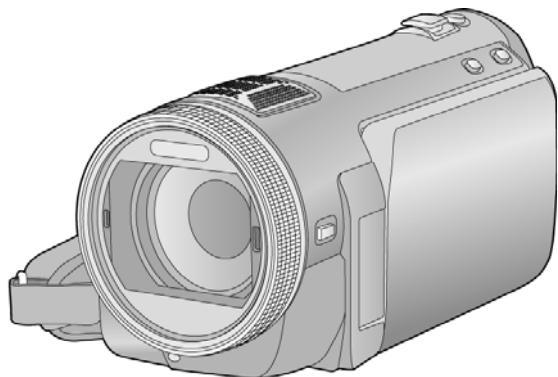


Service Manual

High Definition Video Camera

AVCHD™ **DOLBY**
DIGITAL
5.1 CREATOR **LEICA**
DICOMAR **SD**TM
XC

HDMI **VIERA Link**TM **3D**



Model No. **HDC-SDT750PP**
HDC-SDT750EB
HDC-SDT750EE
HDC-SDT750EF
HDC-SDT750EG
HDC-SDT750EP
HDC-SDT750GC
HDC-TMT750GC
HDC-TMT750GD
HDC-TMT750GK
HDC-TMT750GT

Vol. 1
Colour
(H).....Gray 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.

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1 Safety Precautions

1.1. General Guidelines

1. IMPORTANT SAFETY NOTICE

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

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

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

1.2. Leakage Current Cold Check

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

1.3. Leakage Current Hot Check (See Figure 1.)

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

Hot-Check Circuit

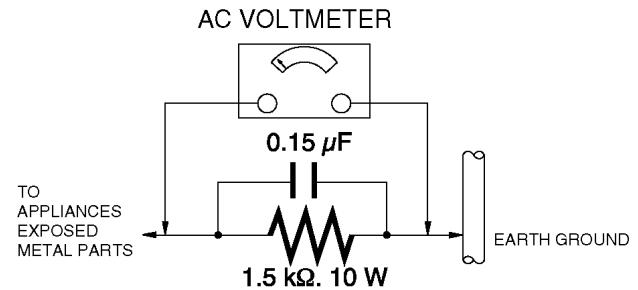


Figure. 1

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

CAUTION:

1. Be sure to discharge the capacitor on FLASH P.C.B..
2. Be careful of the high voltage circuit on FLASH P.C.B. when servicing.

[Discharging Procedure]

1. Refer to the disassemble procedure and Remove the necessary parts/unit.
2. Put the insulation tube onto the lead part of Resistor (ERG5SJ102:1kΩ /5W).
(an equivalent type of resistor may be used.)
3. Put the resistor between both terminals of capacitor on FLASH P.C.B. for approx. 5 seconds.
4. After discharging confirm that the capacitor voltage is lower than 10V using a voltmeter.

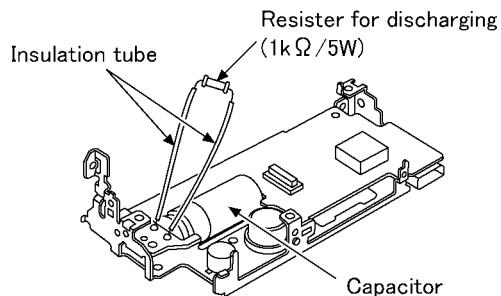


Fig. F1

2 Warning

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

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

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

CAUTION :

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

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

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

ENGLISH



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.

FRANÇAIS



L'appareil que vous vous êtes procuré est alimenté par une batterie au lithium-ion/lithium-polymère. Pour des renseignements sur le recyclage de la batterie, veuillez composer le 1-800-8-BATTERY.

2.3. Caution for AC Cord (For EB/GC)

2.3.1. 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.

2.3.2. Caution for AC Mains Lead

For your safety, please read the following text carefully.

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

A 5-ampere fuse is fitted in this plug.

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

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



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

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

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

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

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

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

If in any doubt, please consult a qualified electrician.

2.3.2.1. Important

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

Blue	Neutral
Brown	Live

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

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

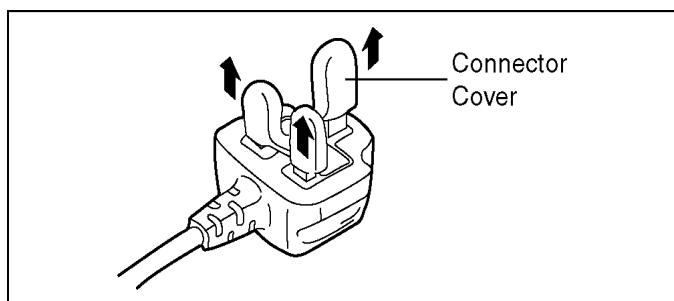
The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

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



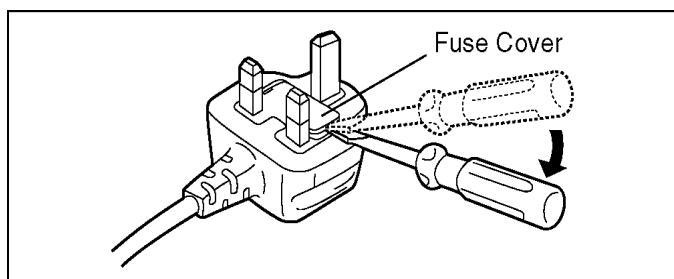
2.3.2.2. Before Use

Remove the Connector Cover as follows.

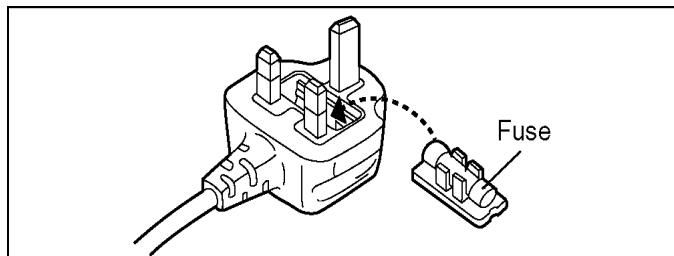


2.3.2.3. How to Replace the Fuse

1. Remove the Fuse Cover with a screwdriver.



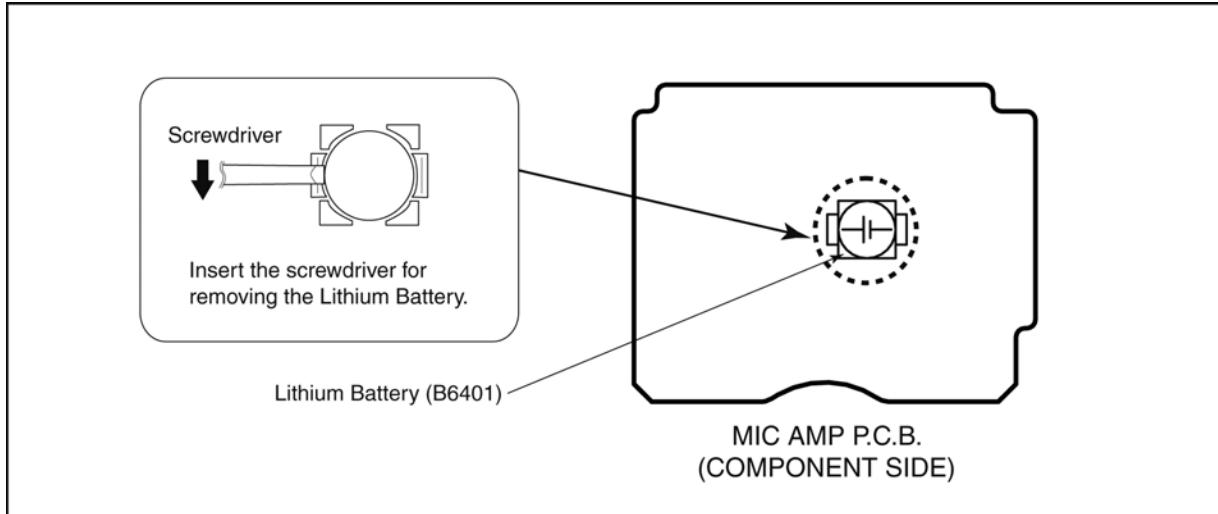
2. Replace the fuse and attach the Fuse cover.



2.4. How to Replace the Lithium Battery

2.4.1. Replacement Procedure

1. Remove the MIC AMP P.C.B.. (Refer to Disassembly Procedures.)
2. Remove the Lithium battery (Ref. No. "B6401" at component side of MIC AMP P.C.B.) and then replace it into new one.



NOTE:

This Lithium battery is a critical component.

(Type No.: ML-614S/ZTK Manufactured by Energy Company, Panasonic Corporation)

It must never be subjected to excessive heat or discharge.

It must therefore only be fitted in requirement designed specifically for its use.

Replacement batteries must be of 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.

(For English)

CAUTION

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer.

Dispose of used batteries according to the manufacturer's instructions.

(For German)

ACHTUNG

Explosionsgefahr bei falschem Anbringen der Batterie. Ersetzen Sie nur mit einem äquivalentem vom Hersteller empfohlenem Typ.

Behandeln Sie gebrauchte Batterien nach den Anweisungen des Herstellers.

(For French)

MISE EN GARDE

Une batterie de remplacement inappropriée peut exploser. Ne remplacez qu'avec une batterie identique ou d'un type recommandé par le fabricant. L'élimination des batteries usées doit être faite conformément aux instructions du manufacturier.

NOTE:

Above caution is applicable for a battery pack which is for HDC-SDT750/TMT750 series, as well.

1. Battery Pack for this model.

2. Button-type battery for Remote controller (CR2025: Being supplied from Energy Company, Panasonic Corporation).

3 Service Navigation

3.1. Introduction

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

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

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

3.2. General Description About Lead Free Solder (PbF)

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

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

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

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

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

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

Recommended Lead Free Solder (Service Parts Route.)

- The following 3 types of lead free solder are available through the service parts route.

RFKZ03D01KS-----(0.3mm 100g Reel)

RFKZ06D01KS-----(0.6mm 100g Reel)

RFKZ10D01KS-----(1.0mm 100g Reel)

Note

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

3.3. Important Notice 1:(Other than U.S.A. and Canadian Market)

1. The service manual does not contain the following information, because of the impossibility of servicing at component level without concerned equipment/facilities.

- a. Schematic diagram, Block Diagram and P.C.B. layout of MAIN P.C.B..
- b. Parts list for individual parts for MAIN P.C.B..

When a part replacement is required for repairing MAIN P.C.B., replace as an assembled parts. (Main P.C.B.)

2. The following category is /are recycle module part. Please send it/them to Central Repair Center.

- MAIN P.C.B. (VEP03J02CN: HDC-SDT750PP)
- MAIN P.C.B. (VEP03J02CP: HDC-SDT750EB/EF/EG/EP)
- MAIN P.C.B. (VEP03J02CQ: HDC-SDT750EE/GC)
- MAIN P.C.B. (VEP03J02DN: HDC-TMT750GD/GT)
- MAIN P.C.B. (VEP03J02DQ: HDC-TMT750GC/GK)

3.4. How to Define the Model Suffix (NTSC or PAL model)

There are seven kinds of HDC-SDT750/TMT750.

- a) HDC-SDT750PP
- b) HDC-SDT750EB/EF/EG/EP
- c) HDC-SDT750EE
- d) HDC-TMT750GT
- e) HDC-TMT750GK
- f) HDC-TMT750GD
- g) HDC-SDT750GC, TMT750GC

What is the difference is that the "INITIAL SETTING" data which is stored in Flash ROM mounted on Main P.C.B..

3.4.1. Defining methods:

To define the model suffix to be serviced, refer to the rating label and caution label which are putted on the Unit.

a) HDC-SDT750PP

The nameplate for this model show the following Safety registration mark.



b) HDC-SDT750EB/EF/EG/EP

The nameplate for these models show the following Safety registration mark.



c) HDC-SDT750EE

The nameplate for this model show the following Safety registration mark.



d) HDC-TMT750GT

The nameplate for this model show the following Safety registration mark.



e) HDC-TMT750GK

The caution label for this model show the following Safety registration mark.



f) HDC-TMT750GD

The nameplate for this model show the following Safety registration mark.



g) HDC-SDT750GC, TMT750GC

The nameplate for these models do not show any above Safety registration mark.

NOTE:

After replacing the MAIN P.C.B., be sure to achieve adjustment.

The adjustment instruction is available at "software download" on the "Support Information from NWBG/VDBG-AVC" web-site in "TSN system", together with Maintenance software.

3.5. Formatting

HDC-SDT750

[FORMAT CARD]

Please be aware that if a medium is formatted, then all the data recorded on the medium will be erased and cannot be restored. Back up important data on a PC, DVD disc etc.

- When formatting is complete, touch [EXIT] to exit the message screen.
- Perform a physical formatting of the SD card when the SD card is to be disposed/transferred.
- Do not turn this unit off or remove the SD card, while formatting. Do not expose the unit to vibrations or shock.

Use this unit to format media.

Do not format an SD card using any other equipment such as a PC. The card may not be used on this unit.

HDC-TMT750

[FORMAT MEDIA]

Please be aware that if a medium is formatted, then all the data recorded on the medium will be erased and cannot be restored. Back up important data on a PC, DVD disc etc.

- 1 Touch [FORMAT MEDIA].
- 2 Touch [SD CARD] or [Built-inMemory].

- When formatting is complete, touch [EXIT] to exit the message screen.
- Perform a physical formatting of the SD card when the SD card is to be disposed/transferred.
- Perform a physical formatting of the built-in memory when this unit is to be disposed/transferred.
- Do not turn this unit off or remove the SD card, while formatting. Do not expose the unit to vibrations or shock.

Use this unit to format media.

Formatting built-in memory is only available with this unit.

Do not format an SD card using any other equipment such as a PC. The card may not be used on this unit.

HDC-TMT750

When disposing of or giving away this unit, note that:

- Formating and deletion simply change the file management information and cannot be used to completely erase the data in built-in memory of this unit. The data can be recovered using commercially available software or the like.
- We recommend that you physically format the built-in memory before disposing of or giving away this unit.
To physically format the built-in memory, connect the unit via the AC adaptor, select [SETUP] → [FORMAT MEDIA] → [Built-inMemory] from the menu, and then press and hold the delete button on the screen below for about 3 seconds. When the built-in memory data deletion screen appears, select [YES], and then follow the on-screen instructions.



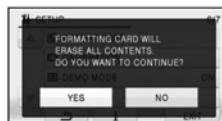
- Please look after the data in your built-in memory carefully. Panasonic will not be held responsible in the unlikely case that private data is divulged.

When disposing of or giving away the SD card, note that:

- Formating and deletion of this unit or computer only changes the file management information and does not completely delete the data in the SD card.
- It is recommended that the SD card is physically destroyed or the SD card is physically formatted using this unit when disposing of or giving away the SD card.

HDC-SDT750

To physically format the SD card, connect the unit via the AC adaptor, select [SETUP] → [FORMAT CARD] → [YES] from the menu, and then press and hold the delete button on the screen below for about 3 seconds. When the SD card data deletion screen appears, select [YES], and then follow the on-screen instructions.



HDC-TMT750

To physically format the SD card, connect the unit via the AC adaptor, select [SETUP] → [FORMAT MEDIA] → [SD CARD] from the menu, and then press and hold the delete button on the screen below for about 3 seconds. When the SD card data deletion screen appears, select [YES], and then follow the on-screen instructions.



- The customer is responsible for the management of the data in the SD card.

4 Specifications

High Definition Video Camera Information for your safety

Power source:	DC 9.3 V (When using AC adaptor) DC 7.2 V (When using battery)
Power consumption:	Recording: 6.0 W

Signal system:
1080/60p, 1080/60i (NTSC areas)
1080/50p, 1080/50i (PAL areas)

Recording format:
1080/60p; Original format (NTSC areas)
1080/50p; Original format (PAL areas)
HA/HG/HX/HE; AVCHD format compliant

Image sensor:
1/4.1 type (1/4.1") 3MOS image sensor
Total: 3050 K×3
Effective pixels:
Motion picture; 2530 K×3 (16:9)
Still picture; 2320 K×3 (4:3), 2630 K×3 (3:2), 2530 K×3 (16:9)

Lens: Auto Iris, 12× Optical Zoom, F1.5 to F2.8
Focal length; 3.45 mm to 41.4 mm
Macro (Full range AF)
35 mm equivalent;
Motion picture; 35 mm to 420 mm (16:9)
Still picture; 38.8 mm to 466 mm (4:3), 35.7 mm to 428 mm (3:2), 35 mm to 420 mm (16:9)
Minimum focus distance;
Normal: Approx. 4 cm (1.6") (Wide)/Approx. 1.2 m (3.9 feet) (Tele)
Tele macro: Approx. 70 cm (28") (Tele)
Intelligent auto Macro: Approx. 1 cm (0.4") (Wide)/Approx. 70 cm (28") (Tele)

Filter diameter:
46 mm

Zoom:
12× optical zoom, 18× i.Zoom, 30×/700× digital zoom

Monitor:
7.6 cm (3") wide LCD monitor (Approx. 230 K dots)

Viewfinder:
0.69 cm (0.27") wide EVF (Approx. 123 K dots)

Microphone:
5.1 channel surround microphone (with a zoom microphone/focus microphone function)

Speaker:
1 round speaker, dynamic type

White balance adjustment:
Auto tracking white balance system

Standard illumination:
1,400 lx

Minimum required illumination:
Approx. 1.6 lx (1/30 with low light mode in the scene mode) (NTSC areas)
Approx. 1 lx with the Color night rec function (NTSC areas)
Approx. 1.6 lx (1/25 with low light mode in the scene mode) (PAL areas)
Approx. 1 lx with the colour night view function (PAL areas)

AV multi connector video output level:

Component video output level;

Y; 1.0 Vp-p, 75 Ω

Pb; 0.7 Vp-p, 75 Ω

Pr; 0.7 Vp-p, 75 Ω

AV video output level;

1.0 Vp-p, 75 Ω, NTSC system (NTSC areas)

1.0 Vp-p, 75 Ω, PAL system (PAL areas)

HDMI mini connector video output level:

HDMI™ (x.v.Color™) 1080p/1080i/480p (NTSC areas)

HDMI™ (x.v.Colour™) 1080p/1080i/576p (PAL areas)

AV multi connector audio output level (Line):

316 mV, 600 Ω, 2 ch

Headphone output:
77 mV, 32 Ω (Stereo mini jack)

HDMI mini connector audio output level:
Dolby Digital/Linear PCM

MIC input:

-70 dBV (Mic sensitivity -50 dB equivalent, 0 dB=1 V/Pa, 1 kHz)
(Stereo mini jack)

USB:

Reader/writer function

SD card; Read only (No copyright protection support) (EB/EF/EG/EP areas)

SD card; Read/Write (No copyright protection support) (Other areas)

[HDC-TMT750]

Built-in memory; Read only

Hi-Speed USB (USB 2.0), USB terminal Type Mini AB

USB host function (for DVD burner)

Flash:

Available range: Approx. 1.0 m to 2.5 m (3.3 feet to 8.2 feet)

Dimensions:

66 mm (W)×69 mm (H)×138 mm (D)
[2.59 " (W)×2.71 " (H)×5.43 " (D)] (excluding projecting parts)

Mass:

[HDC-SDT750]

Approx. 375 g (Approx. 0.83 lbs.) [without battery (supplied) and an SD card (optional)]

[HDC-TMT750]

Approx. 380 g [without battery (supplied)]

Mass in operation:

[HDC-SDT750]

Approx. 435 g (Approx. 0.96 lbs.) [with battery (supplied) and an SD card (optional)]

[HDC-TMT750]

Approx. 440 g [with battery (supplied)]

Operating temperature:

0 °C to 40 °C (32 °F to 104 °F)

Operating humidity:

10%RH to 80%RH

Battery operation time:

Refer to "Charging and recording time".

■ 3D Conversion Lens

Dimensions:

78 mm (W)×59 mm (H)×97 mm (D) [3.07 " (W)×2.32 " (H)×3.82 " (D)]

Mass:

Approx. 195 g (Approx. 0.429 lbs.)

Lens (when attached to the unit):

F3.2 (f = 2.5 mm)

35 mm equivalent; 58 mm

Minimum recording distance: Approx. 1.2 m (3.9 feet)

Stereo base: 12.4 mm (0.49")

Minimum illumination:

Approx. 28 lx (1/30 when [AUTO SLOW SHTR (3D)] is set to [ON]) (NTSC areas)

Approx. 28 lx (1/25 when [AUTO SLOW SHTR (3D)] is set to [ON]) (PAL areas)

■ Motion pictures

Recording media:

SD Memory Card (FAT12 and FAT16 system compliant)

SDHC Memory Card (FAT32 system compliant)

SDXC Memory Card (exFAT system compliant)

Refer to "Cards that you can use with the unit".

[HDC-TMT750]

Built-in memory; 32 GB

Compression:

MPEG-4 AVC/H.264

Recording mode and transfer rate:

1080/60p; Approx. 28 Mbps (VBR) (NTSC areas)

1080/50p; Approx. 28 Mbps (VBR) (PAL areas)

HA; Approx. 17 Mbps (VBR)

HG; Approx. 13 Mbps (VBR)

HX; Approx. 9 Mbps (VBR)

HE; Approx. 5 Mbps (VBR)

Refer to "Recording modes/approximate time".

Picture size:

1080/60p; 1920×1080/60p (NTSC areas)

HA/HG/HX/HE; 1920×1080/60i (NTSC areas)

1080/50p; 1920×1080/50p (PAL areas)

HA/HG/HX/HE; 1920×1080/50i (PAL areas)

Audio compression:

Dolby Digital/5.1 ch (built-in microphone), 2 ch (built-in microphone/external microphone)

■ Still pictures

Recording media:

SD Memory Card (FAT12 and FAT16 system compliant)
SDHC Memory Card (FAT32 system compliant)
SDXC Memory Card (exFAT system compliant)
Refer to "Cards that you can use with the unit".
(HDC-TMT750)
Built-in memory: 32 GB

Compression:

JPEG (Design rule for Camera File system, based on Exif 2.2 standard), DPOF corresponding

Picture size:

Picture aspect [4:3];
4032×3024/3200×2400/2560×1920/640×480
Picture aspect [3:2];
4608×3072/3600×2400/2880×1920
Picture aspect [16:9];
4864×2736/3840×2160/3072×1728/1920×1080
Refer to "Approximate Number of recordable pictures".

AC adaptor

Information for your safety

Power source:	AC 110 V to 240 V, 50/60 Hz
Power consumption:	19 W
DC output:	DC 9.3 V, 1.2 A (Unit operation) DC 8.4 V, 0.65 A (Battery charging)

Dimensions:

92 mm (W)×33 mm (H)×61 mm (D) [3.6 " (W)×1.3 " (H)×2.4 " (D)]

Mass:

Approx. 115 g (Approx. 0.25 lbs.)

Specifications may change without prior notice.

Charging and recording time

■ Charging/Recording time

● Temperature: 25 °C (77 °F)/humidity: 60%RH

NTSC areas				
Battery model number [Voltage/Capacity (minimum)]	Charging time	Recording mode	Maximum continuous recordable time	Actual recordable time
Supplied battery/ VW-VBG130 (optional) [7.2 V/1250 mAh]	2 h 35 min	1080/60p	1 h 35 min	55 min
		HA, HG, HX, HE	1 h 40 min	1 h
VW-VBG260 (optional) [7.2 V/2500 mAh]	4 h 40 min	1080/60p	3 h	1 h 50 min
		HA, HG, HX, HE	3 h 10 min	1 h 55 min
VW-VBG6 (optional)* [7.2 V/5400 mAh]	9 h 25 min	1080/60p	7 h 30 min	4 h 40 min
		HA, HG, HX	7 h 50 min	4 h 50 min
		HE	7 h 55 min	4 h 55 min

PAL areas				
Battery model number [Voltage/Capacity (minimum)]	Charging time	Recording mode	Maximum continuously recordable time	Actual recordable time
Supplied battery/ VW-VBG130 (optional) [7.2 V/1250 mAh]	2 h 35 min	1080/50p, HA, HG, HX	1 h 40 min	1 h
		HE		1 h 5 min
VW-VBG260 (optional) [7.2 V/2500 mAh]	4 h 40 min	1080/50p	3 h 10 min	1 h 55 min
		HA, HG, HX	3 h 15 min	2 h
VW-VBG6 (optional)* [7.2 V/5400 mAh]	9 h 25 min	HE	3 h 20 min	
		1080/50p	7 h 50 min	4 h 50 min
		HA	8 h 5 min	5 h
		HG, HX	8 h 10 min	
		HE	5 h 5 min	

* The battery pack holder kit VW-VH04 (optional) is necessary.

● These times are approximations.

● The indicated charging time is for when the battery has been discharged completely.

Charging time and recordable time vary depending on the usage conditions such as high/low temperature.

● Recordable time of 3D recording mode is the same.

(During 3D recording mode, 1080/60p [NTSC areas] or 1080/50p [PAL areas] recording mode cannot be used.)

● The actual recordable time refers to the recordable time when repeatedly starting/stopping recording, turning the unit on/off, moving the zoom lever etc.

● The batteries heat up after use or charging. This is not a malfunction.

Cards that you can use with this unit

Use SD cards conforming to Class 4 or higher of the SD Speed Class Rating* for motion picture recording.

Card type	Capacity	Motion picture recording	Still picture recording
SD Memory Card	8 MB/16 MB/32 MB	Cannot be used.	Can be used.
	64 MB/128 MB/256 MB	Cannot be guaranteed in operation.	
	512 MB/1 GB/2 GB		
	4 GB/6 GB/8 GB/12 GB/16 GB/24 GB/32 GB	Can be used.	
SDXC Memory Card	48 GB/64 GB		

* The SD Speed Class Rating is the speed standard for successive writes.

Recording modes/approximate recordable time

● SD cards are only mentioned with their main memory size. The stated times are the approximate recordable times for continuous recording.

Recording mode (NTSC areas) (PAL areas)	A ← → B				
	1080/60p	HA	HG	HX	HE
1080/50p	HA	HG	HX	HE	
1920×1080	1920×1080	1920×1080	1920×1080	1920×1080	1920×1080
4 GB	19 min	30 min	40 min	1 h	1 h 30 min
8 GB	40 min	1 h	1 h 20 min	2 h	3 h 20 min
16 GB	1 h 20 min	2 h	2 h 40 min	4 h 10 min	6 h 40 min
32 GB	2 h 40 min	4 h 10 min	5 h 30 min	8 h 20 min	13 h 40 min
48 GB	4 h	6 h 20 min	8 h 10 min	12 h 30 min	20 h 20 min
64 GB	5 h 20 min	8 h 30 min	11 h	16 h 50 min	27 h 30 min
HDC-TMT750 Built-in memory	2 h 40 min	4 h 10 min	5 h 30 min	8 h 20 min	13 h 40 min

A Favors image quality

B Favors recording time

- If recording for long periods, prepare batteries for 3 or 4 times the period you wish to record for.
- The default setting is [HG] mode.
- Recordable time of 3D recording mode is the same. (During 3D recording mode, 1080/60p [NTSC areas] or 1080/50p [PAL areas] recording mode can not be used.)
- Maximum continuously recordable time for one scene: 12 hours
- The recording is paused once when the recording time for one scene exceeds 12 hours, and the recording will automatically resume after a few seconds.
- If a recording with a lot movements is recorded, the recording time is reduced.
- The recordable time may be reduced if recording of short scene is repeated.
- Use time in the row of 4 GB in above table as a guideline for the time that can be copied onto one DVD disc (4.7 GB).

Approximate number of recordable pictures

- SD cards are only mentioned with their main memory size. The stated number is the approximate number of recordable pictures.
(In still picture recording mode)

Aspect ratio		4:3							
Picture size		4032×3024	3200×2400	2560×1920	640×480				
Picture quality		■■■■■	■■■■	■■■■	■■■	■■■■■	■■■■	■■■■■	■■■■■
SD card	512 MB	70	110	110	180	180	290	3600	6100
	1 GB	140	220	220	360	360	580	7400	12000
	2 GB	300	450	450	740	740	1200	15000	25000
	4 GB	610	940	940	1500	1500	2400	30000	50000
	8 GB	1200	1900	1900	3000	3000	4800	60500	102000
	16 GB	2500	3900	3900	6200	6200	9700	122000	205000
	32 GB	5000	7900	7900	12500	12500	19500	246000	414000
	48 GB	7200	11000	11000	18000	18000	28000	364000	613000
	64 GB	10000	15800	15800	25000	25000	39000	492000	829000
HDC-TMT750 Built-in memory	32 GB	5000	7900	7900	12500	12500	19500	246000	414000

Aspect ratio		16:9							
Picture size		4864×2736	3840×2160	3072×1728					
Picture quality		■■■■■	■■■■	■■■■	■■■■	■■■■■	■■■■	■■■■■	■■■■■
SD card	512 MB	65	100	100	160	160	270		
	1 GB	130	200	200	320	320	540		
	2 GB	270	400	400	700	700	1100		
	4 GB	550	850	850	1420	1420	2200		
	8 GB	1100	1700	1700	2800	2800	4500		
	16 GB	2200	3400	3400	5600	5600	9000		
	32 GB	4500	7000	7000	11500	11500	18200		
	48 GB	6600	10000	10000	17000	17000	26000		
	64 GB	9000	14000	14000	23000	23000	36400		
HDC-TMT750 Built-in memory	32 GB	4500	7000	7000	11500	11500	18200		

(In motion picture recording mode)

Aspect ratio		16:9							
Picture size		4864×2736	3840×2160	1920×1080					
Picture quality		■■■■■	■■■■	■■■■	■■■■	■■■■■	■■■■	■■■■■	■■■■■
SD card	512 MB	65	100	100	160	440	690		
	1 GB	130	200	200	320	900	1400		
	2 GB	270	400	400	700	1800	2800		
	4 GB	550	850	850	1420	3600	5600		
	8 GB	1100	1700	1700	2800	7300	11000		
	16 GB	2200	3400	3400	5600	14000	23000		
	32 GB	4500	7000	7000	11500	29000	46000		
	48 GB	6600	10000	10000	17000	44000	69000		
	64 GB	9000	14000	14000	23000	59000	93000		
HDC-TMT750 Built-in memory	32 GB	4500	7000	7000	11500	29000	46000		

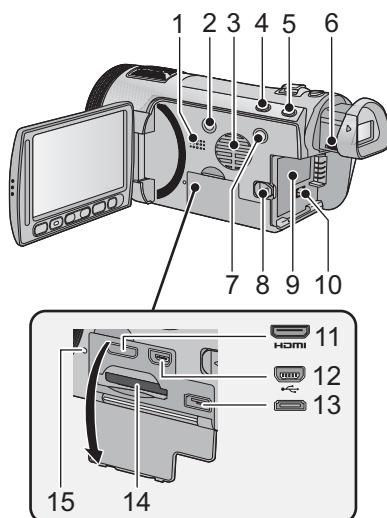
● The number of recordable pictures depends on whether ■■■ and ■■■ are used together and on the subject being recorded.

● Maximum number of recordable pictures that can be displayed is 99999.

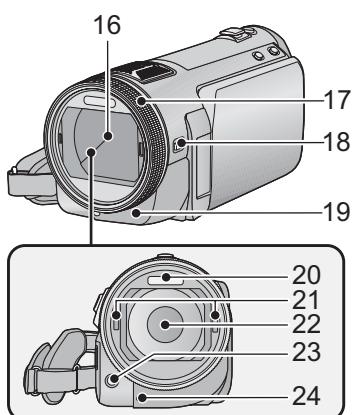
If the number of recordable pictures exceeds 99999, the number will not change when the picture is taken until the number of recordable pictures gets less than 99999.

● The memory capacity indicated on the label of an SD card is the total of the capacity for copyright protection and management and the capacity which can be used on the unit, a PC etc.

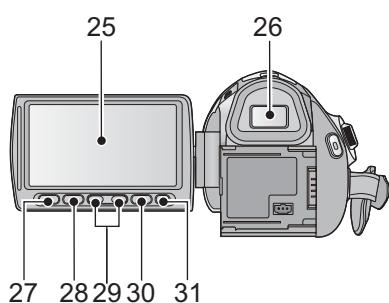
5 Location of Controls and Components



- 1 Speaker
- 2 Power button [/]
- 3 Inlet (cooling fan)
- 4 Intelligent auto/Manual button [/- 5 Optical image stabilizer button []
- 6 Eyepiece corrector dial
- 7 1080/60p button [1080/60p] (NTSC areas)
1080/50p button [1080/50p] (PAL areas)
- 8 Battery release lever [BATT]
- 9 Battery holder
- 10 DC input terminal [DC IN]
 - Always use the supplied AC adaptor or a genuine Panasonic AC adaptor.
- 11 HDMI mini connector [HDMI]
- 12 USB terminal [- 13 AV multi connector
 - Use the AV multi cable (only the supplied cable).
- 14 Card slot
- 15 Access lamp [ACCESS]



- 16 Lens cover
 - The lens cover opens in or .
- 17 Multi manual ring
- 18 Camera function button [CAMERA FUNCTION]
- 19 Remote control sensor
- 20 Built-in flash
- 21 3D Conversion Lens attachment part (concave)
- 22 Lens (LEICA DICOMAR)
- 23 AF assist lamp
- 24 Recording lamp



25 LCD monitor (Touch screen)

- 
- It can open up to 90°.
- 

- It can rotate up to 180° A towards the lens or 90° B towards the viewfinder.

26 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.

27 Quick menu button [Q.MENU]

28 Sub recording start/stop button

- This button functions in the same manner as the recording start/stop button.

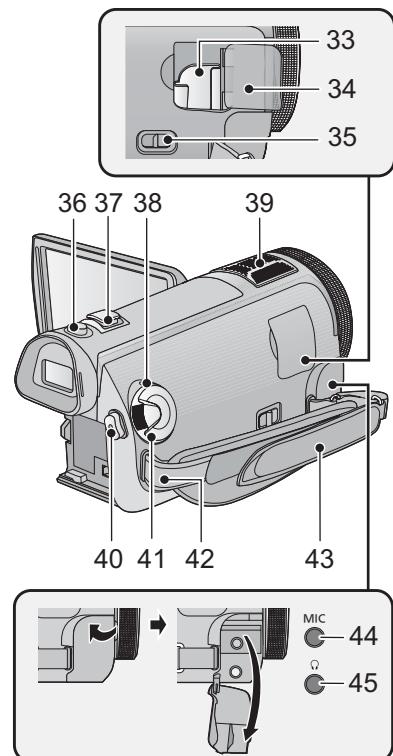
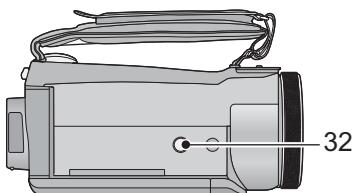
29 Adjust zoom buttons

30 Menu button [MENU]

31 Delete button []

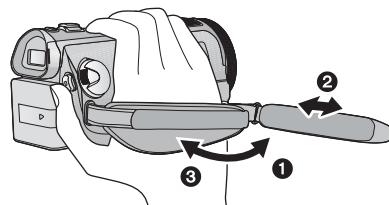
Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the LCD monitor screen. However, this is not a malfunction and does not affect the recorded picture.

32 Tripod receptacle

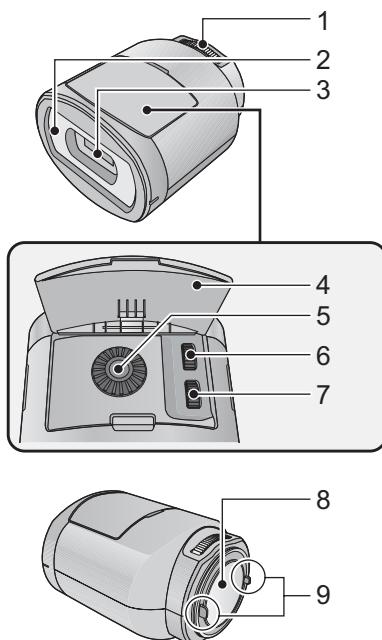


- 33 Shoe adaptor mount**
34 Shoe adaptor cover
35 Shoe adaptor release lever [SHOE ADAPTOR RELEASE]
36 Photoshot button [CAMERA]
37 Zoom lever [W/T] (In Motion Picture Recording Mode or Still Picture Recording Mode)
38 Thumbnail display switch [THUMBNAIL]/[Q]
39 Volume lever [-VOL+] (In Playback Mode)
40 Internal microphones
41 Recording start/stop button
42 Mode dial
43 Grip belt
 Adjust the length of the grip belt so that it fits your hand.

- ① Flip the belt.
 - ② Adjust the length.
 - ③ Replace the belt.
- 44 Microphone terminal [MIC]**
- A compatible plug-in powered microphone can be used as an external microphone.
 - Audio will be stereo (2 ch) with the external microphone input.
 - When the unit is connected with the AC adaptor, sometimes noise may be heard depending on the microphone type. In this case, please switch to the battery for the power supply and the noise will stop.
- 45 Headphone terminal [PHONES]**

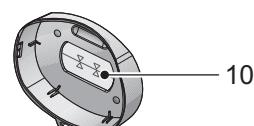


■ About the 3D Conversion Lens



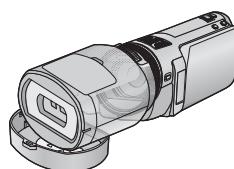
- 1 Attachment screw**
2 Protective glass (front)
3 Lens
4 Adjustment dial cover
5 Vertical position adjustment dial [2]
6 Vertical alignment adjustment dial [3]
7 Horizontal image position adjustment dial [1]
8 Protective glass (rear)
9 Camera body attachment part (convex)

Lens front cap



10 Horizontal line for adjustment

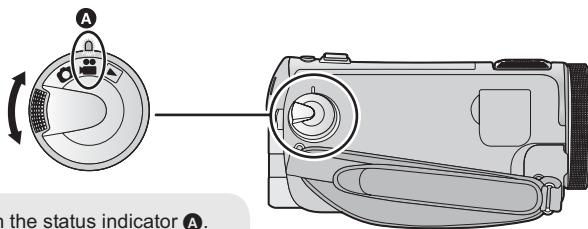
- Use to adjust the lens attachment position.
- If you use the lens front cap as a stand as shown below, you can leave the unit with the 3D Conversion Lens attached.



Selecting a mode

Change the mode to recording or playback.

Operate the mode dial to change the mode to  ,  or  .



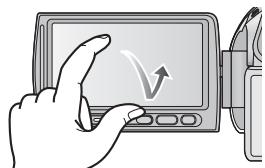
	Motion Picture Recording Mode
	Still Picture Recording Mode
	Playback Mode

How to use the touch screen

You can operate by directly touching the LCD monitor (touch screen) with your finger. It is easier to use the stylus pen (supplied) for detailed operation or if it is hard to operate with your fingers.

Touch

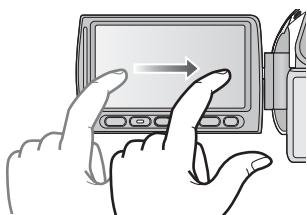
Touch and release the touch screen to select icon or picture.



- Touch the center of the icon.
- Touching the touch screen will not operate while you are touching another part of the touch screen.

Drag

Move your finger while pressing on the touch screen. Can be used during direct playback and playback zoom.



About the operation icons

 /  /  /  :

These icons are used to switch the menu and thumbnail display page, for item selection and setting etc.

 :

Touch to return to the previous screen such as when setting menus.

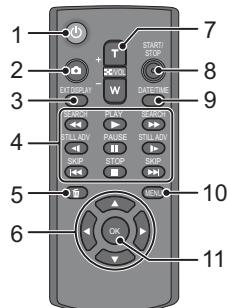


- Do not touch on the LCD monitor with hard pointed tips, such as ball point pens.
- Perform the touch screen calibration when the touch is not recognized or wrong location is recognized.

Using with the remote control

Select the menu.

[MENU] : [SETUP] → [REMOTE CONTROL] → [ON]



1 Power on/off button []

Unit can be turned on/off when the LCD monitor is opened or the viewfinder is extended.

● Unit cannot be turned on by the power on/off button when 36 hours have passed after the unit is turned off. Press the power button on the unit and turn the unit back on.

● Unit cannot be turned off when it is connected to the PC or the DVD burner.

2 Photoshot button []*

3 On-screen display button [EXT DISPLAY]

4 Playback operation buttons

These buttons function in the same manner as the corresponding playback operation icon being displayed on screen.

[Excluding skip playback]

5 Delete button []*

6 Direction buttons [, , ,]

7 Zoom/volume/thumbnail display switch buttons [T, W, /VOL]*

8 Recording start/stop button [START/STOP]*

9 Date/time button [DATE/TIME]

10 Menu button [MENU]*

11 OK button [OK]

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

Recording 3D video

When using for the first time, be sure to adjust the 3D Conversion Lens attachment position.

- Turn off the unit.
- Change the mode to .

