

DSC-S950

SERVICE MANUAL

Ver. 1.0 2008.12

Revision History

**Internal memory
ON BOARD**



Photo: Silver

*US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Hong Kong Model
Korea Model
Argentine Model*

Link

[SPECIFICATIONS](#)

[DISASSEMBLY](#)

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[SERVICE NOTE](#)

[BLOCK DIAGRAM](#)

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

In case of the CCD assy or main board failure, contact your local Sony Service Headquarter for the measures.

DIGITAL STILL CAMERA

SONY®

SPECIFICATIONS

Camera

[System]

Image device:

7.70 mm (1/2.3 type) color CCD, Primary color filter

Total pixel number of camera:

Approx. 10.3 Megapixels

Effective pixel number of camera:

Approx. 10.1 Megapixels

Lens: 4x zoom lens $f = 5.8 - 23.2$ mm (33 – 132 mm (35 mm film equivalent)) F2.5 (W) – 5.6 (T)

Exposure control: Automatic exposure, Scene Selection (7 modes)

White balance: Automatic, Daylight, Cloudy, Fluorescent 1, 2, 3, Incandescent, Flash

File format (DCF compliant):

Still images: Exif Ver. 2.21 JPEG compliant, DPOF compatible

Movies: AVI (Motion JPEG)

Recording media: Internal Memory (approx. 12 MB), "Memory Stick Duo" media


Flash: Flash range (ISO sensitivity

(Recommended Exposure Index) set to Auto): approx. 0.5 to 3.5 m (1 foot 7 3/4 inches to 11 feet 5 7/8 inches) (W)/approx. 0.5 to 1.5 m (1 foot 7 3/4 inches to 4 feet 11 1/8 inches) (T)

Recording interval of Burst:

Approx. 1.0 seconds

[Input and Output connectors]

•  (USB) • A/V OUT terminal:

Video, Audio (Monaural), USB communication

USB communication:

Hi-Speed USB (USB 2.0 compliant)

[LCD screen]

LCD panel: 6.7 cm (2.7 type) TFT drive

Total number of dots: 230 400 (960×240) dots

[Power, general]

Power: Rechargeable battery pack NP-BK1, 3.6 V
AC-LS5K AC Adaptor (sold separately), 4.2 V

Power consumption (during shooting): 1.2 W

Operating temperature: 0 to 40°C (32 to 104°F)

Storage temperature: –20 to +60°C (–4 to +140°F)

Dimensions: 93.1×55.7×23.8 mm (3 3/4× 2 1/4×1 5/16 inches) (W/H/D, excluding protrusions)

Mass: Approx. 157 g (5.5 oz) (including NP-BK1 battery pack and strap, etc.)

Microphone: Monaural

Speaker: Monaural

Exif Print: Compatible

PRINT Image Matching III: Compatible

PictBridge: Compatible

BC-CSK/BC-CSKA battery charger

Power requirements: AC 100 V to 240 V, 50/60 Hz, 2.2 W (BC-CSK)/2.3 W (BC-CSKA)

Output voltage: DC 4.2 V, 0.33 A (BC-CSK)/0.30 A (BC-CSKA)

Operating temperature: 0 to 40°C (32 to 104°F)

Storage temperature: –20 to +60°C (–4 to +140°F)

Dimensions: Approx. 62×24×91 mm (2 1/2× 31/32×3 5/8 inches) (W/H/D)

Mass: Approx. 75 g (2.7 oz) (BC-CSK)/Approx. 70 g (2.5 oz) (BC-CSKA)

Rechargeable battery pack NP-BK1

Used battery: Lithium-ion battery

Maximum output voltage: DC 4.2 V

Mean output voltage: DC 3.6 V

Maximum charge voltage: DC 4.2 V

Maximum charge current: 1.4 A



Capacity: Approx. 3.4 Wh (970 mAh)

Design and specifications are subject to change without notice.


CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

**ATTENTION AU COMPOSANT AYANT RAPPORT
À LA SÉCURITÉ!**

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes 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, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
 - Keep the temperature of the soldering iron around 270°C during repairing.
 - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
 - Be careful not to apply force on the conductor when soldering or unsoldering.

Unleaded solder

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.

(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
Soldering irons using a temperature regulator should be set to about 350°C.
Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

1. SERVICE NOTE

1-1. METHOD FOR COPYING OR ERASING THE DATA IN INTERNAL MEMORY

The data can be copied/erased by the operations on the Setup screen. (When erasing the data, execute formatting the internal memory.)

Note: When replacing the camera, erase the data in internal memory of the board before replacement.

Method for Copying the Data in Internal Memory

Copy

Copies all images in the internal memory to “Memory Stick Duo” media.

- ① Insert “Memory Stick Duo” media having sufficient free capacity.
- ② Select [Copy] with ▲/▼ on the control button, then press ●.
The message “All data on internal memory will be copied” appears.
- ③ Select [OK] with ▲, then press ●.
Copying starts.

To cancel copying

Select [Cancel] in step ③, then press ●.

- Use a fully charged battery pack. If you attempt to copy image files using a battery pack with little remaining charge, the battery pack may run out, causing copying to fail or possibly corrupting the data.
- You cannot select images to copy.
- The original images in the internal memory are retained even after copying. To delete the contents of the internal memory, remove the “Memory Stick Duo” media after copying, then format the internal memory ([Format] in [Internal Memory Tool]).
- A new folder is created on the “Memory Stick Duo” media and all the data will be copied to it. You cannot choose a specific folder and copy images to it.
- The **DPOF** (Print order) marks on the images are not copied.

Method for Formatting the Internal Memory

This item does not appear when “Memory Stick Duo” media is inserted in the camera.

Format

Formats the internal memory.

