

Service Manual

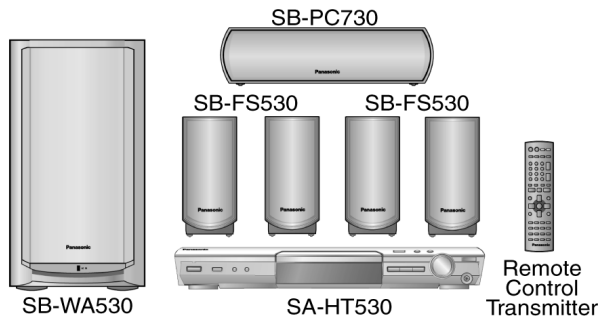
DVD Home Theater Sound System



SA-HT530GCP

Colour

(S)...Silver Type



Specification

n Amplifier Section

RMS Output Power: Dolby Digital Mode

Front Ch	55 W per channel (6 Ω), 1 kHz, 10% THD
Surround Ch	55 W per channel (6 Ω), 1 kHz, 10% THD
Center Ch	160 W per channel (6 Ω), 1 kHz, 10% THD
Subwoofer Ch	220 W per channel (4 Ω), 100 Hz, 10% THD
Total RMS Dolby Digital Mode Power	600 W
DIN Output Power: Dolby Digital Mode	

Front Ch	40 W per channel (6 Ω), 1 kHz, 1% THD
Surround Ch	40 W per channel (6 Ω), 1 kHz, 1% THD
Center Ch	120 W per channel (6 Ω), 1 kHz, 1% THD
Subwoofer Ch	150 W per channel (4Ω), 100 Hz, 1% THD
Total DIN Dolby Digital Mode Power	430 W

n FM/AM Tuner, Terminals Section

Preset station	FM 15 stations AM/MW 15 stations
Frequency Modulation (FM)	
Frequency Range	87.50-108.00 MHz (50-kHz step)

Sensitivity	2.5 μV (IHF)
S/N 26 dB	2.2 μV
Antenna terminals	75 Ω (unbalanced)
Amplitude Modulation (AM/MW)	
Frequency Range	522-1629 kHz (9-kHz step) 520-1630 kHz (10-kHz step)
AM Sensitivity S/N 20 dB at 999 kHz	560 μV/m
Phone Jack	
Terminal	Stereo, 3.5 mm jack
Mic Jack	
Sensitivity	0.7 mV, 1.2 kΩ
Terminal	Mono, 6.3 mm jack (2 systems)

n Disc Section

Disc played [8 cm or 12 cm]

1. DVD-RAM (DVD-VR compatible, JPEG formatted disc)
2. DVD-Audio
3. DVD-Video
4. DVD-R, DVD-RW (DVD-Video compatible) + R, + RW (Video compatible)
5. CD-Audio (CD-DA)
6. Video CD
7. SVCD (Conforming to IEC62107)
8. CD-R/RW (CD-DA, Video-CD, SVCD, MP3, WMA, JPEG formatted disc)
9. MP3/WMA*1

Panasonic

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- Compatible compression rate:
MP3: between 32 kbps and 320 kbps
WMA: between 48 kbps and 320 kbps

10. JPEG*1

- Exif Ver 2.1 JPEG Baseline files
- Picture resolution: between 320 x 240 and 6144 x 4096 pixels (sub sampling is 4:2:2 or 4:2:0)

11. HighMAT Level 2 (Audio and Image)

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

Pick up

Wavelength	CD 785 nm DVD 662 nm
Laser power	CLASS 2/CLASS 3A
Audio output (Disc)	
Number of channels	5.1ch (FL, FR, C, SL, SR, SW)

n Video Section

Video System	
Signal system	PAL625/50, PAL525/60, NTSC
Composite video output	
Output level	1 Vp-p (75 Ω)
Terminal	Pin jack (1 system)
S-video output	
Y output level	1 Vp-p (75 Ω)
C output level	PAL; 0.3 Vp-p (75 Ω) NTSC; 0.286 Vp-p (75 Ω)
Terminal	S terminal (1 system)
Component Video Output (480p/480i)	
Y output level	1 Vp-p (75 Ω)

P _B output level	0.7 Vp-p (75 Ω)
P _R output level	0.7 Vp-p (75 Ω)
Terminal	

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

n General

Power Supply	AC 110/127/220-230/240 V, 50/60 Hz
Power consumption	25 W (SA-HT530), 250 W (SB-WA530)
Dimensions (W x H x D)	430 x 60 x 348.3 mm
Mass	2.7 kg (SA-HT530)
Operating temperature range	+5 °C to +35 °C
Operating humidity range	5 % to 90 % RH (no condensation)

Power consumption in standby mode: approx. 0.9 W

*2 Rating with low cut filter equipped amplifier

n System

SC-HT530 (GCP)

Main unit:	SA-HT530 (GCP)
Speaker system:	SB-HT530 (EB)
Center speaker:	SB-PC730 (P)
Surround speakers:	SB-FS530 (EB)
Active subwoofer:	SB-WA530 (GC)

Note:

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

⚠ 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 Use

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

Use a minus(-) screwdriver to set the voltage selector (on the rear panel) to the voltage setting for the area in which the unit will be used. (If the power supply in your area is 117V or 120V, set to the "127V" position.)

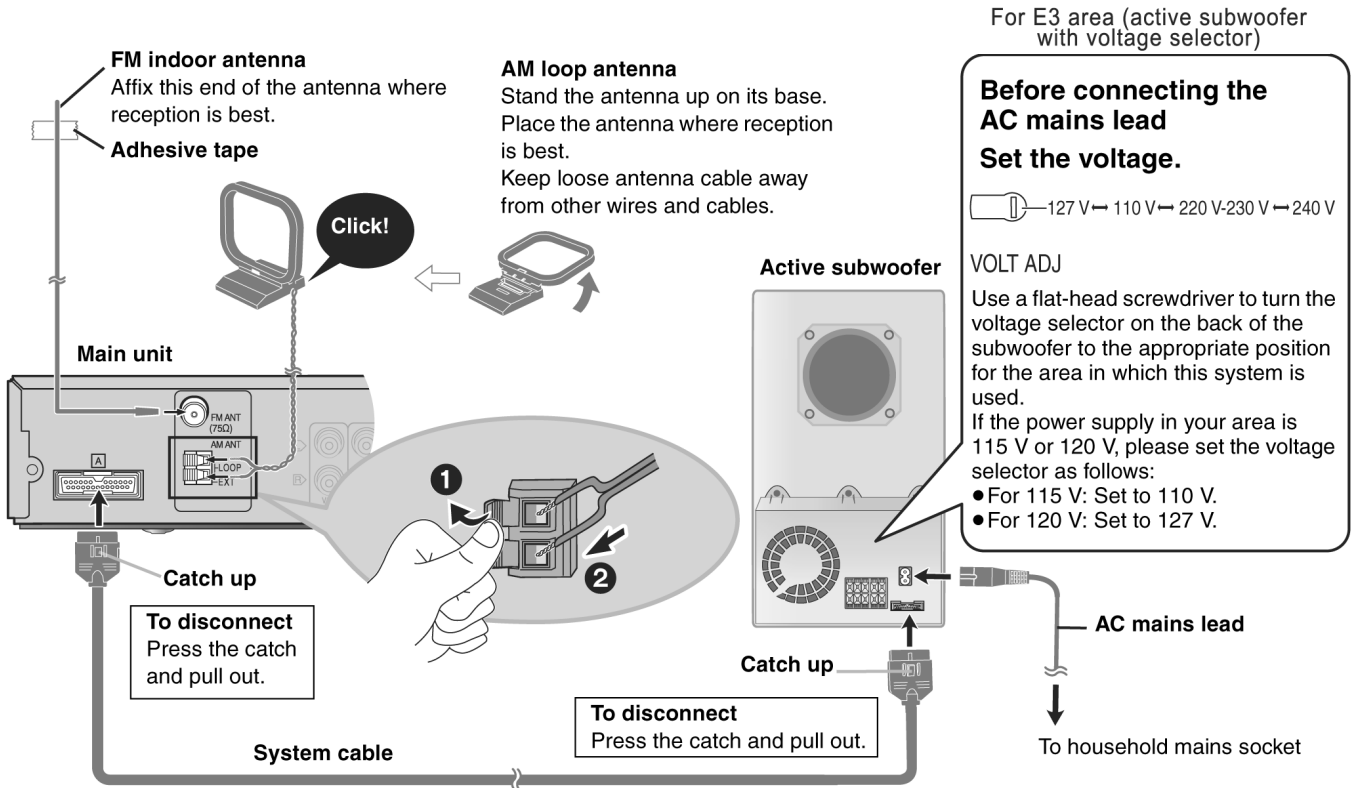
Note that this unit will be seriously damaged if this setting is not made correctly. (There is no voltage selector for some countries, the correct voltage is already set.)

2 Use of Active Subwoofer

2.1. Checking Main Unit when Active Subwoofer is Used

- Connect the AC mains lead after all other connections are complete.
- Optional antenna connections.

The illustration shows SC-HT530.



Conserving power

The main unit consumes a small amount of power, even when it is turned off (For the United Kingdom, Australia and N.Z.: approx. 0.7 W or for Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait: approx. 0.9 W). To save power when the unit is not to be used for a long time, unplug it from the household mains socket.

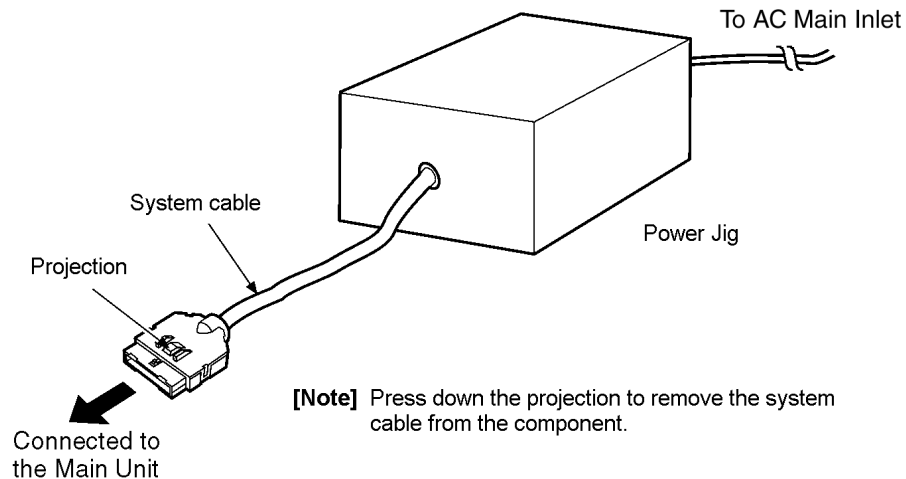
You will need to reset some memory items after plugging in the unit.

Note

The included AC mains lead is for use with this unit only. Do not use it with other equipment.

2.2. Checking Main Unit Using Power Jig

If the active subwoofer is not available during time of repair to the unit, the following equipment could be used.



Jig product number

RFKZ0182 (110V , 127V, 220V, 230V - 240V for with voltage selector overseas domestic use).

3 Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C2080 through a 10 Ω , 10 W 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 110V, 50/60Hz in NO SIGNAL mode should be ~835 mA (Active Subwoofer).

Current consumption at AC 230V - 240V, 50Hz in NO SIGNAL mode should be ~420 mA (Active Subwoofer).

4 SAFETY PRECAUTIONS

4.1. 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, ensure 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.

4.1.1. LEAKAGE CURRENT COLD CHECK (FOR ACTIVE SUBWOOFER)

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 Ω and 5.2 Ω .

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

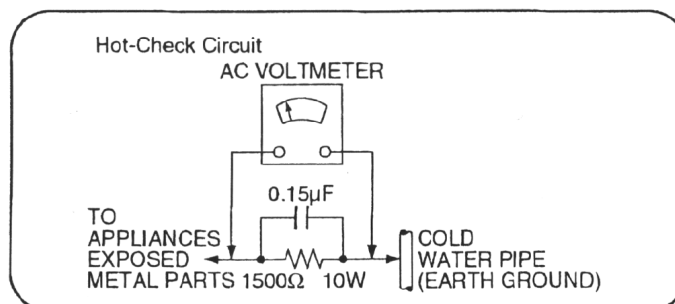


Fig. 1

4.1.2. 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 Ω , 10 watts resistor, in parallel with a 0.15 μ F capacitor, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside 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.

5 Handling the Lead 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 the soldering iron with temperature control, please set it to 700 \pm 20°F (370 \pm 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 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.

7 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 bodily 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 Δ 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.

8 Cautions to Be Taken When Handling Optical Pickup

- The laser diode used inside the optical pickup could be destroyed due to static electricity (potential difference is caused by electrostatic load discharged from clothes and human body). Handle the parts carefully to avoid electrostatic destruction during repair & during replacement.

8.1. Handling Optical Pickup

1. Do not cause any strong impact on optical pickup as the unit structurally uses an extremely precise technology.
2. Short-circuit the flexible cable of optical pickup removed from the circuit board using a short-circuit pin or clip in order to prevent laser diode from electrostatic destruction. (Refer to Fig. 8-1 and Fig. 8-2.)
3. Do not handle flexible cables forcibly as this may cause snapping. Handle the parts carefully. (Refer to Fig. 8-1)
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. 8-1)

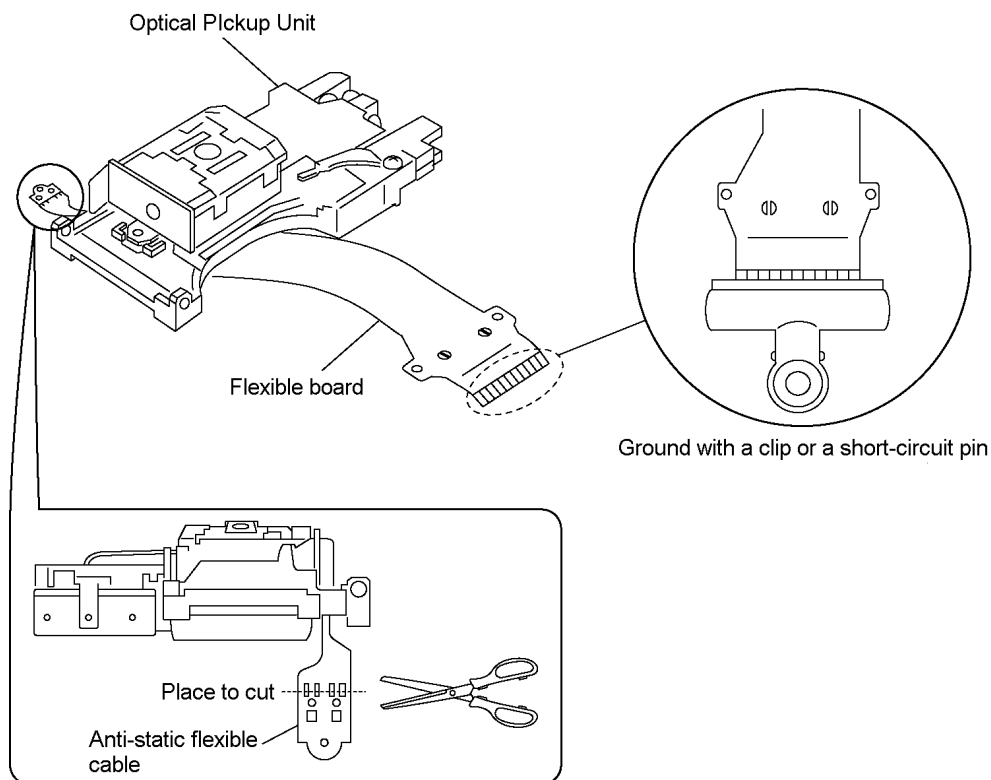


Fig. 8-1

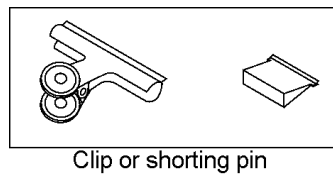


Fig. 8-2

8.2. Cautions to Be Taken During Replacement of Optical Pickup

Supplied optical pickup is equipped with a short clip found at the end of flexible cable in order to prevent electrostatic destruction of laser diode. Before connection, remove the short clip, and check that the short land is opened (remove solder if the part is short-circuited). Also ensure human body is properly ground (Refer Section 8.3)

8.3. Grounding for Preventing Electrostatic Destruction

1. Human body grounding

Use an anti-static wrist strap to release static electricity accumulated in your body. (Refer to Fig. 8-3)

2. Workplace grounding

Place a conductive material (conductive sheet) or iron board where optical pickup is placed. (Refer to Fig. 8-3)

Note:

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

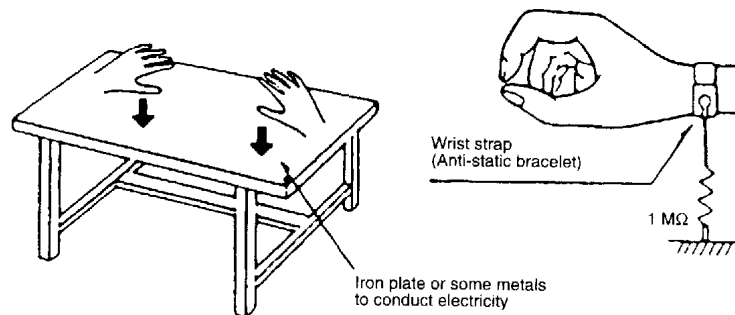


Fig. 8-3

9 Precaution of Laser Diode

CAUTION :

This product utilizes a class 1 laser. Invisible laser radiation is emitted from the optical pick up lens.

When the unit is turned on:

Wavelength : 662nm/785nm

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

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

CAUTION!

THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

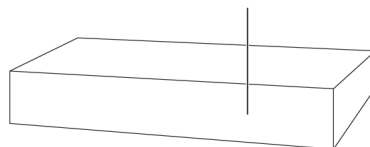
n Use of Caution Labels

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

(Inside of product)
(Produktets insida)
(Tuotteen sisällä)

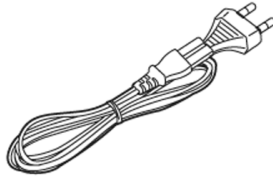


LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT

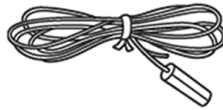


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10 Accessories



AC cord



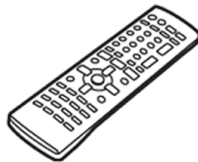
FM indoor antenna



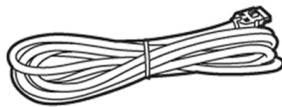
AM loop antenna



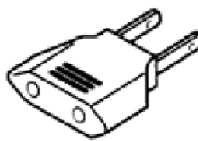
Video cable



Remote control



System cable



Antenna plug adapter

11 Remote Control Reference

Control reference guide

The illustrations show SC-HT530.

Turn the unit on/off

Television and Video cassette recorder operations

Select the source TUNER/BAND, DVD/CD

Sleep timer

Switch the television's video input mode

Select television channels and disc's title numbers etc./Enter numbers

Cancel

Adjust the volume

Basic operations for play

Show a disc top menu or program list

Select or register menu items on the television screen, Frame-by-frame

Show on-screen menu, Display RDS text data or television volume down

Return to previous screen or television volume up

SUBWOOFER LEVEL	SUPER SRND H.BASS	C.FOCUS SFC	MIX 2CH DDPLII
QUICK OSD	ZOOM MANUAL SKIP	SUBTITLE AUDIO	SETUP MUTING
FL DISPLAY	ANGLE/PAGE GROUP	REPEAT	PLAY MODE
ADVANCED DISC REVIEW	PLAY SPEED QUICK REPLAY	TEST CH SELECT	

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



AC supply indicator [AC IN]
This indicator lights when the unit is connected to the AC mains supply.

Standby/on indicator

When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.

INPUT SELECTOR
DVD/CD → FM → AM → TV → VCR → AUX → Return to DVD/CD

Standby/on switch [O/I]
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

PROGRESSIVE
Enjoy progressive video

RDS
Display RDS text data

H.BASS
Turn the bass sound enhancement on/off

■/TUNE MODE
Stop playing/
Select the tuning mode

||/FM MODE
Pause/Adjust the FM reception condition

▶/MEMORY
Play discs/Memorize the receiving radio stations

▲OPEN/CLOSE
Open/Close the disc tray








⏮/⏪, ⏩/⏭ **TUNING** ▲
Skipping or slow-search play/
Select the radio stations

Remote control signal sensor

PHONES
Connect headphones

VOLUME
Turn up/down the volume

12 Disc information

Disc	Logo	Indication in these operating instructions	Remarks
DVD-RAM		RAM	Recorded with devices using Version 1.1 of the Video Recording Format (a unified video recording standard), such as DVD video recorders, DVD video cameras, personal computers, etc.
		JPEG	Recorded using the DCF (Design rule for Camera File system) standard Version 1.0. ● To play JPEG files, select "Play as Data Disc" in Other Menu.
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)/ DVD-RW (DVD-Video)			Discs recorded and finalized* on DVD video recorders or DVD video cameras.
+R (Video)/ +RW (Video)	—		Discs recorded and finalized* on DVD video recorders or DVD video cameras.
Video CD		VCD	—
SVCD			Conforming to IEC62107
CD		CD	This unit is compatible with HDCD, but does not support the Peak Extend function (a function which expands the dynamic range of high level signals). HDCD-encoded CD's sound better because they are encoded with 20 bits, as compared with 16 bits for all other CD's.
CD-R CD-RW	—	WMA MP3 JPEG CD VCD	<ul style="list-style-type: none"> ● This unit can play CD-R/RW (audio recording disc) recorded with the formats on the left. Close the sessions or finalize* the disc after recording. ● HighMAT discs WMA, MP3 or JPEG files only. To play without using the HighMAT function, select "Play as Data Disc" in Other Menu. ● [WMA] This unit does not support Multiple Bit Rate (MBR: a file that contains the same content encoded at several different bit rates).

* A process that allows play on compatible equipment.

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

■ Discs that cannot be played

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

■ Audio format of DVD's

This unit automatically recognizes and decodes discs with these symbols.



■ 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.

Disc handling

■ To clean discs

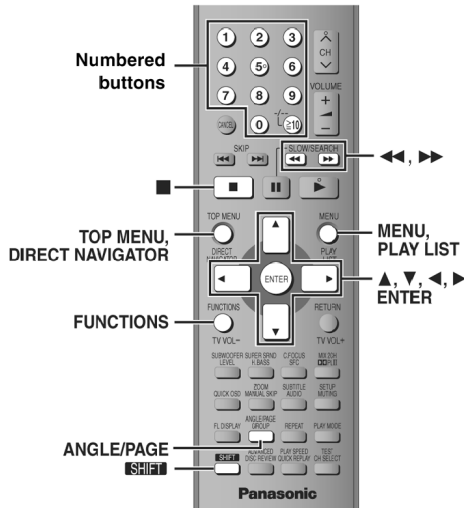
Wipe with a damp cloth and then wipe dry.



■ 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, benzene, 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.

Using navigation menus



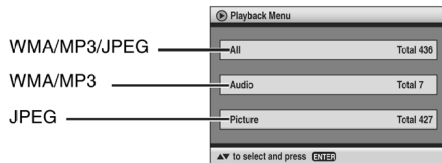
WMA MP3 JPEG

You can play JPEG files on DVD-RAM or play HighMAT discs without using the HighMAT function ("Play as Data Disc" in Other Menu).

- Playing HighMAT™ discs

Playing items in order (Playback Menu)

- 1 Press [TOP MENU].

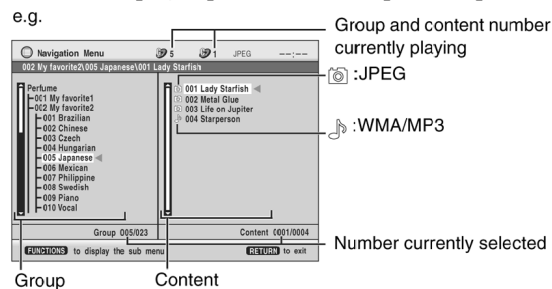


- To exit the screen
Press [TOP MENU].

- 2 Press [▲, ▼] to select "All", "Audio" or "Picture" and press [ENTER].

Playing from the selected item (Navigation Menu)

- 1 Press [MENU].
- 2 Press [▲, ▼, ◀, ▶] to select the group and press [ENTER].
- 3 To play content in the group in order
Press [ENTER].
To start play from the selected content
Press [▲, ▼] to select and [ENTER].



- Press [SHIFT]+[ANGLE/PAGE] to skip page by page in the group or content field.
- To enjoy listening to WMA/MP3 contents while showing a JPEG image on the screen
Select a JPEG file first, and then select audio contents.
(The opposite order is not effective.)
- To exit the screen
Press [MENU].

Using the submenu

- 1 While the menu is displayed
Press [FUNCTIONS].
- 2 Press [▲, ▼] to select an item and press [ENTER].
Items shown differ depending on the type of disc.

Multi	Groups and contents are displayed.
List	Contents only
Tree	Groups only
Thumbnail	Thumbnail images [JPEG]
Next group	To go to next group [WMA] [MP3]
Previous group	To go to previous group [WMA] [MP3]
All	WMA/MP3 and JPEG
Audio	WMA/MP3 only
Picture	JPEG only
Help display	To switch between guide messages and the elapsed play time indicator
Find	To search by content or group title (→ below)

Searching by a content or group title

Highlight a group title to search the group, or a content title to search its content.

- 1 While the submenu is displayed (→ above)
Press [▲, ▼] to select "Find" and press [ENTER].



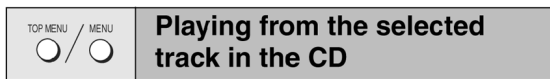
- 2 Press [▲, ▼] to select a character and press [ENTER].

- Repeat to enter another character.
- Lower case is also searched.
- Press [◀, ▶] to skip between A, E, I, O and U.
- Press [◀] to erase a character.
- Leave the asterisk (*) when you search for the titles including the character you enter.
- Erase the asterisk (*) to search for the titles starting with the character you enter. To add the asterisk (*) again, display the submenu again and select "Find".

- 3 Press [▶] to select "Find" and press [ENTER].

The search result screen appears.

- 4 Press [▲, ▼] to select the content or group and press [ENTER].

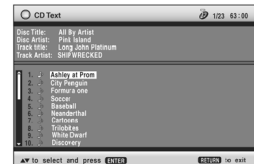


CD

Titles appear with CD Text disc playback.

- 1 Press [TOP MENU] or [MENU].

e.g. CD text



- 2 Press [▲, ▼] to select the track and press [ENTER].

- Press [SHIFT]+[ANGLE/PAGE] to skip page by page.
- Press [FUNCTIONS] to show the playback condition and current position.

- To exit the screen

Press [TOP MENU] or [MENU].

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 content and folders are treated as groups on this unit.)

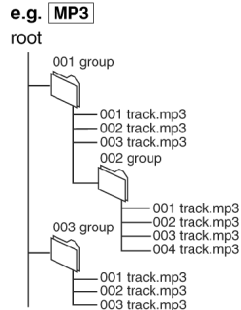
At the time of recording, prefix folder and file names with 3-digit numbers in the order you want to play them (this may not work at times).

Files must have the extension:

“.WMA” or “.wma”

“.MP3” or “.mp3”

“.JPG”, “.jpg”, “.JPEG” or “.jpeg”

**WMA**

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

MP3

- This unit does not support ID3 tags.
- Compatible sampling rates: 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.

Language code list

Abkhazian:	6566	Finnish:	7073	Macedonian:	7775	Somali:	8379
Afar:	6565	French:	7082	Malagasy:	7771	Spanish:	6983
Afrikaans:	6570	Frisian:	7089	Malay:	7783	Sundanese:	8385
Albanian:	8381	Galician:	7176	Malayalam:	7776	Swahili:	8387
Ameharic:	6577	Georgian:	7565	Maltese:	7784	Swedish:	8386
Arabic:	6582	German:	6869	Maori:	7773	Tagalog:	8476
Armenian:	7289	Greek:	6976	Marathi:	7782	Tajik:	8471
Assamese:	6583	Greenlandic:	7576	Moldavian:	7779	Tamil:	8465
Aymara:	6588	Guarani:	7178	Mongolian:	7778	Tatar:	8484
Azerbaijani:	6590	Gujarati:	7185	Nauru:	7865	Telugu:	8469
Bashkir:	6665	Hausa:	7265	Nepali:	7869	Thai:	8472
Basque:	6985	Hebrew:	7387	Norwegian:	7879	Tibetan:	6679
Bengali; Bangla:	6678	Hindi:	7273	Oriya:	7982	Tigrinya:	8473
Bhutani:	6890	Hungarian:	7285	Pashto, Pushto:	8083	Tonga:	8479
Bihari:	6672	Icelandic:	7383	Persian:	7065	Turkish:	8482
Breton:	6682	Indonesian:	7378	Polish:	8076	Turkmen:	8475
Bulgarian:	6671	Interlingua:	7365	Portuguese:	8084	Twi:	8487
Burmese:	7789	Irish:	7165	Punjabi:	8065	Ukrainian:	8575
Byelorussian:	6669	Italian:	7384	Quechua:	8185	Urdu:	8582
Cambodian:	7577	Japanese:	7465	Rhaeto-Romance:	8277	Uzbek:	8590
Catalan:	6765	Javanese:	7487	Romanian:	8279	Vietnamese:	8673
Chinese:	9072	Kannada:	7578	Russian:	8285	Volapük:	8679
Corsican:	6779	Kashmiri:	7583	Samoan:	8377	Welsh:	6789
Croatian:	7282	Kazakh:	7575	Sanskrit:	8365	Wolof:	8779
Czech:	6783	Kirghiz:	7589	Scots Gaelic:	7168	Xhosa:	8872
Danish:	6865	Korean:	7579	Serbian:	8382	Yiddish:	7473
Dutch:	7876	Kurdish:	7585	Serbo-Croatian:	8372	Yoruba:	8979
English:	6978	Laotian:	7679	Shona:	8378	Zulu:	9085
Esperanto:	6979	Latin:	7665	Sindhi:	8368		
Estonian:	6984	Latvian, Lettish:	7686	Singhalese:	8373		
Faroese:	7079	Lingala:	7678	Slovak:	8375		
Fiji:	7074	Lithuanian:	7684	Slovenian:	8376		

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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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13 About HighMAT

13.1. What's HighMAT?

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

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

- Create a HighMAT CD or DVD which can be easily played back on consumer electronics devices such as CD and DVD players, and car stereos.
- Move digital media files (using recordable media such as CD-R and CD-RW) between the PC and various playback devices such as CD and DVD players.

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



HighMAT is a new technology which has been co-developed and is supported by Microsoft Corporation and Matsushita Electric Industrial Co., Ltd. (Panasonic). HighMAT stands for High-Performance Media Access Technology. Look for the HighMAT logo on electronics devices - there are three levels of playback support for consumer electronics devices.

► HighMAT Official Website



HighMAT Audio

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



HighMAT Audio and Image

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



HighMAT Audio, Image and Video

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

※MPEG-4: support is optional

13.2. Why take advantage of HighMat?

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

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

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

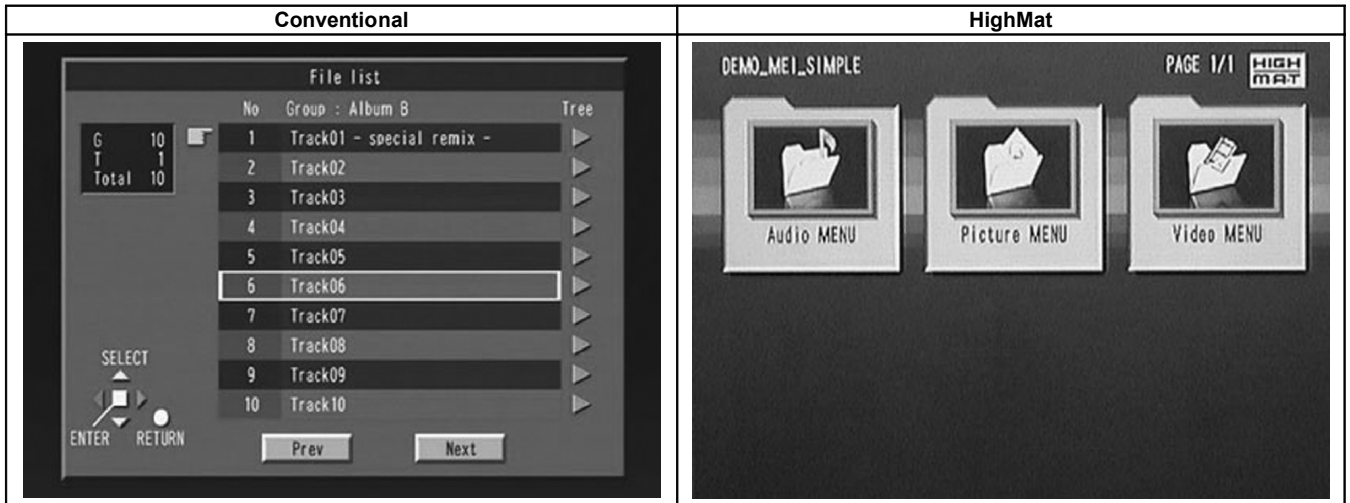
A Solution Created: HighMAT delivers a better digital media access experience by creating a standard approach for PCs to structure digital media on various physical formats and for playback devices to read the data.

► Benefits of HighMAT

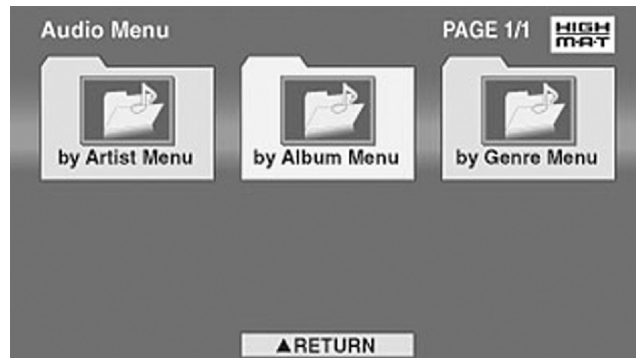
13.3. Benefits of HighMat?

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

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

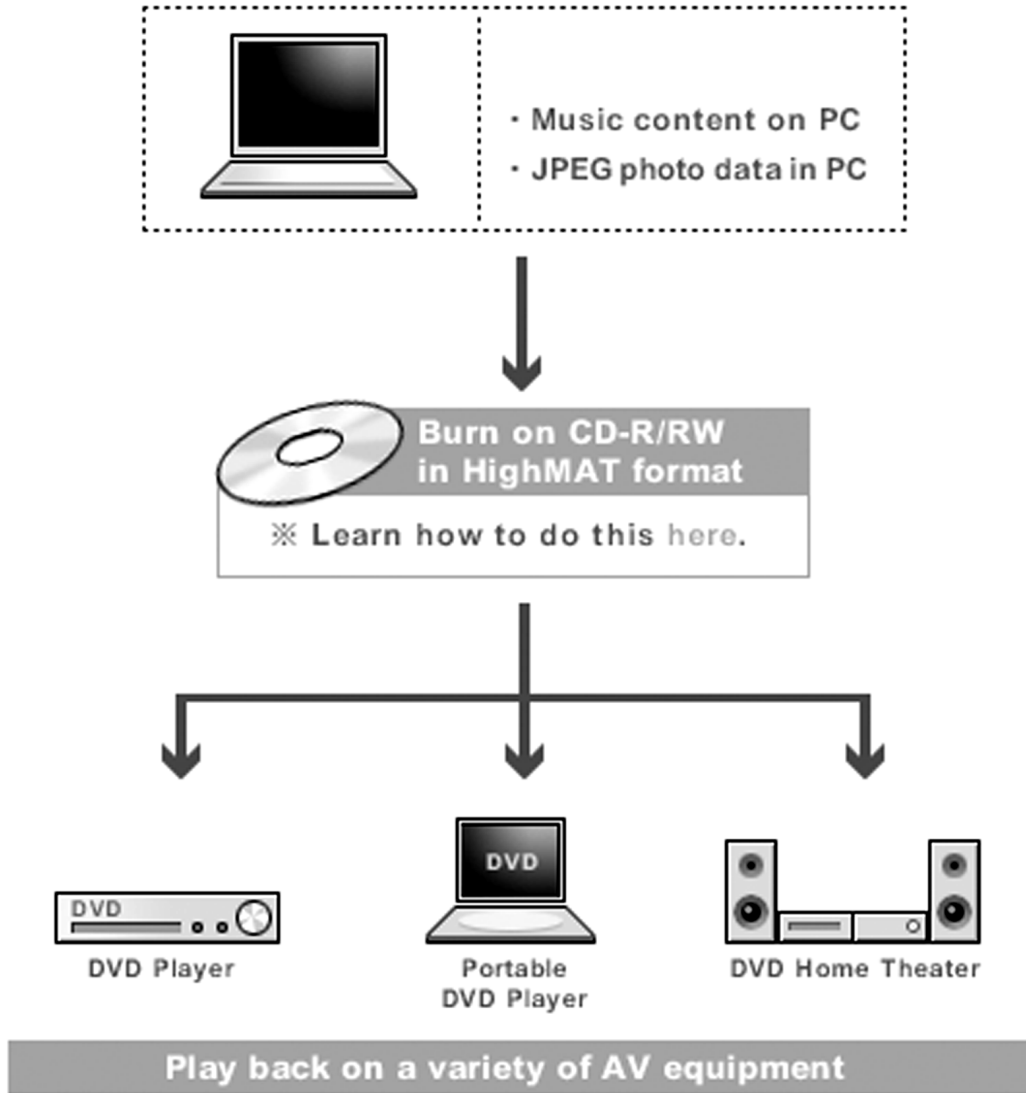


2 **Eliminates compatibility issues and delivers better more consistent access to more music information like artist, song name, genre and photo information (metadata) as well as provide faster access to large amounts of music and photo files burned on CDs.**



Easy navigation to access disc contents

3 HighMAT CDs can also work on other players.



HighMAT is now available for CD Burning and in Leading DVD Players. HighMAT is a new technology that is now available in leading software and consumer electronic devices to dramatically improve the digital media experience when you create homemade CDs.

HighMAT™ delivers a simple, standardized way for PC software and consumer electronics devices to talk to each other and work better together.

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

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

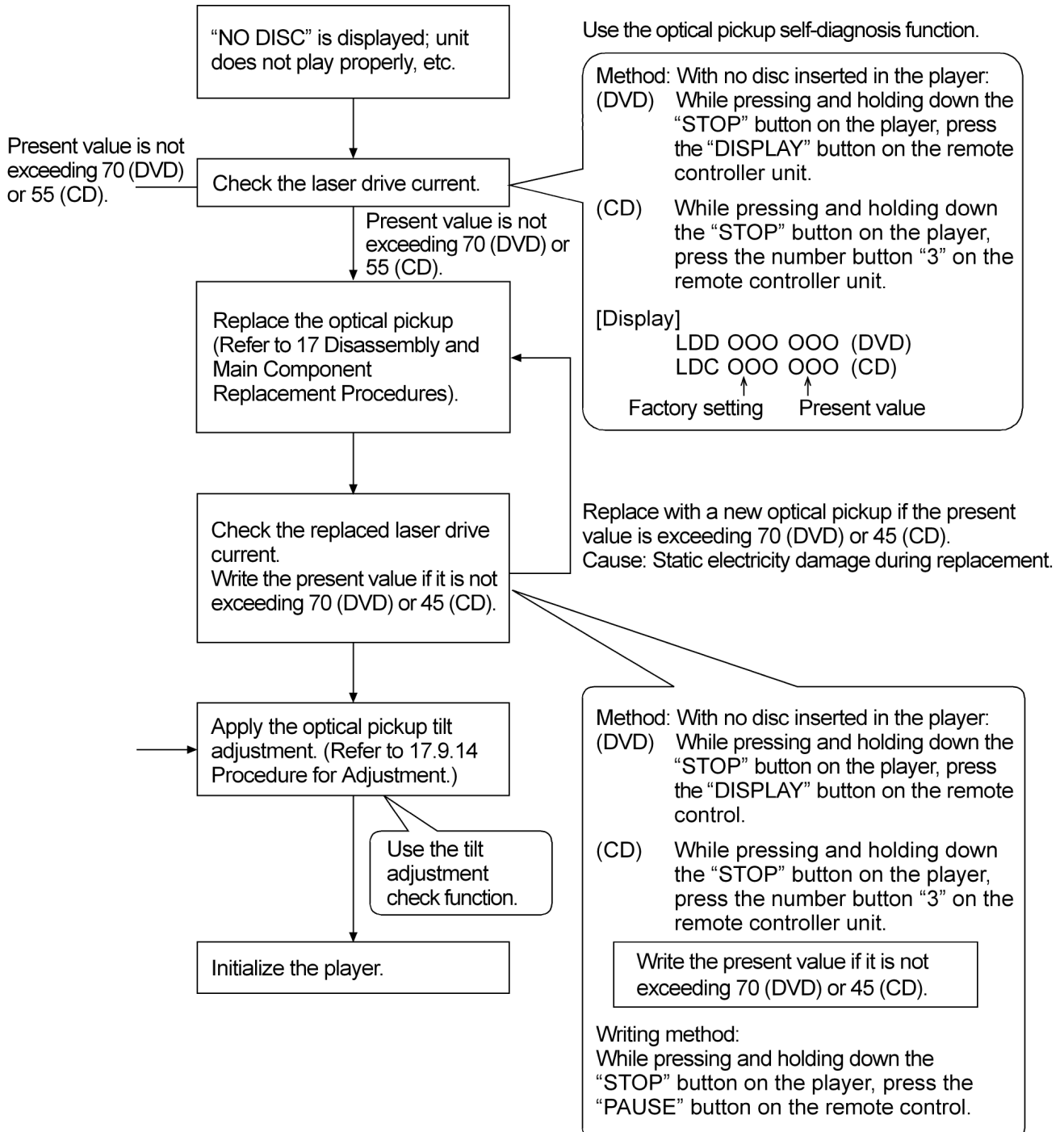
14 Optical Pickup Self-Diagnosis and Replacement Procedure

14.1. Self-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 70 (DVD) or 55 (CD).

Note:

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



14.2. Cautions to Be Taken During Replacement of Optical Pickup and Spindle Motor

Before replacing the optical pickup and spindle motor, check the total usage time respectively. Follow the checking method described as below.

Item	Status and Key Function	Display
Checking DVD, CD laser usage time	With the unit stopped and no disc inserted, press the ■ button on the player and the ▲ button on the remote controller unit.	T1_ xxxx_yyyy xxxx(DVD), yyyy(CD): total time is displayed with a four-digit number by the ten hours.
Checking spindle motor usage time	With the unit stopped and no disc inserted, press the ■ button on the player and the ► button on the remote controller unit.	T2_ xxxx xxxx: total time is displayed with a four-digit number by the ten hours.
Resetting DVD, CD laser usage time	While the DVD and CD laser usage times are displayed, press the ■ button on the player and the ▼ button on the remote controller unit.	T1_0000_0000
Resetting spindle motor usage time	While the spindle motor usage time is displayed, press the ■ button on the player and the ◀ button on the remote controller unit.	T2_0000

15 Self-Diagnosis Function

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

15.1. Automatic Displayed Error Codes

15.1.1. Automatic Display Function

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

F61: Automatically displayed on the LCD of the player.

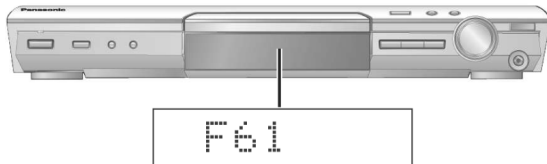


Fig. 15-1

15.1.2. 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.

15.1.3. Description of Error Code

15.1.3.1. F61

· State, Condition

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

· Cause, Troubleshooting

Power circuit system failure and/or direct current flown to speaker terminal

Identify the cause and replace with new parts.

15.2. Memorized Error Codes

15.2.1. 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 F_SKIP  button for at least two seconds in order to display "T_____".
 3. Press the  button. If a memorized error is detected, the result of self diagnosis is displayed. (Ex.: T H15) (See table below)
- If several errors are detected, press the  button to display each.




Fig. 15-2

15.2.2. Re-Display

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

15.2.3. Deleting Details of Self Diagnosis

- After repair, press and hold down the  button for at least five seconds, "T__ --- __" appears for a second and then "T_____" appears. (Deleting the details of self diagnosis)
- After repairing errors, be sure to delete the details of self diagnosis.

Error Code	State, Conditon	Cause, Troubleshooting
H15	The disc tray cannot be opened: it closes spontaneously.	Disc tray open/close detection switch (S901, S902) failure. (Check and replace)
H16	The disc tray cannot be closed: it opens spontaneously.	

15.3. Service Mode Table 1

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

Player	Remote controller unit	Usage
■ button	0	Error code display (Refer to the item, 15.4. DVD Error Code Description)
	5	Tilt adjustment
	6	Area number and broadcasting system check
	7	MICRO - P & Firmware Version.
	DISPLAY	DVD laser drive current check
	3	CD laser drive current check
	PAUSE	Writing of laser drive current value after replacement of optical pickup (Do use this function only when optical pickup is replaced.)
	≥10	Initialization of the player (factory setting is restored.) Used after replacement of micro-computer and its peripherals and printed circuit board.

