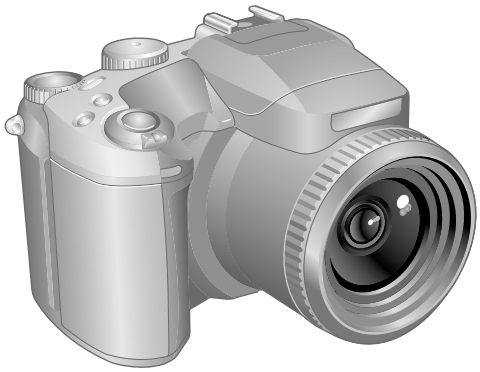
FUJIFILM

DIGITAL CAMERA



FinePix S602ZOOM

SERVICE MANUAL
U/E/EG-Model

⚠ WARNING

THE COMPONENTS INDENTIFIED BY MARK ⚠ IN THE PARTS LIST SHOULD BE REPLACED ONLT BY THE COMPONENTS SPECIFIED IN THE PARTS LIST.
RISK OF FIRE AND ELECTRIC SHOCK.

FUJI PHOTO FILM CO., LTD.

Ref.No.:ZM00441-102
Printed in Japan 2002.5(NT)

SAFETY CHECK-OUT

After correcting the original problem, perform the following safety check before returning the product to the customer.

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splasher and bridges.
2. Check the interboard wiring to ensure that no wires are “pinched” or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.

5.

RISK OF FIRE-
REPLACE FUSE
AS MARKED

Caution:
For continued protection against fire hazard, replace only with same type 2.5 amperes 125/250 volts fuse.
Attention:
Afin d’assurer une protection permanente contre les risques d’incendie, remplacer uniquement par un fusible de meme, type 2.5 amperes, 125/250 volts.

6.

WARNING!
HIGH VOLTAGE

Warning:
To reduce the electric shock, be careful to touch the parts.

TABLE OF CONTENTS

1.Specifications
1-1.Product Specifications ... 4
1-2.Camera Features ... 6
1-3.Names of External Components ... 7
2.Disassembly
2-1.Names of Internal Components ... 9
2-2.How to remove R CABI CONST ... 10
2-3.Decomposition of R CABI CONST ... 11
2-4.How to remove LCD ASSY ... 12
2-5.How to remove TOP CABI CONST ... 13
2-6.Decomposition of TOP CABI CONST ... 17
2-7.How to remove LCD FRAME CONST ... 19
2-8.Decomposition of LCD FRAME CONST ... 20
2-9.Decomposition of MAIN PWB ASY ... 20
2-10.How to remove SHEET FRAME ... 21
2-11.How to remove BATTERY LID ... 21
2-12.How to remove BATTERY HOLDER UNIT ... 22
2-13.How to remove CAM PWB ASSY ... 22
2-14.How to remove LENS FRAME ... 23
2-15.How to remove LENS CONST ... 23
2-16.How to remove LENS CABI ASSY ... 24
2-17.How to remove SIDE MODULE UNIT ... 25
2-18.How to remove AF SENSOR UNIT ... 26
3.Schematic
3-1.Cautions ... 27
3-2.Overview of Functions of Each Circuit ... 27
3-3.Functions of Primary Blocks ... 28
3-3-1.Technical Outline ... 28
3-3-2.CAM Board Block Functions ... 28
3-3-3.MAIN Board Block Functions ... 28
3-3-4.DCTS Board Block Functions ... 28
3-4.Block Diagram ... 29
3-5.Overall ... 30
3-6.Board mounting diagram ... 31
3-6-1.CAM PWB ASSY Component Location (A) ... 31
3-6-2.CAM PWB ASSY Component Location (B) ... 32
3-6-3.KEY PWB ASSY Component Location (A) ... 33
3-6-4.KEY PWB ASSY Component Location (B) ... 34
3-6-5.MAIN PWB ASSY Component Location (A) ... 35
3-6-6.MAIN PWB ASSY Component Location (B) ... 36
3-6-7.DCST PWB ASSY Component Location (A) ... 37
3-6-8.DCST PWB ASSY Component Location (B) ... 38
4.Adjustment
4-1.Adjustments to Primary Components Following Replacement ... 39
4-2.Preparation for adjustments ... 40
4-2-1.Measuring Equipments ... 40
4-2-2.Jigs and Charts ... 40
4-2-3.Connection ... 41
4-2-4.Environmental Settings for Adjustment ... 42
4-2-5.Preparations for AF Sensor Adjustment ... 42
4-2-6.Environmental Settings for AF Sensor Adjustment ... 42
4-2-7.Environmental settings for AF adjustment ... 43
4-2-8.Environmental settings for Flash adjustment ... 43
4-3.About the Adjustment PC Soft ... 44
4-3-1.Attention at DSC jig driver ... 44
4-3-2.Attention at PC adjustment soft ... 45
4-3-3.Attention at Firmware ... 46
4-3-4.Content of Adjustment Software ... 47
4-3-5.Starting the Adjustment Software ... 47
4-3-6.Customizing of Adjustment Software ... 48
4-3-7.Use of each command ... 50
4-4.Adjustment of Components (for PC adjustment) ... 51
4-4-1.Starting the Adjustment Software (cautions during use) ... 51
4-4-2.Camera Jig Mode Procedure ... 51
4-4-3.AF Sensor Adjustment ... 52
4-4-4.CCD Data Input ... 54
4-4-5.Preparing the CCD Defect Data (FD) ... 55
4-4-6.CAM Adjustment ... 56
4-4-7.Zoom/AF Adjustment ... 57
4-4-8.Flash Adjustment ... 58
4-4-9.Battery Adjustment ... 59
4-4-10.Mode Dial Voltage Adjustment ... 60
4-4-11.End Setting ... 61
5.Inspection
5-1.Preparation for inspection ... 62
5-1-1.Measuring Equipments ... 62
5-1-2.Jigs and Charts ... 62
5-1-3.Connection ... 63
5-2.Inspection ... 64
5-2-1.External Inspection ... 64
5-2-2.Power Supply Switch Check ... 64
5-2-3.Checking Shock Noise in the Movie Mode ... 64
5-2-4.EVF Check ... 64
5-2-5.Resolution Check ... 65
5-2-6.Y Level Check ... 66
5-2-7.Flash Photography Check ... 67
5-2-8.Manual Focus Check ... 68
5-2-9.Macro Operation Check ... 68
5-2-10.External Flash Operation Check ... 68
5-2-11.Command Dial Check ... 68
5-2-12.Movie/Audio Check ... 68
5-2-13.Erase Mode Check ... 68
5-2-14.Low Battery Check ... 69
5-2-15.Current Consumption Check ... 69
5-2-16.LCD Display Image Check ... 69
5-2-17.EVF Display Image Check ... 70
5-2-18.Power OFF Operation Check ... 70
5-2-19.Settings at Shipment ... 71
5-2-20.Clock Setup and Clear ... 71
6.Parts List
6-1.U-Model ... 72
6-2.E-Model ... 77
6-3.EG-Model ... 82
6-4.Electrical Parts (U/E/EG-Model commonness) ... 87
7.Appendix
7-1.List of Related Technical Updates Issued ... 88

1. Specifications

1-1. Product Specifications

System

Model	Digital camera FinePix S602 ZOOM
Number of effective pixels	3.1million pixels
CCD sensor	1/1.7 inch Super CCD in an interwoven pattern Number of total pixels 3.3 million pixels
Number of recorded pixels	2832 x 2128 pixels (6.03 million pixels) /2048 x 1536 pixels/1280 x 960 pixels/640 x 480 pixels
Storage media	SmartMedia (3.3V), Microdrive
File format	Still image: TIFF-RGB, JPEG (Exif ver. 2.2) * Design rule for Camera File System compliant DPOF compatible Movie: AVI format, Motion JPEG Audio: WAV format

Standard number of shots per Media

Number of recorded Pixels	6M 2832x2128				3M 2048x1536		1M 1280x960		VGA 640x480	Movie (Video)	
Quality Mode	HI	FINE	NORMAL	BASIC	FINE	NORMAL	FINE	NORMAL	NORMAL	VGA	QVGA
Image File Size	Approx. 18MB	Approx. 2.4MB	Approx. 1.2MB	Approx. 460KB	Approx. 1.3MB	Approx. 590KB	Approx. 620KB	Approx. 320KB	Approx. 130KB	–	–
MG-4S (4MB)	0	1	3	8	2	6	6	12	30	Approx. 3 sec.	Approx. 6 sec.
MG-8S (8MB)	0	3	6	17	6	13	12	25	61	Approx. 6 sec.	Approx. 13 sec.
MG-16S (16MB)	0	6	13	33	12	26	25	49	122	Approx. 13 sec.	Approx. 27 sec.
MG-32S (32MB)	1	13	28	68	25	53	50	99	247	Approx. 27 sec.	Approx. 55 sec.
MG-64S (64MB)	3	26	56	137	50	107	101	198	497	Approx. 55 sec.	Approx. 110 sec.
MG-128S (128MB)	7	53	113	275	102	215	204	398	997	Approx. 112 sec.	Approx. 222 sec.
Microdrive (340MB)	19	147	311	765	279	589	566	1119	2729	Approx. 307 sec.	Approx. 609 sec.
Microdrive (1GB)	59	443	938	2190	842	1729	1642	3285	8213	Approx. 925 sec.	Approx. 1833 sec.

Sensitivity	Equivalent to ISO 160/200/400/800/1600
Lens	Super EBC Fujinon 6x optical zoom lens
Focus distance	f = 7.8 mm-46.8 mm (Equivalent to 35 mm-210 mm on a 35 mm camera)
Viewfinder	0.44-inch 180,000 pixles electronic viewfinder
Exposure control	TTL 64-zones metering, Program AE (AUTO, SP, P, A, S), Exposure compensation (P, A, S) available
White balance	AUTO, SP: Fully automatic P, S, A: 8 positions selectable. Custom white balance selectable (2 positions)
Focal range	Normal (wide-angle): Approx. 50 cm (1.6 ft.) to infinity Normal (telephoto-angle): Approx. 90 (3.0 ft.) cm to infinity Macro: Approx. 10 cm (3.9 in.) to 80 cm (2.6 ft.) Super Macro: Approx. 1 cm (0.4 in.) to 20 cm (7.9 in.)
Shutter	AUTO: Variable-speed, 1/4 sec. to 1/2000 sec. SP: Variable-speed, 3 sec. (Night scenes only) to 1/2000 sec. P, S, A: Variable-speed, 3 sec. to 1/1000 sec. M: Variable-speed, 15 sec. to 1/10000 sec.
Aperture	F2.8-F11 13 levels in 1/3 EV steps
Focus	Passive-type external AF sensor + CCD-AF sensor Focus mode: AF, AREA AF, MF
Self-Timer	2 sec./10 sec. timer clock
LCD monitor	1.8 inches, low-temperature polysilicon TFT 110,000 pixels
Flash	Auto flash using flash control sensor Effective range: Wide-angle: Approx. 0.3 m-5.4 m (1.0 ft.-17.7 ft.) Telephoto-angle: Approx. 0.9 m-5.0 m (3.0 ft.-16.4 ft.) Flash modes: Auto, Red-Eye Reduction, Forced Flash, Slow Synchro, Red-Eye Reduction + Slow Synchro

Input/Output Terminals

DC Input	To connect the AC power Adapter AC-5V/AC-5VH/AC-5VHS
Accessory shoe	Hot shoe
A/V Output	Stereo mini-jack (1)

Power Supply and Others

Power supply	Use one of the following * 4 x AA-size alkaline batteries * 4 x AA-size Ni-MH (nickel-metal hydride) batteries (sold separately) * AC Power Adapter AC-5VH/AC-5VHS (sold separately)

Available shots using batteries (When fully charged)

Media type \ Battery type		Alkaline batteries	Ni-MH batteries HR-3UF 1700 mAh
SmartMedia	Using LCD monitor	Approx. 200 frames	Approx. 250 frames
	Using EVF	Approx. 210 frames	Approx. 280 frames
Microdrive	Using LCD monitor	Approx. 170 frames	Approx. 230 frames
	Using EVF	Approx. 180 frames	Approx. 240 frames

The number of shots shown here is an approximate guide to the number of consecutive shots that can be taken based on 50% flash usage at normal temperatures. However, the actual number of available shots will vary depending on the ambient temperature when the camera is used and the amount of charge in the battery. The number of available shots will be lower in cold conditions.

Conditions for use	Temperature: 0°C to +40°C (+32°F to +104°F) 80% humidity or less (no condensation)
Camera dimensions (W/H/D)	121.0 mm x 81.5 mm x 97.0 mm/4.8 in. x 3.2 in. x 3.8 in. (not including accessories and attachments)
Camera mass (weight)	500 g/17.6 oz. (not including accessories, batteries or media)
Weight for photography	Approx. 600 g/21.2 oz. (including batteries and SmartMedia)
Accessories	● SmartMedia (16MB, 3.3V) (1) Supplied with: Anti-static case (1) Index label (1) ● AA-size alkaline batteries (4) ● Shaulder Strap (1) ● Protective cover (2) ● Metal strap clip (2) ● Clip attaching tool (1) ● Lens cap (1) ● Lens cap holder (1) ● A/V Cable (approx. 1.5 m (4.9 ft.), mini-plug (2.5 mm dia.) to pin-plug cable x 2) (1) ● USB Interface Set (1) * CD-ROM: Software for FinePix EX (1) * Special USB cable with Noise Suppression core (1) * Software Quick Start Guide (1) ● Owner's Manual (1)
Optional Accessories	● SmartMedia MG-4S: 4MB, 3.3V MG-8S: 8MB, 3.3V MG-16S: 16MB, 3.3V MG-32S: 32MB, 3.3V MG-64S: 64MB, 3.3V MG-16SW: 16MB, 3.3V, ID MG-32SW: 32MB, 3.3V, ID MG-64SW: 64MB, 3.3V, ID MG-128SW : 128MB, 3.3V, ID ● AC-5VH/AC-5VHS AC Power Adapter ● Fujifilm Rechargeable Battery 2HR-3UF ● Fujifilm Battery Charger with Battery BK-NH (Not Available in U.S.A./Canada) ● FD-A2 Floppy Disk Adapter (FlashPath) Windows 95/98/98 SE/Me/NT 4.0, Mac OS 7.6.1 to 9.1 ● SM-R2 Image Memory Card Reader Compatible with Windows 98/98 SE, Windows Me, Windows 2000 Professional or iMac or Power Macintosh and models that support USB as standard. ● DM-R1 Image Memory Card Reader Compatible with Windows 98 SE, Windows 2000 Professional (read-only), iMac DV and Power Macintosh PCs with FireWire as a standard feature. Mac OS 8.5.1 to 9.1 ● PC-AD3 PC Card Adapter ● SC-FX602 Soft Case

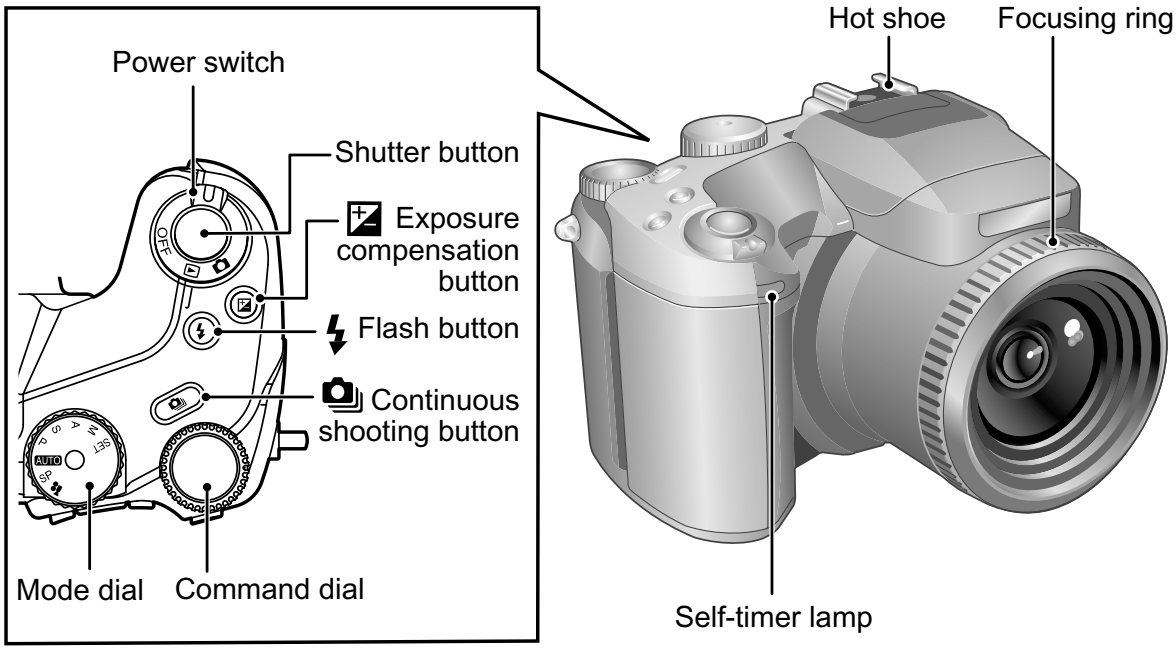
1-2. Camera Features

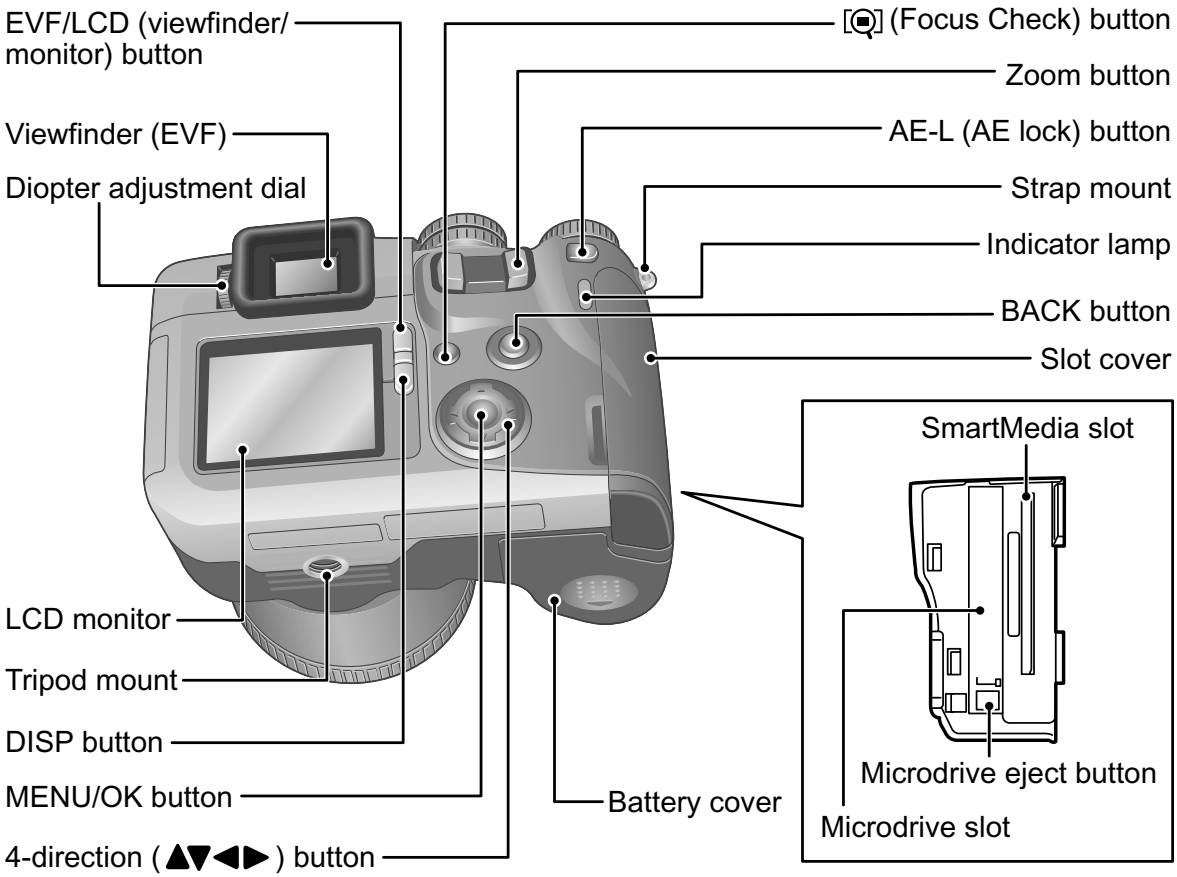
- 3.1 million effective pixels
- 1/1.7-inch Super CCD provides high quality images with 2832 ×2128 (6.03 million) recorded pixels
- Powerful Super EBC Fujinon 6optical zoom lens (aspherical lens) for superb optical performances
- Maximum 4.4seamless digital zoom
- Wide range of light sensitivity settings from ISO 160, 200, 400 up to ultra-high settings with ISO 800* and 1600*
  * In 1280 ×960 pixels mode only
- "Motion Photo" VGA-sized movie with monaural sound (640 ×480 pixels at 30 frames/sec.)
- Dual media slots for SmartMedia and Microdrive
- Fast-acting dual-method focusing system that combines an external AF sensor (passive phase-difference AF sensor) and CCD-AF
- Quick, responsive operation with 3 second start-up and only 1 Second between shots
- Auto focus with macro function (manual focusing function also available)
- Super Macro function for close-up shots as near as 1cm (0.4 inch) to the subject
- Three type high-speed continuous shooting mode
  Top 5-frame continuous shooting (5 frames/sec.)
  Final 5-frame continuous shooting (5 frames/sec. within 5 seconds/25 shots)
  Long-period continuous shooting with 1280 ×960 pixels mode (1.8 frames/sec. up to 40 frames)
- AF AREA function lets you choose from 49 focusing points in the view finder image
- A wide range of exposure modes (including manual exposure) let you adjust your photography settings as you like
- A ultra-wide range of shutter speed from 1/10,000 sec to long exposures up to 15 sec in Manual mode
- 0.44" 180,000-pixel electric viewfinder with diopter adjustment mechanism
- 1.8" 110,000-pixel LCD monitor (low-temperature polysilicon TFT) with 100% coverage
- Support to external flash units
- Convenient preview function for checking your shots
- Immediate exposure checking after shooting using histogram indication function
- Playback zoom function (max. 18)
- Multiple exposure and monochrome photography function provides a wider range of photography options
- INFO button allows you to view your photography settings at a touch whenever the need arises
- Easy high-speed data transfer via the USB connection
- Conforms to "Design for Camera File system" standard and Exif ver 2.2 for digital cameras
  * "Design for Camera File system" standard and Exif format are formulated by the Japanese Electronic and Information Association (JEITA)

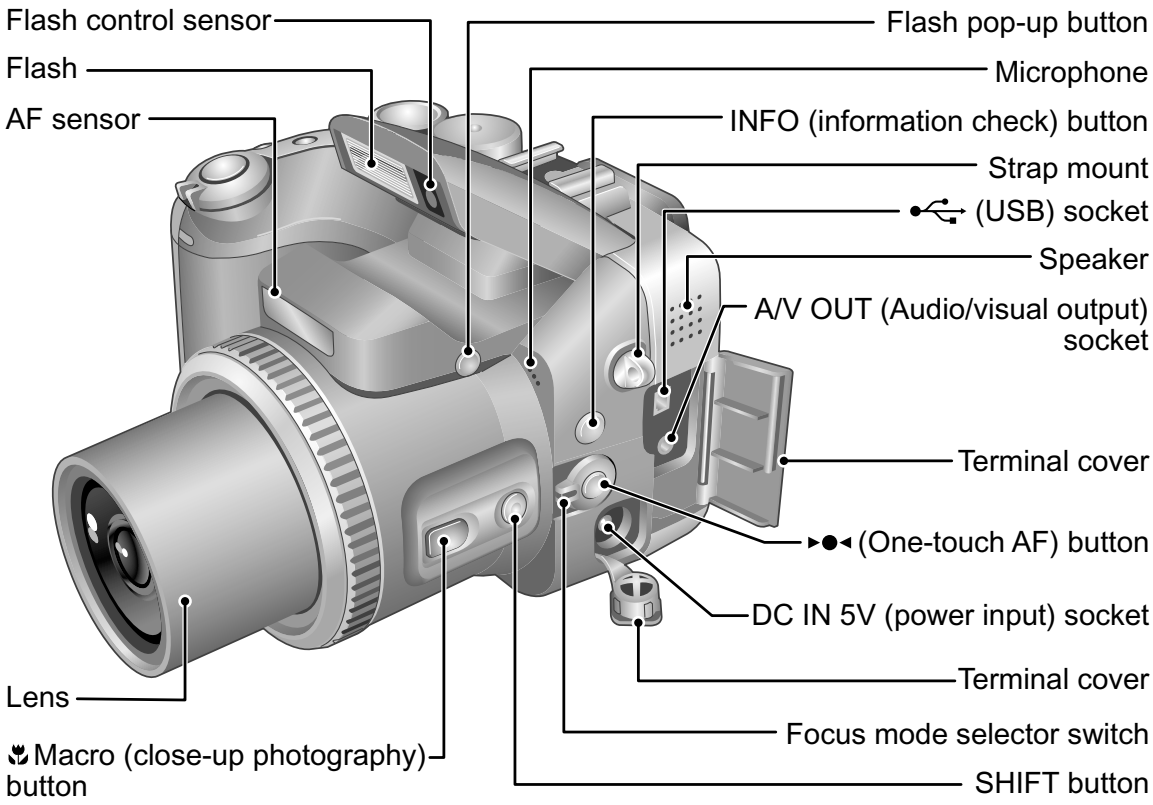
Explanation of Terms

AF/AE Lock:	On the FinePix S602 ZOOM, pressing the shutter button down half way locks the focus and exposure settings (AF and AE lock). If you want to focus on a subject that is not centered in the frame or change the picture composition after the exposure is set, you can obtain good results by changing the composition after the AF and AE settings are locked.
Auto Power Save Function:	If the camera is not used in any way for 30 seconds, this function switches features such as the LCD monitor off (Sleep mode) to prevent battery depletion and the waste of power when the AC power adapter is connected. If the camera is then left unused for a further period, the Auto Power Save function switches the camera off. This period can be set to 2 minutes or 5 minutes on this camera. h The Auto Power Off function does not operate in PC mode, during automatic playback, or if it is disabled during setup.
DPOF:	Digital Print Order Format DPOF is a format used for recording information on a storage media (image memory card, etc.) that allows you to specify which of the frames shot using a digital camera are printed and how many prints are made of each image.
EV:	A number that denotes Exposure Value. The EV is determined by the brightness of the subject and sensitivity (speed) of the film or CCD. The number is larger for bright subjects and smaller for dark subjects. As the brightness of the subject changes, a digital camera maintains the amount of light hitting the CCD at a constant level by adjusting the aperture and shutter speed. When the amount of light striking the CCD doubles, the EV increases by 1. Likewise, when the light is halved, the EV decreases by 1.
JPEG:	Joint Photographics Experts Group A file format used for compressing and saving color images. The compression ratio can be selected, but the higher the compression ratio, the poorer the quality of the expanded image.
Motion JPEG:	A type of AVI (Audio Video Interleave) file format that handles images and sound as a single file. Images in the file are recorded in JPEG format. Motion JPEG can be played back by QuickTime 3.0 or later.
PC Card:	A generic term for cards that meet the PC Card Standard.
PC Card Standard:	A standard for PC cards determined by the PCMCIA.
PCMCIA:	Personal Computer Memory Card International Association (US).
VGA/QVGA:	Graphics standards for PCs. Images are displayed at 640 ×480 and 320 ×240 pixels respectively.
WAVE:	A standard format used on Windows systems for saving audio data. WAVE files have the ".WAV" file extension and the data can be saved in either compressed or uncompressed format. This camera use PCM recording. WAVE files can be played back on a personal computer using the following software : Windows:MediaPlayer Macintosh:QuickTime Player QuickTime 3.0 or later
White Balance:	Whatever the kind of the light, the human eye adapts to it so that a white object still looks white. On the other hand, devices such as digital cameras see a white subject as white by first adjusting the color balance to suit the color of the ambient light around the subject. This adjustment is called matching the white balance. A function that automatically matches the white balance is called an **Automatic White Balance function.**
Smear:	A phenomenon specific to CCDs whereby white streaks appear on the image when there is a very strong light source, such as the sun or reflected sunlight, in the photography screen.
Exif Print:	Exif Print Format is a newly revised digital camera file format that contains a variety of shooting information for optimal printing.

1-3. Names of External Components

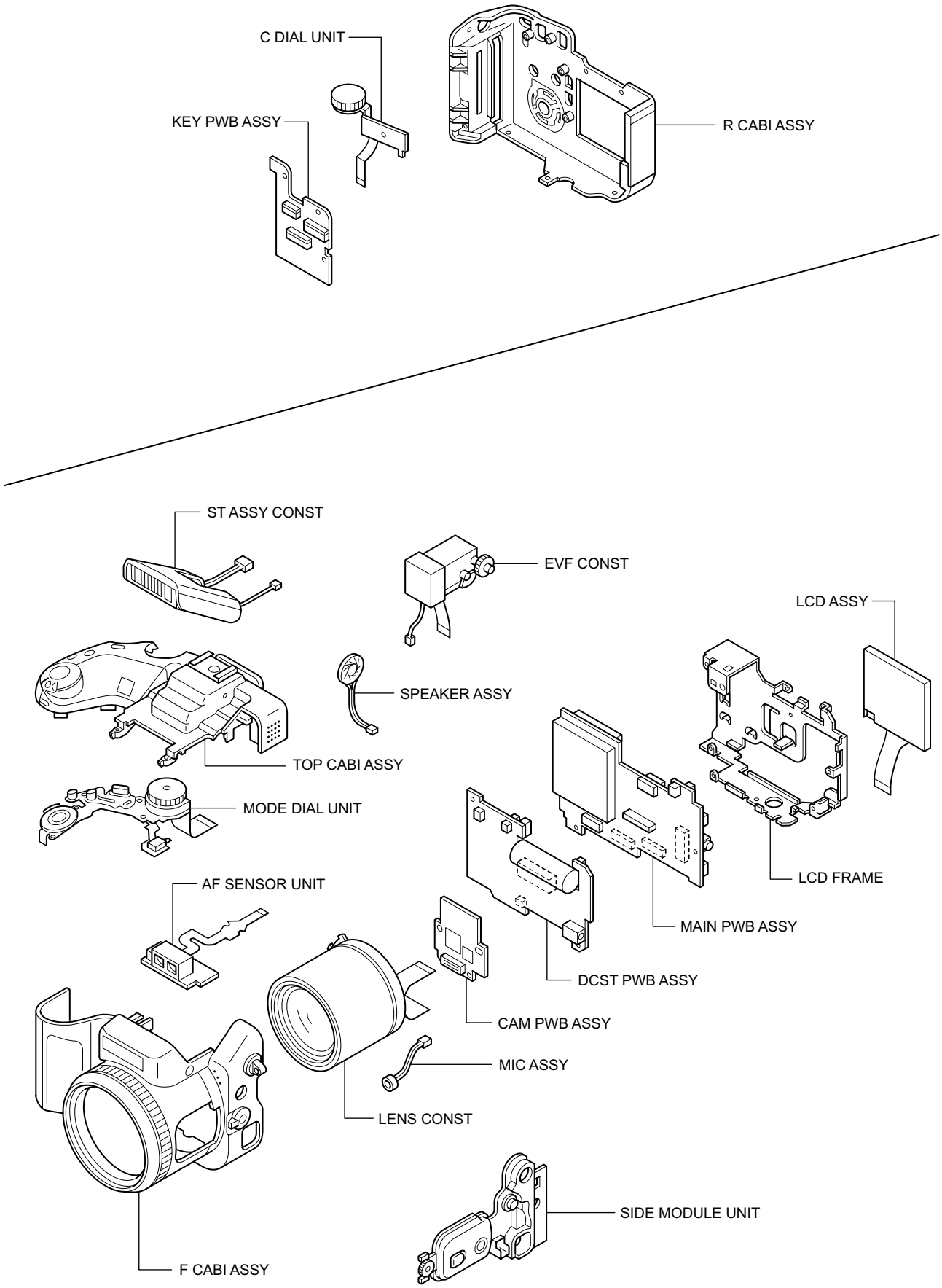





Flash control sensor
Flash
AF sensor
Flash pop-up button
Microphone
INFO (information check) button
Strap mount
(USB) socket
Speaker
A/V OUT (Audio/visual output) socket
Terminal cover
(One-touch AF) button
DC IN 5V (power input) socket
Terminal cover
Focus mode selector switch
SHIFT button
Lens
Macro (close-up photography) button

2. Disassembly

2-1. Names of Internal Components



2-2. How to remove R CABI CONST

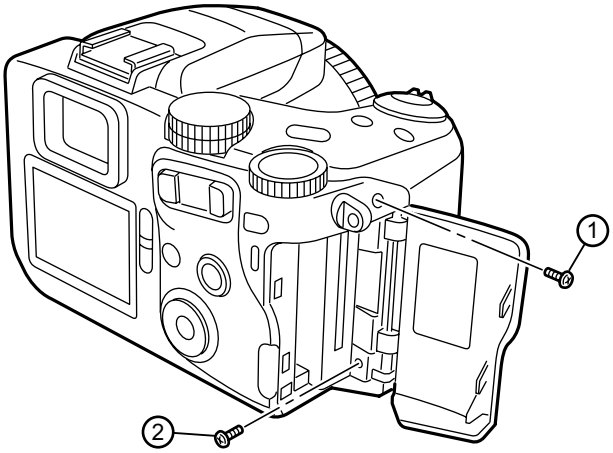
[Procedure]

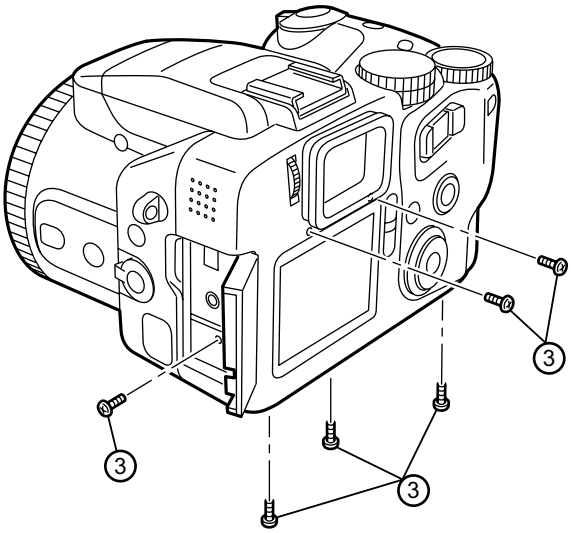
1. Remove screw (M1.7x8.0).
2. Remove screw (M1.7x5.5).
3. Remove six screws (M1.7x5.0).
4. Remove R CABI CONST in the direction of the arrow.
5. Remove FFC(x2).

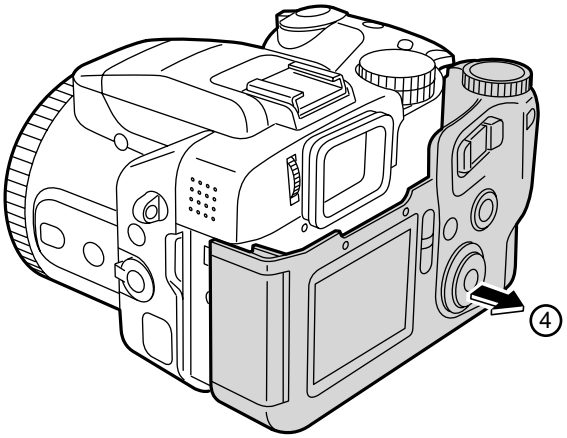
(The undermentioned refer to how to remove the connector.)

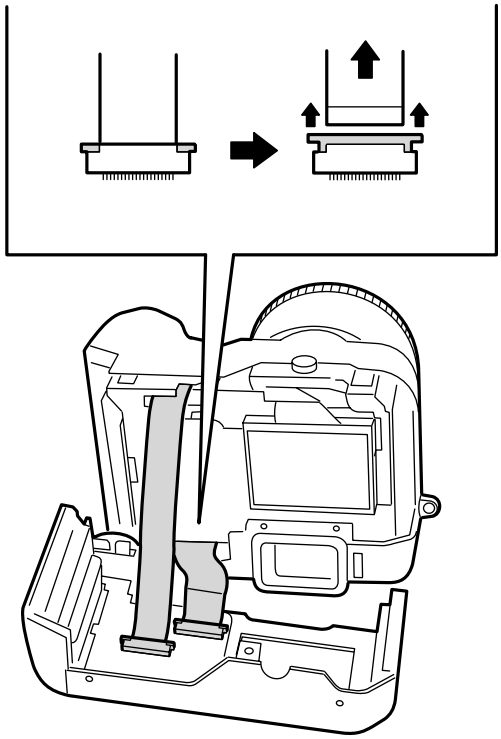
[Assembly procedure]

Assemble it according to a reverse procedure.









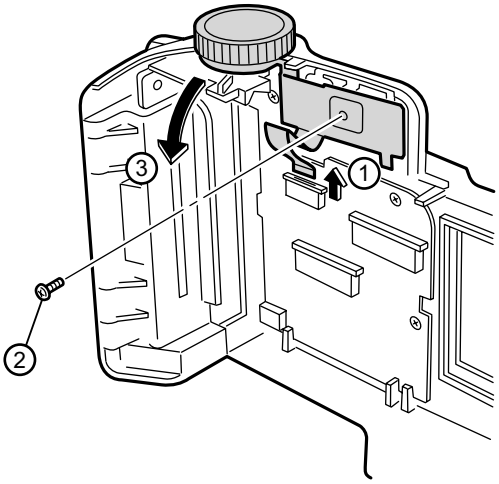
2-3. Decomposition of R CABI CONST

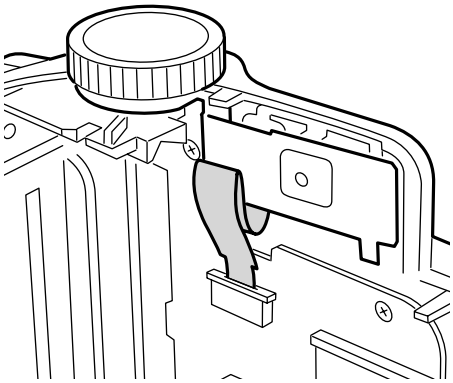
[Procedure]

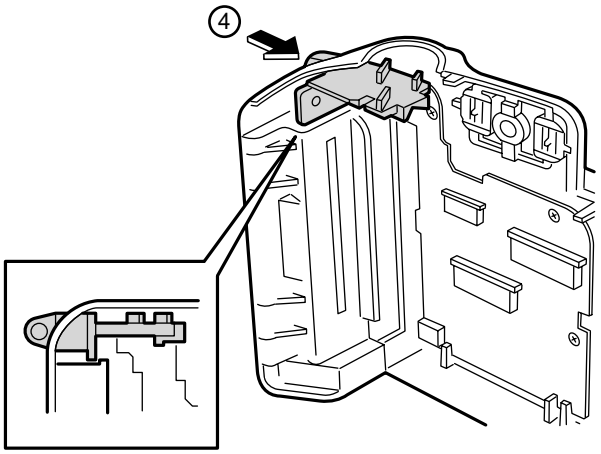
1. Remove FFC from KEY PWB ASSY.
2. Remove screw (M1.7x4.0).
3. Remove C DIAL UNIT in the direction of the arrow.
4. Push STRAP L from the direction of the arrow and remove.
5. Remove three screws (M1.7x4.0).
6. Remove KEY PWB ASSY.
7. Remove OK BUTTON, REAR BUTTON, ZOOM BUTTOM, and LED LENS.

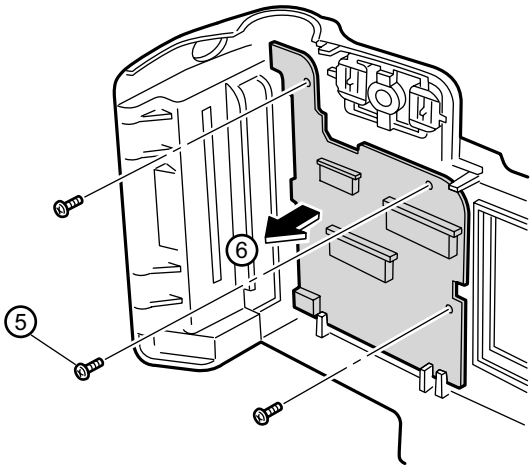
[Assembly procedure]

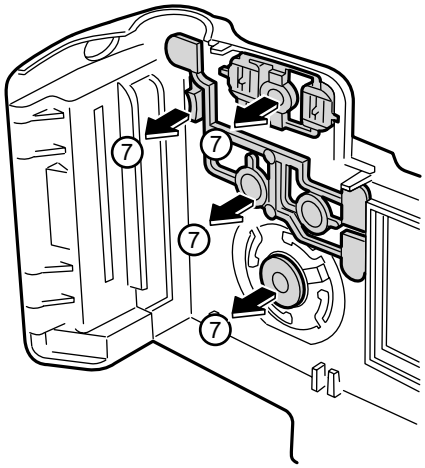
Assemble it according to a reverse procedure.







