

# DCR-TRV238E/TRV239E

RMT-814

## SERVICE MANUAL

Level 1

Ver 1.2 2002. 06

*Self Diagnosis*  
Supported model

### Digital 8

Digital Handycam

InfoLITHIUM™ M SERIES



Photo : DCR-TRV238E

AEP Model  
East European Model  
DCR-TRV238E/TRV239E

UK Model  
North European Model  
Russian Model  
DCR-TRV238E

M2000 MECHANISM

2. GENERAL will be issued shortly.

### SPECIFICATIONS

#### Video camera recorder

##### System

Video recording system  
2 rotary heads  
Helical scanning system  
Audio recording system  
Rotary heads, PCM system  
Quantization: 12 bits (Fs 32 kHz, stereo 1, stereo 2), 16 bits (Fs 48 kHz, stereo)  
Video signal  
PAL colour, CCIR standards  
Recommended cassette  
Hi8/Digital8 video cassette  
Recording/playback time (using 90 min. Hi8 video cassette)  
SP mode: 1 hour  
LP mode: 1 hour and 30 minutes  
Fast-forward/rewind time (using 90 min. Hi8 video cassette)  
Approx. 5 min.  
Viewfinder  
Electric Viewfinder, Monochrome  
Image device  
3 mm (1/6 type CCD)  
(Charge Coupled Device)  
Gross: Approx. 800 000 pixels  
Effective: Approx. 400 000 pixels  
Lens  
Combined power zoom lens  
Filter diameter 37 mm (1 1/2 in.)  
DCR-TRV238E:  
25× (Optical), 700× (Digital)  
DCR-TRV239E:  
25× (Optical), 800× (Digital)

##### Focal length

2.4 – 60 mm (1/8 – 2 3/8 in.)  
When converted to a 35 mm still camera  
46 – 1 150 mm (1 13/16 – 45 3/8 in.)  
Camera mode:  
48 – 720 mm (1 15/16 – 28 3/8 in.)  
Memory mode:  
40 – 600 mm (1 5/8 – 23 5/8 in.)  
Colour temperature  
Auto  
Minimum illumination  
6 lx (lux) (F 1.6)  
0 lx (lux) (in the NightShot mode)\*  
\* Objects unable to be seen due to the dark can be shot with infrared lighting.

##### output connectors

S video output  
4-pin mini DIN  
Luminance signal: 1 Vp-p,  
75 Ω (ohms), unbalanced  
Chrominance signal: 0.3 Vp-p,  
75 Ω (ohms), unbalanced  
Audio/Video output  
AV MINIJACK, 1 Vp-p, 75 Ω (ohms), unbalanced, sync negative  
327 mV, (at output impedance more than 47 kΩ (kilohms))  
Output impedance with less than 2.2 kΩ (kilohms)/Stereo minijack (ø 3.5 mm)

##### Headphone jack

Stereo minijack (ø 3.5 mm)  
USB jack  
mini-B  
LANC jack  
Stereo mini-minijack (ø 2.5 mm)  
MIC jack  
Stereo minijack (ø 3.5 mm)  
DV output  
4-pin connector

##### LCD screen

Picture  
6.2 cm (2.5 type)  
50.3 × 37.4 mm (2 × 1 1/2 in.)  
Total dot number  
For European models:  
123 200 (560 × 220)

##### General

Power requirements  
7.2 V (battery pack)  
8.4 V (AC power adaptor)  
Average power consumption (when using the battery pack)  
During camera recording using LCD  
3.8 W  
Viewfinder  
3.0 W

##### Operating temperature

0°C to 40°C (32°F to 104°F)  
Recommended charging temperature  
10°C to 30°C (50°F to 86°F)  
Storage temperature  
-20°C to +60°C (-4°F to +140°F)  
Dimensions (approx.)  
206 × 101 × 85 mm  
(8 1/8 × 4 × 3 3/8 in.)  
(w/h/d)

##### Mass (approx.)

890 g (1 lb 15 oz)  
excluding the battery pack, cassette, lens cap and shoulder strap  
DCR-TRV238E:  
1 030 g (2 lb 4 oz)  
DCR-TRV239E:  
1 040 g (2 lb 4 oz)  
including the battery pack  
NP-FM30, NP-FM50, 90min. Hi8 cassette, lens cap and shoulder strap  
Supplied accessories  
See page 3.

— Continued on next page —

DIGITAL VIDEO CAMERA RECORDER

# SONY®



AC power adaptor

Power requirements  
100 – 240 V AC, 50/60 Hz  
Power consumption  
23 W  
Output voltage  
DC OUT: 8.4 V, 1.5 A in the  
operating mode  
Operating temperature  
0°C to 40°C (32°F to 104°F)  
Storage temperature  
–20°C to + 60°C (–4°F to + 140°F)  
Dimensions (approx.)  
125 × 39 × 62 mm  
(5 × 1 9/16 × 2 1/2 in. ) (w/h/d)  
excluding projecting parts  
Mass (approx.)  
280 g (9.8 oz)  
excluding mains lead

Battery pack

Maximum output voltage  
DC 8.4 V  
Mean output voltage  
DC 7.2 V  
Capacity  
5.0 Wh (700 mAh)  
Operating temperature  
0°C to 40°C (32°F to 104°F)  
Dimensions (approx.)  
38.2 × 20.5 × 55.6 mm  
(1 9/16 × 13/16 × 2 1/4 in.)  
(w/h/d)  
Mass (approx.)  
65 g (2.3 oz)  
Type  
Lithium ion

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.

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

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.

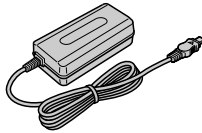
Flexible Circuit Board Repairing
  - Keep the temperature of the soldering iron around 270°C during repairing.
  - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
  - Be careful not to apply force on the conductor when soldering or unsoldering.

**Checking supplied accessories.**

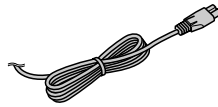
Make sure that the following accessories are supplied with your camcorder.



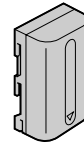
Wireless Remote Commander (1)  
RMT-814  
1-475-141-61



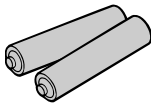
AC power adaptor (1)  
(AC-L10A)  
△ 1-475-599-11



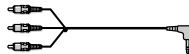
Power cord (Main lead)(1)  
(AEP, EE, NE, RU model)  
△ 1-769-608-11  
Power cord (Main lead)(1)  
(UK model)  
△ 1-783-374-11



NP-FM30 battery pack (1)  
(Not supplied)



R6 (Size AA) battery for  
Remote Commander (2)  
(not supplied)



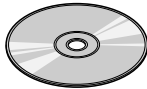
A/V connecting cable (1.5m) (1)  
1-765-080-11



Lens cap (1)  
X-3949-376-1



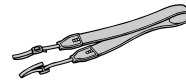
USB cable (1)  
1-757-293-21



CD-ROM  
(SPVD-008(P) USB Driver)(1)  
3-072-414-01



21-pin adaptor (1)  
1-573-291-11



Shoulder strap (1)  
3-987-015-01

**Other accessories**

3-072-653-12 MANUAL, INSTRUCTION (ENGLISH/RUSSIAN)  
(TRV238E:UK, EE, NE, RU)  
3-072-653-22 MANUAL, INSTRUCTION (FRENCH/GERMAN)  
(TRV238E:AEP/TRV239E:AEP)  
3-072-653-32 MANUAL, INSTRUCTION (ENGLISH/DUTCH)  
(TRV238E:AEP/TRV239E:AEP)  
3-072-653-42 MANUAL, INSTRUCTION (SPANISH/PORTUGUESE)  
(TRV238E:AEP)  
3-072-653-52 MANUAL, INSTRUCTION (ITALIAN/GREEK)  
(TRV238E:AEP)

3-072-653-62 MANUAL, INSTRUCTION (ENGLISH/SWEDISH)  
(TRV238E:NE)  
3-072-653-72 MANUAL, INSTRUCTION (DANISH/FINNISH)  
(TRV238E:NE)  
3-072-653-82 MANUAL, INSTRUCTION (POLISH/CZECH)  
(TRV238E:EE/TRV239E:EE)  
3-072-653-92 MANUAL, INSTRUCTION (HUNGARIAN/SLOVAKIAN)  
(TRV238E:EE/TRV239E:EE)

**Note :** The components identified by mark △ or dotted line with mark △ are critical for safety.  
Replace only with part number specified.

- Abbreviation
- EE : East European model
- NE : North European model
- RU : Russian model

## TABLE OF CONTENTS

**SERVICE NOTE**

1. POWER SUPPLY DURING REPAIRS ..... 5
2. TO TAKE OUT A CASSETTE WHEN NOT EJECT  
(FORCE EJECT) ..... 5

**SELF-DIAGNOSIS FUNCTION**

1. Self-diagnosis Function ..... 6
2. Self-diagnosis Display ..... 6
3. Service Mode Display ..... 6
- 3-1. Display Method ..... 6
- 3-2. Switching of Backup No. .... 6
- 3-3. End of Display ..... 6
4. Self-diagnosis Code Table ..... 7

**1. MAIN PARTS**

1. ORNAMENTAL PARTS ..... 9
2. DISASSEMBLY ..... 10
- 2-1. LCD UNIT, PD-156 BOARD-1 ..... 11
- 2-2. LCD UNIT, PD-156 BOARD-2 ..... 11
- 2-3. FRONT PANEL SECTION ..... 12
- 2-4. SI-032 BOARD ..... 12
- 2-5. MICROPHONE ..... 13
- 2-6. CABINET (R) SECTION ..... 14
- 2-7. LENS SECTION ..... 15
- 2-8. EVF SECTION ..... 15
- 2-9. LB-076 BOARD ..... 16
- 2-10. BATTERY PANEL SECTION ..... 16
- 2-11. BATTERY TERMINAL BOARD ..... 17
- 2-12. CONTROL SWITCH BLOCK (SS-1380) ..... 17
- 2-13. CABINET (L) SECTION ..... 18
- 2-14. CS FRAME ASSEMBLY (25) ..... 18
- 2-15. VC-276 BOARD ..... 19
- 2-16. MECHANISM DECK ..... 19
- 2-17. CONTROL SWITCH BLOCK (CF-2500) ..... 20
- 2-18. CONTROL SWITCH BLOCK (FK-2500) ..... 20
- 2-19. HINGE SECTION ..... 21
3. REPAIR PARTS LIST ..... 22
- 3-1. EXPLODED VIEWS ..... 22
- 3-1-1. OVERALL SECTION ..... 22
- 3-1-2. CABINET (L) SECTION-1 ..... 23
- 3-1-3. CABINET (L) SECTION-2 ..... 24
- 3-1-4. LENS, EVF SECTION ..... 25
- 3-1-5. CABINET (R) SECTION ..... 26
- 3-1-6. LCD SECTION ..... 27

**2. GENERAL**

2. GENERAL will be issued shortly.
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## 1. POWER SUPPLY DURING REPAIRS

In this unit, about 10 seconds after power is supplied (8.4V) to the battery terminal using the service power code (J-6082-223-A), the power is shut off so that the unit cannot operate.

These following two methods are available to prevent this. Take note of which to use during repairs.

### Method 1.

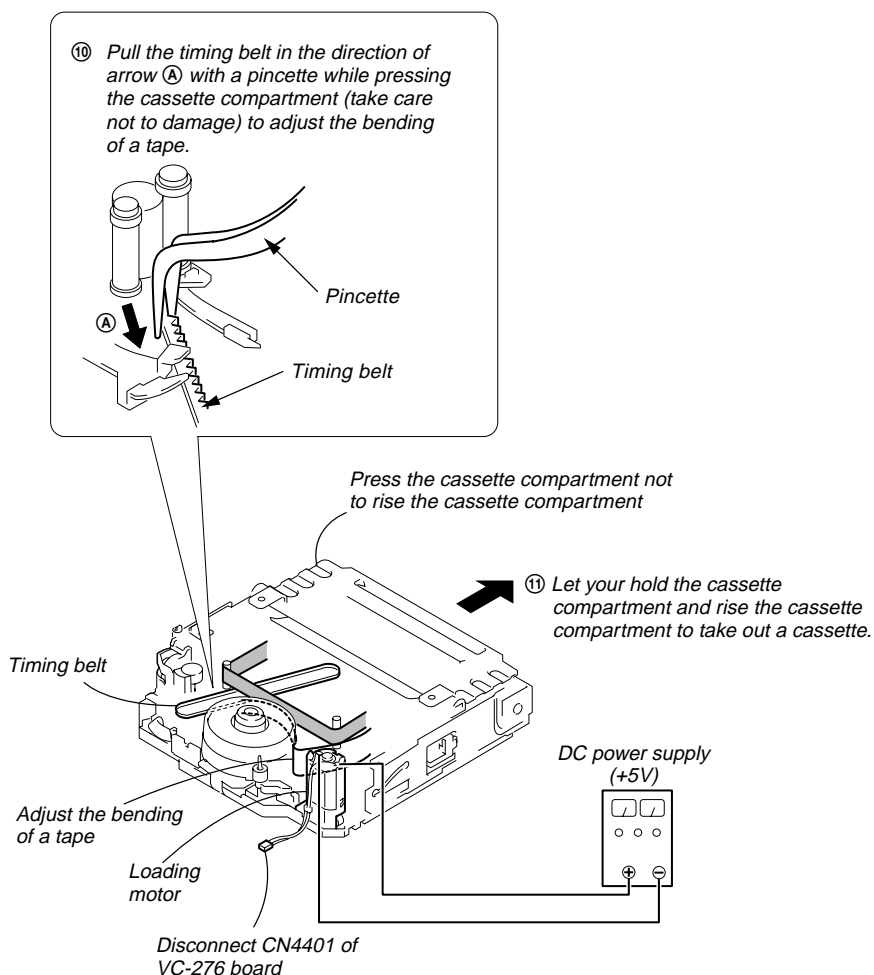
Use the DC IN terminal. (Use the AC power adaptor.)

### Method 2.

Connect the adjustment remote commander RM-95 (J-6082-053-B) to the LANC jack, and set the HOLD switch to the "ADJ" side.

