

# DCR-DVD200/DVD200E/ DVD300 RMT-820

## SERVICE MANUAL

**LEVEL 2**

**Ver 1.2 2004. 05**

**Revision History**

**How to use  
Acrobat Reader**



Photo: DCR-DVD300

**US Model**  
DCR-DVD200/DVD300

**Canadian Model**

**Korea Model**

DCR-DVD200

**AEP Model**

**UK Model**

**East European Model**

**Hong Kong Model**

**Australian Model**

DCR-DVD200E

**E Model**

DCR-DVD200/DVD200E

### Link

<a href="#">SPECIFICATIONS</a>	<a href="#">BLOCK DIAGRAMS</a>	<a href="#">PRINTED WIRING BOARDS</a>
<a href="#">SERVICE NOTE</a>	<a href="#">FRAME SCHEMATIC DIAGRAMS</a>	<a href="#">REPAIR PARTS LIST</a>
<a href="#">DISASSEMBLY</a>	<a href="#">SCHEMATIC DIAGRAMS</a>	

- For INSTRUCTION MANUAL, refer to SERVICE MANUAL, LEVEL 1 (987627441.pdf).
- Since a service is provided only for the MD-097 BLOCK ASSY (A-7111-651-A) and not for the single MD-097 board, complete.
- **Reference No. search on printed wiring boards is available.**

#### On the MD-097, SS-174T and VC-310 board

This service manual provides the information that is premised the circuit board replacement service and not intended repair inside the MD-097, SS-174T and VC-310 board.

Therefore, schematic diagram, printed wiring board, waveforms, mounted parts location and electrical parts list of the MD-097, SS-174T and VC-310 board are not shown.

The following pages are not shown.

Disassembly ..... Pages 2-30 to 2-32  
Schematic diagram ..... Pages 4-27- to 4-78  
Printed wiring board ..... Pages 4-97 to 4-106  
Waveforms ..... Pages 4-109 to 4-110

Mounted parts location ..... Pages 4-113 to 4-116  
Exploded views ..... Pages 5-13 to 5-14  
Electrical parts list ..... Pages 5-19 to 5-34



## Digital Video Camera Recorder

# SONY®



HANDYCAM



## SPECIFICATIONS

## Video camera recorder

## System

## Video recording format

DVD-Video

DVD-VR (DVD-RW only)

## Audio recording system

2ch Dolby\* Digital

## Video signal

DCR-DVD200/DVD300:

NTSC color, EIA standards

DCR-DVD200E:

PAL colour, CCIR standards

## Usable discs

8 cm DVD-R and DVD-RW

## Video compression format

MPEG2/JPEG (Still images)

Recording/playback time

HQ: approx. 20 minutes

SP: approx. 30 minutes

LP: approx. 60 minutes

## Viewfinder

Electric viewfinder (color)

## Image device

DCR-DVD200/DVD200E:

3.8 mm (1/4.7 type) CCD (Charge

Coupled Device)

Number of Pixels

Gross: Approx. 1 070 000 pixels

Effective (for still images):

Approx. 1 000 000 pixels

Effective (for movies):

Approx. 690 000 pixels

DCR-DVD300:

3.8 mm (1/4.7 type) CCD (Charge

Coupled Device)

Number of Pixels

Gross: Approx. 1 070 000

Effective (for still images):

Approx. 1 000 000 pixels

Effective (for movies):

Approx. 690 000 pixels

\* Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

## Lens

Carl Zeiss

Combined power zoom lens

Filter diameter:

30 mm (1 3/16 in.)

10×(Optical), 120× (Digital)

F = 1.8 – 2

## Focal length

3.7 – 37 mm (5/32 – 1 1/2 in.)

When converted to a 35 mm still camera

For movies:

50 – 500 mm (2 – 19 3/4 in.)

For still images:

42 – 420 mm (1 11/16 – 16 5/8 in.)

## Color temperature

Auto, HOLD (Hold), Indoor

(3 200 K), Outdoor (5 800 K)

## Minimum illumination

7 lx (lux) (F 1.8)

0 lx (lux) (in the NightShot mode)\*

\* Objects unable to be seen due to the dark can be shot with infrared lighting.

