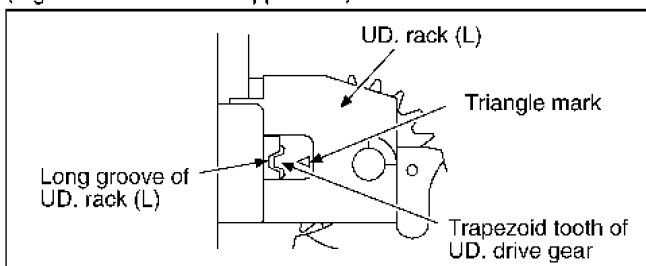


**NOTE:**  
Put a groove of the mechanism base to the UD. rack (R).



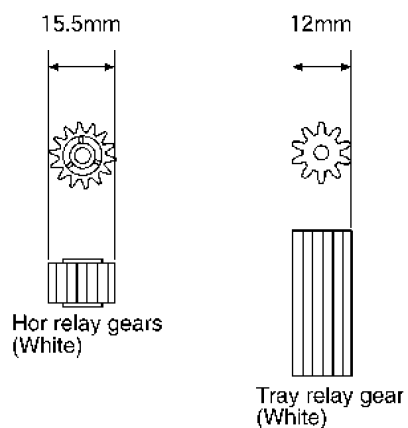
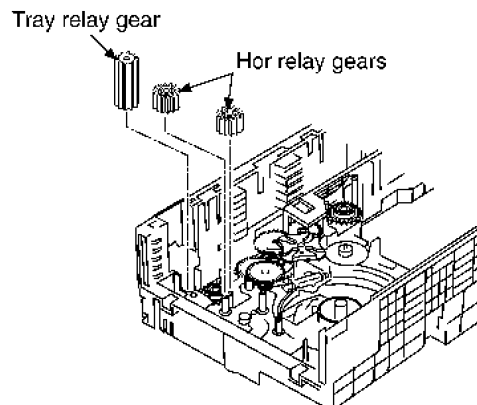
**(Step 16)**  
Align the trapezoid tooth of UD. drive gear with long groove of UD. rack (L), and then fix UD rack (L) in mechanism base.

(Figure to see from the upper side)

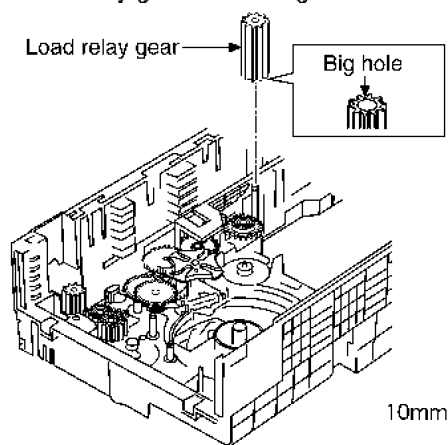


**(Step 17)**

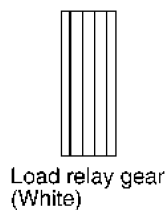
Install the tray relay gear and 2 hor relay gears.

**(Step 18)**

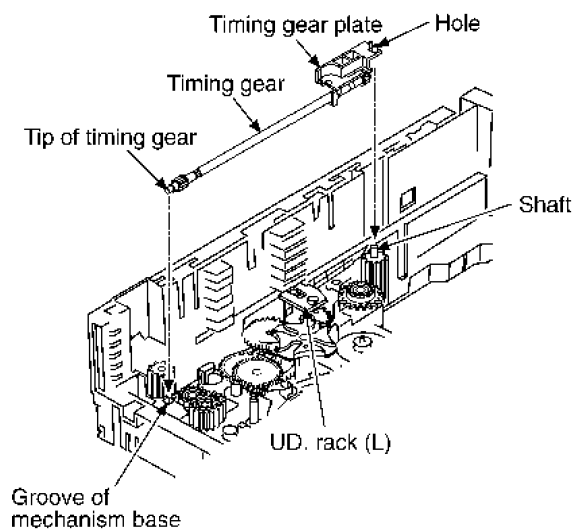
Install the load relay gear to mechanism base.  
(Fit load relay gear with its big hole downward.)



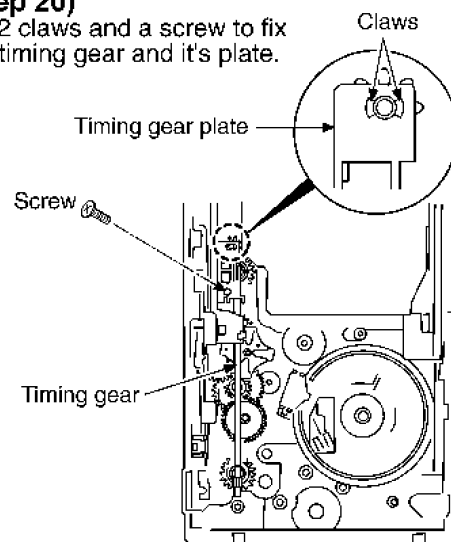
10mm

**(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).

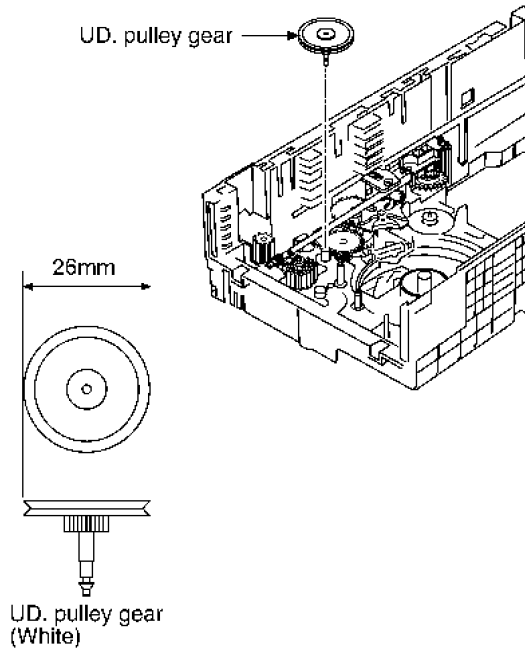
**(Step 20)**

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

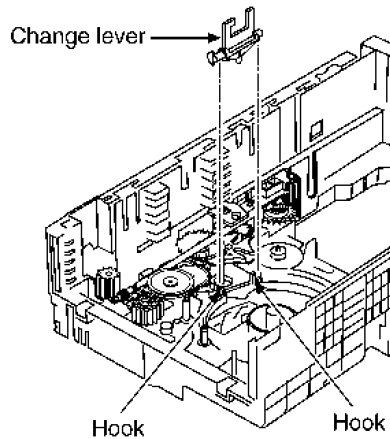


**(Step 21)**

Install the UD. pulley gear to mechanism base.

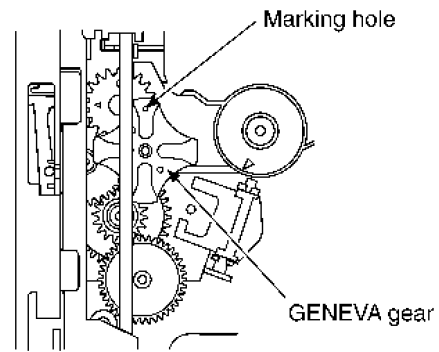
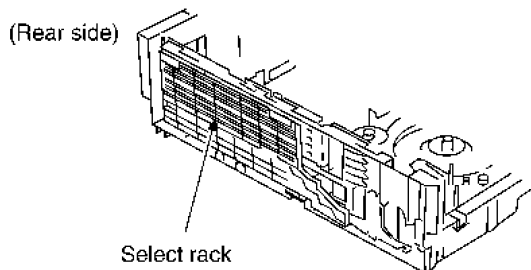
**(Step 22)**

Insert the change lever with it upright.

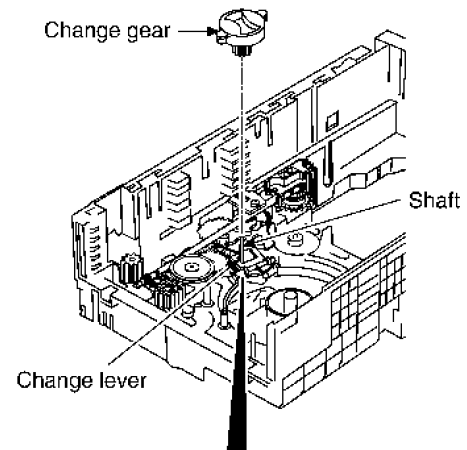
**(Step 23)**

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

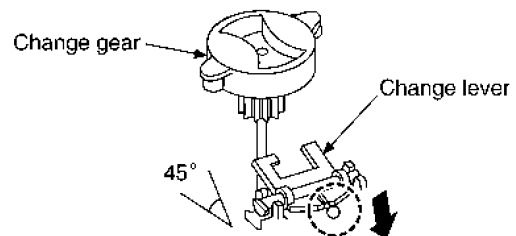
1. Select track should be in the rear of mechanism base.
2. Its hole of GENEVA gear should turn up.

**(Step 24)**

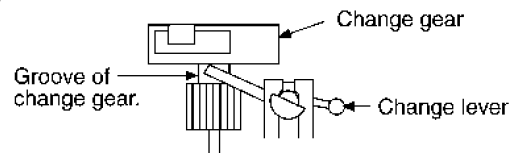
Install the change gear as insert the change lever into the groove of change gear.



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



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



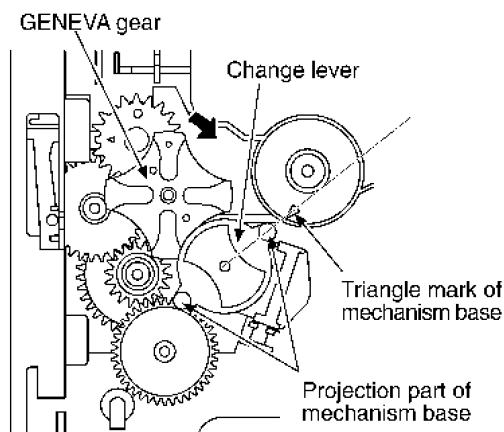
**(Step 25)**

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

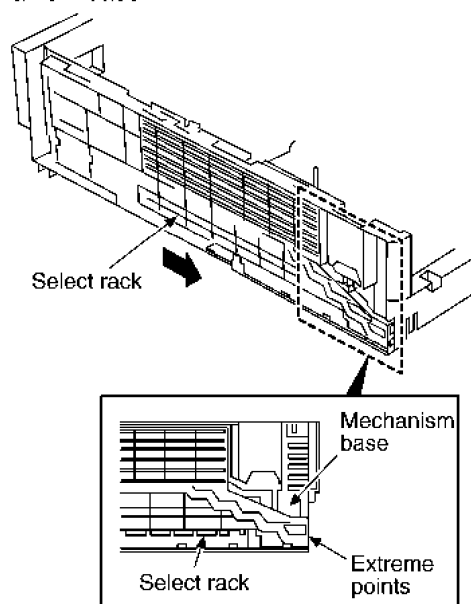
At that time, check change gear is inserted into the groove of change lever.

**(Step 26)**

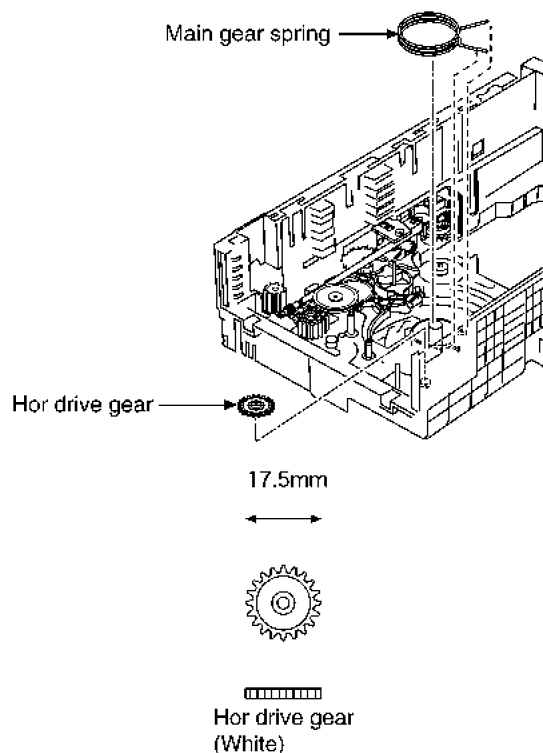
Lastly, turn GENEVA gear clockwise slightly and drop change gear to mechanism base.

**(Step 27)**

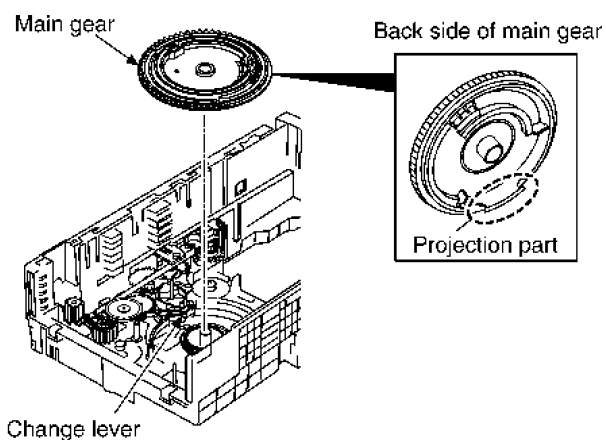
Move the select rack smoothly forward manually until 2 extreme points of both select track and mechanism base.

**(Step 28)**

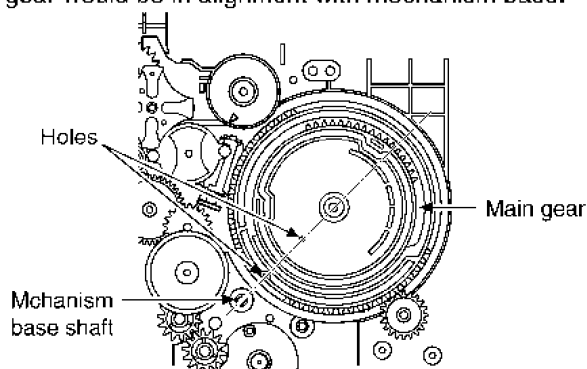
Install the main gear spring and hor drive gear.

**(Step 29)**

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

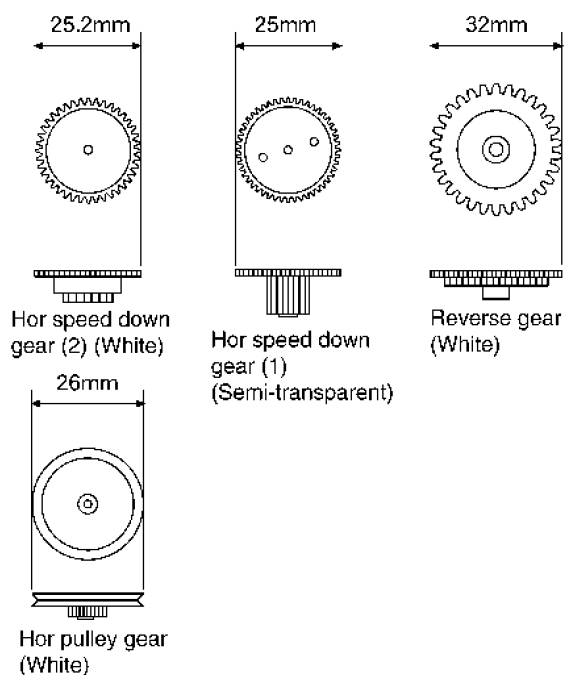
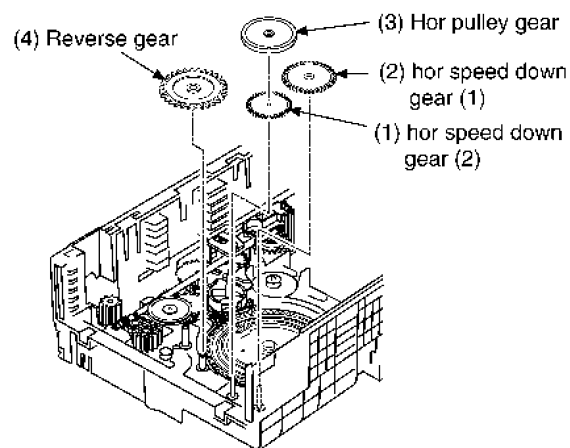
**(Step 30)**

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



**(Step 31)**

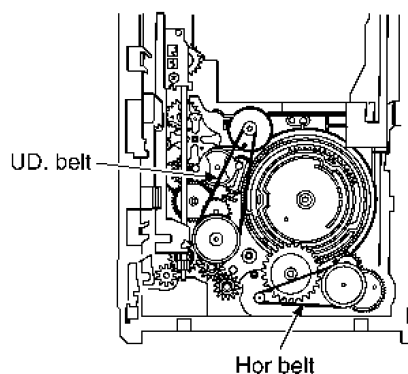
Install the hor speed down gear (2), hor speed down gear (1), hor pulley gear and reverse gear.

**(Step 32)**

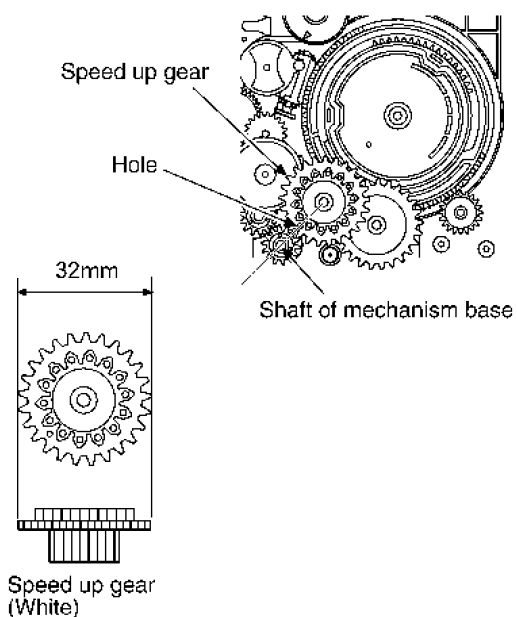
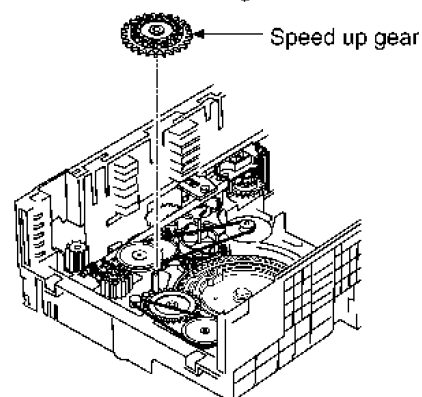
Install the UD. belt and hor belt.

**NOTE:**

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

**(Step 33)**

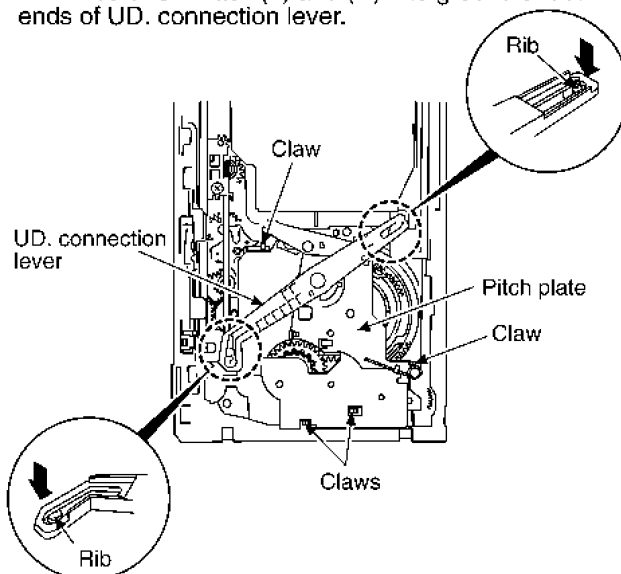
Install speed up gear to its shaft of mechanism base with 2 fitting.

**(Step 34)**

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

**(Step 35)**

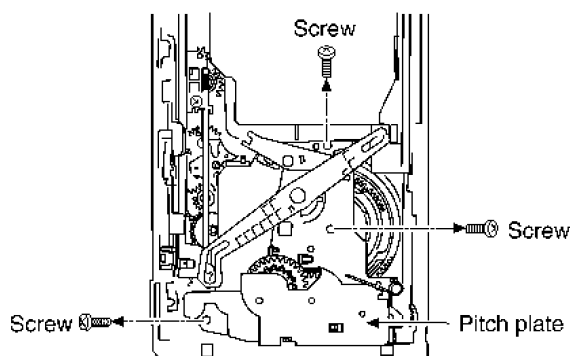
Fix 2 ribs of UD. rack (L) and (R) into groove of both ends of UD. connection lever.





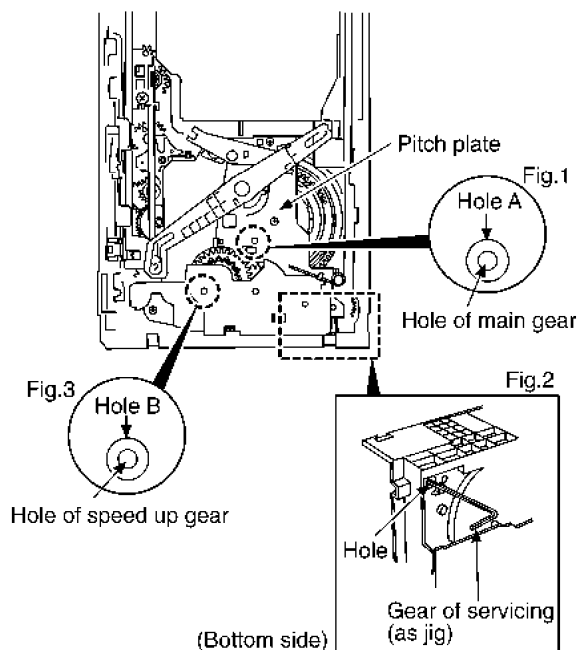
**(Step 36)**

Fixed it by three screws further.

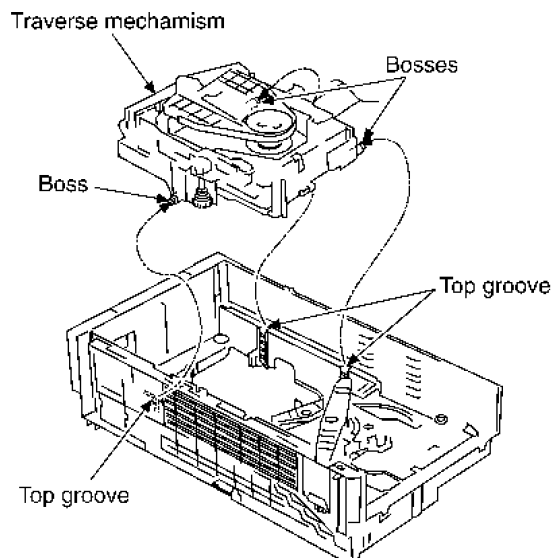
**(Step 37)**

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

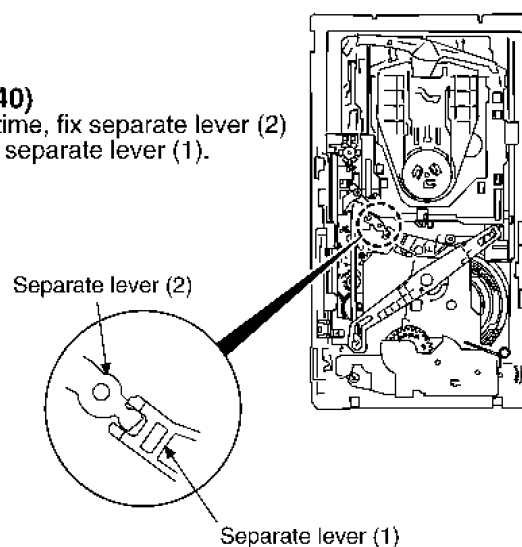
1. Check that 2 holes of both pitch plate and main gear is fitted. (Refer to Fig.1)  
If it's not fitted, put the gear for servicing in the hole of the bottom side and adjust it. (Refer to Fig.2)
2. Check that 2 holes of both pitch plate and speed up gear is fitted. (Refer Fig.3)  
If it's not fitted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

**(Step 39)**

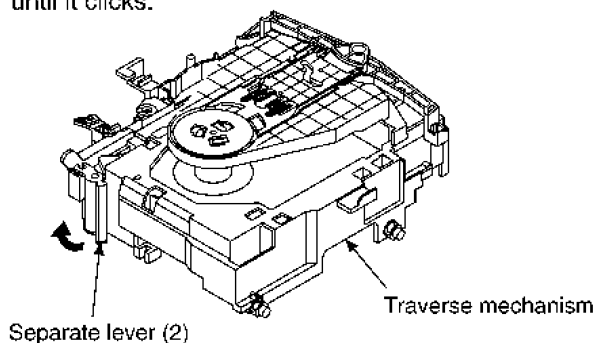
Fix the left boss into the top groove of the UD. rack (L) and fix 2 bosses into the groove of the UD. rack (R).

**(Step 40)**

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

**(Step 38)**

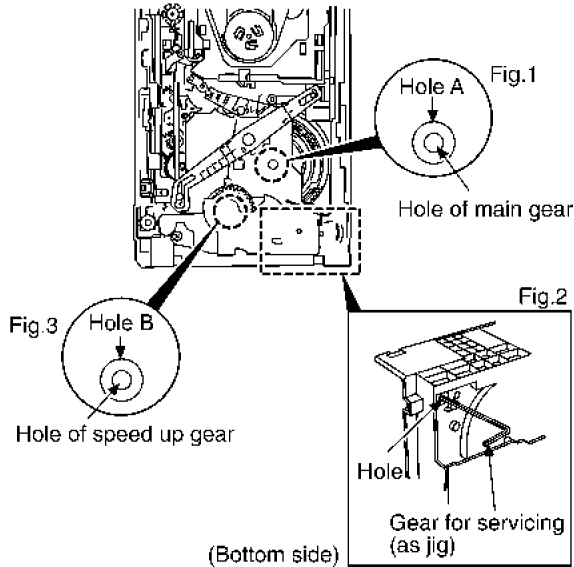
Turn the separate lever (2) slowly toward left side until it clicks.



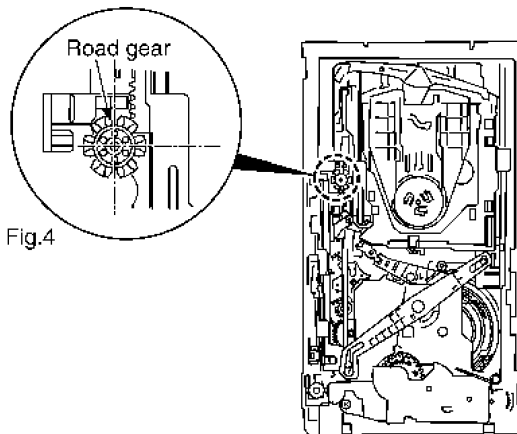
**(Step 41)**

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

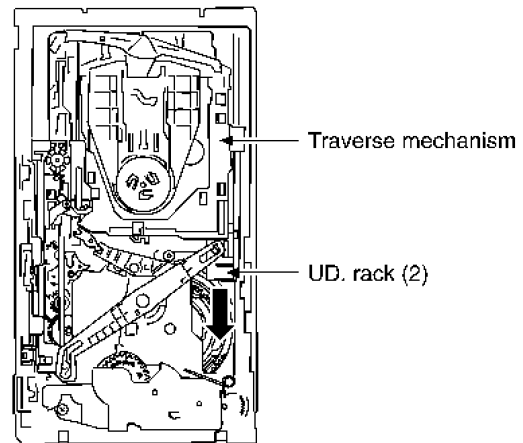
1. Check that 2 holes of both pitch plate and main gear is fitted. (Refer to Fig.1)  
If it's not fitted, put the gear for servicing in the hole of the bottom side and adjust it. (Refer to Fig.2)
2. Check that 2 holes of both pitch plate and speed up gear is fitted. (Refer Fig.3)  
If it's not fitted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

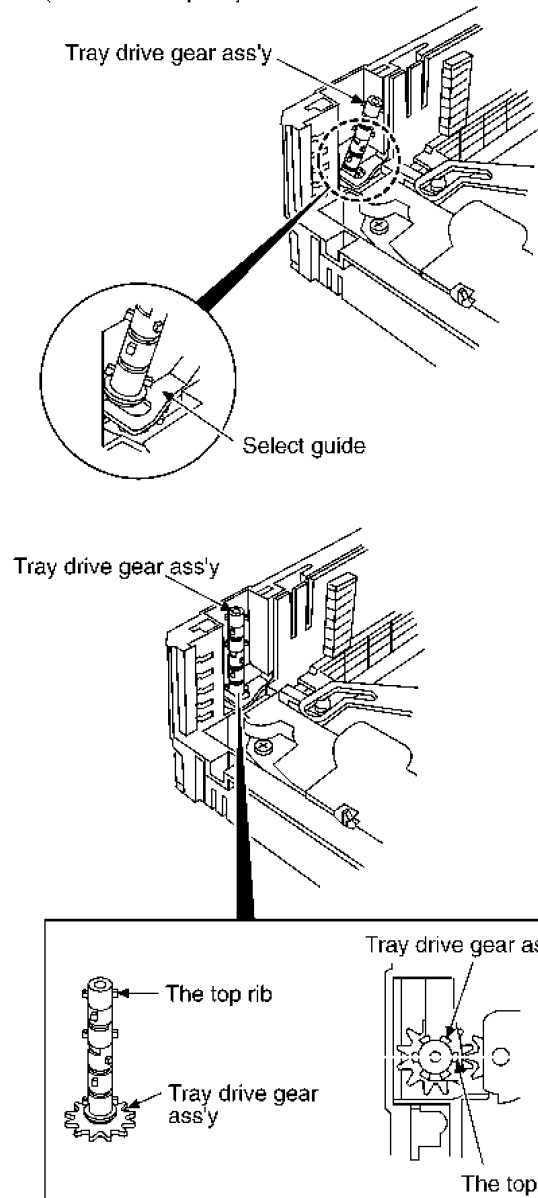
After insertion of traverse mechanism, pull the UD. rack (R) on this side that each phase is "OK" and then lock the traverse mechanism.

**(Step 43)**

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

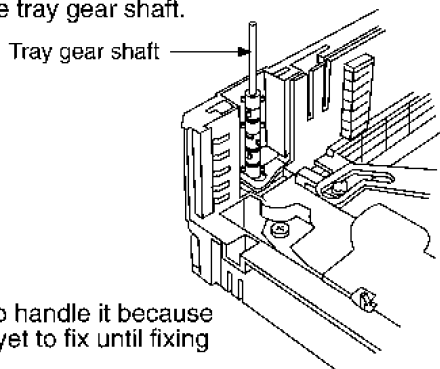
**NOTE:**

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



**(Step 44)**

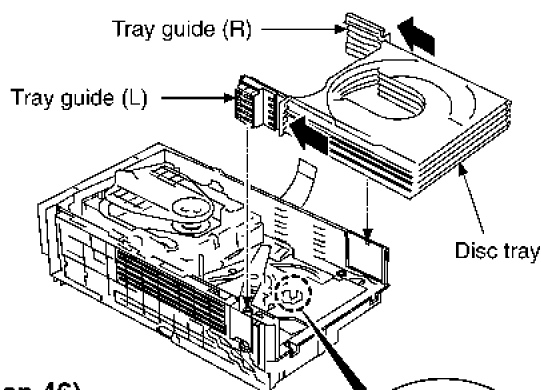
Insert the tray gear shaft.

**NOTE:**

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

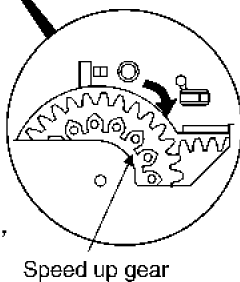
**(Step 45)**

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

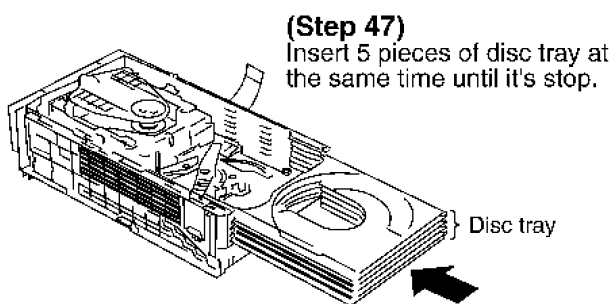
**(Step 46)**

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)**

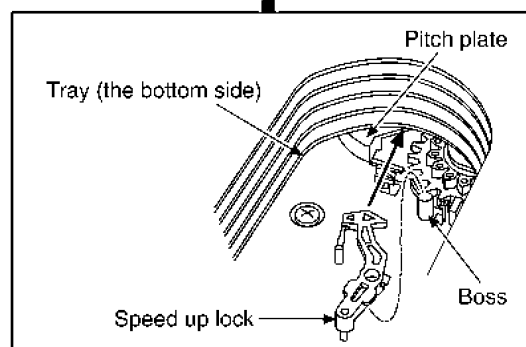
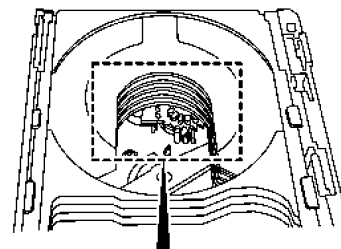
Turn the traverse side 180°.

**(Step 49)**

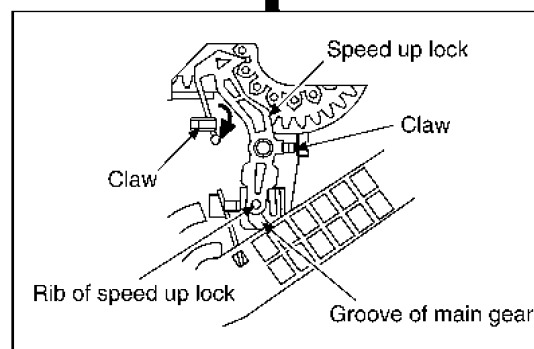
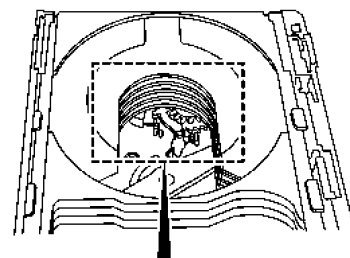
While install the tip of speed up lock between tray (No.1) of the most lower side and pitch plate for the time being. (Do not to insert the cog of speed up gear), insert it to boss.

**NOTE:**

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

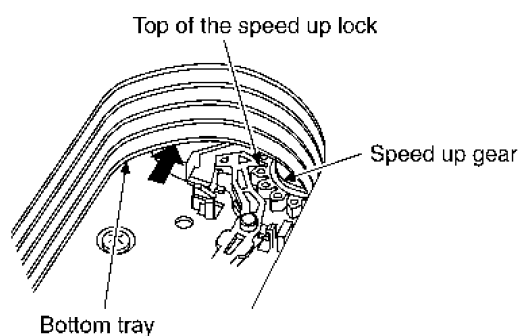
**(Step 50)**

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



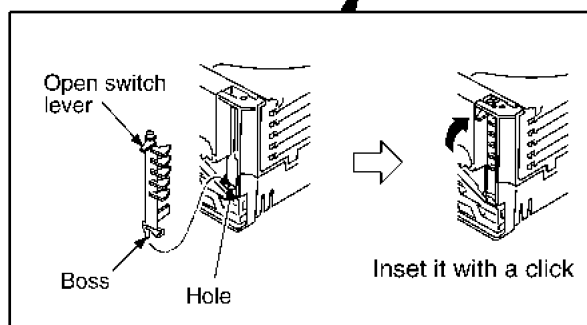
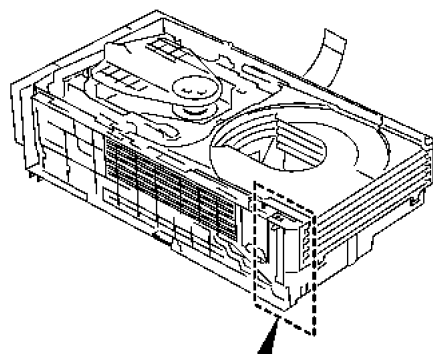
**(Step 51)**

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.)

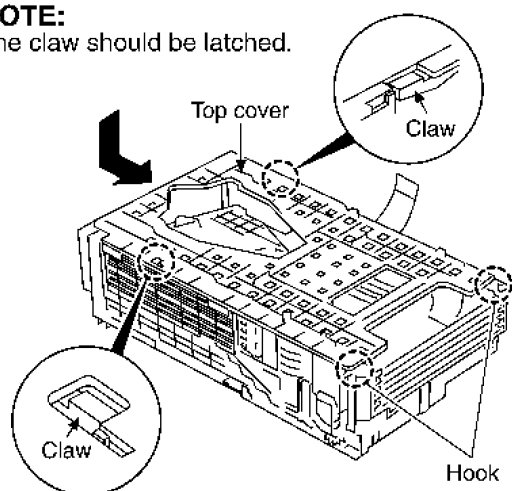
**(Step 53)**

Install the top cover.

Fix it into hooks and slide direction to the arrow.

**NOTE:**

The claw should be latched.



## 15.19. Disassembly for Traverse Unit

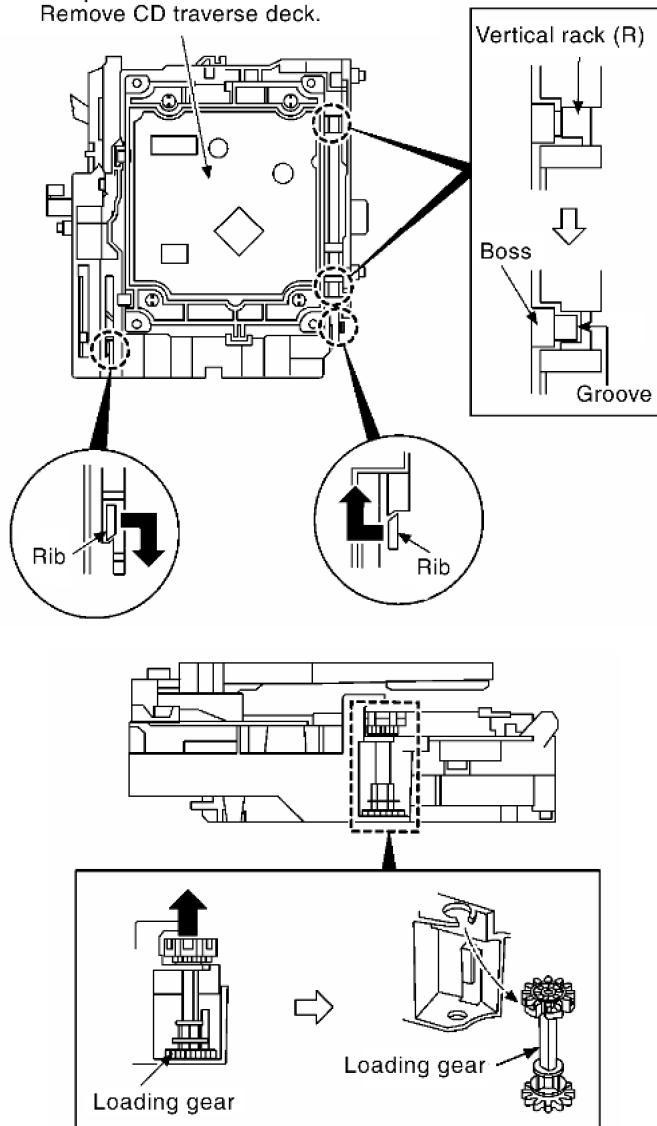
- Follow the (Step 1) - (Step 10) of item 15.17.2
- Follow the (Step 1) - (Step 4) of item 15.17.3

### Step 1

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

### Step 2

Remove CD traverse deck.



### Step 3

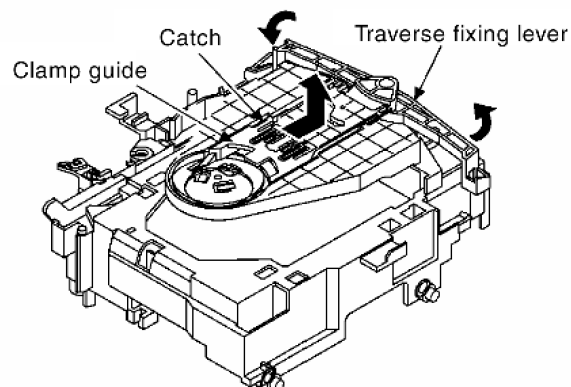
Lift a loading gear slightly and pull out.

### Step 4

Fixing lever to the arrow direction, rotate a traverse.

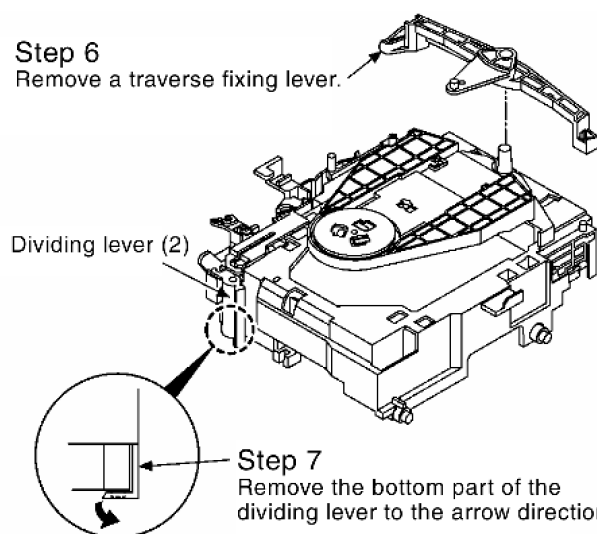
### Step 5

Remove catch and take out a clamp guide.



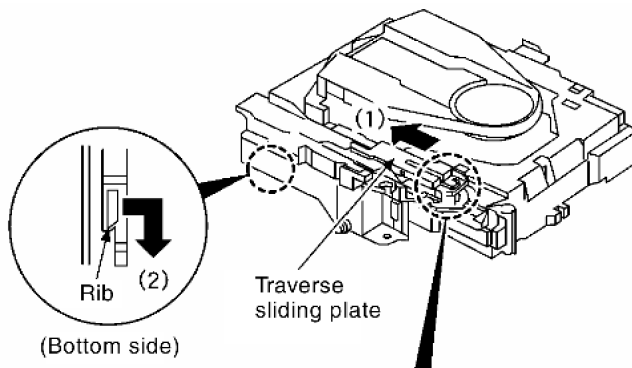
### Step 6

Remove a traverse fixing lever.

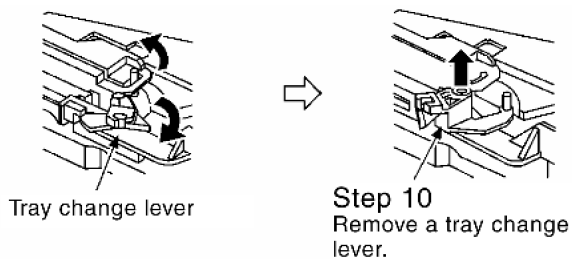


**Step 8**

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

**Step 9**

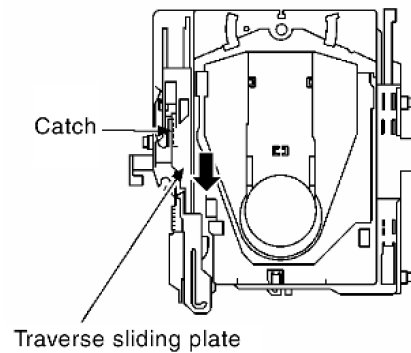
Shifting a traverse sliding plate slightly and rotate a tray change lever.

**Step 10**

Remove a tray change lever.

**Step 11**

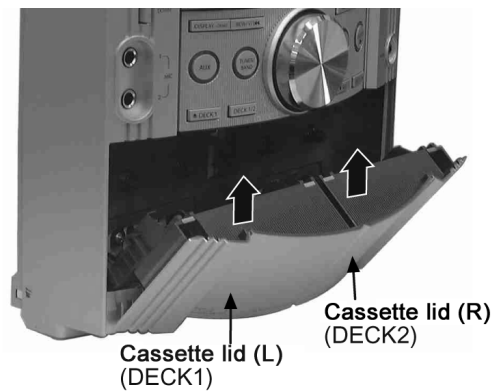
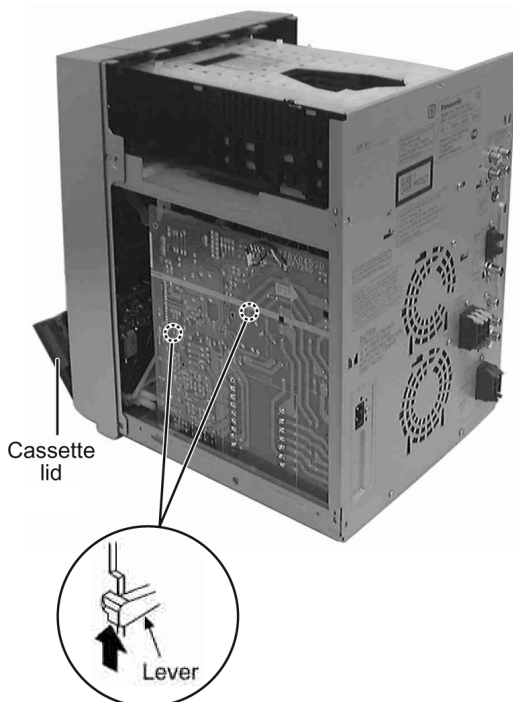
Holding the catch down, slide a traverse sliding plate to the arrow direction and remove it.



## 15.20. Replacement for cassette lid

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

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

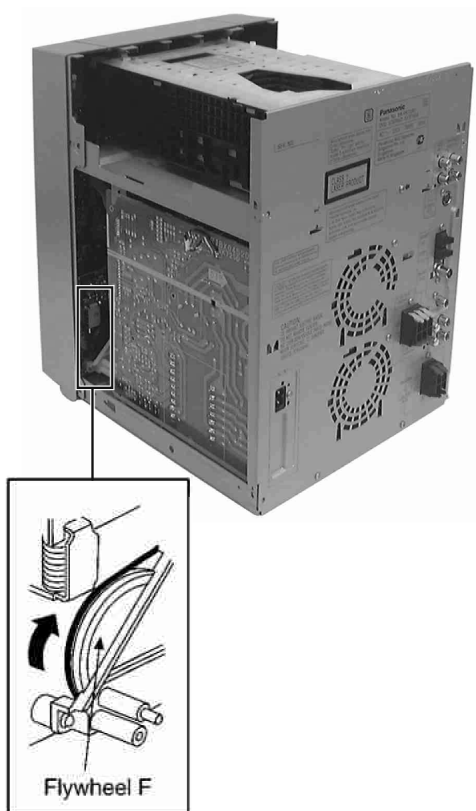


**Step 2** Push up the cassette lid (L/R) in the direction of arrow. (For DECK1 and DECK2).

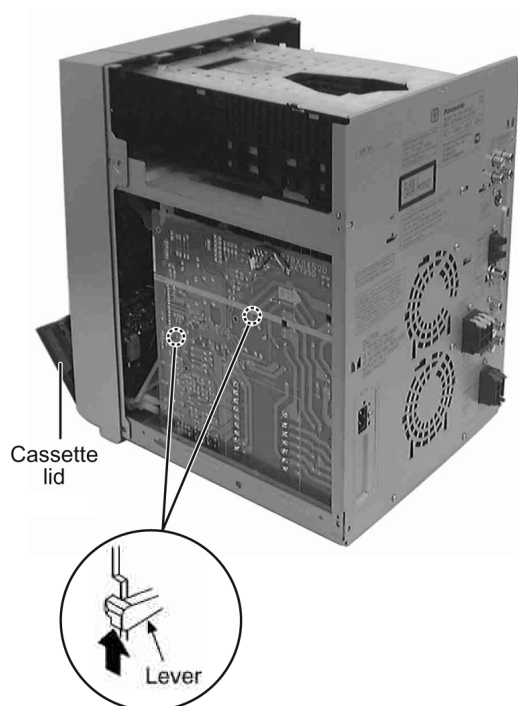
## 15.21. Rectification for tape jam problem

- 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. Remove the cassette tape.



