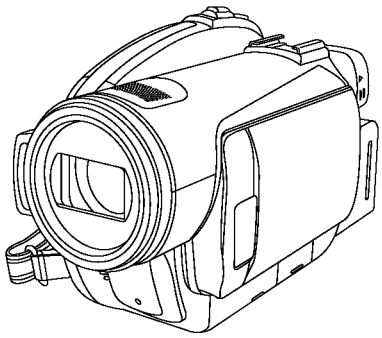
ORDER NO.VM0708044CE
B17

Service Manual

High Definition Video Camera



Model No. **HDC-SX5P**
HDC-SX5PC
HDC-SX5EG
HDC-SX5E
HDC-SX5EB
HDC-SX5EP
HDC-SX5EE
HDC-SX5GC
HDC-SX5GCS
HDC-SX5GN
HDC-SX5SG
HDC-SX5PL
HDC-SX5GK

VOL.1
Colour
(S).....Silver 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.

Panasonic

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1 Safety Precaution

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. It 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.

1.1.1. Leakage Current Cold Check

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

1.1.2. Leakage current hot check (See Figure 1)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect A to exposed metallic part on the set. And connect B to a good earth ground, as shown in Figure 1.
3. Use an AC voltmeter, with 1 kΩ/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 0.25 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 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.

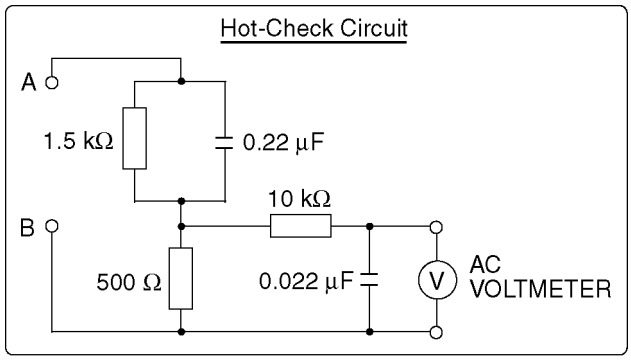

Figure 1

2 Warning

2.1. Prevention of Electrostatic Discharge (ESD) to Electrostatic 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 integrated circuits and some field-effect transistors and semiconductor chip components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as 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).

IMPORTANT SAFETY NOTICE

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2.2. Caution for AC Cord (VJA0940 type)

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 ASRA mark or the BSI mark on the body of the fuse.

ASTA mark	BSI mark

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 safety.
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.

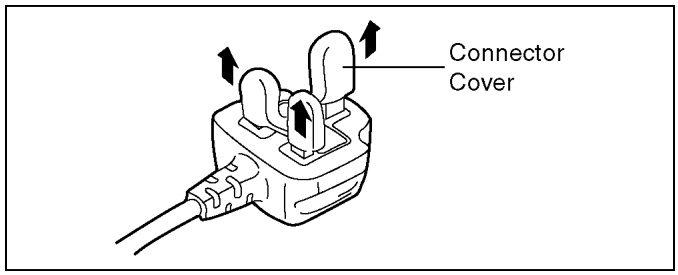
The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

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.

Earth Symbol	⏚

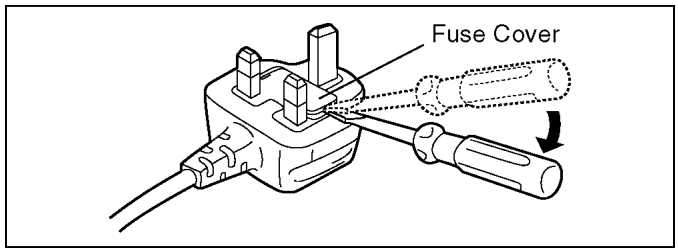
2.2.2.2. Before use

remove the Connector Cover as follows.

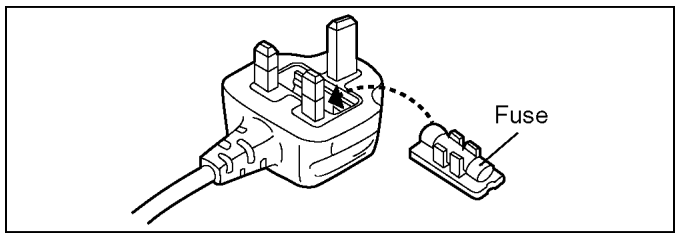


2.2.2.3. How to replace the Fuse

1. Remove the Fuse Cover with a screwdriver.



2. Replace the fuse and attach the Fuse cover.



2.3. Service caution based on legal restrictions

2.3.1. 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 degrees C (86°F) more than that of the normal solder.

Definition of PCB Lead Free Solder being used

The letter of "PbF" is printed either foil side or components side on the PCB 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 PCB 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 PCB 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 degrees C (662±86°F).

Recommended Lead Free Solder (Service Parts Route.)

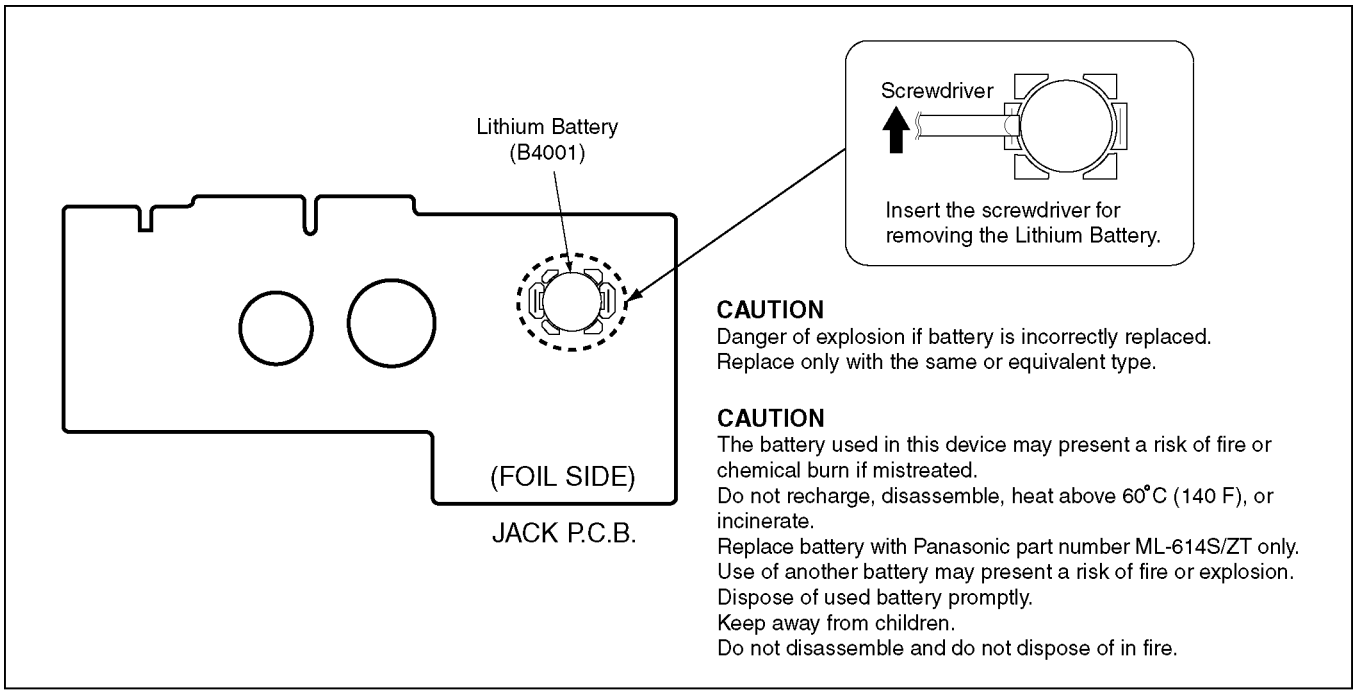
- The following 3 types of lead free solder are available through the service parts route.
  RFKZ03D01K----------(0.3mm 100g Reel)
  RFKZ06D01K----------(0.6mm 100g Reel)
  RFKZ10D01K----------(1.0mm 100g Reel)

Note

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

2.4. How to Replace the Lithium Battery

1. Remove the Jack P.C.B. (Refer to Disassembly Procedures.)
2. Unsolder the Lithium Battery ML-614S/ZT and then replace the new one.



Note:

The lithium battery is a critical component.
(Type No.:ML-421S/ZT Manufactured by Matsushita Battery Industrial Co.,Ltd.)
It must never be subjected to excessive heat or discharge.
It must therefore only be fitted in equipment designed specifically for its use.
Replacement batteries must be of the same type and manufacture.
They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.
Do not attempt to re-charge the old battery or re-use it for any other purpose.
It should be disposed of in waste products destined for burial rather than incineration.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the equipment manufacturer.
Discard used batteries according to manufacturer's instructions.

PRECAUTION

Le fait de remplacer incorrectement la pile peut présenter des risques d'explosion.
Remplacer la pile uniquement par une pile identique ou de type équivalent recommandée par le fabricant. Se débarrasser des piles usagées conformément aux instructions du fabricant.

VORSICHT

Bei einer falsch eingesetzten Batterie besteht Explosionsgefahr. Nur mit einer vom Hersteller empfohlenen Batterie vom gleichen Typ ersetzen.
Verbrauchte Batterien beim Fachhändler oder einer Sammelstelle für Sonderstoffe abliefern.

VARNING

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens instruktion.

ADVARSEL!

Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.
Udskiftning má kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.
Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

2.5. How to Recycle the Lithium Battery (U.S. Only)

U.S.A. CONSUMERS: ATTENTION:

A lithium ion/polymer battery that is recyclable powers the product you have purchased. Please call 1-800-8-BATTERY for information on how to recycle this battery.

ATTENTION:

A lithium ion/polymer battery that is recyclable powers the product you have purchased. Please call 1-800-8-BATTERY for information on how to recycle this battery.

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.

Notes

1) This service manual does not contain the following information, because of the impossibility of servicing at component level.
   1. Schematic Diagram, Block Diagram and P.C.B. layout of Main P.C.B. and Sub P.C.B.
   2. Parts List for individual parts of Main P.C.B. and Sub P.C.B.

2) The following category are recycle module part. Please send them to Central Repair Center.
   *Main P.C.B. (VEP03H39B : HDC-SX5EG/E/EP/EB, VEP03H39C : HDC-SX5GC/SG,
   VEP03H39D : HDC-SX5P/PL, VEP03H39E : HDC-SX5PL,
   VEP03H39G : HDC-SX5GCS, VEP03H39H : HDC-SX5EE,
   VEP03H39J : HDC-SX5GN, VEP03H39K : HDC-SX5GK)
   *Sub P.C.B. (VEP01997A : HDC-SX5P/PC/EG/E/EB/EP/EE/GC/GCS/GN/SG/PL/GK)

When a part replacement is required for repairing each Main P.C.B. and Sub P.C.B., replace the assembly parts.
(Main P.C.B.)
The following circuits are contained in Main P.C.B.

1. Main Connection Circuit
2. AVIO Circuit
3. Video Circuit
4. Video DAC Circuit
5. Camera Circuit
6. HDMI Circuit
7. MPEG2 Select Circuit
8. RTC Circuit
9. METIS Circuit
10. ONIKISS Circuit
11. Syscon Circuit

(Sub P.C.B.)
The following circuits are contained in Sub P.C.B.

1. Sub Connection Circuit
2. Power Circuit
3. Lens Drive Circuit

3.2. Service Caution

3.2.1. EEPROM data for spare parts of the Main P.C.B.

When the Main P.C.B. is replaced, the fixed and average data must be changed by Tatsujin kit according to the Movie Camera's suffix.

Then, confirm and/or adjust the Camera section one by one.

3.2.2. How to Discharge the Capacitor on the Flash P.C.B.

Remove the Flash P.C.B.. (Refer to Disassembly Procedures.)

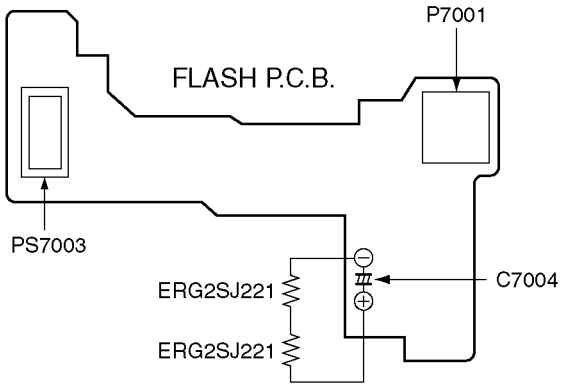
CAUTION
Be sure to discharge the capacitor on Flash P.C.B. before disassembling.
CAUTION
Be careful of the high voltage circuit on Flash P.C.B. when servicing.

Method:

1. Prepare the 2 Resistors (ERG2SJ221:220 ohm/2w) for discharge.

Note:
Above 2 Resistors may be substituted with equivalent type.

2. Make short circuit using 2 Resistors between C7004(+) and C7004(-) for 3 seconds as follows.
3. After discharging, confirm that the capacitor voltage is sufficiently lowered using a voltmeter



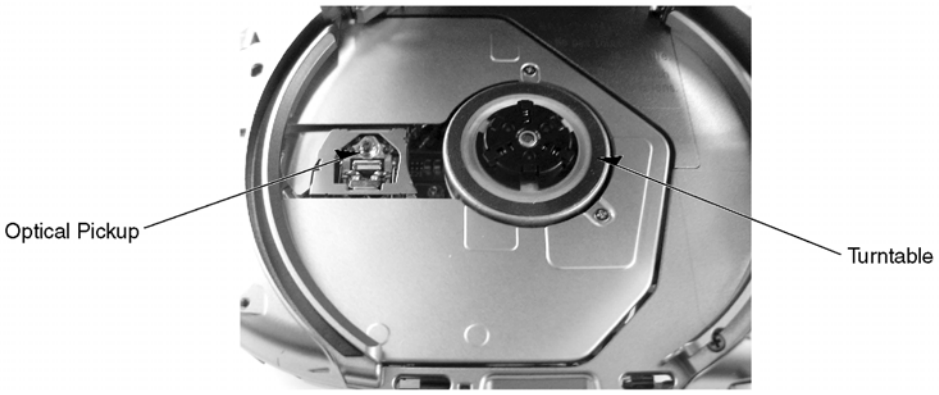
3.2.3. Precaution of Laser Light

Please remove the AC adapter/charger or battery at servicing that open the Disk Cover.

CAUTION
Laser light striking the eye may cause your eyesight to be lost : For safety, be sure to remove any power supply (AC adaptor/charger, battery, etc.) from the DVD video camera/recorder before starting work.

<CSA requirement>

CAUTION: VISIBLE LASER RADIATION DO NOT STARE INTO THE BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS CLASS 2M



3.3. Procedure for Removing Disc

3.3.1. Item to be checked

Connect the AC adapter/charger or charged battery (power supply), make sure that the ACCESS indicator turns off, and then press the DISC EJECT button again.
Even with normal product, the disc cannot be removed while the ACCESS indicator is lit or blinking.

3.3.2. Procedure for Removing the disc manually

Please removing the disc by the following procedure when the disc cannot be removing due to the breakdown of the electrical system etc.

1. Remove the Front Case Unit, Side Case (R) Unit and EVF Unit.
   (Refer to Disassembly Procedures.)
2. Slide the Lock Lever to open the Disc Cover.
3. Remove the disc.

CAUTION

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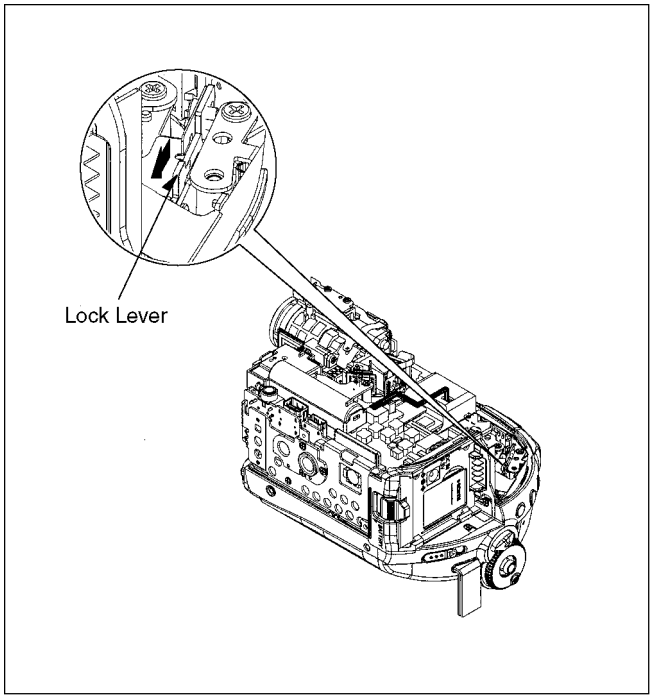
<CSA requirement>

CAUTION: VISIBLE LASER RADIATION DO NOT STARE INTO THE BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS CLASS 2M



4 Specifications

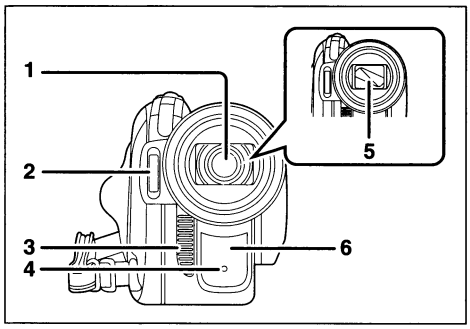
ITEM	SPECIFICATION
POWER	Source: DC 9.3 V (When using AC adaptor)/ 7.2 V (When using battery) Consumption: Recording 10.2W
SIGNAL SYSTEM	HD Mode : 1080 / 60i STD Mode : 525 / 60i
RECORDING FORMAT	HD mode: Motion picture: AVCHD format compliant Still picture: JPEG STD mode: Motion picture: DVD Video Recording format (DVD-RAM,DVD-RW) DVD-Video format (DVD-RW,DVD-R,DVD-R DL)
CAMERA	Filter Diameter: 37.0 mm
	Zoom: 10 × Optical Zoom, 25/700 × Digital Zoom
	Monitor: 2.7-inch Wide LCD (Approx. 300 K pixels)
	Lens: Auto Iris, F1.8-F2.8, Focal Length; 3.0 - 30.0 mm Macro (Full Range AF)
	Image Sensor: 1/6-inch 3CCD Image Sensor
	Viewfinder: 0.44-inch Wide Color Electronic Viewfinder
VIDEO	Video Output Level: 1.0 Vp-p, 75 ohm Component Terminal Output Level: Y : 1.0 Vp-p, 75 ohm, Pb : 0.7Vp-p, 75 ohm Pr : 0.7Vp-p, 75 ohm 1125i (1080i) / 525i (480i) HDMI Terminal Output Level: HDMI Ver. 1.2a [1125i (1080i)/525P (480p)]
AUDIO	Audio Output Level (Line): 316 mV, 600 ohm (AV Jack)
Motion Pictures	Recording Media: DISC 8cm (3") DVD-RAM Ver.2.1 8cm (3") DVD-RW Ver.1.1/2X-SPEED (2X/1X) 8cm (3") DVD-R for General Ver. 2.0 8cm (3") DVD-R for DL Ver.3.0 SD Memory Card: 256MB,512MB,1GB,2GB (FAT12 and FAT16 system compliant) SDHC Memory Card: 4GB,8GB (FAT32 system compliant)
	Compression: HD mode : MPEG4 - AVC/H.264, STD Mode : MPEG2
	Recording Mode and Transfer Rate: HD mode: HG: Approx. 13 Mbps (CBR) (Approx. 14 min recordable time on a single-sided DVD-RAM HN: Approx. 9 Mbps (VBR) (Approx. 21 min recordable time on a single-sided DVD-RAM HE: Approx. 6 Mbps (VBR) (Approx. 31 min recordable time on a single-sided DVD-RAM STD mode XP : 10Mbps (VBR) (Approx. 18min recordable time on a single-sided DVD-RAM) SP : 5 Mbps (VBR) (Approx. 37min recordable time on a single-sided DVD-RAM) LP : 2.5Mbps (VBR) (Approx. 75min recordable time on a single-sided DVD-RAM)
	Picture Size : HG:1920×1080 HN/HE:1440×1080
	Audio Compression: Dolby Digital (Dolby AC3)/2 ch

ITEM	SPECIFICATION
Still Pictures	Recording Media: SD Memory Card: 8 MB/16 MB/32 MB/64 MB/128 MB/256 MB/512 MB/1 GB/2 GB (removable type) (FAT12 and FAT16 format corresponding) SDHC Memory Card: 4 GB,8GB (removable type) (FAT32 format corresponding) Compression: JPEG (Desing rule for Camera File system, based on Exif 2.2 standard), DPOF corresponding Picture Size: 1920 × 1080 (wide)
STANDARD ILLUMINATION	1,400 lx
MINIMUM REQUIRED ILLUMINATION	5 lx (Low light mode: 1/30) 1 lx (MagicPix mode)
USB	Card reader / writer function (No copyright protection support) Hi-Speed USB (USB 2.0), USB terminal Type miniB PictBridge-compliant
FLASH	Available range: Approx. 1m to 2.5m (3.3 feet to 8.2 feet)
MICROPHONE	Stereo (with a zoom function)
SPEAKER	1 round speaker ϕ20 mm
OPERATING TEMPERATURE	0˚C - 40˚C (32˚F - 104˚F) (0˚C-30˚C (32˚F-86˚F) when connected to the computer)
OPERATING HUMIDITY	10 % - 80 %
WEIGHT	Approx.540 g (1.20 lbs) (without supplied battery, disc and an SD card) Approx. 660 g (1.46 lbs) (with supplied battery, disc and an SD card)
DIMENSIONS	Approx. 83.5 mm (W) × 93.5 mm (H) × 151.5 mm (D) Approx. 3.30 inch (W) × 3.70 inch (H) × 6.00 inch (D) (excluding the projection parts)
STANDARD ACCESSORIES	1 pc. AC Adaptor 1 pc. Battery Pack Unit 1 pc. DC Cable 1 pc. AC Cord (Except HDC-SX5GC/GCS/SG) 2 pcs. AC Cord (HDC-SX5GC/GCS/SG) 1 pc. AV Multi Cable 1 pc. Remote Controller 1 pc. Bottom-type Battery 1 pc. Component Cable 1 pc. USB Cable 1 pc. CD-ROM
SOLDER	This model use lead free solder (PbF).

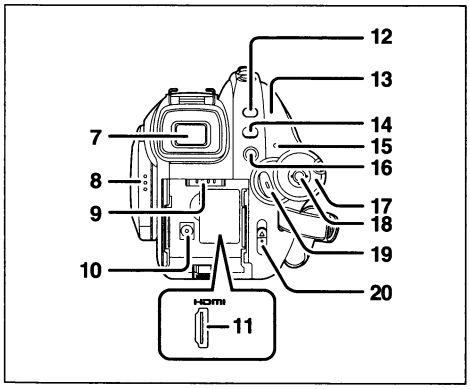
Weight and dimensions are approximate values.
Specifications may change without prior notice.

5 Location of Controls and Components

Followings are the Location of Controls and Components for HDC-SX5P/PC as a sample.
For other models, refer to each Operation Instructions.



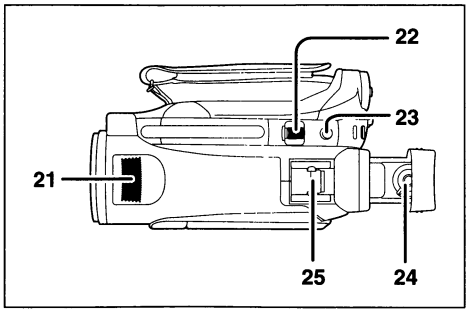
1 Lens (LEICA DICOMAR)
2 Built-in flash
3 Outlet
4 Recording lamp
5 Lens cover
6 White balance sensor/remote control sensor



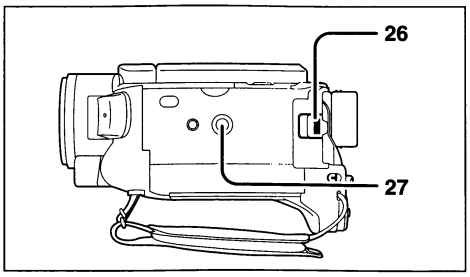
7 Viewfinder

Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the viewfinder screen. However, this is not a malfunction and does not affect the recorded picture.

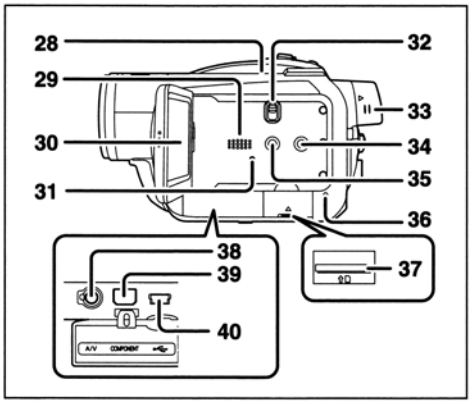
8 LCD monitor open latch
9 Battery holder
10 DC input terminal [DC IN 9.3V]
11 HDMI terminal [HDMI]
12 PRE-REC button [PRE-REC]
13 Disc/computer access lamp [ACCESS/PC]
14 Menu button [MENU]
15 Status indicator
16 Delete button [🗑]
17 Mode dial
18 Cursor button
19 Recording start/stop button
20 Disc eject lever [DISC EJECT]



21 Internal stereo microphones
22 Zoom lever [W/T] (In recording mode)
Volume lever [−VOL+] (In playback mode)
23 Photoshot button [📷]
24 Eyepiece corrector knob
25 Smart accessory shoe
- Accessories, such as a video DC light/ VW-LDH3 (optional), are attached here.



26 Battery release lever [BATTERY]
27 Tripod receptacle



28 Inlet (cooling fan)

About the cooling fan

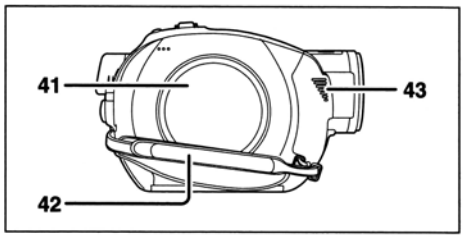
- The cooling fan rotates to prevent the internal temperature rising. Take care not to cover the inlet and outlets when using this unit.

29 Speaker
30 LCD monitor

> Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the LCD monitor screen. However, this is not a malfunction and does not affect the recorded picture.

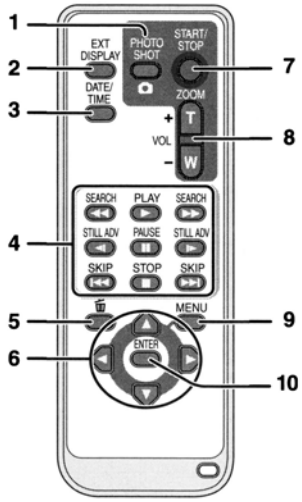
31 Reset button [RESET]
32 Mode select switch [AUTO/MANUAL/ FOCUS]
33 Viewfinder extension knob
34 DISC COPY button [DISC COPY]
35 Power LCD EXTRA button [POWER LCD EXTRA]
36 Card access lamp [ACCESS]
37 Card slot
38 Audio-video output terminal [A/V]
- Use the supplied AV cable only.

39 Component terminal [COMPONENT]
40 USB terminal [⇐]



41 Disc compartment
42 Grip belt
43 Outlet

Using the remote control



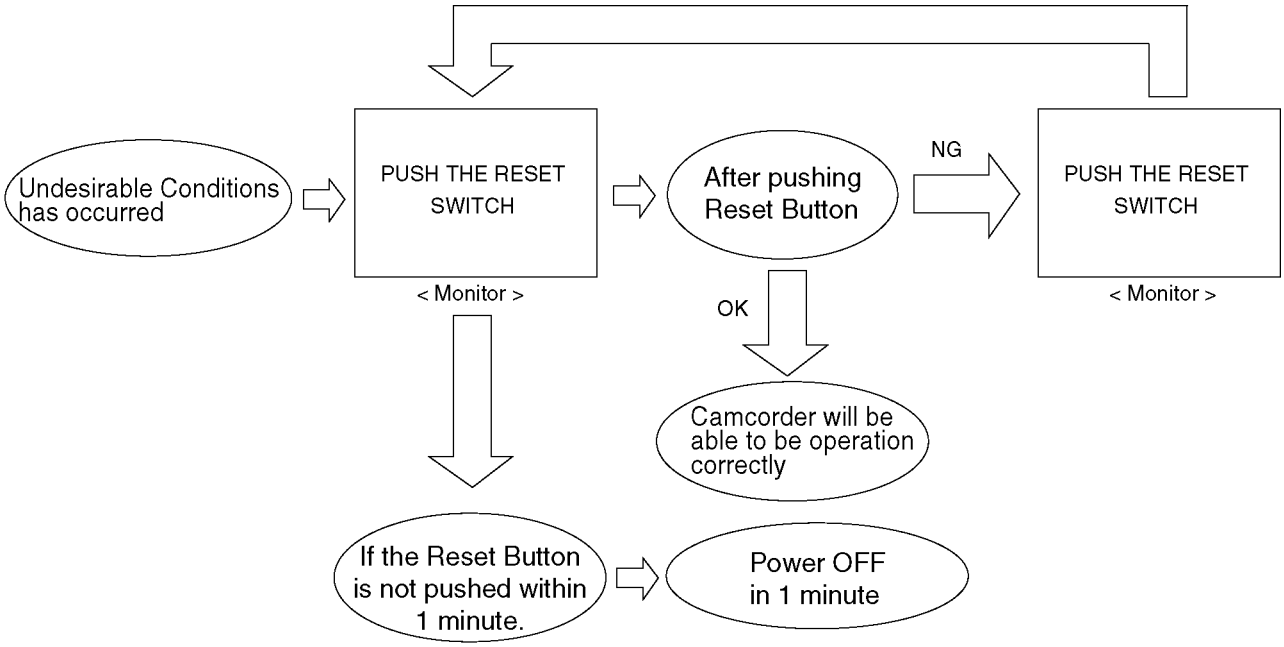
1 Photoshot button [📷]*
2 On-screen display button [EXT DISPLAY]
3 Date/time button [DATE/TIME]
4 Playback operation buttons
5 Delete button [🗑]*
6 Direction buttons [▲,▼,◄,►]
7 Recording start/stop button [START/ STOP]*
8 Zoom/volume buttons [ZOOM, VOL]*
9 Menu button [MENU]*
10 Enter button [ENTER]

* means that these buttons function in the same manner as the corresponding buttons on the unit.

6 Service Mode

6.1. Error Display

PUSH THE RESET SWITCH is displayed automatically on the EVF or the LCD Monitor when an undesirable condition has occurred.



Note:

When "PUSH THE RESET SWITCH" is displayed repeatedly, required.
Check the Error Code which is listed in the Service Menu.

6.2. Service Menu

When abnormal detection contents are confirmed, do the following operation. Automatic diagnosis code will displayed.(Servise Menu)

1. Preparation
   Remove the SD card and disc from this machine.
2. Service menu is displayed. (see Fig. S1)
   Set mode dial to [DISC RECORDING MODE] of HD mode.
   Pushed [DELETE] button and [LEFT ◀ of CURSOR] button and [AUTO/MANUAL/FOCUS switch to FOCUS] button simultaneously for 3 seconds.
3. Operating automatic diagnosis code is displayed.
   Item [4] is selected with the [UP or DOWN ▲/▼ of CURSOR] button.
   [NO] is selected with the [RIGHT ▶ of CURSOR] button.
   [YES] is selected with the [UP or DOWN ▲/▼ of CURSOR] button.
   Press the [CENTER of CURSOR] button.

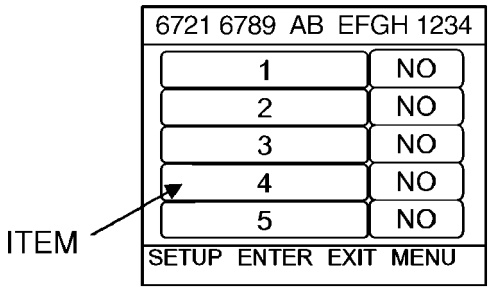
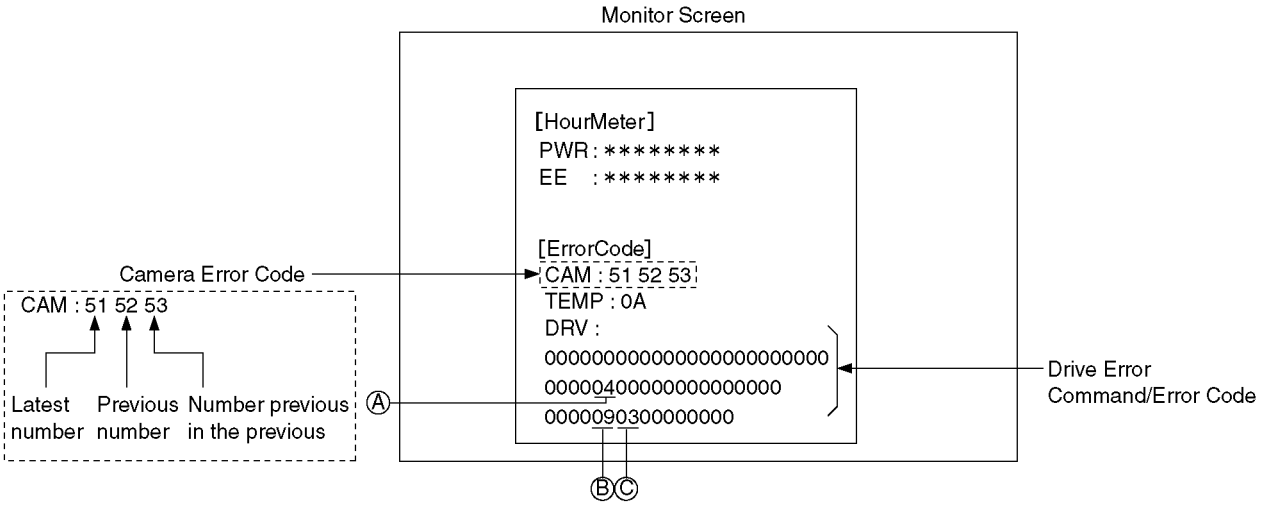


Fig. S1

NOTE:
Do not using servise mode except [4] of Servise Mennu.

Self diagnosis code contents are as follows.



<Item 4> Display Position (Code specification)

Display Position / No.	Ⓐ	Ⓑ	Ⓒ
	14	24	25
Laser Error	04 h	09 h	04 h
Spindle Servo Failure	04 h	09 h	03 h
Eject Motor Lock	04 h	53 h	00 h
Temparature Error	04 h	93 h	00 h
Tray Open	02 h	34 h	02 h

Display contents (Camera Error code contents)

DISPLAY	CONDITION
00	No Error
33	Camera-ARM Communication Error
51	Focus Control Error
52	Zoom Control Error
53	OIS Lens Error
71	Open/Close of Lens Cover Error
72	Cooling Fan Error
73	High Temperature Error

To exit the Service Menu

Turn off the power.

Make the error code clear after repair completion.

CLEAR METHOD

If the SD card and disc inserted, take out it before Service Menu operation.

Set mode dial to [DISC RECORDING MODE] of HD mode.

Pushed [DELETE] button, [RIGHT ▶ of CURSOR] button and [AUTO/MANUAL/FOCUS switch to FOCUS] button simultaneously for 3 seconds.

7 Service Fixture & Tools

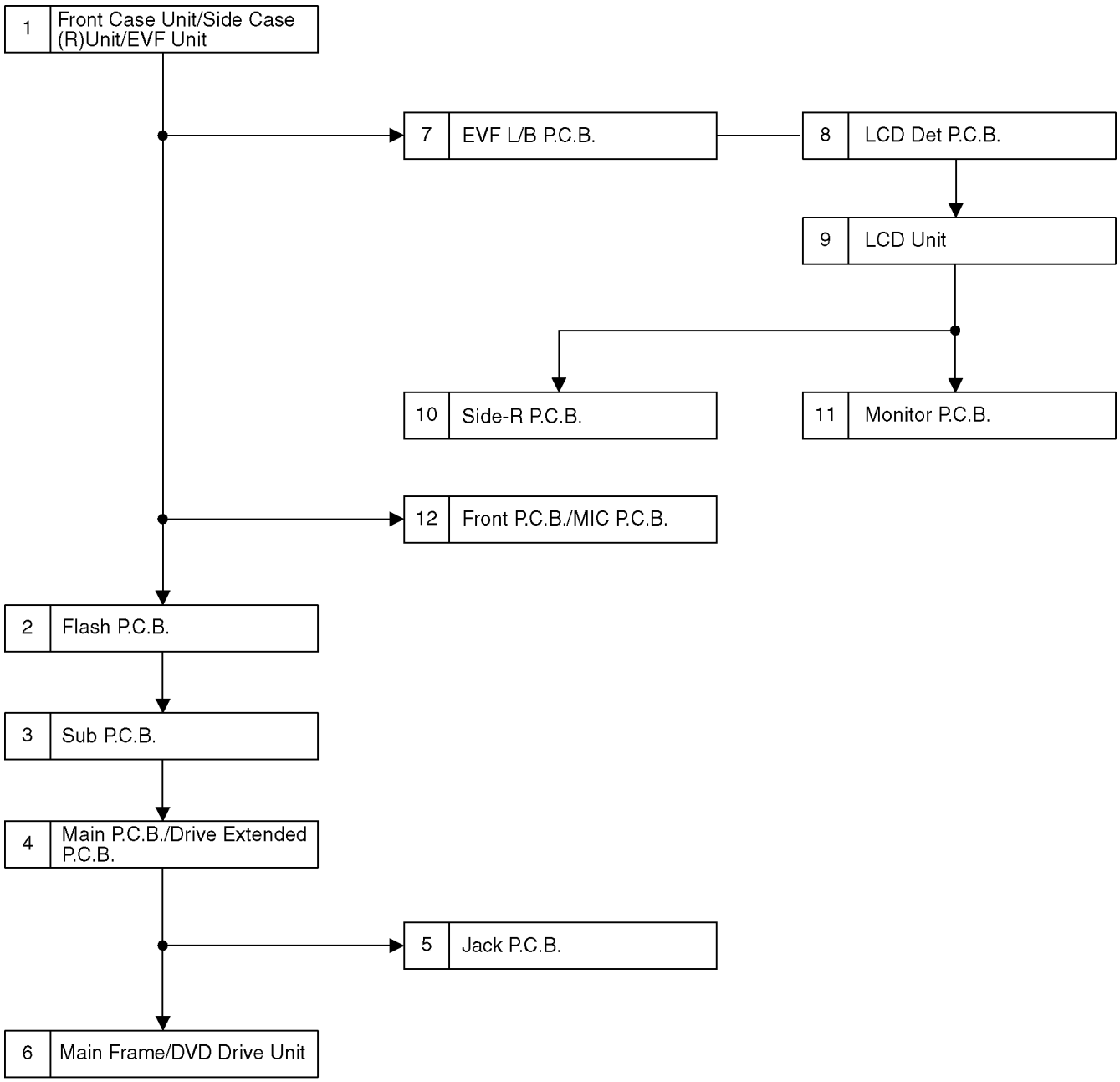
Parts Name	Parts No.	Q'ty	Remarks
Personal Computer	---	1	
AC Adaptor	---	1	
DC Cable	---	1	
AV Multi Cable	---	1	
USB Cable	---	1	
TATSUJIN PC-Adjustment Program	---	1	
Step Up Ring	VFK1164TAR37	1	
Light Box	VFK1164LBX1	1	
Infinity Lens	VFK1164TCM02	1	With Focus Chart
Extension Cable (150pin)	VFK1582BF010	1	PP6001 (Main) - PS6201 (Sub)
Extension Cable (60pin)	LSUA0059	1	PS6905 (Main) - DVD Drive Unit
Extension Cable (50pin)	RFKZ0446	1	PS6004 (Main) - CCD
Extension Cable (40pin)	RFKZ0379	1	PS6003 (Main) - PP4001 (Jack)
Extension Cable (20pin)	VFK2020	1	PP6201 (Sub) - PS7003 (Flash)
Extension Cable (16pin)	VFK1175	1	FP6001 (Main) - Side Case (L) Unit
Extension Cable (45pin)	VFK1575C4520	1	FP6006 (Main) - FP6301 (Side (R))
Extension Cable (27pin)	VFK1491	1	FP6203 (Sub) - FP481 (Front)
Extension Cable (33pin)	RFKZ0448	1	FP6202 (Sub) - Lens Unit
Extension Cable (31pin)	VFK1978	1	FP602 (Side (R)) - EVF
Extension Cable (10pin)	VFK1440	1	P6701 (Front) - Barrier Motor Unit

Make sure that Fan is connected during the measurement.

