VAA11801-R.3578.A

作成承認印	配布許可印
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Nikon
COOLPIX5700

VAA11801 (J)
VAA11802 (U)
VAA11803 (EP)
VAA11804 (EN)

REPAIR MANUAL

Nikon | NIKON CORPORATION
Tokyo, Japan

Recycled paper
再生紙を使用しています

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Specifications

Type	E5700 digital camera
Effective pixels	5.0 million
CCD	$^{2}/_{3}$" high-density CCD; total pixels: 5.24 million
Image size (pixels)	• 2560 x 1920 (Full) • 1280 x 960 (SXGA) • 2560 x 1704 (3:2) • 1024 x 768 (XGA) • 1600 x 1200 (UXGA) • 640 x 480 (VGA)
Lens	8 x Zoom Nikkor
Focal length	F = 8.9 – 71.2 mm (35-mm [135] camera format equivalent: 35 – 280 mm)
f/-number	f2.8 – f4.2
Construction	Fourteen elements in ten groups
Digital zoom	4 x
Autofocus (AF)	Contrast-detect through-the-lens (TTL) AF
Focus range	50 cm (1'8") – ∞ ; 3 cm (0'8") – ∞ in macro mode
Focus-area selection	Five-area multi AF and spot AF available
Viewfinder	Color LCD viewfinder, 0.44 , 180,000-dot, high temperature polysilicon TFT LCD with brightness adjustment
Magnification	0.30 – 0.84 x (Needs confirmation)
Frame coverage	Approximately 97% (through/freeze image)
Diopter adjustment	–4 – +1m^{-1}
Monitor	1.5", 110,000-dot, low temperature polysilicon TFT LCD with brightness and hue adjustment
Frame coverage	Approximately 97% (through/freeze image)
Storage	
Media	Type I and II CompactFlash™ (CF) cards and Microdrive® cards
File system	Compliant with Design rule for Camera File systems (DCF) and Digital Print Order Format (DPOF)
Compression	JPEG-baseline-compliant
Exposure	
Metering	Four mode through-the-lens (TTL) metering: • 256-segment matrix • Spot • Center-weighted • AF spot
Exposure control	Programmed auto with flexible program, shutter-priority auto, aperture-priority auto, manual, exposure compensation (–2.0 – +2.0 EV in steps of $^{1}/_{3}$ EV), autoexposure bracketing
Range	W: – 2.0 – +18.0 EV
(ISO 100 equivalent)	T: – 0.5 – +17.0 EV
Shutter	Mechanical and charge-coupled electronic shutter
Speed	8 sec – $^{1}/_{4000}$ sec bulb setting available

Aperture Range	Seven-blade iris diaphragm Ten settings in steps of $^{1}/_{3}$ EV
Sensitivity	ISO equivalent approximately 100, 200, 400, 800, or Auto (auto gain to ISO 800)
Self-timer	Three- or ten-second duration
Built-in Speedlight Sync method	Guide number 12/38.4 (ISO 100, m/ft) Automatic sync control
Accessory shoe Sync contact	Standard ISO hot-shoe contact with safety lock X-contact only
Interface	USB
Video output	User can choose from NTSC and PAL
I/O terminals	• DC input • Audio/video (A/V) output • Data output (USB)
Power sources	• One rechargeable Nikon EN-EL1 lithium-ion battery (supplied) or six-volt 2CR5 (DL245) lithium battery (available separately) • MB-E5700 battery pack (available separately) with six LR6 (AA) alkaline, lithium, NiCad, or NiMH batteries • EH-21 AC adapter/battery charger (available separately)
Battery life (EN-EL1)	Approximately 90 minutes (as measured at room temperature [20°C/68 °F] under standard Nikon test conditions: monitor on, zoom adjusted with each shot, flash used in approximately one third of photographs, image quality set to NORMAL
Dimensions (W x H x D)	108 x 76 x 102 mm (4.3" x 3.0" x 4.0")
Weight	Approximately 480 g without battery and memory card

DISASSEMBLING

⚠ WARNING	
	● There are high voltege parts inside. Be careful of this electric shock, when you remove the cover. ● You must discharge the main condenser according to the instruction of this repair manual before you remove the cover.

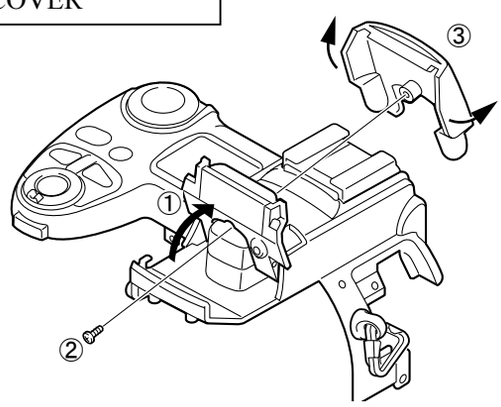
Notes:

① Remove the battery prior to dissassmbly.

② At disassembling, be sure to memorize how the lead wires were arranged, how the screws were fixed and the type of the used screws.

③ Electrical parts must be grounded since they are easily damaged by static.

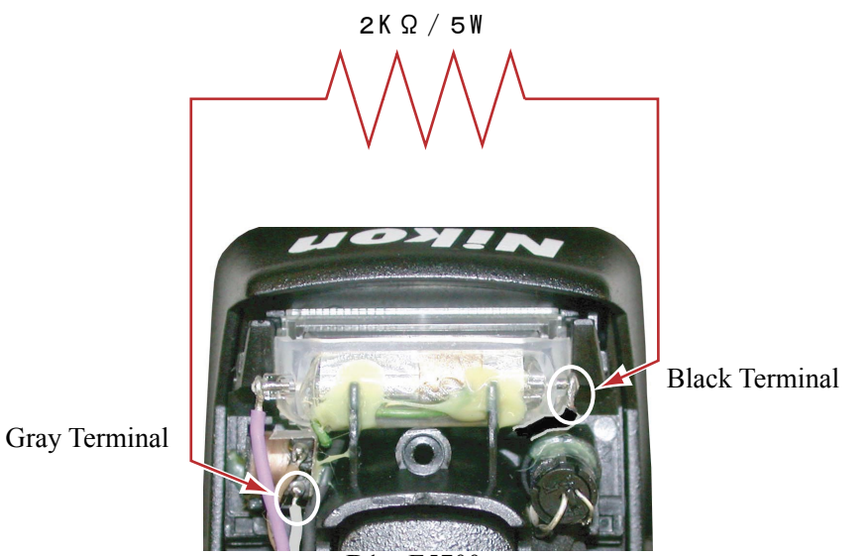
1. SB TOP COVER



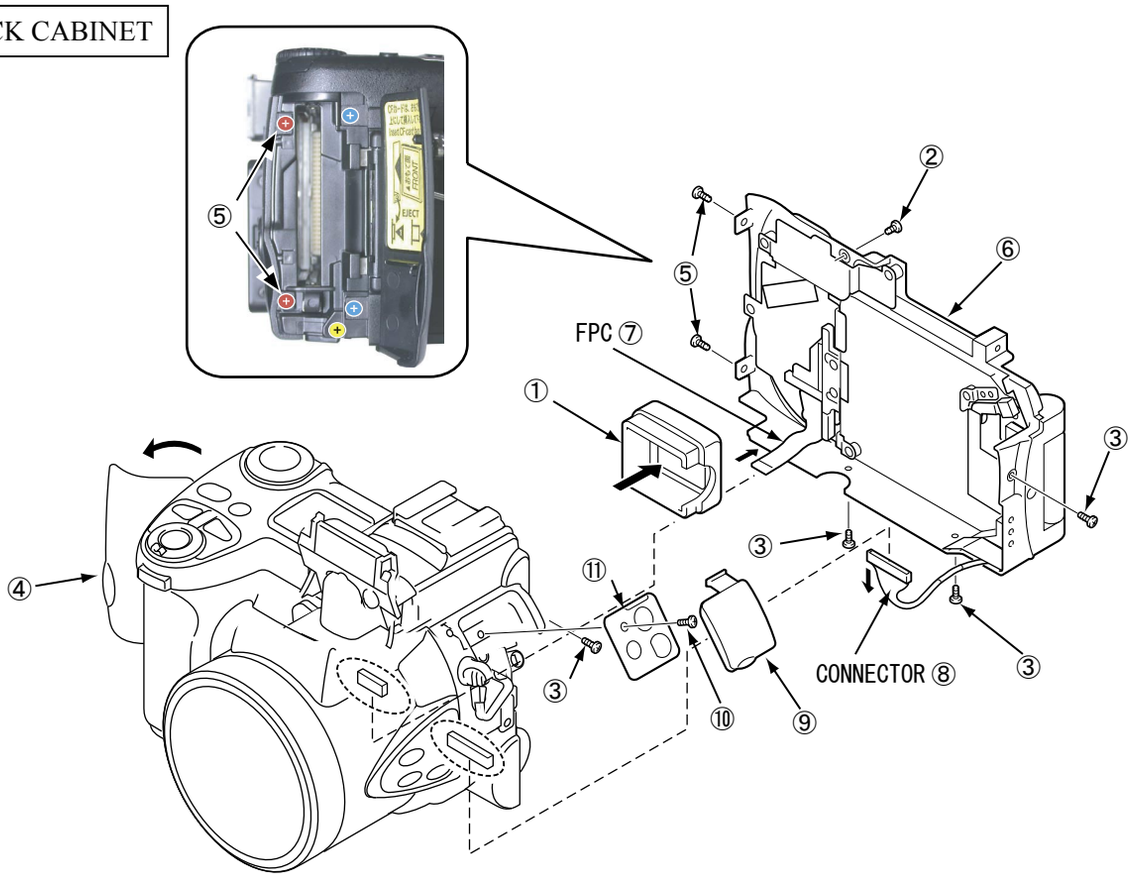
- Open the SB unit ① .
- Remove the screw ② (M1.7 x 4.5) .
- Remove the SB Top cover ③ .

Discharging electricity from the main condenser

⚠ WARNING	
	● There are high voltege parts inside. Be careful of this electric shock, when you remove the cover. ● You must discharge the main condenser according to the instruction of this repair manual before you remove the cover.

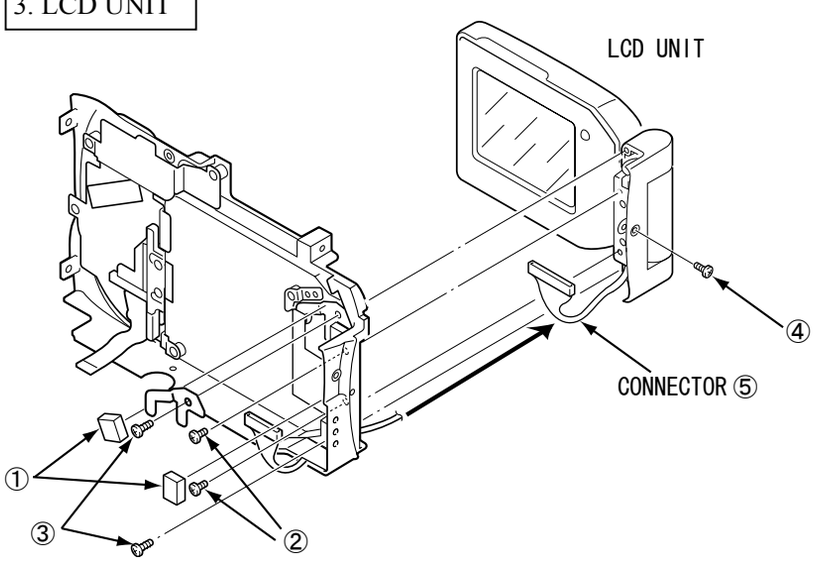


2. BACK CABINET

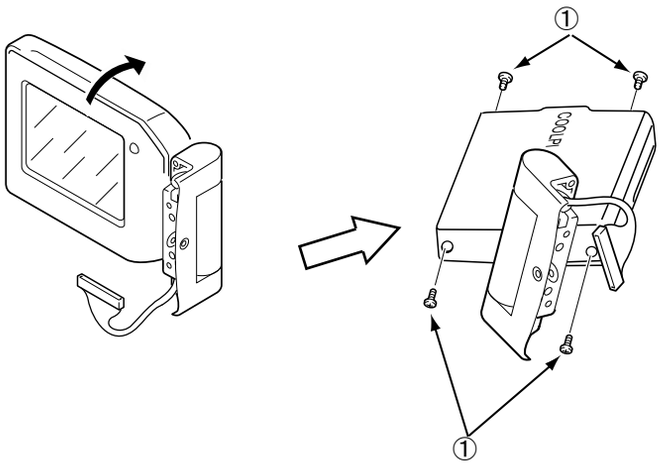


- Remove the Hood VF ① .
- Remove the screw ② (M1.7 x 2.5) .
- Remove the 4 Pieces of screws ③ (M1.7 x 3.5) .
- Open the CF card cover ④ .
- Remove the 2 Pieces of screws ⑤ (M1.7 x 4) .
- Carefully remove the Back Cabinet ⑥ from the camera body .
- Remove the FPC ⑦ and the connector ⑧ .
- Remove the Back Cabinet ⑥ .
- Open the Jack cover ⑨ .
- Remove the screw ⑩ (M1.7 x 3), and then remove the Jack Holder ⑪ .
- Remove the Jack cover ⑨ .