## 16 Checking for major P.C.Bs

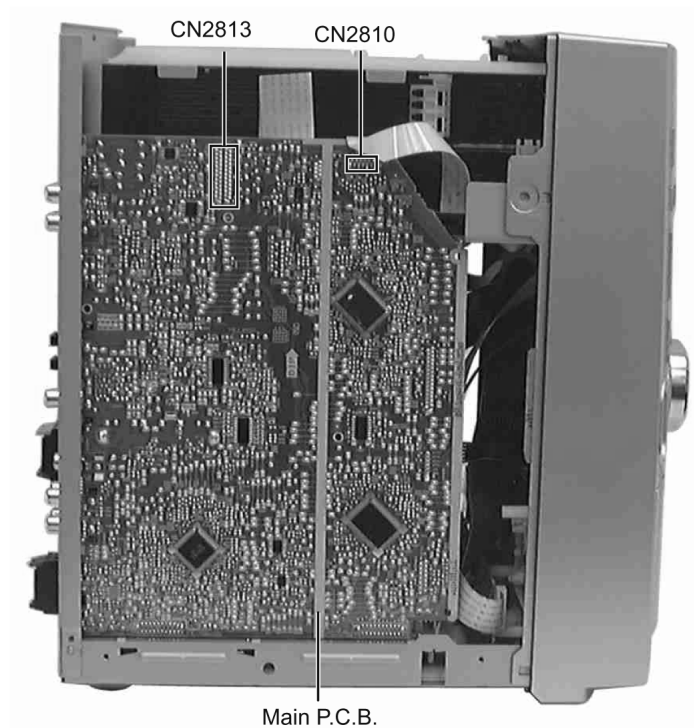
### Note:

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

For the disassembling procedures, refer to Section 15.

### 16.1. Checking of Main P.C.B.

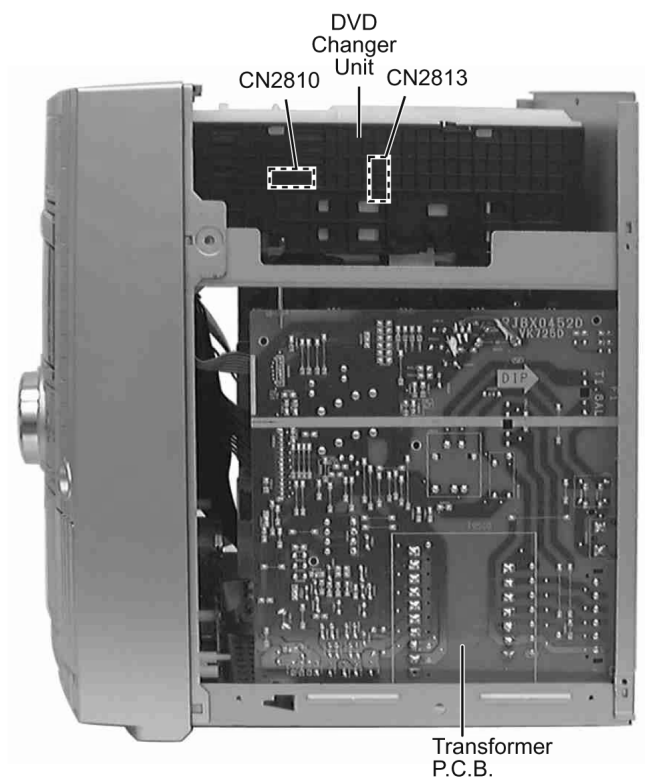
1. Remove Top Cabinet.
2. Disassemble DVD Changer Unit.
3. Connect FFC cables (CN2810 & CN2813) from Main P.C.B.





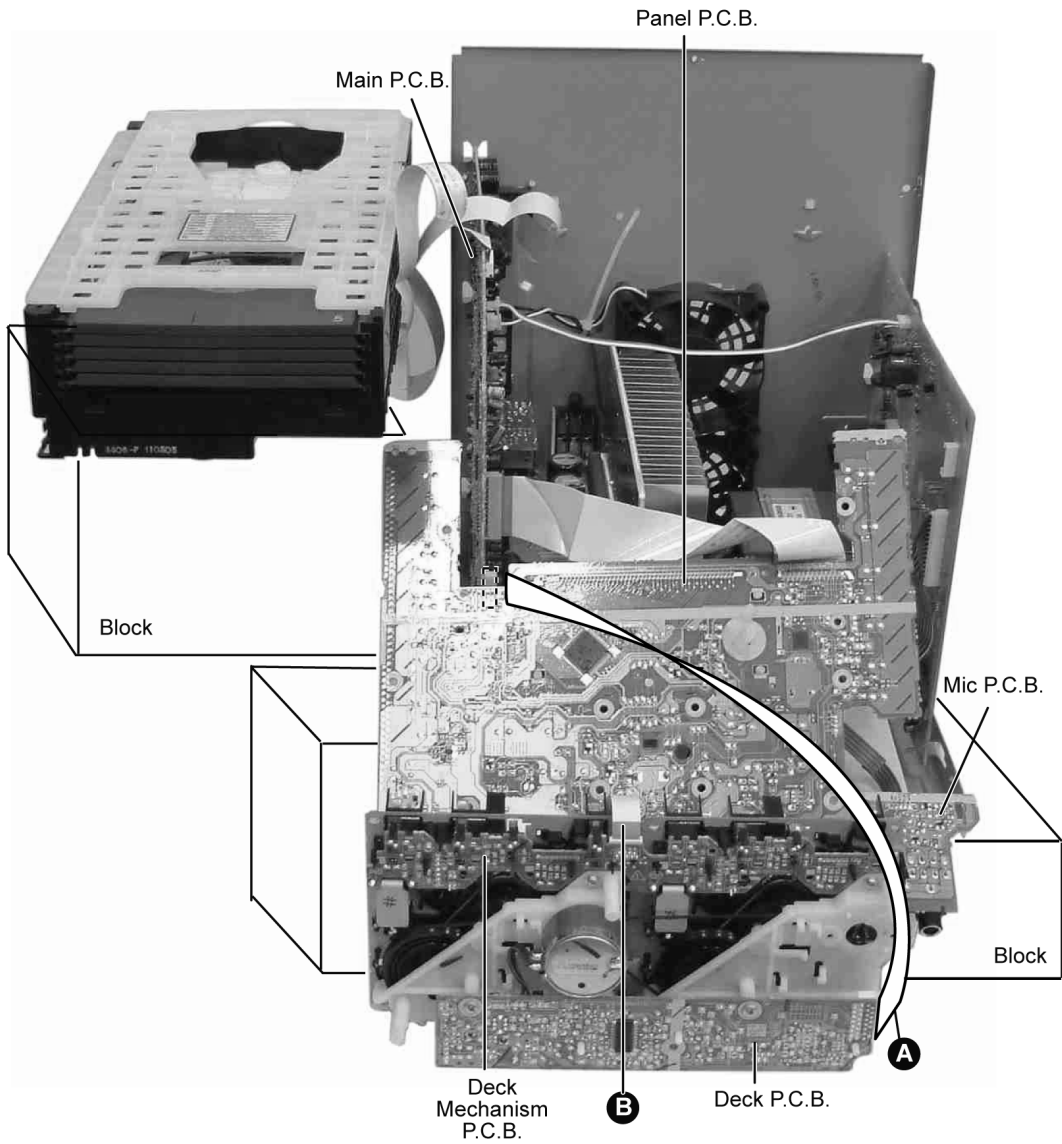
## 16.2. Checking of Transformer P.C.B.

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



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

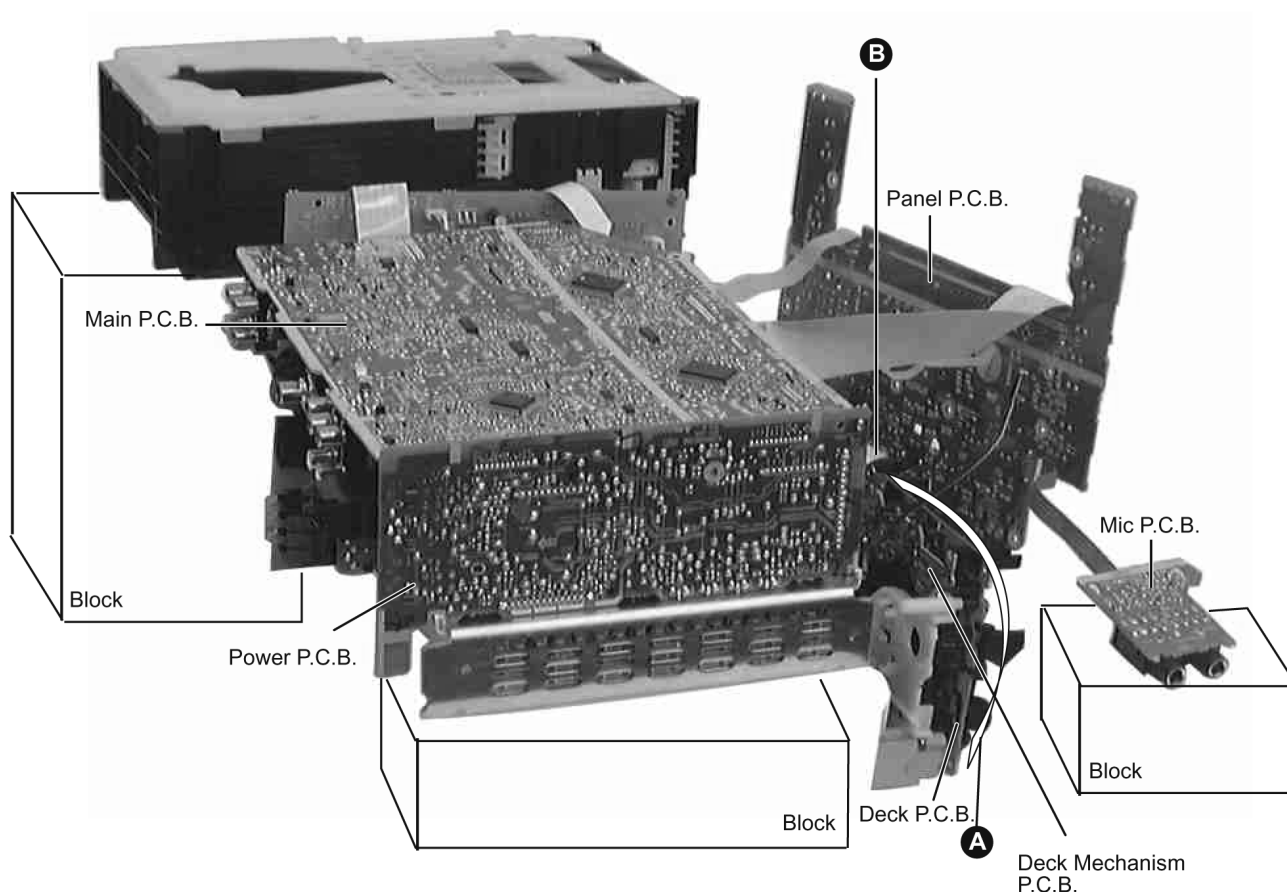
- 1. Remove Top Cabinet.
- 2. Disassemble DVD Changer Unit.
- 3. Disassemble Front Panel Unit.
- 4. Remove volume knob and Mic Jack Holder.
- 5. Disassemble Panel P.C.B.
- 6. Disassemble Deck Mechanism Unit.
- 7. Use the extension cable (A) to reconnect (CN1001) Deck P.C.B. and (CP6803) Main P.C.B.
-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



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

## 16.4. Checking of Power P.C.B.

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



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

# 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.

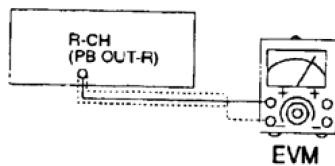


Fig. 1

-  Screw
-  Spring

Fig. 2

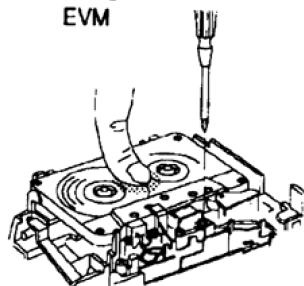


Fig. 3

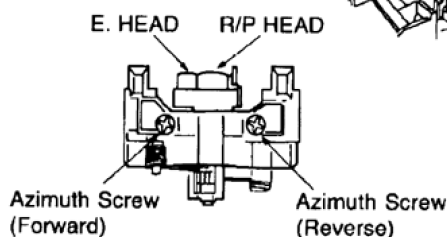


Fig. 4

### 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  $\pm 60$  Hz of the value of the output frequency of DECK 2 FWD.

#### UNIT

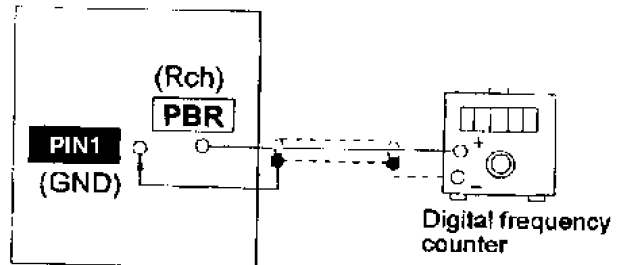


Fig. 1

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

Bias voltage for Deck 2

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

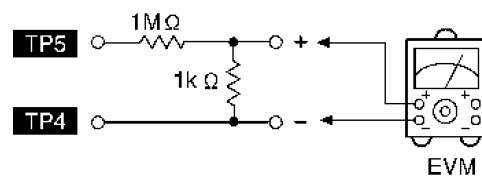


Fig. 2

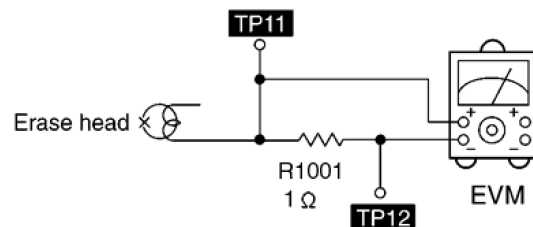


Fig. 3

### 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

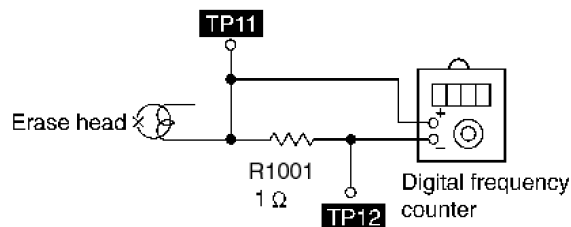


Fig. 4

## 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.

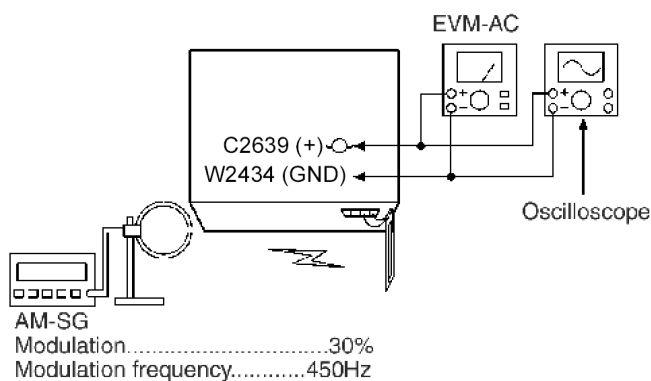


Fig. 5

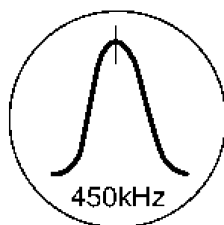


Fig. 6

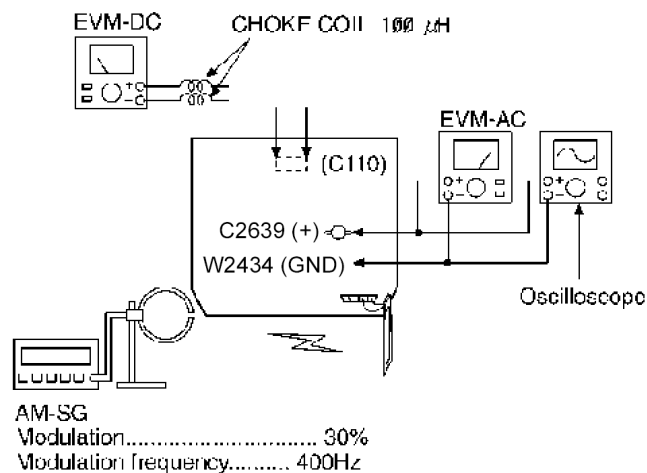


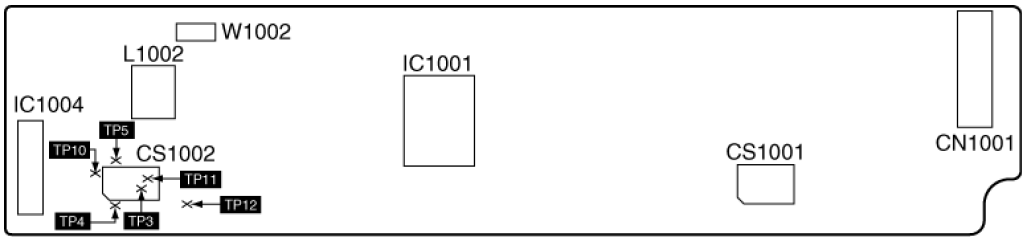
Fig. 7

### 17.2.2. AM RF Adjustment

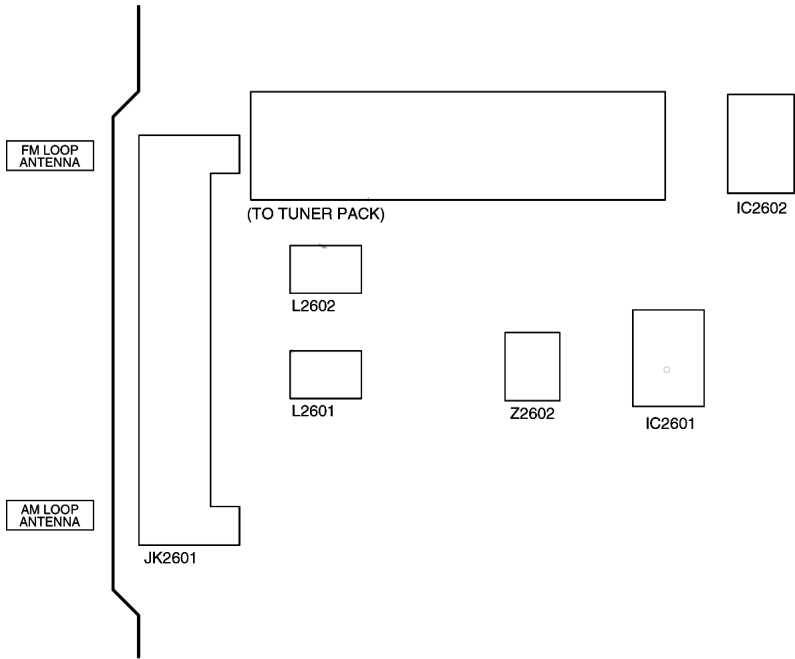
1. Connect the instrument as shown in Fig. 7.
2. Set the unit to AM mode.
3. Set AM-SG to 520kHz.
4. Receive 520kHz in the unit.
5. Adjust L2601 (OSC) so that the EVM-AC is maximized.
6. Set AM-SG to 600Hz.
7. Receive 600Hz in the unit.
8. Adjust L2601 (ANT) so that the EVM-SG is maximized.
9. Set AM-SG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