15.4. DVD/CD Self-Diagnosis Error Code Description

Error Code	Meaning	Details
U. H. Error		
U11	Focus servo failure	
H01	Tray loading failure	
H02	Spindle servo failure	(Spindle servo, DSC, SP motor, CLV servo failure)
H03	Traverse motor failure	
H04	Tracking servo error	
H05	Seek timeout failure	
DSC system		
F500	DSC failure	DSC stops due to servo failure. (Startup, focus failure, etc.)
F501	DSC not Ready failure	Communication failure between DSC and system computer (No communication because DSC does not move)
F502	DSC Time out failure	See F500.
F503	DSC communication failure	Communication failure (Result failure occurs after communication command is transmitted.)
F505	DSC Attention Error	See F500.
F506	Invalid media	Disc is placed upside down; TOC is unreadable or invalid disc is inserted.
ODC system		
F600	Unable to obtain control information due to form recovery failure	Operation stops because navigation data cannot be obtained due to form recovery system failure.
F601	Illegal sector ID requested	Operation stops because access of illegal ID data is requested.
F602	Unable to obtain LEAD IN due to form recovery failure	Unable to read LEAD IN data
F603	Unable to obtain KEY DET due to form recovery failure	Unable to obtain CSS data
F610	ODC failure	No permission of command issue
F611	No CRC OK appearing for a certain time	Unable to obtain seek address at CD system
F612	No CRC OK appearing for a certain time	Unable to obtain ID data at DVD system
Disc Code		
F103	Illegal highlight position	Disc standard is possibly illegal when highlight is displayed.
IIC Error		
F4FF	Forced initialization failure (Time out)	
Micro-computer Error		
F700	MBX overflow	When replying a message to Disc Manager
F701	Unable to complete a message command	A message is issued before replying to Disc Manager.
F702	Change in a message command	A message is issued before replying to Disc Manager.
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	FROM altered	
F894	EEPROM failure	
F8A0	Unsuitable message command	When transmission of a message to AV task starts

15.5. Mode Table 2

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

Item	Operational Condition and Key Function	Details	Display	To Exit Mode
Jitter display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button, "5" on the remote controller unit.	Jitter display Measures and displays jitter. Measurement is repeated every second. Read error counter starts at 0 at the mode setting, and increased by one as data read fails at target block. A small defect is allowed to correct by retry. Any possibility is counted as one increment. Repetitive errors after retry increase by two levels or more.	J ^{*1} xxx ^{*2} _yy ^{*3} _zz ^{*4} ^{*1} : Jitter display mode ^{*2} : Jitter measurement value ^{*3} : Read error counter ^{*4} : Focus driving value Values are shown to one decimal place in the decimal digit. Focus driving value is displayed in the hexadecimal digit.	Press the STOP or OPEN button.
Error code display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button, "0" on the remote controller unit.	Error code display Displays the latest error code stored in EEPROM.	DVDnn_F-- [*] nn: Error history ^{*--} : Error number	Automatically exits the mode after five seconds.
Measurement of laser current electricity initialization value	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the ■■ button on the remote controller unit.	Measurement of laser current electricity initialization value Memorizes each initialization value of DVD and CD in EEPROM.	DO ^{*1} _034 ^{*2} _028 ^{*3} ^{*1} : Laser current electricity measurement mode ^{*2} : DVD current electricity value ^{*3} : CD current electricity value Values are shown in the decimal digit. The above example indicates that the current electricity initialization value is 34mA at DVD laser and 28mA at CD laser when laser is turned on.	Automatically exits the mode after five seconds.
Measurement of DVD laser current electricity	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the DISPLAY button on the remote controller unit.	Measurement of DVD laser current electricity Measures DVD laser current electricity and displays the result together with the initialization value stored in EEPROM. After measurement, DVD laser is lit till the power is turned off (or goes off when the primary power is turned off).	DD ^{*1} _034 ^{*2} _032 ^{*3} ^{*1} : DVD laser current electricity measurement mode ^{*2} : Current electricity initialization value stored in EEPROM ^{*3} : Present value of current electricity Values are shown in the decimal digit. The above example indicates that the current electricity initialization value is 34mA and its present value is 32mA.	Automatically exits the mode after five seconds.
ADSC internal RAM display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button "1" or "2" on the remote controller unit.	ADSC internal RAM display Reads and displays the RAM value inside ADSC. The address is renewed when the CLEAR key is pressed so that the values at eleven points appear.	A ^{*1} _0FA ^{*2} _6901 ^{*3} ^{*1} : ADSC internal RAM display mode ^{*2} : Address ^{*3} : RAM value at displayed address Values are shown in the hexadecimal digit. The above example indicates that ADSC value at the address, 0FAh is 6901h.	Press the STOP or OPEN button.
Measurement of CD laser current electricity	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button "3" on the remote controller unit.	Measurement of CD laser current electricity Measures CD laser current electricity and displays the result together with the initialization value stored in EEPROM. After measurement, CD laser is lit till the power is turned off (or goes off when the primary power is turned off).	DC ^{*1} _028 ^{*2} _026 ^{*3} ^{*1} : CD laser current electricity measurement mode ^{*2} : Current electricity initialization value stored in EEPROM ^{*3} : Present value of current electricity Values are shown in the decimal digit. The above example indicates the current electricity initialization value is 28mA and its present value is 26mA when laser is turned on.	Automatically exits the mode after five seconds.

Item	Operational Condition and Key Function	Details	Display	To Exit Mode
User initialization	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the number button ≥ 10 on the remote controller unit.	User initialization The user setting recovers the factory setting.	"INITIALIZED"	None
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	__w ^{*1} _x ^{*2} y ^{*3} _zzz ^{*4} *1 : Region number *2 : N; no PAL/P; PAL *3 : N; NTSC/6; PAL60 *4 : Panel computer jumper information	Automatically exits the mode after five seconds.
Firm 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.	Firm version display	rrr ^{*1} _xx ^{*2} y ^{*3} zzz ^{*4} *1 : Panel computer release number *2 : System computer generation *3 : System computer model type *4 : System computer release number	Automatically exits the mode after five seconds.
Region and firm 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, "8" on the remote controller unit.	Region and firm version display	_r ^{*1} __xx ^{*2} y ^{*3} zzz ^{*4} *1 : Region number *2 : System computer generation *3 : System computer model type *4 : System computer release number	Automatically exits the mode after five seconds.
Usage time 1	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.	Usage time 1 Laser usage time Measures each for DVD and CD respectively.	T1_1234_5678 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.
Usage time 1 reset	While the usage time 1 is displayed, press and hold down the ■ button on the player and the ▼ button on the remote controller unit.	Usage time 1 reset Laser usage time' Resets both for DVD and CD at once.	T1_0000_0000	Automatically exits the mode after five seconds.
Usage time 2	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.	Usage time 2 Spindle motor usage time	T2_1234 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.
Usage time 2 reset	While the usage time 2 is displayed, press and hold down the ■ button on the player and the ◀ button on the remote controller unit.	Usage time 2 reset Spindle motor usage time	T2_0000	Automatically exits the mode after five seconds.
Communication error display	While the player is stopped and no disc is inserted, press and hold down the ■ button on the player and the MENU button on the remote controller unit.	Displays frequency of communication errors between system computer firm IC and mechanical computer IC during DVD module.	ERR_00_/30	Automatically exits the mode after five seconds.

15.6. Lock Function

This function prohibits removal of disc and some disc operations to prevent loss of disc at a shop during sales promotion or equivalent occasions.

While this function is activated, the player displays "___LOCKED_" if any button is touched.

The lock function can be used in two ways.

15.6.1. Setting

· LOCK MODE A/LOCK MODE B

1. While the player is set to SELECTOR DVD/CD and POWER ON, press and hold down the ■ button on the player and the [POWER] button on the remote controller for at least three seconds so that the player displays "___LOCKED_" for three seconds to indicate that LOCK MODE A is activated and the currently loaded disc is played.
2. The following button is invalid during LOCK MODE A.
OPEN/CLOSE ▲ button are invalid and the player displays "___LOCKED_" while the lock function mode is entered.
3. While LOCK MODE A is activated and the player is locked, press and hold down the ■ button on the player and the [POWER] button on the remote controller for at least three seconds so that the player displays "_UNLOCKED_" to indicate the function is deactivated.
4. While the player is set to SELECTOR DVD/CD and POWER ON, press and hold down the ► button on the player and the [POWER] button on the remote controller for at least three seconds so that the player displays "___LOCKED_" for three seconds to indicate that LOCK MODE B is activated and the currently loaded disc in played.
5. The following buttons are invalid, based on the "selector or disc related", during LOCK MODE B.

Player	▲, ■, , SELECTOR, ►►, ◀◀, VOL. JOG
Remote controller unit	SLEEP, REPEAT, D.MIX (REPEAT holding down), 0~9, ≥10, RETURN, FL DISPLAY, TEST (FL DISPLAY holding down), DISPLAY, SCREEN, CH SELECT, ■, , ◀◀, ►►, ◀◀, ►►, SET UP, GROUP, MUTING, P MEMORY, TUNER/BAND, TV, VCR/AUX

6. The keys prohibited during PLAY and LOCK MODE B need not to correspond each other. The keys related to sound quality and shown on the DVD screen are not prohibited. Following buttons are always valid:

Player	POWER, DVD/CD>, PROGRESSIVE, VOL. JOG
Remote controller unit	POWER, PLAY MODE, CANCEL, SFC, B. B LEVEL, VOL-, VOL+, DVD/CD>, MENU, TOP MENU, ◀, ▶, ▲, ▼, ENTER, DPL, SSS,C.F, CSM, ZOOM

7. While LOCK MODE B is activated and the player is locked, press and hold down the ► button on the player and the [POWER] button on the remote controller for at least three seconds so that the player displays "_UNLOCKED_" for three seconds to indicate that the function is deactivated.
8. The tray lock function is deactivated by "AC Prohibition".
9. LOCK MODE A or B is an exclusive control over whichever is activated first.
10. While the player is set to a lock mode and POWER OFF, the auto power on function can be controlled by the DVD/CD button on the remote controller. The auto power on function is invalid by the other selector buttons (such as TUNER/BAND button).
11. While a lock mode is turned on and the prohibition button is pressed, "___LOCKED_" appears on FL.
12. While a lock mode is turned on and set to POWER OFF, the OPEN/CLOSE button is invalid to control the auto power on function.

15.7. Things to Do After Repair

Follow the procedure described below after repair.

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

Note:

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

16 Service precautions

16.1. Recovery after the player is repaired

- When FLASH ROM IC 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.

Note:

This unit requires no initialization process carried out after the traditional DVD players were repaired. When the recovery measures are taken, the customer setting will return to the factory setting as same as the procedure described in item "Initialization" in 13.6 is carried out. Write down the contents of the setting before recovery processing and reset the player.

16.2. DVD Player Firmware Version Upgrade Process

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

Note:

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

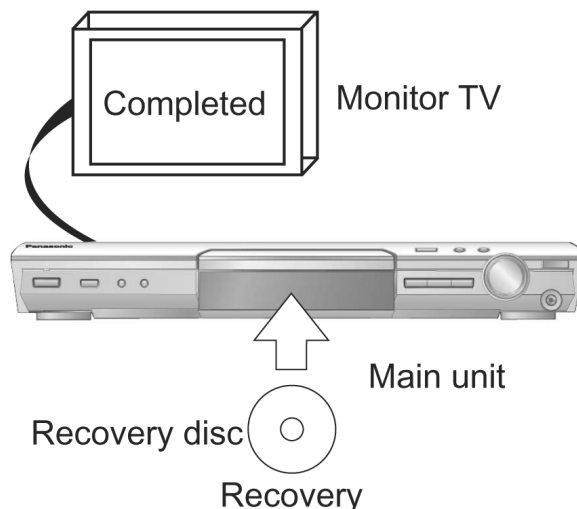
16.3. Firmware Version Upgrade Process by Using Recovery Disc

- 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 IC, EEPROM IC, or DVD Module Circuit board

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



16.3.1. 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.

17 Disassembly and Main Component Replacement Procedures

“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.

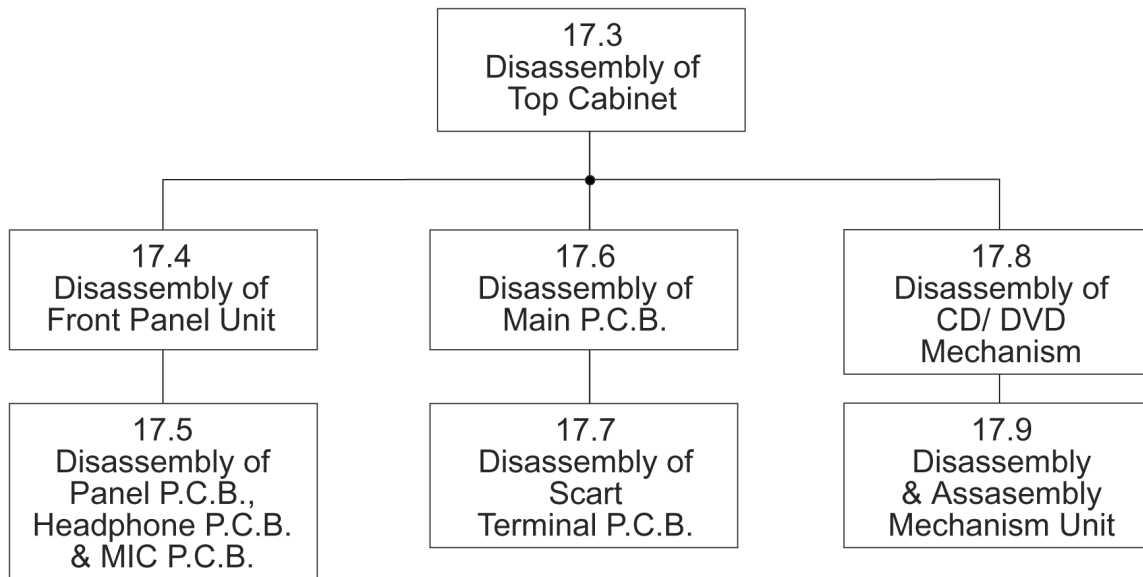
Warning:

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

17.1. 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 below.

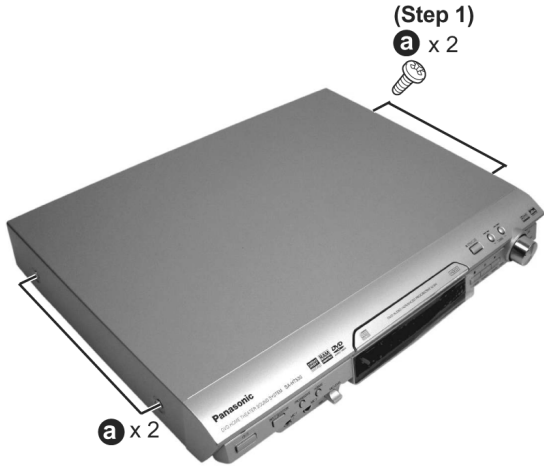


17.2. P.C.B. Locations

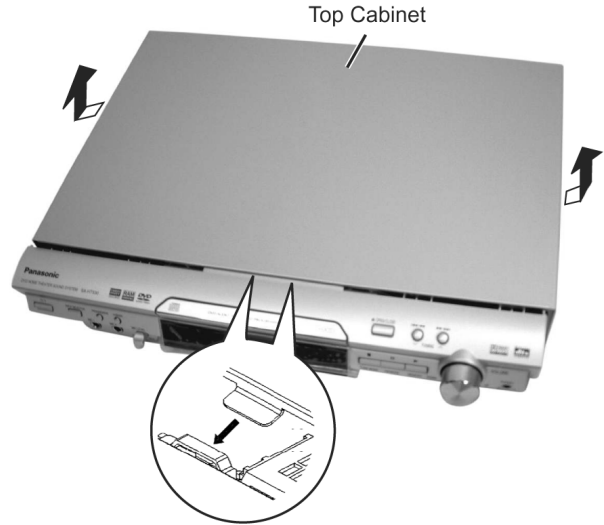


17.3. Disassembly of Top Cabinet

Step 1: Remove 4 screws.



Step 3: Lift the top cabinet upwards and push in backward.



Step 2: Remove 3 screws at rear panel.

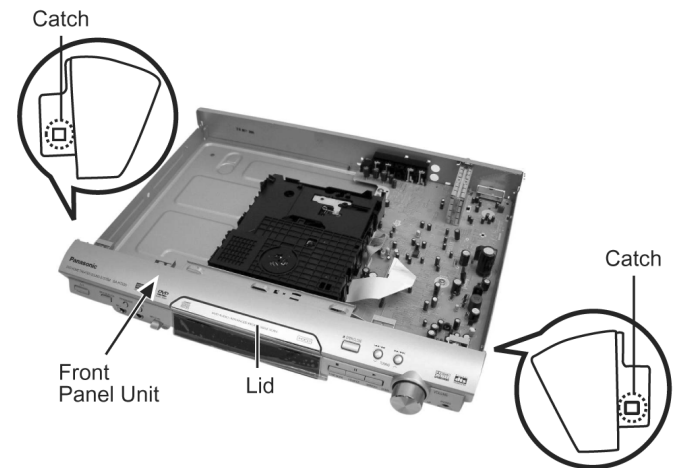
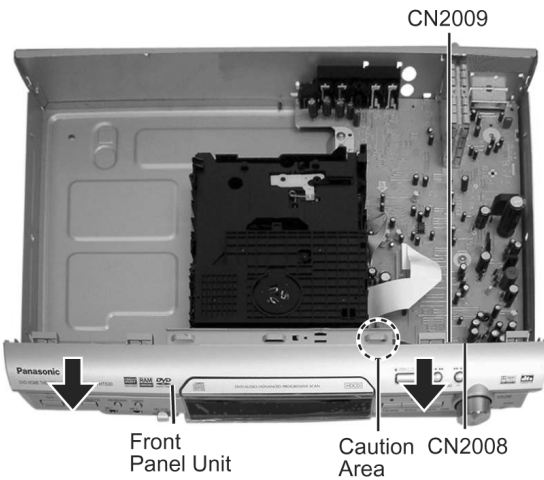


17.4. Disassembly of Front Panel Unit

· Follow the (Step 1) - (Step 3) of item 17.3 - Disassembly of Top Cabinet

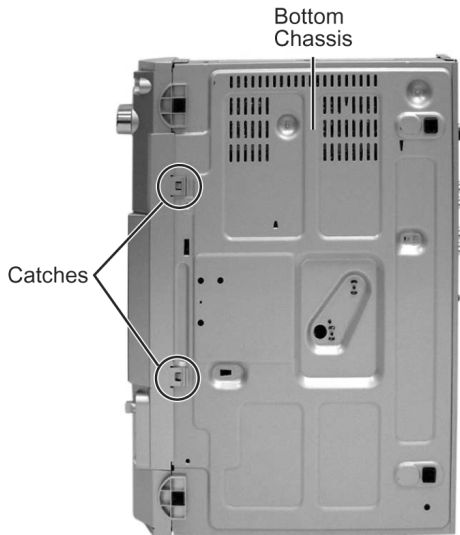
Step 1: Remove lid. (Using active subwoofer unit/ jig to power-up the unit.)

Step 2: Detach FFC Boards (CN2008 and CN2009).



Step 4: Release the catches from bottom chassis.

Step 3: Release the catches on the left and right side of front unit.



Step 5: Draw front panel unit forward.

• **Note:**

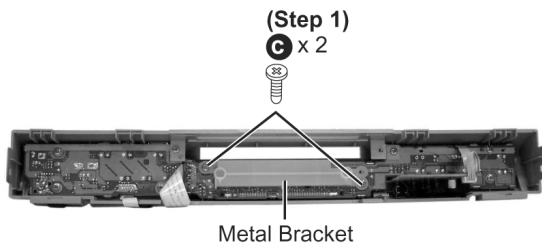
Avoid pulling the front panel unit using strong force.

This may cause damage to Main P.C.B. due to abrasion between metal bracket and the mechanism unit.

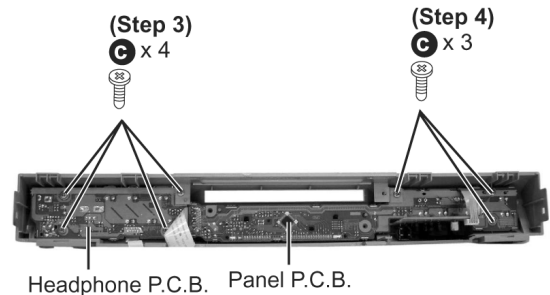
17.5. Disassembly of Panel P.C.B., Headphone P.C.B. & MIC P.C.B.

- Follow the (Step 1) - (Step 3) of item 17.3 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 5) of item 17.4 - Disassembly of Front Panel Unit

Step 1: Remove 2 screws.



Step 2: Lift up the Metal Bracket.



Step 3: Remove 4 screws at Headphone P.C.B.

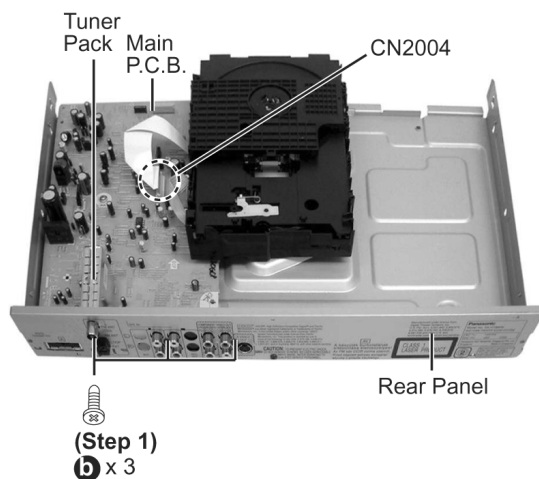
Step 4: Remove 3 screws at Panel P.C.B.



17.6. Disassembly of Main P.C.B.

- Follow the (Step 1) - (Step 3) of item 17.3 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 5) of item 17.4 - Disassembly of Front Panel Unit

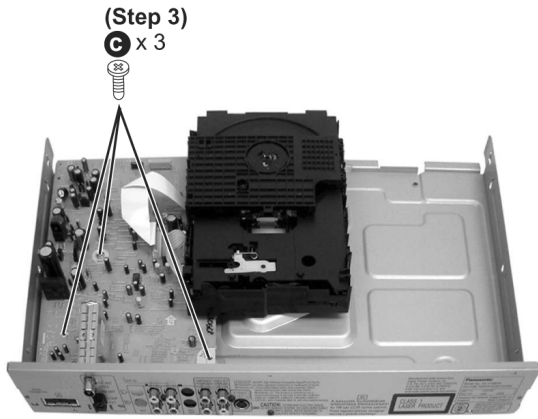
Step 1: Remove 3 screws at the rear panel.



Step 2: Detach 50P FFC Board (CN2004).

Step 3: Remove 3 screws at Main P.C.B..

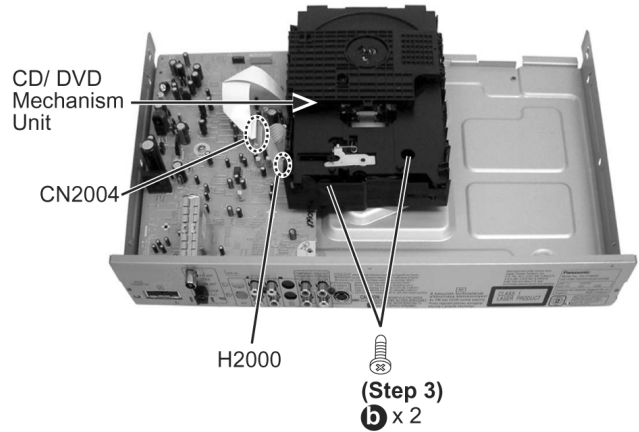
Step 4: Push the Main P.C.B. backwards and lift up the P.C.B. sideways.



Front Panel Unit

Step 1: Detach 50P FFC Boards (CN2004).

Step 2: Detach connector (H2000).



17.7. Disassembly of CD/ DVD Mechanism

- Follow the (Step 1) - (Step 3) of item 17.3 - Disassembly of Top Cabinet
- Follow the (Step 1) - (Step 5) of item 17.4 - Removal of

Step 3: Remove 2 screws.

Step 4: Lift up the CD/ DVD mechanism unit.

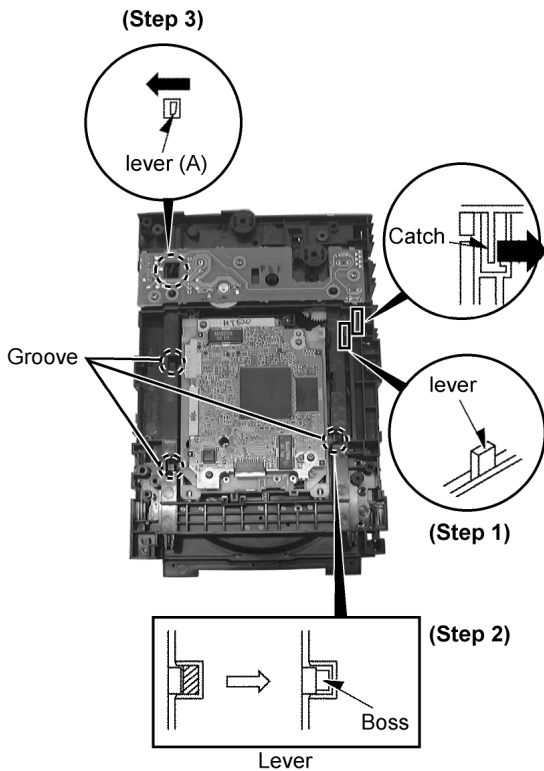
17.8. Disassembly and Assembly Mechanism Unit

17.8.1. Replacement of Traverse Unit.

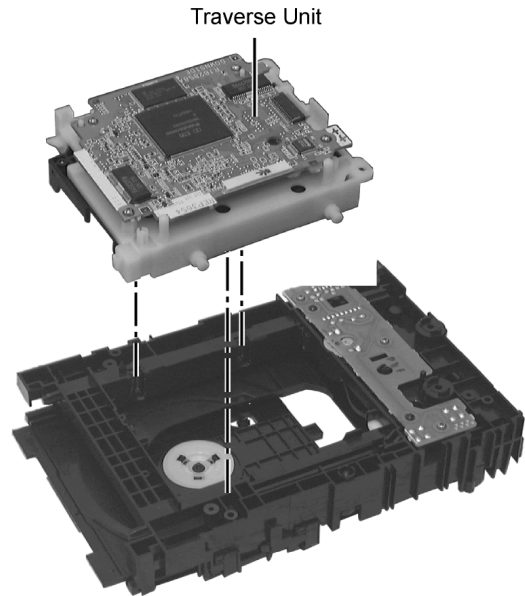
Step 1: Slide the lever backward to the furthest.

Step 2: While bending the catch at right to the lever to the right direction, slide the lever further until it stops. (The groove at right opens, the boss can be seen.)

Step 3: Press lever (A) to the left. (Two grooves at left open.)

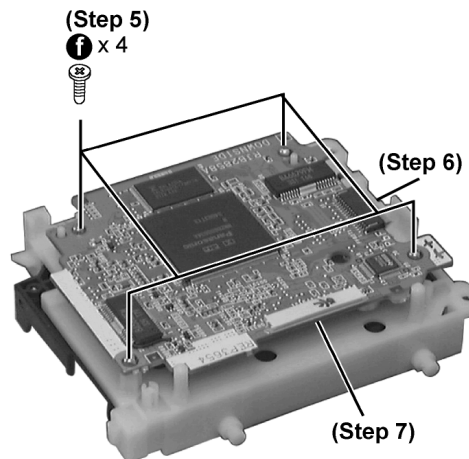


Step 4: Take out the traverse Unit.



· Disassembly of DVD Module P.C.B.

Step 5: Remove 4 screws.



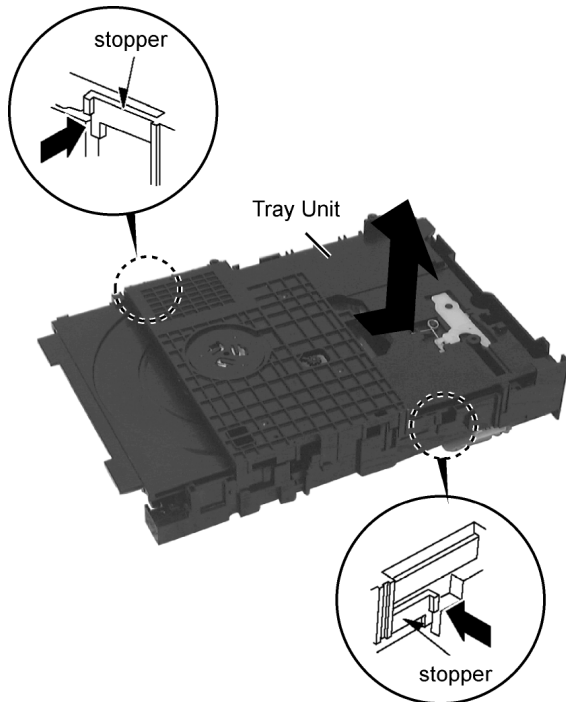
Step 6: Detach 15 P FFC Board (FP8271).

Step 7: Detach 20P FFC Board (FP8501).

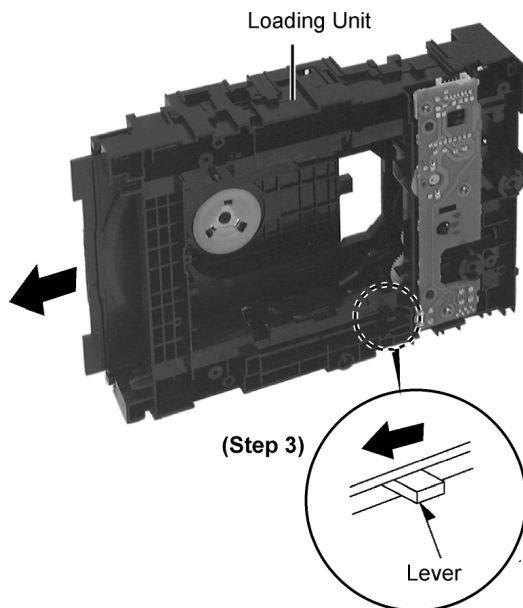
17.8.2. Replacement of Tray.

· Follow the (Step 1) - (Step 7) of item 17.8.1 - Replacement of Traverse Unit

Step 1: While pressing the stopper to the arrow direction, slide the guide tray unit to remove.

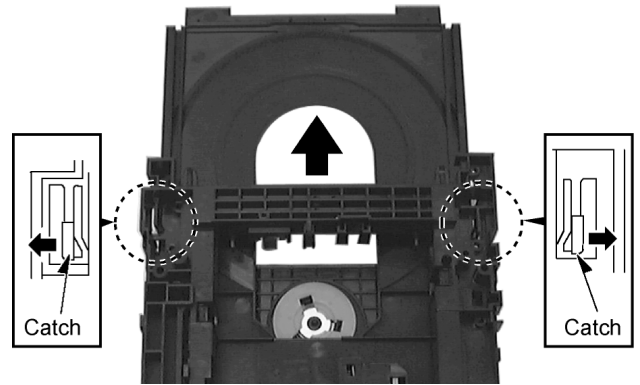


Step 2: Stand the Loading Unit.

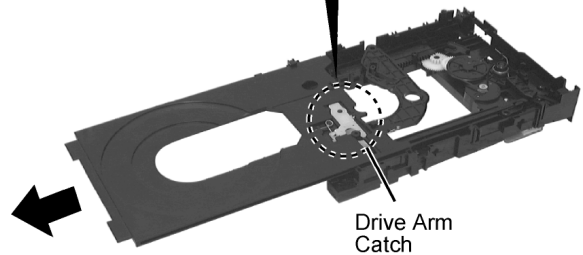
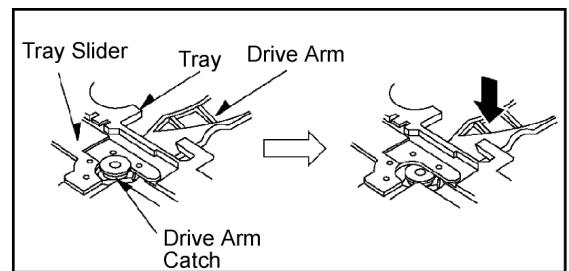


Step 3: Push the lever forward (the tray will move).

Step 4: Widen the catches at both sides and pull out the tray. (The tray will stop after a few slides)

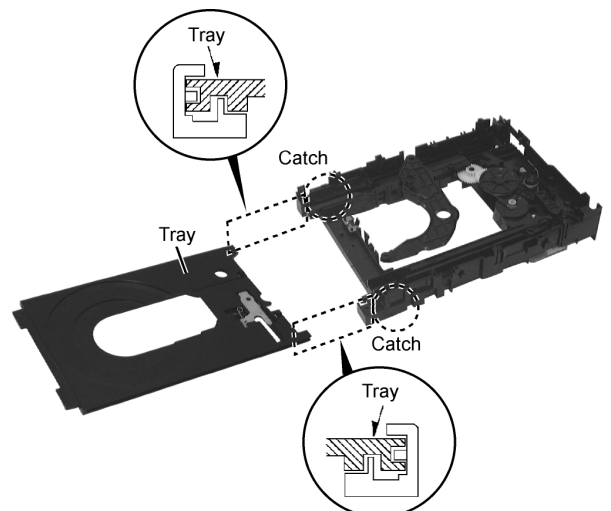


Step 5: Remove Drive Arm Catch from Tray Slider and Tray.

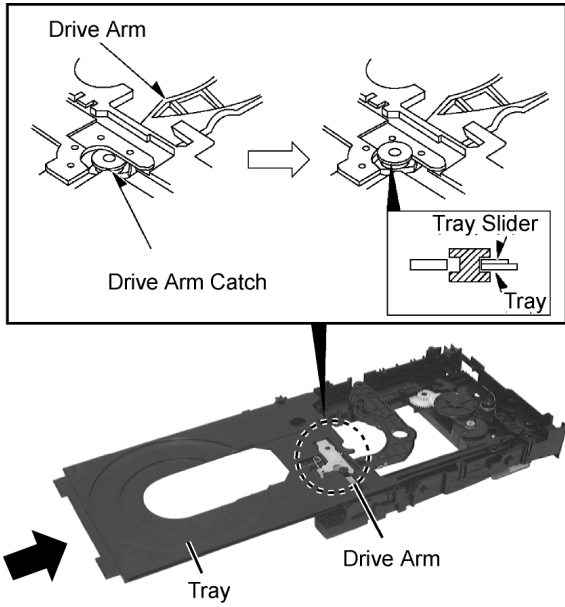


· Fixing the Tray

Step 1: Insert Tray slightly into groove of chassis.



Step 2: Insert Tray into the area to avoid catching the mechanism chassis claw.



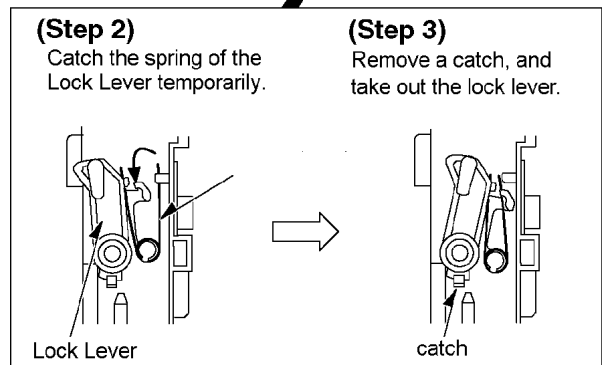
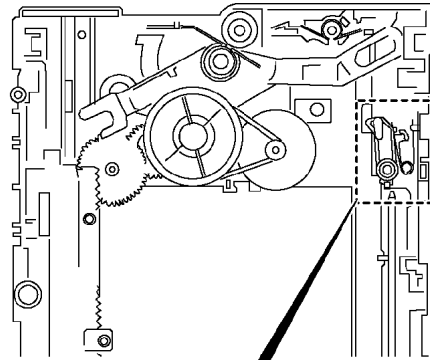
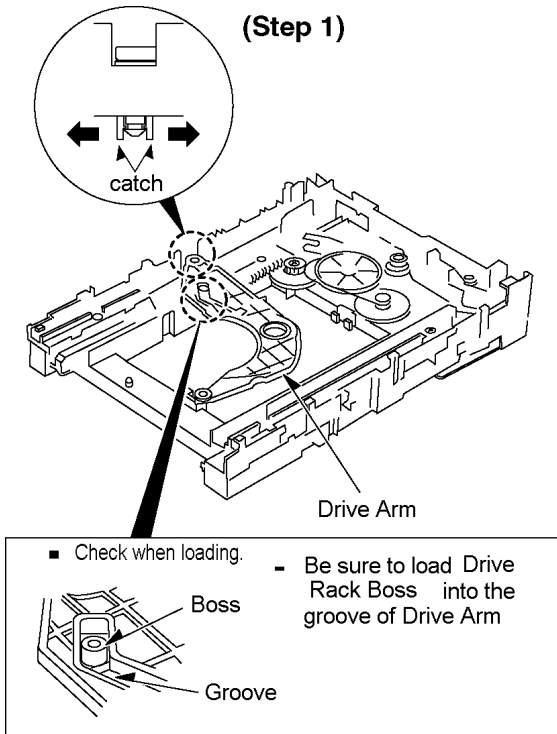
Step 3: Latch Drive Arm Catch onto Tray and Tray Slider.

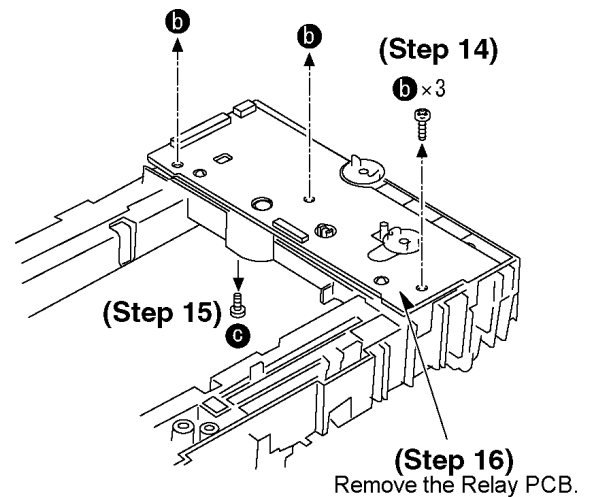
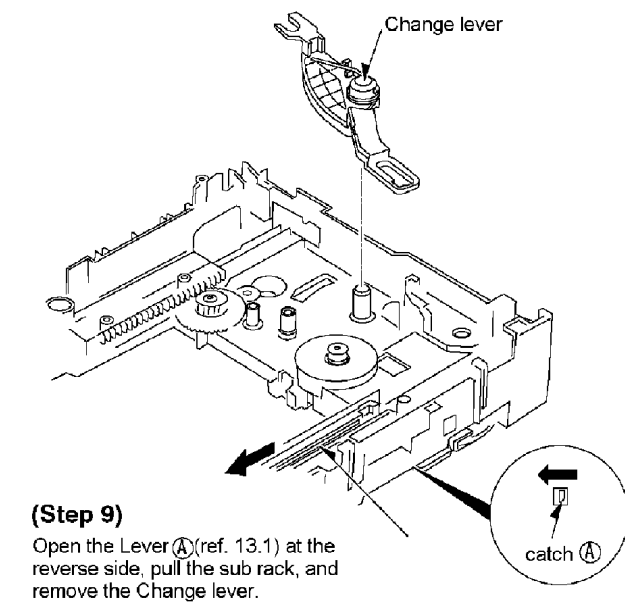
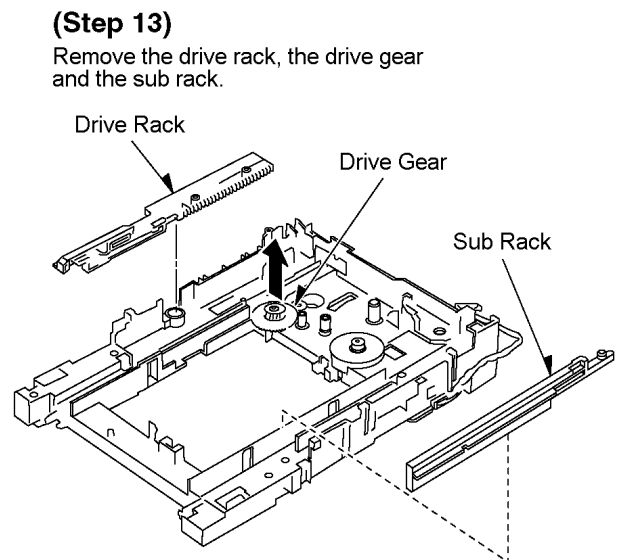
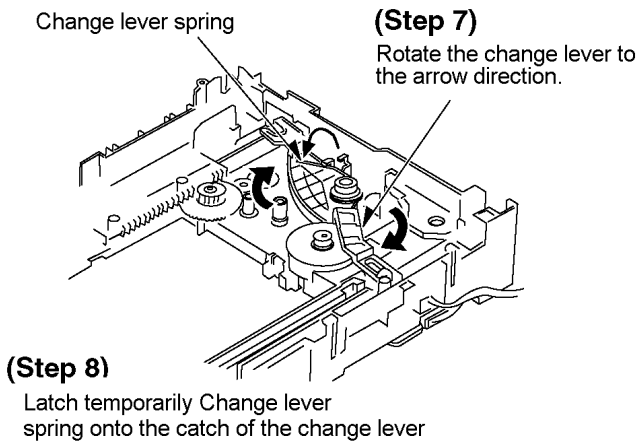
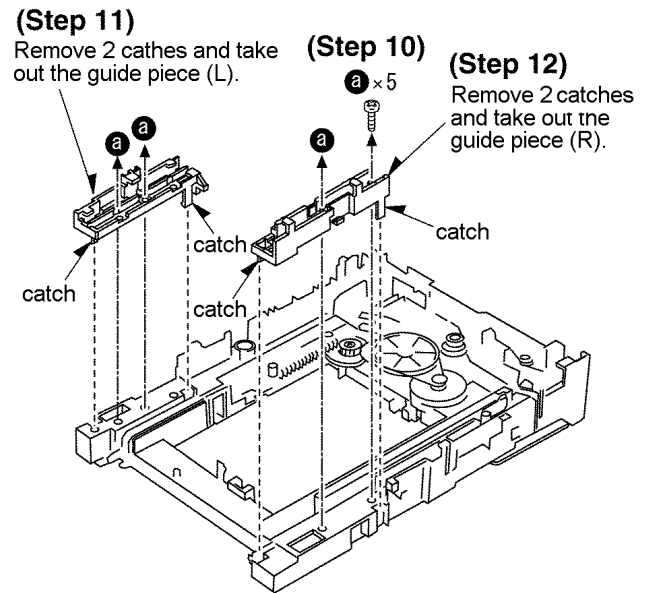
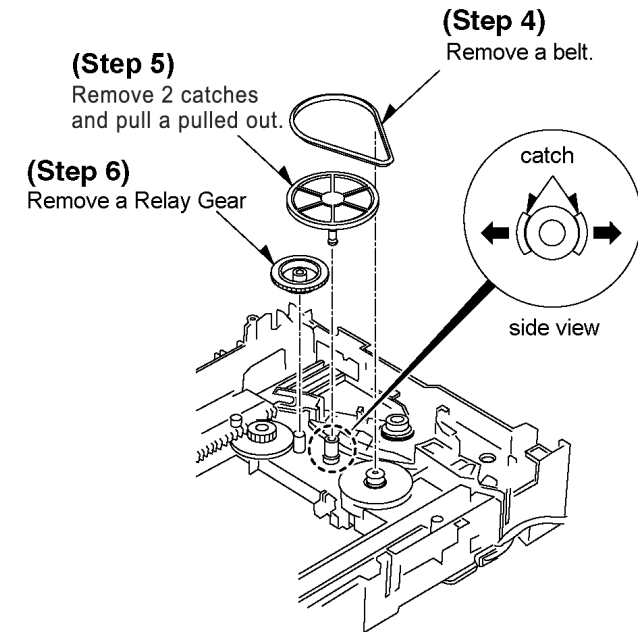
Step 4: Push Tray .

Step 5: Check Tray and Drive Arm move smoothly.

