



ORDER NO. DSC1703003CE

B26

Service Manual

Digital Camera/Body/Lens Kit

Model No. **DC-GH5P**

DC-GH5PP

DC-GH5EB

DC-GH5EC

DC-GH5EE

DC-GH5EF

DC-GH5EG

DC-GH5GA

DC-GH5GC

DC-GH5GD

DC-GH5GH

DC-GH5GK

DC-GH5GN

DC-GH5GT

DC-GH5MEB

DC-GH5MEC

DC-GH5MEF

DC-GH5MEG

DC-GH5LP

DC-GH5LPP

DC-GH5LEB

DC-GH5LEC

DC-GH5LEF

DC-GH5LEG

DC-GH5LGA

DC-GH5LGK

DC-GH5AGA

Colour

Black Type

DC-GH5M series: Interchangeable Lens (H-FS12060) is bundled.

DC-GH5L series: Interchangeable Lens (H-ES12060) is bundled.

DC-GH5A series: Interchangeable Lens (H-HSA12035) is bundled.



⚠ 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.

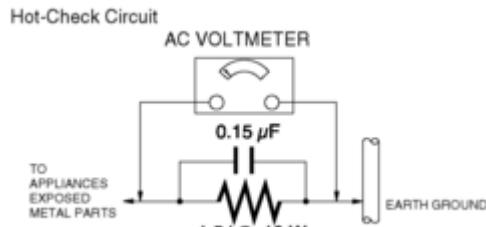


Figure. 1

2 Warning

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

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

Examples of typical ES devices are IC (integrated circuits) and some field-effect transistors and semiconductor "chip" components.

The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

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

CAUTION :

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

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

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

ENGLISH



A lithium ion 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 recyclable. Pour des renseignements sur le recyclage de la batterie, veuillez composer le 1-800-8-BATTERY.

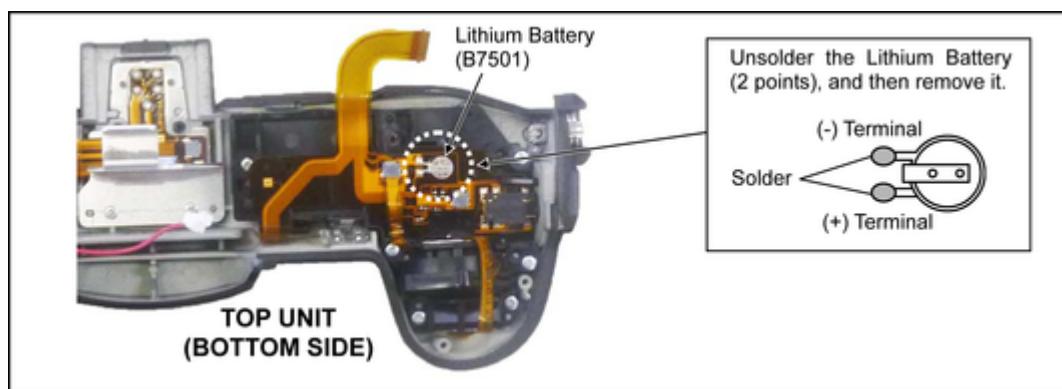
2.3 How to Replace the Lithium Battery

2.3.1 Replacement Procedure

1. Remove the TOP UNIT. (Refer to Disassembly Procedures.)
2. Unsolder the each soldering point of electric lead terminal for Lithium battery (Ref. No. "B7501" at bottom side of TOP UNIT) and remove the Lithium battery together with electric lead terminal. Then replace it into new one.

NOTE:

The Lithium battery includes electric lead terminals.



NOTE:

This Lithium battery is a critical component.

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 DC-GH5/GH5M/GH5L/GH5A series, as well.

2.4 Caution for AC Cord (For EB/GA/GC/GH)

2.4.1 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.

2.4.2 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.

2.4.2.1 Important

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

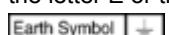
| | |
|-------|---------|
| Blue | Neutral |
| Brown | Live |

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.

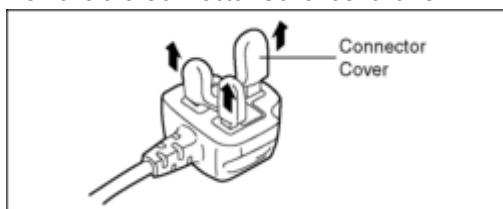
The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

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.



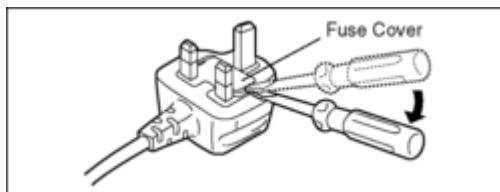
2.4.2.2 Before Use

Remove the Connector Cover as follows.

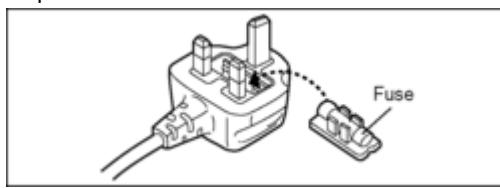


2.4.2.3 How to Replace the Fuse

1. Remove the Fuse Cover with a screwdriver.



2. Replace the fuse and attach the Fuse cover.



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 About service of bundled lenses

Please refer to the following service manuals about Disassembly and Assembly or Maintenance of bundled lenses.

- H-FS12060E/GK/PP: Order No.[DSC1604008CE](#)
- H-ES12060PP/E/GK: Order No.[DSC1702007CE](#)
- H-HSA12035PP/E/GK: Order No.[DSC1703008CE](#)

3.3 Important Notice

*When servicing, it is recommended dealing with Clean box. (Refer to “8.2. Clean Box” section of this service manual for details.)

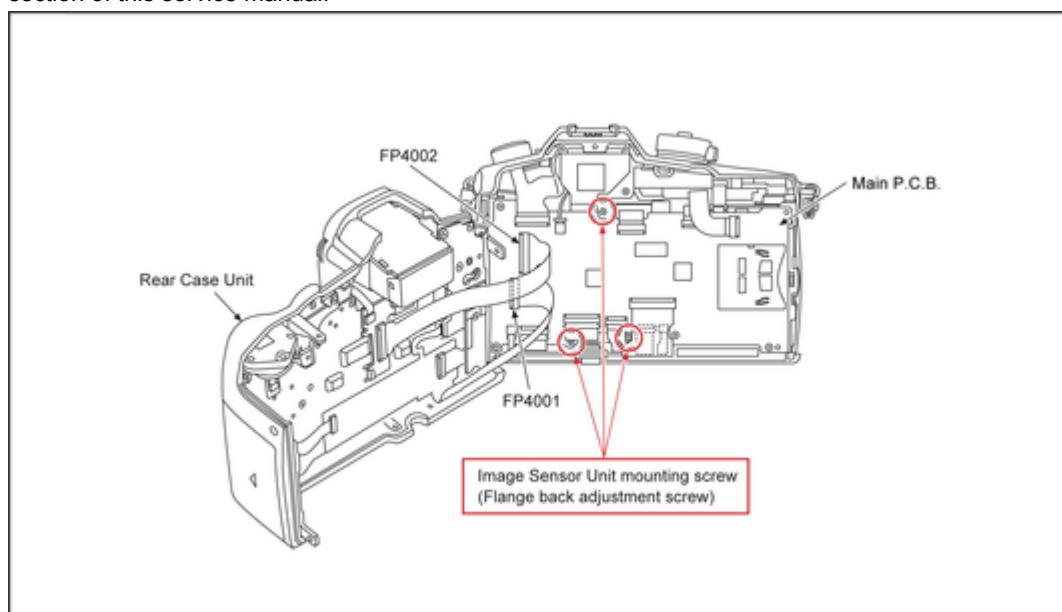
3.3.1 Camera Body Unit

3.3.1.1 About Flange back adjustment

* “Flange back” is the distance from the lens mount level to the Image Sensor level.

When turning the image sensor unit mounting screw even a little or removing, the “simplicity flange back adjustment” is need.

Perform the “simplicity flange back adjustment” according to contents described in “10 Measurements and Adjustments” section of this service manual.



3.3.1.2 About Shutter Unit (Ref. 61)

Before exchanging the "shutter unit", confirm that the symptom and/or phenomenon is not due to the setting of functions.

Important:

After replacing the shutter unit, the shutter unit data has to be stored to the unit.

The shutter unit supplied as service parts has affix the label of own configure data.

By inputting second line to third line of these data into the adjustment software and writing these data to Flash-ROM (IC2003), the shutter adjustment becomes needless.

In addition, the adjustment software can read data encoded to QR Code by using WEB camera with a close-up function.

Refer to the adjustment instruction in the adjustment software for details.

3.3.1.3 About Main P.C.B. (Ref.1) & Flash-ROM (IC2003)

Before exchanging the "Main P.C.B.", confirm that the symptom and/or phenomenon is not due to the setting of functions.

Important:

When cannot be repaired in the IC exchange, and in the case of performing the "Main P.C.B." exchange, carry out any of following.

In the case of exchanging the Flash-ROM (IC2003) is same way too.

1. When the camera power can be ON, and camera body and adjustment software can be communicated:

Before replacing the "Main P.C.B. and/or Flash-ROM", proceed the EEPROM data backup from the unit.

After replacing the Main P.C.B. and/or Flash-ROM, overwrite the EEPROM data with backup data from the unit first,

then proceed the adjustment /inspection. (Almost adjustment/inspection items can be omitted.)

Refer to the adjustment instruction in the adjustment software for details.

2. When the camera power cannot be ON, or camera body and adjustment software cannot be communicated:

Almost full adjustment/inspection must be performed after replacing the "Main P.C.B. and/or Flash-ROM".

Refer to the adjustment instruction in the adjustment software for details.

Notes after replacement:

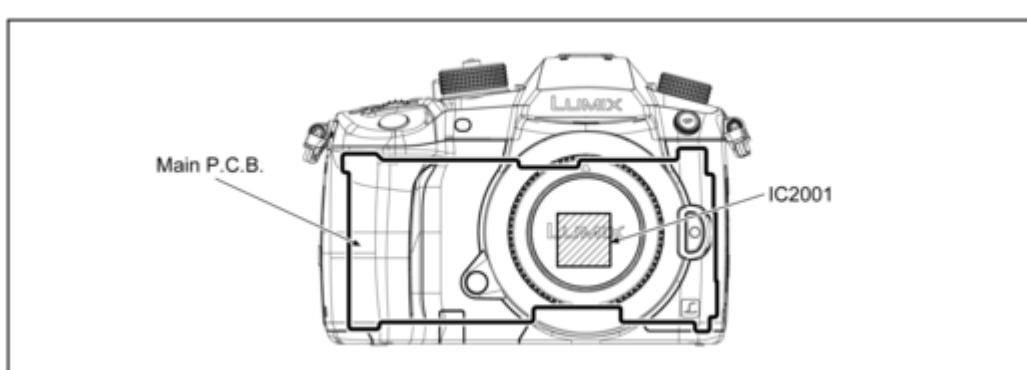
Make sure the camera body firmware is latest version.

3.3.1.4 About Venus Engine (IC2001) [Located on the Main P.C.B.]:

- The Venus Engine (IC2001) consists of two IC chips, which are fixed together with solder.
(The so called, "Package On Package" type IC.)

NOTE:

- During servicing, do not press down hard on the surface of IC2001.



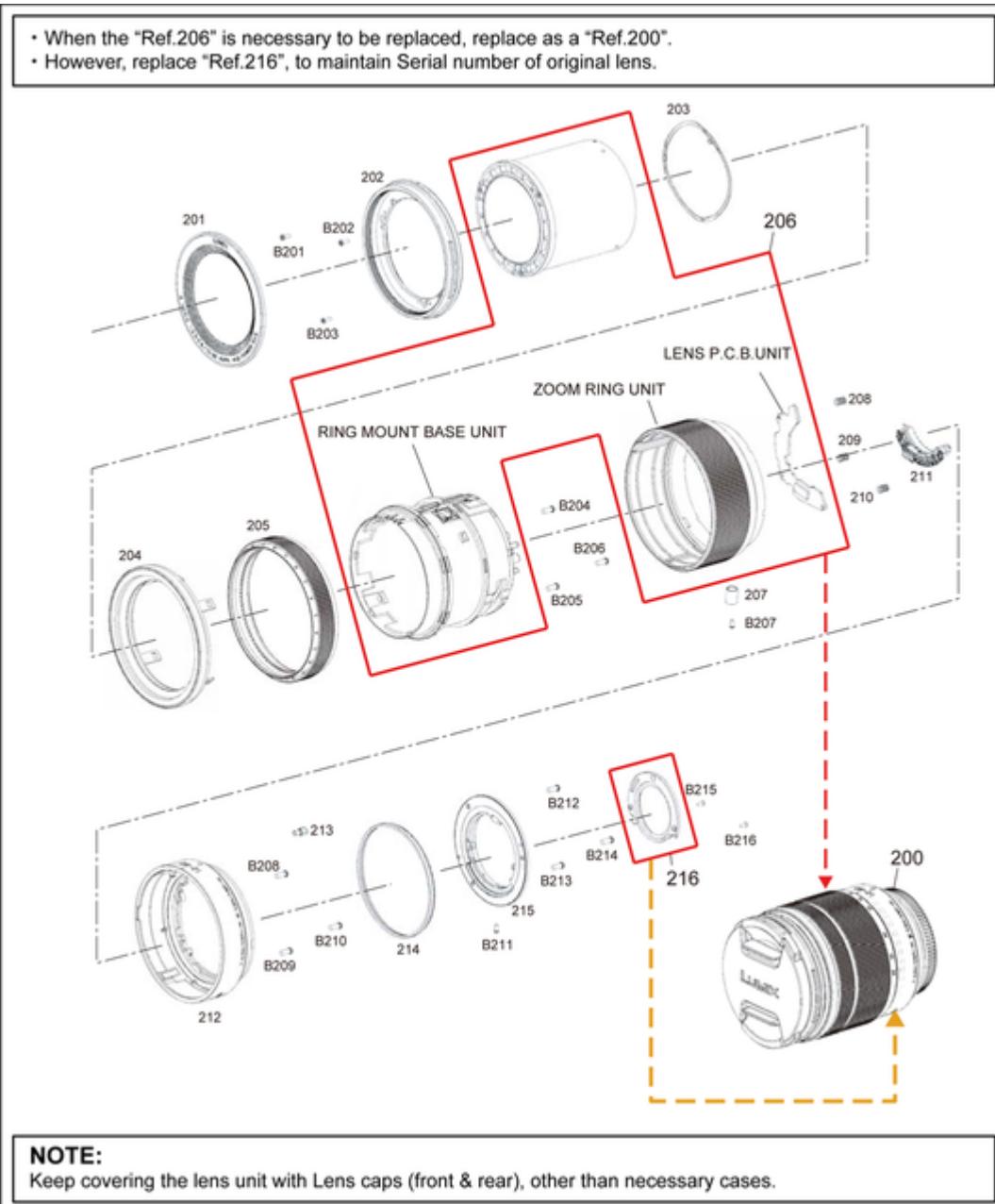
3.3.2 Lens Unit (Interchangeable Lens: H-FS12060)

3.3.2.1 About Lens Main Unit (Ref. 206)

1. Lens Main Unit (Ref. 206) is not supplied due to difficulty of the transportation issue (Fragile, Dust-free packing), and requires critical lens adjustments.

Therefore, any needs of the "Lens Main Unit" (Ref. 206), carefully confirm its performance in advance.

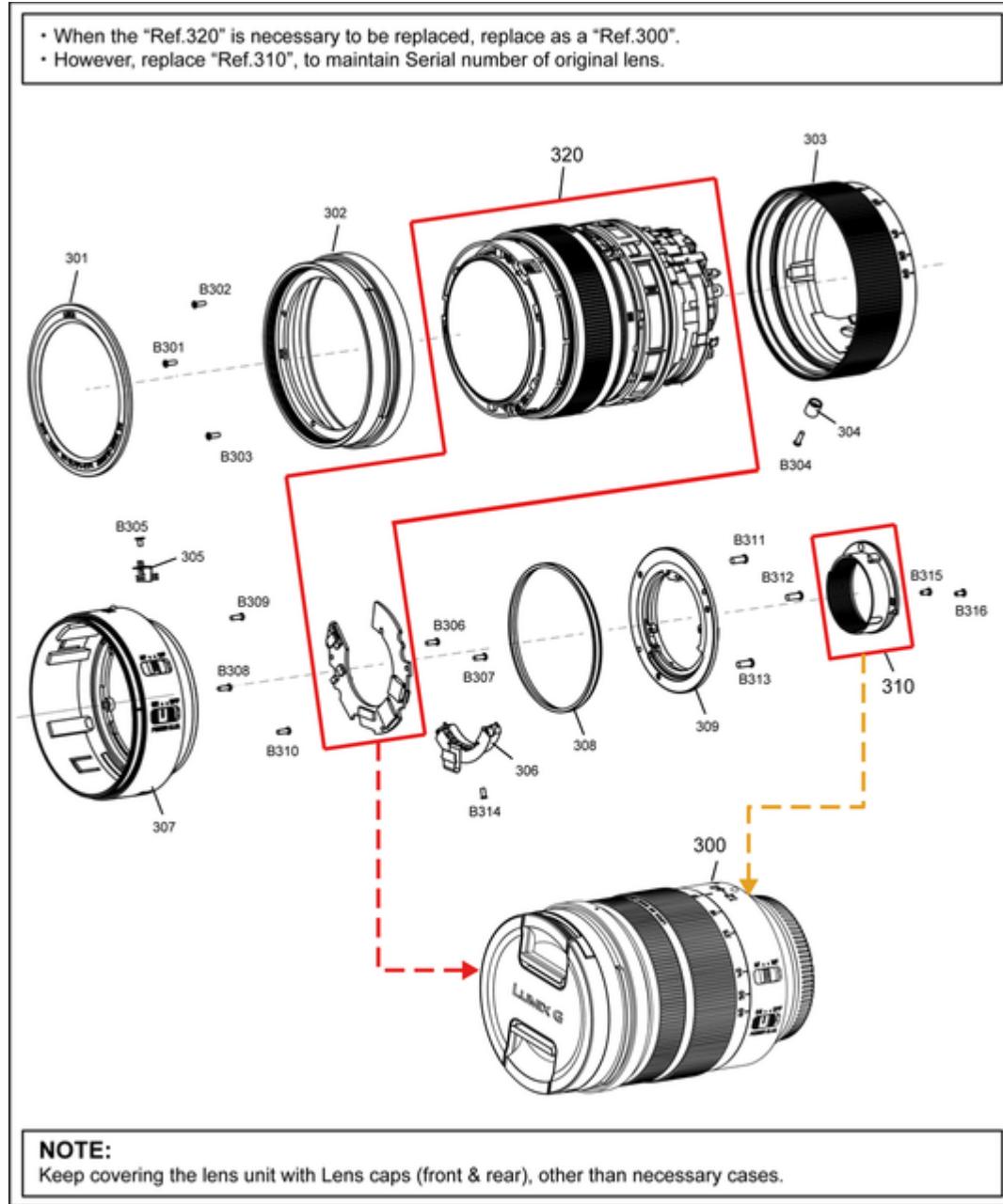
- Once "Lens Main Unit" (Ref. 206) is confirmed as defective, place order "Lens Unit" (Ref. 200) and replace Shading Frame (Ref. 216), to maintain Serial number of owner's original lens.



3.3.3 Lens Unit (Interchangeable Lens: H-ES12060)

3.3.3.1 About Lens Main Unit (Ref. 320)

- Lens Main Unit (Ref. 320) is not supplied due to difficulty of the transportation issue (Fragile, Dust-free packing), and requires critical lens adjustments.
 Therefore, any needs of the "Lens Main Unit" (Ref. 320), carefully confirm its performance in advance.
- Once "Lens Main Unit" (Ref. 320) is confirmed as defective, place order "Lens Unit" (Ref. 300) and replace Shading Frame (Ref. 310), to maintain Serial number of owner's original lens.

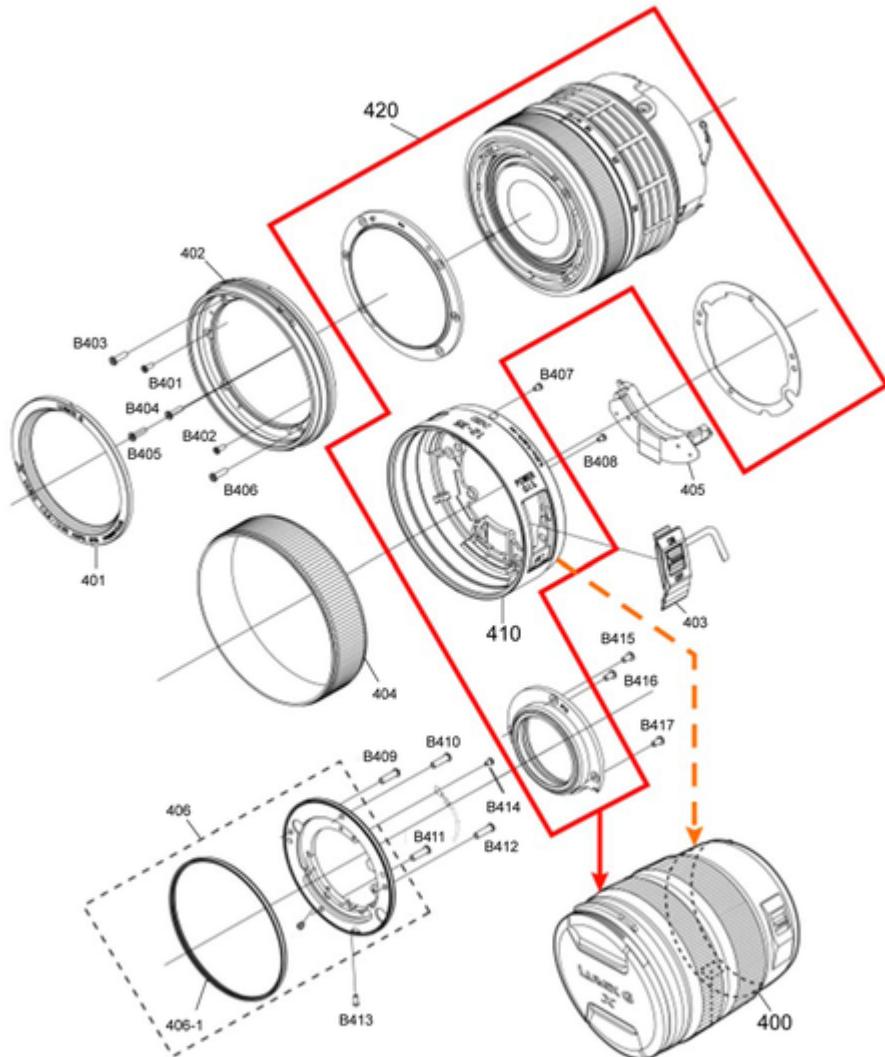


3.3.4 Lens Unit (Interchangeable Lens: H-HSA12035)

3.3.4.1 About Lens Main Unit (Ref. 420)

1. Lens Main Unit (Ref. 420) is not supplied due to difficulty of the transportation issue (Fragile, Dust-free packing), and requires critical lens adjustments.
 Therefore, any needs of the "Lens Main Unit" (Ref. 420), carefully confirm its performance in advance.
2. Once "Lens Main Unit" (Ref. 420) is confirmed as defective, place order "Lens Unit" (Ref. 400) and replace Rear Frame Unit (Ref. 410), to maintain Serial number of owner's original lens.

- When the "Ref.420" is necessary to be replaced, replace as a "Ref.400".
- However, replace "Ref.410", to maintain Serial number of original lens.



NOTE:

Keep covering the lens unit with Lens caps (front & rear), other than necessary cases.

3.3.5 About Flexible Cable and Connector

Do not touch carelessly so that the foreign body should not adhere to the terminal part of flexible cable and connector. Wipe off with a clean cloth and the cotton bud, etc. when the terminal part is dirty.

3.4 Service Notes

3.4.1 About Wi-Fi/Bluetooth Function

The page number in this chapter does not show the page number of this service manual.

What you can do with the Wi-Fi®/Bluetooth® function

- The camera cannot be used to connect to a public wireless LAN connection.

Controlling with a Smartphone/Tablet (P93)

- Recording with a smartphone (P94)
- Playing back or saving images stored on the camera, or uploading them on social media sites (P95)

Explore more enjoyment possibilities with Bluetooth®

You can connect to a smartphone that supports Bluetooth low energy any time.

Connect to a smartphone to use a full range of features.

- Connecting easily by pairing (P89)
- Turning on/off the camera by remote control (P93)
- Sending recorded images automatically (P98)
- Auto Cloud Backup (P96)
- Recording location information to the camera's images (P99)
- Synchronising the camera's clock (P100)
- Saving the camera's setup information to a smartphone (P100)

Displaying pictures on a TV

Printing Wirelessly

Sending images to AV device

Sending images to PC

Using Web services

These operating instructions refer to both smartphones and tablets as "smartphones" from this point on unless noted otherwise.

- For details, refer to the "Operating Instructions for advanced features (PDF format)".

3.4.2 Important Notice of Servicing

This camera unit has the personal information of wireless LAN connection the customer has registered.

For the protection of private information, please erase the personal information after the completion of repair by "Initial Settings".

In addition, please print out the following documents, and pass to the customer with the camera unit.

Printing Material [Leaflet for Customer]



3.5 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 $350\pm30^{\circ}\text{C}$ ($662\pm86^{\circ}\text{F}$).

Recommended Lead Free Solder (Service Parts Route.)

- The following 3 types of lead free solder are available through the service parts route.
 - SVKZ000001-----(0.3mm 100g Reel)
 - SVKZ000002-----(0.6mm 100g Reel)
 - SVKZ000003-----(1.0mm 100g Reel)

Note

* Ingredient: Tin (Sn) 96.5%, Silver (Ag) 3.0%, Copper (Cu) 0.5%. (Flux cored)

3.6 How to Define the Model Suffix (NTSC or PAL Model)

There are nine kinds of DC-GH5 (Camera body unit), regardless of the colours.

- a) DC-GH5 (Japan domestic model)
- b) DC-GH5P/PP
- c) DC-GH5EB/EC/EF/EG
- d) DC-GH5EE
- e) DC-GH5GN
- f) DC-GH5GD
- g) DC-GH5GT
- h) DC-GH5GK
- i) DC-GH5GA/GC/GH

What is the difference is that the "Initial Settings" data which is stored in Flash-ROM mounted on Main P.C.B..

3.6.1 Defining Methods:

To define the model suffix to be serviced, refer to the nameplate which is putted on the bottom side of the unit.

a) DC-GH5 (Japan domestic model)

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

**b) DC-GH5P/PP**

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

**c) DC-GH5EB/EC/EF/EG**

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

**d) DC-GH5EE**

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

**e) DC-GH5GN**

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

**f) DC-GH5GD**

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

**g) DC-GH5GT**

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

**h) DC-GH5GK**

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

**i) DC-GH5GA/GC/GH**

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.

Refer to the adjustment instruction in the adjustment software for details.

3.6.2 Initial Settings:

After replacing the Main P.C.B. and/or Flash-ROM, make sure to perform the initial settings after achieving the adjustment by ordering the following procedure in accordance with model suffix of the unit.

1. Important Notice:

Before proceeding Initial settings, make sure to read the following CAUTION.

CAUTION:(Initial Settings)

---After Replacing the Main P.C.B. and/or Flash-ROM ---

[Except "EB/EC/EF and EG" models]

- *. The model suffix can be chosen JUST ONE TIME.
(Effective model suffix : "P/PP/EE/GA/GC/GD/GH/GK/GN/GT and JAPAN domestic model")
- *. Once one of the model suffix has been chosen, the model suffix lists will not be displayed, thus, it can not be changed.

2. Procedures:

- Precautions: Read the above "CAUTION" carefully.
- Preparation:

Attach the fully charged Battery, and insert the memory card to slot1.
Set the mode dial to [P] (Program AE Mode).

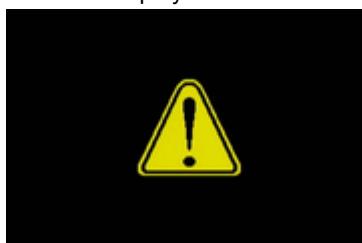
- **Step 1. The temporary cancellation of “Initial Settings”:**

Set the drive mode dial to [Single], while pressing [Playback] button and [AF/AE LOCK] button simultaneously, turn the Power on.

- **Step 2. The cancellation of “Initial Settings”:**

Press the [Playback] button in order to enter the [Playback] mode.

Press [AF/AE LOCK] button and “[UP] of Cursor buttons” simultaneously, then turn the power off.
The LCD displays the “ ! ” mark before the unit powers down.



- **Step 3. Turn the Power On:**

Set the mode dial to [P] (Program AE Mode) and drive mode dial to [Single], then turn the power on.

- **Step 4. Display the Initial Settings:**

While pressing [MENU/SET] button and “[RIGHT] of Cursor buttons” simultaneously, turn the power off.

The “Initial Settings” menu is displayed.

There are two kinds of “Initial Settings” menu form as follows:

[CASE 1. After replacing the Main P.C.B. and/or Flash-ROM]

When Main P.C.B. has just been replaced, 16 model suffixes are displayed as follows. (three pages in total)

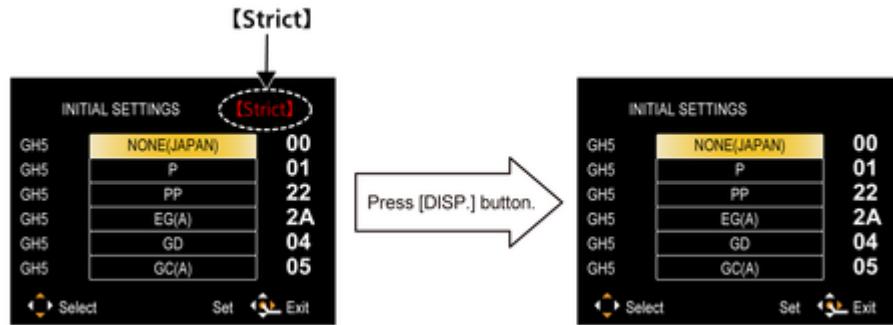


[CASE 2. Other than “After replacing the Main P.C.B. and/or Flash-ROM”]



- **Step 5. Cancel “Strict” mode:**

Press the [DISP.] button to cancel “Strict” mode. (Confirm the “Strict” is disappeared.)



- **Step 6. Choose the Model Suffix in “Initial Settings”:** (Refer to “CAUTION”)

[Caution: After replacing the Main P.C.B. and/or Flash-ROM]

The model suffix can be chosen, **JUST ONE TIME**.

Once one of the model suffixes have been chosen, the model suffix lists will not be displayed, thus, it can not be changed.

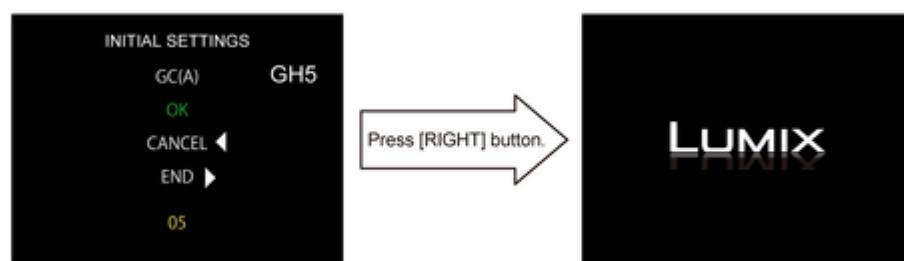
Therefore, select the area carefully.

Select the area with pressing “[UP] / [DOWN] of Cursor buttons”.

- **Step 7. Set the Model Suffix in “Initial Settings”:**

Press the “[RIGHT] of Cursor buttons”.

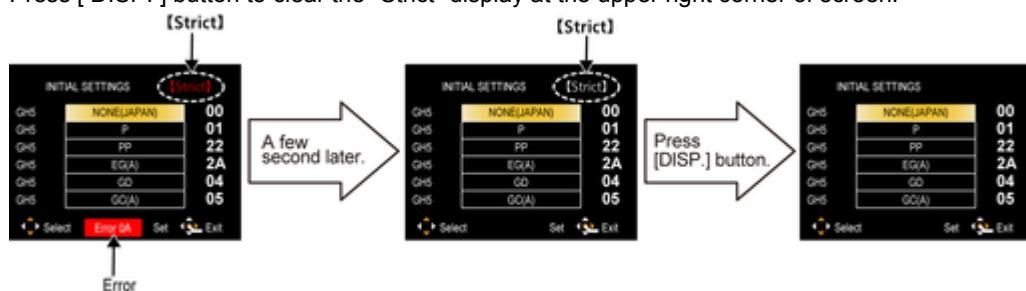
The only set area is displayed, and then press the “[RIGHT] of Cursor buttons” after confirmation.
(The unit is powered off automatically.)



NOTE:

When the error message such as the following is displayed, cancel “Strict” mode.

Press [DISP.] button to clear the “Strict” display at the upper right corner of screen.



- **Step 8. Confirmation:**

Confirm the display of “PLEASE SET THE CLOCK” in concerned language when the unit is turned on again.

When the unit is connected to PC with USB cable, it is detected as removable media.

(When the “GK” or “GT” model suffix is selected, the display shows “PLEASE SET THE CLOCK” in Chinese.)

As for your reference, major default setting condition is as shown in the following table.

- **Default setting (After “Initial Settings”)**

| | MODEL | VIDEO OUTPUT | LANGUAGE | DATE | REMARKS |
|----|---------|--------------|----------|-----------------|---------|
| a) | DC-GH5P | NTSC | English | Month/Date/Year | |

| | | | | |
|----|----------------------------------|----------|-------------------------------|-----------------|
| b) | DC-GH5PP | NTSC | English | Month/Date/Year |
| c) | DC-GH5EB | PAL | English | Date/Month/Year |
| d) | DC-GH5EC | PAL | English | Date/Month/Year |
| e) | DC-GH5EE | PAL | Russian | Date/Month/Year |
| f) | DC-GH5EF | PAL | English | Date/Month/Year |
| g) | DC-GH5EG | PAL | English | Date/Month/Year |
| h) | DC-GH5GA | PAL | English | Date/Month/Year |
| i) | DC-GH5GC | PAL | English | Date/Month/Year |
| j) | DC-GH5GD | NTSC | Korean | Year/Month/Date |
| k) | DC-GH5GH | PAL | English | Date/Month/Year |
| l) | DC-GH5GK | PAL | Chinese (simplified) | Year/Month/Date |
| m) | DC-GH5GN | PAL | English | Date/Month/Year |
| n) | DC-GH5GT | NTSC | Chinese (traditional) | Year/Month/Date |
| o) | DC-GH5JPC (Japan domestic model) | NTSC/PAL | Japanese/Chinese (simplified) | Year/Month/Date |

4 Specifications

4.1 Camera Body

The following specification is for DC-GH5LEB/GH5MEB/GH5EB.

Some specifications may differ depending on model suffix.

Specifications are subject to change without notice.

Digital Camera Body (DC-GH5):

Information for your safety

| | |
|--------------------|--|
| Power Source: | DC 8.4 V (8.4 V ^{***}) |
| Power Consumption: | 4.1 W (When recording with Monitor) [When the Interchangeable lens (H-ES12060) is used] 4.0 W (When recording with Monitor) [When the Interchangeable lens (H-FS12060) is used] |
| | 3.2 W (When playing back with Monitor) [When the Interchangeable lens (H-ES12060) is used] 3.1 W (When playing back with Monitor) [When the Interchangeable lens (H-FS12060) is used] |

| | |
|-------------------------------|--|
| Camera effective pixels | 20,330,000 pixels |
| Image sensor | 4/3" Live MOS sensor, total pixel number 21,770,000 pixels, Primary colour filter |
| Digital Zoom | Max. 4x |
| Extra Tele Conversion | When taking still pictures: Max. 2x (When a picture size of [S] (5 M), aspect ratio of [4:3] is selected.) When recording motion pictures: 1.4x/2.7x |
| Focus | Auto Focus/Manual Focus, Face/Eye Detection/Tracking/225-area-focusing/Custom Multi/ 1-area-focusing/Point (Focus area selection is possible by touching or with the joystick) |
| Shutter type | Focal-plane shutter |
| Burst recording | |
| Burst speed | 12 pictures/second (High speed, AFS/MF), 9 pictures/second (High speed, AFF/AFC), 7 pictures/second (Middle speed), 2 pictures/second (Low speed) |
| Number of recordable pictures | When there are RAW files: 60 or higher pictures When there are no RAW files: 600 or higher pictures * When recording is performed under the test conditions specified by Panasonic |

| | |
|--|---|
| ISO sensitivity (Standard Output Sensitivity) | Still picture: AUTO/[ISO 100 ⁺ /200/400/800/1600/3200/6400/12800/25600 Creative Video Mode: AUTO/100 ⁺ /200/400/800/1600/3200/6400/12800 * Only available when [Extended ISO] is set. (1/3 EV step change possible) |
| Minimum illumination | Approx. 3 lx [when i-Low light is used, the shutter speed is 1/30th of a second (When [System Frequency] is set to [59.94Hz (NTSC)]) or 1/25th (When [System Frequency] is set to [50.00Hz (PAL)])] [When the interchangeable lens (H-ES12060) is used] Approx. 5 lx [when i-Low light is used, the shutter speed is 1/30th of a second (When [System Frequency] is set to [59.94Hz (NTSC)]) or 1/25th (When [System Frequency] is set to [50.00Hz (PAL)])] [When the interchangeable lens (H-FS12060) is used] |
| Shutter speed | Still picture: B (Bulb) (Max. approx. 30 minutes), 60 seconds to 1/8000th of a second (Mechanical shutter), B (Bulb) (Max. approx. 30 minutes), 60 seconds to 1/2000th of a second (Electronic Front Curtain), 1 second to 1/16000th of a second (Electronic shutter) Motion picture: 1/25th of a second to 1/16000th of a second |
| Metering range | EV 0 to EV 18 |
| White Balance | AWB/AWBc/Daylight/Cloudy/Shade/Incandescent lights/Flash/ White set1, 2, 3, 4/White Balance K set1, 2, 3, 4 |
| Exposure (AE) | Programme AE (P)/Aperture-priority AE (A)/Shutter-priority AE (S)/Manual exposure (M)/AUTO Exposure Compensation (-13 EV Step, -5 EV to +5 EV) |
| Light metering system, Light metering mode | 1728-zone multi-pattern sensing system. Multiple/Centre weighted/Spot |
| Monitor | 3.2" TFT LCD (3.2) (Approx. 1,620,000 dots) (field of view ratio about 100%) Touch screen |
| Viewfinder | OLED Live Viewfinder (4.3) (Approx. 3,680,000 dots) (field of view ratio about 100%) [Magnification approx. 1.52 \times , 0.76 \times (35 mm film camera equivalent), with 50 mm lens at infinity; -1.0 m ⁻¹] (with diopter adjustment -4 to +3 diopter) |
| Flash Mode | AUTO, AUTO/Red-Eye Reduction, Forced ON, Forced OFF/Red-Eye Reduction, Slow Sync., Slow Sync./Red-Eye Reduction, Forced OFF |
| Flash synchronisation speed | Equal to or smaller than 1/250th of a second |
| Microphone | Stereo |
| Speaker | Monaural |
| Recording media | SD Memory Card/SDHC Memory Card ⁺ /SDXC Memory Card ⁺ (* Card slot 1/Card slot 2: UHS-I/UHS-II UHS Speed Class 3) Double slot recording function is available |
| Picture size | |
| Still picture | When the aspect ratio setting is [4:3] 4992 \times 3744 pixels (6K photo), 3328 \times 2496 pixels (4K photo), 5184 \times 3888 pixels ([L]), 3712 \times 2784 pixels ([M]), 2624 \times 1968 pixels ([S]) When the aspect ratio setting is [3:2] 5184 \times 3456 pixels (6K photo), 3504 \times 2336 pixels (4K photo), 5184 \times 3456 pixels ([L]), 3712 \times 2480 pixels ([M]), 2624 \times 1752 pixels ([S]) When the aspect ratio setting is [16:9] 3840 \times 2160 pixels (4K photo), 5184 \times 2920 pixels ([L]), 3840 \times 2160 pixels ([M]), 1920 \times 1080 pixels ([S]) When the aspect ratio setting is [1:1] 2880 \times 2880 pixels (4K photo), 3888 \times 3888 pixels ([L]), 2784 \times 2784 pixels ([M]), 1968 \times 1968 pixels ([S]) |
| Recording quality | |
| Motion pictures | [Rec Format]: [AVCHD]/[MP4]/[MP4 (LPCM)]/[MOV] Refer to P56 of this document for details. |
| Quality | RAW/RAW+Fine/RAW+Standard/Fine/Standard |

| | | |
|--|--|--|
| Recording file format | | |
| Still Picture | RAW/JPEG (based on "Design rule for Camera File system", based on "Exif 2.31" standard, DPOF corresponding) | |
| 6K/4K photo (burst file) | 6K photo: MP4 (H.265/HEVC, AAC (2 ch)) 4K photo: MP4 (H.264/MPEG-4 AVC, AAC (2 ch)) | |
| Motion pictures | AVCHD Progressive/AVCHD/MP4/MOV | |
| Audio compression | AVCHD | Dolby Audio™ (2 ch) |
| | MP4 | AAC (2 ch) |
| | MP4 (LPCM) | LPCM (2 ch, 48 kHz/16 bit) |
| | MOV | LPCM (2 ch, 48 kHz/16 bit) When an XLR microphone adaptor (DMW-XLR1: optional) is attached, LPCM (2 ch, 48 kHz/24 bit or 96 kHz/24 bit) is possible to select |
| Interface | | |
| [REMOTE] | Ø 2.5 mm jack | |
| [MIC] | Ø 3.5 mm jack | |
| Headphone | Ø 3.5 mm jack | |
| HDMI | HDMI Type A | |
| USB | Super Speed USB 3.1 GEN1/USB 3.1 Type-C * Data from the PC can not be written to the camera using the USB connection cable. | |
| Flash synchro | Available | |
| Dimensions | Approx. 138.5 mm (W)×98.1 mm (H)×87.4 mm (D) [5.45" (W)×3.86" (H)×3.44" (D)] (excluding the projecting parts) | |
| Mass | Approx. 725 g/1.60 lb [with one card and the battery] Approx. 645 g/1.42 lb (camera body) Approx. 1045 g/2.30 lb [with the Interchangeable lens (H-ES12060), one card and the battery] Approx. 935 g/2.06 lb [with the Interchangeable lens (H-FS12060), one card and the battery] | |
| Operating temperature | -10 °C to 40 °C (14 °F to 104 °F) * The performance of the battery (number of recordable pictures/operating time) may decrease temporarily when using in a temperature between -10 °C and 0 °C (14 °F and 32 °F) (cold places such as ski resorts or places at high altitude). | |
| Operating humidity | 10%RH to 80%RH | |
| Dust-proof and splash-proof | Yes | |
| Wireless transmitter | | |
| Wireless LAN | | |
| Compliance standard | IEEE 802.11a/b/g/n/ac (standard wireless LAN protocol) | |
| Frequency range used (central frequency) | 2412 MHz to 2472 MHz (1 to 13 ch) 5180 MHz to 5320 MHz (36/40/44/48/52/56/60/64 ch) * Requirements for Europe: 5150 to 5350 MHz, indoor use only | |
| Encryption method | Wi-Fi compliant WPA™/WPA2™ | |
| Access method | Infrastructure mode | |
| Bluetooth function | | |
| Compliance standard | Bluetooth Ver. 4.2 (Bluetooth low energy (BLE)) | |
| Frequency range used (central frequency) | 2402 MHz to 2480 MHz | |

Battery Charger (Panasonic DMW-BTC10E):

Information for your safety

| | |
|-------------------------------|---------------------------------|
| Input: | AC ~ 110 V~240 V 50/60 Hz 0.2 A |
| Output: | DC == 8.4 V 0.65 A |
| Operating temperature: | 0 °C to 40 °C (32 °F to 104 °F) |

Battery Pack (lithium-ion) (Panasonic DMW-BLF19E):

Information for your safety

| | |
|--------------------------|----------------|
| Voltage/capacity: | 7.2 V/1860 mAh |
|--------------------------|----------------|

The symbols on this product (including the accessories) represent the following:

| |
|---|
| ~ AC |
| == DC |
| □ Class II equipment (The construction of the product is double-insulated.) |

4.2 Lens

| | | |
|--|--|--|
| Interchangeable Lens | H-ES12060 "LEICA DG VARIO-ELMARIT 12-60 mm/F2.8-4.0 ASPH./ POWER O.I.S." | H-FS12060 "LUMIX G VARIO 12-60 mm/ F3.5-5.6 ASPH./POWER O.I.S." |
| Focal length | f=12 mm to 60 mm (35 mm film camera equivalent: 24 mm to 120 mm) | f=12 mm to 60 mm (35 mm film camera equivalent: 24 mm to 120 mm) |
| Aperture type | 9 diaphragm blades/circular aperture diaphragm | 7 diaphragm blades/circular aperture diaphragm |
| Maximum aperture | F2.8 (Wide) to F4.0 (Tele) | F3.5 (Wide) to F5.6 (Tele) |
| Minimum aperture value | F22 | F22 |
| Lens construction | 14 elements in 12 groups (4 aspherical lenses, 2 ED lenses) | 11 elements in 9 groups (3 aspherical lenses, 1 ED lens) |
| Nano surface coating | Yes | None |
| In focus distance | Wide: 0.2 m (0.66 feet) to ∞ / Tele: 0.24 m (0.79 feet) to ∞ (from the focus distance reference line) | Wide: 0.2 m (0.66 feet) to ∞ / Tele: 0.25 m (0.82 feet) to ∞ (from the focus distance reference line) |
| Maximum image magnification | 0.3 \times (35 mm film camera equivalent: 0.6 \times) | 0.27 \times (35 mm film camera equivalent: 0.54 \times) |
| Optical Image Stabiliser | Available | Available |
| O.I.S. switch | Available (Switching ON/OFF) | None (Setting of the [Stabilizer] is done in [Rec] menu.) |
| [AF/MF] switch | Available (Switching AF/MF) | None |
| Mount | "Micro Four Thirds Mount" | "Micro Four Thirds Mount" |
| Angle of view | 84° (Wide) to 20° (Tele) | 84° (Wide) to 20° (Tele) |
| Filter diameter | 62 mm | 58 mm |
| Max. diameter | Approx. 68.4 mm (2.7 inch) | Approx. 66 mm (2.6 inch) |
| Overall length | Approx. 86 mm (3.4 inch) (from the tip of the lens to the base side of the lens mount) | Approx. 71 mm (2.8 inch) (from the tip of the lens to the base side of the lens mount) |
| Mass | Approx. 320 g/0.70 lb | Approx. 210 g/0.46 lb |
| Operating temperature | −10 °C to 40 °C (14 °F to 104 °F) | 0 °C to 40 °C (32 °F to 104 °F) |
| Dust-proof and splash-proof | Yes | Yes |

H-HSA12035

Specifications are subject to change without notice.