17.3. Alignment Points

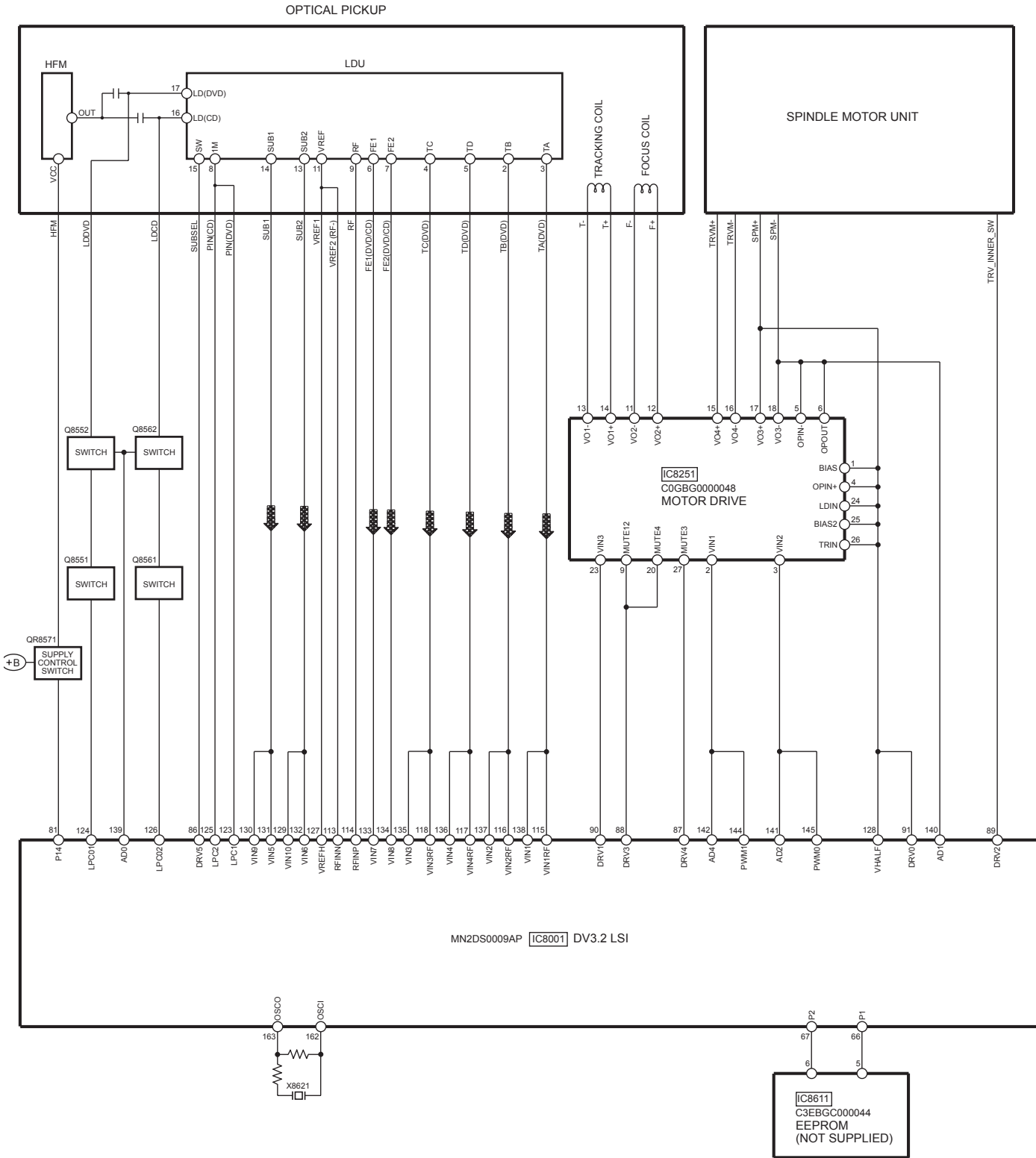
17.3.1. Cassette Deck Section

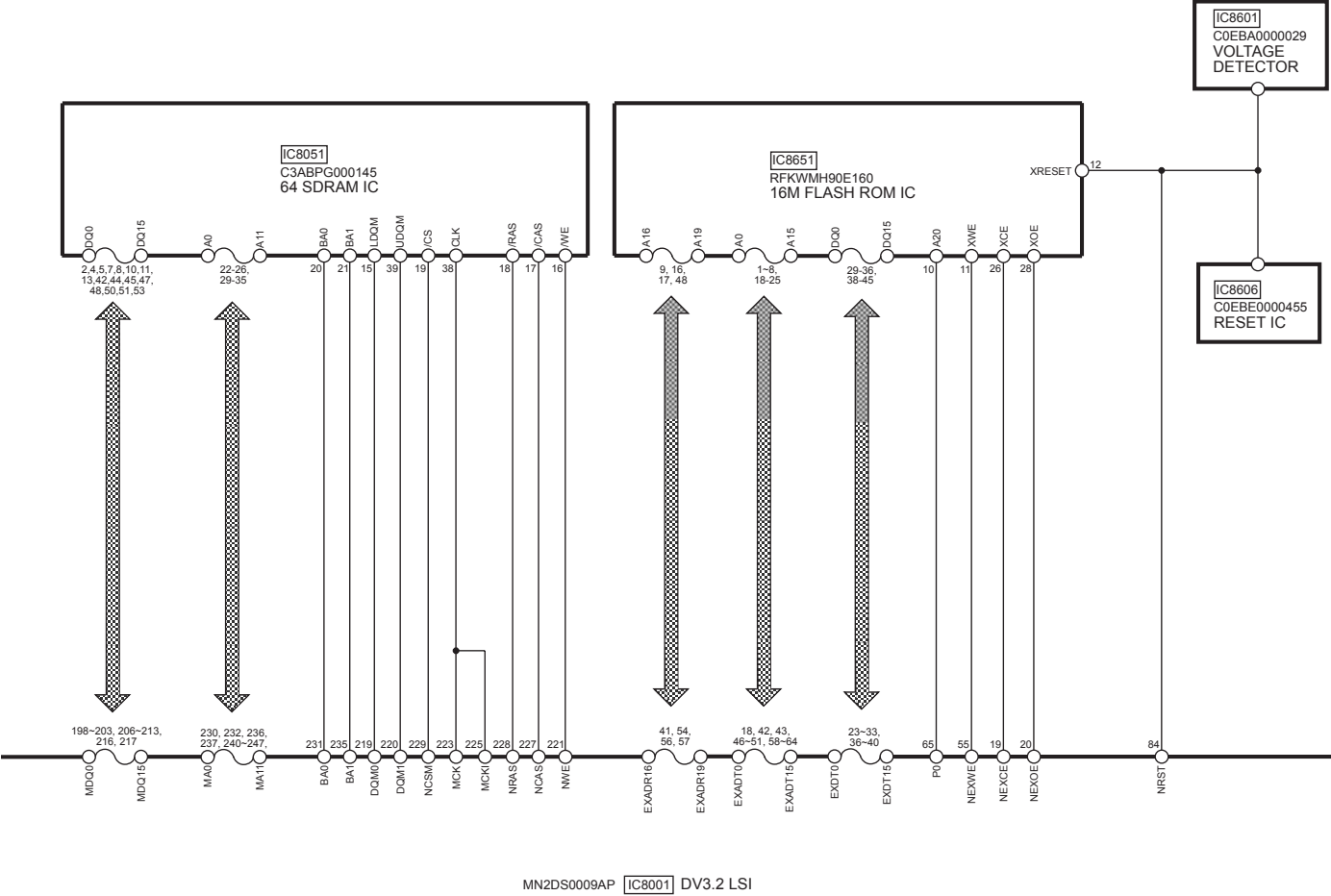


17.3.2. Adjustment Point

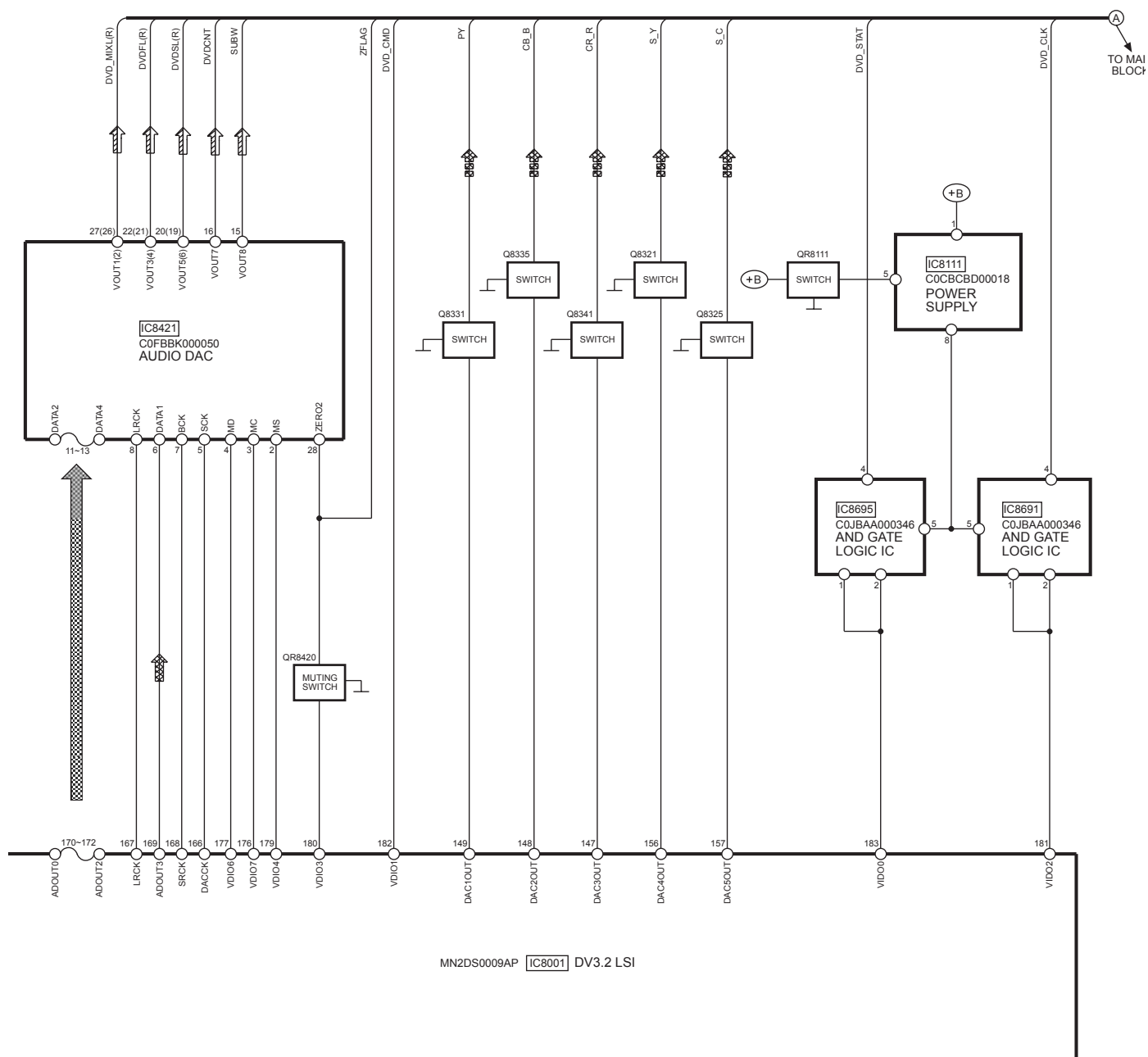


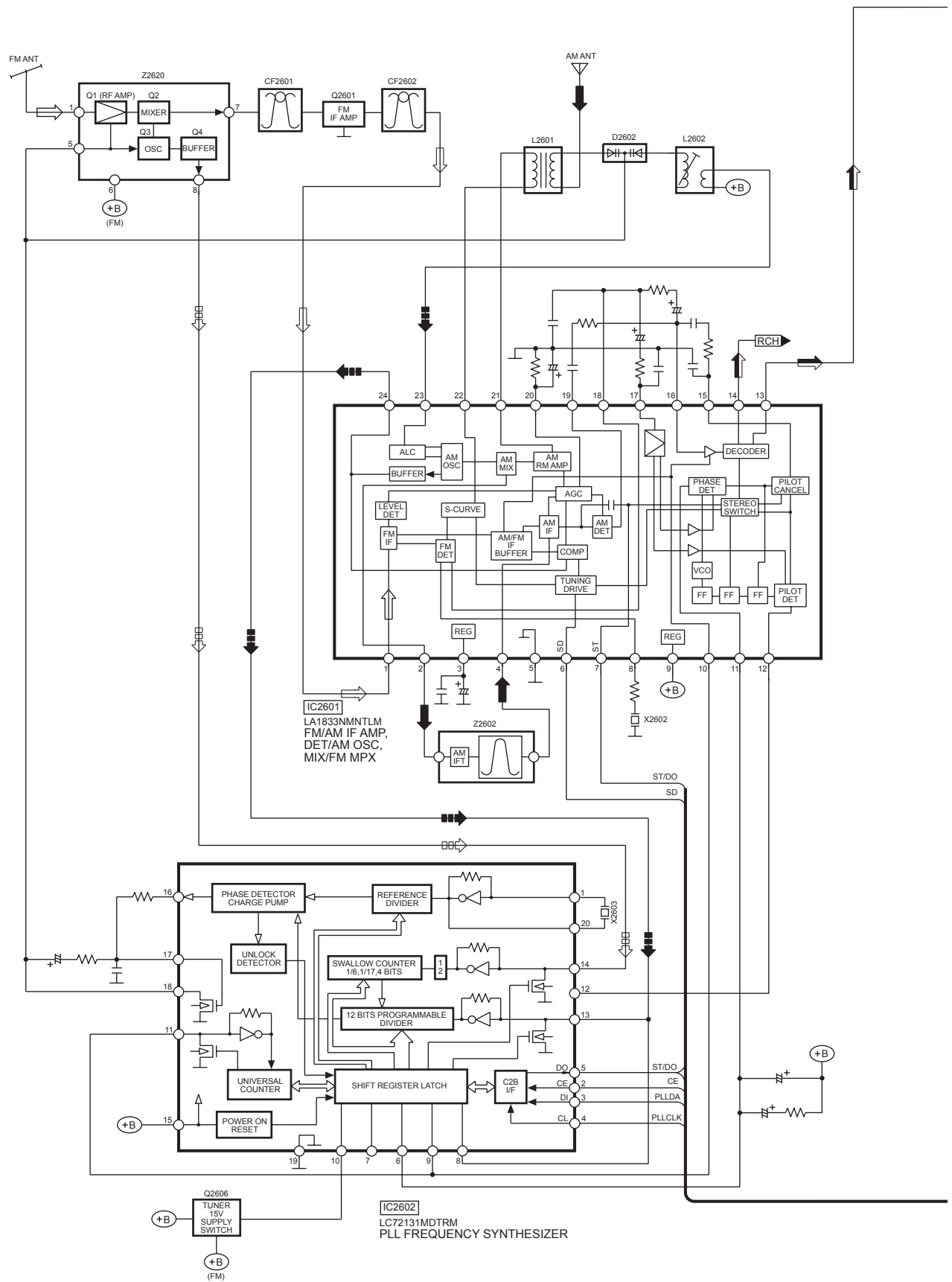
## 18 Block Diagram

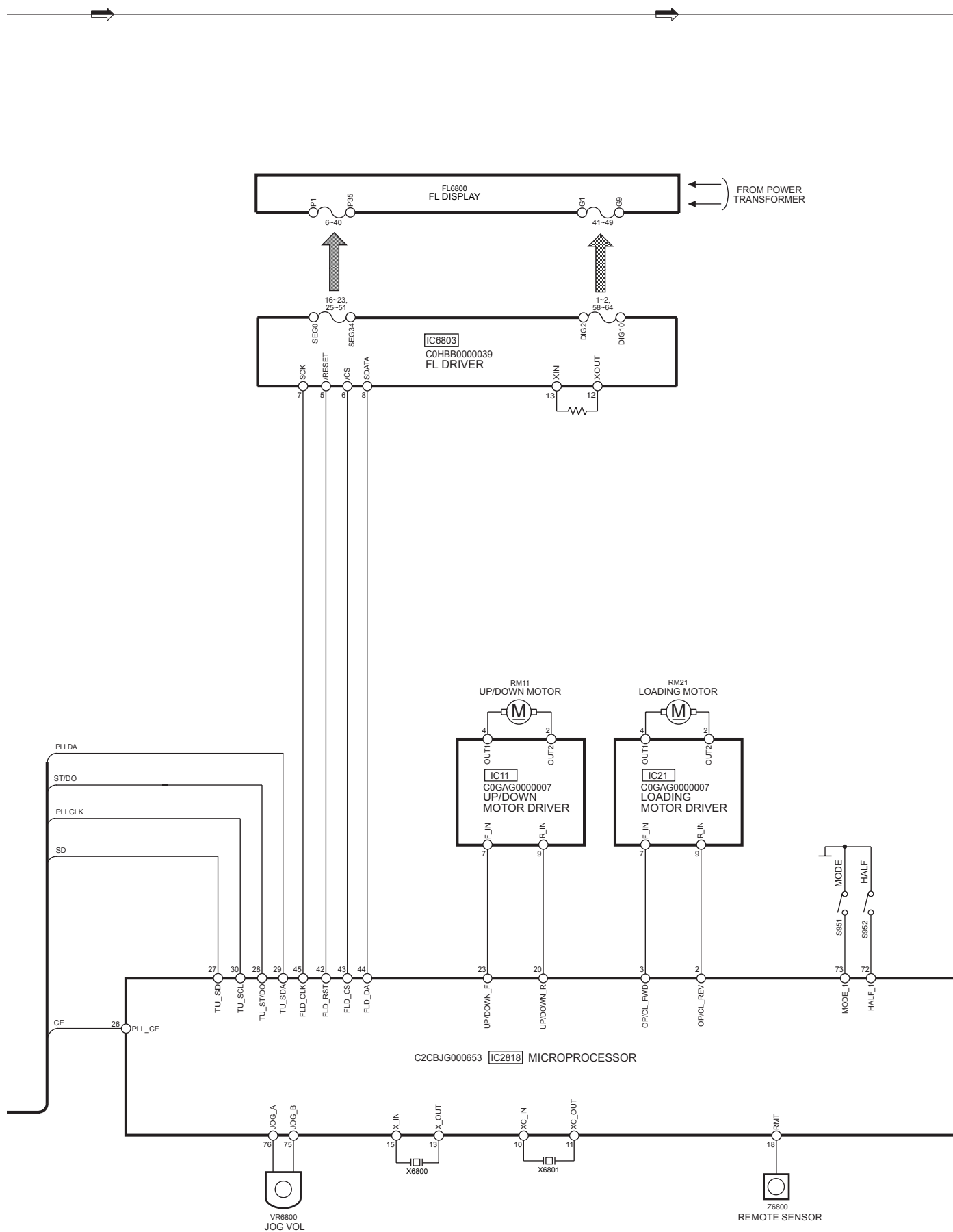


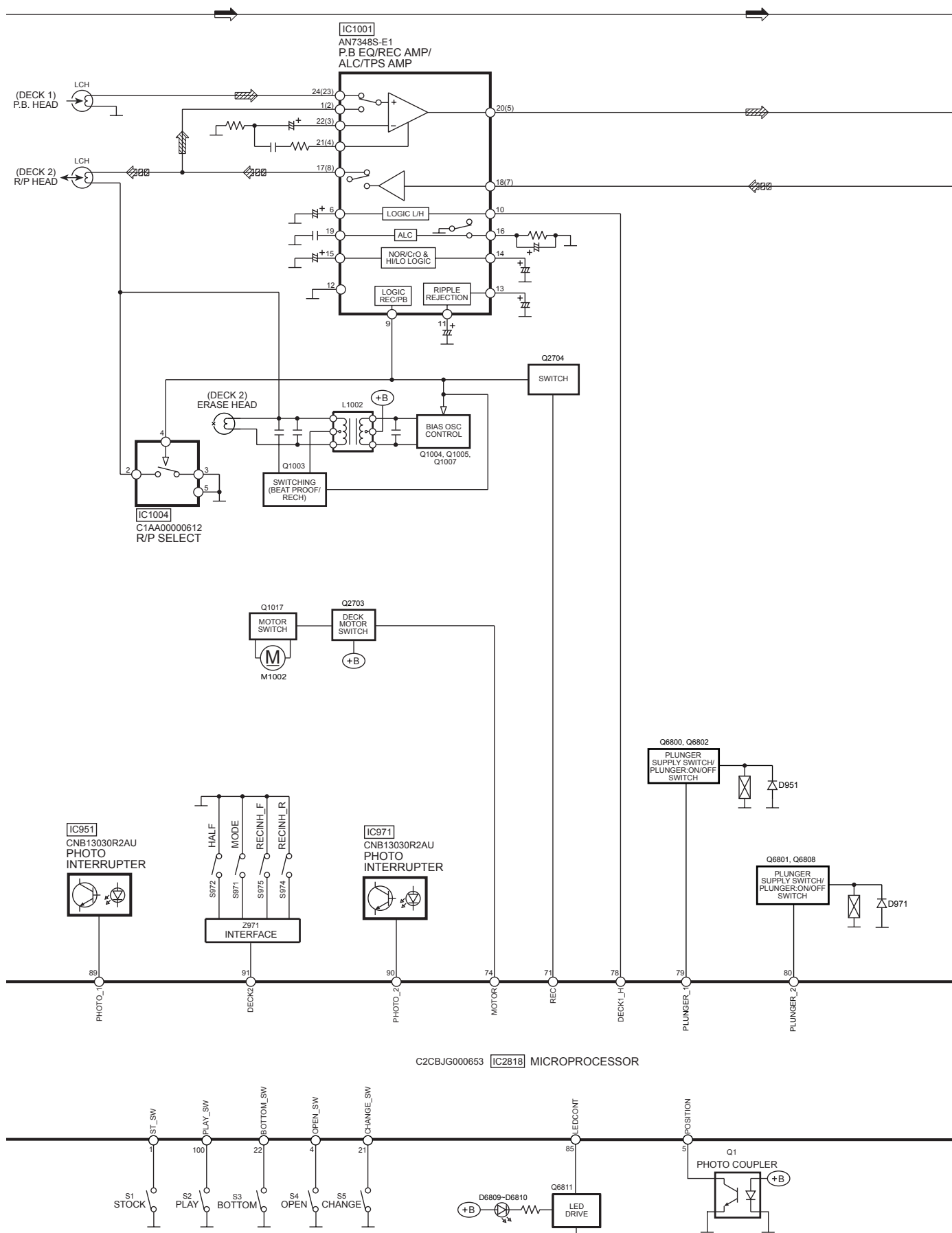


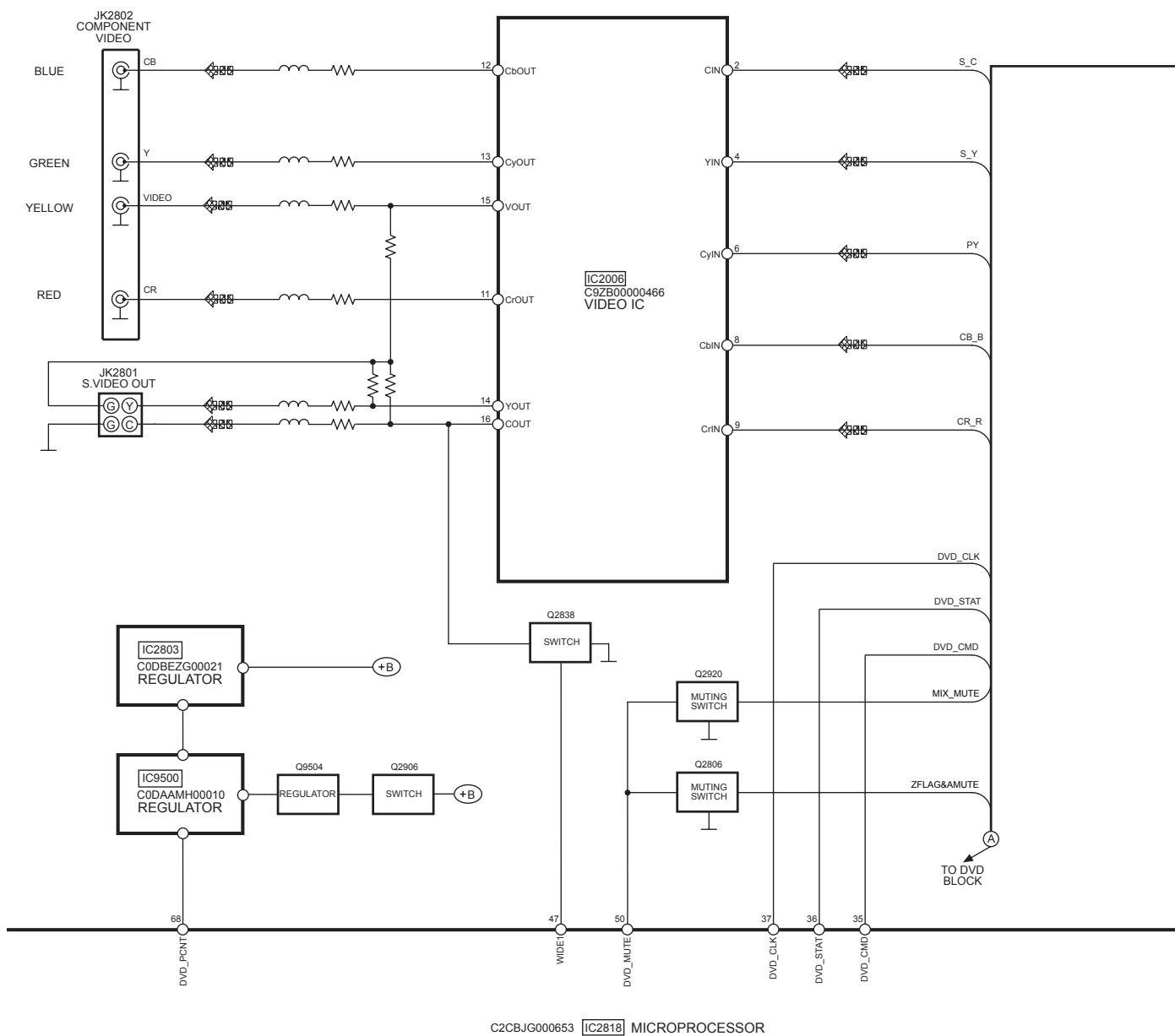


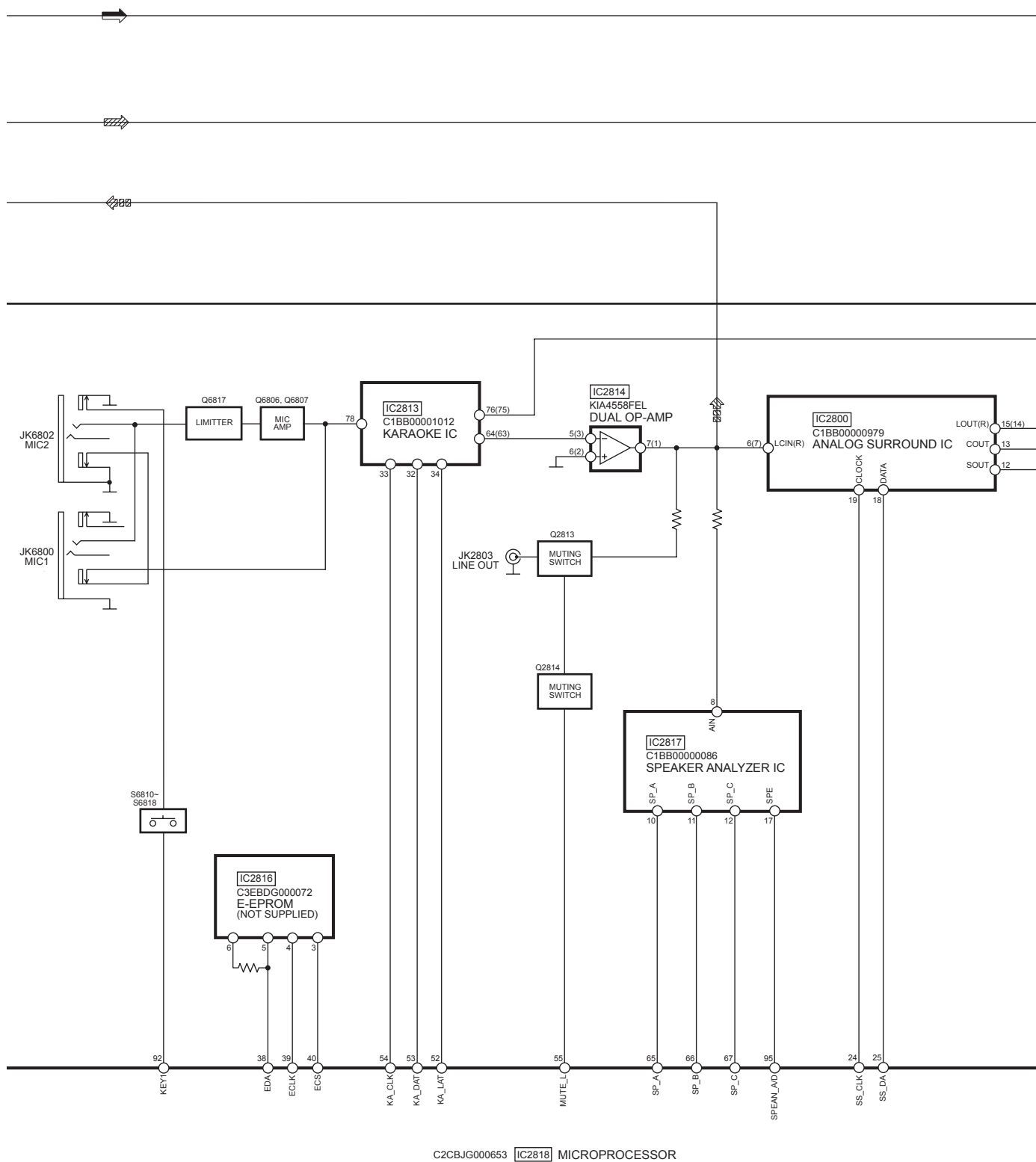


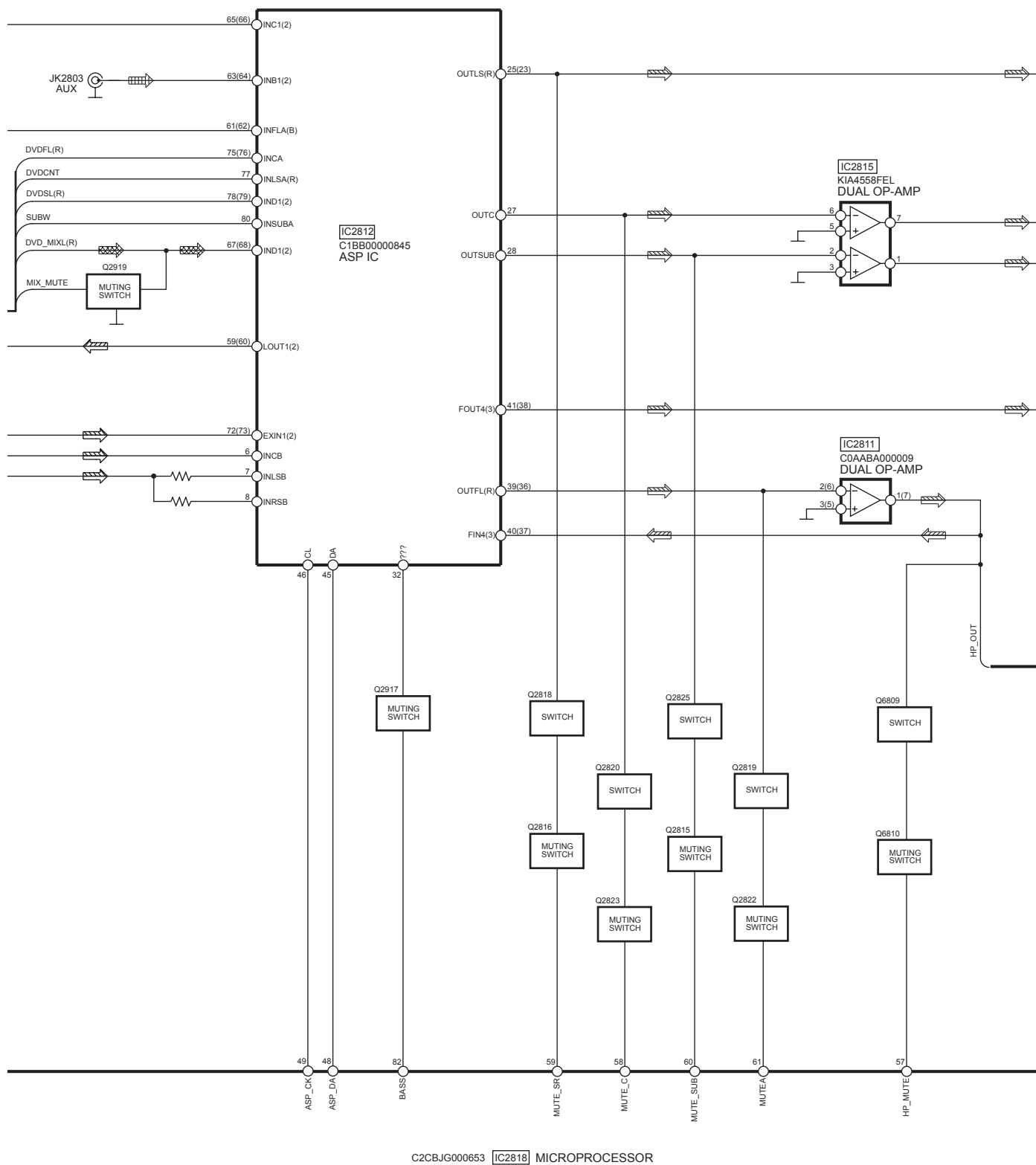


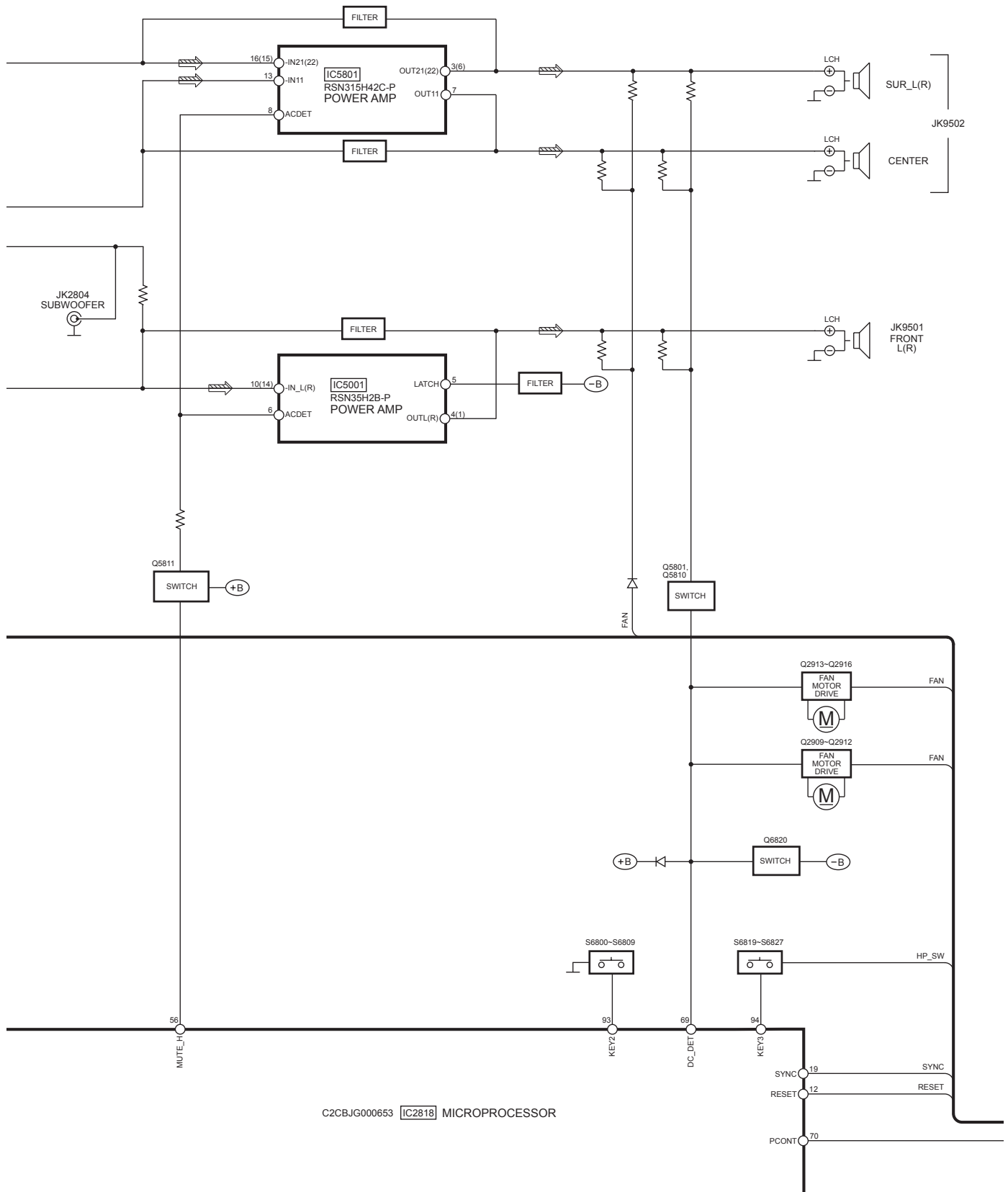




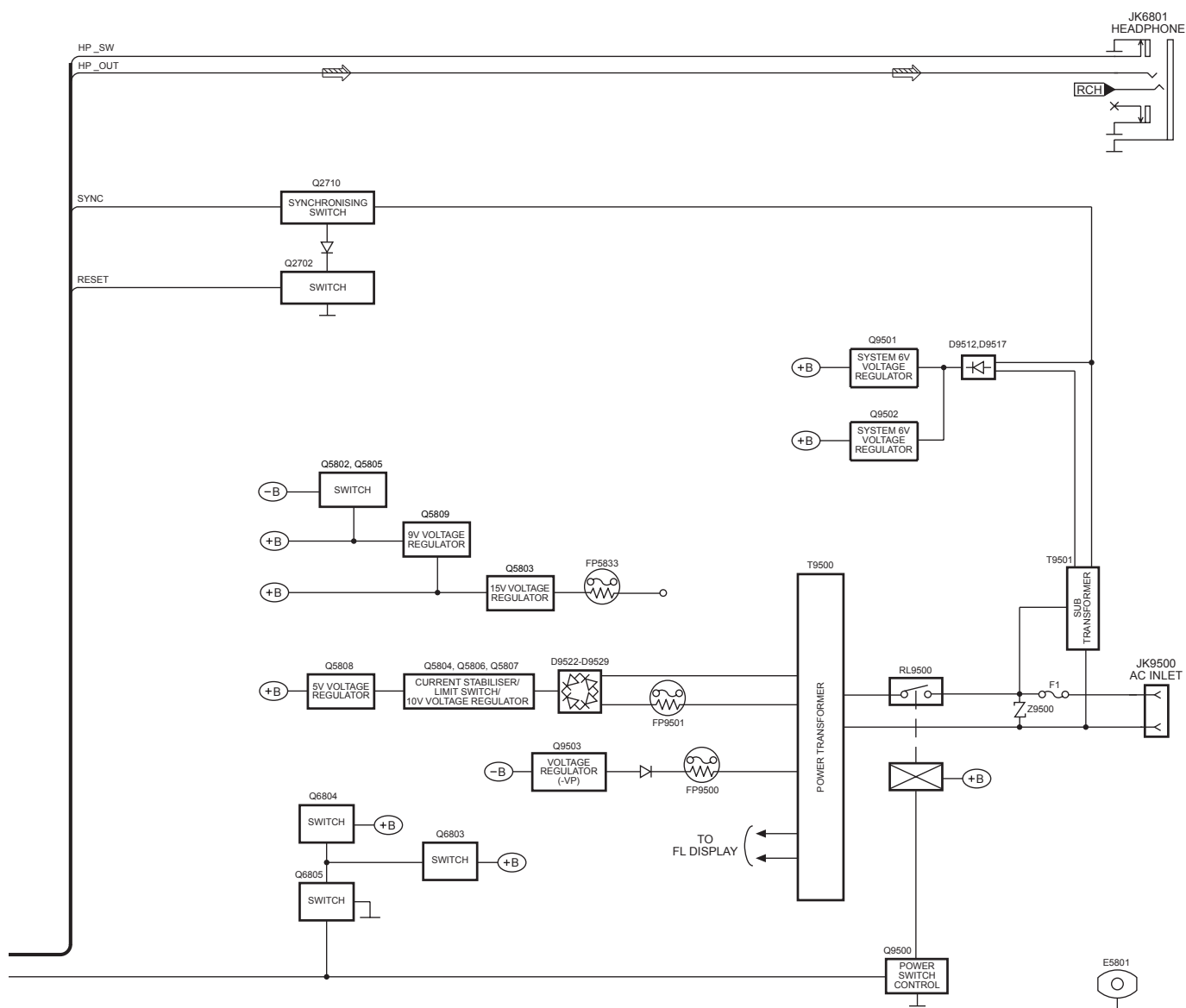












## SIGNAL LINES

|  |                      |  |                      |  |                                   |  |                           |
|--|----------------------|--|----------------------|--|-----------------------------------|--|---------------------------|
|  | : 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 Voltage Measurement

This section is not available at time of issue.

## 20 Schematic Diagram

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

Note:

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

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

### • Importance safety notice :

Components identified by  mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

### Caution !

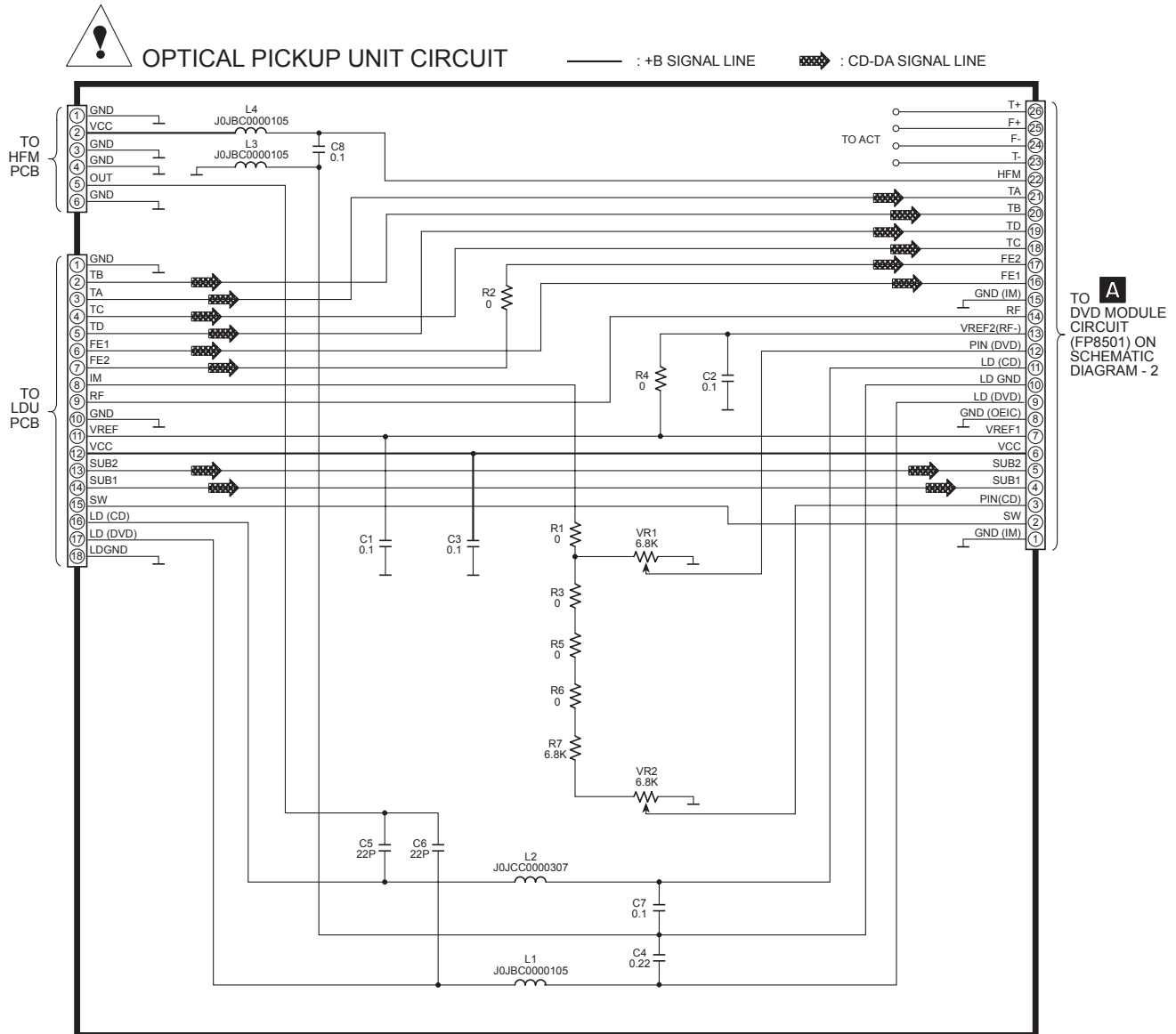
IC, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

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

## 20.1. Optical Pickup Unit Circuit

SCHEMATIC DIAGRAM - 1



## 20.2. (A) DVD Module Circuit

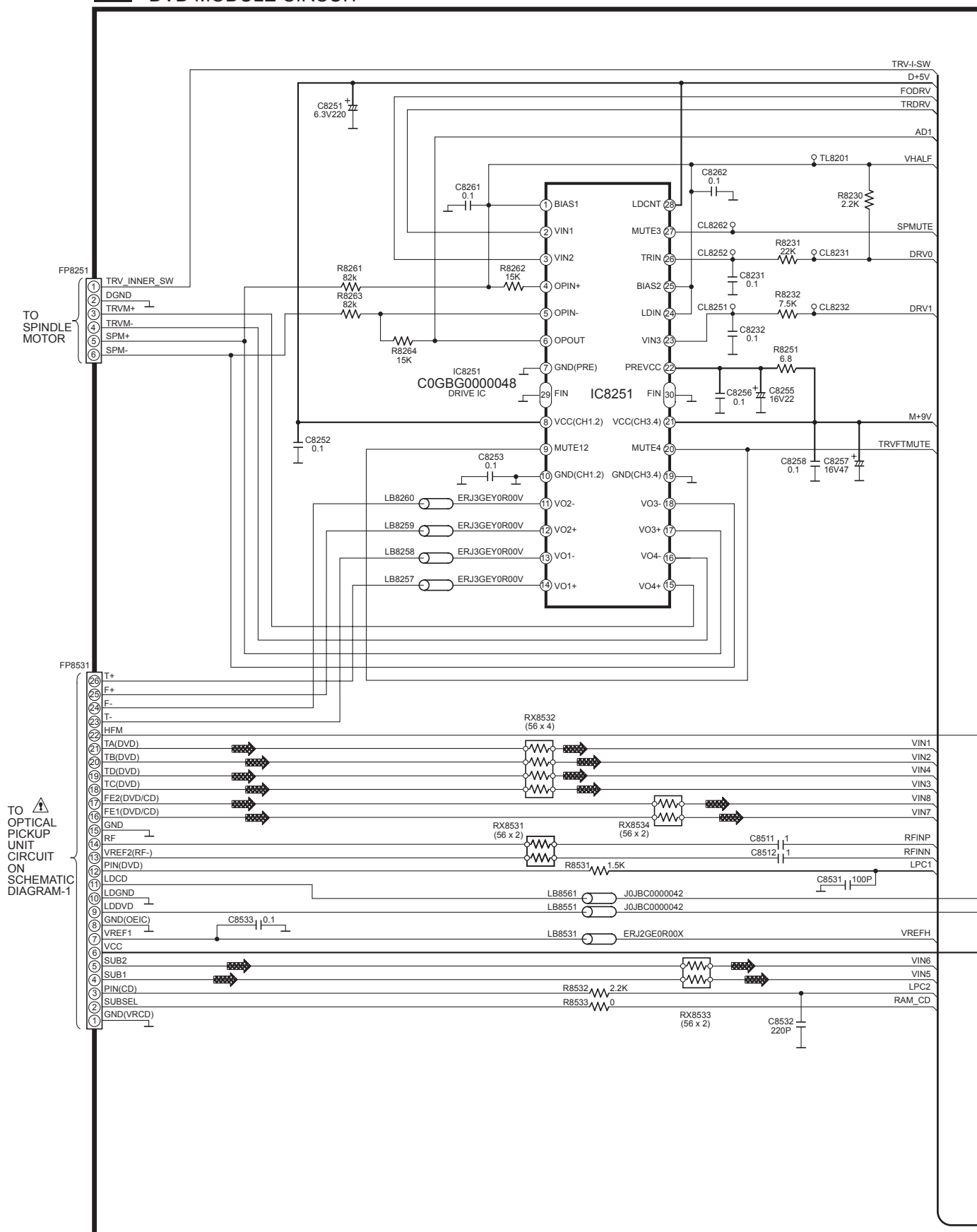
SCHEMATIC DIAGRAM - 2

**A**

DVD MODULE CIRCUIT

— : +B SIGNAL LINE

▤ : CD-DA SIGNAL LINE

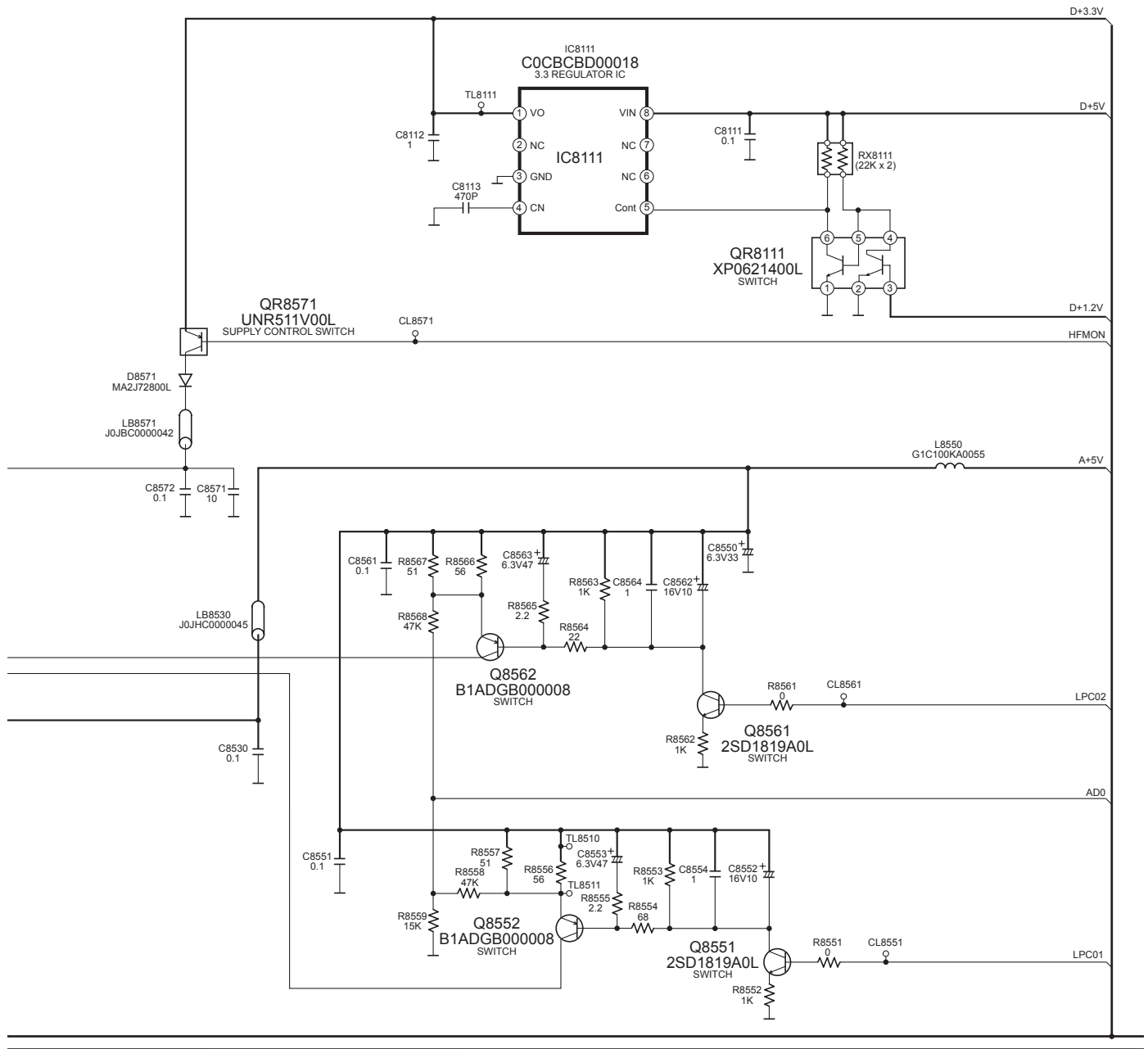


## SCHEMATIC DIAGRAM - 3

**A**

## DVD MODULE CIRCUIT

— : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 4

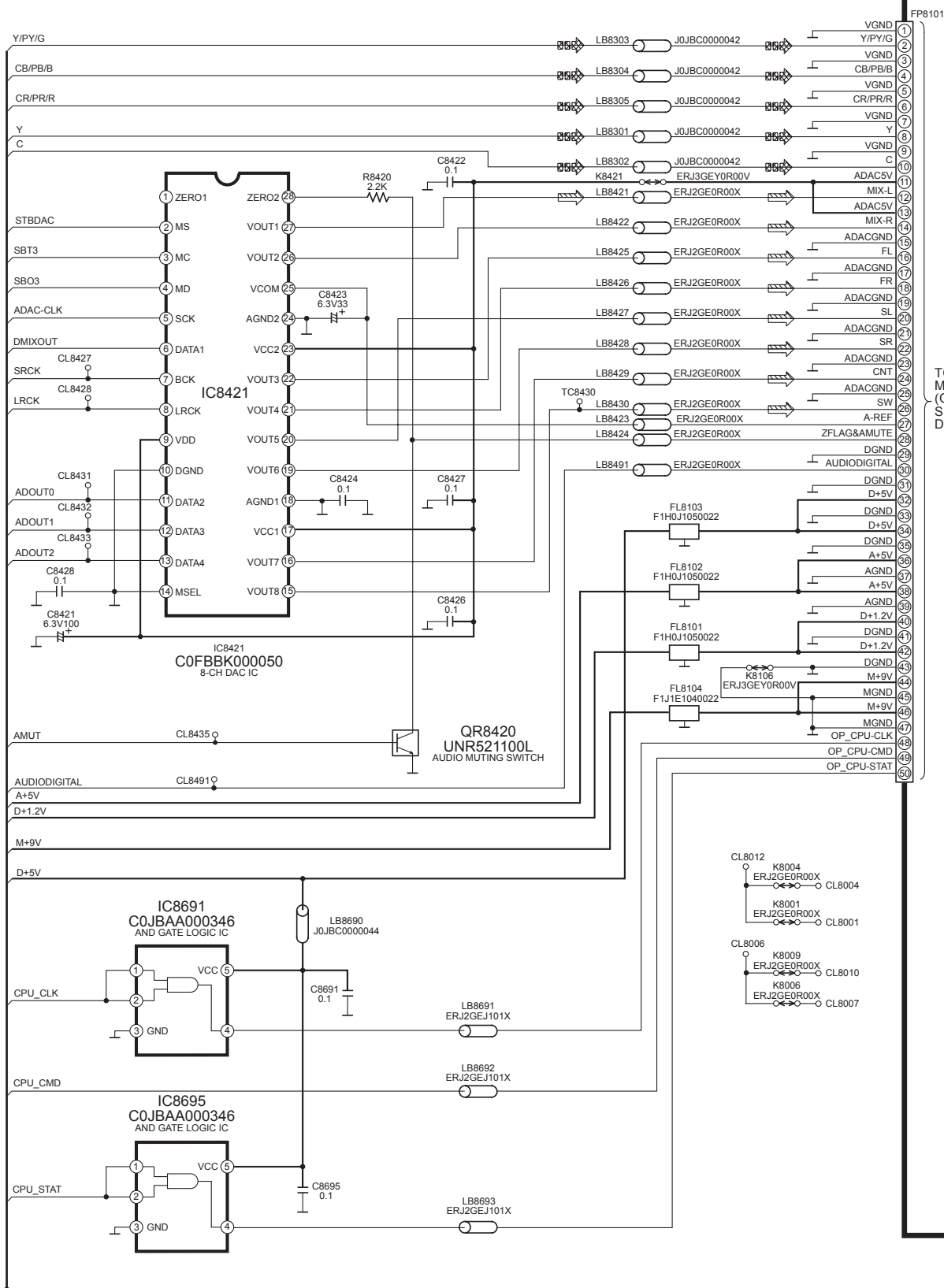
A

## DVD MODULE CIRCUIT

 : MAIN SIGNAL LINE

———— : +B SIGNAL LINE

 : DVD VIDEO SIGNAL LINE



TO **B**  
MAIN CIRCUIT  
(CN2813) ON  
SCHEMATIC  
DIAGRAM - 11

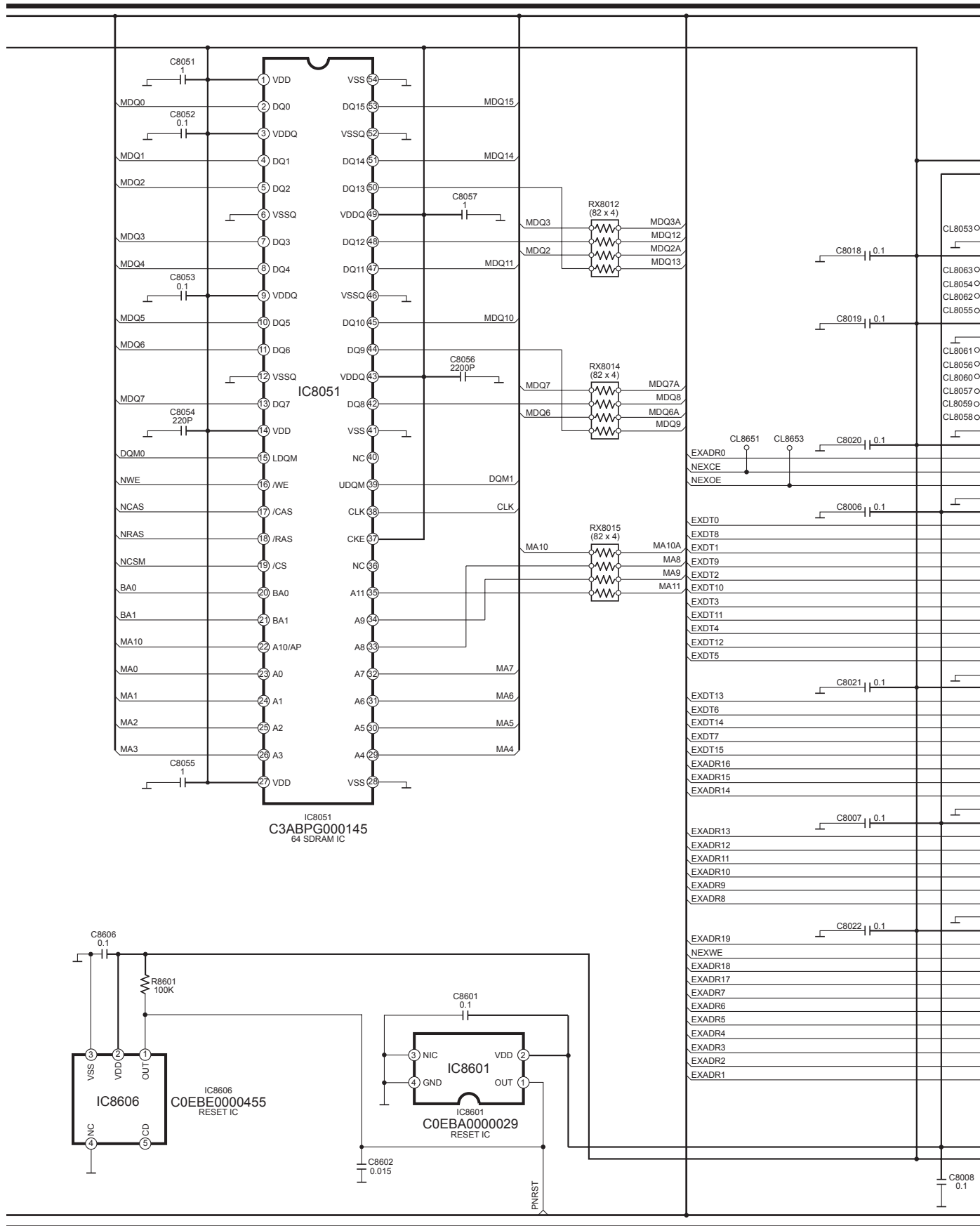




## SCHEMATIC DIAGRAM - 6

## A DVD MODULE CIRCUIT

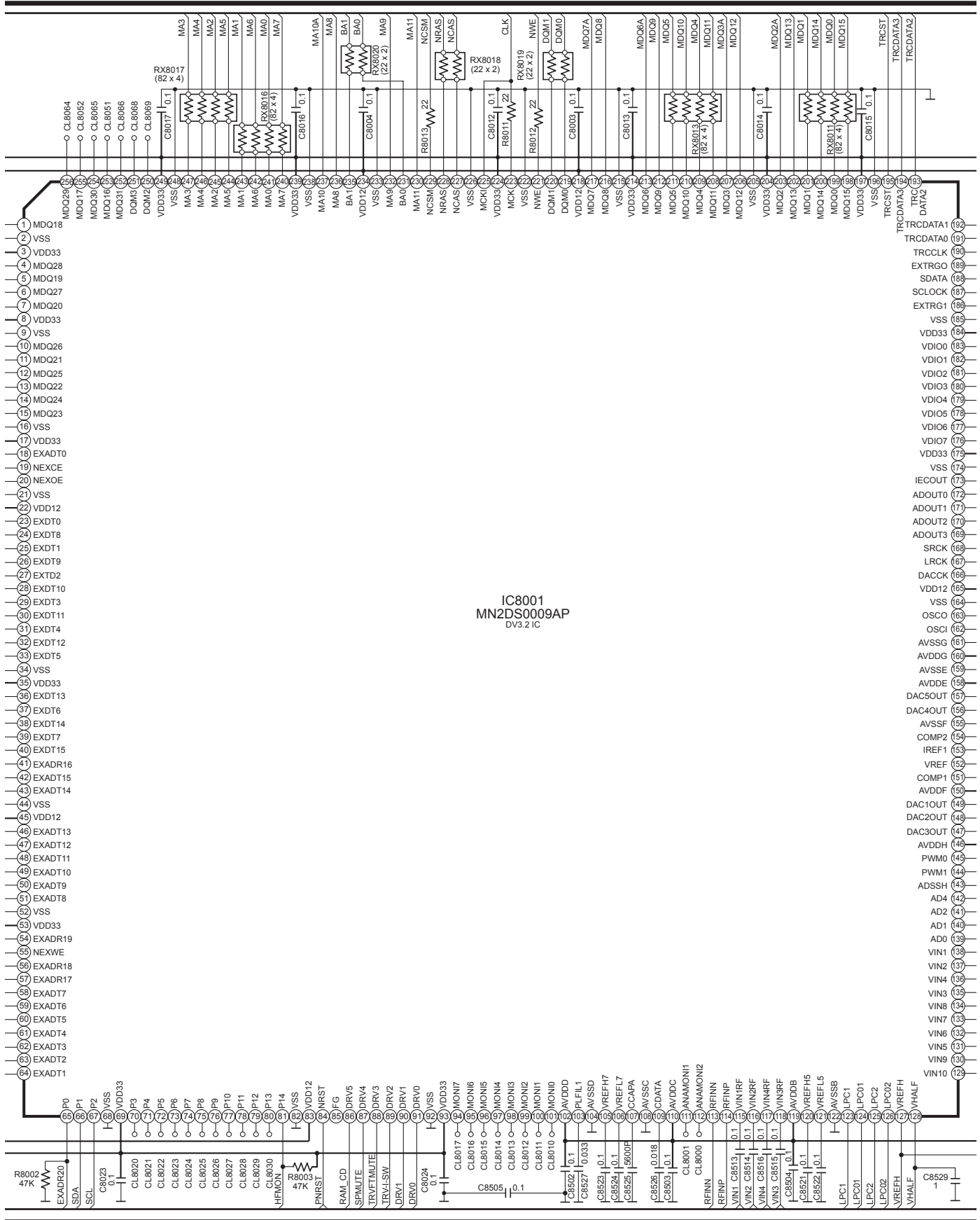
— : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 7

## A DVD MODULE CIRCUIT

: +B SIGNAL LINE



## SCHEMATIC DIAGRAM - 8

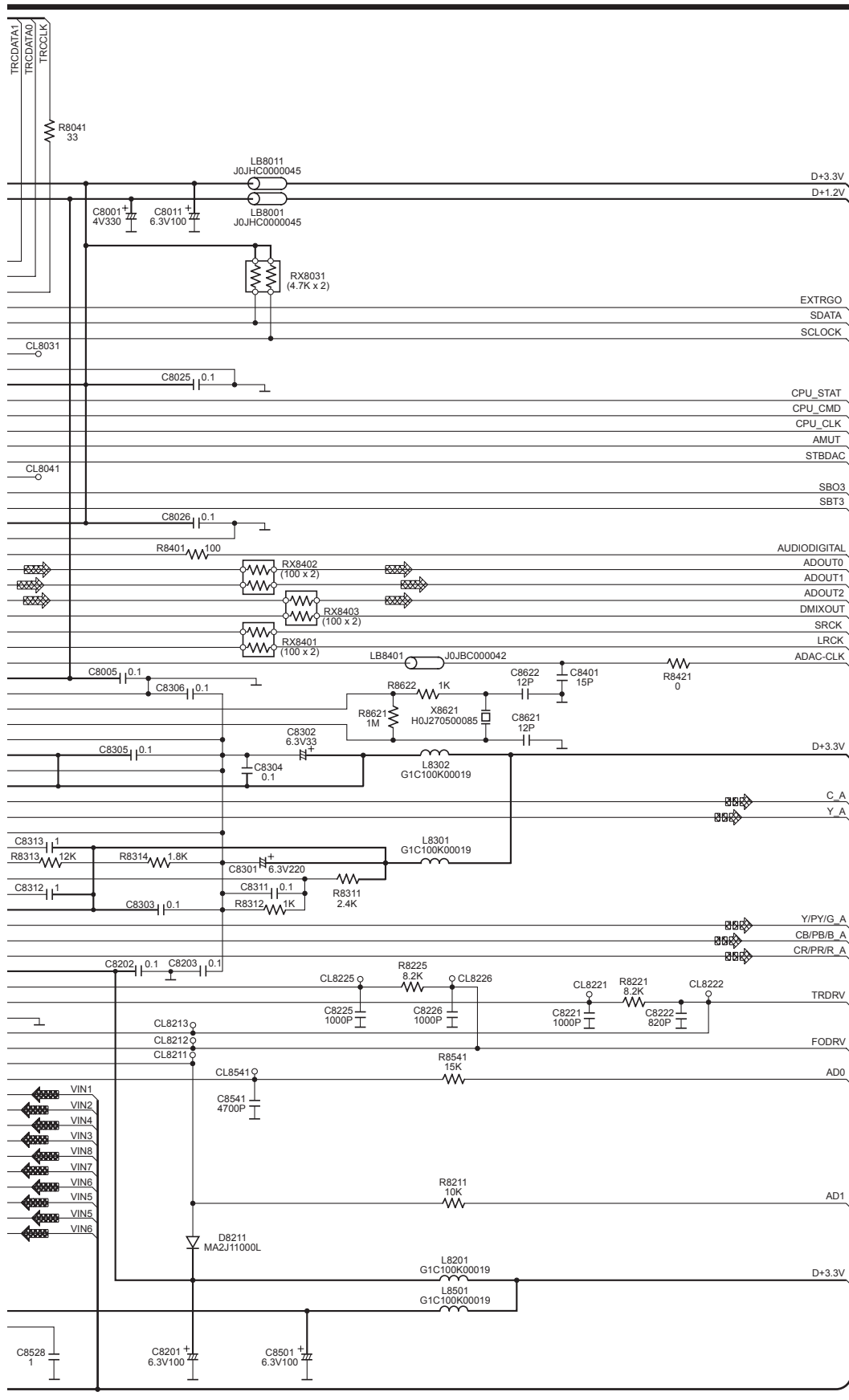
**A**

## DVD MODULE CIRCUIT

 : CD-DA SIGNAL LINE

 : DVD VIDEO SIGNAL LINE

 : +B SIGNAL LINE

 : DVD AUDIO SIGNAL LINE




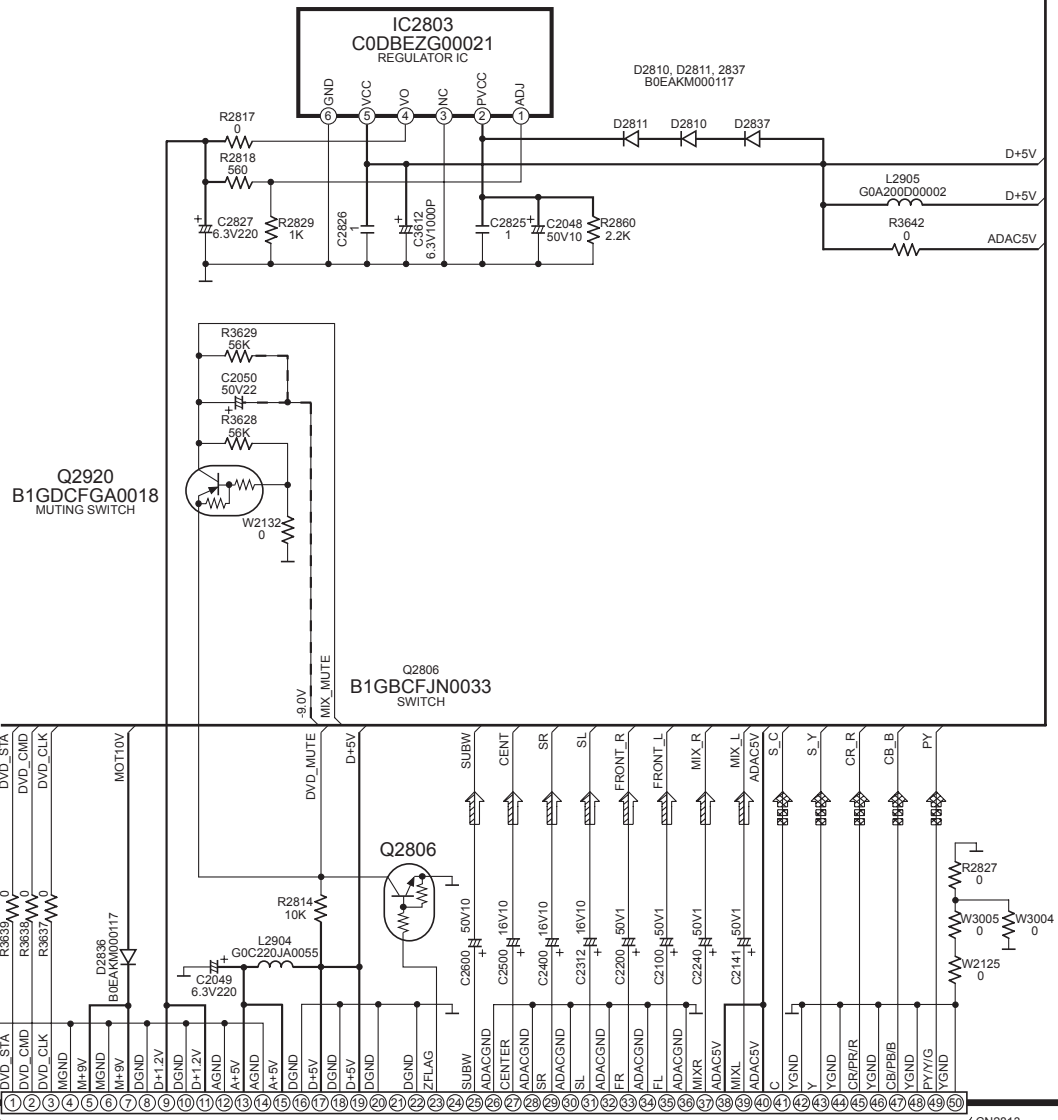
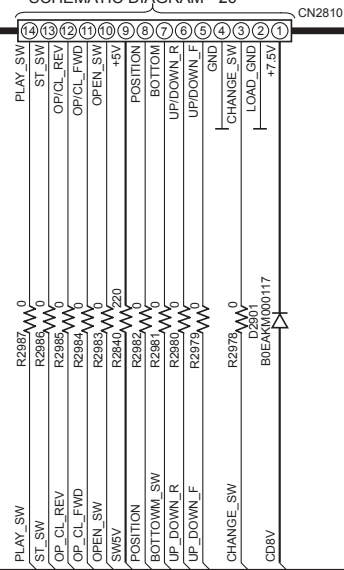
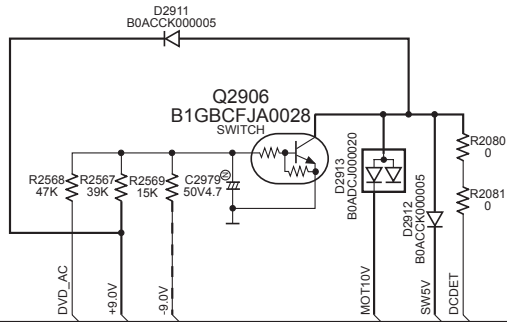


## SCHEMATIC DIAGRAM - 11

**B** MAIN CIRCUIT

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

TO  
 CD LOADING CIRCUIT (CN1) ON  
 SCHEMATIC DIAGRAM - 26



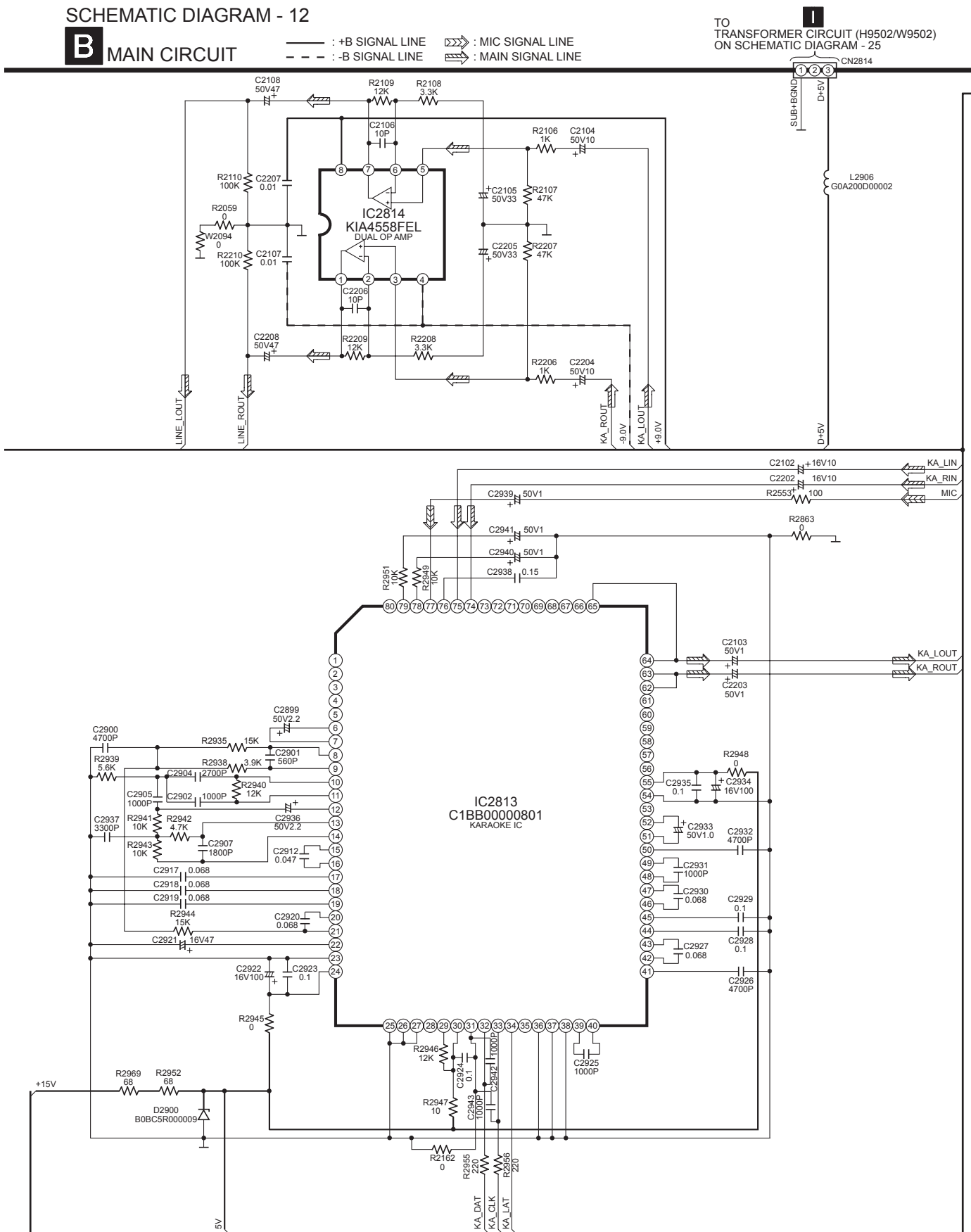
TO  
 DVD MODULE CIRCUIT (FP8101) ON  
 SCHEMATIC DIAGRAM - 4