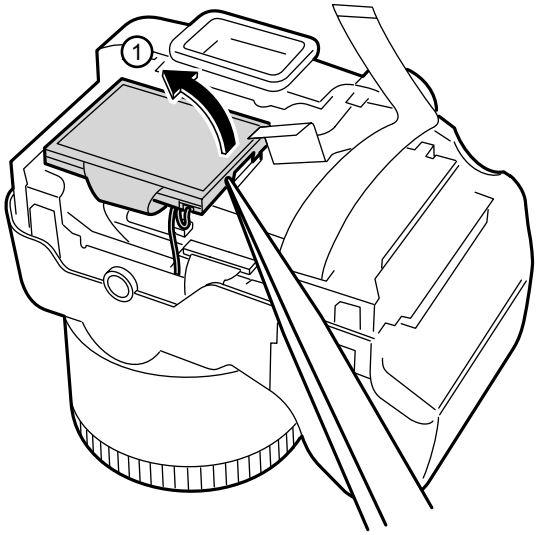


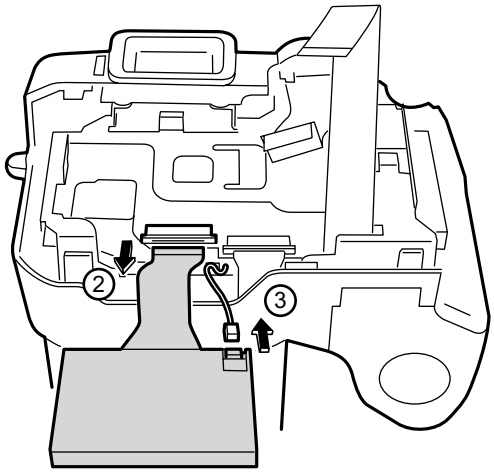


2-4. How to remove LCD ASSY

[Procedure]

1. Detach the undermentioned parts.
   R CABI CONST
2. Put tweezers etc. in the LCD FRAME hook on LCD right side and remove LCD ASSY from LCD FRAME.
3. Remove the lock of the connector of MAIN PWB ASSY, and remove FFC from LCD ASSY.
4. Remove Wire Harness connected with LCD ASSY.



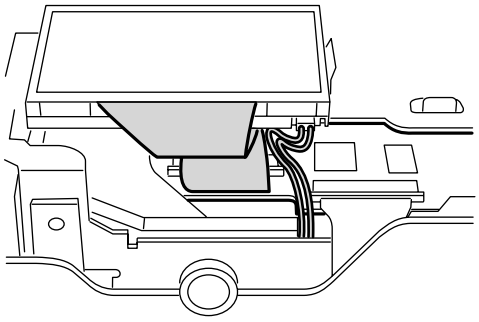


[Assembly procedure]

Assemble it according to a reverse procedure.

[Notes of assembly]

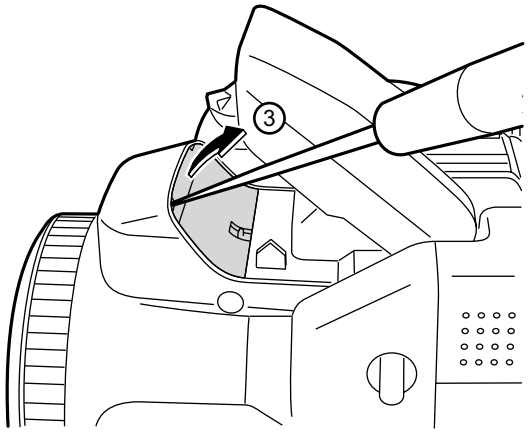
Process FFC/Wire Harness between LCD FRAME and MAIN PWB ASSY.

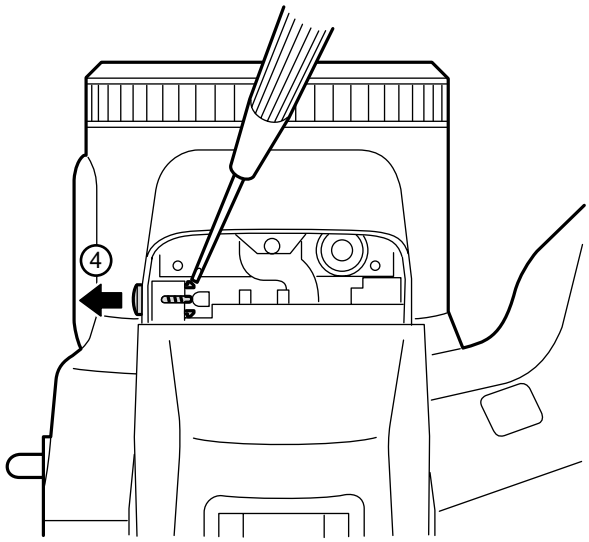


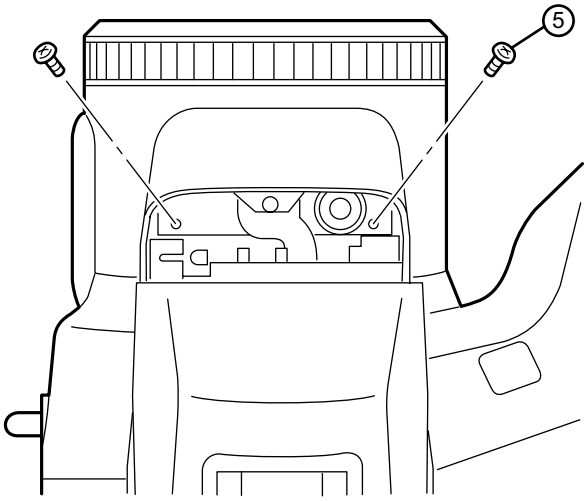
2-5. How to remove TOP CABI CONST

[Procedure]

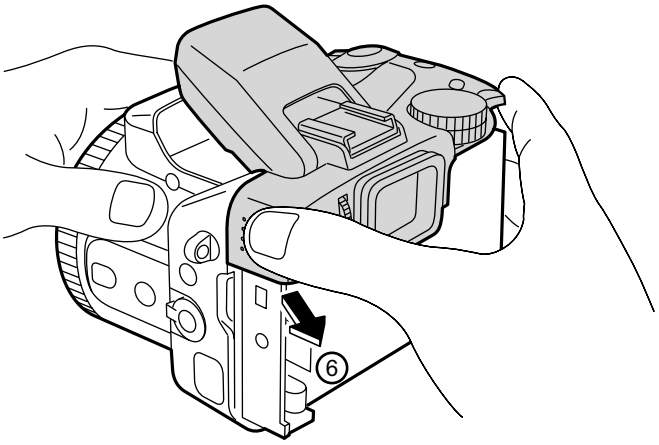
1. Detach the undermentioned parts.
   R CABI CONST, LCD ASSY
2. Push ST BUTTON, and improve the flash in pop.
3. Detach AF PLATE to the space between AF PLATE and F CABI CONST with a needle etc.
   Note that neither AF PLATE nor F CABI CONST are damaged.
   Do not stab the finger etc. enough when you use the needle.
4. Remove the hook of ST BUTTON and remove ST BUTTON from the main body by using a minus driver.
   Do not lose because CSP(ST BUTTON) comes off together when ST BUTTON is detached.
5. Remove two screws (M1.7x5.5).

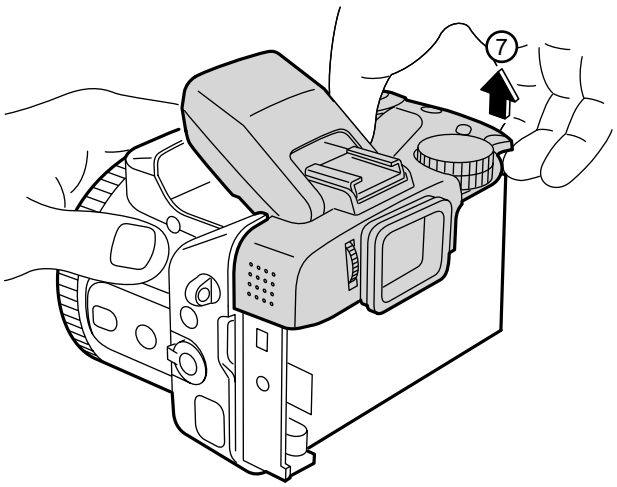


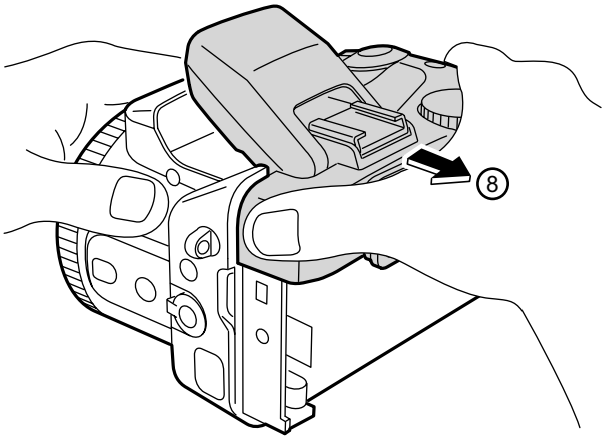


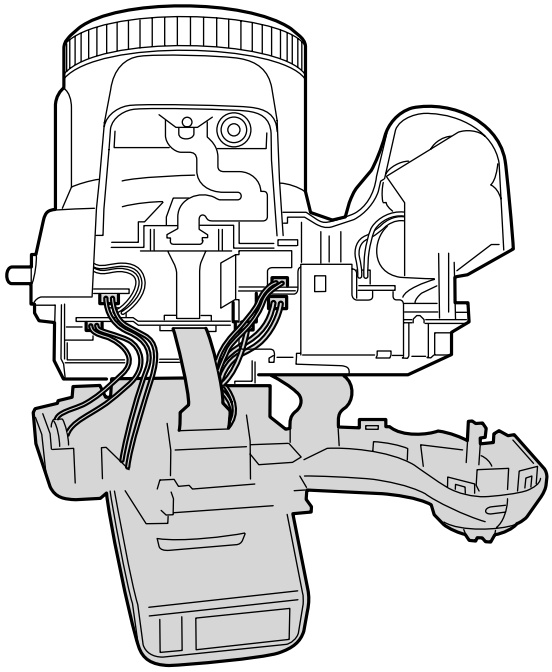


6. Remove the speaker side of TOP CABI CONST in the direction of the arrow.
7. Lift the SHUTTER BUTTON side of TOP CABI CONST in the direction of the arrow and remove.
8. Remove from the main body while pulling TOP CABI CONST backward.



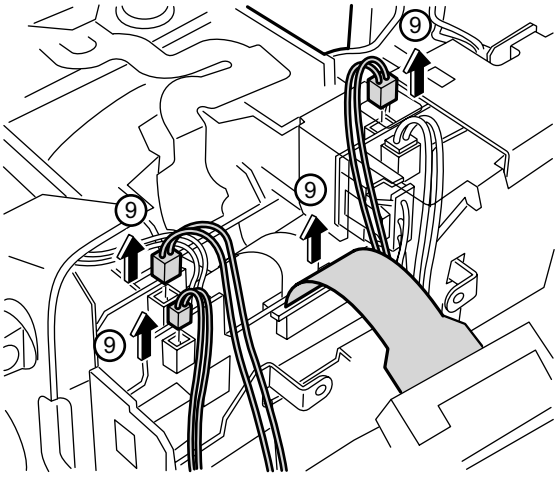


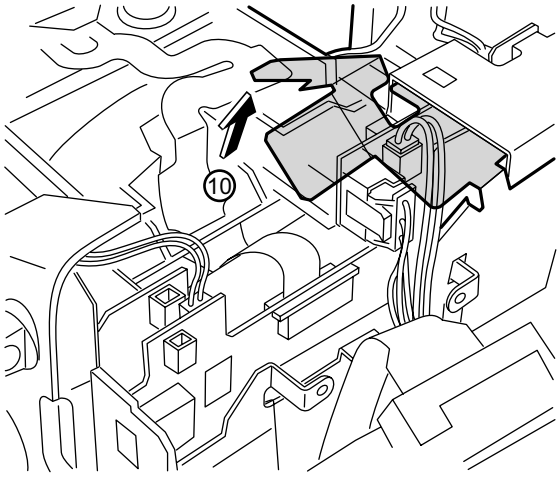


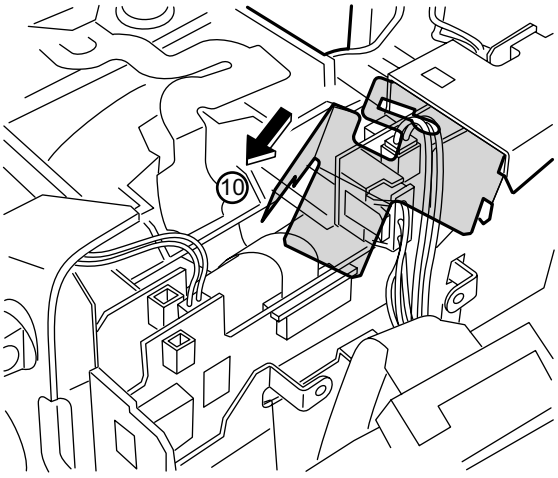


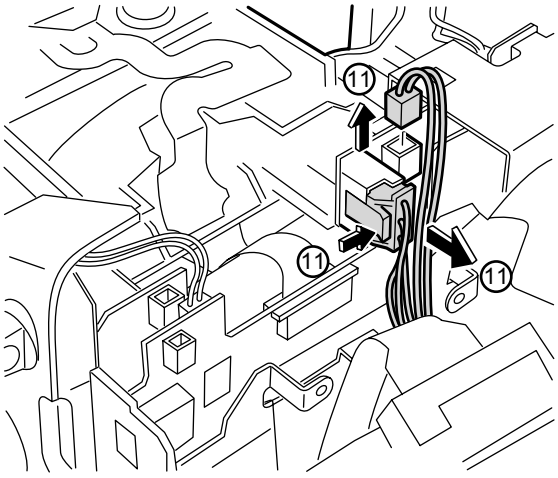
9. Remove Wire Harness (3) from TOP CABI CONST and FFC (1).
10. Pull out SHEET FRAME from LCD FRAME.
11. Remove Wire Harness (2).

There is no dread of the electric shock and do not touch the terminal when you remove Wire Harness for the flash from the substrate.





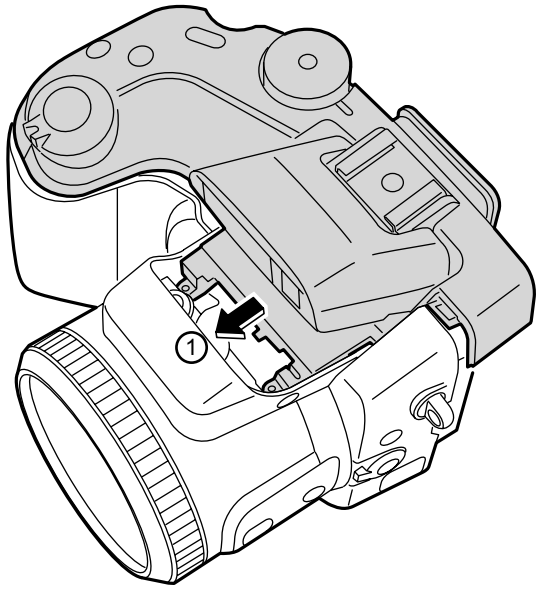


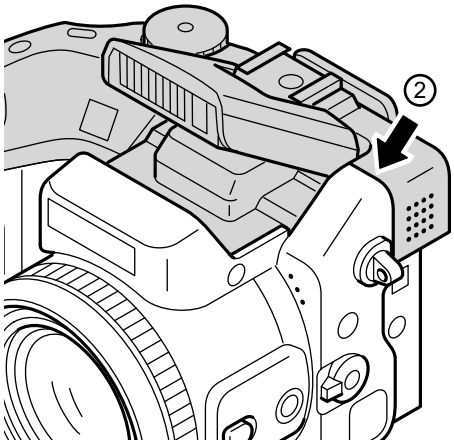


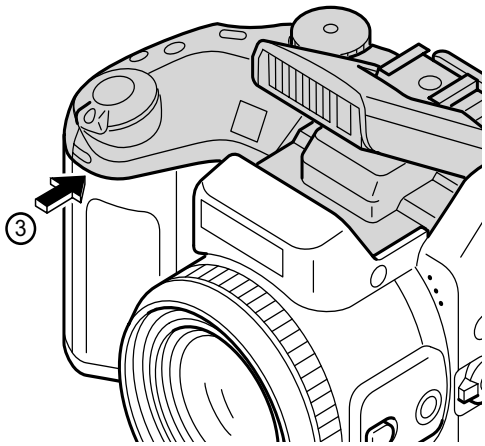
[Assembly procedure]

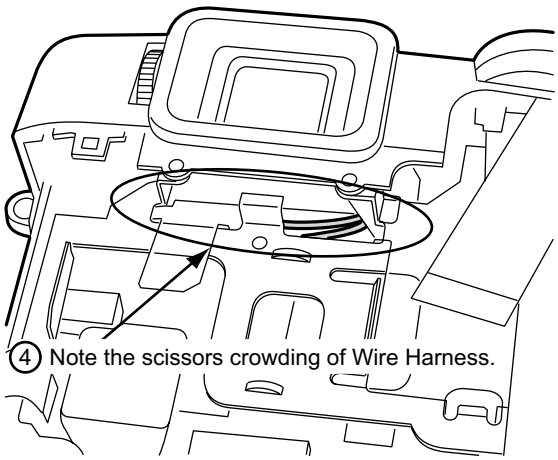
Assemble it according to a reverse procedure.

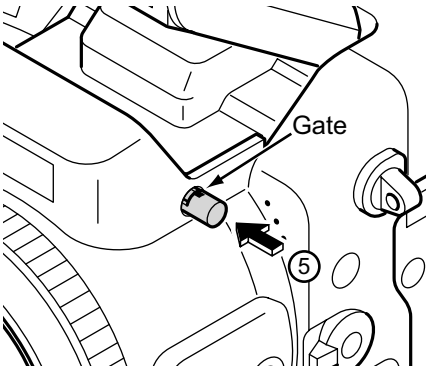
1. Combine intuition on the tip of the AF sensor when you connect all Wire Harness with FFC.
2. Combine the speaker side of TOP CABI CONST in intuition in the hook of F CABI CONST.
3. Combine the grip part in intuition surely. At this time, confirm grip rubber is turned over and not transformed.
4. Confirm TOP CABI CONST and confirm Wire Harness has been installed after it clings surely in SHEET FRAME.
5. Note that it is at the top and bottom (The gate is the above) in ST BUTTON at assembly.







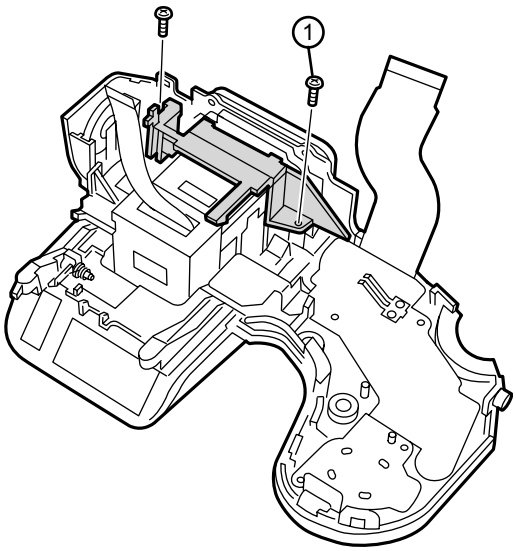


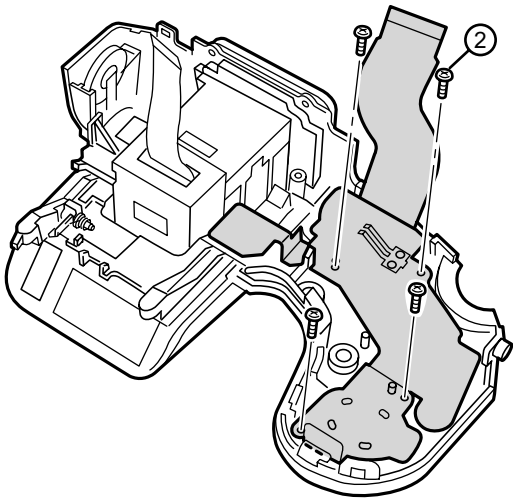


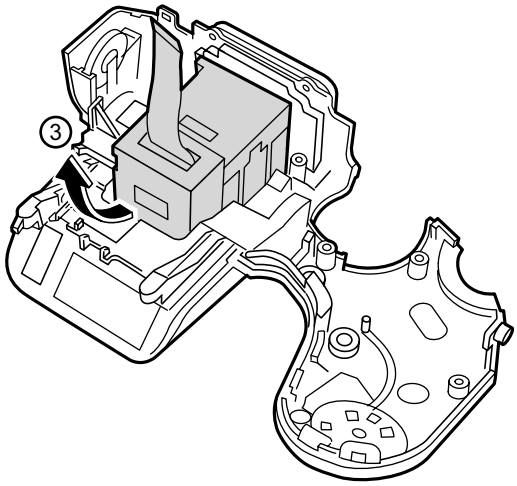
2-6. Decomposition of TOP CABI CONST

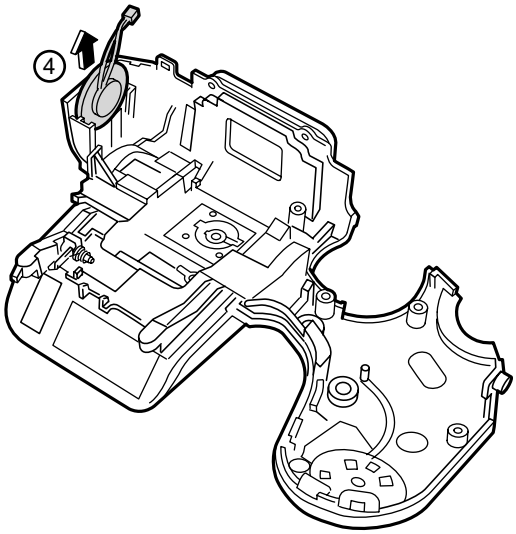
[Procedure]

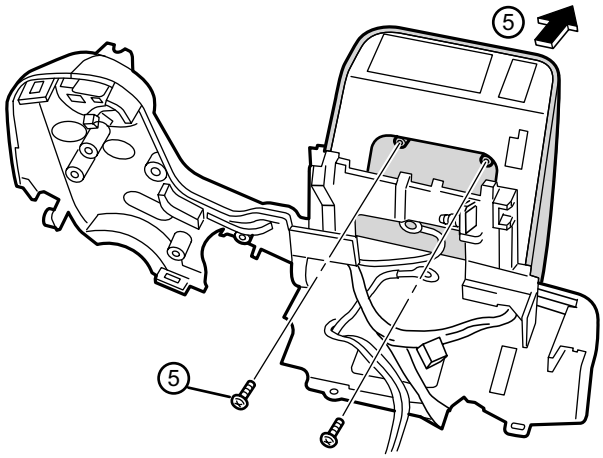
1. Remove two screws (M1.7x4.0), and remove HOLDER EVF.
2. Remove four screws (M1.7x4.0), and remove MODE DIAL UNIT.
3. Remove EVF CONST.
4. Remove SPEAKER ASSY.
5. Remove two screws (M1.7x4.0), and remove ST TOP.



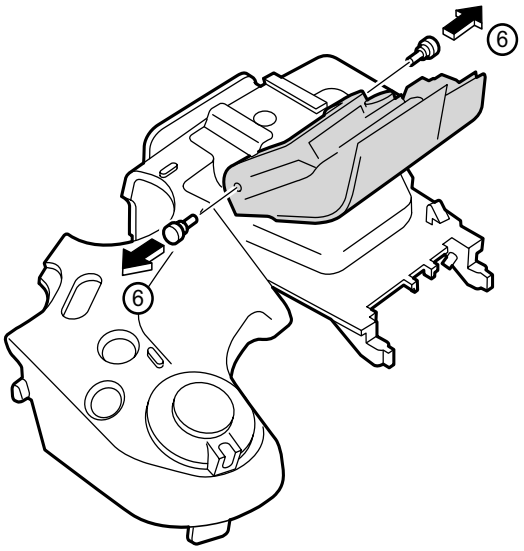


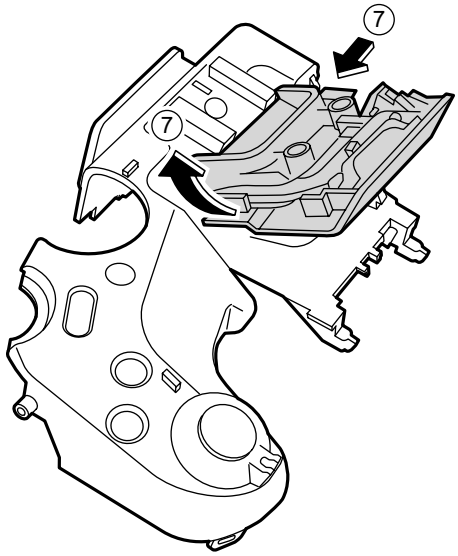






6. Remove ST SHUFT(x2).
7. Lift while pressing ST ASSY CONST against the SHUTTER BUTTON side and remove.





[Assembly procedure]

Assemble it according to a reverse procedure.

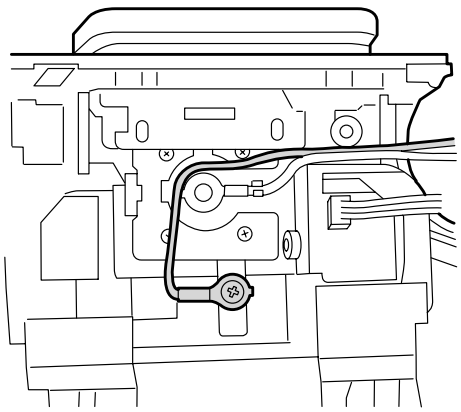
[Notes of assembly]

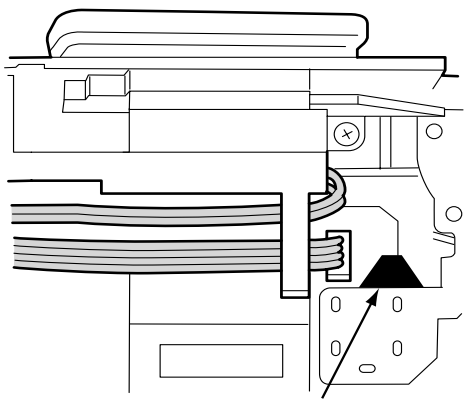
Note the taking turning of the flash hiss harness.

Pass the flash hiss harness and the flash harness through the fingernail of HOLDER EVF.

Do not float on the flash hiss harness and the flash harness.

<harness> do not interfere in flash pop up detection SW.





Flash pop up detection SW

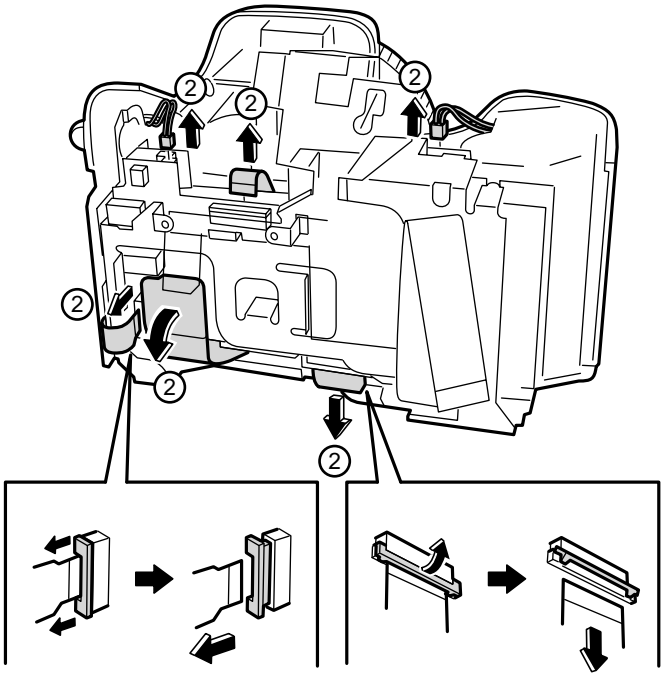
2-7. How to remove LCD FRAME CONST

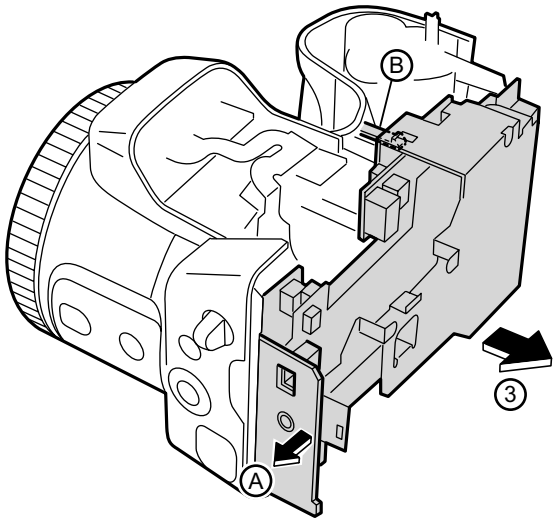
[Procedure]

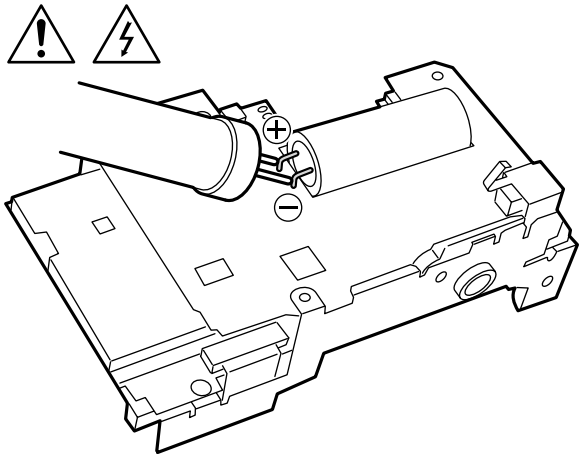
1. Detach the undermentioned parts.
   R CABI CONST, LCD ASSY, ST PLATE, ST BUTTON, TOP CABI CONST
2. Remove FFC Wire Haness (4)(2).
3. Remove main body A and part B, and remove LCD FRAME CONST.
4. Discharge electricity from the main capacitor of DCST PWB ASSY.

[Assembly procedure]

Assemble it according to a reverse procedure.







2-8. Decomposition of LCD FRAME CONST

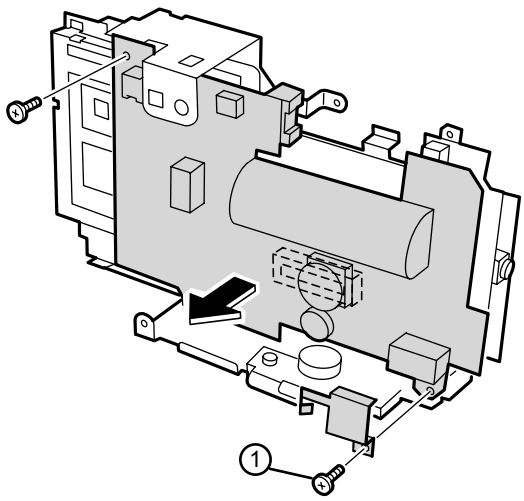
[Procedure]

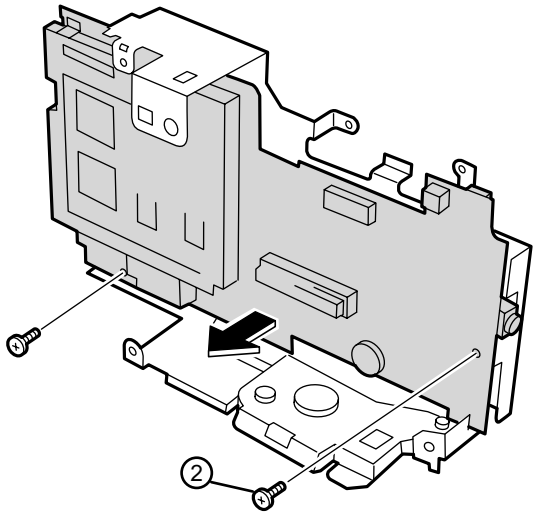
Confirm the main capacitor of DCST PWB ASSY has been discharged without fail before work is started.

1. Remove two screws (M1.7x3.0), and remove CONTACT PLT and DCST PWB ASSY.
2. Remove two screws (M1.7x3.0), and remove MAIN PWB ASSY.

[Assembly procedure]

Assemble it according to a reverse procedure.





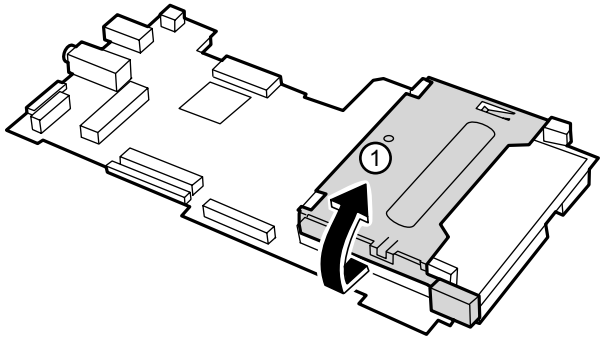
2-9. Decomposition of MAIN PWB ASY

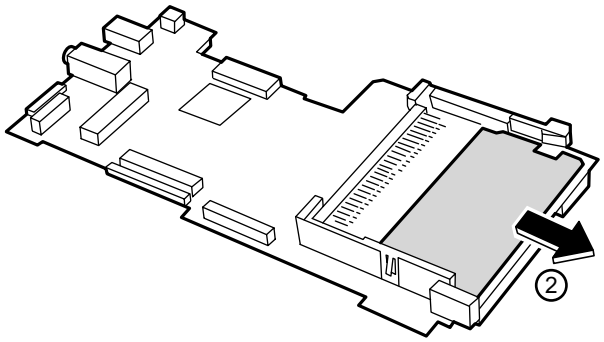
[Procedure]

1. Remove EJECTER in the direction of the arrow.
2. Remove SHEET CF.

[Assembly procedure]

Assemble it according to a reverse procedure.





2-10. How to remove SHEET FRAME

[Procedure]

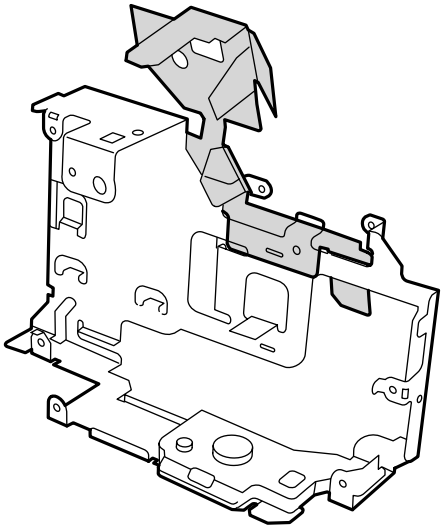
1. Remove SHEET FRAME from LCD FRAME.

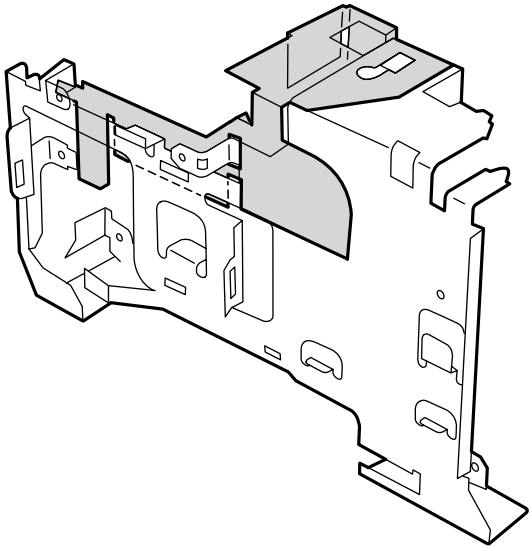
[Assembly procedure]

Assemble it according to a reverse procedure.

[Notes of assembly]

Note the damage of SHEET FRAME when you install SHEET FRAME in LCD FRAME.





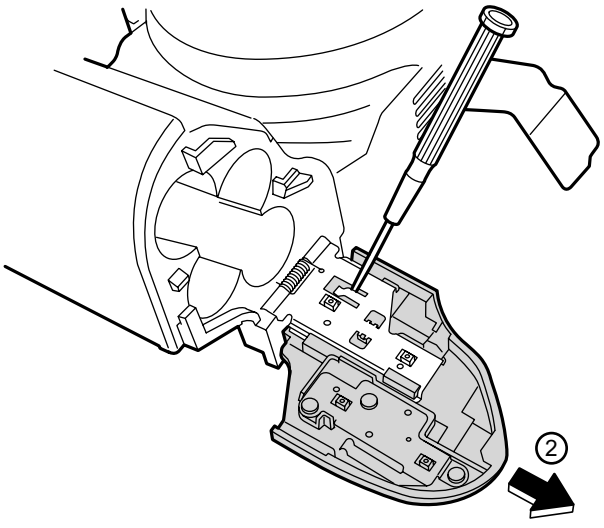
2-11. How to remove BATTERY LID

[Procedure]

1. Lift the hook of BATTERY LID, and remove BATTERY LID.

[Assembly procedure]

Assemble it according to a reverse procedure.



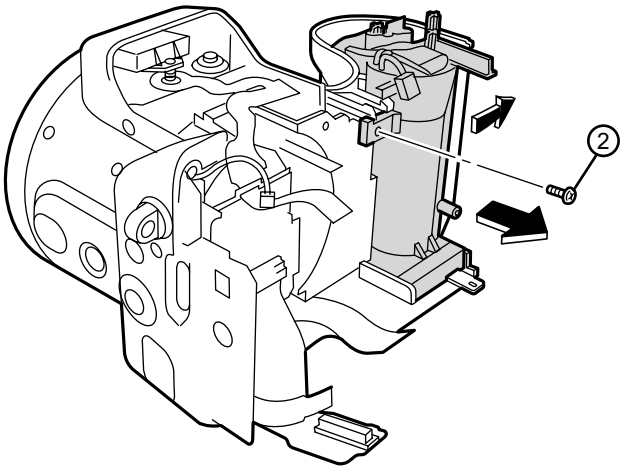
2-12. How to remove BATTERY HOLDER UNIT

[Procedure]

1. Detach the undermentioned parts.
   R CABI CONST, LCD ASSY, ST PLATE, ST BUTTON, TOP CABI CONST, LCD FRAME CONST
   BATTERY LID
2. Remove screw (M1.7x5.0).
3. Remove BATTERY HOLDER UNIT from the main body while opening the main body grip part.

[Assembly procedure]

Assemble it according to a reverse procedure.



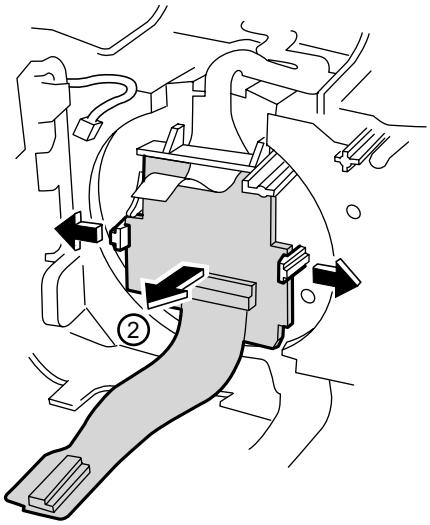
2-13. How to remove CAM PWB ASSY

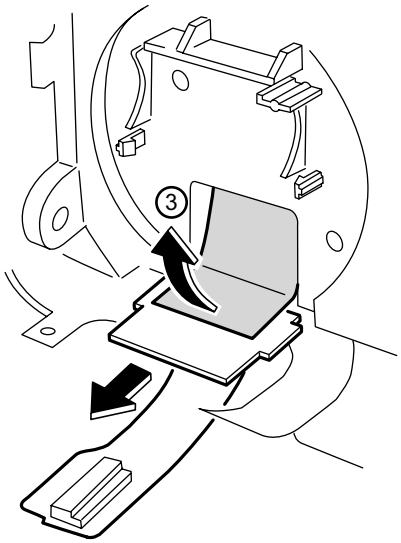
[Procedure]

1. Detach the undermentioned parts.
   R CABI CONST, LCD ASSY, ST PLATE, ST BUTTON, TOP CABI CONST, LCD FRAME CONST
2. Open the hook of LENS FRAME, and remove CAM PWB ASSY in the direction of the arrow.
3. Remove FPC from LENS CONST, and remove CAM PWB ASSY from the main body.

[Assembly procedure]

Assemble it according to a reverse procedure.





2-14. How to remove LENS FRAME

[Procedure]

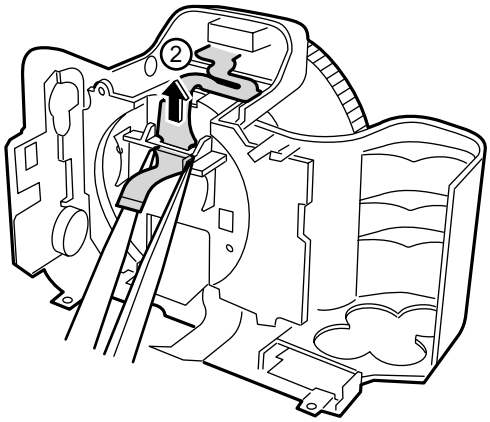
1. Detach the undermentioned parts.
   R CABI CONST, LCD ASSY, ST PLATE, ST BUTTON, TOP CABI CONST, LCD FRAME CONST
   BATTERY LID, BATTERY HOLDER UNIT, CAM PWB ASSY
2. Remove FFC from LENS FRAME.
3. Remove screw (M1.7x5.0), and remove LENS FRAME from the main body.

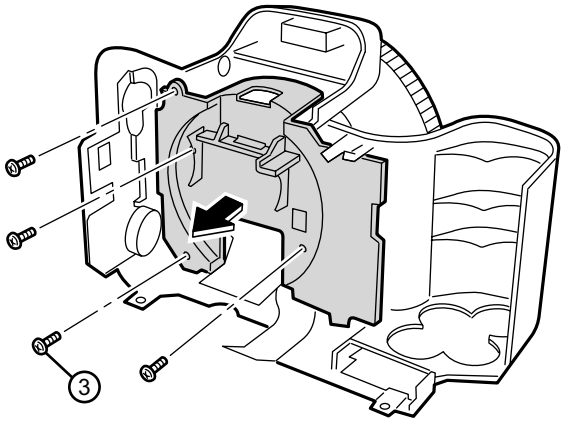
[Assembly procedure]

Assemble it according to a reverse procedure.