INTERCHANGEABLE LENS FOR DIGITAL CAMERA

"LUMIX G X VARIO 12-35 mm/F2.8 II ASPH./

POWER O.I.S."

| |
|--|
| Focal length |
| f=12 mm to 35 mm (35 mm film camera equivalent: 24 mm to 70 mm) |
| Aperture type |
| 7 diaphragm blades/circular aperture diaphragm |
| Maximum aperture |
| F2.8 |
| Minimum aperture value |
| F22 |
| Lens construction |
| 14 elements in 9 groups (4 aspherical lenses, 1 UED lens, 1 UHR lens) |
| Name surface coating |
| Yes |
| In focus distance |
| 0.25 m (0.82 feet) to ∞ (from the focus distance reference line) |
| Maximum image magnification |
| 0.17x (35 mm film camera equivalent: 0.34x) |
| Optical image stabiliser |
| Available |
| [O.I.S.] switch |
| Available (Switching ON/OFF) |
| Mount |
| "Micro Four Thirds Mount" |
| Angle of view |
| 84° (Wide) to 34° (Tele) |
| Filter diameter |
| 58 mm |
| Max. diameter |
| Approx. 67.6 mm (2.7 inch) |
| Overall length |
| Approx. 73.8 mm (2.9 inch) (from the tip of the lens to the base side of the lens mount) |
| Mass |
| Approx. 305 g (0.67 lb) |
| Operating temperature |
| -10 °C to 40 °C (14 °F to 104 °F) |
| Dust-proof and splash-proof |
| Available |

5 Location of Controls and Components

The following description is for DC-GH5LEB/GH5MEB/GH5EB.

Some descriptions may differ depending on model suffix.

The page number in this chapter does not show the page number of this service manual.

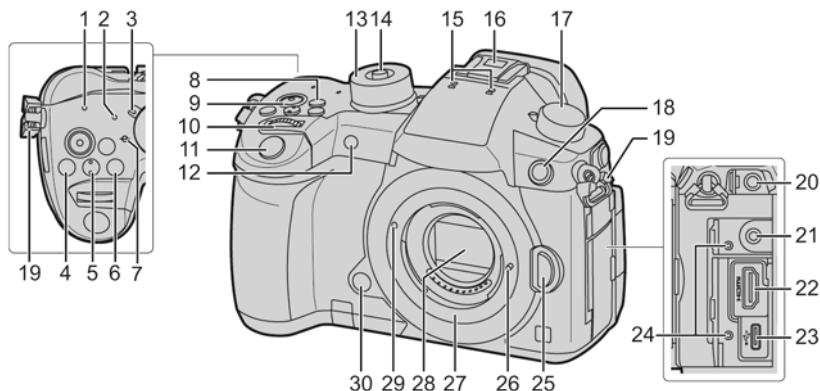
5.1 Camera Body



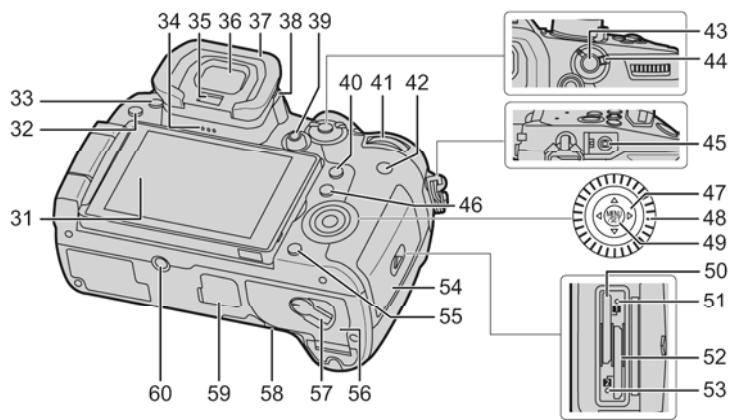
5.2 Lens



■ Camera body



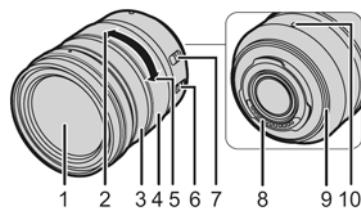
| | | |
|-----------|--|--|
| 1 | WIRELESS connection lamp (P87) | Hot shoe (Hot shoe cover) (P54) |
| 2 | Status indicator (P14) | 16 • Keep the hot shoe cover out of reach of children to prevent swallowing. |
| 3 | Camera ON/OFF switch (P14) | 17 Drive mode dial (P40) |
| 4 | [] (Exposure Compensation) button (P37) | 18 Flash synchro socket (Flash synchro socket cap) |
| 5 | [ISO] (ISO sensitivity) button (P38) | 19 Shoulder strap eyelet (P11) |
| 6 | [WB] (White Balance) button (P39) | 20 [MIC] socket (P69) |
| 7 | Focus distance reference mark | Headphone socket (P70) |
| 8 | [Fn1] button (P28) | 21 • Excessive sound pressure from earphones and headphones can cause hearing loss. |
| 9 | Motion picture button (P55) | 22 [HDMI] socket (P66, 103) |
| 10 | Front dial (P20) | 23 USB socket (P104) |
| 11 | Shutter button (P16) | 24 Cable holder mount (P66) |
| 12 | Self-timer indicator/ AF Assist Lamp | 25 Lens release button (P13) |
| 13 | Mode dial (P21) | 26 Lens lock pin |
| 14 | Mode dial lock button (P21) | 27 Mount |
| 15 | Stereo microphone • Be careful not to cover the microphone with your finger. Doing so may make sound difficult to record. | 28 Sensor |
| 16 | | 29 Lens fitting mark (P13) |
| 17 | | 30 Preview button/Function button (Fn6) (P28) |



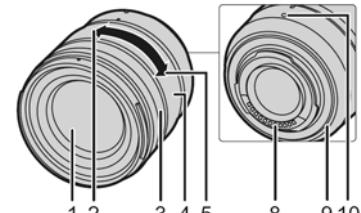
| | | | |
|----|---|----|---|
| 31 | Touch screen (P25)/monitor (P106) | 51 | Access lamp (card 1) (P13) |
| 32 | [] (Playback) button (P71) | 52 | Card slot 2 (P12) |
| 33 | [LVF] button (P23)/[Fn5] button (P28) | 53 | Access lamp (card 2) (P13) |
| 34 | Speaker | 54 | Card door (P12) |
| 35 | Eye sensor (P23) | 55 | [/] (Delete/Cancel) button (P74)/[Fn4] button (P28) |
| 36 | Viewfinder (P23) | 56 | Battery door (P12) |
| 37 | Eye cup | 57 | Release lever (P12) |
| | • Keep the eye cup out of reach of children to prevent swallowing. | | DC coupler cover (P121) |
| 38 | Diopter adjustment dial (P15) | | • When using an AC adaptor, ensure that the Panasonic DC coupler (DMW-DCC12: optional) and AC adaptor (DMW-AC10E: optional) are used. |
| 39 | Joystick (P21, 35)/Function button (P28) | | • Always use a genuine Panasonic AC adaptor (DMW-AC10E: optional). |
| | Centre (Fn12)/▲ (Fn13)/▶ (Fn14)/▼ (Fn15)/◀ (Fn16) | | • When using an AC adaptor, use the AC mains Lead supplied with the AC adaptor. |
| 40 | [Q.MENU] button (P27)/[Fn2] button (P28) | 58 | Cover for the battery grip connector |
| 41 | Rear dial (P20) | 59 | • Keep the cover for the battery grip connector out of reach of children to prevent swallowing. |
| 42 | [DISP.] button (P23) | | Tripod mount |
| 43 | [AF/AE LOCK] button (P37) | | • It may not be possible to attach and securely fasten a tripod with a screw length of 5.5 mm (0.22 inch) or more to the camera. Doing so may also damage the camera. |
| 44 | Focus mode lever (P32, 36) | 60 | • Function buttons ([Fn7] to [Fn11]) (P28) are touch icons. |
| 45 | [REMOTE] socket | | Touch the [] tab on the recording screen to display them. |
| 46 | [] (Auto Focus Mode) button (P32)/[Fn3] button (P28) | | |
| 47 | Cursor buttons (P20)/Function button (P28) ▲ (Fn17)/▶ (Fn18)/▼ (Fn19)/◀ (Fn20) | | |
| 48 | Control dial (P20) | | |
| 49 | [MENU/SET] button (P20, 26) | | |
| 50 | Card slot 1 (P12) | | |

■ Lens

H-ES12060



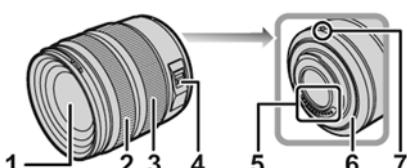
H-FS12060



| | |
|---|------------------|
| 1 | Lens surface |
| 2 | Tele |
| 3 | Focus ring (P36) |
| 4 | Zoom ring |
| 5 | Wide |
| 6 | O.I.S. switch |

| | |
|----|---|
| 7 | [AF/MF] switch • When either the [AF/MF] switch of the lens or the setting of the camera is set to [MF], Manual Focus (MF) is enabled. |
| 8 | Contact point |
| 9 | Lens mount rubber |
| 10 | Lens fitting mark (P13) |

H-HSA12035



| | |
|---|--|
| 1 | Lens surface |
| 2 | Focus ring Rotate to focus when taking pictures with manual focus (MF). |
| 3 | Zoom ring Rotate the zoom ring when you wish to take large (tele) or wide (wide angle) pictures. |
| 4 | [O.I.S.] switch When the lens is attached to the camera the stabilizer function is set to activate if the O.I.S. switch is set to [ON]. • We recommend setting the O.I.S. switch to [OFF] when using a tripod. |
| 5 | Contact points |
| 6 | Lens mount rubber |
| 7 | Lens fitting mark |

6 Service Mode

6.1 Error Code Memory Function

1. General Description

This unit is equipped with history of error code memory function, and can be memorized 16 error codes in sequence from the latest. When the error is occurred more than 16, the oldest error is overwritten in sequence.

The error code is not memorized when the power supply is shut down forcibly.

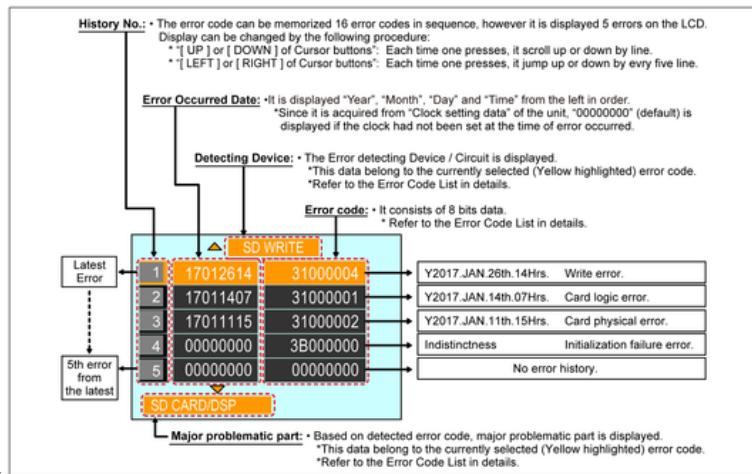
(i.e., when the unit is powered on by the battery, the battery is pulled out)

The error code is memorized to Flash-ROM when the unit has just before powered off.

2. How to Display

The error code can be displayed by ordering the following procedure:

- Preparation
Attach the fully charged Battery, and insert the memory card to slot1.
Set the mode dial to [P] (Program AE Mode).
- Step 1. The temporary cancellation of "Initial Settings":
Set the drive mode dial to [Single], while pressing [Playback] button and [AF/AE LOCK] button simultaneously, turn the Power on.
- Step 2. Execute the error code display mode:
Press [Playback] button, [MENU/SET] button and "[LEFT] of Cursor buttons" simultaneously with the step 1 condition.
The display is changed as shown below when the above buttons are pressed simultaneously.
Normal display → Error code display → Camera information display → Normal display →



Example of Error Code Display

○ Error Code List

The error code consists of 8 bit data and it shows the following information.

| Attribute | Main item | Sub item | Error code | | Contents | Error Indication | | |
|-----------|--------------------|-----------------------------|----------------------|------------|--|------------------|--------------------------|--|
| | | | High 4 bits | Low 4 bits | | Detecting device | Problematic Part/Circuit | |
| HARD | Flash | Flash | 28*0 | 0000 | Flash charge timeout error (system error indicated) | STRB CHG | STRB PCB/ FPC | |
| | | | | 0001 | EEPROM of External Flash is damaged. | EST EEP | E.STRB | |
| | | | | 0002 | ZOOM function of External Flash is damaged. | EST | | |
| | | | | 0003 | Other function of External Flash is damaged. | | | |
| | BIS | In Body Image Stabilization | 28*0 | 0010 | BIS HP encoder (X) Low detect error | BIS HPL X | BIS | |
| | | | | 0020 | BIS HP encoder (X) High detect error | BIS HPH X | | |
| | | | | 0030 | BIS HP encoder (Y) Low detect error | BIS HPL Y | | |
| | | | | 0040 | BIS HP encoder (Y) High detect error | BIS HPH Y | | |
| | | | | 0050 | BIS GYRO (X) error | BIS GYRO X | | |
| | | | | 0060 | BIS GYRO (Y) error | BIS GYRO Y | | |
| | | | | 0070 | BIS GYRO communication error | BIS GY DIF | | |
| | | | | 0080 | BIS GYRO (R) error | BIS GYRO R | | |
| | | | | 0090 | BIS APU timeout error | BIS APU | | |
| | | | | 0100 | BIS Position sensor (X1) error | BIS POS X1 | | |
| | | | | 0200 | BIS Position sensor (X2) error | BIS POS X2 | | |
| | | | | 0300 | BIS Position sensor (Y) error | BIS POS Y | | |
| | | | | 0400 | BIS Drive Voltage (X1) error | BIS DRIVE X1 | | |
| | | | | 0500 | BIS Drive Voltage (X2) error | BIS DRIVE X2 | | |
| | | | | 0600 | BIS Drive Voltage (Y) error | BIS DRIVE Y | | |
| | | | | 0700 | BIS DIFF Signal (X1) error | BIS DIFF X1 | | |
| | | | | 0800 | BIS DIFF Signal (X2) error | BIS DIFF X2 | | |
| | | | | 0900 | BIS DIFF Signal (Y) error | BIS DIFF Y | | |
| | Flash-ROM | Data Area | 2B*0 | 0001 | EEPROM data error (During read out) | FROM RE | FROM | |
| | | | | 0002 | EEPROM data error (During write in) | FROM WR | | |
| | | Program Area | | 0005 | Firmware update error | FIRMUP FAIL | | |
| | | | | 0006 | Firmware update error (USB Micon) | USBFWUP FAIL | USB | |
| SOFT | CPU | Reset | 30*0 | 0000 | NMI reset | NMI RST | MAIN PCB | |
| | Recording Media | Memory card | 31*0 | 0002 | Memory card physical error | SD CARD | SD CARD/DSP | |
| | | | | 0004 | Memory card writing error | SD WRITE | | |
| | CPU, ASIC Hardware | Halt | 38*0 | 0001 | Zoom processing not completed. | ZOOM | ZOOMm/LENSu | |
| | Lens | Communication | 3C11 3CFA | **** | Lens communication error | LENS COMM | SOFT | |
| | Camera | System | 3B*0 3D*0 3E*0 | 0000 | EEPROM writing during camera initialization | FROM | SOFT | |
| | | | | 0000 | Assert occurrence | ASSERT | | |
| | | | | 0001 | Exposure charging operation failure | MSHUT | MSHUT | |
| | | | | 0002 | Failure of the returning operation to the home position | | | |
| | | | | 0003 | Failure of the mecha shutter sensor | | | |
| | | | | 0004 | Exposure charging operation failure 1 | | | |
| | | | | 0005 | Exposure charging operation failure 2 | | | |
| | | | | 0006 | Exposure charging recovery operation failure | | | |
| | | | | 0011 | Single curtain mechanical shutter PR1 operation failure | | | |
| | | | | 0012 | Single curtain mechanical shutter PR2 operation failure | | | |
| | | | | 0013 | Single curtain mechanical shutter reset operation failure | | | |
| | | | | 0014 | Abnormal current of shutter drive motor | | | |
| | | | | 0101 | Electronic shutter front curtain operation failure | | | |
| | | | | 0102 | Electronic shutter front curtain operation failure | | | |
| | | | | 0111 | Electronic shutter rear curtain operation failure | | | |
| | | | | 0112 | Electronic shutter rear curtain operation failure | | | |
| | | | | 1102 | Mechanical shutter front curtain set PI1 detection failure | | | |
| | | | | 1103 | Mechanical shutter front curtain set PI1 detection failure | | | |
| | | | | 1104 | Mechanical shutter front curtain set PI2 detection failure | | | |
| | | | | 1105 | Mechanical shutter front curtain set PI2 detection failure | | | |
| | | | | 1106 | Mechanical shutter front curtain set PI3 detection failure | | | |
| | | | | 1107 | Mechanical shutter front curtain set PI3 detection failure | | | |
| | | | | 1108 | Mechanical shutter front curtain set PI4 detection failure | | | |
| | | | | 1109 | Mechanical shutter front curtain set PI4 detection failure | | | |

| Attribute | Main item | Sub item | Error code | | Contents | Error Indication | |
|-----------|-----------|------------------------|-------------|-------------------|---|------------------|--------------------------|
| | | | High 4 bits | Low 4 bits | | Detecting device | Problematic Part/Circuit |
| SOFT | Camera | System | 3E*0 | 1202 | Mechanical shutter exposure control PI1 detection failure | MSHUT | MSHUT |
| | | | | 1203 | Mechanical shutter exposure control PI1 detection failure | | |
| | | | | 1204 | Mechanical shutter exposure control PI2 detection failure | | |
| | | | | 1205 | Mechanical shutter exposure control PI2 detection failure | | |
| | | | | 1206 | Mechanical shutter exposure control PI3 detection failure | | |
| | | | | 1207 | Mechanical shutter exposure control PI3 detection failure | | |
| | | | | 1208 | Mechanical shutter exposure control PI4 detection failure | | |
| | | | | 1209 | Mechanical shutter exposure control PI4 detection failure | | |
| | | | | 1302 | Mechanical shutter release control 1 PI1 detection failure | | |
| | | | | 1303 | Mechanical shutter release control 1 PI1 detection failure | | |
| | | | | 1304 | Mechanical shutter release control 1 PI2 detection failure | | |
| | | | | 1305 | Mechanical shutter release control 1 PI2 detection failure | | |
| | | | | 1306 | Mechanical shutter release control 1 PI3 detection failure | | |
| | | | | 1307 | Mechanical shutter release control 1 PI3 detection failure | | |
| | | | | 1308 | Mechanical shutter release control 1 PI4 detection failure | | |
| | | | | 1309 | Mechanical shutter release control 1 PI4 detection failure | | |
| | | | | 1402 | Mechanical shutter release control 2 PI1 detection failure | | |
| | | | | 1403 | Mechanical shutter release control 2 PI1 detection failure | | |
| | | | | 1404 | Mechanical shutter release control 2 PI2 detection failure | | |
| | | | | 1405 | Mechanical shutter release control 2 PI2 detection failure | | |
| | | | | 1406 | Mechanical shutter release control 2 PI3 detection failure | | |
| | | | | 1407 | Mechanical shutter release control 2 PI3 detection failure | | |
| | | | | 1408 | Mechanical shutter release control 2 PI4 detection failure | | |
| | | | | 1409 | Mechanical shutter release control 2 PI4 detection failure | | |
| | | | | 140A | Mechanical shutter release control 2 home position failure | | |
| Wi-Fi | Recording | Motion Image Recording | 3F*0 | 0001 | File time out error in recording motion image | MOVR T.O. | SOFT |
| | | | | 0002 | File data cue send error in recording motion image | MOVR FILE | |
| Wi-Fi | | | 3211 | **02 **0C | Wi-Fi related errors: *Generally, above are unable to specified the, which cannot be used for malfunction diagnosis. | WiFi | WiFi |

Important Notice about "Error Code List"

About "*" indication:

The third digit from the left is different as follows.

- In case of 0 (example: 2B 0_01000)
When the third digit from the left shows "0", this error occurred under the condition of Initial Settings has been completed.
It means that this error is occurred basically at user side.
- In case of 8 (example: 2B 8_01000)
When the third digit from the left shows "8", this error occurred under the condition of Initial Settings has been released.
(Example; Factory assembling-line before unit shipment, Service mode etc.)
It means that this error is occurred at service side.

o Step 3. How to Exit from Error Code Display Mode:

Simply, turn the power off. (Since Error Code display mode is executed under the condition of temporary cancellation of "Initial Settings", it wake up with normal condition when turn off the power.)

NOTE:

The error code can not be initialized.

7 Troubleshooting Guide

7.1 Checking Method of Body and Interchangeable Lens

1. Initial (Default) Status Of The Lens Unit

The Lens unit which is supplied as a standard accessory for this camera unit (H-FS12060, H-ES12060, H-HSA12035) shows the following status when the Lens is detached from the Camera unit.

NOTE: Although the lens unit is attached it shows the same condition when the Camera turns off.

H-FS12060 (Included in DC-GH5M):

1. ZOOM RING

When the Zoom ring is rotated, Zoom condition is changing accordingly. (The 1st lens frame moves.)
[Focal length : 12mm to 60mm [35mm film camera equivalent: 24mm to 120mm]]

2. FOCUS RING

The Focus condition does not changed although Focus ring is rotated. (Free rotation.)

H-ES12060 (Included in DC-GH5L):

1. ZOOM RING

When the Zoom ring is rotated, Zoom condition is changing accordingly. (The 1st lens frame moves.)
[Focal length : 12mm to 60mm [35mm film camera equivalent: 24mm to 120mm]]

2. FOCUS RING

The Focus condition does not changed although Focus ring is rotated. (Free rotation.)

H-HSA12035 (Included in DC-GH5A):

1. ZOOM RING

When the Zoom ring is rotated, Zoom condition is changing accordingly. (The 1st lens frame moves.)
[Focal length : 12mm to 35mm [35mm film camera equivalent: 24mm to 70mm]]

2. FOCUS RING

The Focus condition does not changed although Focus ring is rotated. (Free rotation.)

2. Initial Inspection Tips (Before Determine The Unit Being Faulty/Defective):

Since this unit is equipped with various functions/settings, some phenomenon/effect might be caused by miss usage of function and/or settings.

It might be made a miss-judgement caused by miss usage of function & settings although the unit is working properly without fault.

Therefore, check/confirm the followings before concluding/determine the unit being faulty/defective.

NOTE: Refer to the Operating Instructions about content of various settings.

If it is hard to determine whether the resolution is out of specification or not, proceed the "RESOLUTION INSPECTION", before replacing the Lens Main Unit. (The unit might be mishandling, dropping or others.)

3. Reference information

MENU LIST(Quick Reference)

■ Mode Dial

| | | | |
|---|---|--|-----------------------|
| ※  IA | Intelligent Auto Mode / Intelligent Auto Plus Mode |  M | Creative Video Mode |
| P | Programme AE Mode | C1 | Custom Mode |
| A | Aperture-Priority AE Mode | C2 | Custom Mode |
| S | Shutter-Priority AE Mode | C3 | Custom Mode |
| M | Manual Exposure Mode |  | Creative Control Mode |

Pressing the [MENU/SET button] displays the basic menu. All basic menu is not displayed in the **red letters** mode.

Some menus are displayed in service mode only.

In **IA**, displayed menus are different in accordance with selected modes.

■ Basic Menu

| |  [REC] |  [MOTION PICTURE] |  [CUSTOM] |  [SETUP] |  [MY MENU] |
|----------|---|--|--|---|---|
| 1st Page |  |  |  |  |  |
| 2nd Page |  |  | |  | |
| 3rd Page |  |  | |  | |
| 4th Page |  |  | |  | |
| 5th Page |  | | | | |

| |  [PLAYBACK] |
|----------|--|
| 1st Page |  |
| 2nd Page |  |
| 3rd Page |  |

The menu item which can not be chosen is displayed in gray. When the menu page has no items can be chosen, the page is skipped display.

REMARKS:**[ Creative Control Mode]**

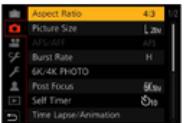
* Setting the mode dial to [Creative Control Mode], then displaying the lower figure.
(Pressing the [MENU/SET button] twice, displays the basic menu.)

**■ Other than Basic Menu****[ Intelligent Auto Mode]**

[Intelligent Auto Mode] and [Intelligent Auto Mode Plus] can be selected from [iA] menu.

In [Intelligent Auto] mode [REC] and [MOTION PICTURE] menu are limited and displayed following items only.

(In [Intelligent Auto Plus] mode, [Basic Menu] is displayed.)

| | [iA] | [REC] | [MOTION PICTURE] | [CUSTOM][SETUP][MY MEMU][PLAYBACK] |
|----------|---|---|---|--|
| 1st Page |  |  |  | |
| 2nd Page | |  | | Same as [MENU LIST (Quick Reference)]. |

[ Creative Video Mode]

[REC] is not displayed.

[MOTION PICTURE], [CUSTOM], [SETUP], [MY MEMU] and [PLAYBACK] are the same as above-mentioned Menu LIST (Quick Reference.)

7.2 Wi-Fi Circuit (Wi-Fi BT P.C.B.)

7.2.1 How to Remove Wi-Fi Password Protection

To prevent incorrect operation or use of the Wi-Fi function by a third party and to protect saved personal information, this unit protects the Wi-Fi function with a password. It is unable to service with password locked condition. When accepting for repair, the unit has been set the Wi-Fi password by customer, run the [Reset Network Settings] for removing Wi-Fi password, then check the operation.

[Reset Procedure of Network Settings]

- 1) Press the [MENU/SET] button, and select the [SETUP] mode by Cursor buttons.
Select [Reset Network Settings] by Cursor buttons, then press the [MENU/SET] button.
- 2) Select [YES] and press the [MENU/SET] button.
(The [Reset Network Settings] performs not only resetting Wi-Fi Password but also resetting other all Wi-Fi Settings (Excluding [LUNIX CLUB]) and registered device information in [Bluetooth].)

7.2.2 Checking of trouble caused by Wi-Fi Circuit or not

The Wi-Fi Circuit works properly if the wireless access point (broadband router) name (SSID) in use is displayed on a screen of [Manual Connection].

(Primary Confirmation)

Confirm that the wireless access point (broadband router) works properly.

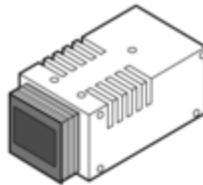
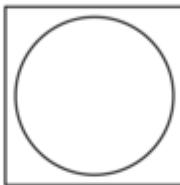
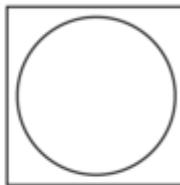
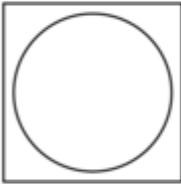
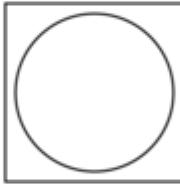
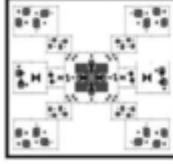
(Procedure)

- 1) Select [Wi-Fi] in [Setup] menu.
- 2) Select [Wi-Fi Function] in [Wi-Fi] menu.
- 3) Select [New Connection] in [Wi-Fi] menu.
- 4) Select optional function in [Select a function] menu, then select [Via Network] in [Select connection method] menu.
- 5) Select [From List] in [Select connection method] menu.
- 6) The Wi-Fi Circuit works properly if the wireless access point (broadband router) name (SSID) in use is displayed.

8 Service Fixture & Tools

8.1 Service Fixture and Tools

The following service fixture and tools are used for checking and servicing this unit.

| | | |
|--|--|--|
| Light Box (with DC Cable) RFKZ0523 | ND Filter (ND 0.9) VFK1164ND09 | ND Filter (ND 0.3) RFKZ0513 |
|  * VFK1164TDVLB can be used. |  |  |
| ND Filter (ND 0.6) VFK1164ND06 | CC Filter (CC-C7.5) RFKZ0511 | CC Filter (CC-Y10) RFKZ0512 |
|  |  |  |
| LB Filter (LBB2) RFKZ0520 | LB Filter (LBB8) RFKZ0521 | Gray Card RFKZ0506 |
|  |  |  |
| Resolution Chart RFKZ0510 | Optical Axis Adjustment Chart RFKZ0570 | Shutter Adjustment Collimator RFKZ0630 |
|  * Supplied as divided chart parts. (Assemble it before use.) |  |  |
| Diffuser RFKZ0591 | Silicon Chips RFKZ0478 | Camera Stand RFKZ0333J |
|  |  * For exchange the packing. |  |

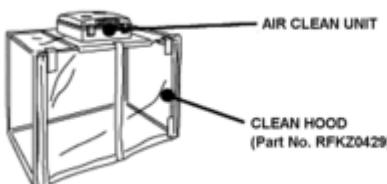
| Driver VFK1390 | Torque Driver RFKZ0456 | Lens Cleaning Kit (BK) VFK1900BK |
|---|---|---|
|  |  |  * Spec. : 2-30N·cm (Equiv.0.2-3kgf/cm) * Only supplied 10 set/box. |
| Camera body : DMC-G80/G81/G85 or DMC-GX80/GX85 | Lens : H-X015 and H-FS014045 (conventional) | |
|  Correspond by the marketed commodity. (It does not supply as service fixture and tools.) |  Correspond by the marketed commodity. (It does not supply as service fixture and tools.) | |

8.2 Clean Box

- The repair quality is considered, and it is recommended working in the environment of specified clean level less than class 10,000 (Federal Standard 209D).

[NOTE]

- Work in the environment of specified clean level less than class 10,000 (Federal Standard 209D) when inside cleaning of a lens.
Please refer to the following service manuals.
- H-FS12060E/GK/PP: Order No.[DSC1604008CE](#)
- H-ES12060PP/E/GK: Order No.[DSC1702007CE](#)
- H-HSA12035PP/E/GK: Order No.[DSC1703008CE](#)

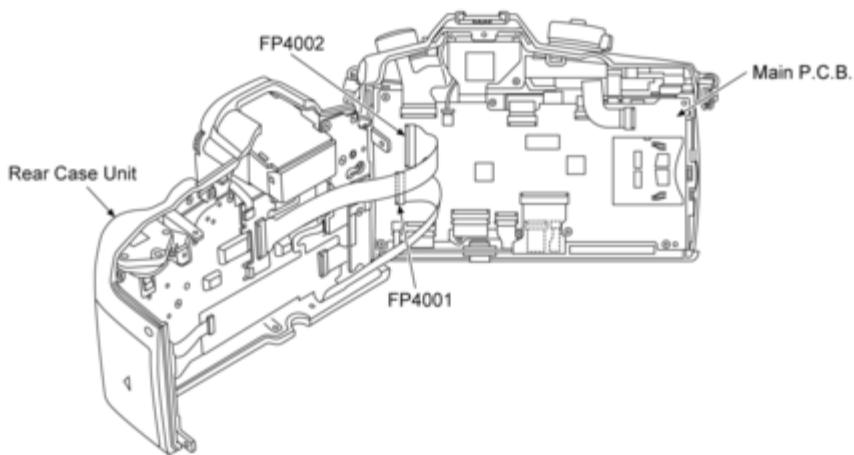


8.3 When Replacing the Main P.C.B.

After replacing the Main P.C.B., be sure to achieve adjustment.
Refer to the adjustment instruction in the adjustment software for details.

8.4 Service Position (When checking the each P.C.B.)

This service position is used for checking and replacing parts. Use the following extension cables for servicing.



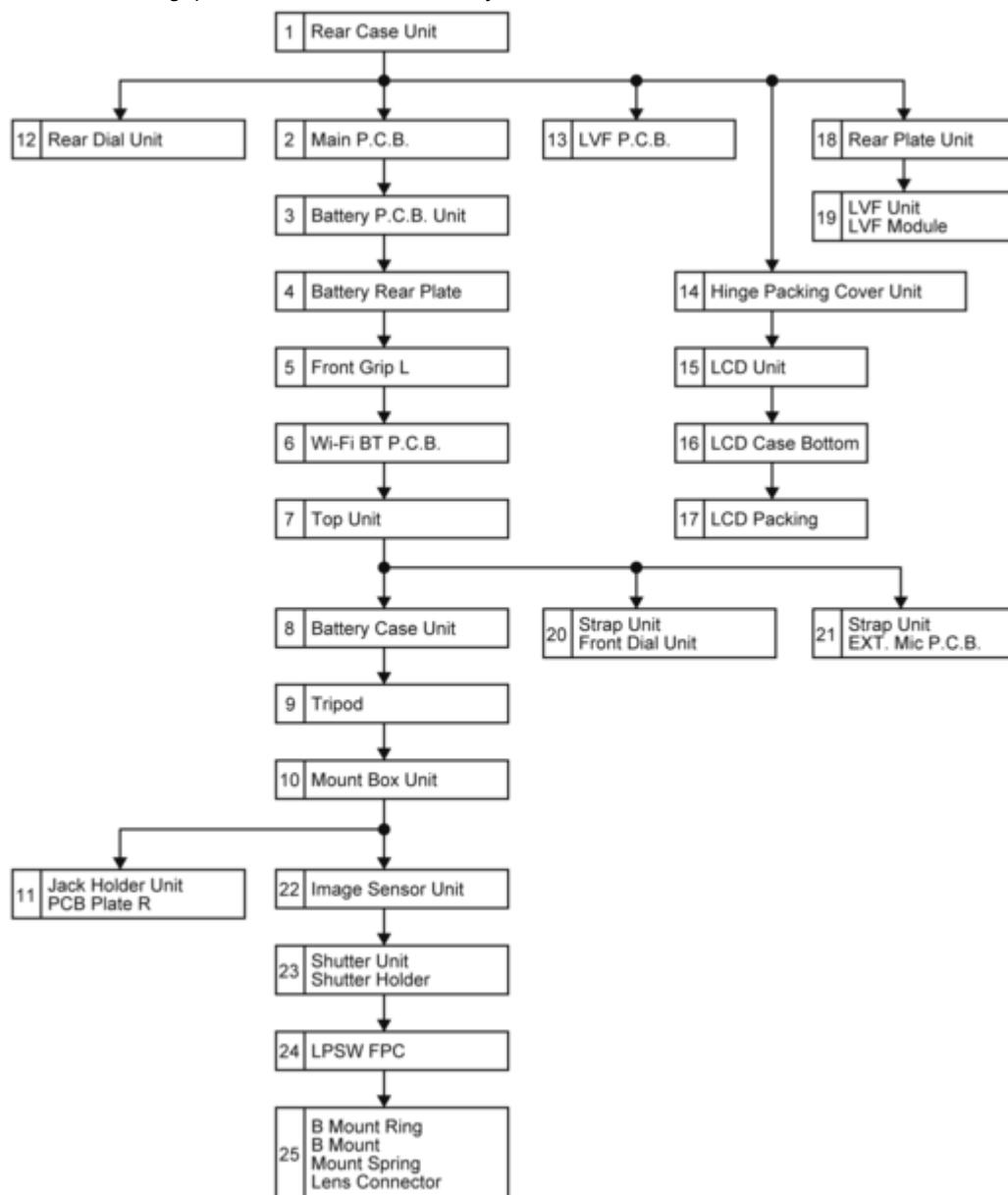
9 Disassembly and Assembly Instructions

9.1 Camera Body Part

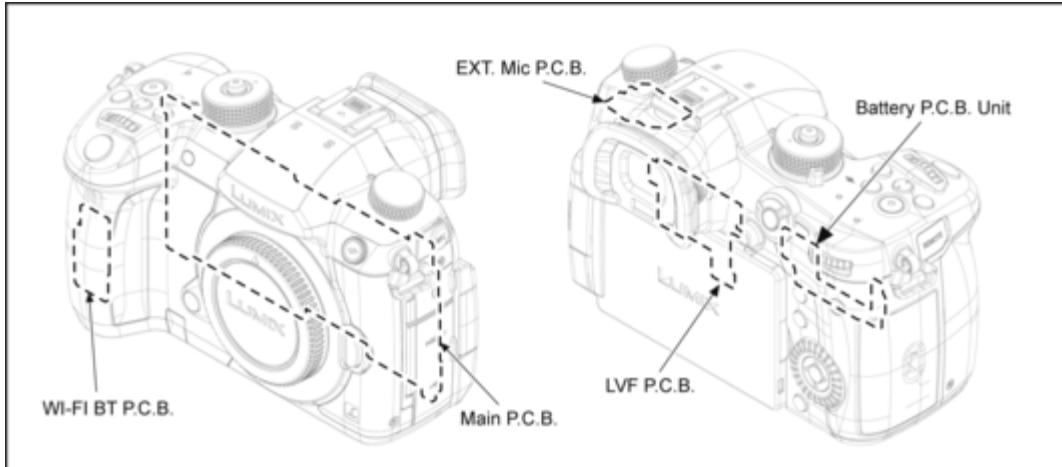
9.1.1 Disassembly Flow Chart

This is a disassembling chart.

When assembling, perform this chart conversely.