## SCHEMATIC DIAGRAM - 12

**B** MAIN CIRCUIT

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

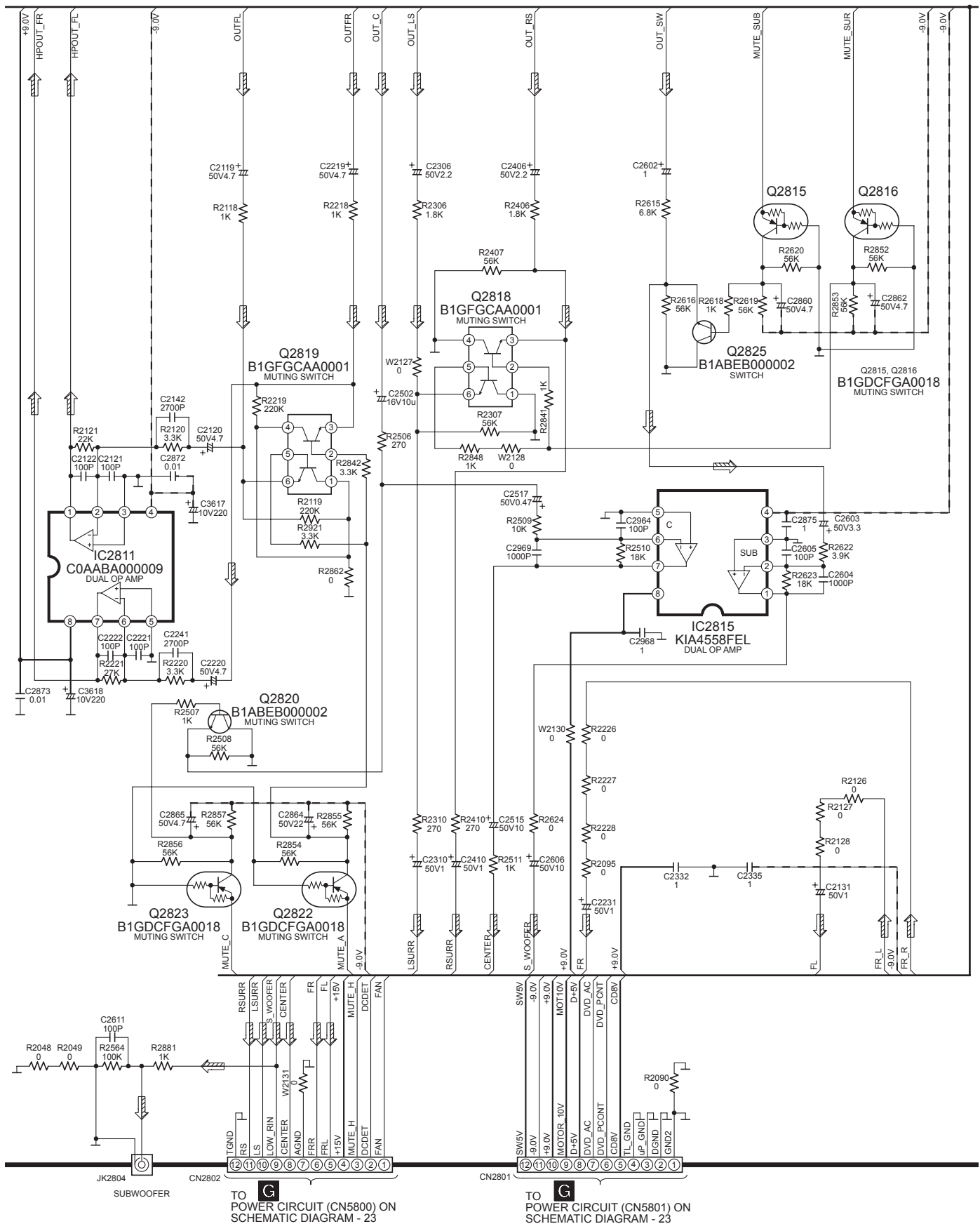
TO  
 TRANSFORMER CIRCUIT (H9502/W9502)  
 ON SCHEMATIC DIAGRAM - 25



## SCHEMATIC DIAGRAM - 13

**B** MAIN CIRCUIT

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

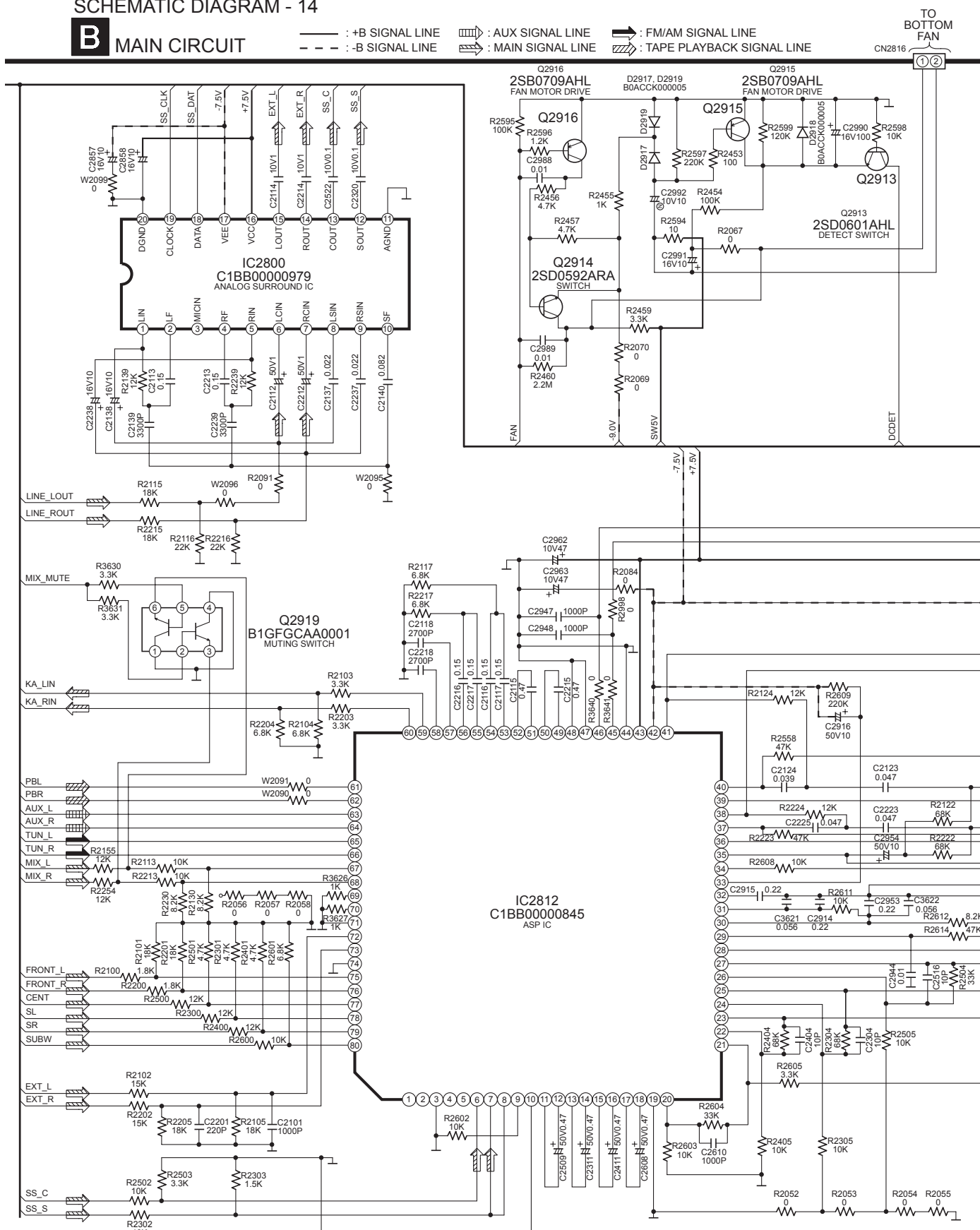




## SCHEMATIC DIAGRAM - 14

**B** MAIN CIRCUIT

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



## SCHEMATIC DIAGRAM - 15

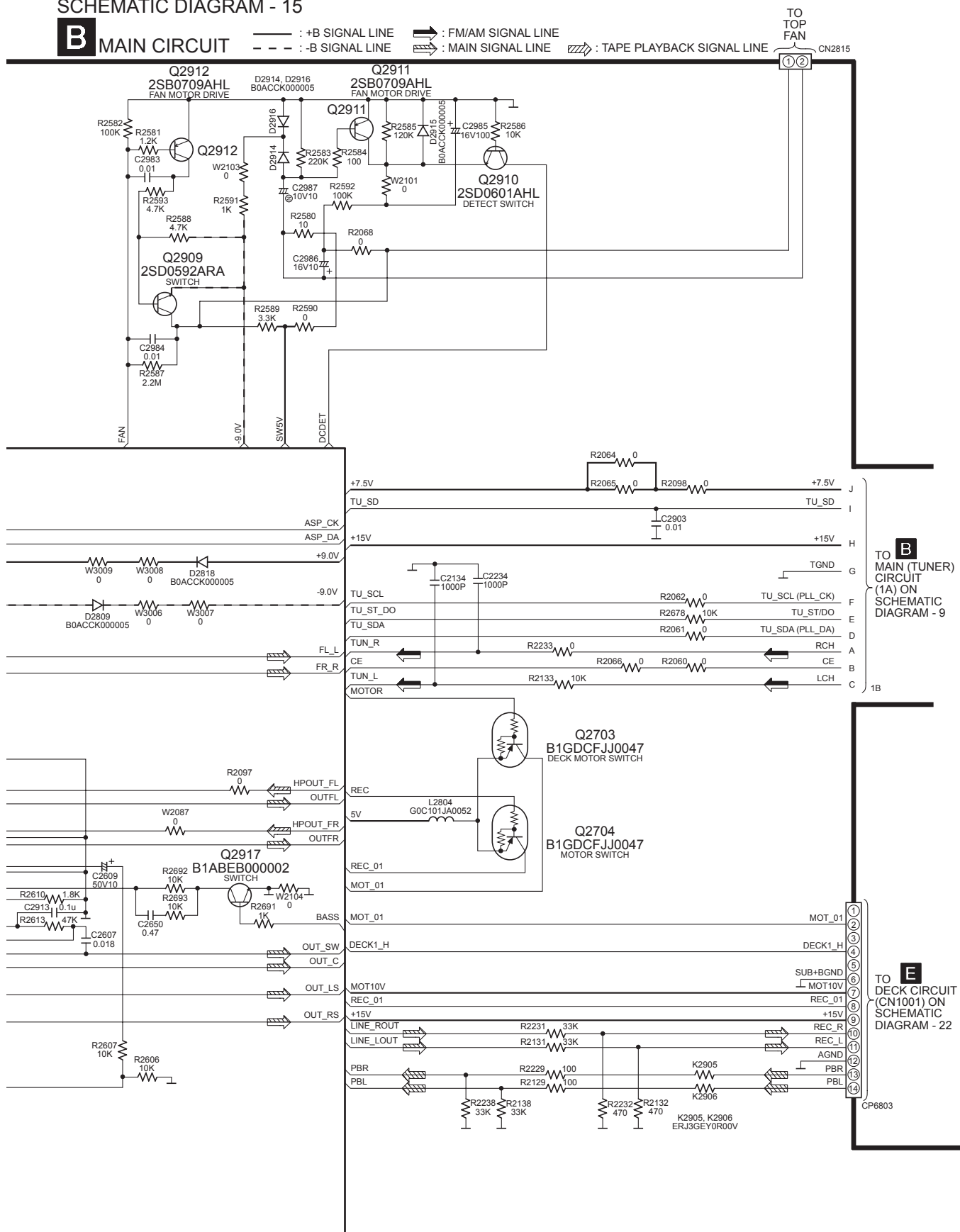
## B MAIN CIRCUIT

— : +B SIGNAL LINE       : FM/AM SIGNAL LINE  
 - - - : -B SIGNAL LINE       : MAIN SIGNAL LINE

 : FM/AM SIGNAL LINE  
 : MAIN SIGNAL LINE

 : MAIN SIGNAL LINE

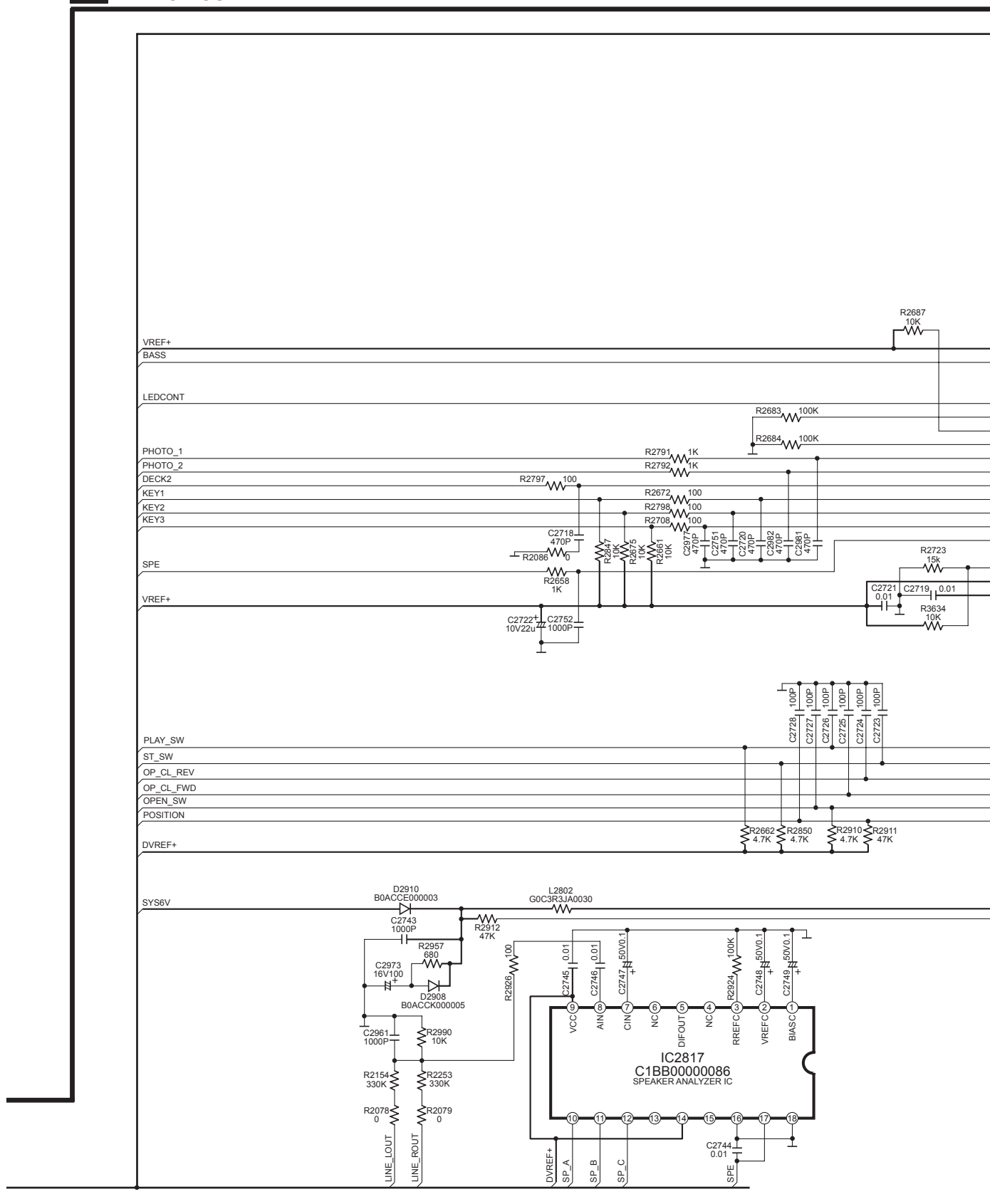
 : TAPE PLAYBACK SIGNAL LINE



SCHEMATIC DIAGRAM - 16

## B MAIN CIRCUIT

———— : +B SIGNAL LINE

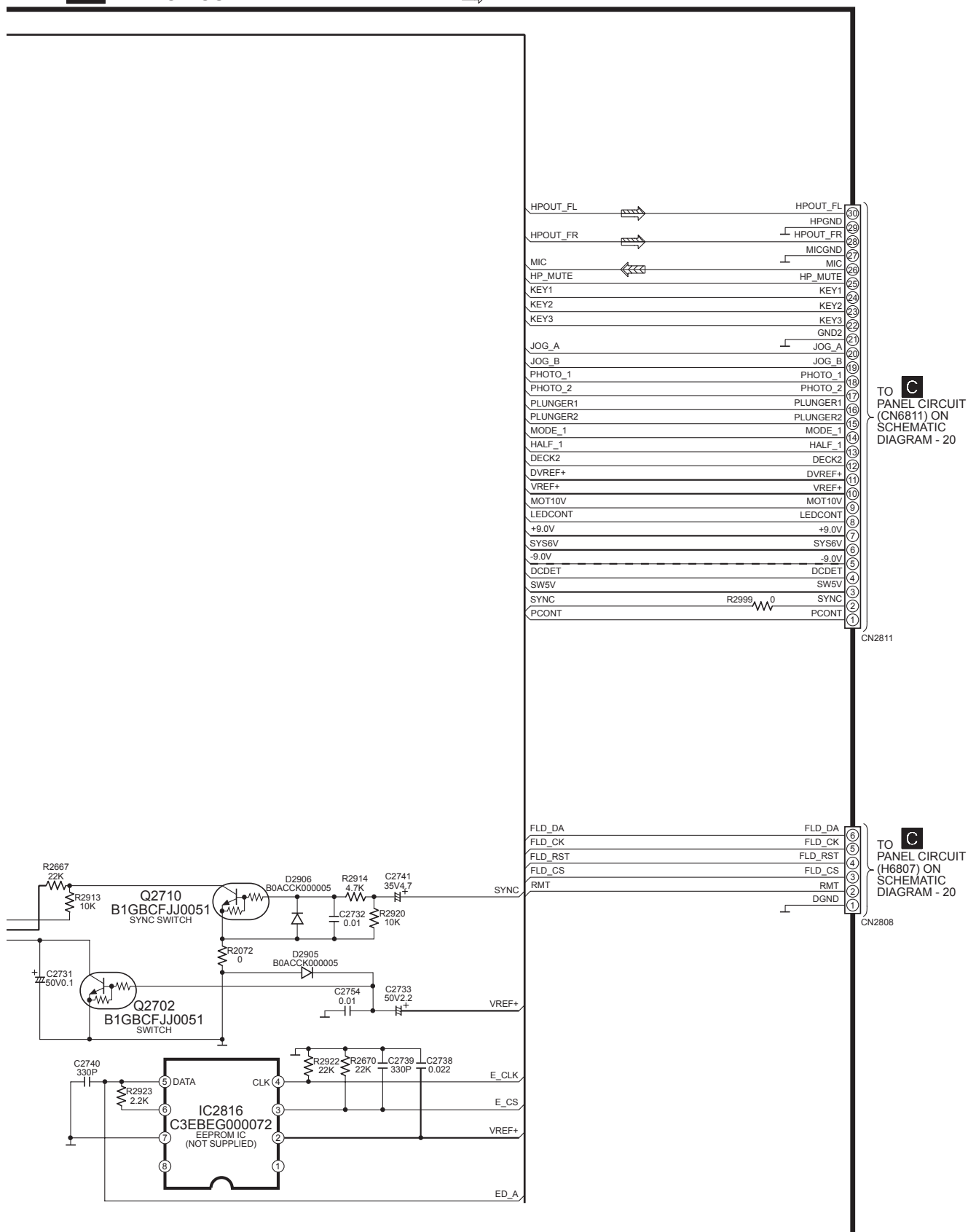




## SCHEMATIC DIAGRAM - 18

**B** MAIN CIRCUIT

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

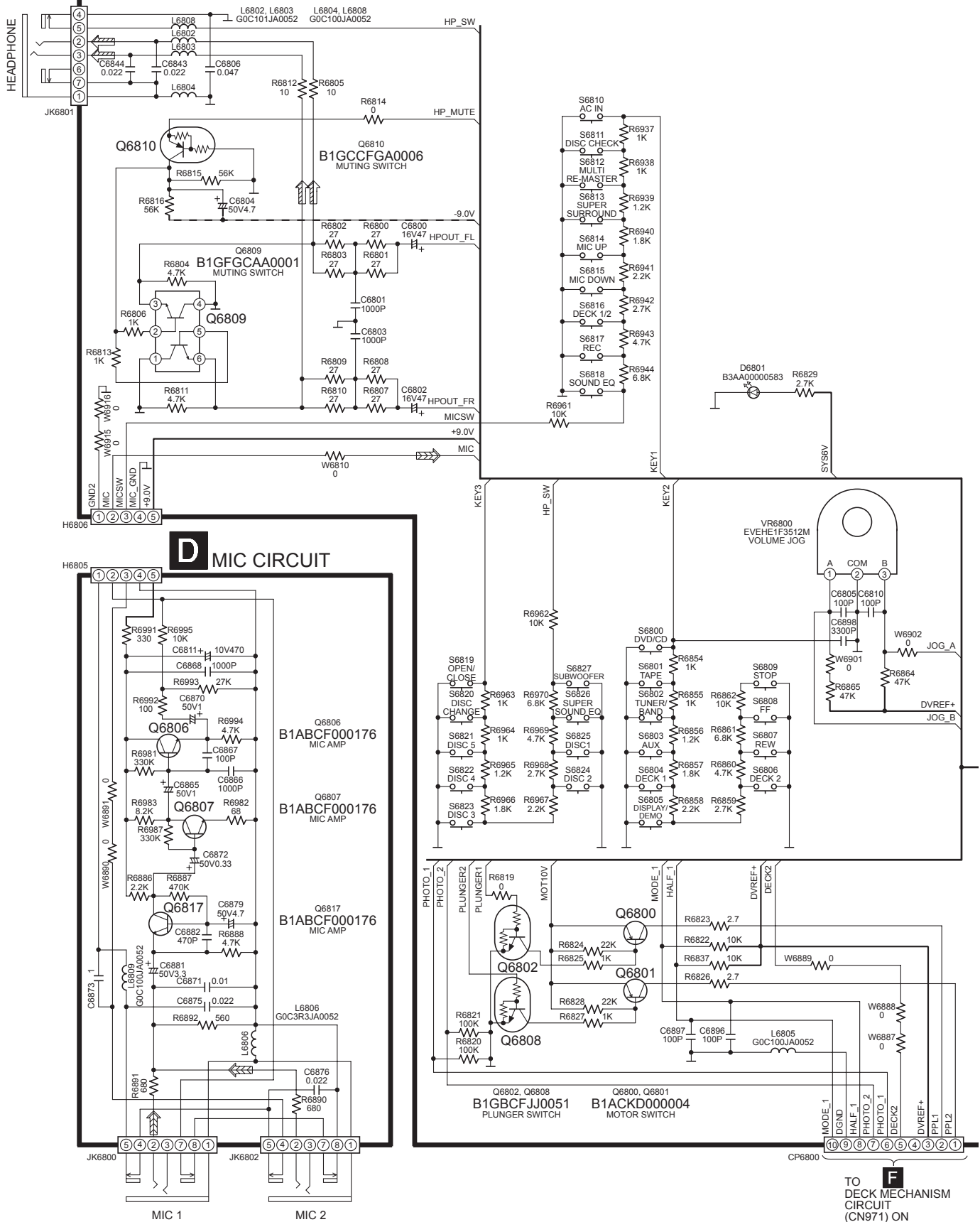


## 20.5. (C) Panel Circuit & (D) Mic Circuit

SCHEMATIC DIAGRAM - 19

**C** PANEL CIRCUIT

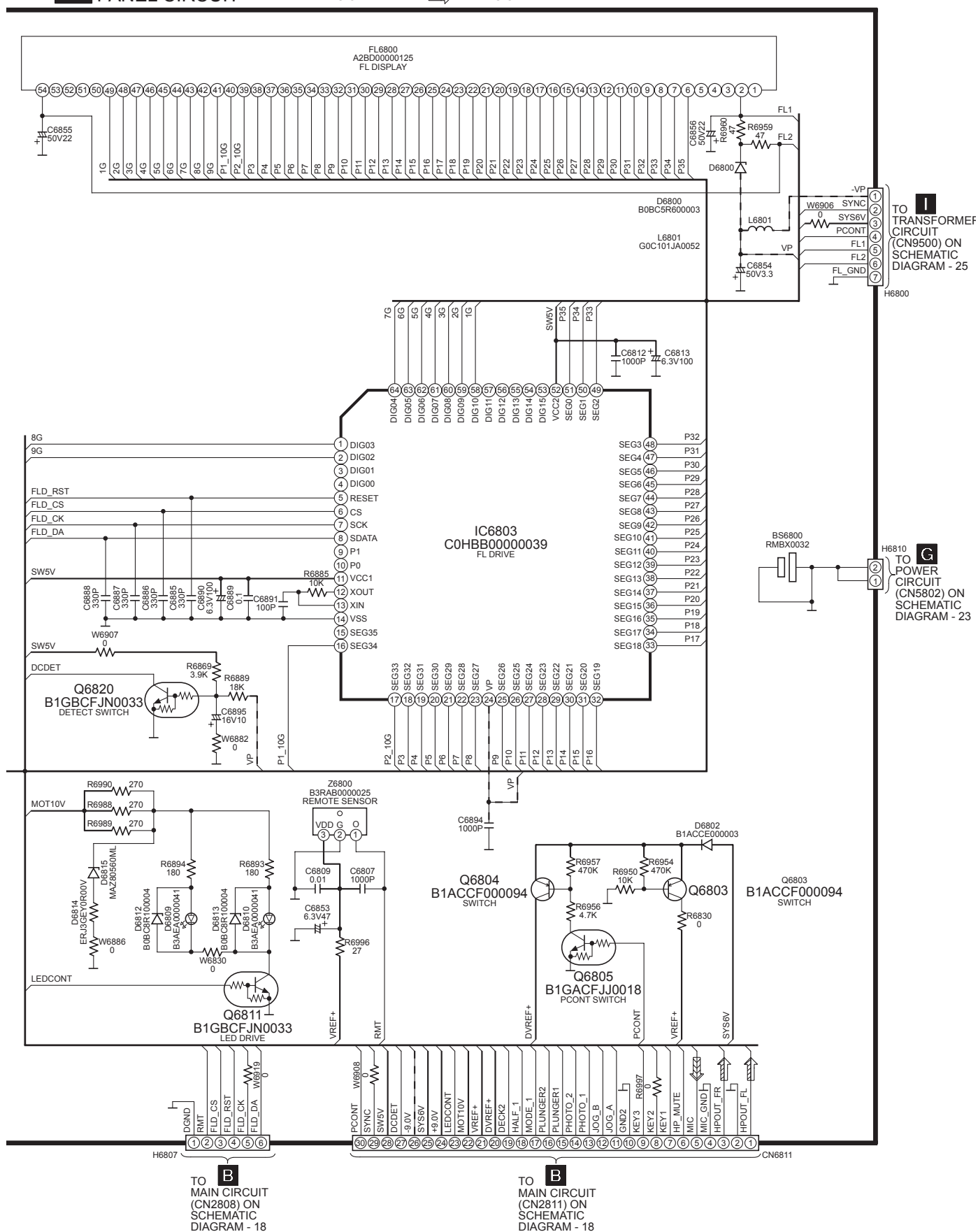
— : +B SIGNAL LINE     : MIC SIGNAL LINE  
 - - - : -B SIGNAL LINE     : MAIN SIGNAL LINE



## SCHEMATIC DIAGRAM - 20

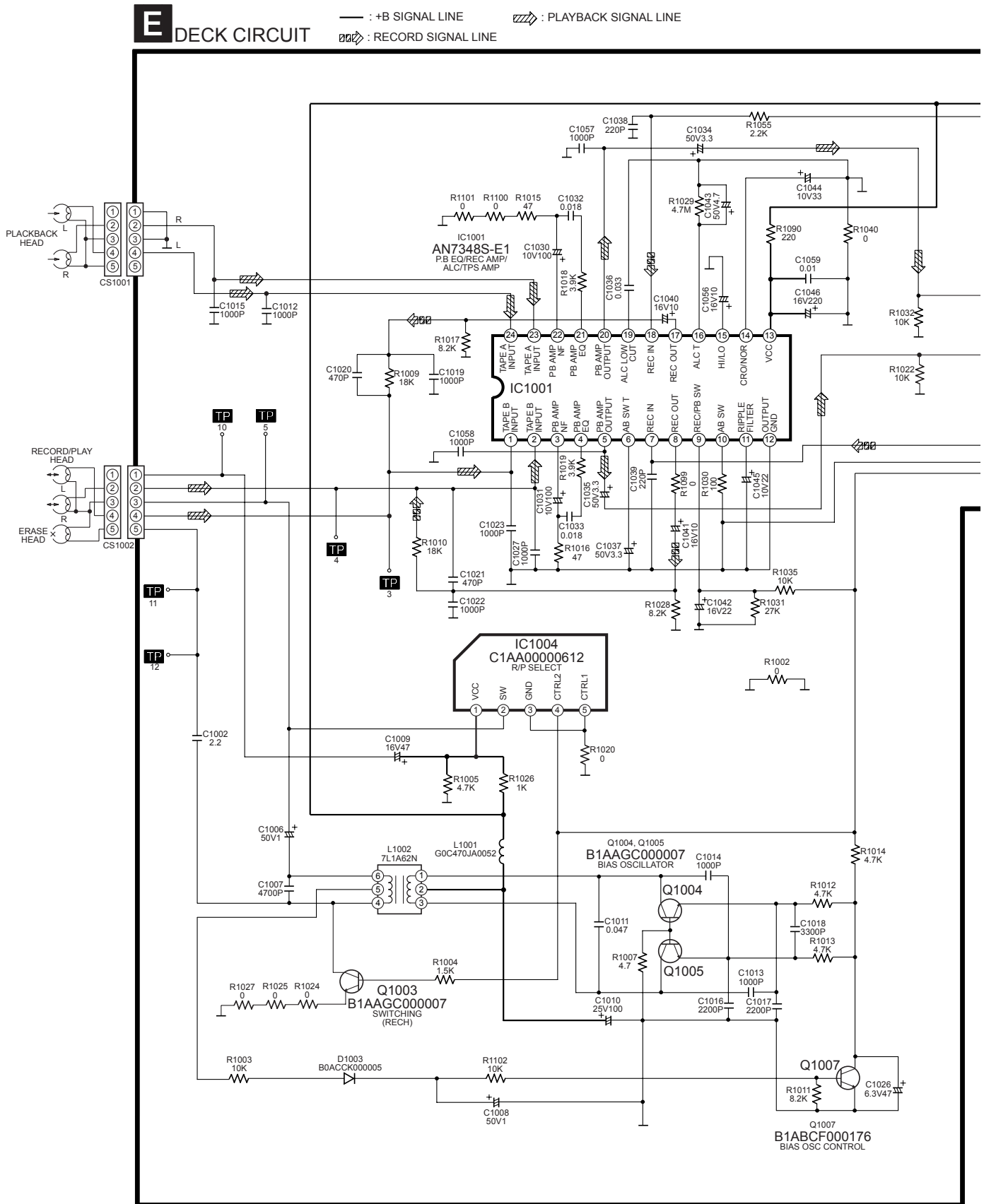
**C** PANEL CIRCUIT

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



## 20.6. (E) Deck Circuit & (F) Deck Mechanism Circuit

SCHEMATIC DIAGRAM - 21





## SCHEMATIC DIAGRAM - 22

**E**

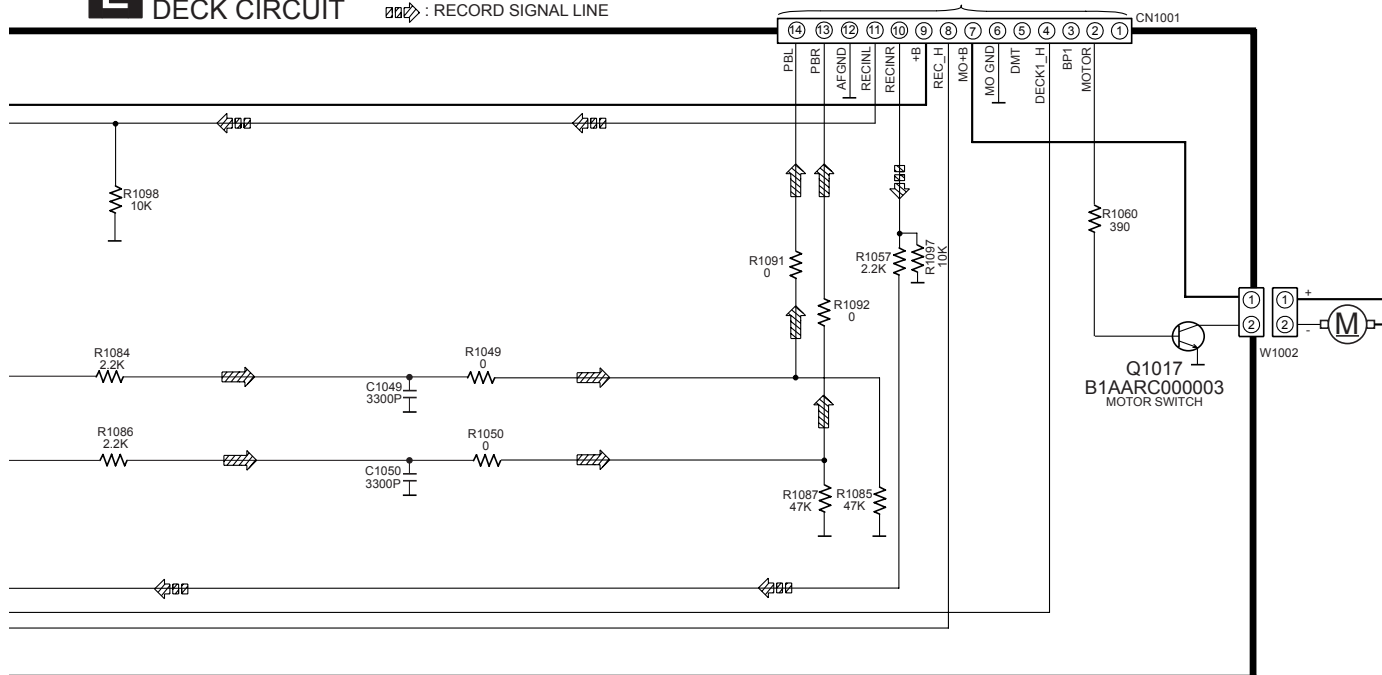
## DECK CIRCUIT

— : +B SIGNAL LINE

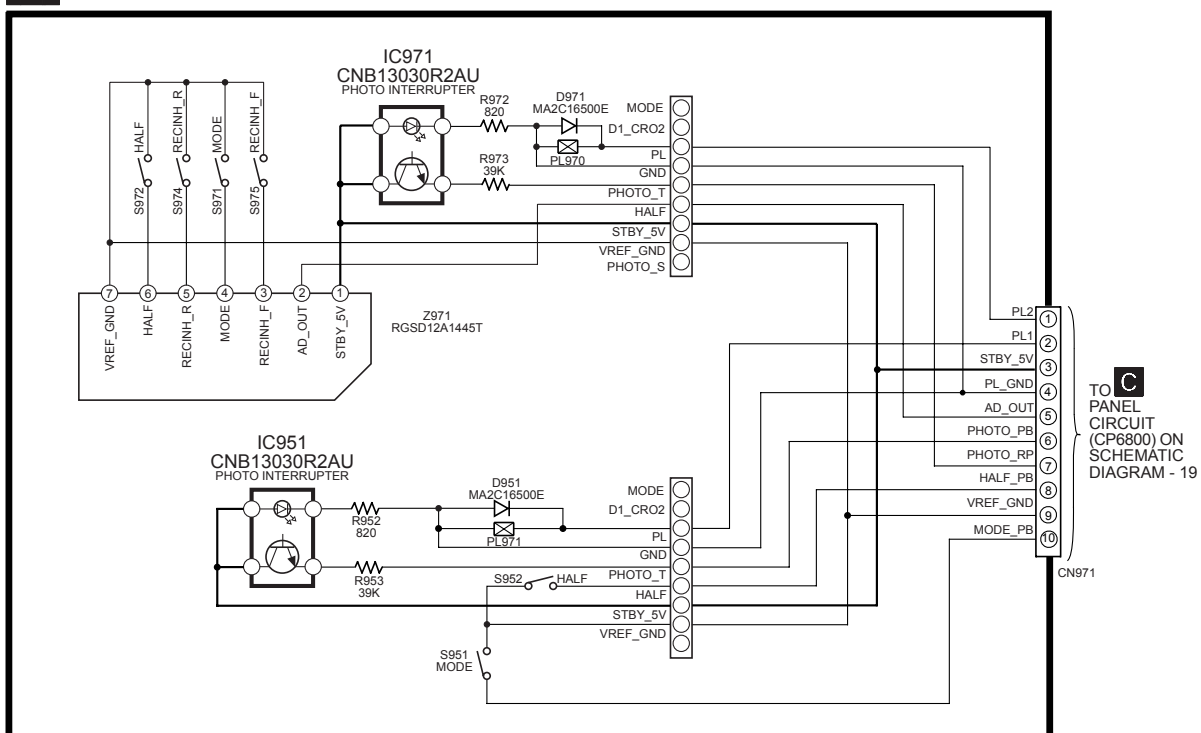
▨ : PLAYBACK SIGNAL LINE

▨ : RECORD SIGNAL LINE

TO **B**  
MAIN CIRCUIT  
(CP6803) ON  
SCHEMATIC  
DIAGRAM - 15

**F**

## DECK MECHANISM CIRCUIT

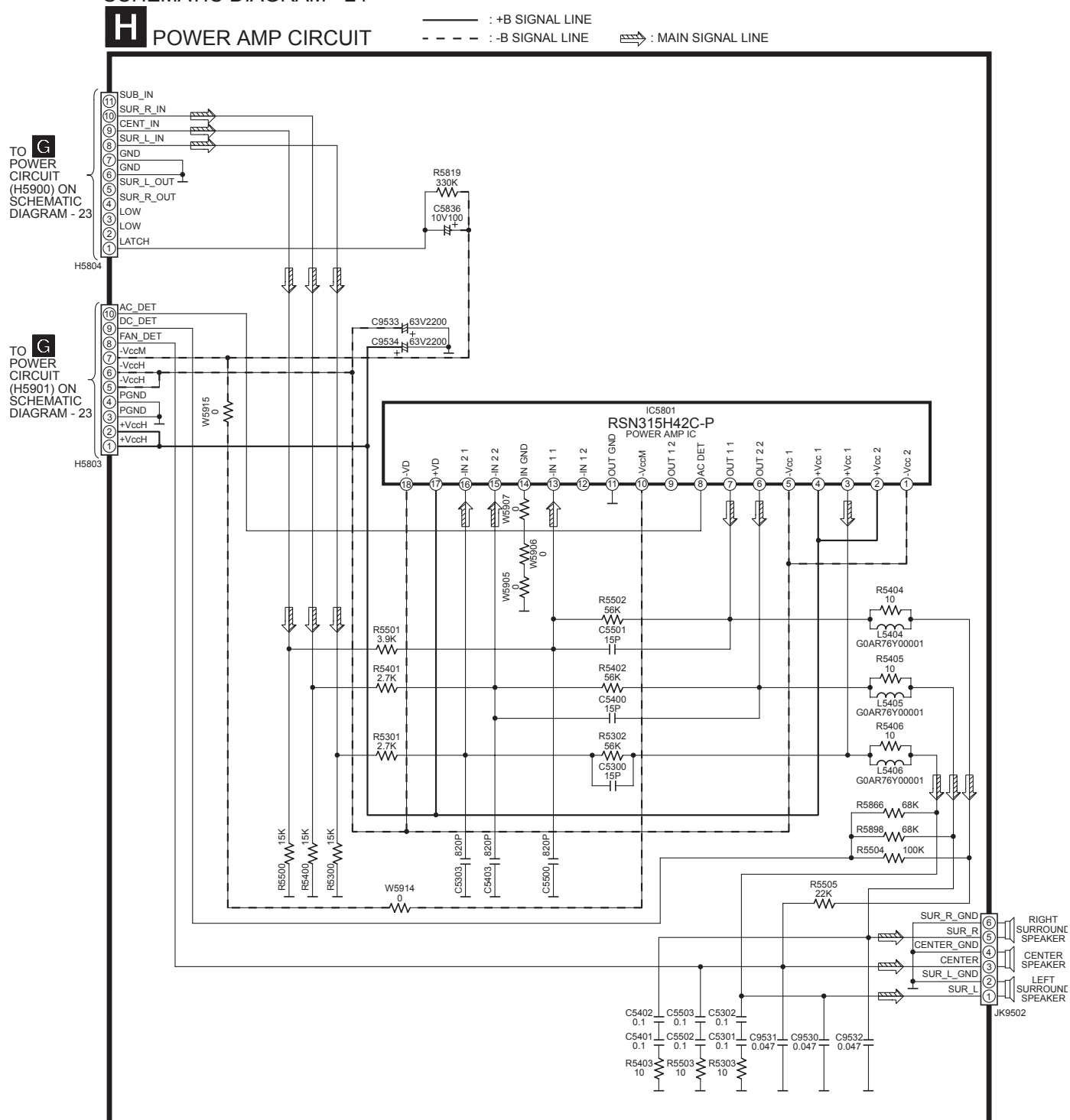


TO **C**  
PANEL  
CIRCUIT  
(CP8800) ON  
SCHEMATIC  
DIAGRAM - 19



## 20.8. (H) Power Amp Circuit

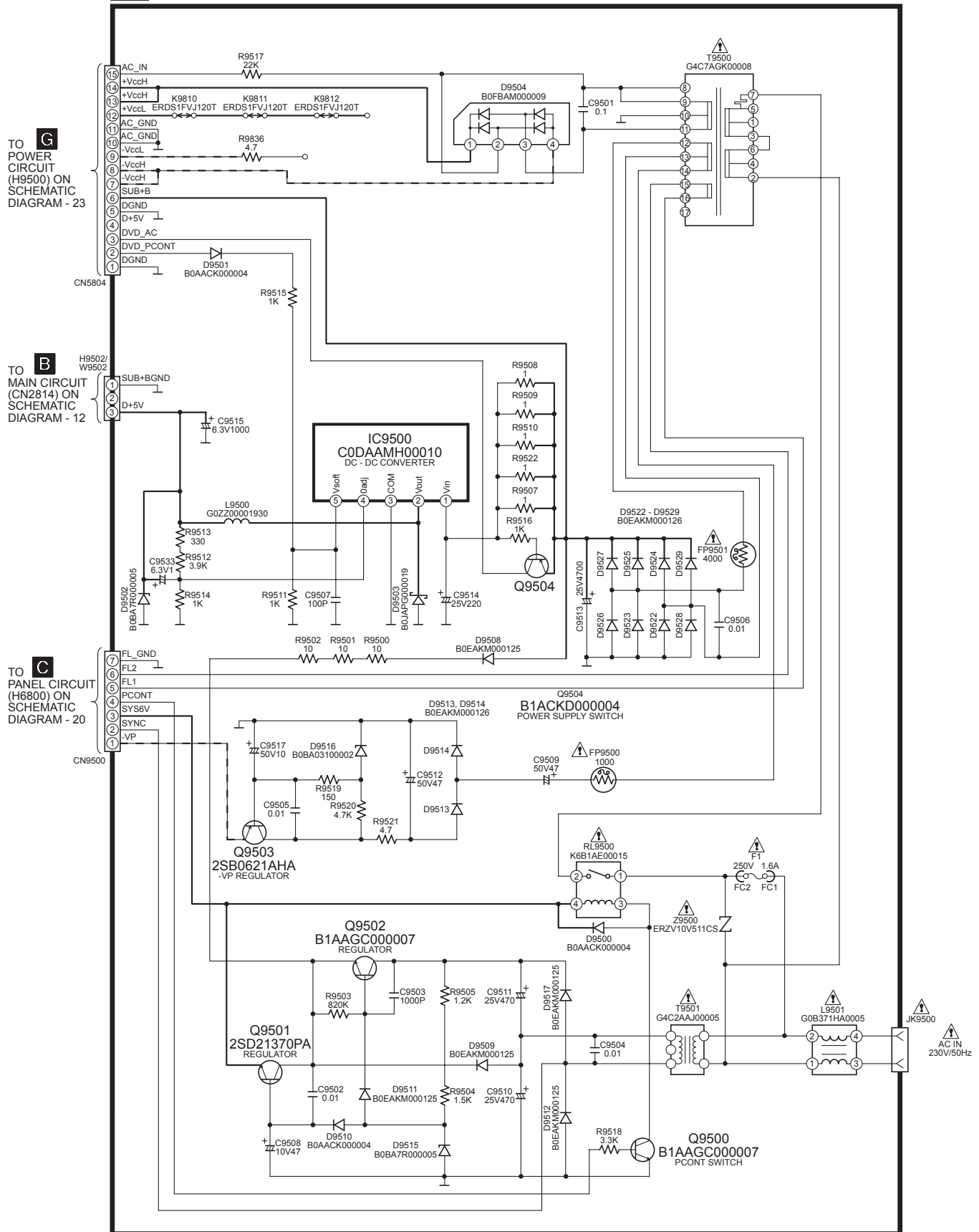
SCHEMATIC DIAGRAM - 24



## 20.9. (I) Transformer Circuit

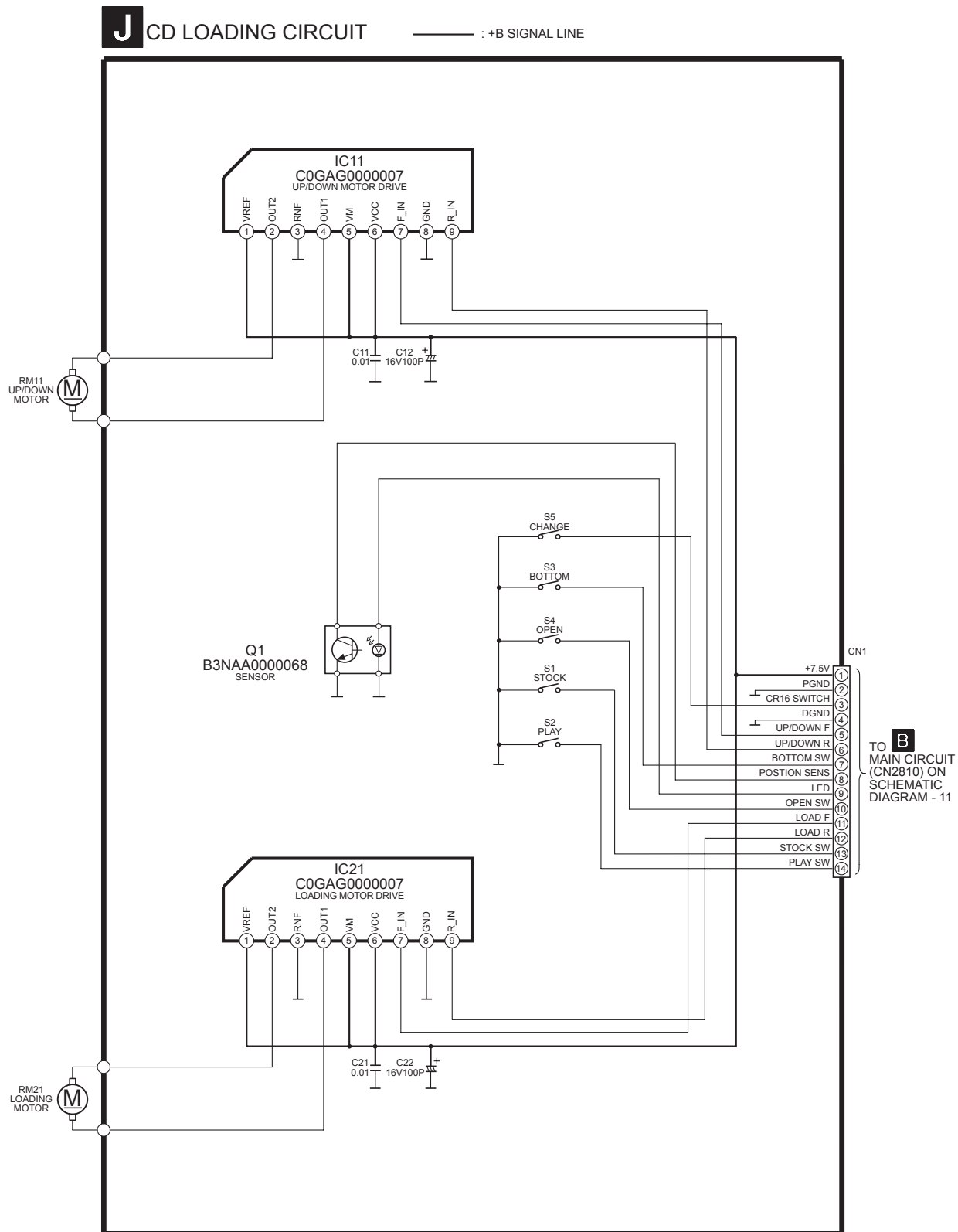
SCHEMATIC DIAGRAM - 25

**I** TRANSFORMER CIRCUIT



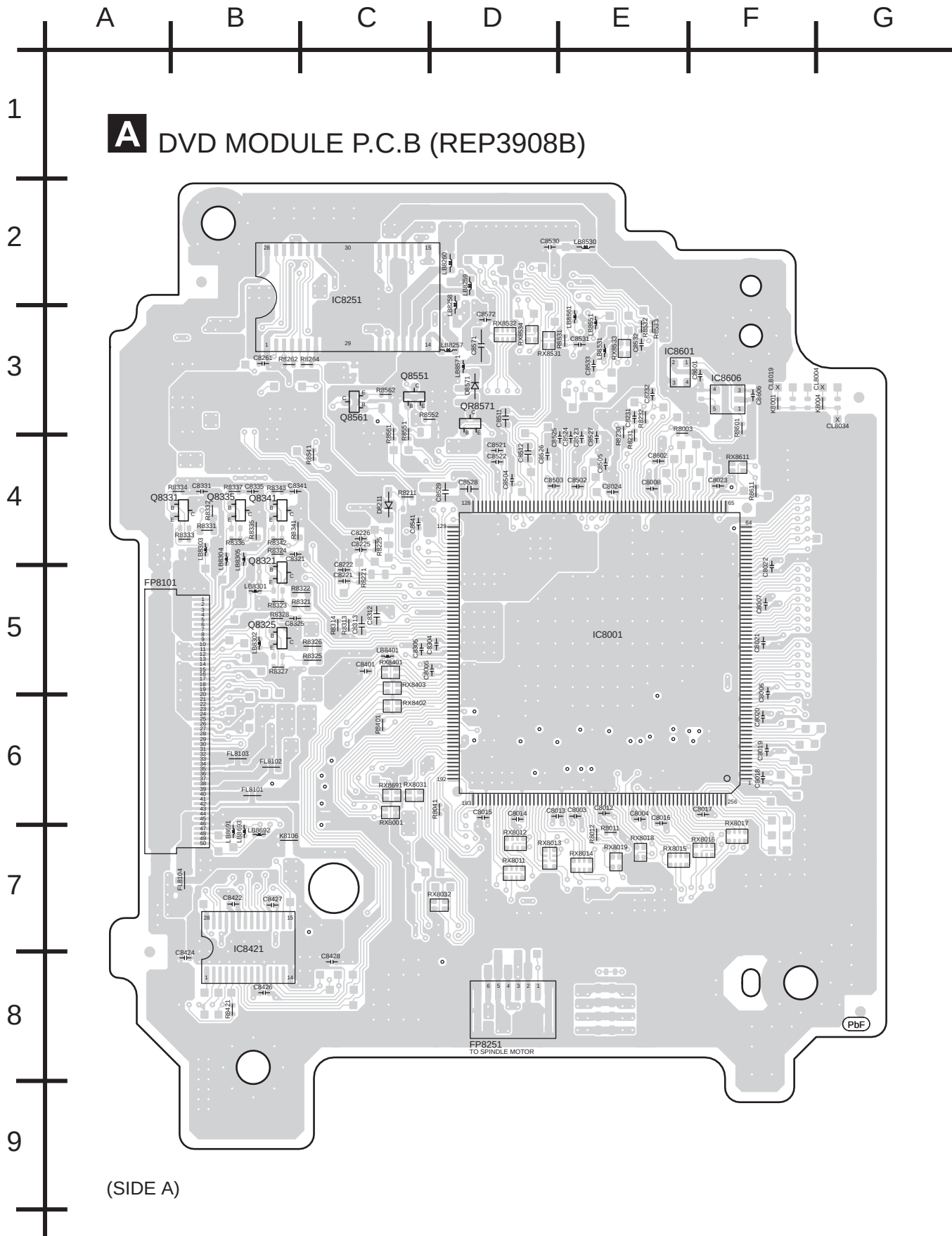
## 20.10. (J) CD Loading Circuit

SCHEMATIC DIAGRAM - 26



# 21 Printed Circuit Board

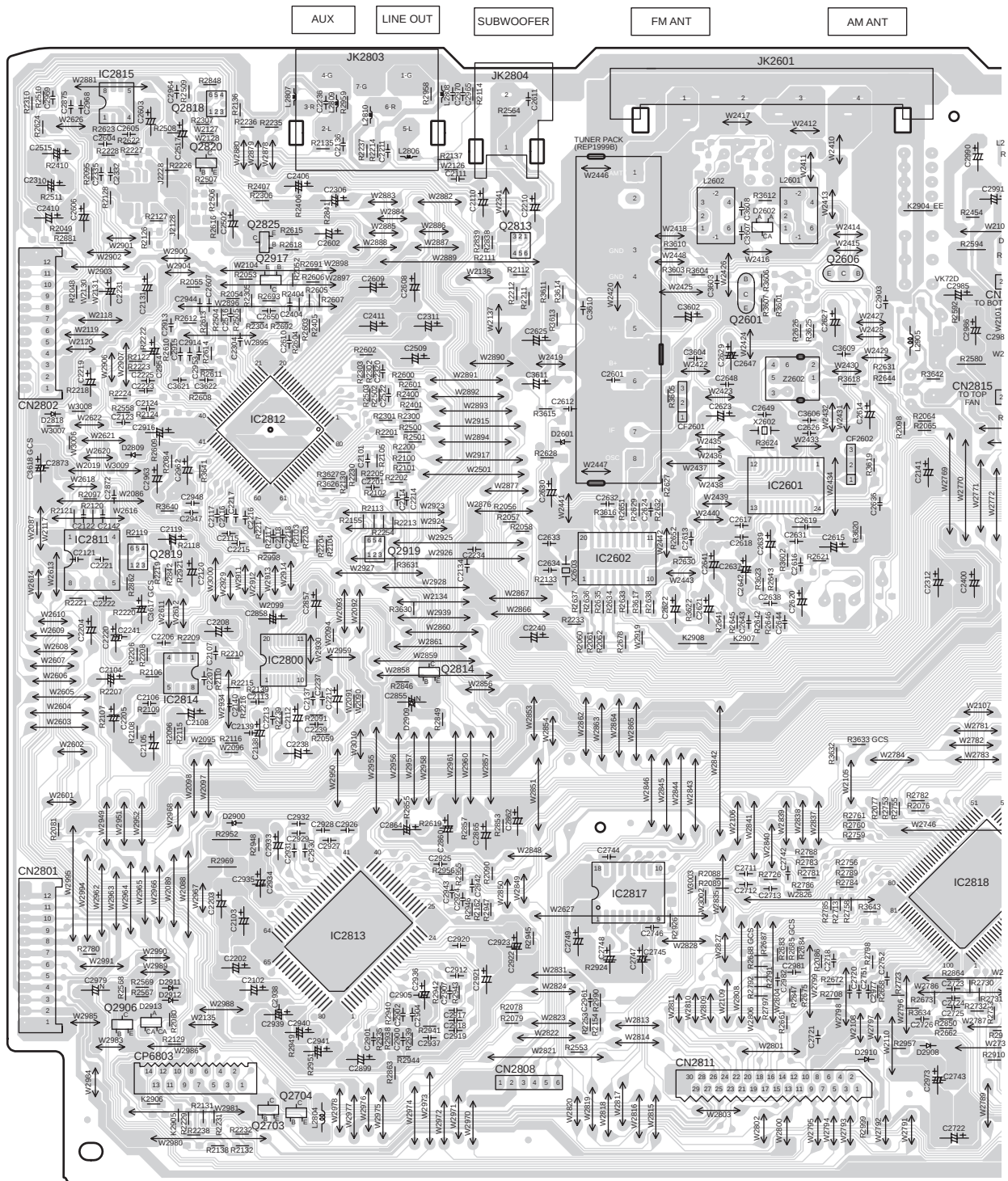
## 21.1. (A) DVD Module P.C.B. (Side: A & B)