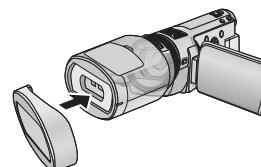
1 Attach the 3D Conversion Lens to the unit.

2 Turn on the unit.

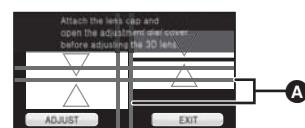
- Turn on with the unit in a horizontal state.
- The 3D Conversion Lens adjustment mode screen will appear automatically after performing the initial setting.
- If the 3D Conversion Lens adjustment mode screen does not appear automatically, set from the menu.
([SETUP] → [3D CONV. LENS SETUP])
- If the unit is turned on with the USB cable still connected, the USB connection will take priority.

3 Attach the lens front cap to the 3D Conversion Lens.

- 2 screens will appear.
- The horizontal line for adjustment on the lens front cap is displayed on the screen.



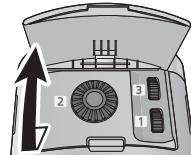
A Guide Line



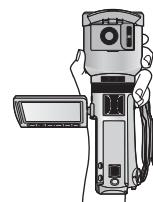
4 Touch [ADJUST].

- If the black vertical line and the black horizontal line are within the red guidelines A and adjustment is not required, touch [EXIT] and proceed to Step 11.
- Perform the adjustment in a bright location where the horizontal line for adjustment will be clearly visible.
- The 3D Conversion Lens cannot be adjusted using the viewfinder.

5 Open the adjustment dial cover.



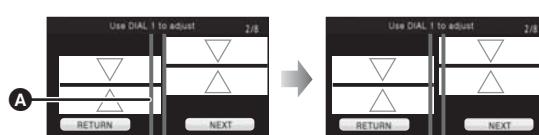
- When turning the adjustment dials, hold the 3D Conversion Lens in the palm of your hand from the bottom and operate with the fingers of your other hand without applying too much force from above. When checking the adjustment, check with your fingers off the adjustment dials.



6 (After checking the operation description, touch [NEXT].)

To adjust the horizontal position, rotate the horizontal image position adjustment dial 1 so that the black vertical line is between the red guidelines A.

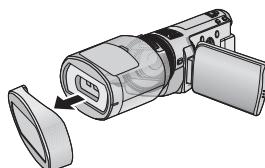
- Touch [NEXT].



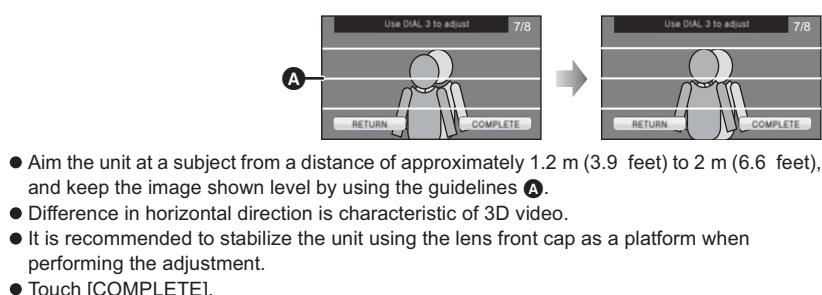
- 7** (After checking the operation description, touch [NEXT].)
To adjust the vertical position, rotate the vertical position adjustment dial **2 so that the black horizontal line at the right of the screen is in the center of the red guidelines **A**.**



- Touch [NEXT].
- 8 Removing the lens front cap.**
- Touch [NEXT].



- 9** (After checking the operation description, touch [NEXT].)
Adjust the vertical alignment adjustment dial **3 to align the vertical position of the subject shown duplicated.**



10 Touch [EXIT] to end the adjustment.

- After adjustment, a single screen appears.
- When re-attaching the 3D Conversion Lens or after an impact etc., it is recommended that you perform the adjustment again.



B **3D** appears.

11 Press the recording start/stop button to start recording.

- When the 3D Conversion Lens is attached, the zoom position is fixed, and the zoom operation is disabled.
- When recording in 3D, the image will appear with black frame around it. The black frame will be recorded in the video.

To ensure that the 3D video can be safely viewed, pay attention to the following points when recording.

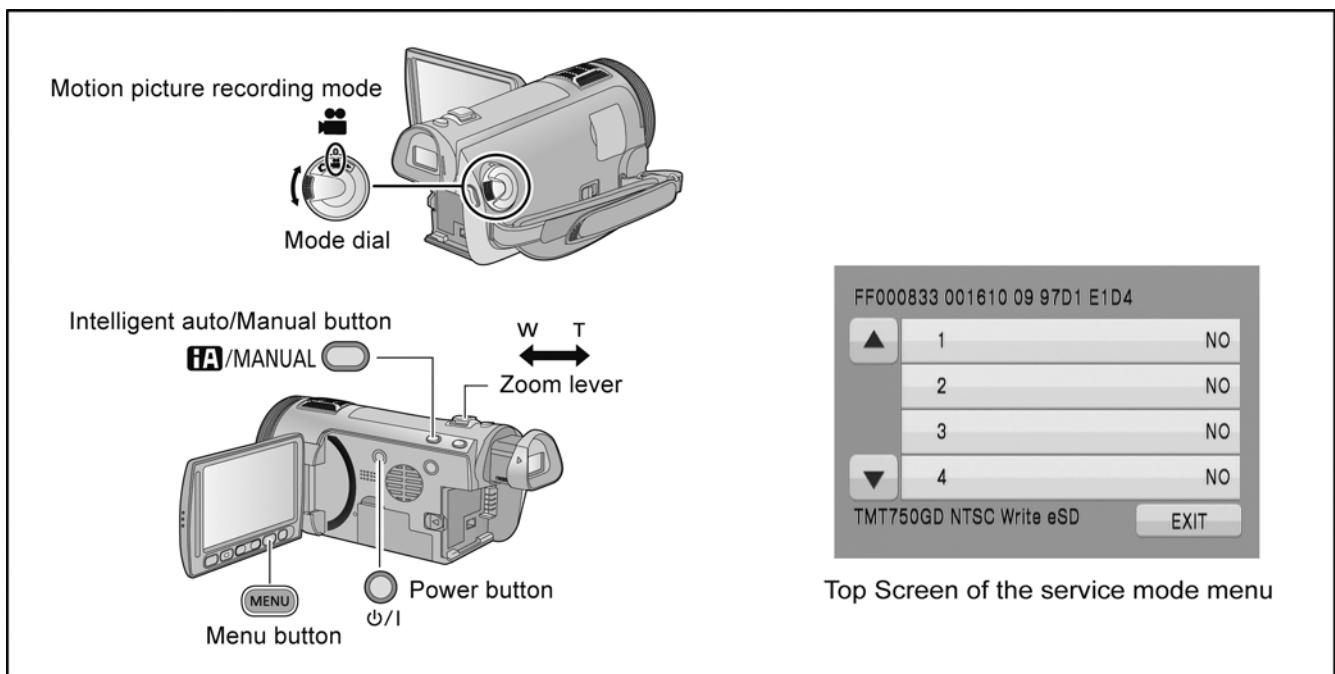
- Where possible, record with the unit in a horizontal state.
- Do not get too close to the subject. (record from a distance of at least 1.2 m (3.9 feet).)
- When moving the unit as you record, move it slowly.
- Try to hold the unit as steady as possible when recording while riding in a vehicle or walking.

6 Service Mode

1. Indication method of the service menu

Set the mode dial "Motion Picture Recording" mode.

2. Turn the power on, and then while keep pressing the "Zoom lever" to W side, "Intelligent auto/Manual" button and "Menu" button for more than 3 seconds until the top screen of the Service Mode Menu being displayed.



Service mode menu

Screen display	Contents	Function
1	Factory settings	Function to throw a product up in a factory shipment state (When recorded data in Built-in memory, "error display" is done)
3	Built-in memory self check execution (HDC-TMT750 only)	Function to check self as for the state of Built-in memory
4	Lock search history indication	Display the camera system error code for three histories saved in EEPROM
5	Power ON self check result display	Power ON self check (function to diagnose correct function of the device and interface between devices) result display

NOTE:

Do not use service mode except above table of Service mode menu.

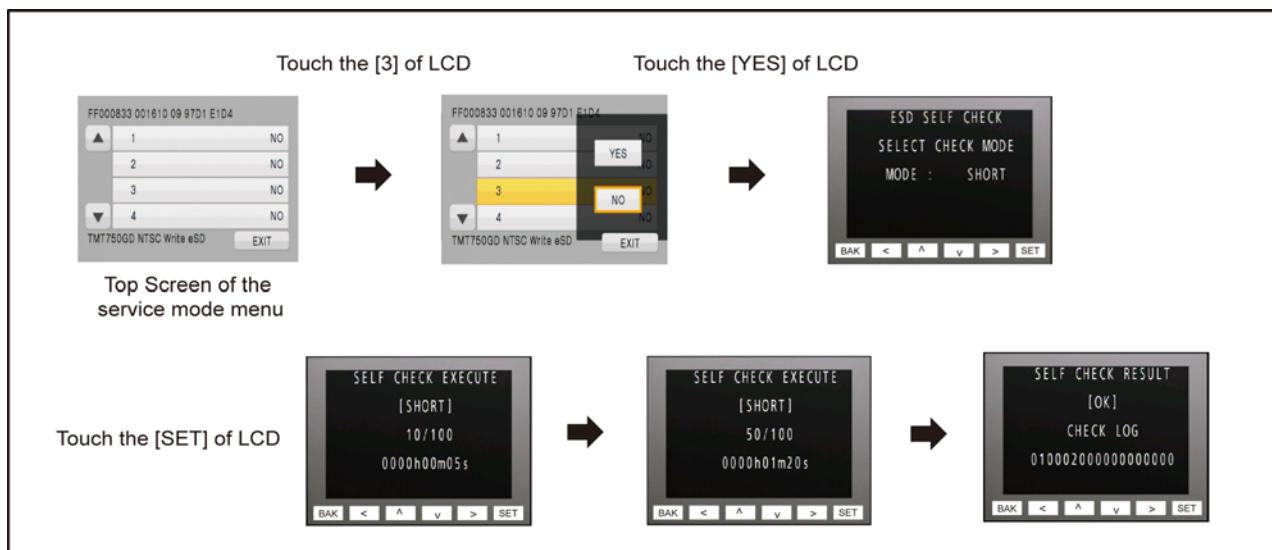
3. End method of the top screen of the service mode menu

Push the "Menu" button to end the service mode, and then POWER OFF.

6.1. Built-in Memory Self Check Execution (HDC-TMT750 only)

Touch the [3] of LCD, select Built-in memory self check execution.

Operation specifications



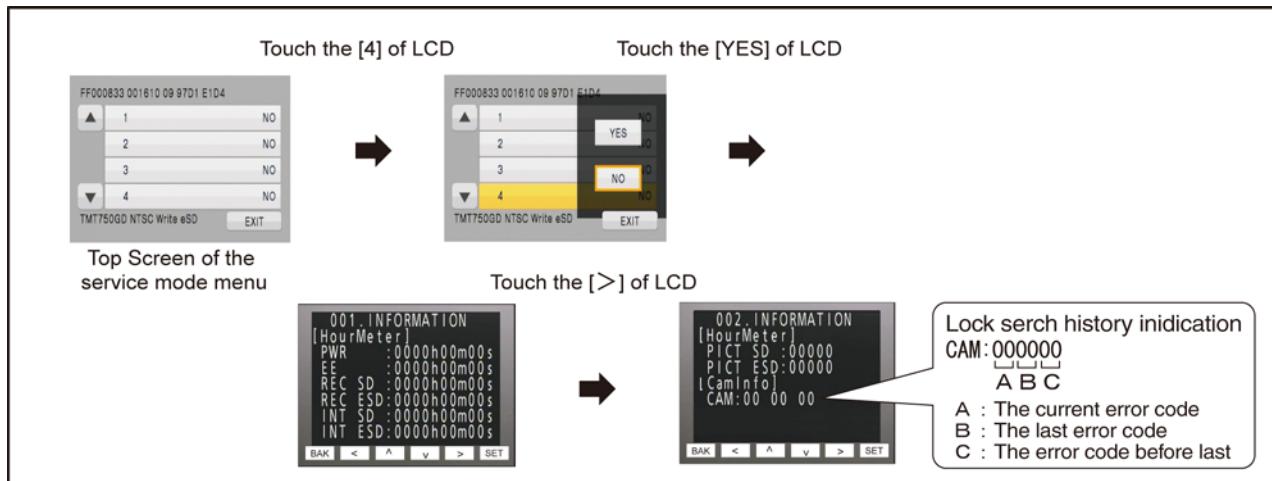
Indication contents

- Built-in memory self check result display
Display the Built-in memory self check execution.
Displays other than "OK" are abnormalities of Built-in memory.
Push the "Menu" button to end the service mode, and then POWER OFF.

6.2. Lock Search History Indication

Touch the [4] of LCD, select Lock search history indication.

Operation specifications



Indication contents

- Lock search history indication
Display the camera system error cord for three histories saved in EEPROM.
The error cord contents which are displayed

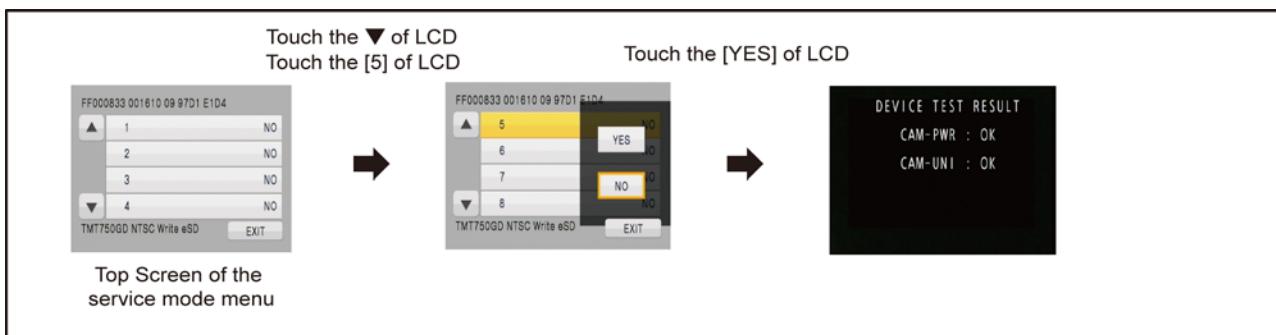
Error code	Function
51	Focus control is abnormal
52	Zoom control is abnormal
53	OIS lens control is abnormal
71	Lens cover open/close is abnormal
72	Cooling fan is abnormal
73	High temperature is abnormal
33	Communication between camera to ARM is abnormal

Push the "Menu" button to end the service mode, and then POWER OFF.

6.3. Power ON Self Check Result Display

Touch the [5] of LCD, select Power ON self check result display.

Operation specifications



Indication contents

- Power ON self check result display

Function to diagnose correct function of the device and interface between devices result display.

Display the following communication test result.

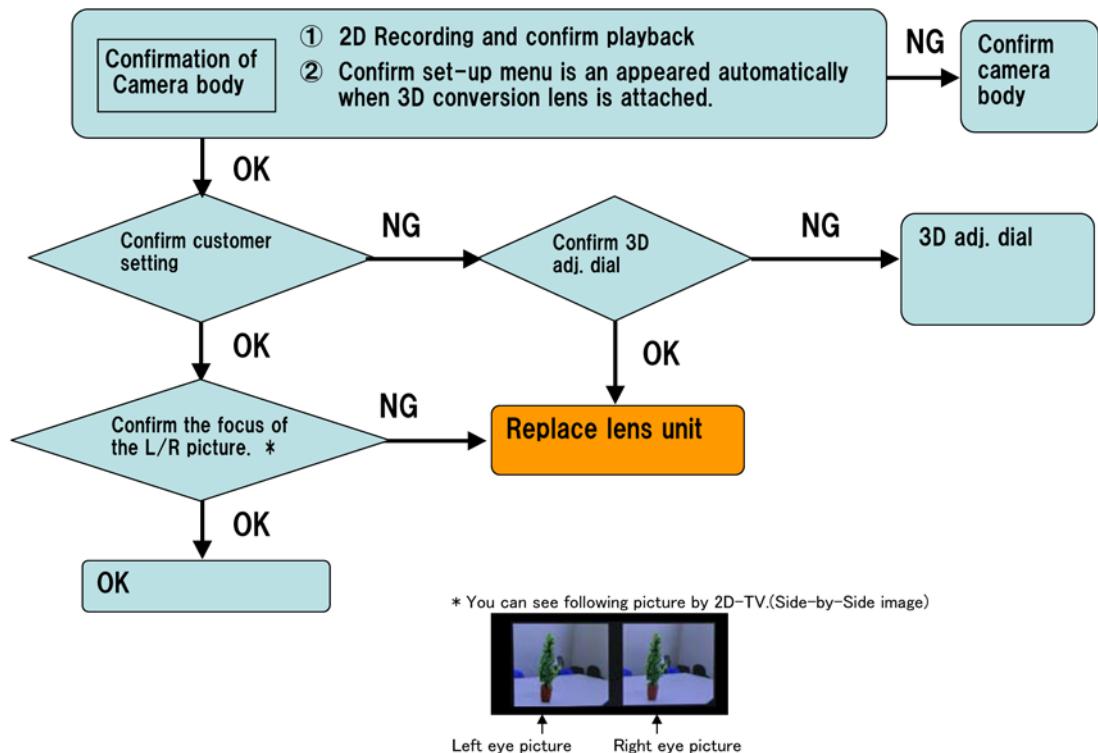
- CAM-PWR : Communication test between IC2006 to IC301
- CAM-UNI : Communication test between IC3401 to IC301

Display other than "OK" are abnormalities of each lines.

Cutting of battery connection or AC power supply connection to end the service mode.

7 Troubleshooting Guide

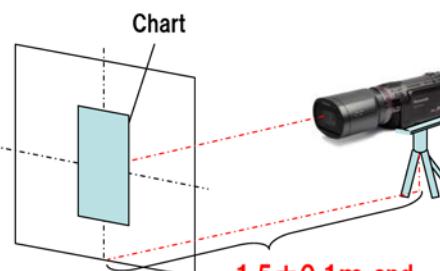
Troubleshooting



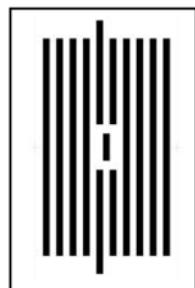
Confirmation after repair

•Preparation : 3D chart, Tripod and 2D-TV

- ① Confirm the gap of a right and left image by using customer 3D adjusting method.
(adjustment dial3 condition)
- 1.5m : There is no L/R picture gap
(Match L/R picture)
0.5m : There is L/R picture gap
- 1.5m picture (LR match) 0.5m picture (LR gap)
-



3D Chart (A4)



Download from TSN Web site.

- ② Confirm that there is no difference in the focus of a right and left each screen in 2DTV side-by-side image.
-

Repair OK

8 Service Fixture & Tools

8.1. When Replacing the Main P.C.B.

After replacing the MAIN P.C.B., be sure to achieve adjustment.

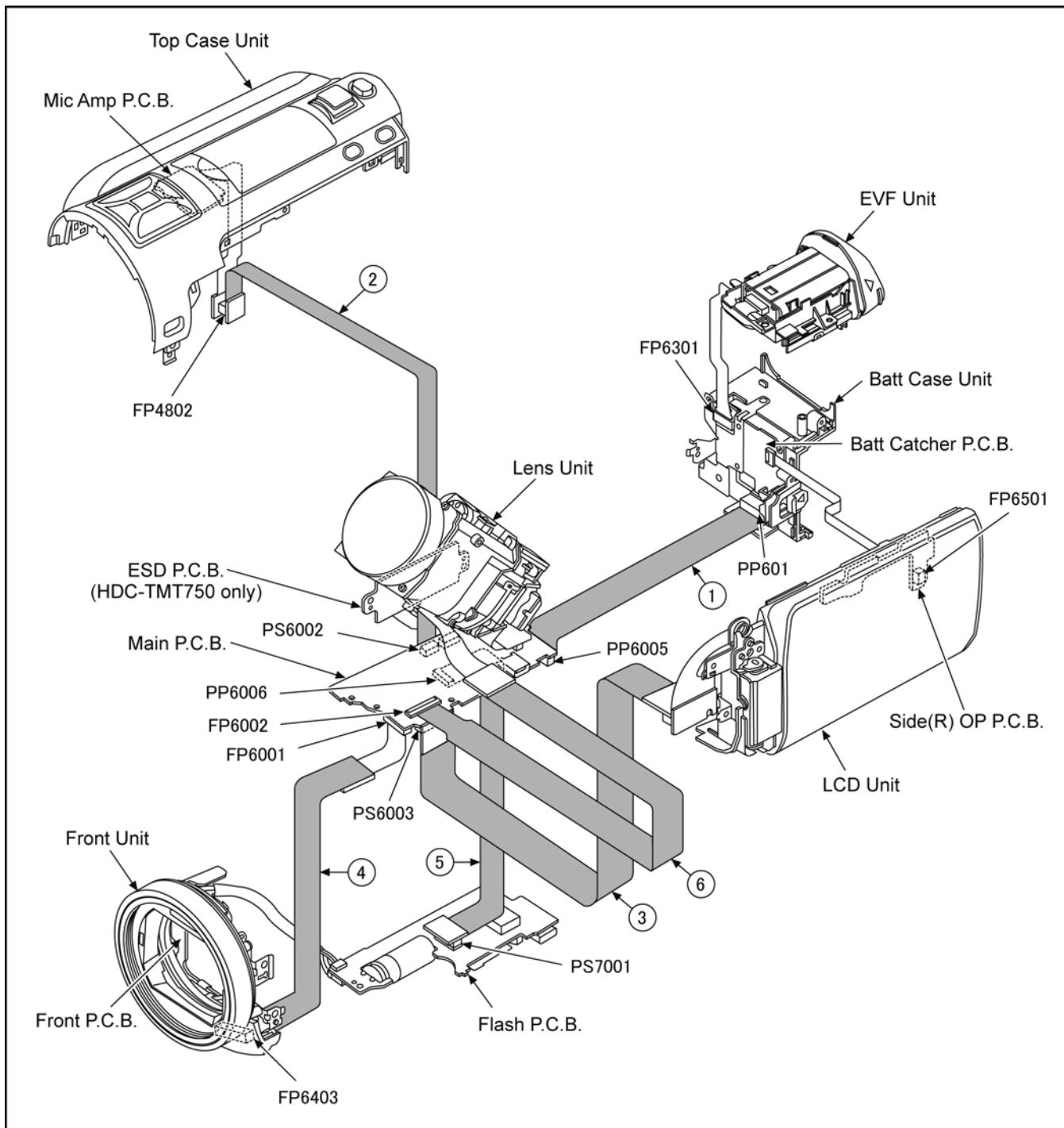
The adjustment instruction is available at "software download" on the "Support Information from NWBG/VDBG-AVC" web-site in "TSN system", together with Maintenance software.

8.2. Service Position

This Service Position is used for checking and replacing parts. Use the following Extension cables for servicing.

Table S1 Extension Cable List

No.	Parts No.	Connection	Form
1	RFKZ0444	PP6005(MAIN) - PP601(BATT CATCHER)	50PIN 0.5 B to B
2	RFKZ0342	PS6002(MAIN) - FP4802(MIC AMP)	20PIN 0.5 B to B
3	VFK1933	PS6003(MAIN) - MONITOR FPC	34PIN 0.5 B to B
4	VFK1950	FP6001(MAIN) - FP6403(FRONT)	33PIN 0.3 FFC
5	RFKZ0343	PP6006(MAIN) - PS7001(FLASH)	30PIN 0.5 B to B
6	RFKZ0416	FP6002(MAIN) - LENS UNIT	41PIN 0.3 FFC



CAUTION-1. (When servicing FLASH P.C.B.)

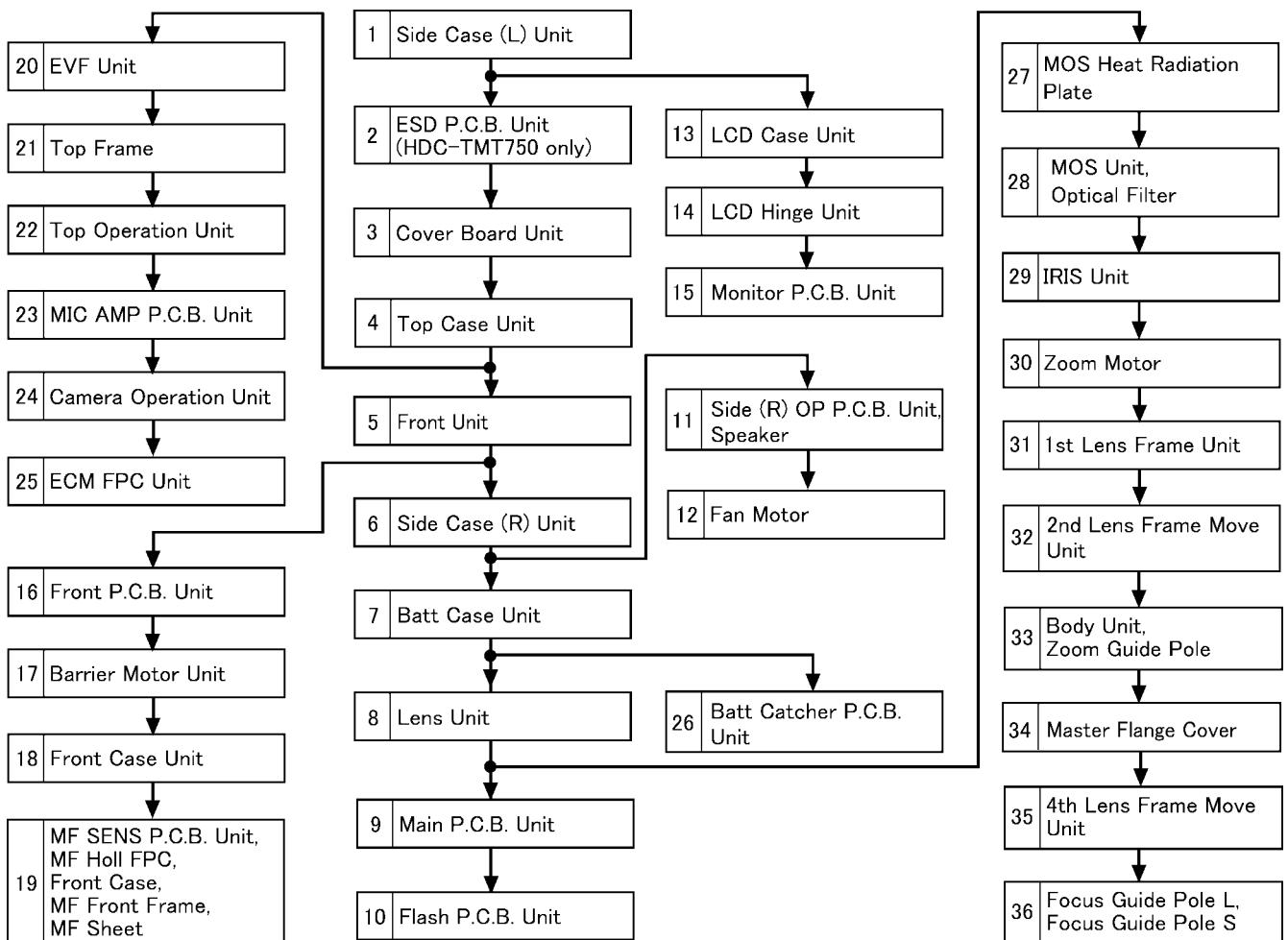
1. Be sure to discharge the capacitor on FLASH P.C.B..
Refer to "HOW TO DISCHARGE THE CAPACITOR ON FLASH P.C.B.".
The capacitor voltage is not lowered soon even if the AC Cord is unplugged or the battery is removed.
2. Be careful of the high voltage circuit on FLASH P.C.B..
3. DO NOT allow other parts to touch the high voltage circuit on FLASH P.C.B..

9 Disassembly and Assembly Instructions

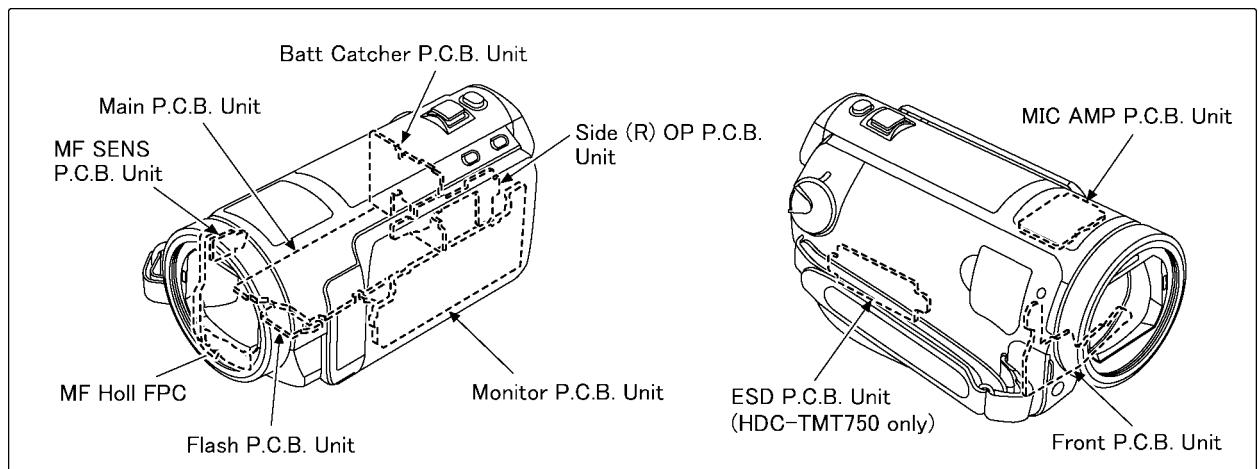
9.1. Disassembly Flow Chart for the Unit

This is a disassembling chart.

When assembling, perform this chart conversely.



9.2. PCB Location



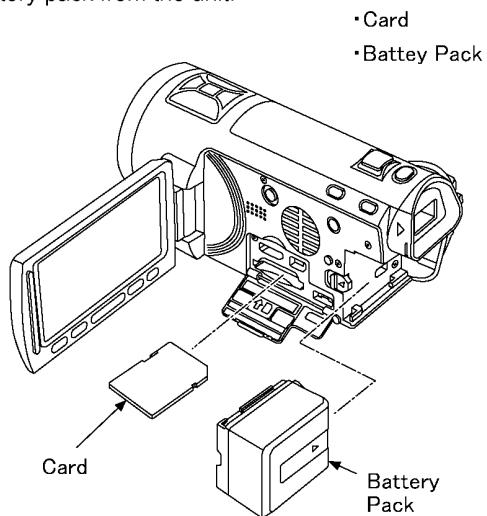
9.3. Disassembly Procedure for the Unit

No.	Item	Fig	Removal
1	Side Case (L) Unit	Fig. D1	2 Screws (A) 4 Screws (B) 2 Locking tabs Sensor Cover Unit
			4 Screws (C) 3 Locking tabs Side Case (L) Unit
		Fig. D2	
2	ESD P.C.B. Unit (HDC-TMT750 only)	Fig. D3	FP3201 (Flex) 2 Screws (D) ESD P.C.B. Unit
3	Cover Board Unit	Fig. D4	1 Screw (E) 2 Screws (F) 1 Rib Cover Board Unit
4	Top Case Unit	Fig. D5	2 Screws (G) 1 Screw (H) 1 Screw (I) 1 Screw (J) 2 Locking tabs 1 Rib
			SR Cover
			PS6002 (Connector)
			1 Rib
			1 Locking tab
			FP6301 (Flex)
		Fig. D6	Top Case Unit
5	Front Unit	Fig. D7	P7001 (Connector) P7002 (Connector) 1 Screw (K) 1 Rib 1 Locking tab FP6403 (Flex) Front Unit
6	Side Case (R) Unit	Fig. D8	4 Screws (L) 1 Screw (M) PS6003 (Connector) FP6501 (Flex) Side Case (R) Unit
7	Batt Case Unit	Fig. D9	1 Screw (N) 1 Screw (O) 2 Ribs PP6005 (Connector) Batt Case Unit
8	Lens Unit	Fig. D10	2 Screws (P) 1 Rib 2 Projection parts
		Fig. D11	PP6004 (Connector) PP6007 (Connector) FP6002 (Flex) 1 Screw (Q) Lens Frame Unit Lens Unit
9	Main P.C.B. Unit	Fig. D12	3 Screws (R) 2 Ribs Main Heat Radiation Plate
		Fig. D13	PP6006 (Connector) 1 Projection part Main P.C.B. Unit
10	Flash P.C.B. Unit	Fig. D14	2 Screws (S) 1 Projection part Flash P.C.B. Unit

No.	Item	Fig	Removal
11	Side (R) OP P.C.B. Unit Speaker	Fig. D15	2 Screws (T) SP Angle PS6501 (Connector) P6501 (Connector) Speaker Side (R) OP P.C.B. Unit
		Fig. D16	NOTE: (When Installing)
12	Fan Motor	Fig. D17	3 Convexes Fan Damper Fan Motor
13	LCD Case Unit	Fig. D18	2 Screws (U) Holder Switch Unit 3 Locking tabs Earth Plate Sheet Light Guide Plate 3 Ribs LCD Case Unit
14	LCD Hinge Unit	Fig. D19	2 Screws (V) 6 Locking tabs LCD Case (T) Unit FP901 (Flex) FP902 (Flex) LCD Hinge Unit
15	Monitor P.C.B. Unit	Fig. D20	FP904 (Flex) FP905 (Flex) 2 Ribs 2 Convexes LCD Frame
		Fig. D21	FP903 (Flex) 4 Locking tabs
		Fig. D22	1 Locking tab Reflection Sheet Light Guide Plate Diffusion Sheet Prism Sheet B Prism Sheet A
16	Front P.C.B. Unit	Fig. D23	1 Screw (W) 1 Screw (X) FP6400 (Flex) FP6402 (Flex) Front P.C.B. Unit
17	Barrier Motor Unit	Fig. D24	1 Screw (Y) Barrier Motor Unit
		Fig. D25	NOTE: (When Installing)
18	Front Case Unit	Fig. D26	Lens Ornament Sheet
		Fig. D27	4 Screws (Z) Front Case Unit
19	MF SENS P.C.B. Unit MF Holl FPC Front Case MF Front Frame MF Sheet	Fig. D28	1 Screw (a) 1 Convex 2 Hooks
		Fig. D29	MF P.C.B. Holder P2701 (Flex) MF SENS P.C.B. Unit MF Holl FPC Front Case MF Front Frame MF Sheet
		Fig. D30	NOTE: (When Replacing)
20	EVF Unit	Fig. D31	2 Screws (b) 1 Screw (c) EVF Unit

No.	Item	Fig	Removal
21	Top Frame	Fig. D32	4 Screws (d)
		Fig. D33	1 Locking tab Top Frame
22	Top Operation Unit	Fig. D34	4 Screws (e) FP4803 (Flex) 2 Ribs Top Operation Unit
23	MIC AMP P.C.B. Unit	Fig. D35	FP4801 (Flex) FP4804 (Flex) 2 Hooks MIC AMP P.C.B. Unit
24	Camera Operation Unit	Fig. D36	2 Locking tabs Camera Operation Unit
25	ECM FPC Unit	Fig. D37	4 Locking tabs MIC Sheet
		Fig. D38	MIC Cushion (A) MIC Cushion (B) MIC Cushion (C) MIC Case ECM FPC Unit
26	Batt Catcher P.C.B. Unit	Fig. D39	2 Screws (f) 2 Locking tabs Rear Frame 2 Locking tabs Batt Catcher P.C.B. Unit
27	MOS Heat Radiation Plate	Fig. D40	1 Screw (g) MOS Heat Radiation Plate
28	MOS Unit Optical Filter	Fig. D41	2 Screws (h) MOS Unit Optical Filter
29	IRIS Unit	Fig. D42	18 Solder 3 Screws (i) 3 Ribs IRIS Unit
30	Zoom Motor	Fig. D43	2 Screws (j) Zoom Motor
31	1st Lens Frame Unit	Fig. D44	3 Screws (k) 1st Lens Frame Unit
32	2nd Lens Frame Move Unit	Fig. D45	2nd Lens Frame Move Unit Spring 2nd Lens Frame Move Unit
33	Body Unit Zoom Guide Pole	Fig. D46	3 Screws (l) Body Unit 2 Zoom Guide Poles
34	Master Flange Cover	Fig. D47	2 Screws (m) Master Flange Cover
35	4th Lens Frame Move Unit	Fig. D48	2 Side Yorks
		Fig. D49	3 Ribs 4th Lens Frame Move Unit
36	Focus Guide Pole L Focus Guide Pole S	Fig. D50	Focus Guide Pole L Focus Guide Pole S

NOTE:
When servicing and reassembling, remove the card and battery pack from the unit.