9.1.2 P.C.B. Location



9.1.3 Disassembly Procedure

| No. | Item | Fig. | Removal | |
|-----|---------------------|----------------------|-----------------------|--|
| 1 | Rear Case Unit | (Fig. D1) | Screw (A) x 3 | |
| | | | Screw (B) x 2 | |
| | | | Screw (C) x 2 | |
| | | (Fig. D2) | Eyecup | |
| | | | Screw (D) x 2 | |
| | | (Fig. D3) | FP4001 (Flex) | |
| | | | FP4002 (Flex) | |
| | | | Rear Case Unit | |
| | | (Fig. D4) | FP3501 (Flex) | |
| | | | FP3502 (Flex) | |
| 2 | Main P.C.B. | | FP3561 (Flex) | |
| | | | FP3562 (Flex) | |
| | | | FP3563 (Flex) | |
| | | | FP6001 (Flex) | |
| | | | FP6002 (Flex) | |
| | | | FP6003 (Flex) | |
| | | | FP6004 (Flex) | |
| | | | FP6006 (Connector) | |
| | | | FP6007 (Flex) | |
| | | | FP6008 (Flex) | |
| | | | Screw (E) x 3 | |
| | | | Screw (F) x 1 | |
| | | | Convex x 2 | |
| | (Fig. D5) | Heat Radi Pad Rear 1 | | |
| | | Heat Radi Pad Rear 2 | | |
| | | Heat Radi Pad Main 1 | | |
| | | Heat Radi Pad Main 2 | | |
| | | Jack Shading Piece | | |
| | | Jack Piece Tape A | | |
| | | Jack Piece Tape B | | |
| | | Gasket Main | | |
| | | Main P.C.B. | | |
| 3 | Battery P.C.B. Unit | (Fig. D6) | Screw (G) x 1 | |
| | | | Convex x 2 | |
| | | | Battery Contact Cover | |
| | | | Screw (H) x 1 | |
| | | | Locking tab x 1 | |

| | | | |
|----|----------------------------------|------------|------------------------|
| | | | Convex x 2 |
| | | | Battery P.C.B. Unit |
| 4 | Battery Rear Plate | (Fig. D7) | Screw (I) x 1 |
| | | | Screw (J) x 1 |
| | | | Locking tab x 2 |
| | | | Convex x 2 |
| | | | Battery Rear Plate |
| 5 | Front Grip L | (Fig. D8) | Screw (K) x 2 |
| | | | Screw (L) x 2 |
| | | | Hooking part x 3 |
| | | | Front Grip L |
| 6 | Wi-Fi BT P.C.B. | (Fig. D9) | FP8501 (Flex) |
| | | | Screw (M) x 1 |
| | | | Hooking part x 1 |
| | | | Convex x 2 |
| | | | Wi-Fi BT P.C.B. |
| 7 | Top Unit | (Fig. D10) | Screw (N) x 1 |
| | | | Screw (O) x 1 |
| | | (Fig. D11) | Hooking part x 4 |
| | | | Front Grip R Unit |
| | | | Screw (P) x 1 |
| | | | Screw (Q) x 1 |
| | | | Screw (R) x 3 |
| | | (Fig. D12) | Top Unit |
| | | | |
| | | | |
| 8 | Battery Case Unit | (Fig. D13) | Screw (S) x 3 |
| | | | Screw (T) x 1 |
| | | (Fig. D14) | Battery Case Unit |
| 9 | Tripod | (Fig. D15) | Screw (U) x 2 |
| | | | Convex x 1 |
| | | (Fig. D16) | Tripod |
| 10 | Mount Box Unit | (Fig. D17) | Screw (V) x 3 |
| | | | Screw (W) x 2 |
| | | (Fig. D18) | Mount Box Unit |
| | | | |
| 11 | Jack Holder Unit, PCB Plate R | (Fig. D19) | Screw (X) x 2 |
| | | | Convex x 2 |
| | | | Jack Cover Shaft |
| | | | Jack Cover A |
| | | | Jack Cover B |
| | | | Screw (Y) x 2 |
| | | | Jack Holder Unit |
| | | | PCB Plate R |
| | | | |
| 12 | Rear Dial Unit | (Fig. D20) | Screw (Z) x 2 |
| | | | Flex |
| | | | Convex x 2 |
| | | | Rear Dial Unit |
| | | | |
| 13 | LVF P.C.B. | (Fig. D21) | Screw (a) x 1 |
| | | | FP4401 (Flex) |
| | | | FP4403 (Flex) |
| | | | Hooking part x 1 |
| | | | Convex x 2 |
| | | | LVF P.C.B. |
| | | | |
| 14 | Hinge Packing Cover Unit | (Fig. D22) | Screw (b) x 2 |
| | | | Hinge Arm Cover Top |
| | | | Hinge Arm Cover Bottom |
| | | | Screw (c) x 2 |
| | | | |

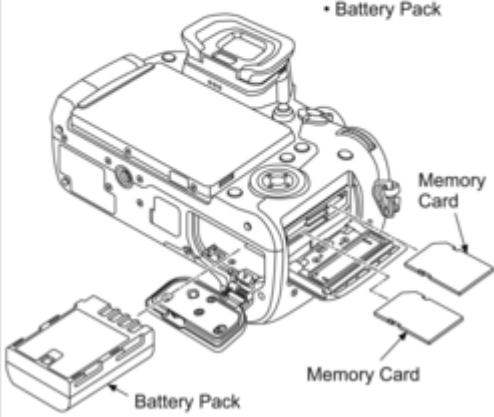
| | | | |
|----|--------------------------------|------------|--------------------------|
| | | | Convex x 4 |
| | | | Hinge Packing Cover Unit |
| 15 | LCD Unit | (Fig. D23) | Flex |
| | | | Hinge Cushion |
| | | | Hinge Fix Cover |
| | | | Screw (d) x 2 |
| | | | LCD Unit |
| 16 | LCD Case Bottom | (Fig. D24) | Screw (e) x 6 |
| | | | Locking tab x 6 |
| | | | FP4202 (Flex) |
| | | | LCD Case Bottom |
| 17 | LCD Packing | (Fig. D25) | LCD Packing |
| 18 | Rear Plate Unit | (Fig. D26) | Flex x 3 |
| | | | Screw (f) x 8 |
| | | | Screw (g) x 1 |
| | | | Screw (h) x 1 |
| | | | Convex x 5 |
| | | (Fig. D27) | Joystick Rubber |
| | | | Joystick Lever |
| | | | Rear Plate Unit |
| | | | Rear Button Packing B |
| | | | Display Button |
| | | | Rear Button Packing A |
| | | | Fn2 Button |
| | | | Fn3 Button |
| | | | Rear Button Packing B |
| | | | Fn4 Button |
| 19 | LVF Unit, LVF Module | (Fig. D28) | Screw (i) x 3 |
| | | | Convex x 2 |
| | | | LVF Unit |
| | | | Locking tab x 3 |
| | | | Tape |
| | | | LVF Heat Sink |
| | | | Heat Radiation Pad |
| | | | LVF Module |
| 20 | Strap Unit, Front Dial Unit | (Fig. D29) | Screw (j) x 1 |
| | | | Screw (k) x 1 |
| | | | Convex x 2 |
| | | | Top Plate L |
| | | | Strap Unit |
| | | | Strap Holder Cushion |
| | | | Screw (l) x 1 |
| | | | Convex x 2 |
| | | | Remote Jack Holder |
| | | | Remote Cover |
| | | (Fig. D30) | Screw (m) x 2 |
| | | | Tape |
| | | | Flex x 2 |
| | | | Convex x 3 |
| | | | Front Dial Unit |
| 21 | Strap Unit, EXT. Mic P.C.B. | (Fig. D31) | Screw (n) x 2 |
| | | | Top Plate R |
| | | | Screw (o) x 1 |
| | | | Screw (p) x 1 |
| | | | Strap Unit |

| | | |
|----|--|--------------------------|
| | | Strap Holder Cushion |
| | | Mic Jack Cover |
| | | (Fig. D32) Screw (q) x 2 |
| | | EXT. Mic P.C.B. |
| | | Mic Jack Holder |
| 22 | Image Sensor Unit | (Fig. D33) Screw (s) x 3 |
| | | Image Sensor Unit |
| | | Adjust Spring x 3 |
| 23 | Shutter Unit, Shutter Holder | (Fig. D34) Screw (s) x 3 |
| | | Screw (t) x 2 |
| | | Shutter Unit |
| | | Shutter Holder |
| 24 | LPSW FPC | (Fig. D35) Screw (u) x 2 |
| | | Lens Release FPC Plate |
| | | LPSW FPC |
| 25 | B Mount Ring, B Mount, Mount Spring, Lens Connector | (Fig. D36) Screw (v) x 1 |
| | | Screw (w) x 1 |
| | | (Fig. D37) Screw (x) x 2 |
| | | Screw (y) x 2 |
| | | B Mount Ring |
| | | B Mount |
| | | Lens Lock Pin |
| | | Lens Lock Pin Spring |
| | | Mount Spring |
| | | Lens Connector |
| | | Mount Base |

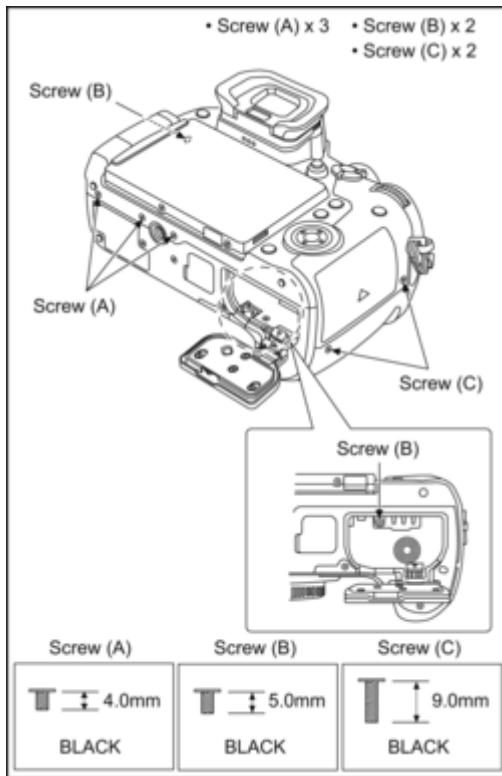
NOTE:

- When servicing and reassembling, remove the memory card and battery pack from the unit.
- Install the body cap to prevent garbage and dust except when it is necessary.
- Do not reuse the screws tightened to metal materials. Use new screws.

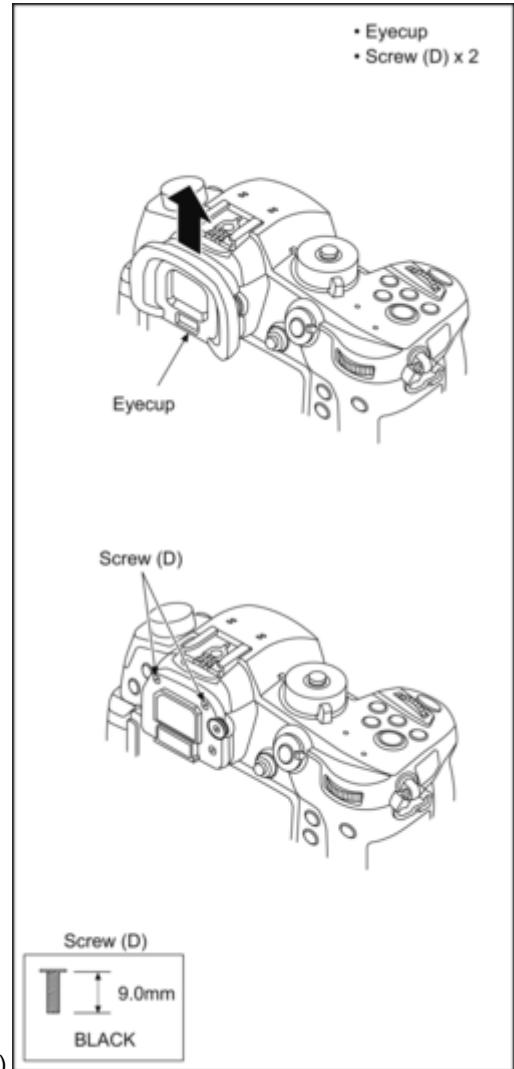
- Memory Card x 2
- Battery Pack

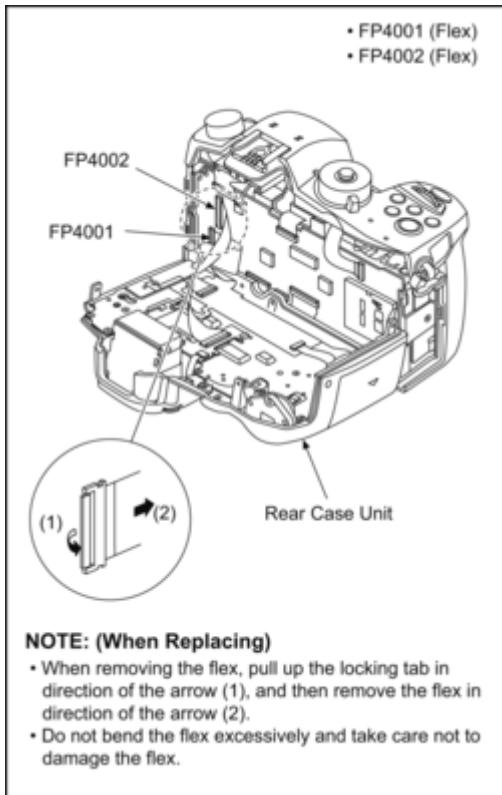


9.1.3.1 Removal of the Rear Case Unit

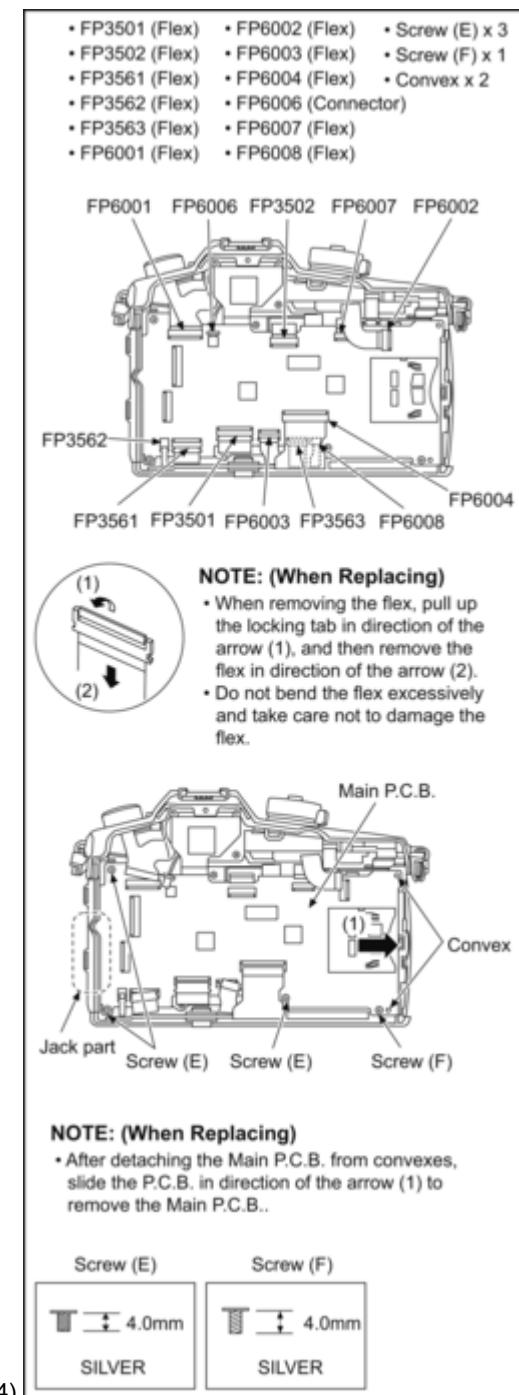


(Fig. D2)

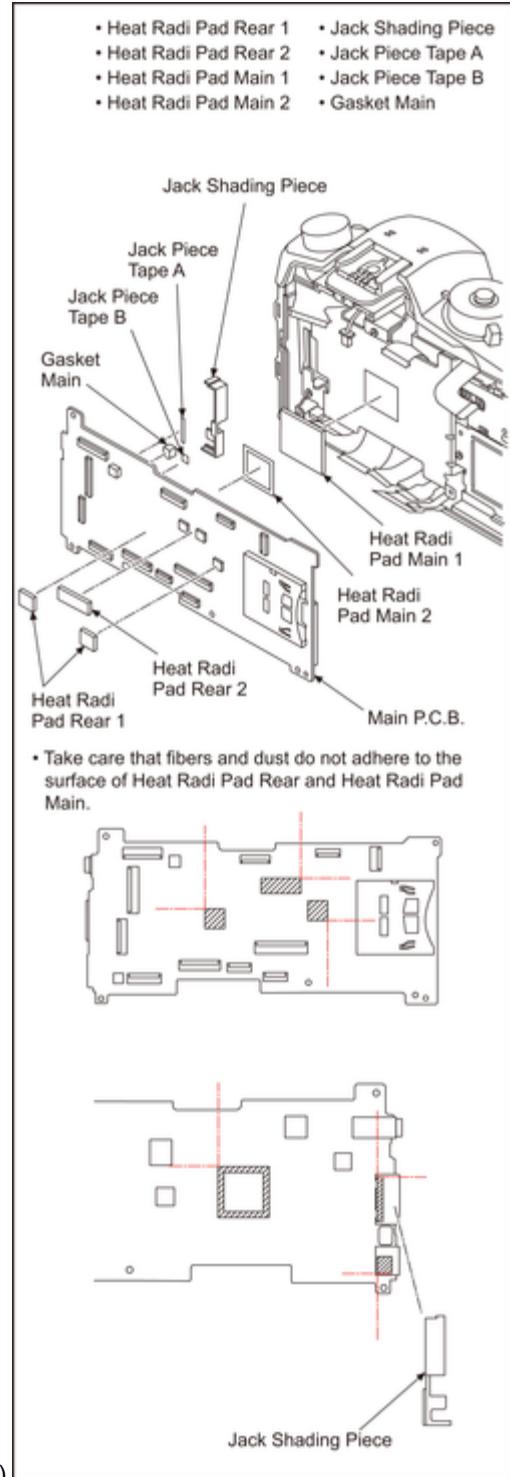




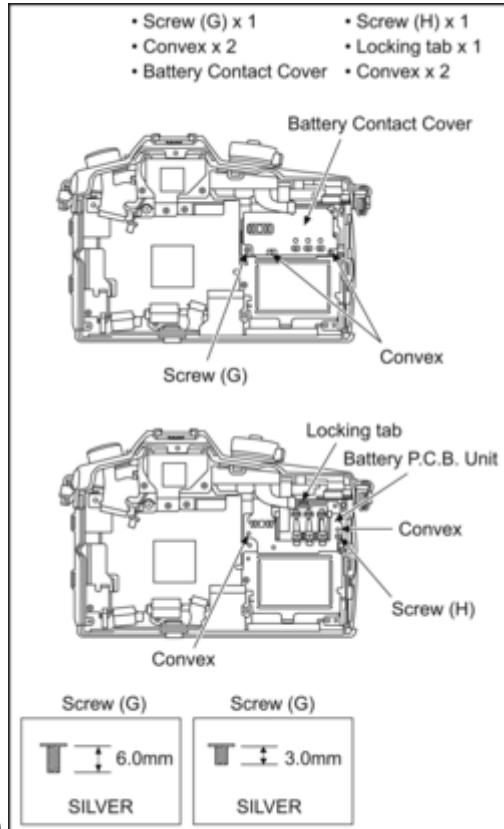
9.1.3.2 Removal of the Main P.C.B.



(Fig. D4)

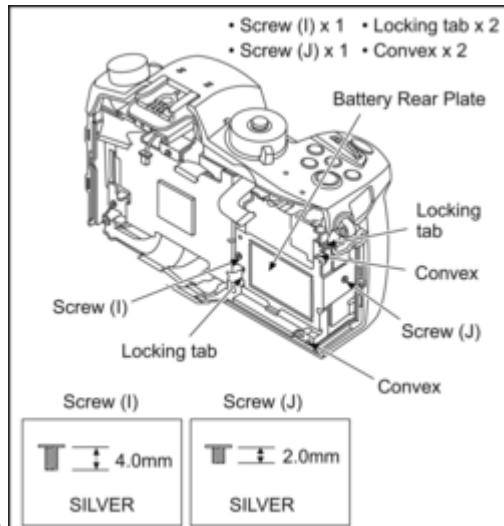


9.1.3.3 Removal of the Battery P.C.B. Unit



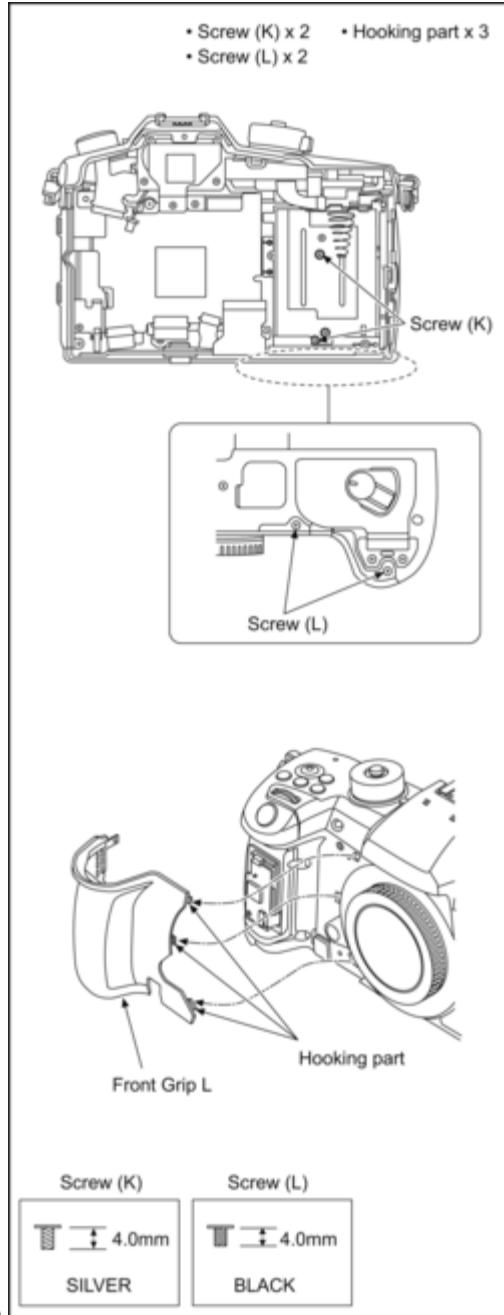
(Fig. D6)

9.1.3.4 Removal of the Battery Rear Plate



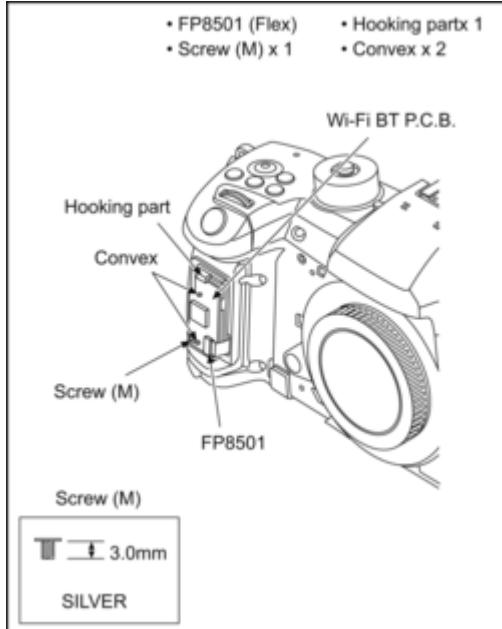
(Fig. D7)

9.1.3.5 Removal of the Front Grip L



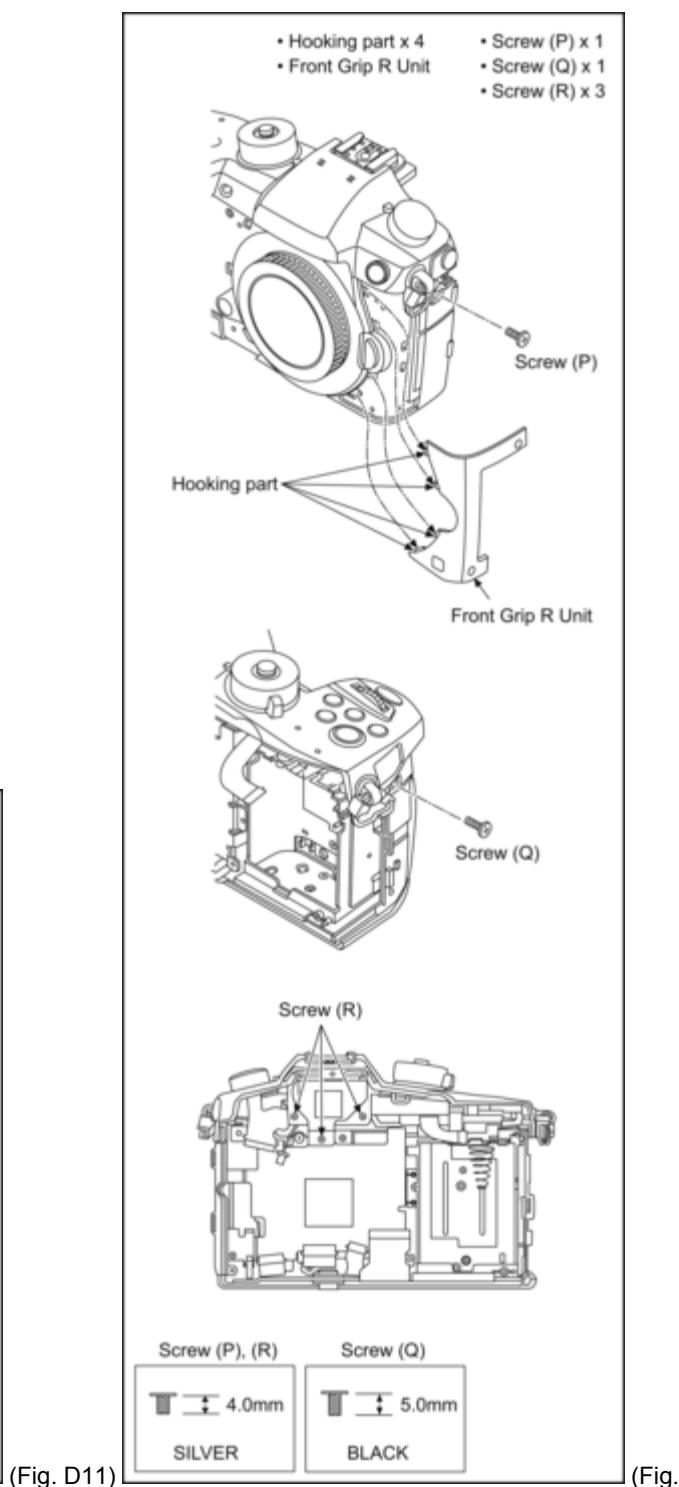
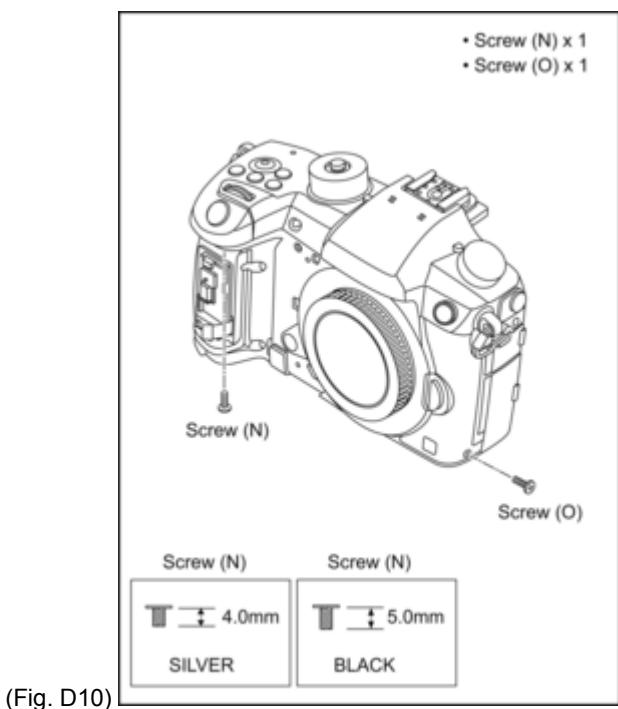
(Fig. D8)

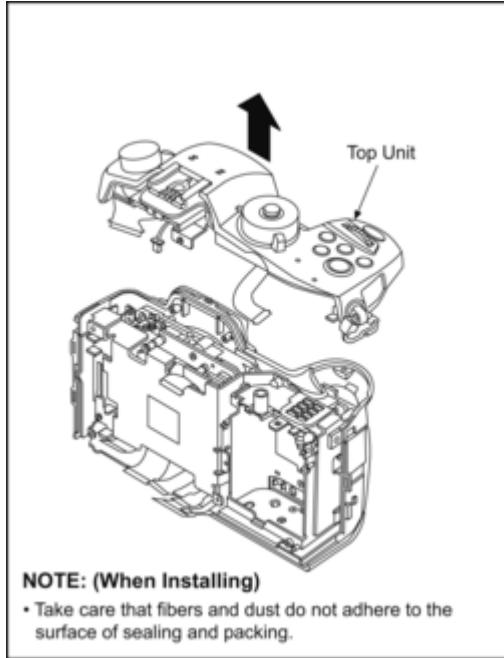
9.1.3.6 Removal of the Wi-Fi BT P.C.B.



(Fig. D9)

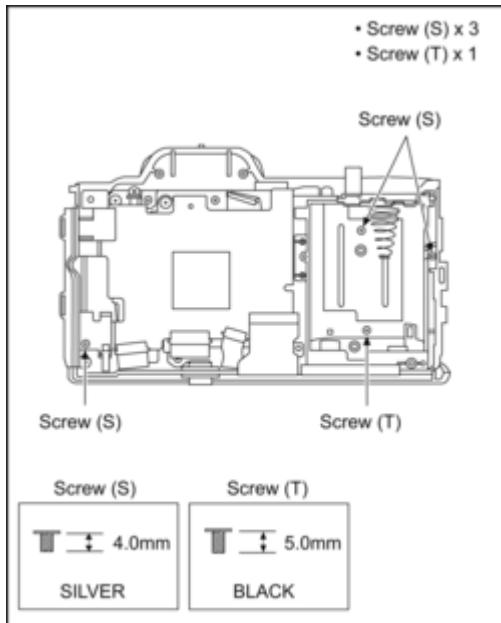
9.1.3.7 Removal of the Top Unit



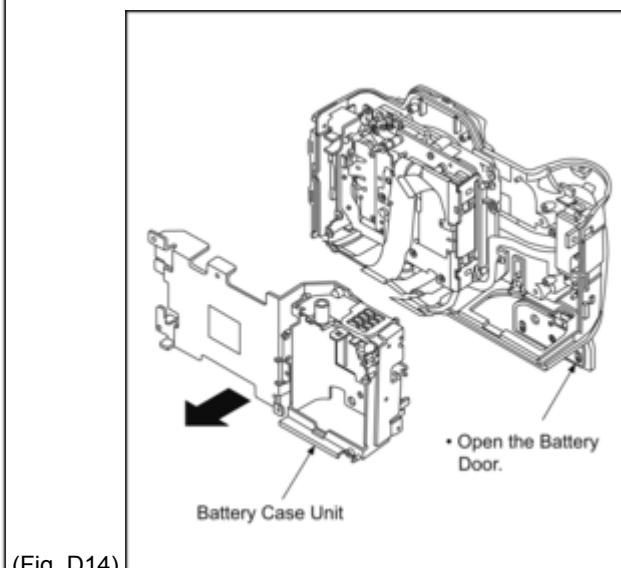


D12)

9.1.3.8 Removal of the Battery Case Unit

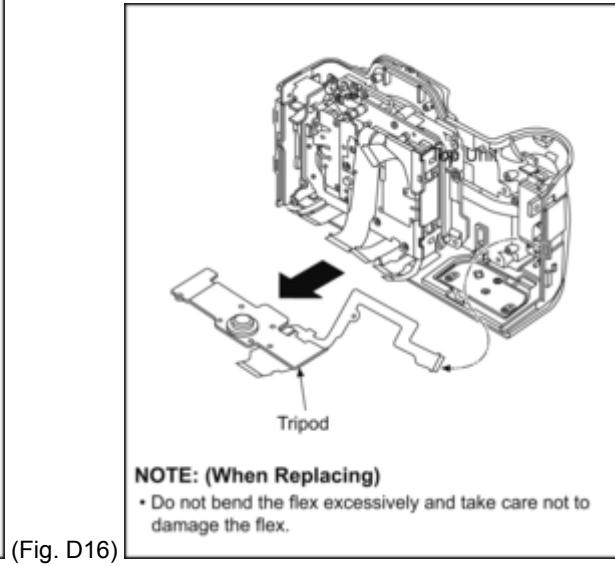
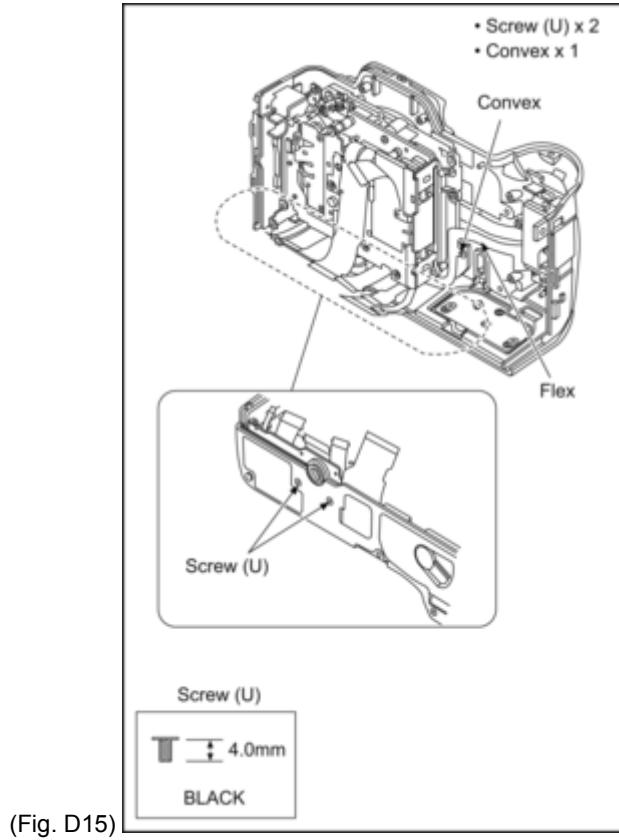


(Fig. D13)

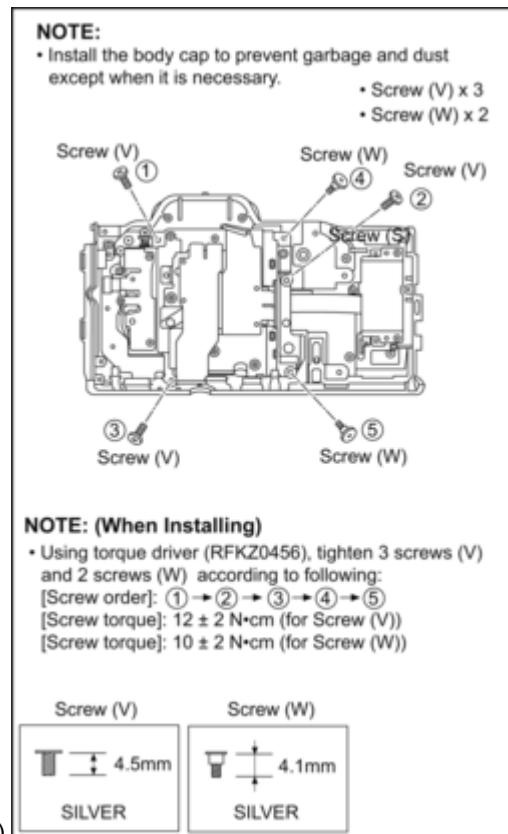


(Fig. D14)

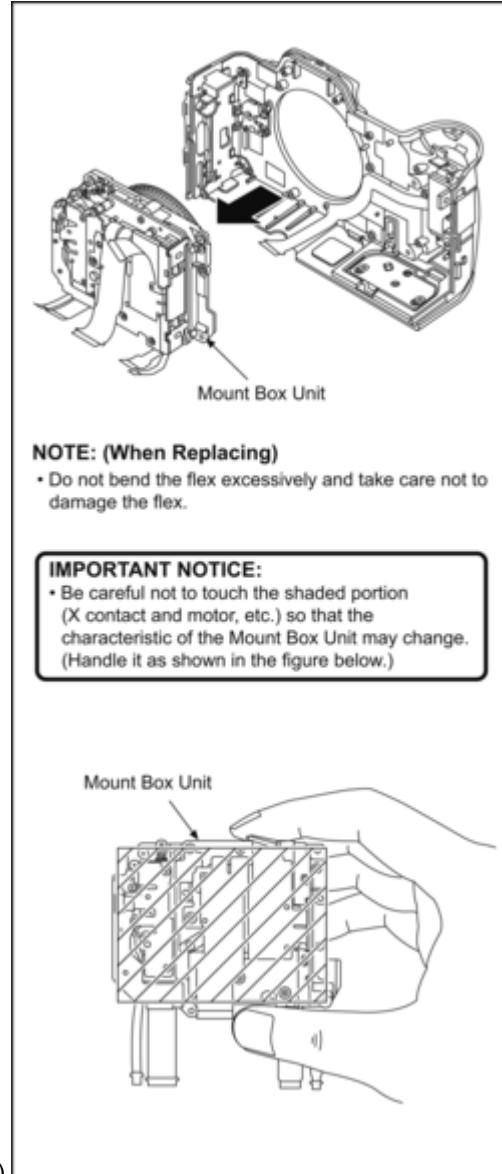
9.1.3.9 Removal of the Tripod



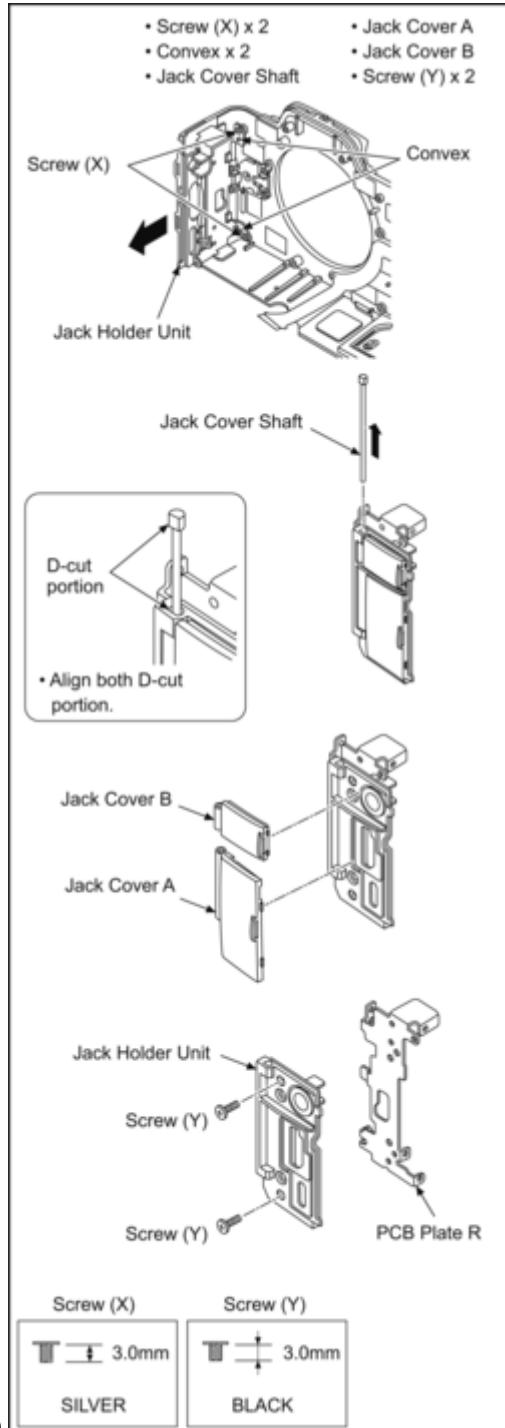
9.1.3.10 Removal of the Mount Box Unit



(Fig. D18)

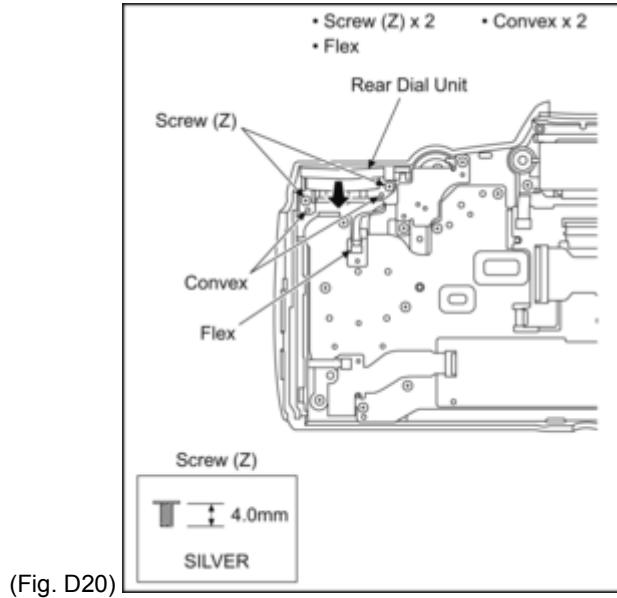


9.1.3.11 Removal of the Jack Holder Unit and PCB Plate R

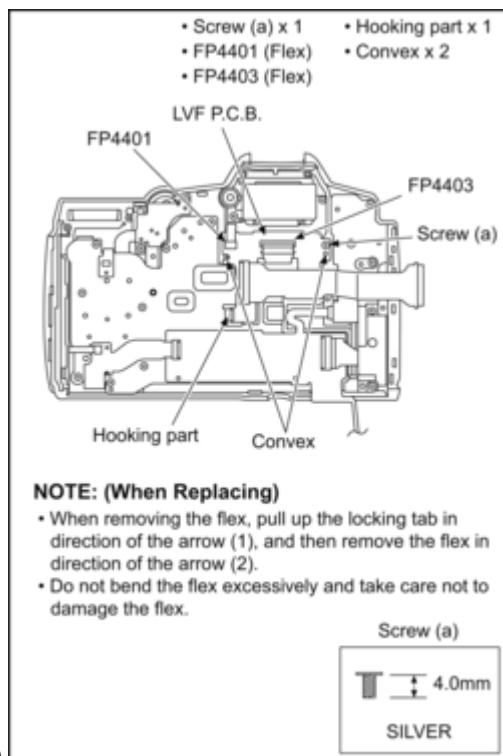


(Fig. D19)

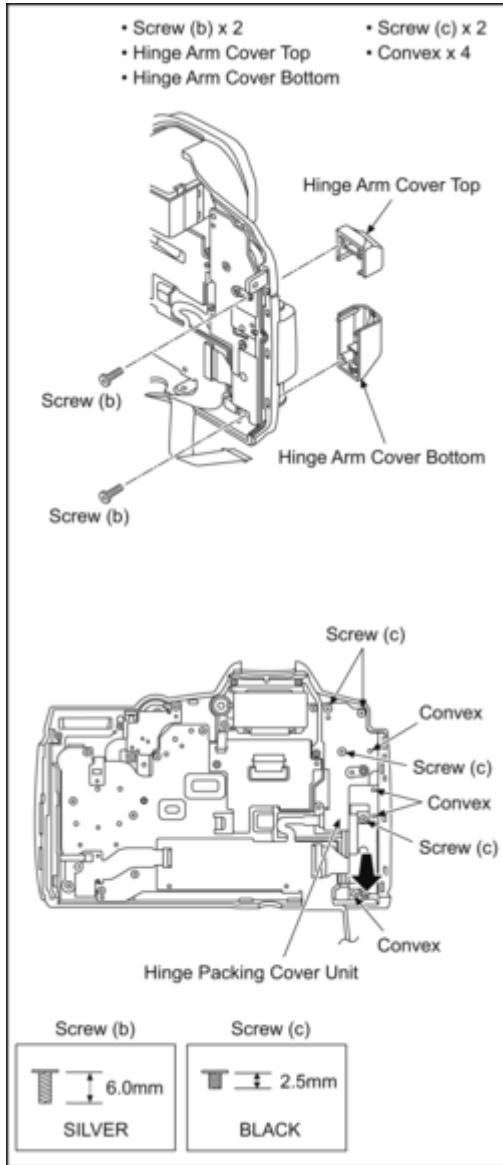
9.1.3.12 Removal of the Rear Dial Unit



9.1.3.13 Removal of the LVF P.C.B.

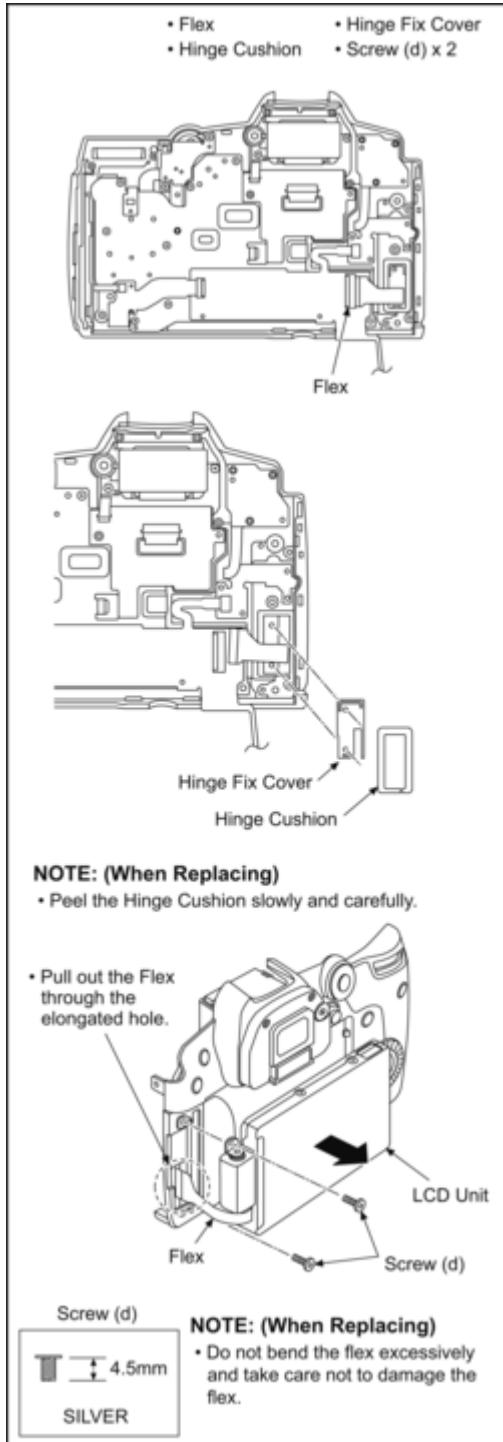


9.1.3.14 Removal of the Hinge Packing Cover Unit

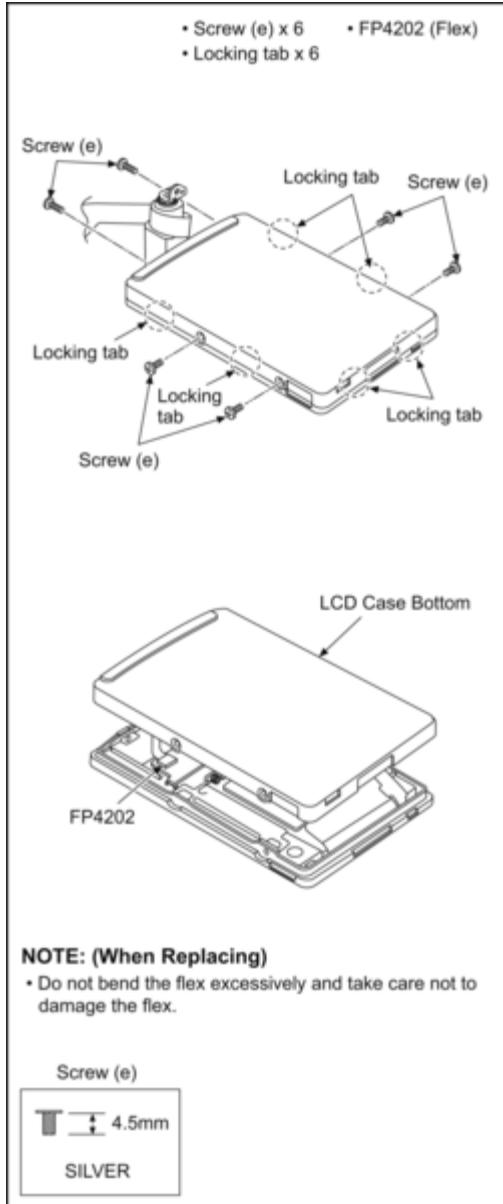


(Fig. D22)