## 2. TO TAKE OUT A CASSETTE WHEN NOT EJECT (FORCE EJECT)

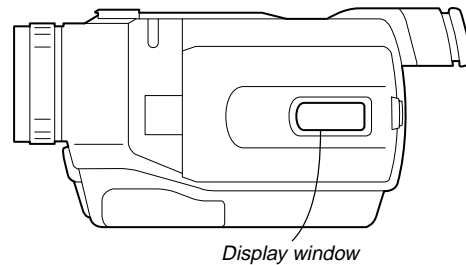
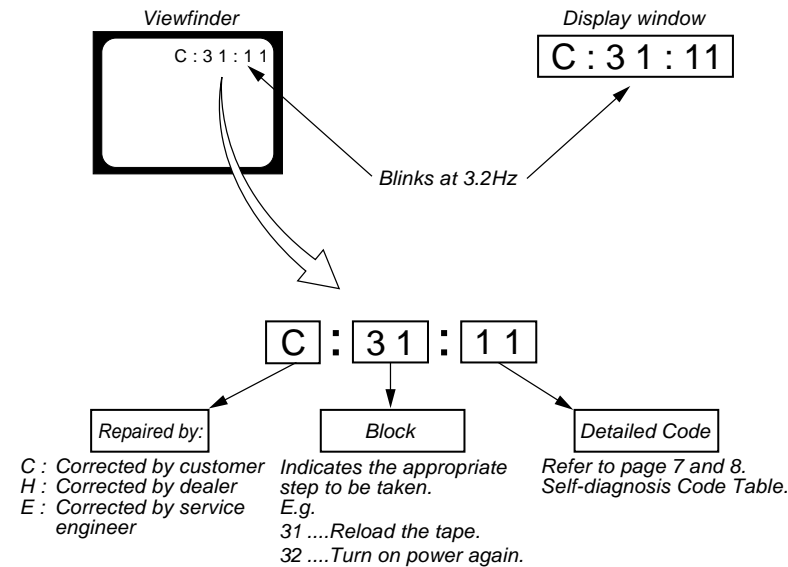
- ① Refer to 2-3. to remove the front panel section.
- ② Refer to 2-6. to remove the cabinet (upper) section.
- ③ Refer to 2-6. to remove the cabinet (R) section.
- ④ Refer to 2-7. to remove the lens section.
- ⑤ Refer to 2-8. to remove the EVF section.
- ⑥ Refer to 2-10. to remove the battery panel section.
- ⑦ Refer to 2-12. and 2-13. to remove the cabinet (L) section. (Include the control switch block (SS-1380).)
- ⑧ Disconnect CN440-1 (2P) of VC-276 board.
- ⑨ Add +5V from the DC POWER SUPPLY and unload with a pressing the cassette compartment.



## 1. Self-diagnosis Function

When problems occur while the unit is operating, the self-diagnosis function starts working, and displays on the viewfinder or Display window what to do. This function consists of two display; self-diagnosis display and service mode display.

Details of the self-diagnosis functions are provided in the Instruction manual.

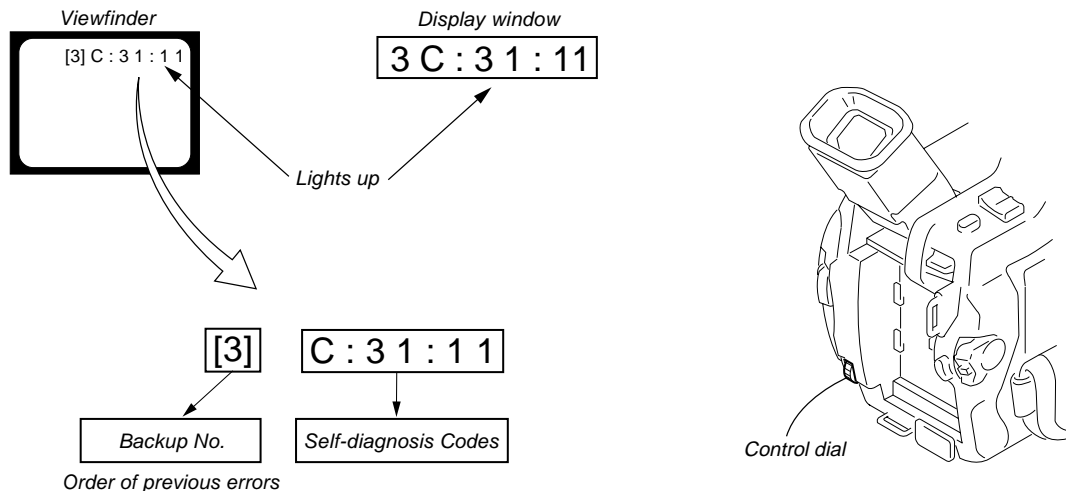


## 3. Service Mode Display

The service mode display shows up to six self-diagnosis codes shown in the past.

### 3-1. Display Method

While pressing the "STOP" key, set the switch from OFF to "VTR or PLAYER", and continue pressing the "STOP" key for 5 seconds continuously. The service mode will be displayed, and the counter will show the backup No. and the 5-character self-diagnosis codes.



### 3-2. Switching of Backup No.

By rotating the control dial, past self-diagnosis codes will be shown in order. The backup No. in the [] indicates the order in which the problem occurred. (If the number of problems which occurred is less than 6, only the number of problems which occurred will be shown.)

- |                            |                              |
|----------------------------|------------------------------|
| [1] : Occurred first time  | [4] : Occurred fourth time   |
| [2] : Occurred second time | [5] : Occurred fifth time    |
| [3] : Occurred third time  | [6] : Occurred the last time |

### 3-3. End of Display

Turning OFF the power supply will end the service mode display.

**Note:** The "self-diagnosis display" data will be backed up by the coin-type lithium battery (CF-2500 block BT101). When the CF-2500 block is disconnected, the "self-diagnosis display" data will be lost by initialization.

#### 4. Self-diagnosis Code Table

Repaired by:	Self-diagnosis Code		Symptom/State	Correction
	Block Function	Detailed Code		
C	0 4	0 0	Non-standard battery is used.	Use the InfoLITHIUM battery.
C	2 1	0 0	Condensation.	Remove the cassette, and insert it again after one hour.
C	2 2	0 0	Video head is dirty.	Clean with the optional cleaning cassette.
C	3 1	1 0	LOAD direction. Loading does not complete within specified time	Load the tape again, and perform operations from the beginning.
C	3 1	1 1	UNLOAD direction. Loading does not complete within specified time	Load the tape again, and perform operations from the beginning.
C	3 1	2 0	T reel side tape slacking when unloading.	Load the tape again, and perform operations from the beginning.
C	3 1	2 1	S reel side tape slacking when unloading.	Load the tape again, and perform operations from the beginning.
C	3 1	2 2	T reel fault.	Load the tape again, and perform operations from the beginning.
C	3 1	2 3	S reel fault.	Load the tape again, and perform operations from the beginning.
C	3 1	3 0	FG fault when starting capstan.	Load the tape again, and perform operations from the beginning.
C	3 1	3 1	FG fault during normal capstan operations.	Load the tape again, and perform operations from the beginning.
C	3 1	4 0	FG fault when starting drum.	Load the tape again, and perform operations from the beginning.
C	3 1	4 1	PG fault when starting drum.	Load the tape again, and perform operations from the beginning.
C	3 1	4 2	FG fault during normal drum operations.	Load the tape again, and perform operations from the beginning.
C	3 1	4 3	PG fault during normal drum operations.	Load the tape again, and perform operations from the beginning.
C	3 1	4 4	Phase fault during normal drum operations.	Load the tape again, and perform operations from the beginning.
C	3 2	1 0	LOAD direction loading motor time-out.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	1 1	UNLOAD direction loading motor time-out.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 0	T reel side tape slacking when unloading.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 1	S reel side tape slacking when unloading.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 2	T reel fault.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 3	S reel fault.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	3 0	FG fault when starting capstan.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	3 1	FG fault during normal capstan operations.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	4 0	FG fault when starting drum.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	4 1	PG fault when starting drum.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	4 2	FG fault during normal drum operations.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	4 3	PG fault during normal drum operations.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	4 4	Phase fault during normal drum operations.	Remove the battery or power cable, connect, and perform operations from the beginning.

Self-diagnosis Code			Symptom/State	Correction
Repaired by:	Block Function	Detailed Code		
E	6 1	0 0	Difficult to adjust focus (Cannot initialize focus.)	Inspect the lens block focus reset sensor (Pin ⑬ of CN1551 of VC-276 board) when focusing is performed when the focus ring is rotated in the focus manual mode and the focus motor drive circuit (IC1553 of VC-276 board) when the focusing is not performed.
E	6 1	1 0	Zoom operations fault (Cannot initialize zoom lens.)	Inspect the lens block zoom reset sensor (Pin ⑫ of CN1551 of VC-276 board) when zooming is performed when the zoom switch is operated and the zoom motor drive circuit (IC1553 of VC-276 board) when zooming is not performed.
E	6 2	0 0	Handshake correction function does not work well. (With pitch angular velocity sensor output stopped.)	Inspect pitch angular velocity sensor (SE301 of SE-032 board) peripheral circuits.
E	6 2	0 1	Handshake correction function does not work well. (With yaw angular velocity sensor output stopped.)	Inspect yaw angular velocity sensor (SE302 of SE-032 board) peripheral circuits.



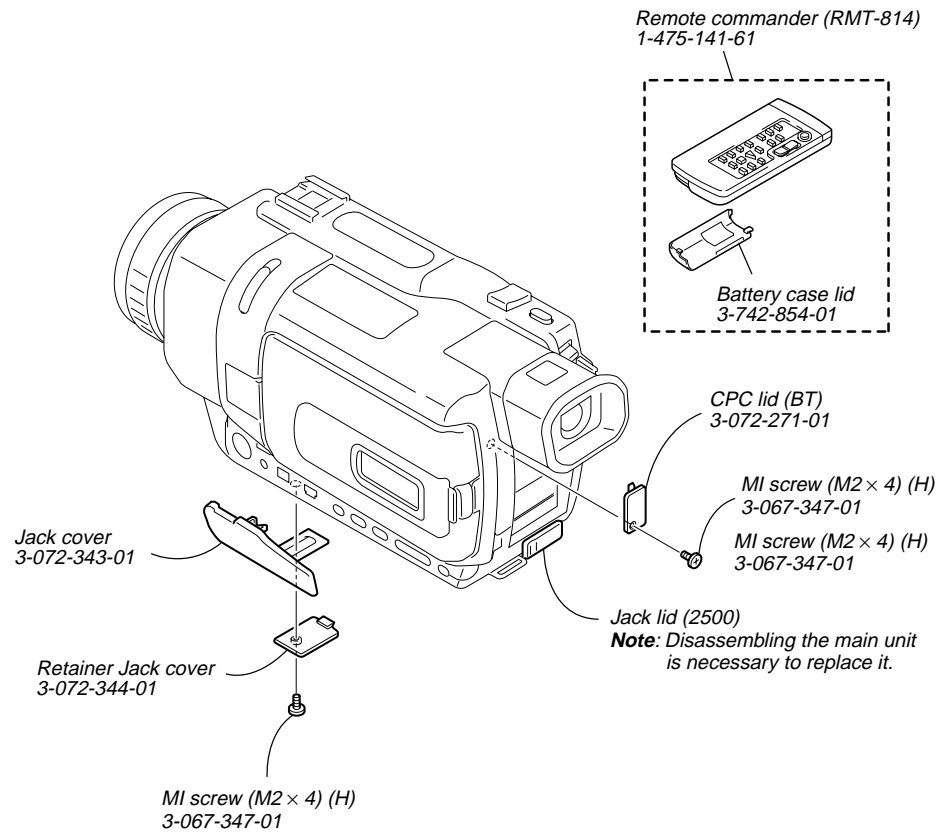
## 1. MAIN PARTS

### Note:

- Follow the disassembly procedure in the numerical order given.
- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The parts numbers of such as a cabinet are also appeared in this section. Refer to the parts number mentioned below the name of parts to order.

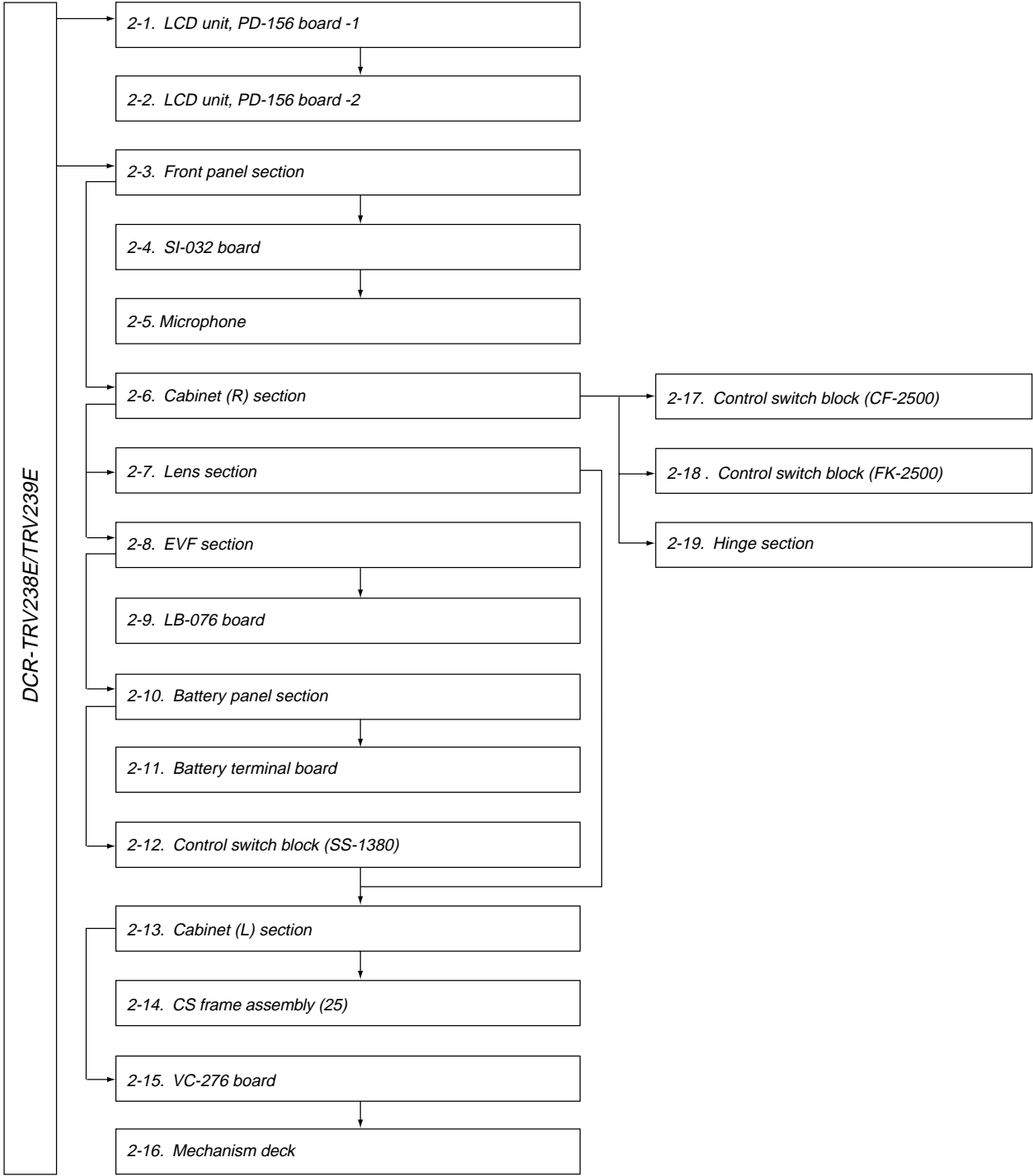
The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