8 Disassembly and Assembly Instructions

8.1. Disassembly Flow Chart

This flow chart indicates the disassembly steps the cabinet parts, P.C.B. and Mecha. Unit in order to access to be serviced. When reinstalling, perform the steps in the reverse order.



8.2. P.C.B. Layout

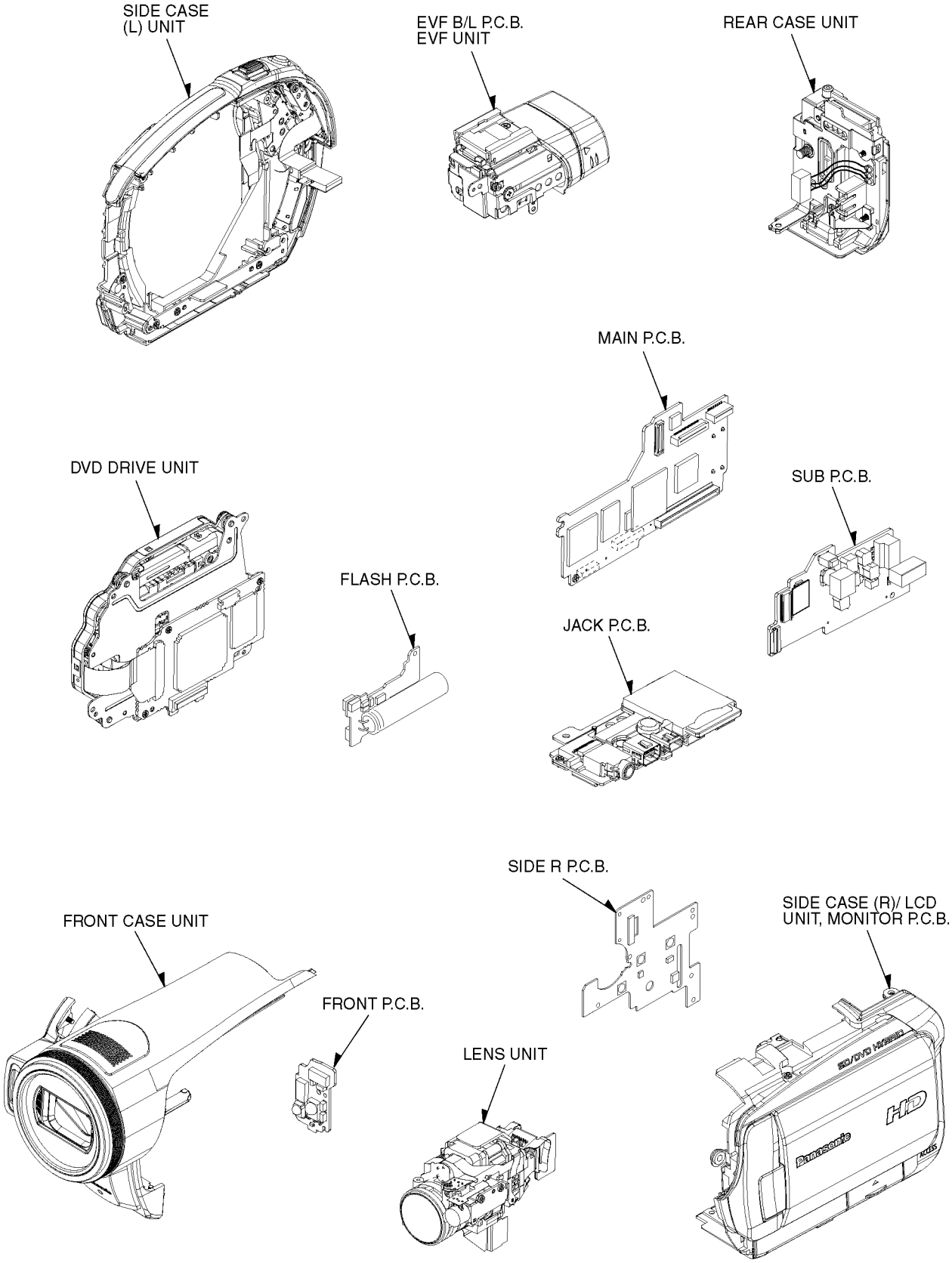


Fig. F1

8.3. Disassembly Procedures

Flow-Chart for Disassembly Procedure

No.	Item / Prat	Fig.	Removal (Screw,Connector,Flex. & Other)
1	Front Case Unit/Side Case (R) Unit/EVF Unit	Fig.D2	3-Screws (A), 2-Screws (B), 2-Screws (C)
		Fig.D3	1-Connector FP481 1-Screw (D), 1-Screw (E), 1-Screw (F) Front Case Unit
		Fig.D4	1-Tab 1-Connector FP6006 Side Case (R) Unit, EVF Unit
2	Flash P.C.B.	Fig.D5	1-Screw (G) 3-Connectors P7001, P7002, PP6201
		Fig.D6	3-Tabs Condenser Cover (L), Condenser Cover (R), Flash P.C.B.
3	Sub P.C.B./ Lens Unit	Fig.D7	Slide the Lock Lever of Disc Cover Lock Unit, and Open the Disc Cover. 1-Screw (H), 1-Screw (I) EVF/Grip Case Unit
		Fig.D8	2-Connectors FP6202, FP6204 1-Screw (J) Rear Case Unit 1-Connector P6201 Sub P.C.B. 1-Screw (K) 1-Tab 1-Screw (L)
		Fig.D9	1-Screw (M) 1-Connector PS6004 Lens Unit
4	Main P.C.B./ Drive Extended P.C.B.	Fig.D10	1-Screw (N), 1-Screw (O), 2-Screws (P) 4-Connectors PP6998, B2401, PP4001, FP6001 Main P.C.B., Drive Extended P.C.B. Bottom Jack Unit
5	Jack P.C.B.	Fig.D11	1-Screw (Q) Jack P.C.B., Bottom Frame
6	Main Frame/ DVD Drive Unit	Fig.D12	4-Screws (R), 2-Screws (S) Earth Plate, Main Frame 1-Connector P2403 DVD Drive Unit
7	EVF B/L P.C.B.	Fig.D13	1-Screw (T), 2-Screws (U) 1-Connector FP602 EVF Unit
		Fig.D14	1-Screw (V) 1-Tab Eye Cap Unit
		Fig.D15	2-Tabs EVF Cover 4-Tabs Slide Holder
		Fig.D16	2-Screws (W) Hot Shoe
		Fig.D17	2-Tabs 1-Connector FP801
		Fig.D18	2-Screws (X) 2-Slide Spacers EVF LCD Unit, EVF Frame
		Fig.D19	2-Tabs EVF Click Spring
		Fig.D20	4-Tabs 1-Connector FP802 EVF B/L P.C.B.
8	LCD Det P.C.B.	Fig.D21	Open the LCD Unit. 1-Screw (Y) LCD Det P.C.B. Caution): LCD Unit surely during assemble the LCD Det P.C.B.. If LCD Unit is closing, Switch (LCD Open) is broken.
9	LCD Unit	Fig.D22	2-Tabs Hinge Decoration
		Fig.D23	2-Screws (Z) 1-Connector FP601 Hinge Support Plate
10	Side-R P.C.B.	Fig.D24	1-Connector P6301 2-Screws (a) SR Erame, Side-R P.C.B.
11	Monitor P.C.B.	Fig.D25	2-Screws (b) 6-Tabs LCD Case (T) Unit
		Fig.D26	1-Connector FP902 LCD Hinge Unit, LCD Earth Plate
		Fig.D27	1-Connector FP901 3-Tabs Monitor P.C.B.
12	Front P.C.B./ MIC P.C.B.	Fig.D28	Turn the Lens Hood Unit in the direction of the arrow, and remove it.
		Fig.D29	2-Connectors FP482, P6701 1-Screw (c) Front P.C.B.
		Fig.D30	1-Screw (d), 1-Screw (e) Earth Plate L
		Fig.D31	2-Screws (f) Top Case Unit
		Fig.D32	1-Screw (g) Top Radiation Plate
		Fig.D33	1-Connector FP4801 1-Screw (h) MIC P.C.B.

CAUTION

Laser light striking the eye may cause your eyesight to be lost : For safety, be sure to remove any power supply (AC adaptor/ charger, battery, etc.) from the DVD video camera/recorder before starting work.

<CSA requirement>

CAUTION: VISIBLE LASER RADIATION DO NOT STARE INTO THE BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS CLASS 2M

If the Card inserted,take out it before disassembing.

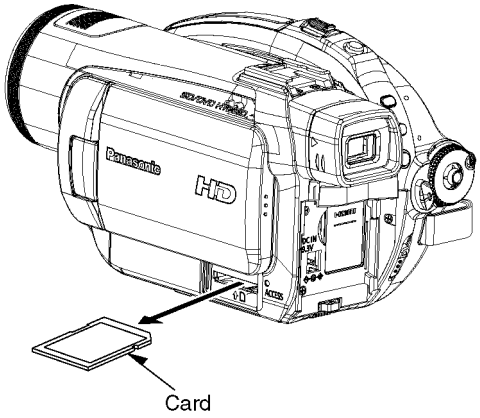


Fig. D1

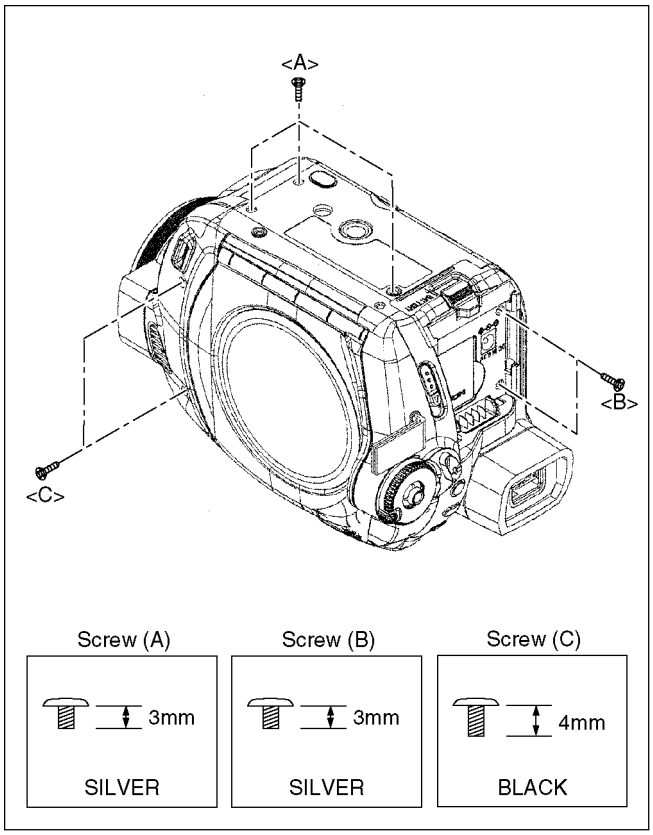


Fig. D2

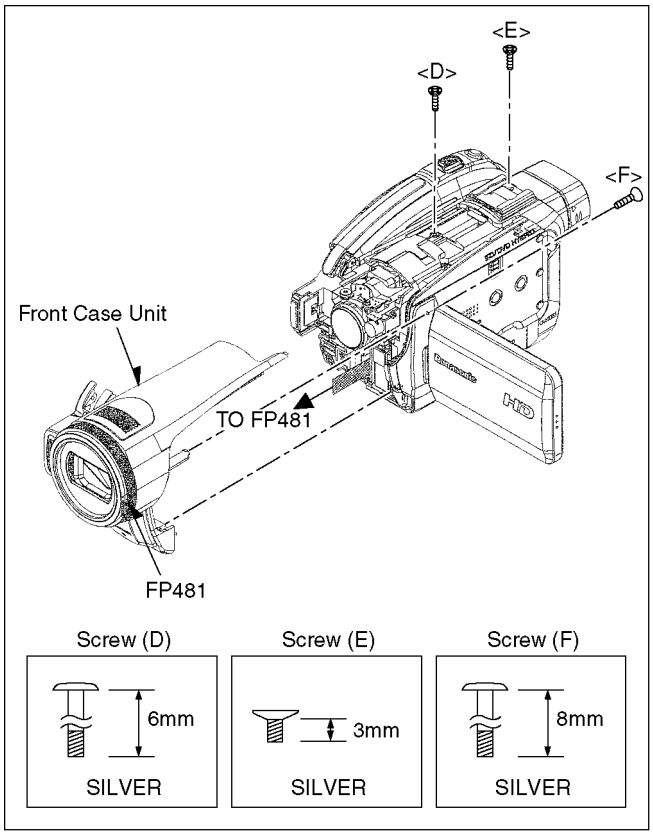


Fig. D3

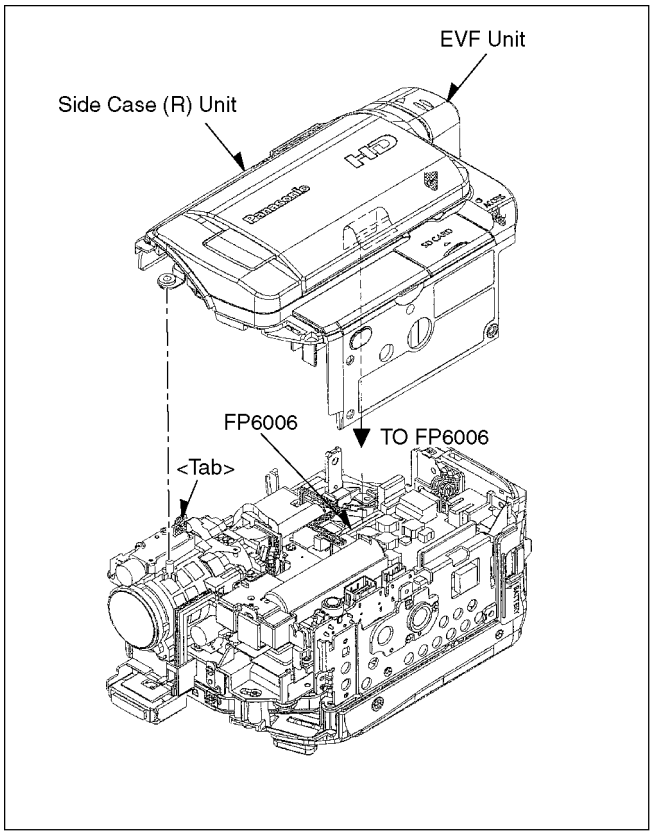


Fig. D4

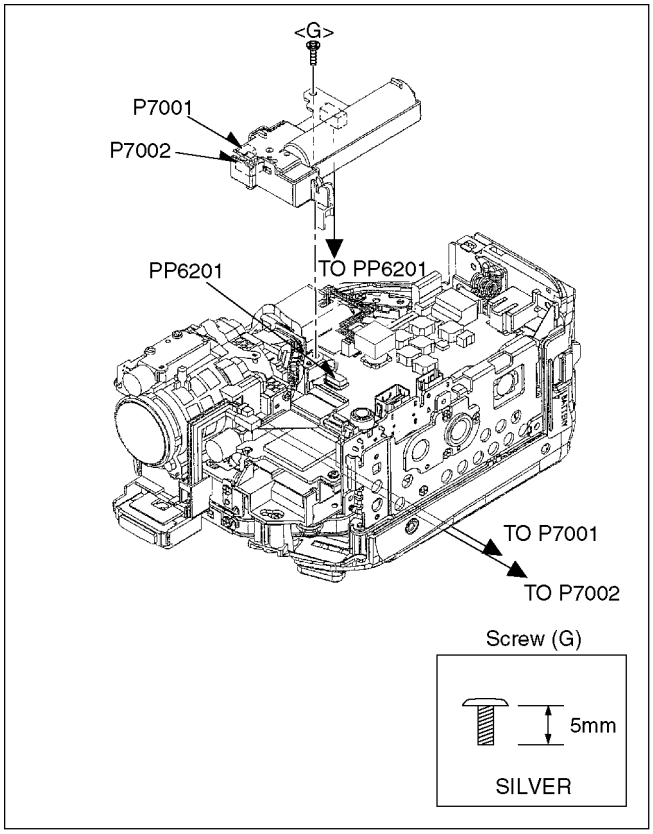
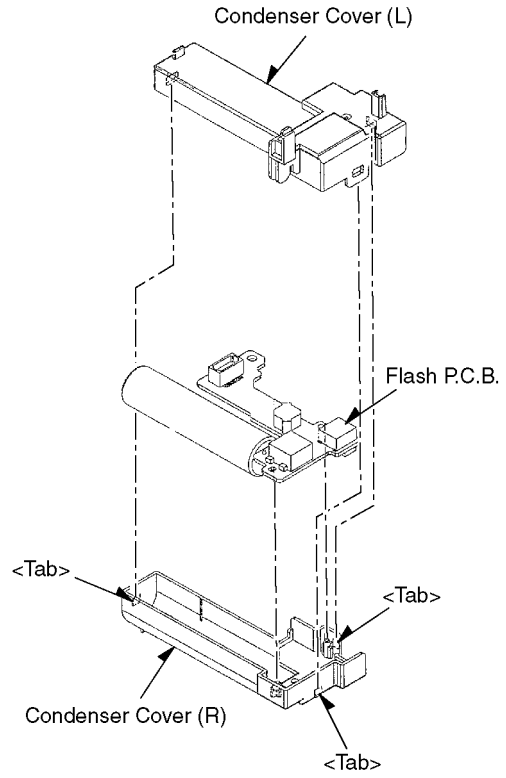


Fig. D5



CAUTION
Be sure to discharge the capacitor on Flash P.C.B. before disassembling.
CAUTION
Be careful of the high voltage circuit on Flash P.C.B. when servicing.

Method:

1. Prepare the 2 Resistors (ERG2SJ221:220 ohm/2w) for discharge.

Note:

Above 2 Resistors may be substituted with equivalent type.

2. Make short circuit using 2 Resistors between C7004(+) and C7004(-) for 3 seconds as follows.
3. After discharging, confirm that the capacitor voltage is sufficiently lowered using a voltmeter