17.8.3. Disassembly of loading section.

- Follow the (Step 1) - (Step 4) of item 17.8.1 - Replacement of Traverse Unit
- Follow the (Step 1) - (Step 5) of item 17.8.2 - Replacement of Tray

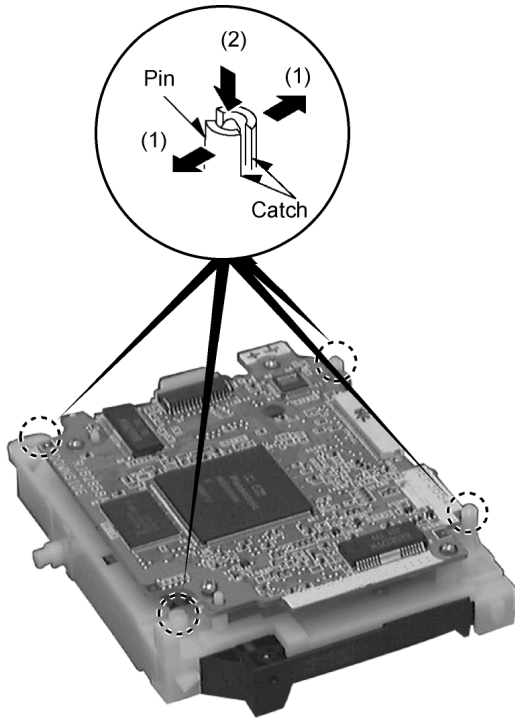




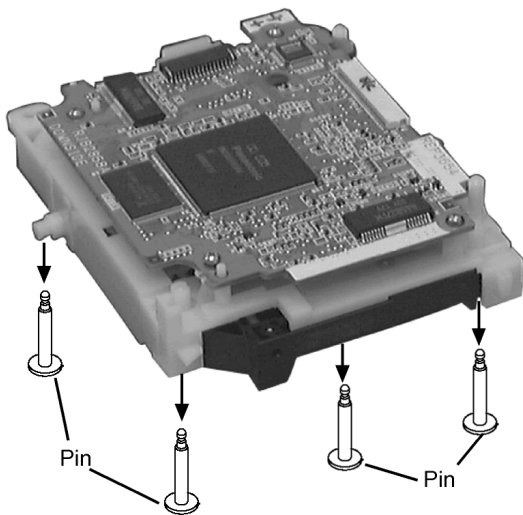
17.8.4. Replacement of Optical Pickup Unit

- Follow the **(Step 1)** - **(Step 5)** of item 17.8.1 - Replacement of Traverse Unit
- Follow the **(Step 1)** - **(Step 5)** of item 17.8.2 - Replacement of Tray

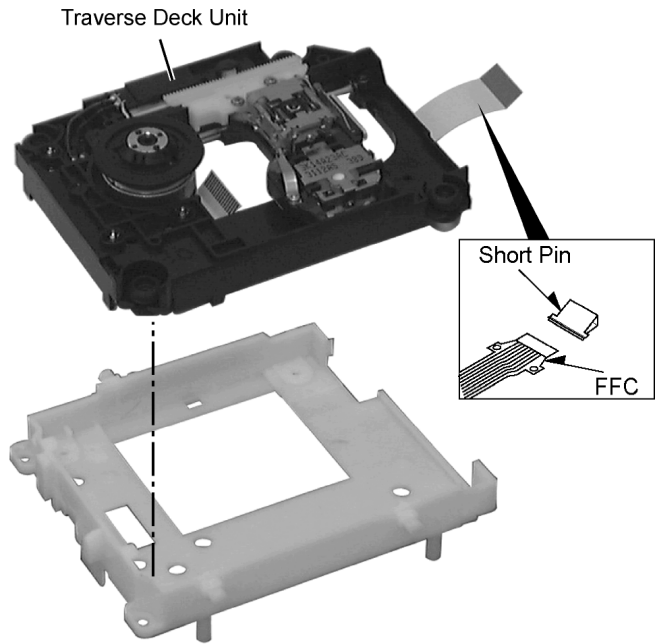
Step 1: Widen the catch, push the pin in.



Step 2: Remove 4 pins.



Step 3: Remove Traverse Unit.

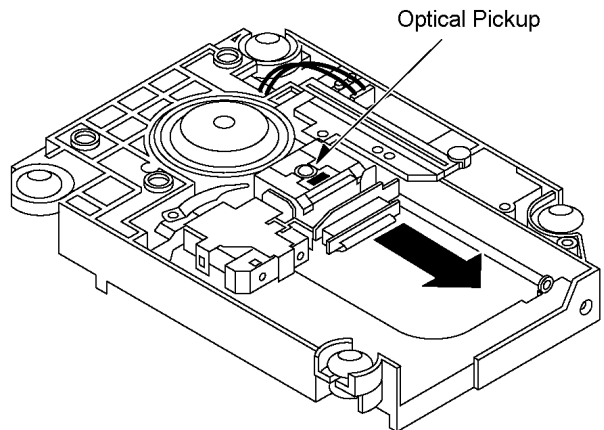


Note:

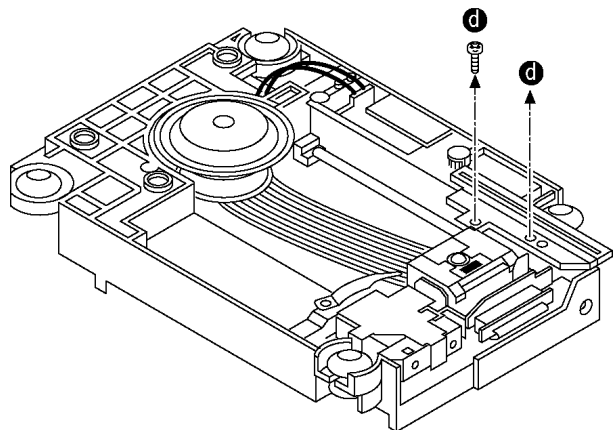
Insert a short pin into FFC of the optical pickup.

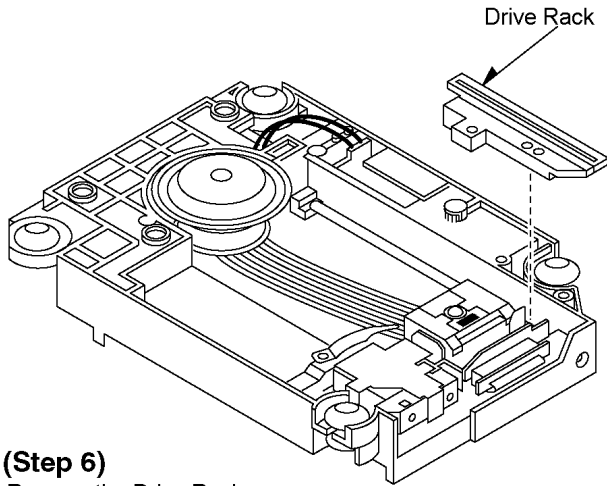
(Step 4)

Shift the Optical Pickup to the furthest backward.

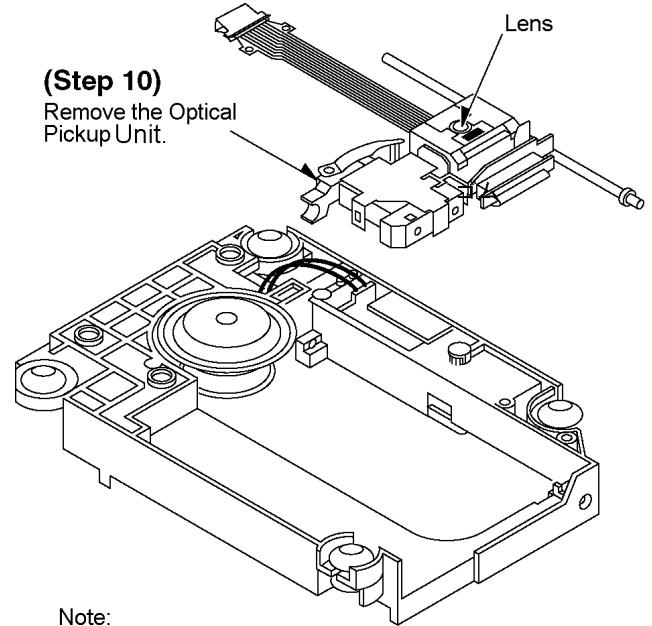


(Step 5)



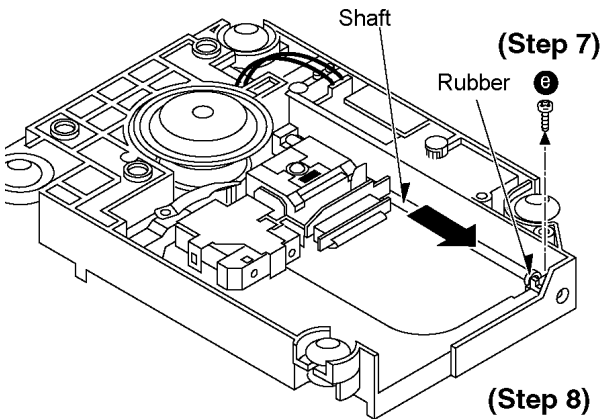


(Step 6)
Remove the Drive Rack.



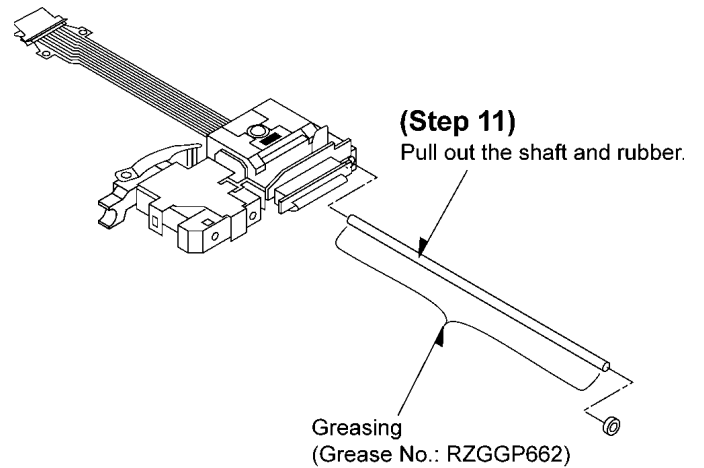
(Step 10)
Remove the Optical Pickup Unit.

Note:
1. Do not subject optical pickup to static electricity as it is extremely sensitive to electrical shock.



(Step 7)

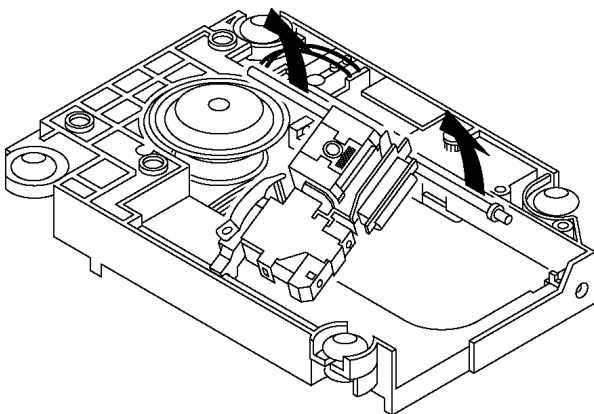
(Step 8)
Shift the shaft to the arrow direction.



(Step 11)

Pull out the shaft and rubber.

Greasing
(Grease No.: RZGGP662)

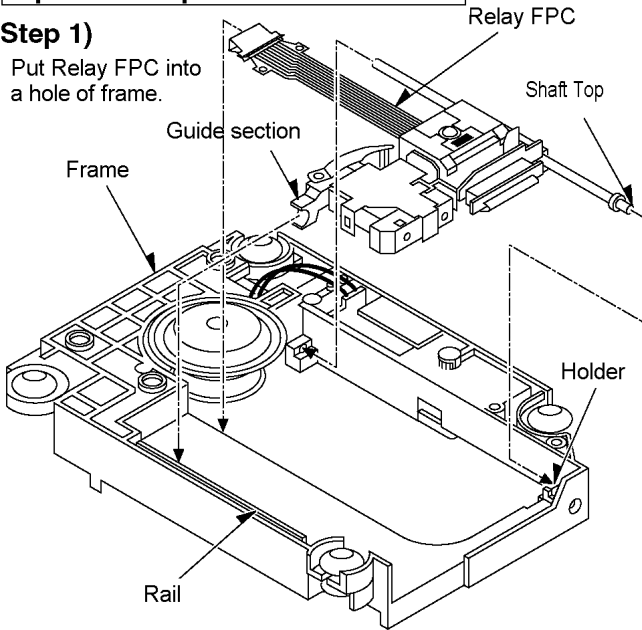


(Step 9)
Lift the Optical Pickup Unit with shaft.

Optical Pickup Unit main structure

(Step 1)

Put Relay FPC into a hole of frame.



(Step 3)

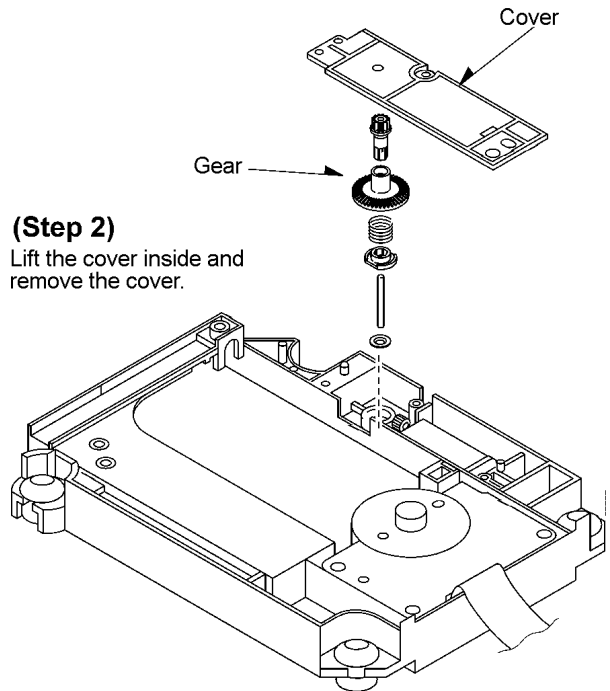
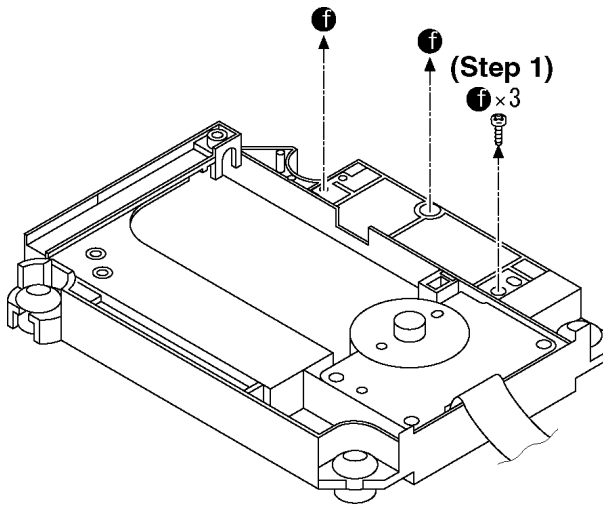
Put Shaft Top into the Holder

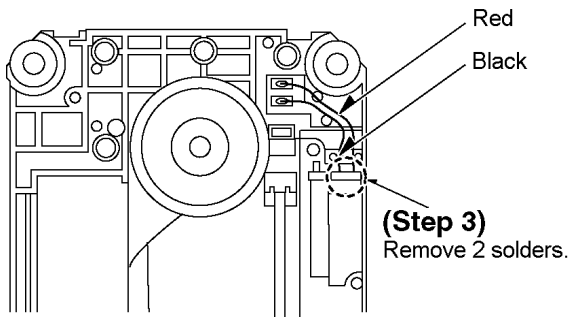
(Step 2)

Fit Optical Pickup Unit Guide into the rail.

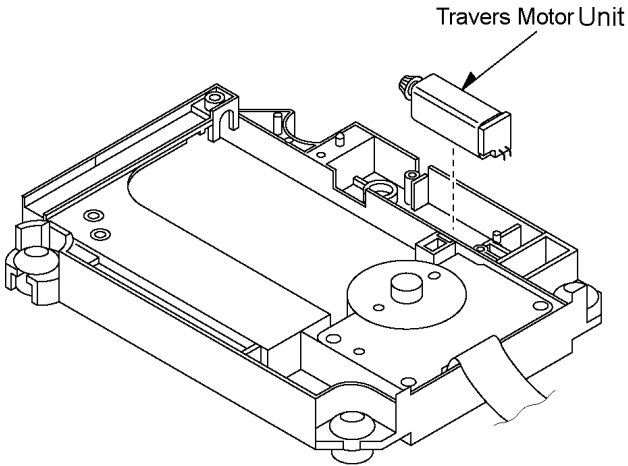
17.8.5. Disassembly of traverse motor (Unit) and spindle motor (Unit).

- Follow the **(Step 1) - (Step 5)** of item 17.8.1 - Replacement of Traverse Unit
- Follow the **(Step 1) - (Step 5)** of item 17.8.2 - Replacement of Tray
- Follow the **(Step 1) - (Step 11)** of item 17.8.4 - Replacement of Optical Pickup Unit

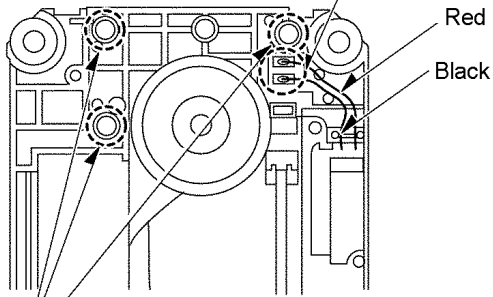




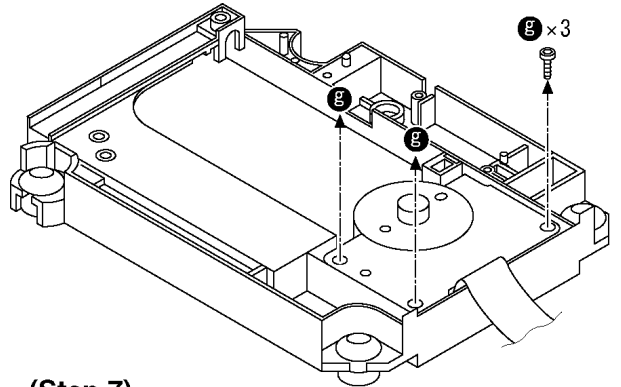
(Step 4)
Remove the Traverse Motor Unit.



(Step 5)
Remove 2 solders.

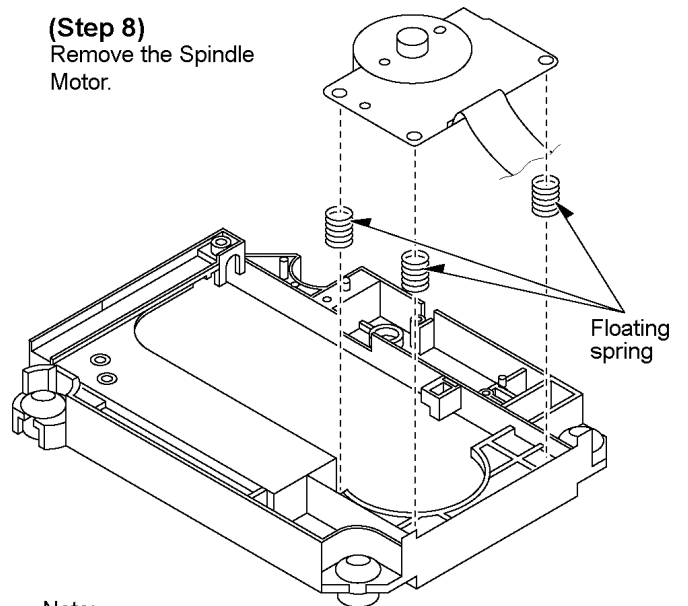


(Step 6)
Remove 3 screw locks thoroughly.



(Step 7)
Remove E (3 pieces) with 1.8mm slotted screwdriver.

(Step 8)
Remove the Spindle Motor.



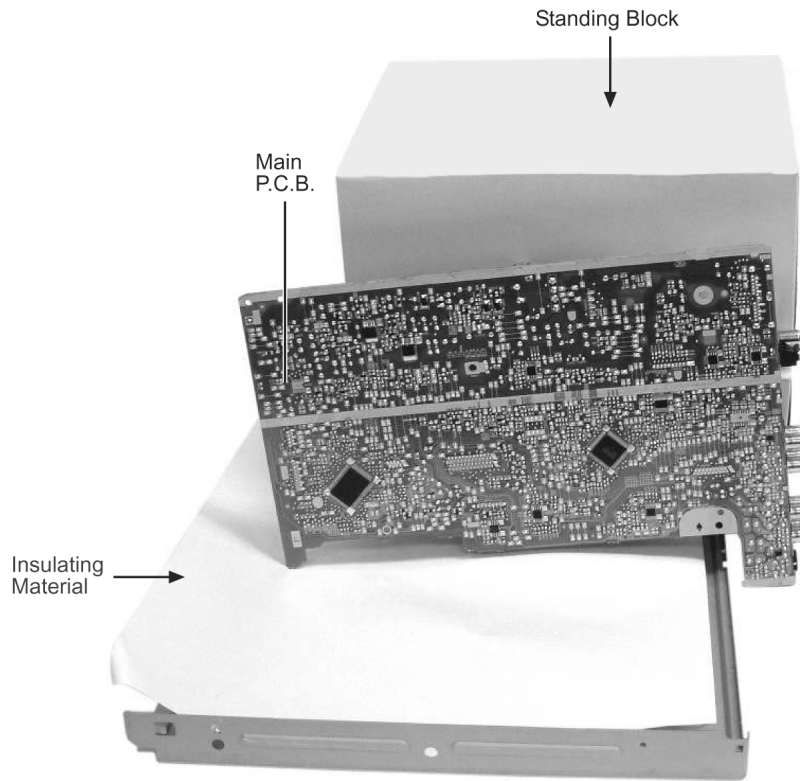
Note:
As floating springs (3 pieces) come off at the same time, be careful not to lose them.

18 Service Position

18.1. Checking the Main P.C.B.

Below are the necessary steps required for checking of Main P.C.B..

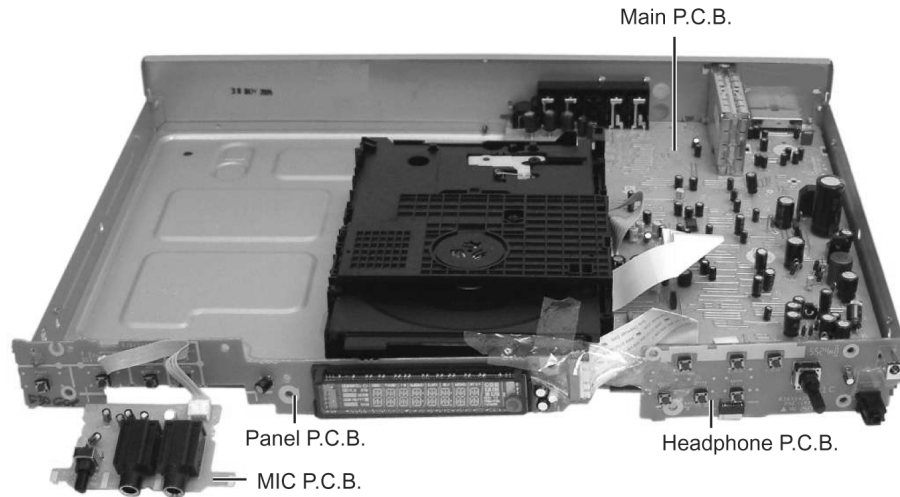
1. Disassembly of Top Cabinet.
2. Disassembly of Front Panel.
3. Disassembly of Rear Panel.
4. Disassembly of Main P.C.B..



18.2. Checking the Main P.C.B., Panel P.C.B., MIC P.C.B. and Headphone P.C.B.

Below are the necessary steps required for cheking of Panel and Headphone P.C.B..

1. Remove Top Cabinet.
2. Disassembly of Front Panel.
3. Disassembly of Headphone P.C.B., MIC P.C.B. and Panel P.C.B..



19 Adjustment Procedure

19.1. Required Tools and Equipment

19.1.1. Usage Equipment

Application	Name	Number
Tilt adjustment	DVD test disc	DVDT-S20 [SPG]
	TORX screw driver (T6)	Available on sales route. (T6) or RFKZ0185 [SPG]
Others	Hanari	VFK1784
	Grease	RFKXPG641 [SPG]
	Drysurf	RFKXGUD24 [SPG]
Confirmation	CD test disc	PVCD-K06 and any other commercially available disc
	Recovery disc	RFKZD03R005 [SPG]

19.1.2. Important points in adjustment

19.1.2.1. Important points in Optical Adjustment

- Before starting optical system adjustment, be sure to take anti-static measures.
- Optical adjustment (optical pickup tilt adjustment) is required after following parts are replaced:
 1. Optical pickup unit.
 2. Spindle motor assembly unit.
 3. Optical pickup peripherals

Note:

Optical adjustment is not necessary after replacement of other parts inside the traverse unit. However, may require when picture deterioration is detected. Optical adjustments cannot be applied to the inside of optical pickup. When a traverse unit is replaced, the adjustment is not necessary.

19.1.3. Storing and Handling Test Discs


Surface precision is vital for DVD test discs. Be sure to store and handle them carefully.

- Do not place discs directly onto the workbench, etc, after use.
- Handle the discs carefully in order to maintain their flatness. Place them into their case after use and store them vertically. Store discs in a cool place where they are not exposed to direct sunlight or air from air conditioned.
- Accurate adjustment will not be possible if the disc is warped when placed on a surface made of glass, etc. If this happens, use a new test disc to make optical adjustments.
- If adjustment is done using a warped disc, the adjustment will be incorrect and some discs will not be playable.

19.1.4. Optical Adjustment (Optical Pickup Tilt Adjustment)

Measurement point	Adjustment point	Mode	Disc
	Tangential adjustment screw Tilt adjustment screw	T1 (inner track) replay T43 (outer track) replay	DVDT-S20 [SPG]
Measuring equipment		Adjustment value	
None (LCD display of the player is used.)		Adjust that jitter value becomes minimum.	

19.1.4.1. Adjustment Procedure

1. While the player is stopped and no disc is inserted, select the DVD function. Press and hold down the  button on the player and the number button, "5" on the remote controller unit.
2. Check that "J_xxx_yyy_zz" is appearing on the display.

For your information:

The values, "yy" and "zz" are not associated to jitter value.

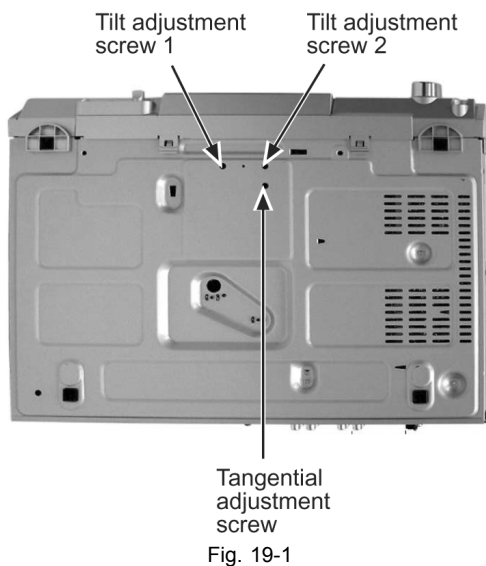
"yy" indicates the frequency of error occurrence.

"zz" indicates the focus drive value.

Note:

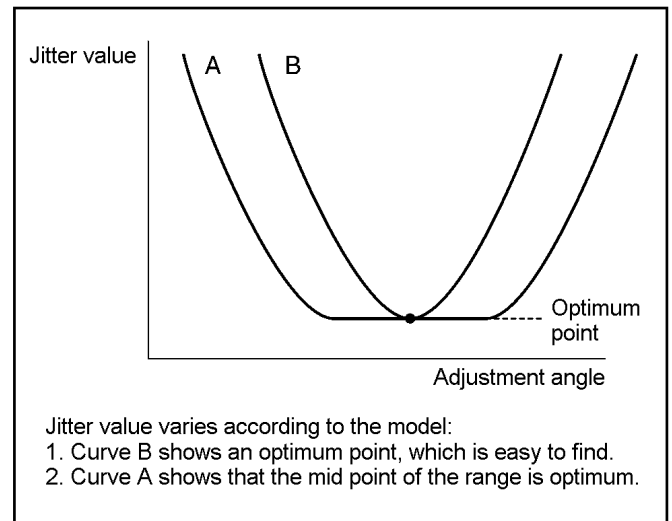
Jitter value appears on the display.

3. Replay T01 (inner track) of the test disc.
4. Adjust till the jitter value becomes minimum, using a tangential adjustment screw. <Fig. 19-1>
5. Replay T43 (outer track) of the test disc.
6. Adjust till the jitter value becomes minimum, using a tilt adjustment screw 1. <Fig. 19-1>
7. Replay T43 (outer track) of the test disc.
8. Adjust till the jitter value becomes minimum, using a tilt adjustment screw 2. <Fig. 19-1>
9. Adjust till the jitter value becomes, using the tilt adjustment screws 1 and 2 alternatively.



19.1.4.2. Tips

1. Apply the tangential adjustment first and then the tilt adjustment.
2. Repeat the adjustment a couple of times to find the optimum point.
3. Complete with the tilt adjustment.

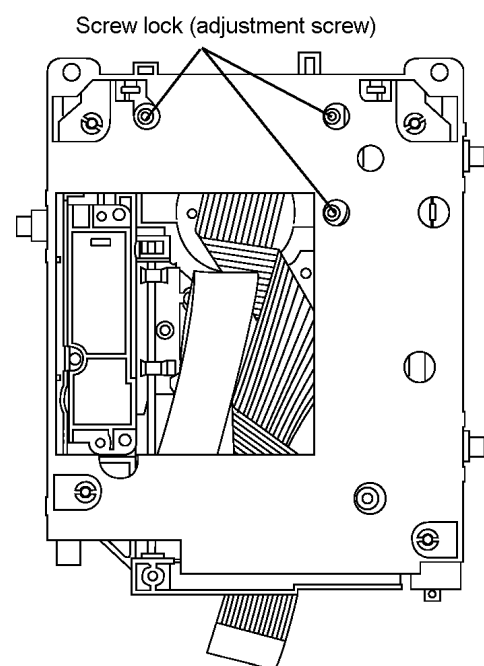


19.1.4.3. Check After Adjustment

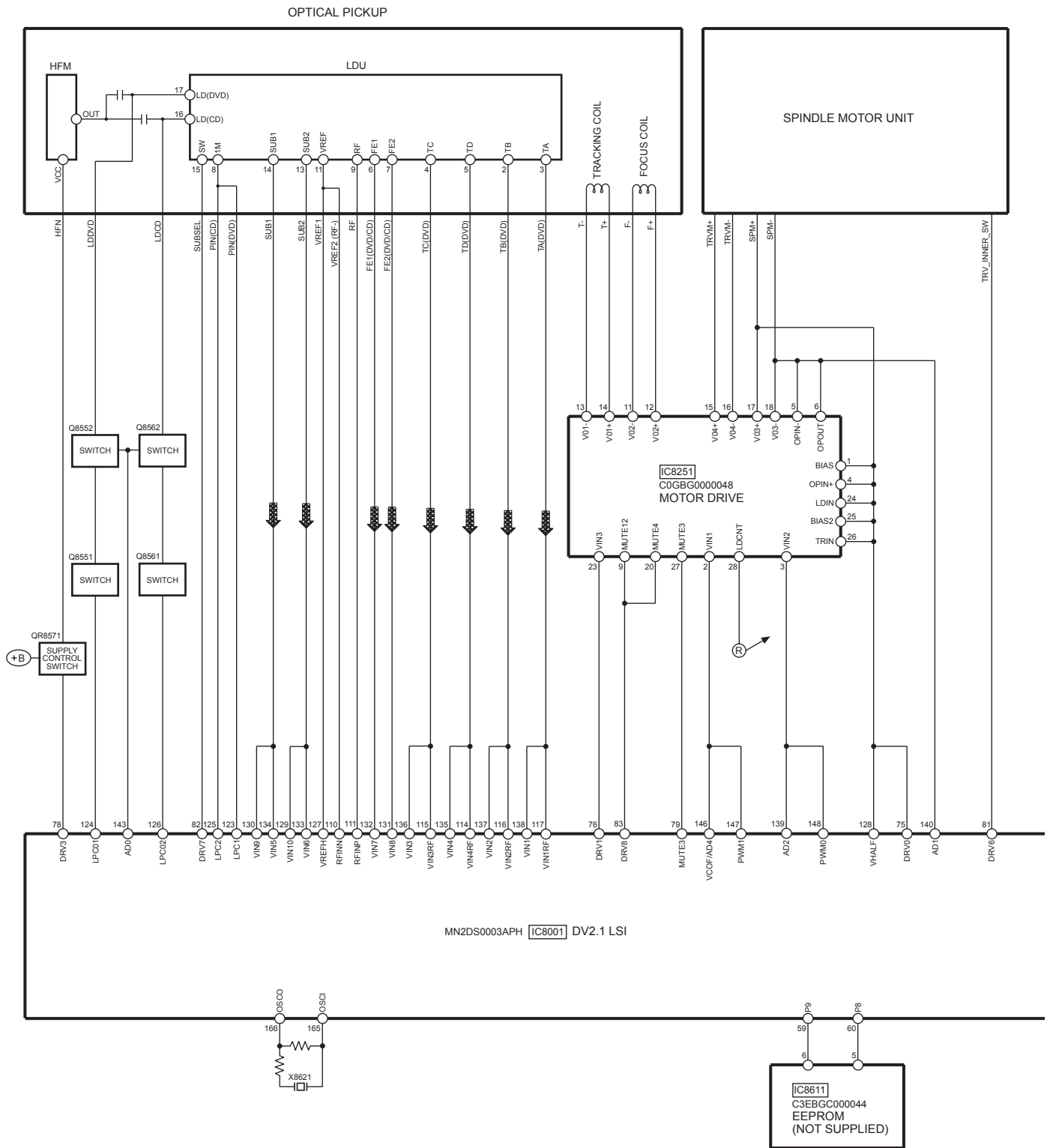
Replay test discs or other commercial discs in order to confirm that no picture deterioration or sound skipping is detected in the inner, middle, and outer tracks. After this, fasten each adjustment screw securely using a screw lock.

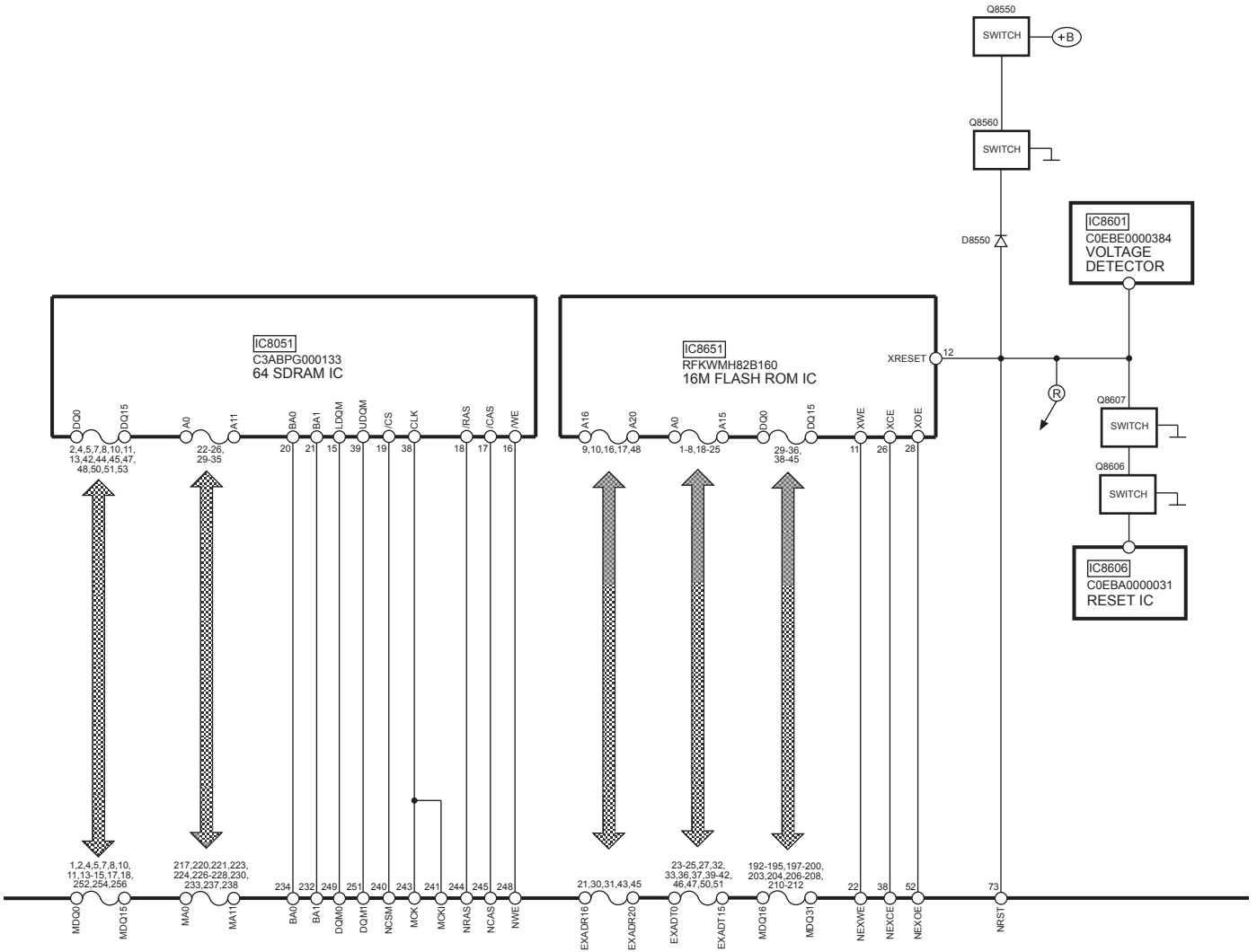
19.1.4.4. Procedure for Screw Lock

1. After adjustment, remove the top cover, clamper base, disc tray and then traverse unit.
2. Place the traverse unit upside down, and fasten the adjustment screws with a screw lock. <Fig. 19-2>
3. After fastening the screws, assemble in order of the traverse unit, disc tray, clamper base, and then top cover.

