

Service Manual

Blu-ray Disc Player

Model No. **DMP-BDT300EE**
DMP-BDT300EG

Vol. 1

Colour

(K).....Black Type



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.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by  in the Schematic Diagrams, Circuit Board 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.

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1 Safety Precautions

1.1. General Guidelines

1. IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by

⚠ in the Schematic Diagrams, Circuit Board Layout, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent X-RADIATION, shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

2. An Isolation Transformer should always be used during the servicing of AC Adaptor whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks. It will also protect AC Adaptor from being damaged by accidental shorting that may occur during servicing.
3. 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.
4. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
5. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.2. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between $1\text{ M}\Omega$ and $5.2\text{ M}\Omega$. When the exposed metal does not have a return path to the chassis, the reading must be infinity.

1.3. 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 $1.5\text{ k}\Omega$, 10 W resistor, in parallel with a $0.15\text{ }\mu\text{F}$ capacitor, between each exposed metallic part on the set and a good earth ground, as shown in Figure 1.
3. Use an AC voltmeter, with $1\text{ k}\Omega/\text{V}$ 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 V RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed $1/2\text{ mA}$. 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.

Hot-Check Circuit

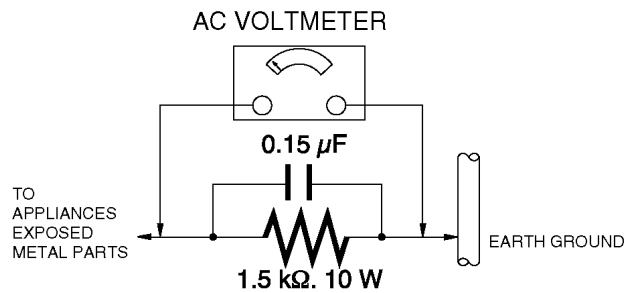


Figure. 1

2 Warning

2.1. Prevention of Electrostatic Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices.

Examples of typical ES devices are IC (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 electrostatic 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 aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an antistatic solder removal device. Some solder removal devices not classified as "antistatic (ESD protected)" can generate electrical charge sufficient 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, aluminum 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).

2.2. Caution for AC Cord (For the United Kingdom and Republic of Ireland)

2.2.1. Information for Your Safety

IMPORTANT

Your attention is drawn to the fact that recording of pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

WARNING

To reduce the risk of fire or shock hazard, do not expose this equipment to rain or moisture.

CAUTION

To reduce the risk of fire or shock hazard and annoying interference, use the recommended accessories only.

FOR YOUR SAFETY

DO NOT REMOVE THE OUTER COVER

To prevent electric shock, do not remove the cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

2.2.2. Caution for AC Mains Lead

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three-pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5 amperes and it is approved by ASTA or BSI to BS1362

Check for the ASTA mark or the BSI mark on the body of the fuse.



If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover, the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local Panasonic Dealer.

If the fitted moulded plug is unsuitable for the socket outlet in your home then the fuse should be removed and the plug cut off and disposed of safely.

There is a danger of severe electrical shock if the cut off plug is inserted into any 13-ampere socket.

If a new plug is to be fitted please observe the wiring code as shown below.

If in any doubt, please consult a qualified electrician.

2.2.2.1. Important

The wires in this mains lead are coloured in accordance with the following code:

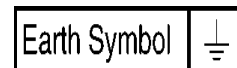
Blue	Neutral
Brown	Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

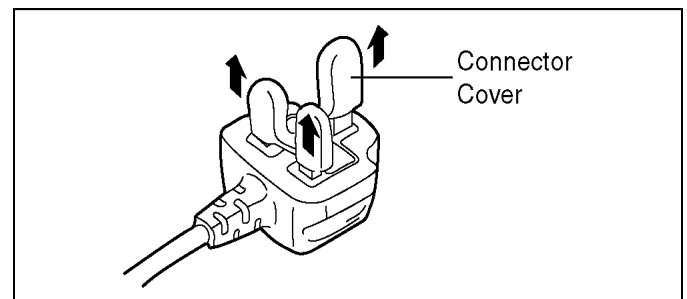
The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol.



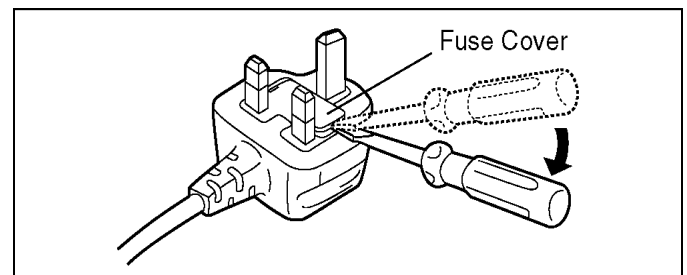
2.2.2.2. Before Use

Remove the Connector Cover as follows.

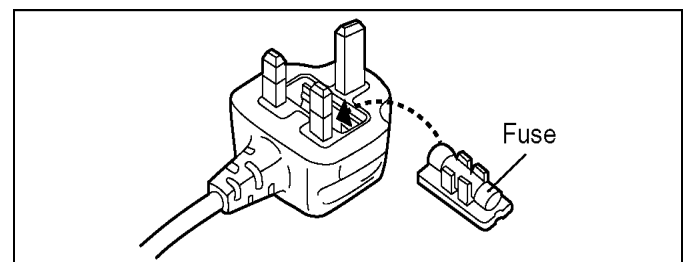


2.2.2.3. How to Replace the Fuse

1. Remove the Fuse Cover with a screwdriver.



2. Replace the fuse and attach the Fuse cover.



2.3. Precaution of Laser Diode

CAUTION

This product utilizes a laser diode with the unit turned “on”, invisible laser radiation is emitted from the pick-up lens. Wave length: 790 nm (CDs)/ 650 nm (DVDs)/ 405 nm (BDs) Maximum output radiation power from pick-up: 100 μW/VDE Laser radiation from the pick-up lens is safety level, but be sure the followings:

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

ACHTUNG

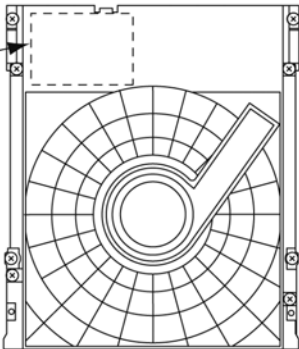
Dieses Produkt enthält eine Laserdiode. Im eingeschalteten Zustand wird unsichtbare Laserstrahlung von der Lasereinheit abgestrahlt. Wellenlänge: 790 nm (CDs)/ 650 nm (DVDs)/ 405 nm (BDs) Maximale Strahlungsleistung der Lasereinheit: 100 μW/VDE Die Strahlung der Lasereinheit ist ungefährlich, wenn folgende Punkte beachtet werden:

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



LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT

CAUTION	- VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM. FDA 21 CFR 108.10 (b)
CAUTION	- CLASS 1M VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. IEC60825-1, 4.2/CLASS 1M
ATTENTION	- RAYONNEMENT LASER VISIBLE ET INVISIBLE, CLASSE 1M. EN CAS D'OUVERTURE: NE PAS REGARDER DIRECTEMENT A L'AIDE D'INSTRUMENTS D'OPTIQUE.
FORSIGTIG	- SYNLIG OG USYNLIG LASERSTRÅLING KLASSE 1M. NÅR LÅGET ER ÅBENT, UNDGÅ AT SE LIGE PÅ MED OPTISKE INSTRUMENTER.
VARO	- AVATTAESSA OLET ALTITIN LUOKAN 1M NÄKYYVÄÄ JA NÄKYMÄTÖNTÄ LASERLÄITELVÄ. ÄLÄ KATSO OPTISELLÄ LAITTEELLA SUORAAN SÄTEESEEN.
VARNING	- KLASS 1M SYNLIG OCH OSYNLIG LASERSTRÅLNING NÅR DENNA DEL ÄR ÖPPNAD. BETRÄKTA EJ STRÅLEN DIREKT GENOM OPTISKT INSTRUMENT.
VORSICHT	- SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG KLASSE 1M. WENN ABDECKUNG GEÖFFNET: NICHT DIREKT MIT OPTISCHEN INSTRUMENTEN BETRACHTEN.
注意	- 打开时有可见及不可见激光辐射。避免光束照射。
注意	- ここを開くと可視及び不可視レーザー光が出ます。 ビームを直接、覗いたりしないでください。
VQ61V70	



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.

2.4. Service Caution Based On Legal Restrictions

This service manual contains technical information, which allow service personnel's to understand and service this model.

Please place orders using the parts list and not the drawing reference numbers.

If the circuit is changed or modified, the information will be followed by service manual to be controlled with original service manual.

2.4.1. General Description About Lead Free Solder (PbF)

The lead free solder has been used in the mounting process of all electrical components on the printed circuit boards used for this equipment in considering the globally environmental conservation.

The normal solder is the alloy of tin (Sn) and lead (Pb). On the other hand, the lead free solder is the alloy mainly consists of tin (Sn), silver (Ag) and Copper (Cu), and the melting point of the lead free solder is higher approx.30°C (86°F) more than that of the normal solder.

Distinction of P.C.B. Lead Free Solder being used

The letter of "PbF" is printed either foil side or components side on the P.C.B. using the lead free solder.(See right figure)
--

PbF

Service caution for repair work using Lead Free Solder (PbF)

- The lead free solder has to be used when repairing the equipment for which the lead free solder is used.
(Definition: The letter of "PbF" is printed on the P.C.B. using the lead free solder.)
- To put lead free solder, it should be well molten and mixed with the original lead free solder.
- Remove the remaining lead free solder on the P.C.B. cleanly for soldering of the new IC.
- Since the melting point of the lead free solder is higher than that of the normal lead solder, it takes the longer time to melt the lead free solder.
- Use the soldering iron (more than 70W) equipped with the temperature control after setting the temperature at 350±30°C (662±86°F).

Recommended Lead Free Solder (Service Parts Route.)

- The following 3 types of lead free solder are available through the service parts route.
 - RFKZ03D01KS----- (0.3mm 100g Reel)
 - RFKZ06D01KS----- (0.6mm 100g Reel)
 - RFKZ10D01KS----- (1.0mm 100g Reel)

Note

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

2.5. Static Electricity Protection Measures

- The laser diode in the traverse unit (optical pick-up) may break down due to potential difference caused by static electricity of clothes or human body.

So, be careful of electrostatic breakdown during repair of the traverse unit (optical pick-up).

2.6. Ground for electrostatic breakdown prevention

- As for parts that use optical pick-up (laser diode), the optical pick-up is destroyed by the static electricity of the working environment.

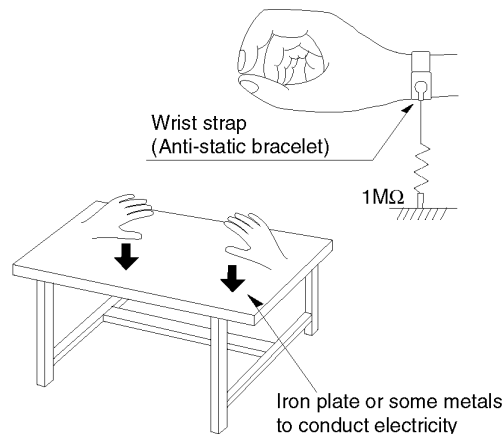
Repair in the working environment that is grounded.

2.6.1. Work table grounding

- Put a conductive material (sheet) or steel sheet on the area where the traverse unit (optical pick-up) is placed, and ground the sheet.

2.6.2. Human body grounding

- Use the anti-static wrist strap to discharge the static electricity from your body.



2.6.3. When exchange the BDP Drive

- Before remove the ESD prevention bag, make sure to use the anti-static wrist strap to discharge the static electricity when replace the BDP Drive.

Note:

The ESD prevention bag is used to replace the original short-circuit point.

It can be removed while placing the BDP Drive.

3 Service Navigation

3.1. Service Information

This service manual contains technical information which will allow service personnel's to understand and service this model. Please place orders using the parts list and not the drawing reference numbers.

If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

1. This service manual does not contain the following information, because of the impossibility of servicing at component level.
 - Schematic Diagram, Block Diagram and P.C.B. layout of Digital P.C.B., Drive P.C.B..
 - Parts List for individual parts of Digital P.C.B..
 - Exploded View and Parts List for individual parts of BD Drive.
2. The following category are recycle module part. Please send them to Central Repair Center.
 - Digital P.C.B. (DMP-BDT300EE: RFKB76219DT)
 - Digital P.C.B. (DMP-BDT300EG: RFKB76219BT)
 - BD Drive: VXY2095

3.2. Caution for DivX

Please will always pass the customer "Warning for Customers Who Use the DivX Video-on-Demand content." with the product and get it when you unavoidably exchange FLASH ROM or P.C.B. including FLASH ROM (When the product is exchanged, it is the same.).

You must use print attached to service part (FLASH ROM or P.C.B. including FLASH ROM) or must use copy of print below as "Warning for Customers Who Use the DivX Video-on-Demand content."

Information needed without fail for the customer for whom it is used continuing DivX Video-on-Demand Service to "Manual for the customer" is recorded.

Appendix:

*Parts that memorize user's information are only FLASH ROM.

*The registration of Registration Code is possible for half a year up to 6 recorders up to 10 recorders a year.

About DivX Video-on-Demand Control

ABOUT DIVX VIDEO-ON-DEMAND:

This DivX Certified® device must be registered in order to play DivX Video-on-Demand (VOD) content.

To generate the registration code, locate the DivX VOD section in the device setup menu.

Go to vod.divx.com with this code to complete the registration process and learn more about DivX VOD.

- Video images of the DivX VOD contents stored on USB device can be output only through the HDMI output terminal.

Display the unit's registration code.



- After playing DivX VOD content for the first time, the registration code is not displayed.
- If you purchase DivX VOD content using a registration code different from this unit's code, you will not be able to play this content.

Cancel the unit's registration.

Press [◀, ▶] to select "Yes" in "DivX Registration".

Use the deregistration code to cancel the registration in www.divx.com.

Regarding DivX VOD content that can only be played a set number of times

Some DivX VOD contents can only be played a set number of times. When you play this content, the number of times already played and initially playable number of times is displayed.

- The remaining number of plays decreases each time a programme is played. However, when playing from the point where play was previously stopped, the remaining number of plays does not decrease due to the resume play function.

Registration Code is memorized in FLASH ROM (Digital P.C.B.).

If exchange above P.C.B. or FLASH ROM, new registration Code differ from previous Registration Code will be generated.

In this case if your customer uses DivX Video-on-Demand service, he/she will no longer be able to play any content that he/she purchased under that same registration code.

Therefore your customer will need to obtain and register the new registration code.

*Copy this page and cut on the dotted line and give the lower half to your customer.

Warning for Customers Who Use the DivX Video-on-Demand content.

1. The registration code has been changed for the repair of the product or the product exchange.
2. Obtain and register a new registration code, otherwise you will no longer be able to play DivX Video-on-Demand content.
3. Follow the procedure on the DivX Video-on-Demand web site to register at <http://vod.divx.com/>.

*If you do not use the DivX Video-on-Demand content, please ignore this warning.

4 Specifications

Power supply:	AC 220 to 240 V, 50 Hz
Power consumption:	Approx. 32 W
In standby mode:	Approx. 0.2 W
In quick start standby mode:	Approx. 8.1 W
Operating temperature range:	+5°C to +35°C
Operating humidity range:	10 % to 80 % RH (no condensation)
Signal system:	PAL/NTSC
Video output:	
Output level:	1.0 Vp-p (75 Ω)
Output connector:	Pin jack (1 system)
Component video output:	
(1080i/720p/480p/480i:60 Hz)	
(1080i/720p/576p/576i:50 Hz)	
Y output level:	1.0 Vp-p (75 Ω)
P _B output level:	0.7 Vp-p (75 Ω)
P _R output level:	0.7 Vp-p (75 Ω)
Output connector:	Pin jack (Y:green, P _B :blue, P _R :red) (1 system)
Video performance:	
Horizontal resolution:	More than 500 lines
Video S/N ratio:	More than 65 dB
Audio output:	
Output level:	2 Vrms (1 kHz, 0 dB)
Output connector:	Pin jack
Number of connectors:	7.1 channel discrete output 1 system (2 channel + 5.1 channel discrete output)
Audio performance:	
Frequency response:	
DVD(linear audio):	4 Hz to 22 kHz (48 kHz sampling) 4 Hz to 44 kHz (96 kHz sampling)
CD-Audio:	4 Hz to 20 kHz
S/N ratio:	115 dB
Dynamic range:	100 dB
Total harmonic distortion:	0.003 %
Digital audio output:	
Optical digital output:	Optical terminal
Coaxial digital output:	Pin jack
HDMI AV output:	
Output format:	480p(525p)/1080i(1125i)/ 720p(750p)/1080p(1125p) HDMI (V.1.4 with 3D, Content Type) This unit supports "HDAVI Control 5" function.
Output connector:	TypeA (19 pin): 2 systems (Main/ Sub)
SD card slot:	
Connector:	1 system
USB slot:	
USB2.0:	2 systems
Ethernet:	
10BASE-T/100BASE-TX:	1 system
Optical pick-up:	
Wave length:	System with 2 lenses 790 nm (CDs)/650 nm (DVDs)/ 405 nm (BDs)
LASER Specification	
Class 1 LASER Product:	
Wave length:	790 nm (CDs)/650 nm (DVDs)/ 405 nm (BDs)
Laser power:	No hazardous radiation is emitted with the safety protection
Region management	
information:	
For the United Kingdom, Continental Europe and Republic of Ireland ("EG" Model)	

DVD-Video:	region number "2" or "ALL"
BD-Video:	region code "B"
For CIS and India ("EE" Model)	
DVD-Video:	region number "5" or "ALL"
BD-Video:	region code "C"

Media:

Playable disc:

BD-Video (Blu-ray 3D, BD-LIVE, BONUS VIEW):	BD-ROM Version 2.4
BD-RE:	Version3(Single Layer / Dual Layer), JPEG
BD-R:	Version2(Single Layer / Dual Layer), DivX*4*5
DVD-RAM:	DVD Video Recording format, AVCHD format, JPEG
DVD-R/DVD-R DL:	DVD-Video format*1, DVD Video Recording format*1, AVCHD format*1, JPEG*2, MP3*2, DivX*2*3*5
DVD-RW:	DVD-Video format*1, DVD Video Recording format*1, AVCHD format*1
+R/+RW/+R DL:	Video*1, AVCHD format*1
DVD-Video:	DVD-Video format
CD-Audio:	CD-DA
CD-R/CD-RW:	CD-DA, JPEG*2, MP3*2, DivX*2*5

*1 Finalizing is necessary.

*2 ISO9660 level 1 or 2 (except for extended formats), Joliet
This unit is compatible with multi-session.
This unit is not compatible with packet writing.

*3 UDF1.02 without ISO9660, UDF1.5 with ISO9660

*4 UDF2.5

*5 DivX Certified to play DivX video up to Plus HD 1080p,
including premium content.
GMC (Global Motion Compensation) is not supported.
Maximum number of folders recognizable: 300 folders.
(including the root folder)
Maximum number of files recognizable: 200 files.
MPEG-4 AVC (H.264) profile is up to High Profile, Level.
AAC-LC, MP3 and Dolby Digital audio can be decode.

SD card:

SD Memory Card*6	JPEG, AVCHD format, MPEG-2 formatted FAT12, FAT16, FAT32, exFAT*7
*6 support SDHC, SDXC card	
support miniSD™ Cards (need a miniSD™ Adaptor.)	
support microSD™/microSDHC/microSDXC Cards (need a microSD™ Adaptor.)	
*7 SDXC only	

USB device:

USB Standard:	USB 2.0 High Speed MP3, JPEG, DivX
Format:	FAT12, FAT16, FAT32

Contents:

JPEG:

(SD card, CD-R/CD-RW, DVD-RAM, DVD-R/DVD-R DL, BD-RE, USB device)

File format:	JPEG
Pixels:	34 x 34 to 8192 x 8192
Sub Sampling:	4:2:2, 4:2:0 Motion JPEG not supported.
SD card:	JPEG conforming DCF (Design rule for Camera File system)
Thawing Time:	approx. 2sec (7M pixels)

Maximum folders:	CD-R/CD-RW: 99 SD card, DVD-RAM, BD-RE, DVD-R/DVD-R DL, USB device: 300
Maximum files:	CD-R/CD-RW: 999 SD card, DVD-RAM, DVD-R/ DVD-R DL, USB device: 3000 BE-RE: 9999
MP3: (CD-R/CD-RW, DVD-R/DVD-R DL, USB device)	
File format:	MP3
Compression rate:	32 kbps to 320 kbps
Sampling rate:	44.1 kHz, 48 kHz
AVCHD (H.264): (DVD-RAM, DVD-R/DVD-R DL, DVD-RW, +R/+RW/+R DL, SD Card)	
File format:	AVCHD format V1.0
Dimensions:	430mm(W) x 238mm(D) x 66mm(H) (excluding the projecting parts) 430mm(W) x 245mm(D) x 66mm(H) (including the projecting parts)
Mass:	Approx. 2.6 kg

For the United Kingdom, Continental Europe and Republic of Ireland ("EG" Model)

Wireless LAN Adaptor (DY-WL10)

Power supply:	DC 5 V (USB powered) 500 mA
Power consumption:	Max 2500 mW
Dimensions:	44mm(W) x 72mm(D) x 27mm(H)
Mass:	Approx. 29 g
Antenna:	T x 1, R x 2
Interface:	USB 2.0
Standard Compliance:	IEEE802.11n / IEEE802.11a / IEEE802.11g / IEEE802.11b
Transmission system:	MISO-OFDM system, OFDM system, DSSS system
Frequency range:	
IEEE802.11n / IEEE802.11a:	5.15 GHz to 5.35 GHz 5.47 GHz to 5.725 GHz
IEEE802.11g / IEEE802.11b / IEEE802.11n:	2.4 GHz to 2.4835 GHz
Transfer rate (standard):	
IEEE802.11n:	Tx Max. 150 Mbps, Rx Max. 300 Mbps
IEEE802.11g / IEEE802.11a:	Max. 54 Mbps
IEEE802.11b:	Max. 11 Mbps
(Transfer rates are theoretical values; however, actual communication rate will vary according to communication environment or connected equipment.)	
Access Mode:	Infrastructure mode
Security:	WPA2-PSK (TKIP/AES) WPA-PSK (TKIP/AES) WEP (64bit/128bit)
(This unit supports WPA and WPA2 encryption.)	
Solder:	This model uses lead free solder (PbF).
Note:	Specifications are subject to change without notice.

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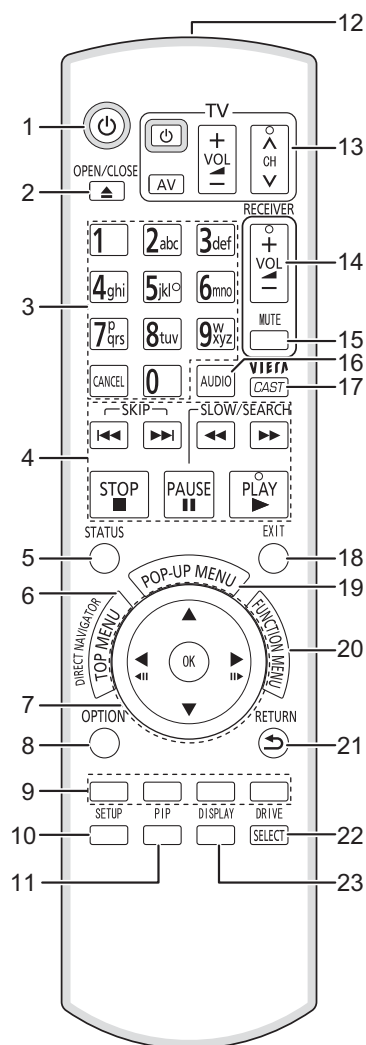
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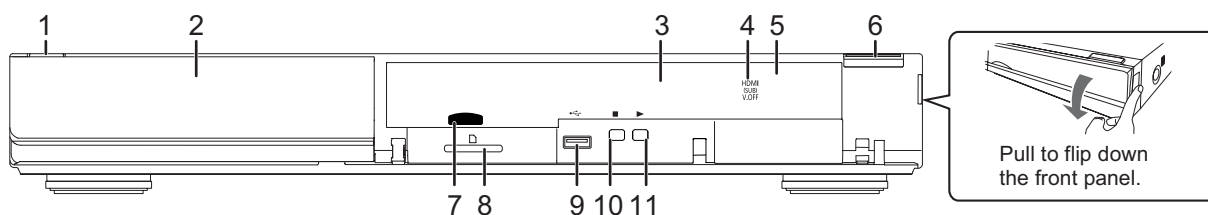
Contact Information
cdrequest@am-linux.jp

Source code is also freely available to you and any other member of the public via our website below.
<http://www.am-linux.jp/dl/JPRCBW98>

5 Location of Controls and Components



- 1 Turn the unit on and off
- 2 Open or close the disc tray
- CAUTION**
Do not place objects in front of the unit. The disc tray may collide with objects when it is opened, and this may cause malfunction.
- 3 Select title numbers, etc./Enter numbers or characters
[CANCEL] : Cancel
- 4 Basic playback control buttons
- 5 Show status messages
- 6 Show Top menu/DIRECT NAVIGATOR
- 7 Selection/OK, Frame-by-frame
- 8 Show OPTION menu
- 9 Coloured buttons (red, green, yellow, blue)
These buttons are used when;
 - Operating a BD-Video disc that includes Java™ applications (BD-J).
 - Displaying "Title View" and "Album View" screens.
 - Operating contents of VIERA CAST.
- 10 Show Setup menu
- 11 Switch on/off Secondary Video (Picture-in-picture)
- 12 Transmit the remote control signal
- 13 **TV operation buttons**
You can operate the TV through the unit's remote control.
 [TV] : Turn the television on and off
 [AV] : Switch the input select
 [+ - VOL] : Adjust the volume
 [^ v CH] : Channel select
- 14 Adjust the volume of an amplifier/receiver.
- 15 Mute the sound of an amplifier/receiver.
- 16 Select audio
- 17 Displays the Home screen of the VIERA CAST
- 18 Exit the menu screen
- 19 Show Pop-up menu
- 20 Show FUNCTION menu
- 21 Return to previous screen
- 22 Select drive (BD/DVD/CD, SD card or USB device)
- 23 Show playback menu



- 1 **Standby/on switch (⏻/⏻)**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- 2 Disc tray
- 3 Display
- 4 **V.OFF LED (Video off LED)**
 - It is possible to set the LED to turn on/off.
- 5 Remote control signal sensor
Distance: Within approx. 7 m
Angle: Approx. 20° up and down, 30° left and right
- 6 Open or close the disc tray
- 7 SD Card LED
 - It is possible to set the LED to turn on/off.
- 8 SD card slot
- 9 USB port
- 10 Stop
- 11 Start play

		
Disc indicator	SD card indicator	USB device indicator

The indicator blinks when reading data from a disc, a card or a USB device, or writing data to a card.

6 Operating Instructions

6.1. Taking out the Disc from BD Drive Unit when the Disc cannot be ejected by OPEN/CLOSE button

6.1.1. When the power can be turned off.

6.1.1.1. When the power can be turned off.

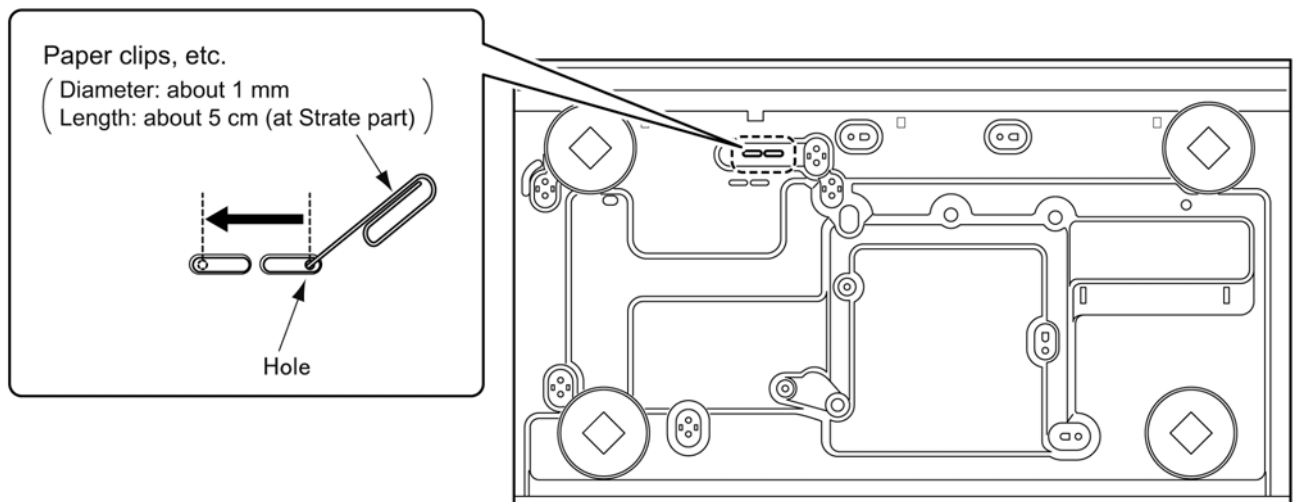
1. Turn the unit off, then press and hold [OK], [Yellow] and [Blue] buttons on the remote control simultaneously for 5 seconds.
- "00 RET" is displayed on the unit's FL display.
2. Repeatedly press the right cursor button on the remote Control or Power button on the unit until "06 FTO" is displayed on the unit's FL display.
3. Press [OK] button on the remote control or [OPEN/CLOSE] button on the unit.

6.1.1.2. When the power can not be turned off.

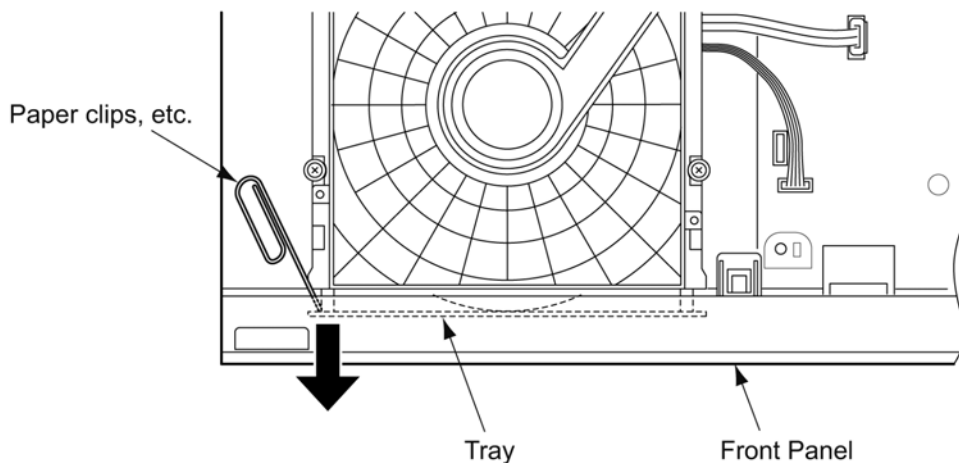
Press [POWER] button on the unit for over 4 seconds to turn off the power forcibly, and step 1 to 3 above.

6.1.2. When the Forcible Disc Eject can not be done.

1. Turn off the power and pull out AC cord.
2. Remove the Top Case.
3. Put the unit so that bottom can be seen.
4. Insert paper clips, etc. into the hole on the bottom of BD Drive and slide the paper clips, etc. in the direction of the arrow to eject tray slightly.