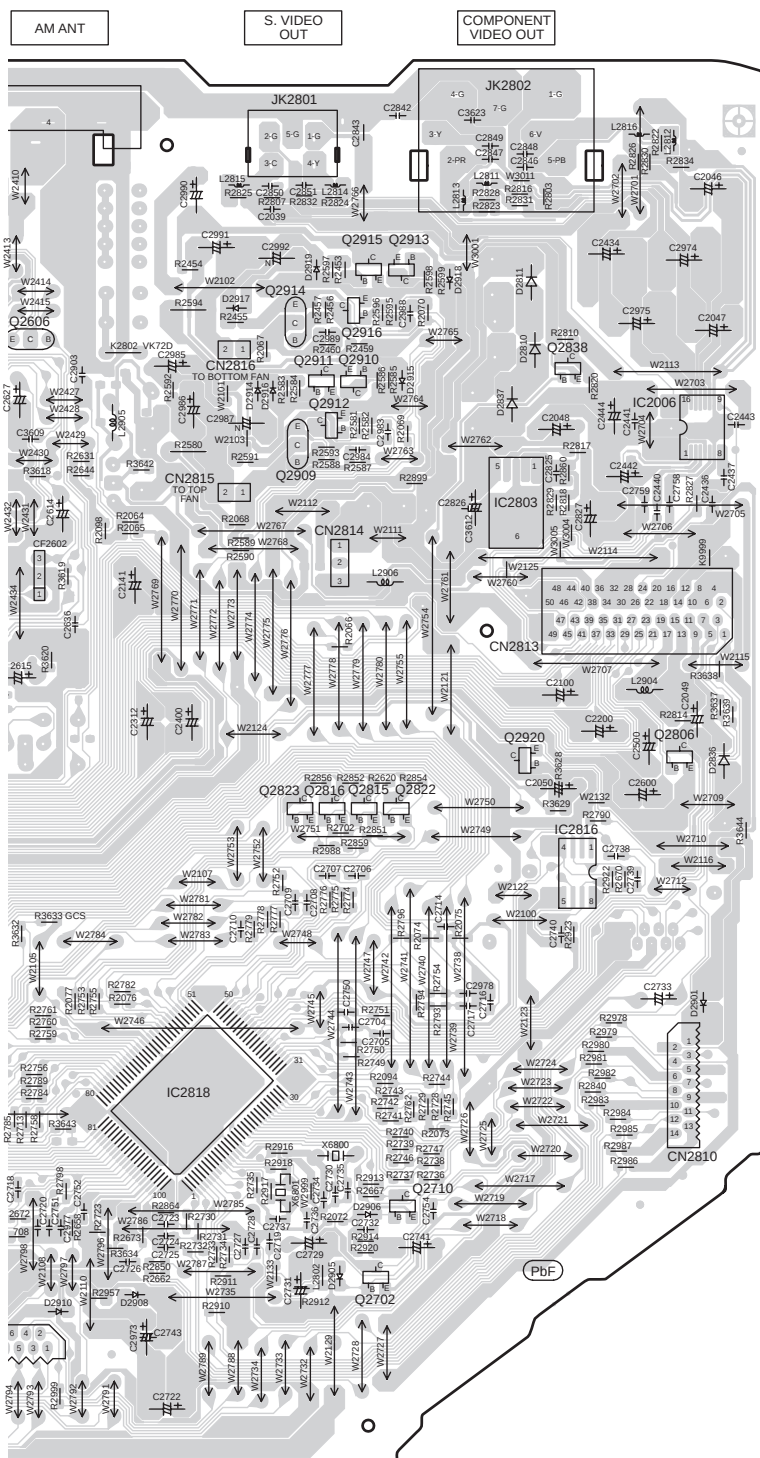
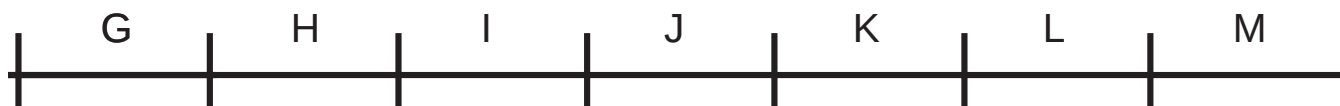




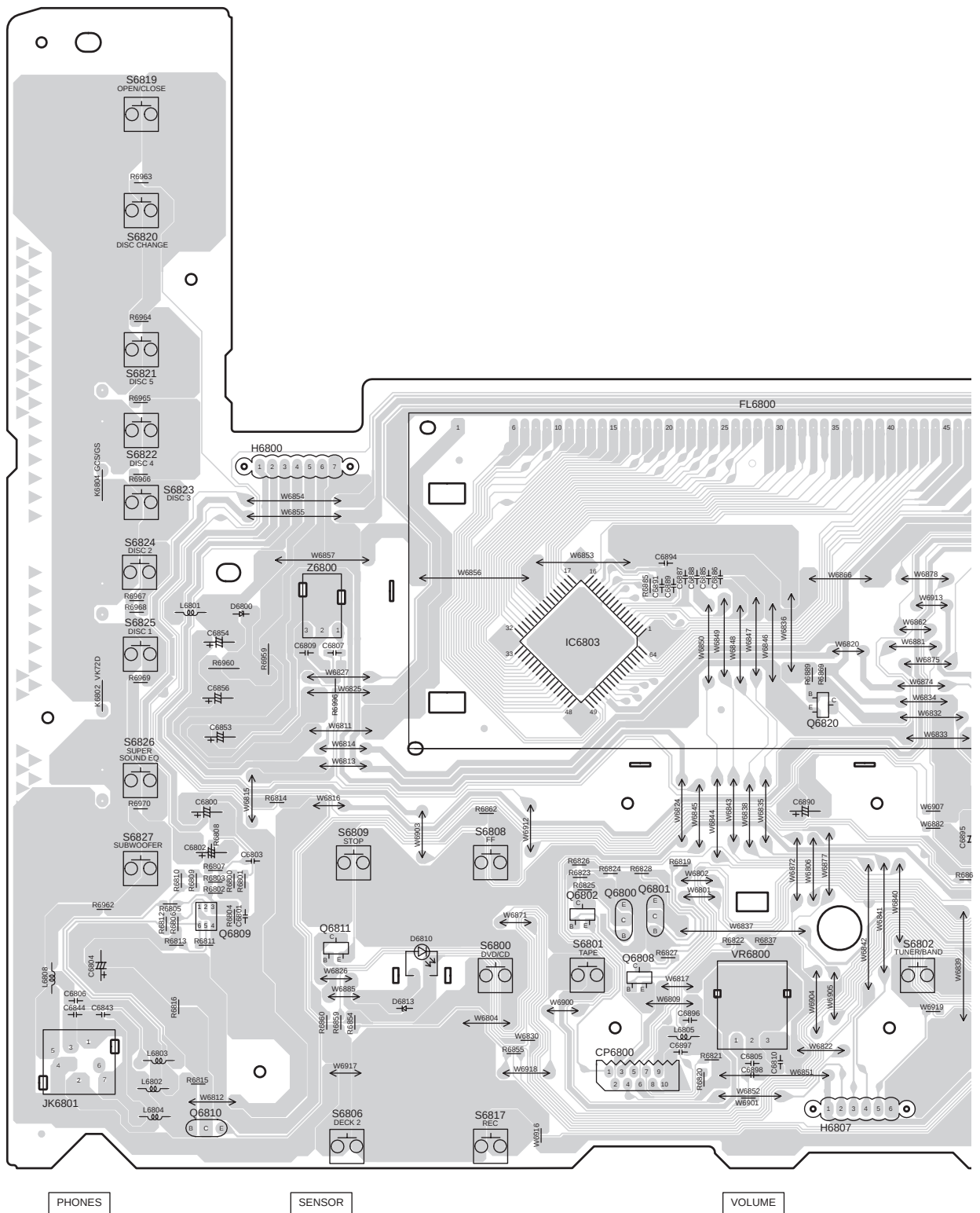
**B**

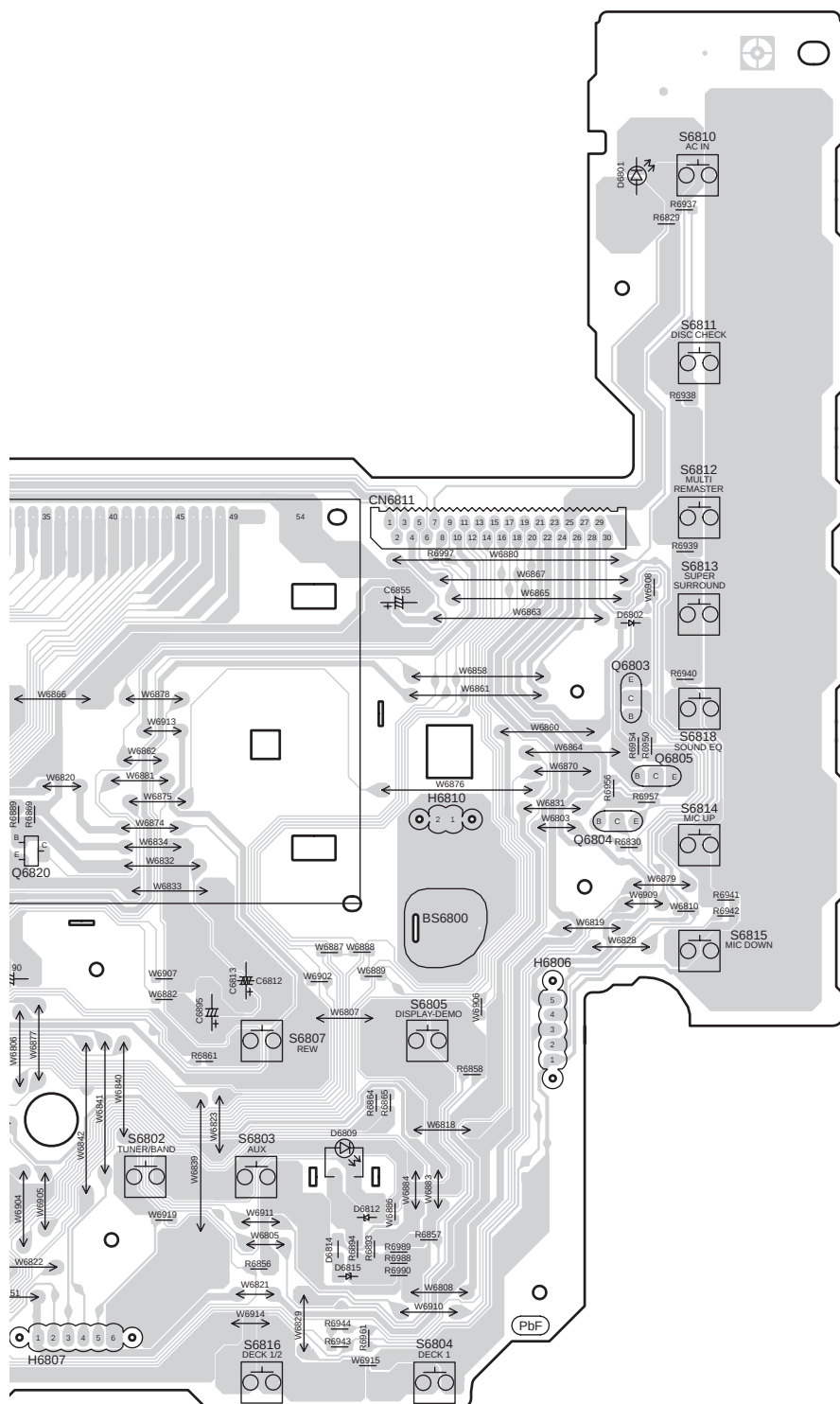




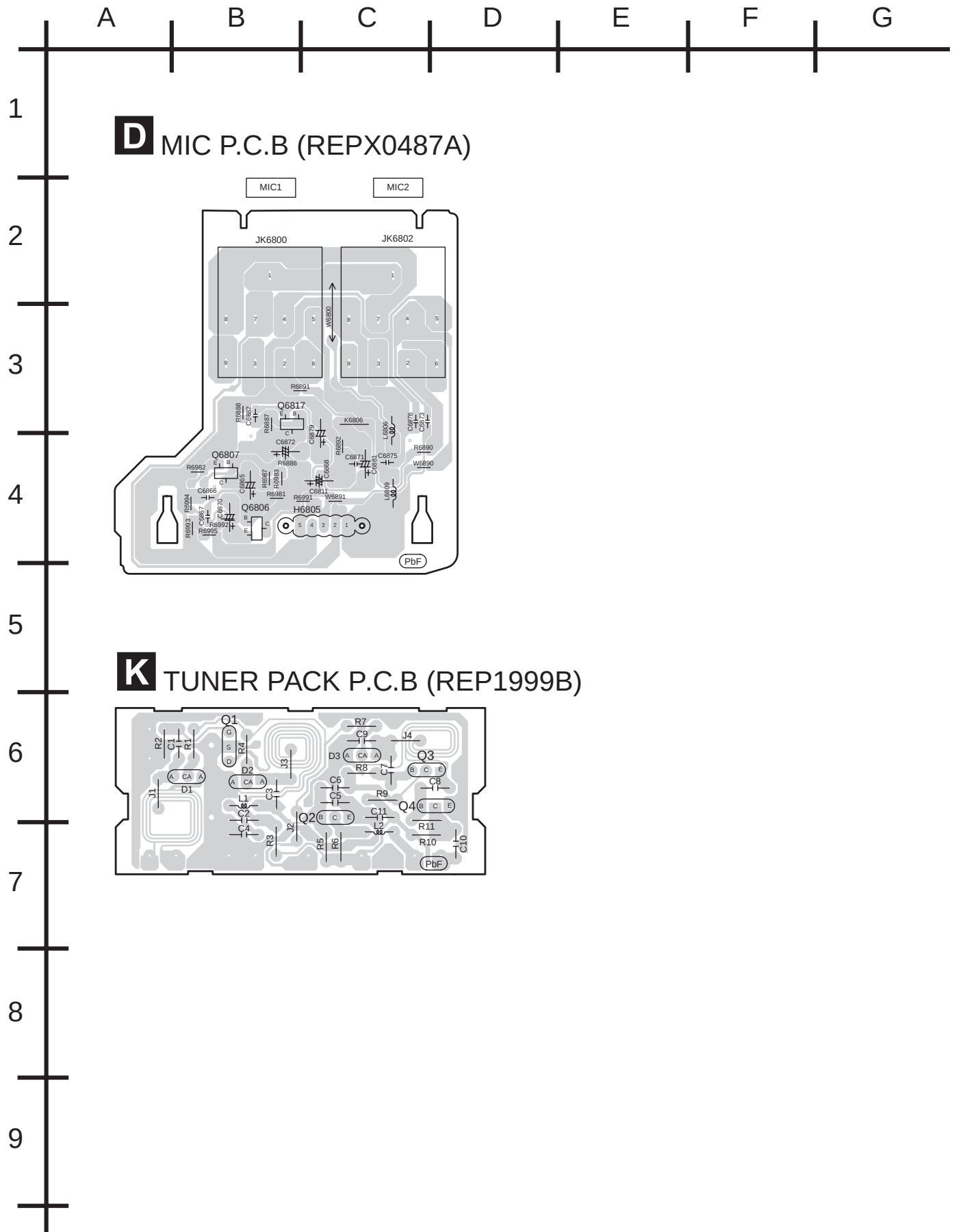


## 21.3. (C) Panel P.C.B.

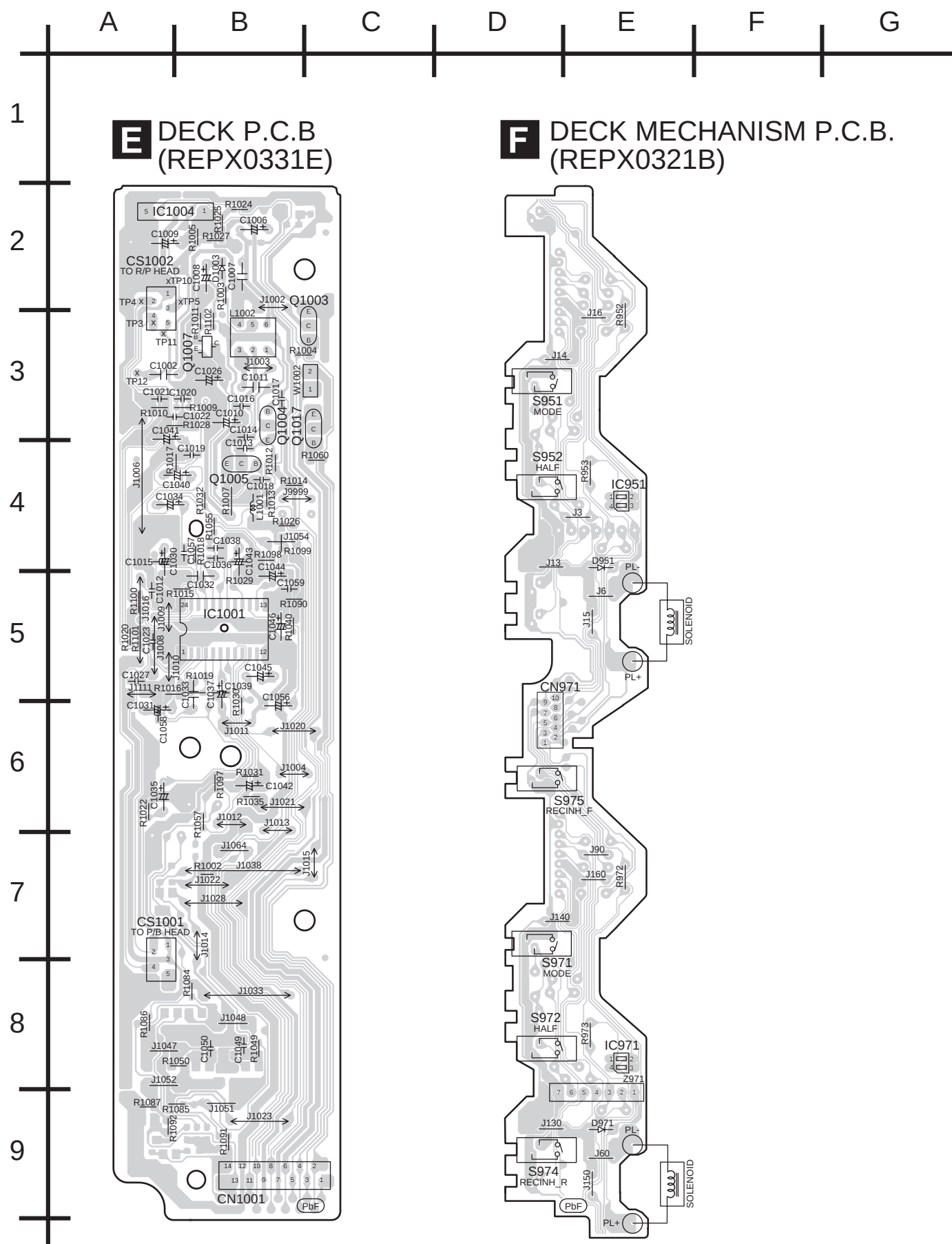
**C** PANEL P.C.B (REPX0487A)



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

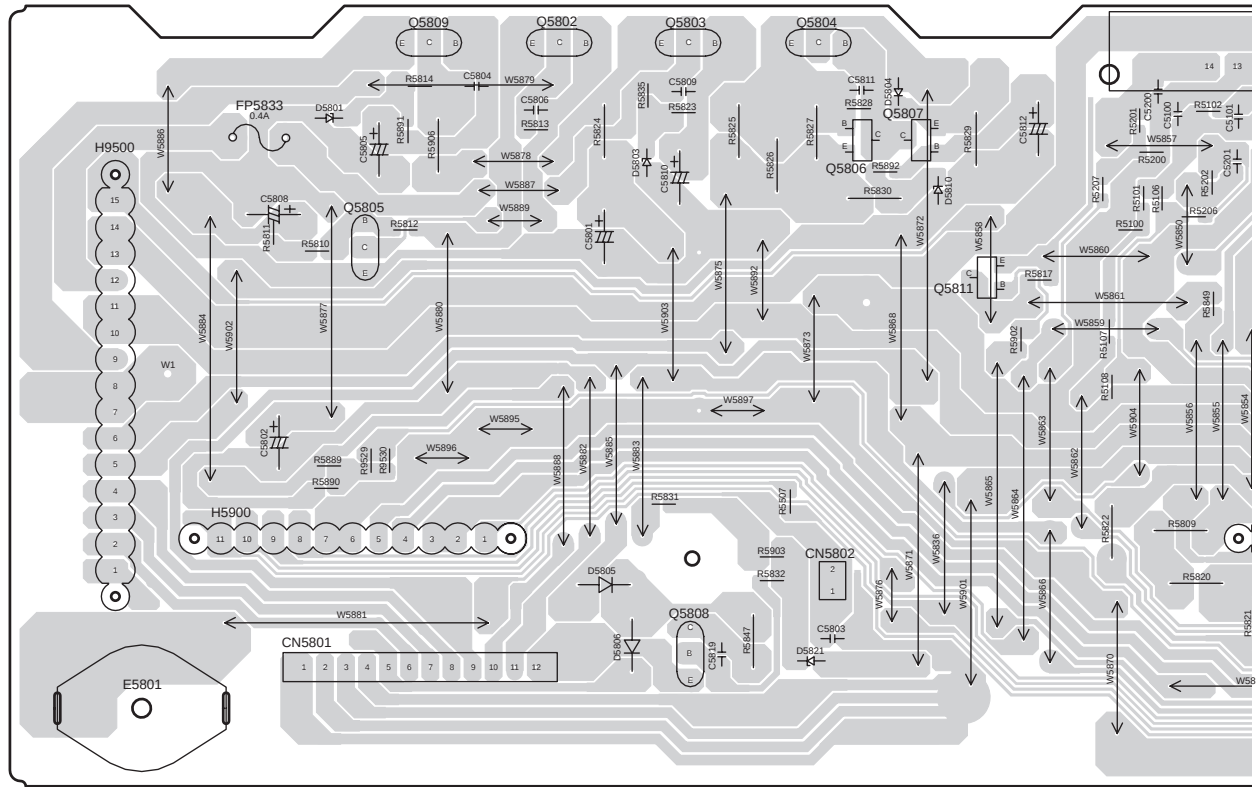


## 21.5. (E) Deck P.C.B. & (F) Deck Mechanism P.C.B.

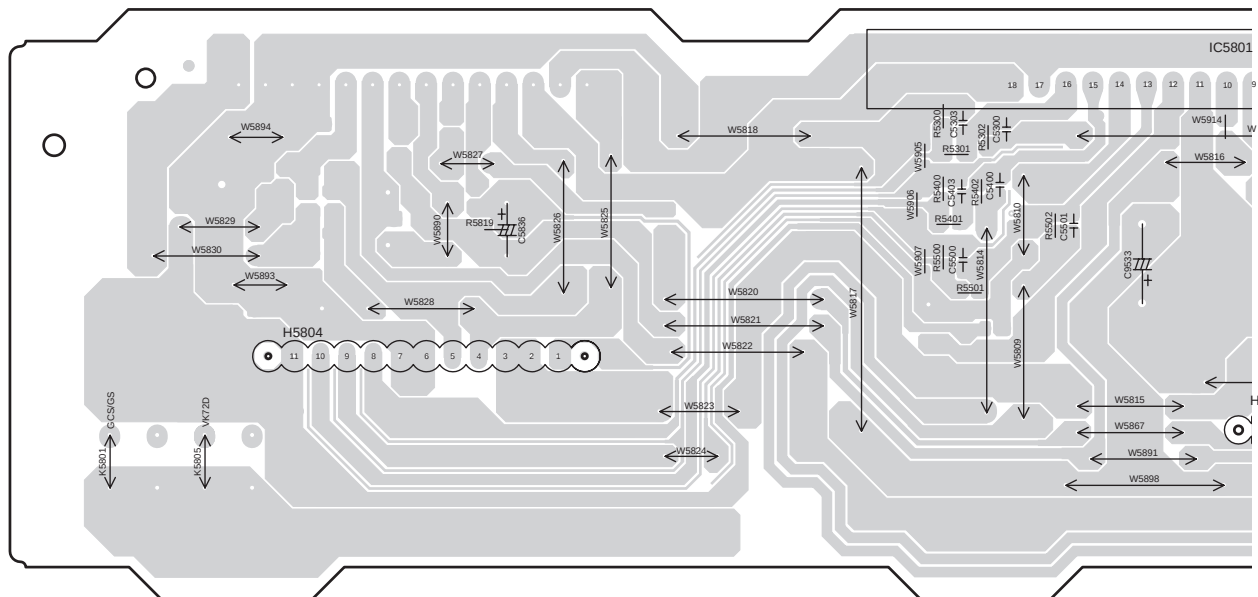


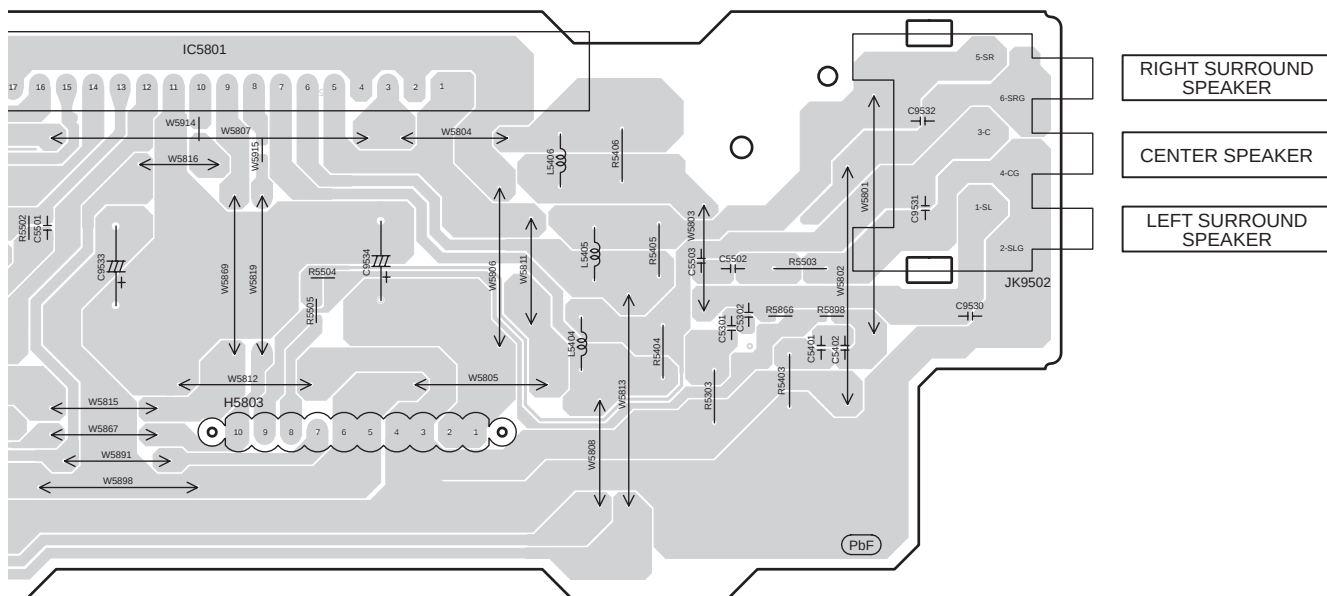
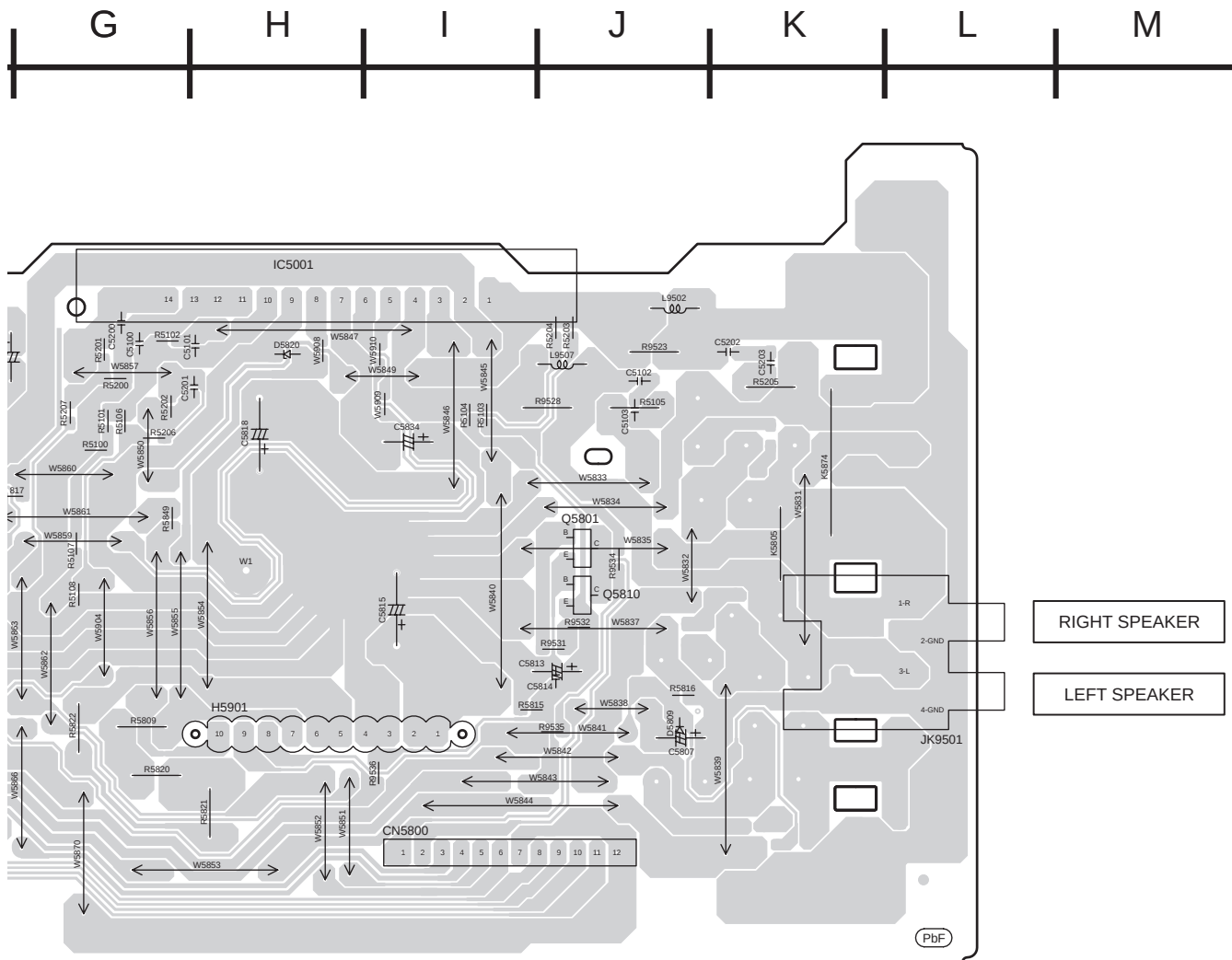
## 21.6. (G) Power P.C.B. & (H) Power Amp P.C.B.