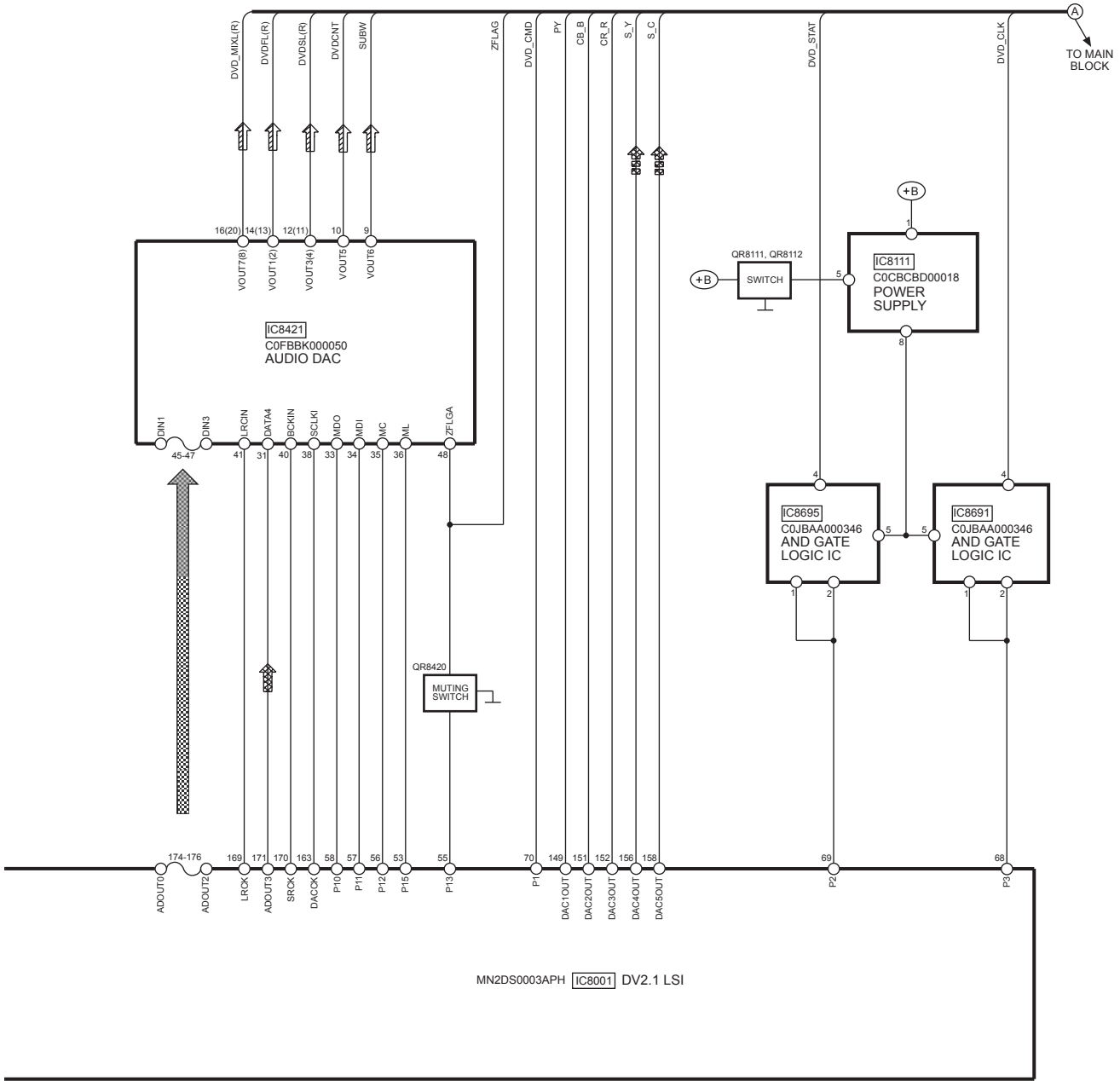


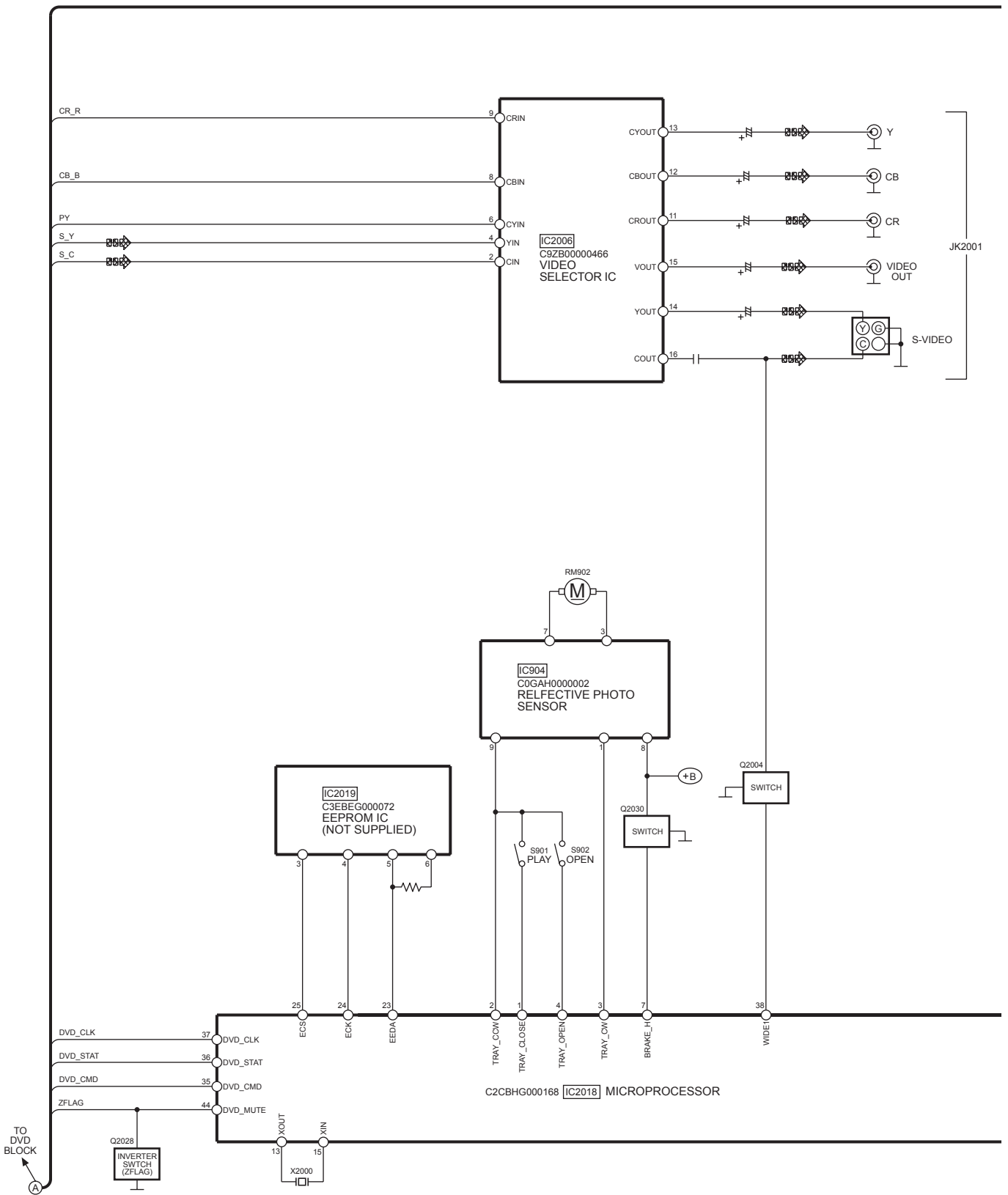
20 Block Diagram

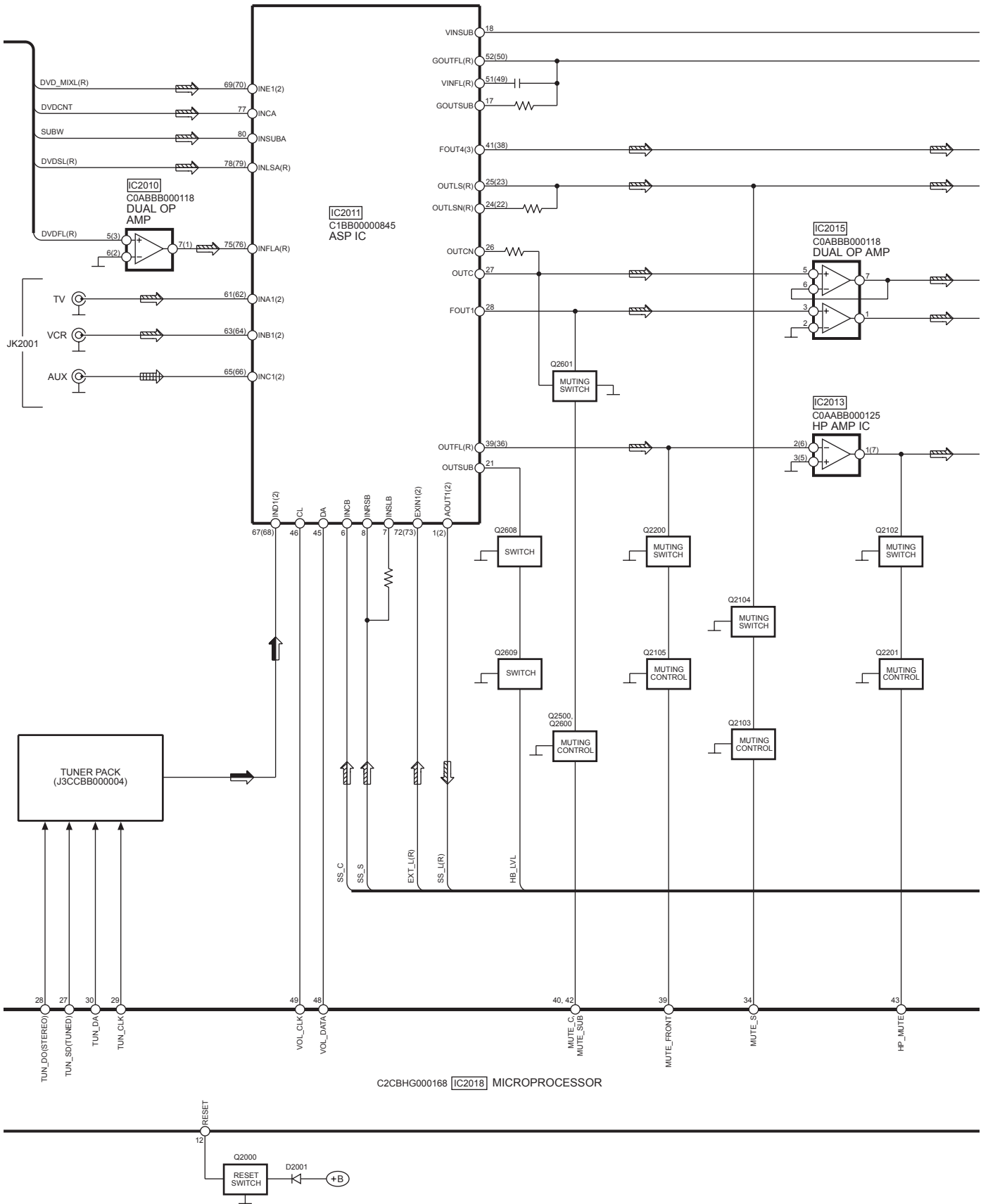


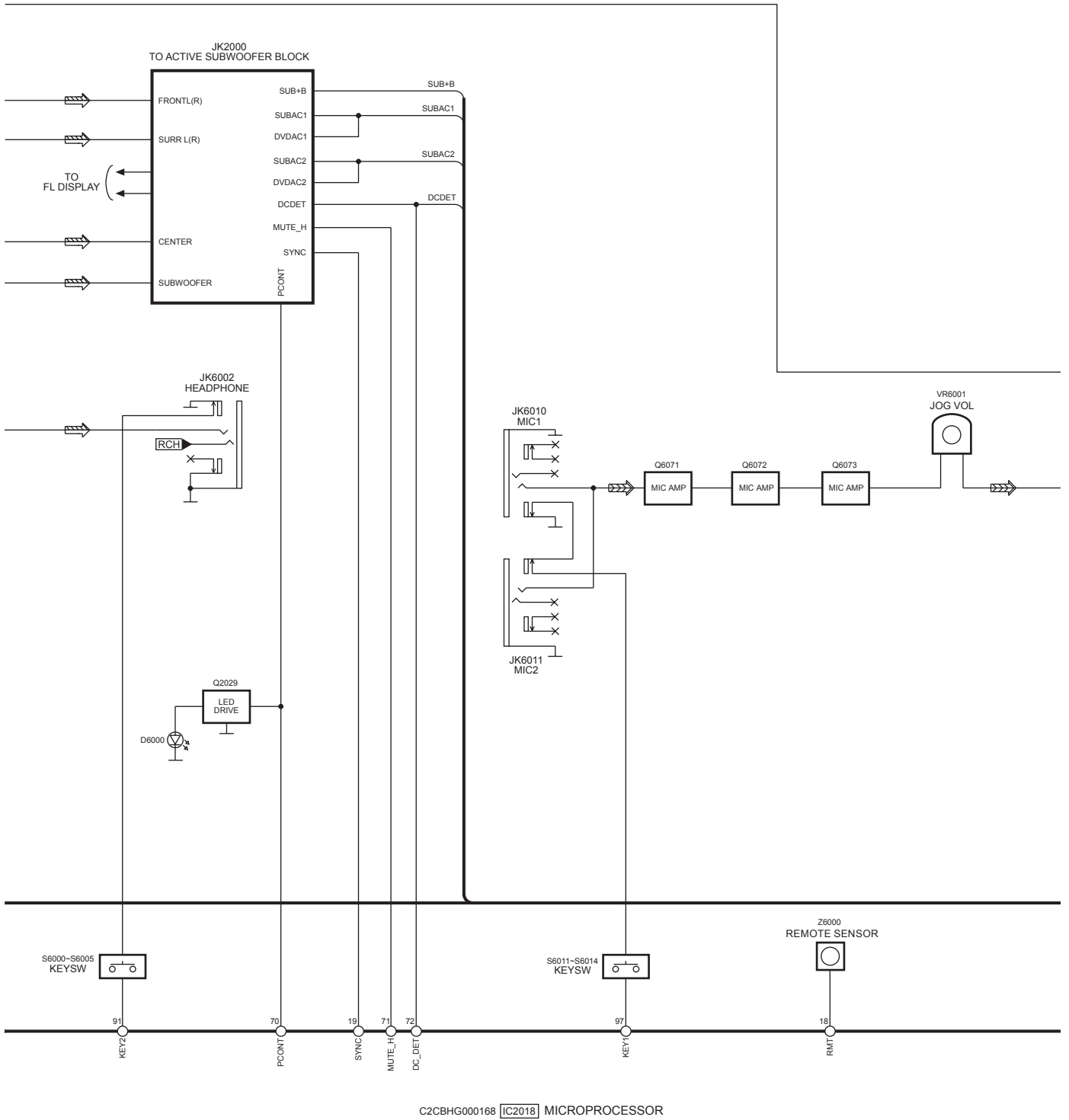


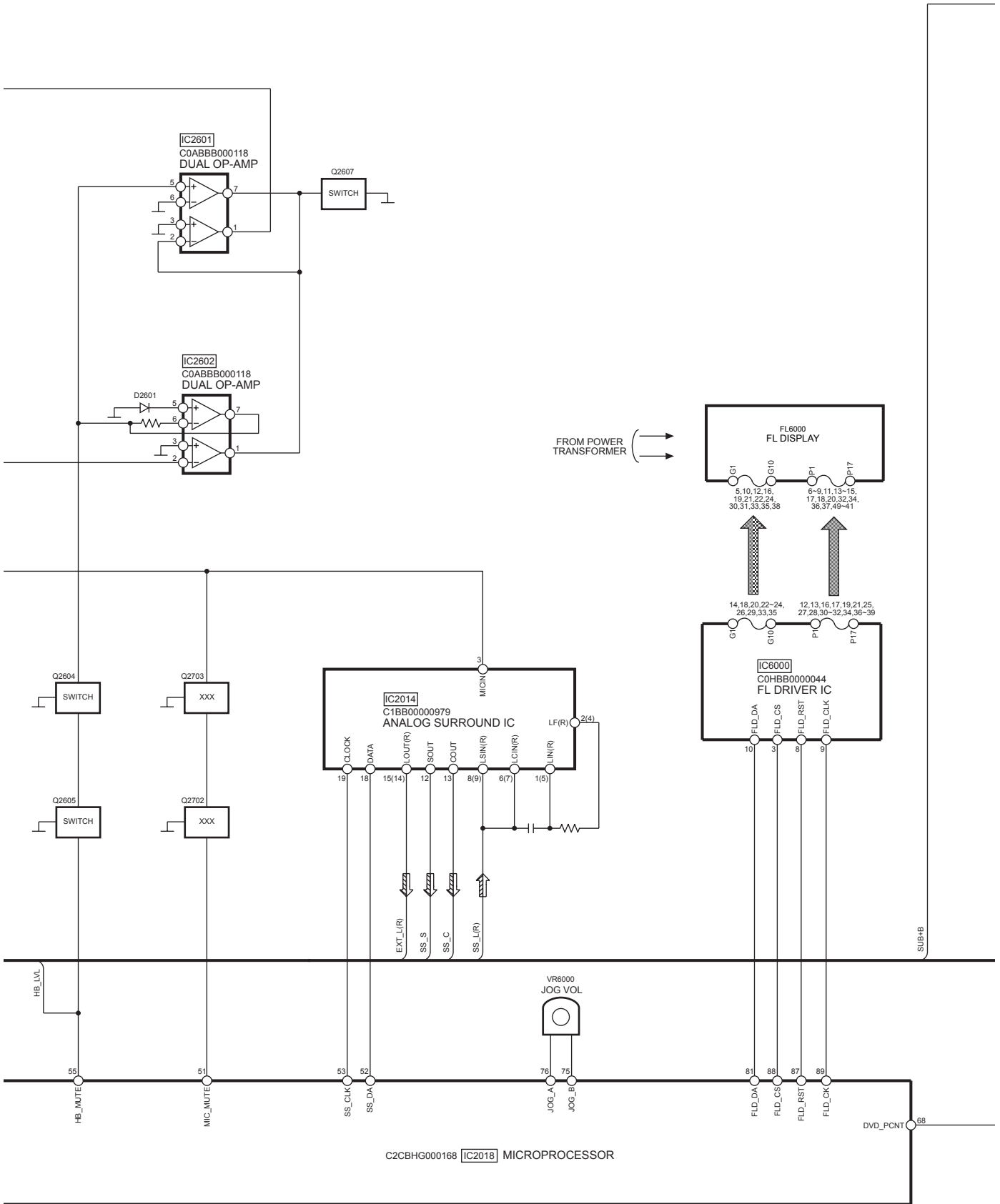
MN2DS0003APH [IC8001] DV2.1 LSI

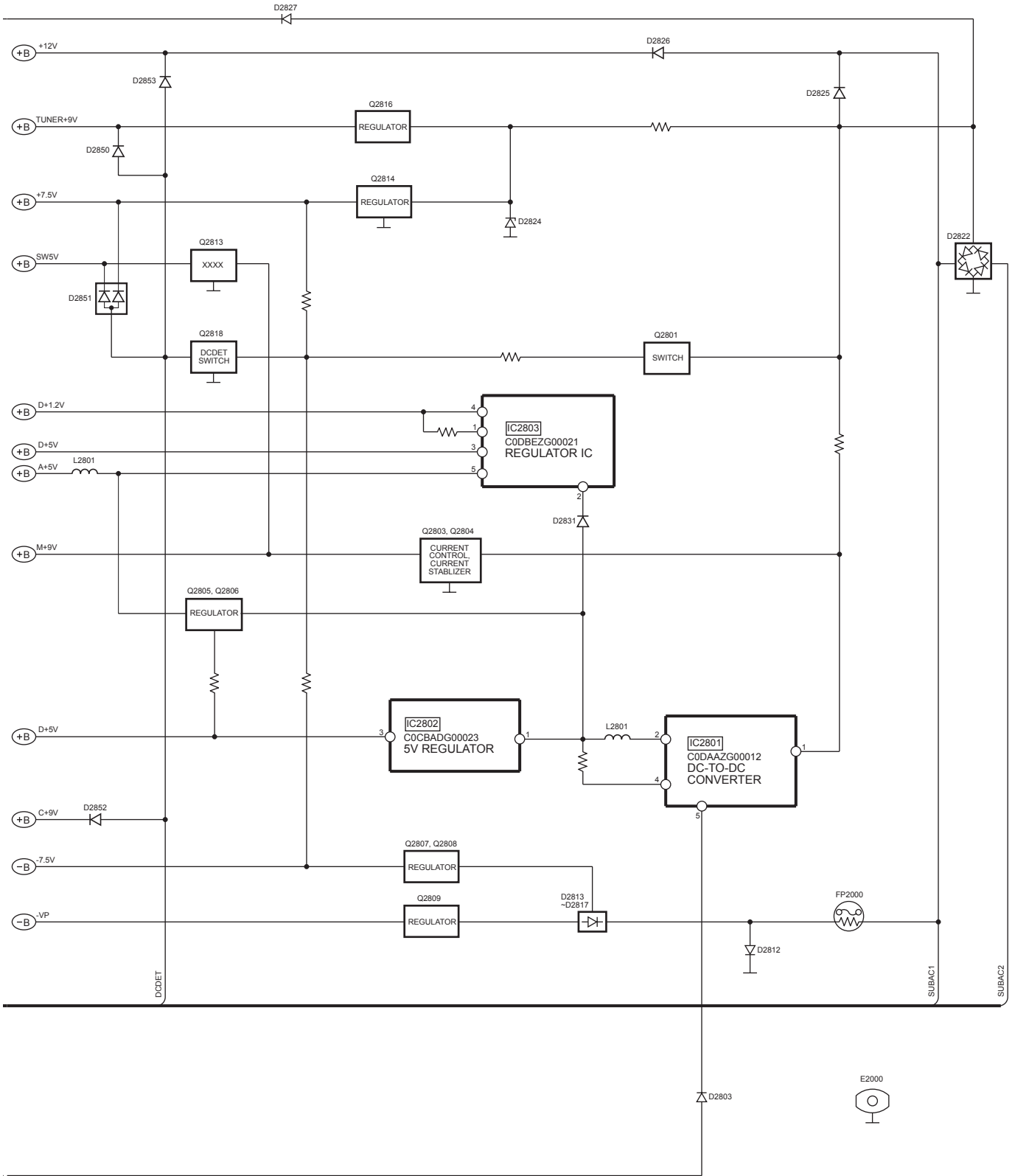












SIGNAL LINES

	: MAIN SIGNAL LINE		: DVD AUDIO SIGNAL LINE		: AUX SIGNAL LINE
	: CD-DA (AUDIO /VIDEO) SIGNAL LINE		: DVD VIDEO SIGNAL LINE		: FM/AM SIGNAL LINE
() Indicates the Pin No. of Right Channel. NOTE : Signal Lines are applicable to the Left Channel only.					

21 Schematic Diagram


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

Note:

S901	: PLAY switch
S902	: OPEN switch
S6000	: OPEN/CLOSE switch
S6001	: FF switch
S6002	: REW switch
S6003	: STOP switch
S6004	: PAUSE switch
S6005	: PLAY switch
S6011	: POWER switch
S6012	: SELECTOR switch
S6013	: RDS switch
S6014	: H_BASS switch
VR6000	: VOLUME
VR6001	: MIC VOLUME

- 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 !

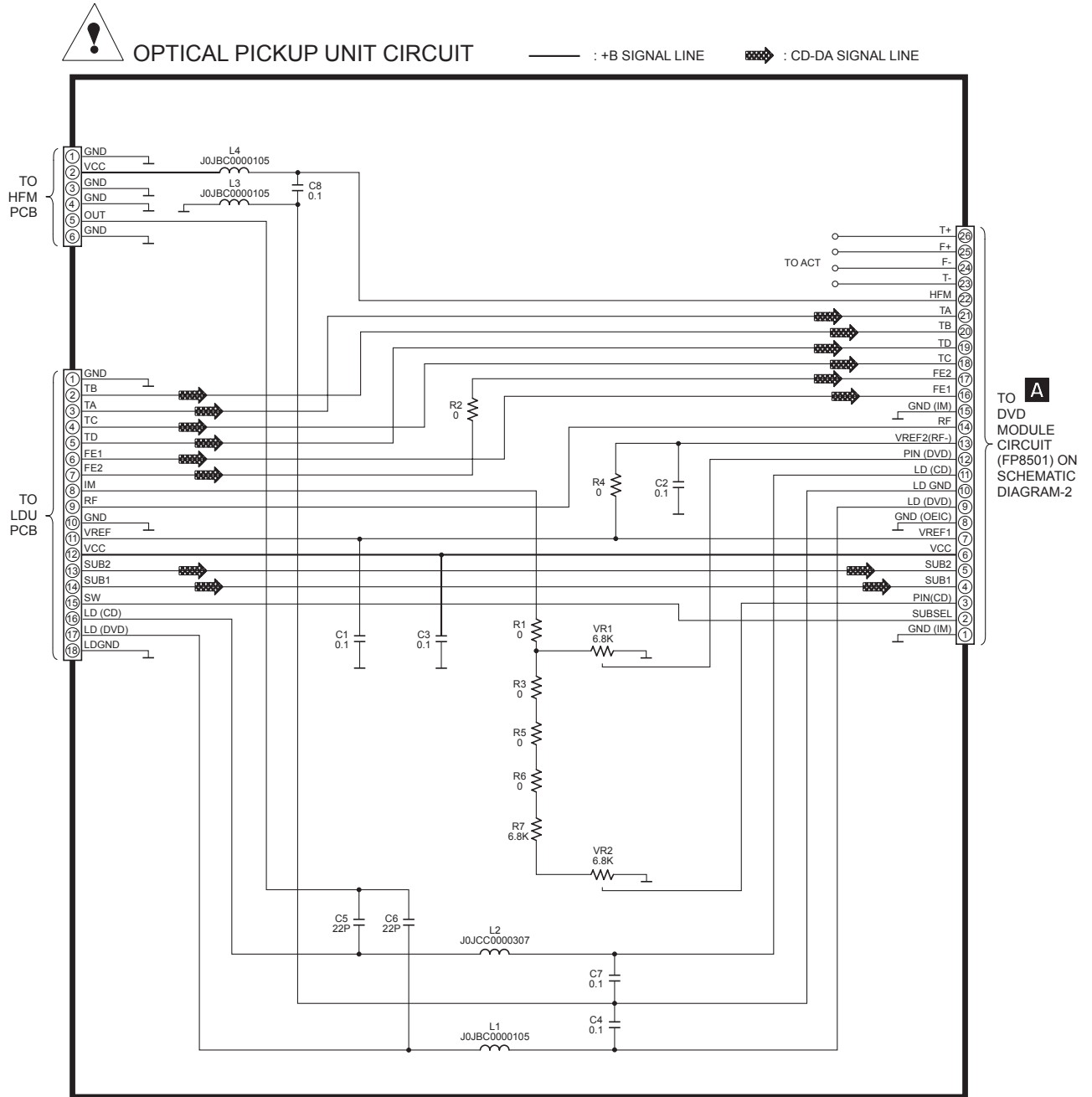
IC, LSI and VLSI are sensitive to static electricity.

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.

21.1. Optical Pickup Unit Circuit

SCHEMATIC DIAGRAM - 1



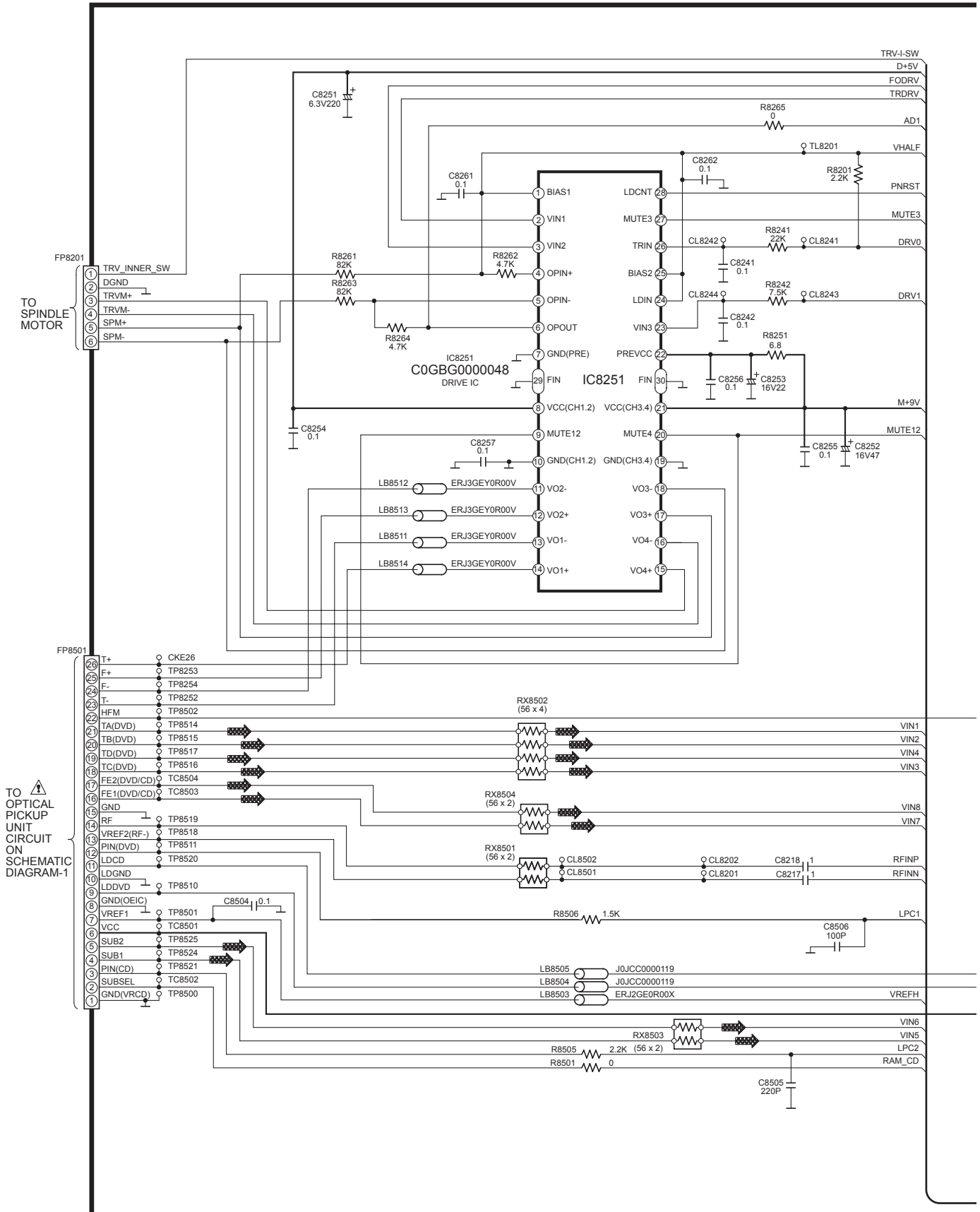
21.2. (A) DVD Module (DV2) Circuit

SCHEMATIC DIAGRAM - 2

A

DVD MODULE (DV2) CIRCUIT

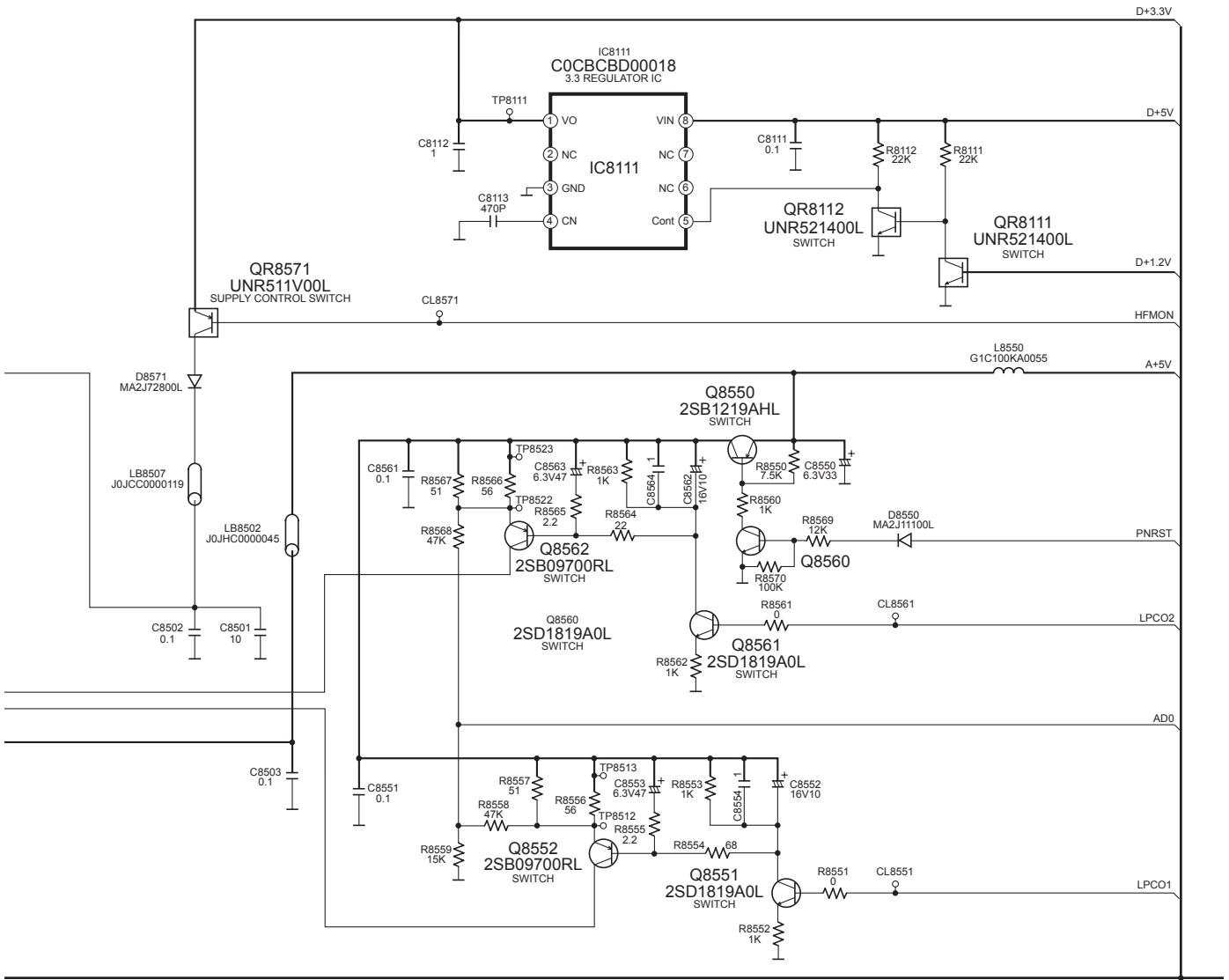
— : +B SIGNAL LINE  : CD-DA SIGNAL LINE



SCHEMATIC DIAGRAM - 3




A DVD MODULE (DV2) CIRCUIT

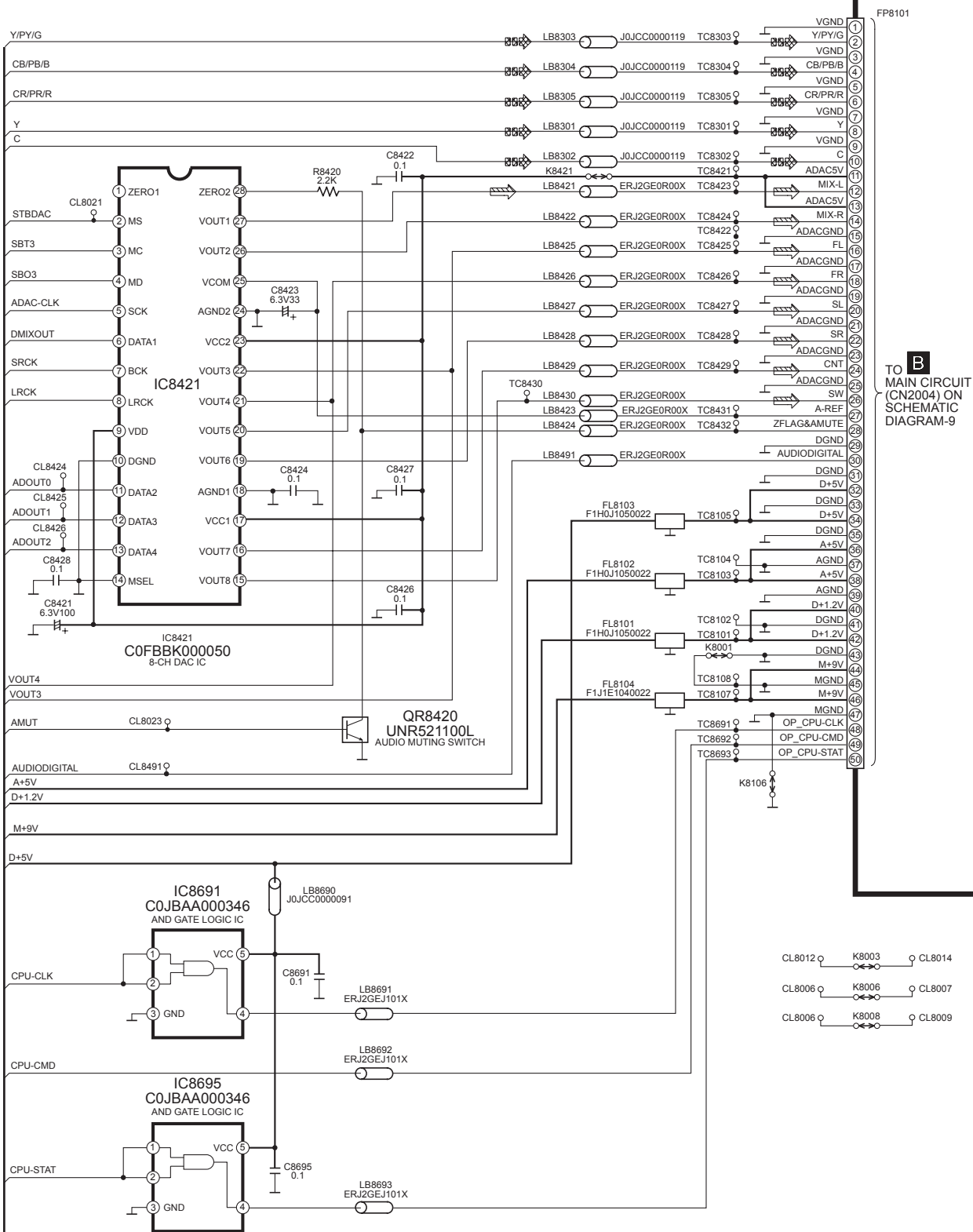
— : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 4

A DVD MODULE (DV2) CIRCUIT

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

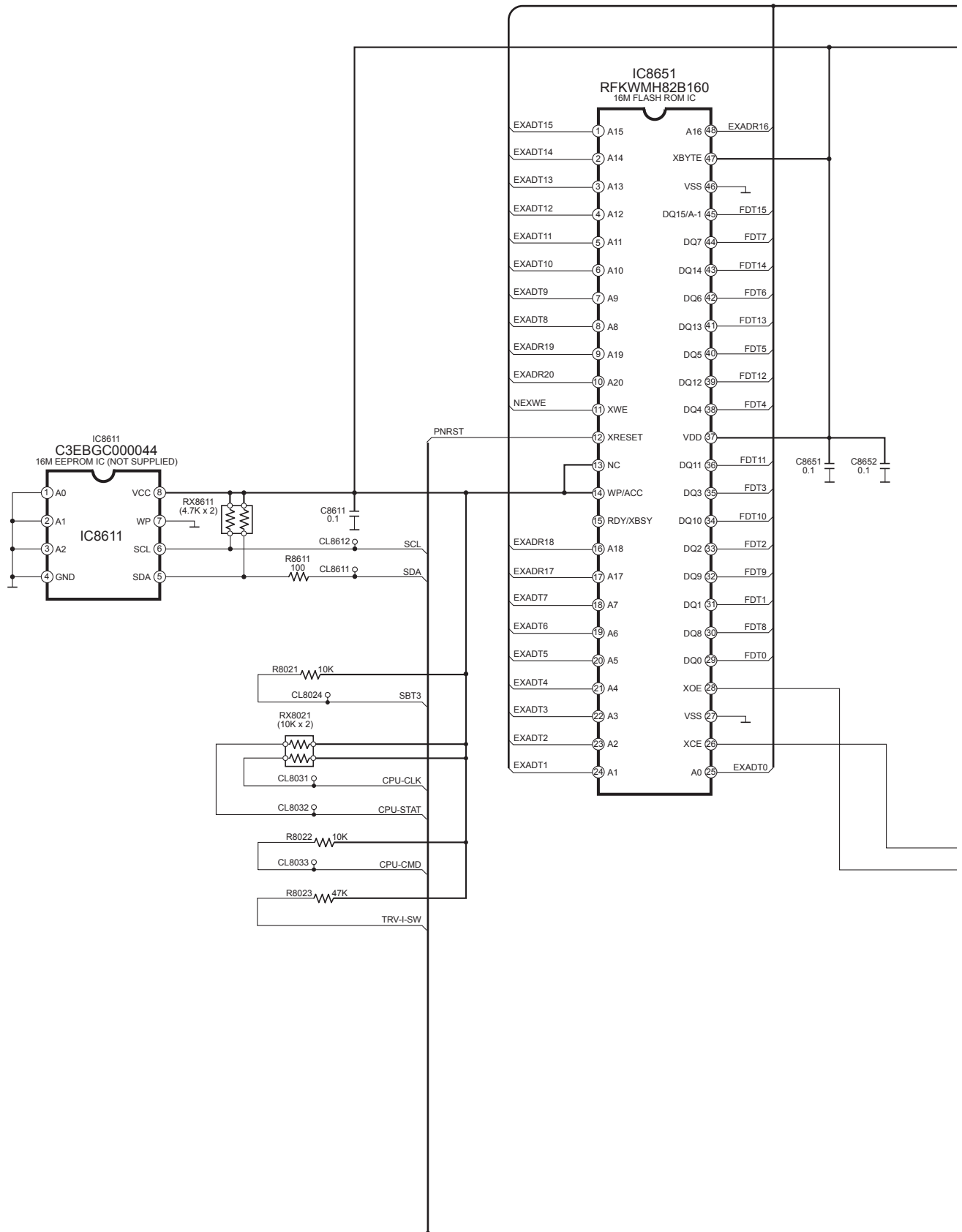


B
 TO MAIN CIRCUIT
 (CN2004) ON
 SCHEMATIC
 DIAGRAM-9

SCHEMATIC DIAGRAM - 5

A DVD MODULE (DV2) CIRCUIT

— : +B SIGNAL LINE

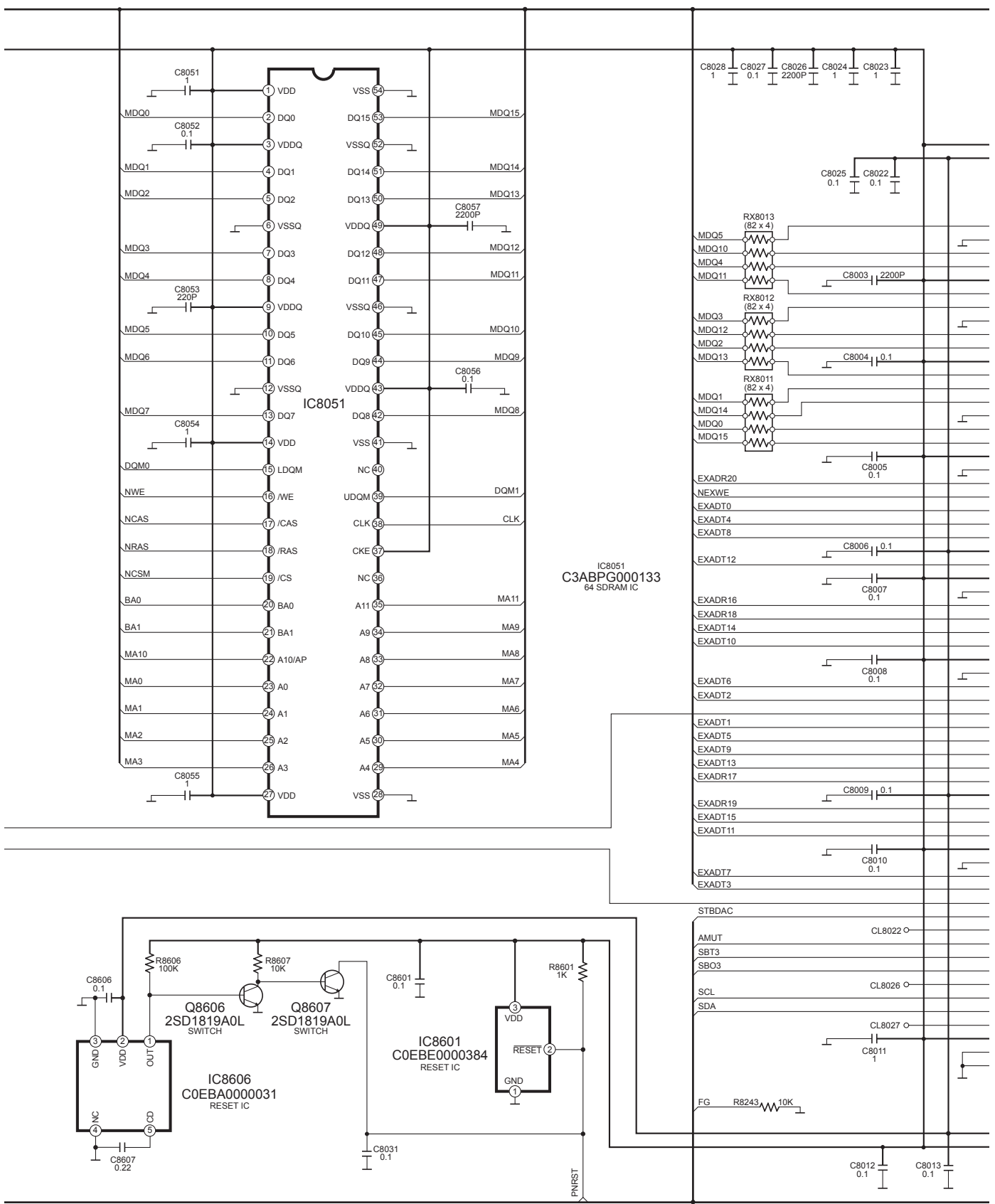


SCHEMATIC DIAGRAM - 6

A

DVD MODULE (DV2) CIRCUIT

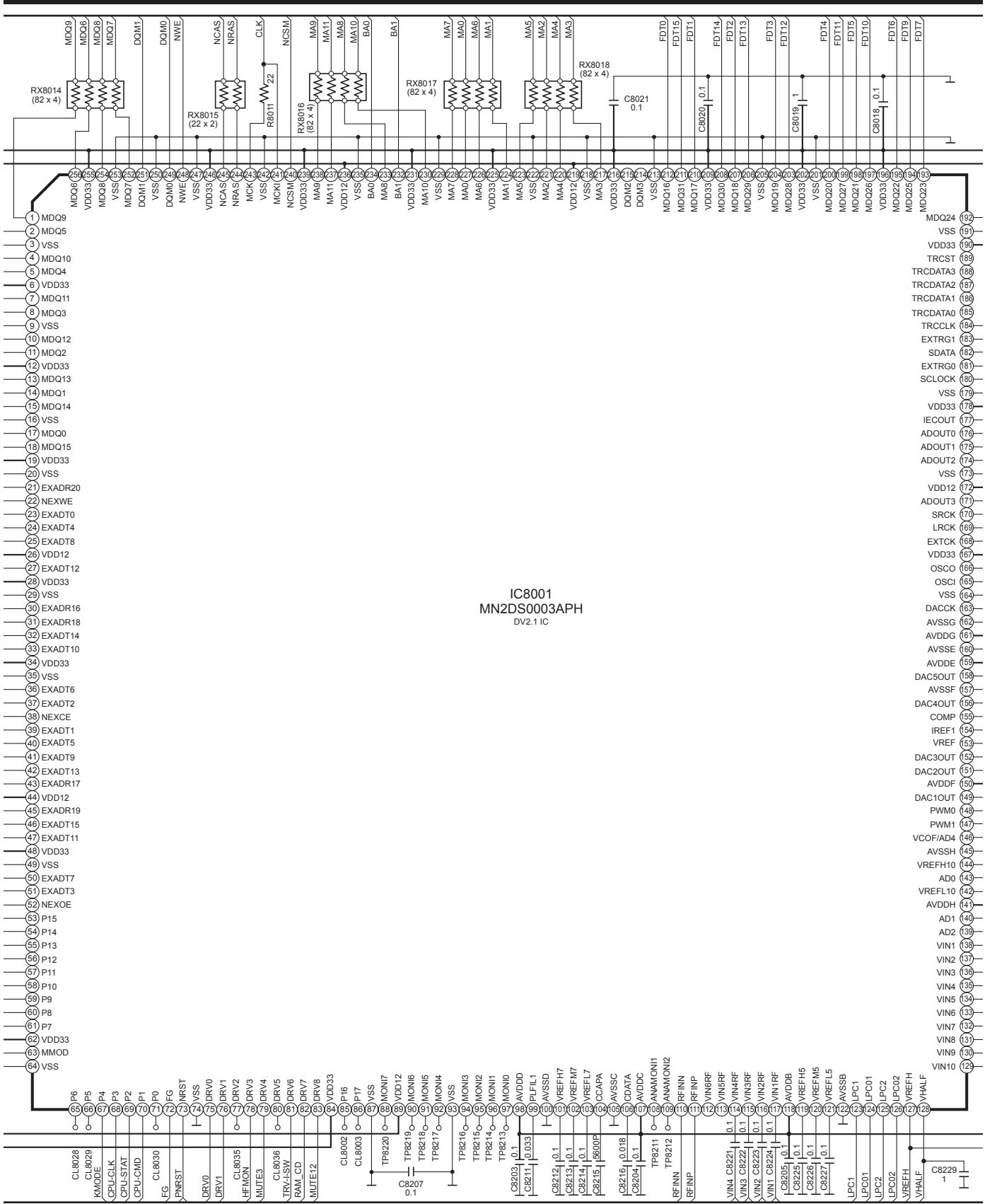
— : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 7