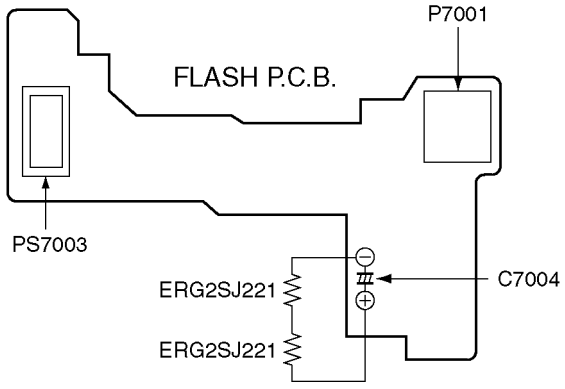


Fig. D6

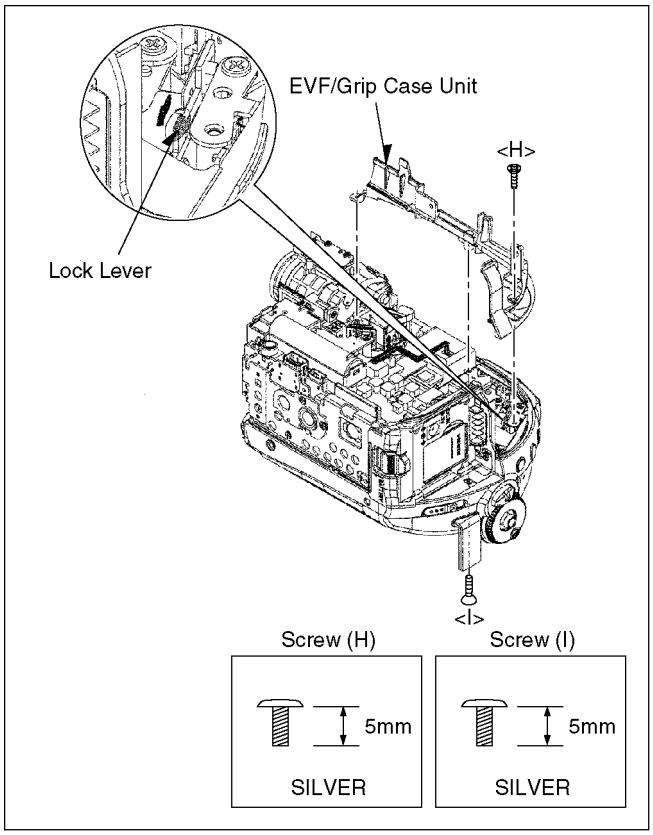


Fig. D7

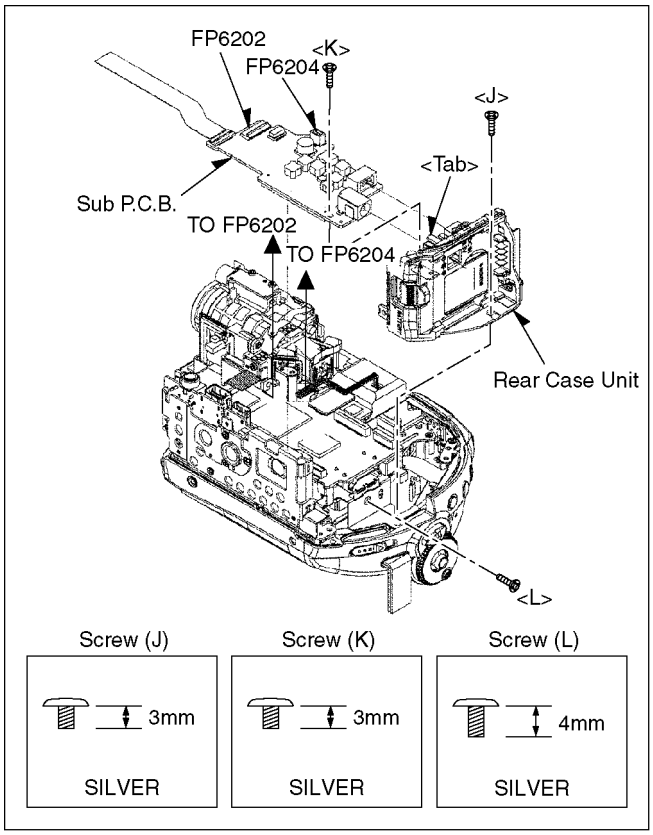


Fig. D8

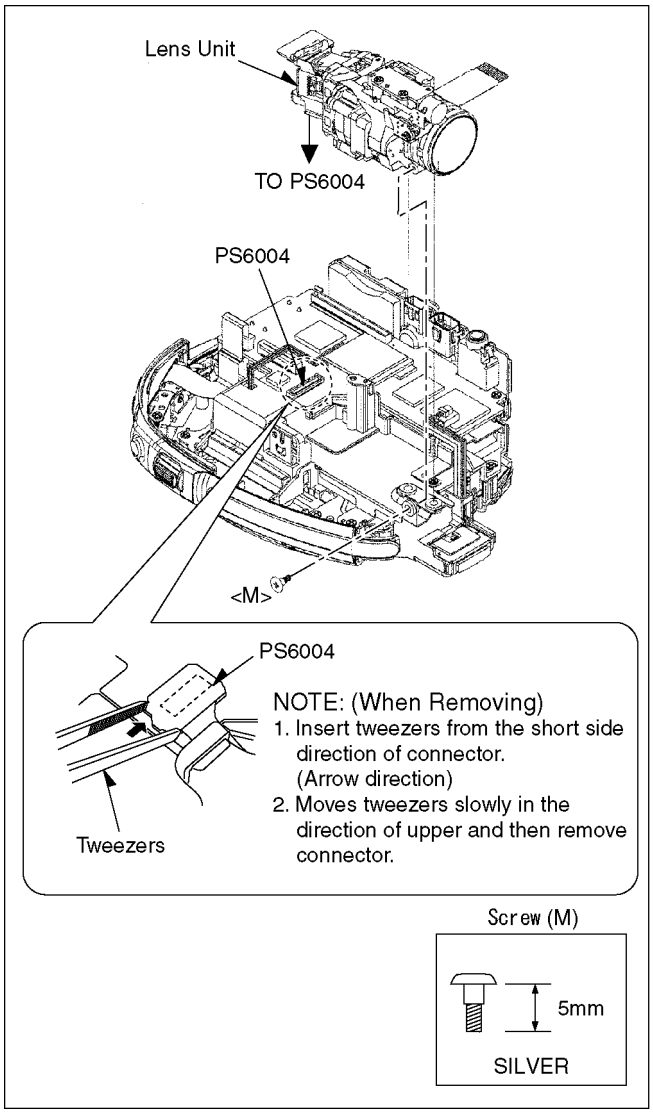


Fig. D9

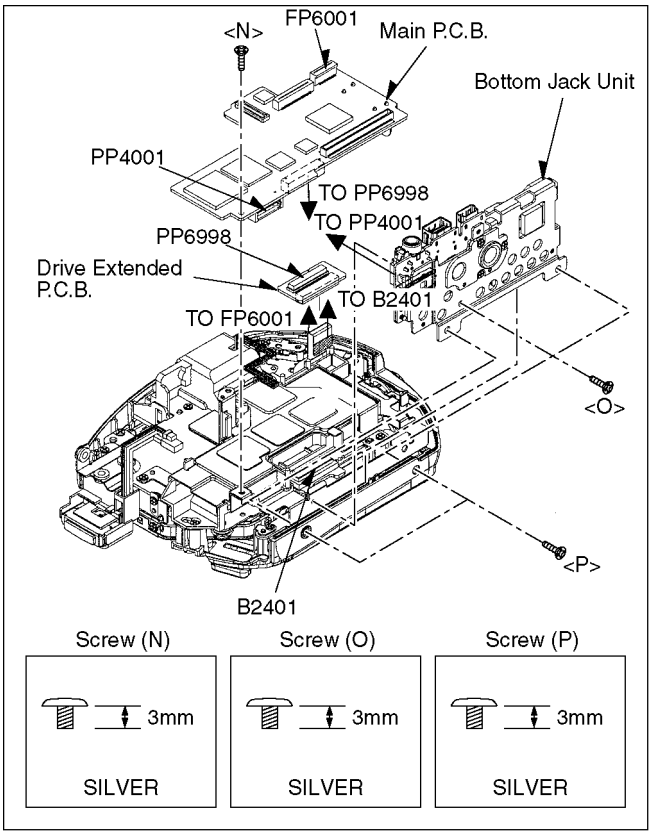


Fig. D10

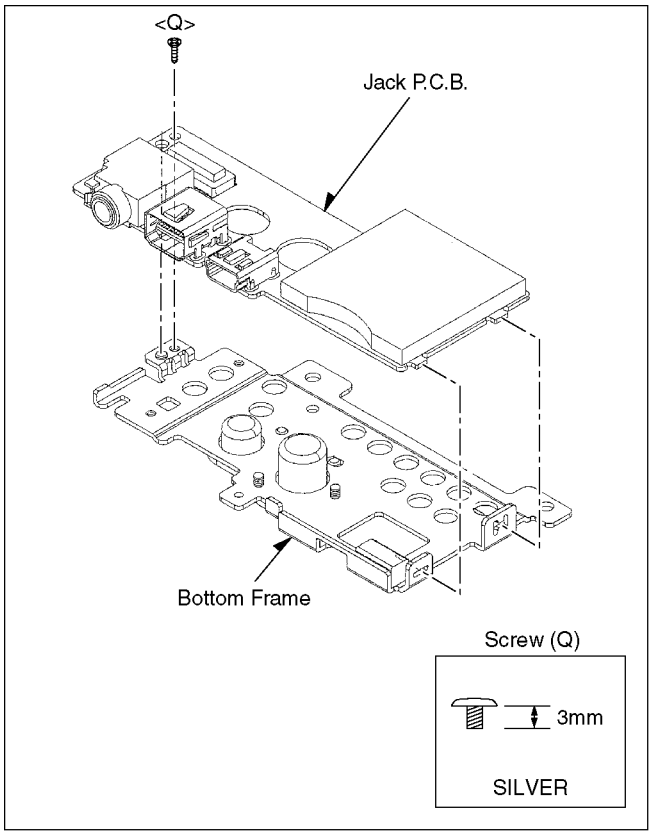


Fig. D11

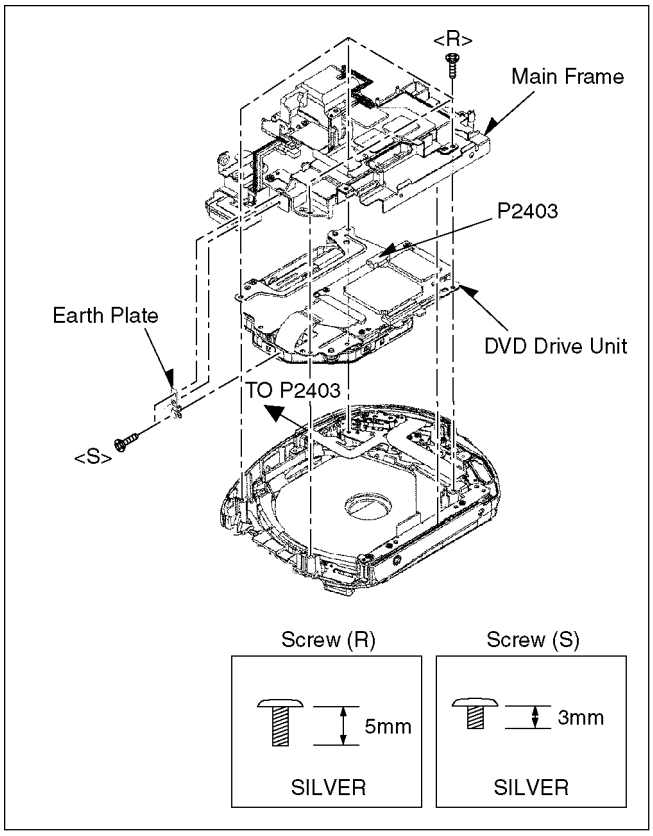


Fig. D12

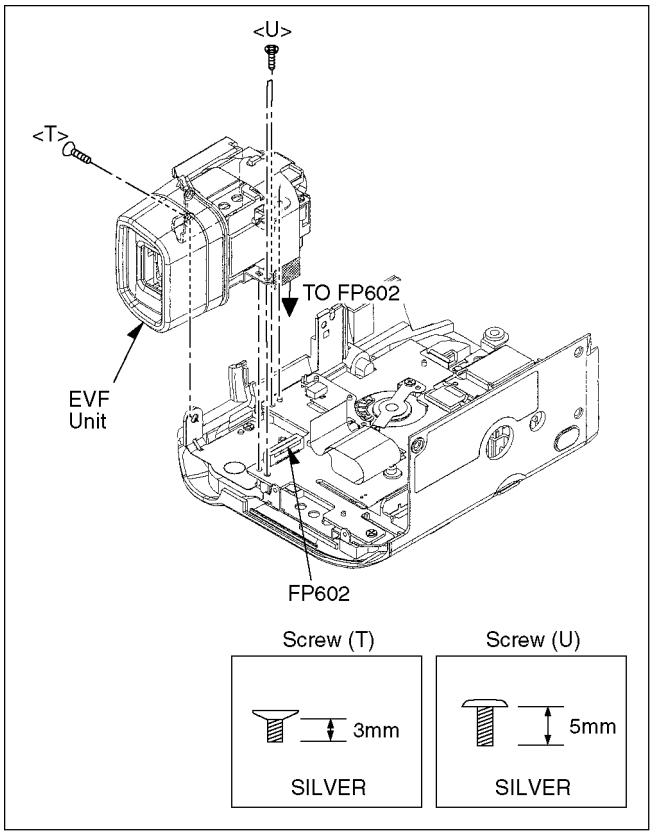


Fig. D13

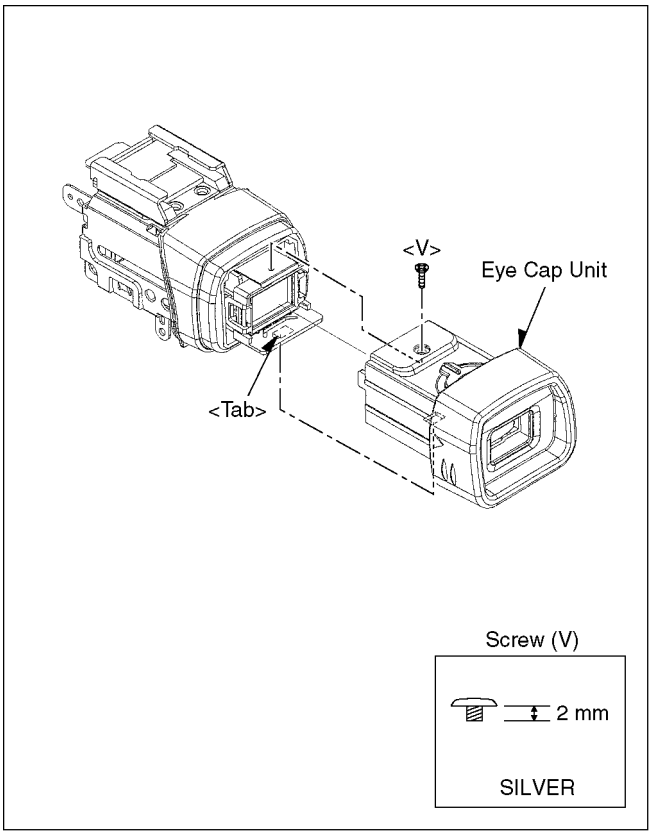


Fig. D14

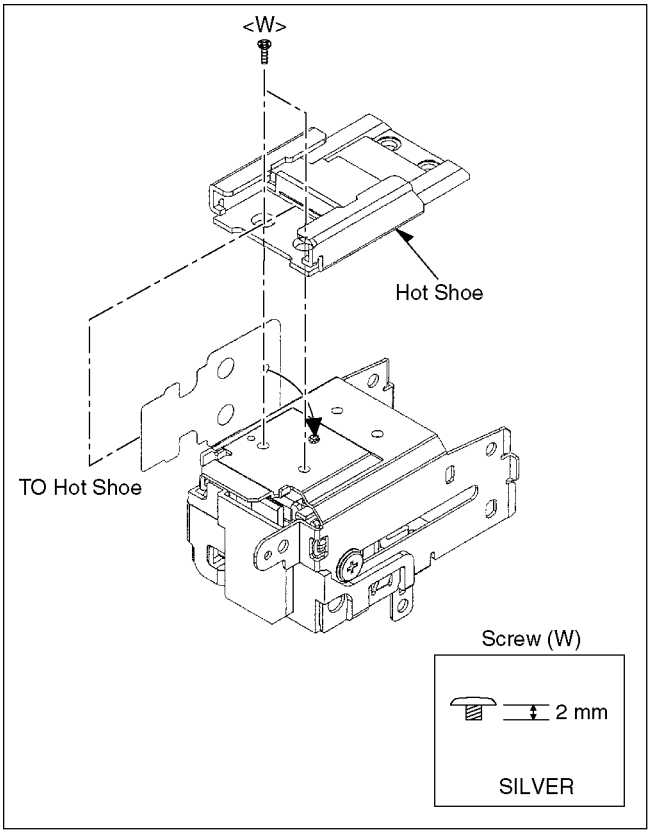


Fig. D16

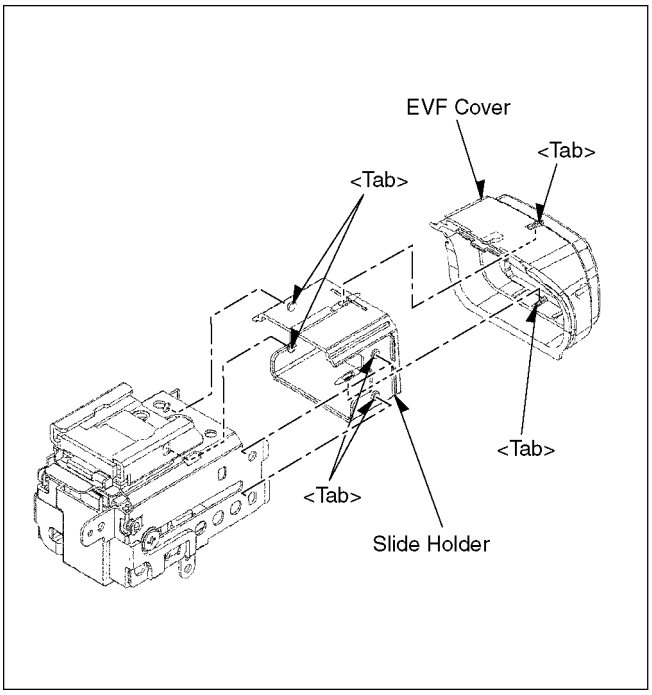


Fig. D15

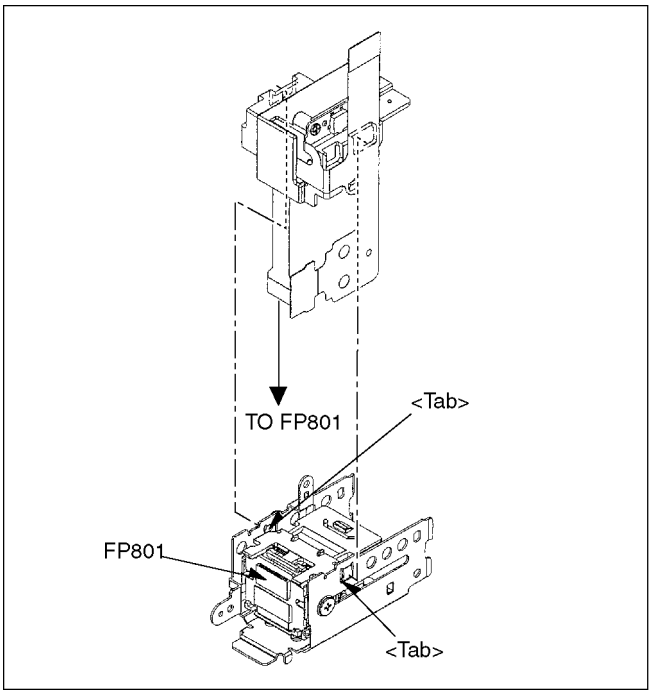


Fig. D17

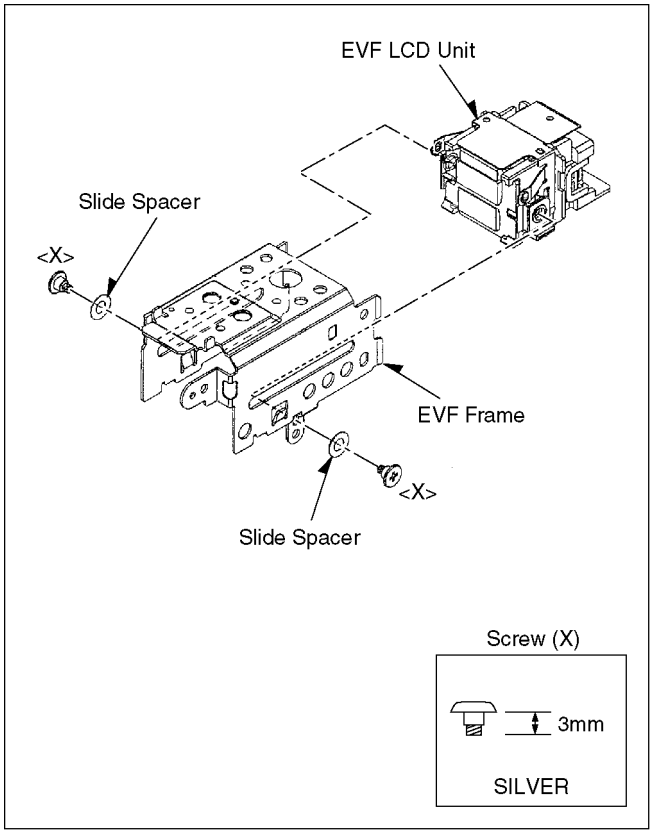


Fig. D18

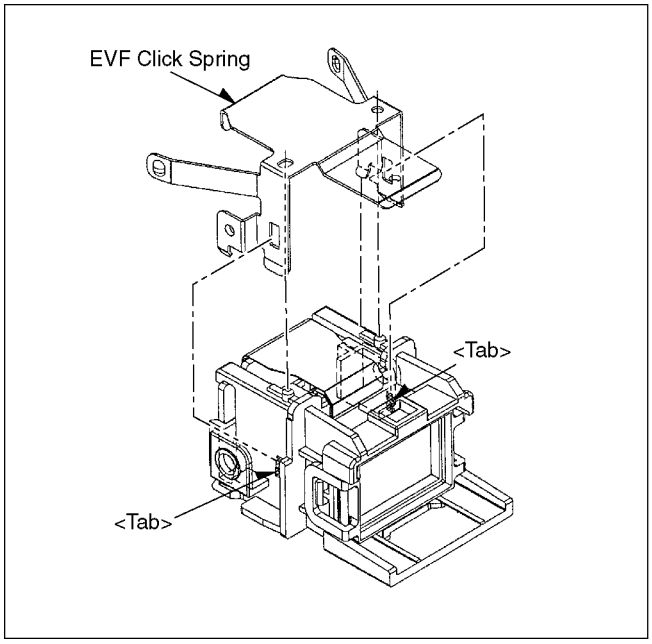


Fig. D19

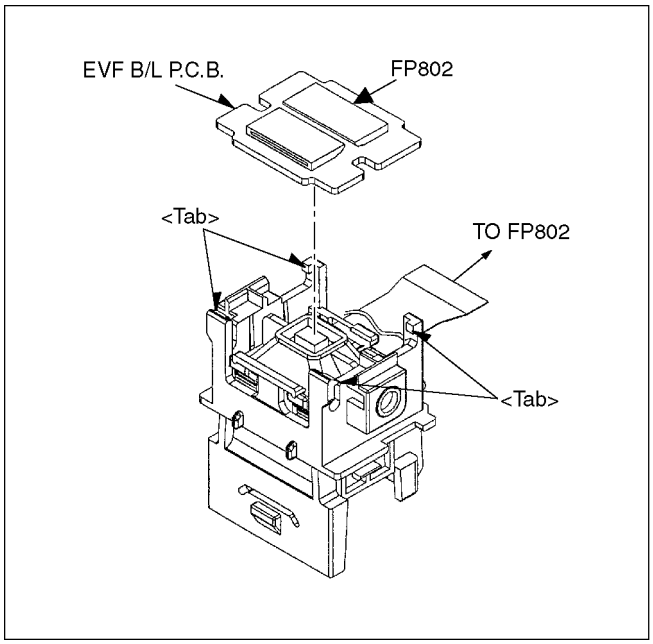


Fig. D20

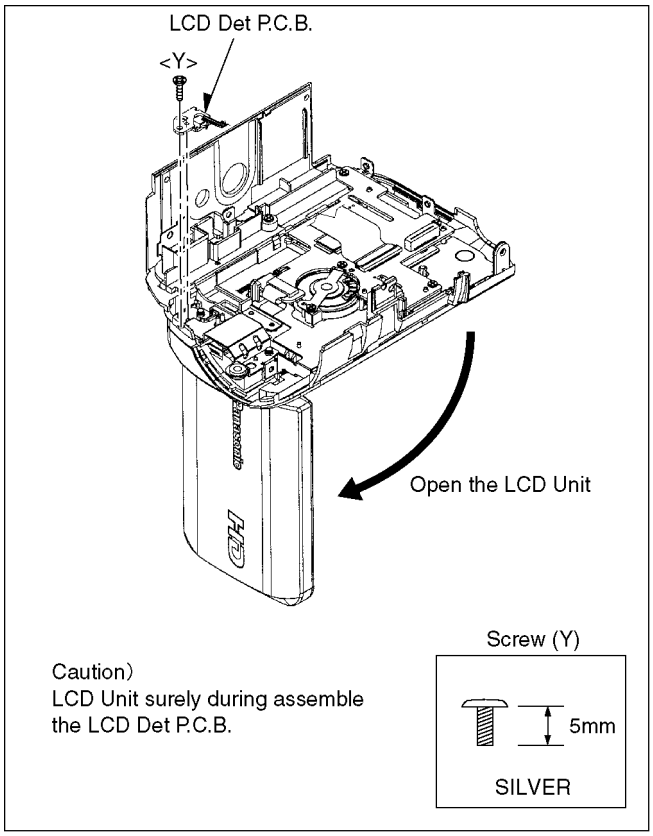


Fig. D21

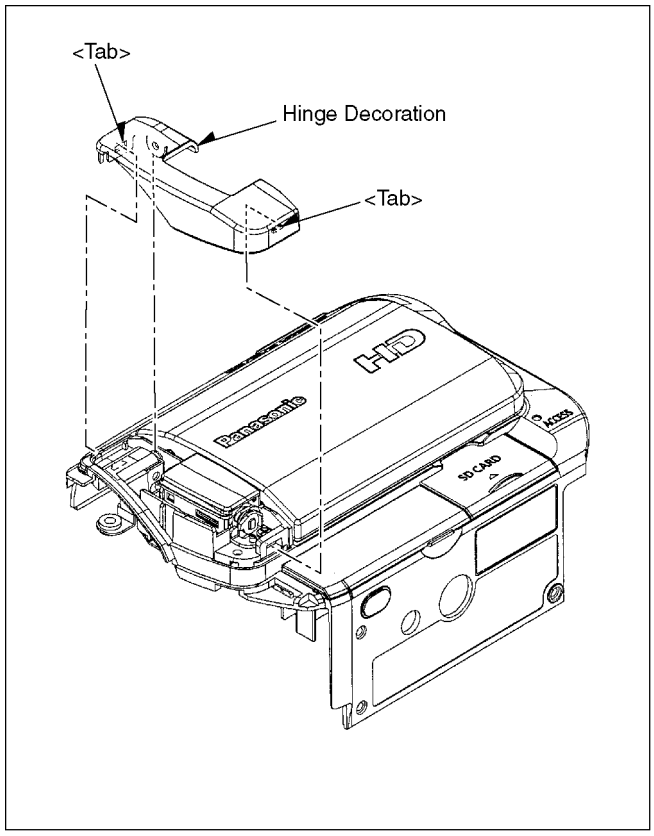


Fig. D22

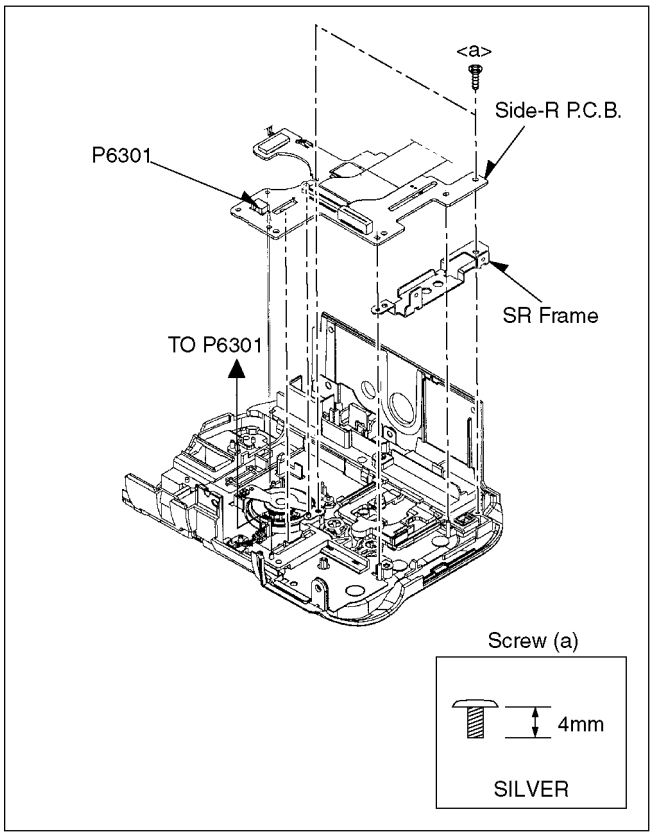


Fig. D24

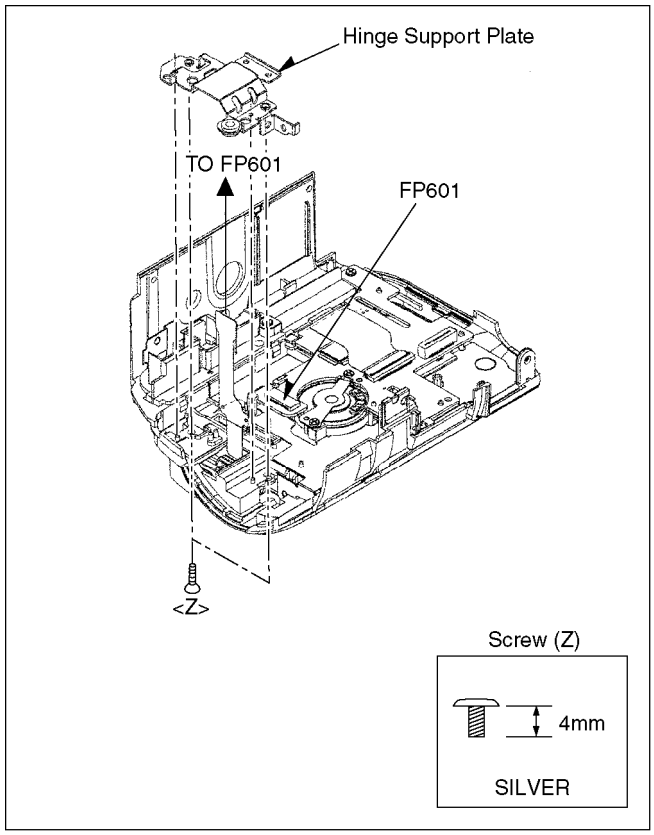


Fig. D23

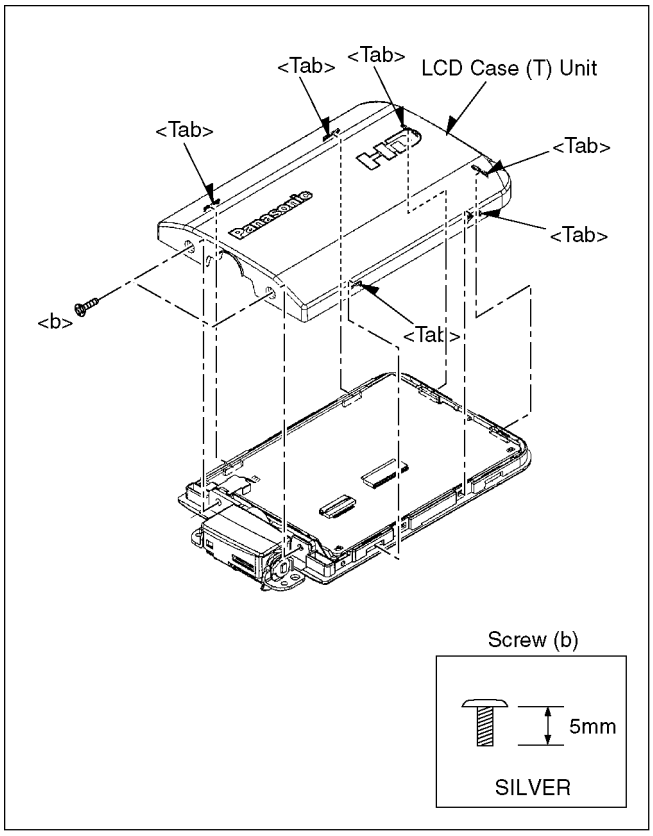


Fig. D25

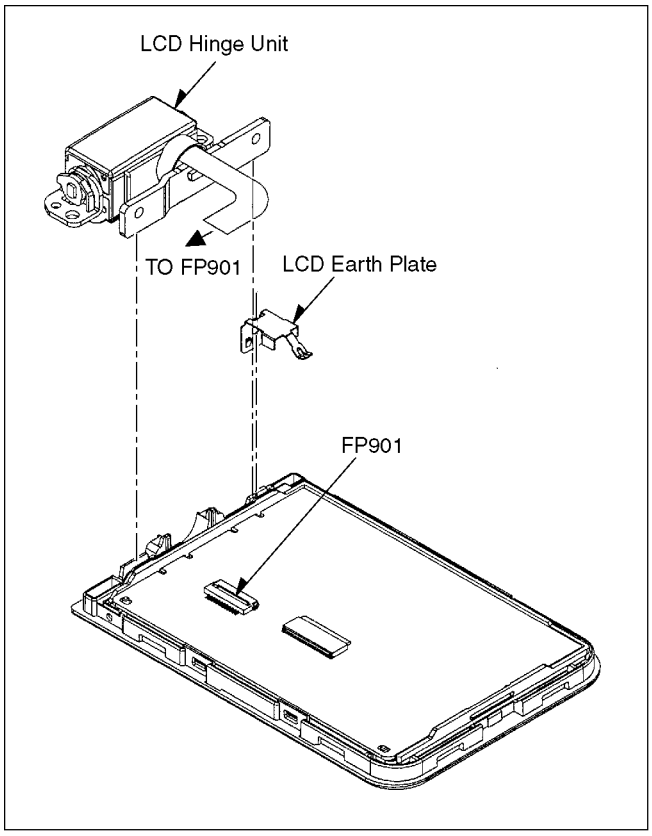


Fig. D26

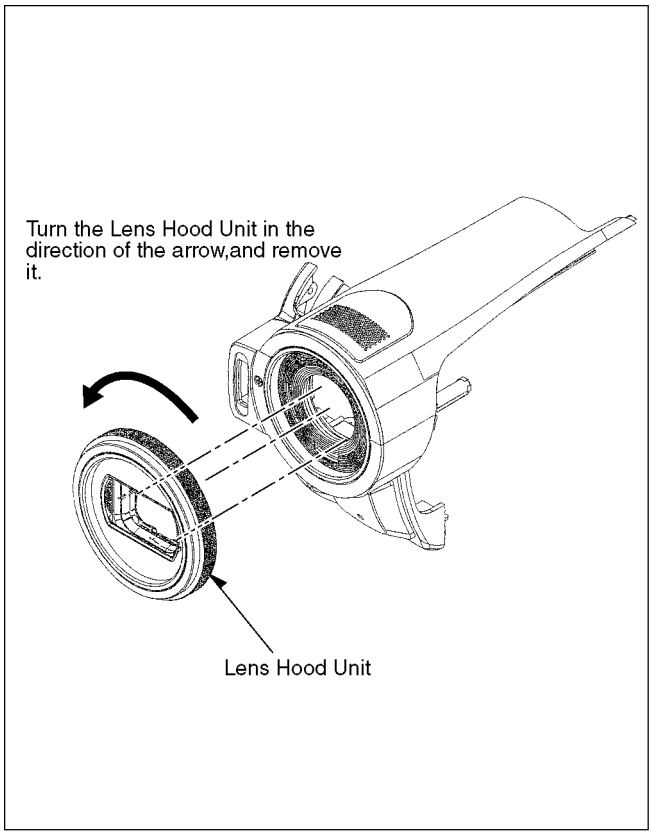


Fig. D28

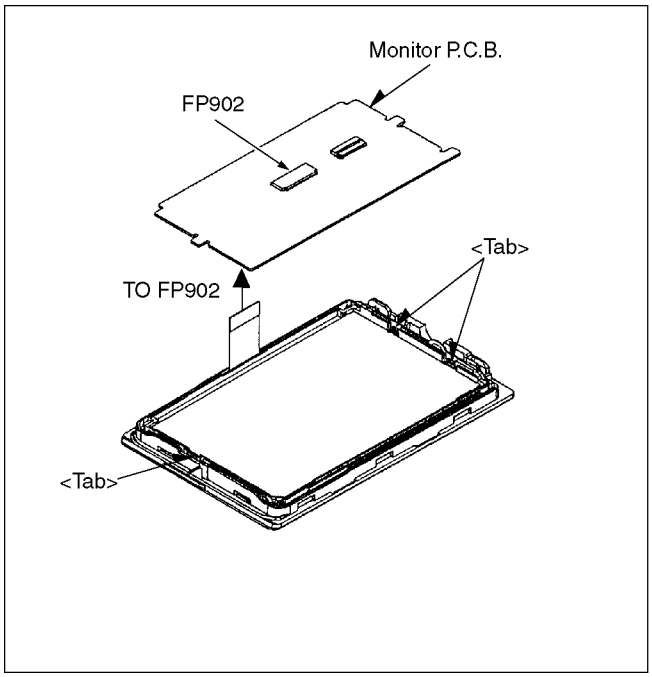


Fig. D27

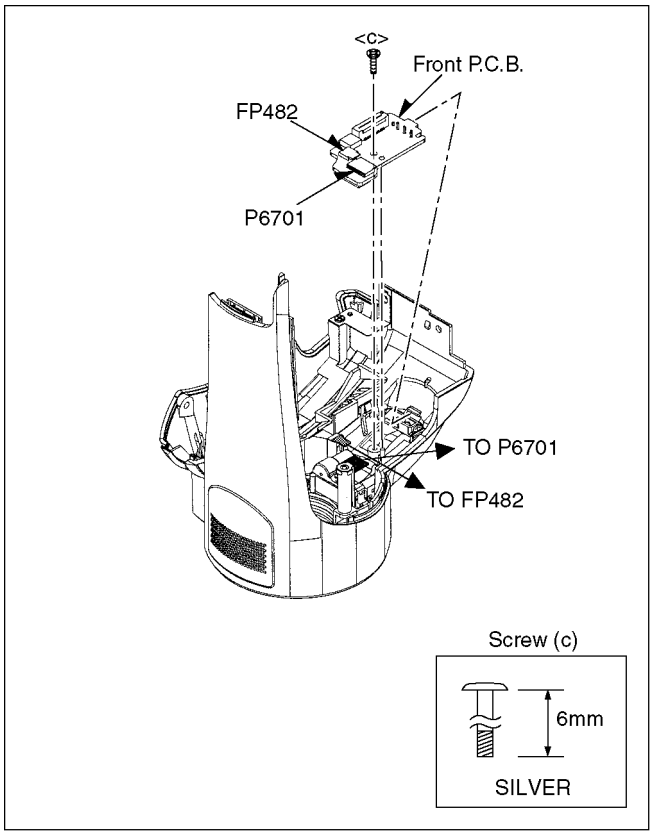


Fig. D29

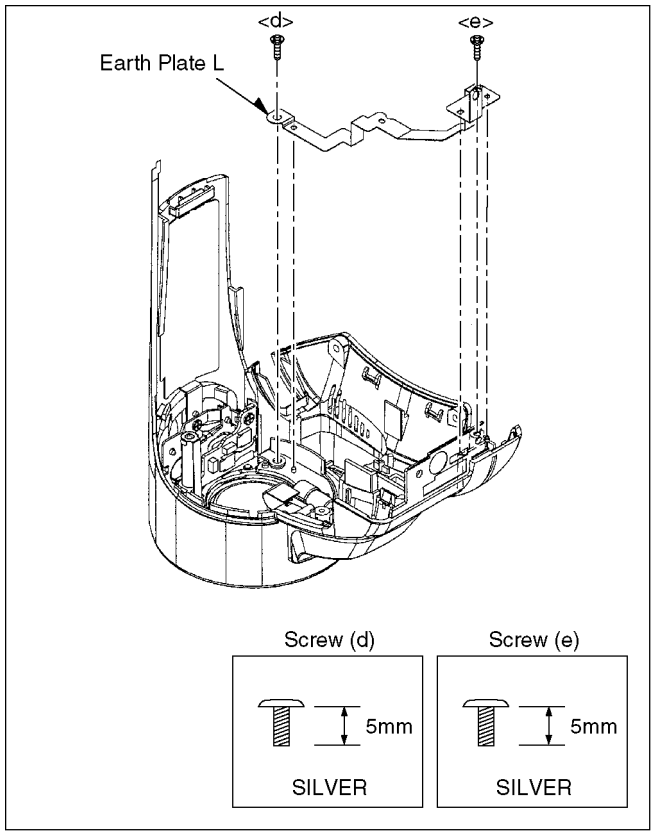


Fig. D30

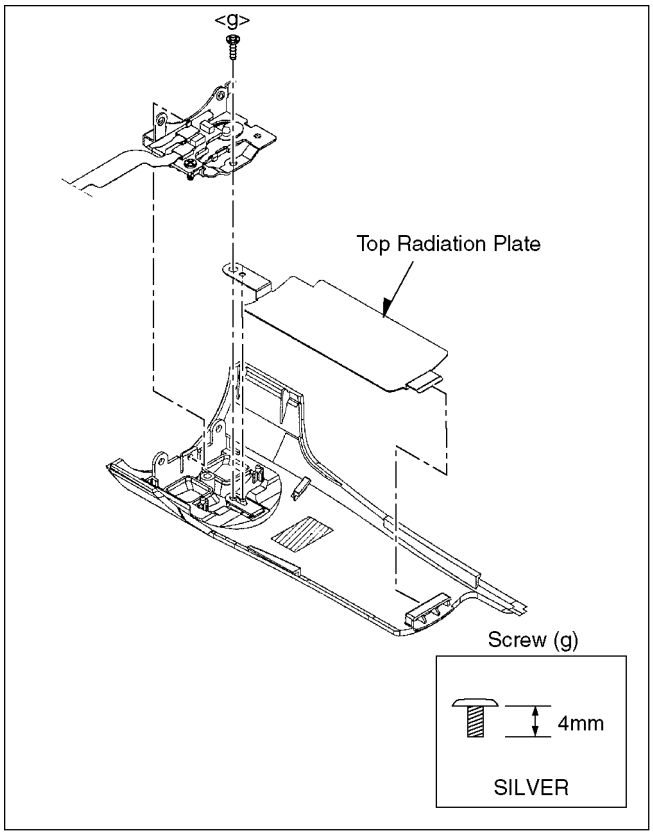


Fig. D32

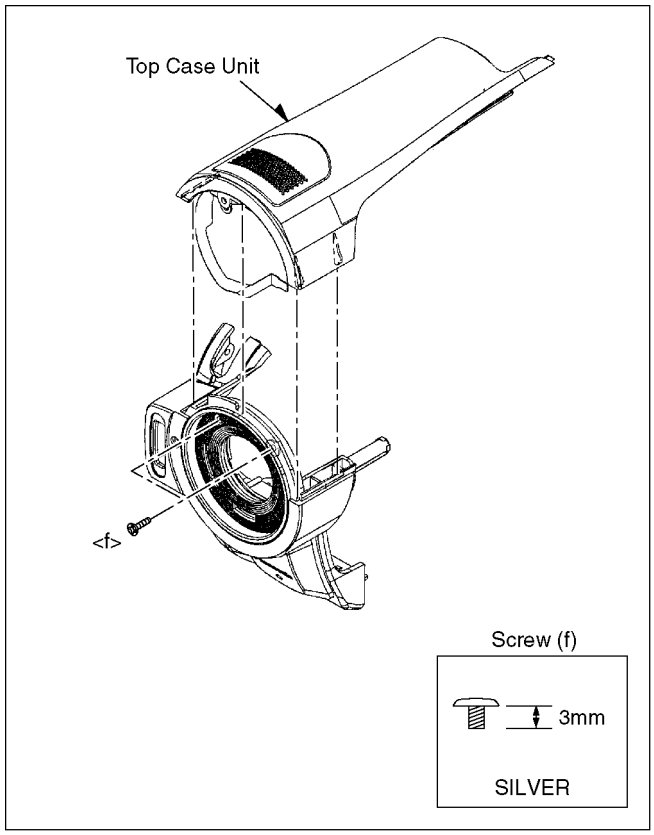


Fig. D31

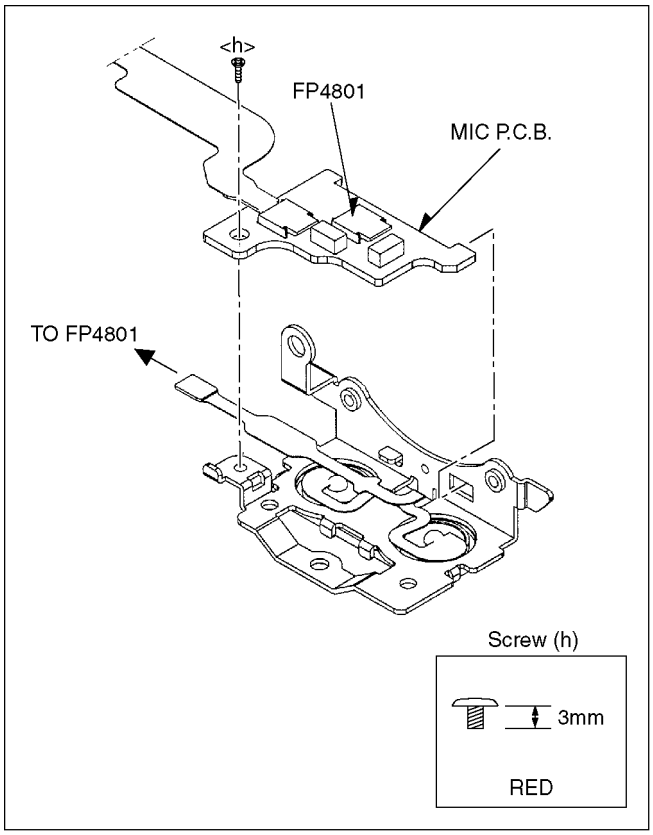


Fig. D33

8.4. Disassembly Procedures of Camera Lens Unit

The following flowchart describes order or steps for removing the Camera lens unit and certain printed circuit boards in order to make access to the item needing service.
To reassemble the unit follow the steps in reverse order.

1. Prism Unit	Ref.-No.301
2. Optical Filter	Ref.-No.303
3. Stepping Motor Unit	Ref.-No.302-6
4. IRIS Unit	Ref.-No.302-4
5. Master Flange Unit/4th Lens Frame Move Unit	Ref.-No.302-9/302-10
6. OIS Unit	Ref.-No.302-3
7. Zoom Motor Unit	Ref.-No.302-5
8. 2nd Lens Frame Move Unit & Guide Pole	Ref.-No.302-2/302-7/302-8
9. Main Frame Unit	Ref.-No.302-1

Note 1: Each Ref. numbers are equivalent to number of Fig.L2 and Parts List.

Fig.L1

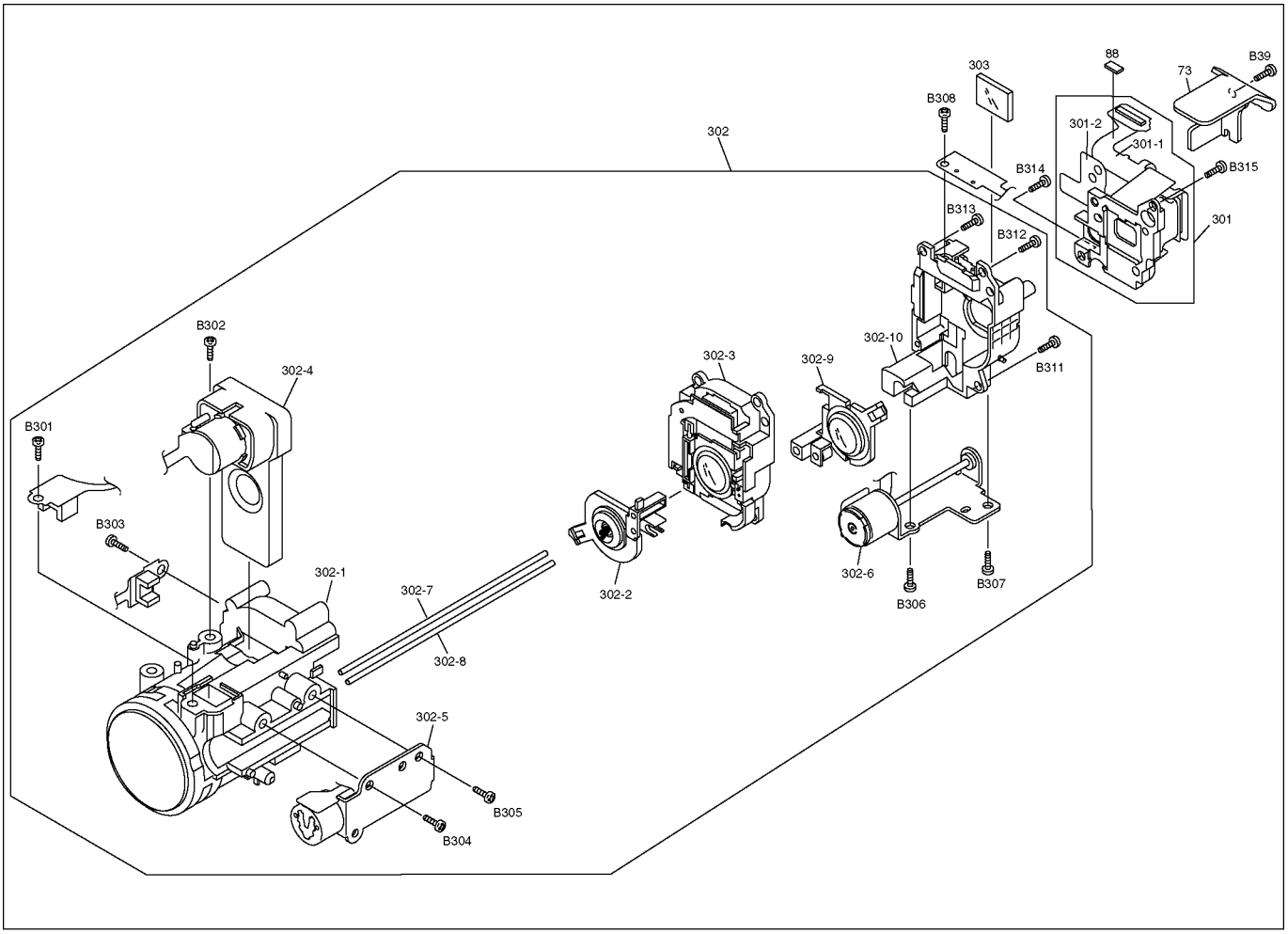


Fig. L2

9 Measurements and Adjustments

9.1. Service Positions

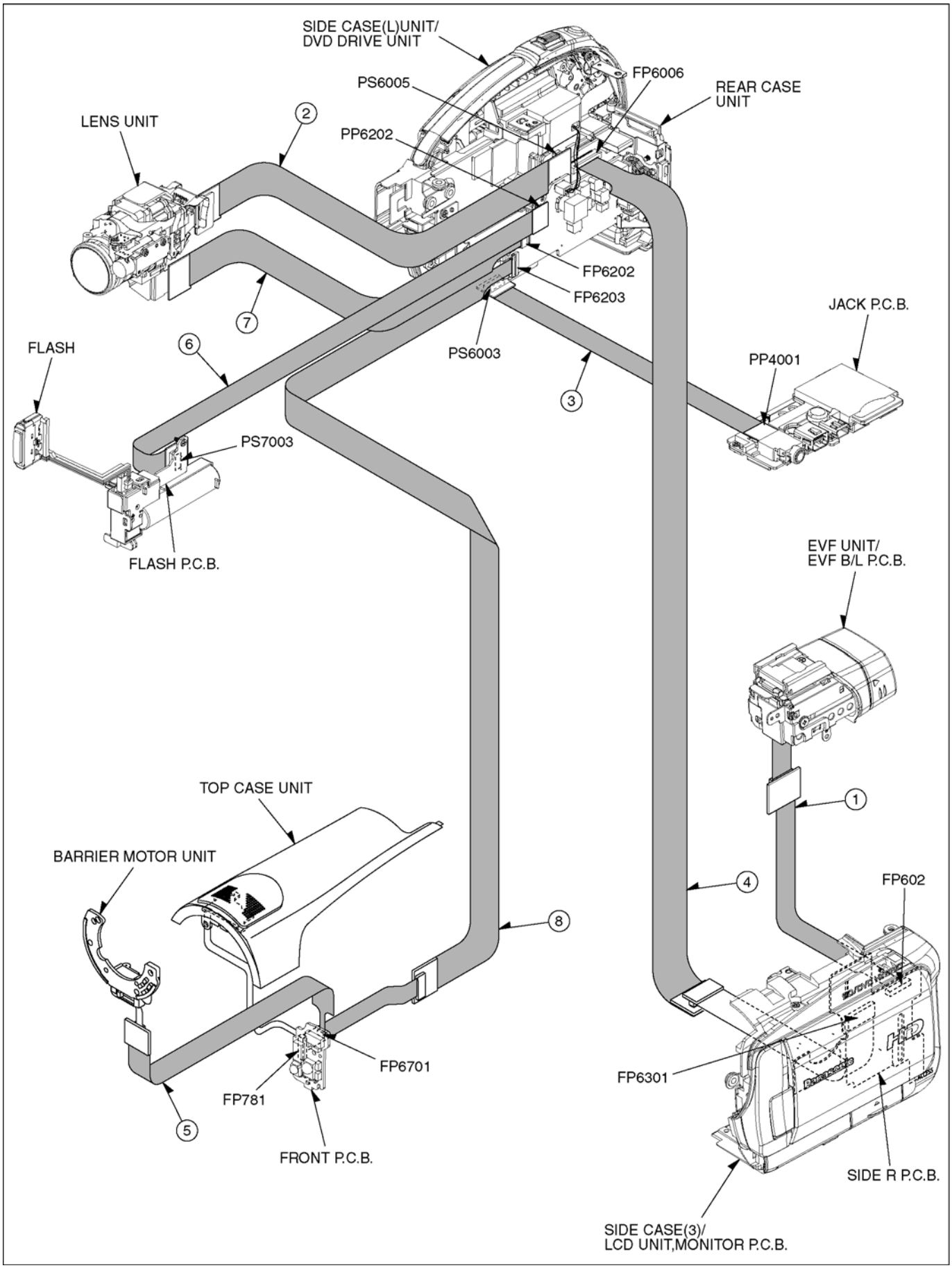
9.1.1. List of the extension cables

Use the following extension cables when checking or adjusting individual circuit boards except module Parts (Main P.C.B. and Sub P.C.B.).