### 1. ORNAMENTAL PARTS



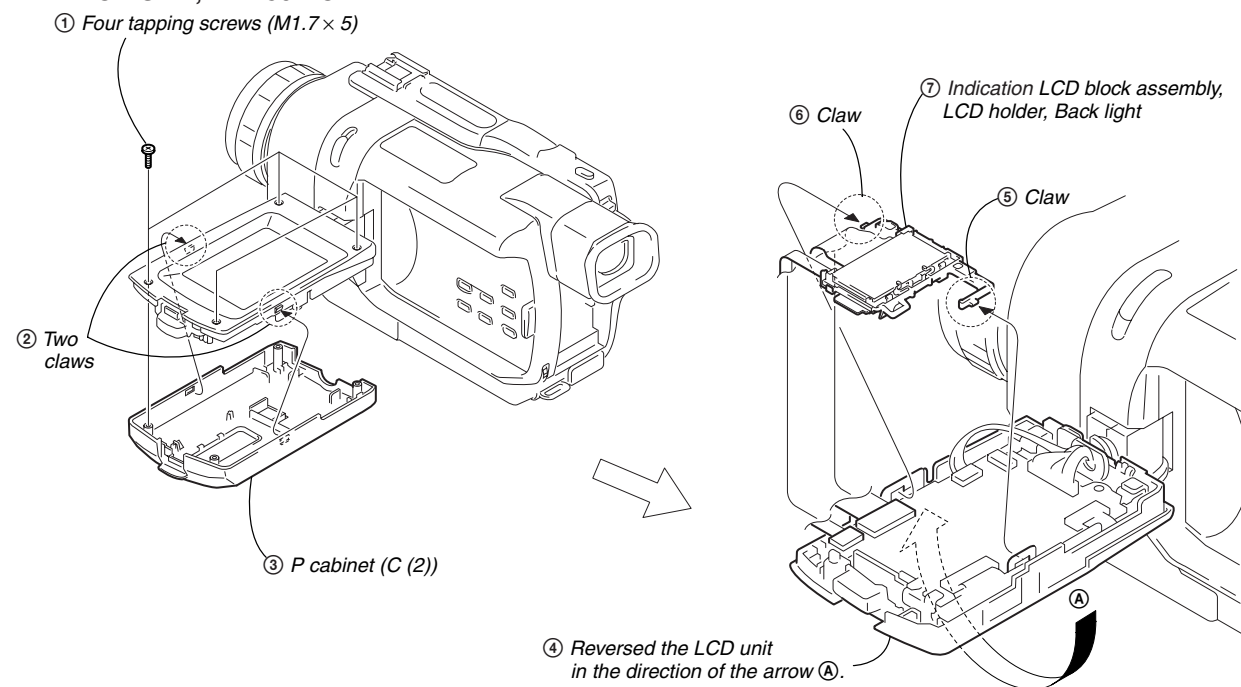
2. DISASSEMBLY

The following flow chart shows the disassembly procedure.