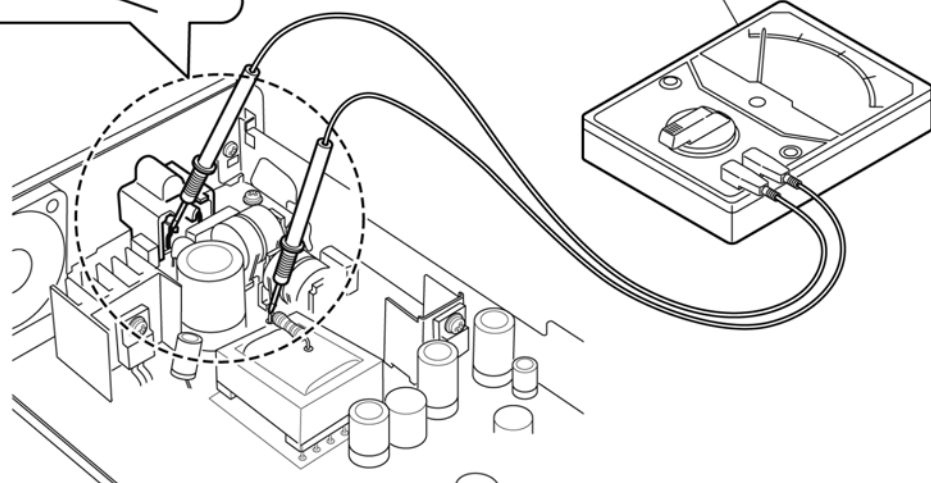
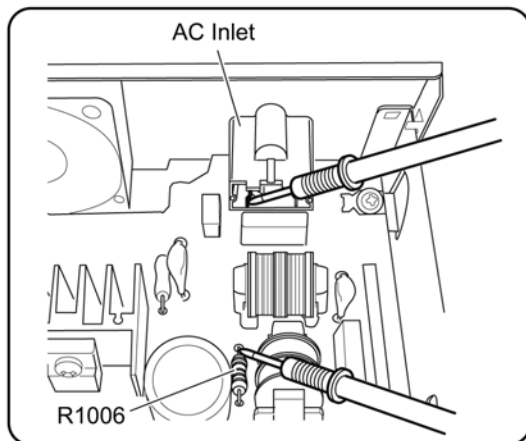
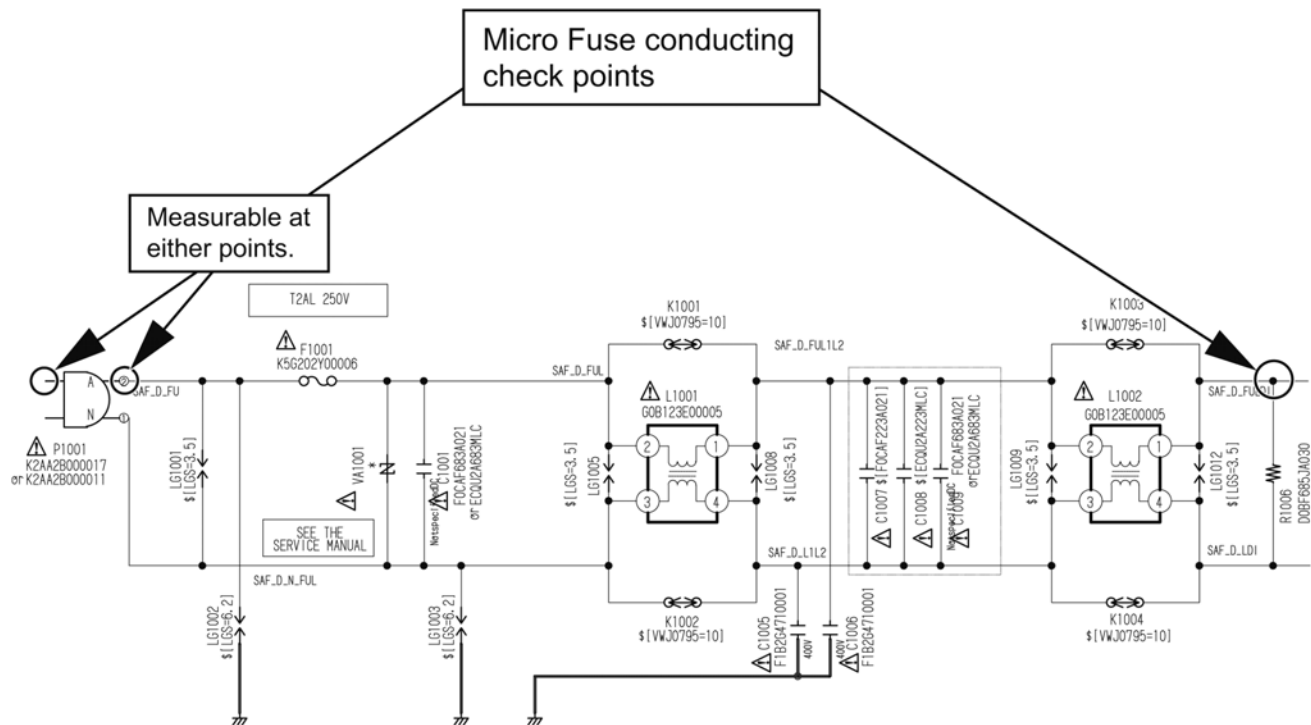
5. Pull the unit upward, and push out Tray by paper clips, etc. or minus screw driver (small).



6.2. Micro Fuse Conducting Check

This unit uses the Micro Fuse.

Check the Micro Fuse conducting using the Tester at the check points below.



7 Multiple Pressing Function

7.1. About the Multiple Pressing of the Unit's Remote Control

The remote control which included this unit is possible pressing multiple buttons simultaneously (Multiple Pressing function), and can operate for the customer's initial settings and the Service Mode, etc.

The Multiple Pressing function is not available for conventional models' remote control. Use the remote control included this unit.

7.2. How to enter the Special Modes using the Multiple Pressing Function of the Unit's Remote Control

For pressing the multiple buttons of the remote control, this unit can be entering each of the following special modes.

After entering each mode, and then go to the menu you want to run.

Open Mode	Privately Mode 1	Privately Mode 2
[OK] [Yellow] [Blue]	[6] [7] [Yellow]	[5] [9] [Red]
		

- **Move the menus for each mode:** ↓ mark
Press [Right Cursor] button (Remote Cont.) or [Power] button (Unit)
- **Execute**
Press [OK] button (Remote Cont.) or [Open/Close] button (Unit)
* After executing the menu will automatically exit the special mode.
- **How to exit from the special modes**
 - Press the unrelated buttons for the operation.
 - No operation for 2 minutes or more.
 - Press and hold [Power] button on the unit.(Forcible Power Off)

7.2.1. Open Mode (Remote Cont. Buttons: [OK] [Yellow] [Blue])

When pressing the 3 buttons, [OK], [Yellow] and [Blue] simultaneously for 5 seconds, "00 RET" is displayed on the FL display.

Unit's Power	DISC	FL display	Execute key	Function	Descriptions
OFF	Yes / No	00 RET	-	-	
		↓ 06 FTO	[OK]	Forced Tray Open	When the [Open/Close] button does not work, open the disc tray forcible. If still close, refer to "6. 1. 2. When the Forcible Disc Eject can not be done."
		↓ 08 FIN	[OK] (Press and Hold)	Restore the factory settings	All settings included Quick Start setting and Network settings are restored the factory settings.
ON	Yes / No	00 RET	-	-	-
	No	↓ 03 VL	[OK]	BD / DVD video viewing unrestricted	The parental control of BD Video and DVD Video are cancelled.
	Yes / No	↓ 04 PRG	[OK] (Press and Hold)	Initialization of the Progressive Setting	Initialize the Progressive setting and switch the display mode to the Interlace mode. When pressing and holding the [Stop] button (remote control / main unit) instead of the [OK] button, current menu is moved to "10 OCL" (Disc Tray Lock/Unlock setting).
	Yes / No	↓ 05 P/N	[OK] (Press and Hold)	Switch the TV System	Switch the TV system to another one. If the current TV system is PAL, NTSC is switched to, and vice versa.
	Yes / No	↓ 07 DC	[OK] (Press and Hold)	Initialization of the Deep Colour setting	Initialize the Deep Colour setting.
	Yes	↓ 10 OCL	[OK]	Disk Tray Lock / Unlock setting (Setting for [Open/Close] button valid /invalid)	While "04 PRG" is displayed, press and hold the [Stop] button (remote control / main unit) is move to this menu. Press the [OK] button for locking /unlocking the disc tray. • If no disc in drive, "NoDisc" is displayed and cannot be locked. • Lock state is retained even if power off.

7.2.2. Privately Mode 1 (Remote Cont. Buttons: [6] [7] [Yellow])

When pressing the 3 buttons, [6], [7] and [Yellow] simultaneously for 5 seconds, "50 RET" is displayed on FL display.

Unit's Power	DISC	FL display	Execute key	Function	Descriptions
ON	Yes / No	50 RET	-	-	-
		↓ 51 NOP	[OK]	-	When "51 NOP" is displayed and pressing and holding the [Stop] button (remote control / main unit), current menu is moved to "52 BRE" (BD-ROM set of clear history).
		↓ 52 BRE	[OK]	Delete the playback history of BD-Video	While "51 NOP" is displayed, press and hold the [Stop] button (remote control / main unit) is move to this menu. Press the [OK] button for deleting the playback history of BD-Video.

7.2.3. Privately Mode 2 (Remote Cont. Buttons: [5] [9] [Red])

When pressing the 3 buttons, [5], [9] and [Red] simultaneously for 5 seconds, "70 RET" is displayed on FL display.

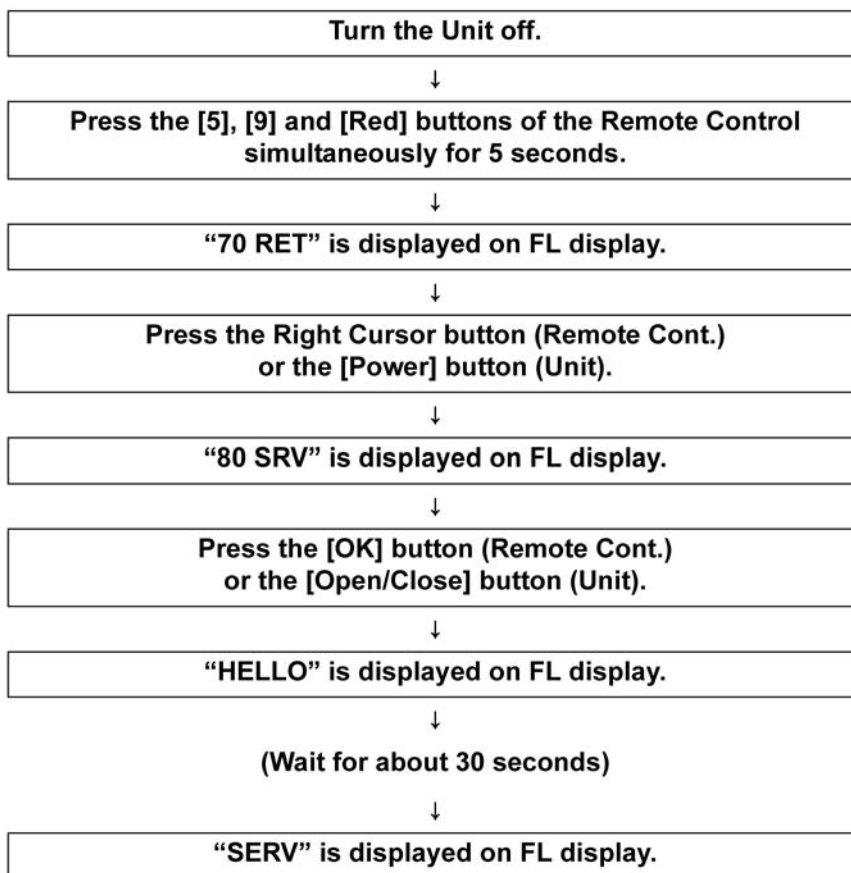
Unit's Power	DISC	FL display	Execute key	Function	Descriptions
OFF	Yes / No	70 RET	-	-	-
		↓ 80 SRV	[OK]	Enter the Service Mode	Press the [OK] button then "HELLO" is displayed on the FL display. Wait about 30 seconds for displaying "SERV" on the FL display.
		↓ 83 SDI	[OK]	CD/SD Diag	Not used in field service.
		↓ 91 SPD	[OK]	Special Display	Not used in field service.
		↓ 92 F99	[OK]	Select valid/invalid of the F99 function.	Not used in field service.
ON	Yes / No	70 RET	-	-	-
		↓ 81 AIG	[OK]	Enter the Ageing Mode	
		↓ 83 SDI	[OK]	CD/SD Diag	Not used in field service.
		↓ 91 SPD	[OK]	Special Display	Not used in field service.
		↓ 92 F99	[OK]	Select valid/invalid of the F99 function.	Not used in field service.

8 Service Mode

8.1. About the Service Mode

Information necessary for service can be displayed.

8.1.1. How to enter the Service Mode



8.1.2. How to exit the Service Mode

Press and hold the [Power] button (remote control or unit).

>>> The Service Mode is terminated and automatically turns the unit off.

8.2. Service Mode List

The display of information to each command is as follows.

Note:

Do not use it excluding the designated command.

Key operation (remote control keys)	Mode name	FL display (Example)	Descriptions
[0] [0]	Release Items	SERV	Item of Service Mode executing is cancelled.
[0] [1]	Self -Diagnosis Display	UXX or HXX or FXX (F99)	Last Error Code of U/H/F held by memory is displayed on FL display. (XX: 2 digits numeric) *Details are described in "Self-Diagnosis Functions".
[0] [2]	ROM Version Display	NO_#\$_ (NO 2B)	#: Region of DVD (Example: 1,2 ...) \$: Region of BD (Example: A,B ...) (Display for 5 seconds.)
		**** (2000)	Main firm version (Display for 5 seconds.)
		*** (210 PE)	Timer firm version (Display for 5 seconds.)
		**** (K107)	Drive firm version (Display for 5 seconds.)
		*** (001)	Timer ROM correction version (Display for 5 seconds.)
		*** (250)	B002 version (Display for 5 seconds.)
		*** (250)	B003 version (Until pressing any key, the display remains.)
[0] [3]	Loaded Drive Correction Check Display	DRV OK	The loaded drive is correspondence to the model.
		DRV NG	The loaded drive is not correspondence to the model.
[3] [4]	-	*****	Not used (Don't care this value.)
[3] [8]	Quick check of the BD drive error history	DRV OK	No error history and still drive OK.
		DRV NG	There are some error history, and still drive no good.
[4] [1]	Laser Used Time Display	BP**** (BP 0)	BD playback laser used time ****: Hour unit
		BR 0	Not used (Don't care this value.)
	Check laser used time (hours) of drive. When the use time exceeds 9999 hours, it is displayed as **9999.	DP**** (DP 0)	DVD playback laser used time ****: Hour unit
		DR 0	Not used (Don't care this value.)
		CD**** (CD 0)	CD playback laser used time ****: Hour unit

Key operation (remote control keys)	Mode name	FL display (Example)	Descriptions
[4] [2]	Drive Last Error Display	NO _ ** (NO 2A)	Error Number is displayed for 5 seconds.
		*****	Not used (Don't care this value.)
		***** (031600)	Last drive error is displayed (1/2)
		***** (450402)	Last drive error is displayed (2/2)
		XXXXXX (BDROM)	Error occurring disc type is displayed for 5 seconds. BDROM: BD-ROM(BD-Video) BDRE: BD-RE BDR: BD-R DVD: DVD-Video RAM26: DVD-RAM(2.6G) RAM47: DVD-RAM(4.7G) DVDR: DVD-R DVDRW: DVD-RW DVDPR: DVD+R DVDPRW: DVD+RW CD: CD CDR: CD-R CDRW: CD-RW MEDIA *: Error of other disc types (*: RTSC responded value)
		*****	Disc maker ID of error occurring is displayed for 5 seconds. (In case that the maker cannot be identified, display is black out for 5 seconds.)
		**\$## (hexadecimal)	Factor of drive error **: Error occurring operation code
			Factor of drive error \$\$: Error occurring disk type
			Factor of drive error ##: Error occurring disk situation
		NODATA	No drive last error information.
[4] [3]	BER Value	BER	During measurement.
		a_BX-e (9 7x-4)	Measurements result of BER Value.
		ERROR	Measurements failure
		NODISC	No measurable disc in drive.
[4] [4]	-	*****	Not used (Don't care this value.)
[4] [5]	-	*****	Not used (Don't care this value.)
[4] [7]	BEX Value	BL0*** BL1***	Measurements of BEX value for BD-RE (Dual Layer)
[4] [8]	PD Balance	1F****	FE amplitude regularization (0 - 9999)
		2F****	FE symmetry (0 - 9999)
		3F *	Number of reflection sides (0 - 9)
		ERROR	Measurements failure

Key operation (remote control keys)	Mode name	FL display (Example)	Descriptions
[4] [9] (Please follow the procedure and operate.)	DVD Playback Jitter	***	The amount of the LBA jitter at the position in which the playback began from the stop is measured. [Procedure] 1. Playback start. (Use playback possible disc.) 2. The playback point is moved to the place to be measured. (Use [SKIP] and [SLOW/SEARCH] button) 3. Push the [PAUSE] button, at the position to be measured. Afterwards, the following operation is done. [STOP] - [PLAYBACK] - [PAUSE] 4. Press remote control buttons [4] [9]. 5. The amount of jitter is displayed.
[5] [5]	CEC(H) Output Check	CECHOK CECHNG	Check of the CEC terminal high output of HDMI.
[5] [6]	CEC(L) Output Check	CECLOK CECLNG	Check of the CEC terminal low output of HDMI.
[6] [1]	-	*****	Not used (Don't care this value.)
[6] [2]	-	*****	Not used (Don't care this value.)
[6] [5]	Quick analysis error history	DRV NG	According to the error history, the loaded drive failures occurred within 4 weeks. (The result is valid that the date is set correctly.)
		DRV OK	According to the error history, the loaded drive failures occurred more than 4 weeks. (The result is valid that the date is set correctly.)
		OK	No error histories
		NO DATA	No information
[6] [6]	-	*****	Not used (Don't care this value.)
[6] [7]	-	*****	Not used (Don't care this value.)
[6] [9]	Save the error history and log spool to SD card	NO DATA	No information
	The error and user operation history of the remote control are saved to the SD card.	ERROR	The error history and log spool cannot save the SD card.
		NOCARD	The SD card cannot be recognized.
		FIN	Save end
[8] [6]	-	*****	Not used (Don't care this value.)
[9] [1]	Open and Close test of the disc tray	***** (000003)	Repeat the opening and closing the disc tray. (The current numbers of Open/Close is displayed on the FL display.) Press the [Power] button (Remote Control or unit) for exit the test.
[9] [5]	Initialization of the Laser Used Time	CLR	Laser Used Time information stored in the memory of the unit is initialized to factory setting.
[9] [6]	Initialization of the Last Drive Error	CLR	Last Drive Error stored on the BD Drive is deleted.
[9] [7]	Initialization of the Error History	CLR	Error History information stored on the unit is deleted.
[9] [8]	Initialization of the Error Code	CLR	Last Error Code information stored by timer is deleted.
[9] [9]	Initialization of the Service Mode	CLR	Last Drive Error, Error History and Error Code information stored on the unit are initialized to factory setting.

8.3. Self-Diagnostics Functions

8.3.1. Self-Diagnostics Functions

Self-Diagnosis Function provides information for errors to service personnel by Self-Diagnosis Display when any error has occurred.

U**, H** and F** are stored in memory and held.

You can check last error code by transmitting [0] [1] of Remote Control in Service Mode.

Automatic Display on FL will be cancelled when the power is turned off or AC input is turned off during self-diagnosis display is ON.

Error Code	Diagnosis contents	Description	FL display	On Screen
U30	Remote control code error	This error is displayed when main unit is different from remote control codes.	U30 * “*” is remote control code of the main unit. Displays for 5 seconds.	Not displayed
U59	Abnormal inner temperature detected	This error is displayed when the internal temperature of the unit exceeds the margin of safety. The power is turned off forcibly. For 30 minutes after this, the [Power] button operation is disabled.	U59 Displays for 30 seconds.	Not displayed
U71	HDMI incompatible error (HDCP incompatible)	This error is displayed when it turns on power and HDMI equipment (TV, amplifier etc.) connection error is occurred. (or when there is a problem with the HDMI cable) *HDCP: High-bandwidth Digital Content Protection This error display disappears only when the connection is released. Neither the button operation nor the passage of the fixed time disappear the display.	U71	Not displayed
U72	HDMI connection error (communication error)	This error is displayed when there are any communication problems with the unit and the equipment (TV, amplifier etc.) connected to the unit by HDMI. (or when there is a problem with the HDMI cable) This error display disappears only when the connection is released. Neither the button operation nor the passage of the fixed time disappear the display.	U72	Not displayed
U73	HDMI connection error (authentication error)	This error is displayed when authentication error occurs while the equipment (TV, amplifier etc.) are connected by HDMI. (or when there is a problem with the HDMI cable) This error display disappears only when the connection is released. Neither the button operation nor the passage of the fixed time disappear the display.	U73	Not displayed

Error Code	Diagnosis contents	Description	FL display	On Screen
U76	connection error	This error is displayed when equipment such as TV, amplifier etc. connected with this unit with the HDMI cable do not correspond to the copyright protection. (The BD/DVD video where the copyright is protected cannot be played.)	U76	Not displayed
U77	Illegal disc error	This error is displayed when it becomes impossible to reproduce because of copyright illegal information.	U77	Not displayed
U88	Restoration is operating (When the disc is in the disc tray)	This error is displayed when there is a disc in the disc tray or abnormality is confirmed during playback. It is shown that the restoration to return the unit operation normally is operating. It becomes possible to use as soon as not the breakdown but the U88 display disappears.	U88	Not displayed
H19	No working Fan Motor	Preserves the Error record in case the Fan motor does not work at the time of Power-On.	H19	Not displayed
F00	No error information	Initial setting for error code in memory. (Error code Initialization is possible with error code initialization and main unit initialization.)	No automatic display. It can be displayed in service mode pressing [0] [1].	Not displayed
F34	Microprocessor initialization error	When detected, the power is turned off forcibly, but the event is saved in memory.	No automatic display. It can be displayed in service mode pressing [0] [1].	Not displayed
F58	Drive hardware error	This error is displayed when drive unit error (motor errors, traverse unit error, etc.) is detected. The power is turned off forcibly, but the event is saved in memory.	No automatic display. It can be displayed in service mode pressing [0] [1].	Not displayed
F74	HDIM Device Key Communication error.	HDMI connection could not be authenticated due to a transfer malfunction. Factor of HDMI Device key-load failure - When HDMI LSI is damaged. - When device key information recorded is damaged.	F74	Not displayed
F75	HDMI Device Key Information error	HDMI connection could not be authenticated due to an internal data malfunction. Factor of HDMI Device key-load failure - When HDMI LSI is damaged. - When device key information recorded is damaged	F75	Not displayed

Error Code	Diagnosis contents	Description	FL display	On Screen
F99	Hang-up	Displayed when communication error has occurred between Main microprocessor (IC51001) and Timer microprocessor (IC57001).	F99 Displayed is left until the [POWER] button is pressed.	Not displayed
UNSUPPORT	Unsupported disc error	This error is displayed when the following are detected. 1. When the unsupported format disc is reproduced. 2. When the unsupported format data saved in the supported format disc. 3. When it becomes impossible to read because the quality of the disc is bad.	UNSUPPORT	"This disc is incompatible." Display for 5 seconds.
NO READ	Disc read error	This error is displayed when the following are detected. 1. When the disc is dirty or damaged. 2. When failing in reading the track information. 3. When the drive error occurs.	NoREAD	"Cannot read. Please check the disc." Display for 5 seconds.
HARD ERR	Drive error	This error is displayed when the drive detected a hard error.	HARD ERR	"BD drive error." Display for 5 seconds.
SELF CHECK	Restoration is operating.	Since the power cord fell out during a power failure or operation, it is under restoration operation. It will OK, if a display disappears automatically. If a display does not disappear, there is the possibility that defective Digital P.C.B. / BD Drive unit.	SELF CHECK	Not displayed
UNFORMAT	Unformatted disc error	This error is displayed when the unformatted DVD-RAM/DVD-RW or DVD-RW recorder by another make of recorder is inserted.	UNFORMAT	Not displayed When pressing the [Play] button, "This disc is not formatted properly. Cannot be played." is displayed.
NO PLAY	When there is a viewing restriction on a BD-Video or DVD-Video.	Rating password is set.	NoPLAY	"Cannot play. Change the rating limit in Setup to play the disc." is displayed.

9 Service Fixture & Tools

Part No.	Uses	Pcs	Compatibility
RFKZ0216	Extension Cable (Digital P.C.B. - Power P.C.B. / 23 Pin)	1	Same as BW750 Series
	Extension Cable (Digital P.C.B. - Audio/Video Output P.C.B. / 23 Pin)	1	Same as BW750 Series
RFKZ0239	Extension Cable (Power P.C.B. - SW P.C.B. / 10 Pin)	1	Same as BD60/80 Series
RFKZ0557	Extension Cable (Digital P.C.B. - Audio/Video Output P.C.B. / 11 Pin)	1	New
RFKZ0420	Extension Cable (Digital P.C.B. - BD Drive Unit / 4 Pin)	1	Same as BW500 Series
RFKZ0455	Extension Cable (Digital P.C.B. - BD Drive Unit / 7 Pin)	1	Same as BW750 Series
RFKZ03D01KS	Lead Free Solder (0.3mm/100g Reel)		Same as BD60/80 Series
RFKZ06D01KS	Lead Free Solder (0.6mm/100g Reel)		Same as BD60/80 Series
RFKZ10D01KS	Lead Free Solder (1.0mm/100g Reel)		Same as BD60/80 Series
RFKZ0316	Solder Remover (Lead free low temperature Solder/50g)		Same as BD60/80 Series
RFKZ0328	Flux		Same as BD60/80 Series

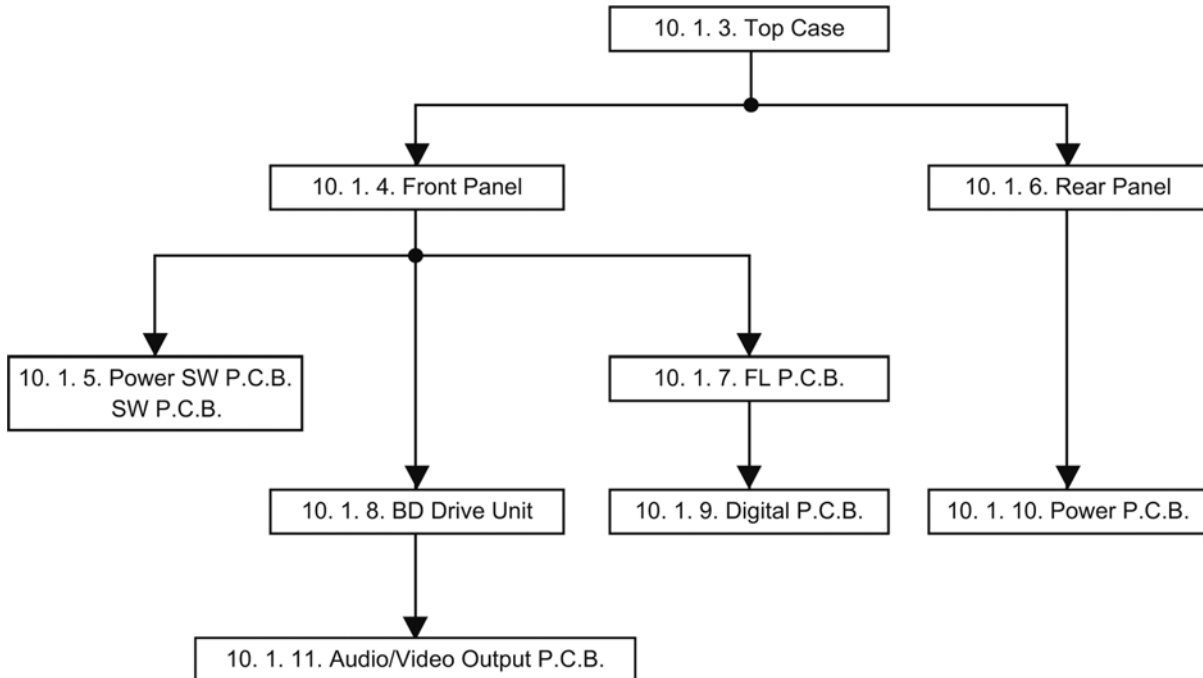
10 Disassembly and Assembly Instructions

10.1. Unit

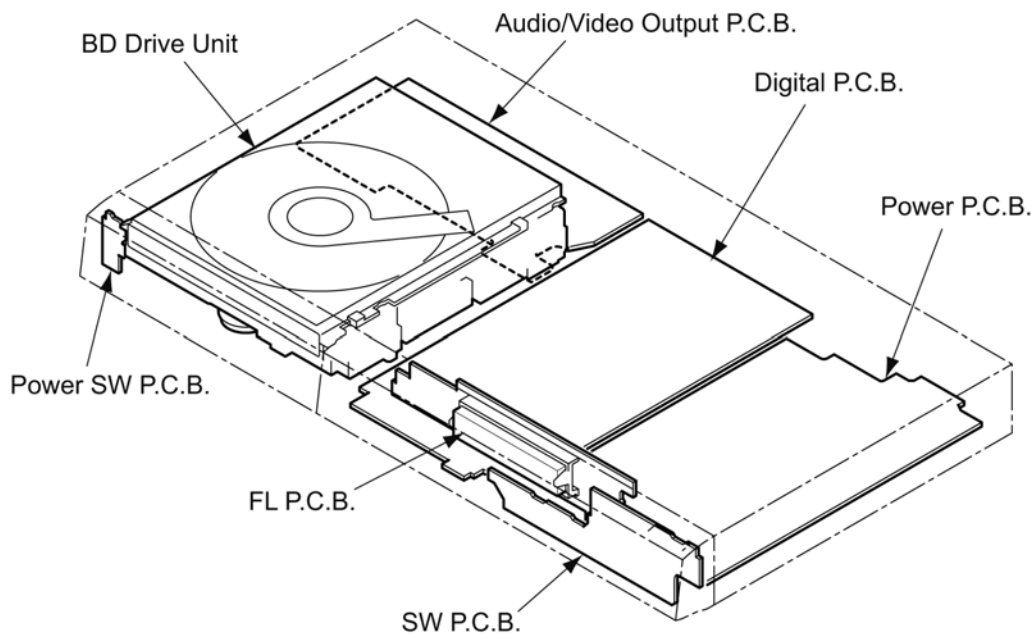
10.1.1. Disassembly Flow Chart

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.

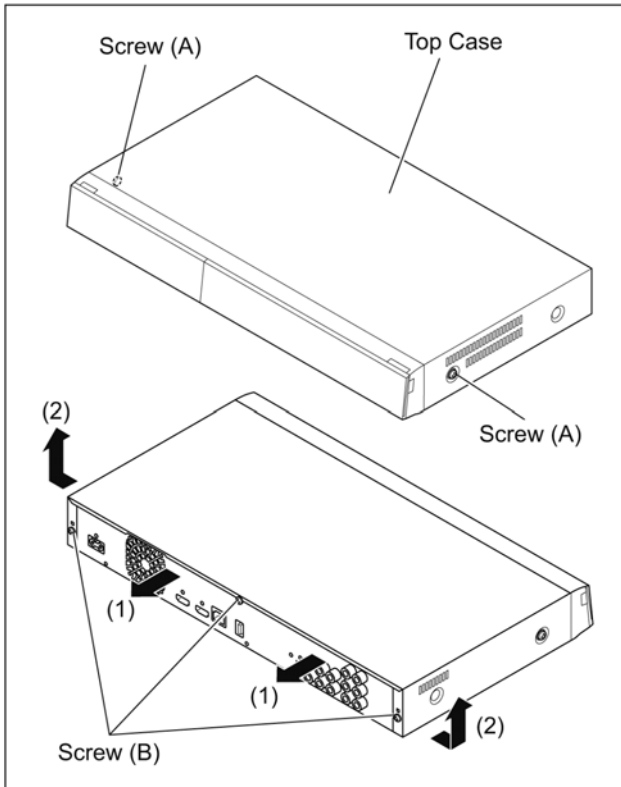


10.1.2. P.C.B. Positions



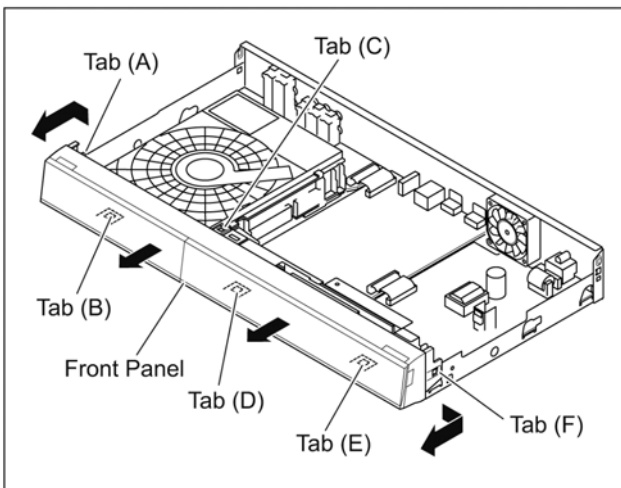
10.1.3. Top Case

1. Remove the 2 screws (A) and 3 screws (B).
2. Slide Top Case rearward and open the both ends at rear side of the Top Case a little and lift the Top Case in the direction of the arrows.



10.1.4. Front Panel

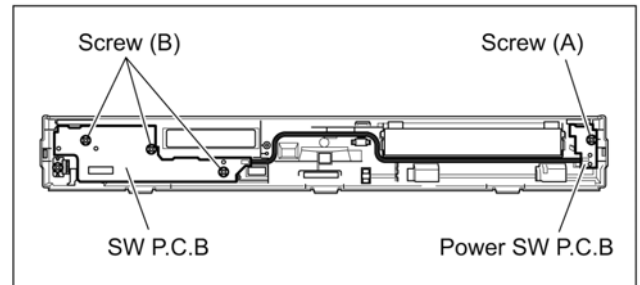
1. Unlock 6 tabs (A) - (F) turn.
Pull with the Front Panel in the direction of your side.