- Note that formatting permanently erases all data in the internal memory, including even protected images.
- ① Select [Format] with ▲/▼ on the control button, then press ●.
The message “All data on internal memory will be erased” appears.
 - ② Select [OK] with ▲, then press ●.
Formatting starts.

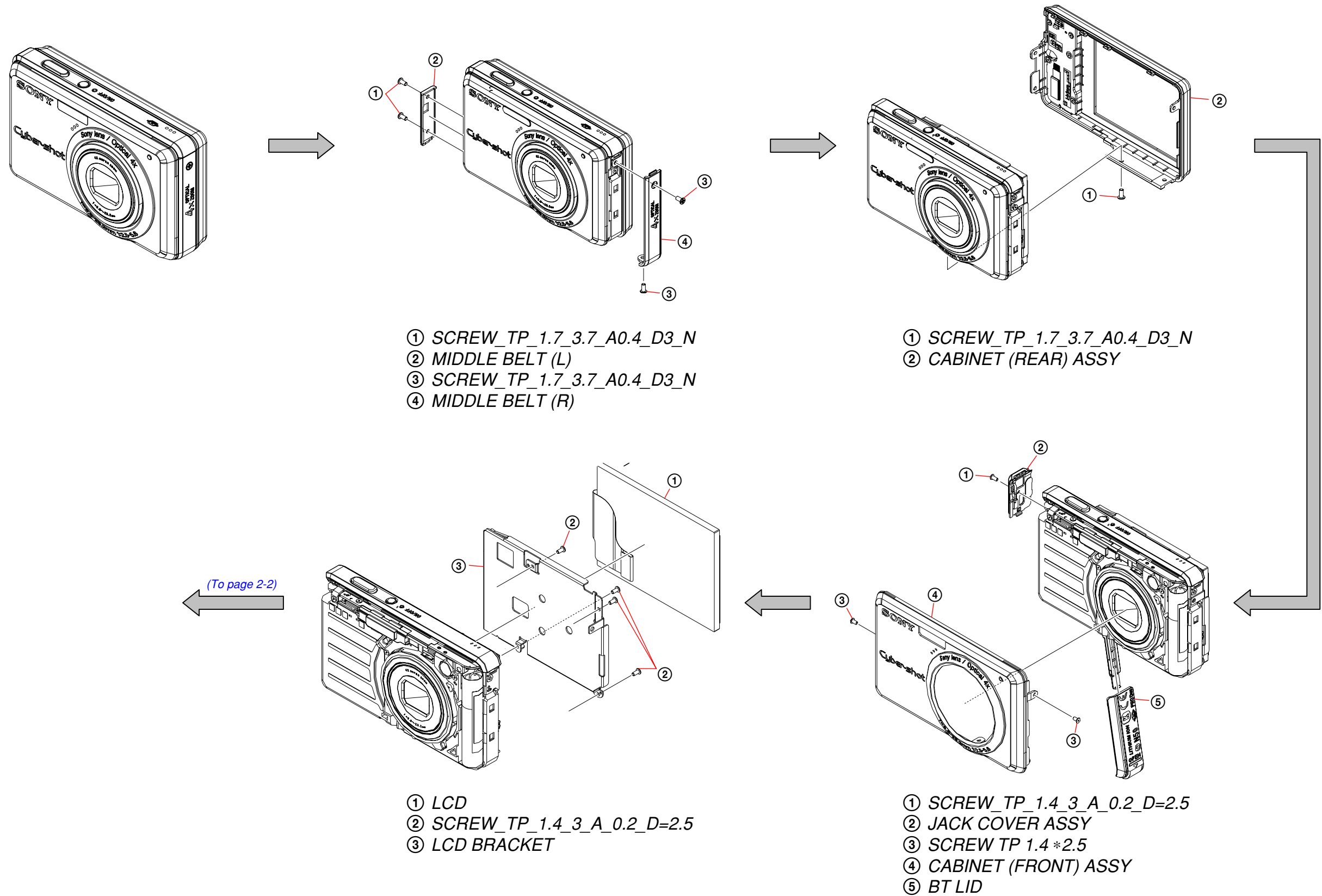
To cancel formatting

Select [Cancel] in step ②, then press ●.

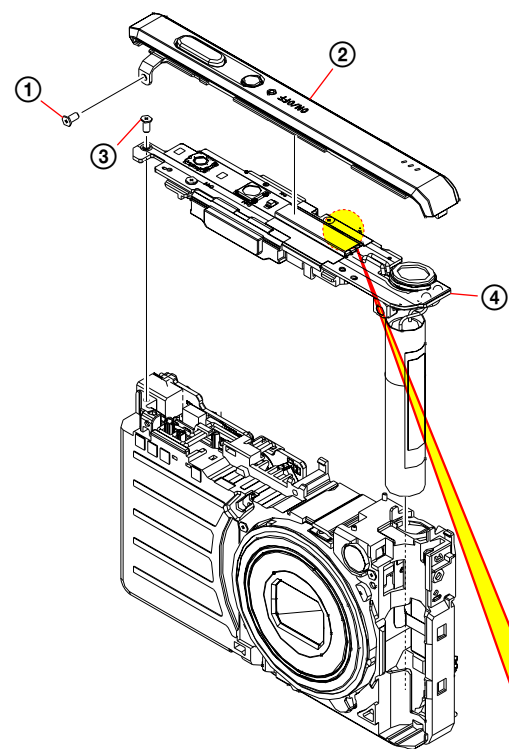
2. DISASSEMBLY

The following flow chart shows the disassembly procedure.