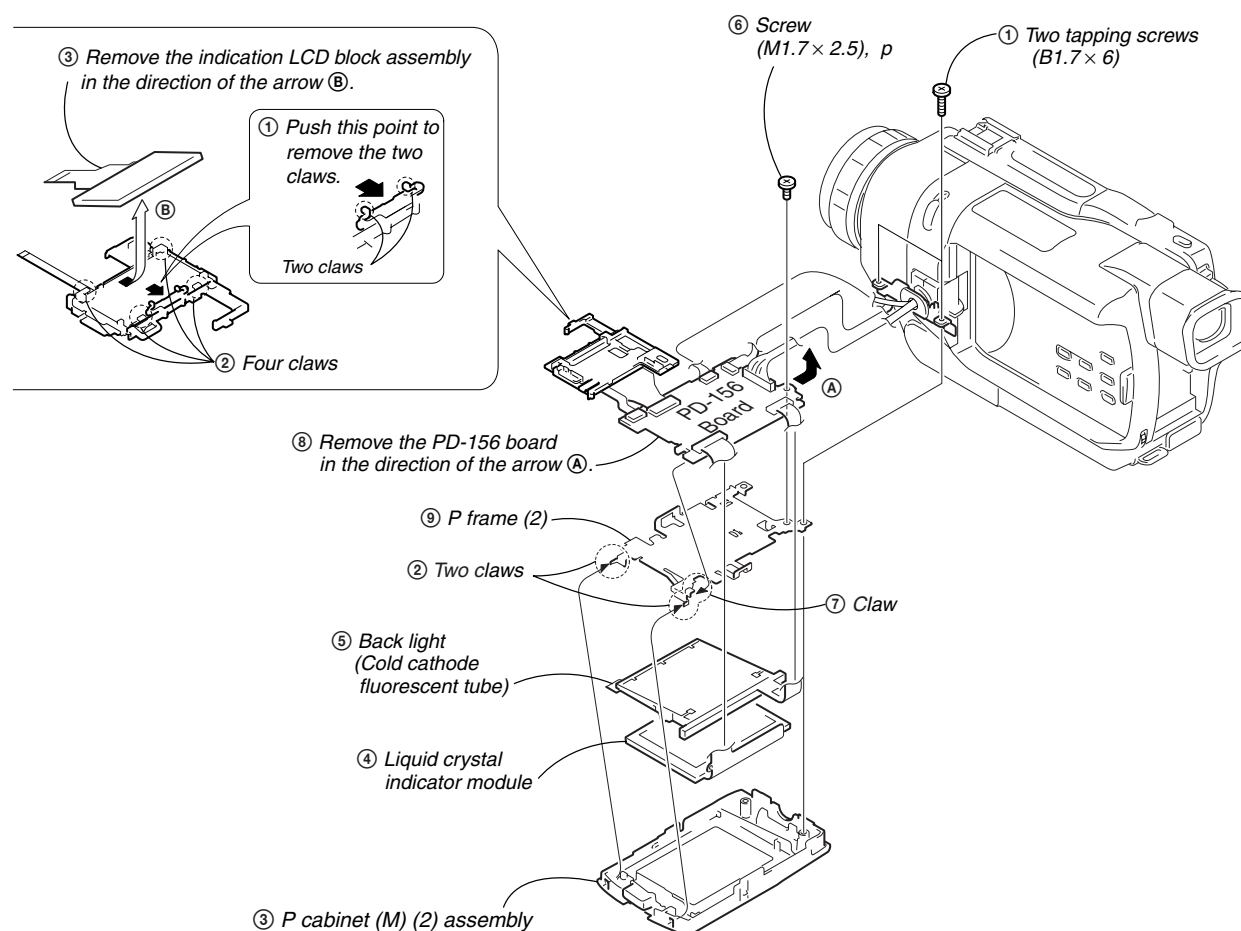


**NOTE:** Follow the disassembly procedure in the numerical order given.

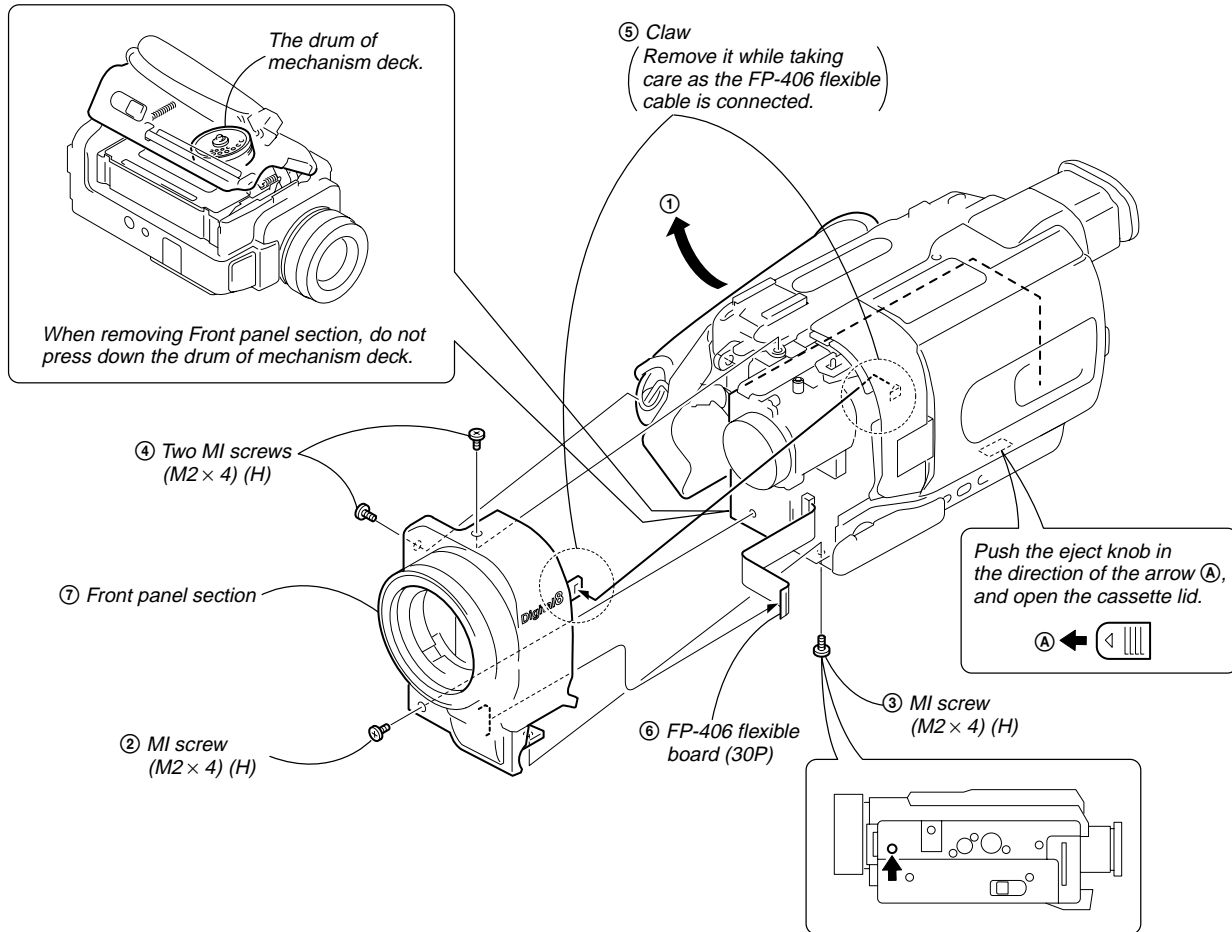
## 2-1. LCD UNIT, PD-156 BOARD-1



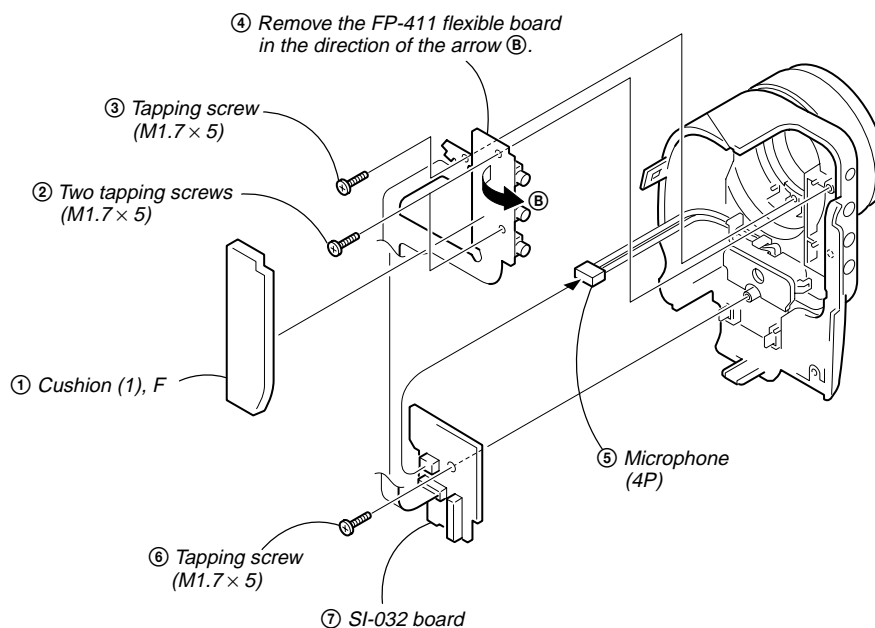
## 2-2. LCD UNIT, PD-156 BOARD-2



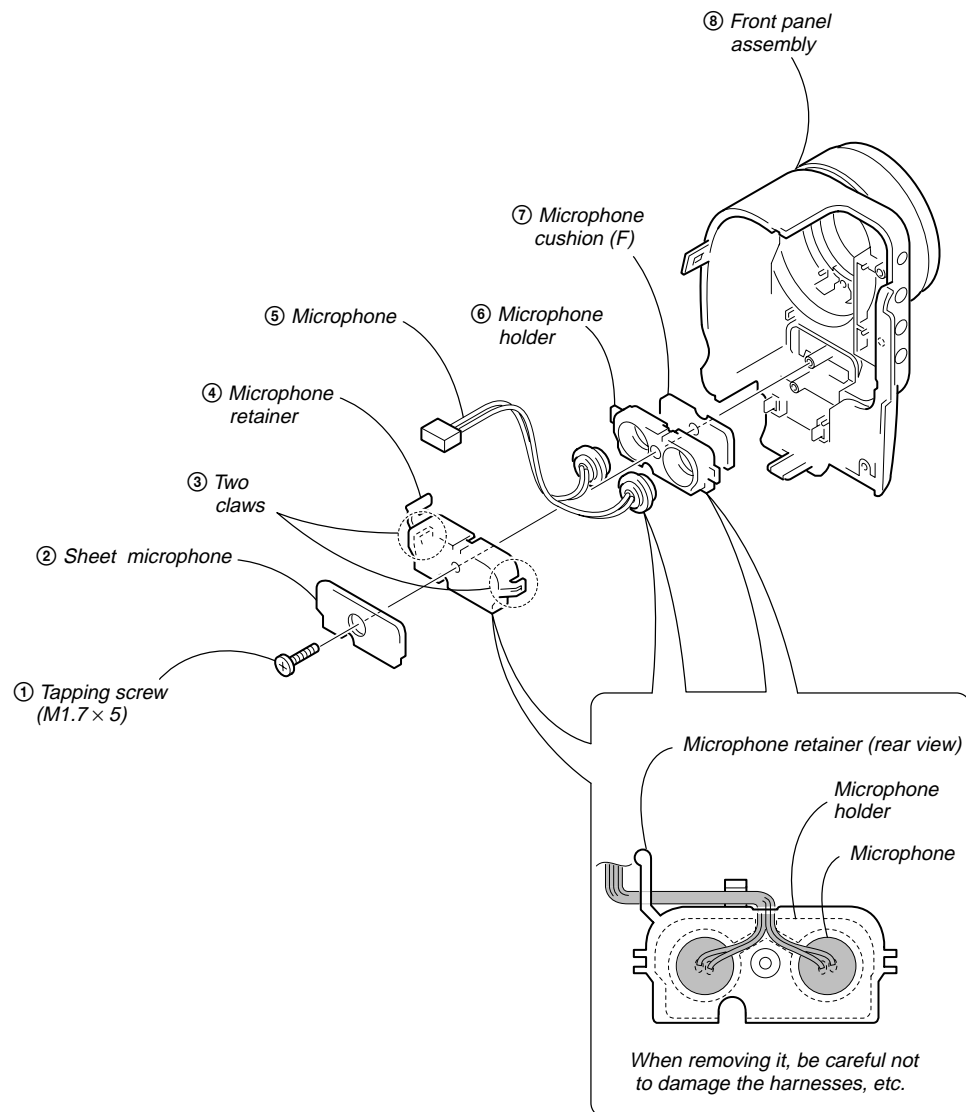
## 2-3. FRONT PANEL SECTION



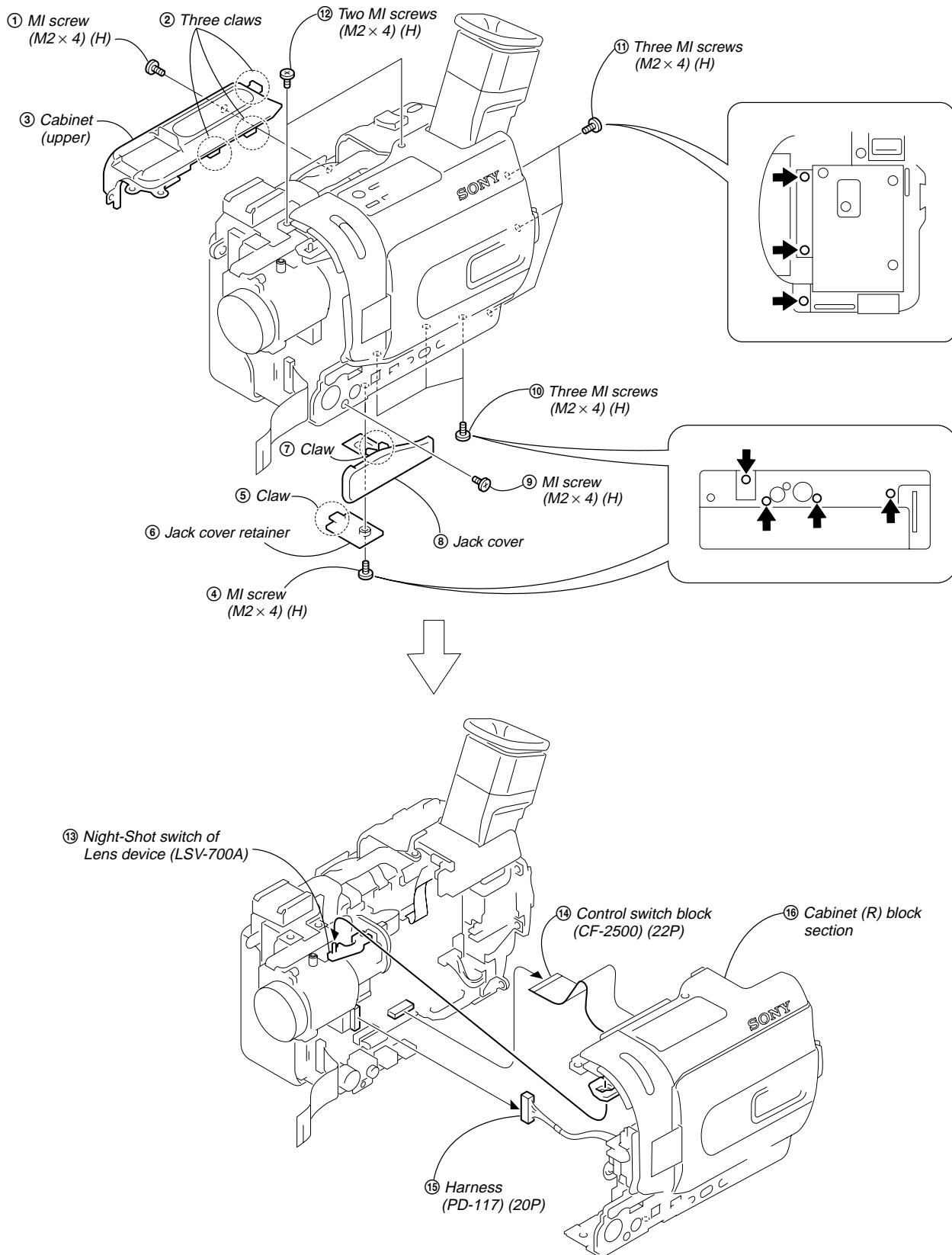
## 2-4. SI-032 BOARD



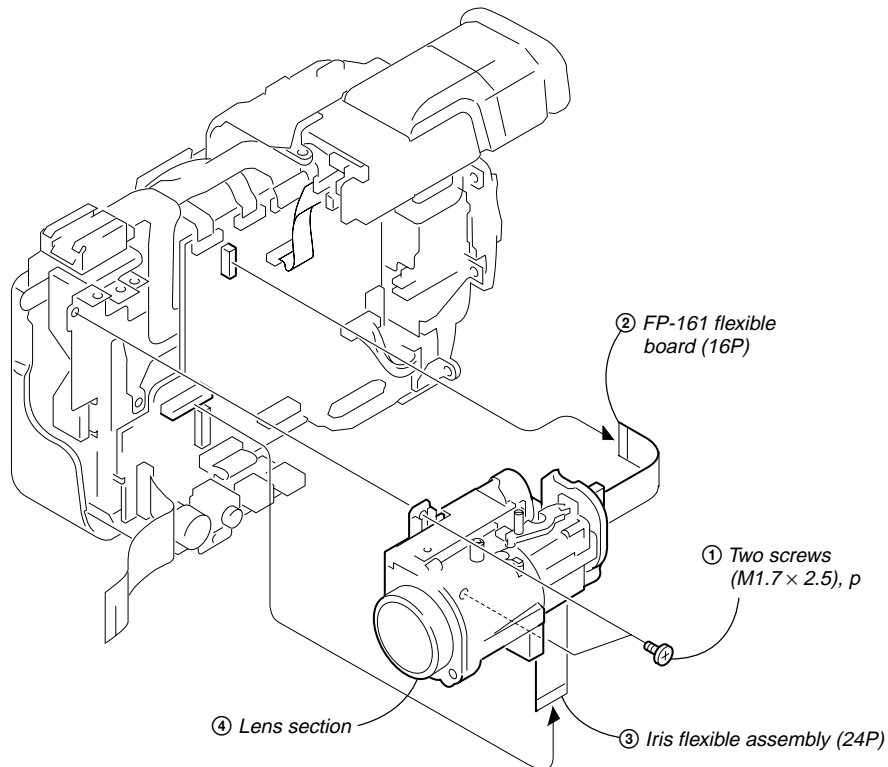
## 2-5. MICROPHONE



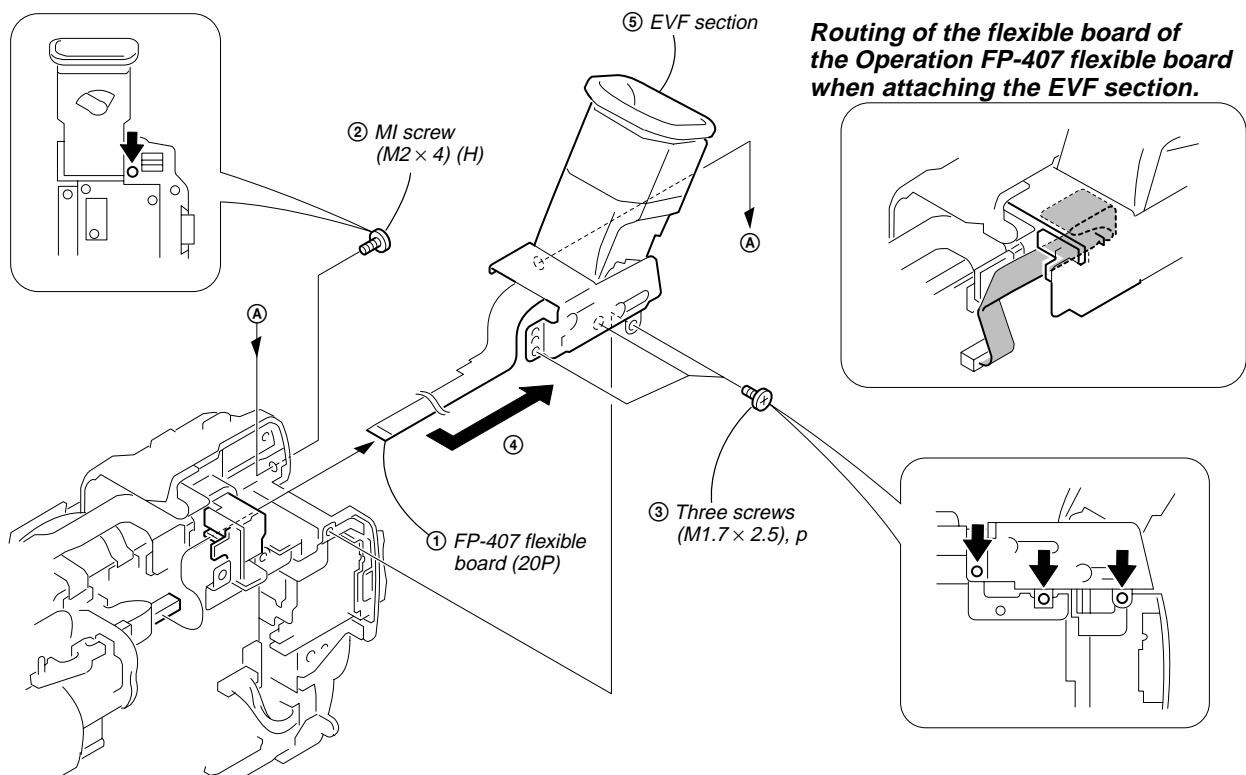
## 2-6. CABINET (R) SECTION



## 2-7. LENS SECTION

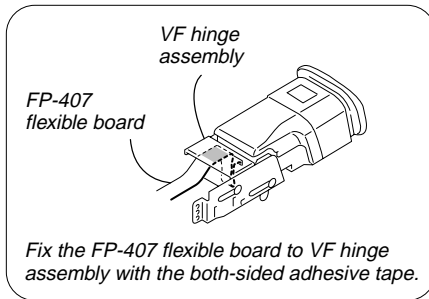


## 2-8. EVF SECTION

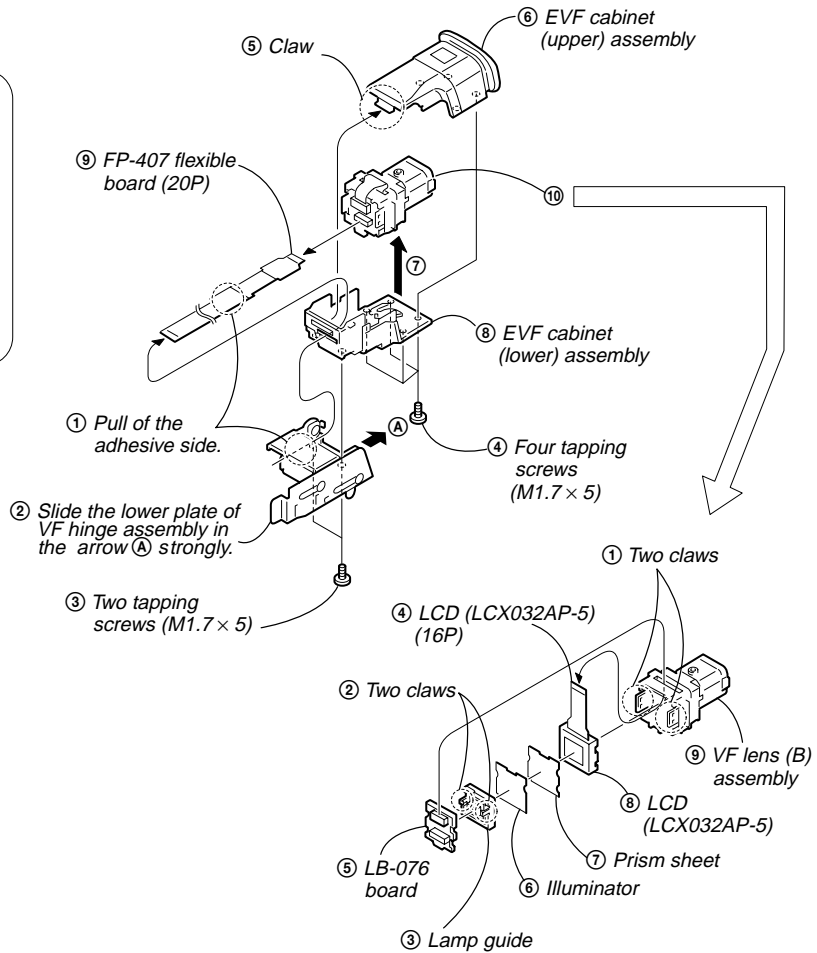
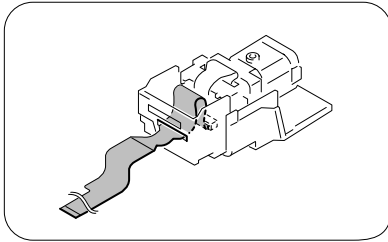