[Notes of assembly]

Do so as not to cut FFC adding impossible power when you build FFC into LENS FRAME noting it.

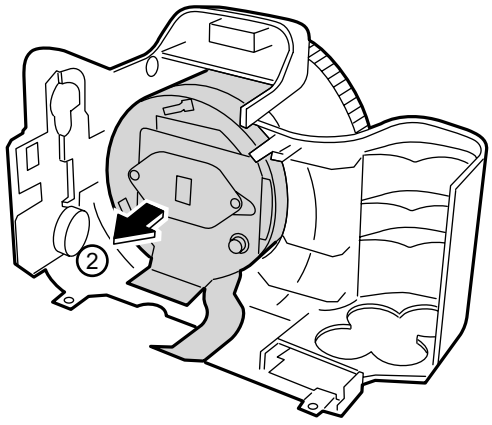




2-15. How to remove LENS CONST

[Procedure]

1. Detach the undermentioned parts.
   R CABI CONST, LCD ASSY, ST PLATE, ST BUTTON, TOP CABI CONST, LCD FRAME CONST
   BATTERY LID, BATTERY HOLDER UNIT, CAM PWB ASSY, LENS FRAME
2. Remove LENS CONST from F CABI UNIT.

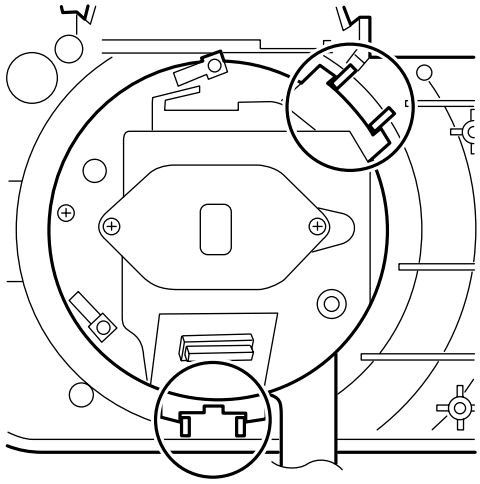


[Assembly procedure]

Assemble it according to a reverse procedure.

[Notes of assembly]

Make the cutting lack of the rib and LENS CONST of F CABI CONST combined in intuition, and build it in when you build in LENS CONST.



2-16. How to remove LENS CABI ASSY

[Procedure]

1. Detach the undermentioned parts.

   R CABI CONST, LCD ASSY, ST PLATE, ST BUTTON, TOP CABI CONST, LCD FRAME CONST
   BATTERY LID, BATTERY HOLDER UNIT, CAM PWB ASSY, LENS FRAME, LENS CONST

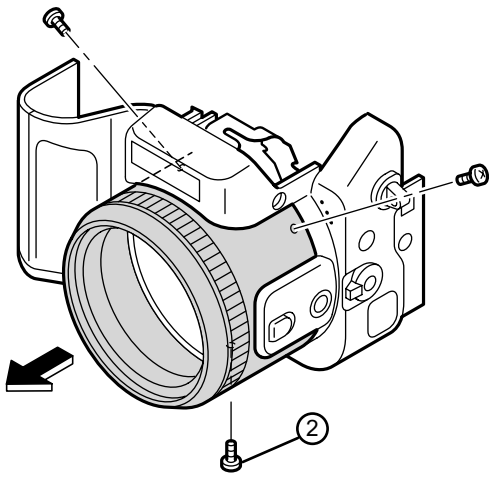
2. Remove three screws (M1.7X3.5), and remove LENS CABI ASSY.

[Assembly procedure]

Assemble it according to a reverse procedure.

[Attention]

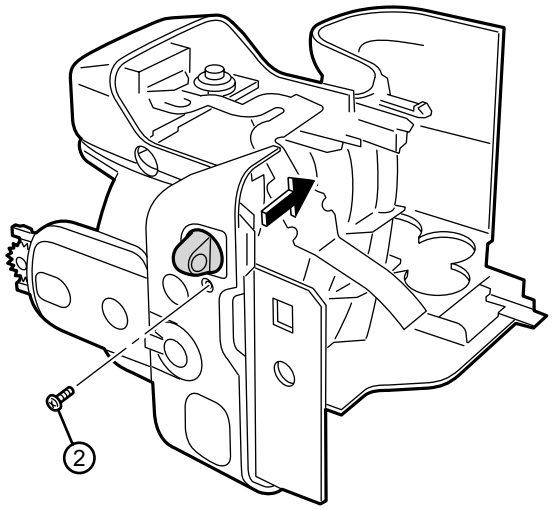
Because the torque is managed as for FOCUS RING of LENS CABI ASSY, it is not possible to decompose.

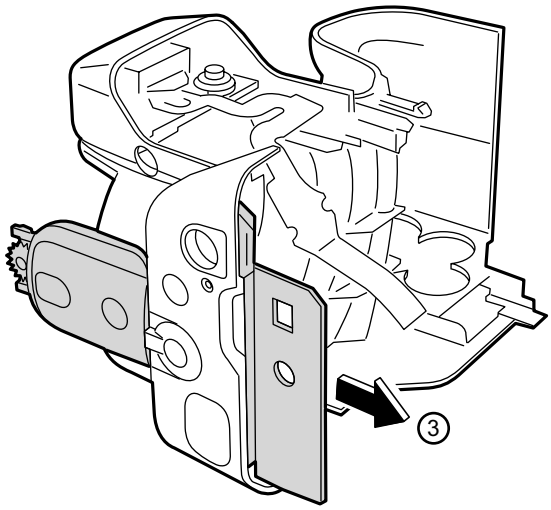


2-17. How to remove SIDE MODULE UNIT

[Procedure]

1. Detach the undermentioned parts.
   R CABI CONST, LCD ASSY, ST PLATE, ST BUTTON, TOP CABI CONST, LCD FRAME CONST
   BATTERY LID, BATTERY HOLDER UNIT, CAM PWB ASSY, LENS FRAME, LENS CONST
   LENS CABI ASSY
2. Remove screw (M1.7x5.0), and remove STRAP R.
3. Remove SIDE MODILE UNIT from F CABI ASSY.



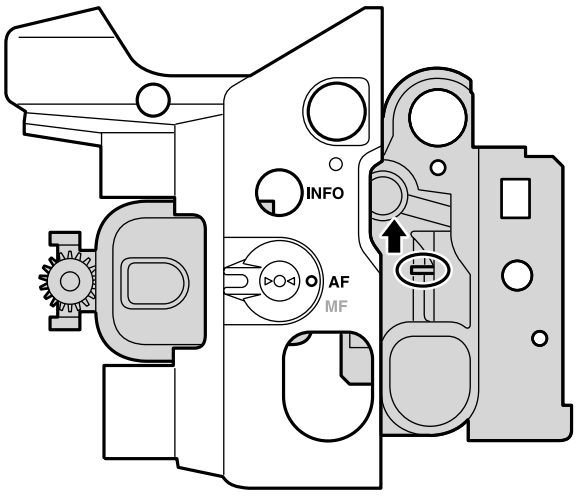


[Assembly procedure]

Assemble it according to a reverse procedure.

[Notes of assembly]

Match and build in the position of the FOCUS switch lever of FOCUS switch SW and F CABI ASSY of SIDE MODILE UNIT.



2-18. How to remove AF SENSOR UNIT

[Procedure]

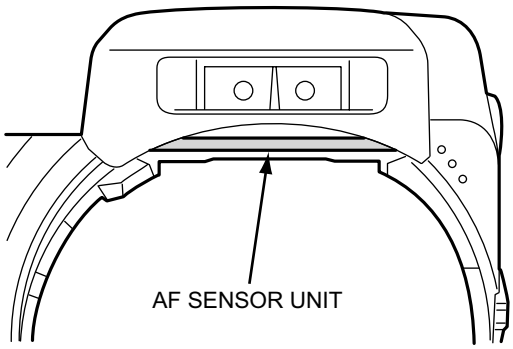
1. Detach the undermentioned parts.
   R CABI CONST, LCD ASSY, ST PLATE, ST BUTTON, TOP CABI CONST, LCD FRAME CONST
   BATTERY LID, BATTERY HOLDER UNIT, CAM PWB ASSY, LENS FRAME, LENS CONST
   LENS CABI ASSY
2. Remove AF SENSOR UNIT in the direction of the arrow while pushing the front side part of AF SENSOR UNIT by the finger.

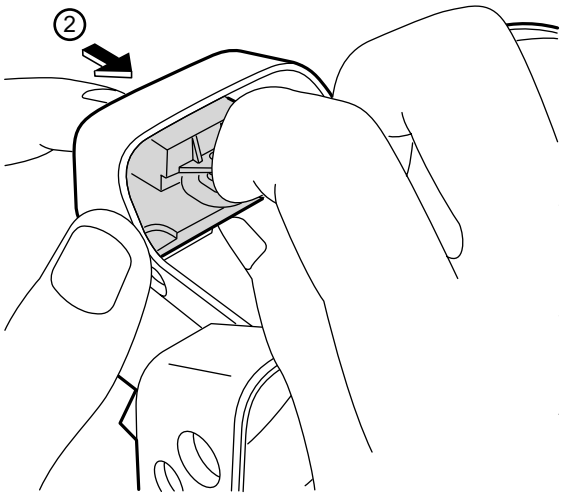
[Assembly procedure]

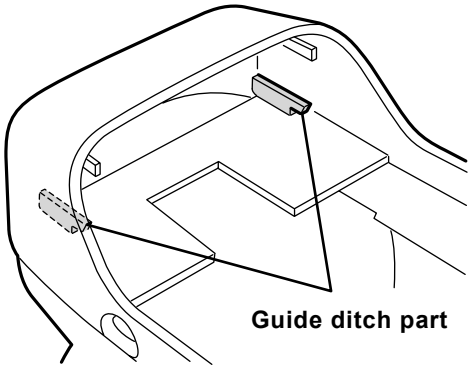
Assemble it according to a reverse procedure.

[Attention]

Replace F CABI ASSY when guide ditch part F CABI ASSY is damaged when AF SENSOR UNIT is detached.







3. Schematic

3-1.Cautions

<Caution when replaceing chip (leadless) parts.>

* Do not re-use the removed parts, but use new parts.
  Be careful that the negativ side of the tantalum capacitors are susceptible to heat.
* Voltage indications are omitted for capacitors other than chemical and tantalum capacitors with a dielectric strength of 50 V or less.
* Chip resistors without indication are 1/10 W.
* k=1000 Ω , M=1000 kΩ
* Variable resistors and semi-variable resistor are abbreviated the specification of B characteristic.

3-2.Overview of Functions of Each Circuit

Board Name	Block name	Function
LENS CONST	CCD BLOCK	CCD output
CAM PWB ASSY	CAM BLOCK	Analog to digital conversion of CCD output (IC102) CCD driver (IC100)
MAIN PWB ASSY	PROCESS BLOCK	Video signal processing (IC210) USB communication (IC210) System control (IC210)
	MOTOR BLOCK	Shutter/Iris/AF/Zoom driver (IC602)
	POWER ON BLOCK	Power control (IC302)
	EVF BLOCK	EVF control (IC405)
	LCD BLOCK	LCD control (IC404)
	AUDIO BLOCK	Audio signal processing (IC500)
DCST PWB ASSY	DC/DC BLOCK	Each power supply generation (IC902)
KEY PWB ASSY	KEY BLOCK	Operation SW(TELE/WIDE,EVF/LCD,MENU/OK,etc.)
SIDE MODULE UNIT	SIDE KEY BLOCK	Operation SW(MACRO,CUSTOM,INFO,AF/MF,OPAF)
MODE DIAL UNIT	MODE BLOCK	Operation SW(OFF/CAM/PB,S1/S2,MODE,ETC.)
ST ASSY CONST	STROBO BLOCK	Flash luminescence

3-3.Functions of Primary Blocks

3-3-1.Technical Outline

■ Use of **[the 3rd Generation Super CCD Honeycomb]** has improved still photography performance. The 3,100,000 effective pixels, and [the Honeycomb Signal Processing System], allows recording and reproduction of high-quality images of up to 2832 x 2128 (6,030,000) pixels. These features permit **[Candle Shots]** at ISO1600/800 in the 1Mega mode, a capability facilitated by the use of the unique honeycomb picture element which receives light over a wide area, technical developments in **pixel summing signal processing*1**, and noise reduction technology.

■ Movie photography performance is improved. **Horizontal/vertical pixel mixing*2** inside the CCD using a new data transfer system is the first to provide 30 frames per second in VGA format at greater than 3 megapixels.

■ **[High-speed Twin AF]** uses both an external AF sensor (passive phase difference) and the CCD AF for higher-speed autofocus.

■ The **[Super Macro]** feature allows photography of a subject at distances down to one centimeter.

■ The **[Double Slot]** feature provides for both smart media and microdrives, allowing both recording of the large volumes of image data in the high image quality mode, and long movies.

***1** : Image data obtained with honeycomb signal processing from twice the number of effective pixels. Shrinks four pixels into one. This processing increases the signal level (sensitivity) by a factor of four, and the S/N ratio (signal-to-noise ratio) by a factor of two, to permit photography at ISO1600.

***2** : Mixes two pixels on the vertical axis, and two pixels on the horizontal axis, of the CCD.
This processing increases the signal level by a factor of four, and the S/N ratio by a factor of two, to provide high sensitivity and high quality images, while at the same time allowing data to be read at high-speed (30 frames per second in VGA format).

3-3-2.CAM Board Block Functions

Photography Circuit Functions (CAM BLOCK)

■ The analog video signal output from the newly developed CCD (1/1.7”, 3,100,000 effective pixels, square pixel honeycomb array, primary color CCD) is processed (pseudo-color compensation, adaptive interpolation, amplification, and signal mixing) in **SCS3A_IC (IC102:CSP_IC)**, and subsequently converted to a 12-bit digital signal. The digital signal is then sent to the single chip image signal processing LSI : **UCS1_IC (IC210 : CSP_IC*)**.

*** CSP_IC=C**hip **S**ize **P**ackege **IC**

3-3-3.MAIN Board Block Functions

Image Signal Processing Functions (PROCESS BLOCK)

■ Data input from CCD

* The 12-bit digital image data (1H equivalent) output from the CAM BLOCK is sent to **UCS1_IC**, buffered in the IBUF, and converted to 32-bit (16-bit x 2) data. The 32-bit image data is then sent from the [I/O Buffer] in **UCS1_IC** and stored in the **SDRAM_IC (IC211, IC218, IC219 : 40 Mbyte**). A single frame (2832 pixels x 2128 lines) of image data is temporarily stored in the **SDRAM_IC**.

* At the same time, AE multiplies the 12-bit image data input from the **UCS1_IC** in [AUTO], and sends the data required for AE/AWB/AF to the **SDRAM_IC**. To provide the appropriate data for AE/AWB/AF, this data is then sent from the **SDRAM_IC** in serial format to the **SCS3A_IC** via the **UCS1_IC**.

■ Recording in the SSFDC
The image data stored in the **SDRAM_IC** is converted from 32-bit to 12-bit data one line at a time in the [IBUF] in the **UCS1_IC**, and sent to [YC PRO]. The image data is then converted to 8-bit Y and C signals in [YC PRO], and then sent again to [IBUF]. The 8-bit Y and C signals are then converted to 8-bit Y, Y, Cb, and Cr signals and sent to the **SDRAM_IC**. The image data stored in the **SDRAM_IC** is compressed with [JPEG] in the **UCS1_IC** and again stored in the **SDRAM_IC**. The image data following compression is recorded sequentially in the SSFDC via [MEDIA] in the **UCS1_IC**.

■ Image Replay from the SSFDC
The compressed image data from the SSFDC is sent to **UCS1_IC**, and stored in the **SDRAM_IC** via [MEDIA]. The compressed image data stored in the **SDRAM_IC** is expanded with JPEG and stored again in the **SDRAM_IC**. The expanded image data is sent to [YC PRO] via [IBUF]. Gain control for the luminance and color difference signals, and aperture processing, are performed in [YC PRO] and the image data then sent again to the **SDRAM_IC**. The image data is then displayed via [ENCD] and [D/A].

■ Movie Mode
The 12 bit digital image data output from the (CAM BLOCK) is converted to 8-bit Y and C signals in the **USC1_IC** [YC PRO], and sent to the **SDRAM_IC**. The image data stored in the **SDRAM_IC** is compressed with [JPEG] in the **UCS1_IC** and again stored in the **SDRAM_IC**. The image data following compression is recorded sequentially in the SSFDC via [MEDIA] in the **UCS1_IC**.

■ The photography adjustment data is stored in the **FLASH_ROM (IC216)**. The **FLASH_ROM** also incorporates firmware.

LCD Control Functions (LCD CONTROL BLOCK)

■ The R, G, and B signals processed in the image signal processing **UCS1_IC** are output to the LCD panel via [LCD CONT].

■ A low-temperature polysilicon TFT color LCD monitor (1.8, 110,000 pixels) is used.

EVF Control Functions (EVF CONTROL BLOCK)

■ The R, G, and B signals processed in the image signal processing **UCS1_IC** are output to the EVF panel via [EVF CONT].

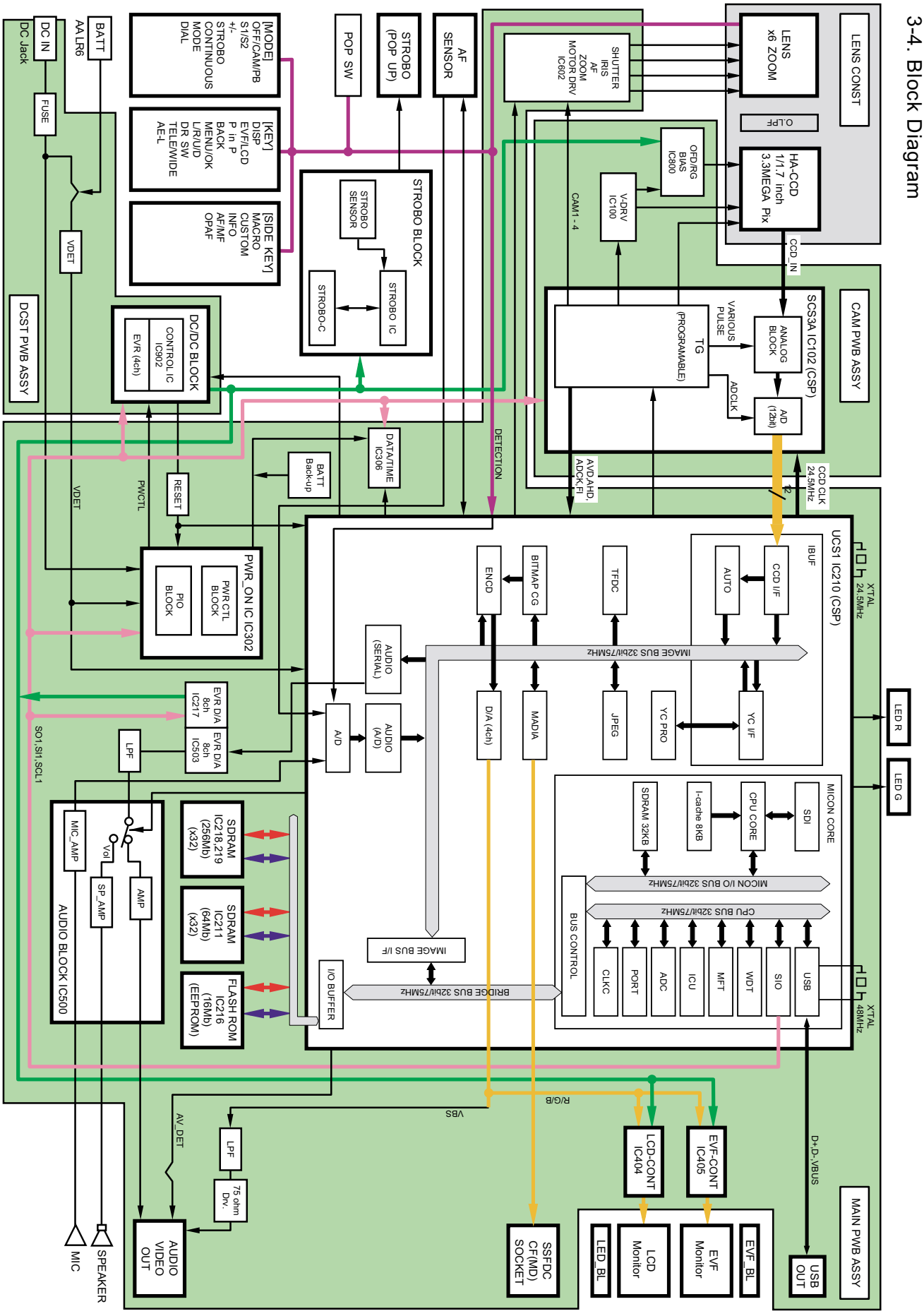
■ A high-temperature polysilicon TFT color monitor (0.44, 180,000 pixels) is used in the viewfinder.

3-3-4.DCTS Board Block Functions

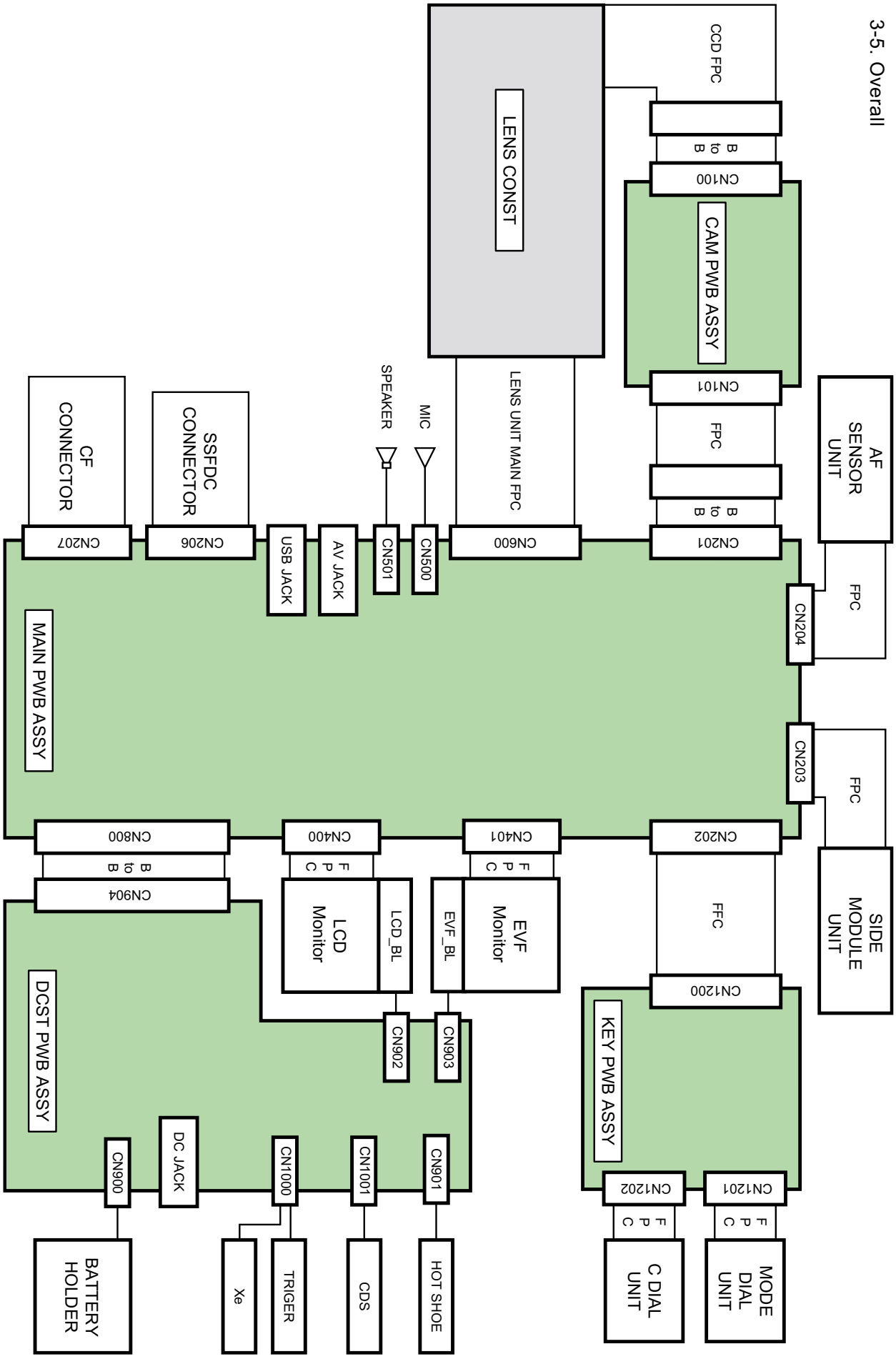
Power Supply Functions

■ The power supply circuit on the DCST board generates the **-8V/16V** (CCD), **1.5V** (UCS1_IC), **3.3V** (SCS3A_IC/UCS1_IC/SDRAM/SDRAM/ROM/LED/KEY), **MOT_5.0V** (lens/flash), **D_5V** (AUD01), **LCD_13V** (LCD/EVF backlight), **D_3.3V** (LCD circuit), and **AD_3.3V** (video circuit) voltages.

3-4. Block Diagram

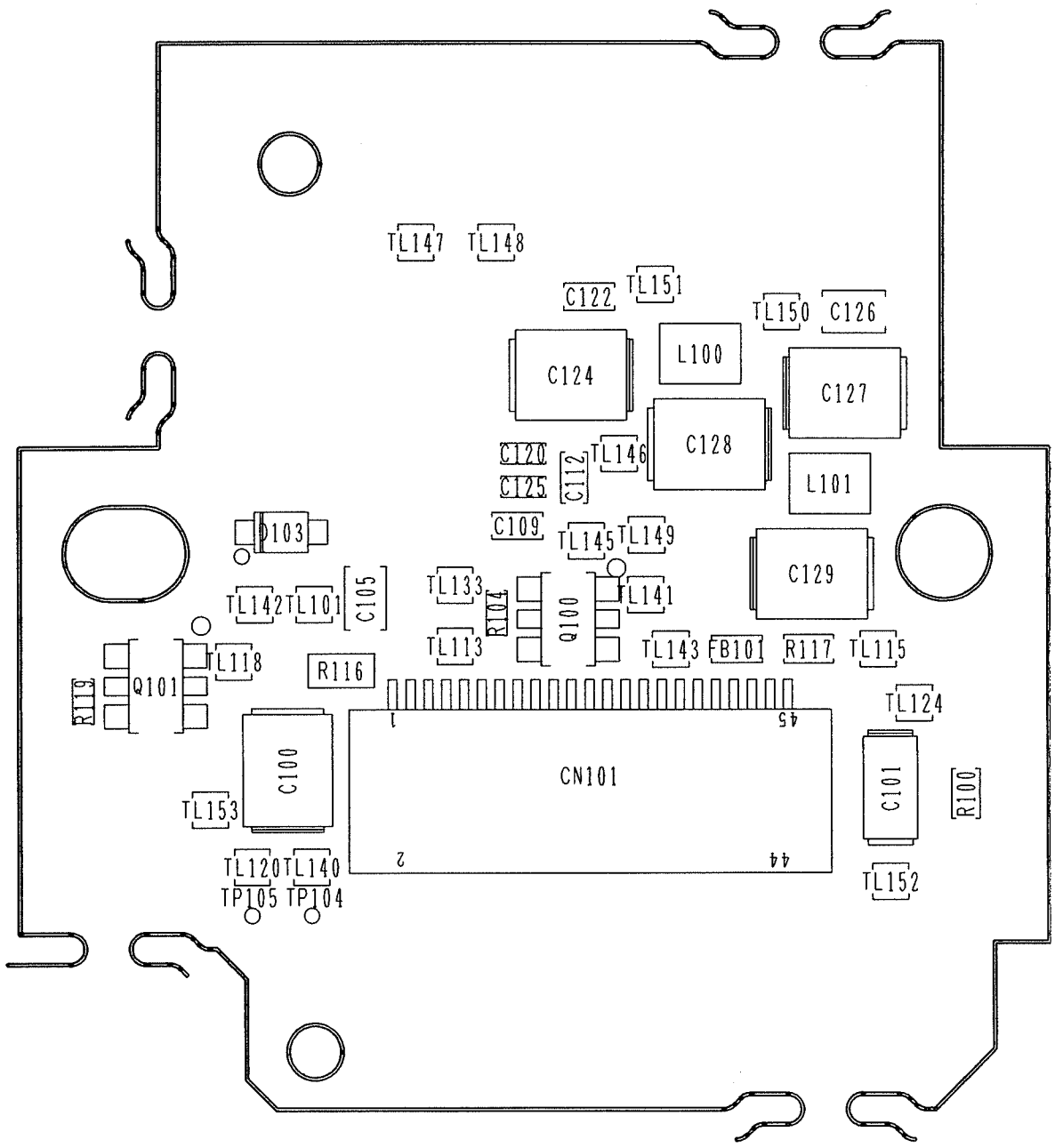


3-5. Overall

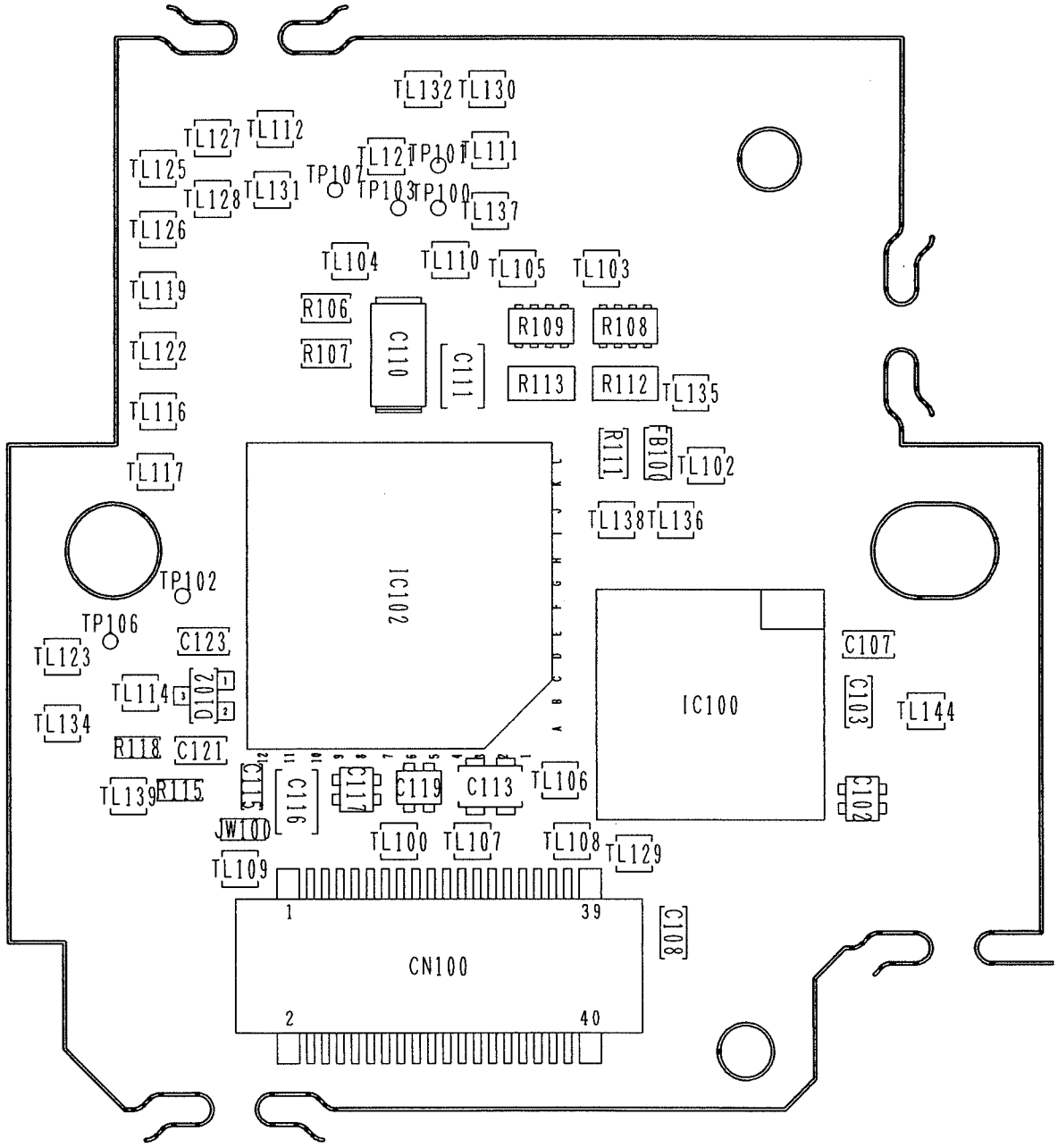

CCD FPC
B to B
CN100
CAM PWB ASSY
LENS CONST
CN101
FPC
B to B
CN201
AF SENSOR UNIT
FPC
CN204
CN203
FPC
SIDE MODULE UNIT
CN202
FFC
CN1200
KEY PWB ASSY
CN1202
CN1201
F P C
F P C
C DIAL UNIT
MODE DIAL UNIT
LENS UNIT MAIN FPC
CN600
SPEAKER
MIC
CN501
CN500
USB JACK
AV JACK
CN207
CN206
CF CONNECTOR
SSFDC CONNECTOR
MAIN PWB ASSY
CN800
B to B
CN904
CN400
F P C
LCD Monitor
LCD_BL
CN401
F P C
EVF Monitor
EVF_BL
CN902
CN903
DCST PWB ASSY
CN900
DC JACK
CN1000
CN1001
CN901
BATTERY HOLDER
Xe
TRIGER
CDS
HOT SHOE

3-6.Board mounting diagram

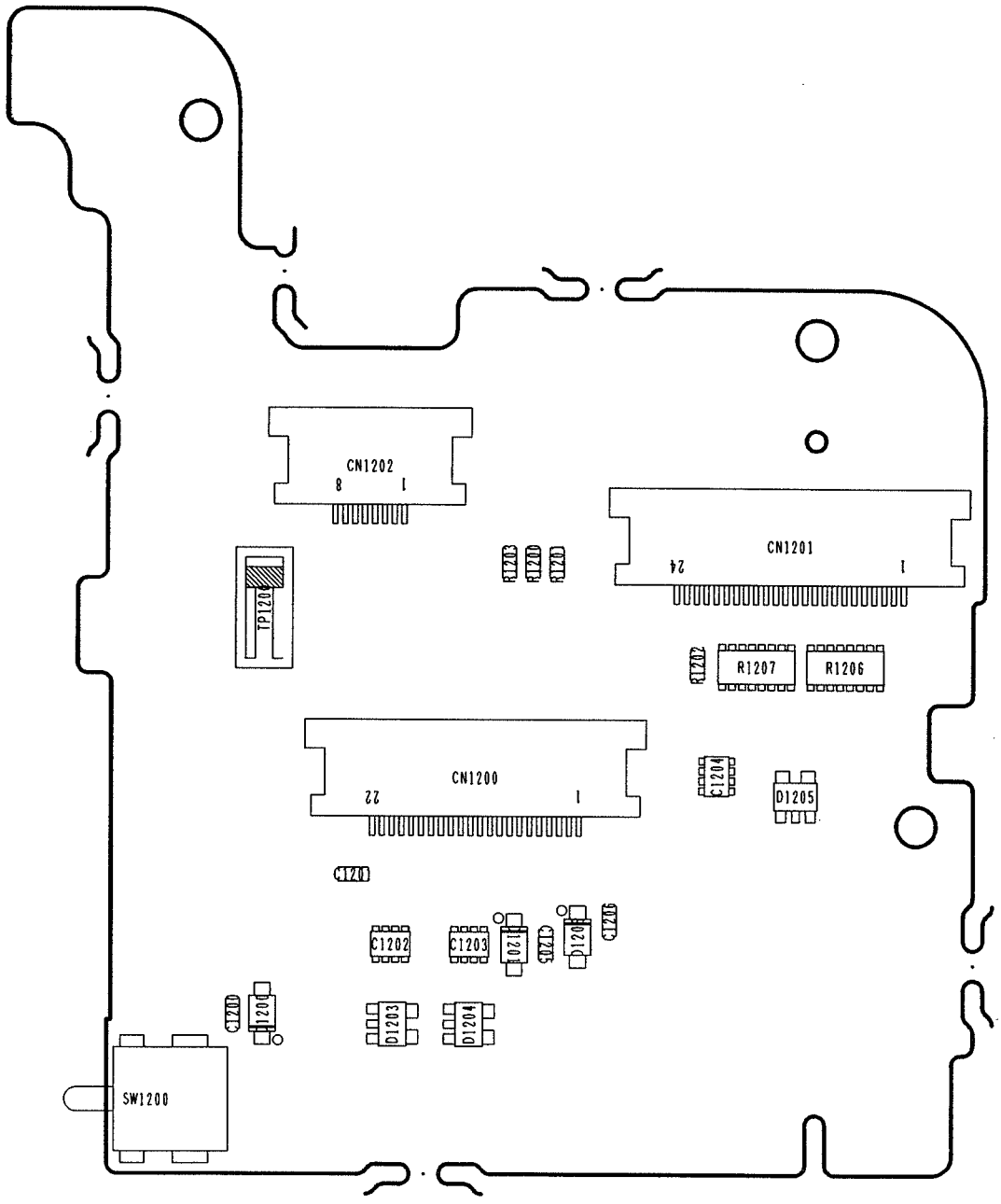
3-6-1.CAM PWB ASSY Component Location (A)



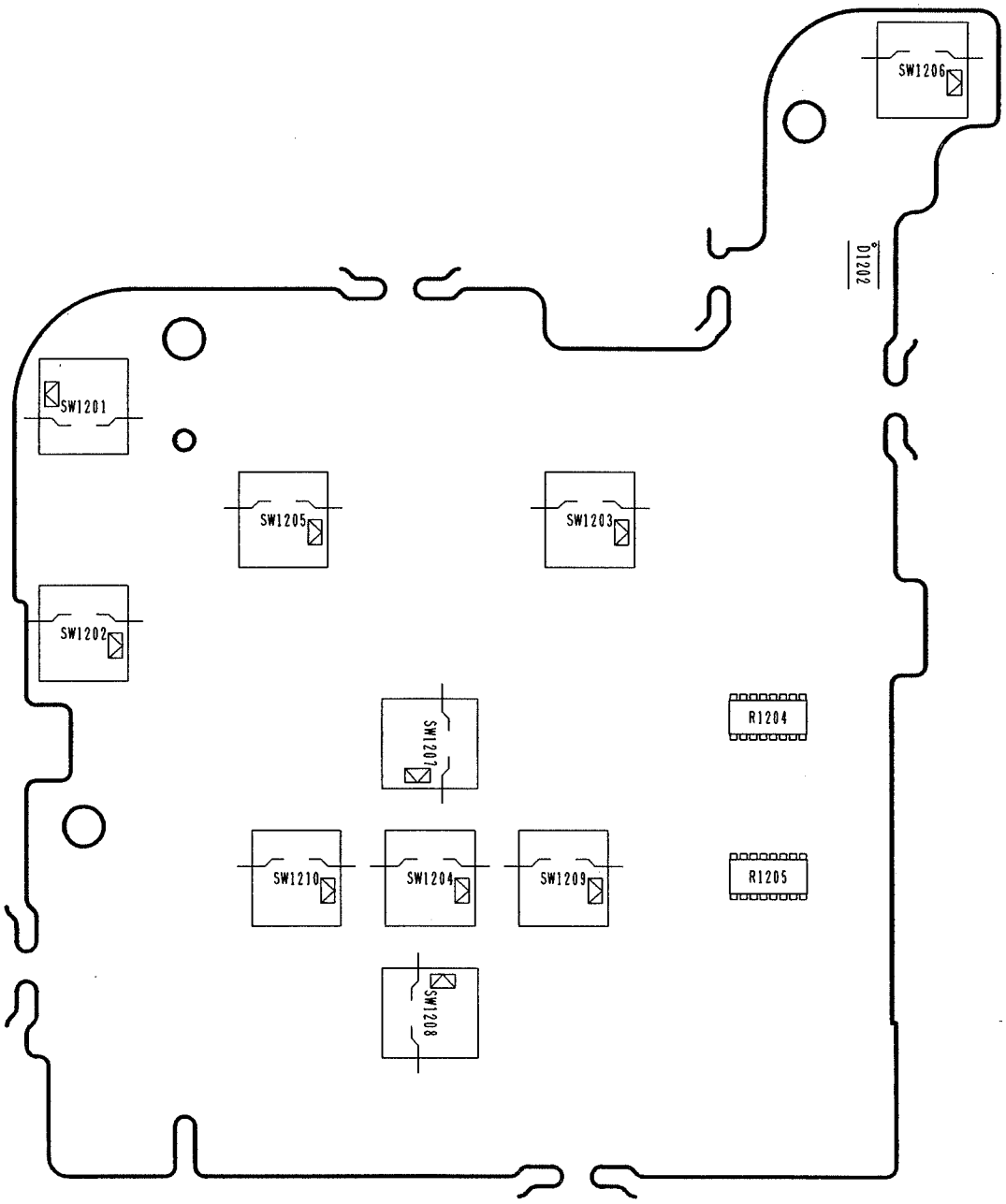
3-6-2.CAM PWB ASSY Component Location (B)