## Input/Output connectors

## S video input/output

4-pin mini DIN

Luminance signal: 1 Vp-p, 75Ω

(ohms), unbalanced

Chrominance signal:

DCR-DVD200/DVD300: 0.286 Vp-p,

DCR-DVD200E: 0.3 Vp-p,

75 Ω (ohms), unbalanced

## Audio/Video input/output

AV MINI JACK, 1 Vp-p, 75 Ω

(ohms), unbalanced, sync negative

327 mV, (at output impedance of

more than 47 kΩ (kilohms))

Output impedance of less than 2.2

kΩ (kilohms)/Stereo minijack (ø

3.5mm)

Input impedance of more than

47 kΩ (kilohms)

## USB jack

mini-B

## Control jack

Stereo mini-minijack (ø 2.5 mm)

## MIC jack

Stereo minijack (ø 3.5 mm)

## LCD screen

## Picture

DCR-DVD200/DVD200E:

6.2 cm (2.5 type)

DCR-DVD300:

8.8 cm (3.5 type)

## Total number of pixels

123 200 (560 × 220)

## General

## Power requirements

7.2 V (battery pack)

8.4 V (AC adaptor)

## Average power consumption

(when using the battery pack)

During camera recording using

LCD

DCR-DVD200/DVD200E: 7.0 W

DCR-DVD300: 7.2 W

Viewfinder

6.0 W

## 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.)

DCR-DVD200/DVD200E:

66 × 94 × 142 mm

(2 5/8 × 3 3/4 × 5 5/8 in.)

(w/h/d)

DCR-DVD300:

79 × 94 × 142 mm

(3 1/8 × 3 3/4 × 5 5/8 in.)

(w/h/d)

## Mass (approx.)

DCR-DVD200/DVD200E

650 g (1 lb 6 oz)

main unit only

740 g (1 lb 10 oz)

including the battery pack,

disc and lens cap

DCR-DVD300

710 g (1 lb 9 oz)

main unit only

800 g (1 lb 12 oz)

including the battery pack,

disc and lens cap

## Supplied accessories

See page 5-35.

## AC adaptor AC-L15A

## Power requirements

100 – 240 V AC, 50/60 Hz

## Current consumption

0.35 – 0.18 A

## Power consumption

18 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.)

56 × 31 × 100 mm

(2 1/4 × 1 1/4 × 4 in.) (w/h/d)

excluding projecting parts

## Mass (approx.)

190 g (6.7 oz)

excluding power cord

## Rechargeable battery pack NP-FM50

## Maximum output voltage

DC 8.4 V

## Output voltage

DC 7.2 V

## Capacity

8.5 Wh (1 180 mAh)

## Dimensions (approx.)

38.2 × 20.5 × 55.6 mm

(1 9/16 × 13/16 × 2 1/4 in.)

(w/h/d)

## Mass (approx.)

76 g (2.7 oz)

## Operating temperature

0°C to 40°C (32°F to 104°F)

## Type

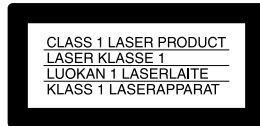
Lithium ion

Design and specifications are subject to change without notice.

Table for difference of function

Model	DCR-DVD200	DCR-DVD200E	DCR-DVD300	Remark
Destination	US/CND/E/KR	AEP/UK/EE/ E/HK/AUS	US	
Color System	NTSC	PAL	NTSC	NTSC: X1602 is 66MHz PAL: X1602 is 54MHz
LCD size	2.5 INCH		3.5 INCH	

- Abbreviation
- CND : Canadian model
- EE : East European model
- HK : Hong Kong model
- AUS : Australian model
- KR : Korea model

**WARNING!!**

**WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30 cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.**

**CAUTION:**

The use of optical instrument with this product will increase eye hazard.

**CAUTION**

Use of controls or adjustments or performance procedures other than those specified herein may result in hazardous radiation exposure.

**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  $\triangle$  OR DOTTED LINE WITH MARK  $\triangle$  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  $\triangle$  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.