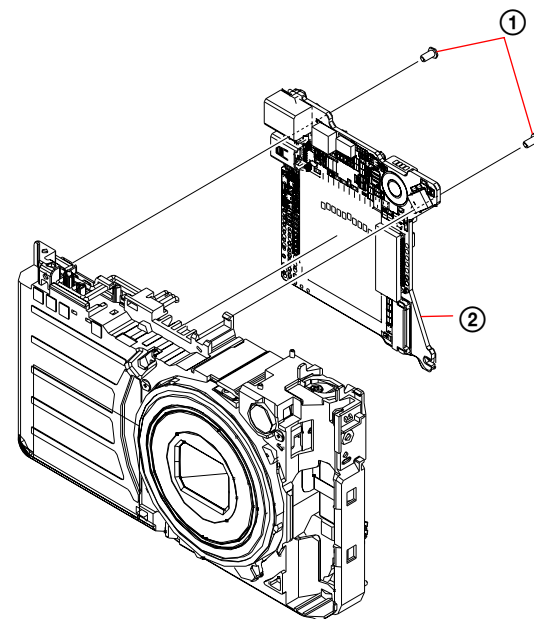
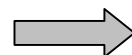
2-1. DISASSEMBLY



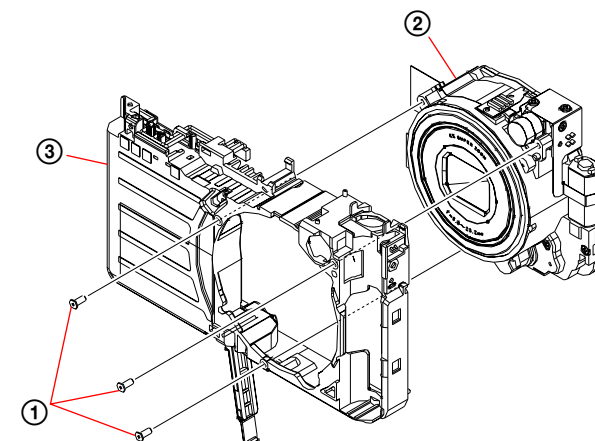
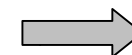
(From page 2-1)



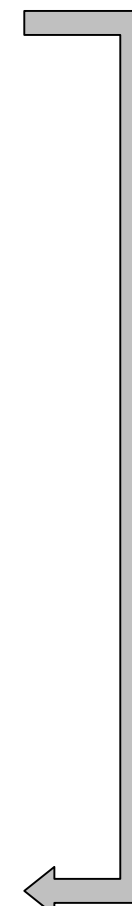
- ① SCREW_TP_1.4_3_A_0.2_D=2.5
- ② CABINET (UPPER) ASSY
- ③ SCREW_TP_1.4_3_A_0.2_D=2.5
- ④ ST BLOCK ASSY



- ① SCREW_TP_1.4_3.5_A0.3_D2.5_N
- ② MAIN BOARD



- ① SCREW_TP_1.4_3.5_A0.3_D2.5_N
- ② LENS BLOCK ASSY
- ③ MAIN FRAME SUB ASSY

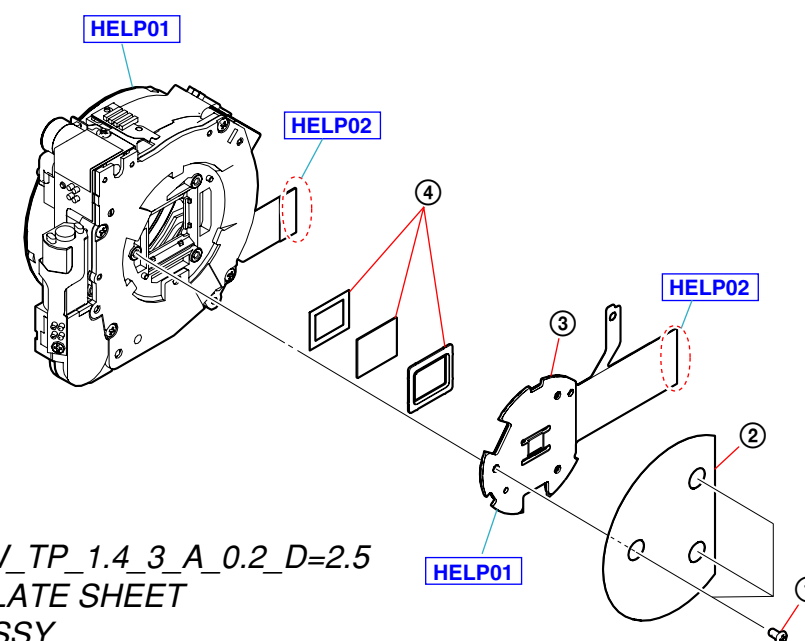


Note: High-voltage cautions

Discharging the Capacitor
Short-circuit between two points with the short jig about 10 seconds.

Peel off the sheet

R:1 kΩ/1 W
(Part code: 1-215-869-11)