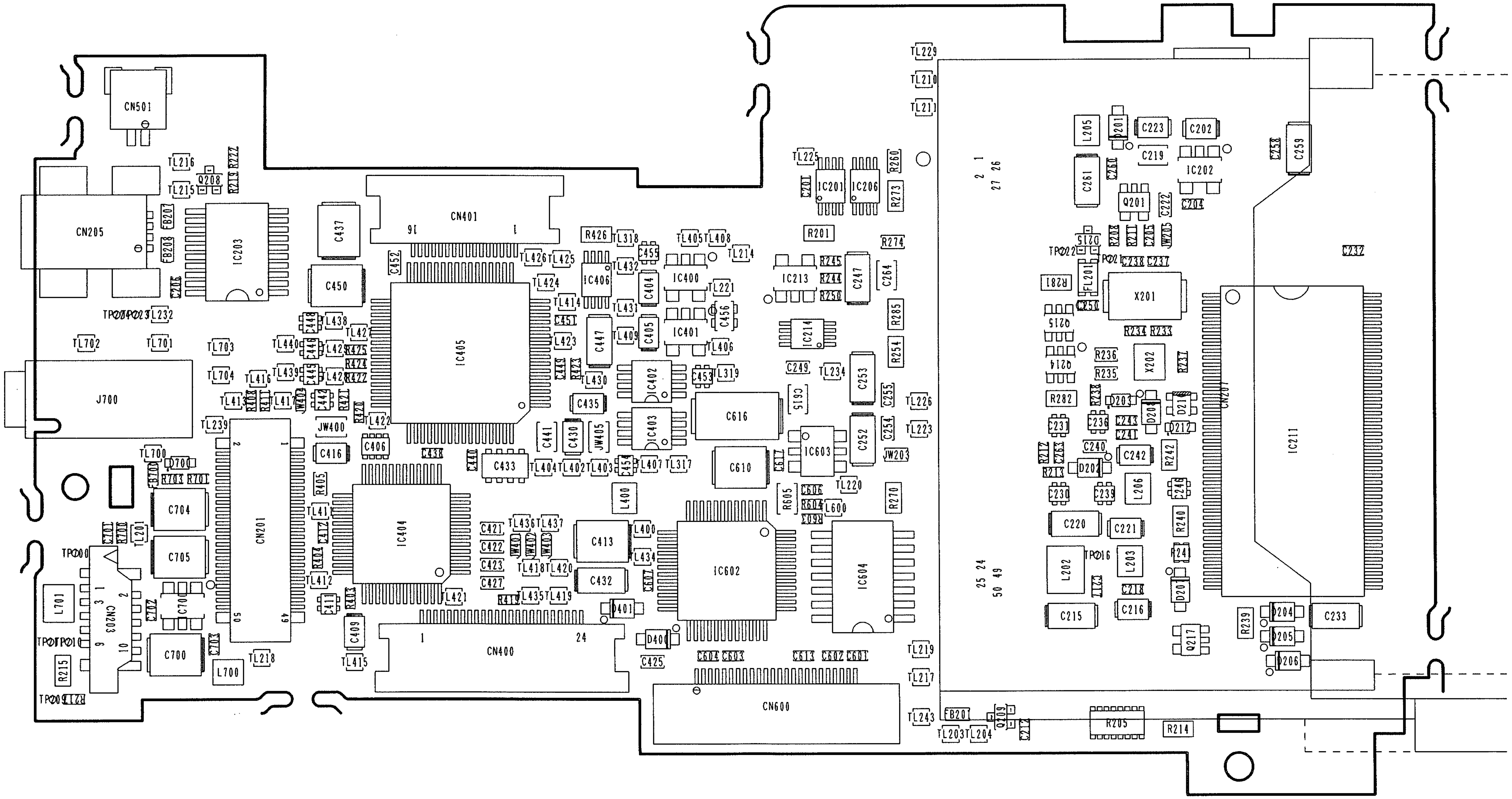
3-6-3.KEY PWB ASSY Component Location (A)



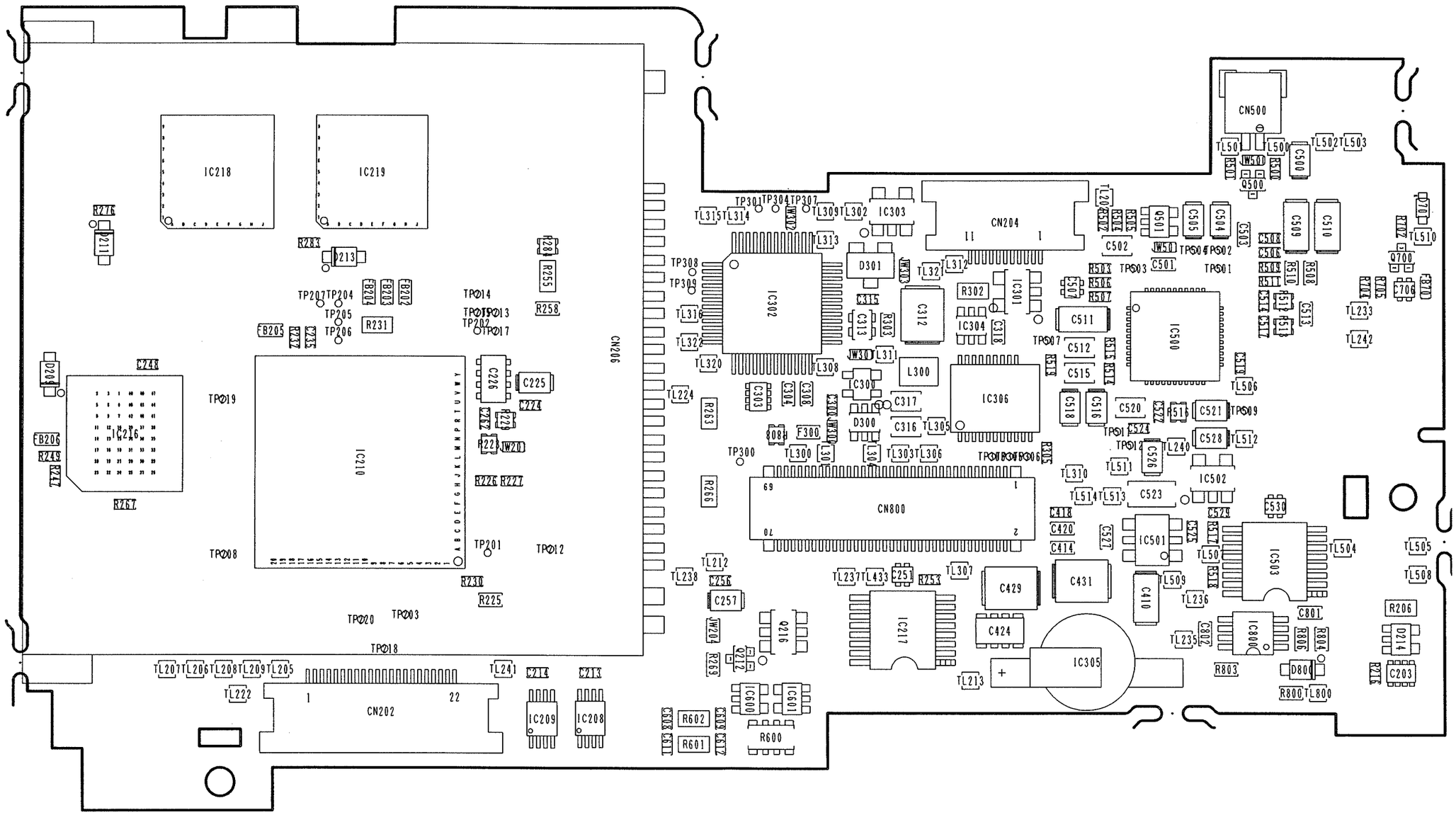
3-6-4.KEY PWB ASSY Component Location (B)



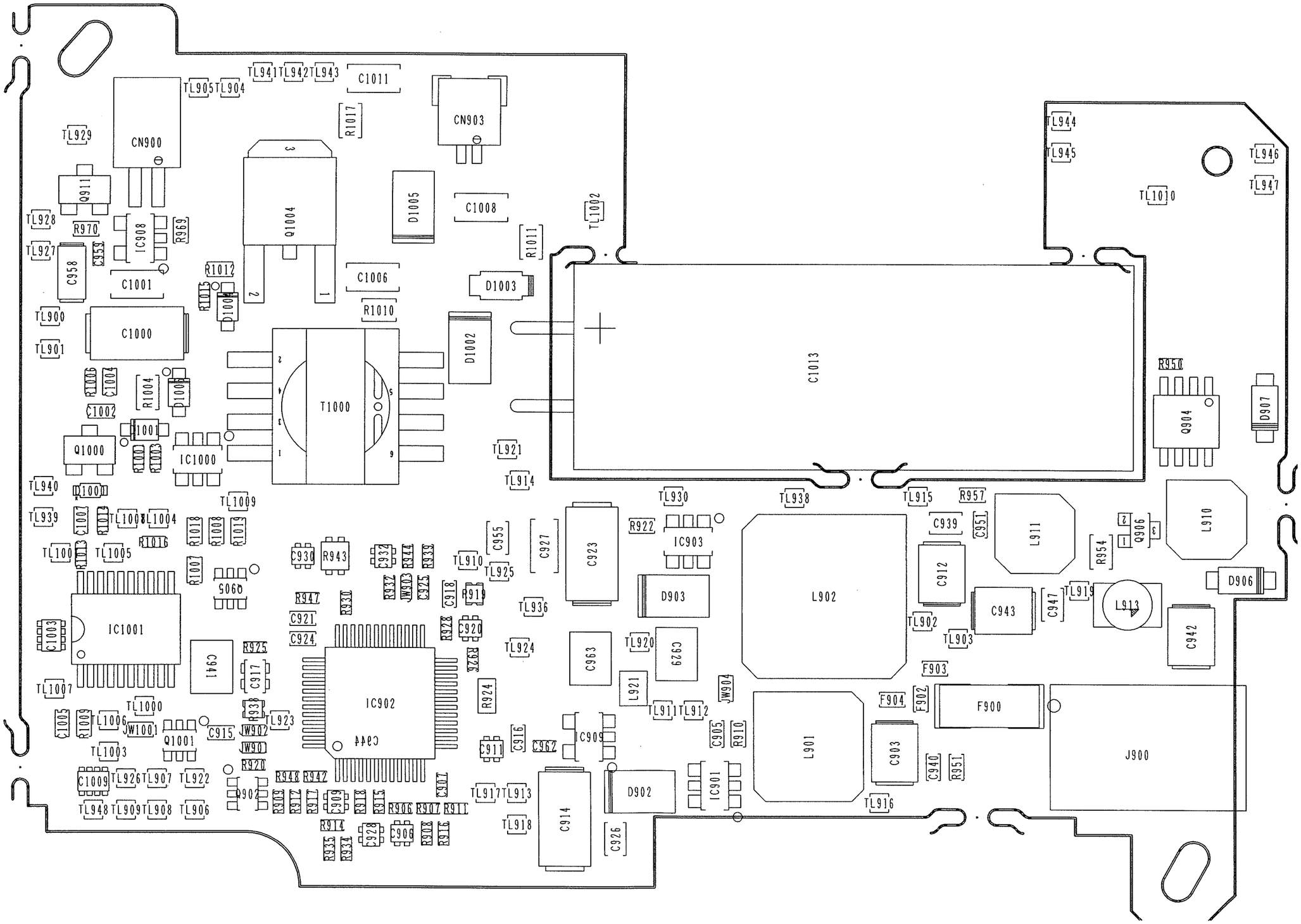
3-6-5.MAIN PWB ASSY Component Location (A)



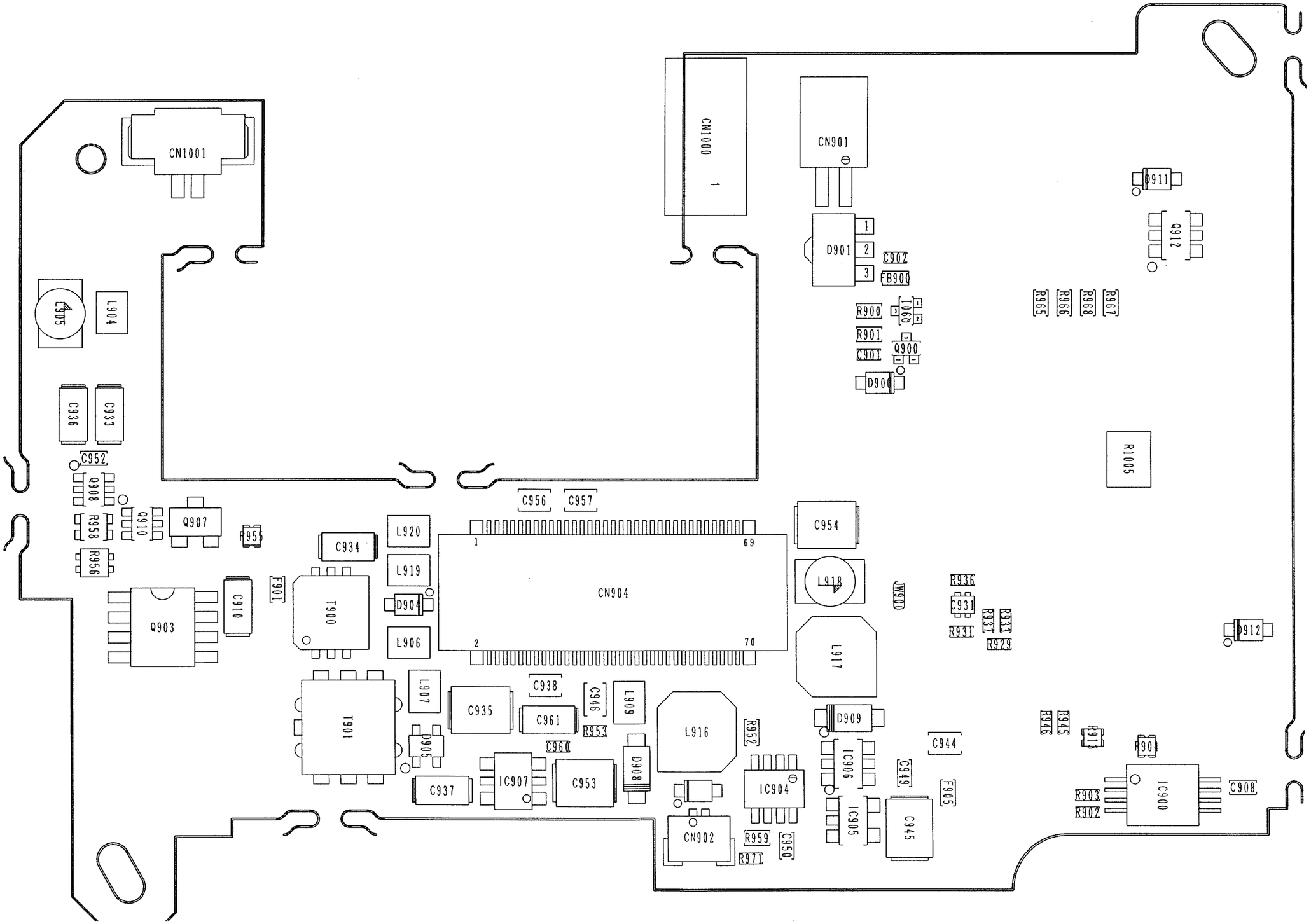
3-6-6.MAIN PWB ASSY Component Location (B)



3-6-7.DCST PWB ASSY Component Location (A)



3-6-8.DCST PWB ASSY Component Location (B)



4. Adjustment

4-1.Adjustments to Primary Components Following Replacement

The adjustments indicated by 'Number' below are required to follow when the component bellow is replaced.

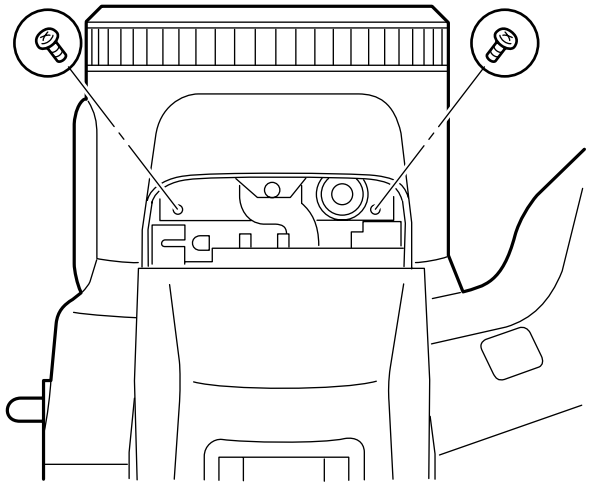
	AF sensor	CCD data input	Photography	Zoom AF	Flash	Battery	Mode dial	Final setup
LENS CONST	1	2***1**	3	4	5	6	7	8***3**
CAM PWB ASSY	1		2		3	4		5***3**
MAIN PWB ASSY	1	2***2**	3	4	5	6	7	8***3**
DCST PWB ASSY	1				2	3	4	5***3**
KEY PWB ASSY							1	2***3**
AF sensor	1							2***3**
Flash unit	1				2			3***3**
Mode dial	1						2	3***3**
Disassembly and assembly***4**	1							2***3**

***1 : Use the CCD data floppy disk supplied with the lens assembly.**

☆ ***2 : A new MAIN PWB assembly does not contain CCD data. When replacing the MAIN PWB assembly create a CCD data floppy disk.**
CCD damage data and adjustment data are written to the FLASH_ROM (IC216).

***3 : The camera will remain in the Jig mode unless the final settings are entered. Always enter the final settings after adjustment is complete.**

***4 : Irrespective of whether or not components have been replaced, if the two screws (M1.7 x 5.5) holding the AF sensor in place are removed, the AF sensor will be displaced horizontally and vertically in relation to the lens, and AF Sensor Adjustment is therefore always required. The screws are located as shown below.**



☆ **Revised:30.May.2002**

4-2.Preparation for adjustments

4-2-1.Measuring Equipments

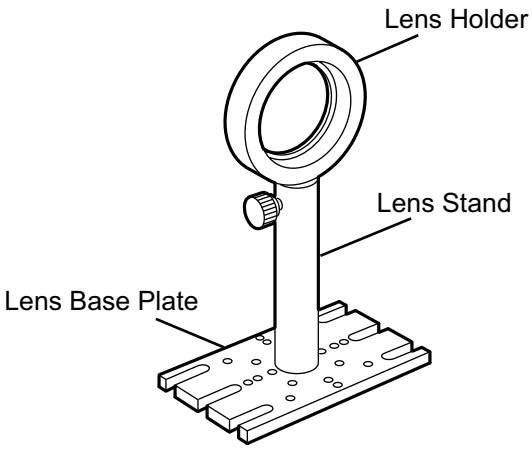
Names	Remarks
Stabilized Power Supply	General adjustment
Pattern Box	Comparable to the PTB450 or equivalent
Waveform Monitor	For inspecions
Vecrot Monitor	For inspecions
Digital Voltmeter	General adjustment
Personal Computer	DOS-V (PC-AT) / OS:Windows98,98SE
TV Monitor	TV monitor 600 resolutions (14-21inch)
Brightness meter	LS-110 (Made by Minolta) or equivalent
Color meter	COLOR METER 3F (Made by Minolta) or equivalent
Flash meter	AUTO MATER 4F (Made by Minolta) or equivalent

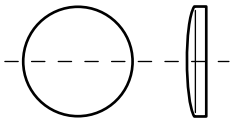
4-2-2.Jigs and Charts

Product / Model	Parts No.	Usage	Remarks
Filter LB140 (HOYA)	ZJ00006-100	CAM	Common with DX--9,DX-7,DS-7
Gray Chart	ZJ00254-100	Flash	Common with MX-700
Siemens Star Chart	J-6080-875-A	AF	Common with 8mm VTR (Note 1)
f=600mm Conversion Lens	ZJ00007-100	AF	Common with 8mm VTR (Note 2)
Lens Holder	ZJ00008-100	AF	Common with 8mm VTR (Note 2)
Lens Stand	ZJ00009-100	AF	Common with 8mm VTR (Note 2)
Lens Base Plate	ZJ00010-100	AF	Common with 8mm VTR (Note 2)
f=900mm Conversion Lens	ZJ00287-100	AF Sensor	Common with 8mm VTR (Note 2)
AF Sensor Adjustment Chart (700mm)	ZJ00542-100	AF Sensor	Chart only for 700mm adjustment
AF Sensor Adjustment Chart (1000mm)	ZJ00543-100	AF Sensor	Chart only for 1000mm adjustment
DSC jig driver	ZJ00476-100	General	Common with FinePix4900 (Note3)
FinePix S602ZOOM PC adjustment software	ZJ00544-100	General	Custom software (Note3) Only operate at Win98,98SE
CCD Defect Data	ZJ00535-100	CCD	Common with FinePix F601 (Note3)
Power Cable Jig	ZJ00213-100	General	Common with DX-5
AC Adaptor (AC-5V)	----------	General	Accessories
USB Cable	----------	General	Accessories
CD-ROM	----------	General	Accessories

Note 1 : Please do the expansion copy to the A3 size and use the Siemens Star Chart.
Note 2 : This is a holder set for holding the conversion lens. For details, see the figure below.
Note 3 : Please download them from the web server (http://fujifilm-di.intranets.com/).

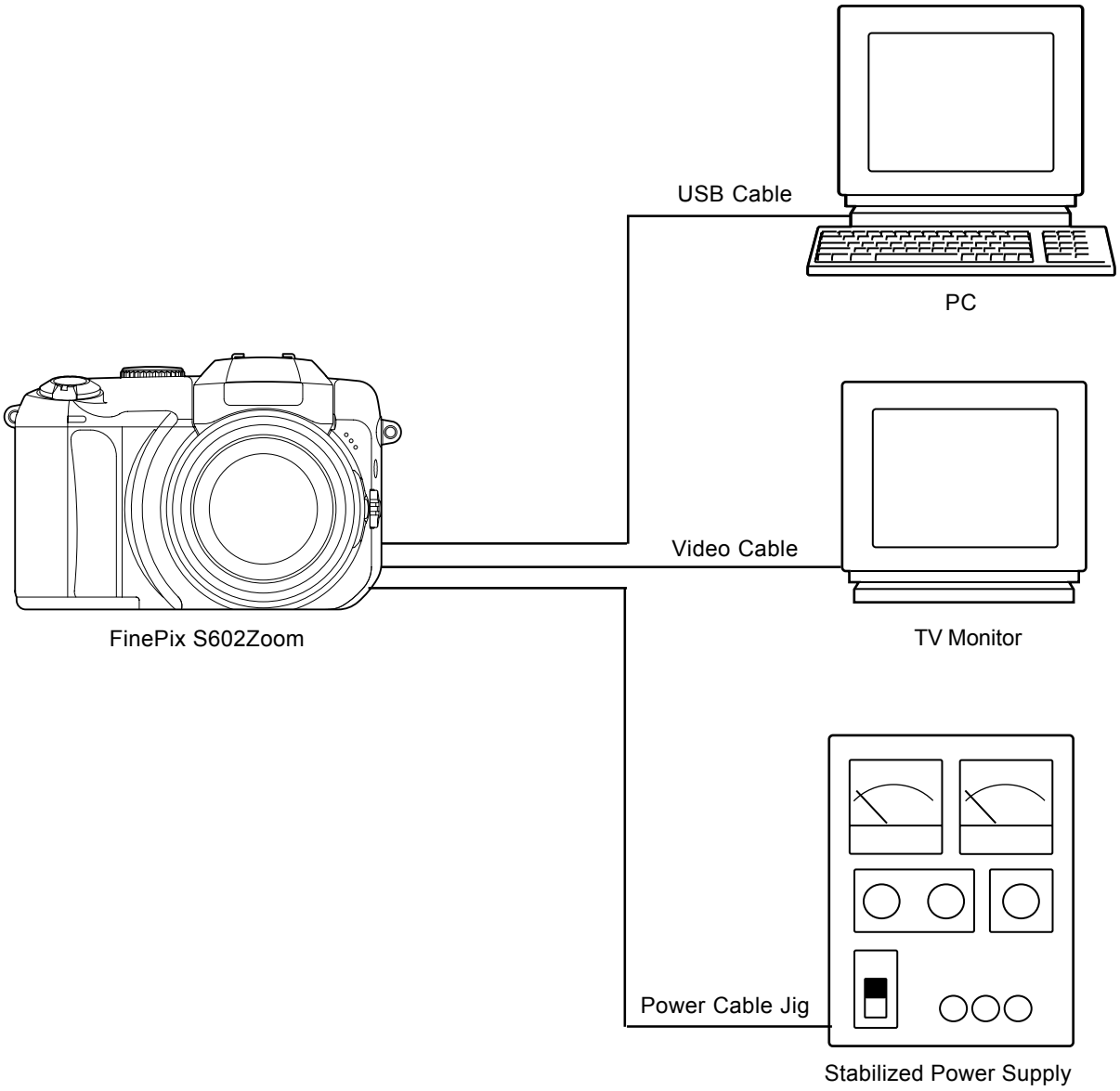
Conversion lens complete set





Attention when conversion lens is used.
Convex side : Subject side.
Plane : Camera lens side.

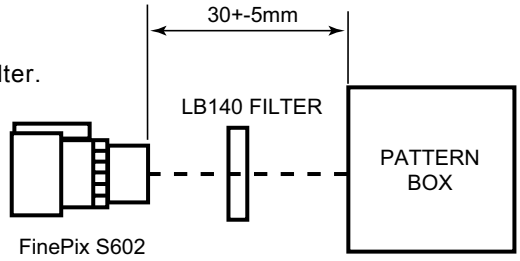
4-2-3.Connection



<Fig.2-1> Connection

4-2-4.Environmental Settings for Adjustment

1. Remove the chart from the pattern box, and adjust the color temperature and luminance of the light source.
   Firmly attach the LB140 filter to the surface of the pattern box.
   Adjust color temperature with the color temperature meter touching the LB140 filter.
   Color temperature : **6100+/-50°K (with LB140 filter fitted)**
   Center of pattern box without chart
   Minolta 3F digital color meter
2. Adjust luminance with the luminance meter touching the LB140 filter.
   Luminance : **160+/-5cd/m2 (with LB140 filter fitted)**
   Center of pattern box without chart
   Minolta LS-110 luminance meter
3. Arrange the camera and pattern box as shown in the diagram.
   Distance between pattern box and camera : **30+/-5mm**

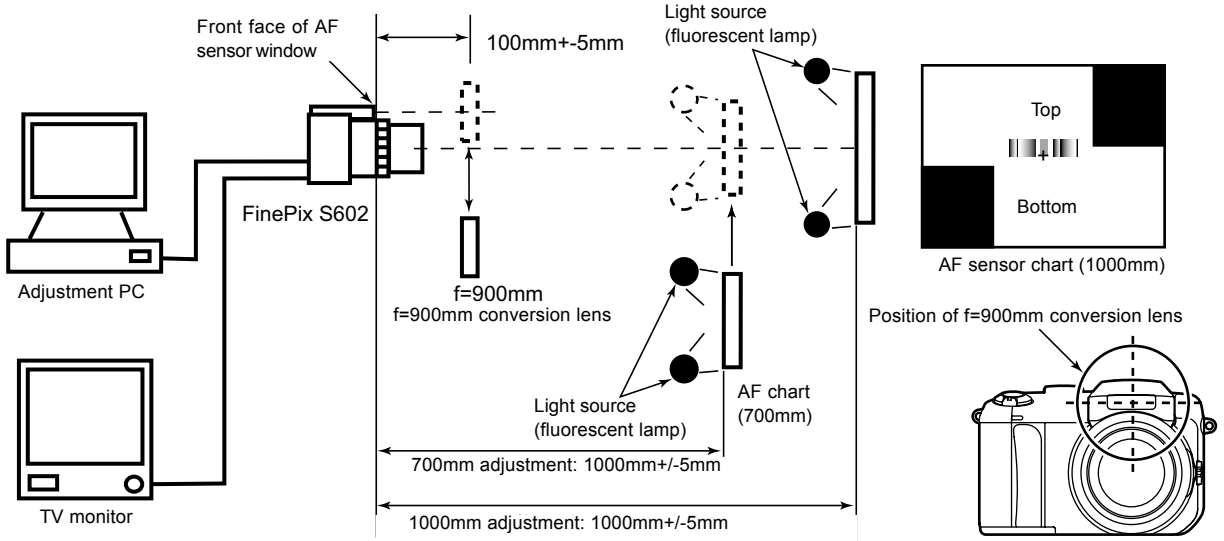


4-2-5.Preparations for AF Sensor Adjustment

1. Prepare as follows using non-defective equipment.
2. Mount the camera on a tripod, and place the AF sensor chart (for 1000mm) at a distance of **1000mm** from the front face of the AF sensor window.
3. Set the camera power lever to the Photography mode, and display the through screen on the TV monitor.
4. Set the lens position to **TELE END** while holding the camera zoom button **[T]** down.
5. Adjust the camera position so that the AF target symbol (yellow) displayed on the TV monitor overlaps the '+' symbol (red) near the center of the AF sensor chart (for 1000mm).
6. Attach an OHP sheet to the TV monitor.
7. Place a mark in the center of the target mark displayed on the TV monitor.
8. Draw a circle on the OHP sheet with the marked point as the center.
   The size of the circle will differ from the TV monitor used. The circle sizes for the various TV monitors are as follows.
   14" to 16" : 5mm radius
   17" to 19" : 6mm radius
   20" to 21" : 7mm radius
9. This completes preparations for AF Sensor Adjustment.

4-2-6.Environmental Settings for AF Sensor Adjustment

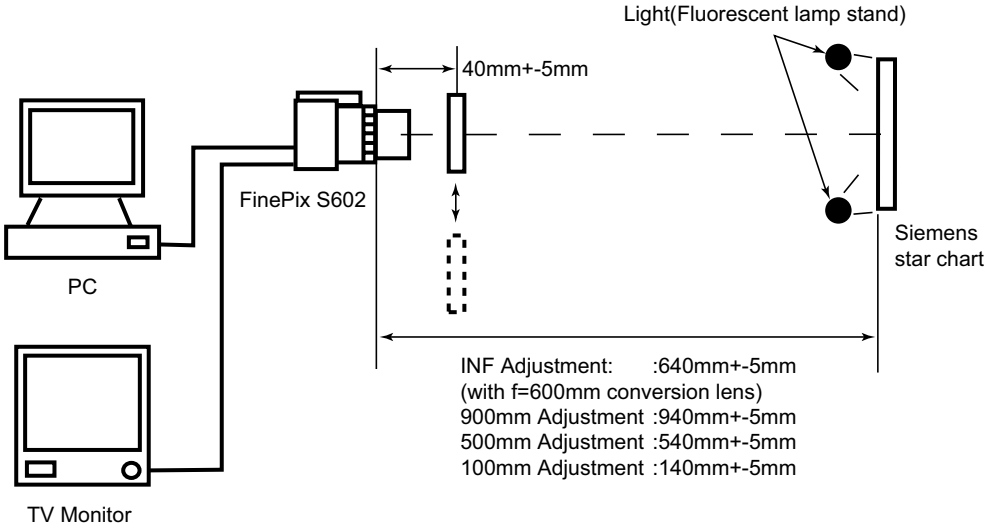
1. Set up the conversion lens (f=900 mm) and the two types of AF sensor chart as shown below.
2. Illuminate the AF sensor chart (1000mm) using one or two light sources. Adjustment is impossible if the illumination does not match.
   The distance between the light sources and the AF sensor chart must be approximately 5cm.
   AF sensor chart reflective luminance : 8.0Ev to 9.0Ev
3. Place the conversion lens concentric with the front face of the AF sensor window.
4. If the center of the conversion lens and the center of the AF sensor window are significantly misaligned, an error will occur during AF Sensor Adjustment, and adjustment will become impossible.



4-2-7.Environmental settings for AF adjustment

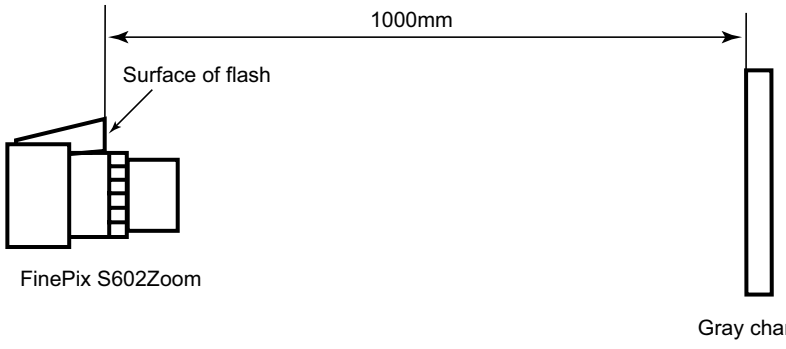
1. It sets it by using the f=600mm conversion lens and siemens star chart as shown below.
2. It illuminate on the siemens star chart by using the 2 light source. When the illuminance is insufficient, it is not possible to adjust it by "Brightness shortage". It is necessary to adjust the source of light and the distance of siemens star chart to about 5cm.

   ***The siemens star chart reflection brightness: 8.0-10.0Ev**
3. Please set the lens position of the camera on the concentric circle about conversion lens.
4. It becomes "Pnmod error" while AF adjusting if the center of conversion lens and the center of the camera lens come off largely and it is set and it cannot AF adjustment.



4-2-8.Environmental settings for Flash adjustment

1. When adjusting the flash, it is easy to be influenced by external light, so be sure to perform the adjustment in an environment that satisfies the following conditions.
2. In order to eliminate the influence of external light, make the area around the gray chart as dark as possible.
3. The distance between the gray chart used during the flash adjustment and the camera should be 100cm.



4-3.About the Adjustment PC Soft

4-3-1.Attention at DSC jig driver

FinePix S602Zoom uses the USB cable to communicate with the personal computer.
When FinePix S602Zoom adjusted, the installation of the DSC jig driver is necessary.
The download, decompression and installation procedure is recorded as follows.

[Download and decompression]

1) Download the compressed DSC jig driver from Web server (http://fujifilm-di.intranets.com/).
2) Defrost the downloaded compression file.

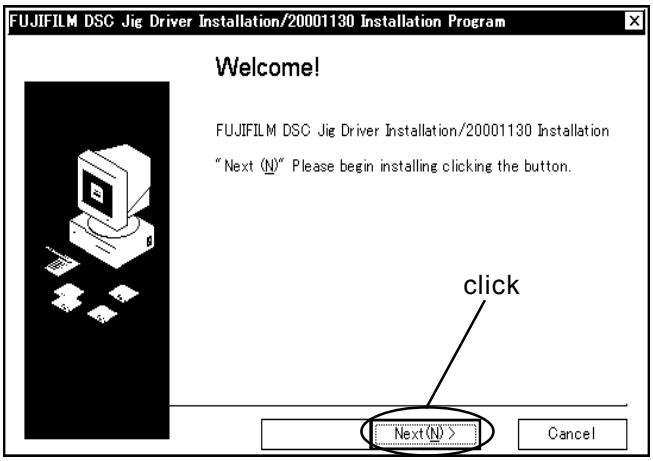
(Note)

The DSC jig driver in this server is compression file of ZIP form.
Therefore, after downloading this compression file from the Web server, the decompression of the file is necessary.
In the decompression software, if the decompression of the ZIP form can be done, any software is OK.
Please prepare each one for the decompression software.

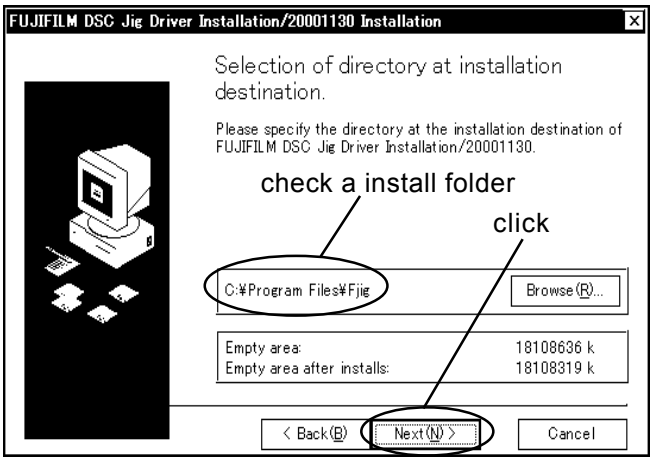
[Installation]

1) The unzipped DSC jig driver (ZJ00476-100) folder is opened.
2) Please double-click the "Setup.exe", start the installation of "FUJI FILM DSC jig driver".
3) "FUJI FILM DSC jig driver" is installed according to the instruction of the screen <Fig.3-1, 3-2, 3-3, 3-4>.

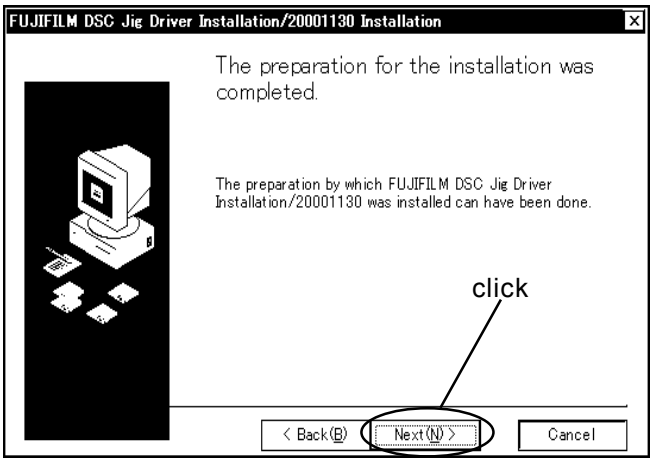
Note: If the FUJI FILM digital camera (example FinePix4900zoom) has already been repaired, the installation of the DSC jig driver is not necessary.



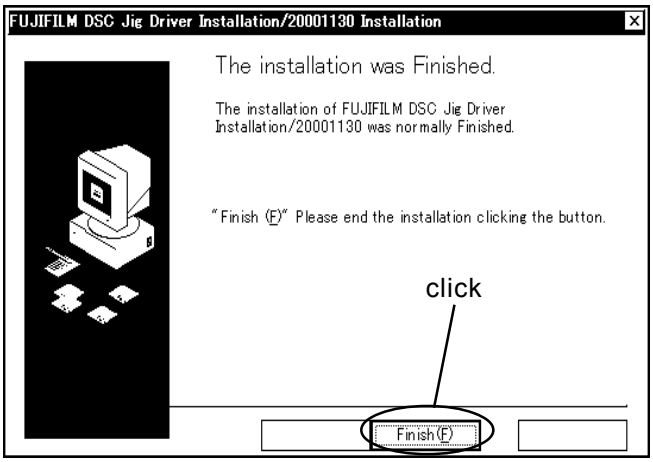
<Fig.3-1> 1st step (start the installation)



<Fig.3-2> 2nd step (install folder)



<Fig.3-3> 3rd step (install)



<Fig.3-4> 4th step (Finish)

4-3-2.Attention at PC adjustment soft

This adjustment software can perform adjustments to each block using the user program (FxS602Z.ff) in the base program (FFW.exe). A basic program is FinePix S602Zoom exclusive use.

The download, decompression and installation procedure is recorded as follows.

[Download and decompression]

1) Download the compressed PC adjustment software from Web server (http://fujifilm-di.intranets.com/).

2) Defrost the downloaded compression file.

(Note)

The PC adjustment software in this server is compression file of ZIP form.

Therefore, after downloading this compression file from the Web server, the decompression of the file is necessary.

In the decompression software, if the decompression of the ZIP form can be done, any software is OK.

Please prepare each one for the decompression software.

The decompression and the preservation method of the PC adjustment software are described as an example of FinePix2300.

As the PC adjustment software is different in each model, the compression file name is also different.

Specify the preservation drive for C drive if it is decompression software which can specify the preservation drive.

Similarly, defrost without making a new folder if it is decompression software that can be defrosted without making a new folder.

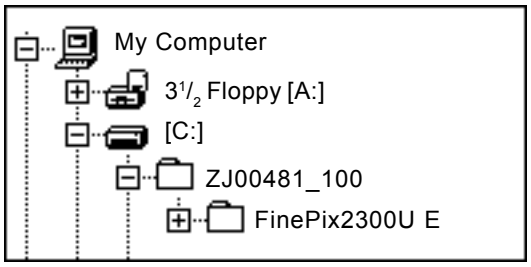
Defrost simply if the decompression software which you cannot specify the drive specification and the folder making.

[Install]

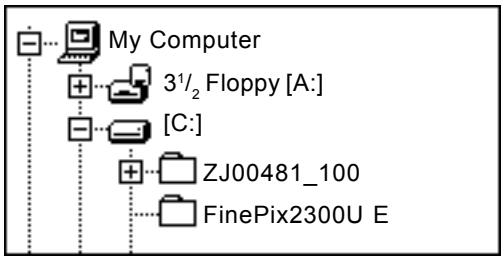
1) When the decompression is only done, the folder named ZJ00481-100 is automatically made. <Fig.3-5>

2) Copy the folder named FinePix2300UE in this folder in C drive, installation is finished. <Fig.3-6>

The folder of ZJ00481-100 becomes unnecessary at the end , and delete this folder.



<Fig.3-5> 1st step (Decompression)



<Fig.3-6> 2nd step (Finish)

(Caution)[Important]

***: PC adjustment software can not start when there is folder of FinePix2300UE in folder named ZJ00481-100 (Fig.3-5).**

***: Please preserve the folder of FinePix2300UE right under C drive (Fig.3-6).**

***: Please do not change the folder named FinePix2300UE.**

***: PC adjustment software can not start when folder name is changed.**

4-3-3.Attention at Firmware

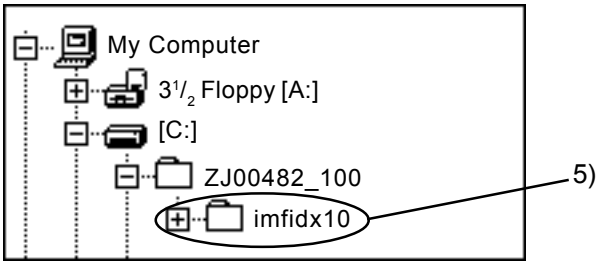
The firmware is not needing downloaded as long as there is usually no instruction.