A DVD MODULE (DV2) CIRCUIT

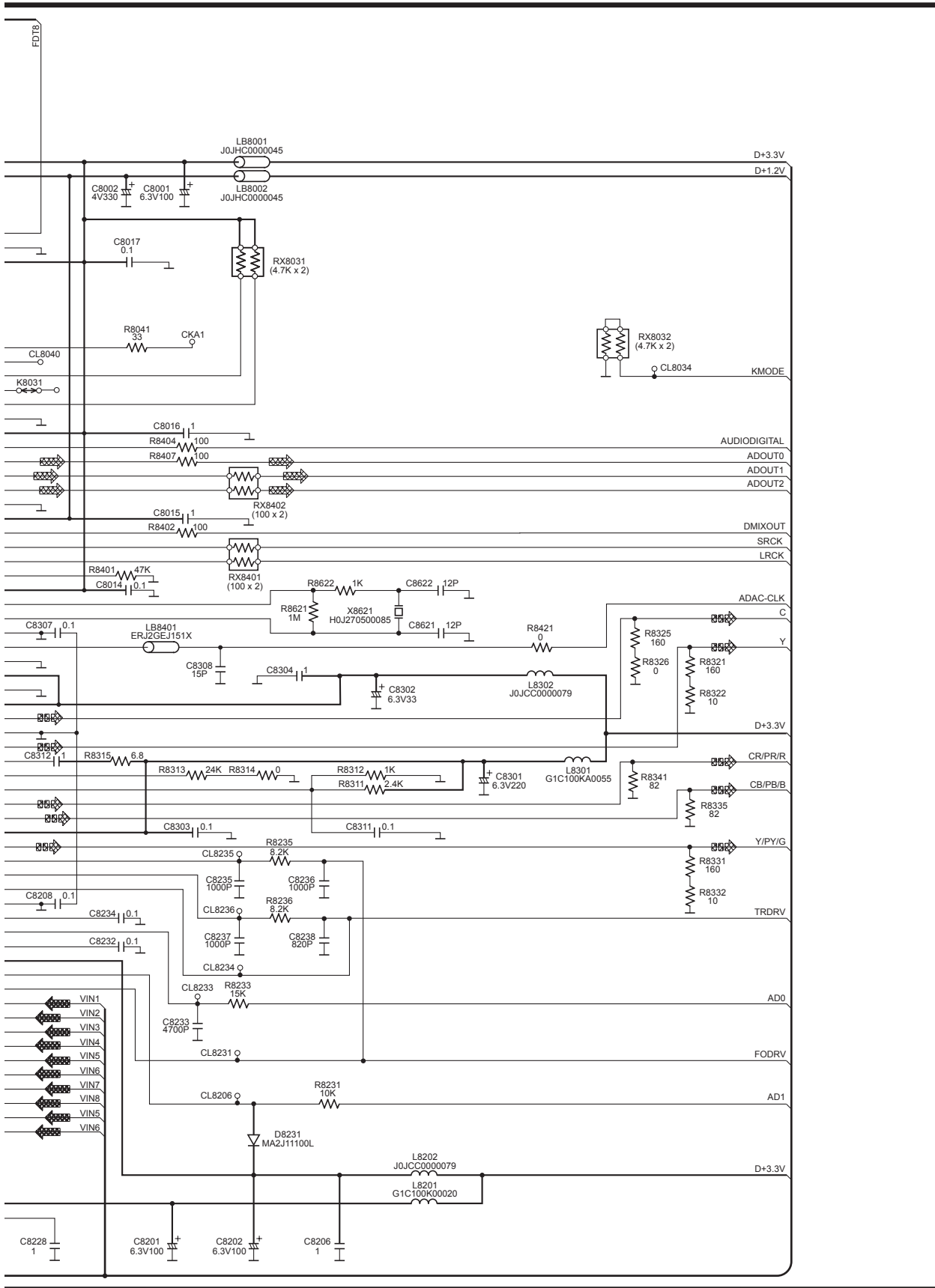
— : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 8

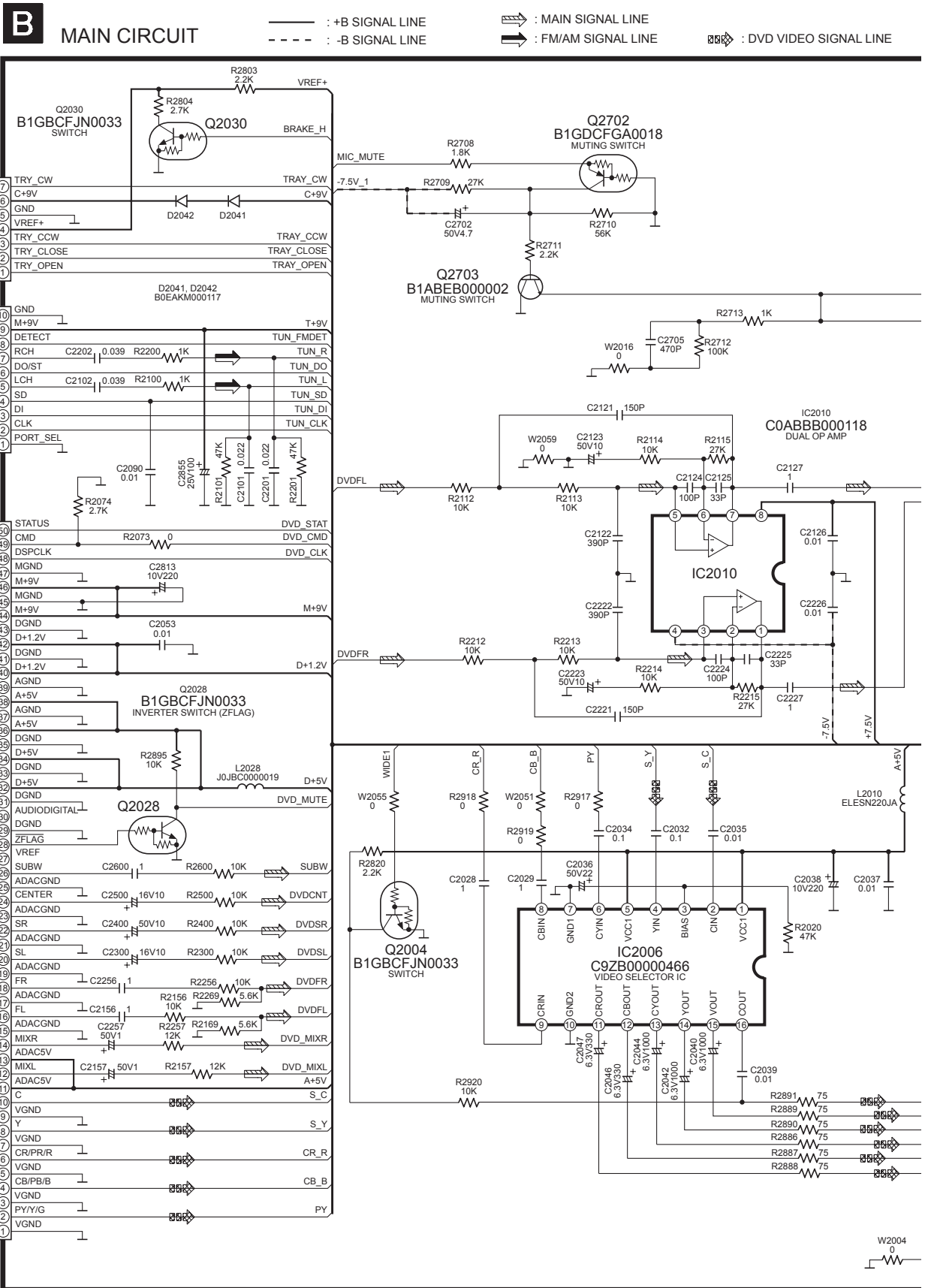
A DVD MODULE (DV2) CIRCUIT

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



21.3. (B) Main Circuit

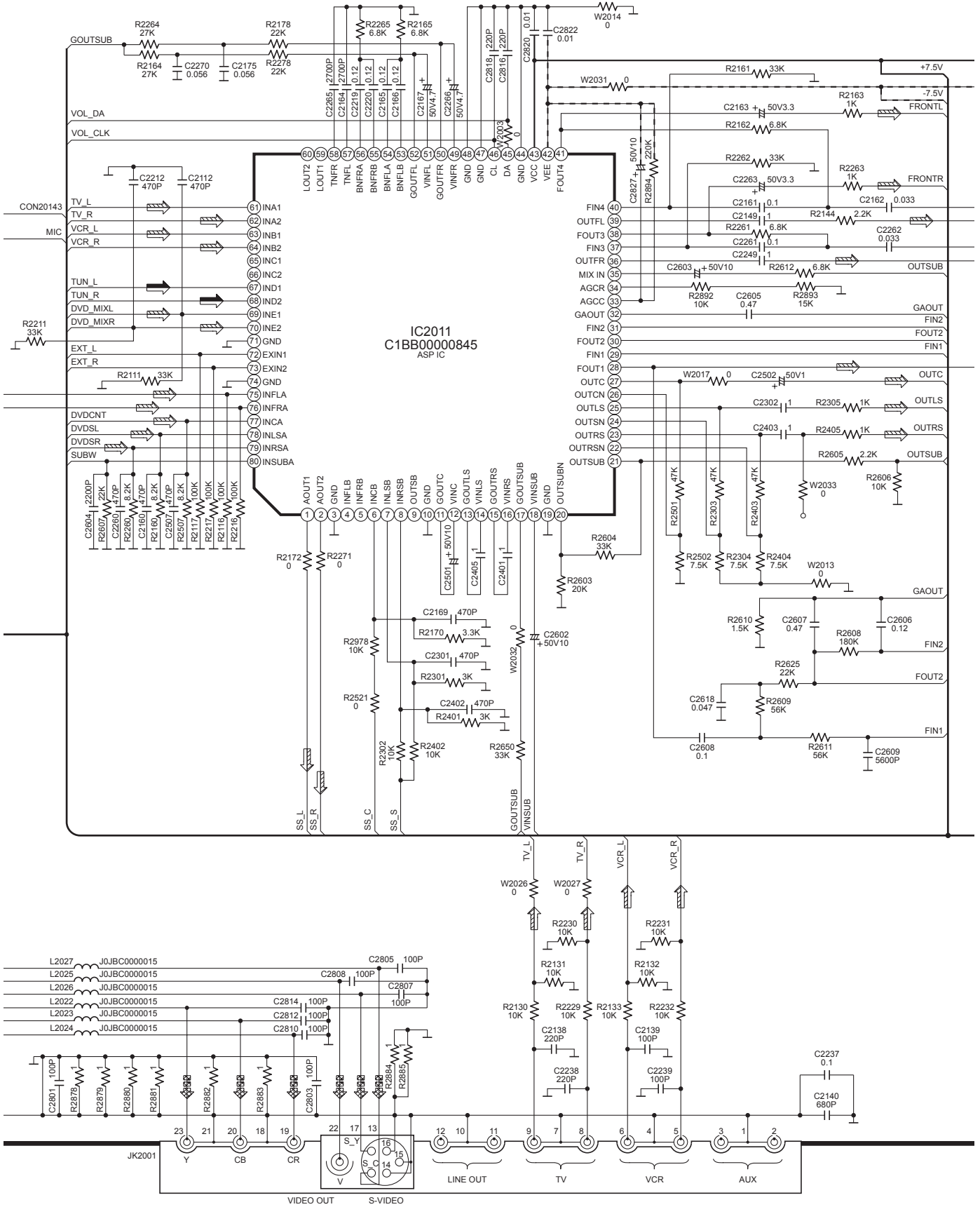
SCHEMATIC DIAGRAM - 9



SCHEMATIC DIAGRAM - 10

B MAIN CIRCUIT

- : +B SIGNAL LINE
- - - : -B SIGNAL LINE
- ⇒ : MAIN SIGNAL LINE
- ⇒ : FM/AM SIGNAL LINE
- ⇒ : DVD VIDEO SIGNAL LINE

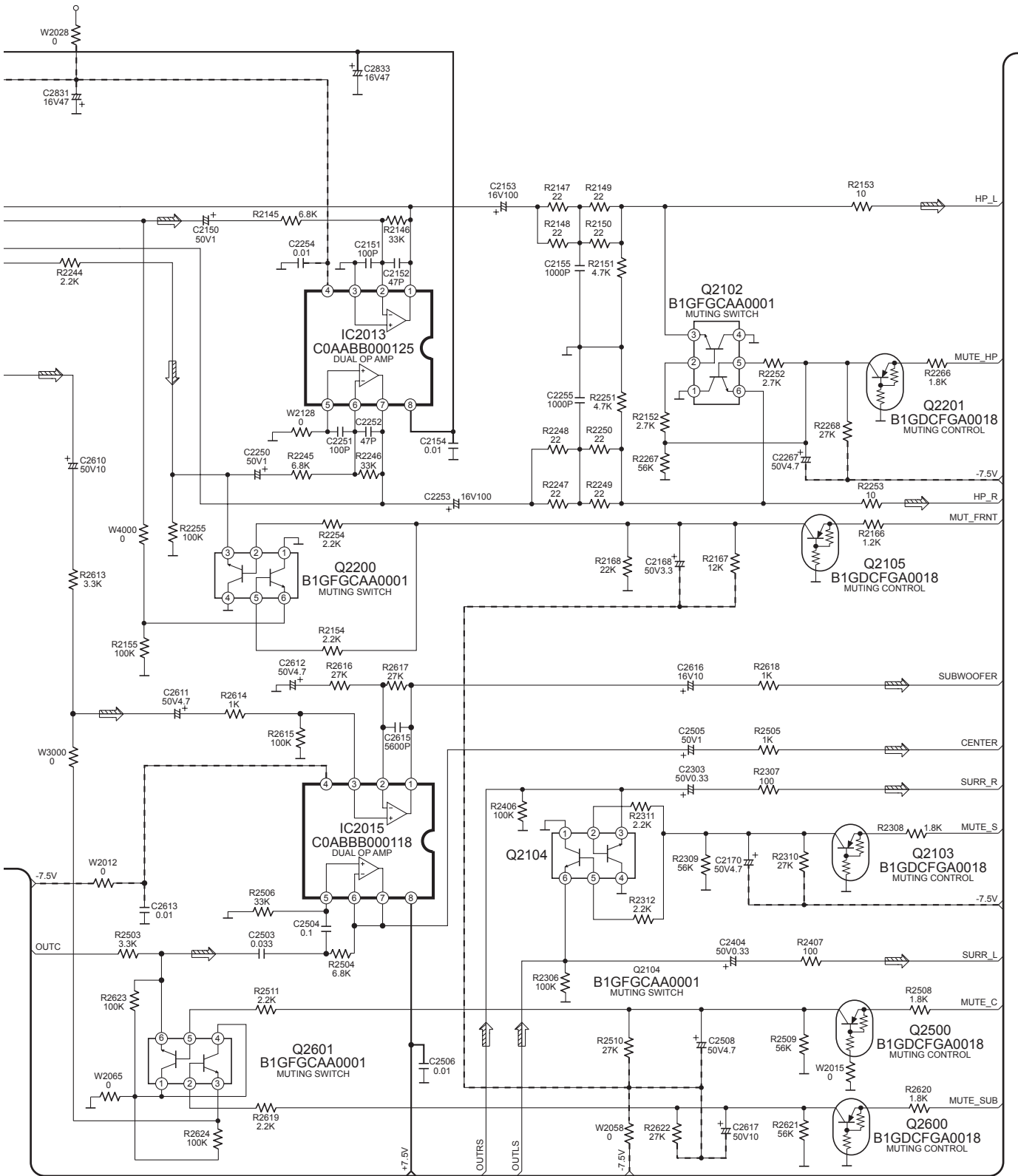


SCHEMATIC DIAGRAM - 11

B MAIN CIRCUIT

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

⇒ : MAIN SIGNAL LINE

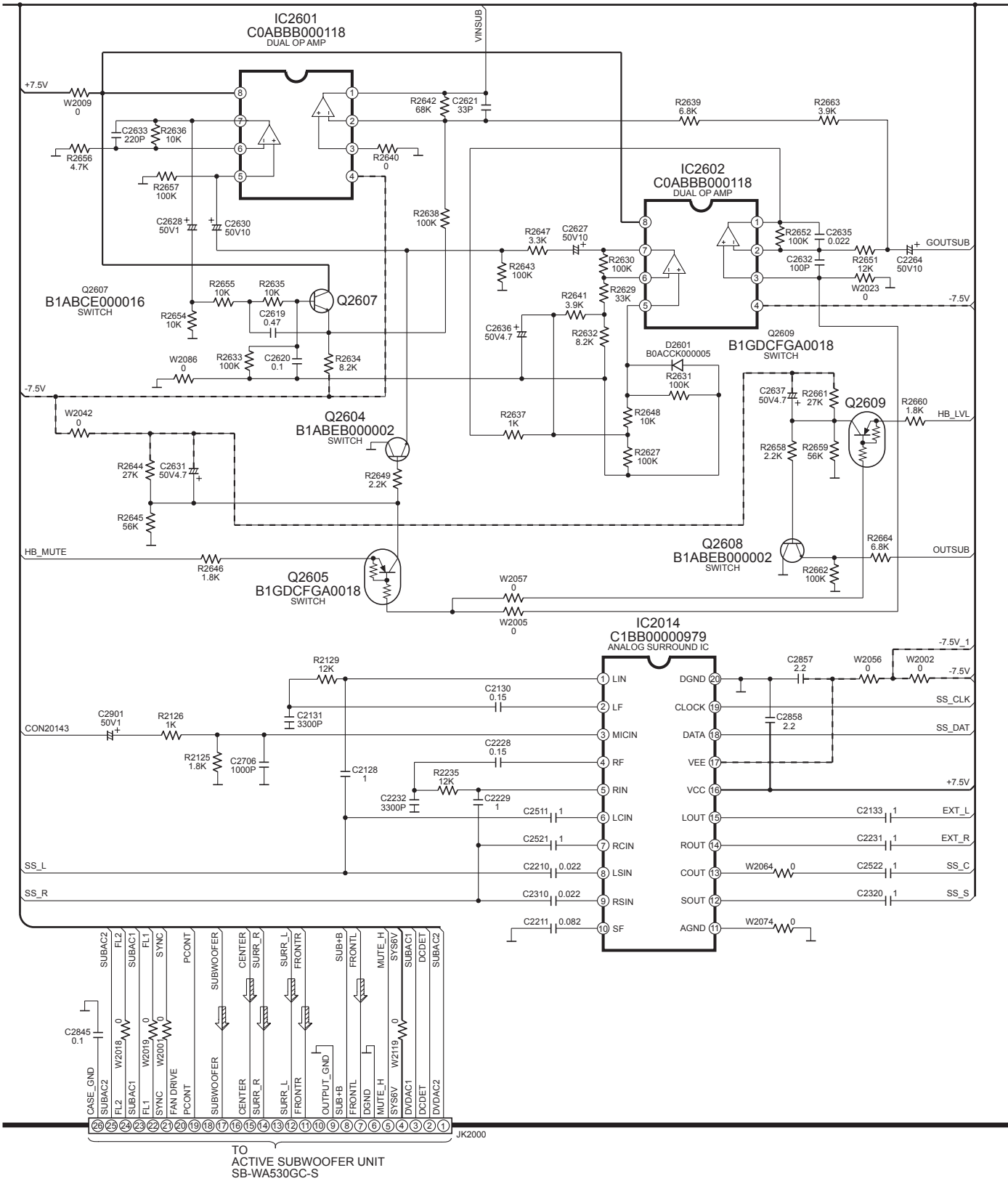


SCHEMATIC DIAGRAM - 12

B MAIN CIRCUIT

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

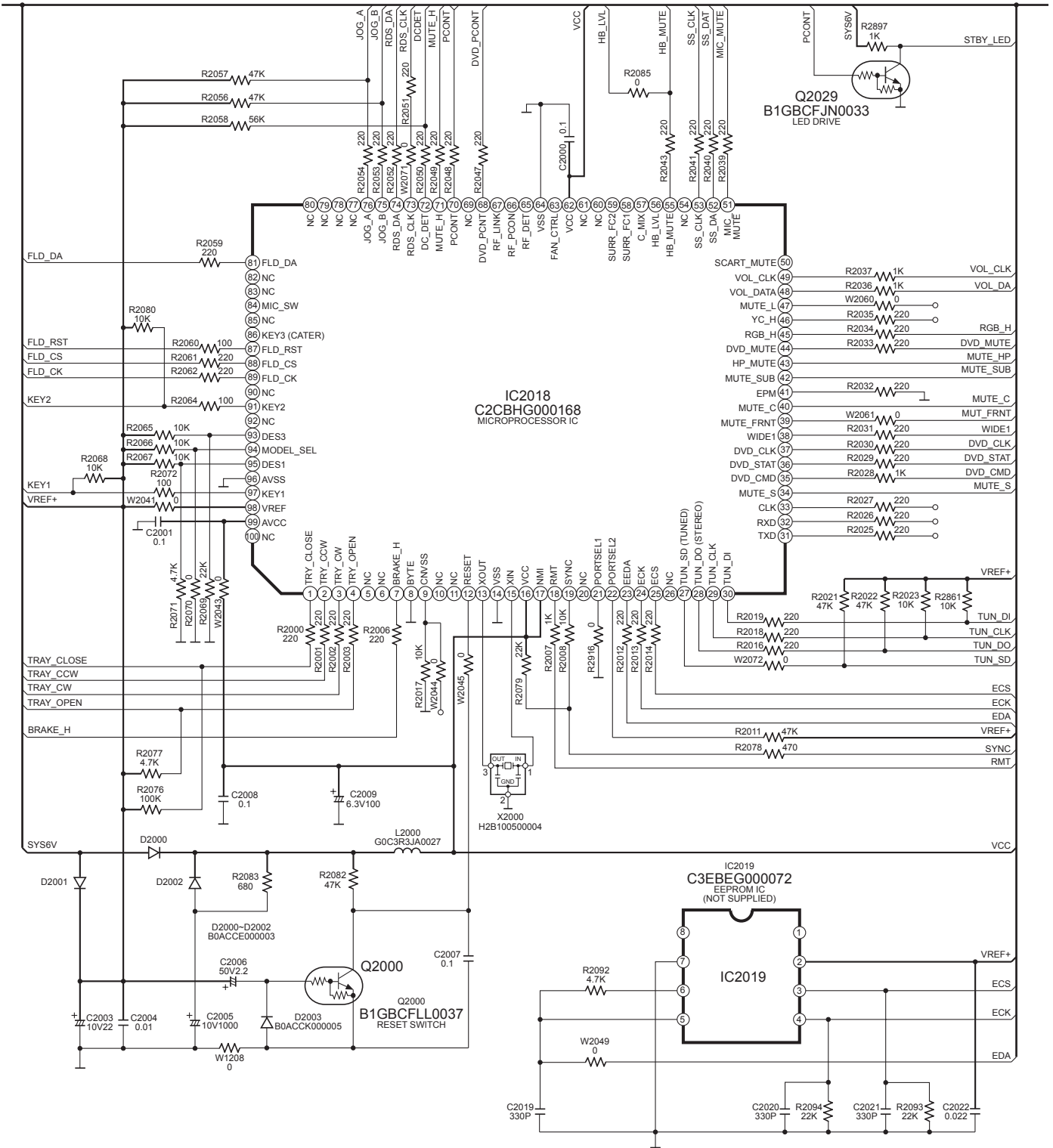
⇒ : MAIN SIGNAL LINE



SCHEMATIC DIAGRAM - 13

B MAIN CIRCUIT

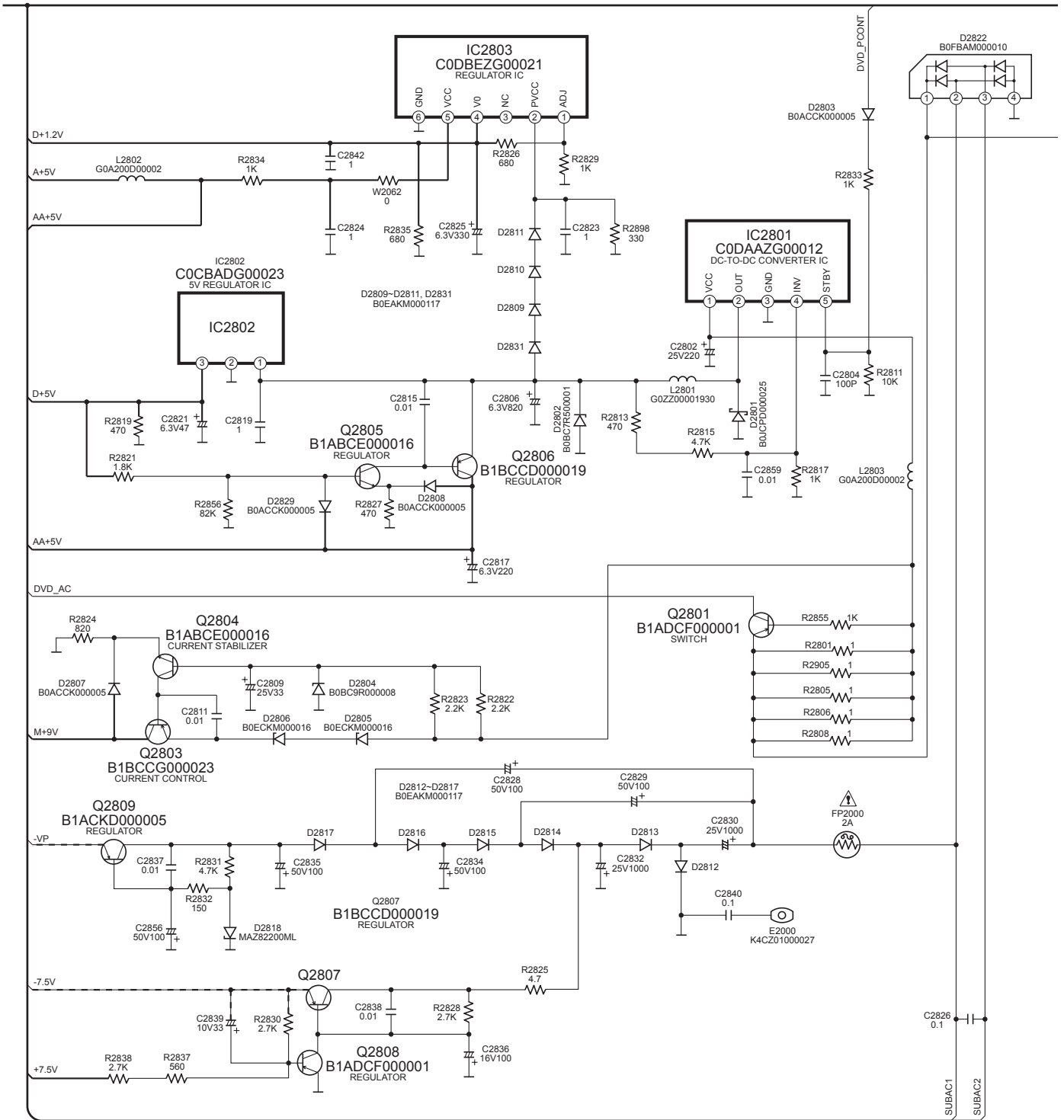
— : +B SIGNAL LINE



SCHEMATIC DIAGRAM - 14

B MAIN CIRCUIT

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

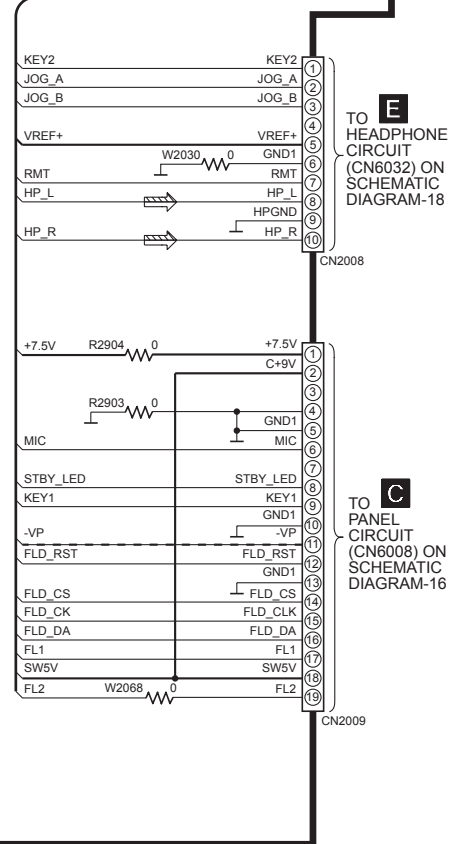
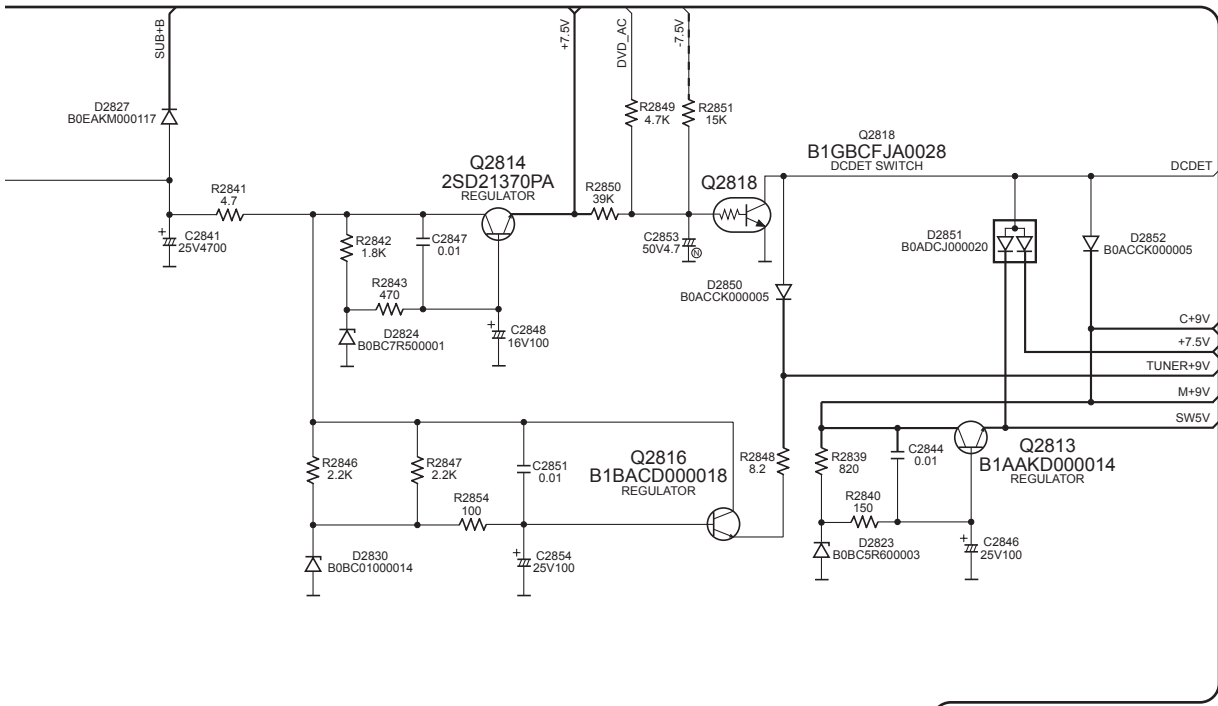


SCHEMATIC DIAGRAM - 15

B MAIN CIRCUIT

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

⇒ : MAIN SIGNAL LINE



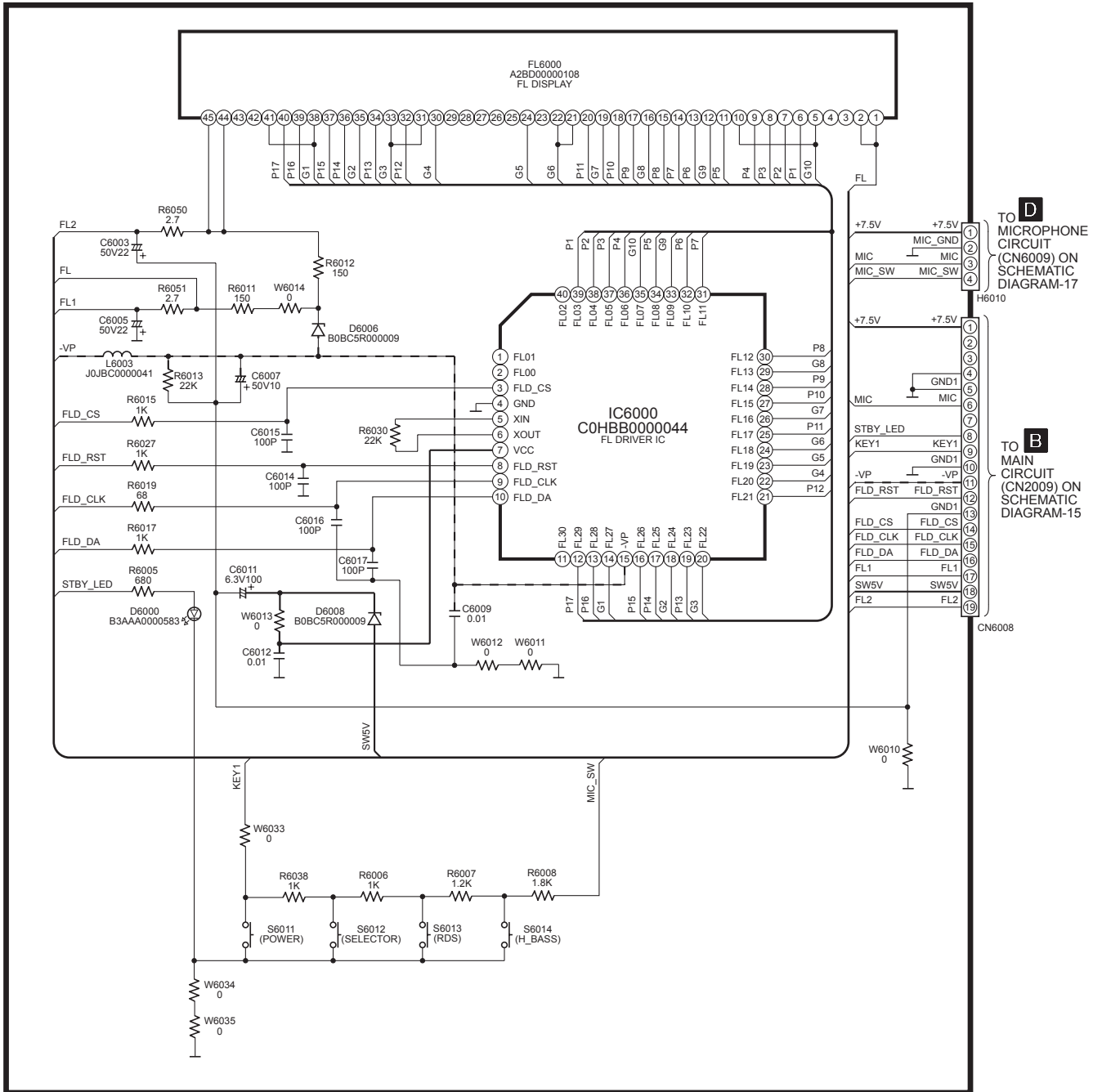
E TO HEADPHONE CIRCUIT (CN6032) ON SCHEMATIC DIAGRAM-18

C TO PANEL CIRCUIT (CN6008) ON SCHEMATIC DIAGRAM-16

21.4. (C) Panel Circuit

SCHEMATIC DIAGRAM - 16

C PANEL CIRCUIT
 - - - : -B SIGNAL LINE
 ——— : +B SIGNAL LINE



21.5. (D) Microphone Circuit

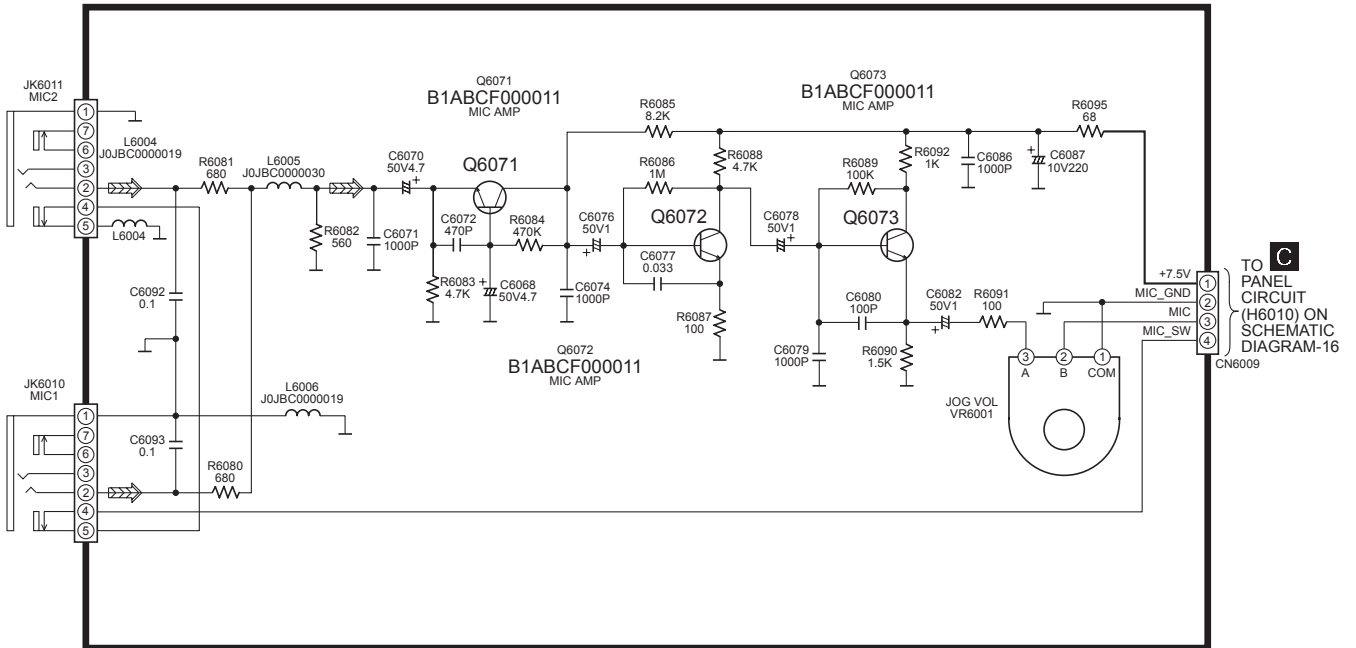
SCHEMATIC DIAGRAM - 17

D

MIC CIRCUIT

— : +B SIGNAL LINE

⇒⇒ : MIC SIGNAL LINE

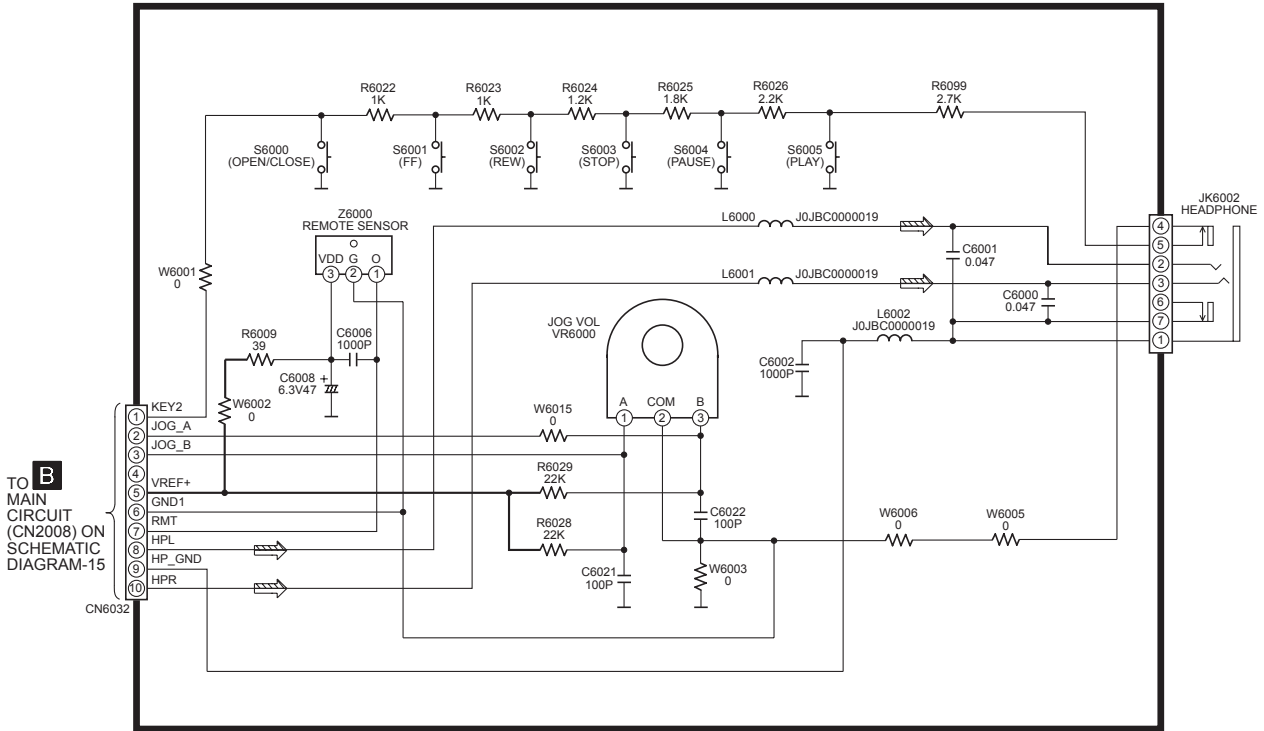


21.6. (E) Headphone Circuit & (F) CD Tray Loading Circuit

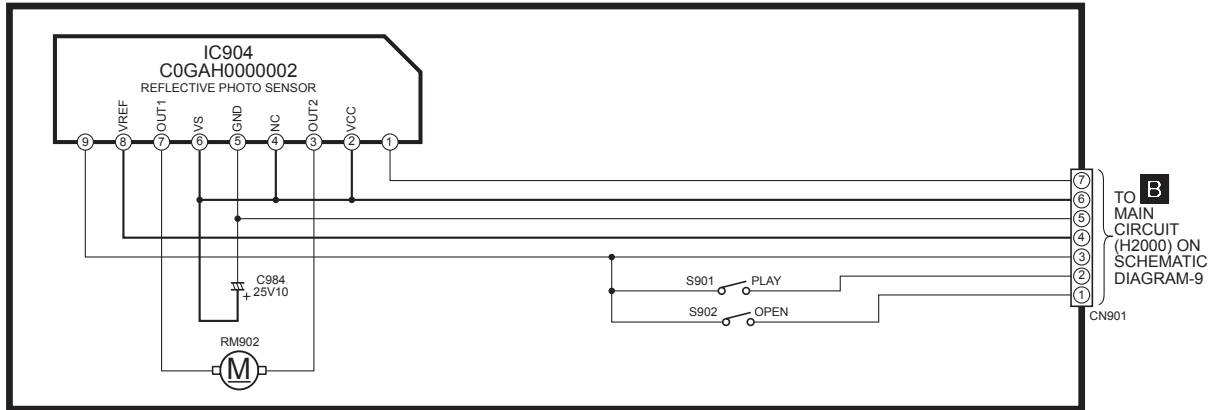
SCHEMATIC DIAGRAM - 18

E HEADPHONE CIRCUIT

⇒ : MAIN SIGNAL LINE — : +B SIGNAL LINE

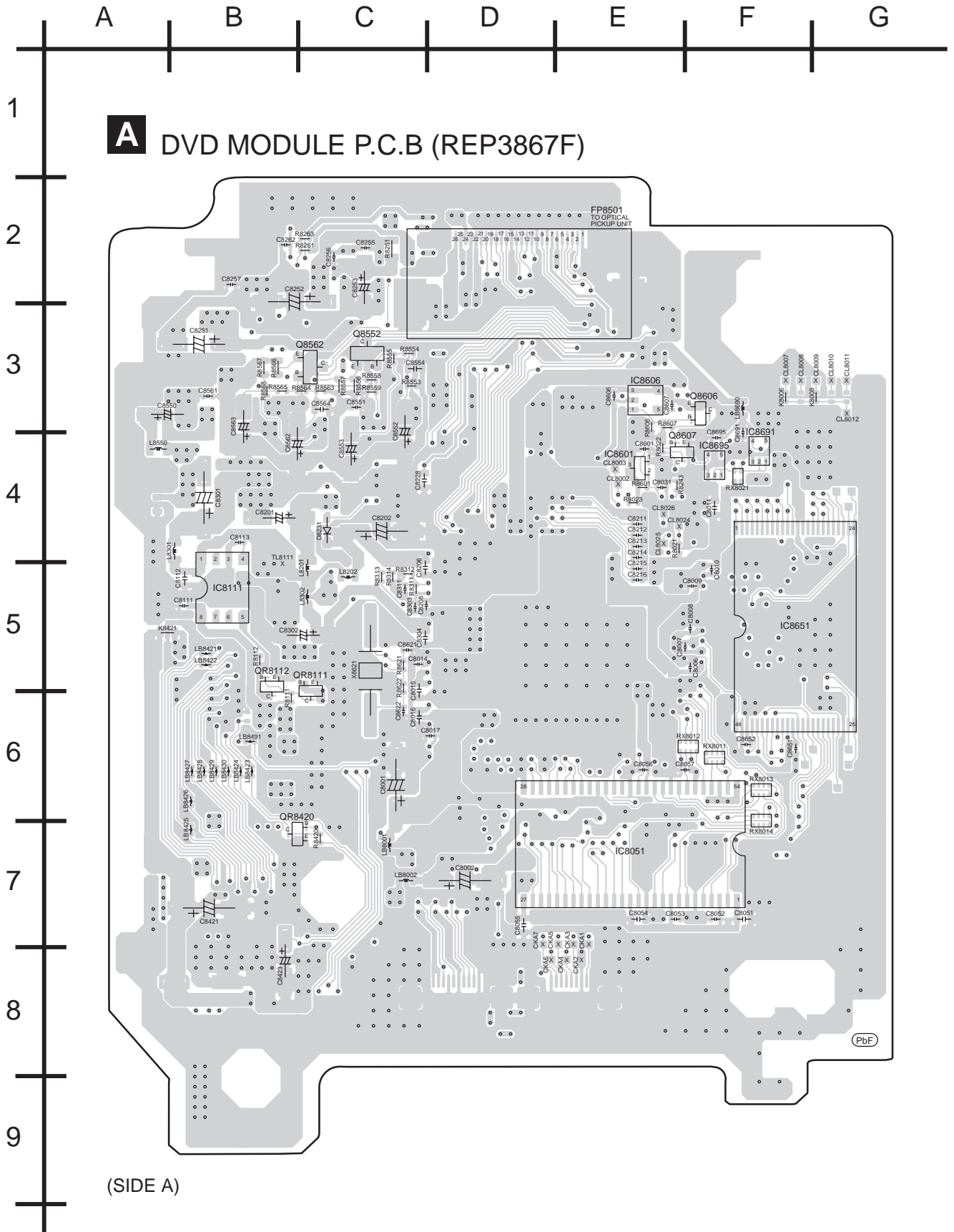


F CD TRAY LOADING CIRCUIT



22 Printed Circuit Board

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



A B C D E F G

1

A DVD MODULE P.C.B (REP3867F)