## 2-9. LB-076 BOARD

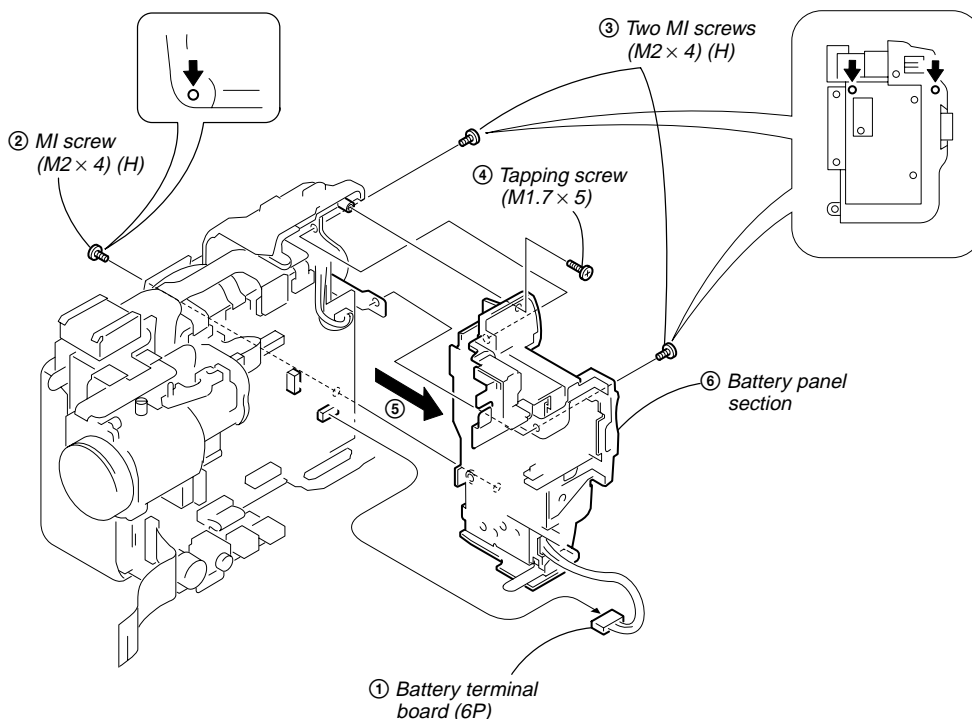
### PRECAUTION WHEN ATTACHING FP-407 FLEXIBLE BOARD



### Routing of the flexible board of the Operation FP-407 flexible board when attaching the EVF cabinet (lower) assembly.

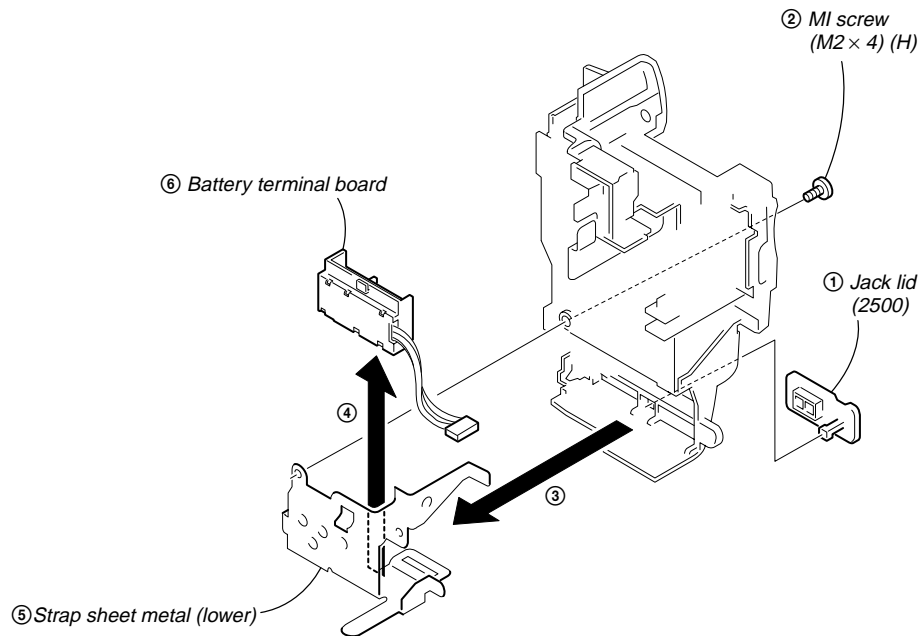


## 2-10. BATTERY PANEL SECTION

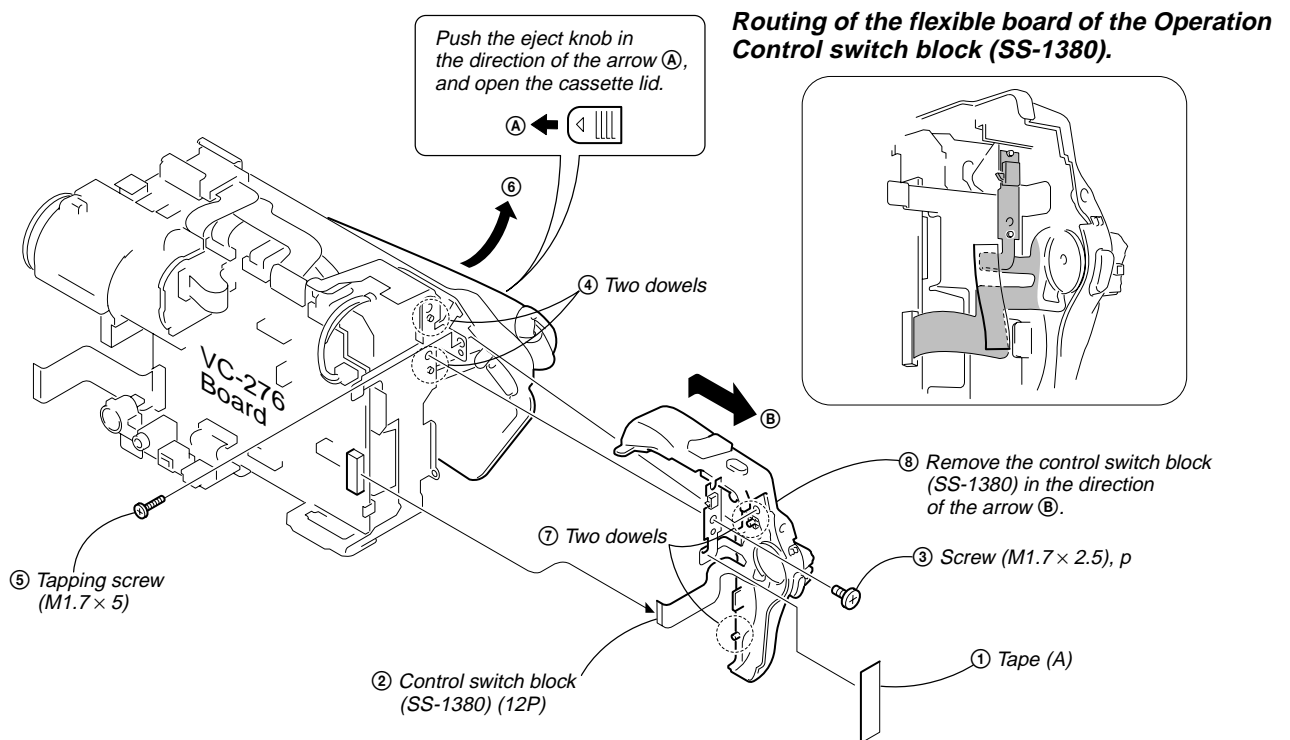




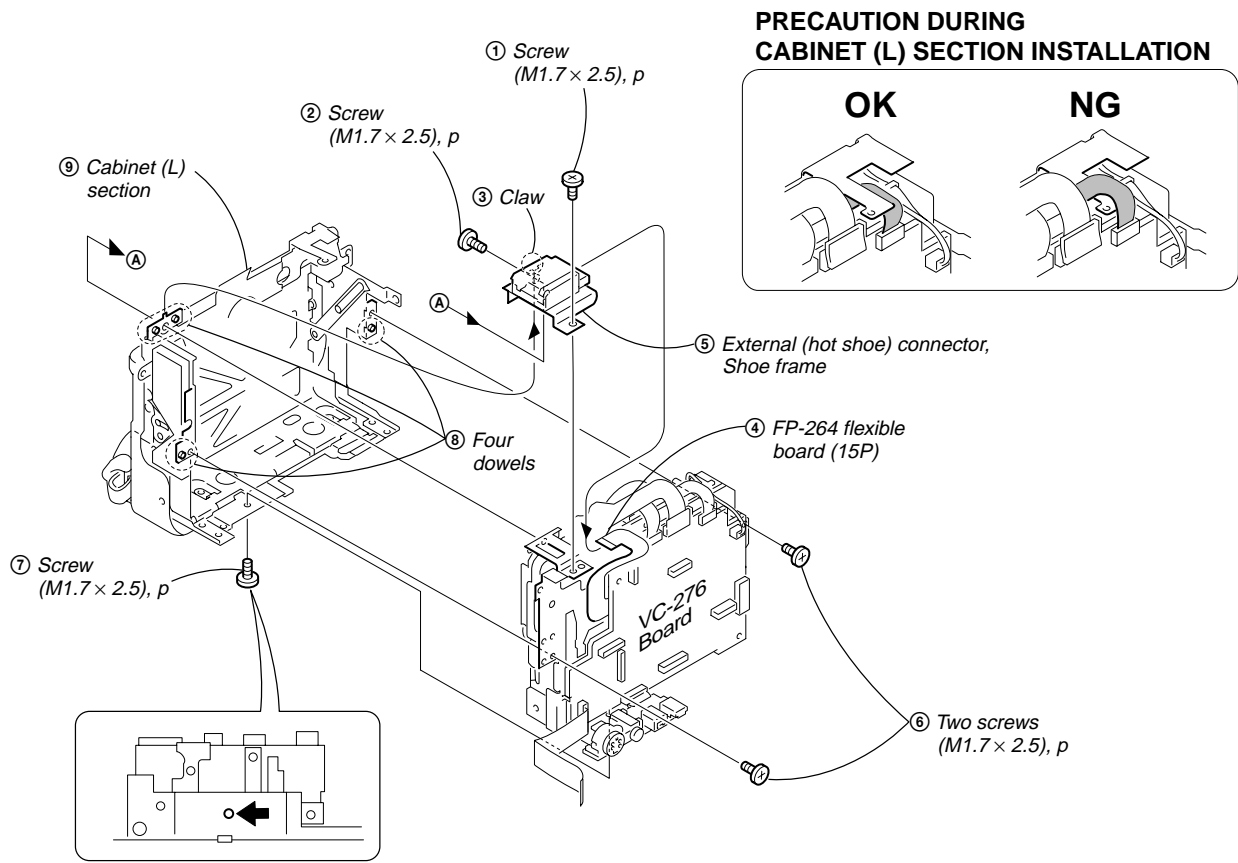
## 2-11. BATTERY TERMINAL BOARD



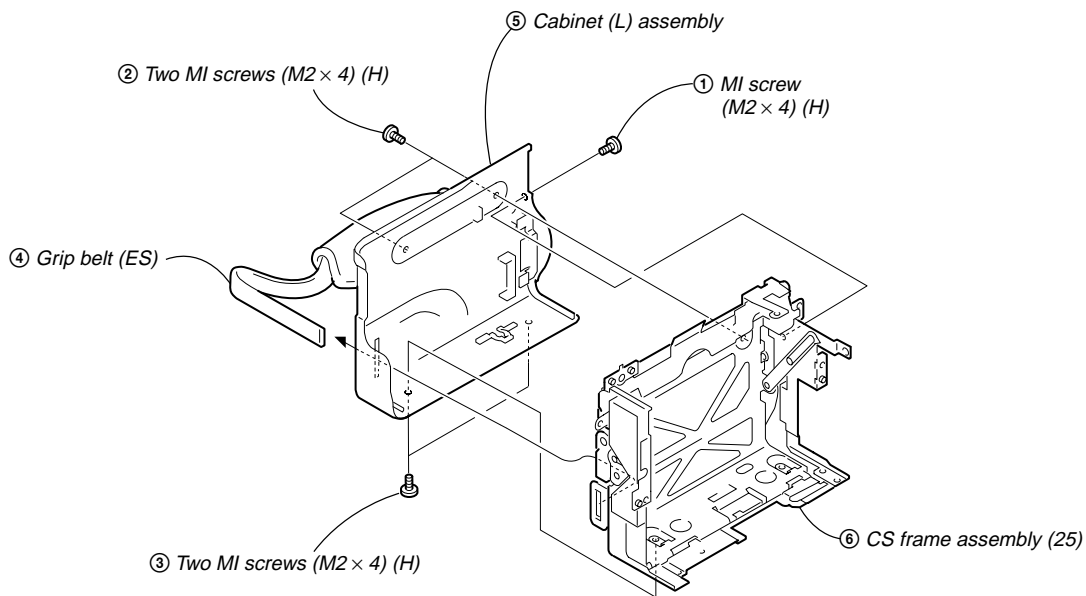
## 2-12. CONTROL SWITCH BLOCK (SS-1380)