### **G** POWER P.C.B (REPX0488E)

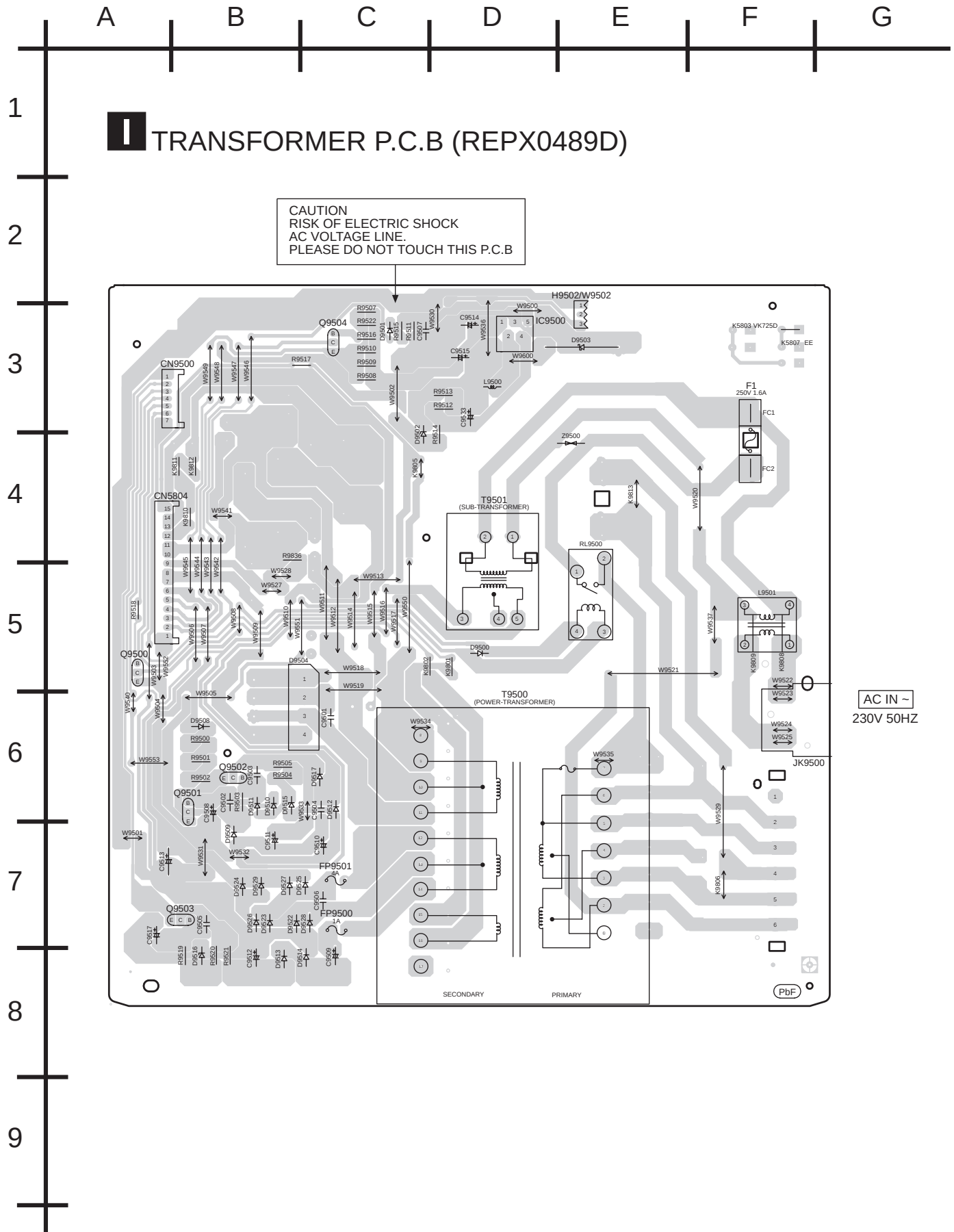


### **H** POWER AMP P.C.B (REPX0488E)



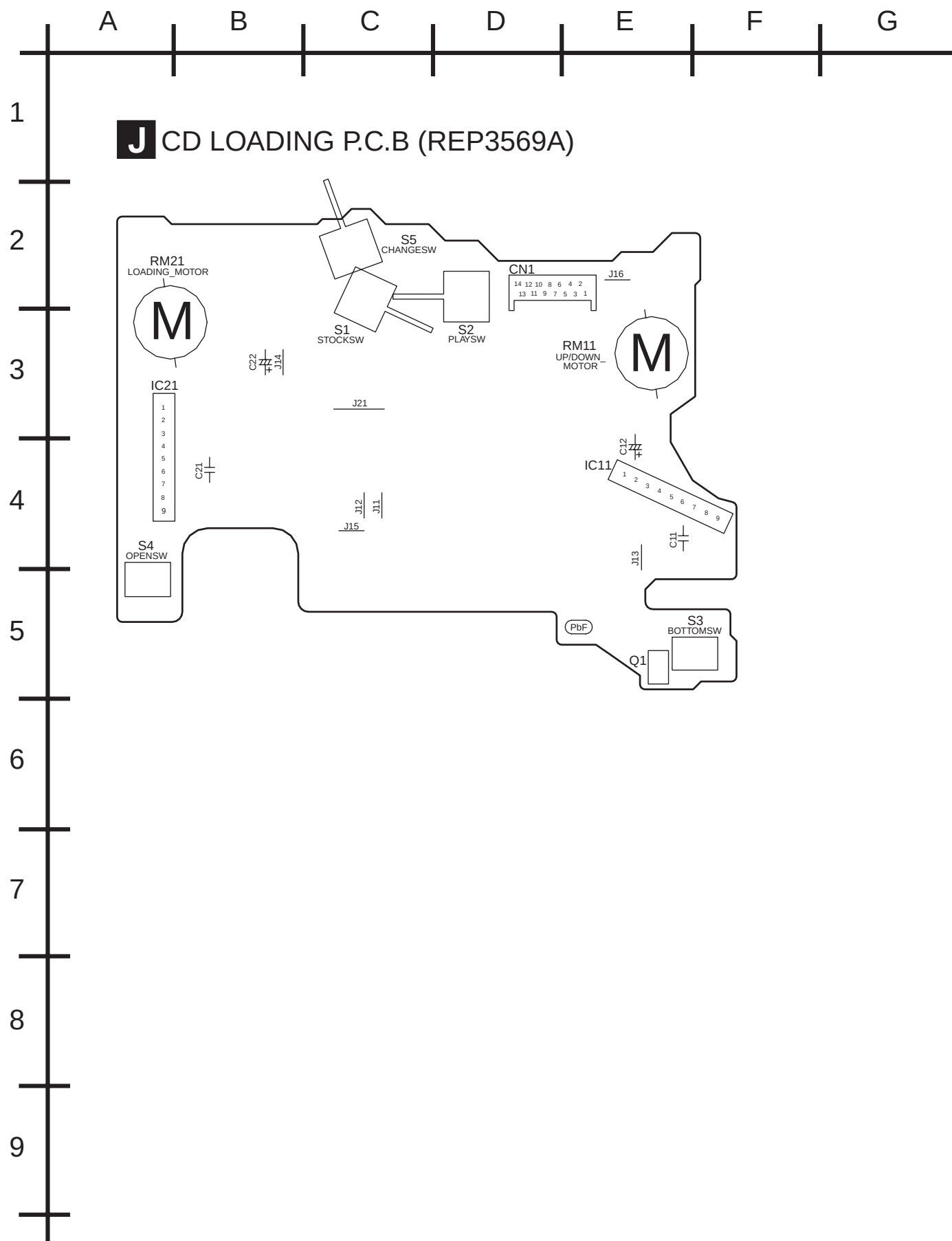


## 21.7. (I) Transformer P.C.B.

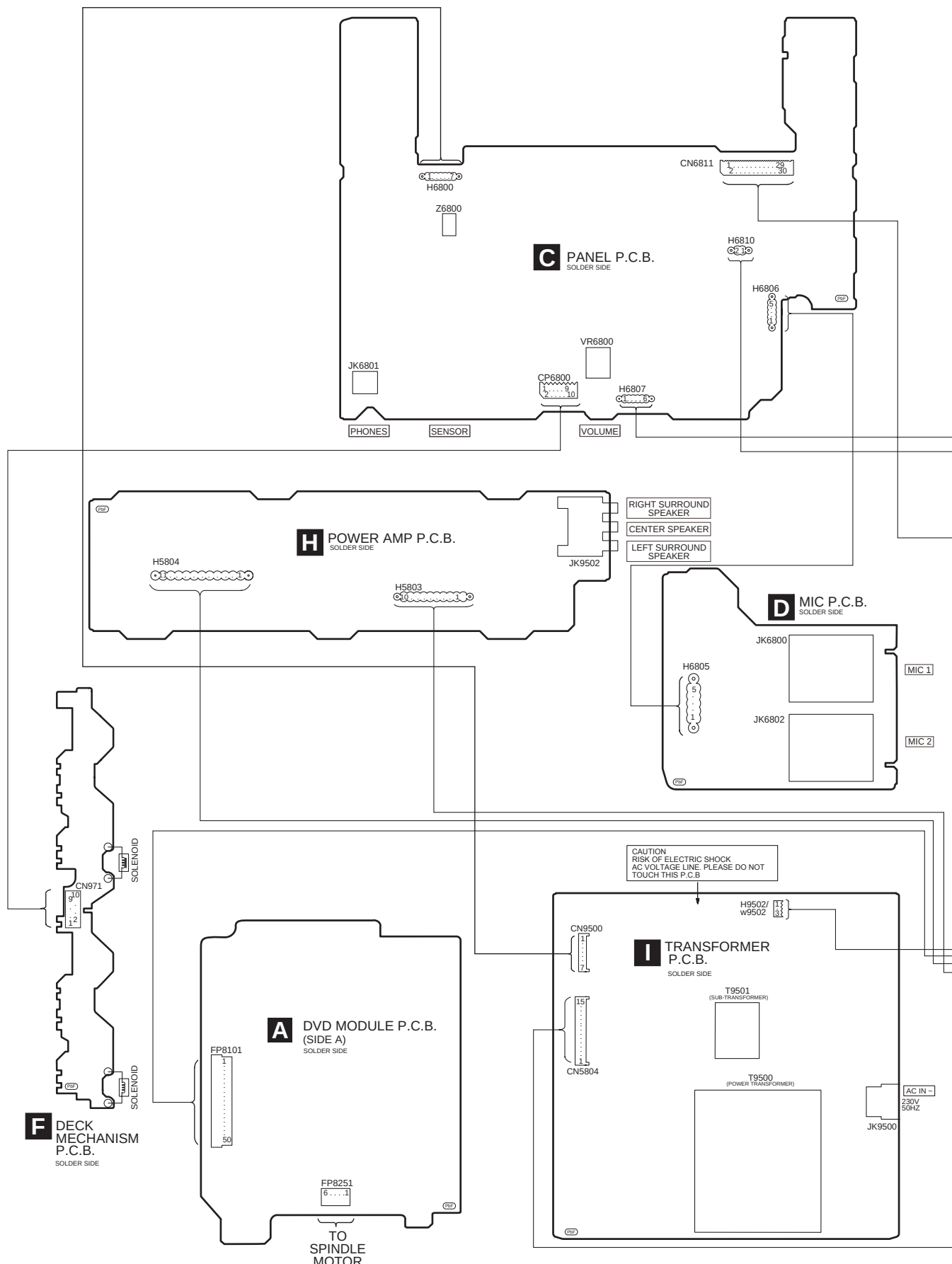


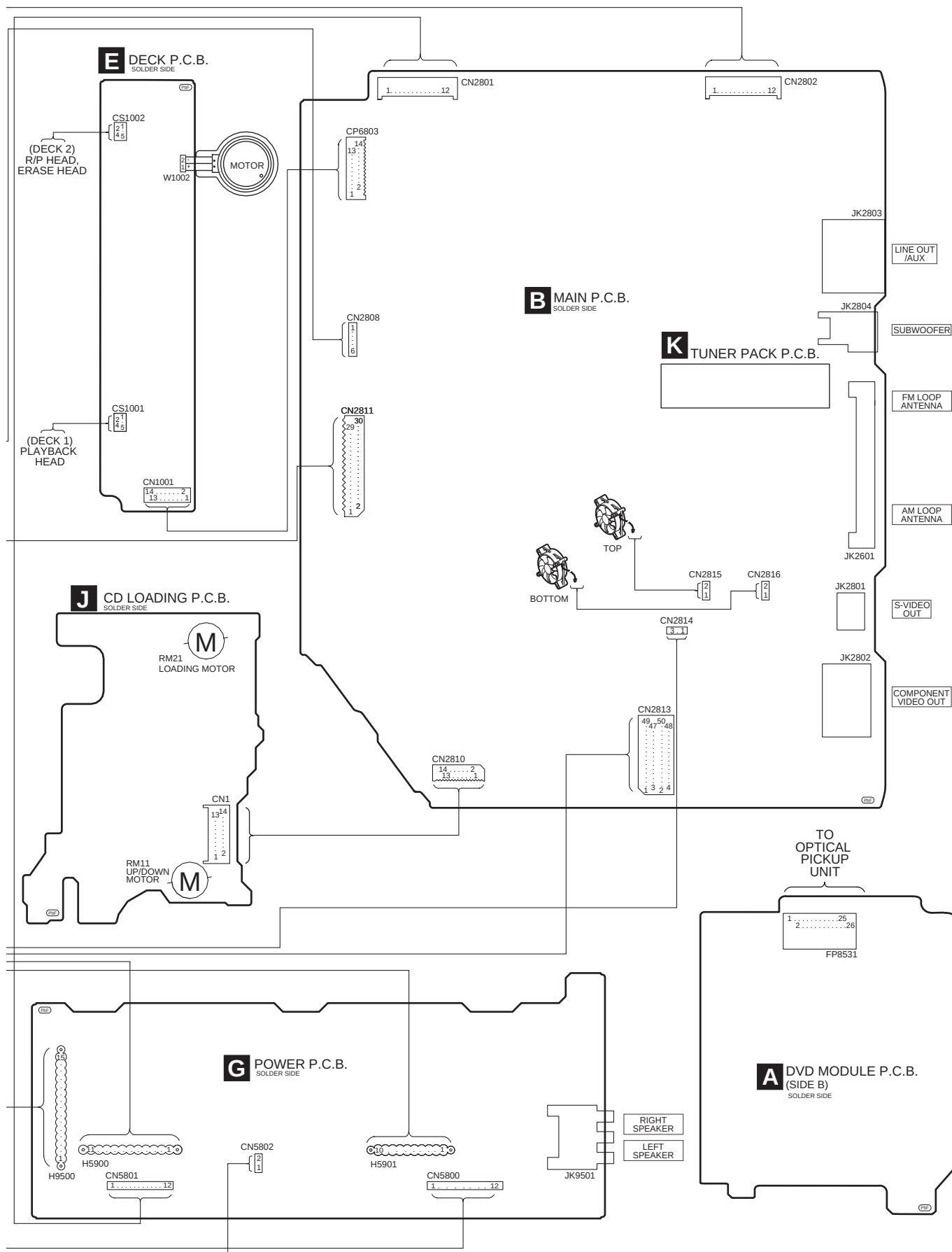


## 21.8. (J) CD Loading P.C.B.

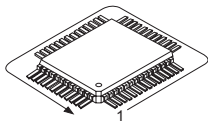
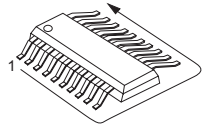
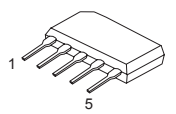
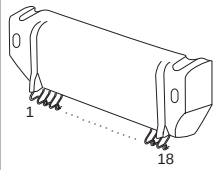
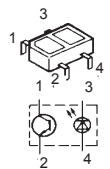
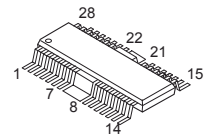
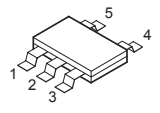
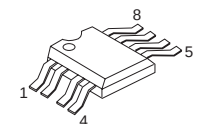
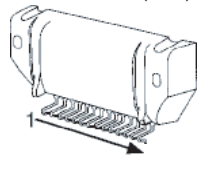
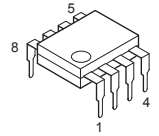
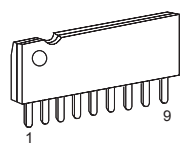
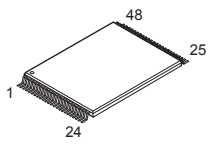
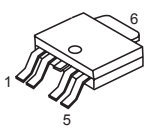
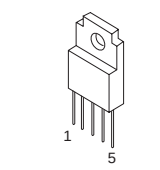
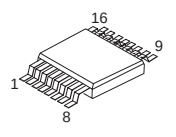
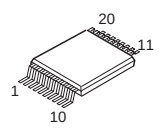
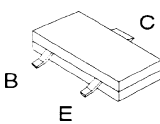
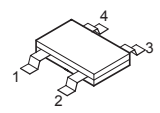
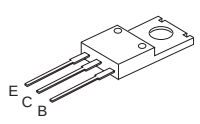
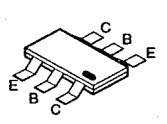
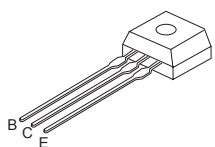
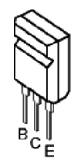
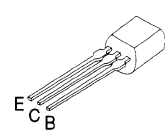
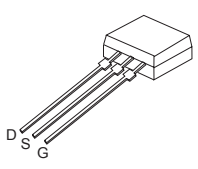
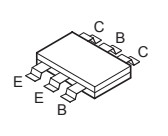
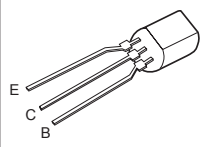
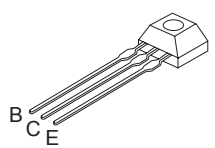
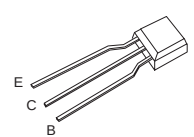
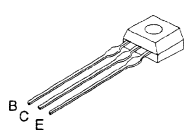
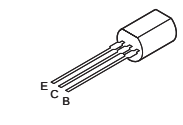
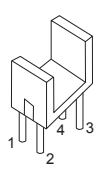
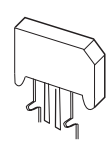
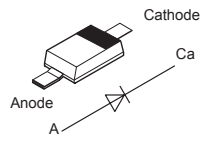
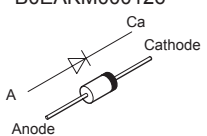
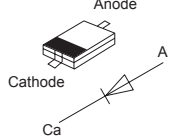
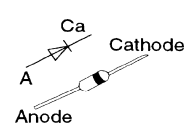
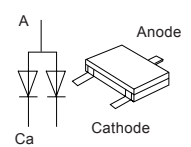
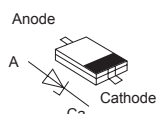
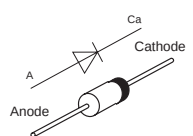
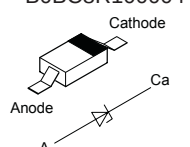
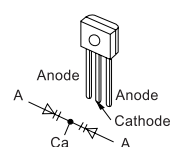
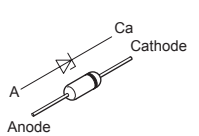


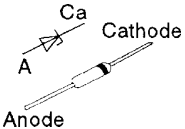
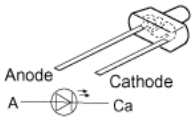
# 22 Wiring Connection Diagram





## 23 Illustration of ICs, Transistors and Diodes

|                                                                                                             |                                                                                                      |                                                                                                                                                 |                                                                                     |                                                                                       |                                                                                       |              |                                                                                     |
|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------------------------|
| C0HBB0000039 (64P)<br>C1BB00000801 (80P)<br>MN2DS0009AP (256P)<br>C2CBJG000653 (100P)<br>C1BB00000845 (56P) |                     | AN7348S-E1 (24P)<br>C0FBBK000050 (28P)<br>C1BB0000086 (18P)<br>C3ABPG000145 (54P)<br>KIA4558FEL(8P)<br>LA1833NMNTLM (24P)<br>LC72131MDTRM (20P) |    | C1AA00000612                                                                          |    | RSN315H42C-P |  |
| CNB13030R2AU                                                                                                | C0GBG0000048                                                                                         | C0EBE0000455<br>C0JBAA000346                                                                                                                    | C0CBCBD00018 (8P)                                                                   | RSN35H2B-P (14P)                                                                      | C0AABA000009                                                                          |              |                                                                                     |
|                            |                     |                                                                |    |    |    |              |                                                                                     |
| C0GAG0000007                                                                                                | RFKWMH90E160                                                                                         | C0DBEZG00021 (6P)                                                                                                                               | C0DAAMH00010                                                                        | C9ZB00000498                                                                          | C1BB00000979                                                                          |              |                                                                                     |
|                            |                     |                                                                |    |    |    |              |                                                                                     |
| C0EBA0000029                                                                                                | 2SB0709AHL<br>2SD0601AHL<br>2SB1218ARL<br>2SD1819A0L<br>B1ABCF000176<br>B1ABEB000002<br>B1ADGB000008 | B1GBCFJA0028<br>B1GBCFJJ0051<br>B1GBCFJN0033<br>B1GDCFGA0018<br>B1GDCFJJ0047<br>UNR521100L<br>UNR511V00L                                        |   | B1BACG000023<br>B1BCCG000002                                                          | B1GFGCAA0001                                                                          |              |                                                                                     |
|                           |                                                                                                      |                                                                                                                                                 |                                                                                     |   |   |              |                                                                                     |
| B1ACCF000094<br>B1GCCFJJ0016                                                                                | 2SD21370PA                                                                                           | B1AAKD000014<br>B1ACKD000004<br>B1AARC000003                                                                                                    | 2SK544F-AC                                                                          | XP0621400L                                                                            | 2SB0621AHA<br>2SD0592ARA                                                              |              |                                                                                     |
|                           |                   |                                                              |  |  |  |              |                                                                                     |
| B1GACFJJ0018                                                                                                | B1AABC000003<br>B1AAGC000007                                                                         | B1AAAC000016<br>B1AAD000015                                                                                                                     | B1ACKD000006                                                                        | B3NAA0000068                                                                          | B0FBAM000009                                                                          |              |                                                                                     |
|                           |                   |                                                              |  |  |  |              |                                                                                     |
| B0EAKM000117<br>B0EAKM000125<br>B0EAKM000126                                                                | B0ACCK000005<br>MA2J72800L                                                                           | B0ACCE000003<br>B0BC010A0007<br>B0BC01600013<br>MA2J11100L                                                                                      |  | B0AACK000004<br>MA2C16500E                                                            | B0ADCJ000020                                                                          |              |                                                                                     |
|                          |                   |                                                                                                                                                 |                                                                                     |  |  |              |                                                                                     |
| B0JAPG000019                                                                                                | MAZ80560ML<br>B0BC8R100004                                                                           | B0CDBB000015<br>B0CBAD000004                                                                                                                    | B0BC5R600003<br>B0BC5R000009<br>B0BC01500006<br>B0BC01000014                        |  | B0BA7R000005                                                                          |              |                                                                                     |
|                          |                   |                                                              |                                                                                     |                                                                                       |  |              |                                                                                     |

|                                                                                                       |                                                                                                                        |  |
|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--|
| <p>B0BA03100002</p>  | <p>B3AAA0000583<br/>B3AEA0000041</p>  |  |
|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--|

## 24 Terminal Function of IC

### 24.1. IC2818 (C2CBJG000653) System Microprocessor

| Pin No. | Mark            | I/O | Function                                            |
|---------|-----------------|-----|-----------------------------------------------------|
| 1       | ST_SW           | I   | Stock Switch of Changer                             |
| 2       | OP/CL_REV       | O   | Reverse control signal for OPEN/CLOSE motor         |
| 3       | OP/CL_FWD       | O   | Forward control signal for OPEN/CLOSE motor         |
| 4       | OPEN_SW         | I   | Signal from tray OPEN Switch                        |
| 5       | POSITION        | I   | Signal from of Position Detection sensor            |
| 6       | N.C.            | -   | No Connection                                       |
| 7       | N.C.            | -   | No Connection                                       |
| 8       | BYTE            | I   | VSS (GND)                                           |
| 9       | CNVSS/EFP_CNVSS | -   | FLASH MODE TERMINAL (Connected to Ground) via 10 kΩ |
| 10      | XCIN            | -   | SUB CLOCK INPUT (32.768 kHz)                        |
| 11      | XCOUT           | -   | SUB CLOCK OUTPUT (32.768 kHz)                       |
| 12      | RESET/ERP_RESET | I   | SYSTEM RESET INPUT (ACTIVE L)                       |
| 13      | XOUT            | -   | MAIN CLOCK OUTPUT (10 MHz)                          |
| 14      | VSS             | -   | GND (0V)                                            |
| 15      | XIN             | -   | MAIN CLOCK INPUT (10 MHz)                           |
| 16      | VCC             | -   | POWER SUPPLY (5V)                                   |
| 17      | NMI             | I   | CONNECT TO VCC, EXTERNAL INTERRUPT I/P              |
| 18      | RMT             | I   | REMOCON INPUT                                       |
| 19      | SYNC            | I   | AC FAILURE DETECT INPUT                             |
| 20      | Up/Down R       | O   | Changer Motor 2 Reverse Control                     |
| 21      | Change SW       | I   | Changer Change Switch                               |
| 22      | BOTTOM SW       | I   | CHANGER BOTTOM SWITCH                               |
| 23      | UP/DOWN F       | O   | Changer Motor 2 Forward Control                     |
| 24      | S.Surr IC_CLK   | O   | Clock signal for super surround IC                  |
| 25      | S.Surr IC_DAT   | O   | Data signal for super surround IC                   |
| 26      | PLL_CE          | O   | PLL Chip Select                                     |
| 27      | TU-SD           | I   | SIGNAL DET Input from Tuner                         |
| 28      | TU_ST/DO        | I   | Tuner IF Data/Stereo Input                          |
| 29      | PLL_DA          | O   | PLL DATA - DI INPUT of Tuner                        |
| 30      | PLL_CK          | O   | Clock Signal for the PLL Tuner                      |
| 31      | EFP_TxD1        | O   | Transmit signal for flash micro-p                   |
| 32      | EFP_RxD1        | O   | Receive signal for flash micro-p                    |
| 33      | EFP_SCLK        | O   | Clock signal for flash micro-p                      |
| 34      | EFP_BUSY        | O   | Busy signal for flash micro-p                       |
| 35      | DVD_CMD         | O   | CMD signal for the DVD Module                       |
| 36      | DVD_STA         | I   | STATUS signal from the DVD Module                   |
| 37      | DVD_CK          | I   | CLK signal for the DVD Module                       |
| 38      | EDA             | O/I | DATA Signal for the EEPROM                          |

| Pin No. | Mark      | I/O | Function                                              |
|---------|-----------|-----|-------------------------------------------------------|
| 39      | ECLK      | O   | CLOCK Signal for the EEPROM                           |
| 40      | ECS       | O   | CHIP SELECT Signal for the EEPROM                     |
| 41      | EFP_EPM   | O   | For Flash                                             |
| 42      | FLD_RST   | O   | Reset Signal for the FL DRIVER                        |
| 43      | FLD_CS    | O   | Latch Signal for the FL DRIVER                        |
| 44      | FLD_DA    | O   | Data input for the FL DRIVER                          |
| 45      | FLD_CK    | O   | Clock Signal for the FL DRIVER                        |
| 46      | EFP_CE    | O   | For Flash                                             |
| 47      | Wide1     | O   | S-Video output control                                |
| 48      | ASP_DA    | O   | DATA signal for 6ch VOL ASP                           |
| 49      | ASP_CK    | O   | CLOCK signal for 6ch VOL ASP                          |
| 50      | DVD_MUTE  | I   | Signal from DVD module control mute circuit           |
| 51      | DivX_EN   | I   | DivX_EN                                               |
| 52      | KA_LAT    | O   | Karaoke Latch                                         |
| 53      | KA_DAT    | O   | Karaoke Data                                          |
| 54      | KA_CLK    | O   | Karaoke Clock                                         |
| 55      | MUTE_L    | O   | Mute control of Line Out                              |
| 56      | MUTE_H    | O   | HIC MUTE                                              |
| 57      | HP_MUTE   | O   | Head Phone Mute signal                                |
| 58      | MUTE_C    | O   | Port for Mute control of Center                       |
| 59      | MUTE_SR   | O   | Port for Mute Control of SL/SR                        |
| 60      | SUB_MUTE  | O   | Subwoofer Mute Signal                                 |
| 61      | MUTE_A    | O   | Mute Control for FL/FR                                |
| 62      | VCC       | -   | Power Supply 5.0V                                     |
| 63      | N.C.      | -   | No Connection                                         |
| 64      | VSS       | -   | Ground (0V)                                           |
| 65      | SP_A      | O   | Control Speana IC's port A                            |
| 66      | SP_B      | O   | Control Speana IC's port B                            |
| 67      | SP_C      | O   | Control Speana IC's port C                            |
| 68      | DVD_PCT   | O   | Control Signal for the Power for the DVD MODULE       |
| 69      | DC_DET    | I   | Signal from the DC Detection circuit                  |
| 70      | PCONT     | O   | Control Signal for the Power Control Relay            |
| 71      | REC       | O   | Deck Recording Control (Recording = L)                |
| 72      | Half1     | I   | Half switch signal from DECK1                         |
| 73      | Mode1     | I   | Mode switch signal from DECK1 (L=OFF; H=ON)           |
| 74      | MOTOR     | O   | Deck Motor Control (L=OFF; H=ON)                      |
| 75      | JOG_B     | I   | Signal B from Volume JOG                              |
| 76      | JOG_A     | I   | Signal A from Volume JOG                              |
| 77      | DMT       | O   | Deck Mute at mecha Transition (L=Mute Off; H=MUTE On) |
| 78      | DECK1_H   | I   | Stock Switch of Changer                               |
| 79      | PLUNGER 1 | O   | Deck 1 Plunger Control (L=OFF; H=ON)                  |
| 80      | PLUNGER 2 | O   | Deck 2 Plunger Control (L=OFF; H=ON)                  |

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

## 25 Parts Location and Replacement Parts List

### Notes:

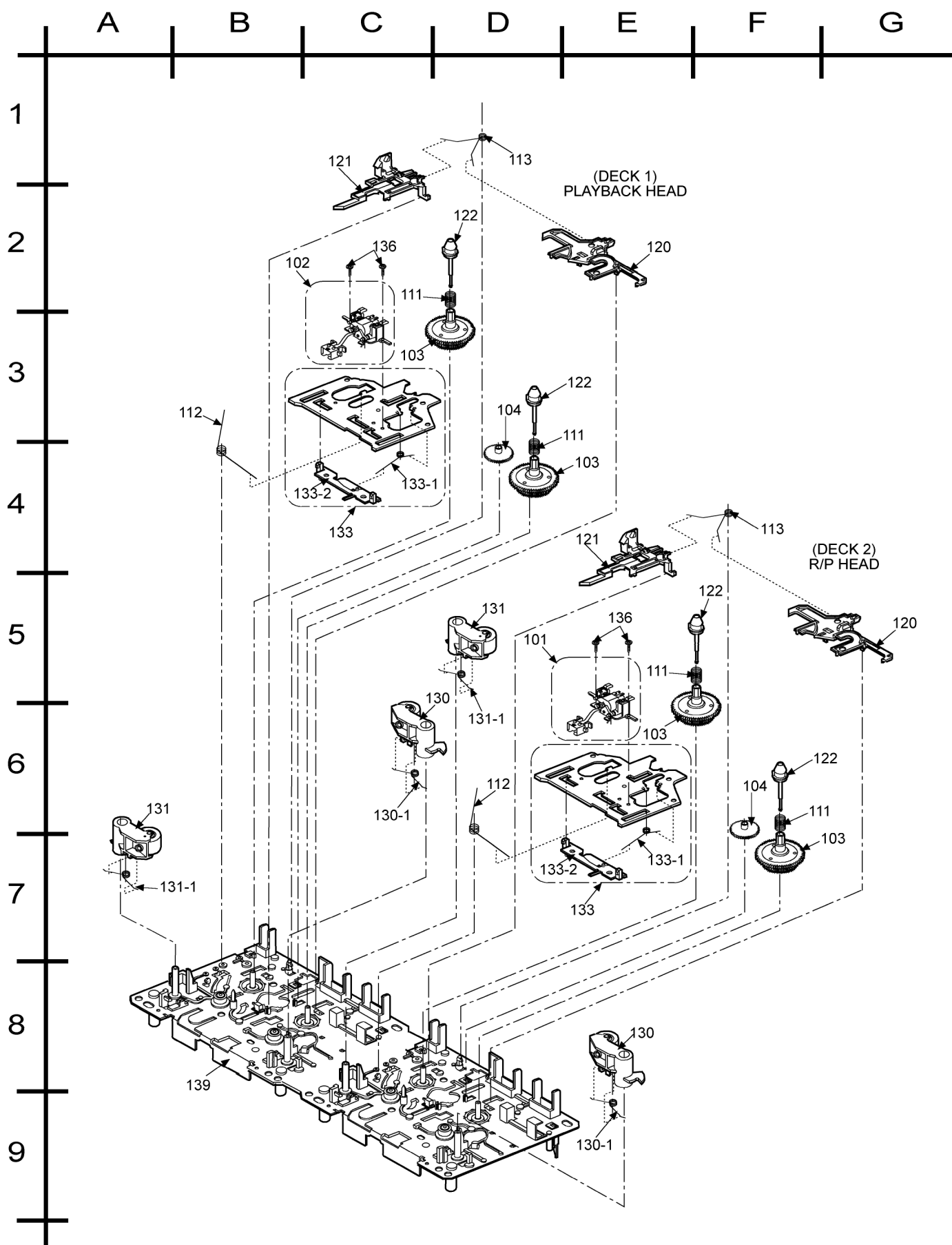
- Important safety notice:  
Components identified by  $\triangle$  mark have special characteristics important for safety.  
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low noise (resistors), etc are used.  
When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.
- The parenthesized indications in the Remarks columns specify the areas or colour. (Refer to the cover page for area or colour)  
Parts without these indications can be used for all areas.
- Warning: This product uses a laser diode. Refer to caution statements on "Precaution of Laser Diode".
- Capacitor values are in microfarads ( $\mu$ F) unless specified otherwise, P= Pico-farads (pF), F= Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM).
- The marking (RTL) indicates that the Retention Time is limited for this items. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of a availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
- [M] markings in the Remarks columns indicates parts supplied by **PAVCSG**.
- [SPG] markings in the Remarks columns indicates parts that are supplied by **PAVC**.
- Reference for O/I book languages are as follows:

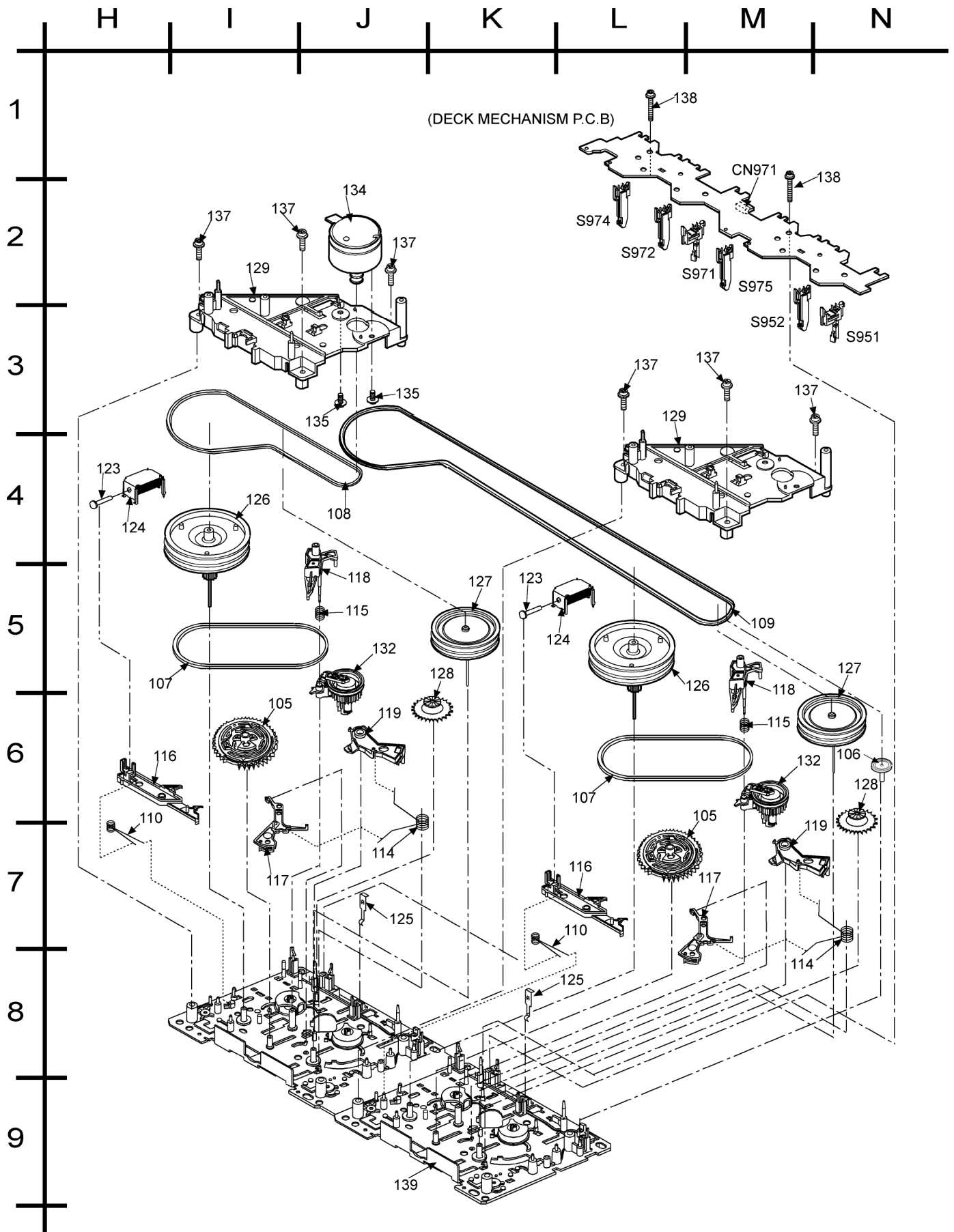
|     |                 |     |         |     |         |     |                     |
|-----|-----------------|-----|---------|-----|---------|-----|---------------------|
| Ar: | Arabic          | Du: | Dutch   | It: | Italian | Sp  | Spanish             |
| Cf: | Canadian French | En: | English | Ko: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



## 25.1. Deck Mechanism (RAA3413-S)

### 25.1.1. Deck Mechanism Parts Location



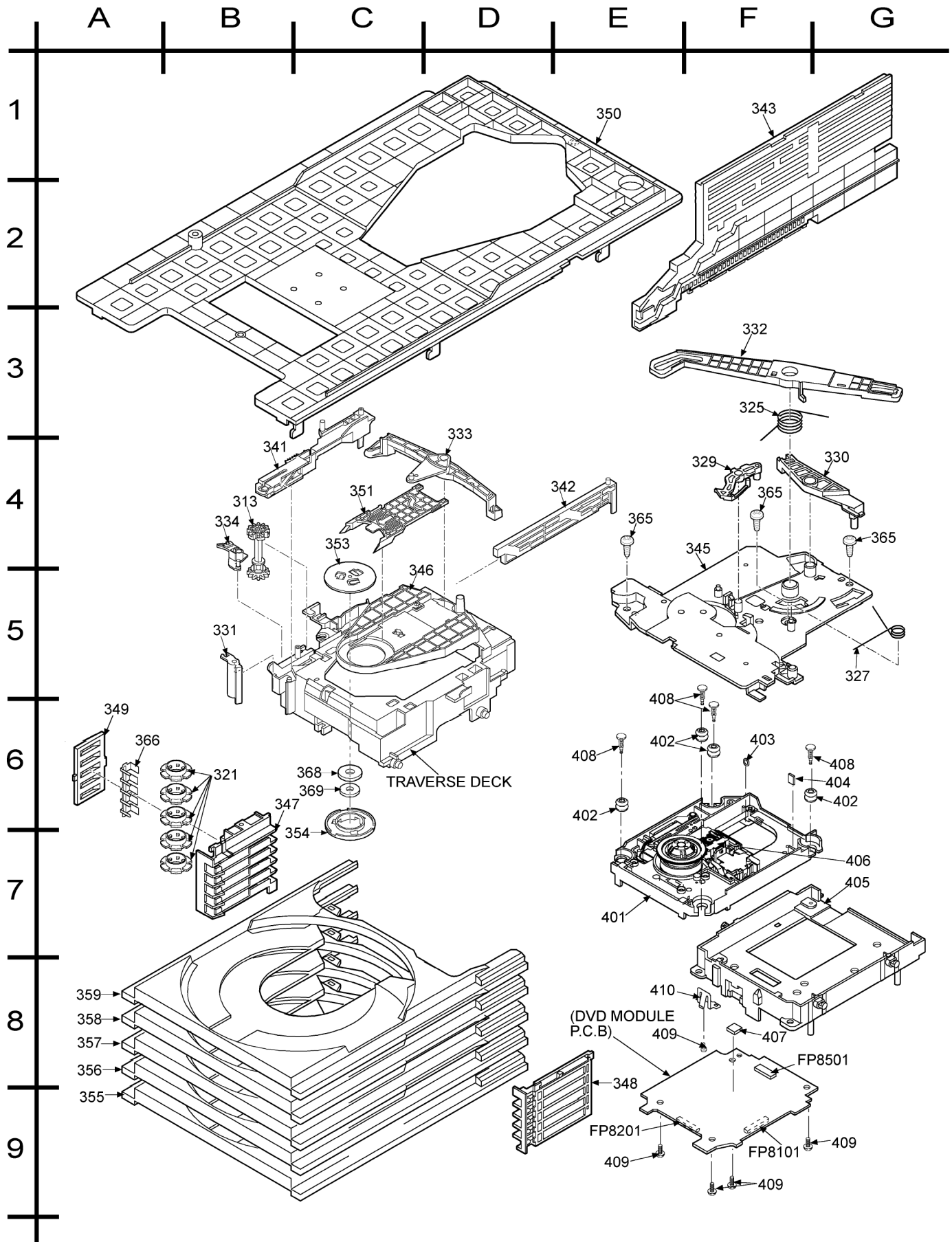


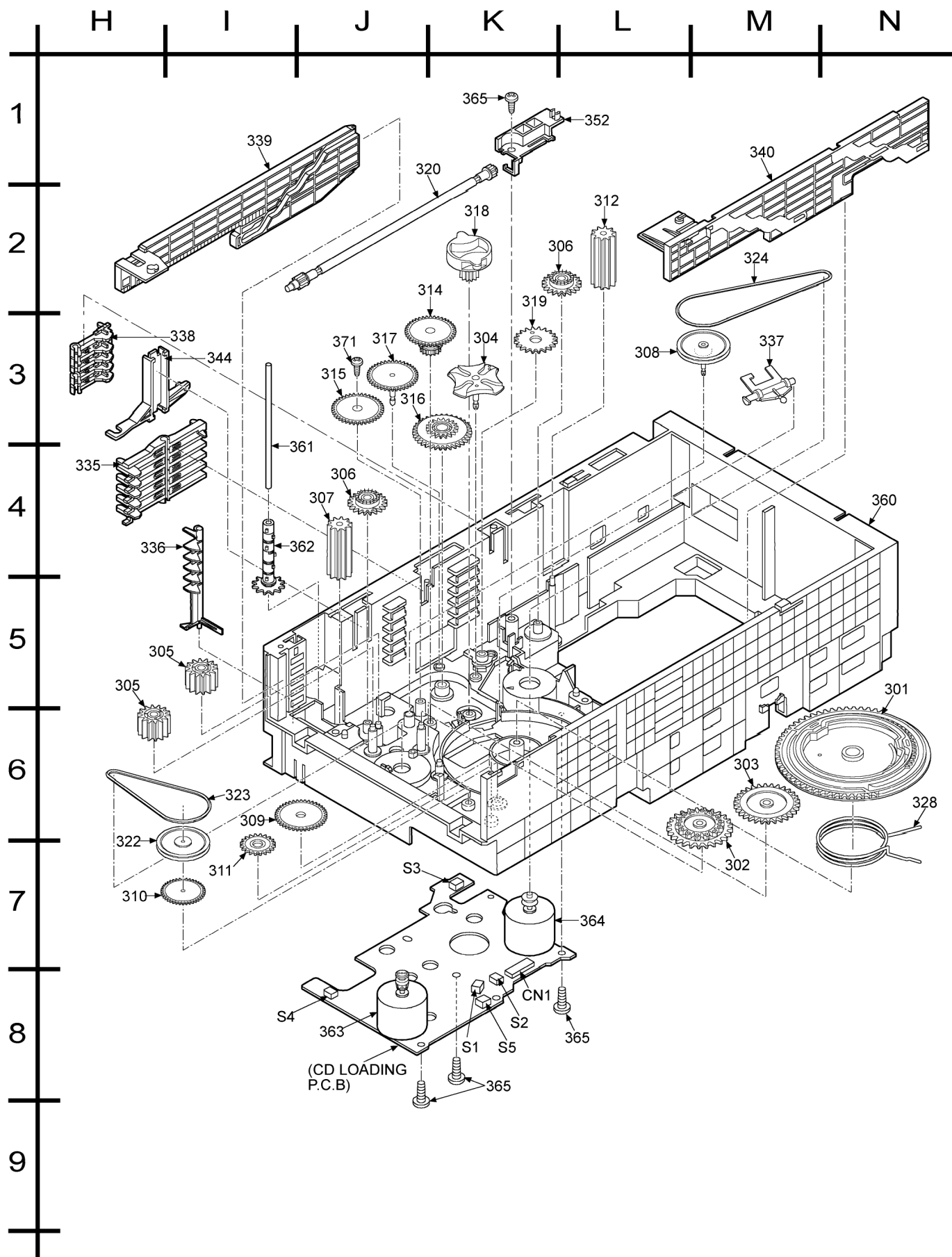
## 25.1.2. Deck Mechanism Parts List

| 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]     |

## 25.2. DVD Loading Mechanism

### 25.2.1. DVD Loading Mechanism Parts Location



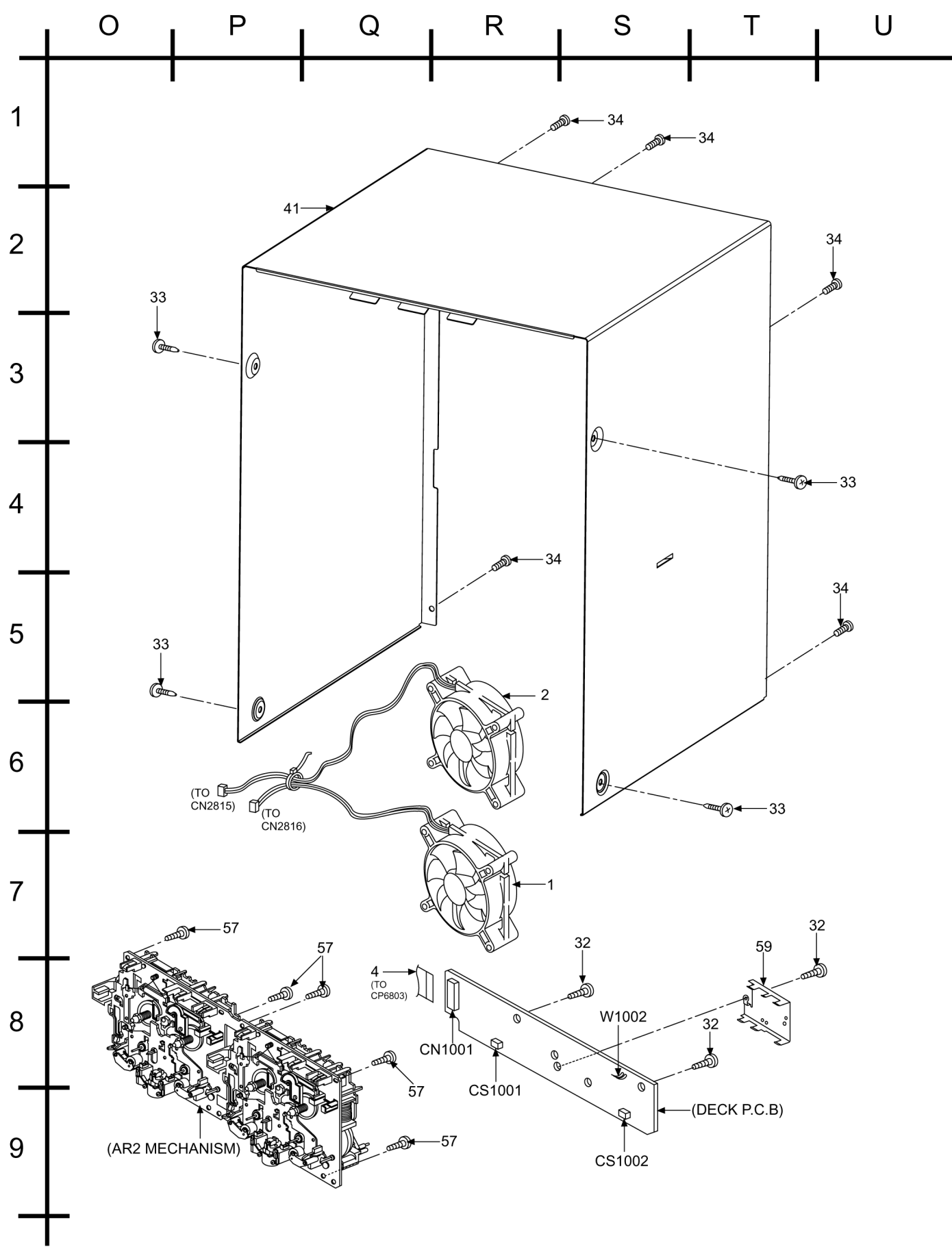


## 25.2.2. DVD Loading Mechanism Parts List

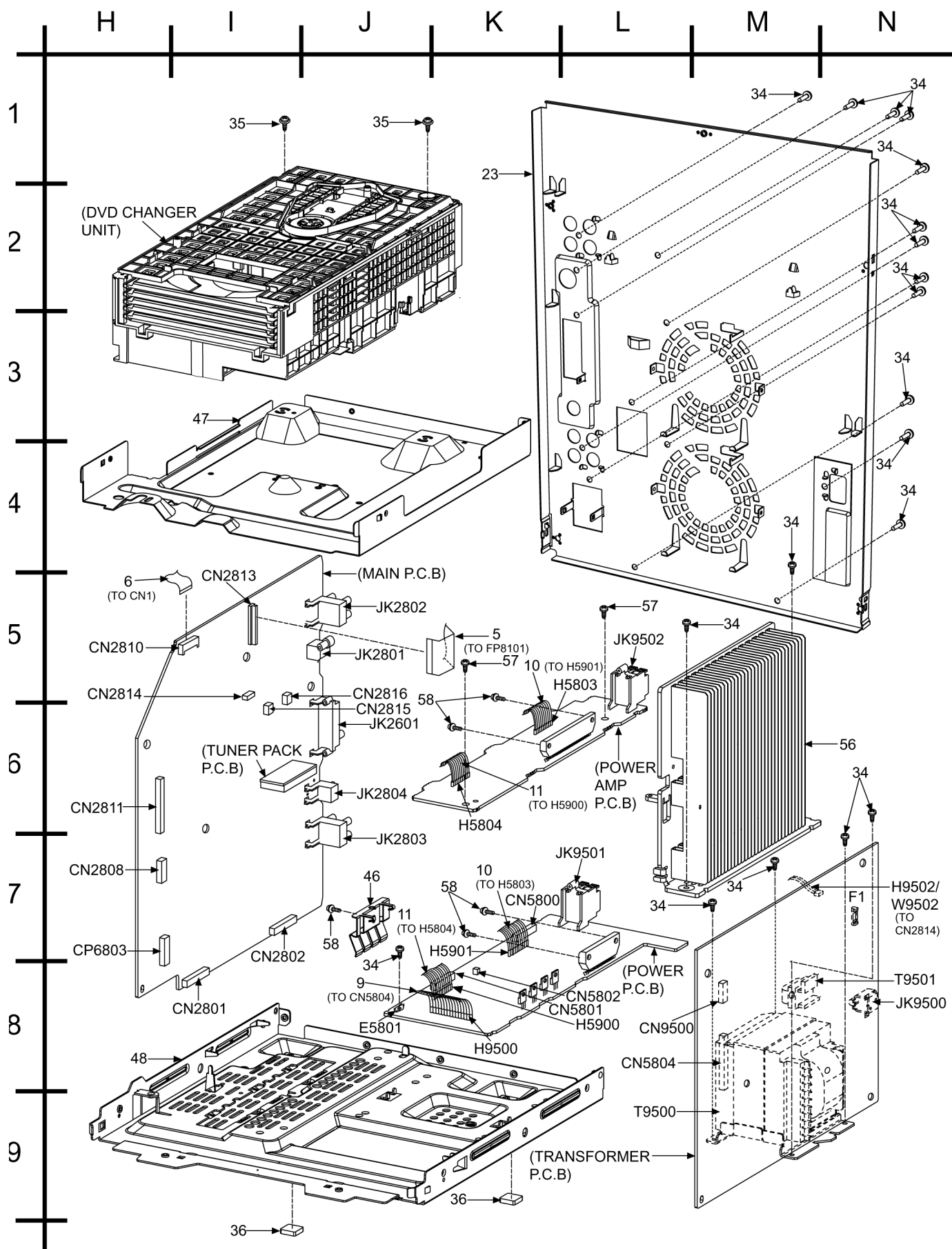
| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
|          |              | TRAVERSE DECK           |         |
| 301      | RDG0519      | MAIN GEAR               | [M]     |
| 302      | RDG0520      | SPEED UP GEAR   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

| Ref. No. | Part No.   | Part Name & Description | Remarks |
|----------|------------|-------------------------|---------|
| 403      | RMG0617-H  | CUSHION RUBBER A        | [M]     |
| 404      | RMG0618-H  | CUSHION RUBBER B        | [M]     |
| 405      | RMR1596-X2 | MIDDLE CHASSIS          | [M]     |
| 406      | RXQ1252    | DVD OPU SUB ASS'Y       | [M]     |
| 407      | RMX0290    | PLASTIC SHEET           | [M]     |
| 408      | RMS0789    | FIXED PIN               | [M]     |
| 409      | XTV2+6GFJ  | SCREW                   | [M]     |
| 410      | RMC0387    | SUPPORT SPRING          | [M]     |









## 25.3.2. Cabinet Parts List

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
|          |              | CABINET AND CHASSIS     |         |
| 1        | L6FALEPH0023 | FAN                     | [M]     |
| 2        | L6FALEPH0030 | FAN                     | [M]     |
| 3        | REEX0202     | 10P FFC (PANEL)         | [M]     |
| 4        | REEX0211     | 14P FFC WIRE (DECK)     | [M]     |
| 5        | REEX0454     | 50P FCC WIRE (DVD)      | [M]     |
| 6        | REEX0455     | 14P FFC WIRE (DVD)      | [M]     |
| 7        | REEX0470     | 30P FFC WIRE (PANEL)    | [M]     |
| 8        | REXX0476     | 7P (2MM) FLAT WIRE      | [M]     |
| 9        | REXX0477     | 15P FLAT WIRE           | [M]     |
| 10       | REXX0478     | 10P FLAT WIRE           | [M]     |
| 11       | REXX0493     | 11P FLAT WIRE           | [M]     |
| 12       | REXX0483     | 6P (2MM) FLAT WIRE      | [M]     |
| 13       | REXX0486     | 5P (2MM) FLAT WIRE      | [M]     |
| 14       | REXX0491     | 2P WIRE (PANEL)         | [M]     |
| 15       | RGKX0315-S   | CD LID                  | [M]     |
| 16       | RGLX0112-D   | CD LID ORNAMENT         | [M]     |
| 17       | RGLX0113-Q   | POWER LIGHT CHIP        | [M]     |
| 18       | RGLX0116-Q   | F/BUTTON A (AUX)        | [M]     |
| 19       | RGLX0117-Q   | F/BUTTON B (FM)         | [M]     |
| 20       | RGLX0118-Q   | F/BUTTON C (TAPE)       | [M]     |
| 21       | RGLX0119-Q   | F/BUTTON D (CD/DVD)     | [M]     |
| 22       | RGPX0198H-2S | FRONT PANEL             | [M]     |
| 23       | RGRX0052E-A  | REAR PANEL              | [M]     |
| 24       | RGUX0630-S   | POWER BUTTON            | [M]     |
| 25       | RGUX0631-S   | CD CONTROL BUTTON       | [M]     |
| 26       | RGUX0632-S   | CONTROL BUTTON          | [M]     |
| 27       | RGUX0633-S   | F/BTN CAP A (AUX)       | [M]     |
| 28       | RGUX0634-S   | F/BTN CAP B (FM)        | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| 29       | RGUX0635-S   | F/BTN CAP C (TAPE)      | [M]     |
| 30       | RGUX0636-S   | F/BTN CAP D (CD/DVD)    | [M]     |
| 31       | RGWX0072-S   | VOLUME KNOB             | [M]     |
| 32       | RHD26046     | SCREW                   | [M]     |
| 33       | RHD30004-2S  | SCREW                   | [M]     |
| 34       | RHD30119-S   | SCREW                   | [M]     |
| 35       | RHDX30006    | STEP SCREW              | [M]     |
| 36       | RKA0072-KJ   | LEG CUSHION             | [M]     |
| 37       | RKFX0129-2S1 | CASS LID L              | [M]     |
| 38       | RKFX0130-2S  | CASS LID R              | [M]     |
| 39       | RGKX0316-S   | FL ORNAMENT UPPER       | [M]     |
| 40       | RGKX0317-S   | FL ORNAMENT LOWER       | [M]     |
| 41       | RKMX0105C-S  | TOP CABINET (BENT)      | [M]     |
| 42       | RKWX0252J-V  | FL WINDOW               | [M]     |
| 44       | RMBX0033     | CD LID OPEN SPRING      | [M]     |
| 45       | RMBX0036     | CASS OPEN SPRING        | [M]     |
| 46       | RM CX0021-J  | TRANSISTOR CLIP         | [M]     |
| 47       | RMKX0109A-1  | DVD CHASSIS             | [M]     |
| 48       | RMKX0111A-1  | BOTTOM CHASSIS          | [M]     |
| 50       | RMNX0110     | FL HOLDER               | [M]     |
| 51       | RMNX0133-1   | MIC JACK HOLDER         | [M]     |
| 52       | RMNX0159     | WIRE CLAMPER            | [M]     |
| 53       | RMNX0160     | LED HOLDER              | [M]     |
| 54       | RUS757ZAA    | CASS HALF SPRING        | [M]     |
| 55       | RXGX0002     | DAMPER GEAR             | [M]     |
| 56       | RXXX0065A-1  | HEAT SINK UNIT          | [M]     |
| 57       | XTB3+10JFJ   | SCREW                   | [M]     |
| 58       | XTW3+15TFJ   | SCREW                   | [M]     |
| 59       | RSQX0006     | D/SHIELD PLATE UNIT     | [M]     |