2

3

4

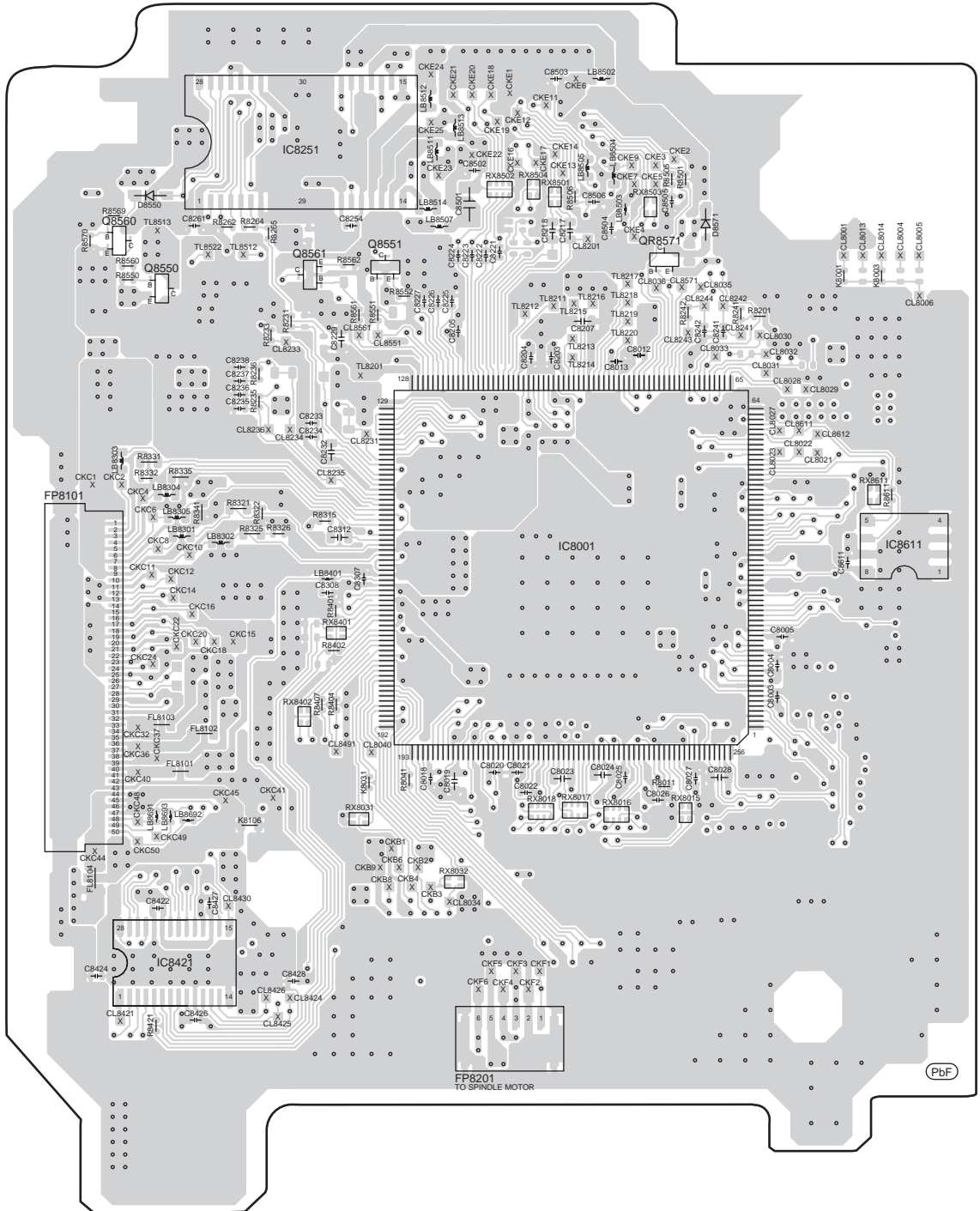
5

6

7

8

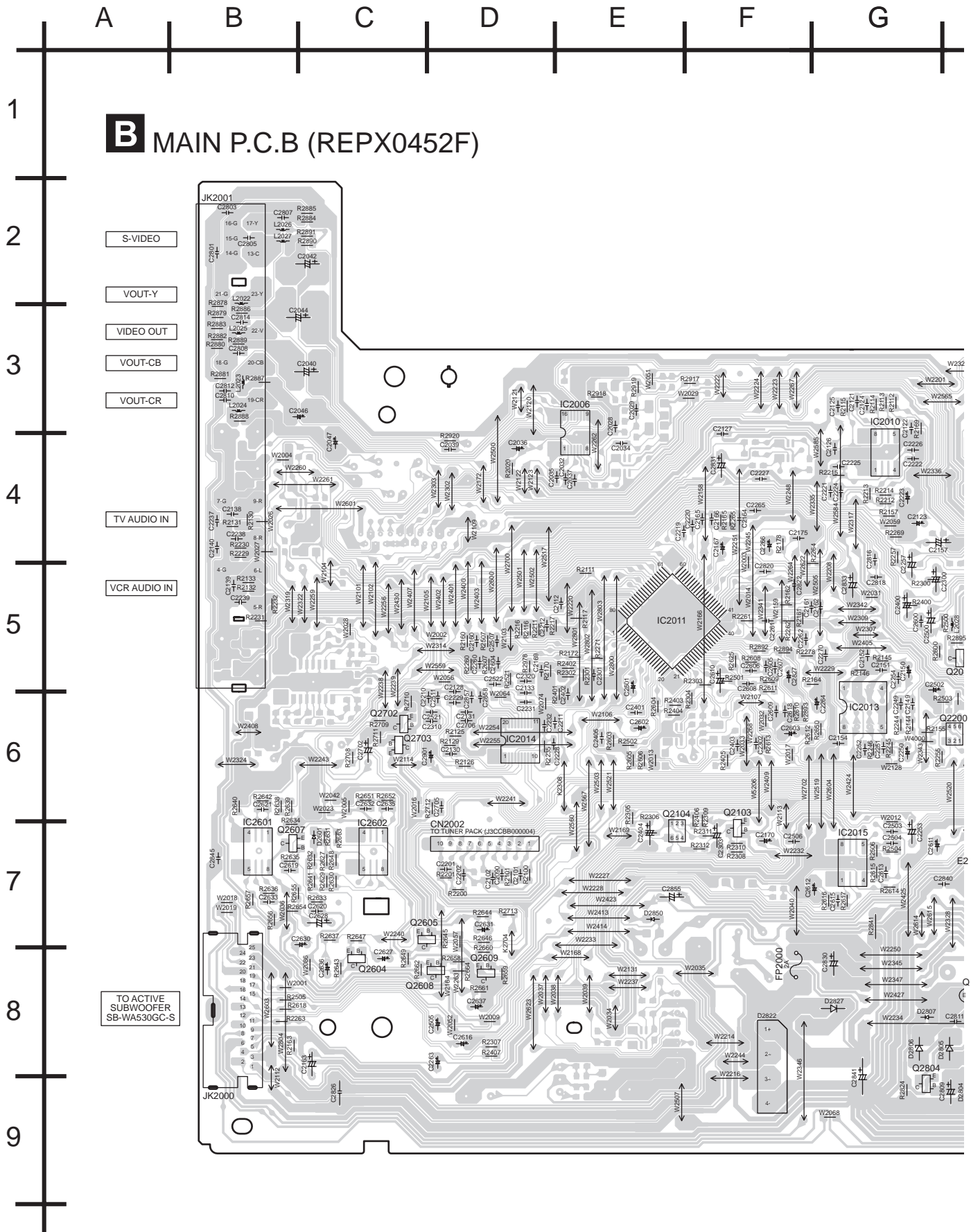
9



(SIDE B)

22.2. (B) Main P.C.B.

B MAIN P.C.B (REPX0452F)



G

H

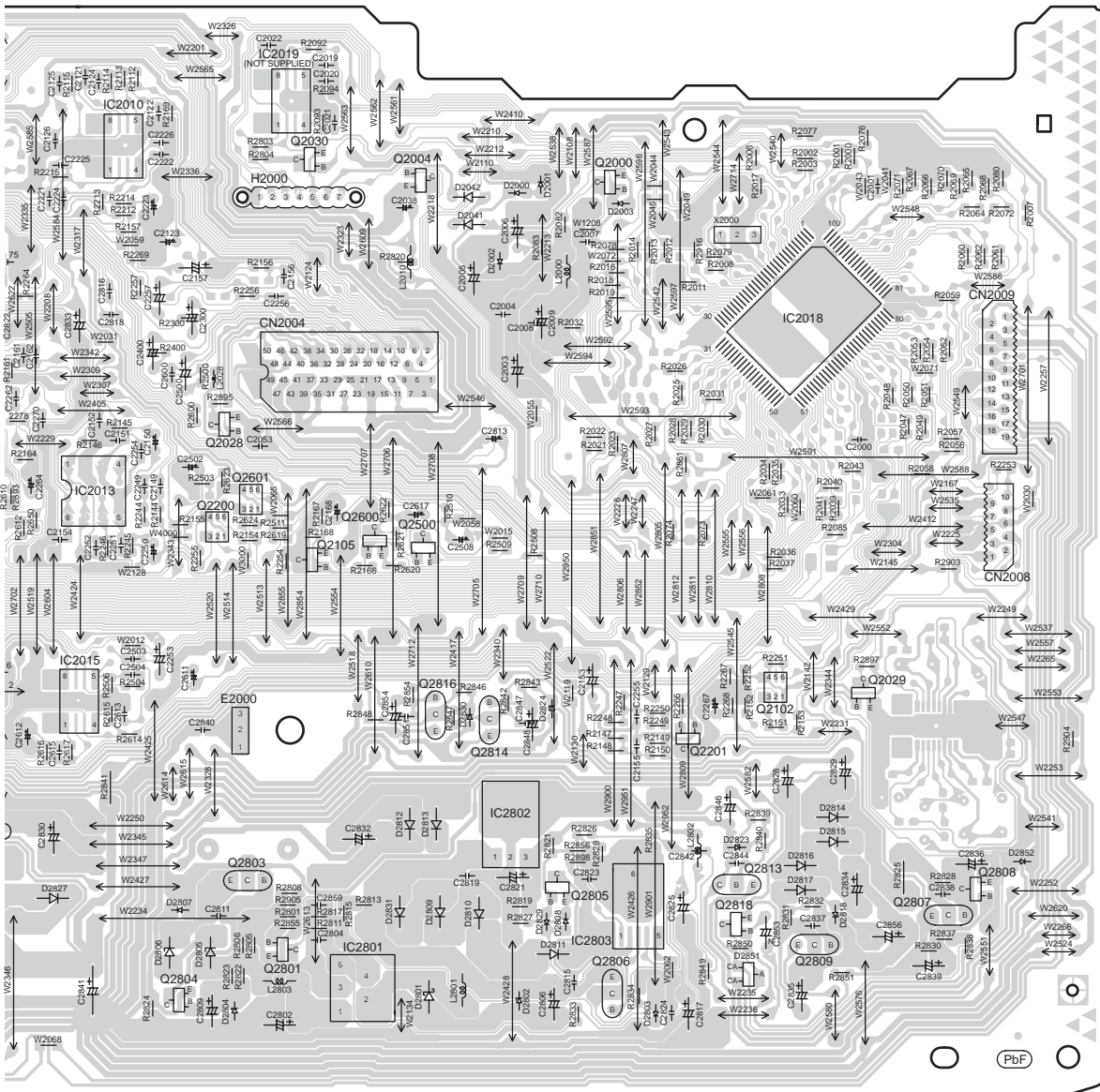
I

J

K

L

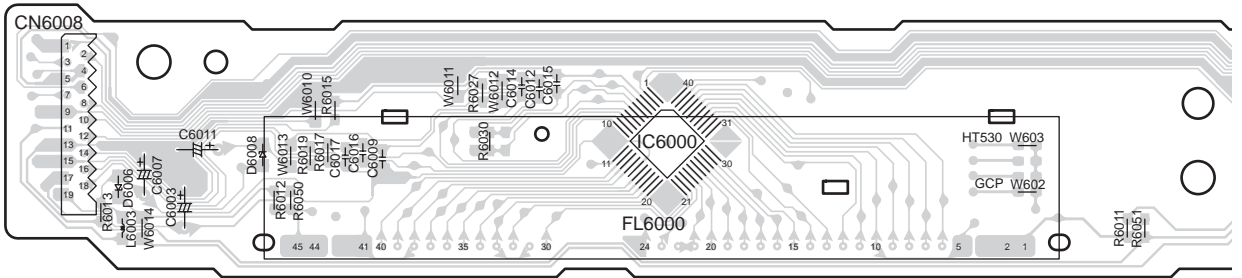
M



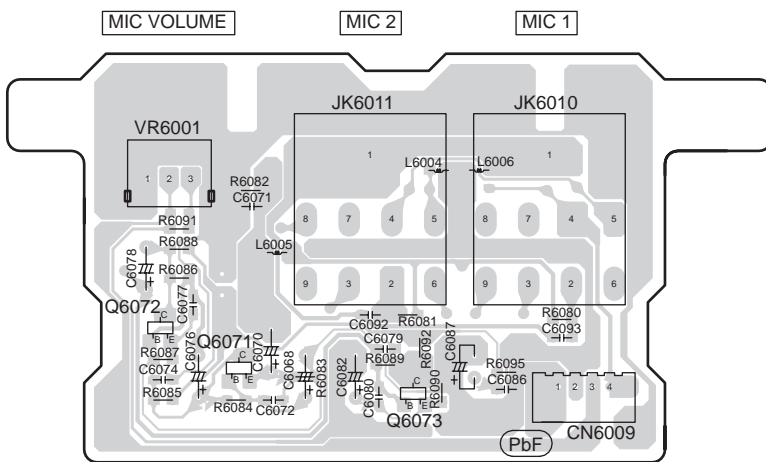
22.3. (C) Panel P.C.B., (D) Mic P.C.B. & (E) Headphone P.C.B.

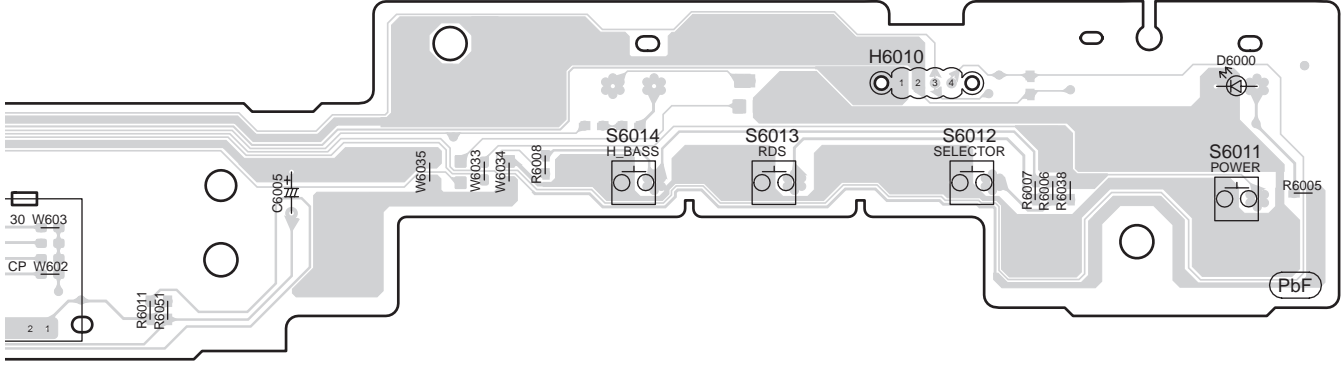


C PANEL P.C.B (REPX0456B)

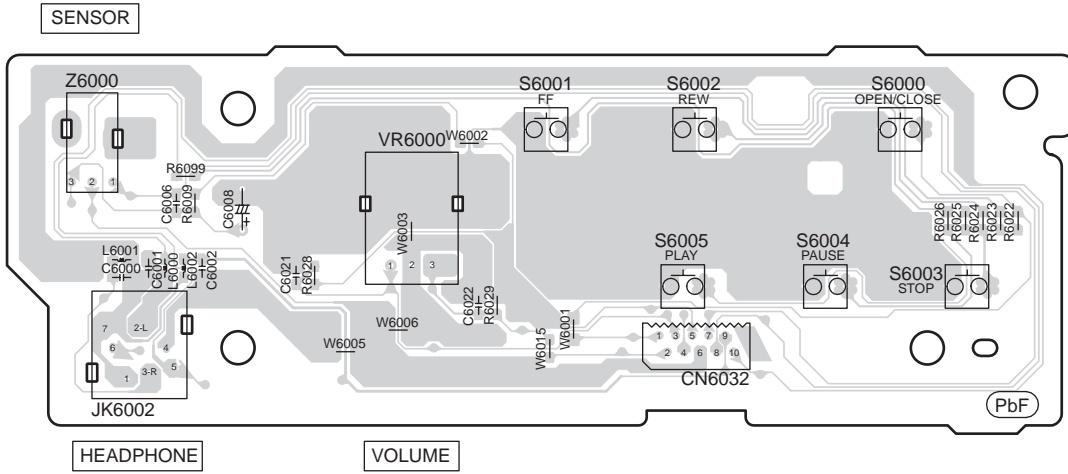


D MIC P.C.B (REPX0452F)

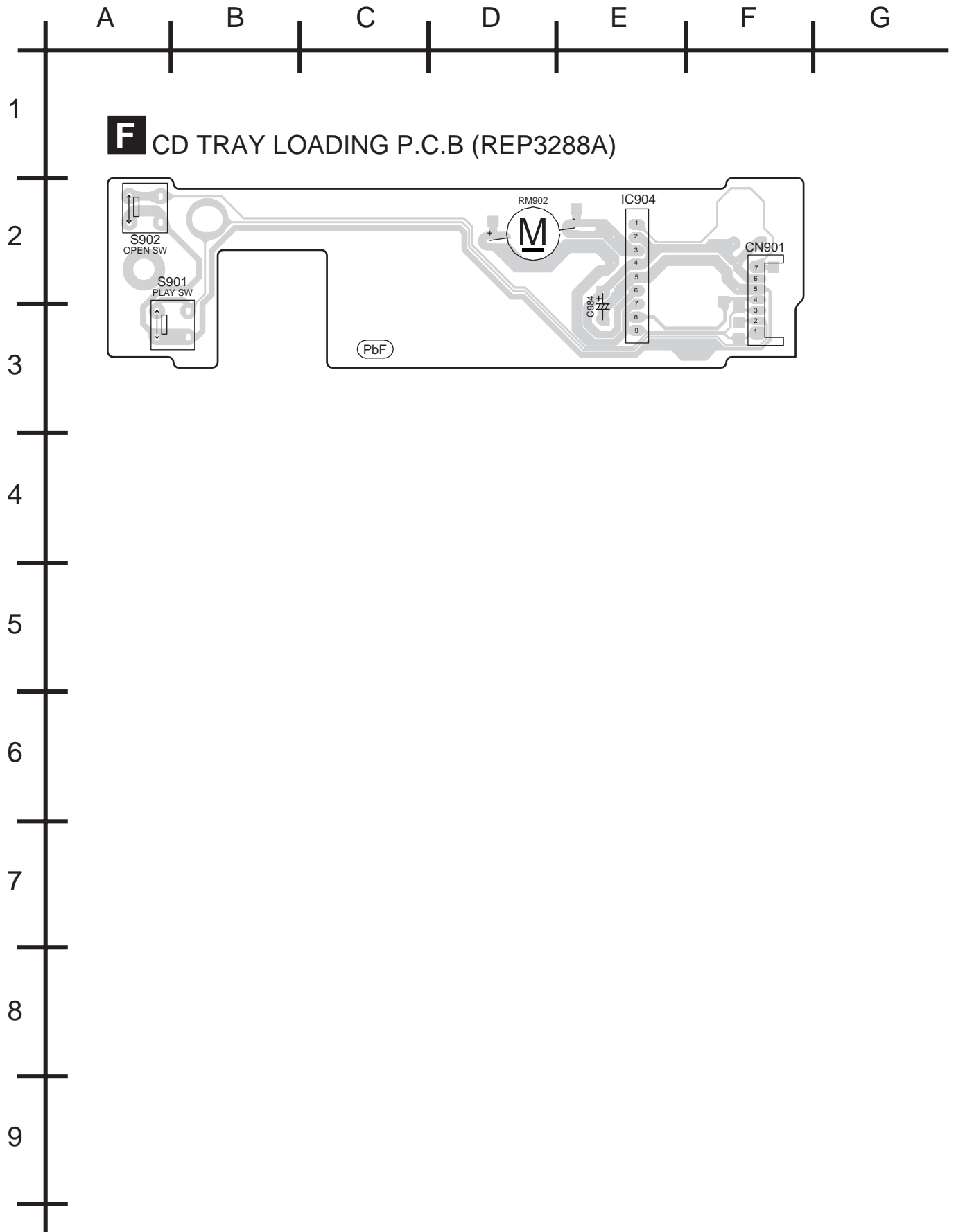




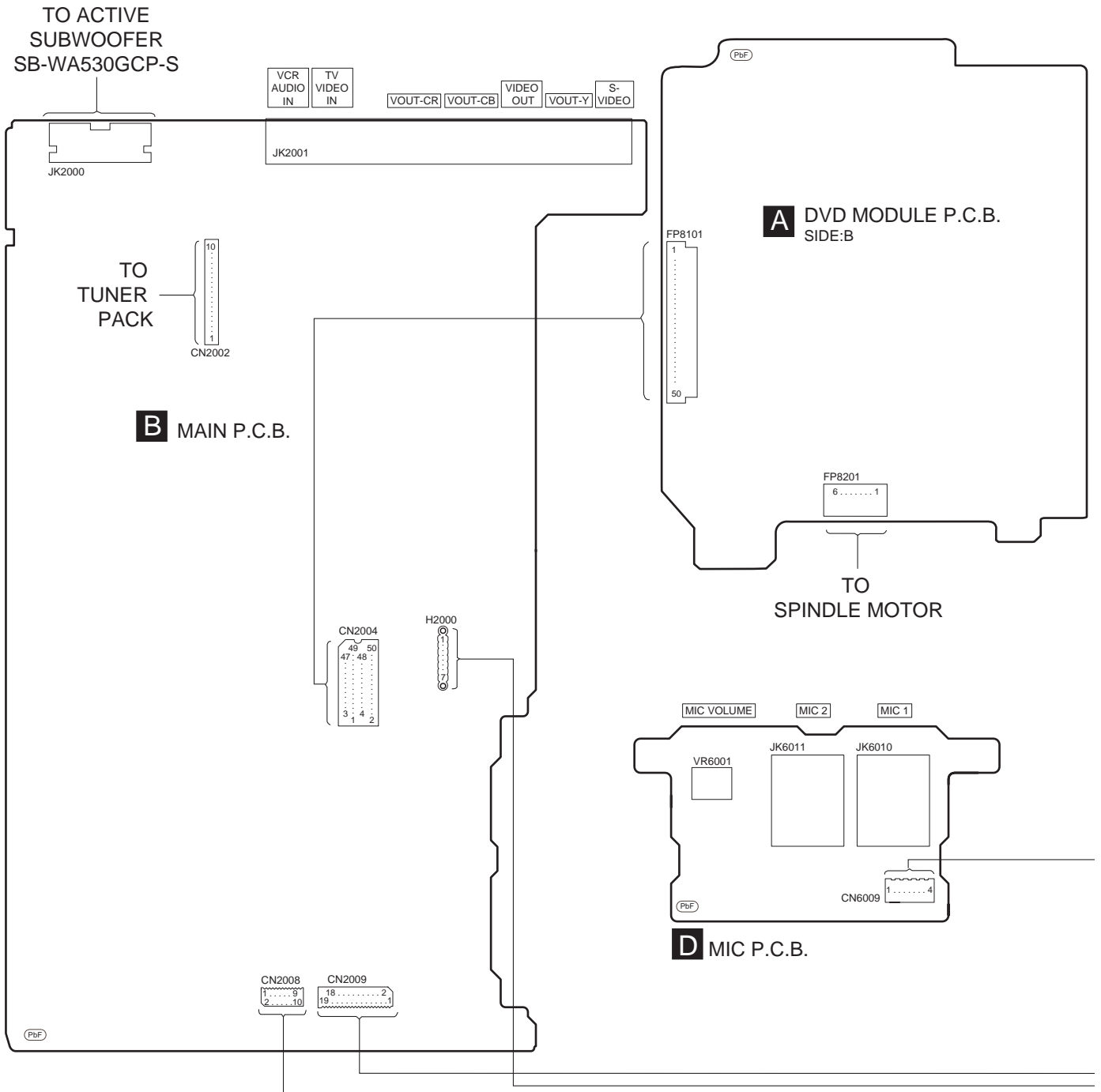
E HEADPHONE P.C.B (REPX0456B)

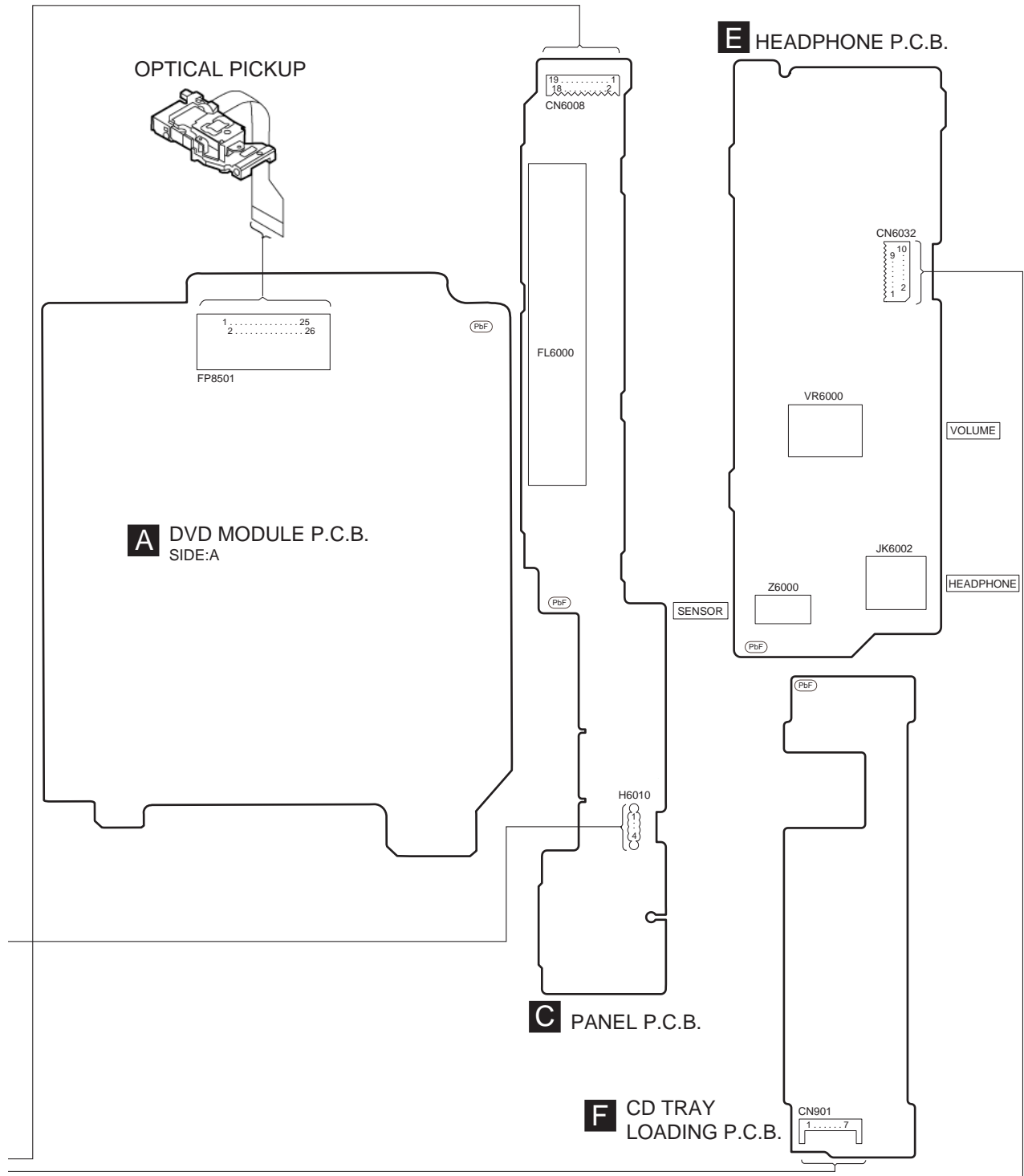


22.4. (F) CD Tray Loading P.C.B.

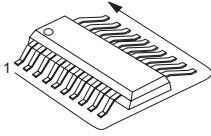
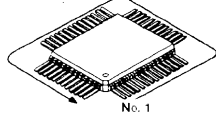
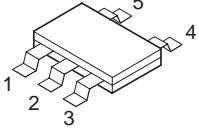
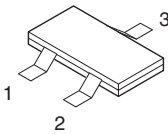
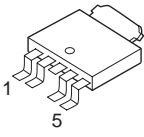
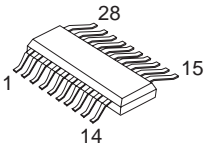
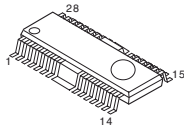
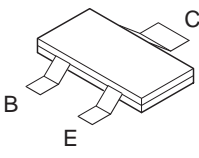
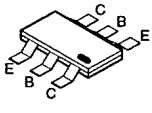
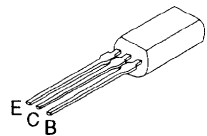
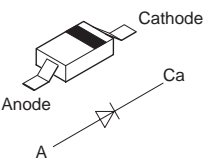
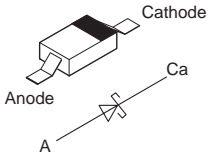
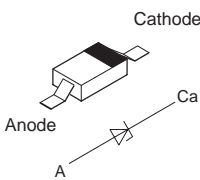


23 Wiring Connection Diagram





24 Illustration of IC's, Transistors and Diodes

<p>RFKWMH82B160 C3ABPG000133 (54p)</p> 	<p>C0AABB000125</p> 	<p>C0ABBB000118</p> 	<p>C1BB00000845 (80p) C0HBB0000044 (48p) C2CBHG000168 MN2DS0003APH (256p)</p> 	<p>C1BB00000979 (20p)</p> 
<p>C0CBADG00023 (3p)</p> 	<p>C0CBCBD00018 (8p) C3EBGC000044 (8p)</p> 	<p>C0EBA0000031 (5p) C0JBAA000346 (5p)</p> 	<p>C0EBE0000384</p> 	<p>C9ZB00000466 (16p)</p> 
<p>C0DAAZG00012</p> 	<p>C0DBEZG00021</p> 	<p>C0FBBK000050 (28p)</p> 	<p>C0GBG0000048 (28p)</p> 	<p>C0GAH0000002</p> 
<p>2SD1819A0L UNR521100L B1ADCF000001 UNR511V00L UNR521400L 2SB09700RL B1ABCF000011 2SB1219AHL</p>	<p>B1ABCE000016 B1ABEB000002</p> 	<p>B1GBCFJA0028</p> 	<p>B1FGGCAA0001</p> 	<p>2SD21370PA B1BCCD000019</p> 
<p>B1GBCFLL0037 B1GBCFJN0033 B1GDCFGA0018</p> 	<p>B1BCCG000023</p> 	<p>B1ACKD000005 B1AAKD000014</p> 	<p>B1BACD000018</p> 	<p>B3AAA0000583</p> 
<p>B0ACCK000005 B0JCPD000025</p> 	<p>MA2J72800L</p> 	<p>B0ACCE000003 MA2J11100L</p> 	<p>B0FBAM000010</p> 	<p>B0ADCJ000020</p> 
<p>B0EAKM000117</p> 	<p>B0ECKM000016</p> 	<p>B0BC7R500001 B0BC9R000008 B0BC5R600003 B0BC5R000009 MAZ82200ML B0BC01000014</p>	<p>B0BC01000014</p> 	

25 Terminal Function of IC's

25.1. IC2018(C2CBHG000168): Microprocessor

Pin No.	Mark	I/O	Function
1	TRY_CLOSE	I	Loading Mecha Close Sw (L: Sw ON)
2	TRY_CCW	O	Terminal for tray control 1
3	TRY_CW	O	Terminal for tray control 2
4	TRY_OPEN	I	Loading Mecha Open SW (L: Sw ON)
5	N.C.	-	No connection
6	N.C.	-	No connection
7	BRAKE_H	O	Terminal for tray control 3
8	BYTE	I	VSS (GND)
9	CNVss	-	VSS (GND)
10-11	N.C.	-	No connection
12	RESET	I	System Reset Input
13	Xout	-	Main clock output (10.0 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	N.C.	-	No connection
21	PORTSEL1	I	DivX Model Selection (L= No DivX, H= DivX)
22	PORTSEL2	I	Speaker Protection (L= Speaker Protect OFF, H= Speaker Protect ON)
23	EEDA	I/O	DATA signal for the EEPROM
24	ECK	O	CLOCK signal for the EEPROM
25	ECS	O	LAT signal for the EEPROM
26	N.C.	-	No connection
27	TUN_SD	I	Station Detect
28	TUN_DO	I	Stereo Detect
29	TUN_CLK	O	12C Clock for Tuner
30	TUN_DI	O	12C Data for Tuner
31	TXD	I	(for FLASH writer)
32	RXD	O	(for FLASH writer)
33	Clk	O	(for FLASH writer)
34	MUTE_S	O	Mute signal for surround Audio signal/ (for FLASH writer)
35	DVD_CMD	O	CMD signal for the DVD Module
36	DVD_STAT	I	STATUS signal from the DVD module
37	DVD_CLK	I	CLK signal for the DVD Module
38	WIDE1	O	Control Signal for the WIDE function
39	MUTE_FRNT	O	Mute Signal for FRONT END
40	MUTE_C	O	Mute signal for CENTRE
41	EPM	I	For Flash
42	MUTE_SUB	O	Subwoofer Mute Signal
43	HP_MUTE	O	Head Phone Mute Signal
44	DVD_MUTE	I	Signal from DVD module control mute circuit
45	RGB_H	O	Mute signal 1 for video output
46	YC_H	O	Control signal for the video signal Mix
47	MUTE_L	O	MUTE signal for the Line output
48	VOL_DATA	O	DATA signal for 6ch VOL ASP
49	VOL_CLK	O	CLOCK signal for 6ch VOL ASP
50	SCART_MUTE	O	Line out for SCART terminal
51	MIC_MUTE	O	Muting circuit for the MIC input
52	SS_DA	O	DATA Signal for S.SRND IC
53	SS_CLK	O	Clock Signal for S.SRND IC

Pin No.	Mark	I/O	Function
54	N.C.	-	No connection
55	HB_MUTE	O	H.Bass Mute
56	HB_LVL	O	H.Bass Level Select
57	C_MIX	O	DPL II Bass Improve
58	SURR_FC1	O	Surround Freq. Limiter 1
59	SURR_FC2	O	Surround Freq. Limiter 2
60-61	N.C.	-	No connection
62	Vcc	-	Power supply 5.0V
63	FAN_CTRL	O	FAN Control Output (Only for HT880, High for above -10dB)
64	VSS	-	GND (0V)
65	RF_DET	I	RF input (Wireless Module)
66	RF_PCON	O	RF output (Wireless Module)
67	RF_LINK	I	RF link detection (Wireless Module)
68	DVD_PCNT	O	Control signal for the Power for the DVD MODULE
69	N.C.	-	No connection
70	PCONT	O	Control Signal for the Power Control Relay
71	MUTE_H	O	HIC MUTE
72	DC_DET	I	Signal from the DC Detection circuit
73	RDS_CLK	I	Clock signal from the RDS decoder
74	RDS_DA	I	Data signal from the RDS decoder
75	JOG_B	I	Signal B from Volume JOG
76	JOG_A	I	Signal A from Volume JOG
77-80	N.C.	-	No connection
81	FLD_DA	O	Data input for the FL Driver
82-83	N.C.	-	No connection
84	MIC_SW	-	No connection
85	N.C.	-	No connection
86	KEY 3	-	Key 3 line input (cater)
87	FLD_RST	O	Reset Signal for the FL Driver
88	FLD_CS	O	Latch Signal for the FL Driver
89	FLD_CK	O	Clock Signal for the FL Driver
90	N.C.	-	No connection
91	KEY2	I	Key 2 line input
92	N.C.	-	No connection
93	DES3	I	REGION Setting for DVD
94	MODEL_SEL	I	Model Selector
95	DES1	I	REGION Setting for Tuner
96	AVss	-	Analog Power Supply Input
97	KEY 1	I	Key 1 line input
98	VREF	-	Reference Voltage Input
99	AVCC	-	Analog Power Supply Input
100	N.C.	-	No connection

25.2. IC8001 (MN2DS0003APH) DV2.1 IC

Pin No.	Mark	I/O	Function
1	MDQ9	I/O	SDRAM Data 9
2	MDQ5	I/O	SDRAM Data 5
3	VSS	-	GND
4	MDQ10	I/O	SDRAM Data 10
5	MDQ4	I/O	SDRAM Data 4
6	VDD33	-	I/O Power Supply
7	MDQ11	I/O	SDRAM Data 11
8	MDQ3	I/O	SDRAM Data 3
9	VSS	-	GND
10	MDQ12	I/O	SDRAM Data 12
11	MDQ2	I/O	SDRAM Data 2
12	VDD33	-	I/O Power Supply

Pin No.	Mark	I/O	Function
13	MDQ13	I/O	SDRAM Data 13
14	MDQ1	I/O	SDRAM Data 1
15	MDQ14	I/O	SDRAM Data 14
16	VSS	-	GND
17	MDQ0	I/O	SDRAM Data 0
18	MDQ15	I/O	SDRAM Data 15
19	VDD33	-	I/O Power Supply
20	VSS	-	GND
21	EXADR20	I/O	Exterior Memory Address General Use Port
22	NEXWE	O	Exterior Memory Write Enable
23	EXADT0	I/O	Exterior Memory Address Data 0
24	EXADT4	I/O	Exterior Memory Address Data 4
25	EXADT8	I/O	Exterior Memory Address Data 8
26	VDD12	-	Logic Power Supply
27	EXADT12	I/O	Exterior Memory Address Data12
28	VDD33	-	I/O Power Supply
29	VSS	-	GND
30	EXADR16	I/O	Exterior Memory Address 16
31	EXADR18	I/O	Exterior Memory Address 18
32	EXADT14	I/O	Exterior Memory Address Data 14
33	EXADT10	I/O	Exterior Memory Address Data 10
34	VDD33	-	I/O Power Supply
35	VSS	-	GND
36	EXADT6	I/O	Exterior Memory Address Data 6
37	EXADT2	I/O	Exterior Memory Address Data 2
38	NEXCE	O	Exterior Memory Chip Select
39	EXADT1	I/O	Exterior Memory Address Data 1
40	EXADT5	I/O	Exterior Memory Address Data 5
41	EXADT9	I/O	Exterior Memory Address Data 9
42	EXADT13	I/O	Exterior Memory Address Data 13
43	EXADR17	I/O	Exterior Memory Address 17
44	VDD12	-	Logic Power Supply
45	EXADR19	I/O	Exterior Memory Address 19 General Port 19
46	EXADT15	I/O	Exterior Memory Address Data 15
47	EXADT11	I/O	Exterior Memory Address Data 11
48	VDD33	-	I/O Power Supply
49	VSS	-	GND
50	EXADT7	I/O	Exterior Memory Address Data 7
51	EXADT3	I/O	Exterior Memory Address Data 3
52	NEXO	O	Exterior Memory Output Enable
53	P15	I/O	General Port 15 Exterior Memory Address 21 Remote Reception Interruption Exterior Interruption 3
54	P14	I/O	General Use Port 14 Serial 3 Transmission Completion Flag
55	P13	I/O	General Use Port 13 Serial 3 Transmission Completion Flag
56	P12	I/O	General Use Port 12 Serial 3 Clock
57	P11	I/O	General Use Port 11 Serial 3 Output Data Serial 1 Output Data
58	P10	I/O	General Use Port 10 Serial 3 Input Data Serial 1 Input Data
59	P9	I/O	General Use Port 9 Serial 2 Clock
60	P8	I/O	General Use Port 8 Serial 2 Output Data Serial 1 Output Data
61	P7	I/O	General Use Port 7 Serial 2 Input Data Serial 1 Input Data
62	VDD33	-	I/O Power Supply
63	MMOD ⁷	I	Test Mode Setting

Pin No.	Mark	I/O	Function
64	VSS	-	GND
65	P6	I/O	General Use Port 6 Exterior Interruption 2 16 Bits Timer Exterior Count Source B
66	P5	I/O	General Use Port 5 Serial 1 Output Data 16 Bits Timer Exterior Count Source A
67	P4	I/O	General Use Port 4 Serial 1 Input Data Exterior Interruption 1 Remote Reception Interruption
68	P3	I/O	General Use Port 3 Serial 0 Clock Exterior Interruption 0
69	P2	I/O	General Use Port 2 Serial 0 Output Data 8 Bits Timer Exterior Count Source 1
70	P1	I/O	General Use Port 1 Serial 0 Input Data 8 Bits Timer Exterior Count Source 0
71	P0 ⁸	I/O	General Use Port 0 Extension Chip Selection
72	FG	I	Motor FG
73	NRST	I	Master Reset
74	VSS	-	GND
75	DRV0	I/O	Servo General Use Port 0
76	DRV1	I/O	Servo General Use Port 1
77	DRV2	I/O	Servo General Use Port 2
78	DRV3	I/O	Servo General Use Port 3
79	DRV4	I/O	Servo General Use Port 4
80	DRV5	I/O	Servo General Use Port 5
81	DRV6	I/O	Servo General Use Port 6
82	DRV7	I/O	Servo General Use Port 7
83	DRV8	I/O	Servo General Use Port 8
84	VDD33	-	I/O Power Supply
85	P16 ⁹	I/O	General Use Port 39
86	P17 ³	I/O	General Use Port 40
87	VSS	-	GND
88	MONI7	I/O	Inside/ Internal Monitor 7 Exterior/ Outside Memory Data 7 General Use Port 38 Digital Video Output 7
89	VDD12	-	Logic Power Supply
90	MONI6	I/O	Inside/ Internal Monitor 6 Exterior/ Outside Memory Data 6 General Use Port 37 Digital Video Output 6
91	MONI5	I/O	Inside/ Internal Monitor 5 Exterior/ Outside Memory Data 5 General Use Port 36 Digital Video Output 5
92	MONI4	I/O	Inside/ Internal Monitor 4 Exterior/ Outside Memory Data 4 General Use Port 35 Digital Video Output 4
93	VSS	-	GND
94	MONI3	I/O	Inside/ Internal Monitor 3 Exterior/ Outside Memory Data 3 General Use Port 34 Digital Video Output 3
95	MONI2	I/O	Inside/ Internal Monitor 2 Exterior/ Outside Memory Data 2 General Use Port 33 Digital Video Output 2
96	MONI1	I/O	Inside/ Internal Monitor 1 Exterior/ Outside Memory Data 1 General Use Port 32 Digital Video Output 1 Stream Error Flag Output