10.1.5. Power SW P.C.B. and SW P.C.B.

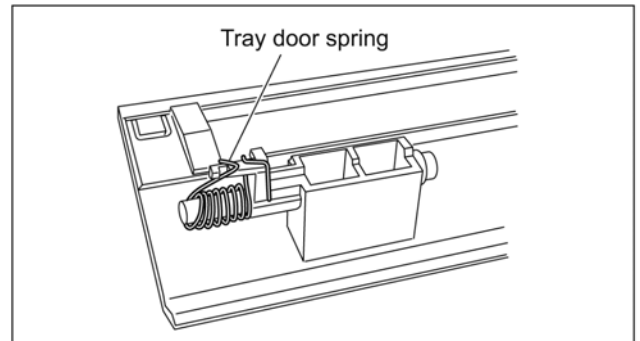
10.1.5.1. Power SW P.C.B. and SW P.C.B.

1. Remove the screw (A).
2. Remove the Power SW P.C.B..
3. Remove the 3 screws (B).
4. Remove the SW P.C.B..

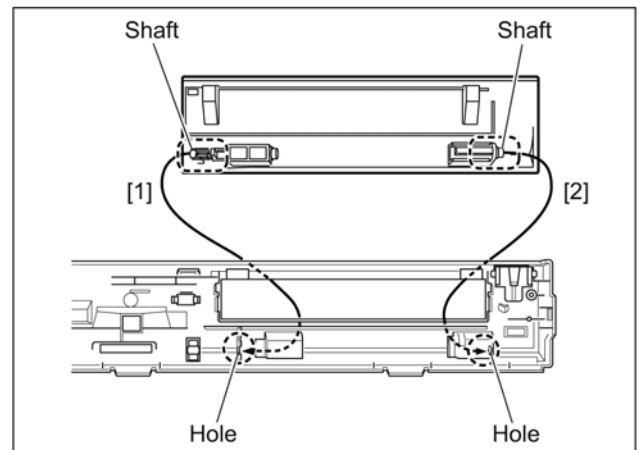


10.1.5.2. How to assemble the Tray door ass'y

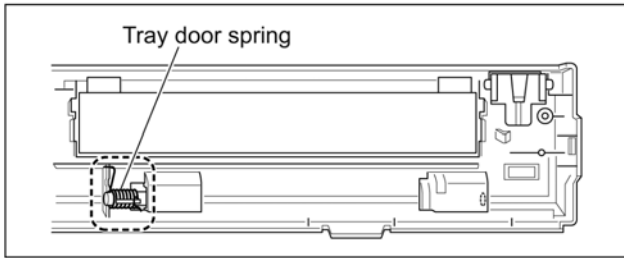
1. Attach the Tray door spring to Tray door ass'y.



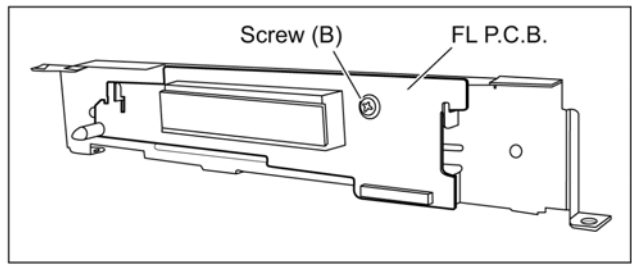
2. Attach Tray door ass'y in order from [1] to [2].
[1]: Insert the shaft to the hole.
[2]: Insert the shaft to the hole.



3. Confirm the Tray door spring is attached as following.

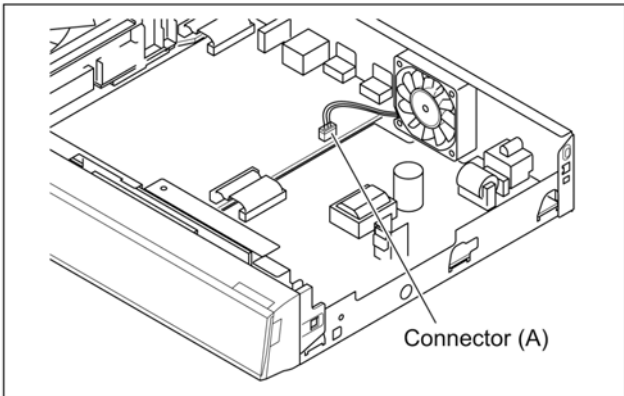


2. Remove the screw (B) and remove the FL P.C.B..

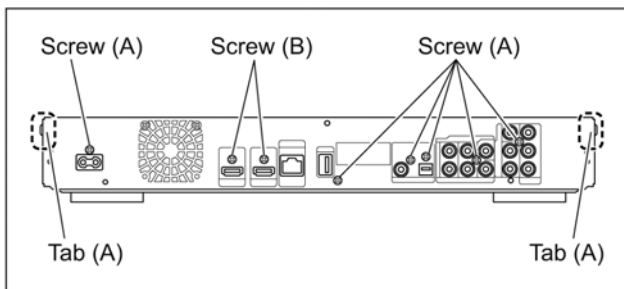


10.1.6. Rear Panel

1. Remove the connector (A).

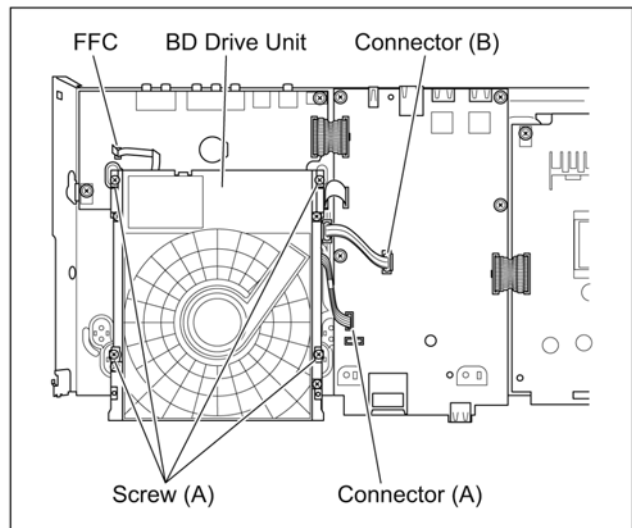


2. Remove the 6 screws (A) and 2 screws (B).
3. Unlock 2 locking tabs (A) to remove the Rear Panel.



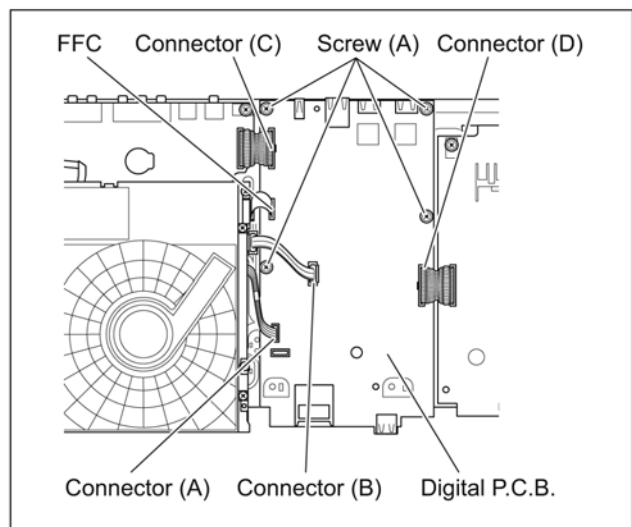
10.1.8. BD Drive Unit

1. Remove the wire with connector (A) and (B).
2. Remove the FFC.
3. Remove the 4 screws (A) to remove BD Drive Unit.



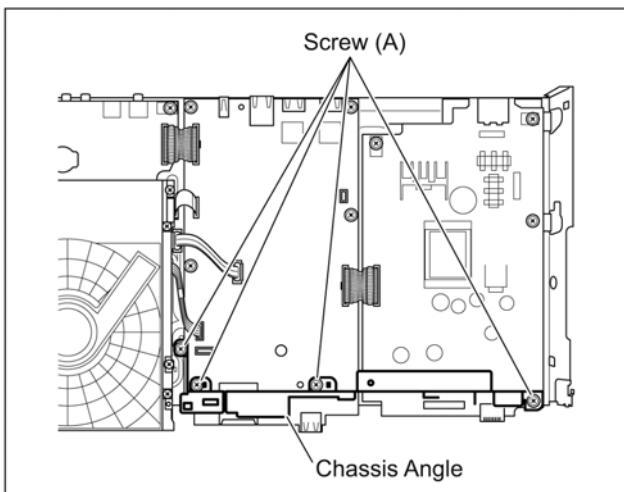
10.1.9. Digital P.C.B.

1. Remove the wire with connector (A) and (B).
2. Remove the connector (C) and (D).
3. Remove the FFC.
4. Remove the 4 screws (A) to remove Digital P.C.B..



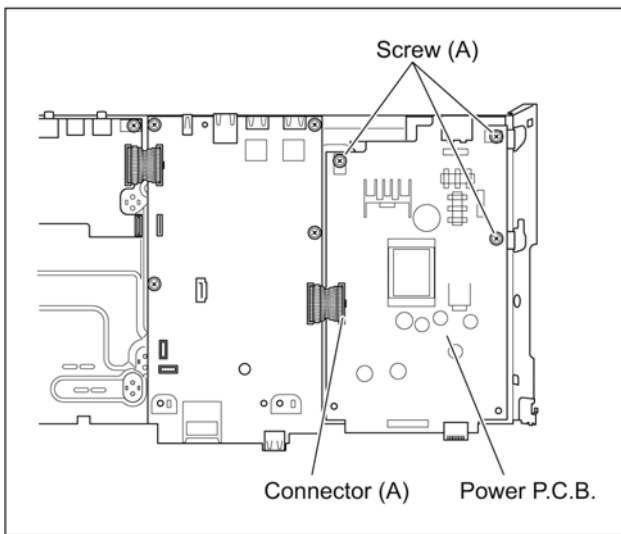
10.1.7. FL P.C.B.

1. Remove the 4 screws (A) and remove the Chassis Angle with FL P.C.B..



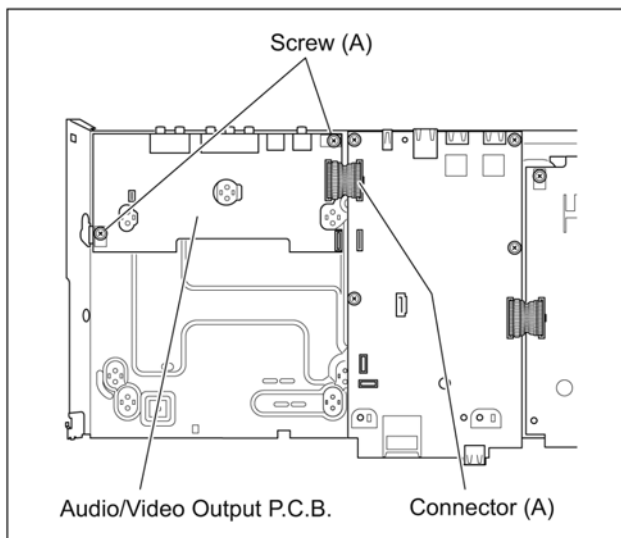
10.1.10. Power P.C.B.

1. Remove the wire with connector (A).
2. Remove the 3 screws (A) to remove Power P.C.B..



10.1.11. Audio/Video Output P.C.B.

1. Perform the step "10. 1. 8. BD Drive Unit"..
2. Remove the connector (A).
3. Remove the 2 screws (A) to remove Audio/Video Output P.C.B..



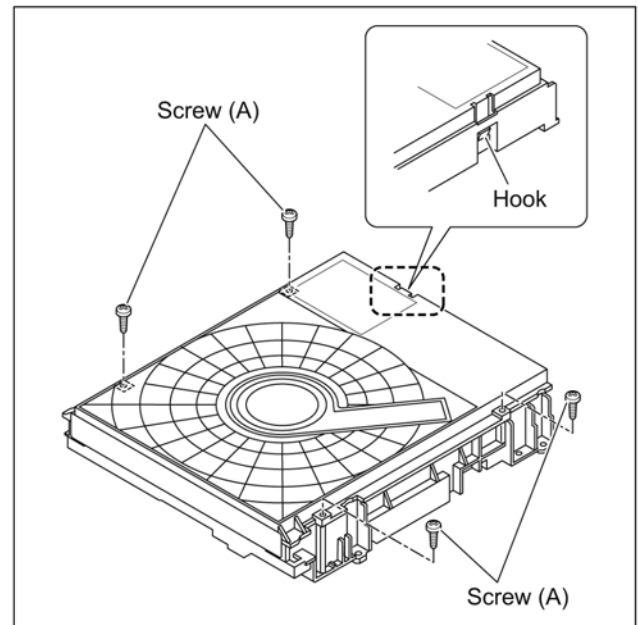
10.2. BD Drive

Caution:

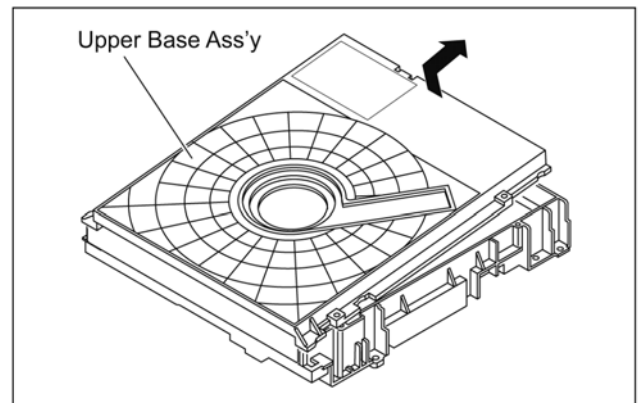
When disassembling the BD Drive, worn the anti-static wrist strap then be care to electrostatic discharge for prevention of the electrostatic damage to optical pick-up.

10.2.1. Upper Base Ass'y

1. Remove the 4 Screws (A), and push the Hook in.

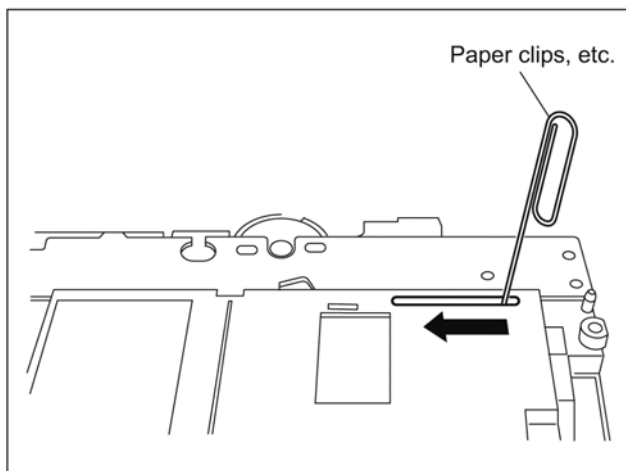


2. Lift up the Upper Base Ass'y, and pull it out to the direction of arrow.

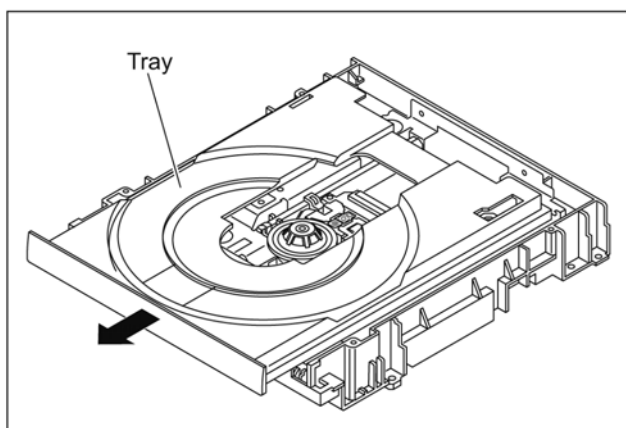


10.2.2. Tray

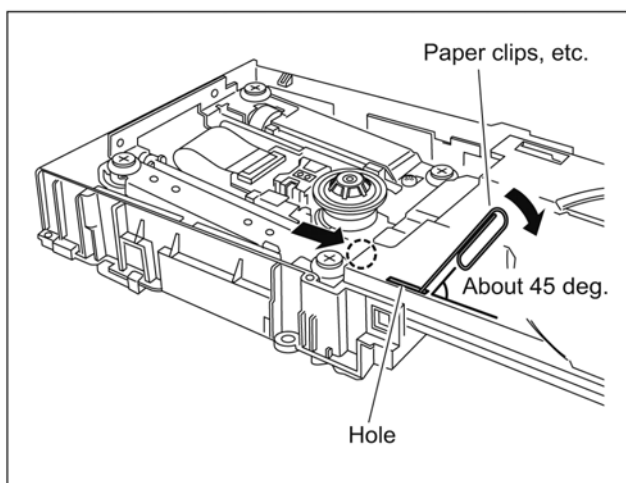
1. Perform the step "10. 2. 1. Upper Base Ass'y".
2. Insert the paper clips, etc. into the hole of the bottom side, and slide it to the direction of arrow until it can be.



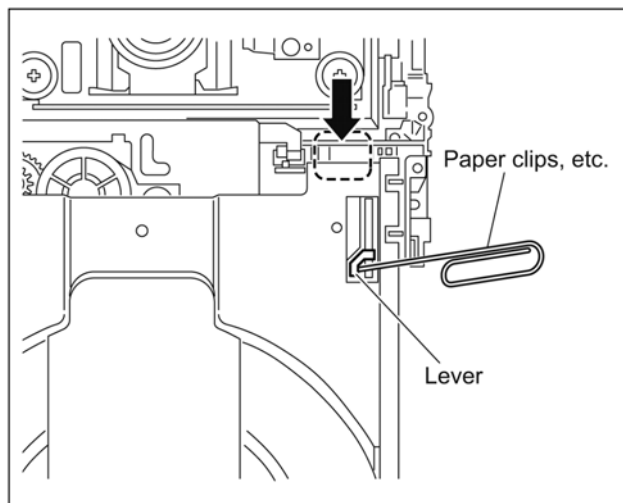
3. Pull the Tray to the direction of arrow until it can be.



4. Insert the paper clips, etc. into the hole of the Tray at 45 degrees, and lean it to the direction of arrow with pushing the dotted point of the tray forward.

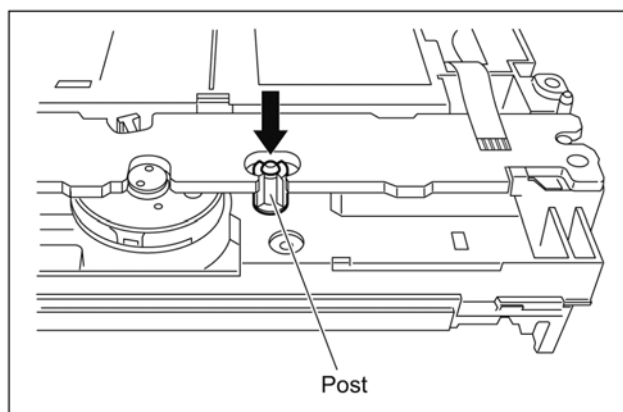


5. Insert the paper clips, etc. into the Tray as below figure, lift up the lever using the Eject Pin while pushing the dotted point of the Tray.

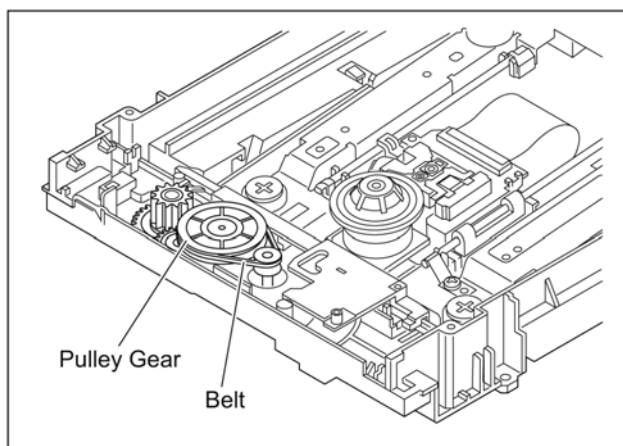


10.2.3. Pulley Gear, Belt

1. Perform the step "10. 2. 2. Tray".
2. Push the Post to the direction of arrow by using the slotted screwdriver.

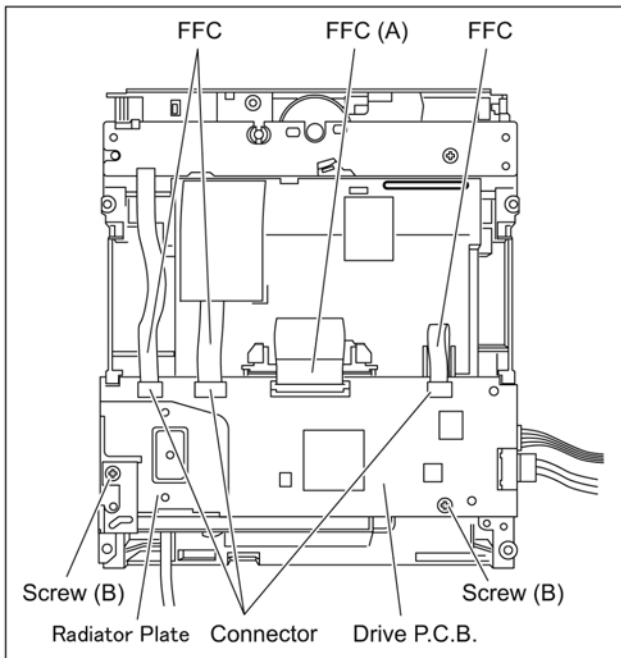


3. Remove the Pulley Gear and Belt.



10.2.4. Slide Cam

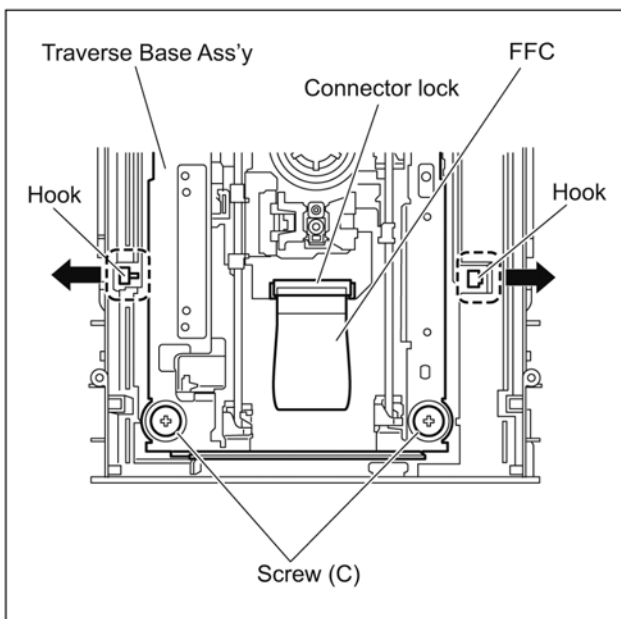
1. Perform the step "10. 2. 3. Pulley Gear, Belt".
2. Disconnect the 3 FFCs.
3. Remove the 2 Screws (B) to remove the Radiator Plate.
4. Open the connector lock, and disconnect the FFC (A).
5. Remove the Drive P.C.B..



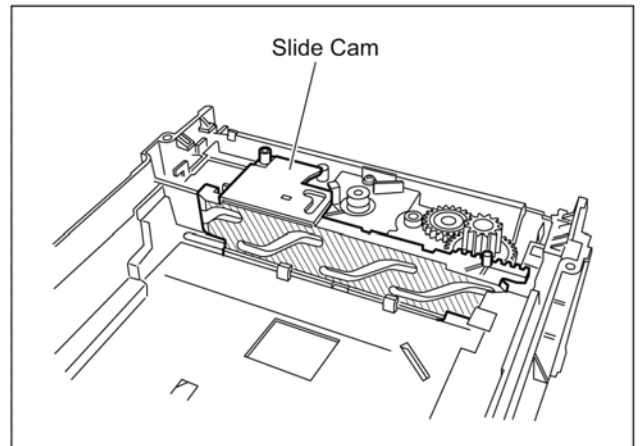
Caution:

Though the Drive P.C.B. is not supplied as replacement parts, it must be removed for after disassembling.

6. Open the connector lock, and disconnect the FFC.
7. Remove the 2 Screws (C), and remove the Traverse Base Ass'y with spreading the 2 hooks to the direction of arrows.

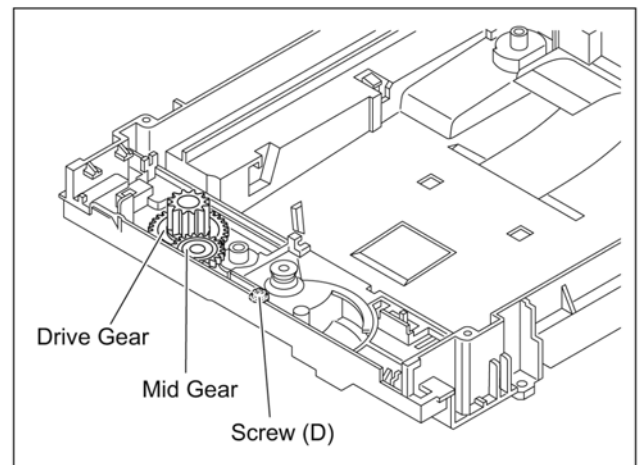


8. Remove the Slide Cam.

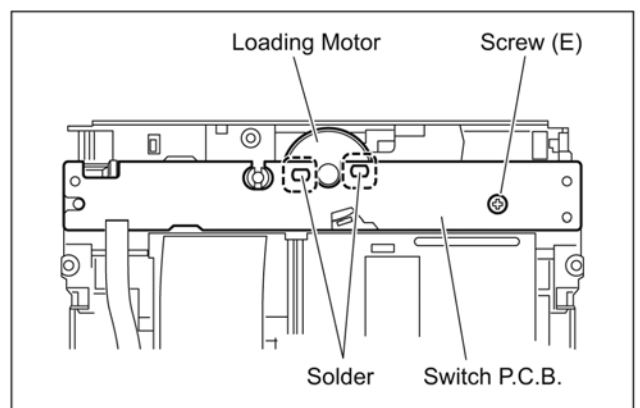


10.2.5. Mid Gear, Drive Gear and Loading Motor

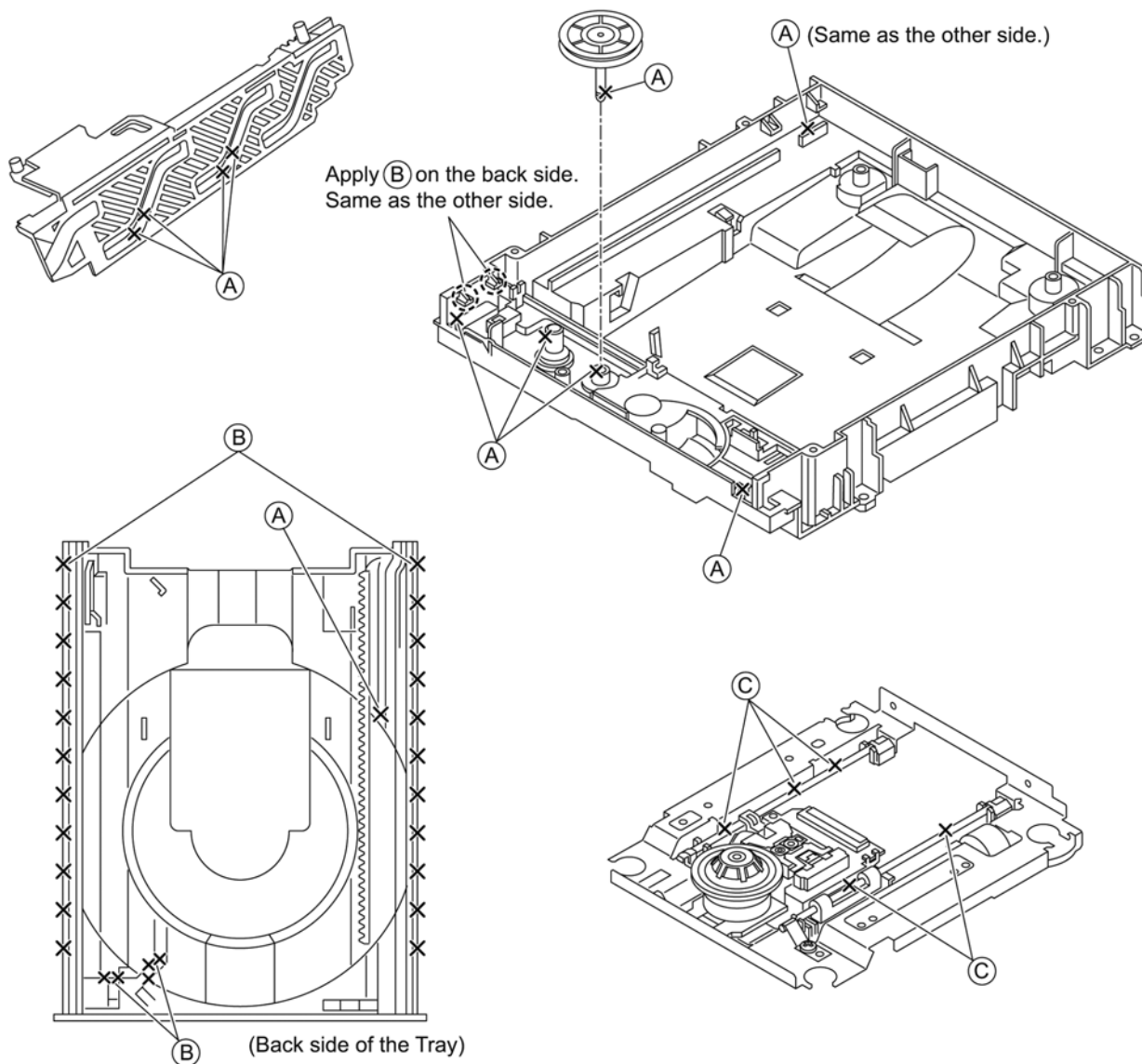
1. Perform the step "10. 2. 4. Slide Cam".
2. Remove the Mid Gear and Drive Gear.
3. Remove the Screw (D).



4. Remove the Screw (E), and remove the Switch P.C.B. with the Loading Motor. Remove the 2 soldering points, and remove the Loading Motor.



10.2.6. Grease



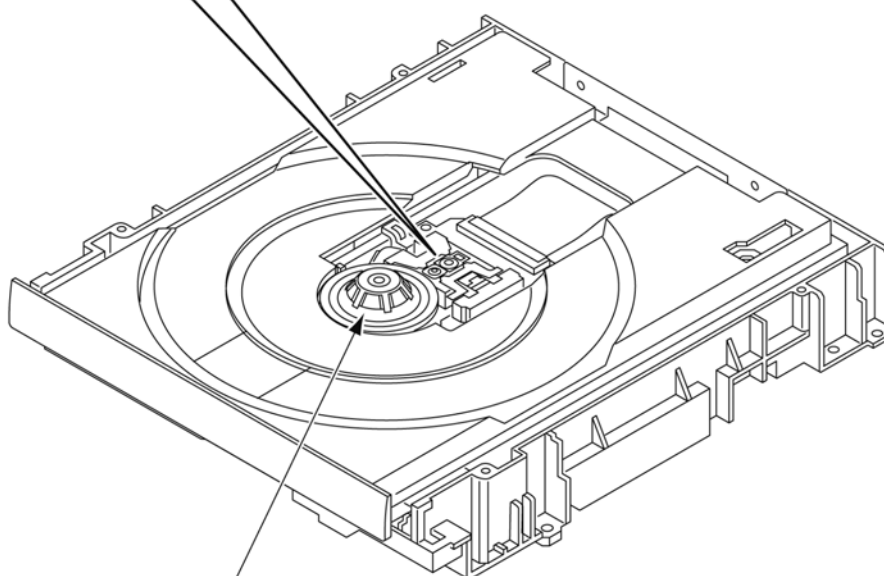
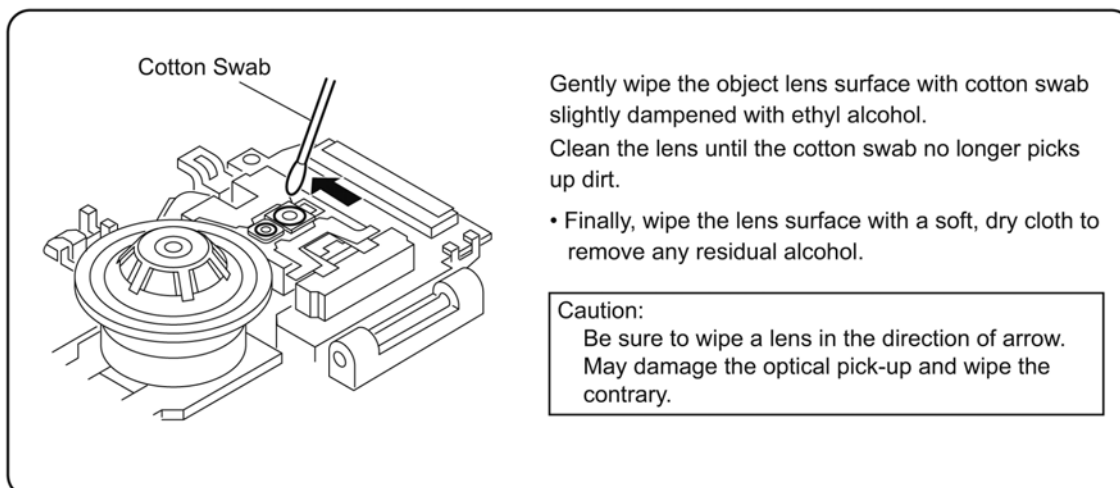
LUBRICATION POINTS

When the above parts are replaced, apply the recommended lubricants or adhesive for better maintenance of the unit.