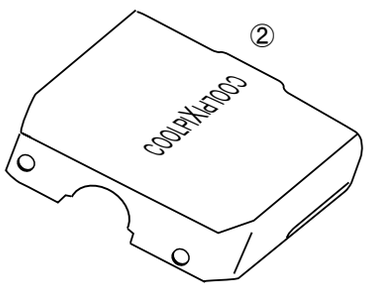
3. LCD UNIT



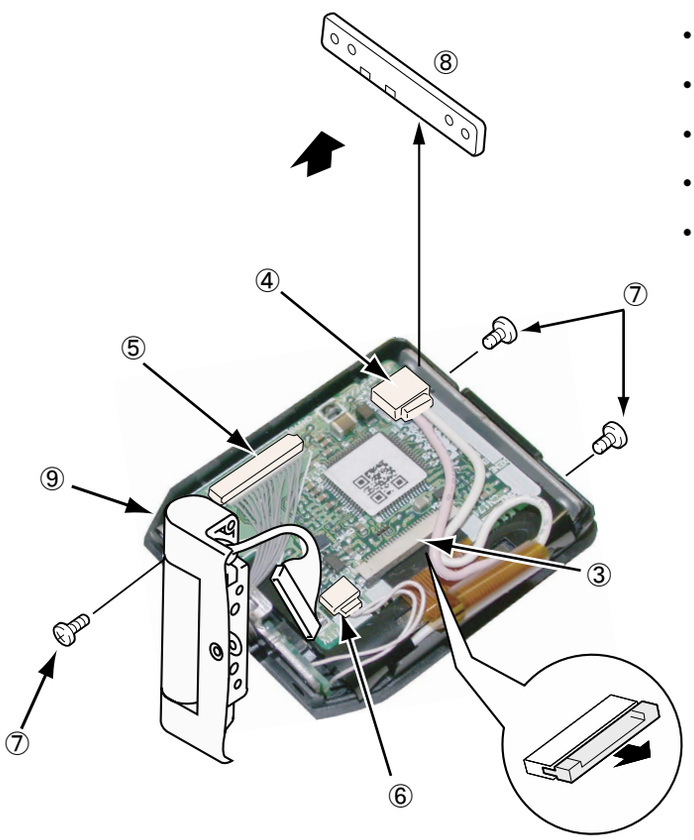
- Remove the 2 Pieces of the Pad ① .
- Remove the 2 Pieces of screws ② (M1.7 x 3).
- Remove the 2 Pieces of screws ③ (M1.7 x 4).
- Remove the screws ④ (M1.7 x 3.5).
- Carefully remove the LCD unit from the back cabinet.
- Pull out the connector ⑤ from the back cabinet



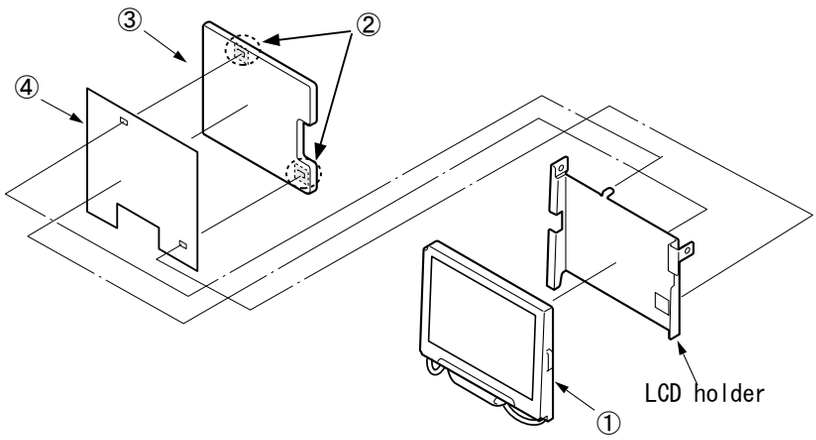
- Rotate the LCD unit approx. 45 degree in an arrow direction.
- Remove the 4 pieces of screws ① (M2 x 3).



- Remove the back LCD cover ② .

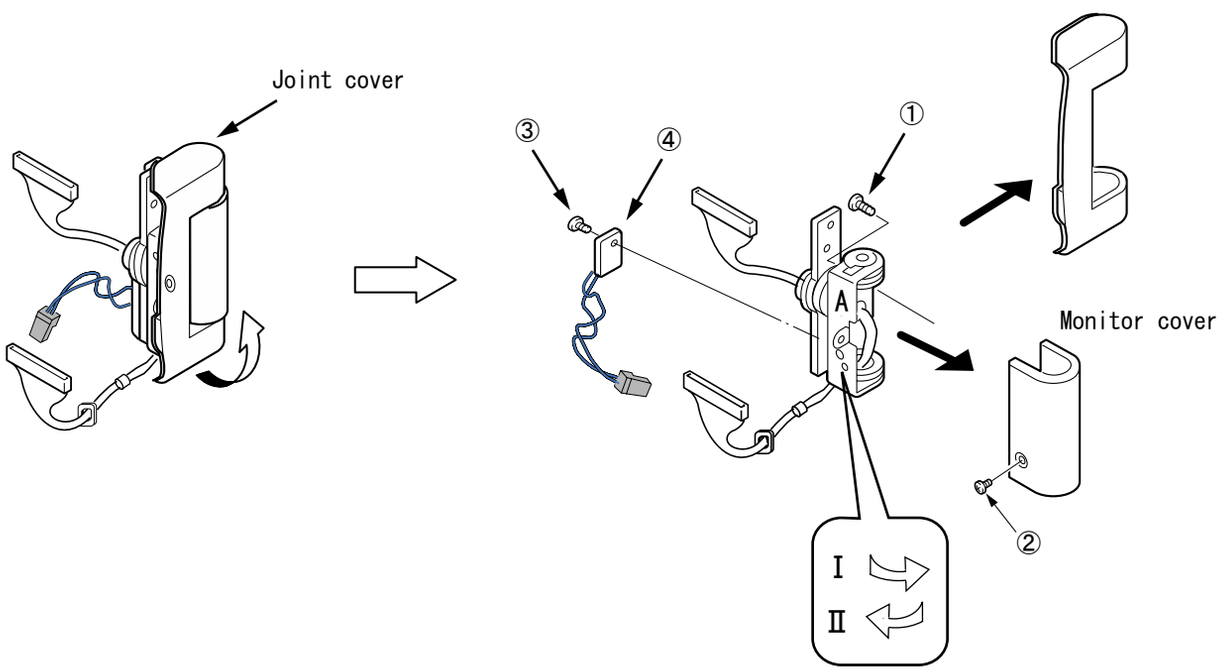


- Remove the FPC ③ and connector ④ .
- Remove the connector ⑤ and the connector, ⑥ .
- Remove the 3 pieces of screws ⑦ (M1.7 x 2).
- Remove the LCD side holder ⑧ .
- Remove the front cover ⑨ .



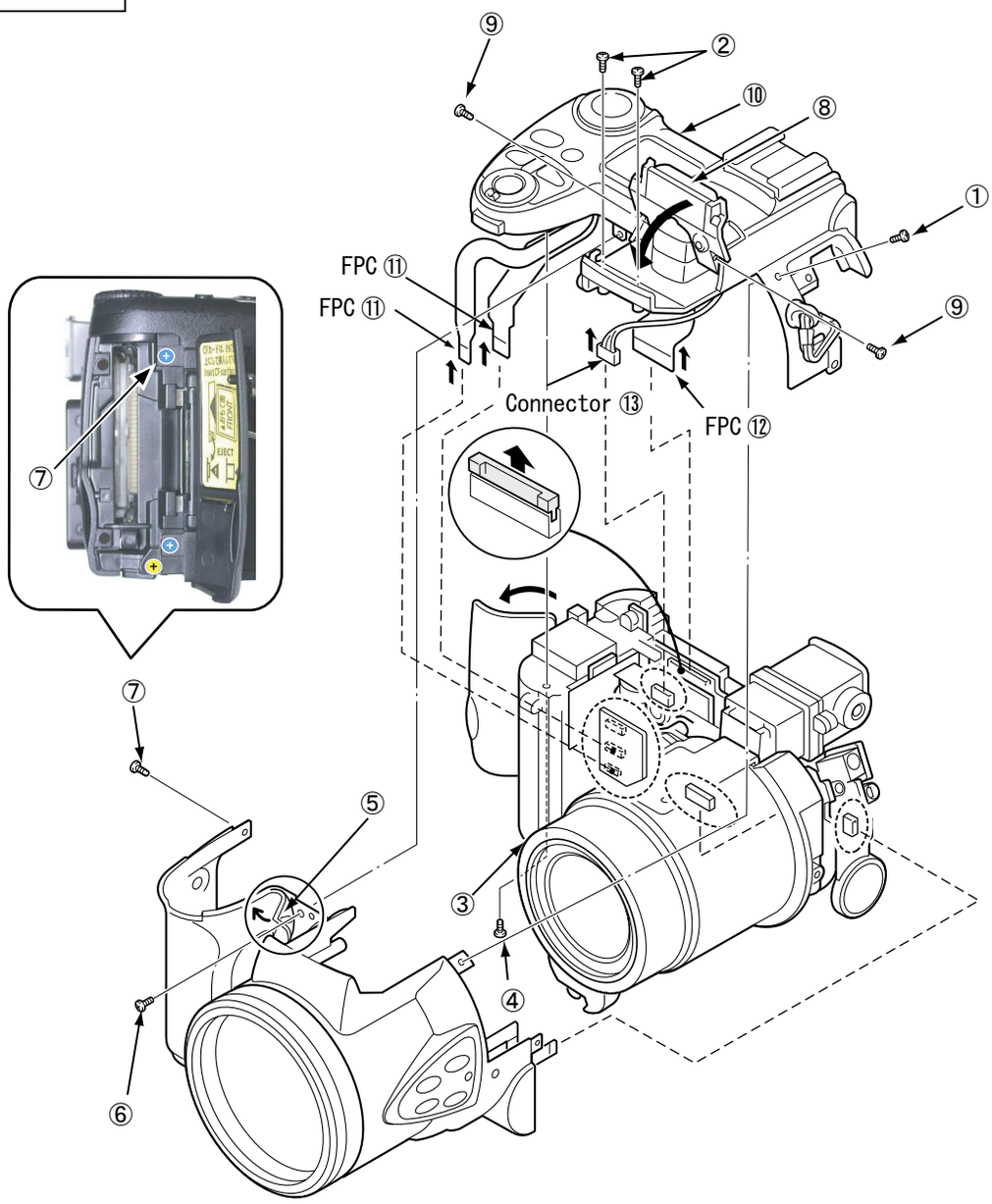
- Remove the LCD ① from the LCD holder.
- Remove the 2 pieces of solders ② .
- Remove the LCD PCB VF-1 ③ .
- Remove the spacer ④ .

4. JOINT UNIT



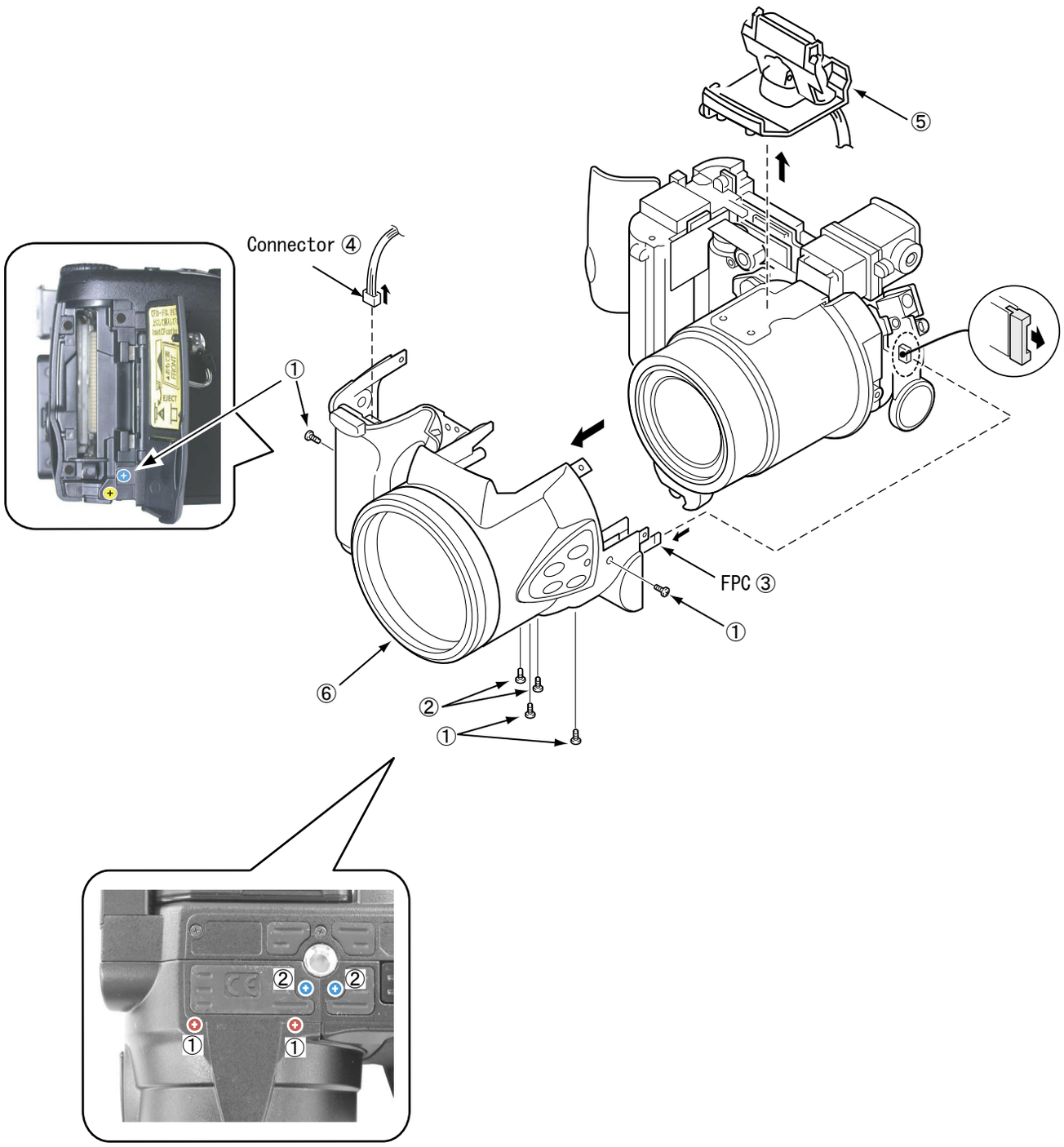
- Remove the joint cover from the joint unit by lifting it up from the bottom.
- Remove the 1 piece of screw ① (M1.7 x 4).
- Rotate the A of the joint approx. 90 degree in an arrow direction(Ⅰ).
- Remove the 1 piece of screw ② (M1.7 x 2).
- Rotate the A of the joint approx. 90 degree in an arrow direction(Ⅱ).
- Remove the Monitor cover.
- Remove the 1 piece of screw ③ (M1.7 x 2.5).
- Remove the TB-1 PCB ④ .