Pin No.	Mark	I/O	Function
97	MONI0	I/O	Inside/ Internal Monitor 0 Exterior/ Outside Memory Data 0 General Use Port 31 Digital Video Output 0 Stream Sector Head Output
98	AVDDD	-	Analog power Supply
99	PLFIL1	O	DRCVCO Use Capacity Connection 1
100	AVSSD	-	Analog GND
101	VREFH7	O	DRC Use ADC Voltage (Top)
102	VREFM7	O	DRC Use ADC Voltage (MDL)
103	VREFL7	O	DRC Use ADC Voltage (BTM)
104	CCAPA	O	INLINE CAPA Use Capacity Connection
105	AVSSC	-	Analog Ground
106	CDATA	O	INLINE DATA Use Capacity Connection
107	AVDDC	-	Analog Power Supply
108	ANAMONI1	O	Inside Analog Monitor 1
109	ANAMONI2	O	Inside Analog Monitor 2
110	RFINN	I	Exterior/ Outside RF Input (-)
111	RFINP	I	Exterior/ Outside RF Input (+)
112	VIN6RF	I	RF Input 6
113	VIN5RF	I	RF Input 5
114	VIN4RF	I	RF Input 4
115	VIN3RF	I	RF Input 3
116	VIN2RF	I	RF Input 2
117	VIN1RF	I	RF Input 1
118	AVDDB	-	Analog Power Supply
119	VREFH5	I	5 Bits Standard Voltage (H)
120	VREFM5	I	5 Bits Standard Voltage (M)
121	VREFL5	I	5 Bits Standard Voltage (L)
122	AVSSB	-	Analog GND
123	LPC1	I	DVD LPC Input
124	LPCO1	O	DVD LPC Output
125	LPC2	I	CD LPC Input
126	LPCO2	O	CD LPC Output
127	VREFH	O	Standard Voltage 2.20 V Output
128	VHALF	O	Standard Voltage 1.65 V Output
129	VIN10	I	CD Head Input
130	VIN9	I	CD Head Input
131	VIN8	I	DVD Head Input
132	VIN7	I	DVD Head Input
133	VIN6	I	CD Head Input
134	VIN5	I	CD Head Input
135	VIN4	I	DVD Head Input
136	VIN3	I	DVD Head Input
137	VIN2	I	DVD Head Input
138	VIN1	I	DVD Head Input
139	AD2	I	General Use AD Input (BSDA Offset Revision TK Use)
140	AD1	I	General Use AD Input
141	AVDDH	-	Analog power Supply
142	VREFL10	O	AD Self Bias Reference Low-side
143	AD0	I	General Use AD Input
144	VREFH10	O	AD Self Bias Reference Hi-side
145	AVSSH	-	Analog GND
146	VCOF	I	JFVCO Control Voltage (include iRAM Edition)/ General Use AD Input (BSDA Offset Revision FC Use)
147	PWM1	O	Tracking Drive Output
148	PWM0	O	Focus Drive Output
149	DAC1OUT	O	Y (Brightness)/ G (Green) Analog Signal
150	AVDDF	-	DAC Use Power Supply
151	DAC2OUT	O	Cb (Colour Difference)/ B (Blue) Analog Signal

Pin No.	Mark	I/O	Function
152	DAC3OUT	O	Cr (Colour Difference)/ R (Red) Analog Signal
153	VREF	I	Inside/ Internal DAC Reference Voltage
154	IREF1	I	Inside/ Internal DAC Bias Current Setting Use Resistance Terminal
155	COMP	I	Inside/ Internal DAC Stabilizer Capacity Connection Terminal
156	DAC4OUT	O	Y (Brightness)/ Comp (Composite) Analog Terminal
157	AVSSF	-	DAC Use GND
158	DAC5OUT	O	C (Colour) Analog Signal
159	AVDDE	-	PLL Use Power Supply
160	AVSSE	-	PLL Use GND
161	AVDDG		PLL Use Power Supply
162	AVSSG	-	PLL Use GND
163	DACCK	O	Audio Clock Phase Difference/ Stream Data Output 7
164	VSS	-	GND
165	OSCI	I	Oscillation Input (27 MHz/54 MHz)
166	OSCO	O	Oscillation Output (27 MHz/54 MHz)
167	VDD33	-	I/O Power Supply
168	EXTCK	I/O	Exterior Audio Clock Stream Clock Output
169	LRCK	O	LR Channel Clock Stream Data Output 6
170	SRCK	O	Bits Clock/ Stream Data Output 5
171	ADOUT3	O	Audio Down Mix Stream Data Output 4
172	VDD12	-	Logic Power Supply
173	VSS	-	GND
174	ADOUT2	O	Audio Data Inside/ Internal Monitor 11 Stream Data Output 3
175	ADOUT1	O	Audio Data Inside/ Internal Monitor 10 Stream Data Output 2
176	ADOUT0	O	Audio Data Inside/ Internal Monitor 9 Stream Data Output 1
177	IECOUT	O	IEC958 Digital Audio Data Inside/ Internal Monitor 8 Stream Data Output 0
178	VDD33	-	I/O Power Supply
179	VSS	-	GND
180	SCLOCK	I/O	Debug Use Input Clock Stream Sector Head Output
181	EXTRG0	I/O	Debug Use Input Output Trigger Exterior Memory Data 15 General Port/ Mode Setup Data
182	SDATA	I/O	Debug Use Input Output Data Stream Error Flag Output
183	EXTRG1	I/O	Debug Use Input Output Trigger 1 Exterior Memory Data 14 General Port 28 Mode Setup Clock
184	TRCCLK	I/O	Debug Use Output Trace Clock Exterior Memory Data 13 General Port 29
185	TRCDATA0	I/O	Debug Use Input Output Trace Data 0 Exterior Memory Data 12 General Port 23
186	TRCDATA1	I/O	Debug Use Input Output Trace Data 1 Exterior Memory Data 11 General Port 24
187	TRCDATA2	I/O	Debug Use Input Output Trace Data 2 Exterior Memory Data 10 General Port 25

Pin No.	Mark	I/O	Function
188	TRCDATA3	I/O	Debug Use Input Output Trace Data 3 Exterior Memory Data 9 General Port 26
189	TRCST	I/O	Debug Use Output Trace Status Exterior Memory Data 8 General Port 30
190	VDD33	-	I/O Power Supply
191	VSS	-	GND
192	MDQ24	I/O	SDRAM Data 24 Exterior Memory Data 8
193	MDQ23	I/O	SDRAM Data 23 Exterior Memory Data 7
194	MDQ25	I/O	SDRAM Data 25 Exterior Memory Data 9
195	MDQ22	I/O	SDRAM Data 22 Exterior Memory Data 6
196	VDD33	I/O	I/O Power Supply
197	MDQ26	I/O	SDRAM Data 26 Exterior Memory Data 10
198	MDQ21	I/O	SDRAM Data 21 Exterior Memory Data 5
199	MDQ27	I/O	SDRAM Data 27 Exterior Memory Data 11
200	MDQ20	I/O	SDRAM Data 20 Exterior Memory Data 4
201	VSS	-	GND
202	VDD33	-	I/O Power Supply
203	MDQ28	I/O	SDRAM Data 28 Exterior Memory Data 12
204	MDQ19	I/O	SDRAM Data 19 Exterior Memory Data 3
205	VSS	-	GND
206	MDQ29	I/O	SDRAM Data 29 Exterior Memory Data 13
207	MDQ18	I/O	SDRAM Data 18 Exterior Memory Data 2
208	MDQ30	I/O	SDRAM Data 30 Exterior Memory Data 14
209	VDD33		I/O Power Supply
210	MDQ17	I/O	SDRAM Data 17 Exterior Memory Data 1
211	MDQ31	I/O	SDRAM Data 31 Exterior Memory Data 15
212	MDQ16	I/O	SDRAM Data 16 Exterior Memory Data 0
213	VSS	-	GND
214	DQM3	O	SDRAM Data Mask 3
215	DQM2	O	SDRAM Data Mask 2
216	VDD33		I/O Power Supply
217	MA3	O	SDRAM Address 3
218	VSS	-	GND
219	VDD12	-	Logic Power Supply
220	MA4	O	SDRAM Address 4
221	MA2	O	SDRAM Address 2
222	VSS	-	GND
223	MA5	O	SDRAM Address 5
224	MA1	O	SDRAM Address 1
225	VDD33	-	I/O Power Supply
226	MA6	O	SDRAM Address 6
227	MA0	O	SDRAM Address 0
228	MA7	I	SDRAM Address 7
229	VSS	-	GND
230	MA10	O	SDRAM Address 10
231	VDD33	-	I/O Power Supply
232	BA1	O	SDRAM Bank Address 1
233	MA8	I/O	SDRAM Address 8
234	BA0	O	SDRAM Bank Address 0
235	VSS	-	GND
236	VDD12	-	Logic Power Supply
237	MA11	O	SDRAM Address 11

Pin No.	Mark	I/O	Function
238	MA9	O	SDRAM Address 9
239	VDD33	-	I/O Power Supply
240	NCSM	O	SDRAM Chip Select
241	MCKI	I	SDRAM Output Clock
242	VSS	-	GND
243	MCK	O	SDRAM Input Clock
244	NRAS	O	SDRAM Low Address Strobe
245	NCAS	O	SDRAM Columne Address Strobe
246	VDD33	-	I/O Power Supply
247	VSS	-	GND
248	NWE	O	SDRAM Write Enable
249	DQM0	O	SDRAM Data Mack 0
250	VSS	-	GND
251	DQM1	O	SDRAM Data Mask 1
252	MDQ7	I/O	SDRAM Data 7
253	VSS	-	GND
254	MDQ8	I/O	SDRAM Data 8
255	VDD33	-	I/O Power Supply
256	MDQ6	I/O	SDRAM Data 6

26 Parts Location and Replacement Parts List

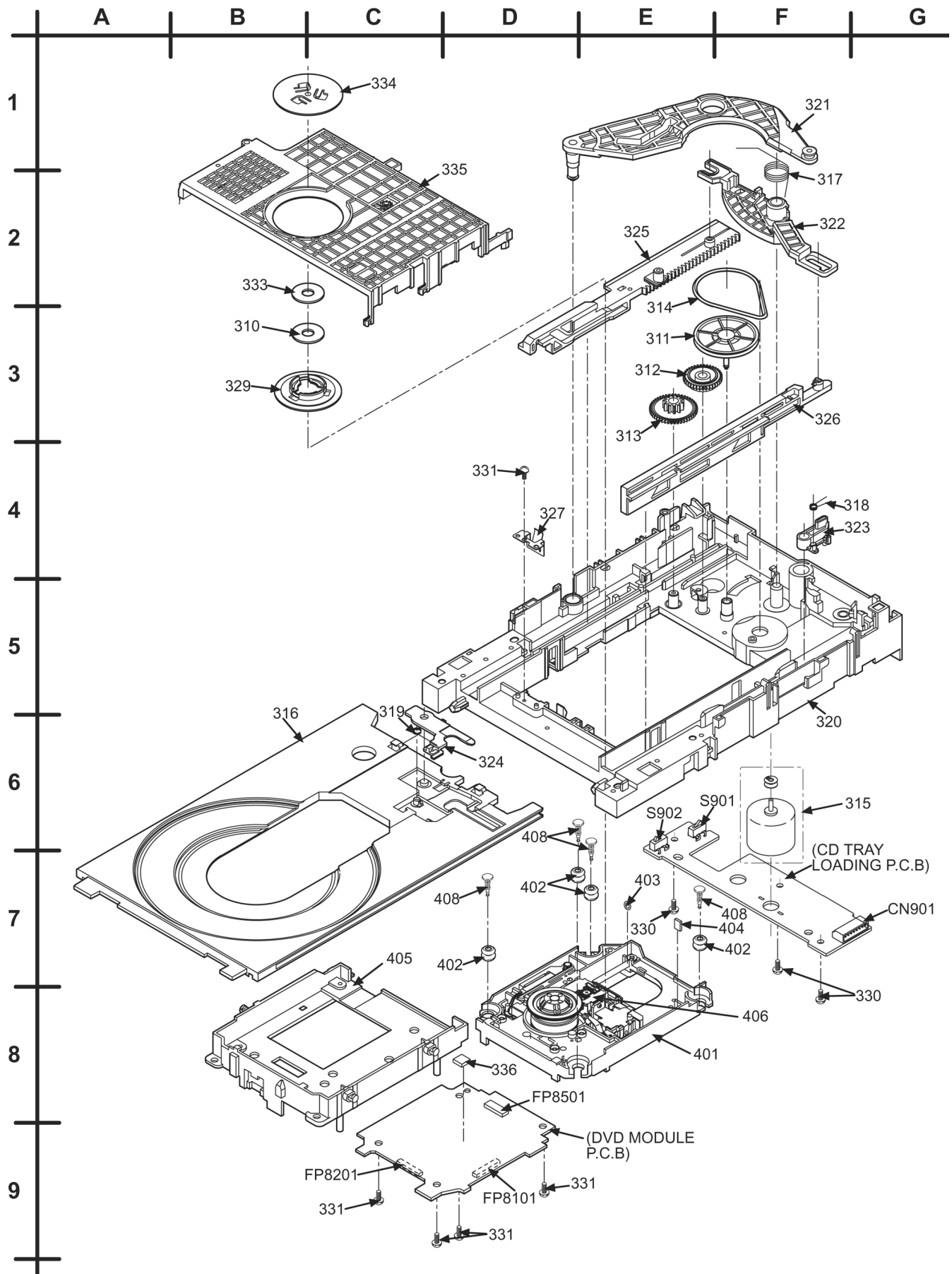
Notes:

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

26.1. DVD Loading Mechanism

26.1.1. DVD Loading Mechanism Parts Location

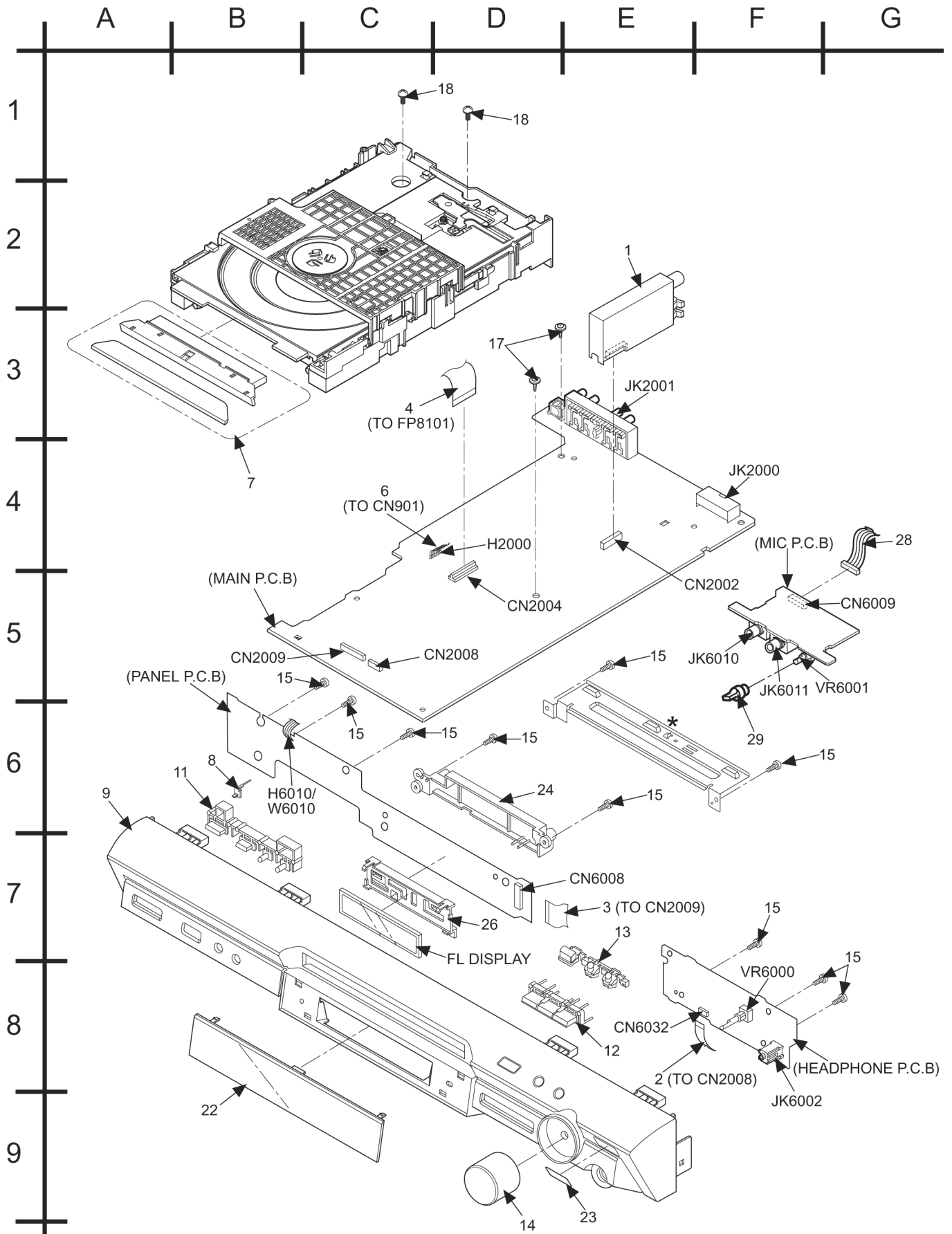


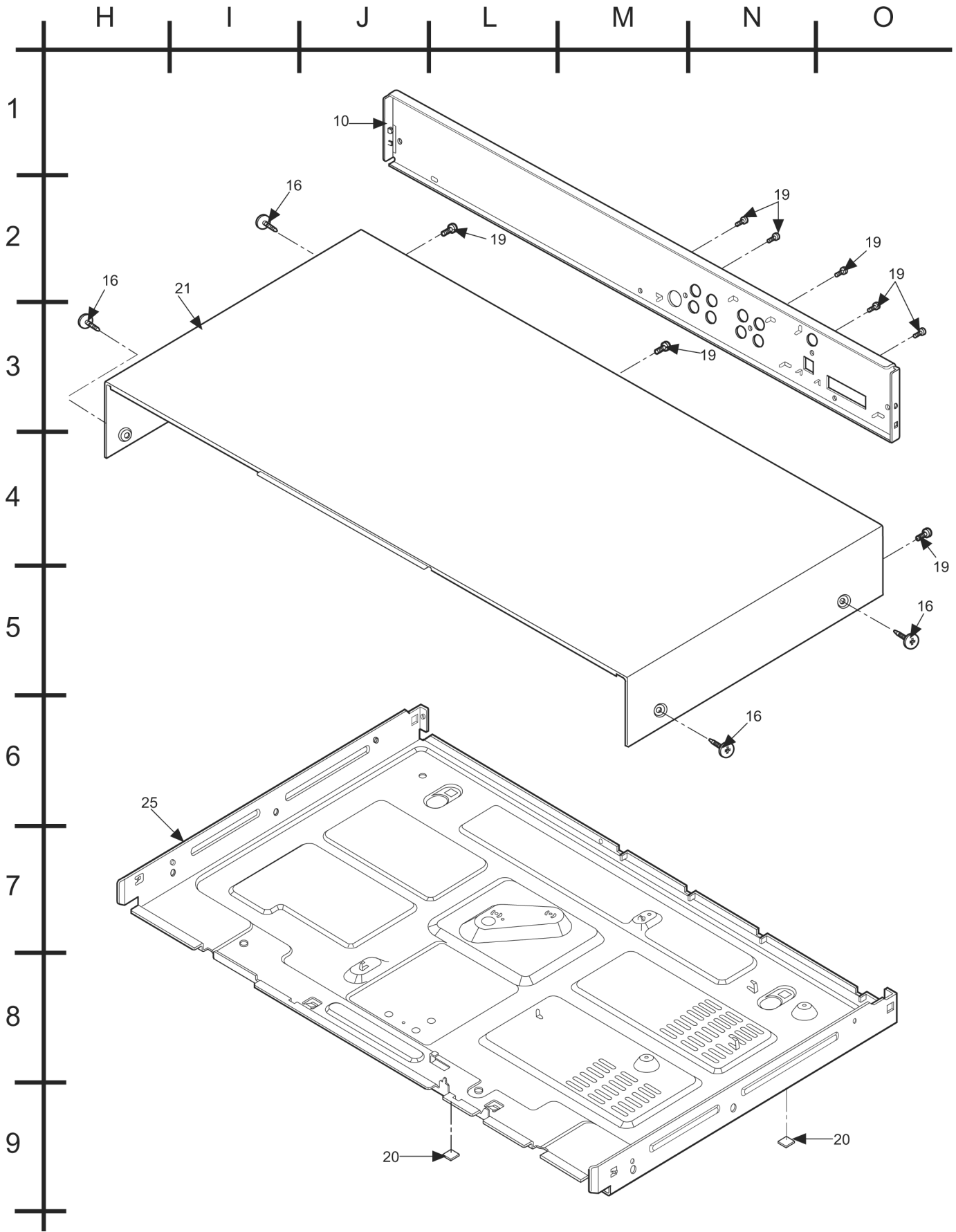
26.1.2. DVD Loading Mechanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		TRAVERSE DECK	
310	RHM0003-J	MAGNET	[M]
311	RDG0547	PULLEY GEAR	[M]
312	RDG0548	RELAY GEAR	[M]
313	RDG0549	DRIVE GEAR	[M]
314	RDV0070	BELT	[M]
315	REM0102	MOTOR UNIT	[M]
316	RGQ0395-K	TRAY	[M]
317	RME0350	CHANGE LEVER SPRING	[M]
318	RME0351	LOCK LEVER SPRING	[M]
319	RME0353	TRAY SLIDER SPRING	[M]
320	RMK0591	MECHA CHASSIS	[M]
321	RML0627-2	DRIVE ARM	[M]
322	RML0628	CHANGE LEVER	[M]
323	RML0629	LOCK LEVER	[M]
324	RML0631	TRAY SLIDER	[M]
325	RMM0247-2	DRIVE RACK	[M]
326	RMM0248	SUB RACK	[M]
327	RMC0387	SUPPORT SPRING	[M]
329	RMR1446-X	CLAMPER	[M]
330	XTN26+6GFJ	SCREW	[M]
331	XTV2+6GFJ	SCREW	[M]
333	XWG6FFY	WASHER	[M]
334	RMR1447-X	MAGNET HOLDER	[M]
335	RMR1468-K	CLAMP PLATE	[M]
336	RMX0290	PLASTIC SHEET	[M]
401	RAE2012Z-S	DU69U TRAVESE UNIT	[M]
402	RMG0598-A	FLOATING RUBBER	[M]
403	RMG0617-H	CUSHION RUBBER A	[M]
404	RMG0618-H	CUSHION RUBBER B	[M]
405	RMR1596-X2	MIDDLE CHASSIS	[M]
406	RXQ1252	DVD OPU SUB ASS'Y	[M]
408	RMS0789	FIXED PIN	[M]

26.2. Cabinet

26.2.1. Cabinet Parts Location





26.2.2. Cabinet Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	J3CCBB000004	TUNER PACK	[M]
2	REEX0426	10P FFC WIRE (PANEL)	[M]
3	REEX0427	19P FFC WIRE (FL)	[M]
4	REEX0429	50P FFC (MECHA)	[M]
6	REXX0384	7P FLAT WIRE (DVD)	[M]
7	RYQX0207-S	DVD LID ASS'Y	[M]
8	RGLX0105-Q	LIGHTING PIECE	[M]
9	RGPX0170A-S1	FRONT PANEL	[M]
10	RGRX0043B-D1	REAR PANEL	[M]
11	RGUX0601-S	POWER BUTTON	[M]
12	RGUX0602-S	OPERATION BUTTON	[M]
13	RGUX0603-S	REV-FWD BUTTON	[M]
14	RGWX0076-S	VOLUME KNOB	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
15	RHD26046	SCREW	[M]
16	RHD30007-1SJ	SCREW	[M]
17	RHD30090-1	SCREW	[M]
18	RHD30102-1	SCREW	[M]
19	RHD30119	SCREW	[M]
20	RKA0059-K	LEG RUBBER	[M]
21	RKMX0107-S	TOP CABINET	[M]
22	RKWX0241-Q	FL WINDOW	[M]
23	RKWX0243-S	SENSOR WINDOW	[M]
24	RMAX0071	MECHA SUPPORT	[M]
25	RMXX0102	BOTTOM CHASSIS	[M]
26	RMNX0149	FL HOLDER	[M]
28	REXX0447	4P FLAT WIRE (MIC)	[M]
29	RGW0352-S	MIC KNOB	[M]