Mark	Kind of lubricant	Part No.
(A)	Grease	RFKZ0484
(B)	hanarl	RFKZ0441
(C)	Grease	RFKXPG641

10.2.7. How to Clean the Lens of the Optical Pick-UP

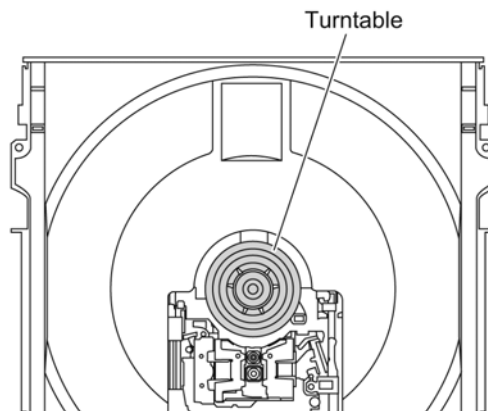
After performing the step "10. 2. 1. Upper Base Ass'y", clean the lens of the Optical Pick-UP.



If the stain is bad, please clean the turntable.

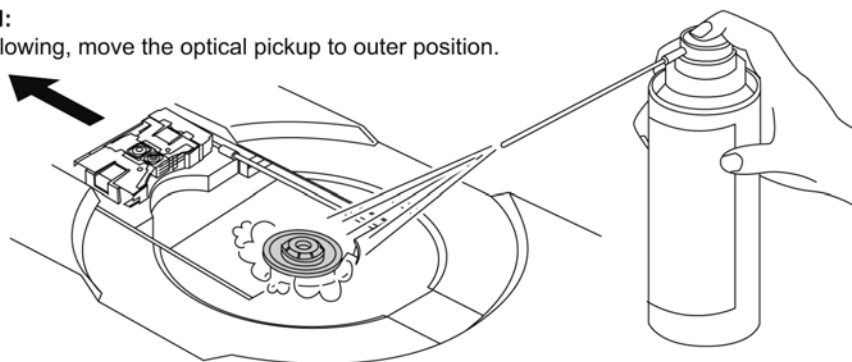
10.2.8. How to Clean up the Turntable

When "NoREAD" is displayed in FL display, clean up the Turntable according to the following steps.

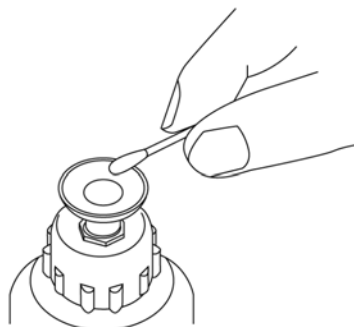


1. Blow the dust from the Turntable in the blower.
(Do not strongly blow it.)

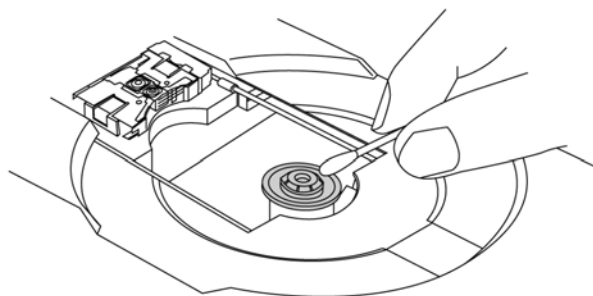
CAUTION:
Before blowing, move the optical pickup to outer position.



2. Put one drop of isopropyl or ethyl alcohol to clean cotton swab.
(Using a fresh cotton swab does not use chemicals or additives.)



3. Using the cotton swab, wipe out the dust on the Turntable.
(Be careful not touching the surface of Turntable directly.)



11 Measurements and Adjustments

For description of the disassembling procedure, see the "10 Disassembly and Assembly Instructions".

11.1. Service Positions

11.1.1. Checking and repairing of Power P.C.B.

1. Top Case

- Remove the 3 Screws on rear.
- Remove the 2 Screws on side.
- Remove Top Case.



2. Front Panel

- Unlock the 6 Tabs that is locking the Front Panel and Bottom Chassis, and remove the Front Panel.



3. Power P.C.B.

- Disconnect the Wire with Connector (23 pin).
- Remove the Screw on the Rear Panel that is tighten the AC Jack.
- Remove the 4 Screws fixing the Chassis Angle.
- Remove the 3 Screws to remove the Power P.C.B. with Chassis Angle.
- Put the Power P.C.B. on the Insulation Board.



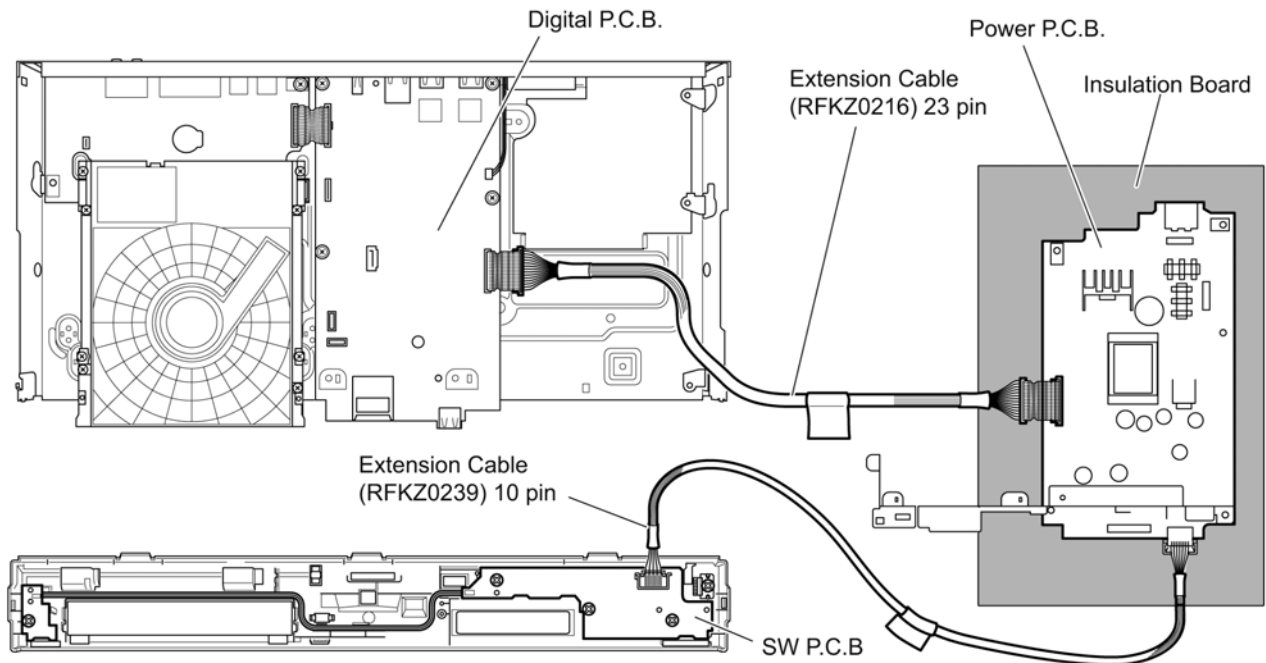
4. Connect Extension Cables shown below.

Between Power P.C.B. and Digital P.C.B.: (RFKZ0216) 23 pin

Between Power P.C.B. and SW P.C.B.: (RFKZ0239) 10 pin

Caution:

Red wire should be connected to pin1.



11.1.2. Checking and Repairing of Audio/Video Out P.C.B.

1. Top Case

- Remove the 3 Screws on rear.
- Remove the 2 Screws on side.
- Remove Top Case.



2. Rear Panel

- Disconnect the Fan Motor Connector from Digital P.C.B..
- Remove the 8 Screws (Two of for HDMI) fixing the Rear Panel.
- Unlock the 2 Tabs that is locking the Rear Panel and Bottom Chassis, and remove the Rear Panel.
- Remove 2 Screws to remove Fan Motor.



3. BD Drive Unit

- Disconnect the Connectors (7 pin and 4 pin) between the Drive and Digital P.C.B..
- Disconnect the FFC (4 pin) between the Drive and Audio/Video Output P.C.B..
- Remove the 4 Screws, and remove the BD Drive Unit.



4. Audio/Video Output P.C.B.

- Disconnect the Connector (23 pin) and the FFC (11 pin) between Audio/Video Output P.C.B. and Digital P.C.B..
- Remove the 2 Screws, and remove the Audio/Video Output P.C.B..
- Put the Audio/Video Output P.C.B. on the Insulation Board.



5. BD Drive Unit and Fan Motor

- Install the BD Drive Unit to its original location and tighten the 4 original screws.
- Connect the original wire with connectors (7 pin and 4 pin) between the Drive and Digital P.C.B..
- Connect the Fan Motor cable to its original connector on Digital P.C.B..



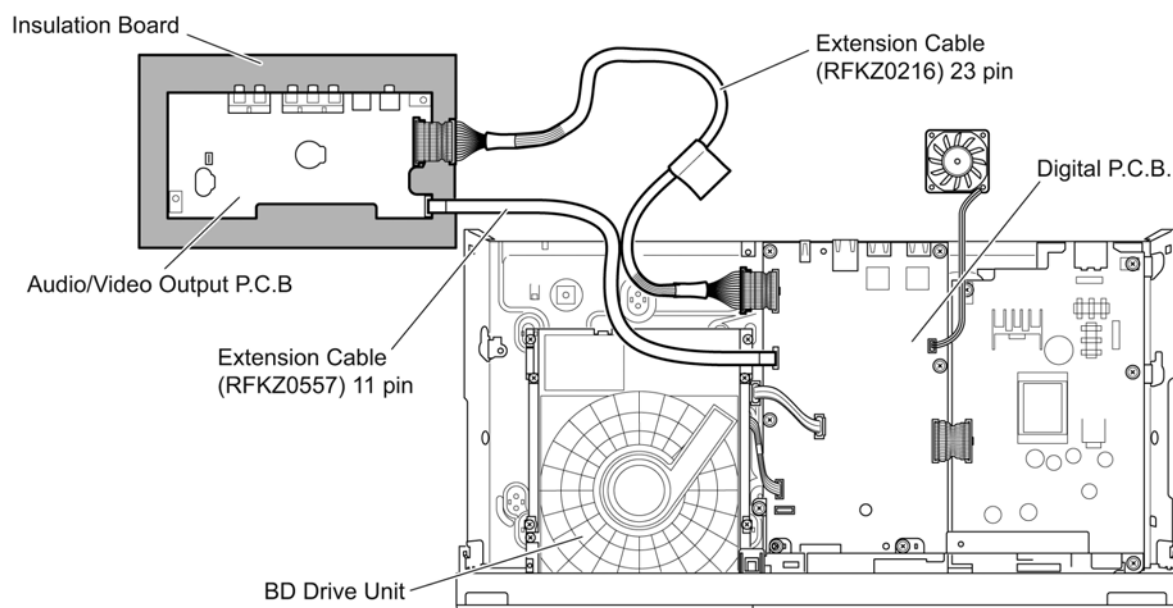
6. Connect Extension Cables shown below.

Between Audio/Video Output P.C.B. and Digital P.C.B.: (RFKZ0216) 23 pin

Between Audio/Video Output P.C.B. and Digital P.C.B.: (RFKZ0557) 11 pin

Caution:

Red wire should be connected to pin1.



11.1.3. Checking and Repairing of BD Drive Unit/Digital P.C.B.

1. Top Case

- Remove the 3 Screws on rear.
- Remove the 2 Screws on side.
- Remove Top Case.



2. Rear Panel

- Disconnect the Fan Motor Connector from Digital P.C.B..
- Remove the 8 Screws (Two of for HDMI) fixing the Rear Panel.
- Unlock the 2 Tabs that is locking the Rear Panel and Bottom Chassis, and remove the Rear Panel.
- Remove 2 Screws to remove Fan Motor.



3. BD Drive Unit

- Disconnect the Connectors (7 pin and 4 pin) between the Drive and Digital P.C.B..
- Disconnect the FFC (4 pin) between the Drive and Audio/Video Output P.C.B..
- Remove the 4 Screws, and remove the BD Drive Unit.



4. Audio/Video Output P.C.B.

- Disconnect the Connector (23 pin) and the FFC (11 pin) between Audio/Video Output P.C.B. and Digital P.C.B..
- Remove the 2 Screws, and remove the Audio/Video Output P.C.B..
- Put the Audio/Video Output P.C.B. on the Insulation Board.



5. Digital P.C.B. and Fan Motor

- Disconnect the Connector (23 pin) between Digital P.C.B. and Power P.C.B..
- Remove the 4 Screws, and remove the Digital P.C.B..
- Put the Digital P.C.B. on the Insulation Board.
- Connect the Fan Motor cable to its original connector on Digital P.C.B..



6. Connect Extension Cables shown below.

Between Digital P.C.B. and Audio/Video Output P.C.B.: (RFKZ0216) 23 pin

Between Digital P.C.B. and Audio/Video Output P.C.B.: (RFKZ0557) 11 pin

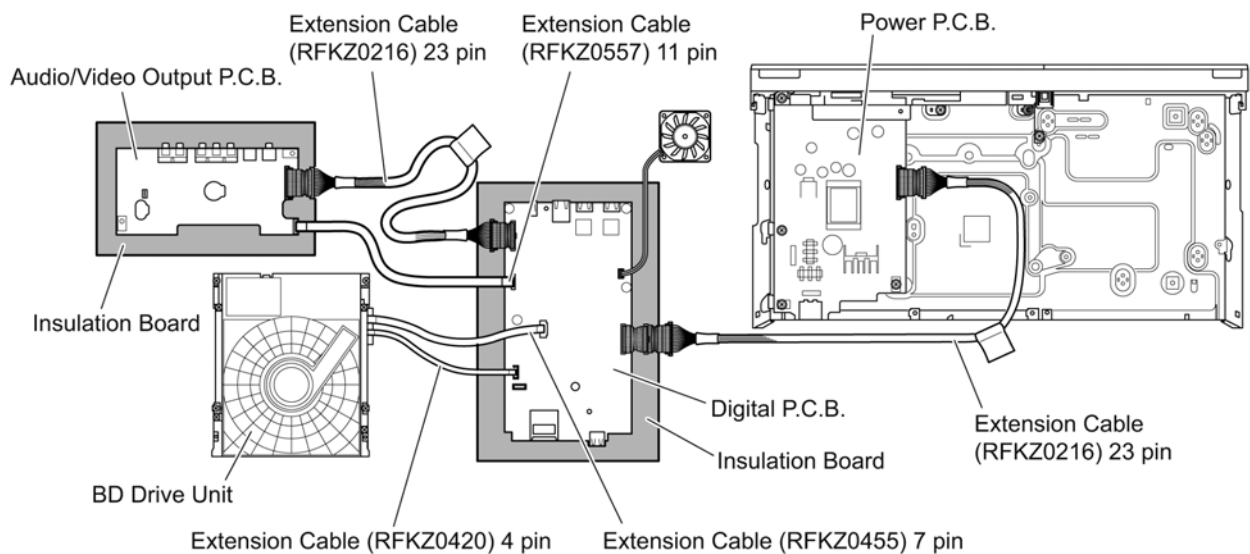
Between Digital P.C.B. and BD Drive Unit: (RFKZ0420) 4 pin

Between Digital P.C.B. and BD Drive Unit: (RFKZ0455) 7 pin

Between Power P.C.B. and Digital P.C.B.: (RFKZ0216) 23 pin

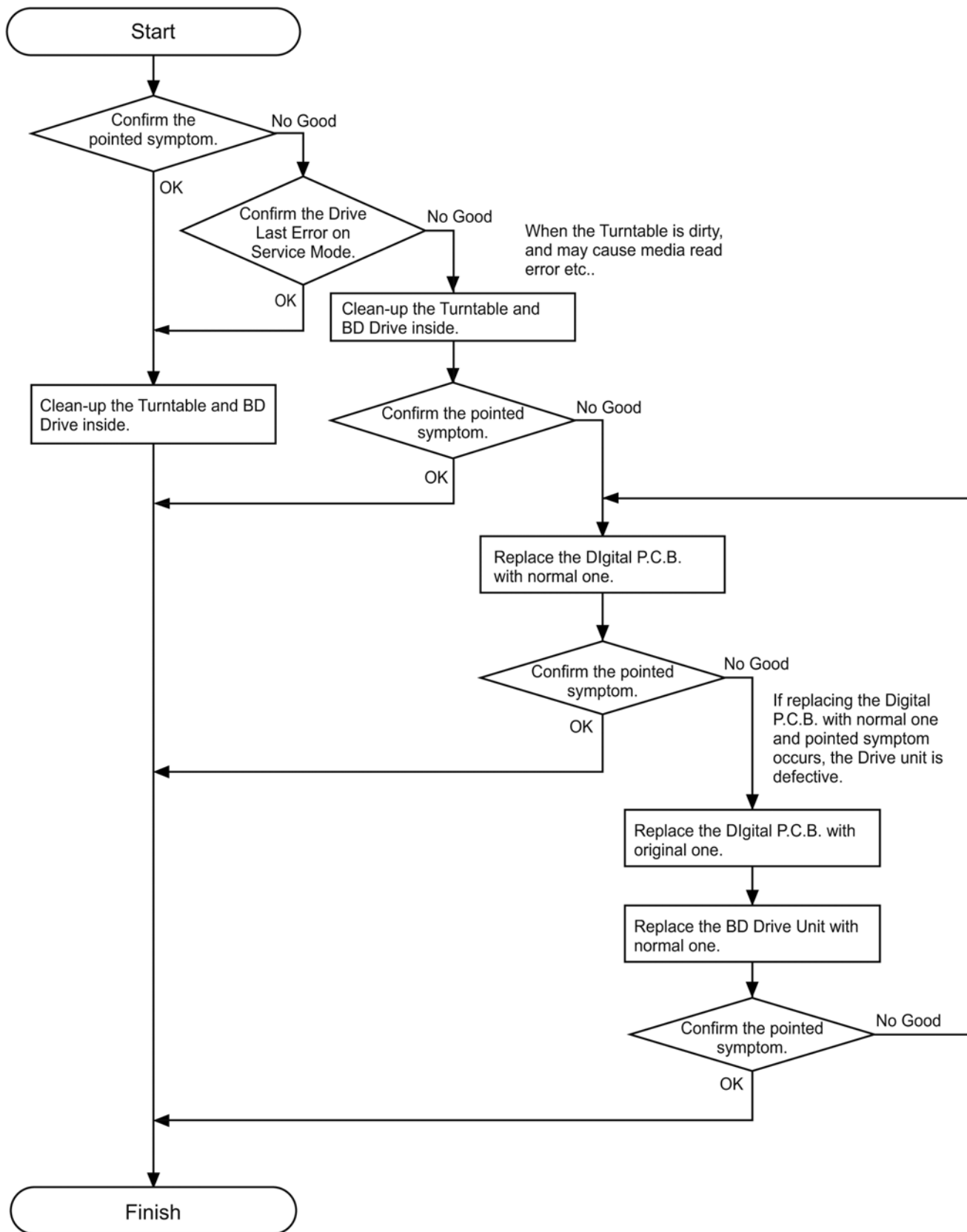
Caution:

Red wire should be connected to pin1.



11.2. Adjustment of BD Drive Unit/Digital P.C.B.

11.2.1. Checking out symptoms and repair of BD Drive Unit/Digital P.C.B.



11.3. Caution for Replacing Parts

After replacing the Digital P.C.B., [TEST] is displayed, so, once power off again to on.

11.3.1. Caution after replacing parts

After replacing the BD Drive Unit/Digital P.C.B., must be update Firmware.

11.3.2. Standard Inspect Specifications after Repairs

After making repairs, we recommend performing the following inspection, to check normal operation.

No	Procedures	Item to Check
1	Turn on the power, and confirm items pointed out.	Items pointed out should reappear.
2	Insert DVD-RAM disc.	The Panasonic DVD-RAM disc should be recognized
3	Perform playback for one minute using the DVD-RAM disc.	No abnormality should be seen in the picture, sound and operation. * Panasonic DVD-RAM disc should be used when playback.
4	If a problem is caused by a BD-Video disc, VCD, DVD-R, DVD Video, Audio-CD, or MP3, playback the test disc.	No abnormality should be seen in the picture, sound or operation.
5	After checking and making repairs, upgrade the firmware to the latest version.	Make sure that [UPD OK] appears on the FL displays. * [UNSUPPORT] display means the unit is already updated to newest same version. Then version up is not necessary.
6	Transfer [9] [9] in the service mode setting, and initialize the service settings (return various settings and error information to their default values. The laser time is not included in this initialization)	Make sure that [CLR] appears on the FL display. After checking it, turn the power off.
7	After replacing the BD Drive Unit, transfer [9] [5] in the service mode setting, and initialize the laser used time.	Make sure that [CLR] appears on the FL display. After checking it, turn the power off.

Use the following checklist to establish the judgment criteria for the picture and sound.

Item	Contents	Check	Item	Contents	Check
Picture	Block noise		Sound	Distorted sound	
	Crosscut noise			Noise (static, background noise, etc.)	
	Dot noise			The sound level is too low.	
	Picture disruption			The sound level is too high.	
	Not bright enough			The sound level changes.	
	Too bright				
	Flickering colour				
	Colour fading				

Service Manual

Diagrams and Replacement Parts List

Blu-ray Disc Player
Model No.
DMP-BDT300EE
DMP-BDT300EG

Vol. 1
Colour
(K).....Black Type

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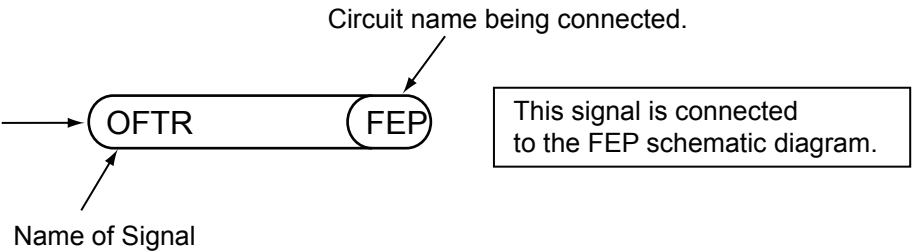
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S1. About Indication of The Schematic Diagram

S1.1. Important Safety Notice

COMPONENTS IDENTIFIED WITH THE MARK $\triangle$ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS USE ONLY THE SAME TYPE.

- 1.Although reference number of the parts is indicated on the P.C.B. drawing and/or schematic diagrams, it is NOT mounted on the P.C.B. when it is displayed with "\$" mark.
- 2.It is only the "Test Round" and no terminal (Pin) is available on the P.C.B. when the TP (Test Point) indicated as "●" mark.
- 3.The voltage being indicated on the schematic diagram is measured in "Standard-Playback" mode when there is no specify mode is mentioned.
- 4.Although the voltage and waveform available on here is measured with standard frame, it may be differ from actual measurement due to modification of circuit and so on.
- 5.The voltage being indicated here may be include observational-error (deviation) due to internal-resistance and/or reactance of equipment. Therefore, handle the value indicated on here as reference.
- 6.Use the parts number indicated on the Replacement Parts List .
- 7.Indication on Schematic diagrams:



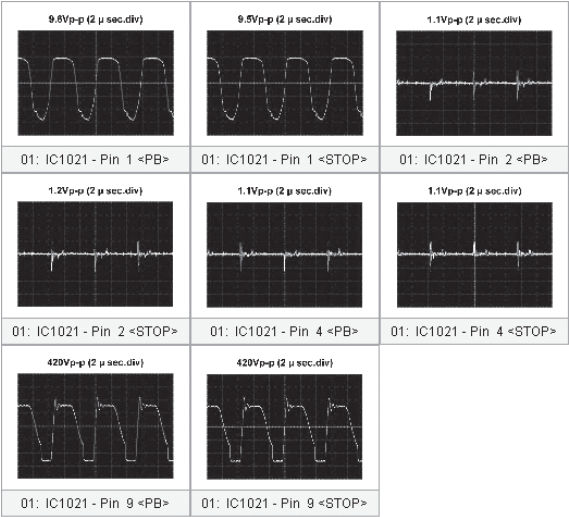
S2. Voltage and Waveform Chart

Note) Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

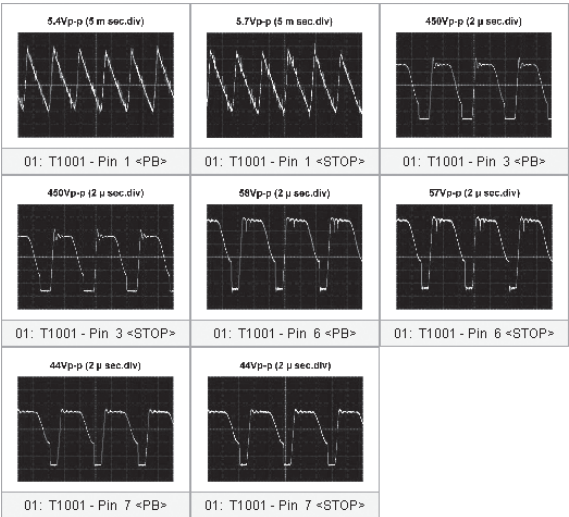
S2.1. Power P.C.B.

REF No.	PIN No.	PB	STOP	REF No.	PIN No.	PB	STOP
IC1021	1	2.2	2.2	P1102	6	3.3	3.3
IC1021	2	1.4	1.4	P1102	7	3.3	3.3
IC1021	3	0.0	0.0	P1102	8	3.3	3.3
IC1021	4	16.6	16.6	P1102	9	3.3	3.3
IC1021	5	0.0	0.0	P1102	10	3.3	3.3
IC1021	6	-	-	P1102	11	3.3	3.3
IC1021	7	313.8	313.3	P1102	12	5.9	5.9
IC1021	8	-	-	P1102	13	5.9	5.9
IC1021	9	75.5	77.4	P1102	14	5.9	5.9
IC1102	1	0.0	0.0	P1102	15	0.0	0.0
IC1102	2	0.0	0.0	P1102	16	0.0	0.0
IC1102	3	8.4	8.4	P1102	17	0.0	0.0
IC1102	4	2.5	2.5	P1102	18	0.0	0.0
IC1130	1	4.5	4.5	P1102	19	12.2	12.2
IC1130	2	0.0	0.0	P1102	20	12.2	12.2
IC1130	3	0.0	0.0	P1102	21	12.2	12.2
IC1130	4	1.2	1.2	P1102	22	12.2	12.2
IC1130	5	1.3	1.3	P1102	23	3.3	3.3
IC1130	6	0.7	0.6	P1103	1	0.0	0.0
IC1130	7	5.5	5.5	P1103	2	0.0	0.0
IC1130	8	5.4	5.4	P1103	3	5.8	5.8
IC1130	9	1.2	1.3	P1103	4	0.0	0.0
IC1130	10	0.0	0.0	P1103	5	0.0	0.0
IC1130	11	4.5	4.5	P1103	6	3.3	3.3
IC1130	12	4.5	4.5	P1103	7	3.3	3.3
IC1130	13	5.8	5.8	P1103	8	3.3	3.3
IC1130	14	7.6	7.6	P1103	9	-20.9	-20.9
IC1130	15	10.7	10.7	P1103	10	-15.7	-15.7
IC1130	16	12.3	12.3	P1103	11	3.3	3.3
Q1022	1	9.4	9.4	P1103	12	-18.6	-18.6
Q1022	2	8.4	8.4	P1104	1	0.0	0.0
Q1022	3	0.0	0.0	P1104	2	0.0	0.0
Q1022	4	1.4	1.4	P1104	3	3.3	3.3
Q1023	1	1.2	1.2	P1104	4	3.3	3.3
Q1023	2	0.0	0.0	P1104	5	0.0	0.0
Q1023	3	0.0	0.0	P1104	6	0.0	0.0
Q1023	4	0.0	0.0	P1104	7	-0.3	-0.3
Q1131	1	5.8	5.8	P1104	8	3.3	3.3
Q1131	2	5.8	5.8	P1104	9	3.3	3.3
Q1131	3	10.1	10.1	P1104	10	3.3	3.3
Q1131	4	12.2	12.2	T1001	1	312.0	314.4
Q1131	5	5.8	5.8	T1001	2	162.7	163.0
Q1131	6	5.8	5.8	T1001	3	77.5	78.1
Q1170	1	11.4	11.5	T1001	-	-	-
Q1170	2	12.2	12.2	T1001	5	0.0	0.0
Q1170	3	12.1	12.2	T1001	6	0.0	0.0
Q1171	1	-0.3	-0.3	T1001	7	0.0	0.0
Q1171	2	0.0	0.0	T1001	8	0.0	0.0
Q1171	3	12.0	12.0	T1001	9	0.0	0.0
Q10101	1	0.0	0.0	T1001	10	0.0	0.0
Q10101	2	0.0	0.0	T1001	11	0.0	0.0
Q10101	3	6.2	6.2	T1001	12	0.0	0.0
QR1101	1	3.3	3.3	T1101	1	12.1	12.1
QR1101	2	0.0	0.0	T1101	2	0.0	0.0
QR1101	3	0.0	0.0	T1101	3	12.0	12.0
QR1131	1	3.3	3.3	T1101	4	0.0	0.0
QR1131	2	0.0	0.0	T1101	5	0.0	0.0
QR1131	3	0.0	0.0	T1101	6	0.0	0.0
QR1170	1	3.3	3.3	T1101	7	2.0	2.0
QR1170	2	0.0	0.0	T1101	8	-18.6	-18.6
QR1170	3	0.0	0.0	T1101	9	-18.6	-18.6
P1102	1	3.3	3.3				
P1102	2	3.3	3.3				
P1102	3	3.3	3.3				
P1102	4	5.8	5.8				
P1102	5	0.0	-0.1				

<IC1021>



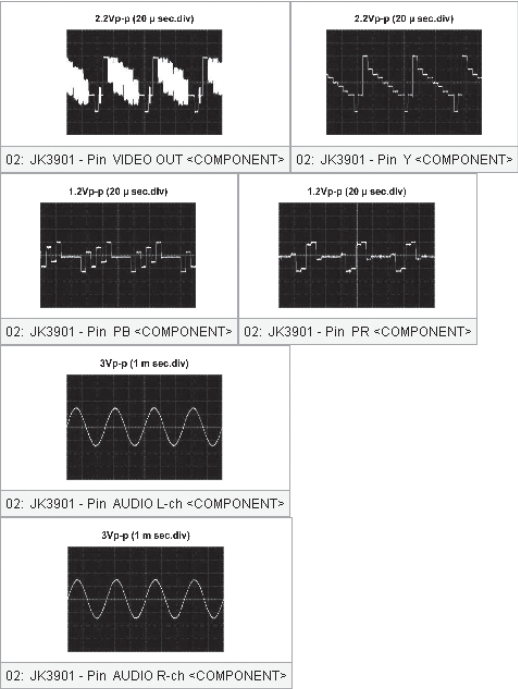
<T1001>



S2.2. Audio_Out P.C.B.