Ref.	Part No.	Pin	Part Name	Connection	Q'ty
(1)	VFK1978	31	Flat Cable	FP602 (Side(R)) - EVF	1
(2)	RFKZ0446	50	Flat Cable	PS6004 (Main) - CCD	1
(3)	RFKZ0379	40	Flat Cable	PS6003 (Main) - PP4001 (Jack)	1
(4)	VFK11575C4520	45	Flat Cable	FP6006 (Main) - FP6301 (Side (R))	1
(5)	VFK1440	10	Flat Cable	FP6701 (Front) - Barrier Motor Unit	1
(6)	VFK2020	20	Flat Cable	PP6201 (Main) - PS7003 (Flash)	1
(7)	RFKZ0448	33	Flat Cable	FP6202 (Sub) - Lens Unit	1
(8)	VFK1491	27	Flat Cable	FP6203 (Sub) - FP481 (Front)	1

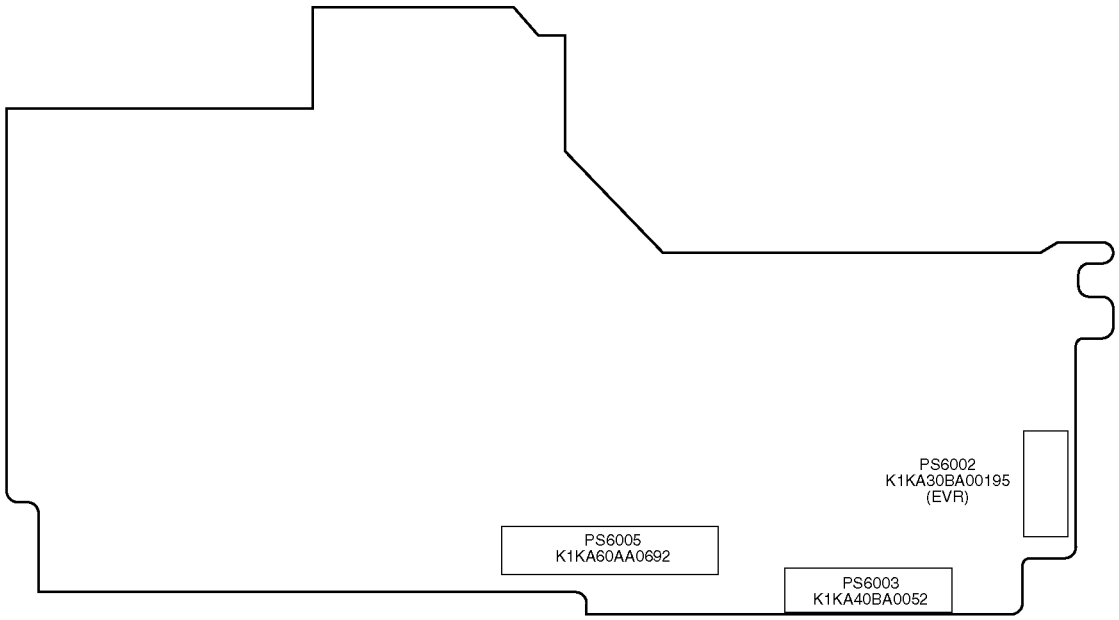
9.1.2. Checking and repairing individual circuit boards except module part (Main P.C.B. and Sub P.C.B.)

How to use extension cables.

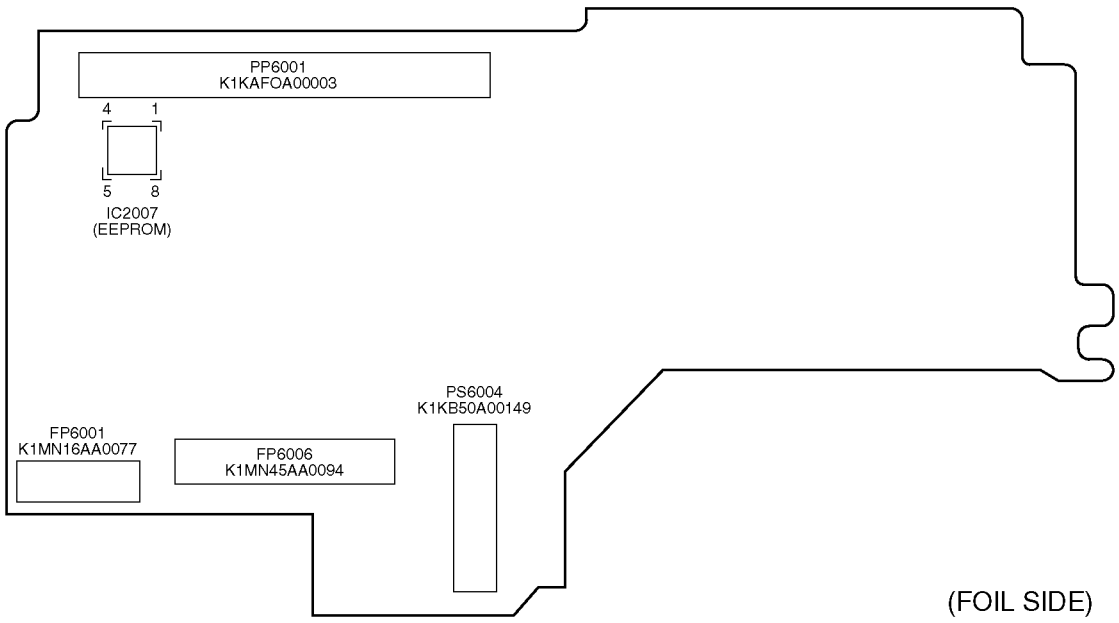


9.2. Location for Connectors of the Module P.C.B. (Main P.C.B. and Sub P.C.B.)

9.2.1. Main P.C.B.

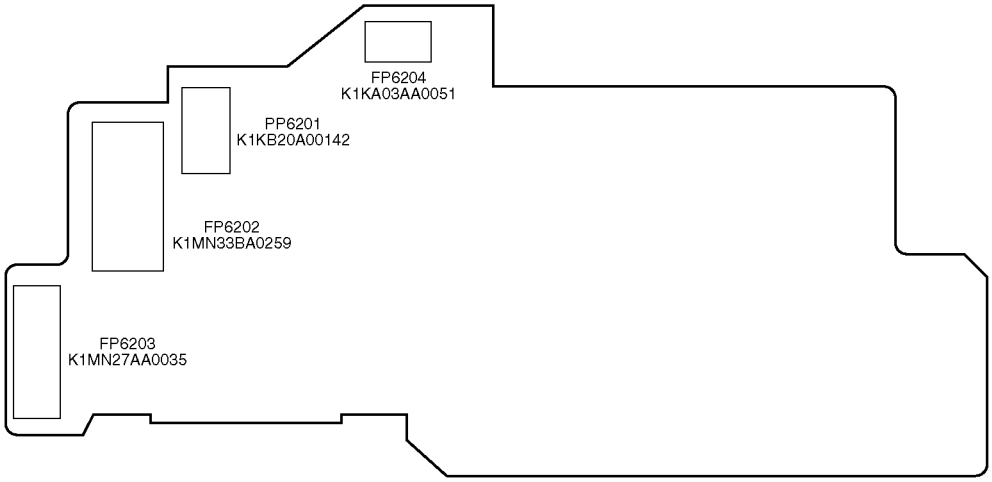


(COMPONENT SIDE)

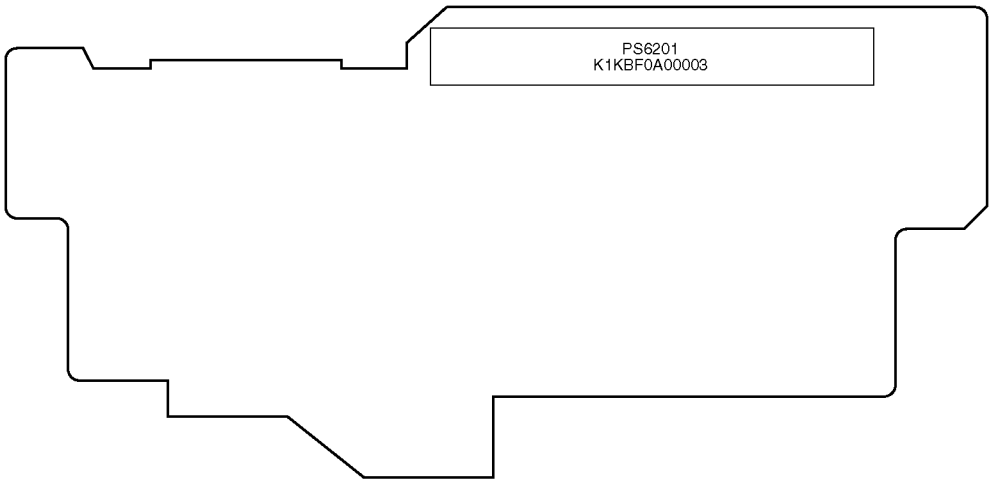


(FOIL SIDE)

9.2.2. Sub P.C.B.



(COMPONENT SIDE)



(FOIL SIDE)

9.3. Electrical Adjustment Procedures

9.3.1. Computer assisted adjustment system <TATSUJIN> adjustment

This unit employs the computer assisted system named; TATSUJIN PC-Adjustment for Electrical adjustment.
It is required to install a USB driver for service which can be download only from TSN-WEB.

9.3.2. Set-up manual for High Definition Video Camera

Pay attention, because the adjustment method is different from this machine.

1. Save the software
   Install the effective model's TATSUJIN Software to PC: Personal Computer.
2. Set-Up
   a. It need the connection between the PC and this unit with USB cable.
   b. Connect the PC and High Definition Video Camera as shown in Fig. E1 and E2.
   c. The adjustment instruction is available at Software download on the Support Information from NWBG-PAVC web-site in TSN System, together with maintenance software.

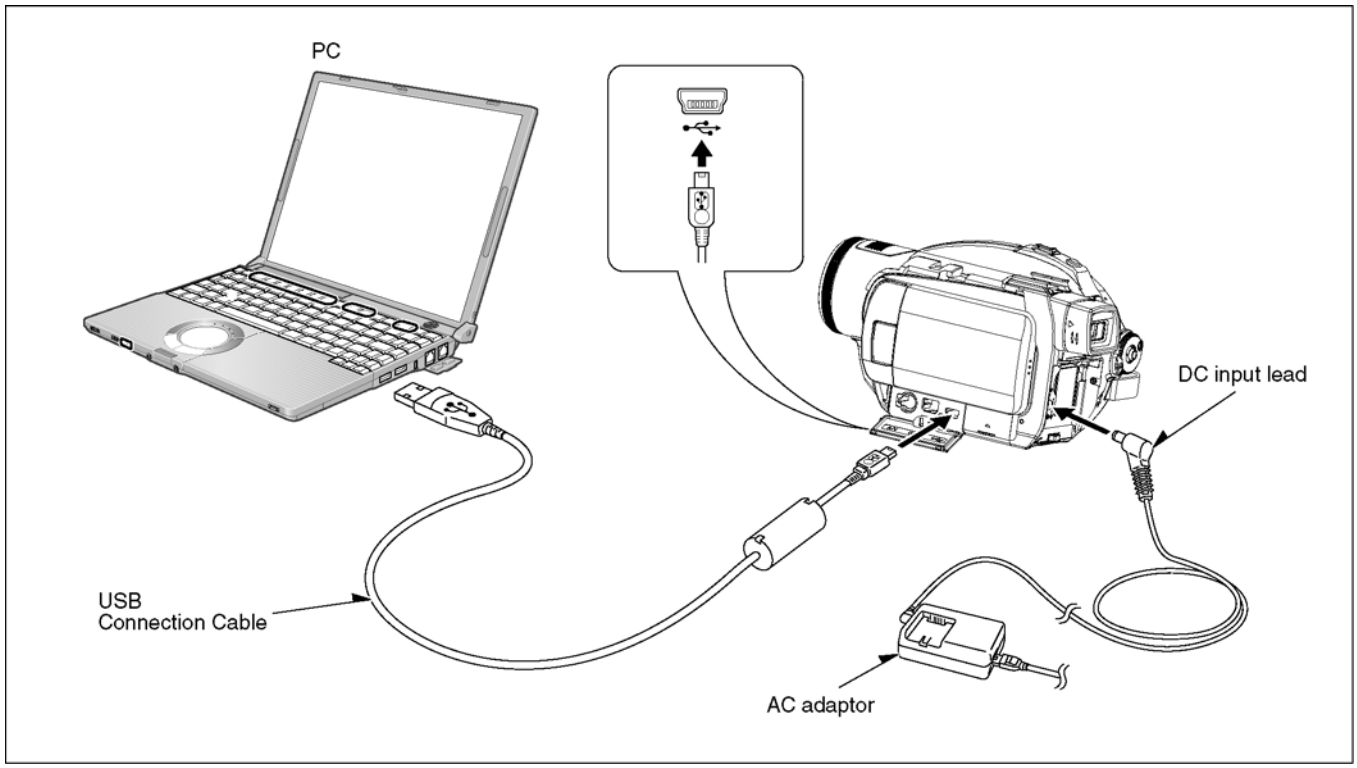


Fig. E1

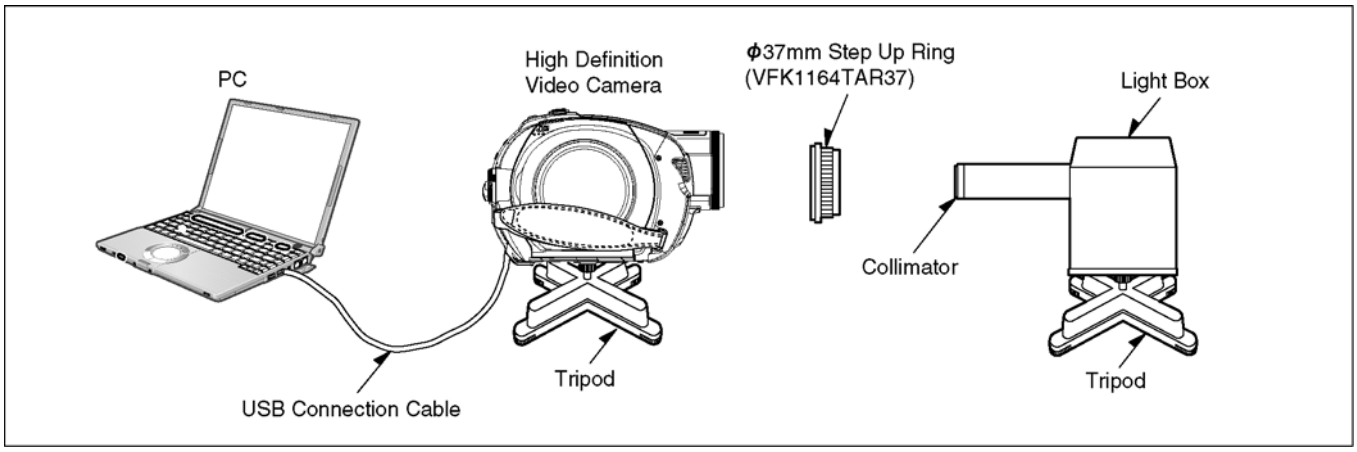


Fig. E2 Rough image of set-up connection

Part Number of jig

• Only a necessary jig mentions it in setup of electric adjustment.

Ref	Parts Name	Parts No.	Q'ty	Remarks
1	Personal Computer	---	1	With Tatsujin Software.
2	AC Adaptor	---	1	The AC Adaptor for High Definition Video Camera
3	DC Cable	---	1	The AC Adaptor for High Definition Video Camera
4	USB Cable	---	1	
5	Step Up Ring	VFK1164TAR37	1	
6	TATSUJIN PC-Adjustment Program	---	1	

9.3.3. Set up PC-EVR adjustment program

1. Turn on the PC and install the TATSUJIN Adjustment Program into the PC.
2. TATSUJIN PC-Adjustment Program start in the following procedure.
   PC Menu : [Start] → [Program] → [win Tatsujin] → [DV Movie] → [HDC-SX5 Series]

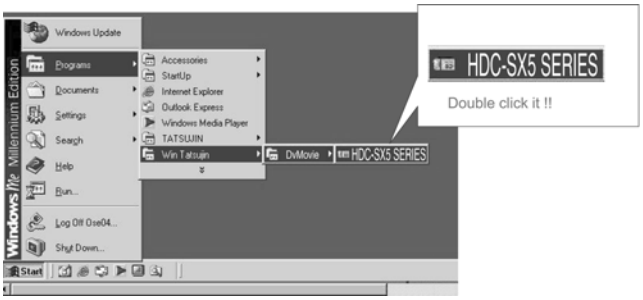


Fig. E3-1

   The main menu display will be displayed.
3. Select the desired model.
4. Turn on the camcorder. Then, click Start.

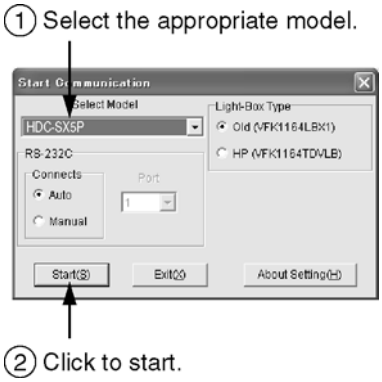


Fig. E3-2

5. The communication is complete, and the dialog will appear.
   Then, click Cam or Arm to save the EEPROM data,

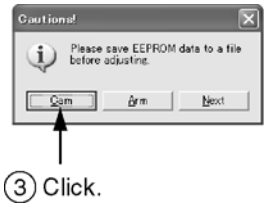


Fig. E3-3

6. Saving for EEPROM data is complete, menu will appear.
   To perform each adjustment, display the adjustment menu by selecting the desired menu from Camera Adjust or Video Adjust and select each adjustment item.

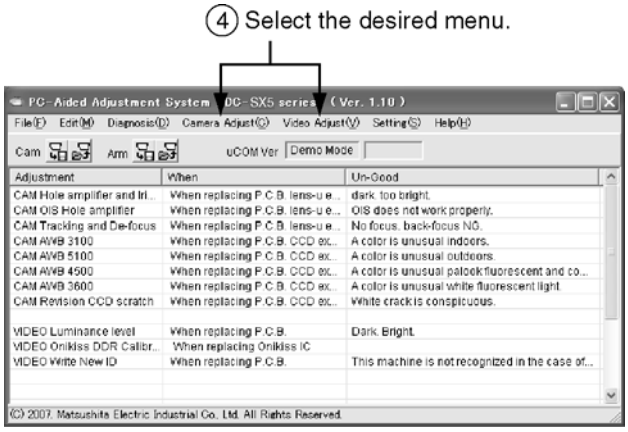


Fig. E3-4

   Note:
   The adjustment data is stored to the EEPROM IC after each adjustment.
7. After adjustment, to end the software, select Exit in File menu or close the window.

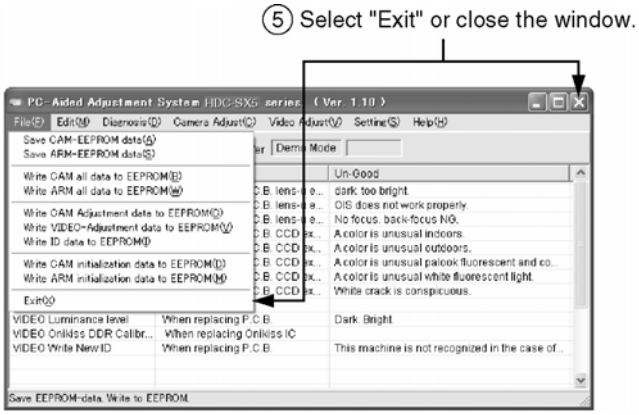


Fig. E3-5

9.3.4. Initial guideline

The table below shows which adjustments are necessary according to the unit parts and individual parts to be replaced. Make sure to perform these adjustments shown below as necessary.

Adjustment Item \ Replacement Parts		Main P.C.B.	IC2007 (EEPROM)	Lens Unit	Prism Unit	Iris Unit	4th Lens Frame Unit	IC3300 (ONIKISS)	
Camera	Hole amplifier/PWM Bias (Auto)	○	○	○	○	○			
	OIS hole amplifier adjustment	○	○	○	○	○			
	Zoom Tracking adjustment (Auto)	○	○	○	○	○	○		
	Adress Wound Revision (Auto)	○	○		○				
	White Balance adjustment	○	○		○				
Video	Brightness Level adjustment	○	○						
	ONIKISS DDR Revision							○	

Note : ○ : Adjustment Item

10 Maintenace

10.1. Cleaning Lens, Viewfinder and LCD Panel

Do not touch the surface of the lens, Viewfinder and LCD Panel with your hand.
When cleaning the lens, use air-Blower to blow off the dust.
When cleaning the LCD Panel, dampen the lens cleaning paper with lens cleaner, and the gently wipe the their surface.

Note:

A lens cleaning paper and lens cleaner are available at local camera shops and market place.

10.2. Cleaning Disc

1. Use the provided disc cleaning cloth, or soft and dry cloth to lightly clean the disc from the inner to outer edges in axial direction.
2. If the dirt cannot be removed with the above procedure, put a few droplets of absolute alcohol in a soft and dry cloth, and use it to lightly clean the disc from the inner to outer edges in axial direction.

CLEANING DISC

10.3. Cleaning optical pickup

Note:
Do not clean the optical pickup needlessly. The optical pickup is a precision component. Repeated cleaning could cause a fault.

1. Attach the AC adapter/charger or battery (power supply), and then slide the DISC EJECT switch to open the disc insertion block.
2. Remove the AC adapter/charger or battery (power supply).

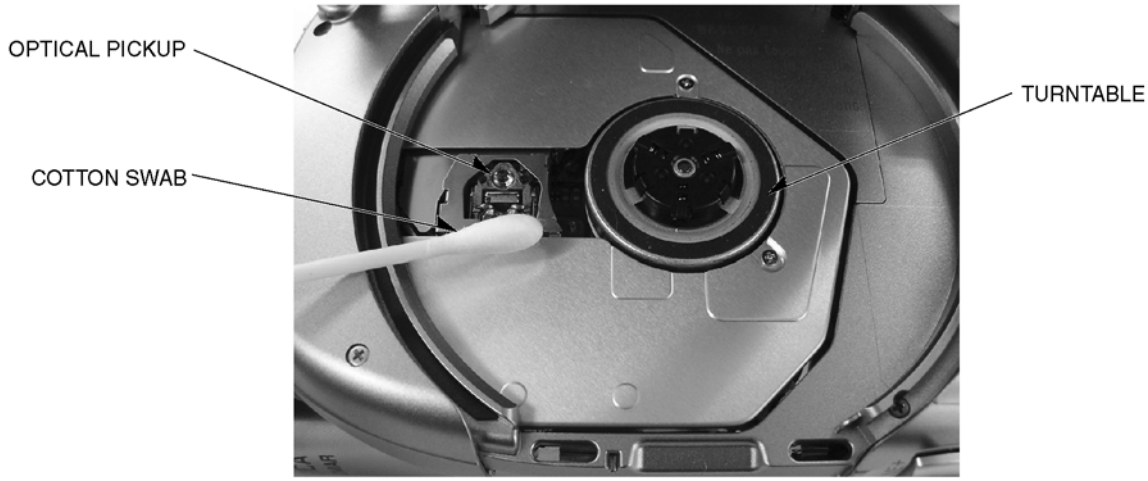
Caution:
Laser light striking the eye may cause your eyesight to be lost : For safety, be sure to remove any power supply (AC adaptor/charger, battery, etc.) from the DVD video camera/recorder before starting work.

<CSA requirement>

CAUTION: VISIBLE LASER RADIATION DO NOT STARE INTO THE BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS CLASS 2M

3. Check to see whether the optical pickup is dirty. If it is not dirty, use the following procedure to clean it:
   a. Apply one drop of absolute alcohol on a clean cotton swab (*1).
      Lens cleaner liquid for CD/DVD (generally available) may be substituted for absolute alcohol.
   b. Lightly swab the optical pickup to clean it.
      Using too much force during cleaning may cause a fault to occur.

*1: Always use a fresh cotton swab free from any additive or chemical.



CLEANING OPTICAL PICKUP

VM0708044CE

Service Manual

Diagrams and Replacement Parts List

High Definition Video Camera

Model No.

HDC-SX5P
HDC-SX5PC
HDC-SX5EG
HDC-SX5E
HDC-SX5EB
HDC-SX5EP
HDC-SX5EE
HDC-SX5GC
HDC-SX5GCS
HDC-SX5GN
HDC-SX5SG
HDC-SX5PL
HDC-SX5GK

Vol. 1
Colour
(S).....Silver Type

Table of contents

S1. About Indication of The Schematic Diagram

S1.1. Important Safety Notice

COMPONENTS IDENTIFIED WITH THE MARK ⚠ 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.

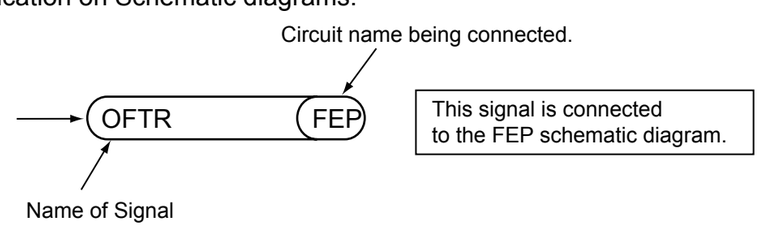
3.The voltage being indicated on the schematic diagram is measured in "Standard-Playback" mode when there is no specify mode is mentioned.

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. Jack P.C.B.

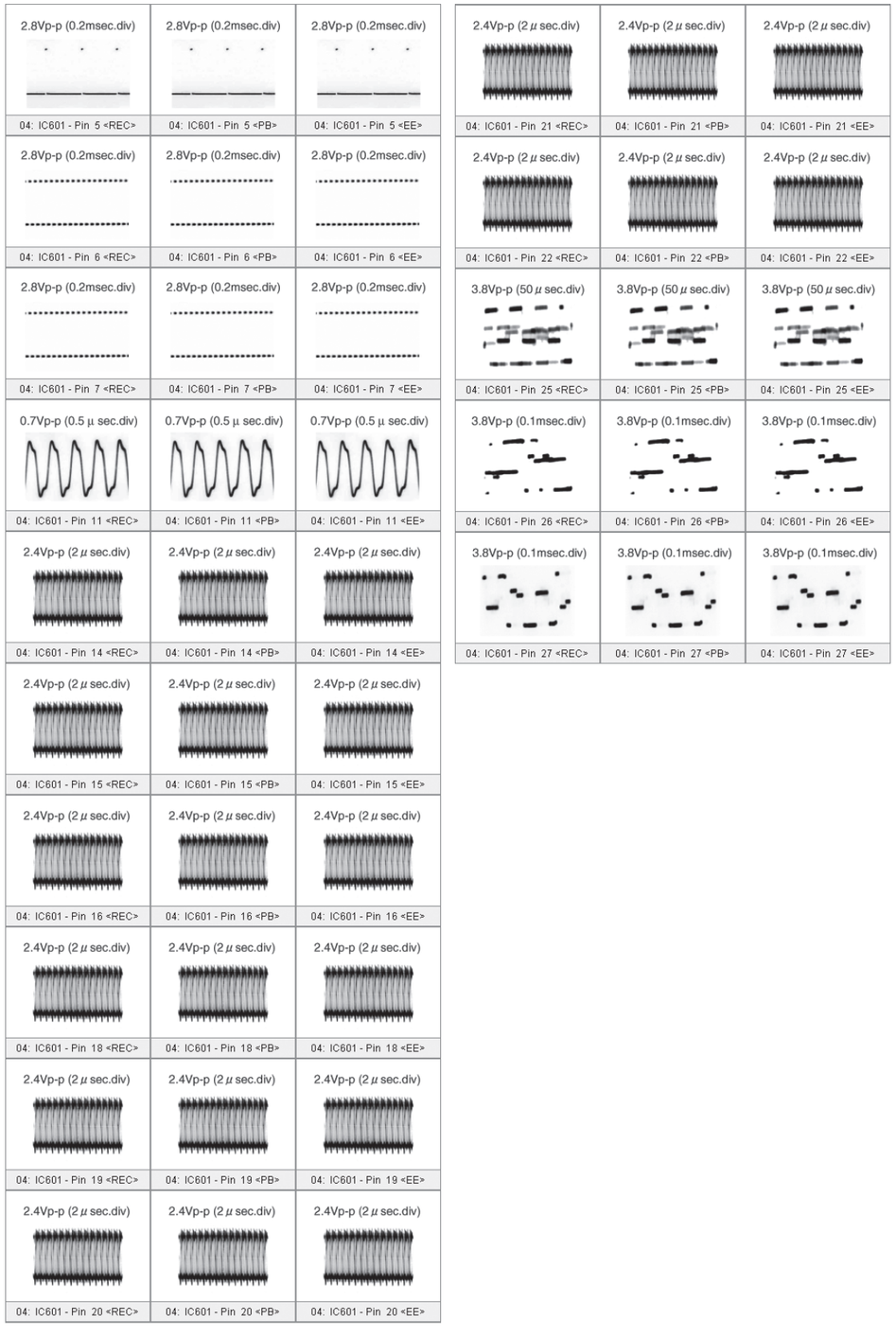
REF No.	PIN No.	REC	PB	EE
Q3901	E	3.1	3.1	3.1
Q3901	C	0	0	0
Q3901	B	3.1	3.1	3.1

S2.2. Side R P.C.B.

REF No.	PIN No.	REC	PB	EE
IC601	1	1.2	1.2	1.2
IC601	2	0	0	0
IC601	3	0	0	0
IC601	4	2.9	2.9	2.9
IC601	5	1.7	1.7	1.7
IC601	6	2.2	2.2	2.2
IC601	7	2.3	2.3	2.3
IC601	8	2.9	2.9	2.9
IC601	9	2.8	2.8	2.8
IC601	10	0	0	0
IC601	11	0.9	0.9	0.9
IC601	12	-	-	-
IC601	13	-	-	-
IC601	14	1.1	1.1	1.1
IC601	15	0.9	0.9	0.9
IC601	16	0.7	0.7	0.7
IC601	17	0	0	0
IC601	18	1.2	1.2	1.2
IC601	19	0.8	0.8	0.8
IC601	20	0.7	0.7	0.7
IC601	21	1	1	1
IC601	22	0.8	0.8	0.8
IC601	23	1.9	1.9	1.9
IC601	24	4.8	4.8	4.8
IC601	25	2.5	2.5	2.5
IC601	26	2.5	2.5	2.5
IC601	27	2.5	2.5	2.5
IC601	28	0	0	0
IC601	29	4.5	4.5	4.5
IC601	30	4.3	4.3	4.3
IC601	31	0.7	0.7	0.7
IC601	32	0.4	0.4	0.4
IC601	33	4.8	4.8	4.8
IC601	34	4.1	4.1	4.1
IC601	35	2.2	2.2	2.2
IC601	36	2.6	2.6	2.6
IC601	37	0	0	0
IC601	38	2.9	2.9	2.9
IC601	39	-	-	-
IC601	40	2.9	2.9	2.9
IC601	41	-	-	-
IC601	42	-	-	-
IC601	43	-	-	-
IC601	44	0	0	0
IC601	45	2.8	2.8	2.8
IC601	46	2.8	2.8	2.8
IC601	47	1.4	1.4	1.4
IC601	48	1.3	1.3	1.3
IC601	49	0	0	0
IC601	50	-	-	-
IC601	51	-	-	-
IC601	52	-	-	-
IC601	53	-	-	-
IC601	54	0.1	0.1	0.1
IC601	55	0.1	0.1	0.1
IC601	56	2.9	2.9	2.9
IC601	57	1.4	1.4	1.4
IC601	58	1.4	1.4	1.4
IC601	59	0.1	0.1	0.1
IC601	60	0	0	0
IC601	61	2.2	2.2	2.2
IC601	62	2.2	2.2	2.2
IC601	63	0	0	0
IC601	64	1.2	1.2	1.2
IC602	1	1.1	1.1	1.1
IC602	2	2.2	2.2	2.2
IC602	3	1.5	1.5	1.5

REF No.	PIN No.	REC	PB	EE
IC602	4	0	0	0
IC602	5	2.3	2.3	2.3
IC602	6	1.5	1.5	1.5
IC602	7	1.7	1.7	1.7
IC602	8	1.9	1.9	1.9
IC604	1	4.8	4.8	4.8
IC604	2	0	0	0
IC604	3	0	0	0
IC604	4	4.5	4.5	4.5
IC604	5	4.8	4.8	4.8
Q601	E	4.1	4.1	4.1
Q601	C	0	0	0
Q601	B	4	4	4
Q602	E	0.4	0.4	0.4
Q602	C	0	0	0
Q602	B	4	4	4

<IC601>



<IC602>

1.8Vp-p (0.2msec.div)	1.8Vp-p (0.2msec.div)	1.8Vp-p (0.2msec.div)
04: IC602 - Pin 1 <REC>	04: IC602 - Pin 1 <PB>	04: IC602 - Pin 1 <EE>
2.8Vp-p (0.2msec.div)	2.8Vp-p (0.2msec.div)	2.8Vp-p (0.2msec.div)
04: IC602 - Pin 2 <REC>	04: IC602 - Pin 2 <PB>	04: IC602 - Pin 2 <EE>
1.8Vp-p (0.2msec.div)	1.8Vp-p (0.2msec.div)	1.8Vp-p (0.2msec.div)
04: IC602 - Pin 3 <REC>	04: IC602 - Pin 3 <PB>	04: IC602 - Pin 3 <EE>
2.8Vp-p (0.2msec.div)	2.8Vp-p (0.2msec.div)	2.8Vp-p (0.2msec.div)
04: IC602 - Pin 5 <REC>	04: IC602 - Pin 5 <PB>	04: IC602 - Pin 5 <EE>
1.8Vp-p (0.2msec.div)	1.8Vp-p (0.2msec.div)	1.8Vp-p (0.2msec.div)
04: IC602 - Pin 6 <REC>	04: IC602 - Pin 6 <PB>	04: IC602 - Pin 6 <EE>
2.8Vp-p (0.2msec.div)	2.8Vp-p (0.2msec.div)	2.8Vp-p (0.2msec.div)
04: IC602 - Pin 7 <REC>	04: IC602 - Pin 7 <PB>	04: IC602 - Pin 7 <EE>

S2.3. EVF B/L P.C.B.

REF No.	PIN No.	REC	PB	EE
Q801	E	0.6	0.6	0.6
Q801	C	1.7	1.7	1.7
Q801	B	1.2	1.2	1.2

S2.4. Monitor P.C.B.

REF No.	PIN No.	REC	PB	EE
Q901	E	0.3	0.3	0.3
Q901	C	1.4	1.4	1.4
Q901	B	1.1	1.1	1.1
Q902	E	0.3	0.3	0.3
Q902	C	1.4	1.4	1.4
Q902	B	1.1	1.1	1.1
Q903	E	0.3	0.3	0.3
Q903	C	1.4	1.4	1.4
Q903	B	1.1	1.1	1.1
Q905	E	0	0	0
Q905	C	0	0	0
Q905	B	0	0	0
Q910	E	1.1	1.1	1.1
Q910	C	0	0	0
Q910	B	0.5	0.5	0.5

S2.5. Mic P.C.B.

REF No.	PIN No.	REC	PB	EE
IC4801	1	2.4	2.4	2.4
IC4801	2	2.4	2.4	2.4
IC4801	3	2.4	2.4	2.4
IC4801	4	0	0	0
IC4801	5	2.4	2.4	2.4
IC4801	6	2.4	2.4	2.4
IC4801	7	2.4	2.4	2.4
IC4801	8	4.9	4.9	4.9
Q4801	E	4.8	4.8	4.8
Q4801	C	4.9	4.9	4.9
Q4801	B	4.2	4.2	4.2

S2.6. Front P.C.B.

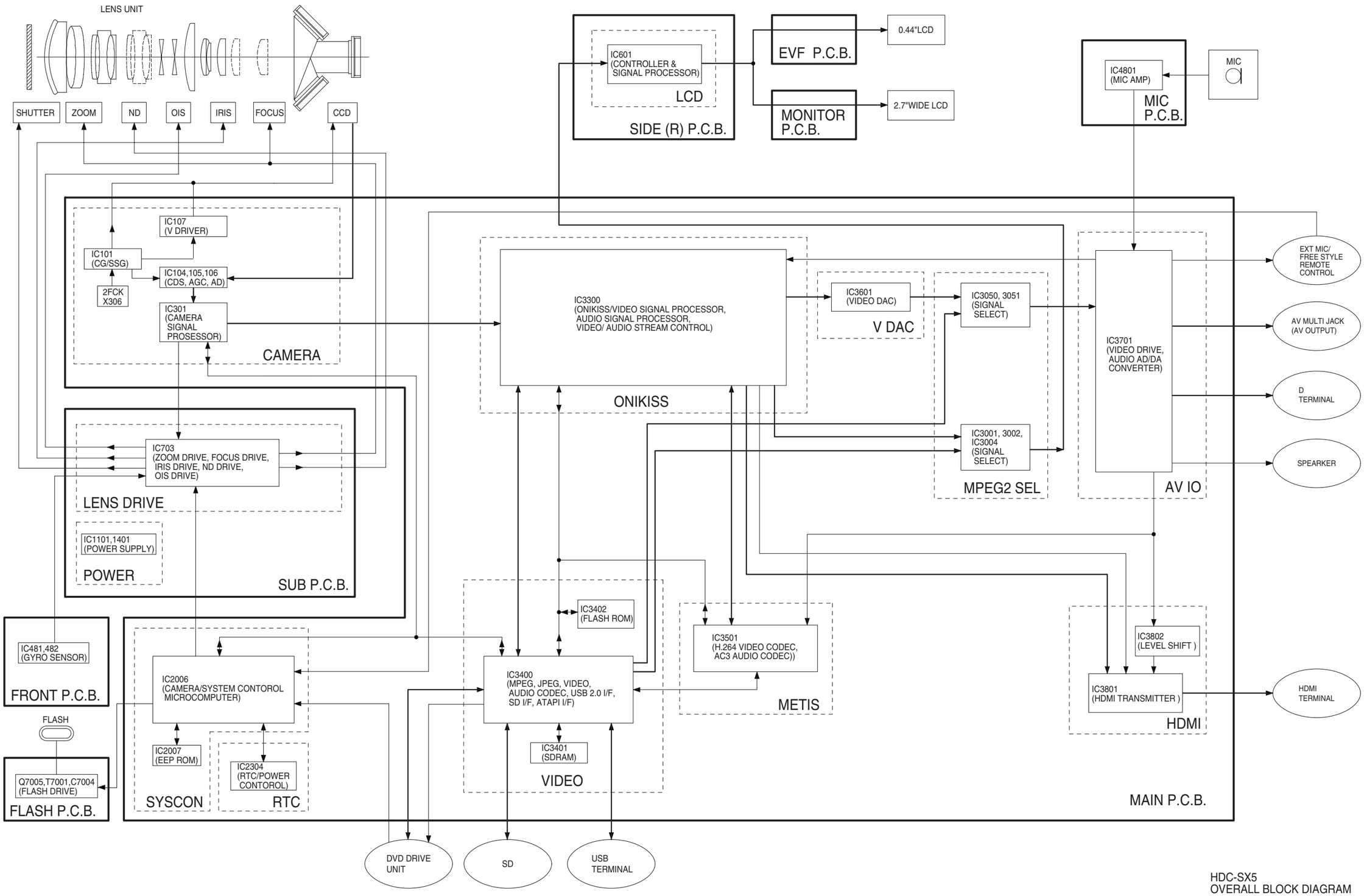
REF No.	PIN No.	REC	PB	EE
IC481	1	1.3	1.3	1.3
IC481	2	0	0	0
IC481	3	3	3	3
IC481	4	1.2	1.2	1.2
IC482	1	1.3	1.3	1.3
IC482	2	0	0	0
IC482	3	3	3	3
IC482	4	1.2	1.2	1.2
Q491	E	3.4	3.4	3.4
Q491	C	4.8	4.8	4.8
Q491	B	3.7	3.7	3.7
Q492	E	3.2	3.2	3.2
Q492	C	4.8	4.8	4.8
Q492	B	3.4	3.4	3.4
QR6703	E	3	3	3
QR6703	C	3	3	3
QR6703	B	0	0	0

S2.7. Flash P.C.B.