5. TOP CABINET



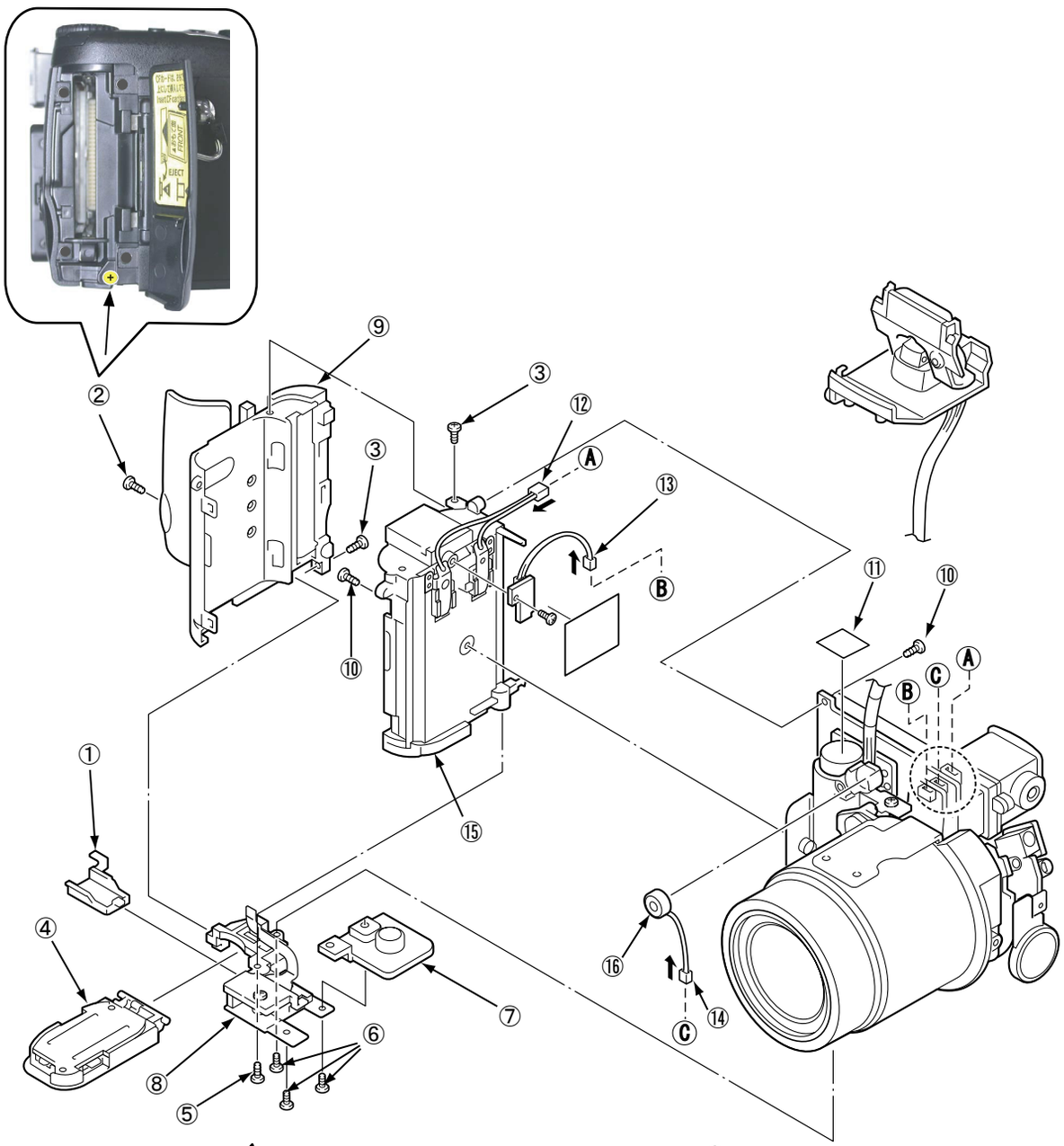
- Remove the screw ① (M1.7 x 2.5).
- Remove the 2 Pieces of screws ② (M1.7 x 3.5).
- Open the battery cover ③ .
- Remove the screw ④ (M1.7 x 3).
- Ture the cover grip ⑤ and then remove the screw ⑥ (M1.7 x 4.5).
- Remove the screws ⑦ (M1.7 x 4).
- Close the SB ⑧ .
- Remove the 2 Pieces of screws ⑨ (M1.7 x 4.5).
- Carefully remove the top cabinet ⑩ from the camera unit.
- Remove the 2 Pieces of FPC ⑪ .
- Remove the FPC ⑫ and the connector ⑬ .
- Remove the top cabinet ⑩ .

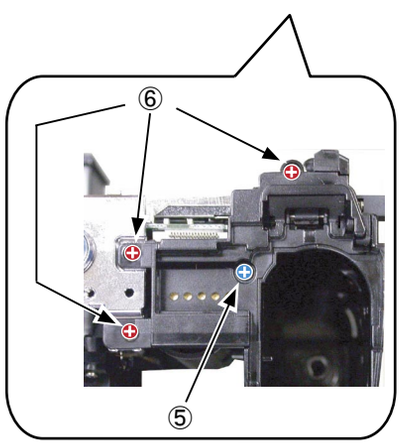
6. LENS UNIT COVER



- Remove the 4 Pieces of screws ① (M1.7 x 4).
- Remove the 2 Pieces of screws ② (M1.7 x 3.5).
- Remove the FPC ③ and the connector ④ .
- Carefully remove the SB unit ⑤ from the camera unit.
- Carefully remove the Lens unit cover ⑥ from the camera unit.

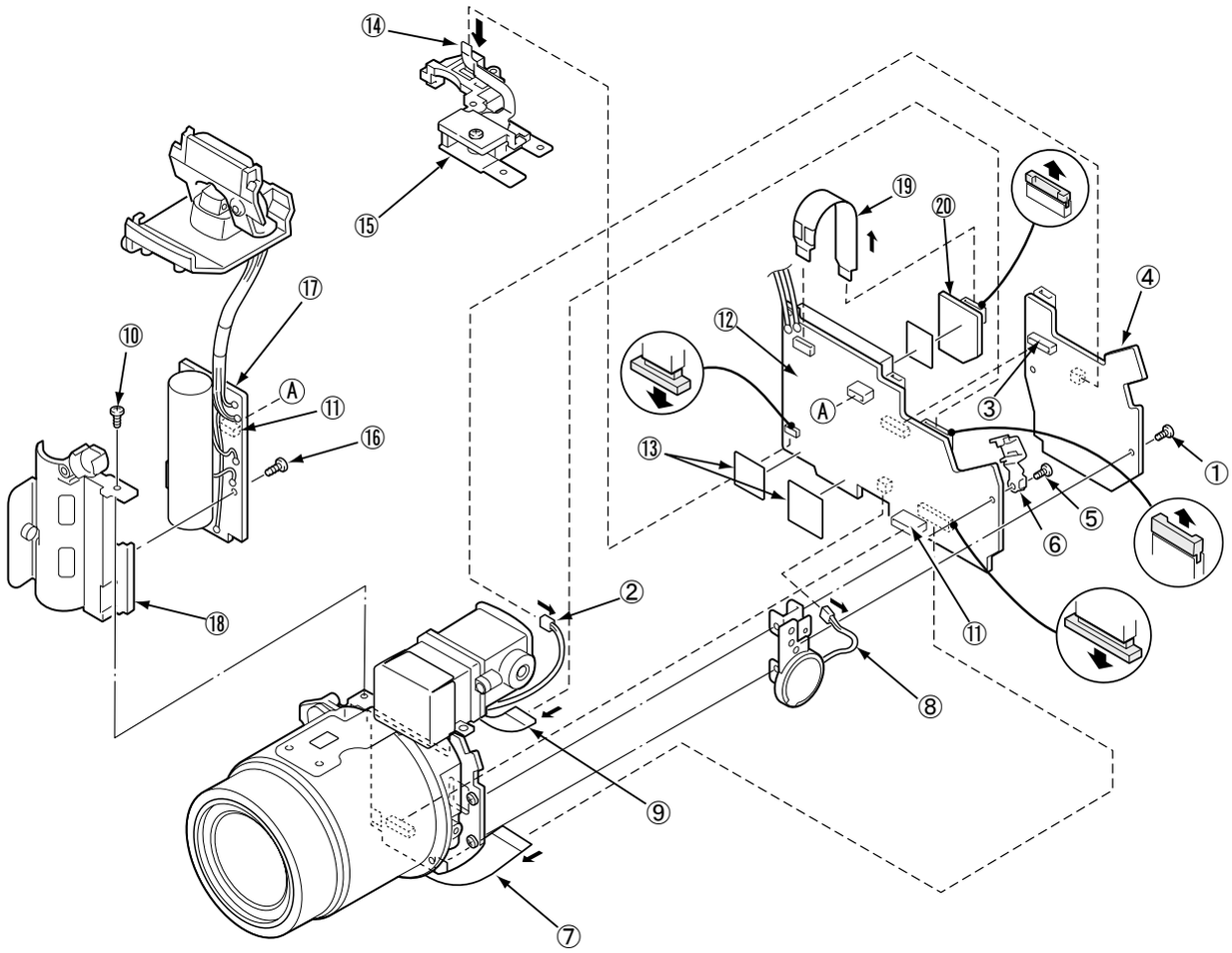
7. BATTERY UNIT





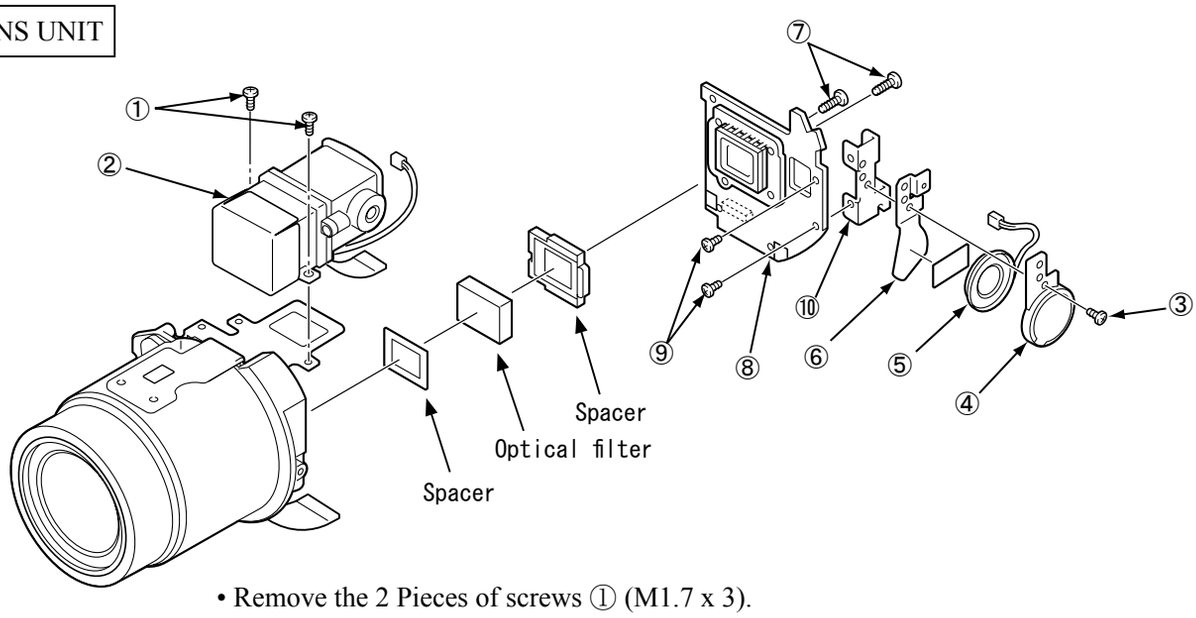
- Remove the Terminal cover ① .
- Remove the screw ② (M1.7 x 3).
- Remove the 2 Pieces of screws ③ (M1.7 x 4).
- Remove the battery cover ④ by pulling it out from the joint part.
- Remove the screw ⑤ (M1.7 x 4).
- Remove the 3 Pieces of screws ⑥ (M1.7 x 3), and then remove the stand ⑦ .
- Carefully come the bottom holder ⑧ to the surface .
- Remove the C/F card holder ⑨ .
- Remove the 2 Pieces of screws ⑩ (M1.7x4).
- Remove the spacer ⑪ .
- Remove the connector ⑫ ,connector ⑬ and the connector ⑭ .
- Remove the battery holder ⑮ .
- Remove the microphone ⑯ .