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HELP (List of caution points is shown here.)

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Exploded view and parts list of MD-097 BLOCK are not shown. Page 5-13 and 5-14 are not shown.

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## SECTION 1 SERVICE NOTE

### 1-1. SERVICE NOTE

#### 1. POWER SUPPLY DURING REPAIRS

In this unit, about 10 seconds after power is supplied to the battery terminal using the regulated power supply (8.4V), the power is shut off so that the unit cannot operate.

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

##### Method 1.

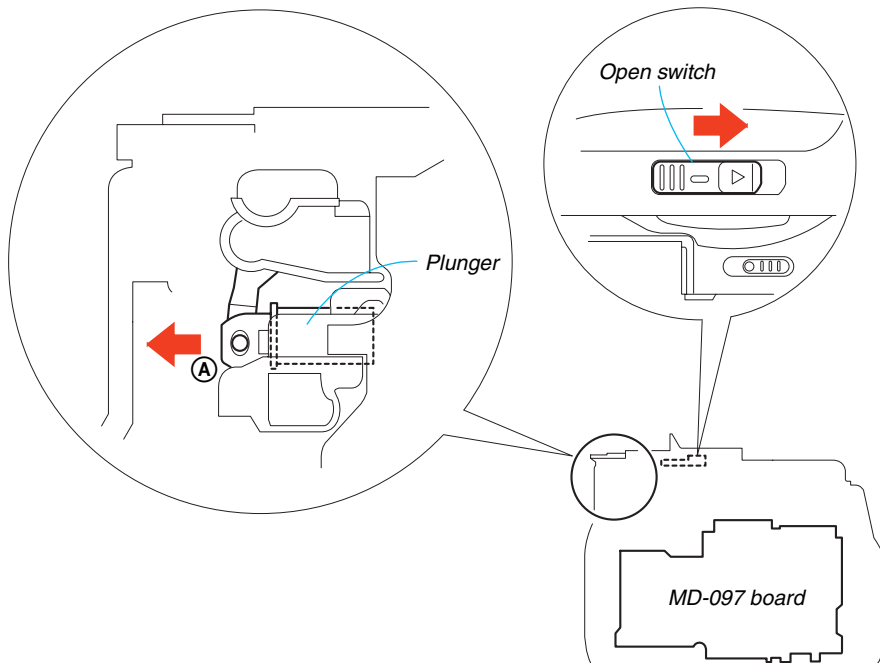
Use the AC power adaptor (AC-L15, AC-VQ800 etc.).

##### Method 2.

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

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

- ① Refer to page 2-3 to remove the front panel assembly.
- ② Refer to page 2-4 to remove the cabinet (R) assembly.
- ③ Refer to page 2-16 to remove the battery panel section.
- ④ Refer to page 2-17 to remove the EVF block.
- ⑤ Remove the VC-310 board.
- ⑥ Refer to page 2-21 to remove the lens block and the accessory shoe.
- ⑦ While pushing the portion (A) in the direction of the arrow, push the OPEN switch in the direction of the arrow and open the disc cover.



#### 3. NOTES ON HANDLING THE OPTICAL PICK-UP

The laser diode may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

#### 4. PRECAUTION FOR CHECKING EMISSION OF LASER DIODE

Laser light of the equipment is focused by the object lens in the optical pick-up so that the light focuses on the reflection surface of the disc. Therefore, be sure to keep your eyes more than 30 cm apart from the object lens when you check the emission of laser diode.