9.1.3.15 Removal of the LCD Unit

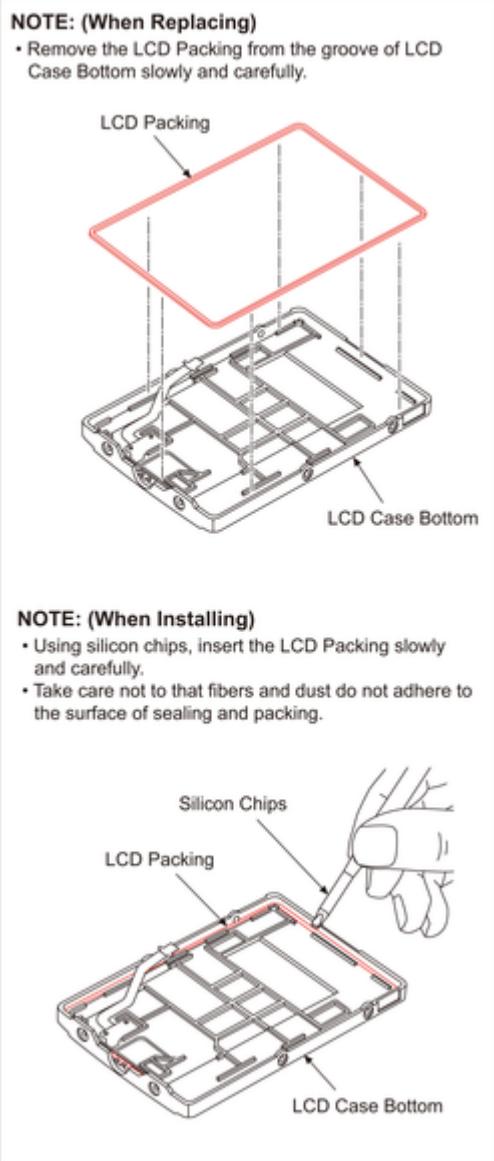


9.1.3.16 Removal of the LCD Case Bottom

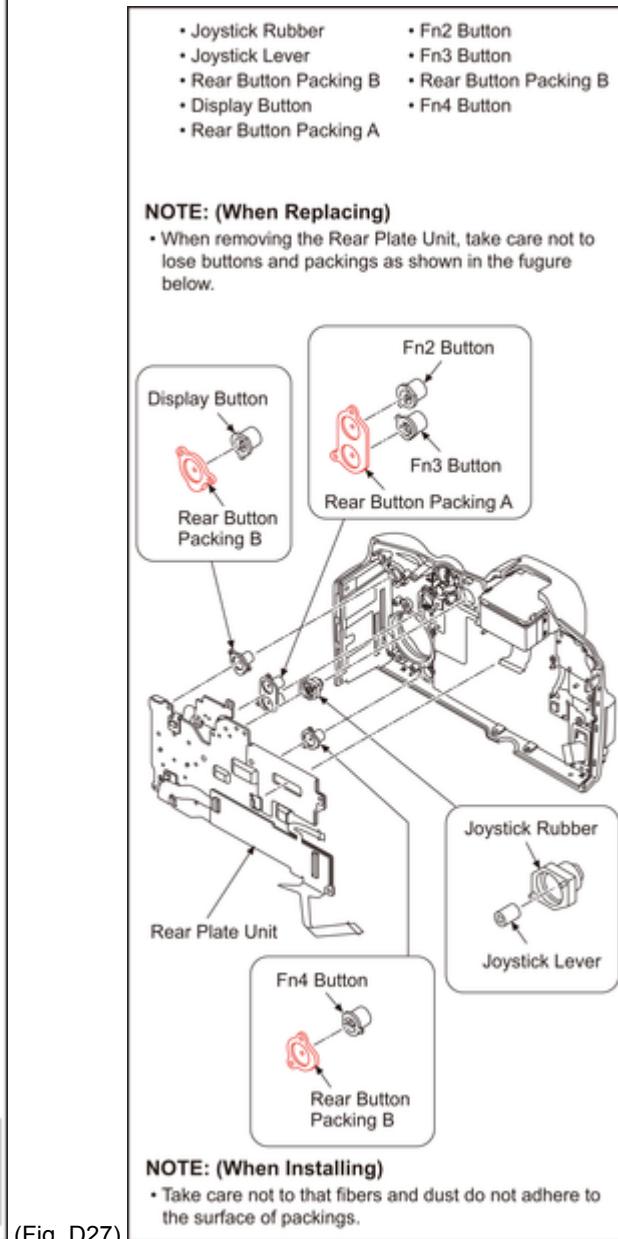
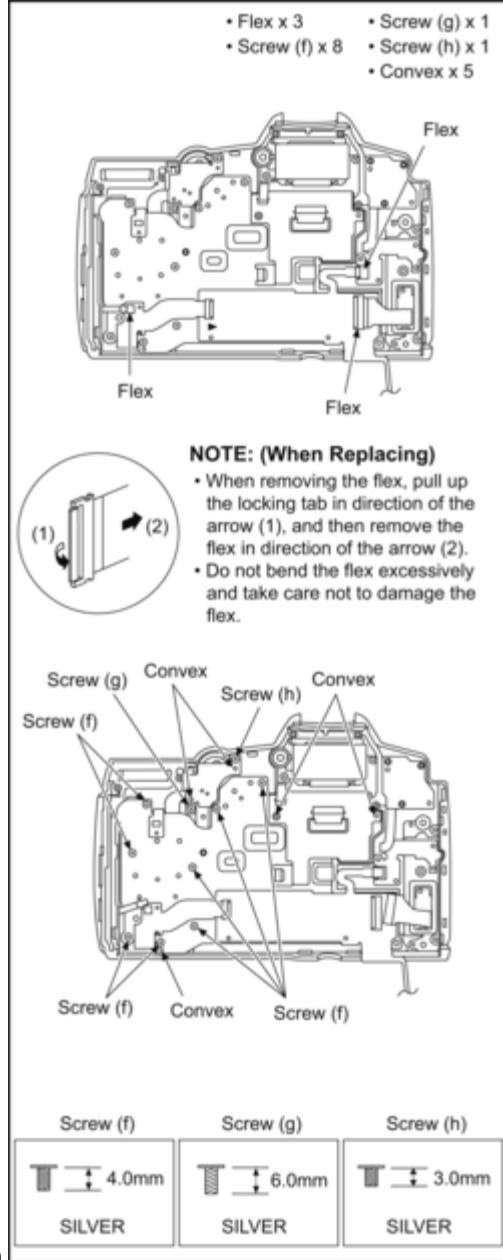


(Fig. D24)

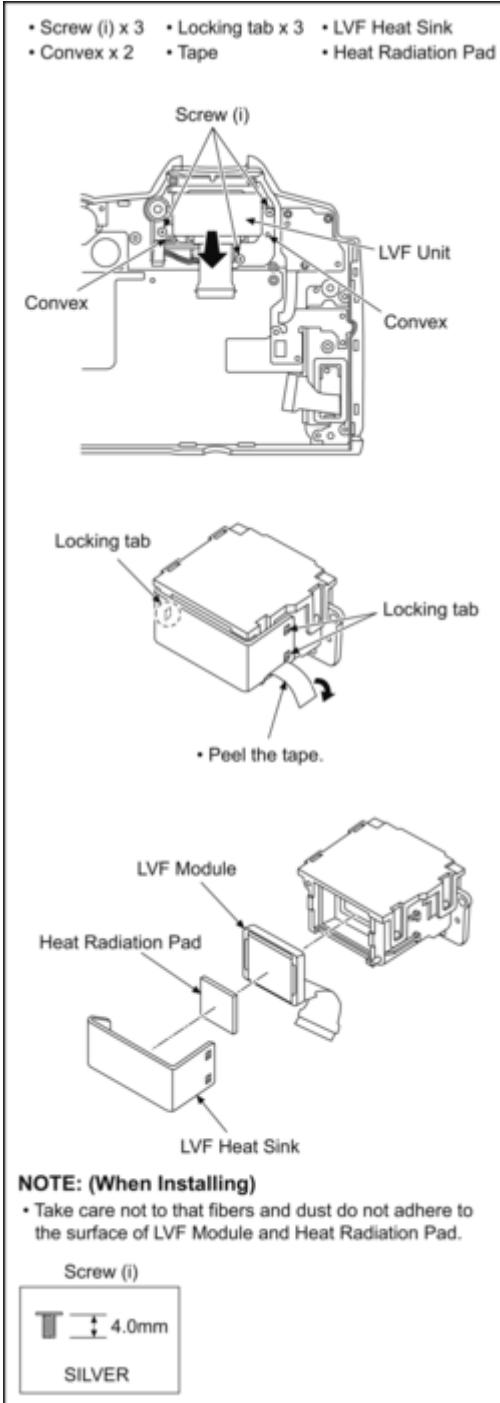
9.1.3.17 Removal of the LCD Packing



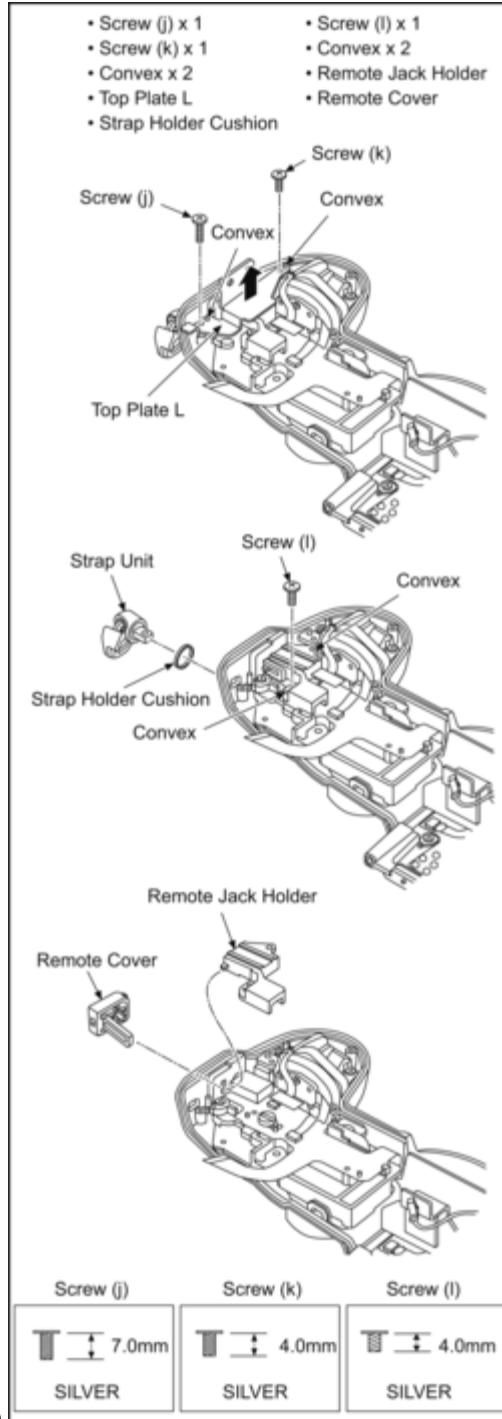
9.1.3.18 Removal of the Rear Plate Unit



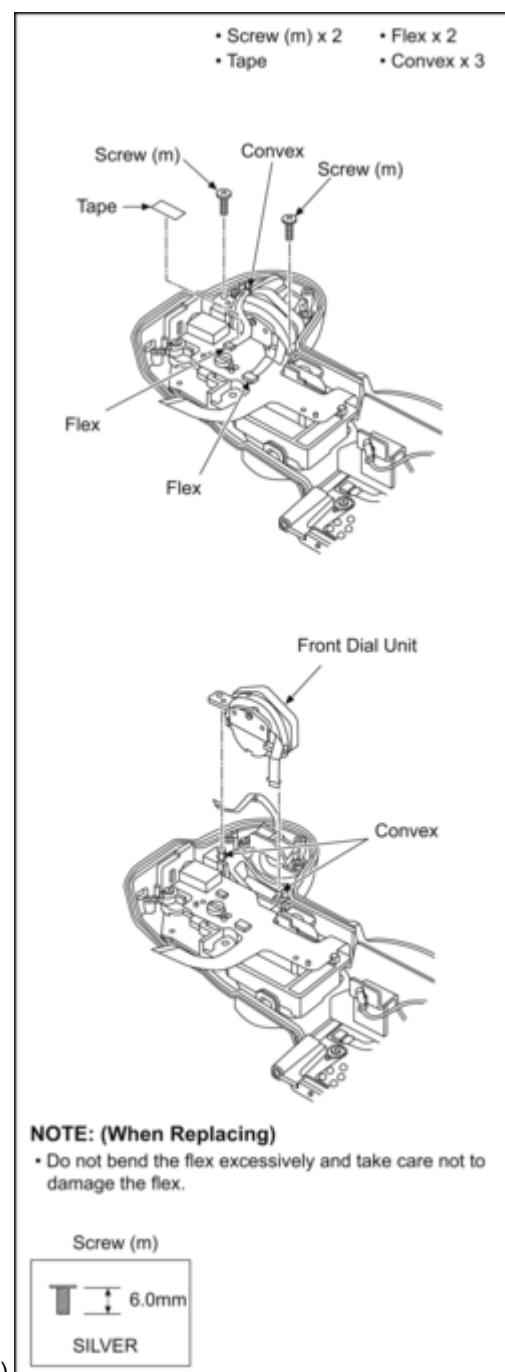
9.1.3.19 Removal of the LVF Unit and LVF Module



9.1.3.20 Removal of the Strap Unit and Front Dial Unit

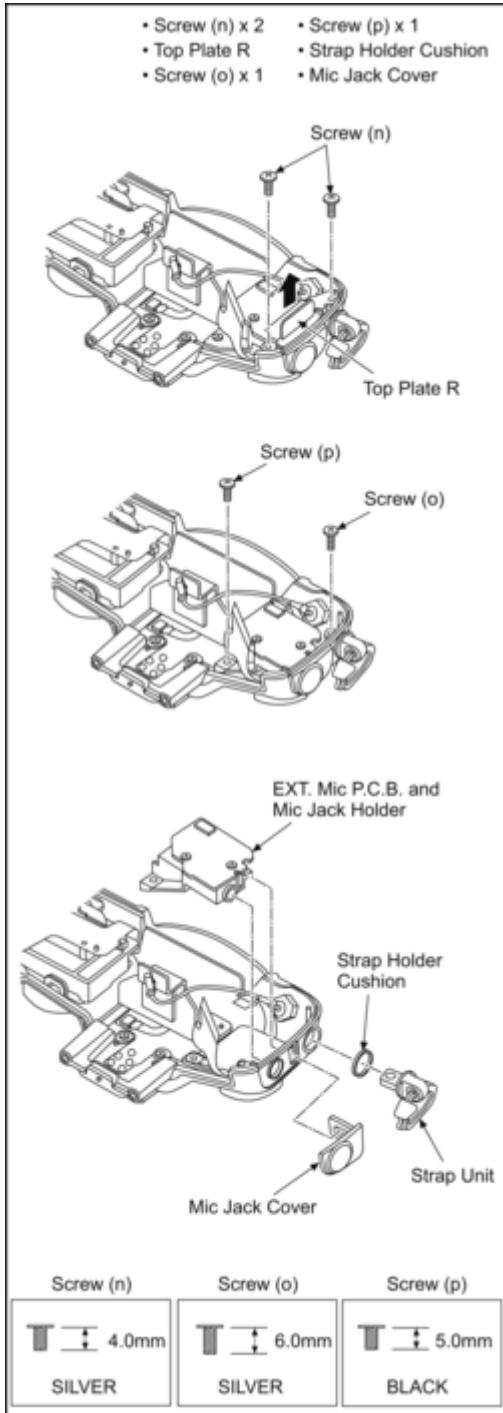


(Fig. D29)

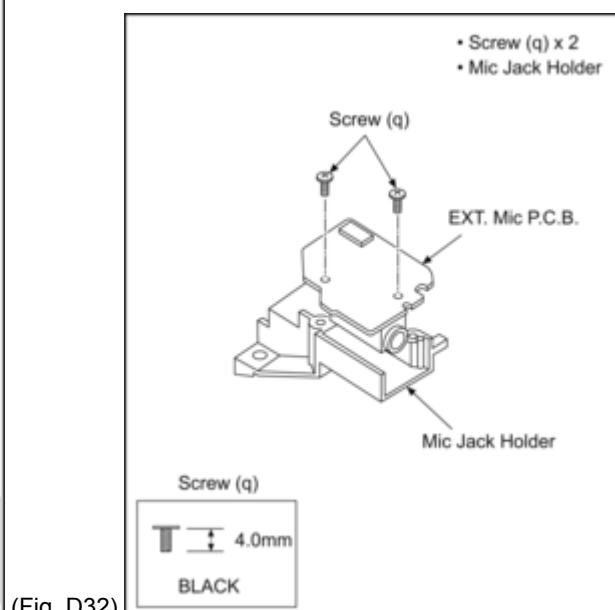
**NOTE: (When Replacing)**

- Do not bend the flex excessively and take care not to damage the flex.

9.1.3.21 Removal of the Strap Unit and EXT. Mic P.C.B.

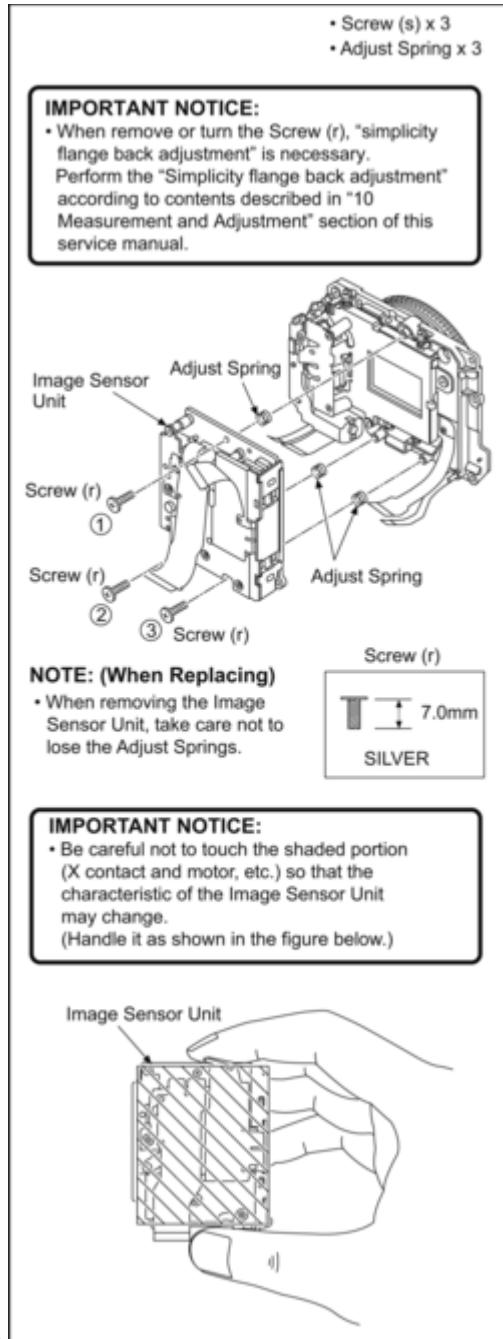


(Fig. D31)

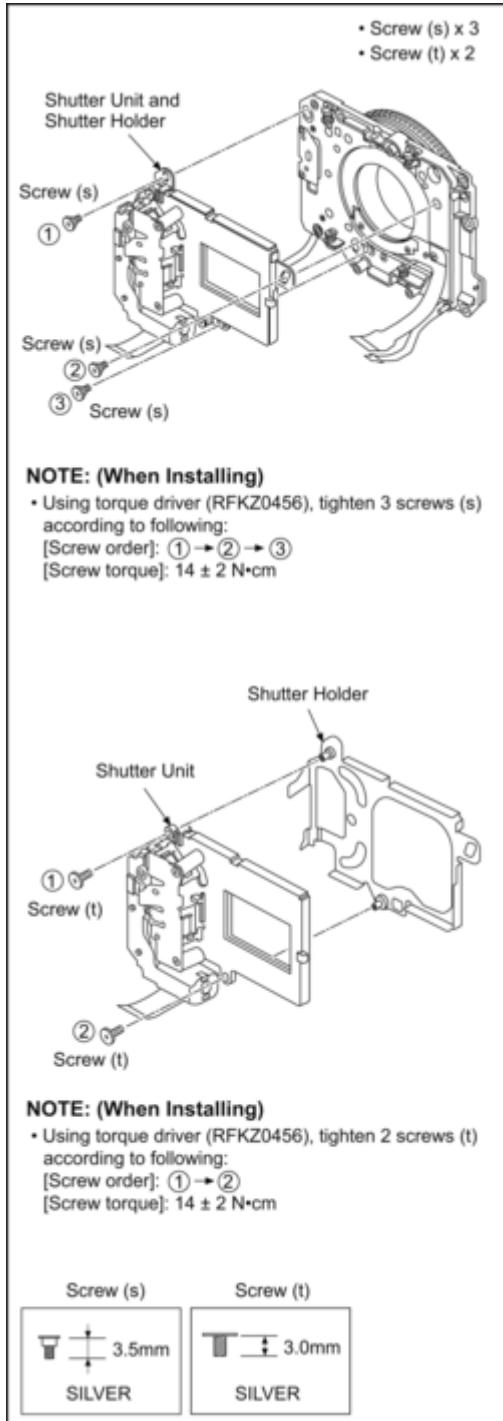


(Fig. D32)

9.1.3.22 Removal of the Image Sensor Unit

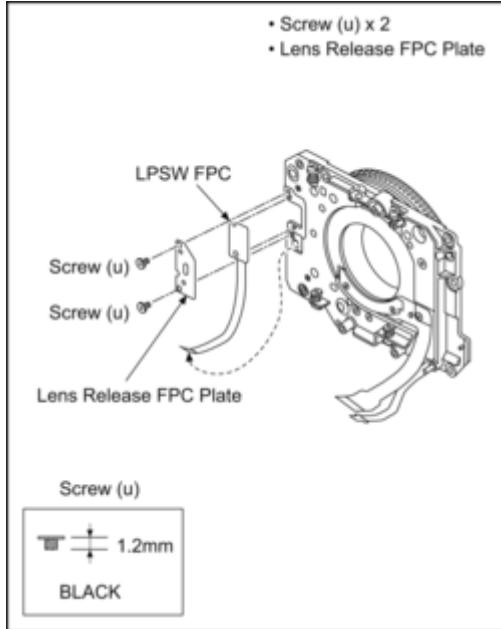


9.1.3.23 Removal of the Shutter Unit and Shutter Holder



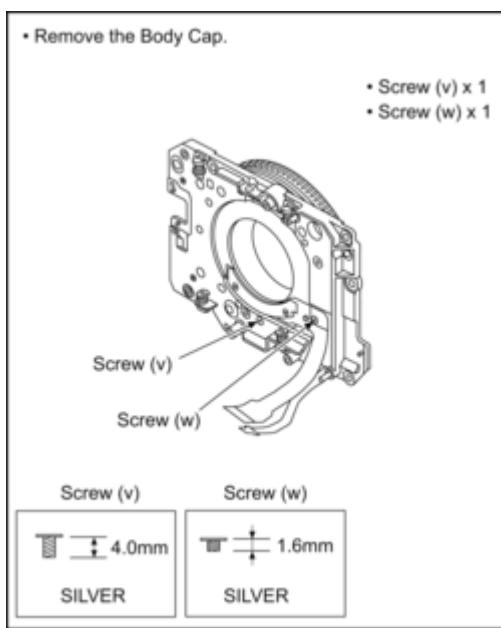
(Fig. D34)

9.1.3.24 Removal of the LPSW FPC

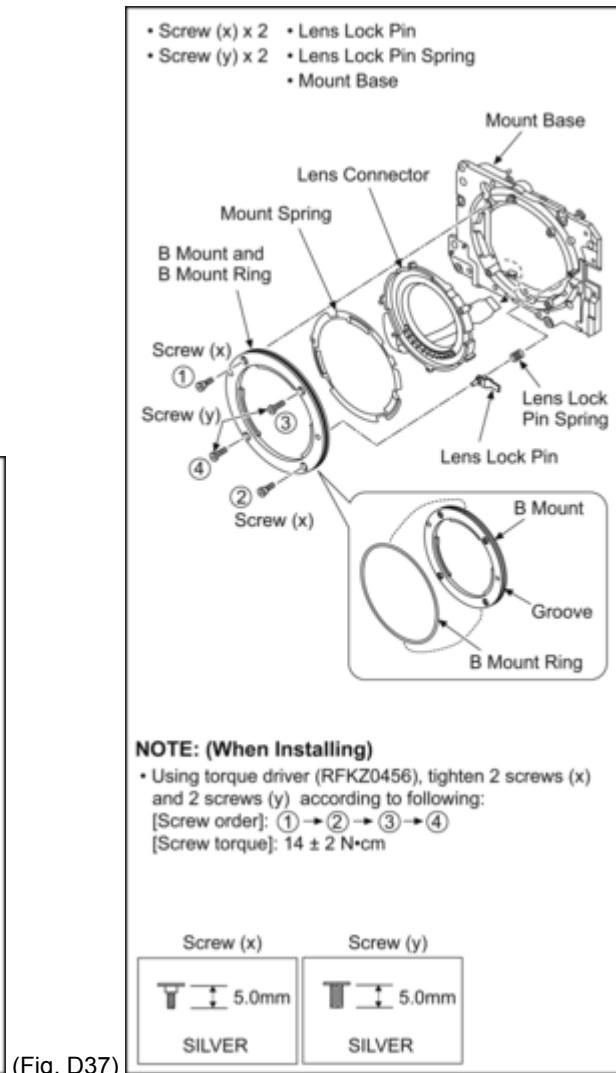


(Fig. D35)

9.1.3.25 Removal of the B Mount Ring, B Mount, Mount Spring and Lens Connector



(Fig. D36)



(Fig. D37)

NOTE: (When Installing)

NOTE: (When Installing)

- Using torque driver (RFKZ0456), tighten 2 screws (x) and 2 screws (y) according to following:
[Screw order]: ① → ② → ③ → ④
[Screw torque]: $14 \pm 2 \text{ N}\cdot\text{cm}$

Make sure to confirm the following points when installing:

- The screw is tightened enough.
- Installing conditions are fine. (No distortion, no abnormal-space.)
- No dust and/or dirt on image sensor surface. (live mos)
- LCD image is fine. (No dust and/or dirt on it, and no gradient images.)

9.2 Disassembly and Assembly Procedure for the Lens

Please refer to the following service manuals about Disassembly and Assembly of bundled lenses.

- H-FS12060E/GK/PP: Order No.[DSC1604008CE](#)
- H-ES12060PP/E/GK: Order No.[DSC1702007CE](#)
- H-HSA12035PP/E/GK: Order No.[DSC1703008CE](#)

10 Measurements and Adjustments

10.1 Matrix Chart for Replaced Part and Necessary Adjustment

The relation between Replaced part and Necessary Adjustment is shown in the following table.

When concerned part is replaced, be sure to achieve the necessary adjustment(s).

As for Adjustment condition/procedure, consult the “Adjustment Manual” which is available in Adjustment software.

NOTE:

After adjustments have been terminated, make sure to achieve “Initial Settings”.

After updates it to the latest firmware, the adjustment is executed.

| FLAG | Adjustment Item | Replacing Parts | | | | | | | | |
|-------------------------|---|---|--|-----------------------|------------------------|-------------------|----------------------|--------------------------------|-------------------------------|-------------------------------|
| | | Main P.C.B/ Flash-ROM (IC2003) (*4) | Main P.C.B/ (When written the Backup data) | VENUS ENGINE (IC2001) | Image sensor unit (*1) | Shutter unit (*3) | G Sensor (IC6301) | Eye sensor (Rear Case Unit) | BIS gyro (Front Case Unit) | Lens connector/ Mount base |
| AF SS1 SS3 BIS | Sensor Area / BIS frame adjustment | ○ | --- | --- | ○ | ○ | --- | --- | ○ | ○ |
| --- | Simplicity flange back adjustment (*2) | --- | --- | --- | ○ | ○ | --- | --- | ○ | ○ |
| PZM | VENUS-ZOOM inspection | ○ | ○ | ○ | --- | --- | --- | --- | --- | --- |
| ISO/ SEN | ISO sensitivity adjustment | ○ | --- | --- | ○ | --- | --- | --- | --- | --- |
| SAT | Offset gain adjustment | ○ | --- | --- | ○ | --- | --- | --- | --- | --- |
| WBL | WB (Low color temperature) adjustment (*5) | ○ | --- | --- | ○ | --- | --- | --- | --- | --- |
| WBM | WB (standard color temperature) adjustment (*5) | ○ | --- | --- | ○ | --- | --- | --- | --- | --- |
| SHT | Shutter adjustment | ○ | --- | --- | --- | ○ | --- | --- | --- | --- |
| WKI | IMAGE SENSOR white scratch compensation | ○ | --- | --- | ○ | --- | --- | --- | --- | --- |
| BKI | IMAGE SENSOR black scratch compensation | ○ | --- | --- | ○ | --- | --- | --- | --- | --- |
| EYE | Eye Sensor sensitivity | ○ | --- | --- | --- | --- | --- | ○ | --- | --- |
| AA1 AA2 AA3 | G sensor adjustment (*6) | ○ | ○ | --- | --- | --- | ○ | --- | --- | --- |
| GYR | Gyro sensitive / DC offset adjustment (*7) | ○ | ○ | --- | --- | --- | --- | --- | ○ | --- |
| SH2 | Electronic first shutter adjustment | ○ | --- | --- | --- | ○ | --- | --- | --- | --- |

***1 NOTE: (About Image Sensor Unit)**

When remove or turn the flange back adjustment screw, “Simplicity flange back adjustment” *2 is necessary.

***2 NOTE: (About Simplicity flange back adjustment)**

When remove or turn the flange back adjustment screw, “Simplicity flange back adjustment” is necessary.

When remove the flange back adjustment screw, please don't reuse it. Use new one.

[Abstract of “Simplicity flange back adjustment”]

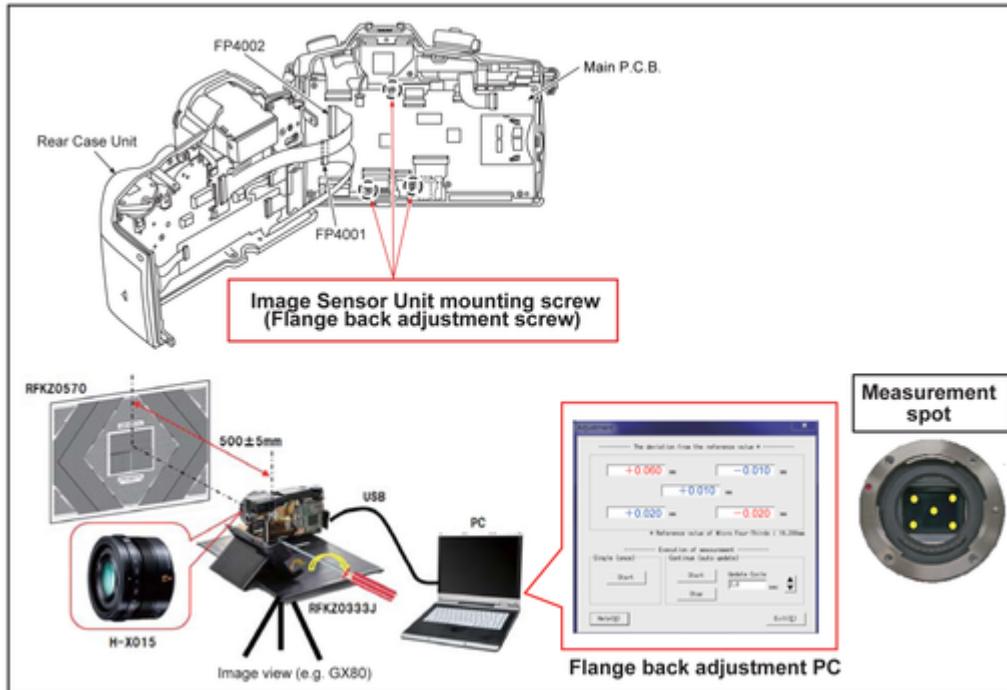
Set the camera in front of the chart and set center of the chart picture on LCD.

When execute software, camera works AF on 5 spots automatically.

Calculate flange back value at 5 spots and display on PC screen.

Adjust flange back value within the specification by the 3 screws.

The details are refer to adjustment manual in adjustment software.



The image sensor of this camera cannot be fixed when power is OFF.

That is why, image sensor adjustment have to do power ON after assembly (state of above).

Stand-alone mount part cannot adjust.

*3 NOTE: (When exchange the Shutter Unit)

After replacing the shutter unit, the shutter unit data has to be stored to the Flash-ROM (IC2003) on the Main P.C.B..

The shutter unit supplied as service parts has affix the label of own configure data.

By inputting second line to third line of these data into the adjustment software and writing these data to Flash-ROM (IC2003),

the shutter adjustment becomes needless.

In addition, the adjustment software can read data encoded to QR Code by using WEB camera with a close-up function.

After that, proceed the main body adjustment.

The details are refer to adjustment manual in adjustment software.

*4 NOTE: (When exchange the Main P.C.B. and/or Flash-ROM (IC2003))

After exchanging the “Main P.C.B. and/or Flash-ROM”, first, execute “Initial Settings” to determine the model suffix, and then, cancel the “Initial Settings” and proceed the adjustments.

When the adjustment data is rewrite without “Initial Settings” execution, may not be able to choose desire model suffix.

During the “Initial Settings” (When the model suffix select screen is displayed), do not power off or do not remove the battery.

* Power down during “Initial Settings” may cause not be able to choose desire model suffix.

When cannot be repaired in the IC exchange, and in the case of performing the “Main P.C.B.” exchange, carry out any of following.

- When it can turn on power, and the adjustment software can communicate with the camera body:

Before replacing, proceed the Flash-ROM (IC2003) data backup from the unit.

After replacing, overwrite the Flash-ROM (IC2003) data with backup data from the unit.

After that, proceed the main body adjustment. (Almost adjustment/inspection items can be omitted.)

Refer to the adjustment instruction in the adjustment software for details.

2. When it cannot turn on power, or the adjustment software cannot communicate with the camera body:
Almost readjustment fully are necessary.
The details are refer to adjustment manual in adjustment software.

***5 NOTE: (When White Balance (WBL/WBM) adjustment)**

After change to WB adjustment mode for service with software, the adjustment is executed.

After adjusting the AWB adjustment, to cancel the WB adjustment mode for service.

The details are refer to adjustment manual in adjustment software.

***6 NOTE: (About the G sensor adjustment)**

Offset adjustment for built in electronic level.

The details are refer to adjustment manual in adjustment software.

***7 NOTE: (About Gyro sensitive/DC offset adjustment)**

Gyro adjustment for BIS. Put to a normal state and execute automatic adjustment.

The details are refer to adjustment manual in adjustment software.

About the 3D interchangeable lens (H-FT012) correspondence

This unit has no special structure (circuit or part) for the 3D interchangeable lens correspondence, only by software is processed the 3D interchangeable lens correspondence.

Therefore, if taken with other lenses as usual, the 3D interchangeable lens is no problem for operation.

11 Maintenance

11.1 Notice in External Cleaning

11.1.1 About the Body

NOTE:

Before cleaning the camera, remove the battery and/or disconnect power plug from the outlet.
Also, remove the memory card and lens unit.

11.1.1.1 Dust/Dirt on the Outer Casing Part (S)

1. Blow off the dust first, then sweep out the dust from narrower spaces with soft cleaning brush.
2. Wipe up fingerprint and/or dirt on the Outer casing part with the dry fuzz-free cloth.

11.1.1.2 Dust/Dirt on the Image Sensor

1. Blow off the dust on the surface of the Image sensor with the Blower.
 - Keep the Mount Facing down condition towards to floor when cleaning.
 - Do not put the Blower further inside than the lens mount.
 - Be careful not to blow too strongly.
2. Wipe off the dirt on the image sensor surface with Lens Cleaning Kit (BK)(VFK1900BK).

11.1.1.3 About the LVF Unit

[Procedures]

1. Refer to the "Disassembly & Assembly Instructions" and disassemble the LVF Unit.
2. Blow off the dust of LVF Lens Unit with a blower.
3. Wipe off the dirt on the surface of glasses with Lens Cleaning Kit (VFK1900BK), if necessary.

11.1.2 About the Lens

Please refer to the following service manuals about Maintenance of bundled lenses.

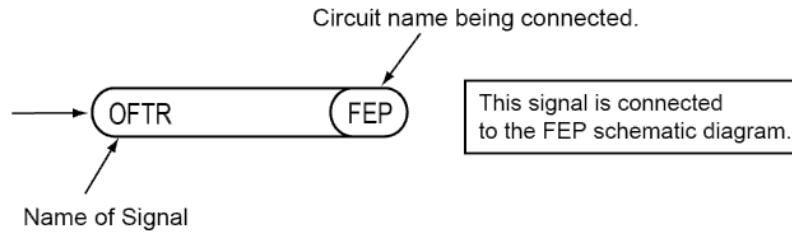
- H-FS12060E/GK/PP: Order No.[DSC1604008CE](#)
- H-ES12060PP/E/GK: Order No.[DSC1702007CE](#)
- H-HSA12035PP/E/GK: Order No.[DSC1703008CE](#)

Model No. : DC-GH5/GH5M/GH5L/GH5A Schematic Diagram Note

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. Use the parts number indicated on the Replacement Parts List .
4. Indication on Schematic diagrams:



5. It might be taking time for display and/or access of the Schematic Diagrams & P. C. B. having the heavy data volume.

Model No. : DC-GH5/GH5M/GH5L/GH5A Parts List Note

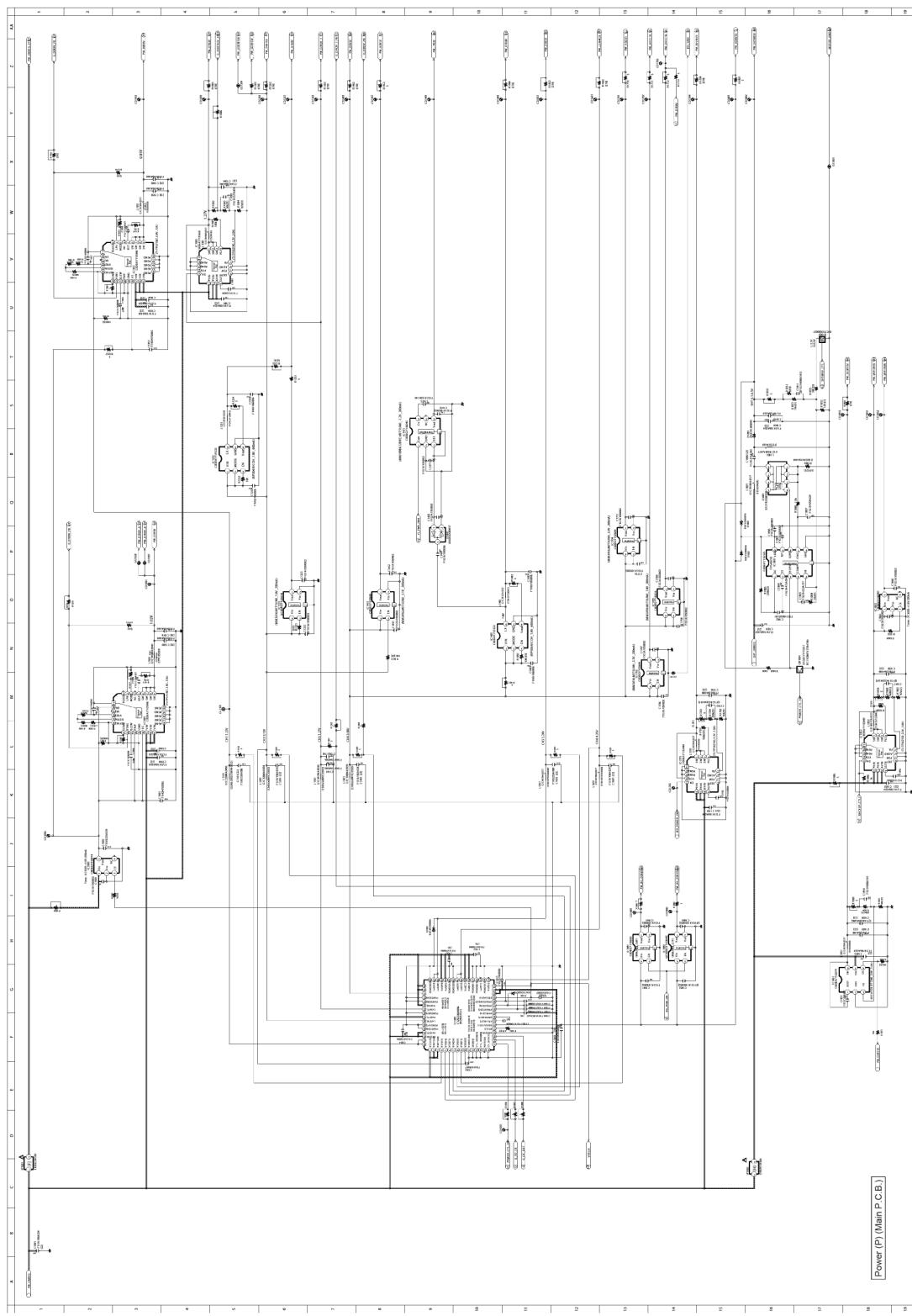
Note: 1. * Be sure to make your orders of replacement parts according to this list.
2. **IMPORTANT SAFETY NOTICE**
Components identified with the mark  have the special characteristics for safety.
When replacing any of these components, use only the same type.
3. Unless otherwise specified,
All resistors 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.
5. Supply of CD-ROM or DVD, in accordance with license protection, is allowable as replacement parts
only for customers who accidentally damaged or lost their own.