REF No.	PIN No.	REC	PB	EE
Q7001	E	0	0	0
Q7001	C	0	0	0
Q7001	B	0.7	0.7	0.7
Q7002	E	0	0	0
Q7002	C	8	8	8
Q7002	B	0	0	0
Q7003	E	0	0	0
Q7003	C	0	0	0
Q7003	B	0.6	0.6	0.6
Q7004	1	0	0	0
Q7004	2	2.9	2.9	2.9
Q7004	3	0	0	0
Q7004	4	2.9	2.9	2.9
Q7004	5	2.9	2.9	2.9
Q7004	6	0	0	0
Q7005	1	0	0	0
Q7005	2	0	0	0
Q7005	3	0	0	0
Q7005	4	0	0	0
Q7005	5	258	246	247
Q7005	6	258	246	247
Q7005	7	258	246	247
Q7005	8	258	246	247
QR7001	E	0	0	0
QR7001	C	2.9	2.9	2.9
QR7001	B	0	0	0
QR7008	E	0	0	0
QR7008	C	0.7	0.7	0.7
QR7008	B	0	0	0

S3. Block Diagram

S3.1. Overall Block Diagram

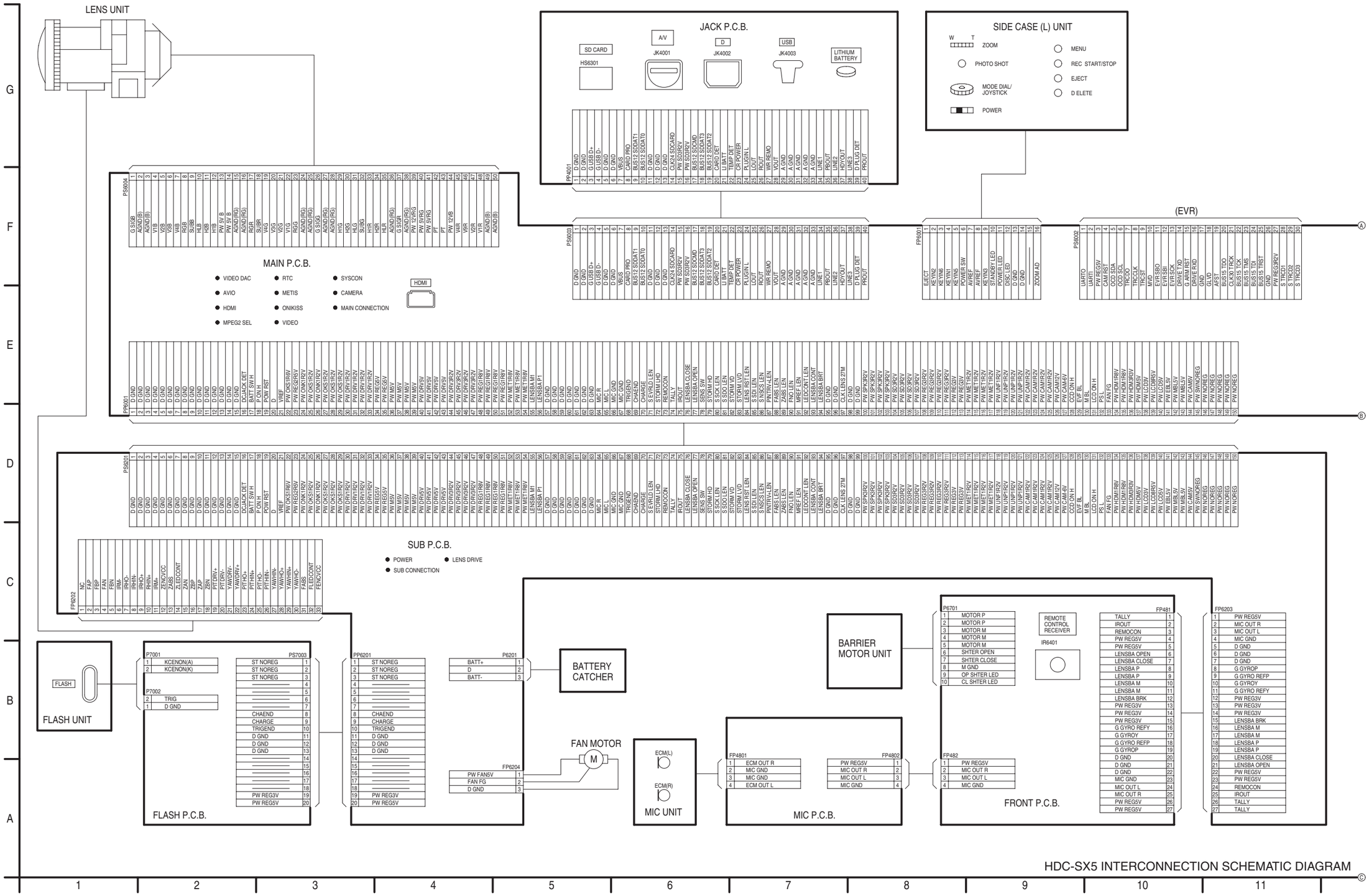


HDC-SX5
OVERALL BLOCK DIAGRAM

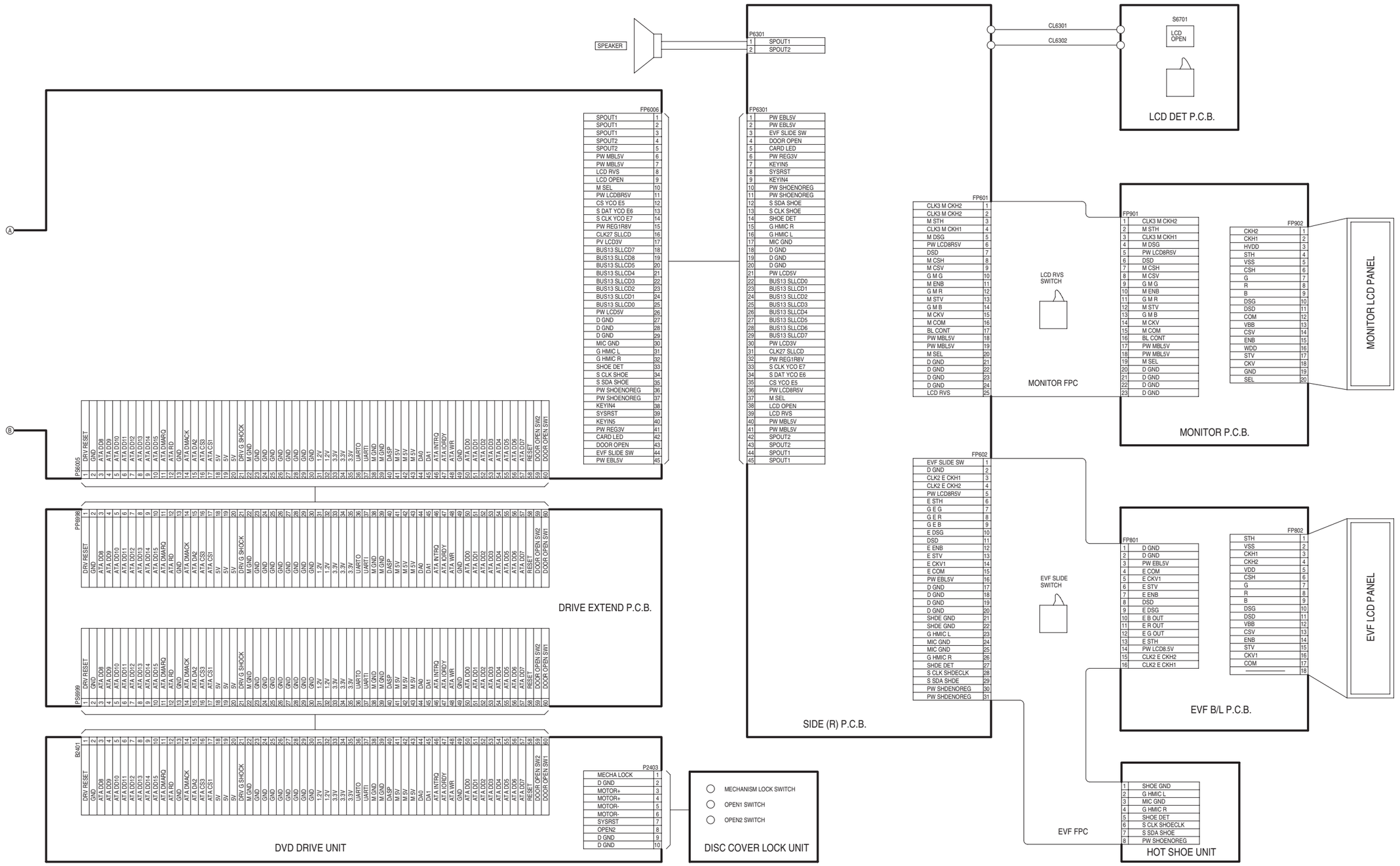
S4. Schematic Diagram

S4.1. Interconnection Diagram

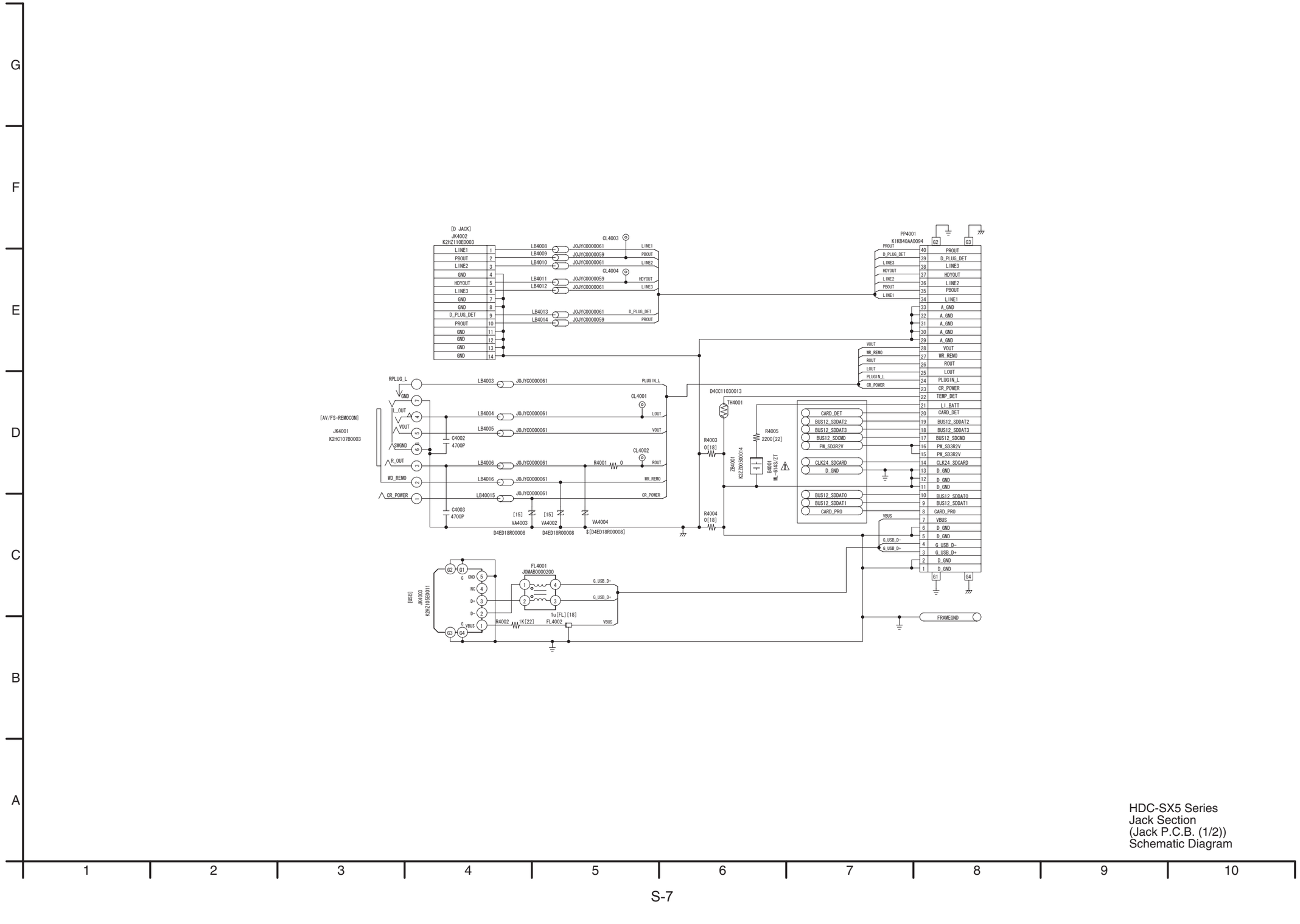
S4.1.1. Interconnection Diagram (1)



S4.1.2. Interconnection Diagram (2)

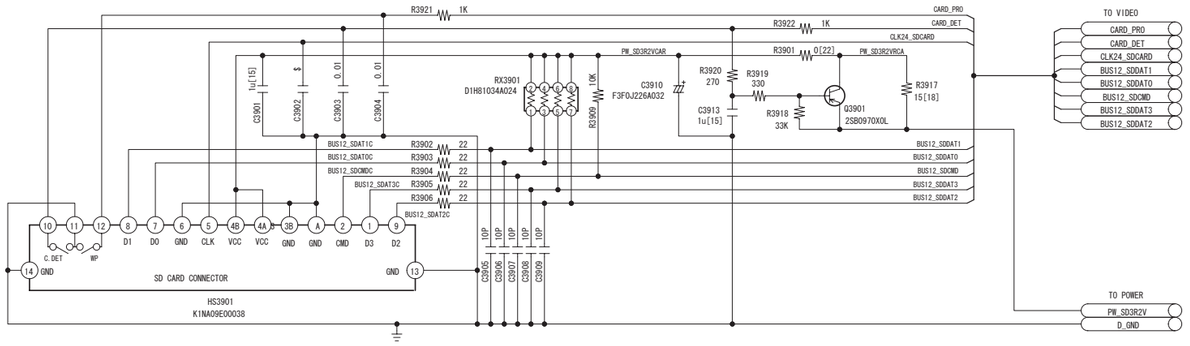


S4.2. Jack Schematic Diagram



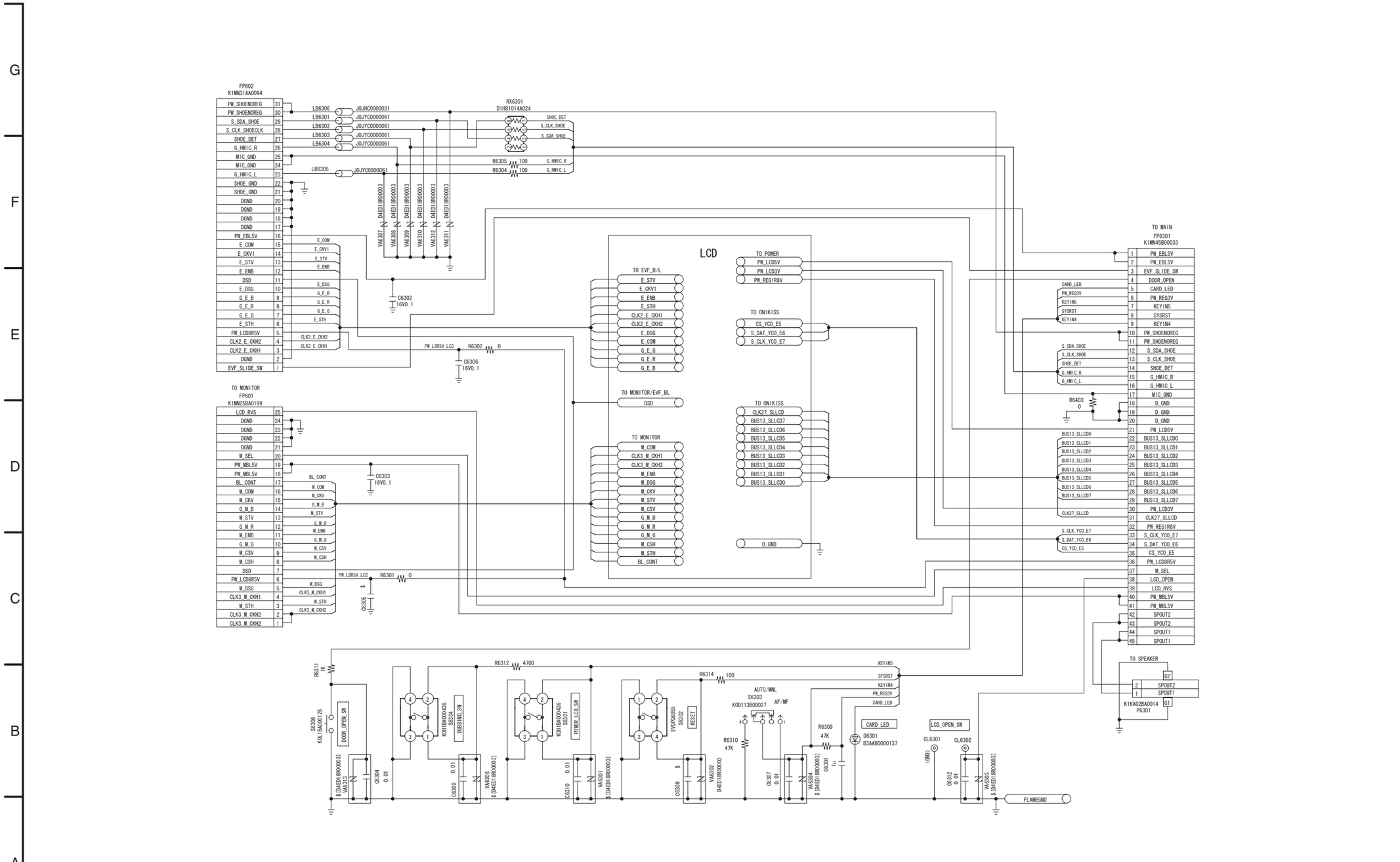
HDC-SX5 Series
Jack Section
(Jack P.C.B. (1/2))
Schematic Diagram

S4.3. SD Holder Schematic Diagram



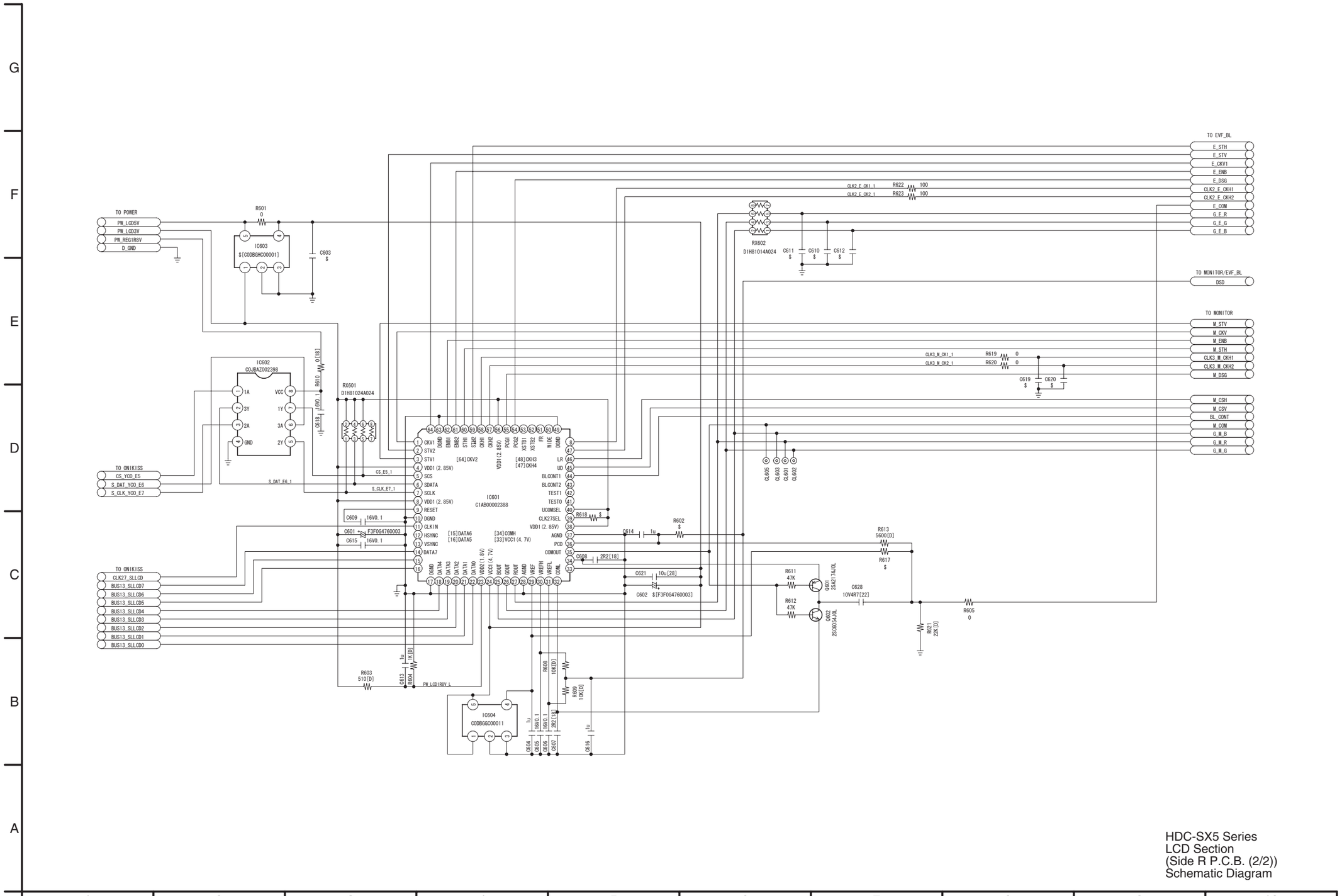
HDC-SX5 Series
SD Holder Section
(Jack P.C.B. (2/2))
Schematic Diagram

S4.4. Side R Schematic Diagram



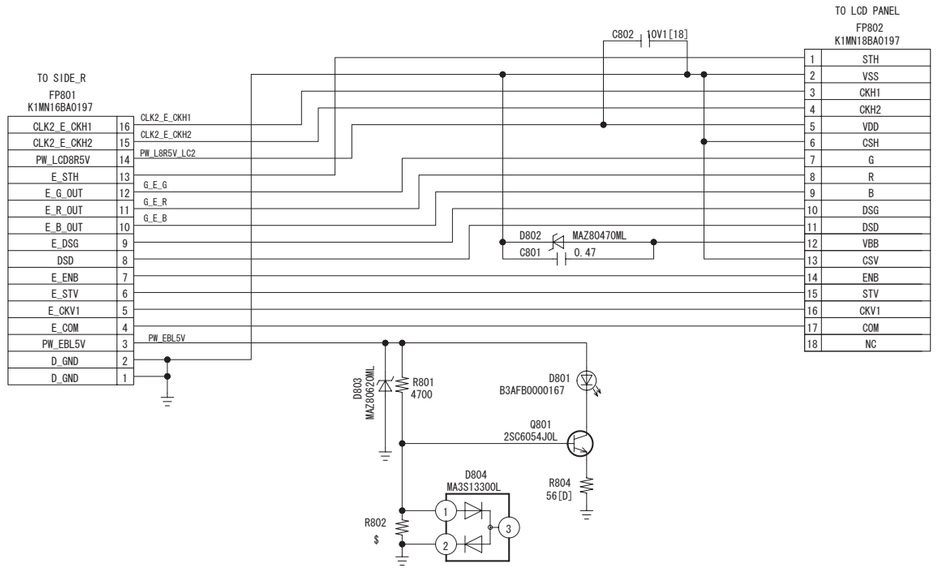
HDC-SX5 Series
Side R Section
(Side R P.C.B. (1/2))
Schematic Diagram

S4.5. LCD Schematic Diagram



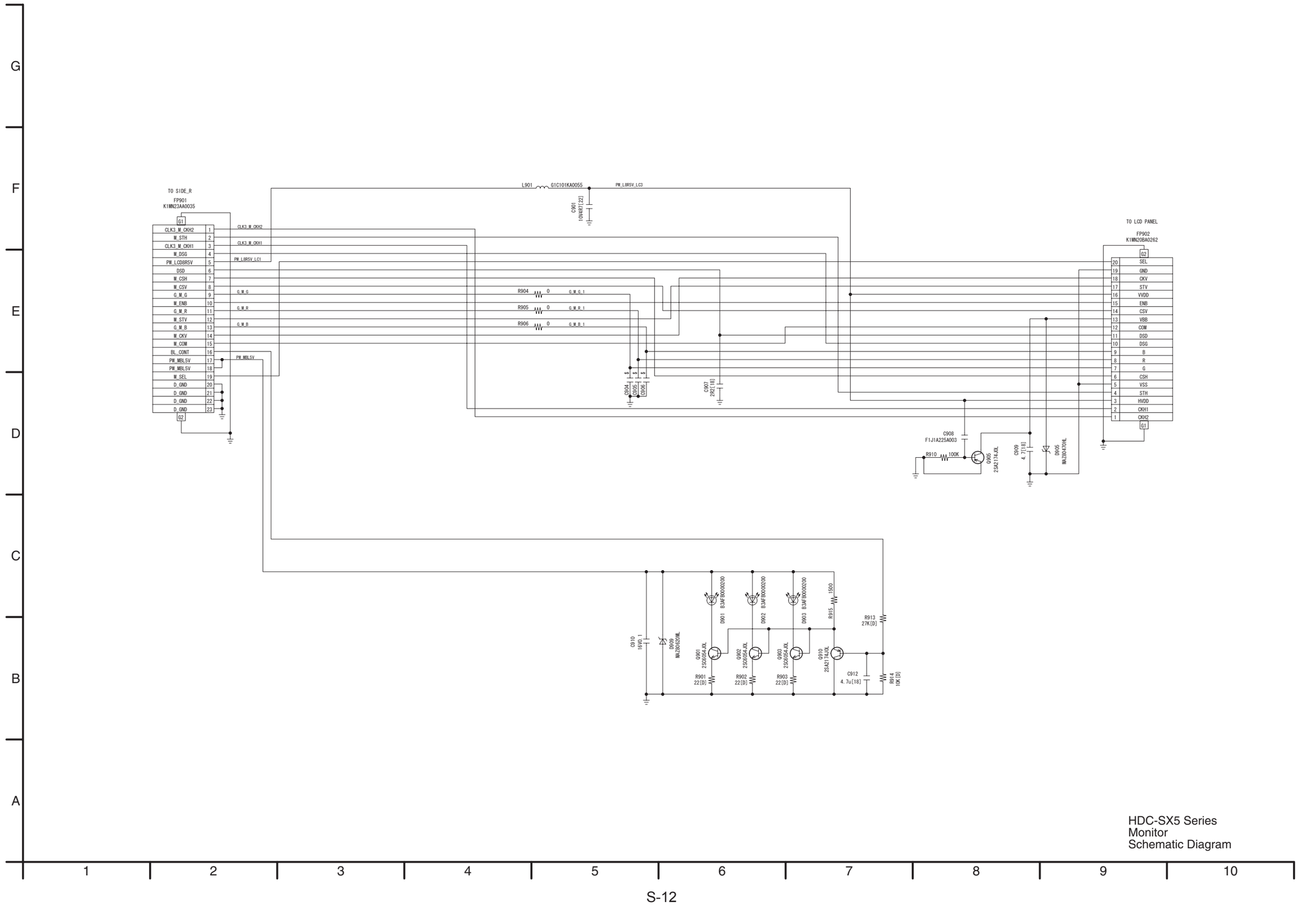
HDC-SX5 Series
LCD Section
(Side R P.C.B. (2/2))
Schematic Diagram

S4.6. EVF B/L Schematic Diagram



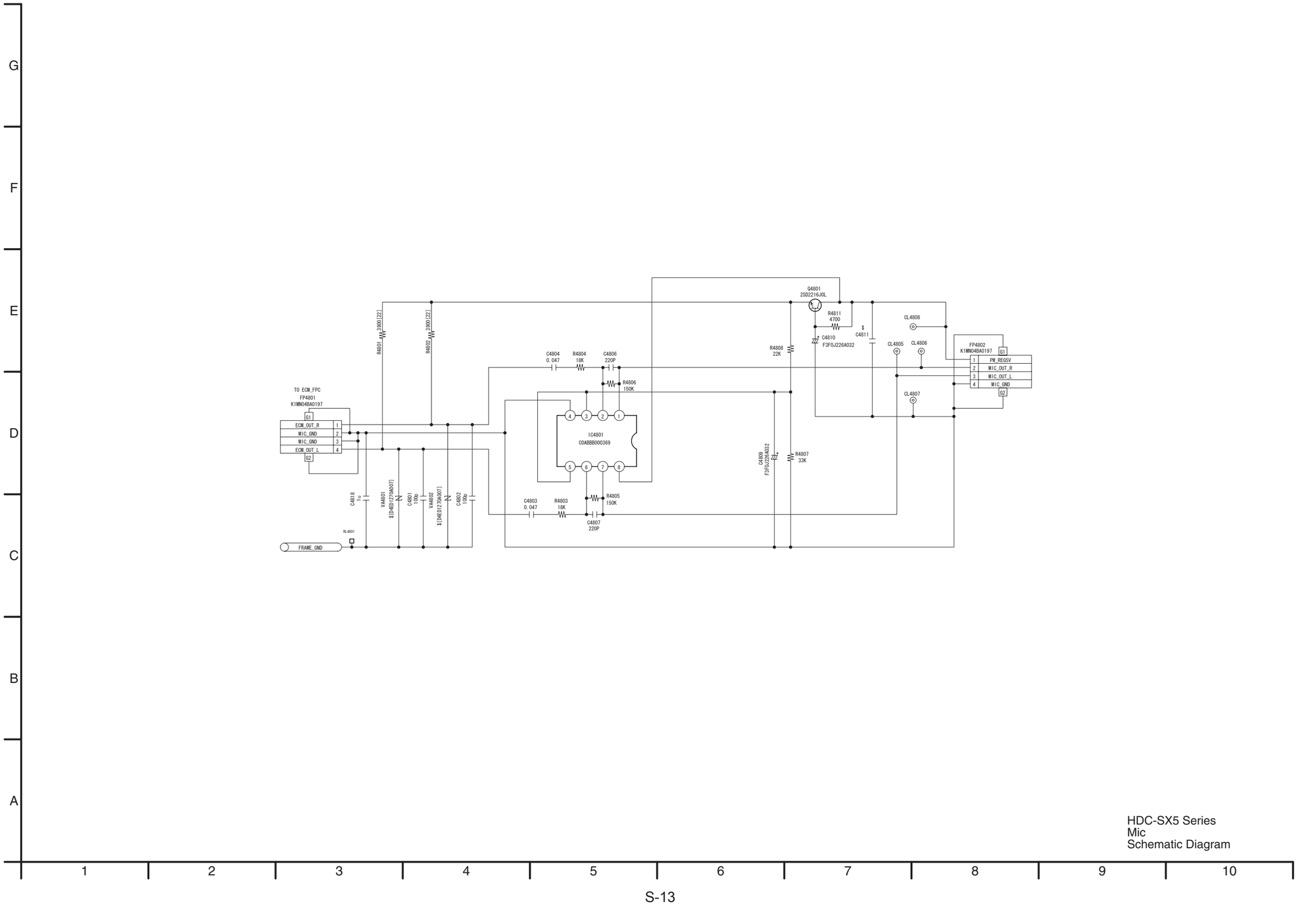
HDC-SX5 Series
EVF B/L
Schematic Diagram

S4.7. Monitor Schematic Diagram



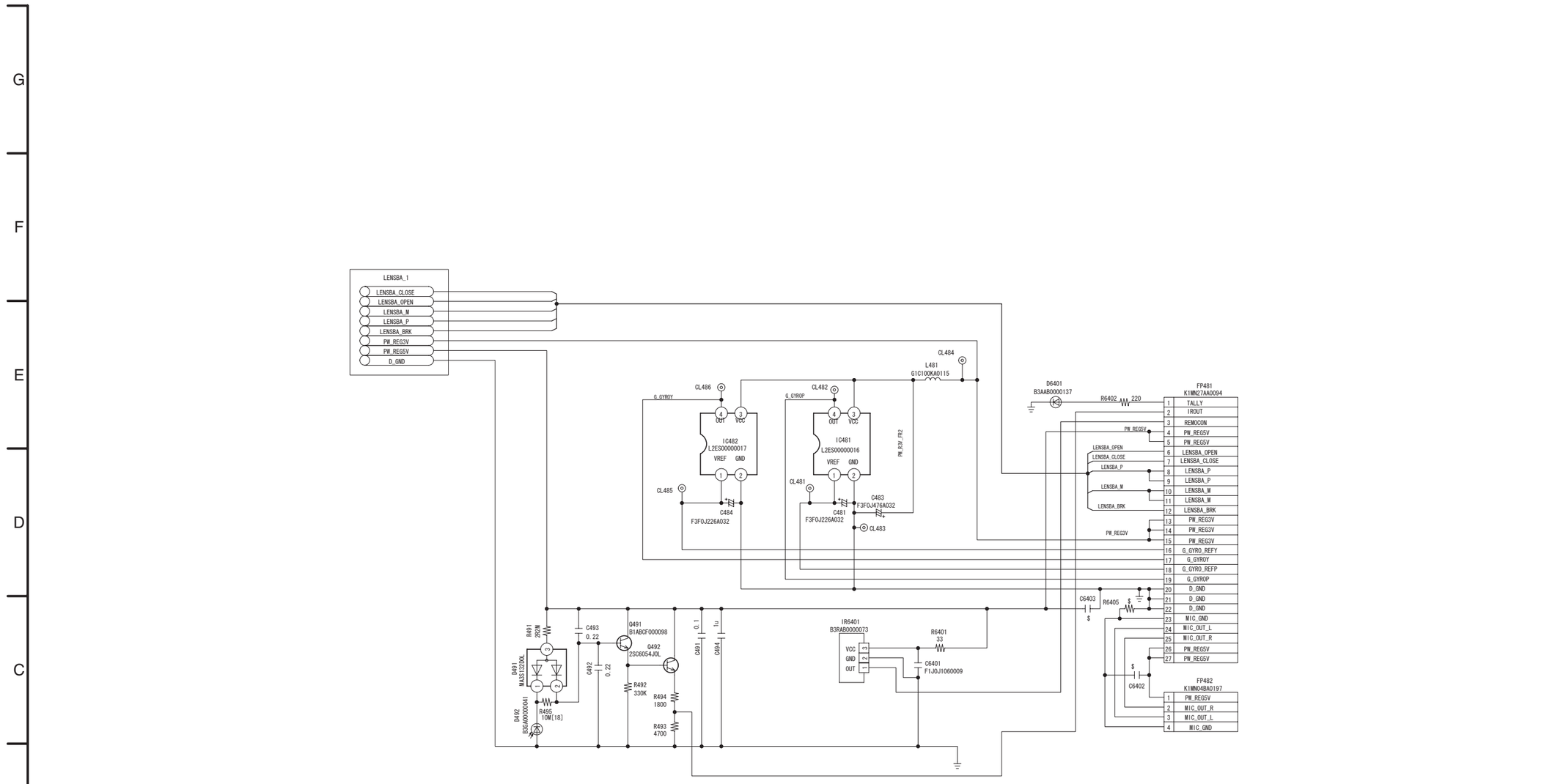
HDC-SX5 Series
Monitor
Schematic Diagram