26.3. Component Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PRINTED CIRCUIT BOARD	
	REP3867F	DVD MODULE P.C.B. (SIDE A & B)	[M] (RTL)
	REPX0452F	MAIN P.C.B.	[M] (RTL)
	REPX0456B	PANEL P.C.B.	[M] (RTL)
	REPX0452F	MIC P.C.B.	[M] (RTL)
	REPX0456B	HEADPHONE P.C.B.	[M] (RTL)
	REP3288A	CD TRAY LOADING P.C.B.	[M] (RTL)
		INTEGRATED CIRCUITS	
IC904	C0GAH0000002	IC REFLECTIVE PHOTO SENSOR	[M]
IC2006	C9ZB00000466	IC VIDEO SELECTOR	[M]
IC2010	C0ABBB000118	IC DUAL OP AMP	[M]
IC2011	C1BB00000845	IC ASP	[M]
IC2013	C0AABB000125	IC DUAL OP AMP	[M]
IC2014	C1BB00000979	IC ANALOG SURROUND	[M]
IC2015	C0ABBB000118	IC DUAL OP AMP	[M]
IC2018	C2CBHG000168	IC MICROPROCESSOR	[M]
IC2601	C0ABBB000118	IC DUAL OP AMP	[M]
IC2602	C0ABBB000118	IC DUAL OP AMP	[M]
IC2801	C0DAAZG00012	IC DC-TO-DC CONVERTER	[M]
IC2802	C0CBADG00023	IC 5V REGULATOR	[M]
IC2803	C0DBEZG00021	IC REGULATOR	[M]
IC6000	C0HBB0000044	IC FL DRIVER	[M]
IC8001	MN2DS0003APH	IC DV2.1	[M]
IC8051	C3ABPG000133	IC 64 SDRAM	[M]
IC8111	C0CBCBD00018	IC 3.3 REGULATOR	[M]
IC8251	C0GBG0000048	IC DRIVE	[M]
IC8421	C0FBBR000050	IC 8-CH DAC	[M]
IC8601	C0EBE0000384	IC RESET	[M]
IC8606	C0EBA0000031	IC RESET	[M]
IC8651	RFKWMH82B160	IC 16M FLASH ROM	[SPG]
IC8691	C0JBAA000346	IC AND GATE LOGIC	[M]
IC8695	C0JBAA000346	IC AND GATE LOGIC	[M]
		TRANSISTORS	
Q2000	B1GBCFLL0037	TRANSISTOR	[M]
Q2004	B1GBCFJN0033	TRANSISTOR	[M]
Q2028	B1GBCFJN0033	TRANSISTOR	[M]
Q2029	B1GBCFJN0033	TRANSISTOR	[M]
Q2030	B1GBCFJN0033	TRANSISTOR	[M]
Q2102	B1GFGCAA0001	TRANSISTOR	[M]
Q2103	B1GDCFGA0018	TRANSISTOR	[M]
Q2104	B1GFGCAA0001	TRANSISTOR	[M]
Q2105	B1GDCFGA0018	TRANSISTOR	[M]
Q2200	B1GFGCAA0001	TRANSISTOR	[M]
Q2201	B1GDCFGA0018	TRANSISTOR	[M]
Q2500	B1GDCFGA0018	TRANSISTOR	[M]
Q2600	B1GDCFGA0018	TRANSISTOR	[M]
Q2601	B1GFGCAA0001	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q2604	B1ABEB000002	TRANSISTOR	[M]
Q2605	B1GDCFGA0018	TRANSISTOR	[M]
Q2607	B1ABCE000016	TRANSISTOR	[M]
Q2608	B1ABEB000002	TRANSISTOR	[M]
Q2609	B1GDCFGA0018	TRANSISTOR	[M]
Q2702	B1GDCFGA0018	TRANSISTOR	[M]
Q2703	B1ABEB000002	TRANSISTOR	[M]
Q2801	B1ADCF000001	TRANSISTOR	[M]
Q2803	B1BCCG000023	TRANSISTOR	[M]
Q2804	B1ABCE000016	TRANSISTOR	[M]
Q2805	B1ABCE000016	TRANSISTOR	[M]
Q2806	B1BCCD000019	TRANSISTOR	[M]
Q2807	B1BCCD000019	TRANSISTOR	[M]
Q2808	B1ADCF000001	TRANSISTOR	[M]
Q2809	B1ACKD000005	TRANSISTOR	[M]
Q2813	B1AAKD000014	TRANSISTOR	[M]
Q2814	2SD21370PA	TRANSISTOR	[M]
Q2816	B1BACD000018	TRANSISTOR	[M]
Q2818	B1GBCFJA0028	TRANSISTOR	[M]
Q6071	B1ABCF000011	TRANSISTOR	[M]
Q6072	B1ABCF000011	TRANSISTOR	[M]
Q6073	B1ABCF000011	TRANSISTOR	[M]
Q8550	2SB1219AHL	TRANSISTOR	[M]
Q8551	2SD1819A0L	TRANSISTOR	[M]
Q8552	2SB09700RL	TRANSISTOR	[M]
Q8560	2SD1819A0L	TRANSISTOR	[M]
Q8561	2SD1819A0L	TRANSISTOR	[M]
Q8562	2SB09700RL	TRANSISTOR	[M]
Q8606	2SD1819A0L	TRANSISTOR	[M]
Q8607	2SD1819A0L	TRANSISTOR	[M]
QR8111	UNR521400L	TRANSISTOR	[M]
QR8112	UNR521400L	TRANSISTOR	[M]
QR8420	UNR521100L	TRANSISTOR	[M]
QR8571	UNR511V00L	TRANSISTOR	[M]
		DIODES	
D2000	B0ACCE000003	DIODE	[M]
D2001	B0ACCE000003	DIODE	[M]
D2002	B0ACCE000003	DIODE	[M]
D2003	B0ACCK000005	DIODE	[M]
D2041	B0EAKM000117	DIODE	[M]
D2042	B0EAKM000117	DIODE	[M]
D2601	B0ACCK000005	DIODE	[M]
D2801	B0JCPD000025	DIODE	[M]
D2802	B0BC7R500001	DIODE	[M]
D2803	B0ACCK000005	DIODE	[M]
D2804	B0BC9R000008	DIODE	[M]
D2805	B0ECKM000016	DIODE	[M]
D2806	B0ECKM000016	DIODE	[M]
D2807	B0ACCK000005	DIODE	[M]
D2808	B0ACCK000005	DIODE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
D2809	B0EAKM000117	DIODE	[M]
D2810	B0EAKM000117	DIODE	[M]
D2811	B0EAKM000117	DIODE	[M]
D2812	B0EAKM000117	DIODE	[M]
D2813	B0EAKM000117	DIODE	[M]
D2814	B0EAKM000117	DIODE	[M]
D2815	B0EAKM000117	DIODE	[M]
D2816	B0EAKM000117	DIODE	[M]
D2817	B0EAKM000117	DIODE	[M]
D2818	MAZ82200ML	DIODE	[M]
D2822	B0FBAM000010	DIODE	[M]
D2823	B0BC5R600003	DIODE	[M]
D2824	B0BC7R500001	DIODE	[M]
D2827	B0EAKM000117	DIODE	[M]
D2829	B0ACKK000005	DIODE	[M]
D2830	B0BC01000014	DIODE	[M]
D2831	B0EAKM000117	DIODE	[M]
D2850	B0ACKK000005	DIODE	[M]
D2851	B0ADCJ000020	DIODE	[M]
D2852	B0ACKK000005	DIODE	[M]
D6000	B3AAA0000583	DIODE	[M]
D6006	B0BC5R000009	DIODE	[M]
D6008	B0BC5R000009	DIODE	[M]
D8231	MA2J11100L	DIODE	[M]
D8550	MA2J11100L	DIODE	[M]
D8571	MA2J72800L	DIODE	[M]
		VARIABLE RESISTORS	
VR6000	EVEKE2F3024M	VR VOLUME JOG	[M]
VR6001	EVUE27FK3B53	VR MIC	[M]
		SWITCHES	
S901	RSH1A044-1A	SW PLAY	[M]
S902	RSH1A044-1A	SW OPEN	[M]
S6000	EVQ21405R	SW OPEN/CLOSE	[M]
S6001	EVQ21405R	SW FF	[M]
S6002	EVQ21405R	SW REW	[M]
S6003	EVQ21405R	SW STOP	[M]
S6004	EVQ21405R	SW PAUSE	[M]
S6005	EVQ21405R	SW PLAY	[M]
S6011	EVQ21405R	SW POWER	[M]
S6012	EVQ21405R	SW SELECTOR	[M]
S6013	EVQ21405R	SW RDS	[M]
S6014	EVQ21405R	SW H BASS	[M]
		CONNECTORS	
CN901	K1KA07B00027	7P CONNECTOR	[M]
CN2002	K1KA10A00263	10P CONNECTOR	[M]
CN2004	K1MN50A00008	50P CONNECTOR	[M]
CN2008	K1MN10A00052	10P CONNECTOR	[M]
CN2009	K1MN19A00036	19P CONNECTOR	[M]
CN6008	K1MN19B00026	19P CONNECTOR	[M]
CN6009	K1KA04B00057	4P CONNECTOR	[M]
CN6032	K1MN10B00088	10P CONNECTOR	[M]
FP8101	K1MN50B00031	50P CONNECTOR	[M]
FP8201	K1MN06B00080	6P CONNECTOR	[M]
FP8501	K1MN26B00094	26P CONNECTORS	[M]
		COILS	
L2000	G0C3R3JA0027	COIL	[M]
L2010	ELESN220JA	COIL	[M]
L2022	J0JBC0000015	CHIP INDUCTOR	[M]
L2023	J0JBC0000015	CHIP INDUCTOR	[M]
L2024	J0JBC0000015	CHIP INDUCTOR	[M]
L2025	J0JBC0000015	CHIP INDUCTOR	[M]
L2026	J0JBC0000015	CHIP INDUCTOR	[M]
L2027	J0JBC0000015	CHIP INDUCTOR	[M]
L2028	J0JBC0000019	CHIP INDUCTOR	[M]
L2801	G0ZZ00001930	COIL	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
L2802	G0A200D00002	COIL	[M]
L2803	G0A200D00002	COIL	[M]
L6000	J0JBC0000019	CHIP INDUCTOR	[M]
L6001	J0JBC0000019	CHIP INDUCTOR	[M]
L6002	J0JBC0000019	CHIP INDUCTOR	[M]
L6003	J0JBC0000041	CHIP INDUCTOR	[M]
L6004	J0JBC0000019	CHIP INDUCTOR	[M]
L6005	J0JBC0000030	CHIP BEEZ	[M]
L6006	J0JBC0000019	CHIP INDUCTOR	[M]
L8201	G1C100K00020	CHIP INDUCTOR	[M]
L8202	J0JCC0000079	FILTER	[M]
L8301	G1C100KA0055	CHIP INDUCTOR	[M]
L8302	J0JCC0000079	FILTER	[M]
L8550	G1C100KA0055	CHIP INDUCTOR	[M]
		COMPONENT COMBINATION	
Z6000	B3RAB0000025	REMOTE SENSOR	[M]
		OSCILLATORS	
X2000	H2B100500004	CERAMIC RESONATOR	[M]
X8621	H0J270500085	CRYSTAL	[M]
		DISPLAY TUBES	
FL6000	A2BD00000108	FL DISPLAY	[M]
FL8101	F1H0J1050022	CHIP CAPACITOR	[M]
FL8102	F1H0J1050022	CHIP CAPACITOR	[M]
FL8103	F1H0J1050022	CHIP CAPACITOR	[M]
FL8104	F1J1E1040022	CHIP CAPACITOR	[M]
		FUSE PROTECTOR	
FP2000	K5G202AA0002	FUSE PROTECTOR	[M] Δ
		HOLDERS	
H2000	RMR0316	7P WIRE HOLDER	[M]
H6010	K1ZZ00000832	4P WIRE HOLDER	[M]
		JACKS	
JK2000	K1FB125B0097	JK SYSTEM CONNECTOR	[M]
JK2001	K2HZ921B0002	JK COMBO	[M]
JK6002	K2HC103A0023	JK	[M]
JK6010	K2HB102J0038	JACK	[M]
JK6011	K2HB102J0038	JACK	[M]
		EARTH TERMINAL	
E2000	K4CZ01000027	TERMINAL	[M]
		CHIP RESISTORS	
W602	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W603	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W1208	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2001	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2002	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2003	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2004	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2005	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2009	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2012	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2013	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2014	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2015	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2016	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2017	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2018	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2019	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2023	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2026	ERJ3GEY0R00V	CHIP RESISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
W2027	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2028	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2030	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2031	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2032	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2033	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2041	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2042	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2043	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2044	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2045	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2049	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2051	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2055	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2056	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2057	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2058	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2059	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2060	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2061	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2062	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2064	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2065	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2068	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2071	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2072	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2074	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2086	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2119	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2128	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W3000	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W4000	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W6001	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W6002	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W6003	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W6005	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W6006	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W6010	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W6011	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W6012	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W6013	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W6014	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W6015	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W6033	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W6034	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W6035	ERJ6GEY0R00V	CHIP RESISTOR	[M]
RX8011	D1H88204A024	CHIP RESISTOR	[M]
RX8012	D1H88204A024	CHIP RESISTOR	[M]
RX8013	D1H88204A024	CHIP RESISTOR	[M]
RX8014	D1H88204A024	CHIP RESISTOR	[M]
RX8015	D1H422020001	CHIP RESISTOR	[M]
RX8016	D1H88204A024	CHIP RESISTOR	[M]
RX8017	D1H88204A024	CHIP RESISTOR	[M]
RX8018	D1H88204A024	CHIP RESISTOR	[M]
RX8021	D1H410320002	CHIP RESISTOR	[M]
RX8031	D1H447220001	CHIP RESISTOR	[M]
RX8032	D1H447220001	CHIP RESISTOR	[M]
RX8401	D1H410120001	CHIP RESISTOR	[M]
RX8402	D1H410120001	CHIP RESISTOR	[M]
RX8501	D1H456020001	CHIP RESISTOR	[M]
RX8502	D1H85604A024	CHIP RESISTOR	[M]
RX8503	D1H456020001	CHIP RESISTOR	[M]
RX8504	D1H456020001	CHIP RESISTOR	[M]
RX8611	D1H447220001	CHIP RESISTOR	[M]
		RESISTORS	
R2000	ERJ3GEYJ221V	220 1/16W	[M]
R2001	ERJ3GEYJ221V	220 1/16W	[M]
R2002	ERJ3GEYJ221V	220 1/16W	[M]
R2003	ERJ3GEYJ221V	220 1/16W	[M]
R2006	ERJ3GEYJ221V	220 1/16W	[M]
R2007	ERJ3GEYJ102V	1K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2008	ERJ3GEYJ103V	10K 1/16W	[M]
R2011	ERJ3GEYJ473V	47K 1/16W	[M]
R2012	ERJ3GEYJ221V	220 1/16W	[M]
R2013	ERJ3GEYJ221V	220 1/16W	[M]
R2014	ERJ3GEYJ221V	220 1/16W	[M]
R2016	ERJ3GEYJ221V	220 1/16W	[M]
R2017	ERJ3GEYJ103V	10K 1/16W	[M]
R2018	ERJ3GEYJ221V	220 1/16W	[M]
R2019	ERJ3GEYJ221V	220 1/16W	[M]
R2020	ERJ3GEYJ473V	47K 1/16W	[M]
R2021	ERJ3GEYJ473V	47K 1/16W	[M]
R2022	ERJ3GEYJ473V	47K 1/16W	[M]
R2023	ERJ3GEYJ103V	10K 1/16W	[M]
R2025	ERJ3GEYJ221V	220 1/16W	[M]
R2026	ERJ3GEYJ221V	220 1/16W	[M]
R2027	ERJ3GEYJ221V	220 1/16W	[M]
R2028	ERJ3GEYJ102V	1K 1/16W	[M]
R2029	ERJ3GEYJ221V	220 1/16W	[M]
R2030	ERJ3GEYJ221V	220 1/16W	[M]
R2031	ERJ3GEYJ221V	220 1/16W	[M]
R2032	ERJ3GEYJ221V	220 1/16W	[M]
R2033	ERJ3GEYJ221V	220 1/16W	[M]
R2034	ERJ3GEYJ221V	220 1/16W	[M]
R2035	ERJ3GEYJ221V	220 1/16W	[M]
R2036	ERJ3GEYJ102V	1K 1/16W	[M]
R2037	ERJ3GEYJ102V	1K 1/16W	[M]
R2039	ERJ3GEYJ221V	220 1/16W	[M]
R2040	ERJ3GEYJ221V	220 1/16W	[M]
R2041	ERJ3GEYJ221V	220 1/16W	[M]
R2043	ERJ3GEYJ221V	220 1/16W	[M]
R2047	ERJ3GEYJ221V	220 1/16W	[M]
R2048	ERJ3GEYJ221V	220 1/16W	[M]
R2049	ERJ3GEYJ221V	220 1/16W	[M]
R2050	ERJ3GEYJ221V	220 1/16W	[M]
R2051	ERJ3GEYJ221V	220 1/16W	[M]
R2052	ERJ3GEYJ221V	220 1/16W	[M]
R2053	ERJ3GEYJ221V	220 1/16W	[M]
R2054	ERJ3GEYJ221V	220 1/16W	[M]
R2056	ERJ3GEYJ473V	47K 1/16W	[M]
R2057	ERJ3GEYJ473V	47K 1/16W	[M]
R2058	ERJ3GEYJ563V	56K 1/16W	[M]
R2059	ERJ3GEYJ221V	220 1/16W	[M]
R2060	ERJ3GEYJ101V	100 1/16W	[M]
R2061	ERJ3GEYJ221V	220 1/16W	[M]
R2062	ERJ3GEYJ221V	220 1/16W	[M]
R2064	ERJ3GEYJ101V	100 1/16W	[M]
R2065	ERJ3GEYJ103V	10K 1/16W	[M]
R2066	ERJ3GEYJ103V	10K 1/16W	[M]
R2067	ERJ3GEYJ103V	10K 1/16W	[M]
R2068	ERJ3GEYJ103V	10K 1/16W	[M]
R2069	ERJ3GEYJ223V	22K 1/16W	[M]
R2070	ERJ3GEY0R00V	0 1/16W	[M]
R2071	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2072	ERJ3GEYJ101V	100 1/16W	[M]
R2073	ERJ3GEY0R00V	0 1/16W	[M]
R2074	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2076	ERJ3GEYJ104V	100K 1/16W	[M]
R2077	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2078	ERJ3GEYJ471V	470 1/16W	[M]
R2079	ERJ3GEYJ223V	22K 1/16W	[M]
R2080	ERJ3GEYJ103V	10K 1/16W	[M]
R2082	ERJ3GEYJ473V	47K 1/16W	[M]
R2083	ERJ3GEYJ681V	680 1/16W	[M]
R2085	ERJ3GEY0R00V	0 1/16W	[M]
R2092	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2093	ERJ3GEYJ223V	22K 1/16W	[M]
R2094	ERJ3GEYJ223V	22K 1/16W	[M]
R2100	ERJ3GEYJ102V	1K 1/16W	[M]
R2101	ERJ3GEYJ473V	47K 1/16W	[M]
R2111	ERJ3GEYJ333V	33K 1/16W	[M]
R2112	ERJ3GEYJ103V	10K 1/16W	[M]
R2113	ERJ3GEYJ103V	10K 1/16W	[M]
R2114	ERJ3GEYJ103V	10K 1/16W	[M]
R2115	ERJ3GEYJ273V	27K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2116	ERJ3GEYJ104V	100K 1/16W	[M]
R2117	ERJ3GEYJ104V	100K 1/16W	[M]
R2125	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2126	ERJ3GEYJ102V	1K 1/16W	[M]
R2129	ERJ3GEYJ123V	12K 1/16W	[M]
R2130	ERJ3GEYJ103V	10K 1/16W	[M]
R2131	ERJ3GEYJ103V	10K 1/16W	[M]
R2132	ERJ3GEYJ103V	10K 1/16W	[M]
R2133	ERJ3GEYJ103V	10K 1/16W	[M]
R2144	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2145	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2146	ERJ3GEYJ333V	33K 1/16W	[M]
R2147	ERJ3GEYJ220V	22 1/16W	[M]
R2148	ERJ3GEYJ220V	22 1/16W	[M]
R2149	ERJ3GEYJ220V	22 1/16W	[M]
R2150	ERJ3GEYJ220V	22 1/16W	[M]
R2151	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2152	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2153	ERJ3GEYJ100V	10 1/16W	[M]
R2154	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2155	ERJ3GEYJ104V	100K 1/16W	[M]
R2156	ERJ3GEYJ103V	10K 1/16W	[M]
R2157	ERJ3GEYJ123V	12K 1/16W	[M]
R2160	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2161	ERJ3GEYJ333V	33K 1/16W	[M]
R2162	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2163	ERJ3GEYJ102V	1K 1/16W	[M]
R2164	ERJ3GEYJ273V	27K 1/16W	[M]
R2165	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2166	ERJ3GEYJ122V	1.2K 1/16W	[M]
R2167	ERJ3GEYJ123V	12K 1/16W	[M]
R2168	ERJ3GEYJ223V	22K 1/16W	[M]
R2169	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2170	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2172	ERJ3GEY0R00V	0 1/16W	[M]
R2178	ERJ3GEYJ223V	22K 1/16W	[M]
R2200	ERJ3GEYJ102V	1K 1/16W	[M]
R2201	ERJ3GEYJ473V	47K 1/16W	[M]
R2211	ERJ3GEYJ333V	33K 1/16W	[M]
R2212	ERJ3GEYJ103V	10K 1/16W	[M]
R2213	ERJ3GEYJ103V	10K 1/16W	[M]
R2214	ERJ3GEYJ103V	10K 1/16W	[M]
R2215	ERJ3GEYJ273V	27K 1/16W	[M]
R2216	ERJ3GEYJ104V	100K 1/16W	[M]
R2217	ERJ3GEYJ104V	100K 1/16W	[M]
R2229	ERJ3GEYJ103V	10K 1/16W	[M]
R2230	ERJ3GEYJ103V	10K 1/16W	[M]
R2231	ERJ3GEYJ103V	10K 1/16W	[M]
R2232	ERJ3GEYJ103V	10K 1/16W	[M]
R2235	ERJ3GEYJ123V	12K 1/16W	[M]
R2244	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2245	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2246	ERJ3GEYJ333V	33K 1/16W	[M]
R2247	ERJ3GEYJ220V	22 1/16W	[M]
R2248	ERJ3GEYJ220V	22 1/16W	[M]
R2249	ERJ3GEYJ220V	22 1/16W	[M]
R2250	ERJ3GEYJ220V	22 1/16W	[M]
R2251	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2252	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2253	ERJ3GEYJ100V	10 1/16W	[M]
R2254	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2255	ERJ3GEYJ104V	100K 1/16W	[M]
R2256	ERJ3GEYJ103V	10K 1/16W	[M]
R2257	ERJ3GEYJ123V	12K 1/16W	[M]
R2260	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2261	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2262	ERJ3GEYJ333V	33K 1/16W	[M]
R2263	ERJ3GEYJ102V	1K 1/16W	[M]
R2264	ERJ3GEYJ273V	27K 1/16W	[M]
R2265	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2266	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2267	ERJ3GEYJ563V	56K 1/16W	[M]
R2268	ERJ3GEYJ273V	27K 1/16W	[M]
R2269	ERJ3GEYJ562V	5.6K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2271	ERJ3GEY0R00V	0 1/16W	[M]
R2278	ERJ3GEYJ223V	22K 1/16W	[M]
R2300	ERJ3GEYJ103V	10K 1/16W	[M]
R2301	ERJ3GEYJ302V	3K 1/16W	[M]
R2302	ERJ3GEYJ103V	10K 1/16W	[M]
R2303	ERJ3GEYJ473V	47K 1/16W	[M]
R2304	ERJ3GEYJ752V	7.5K 1/16W	[M]
R2305	ERJ3GEYJ102V	1K 1/16W	[M]
R2306	ERJ3GEYJ104V	100K 1/16W	[M]
R2307	ERJ3GEYJ101V	100 1/16W	[M]
R2308	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2309	ERJ3GEYJ563V	56K 1/16W	[M]
R2310	ERJ3GEYJ273V	27K 1/16W	[M]
R2311	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2312	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2400	ERJ3GEYJ103V	10K 1/16W	[M]
R2401	ERJ3GEYJ302V	3K 1/16W	[M]
R2402	ERJ3GEYJ103V	10K 1/16W	[M]
R2403	ERJ3GEYJ473V	47K 1/16W	[M]
R2404	ERJ3GEYJ752V	7.5K 1/16W	[M]
R2405	ERJ3GEYJ102V	1K 1/16W	[M]
R2406	ERJ3GEYJ104V	100K 1/16W	[M]
R2407	ERJ3GEYJ101V	100 1/16W	[M]
R2500	ERJ3GEYJ103V	10K 1/16W	[M]
R2501	ERJ3GEYJ473V	47K 1/16W	[M]
R2502	ERJ3GEYJ752V	7.5K 1/16W	[M]
R2503	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2504	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2505	ERJ3GEYJ102V	1K 1/16W	[M]
R2506	ERJ3GEYJ333V	33K 1/16W	[M]
R2507	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2508	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2509	ERJ3GEYJ563V	56K 1/16W	[M]
R2510	ERJ3GEYJ273V	27K 1/16W	[M]
R2511	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2521	ERJ3GEY0R00V	0 1/16W	[M]
R2600	ERJ3GEYJ103V	10K 1/16W	[M]
R2603	ERJ3GEYJ203V	20K 1/16W	[M]
R2604	ERJ3GEYJ333V	33K 1/16W	[M]
R2605	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2606	ERJ3GEYJ103V	10K 1/16W	[M]
R2607	ERJ3GEYJ223V	22K 1/16W	[M]
R2608	ERJ3GEYJ184V	180K 1/16W	[M]
R2609	ERJ3GEYJ563V	56K 1/16W	[M]
R2610	ERJ3GEYJ152V	1.5K 1/16W	[M]
R2611	ERJ3GEYJ563V	56K 1/16W	[M]
R2612	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2613	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2614	ERJ3GEYJ102V	1K 1/16W	[M]
R2615	ERJ3GEYJ104V	100K 1/16W	[M]
R2616	ERJ3GEYJ273V	27K 1/16W	[M]
R2617	ERJ3GEYJ273V	27K 1/16W	[M]
R2618	ERJ3GEYJ102V	1K 1/16W	[M]
R2619	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2620	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2621	ERJ3GEYJ563V	56K 1/16W	[M]
R2622	ERJ3GEYJ273V	27K 1/16W	[M]
R2623	ERJ3GEYJ104V	100K 1/16W	[M]
R2624	ERJ3GEYJ104V	100K 1/16W	[M]
R2625	ERJ3GEYJ223V	22K 1/16W	[M]
R2627	ERJ3GEYJ104V	100K 1/16W	[M]
R2629	ERJ3GEYJ333V	33K 1/16W	[M]
R2630	ERJ3GEYJ104V	100K 1/16W	[M]
R2631	ERJ3GEYJ104V	100K 1/16W	[M]
R2632	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2633	ERJ3GEYJ104V	100K 1/16W	[M]
R2634	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2635	ERJ3GEYJ103V	10K 1/16W	[M]
R2636	ERJ3GEYJ103V	10K 1/16W	[M]
R2637	ERJ3GEYJ102V	1K 1/16W	[M]
R2638	ERJ3GEYJ104V	100K 1/16W	[M]
R2639	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2640	ERJ3GEY0R00V	0 1/16W	[M]
R2641	ERJ3GEYJ392V	3.9K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2642	ERJ3GEYJ683V	68K 1/16W	[M]
R2643	ERJ3GEYJ104V	100K 1/16W	[M]
R2644	ERJ3GEYJ273V	27K 1/16W	[M]
R2645	ERJ3GEYJ563V	56K 1/16W	[M]
R2646	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2647	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2648	ERJ3GEYJ103V	10K 1/16W	[M]
R2649	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2650	ERJ3GEYJ333V	33K 1/16W	[M]
R2651	ERJ3GEYJ123V	12K 1/16W	[M]
R2652	ERJ3GEYJ104V	100K 1/16W	[M]
R2654	ERJ3GEYJ103V	10K 1/16W	[M]
R2655	ERJ3GEYJ103V	10K 1/16W	[M]
R2656	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2657	ERJ3GEYJ104V	100K 1/16W	[M]
R2658	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2659	ERJ3GEYJ563V	56K 1/16W	[M]
R2660	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2661	ERJ3GEYJ273V	27K 1/16W	[M]
R2662	ERJ3GEYJ104V	100K 1/16W	[M]
R2663	ERJ3GEYJ392V	3.9K 1/16W	[M]
R2664	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2708	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2709	ERJ3GEYJ273V	27K 1/16W	[M]
R2710	ERJ3GEYJ563V	56K 1/16W	[M]
R2711	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2712	ERJ3GEYJ104V	100K 1/16W	[M]
R2713	ERJ3GEYJ102V	1K 1/16W	[M]
R2801	ERJ3GEYJ1R0V	1 1/16W	[M]
R2803	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2804	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2805	ERJ3GEYJ1R0V	1 1/16W	[M]
R2806	ERJ3GEYJ1R0V	1 1/16W	[M]
R2808	ERJ3GEYJ1R0V	1 1/16W	[M]
R2811	ERJ3GEYJ103V	10K 1/16W	[M]
R2813	ERJ3GEYJ471V	47K 1/16W	[M]
R2815	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2817	ERJ3GEYJ102V	1K 1/16W	[M]
R2819	ERJ3GEYJ471V	47K 1/16W	[M]
R2820	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2821	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2822	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2823	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2824	ERJ3GEYJ821V	820 1/16W	[M]
R2825	ERD2FCVJ4R7T	4.7 1/4W	[M]
R2826	ERJ3GEYJ681V	680 1/16W	[M]
R2827	ERJ3GEYJ471V	47K 1/16W	[M]
R2828	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2829	ERJ3GEYJ102V	1K 1/16W	[M]
R2830	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2831	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2832	ERJ3GEYJ151V	150 1/16W	[M]
R2833	ERJ3GEYJ102V	1K 1/16W	[M]
R2834	ERJ3GEYJ102V	1K 1/16W	[M]
R2835	ERJ3GEYJ681V	680 1/16W	[M]
R2837	ERJ3GEYJ561V	560 1/16W	[M]
R2838	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2839	ERJ3GEYJ821V	820 1/16W	[M]
R2840	ERJ3GEYJ151V	150 1/16W	[M]
R2841	ERD2FCVJ4R7T	4.7 1/4W	[M]
R2842	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2843	ERJ3GEYJ471V	47K 1/16W	[M]
R2846	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2847	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2848	ERJ3GEYJ8R2V	8.2 1/16W	[M]
R2849	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2850	ERJ3GEYJ393V	39K 1/16W	[M]
R2851	ERJ3GEYJ153V	15K 1/16W	[M]
R2854	ERJ3GEYJ101V	100 1/16W	[M]
R2855	ERJ3GEYJ102V	1K 1/16W	[M]
R2856	ERJ3GEYJ823V	82K 1/16W	[M]
R2861	ERJ3GEYJ103V	10K 1/16W	[M]
R2878	ERJ3GEYJ1R0V	1 1/16W	[M]
R2879	ERJ3GEYJ1R0V	1 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2880	ERJ3GEYJ1R0V	1 1/16W	[M]
R2881	ERJ3GEYJ1R0V	1 1/16W	[M]
R2882	ERJ3GEYJ1R0V	1 1/16W	[M]
R2883	ERJ3GEYJ1R0V	1 1/16W	[M]
R2884	ERJ3GEYJ1R0V	1 1/16W	[M]
R2885	ERJ3GEYJ1R0V	1 1/16W	[M]
R2886	DOHB750ZA003	75 3W	[M]
R2887	DOHB750ZA003	75 3W	[M]
R2888	DOHB750ZA003	75 3W	[M]
R2889	DOHB750ZA003	75 3W	[M]
R2890	DOHB750ZA003	75 3W	[M]
R2891	DOHB750ZA003	75 3W	[M]
R2892	ERJ3GEYJ103V	10K 1/16W	[M]
R2893	ERJ3GEYJ153V	15K 1/16W	[M]
R2894	ERJ3GEYJ224V	220K 1/16W	[M]
R2895	ERJ3GEYJ103V	10K 1/16W	[M]
R2897	ERJ3GEYJ102V	1K 1/16W	[M]
R2898	ERJ3GEYJ331V	330 1/16W	[M]
R2903	ERJ3GEY0R00V	0 1/16W	[M]
R2904	ERJ3GEY0R00V	0 1/16W	[M]
R2905	ERJ3GEYJ1R0V	1 1/16W	[M]
R2916	ERJ3GEY0R00V	0 1/16W	[M]
R2917	ERJ3GEY0R00V	0 1/16W	[M]
R2918	ERJ3GEY0R00V	0 1/16W	[M]
R2919	ERJ3GEY0R00V	0 1/16W	[M]
R2920	ERJ3GEYJ103V	10K 1/16W	[M]
R2978	ERJ3GEYJ103V	10K 1/16W	[M]
R6005	ERJ3GEYJ681V	680 1/16W	[M]
R6006	ERJ3GEYJ102V	1K 1/16W	[M]
R6007	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6008	ERJ3GEYJ182V	1.8K 1/16W	[M]
R6009	ERJ3GEYJ390V	39 1/16W	[M]
R6011	ERJ3GEYJ151V	150 1/16W	[M]
R6012	ERJ3GEYJ151V	150 1/16W	[M]
R6013	ERJ3GEYJ223V	22K 1/16W	[M]
R6015	ERJ3GEYJ102V	1K 1/16W	[M]
R6017	ERJ3GEYJ102V	1K 1/16W	[M]
R6019	ERJ3GEYJ680V	68 1/16W	[M]
R6022	ERJ3GEYJ102V	1K 1/16W	[M]
R6023	ERJ3GEYJ102V	1K 1/16W	[M]
R6024	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6025	ERJ3GEYJ182V	1.8K 1/16W	[M]
R6026	ERJ3GEYJ222V	2.2K 1/16W	[M]
R6027	ERJ3GEYJ102V	1K 1/16W	[M]
R6028	ERJ3GEYJ223V	22K 1/16W	[M]
R6029	ERJ3GEYJ223V	22K 1/16W	[M]
R6030	ERJ3GEYJ223V	22K 1/16W	[M]
R6038	ERJ3GEYJ102V	1K 1/16W	[M]
R6050	ERJ3GEYJ2R7V	2.7 1/16W	[M]
R6051	ERJ3GEYJ2R7V	2.7 1/16W	[M]
R6080	ERJ3GEYJ681V	680 1/16W	[M]
R6081	ERJ3GEYJ681V	680 1/16W	[M]
R6082	ERJ3GEYJ561V	560 1/16W	[M]
R6083	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6084	ERJ3GEYJ474V	470K 1/16W	[M]
R6085	ERJ3GEYJ822V	8.2K 1/16W	[M]
R6086	ERJ3GEYJ105V	1M 1/16W	[M]
R6087	ERJ3GEYJ101V	100 1/16W	[M]
R6088	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6089	ERJ3GEYJ104V	100K 1/16W	[M]
R6090	ERJ3GEYJ152V	1.5K 1/16W	[M]
R6091	ERJ3GEYJ101V	100 1/16W	[M]
R6092	ERJ3GEYJ102V	1K 1/16W	[M]
R6095	ERJ3GEYJ680V	68 1/16W	[M]
R6099	ERJ3GEYJ272V	2.7K 1/16W	[M]
R8011	ERJ2GEJ220X	22 2W	[M]
R8021	ERJ2GEJ103X	10K 2W	[M]
R8022	ERJ2GEJ103X	10K 2W	[M]
R8023	ERJ2GEJ473X	47K 2W	[M]
R8041	ERJ2GEJ330X	33 2W	[M]
R8111	ERJ2GEJ223X	22K 2W	[M]
R8112	ERJ2GEJ223X	22K 2W	[M]
R8201	ERJ2GEJ222X	2.2K 2W	[M]
R8231	ERJ2GEJ103X	10K 2W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R8233	ERJ2GEJ153X	15K 2W	[M]
R8235	ERJ2GEJ822X	8.2K 2W	[M]
R8236	ERJ2GEJ822X	8.2K 2W	[M]
R8241	ERJ2GEJ223X	22K 2W	[M]
R8242	ERJ2GEJ752X	7.5K 2W	[M]
R8243	ERJ2GEJ103X	10K 2W	[M]
R8251	ERJ6GEYJ6R8V	6.8 1/10W	[M]
R8261	ERJ2GEJ823X	82K 2W	[M]
R8262	ERJ2GEJ472X	4.7K 2W	[M]
R8263	ERJ2GEJ823X	82K 2W	[M]
R8264	ERJ2GEJ472X	4.7K 2W	[M]
R8265	ERJ2GEOR00X	0 2W	[M]
R8311	ERJ2RHD242X	2.4K 2W	[M]
R8312	ERJ2RHD102X	1K 2W	[M]
R8313	ERJ2RHD243X	24K 2W	[M]
R8314	ERJ2GEOR00X	0 2W	[M]
R8315	ERJ2GEJ6R8X	6.8 2W	[M]
R8321	ERJ3RBD161V	160 3W	[M]
R8322	ERJ2RKD100X	10 2W	[M]
R8325	ERJ3RBD161V	160 3W	[M]
R8326	ERJ2GEOR00X	0 2W	[M]
R8331	ERJ3RBD161V	160 3W	[M]
R8332	ERJ2RKD100X	10 2W	[M]
R8335	ERJ3RED820V	82 3W	[M]
R8341	ERJ3RED820V	82 3W	[M]
R8401	ERJ2GEJ473X	47K 2W	[M]
R8402	ERJ2GEJ101X	100 2W	[M]
R8404	ERJ2GEJ101X	100 2W	[M]
R8407	ERJ2GEJ101X	100 2W	[M]
R8420	ERJ2GEJ222X	2.2K 2W	[M]
R8421	ERJ2GEOR00X	0 2W	[M]
R8501	ERJ2GEOR00X	0 2W	[M]
R8505	ERJ2GEJ222X	2.2K 2W	[M]
R8506	ERJ2GEJ152X	1.5K 2W	[M]
R8550	ERJ2GEJ752X	7.5K 2W	[M]
R8551	ERJ2GEOR00X	0 2W	[M]
R8552	ERJ2GEJ102X	1K 2W	[M]
R8553	ERJ2GEJ102X	1K 2W	[M]
R8554	ERJ2GEJ680X	68 2W	[M]
R8555	ERJ2GEJ2R2X	2.2 2W	[M]
R8556	ERJ3GEYJ560V	56 1/16W	[M]
R8557	ERJ3GEYJ510V	51 1/16W	[M]
R8558	ERJ2GEJ473X	47K 2W	[M]
R8559	ERJ2GEJ153X	15K 2W	[M]
R8560	ERJ2GEJ102X	1K 2W	[M]
R8561	ERJ2GEOR00X	0 2W	[M]
R8562	ERJ2GEJ102X	1K 2W	[M]
R8563	ERJ2GEJ102X	1K 2W	[M]
R8564	ERJ2GEJ220X	22 2W	[M]
R8565	ERJ2GEJ2R2X	2.2 2W	[M]
R8566	ERJ3GEYJ560V	56 1/16W	[M]
R8567	ERJ3GEYJ510V	51 1/16W	[M]
R8568	ERJ2GEJ473X	47K 2W	[M]
R8569	ERJ2GEJ123X	12K 2W	[M]
R8570	ERJ2GEJ104X	100K 2W	[M]
R8601	ERJ2GEJ102X	1K 2W	[M]
R8606	ERJ2GEJ104X	100K 2W	[M]
R8607	ERJ2GEJ103X	10K 2W	[M]
R8611	ERJ2GEJ101X	100 2W	[M]
R8621	ERJ2GEJ105X	1M 2W	[M]
R8622	ERJ2RHD102X	1K 2W	[M]
K8001	ERJ2GEOR00X	CHIP JUMPER	[M]
K8003	ERJ2GEOR00X	CHIP JUMPER	[M]
K8006	ERJ2GEOR00X	CHIP JUMPER	[M]
K8008	ERJ2GEOR00X	CHIP JUMPER	[M]
K8031	ERJ2GEOR00X	CHIP JUMPER	[M]
K8106	ERJ3GEYOR00V	CHIP JUMPER	[M]
K8421	ERJ3GEYOR00V	CHIP JUMPER	[M]
		CHIP INDUCTORS	
LB8001	J0JHC0000045	CHIP INDUCTOR	[M]
LB8002	J0JHC0000045	CHIP INDUCTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
LB8301	J0JCC0000119	CHIP INDUCTOR	[M]
LB8302	J0JCC0000119	CHIP INDUCTOR	[M]
LB8303	J0JCC0000119	CHIP INDUCTOR	[M]
LB8304	J0JCC0000119	CHIP INDUCTOR	[M]
LB8305	J0JCC0000119	CHIP INDUCTOR	[M]
LB8401	ERJ2GEJ151X	CHIP RESISTOR	[M]
LB8421	ERJ2GEOR00X	CHIP INDUCTOR	[M]
LB8422	ERJ2GEOR00X	CHIP INDUCTOR	[M]
LB8423	ERJ2GEOR00X	CHIP INDUCTOR	[M]
LB8424	ERJ2GEOR00X	CHIP INDUCTOR	[M]
LB8425	ERJ2GEOR00X	CHIP INDUCTOR	[M]
LB8426	ERJ2GEOR00X	CHIP INDUCTOR	[M]
LB8427	ERJ2GEOR00X	CHIP INDUCTOR	[M]
LB8428	ERJ2GEOR00X	CHIP INDUCTOR	[M]
LB8429	ERJ2GEOR00X	CHIP INDUCTOR	[M]
LB8430	ERJ2GEOR00X	CHIP INDUCTOR	[M]
LB8491	ERJ2GEOR00X	CHIP INDUCTOR	[M]
LB8502	J0JHC0000045	CHIP INDUCTOR	[M]
LB8503	ERJ2GEOR00X	CHIP INDUCTOR	[M]
LB8504	J0JCC0000119	CHIP INDUCTOR	[M]
LB8505	J0JCC0000119	CHIP INDUCTOR	[M]
LB8507	J0JCC0000119	CHIP INDUCTOR	[M]
LB8511	ERJ3GEYOR00V	CHIP RESISTOR	[M]
LB8512	ERJ3GEYOR00V	CHIP RESISTOR	[M]
LB8513	ERJ3GEYOR00V	CHIP RESISTOR	[M]
LB8514	ERJ3GEYOR00V	CHIP RESISTOR	[M]
LB8690	J0JCC0000091	FILTER	[M]
LB8691	ERJ2GEJ101X	CHIP RESISTOR	[M]
LB8692	ERJ2GEJ101X	CHIP RESISTOR	[M]
LB8693	ERJ2GEJ101X	CHIP RESISTOR	[M]
		CAPACITORS	
C984	ECA1EAK100XE	10 25V	[M]
C2000	ECJ1VB1C104K	0.1 16V	[M]
C2001	ECJ1VB1C104K	0.1 16V	[M]
C2003	ECEA1AKA220B	22 10V	[M]
C2004	ECJ1VB1E103K	0.01 25V	[M]
C2005	ECA1AM102B	1000 10V	[M]
C2006	ECEA1HKA2R2B	2.2 50V	[M]
C2007	ECJ1VB1C104K	0.1 16V	[M]
C2008	ECJ1VB1C104K	0.1 16V	[M]
C2009	ECEA0JKA101B	100 6.3V	[M]
C2019	ECJ1VB1H331K	330P 50V	[M]
C2020	ECJ1VB1H331K	330P 50V	[M]
C2021	ECJ1VB1H331K	330P 50V	[M]
C2022	ECJ1VB1H223K	0.022 50V	[M]
C2028	ECJ1VB1A105K	1 10V	[M]
C2029	ECJ1VB1A105K	1 10V	[M]
C2032	ECJ1VB1C104K	0.1 16V	[M]
C2034	ECJ1VB1C104K	0.1 16V	[M]
C2035	ECJ1VB1H103K	0.01 50V	[M]
C2036	ECEA1HKA220I	22 50V	[M]
C2037	ECJ1VB1H103K	0.01 50V	[M]
C2038	ECEA1AKA221I	220 10V	[M]
C2039	ECJ1VB1H103K	0.01 50V	[M]
C2040	ECA0JM102B	1000 6.3V	[M]
C2042	ECA0JM102B	1000 6.3V	[M]
C2044	ECA0JM102B	1000 6.3V	[M]
C2046	ECA0JM331I	330 6.3V	[M]
C2047	ECA0JM331I	330 6.3V	[M]
C2053	ECJ1VB1E103K	0.01 25V	[M]
C2090	ECJ1VB1E103K	0.01 25V	[M]
C2101	ECJ1VB1H223K	0.022 50V	[M]
C2102	ECJ1VB1C393K	0.039 16V	[M]
C2112	ECJ1VC1H471J	470P 50V	[M]
C2121	ECJ1VC1H151K	150P 50V	[M]
C2122	ECJ1VC1H391K	390P 50V	[M]
C2123	ECEA1HKA100I	10 50V	[M]
C2124	ECJ1VC1H101K	100P 50V	[M]
C2125	ECJ1VC1H330J	33P 50V	[M]
C2126	ECJ1VB1E103K	0.01 25V	[M]
C2127	ECJ1VB1A105K	1 10V	[M]
C2128	ECJ1VB1A105K	1 10V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2130	ECJ1VB1A154K	0.15 10V	[M]
C2131	ECJ1VB1H332K	3300P 50V	[M]
C2133	ECJ1VB1A105K	1 10V	[M]
C2138	ECJ1VC1H221J	220P 50V	[M]
C2139	ECJ1VC1H101K	100P 50V	[M]
C2140	ECJ1VB1H681K	680P 50V	[M]
C2149	ECJ1VB1A105K	1 10V	[M]
C2150	ECEA1HKA010I	1 50V	[M]
C2151	ECJ1VC1H101K	100P 50V	[M]
C2152	ECJ1VC1H470J	47P 50V	[M]
C2153	ECA1CM101B	100 16V	[M]
C2154	ECJ1VB1E103K	0.01 25V	[M]
C2155	ECJ1VB1H102K	1000P 50V	[M]
C2156	ECJ1VB1A105K	1 10V	[M]
C2157	ECEA1HKA010B	1 50V	[M]
C2160	ECJ1VB1H471K	470P 50V	[M]
C2161	ECJ1VB1C104K	0.1 16V	[M]
C2162	ECJ1VB1C333K	0.033 16V	[M]
C2163	ECEA1HKA3R3B	3.3 50V	[M]
C2164	ECJ1VB1H272K	2700P 50V	[M]
C2165	ECJ1VB1A124K	0.12 10V	[M]
C2166	ECJ1VB1A124K	0.12 10V	[M]
C2167	ECEA1HKA4R7I	4.7 50V	[M]
C2168	ECEA1HKA3R3I	3.3 50V	[M]
C2169	ECJ1VB1H471K	470P 50V	[M]
C2170	ECEA1HKA4R7I	4.7 50V	[M]
C2175	ECJ1VB1C563K	0.056 16V	[M]
C2201	ECJ1VB1H223K	0.022 50V	[M]
C2202	ECJ1VB1C393K	0.039 16V	[M]
C2210	ECJ1VB1H223K	0.022 50V	[M]
C2211	ECJ1VB1C823K	0.082 16V	[M]
C2212	ECJ1VC1H471J	470P 50V	[M]
C2219	ECJ1VB1A124K	0.12 10V	[M]
C2220	ECJ1VB1A124K	0.12 10V	[M]
C2221	ECJ1VC1H151K	150P 50V	[M]
C2222	ECJ1VC1H391K	390P 50V	[M]
C2223	ECEA1HKA100I	10 50V	[M]
C2224	ECJ1VC1H101K	100P 50V	[M]
C2225	ECJ1VC1H330J	33P 50V	[M]
C2226	ECJ1VB1E103K	0.01 25V	[M]
C2227	ECJ1VB1A105K	1 10V	[M]
C2228	ECJ1VB1A154K	0.15 10V	[M]
C2229	ECJ1VB1A105K	1 10V	[M]
C2231	ECJ1VB1A105K	1 10V	[M]
C2232	ECJ1VB1H332K	3300P 50V	[M]
C2237	ECJ1VB1C104K	0.1 16V	[M]
C2238	ECJ1VC1H221J	220P 50V	[M]
C2239	ECJ1VC1H101K	100P 50V	[M]
C2249	ECJ1VB1A105K	1 10V	[M]
C2250	ECEA1HKA010I	1 50V	[M]
C2251	ECJ1VC1H101K	100P 50V	[M]
C2252	ECJ1VC1H470J	47P 50V	[M]
C2253	ECA1CM101B	100 16V	[M]
C2254	ECJ1VB1E103K	0.01 25V	[M]
C2255	ECJ1VB1H102K	1000P 50V	[M]
C2256	ECJ1VB1A105K	1 10V	[M]
C2257	ECEA1HKA010B	1 50V	[M]
C2260	ECJ1VB1H471K	470P 50V	[M]
C2261	ECJ1VB1C104K	0.1 16V	[M]
C2262	ECJ1VB1C333K	0.033 16V	[M]
C2263	ECEA1HKA3R3I	3.3 50V	[M]
C2264	ECEA1HKA100I	10 50V	[M]
C2265	ECJ1VB1H272K	2700P 50V	[M]
C2266	ECEA1HKA4R7I	4.7 50V	[M]
C2267	ECEA1HKA4R7I	4.7 50V	[M]
C2270	ECJ1VB1C563K	0.056 16V	[M]
C2300	ECEA1CKA100B	10 16V	[M]
C2301	ECJ1VB1H471K	470P 50V	[M]
C2302	ECJ1VB1A105K	1 10V	[M]
C2303	ECEA1HKAR33B	0.33 50V	[M]
C2310	ECJ1VB1H223K	0.022 50V	[M]
C2320	ECJ1VB1A105K	1 10V	[M]
C2400	ECEA1HKA100B	10 50V	[M]
C2401	ECJ1VB1A105K	1 10V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2402	ECJ1VB1H471K	470P 50V	[M]
C2403	ECJ1VB1A105K	1 10V	[M]
C2404	ECEA1HKAR33B	0.33 50V	[M]
C2405	ECJ1VB1A105K	1 10V	[M]
C2500	ECEA1CKA100B	10 16V	[M]
C2501	ECEA1HKA100I	10 50V	[M]
C2502	ECEA1HKA010I	1 50V	[M]
C2503	ECJ1VB1C333K	0.033 16V	[M]
C2504	ECJ1VB1C104K	0.1 16V	[M]
C2505	ECEA1HKA010I	1 50V	[M]
C2506	ECJ1VB1E103K	0.01 25V	[M]
C2507	ECJ1VB1H471K	470P 50V	[M]
C2508	ECEA1HKA4R7I	4.7 50V	[M]
C2511	ECJ1VB1A105K	1 10V	[M]
C2521	ECJ1VB1A105K	1 10V	[M]
C2522	ECJ1VB1A105K	1 10V	[M]
C2600	ECJ1VB1A105K	1 10V	[M]
C2602	ECEA1HKA100I	10 50V	[M]
C2603	ECEA1HKA100I	10 50V	[M]
C2604	ECJ1VB1H222K	2200P 50V	[M]
C2605	ECJ1VB1A474K	0.47 10V	[M]
C2606	ECJ1VB1A124K	0.12 10V	[M]
C2607	ECJ1VB1A474K	0.47 10V	[M]
C2608	ECJ1VB1C104K	0.1 16V	[M]
C2609	ECJ1VB1H562K	5600P 50V	[M]
C2610	ECEA1HKA100B	10 50V	[M]
C2611	ECEA1HKA4R7I	4.7 50V	[M]
C2612	ECEA1HKA4R7I	4.7 50V	[M]
C2613	ECJ1VB1E103K	0.01 25V	[M]
C2615	ECJ1VB1H562K	5600P 50V	[M]
C2616	ECEA1CKA100I	10 16V	[M]
C2617	ECEA1HKA100I	10 50V	[M]
C2618	ECJ1VB1C473K	0.047 16V	[M]
C2619	ECJ1VB1A474K	0.47 10V	[M]
C2620	ECJ1VB1H104K	0.1 50V	[M]
C2621	ECJ1VC1H330J	33P 50V	[M]
C2627	ECEA1HKA100I	10 50V	[M]
C2628	ECEA1HKA010B	1 50V	[M]
C2630	ECEA1HKA100I	10 50V	[M]
C2631	ECEA1HKA4R7I	4.7 50V	[M]
C2632	ECJ1VC1H101K	100P 50V	[M]
C2633	ECJ1VC1H221J	220P 50V	[M]
C2635	ECJ1VB1H223K	0.022 50V	[M]
C2636	ECEA1HKA4R7I	4.7 50V	[M]
C2637	ECEA1HKA4R7I	4.7 50V	[M]
C2702	ECEA1HKA4R7B	4.7 50V	[M]
C2705	ECJ1VB1H471K	470P 50V	[M]
C2706	ECJ1VB1H102K	1000P 50V	[M]
C2801	ECJ1VC1H101K	100P 50V	[M]
C2802	ECA1EM221B	220 25V	[M]
C2803	ECJ1VC1H101K	100P 50V	[M]
C2804	ECJ1VC1H101K	100P 50V	[M]
C2805	ECJ1VC1H101K	100P 50V	[M]
C2806	EEUFC0J821B	820P 6.3V	[M]
C2807	ECJ1VC1H101K	100P 50V	[M]
C2808	ECJ1VC1H101K	100P 50V	[M]
C2809	ECEA1EKA330B	33 25V	[M]
C2810	ECJ1VC1H101K	100P 50V	[M]
C2811	ECJ1VB1H103K	0.01 50V	[M]
C2812	ECJ1VC1H101K	100P 50V	[M]
C2813	ECEA1AKA221I	220 10V	[M]
C2814	ECJ1VC1H101K	100P 50V	[M]
C2815	ECJ1VB1H103K	0.01 50V	[M]
C2816	ECJ1VC1H221J	220P 50V	[M]
C2817	ECEA0JKA221B	220 6.3V	[M]
C2818	ECJ1VC1H221J	220P 50V	[M]
C2819	ECJ1VB1A105K	1 10V	[M]
C2820	ECJ1VB1E103K	0.01 25V	[M]
C2821	ECEA0JKA470B	47 6.3V	[M]
C2822	ECJ1VB1E103K	0.01 25V	[M]
C2823	ECJ1VB1A105K	1 10V	[M]
C2824	ECJ1VB1A105K	1 10V	[M]
C2825	ECA0JM331B	330 6.3V	[M]
C2826	ECQB1H104JF4	0.1 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2827	ECEA1HKA100I	10 50V	[M]
C2828	ECA1HM101B	100 50V	[M]
C2829	ECA1HM101B	100 50V	[M]
C2830	F2A1E1020065	1000P 25V	[M]
C2831	ECEA1CKA470B	47 16V	[M]
C2832	F2A1E1020065	1000P 25V	[M]
C2833	ECEA1CKA470B	47 16V	[M]
C2834	ECA1HM101B	100 50V	[M]
C2835	ECA1HM101B	100 50V	[M]
C2836	ECA1CM101B	100 16V	[M]
C2837	ECJ1VB1H103K	0.01 50V	[M]
C2838	ECJ1VB1H103K	0.01 50V	[M]
C2839	ECEA1AKA330B	33 10V	[M]
C2840	ECJ1VB1C104K	0.1 16V	[M]
C2841	ECA1EM472B	4700 25V	[M]
C2842	ECJ1VB1A105K	1 10V	[M]
C2844	ECJ1VB1H103K	0.01 50V	[M]
C2845	ECJ1VB1C104K	0.1 16V	[M]
C2846	ECA1EM101B	100 25V	[M]
C2847	ECJ1VB1H103K	0.01 50V	[M]
C2848	ECA1CM101B	100 16V	[M]
C2851	ECJ1VB1H103K	0.01 50V	[M]
C2853	ECEA1HKN4R7B	4.7 50V	[M]
C2854	ECA1EM101B	100 25V	[M]
C2855	ECA1EM101B	100 25V	[M]
C2856	ECA1HM101B	100 50V	[M]
C2857	ECJ1VB1A225K	2.2 10V	[M]
C2858	ECJ1VB1A225K	2.2 10V	[M]
C2859	ECJ1VB1H103K	0.01 50V	[M]
C2901	ECEA1HKA010I	1 50V	[M]
C6000	ECJ1VB1H473K	0.047 50V	[M]
C6001	ECJ1VB1H473K	0.047 50V	[M]
C6002	ECJ1VB1H102K	1000P 50V	[M]
C6003	ECEA1HKA220B	22 50V	[M]
C6005	ECEA1HKA220B	22 50V	[M]
C6006	ECJ1VB1H102K	1000P 50V	[M]
C6007	ECEA1HKA100B	10 50V	[M]
C6008	ECEA0JKS470B	47 6.3V	[M]
C6009	ECJ1VB1H103K	0.01 50V	[M]
C6011	ECEA0JKS101B	100 6.3V	[M]
C6012	ECJ1VB1H103K	0.01 50V	[M]
C6014	ECJ1VC1H101K	100P 50V	[M]
C6015	ECJ1VC1H101K	100P 50V	[M]
C6016	ECJ1VC1H101K	100P 50V	[M]
C6017	ECJ1VC1H101K	100P 50V	[M]
C6021	ECJ1VC1H101K	100P 50V	[M]
C6022	ECJ1VC1H101K	100P 50V	[M]
C6068	ECEA1HKA4R7B	4.7 50V	[M]
C6070	ECEA1HKA4R7B	4.7 50V	[M]
C6071	ECJ1VB1H102K	1000P 50V	[M]
C6072	ECJ1VB1H471K	470P 50V	[M]
C6074	ECJ1VB1H102K	1000P 50V	[M]
C6076	ECEA1HKA010B	1 50V	[M]
C6077	ECJ1VB1C333K	0.033 16V	[M]
C6078	ECEA1HKA010B	1 50V	[M]
C6079	ECJ1VB1H102K	1000P 50V	[M]
C6080	ECJ1VC1H101K	100P 50V	[M]
C6082	ECEA1HKA010B	1 50V	[M]
C6086	ECJ1VB1H102K	1000P 50V	[M]
C6087	ECEA1AKA221B	220 10V	[M]
C6092	ECJ1VB1H104K	0.1 50V	[M]
C6093	ECJ1VB1H104K	0.1 50V	[M]
C8001	F2G0J101A066	100P 6.3V	[M]
C8002	F2G0G331A012	33P 4V	[M]
C8003	ECJOEB1E222K	2200P 25V	[M]
C8004	ECJOEF1C104Z	0.1 16V	[M]
C8005	ECJOEF1C104Z	0.1 16V	[M]
C8006	ECJOEF1C104Z	0.1 16V	[M]
C8007	ECJOEF1C104Z	0.1 16V	[M]
C8008	ECJOEF1C104Z	0.1 16V	[M]
C8009	ECJOEF1C104Z	0.1 16V	[M]
C8010	ECJOEF1C104Z	0.1 16V	[M]
C8011	ECJ1VB0J105K	1 6.3V	[M]
C8012	ECJOEF1C104Z	0.1 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C8013	ECJOEF1C104Z	0.1 16V	[M]
C8014	ECJOEF1C104Z	0.1 16V	[M]
C8015	ECJ1VB0J105K	1 6.3V	[M]
C8016	ECJ1VB0J105K	1 6.3V	[M]
C8017	ECJOEF1C104Z	0.1 16V	[M]
C8018	ECJOEF1C104Z	0.1 16V	[M]
C8019	ECJ1VB0J105K	1 6.3V	[M]
C8020	ECJOEF1C104Z	0.1 16V	[M]
C8021	ECJOEF1C104Z	0.1 16V	[M]
C8022	ECJOEF1C104Z	0.1 16V	[M]
C8023	ECJ1VB0J105K	1 6.3V	[M]
C8024	ECJ1VB0J105K	1 6.3V	[M]
C8025	ECJOEF1C104Z	0.1 16V	[M]
C8026	ECJOEB1E222K	2200P 25V	[M]
C8027	ECJOEF1C104Z	0.1 16V	[M]
C8028	ECJ1VB0J105K	1 6.3V	[M]
C8031	ECJOEF1C104Z	0.1 16V	[M]
C8051	ECJ1VB0J105K	1 6.3V	[M]
C8052	ECJOEF1C104Z	0.1 16V	[M]
C8053	ECJOEB1H221J	220P 50V	[M]
C8054	ECJ1VB0J105K	1 6.3V	[M]
C8055	ECJ1VB0J105K	1 6.3V	[M]
C8056	ECJOEF1C104Z	0.1 16V	[M]
C8057	ECJOEB1E222K	2200P 25V	[M]
C8111	ECJOEB1A104K	0.1 10V	[M]
C8112	ECJ1VB0J105K	1 6.3V	[M]
C8113	ECJOEB1E471K	470P 25V	[M]
C8201	F2H0J101A003	100P 6.3V	[M]
C8202	F2G0J101A066	100P 6.3V	[M]
C8203	ECJOEF1C104Z	0.1 16V	[M]
C8204	ECJOEF1C104Z	0.1 16V	[M]
C8205	ECJOEF1C104Z	0.1 16V	[M]
C8206	ECJ1VB0J105K	1 6.3V	[M]
C8207	ECJ1VF1C104Z	0.1 16V	[M]
C8208	ECJOEF1C104Z	0.1 16V	[M]
C8211	ECJOEB1A333K	0.033 10V	[M]
C8212	ECJOEF1C104Z	0.1 16V	[M]
C8213	ECJOEF1C104Z	0.1 16V	[M]
C8214	ECJOEF1C104Z	0.1 16V	[M]
C8215	ECJOEB1E562K	5600P 25V	[M]
C8216	ECJOEB1C183K	0.018 16V	[M]
C8217	ECJ1VB0J105K	1 6.3V	[M]
C8218	ECJ1VB0J105K	1 6.3V	[M]
C8221	ECJOEB1A104K	0.1 10V	[M]
C8222	ECJOEB1A104K	0.1 10V	[M]
C8223	ECJOEB1A104K	0.1 10V	[M]
C8224	ECJOEB1A104K	0.1 10V	[M]
C8225	ECJOEF1C104Z	0.1 16V	[M]
C8226	ECJOEF1C104Z	0.1 16V	[M]
C8227	ECJOEF1C104Z	0.1 16V	[M]
C8228	ECJ1VB0J105K	1 6.3V	[M]
C8229	ECJ1VB0J105K	1 6.3V	[M]
C8232	ECJ1VF1C104Z	0.1 16V	[M]
C8233	ECJOEB1E472K	4700P 25V	[M]
C8234	ECJOEF1C104Z	0.1 16V	[M]
C8235	ECJOEB1H102K	1000P 50V	[M]
C8236	ECJOEB1H102K	1000P 50V	[M]
C8237	ECJOEB1H102K	1000P 50V	[M]
C8238	ECJOEB1H821K	820P 50V	[M]
C8241	ECJOEB1A104K	0.1 10V	[M]
C8242	ECJOEB1A104K	0.1 10V	[M]
C8251	F2G0J221A065	220P 6.3V	[M]
C8252	F2G1C470A076	47P 16V	[M]
C8253	F2H1C220A003	22P 16V	[M]
C8254	ECJOEF1C104Z	0.1 16V	[M]
C8255	ECJOEF1C104Z	0.1 16V	[M]
C8256	ECJOEF1C104Z	0.1 16V	[M]
C8257	ECJOEF1C104Z	0.1 16V	[M]
C8261	ECJOEF1C104Z	0.1 16V	[M]
C8262	ECJOEF1C104Z	0.1 16V	[M]
C8301	F2H0J2210006	220P 6.3V	[M]
C8302	F2H0J330A003	33P 6.3V	[M]
C8303	ECJOEF1C104Z	0.1 16V	[M]
C8304	ECJ1VB0J105K	1 6.3V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C8307	ECJ0EF1C104Z	0.1 16V	[M]
C8308	ECJ0EC1H150J	15P 50V	[M]
C8311	ECJ0EF1C104Z	0.1 16V	[M]
C8312	ECJ1VB0J105K	1 6.3V	[M]
C8421	F2G0J101A083	100P 6.3V	[M]
C8422	ECJ0EF1C104Z	0.1 16V	[M]
C8423	F2G0J330A083	33P 6.3V	[M]
C8424	ECJ0EF1C104Z	0.1 16V	[M]
C8426	ECJ0EF1C104Z	0.1 16V	[M]
C8427	ECJ0EF1C104Z	0.1 16V	[M]
C8428	ECJ0EF1C104Z	0.1 16V	[M]
C8501	ECJ3YB1A106M	10 10V	[M]
C8502	ECJ0EF1C104Z	0.1 16V	[M]
C8503	ECJ0EF1C104Z	0.1 16V	[M]
C8504	ECJ0EF1C104Z	0.1 16V	[M]
C8505	ECJ0EC1H221J	220P 50V	[M]
C8506	ECJ0EC1H101J	100P 50V	[M]
C8550	F2H0J330A003	33P 6.3V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C8551	ECJ0EF1C104Z	0.1 16V	[M]
C8552	F2G1C100A072	10P 16V	[M]
C8553	F2H0J470A003	47P 6.3V	[M]
C8554	ECJ1VB0J105K	1 6.3V	[M]
C8561	ECJ0EF1C104Z	0.1 16V	[M]
C8562	F2G1C100A072	10P 16V	[M]
C8563	F2H0J470A003	47P 6.3V	[M]
C8564	ECJ1VB0J105K	1 6.3V	[M]
C8601	ECJ0EF1C104Z	0.1 16V	[M]
C8606	ECJ0EF1C104Z	0.1 16V	[M]
C8607	ECJ0E0B0J224K	0.22 6.3V	[M]
C8611	ECJ0EF1C104Z	0.1 16V	[M]
C8621	ECJ0EC1H120J	12P 50V	[M]
C8622	ECJ0EC1H120J	12P 50V	[M]
C8651	ECJ0EF1C104Z	0.1 16V	[M]
C8652	ECJ0EF1C104Z	0.1 16V	[M]
C8691	ECJ0EF1C104Z	0.1 16V	[M]
C8695	ECJ0EF1C104Z	0.1 16V	[M]

26.4. Packing Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGX1440	PACKING CASE	[M]
P2	RPNX0290	POLYFOAM	[M]
P3	RPFX0058	MIRAMAT SHEET	[M]
		ACCESSORIES	
A1	EUR7722XF0	REMOTE CONTROL	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
A1-1	UR76EC3103A	R/C BATTERY COVER	[M]
A2	K2CQ2CA00002	AC CORD	[M] △
A3	RQT7981-M	O/I BOOK (Sp)	[M]
A4	RSA0007-L	FM ANTENNA	[M]
A5	K1HA25HA0001	SYSTEM CABLE	[M]
A6	N1DAAA00001	AM LOOP ANTENNA	[M]
A7	K2KA2CA00011	VIDEO CABLE	[M]
A8	K2DA42E00001	AC PLUG ADAPTOR	[M]
A9	RQCA1029	SPEAKER LABEL	[M]

26.5. Packaging