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

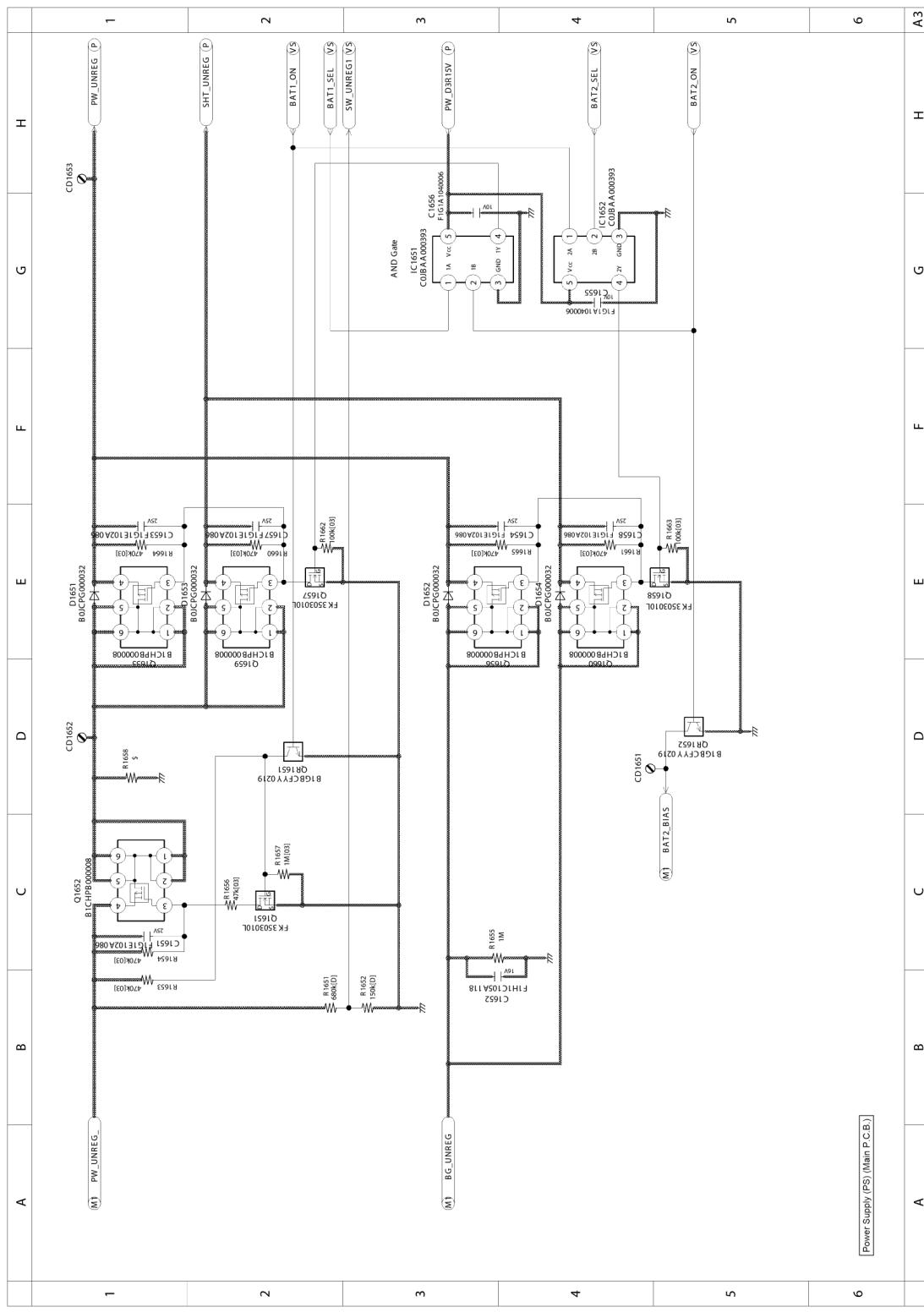
Definition of Parts supplier:

1. Parts marked with [INBD] in the remarks column are supplied from AVC-IMAGING.
Others are supplied from PAVCX.

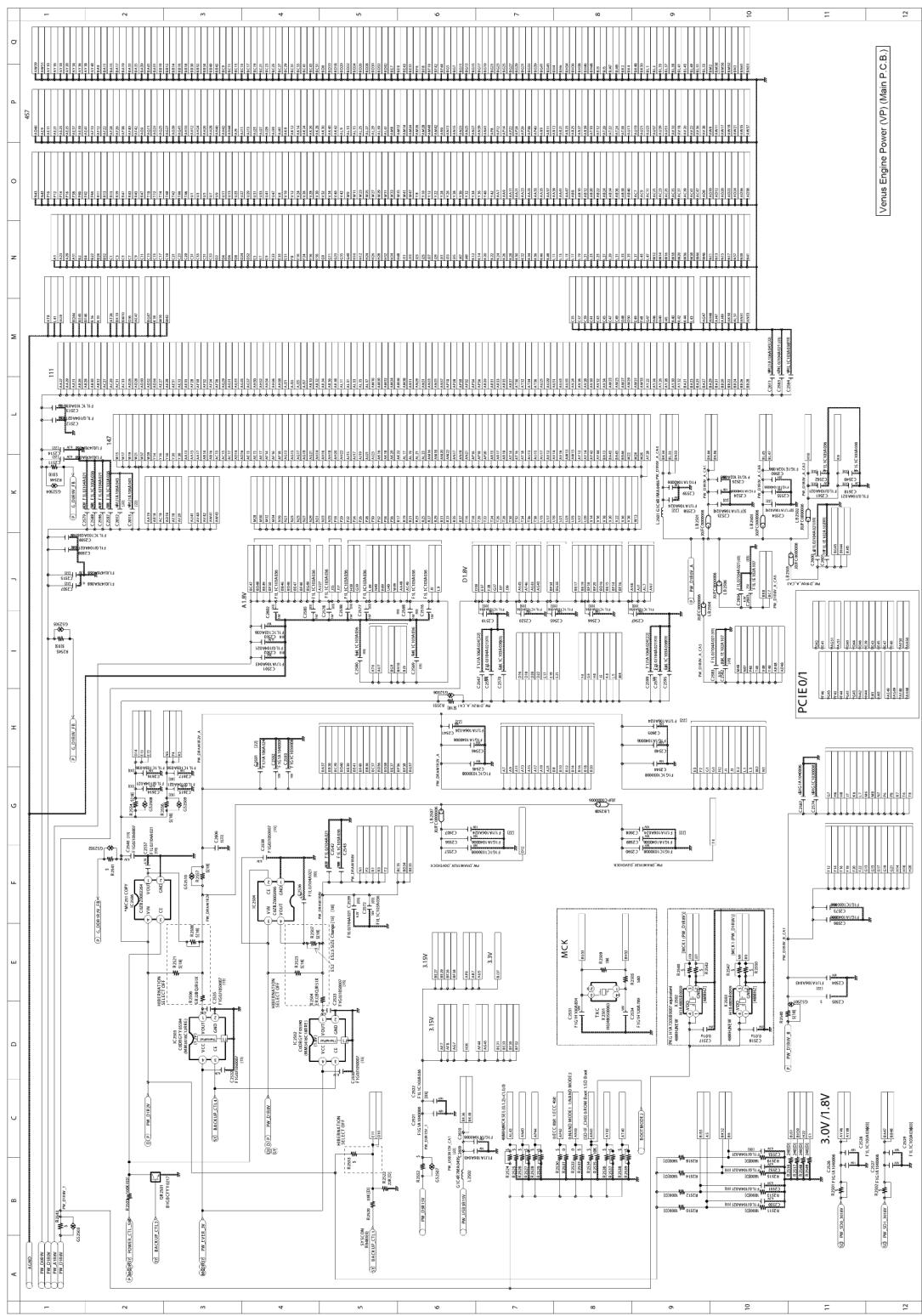
Model No. : DC-GH5/GH5M/GH5L/GH5A Power (P) (Main P.C.B.)



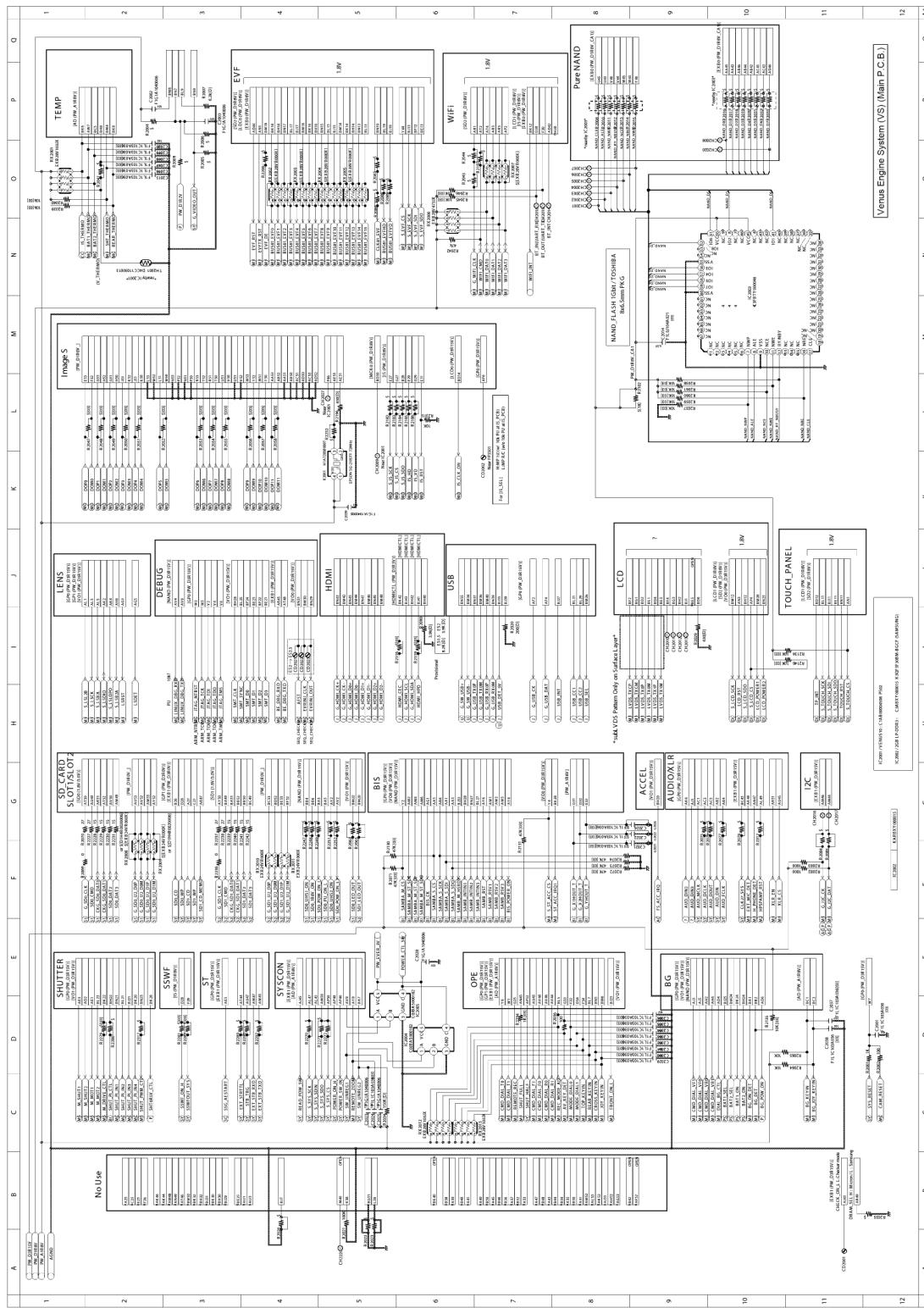
Model No. : DC-GH5/GH5M/GH5L/GH5A Power Supply (PS) (Main P.C.B.)



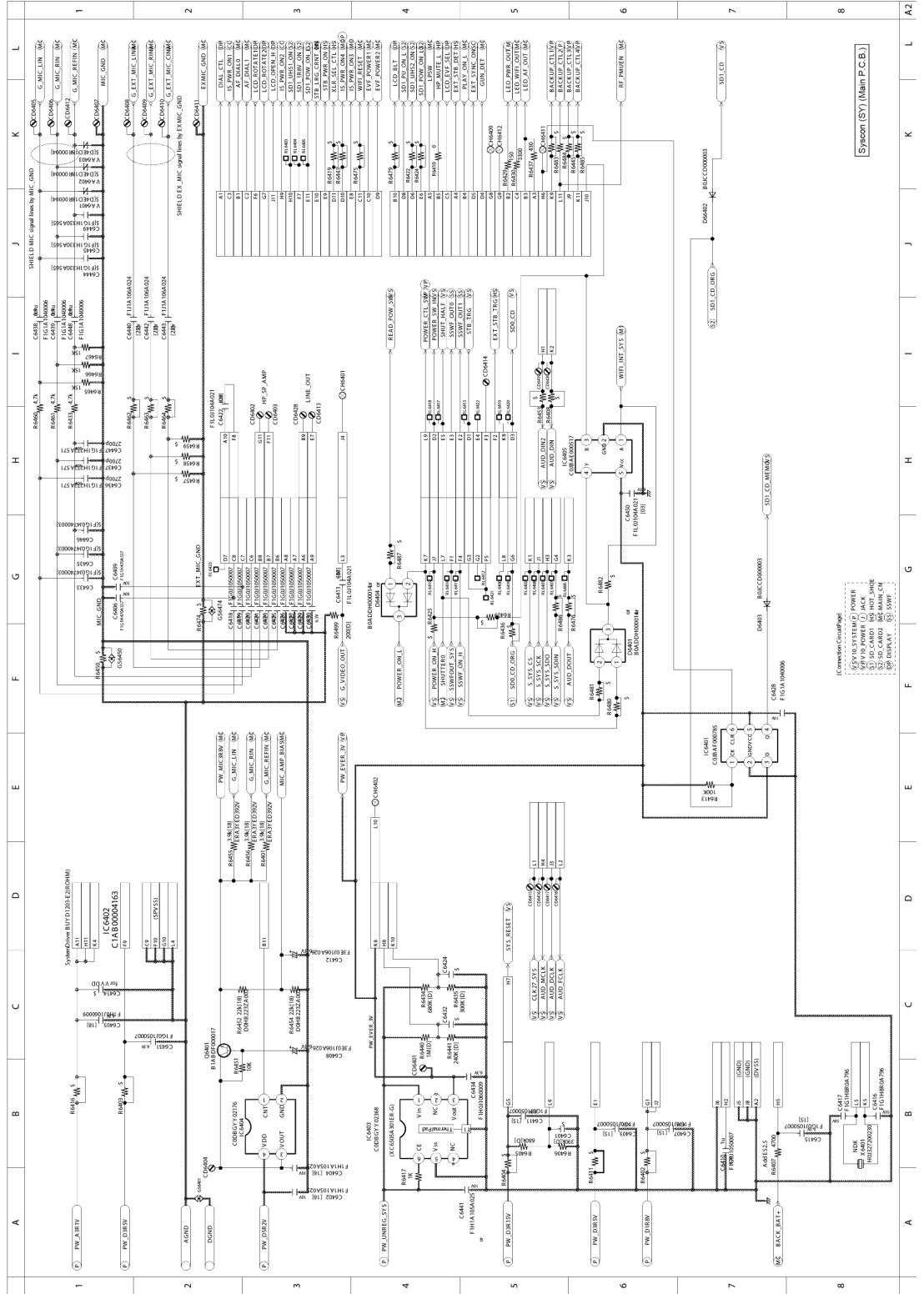
Model No. : DC-GH5/GH5M/GH5L/GH5A Venus Engine Power (VP) (Main P.C.B.)



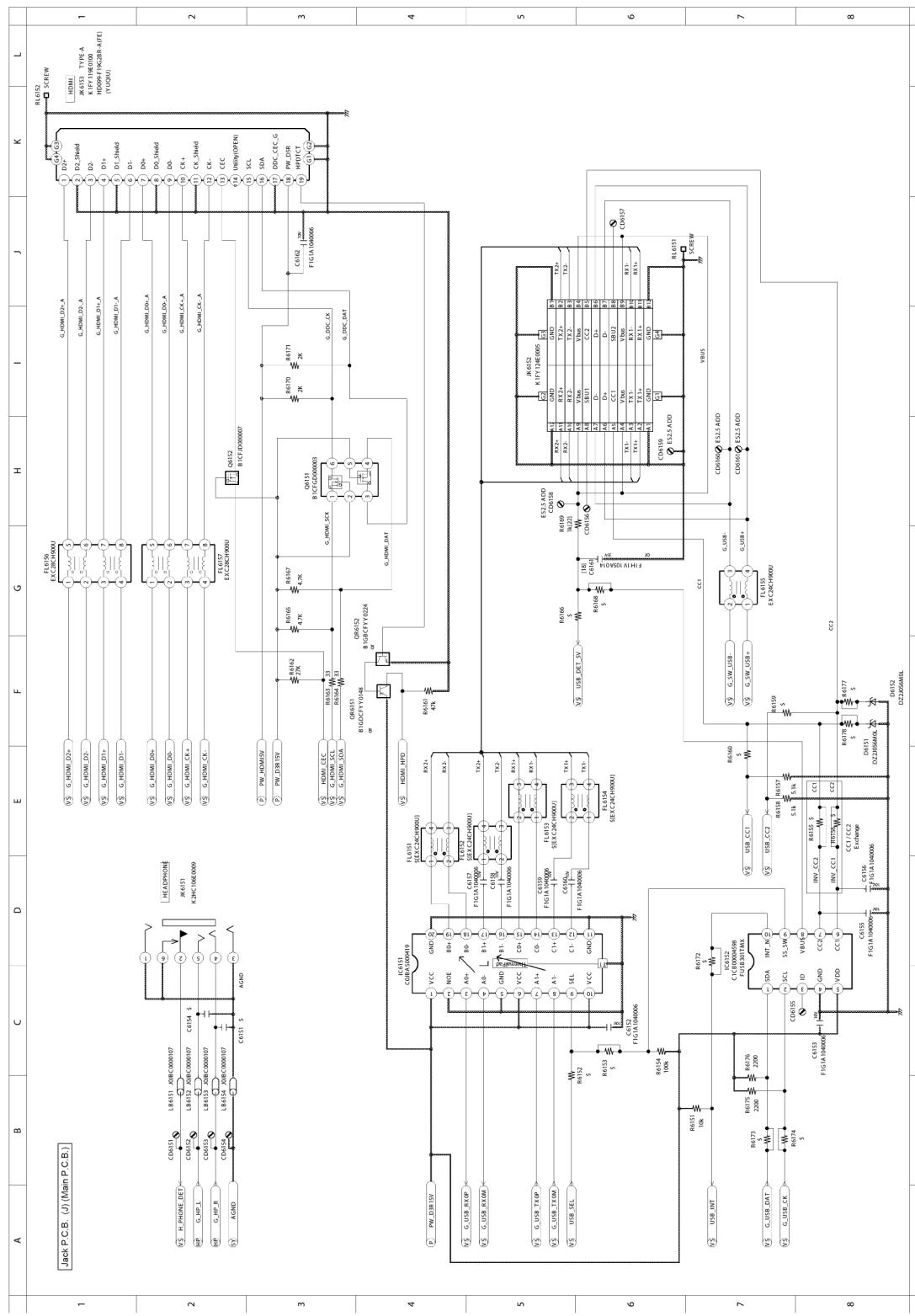
Model No. : DC-GH5/GH5M/GH5L/GH5A Venus Engine System (VS) (Main P.C.B.)



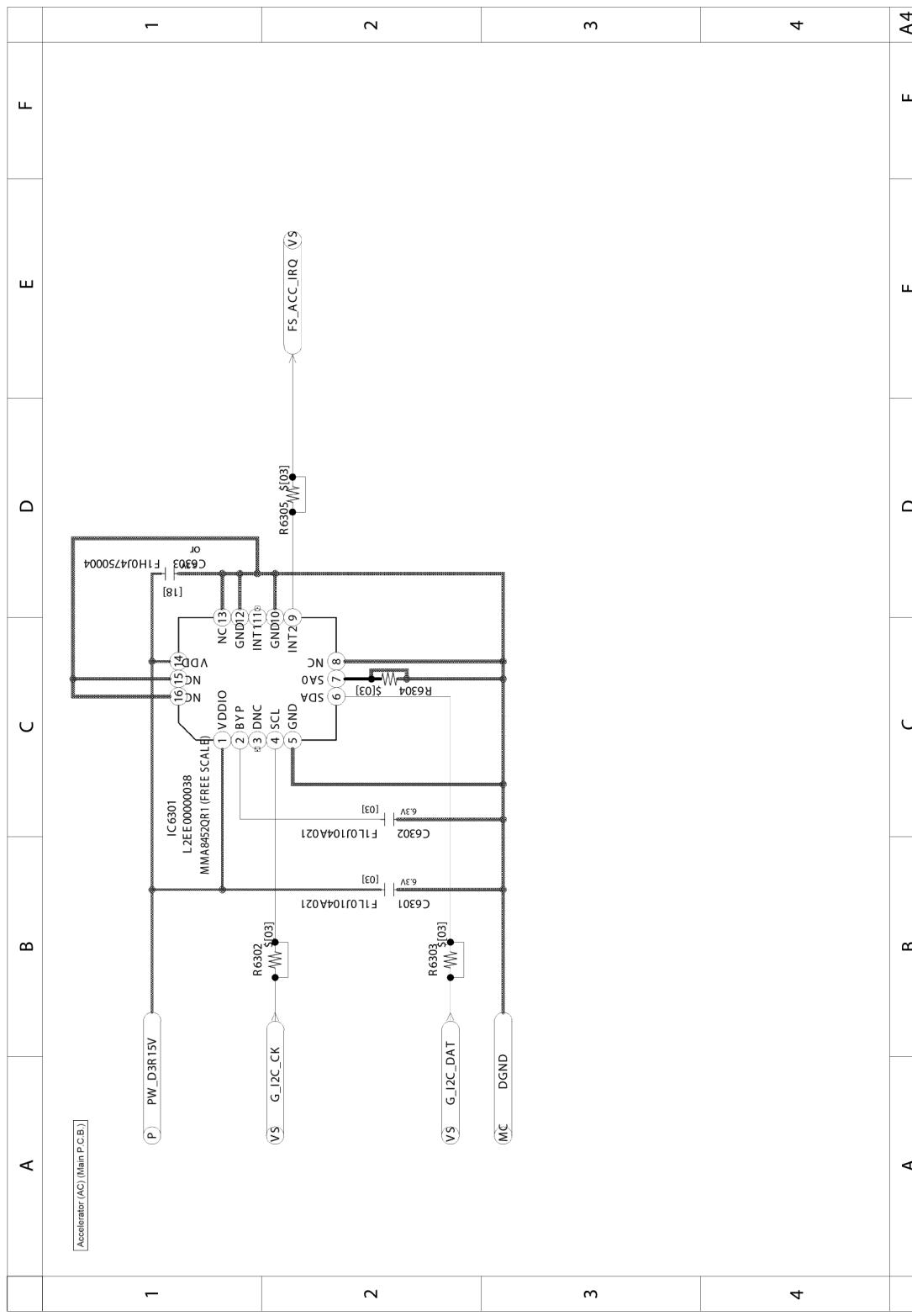
Model No. : DC-GH5/GH5M/GH5L/GH5A Syscon (SY) (Main P.C.B.)



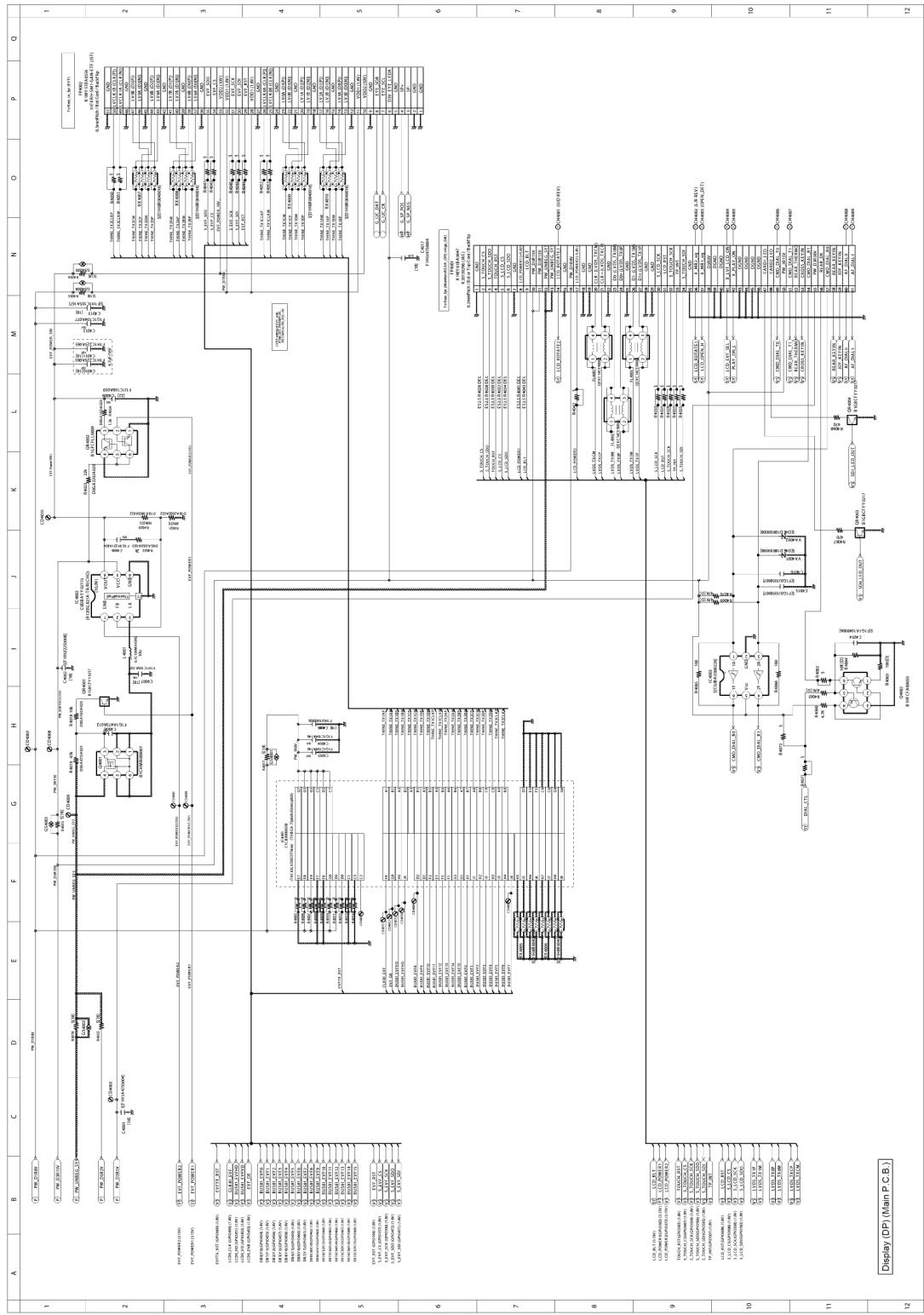
Model No. : DC-GH5/GH5M/GH5L/GH5A Jack P.C.B. (J) (Main P.C.B.)



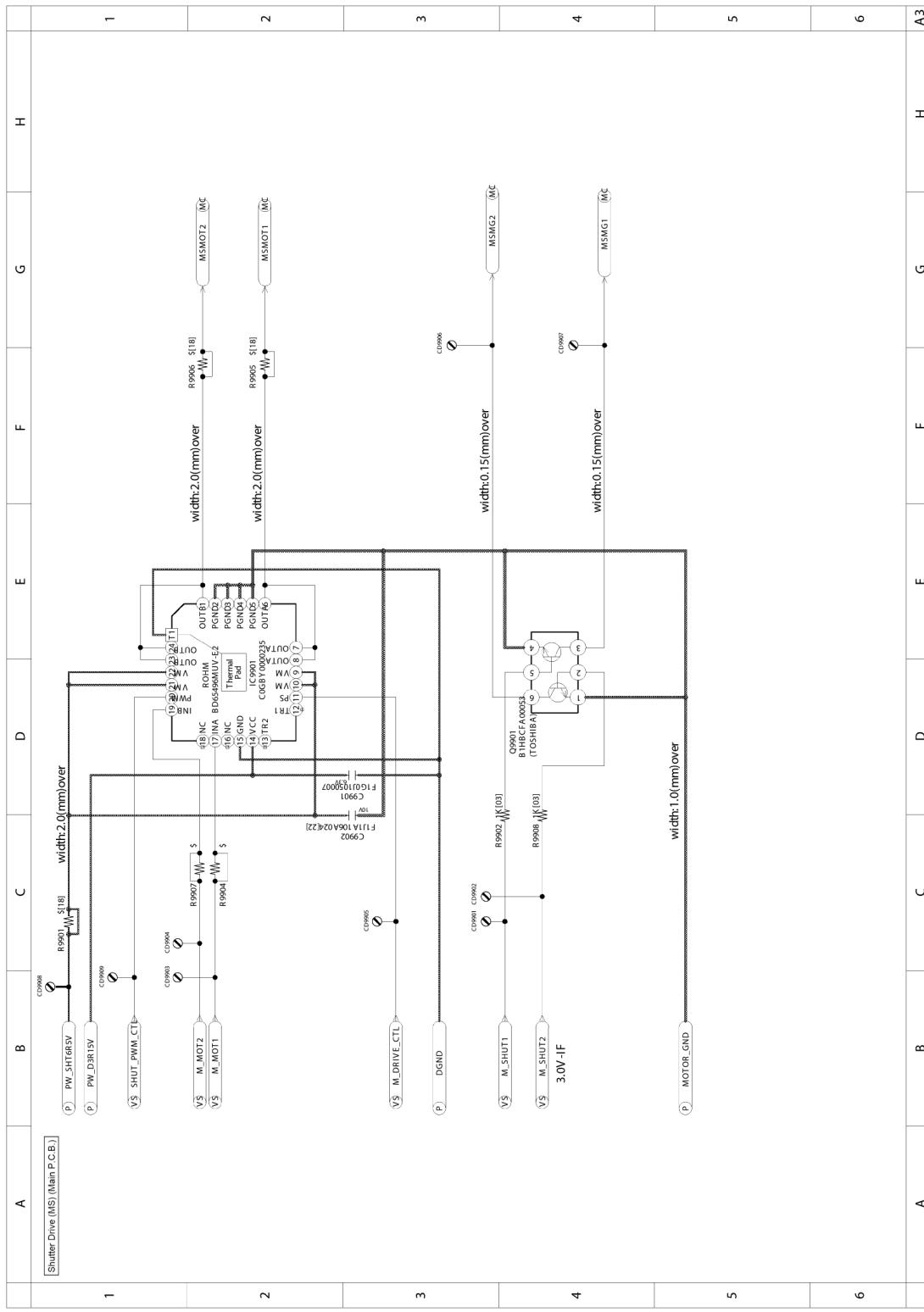
Model No. : DC-GH5/GH5M/GH5L/GH5A Accelerator (AC) (Main P.C.B.)



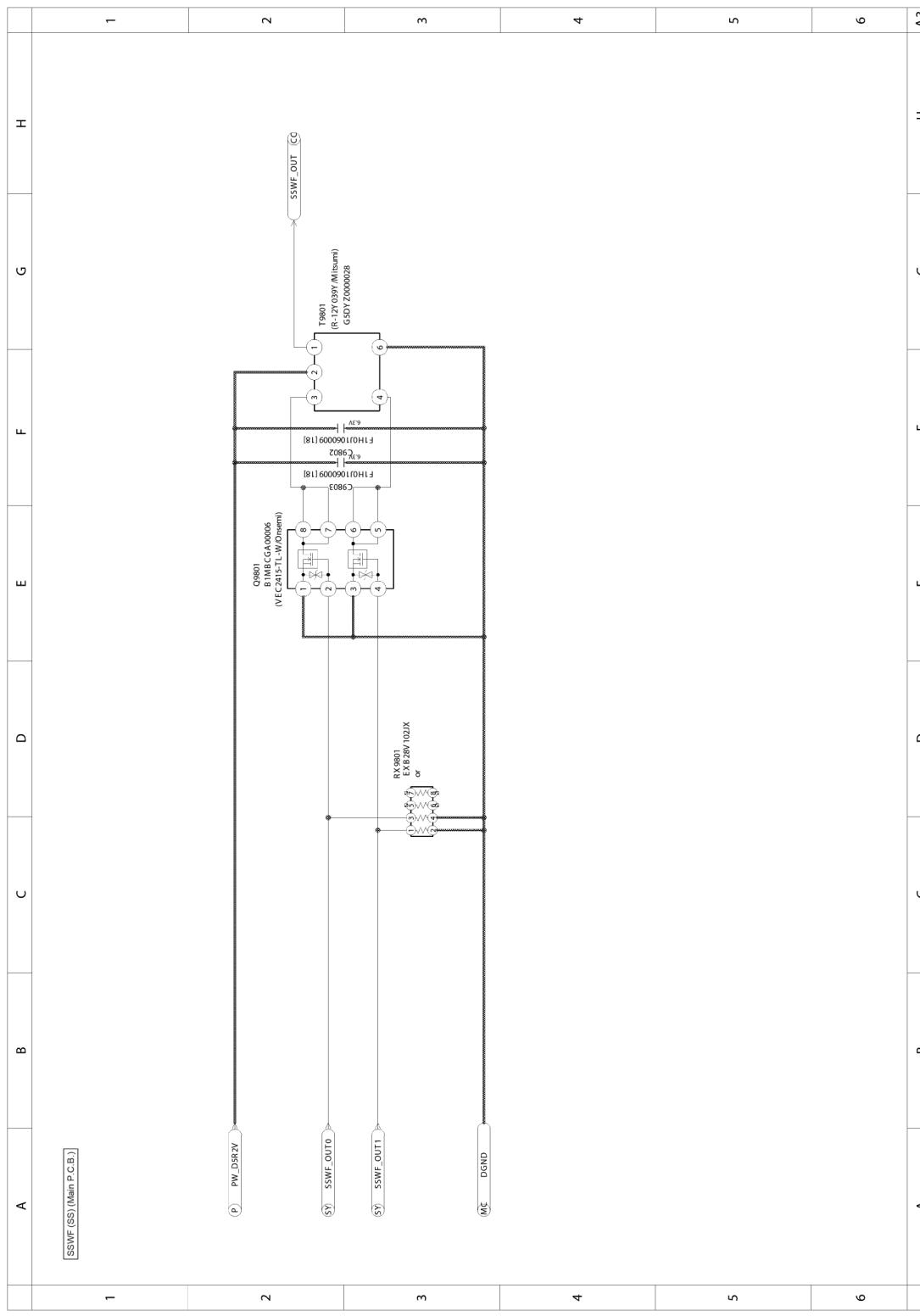
Model No. : DC-GH5/GH5M/GH5L/GH5A Display (DP) (Main P.C.B.)



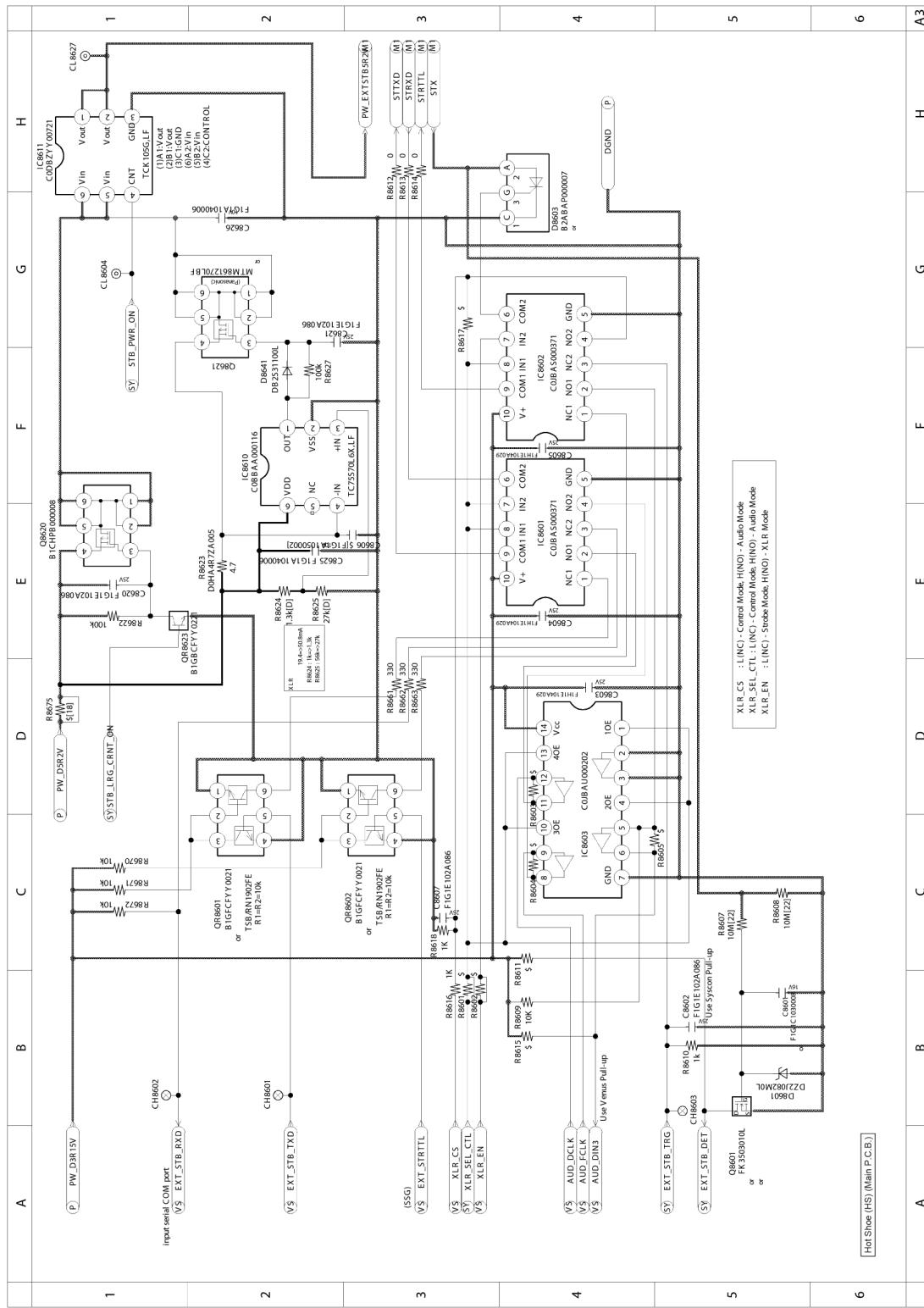
Model No. : DC-GH5/GH5M/GH5L/GH5A Shutter Drive (MS) (Main P.C.B.)



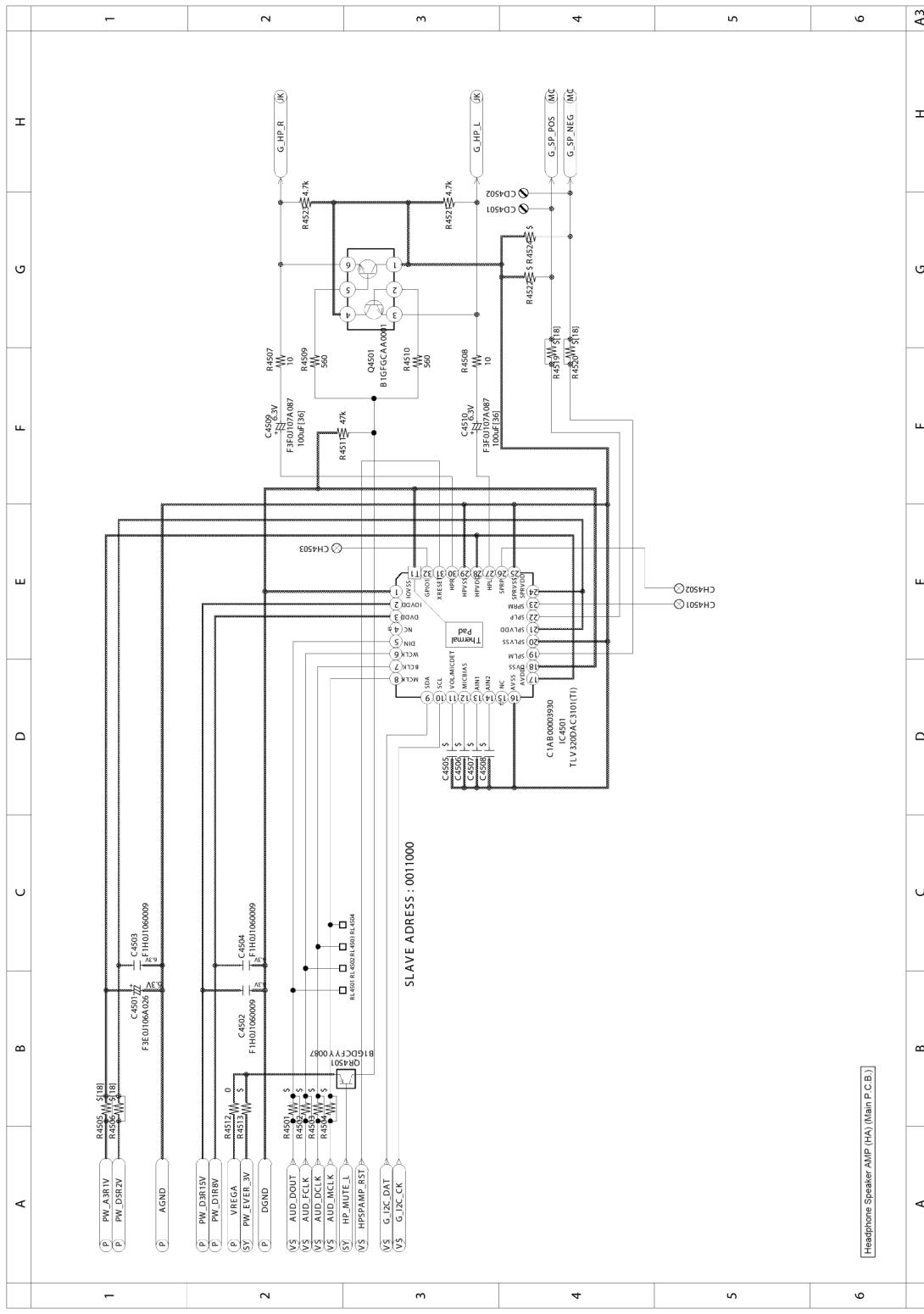
Model No. : DC-GH5/GH5M/GH5L/GH5A SSWF (SS) (Main P.C.B.)