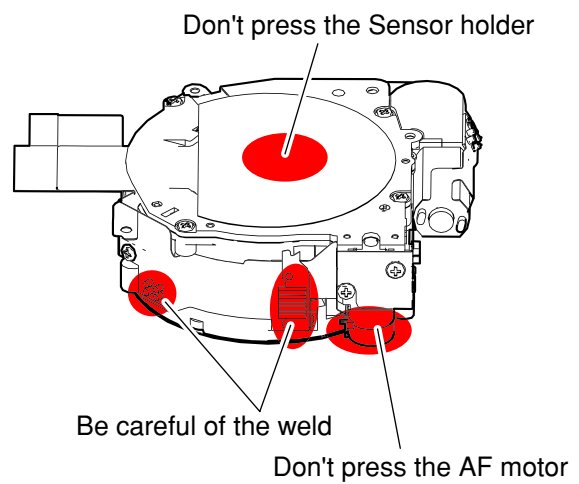
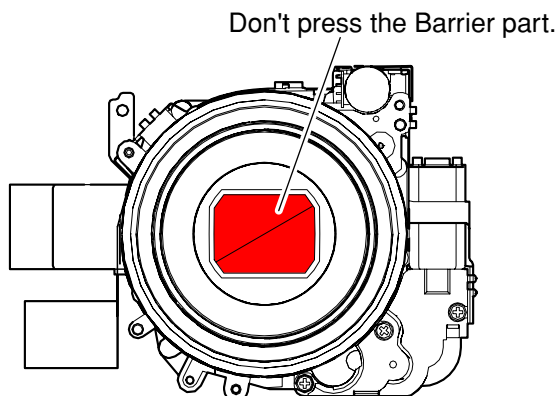
- ① SCREW_TP_1.4_3_A_0.2_D=2.5
- ② CCD PLATE SHEET
- ③ CCD ASSY
- ④ LOW PASS FILTER SET

HELP

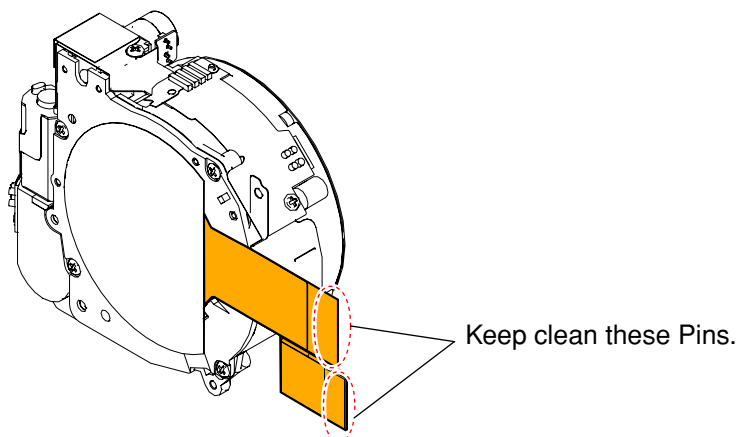
Sheet attachment positions and procedures of processing the flexible boards/harnesses are shown.

HELP01

Be careful about the Lens Assy

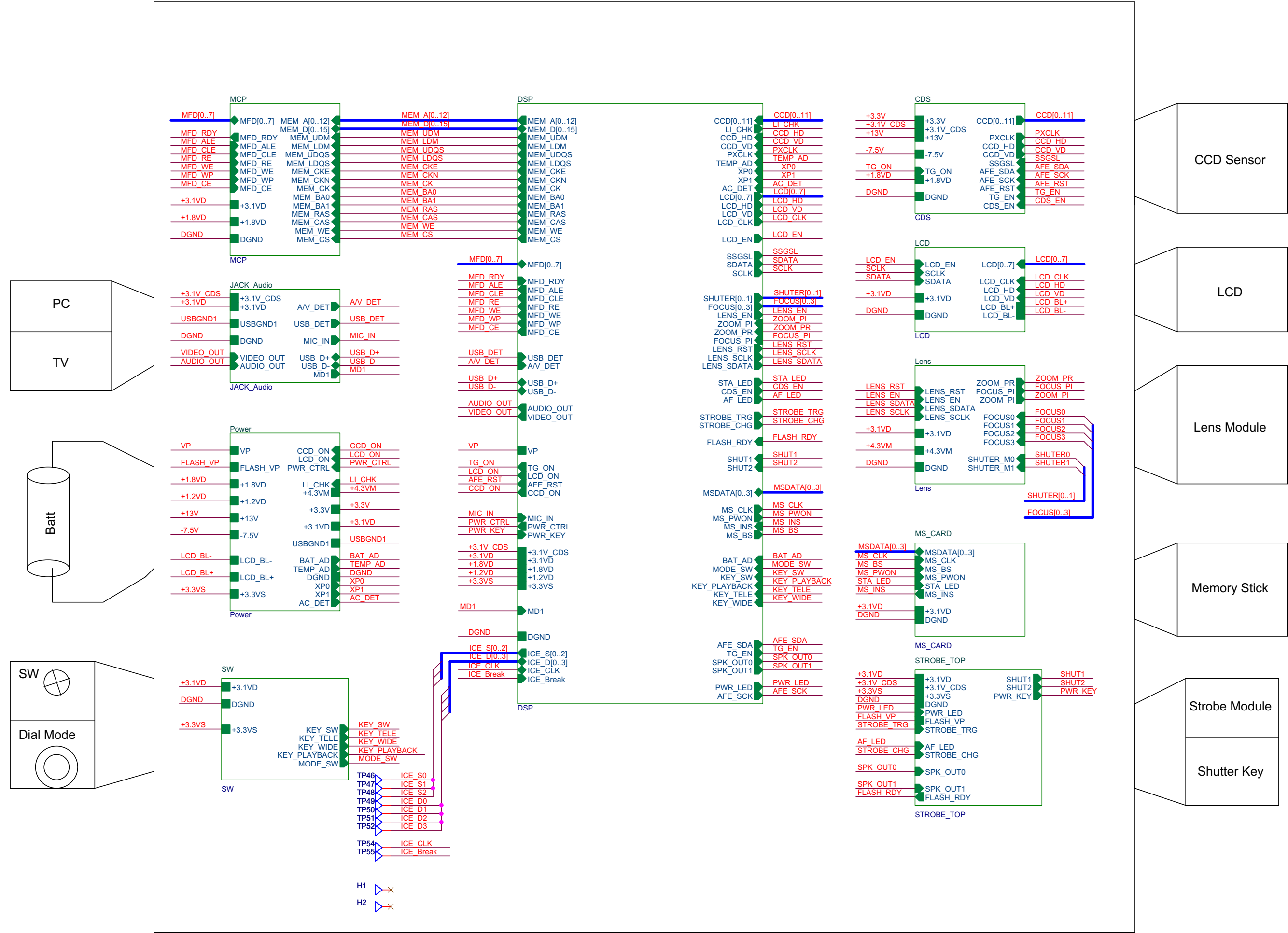


HELP02



3. BLOCK DIAGRAM

3-1. OVERALL BLOCK DIAGRAM



4. REPAIR PARTS LIST

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Due to standardization, replacements in the parts list may be different from the parts specified in the components used on the set.