[Download and decompression]

1) Download the compressed firmware from Web server (http://fujifilm-di.intranets.com/).
2) Defrost the downloaded compression software.
3) The folder named ZJ00482-100*1 can be made by simply defrosting <Fig.3-7>.
4) The imfidx10 folder is included in the folder (ZJ00482-100).
5) The imfidx10 folder is copied onto Smart Media (more than 4MB, 3.3V).

(Note)

*1: The decompression and the preservation method of the firmware are described as an example of FinePix2300.
Firmware in this server is compression file of ZIP form.
Therefore, after downloading this compression file from the Web server, the decompression of the file is necessary.
In the decompression software, if the decompression of the ZIP form can be done, any software is OK.
Please prepare each one for the decompression software
As the Firmware is different in each model, the compression file name is also different.



<Fig.3-7>

(Caution)[Important]

***: Download should use Smart Media.**

***: Please format Smart Media with the camera.**

***: When the folder named imfidx10 is changed, the firmware cannot be downloaded.**

4-3-4.Content of Adjustment Software

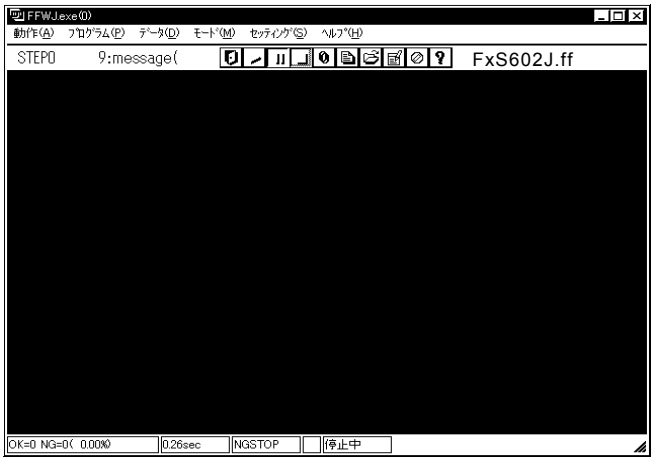
This adjustment software uses the basic program (FFW.exe), together with a number of specialized user programs, for Adjustment.

FxS602Z.ff has the following nine components.

[F1] : Battery voltage adjustment
[F2] : Mode dial voltage adjustment
[F4] : CCD data input
[F5] : CAM adjustment
[F6] : Zoom/AF adjustment
[F7] : Flash adjustment
[F11] : AF sensor adjustment
[F12] : End setting

4-3-5.Starting the Adjustment Software

1) Double-click on 'FFW.exe' in the 'FinePix S602' folder previously copied to the C drive.
2) The 'FFW.exe(0)' dialog box appears on the screen **<see Fig.1>**.
3) See the next page for details of customizing adjustment software.



<Fig.1>FFW.exe(0) Screen

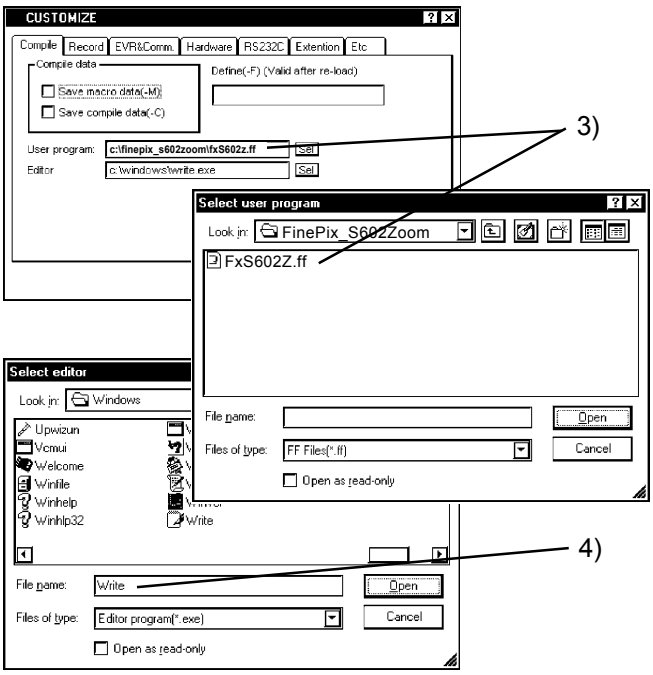
4-3-6.Customizing of Adjustment Software

Customizing for the adjustment software is explained below.

1.Compiles

Procedure <Fig.3-12>

1) Click on Mode Setting from the basic software program's menu bar. The "Customize" dialog box will be displayed.
2) From the "Customize" dialog box, select "Compile."
3) Click the Select User Program button, then select the file 'FxS602Z.ff'.
4) Click the Select Editor button, then select 'Write.exe.'



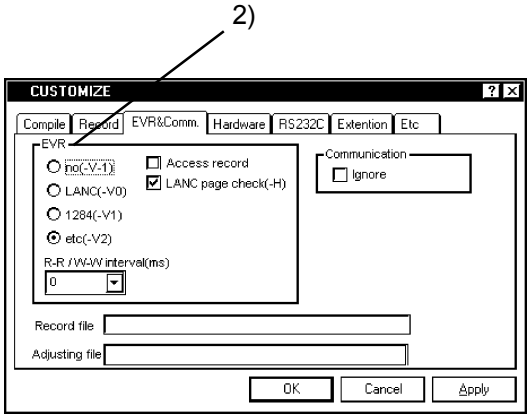
<Fig.3-12> Compile

2.EVR

Procedure <Fig.3-13>

1) Select "EVR" from the "Customize" dialog box.
2) Conditions

etc(-V2)	Check
LANC page check	Check



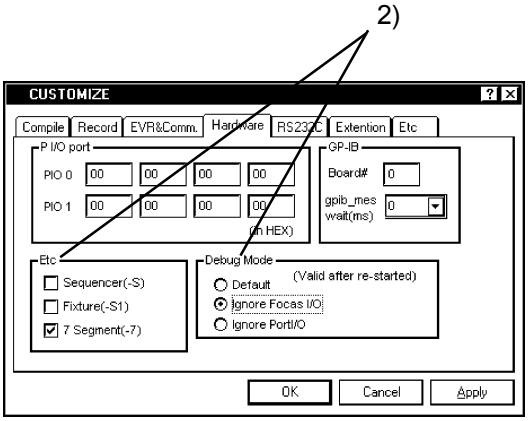
<Fig.3-13> EVR

3.Hardware

Procedure <Fig.3-14>

1) Select "Hardware" from the "Customize" dialog box.
2) Conditions

Etc	7 Segment (-7)
Debug Mode	Ignore Focus I/O



<Fig.3-14> Hardware

4.Other

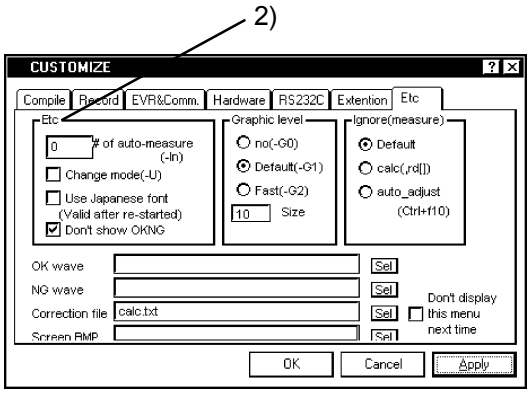
Procedure <Fig.3-15>

1) Select “Other” from the “Customize” dialog box.

2) Select the “Other Conditions” setting.

3) Conditions

Auto measurement count	0
Don't show OK/NG	Check

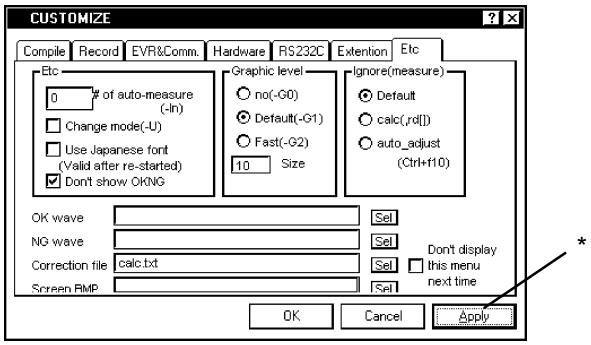


<Fig.3-15> Other

5.Save

Procedure <Fig.3-16>

***: If all the settings have been completed, be sure to click on the “Apply” button and save the settings.**



<Fig.3-16> Save

Cautions when making adjustments

***: When all customizing ends, "FFW.exe" is ended once. Please restart "FFW.exe".**

***: After adjustments are completed, turn the camera’s power switch Off and finish with the adjustments.**

***: If the “NG” message appears and you stop the program during the PC adjustments, turn the camera’s power switch OFF one time, then carry out the adjustment again.**

4-3-7.Use of each command

An explanation and the use of each command when it changes the user's program.

Menu	Command	Content
Operation	Start	General operation command (starts the user program).
	Stop	General operation command (ends the user program).
	Halt	General operation command (Halts the user program temporarily).
	Step 0	General operation command (Execute step0 of the user program).
	Exit	General operation command (Closes the user program).
Program	Re load	Reloads the user program (*.ff). (Be sure to reload the user program after editing.)
	Select	Selects the user program (*.ff). (Selects 'sj8.ff' when selecting the user program.)
	Edit	Edits the user program (*.ff). (Use this when it is necessary to edit the user program.)
Data	ad[]	Do not use this command.
	rd[]	Do not use this command.
	SW	Do not use this command.
	fsw	Do not use this command.
	EVR	Do not use this command.
Mode	File Recording	Do not use this command.
	NGSTOP	Stops the program if an adjustment is NG.
	STEP	Do not use this command.
	LINE	Do not use this command.
	AUTO	Do not use this command.
Setting	OKNG clearr	Do not use this command.
	Customize	Performs setting of each mode.
	Auto Adjustment	Performs 'Auto Adjust' settings in the user program.
Help	Help	This command cannot be used.
	Help (FF)	This command cannot be used.
	FOCAS	This command cannot be used.
	Version	Version information on the basic software.

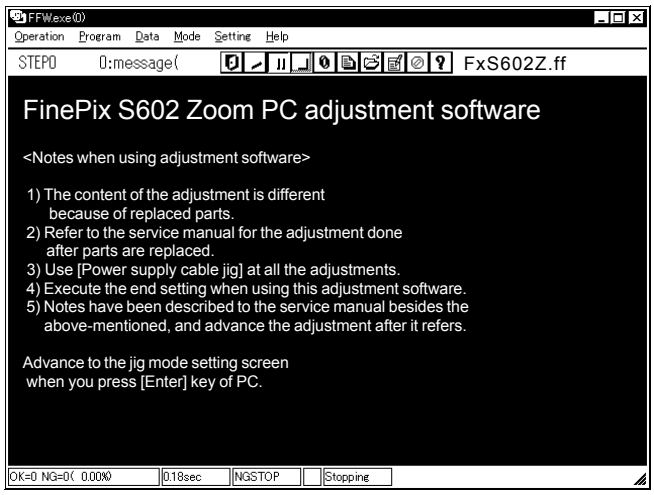
It is possible to edit the user program, but it is possible that trouble could occur after changes are made. So, please do not edit program unless instructed to do so.

4-4.Adjustment of Components (for PC adjustment)

4-4-1.Starting the Adjustment Software (cautions during use)

Procedure

1) When the initial setup for the adjustment software (see 4-3-6.) is complete, terminate [FFW.exe] and start it again.
2) <Notes when using adjustment software> appears on the screen.
3) Press the [Enter] key on the PC and set the camera in the jig mode in accordance with the instructions on the screen.

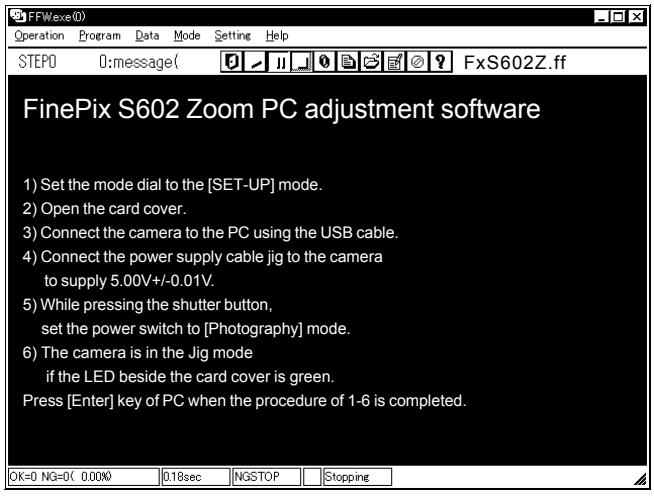


<Fig.1>Program Start-up Screen

4-4-2.Camera Jig Mode Procedure

Procedure

1) Set the mode dial to the [SET-UP] mode.
2) Open the card cover.
3) Connect the camera to the PC using the USB cable.
4) Connect the power supply cable jig to the camera to supply 5.00+/-0.01V.
5) While pressing the shutter button, set the power switch to [Photography] mode.
6) The camera is in the Jig mode if the LED beside the card cover is green.



<Fig.2>Camera Jig Mode Setup Procedure Screen

***1 : The PC is not recognized as a removable disk when connected with the camera in the Jig mode.**
***2 : If NG occurs during camera adjustment and the software is terminated, remove all cables and commence adjustment again.**
***3 : Select [Final Setting] in the adjustment software to terminate the camera Jig mode.**

4-4-3.AF Sensor Adjustment

Cautions During Adjustment

Irrespective of whether or not components have been replaced, the AF sensor must be adjusted if the two screws (M1.7 x 5.5) holding the AF sensor in place are removed.

As the accuracy of AF distance measurement with the AF sensor unit changes with temperature, this adjustment should be performed immediately after the camera power supply is switched ON.

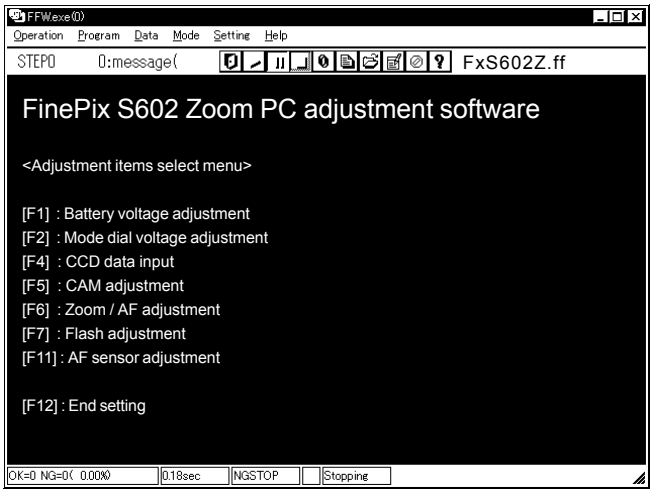
Errors will occur, and adjustment will become impossible, if adjustment is performed after the internal temperature of the camera has increased to 35°C or more.

If an adjustment error is displayed when the 900mm conversion lens is used, switch camera power OFF, wait, and perform the adjustment again.

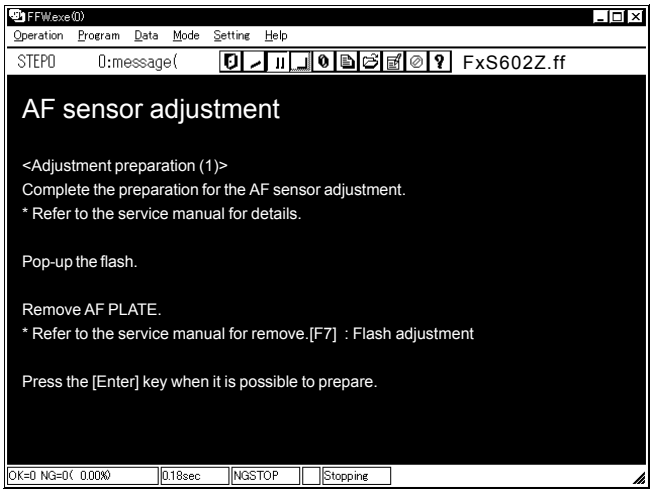
Purpose : Mechanical adjustment in the horizontal and vertical directions of the AF sensor (passive) in relation to the optical axis of the lens assembly.

Procedure

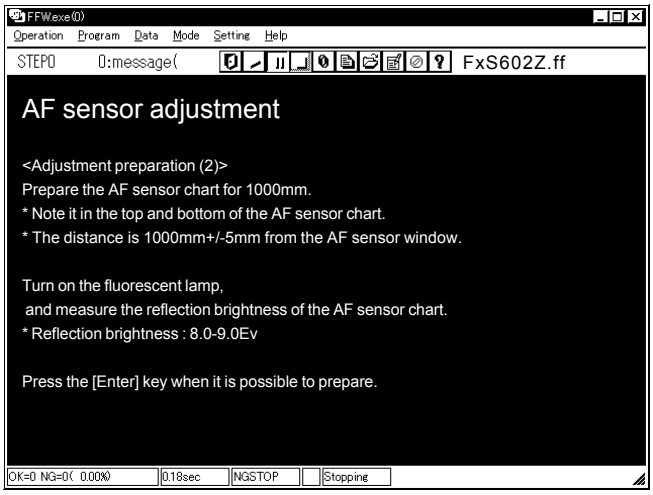
1) Make the necessary preparations and environmental setup for AF Sensor Adjustment.
   See 4-2-5. Preparations for AF Sensor Adjustment and 4-2-6. Environmental Settings for AF Sensor Adjustment.
2) Press the PC [F11] key in the Adjustment Items Select Screen to select AF Sensor Adjustment.
3) Pop-up the flash and remove the AF plate.
4) Make the adjustment preparations (1) in accordance with the instructions from the adjustment software.
   1000mm chart setup distance : 1000mm+/-5mm from front face of AF sensor window.
   Chart surface reflective luminance : 8.0Ev to 9.0Ev
5) When preparations are complete, press the [Enter] key on the PC to measure the surface reflective luminance of the chart.
6) When the surface reflective luminance of the chart has been measured, make the adjustment preparations (2) in accordance with the instructions from the adjustment software.
   Adjust the screen angle so that the '+' symbol (red) displayed on the TV monitor is within the circle.
7) When preparations are complete, press the [Enter] key on the PC to begin AF Sensor Adjustment (1000mm).
8) Adjust the AF sensor by turning the AF Sensor Adjustment screw **(silver colored)** with a **+ screwdriver** in accordance with the instructions from the adjustment software.
   Turn the adjustment screw while viewing the WAVE No.0 dialog box to increase the speed of adjustment.



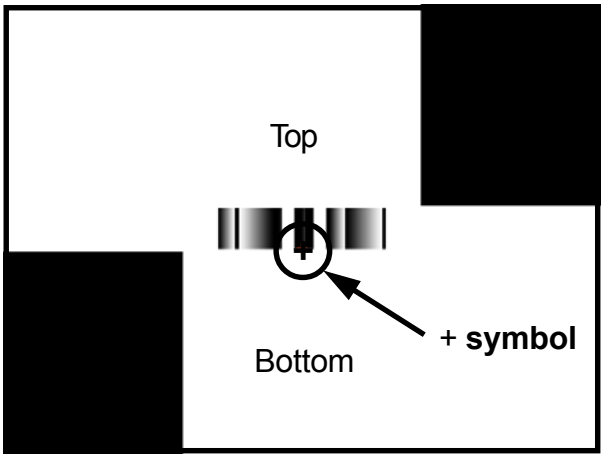
<Fig.3>Adjustment Items Select Menu Screen



<Fig.4>AF Sensor Adjustment Preparation (1) Screen

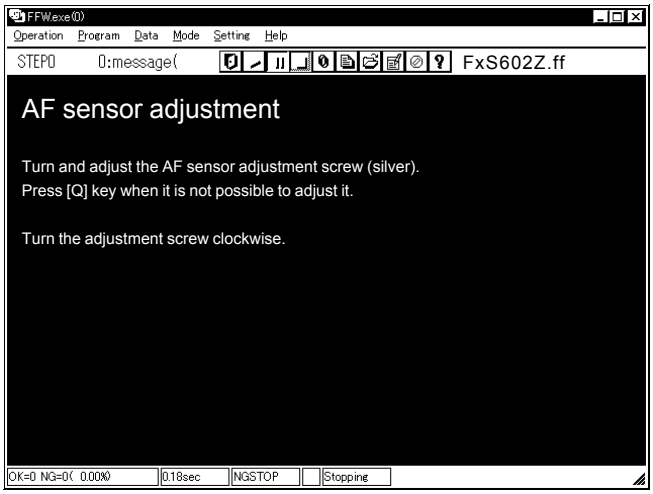


<Fig.5>AF Sensor Adjustment Preparation (2) Screen

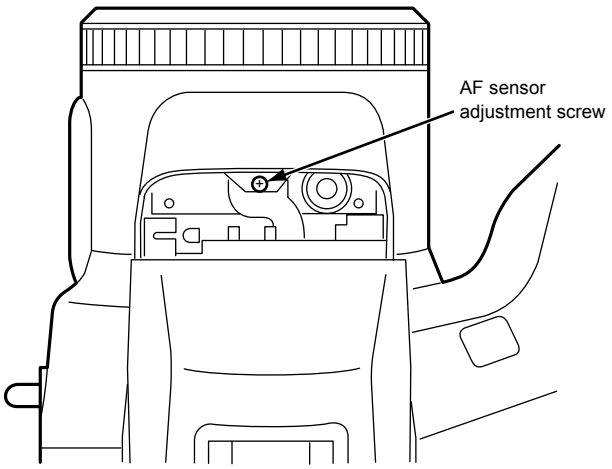


AF Adjustment Chart (1000mm)

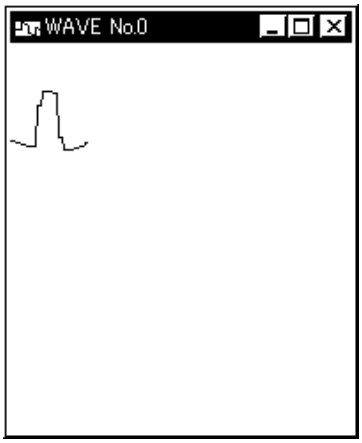
9) When [Adjustment OK!] appears on the screen, press the [Enter] key on the PC and make adjustment preparations (900 mm) in accordance with the instructions from the adjustment software.
900mm conversion lens setup distance : 100mm+/-5mm from front face of AF sensor window.
Chart surface reflective luminance : 6.0Ev to 8.0Ev
10) When preparations are complete, press the [Enter] key on the PC to perform AF sensor operation adjustment.
If an adjustment error is displayed, switch camera power OFF, wait, and perform the adjustment again.
11) When AF sensor operation adjustment is complete, press the [Enter] key on the PC and adjust the AF sensor left-right difference in accordance with the instructions from the adjustment software.
700mm chart setup distance : 700mm+/-5mm from front face of AF sensor window.
Chart surface reflective luminance : 8.0Ev to 9.0Ev
12) When preparations are complete, press the [Enter] key on the PC and commence sensor left-right difference adjustment.
13) When sensor left-right difference adjustment is complete, terminate AF Sensor Adjustment. Press the [Enter] key on the PC to return to the Adjustment Items Select Screen.



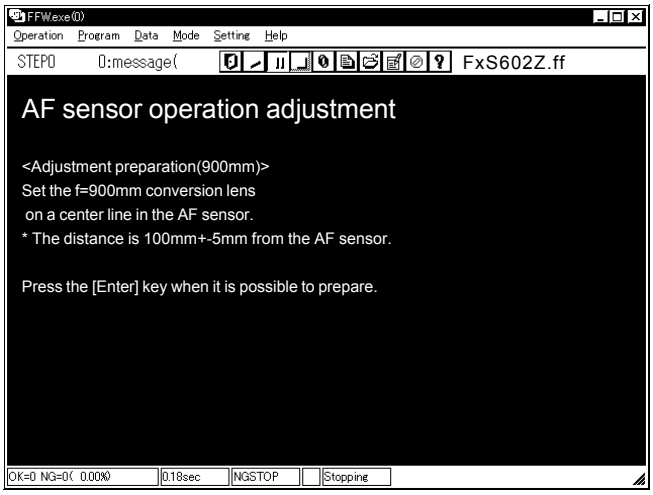
<Fig.6> AF Sensor Adjustment Screen



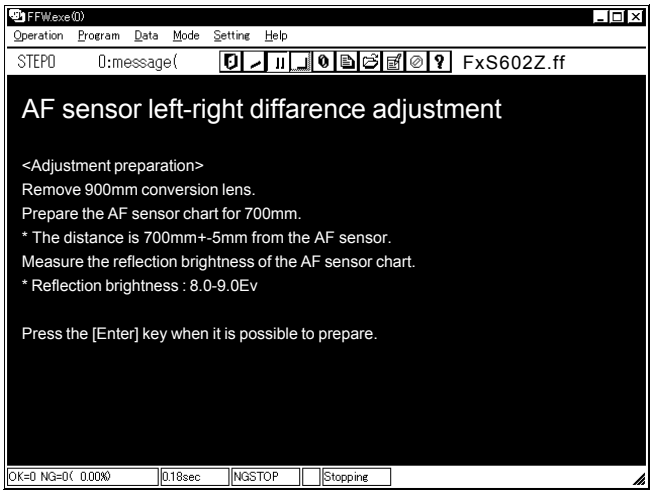
Position of AF Sensor Adjustment Screw



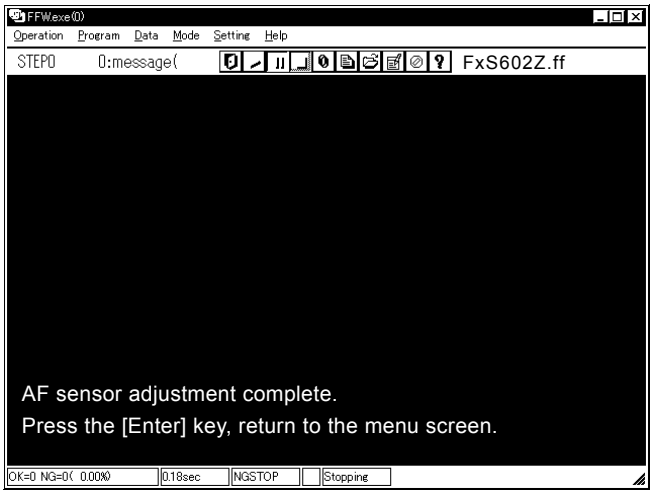
<Fig.7>WAVE No.0 Dialog Box OK Screen



<Fig.8>Adjustment Preparation (900mm) Screen



<Fig.9> AF Sensor Left-Right Difference Adjustment Preparations Screen



<Fig.10>AF Sensor Adjustment complete Screen

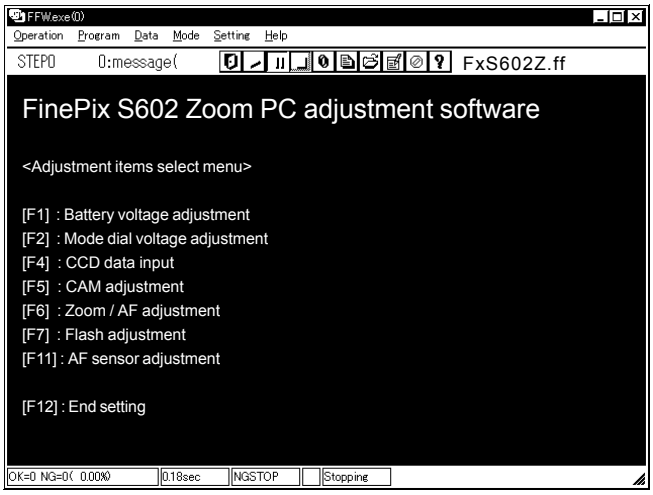
4-4-4.CCD Data Input

Purpose

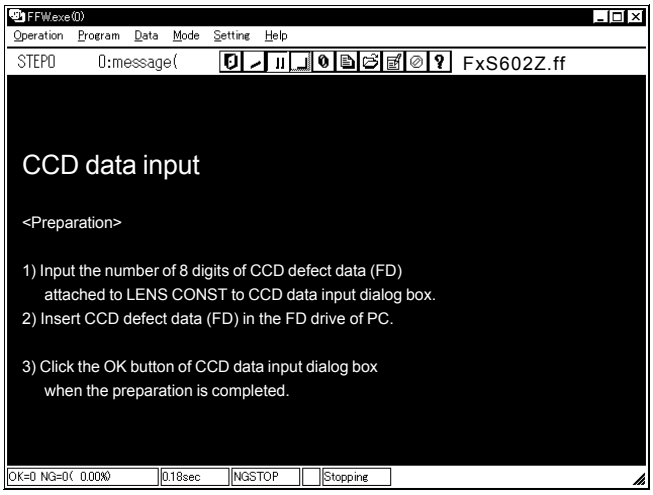
CCD damage compensation (discreet white defects/discreet black defects/continuous white defects/continuous black defects).

Procedure

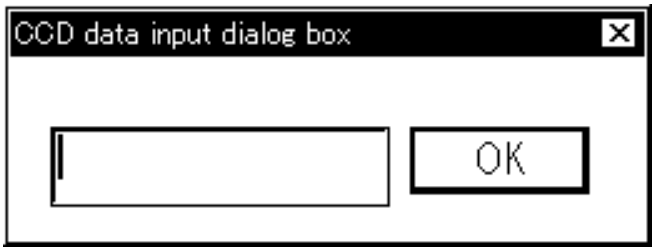
1) This adjustment writes the CCD data based on the data on the [Damage Data FD] supplied with the LENS CONST.
2) Press the PC [F4] key in the Adjustment Items Select Screen to select CCD data input.
3) Enter the eight-digit number on the label of the [Damage Data FD] supplied with the LENS CONST in the [CCD Data Input Dialog Box].
4) When the eight-digit number has been entered, insert the [Damage Data FD] in the floppy disk drive.
5) When preparations are complete, click on the [OK] button in the [CCD data input dialog box] to enter the CCD data.
6) When the CCD data has been entered correctly, press the [Enter] key on the PC to return to the Adjustment Items Select Screen.



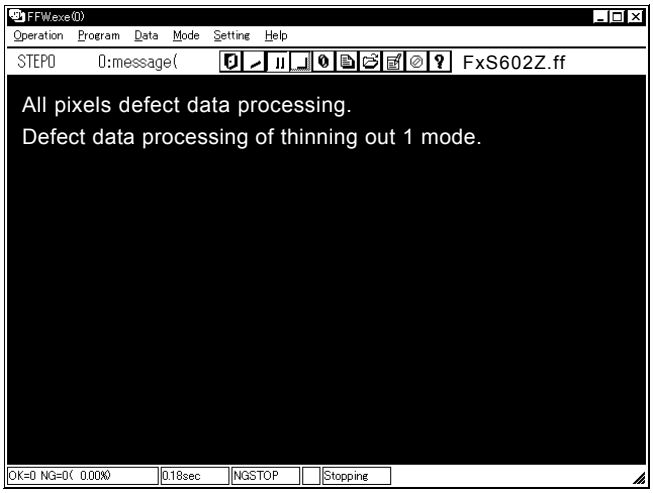
<Fig.11> Adjustment Items Select Menu Screen



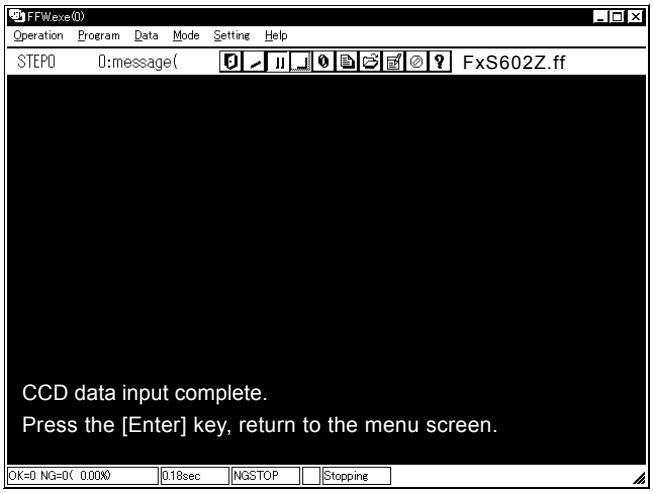
<Fig.12>CCD Data Input Start Screen



<Fig.13>CCD Data Input Dialog Box Screen



<Fig.14>CCD Data Input Screen



<Fig.15>CCD Data Input complete Screen

4-4-5.Preparing the CCD Defect Data (FD)

Purpose

The CCD defect data file used when replacing the MAIN PWB ASSY is prepared as follows.

* The serial number in the diagram at right is used as an example.(Fig.16)

Procedure

1) Record the CCD serial number on the LENS CONST when replacing the MAIN PWB ASSY.
   The numbers in the diagram at right are as follows.
   Top: 0148400 (seven digits)
   Bottom: 0750 (four digits)
   The name of the defect data file containing the numbers is **[14840750.dat]**.
   The first, and last two, of the top seven digits are ignored, and only the second, third, fourth, and fifth digits are read. The top four digits which are read are combined with the bottom four digits to form the CCD defect data file name. Copy this file name to a sheet of paper.

[Note]

1. Always ensure that the CCD serial number is read correctly. If the file name is read incorrectly, the defect data for the that file name (ie defect data for another CCD) will be used.

2) Download the ZIP file of top four digits from Web server (http://fujifilm-di.intranets.com/).
   Open ZJ00535-100[(Fig.17-(1)] in the CCD defect data folder, and download "1484.zip[Fig.17-(2)]".

3) Decompress "1484.zip".
   -->"1484 folders" including "14840750.dat" is made.

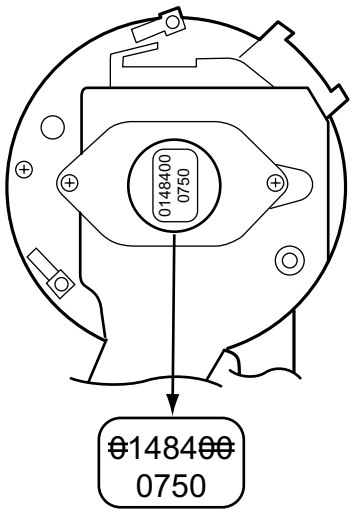
4) Insert a writable floppy disk into the floppy disk drive on the computer.

5) Open in "1484 folders", search for **"14840750.dat [Fig.17-(3)] "**, and copy it onto thefloppy disk.

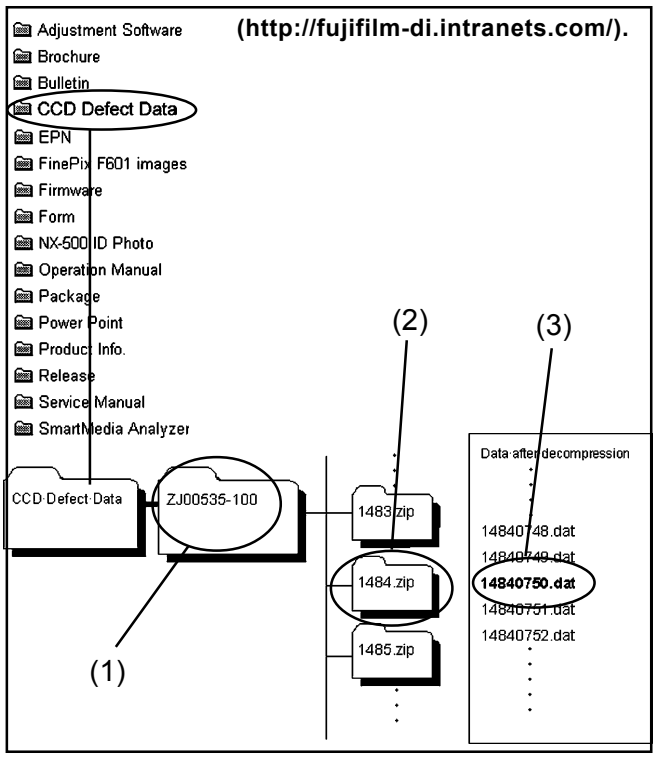
[Note]

1. The file identifier for the CCD defect data is ".dat". With some Windows settings, the identifier is not displayed. Change the setting in such cases.
2. In some cases the CCD serial number includes letters as well as numbers. In such cases the file name is formed in exactly the same way.
3. Do not create a folder on the floppy disk when copying the file.
4. The defect data file may be used after copying to the C: drive on the computer, however it should be labeled clearly to ensure that it is recognizable as FinePix S602 CCD defecte data, and kept in a safe place.

6) Using the defect data in the floppy disk prepared in Step 5, perform 4-4-4.CCD deta input.



<Fig.16>CCD Serial Number



< Fig.17> Defect data making procedure chart

4-4-6.CAM Adjustment

Cautions During Adjustment

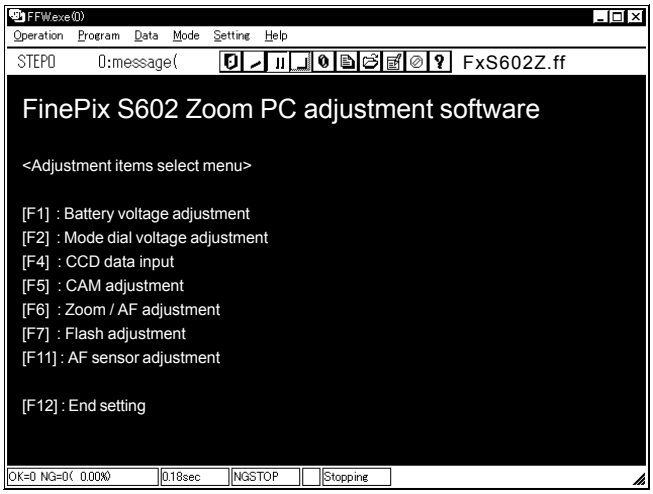
1. **Switch ON power for the light box used for adjustment and wait until luminance and color temperature stabilize.**
2. **Ensure that CCD data has been entered before the CAM adjustment.**

Purpose

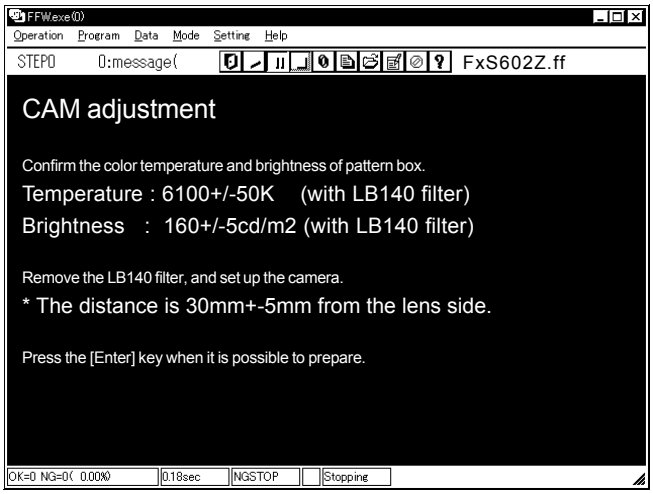
To adjust the shutter/aperture sensitivity/ISO sensitivity/white balance/AE, and /offset level as necessary for photography.

Procedure

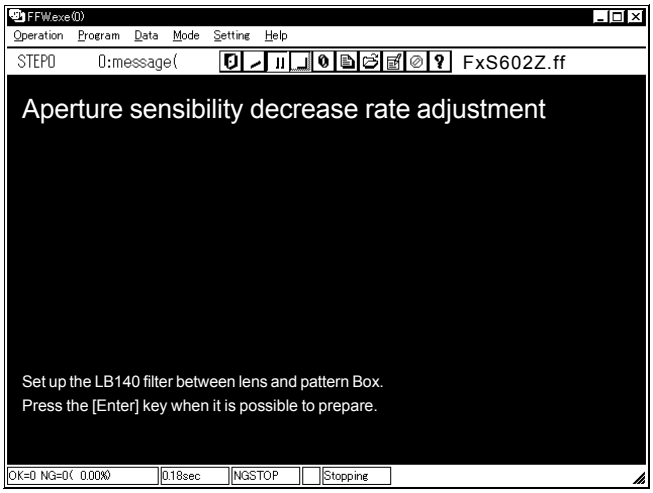
1) Press the PC [F5] key in the Adjustment Items Select Screen to select CAM adjustment.
2) Check that the color temperature and luminance of the light box are according to specifications.
   Color temperature : 6100+/-50ºK (with LB140 filter fitted)
   Luminance : 160+/-5cd/m2 (with LB140 filter fitted)
3) With the LB140 filter removed, place the camera **30+/-5mm** from the light box.
4) When the settings required for photography are complete, press the [Enter] key on the PC to begin CAM adjustment.
   Perform CAM adjustment in accordance with the instructions from the adjustment software.
5) When CAM adjustment is complete, press the [Enter] key on the PC to return to the Adjustment Items Select Screen.