9.3.1. Removal of the Side Case (L) Unit

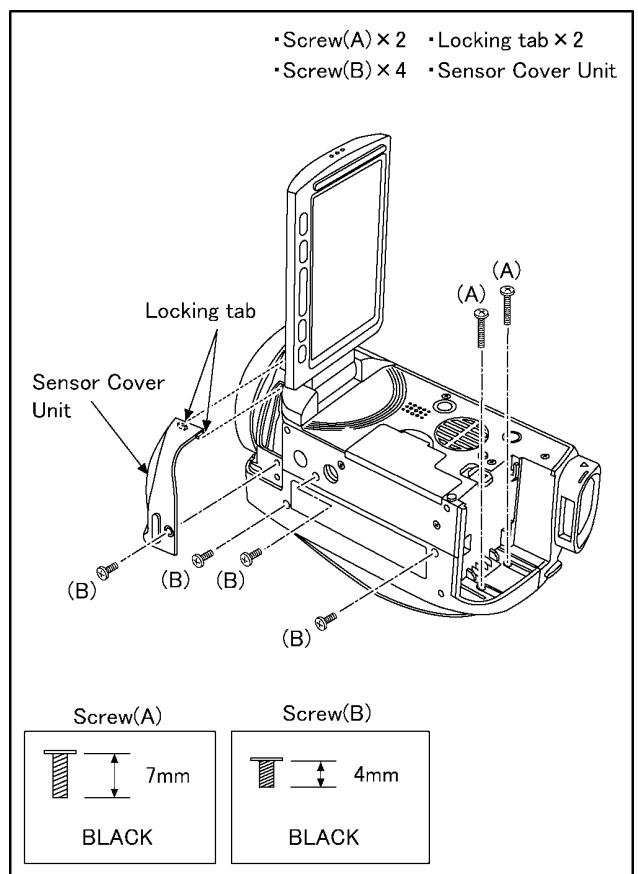


Fig. D1

9.3.2. Removal of the ESD P.C.B. Unit

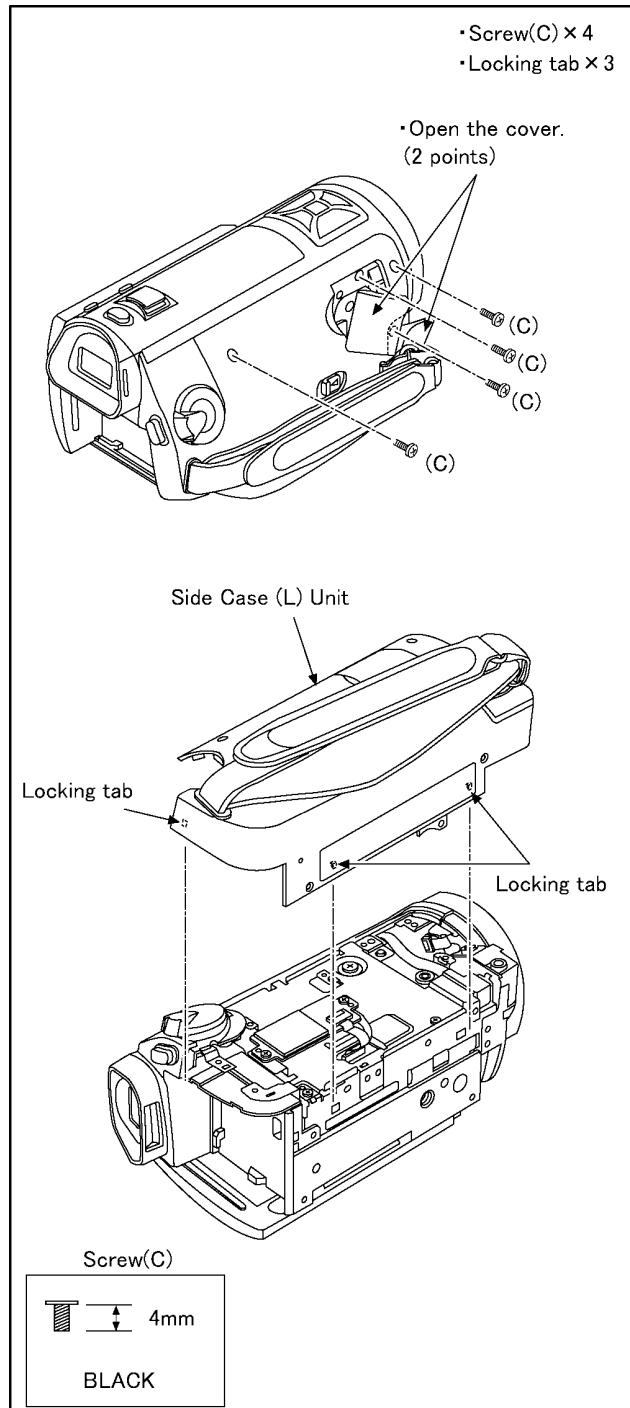


Fig. D2

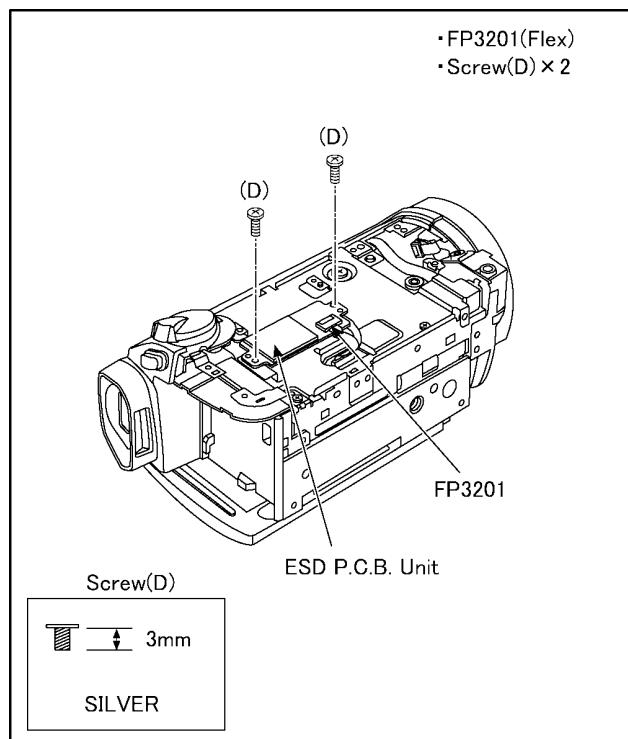


Fig. D3

9.3.3. Removal of the Cover Board Unit

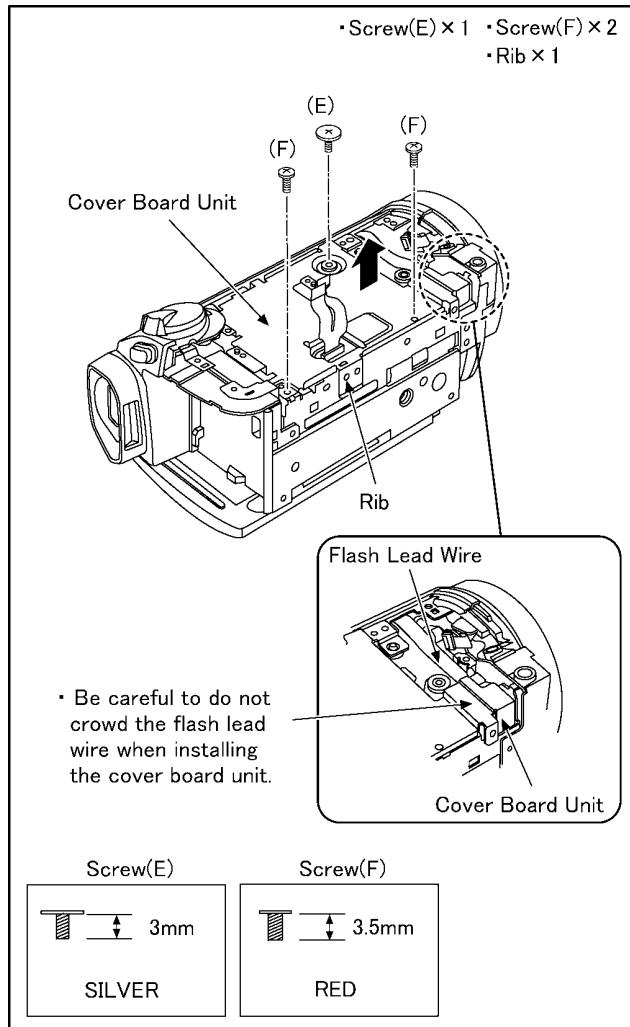


Fig. D4

9.3.4. Removal of the Top Case Unit

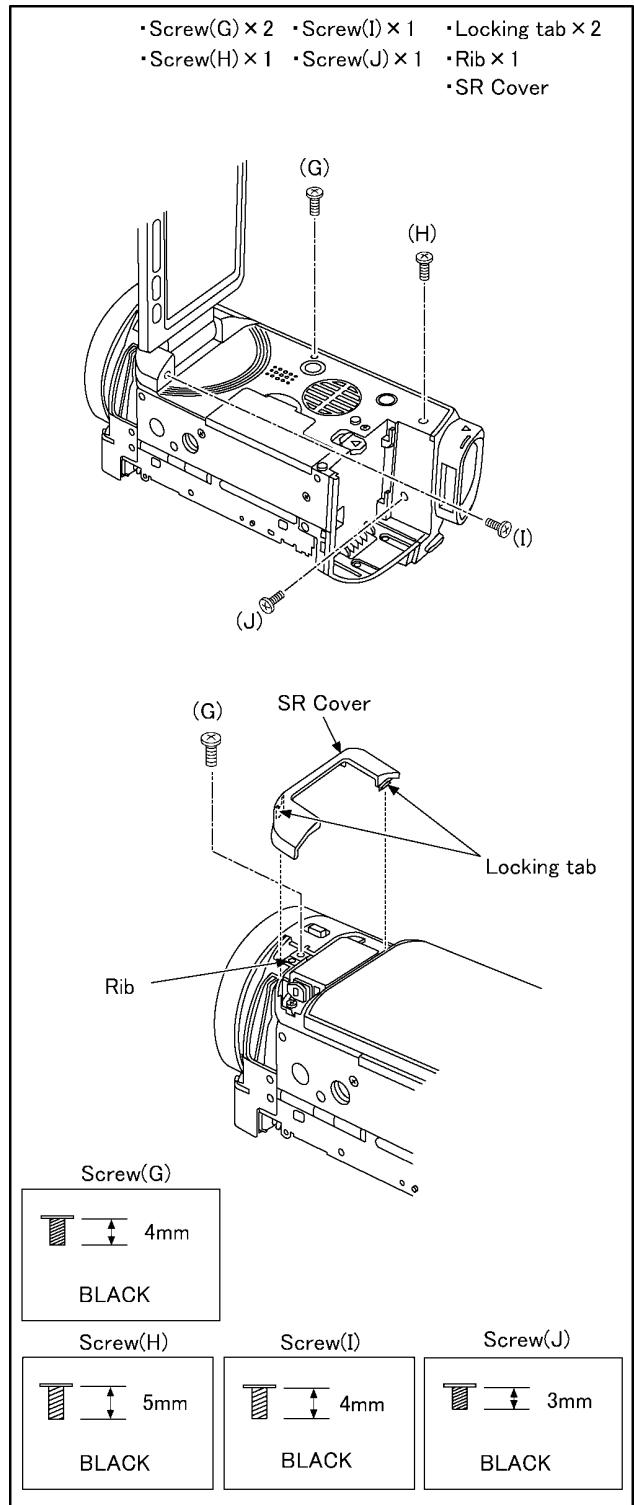


Fig. D5

9.3.5. Removal of the Front Unit

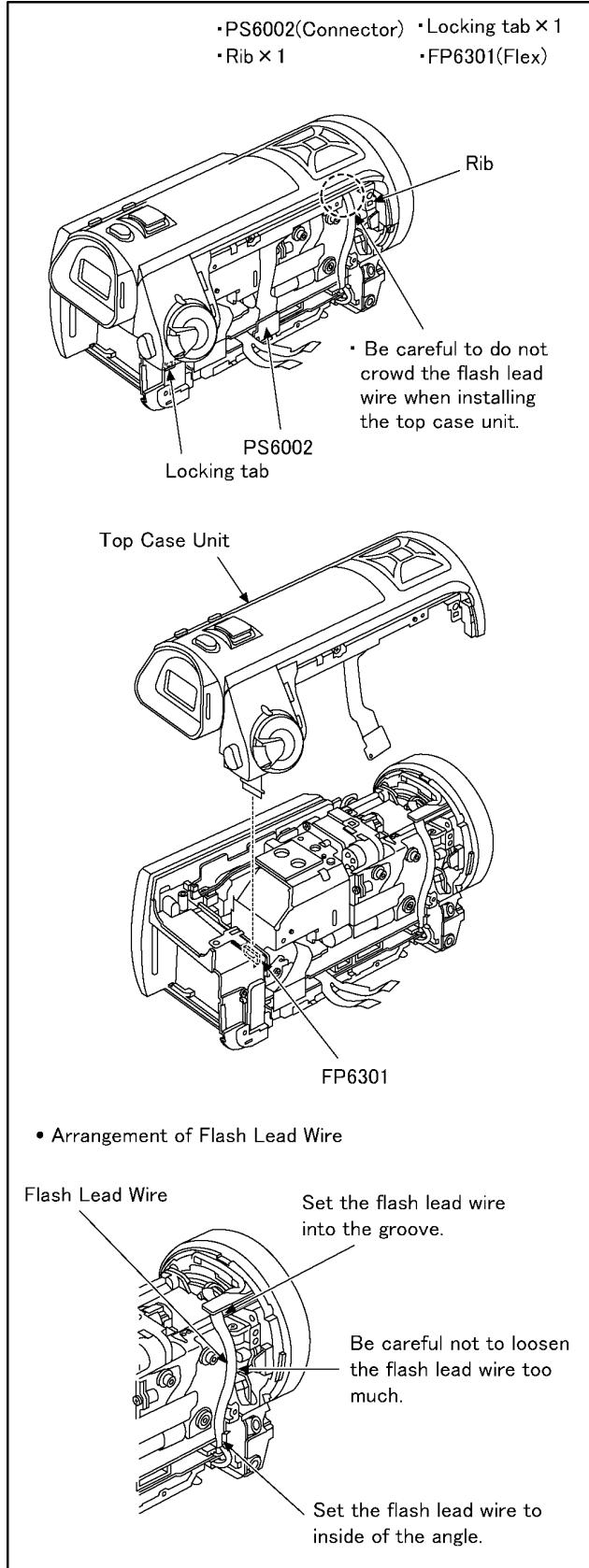


Fig. D6

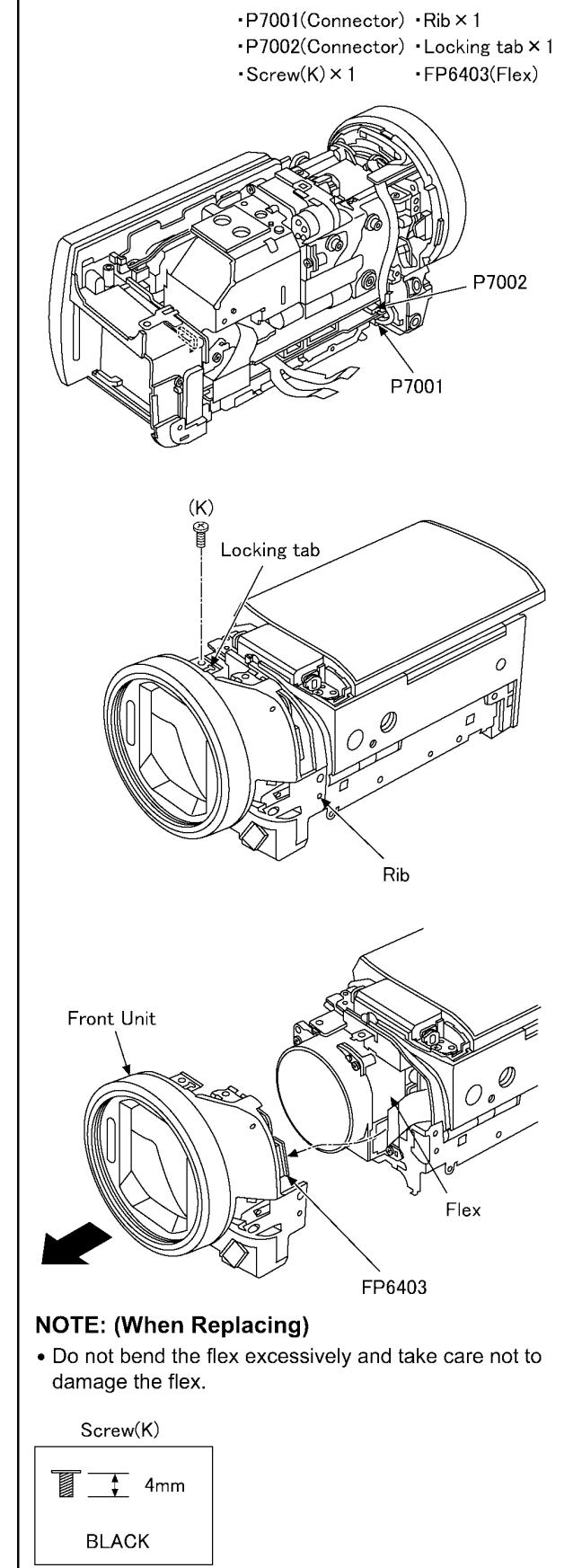


Fig. D7

9.3.6. Removal of the Side Case (R) Unit

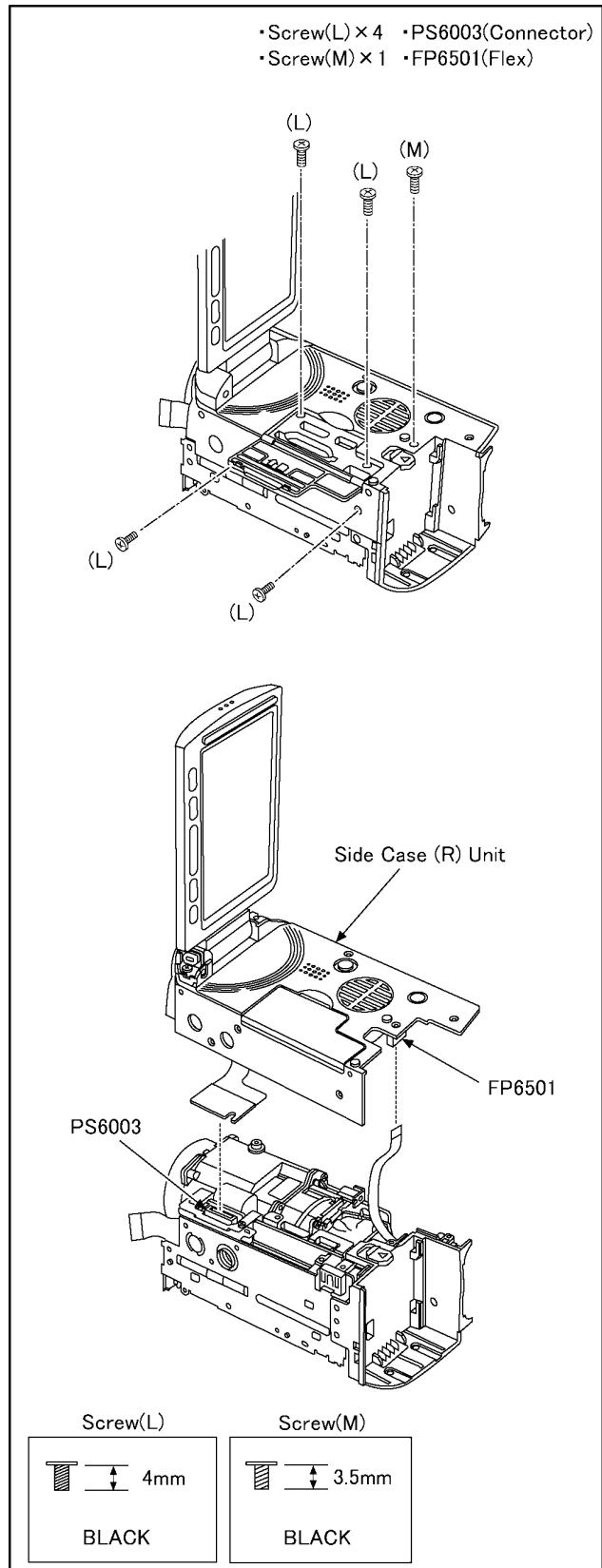


Fig. D8

9.3.7. Removal of the Batt Case Unit

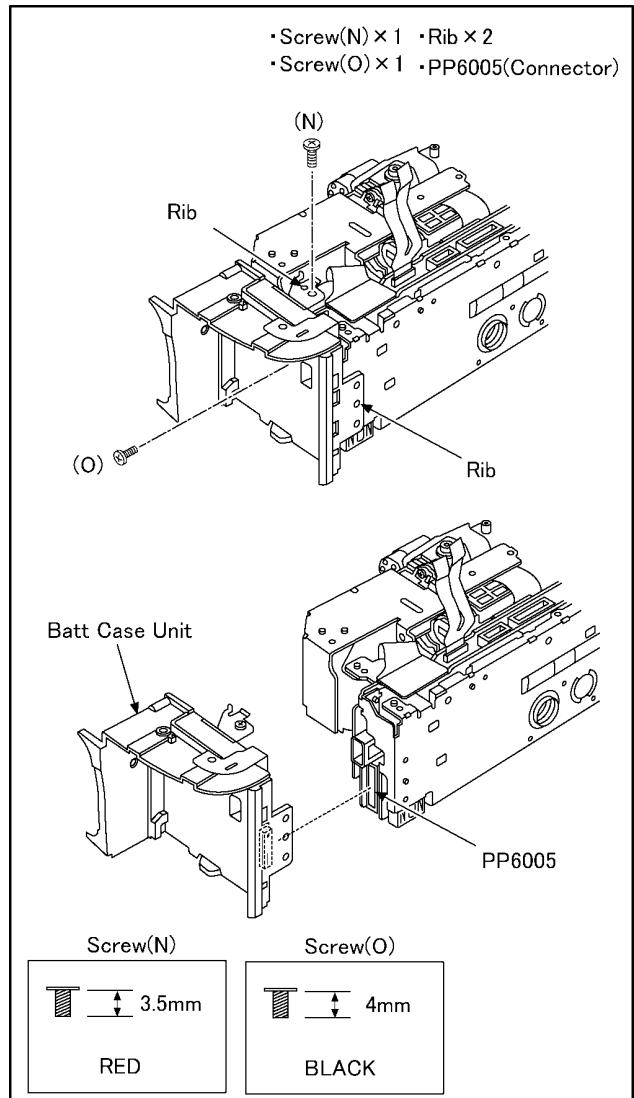


Fig. D9

9.3.8. Removal of the Lens Unit

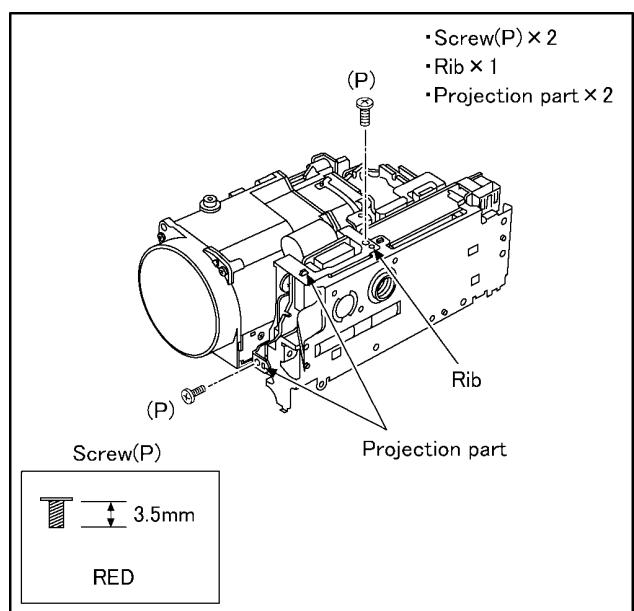


Fig. D10

- PP6004(Connector) • Screw(Q) × 1
- PP6007(Connector) • Lens Frame Unit
- FP6002(Flex)

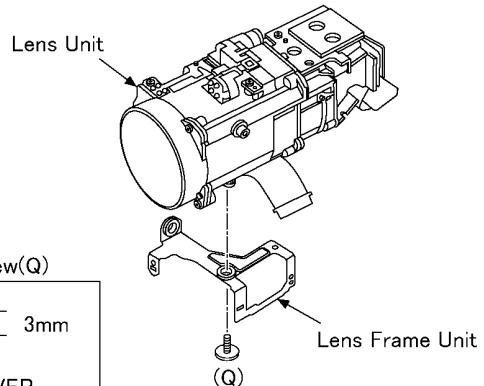
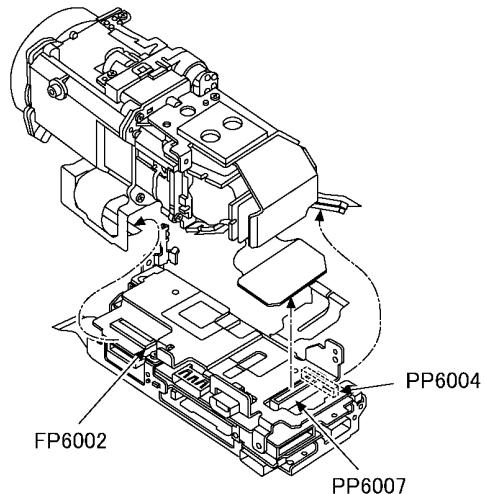


Fig. D11

9.3.9. Removal of the Main P.C.B. Unit

- Screw(R) × 3 • Main Heat Radiation Plate
- Rib × 2

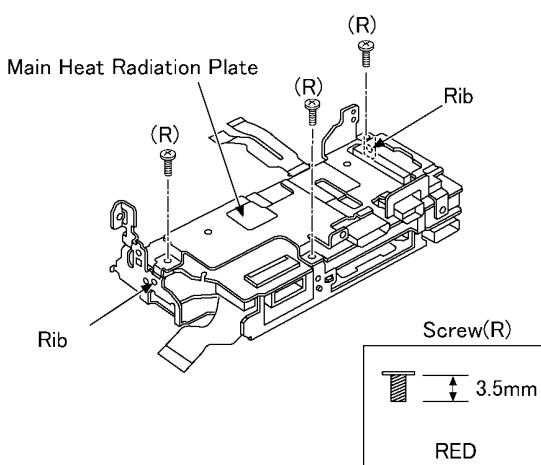


Fig. D12

- PP6006(Connector)
- Projection part × 1

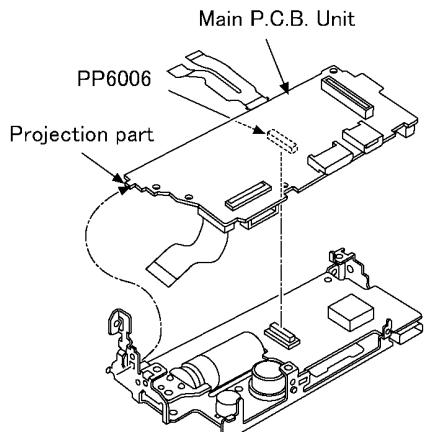
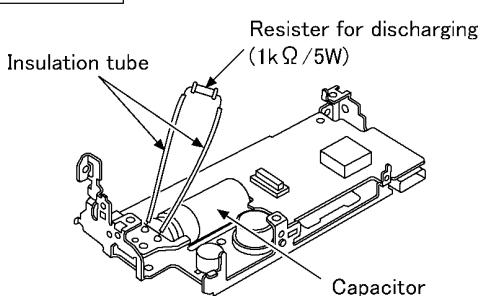
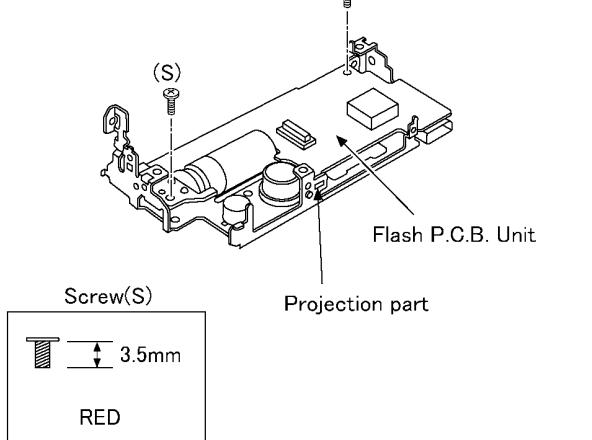


Fig. D13

9.3.10. Removal of the Flash P.C.B. Unit

- Screw(S) × 2
- Projection part × 1



CAUTION

Be sure to discharge the capacitor on Flash P.C.B. Unit before disassembling.

1. Put the insulation tube on the lead part of resistor (ERG5SJ102 : 1k Ω /5W).
2. Put the resistor between both terminals of capacitor unit for approx. 5 seconds.

Fig. D14

9.3.11. Removal of the Side (R) OP P.C.B. Unit and Speaker

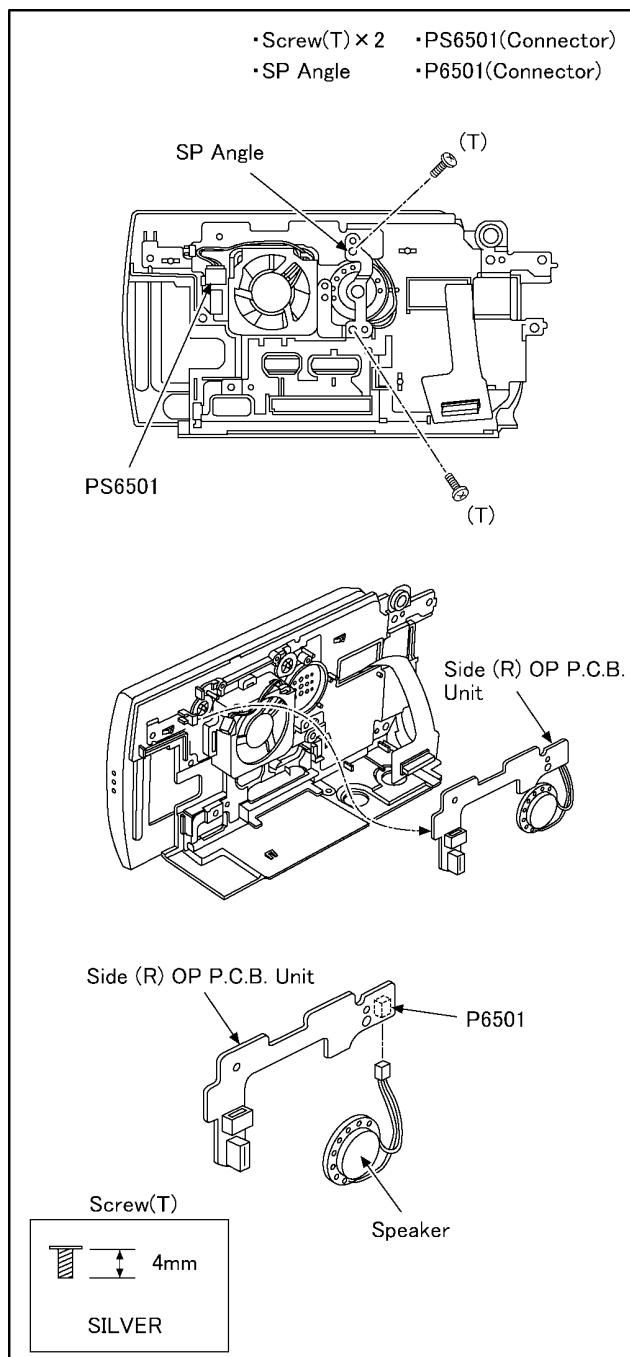


Fig. D15

NOTE: (When Installing)

1. Install the speaker lead wire to between convexes.
2. Be careful to that the solder part of speaker don't touch the SP Angle.

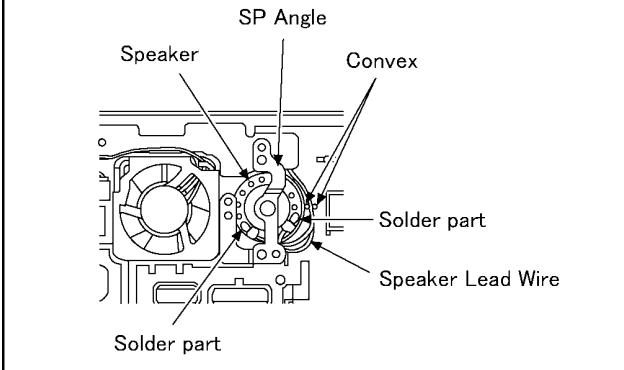


Fig. D16

9.3.12. Removal of the Fan Motor

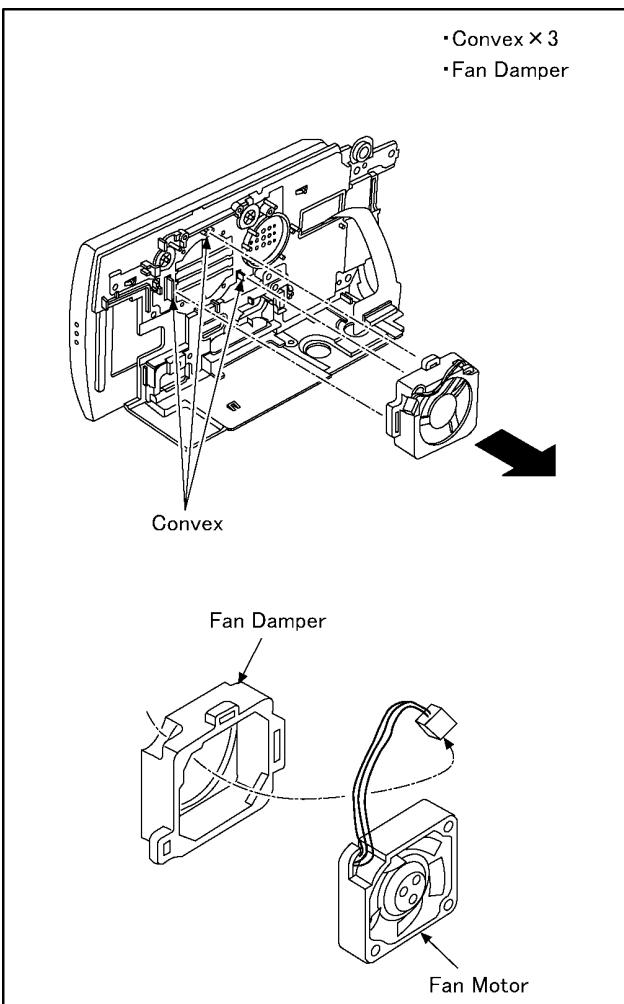


Fig. D17

9.3.13. Removal of the LCD Case Unit

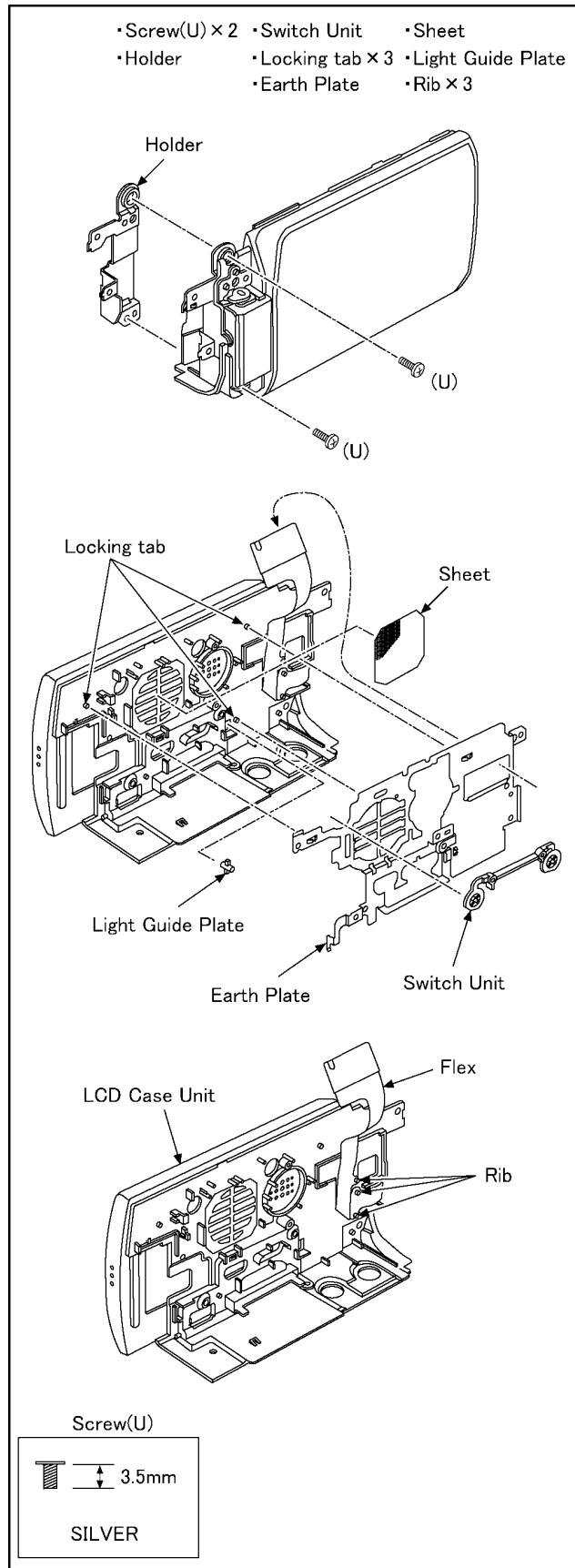


Fig. D18

9.3.14. Removal of the LCD Hinge Unit

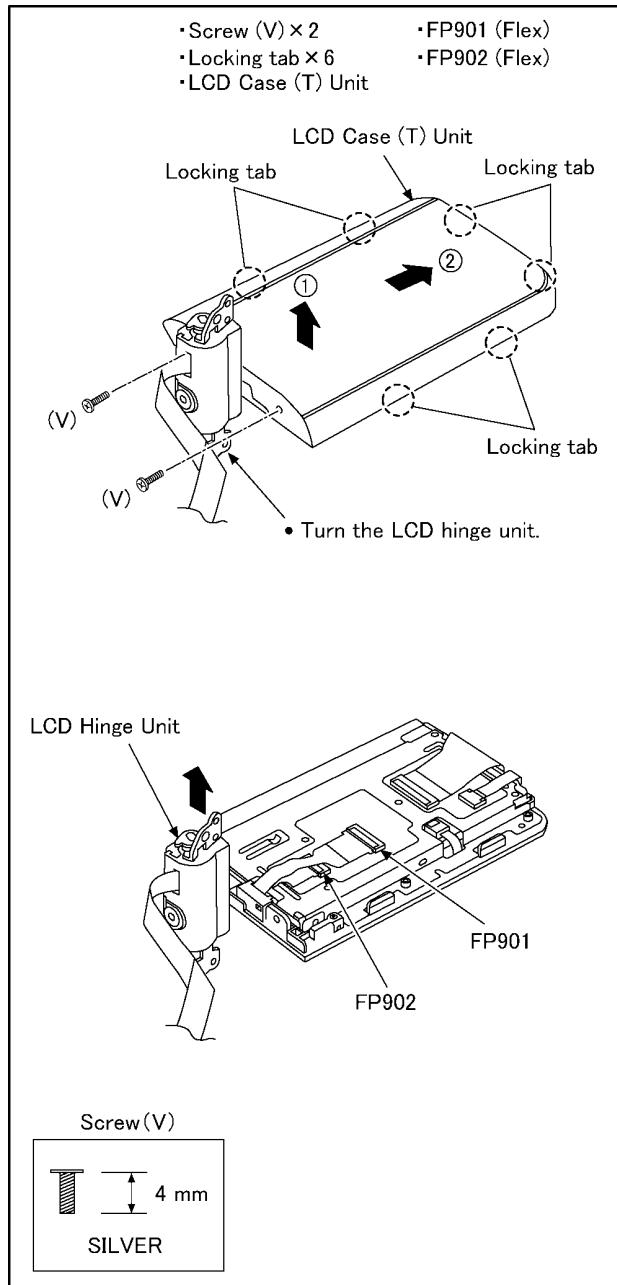


Fig. D19

9.3.15. Removal of the Monitor P.C.B. Unit

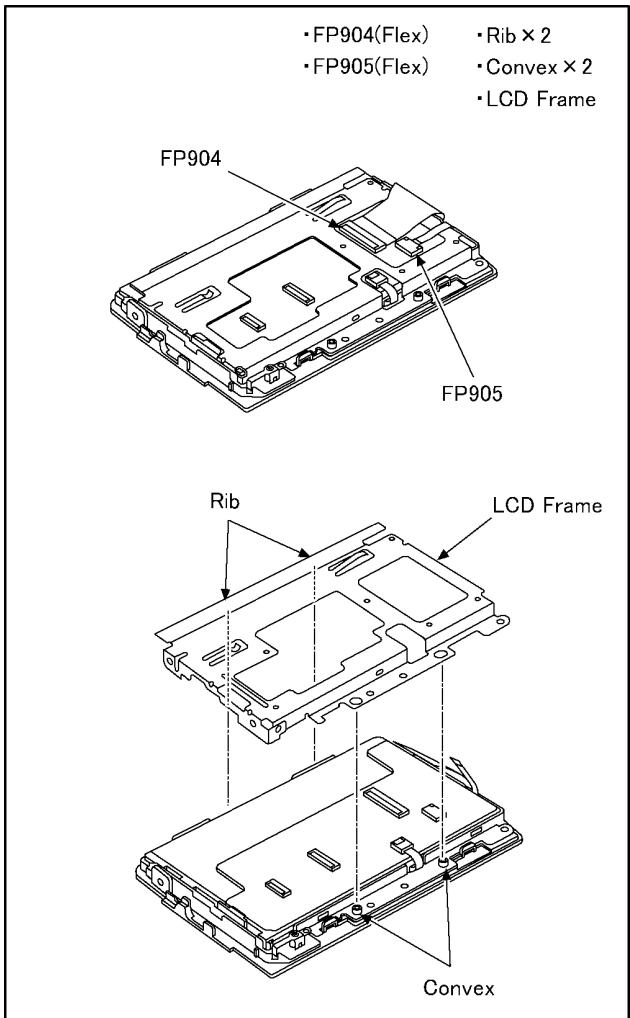


Fig. D20

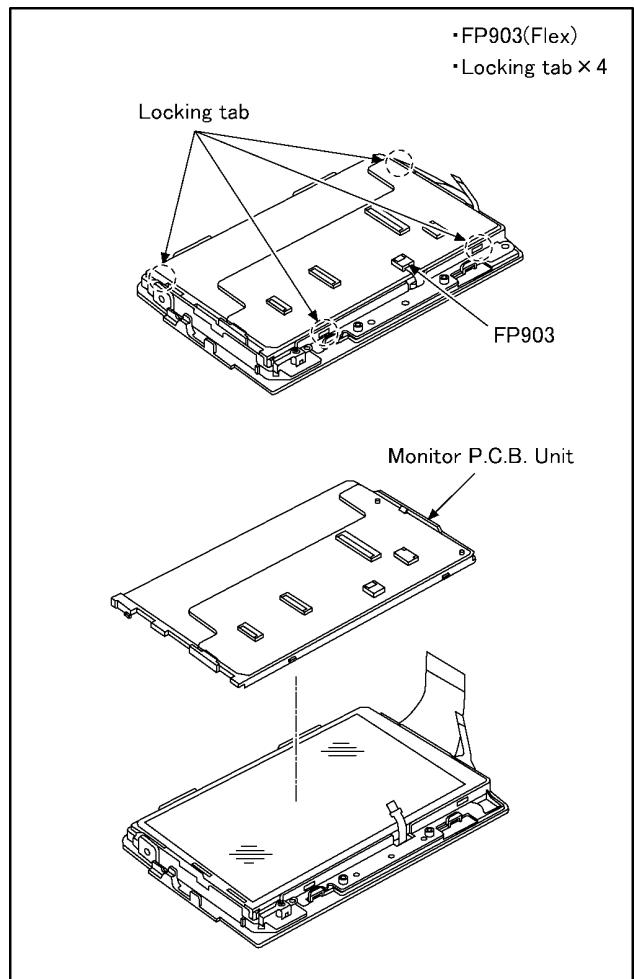


Fig. D21

- Locking tab × 1
- Diffusion Sheet
- Lighting Plate Holder
- Reflection Sheet
- Prism Sheet B
- Light Guide Plate
- Prism Sheet A

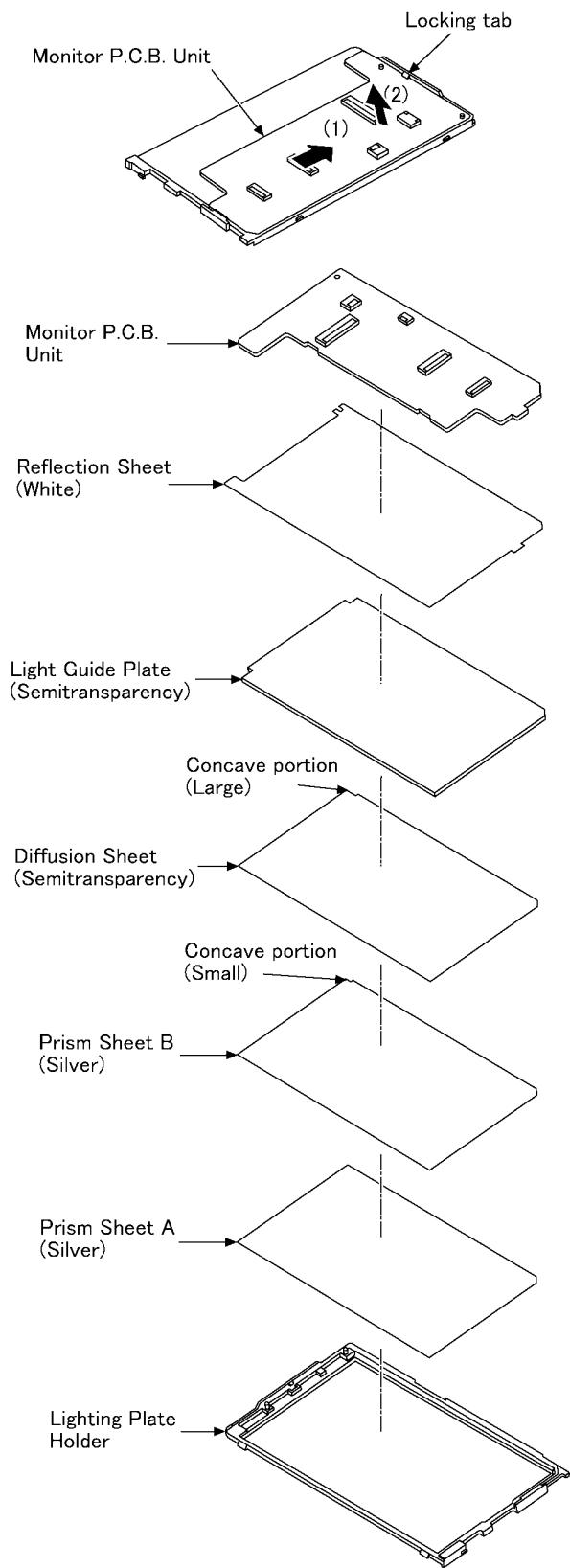


Fig. D22

9.3.16. Removal of the Front P.C.B. Unit

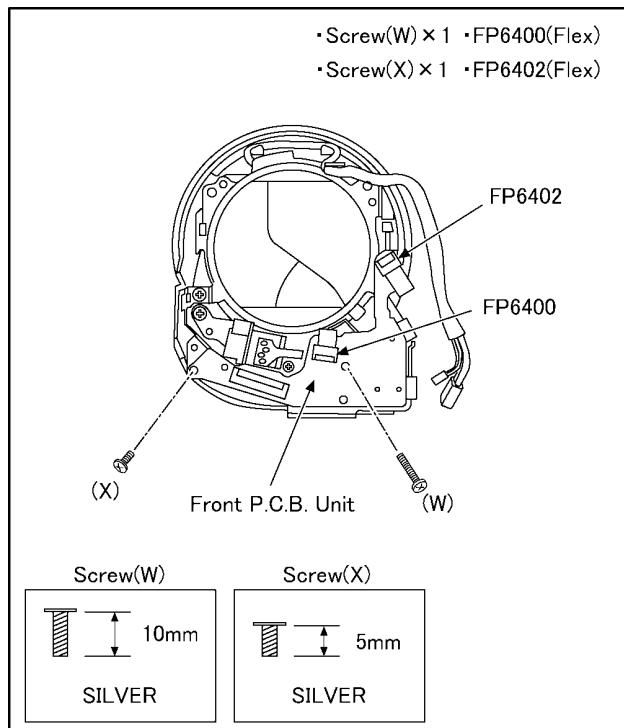


Fig. D23

9.3.17. Removal of the Barrier Motor Unit

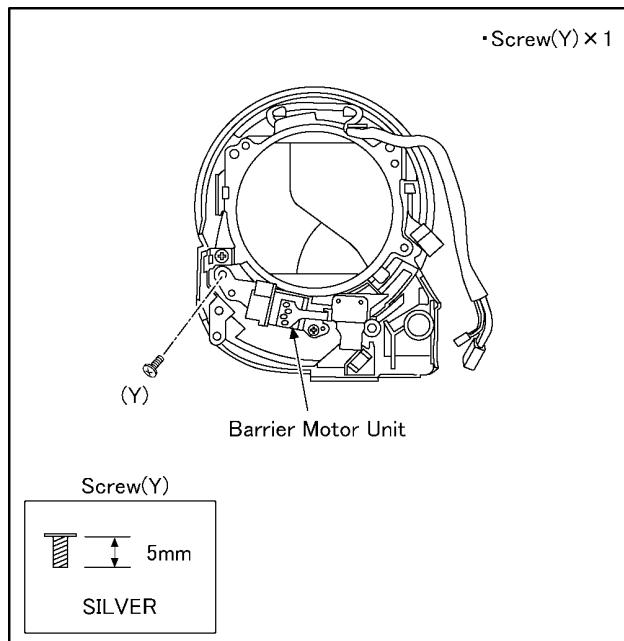


Fig. D24

NOTE: (When Installing)

- When install the barrier motor unit, align the projection part of the barrier motor unit between ribs of the barrier change lever.