REF No.	PIN No.	PB	STOP	COMPONENT	REF No.	PIN No.	PB	STOP	COMPONENT
IC3801	1	1.7	1.7		P3801	9	0.7	0.8	
IC3801	2	4.9	4.9		P3801	10	0.0	0.0	
IC3801	3	1.8	1.7		P3801	11	0.8	0.8	
IC3801	4	2.6	2.6		P3802	1	0.0	0.0	
IC3801	5	2.6	2.6		P3802	2	3.3	3.3	
IC3801	6	0.0	0.0		P3802	3	3.3	3.3	
IC3801	7	2.6	2.6		P3802	4	3.3	3.3	
IC3801	8	2.4	2.4		P4001	1	0.0	0.0	
IC3801	9	0.0	0.0		P4001	2	1.6	1.6	
IC3801	10	2.8	2.8		P4001	3	0.0	0.0	
IC3801	11	2.8	2.8		P4001	4	0.0	0.0	
IC3801	12	1.8	1.8		P4001	5	0.0	0.0	
IC3801	13	1.6	1.6		P4001	6	0.0	0.0	
IC3801	14	1.9	1.7		P4001	7	5.8	5.8	
IC3801	15	1.4	1.4		P4001	8	5.9	5.8	
IC3801	16	4.9	4.9		P4001	9	5.8	5.8	
IC4001	1	1.6	1.6		P4001	10	5.8	5.8	
IC4001	2	4.9	4.9		P4001	11	5.8	5.8	
IC4001	3	0.0	0.0		P4001	12	5.8	5.8	
Q4001	1	11.7	11.7		P4001	13	5.8	5.8	
Q4001	2	11.0	11.0		P4001	14	5.8	5.8	
Q4001	3	12.1	12.1		P4001	15	-0.5	2.2	
Q4002	1	-1.2	0.7		P4001	16	5.0	5.0	
Q4002	2	0.6	0.0		P4001	17	3.7	3.7	
Q4002	3	0.0	0.0		P4001	18	3.2	3.2	
Q4003	1	-1.3	0.7		P4001	19	3.7	3.7	
Q4003	2	0.6	0.0		P4001	20	11.0	11.0	
Q4003	3	0.0	0.0		P4001	21	11.0	11.0	
Q4004	1	-0.6	0.7		P4001	22	12.1	12.1	
Q4004	2	0.0	0.0		P4001	23	12.1	12.1	
Q4004	3	0.0	0.0		JK3901	VIDEO OUT			-
Q4005	1	-0.5	0.7		JK3901	Y			-
Q4005	2	0.0	0.0		JK3901	PB			-
Q4005	3	0.0	0.0		JK3901	PR			-
Q4006	1	-0.6	0.7		JK3901	AUDIO L-ch			-
Q4006	2	0.0	0.0		JK3901	AUDIO R-ch			-
Q4006	3	0.0	0.0						
Q4007	1	-0.5	0.7						
Q4007	2	0.0	0.0						
Q4007	3	0.0	0.0						
Q4008	1	1.6	1.6						
Q4008	2	1.3	1.3						
Q4008	3	0.0	0.0						
Q4009	1	4.0	4.0						
Q4009	2	3.4	3.4						
Q4009	3	4.9	4.9						
Q4010	1	-1.0	0.7						
Q4010	2	0.6	0.0						
Q4010	3	0.0	0.0						
Q4011	1	-0.9	0.7						
Q4011	2	0.5	0.0						
Q4011	3	0.0	0.0						
QR4001	1	0.0	0.0						
QR4001	2	12.1	12.1						
QR4001	3	12.1	12.1						
QR4002	1	3.2	3.2						
QR4002	2	0.0	0.0						
QR4002	3	0.0	0.0						
P3801	1	3.3	3.3						
P3801	2	3.3	3.3						
P3801	3	2.4	2.5						
P3801	4	0.3	0.5						
P3801	5	0.0	0.0						
P3801	6	0.6	0.5						
P3801	7	5.0	5.0						
P3801	8	3.3	3.3						

<JK3901>



S2.3. FL P.C.B.

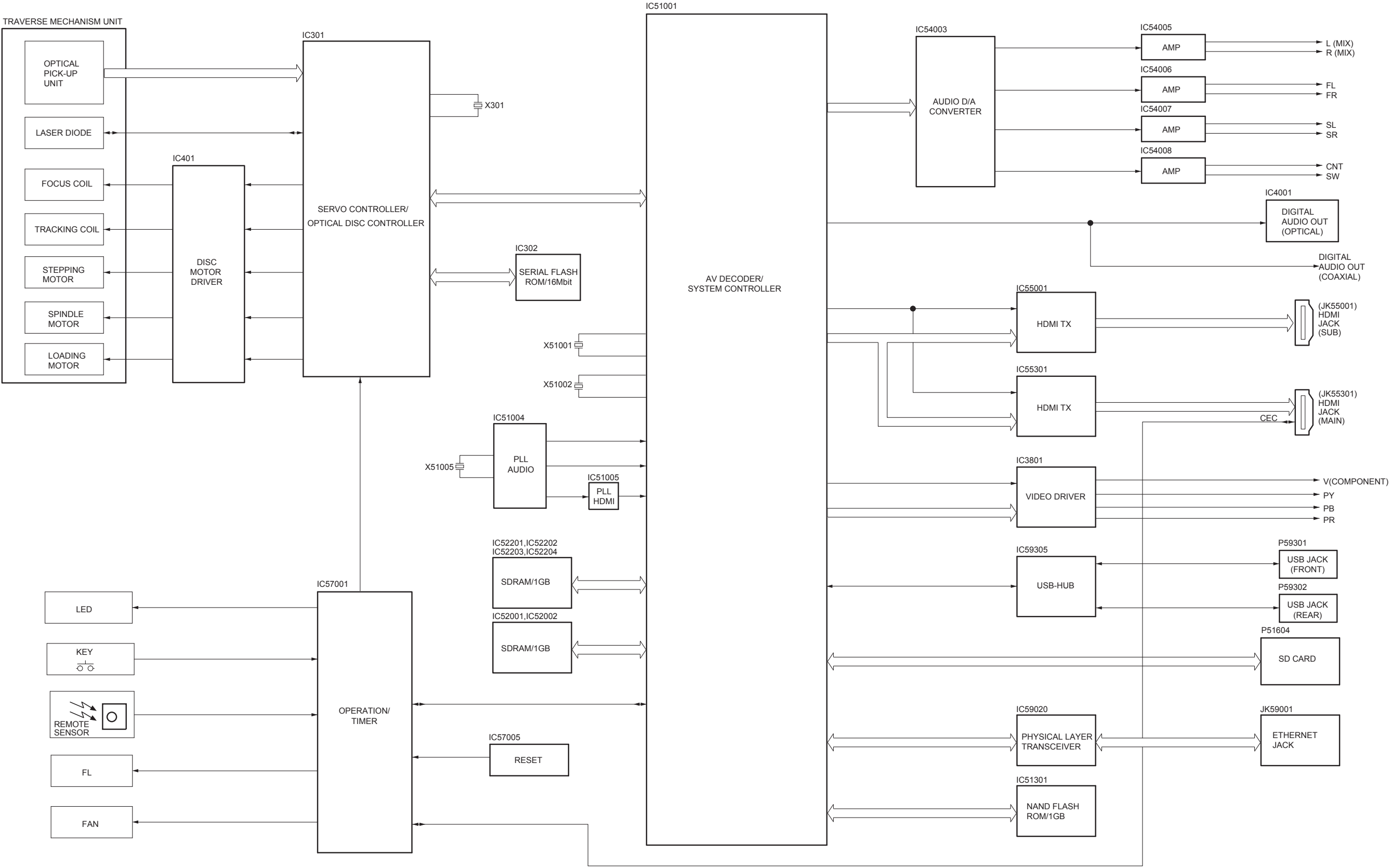
REF No.	PIN No.	PB	STOP
P7001	1	0.0	0.0
P7001	2	0.0	0.0
P7001	3	5.8	5.8
P7001	4	0.0	0.0
P7001	5	0.0	0.0
P7001	6	3.3	3.3
P7001	7	3.3	3.3
P7001	8	3.3	3.3
P7001	9	-20.9	-20.9
P7001	10	-15.7	-15.7
P7001	11	3.3	3.3
P7001	12	-18.6	-18.6

S2.4. Open_SW P.C.B.

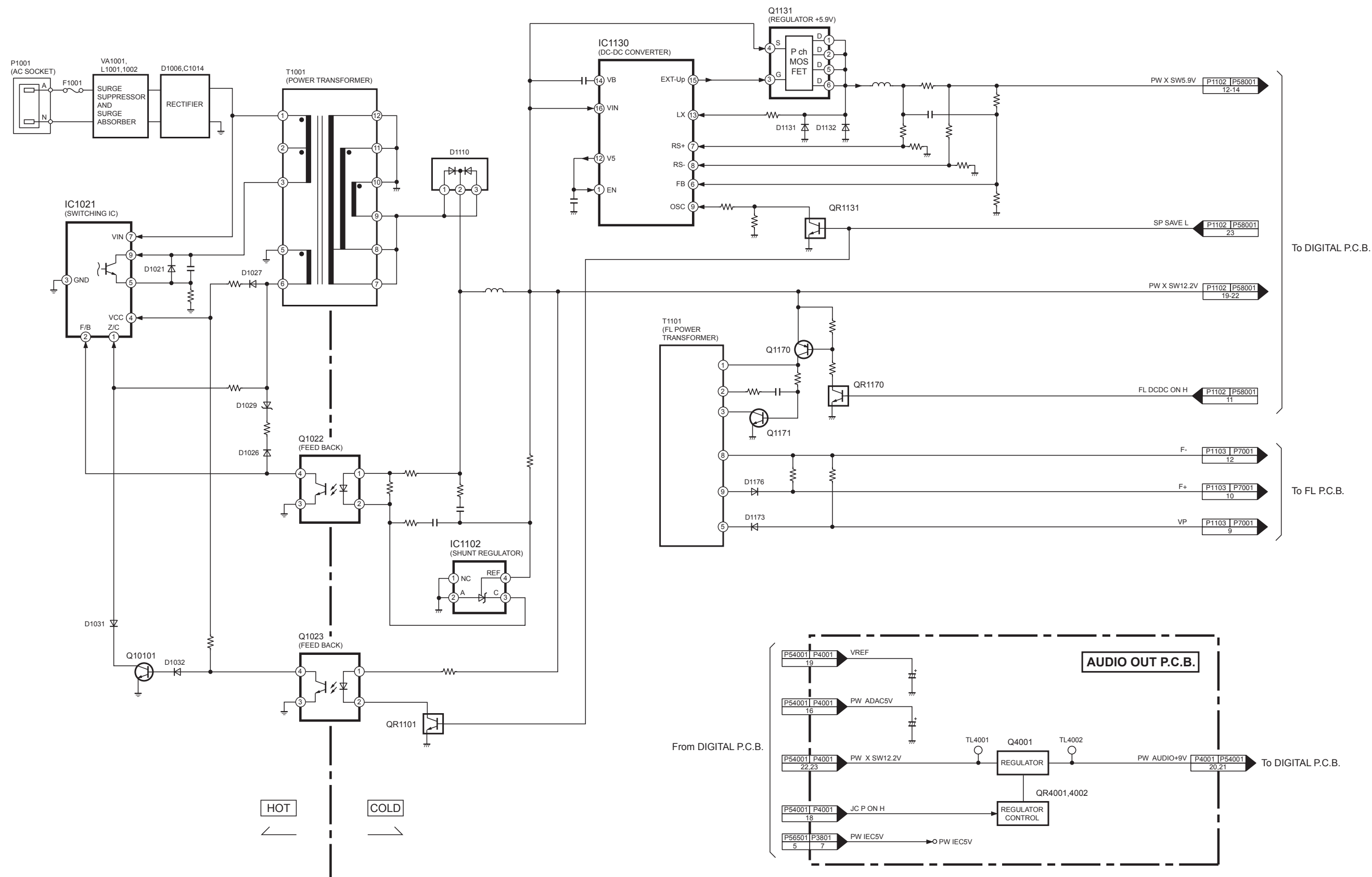
REF No.	PIN No.	PB	STOP
P7581	1	0.0	0.0
P7581	2	0.0	0.0
P7581	3	3.3	3.3
P7581	4	3.3	3.3
P7581	5	0.0	0.0
P7581	6	0.0	0.0
P7581	7	-0.3	-0.3
P7581	8	3.3	3.3
P7581	9	3.3	3.3
P7581	10	3.3	3.3

S3. Block Diagram

S3.1. Overall Block Diagram

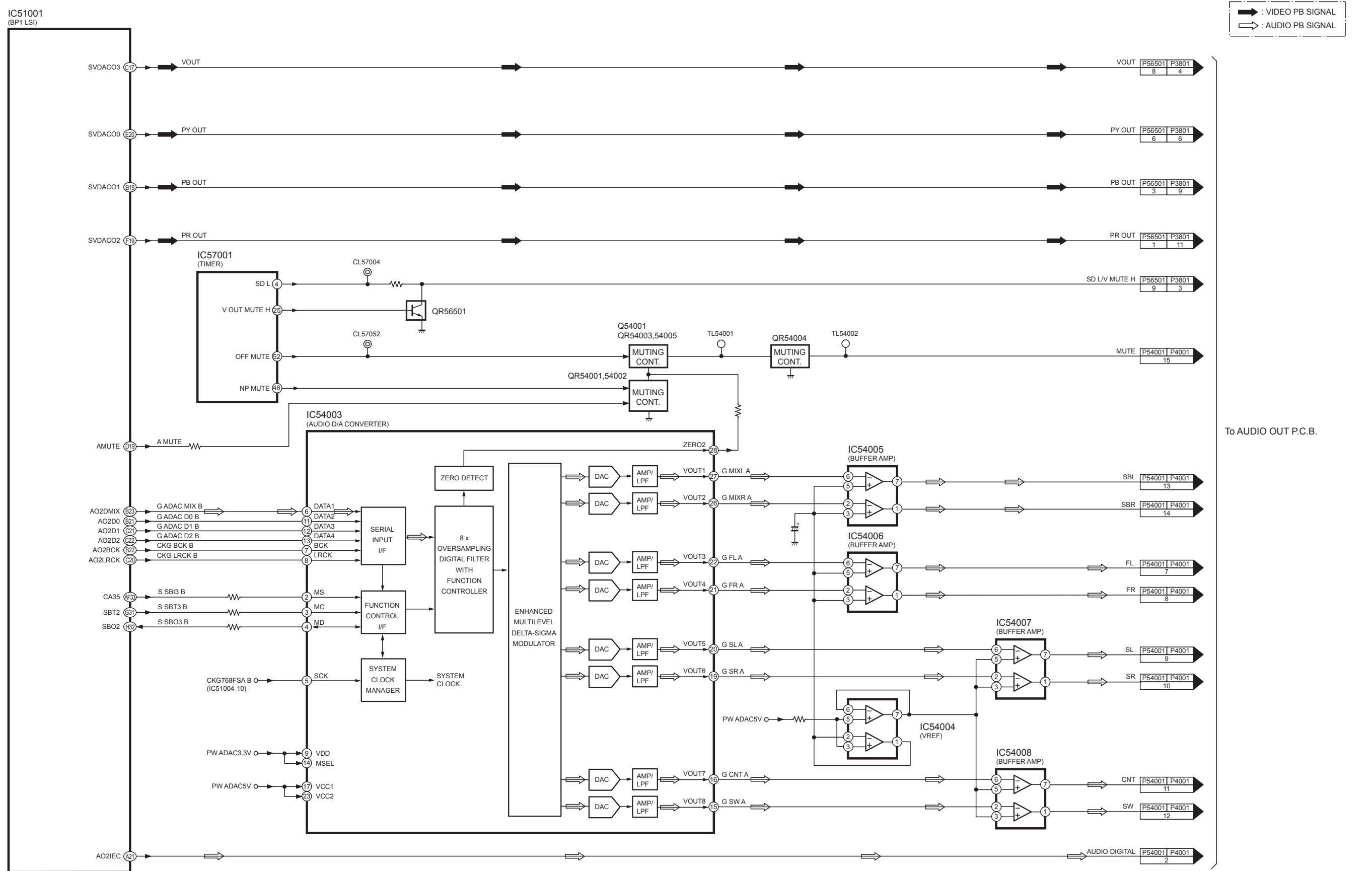


S3.2. Power Supply Block Diagram

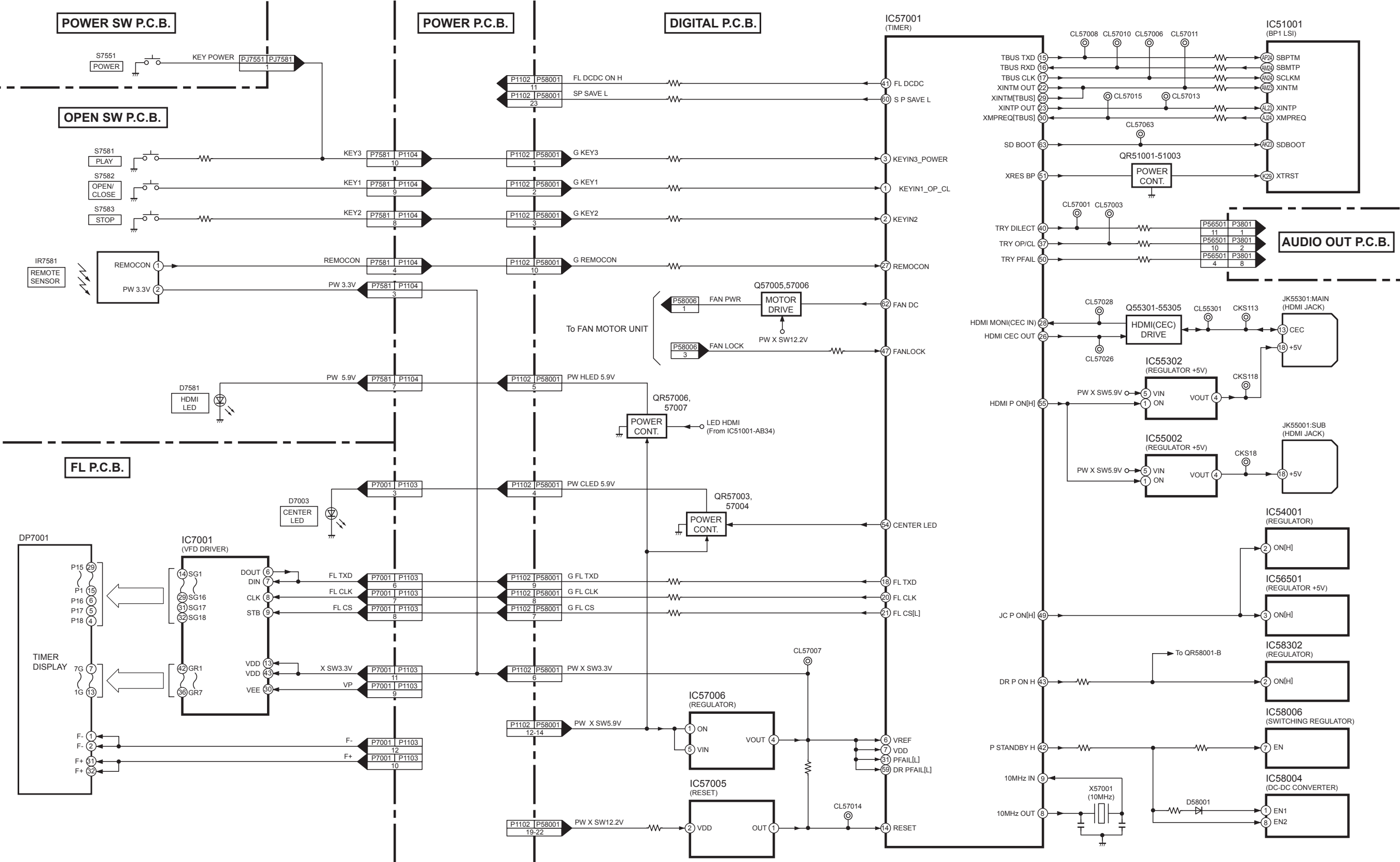


DMP-BDT300EG/EE POWER SUPPLY CIRCUIT BLOCK DIAGRAM

S3.3. Analog Video/Audio Block Diagram



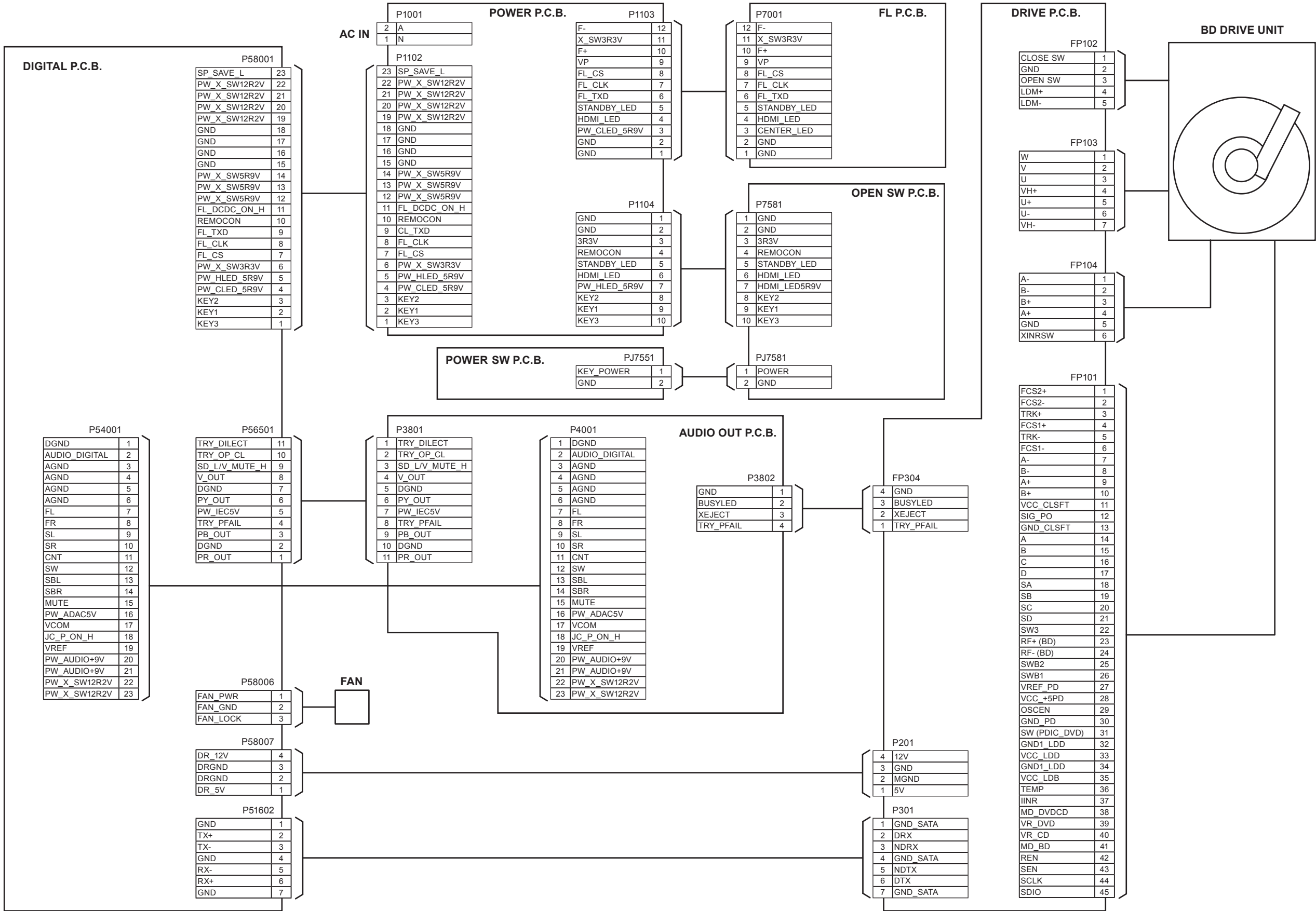
S3.4. Timer Block Diagram



DMP-BDT300EG/EE TIMER CIRCUIT BLOCK DIAGRAM

S4. Schematic Diagram

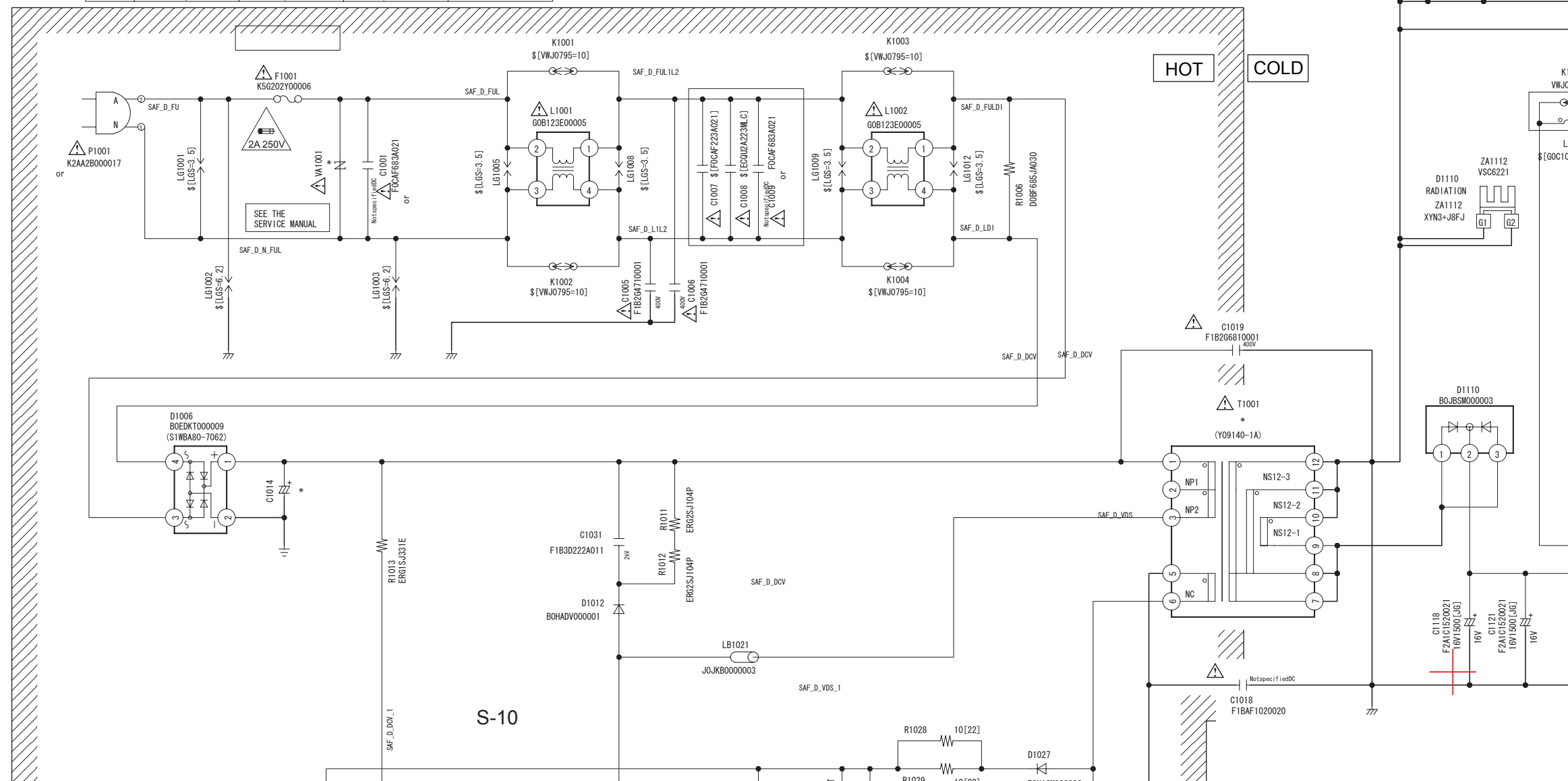
S4.1. Interconnection Diagram

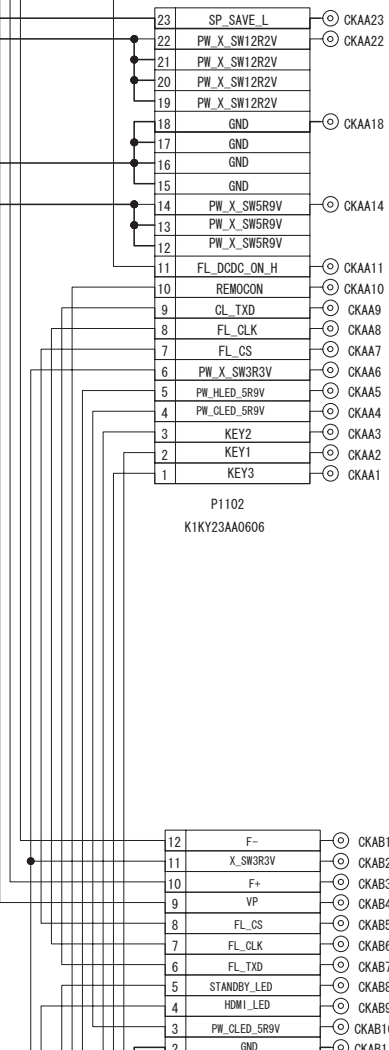


A vertical scale with labels G, H, I, J, K, L, M, and N. A red plus sign is positioned to the left of the G label.

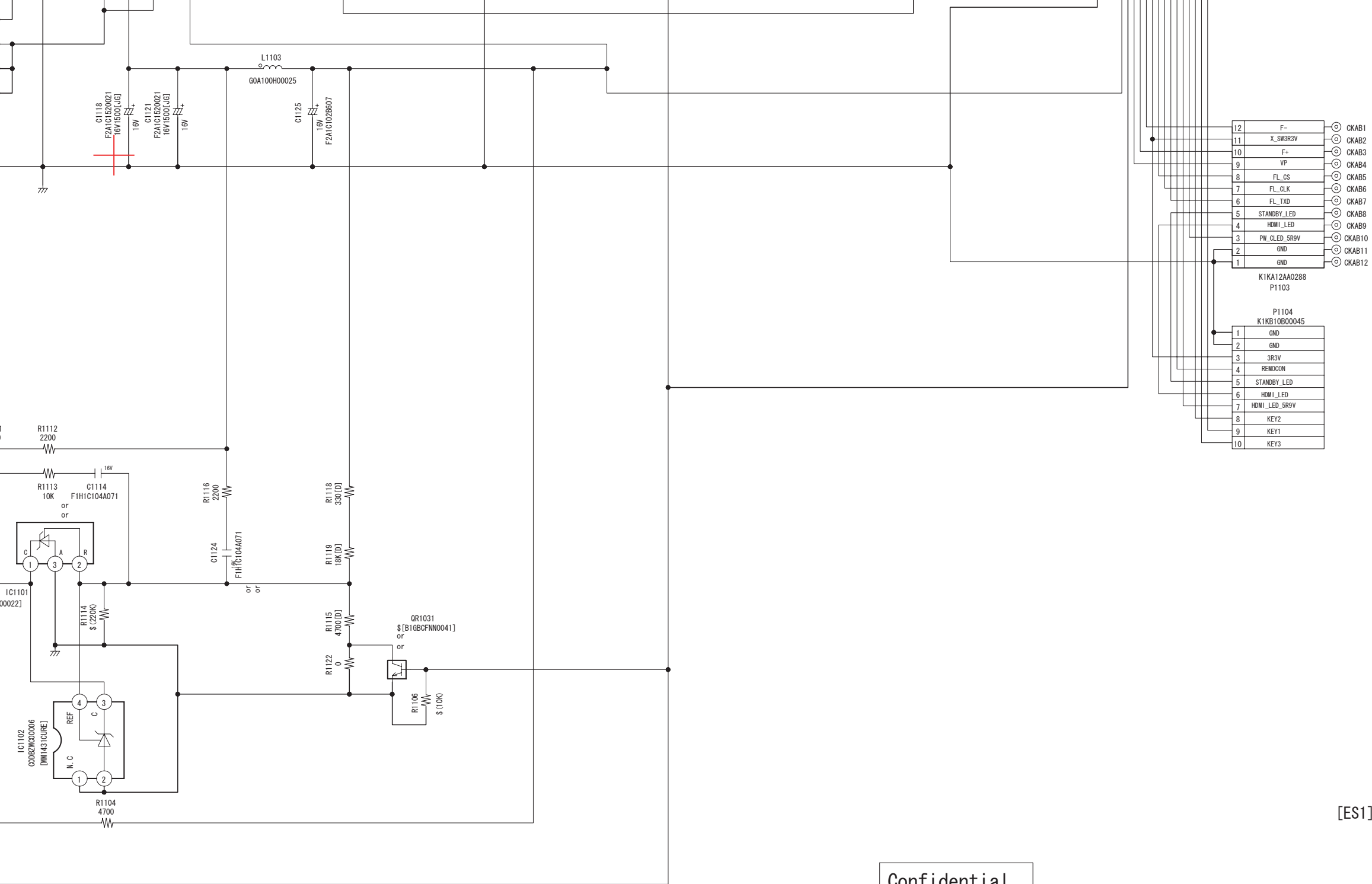
 CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE 2A 250V FUSE.

ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D'INCENDIE N'UTILISER QUE DES FUSIBLE DE MÊME TYPE 2A 250V.