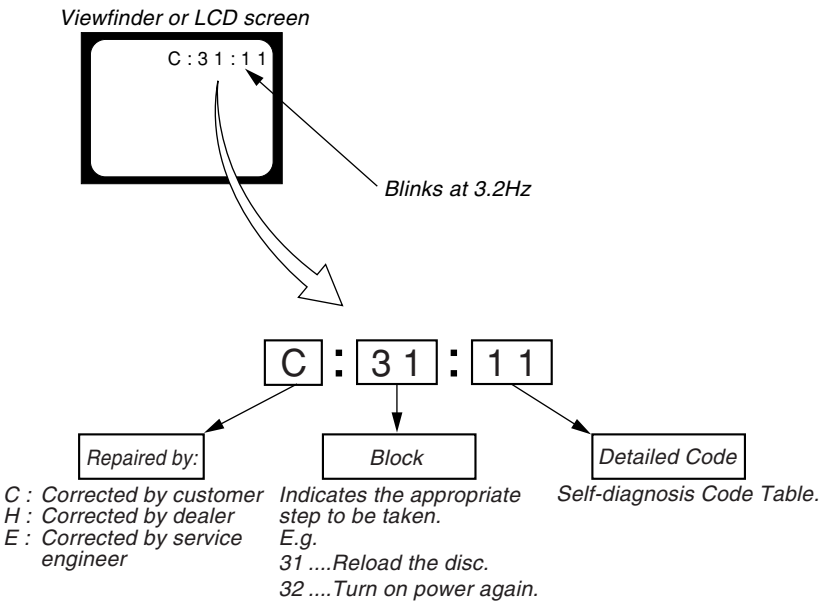
1-2. SELF-DIAGNOSIS FUNCTION

1. SELF-DIAGNOSIS FUNCTION

When problems occur while the unit is operating, the self-diagnosis function starts working, and displays on the viewfinder, or LCD screen 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.

2. SELF-DIAGNOSIS DISPLAY

When problems occur while the unit is operating, the counter of the viewfinder or LCD screen consists of an alphabet and 4-digit number, which blinks at 3.2Hz. This 5-character display indicates the “repaired by:”, “block” in which the problem occurred, and “detailed code” of the problem.



**Note:** The “self-diagnosis display” data will be kept even if the lithium battery (CK-127 board BT5201 of the cabinet (R) assembly) is removed.

3. SELF-DIAGNOSIS CODE TABLE

Self-diagnosis Code			Symptom/State	Correction
Repaired by:	Block Function	Detailed Code		
C	0 4	0 0	Non-standard battery is used.	Use the InfoLITHIUM battery.
C	1 3	0 0	Faulty disc is used.	Use a compatible disc with the camcorder.
C	2 1	0 0	Condensation.	Remove the disc, and insert it again after one hour.
E	2 0	0 0	EEPROM data are rewritten.	Make EEPROM data correct value. (Note)
E	6 1	0 0	Difficult to adjust focus (Cannot initialize focus.)	Inspect the lens block focus MR sensor (Pin ⑱, ⑳ of CN1201 of VC-310 board) when focusing is performed when the control dial is rotated in the focus manual mode and inspect the focus motor drive circuit (IC1501 of VC-310 board) when the focusing is not performed.
E	6 1	1 0	Zoom operations fault (Cannot initialize zoom lens.)	Inspect the lens block zoom MR sensor (Pin ⑧, ⑩ of CN1501 of VC-310 board) when zooming is performed when the zoom switch is pressed and inspect the zoom motor drive circuit (IC1501 of VC-310 board) when the zooming is not performed.
E	6 2	0 0	Handshake correction function does not work well. (With pitch angular velocity sensor output stopped.)	Inspect angular velocity sensors (SE5501, 5502 of MA-420 board) peripheral circuits.
E	9 3	0 0	USB bridge IC fault	Inspect the USB bridge IC (MD-097 board IC4202) and EEPROM (MD-097 board IC4201)
E	9 4	0 1	Fault of writing to or erasing the flash memory	Inspect the flash memory (VC-310 board IC3401) (Note)