S4.8. Mic Schematic Diagram



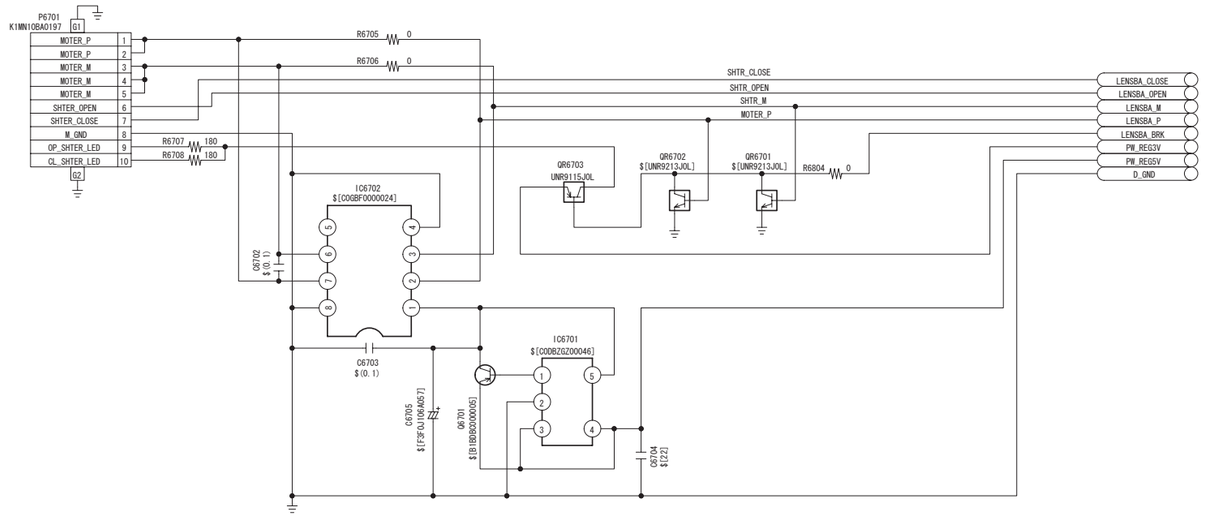
HDC-SX5 Series
Mic
Schematic Diagram

S4.9. Front CN Schematic Diagram



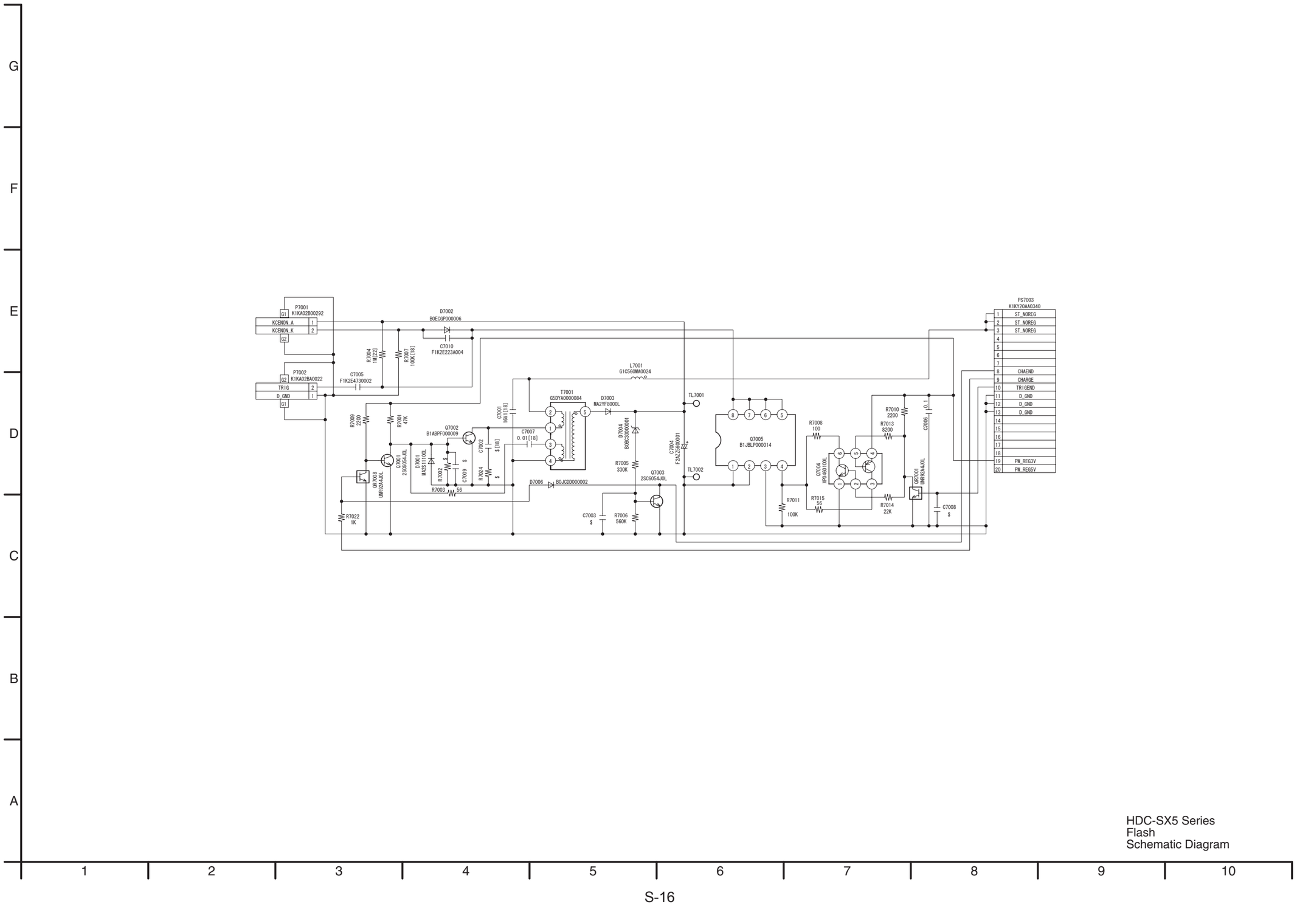
HDC-SX5 Series
Front CN Section
(Front P.C.B. (1/2))
Schematic Diagram

S4.10. Lens BA Schematic Diagram



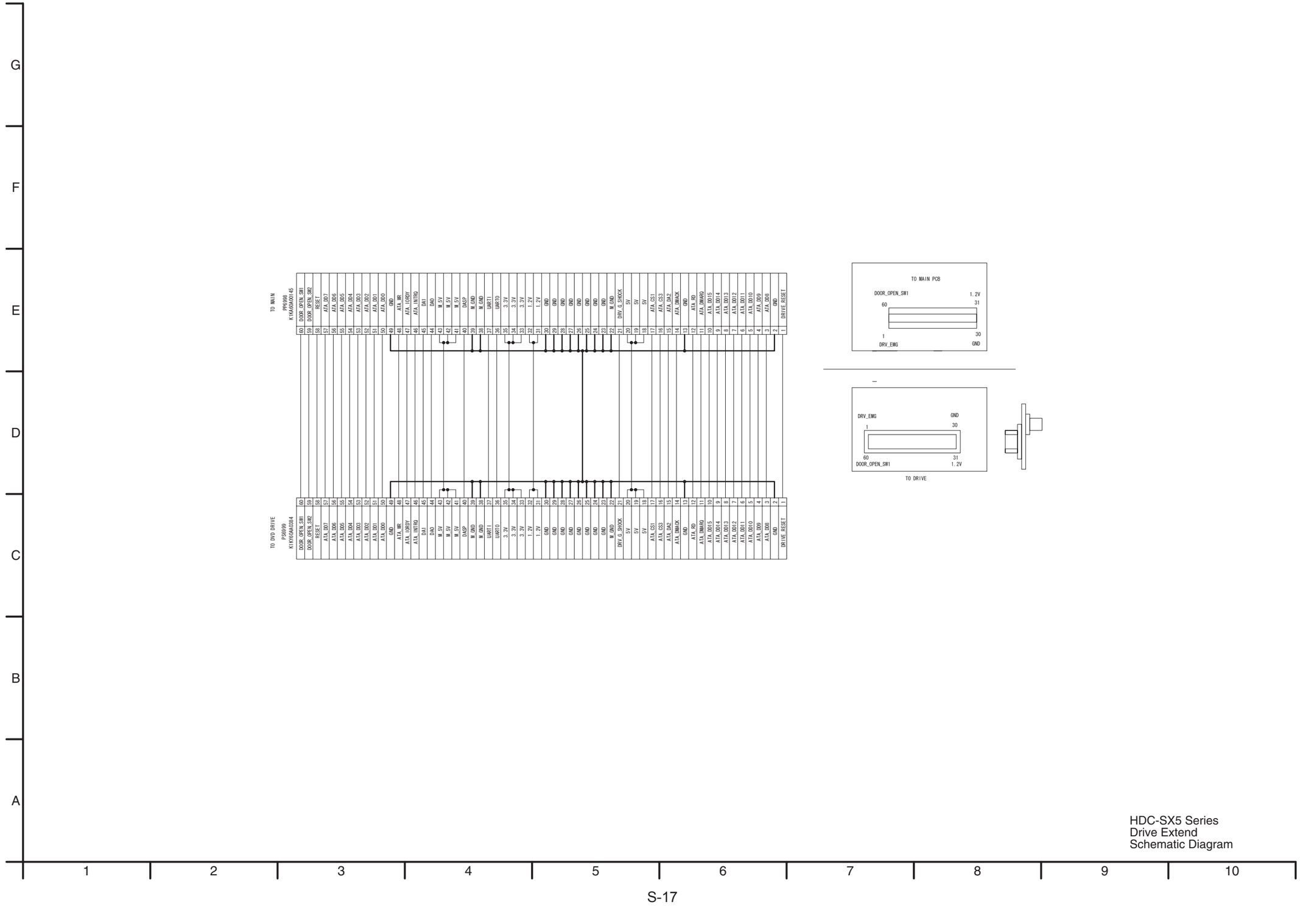
HDC-SX5 Series
Lens BA Section
(Front P.C.B. (2/2))
Schematic Diagram

S4.11. Flash Schematic Diagram



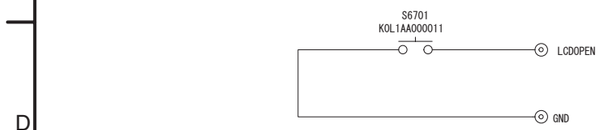
HDC-SX5 Series
Flash
Schematic Diagram

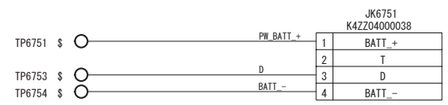
S4.12. Drive Extend Schematic Diagram



HDC-SX5 Series
Drive Extend
Schematic Diagram

S4.13. LCD DET Schematic Diagram / S4.14. Battery Schematic Diagram

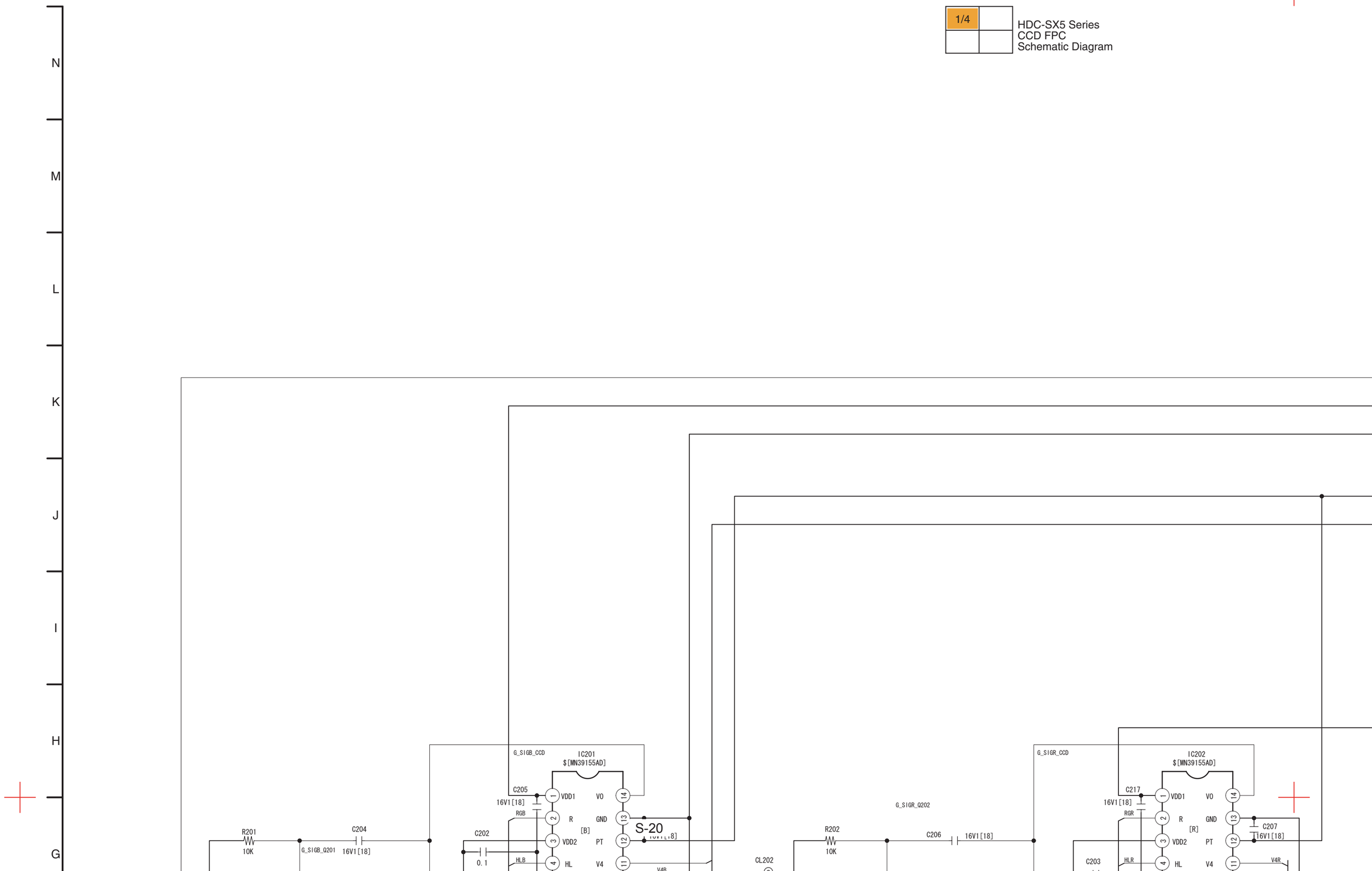




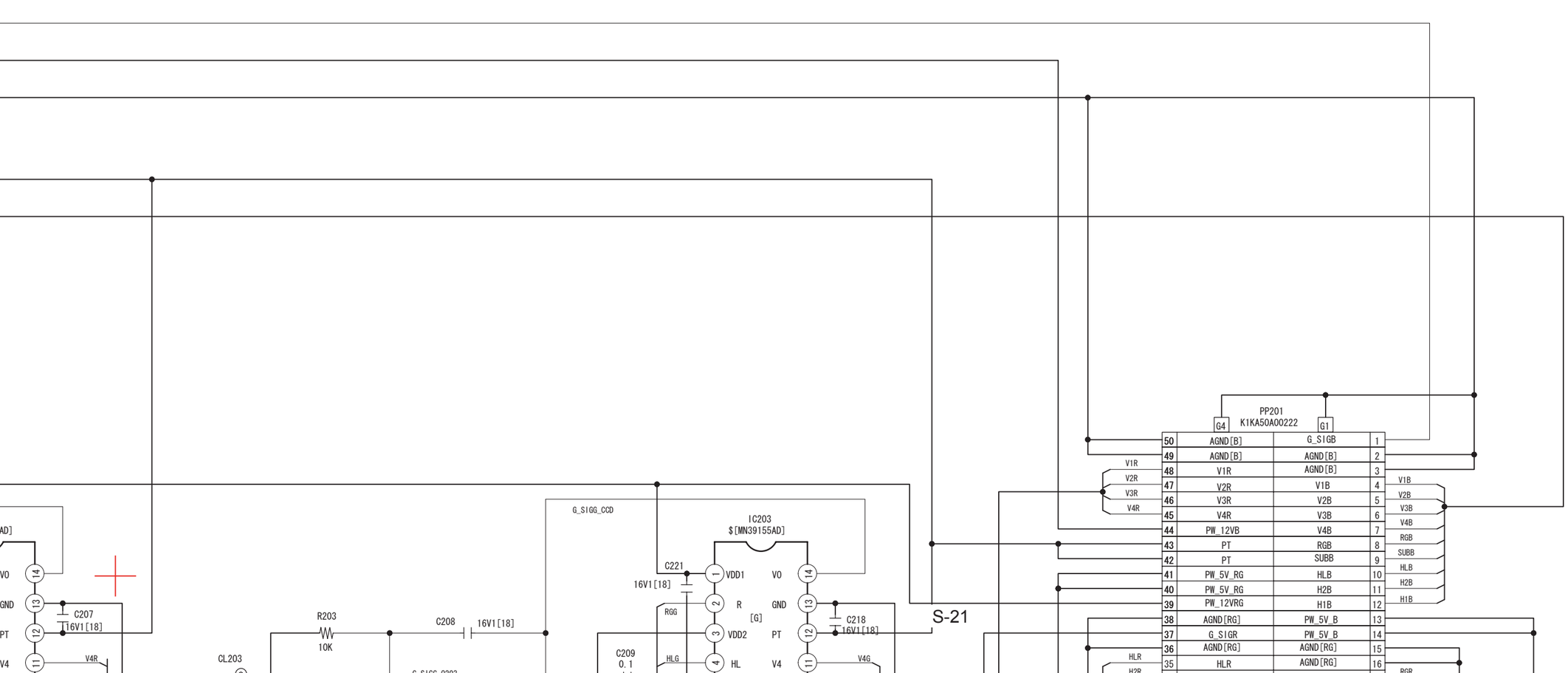
HDC-SX5 Series
LCD DET
Schematic Diagram

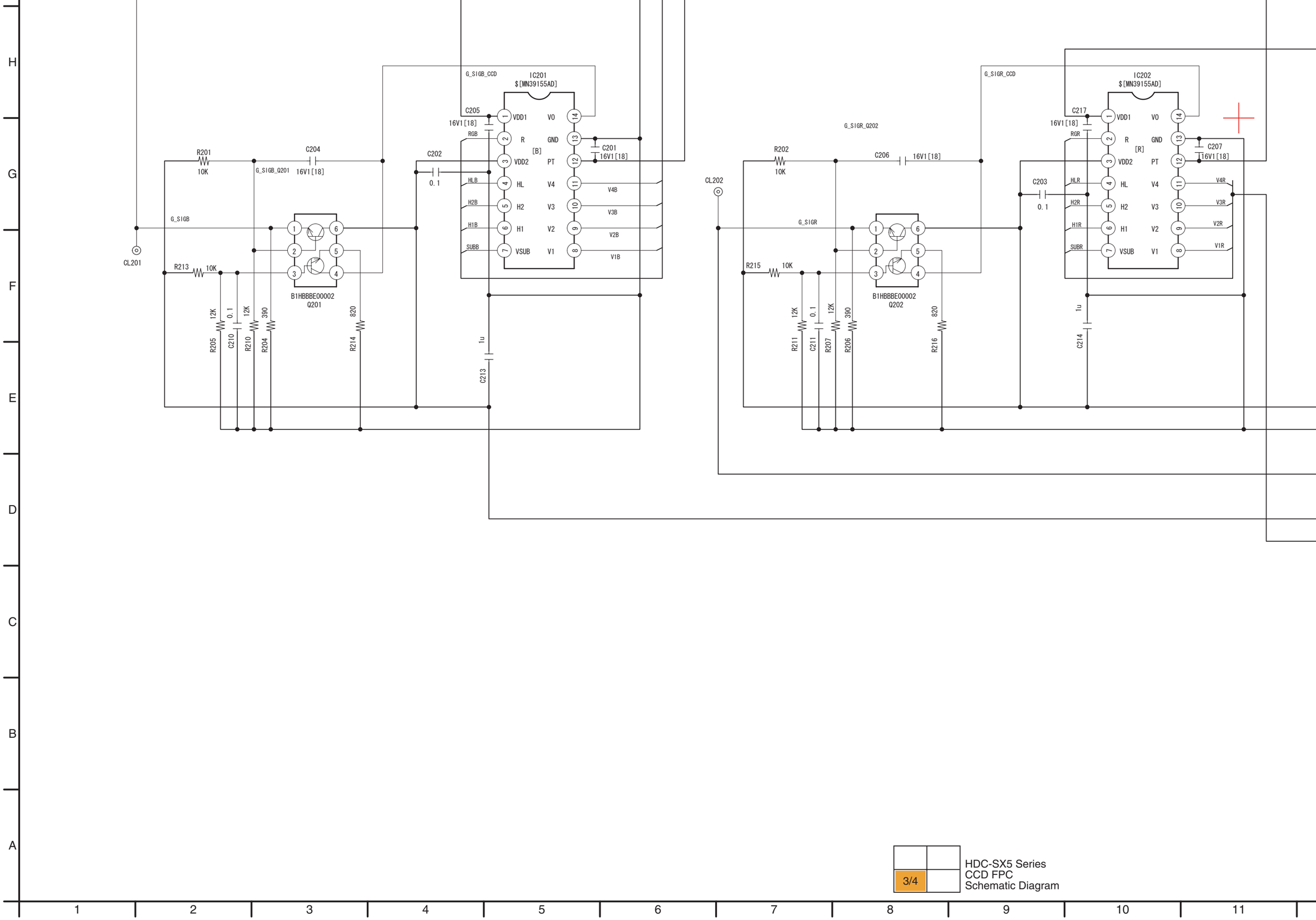
HDC-SX5 Series
Battery
Schematic Diagram

S4.15. CCD FPC Schematic Diagram

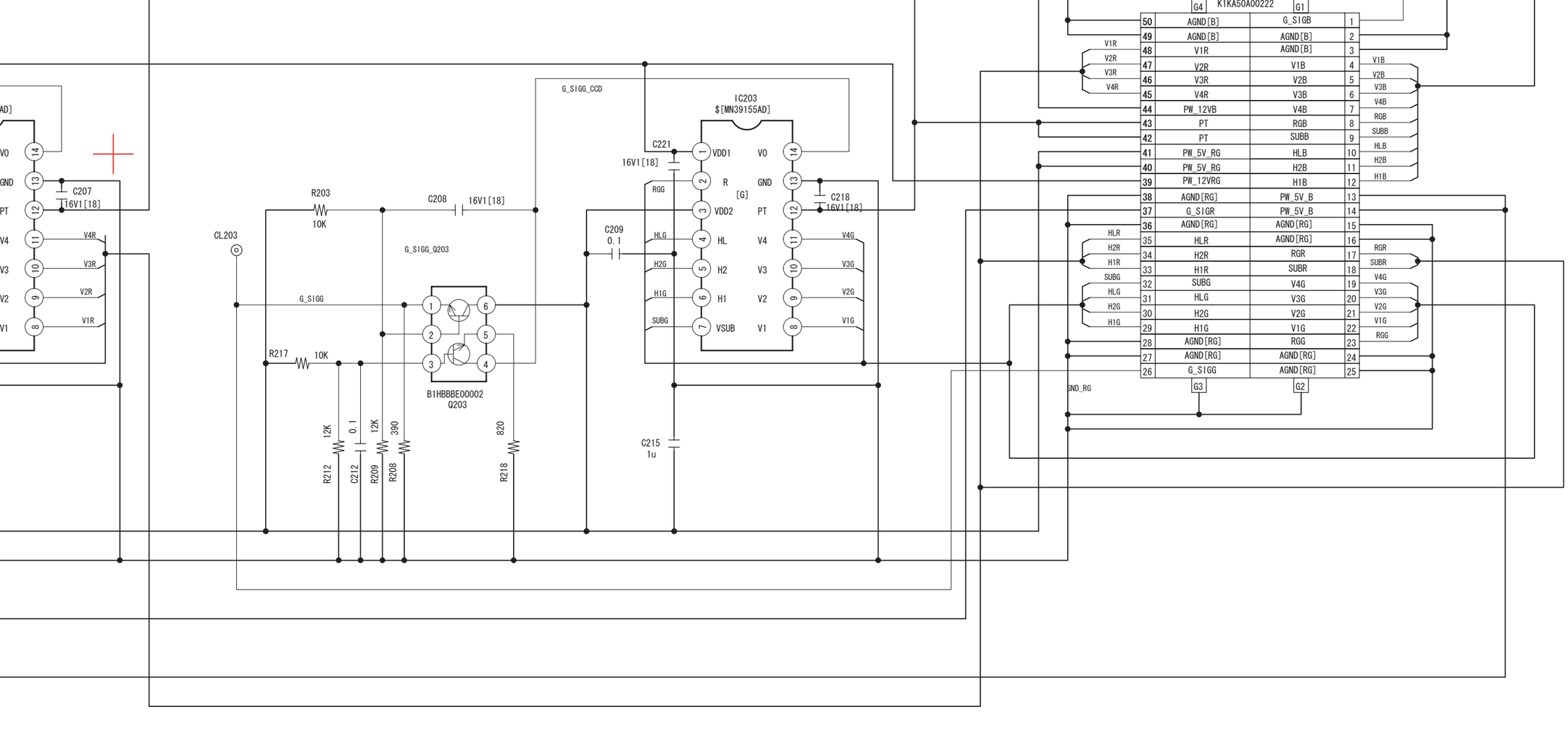


HDC-SX5 Series
CCD FPC
Schematic Diagram





HDC-SX5 Series
CCD FPC
Schematic Diagram
3/4



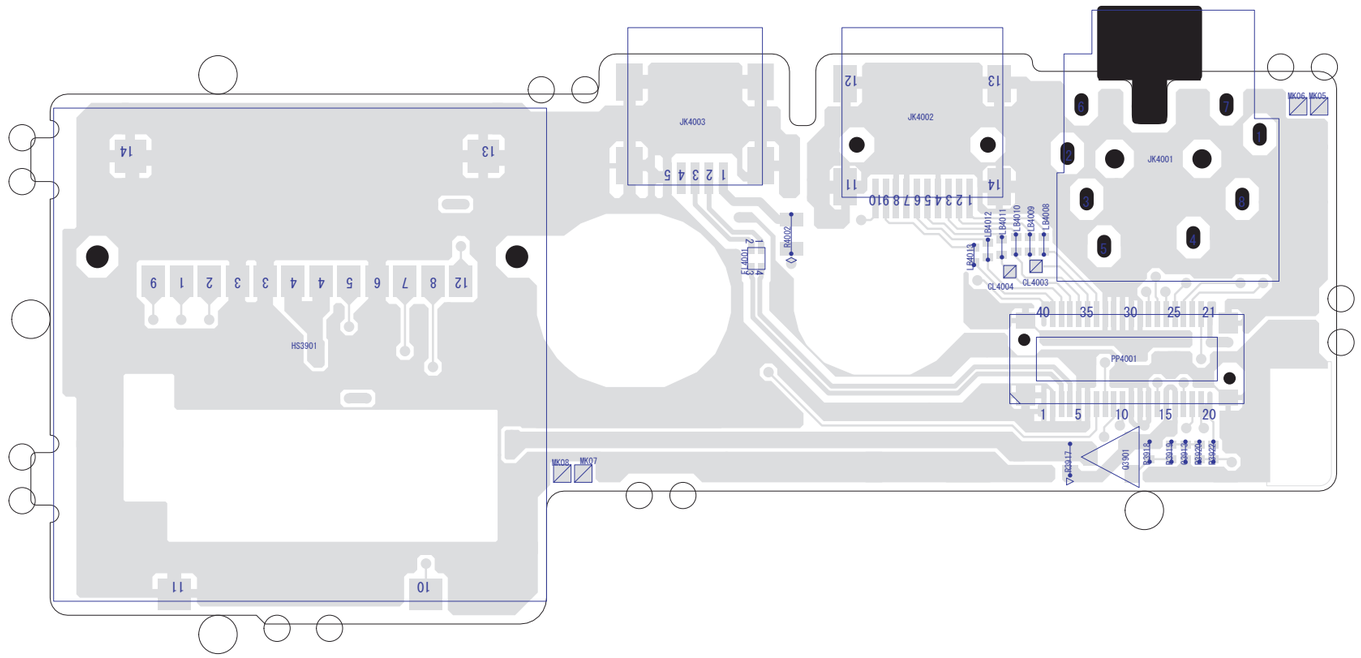
HDC-SX5 Series
CCD FPC
Schematic Diagram
4/4

11 12 13 14 15 16 17 18 19 20 21

S5. Print Circuit Board

S5.1. Jack P.C.B.

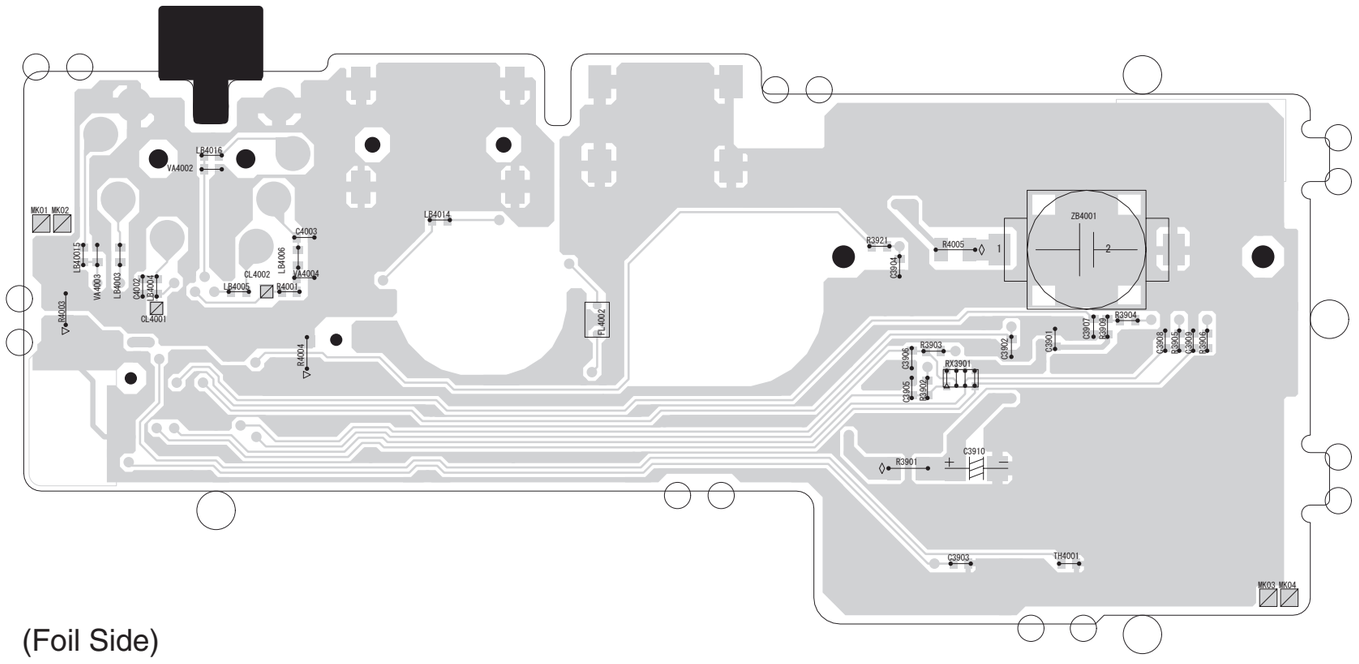
S5.1.1. Jack P.C.B. (Component Side)



(Component Side)

HDC-SX5 Series
Jack P.C.B.
(Component Side)

S5.1.2. Jack P.C.B. (Foil Side)

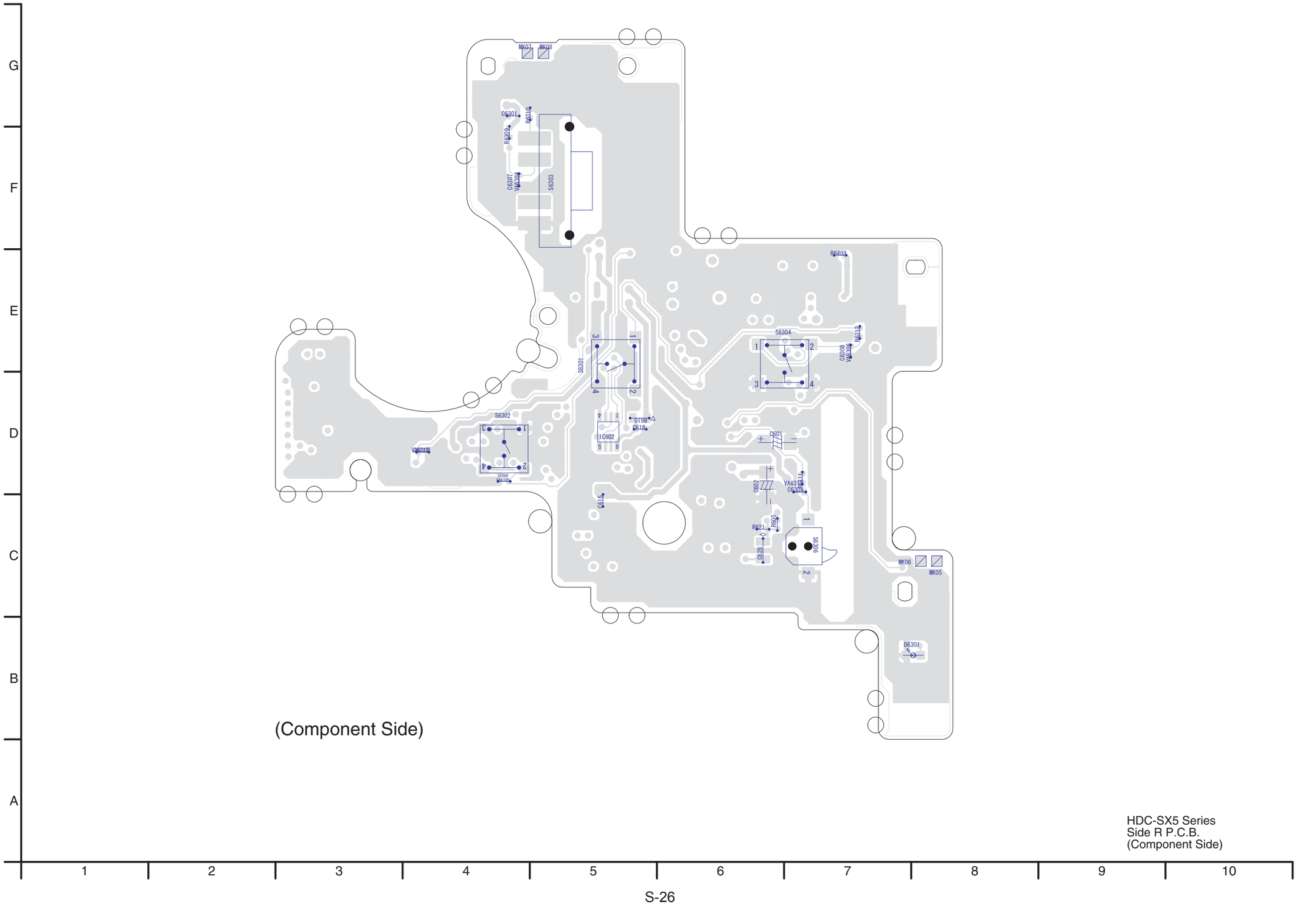


(Foil Side)

HDC-SX5 Series
Jack P.C.B.
(Foil Side)

S5.2. Side R P.C.B.

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

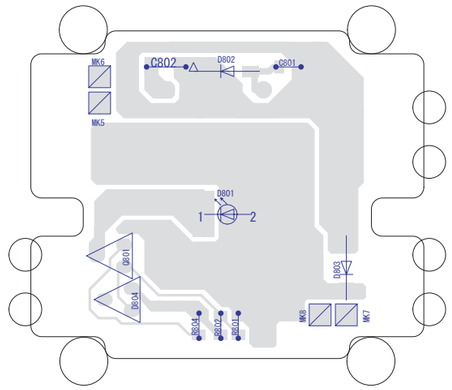


HDC-SX5 Series
Side R P.C.B.
(Component Side)

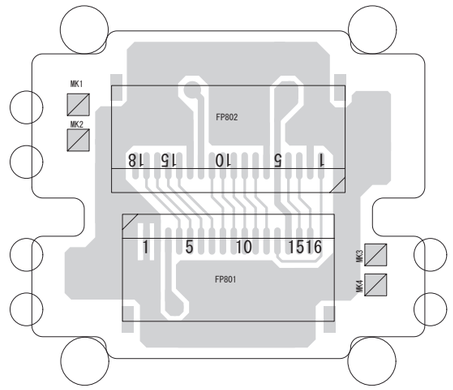
S5.2.2. Side R P.C.B. (Foil Side)

HDC-SX5 Series
Side R P.C.B.
(Foil Side)

S5.3. EVF B/L P.C.B.



(Component Side)

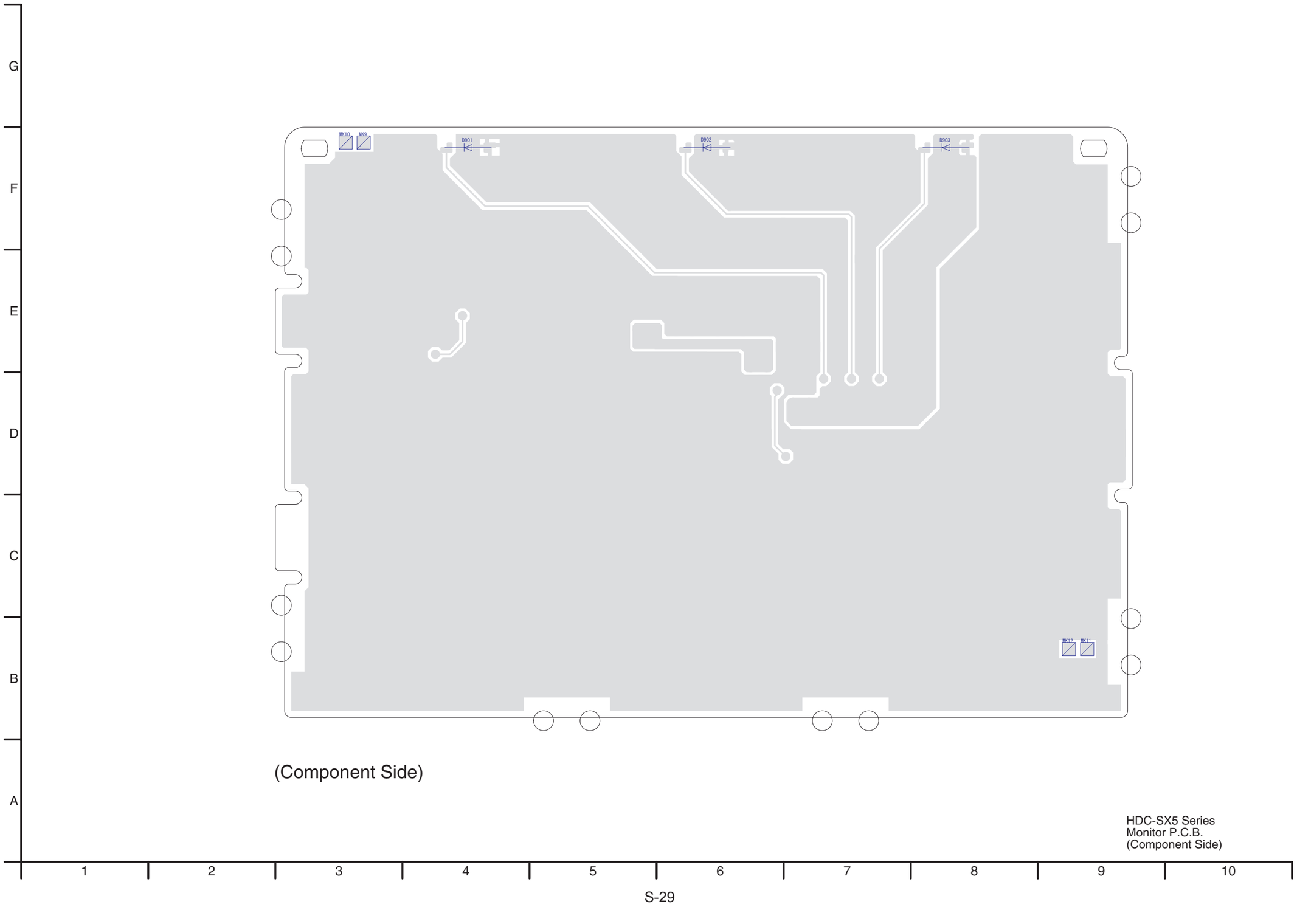


(Foil Side)

HDC-SX5 Series
EVF B/L P.C.B.