When indicating parts by reference number, please include the board name.

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Color Indication of Appearance Parts

Example:

(SILVER) : Cabinet's Color

(Silver) : Parts Color

- Abbreviation

AR : Argentine model

AUS : Australian model

BR : Brazilian model

CH : Chinese model

CND : Canadian model

EE : East European model

HK : Hong Kong model

J : Japanese model

JE : Tourist model

KR : Korea model

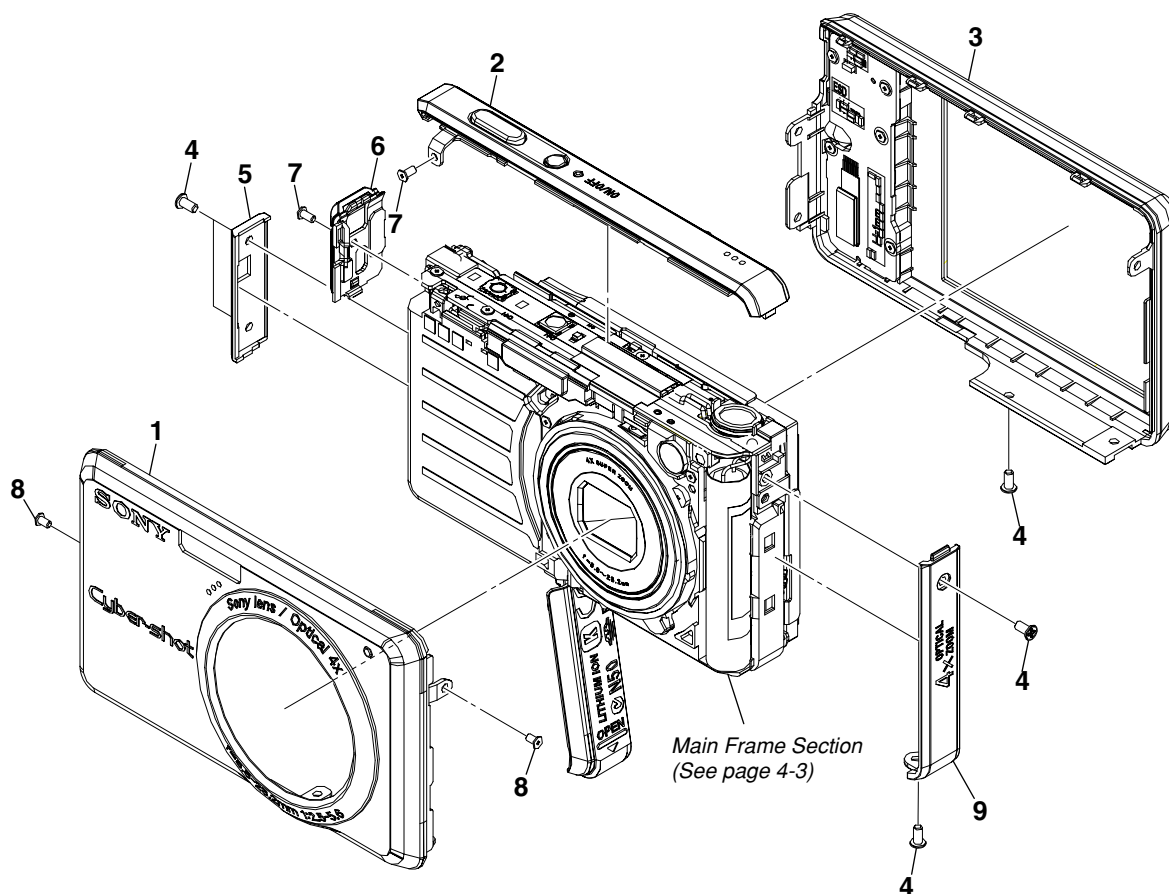
NE : North European model

TW : Taiwan model

TH : Thai model

4-1. EXPLODED VIEWS

4-1-1. OVERALL SECTION

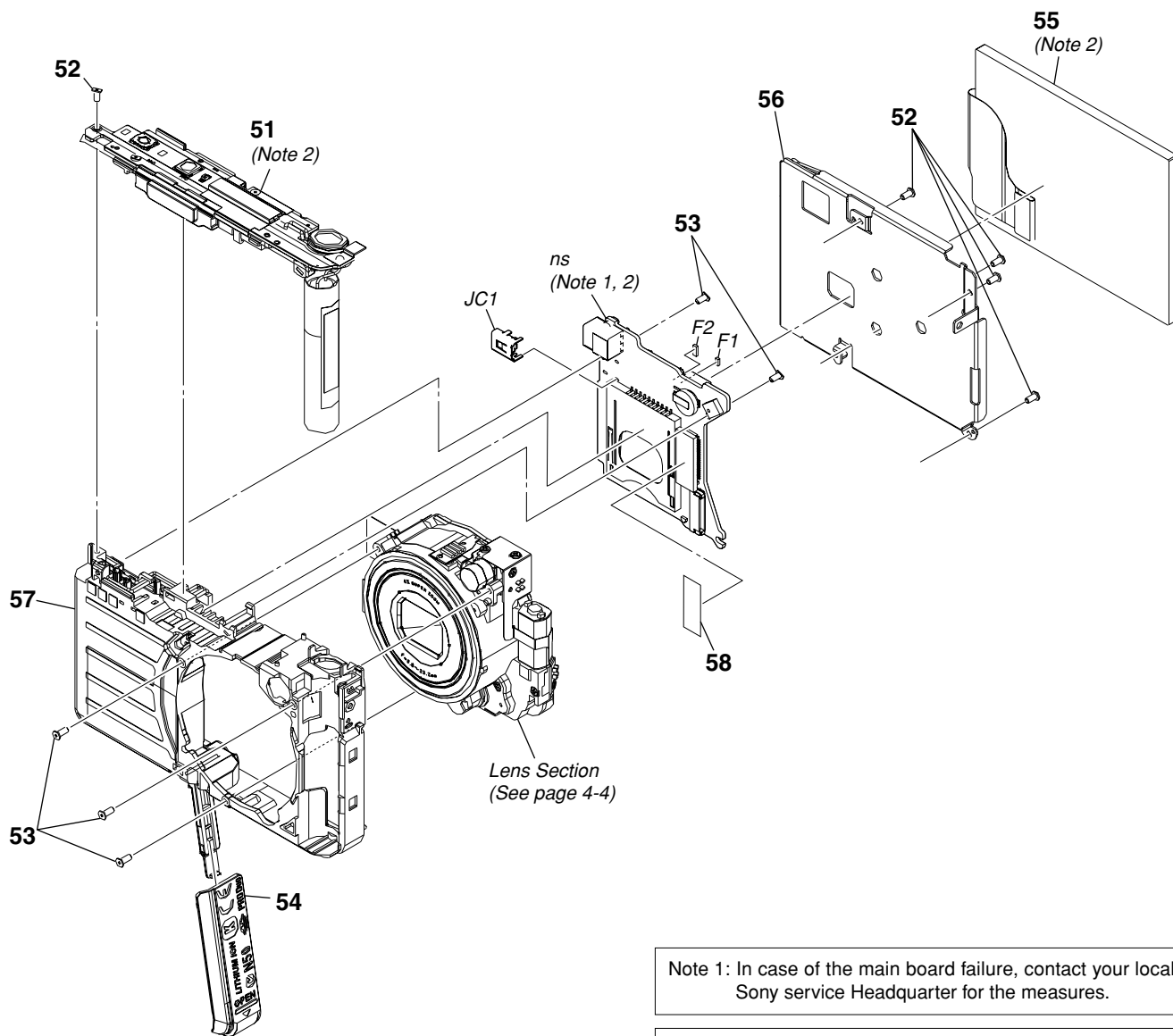


Ref. No.	Part No.	Description
1	X-2345-708-1	CABINET (FRONT) ASSY (S) (SILVER)
1	X-2345-709-1	CABINET (FRONT) ASSY (B) (BLACK)
1	X-2345-710-1	CABINET (FRONT) ASSY (P) (PINK)