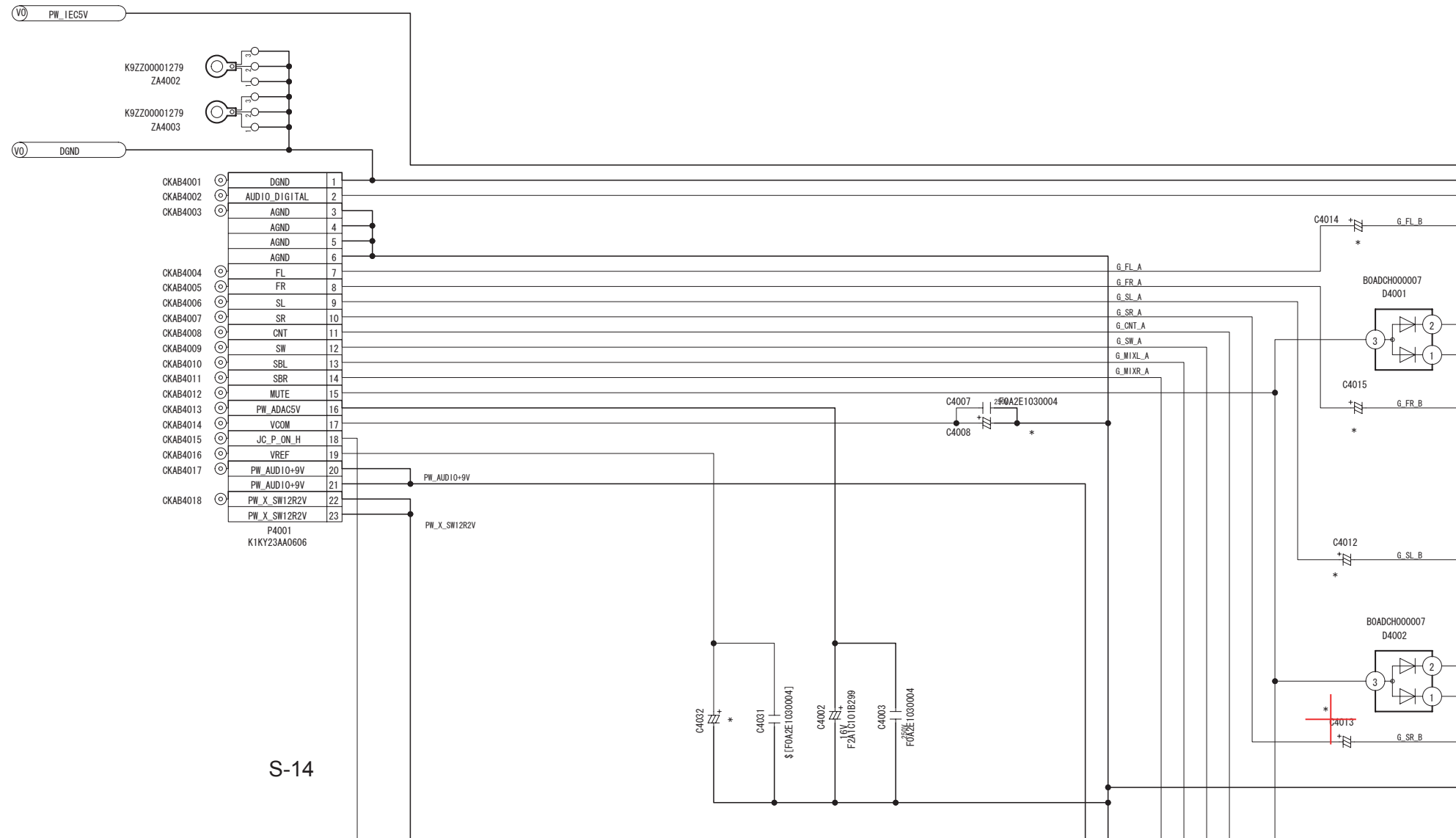


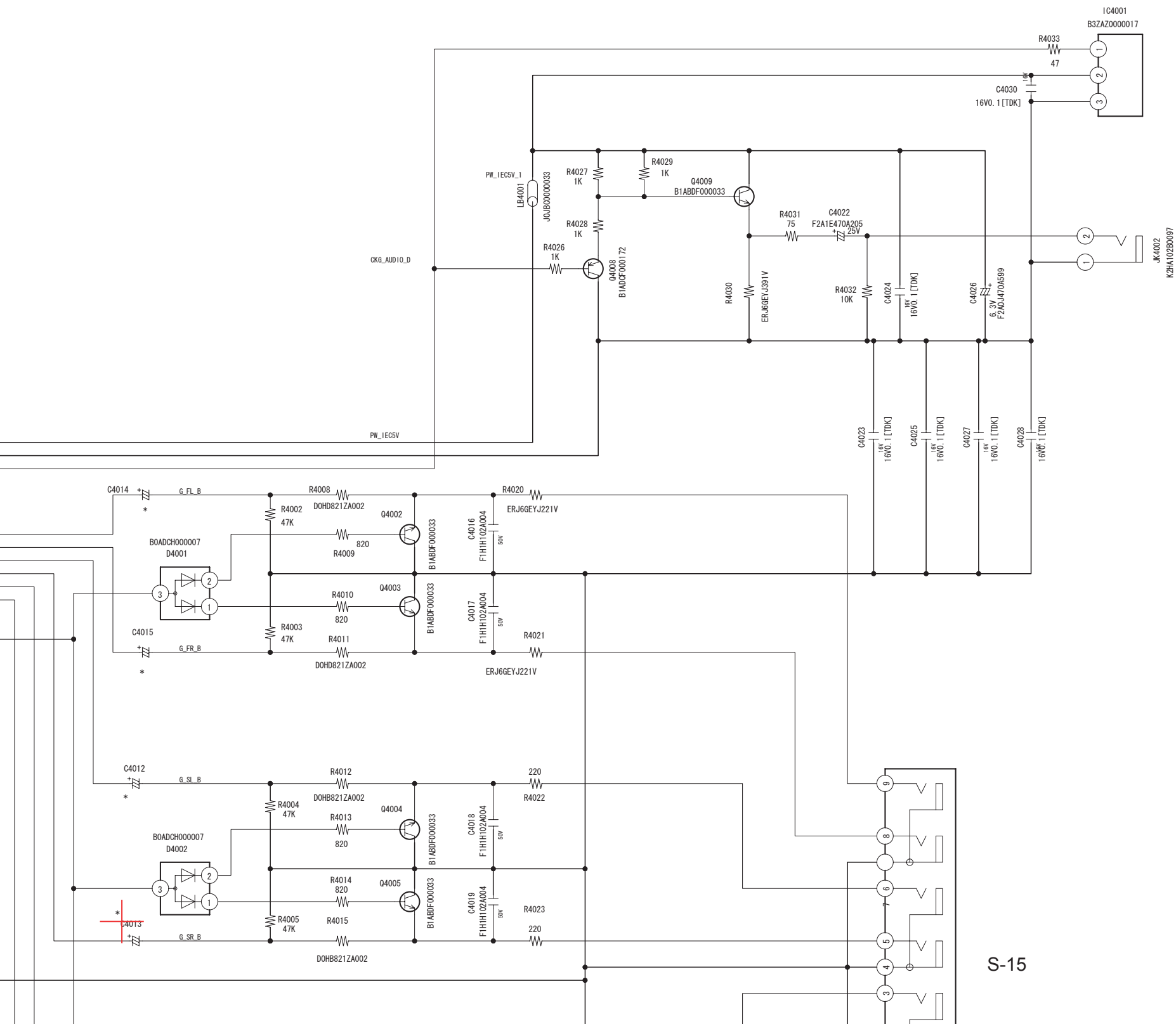




Confidential
Until 2010/06/30

1/4		DMP-BDT300EG/EE Audio Out Section (Audio_Out P.C.B. (1/2)) Schematic Diagram (AO)



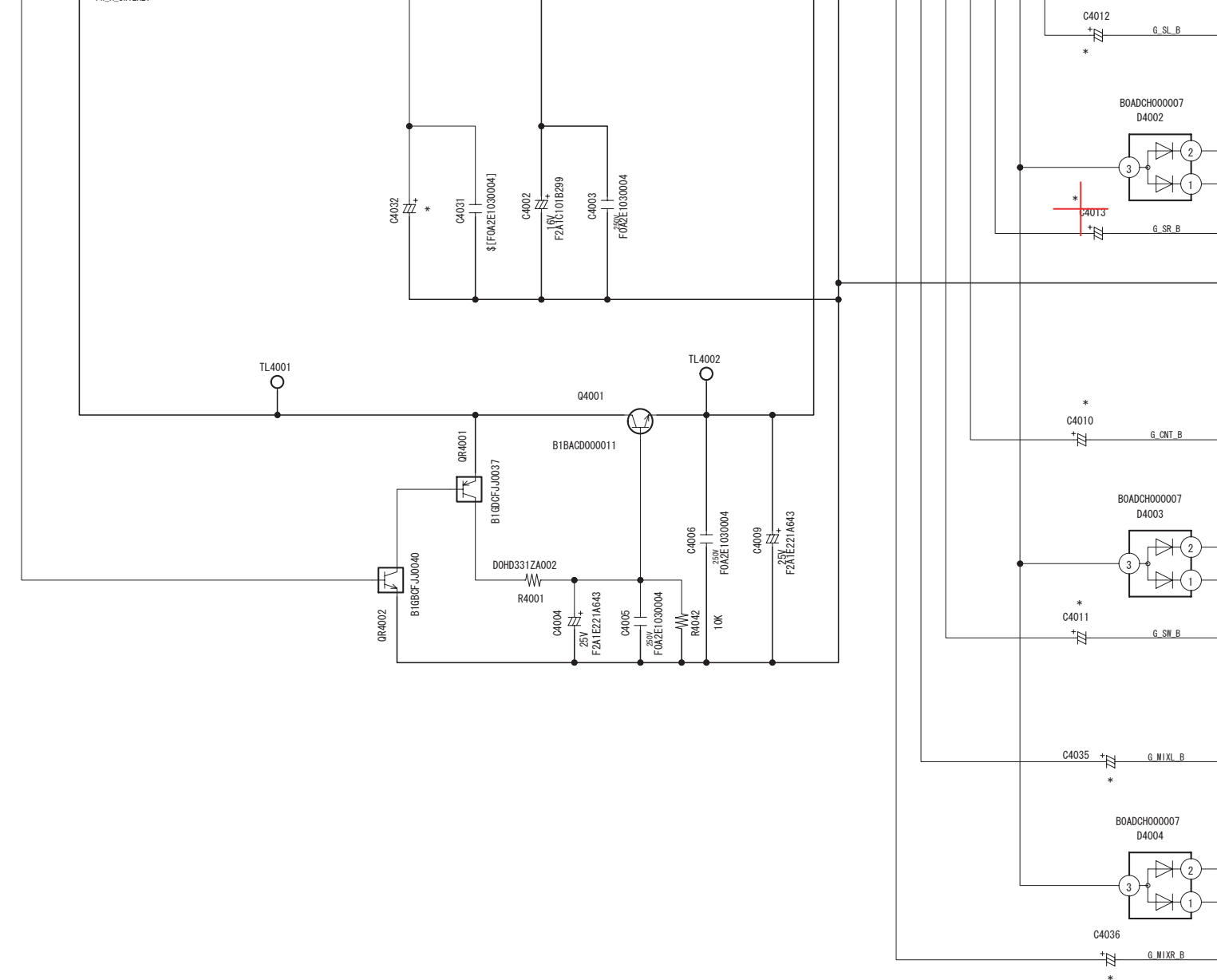


V

V

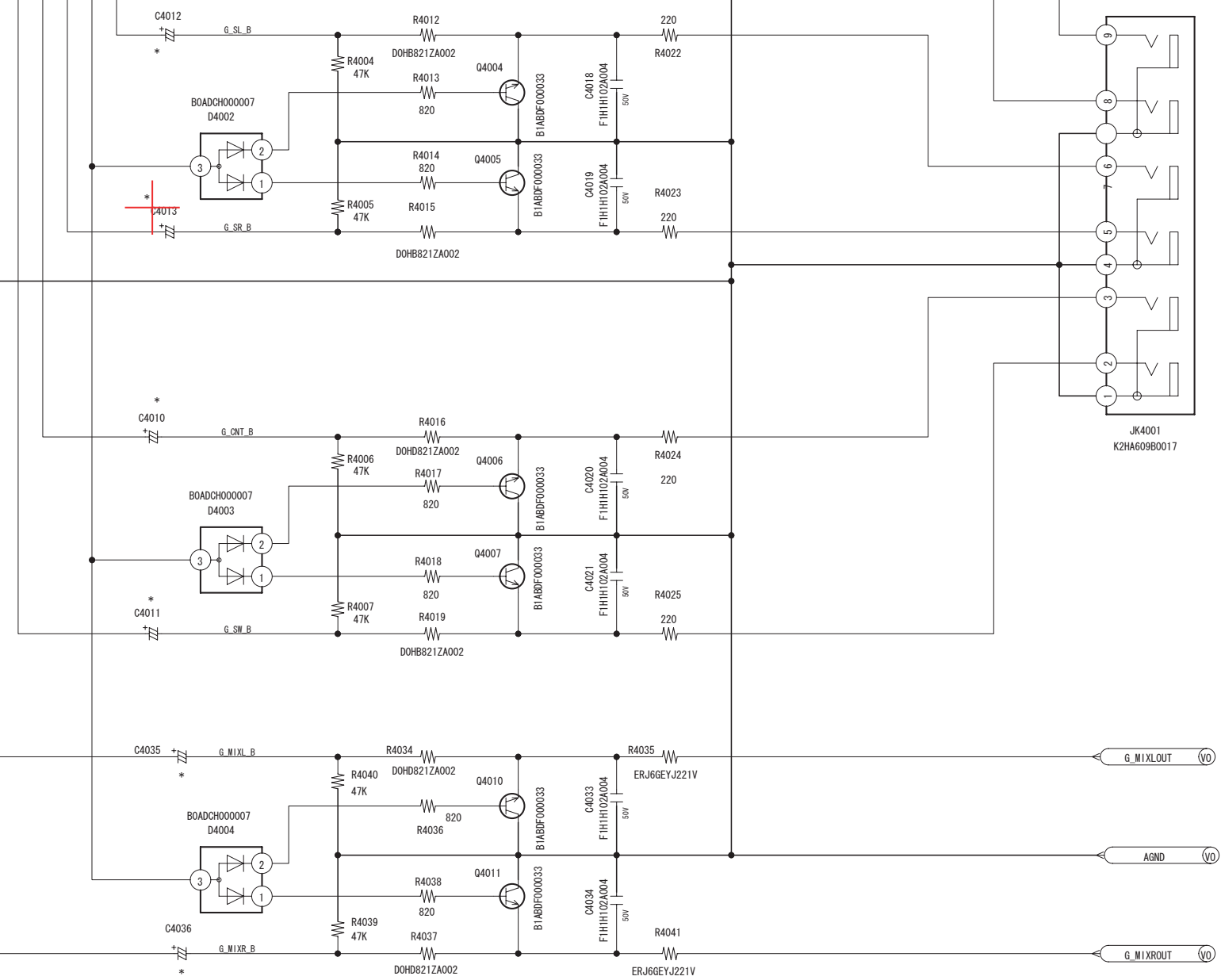
S-15





VariationCategory	A	B	
C4008	F2A1C101B299	F2A1E101B655	
C4010	F2A1C470B174	F2A1C470B174	
C4011	F2A1E470A205	F2A1E101B529	
C4012	F2A1E470A205	F2A1E101B529	
C4013	F2A1E470A205	F2A1E101B529	
C4014	F2A1C470B174	F2A1C470B174	
C4015	F2A1C470B174	F2A1C470B174	
C4032	F2A1E221A643	F2A1E101B655	
C4035	F2A1C470B174	F2A1C470B174	
C4036	F2A1C470B174	F2A1C470B174	

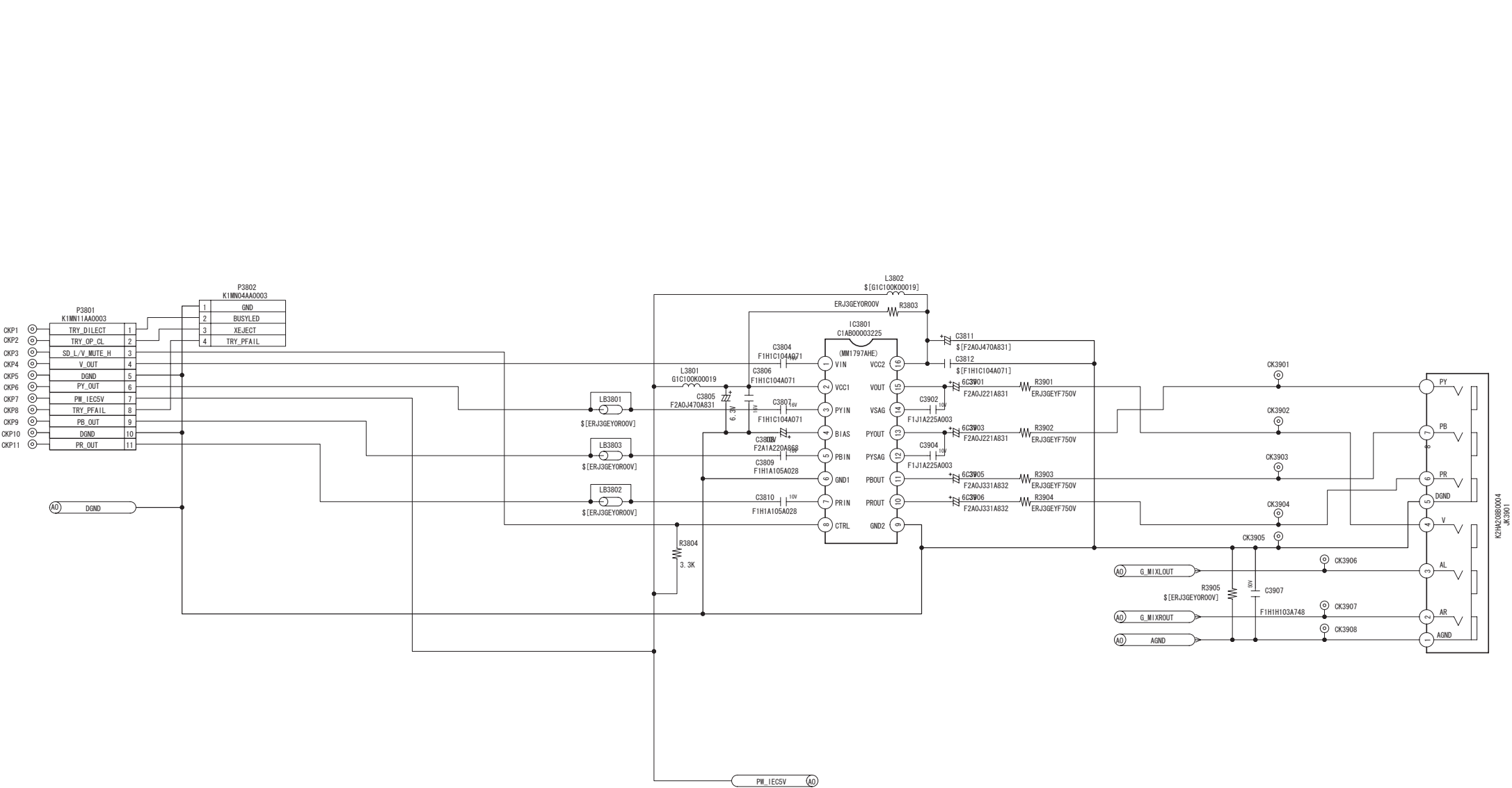
Modify Category		
	Variation	Type
1	BDT300PP, PU, EG, EE, GN, GC, GA, GK, BDT350PP	A
2	BDT900	B



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Until 2010.06.30

[ES1]

S4.4. Video Out(VO) Schematic Diagram

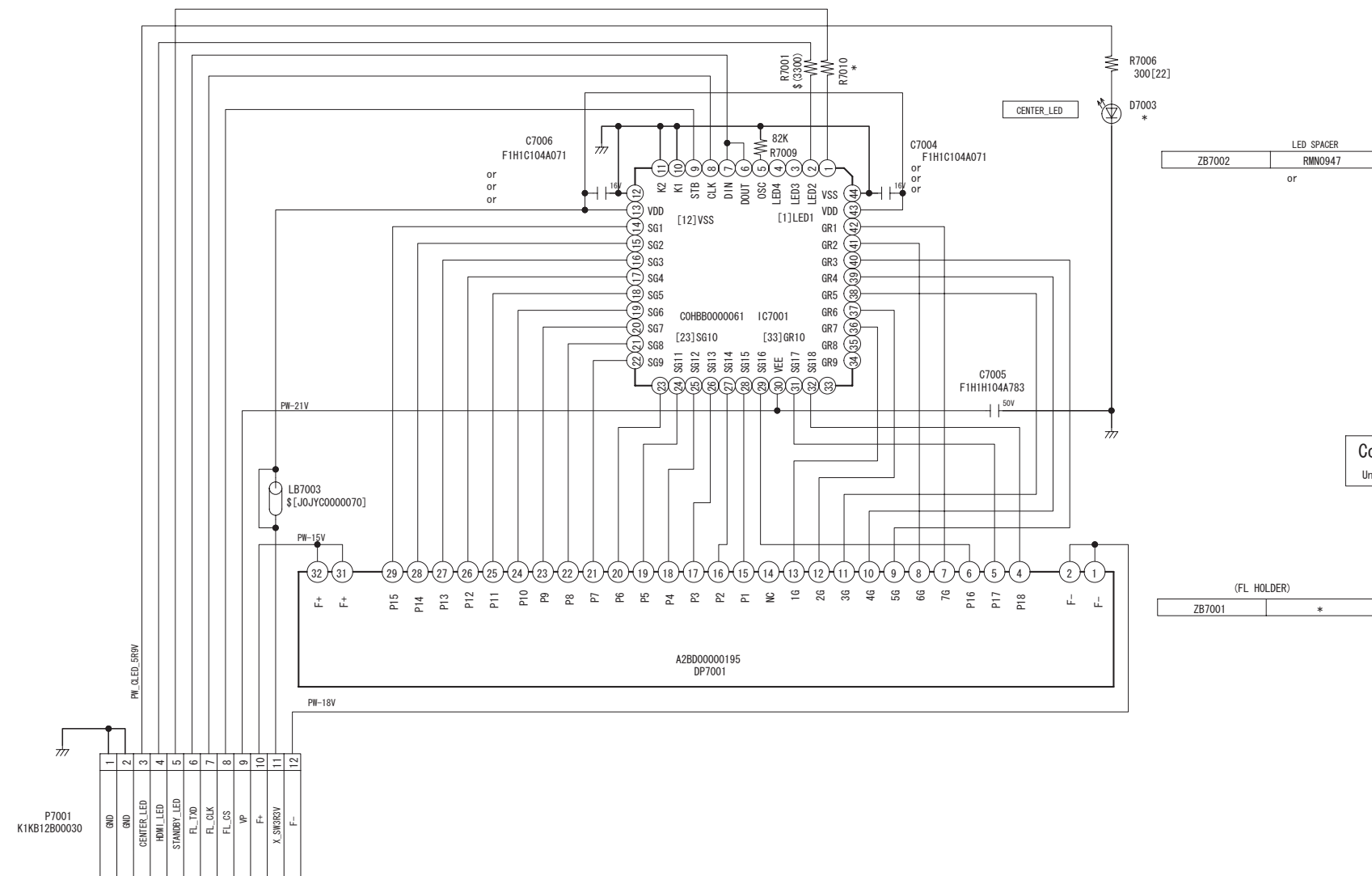
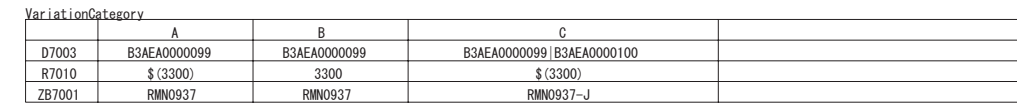
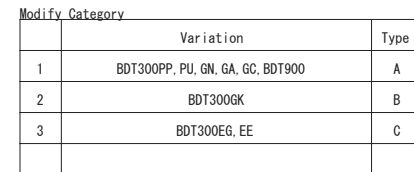


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Unit: 2010.06.30

[PR]

DMP-BDT300EG/EE
Video Out Section
(Audio_Out P.C.B. (2/2))
Schematic Diagram (VO)

S4.5. FL(F) Schematic Diagram

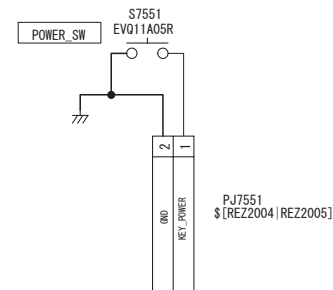


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Until 2010.06.30

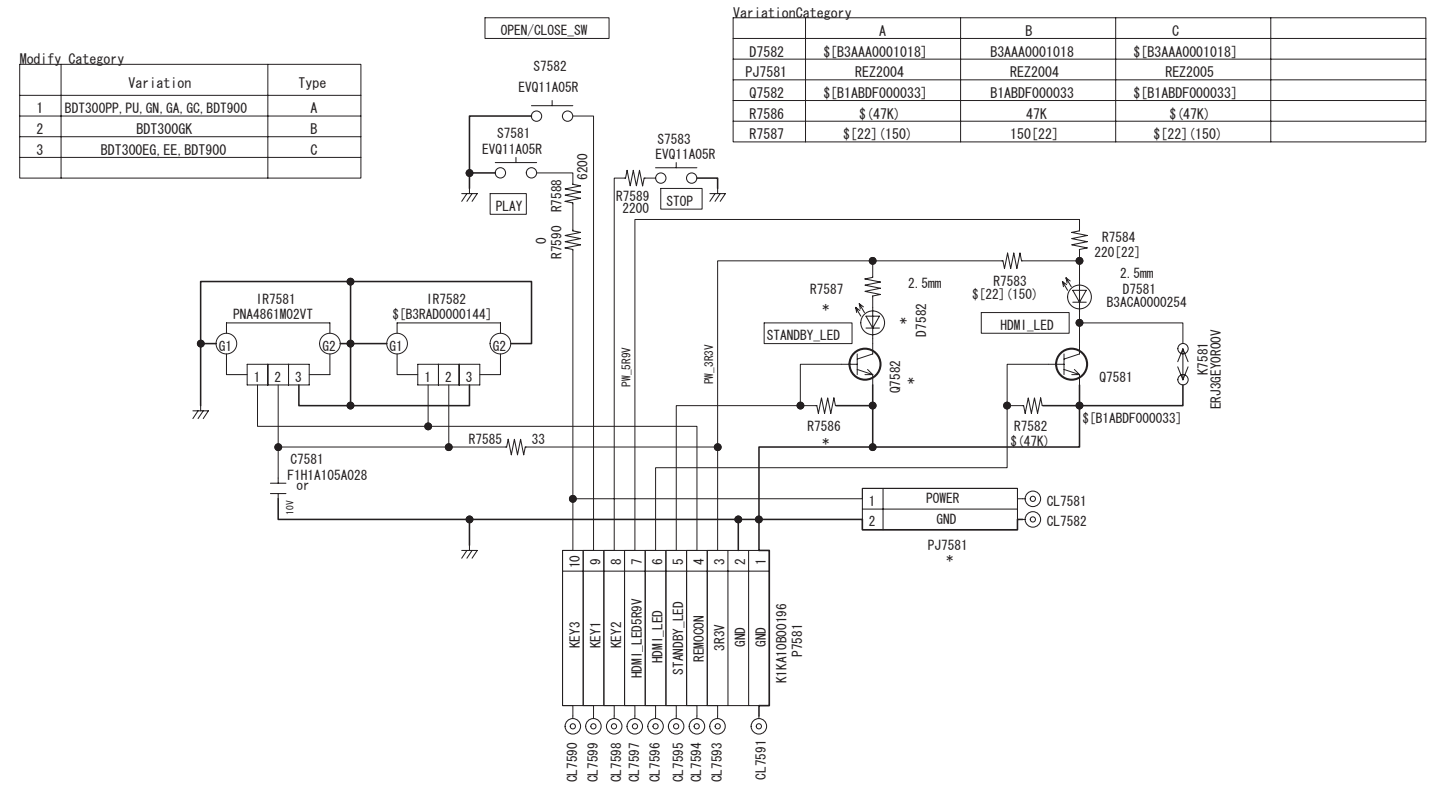
(FL HOLDER)	
ZB7001	*

DMP-BDT300EG/EE
FL
Schematic Diagram (F)

S4.6. Power_SW Schematic Diagram / S4.7. Open_SW Schematic Diagram



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Until 2010/06/30



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Until 2010/06/30

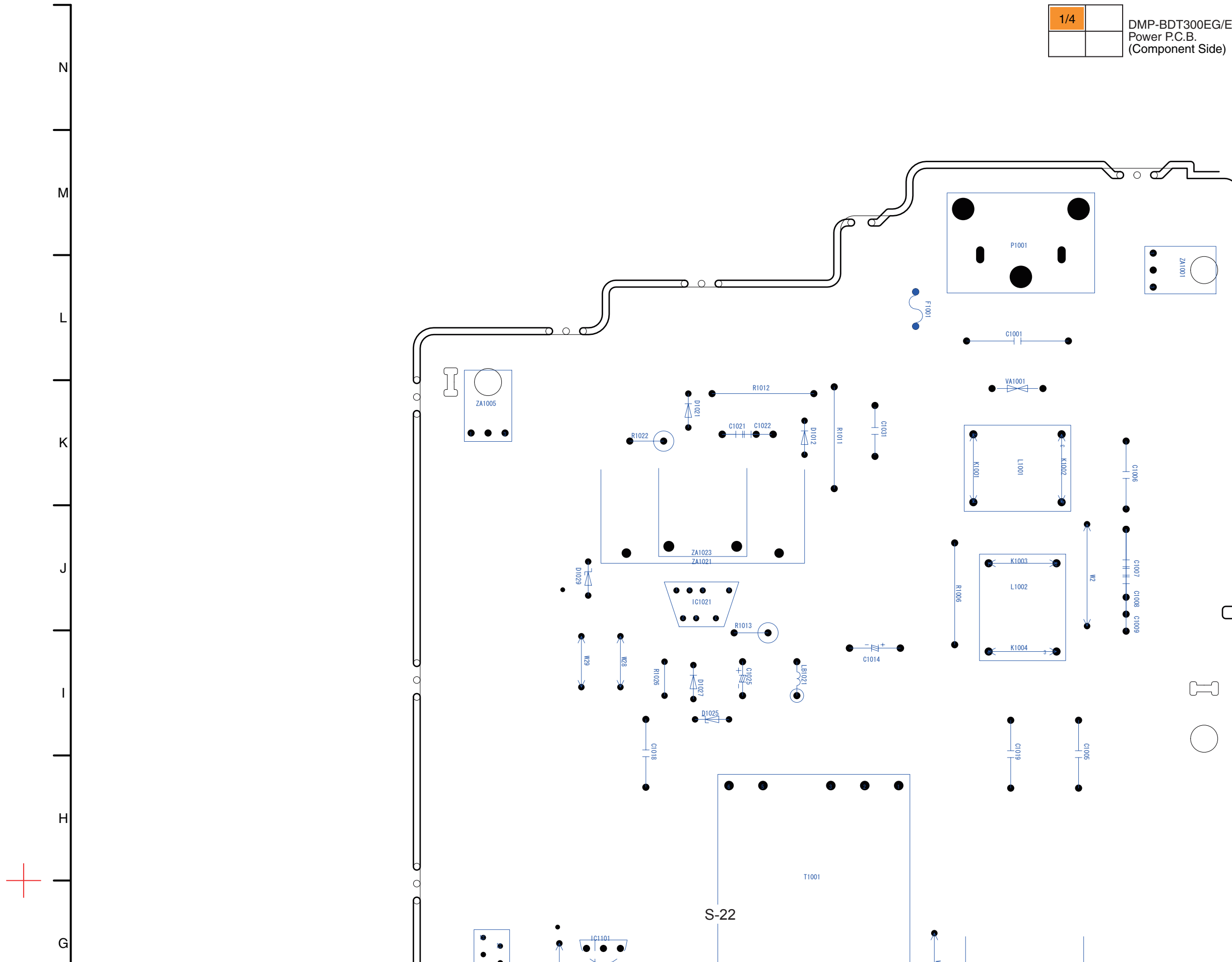
DMP-BDT300EG/EE
Power_SW
Schematic Diagram

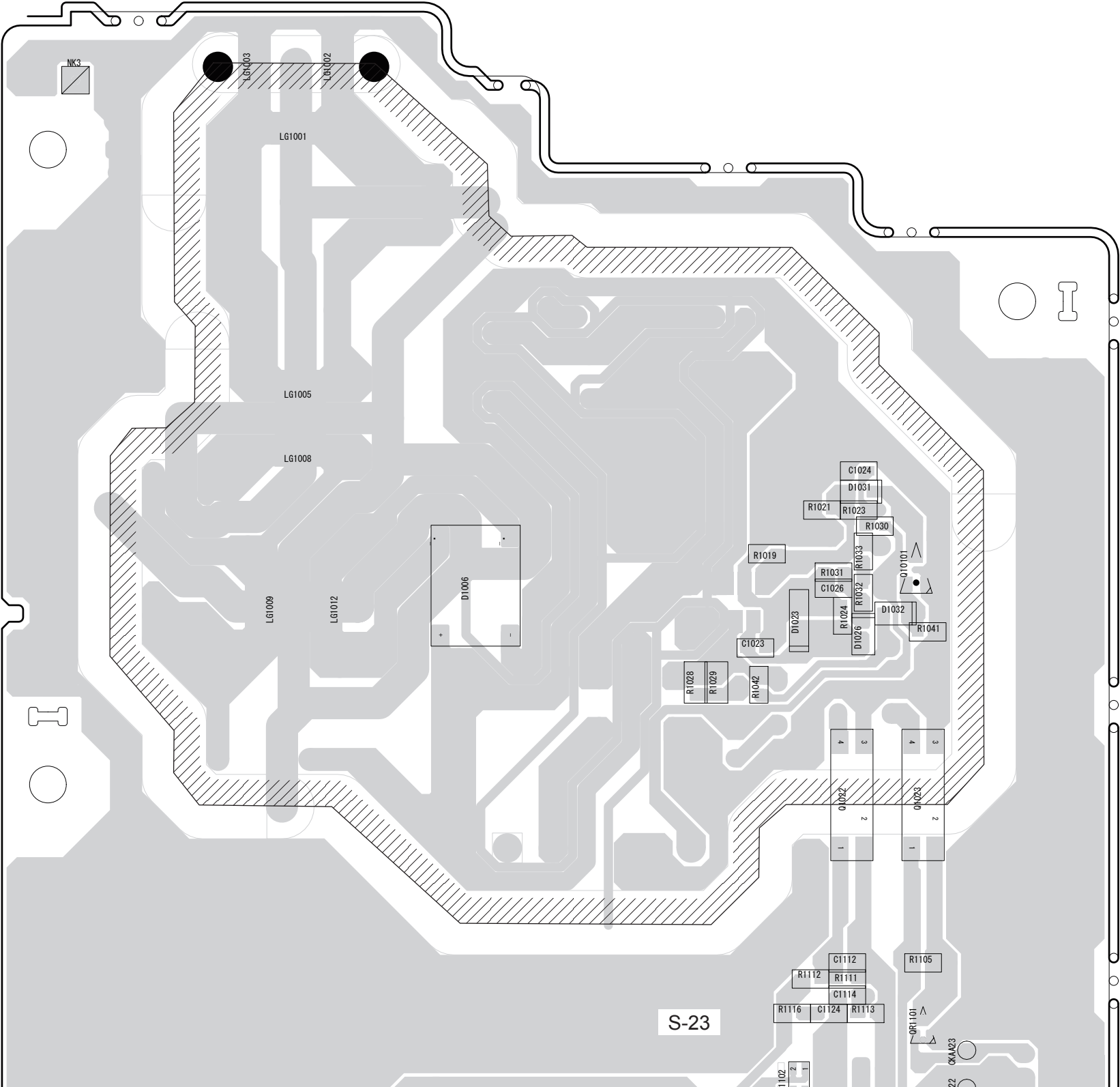
DMP-BDT300EG/EE
Open_SW
Schematic Diagram