**Note:** Refer to “8. Record of Self-diagnosis check” of “6-3. SERVICE MODE”, ADJ (987627351.pdf).

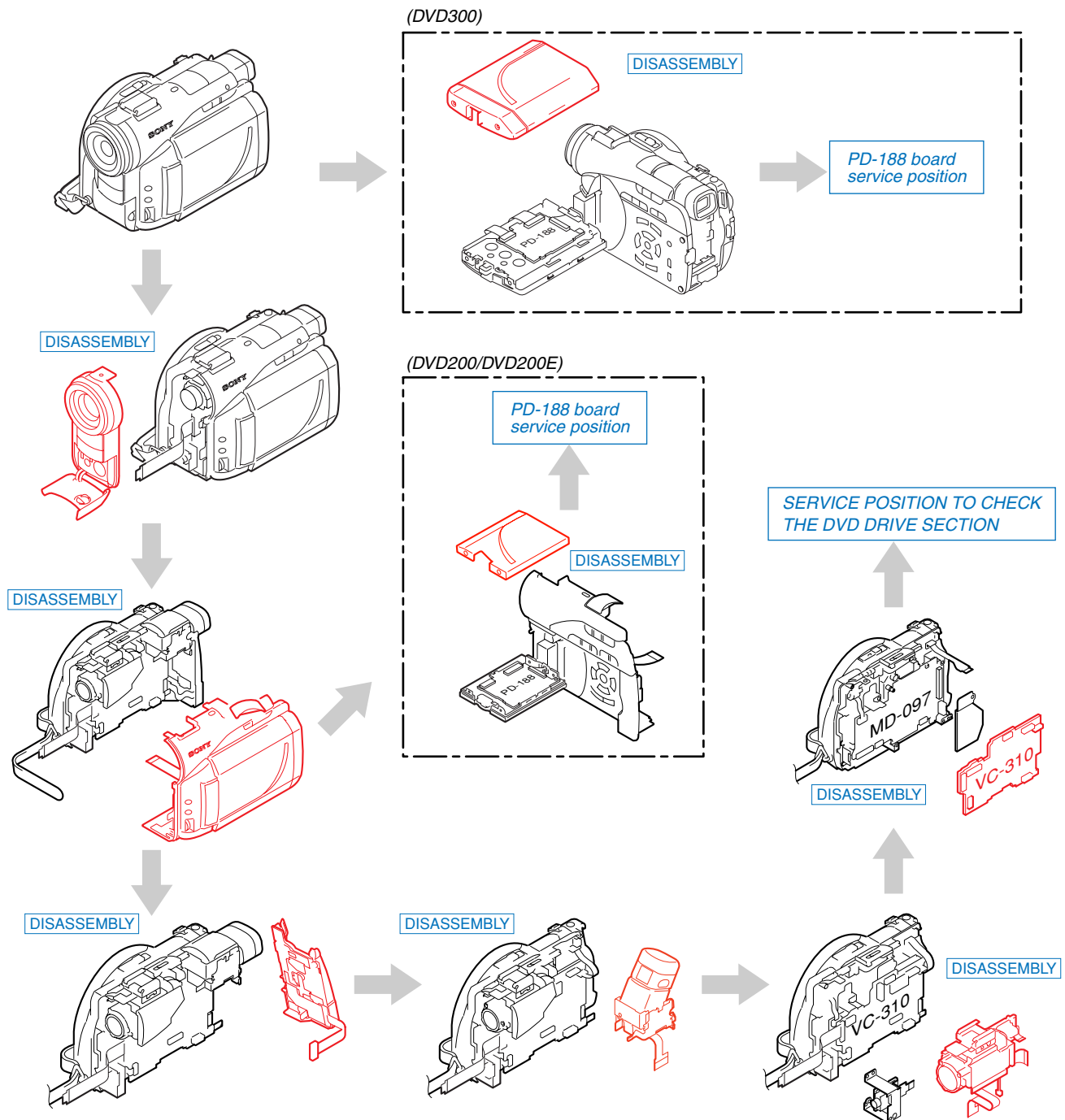




## SECTION 2 DISASSEMBLY



The following flow chart shows the disassembly procedure.