2	X-2345-711-1	CABINET (UPPER) ASSY
3	X-2345-705-1	CABINET (REAR) ASSY (S) (SILVER)
3	X-2345-706-1	CABINET (REAR) ASSY (B) (BLACK)
3	X-2345-707-1	CABINET (REAR) ASSY (P) (PINK)
4	4-137-870-01	SCREW_TP_1.7_3.7_A0.4_D3_N

Ref. No.	Part No.	Description
5	4-135-311-01	BELT (L), MIDDLE
6	X-2345-702-1	COVER ASSY (S), JACK (SILVER)
6	X-2345-703-1	COVER ASSY (B), JACK (BLACK)
6	X-2345-704-1	COVER ASSY (P), JACK (PINK)
7	3-288-943-01	SCREW_TP_1.4_3_A_0.2_D=2.5
8	3-113-001-01	SCREW TP 1.4*2.5
9	4-135-310-01	BELT (R), MIDDLE

4-1-2. MAIN FRAME SECTION

ns: not supplied



Note 1: In case of the main board failure, contact your local Sony service Headquarter for the measures.

Note 2: The adjustment is not required after replacing these parts.

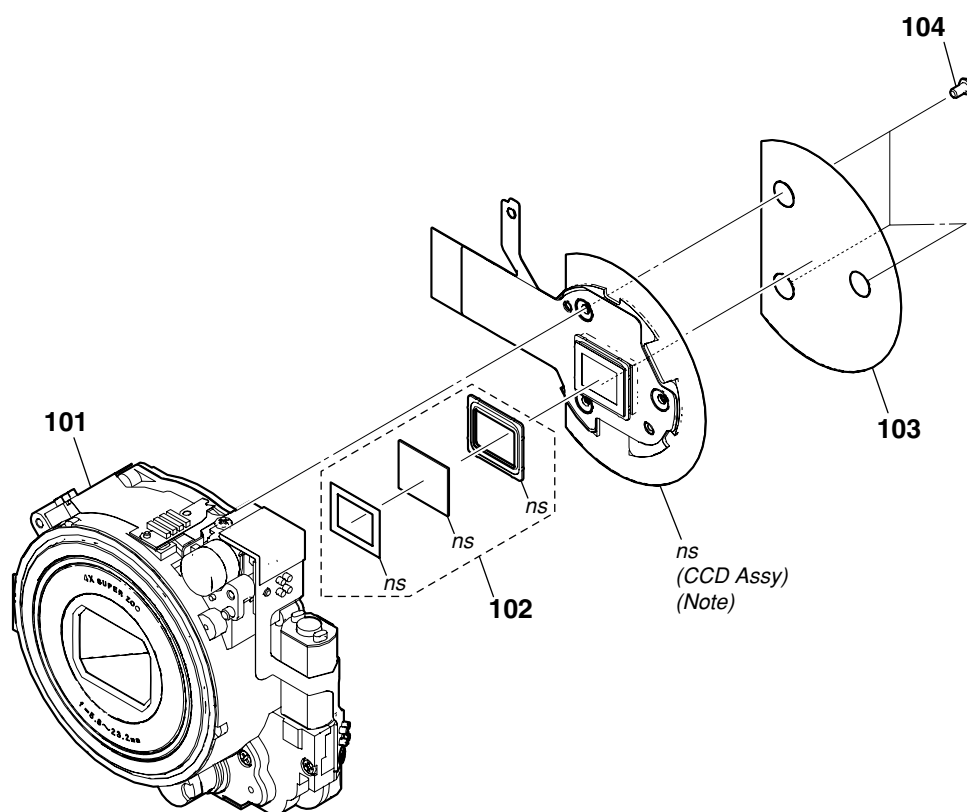
• Refer to page 4-1 for mark \triangle .