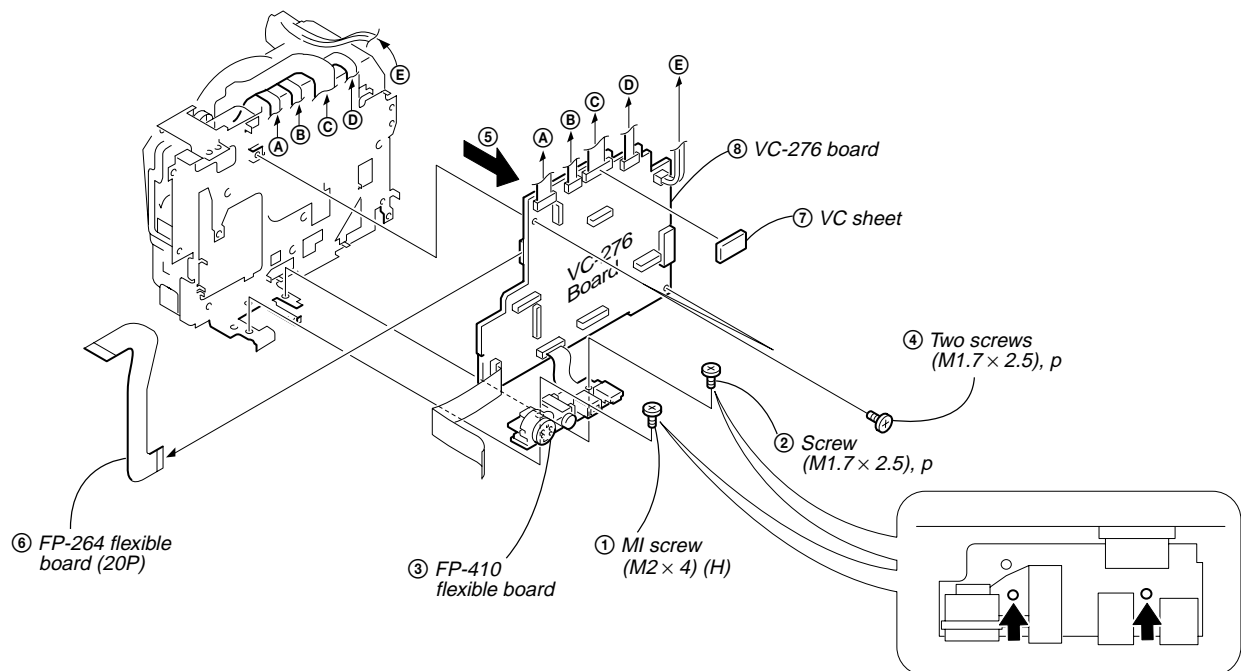
2-13. CABINET (L) SECTION



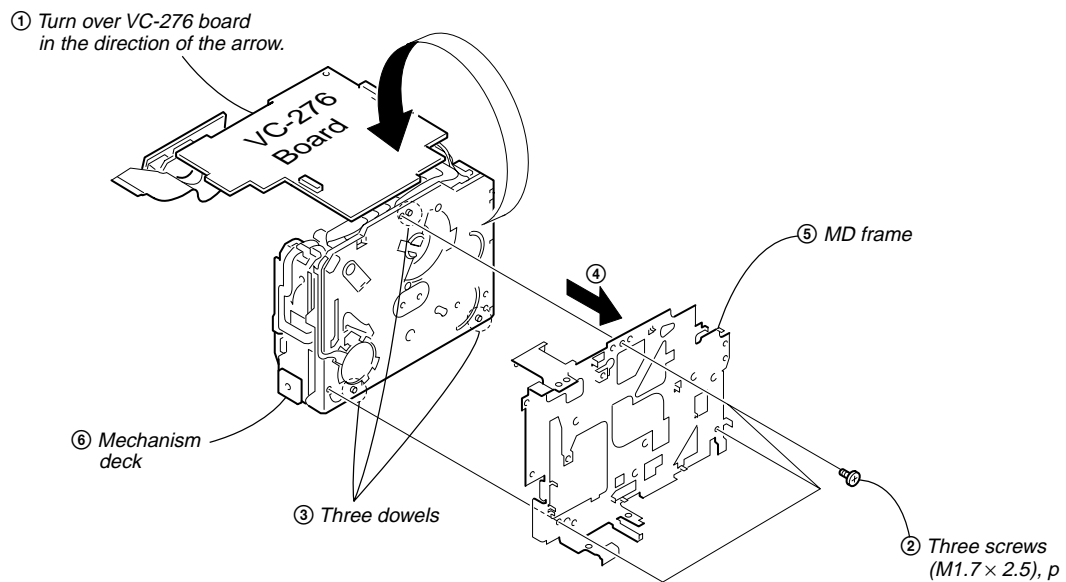
2-14. CS FRAME ASSEMBLY (25)



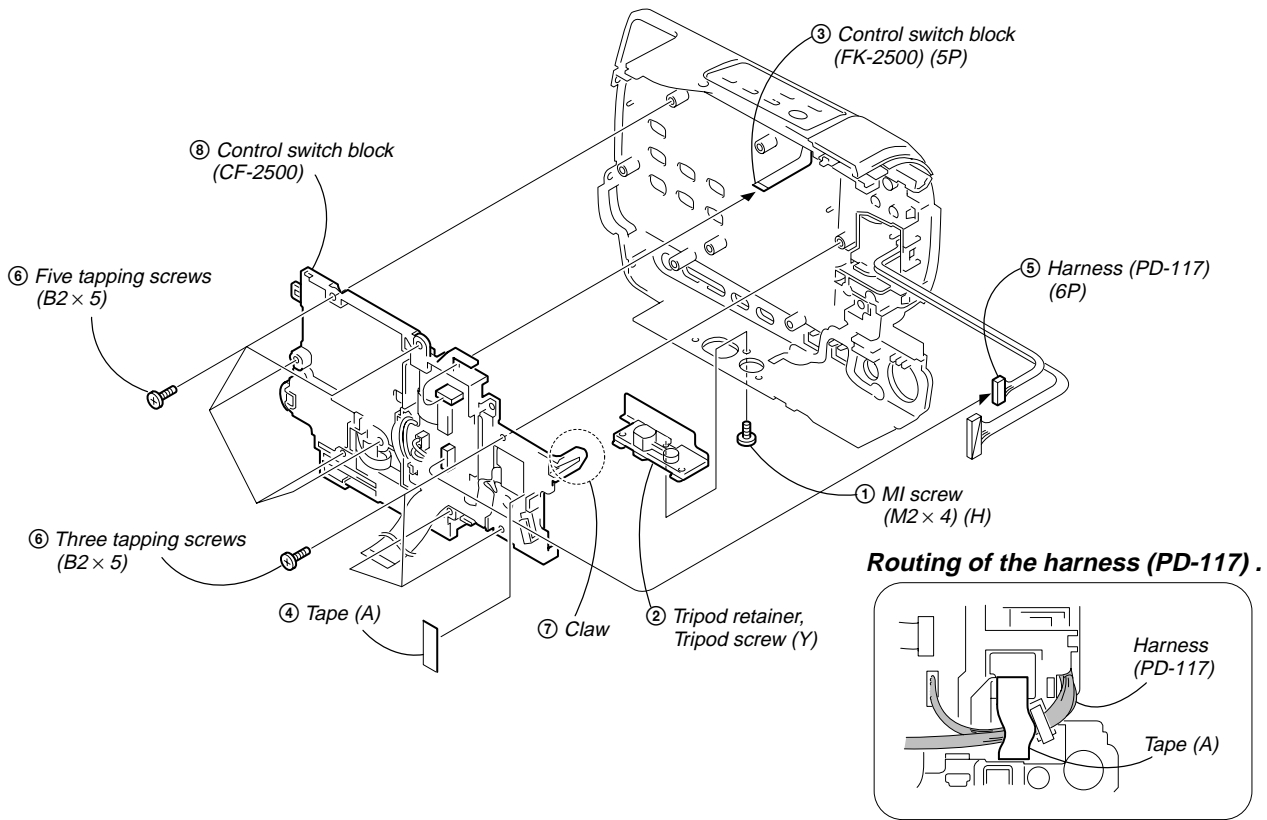
## 2-15. VC-276 BOARD



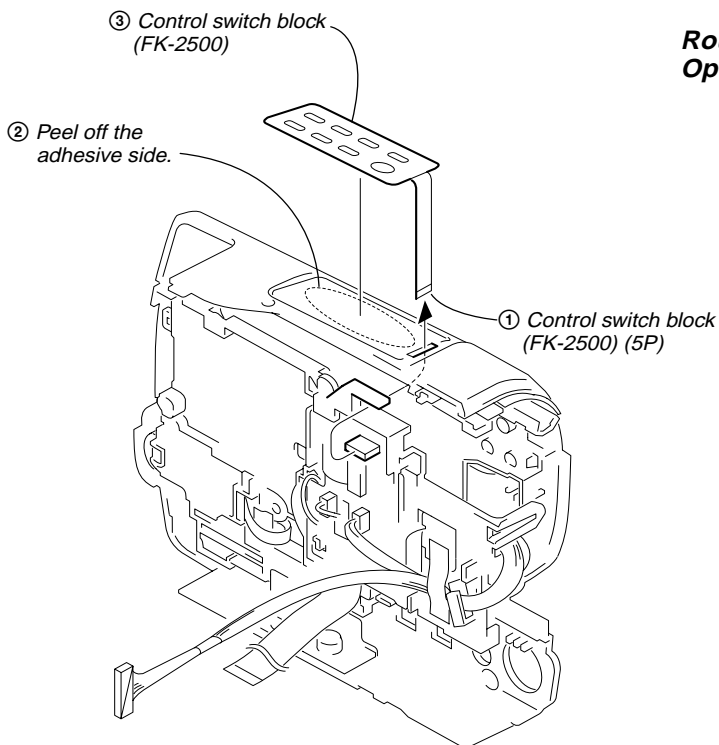
## 2-16. MECHANISM DECK



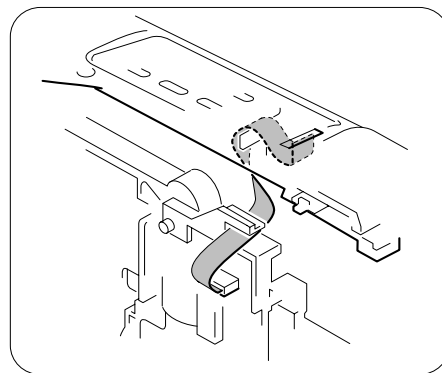
## 2-17. CONTROL SWITCH BLOCK (CF-2500)