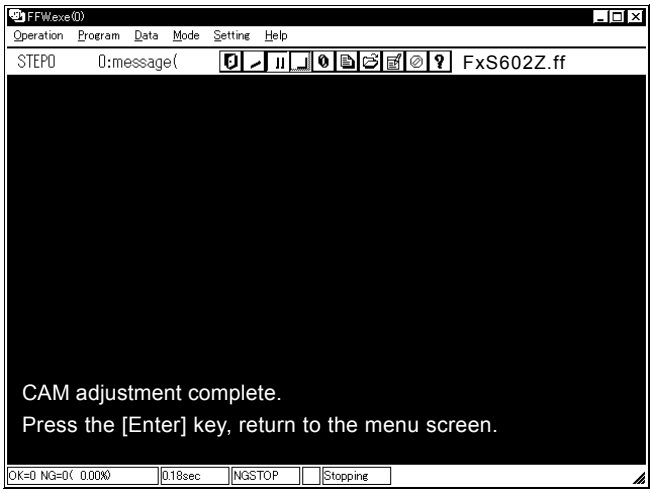
<Fig.18>Adjustment Items Select Menu Screen



<Fig.19>CAM Adjustment Preparation Screen



<Fig.20>LB140 Filter Preparations Screen



<Fig.21>CAM Adjustment Complete Screen

4-4-7.Zoom/AF Adjustment

Cautions During Adjustment

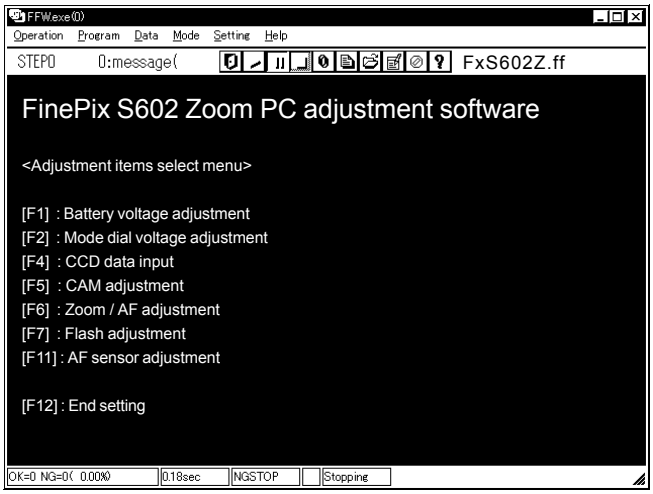
1. **Set the camera and Siemens star chart in place in accordance with the instructions on the screen.**
2. **Adjust the distance between the Siemens star chart and the camera as described in 4-2-6. Environmental Settings for AF Sensor Adjustment.**
3. **A 600mm conversion lens is required for AF adjustment.**
4. **Ensure that CAM adjustment is complete before performing AF adjustment.**
5. **Set the AF/MF selector switch to [AF].**

Purpose

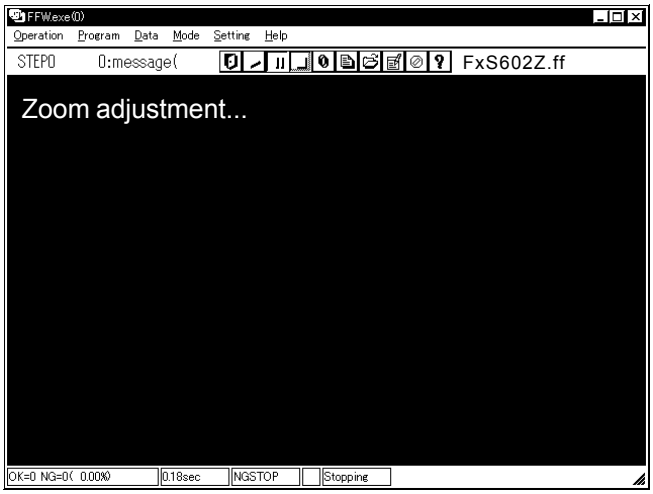
To adjust zoom position and autofocus.

Procedure

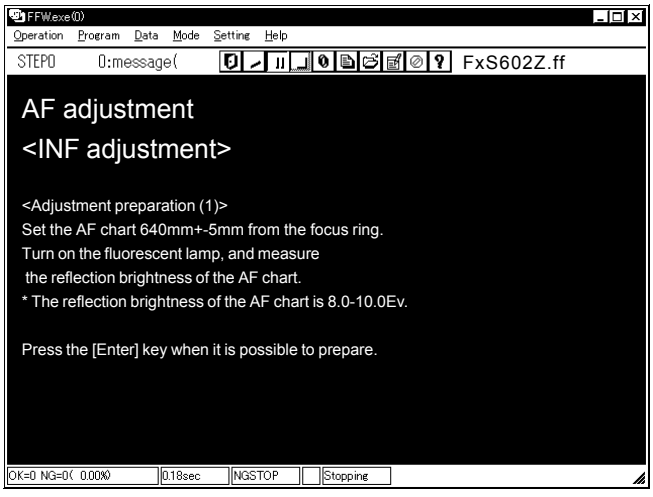
1) Press the PC [F6] key in the Adjustment Items Select Screen to select Zoom/AF adjustment.
2) Adjust the zoom position. Do not place the camera with the lens downwards.
3) When the zoom position has been adjusted, make the preparations necessary for AF adjustment in accordance with the instructions from the adjustment software.
   Setup distance for Siemens star chart : 640 mm+/-5mm from end of focusing ring
   Setup distance for 600 mm conversion lens : 40mm+/-5mm
   Reflective luminance of Siemens star chart : 8.0Ev to 10.0Ev
4) When the setup necessary for AF adjustment is complete, press the [Enter] key on the PC to begin AF adjustment. Perform AF adjustment in accordance with the instructions from the adjustment software.
5) When Zoom/AF adjustment is completed normally, press the [Enter] key on the PC to return to the Adjustment Items Select Screen.



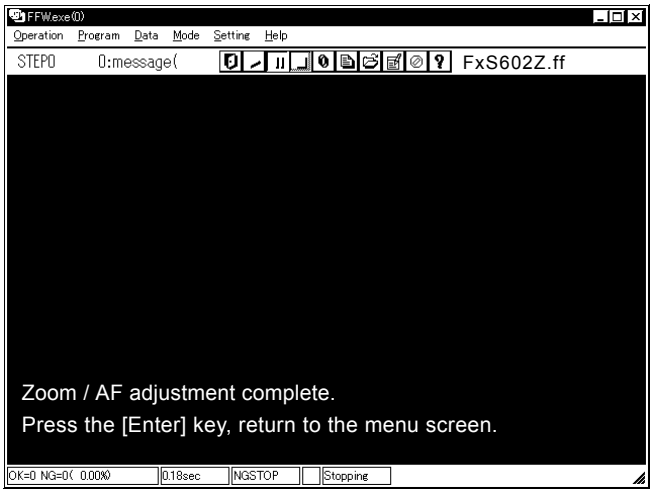
<Fig.22> Adjustment Items Select Menu Screen



<Fig.23>Zoom Adjustment Start Screen



<Fig.24>AF Adjustment Preparations (1) Screen



<Fig.25> Zoom/AF Adjustment Complete Screen

4-4-8.Flash Adjustment

Cautions During Adjustment

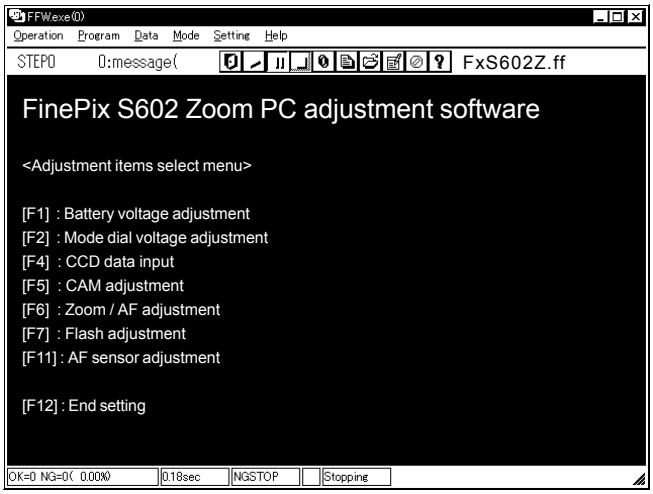
1. **Set the camera and gray chart in place in accordance with the instructions on the screen.**
2. **Adjust the distance between the gray chart and the camera as described in 4-2-7. Environmental Settings for Flash Adjustment.**
3. **An AC adapter cannot be used for adjustment. Always use a regulated power supply.**
4. **Ensure that CAM adjustment is complete before performing flash adjustment.**
5. **Darken the area around the gray chart as much as possible to eliminate the effects of external light during flash adjustment.**

Purpose

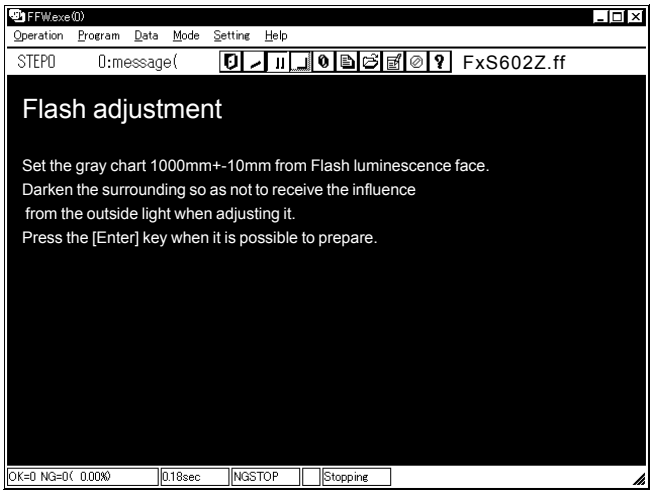
To make adjustment is so that optimum flash intensity is obtained during flash photography.

Procedure

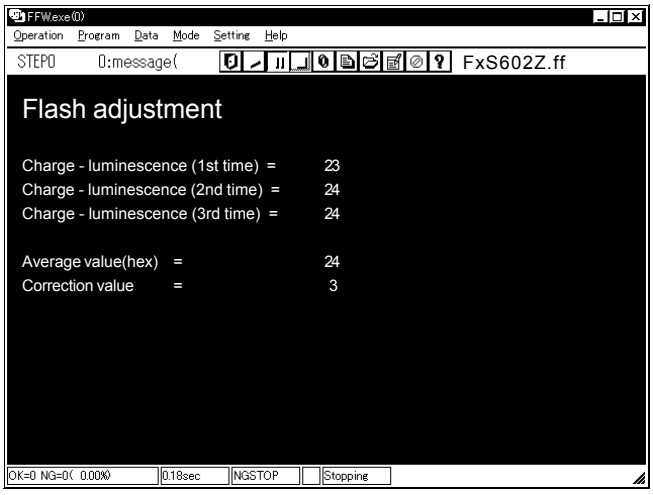
1) Press the PC [F7] key in the Adjustment Items Select Screen to select flash adjustment.
2) Prepare the gray chart.
   Distance between gray chart and camera : **100cm from surface of flash**
3) Pop-up the flash.
4) Set the AF/MF selector switch to AF.
5) When the setup necessary for flash adjustment is complete, press the [Enter] key on the PC to begin flash adjustment. Perform flash adjustment in accordance with the instructions from the adjustment software.
6) When flash adjustment is completed normally, press the [Enter] key on the PC to return to the Adjustment Items Select Screen.



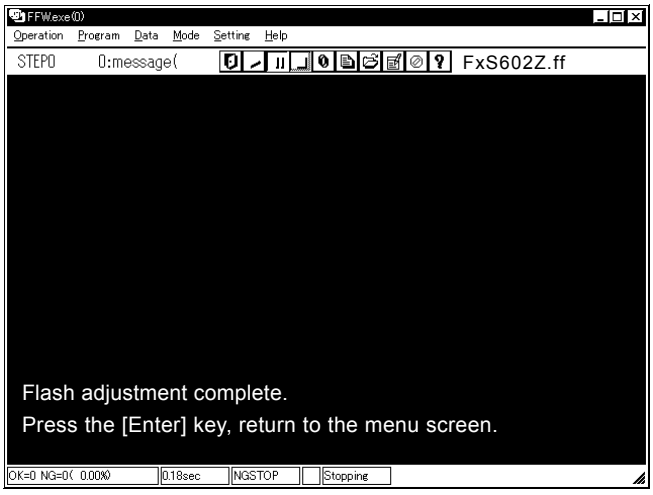
<Fig.26> Adjustment Items Select Menu Screen



<Fig.27>Flash Adjustment Preparations Screen



<Fig.28> Adjusting Flash Screen



<Fig.29>Flash Adjustment Complete Screen

4-4-9.Battery Adjustment

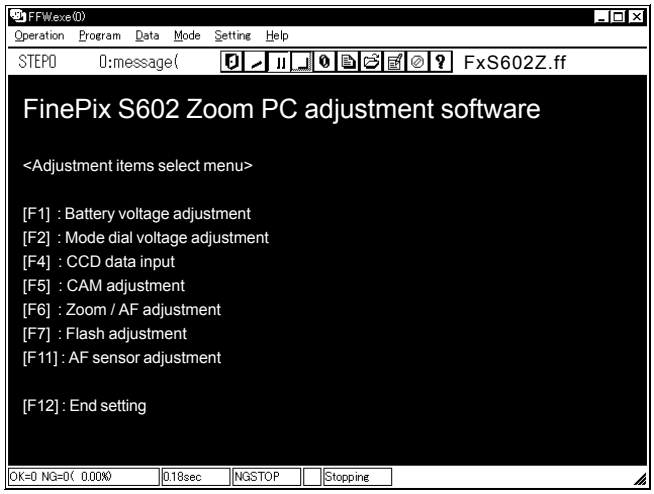
Purpose

To adjust the various battery voltages for display of the battery preend/end warnings.

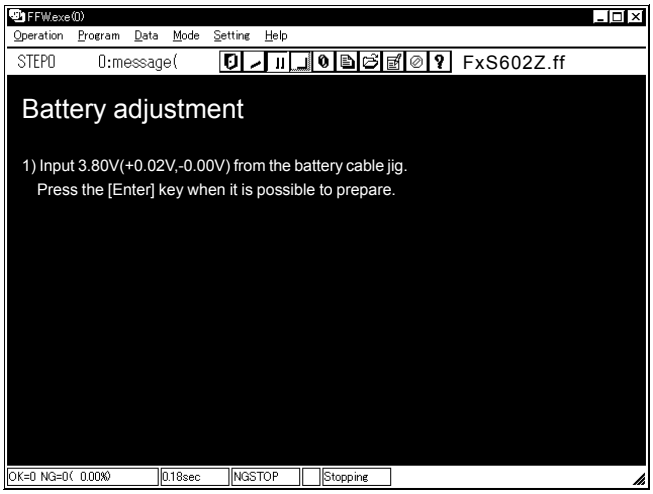
Procedure

1) Check the voltage remotely to ensure that it does not drop.
2) Press the PC [F1] key in the Adjustment Items Select Screen to select battery adjustment.
3) Adjust battery preend in accordance with the instructions on the PC screen.
   Use the power supply cable jig to supply **3.80V (+0.02V, -0.00V)** from the DC-IN jack. When preparations are complete, press the [Enter] key on the PC to begin battery preend adjustment.
4) Adjust battery end in accordance with the instructions on the PC screen.
   Use the power supply cable Jig to supply **3.60V (+0.02V, -0.00V)** from the DC-IN jack. When preparations are complete, press the [Enter] key on the PC to begin battery end adjustment.
5) Change the input voltage in accordance with the instructions on the PC screen.
   Use the power supply cable Jig to supply **5.00V(+/-0.01V)** from the DC-IN jack.
6) When the input voltage has been set, press the [Enter] key on the PC to write the adjusted value.
7) When battery adjustment is completed normally, press the [Enter] key on the PC to return to the Adjustment Items Select Screen.

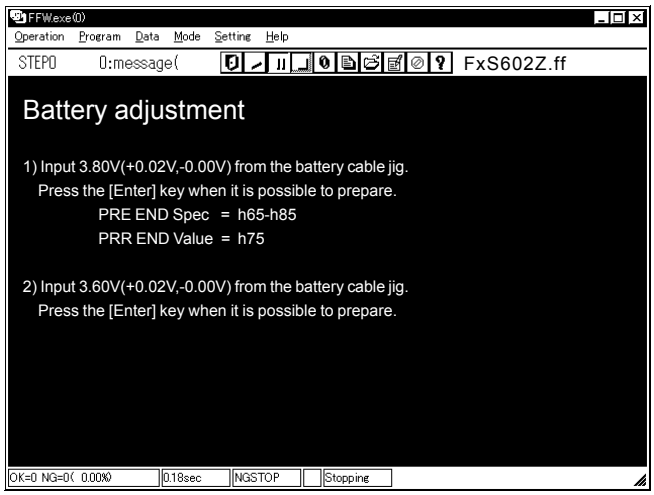
Adjustment address		Data limits
P4	E3 (BATT_PREEND)	65h-85h
	E4 (BATT_END)	5Fh-7Fh



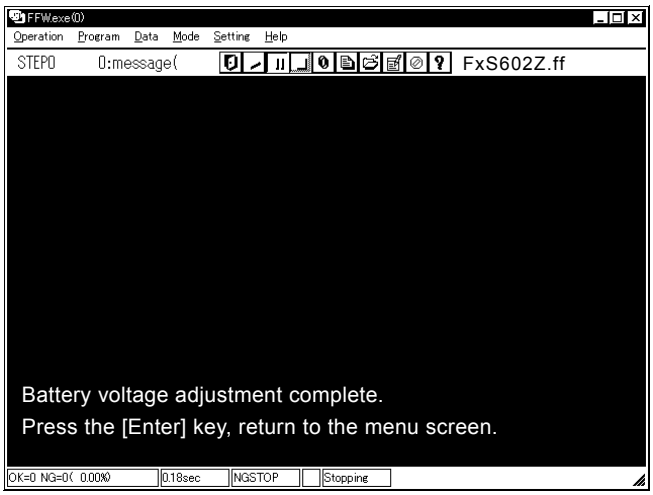
<Fig.30>Adjustment Items Select Menu Screen



<Fig.31>Battery Preend Adjustment Start Screen



<Fig.32>Battery End Adjustment Start Screen



<Fig.33>Battery Adjustment Complete Screen

4-4-10.Mode Dial Voltage Adjustment

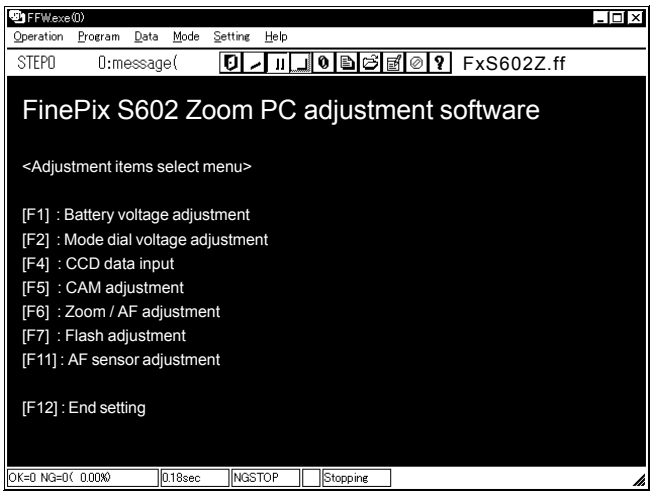
Purpose

To adjust the mode dial voltage (center value).

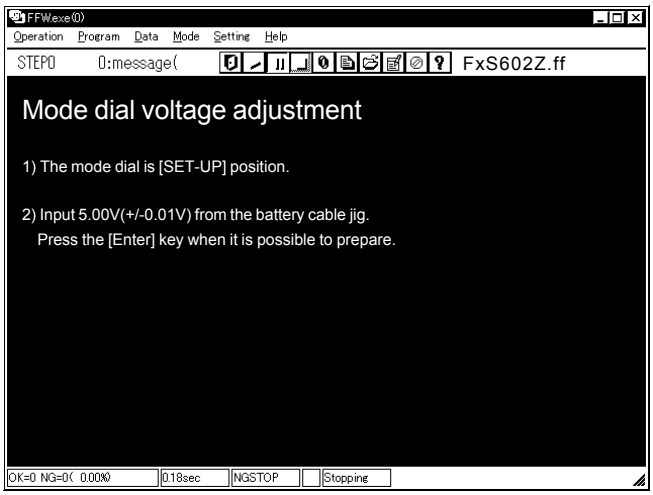
Procedure

1) Check the voltage remotely to ensure that it does not drop.
2) Press the PC [F2] key in the Adjustment Items Select Screen to select mode dial voltage adjustment.
3) Adjust mode dial voltage in accordance with the instructions on the PC screen.
   Use the power supply cable Jig to supply **5.00V(+/-0.01V)** from the DC-IN jack. When preparations are complete, press the [Enter] key on the PC to begin mode dial adjustment.
4) Press the [Enter] key on the PC to write the adjusted data values to the Flash_ROM.
5) When mode dial voltage adjustment is completed normally, press the [Enter] key on the PC to return to the Adjustment Items Select Screen.

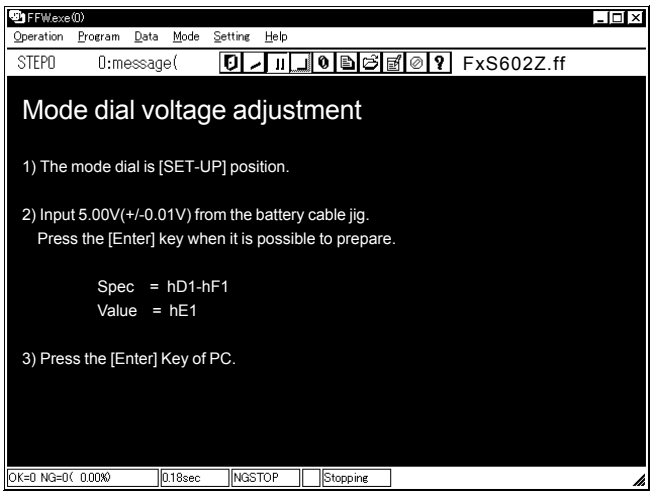
Adjustment address		Data limits
P4	E5 (MODE)	D1h-F1h



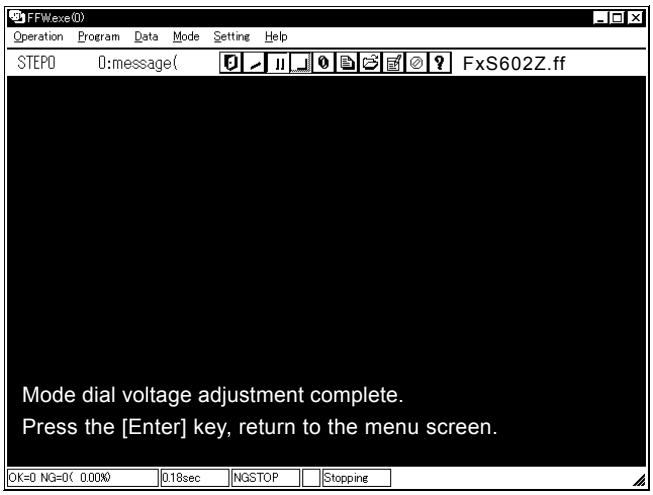
<Fig.34>Adjustment Items Select Menu Screen



<Fig.35>Mode Dial Adjustment Start Screen



<Fig.36> Adjustment Value Measurement Screen



<Fig.37>Mode Dial Adjustment Complete Screen

4-4-11.End Setting

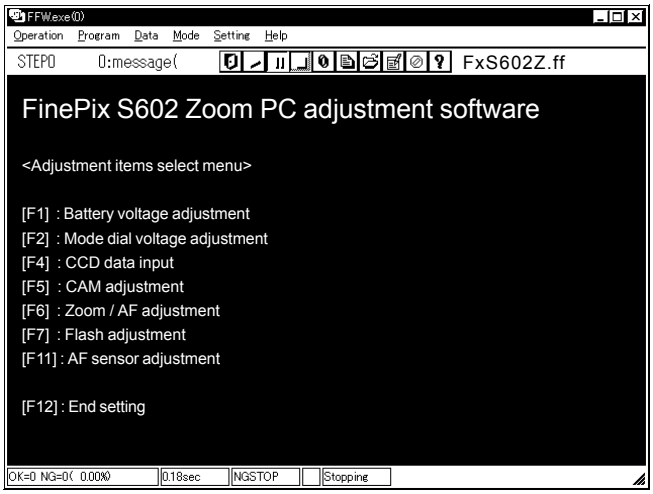
Purpose

To return the camera to the product mode from the camera Jig mode used during adjustment.
Unless End Setting is run, the camera will not be recognized as [Mass Storage] when it is connected to the PC.

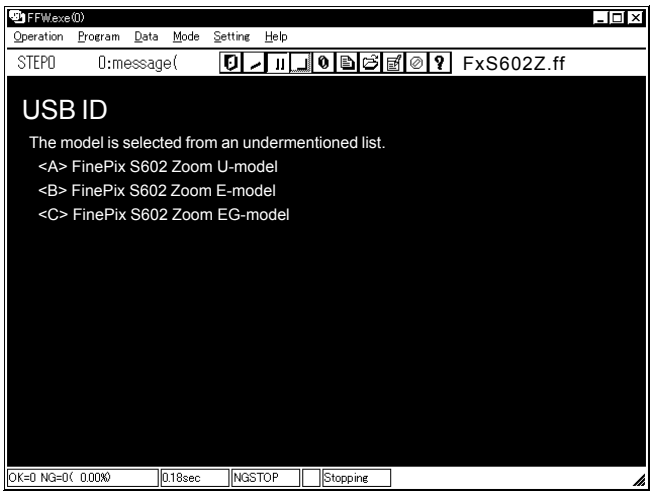
Procedure

1) When all adjustments are complete, press the PC [F12] key in the Adjustment Items Select Screen to run end setting.
2) Select the [USB ID] in accordance with the instructions on the PC screen.
3) Select the [Repair base ID] in accordance with the instructions on the PC screen.
4) Switch the camera power supply [OFF] in accordance with the instructions on the PC screen, and remove all cables.

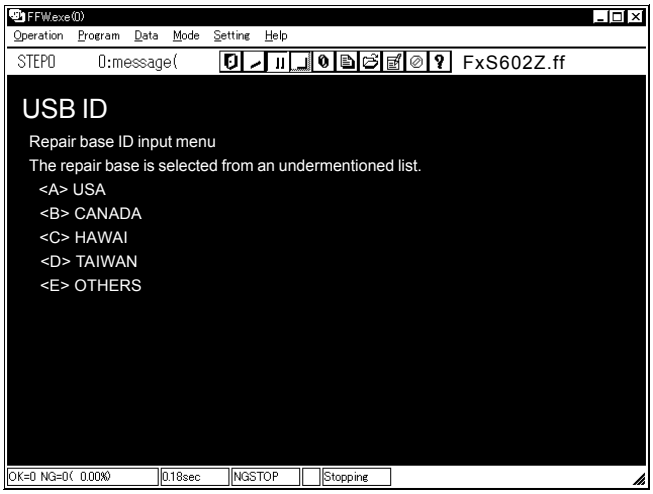
Caution : The camera is not in the Jig mode following end setting.
Set the camera in the camera Jig mode again to make further adjustments.



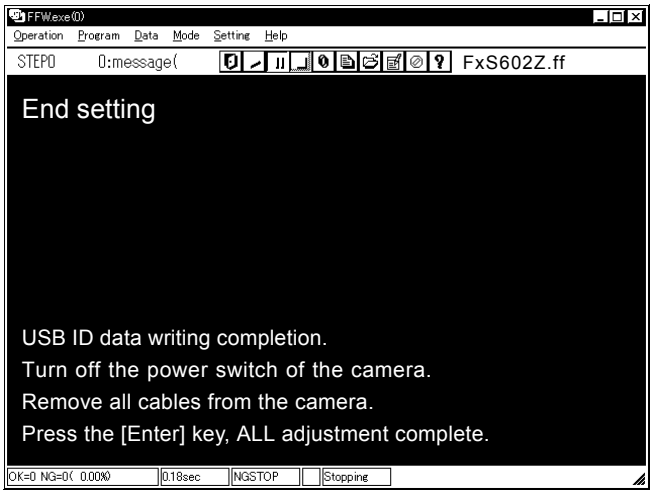
<Fig.38>Adjustment Items Select Screen



<Fig.39>USB ID Entry Screen



<Fig.40>Repair base ID Entry Screen



<Fig.41>Adjustment Complete Screen

5. Inspection

5-1.Preparation for inspection

5-1-1.Measuring Equipments

Names	Remark
Stabilized Power Supply	General inspection
Pattern Box	Comparable to the PTB450 or equivalent
Waveform Monitor	General inspection
Vector Monitor	General inspection
TV Monitor	NTSC_TV monitor 600 resolutions (14-21inch)
Ammeter	General inspection
Voltmeter	General inspection
Parsonal Computer	DOS-V (PC-AT) / OS:Windows98,98SE
Brightness meter	LS-110 (Made by Minolta) or equivalent
Color meter	COLOR METER 3F (Made by Minolta) or equivalent

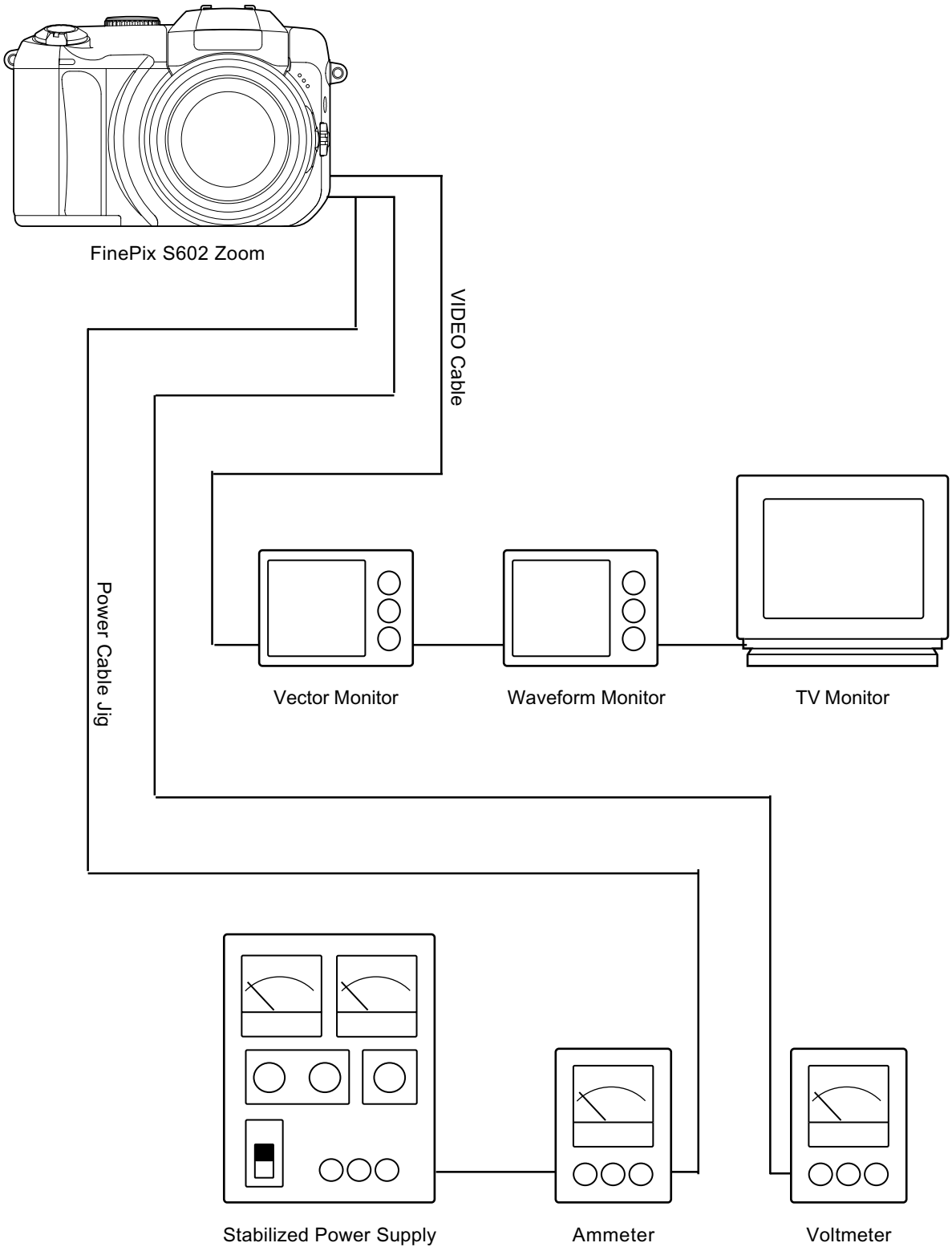
5-1-2.Jigs and Charts

Product / Model	Parts No.	Remarks
Micro drive with image	ZJ00397-100	LCD/EVF inspection (Note 1)
Gray Chart	ZJ00254-100	Flash inspection
Inspection Chart	ZJ00540-100	Resolution inspection
Power Cable Jig	ZJ00213-100	General inspection
AC Adaptor (AC-5V)	----------	General inspection (Accessories)
USB Cable	----------	General inspection (Accessories)
CD-ROM	----------	General inspection (Accessories)

(Note1) : The image contents included on the standard card are as shown below.

File Name	Image Contents
DSC00001.jpg	75% Color Bar
DSC00002.jpg	Monoscope
DSC00003.jpg	Full White
DSC00004.jpg	Full Black
DSC00005.jpg	Brightness Adjustment Chart
DSC00006.jpg	Natural Picture

5-1-3.Connection



<Fig.5-1> Connection

5-2.Inspection

5-2-1.External Inspection

Procedure and Checks

1) Check the camera visually for damage to the exterior.
2) Check that there are no problems (eg dust, clouding) with the EVF and LCD monitors.

5-2-2.Power Supply Switch Check

Procedure and Checks

1) Use the power supply cable jig to supply 4.50V (+/-0.05V) from the DC-IN jack.
   When supplying power from the DC-IN jack, check remotely to ensure that the voltage does not drop at the DC-IN pin.
2) Set the mode dial to **AUTO**.
3) Set the camera power lever to the Photography mode.
   · Check that the indicator lamp is green.
   · Check that the lens extends.
   · Check that the date setup screen is displayed.
4) Press the BACK button once.
   · Check that the date etc is displayed on the LCD monitor for approximately two seconds.
   *** Date format differs with region.**
   J : YYYY.MM.DD
   U : MM/DD/YYYY
   E/EG : DD.MM.YYYY

5-2-3.Checking Shock Noise in the Movie Mode

Procedure and Checks

1) Apply an appropriate shock to the camera.
   *** Do not apply a shock directly to the lens or card cover.**
   · Check for problems with the LCD monitor.
   · Check that the camera recovers from sync disturbance.
   · Check that the camera power is not OFF.

5-2-4.EVF Check

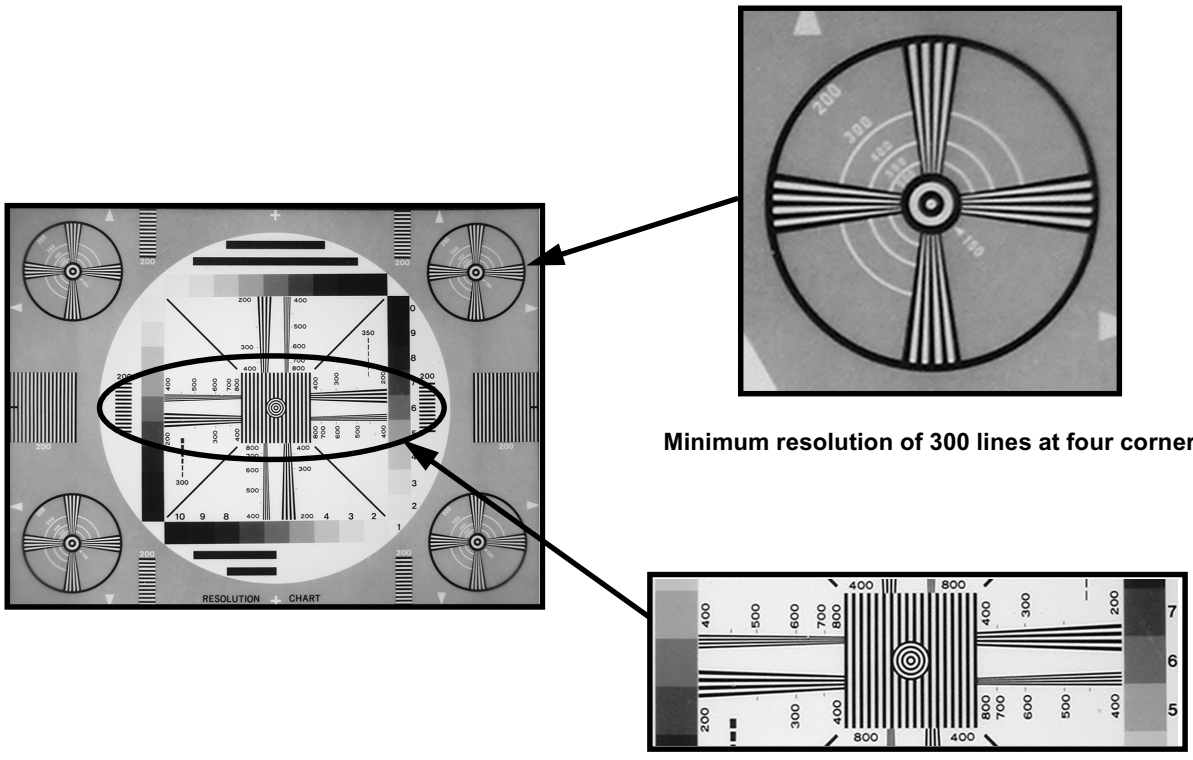
Procedure and Checks

1) Press the EVF/LCD button.
   · Check that the LCD monitor is switched OFF, and that a normal through image appears on the EVF.
2) Turn the diopter adjustment dial up-down.
   · Check that the out-of-focus on the EVF screen changes.
   · Turn the zoom between upper and lower limits.
3) After checking the EVF, press the EVF/LCD button again.
   · Check that the EVF is switched OFF, and that a normal through image appears on the LCD monitor again.

5-2-5.Resolution Check

Procedure and Checks

1) Prepare the resolution inspection chart.
2) Insert the smart media into the camera.
3) Set the zoom position to TELE END.
   · Check that the zoom operates smoothly.
4) Half-press the release button.
   · Operate the AF and check focusing.
   · Check that the indicator lamp blinks green, and that Standby is displayed.
5) Position the camera so that the resolution inspection chart fills the entire LCD monitor.
6) Press the release button to take a photo.
   · Check that the indicator lamp blinks green, and then changes to orange.
   · Check that the shutter sound is heard.
7) Set the camera power lever to the Playback mode.
   · Check that the photographed resolution inspection chart is displayed.
8) Check the resolution on the TV monitor.
   · Center : Minimum of 350 lines on monitor.
   · Periphery : Minimum of 300 lines on monitor.



Minimum resolution of 300 lines at four corners.

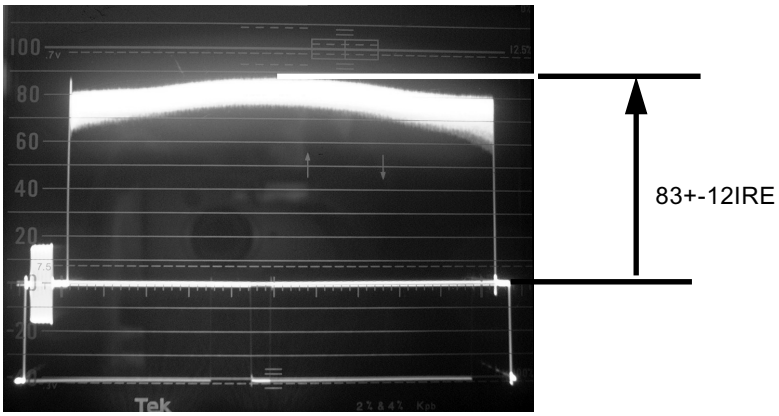
Minimum resolution of 350 lines at center

[Caution]
The resolution values noted here are not those of the previous [FinePix S602], but are for the resolution inspection chart when the jig is setup. The values noted above are therefore for service purposes and should only be used for inspections conducted within the company.

5-2-6.Y Level Check

Procedure and Checks

1) Prepare the pattern box.
   - **Color temperature : 6100+/-50°K (with LB140 filter fitted)**
   - **Luminance : 160+/-5cd/m2 (with LB140 filter fitted)**
2) Insert the smart media into the camera.
3) Make the necessary settings for the Y level check.
   - **Recording pixels : VGA (640 x 480)**
   - **Photography mode : M**
   - **WB : Electric bulb mode**
   - **Flash : OFF**
   - **AF/MF selector switch : MF**
4) Press the release button to take a photo.
   - **Check that the indicator lamp blinks green, and then changes to orange.**
   - **Check that the shutter sound is heard.**
5) Set the camera power lever to the Playback mode.
   - **Check that the photographed image is displayed.**
6) Check the Y level using a waveform monitor.
   - **Y level : 83+/-12IRE (waveform monitor)**

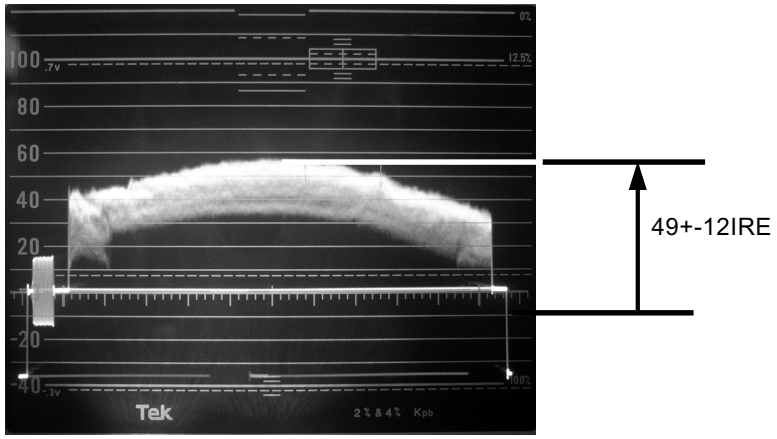


Waveform Monitor Display

5-2-7.Flash Photography Check

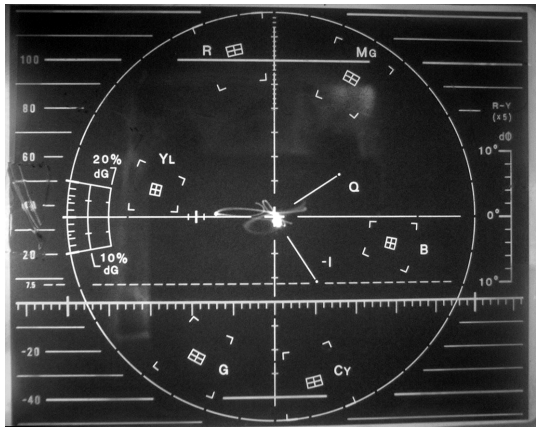
Procedure and Checks

1) Prepare the gray chart.
2) Make the necessary settings for flash photography.
   · Distance between gray chart and camera : 1000mm from surface of flash
   · Recording pixels : VGA (640 x 480)
   · Photography mode : M
   · WB : AUTO
   · Flash : Raised
   · Shutter speed : 1/60
   · Aperture : F5.6
3) Press the release button to take a photo.
   · Check that the indicator lamp blinks green, and then changes to orange.
   · Check that the shutter sound is heard.
   · Check that the flash is lit.
4) Retract the flash.
   · Check that the flash symbol disappears.
5) Set the camera power lever to the Playback mode.
   · Check that the photographed gray chart is displayed.
6) Check the light adjustment level and WB using the waveform monitor and vector scope.
   · Light adjustment level : (Waveform monitor)

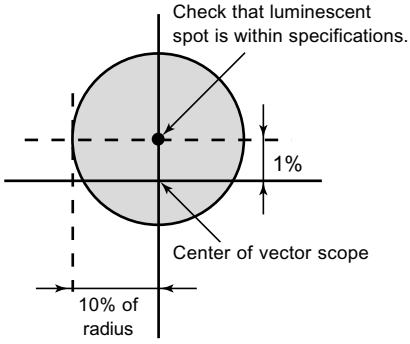


Waveform Monitor

· WB : Within a circle of 10% of the radius, and centered on X=0%, Y=+1% on the vector scope (distance from center of vector scope to circle as 100%).