8. CP-1 PCB, CA-1 PCB, PW-1 PCB



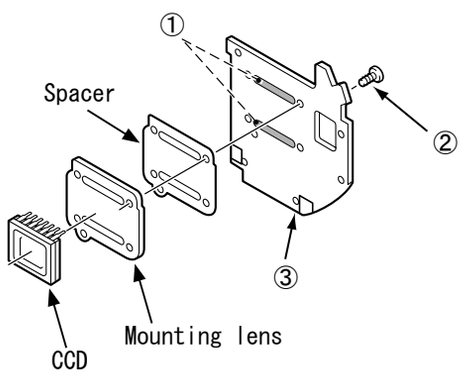
- Remove the screw ① (M1.7x2.5).
- Remove the connector ② ,the connector ③ ,and then remove the PW-1 PCB ④ .
- Remove the screw ⑤ (M1.7x2.5),and then remove the USB holder ⑥ .
- Remove the FPC ⑦ and the connector ⑧ .
- Remove the FPC ⑨ .
- Remove the screw ⑩ (M1.7x3).
- Remove the 2 Pieces of connector ⑪ , and then remove the CP-1 PCB ⑫ .
- Remove the 2 Pieces of spacers ⑬ .
- Remove the FPC ⑭ , and then remove the holder unit ⑮ .
- Remove the screw ⑯ (M1.7x4).
- Remove the SB unit ⑰ from the condenser holder ⑱ .
- Remove the FPC ⑲ .
- Remove the TB-2 PCB ⑳ .

9. LENS UNIT



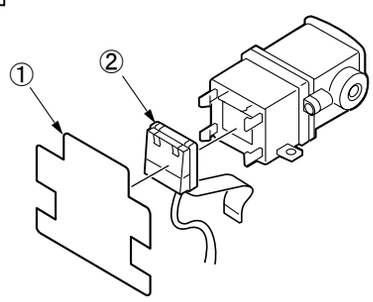
- Remove the 2 Pieces of screws ① (M1.7 x 3).
- Remove the EVF ② .
- Remove the screw ③ (M1.7 x 3).
- Remove the speaker holder A ④ , the speaker ⑤ and the speaker holder B ⑥ .
- Remove the 2 Pieces of screws ⑦ (M1.7 x 6).
- Remove the CA-1 PCB ⑧ from the lens unit.
- The spacer, optical filter and spacer can be removed.
- Remove the 2 Pieces of screws ⑨ (M1.7 x 2.5), and then remove the CA-1 holder ⑩ .

10. CCD



- Remove the solder ① of the CA-1 PCB.
- Remove the 1 piece of screw ② (M1.7x 2.5).
- Remove the CCD, Mounting lens and spacer from the CA-1 PCB ③ .

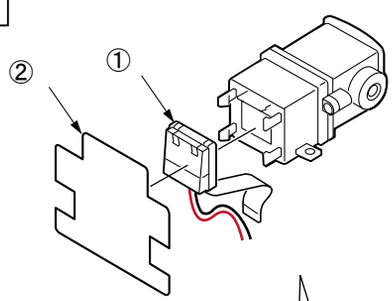
11. EVF



- Remove the EVF spacer ① .
- Remove the LCD ② .

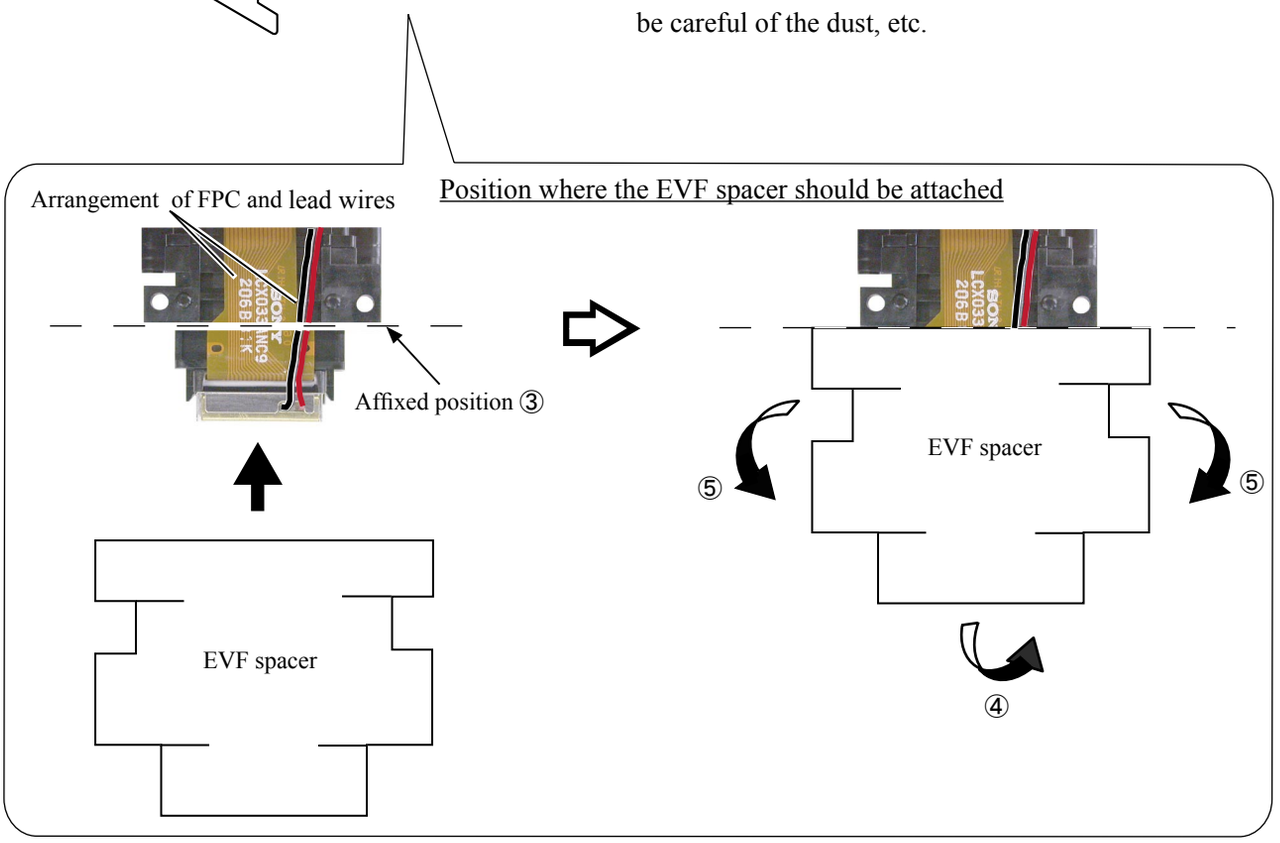
ASSEMBLY

1. EVF

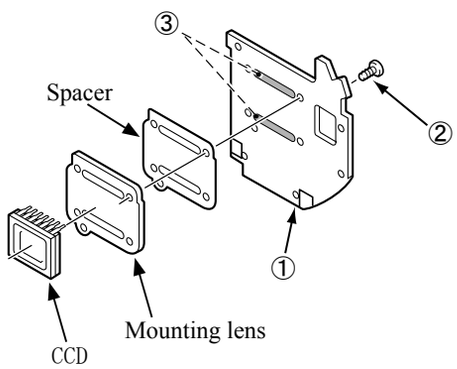


• Attach the LCD ① to the finder unit.
• Align the spacer ② with the position ③ .
Affix the spacer,and then bent it in order of ④ , ⑤

Note: When inserting the LCD unit into the finder unit, be careful of the dust, etc.

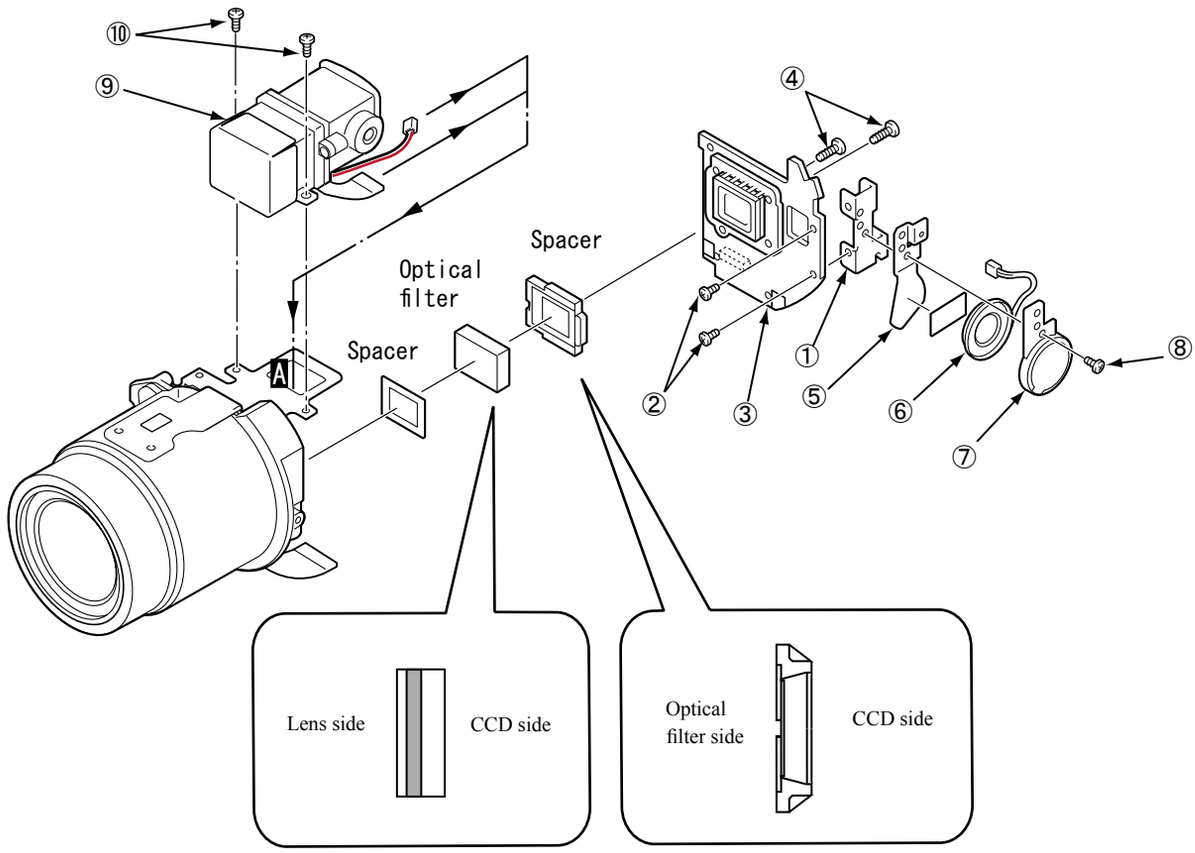


2. CCD



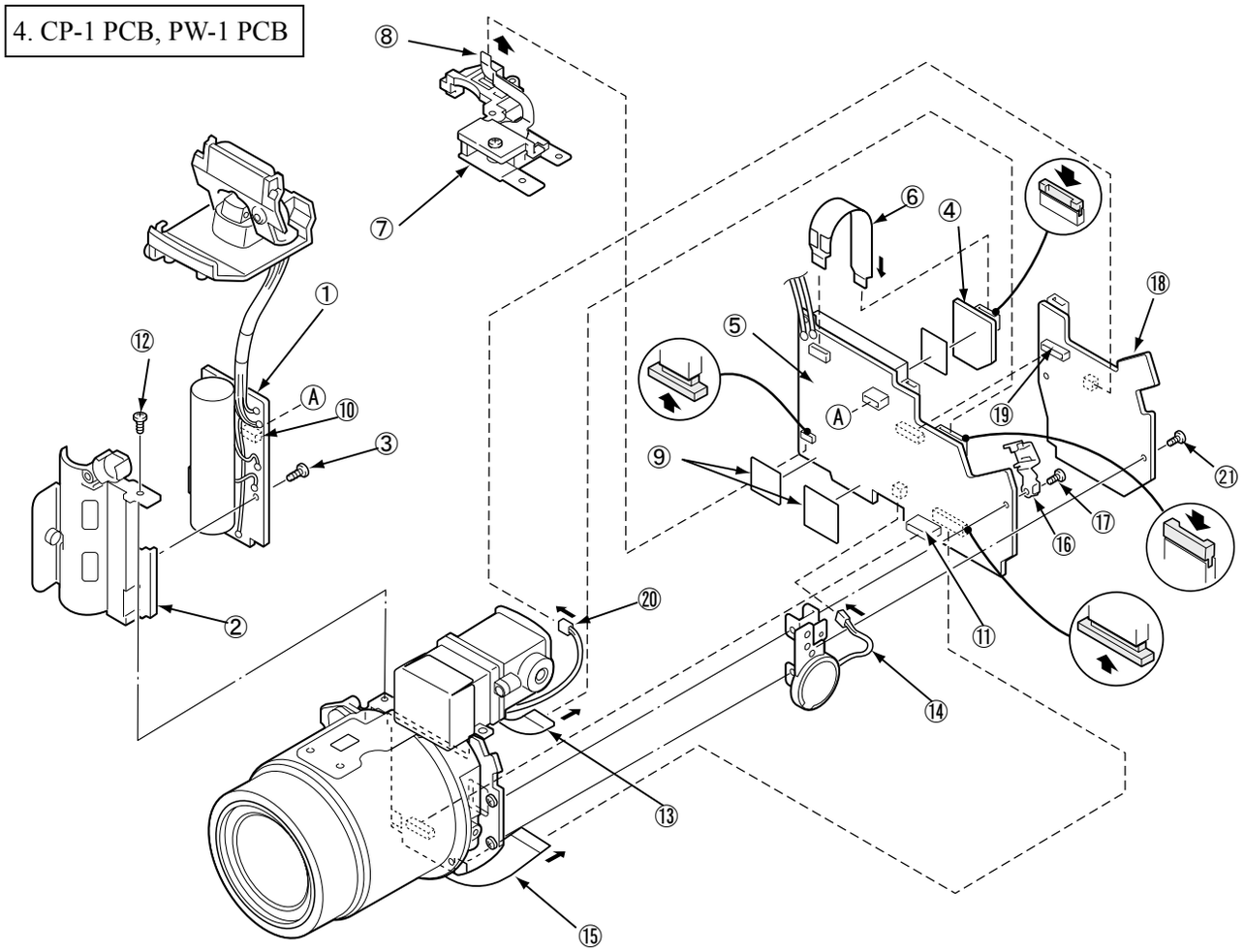
• Assemble the spacer, mounting lens and CCD to the CA-1 PCB ① .
• Attach the screws ② (M1.7 x 2.5).
• Solder the CA-1 PCB ③ .