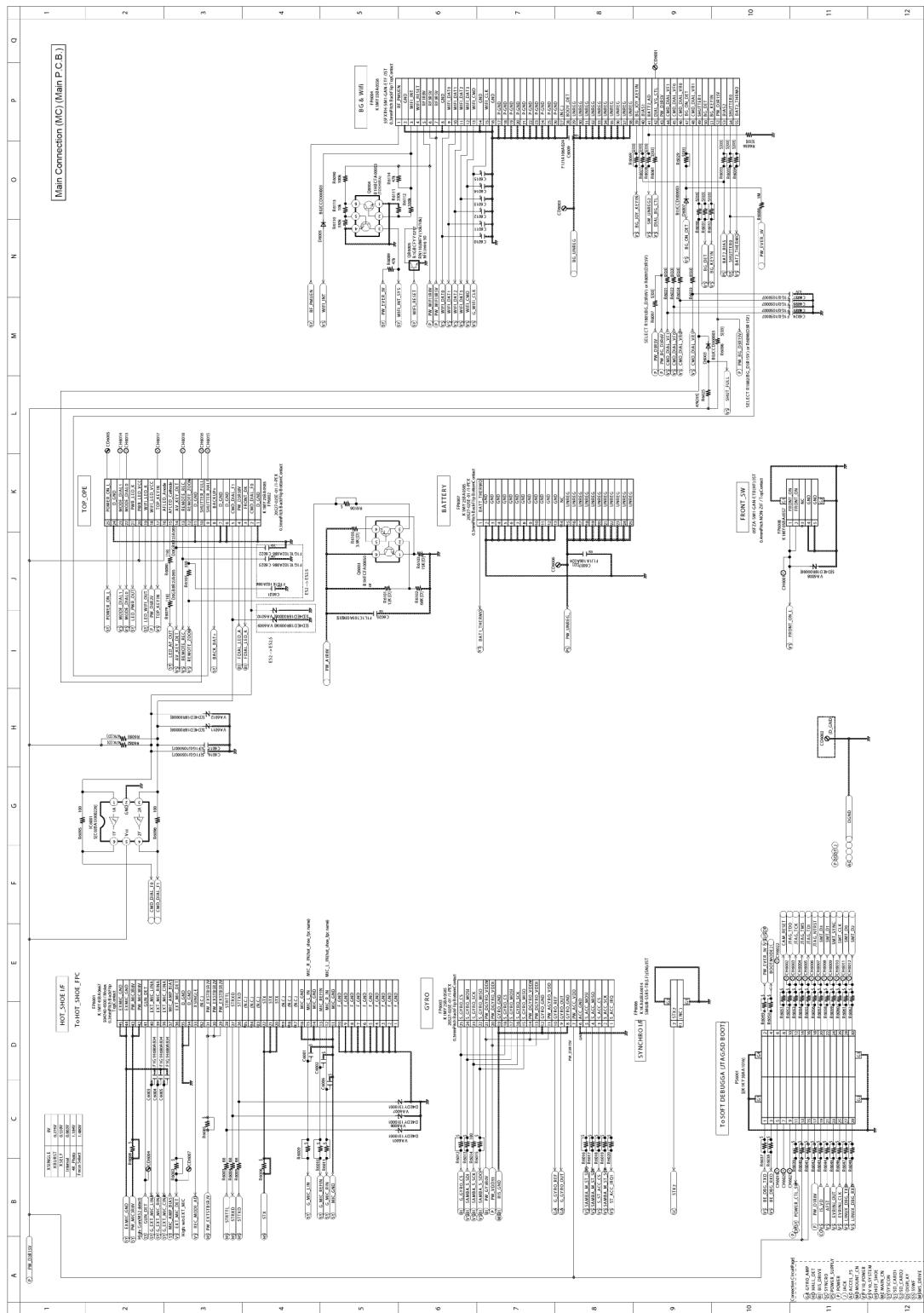
Model No. : DC-GH5/GH5M/GH5L/GH5A Hot Shoe (HS) (Main P.C.B.)



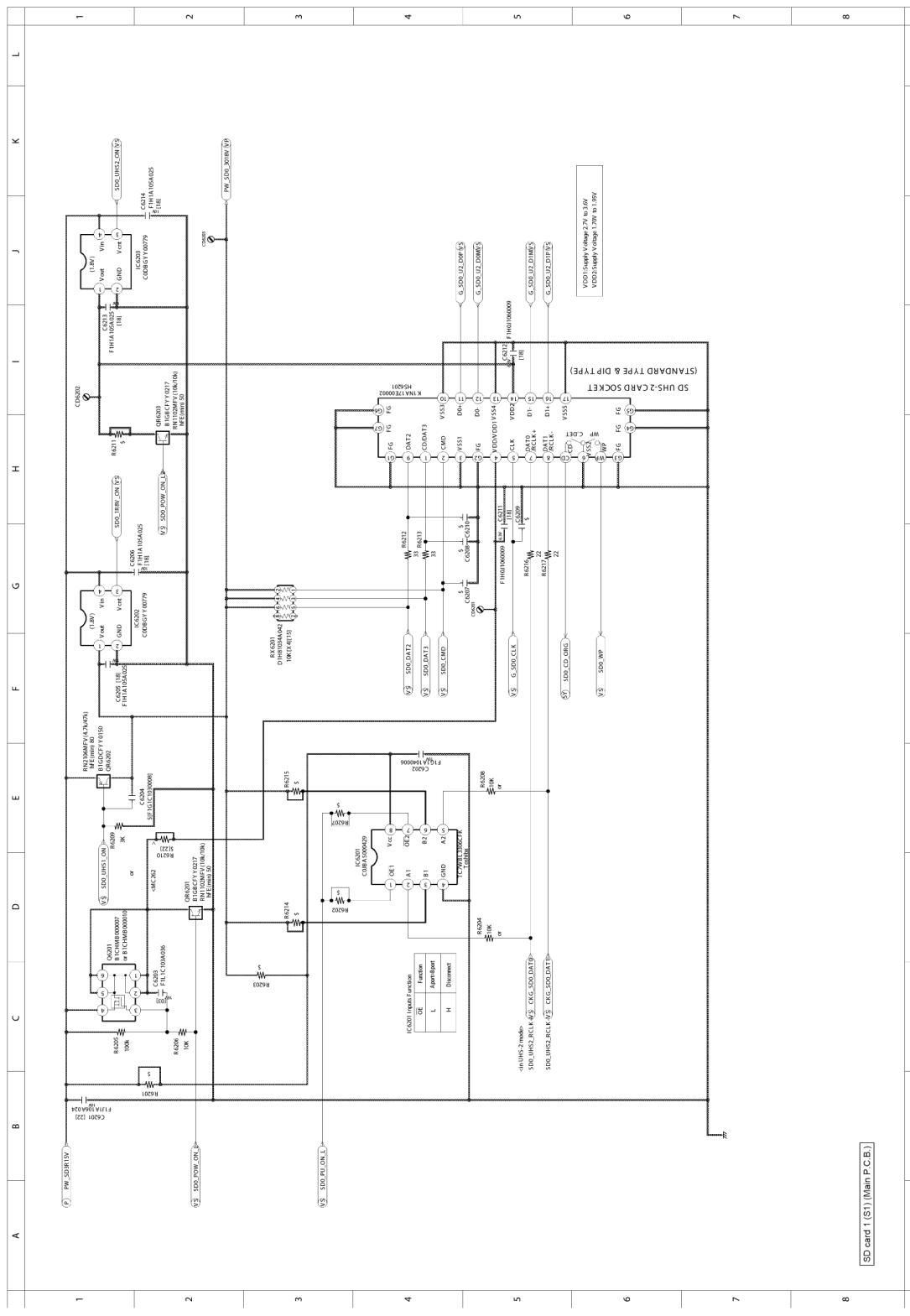
Model No. : DC-GH5/GH5M/GH5L/GH5A Headphone Speaker AMP (HA) (Main P.C.B.)



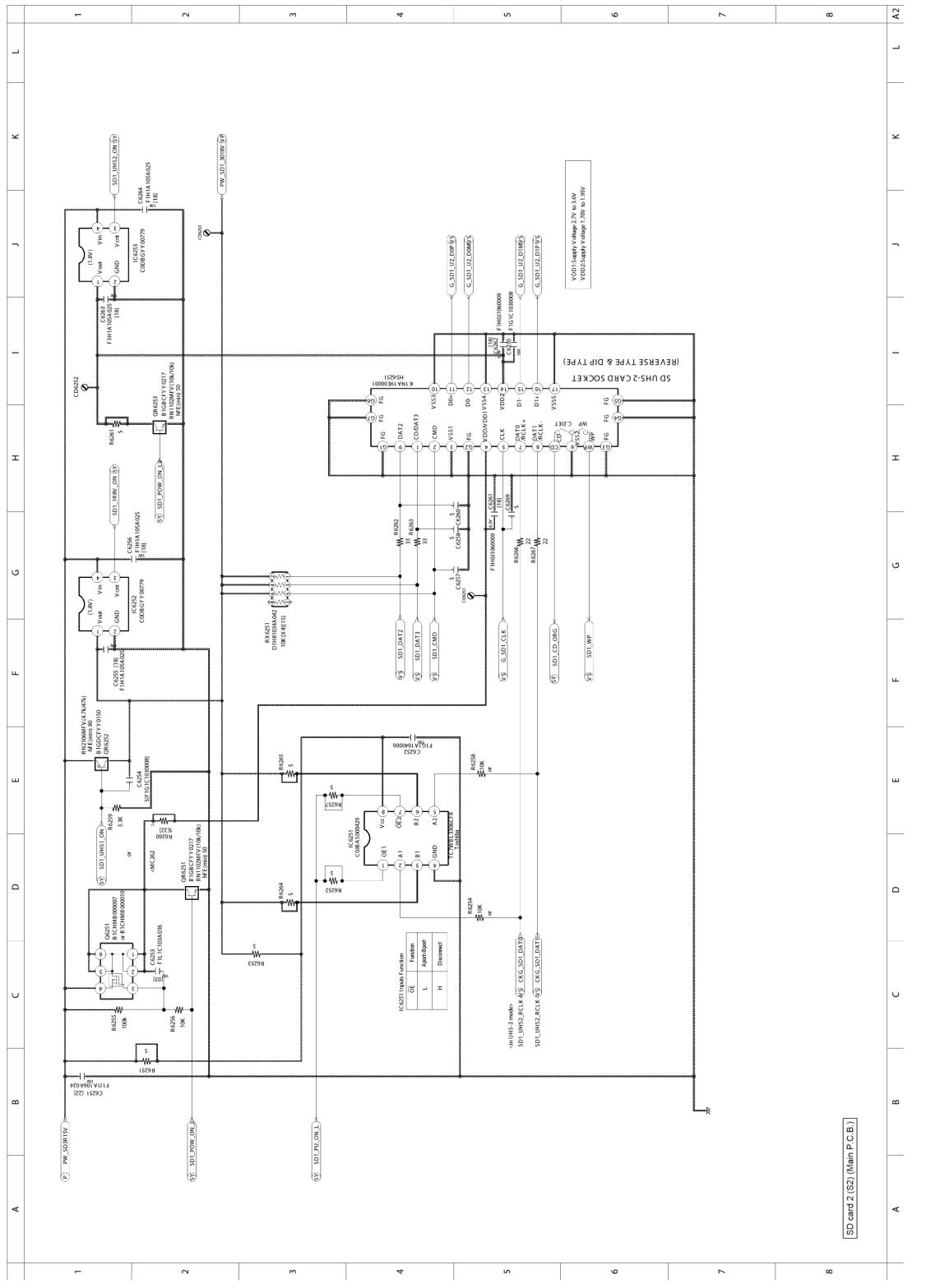
Model No. : DC-GH5/GH5M/GH5L/GH5A Main Connection (MC) (Main P.C.B.)



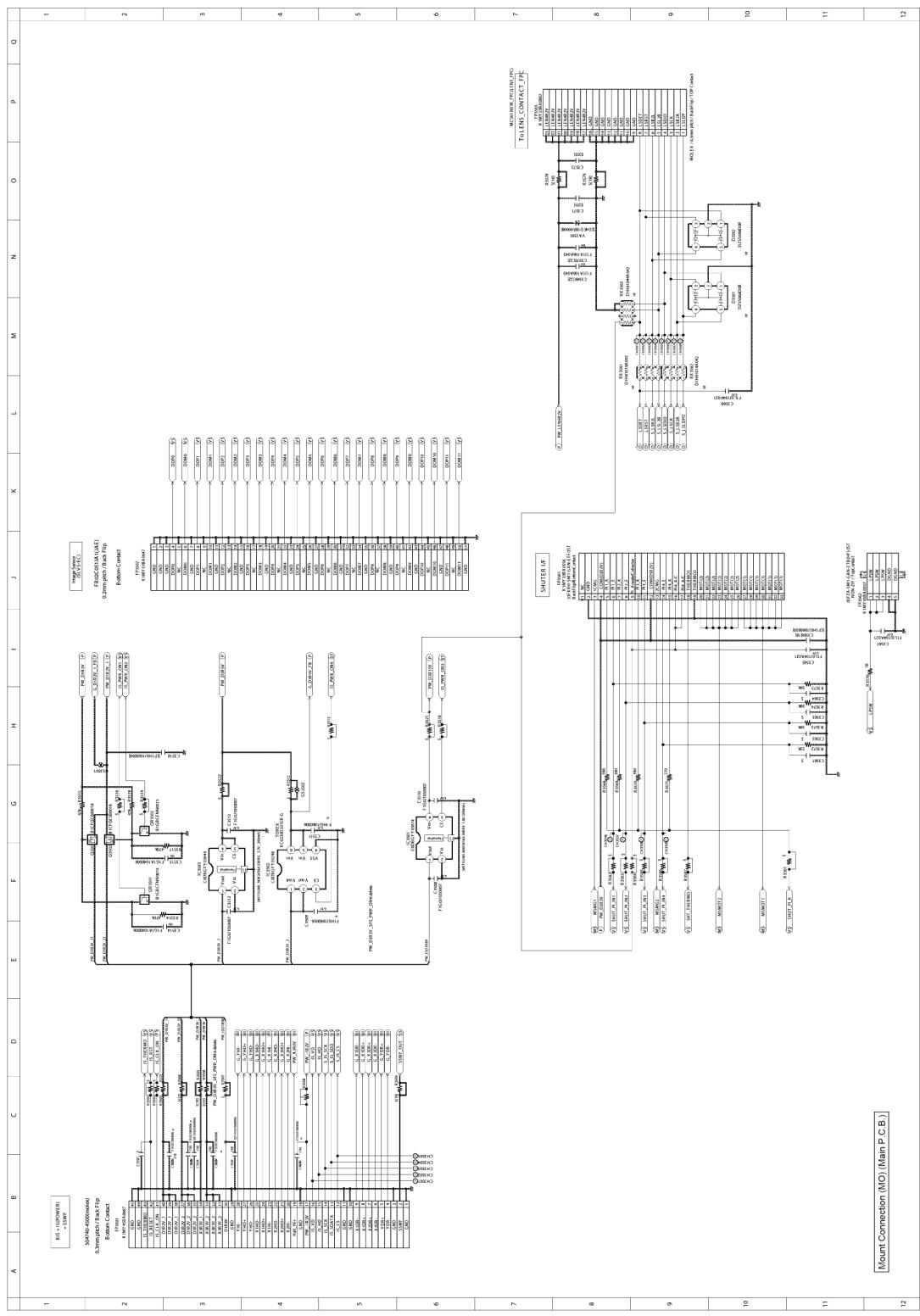
Model No. : DC-GH5/GH5M/GH5L/GH5A SD card 1 (S1) (Main P.C.B.)



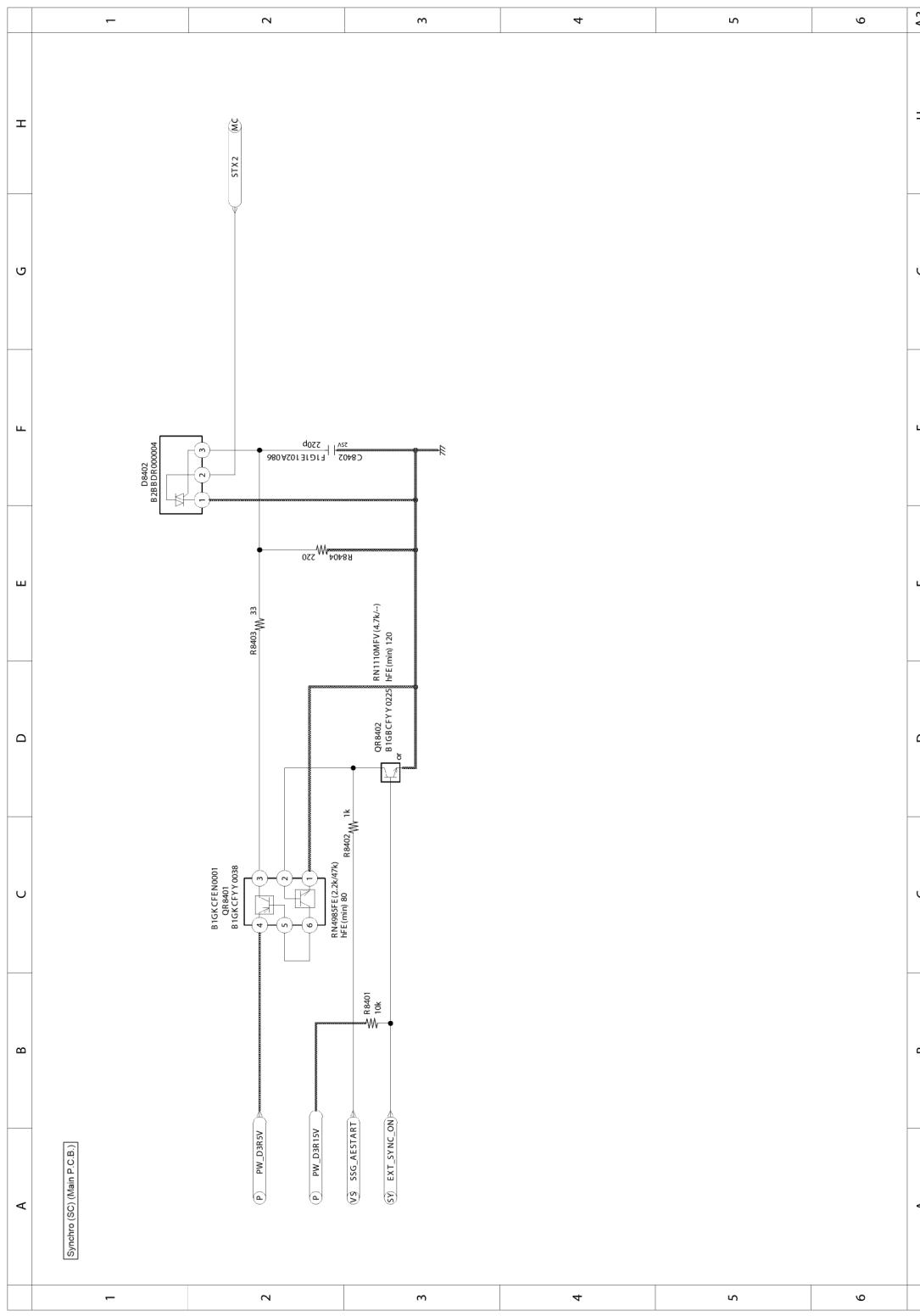
Model No. : DC-GH5/GH5M/GH5L/GH5A SD card 2 (S2) (Main P.C.B.)



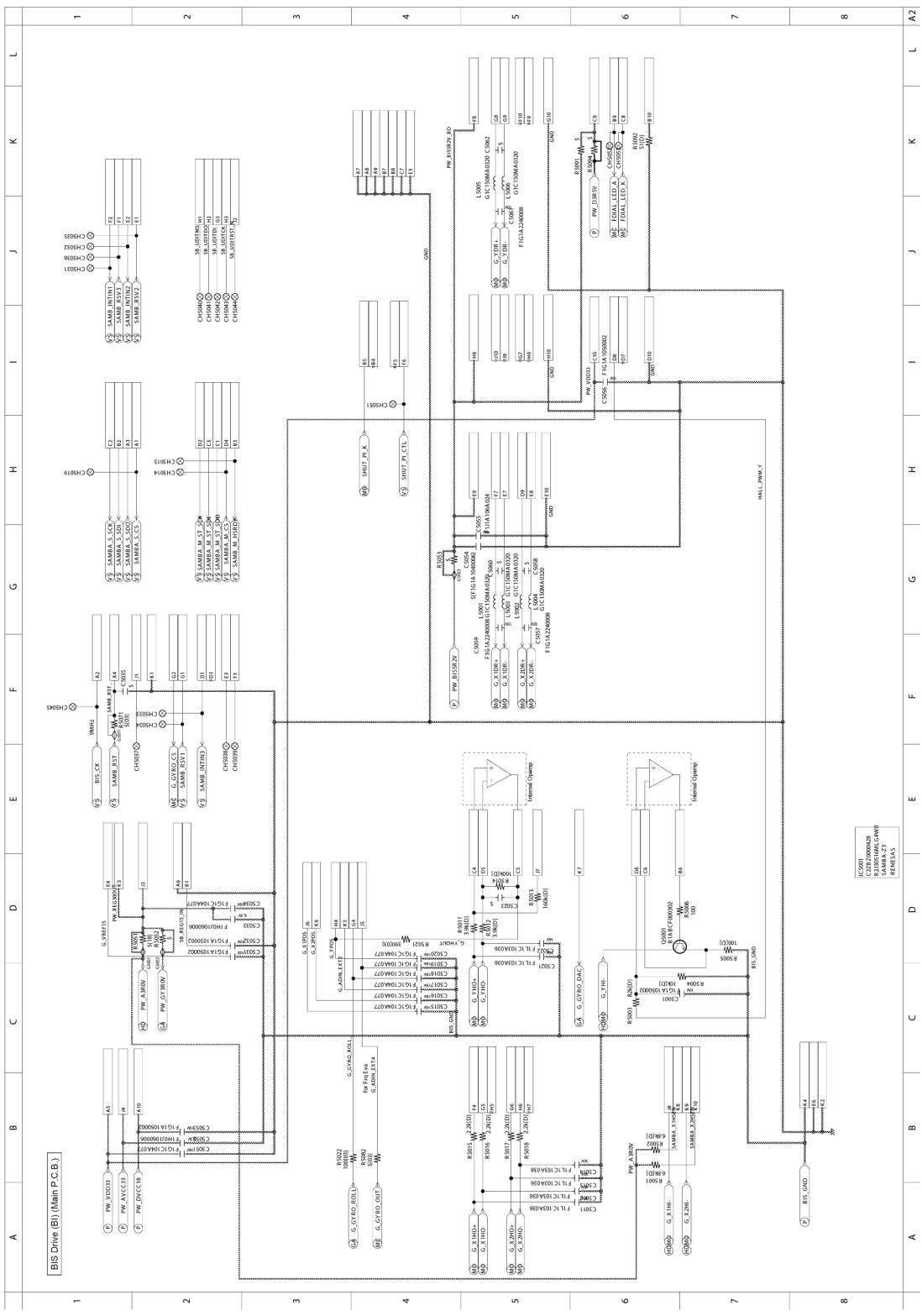
Model No. : DC-GH5/GH5M/GH5L/GH5A Mount Connection (MO) (Main P.C.B.)



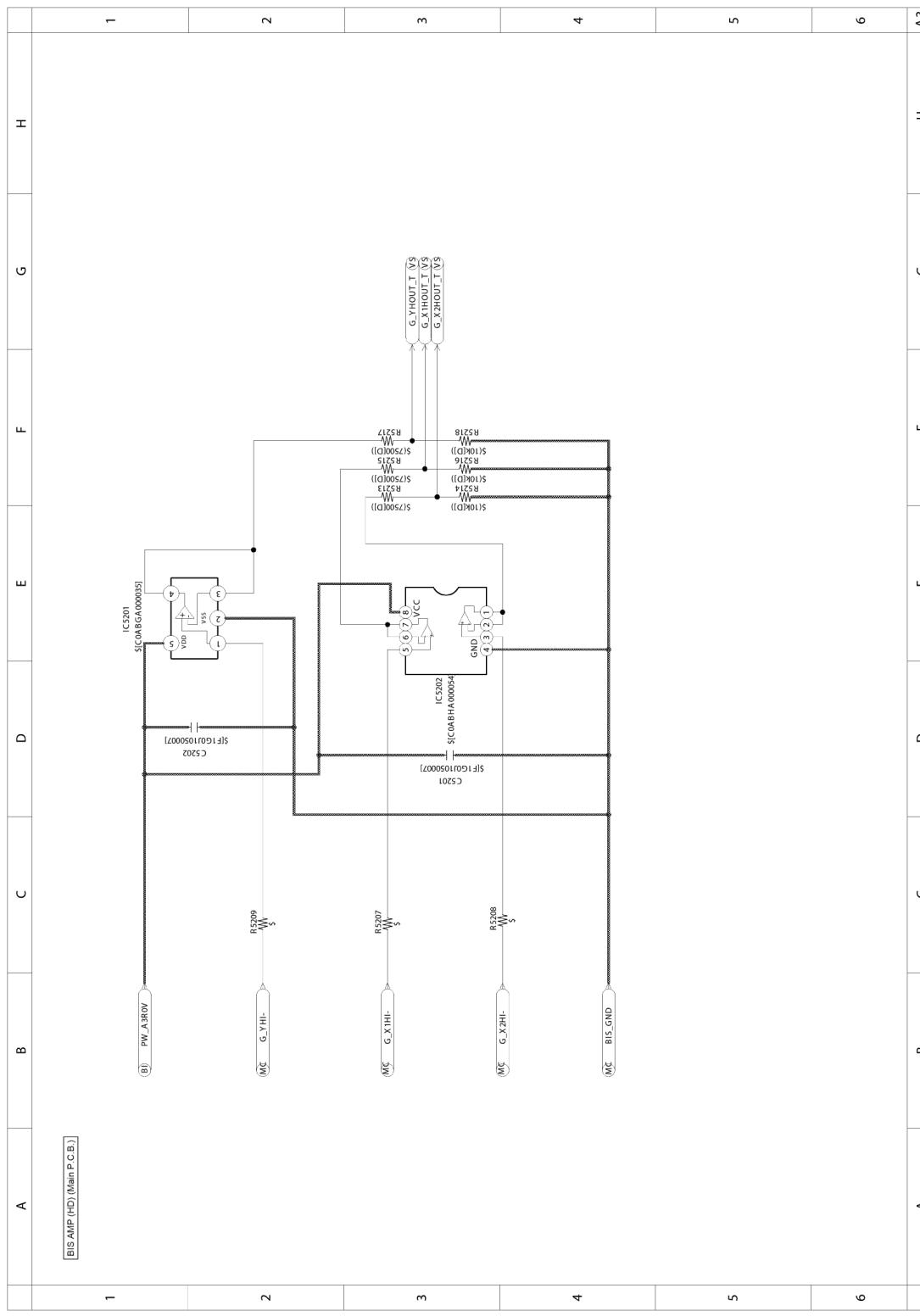
Model No. : DC-GH5/GH5M/GH5L/GH5A Synchro (SC) (Main P.C.B.)



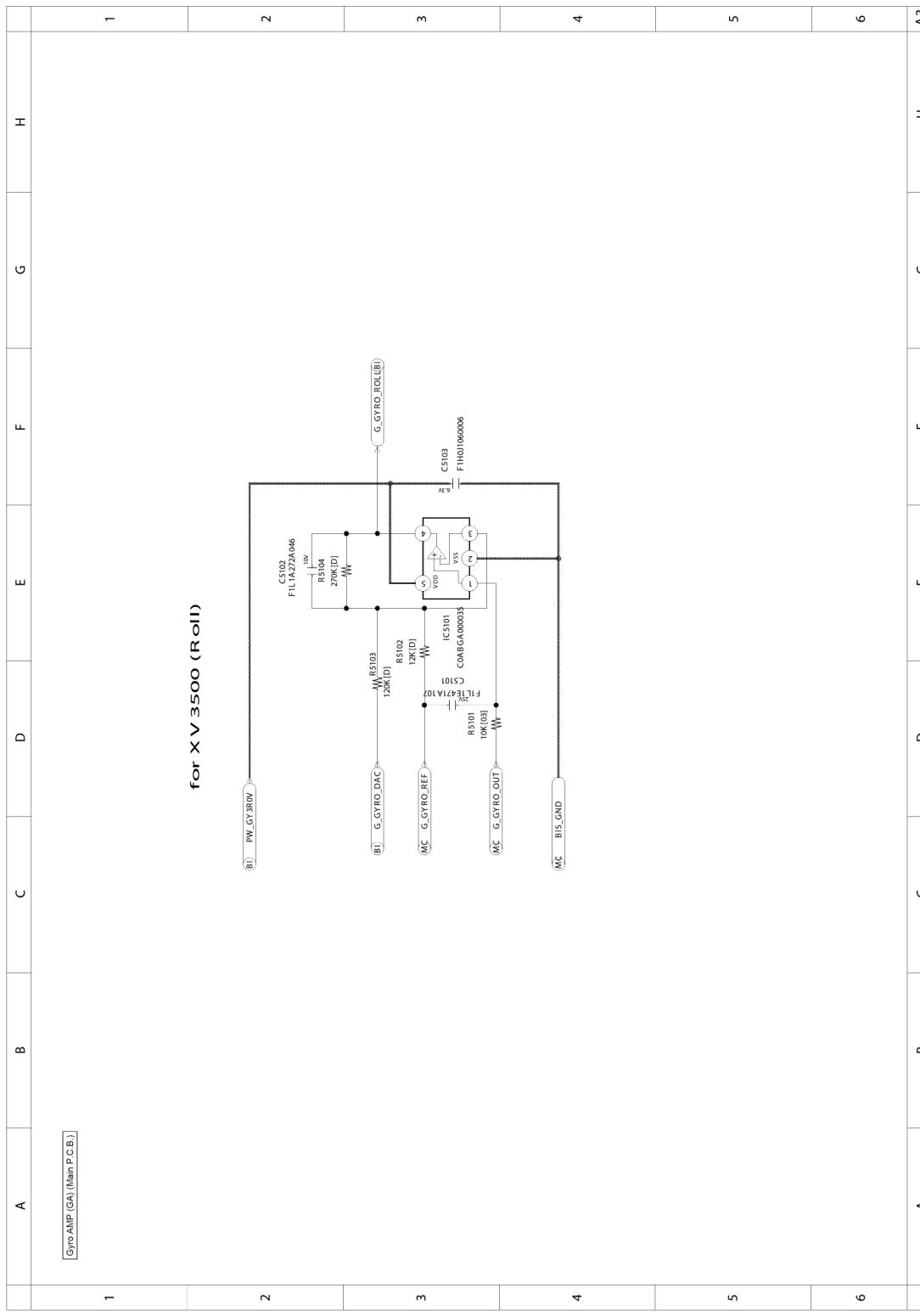
Model No. : DC-GH5/GH5M/GH5L/GH5A BIS Drive (BI) (Main P.C.B.)



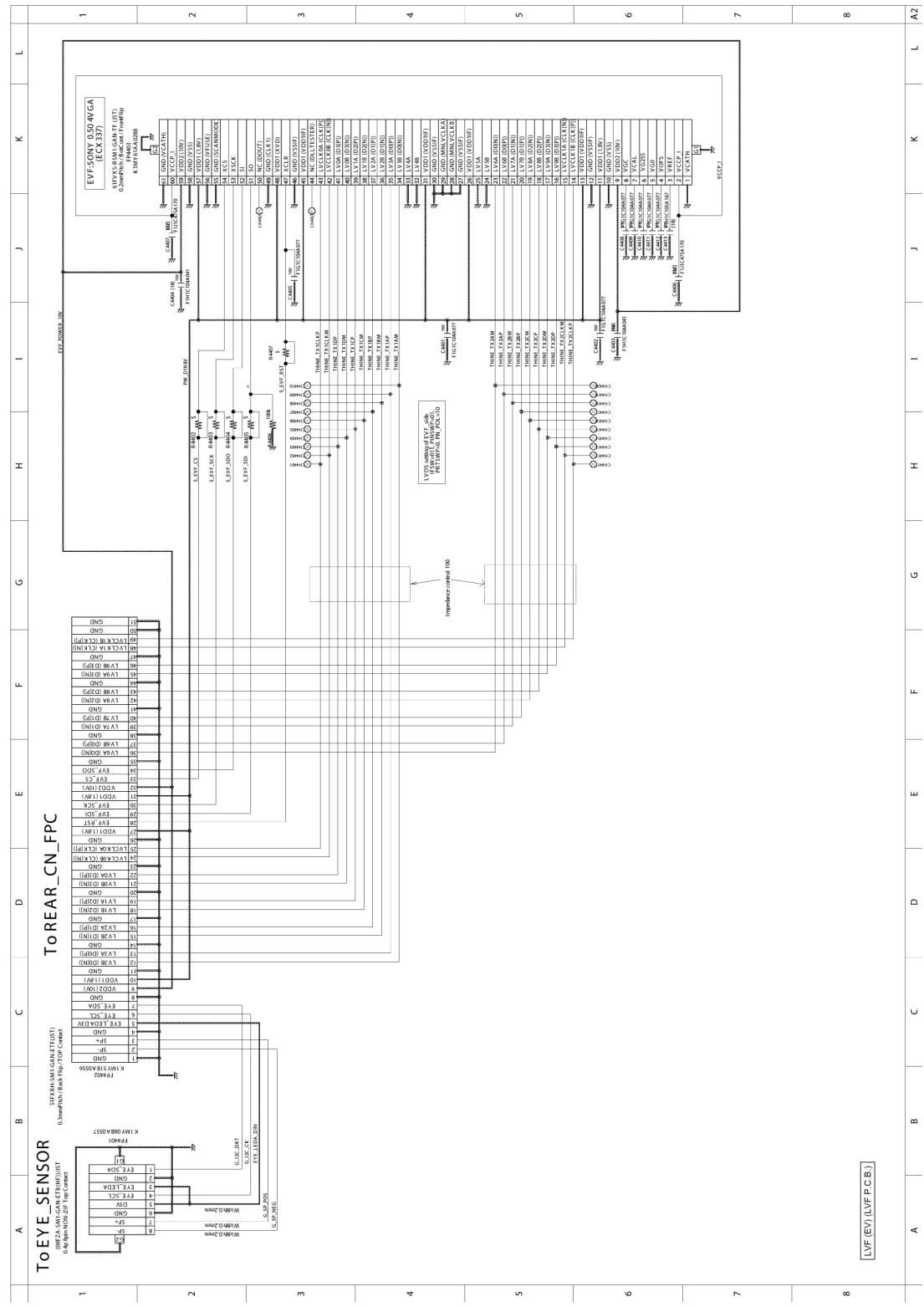
Model No. : DC-GH5/GH5M/GH5L/GH5A BIS AMP (HD) (Main P.C.B.)



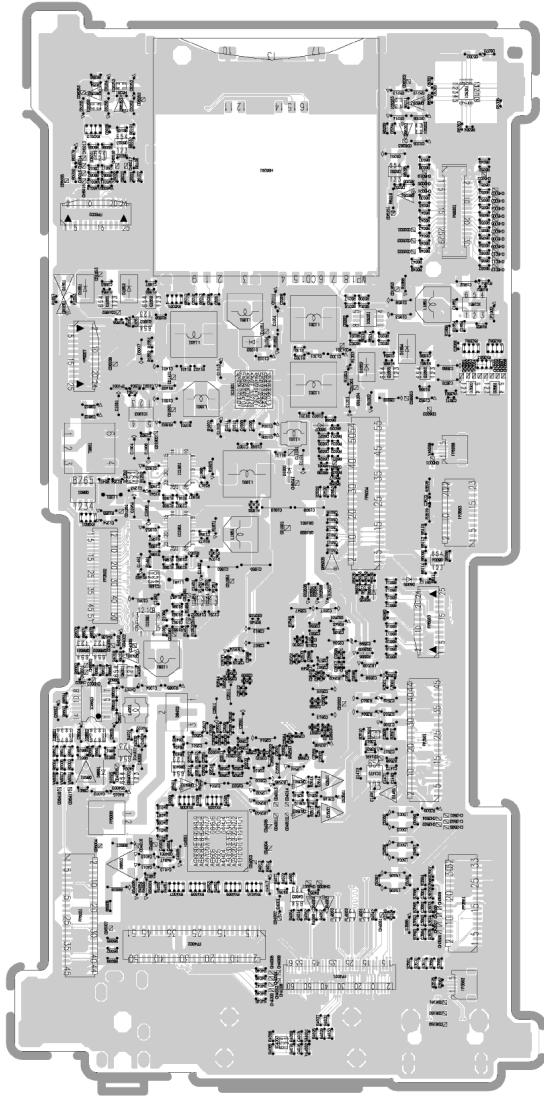
Model No. : DC-GH5/GH5M/GH5L/GH5A Gyro AMP (GA) (Main P.C.B.)



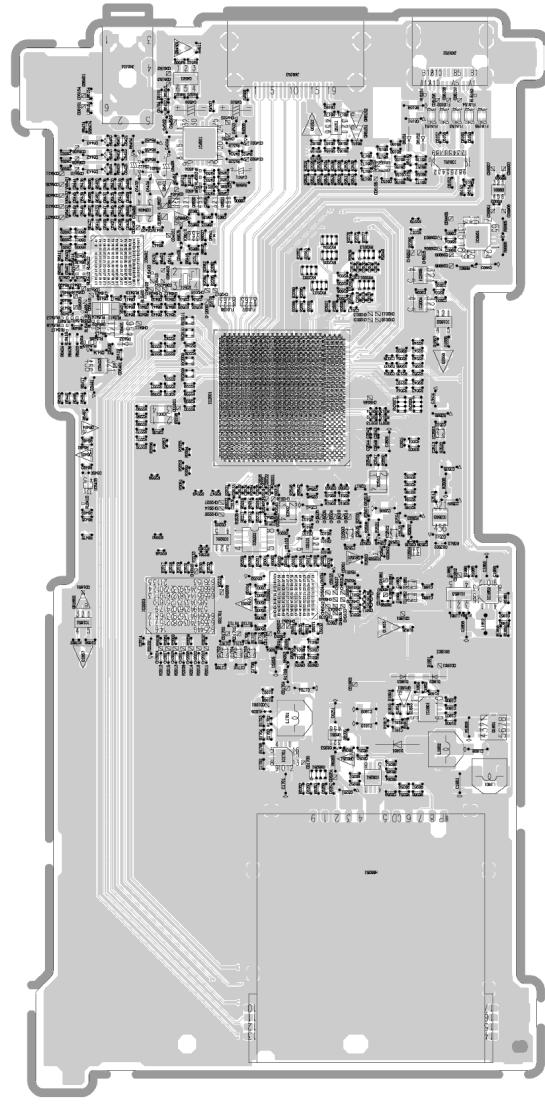
Model No. : DC-GH5/GH5M/GH5L/GH5A LVF (EV) (LVF P.C.B.)