Ref. No.	Part No.	Description
51	A-1701-267-A	ST BLOCK ASSY (Note 2)
52	3-288-943-01	SCREW_TP_1.4_3_A_0.2_D=2.5
53	4-137-871-01	SCREW_TP_1.4_3.5_A0.3_D2.5_N
54	4-135-316-01	LID (S), BT (SILVER)
54	4-135-317-01	LID (B), BT (BLACK)
54	4-135-318-01	LID (P), BT (PINK)
55	4-135-314-01	LCD (Note 2)

Ref. No.	Part No.	Description
56	4-135-313-01	BRACKET, LCD
57	X-2345-712-1	MAIN FRAME SUB ASSY
58	4-135-315-01	SHEET, CCD CONNECTOR
\triangle F1	1-576-363-11	FUSE (1A/30V)
\triangle F2	1-576-913-11	FUSE, MICRO (1608 TYPE) (1.6A/36V)
* JC1	1-820-333-11	MULTI CONNECTOR (REC) 8P (USB • A/V OUT)

4-1-3. LENS SECTION

ns: not supplied



Note: In case of the CCD assy failure, contact your local Sony service Headquarter for the measures.

Ref. No.	Part No.	Description
101	A-1701-284-A	LENS BLOCK ASSY
102	4-135-324-01	FILTER SET, LOW PASS

Ref. No.	Part No.	Description
103	4-135-323-01	CCD PLATE SHEET
104	3-288-943-01	SCREW_TP_1.4_3_A_0.2_D=2.5

4-2. ACCESSORIES

Checking supplied accessories.

Note: This item is supplied with the unit as an accessory, but is not prepared as a service part.



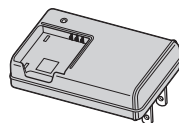
Power Cord

- △ 1-783-952-71 (AR)
- △ 1-832-169-41 (UK, HK)
- △ 1-833-892-41 (KR)
- △ 1-834-482-31 (AEP, E)
- △ 1-835-983-11 (AUS)



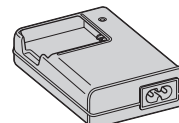
Conversion (2P) Adaptor

- △ 1-569-008-12 (E: NTSC)



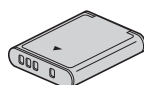
Battery Charger
BC-CSK/BC-CSKA

- △ 1-487-212-11 (US, CND)



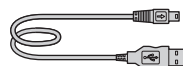
Battery Charger
BC-CSK/BC-CSKA

- △ 1-487-212-21 (EXCEPT US, CND)

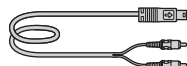


Rechargeable Battery Pack
NP-BK1

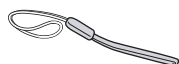
(Note)



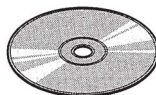
Dedicated USB Cable
3-196-981-01



Dedicated A/V Cable
3-196-980-01



Wrist Strap
2-050-981-01



CD-ROM
"Cyber-shot application software"
"Cyber-shot Handbook"
"Cyber-shot Step-up Guide"
4-130-978-01



Instruction Manual

- 4-130-982-11 (ENGLISH) (CND, AEP, UK, E, HK, AUS)
- 4-130-982-21 (FRENCH, ITALIAN) (CND, AEP)
- 4-130-982-31 (SPANISH, PORTUGUESE) (AEP, E, AR)
- 4-130-982-41 (GERMAN, DUTCH) (AEP)
- 4-130-982-51 (TRADITIONAL CHINESE, SIMPLIFIED CHINESE) (E, HK)
- 4-130-982-61 (RUSSIAN, UKRAINIAN) (AEP)
- 4-130-982-71 (ARABIC, PERSIAN) (E)
- 4-130-982-81 (KOREAN) (KR)
- 4-130-982-91 (POLISH, CZECH) (AEP)
- 4-130-983-11 (HUNGARIAN, SLOVAK) (AEP)
- 4-130-983-21 (SWEDISH, FINNISH) (AEP)
- 4-130-983-31 (NORWEGIAN, DANISH) (AEP)
- 4-130-983-41 (THAI, MALAYSIAN) (E)
- 4-130-983-51 (TURKISH, GREEK) (AEP)
- 4-130-983-61 (ENGLISH, SPANISH) (US)



Cyber-shot Handbook (PDF)

The CD-ROM supplied contains all of language version of the Cyber-shot Handbook (PDF) for printing.

- The printed matter is not supplied. If required, please order it with the part number below.