3. LENS UNIT



- Attach the CA-1 holder ③ to the lens unit.
- Attach the 2 pieces of screws ④ (M1.7 x 2.5).
- Assemble the spacer, optical filter and spacer into the lens unit.
- Attach the CA-1 PCB ① to the lens unit.
- Attach the 2 pieces of screws ② (M1.7 x 6).
- Assemble the speaker holder B ⑤ , the speaker ⑥ and the speaker holder A ⑦ .
- Attach the screw ⑧ (M1.7 x 3).
- Pass the connector and FPC of EVF unit through the hole A of the lens unit.
- Attach the EVF ⑨ .
- Attach the 2 pieces of screws ⑩ (M1.7 x 3).

4. CP-1 PCB, PW-1 PCB



- Attach the SB unit ① to the condenser holder ② .
- Attach the screw ③ (M1.7 x 4).
- Attach the TB-2 OCB ④ to the CP-1 PCB ⑤ .
- Connect the FPC ⑥ .
- Connect the FPC ⑧ of the holder unit ⑦ .
- Attach the 2 pieces of spacer ⑨ .
- Connect the SB unit ① and CP-1 PCB by the connector ⑩ .
- Connect the CP-1 PCB ⑤ and CA-1 PCB by the connector ⑪ .
- Attach the screw ⑫ (M1.7 x 3).
- Connect the FPC ⑬ (Fig.1).
- Connect the connector ⑭ and connector ⑮ (Fig.2).
- Attach the USB holder ⑯ .
- Attach the screw ⑰ (M1.7 x 2.5).
- Connect the PW-1 PCB ⑱ and CP-1 PCB ⑤ by the connector ⑲ .
- Connect the connector ⑳ (Fig.3).
- Attach the screw㉑ (M1.7 x 2.5).

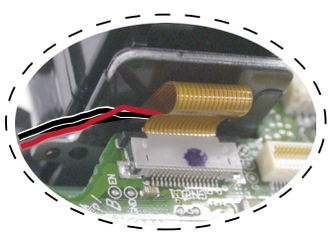


Fig. 1

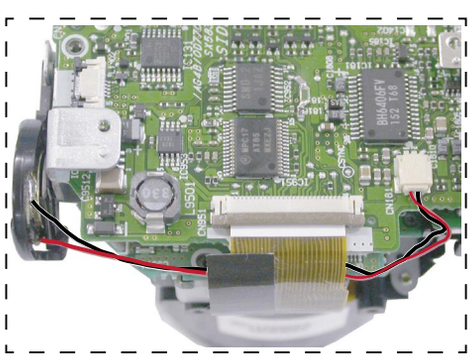


Fig. 2

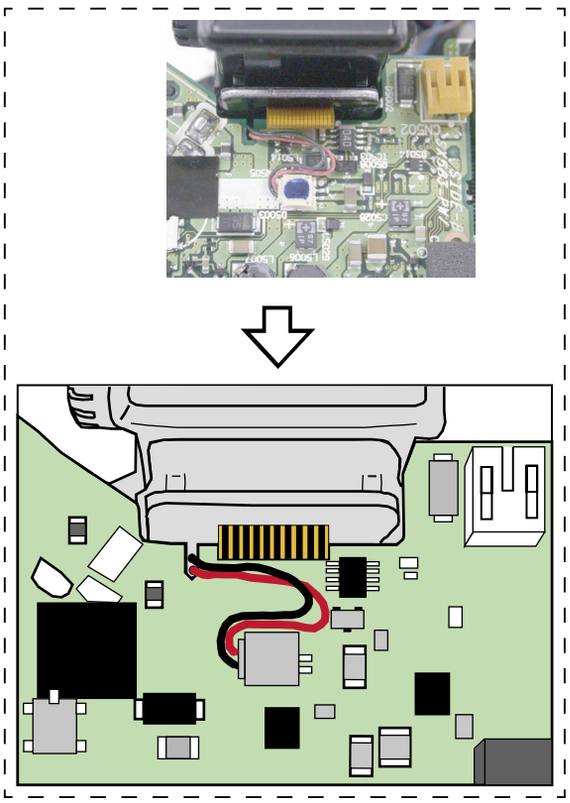
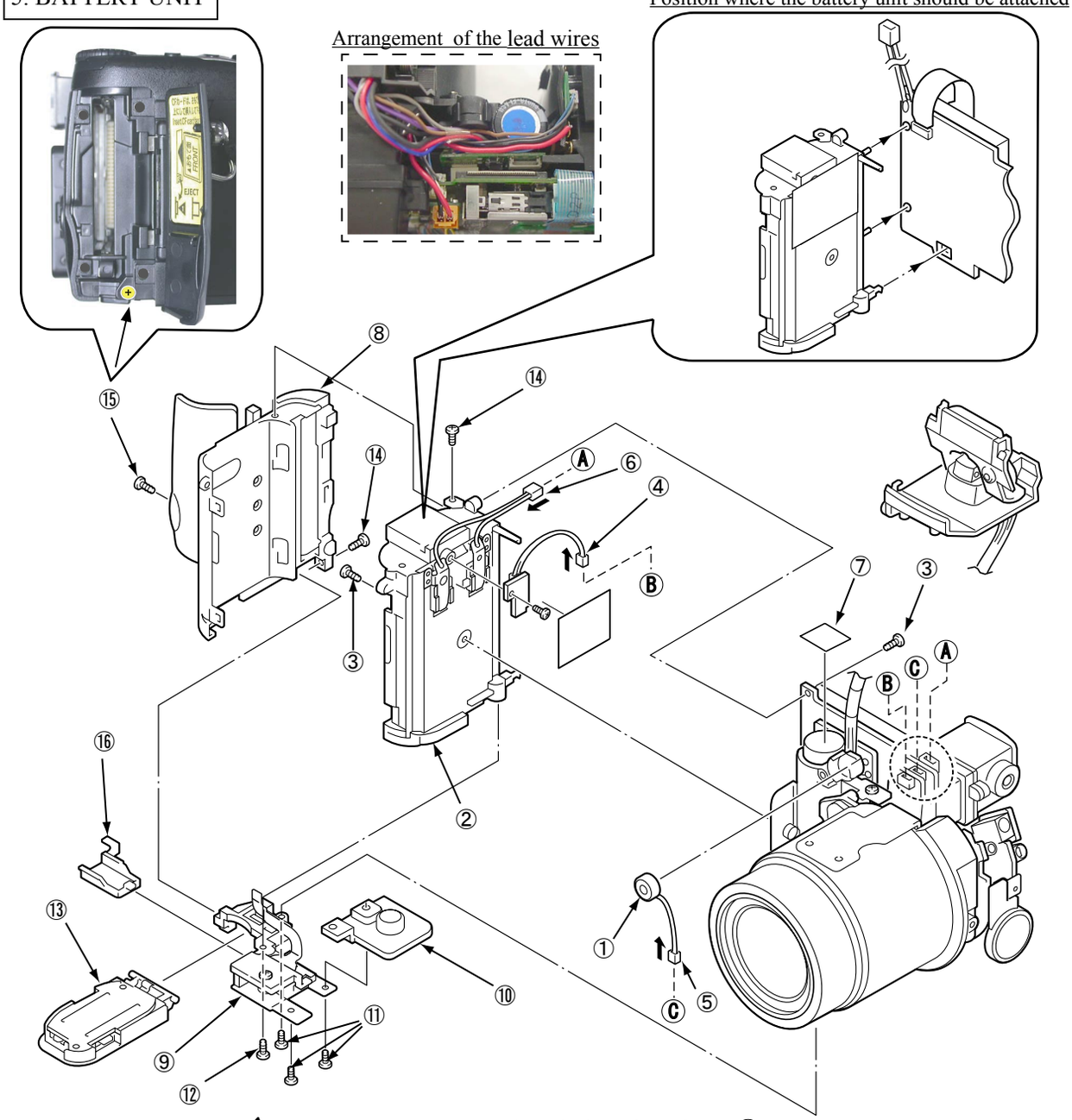