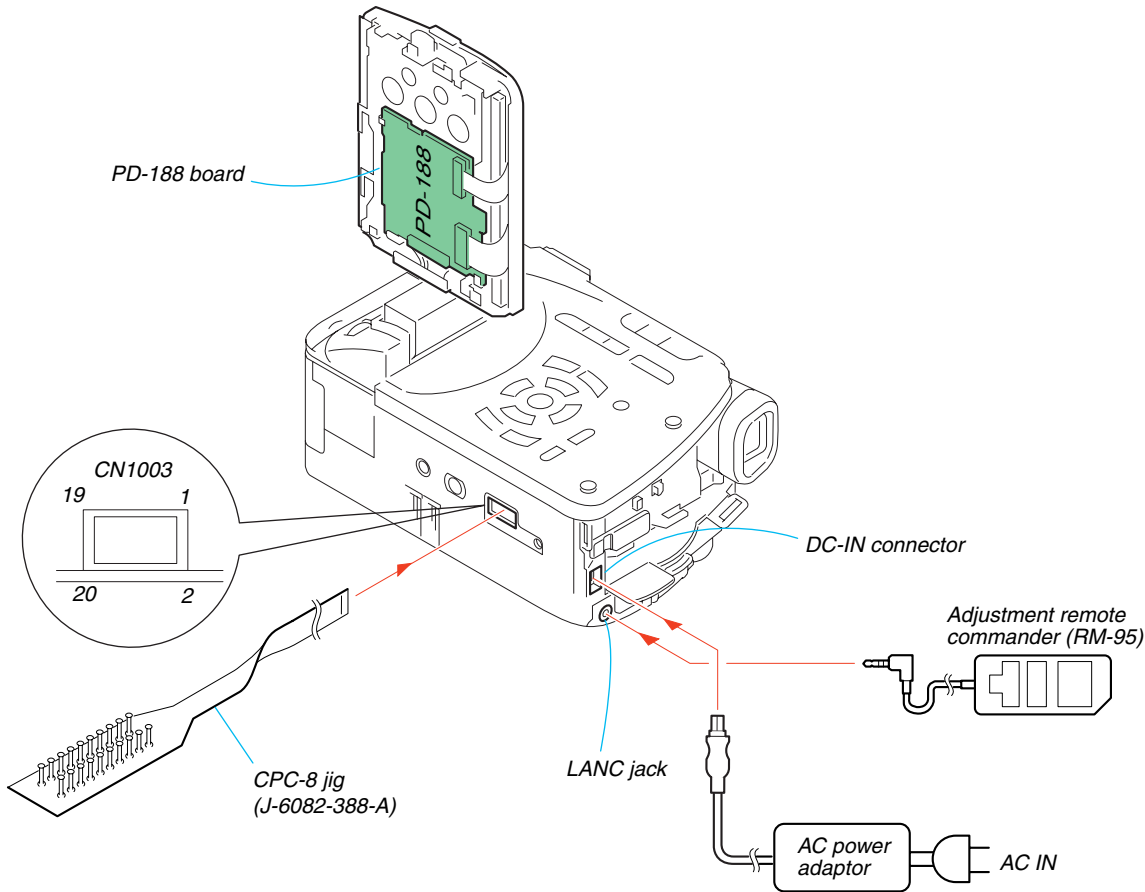
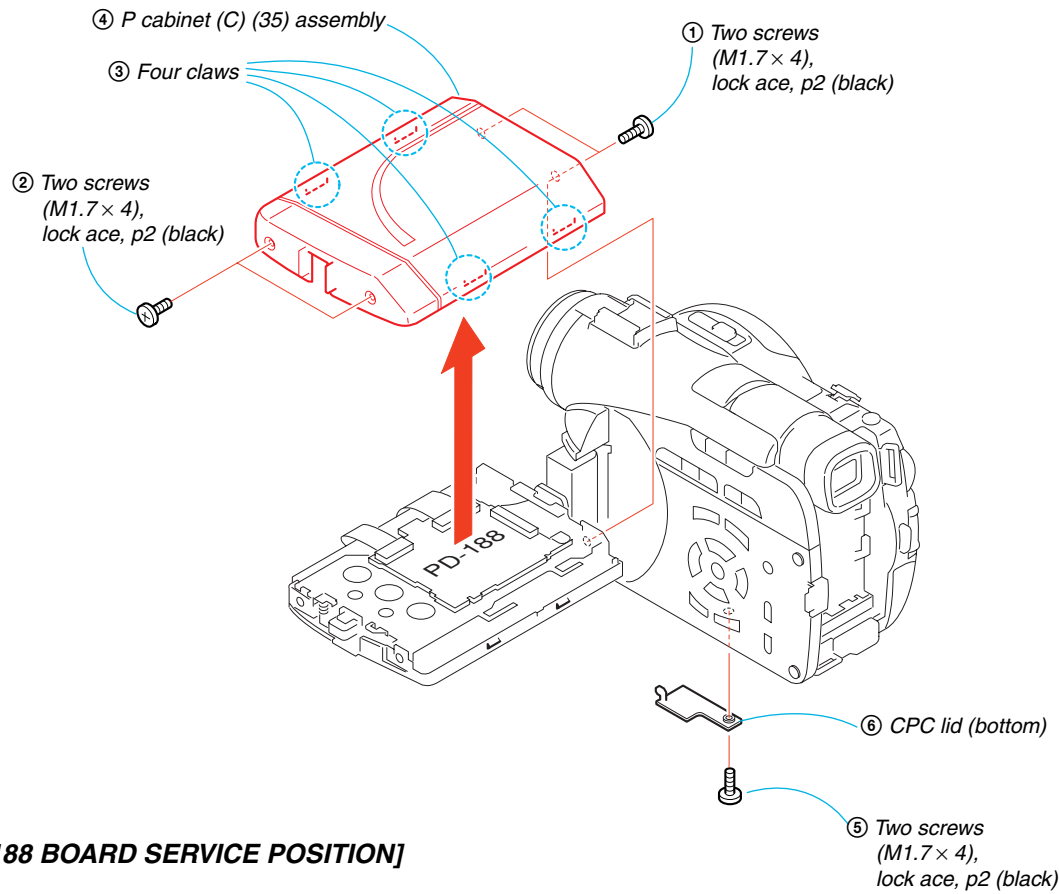
PROCEDURE OF REMOVING THE VC-310 BOARD.  
(SERVICE POSITION) TO CHECK THE DVD DRIVE SECTION)