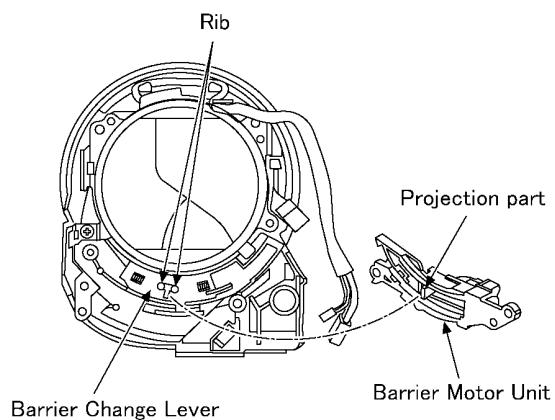
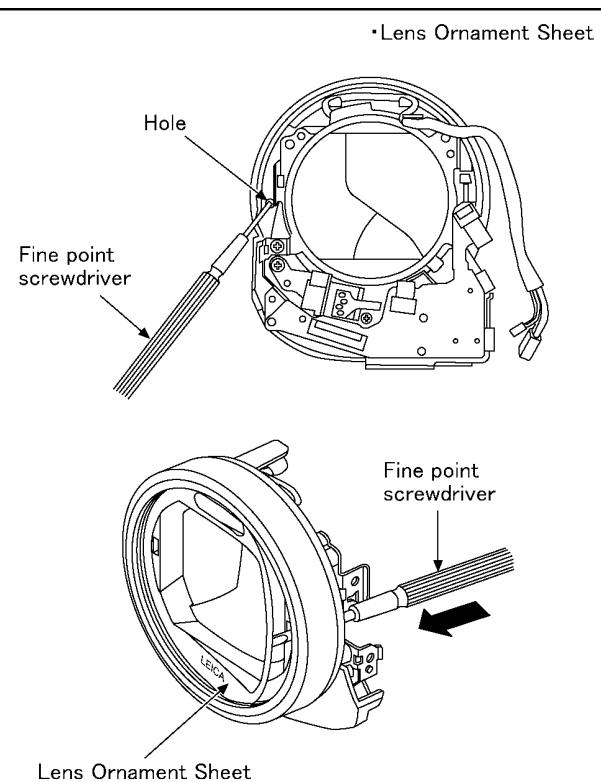


Fig. D25

9.3.18. Removal of the Front Case Unit**NOTE: (When Replacing)**

1. Put insert the fine point screwdriver into the hole on the backside of front case.
2. Push the fine point screwdriver to peel the lens ornament sheet.
3. Do not reuse the lens ornament sheet.
4. Remove the lens ornament sheet carefully not to remain the adhesive tape of lens ornament sheet.

Fig. D26

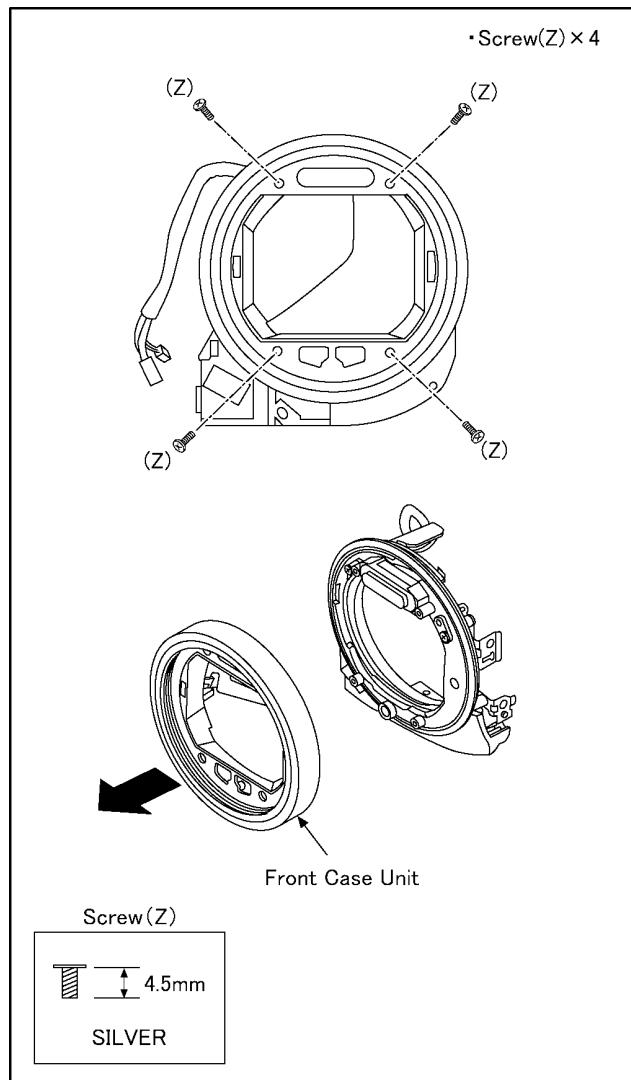


Fig. D27

9.3.19. Removal of the MF SENS P.C.B. Unit, MF Holl FPC, Front Case, MF Front Frame and MF Sheet

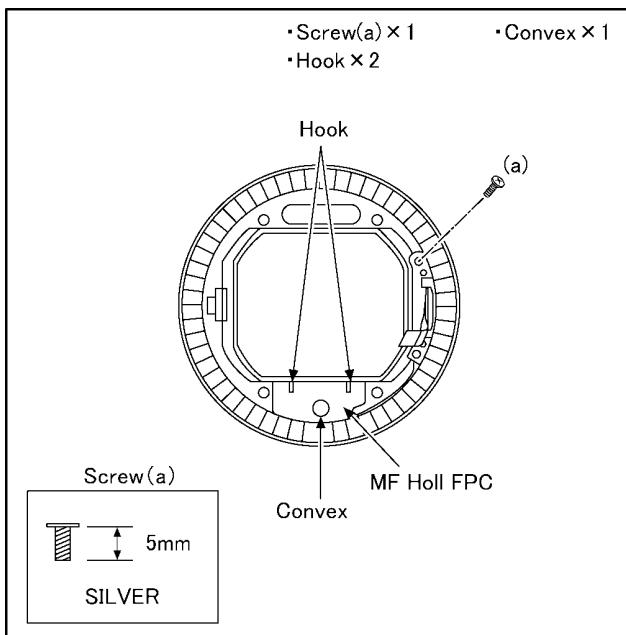


Fig. D28

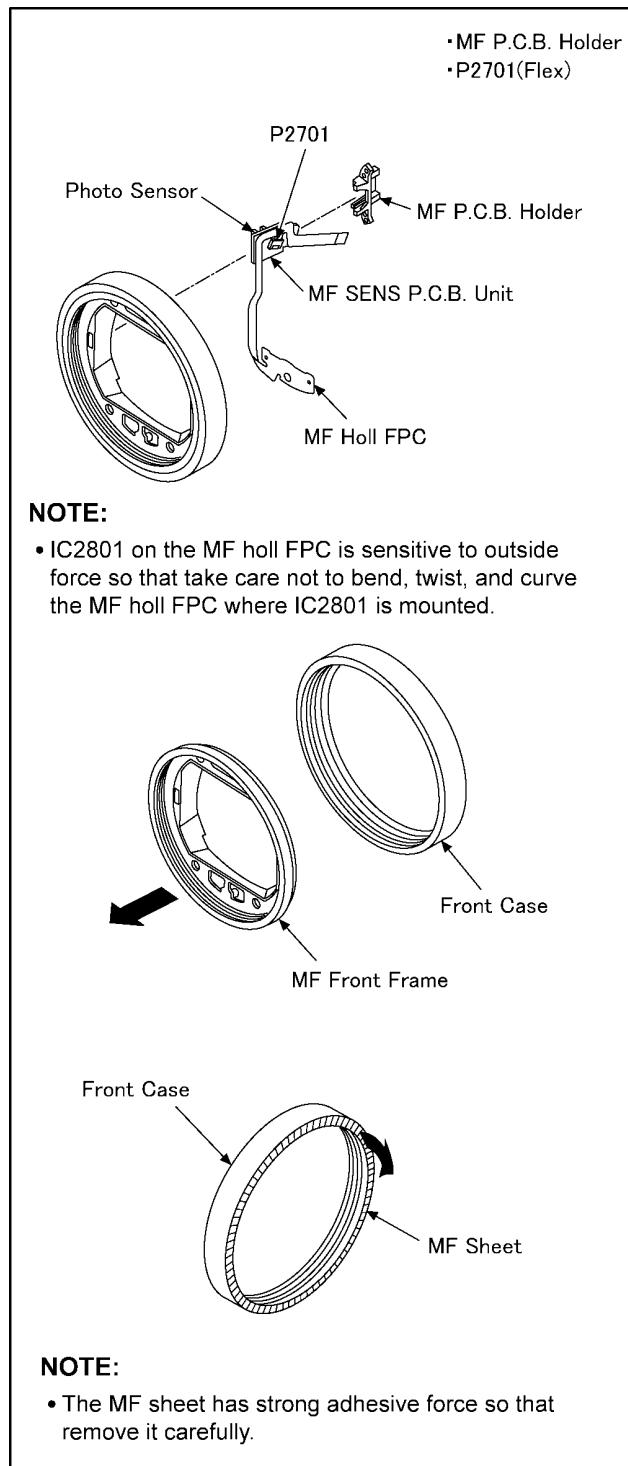


Fig. D29

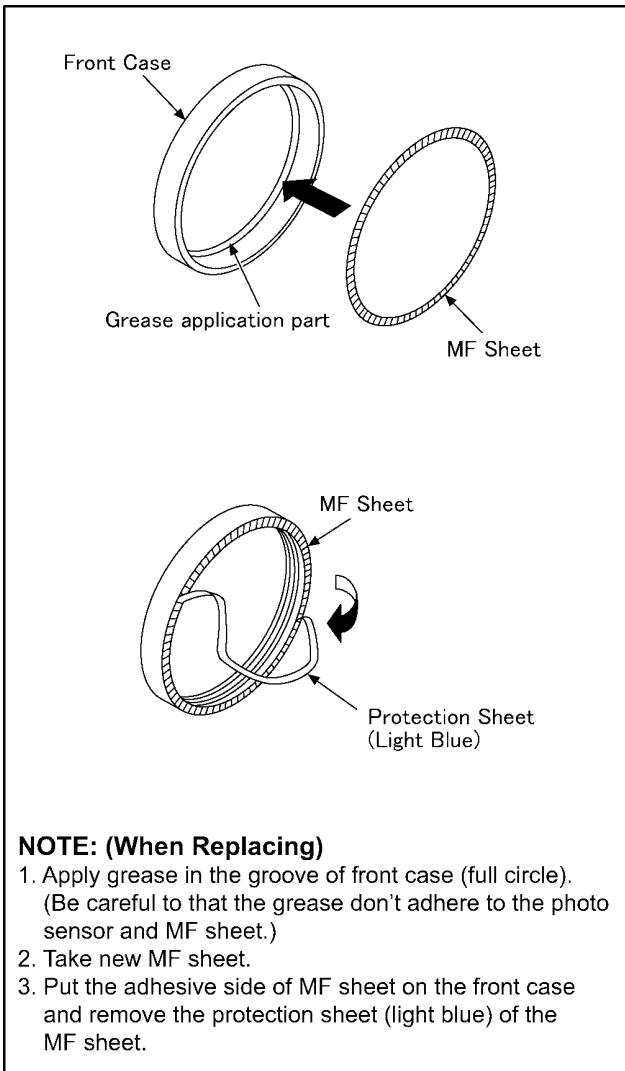


Fig. D30

9.3.20. Removal of the EVF Unit

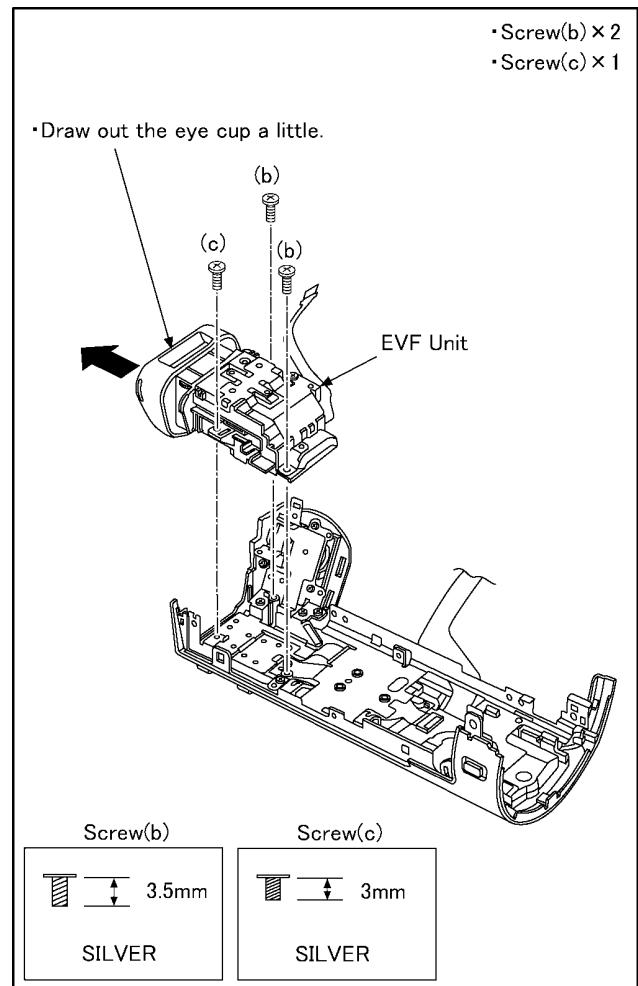


Fig. D31

9.3.21. Removal of the Top Frame

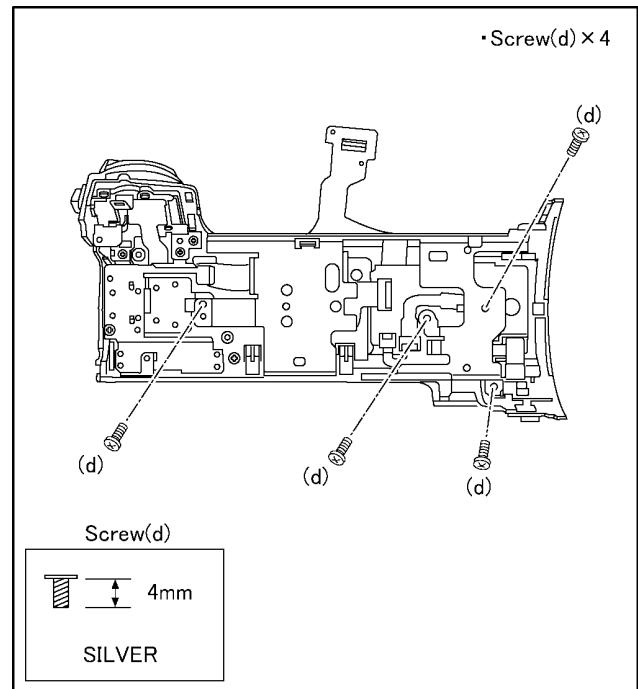


Fig. D32

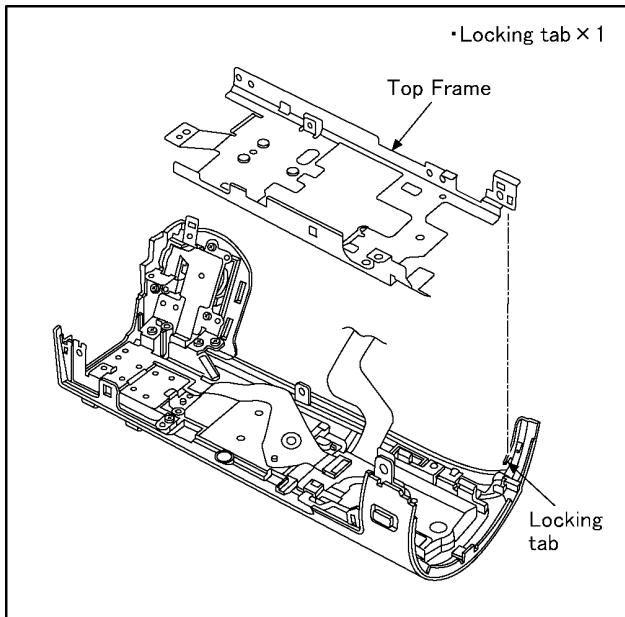


Fig. D33

9.3.22. Removal of the Top Operation Unit

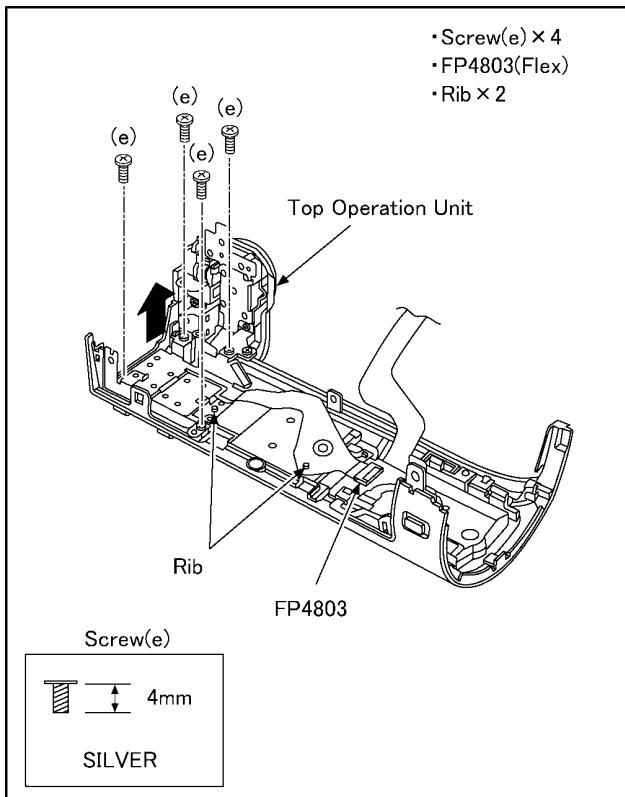


Fig. D34

9.3.23. Removal of the MIC AMP P.C.B. Unit

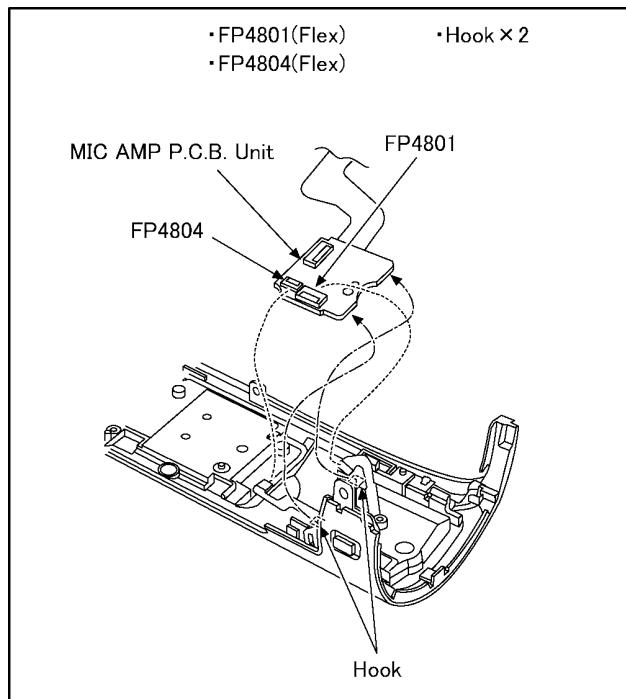


Fig. D35

9.3.24. Removal of the Camera Operation Unit

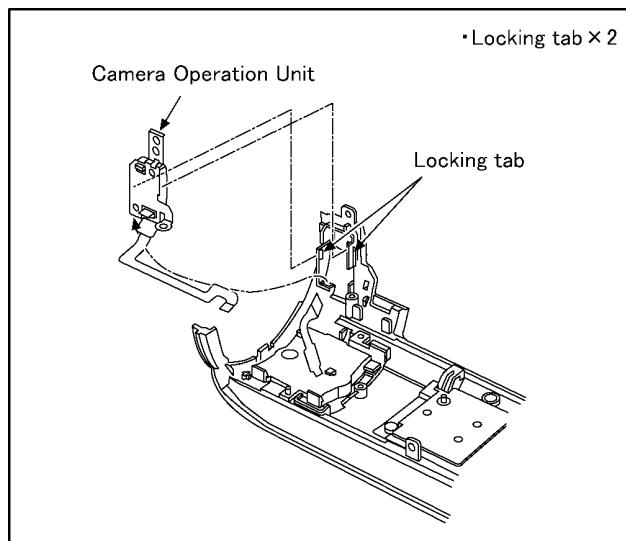


Fig. D36

9.3.25. Removal of the ECM FPC Unit

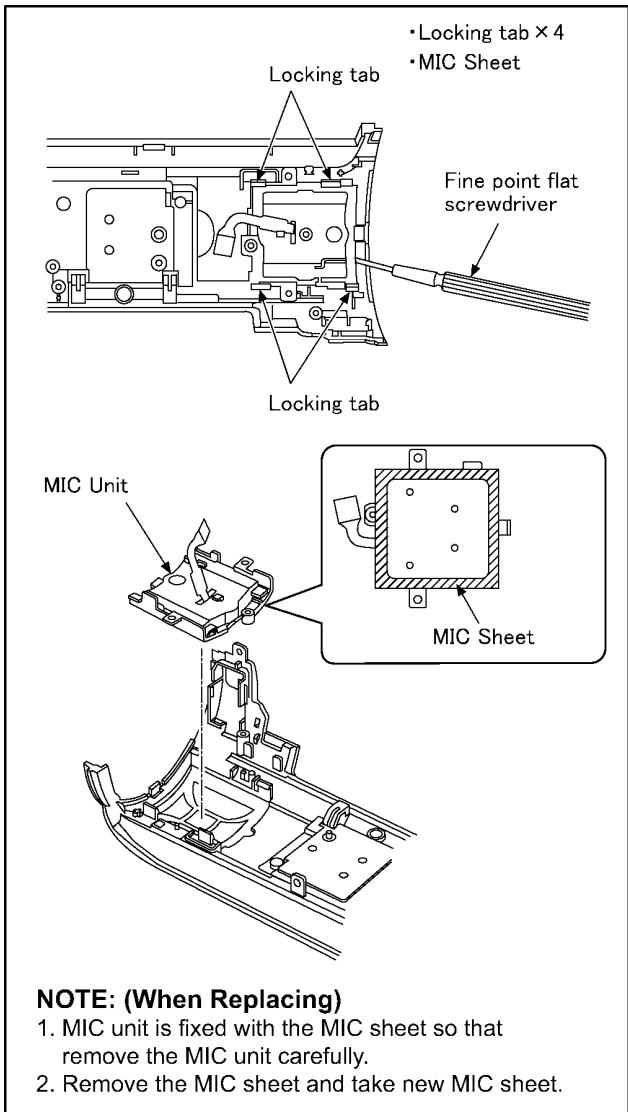


Fig. D37

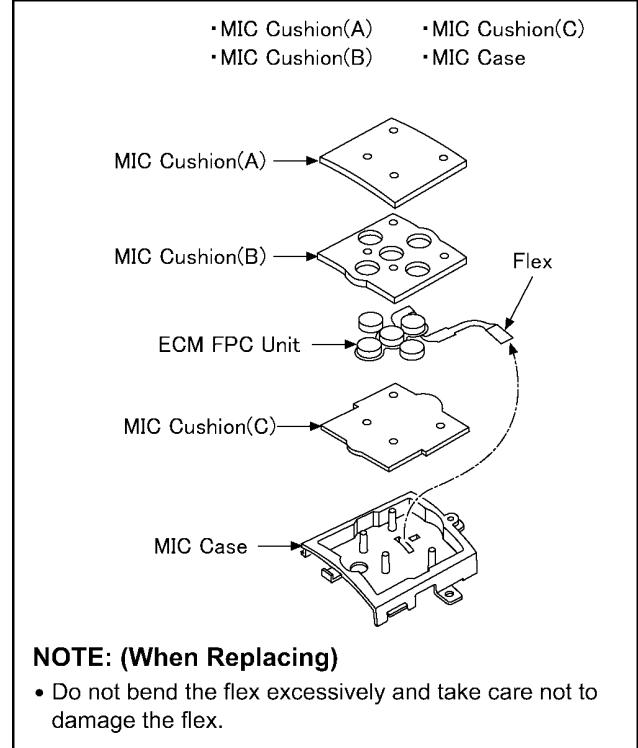


Fig. D38

9.3.26. Removal of the Batt Catcher P.C.B. Unit

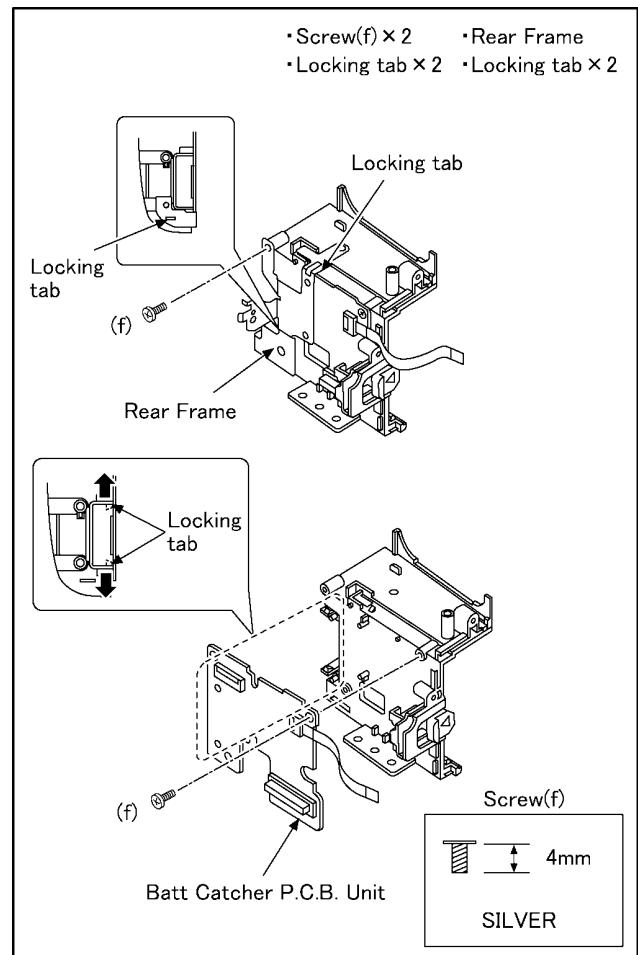
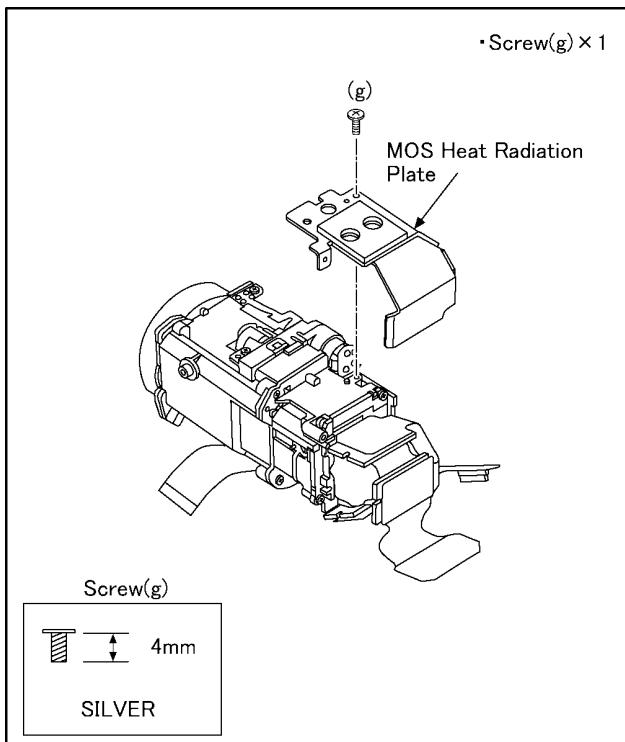
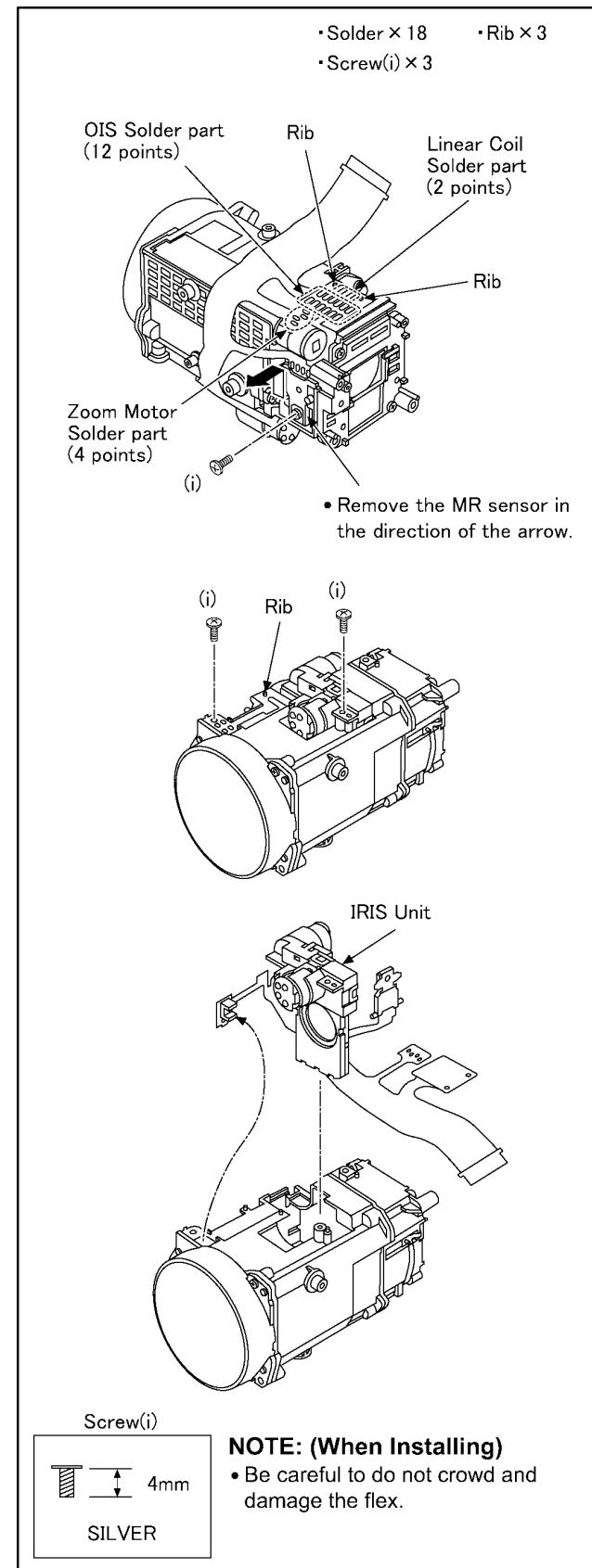