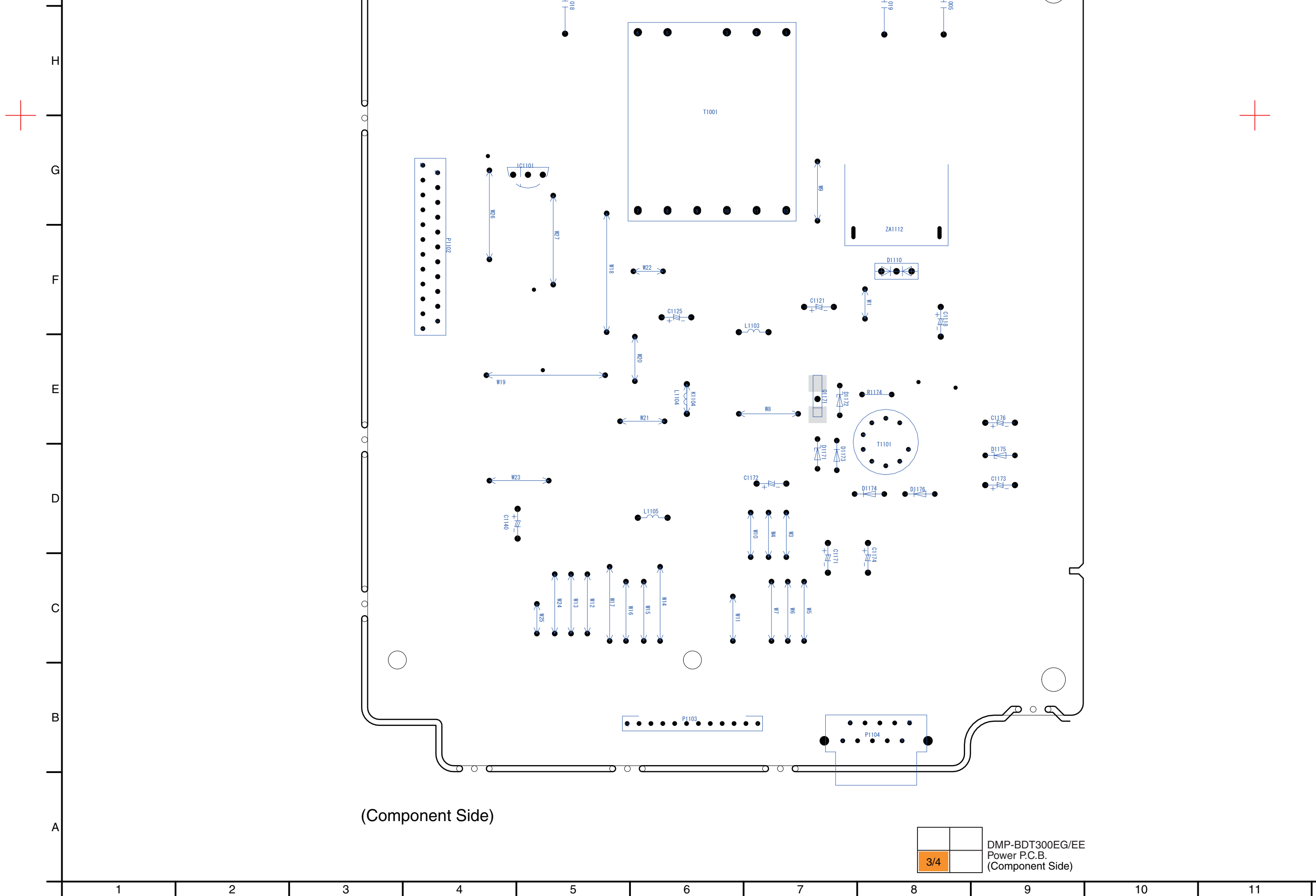
S5. Print Circuit Board

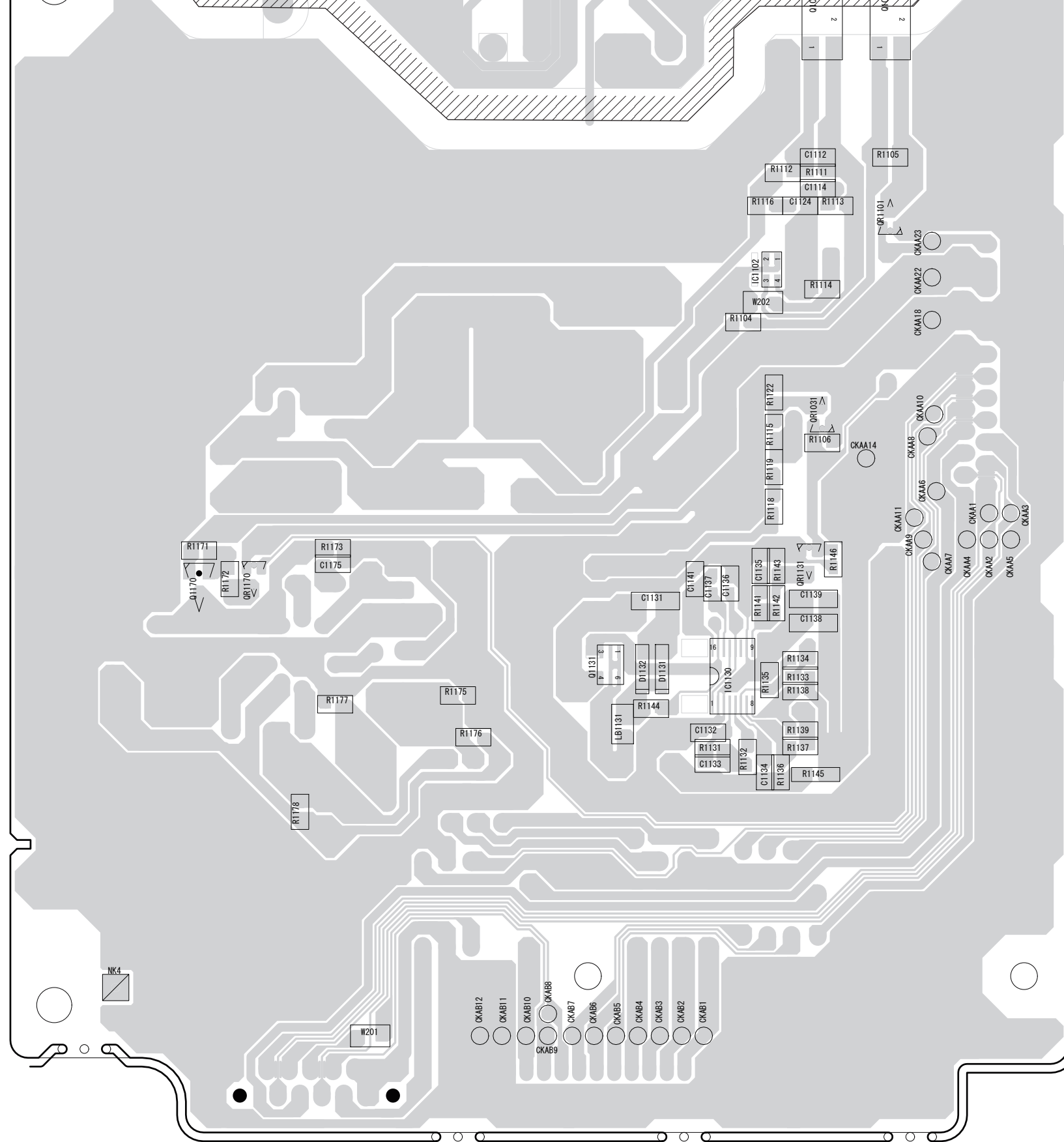
S5.1. Power P.C.B.

1/4		DMP-BDT300EG/EE Power P.C.B. (Component Side)





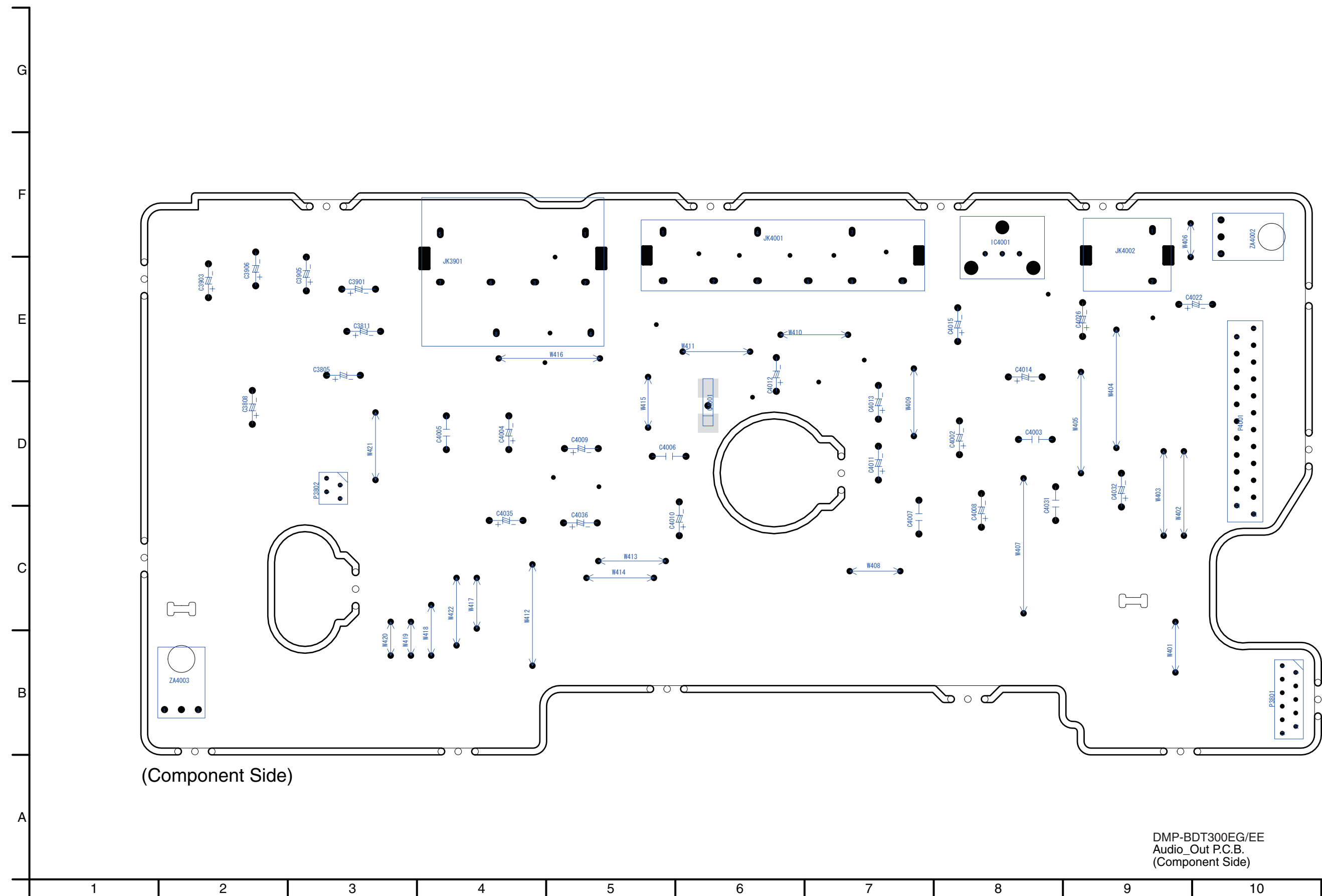




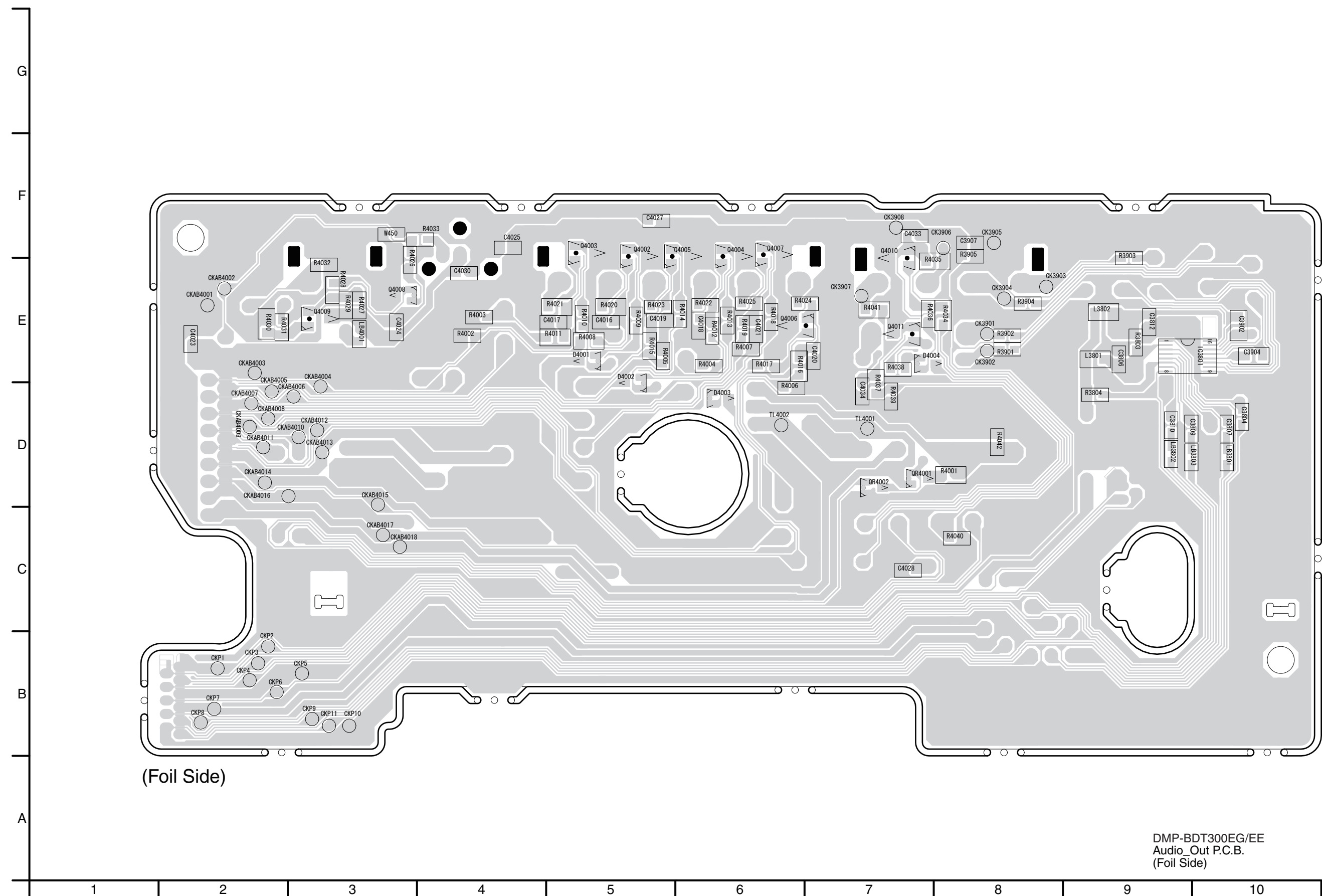
(Foil Side)

S5.2. Audio_Out P.C.B.

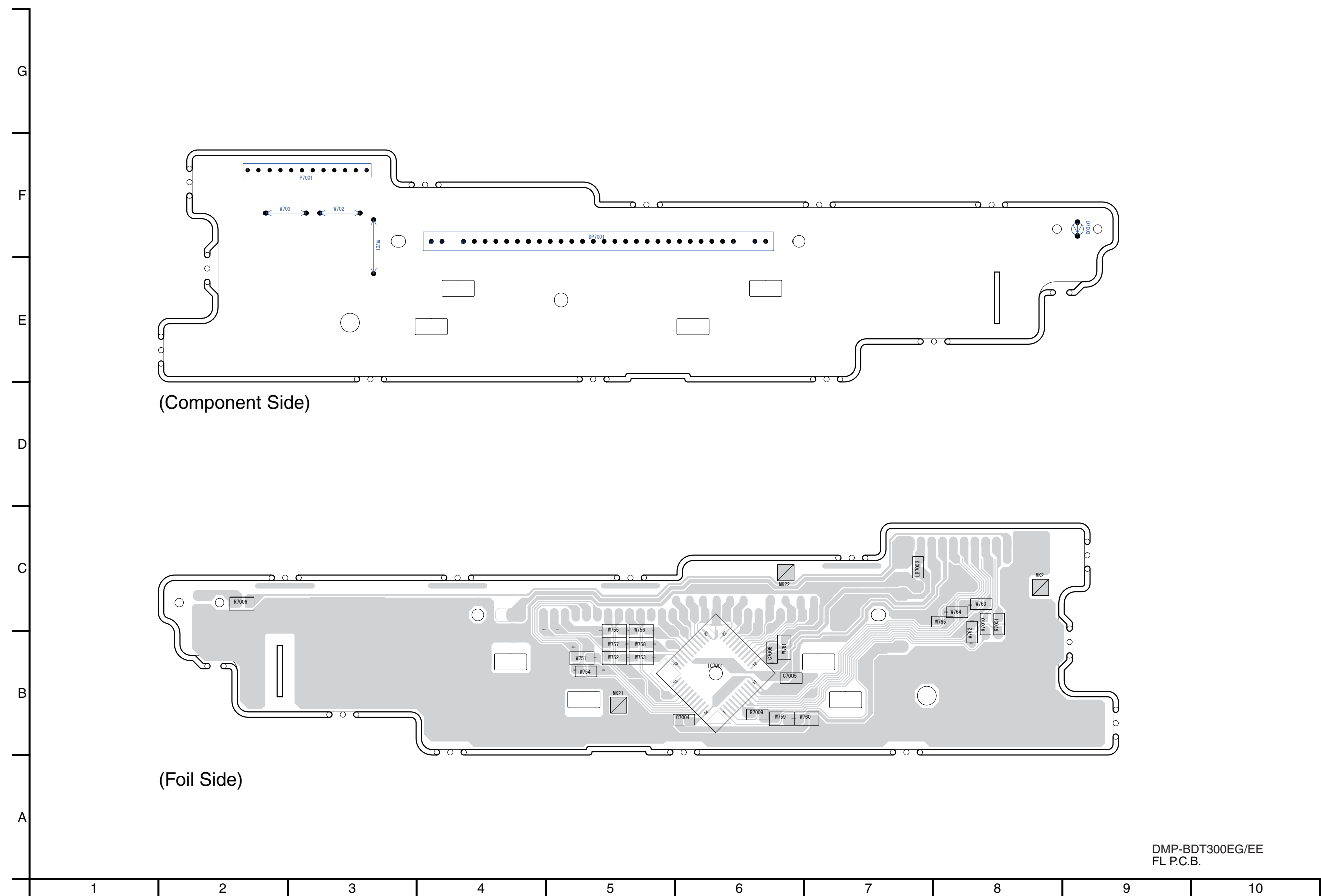
S5.2.1. Audio_Out P.C.B. (Component Side)



S5.2.2. Audio_Out P.C.B. (Foil Side)

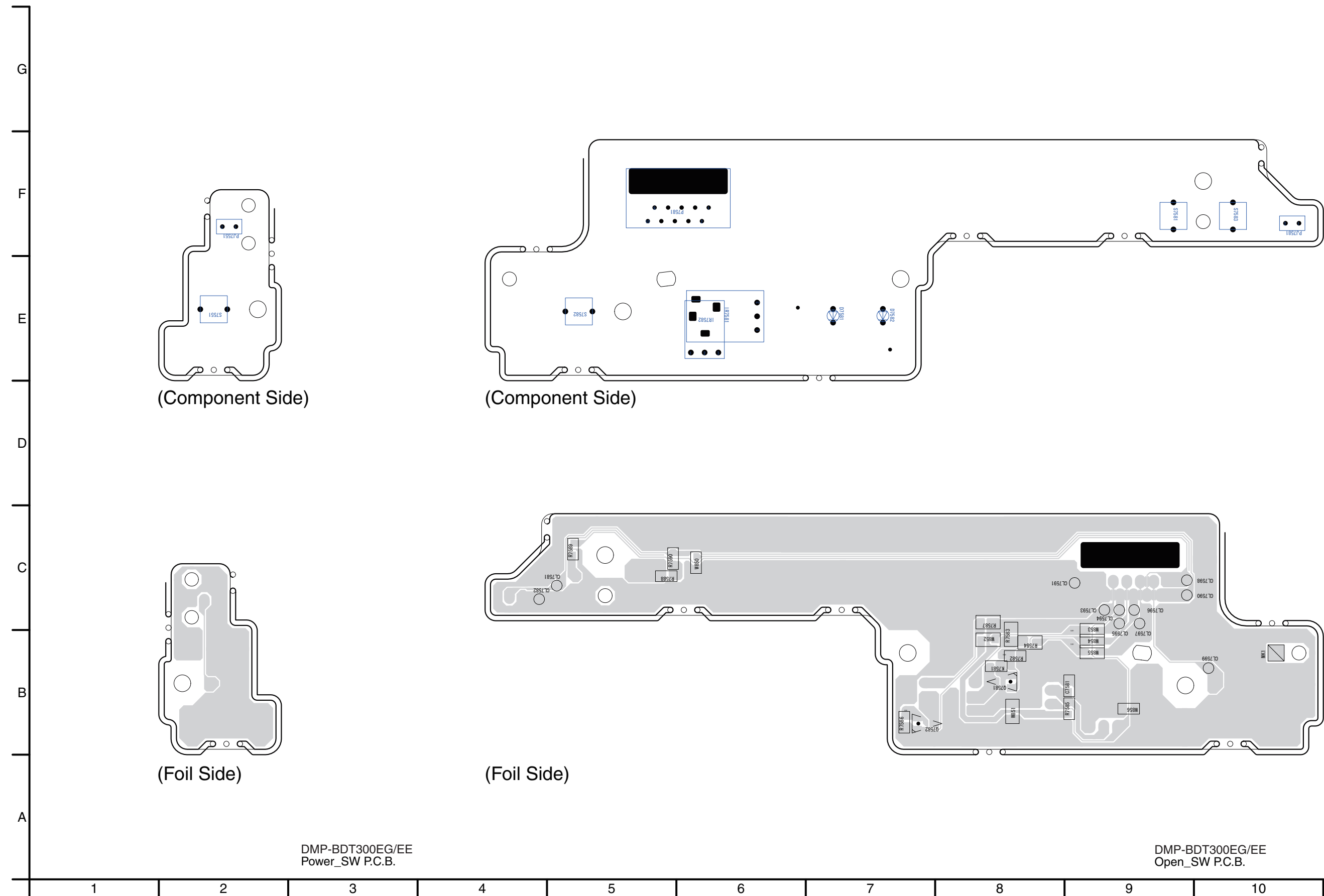


S5.3. FL P.C.B.



DMP-BDT300EG/EE
FL P.C.B.

S5.4. Power_SW P.C.B. / S5.5. Open_SW P.C.B.



S6. Abbreviation

INITIAL/LOGO		ABBREVIATIONS
A	A0~UP	ADDRESS
	ACLK	AUDIO CLOCK
	AD0~UP	ADDRESS BUS
	ADATA	AUDIO PES PACKET DATA
	ALE	ADDRESS LATCH ENABLE
	AMUTE	AUDIO MUTE
	AREQ	AUDIO PES PACKET REQUEST
	ARF	AUDIO RF
	ASI	SERVO AMP INVERTED INPUT
	ASO	SERVO AMP OUTPUT
	ASYNC	AUDIO WORD DISTINCTION SYNC
B	BCK	BIT CLOCK (PCM)
	BCKIN	BIT CLOCK INPUT
	BDO	BLACK DROP OUT
	BLKCK	SUB CODE BLOCK CLOCK
	BOTTOM	CAP. FOR BOTTOM HOLD
	BYP	BYPATH
	BYTCK	BYTE CLOCK
C	CAV	CONSTANT ANGULAR VELOCITY
	CBDO	CAP. BLACK DROP OUT
	CD	COMPACT DISC
	CDSCCK	CD SERIAL DATA CLOCK
	CDSRDATA	CD SERIAL DATA
	CDRF	CD RF (EFM) SIGNAL
	CDV	COMPACT DISC-VIDEO
	CHNDATA	CHANNEL DATA
	CKSL	SYSTEM CLOCK SELECT
	CLV	CONSTANT LINEAR VELOCITY
	COFTR	CAP. OFF TRACK
	CPA	CPU ADDRESS
	CPCS	CPU CHIP SELECT
	CPDT	CPU DATA
	CPH1~3	CLOCK PULSE SOURCE DRIVE
	CPUADR	CPU ADDRESS LATCH
	CPUADT	CPU ADDRESS DATA BUS
	CPUIRQ	CPU INTERRUPT REQUEST
	CPRD	CPU READ ENABLE
	CPV	GATE DRIVER CLOCK PULSE
	CPWR	CPU WRITE ENABLE
	CS	CHIP SELECT
	CSYNCIN	COMPOSITE SYNC IN
	CSYNCOU	COMPOSITE SYNC OUT
D	DACCK	D/A CONVERTER CLOCK
	DEEMP	DE-EMPHASIS BIT ON/OFF
	DEMPH	DE-EMPHASIS SWITCHING
	DIG0~UP	FL DIGIT OUTPUT
	DIN	DATA INPUT
	DMSRCK	DM SERIAL DATA READ CLOCK
	DMUTE	DIGITAL MUTE CONTROL
	DO	DROP OUT
	DOUT0~UP	DATA OUTPUT
	DRF	DATA SLICE RF (BIAS)
	DRPOUT	DROP OUT SIGNAL

INITIAL/LOGO		ABBREVIATIONS
	DREQ DRESP DSC DSLIF DVD	DATA REQUEST DATA RESPONSE DIGITAL SERVO CONTROLLER DATA SLICE LOOP FILTER DIGITAL VIDEO DISC
E	EC ECR ENCSEL ETMCLK ETSCLK	ERROR TORQUE CONTROL ERROR TORQUE CONTROL REFERENCE ENCODER SELECT EXTERNAL M CLOCK (81MHz/40.5MHz) EXTERNAL S CLOCK (54MHz)
F	FBAL FCLK FE FFI FEO FG FSC FSCK	FOCUS BALANCE FRAME CLOCK FOCUS ERROR FOCUS ERROR AMP INVERTED INPUT FOCUS ERROR AMP OUTPUT FREQUENCY GENERATOR FREQUENCY SUB CARRIER FS (384 OVER SAMPLING) CLOCK
G	GND	COMMON GROUNDING (EARTH)
H	HA0~UP HD0~UP HINT HRXW	HOST ADDRESS HOST DATA HOST INTERRUPT HOST READ/WRITE
I	IECOUT IPFRAG IREF ISEL	IEC958 FORMAT DATA OUTPUT INTERPOLATION FLAG I (CURRENT) REFERENCE INTERFACE MODE SELECT
L	LDON LPC LRCK	LASER DIODE CONTROL LASER POWER CONTROL L CH/R CH DISTINCTION CLOCK
M	MA0~UP MCK MCKI MCLK MDATA MDQ0~UP MDQM MLD MPEG	MEMORY ADDRESS MEMORY CLOCK MEMORY CLOCK INPUT MEMORY SERIAL COMMAND CLOCK MEMORY SERIAL COMMAND DATA MEMORY DATA INPUT/OUTPUT MEMORY DATA I/O MASK MEMORY SERIAL COMMAND LOAD MOVING PICTURE EXPERTS GROUP
O	ODC OEH OEV 1, 2 OFTR OSCI OSCO OSD	OPTICAL DISC CONTROLLER SOURCE DRIVER OUTPUT ENABLE GATE DRIVER OUTPUT ENABLE OFF TRACKING OSCILLATOR INPUT OSCILLATOR OUTPUT ON SCREEN DISPLAY
P	P1~UP PCD PCK PDVD PEAK PLLCLK PLLOK	PORT CD TRACKING PHASE DIFFERENCE PLL CLOCK DVD TRACKING PHASE DIFFERENCE CAP. FOR PEAK HOLD CHANNEL PLL CLOCK PLL LOCK

INITIAL/LOGO		ABBREVIATIONS
	PWMCTL PWMDA PWMOA, B	PWM OUTPUT CONTROL PULSE WAVE MOTOR DRIVE A PULSE WAVE MOTOR OUT A, B
R	RE RFENV RFO RS RSEL RST RSV	READ ENABLE RF ENVELOPE RF PHASE DIFFERENCE OUTPUT (CD-ROM) REGISTER SELECT RF POLARITY SELECT RESET RESERVE
S	SBI0, 1 SBO0 SBT0, 1 SCK SCKR SCL SCLK SDA SEG0~UP SELCLK SEN SIN1, 2 SOUT1, 2 SPDI SPDO SPEN SPRCLK SPWCLK SQCK SQCX SRDATA SRMADR SRMDT0~7 SS STAT STCLK STD0~UP STENABLE STH STSEL STV STVALID SUBC SBCK SUBQ SYSCLK	SERIAL DATA INPUT SERIAL DATA OUTPUT SERIAL CLOCK SERIAL DATA CLOCK AUDIO SERIAL CLOCK RECEIVER SERIAL CLOCK SERIAL CLOCK SERIAL DATA FL SEGMENT OUTPUT SELECT CLOCK SERIAL PORT ENABLE SERIAL DATA IN SERIAL DATA OUT SERIAL PORT DATA INPUT SERIAL PORT DATA OUTPUT SERIAL PORT R/W ENABLE SERIAL PORT READ CLOCK SERIAL PORT WRITE CLOCK SUB CODE Q CLOCK SUB CODE Q DATA READ CLOCK SERIAL DATA SRAM ADDRESS BUS SRAM DATA BUS 0~7 START/STOP STATUS STREAM DATA CLOCK STREAM DATA STREAM DATA INPUT ENABLE SOURCE START PULSE STREAM DATA POLARITY SELECT GATE DRIVER SCAN START PULSE STREAM DATA VALIDITY SUB CODE SERIAL SUB CODE CLOCK SUB CODE Q DATA SYSTEM CLOCK
T	TE TIBAL TID TIN TIP TIS TPSN	TRACKING ERROR BALANCE CONTROL BALANCE OUTPUT 1 BALANCE INPUT BALANCE INPUT BALANCE OUTPUT 2 OP AMP INPUT

INITIAL/LOGO		ABBREVIATIONS
	TPSO TPSP TRCRS TRON TRSON	OP AMP OUTPUT OP AMP INVERTED INPUT TRACK CROSS SIGNAL TRACKING ON TRAVERSE SERVO ON
V	VBLANK VCC VCDCONT VDD VFB VREF VSS	V BLANKING COLLECTOR POWER SUPPLY VOLTAGE VIDEO CD CONTROL (TRACKING BALANCE) DRAIN POWER SUPPLY VOLTAGE VIDEO FEED BACK VOLTAGE REFERENCE SOURCE POWER SUPPLY VOLTAGE
W	WAIT WDCK WEH WSR	BUS CYCLE WAIT WORD CLOCK WRITE ENABLE HIGH WORD SELECT RECEIVER
X	X XALE XAREQ XCDROM XCS XCSYNC XDS XHSYNCO XHINT XI XINT XMW XO XRE XSRMCE XSRMOE XSRMWE XVCS XVDS XVSYNCO	X' TAL X ADDRESS LATCH ENABLE X AUDIO DATA REQUEST X CD ROM CHIP SELECT X CHIP SELECT X COMPOSITE SYNC X DATA STROBE X HORIZONTAL SYNC OUTPUT XH INTERRUPT REQUEST X' TAL OSCILLATOR INPUT X INTERRUPT X MEMORY WRITE ENABLE X' TAL OSCILLATOR OUTPUT X READ ENABLE X SRAM CHIP ENABLE X SRAM OUTPUT ENABLE X SRAM WRITE ENABLE X V-DEC CHIP SELECT X V-DEC CONTROL BUS STROBE X VERTICAL SYNC OUTPUT

S7. Replacement Parts List

- Note:
- 1.* Be sure to make your orders of replacement parts according to this list.
 2. IMPORTANT SAFETY NOTICE
Components identified with the mark $\triangle$ have the special characteristics for safety.
When replacing any of these components, use only the same type.
 3. Unless otherwise specified,
All resistors are in OHMS, K=1,000 OHMS. All capacitors are in MICRO-FARADS (uf), P=uuF.
 4. The marking (RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.