## 2-18. CONTROL SWITCH BLOCK (FK-2500)

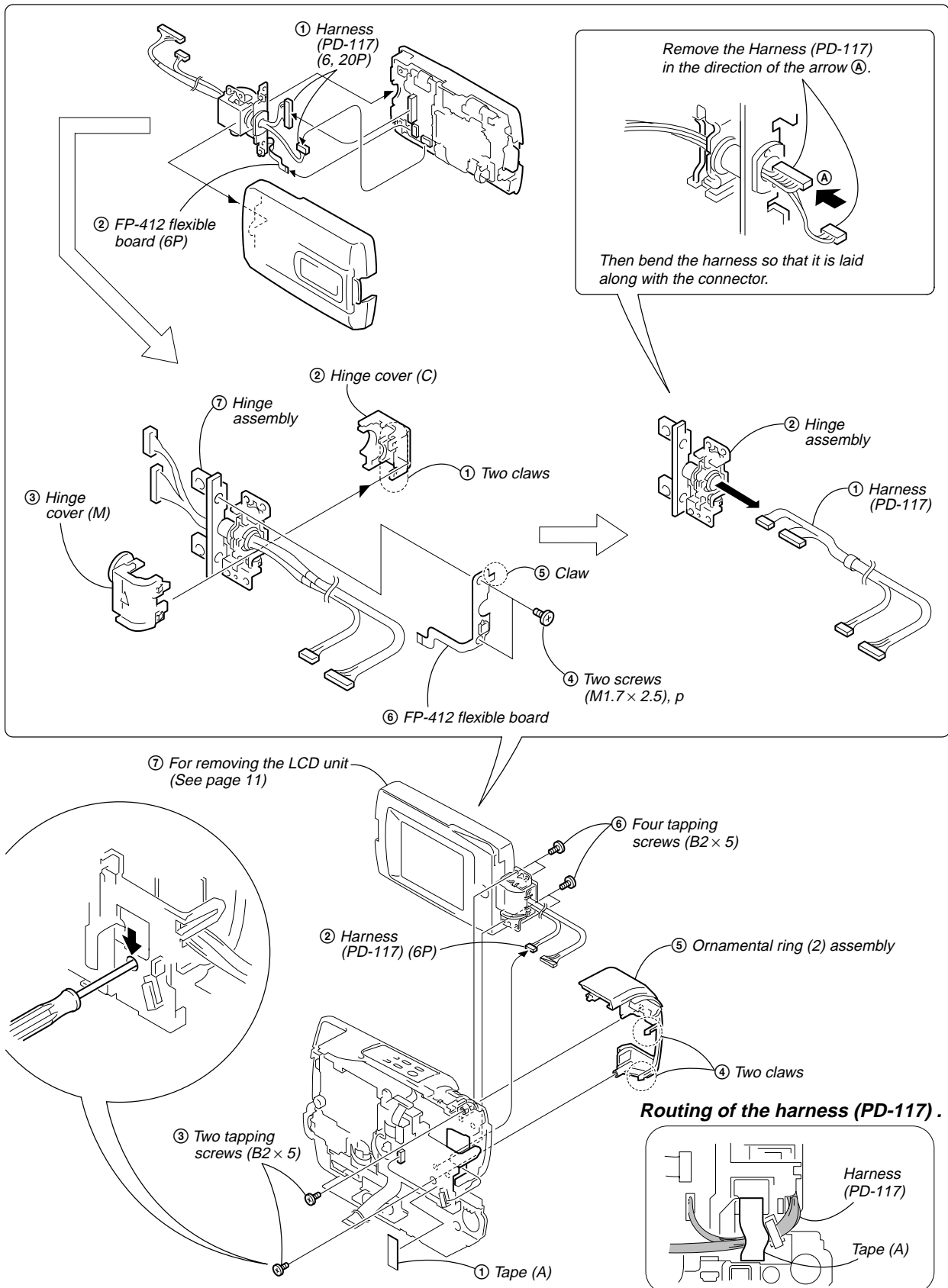


### Routing of the flexible board of the Operation Control switch block (FK-2500).



## 2-19. HINGE SECTION

## REMOVING THE HINGE ASSEMBLY



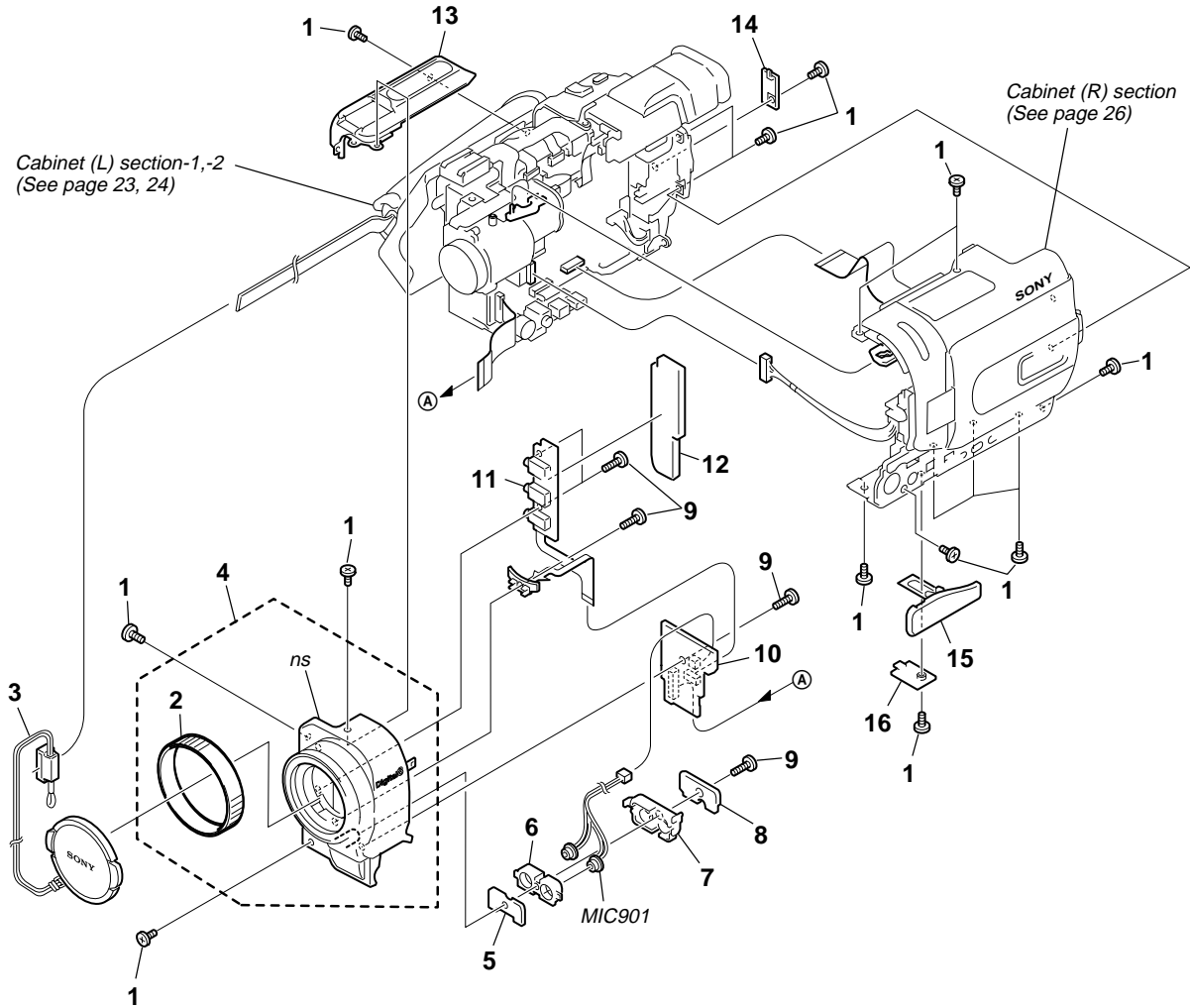
3. REPAIR PARTS LIST  
3-1. EXPLODED VIEWS

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.

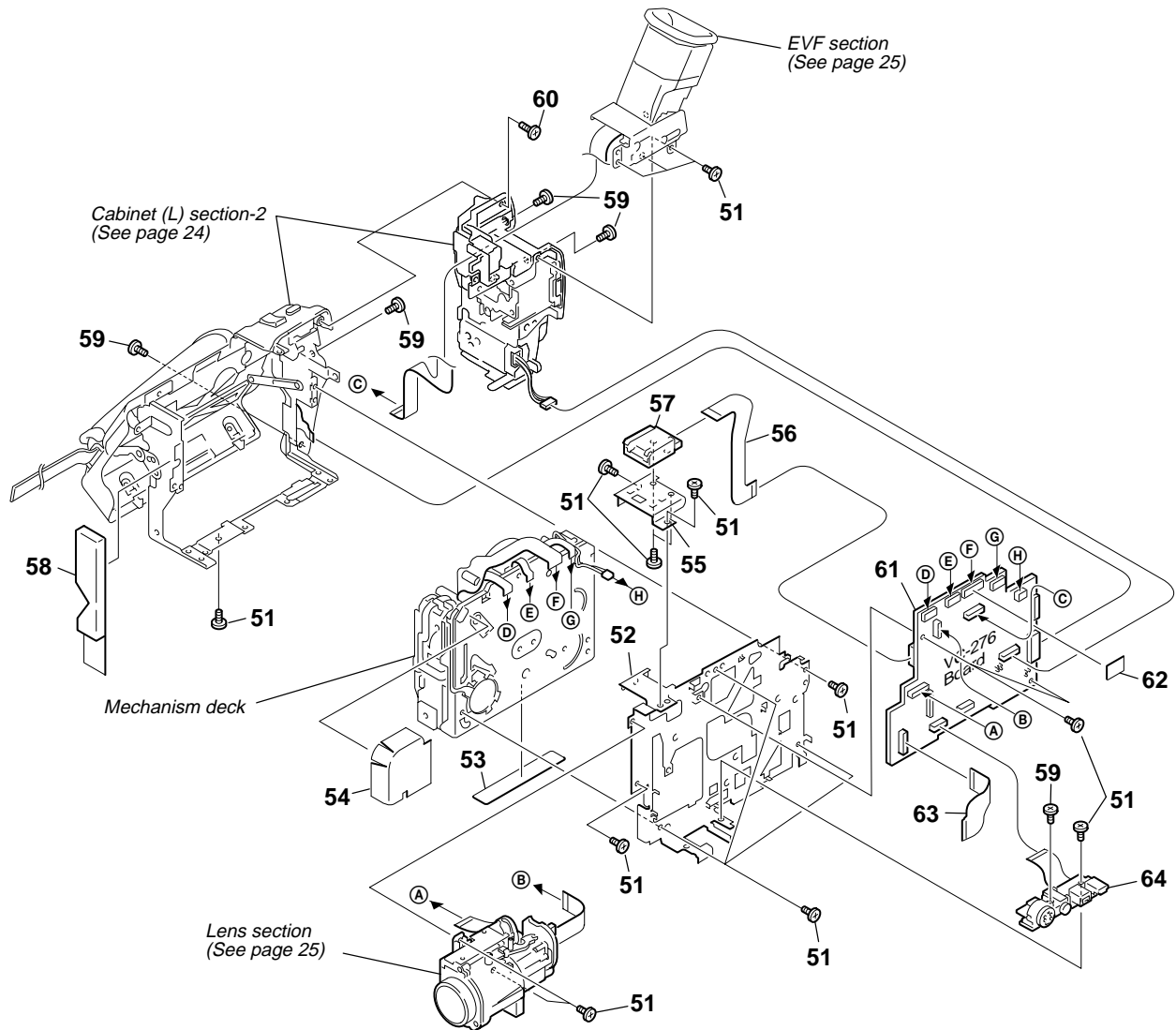
The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

3-1-1. OVERALL SECTION  
ns : not supplied



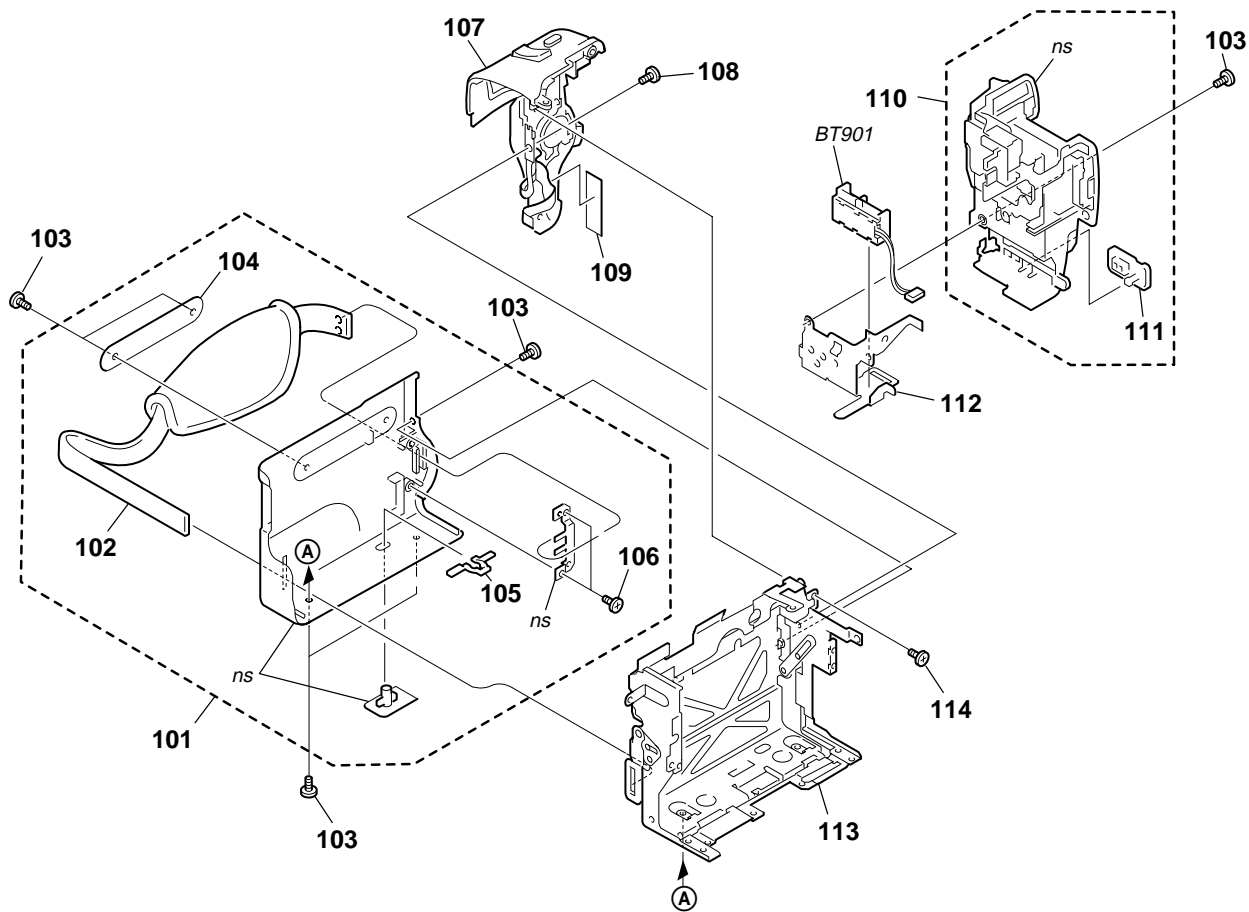
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	3-067-347-01	MI SCREW M2 (H)		9	3-065-567-01	TAPPING (M1.7)	
2	3-065-310-01	RING, RUBBER		10	not supplied	SI-032 BOARD, COMPLETE	
3	X-3949-376-1	CAP (N) ASSY, LENS		11	1-683-627-21	FP-411 FLEXIBLE BOARD	
4	X-3952-131-1	PANEL ASSY (24), FRONT (TRV238E)		12	3-072-309-01	CUSHION (1), F	
4	X-3952-246-1	PANEL ASSY (23D), FRONT (TRV239E)		13	3-065-326-01	CABINET (UPPER)	
5	3-072-279-01	CUSHION (F), MICROPHONE		14	3-072-271-01	LID (BT), CPC	
6	3-072-278-01	HOLDER, MICROPHONE		15	3-072-343-01	COVER, JACK	
7	3-072-277-01	RETAINER, MICROPHONE		16	3-072-344-01	RETAINER, JACK COVER	
8	3-072-307-01	SHEET, MICROPHONE		MIC901	1-542-477-11	MICROPHONE	

## 3-1-2. CABINET (L) SECTION-1



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
51	4-974-725-01	SCREW (M1.7X2.5), P		58	3-072-308-01	COVER, MD	
52	3-072-267-01	FRAME, MD		59	3-067-347-01	MI SCREW M2 (H)	
53	3-065-662-01	LABEL, LS CAUTION		60	3-065-567-01	TAPPING (M1.7)	
54	3-066-169-01	SHEET, MD		61	not supplied	VC-276 (QPAO) BOARD, COMPLETE (SERVICE)	
55	3-072-268-01	FRAME, SHOE		62	3-066-759-01	SHEET, VC	
56	1-680-118-11	FP-264 FLEXIBLE BOARD		63	1-683-623-11	FP-406 FLEXIBLE BOARD	
57	1-815-124-21	CONNECTOR, EXTERNAL (HOT SHOE)		64	1-683-626-21	FP-410 FLEXIBLE BOARD	