Vector scope



5-2-8.Manual Focus Check

Procedure and Checks

1) Set the AF/MF selector switch to MF.
   · **Check that the MF symbol remains on the LCD monitor.**
2) Turn the focusing ring.
   · **Check that the focus moves.**
3) Set the AF/MF selector switch to AF.
   · **Check that the MF symbol disappears.**

5-2-9.Macro Operation Check

Procedure and Checks

1) Press the macro button.
   · **Check that the tulip symbol appears on the LCD monitor.**
2) Press the macro button again twice.
   · **Check that the tulip symbol disappears.**

5-2-10.External Flash Operation Check

Procedure and Checks

1) Connect the multimeter to the external flash shoe.
   · **Check that the multimeter resistance value is open.**
2) Press the menu button to select the external flash mode.
3) Press the release button to take a photo.
   · **Check that the resistance value drops immediately and returns to the open status again.**
4) Press the menu button to return to the internal flash mode.

5-2-11.Command Dial Check

Procedure and Checks

1) Turn the command dial left-right.
   · **Check that the F value at bottom-left of the LCD monitor changes.**

5-2-12.Movie/Audio Check

Procedure and Checks

1) Set the mode dial to the movie photography mode.
   · **Check that Standby is displayed on the LCD monitor.**
2) Press the release button to begin movie photography.
   · **Check that movie/audio recording begins.**
   · **Check that the Recording display appears on the LCD monitor.**
3) Press the release button after five seconds.
   · **Check that the movie/audio recording finishes, and that it has been recorded on the smart media.**
4) Select the playback mode.
5) Press the bottom of the four keys to playback the movie.
   · **Check that the movie is played back on the LCD monitor.**
   · **Check that the audio is played back from the speaker.**

5-2-13.Erase Mode Check

Procedure and Checks

1) Press the menu button, select a format, and press the OK button.
   · **Check that OK? is displayed on the LCD monitor.**
2) Press the MENU/OK button again.
   · **Check that the played back image disappears.**

5-2-14.Low Battery Check

Procedure and Checks

1) Set to the preend check voltage.
   · **3.70+/-0.01V**
   · **Check that the preend symbol is displayed on the LCD monitor.**
2) Set to the end check voltage.
   · **3.50+/-0.01V**
   · **Check that the end symbol is displayed on the LCD monitor, and that the camera is switched OFF.**

5-2-15.Current Consumption Check

Procedure and Checks

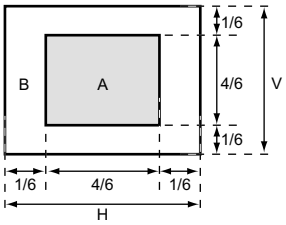
1) Remove the card (SSFDC) and insert a microdrive containing images.
2) Use the power supply cable Jig to supply the following voltage from the DC-IN jack.
   · **5.00+/-0.05V**
3) Set the camera power lever to the Photography mode.
4) Press the BACK button.
   · **Check that the date setup display disappears.**
5) Check the current consumption.
   · **Maximum of 0.70A.**

☆ 5-2-16. LCD Display Image Check

Procedure and Checks

1) Insert a microdrive containing images, and playback completely black.
   · **Check that there is no noticeable dust or contamination (eg luminescent spots) on the LCD monitor screen.**

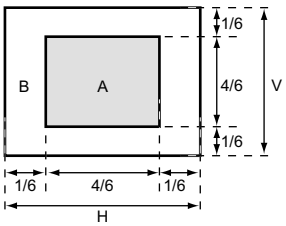
Standards for luminescent spots on LCD monitor



A zone : 0
B zone : 4
Total : 4
Minimum distance between luminescent spots : 5mm
Maximum number of adjacent luminescent spots : 1

2) Playback completely white (75%).
   · **Check that there is no noticeable dust or contamination (eg unevenness, dropout spots) on the LCD monitor screen.**

Standards for dropout spots on LCD monitor



A zone : 1
B zone : 4
Total : 5
Maximum number of adjacent dropout spots in horizontal direction : 2
Maximum number of adjacent dropout spots in vertical direction : None
Minimum distance between dropout spots : 5mm

3) Select the adjustment menu by pressing the shift and DISP simultaneously, select the brightness, and then press the left-right key.
   · **Check that brightness changes on the LCD monitor.**

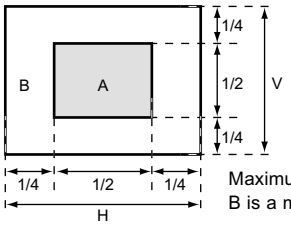
☆ Revised:2002.6.20

5-2-17. EVF Display Image Check

Procedure and Checks

1) Insert a microdrive containing images, and playback completely black.
   · Check that there is no noticeable dust or contamination (eg luminescent spots) on the EVF monitor screen.

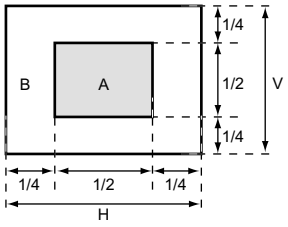
Standards for luminescent spots on EVF monitor



Maximum of two for R, G, and B total, however
B is a maximum of one for the A zone.

2) Playback completely white (75%).
   · Check that there is no noticeable dust or contamination (eg unevenness, dropout spots) on the EVF monitor screen.

Standards for dropout spots on EVF monitor



A zone : 1
B zone : 2
Total : 3

3) Select the adjustment menu by pressing the shift and DISP simultaneously, select the brightness, and then press the left-right key.
   · Check that brightness changes on the EVF monitor.

5-2-18.Power OFF Operation Check

Procedure and Checks

1) Set the camera power lever to the Photography mode, and set the mode dial to SETUP.
2) Press the bottom of the four keys to select full reset, and press the MENU/OK button.
3) Set the camera power lever to OFF.
   · Check that the lens retracts.

5-2-19.Settings at Shipment

Procedure and Checks

1) Mode dial : Auto photography
2) Check that the battery and memory card are not inserted.
3) Card cover : Closed
4) Battery cover : Closed
5) Flash : Retracted
6) Power lever : OFF
7) AF/MF selector switch : AF
8) EVF diopter adjustment dial : Set to central position.
9) Jack cover : Closed
10) DC cap : Closed

5-2-20.Clock Setup and Clear

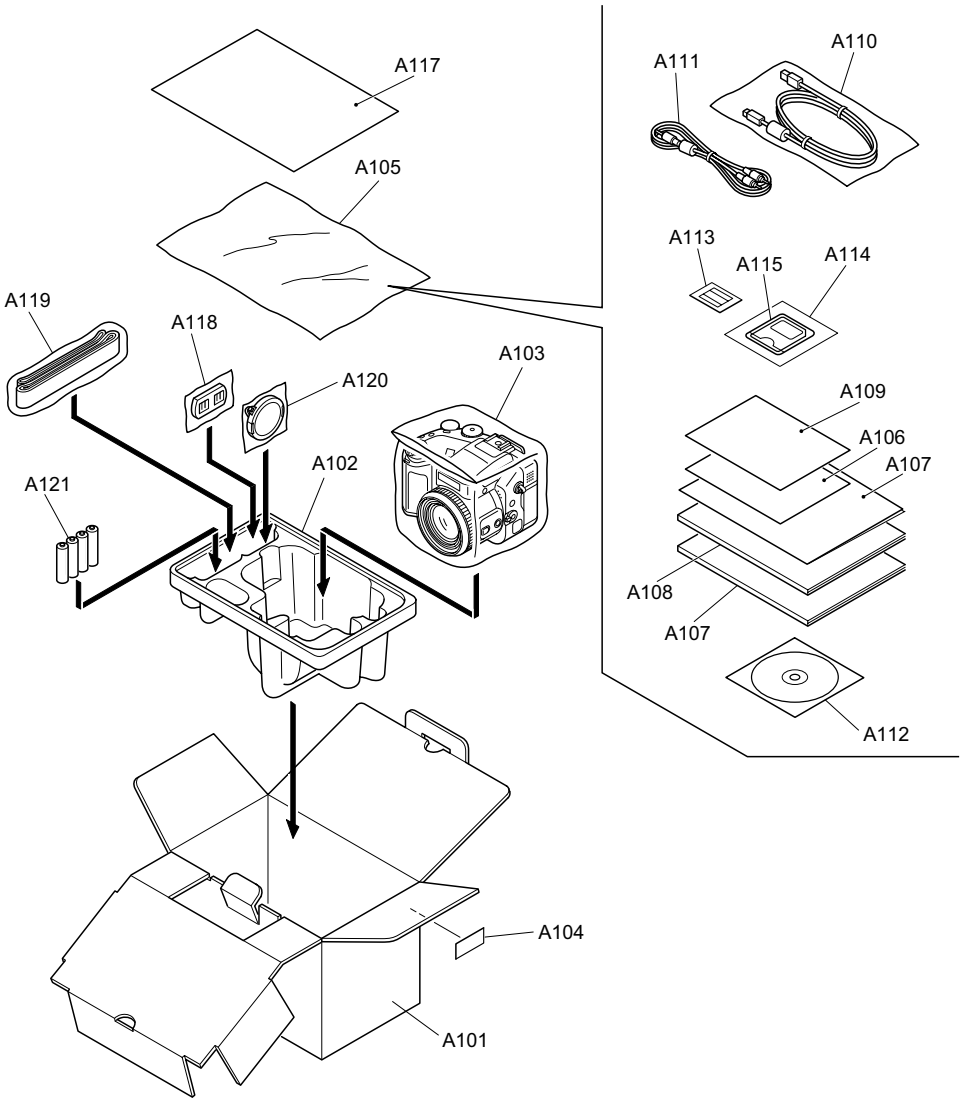
Procedure and Checks

1) Connect the USB cable between the PC and the camera.
   · Check that the PC is switched ON.
2) Open the card cover, and with the release button pressed, switch power ON.
3) Set the camera power lever to OFF.
   · No operation is needed at the PC.
4) Remove the USB cable and connect it again.
5) Close the card cover and set the camera power lever to the Playback mode.
   · Check that the USB card reader symbol is displayed on the LCD monitor.
   · Check that the PC is recognized as a removable disk.
6) Set the camera power lever to OFF.
   · Check that camera power is OFF.

6. Parts List

6-1. U-Model

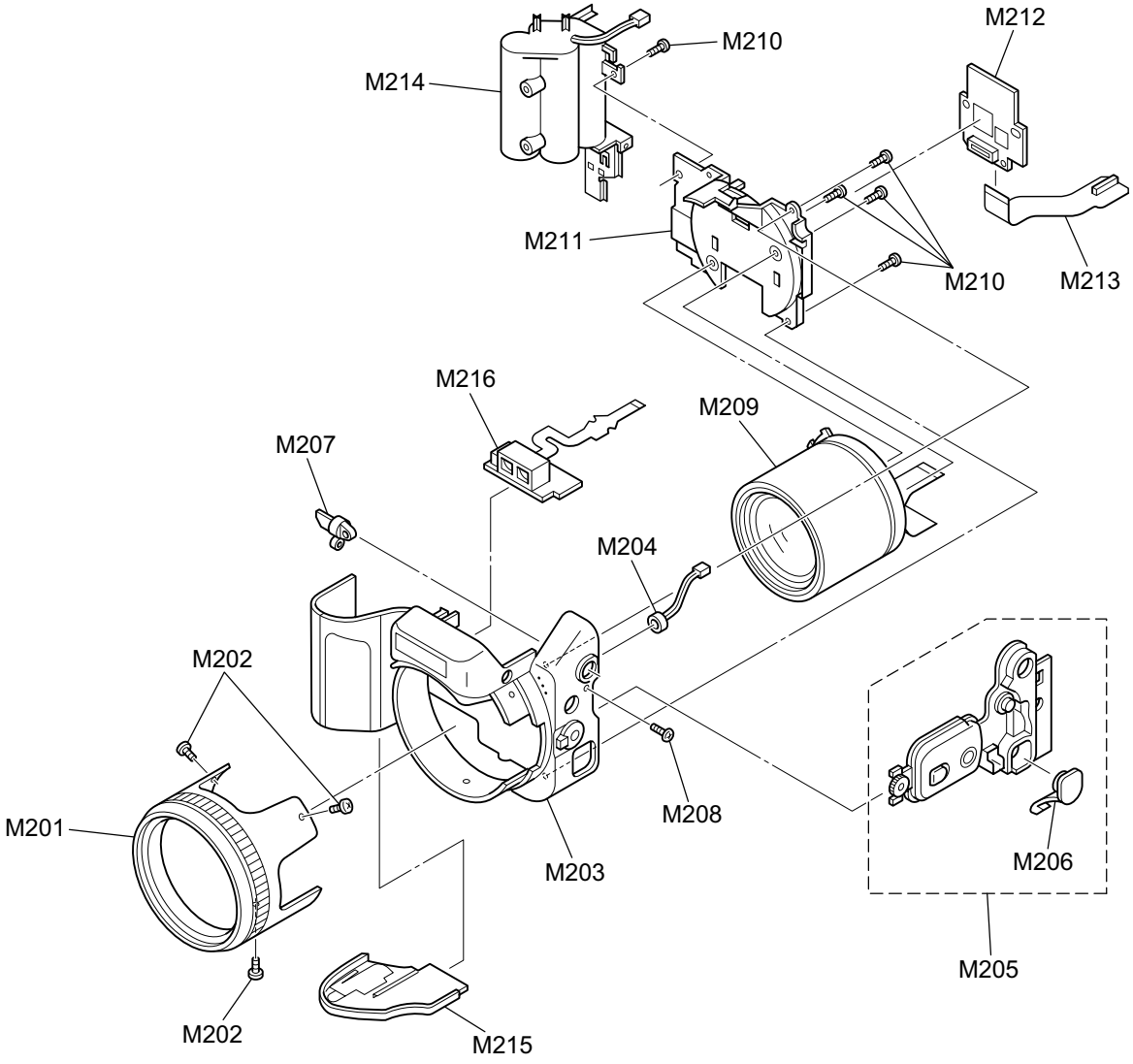
6-1-1. Packing and Accessories (U)



Ref No.	Parts No.	Description	Common
A101	FZ04708-100	UNITARY BOX	
A102	FZ04711-100	SHEET MOLD	
A103	AZF0000-321	HDPE BAG No.12	
A104	BB12943-100	BAR CODE LABEL BLANK	
A105	AZF0000-111	BAG PLASTIC No.11	
A106	BB03538-100	IMPORTANT SAFETY	
A107	BL00120-200	I/F MANUAL	ENGLISH
A108	BL00135-200	OWNERS MANUAL	ENGLISH
A109	BB07792-101	WARRANTY US	
A110	FZ03529-200	USB CABLE	

Ref No.	Parts No.	Description	Common
A111	FZ04741-100	VIDEO CABLE	
A112	FZ04403-101	CD-ROM	
A113	BB11327-100	SSFDC LABEL	
A114	BF02317-200	SSFDC ASSY	16MB
A115	BB04598-400	SSFDC DUST COVER	
A116	BL00162-100	QUICK START GUIDE	
A117	BL00187-100	INFO PAPER (MOVIE)	
A118	BB12402-100	LENSCAP HOLDER	
A119	BU02578-100	SHOULDER BELT ASSY	
A120	BU01815-300	LENS CAP ASSY	
A121	FZ04793-100	ALKALINE BATTERY	LR6 1.5V

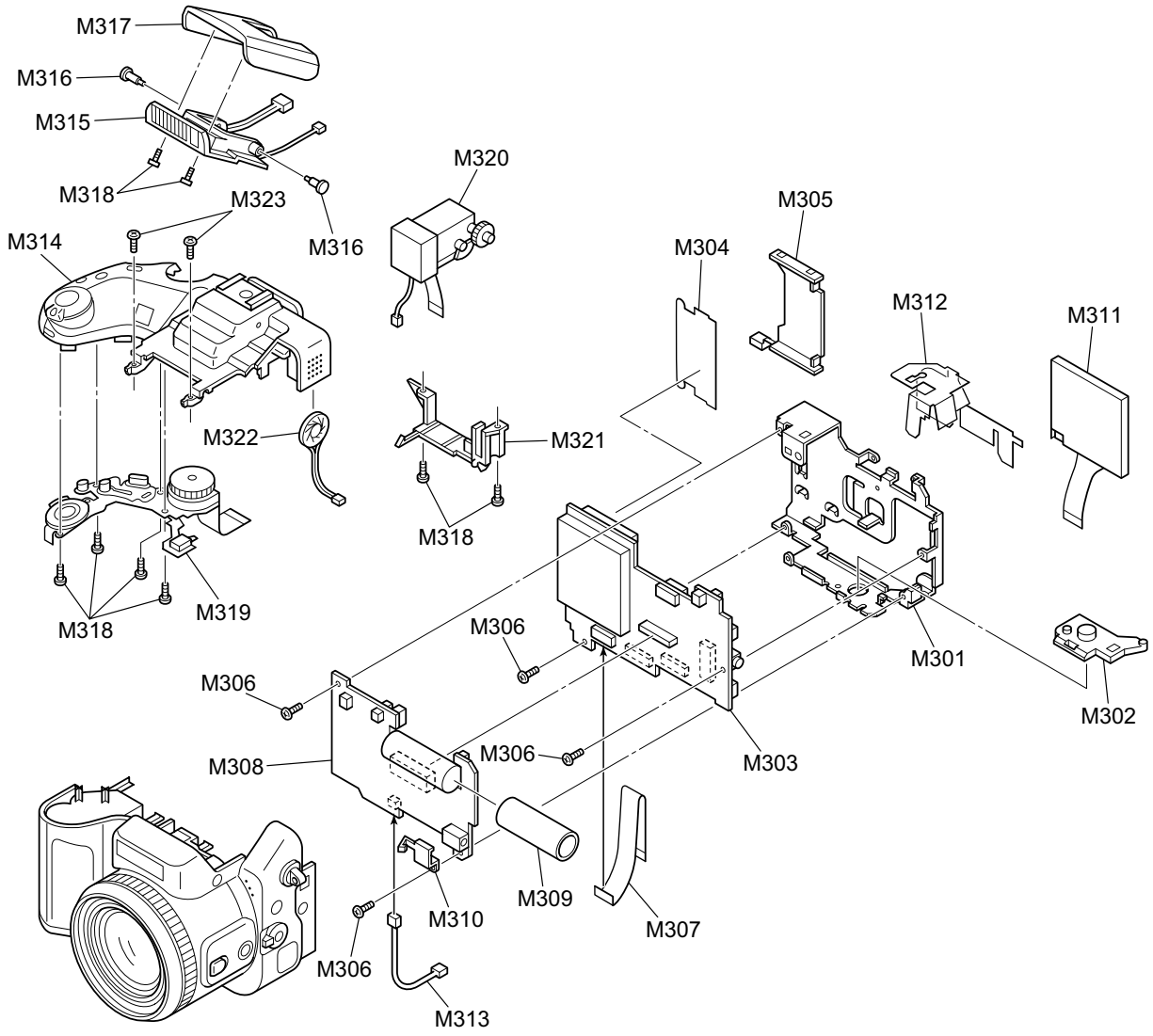
6-1-2.Cabinet F (U)



Ref No.	Parts No.	Description	Common
M201	BU01956-200	LENS CABI ASSY U	
M202	BB13148-100	SCREW M1.7X3.5BC	(x3)
M203	BU01957-100	F CABI ASSY	ABS
M204	FZ04690-100	MIC ASSY	
M205	FZ04691-100	SIDE MODULE UNIT	
M206	UBFZZ0020A	DC JACK COVER	
M207	BB13205-100	STRAP R	
M208	BB13148-200	SCREW M1.7X5.0BC	(x1)
M209	BU02572-100	LENS CONST	
M210	BB13149-200	SCREW M1.7X5.0BC GN	(x5)

Ref No.	Parts No.	Description	Common
M211	BB13201-100	LENS FRAME	
M212	CB0892-A100	CAM PWB ASSY	
M213	CB0895-A101	MC PWB ASSY	MAIN-CAM
M214	FZ04692-100	BATT HOLDER UNIT	
M215	BU01959-100	BATTERY LID ASSY	
M216	FZ04693-100	AF SENSOR UNIT	

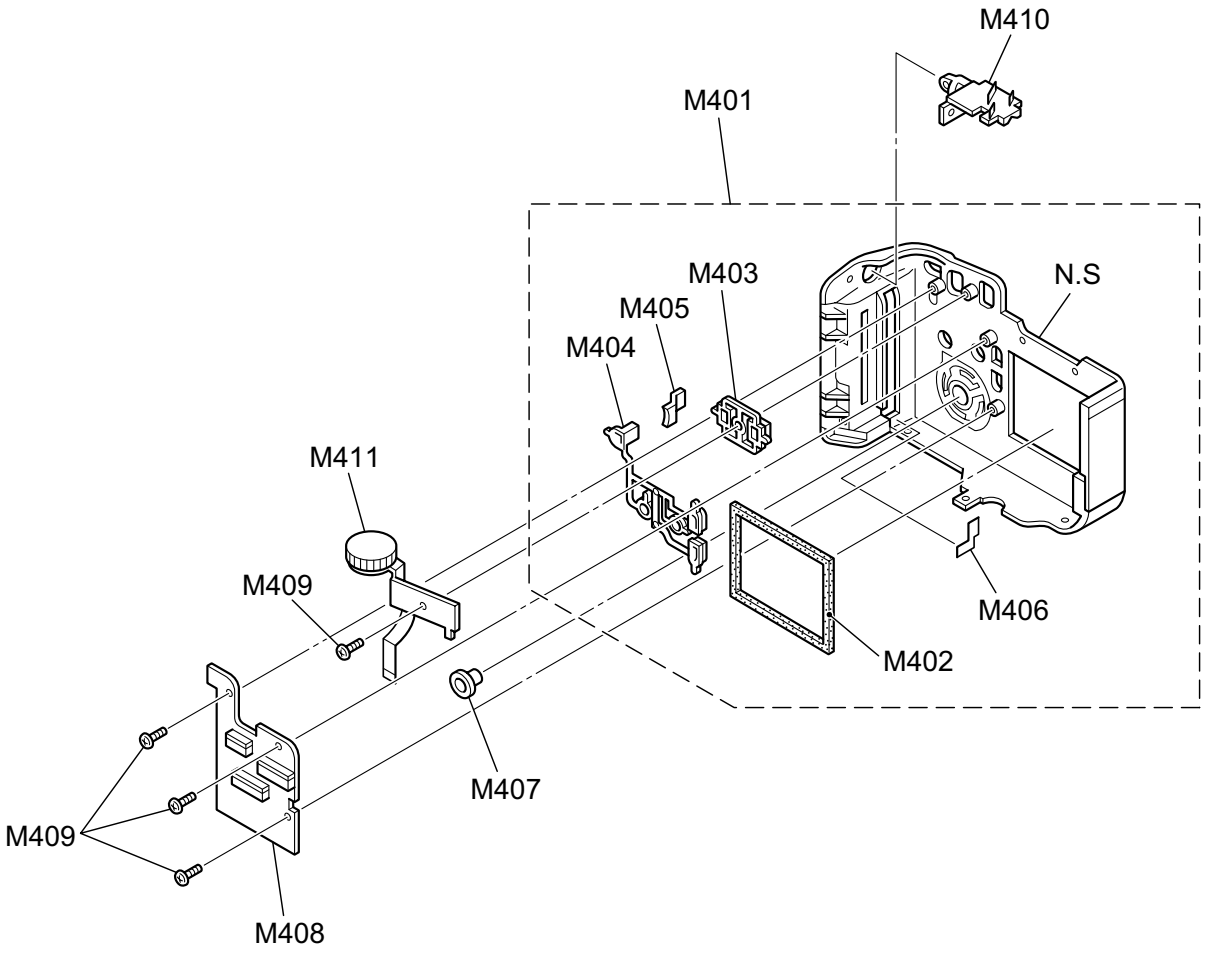
6-1-3. Internal (U)



Ref No.	Parts No.	Description	Common
M301	BB13202-100	LCD FRAME	
M302	BB13207-100	TRIPOD SCREW	
M303	CB0890-A103	MAIN PWB ASSY	
M304	BB13177-100	SHEET CF	
M305	FZ04356-100	EJECTOR	
M306	BB12548-100	SP SCREW M1.7X3.0	(x4)
M307	FZ04700-100	FFC	MAIN-KEY
M308	CB0891-A100	DCST PWB ASSY	
M309	BB13209-100	INSULATING TUBE	
M310	BB13183-100	CONTACT PLT	

Ref No.	Parts No.	Description	Common
M311	BF03968-100	LCD ASSY	1.8inch
M312	BB13182-100	SHEET FRAME	
M313	FZ04701-100	WIRE HARNESS	DCST-LCD
M314	BU01955-100	TOP CABI ASSY	ABS
M315	BU02573-100	ST ASSY CONST	
M316	BB11621-100	ST SHAFT	
M317	BB13193-200	ST TOP U	
M318	BB13149-100	SCREW M1.7X4.0BC GN	(x8)
M319	FZ04694-100	MODE DIAL UNIT	
M320	BU02571-100	EVF CONST	
M321	BB13204-100	HOLDER EVF	
M322	FZ04695-100	SPEAKER ASSY	
M323	BB13149-300	SCREW M1.7X5.5BC GN	(x2)

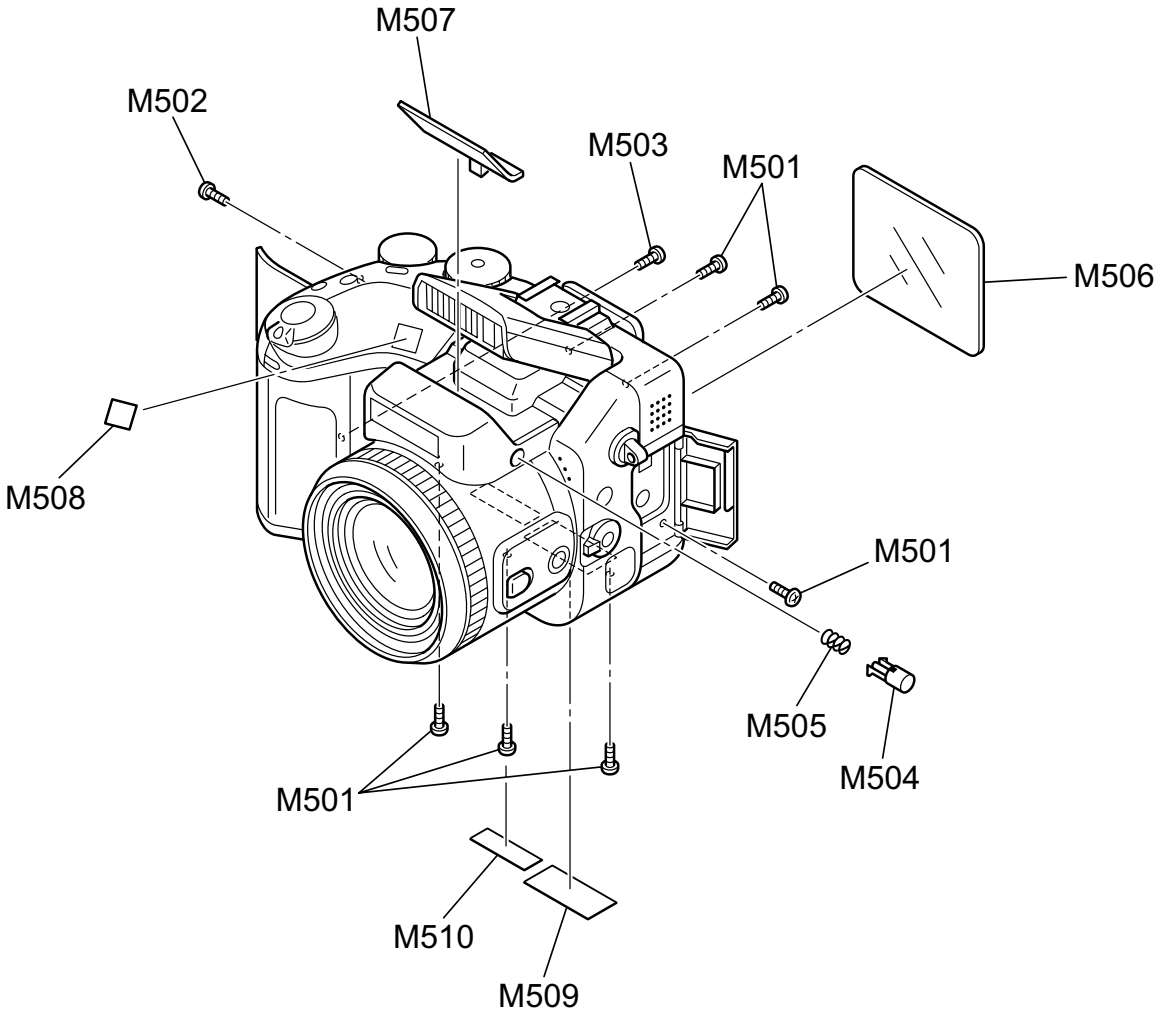
6-1-4. Cabinet R (U)



Ref No.	Parts No.	Description	Common
M401	BU01958-100	R CABI ASSY	ABS
M402	BB13187-100	LCD CUSHION	
M403	BB13170-100	ZOOM BUTTON	
M404	BB13172-100	REAR BUTTON	
M405	BB13174-100	LED LENS	
M406	BB13178-100	SHEET SW	
M407	BB13169-100	OK BUTTON	
M408	CB0893-A101	KEY PWB ASSY	
M409	BB13149-100	SCREW M1.7X4.0BC GN	(x4)
M410	BB13206-100	STRAP L	

Ref No.	Parts No.	Description	Common
M411	FZ04696-101	C DIAL UNIT	

6-1-5. External (U)

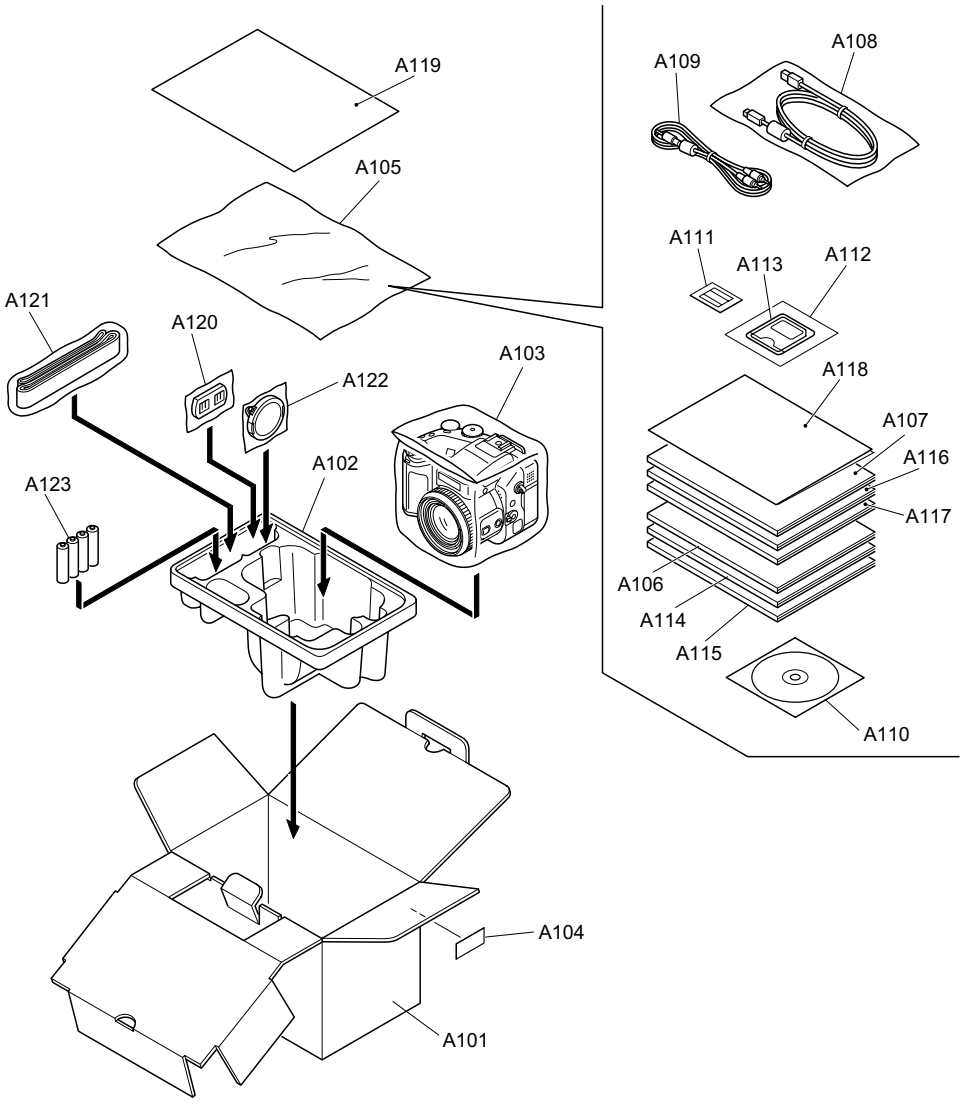


Ref No.	Parts No.	Description	Common
M501	BB13148-200	SCREW M1.7X5.0BC	(x6)
M502	BB13148-300	SCREW M1.7X8.0BC	(x1)
M503	BB13149-300	SCREW M1.7X5.5BC GN	(x1)
M504	BB13134-100	ST BUTTON	
M505	BB13160-100	CSP(ST BUTTON)	
M506	BB13208-100	LCD WINDOW	
M507	BB13212-100	AF PLATE	
M508	BB10000-200	CCD BADGE S U	
M509	BB13211-200	PRODUCT LABEL	
M510	BB09250-200	PL SEAL (U)	

Ref No.	Parts No.	Description	Common

6-2. E-Model

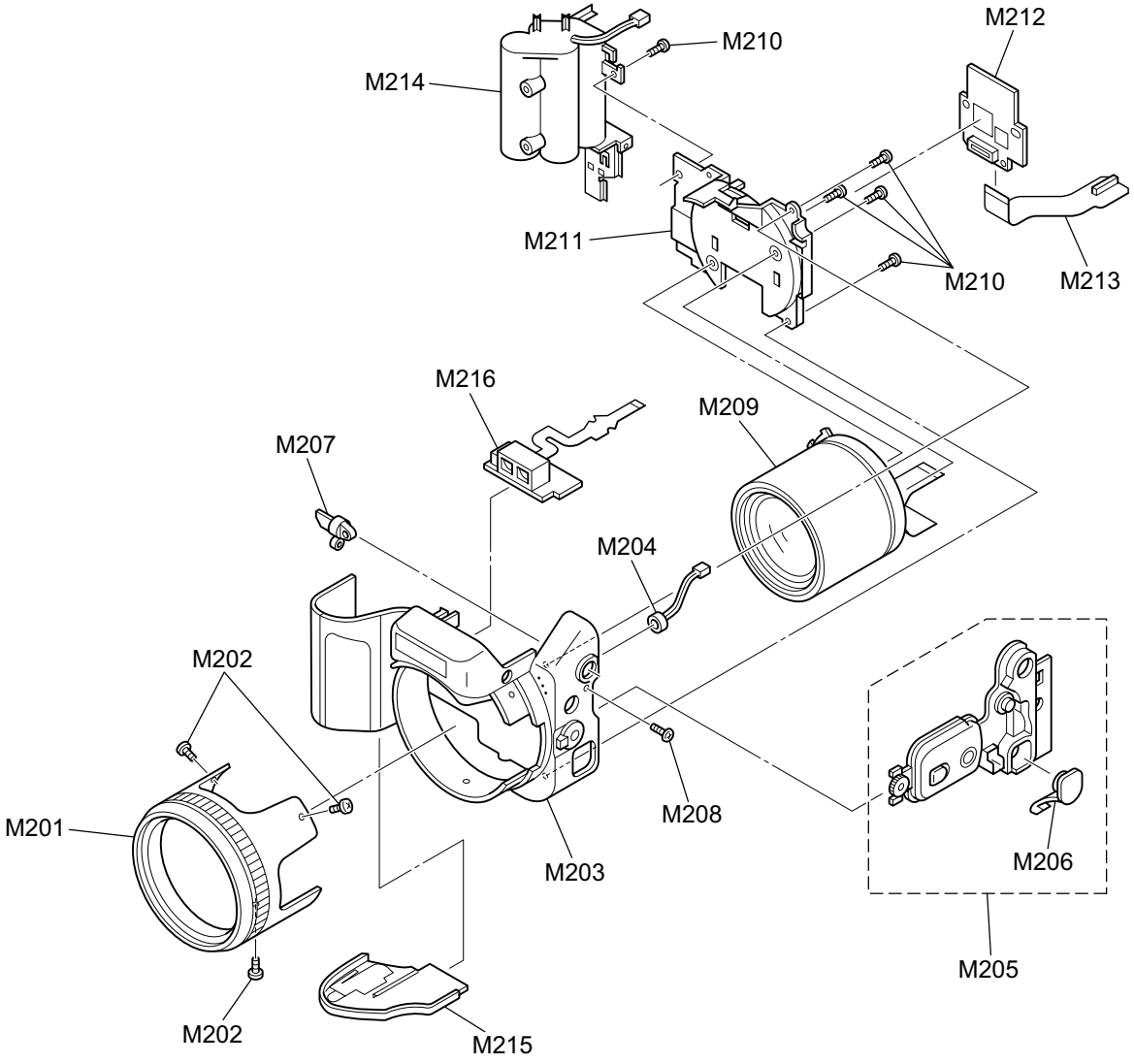
6-2-1. Packing and Accessories (E)



Ref No.	Parts No.	Description	Common
A101	FZ04709-100	UNITARY BOX	
A102	FZ04711-100	SHEET MOLD	
A103	AZF0000-321	HDPE BAG No.12	
A104	BB12943-100	BAR CODE LABEL BLANK	
A105	AZF0000-111	BAG PLASTIC No.11	
A106	BL00120-200	I/F MANUAL	ENGLISH
A107	BL00135-200	OWNERS MANUAL	ENGLISH
A108	FZ03529-200	USB CABLE	
A109	FZ04741-100	VIDEO CABLE	
A110	FZ04403-101	CD-ROM	

Ref No.	Parts No.	Description	Common
A111	BB11327-100	SSFDC LABEL	
A112	BF02317-200	SSFDC ASSY	16MB
A113	BB04598-400	SSFDC DUST COVER	
A114	BL00120-300	I/F MANUAL	FRENCH
A115	BL00120-400	I/F MANUAL	GERMAN
A116	BL00135-300	OWNERS MANUAL	FRENCH
A117	BL00135-400	OWNERS MANUAL	GERMAN
A118	BL00162-100	QUICK START GUIDE	
A119	BL00187-100	INFO PAPER (MOVIE)	
A120	BB12402-100	LENSCAP HOLDER	
A121	BU02578-100	SHOULDER BELT ASSY	
A122	BU01815-300	LENS CAP ASSY	
A123	FZ04793-100	ALKALINE BATTERY	LR6 1.5V