E.S.D. standards for Electrostatically Sensitive Devices, refer to “PREVENTION OF ELECTROSTATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES” section.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
##	VEP71182C	POWER P.C.B.	1	(RTL) E.S.D.
##	VEP74122A	AUDIO/VIDEO OUTPUT P.C.B.	1	(RTL) E.S.D.
##	VEP70339C	FLP.C.B.	1	(RTL) E.S.D.
##	VEP70340A	POWER SW P.C.B.	1	(RTL) E.S.D.
##	VEP70341C	SW P.C.B.	1	(RTL) E.S.D.
##	VEP71182C	POWER P.C.B.		(RTL) E.S.D.
△ C1001	F0CAF683A021	100V 0.068P	1	
△ C1005	F1B2G4710001	400V 470P	1	
△ C1006	F1B2G4710001	400V 470P	1	
△ C1009	F0CAF683A021	100V 0.068P	1	
C1014	F2B2G8200010	400V 82U	1	
△ C1018	F1BAF1020020	1000P	1	
△ C1019	F1B2G6810001	400V 680U	1	
C1021	F1B3D471A011	CERAMIC CAPACITOR	1	
C1023	F1H1H222A013	50V 2200P	1	
C1024	F1H1H470A004	50V 47P	1	
C1025	F2A1V6800002	35V 68U	1	
C1026	F1H1H222A013	50V 2200P	1	
C1031	F1B3D222A011	2000V 2200P	1	
C1114	F1H1C104A071	16V 0.1U	1	
C1118	F2A1C1520021	16V 1500U	1	
C1121	F2A1C1520021	16V 1500U	1	
C1124	F1H1C104A071	16V 0.1U	1	
C1125	F2A1C102B607	16V 1000U	1	
C1131	F1K1C106A062	16V 10U	1	
C1132	F1H1C104A071	16V 0.1U	1	
C1133	F1H1H153A013	50V 0.015U	1	
C1134	F1H1H120A004	CHIP CAPACITOR	1	
C1135	F1H1H221A004	50V 220P	1	
C1136	F1H1C104A071	16V 0.1U	1	
C1137	F1H1C104A071	16V 0.1U	1	
C1140	F2A1C8210008	16V 820U	1	
C1141	F1H1C104A071	16V 0.1U	1	
C1172	F2A1V470A831	35V 47U	1	
C1173	F2A1H100B040	50V 10U	1	
C1174	F2A1C221B111	16V 220U	1	
C1175	F1H1H392A013	50V 3900	1	
C1176	F2A1C221B111	16V 220U	1	
D1006	B0EDKT000009	DIODE	1	E.S.D.
D1012	B0HADV000001	DIODE	1	E.S.D.
D1021	B0HADV000001	DIODE	1	E.S.D.
D1023	B0BC03200002	DIODE	1	E.S.D.
D1025	B0BA01600007	DIODE	1	E.S.D.
D1026	B0ACCK000005	DIODE	1	E.S.D.
D1027	B0HAGM000006	DIODE	1	E.S.D.
D1029	B0BA9R900005	DIODE	1	E.S.D.
D1031	B0ACCK000005	DIODE	1	E.S.D.
D1032	B0ACCK000005	DIODE	1	E.S.D.
D1110	B0JBSM000003	DIODE	1	E.S.D.
D1131	B0JCMD000014	DIODE	1	E.S.D.
D1132	B0JCMD000014	DIODE	1	E.S.D.
D1171	B0BA02100019	DIODE	1	E.S.D.
D1172	B0BA03600021	DIODE	1	E.S.D.
D1173	B0AADM000003	DIODE	1	E.S.D.
D1175	B0BA01800019	DIODE	1	E.S.D.
D1176	B0JAMD000026	DIODE	1	E.S.D.
△ F1001	K5G202Y00006	FUSE	1	
IC1021	C0DACZH00017	IC	1	E.S.D.
IC1102	C0DBZMC00006	IC	1	E.S.D.
IC1130	C0DBAYY00624	IC	1	E.S.D.
△ L1001	G0B123E00005	COIL	1	
△ L1002	G0B123E00005	COIL	1	
L1103	G0A100H00025	COIL 10UH	1	
L1105	G0A100ZA0045	COIL	1	
LB1021	J0JKB0000003	COIL	1	
LB1131	J0JHC0000048	COIL	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
△ P1001	K2AA2B000017	AC INLET	1	
P1102	K1KY23AA0606	CONNECTOR(23P)	1	
P1103	K1KA12AA0288	CONNECTOR(12P)	1	
P1104	K1KB10B00045	CONNECTOR(10P)	1	
△ Q1022	B3PBA00000454	TRANSISTOR	1	E.S.D.
△ Q1023	B3PBA00000454	TRANSISTOR	1	E.S.D.
Q1131	B1CHRD000024	TRANSISTOR	1	E.S.D.
Q1170	B1ADGF000010	TRANSISTOR	1	E.S.D.
Q1171	B1BACG000058	TRANSISTOR	1	E.S.D.
Q10101	B1ABDF000033	TRANSISTOR	1	E.S.D.
QR1101	B1GBCFL00042	TRANSISTOR	1	E.S.D.
QR1131	B1GBCFNN0041	TRANSISTOR	1	E.S.D.
QR1170	B1GBCFJJ0040	TRANSISTOR	1	E.S.D.
R1006	D0BF685JA030	6.8M	1	
R1011	ERG2SJ104P	2W 100K	1	
R1012	ERG2SJ104P	2W 100K	1	
R1013	ERG1SJ331E	1W 330	1	
R1022	ERX2SZJR18E	10W 0.18	1	
R1023	ERJ3GEYJ103V	1/10W 10K	1	
R1024	ERJ3GEYG223V	1/16W 22K	1	
R1026	ERDS2TJ221T	1/4W 220	1	
R1028	ERJ6GEYJ100V	1/8W 10	1	
R1029	ERJ6GEYJ100V	1/8W 10	1	
R1030	ERJ3GEYJ103V	1/10W 10K	1	
R1032	ERJ3GEYG472V	1/10W 4.7K	1	
R1033	ERJ3GEYG472V	1/10W 4.7K	1	
R1041	ERJ3GEYJ223V	1/10W 22K	1	
R1042	ERJ3GEYJ104V	1/10W 100K	1	
R1104	ERJ3GEYJ472V	1/10W 4.7K	1	
R1111	ERJ3GEYJ102V	1/10W 1K	1	
R1112	ERJ3GEYJ222V	1/10W 2.2K	1	
R1113	ERJ3GEYJ103V	1/10W 10K	1	
R1115	ERJ3RBD472V	1/16W 4.7K	1	
R1116	ERJ3GEYJ222V	1/10W 2.2K	1	
R1118	ERJ3RBD331V	1/16W 330	1	
R1119	ERJ3RBD183V	1/16W 18K	1	
R1122	ERJ3GEY0R00V	1/10W 0	1	
R1131	ERJ3GEYG333V	1/10W 33K	1	
R1132	ERJ3GEYG272V	1/10W 2.7K	1	
R1133	ERJ3GEYG103V	1/10W 10K	1	
R1134	ERJ3GEYG224V	1/10W 220K	1	
R1135	ERJ3GEYG273V	1/10W 27K	1	
R1136	ERJ3RBD273V	1/16W 27K	1	
R1137	ERJ3RED474V	1/16W 470K	1	
R1138	ERJ3RBD273V	1/16W 27K	1	
R1139	ERJ3RED474V	1/16W 470K	1	
R1141	ERJ3GEYJ224V	1/10W 220K	1	
R1142	ERJ3GEYG823V	1/10W 82K	1	
R1143	ERJ3RED474V	1/16W 470K	1	
R1144	ERJ3GEYG562V	1/10W 5.6K	1	
R1145	D1BFR0270001	1/2W 0.027	1	
R1171	ERJ3GEYJ472V	1/10W 4.7K	1	
R1172	ERJ3GEYJ472V	1/10W 4.7K	1	
R1173	ERJ3GEYJ562V	1/10W 5.6K	1	
R1174	ERDS2TJ470T	1/4W 47	1	
R1176	ERJ3GEYJ471V	1/10W 470	1	
△ T1001	G4D2A0000321	SWITCH. TRANSFORMER	1	
T1101	G4D1A0000129	TRANSFORMER	1	
△ VA1001	ERZV10D471C2	VARISTOR	1	
W201	ERJ6GEY0R00V	1/8W 0	1	
W202	ERJ6GEY0R00V	1/8W 0	1	
ZA1001	K9Z200001279	EARTH PLATE	1	
ZA1021	VSC6159	HEAT SINK	1	
ZA1022	XYN3+J8FJ	SCREW	1	
ZA1111	XYN3+J8FJ	SCREW	1	
ZA1112	VSC6221	HEAT SINK	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
##	VEP74122A	AUDIO/VIDEO OUTPUT P.C.B.		(RTL) E.S.D.
C3804	F1H1C104A071	16V 0.1U	1	
C3805	F2A0J470A831	6.3V 47U	1	
C3806	F1H1C104A071	16V 0.1U	1	
C3807	F1H1C104A071	16V 0.1U	1	
C3808	F2A1A220A868	ALU ELEC CAPACITOR	1	
C3809	F1H1A105A028	10V 1U	1	
C3810	F1H1A105A028	10V 1U	1	
C3901	F2A0J221A831	ALU ELEC CAPACITOR	1	
C3902	F1J1A225A003	10V 2.2U	1	
C3903	F2A0J221A831	ALU ELEC CAPACITOR	1	
C3904	F1J1A225A003	10V 2.2U	1	
C3905	F2A0J331A832	6.3V 330P	1	
C3906	F2A0J331A832	6.3V 330P	1	
C3907	F1H1H103A748	CHIP CAPACITOR	1	
C4002	F2A1C101B299	16V 100U	1	
C4003	F0A2E1030004	250V 0.01U	1	
C4004	F2A1E221A643	25V 220U	1	
C4005	F0A2E1030004	250V 0.01U	1	
C4006	F0A2E1030004	250V 0.01U	1	
C4007	F0A2E1030004	250V 0.01U	1	
C4008	F2A1C101B299	16V 100U	1	
C4009	F2A1E221A643	25V 220U	1	
C4010	F2A1C470B174	16V 47U	1	
C4011	F2A1E470A205	25V 47U	1	
C4012	F2A1E470A205	25V 47U	1	
C4013	F2A1E470A205	25V 47U	1	
C4014	F2A1C470B174	16V 47U	1	
C4015	F2A1C470B174	16V 47U	1	
C4016	F1H1H102A004	50V 1000P	1	
C4017	F1H1H102A004	50V 1000P	1	
C4018	F1H1H102A004	50V 1000P	1	
C4019	F1H1H102A004	50V 1000P	1	
C4020	F1H1H102A004	50V 1000P	1	
C4021	F1H1H102A004	50V 1000P	1	
C4022	F2A1E470A205	25V 47U	1	
C4023	F1H1C104A071	16V 0.1U	1	
C4024	F1H1C104A071	16V 0.1U	1	
C4025	F1H1C104A071	16V 0.1U	1	
C4026	F2A0J470A599	6.3V 47U	1	
C4027	F1H1C104A071	16V 0.1U	1	
C4028	F1H1C104A071	16V 0.1U	1	
C4030	F1H1C104A071	16V 0.1U	1	
C4032	F2A1E221A643	25V 220U	1	
C4033	F1H1H102A004	50V 1000P	1	
C4034	F1H1H102A004	50V 1000P	1	
C4035	F2A1C470B174	16V 47U	1	
C4036	F2A1C470B174	16V 47U	1	
D4001	B0ADCH000007	DIODE	1	E.S.D.
D4002	B0ADCH000007	DIODE	1	E.S.D.
D4003	B0ADCH000007	DIODE	1	E.S.D.
D4004	B0ADCH000007	DIODE	1	E.S.D.
IC3801	C1AB00003225	IC	1	E.S.D.
IC4001	B3ZAZ0000017	IC	1	E.S.D.
JK3901	K2HA208B0004	JACK, VIDEO/AUDIO OUT	1	
JK4001	K2HA609B0017	CONNECTOR	1	
JK4002	K2HA102B0097	JACK, COAXIAL	1	
L3801	G1C100K00019	COIL	1	
LB4001	J0JBC0000033	COIL	1	
P3801	K1MN11AA0003	CONNECTOR(11P)	1	
P3802	K1MN04AA0003	CONNECTOR(4P)	1	
P4001	K1KY23AA0606	CONNECTOR(23P)	1	
Q4001	B1BACD000011	TRANSISTOR	1	E.S.D.
Q4002	B1ABDF000033	TRANSISTOR	1	E.S.D.
Q4003	B1ABDF000033	TRANSISTOR	1	E.S.D.
Q4004	B1ABDF000033	TRANSISTOR	1	E.S.D.
Q4005	B1ABDF000033	TRANSISTOR	1	E.S.D.
Q4006	B1ABDF000033	TRANSISTOR	1	E.S.D.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q4007	B1ABDF000033	TRANSISTOR	1	E.S.D.
Q4008	B1ADCF000172	TRANSISTOR	1	E.S.D.
Q4009	B1ABDF000033	TRANSISTOR	1	E.S.D.
Q4010	B1ABDF000033	TRANSISTOR	1	E.S.D.
Q4011	B1ABDF000033	TRANSISTOR	1	E.S.D.
QR4001	B1GDCFJ00037	TRANSISTOR	1	E.S.D.
QR4002	B1GBCFJ00040	TRANSISTOR	1	E.S.D.
R3803	ERJ3GEY0R00V	1/10W 0	1	
R3804	ERJ3GEYJ332V	1/10W 3.3K	1	
R3901	ERJ3GEYF750V	1/10W 75	1	
R3902	ERJ3GEYF750V	1/10W 75	1	
R3903	ERJ3GEYF750V	1/10W 75	1	
R3904	ERJ3GEYF750V	1/10W 75	1	
R4001	D0HD331ZA002	1/16W 330	1	
R4002	ERJ3GEYJ473V	1/10W 47K	1	
R4003	ERJ3GEYJ473V	1/10W 47K	1	
R4004	ERJ3GEYJ473V	1/10W 47K	1	
R4005	ERJ3GEYJ473V	1/10W 47K	1	
R4006	ERJ3GEYJ473V	1/10W 47K	1	
R4007	ERJ3GEYJ473V	1/10W 47K	1	
R4008	D0HD821ZA002	1/10W 820	1	
R4009	ERJ3GEYJ821V	1/10W 820	1	
R4010	ERJ3GEYJ821V	1/10W 820	1	
R4011	D0HD821ZA002	1/10W 820	1	
R4012	D0HB821ZA002	1/16W 820	1	
R4013	ERJ3GEYJ821V	1/10W 820	1	
R4014	ERJ3GEYJ821V	1/10W 820	1	
R4015	D0HB821ZA002	1/16W 820	1	
R4016	D0HD821ZA002	1/10W 820	1	
R4017	ERJ3GEYJ821V	1/10W 820	1	
R4018	ERJ3GEYJ821V	1/10W 820	1	
R4019	D0HB821ZA002	1/16W 820	1	
R4020	ERJ6GEYJ221V	1/8W 220	1	
R4021	ERJ6GEYJ221V	1/8W 220	1	
R4022	ERJ3GEYJ221V	1/10W 220	1	
R4023	ERJ3GEYJ221V	1/10W 220	1	
R4024	ERJ3GEYJ221V	1/10W 220	1	
R4025	ERJ3GEYJ221V	1/10W 220	1	
R4026	ERJ3GEYJ102V	1/10W 1K	1	
R4027	ERJ3GEYJ102V	1/10W 1K	1	
R4028	ERJ3GEYJ102V	1/10W 1K	1	
R4029	ERJ3GEYJ102V	1/10W 1K	1	
R4030	ERJ6GEYJ391V	1/8W 390	1	
R4031	ERJ3GEYJ750V	1/10W 75	1	
R4032	ERJ3GEYJ103V	1/10W 10K	1	
R4033	ERJ3GEYJ470V	1/10W 47	1	
R4034	D0HD821ZA002	1/10W 820	1	
R4035	ERJ6GEYJ221V	1/8W 220	1	
R4036	ERJ3GEYJ821V	1/10W 820	1	
R4037	D0HD821ZA002	1/10W 820	1	
R4038	ERJ3GEYJ821V	1/10W 820	1	
R4039	ERJ3GEYJ473V	1/10W 47K	1	
R4040	ERJ3GEYJ473V	1/10W 47K	1	
R4041	ERJ6GEYJ221V	1/8W 220	1	
R4042	ERJ3GEYJ103V	1/10W 10K	1	
W450	ERJ3GEY0R00V	1/10W 0	1	
ZA4002	K9ZZ00001279	EARTH PLATE	1	
ZA4003	K9ZZ00001279	EARTH PLATE	1	
##	VEP70339C	FL P.C.B.		(RTL) E.S.D.
C7004	F1H1C104A071	16V 0.1U	1	
C7005	F1H1H104A783	50V 0.1U	1	
C7006	F1H1C104A071	16V 0.1U	1	
D7003	B3AEA0000100	LED	1	E.S.D.
DP7001	A2BD00000195	FL	1	
IC7001	C0HBB0000061	IC	1	E.S.D.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
P7001	K1KB12B00030	CONNECTOR(12P)	1	
R7006	ERJ6GEYJ301V	1/8W 300	1	
R7009	ERJ3GEYJ823V	1/10W 82K	1	
W751	ERJ6GEY0R00V	1/8W 0	1	
W752	ERJ6GEY0R00V	1/8W 0	1	
W753	ERJ6GEY0R00V	1/8W 0	1	
W754	ERJ3GEY0R00V	1/10W 0	1	
W755	ERJ6GEY0R00V	1/8W 0	1	
W756	ERJ6GEY0R00V	1/8W 0	1	
W757	ERJ6GEY0R00V	1/8W 0	1	
W758	ERJ6GEY0R00V	1/8W 0	1	
W759	ERJ6GEY0R00V	1/8W 0	1	
W760	ERJ6GEY0R00V	1/8W 0	1	
W761	ERJ6GEY0R00V	1/8W 0	1	
W762	ERJ3GEY0R00V	1/10W 0	1	
W763	ERJ3GEY0R00V	1/10W 0	1	
W764	ERJ3GEY0R00V	1/10W 0	1	
W765	ERJ3GEY0R00V	1/10W 0	1	
ZB7001	RMN0937-1J	FL HOLDER	1	
ZB7002	RMN0447	LED SUPPORT	1	
##	VEP70340A	POWER SW P.C.B.	(RTL) E.S.D.	
S7551	EVQ11A05R	TOUCH SWITCH	1	
##	VEP70341C	SW P.C.B.	(RTL) E.S.D.	
C7581	F1H1A105A028	10V 1U	1	
D7581	B3ACA0000254	DIODE	1	E.S.D.
IR7581	PNA4861M02VT	PHOTO DETECTOR	1	
K7581	ERJ3GEY0R00V	1/10W 0	1	
P7581	K1KA10B00196	CONNECTOR(10P)	1	
PJ7581	REZ2005	FRONT CABLE	1	
R7584	ERJ6GEYJ221V	1/8W 220	1	
R7585	ERJ3GEYJ330V	1/10W 33	1	
R7588	ERJ3GEYJ622V	1/10W 6.2K	1	
R7589	ERJ3GEYJ222V	1/10W 2.2K	1	
R7590	ERJ3GEY0R00V	1/10W 0	1	
S7581	EVQ11A05R	TOUCH SWITCH	1	
S7582	EVQ11A05R	TOUCH SWITCH	1	
S7583	EVQ11A05R	TOUCH SWITCH	1	
W850	ERJ3GEY0R00V	1/10W 0	1	
W851	ERJ6GEY0R00V	1/8W 0	1	
W852	ERJ6GEY0R00V	1/8W 0	1	
W853	ERJ6GEY0R00V	1/8W 0	1	
W854	ERJ6GEY0R00V	1/8W 0	1	
W855	ERJ6GEY0R00V	1/8W 0	1	
W856	ERJ3GEY0R00V	1/10W 0	1	

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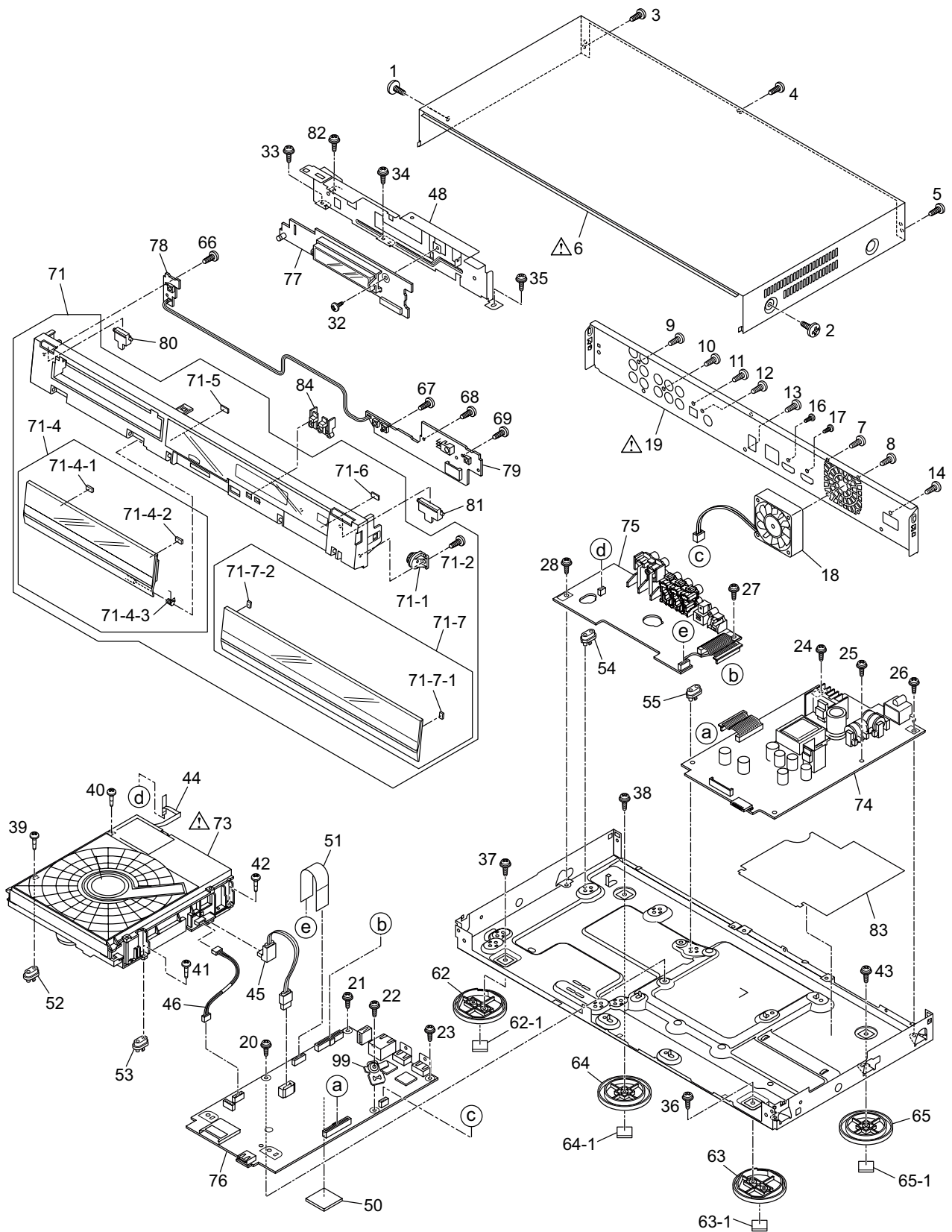
Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	RHD30113-1K	SCREW	1		75	VEP74122A	AUDIO/VIDEO OUTPUT P.C.B.	1	(RTL) E.S.D.
2	RHD30113-1K	SCREW	1		76	RFKB76219BT	DIGITAL P.C.B.	1	EG (RTL) E.S.D.
3	RHD30119-L	SCREW	1		76	RFKB76219DT	DIGITAL P.C.B.	1	EE (RTL) E.S.D.
4	RHD30119-L	SCREW	1		77	VEP70339C	FL P.C.B.	1	(RTL) E.S.D.
5	RHD30119-L	SCREW	1		78	VEP70340A	POWER SW P.C.B.	1	(RTL) E.S.D.
△ 6	RKM0616A-K	TOP CASE	1		79	VEP70341C	SW P.C.B.	1	(RTL) E.S.D.
7	RHD30119-L	SCREW	1		80	RGU2693-K	POWER BUTTON	1	
8	RHD30119-L	SCREW	1		81	RGU2694-K	OPEN BUTTON	1	
9	RHD30119-L	SCREW	1		82	RHD30105-1	SCREW	1	
10	RHD30119-L	SCREW	1		83	RMZ1111	BARRIER	1	
11	RHD30119-L	SCREW	1		84	RGU2660-KJ	PLAY BUTTON	1	
12	RHD30119-L	SCREW	1		99	RMA2052	DRIVE SPACER	1	
13	RHD30119-L	SCREW	1						
14	RHD30119-L	SCREW	1						
16	XSN3+4FJ	SCREW	1						
17	XSN3+4FJ	SCREW	1						
18	L6FAJBYG0001	DC FAN MOTORS	1						
△ 19	RGR0403A-B2	REAR PANEL	1	EG					
△ 19	RGR0403A-A2	REAR PANEL	1	EE					
20	RHD30111-31	SCREW	1						
21	RHD30111-31	SCREW	1						
22	RHD30111-31	SCREW	1						
23	RHD30111-31	SCREW	1						
24	RHD30111-31	SCREW	1						
25	RHD30111-31	SCREW	1						
26	RHD30111-31	SCREW	1						
27	RHD30111-31	SCREW	1						
28	RHD30111-31	SCREW	1						
32	RHD30111-31	SCREW	1						
33	RHD30111-31	SCREW	1						
34	RHD30111-31	SCREW	1						
35	RHD30111-31	SCREW	1						
36	RHD30111-31	SCREW	1						
37	RHD30111-31	SCREW	1						
38	RHD30111-31	SCREW	1						
39	RHD30162	SCREW	1						
40	RHD30162	SCREW	1						
41	RHD30162	SCREW	1						
42	RHD30162	SCREW	1						
43	RHD30111-31	SCREW	1						
44	VWJ2168-1	AV-DRIVE FFC	1						
45	VEE1H76	SATA SIGNAL CABLE U	1						
46	VEE1J01	BD DRIVE POWER CABLE	1						
48	RMA2257	CHASSIS ANGLE	1						
50	RSC0929	RADIATOR SHEET	1						
51	VWJ2145	AV-DIGITAL FFC	1						
52	RMX0436-J	DRIVE SPACER	1						
53	RMX0436-J	DRIVE SPACER	1						
54	RMX0436-J	DRIVE SPACER	1						
55	RMX0436-J	DRIVE SPACER	1						
62	RYQ0682A-K	LEG (A) UNIT	1						
62-1	RMG0771-K	RUBBER	1						
63	RYQ0682A-K	LEG (A) UNIT	1						
63-1	RMG0771-K	RUBBER	1						
64	RYQ0683A-K	LEG (B) UNIT	1						
64-1	RMG0771-K	RUBBER	1						
65	RYQ0683A-K	LEG (B) UNIT	1						
65-1	RMG0771-K	RUBBER	1						
66	RHD26045	SCREW	1						
67	RHD26045	SCREW	1						
68	RHD26045	SCREW	1						
69	RHD26045	SCREW	1						
71	RYP1582-K	FRONT PANEL UNIT	1						
71-1	RDG0639	DAMPER	1						
71-2	RHD26045	SCREW	1						
71-4	RYF0889A-K	TRAY DOOR UNIT	1						
71-4-1	RMG0802-K2	DOOR CUSHION	1						
71-4-2	RMG0802-K2	DOOR CUSHION	1						
71-4-3	RMB0916	BLINDER SPRING	1						
71-5	RMH0209	MAGNET	1						
71-6	RMH0209	MAGNET	1						
71-7	RYF0890E-K	DOOR PANEL UNIT	1						
71-7-1	RMG0802-K2	DOOR CUSHION	1						
71-7-2	RMG0802-K2	DOOR CUSHION	1						
△ 73	VXY2095	DRIVE UNIT	1	(RTL)					
74	VEP71182C	POWER P.C.B.	1	(RTL) E.S.D.					

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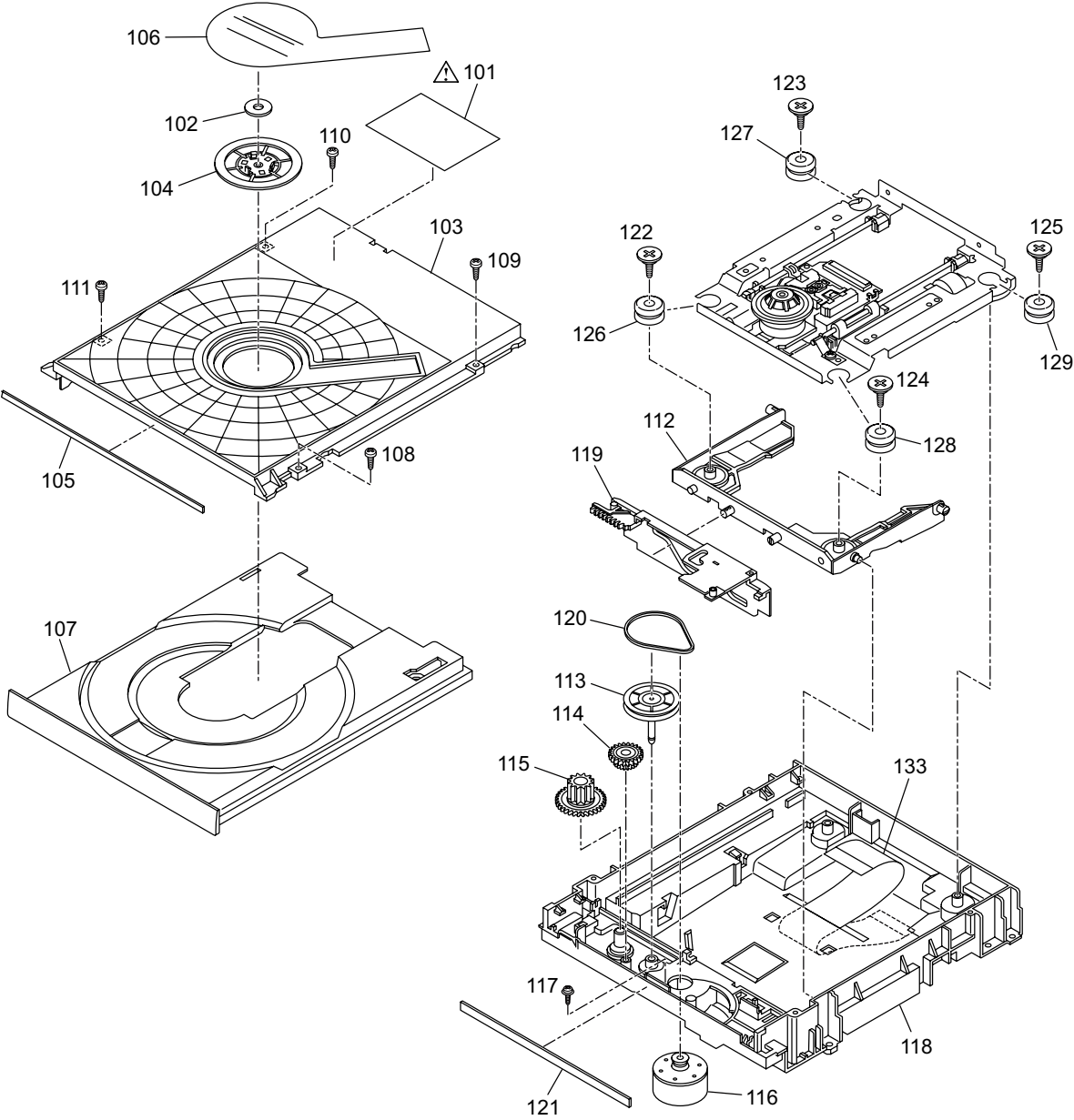
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S8. Exploded View

S8.1. Frame and Casing Section



S8.2. Mechanism Section



S8.3. Packing Parts and Accessories Section