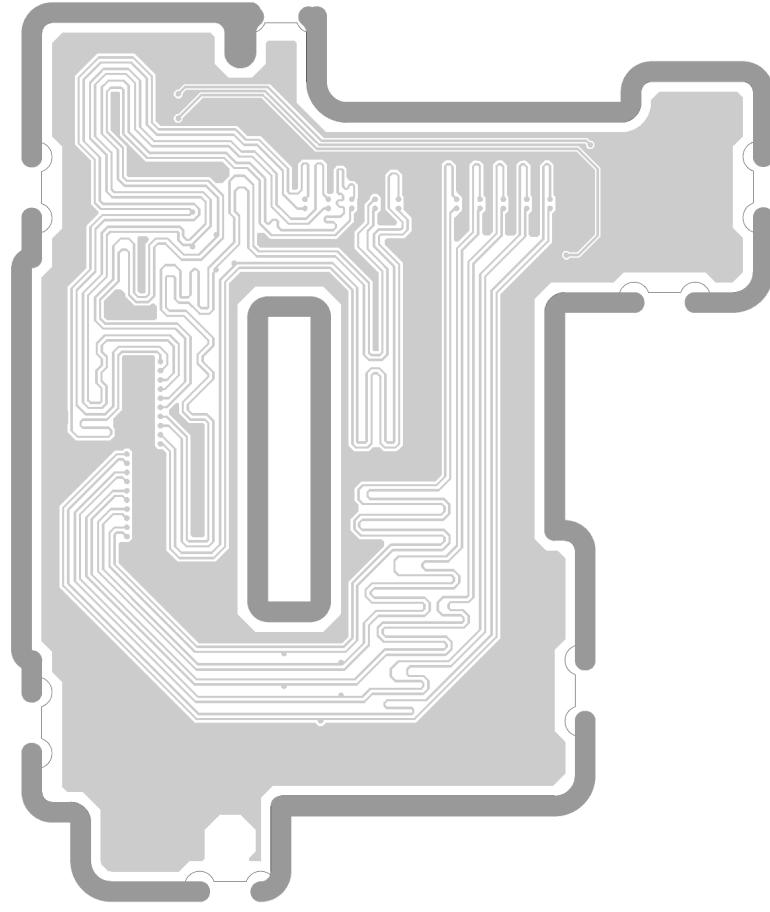
Model No. : DC-GH5/GH5M/GH5L/GH5A Main P.C.B. (Component Side)



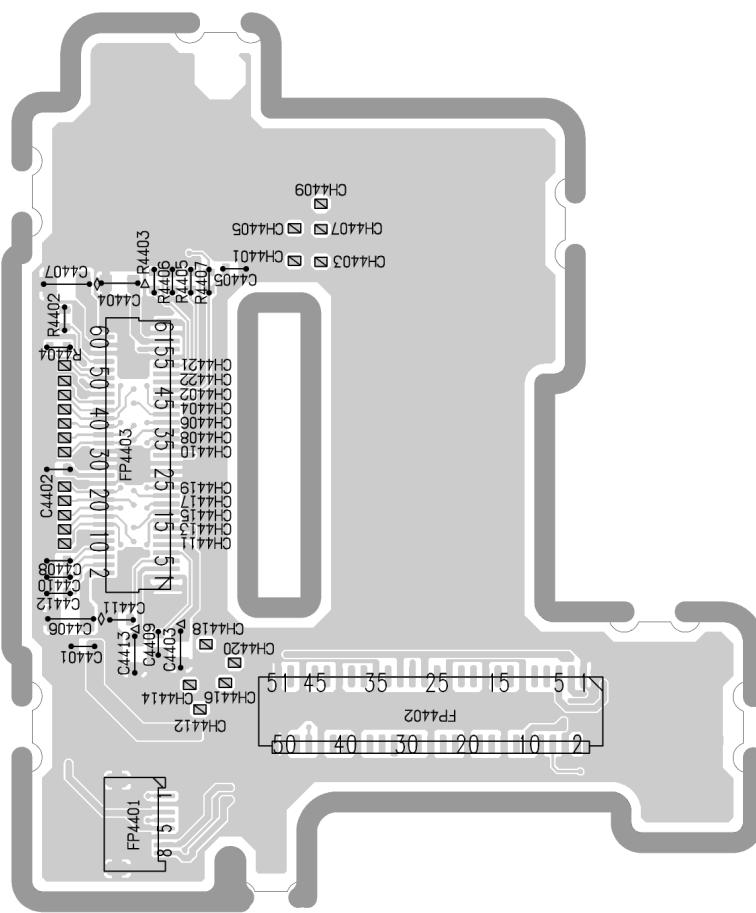
Model No. : DC-GH5/GH5M/GH5L/GH5A Main P.C.B. (Foil Side)



Model No. : DC-GH5/GH5M/GH5L/GH5A LVF P.C.B. (Component Side)



Model No. : DC-GH5/GH5M/GH5L/GH5A LVF P.C.B. (Foil Side)



Model No. : DC-GH5/GH5M/GH5L/GH5A Parts List

| Change | Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|--------|--------|----------|--------------|-------------------------|------|---------|
| | | C4401 | F1G1C104A077 | C.CAPACITOR CH 16V 0.1U | 1 | |
| | | C4402 | F1G1C104A077 | C.CAPACITOR CH 16V 0.1U | 1 | |
| | | C4403 | F1H1C104A041 | C.CAPACITOR CH 16V 0.1U | 1 | |
| | | C4404 | F1H1C104A041 | C.CAPACITOR CH 16V 0.1U | 1 | |
| | | C4405 | F1G1C104A077 | C.CAPACITOR CH 16V 0.1U | 1 | |

| | | | | | |
|--|--------|--------------|-------------------------|---|---------------|
| | C4406 | F1J1C475A170 | C.CAPACITOR CH 16V 4.7U | 1 | |
| | C4407 | F1J1C475A170 | C.CAPACITOR CH 16V 4.7U | 1 | |
| | C4408 | F1G1C104A077 | C.CAPACITOR CH 16V 0.1U | 1 | |
| | C4409 | F1G1C104A077 | C.CAPACITOR CH 16V 0.1U | 1 | |
| | C4410 | F1G1C104A077 | C.CAPACITOR CH 16V 0.1U | 1 | |
| | C4411 | F1G1C104A077 | C.CAPACITOR CH 16V 0.1U | 1 | |
| | C4412 | F1G1C104A077 | C.CAPACITOR CH 16V 0.1U | 1 | |
| | C4413 | F1H1C105A167 | C.CAPACITOR CH 16V 1U | 1 | |
| | D1001 | B0JCGD000016 | DIODE | 1 | E.S.D. |
| | D1002 | B0JCMD000066 | DIODE | 1 | E.S.D. |
| | D1491 | B0JDDD000017 | DIODE | 1 | E.S.D. |
| | D1651 | B0JCPG000032 | DIODE | 1 | E.S.D. |
| | D1652 | B0JCPG000032 | DIODE | 1 | E.S.D. |
| | D1653 | B0JCPG000032 | DIODE | 1 | E.S.D. |
| | D1654 | B0JCPG000032 | DIODE | 1 | E.S.D. |
| | D1801 | B0JCRC000002 | DIODE | 1 | E.S.D. |
| | D1802 | B0JCGD000016 | DIODE | 1 | E.S.D. |
| | D1803 | B0JCGD000016 | DIODE | 1 | E.S.D. |
| | D3561 | DZ5S068D0R | DIODE | 1 | E.S.D. |
| | D3562 | DZ5S068D0R | DIODE | 1 | E.S.D. |
| | D6003 | B0JCCD000003 | DIODE | 1 | E.S.D. |
| | D6005 | B0JCCD000003 | DIODE | 1 | E.S.D. |
| | D6007 | B0JCCD000003 | DIODE | 1 | E.S.D. |
| | D6151 | DZ2J056M0L | DIODE | 1 | E.S.D. |
| | D6152 | DZ2J056M0L | DIODE | 1 | E.S.D. |
| | D6401 | B0ADEJ000054 | DIODE | 1 | E.S.D. |
| | D6403 | B0JCCD000003 | DIODE | 1 | E.S.D. |
| | D6404 | B0ADEJ000054 | DIODE | 1 | E.S.D. |
| | D8402 | B2BBDR000004 | DIODE | 1 | E.S.D. |
| | D8601 | DZ2J082M0L | DIODE | 1 | E.S.D. |
| | D8603 | B2ABAP000007 | DIODE | 1 | E.S.D. |
| | D8641 | DB2S31100L | DIODE | 1 | E.S.D. |
| | D66402 | B0JCCD000003 | DIODE | 1 | E.S.D. |
| | FL6155 | EXC24CH900U | FILTER | 1 | |
| | FL6156 | EXC28CH900U | FILTER | 1 | |
| | FL6157 | EXC28CH900U | FILTER | 1 | |
| | FP3501 | K1MY45BA0667 | CONNECTOR 45P | 1 | |
| | FP3502 | K1MY51BA0647 | CONNECTOR 51P | 1 | |
| | FP3561 | K1MY33BA0556 | CONNECTOR 33P | 1 | |
| | FP3562 | K1MY05BA0557 | CONNECTOR 5P | 1 | |
| | FP3563 | K1MY23BA0667 | CONNECTOR 23P | 1 | |
| | FP4001 | K1MY61BA0647 | CONNECTOR 61P | 1 | |
| | FP4002 | K1MY51BA0556 | CONNECTOR 51P | 1 | |
| | FP4401 | K1MY08BA0557 | CONNECTOR 8P | 1 | |
| | FP4402 | K1MY51BA0556 | CONNECTOR 51P | 1 | |
| | FP4403 | K1MY61AA0288 | CONNECTOR 61P | 1 | |
| | FP6001 | K1MY45BA0667 | CONNECTOR 45P | 1 | |
| | FP6002 | K1MY25BA0585 | CONNECTOR 25P | 1 | |
| | FP6003 | K1MY25BA0585 | CONNECTOR 25P | 1 | |
| | FP6004 | K1MY55BA0556 | CONNECTOR 55P | 1 | |
| | FP6006 | K1KA02BA0014 | CONNECTOR 2P | 1 | |
| | FP6007 | K1MY25BA0585 | CONNECTOR 25P | 1 | |
| | FP6008 | K1MY05BA0557 | CONNECTOR 5P | 1 | |
| | HS6201 | K1NA17E00002 | CONNECTOR 17P | 1 | |
| | HS6251 | K1NA19E00001 | CONNECTOR 19P | 1 | |
| | IC1001 | C1ZBZ0004906 | IC | 1 | E.S.D. |
| | IC1081 | SUBF000016 | IC | 1 | E.S.D. [INBD] |

Model No. : DC-GH5/GH5M/GH5L/GH5A Parts List

| Change | Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|--------|--------|----------|--------------|-------------------------|------|---------|
| | | IC1252 | C0DBAYY01533 | IC | 1 | E.S.D. |
| | | IC1451 | C0DBGYY03640 | IC | 1 | E.S.D. |
| | | IC1471 | C0DBGYY06345 | IC | 1 | E.S.D. |
| | | IC1481 | C0DBAYY01533 | IC | 1 | E.S.D. |
| | | IC1651 | C0JBAA000393 | IC | 1 | E.S.D. |

| | | | | | |
|--|--------|--------------|---------------------|---|---------------|
| | IC1652 | C0JBAA000393 | IC | 1 | E.S.D. |
| | IC1701 | SUBF000017 | IC | 1 | E.S.D. [INBD] |
| | IC1702 | C0DBGYY03644 | IC | 1 | E.S.D. |
| | IC1703 | C0DBGYY03614 | IC | 1 | E.S.D. |
| | IC1704 | C0DBGYY03644 | IC | 1 | E.S.D. |
| | IC1801 | C0DBAYY02125 | IC | 1 | E.S.D. |
| | IC1851 | C0DBAYY02374 | IC | 1 | E.S.D. |
| | IC1852 | SUBF000017 | IC | 1 | E.S.D. [INBD] |
| | IC1853 | C0DBGYY02983 | IC | 1 | E.S.D. |
| | IC1881 | C0DBGYY03650 | IC | 1 | E.S.D. |
| | IC1901 | SUBF000025 | IC | 1 | E.S.D. [INBD] |
| | IC1903 | C0DBGYY03014 | IC | 1 | E.S.D. |
| | IC1951 | SUBF000025 | IC | 1 | E.S.D. [INBD] |
| | IC2001 | 1SM1V10S15Z | IC | 1 | E.S.D. |
| | IC2003 | 1VK1DCGH5KZ | IC | 1 | E.S.D. |
| | IC2004 | C0JBAS000182 | IC | 1 | E.S.D. |
| | IC2005 | C0JBAS000182 | IC | 1 | E.S.D. |
| | IC2502 | C0DBGYY05590 | IC | 1 | E.S.D. |
| | IC2503 | C0DBGYY05584 | IC | 1 | E.S.D. |
| | IC2504 | C0ZBZ0002095 | IC | 1 | E.S.D. |
| | IC2506 | C0ZBZ0002264 | IC | 1 | E.S.D. |
| | IC3501 | C0DBGYY03614 | IC | 1 | E.S.D. |
| | IC3502 | C0DBGYY03248 | IC | 1 | E.S.D. |
| | IC3503 | C0DBGYY03644 | IC | 1 | E.S.D. |
| | IC4001 | C1CB00004338 | IC | 1 | E.S.D. |
| | IC4002 | C0DBAYY02115 | IC | 1 | E.S.D. |
| | IC4501 | SUBF000024 | IC | 1 | E.S.D. [INBD] |
| | IC5001 | SUBF000023 | IC | 1 | E.S.D. [INBD] |
| | IC5101 | C0ABGA000035 | IC | 1 | E.S.D. |
| | IC6151 | C0JBAS000419 | IC | 1 | E.S.D. |
| | IC6152 | C1CB00004598 | IC | 1 | E.S.D. |
| | IC6201 | C0JBAS000429 | IC | 1 | E.S.D. |
| | IC6202 | C0DBGYY00779 | IC | 1 | E.S.D. |
| | IC6203 | C0DBGYY00779 | IC | 1 | E.S.D. |
| | IC6251 | C0JBAS000429 | IC | 1 | E.S.D. |
| | IC6252 | C0DBGYY00779 | IC | 1 | E.S.D. |
| | IC6253 | C0DBGYY00779 | IC | 1 | E.S.D. |
| | IC6301 | L2EE00000038 | IC | 1 | E.S.D. |
| | IC6401 | C0JBAF000785 | IC | 1 | E.S.D. |
| | IC6402 | C1AB00004163 | IC | 1 | E.S.D. |
| | IC6403 | C0DBGYY02368 | IC | 1 | E.S.D. |
| | IC6404 | C0DBGYY02176 | IC | 1 | E.S.D. |
| | IC6405 | C0JBAE000517 | IC | 1 | E.S.D. |
| | IC8601 | C0JBAS000371 | IC | 1 | E.S.D. |
| | IC8602 | C0JBAS000371 | IC | 1 | E.S.D. |
| | IC8603 | C0JBAU000202 | IC | 1 | E.S.D. |
| | IC8610 | C0BBAA000116 | IC | 1 | E.S.D. |
| | IC8611 | C0DBZYY00721 | IC | 1 | E.S.D. |
| | IC9901 | SUBF000005 | IC | 1 | E.S.D. [INBD] |
| | IP1001 | ERBRE0R50V | FUSE 32V 0.5A | 1 | |
| | IP1002 | ERBRE1R00V | FUSE | 1 | |
| | JK6151 | K2HC106E0009 | JK, EXT MIC | 1 | |
| | JK6152 | K1FY124E0005 | CONNECTOR | 1 | |
| | JK6153 | K1FY119E0100 | CONNECTOR | 1 | |
| | L1051 | G1C4R7MA0577 | CHIP INDUCTOR 4.7UH | 1 | |
| | L1081 | G1C3R3MA0577 | CHIP INDUCTOR | 1 | |
| | L1101 | G1C220MA0496 | CHIP INDUCTOR 22UH | 1 | |

Model No. : DC-GH5/GH5M/GH5L/GH5A Parts List

| Change | Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|--------|--------|----------|--------------|-------------------------|------|---------|
| | | L1201 | G1C100MA0939 | CHIP INDUCTOR | 1 | |
| | | L1251 | G1C3R3ZA0322 | CHIP INDUCTOR | 1 | |
| | | L1301 | G1C4R7MA0939 | CHIP INDUCTOR | 1 | |
| | | L1401 | G1C100MA0939 | CHIP INDUCTOR | 1 | |
| | | L1481 | G1C3R3ZA0322 | CHIP INDUCTOR | 1 | |

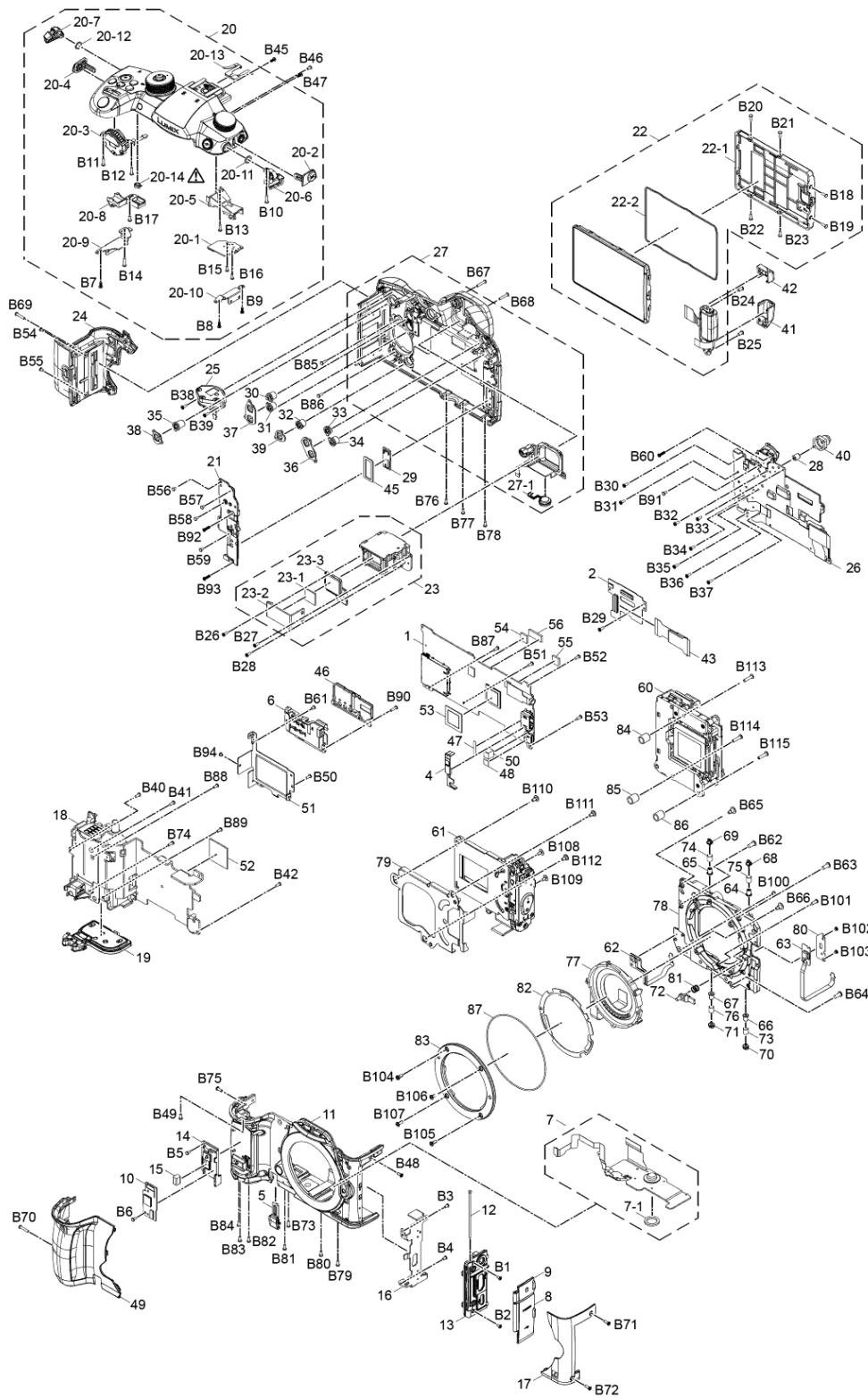
| | | | | | |
|--|--------|--------------|---------------------|---|--------|
| | L1601 | G1C4R7MA0577 | CHIP INDUCTOR 4.7UH | 1 | |
| | L1701 | G1C4R7MA0577 | CHIP INDUCTOR 4.7UH | 1 | |
| | L1801 | G1C1R5MA0577 | CHIP INDUCTOR 1.5UH | 1 | |
| | L1802 | G1C1R5MA0577 | CHIP INDUCTOR 1.5UH | 1 | |
| | L1851 | G1C4R7MA0577 | CHIP INDUCTOR 4.7UH | 1 | |
| | L1852 | G1C4R7ZA0322 | CHIP INDUCTOR | 1 | |
| | L1901 | G1C1R0MA0940 | CHIP INDUCTOR | 1 | |
| | L1951 | G1C1R5MA0577 | CHIP INDUCTOR 1.5UH | 1 | |
| | L2501 | G1C4R7MA0495 | CHIP INDUCTOR 4.7UH | 1 | |
| | L2502 | G1C4R7MA0495 | CHIP INDUCTOR 4.7UH | 1 | |
| | L4001 | G1C100MA0392 | CHIP INDUCTOR 10UH | 1 | |
| | L5001 | G1C150MA0320 | CHIP INDUCTOR | 1 | |
| | L5002 | G1C150MA0320 | CHIP INDUCTOR | 1 | |
| | L5003 | G1C150MA0320 | CHIP INDUCTOR | 1 | |
| | L5004 | G1C150MA0320 | CHIP INDUCTOR | 1 | |
| | L5005 | G1C150MA0320 | CHIP INDUCTOR | 1 | |
| | L5006 | G1C150MA0320 | CHIP INDUCTOR | 1 | |
| | LB2501 | J0JFC0000006 | FILTER | 1 | |
| | LB2502 | J0JFC0000006 | FILTER | 1 | |
| | LB2503 | J0JFC0000006 | FILTER | 1 | |
| | LB2504 | J0JFC0000006 | FILTER | 1 | |
| | LB2505 | J0JFC0000006 | FILTER | 1 | |
| | LB2506 | J0JFC0000006 | FILTER | 1 | |
| | LB2507 | J0JFC0000006 | FILTER | 1 | |
| | LB2508 | J0JFC0000006 | FILTER | 1 | |
| | LB6001 | J0JBC0000118 | FILTER | 1 | |
| | LB6151 | J0JBC0000107 | FILTER | 1 | |
| | LB6152 | J0JBC0000107 | FILTER | 1 | |
| | LB6153 | J0JBC0000107 | FILTER | 1 | |
| | LB6154 | J0JBC0000107 | FILTER | 1 | |
| | Q1651 | FK3503010L | TRANSISTOR | 1 | E.S.D. |
| | Q1652 | B1CHPB000008 | TRANSISTOR | 1 | E.S.D. |
| | Q1655 | B1CHPB000008 | TRANSISTOR | 1 | E.S.D. |
| | Q1656 | B1CHPB000008 | TRANSISTOR | 1 | E.S.D. |
| | Q1657 | FK3503010L | TRANSISTOR | 1 | E.S.D. |
| | Q1658 | FK3503010L | TRANSISTOR | 1 | E.S.D. |
| | Q1659 | B1CHPB000008 | TRANSISTOR | 1 | E.S.D. |
| | Q1660 | B1CHPB000008 | TRANSISTOR | 1 | E.S.D. |
| | Q1801 | B1CFRD000100 | TRANSISTOR | 1 | E.S.D. |
| | Q1803 | B1CFJD000007 | TRANSISTOR | 1 | E.S.D. |
| | Q3501 | B1CFQC000018 | TRANSISTOR | 1 | E.S.D. |
| | Q3502 | B1CFQC000018 | TRANSISTOR | 1 | E.S.D. |
| | Q4001 | B1CHMB000007 | TRANSISTOR | 1 | E.S.D. |
| | Q4002 | B1HFCFA00050 | TRANSISTOR | 1 | E.S.D. |
| | Q4501 | B1GFGCAA0001 | TRANSISTOR | 1 | E.S.D. |
| | Q5001 | B1ABCF000302 | TRANSISTOR | 1 | E.S.D. |
| | Q6003 | B1HFCFA00050 | TRANSISTOR | 1 | E.S.D. |
| | Q6004 | B1HBCFA00053 | TRANSISTOR | 1 | E.S.D. |
| | Q6151 | B1CFGD000003 | TRANSISTOR | 1 | E.S.D. |
| | Q6152 | B1CFJD000007 | TRANSISTOR | 1 | E.S.D. |
| | Q6201 | B1CHMB000007 | TRANSISTOR | 1 | E.S.D. |
| | Q6251 | B1CHMB000007 | TRANSISTOR | 1 | E.S.D. |
| | Q6401 | B1ABDF000017 | TRANSISTOR | 1 | E.S.D. |
| | Q8601 | FK3503010L | TRANSISTOR | 1 | E.S.D. |
| | Q8620 | B1CHPB000008 | TRANSISTOR | 1 | E.S.D. |
| | Q8621 | B1CHMB000007 | TRANSISTOR | 1 | E.S.D. |
| | Q9801 | B1MBCGA00006 | TRANSISTOR | 1 | E.S.D. |

Model No. : DC-GH5/GH5M/GH5L/GH5A Parts List

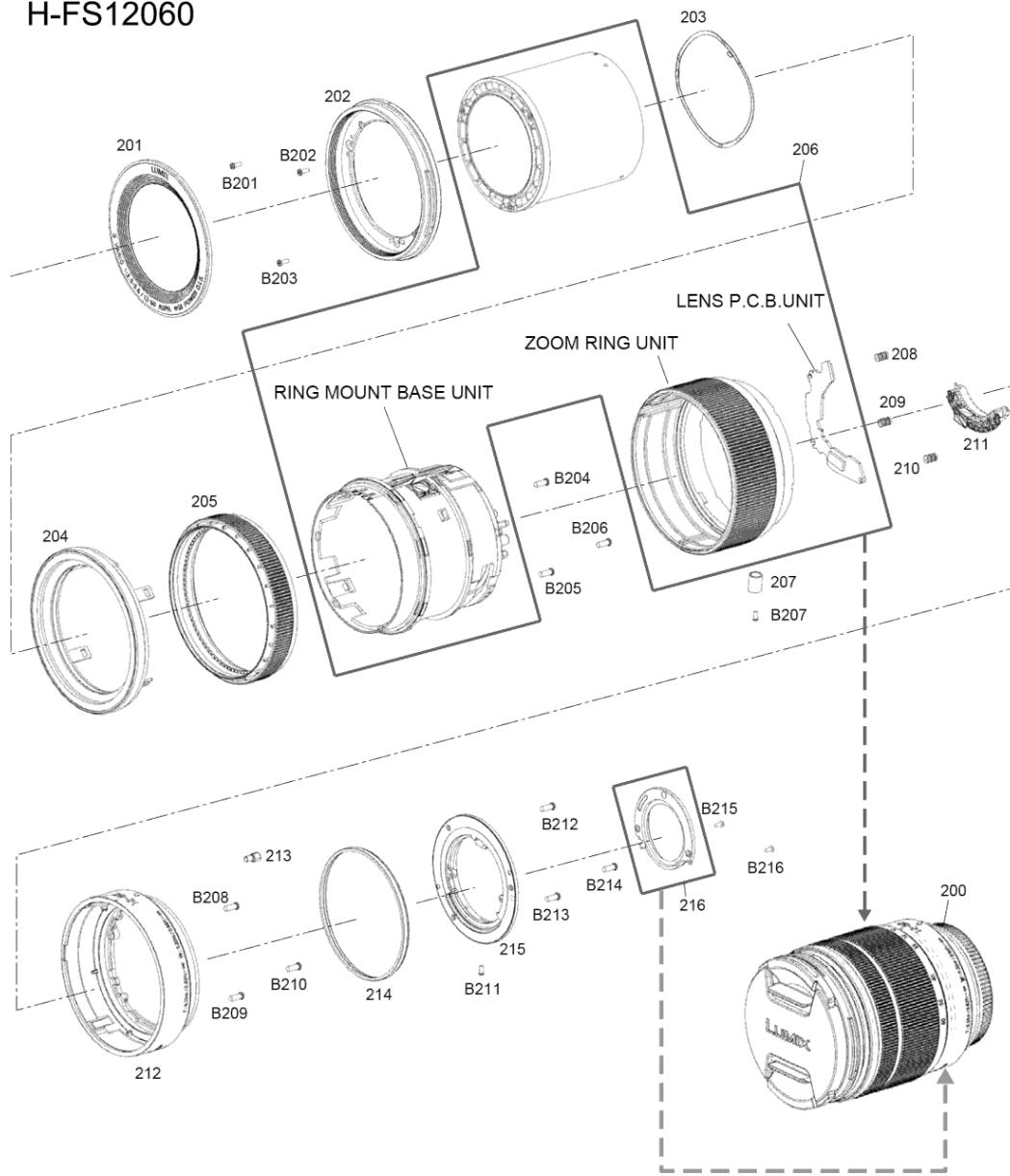
| Change | Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|--------|--------|----------|--------------|-------------------------|------|---------|
| | | Q9901 | B1HBCFA00053 | TRANSISTOR | 1 | E.S.D. |
| | | QR1651 | B1GBCFY0219 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | | QR1652 | B1GBCFY0219 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | | QR1801 | B1GBCFY0217 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | | QR2501 | B1GBCFY0217 | TRANSISTOR-RESISTOR | 1 | E.S.D. |

| | | | | | |
|--|--------|--------------|--------------------------|---|--------|
| | QR3501 | B1GBCFNN0015 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR3502 | B1GBCFNN0015 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR4001 | B1GBCFYY0217 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR4002 | B1GFCFLL0009 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR4003 | B1GBCFYY0217 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR4004 | B1GBCFYY0217 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR4501 | B1GDCFYY0087 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR6005 | B1GBCFYY0217 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR6151 | B1GDCFYY0148 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR6152 | B1GBCFYY0224 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR6201 | B1GBCFYY0217 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR6202 | B1GDCFYY0150 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR6203 | B1GBCFYY0217 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR6251 | B1GBCFYY0217 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR6252 | B1GDCFYY0150 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR6253 | B1GBCFYY0217 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR8401 | B1GKCFYY0038 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR8402 | B1GBCFGA0030 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR8601 | B1GFCFJJ0016 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR8602 | B1GFCFJJ0016 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | QR8623 | B1GBCFYY0221 | TRANSISTOR-RESISTOR | 1 | E.S.D. |
| | R4406 | D0GA104JA023 | M.RESISTOR CH 1/10W 100K | 1 | |
| | RX2001 | D1H81034A042 | RESISTOR NETWORKS | 1 | |
| | RX2006 | D1H84734A042 | RESISTOR NETWORKS | 1 | |
| | RX2010 | D1H4R0020006 | RESISTOR NETWORKS | 1 | |
| | RX2011 | D1H4R0020006 | RESISTOR NETWORKS | 1 | |
| | RX2012 | D1H81034A042 | RESISTOR NETWORKS | 1 | |
| | RX2013 | D1H81034A042 | RESISTOR NETWORKS | 1 | |
| | RX3561 | D1H81014A042 | RESISTOR NETWORKS | 1 | |
| | RX3562 | D1H81014A042 | RESISTOR NETWORKS | 1 | |
| | RX3563 | D1H81044A042 | RESISTOR NETWORKS | 1 | |
| | RX6201 | D1H81034A042 | RESISTOR NETWORKS | 1 | |
| | RX6251 | D1H81034A042 | RESISTOR NETWORKS | 1 | |
| | RX9801 | D1H81024A042 | RESISTOR NETWORKS | 1 | |
| | T9801 | G5DYZ0000028 | TRANSFORMER | 1 | |
| | TH2001 | D4CC11030013 | THERMISTORS | 1 | |
| | VA6001 | D4EDY1310001 | VARISTOR | 1 | |
| | VA6006 | D4EDY1310001 | VARISTOR | 1 | |
| | VA6007 | D4EDY1310001 | VARISTOR | 1 | |
| | X2001 | H1A7205B0007 | CRYSTAL OSCILLATOR | 1 | |
| | X2501 | H0J480500063 | CRYSTAL OSCILLATOR | 1 | |
| | X2502 | H1A4805B0059 | CRYSTAL OSCILLATOR | 1 | |
| | X2503 | H1A4805B0059 | CRYSTAL OSCILLATOR | 1 | |
| | X6401 | H0J327200230 | CRYSTAL OSCILLATOR | 1 | |

Model No. : DC-GH5/GH5M/GH5L/GH5A Frame and Casing Section

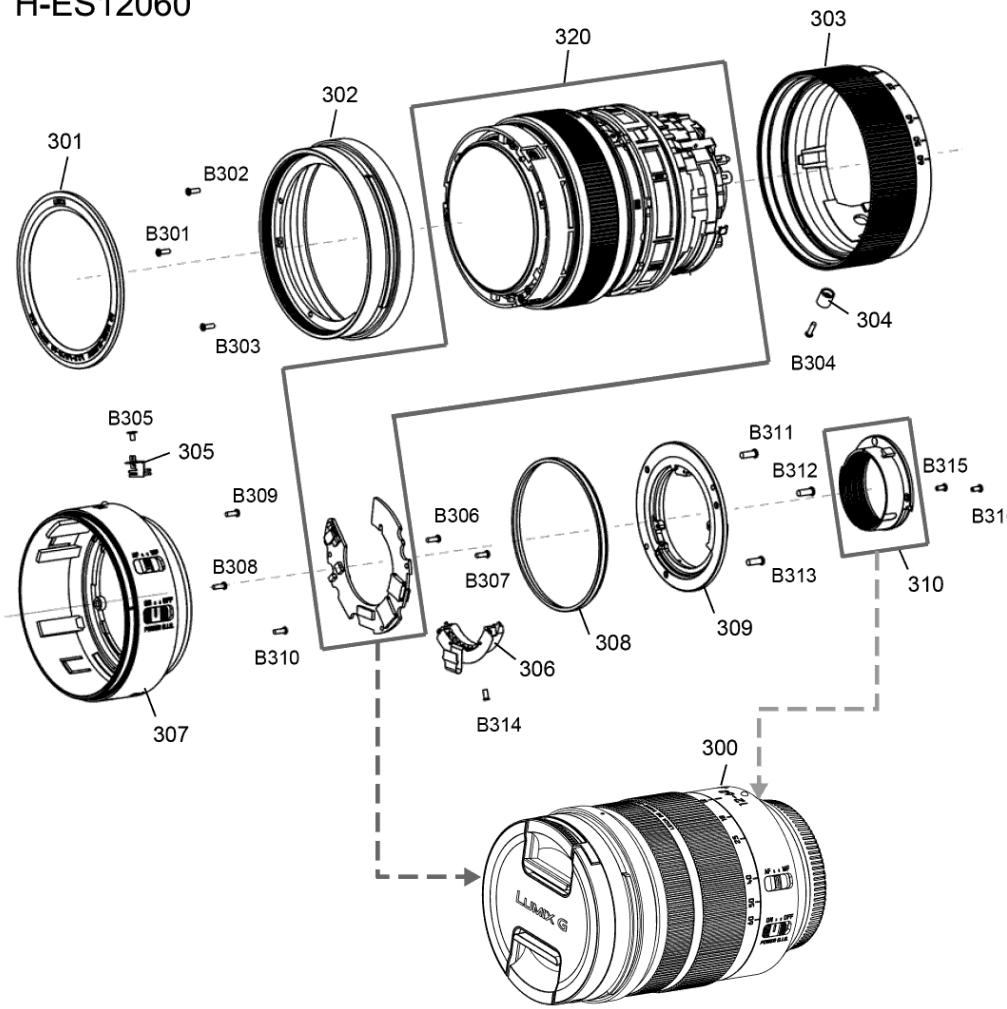


H-FS12060



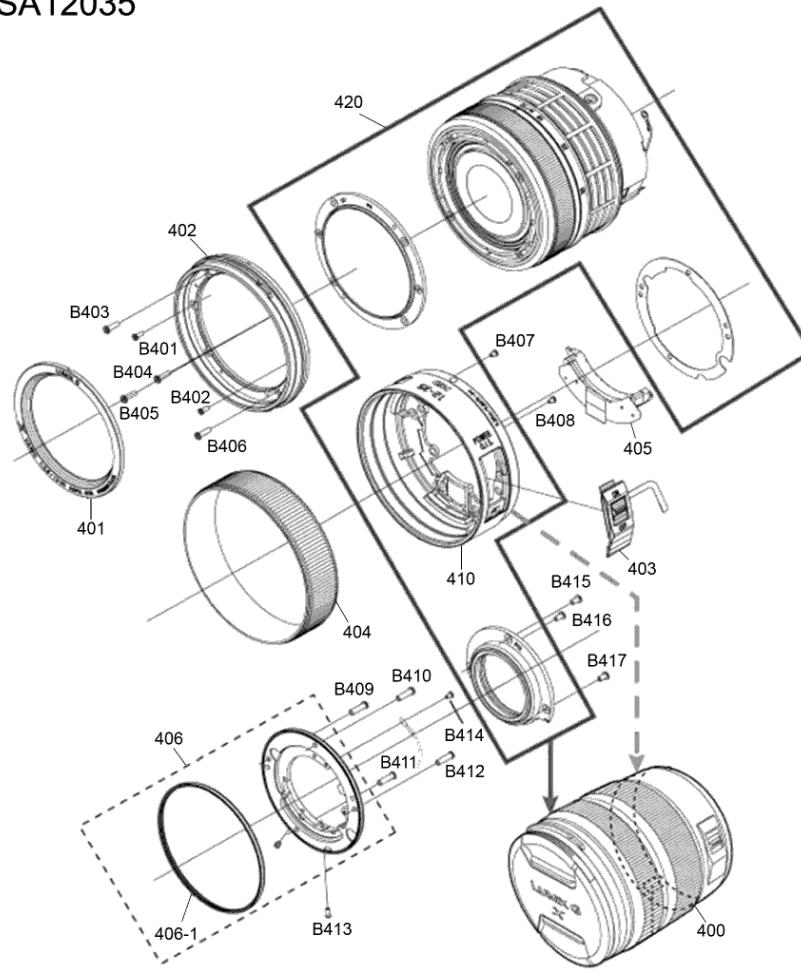
Model No. : DC-GH5/GH5M/GH5L/GH5A Camera Lens Section (2) (H-ES12060)

H-ES12060

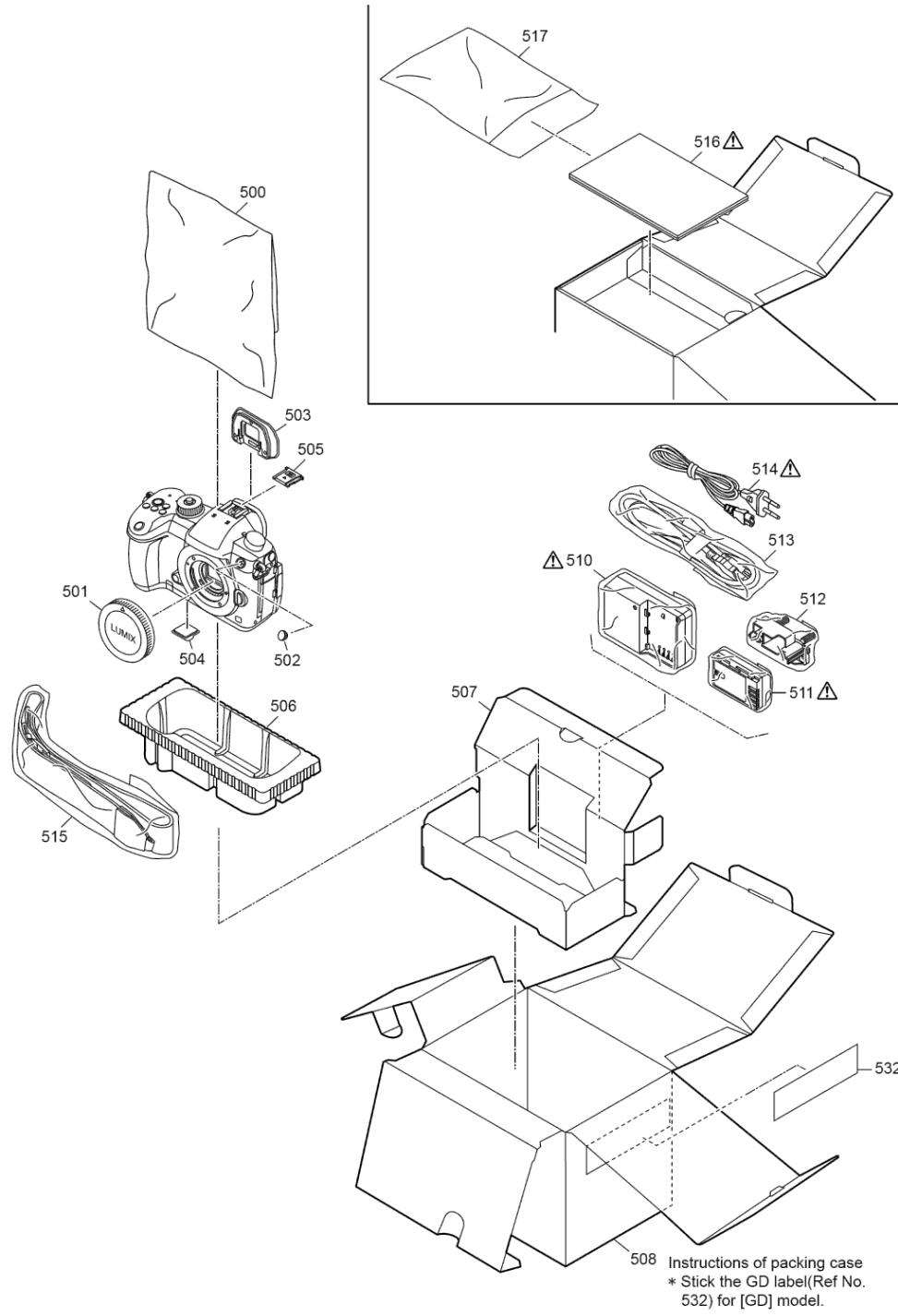


Model No. : DC-GH5/GH5M/GH5L/GH5A Camera Lens Section (3) (H-HSA12035)

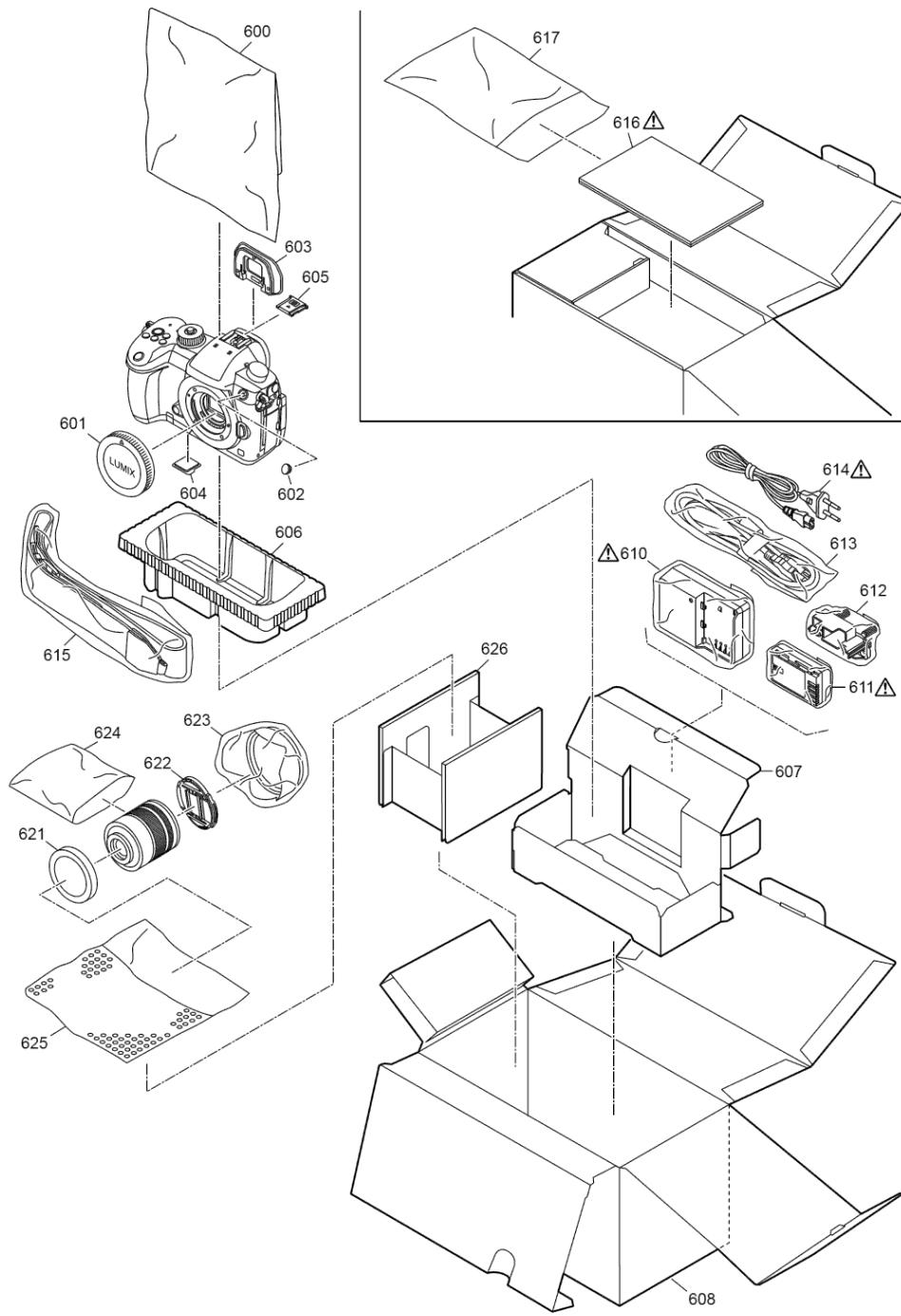
H-HSA12035



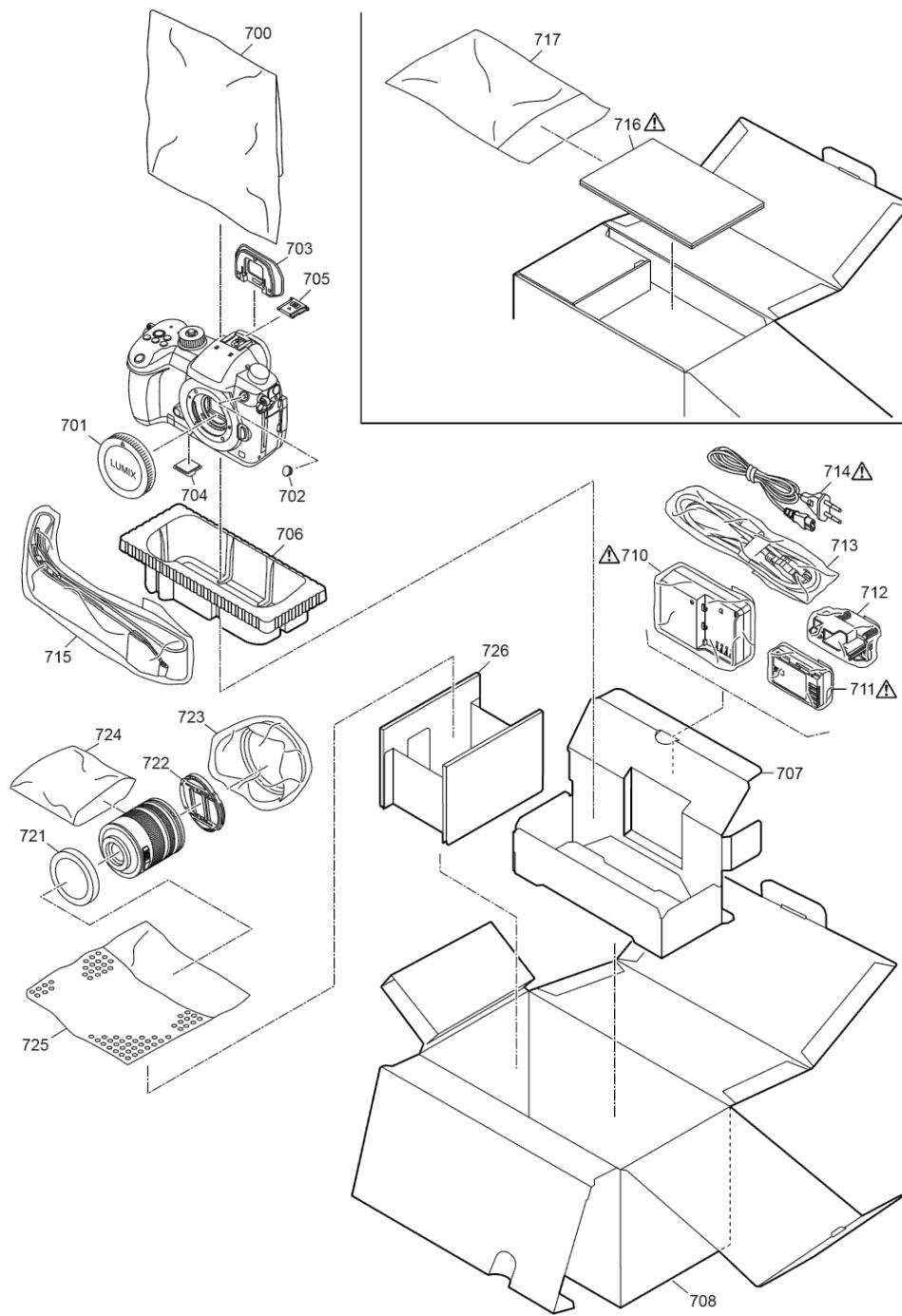
Model No. : DC-GH5/GH5M/GH5L/GH5A Packing Parts and Accessories Section (1) (GH5)