S5.4. Monitor P.C.B.

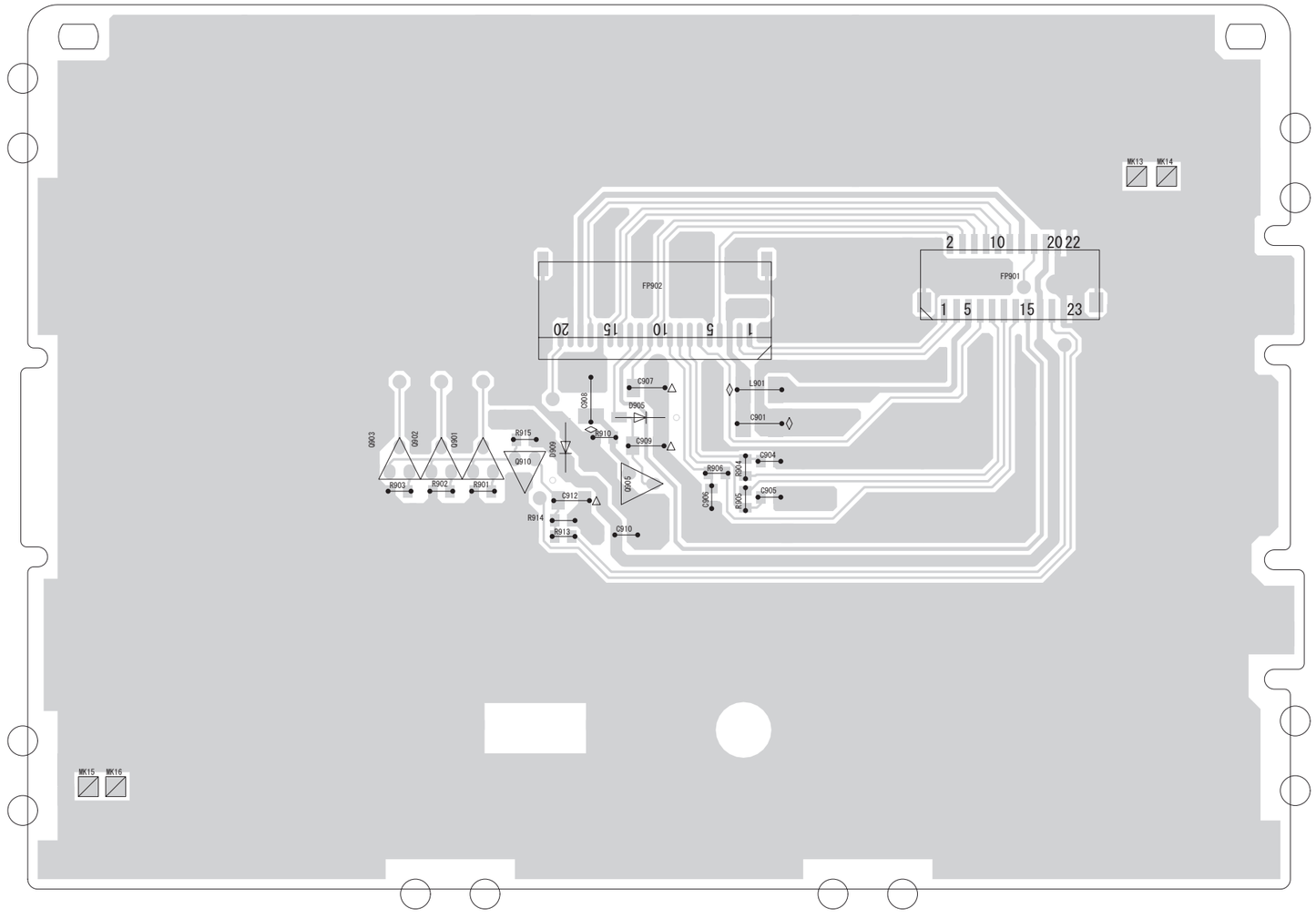
S5.4.1. Monitor P.C.B. (Component Side)



(Component Side)

HDC-SX5 Series
Monitor P.C.B.
(Component Side)

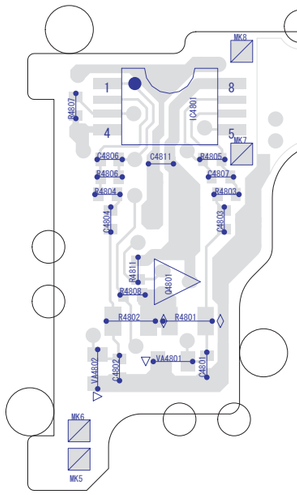
S5.4.2. Monitor P.C.B. (Foil Side)



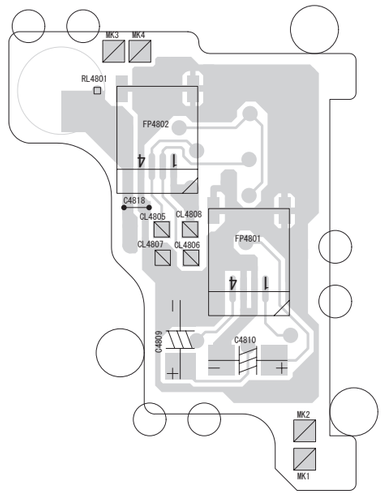
(Foil Side)

HDC-SX5 Series
Monitor P.C.B.
(Foil Side)

S5.5. Mic P.C.B.



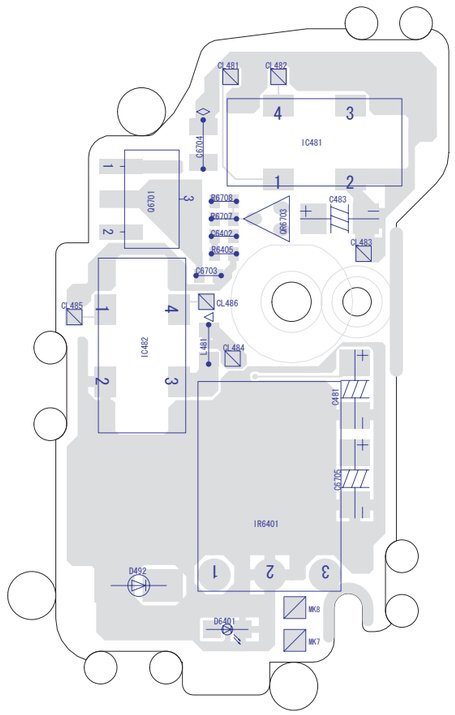
(Component Side)



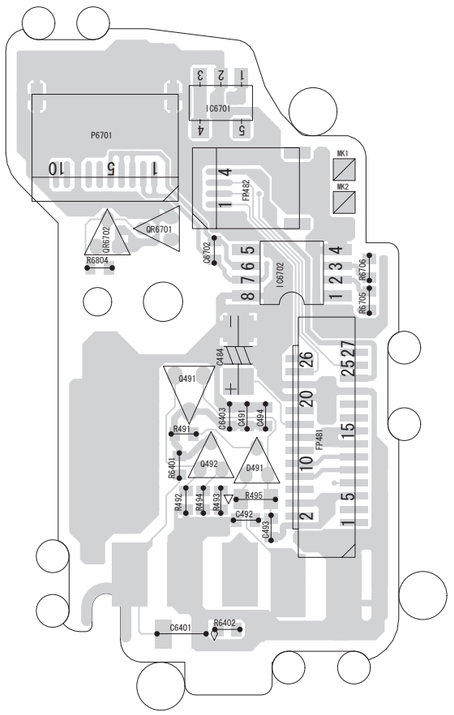
(Foil Side)

HDC-SX5 Series
Mic P.C.B.

S5.6. Front P.C.B.



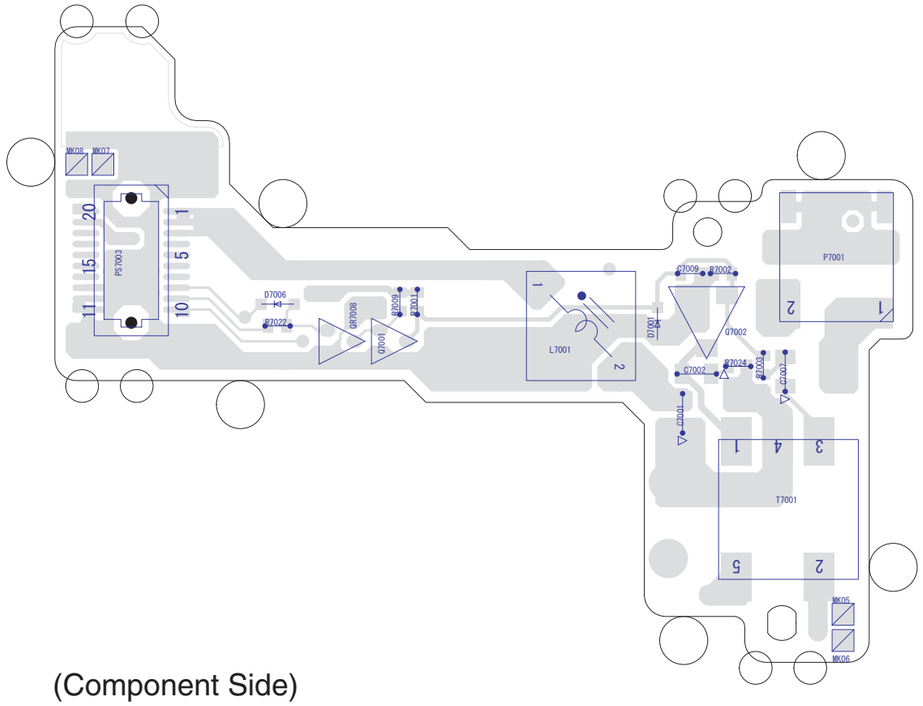
(Component Side)



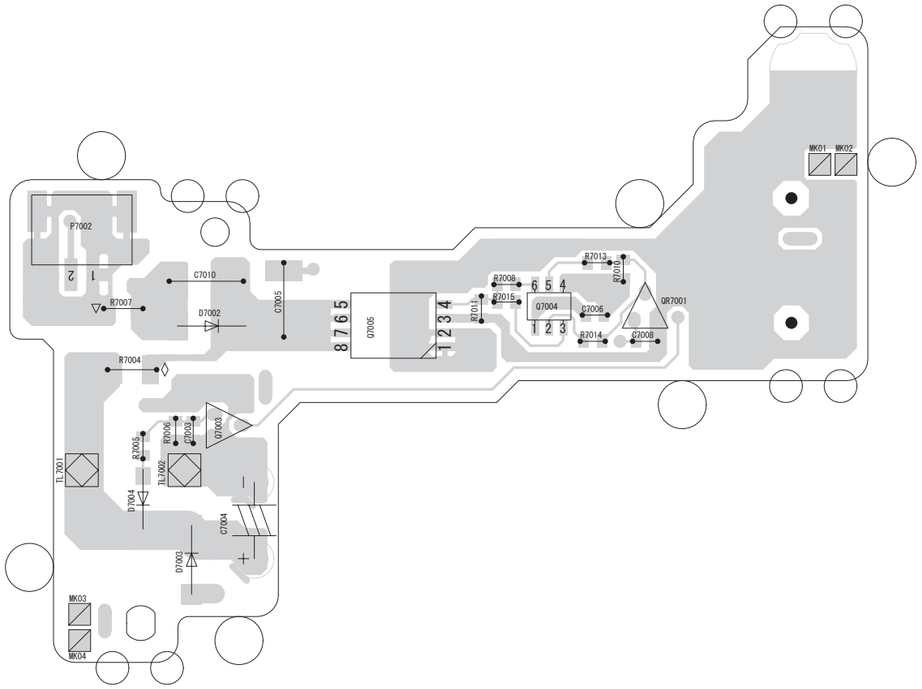
(Foil Side)

HDC-SX5 Series
Front P.C.B.

S5.7. Flash P.C.B.



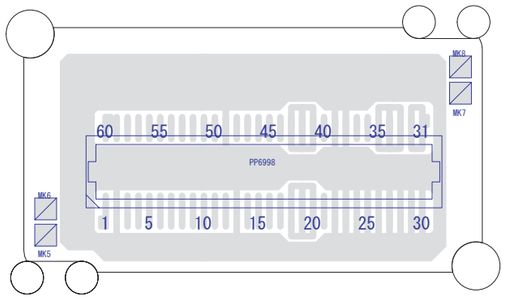
(Component Side)



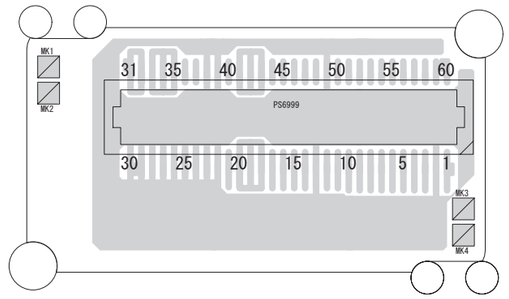
(Foil Side)

HDC-SX5 Series
Flash P.C.B.

S5.8. Drive Extend P.C.B.



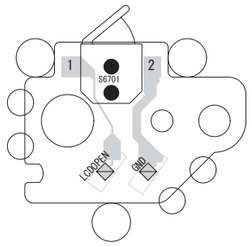
(Component Side)



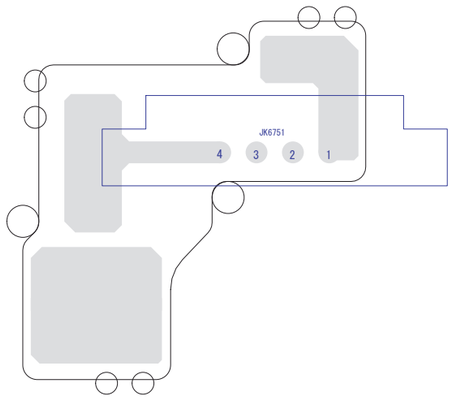
(Foil Side)

HDC-SX5 Series
Drive Extend P.C.B.

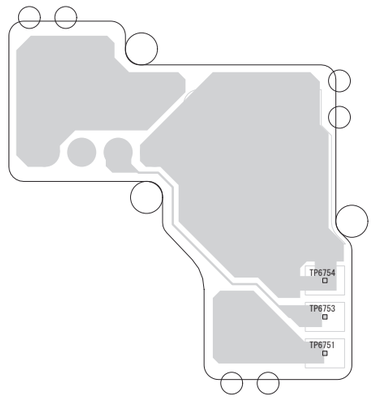
S5.9. LCD DET P.C.B. / S5.10. Battery P.C.B.



(Foil Side)



(Component Side)



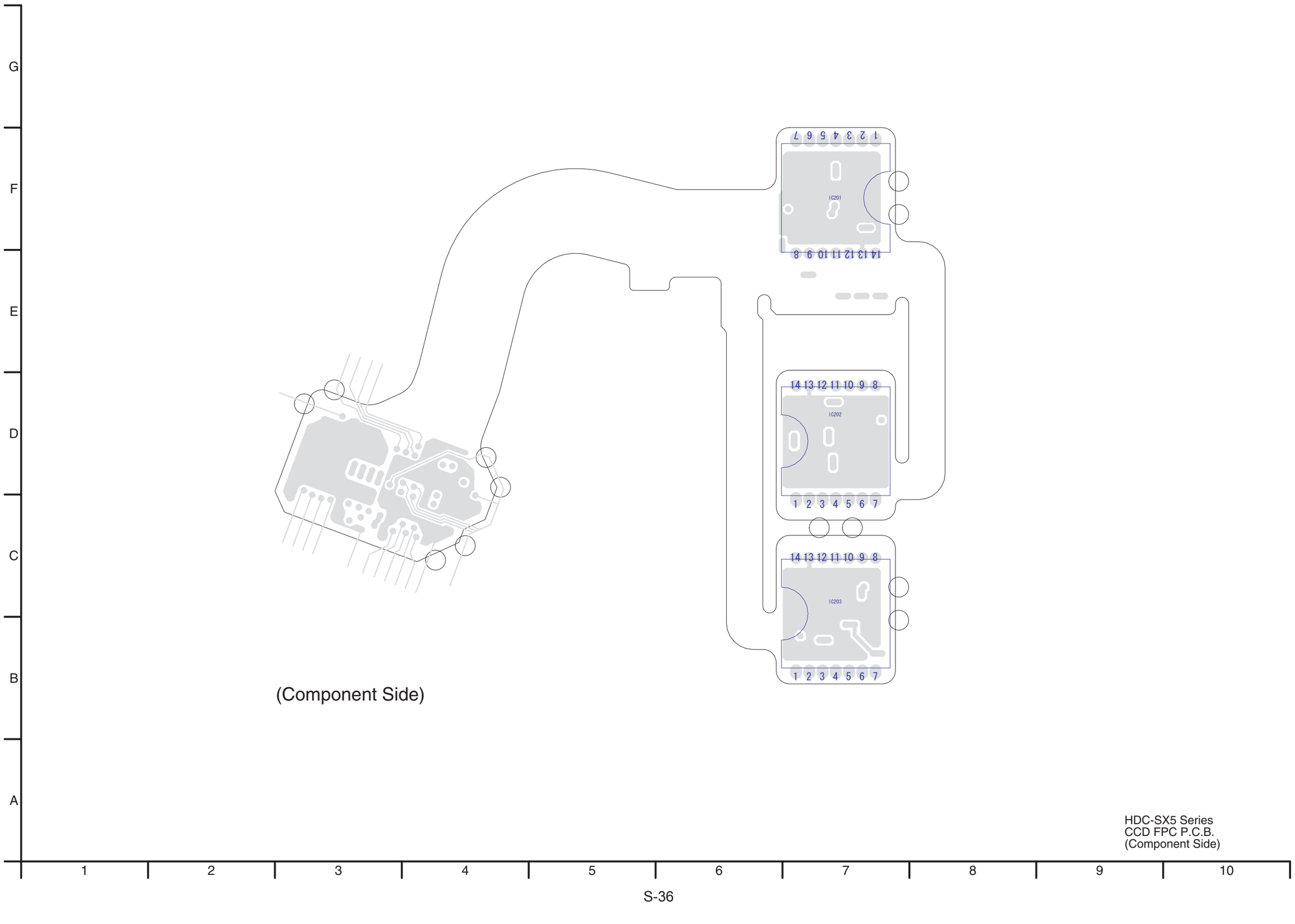
(Foil Side)

HDC-SX5 Series
LCD DET P.C.B.

HDC-SX5 Series
Battery P.C.B.

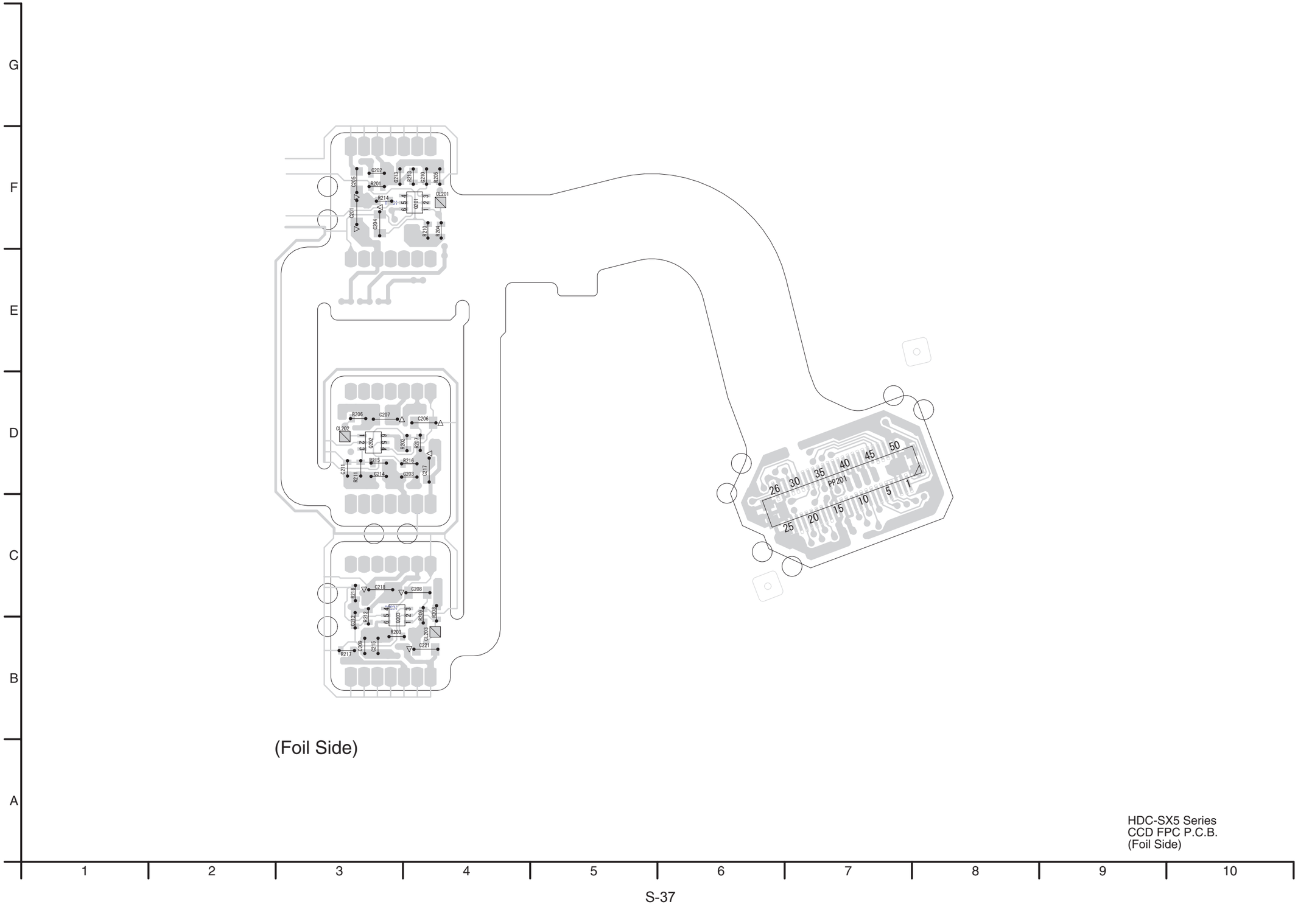
S5.11. CCD FPC P.C.B.

S5.11.1. CCD FPC P.C.B. (Component Side)



HDC-SX5 Series
CCD FPC P.C.B.
(Component Side)

S5.11.2. CCD FPC P.C.B. (Foil Side)



(Foil Side)

HDC-SX5 Series
CCD FPC P.C.B.
(Foil Side)

S6. 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 ⚠ 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
##	VEP03H39B	MAIN P.C.B.	1	(RTL) EG/E/EP/EB
##	VEP03H39C	MAIN P.C.B.	1	(RTL) GC/SG
##	VEP03H39G	MAIN P.C.B.	1	(RTL) GCS
##	VEP03H39H	MAIN P.C.B.	1	(RTL) EE
##	VEP03H39J	MAIN P.C.B.	1	(RTL) GN
##	VEP03H39K	MAIN P.C.B.	1	(RTL) GK
##	VEP03H39D	MAIN P.C.B.	1	(RTL) P,PC
##	VEP03H39E	MAIN P.C.B.	1	(RTL) PL
##	VEP01997A	SUB P.C.B.	1	(RTL)
##	VEP23672A	JACK P.C.B.	1	(RTL)
##	VEP29193A	SIDE-R P.C.B.	1	(RTL)
##	VEP29194A	EVF B/L P.C.B.	1	(RTL)
##	VEP26301A	MONITOR P.C.B.	1	(RTL)
##	VEP24188A	MIC P.C.B.	1	(RTL)
##	VEP26300A	FRONT P.C.B.	1	(RTL)
##	VEP26302A	FLASH P.C.B.	1	(RTL)
##	VEP22384A	DRIVE EXTENDED P.C.B.	1	(RTL)
##	VEP26303A	LCD DET P.C.B.	1	(RTL)
##	VEP21295A	BATTERY P.C.B.	1	(RTL)
##	VEP23672A	JACK P.C.B.		(RTL)
⚠ B4001	ML-614S/ZT	BATTERY	1	
C3901	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C3903	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3904	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3905	ECJ0EC1H100D	C.CAPACITOR CH 50V 10P	1	
C3906	ECJ0EC1H100D	C.CAPACITOR CH 50V 10P	1	
C3907	ECJ0EC1H100D	C.CAPACITOR CH 50V 10P	1	
C3908	ECJ0EC1H100D	C.CAPACITOR CH 50V 10P	1	
C3909	ECJ0EC1H100D	C.CAPACITOR CH 50V 10P	1	
C3910	F3F0J226A032	T.CAPACITOR CH 6.3V 22U	1	
C3913	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C4002	ECJ0EB1E472K	C.CAPACITOR CH 25V 4700P	1	
C4003	ECJ0EB1E472K	C.CAPACITOR CH 25V 4700P	1	
FL4001	J0MAB0000200	FILTER	1	
FL4002	F1H0J1050028	FILTER	1	
HS3901	K1NA09E00038	CONNECTOR 9P	1	
JK4001	K2HC107B0003	JACK	1	
JK4002	K2HZ110E0003	JACK	1	
JK4003	K2HZ105E0011	JACK	1	
LB4003	J0JYC0000061	FILTER	1	
LB4004	J0JYC0000061	FILTER	1	
LB4005	J0JYC0000061	FILTER	1	
LB4006	J0JYC0000061	FILTER	1	
LB4008	J0JYC0000061	FILTER	1	
LB4009	J0JYC0000059	FILTER	1	
LB4010	J0JYC0000061	FILTER	1	
LB4011	J0JYC0000059	FILTER	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
LB4012	J0JYC0000061	FILTER	1	
LB4013	J0JYC0000061	FILTER	1	
LB4014	J0JYC0000059	FILTER	1	
LB4016	J0JYC0000061	FILTER	1	
LB40015	J0JYC0000061	FILTER	1	
PP4001	K1KB40AA0094	CONNECTOR 40P	1	
Q3901	2SB970-R	TRANSISTOR	1	
R3901	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	1	
R3902	ERJ2GEJ220	M.RESISTOR CH 1/16W 22	1	
R3903	ERJ2GEJ220	M.RESISTOR CH 1/16W 22	1	
R3904	ERJ2GEJ220	M.RESISTOR CH 1/16W 22	1	
R3905	ERJ2GEJ220	M.RESISTOR CH 1/16W 22	1	
R3906	ERJ2GEJ220	M.RESISTOR CH 1/16W 22	1	
R3909	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3917	D0GB150JA057	M.RESISTOR CH 1/10W 15	1	
R3918	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R3919	ERJ2GEJ331	M.RESISTOR CH 1/16W 330	1	
R3920	ERJ2GEJ271	M.RESISTOR CH 1/16W 270	1	
R3921	ERJ2GEJ102X	M.RESISTOR CH 1/16W 1K	1	
R3922	ERJ2GEJ102X	M.RESISTOR CH 1/16W 1K	1	
R4001	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R4002	ERJ6GEYJ102V	M.RESISTOR CH 1/10W 1K	1	
R4003	ERJ3GEY0R00	M.RESISTOR CH 1/10W 0	1	
R4004	ERJ3GEY0R00	M.RESISTOR CH 1/10W 0	1	
R4005	ERJ6GEYJ222V	M.RESISTOR CH 1/10W 2.2K	1	
RX3901	EXB28V103JX	CHIP RESISTOR ARRAY	1	
TH4001	D4CC11030013	THERMISTOR	1	
VA4002	D4ED18R00008	VARISTORS	1	
VA4003	D4ED18R00008	VARISTORS	1	
ZB4001	K3ZZ00500014	CONNECTOR	1	
##	VEP29193A	SIDE-R P.C.B.		(RTL)
C601	F3F0G4760003	E.CAPACITOR CH 4V 47U	1	
C604	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C605	F1G1C104A080	C.CAPACITOR CH 16V 0.1U	1	
C606	F1G1C104A080	C.CAPACITOR CH 16V 0.1U	1	
C607	F1H0J225A002	C.CAPACITOR CH 6.3V 2.2U	1	
C608	F1H0J225A002	C.CAPACITOR CH 6.3V 2.2U	1	
C609	F1G1C104A080	C.CAPACITOR CH 16V 0.1U	1	
C613	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C614	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C615	F1G1C104A080	C.CAPACITOR CH 16V 0.1U	1	
C616	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C618	F1G1C104A080	C.CAPACITOR CH 16V 0.1U	1	
C621	F1J0J106A049	C.CAPACITOR CH 6.3V 10U	1	
C628	F1J1A475A023	C.CAPACITOR CH 10V 4.7U	1	
C6301	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C6302	F1G1C104A080	C.CAPACITOR CH 16V 0.1U	1	
C6303	F1G1C104A080	C.CAPACITOR CH 16V 0.1U	1	
C6304	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C6306	F1G1C104A080	C.CAPACITOR CH 16V 0.1U	1	
C6307	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C6308	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C6310	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C6312	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
D6301	B3AAB0000137	DIODE	1	
FP601	K1MN25BA0199	CONNECTOR 25P	1	
FP602	K1MN31AA0094	CONNECTOR 31P	1	
FP6301	K1MN45B00033	CONNECTOR 45P	1	
IC601	C1AB00002388	IC	1	
IC602	C0JBAZ002398	IC	1	
IC604	C0DBGGC00011	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
LB6301	J0JYC0000061	FILTER	1	
LB6302	J0JYC0000061	FILTER	1	
LB6303	J0JYC0000061	FILTER	1	
LB6304	J0JYC0000061	FILTER	1	
LB6305	J0JYC0000061	FILTER	1	
LB6306	J0JHC0000031	FILTER	1	
P6301	K1KA02BA0014	CONNECTOR 2P	1	
Q601	2SA2174J0L	TRANSISTOR	1	
Q602	2SC6054J0L	TRANSISTOR	1	
R601	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R603	ERJ2RHD511	M.RESISTOR CH 1/16W 510	1	
R604	ERJ2RHD102	M.RESISTOR CH 1/16W 1K	1	
R605	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R608	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	1	
R609	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	1	
R610	ERJ3GEY0R00	M.RESISTOR CH 1/10W 0	1	
R611	ERJ2GEJ473Y	M.RESISTOR CH 1/16W 47K	1	
R612	ERJ2GEJ473Y	M.RESISTOR CH 1/16W 47K	1	
R613	ERJ2RHD562	M.RESISTOR CH 1/16W 5.6K	1	
R619	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R620	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R621	ERJ2RHD223	M.RESISTOR CH 1/16W 22K	1	
R622	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R623	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R6301	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R6302	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R6304	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R6305	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R6309	ERJ2GEJ473Y	M.RESISTOR CH 1/16W 47K	1	
R6310	ERJ2GEJ473Y	M.RESISTOR CH 1/16W 47K	1	
R6311	ERJ2GEJ102X	M.RESISTOR CH 1/16W 1K	1	
R6312	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6314	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R6403	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
RX601	D1H81024A024	RESISTOR	1	
RX602	D1H81014A024	RESISTOR	1	
RX6301	D1H81014A024	RESISTOR	1	
S6301	K0H1BA000436	SWITCH	1	
S6302	EVQPQ6B55	SWITCH	1	
S6303	VSS0533	SWITCH	1	
S6304	K0H1BA000436	SWITCH	1	
S6306	K0L1BA000125	SWITCH	1	
VA6302	D4ED18R00003	VARISTORS	1	
VA6307	D4ED18R00003	VARISTORS	1	
VA6308	D4ED18R00003	VARISTORS	1	
VA6309	D4ED18R00003	VARISTORS	1	
VA6310	D4ED18R00003	VARISTORS	1	
VA6311	D4ED18R00003	VARISTORS	1	
VA6312	D4ED18R00003	VARISTORS	1	
##	VEP29194A	EVF B/L P.C.B.		(RTL)
C801	F1G0J4740002	C.CAPACITOR CH 6.3V 0.47U	1	
C802	ECJ1VB1A105K	C.CAPACITOR CH 10V 1U	1	
D801	B3AFB0000167	DIODE	1	
D802	MAZ80470ML	DIODE	1	
D803	MAZ80620ML	DIODE	1	
D804	MA3S13300L	DIODE	1	
FP801	K1MN16BA0197	CONNECTOR 16P	1	
FP802	K1MN18BA0197	CONNECTOR 18P	1	
Q801	2SC6054J0L	TRANSISTOR	1	
R801	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R804	ERJ2RKD560	M.RESISTOR CH 1/16W 56	1	
##	VEP26301A	MONITOR P.C.B.		(RTL)
C901	F1J1A475A023	C.CAPACITOR CH 10V 4.7U	1	
C907	F1H0J225A002	C.CAPACITOR CH 6.3V 2.2U	1	
C908	F1J1A2250007	C.CAPACITOR CH 10V 2.2U	1	
C909	F1H0J475A010	C.CAPACITOR CH 6.3V 4.7U	1	
C910	F1G1C104A080	C.CAPACITOR CH 16V 0.1U	1	
C912	F1H0J475A010	C.CAPACITOR CH 6.3V 4.7U	1	
D901	B3AFB0000200	LED	1	
D902	B3AFB0000200	LED	1	
D903	B3AFB0000200	LED	1	
D905	MAZ80470HL	DIODE	1	
D909	MAZ80620ML	DIODE	1	
FP901	K1MN23AA0035	CONNECTOR 23P	1	
FP902	K1MN20BA0262	CONNECTOR 20P	1	
L901	G1C101KA0055	CHIP INDUCTOR 100UH	1	
Q901	2SC6054J0L	TRANSISTOR	1	
Q902	2SC6054J0L	TRANSISTOR	1	
Q903	2SC6054J0L	TRANSISTOR	1	
Q905	2SA2174J0L	TRANSISTOR	1	
Q910	2SA2174J0L	TRANSISTOR	1	
R901	ERJ2RKD220	M.RESISTOR CH 1/16W 22	1	
R902	ERJ2RKD220	M.RESISTOR CH 1/16W 22	1	
R903	ERJ2RKD220	M.RESISTOR CH 1/16W 22	1	
R904	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R905	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R906	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R910	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R913	ERJ2RHD273	M.RESISTOR CH 1/16W 27K	1	
R914	ERJ2RHD103	M.RESISTOR CH 1/16W 10K	1	
R915	ERJ2GEJ152	M.RESISTOR CH 1/16W 1.5K	1	
##	VEP24188A	MIC P.C.B.		(RTL)
C4801	ECJ0EC1H101J	C.CAPACITOR CH 50V 100P	1	
C4802	ECJ0EC1H101J	C.CAPACITOR CH 50V 100P	1	
C4803	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C4804	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C4806	ECJ0EC1H221J	C.CAPACITOR CH 50V 220P	1	
C4807	ECJ0EC1H221J	C.CAPACITOR CH 50V 220P	1	
C4809	F3F0J226A032	T.CAPACITOR CH 6.3V 22U	1	
C4810	F3F0J226A032	T.CAPACITOR CH 6.3V 22U	1	
C4818	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
FP4801	K1MN04BA0197	CONNECTOR 4P	1	
FP4802	K1MN04BA0197	CONNECTOR 4P	1	
IC4801	C0ABBB000369	IC	1	
Q4801	2SD2216J0L	TRANSISTOR	1	
R4801	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	1	
R4802	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	1	
R4803	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R4804	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R4805	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R4806	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R4807	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R4808	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R4811	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
##	VEP26300A	FRONT P.C.B.		(RTL)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C481	F3F0J226A032	T.CAPACITOR CH 6.3V 22U	1	
C483	F3F0J476A032	E.CAPACITOR CH 6.3V 47U	1	
C484	F3F0J226A032	T.CAPACITOR CH 6.3V 22U	1	
C491	F1G1A104A012	C.CAPACITOR CH 10V 0.1U	1	
C492	F1G0J224A004	C.CAPACITOR CH 6.3V 0.22U	1	
C493	F1G0J224A004	C.CAPACITOR CH 6.3V 0.22U	1	
C494	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C6401	F1J0J1060009	C.CAPACITOR CH 6.3V 10U	1	
D491	MA3S132D0L	DIODE	1	
D492	B3GA00000041	DIODE	1	
D6401	B3AAB0000137	DIODE	1	
FP481	K1MN27AA0094	CONNECTOR 27P	1	
FP482	K1MN04BA0197	CONNECTOR 4P	1	
IC481	L2ES00000016	IC	1	
IC482	L2ES00000017	IC	1	
IR6401	B3RAB0000073	REMOTE SENSOR	1	
L481	G1C100KA0115	CHIP INDUCTOR 10UH	1	
P6701	K1MN10BA0197	CONNECTOR 10P	1	
Q491	B1ABCF000098	TRANSISTOR	1	
Q492	2SC6054J0L	TRANSISTOR	1	
QR6703	UNR9115J0L	TRANSISTOR	1	
R491	ERJ2GEJ225	M.RESISTOR CH 1/16W 2.2M	1	
R492	ERJ2GEJ334	M.RESISTOR CH 1/16W 330K	1	
R493	ERJ2GEJ472	M.RESISTOR CH 1/16W 4.7K	1	
R494	ERJ2GEJ182	M.RESISTOR CH 1/16W 1.8K	1	
R495	ERJ3GEYJ106	M.RESISTOR CH 1/10W 10M	1	
R6401	ERJ2RKD330	M.RESISTOR CH 1/16W 33	1	
R6402	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	1	
R6705	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R6706	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R6707	ERJ2GEJ181	M.RESISTOR CH 1/16W 180	1	
R6708	ERJ2GEJ181	M.RESISTOR CH 1/16W 180	1	
R6804	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
##	VEP26302A	FLASH P.C.B.		(RTL)
C7001	ECJ1VB1C105K	C.CAPACITOR CH 16V 1U	1	
C7004	F2AZZ5600001	CAPACITOR	1	
C7005	F1K2E4730002	C.CAPACITOR 250V 0.047U	1	
C7006	F1G1A104A012	C.CAPACITOR CH 10V 0.1U	1	
C7007	ECJ1VB1H103K	C.CAPACITOR CH 50V 0.01U	1	
C7010	F1K2E223A004	C.CAPACITOR 250V 0.022U	1	
D7001	MA2S11100L	DIODE	1	
D7002	B0ECGP000006	DIODE	1	
D7003	MA2YF8000L	DIODE	1	
D7004	B0BC30000001	DIODE	1	
D7006	B0JCDD000002	DIODE	1	
L7001	G1C560MA0024	CHIP INDUCTOR 56UH	1	
P7001	K1KA02B00292	CONNECTOR 2P	1	
P7002	K1KA02BA0022	CONNECTOR 2P	1	
PS7003	K1KY20AA0340	CONNECTOR 20P	1	
Q7001	2SC6054J0L	TRANSISTOR	1	
Q7002	B1ABPF000009	TRANSISTOR	1	
Q7003	2SC6054J0L	TRANSISTOR	1	
Q7004	XP0460100L	TRANSISTOR	1	
Q7005	B1JBLP000014	TRANSISTOR	1	
QR7001	UNR92A4J0L	TRANSISTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
QR7008	UNR92A4J0L	TRANSISTOR	1	
R7001	ERJ2GEJ473Y	M.RESISTOR CH 1/16W 47K	1	
R7003	ERJ2GEJ560	M.RESISTOR CH 1/16W 56	1	
R7004	ERJ6GEYG105	M.RESISTOR CH 1/10W 1M	1	
R7005	ERJ2GEJ334	M.RESISTOR CH 1/16W 330K	1	
R7006	ERJ2GEJ564	M.RESISTOR CH 1/16W 560K	1	
R7007	ERJ3GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R7008	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R7009	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R7010	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R7011	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R7013	ERJ2GEJ822	M.RESISTOR CH 1/16W 8.2K	1	
R7014	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R7015	ERJ2GEJ560	M.RESISTOR CH 1/16W 56	1	
R7022	ERJ2GEJ102X	M.RESISTOR CH 1/16W 1K	1	
T7001	G5DYA0000084	SWITCHING TRANSFORMER	1	
##	VEP22384A	DRIVE EXTENDED P.C.B.		(RTL)
PP6998	K1KA60A00145	CONNECTOR 60P	1	
PS6999	K1KY60AA0384	CONNECTOR 60P	1	
##	VEP26303A	LCD DET P.C.B.		(RTL)
S6701	K0L1AA000011	SWITCH	1	
##	VEP21295A	BATTERY P.C.B.		(RTL)
JK6751	K4ZZ04000038	JACK	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
⚠ 1	VXY1980C	DVD DRIVE UNIT	1	EG,E,EP,EB,GC
⚠ 1	VXY1980D	DVD DRIVE UNIT	1	GCS,SG
⚠ 1	VXY1980E	DVD DRIVE UNIT	1	GN,PL
⚠ 1	VXY1980F	DVD DRIVE UNIT	1	EE
⚠ 1	VXY1980G	DVD DRIVE UNIT	1	GK
⚠ 1	VXY1980B	DVD DRIVE UNIT	1	P,PC
2	VEP03H39B	MAIN P.C.B.	1	(RTL) EG,E,EP,EB
2	VEP03H39C	MAIN P.C.B.	1	(RTL) GC,SG
2	VEP03H39G	MAIN P.C.B.	1	(RTL) GCS
2	VEP03H39H	MAIN P.C.B.	1	(RTL) EE
2	VEP03H39J	MAIN P.C.B.	1	(RTL) GN
2	VEP03H39K	MAIN P.C.B.	1	(RTL) GK
2	VEP03H39D	MAIN P.C.B.	1	(RTL) P,PC
2	VEP03H39E	MAIN P.C.B.	1	(RTL) PL
3	VEP01997A	SUB P.C.B.	1	(RTL)
4	VEP26302A	FLASH P.C.B.	1	(RTL)
5	VEP22384A	DRIVE EXTENDED P.C.B.	1	(RTL)
6	VWJ1988	FRONT FPC	1	
8	LSMC0159	EARTH PLATE (MECHA)	1	
9	VGQ9570	CONDENSER COVER L	1	
10	VGQ9571	CONDENSER COVER R	1	
11	VMP8918	MAIN FRAME	1	
12	L6FAG99D0019	DC FAN MOTORS	1	
13	VMG1808	FAN DAPER RUBBER	1	
14	EFN-MVW76ZC	FLASH U	1	
15	VYQ4105	BOTTOM FRAME U	1	
16	VEP23672A	JACK P.C.B.	1	(RTL)
17	VGQ9673	RADIATION SHEET BOTTOM	1	
18	N9ZZ00000377	SIDE CASE (L) U	1	
19	LSXY1076	DISK COVER LOCK U	1	
20	VKM7240	REAR CASE (BATT)	1	
21	VEP21295A	BATTERY P.C.B.	1	(RTL)
22	VGU0B81	LOCK KNOB (BATT)	1	
23	VGQ9588	KNOB HOLDER (BATT)	1	
24	VMB4128	KNOB SPRING (BATT)	1	
25	VMP8925	REAR FRAME (BATT)	1	
26	VKF4230	HDMI COVER	1	
27	VGQ9587	REAR EJECT PIECE	1	
28	VKM7232	EVF/GRIP CASE	1	
29	VSC5999	EVF EARTH PLATE	1	
72	VGQ9573	RADIATION SHEET DRIVE	1	
74	VGQ9675	RADIATION SHEET SUB	1	
75	VMG1107	DUMPER RUBBER	1	
76	VMG1107	DUMPER RUBBER	1	
77	VMG1107	DUMPER RUBBER	1	
78	VGQ9573	RADIATION SHEET DRIVE	1	
79	VGQ9346	EMC DPR SHEET	1	
80	VGQ9574	RADIATION SHEET CCD	1	
81	VSC5997	MAIN RADIATION PLATE	1	
82	VGQ9572	RADIATION SHEET MAIN	1	
83	VKM7233	DUCT CASE L	1	
84	VKM7234	DUCT CASE R	1	
B1	XQN16+B3FN	SCREW	1	
B2	XQN16+B3FN	SCREW	1	
B3	XQN16+B3FN	SCREW	1	
B4	XQN16+BJ4FN	SCREW	1	
B5	XQN16+BJ4FN	SCREW	1	
B25	VHD1353	SCREW	1	
B27	VHD1904	SCREW	1	
B28	XQN16+B4FN	SCREW	1	
B29	XQN16+B4FN	SCREW	1	
B30	XQN16+B4FN	SCREW	1	
B31	XQN16+B4FN	SCREW	1	
B32	XQN16+B4FN	SCREW	1	
B33	XQN16+B4FN	SCREW	1	
B37	XQN16+B4FN	SCREW	1	
B38	XQN16+B4FN	SCREW	1	
B42	XQN16+BJ5FN	SCREW	1	
B43	XQN16+BJ5FN	SCREW	1	
B44	XQN16+BJ5FN	SCREW	1	
B45	XQN16+BJ5FN	SCREW	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
B46	XQN16+BJ5FN	SCREW	1	
B47	XQN16+BJ5FN	SCREW	1	
B48	XQN16+BJ5FN	SCREW	1	
B49	XQN16+BJ5FN	SCREW	1	
B50	XQN16+BJ5FN	SCREW	1	
B51	XQN16+BJ6FN	SCREW	1	
B56	XQN16+BJ4FN	SCREW	1	
B57	XQN16+BJ4FN	SCREW	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
30	VYK2H35	SIDE CASE R (3) U	1	(EXCEPT P,PC,GK)
30	VYK2H36	SIDE CASE R (3) U	1	GK
30	VYK2H32	SIDE CASE R (3) U	1	P
30	VYK2H33	SIDE CASE R (3) U	1	PC
31	VEP29193A	SIDE-R P.C.B.	1	(RTL)
32	VEP26303A	LCD DET P.C.B.	1	(RTL)
33	VWJ1986	SIDE (R) FPC	1	
34	L0AA02A00075	SPEAKER U	1	
35	VSC6005	SIDE R RADIATION PLATE	1	
36	VMP8923	SPEAKER PLATE	1	
37	VMP8922	SR FRAME REAR	1	
38	VGQ9585	JACK PIECE	1	
39	VGU0B50	SR SWITCH KNOB	1	
40	VGQ9586	KNOB HOLDER	1	
41	VGL1218	ACCESS PANEL LIGHT	1	
42	VKF4245	JACK COVER	1	
43	VGK3360	SIDE R DECORATION	1	
44	VKF4229	SD DOOR	1	
45	VMB4127	SD DOOR SPRING	1	
46	VGK3359	HINGE DECORATION	1	
47	VMP8924	HINGE SUPPORT PLATE	1	
48	VMG1107	DUMPER RUBBER	1	
49	VGQ6407	SHEET	1	
50	VKM7235	FRONT CASE	1	
51	VKW3368	REMOTE SENSOR WINDOW	1	
52	VGL1251	TALLY PANEL LIGHT	1	
53	VGK3358	LENS DECORATION	1	
54	VSC6000	EARTH PLATE R	1	
55	VMG1705	LENS DAMPER RUBBER	1	
56	N9ZZ00000326	BARRIER MOTOR UNIT	1	
57	VDW1233-2	FRONT FRAME	1	
58	VML3925-1	BARRIER SELECT KNOB	1	
61	VYK2H56	TOP CASE (1) U	1	EG,E,EP,EB,GC,GCS,SG,GN,P
61	VYK2H57	TOP CASE (1) U	1	EE
61	VYK2H58	TOP CASE (1) U	1	GK
61	VYK2H53	TOP CASE (1) U	1	PC
61	VYK2H54	TOP CASE (1) U	1	PL
62	VSC6002	TOP RADIATION PLATE	1	
63	VEP04926B	ECM FPC	1	
64	VMT1705	MIC DUMPER	1	
65	VMP8921	MIC FRAME	1	
66	VYQ4107	MIC NET U	1	
67	VEP24188A	MIC P.C.B.	1	(RTL)
68	VWJ1987	MIC FPC	1	
69	VYQ4106	LENS HOOD U	1	
70	VSC6001	EARTH PLATE L	1	
71	VEP26300A	FRONT P.C.B.	1	(RTL)
87	VGQ6297	HIMERON	1	
B6	XQN16+BJ4FN	SCREW	1	
B7	XQN16+BJ4FN	SCREW	1	
B8	XQN16+BJ4FN	SCREW	1	
B9	XQN16+BJ4FN	SCREW	1	
B10	XQN16+BJ4FN	SCREW	1	
B11	XQN16+BJ35FN	SCREW	1	
B12	VHD1411	SCREW	1	
B13	VHD1411	SCREW	1	
B14	XQN16+BJ5FN	SCREW	1	
B15	XQN16+BJ5FN	SCREW	1	
B16	XQN16+BJ5FN	SCREW	1	
B17	VHD1526-1	SCREW	1	
B18	XQN16+BJ4FN	SCREW	1	
B19	VHD1907	SCREW	1	
B20	XQN16+BJ6FN	SCREW	1	
B21	XQN16+BJ6FN	SCREW	1	
B22	XQN16+BJ6FN	SCREW	1	
B23	XQN16+B4FN	SCREW	1	
B24	XQN16+B4FN	SCREW	1	
B26	VHD1526-1	SCREW	1	
B34	XQN16+B4FN	SCREW	1	
B35	XQN16+B4FN	SCREW	1	
B36	XQN16+B4FN	SCREW	1	
B40	XQN16+BJ4FN	SCREW	1	
B41	XQN16+BJ4FN	SCREW	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
B52	XQN16+BJ8FN	SCREW	1	
B53	XQN16+BJ4FN	SCREW	1	
B54	XQN16+BJ6FN	SCREW	1	
B55	XQN16+BJ6FN	SCREW	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
201	VKM7239	LCD CASE (B)	1	
203	L5BDDXP00001	LCD PANEL	1	
204	VGQ9584	LIGHTING PLATE HOLDER	1	
205	VGL1253	PRISM SHEET A	1	
206	VGL1254	PRISM SHEET B	1	
207	VGL1255	DIFFUSION SHEET	1	
208	VKW3365	LIGHTING PLATE	1	
209	VGL1256	REFLECTION SHEET	1	
210	VEP26301A	MONITOR P.C.B.	1	(RTL)
211	VSC6003	LCD EARTH PLATE	1	
212	VXD0500	LCD HINGE (1) U	1	
213	VGQ9583	HINGE COVER (T)	1	
214	VGQ9633	HINGE COVER (B)	1	
215	VYK2H19	LCD CASE (T)	1	
218	VSC6004	MONITOR EARTH PLATE	1	
B201	VHD1828	SCREW	1	
B202	VHD1828	SCREW	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
73	VSC5761	CCD HEAT SINK PLATE	1	
88	VGQ9692	BARRIER (A)	1	
301	VXQ1520	PRISM U	1	
301-1	VEP22383A	CCD FPC	1	(RTL)
301-2	VGQ9217	CCD HEAT TRANSFER SHEET	1	
302	VXW0887	LENS U	1	
302-1	VXQ1521	MAIN FRAME U	1	
302-2	VXP2530	2ND LENS FRAME MOVE UNIT	1	
302-3	VXQ1534	OIS U	1	
302-4	VXP2780	IRIS U	1	
302-5	L6HA64NC0003	ZOOM MOTOR U	1	
302-6	L6HA66NC0012	STEPPING MOTOR	1	
302-7	VMS7638	GUIDE POLE	1	
302-8	VMS7638	GUIDE POLE	1	
302-9	VXP2531	4TH LENS FRAME MOVE U	1	
302-10	VDW1213	MASTER FLANGE	1	
303	VDL1748	OPTICAL FILTER	1	
B39	XQN16+BJ4FN	SCREW	1	
B301	XQN16+CJ5FJ	SCREW	1	
B302	XQN16+CJ5FJ	SCREW	1	
B303	XQN16+CJ5FJ	SCREW	1	
B304	XQN16+CJ5FJ	SCREW	1	
B305	XQN16+CJ5FJ	SCREW	1	
B306	XQN16+CJ5FJ	SCREW	1	
B307	XQN16+CJ5FJ	SCREW	1	
B308	XQN16+CJ5FJ	SCREW	1	
B311	XQN16+CJ7FJ	SCREW	1	
B312	XQN16+CJ7FJ	SCREW	1	
B313	XQN16+CJ7FJ	SCREW	1	
B314	XQN16+CJ5FJ	SCREW	1	
B315	XQN16+CJ5FJ	SCREW	1	