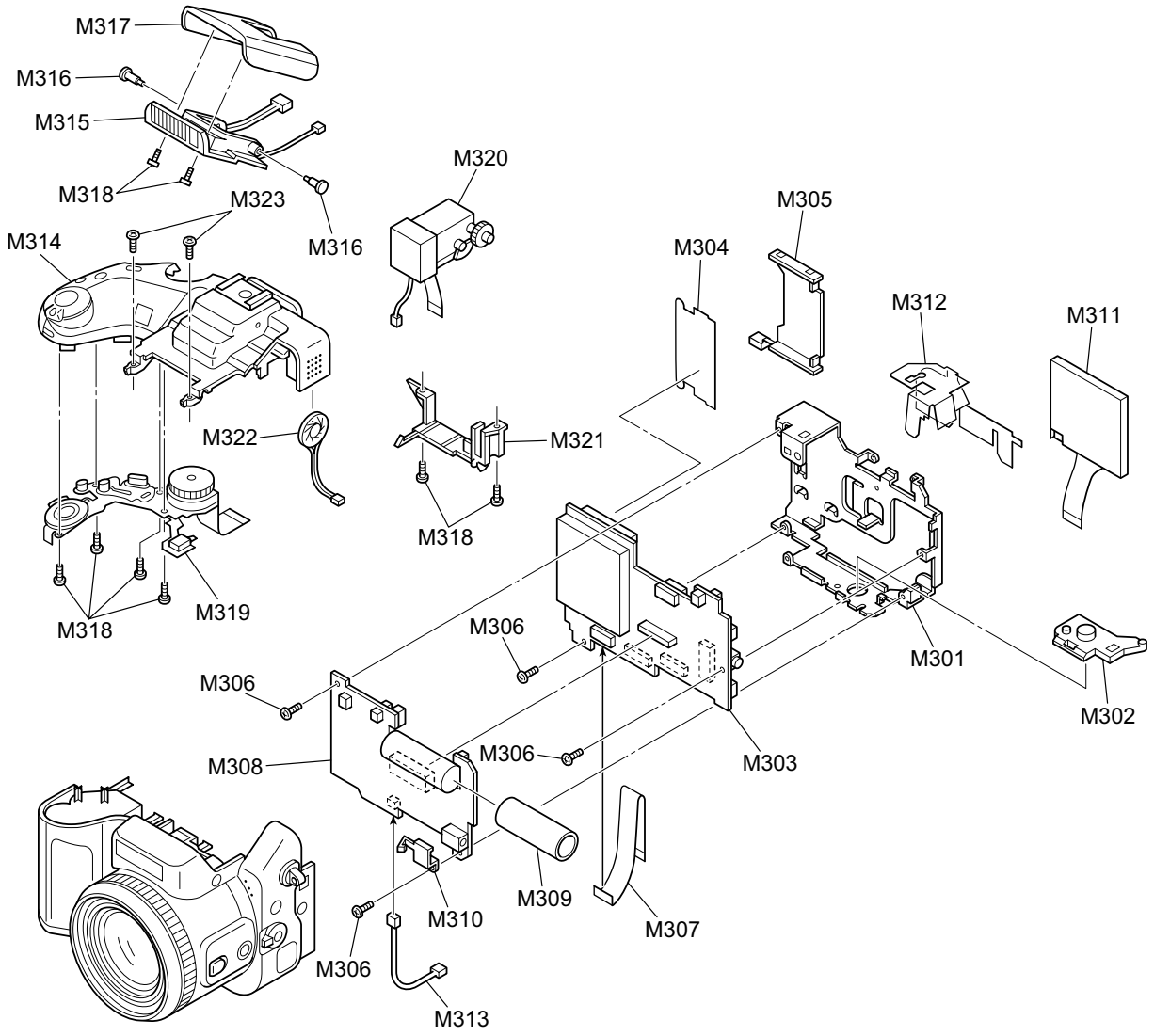
6-2-2.Cabinet F (E)



Ref No.	Parts No.	Description	Common
M201	BU01956-200	LENS CABI ASSY U	
M202	BB13148-100	SCREW M1.7X3.5BC	(x3)
M203	BU01957-100	F CABI ASSY	ABS
M204	FZ04690-100	MIC ASSY	
M205	FZ04691-100	SIDE MODULE UNIT	
M206	UBFZZ0020A	DC JACK COVER	
M207	BB13205-100	STRAP R	
M208	BB13148-200	SCREW M1.7X5.0BC	(x1)
M209	BU02572-100	LENS CONST	
M210	BB13149-200	SCREW M1.7X5.0BC GN	(x5)

Ref No.	Parts No.	Description	Common
M211	BB13201-100	LENS FRAME	
M212	CB0892-A100	CAM PWB ASSY	
M213	CB0895-A101	MC PWB ASSY	MAIN-CAM
M214	FZ04692-100	BATT HOLDER UNIT	
M215	BU01959-100	BATTERY LID ASSY	
M216	FZ04693-100	AF SENSOR UNIT	

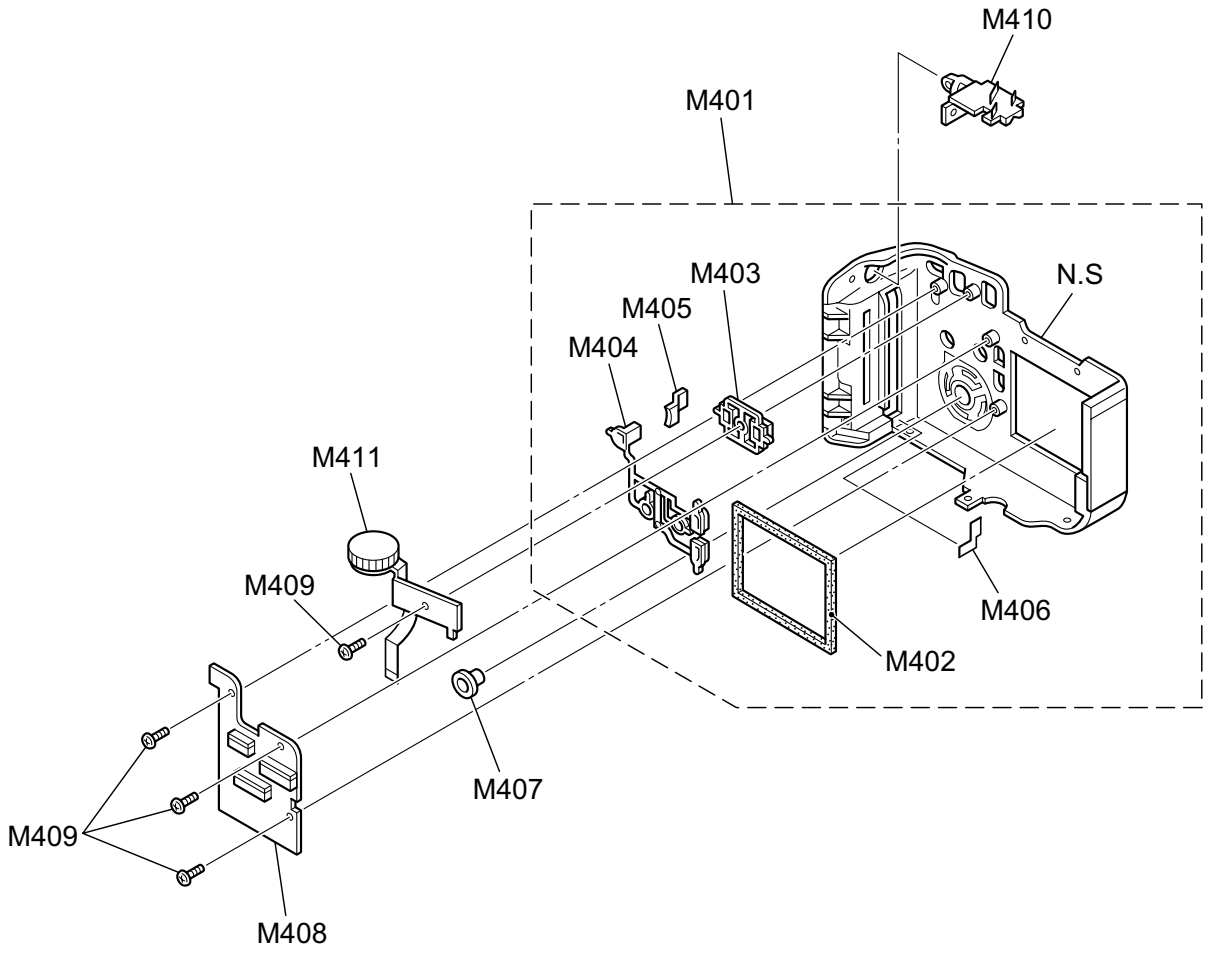
6-2-3. Internal (E)



Ref No.	Parts No.	Description	Common
M301	BB13202-100	LCD FRAME	
M302	BB13207-100	TRIPOD SCREW	
M303	CB0890-B103	MAIN E PWB ASSY	
M304	BB13177-100	SHEET CF	
M305	FZ04356-100	EJECTOR	
M306	BB12548-100	SCREW M1.7X3.0	(x4)
M307	FZ04700-100	FFC	MAIN-KEY
M308	CB0891-A100	DCST PWB ASSY	
M309	BB13209-100	INSULATING TUBE	
M310	BB13183-100	CONTACT PLT	

Ref No.	Parts No.	Description	Common
M311	BF03968-100	LCD ASSY	1.8inch
M312	BB13182-100	SHEET FRAME	
M313	FZ04701-100	WIRE HARNESS	DCST-LCD
M314	BU01955-100	TOP CABI ASSY	ABS
M315	BU02573-100	ST ASSY CONST	
M316	BB11621-100	ST SHAFT	
M317	BB13193-200	ST TOP U	
M318	BB13149-100	SCREW M1.7X4.0BC GN	(x8)
M319	FZ04694-100	MODE DIAL UNIT	
M320	BU02571-100	EVF CONST	
M321	BB13204-100	HOLDER EVF	
M322	FZ04695-100	SPEAKER ASSY	
M323	BB13149-300	SCREW M1.7X5.5BC GN	(x2)

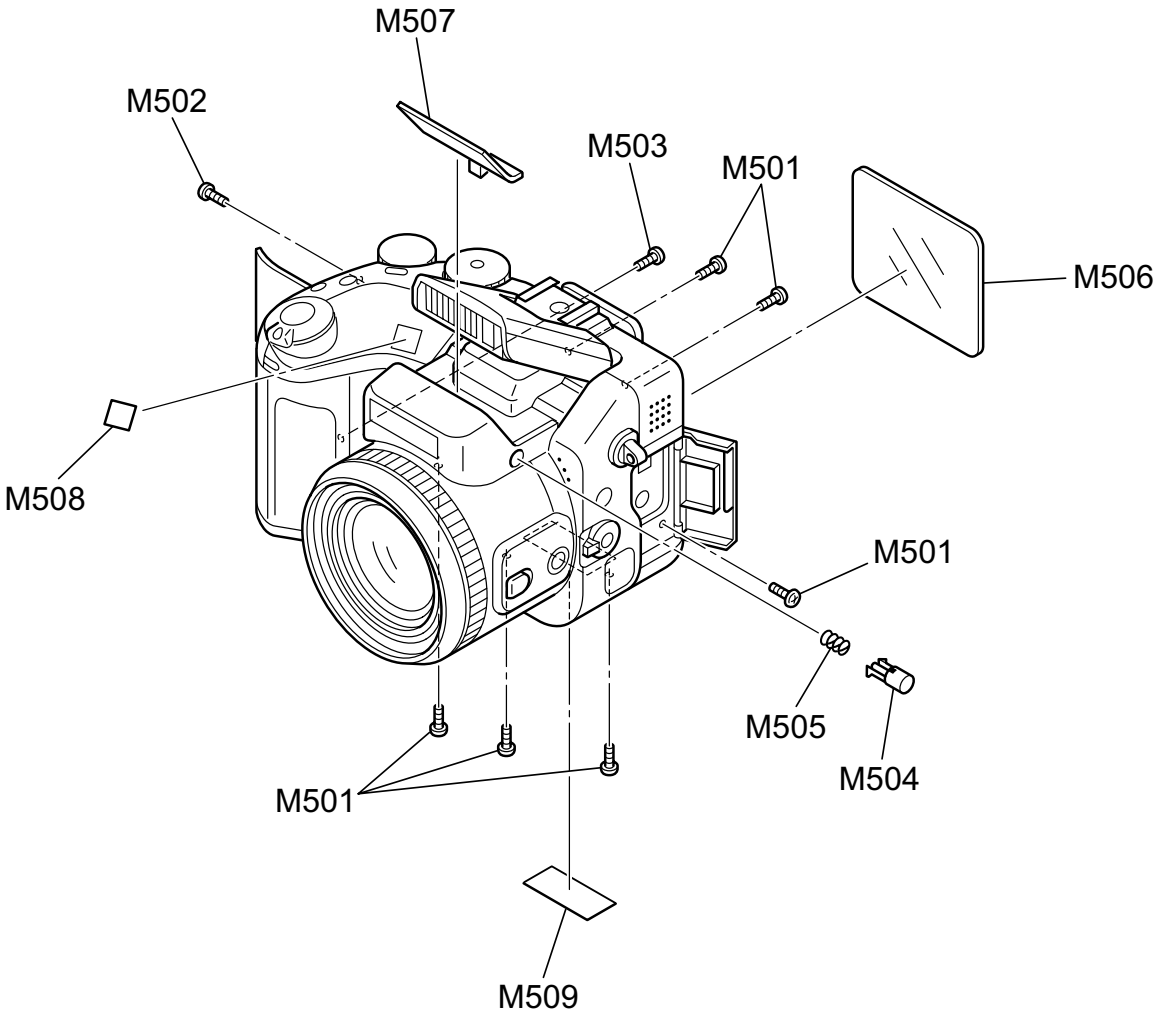
6-2-4. Cabinet R (E)



Ref No.	Parts No.	Description	Common
M401	BU01958-100	R CABI ASSY	ABS
M402	BB13187-100	LCD CUSHION	
M403	BB13170-100	ZOOM BUTTON	
M404	BB13172-100	REAR BUTTON	
M405	BB13174-100	LED LENS	
M406	BB13178-100	SHEET SW	
M407	BB13169-100	OK BUTTON	
M408	CB0893-A101	KEY PWB ASSY	
M409	BB13149-100	SCREW M1.7X4.0BC GN	(x4)
M410	BB13206-100	STRAP L	

Ref No.	Parts No.	Description	Common
M411	FZ04696-101	C DIAL UNIT	

6-2-5. External (E)

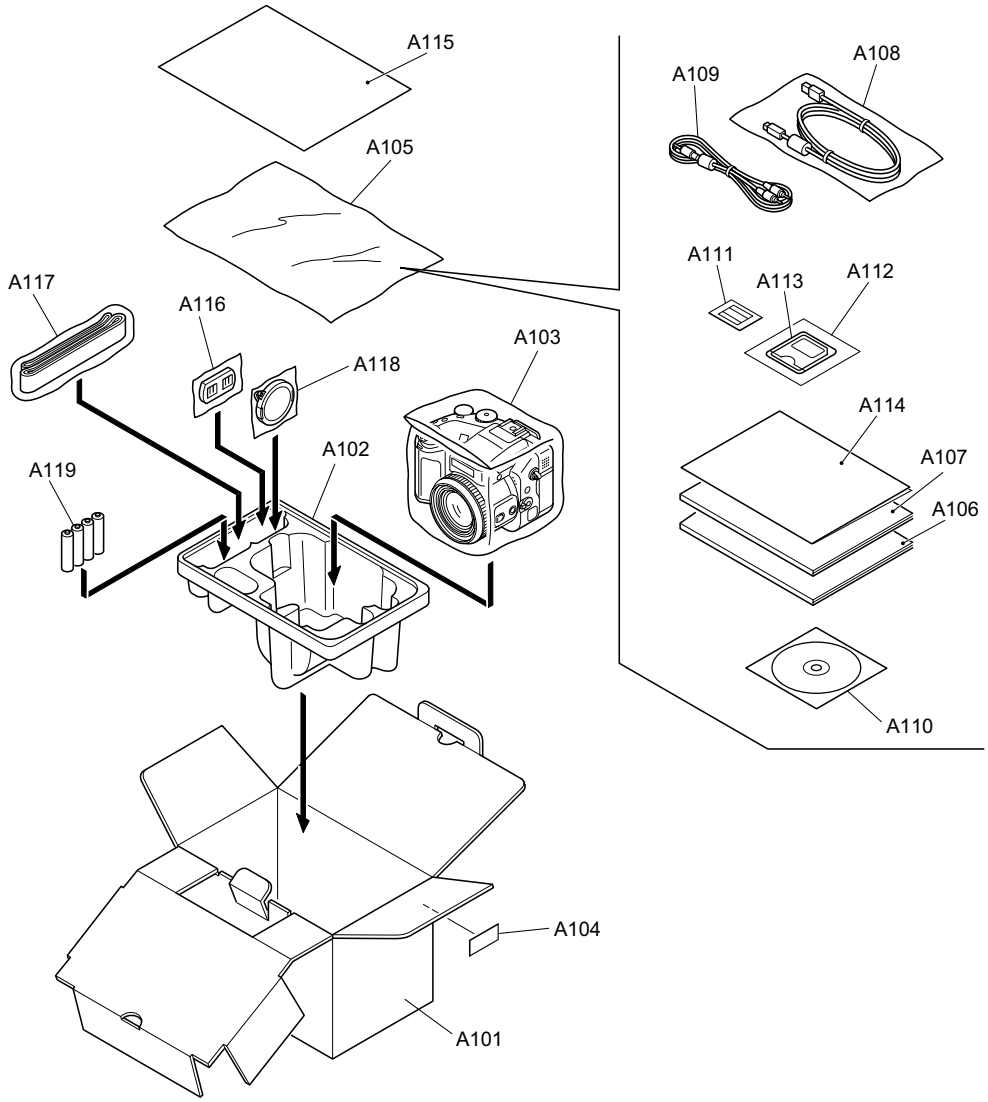


Ref No.	Parts No.	Description	Common
M501	BB13148-200	SCREW M1.7X5.0BC	(x6)
M502	BB13148-300	SCREW M1.7X8.0BC	(x1)
M503	BB13149-300	SCREW M1.7X5.5BC GN	(x1)
M504	BB13134-100	ST BUTTON	
M505	BB13160-100	CSP(ST BUTTON)	
M506	BB13208-100	LCD WINDOW	
M507	BB13212-100	AF PLATE	
M508	BB10000-200	CCD BADGE S U	
M509	BB13211-200	PRODUCT LABEL	

Ref No.	Parts No.	Description	Common

6-3. EG-Model

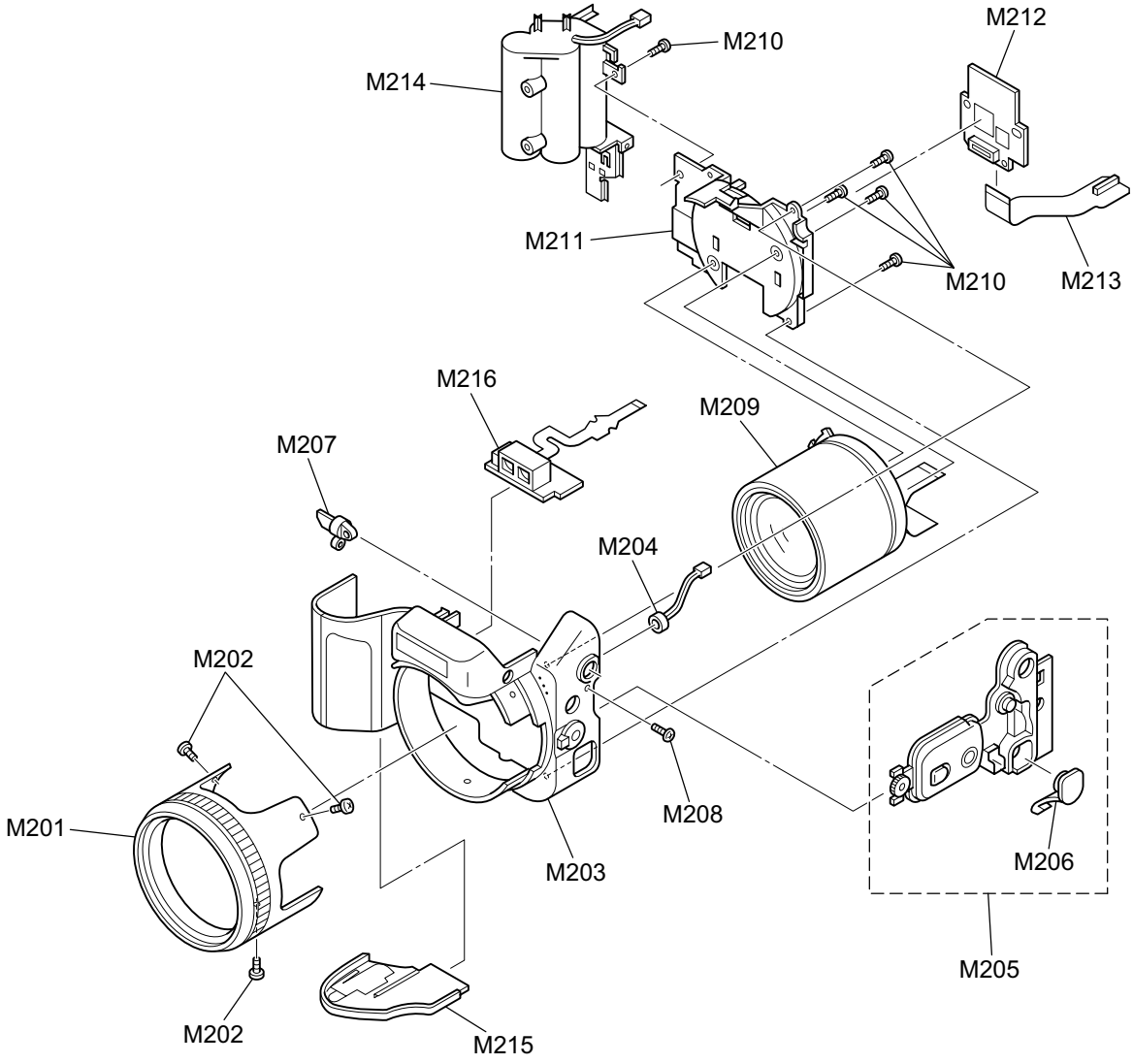
6-3-1. Packing and Accessories (EG)



Ref No.	Parts No.	Description	Common
A101	FZ04708-200	UNITARY BOX	
A102	FZ04711-100	SHEET MOLD	
A103	AZF0000-321	HDPE BAG No.12	
A104	BB12943-100	BAR CODE LABEL BLANK	
A105	AZF0000-111	BAG PLASTIC No.11	
A106	BL00120-200	I/F MANUAL	ENGLISH
A107	BL00135-200	OWNERS MANUAL	ENGLISH
A108	FZ03529-200	USB CABLE	
A109	FZ04741-100	VIDEO CABLE	
A110	FZ04403-101	CD-ROM	

Ref No.	Parts No.	Description	Common
A111	BB11327-100	SSFDC LABEL	
A112	BF02317-200	SSFDC ASSY	16MB
A113	BB04598-400	SSFDC DUST COVER	
A114	BL00162-100	QUICK START GUIDE	
A115	BL00187-100	INFO PAPER (MOVIE)	
A116	BB12402-100	LENSCAP HOLDER	
A117	BU02578-100	SHOULDER BELT ASSY	
A118	BU01815-300	LENS CAP ASSY	
A119	FZ04793-100	ALKALINE BATTERY	LR6 1.5V

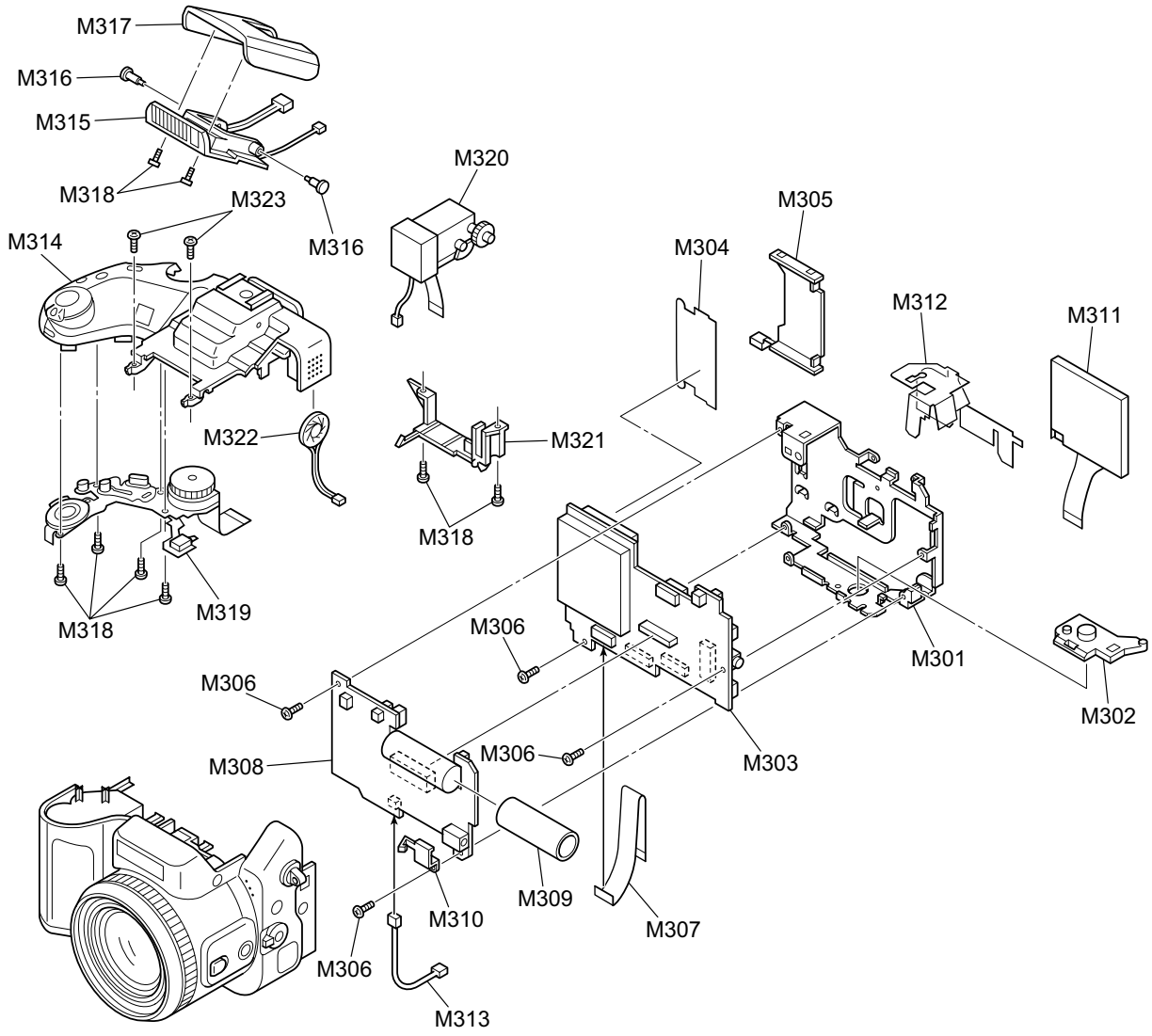
6-3-2.Cabinet F (EG)



Ref No.	Parts No.	Description	Common
M201	BU01956-200	LENS CABI ASSY U	
M202	BB13148-100	SCREW M1.7X3.5BC	(x3)
M203	BU01957-100	F CABI ASSY	ABS
M204	FZ04690-100	MIC ASSY	
M205	FZ04691-100	SIDE MODULE UNIT	
M206	UBFZZ0020A	DC JACK COVER	
M207	BB13205-100	STRAP R	
M208	BB13148-200	SCREW M1.7X5.0BC	(x1)
M209	BU02572-100	LENS CONST	
M210	BB13149-200	SCREW M1.7X5.0BC GN	(x5)

Ref No.	Parts No.	Description	Common
M211	BB13201-100	LENS FRAME	
M212	CB0892-A100	CAM PWB ASSY	
M213	CB0895-A101	MC PWB ASSY	MAIN-CAM
M214	FZ04692-100	BATT HOLDER UNIT	
M215	BU01959-100	BATTERY LID ASSY	
M216	FZ04693-100	AF SENSOR UNIT	

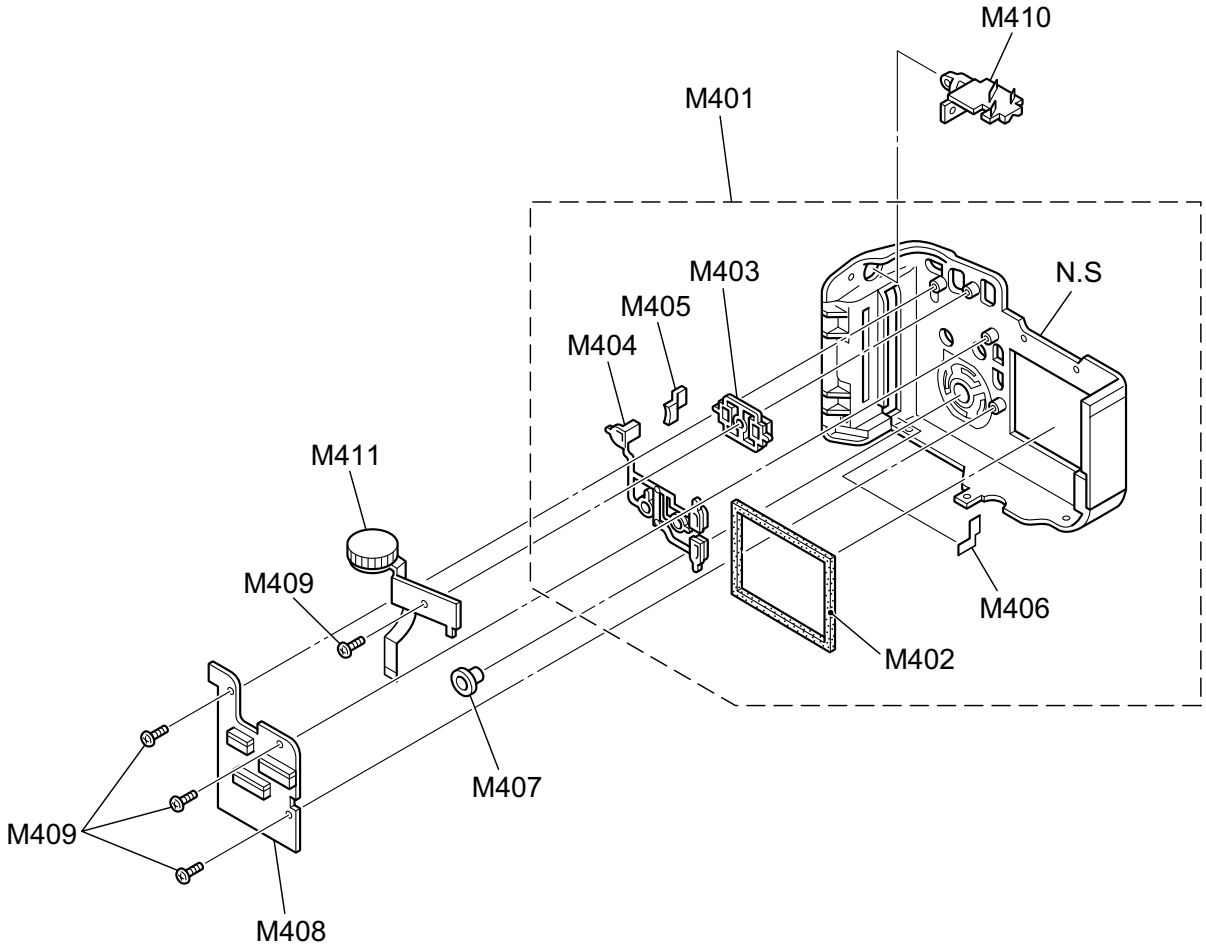
6-3-3. Internal (EG)



Ref No.	Parts No.	Description	Common
M301	BB13202-100	LCD FRAME	
M302	BB13207-100	TRIPOD SCREW	
M303	CB0890-B103	MAIN E PWB ASSY	
M304	BB13177-100	SHEET CF	
M305	FZ04356-100	EJECTOR	
M306	BB12548-100	SP SCREW M1.7X3.0	(x4)
M307	FZ04700-100	FFC	MAIN-KEY
M308	CB0891-A100	DCST PWB ASSY	
M309	BB13209-100	INSULATING TUBE	
M310	BB13183-100	CONTACT PLT	

Ref No.	Parts No.	Description	Common
M311	BF03968-100	LCD ASSY	1.8inch
M312	BB13182-100	SHEET FRAME	
M313	FZ04701-100	WIRE HARNESS	DCST-LCD
M314	BU01955-100	TOP CABI ASSY	ABS
M315	BU02573-100	ST ASSY CONST	
M316	BB11621-100	ST SHAFT	
M317	BB13193-200	ST TOP U	
M318	BB13149-100	SCREW M1.7X4.0BC GN	(x8)
M319	FZ04694-100	MODE DIAL UNIT	
M320	BU02571-100	EVF CONST	
M321	BB13204-100	HOLDER EVF	
M322	FZ04695-100	SPEAKER ASSY	
M323	BB13149-300	SCREW M1.7X5.5BC GN	(x2)

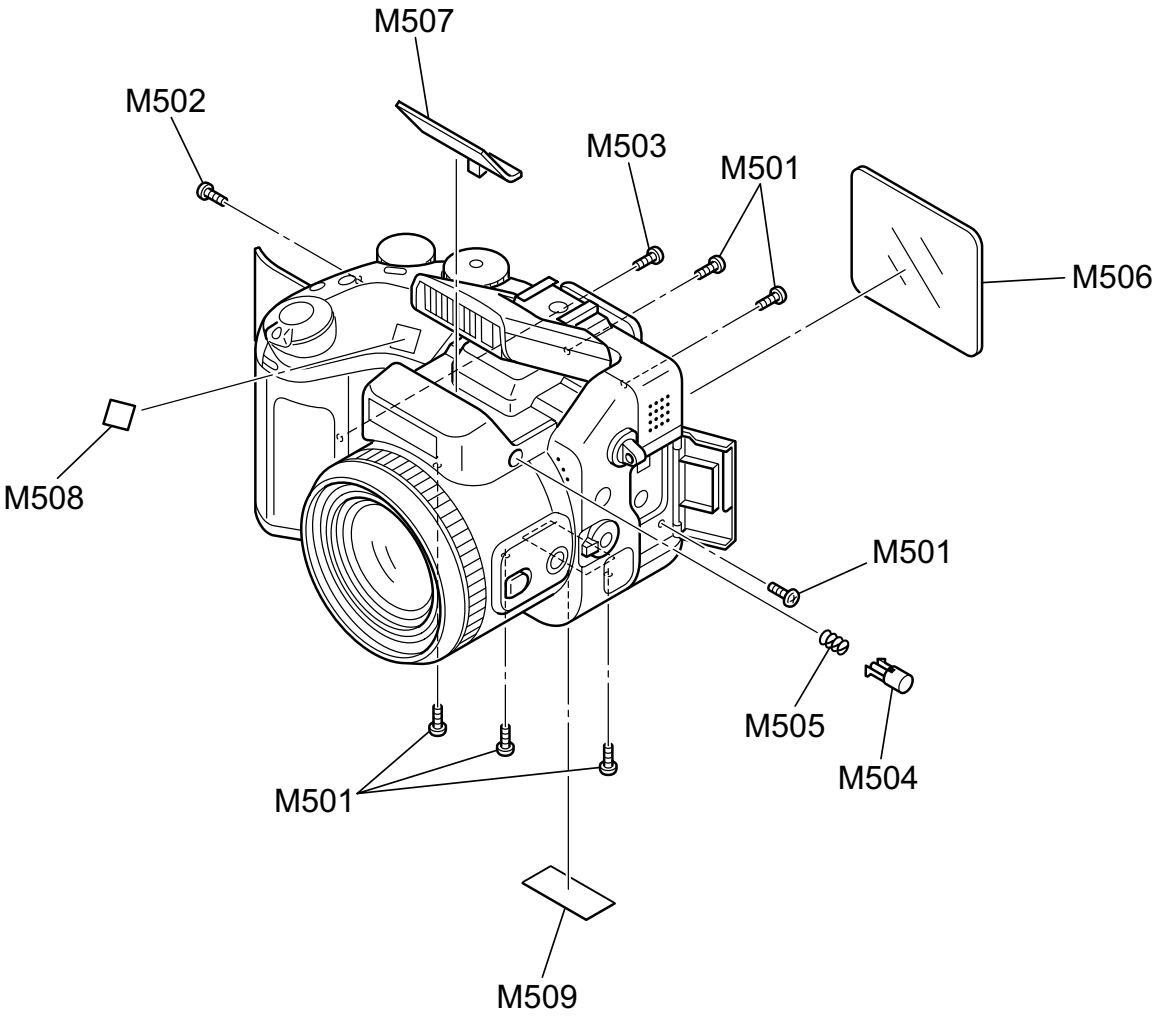
6-3-4. Cabinet R (EG)



Ref No.	Parts No.	Description	Common
M401	BU01958-100	R CABI ASSY	ABS
M402	BB13187-100	LCD CUSHION	
M403	BB13170-100	ZOOM BUTTON	
M404	BB13172-100	REAR BUTTON	
M405	BB13174-100	LED LENS	
M406	BB13178-100	SHEET SW	
M407	BB13169-100	OK BUTTON	
M408	CB0893-A101	KEY PWB ASSY	
M409	BB13149-100	SCREW M1.7X4.0BC GN	(x4)
M410	BB13206-100	STRAP L	

Ref No.	Parts No.	Description	Common
M411	FZ04696-101	C DIAL UNIT	

6-3-5. External (EG)



Ref No.	Parts No.	Description	Common
M501	BB13148-200	SCREW M1.7X5.0BC	(x6)
M502	BB13148-300	SCREW M1.7X8.0BC	(x1)
M503	BB13149-300	SCREW M1.7X5.5BC GN	(x1)
M504	BB13134-100	ST BUTTON	
M505	BB13160-100	CSP(ST BUTTON)	
M506	BB13208-100	LCD WINDOW	
M507	BB13212-100	AF PLATE	
M508	BB10000-200	CCD BADGE S U	
M509	BB13211-200	PRODUCT LABEL	

Ref No.	Parts No.	Description	Common

6-4. Electrical Parts (U/E/EG-Model commonness)

[NOTE]

The components indicated by mark⚠are critical for safety. When indicated parts by reference number,please include the board name.

* Due to standardization,replacement in the parts list may be different form the parts list specified in the circuit or the components used on the set.

Ref.No.	Part No.	Description	
**********			
		CAM PWB ASSY	
**********			
		----- CONNECTOR -----	
CN100	FGC142-0401	CONNECTOR	CJ 40P BN 0.5MM RV
CN101	FGB071-0451	CONNECTOR	CJ 45P FN 0.3MM NN
**********			
		MAIN PWB ASSY	
**********			
		----- CONNECTOR -----	
CN201	FGC142-0501	CONNECTOR	CJ 50P BN 0.5MM RV
CN202	FGB103-0221	CONNECTOR	CJ 22P FN 0.5MM NH
CN203	FGB031-0101	CONNECTOR	CJ 10P FN 0.5MM NV
CN204	FGB105-0111	CONNECTOR	CJ 11P FN 0.5MM NH
CN206	FGY047-0261	CONNECTOR	CJ 26P B 1.1MM NH
CN207	FGY057-0501	CONNECTOR	CJ 50P B 0.635MM NH
CN400	FGB103-0241	CONNECTOR	CJ 24P FN 0.5MM NH
CN401	FGB106-0161	CONNECTOR	CJ 16P FN 0.5MM NH
CN500	FGA129-0021	CONNECTOR	CJ 2P SN 1MM RH
CN501	FGA096-0021	CONNECTOR	CJ 2P RN 1.0MM PH
CN600	FGB056-0241	CONNECTOR	CJ 24P FN 0.5MM NH
CN800	FGC125-0701	CONNECTOR	CJ 70P BN 0.5MM PV
		----- JACK -----	
CN205	FZ03803-100	JACK	USB
J700	FZ04344-100	JACK	VIDEO
		----- FUSE -----	
F300	FP00036-502	FUSE	0.5A 32V UL

Ref.No.	Part No.	Description	
**********			
		DCST PWB ASSY	
**********			
		----- CONNECTOR -----	
CN1000	FGA157-0041	CONNECTOR	LJ 4P SN 2.0MM RV
CN1001	FGA058-0021	CONNECTOR	CJ 2P RN 1.25MM PN
CN900	FGA113-0021	CONNECTOR	CJ 2P RN 1.5MM PH
CN901	FGA113-0021	CONNECTOR	CJ 2P RN 1.5MM PH
CN902	FGA155-0021	CONNECTOR	CJ 2P SN 0.8MM RH
CN903	FGA096-0021	CONNECTOR	CJ 2P RN 1.0MM PH
CN904	FGC143-0701	CONNECTOR	CJ 70P BN 0.5MM RV
		----- JACK -----	
J900	FZ02412-100	JACK	DC IN
		----- FUSE -----	
F900	FP00018-253	FUSE	2.5A 125V JIS
F901	FP00039-203	FUSE	2A 32V UL
F902	FP00039-253	FUSE	2.5A 32V UL
F903	FP00039-253	FUSE	2.5A 32V UL
F905	FP00039-103	FUSE	1A 32V UL
**********			
		KEY PWB ASSY	
**********			
		----- CONNECTOR -----	
CN1200	FGB103-0221	CONNECTOR	CJ 22P FN 0.5MM NH
CN1201	FGB103-0241	CONNECTOR	CJ 24P FN 0.5MM NH
CN1202	FGB106-0081	CONNECTOR	CJ 8P FN 0.5MM NH
		----- SWITCH -----	
SW1200	FZ01045-100	SWITCH	CARD COVER
SW1201	FZ03055-100	SWITCH	EVF/LCD
SW1202	FZ03055-100	SWITCH	DISP
SW1203	FZ03055-100	SWITCH	BACK
SW1204	FZ03055-100	SWITCH	MENU/OK
SW1205	FZ03055-100	SWITCH	FOCUS CHECK
SW1206	FZ03055-100	SWITCH	AE-L
SW1207	FZ02630-100	SWITCH	UP
SW1208	FZ02630-100	SWITCH	DOWN
SW1209	FZ02630-100	SWITCH	RIGHT
SW1210	FZ02630-100	SWITCH	LEFT

7. Appendix

7-1.List of Related Technical Updates Issued

To ensure that after-sales srevice is performed accuratety, keep a record here of the technical updates issued that cover this device.

Technical Update No.	Date	Title	Details/Other

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26-30, Nishiazabu 2-chome, Minato-ku, Tokyo 106-8620, Japan.