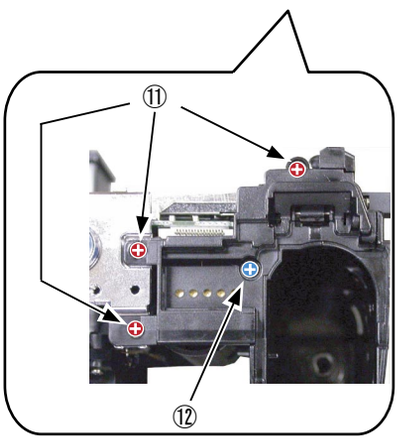
Fig.3

5. BATTERY UNIT

Position where the battery unit should be attached

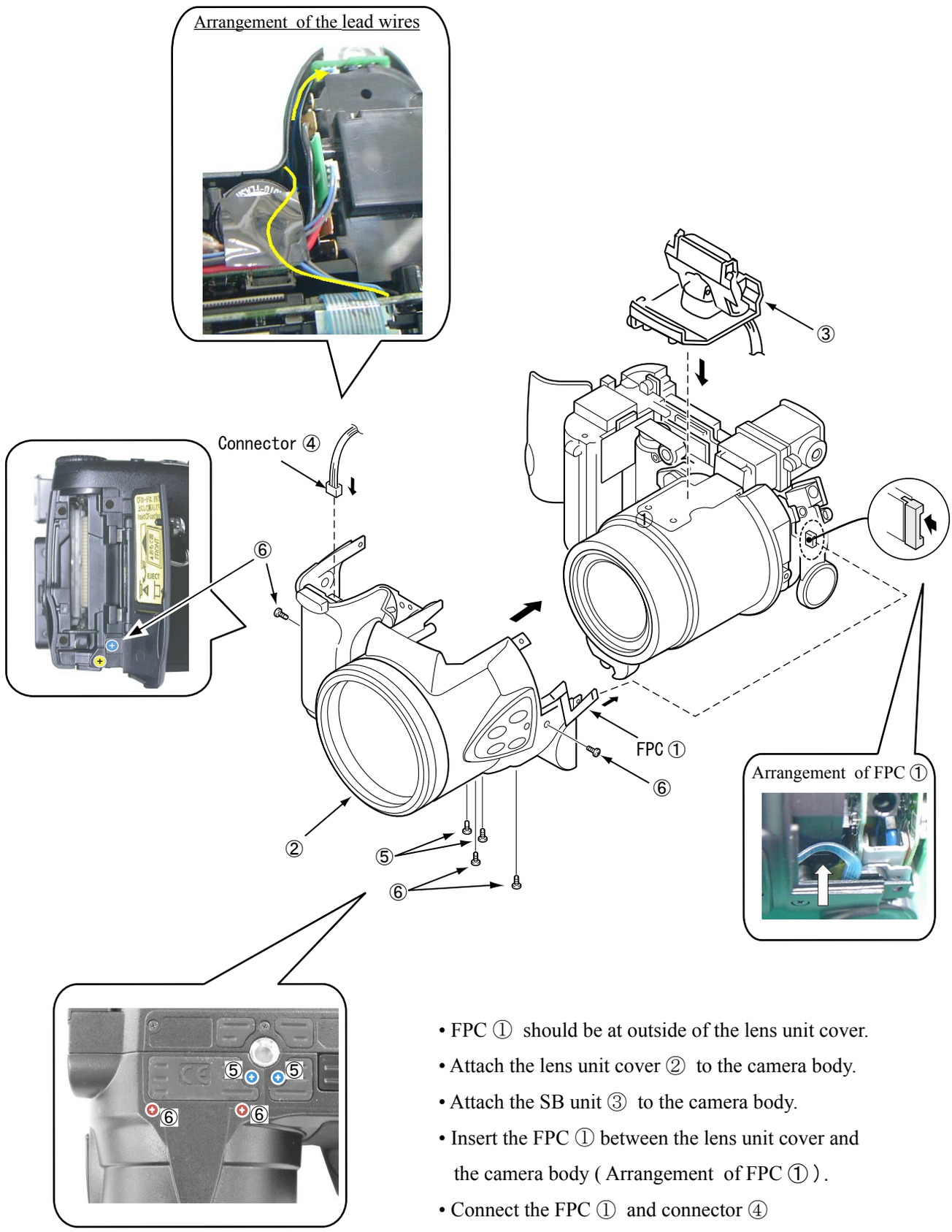
Arrangement of the lead wires





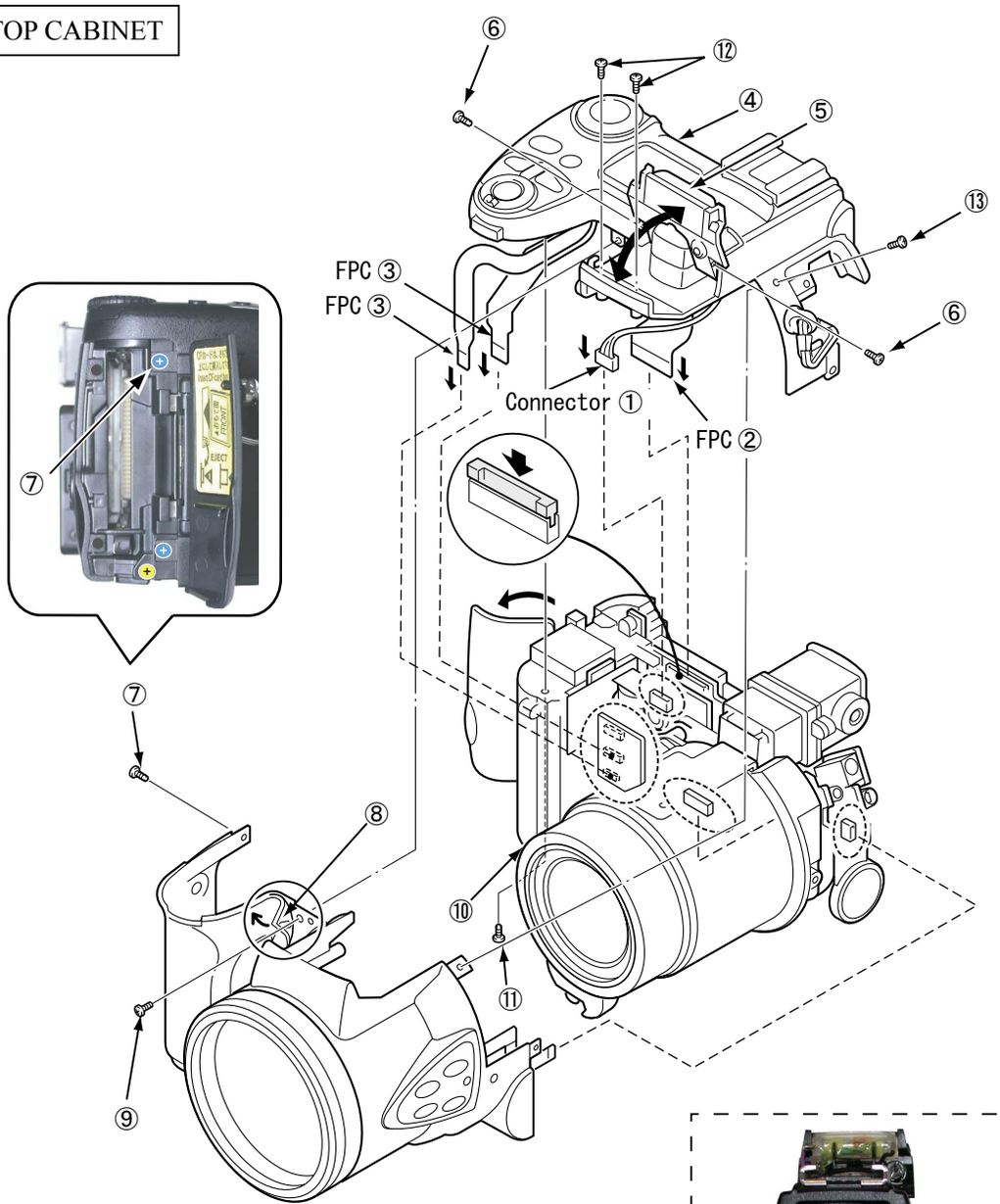
- Attach the microphone ① .
- Attach the battery holder ② (Position where the battery unit should be attached).
- Attach the 2 pieces of screws ③ (M1.7 x 4).
- Connect the connector ④ ,connector ⑤ and connector ⑥ .
- Attach the spacer ⑦ .
- Attach the C/F card holder ⑧ .
- Attach the bottom holder ⑨ and the stand ⑩ .
- Attach the 3 pieces of screws ⑪ (M1.7 x 3).
- Attach the screw ⑫ (M1.7 x 4).
- Attach the battery cover ⑬ .
- Attach the 2 pieces of screws ⑪ (M1.7 x 4).
- Attach the screw ⑮ (M1.7 x 3).
- Attach the terminal cover ⑯ .

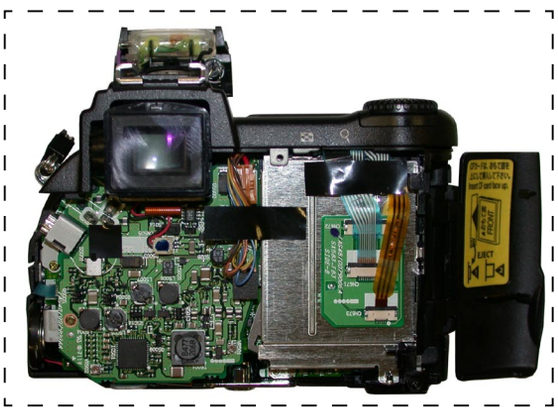
6. LENS UNIT COVER



- FPC ① should be at outside of the lens unit cover.
- Attach the lens unit cover ② to the camera body.
- Attach the SB unit ③ to the camera body.
- Insert the FPC ① between the lens unit cover and the camera body (Arrangement of FPC ①) .
- Connect the FPC ① and connector ④ (Arrangement of the lead wires).
- Attach the 2 pieces of screws ⑤ (M1.7 x 3.5).
- Attach the 4 pieces of screws ⑥ (M1.7 x 4).

7. TOP CABINET

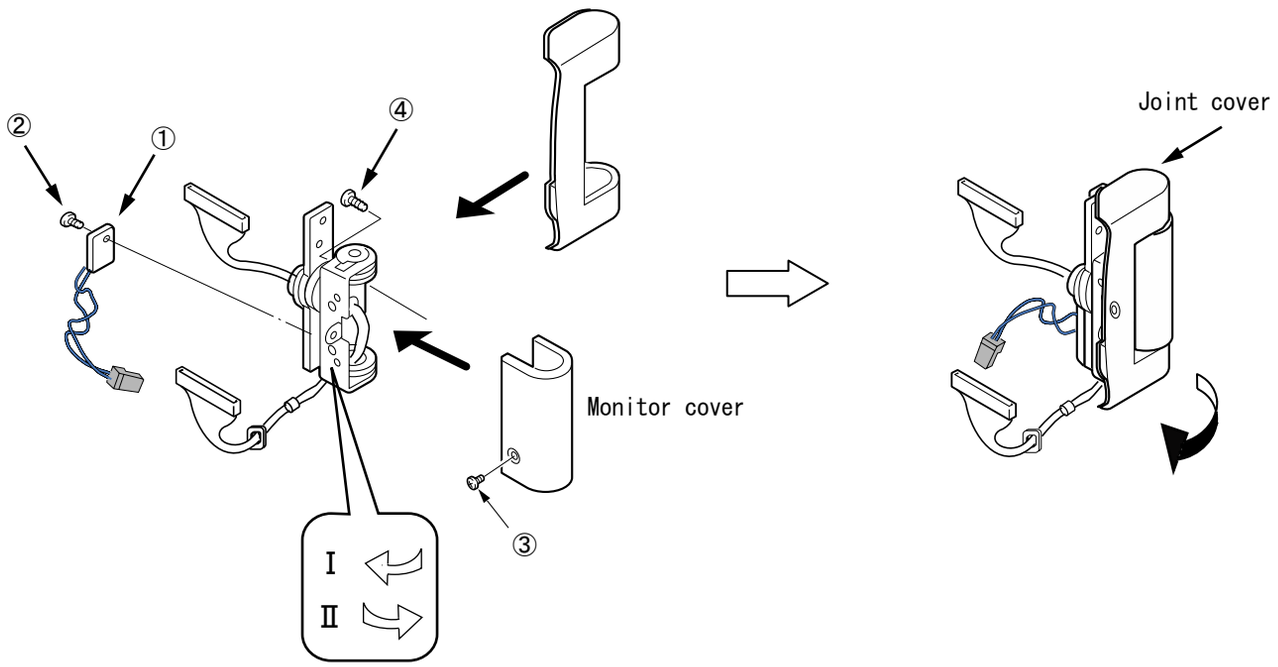




Arrangement of the lead wires

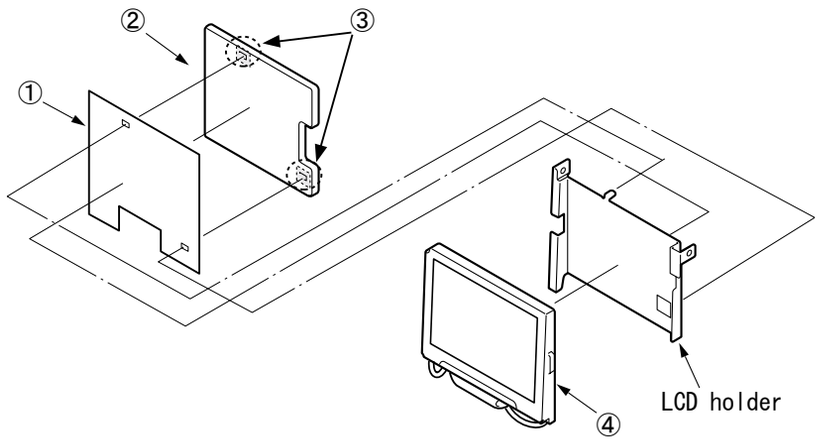
- Connect the connector ① and FPC ② .
- Connect the 2 pieces of FPC ③ .
- Attach the top cover ④ to the camera body.
- Close the SB ⑤ .
- Attach the 2 pieces of screws ⑥ (M1.7 x 4.5).
- Attach the screw ⑦ (M1.7 x 4).
- Ture the cover grip ⑧ and then attach the screw ⑨ (M1.7 x 4.5).
- Open the battery cover ⑩
- Attach the screw ⑪ (M1.7 x 3).
- Open the SB ⑤ .
- Attach the 2 pieces of screws ⑫ (M1.7 x 4.5).
- Attach the screw ⑬ (M1.7 x 2.5).

8. JOINT UNIT

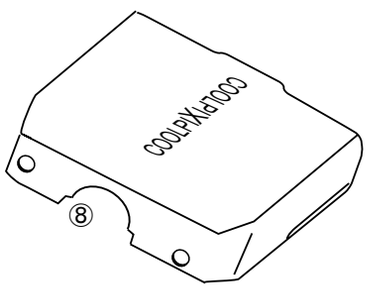


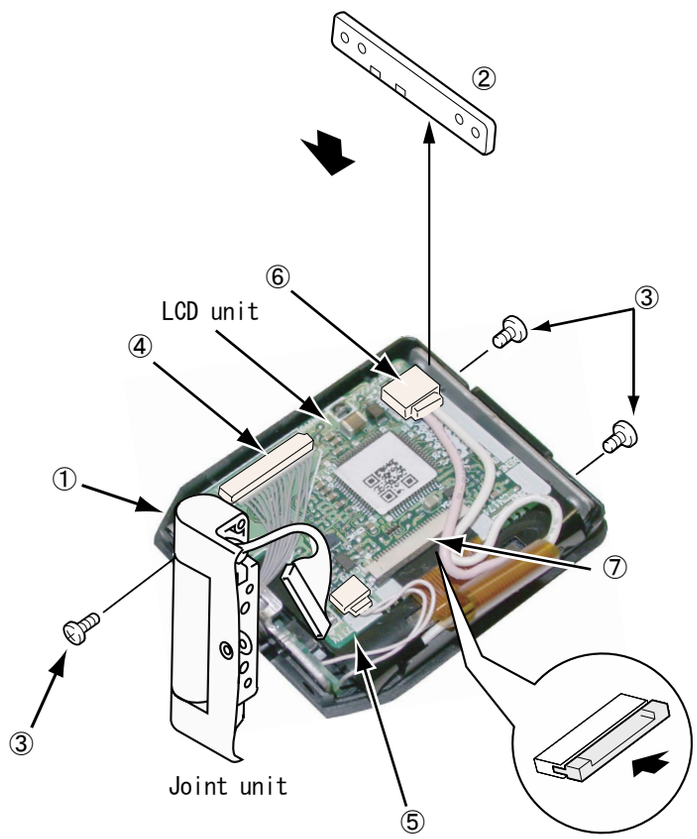
- Attach the TB-1 PCB ① to the joint unit.
- Attach the 1 piece of screw ② (M1.7 x 2.5).
- Rotate the A of the joint approx. 90 degree in an arrow direction(Ⅰ).
- Attach the monitor cover.
- Rotate the A of the joint approx. 90 degree in an arrow direction(Ⅱ).
- Attach the 1 piece of screw ③ (M1.7 x 2).
- Attach the 1 piece of screw ④ (M1.7 x 4).
- Attach the joint cover.