Fig. D39

9.3.27. Removal of the MOS Heat Radiation Plate



9.3.29. Removal of the IRIS Unit



9.3.28. Removal of the MOS Unit and Optical Filter

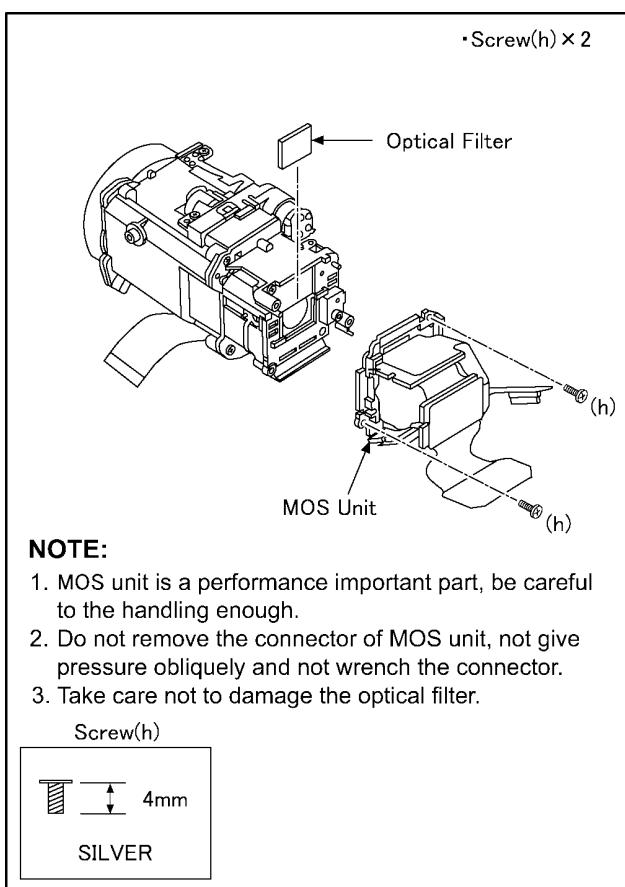


Fig. D41

9.3.30. Removal of the Zoom Motor

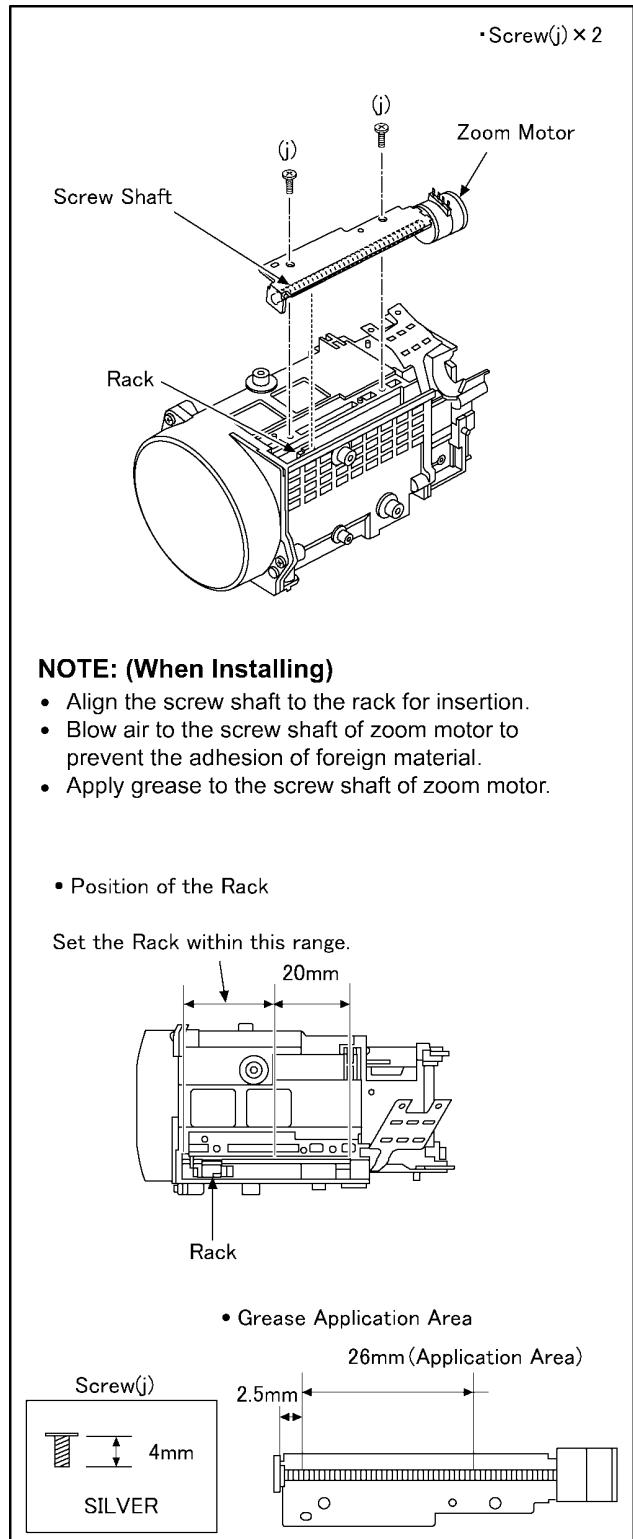


Fig. D43

9.3.31. Removal of the 1st Lens Frame Unit

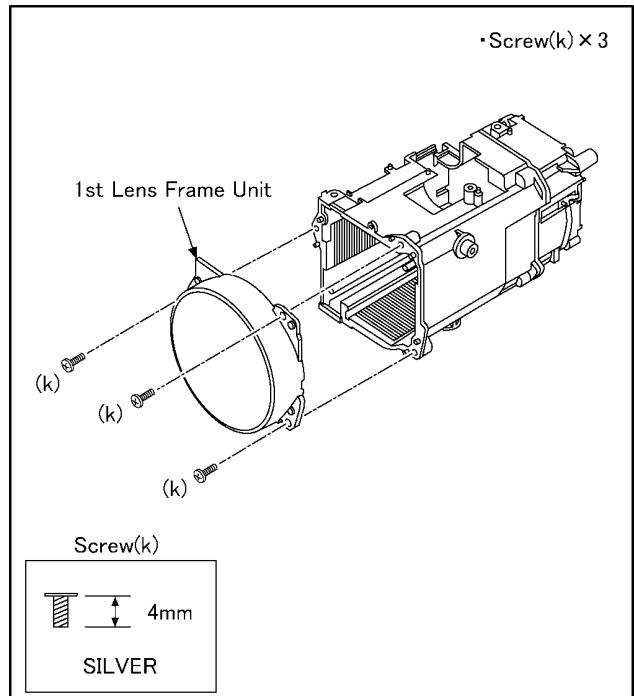


Fig. D44

9.3.32. Removal of the 2nd Lens Frame Move Unit

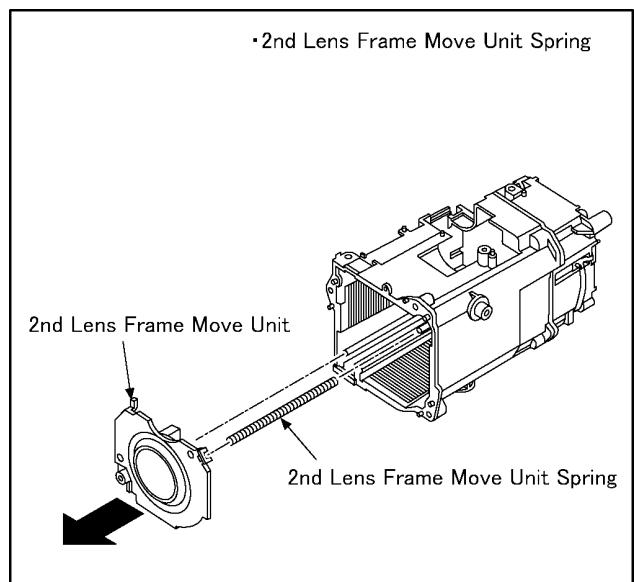


Fig. D45

9.3.33. Removal of the Body Unit and the Zoom Guide Pole

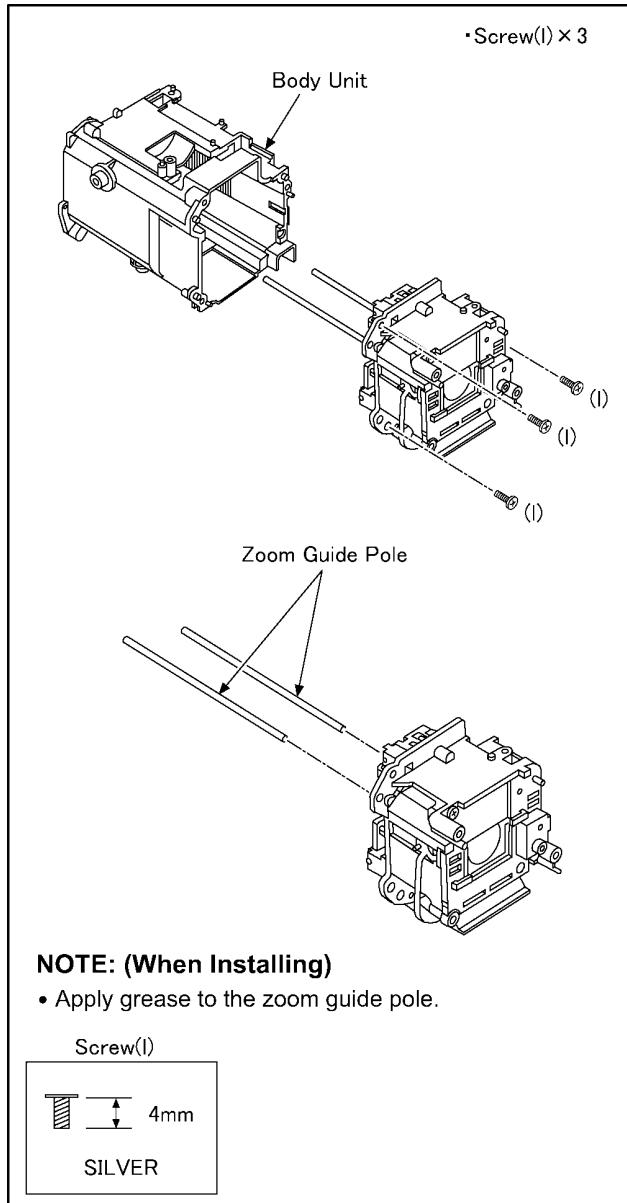


Fig. D46

9.3.34. Removal of the Master Flange Cover

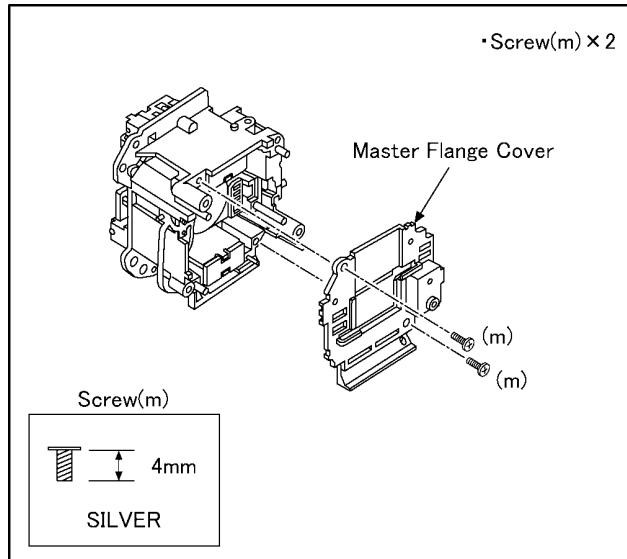


Fig. D47

9.3.35. Removal of the 4th Lens Frame Move Unit

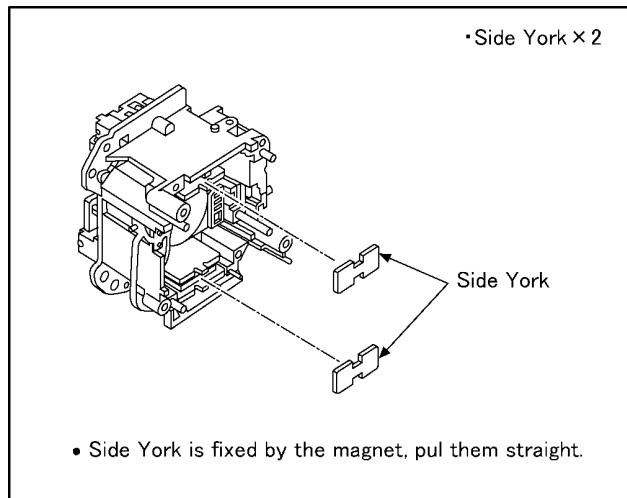
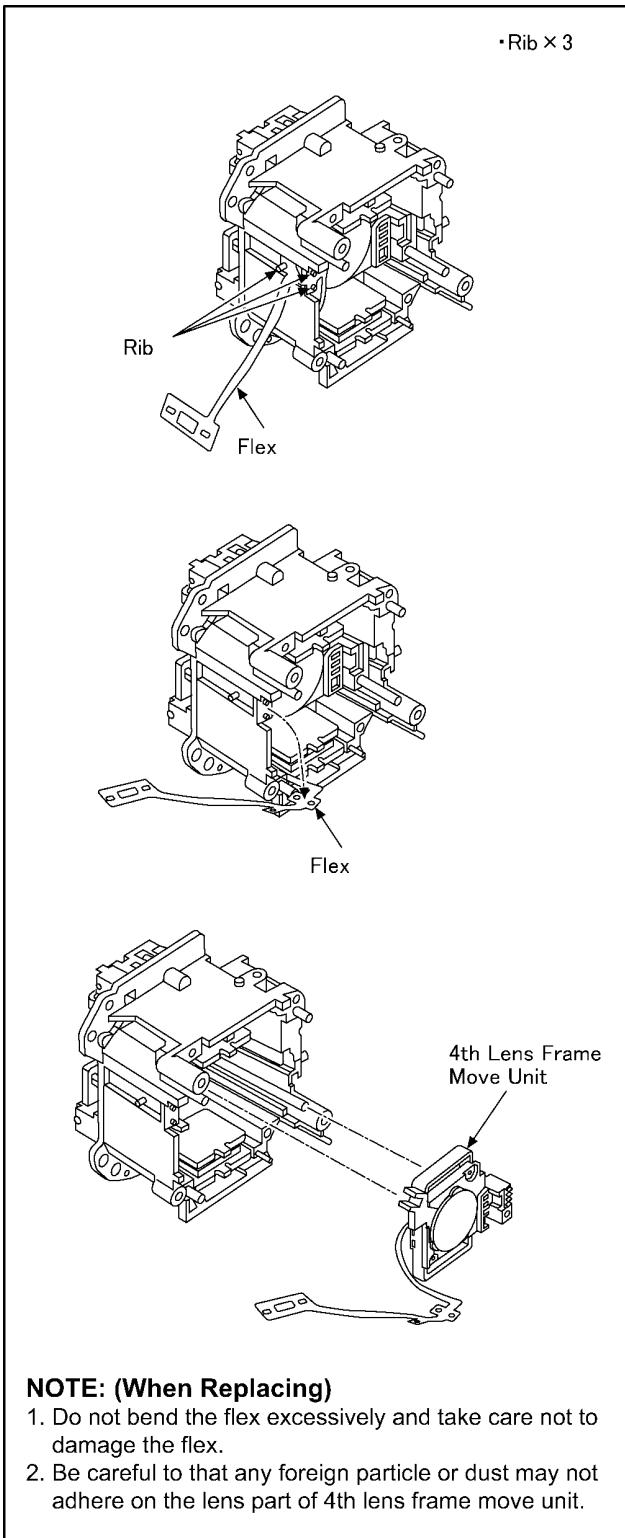
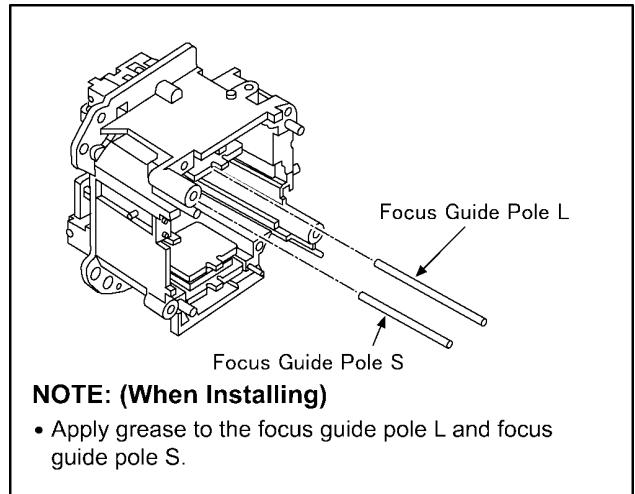


Fig. D48



9.3.36. Removal of the Focus Guide Pole L and Focus Guide Pole S



NOTE: (When Installing)

- Apply grease to the focus guide pole L and focus guide pole S.

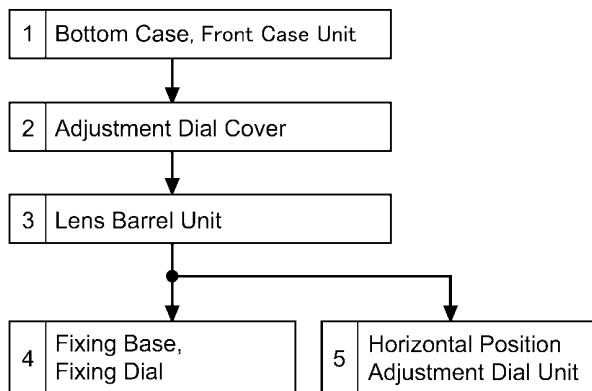
Fig. D50

Fig. D49

9.4. Disassembly Flow Chart for the 3D Conversion Lens

This is a disassembling chart.

When assembling, perform this chart conversely.



9.5. Disassembly Procedure of the 3D Conversion Lens

No.	Item	Fig	Removal
1	Bottom Case Front Case Unit	Fig. L1	5 Screws (A) Bottom Case Front Case Unit
2	Adjustment Dial Cover	Fig. L2	Cover Sheet 1 Screw (B) 2 Screws (C) Adjustment Dial Cover
3	Lens Barrel Unit	Fig. L3 Fig. L4	3 Screws (D) 2 Screws (E) Lens Barrel Unit
4	Fixing Base Fixing Dial	Fig. L5	2 Screws (F) Fixing Base Fixing Dial
5	Horizontal Position Adjustment Dial Unit	Fig. L6	Horizontal Position Adjustment Dial Unit

9.5.1. Removal of the Bottom Case and Front Case Unit

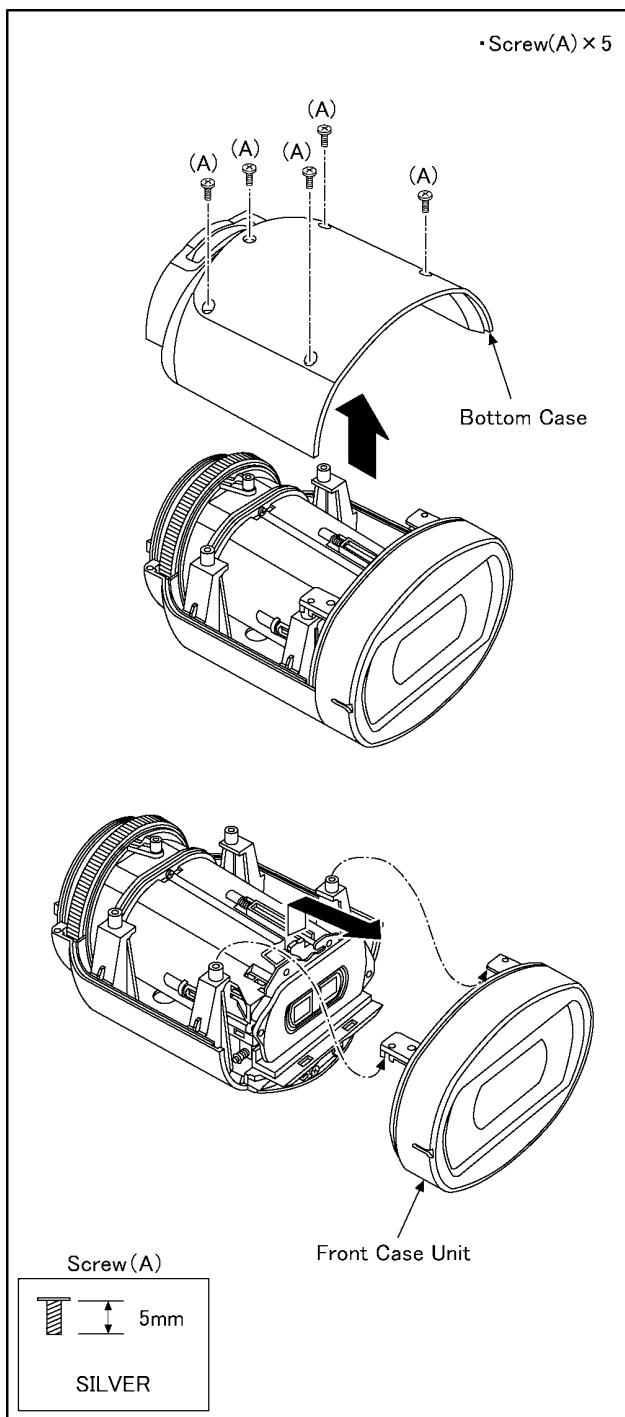
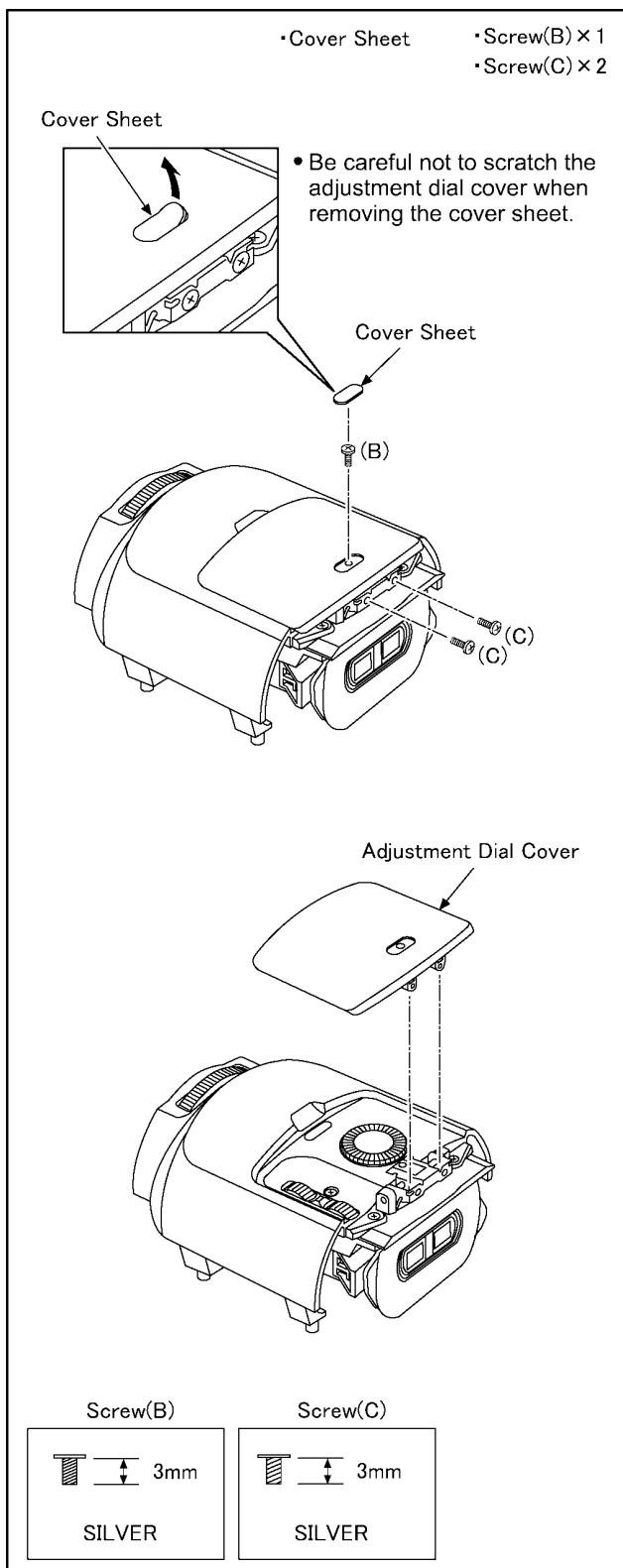


Fig. L1

9.5.2. Removal of the Adjustment Dial Cover



9.5.3. Removal of the Lens Barrel Unit

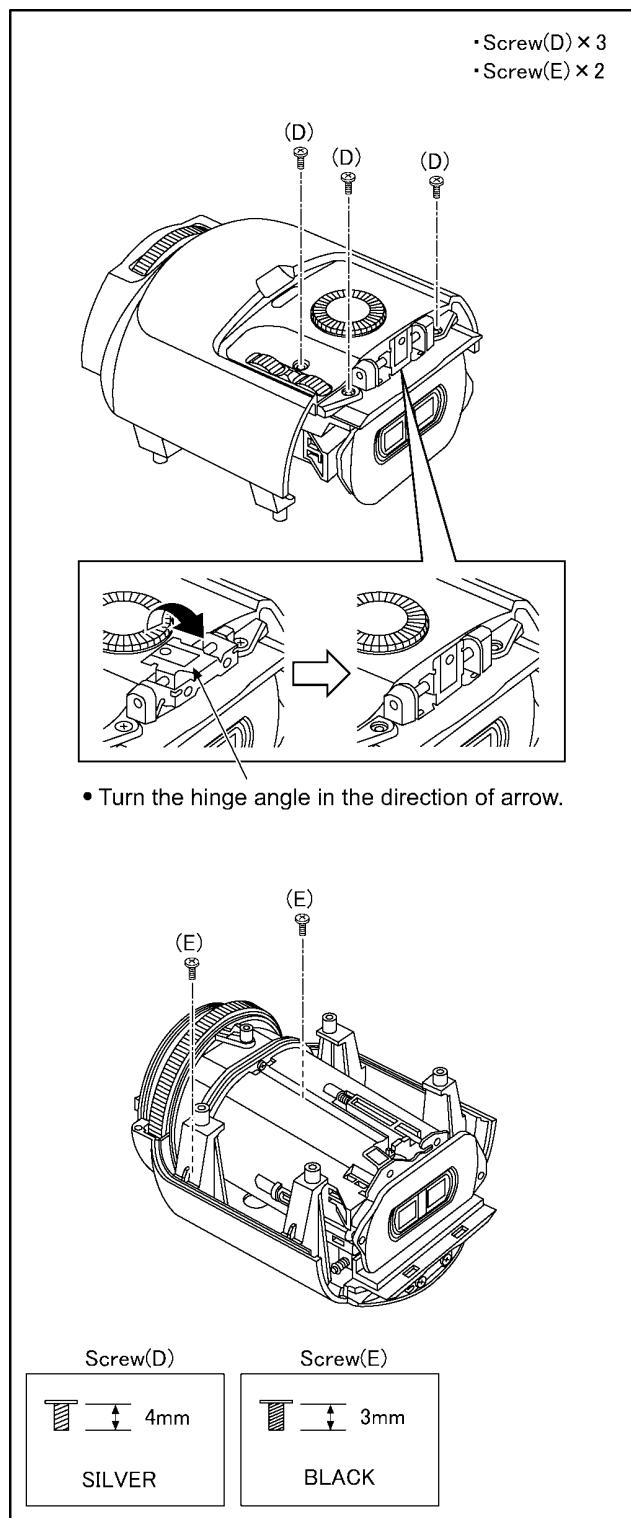


Fig. L3

Fig. L2

9.5.4. Removal of the Fixing Base and Fixing Dial

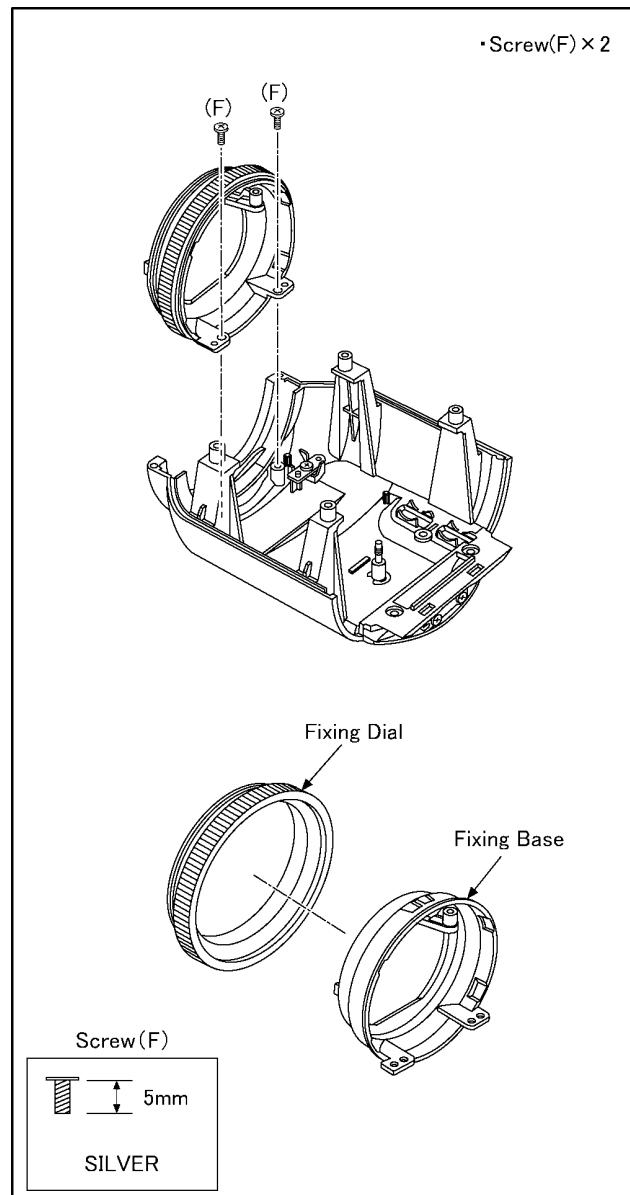
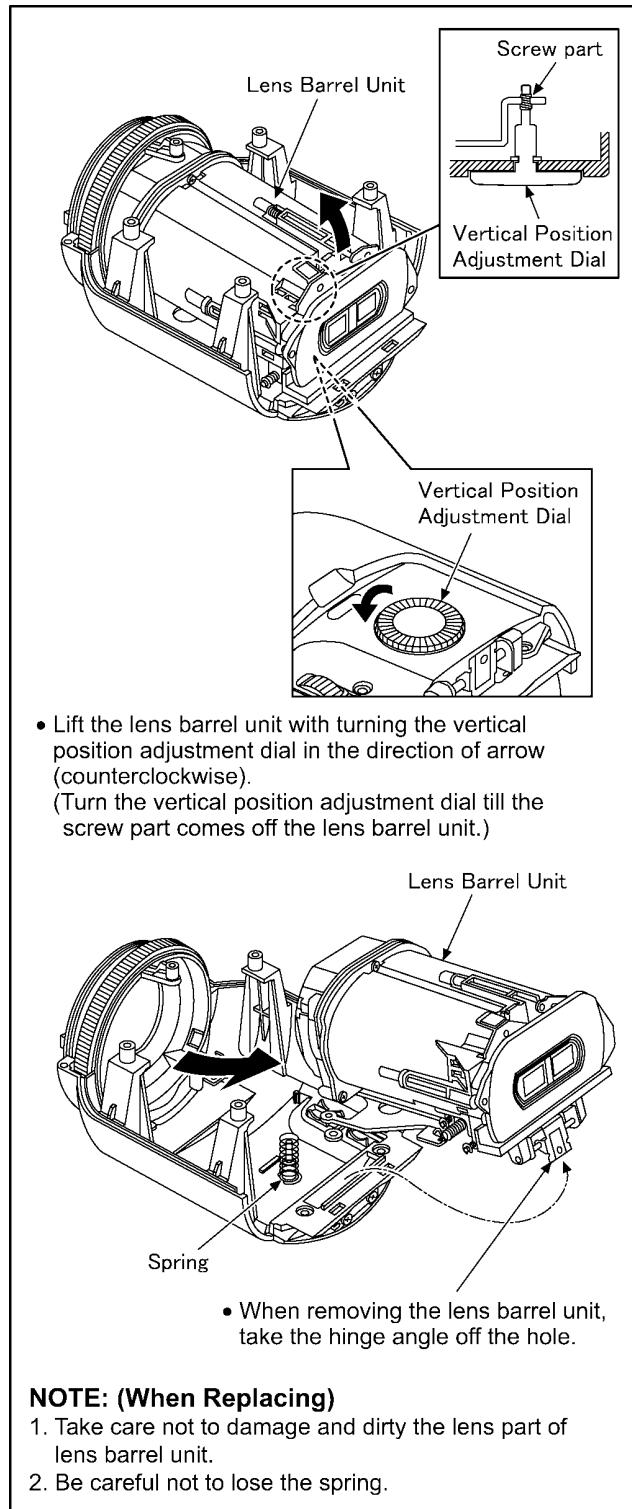


Fig. L5

NOTE: (When Replacing)

1. Take care not to damage and dirty the lens part of lens barrel unit.
2. Be careful not to lose the spring.

Fig. L4

9.5.5. Removal of the Horizontal Position Adjustment Dial Unit

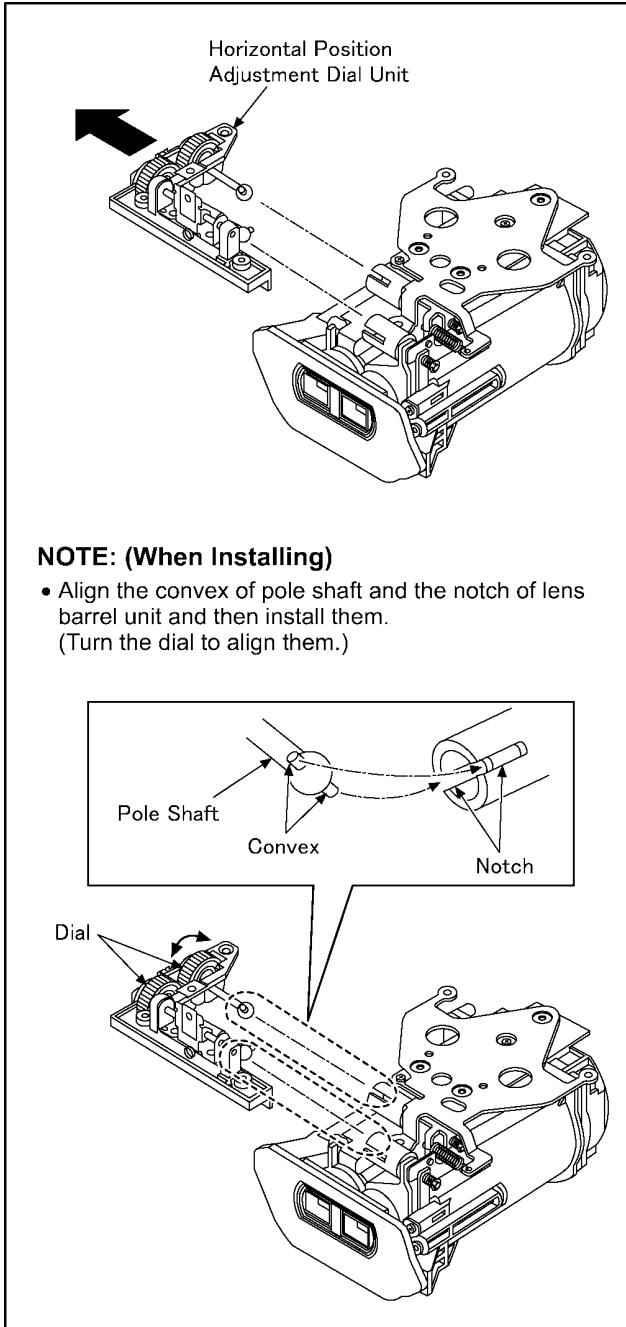


Fig. L6

10 Measurements and Adjustments

10.1. Electric Adjustment

- Adjustment method is different from a conventional High definition video camera.
- An exclusive jig and PC (including software for adjustment "Tatsujin") are necessary for electric adjustment.
- A USB driver for service is necessary to communication with PC.
- Connection method of the main unit and an exclusive adjustment jig as follows

10.1.1. Adjustment Procedure

- Connect the main unit to PC with USB.

The adjustment instruction is available at "Software download" on the "Support Information from NWBG/VDBG-AVC" web-site in "TSN System".

Figure of connection

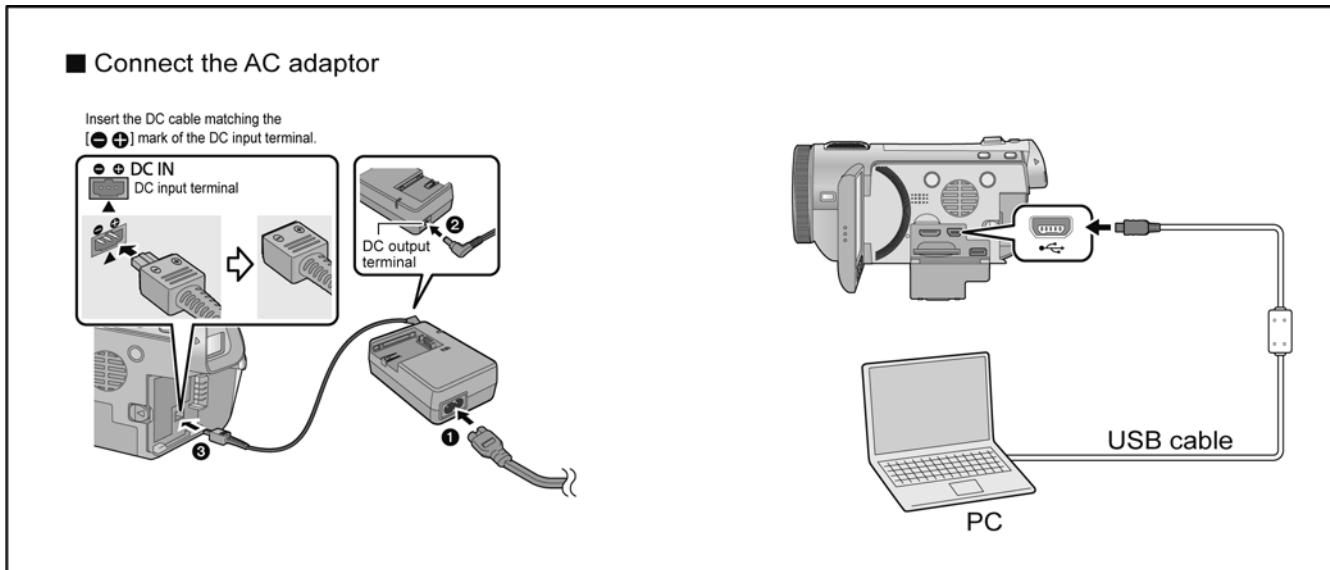
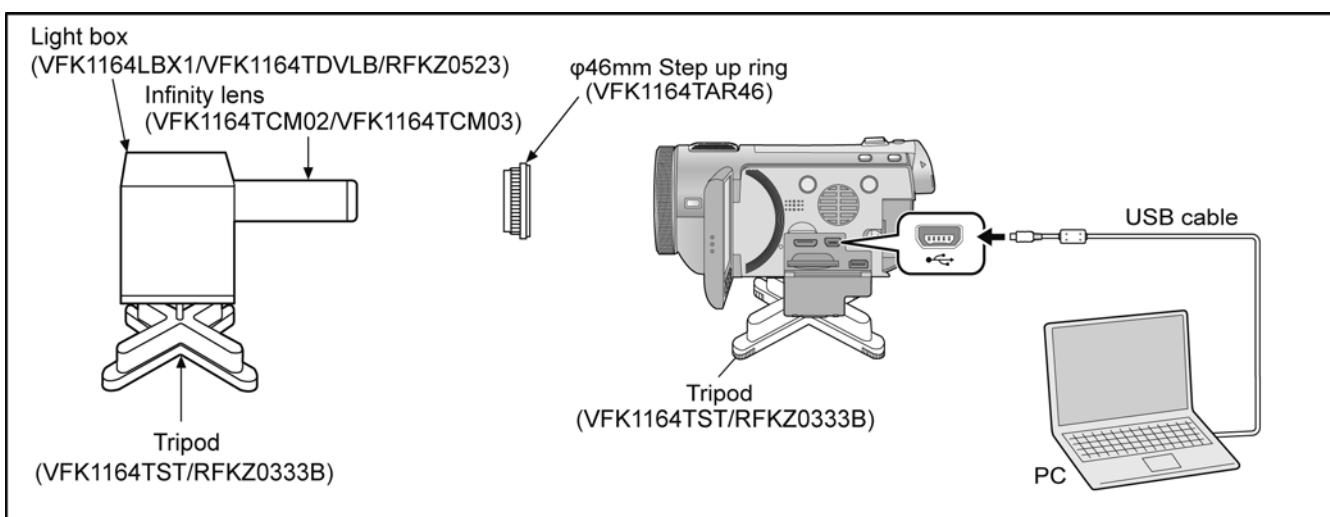


Figure of image when adjustment



Part Number of jig

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

No.	Part Name	Part Number	Remarks
1	PC	-----	
2	AC Adaptor	-----	
3	USB Cable	-----	
4	46mm Step Up Ring	VFK1164TAR46	
5	Adjustment Software (Tatsujin)	-----	

Adjustment Items

- Adjustment item as follows.

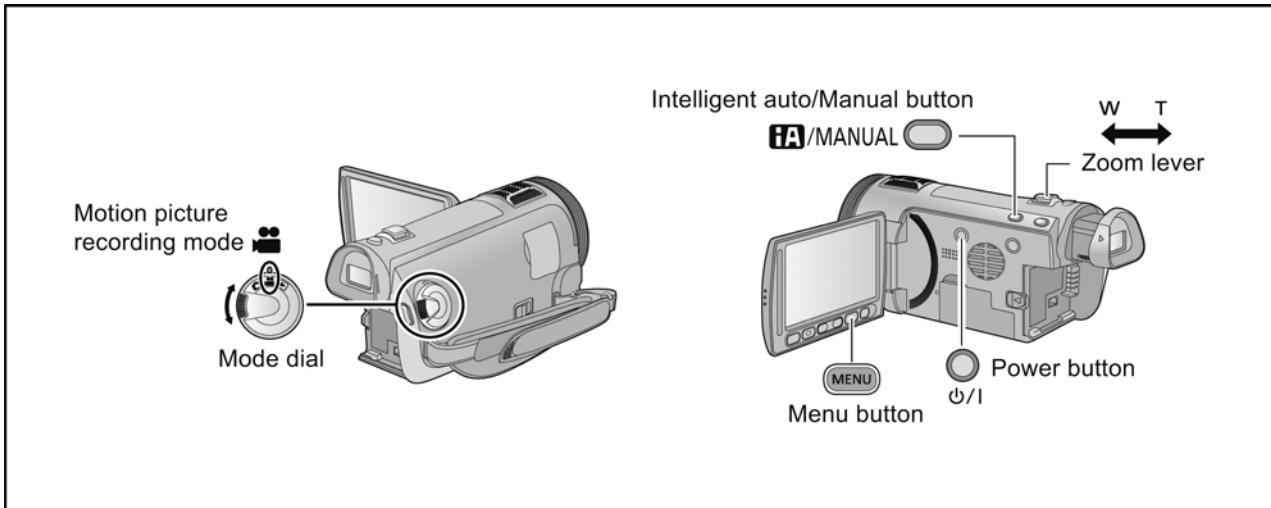
The adjustment instruction is available at "Software download" on the "Support Information from NWBG/VDBG-AVC" web-site in "TSN System".

	Adjustment item	Replacement part	Main P.C.B.	IC2002(EEPROM)	Lens Unit	Prism Unit	IC3701	IC3401, IC3402	IC701	OIS sensor
Camera Part	● Hall amplifire/PWM bias/ OIS Hall amplifire adjustment (automatic)	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>				
	● OIS Sensor Offset adjustment (automatic)	<input type="radio"/>	<input type="radio"/>							<input type="radio"/>
	● Zoom tracking adjustment (automatic)	<input type="radio"/>			<input type="radio"/>					
	● Address wound revision (automatic)	<input type="radio"/>	<input type="radio"/>			<input type="radio"/>				
	● White balance adjustment (automatic)	<input type="radio"/>	<input type="radio"/>			<input type="radio"/>				
	● Gain adjustment between channels (automatic)	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>					
Video Part	● Brightness level adjustment (automatic)	<input type="radio"/>	<input type="radio"/>			<input type="radio"/>				
	● UniPhier DDR revision (automatic)	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>			

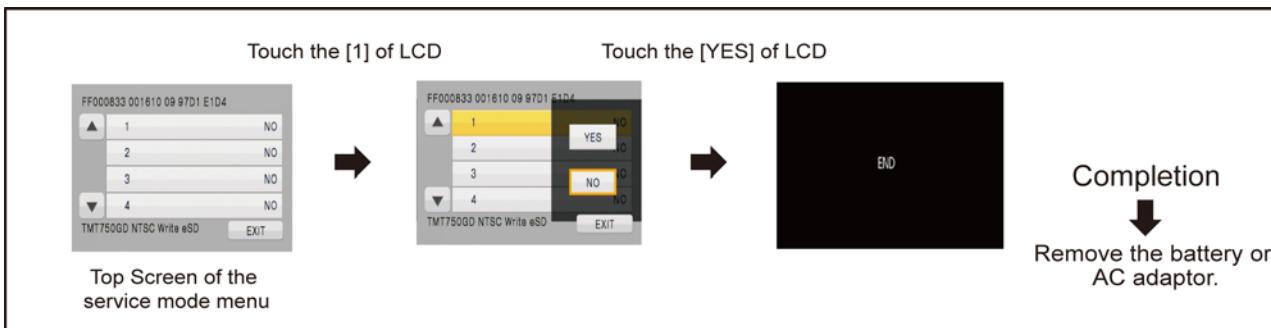
11 Factory Setting

11.1. How To Turn On The Factory Settings?

1. Set the mode dial “Motion Picture Recording” mode.
2. Turn the power on, and then while keep pressing the “Zoom lever” to W side, “Intelligent auto/Manual” button and “Menu” button for more than 3 seconds until the top screen of the Service Mode Menu being displayed.