## 25.4. Electrical Parts List

| Ref. No. | Part No.     | Part Name & Description               | Remarks   |
|----------|--------------|---------------------------------------|-----------|
|          |              | PRINTED CIRCUIT BOARD                 |           |
|          | REP3908B     | DVD MODULE P.C.B. (SIDE: A)           | [M] (RTL) |
|          | REP3908B     | DVD MODULE P.C.B. (SIDE: B)           | [M] (RTL) |
|          | REPX0486K    | MAIN P.C.B.                           | [M] (RTL) |
|          | REPX0487A    | PANEL P.C.B.                          | [M] (RTL) |
|          | REPX0487A    | MIC P.C.B.                            | [M] (RTL) |
|          | REP1999B     | TUNER PACK P.C.B.                     | [M] (RTL) |
|          | REPX0331E    | DECK P.C.B.                           | [M] (RTL) |
|          | REPX0321B    | DECK MECHANISM P.C.B.                 | [M] (RTL) |
|          | REPX0488E    | POWER P.C.B.                          | [M] (RTL) |
|          | REPX0488E    | POWER AMP P.C.B.                      | [M] (RTL) |
|          | REPX0489D    | TRANSFORMER P.C.B.                    | [M] (RTL) |
|          | REP3569A     | CD LOADING 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]       |
| IC2006   | C9ZB00000498 | IC VIDEO BUFFER                       | [M]       |
| IC2601   | LA1833NMNTLM | IC FM/AM IF AMP DET/AM OSC MIX/FM MPX | [M]       |
| IC2602   | LC72131MDTRM | IC PLL FREQUENCY SYNTHESIZER          | [M]       |
| IC2800   | C1BB00000979 | IC ANALOG SURROUND                    | [M]       |
| IC2803   | C0DBEZG00021 | IC REGULATOR                          | [M]       |
| IC2811   | C0AABA000009 | IC DUAL OP AMP                        | [M]       |
| IC2812   | C1BB00000845 | IC ASP                                | [M]       |
| IC2813   | C1BB00000801 | IC KARAOKE                            | [M]       |
| IC2814   | KIA4558FEL   | IC DUAL OP AMP                        | [M]       |
| IC2815   | KIA4558FEL   | IC DUAL OP AMP                        | [M]       |
| IC2817   | C1BB00000086 | IC SPEAKER ANALYZER                   | [M]       |

| Ref. No. | Part No.      | Part Name & Description | Remarks |
|----------|---------------|-------------------------|---------|
| IC2818   | C2CBJG0000653 | IC MICROPROCESSOR       | [M]     |
| IC5001   | RSN35H2B-P    | IC POWER HIC            | [M]     |
| IC5801   | RSN315H42C-P  | IC POWER HIC            | [M]     |
| IC6803   | C0HBB00000039 | IC FL DRIVE             | [M]     |
| IC8001   | MN2DS00009AP  | IC DV3.2 LSI            | [M]     |
| IC8051   | C3ABPG000145  | IC 64 SDRAM             | [M]     |
| IC8111   | C0CBCBD00018  | IC 3.3V REGULATOR       | [M]     |
| IC8251   | C0GBG0000048  | IC DRIVE                | [M]     |
| IC8421   | C0FBBK000050  | IC 2-CH DAC             | [M]     |
| IC8601   | C0EBA0000029  | IC RESET                | [M]     |
| IC8606   | C0EBE0000455  | IC RESET                | [M]     |
| IC8651   | RFKWMH90E160  | IC FLASH ROM            | [SPG]   |
| IC8691   | C0JBAA0000346 | IC AND GATE LOGIC       | [M]     |
| IC8695   | C0JBAA0000346 | IC AND GATE LOGIC       | [M]     |
| IC9500   | C0DAAMH00010  | IC DC-DC CONVERTER      | [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]     |
| Q2601    | B1AABC000003  | TRANSISTOR              | [M]     |
| Q2606    | B1GCCFJJ0016  | TRANSISTOR              | [M]     |
| Q2702    | B1GBCFJJ0051  | TRANSISTOR              | [M]     |
| Q2703    | B1GDCFJJ0047  | TRANSISTOR              | [M]     |
| Q2704    | B1GDCFJJ0047  | TRANSISTOR              | [M]     |
| Q2710    | B1GBCFJJ0051  | TRANSISTOR              | [M]     |
| Q2806    | B1GBCFJN0033  | TRANSISTOR              | [M]     |
| Q2813    | B1GFGCAA0001  | TRANSISTOR              | [M]     |
| Q2814    | B1GDCFGA0018  | TRANSISTOR              | [M]     |
| Q2815    | B1GDCFGA0018  | TRANSISTOR              | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| Q2816    | B1GDCFGA0018 | TRANSISTOR              | [M]     |
| Q2818    | B1GFGCAA0001 | TRANSISTOR              | [M]     |
| Q2819    | B1GFGCAA0001 | TRANSISTOR              | [M]     |
| Q2820    | B1ABEB000002 | TRANSISTOR              | [M]     |
| Q2822    | B1GDCFGA0018 | TRANSISTOR              | [M]     |
| Q2823    | B1GDCFGA0018 | TRANSISTOR              | [M]     |
| Q2825    | B1ABEB000002 | TRANSISTOR              | [M]     |
| Q2838    | B1GBCFJN0033 | TRANSISTOR              | [M]     |
| Q2906    | B1GBCFJA0028 | TRANSISTOR              | [M]     |
| Q2909    | 2SD0592ARA   | TRANSISTOR              | [M]     |
| Q2910    | 2SD0601AHL   | TRANSISTOR              | [M]     |
| Q2911    | 2SB0709AHL   | TRANSISTOR              | [M]     |
| Q2912    | 2SB0709AHL   | TRANSISTOR              | [M]     |
| Q2913    | 2SD0601AHL   | TRANSISTOR              | [M]     |
| Q2914    | 2SD0592ARA   | TRANSISTOR              | [M]     |
| Q2915    | 2SB0709AHL   | TRANSISTOR              | [M]     |
| Q2916    | 2SB0709AHL   | TRANSISTOR              | [M]     |
| Q2917    | B1ABEB000002 | TRANSISTOR              | [M]     |
| Q2919    | B1GFGCAA0001 | TRANSISTOR              | [M]     |
| Q2920    | B1GDCFGA0018 | TRANSISTOR              | [M]     |
| Q5801    | B1ABCF000176 | TRANSISTOR              | [M]     |
| Q5802    | B1BCCG000002 | TRANSISTOR              | [M]     |
| Q5803    | B1BACG000023 | TRANSISTOR              | [M]     |
| Q5804    | B1BCCG000002 | TRANSISTOR              | [M]     |
| Q5805    | B1ACCF000094 | TRANSISTOR              | [M]     |
| Q5806    | B1GDCFGA0018 | TRANSISTOR              | [M]     |
| Q5807    | B1ABCF000176 | TRANSISTOR              | [M]     |
| Q5808    | B1AAKD000014 | TRANSISTOR              | [M]     |
| Q5809    | B1BACG000023 | TRANSISTOR              | [M]     |
| Q5810    | B1ABCF000176 | TRANSISTOR              | [M]     |
| Q5811    | B1ABCF000176 | TRANSISTOR              | [M]     |
| Q6800    | B1ACKD000004 | TRANSISTOR              | [M]     |
| Q6801    | B1ACKD000004 | TRANSISTOR              | [M]     |
| Q6802    | B1GBCFJJ0051 | TRANSISTOR              | [M]     |
| Q6803    | B1ACCF000094 | TRANSISTOR              | [M]     |
| Q6804    | B1ACCF000094 | TRANSISTOR              | [M]     |
| Q6805    | B1GACFJJ0018 | TRANSISTOR              | [M]     |
| Q6806    | B1ABCF000176 | TRANSISTOR              | [M]     |
| Q6807    | B1ABCF000176 | TRANSISTOR              | [M]     |
| Q6808    | B1GBCFJJ0051 | TRANSISTOR              | [M]     |
| Q6809    | B1GFGCAA0001 | TRANSISTOR              | [M]     |
| Q6810    | B1GCCFGA0006 | TRANSISTOR              | [M]     |
| Q6811    | B1GBCFJN0033 | TRANSISTOR              | [M]     |
| Q6817    | B1ABCF000176 | TRANSISTOR              | [M]     |
| Q6820    | B1GBCFJN0033 | TRANSISTOR              | [M]     |
| Q8321    | 2SB1218ARL   | TRANSISTOR              | [M]     |
| Q8325    | 2SB1218ARL   | TRANSISTOR              | [M]     |
| Q8331    | 2SB1218ARL   | TRANSISTOR              | [M]     |
| Q8335    | 2SB1218ARL   | TRANSISTOR              | [M]     |
| Q8341    | 2SB1218ARL   | TRANSISTOR              | [M]     |
| Q8551    | 2SD1819A0L   | TRANSISTOR              | [M]     |
| Q8552    | B1ADGB000008 | TRANSISTOR              | [M]     |
| Q8561    | 2SD1819A0L   | TRANSISTOR              | [M]     |
| Q8562    | B1ADGB000008 | TRANSISTOR              | [M]     |
| Q9500    | B1AAGC000007 | TRANSISTOR              | [M]     |
| Q9501    | 2SD21370PA   | TRANSISTOR              | [M]     |
| Q9502    | B1AAGC000007 | TRANSISTOR              | [M]     |
| Q9503    | 2SB0621AHA   | TRANSISTOR              | [M]     |
| Q9504    | B1ACKD000004 | TRANSISTOR              | [M]     |
|          |              |                         |         |
| QR8111   | XP0621400L   | CHIP TRANSISTOR         | [M]     |
| QR8420   | UNR521100L   | CHIP TRANSISTOR         | [M]     |
| QR8571   | UNR511V00L   | CHIP TRANSISTOR         | [M]     |
|          |              |                         |         |
|          |              | DIODES                  |         |
|          |              |                         |         |
| D1       | B0CBAD000004 | DIODE                   | [M]     |
| D2       | B0CBAD000004 | DIODE                   | [M]     |
| D3       | B0CBAD000004 | DIODE                   | [M]     |
| D951     | MA2C16500E   | DIODE                   | [M]     |
| D971     | MA2C16500E   | DIODE                   | [M]     |
| D1003    | B0ACCK000005 | DIODE                   | [M]     |
| D2601    | B0BC5R000009 | DIODE                   | [M]     |
| D2602    | B0CDBB000015 | DIODE                   | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| D2809    | B0ACCK000005 | DIODE                   | [M]     |
| D2810    | B0EAKM000117 | DIODE                   | [M]     |
| D2811    | B0EAKM000117 | DIODE                   | [M]     |
| D2818    | B0ACCK000005 | DIODE                   | [M]     |
| D2836    | B0EAKM000117 | DIODE                   | [M]     |
| D2837    | B0EAKM000117 | DIODE                   | [M]     |
| D2900    | B0BC5R000009 | DIODE                   | [M]     |
| D2901    | B0ACCK000005 | DIODE                   | [M]     |
| D2905    | B0ACCK000005 | DIODE                   | [M]     |
| D2906    | B0ACCK000005 | DIODE                   | [M]     |
| D2908    | B0ACCK000005 | DIODE                   | [M]     |
| D2909    | B0ACCK000005 | DIODE                   | [M]     |
| D2910    | B0ACCE000003 | DIODE                   | [M]     |
| D2911    | B0ACCK000005 | DIODE                   | [M]     |
| D2912    | B0ACCK000005 | DIODE                   | [M]     |
| D2913    | B0ADCJ000020 | DIODE                   | [M]     |
| D2914    | B0ACCK000005 | DIODE                   | [M]     |
| D2915    | B0ACCK000005 | DIODE                   | [M]     |
| D2916    | B0ACCK000005 | DIODE                   | [M]     |
| D2917    | B0ACCK000005 | DIODE                   | [M]     |
| D2918    | B0ACCK000005 | DIODE                   | [M]     |
| D2919    | B0ACCK000005 | DIODE                   | [M]     |
| D5801    | B0BC010A0007 | DIODE                   | [M]     |
| D5803    | B0BC01600013 | DIODE                   | [M]     |
| D5804    | B0ACCK000005 | DIODE                   | [M]     |
| D5805    | B0EAKM000117 | DIODE                   | [M]     |
| D5806    | B0EAKM000117 | DIODE                   | [M]     |
| D5809    | B0ACCK000005 | DIODE                   | [M]     |
| D5810    | B0BC01000014 | DIODE                   | [M]     |
| D5820    | B0BC01500006 | DIODE                   | [M]     |
| D5821    | B0BC5R600003 | DIODE                   | [M]     |
| D6800    | B0BC5R600003 | DIODE                   | [M]     |
| D6801    | B3AAA0000583 | DIODE                   | [M]     |
| D6802    | B0ACCE000003 | DIODE                   | [M]     |
| D6809    | B3AEA0000041 | DIODE                   | [M]     |
| D6810    | B3AEA0000041 | DIODE                   | [M]     |
| D6812    | B0BC8R100004 | DIODE                   | [M]     |
| D6813    | B0BC8R100004 | DIODE                   | [M]     |
| D6815    | MAZ80560ML   | DIODE                   | [M]     |
| D8211    | MA2J11100L   | DIODE                   | [M]     |
| D8571    | MA2J72800L   | DIODE                   | [M]     |
| D9500    | B0AACK000004 | DIODE                   | [M]     |
| D9501    | B0AACK000004 | DIODE                   | [M]     |
| D9502    | B0BA7R000005 | DIODE                   | [M]     |
| D9503    | B0JAPG000019 | DIODE                   | [M]     |
| D9504    | B0FBAM000009 | DIODE                   | [M]     |
| D9508    | B0EAKM000125 | DIODE                   | [M]     |
| D9509    | B0EAKM000125 | DIODE                   | [M]     |
| D9510    | B0AACK000004 | DIODE                   | [M]     |
| D9511    | B0EAKM000125 | DIODE                   | [M]     |
| D9512    | B0EAKM000125 | DIODE                   | [M]     |
| D9513    | B0EAKM000126 | DIODE                   | [M]     |
| D9514    | B0EAKM000126 | DIODE                   | [M]     |
| D9515    | B0BA7R000005 | DIODE                   | [M]     |
| D9516    | B0BA03100002 | DIODE                   | [M]     |
| D9517    | B0EAKM000125 | DIODE                   | [M]     |
| D9522    | B0EAKM000126 | DIODE                   | [M]     |
| D9523    | B0EAKM000126 | DIODE                   | [M]     |
| D9524    | B0EAKM000126 | DIODE                   | [M]     |
| D9525    | B0EAKM000126 | DIODE                   | [M]     |
| D9526    | B0EAKM000126 | DIODE                   | [M]     |
| D9527    | B0EAKM000126 | DIODE                   | [M]     |
| D9528    | B0EAKM000126 | DIODE                   | [M]     |
| D9529    | B0EAKM000126 | DIODE                   | [M]     |
|          |              |                         |         |
|          |              | CHIP INDUCTORS          |         |
|          |              |                         |         |
| LB8001   | J0JHC0000045 | CHIP INDUCTOR           | [M]     |
| LB8011   | J0JHC0000045 | CHIP INDUCTOR           | [M]     |
| LB8257   | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| LB8258   | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| LB8259   | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| LB8260   | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| LB8301   | J0JBC0000042 | CHIP BEAD               | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| LB8302   | J0JBC0000042 | CHIP BEAD               | [M]     |
| LB8303   | J0JBC0000042 | CHIP BEAD               | [M]     |
| LB8304   | J0JBC0000042 | CHIP BEAD               | [M]     |
| LB8305   | J0JBC0000042 | CHIP BEAD               | [M]     |
| LB8401   | J0JBC0000042 | CHIP BEAD               | [M]     |
| LB8421   | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| LB8422   | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| LB8423   | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| LB8424   | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| LB8425   | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| LB8426   | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| LB8427   | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| LB8428   | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| LB8429   | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| LB8430   | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| LB8491   | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| LB8530   | J0JHC0000045 | CHIP INDUCTOR           | [M]     |
| LB8531   | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| LB8551   | J0JBC0000042 | CHIP BEAD               | [M]     |
| LB8561   | J0JBC0000042 | CHIP BEAD               | [M]     |
| LB8571   | J0JBC0000042 | CHIP BEAD               | [M]     |
| LB8690   | J0JBC0000044 | HIGH LOSS INDUCTOR      | [M]     |
| LB8691   | ERJ2GEJ101X  | CHIP RESISTOR           | [M]     |
| LB8692   | ERJ2GEJ101X  | CHIP RESISTOR           | [M]     |
| LB8693   | ERJ2GEJ101X  | CHIP RESISTOR           | [M]     |
|          |              |                         |         |
|          |              | VARIABLE RESISTOR       |         |
|          |              |                         |         |
| VR6800   | EVEHE1F3512M | VR VOLUME JOG           | [M]     |
|          |              |                         |         |
|          |              | SWITCHES                |         |
|          |              |                         |         |
| S1       | K0L1BA000065 | SW STOCK                | [M]     |
| S2       | K0L1BA000065 | SW STOCK                | [M]     |
| S3       | K0L1BA000078 | SW BOTTOM               | [M]     |
| S4       | RSH1A045-1A  | SW OPEN                 | [M]     |
| S5       | K0L1BA000065 | SW CHANGE               | [M]     |
| S951     | K0J1BB000017 | SW MODE                 | [M]     |
| S952     | K0J1BB000021 | SW HALF                 | [M]     |
| S971     | K0J1BB000017 | SW MODE                 | [M]     |
| S972     | K0J1BB000021 | SW HALF                 | [M]     |
| S974     | K0J1BB000021 | SW RECINH R             | [M]     |
| S975     | K0J1BB000021 | SW RECINH F             | [M]     |
| S6800    | K0H1BA000502 | SW DVD/CD               | [M]     |
| S6801    | K0H1BA000502 | SW TAPE                 | [M]     |
| S6802    | K0H1BA000502 | SW TUNER/BAND           | [M]     |
| S6803    | K0H1BA000502 | SW AUX                  | [M]     |
| S6804    | K0H1BA000502 | SW DECK 1               | [M]     |
| S6805    | K0H1BA000502 | SW DISPLAY/DEMO         | [M]     |
| S6806    | K0H1BA000502 | SW DECK 2               | [M]     |
| S6807    | K0H1BA000502 | SW REW                  | [M]     |
| S6808    | K0H1BA000502 | SW FF                   | [M]     |
| S6809    | K0H1BA000502 | SW STOP                 | [M]     |
| S6810    | K0H1BA000502 | SW AC IN                | [M]     |
| S6811    | K0H1BA000502 | SW DISC CHECK           | [M]     |
| S6812    | K0H1BA000502 | SW MULTI RE-MASTER      | [M]     |
| S6813    | K0H1BA000502 | SW SUPER SURROUND       | [M]     |
| S6814    | K0H1BA000502 | SW MIC UP               | [M]     |
| S6815    | K0H1BA000502 | SW MIC DOWN             | [M]     |
| S6816    | K0H1BA000502 | SW DECK 1/2             | [M]     |
| S6817    | K0H1BA000502 | SW REC                  | [M]     |
| S6818    | K0H1BA000502 | SW SOUND EQ             | [M]     |
| S6819    | K0H1BA000502 | SW OPEN/CLOSE           | [M]     |
| S6820    | K0H1BA000502 | SW DISC CHANGE          | [M]     |
| S6821    | K0H1BA000502 | SW DISC 5               | [M]     |
| S6822    | K0H1BA000502 | SW DISC 4               | [M]     |
| S6823    | K0H1BA000502 | SW DISC 3               | [M]     |
| S6824    | K0H1BA000502 | SW DISC 2               | [M]     |
| S6825    | K0H1BA000502 | SW DISC 1               | [M]     |
| S6826    | K0H1BA000502 | SW SUPER SURROUND EQ    | [M]     |
| S6827    | K0H1BA000502 | SW S.WOOFER             | [M]     |
|          |              |                         |         |
|          |              | CONNECTORS              |         |
|          |              |                         |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| CN1      | K1MN14B00066 | 14P FFC CONNECTOR       | [M]     |
| CN971    | K1MN10B00104 | 10P FFC CONNECTOR       | [M]     |
| CN1001   | K1MN14B00058 | 14P CONNECTOR           | [M]     |
| CN2801   | K1KB12B00036 | 12P CONNECTOR           | [M]     |
| CN2802   | K1KB12B00036 | 12P CONNECTOR           | [M]     |
| CN2808   | K1KA06A00308 | 6P CONNECTOR            | [M]     |
| CN2810   | K1MN14BA0004 | 14P CONNECTOR           | [M]     |
| CN2811   | K1MN30A00046 | 30P FFC CONNECTOR       | [M]     |
| CN2813   | K1MN50A00008 | 50P CONNECTORS          | [M]     |
| CN2814   | K1KA03AA0301 | 3P CONNECTOR            | [M]     |
| CN2815   | K1KA02AA0186 | 2P CONNECTOR            | [M]     |
| CN2816   | K1KA02AA0186 | 2P CONNECTOR            | [M]     |
| CN5800   | K1KA12AA0424 | 12P CONNECTOR           | [M]     |
| CN5801   | K1KA12AA0424 | 12P CONNECTOR           | [M]     |
| CN5802   | K1KA02A00375 | 2P CONNECTOR            | [M]     |
| CN5804   | K1KA15AA0319 | 15P CONNECTOR           | [M]     |
| CN6811   | K1MN30BA0167 | 30P CONNECTOR           | [M]     |
| CN9500   | K1KA07A00184 | 7P CONNECTOR            | [M]     |
|          |              |                         |         |
| CP6800   | K1MN10B00104 | 10P FFC CONNECTOR       | [M]     |
| CP6803   | K1MN14A00049 | 14P FFC CONNECTOR       | [M]     |
|          |              |                         |         |
| CS1001   | K1MN05A00039 | 5P CONNECTOR            | [M]     |
| CS1002   | K1MN05A00039 | 5P CONNECTOR            | [M]     |
|          |              |                         |         |
| FP8101   | K1MN50B00031 | 50P CONNECTOR           | [M]     |
| FP8251   | K1MN06B00080 | 6P CONNECTOR            | [M]     |
| FP8531   | K1MN26B00094 | 26P CONNECTOR           | [M]     |
|          |              |                         |         |
|          |              | CERAMIC FILTERS         |         |
|          |              |                         |         |
| CF2601   | J0B1075AA014 | FM CERAMIC FILTER       | [M]     |
| CF2602   | J0B1075AA014 | FM CERAMIC FILTER       | [M]     |
|          |              |                         |         |
|          |              | COILS & TRANSFORMERS    |         |
|          |              |                         |         |
| L1       | G0C1R2KA0029 | AXIAL COIL              | [M]     |
| L2       | G0CR47KA0029 | AXIAL COIL              | [M]     |
| L1001    | G0C470JA0052 | RF CHOKE COIL           | [M]     |
| L1002    | 7L1A62N      | BIAS OSC COIL           | [M]     |
| L2601    | G2A411C00001 | AM COIL                 | [M]     |
| L2602    | G2BPC0000016 | OSCILLATOR COIL         | [M]     |
| L2802    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| L2804    | G0C101JA0052 | INDUCTOR                | [M]     |
| L2806    | J0JBC0000041 | CHIP INDUCTOR           | [M]     |
| L2807    | J0JBC0000041 | CHIP INDUCTOR           | [M]     |
| L2808    | J0JBC0000019 | CHIP INDUCTOR           | [M]     |
| L2809    | J0JBC0000041 | CHIP INDUCTOR           | [M]     |
| L2810    | J0JBC0000041 | CHIP INDUCTOR           | [M]     |
| L2811    | J0JCC0000120 | CHIP INDUCTOR           | [M]     |
| L2812    | J0JCC0000120 | CHIP INDUCTOR           | [M]     |
| L2813    | J0JCC0000120 | CHIP INDUCTOR           | [M]     |
| L2814    | J0JCC0000120 | CHIP INDUCTOR           | [M]     |
| L2815    | J0JCC0000120 | CHIP INDUCTOR           | [M]     |
| L2816    | J0JCC0000120 | CHIP INDUCTOR           | [M]     |
| L2904    | G0A200D00002 | COIL                    | [M]     |
| L2905    | G0A200D00002 | COIL                    | [M]     |
| L2906    | G0A200D00002 | COIL                    | [M]     |
| L5404    | G0AR76Y00001 | CHOKE COIL              | [M]     |
| L5405    | G0AR76Y00001 | CHOKE COIL              | [M]     |
| L5406    | G0AR76Y00001 | CHOKE COIL              | [M]     |
| L6801    | G0C101JA0052 | INDUCTOR                | [M]     |
| L6802    | G0C101JA0052 | INDUCTOR                | [M]     |
| L6803    | G0C101JA0052 | INDUCTOR                | [M]     |
| L6804    | G0C100JA0052 | INDUCTOR                | [M]     |
| L6805    | G0C100JA0052 | INDUCTOR                | [M]     |
| L6806    | G0C3R3JA0052 | COIL                    | [M]     |
| L6808    | G0C100JA0052 | INDUCTOR                | [M]     |
| L6809    | G0C100JA0052 | INDUCTOR                | [M]     |
| L8201    | G1C100K00019 | CHIP COIL               | [M]     |
| L8301    | G1C100K00019 | CHIP COIL               | [M]     |
| L8302    | G1C100K00019 | CHIP COIL               | [M]     |
| L8330    | G1C100K00019 | CHIP COIL               | [M]     |
| L8501    | G1C100K00019 | CHIP COIL               | [M]     |

| Ref. No. | Part No.     | Part Name & Description               | Remarks |
|----------|--------------|---------------------------------------|---------|
| L8550    | G1C100KA0055 | CHIP INDUCTOR                         | [M]     |
| L9500    | G0ZZ00001930 | COIL                                  | [M]     |
| L9501    | G0B371HA0005 | LINE FILTER                           | [M]     |
| L9502    | G0AR76Y00001 | CHOKE COIL                            | [M]     |
| L9507    | G0AR76Y00001 | CHOKE COIL                            | [M]     |
| T9500    | G4C7AGK00008 | MAIN TRANSFORMER                      | [M] △   |
| T9501    | G4C2AAJ00005 | BACK-UP TRANSFORMER                   | [M] △   |
|          |              | COMPONENT COMBINATIONS                |         |
| Z971     | RGSD12A1445T | RADA RESISTOR                         | [M]     |
| Z2602    | G2BAD0000003 | AM IFT                                | [M]     |
| Z6800    | B3RAB0000025 | REMOTE SENSOR                         | [M]     |
| Z9500    | ERZV10V511CS | ZENER                                 | [M] △   |
| BS6800   | RMBX0032     | GROUND SPRING                         | [M]     |
|          |              | RELAY                                 |         |
| RL9500   | K6B1AEA00015 | POWER RELAY                           | [M] △   |
|          |              | OSCILLATORS                           |         |
| X2602    | H3F1065A0002 | DISCRIMINATOR                         | [M]     |
| X2603    | H0H720400005 | CRYSTAL OSCILLATOR                    | [M]     |
| X6800    | H2A1005A0005 | 10MHZ RESONATOR                       | [M]     |
| X6801    | H0A327200115 | CRYSTAL OSCILLATOR                    | [M]     |
| X8621    | H0J270500085 | CRYSTAL OSCILLATOR                    | [M]     |
|          |              | DISPLAY TUBES                         |         |
| FL6800   | A2BD00000125 | FL DISPLAY                            | [M]     |
| FL8101   | F1H0J1050022 | CHIP CAPACITOR                        | [M]     |
| FL8102   | F1H0J1050022 | CHIP CAPACITOR                        | [M]     |
| FL8103   | F1H0J1050022 | CHIP CAPACITOR                        | [M]     |
| FL8104   | F1J1E1040022 | CHIP CAPACITOR                        | [M]     |
|          |              | FUSE                                  |         |
| F1       | K5D162BLA013 | 1.6A FUSE 250V                        | [M] △   |
|          |              | FUSE HOLDERS                          |         |
| FC1      | K3GE1BA00021 | FUSE CLIP                             | [M]     |
| FC2      | K3GE1BA00021 | FUSE CLIP                             | [M]     |
|          |              | FUSE PROTECTORS                       |         |
| FP5833   | K5G401A00008 | FUSE PROTECTOR                        | [M] △   |
| FP9500   | K5G102A00023 | FUSE PROTECTOR                        | [M] △   |
| FP9501   | K5G402A00025 | FUSE PROTECTOR                        | [M] △   |
|          |              | HOLDERS                               |         |
| H5803    | K1YF10000006 | 10P WIRE HOLDER                       | [M]     |
| H5804    | K1YF11000004 | 11P WIRE HOLDER                       | [M]     |
| H5900    | K1YF11000004 | 11P WIRE HOLDER                       | [M]     |
| H5901    | K1YF10000006 | 10P WIRE HOLDER                       | [M]     |
| H6800    | RMR0316      | 7P WIRE HOLDER                        | [M]     |
| H6805    | K1YF05000001 | 5P CABLE HOLDER                       | [M]     |
| H6806    | K1YF05000001 | 5P CABLE HOLDER                       | [M]     |
| H6807    | K1YF06000001 | 6P CONNECTOR                          | [M]     |
| H6810    | K1YZ02000015 | 2P WIRE HOLDER                        | [M]     |
| H9500    | K1YF15000004 | 15P WIRE HOLDER                       | [M]     |
| H9502    | REXX0481     | 3P WIRE HOLDER & 2P FLAT WIRE (W9502) | [M]     |
|          |              | JACKS                                 |         |
| JK2601   | K4BC03A00008 | JK ANETENNA                           | [M]     |
| JK2801   | K1CB105B0039 | JK S-VIDEO                            | [M]     |
| JK2802   | K2HA408B0061 | JK COMP/VIDEO                         | [M]     |
| JK2803   | K2HA204B0166 | JK PIN RCA                            | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| JK2804   | K2HA102B0064 | JK S.W                  | [M]     |
| JK6800   | K2HB102J0038 | JK                      | [M]     |
| JK6801   | K2HC103A0024 | JK SMALL SIGN           | [M]     |
| JK6802   | K2HB102J0038 | JK                      | [M]     |
| JK9500   | K2AA2B000011 | JK AC INLET             | [M] △   |
| JK9501   | K4BC04B00084 | JK SPEAKER              | [M]     |
| JK9502   | K4BC06B00063 | JK 6P SPEAKER           | [M]     |
|          |              | EARTH TERMINAL          |         |
| E5801    | SNE1004-3    | EARTH TERMINAL          | [M]     |
|          |              | WIRES                   |         |
| W1       | REU13W125XX  | WIRE                    | [M]     |
| W1002    | RWJ0102050CK | MOTOR WIRE              | [M]     |
|          |              | CHIP JUMPERS            |         |
| W2087    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2090    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2091    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2094    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2095    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2096    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2099    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2101    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2103    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2104    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2125    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2126    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2127    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2128    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2130    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2131    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2132    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2133    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2919    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W2999    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W3002    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W3003    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W3004    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W3005    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W3006    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W3007    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W3008    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W3009    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W3011    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6810    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6830    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6882    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6886    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6887    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6888    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6889    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6890    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6891    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6901    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6902    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6906    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6907    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6908    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6915    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6916    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| W6919    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| D6814    | ERJ3GEY0R00V | DIODE                   | [M]     |
|          |              | RESISTORS               |         |
| R1       | ERDS2TJ104T  | 100K 1/4W               | [M]     |
| R2       | ERDS2TJ104T  | 100K 1/4W               | [M]     |
| R3       | ERDS2TJ221T  | 220 1/4W                | [M]     |
| R4       | ERDS2TJ104T  | 100K 1/4W               | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| 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]     |
| R2048    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2049    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2052    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2053    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2054    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2055    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2056    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2057    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2058    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2059    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2060    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2061    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2062    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2064    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2065    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2066    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R2067    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2068    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2069    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2070    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2072    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2073    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2074    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2075    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2076    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2077    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2078    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2079    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2080    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2081    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2084    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2086    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2088    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2089    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2090    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2091    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2094    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2095    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2096    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2097    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2098    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2100    | ERJ3GEYJ183V | 18K 1/16W               | [M]     |
| R2101    | ERJ3GEYJ183V | 18K 1/16W               | [M]     |
| R2102    | ERJ3GEYJ822V | 8.2K 1/16W              | [M]     |
| R2103    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R2104    | ERJ3GEYJ682V | 6.8K 1/16W              | [M]     |
| R2105    | ERJ3GEYJ183V | 18K 1/16W               | [M]     |
| R2106    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2107    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R2108    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R2109    | ERJ3GEYJ123V | 12K 1/16W               | [M]     |
| R2110    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2111    | ERJ3GEYJ272V | 2.7K 1/16W              | [M]     |
| R2112    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2113    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2114    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R2115    | ERJ3GEYJ822V | 8.2K 1/16W              | [M]     |
| R2116    | ERJ3GEYJ223V | 22K 1/16W               | [M]     |
| R2117    | ERJ3GEYJ682V | 6.8K 1/16W              | [M]     |
| R2118    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2119    | ERJ3GEYJ224V | 220K 1/16W              | [M]     |
| R2120    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R2121    | ERJ3GEYJ223V | 22K 1/16W               | [M]     |
| R2122    | ERJ3GEYJ683V | 68K 1/16W               | [M]     |
| R2124    | ERJ3GEYJ123V | 12K 1/16W               | [M]     |
| R2126    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2127    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2128    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2129    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2130    | ERJ3GEYJ822V | 8.2K 1/16W              | [M]     |
| R2131    | ERJ3GEYJ333V | 33K 1/16W               | [M]     |
| R2132    | ERJ3GEYJ471V | 470 1/16W               | [M]     |
| R2133    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2135    | ERJ3GEYJ273V | 27K 1/16W               | [M]     |
| R2136    | ERJ3GEYJ273V | 27K 1/16W               | [M]     |
| R2137    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2138    | ERJ3GEYJ333V | 33K 1/16W               | [M]     |
| R2139    | ERJ3GEYJ123V | 12K 1/16W               | [M]     |
| R2154    | ERJ3GEYJ334V | 330K 1/16W              | [M]     |
| R2155    | ERJ3GEYJ123V | 12K 1/16W               | [M]     |
| R2162    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2200    | ERJ3GEYJ183V | 18K 1/16W               | [M]     |
| R2201    | ERJ3GEYJ183V | 18K 1/16W               | [M]     |
| R2202    | ERJ3GEYJ822V | 8.2K 1/16W              | [M]     |
| R2203    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R2204    | ERJ3GEYJ682V | 6.8K 1/16W              | [M]     |
| R2205    | ERJ3GEYJ183V | 18K 1/16W               | [M]     |
| R2206    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2207    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R2208    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R2209    | ERJ3GEYJ123V | 12K 1/16W               | [M]     |
| R2210    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2211    | ERJ3GEYJ272V | 2.7K 1/16W              | [M]     |
| R2212    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2213    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2214    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R2215    | ERJ3GEYJ822V | 8.2K 1/16W              | [M]     |
| R2216    | ERJ3GEYJ223V | 22K 1/16W               | [M]     |
| R2217    | ERJ3GEYJ682V | 6.8K 1/16W              | [M]     |
| R2218    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2219    | ERJ3GEYJ224V | 220K 1/16W              | [M]     |
| R2220    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R2221    | ERJ3GEYJ273V | 27K 1/16W               | [M]     |
| R2222    | ERJ3GEYJ683V | 68K 1/16W               | [M]     |
| R2223    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R2224    | ERJ3GEYJ123V | 12K 1/16W               | [M]     |
| R2226    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2227    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2228    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2229    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2230    | ERJ3GEYJ822V | 8.2K 1/16W              | [M]     |
| R2231    | ERJ3GEYJ333V | 33K 1/16W               | [M]     |
| R2232    | ERJ3GEYJ471V | 470 1/16W               | [M]     |
| R2233    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2235    | ERJ3GEYJ562V | 5.6K 1/16W              | [M]     |
| R2236    | ERJ3GEYJ562V | 5.6K 1/16W              | [M]     |
| R2237    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2238    | ERJ3GEYJ333V | 33K 1/16W               | [M]     |
| R2239    | ERJ3GEYJ123V | 12K 1/16W               | [M]     |
| R2253    | ERJ3GEYJ334V | 330K 1/16W              | [M]     |
| R2254    | ERJ3GEYJ123V | 12K 1/16W               | [M]     |
| R2300    | ERJ3GEYJ123V | 12K 1/16W               | [M]     |
| R2301    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2302    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2303    | ERJ3GEYJ152V | 1.5K 1/16W              | [M]     |
| R2304    | ERJ3GEYJ683V | 68K 1/16W               | [M]     |
| R2305    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2306    | ERJ3GEYJ182V | 1.8K 1/16W              | [M]     |
| R2307    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R2310    | ERJ3GEYJ271V | 270 1/16W               | [M]     |
| R2400    | ERJ3GEYJ123V | 12K 1/16W               | [M]     |
| R2401    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2404    | ERJ3GEYJ683V | 68K 1/16W               | [M]     |
| R2405    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2406    | ERJ3GEYJ182V | 1.8K 1/16W              | [M]     |
| R2407    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R2410    | ERJ3GEYJ271V | 270 1/16W               | [M]     |
| R2453    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2454    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2455    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2456    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2457    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2459    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R2460    | ERJ3GEYJ225V | 2.2M 1/16W              | [M]     |
| R2500    | ERJ3GEYJ123V | 12K 1/16W               | [M]     |
| R2501    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2502    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2503    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2504    | ERJ3GEYJ333V | 33K 1/16W               | [M]     |
| R2505    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2506    | ERJ3GEYJ271V | 270 1/16W               | [M]     |
| R2507    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2508    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R2509    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2510    | ERJ3GEYJ183V | 18K 1/16W               | [M]     |
| R2511    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2553    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2558    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R2564    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2567    | ERJ3GEYJ393V | 39K 1/16W               | [M]     |
| R2568    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2569    | ERJ3GEYJ153V | 15K 1/16W               | [M]     |
| R2580    | ERDS1FVJ100T | 10 1/2W                 | [M]     |
| R2581    | ERJ3GEYJ122V | 1.2K 1/16W              | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R2582    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2583    | ERJ3GEYJ224V | 220K 1/16W              | [M]     |
| R2584    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2585    | ERJ3GEYJ124V | 120K 1/16W              | [M]     |
| R2586    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2587    | ERJ3GEYJ225V | 2.2M 1/16W              | [M]     |
| R2588    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2589    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R2590    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2591    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2592    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2593    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2594    | ERDS1FVJ100T | 10 1/2W                 | [M]     |
| R2595    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2596    | ERJ3GEYJ122V | 1.2K 1/16W              | [M]     |
| R2597    | ERJ3GEYJ224V | 220K 1/16W              | [M]     |
| R2598    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2599    | ERJ3GEYJ124V | 120K 1/16W              | [M]     |
| R2600    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2601    | ERJ3GEYJ682V | 6.8K 1/16W              | [M]     |
| R2602    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2603    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2604    | ERJ3GEYJ333V | 33K 1/16W               | [M]     |
| R2605    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R2606    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2607    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2608    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2609    | ERJ3GEYJ224V | 220K 1/16W              | [M]     |
| R2610    | ERJ3GEYJ182V | 1.8K 1/16W              | [M]     |
| R2611    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2612    | ERJ3GEYJ822V | 8.2K 1/16W              | [M]     |
| R2613    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R2614    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R2615    | ERJ3GEYJ682V | 6.8K 1/16W              | [M]     |
| R2616    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R2618    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2619    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R2620    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R2621    | ERJ3GEYJ223V | 22K 1/16W               | [M]     |
| R2622    | ERJ3GEYJ392V | 3.9K 1/16W              | [M]     |
| R2623    | ERJ3GEYJ183V | 18K 1/16W               | [M]     |
| R2624    | ERJ3GEY0R00V | 0 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    | ERJ3GEYJ562V | 5.6K 1/16W              | [M]     |
| R2646    | ERJ3GEYJ562V | 5.6K 1/16W              | [M]     |
| R2651    | ERJ3GEYJ820V | 82 1/16W                | [M]     |
| R2652    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2658    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2661    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2662    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2667    | ERJ3GEYJ223V | 22K 1/16W               | [M]     |
| R2670    | ERJ3GEYJ223V | 22K 1/16W               | [M]     |
| R2672    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2673    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2675    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2678    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2683    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2684    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R2687    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2691    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2692    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2693    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2702    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2708    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2713    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2723    | ERJ3GEYJ153V | 15K 1/16W               | [M]     |
| R2726    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2728    | ERJ3GEYJ223V | 22K 1/16W               | [M]     |
| R2729    | ERJ3GEYJ223V | 22K 1/16W               | [M]     |
| R2730    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2731    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2732    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2733    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2734    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2735    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2736    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2737    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2738    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2739    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2740    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2741    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2742    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2743    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2744    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2745    | ERJ3GEYJ223V | 22K 1/16W               | [M]     |
| R2746    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2747    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2749    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2750    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2751    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2752    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2753    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2754    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2755    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2756    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2758    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2759    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2760    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2761    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2762    | ERJ3GEYJ223V | 22K 1/16W               | [M]     |
| R2774    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2775    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2776    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2777    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2778    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2779    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2780    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2781    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2782    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2783    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2784    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2785    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2786    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2788    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2789    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2790    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2791    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2792    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2793    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2794    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2796    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2797    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2798    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2803    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2807    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2810    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2814    | ERJ3GEYJ471V | 470 1/16W               | [M]     |
| R2816    | ERJ3GEYJ750V | 75 1/16W                | [M]     |
| R2817    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2818    | ERJ3GEYJ561V | 560 1/16W               | [M]     |
| R2820    | ERJ3GEYJ222V | 2.2K 1/16W              | [M]     |
| R2822    | ERJ3GEYJ750V | 75 1/16W                | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R2823    | ERJ3GEYJ750V | 75 1/16W                | [M]     |
| R2824    | ERJ3GEYJ750V | 75 1/16W                | [M]     |
| R2825    | ERJ3GEYJ750V | 75 1/16W                | [M]     |
| R2826    | ERJ3GEYJ750V | 75 1/16W                | [M]     |
| R2827    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2828    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2829    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2830    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2831    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2832    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2834    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2838    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2839    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2840    | ERJ3GEYJ221V | 220 1/16W               | [M]     |
| R2841    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2842    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R2846    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R2847    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2848    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2849    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2850    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2851    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2852    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R2853    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R2854    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R2855    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R2856    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R2857    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R2859    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2860    | ERJ3GEYJ222V | 2.2K 1/16W              | [M]     |
| R2862    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2863    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2864    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2881    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2899    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2910    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2911    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R2912    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R2913    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2914    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2916    | ERJ3GEYJ681V | 680 1/16W               | [M]     |
| R2917    | ERJ3GEYJ106V | 10M 1/16W               | [M]     |
| R2918    | ERJ3GEYJ331V | 330 1/16W               | [M]     |
| R2920    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2921    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R2922    | ERJ3GEYJ223V | 22K 1/16W               | [M]     |
| R2923    | ERJ3GEYJ222V | 2.2K 1/16W              | [M]     |
| R2924    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R2926    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R2935    | ERJ3GEYJ153V | 15K 1/16W               | [M]     |
| R2938    | ERJ3GEYJ392V | 3.9K 1/16W              | [M]     |
| R2939    | ERJ3GEYJ562V | 5.6K 1/16W              | [M]     |
| R2940    | ERJ3GEYJ123V | 12K 1/16W               | [M]     |
| R2941    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2942    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R2943    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2944    | ERJ3GEYJ153V | 15K 1/16W               | [M]     |
| R2945    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2946    | ERJ3GEYJ123V | 12K 1/16W               | [M]     |
| R2947    | ERJ3GEYJ100V | 10 1/16W                | [M]     |
| R2948    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2949    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2951    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2952    | ERDS1FVJ680T | 68 1/2W                 | [M]     |
| R2955    | ERJ3GEYJ221V | 220 1/16W               | [M]     |
| R2956    | ERJ3GEYJ221V | 220 1/16W               | [M]     |
| R2957    | ERJ3GEYJ681V | 680 1/16W               | [M]     |
| R2958    | ERJ3GEYJ2R2V | 2.2 1/16W               | [M]     |
| R2959    | ERJ3GEYJ2R2V | 2.2 1/16W               | [M]     |
| R2969    | ERDS1FVJ680T | 68 1/2W                 | [M]     |
| R2978    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2979    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2980    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2981    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |



| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R2982    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2983    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2984    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2985    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2986    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2987    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2988    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R2990    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R2998    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R2999    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R3601    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R3602    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R3603    | ERJ3GEYJ271V | 270 1/16W               | [M]     |
| R3604    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R3605    | ERJ3GEYJ471V | 470 1/16W               | [M]     |
| R3606    | ERJ3GEYJ474V | 470K 1/16W              | [M]     |
| R3607    | ERJ3GEYJ331V | 330 1/16W               | [M]     |
| R3610    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R3611    | ERJ3GEYJ391V | 390 1/16W               | [M]     |
| R3612    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R3613    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R3614    | ERJ3GEYJ562V | 5.6K 1/16W              | [M]     |
| R3615    | ERJ3GEYJ561V | 560 1/16W               | [M]     |
| R3616    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R3617    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R3618    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R3619    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R3620    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R3622    | ERJ3GEYJ272V | 2.7K 1/16W              | [M]     |
| R3623    | ERJ3GEYJ683V | 68K 1/16W               | [M]     |
| R3624    | ERJ3GEYJ330V | 33 1/16W                | [M]     |
| R3625    | ERJ3GEYJ471V | 470 1/16W               | [M]     |
| R3626    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R3627    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R3628    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R3629    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R3630    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R3631    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R3632    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R3634    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R3637    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R3638    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R3639    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R3640    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R3641    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R3642    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R3643    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R3644    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R5100    | ERJ3GEYJ153V | 15K 1/16W               | [M]     |
| R5101    | ERJ3GEYJ182V | 1.8K 1/16W              | [M]     |
| R5102    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R5103    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R5104    | ERJ3GEYJ224V | 220K 1/16W              | [M]     |
| R5105    | ERDS1FVJ100T | 10 1/2W                 | [M]     |
| R5106    | ERJ3GEYJ562V | 5.6K 1/16W              | [M]     |
| R5107    | ERJ3GEYJ122V | 1.2K 1/16W              | [M]     |
| R5108    | ERJ3GEYJ153V | 15K 1/16W               | [M]     |
| R5200    | ERJ3GEYJ153V | 15K 1/16W               | [M]     |
| R5201    | ERJ3GEYJ182V | 1.8K 1/16W              | [M]     |
| R5202    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R5203    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R5204    | ERJ3GEYJ224V | 220K 1/16W              | [M]     |
| R5205    | ERDS1FVJ100T | 10 1/2W                 | [M]     |
| R5206    | ERJ3GEYJ562V | 5.6K 1/16W              | [M]     |
| R5207    | ERJ3GEYJ122V | 1.2K 1/16W              | [M]     |
| R5300    | ERJ3GEYJ153V | 15K 1/16W               | [M]     |
| R5301    | ERJ3GEYJ682V | 6.8K 1/16W              | [M]     |
| R5302    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R5303    | ERDS1FVJ100T | 10 1/2W                 | [M]     |
| R5400    | ERJ3GEYJ153V | 15K 1/16W               | [M]     |
| R5401    | ERJ3GEYJ682V | 6.8K 1/16W              | [M]     |
| R5402    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R5403    | ERDS1FVJ100T | 10 1/2W                 | [M]     |
| R5404    | ERDS1FVJ100T | 10 1/2W                 | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R5405    | ERDS1FVJ100T | 10 1/2W                 | [M]     |
| R5406    | ERDS1FVJ100T | 10 1/2W                 | [M]     |
| R5500    | ERJ3GEYJ153V | 15K 1/16W               | [M]     |
| R5501    | ERJ3GEYJ822V | 8.2K 1/16W              | [M]     |
| R5502    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R5503    | ERDS1FVJ100T | 10 1/2W                 | [M]     |
| R5504    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R5505    | ERJ3GEYJ223V | 22K 1/16W               | [M]     |
| R5507    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R5809    | ERDS1FVJ331T | 330 1/2W                | [M]     |
| R5810    | ERJ3GEYJ272V | 2.7K 1/16W              | [M]     |
| R5811    | ERJ3GEYJ471V | 470 1/16W               | [M]     |
| R5812    | ERJ3GEYJ272V | 2.7K 1/16W              | [M]     |
| R5813    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R5814    | ERJ3GEYJ332V | 3.3K 1/16W              | [M]     |
| R5815    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R5816    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R5817    | ERJ3GEYJ223V | 22K 1/16W               | [M]     |
| R5819    | ERJ3GEYJ334V | 330K 1/16W              | [M]     |
| R5820    | ERDS1FVJ331T | 330 1/2W                | [M]     |
| R5821    | ERDS1FVJ122T | 1.2K 1/2W               | [M]     |
| R5822    | ERDS1FVJ331T | 330 1/2W                | [M]     |
| R5823    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R5824    | ERDS1FVJ2R2T | 2.2 1/2W                | [M]     |
| R5825    | ERDS1FVJ2R2T | 2.2 1/2W                | [M]     |
| R5826    | ERDS1FVJ2R2T | 2.2 1/2W                | [M]     |
| R5827    | ERDS1FVJ2R2T | 2.2 1/2W                | [M]     |
| R5828    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R5829    | ERDS1FVJ331T | 330 1/2W                | [M]     |
| R5830    | ERDS1FVJ122T | 1.2K 1/2W               | [M]     |
| R5831    | ERJ3GEYJ182V | 1.8K 1/16W              | [M]     |
| R5832    | ERJ3GEYJ151V | 150 1/16W               | [M]     |
| R5835    | ERJ3GEYJ152V | 1.5K 1/16W              | [M]     |
| R5847    | ERDS1FVJ4R7T | 4.7 1/2W                | [M]     |
| R5849    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R5866    | ERJ3GEYJ683V | 68K 1/16W               | [M]     |
| R5889    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R5890    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R5891    | ERJ3GEYJ151V | 150 1/16W               | [M]     |
| R5892    | ERJ3GEYJ151V | 150 1/16W               | [M]     |
| R5898    | ERJ3GEYJ683V | 68K 1/16W               | [M]     |
| R5902    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R5903    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R5906    | ERDS1FVJ270T | 27 1/2W                 | [M]     |
| R6800    | ERJ3GEYJ270V | 27 1/16W                | [M]     |
| R6801    | ERJ3GEYJ270V | 27 1/16W                | [M]     |
| R6802    | ERJ3GEYJ270V | 27 1/16W                | [M]     |
| R6803    | ERJ3GEYJ270V | 27 1/16W                | [M]     |
| R6804    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R6805    | ERJ3GEYJ100V | 10 1/16W                | [M]     |
| R6806    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R6807    | ERJ3GEYJ270V | 27 1/16W                | [M]     |
| R6808    | ERJ3GEYJ270V | 27 1/16W                | [M]     |
| R6809    | ERJ3GEYJ270V | 27 1/16W                | [M]     |
| R6810    | ERJ3GEYJ270V | 27 1/16W                | [M]     |
| R6811    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R6812    | ERJ3GEYJ100V | 10 1/16W                | [M]     |
| R6813    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R6814    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R6815    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R6816    | ERJ3GEYJ563V | 56K 1/16W               | [M]     |
| R6819    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R6820    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R6821    | ERJ3GEYJ104V | 100K 1/16W              | [M]     |
| R6822    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R6823    | ERJ3GEYJ2R7V | 2.7 1/16W               | [M]     |
| R6824    | ERJ3GEYJ223V | 22K 1/16W               | [M]     |
| R6825    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R6826    | ERJ3GEYJ2R7V | 2.7 1/16W               | [M]     |
| R6827    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R6828    | ERJ3GEYJ223V | 22K 1/16W               | [M]     |
| R6829    | ERJ3GEYJ272V | 2.7K 1/16W              | [M]     |
| R6830    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R6837    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R6854    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R6855    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R6856    | ERJ3GEYJ122V | 1.2K 1/16W              | [M]     |
| R6857    | ERJ3GEYJ182V | 1.8K 1/16W              | [M]     |
| R6858    | ERJ3GEYJ222V | 2.2K 1/16W              | [M]     |
| R6859    | ERJ3GEYJ272V | 2.7K 1/16W              | [M]     |
| R6860    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R6861    | ERJ3GEYJ682V | 6.8K 1/16W              | [M]     |
| R6862    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R6864    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R6865    | ERJ3GEYJ473V | 47K 1/16W               | [M]     |
| R6869    | ERJ3GEYJ392V | 3.9K 1/16W              | [M]     |
| R6885    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R6886    | ERJ3GEYJ222V | 2.2K 1/16W              | [M]     |
| R6887    | ERJ3GEYJ474V | 470K 1/16W              | [M]     |
| R6888    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R6889    | ERJ3GEYJ183V | 18K 1/16W               | [M]     |
| R6890    | ERJ3GEYJ681V | 680 1/16W               | [M]     |
| R6891    | ERJ3GEYJ681V | 680 1/16W               | [M]     |
| R6892    | ERJ3GEYJ561V | 560 1/16W               | [M]     |
| R6893    | ERJ3GEYJ181V | 180 1/16W               | [M]     |
| R6894    | ERJ3GEYJ181V | 180 1/16W               | [M]     |
| R6937    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R6938    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R6939    | ERJ3GEYJ122V | 1.2K 1/16W              | [M]     |
| R6940    | ERJ3GEYJ182V | 1.8K 1/16W              | [M]     |
| R6941    | ERJ3GEYJ222V | 2.2K 1/16W              | [M]     |
| R6942    | ERJ3GEYJ272V | 2.7K 1/16W              | [M]     |
| R6943    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R6944    | ERJ3GEYJ682V | 6.8K 1/16W              | [M]     |
| R6950    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R6954    | ERJ3GEYJ474V | 470K 1/16W              | [M]     |
| R6956    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R6957    | ERJ3GEYJ474V | 470K 1/16W              | [M]     |
| R6959    | ERD2FCVG470T | 47 1/4W                 | [M]     |
| R6960    | ERD2FCVG470T | 47 1/4W                 | [M]     |
| R6961    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R6962    | ERJ3GEYJ103V | 10K 1/16W               | [M]     |
| R6963    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R6964    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R6965    | ERJ3GEYJ122V | 1.2K 1/16W              | [M]     |
| R6966    | ERJ3GEYJ182V | 1.8K 1/16W              | [M]     |
| R6967    | ERJ3GEYJ222V | 2.2K 1/16W              | [M]     |
| R6968    | ERJ3GEYJ272V | 2.7K 1/16W              | [M]     |
| R6969    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R6970    | ERJ3GEYJ682V | 6.8K 1/16W              | [M]     |
| R6981    | ERJ3GEYJ334V | 330K 1/16W              | [M]     |
| R6982    | ERJ3GEYJ680V | 68 1/16W                | [M]     |
| R6983    | ERJ3GEYJ822V | 8.2K 1/16W              | [M]     |
| R6987    | ERJ3GEYJ334V | 330K 1/16W              | [M]     |
| R6988    | ERJ3GEYJ271V | 270 1/16W               | [M]     |
| R6989    | ERJ3GEYJ271V | 270 1/16W               | [M]     |
| R6990    | ERJ3GEYJ271V | 270 1/16W               | [M]     |
| R6991    | ERJ3GEYJ331V | 330 1/16W               | [M]     |
| R6992    | ERJ3GEYJ101V | 100 1/16W               | [M]     |
| R6993    | ERJ3GEYJ273V | 27K 1/16W               | [M]     |
| R6994    | ERJ3GEYJ472V | 4.7K 1/16W              | [M]     |
| R6995    | ERJ3GEYJ102V | 1K 1/16W                | [M]     |
| R6996    | ERJ3GEYJ270V | 27 1/16W                | [M]     |
| R6997    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R8002    | ERJ2GEJ473X  | 47K 2W                  | [M]     |
| R8003    | ERJ2GEJ473X  | 47K 2W                  | [M]     |
| R8011    | ERJ2GEJ220X  | 22 2W                   | [M]     |
| R8012    | ERJ2GEJ220X  | 22 2W                   | [M]     |
| R8013    | ERJ2GEJ220X  | 22 2W                   | [M]     |
| R8041    | ERJ2GEJ330X  | 33 2W                   | [M]     |
| R8211    | ERJ2GEJ103X  | 10K 2W                  | [M]     |
| R8221    | ERJ2GEJ822X  | 8.2K 2W                 | [M]     |
| R8225    | ERJ2GEJ822X  | 8.2K 2W                 | [M]     |
| R8230    | ERJ2GEJ222X  | 2.2K 2W                 | [M]     |
| R8231    | ERJ2GEJ223X  | 22K 2W                  | [M]     |
| R8232    | ERJ2GEJ752X  | 7.5K 2W                 | [M]     |
| R8251    | ERJ6GEYJ6R8V | 6.8 1/10W               | [M]     |
| R8261    | ERJ2GEJ823X  | 82K 2W                  | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R8262    | ERJ2GEJ153X  | 15K 2W                  | [M]     |
| R8263    | ERJ2GEJ823X  | 82K 2W                  | [M]     |
| R8264    | ERJ2GEJ153X  | 15K 2W                  | [M]     |
| R8311    | ERJ2RHD242X  | 2.4K 2W                 | [M]     |
| R8312    | ERJ2RHD102X  | 1K 2W                   | [M]     |
| R8313    | ERJ2RHD123X  | 12K 2W                  | [M]     |
| R8314    | ERJ2RHD182X  | 1.8K 2W                 | [M]     |
| R8321    | ERJ3RBD101V  | 100 3W                  | [M]     |
| R8322    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R8323    | ERJ2GEJ330X  | 33 2W                   | [M]     |
| R8324    | ERJ2GEJ102X  | 1K 2W                   | [M]     |
| R8325    | ERJ3RBD101V  | 100 3W                  | [M]     |
| R8326    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R8327    | ERJ2GEJ330X  | 33 2W                   | [M]     |
| R8328    | ERJ2GEJ102X  | 1K 2W                   | [M]     |
| R8331    | ERJ3RBD101V  | 100 3W                  | [M]     |
| R8332    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R8333    | ERJ2GEJ330X  | 33 2W                   | [M]     |
| R8334    | ERJ2GEJ102X  | 1K 2W                   | [M]     |
| R8335    | ERJ3RBD101V  | 100 3W                  | [M]     |
| R8336    | ERJ2GEJ330X  | 33 2W                   | [M]     |
| R8337    | ERJ2GEJ102X  | 1K 2W                   | [M]     |
| R8341    | ERJ3RBD101V  | 100 3W                  | [M]     |
| R8342    | ERJ2GEJ330X  | 33 2W                   | [M]     |
| R8343    | ERJ2GEJ102X  | 1K 2W                   | [M]     |
| R8401    | ERJ2GEJ101X  | 100 2W                  | [M]     |
| R8420    | ERJ2GEJ222X  | 2.2K 2W                 | [M]     |
| R8421    | ERJ2GE0R00X  | 0 2W                    | [M]     |
| R8531    | ERJ2GEJ152X  | 1.5K 2W                 | [M]     |
| R8532    | ERJ2GEJ222X  | 2.2K 2W                 | [M]     |
| R8533    | ERJ2GE0R00X  | 0 2W                    | [M]     |
| R8541    | ERJ2GEJ153X  | 15K 2W                  | [M]     |
| R8551    | ERJ2GE0R00X  | 0 2W                    | [M]     |
| R8552    | ERJ2GEJ102X  | 1K 2W                   | [M]     |
| R8553    | ERJ2GEJ102X  | 1K 2W                   | [M]     |
| R8554    | ERJ2GEJ680X  | 68 2W                   | [M]     |
| R8555    | ERJ2GEJ2R2X  | 2.2 2W                  | [M]     |
| R8556    | ERJ3GEYJ560V | 56 1/16W                | [M]     |
| R8557    | ERJ3GEYJ510V | 51 1/16W                | [M]     |
| R8558    | ERJ2GEJ473X  | 47K 2W                  | [M]     |
| R8559    | ERJ2GEJ153X  | 15K 2W                  | [M]     |
| R8561    | ERJ2GE0R00X  | 0 2W                    | [M]     |
| R8562    | ERJ2GEJ102X  | 1K 2W                   | [M]     |
| R8563    | ERJ2GEJ102X  | 1K 2W                   | [M]     |
| R8564    | ERJ2GEJ220X  | 22 2W                   | [M]     |
| R8565    | ERJ2GEJ2R2X  | 2.2 2W                  | [M]     |
| R8566    | ERJ3GEYJ560V | 56 1/16W                | [M]     |
| R8567    | ERJ3GEYJ510V | 51 1/16W                | [M]     |
| R8568    | ERJ2GEJ473X  | 47K 2W                  | [M]     |
| R8601    | ERJ2GEJ104X  | 100K 2W                 | [M]     |
| R8611    | ERJ2GEJ101X  | 100 2W                  | [M]     |
| R8621    | ERJ2GEJ105X  | 1M 2W                   | [M]     |
| R8622    | ERJ2RHD102X  | 1K 2W                   | [M]     |
| R9500    | ERDS1FVJ100T | 10 1/2W                 | [M]     |
| R9501    | ERDS1FVJ100T | 10 1/2W                 | [M]     |
| R9502    | ERDS1FVJ100T | 10 1/2W                 | [M]     |
| R9503    | ERDS2TJ824T  | 820K 1/4W               | [M]     |
| R9504    | ERDS2TJ152T  | 1.5K 1/4W               | [M]     |
| R9505    | ERDS2TJ122T  | 1.2K 1/4W               | [M]     |
| R9507    | ERDS2TJ1R0T  | 1 1/4W                  | [M]     |
| R9508    | ERDS2TJ1R0T  | 1 1/4W                  | [M]     |
| R9509    | ERDS2TJ1R0T  | 1 1/4W                  | [M]     |
| R9510    | ERDS2TJ1R0T  | 1 1/4W                  | [M]     |
| R9511    | ERDS2TJ102T  | 1K 1/4W                 | [M]     |
| R9512    | ERDS2TJ392T  | 3.9K 1/4W               | [M]     |
| R9513    | ERDS2TJ331T  | 330 1/4W                | [M]     |
| R9514    | ERDS2TJ102T  | 1K 1/4W                 | [M]     |
| R9515    | ERDS2TJ102T  | 1K 1/4W                 | [M]     |
| R9516    | ERDS2TJ102T  | 1K 1/4W                 | [M]     |
| R9517    | ERDS2TJ223T  | 22K 1/4W                | [M]     |
| R9518    | ERDS2TJ332T  | 3.3K 1/4W               | [M]     |
| R9519    | ERDS2TJ151T  | 150 1/4W                | [M]     |
| R9520    | ERDS2TJ472T  | 4.7K 1/4W               | [M]     |
| R9521    | ERD2FCVJ4R7T | 4.7 1/4W                | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R9522    | ERDS2TJ1ROT  | 1 1/4W                  | [M]     |
| R9523    | ERDS1FVJ100T | 10 1/2W                 | [M]     |
| R9528    | ERDS1FVJ100T | 10 1/2W                 | [M]     |
| R9529    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R9530    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R9531    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R9532    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R9534    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R9535    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R9536    | ERJ3GEY0R00V | 0 1/16W                 | [M]     |
| R9836    | ERD2FCVJ4R7T | 4.7 1/4W                | [M]     |
|          |              |                         |         |
| RX8001   | D1H410320002 | CHIP RESISTOR           | [M]     |
| RX8011   | D1H88204A024 | CHIP RESISTOR           | [M]     |
| RX8012   | D1H88204A024 | CHIP RESISTOR           | [M]     |
| RX8013   | D1H88204A024 | CHIP RESISTOR           | [M]     |
| RX8014   | D1H88204A024 | CHIP RESISTOR           | [M]     |
| RX8015   | D1H88204A024 | CHIP RESISTOR           | [M]     |
| RX8016   | D1H88204A024 | CHIP RESISTOR           | [M]     |
| RX8017   | D1H88204A024 | CHIP RESISTOR           | [M]     |
| RX8018   | D1H422020001 | CHIP RESISTOR           | [M]     |
| RX8019   | D1H422020001 | CHIP RESISTOR           | [M]     |
| RX8020   | D1H422020001 | CHIP RESISTOR           | [M]     |
| RX8031   | D1H447220001 | CHIP RESISTOR           | [M]     |
| RX8032   | D1H447220001 | CHIP RESISTOR           | [M]     |
| RX8111   | D1H422320002 | CHIP RESISTOR           | [M]     |
| RX8401   | D1H410120001 | CHIP RESISTOR           | [M]     |
| RX8402   | D1H410120001 | CHIP RESISTOR           | [M]     |
| RX8403   | D1H410120001 | CHIP RESISTOR           | [M]     |
| RX8531   | D1H456020001 | CHIP RESISTOR           | [M]     |
| RX8532   | D1H85604A024 | CHIP RESISTOR           | [M]     |
| RX8533   | D1H456020001 | CHIP RESISTOR           | [M]     |
| RX8534   | D1H456020001 | CHIP RESISTOR           | [M]     |
| RX8611   | D1H447220001 | CHIP RESISTOR           | [M]     |
| RX8691   | D1H410320002 | CHIP RESISTOR           | [M]     |
|          |              |                         |         |
| K2905    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| K2906    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| K8001    | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| K8004    | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| K8006    | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| K8009    | ERJ2GE0R00X  | CHIP JUMPER             | [M]     |
| K8106    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| K8421    | ERJ3GEY0R00V | CHIP JUMPER             | [M]     |
| K9810    | ERDS1FVJ120T | 1/2W RESISTOR           | [M]     |
| K9811    | ERDS1FVJ120T | 1/2W RESISTOR           | [M]     |
| K9812    | ERDS1FVJ120T | 1/2W RESISTOR           | [M]     |
|          |              |                         |         |
|          |              | CAPACITORS              |         |
|          |              |                         |         |
| C1       | F1D1H5R6A017 | 5.6P 50V                | [M]     |
| C2       | F1D1H102A029 | 1000P 50V               | [M]     |
| C3       | F1D1H2R2A017 | 2.2P 50V                | [M]     |
| C4       | F1D1H181A012 | 180P 50V                | [M]     |
| C5       | F1D1H5R6A017 | 5.6P 50V                | [M]     |
| C6       | F1D1H3R3A017 | 3.3P 50V                | [M]     |
| C7       | F1D1H4R7A017 | 4.7P 50V                | [M]     |
| C8       | F1D1H3R3A017 | 3.3P 50V                | [M]     |
| C9       | F1D1H2R2A017 | 2.2P 50V                | [M]     |
| C10      | F1D1H180A015 | 18P 50V                 | [M]     |
| C11      | F1D1E103A001 | 0.01 25V                | [M]     |
| C11      | F1D1H102A029 | 1000P 50V               | [M]     |
| C12      | F2A1C101A234 | 100 16V                 | [M]     |
| C21      | F1D1E103A001 | 0.01 25V                | [M]     |
| C22      | F2A1C101A234 | 100 16V                 | [M]     |
| C1001    | F1B2H103A060 | 0.01 500V               | [M]     |
| C1002    | ECEA1HKN2R2B | 2.2 50V                 | [M]     |
| C1002    | F1B2H103A060 | 0.01 500V               | [M]     |
| C1006    | ECEA1HKA010B | 1 50V                   | [M]     |
| C1007    | F0A2A472A034 | 4700P 100V              | [M]     |
| C1008    | ECEA1HKA010B | 1 50V                   | [M]     |
| C1009    | ECEA1CKA470B | 47 16V                  | [M]     |
| C1010    | ECA1EM101B   | 100 25V                 | [M]     |
| C1011    | ECQV1H473JZ3 | 0.047 50V               | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C1012    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C1013    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C1014    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C1015    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C1016    | ECJ1VB1H222K | 2200P 50V               | [M]     |
| C1017    | ECJ1VB1H222K | 2200P 50V               | [M]     |
| C1018    | ECJ1VB1H332K | 3300P 50V               | [M]     |
| C1019    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C1020    | ECJ1VB1H471K | 470P 50V                | [M]     |
| C1021    | ECJ1VB1H471K | 470P 50V                | [M]     |
| C1022    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C1023    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C1026    | ECEA0JKA470B | 47 6.3V                 | [M]     |
| C1027    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C1030    | ECEA1AKA101B | 100 10V                 | [M]     |
| C1031    | ECA1AM101B   | 100 10V                 | [M]     |
| C1032    | F1C1C183A023 | 0.018 16V               | [M]     |
| C1033    | F1C1C183A023 | 0.018 16V               | [M]     |
| C1034    | ECEA1HKA3R3B | 3.3 50V                 | [M]     |
| C1035    | ECEA1HKA3R3B | 3.3 50V                 | [M]     |
| C1036    | ECJ1VB1C333K | 0.033 16V               | [M]     |
| C1037    | ECEA1HKA3R3B | 3.3 50V                 | [M]     |
| C1038    | ECJ1VB1H221K | 220P 50V                | [M]     |
| C1039    | ECJ1VB1H221K | 220P 50V                | [M]     |
| C1040    | ECEA1CKA100B | 10 16V                  | [M]     |
| C1041    | ECEA1CKA100B | 10 16V                  | [M]     |
| C1042    | ECEA1CKA220B | 22 16V                  | [M]     |
| C1043    | ECEA1HKA4R7B | 4.7 50V                 | [M]     |
| C1044    | ECEA1AKA330B | 33 10V                  | [M]     |
| C1045    | ECEA1AKA220B | 22 10V                  | [M]     |
| C1046    | ECA1CM221B   | 220 16V                 | [M]     |
| C1049    | ECJ1VB1H332K | 3300P 50V               | [M]     |
| C1050    | ECJ1VB1H332K | 3300P 50V               | [M]     |
| C1056    | ECEA1CKA100B | 10 16V                  | [M]     |
| C1057    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C1058    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C1059    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2039    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2046    | F2A0J102A130 | 1000P 6.3V              | [M]     |
| C2047    | F2A0J102A130 | 1000P 6.3V              | [M]     |
| C2048    | ECEA1HKA100B | 10 50V                  | [M]     |
| C2049    | ECA0JM221B   | 220 6.3V                | [M]     |
| C2050    | ECEA1HKA220B | 22 50V                  | [M]     |
| C2100    | ECEA1HKA010B | 1 50V                   | [M]     |
| C2101    | ECJ1VC1H102J | 1000P 50V               | [M]     |
| C2102    | ECEA1CKA100B | 10 16V                  | [M]     |
| C2103    | ECEA1CKA100B | 10 16V                  | [M]     |
| C2104    | ECEA1CKA100B | 10 16V                  | [M]     |
| C2105    | ECEA1HKA330B | 33 50V                  | [M]     |
| C2106    | ECJ1VC1H100D | 10P 50V                 | [M]     |
| C2107    | ECJ1VB1C103K | 0.01 16V                | [M]     |
| C2108    | ECEA1HKA470B | 47 50V                  | [M]     |
| C2110    | ECEA1HKA470B | 47 50V                  | [M]     |
| C2111    | ECJ1VC1H102J | 1000P 50V               | [M]     |
| C2112    | ECEA1HKA010B | 1 50V                   | [M]     |
| C2113    | ECJ1VB1A154K | 0.15 10V                | [M]     |
| C2114    | ECJ1VB1A105K | 1 10V                   | [M]     |
| C2115    | ECJ1VF1C474Z | 0.47 16V                | [M]     |
| C2116    | ECJ1VB1A154K | 0.15 10V                | [M]     |
| C2117    | ECJ1VB1A154K | 0.15 10V                | [M]     |
| C2118    | ECJ1VB1H272K | 2700P 50V               | [M]     |
| C2119    | ECEA1HKA4R7B | 4.7 50V                 | [M]     |
| C2120    | ECEA1HKA4R7B | 4.7 50V                 | [M]     |
| C2121    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2122    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2123    | ECJ1VB1H473K | 0.047 50V               | [M]     |
| C2124    | ECJ1VB1C393K | 0.039 16V               | [M]     |
| C2131    | ECEA1HKA010B | 1 50V                   | [M]     |
| C2134    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C2136    | ECJ1VC1H102J | 1000P 50V               | [M]     |
| C2137    | ECJ1VB1H223K | 0.022 50V               | [M]     |
| C2138    | ECEA1CKA100B | 10 16V                  | [M]     |
| C2139    | ECJ1VB1H332K | 3300P 50V               | [M]     |
| C2140    | ECJ1VB1C823K | 0.082 16V               | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C2141    | ECEA1HKA100B | 10 50V                  | [M]     |
| C2142    | ECJ1VB1H272K | 2700P 50V               | [M]     |
| C2200    | ECEA1HKA010B | 1 50V                   | [M]     |
| C2201    | ECJ1VB1H221K | 220P 50V                | [M]     |
| C2202    | ECEA1CKA100B | 10 16V                  | [M]     |
| C2203    | ECEA1CKA100B | 10 16V                  | [M]     |
| C2204    | ECEA1CKA100B | 10 16V                  | [M]     |
| C2205    | ECEA1HKA330B | 33 50V                  | [M]     |
| C2206    | ECJ1VC1H100D | 10P 50V                 | [M]     |
| C2207    | ECJ1VB1C103K | 0.01 16V                | [M]     |
| C2208    | ECEA1HKA470B | 47 50V                  | [M]     |
| C2210    | ECEA1HKA470B | 47 50V                  | [M]     |
| C2211    | ECJ1VC1H102J | 1000P 50V               | [M]     |
| C2212    | ECEA1HKA010B | 1 50V                   | [M]     |
| C2213    | ECJ1VB1A154K | 0.15 10V                | [M]     |
| C2214    | ECJ1VB1A105K | 1 10V                   | [M]     |
| C2215    | ECJ1VF1C474Z | 0.47 16V                | [M]     |
| C2216    | ECJ1VB1A154K | 0.15 10V                | [M]     |
| C2217    | ECJ1VB1A154K | 0.15 10V                | [M]     |
| C2218    | ECJ1VB1H272K | 2700P 50V               | [M]     |
| C2219    | ECEA1HKA4R7B | 4.7 50V                 | [M]     |
| C2220    | ECEA1HKA4R7B | 4.7 50V                 | [M]     |
| C2221    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2222    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2223    | ECJ1VB1H473K | 0.047 50V               | [M]     |
| C2225    | ECJ1VB1H473K | 0.047 50V               | [M]     |
| C2231    | ECEA1HKA010B | 1 50V                   | [M]     |
| C2234    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C2236    | ECJ1VC1H102J | 1000P 50V               | [M]     |
| C2237    | ECJ1VB1H223K | 0.022 50V               | [M]     |
| C2238    | ECEA1CKA100B | 10 16V                  | [M]     |
| C2239    | ECJ1VB1H332K | 3300P 50V               | [M]     |
| C2240    | ECEA1HKA100B | 10 50V                  | [M]     |
| C2241    | ECJ1VB1H272K | 2700P 50V               | [M]     |
| C2304    | ECJ1VC1H100D | 10P 50V                 | [M]     |
| C2306    | ECEA1HKA2R2B | 2.2 50V                 | [M]     |
| C2310    | ECEA1HKA010B | 1 50V                   | [M]     |
| C2311    | ECEA1HKA47B  | 0.47 50V                | [M]     |
| C2312    | ECEA1CKA100B | 10 16V                  | [M]     |
| C2320    | ECJ1VB1C104K | 0.1 16V                 | [M]     |
| C2332    | ECJ1VB1A105K | 1 10V                   | [M]     |
| C2335    | ECJ1VB1A105K | 1 10V                   | [M]     |
| C2400    | ECEA1CKA100B | 10 16V                  | [M]     |
| C2404    | ECJ1VC1H100D | 10P 50V                 | [M]     |
| C2406    | ECEA1HKA2R2B | 2.2 50V                 | [M]     |
| C2410    | ECEA1HKA010B | 1 50V                   | [M]     |
| C2411    | ECEA1HKA47B  | 0.47 50V                | [M]     |
| C2434    | F2A0J102A130 | 1000P 6.3V              | [M]     |
| C2436    | ECJ1VB1A105K | 1 10V                   | [M]     |
| C2437    | ECJ1VB1A105K | 1 10V                   | [M]     |
| C2440    | ECJ1VB1C104K | 0.1 16V                 | [M]     |
| C2441    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2442    | ECEA1HKA220B | 22 50V                  | [M]     |
| C2443    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2444    | ECEA1AKA221B | 220 10V                 | [M]     |
| C2500    | ECEA1CKA100B | 10 16V                  | [M]     |
| C2502    | ECEA1CKA100B | 10 16V                  | [M]     |
| C2509    | ECEA1HKA47B  | 0.47 50V                | [M]     |
| C2515    | ECEA1HKA22B  | 0.22 50V                | [M]     |
| C2516    | ECJ1VC1H100D | 10P 50V                 | [M]     |
| C2517    | ECEA1HKA47B  | 0.47 50V                | [M]     |
| C2522    | ECJ1VB1C104K | 0.1 16V                 | [M]     |
| C2600    | ECEA1HKA100B | 10 50V                  | [M]     |
| C2601    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2602    | ECEA1HKA010B | 1 50V                   | [M]     |
| C2603    | ECEA1HKA3R3B | 3.3 50V                 | [M]     |
| C2604    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C2605    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2606    | ECEA1HKA100B | 10 50V                  | [M]     |
| C2607    | ECJ1VB1A184K | 0.18 10V                | [M]     |
| C2608    | ECEA1HKA47B  | 0.47 50V                | [M]     |
| C2609    | ECEA1HKA100B | 10 50V                  | [M]     |
| C2610    | ECJ1VC1H102J | 1000P 50V               | [M]     |
| C2611    | ECJ1VC1H101K | 100P 50V                | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| 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    | ECEA1HKA47B  | 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    | ECJ1VB1C104K | 0.1 16V                 | [M]     |
| C2650    | ECJ1VB1A474K | 0.47 10V                | [M]     |
| C2704    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2705    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2706    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2707    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2708    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2709    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2710    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2711    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2712    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C2713    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C2714    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2716    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2717    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2718    | ECJ1VB1H471K | 470P 50V                | [M]     |
| C2719    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2720    | ECJ1VB1H471K | 470P 50V                | [M]     |
| C2721    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2722    | ECEA1AKA220B | 22 10V                  | [M]     |
| C2723    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2724    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2725    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2726    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2727    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2728    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2729    | ECEA0JKA101B | 100 6.3V                | [M]     |
| C2730    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C2731    | ECEA1HKA0R1B | 0.1 50V                 | [M]     |
| C2732    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2733    | ECEA1HKA2R2B | 2.2 50V                 | [M]     |
| C2734    | ECJ1VC1H390J | 39P 50V                 | [M]     |
| C2735    | ECJ1VC1H390J | 39P 50V                 | [M]     |
| C2736    | ECJ1VC1H150J | 15P 50V                 | [M]     |
| C2737    | ECJ1VC1H150J | 15P 50V                 | [M]     |
| C2738    | ECJ1VB1C223K | 0.022 16V               | [M]     |
| C2739    | ECJ1VC1H331J | 330P 50V                | [M]     |
| C2740    | ECJ1VC1H331J | 330P 50V                | [M]     |
| C2741    | ECEA1VKA4R7B | 4.7 35V                 | [M]     |
| C2742    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2743    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C2744    | ECJ1VB1H103K | 0.01 50V                | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C2745    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2746    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2747    | ECEA1HKA0R1B | 0.1 50V                 | [M]     |
| C2748    | ECEA1HKA0R1B | 0.1 50V                 | [M]     |
| C2749    | ECEA1HKA0R1B | 0.1 50V                 | [M]     |
| C2750    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2751    | ECJ1VB1H471K | 470P 50V                | [M]     |
| C2752    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C2754    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2758    | ECJ1VB1C104K | 0.1 16V                 | [M]     |
| C2759    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2825    | ECJ1VB1A105K | 1 10V                   | [M]     |
| C2826    | ECJ1VB1A105K | 1 10V                   | [M]     |
| C2827    | ECEA0JKA221B | 220 6.3V                | [M]     |
| C2842    | ECJ1VB1C104K | 0.1 16V                 | [M]     |
| C2843    | ECJ1VB1C104K | 0.1 16V                 | [M]     |
| C2846    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2847    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2848    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2849    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2850    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2851    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2855    | ECEA1HKN4R7B | 4.7 50V                 | [M]     |
| C2857    | ECEA1CKA100B | 10 16V                  | [M]     |
| C2858    | ECEA1CKA100B | 10 16V                  | [M]     |
| C2860    | ECEA1HKA4R7B | 4.7 50V                 | [M]     |
| C2862    | ECEA1HKA4R7B | 4.7 50V                 | [M]     |
| C2864    | ECEA1HKA100B | 10 50V                  | [M]     |
| C2865    | ECEA1HKA4R7B | 4.7 50V                 | [M]     |
| C2872    | ECJ1VB1E103K | 0.01 25V                | [M]     |
| C2873    | ECJ1VB1E103K | 0.01 25V                | [M]     |
| C2875    | ECJ1VF1A105Z | 1 10V                   | [M]     |
| C2899    | ECEA1HKA2R2B | 2.2 50V                 | [M]     |
| C2900    | ECJ1VB1H472K | 4700P 50V               | [M]     |
| C2901    | ECJ1VB1H561K | 560P 50V                | [M]     |
| C2902    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C2903    | ECJ1VB1E103K | 0.01 25V                | [M]     |
| C2904    | ECJ1VB1H272K | 2700P 50V               | [M]     |
| C2905    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C2907    | ECJ1VB1H182K | 1800P 50V               | [M]     |
| C2912    | ECJ2VF1E473Z | 0.047 25V               | [M]     |
| C2913    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C2914    | ECJ1VB1A224K | 0.22 10V                | [M]     |
| C2915    | ECJ1VB1A224K | 0.22 10V                | [M]     |
| C2916    | ECEA1HKA100B | 10 50V                  | [M]     |
| C2917    | ECJ1VB1C683K | 0.068 16V               | [M]     |
| C2918    | ECJ1VB1C683K | 0.068 16V               | [M]     |
| C2919    | ECJ1VB1C683K | 0.068 16V               | [M]     |
| C2920    | ECJ1VB1C683K | 0.068 16V               | [M]     |
| C2921    | ECEA1CKA470B | 47 16V                  | [M]     |
| C2922    | ECEA1CKA101B | 100 16V                 | [M]     |
| C2923    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C2924    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C2925    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C2926    | ECJ1VB1H472K | 4700P 50V               | [M]     |
| C2927    | ECJ1VB1C683K | 0.068 16V               | [M]     |
| C2928    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C2929    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C2930    | ECJ1VB1C683K | 0.068 16V               | [M]     |
| C2931    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C2932    | ECJ1VB1H472K | 4700P 50V               | [M]     |
| C2933    | ECEA1HKA010B | 1 50V                   | [M]     |
| C2934    | ECEA1CKA101B | 100 16V                 | [M]     |
| C2935    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C2936    | ECEA1HKA2R2B | 2.2 50V                 | [M]     |
| C2937    | ECJ1VB1H332K | 3300P 50V               | [M]     |
| C2938    | ECJ2VB1C154K | 0.15 16V                | [M]     |
| C2939    | ECEA1HKA010B | 1 50V                   | [M]     |
| C2940    | ECEA1HKA010B | 1 50V                   | [M]     |
| C2941    | ECEA1HKA010B | 1 50V                   | [M]     |
| C2942    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C2943    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C2944    | ECJ1VB1H682K | 6800P 50V               | [M]     |
| C2947    | ECJ1VC1H102J | 1000P 50V               | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C2948    | ECJ1VC1H102J | 1000P 50V               | [M]     |
| C2953    | ECJ1VB1A224K | 0.22 10V                | [M]     |
| C2954    | ECEA1HKA100B | 10 50V                  | [M]     |
| C2961    | ECJ1VC1H102J | 1000P 50V               | [M]     |
| C2962    | ECEA1CKA470B | 47 16V                  | [M]     |
| C2963    | ECEA1CKA470B | 47 16V                  | [M]     |
| C2964    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2965    | ECJ1VB1A224K | 0.22 10V                | [M]     |
| C2968    | ECJ1VB1A105K | 1 10V                   | [M]     |
| C2969    | ECJ1VC1H100D | 10P 50V                 | [M]     |
| C2970    | ECJ1VB1A224K | 0.22 10V                | [M]     |
| C2973    | ECA1CM101B   | 100 16V                 | [M]     |
| C2974    | F2A0J102A130 | 1000P 6.3V              | [M]     |
| C2975    | F2A0J102A130 | 1000P 6.3V              | [M]     |
| C2977    | ECJ1VB1H471K | 470P 50V                | [M]     |
| C2978    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C2979    | ECEA1HKN4R7B | 4.7 50V                 | [M]     |
| C2981    | ECJ1VB1H471K | 470P 50V                | [M]     |
| C2982    | ECJ1VB1H471K | 470P 50V                | [M]     |
| C2983    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2984    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2985    | ECEA1CKA101B | 100 16V                 | [M]     |
| C2986    | ECA1CM100B   | 10 16V                  | [M]     |
| C2987    | ECEA1AKN100B | 10 10V                  | [M]     |
| C2988    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2989    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C2990    | ECEA1CKA101B | 100 16V                 | [M]     |
| C2991    | ECA1CM100B   | 10 16V                  | [M]     |
| C2992    | ECEA1AKN100B | 10 10V                  | [M]     |
| C3602    | ECEA1CKA100B | 10 16V                  | [M]     |
| C3603    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C3604    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C3606    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C3607    | ECJ1VB1E473K | 0.047 25V               | [M]     |
| C3608    | ECJ1VC1H080D | 8P 50V                  | [M]     |
| C3609    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C3610    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C3611    | ECEA1HKA4R7B | 4.7 50V                 | [M]     |
| C3612    | F2A0J102A130 | 1000P 6.3V              | [M]     |
| C3617    | ECEA1AKA221B | 220 10V                 | [M]     |
| C3618    | ECEA1AKA221B | 220 10V                 | [M]     |
| C3621    | ECJ1VB1C563K | 0.056 16V               | [M]     |
| C3622    | ECJ1VB1C563K | 0.056 16V               | [M]     |
| C3623    | ECJ1VB1C104K | 0.1 16V                 | [M]     |
| C5100    | ECJ1VB1H821K | 820P 50V                | [M]     |
| C5101    | ECJ1VC1H150J | 15P 50V                 | [M]     |
| C5102    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C5103    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C5200    | ECJ1VB1H821K | 820P 50V                | [M]     |
| C5201    | ECJ1VC1H150J | 15P 50V                 | [M]     |
| C5202    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C5203    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C5300    | ECJ1VC1H150J | 15P 50V                 | [M]     |
| C5301    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C5302    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C5303    | ECJ1VB1H821K | 820P 50V                | [M]     |
| C5400    | ECJ1VC1H150J | 15P 50V                 | [M]     |
| C5401    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C5402    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C5403    | ECJ1VB1H821K | 820P 50V                | [M]     |
| C5500    | ECJ1VB1H821K | 820P 50V                | [M]     |
| C5501    | ECJ1VC1H150J | 15P 50V                 | [M]     |
| C5502    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C5503    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C5801    | F2A1E471A205 | 470P 25V                | [M]     |
| C5802    | ECA1CM331B   | 330 16V                 | [M]     |
| C5803    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C5804    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C5805    | ECA1CM101B   | 100 16V                 | [M]     |
| C5806    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C5807    | ECEA1HKA2R2B | 2.2 50V                 | [M]     |
| C5808    | ECA1CM331B   | 330 16V                 | [M]     |
| C5809    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C5810    | ECA1EM101B   | 100 25V                 | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C5811    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C5812    | ECEA1EKA330B | 33 25V                  | [M]     |
| C5813    | ECEA0JKA221B | 220 6.3V                | [M]     |
| C5814    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C5815    | F2A1J332A306 | 3300P 63V               | [M]     |
| C5818    | F2A1J332A306 | 3300P 63V               | [M]     |
| C5819    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C5834    | ECEA1HKA010B | 1 50V                   | [M]     |
| C5836    | ECEA2AU100B  | 10 100V                 | [M]     |
| C6800    | ECEA1CKA470B | 47 16V                  | [M]     |
| C6801    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C6802    | ECEA1CKA470B | 47 16V                  | [M]     |
| C6803    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C6804    | ECEA1HKA4R7B | 4.7 50V                 | [M]     |
| C6805    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C6806    | ECJ2VF1E473Z | 0.047 25V               | [M]     |
| C6807    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C6809    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C6810    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C6811    | ECA1CM471B   | 470 16V                 | [M]     |
| C6812    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C6813    | ECEA0JKA101B | 100 6.3V                | [M]     |
| C6843    | ECJ1VB1C223K | 0.022 16V               | [M]     |
| C6844    | ECJ1VB1C223K | 0.022 16V               | [M]     |
| C6853    | ECEA0JKA470B | 47 6.3V                 | [M]     |
| C6854    | ECEA1HKA3R3B | 3.3 50V                 | [M]     |
| C6855    | ECEA1HKA220B | 22 50V                  | [M]     |
| C6856    | ECEA1HKA220B | 22 50V                  | [M]     |
| C6865    | ECEA1HKA010B | 1 50V                   | [M]     |
| C6866    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C6867    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C6868    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C6870    | ECEA1HKA010B | 1 50V                   | [M]     |
| C6871    | ECJ1VB1H103K | 0.01 50V                | [M]     |
| C6872    | ECEA1HKA3R3B | 0.33 50V                | [M]     |
| C6873    | ECJ1VB1C105K | 1 16V                   | [M]     |
| C6875    | ECJ1VB1C223K | 0.022 16V               | [M]     |
| C6876    | ECJ1VB1C223K | 0.022 16V               | [M]     |
| C6879    | ECEA1HKA4R7B | 4.7 50V                 | [M]     |
| C6881    | ECEA1HKA3R3B | 3.3 50V                 | [M]     |
| C6882    | ECJ1VB1H471K | 470P 50V                | [M]     |
| C6885    | ECJ1VB1H331K | 330P 50V                | [M]     |
| C6886    | ECJ1VB1H331K | 330P 50V                | [M]     |
| C6887    | ECJ1VB1H331K | 330P 50V                | [M]     |
| C6888    | ECJ1VB1H331K | 330P 50V                | [M]     |
| C6889    | ECJ1VB1H104K | 0.1 50V                 | [M]     |
| C6890    | ECEA0JKA101B | 100 6.3V                | [M]     |
| C6891    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C6894    | ECJ1VB1H102K | 1000P 50V               | [M]     |
| C6895    | ECA1CAK100XB | 10 16V                  | [M]     |
| C6896    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C6897    | ECJ1VC1H101K | 100P 50V                | [M]     |
| C6898    | ECJ1VB1H332K | 3300P 50V               | [M]     |
| C8001    | EEE0GA331WP  | 330P 4V                 | [M]     |
| C8003    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8004    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8005    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8006    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8007    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8008    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8011    | F2G0J101A066 | 100P 6.3V               | [M]     |
| C8012    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8013    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8014    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8015    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8016    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8017    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8018    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8019    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8020    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8021    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8022    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8023    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8024    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C8025    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8026    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8051    | ECJ1VB0J105K | 1 6.3V                  | [M]     |
| C8052    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8053    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8054    | ECJ0EC1H221J | 220P 50V                | [M]     |
| C8055    | ECJ1VB0J105K | 1 6.3V                  | [M]     |
| C8056    | ECJ0EB1E222K | 2200P 25V               | [M]     |
| C8057    | ECJ1VB0J105K | 1 6.3V                  | [M]     |
| C8111    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8112    | ECJ1VB0J105K | 1 6.3V                  | [M]     |
| C8113    | ECJ0EB1E471K | 470P 25V                | [M]     |
| C8201    | F2G0J101A066 | 100P 6.3V               | [M]     |
| C8202    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8203    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8221    | ECJ0EB1E102K | 1000P 25V               | [M]     |
| C8222    | ECJ0EB1E821K | 820P 25V                | [M]     |
| C8225    | ECJ0EB1E102K | 1000P 25V               | [M]     |
| C8226    | ECJ0EB1E102K | 1000P 25V               | [M]     |
| C8231    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8232    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8251    | F2G0J221A065 | 220P 6.3V               | [M]     |
| C8252    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8253    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8255    | F2G1C220A037 | 22P 16V                 | [M]     |
| C8256    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8257    | F2G1C470A076 | 47P 16V                 | [M]     |
| C8258    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8261    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8262    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8301    | F2G0J221A031 | 220P 6.3V               | [M]     |
| C8302    | F2G0J330A031 | 33P 6.3V                | [M]     |
| C8303    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8304    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8305    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8306    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8311    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8312    | ECJ1VB0J105K | 1 6.3V                  | [M]     |
| C8313    | ECJ1VB0J105K | 1 6.3V                  | [M]     |
| C8321    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8325    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8330    | F2G0J470A031 | 47P 6.3V                | [M]     |
| C8331    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8335    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8341    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8401    | ECJ0EC1H150J | 15P 50V                 | [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]     |
| C8426    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8427    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8428    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8501    | F2G0J101A031 | 100P 6.3V               | [M]     |
| C8502    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8503    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8504    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8505    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8511    | ECJ1VB0J105K | 1 6.3V                  | [M]     |
| C8512    | ECJ1VB0J105K | 1 6.3V                  | [M]     |
| C8513    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8514    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8515    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8516    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8521    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8522    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8523    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8524    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8525    | ECJ0EB1C562K | 5600P 16V               | [M]     |
| C8526    | ECJ0EB1C183K | 0.018 16V               | [M]     |
| C8527    | ECJ0EB1A333K | 0.033 10V               | [M]     |
| C8528    | ECJ1VB0J105K | 1 6.3V                  | [M]     |
| C8529    | ECJ1VB0J105K | 1 6.3V                  | [M]     |
| C8530    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C8531    | ECJ0EC1H101J | 100P 50V                | [M]     |
| C8532    | ECJ0EC1H221J | 220P 50V                | [M]     |
| C8533    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8541    | ECJ0EB1E472K | 4700P 25V               | [M]     |
| C8550    | F2G0J330A031 | 33P 6.3V                | [M]     |
| C8551    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8552    | F2G1C100A072 | 10P 16V                 | [M]     |
| C8553    | F2G0J470A031 | 47P 6.3V                | [M]     |
| C8554    | ECJ1VB0J105K | 1 6.3V                  | [M]     |
| C8561    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8562    | F2G1C100A072 | 10P 16V                 | [M]     |
| C8563    | F2G0J470A031 | 47P 6.3V                | [M]     |
| C8564    | ECJ1VB0J105K | 1 6.3V                  | [M]     |
| C8571    | ECJ3YB1A106M | 10 10V                  | [M]     |
| C8572    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8601    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8602    | ECJ0EB1C153K | 0.015 16V               | [M]     |
| C8606    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8611    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8621    | ECJ0EC1H120J | 12P 50V                 | [M]     |
| C8622    | ECJ0EC1H120J | 12P 50V                 | [M]     |
| C8651    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8652    | ECJ0EB1A104K | 0.1 10V                 | [M]     |
| C8691    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |
| C8695    | ECJ0EF1C104Z | 0.1 16V                 | [M]     |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C9501    | ECQE1104KF3  | 0.1 100V                | [M]     |
| C9502    | ECKR1H103MD5 | 0.01 50V                | [M]     |
| C9503    | ECKR1H102ZF5 | 1000P 50V               | [M]     |
| C9504    | F1B1H103A153 | 0.01 50V                | [M]     |
| C9505    | ECKR1H103MD5 | 0.01 50V                | [M]     |
| C9506    | F1B2H103A060 | 0.01 500V               | [M]     |
| C9507    | F1D1H101A012 | 100P 50V                | [M]     |
| C9508    | ECEA1AKA470B | 47 10V                  | [M]     |
| C9509    | ECA1HM470B   | 47 50V                  | [M]     |
| C9510    | F2A1E471A205 | 470P 25V                | [M]     |
| C9511    | F2A1E471A205 | 470P 25V                | [M]     |
| C9512    | ECA1HM470B   | 47 50V                  | [M]     |
| C9513    | ECA1EM472B   | 4700 25V                | [M]     |
| C9514    | EEUFC1E102B  | 1000P 25V               | [M]     |
| C9515    | ECA0JM102B   | 1000 6.3V               | [M]     |
| C9517    | ECEA1HKA100B | 10 50V                  | [M]     |
| C9530    | ECJ1VB1H473K | 0.047 50V               | [M]     |
| C9531    | ECJ1VB1H473K | 0.047 50V               | [M]     |
| C9532    | ECJ1VB1H473K | 0.047 50V               | [M]     |
| C9533    | ECA1JM222B   | 2200 63V                | [M]     |
| C9533    | ECEA1HKA010B | 1 50V                   | [M]     |
| C9534    | ECA1JM222B   | 2200 63V                | [M]     |
| C9535    | ECJ1VB1H473K | 0.047 50V               | [M]     |
| C9536    | ECJ1VB1H473K | 0.047 50V               | [M]     |

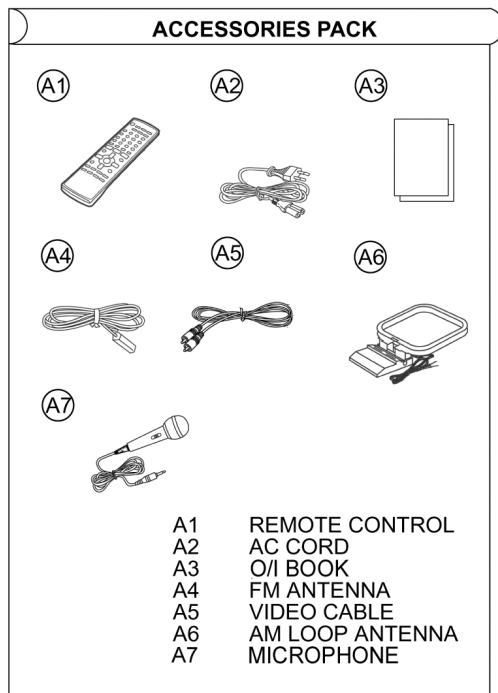
## 25.5. Packing Materials & Accessories Parts List

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
|          |              | PACKING MATERIALS       |         |
|          |              |                         |         |
| P1       | RPGX1472     | PACKING CASE            | [M]     |
| P2       | RPNX0342     | POLYFOAM                | [M]     |
| P2       | RPNX0344     | POLYFOAM (SPEAKER)      | [M]     |
| P3       | RPFX0007     | MIRAMAT BAG             | [M]     |
|          |              |                         |         |
|          |              | ACCESSORIES             |         |
|          |              |                         |         |
| A1       | N2QAJB000143 | REMOTE CONTROL          | [M]     |
| A1-1     | RKK-HTR0051K | R/C BATTERY COVER       | [M]     |
| A2       | K2CQ2CA00002 | AC CORD                 | [M] ⚠   |
| A3       | RQT8171-R    | O/I BOOK (Ru/Ur)        | [M]     |
| A4       | RSA0007-L    | FM ANTENNA              | [M]     |
| A5       | N1DAAA00001  | AM ANTENNA              | [M]     |
| A6       | K2KA2BA00001 | VIDEO CABLE             | [M]     |
| A7       | RP-VK21E-K   | MICROPHONE              | [M]     |

## 25.6. Packaging

### 25.6.1. Packaging (SF-VK725DEE)

This section consists of the packaging information for SF-VK725DEE. Below is the table for system combination. For information on the speakers model, please refer to its respective original service manual.



#### SB-PT72 GC-S

|                   |              |
|-------------------|--------------|
| Surround Speakers | SB-PS72 GC-S |
| Center Speaker    | SB-PC72 GC-S |