9. LCD UNIT

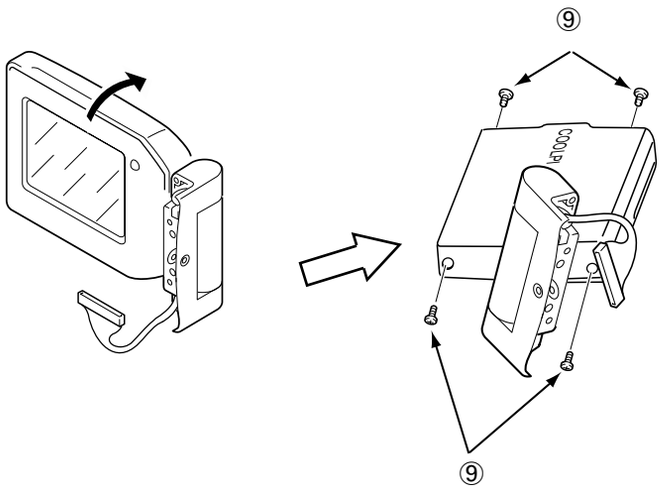


- Attach the spacer ① to the LCD holder.
- Attach the LCD PCB VF-1 ② .
- Solder the 2 pieces of ③ .
- Attach the LCD ④ to the LCD holder.



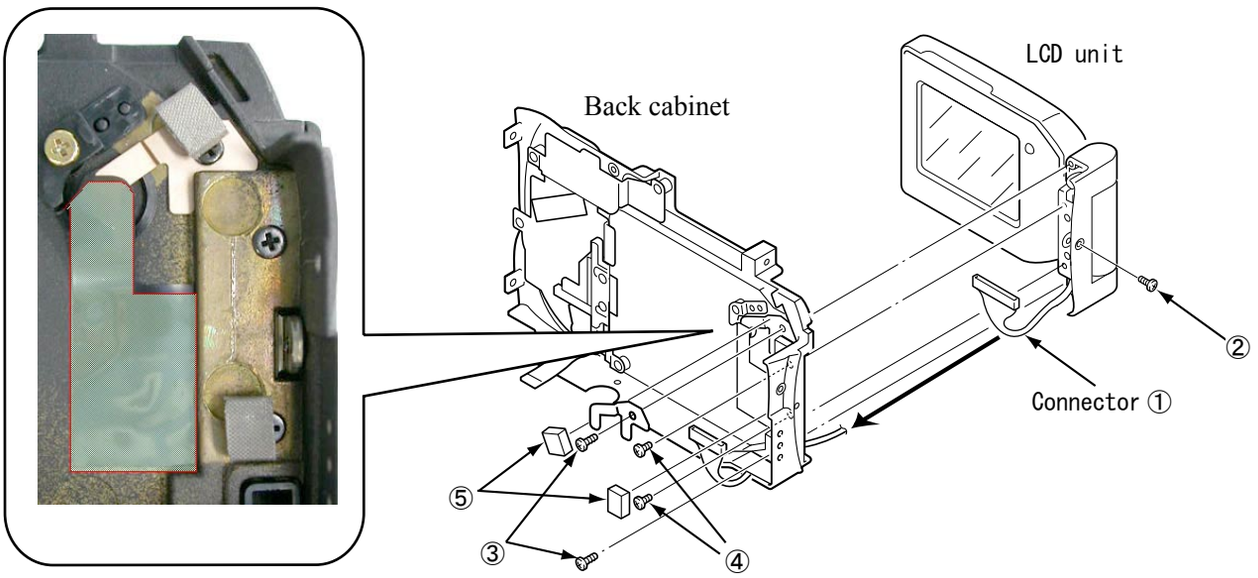


- Attach the front cover ① to the front LCD cover.
- Attach the LCD side holder ② .
- Attach the Joint unit to the front cover ① .
- Attache the 3 pieces of screws ③ (M1.7 x 2).
- Connect the connector ④ and the connector ⑤ .
- Connect the connector ⑥ and the FPC ⑦ .
- Attach the back LCD cover ⑧ .



• Rotate the LCD unit approx. 45 degree in an arrow direction.

• Attach the 4 pieces of screws ⑨ (M2 x 3).



• Pass the connector ① through the hole of the back cabinet and then pull it out to the front side of the rear cover.

• Attach the back cabinet to the front LCD unit.

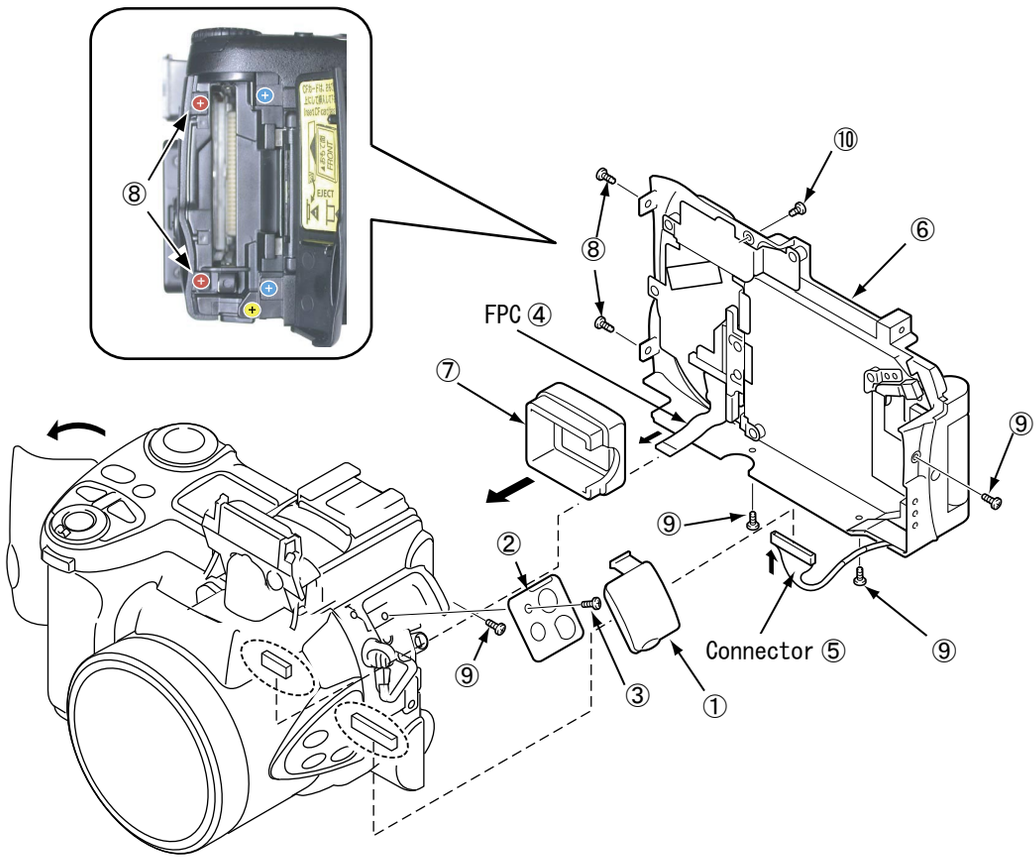
• Attache the screws ② (M1.7 x 3.5).

• Attache the 2 Pieces of screws ③ (M1.7 x 4).

• Attache the 2 Pieces of screws ④ (M1.7 x 3).

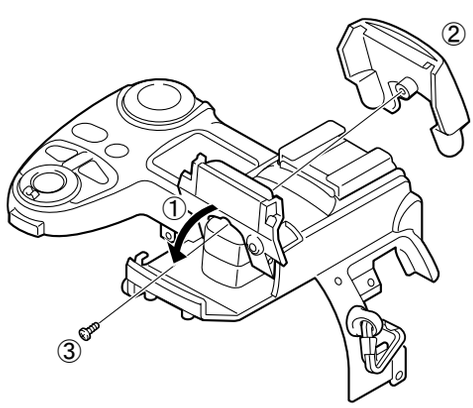
• Attache the 2 Pieces of Pad ⑤ .

10. BACK CABINET



- Attach the Jack cover ① .
- Attach the Jack Holder ② and then attach the screw ③ (M1.7 x 3).
- Connect the FPC ④ and the connector ⑤ .
- Attach the back cabinet ⑥ .
- Attach the Hood VF ⑦ .
- Attache the 2 Pieces of screws ⑧ (M1.7 x 4).
- Attache the 4 Pieces of screws ⑨ (M1.7 x 3.5).
- Attache the screw ⑩ (M1.7 x 2.5).

11. SB TOP COVER



- Close the SB ① .
- Attach the SB Top cover ② .
- Open the SB ① .
- Attache the screw ③ (M1.7 x 4.5).

ADJUSTMENT

1. Equipment

IBM compatible PC • AC adapter EH-21 • USB cable • UC-E1 • Oscilloscope

2. Servicing Tools

• Color viewer 5,100 K • Siemens star chart • Calibration software • Chart for color adjustment

3. Adjustment Items and Order

1. Lens Adjustment
2. AWB Adjustment
3. Color Adjustment
4. CCD White Point Defect Detect Adjustment
5. CCD Black Point Defect Detect Adjustment
6. USB Storage information registration
7. LCD Panel Adjustment
   - 7-1. LCD H AFC Adjustment
   - 7-2. LCD RGB Offset Adjustment
   - 7-3. LCD Gain Adjustment
   - 7-4. LCD Blue Brightness Adjustment
   - 7-5. LCD Red Brightness Adjustment

Note) If replacing the lens, CCD, optical filter, CA-1 or CP-1 board, it is necessary to perform the above 1-5 adjustments. 2-5 adjustments other than these should be carried out in sequence.

4. Setup

1) System requirements
- Windows98® , Me, 2000 or XP
- IBM-compatible PC with Pentium processor
- CD-ROM drive
- 3.5-inch high-density diskette drive
- USB port
- 40 MB RAM
- Hard disk drive with at least 15 MB available
- VGA or SVGA monitor with at least 256-color display

2) Installing calibration software
- Insert the calibration software installation diskette into your diskette drive.
- Open Explorer.
- Copy the DscCalDI_128 folder on the floppy disk in the FD drive to a folder on the hard disk.

5. Installing USB drive

Install the USB drive with camera or connection kit for PC.

6. Color Viewer

Turn on the switch and wait for 30 minutes for aging to take place before using Color Pure.

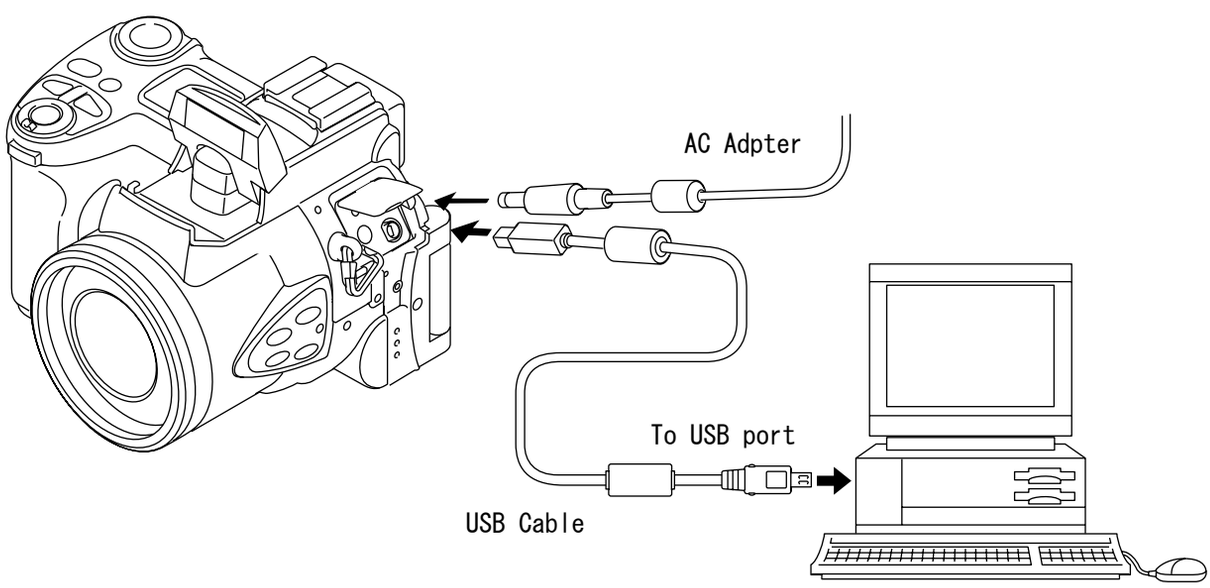
7. Adjustment items required at replacement of parts

	Lens Adj.	AWB	Color Adj.	CCDDefect	LSDPanel	View Finder	USB
Lens Unit	○	○	○	○	×	×	×
Optical filter	○	○	○	○	×	×	×
CCD	○	○	○	○	×	×	×
CA-1	○	○	○	○	×	×	×
CP-1	○	○	○	○	△	×	○
PW-1	×	×	×	×	×	×	×
VF-1	×	×	×	×	△	×	×

○ Adjustment required, ×Adjustment not required, △ Adjust the camera when at need

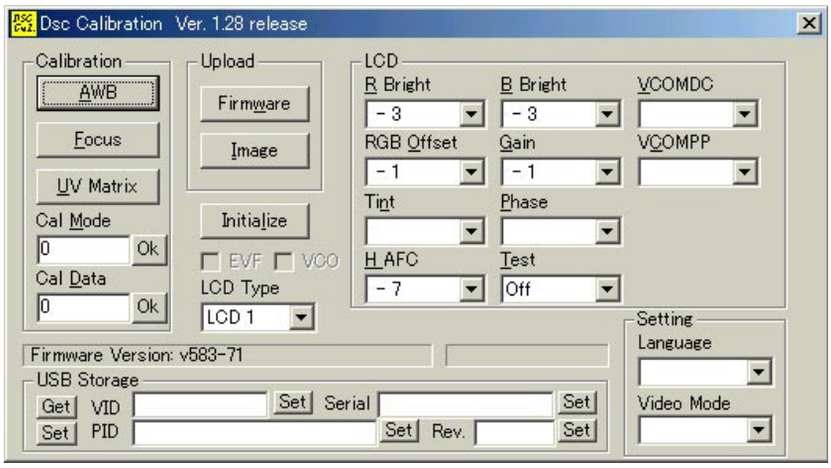
8. Connecting the camera to the computer

1) Line up the arrow on the cable connector with the notch on the camera's USB port. Insert the connector.
2) Locate a USB port on the back of your computer.