3. Touch the [1] of LCD.
4. Touch the [YES] of LCD.
5. After few seconds “END” is displayed on LCD monitor. Cutting of battery connection or AC power supply connection as a completion of the “FACTORY SETTINGS”.

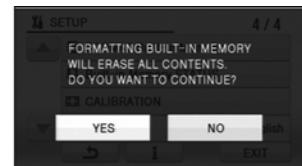


11.2. What Is The Factory Settings?

The factory settings clean up and/or refresh the following settings.

1. MENU, MODE, ADJUSTMENT VALUE.
2. SD card format.
3. Reset the folder number and file number of still pictures.
(Setting the folder number is 100, and file number is 0.)
4. Clear the mechanism lock information.
5. Clear the service mode information contents.
6. Close the lens cover
7. Initialize the VIERA Link Physical Address.
8. Confirm the data of Built-in memory is cleared. (only HDC-TMT750)
 - When recorded data in Built-in memory, "error display" is done
If "error display" is done, execute physical format according to the following procedure.

To physically format the built-in memory, connect the unit via the AC adaptor, select [FORMAT Built-in Memory] → [YES] from the menu, and then press and hold the delete button on the screen below for about 3 seconds. When the built-in memory data deletion screen appears, select [YES], and then follow the on-screen instructions.



The setting position of factory settings:

Name	Setting position
Mode dial	Motion picture recording mode

Service Manual

Diagrams and Replacement Parts List

High Definition Video Camera

Model No.

HDC-SDT750PP	HDC-TMT750GC
HDC-SDT750EB	HDC-TMT750GD
HDC-SDT750EE	HDC-TMT750GK
HDC-SDT750EF	HDC-TMT750GT
HDC-SDT750EG	
HDC-SDT750EP	
HDC-SDT750GC	

Vol. 1
Colour
(H).....Gray Type

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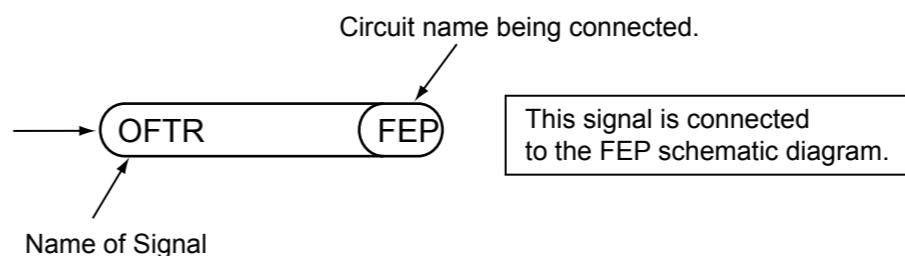
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S1. About Indication of The Schematic Diagram

S1.1. Important Safety Notice

COMPONENTS IDENTIFIED WITH THE MARK  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 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. Flash P.C.B.

REF No.	PIN No.	POWER ON
IC7001	1	0
IC7001	2	0
IC7001	3	0
IC7001	4	0
IC7001	5	3.3
IC7001	6	0
IC7001	7	0
IC7001	8	0
IC7001	9	2.9
IC7001	10	8.3
Q3901	E	3.3
Q3901	C	3.3
Q3901	B	3.3

S2.2. BATT_Catcher P.C.B.

REF No.	PIN No.	POWER ON
IC6302	1	3.2
IC6302	2	0
IC6302	3	0
IC6302	4	2.9
IC6302	5	3.2
IC851	1	0
IC851	2	0
IC851	3	0
IC851	4	0
IC851	5	0
IC851	6	0
IC851	7	0
IC851	8	0
IC851	9	0
IC851	10	0
IC851	11	0
IC851	12	0.7
IC851	13	0.7
IC851	14	0
IC851	15	0
IC851	16	0
IC851	17	0
IC851	18	0
IC851	19	0
IC851	20	0
IC851	21	0
IC851	22	0
IC851	23	0
IC851	24	0.2
IC851	25	0
IC851	26	0
IC851	27	0
IC851	28	0
IC851	29	0
IC851	30	0
IC851	31	0
IC851	32	0
IC851	33	0.1
IC851	34	0
IC851	35	0
IC851	36	0
IC851	37	0
IC851	38	0
IC851	39	0
IC851	40	0
IC851	41	0
IC851	42	0
IC851	43	0
IC851	44	0
IC851	45	0
IC851	46	0
IC851	47	0
IC851	48	0
IC851	49	0
IC851	50	0
IC851	51	0
IC851	52	0
IC851	53	0
IC851	54	0
IC851	55	0
IC851	56	0
IC851	57	0
IC851	58	0
IC851	59	0
IC851	60	0
IC851	61	0
IC851	62	0
IC851	63	0
IC851	64	0

S2.3. Front P.C.B.

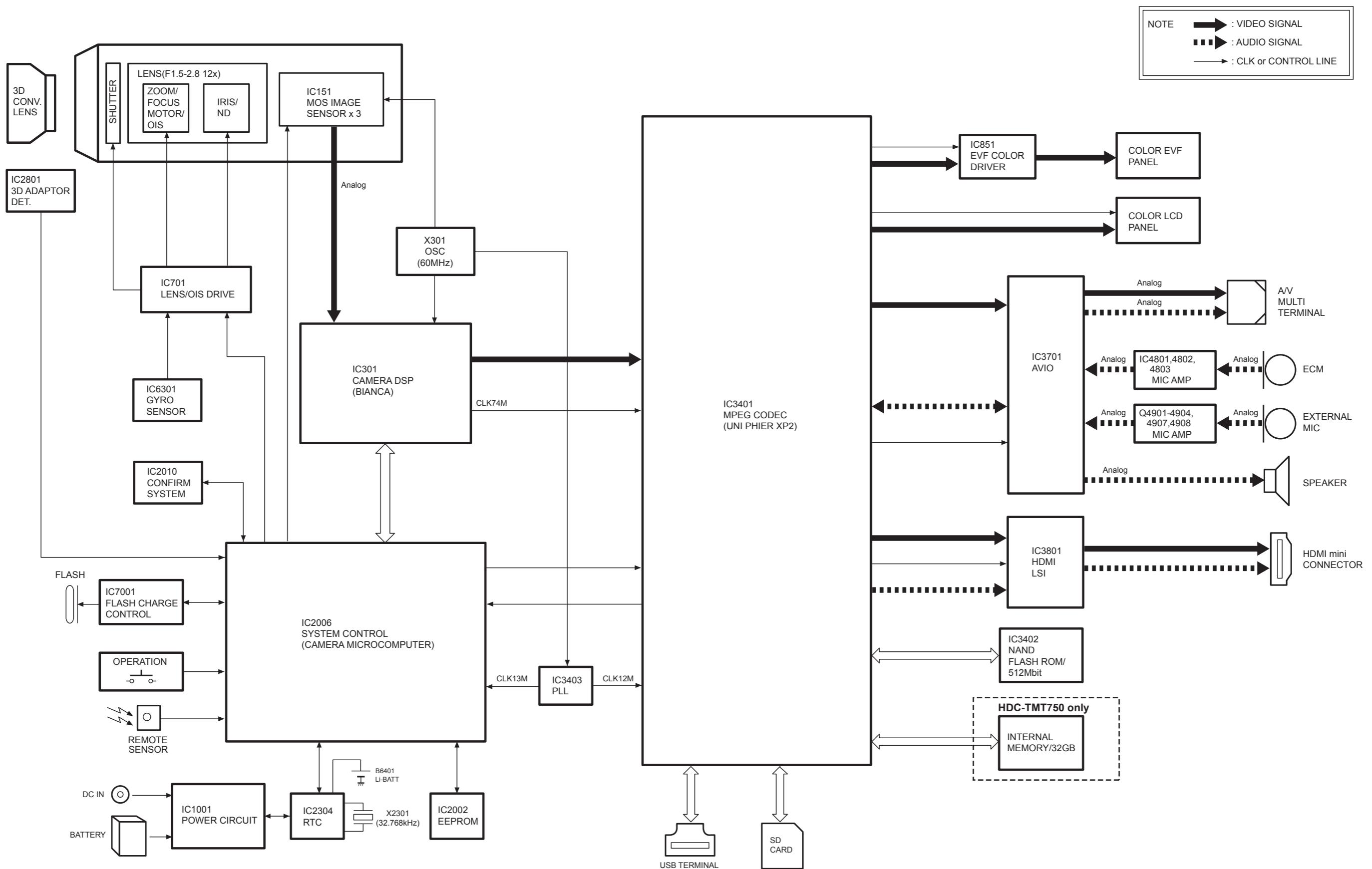
REF No.	PIN No.	POWER ON
Q4901	E	0.5
Q4901	C	3.9
Q4901	B	1
Q4902	E	4.5
Q4902	C	2.9
Q4902	B	3.9
Q4903	E	0.5
Q4903	C	3.9
Q4903	B	1
Q4904	E	4.5
Q4904	C	2.9
Q4904	B	3.9
Q4907	E	4.5
Q4907	C	5.1
Q4907	B	5.1
Q4908	E	2.8
Q4908	C	4.5
Q4908	B	3.4
Q6401	E	5.1
Q6401	C	-0.4
Q6401	B	5.1
QR6401	E	0
QR6401	C	4.8
QR6401	B	0

S2.4. MIC AMP P.C.B.

REF No.	PIN No.	POWER ON
IC4801	1	2.5
IC4801	2	2.5
IC4801	3	2.5
IC4801	4	0
IC4801	5	2.5
IC4801	6	2.5
IC4801	7	2.5
IC4801	8	4.8
IC4802	1	2.5
IC4802	2	2.5
IC4802	3	2.5
IC4802	4	0
IC4802	5	2.5
IC4802	6	2.5
IC4802	7	2.5
IC4802	8	4.8
IC4803	1	2.5
IC4803	2	2.5
IC4803	3	2.5
IC4803	4	0
IC4803	5	2.5
IC4803	6	2.5
IC4803	7	2.5
IC4803	8	4.8
Q4801	E	4.1
Q4801	C	4.8
Q4801	B	4.8

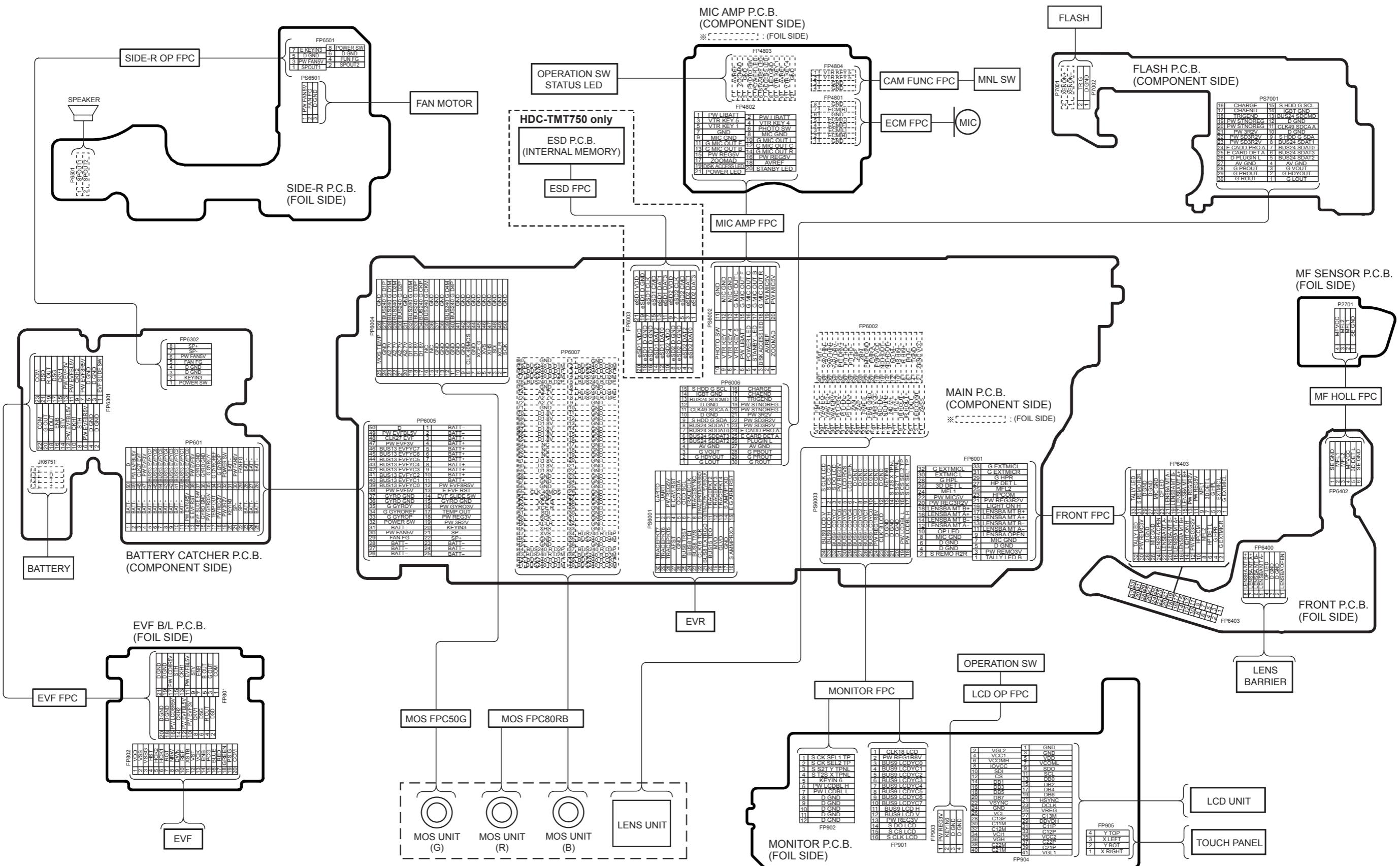
S3. Block Diagram

S3.1. Overall Block Diagram

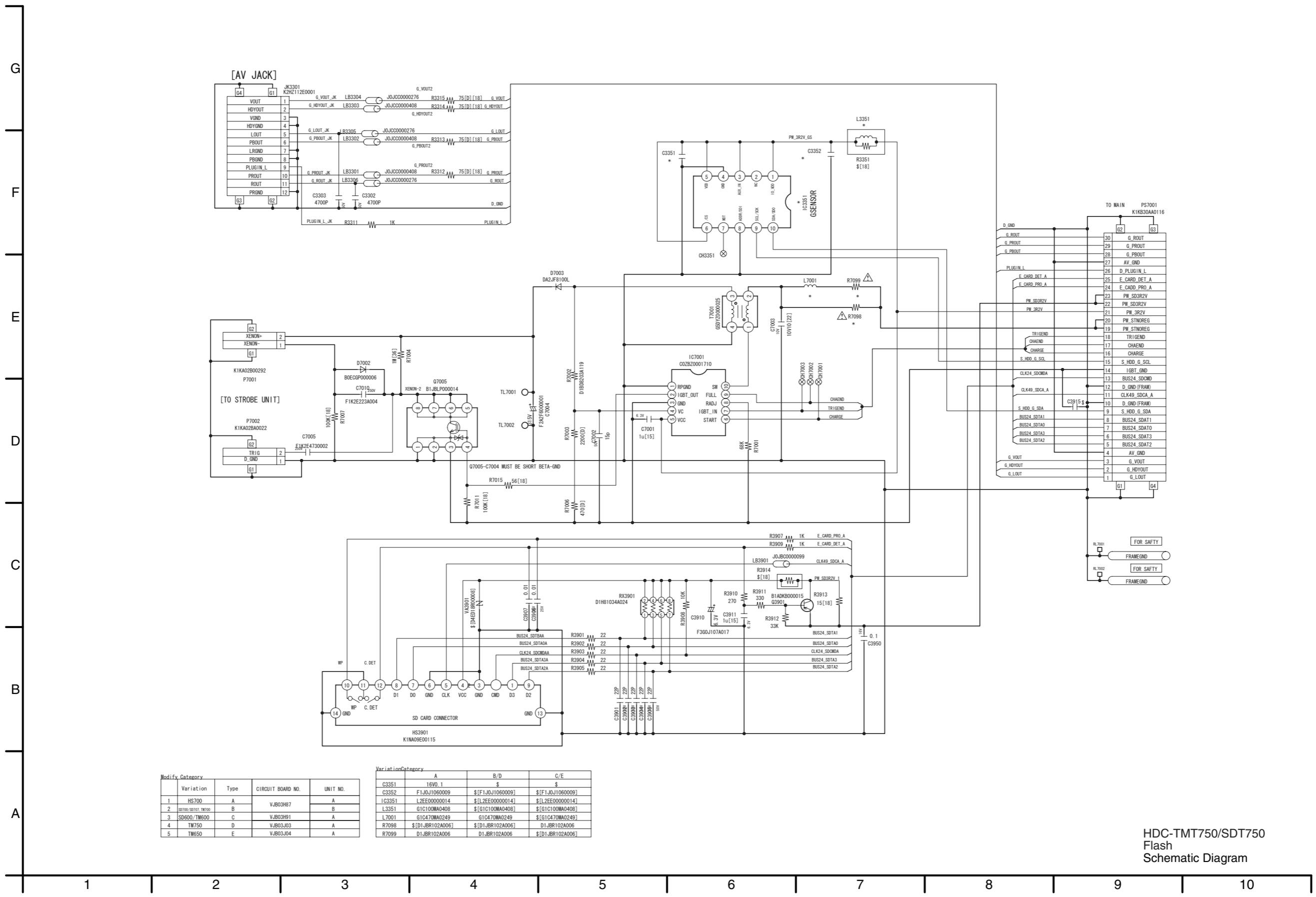


S4. Schematic Diagram

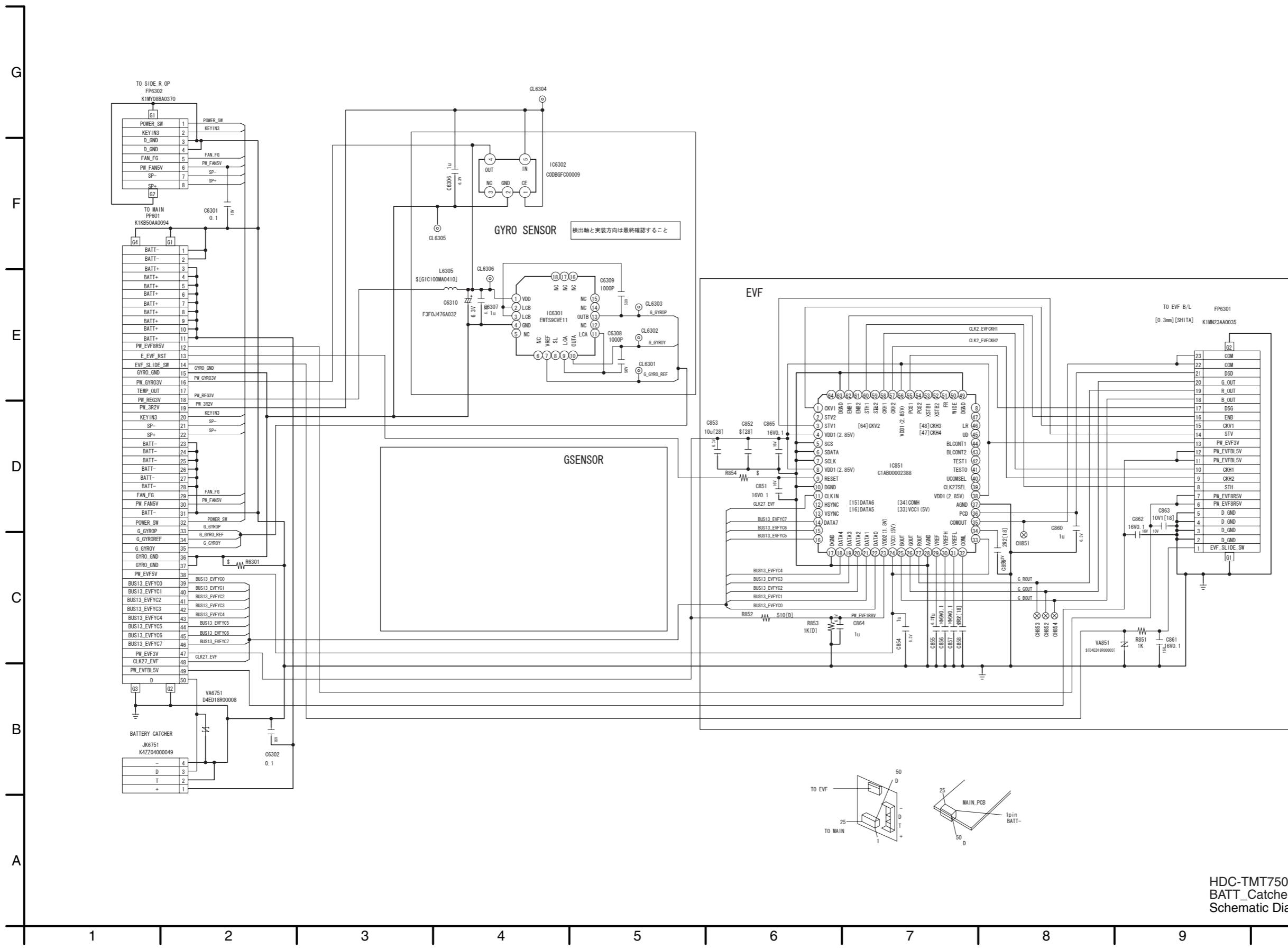
S4.1. Interconnection Diagram



S4.2. Flash Schematic Diagram

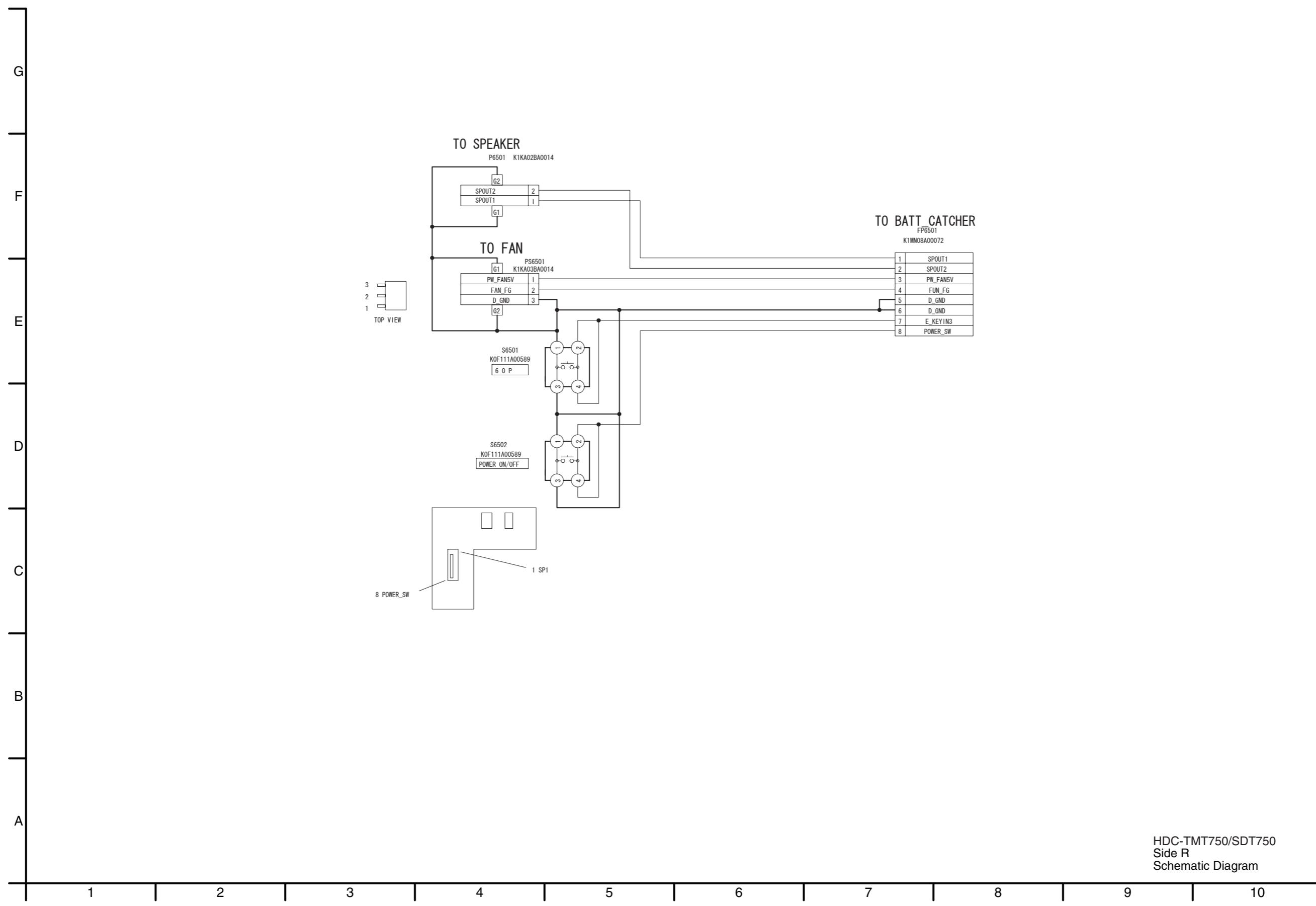


S4.3. BATT_Catcher Schematic Diagram

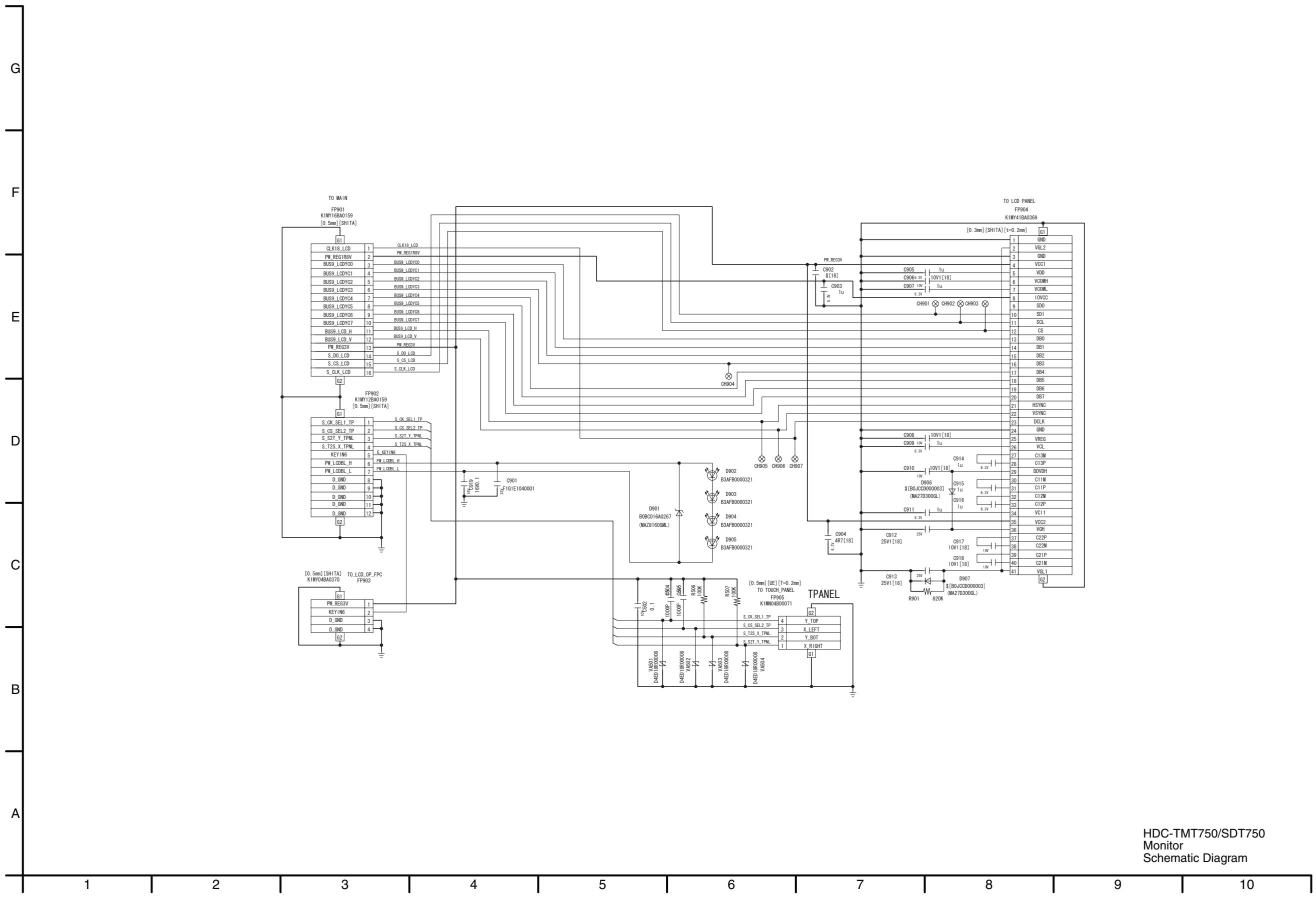


HDC-TMT750/SDT750
BATT_Catcher
Schematic Diagram

S4.4. Side R Schematic Diagram

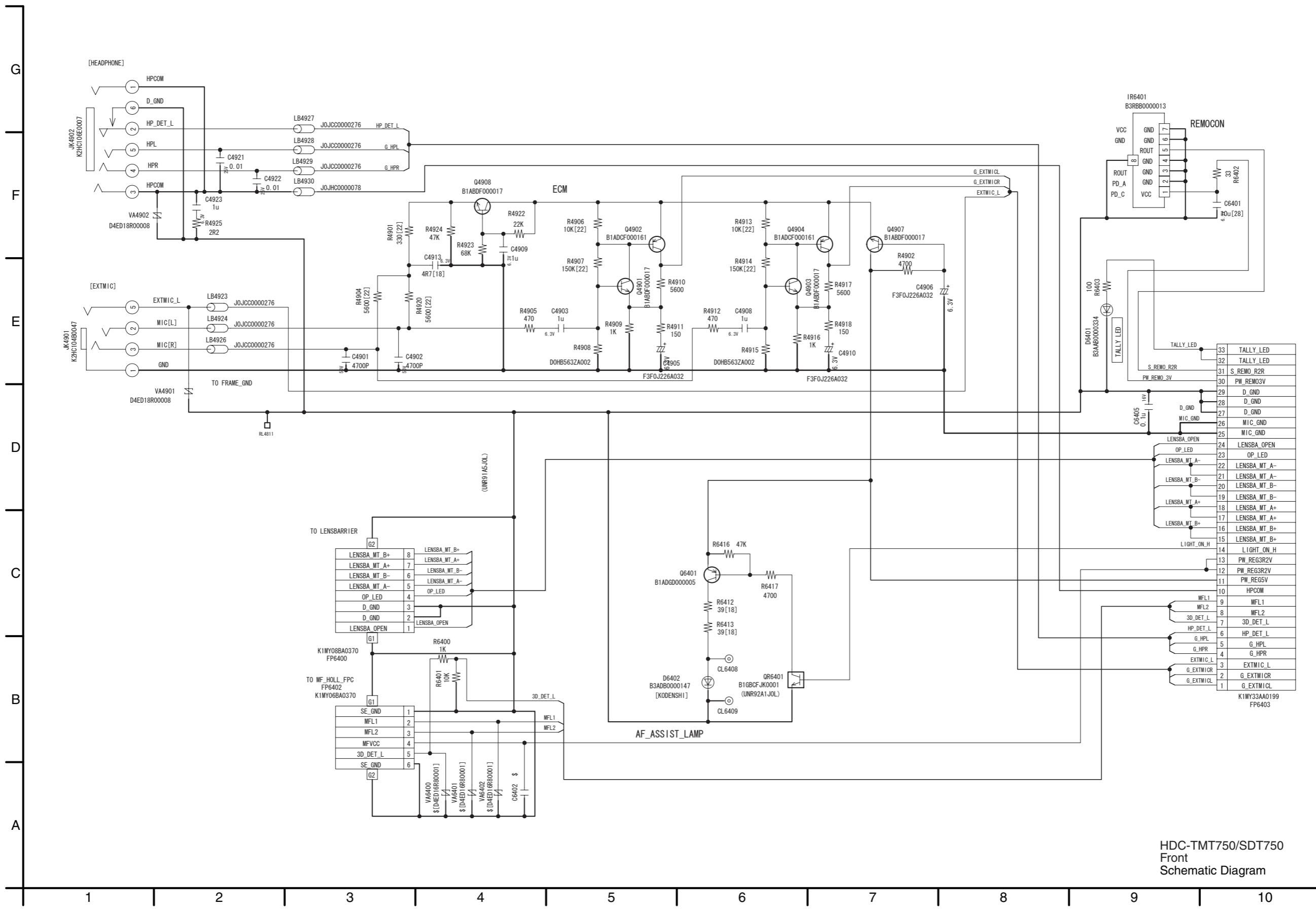


S4.5. Monitor Schematic Diagram

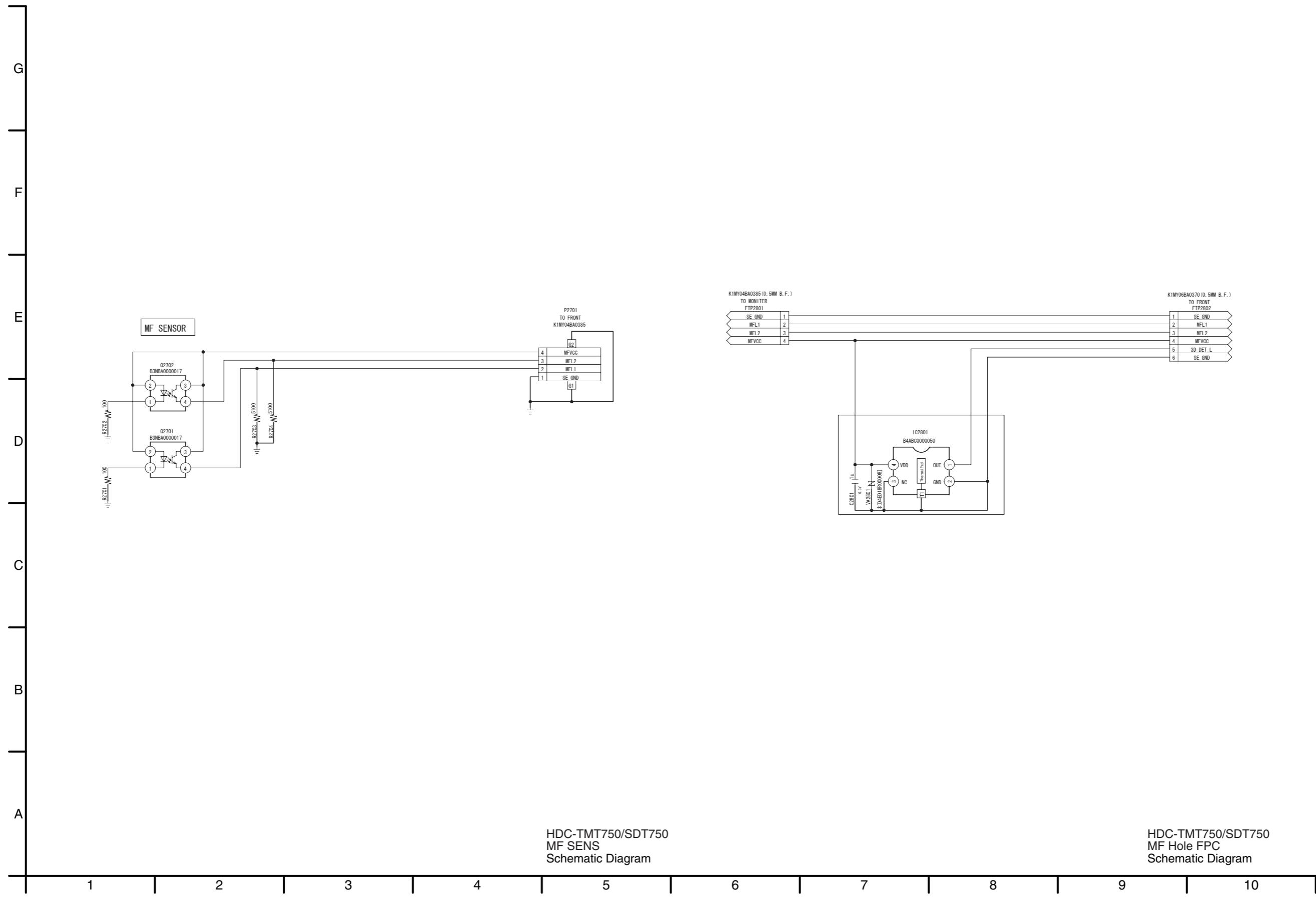


HDC-TMT750/SDT750
Monitor
Schematic Diagram

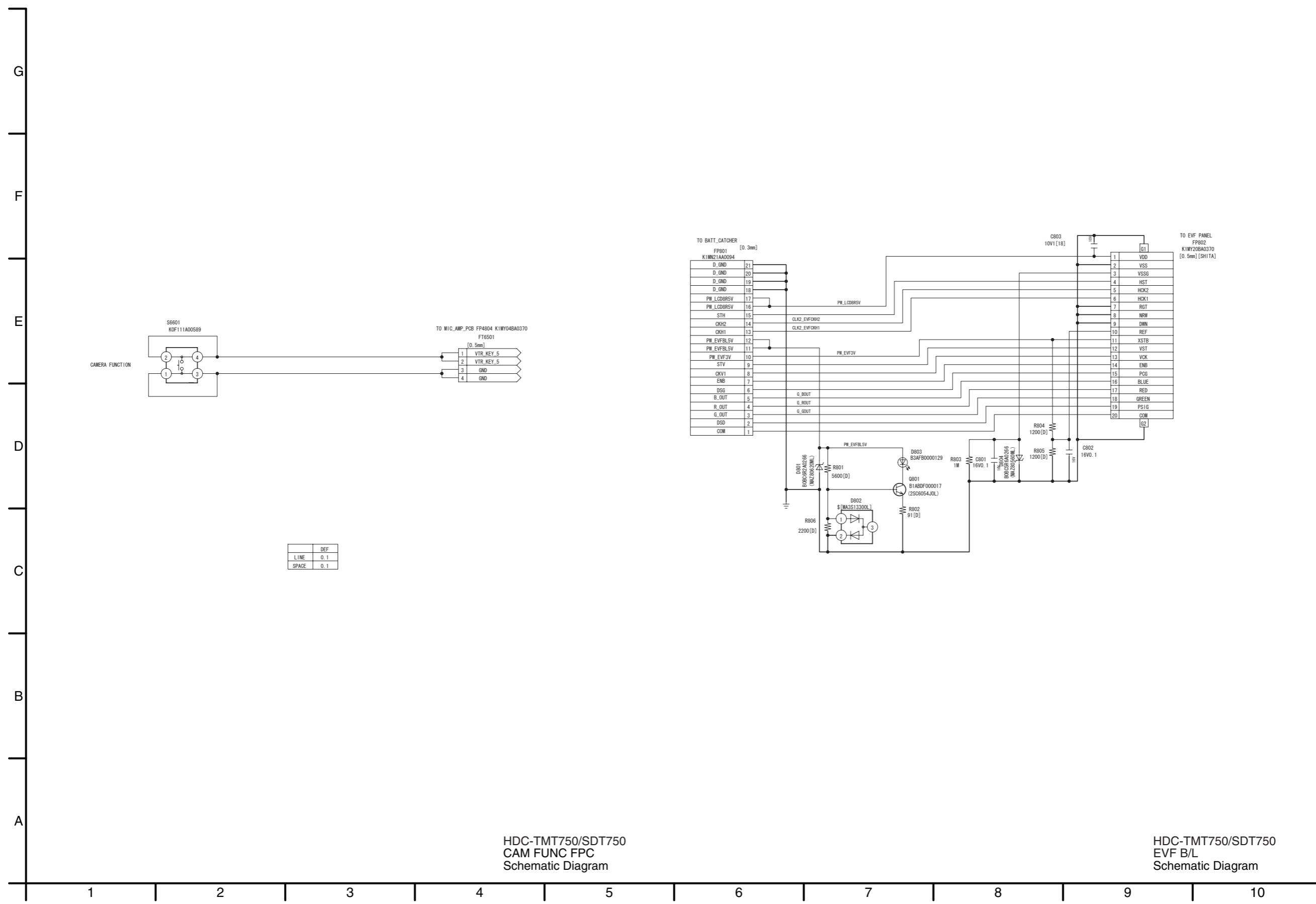
S4.6. Front Schematic Diagram



S4.7. MF SENS Schematic Diagram / S4.8. MF Hole FPC Schematic Diagram



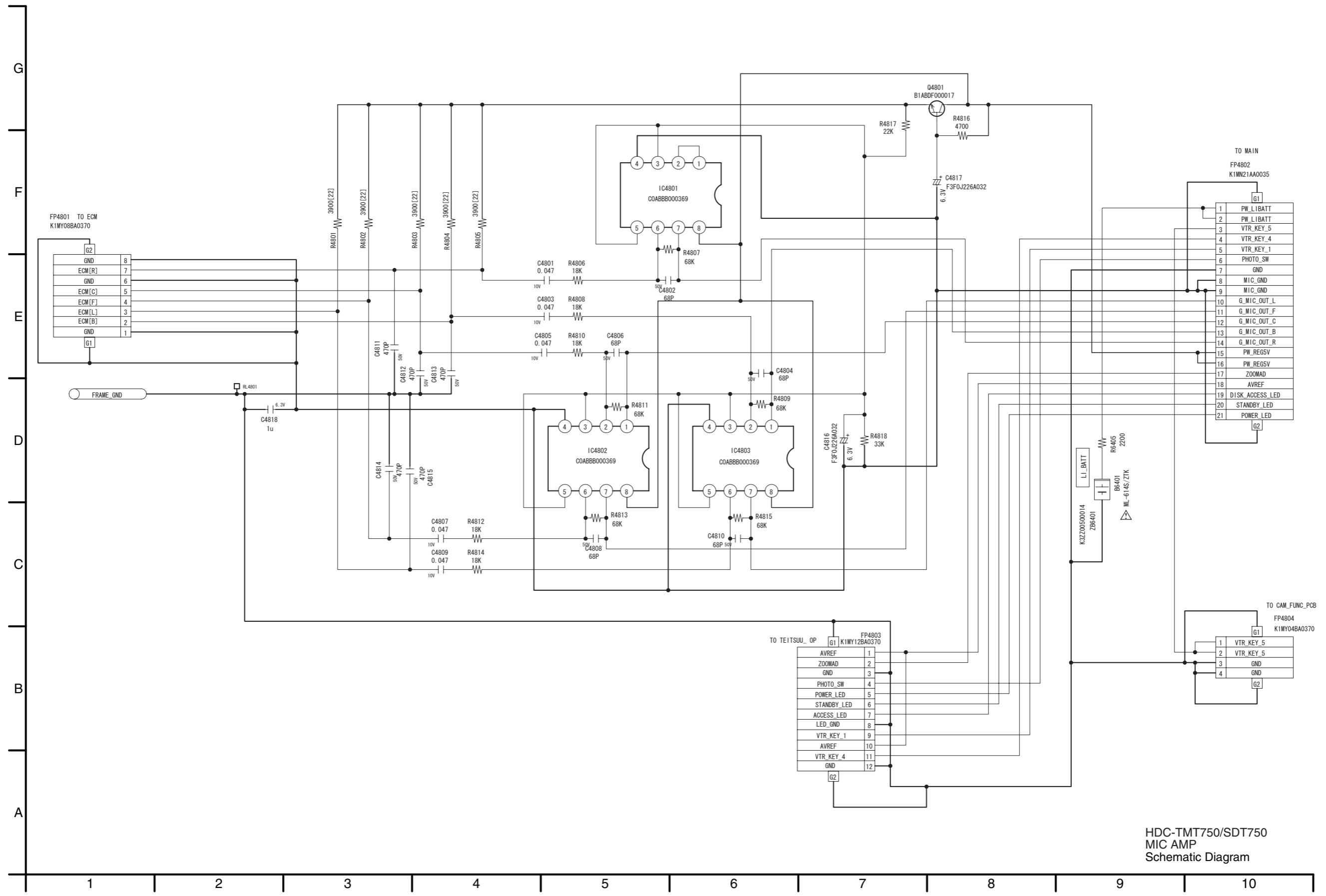
S4.9. CAM FUNC FPC Schematic Diagram / S4.10. EVF B/L Schematic Diagram