3-1-3. CABINET (L) SECTION-2  
ns : not supplied

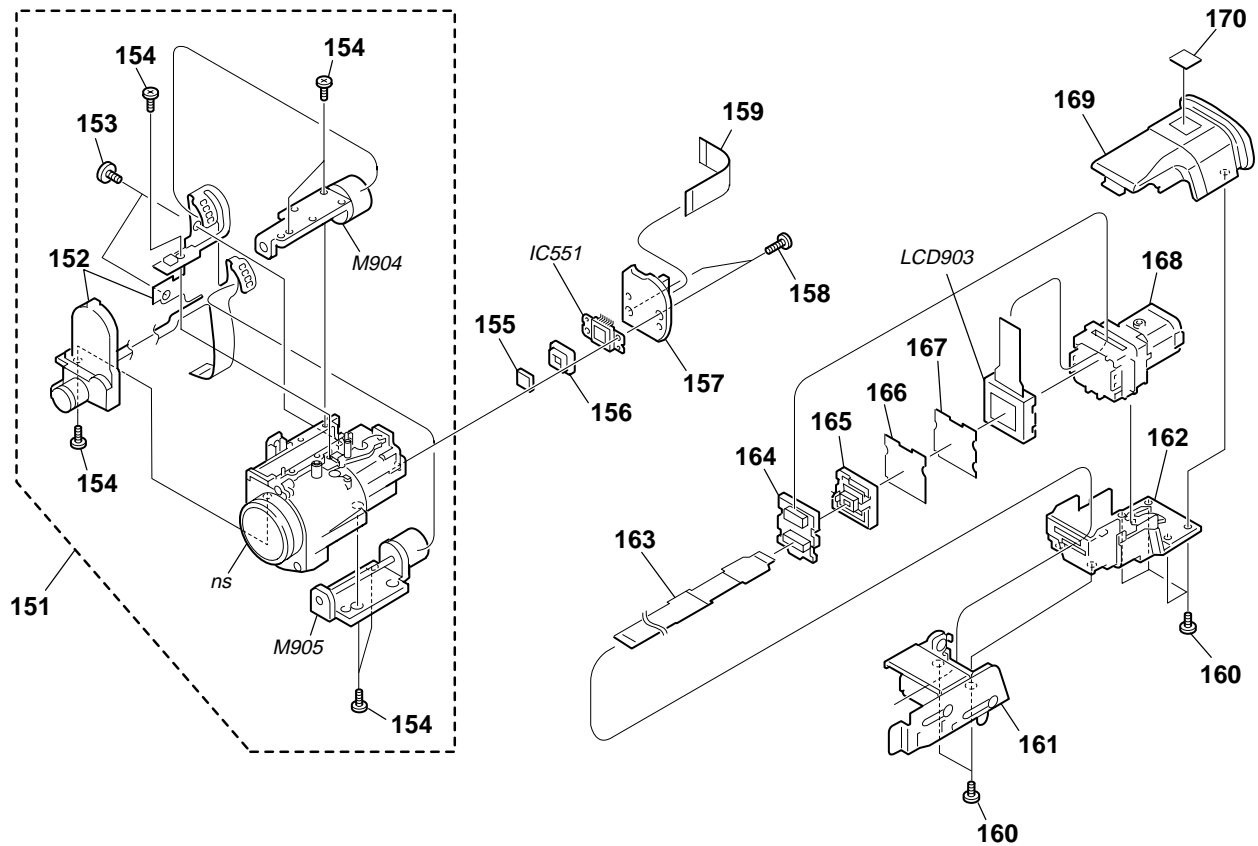


Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
101	X-3951-159-1	CABINET (L) ASSY		109	3-941-343-21	TAPE (A)	
102	3-052-815-01	BELT (ES), GRIP		110	X-3952-149-1	PANEL ASSY, BATTERY	
103	3-067-347-01	MI SCREW M2 (H)		111	3-072-305-01	LID (2500), JACK	
104	3-065-308-01	LABEL (L)		112	3-072-274-01	SHEET METAL (LOWER), STRAP	
105	3-978-765-01	SLIDER, G LOCK		113	X-3952-136-1	FRAME ASSY (25), CS	
106	3-713-791-01	SCREW (M1.7X4), TAPPING, P2		114	3-065-567-01	TAPPING (M1.7)	
107	1-476-415-41	SWITCH BLOCK, CONTROL (SS-1380)		BT901	1-694-772-11	TERMINAL BOARD, BATTERY	
108	4-974-725-01	SCREW (M1.7X2.5), P					



**3-1-4. LENS, EVF SECTION**

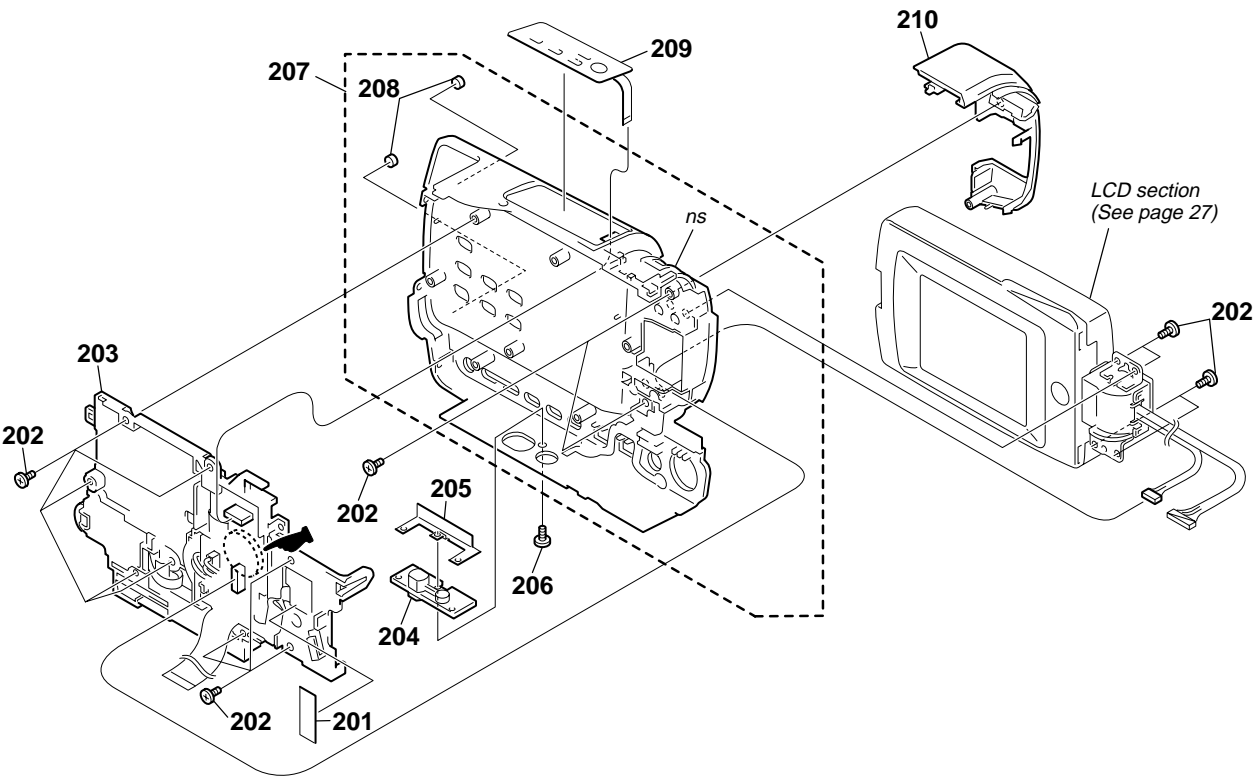
ns : not supplied




Ref. No.	Part No.	Description	Remarks
151	not supplied	DEVICE, LENS LSV-700A	
152	not supplied	IRIS FLEXIBLE, ASSY	
153	not supplied	TAPPING (B1.7X3.5), HEAD	
154	not supplied	SCREW, TAPPING (M1.7X5),P2	
155	not supplied	FILTER BLOCK, OPTICAL	
156	not supplied	RUBBER (W), SEAL	
157	not supplied	CD-357 (Q) BOARD, COMPLETE	
158	not supplied	SCREW (B1.7X6), TAPPING	
159	1-676-822-11	FP-161 FLEXIBLE BOARD	
160	3-065-567-01	TAPPING (M1.7)	
161	X-3951-165-1	HINGE ASSY, VF	
162	X-3952-134-1	CABINET (LOWER) ASSY, EVF	

Ref. No.	Part No.	Description	Remarks
163	1-683-624-11	FP-407 FLEXIBLE BOARD	
164	not supplied	LB-076 BOARD, COMPLETE	
165	3-065-058-01	GUIDE, LAMP	
166	3-072-211-01	ILLUMINATOR	
167	3-072-210-01	SHEET, PRISM	
168	X-3952-214-1	LENS (B) ASSY, VF	
169	X-3952-132-1	CABINET (UPPER) ASSY, EVF	
* 170	3-065-376-01	LABEL (138), B	
IC551	not supplied	CCD BLOCK ASSY (CCD IMAGER)	
LCD903	8-753-028-49	LCX032AP-5	
M904	not supplied	MOTOR STEPPING Z700 (ZOOM)	
M905	not supplied	MOTOR STEPPING F700 (FOCUS)	

3-1-5. CABINET (R) SECTION  
ns : not supplied

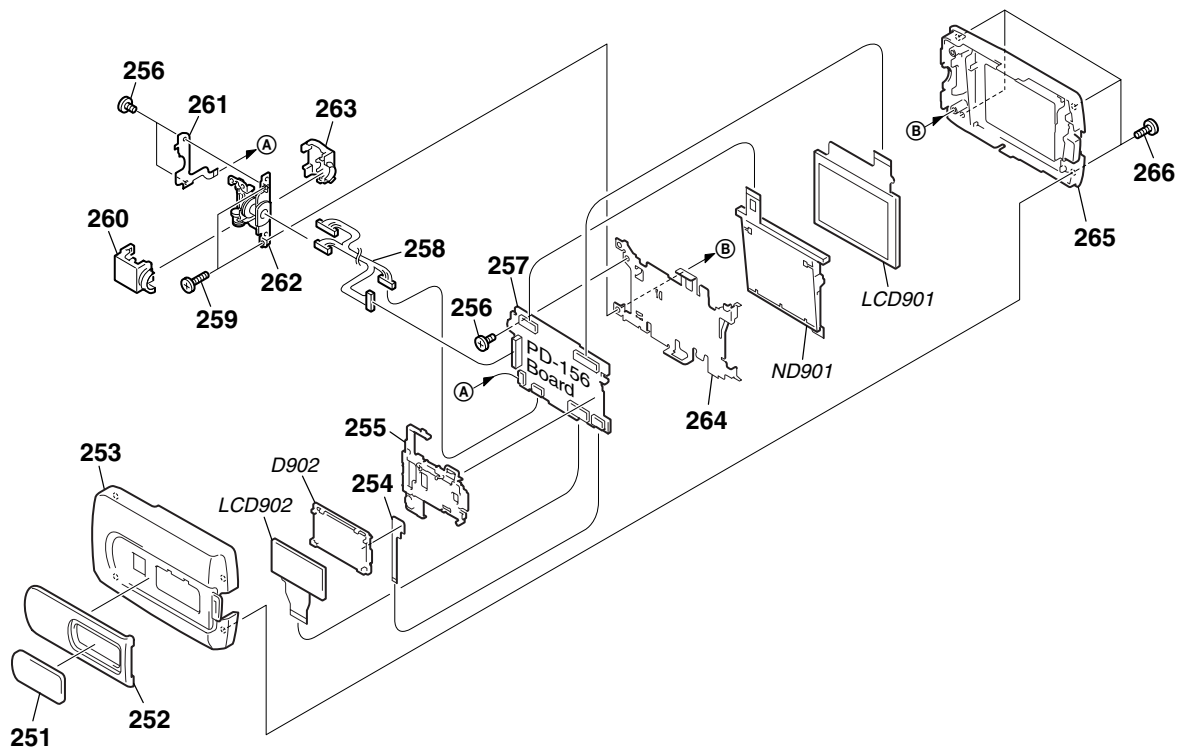


 : The printed wiring board of the Control switch block (CF-2500) on which BT001 (lithium battery) is mounted, is not shown.

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

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
201	3-941-343-21	TAPE (A)		206	3-067-347-01	MI SCREW M2 (H)	
202	3-948-339-61	TAPPING		207	X-3952-145-1	CABINET R (2) ASSY	
203	1-477-085-11	SWITCH BLOCK, CONTROL (CF-2500)		208	3-959-978-02	CUSHION, PANEL	
204	3-065-373-01	SCREW (Y), TRIPOD		209	1-477-084-21	SWITCH BLOCK, CONTROL (FK-2500)	
205	3-072-455-01	RETAINER, TRIPOD		210	X-3952-171-1	RING (2) ASSY, ORNAMENTAL	

## 3-1-6. LCD SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
251	3-072-272-01	WINDOW, LCD		261	1-683-628-21	FP-412 FLEXIBLE BOARD	
252	X-3952-195-1	COVER (2) ASSY, CPC (TRV238E)		262	X-3952-147-1	HINGE ASSY	
252	X-3952-196-1	COVER (2) ASSY, CPC (TRV239E)		263	3-072-287-01	COVER (M), HINGE	
253	3-072-341-01	CABINET (C (2)), P		264	3-072-403-01	FRAME (2), P	
254	1-683-629-11	FP-414 FLEXIBLE BOARD		265	X-3952-150-1	CABINET (M) (2) ASSY, P	
255	3-072-286-01	HOLDER, LCD		266	3-065-567-01	TAPPING (M1.7)	
256	4-974-725-01	SCREW (M1.7X2.5), P		△ D902	not supplied	LIGHT, BACK	
257	not supplied	PD-156 (XC12) BOARD, COMPLETE		LCD901	not supplied	INDICATOR MODULE LIQUID CRYST	
258	1-961-556-11	HARNESS (PD-117)		LCD902	not supplied	INDICATION LCD BLOCK ASSY	
259	3-318-203-11	SCREW (B1.7X6), TAPPING		△ ND901	not supplied	TUBE, FLUORESCENT,COLD CATHODE	
260	3-072-288-01	COVER (C), HINGE					

**Note :** The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.



## Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2002.02	Official Release	—	—
1.1	2002.03	Correction-1	Addition of Destinations S.M. correction: Page <a href="#">3</a>	Yes
1.2	2002.06	Correction-2	Correction of Disassembly and Exploded Views S.M. correction: Page <a href="#">11</a> , <a href="#">27</a>	Yes