9. Calibration software

After starting the applicable calibration software, the following is displayed on the PC monitor.



10. Lens Adjustment

[Preparation]

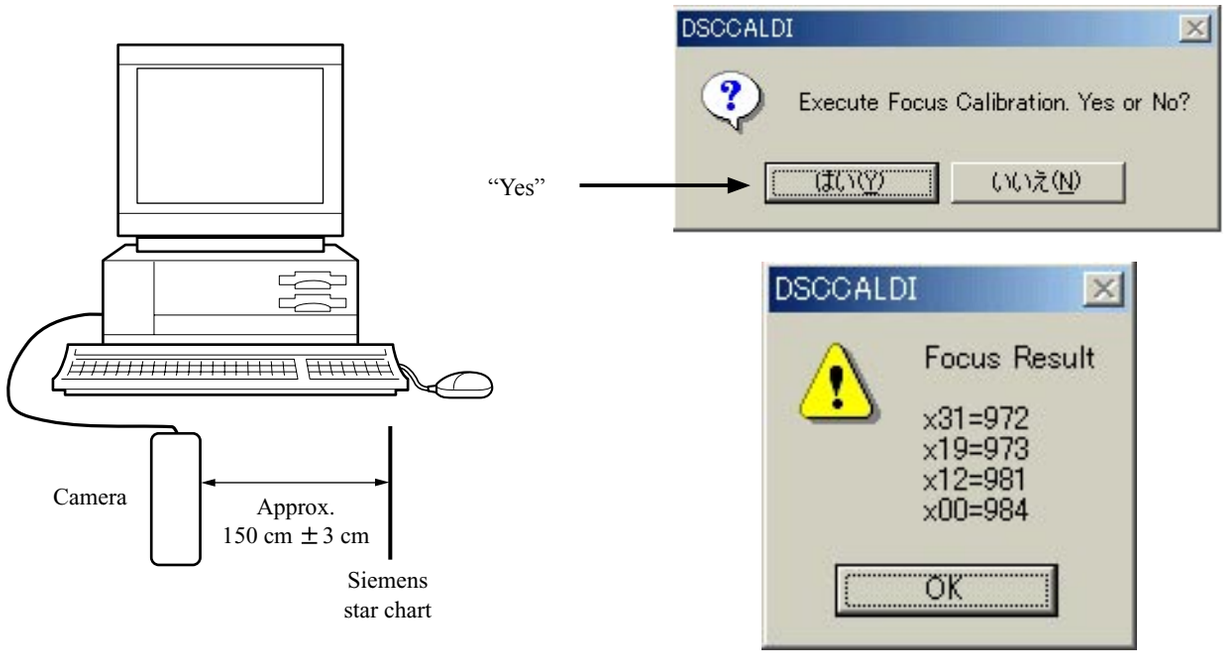
- Siemens star chart
- POWER switch: ON

[Adjustment condition]

- Make a copy of A4 size siemens chart in enlarged A3 size or larger.
- Illumination above the subject should be 400 lux ± 10 %.
- Set the siemens star chart 150 cm ± 3 cm (between Siemens star chart and the surface of camera's protection lens)

[Adjustment method]

1. Double-click on the DscCalDi128.
2. Set the siemens star chart 150 cm ± 3 cm so that it be-comes center of the screen. LCD (Test → Monitor)
3. Click the Focus, and click the Yes.
4. Lens adjustment value will appear on the screen.
   adjustment value is 1000 ± 64
5. Click the OK.



11. AWB Adjustment

[Preparation]

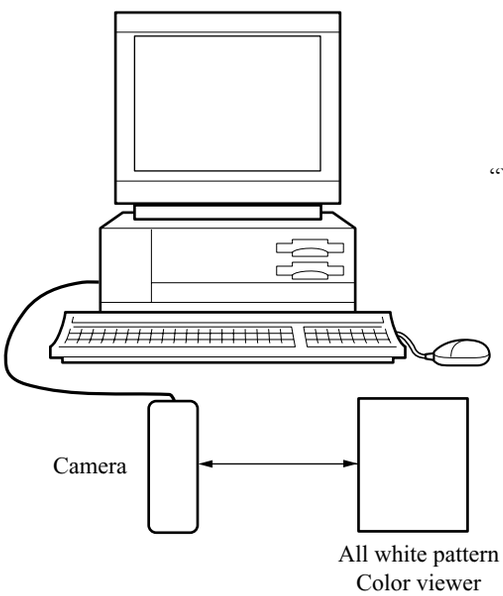
- Color viewer
- POWER switch: ON (set to Any MODE)

[Note]

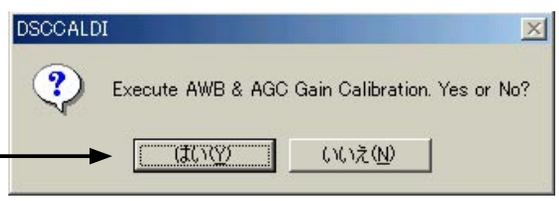
When setting the camera in place, set it to an angle so that nothing appears in any part of the color viewer except the white section. (Do not enter any light.)

[Adjusting method]

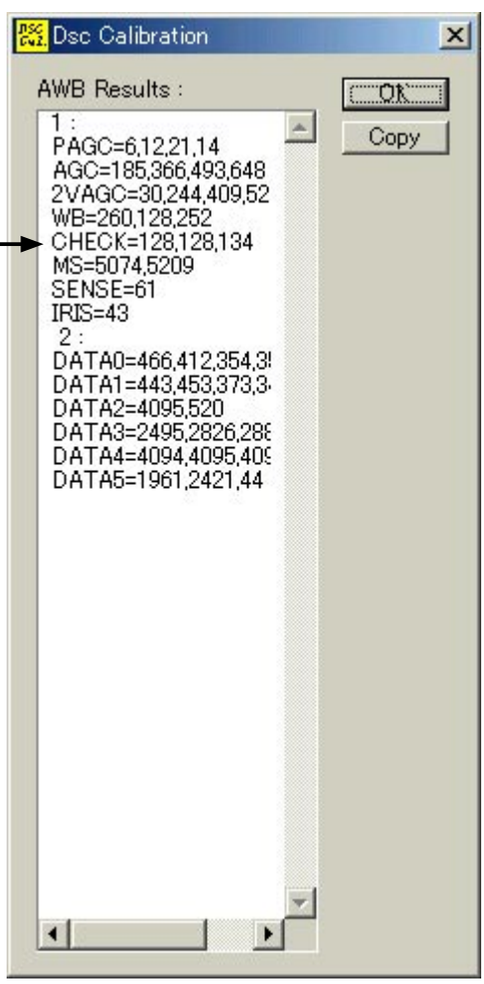
1. Double-click on the DscCalDi128.
2. Click the AWB, and click the Yes.
3. AWB adjustment value will appear on the screen.
   CHECK=128±2, 128±2, 130±30
4. Click the OK.



"Yes"



Adjustment value



12. Color Adjustment

[Note]

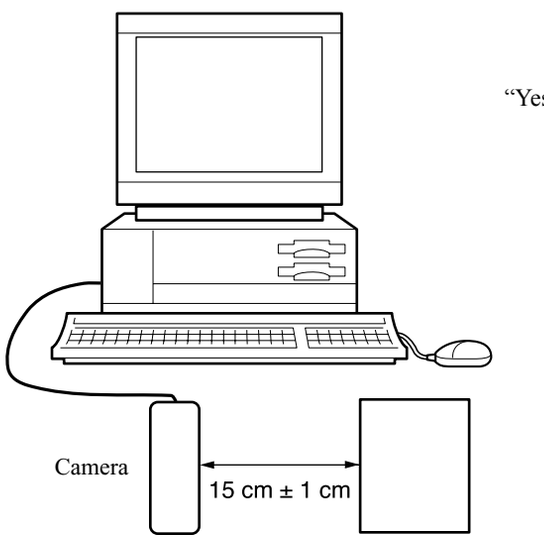
AWB adjustment should always be carried out first.

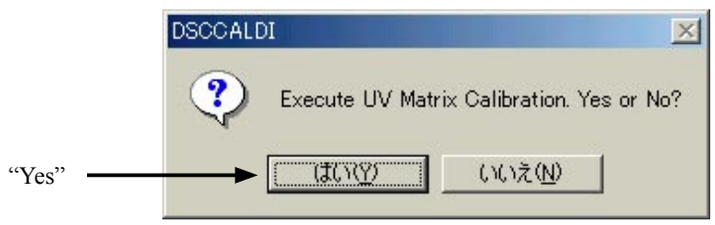
[Adjustment condition]

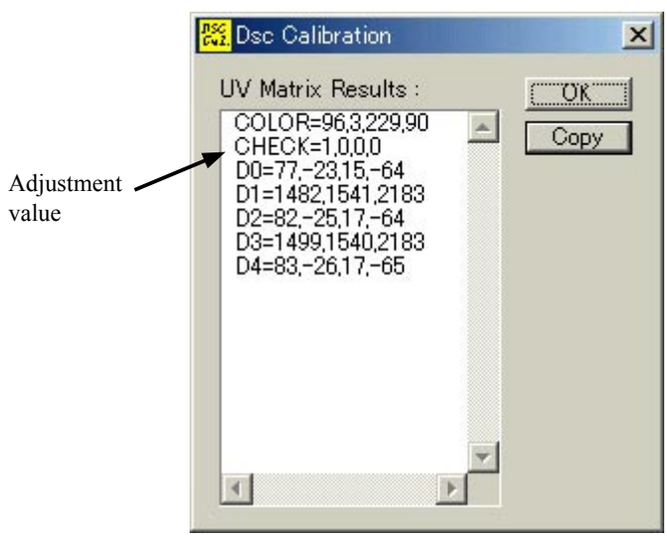
- Set the color adjustment chart to the color viewer.
  (Do not enter any light.)
- Set the color adjustment chart so that it becomes center of the screen.

[Adjustment method]

- Double-click on the DscCalDi128.
- Click the UV Matrix, and click the Yes.
- Color adjustment values will appear on the screen.
  CHECK=0±2, 0±2, 0±2, 0±2
- Click the OK.



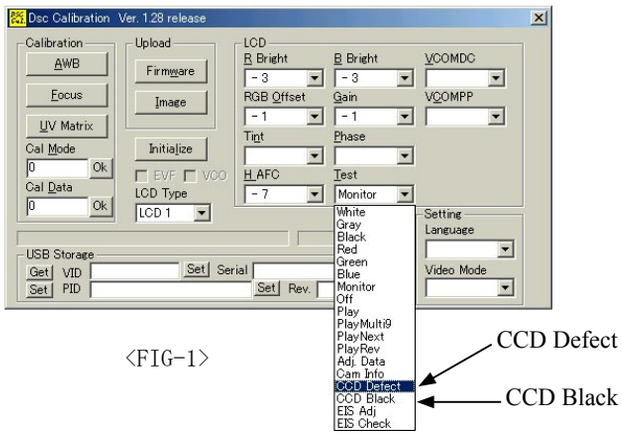




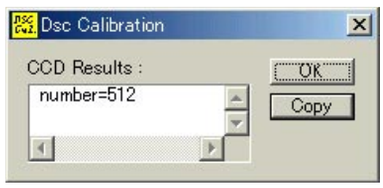
13. CCD White point Defect Detect Adjustment

[Adjustment method]

- Double-click on the DscCalDi128.
- Select the CCD Defect from Test menu of Calibration Soft and click the OK. Refer to FIG-1.
- After adjustment, An adjustment value will appear on the screen. Refer to FIG-2.



<FIG-1>



<FIG-2>

14. CCD Black point Defect Detect Adjustment

[Note]

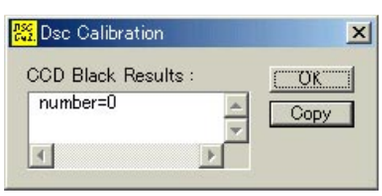
When setting the camera in place, set it to an angle so that nothing appears in any part of the color viewer except the white section. (Do not enter any light.)

[Adjustment method]

· Double-click on the DscCalDi128.

· Select the CCD Black from Test menu of Calibration Soft and click the OK. Refer to FIG-1.

· After adjustment, An adjustment value will appear on the screen. Refer to FIG-3.



<FIG-3>