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

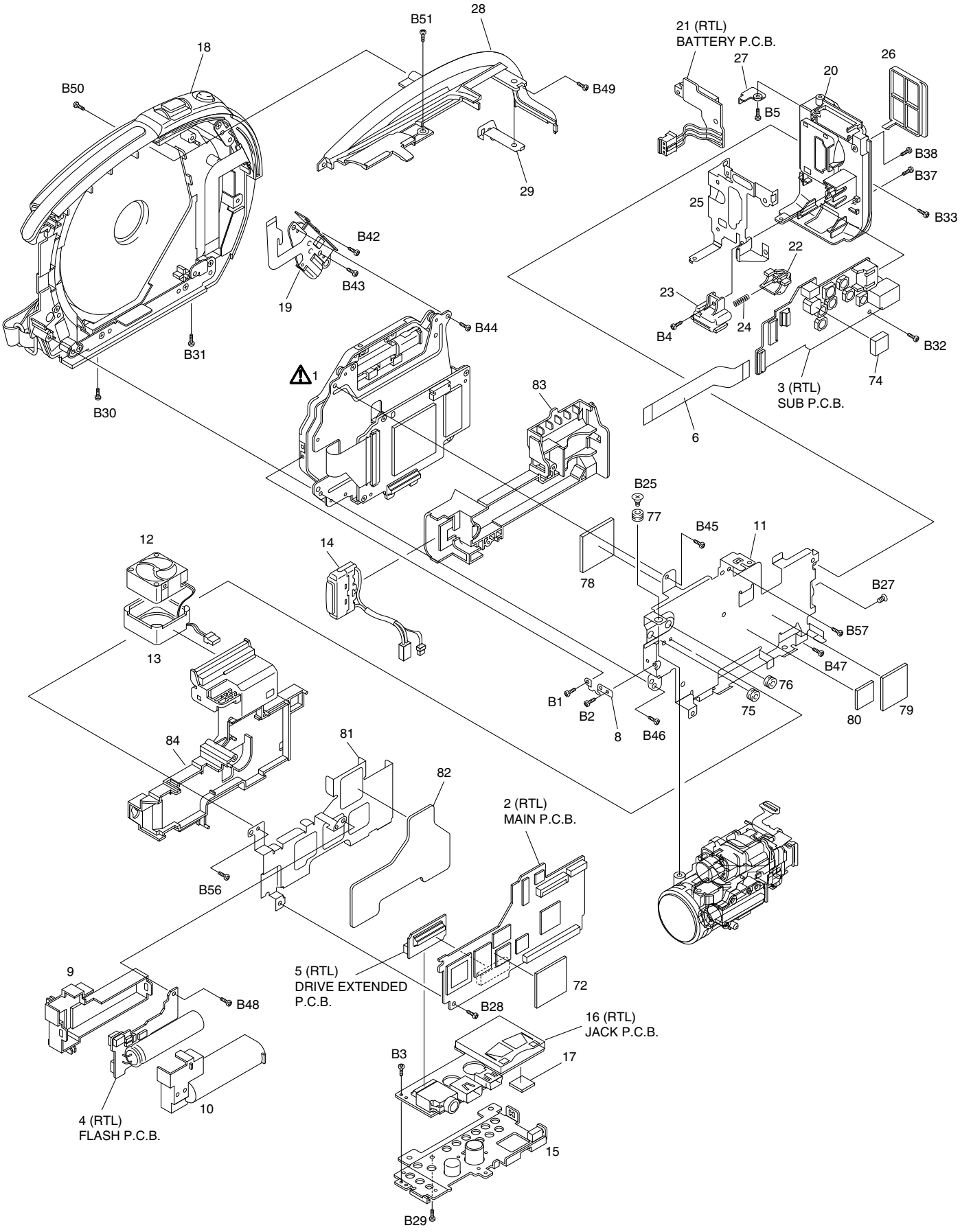
Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
401	VEP29195A	EVF FPC	1	
402	VGQ9196	SLIDE SPACER	1	
403	VGQ9196	SLIDE SPACER	1	
404	VGQ9117	LENS HOLDER	1	
405	VDL1906	EVF LENS	1	
406	VGQ9576	EVF CASE	1	
407	VGU0B97	SIGHT LEVER	1	
408	L5BDDXK00013	LCD PANEL	1	
409	VGL1217	EVF DIFFUSION SHEET	1	
410	VGQ9121	BL PIECE	1	
411	VMP8920	EVF FRAME	1	
412	VEP29194A	EVF B/L P.C.B.	1	(RTL)
413	VGQ9575	EYE CUP	1	
414	VGQ9579	EVF COVER	1	
415	VGQ9578	EVF REINFORCEMENT PIECE	1	
416	VGQ9118	LCD HOLD PIECE	1	
417	VGQ9148	PLATE HOLD PIECE	1	
418	VGQ9149	LCD HOLD PIECE	1	
419	VMC2041	EVF CLICK SPRING	1	
420	VGL1214	LENS PLATE	1	
421	VGL1215	BL PLATE	1	
422	VGL1216	EVF PRISM SHEET	1	
423	VGQ9577	SLIDE HOLDER	1	
424	K1FB108H0020	HOT SHOE	1	
B401	XQN16+BJ4FN	SCREW	1	
B402	XQN16+BJ4FN	SCREW	1	
B403	VHD1822	SCREW	1	
B404	VHD1822	SCREW	1	
B405	VHD1775	SCREW	1	
B406	XQN16+BJ4FN	SCREW	1	
B407	XQS2+A25FN	SCREW	1	
B408	XQS2+A25FN	SCREW	1	

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

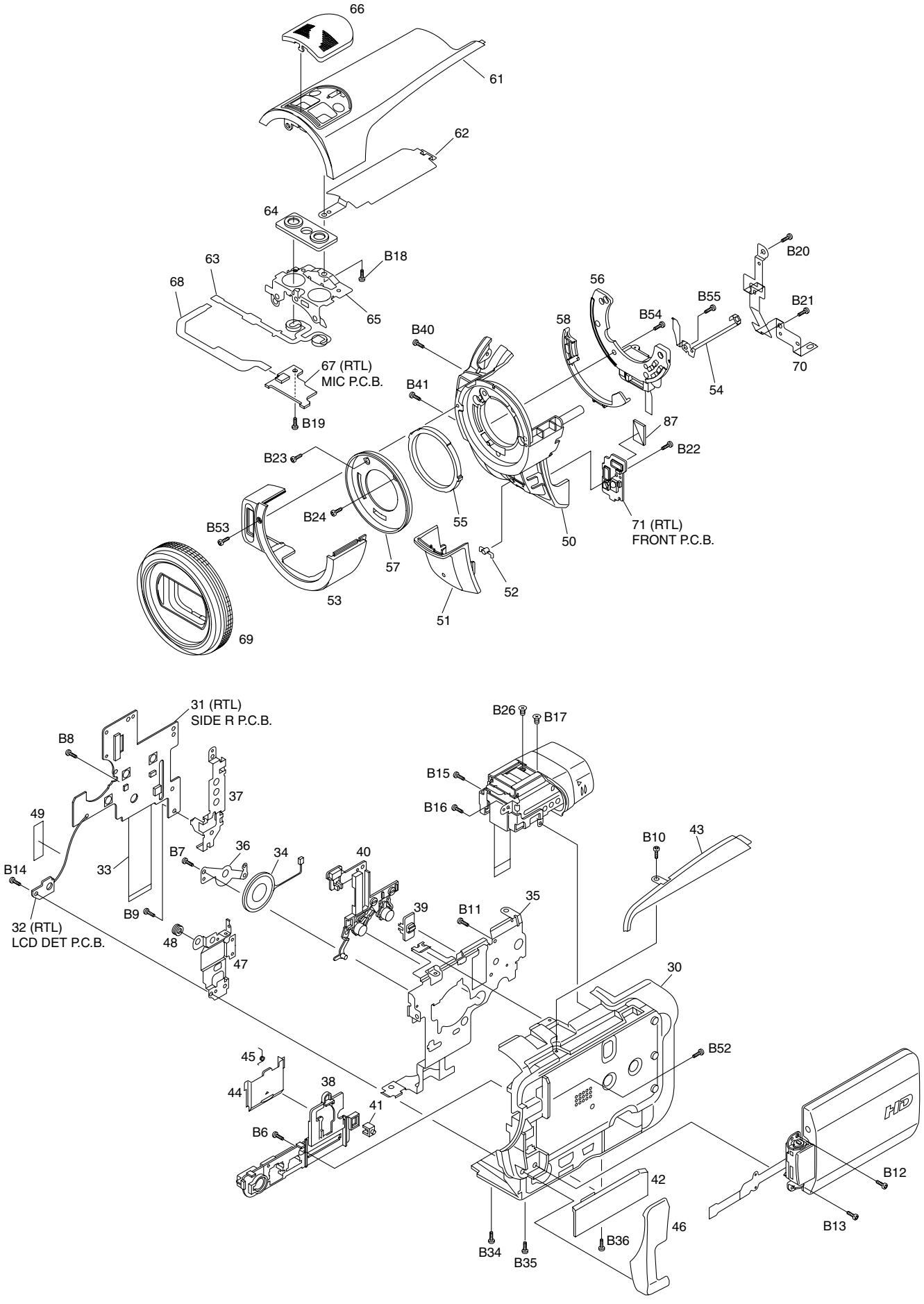
Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
502	K2GJYYC00001	DC CABLE	1	
503	K2KC4CB00024	AV CABLE	1	
504	K2KZ9DB00004	D TERMINAL CABLE	1	
⚠ 505	K2CQ2CA00006	AC CORD	1	EG,E,EP,GC,GCS,SG,EE
⚠ 505	K2CT3CA00004	AC CORD	1	EB,GC,GCS,SG
⚠ 505	K2CJ2DA00008	AC CORD	1	GN
⚠ 505	K2CA2CA00020	AC CORD	1	GK
⚠ 505	K2CA2CA00025	AC CORD	1	P,PC,PL
506	N2QAEC000023	REMOTE CONTROL	1	
507	K2KZ4CB00011	USB CABLE	1	
⚠ 508	DE-A38CA/K	POWER CHARGERS	1	(EXCEPT P,PC,GK)
⚠ 508	DE-A38DA/K	POWER CHARGERS	1	GK
⚠ 508	DE-A38BA/K	POWER CHARGERS	1	P,PC
509	VFF0387-S	CD-ROM	1	(EXCEPT P,PC)
509	VFF0386-S	CD-ROM	1	P,PC
⚠ 510	VQT1G53	O/I (GE)	1	EG
⚠ 510	VQT1G54	O/I (FR)	1	EG
⚠ 510	VQT1G55	O/I (IT)	1	EG
⚠ 510	VQT1G56	O/I (DU)	1	EG
⚠ 510	VQT1G57	O/I (TK)	1	EG
⚠ 510	VQT1G58	O/I (PR)	1	E
⚠ 510	VQT1G59	O/I (SP)	1	E
⚠ 510	VQT1G60	O/I (SW)	1	E
⚠ 510	VQT1G61	O/I (DA)	1	E
⚠ 510	VQT1G62	O/I (EN)	1	EP
⚠ 510	VQT1G63	O/I (PO)	1	EP
⚠ 510	VQT1G64	O/I (CZ)	1	EP
⚠ 510	VQT1G65	O/I (HU)	1	EP
⚠ 510	VQT1G66	O/I (EN)	1	EB
⚠ 510	VQT1G67	O/I (CO)	1	GC,GCS,SG
⚠ 510	VQT1G68	O/I (EN)	1	GC,GCS,SG
⚠ 510	VQT1G69	O/I (AR)	1	GC,GCS,SG
⚠ 510	VQT1G70	O/I (PE)	1	GC,GCS,SG
⚠ 510	VQT1G71	O/I (TA)	1	GC,GCS,SG
⚠ 510	VQT1G72	O/I (HD)	1	GC,GCS,SG
⚠ 510	VQT1G73	O/I (RU)	1	EE
⚠ 510	VQT1G74	O/I (UR)	1	EE
⚠ 510	VQT1G75	O/I (EN)	1	GN
⚠ 510	VQT1G76	O/I (CN)	1	GK
⚠ 510	VQT1J42	O/I (EN)	1	P,PC
⚠ 510	VQT1J43	O/I (CF)	1	PC
⚠ 510	VQT1G50	O/I (EN)	1	PL
⚠ 510	VQT1G51	O/I (SP)	1	PL
511	VPG1P08	PACKING CASE	1	(EXCEPT P,PC)
511	VPG1P07	PACKING CASE	1	P,PC
512	VPN6608	PAD	1	
513	VPF1129	PROTECTION BAG	1	

S7. Exploded View

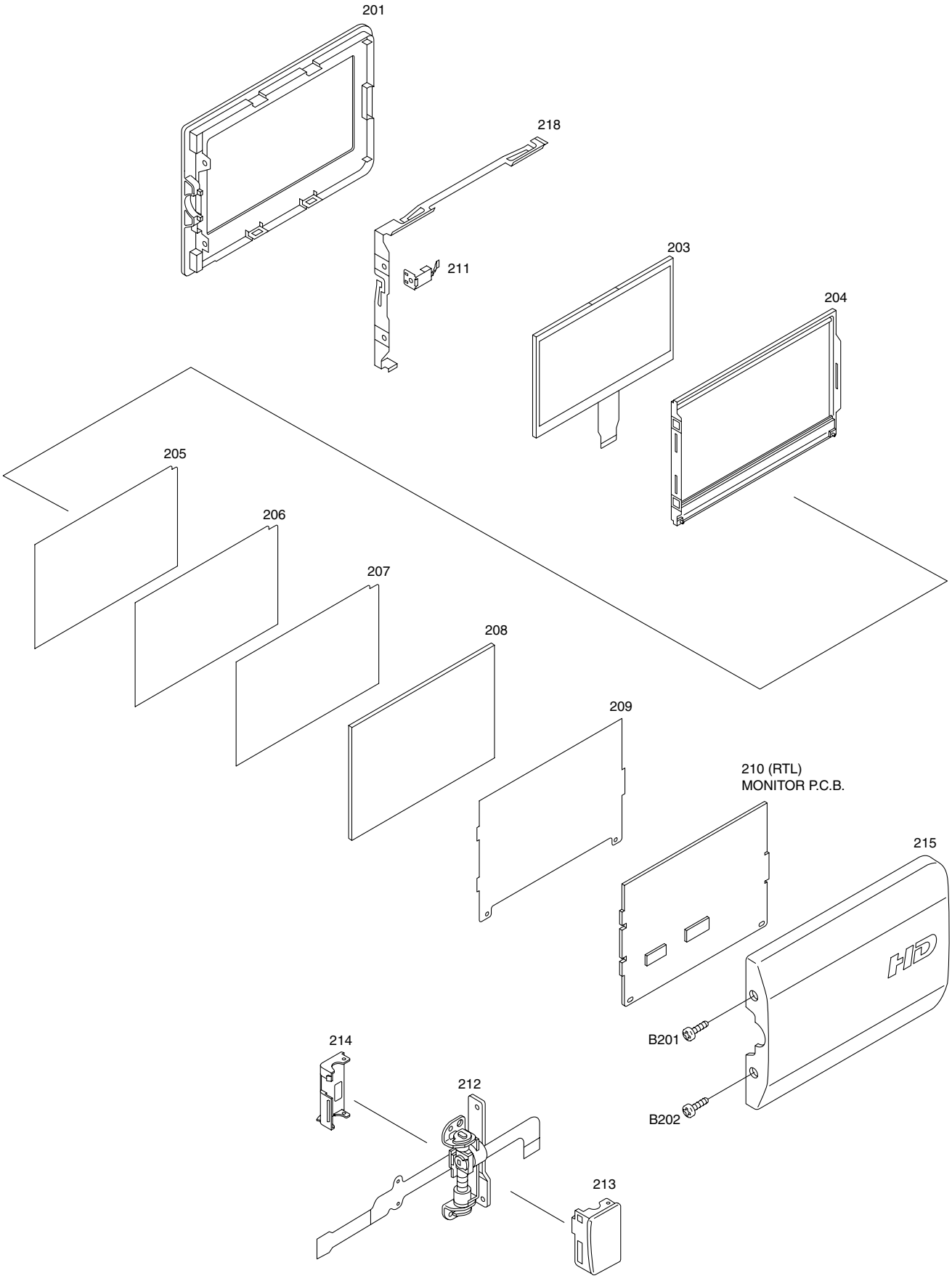
S7.1. Frame and Casing Section (1)



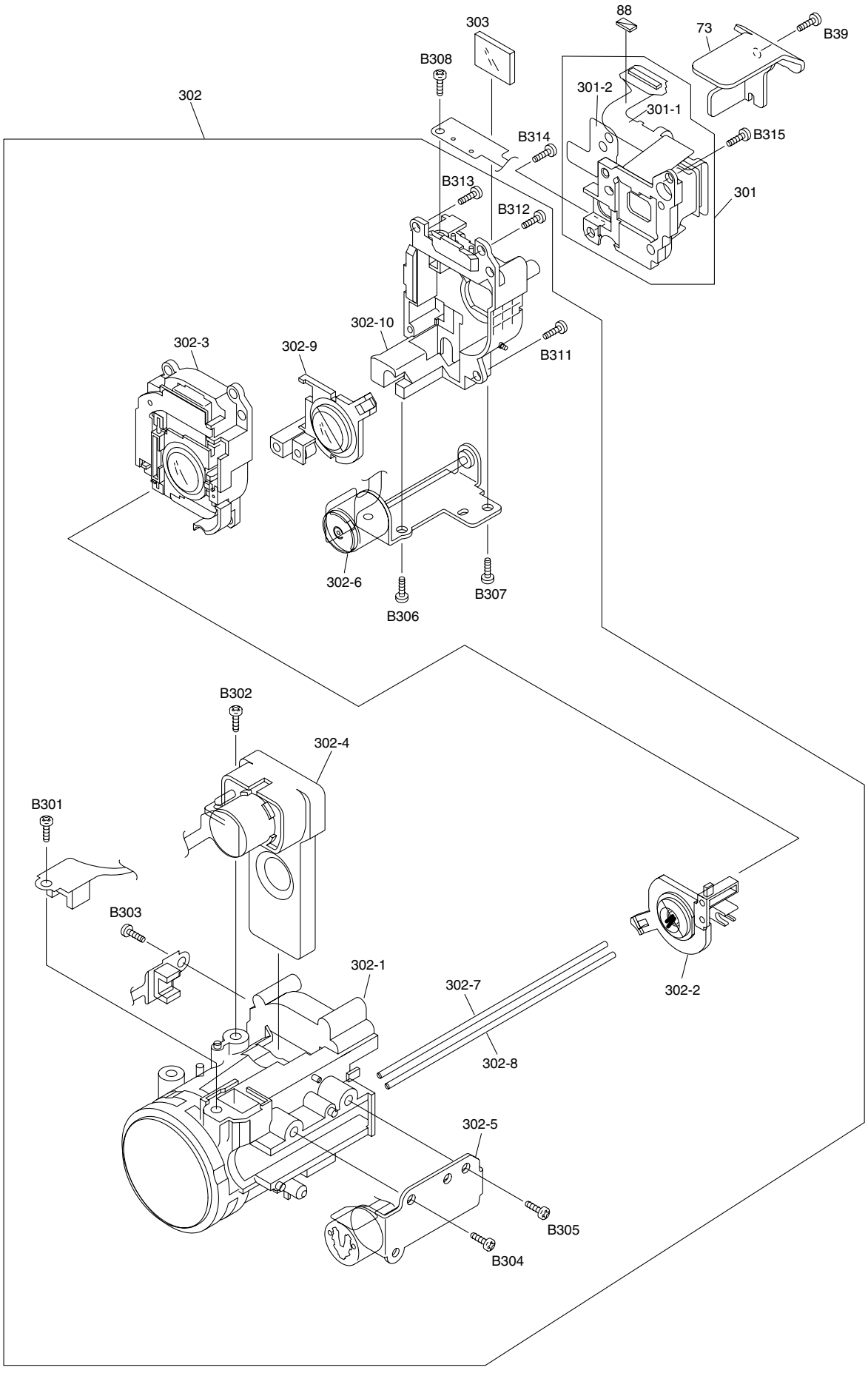
S7.2. Frame and Casing Section (2)



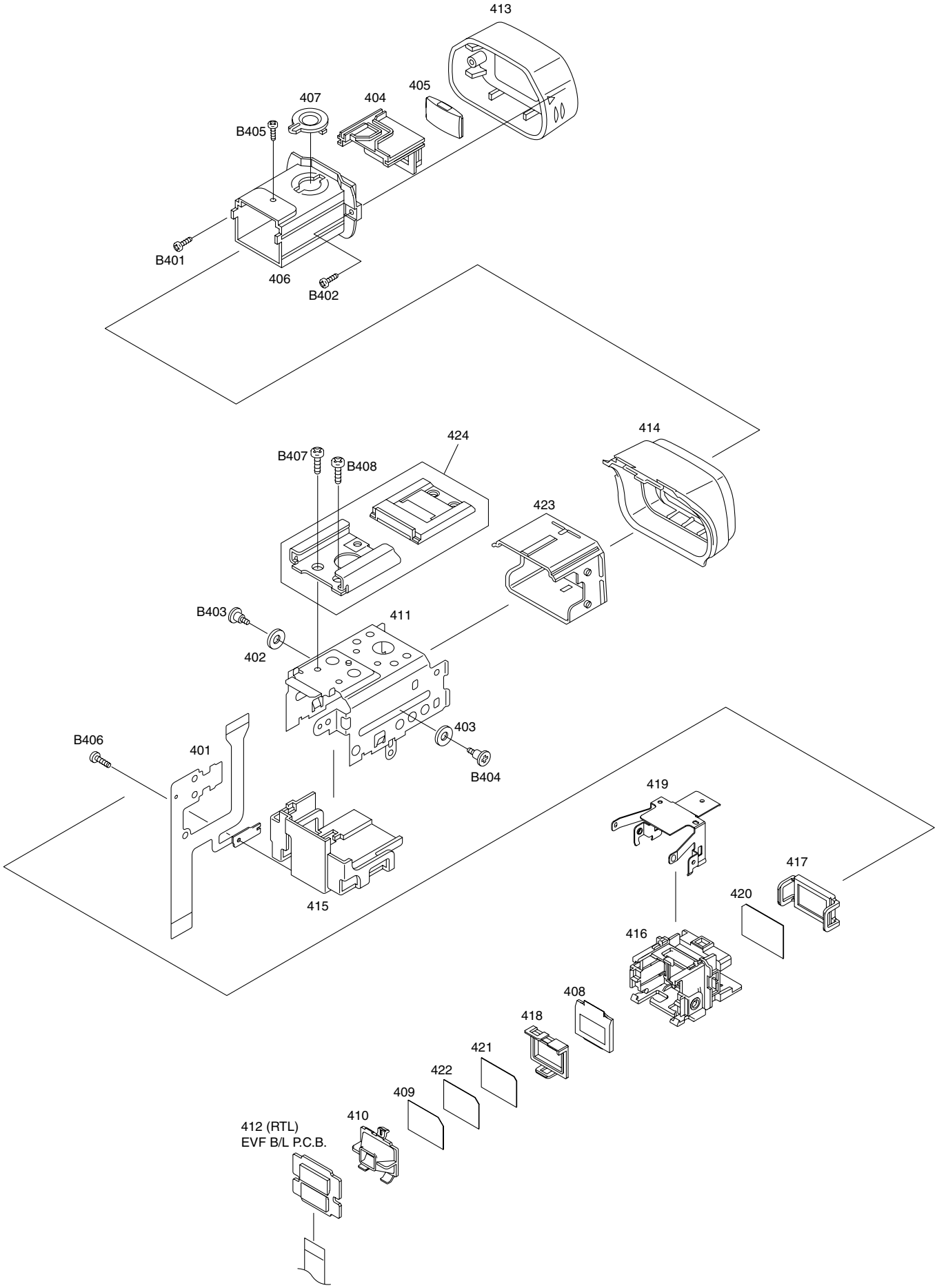
S7.3. LCD Section



S7.4. Camera Lens Section



S7.5. EVF Section



S7.6. Packing Parts and Accessories Section