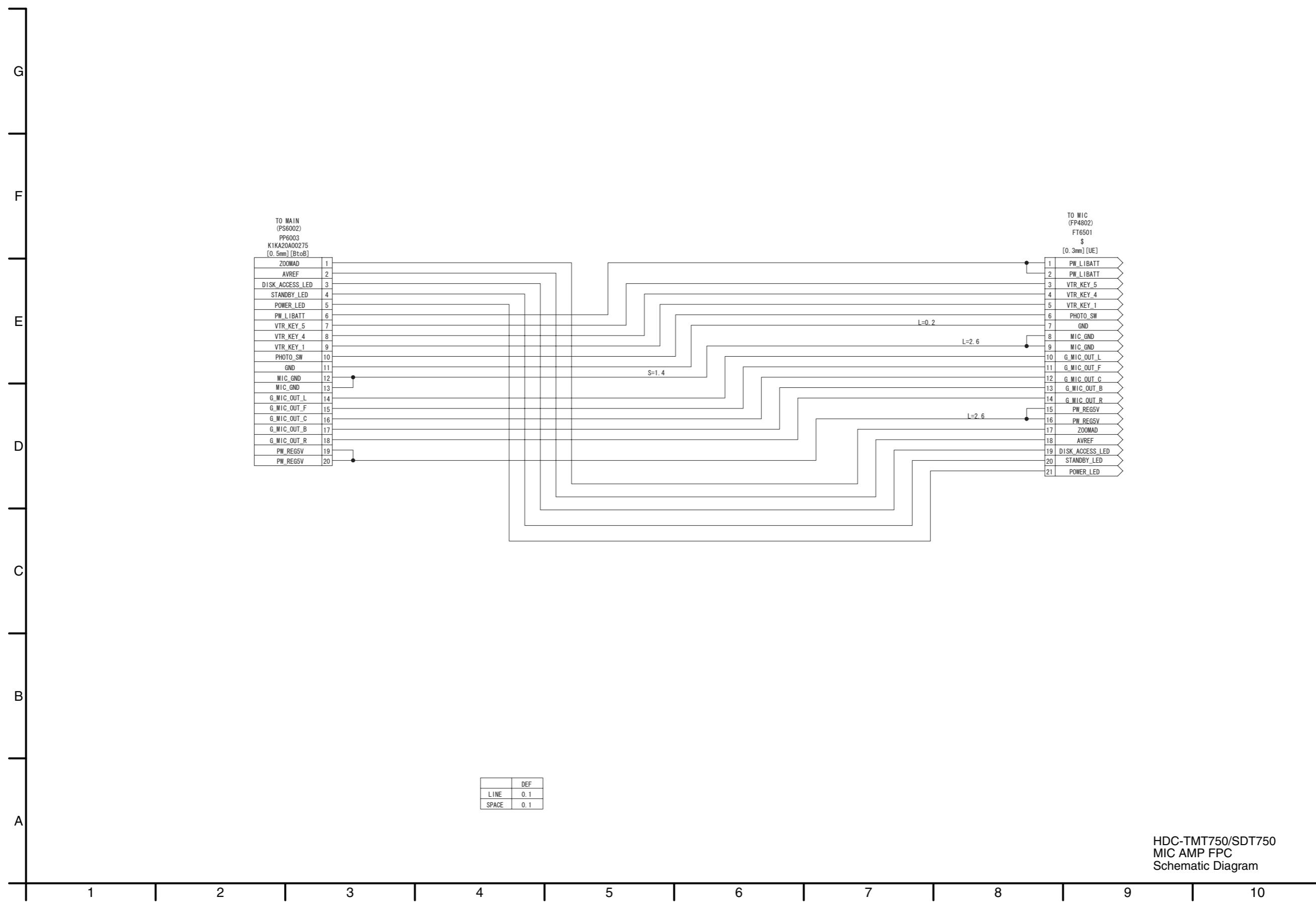
HDC-TMT750/SDT750
CAM FUNC FPC
Schematic Diagram

HDC-TMT750/SDT750
EVF B/L
Schematic Diagram

S4.11. MIC AMP Schematic Diagram

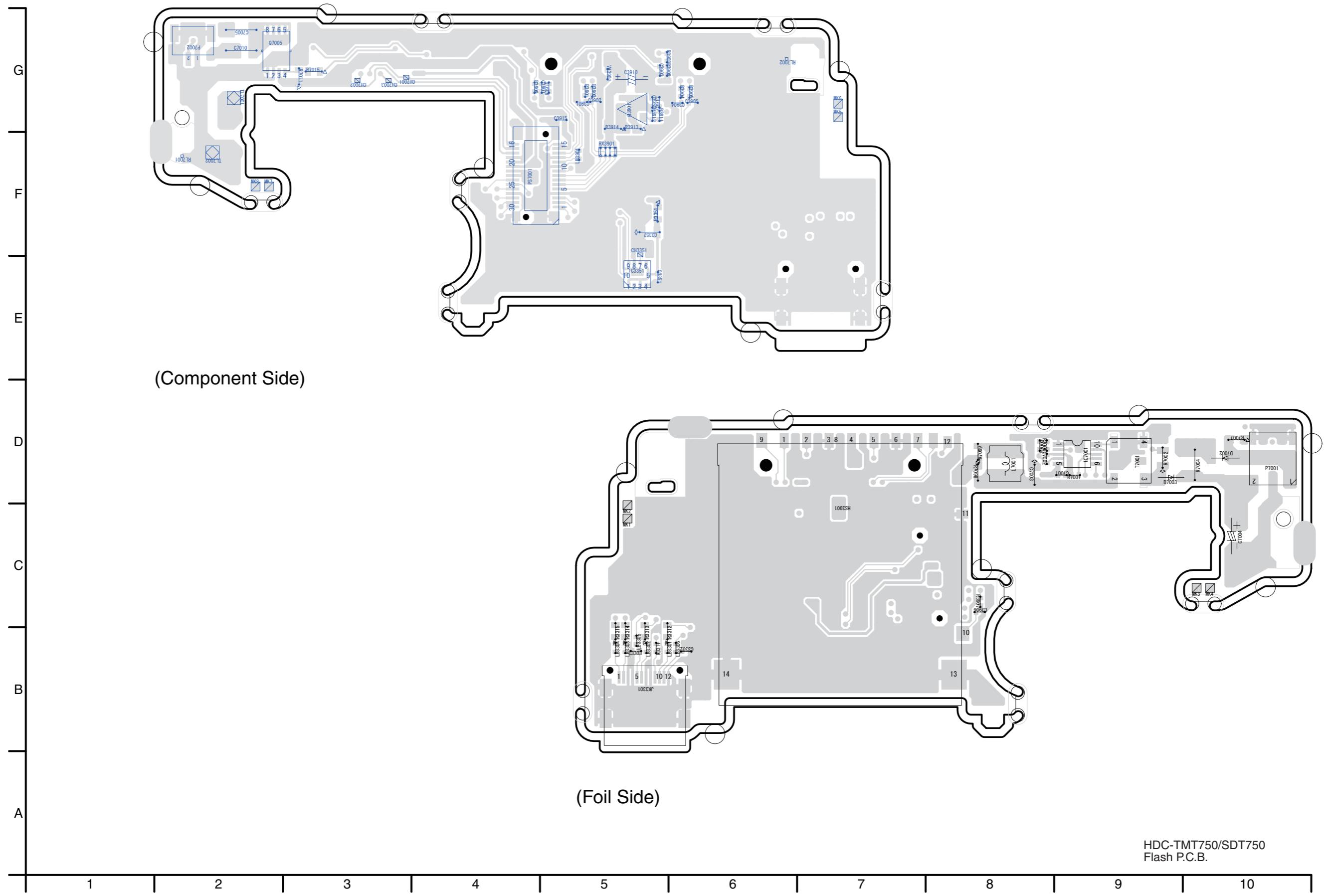


S4.12. MIC AMP FPC Schematic Diagram

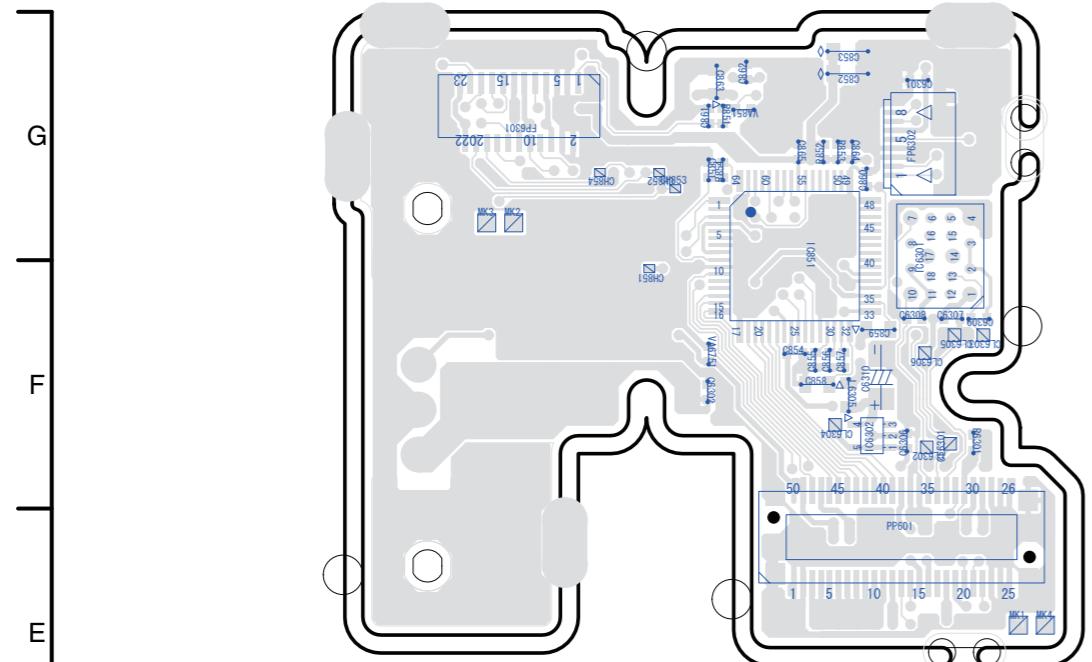


S5. Print Circuit Board

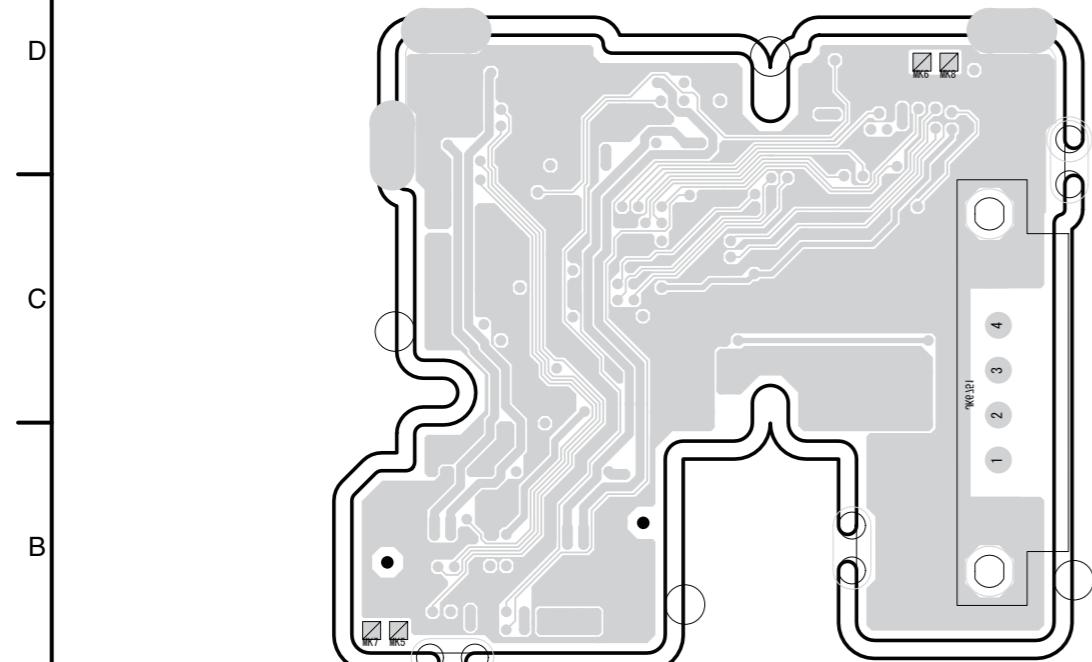
S5.1. Flash P.C.B.



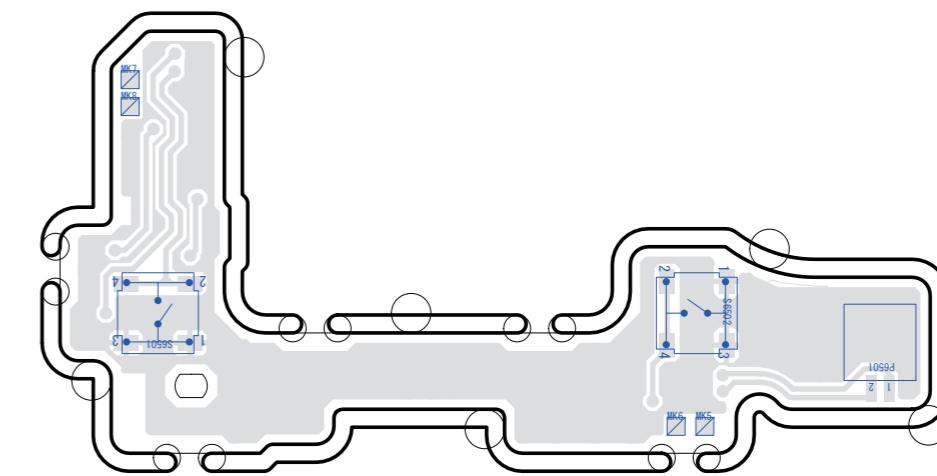
S5.2. BATT_Catcher P.C.B. / S5.3. Side R P.C.B.



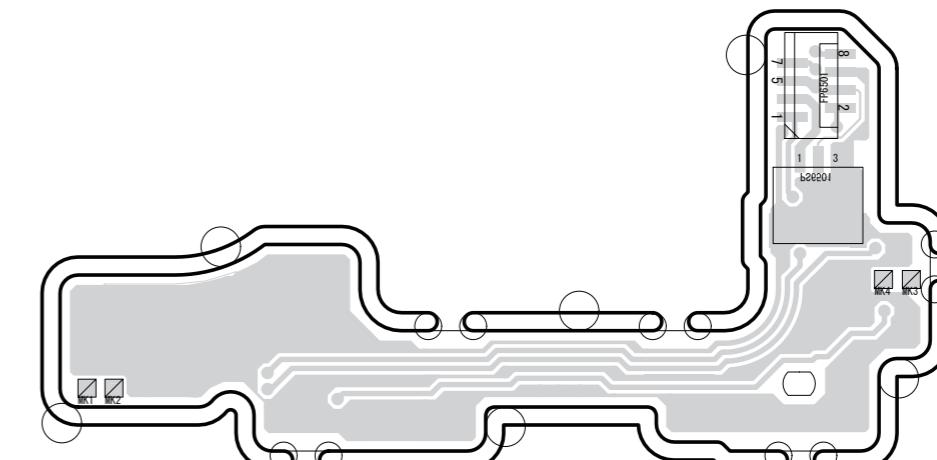
(Component Side)



(Foil Side)



(Component Side)



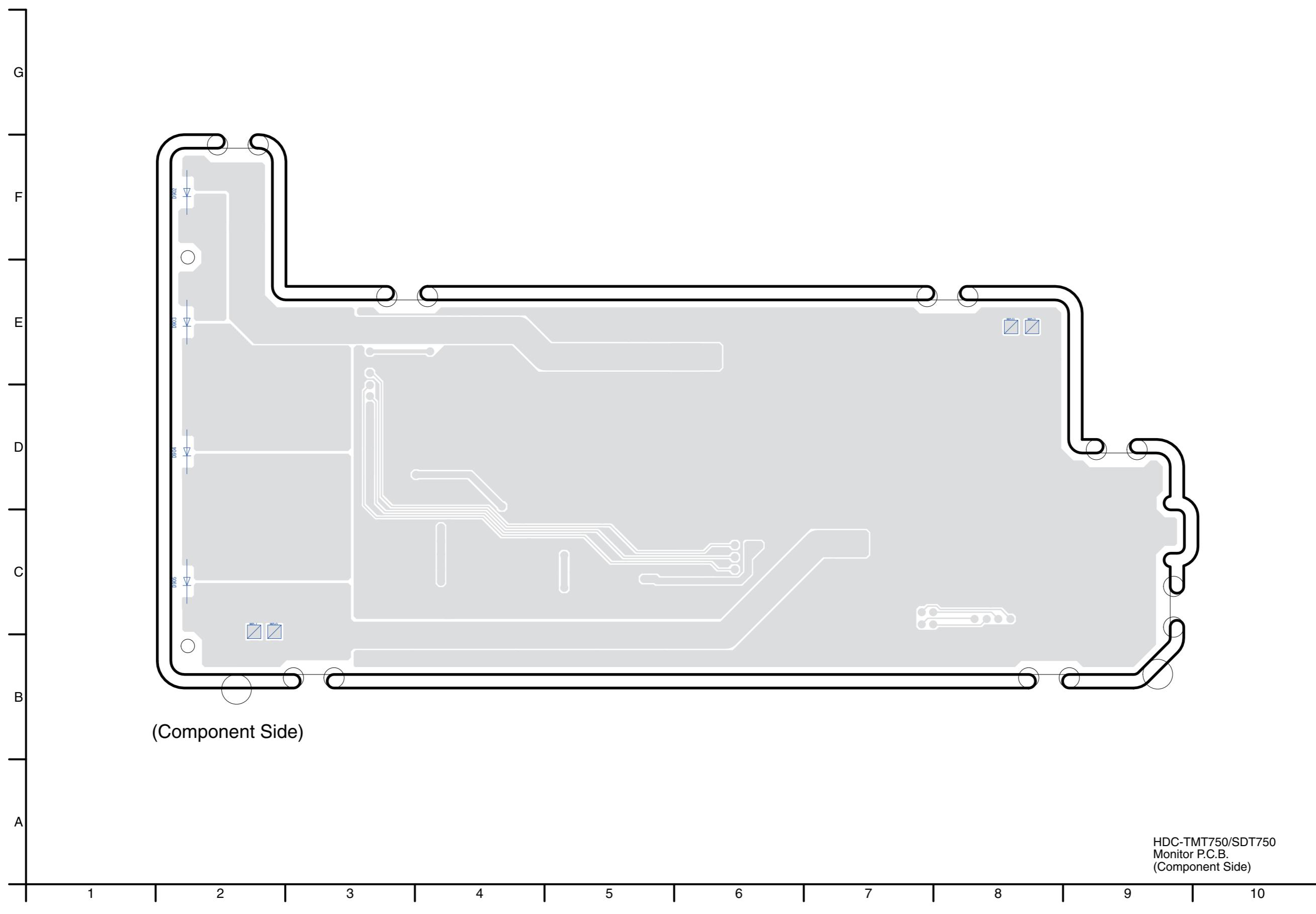
(Foil Side)

HDC-TMT750/SDT750
BATT_Catcher P.C.B.

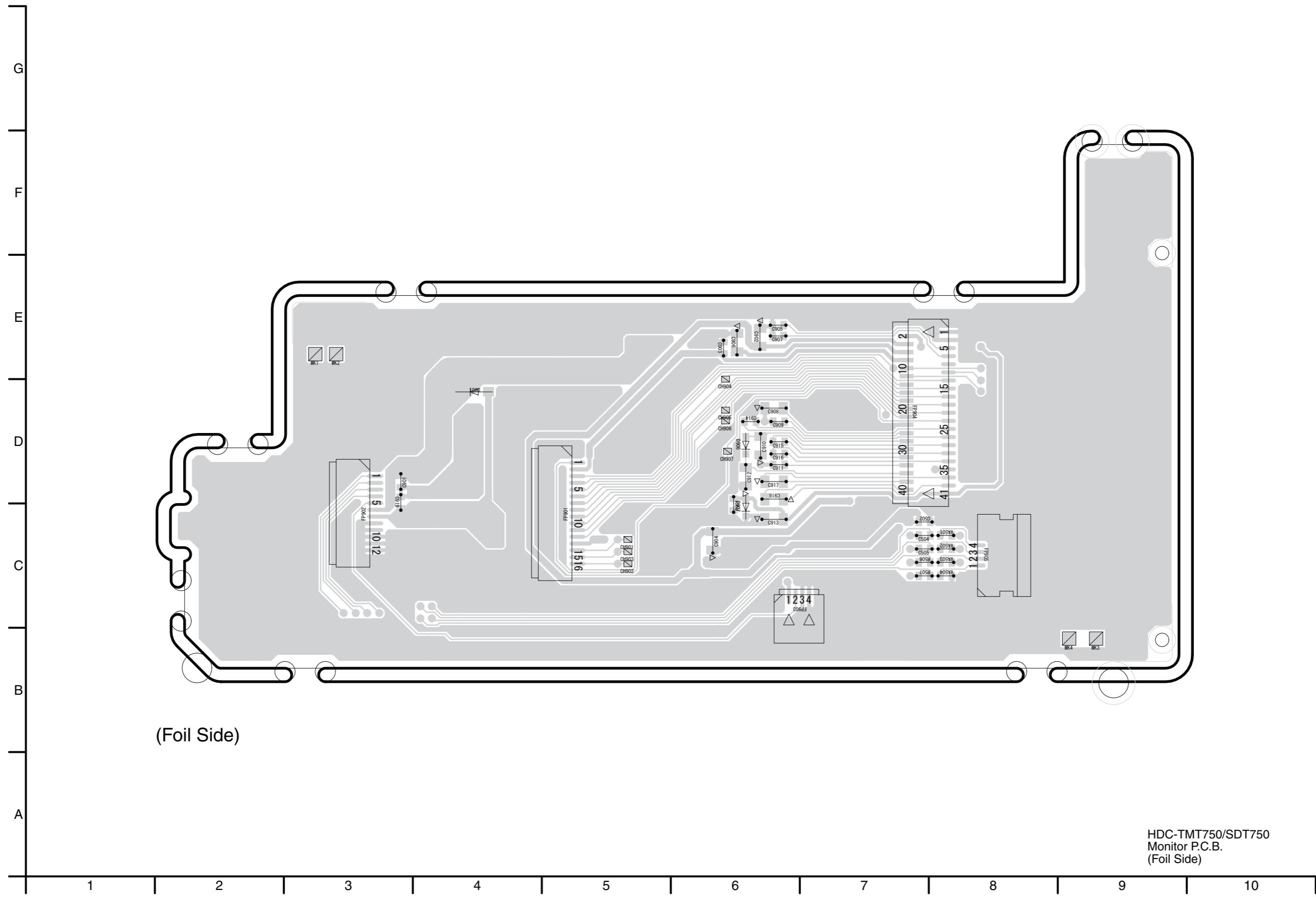
HDC-TMT750/SDT750
Side R P.C.B.

S5.4. Monitor P.C.B.

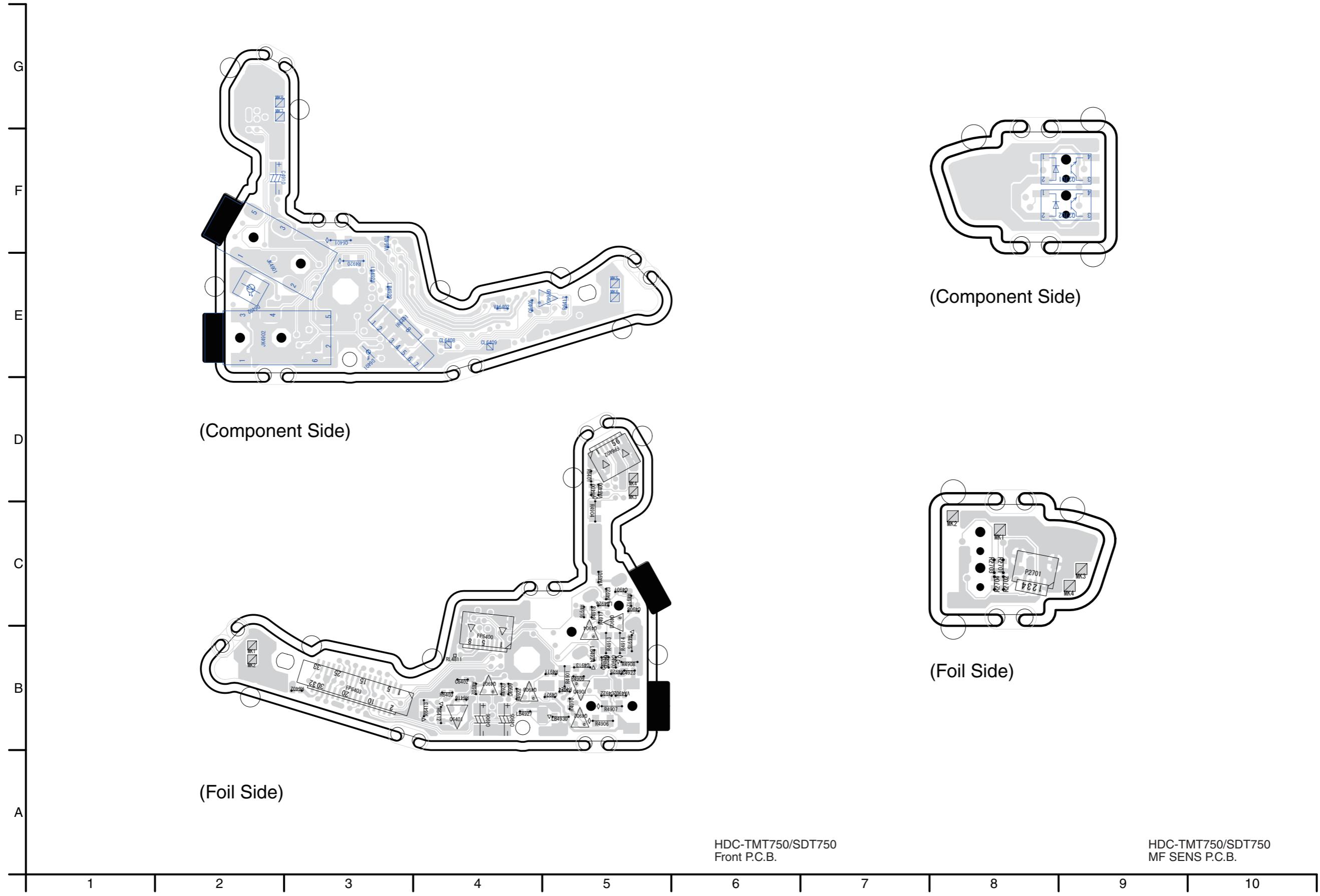
S5.4.1. Monitor P.C.B. (Component Side)



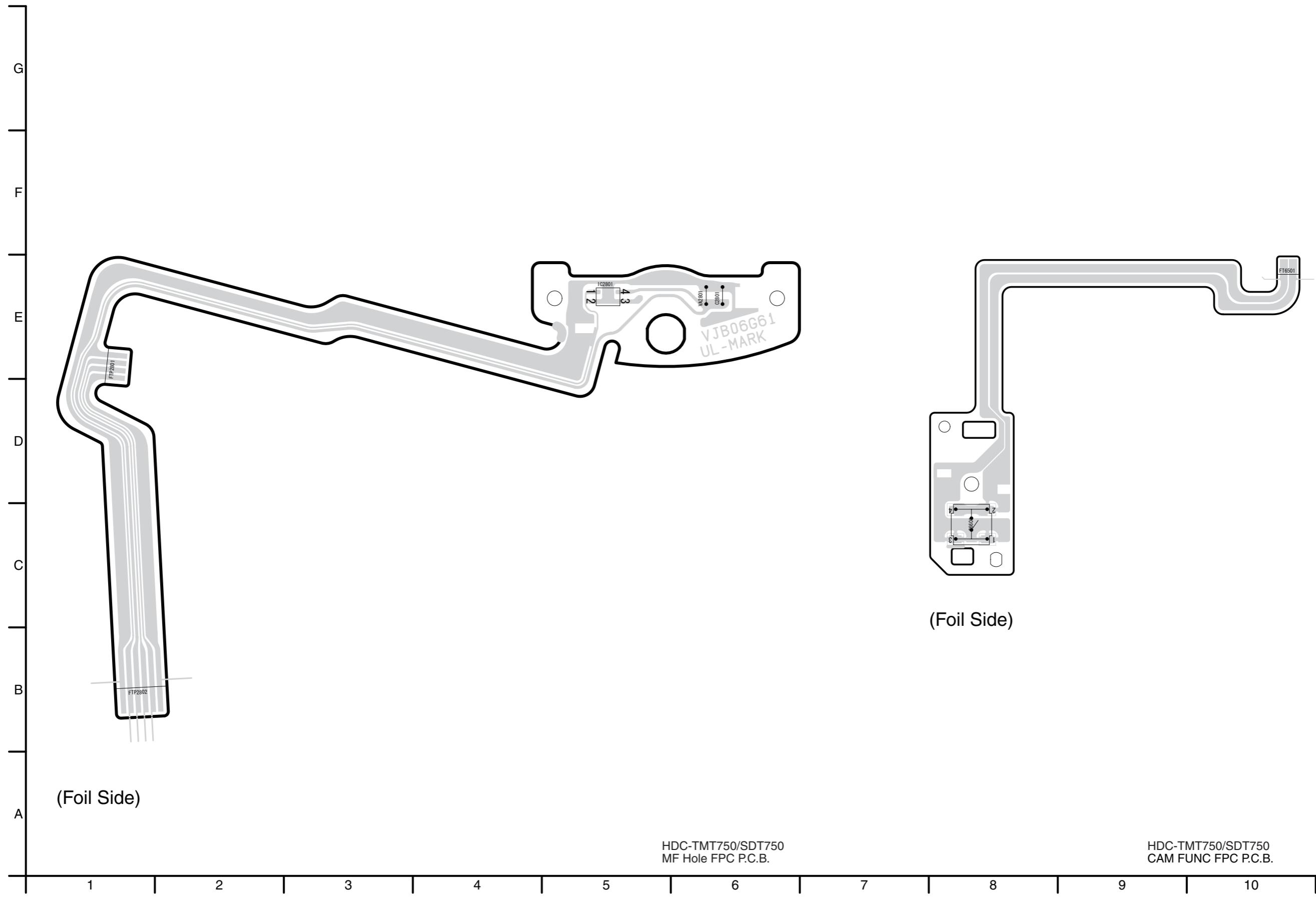
S5.4.2. Monitor P.C.B. (Foil Side)



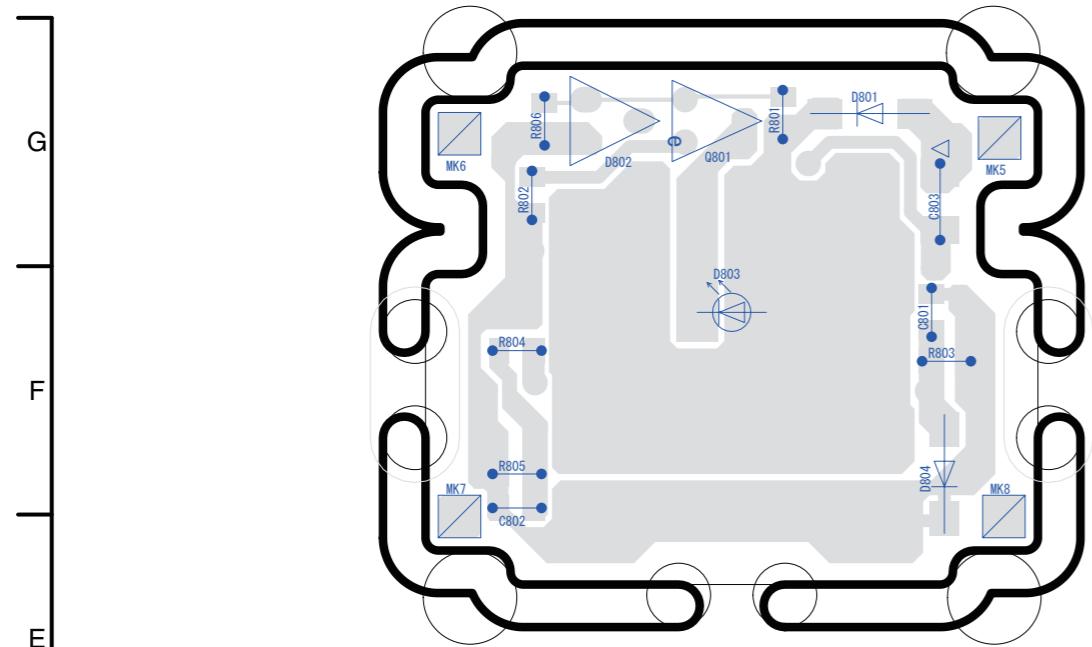
S5.5. Front P.C.B. / S5.6. MF SENS P.C.B.



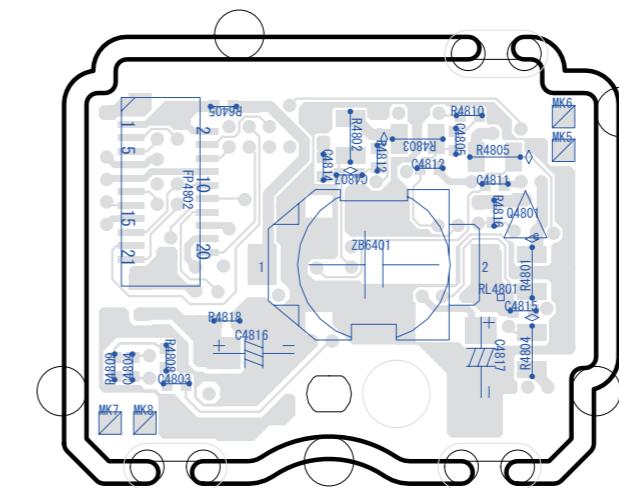
S5.7. MF Hole FPC P.C.B. / S5.8. CAM FUNC FPC P.C.B



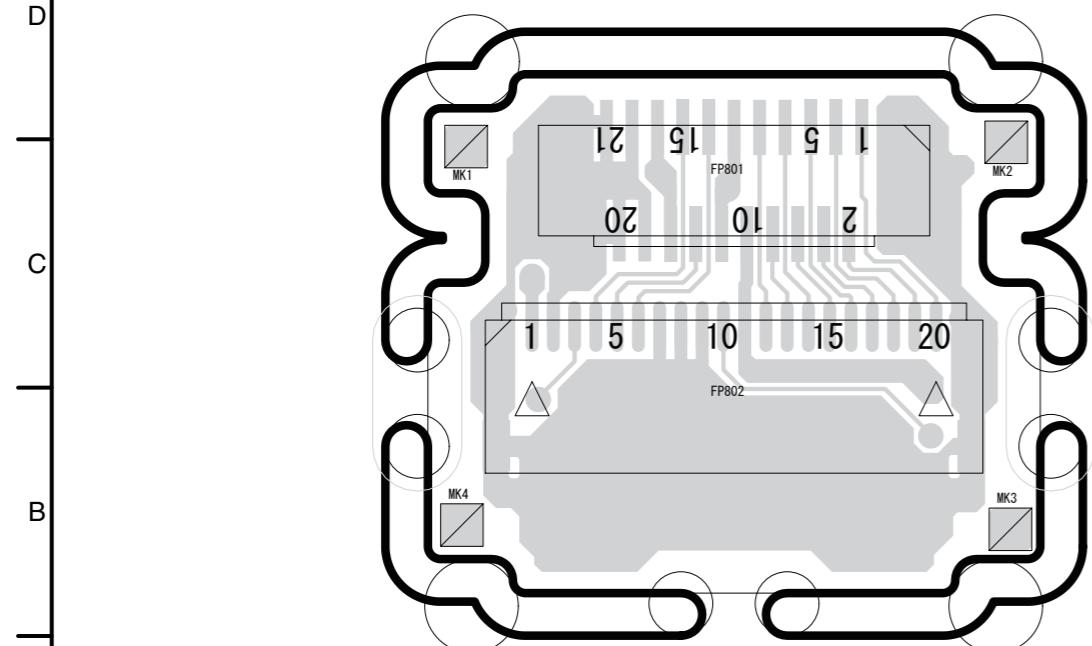
S5.9. EVF B/L P.C.B. / S5.10. MIC AMP P.C.B.