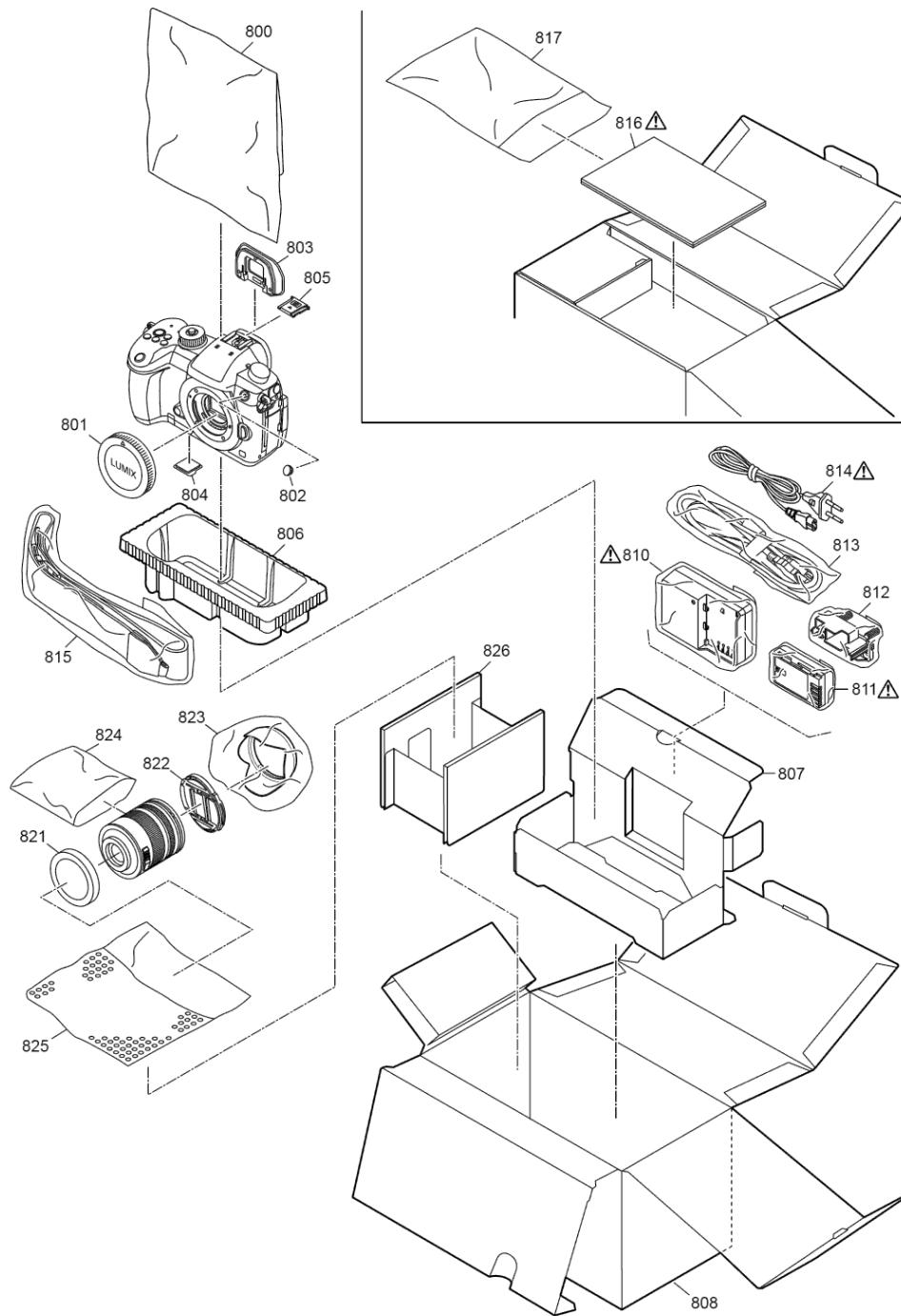
Model No. : DC-GH5/GH5M/GH5L/GH5A Packing Parts and Accessories Section (2) (GH5M)



Model No. : DC-GH5/GH5M/GH5L/GH5A Packing Parts and Accessories Section (3) (GH5L)



Model No. : DC-GH5/GH5M/GH5L/GH5A Packing Parts and Accessories Section (4) (GH5A)



Model No. : DC-GH5/GH5M/GH5L/GH5A Parts List

| Change | Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|--------|--------|----------|-----------|-------------------------|------|-------------|
| | | 1 | SEP1002AA | MAIN P.C.B. | 1 | E.S.D. |
| | | 2 | SEP1033AA | LVF P.C.B. | 1 | (RTL)E.S.D. |
| | | 4 | 1GE6A561Z | JACK SHADING PIECE | 1 | |
| | | 5 | 1KK1A561Z | DC COVER | 1 | |
| | | 6 | 1SE1A561Z | BATTERY P.C.B. UNIT | 1 | |

| | | | | | |
|---|-------|--------------|-------------------------|---|--------|
| | 7 | 1YE1A561Z | TRIPOD | 1 | |
| | 7-1 | DVHX1019Z | TRIPOD PORON | 1 | |
| | 8 | 1KK2A561Z | JACK COVER A | 1 | |
| | 9 | 1KK3A561Z | JACK COVER B | 1 | |
| | 10 | SEP1006AA | WI-FI BT P.C.B. | 1 | |
| | 11 | 5YM1A561Z | FRONT CASE UNIT | 1 | |
| | 12 | DVDF1016Z | JACK COVER SHAFT | 1 | |
| | 13 | 7YE1A561Z | JACK HOLDER UNIT | 1 | |
| | 14 | DVGE1045Z | WI-FI HOLDER | 1 | |
| | 15 | DVMC1020Z | WI-FI GASKET | 1 | |
| | 16 | DVME1020Z | PCB PLATE R | 1 | |
| | 17 | 2YE1A561Z | FRONT GRIP R UNIT | 1 | |
| | 18 | 2YM1A561Z | BATTERY CASE UNIT | 1 | |
| | 19 | 3YE1A561Z | BATTERY DOOR UNIT | 1 | |
| | 20 | 3YM1A561Z | TOP UNIT | 1 | |
| | 20-1 | SEP1004AA | EXT. MIC P.C.B. | 1 | E.S.D. |
| | 20-2 | 1KK5A561Z | MIC JACK COVER | 1 | |
| | 20-3 | 5YE3A561Z | FRONT DIAL UNIT | 1 | |
| | 20-4 | 1KK4A561Z | REMOTE COVER | 1 | |
| | 20-5 | DVGE1050Z | MIC JACK HOLDER | 1 | |
| | 20-6 | VYQ8076 | STRAP UNIT | 1 | |
| | 20-7 | VYQ8076 | STRAP UNIT | 1 | |
| | 20-8 | DVGE1051Z | REMOTE JACK HOLDER | 1 | |
| | 20-9 | DVME1026Z | TOP PLATE L | 1 | |
| | 20-10 | DVME1027Z | TOP PLATE R | 1 | |
| | 20-11 | VGQ1G18 | STRAP HOLDER CUSHION | 1 | |
| | 20-12 | VGQ1G18 | STRAP HOLDER CUSHION | 1 | |
| | 20-13 | VMC2111 | SHOE SPRING | 1 | |
|  | 20-14 | ML-421S/DB | BUTTON BATTERY | 1 | |
| | 21 | 7YE2A561Z | HINGE PAKING COVER UNIT | 1 | |
| | 22 | 4YM2A561Z | LCD UNIT | 1 | |
| | 22-1 | DVKM1014Z | LCD CASE BOTTOM | 1 | |
| | 22-2 | DVHG1007Z | LCD PACKING | 1 | |
| | 23 | 4YM3A561Z | LVF UNIT | 1 | |
| | 23-1 | VMT2329 | HEAT RADIATION PAD | 1 | |
| | 23-2 | DVMY1002Z | LVF HEAT SINK | 1 | |
| | 23-3 | L5ZZ00000247 | LVF MODULE | 1 | |
| | 24 | 6YE1A561Z | SD DOOR UNIT | 1 | |
| | 25 | 6YE2A561Z | REAR DIAL UNIT | 1 | |
| | 26 | 6YE3A561Z | REAR PLATE UNIT | 1 | |
| | 27 | 6YM1A561Z | REAR CASE UNIT | 1 | |
| | 27-1 | L0AA01A00185 | SPEAKER | 1 | |
| | 28 | SMQ0496 | JOY STICK LEVER | 1 | |
| | 29 | VGQ1F77-A | HINGE FIX COVER | 1 | |
| | 30 | DVBC1006Z | FN2 BUTTON | 1 | |
| | 31 | DVBC1007Z | FN3 BUTTON | 1 | |
| | 32 | DVBC1008Z | FN4 BUTTON | 1 | |
| | 33 | DVBC1009Z | FN5 BUTTON | 1 | |
| | 34 | DVBC1010Z | PREVIEW BUTTON | 1 | |
| | 35 | DVBC1011Z | DISPLAY BUTTON | 1 | |
| | 36 | DVHG1004Z | REAR BUTTON PACKING A | 1 | |
| | 37 | DVHG1004Z | REAR BUTTON PACKING A | 1 | |
| | 38 | DVHG1005Z | REAR BUTTON PACKING B | 1 | |
| | 39 | DVHG1005Z | REAR BUTTON PACKING B | 1 | |
| | 40 | DVHG1011Z | JOY STICK RUBBER | 1 | |
| | 41 | DVKM1011Z | HINGE ARM COVER BOTTOM | 1 | |
| | 42 | DVKM1012Z | HINGE ARM COVER TOP | 1 | |

Model No. : DC-GH5/GH5M/GH5L/GH5A Parts List

| Change | Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|--------|--------|----------|-----------|-------------------------|------|---------|
| | | 43 | DVLD1038Z | LVF CN FPC | 1 | |
| | | 45 | VGQ1F95 | HINGE CUSHION | 1 | |
| | | 46 | DVGE1046Z | BATTERY CONTACT COVER | 1 | |
| | | 47 | DVHX1096Z | JACK PIECE TAPE A | 1 | |
| | | 48 | DVHX1097Z | JACK PIECE TAPE B | 1 | |

| | | | | | |
|--|-----|--------------|------------------------|---|--|
| | 49 | DVKV1003Z | FRONT GRIP L | 1 | |
| | 50 | DVMC1018Z | GASKET MAIN | 1 | |
| | 51 | DVME1021Z | BATTERY REAR PLATE | 1 | |
| | 52 | DVMY1005Z | HEAT RADI PAD MAIN 1 | 1 | |
| | 53 | DVMY1006Z | HEAT RADI PAD MAIN 2 | 1 | |
| | 54 | DVMY1007Z | HEAT RADI PAD REAR 1 | 1 | |
| | 55 | DVMY1007Z | HEAT RADI PAD REAR 1 | 1 | |
| | 56 | DVMY1008Z | HEAT RADI PAD REAR 2 | 1 | |
| | 60 | 2DX1MC561Z | IMAGE SENSOR UNIT | 1 | |
| | 61 | 3DX2MC561Z-S | SHUTTER UNIT | 1 | |
| | 62 | SEP1019AA | FRONT OPERATION FPC | 1 | |
| | 63 | SEP1021AA | LPSW FPC | 1 | |
| | 64 | DVDE1003Z | ABSORBER BASE | 1 | |
| | 65 | DVDE1003Z | ABSORBER BASE | 1 | |
| | 66 | DVDE1003Z | ABSORBER BASE | 1 | |
| | 67 | DVDE1003Z | ABSORBER BASE | 1 | |
| | 68 | DVDF1009Z | ABSORBER LOCK PIN | 1 | |
| | 69 | DVDF1009Z | ABSORBER LOCK PIN | 1 | |
| | 70 | DVDF1009Z | ABSORBER LOCK PIN | 1 | |
| | 71 | DVDF1009Z | ABSORBER LOCK PIN | 1 | |
| | 72 | DVME1011Z | LENS LOCK PIN | 1 | |
| | 73 | DVUR1009Z | ABSORBER SPRING-A | 1 | |
| | 74 | DVUR1009Z | ABSORBER SPRING-A | 1 | |
| | 75 | DVUR1035Z | ABSORBER SPRING-B | 1 | |
| | 76 | DVUR1035Z | ABSORBER SPRING-B | 1 | |
| | 77 | DVVE1003Z | LENS CONNECTOR | 1 | |
| | 78 | DVZM1001Z | MOUNT BASE | 1 | |
| | 79 | DVZM1004Z | SHUTTER HOLDER | 1 | |
| | 80 | SMA0345 | LENS RELEASE FPC PLATE | 1 | |
| | 81 | VMB4497 | LENS LOCK PIN SPRING | 1 | |
| | 82 | VMC2063 | MOUNT SPRING | 1 | |
| | 83 | VMD6702 | B MOUNT | 1 | |
| | 84 | SMB0206 | ADJUST SPRING | 1 | |
| | 85 | SMB0206 | ADJUST SPRING | 1 | |
| | 86 | SMB0206 | ADJUST SPRING | 1 | |
| | 87 | VMG2060 | B MOUNT RING | 1 | |
| | B1 | SHD0061 | SCREW | 1 | |
| | B2 | SHD0061 | SCREW | 1 | |
| | B3 | VHD1919 | SCREW | 1 | |
| | B4 | VHD1919 | SCREW | 1 | |
| | B5 | VHD1919 | SCREW | 1 | |
| | B6 | VHD1919 | SCREW | 1 | |
| | B7 | VHD2200-B | SCREW | 1 | |
| | B8 | VHD2200-B | SCREW | 1 | |
| | B9 | VHD2200-B | SCREW | 1 | |
| | B10 | VHD2251-B | SCREW | 1 | |
| | B11 | VHD2251-B | SCREW | 1 | |
| | B12 | VHD2251-B | SCREW | 1 | |
| | B13 | VHD2438 | SCREW | 1 | |
| | B14 | VHD2532 | SCREW | 1 | |
| | B15 | XQN14+BJ4FJK | SCREW | 1 | |
| | B16 | XQN14+BJ4FJK | SCREW | 1 | |
| | B17 | XQN16+BJ4FN | SCREW | 1 | |
| | B18 | VHD2337 | SCREW | 1 | |
| | B19 | VHD2337 | SCREW | 1 | |
| | B20 | VHD2337 | SCREW | 1 | |
| | B21 | VHD2337 | SCREW | 1 | |

Model No. : DC-GH5/GH5M/GH5L/GH5A Parts List

| Change | Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|--------|--------|----------|-----------|-------------------------|------|---------|
| | | B22 | VHD2337 | SCREW | 1 | |
| | | B23 | VHD2337 | SCREW | 1 | |
| | | B24 | VHD1658 | SCREW | 1 | |
| | | B25 | VHD1658 | SCREW | 1 | |
| | | B26 | VHD2200-B | SCREW | 1 | |

| | | | | | | |
|--|--|-----|-------------|-------|---|--|
| | | B27 | VHD2200-B | SCREW | 1 | |
| | | B28 | VHD2200-B | SCREW | 1 | |
| | | B29 | VHD2200-B | SCREW | 1 | |
| | | B30 | VHD2200-B | SCREW | 1 | |
| | | B31 | VHD2200-B | SCREW | 1 | |
| | | B32 | VHD2200-B | SCREW | 1 | |
| | | B33 | VHD2200-B | SCREW | 1 | |
| | | B34 | VHD2200-B | SCREW | 1 | |
| | | B35 | VHD2200-B | SCREW | 1 | |
| | | B36 | VHD2200-B | SCREW | 1 | |
| | | B37 | VHD2200-B | SCREW | 1 | |
| | | B38 | VHD2200-B | SCREW | 1 | |
| | | B39 | VHD2200-B | SCREW | 1 | |
| | | B40 | VHD2200-B | SCREW | 1 | |
| | | B41 | VHD2200-B | SCREW | 1 | |
| | | B42 | VHD2200-B | SCREW | 1 | |
| | | B45 | VHD2200-B | SCREW | 1 | |
| | | B46 | VHD2200-B | SCREW | 1 | |
| | | B47 | VHD2200-B | SCREW | 1 | |
| | | B48 | VHD2200-B | SCREW | 1 | |
| | | B49 | VHD2200-B | SCREW | 1 | |
| | | B50 | VHD2200-B | SCREW | 1 | |
| | | B51 | VHD2200-B | SCREW | 1 | |
| | | B52 | VHD2200-B | SCREW | 1 | |
| | | B53 | VHD2200-B | SCREW | 1 | |
| | | B54 | VHD2333 | SCREW | 1 | |
| | | B55 | VHD2333 | SCREW | 1 | |
| | | B56 | VHD2333 | SCREW | 1 | |
| | | B57 | VHD2333 | SCREW | 1 | |
| | | B58 | VHD2333 | SCREW | 1 | |
| | | B59 | VHD2333 | SCREW | 1 | |
| | | B60 | XQN16+B3FJ | SCREW | 1 | |
| | | B61 | XQN16+B3FJ | SCREW | 1 | |
| | | B62 | VHD1658 | SCREW | 1 | |
| | | B63 | VHD1658 | SCREW | 1 | |
| | | B64 | VHD1658 | SCREW | 1 | |
| | | B65 | SHD0118 | SCREW | 1 | |
| | | B66 | SHD0118 | SCREW | 1 | |
| | | B67 | DVHD1003Z | SCREW | 1 | |
| | | B68 | DVHD1003Z | SCREW | 1 | |
| | | B69 | DVHD1003Z | SCREW | 1 | |
| | | B70 | DVHD1003Z | SCREW | 1 | |
| | | B71 | VHD2438 | SCREW | 1 | |
| | | B72 | VHD2438 | SCREW | 1 | |
| | | B73 | VHD2438 | SCREW | 1 | |
| | | B74 | VHD2438 | SCREW | 1 | |
| | | B75 | VHD2438 | SCREW | 1 | |
| | | B76 | VHD2179 | SCREW | 1 | |
| | | B77 | VHD2179 | SCREW | 1 | |
| | | B78 | VHD2179 | SCREW | 1 | |
| | | B79 | VHD2179 | SCREW | 1 | |
| | | B80 | VHD2179 | SCREW | 1 | |
| | | B81 | VHD2179 | SCREW | 1 | |
| | | B82 | VHD2179 | SCREW | 1 | |
| | | B83 | VHD2179 | SCREW | 1 | |
| | | B84 | VHD2179 | SCREW | 1 | |
| | | B85 | XQN16+BJ4FN | SCREW | 1 | |

Model No. : DC-GH5/GH5M/GH5L/GH5A Parts List

| Change | Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|--------|--------|----------|-------------|-------------------------|------|---------|
| | | B86 | XQN16+BJ4FN | SCREW | 1 | |
| | | B87 | XQN16+BJ4FN | SCREW | 1 | |
| | | B88 | XQN16+BJ4FN | SCREW | 1 | |
| | | B89 | XQN16+BJ4FN | SCREW | 1 | |
| | | B90 | XQN16+BJ6FN | SCREW | 1 | |

| | | | | | |
|--|------|--------------|--------------------|---|---------------------|
| | B91 | XQN16+BJ6FN | SCREW | 1 | |
| | B92 | XQN16+BJ6FN | SCREW | 1 | |
| | B93 | XQN16+BJ6FN | SCREW | 1 | |
| | B94 | XQN16+B2FN | SCREW | 1 | |
| | B100 | VHD2384 | SCREW | 1 | |
| | B101 | XQN16+BJ4FN | SCREW | 1 | |
| | B102 | VHD2508 | SCREW | 1 | |
| | B103 | VHD2508 | SCREW | 1 | |
| | B104 | VHD2124 | SCREW | 1 | |
| | B105 | VHD2124 | SCREW | 1 | |
| | B106 | VHD2190 | SCREW | 1 | |
| | B107 | VHD2190 | SCREW | 1 | |
| | B108 | DVHD1020Z | SCREW | 1 | |
| | B109 | DVHD1020Z | SCREW | 1 | |
| | B110 | DVHD1021Z | SCREW | 1 | |
| | B111 | DVHD1021Z | SCREW | 1 | |
| | B112 | DVHD1021Z | SCREW | 1 | |
| | B113 | SHD0108 | SCREW | 1 | |
| | B114 | SHD0108 | SCREW | 1 | |
| | B115 | SHD0108 | SCREW | 1 | |
| | 200 | SXW0282 | LENS UNIT | 1 | GH5M |
| | 201 | SDW0373K | DECORATION RING | 1 | GH5M |
| | 202 | SDW0372K | FILTER RING | 1 | GH5M |
| | 203 | VMC2220 | WAVE WASHER | 1 | GH5M |
| | 204 | SXQ0655 | FRONT FRAME UNIT | 1 | GH5M |
| | 205 | SXQ0653 | FOCUS RING UNIT | 1 | GH5M |
| | 206 | ----- | LENS MAIN UNIT | 1 | GH5M (NOT SUPPLIED) |
| | 207 | VMS8326 | ZOOM PIN | 1 | GH5M |
| | 208 | VMG1855 | FLOATING RUBBER | 1 | GH5M |
| | 209 | VMG1855 | FLOATING RUBBER | 1 | GH5M |
| | 210 | VMG1855 | FLOATING RUBBER | 1 | GH5M |
| | 211 | SEJ0005 | MOUNT CONTACT UNIT | 1 | GH5M |
| | 212 | SXQ0648 | REAR FRAME UNIT | 1 | GH5M |
| | 213 | VMS8278 | ADJUST PIN | 1 | GH5M |
| | 214 | SMG0095 | SEALING RUBBER | 1 | GH5M |
| | 215 | SXQ0649 | L MOUNT UNIT | 1 | GH5M |
| | 216 | ----- | SHADING FRAME | 1 | GH5M (NOT SUPPLIED) |
| | B201 | VHD2296 | SCREW | 1 | GH5M |
| | B202 | VHD2296 | SCREW | 1 | GH5M |
| | B203 | VHD2296 | SCREW | 1 | GH5M |
| | B204 | XQN16+BJ4FNK | SCREW | 1 | GH5M |
| | B205 | XQN16+BJ4FNK | SCREW | 1 | GH5M |
| | B206 | XQN16+BJ4FNK | SCREW | 1 | GH5M |
| | B207 | VHD2296 | SCREW | 1 | GH5M |
| | B208 | VHD2296 | SCREW | 1 | GH5M |
| | B209 | VHD2296 | SCREW | 1 | GH5M |
| | B210 | VHD2296 | SCREW | 1 | GH5M |
| | B211 | VHD2298 | SCREW | 1 | GH5M |
| | B212 | VHD2299 | SCREW | 1 | GH5M |
| | B213 | VHD2299 | SCREW | 1 | GH5M |
| | B214 | VHD2299 | SCREW | 1 | GH5M |
| | B215 | VHD2246 | SCREW | 1 | GH5M |
| | B216 | VHD2246 | SCREW | 1 | GH5M |
| | 300 | LOU3Z260Z | LENS UNIT | 1 | GH5L |
| | 301 | 1HR1Z260CZ | DECORING UNIT | 1 | GH5L |
| | 302 | DVGX1028Z | FILTER RING | 1 | GH5L |
| | 303 | ADE3Z260Z | ZOOM RING UNIT | 1 | GH5L |

Model No. : DC-GH5/GH5M/GH5L/GH5A Parts List

| Change | Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|--------|--------|----------|-----------|-------------------------|------|---------|
| | | 304 | DVMH1028Z | ZOOM DRIVE PIN | 1 | GH5L |
| | | 305 | DVUS1002Z | REAR FRAME EARTH SPRING | 1 | GH5L |
| | | 306 | 6SE2Z260Z | L MOUNT CONTACT UNIT | 1 | GH5L |
| | | 307 | RDE4Z260Z | REAR FRAME UNIT | 1 | GH5L |
| | | 308 | SMG0095 | SEALING RUBBER | 1 | GH5L |

| | | | | | |
|--|-------|-----------|--------------------------|---|---|
| | 309 | SXQ0649 | L MOUNT UNIT | 1 | GH5L |
| | 310 | ----- | SHADING FRAME | 1 | GH5L (NOT SUPPLIED) |
| | 320 | ----- | LENS MAIN UNIT | 1 | GH5L (NOT SUPPLIED) |
| | B301 | VHD2296 | SCREW | 1 | GH5L |
| | B302 | VHD2296 | SCREW | 1 | GH5L |
| | B303 | VHD2296 | SCREW | 1 | GH5L |
| | B304 | SHD0021 | SCREW | 1 | GH5L |
| | B305 | VHD2011 | SCREW | 1 | GH5L |
| | B306 | VHD2073 | SCREW | 1 | GH5L |
| | B307 | VHD2073 | SCREW | 1 | GH5L |
| | B308 | VHD2296 | SCREW | 1 | GH5L |
| | B309 | VHD2296 | SCREW | 1 | GH5L |
| | B310 | VHD2296 | SCREW | 1 | GH5L |
| | B311 | VHD2299 | SCREW | 1 | GH5L |
| | B312 | VHD2299 | SCREW | 1 | GH5L |
| | B313 | VHD2299 | SCREW | 1 | GH5L |
| | B314 | VHD2298 | SCREW | 1 | GH5L |
| | B315 | VHD2246 | SCREW | 1 | GH5L |
| | B316 | VHD2246 | SCREW | 1 | GH5L |
| | 400 | DVXE1022Z | LENS UNIT | 1 | GH5A [INBD] |
| | 401 | PB27HJ0 | DECORATION RING | 1 | GH5A [INBD] |
| | 402 | PB2F030 | HOOD ADAPTER | 1 | GH5A [INBD] |
| | 403 | PB2F111 | OIS SW UNIT | 1 | GH5A [INBD] |
| | 404 | P12F320 | ZOOM RUBBER | 1 | GH5A [INBD] |
| | 405 | P1279H0 | MOUNT CONTACT UNIT | 1 | GH5A [INBD] |
| | 406 | P128H50 | L MOUNT UNIT | 1 | GH5A [INBD] |
| | 406-1 | 9630230 | LENS MOUNT RUBBER | 1 | GH5A [INBD] |
| | 410 | ----- | REAR FRAME UNIT | 1 | GH5A (NOT SUPPLIED) |
| | 420 | ----- | LENS MAIN UNIT | 1 | GH5A (NOT SUPPLIED) |
| | B401 | 0254035 | SCREW | 1 | GH5A [INBD] |
| | B402 | 0254035 | SCREW | 1 | GH5A [INBD] |
| | B403 | 0257060 | SCREW | 1 | GH5A [INBD] |
| | B404 | 0257060 | SCREW | 1 | GH5A [INBD] |
| | B405 | 0257060 | SCREW | 1 | GH5A [INBD] |
| | B406 | 0257060 | SCREW | 1 | GH5A [INBD] |
| | B407 | 0242050 | SCREW | 1 | GH5A [INBD] |
| | B408 | 0242050 | SCREW | 1 | GH5A [INBD] |
| | B409 | 0242070 | SCREW | 1 | GH5A [INBD] |
| | B410 | 0242070 | SCREW | 1 | GH5A [INBD] |
| | B411 | 0242070 | SCREW | 1 | GH5A [INBD] |
| | B412 | 0242070 | SCREW | 1 | GH5A [INBD] |
| | B413 | 0B44035 | SCREW | 1 | GH5A [INBD] |
| | B414 | 0554020 | SCREW | 1 | GH5A [INBD] |
| | B415 | 0HF4025 | SCREW | 1 | GH5A [INBD] |
| | B416 | 0HF4025 | SCREW | 1 | GH5A [INBD] |
| | B417 | 0HF4025 | SCREW | 1 | GH5A [INBD] |
| | 500 | VPF1565 | CAMERA BAG | 1 | |
| | 501 | VKF4971 | BODY CAP | 1 | |
| | 502 | VKF5108-A | FLASH SYNCHRO SOCKET CAP | 1 | |
| | 503 | 4YE1A561Z | EYECUP | 1 | |
| | 504 | SKF0145K | BG CONTACT COVER | 1 | |
| | 505 | VYF3522 | HOT SHOE COVER | 1 | |
| | 506 | DVPN1085Z | CUSHION | 1 | |
| | 507 | DVPN1086Z | PAD B | 1 | |
| | 508 | DVPK1073Z | PACKING CASE | 1 | GH5P, GH5PP, GH5EG, GH5EC, GH5EF, GH5B, GH5EE, GH5GA, GH5GC, GH5GH, GH5GT, GH5GN, GH5GD |

Model No. : DC-GH5/GH5M/GH5L/GH5A Parts List

| Change | Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|--------|--------|----------|-----------|-------------------------|------|--|
| | | 508 | DVPK1074Z | PACKING CASE | 1 | GH5GK |
| | | 510 | VSK0793 | BATTERY CHARGER | 1 | GH5P, GH5PP |
| | | 510 | VSK0794 | BATTERY CHARGER | 1 | GH5EG, GH5EC, GH5EF, GH5EB, GH5EE |
| | | 510 | VSK0795 | BATTERY CHARGER | 1 | GH5GA, GH5GC, GH5GH, GH5GK, GH5GN, GH5GD |
| | | 510 | VSK0796 | BATTERY CHARGER | 1 | GH5GT |

| | | | | | |
|--|-----|--------------|----------------------------------|---|--|
| | 511 | ----- | BATTERY PACK | 1 | |
| | 512 | 1PP1A561Z | CABLE HOLDER | 1 | |
| | 513 | K1HY24YY0021 | USB CABLE W/PLUG | 1 | |
| | 514 | K2CA2CA00025 | AC CORD W/PLUG | 1 | GH5P, GH5PP |
| | 514 | K2CQ2YY00082 | AC CORD W/PLUG | 1 | GH5EG, GH5EC, GH5EF, GH5EE, GH5GA, GH5GC |
| | 514 | K2CT3YY00034 | AC CORD W/PLUG | 1 | GH5EB, GH5GA, GH5GC, GH5GH |
| | 514 | K2CP2YY00083 | AC CORD W/PLUG | 1 | GH5GA |
| | 514 | K2CA2YY00129 | AC CORD W/PLUG | 1 | GH5GT |
| | 514 | K2CA2YY00130 | AC CORD W/PLUG | 1 | GH5GK |
| | 514 | K2CJ2YY00052 | AC CORD W/PLUG | 1 | GH5GN |
| | 514 | K2CR2YY00026 | AC CORD W/PLUG | 1 | GH5GD |
| | 515 | DVPW1003Z | SHOUDER STRAP | 1 | |
| | 516 | DVQX1052Z | BASIC O/I (ENGLISH) | 1 | GH5P |
| | 516 | DVQX1053Z | BASIC O/I (SPANISH) | 1 | GH5P |
| | 516 | DVQX1054Z | BASIC O/I (FRENCH) | 1 | GH5PP |
| | 516 | DVQX1254Z | BASIC O/I (ENGLISH) | 1 | GH5PP |
| | 516 | DVQX1255Z | BASIC O/I (SPANISH) | 1 | GH5PP |
| | 516 | DVQX1055Z | BASIC O/I (GERMAN) | 1 | GH5EG |
| | 516 | DVQX1056Z | BASIC O/I (FRENCH) | 1 | GH5EG, GH5EF |
| | 516 | DVQX1057Z | BASIC O/I (ITALIAN) | 1 | GH5EG |
| | 516 | DVQX1058Z | BASIC O/I (DUTCH) | 1 | GH5EG, GH5EF |
| | 516 | DVQX1059Z | BASIC O/I (SPANISH) | 1 | GH5EC |
| | 516 | DVQX1060Z | BASIC O/I (PORTUGUESE) | 1 | GH5EC |
| | 516 | DVQX1061Z | BASIC O/I (SWEDISH) | 1 | GH5EC |
| | 516 | DVQX1062Z | BASIC O/I (DANISH) | 1 | GH5EC |
| | 516 | DVQX1063Z | BASIC O/I (FINNISH) | 1 | GH5EC |
| | 516 | DVQX1064Z | BASIC O/I (ENGLISH) | 1 | GH5EB |
| | 516 | DVQX1065Z | BASIC O/I (RUSSIAN) | 1 | GH5EE |
| | 516 | DVQX1066Z | BASIC O/I (UKRAINIAN) | 1 | GH5EE |
| | 516 | DVQX1067Z | BASIC O/I (ENGLISH) | 1 | GH5GA |
| | 516 | DVQX1068Z | BASIC O/I (CHINESE(TRADITIONAL)) | 1 | GH5GA |
| | 516 | DVQX1069Z | BASIC O/I (ARABIC) | 1 | GH5GA |
| | 516 | DVQX1256Z | BASIC O/I (ENGLISH) | 1 | GH5GC |
| | 516 | DVQX1257Z | BASIC O/I (CHINESE(TRADITIONAL)) | 1 | GH5GC |
| | 516 | DVQX1258Z | BASIC O/I (ARABIC) | 1 | GH5GC |
| | 516 | DVQX1259Z | BASIC O/I (ENGLISH) | 1 | GH5GH |
| | 516 | DVQX1260Z | BASIC O/I (CHINESE(TRADITIONAL)) | 1 | GH5GH |
| | 516 | DVQX1070Z | BASIC O/I (CHINESE(TRADITIONAL)) | 1 | GH5GT |
| | 516 | DVQX1071Z | BASIC O/I (CHINESE(SIMPLIFIED)) | 1 | GH5GK |
| | 516 | DVQX1072Z | BASIC O/I (ENGLISH) | 1 | GH5GN |
| | 516 | DVQX1073Z | BASIC O/I (KOREAN) | 1 | GH5GD |
| | 517 | VPF1542 | BAG, POLYETHYLENE | 1 | |
| | 532 | VQL2J61 | GD LABEL | 1 | GH5GD |
| | 600 | VPF1565 | CAMERA BAG | 1 | |
| | 601 | VKF4971 | BODY CAP | 1 | |
| | 602 | VKF5108-A | FLASH SYNCHRO SOCKET CAP | 1 | |
| | 603 | 4YE1A561Z | EYECUP | 1 | |
| | 604 | SKF0145K | BG CONTACT COVER | 1 | |
| | 605 | VYF3522 | HOT SHOE COVER | 1 | |
| | 606 | DVPN1085Z | CUSHION | 1 | |
| | 607 | DVPN1086Z | PAD B | 1 | |
| | 608 | DVPK1075Z | PACKING CASE | 1 | GH5M |
| | 610 | VSK0794 | BATTERY CHARGER | 1 | GH5M |
| | 611 | ----- | BATTERY PACK | 1 | |
| | 612 | 1PP1A561Z | CABLE HOLDER | 1 | |

Model No. : DC-GH5/GH5M/GH5L/GH5A Parts List

| Change | Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|--------|--------|----------|--------------|-------------------------|------|-----------------------|
| | | 613 | K1HY24YY0021 | USB CABLE W/PLUG | 1 | |
| | | 614 | K2CQ2YY00082 | AC CORD W/PLUG | 1 | GH5MEG, GH5EC, GH5MEF |
| | | 614 | K2CT3YY00034 | AC CORD W/PLUG | 1 | GH5MEB |
| | | 615 | DVPW1003Z | SHOUDER STRAP | 1 | |
| | | 616 | DVQX1055Z | BASIC O/I (GERMAN) | 1 | GH5MEG |
| | | 616 | DVQX1056Z | BASIC O/I (FRENCH) | 1 | GH5MEG, GH5MEF |

| | | | | | | |
|--|--|-----|--------------|----------------------------------|---|---|
| | | 616 | DVQX1057Z | BASIC O/I (ITALIAN) | 1 | GH5MEG |
| | | 616 | DVQX1058Z | BASIC O/I (DUTCH) | 1 | GH5MEG, GH5MEF |
| | | 616 | DVQX1059Z | BASIC O/I (SPANISH) | 1 | GH5MEC |
| | | 616 | DVQX1060Z | BASIC O/I (PORTUGUESE) | 1 | GH5MEC |
| | | 616 | DVQX1061Z | BASIC O/I (SWEDISH) | 1 | GH5MEC |
| | | 616 | DVQX1062Z | BASIC O/I (DANISH) | 1 | GH5MEC |
| | | 616 | DVQX1063Z | BASIC O/I (FINNISH) | 1 | GH5MEC |
| | | 616 | DVQX1064Z | BASIC O/I (ENGLISH) | 1 | GH5MEB |
| | | 617 | VPF1542 | BAG, POLYETHYLENE | 1 | |
| | | 621 | VFC4605-B | LENS REAR CAP | 1 | GH5M |
| | | 622 | VYF3514 | LENS CAP | 1 | GH5M |
| | | 623 | SYA0066 | LENS HOOD | 1 | GH5M |
| | | 624 | VPF1475 | LENS BAG | 1 | GH5M |
| | | 625 | VPF1483 | AIR CAP BAG | 1 | GH5M |
| | | 626 | VPN7786 | PAD E | 1 | GH5M |
| | | 700 | VPF1565 | CAMERA BAG | 1 | |
| | | 701 | VKF4971 | BODY CAP | 1 | |
| | | 702 | VKF5108-A | FLASH SYNCHRO SOCKET CAP | 1 | |
| | | 703 | 4YE1A561Z | EYECUP | 1 | |
| | | 704 | SKF0145K | BG CONTACT COVER | 1 | |
| | | 705 | VYF3522 | HOT SHOE COVER | 1 | |
| | | 706 | DVPN1085Z | CUSHION | 1 | |
| | | 707 | DVPN1086Z | PAD B | 1 | |
| | | 708 | DVPK1076Z | PACKING CASE | 1 | GH5LP, GH5LPP, GH5LEG, GH5LEC, GH5LEF, GH5LEB, GH5LGA |
| | | 708 | DVPK1077Z | PACKING CASE | 1 | GH5LGK |
| | | 710 | VSK0793 | BATTERY CHARGER | 1 | GH5LP, GH5LPP |
| | | 710 | VSK0794 | BATTERY CHARGER | 1 | GH5LEG, GH5LEC, GH5LEF, GH5LEB |
| | | 710 | VSK0795 | BATTERY CHARGER | 1 | GH5LGA, GH5LGK |
| | | 711 | ----- | BATTERY PACK | 1 | |
| | | 712 | 1PP1A561Z | CABLE HOLDER | 1 | |
| | | 713 | K1HY24YY0021 | USB CABLE W/PLUG | 1 | |
| | | 714 | K2CA2CA00025 | AC CORD W/PLUG | 1 | GH5LP, GH5LPP |
| | | 714 | K2CQ2YY00082 | AC CORD W/PLUG | 1 | GH5LEG, GH5LEC, GH5LEF, GH5LGA |
| | | 714 | K2CT3YY00034 | AC CORD W/PLUG | 1 | GH5LEB, GH5LGA |
| | | 714 | K2CP2YY00083 | AC CORD W/PLUG | 1 | GH5LGA |
| | | 714 | K2CA2YY00130 | AC CORD W/PLUG | 1 | GH5LGK |
| | | 715 | DVPW1003Z | SHOUDER STRAP | 1 | |
| | | 716 | DVQX1052Z | BASIC O/I (ENGLISH) | 1 | GH5LP |
| | | 716 | DVQX1053Z | BASIC O/I (SPANISH) | 1 | GH5LP |
| | | 716 | DVQX1054Z | BASIC O/I (FRENCH) | 1 | GH5LPP |
| | | 716 | DVQX1254Z | BASIC O/I (ENGLISH) | 1 | GH5LPP |
| | | 716 | DVQX1255Z | BASIC O/I (SPANISH) | 1 | GH5LPP |
| | | 716 | DVQX1055Z | BASIC O/I (GERMAN) | 1 | GH5LEG |
| | | 716 | DVQX1056Z | BASIC O/I (FRENCH) | 1 | GH5LEG, GH5LEF |
| | | 716 | DVQX1057Z | BASIC O/I (ITALIAN) | 1 | GH5LEG |
| | | 716 | DVQX1058Z | BASIC O/I (DUTCH) | 1 | GH5LEG, GH5LEF |
| | | 716 | DVQX1059Z | BASIC O/I (SPANISH) | 1 | GH5LEC |
| | | 716 | DVQX1060Z | BASIC O/I (PORTUGUESE) | 1 | GH5LEC |
| | | 716 | DVQX1061Z | BASIC O/I (SWEDISH) | 1 | GH5LEC |
| | | 716 | DVQX1062Z | BASIC O/I (DANISH) | 1 | GH5LEC |
| | | 716 | DVQX1063Z | BASIC O/I (FINNISH) | 1 | GH5LEC |
| | | 716 | DVQX1064Z | BASIC O/I (ENGLISH) | 1 | GH5LEB |
| | | 716 | DVQX1067Z | BASIC O/I (ENGLISH) | 1 | GH5LGA |
| | | 716 | DVQX1068Z | BASIC O/I (CHINESE(TRADITIONAL)) | 1 | GH5LGA |
| | | 716 | DVQX1069Z | BASIC O/I (ARABIC) | 1 | GH5LGA |

Model No. : DC-GH5/GH5M/GH5L/GH5A Parts List

| Change | Safety | Ref. No. | Part No. | Part Name & Description | Q'ty | Remarks |
|--------|--------|----------|-----------|---------------------------------|------|---------|
| | | 716 | DVQX1071Z | BASIC O/I (CHINESE(SIMPLIFIED)) | 1 | GH5LGK |
| | | 717 | VPF1542 | BAG, POLYETHYLENE | 1 | |
| | | 721 | VFC4605-B | LENS REAR CAP | 1 | GH5L |
| | | 722 | SYF0083 | LENS CAP | 1 | GH5L |
| | | 723 | 1ZE4Z260Z | LENS HOOD | 1 | GH5L |
| | | 724 | VPF1475 | LENS BAG | 1 | GH5L |

Print Parts List

| | | | | | | |
|---|--|-----|--------------|----------------------------------|---|-----------------|
| | | 725 | VPF1483 | AIR CAP BAG | 1 | GH5L |
| | | 726 | DVPN1088Z | PAD E | 1 | GH5L |
| | | 800 | VPF1565 | CAMERA BAG | 1 | |
| | | 801 | VKF4971 | BODY CAP | 1 | |
| | | 802 | VKF5108-A | FLASH SYNCHRO SOCKET CAP | 1 | |
| | | 803 | 4YE1A561Z | EYECUP | 1 | |
| | | 804 | SKF0145K | BG CONTACT COVER | 1 | |
| | | 805 | VYF3522 | HOT SHOE COVER | 1 | |
| | | 806 | DVPN1085Z | CUSHION | 1 | |
| | | 807 | DVPN1086Z | PAD B | 1 | |
| | | 808 | DVPK1078Z | PACKING CASE | 1 | GH5AGA |
| ⚠ | | 810 | VSK0795 | BATTERY CHARGER | 1 | GH5AGA |
| ⚠ | | 811 | ----- | BATTERY PACK | 1 | |
| | | 812 | 1PP1A561Z | CABLE HOLDER | 1 | |
| | | 813 | K1HY24YY0021 | USB CABLE W/PLUG | 1 | |
| ⚠ | | 814 | K2CQ2YY00082 | AC CORD W/PLUG | 1 | GH5AGA |
| ⚠ | | 814 | K2CT3YY00034 | AC CORD W/PLUG | 1 | GH5AGA |
| ⚠ | | 814 | K2CP2YY00083 | AC CORD W/PLUG | 1 | GH5AGA |
| | | 815 | DVPW1003Z | SHOUDER STRAP | 1 | |
| ⚠ | | 816 | DVQX1067Z | BASIC O/I (ENGLISH) | 1 | GH5AGA |
| ⚠ | | 816 | DVQX1068Z | BASIC O/I (CHINESE(TRADITIONAL)) | 1 | GH5AGA |
| ⚠ | | 816 | DVQX1069Z | BASIC O/I (ARABIC) | 1 | GH5AGA |
| | | 817 | VPF1542 | BAG, POLYETHYLENE | 1 | |
| | | 821 | VFC4605-B | LENS REAR CAP | 1 | GH5AGA |
| | | 822 | DVZE1008Z | LENS CAP | 1 | GH5AGA [INBD] |
| | | 823 | VYC1084 | LENS HOOD | 1 | GH5AGA [INBD] |
| | | 824 | VPF1513 | LENS BAG | 1 | GH5AGA [INBD] |
| | | 825 | VPF1483 | AIR CAP BAG | 1 | GH5AGA |
| | | 826 | VPN7786 | PAD E | 1 | GH5AGA |