- | | |
|--------------------------------------|----------------------------|
| * 4-130-979-11 (ENGLISH) | * 4-130-980-51 (POLISH) |
| * 4-130-979-21 (FRENCH) | * 4-130-980-61 (CZECH) |
| * 4-130-979-31 (ITALIAN) | * 4-130-980-71 (HUNGARIAN) |
| * 4-130-979-41 (SPANISH) | * 4-130-980-81 (SLOVAK) |
| * 4-130-979-51 (PORTUGUESE) | * 4-130-980-91 (SWEDISH) |
| * 4-130-979-61 (GERMAN) | * 4-130-981-11 (FINNISH) |
| * 4-130-979-71 (DUTCH) | * 4-130-981-21 (NORWEGIAN) |
| * 4-130-979-81 (TRADITIONAL CHINESE) | * 4-130-981-31 (DANISH) |
| * 4-130-979-91 (SIMPLIFIED CHINESE) | * 4-130-981-41 (THAI) |
| * 4-130-980-11 (RUSSIAN) | * 4-130-981-51 (MALAYSIAN) |
| * 4-130-980-21 (ARABIC) | * 4-130-981-61 (TURKISH) |
| * 4-130-980-31 (PERSIAN) | * 4-130-981-71 (GREEK) |
| * 4-130-980-41 (KOREAN) | * 4-130-981-81 (UKRAINIAN) |

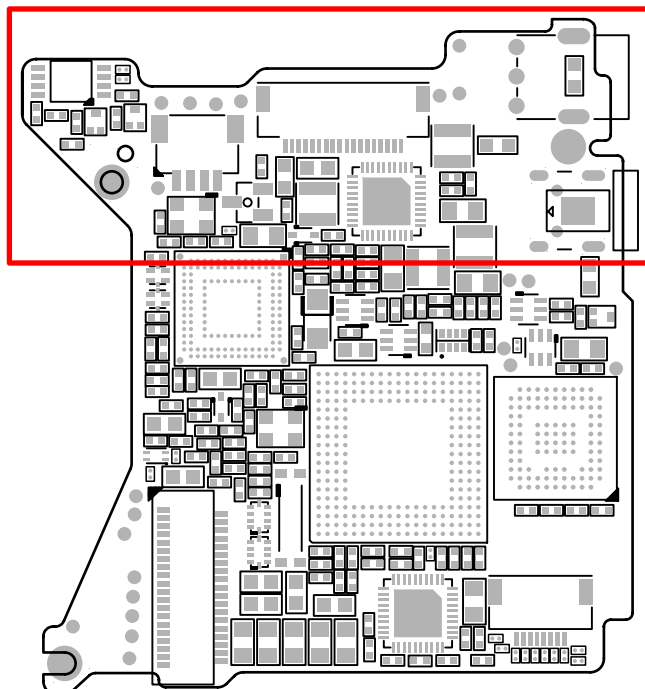
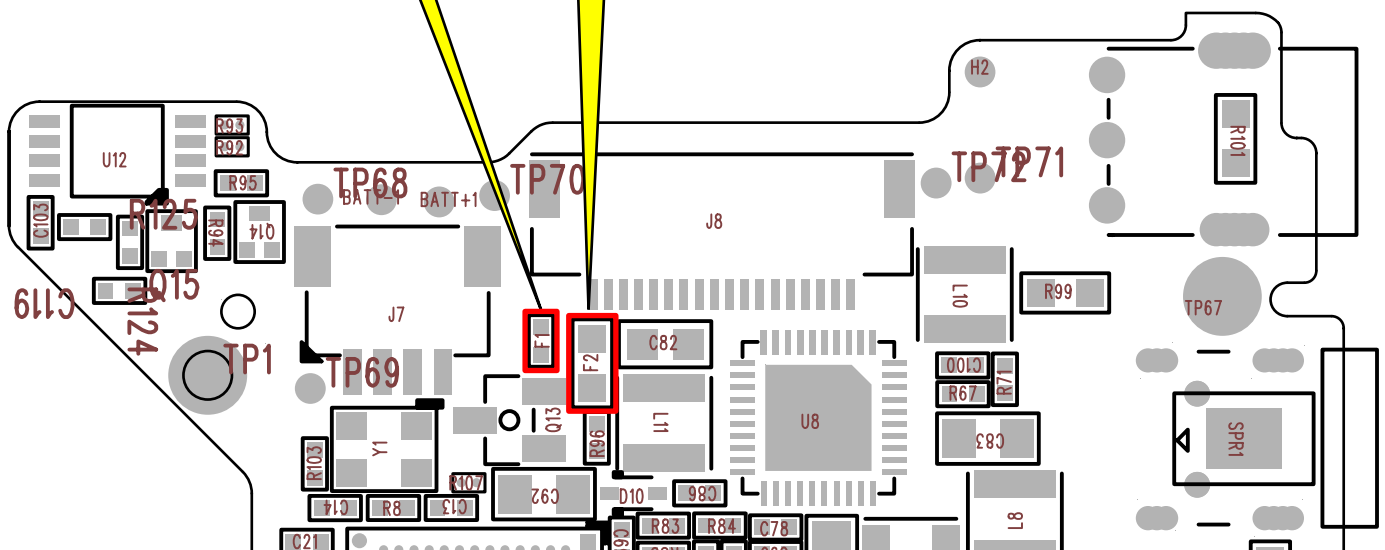
• Refer to page 4-1 for mark △.

[Regarding Fuse]

• MAIN BOARD

Ref. No.: F1
Part No.: 1-576-363-11
Description: FUSE, MICRO (1005 TYPE) (1A/30V)

Ref. No.: F2
Part No.: 1-576-913-11
Description: FUSE, MICRO (1608 TYPE) (1.6A/36V)



Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2008.12	Official Release	—	—