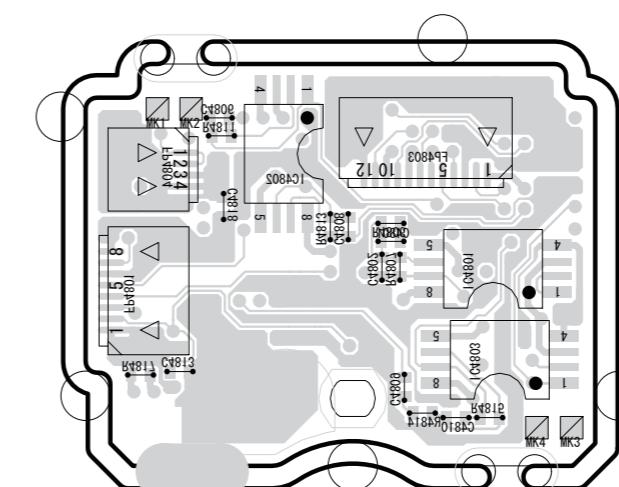
(Component Side)



(Component Side)

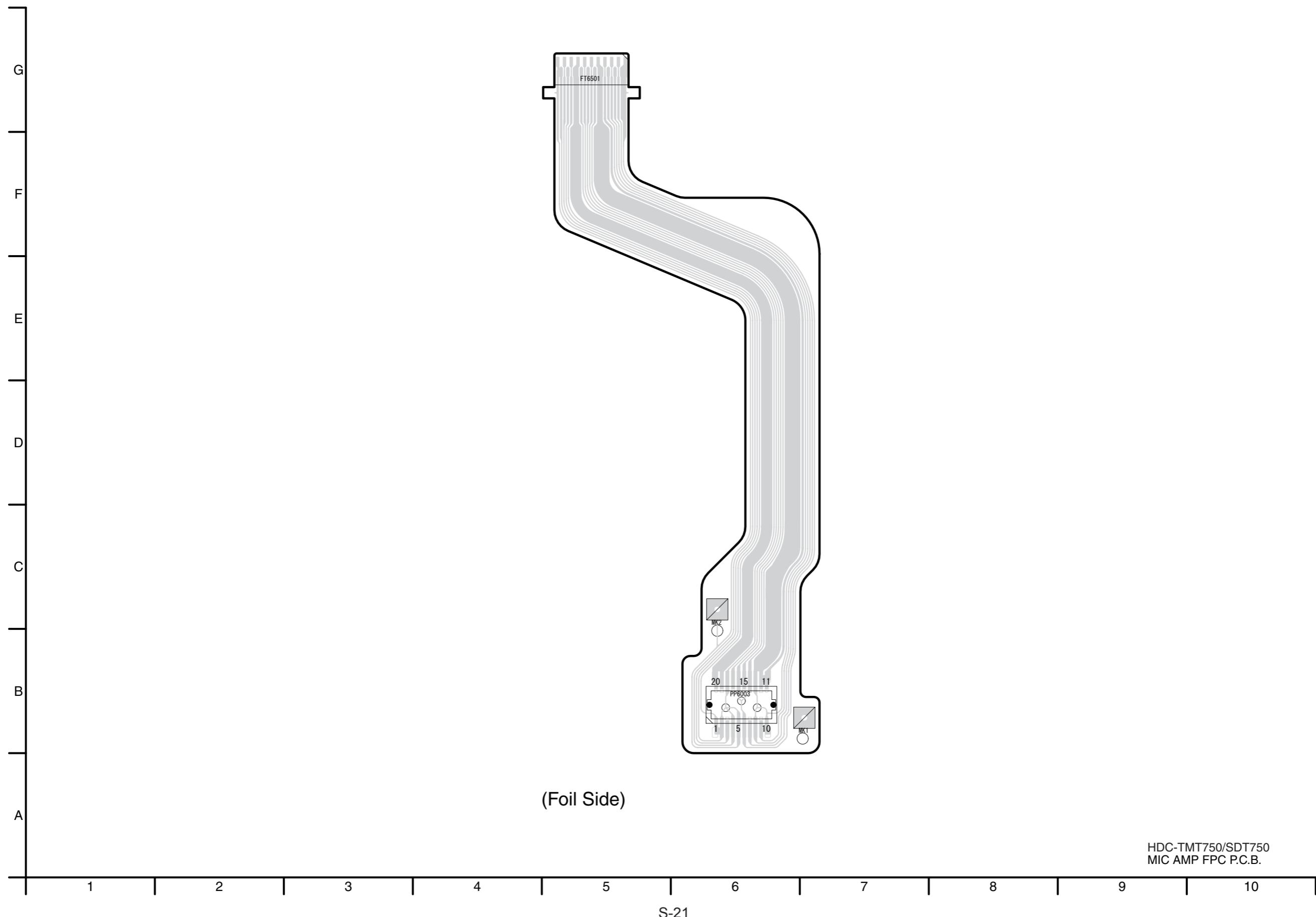


(Foil Side)



(Foil Side)

S5.11. MIC AMP FPC P.C.B.



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	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
##	VEP20C85A	CAM FUNC PCB UNIT			R4813	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	1	
S6601	K0F111A00589	SWITCH	1		R4814	ERJ2GEJ183	M.RESISTOR CH 1/10W 18K	1	
##	VEP29229A	EVF BL P.C.B. UNIT		(RTL) E.S.D.	R4815	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	1	
C801	F1G1C104A077	C.CAPACITOR CH 16V 0.1U	1		R4816	ERJ2GEJ472	M.RESISTOR CH 1/10W 4.7K	1	
C802	F1G1C104A077	C.CAPACITOR CH 16V 0.1U	1		R4817	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
C803	ECJ1VB1A105K	C.CAPACITOR CH 10V 1U	1		R4818	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
D801	B0BC6R2A0266	DIODE	1	E.S.D.	R6405	ERJ2GEJ222	M.RESISTOR CH 1/10W 2.2K	1	
D803	B3AFB0000129	DIODE	1	E.S.D.	ZB6401	K3ZZ00500014	BATTERY HOLDER	1	
D804	B0BC5R6A0266	DIODE	1	E.S.D.					
FP801	K1MN21AA0094	CONNECTOR 21P	1						
FP802	K1MY20BA0370	CONNECTOR 20P	1						
Q801	B1ABDF000017	TRANSISTOR	1	E.S.D.					
R801	ERJ2RHD562	M.RESISTOR CH 1/16W 5.6K	1						
R802	ERJ2RKD910	M.RESISTOR CH 1/16W 91	1						
R803	ERJ2GEJ105	M.RESISTOR CH 1/10W 1M	1						
R804	ERJ2RHD122	M.RESISTOR CH 1/16W 1.2K	1						
R805	ERJ2RHD122	M.RESISTOR CH 1/16W 1.2K	1						
R806	ERJ2RHD222	M.RESISTOR CH 1/16W 2.2K	1						
##	VEP04973A	MIC AMP P.C.B. UNIT		(RTL) E.S.D.					
△ B6401	ML-614S/ZTK	BATTERY	1	[ENERGY]					
C4801	F1G1A473A032	C.CAPACITOR CH 10V 0.047U	1						
C4802	F1G1H680A565	C.CAPACITOR CH 50V 68P	1						
C4803	F1G1A473A032	C.CAPACITOR CH 10V 0.047U	1						
C4804	F1G1H680A565	C.CAPACITOR CH 50V 68P	1						
C4805	F1G1A473A032	C.CAPACITOR CH 10V 0.047U	1						
C4806	F1G1H680A565	C.CAPACITOR CH 50V 68P	1						
C4807	F1G1A473A032	C.CAPACITOR CH 10V 0.047U	1						
C4808	F1G1H680A565	C.CAPACITOR CH 50V 68P	1						
C4809	F1G1A473A032	C.CAPACITOR CH 10V 0.047U	1						
C4810	F1G1H680A565	C.CAPACITOR CH 50V 68P	1						
C4811	F1G1H4710004	C.CAPACITOR CH 50V 470P	1						
C4812	F1G1H4710004	C.CAPACITOR CH 50V 470P	1						
C4813	F1G1H4710004	C.CAPACITOR CH 50V 470P	1						
C4814	F1G1H4710004	C.CAPACITOR CH 50V 470P	1						
C4815	F1G1H4710004	C.CAPACITOR CH 50V 470P	1						
C4816	F3F0J226A032	T.CAPACITOR CH 6.3V 22U	1						
C4817	F3F0J226A032	T.CAPACITOR CH 6.3V 22U	1						
C4818	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1						
FP4801	K1MY08BA0370	CONNECTOR 8P	1						
FP4802	K1MN21AA0035	CONNECTOR 21P	1						
FP4803	K1MY12BA0370	CONNECTOR 12P	1						
FP4804	K1MY04BA0370	CONNECTOR 4P	1						
IC4801	C0ABB000369	IC	1	E.S.D.					
IC4802	C0ABB000369	IC	1	E.S.D.					
IC4803	C0ABB000369	IC	1	E.S.D.					
Q4801	B1ABDF000017	TRANSISTOR	1	E.S.D.					
R4801	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	1						
R4802	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	1						
R4803	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	1						
R4804	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	1						
R4805	ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	1						
R4806	ERJ2GEJ183	M.RESISTOR CH 1/10W 18K	1						
R4807	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	1						
R4808	ERJ2GEJ183	M.RESISTOR CH 1/10W 18K	1						
R4809	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	1						
R4810	ERJ2GEJ183	M.RESISTOR CH 1/10W 18K	1						
R4811	ERJ2GEJ683	M.RESISTOR CH 1/16W 68K	1						
R4812	ERJ2GEJ183	M.RESISTOR CH 1/10W 18K	1						

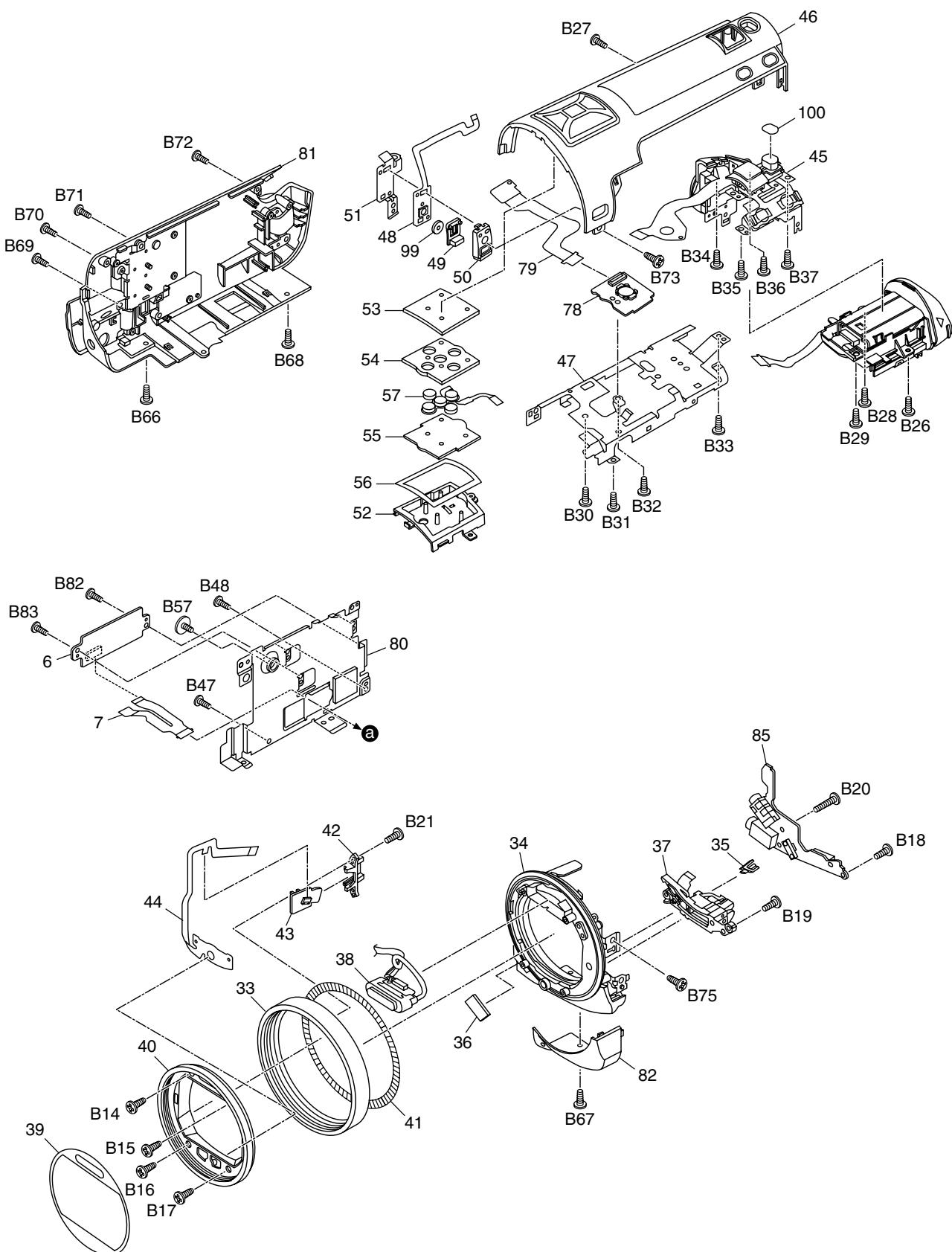
HDC-TMT750GC vol.1

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
6	VEP03H89H	ESD P.C.B. UNIT	1	(TMT750)					
7	VWJ2172	ESD_FPC	1	(TMT750)					
33	VYK4F25	FRONT CASE UNIT	1						
34	VYK3Q71	BARIA CASE UNIT	1						
35	VGL1326	TARY PANEL LIGHT	1						
36	VGL1309	AF PANEL LIGHT	1						
37	N9ZZ00000415	BARRIER MOTOR UNIT	1						
38	EFN-MVBH7ZC	FLASH	1						
39	VGQ0Q03	LENS PLATE	1						
40	VGQ0Q01	MF FRONT FRAME	1						
41	VGQ0K51	MF SHEET	1						
42	VGQ0K53	MF PCB HOLDER	1						
43	VEP27228A	MF SENS P.C.B. UNIT	1	(RTL) E.S.D.					
44	VEP06G61A	MF HOLL FPC UNIT	1	(RTL) E.S.D.					
45	K0RE0900048	OPERATION BUTTON UNIT	1						
46	VYK4F20	TOP CASE UNIT	1						
47	VMP9581	TOP FRAME	1						
48	VEP20C85A	CAM FUNC P.C.B. UNIT	1						
49	VGU0F89	CAMERA_OP BUTTON	1						
50	VGQ0K85	CAMERA_OP CASE	1						
51	VMP9616	CAMERA_OP ANGLE	1						
52	VGQ0K35	MIC CASE	1						
53	VGQ0C85	MIC CUSHION (A)	1						
54	VGQ0C86	MIC CUSHION (B)	1						
55	VGQ0C87	MIC CUSHION (C)	1						
56	VGQ0L66	MIC SHEET	1						
57	VEP24186B	ECM FPC UNIT	1						
78	VEP04973A	MIC AMP P.C.B. UNIT	1	(RTL) E.S.D.					
79	VEP04957A	MIC AMP FPC UNIT	1						
80	VYK3Q32	COVER BOARD UNIT	1						
81	VYK3Q51	SIDE CASE (L) UNIT	1						
82	VYK3Q31	SENSOR COVER UNIT	1						
85	VEP20D25A	FRONT P.C.B. UNIT	1	(RTL) E.S.D.					
99	VGQ0M74	CUSHION	1						
100	VGQ0M76	CUSHION	1						
B14	VHD1814	SCREW	1						
B15	VHD1814	SCREW	1						
B16	VHD1814	SCREW	1						
B17	VHD1814	SCREW	1						
B18	XQN16+BJ5FN	SCREW	1						
B19	XQN16+BJ5FN	SCREW	1						
B20	XQN16+BJ10FN	SCREW	1						
B21	XQN14+BJ5FN	SCREW	1						
B26	XQN16+B3FN	SCREW	1						
B27	XQN16+B3FN	SCREW	1						
B28	XQN16+BJ4FN	SCREW	1						
B29	XQN16+BJ4FN	SCREW	1						
B30	XQN16+BJ4FN	SCREW	1						
B31	XQN16+BJ4FN	SCREW	1						
B32	XQN16+BJ4FN	SCREW	1						
B33	XQN16+BJ4FN	SCREW	1						
B34	XQN16+BJ4FN	SCREW	1						
B35	XQN16+BJ4FN	SCREW	1						
B36	XQN16+BJ4FN	SCREW	1						
B37	XQN16+BJ4FN	SCREW	1						
B47	VHD1907	SCREW	1						
B48	VHD1907	SCREW	1						
B57	VHD2189	SCREW	1						
B66	XQN16+B4FJK	SCREW	1						
B67	XQN16+B4FJK	SCREW	1						
B68	XQN16+B4FJK	SCREW	1						
B69	XQN16+B4FJK	SCREW	1						
B70	XQN16+B4FJK	SCREW	1						
B71	XQN16+B4FJK	SCREW	1						
B72	XQN16+B4FJK	SCREW	1						
B73	XQN16+B4FJK	SCREW	1						
B75	XQN16+B4FJK	SCREW	1						
B82	XQN16+B3FN	SCREW	1						
B83	XQN16+B3FN	SCREW	1						

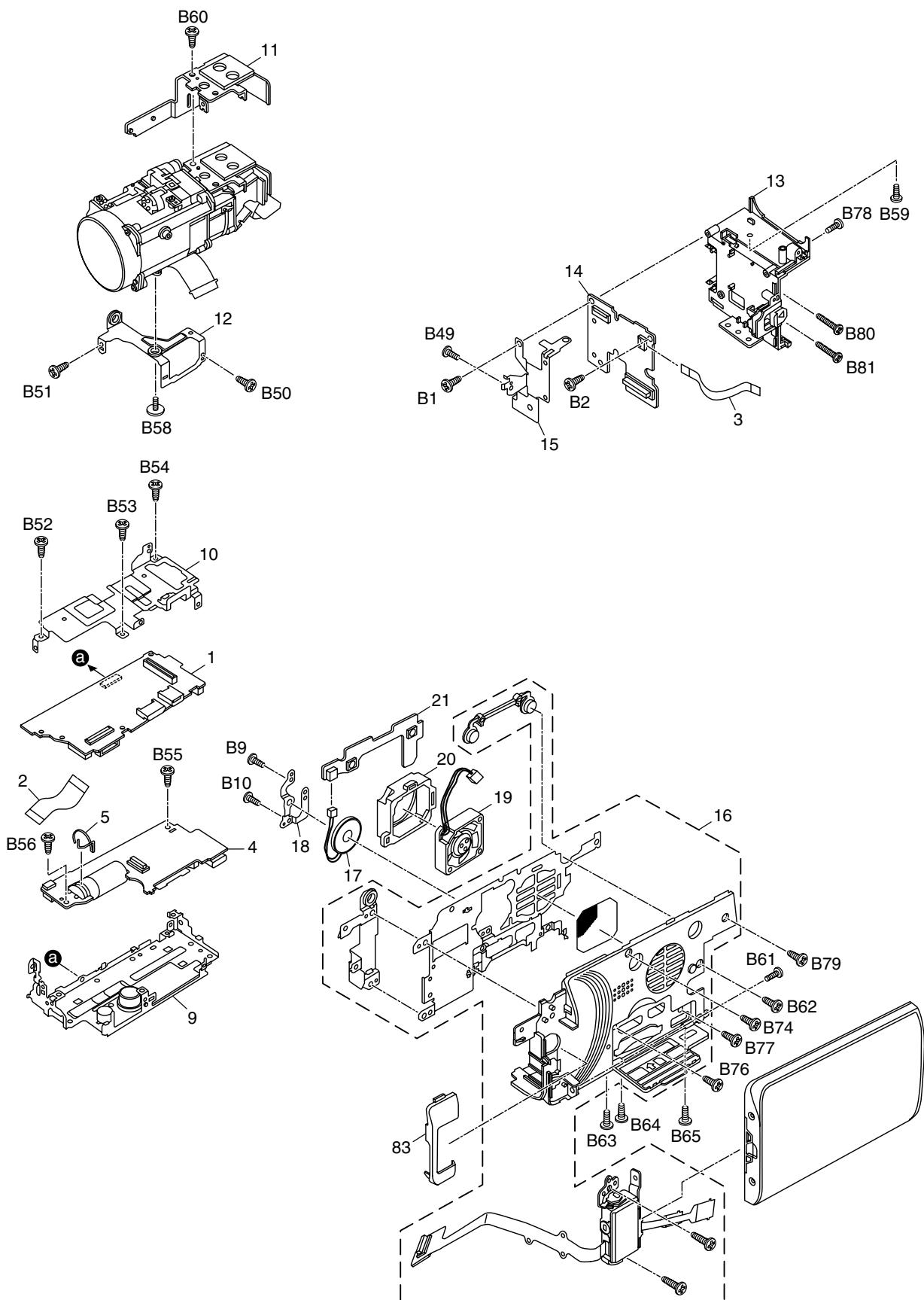
Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
▲ 301	--	BATTERY PACK	1						
302	K2GJYDC00004	DC CABLE	1						
303	K1HY12YY0004	MULTI D/RCA CABLE	1						
304	VFA0531	HDMI MINI CABLE	1						
305	K1HY04YY0032	USB CABLE	1						
▲ 306	K2CQ29A00002	AC CABLE	1	TMT750GC, SDT750EE,EF,EG,EP,GC					
▲ 306	K2CR29A00001	AC CABLE	1	TMT750GD					
▲ 307	K2CT39A00002	AC CABLE	1	TMT750GC, SDT750EB,GC					
308	N2QAEC000024	REMOTE CONTROL UNIT	1						
▲ 309	DE-A51CB	POWER CHARGERS	1	TMT750GC, SDT750EB,EE,EF,EG,EP,GC					
▲ 309	DE-A51DB	POWER CHARGERS	1	TMT750GK					
▲ 309	DE-A51EA	POWER CHARGERS	1	TMT750GT					
▲ 309	DE-A51BB	AC ADAPTOR	1	SDT750PP					
310	VGQ0C14	STYLUS PEN	1						
311	VYC0996	ATTACHMENT SHOE UNIT	1						
312	VDW2053	LENS HOOD	1	TMT750GC,GK, SDT750EB,EE,EF,EG,EP,GC,PP					
▲ 314	K2CA2YY00070	AC CABLE	1	TMT750GK					
▲ 314	K2CA29A00021	AC CABLE	1	TMT750GT					
▲ 314	K2CA2CA00025	AC CABLE	1	SDT750PP					
▲ 316	K2CJ29A00002	AC CABLE	1	SDT750GC					
318	VFF0660-S	CD-ROM	1	TMT750GC,GD,GT, SDT750EB,EE,EF,EG,EP,GC,PP					
318	VFF0661-S	CD-ROM	1	TMT750GK					
319	VPF1294	BAG, POLYETHYLENE	1	TMT750GC,GD,GK,GT, SDT750EB,EE,EF,EP,GC					
319	VPF1253	BAG, POLYETHYLENE	1	SDT750EG,PP					
▲ 320	VQT3B29	BASIC OPERATING INSTRUCTI	1	TMT750GC, SDT750GC					
▲ 320	VQT3B30	BASIC OPERATING INSTRUCTI	1	TMT750GC, SDT750GC					
▲ 320	VQT3C63	OPERATING INSTRUCTIONS (K	1	TMT750GD					
▲ 320	VQT3B33	OPERATING INSTRUCTIONS (C	1	TMT750GK					
▲ 320	VQT3C62	OPERATING INSTRUCTIONS (C	1	TMT750GT					
▲ 320	VQT3B28	OPERATING INSTRUCTIONS (E	1	SDT750EB					
▲ 320	VQT3B31	OPERATING INSTRUCTIONS (R	1	SDT750EE					
▲ 320	VQT3B32	OPERATING INSTRUCTIONS (U	1	SDT750EE					
▲ 320	VQT3B25	OPERATING INSTRUCTIONS (F	1	SDT750EF					
▲ 320	VQT3B21	BASIC OPERATING INSTRUCTI	1	SDT750EG					
▲ 320	VQT3B22	BASIC OPERATING INSTRUCTI	1	SDT750EG					
▲ 320	VQT3B23	BASIC OPERATING INSTRUCTI	1	SDT750EG					
▲ 320	VQT3B24	BASIC OPERATING INSTRUCTI	1	SDT750EG					
▲ 320	VQT3B36	BASIC OPERATING INSTRUCTI	1	SDT750EG					
▲ 320	VQT3B26	BASIC OPERATING INSTRUCTI	1	SDT750EP					
▲ 320	VQT3B27	BASIC OPERATING INSTRUCTI	1	SDT750EP					
▲ 320	VQT3B18	OPERATING INSTRUCTIONS (E	1	SDT750PP					
▲ 320	VQT3B19	OPERATING INSTRUCTIONS (C	1	SDT750PP					
▲ 320	VQT3B20	OPERATING INSTRUCTIONS (S	1	SDT750PP					
321	VFF0705	CD-ROM(O/I)	1	TMT750GC, SDT750GC					
321	VFF0704	CD-ROM(O/I)	1	SDT750EG,EP					
322	VYQ5902	PACKING CASE UNIT	1	TMT750GK					
322	VPG2P94	PACKING CASE	1	TMT750GC,GD,GT					
322	VPG2P91	PACKING CASE	1	SDT750EB,EE,EF,EG,EP,GC					
322	VPG2P90	PACKING CASE	1	SDT750PP					
323	VPN7139	PAD	1						
324	VPF1389	PROTECT BAG	1						
325	VPQ0308	PROTECT SHEET	1						
501	VYK4K64	LENS CAP	1						
502	VGQ0M57	REAR CAP	1						
503	VPN7127	PAD	1						
504	VPF1388	PROTECT BAG	1						
505	VFC4619	SOFT CASE	1						

S7. Exploded View

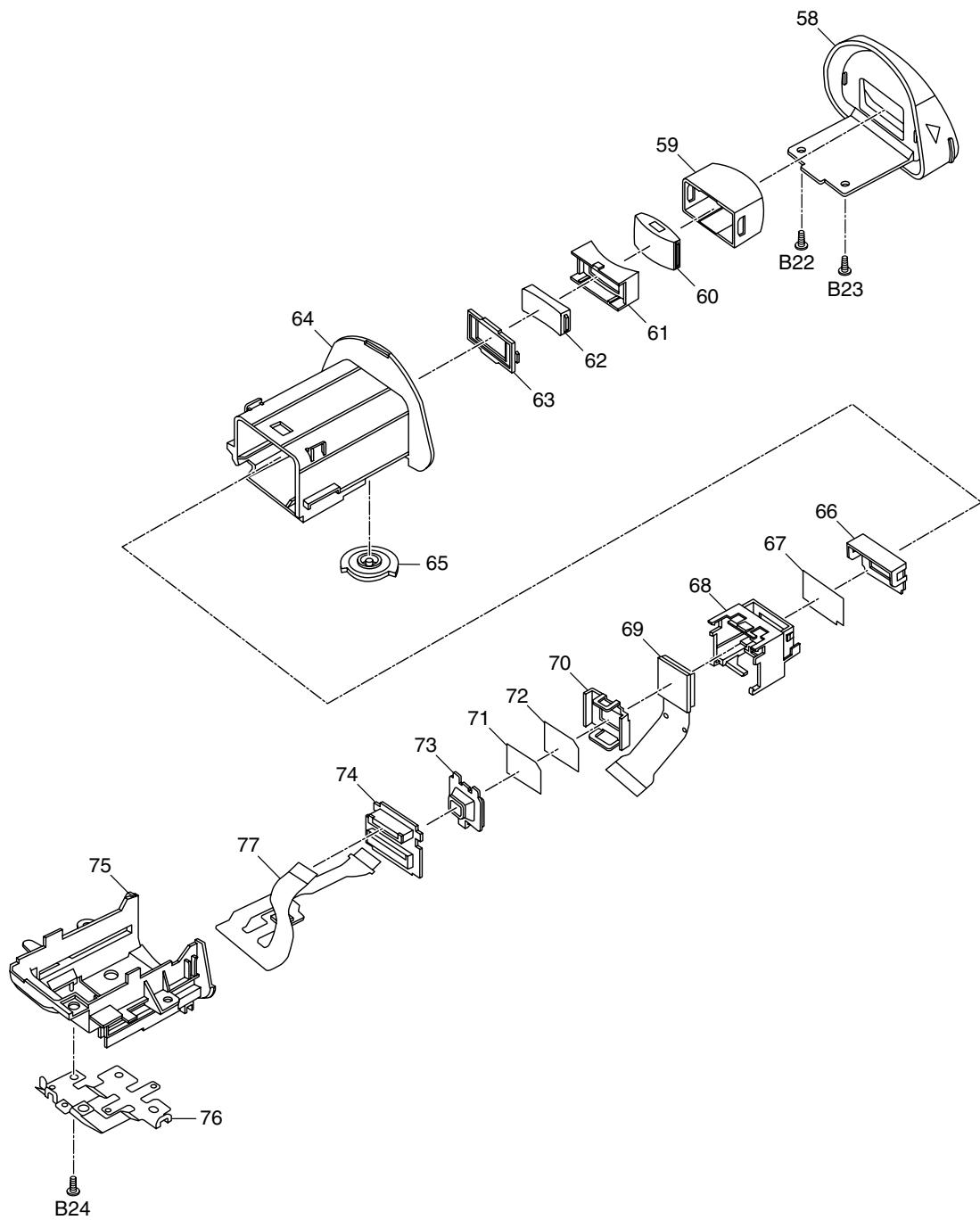
S7.1. Frame and Casing Section (1)



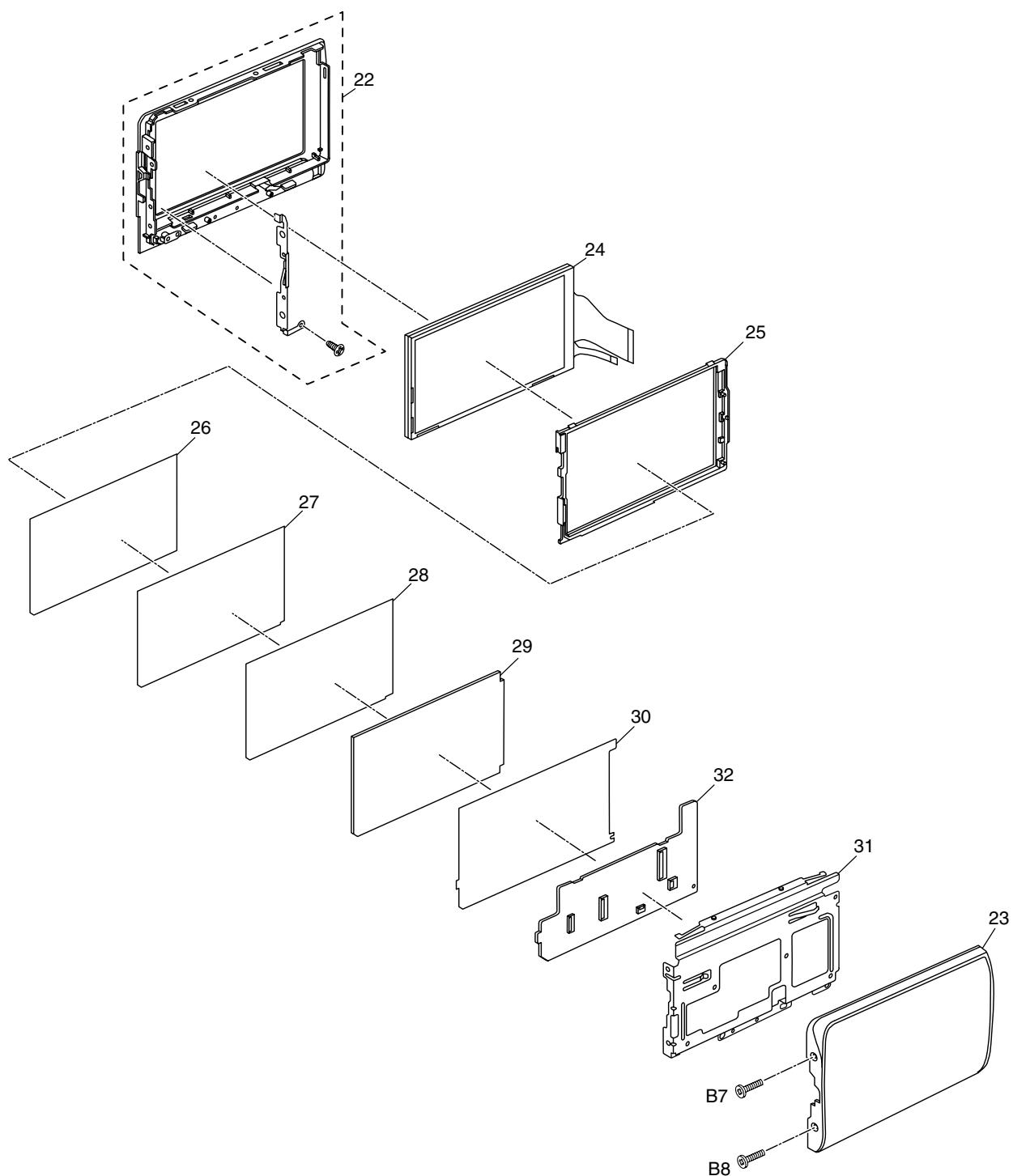
S7.2. Frame and Casing Section (2)



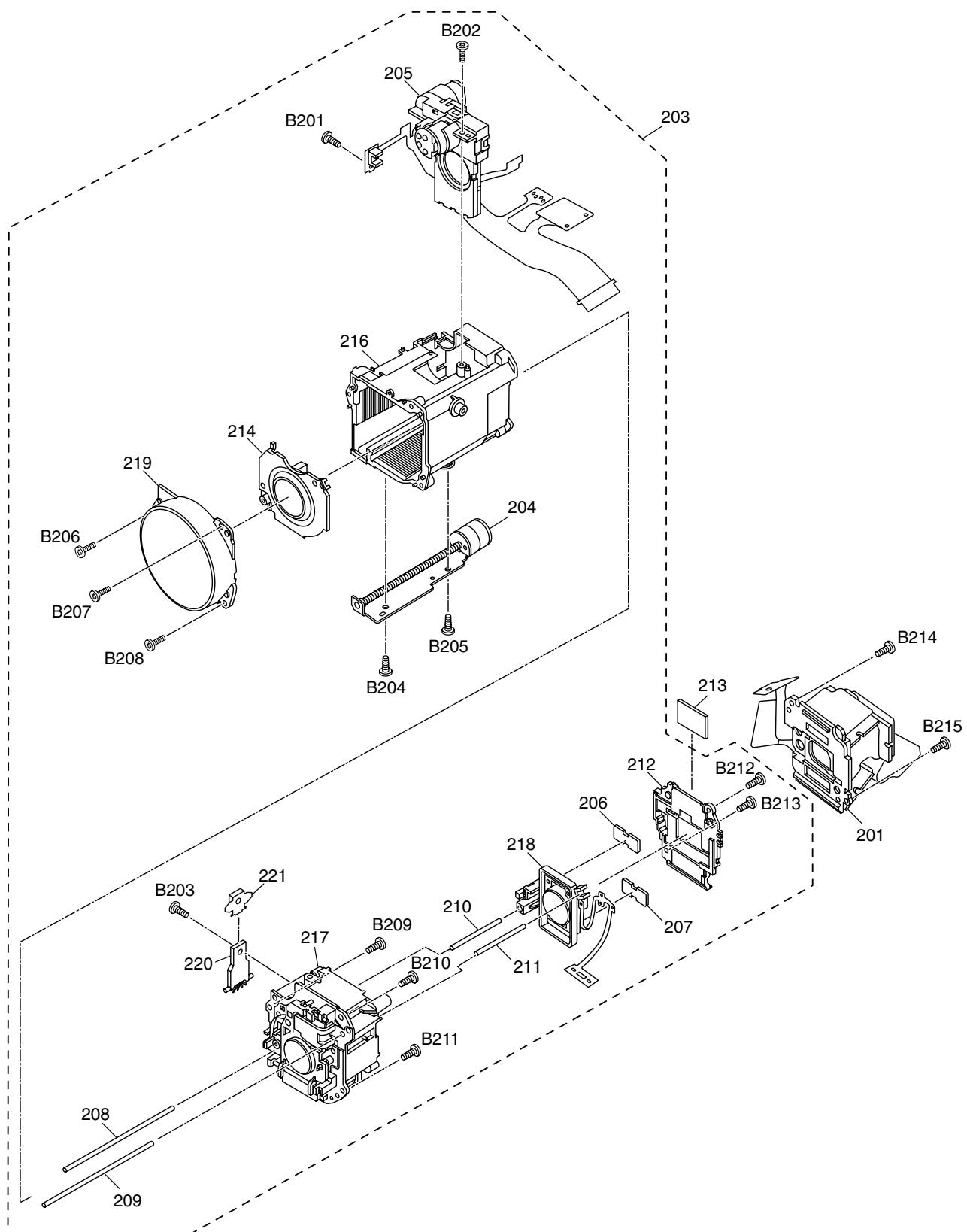
S7.3. EVF Section



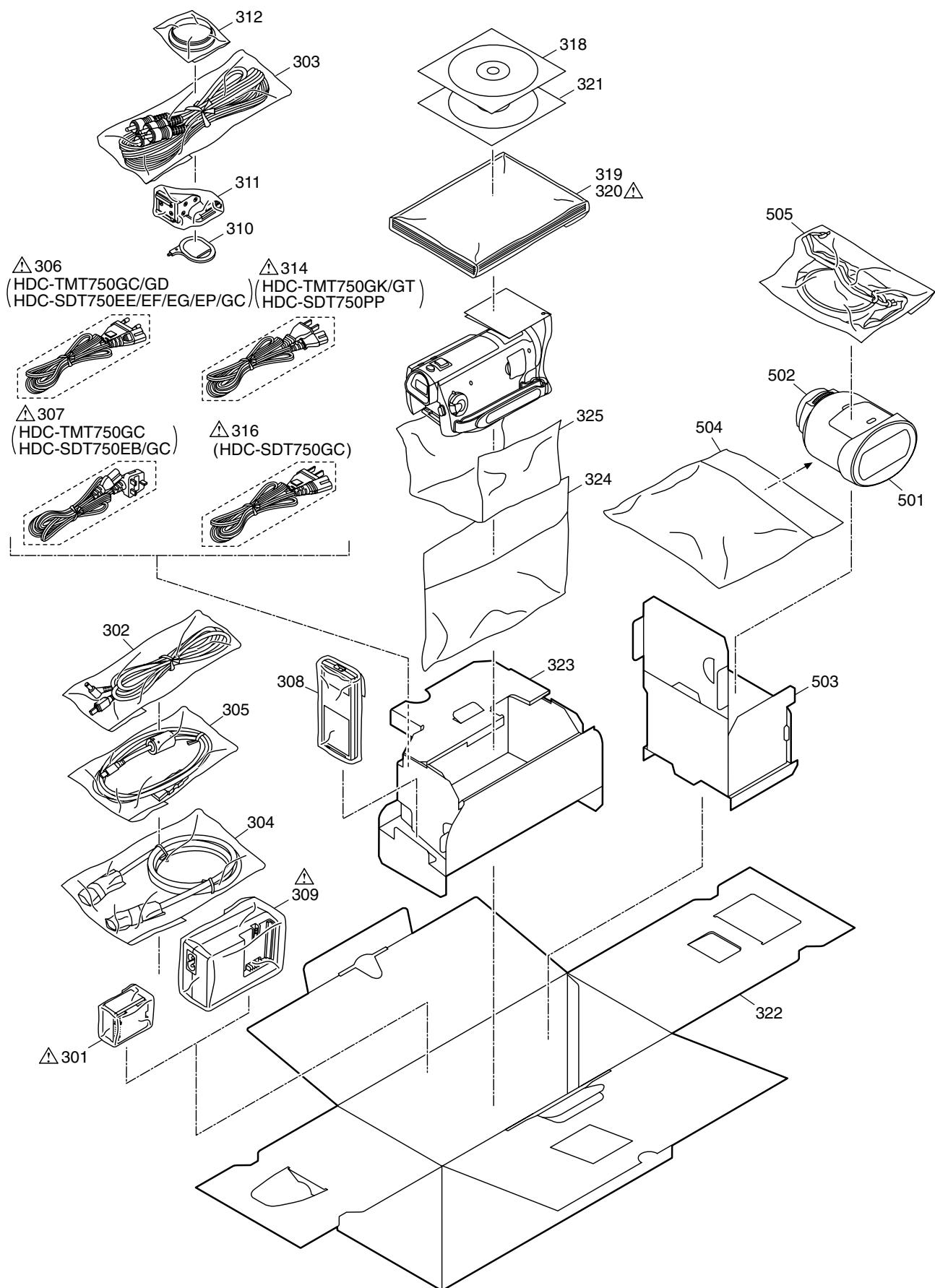
S7.4. LCD Section



S7.5. Lens Section



S7.6. Packing Parts and Accessories Section



S7.7. Conversion Lens Section