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- ⑦ SERVICE POSITION TO CHECK  
THE DVD DRIVE SECTION..... (page 2-24)

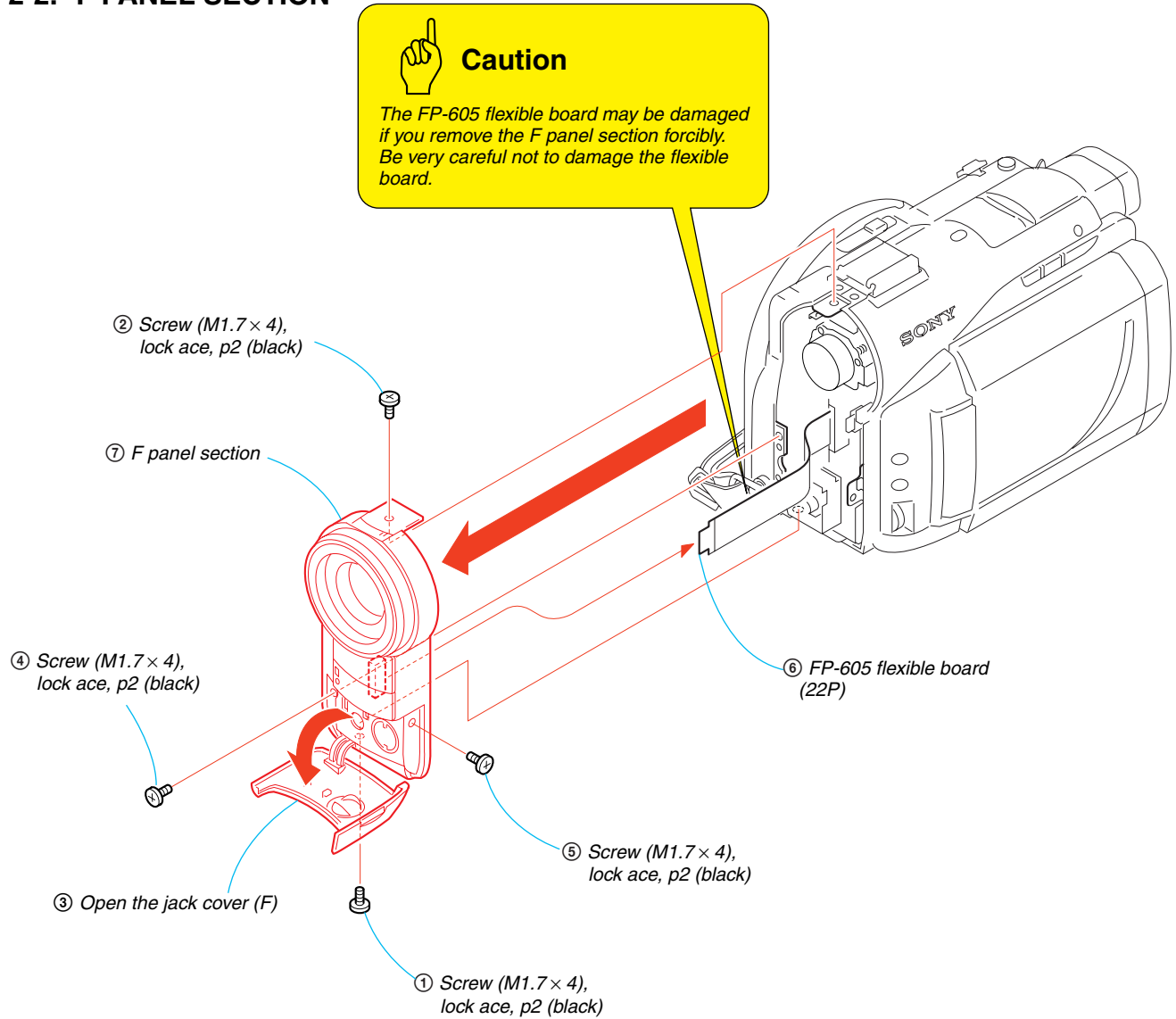


**NOTE:** Follow the disassembly procedure in the numerical order given.

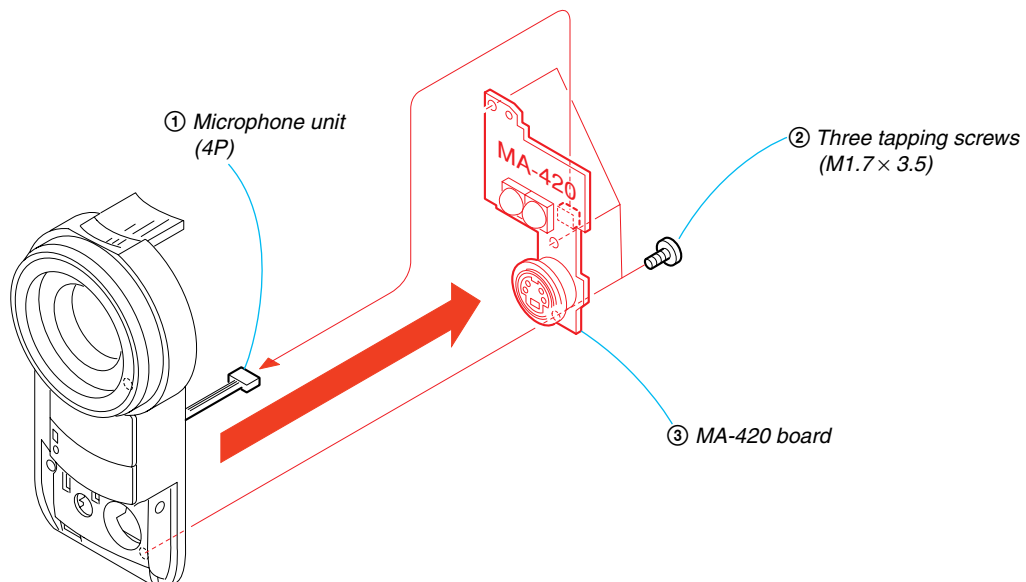
**2-1. P CABINET (C) (35) ASSEMBLY (DVD300)**



## 2-2. F PANEL SECTION



## 2-3. MA-420 BOARD

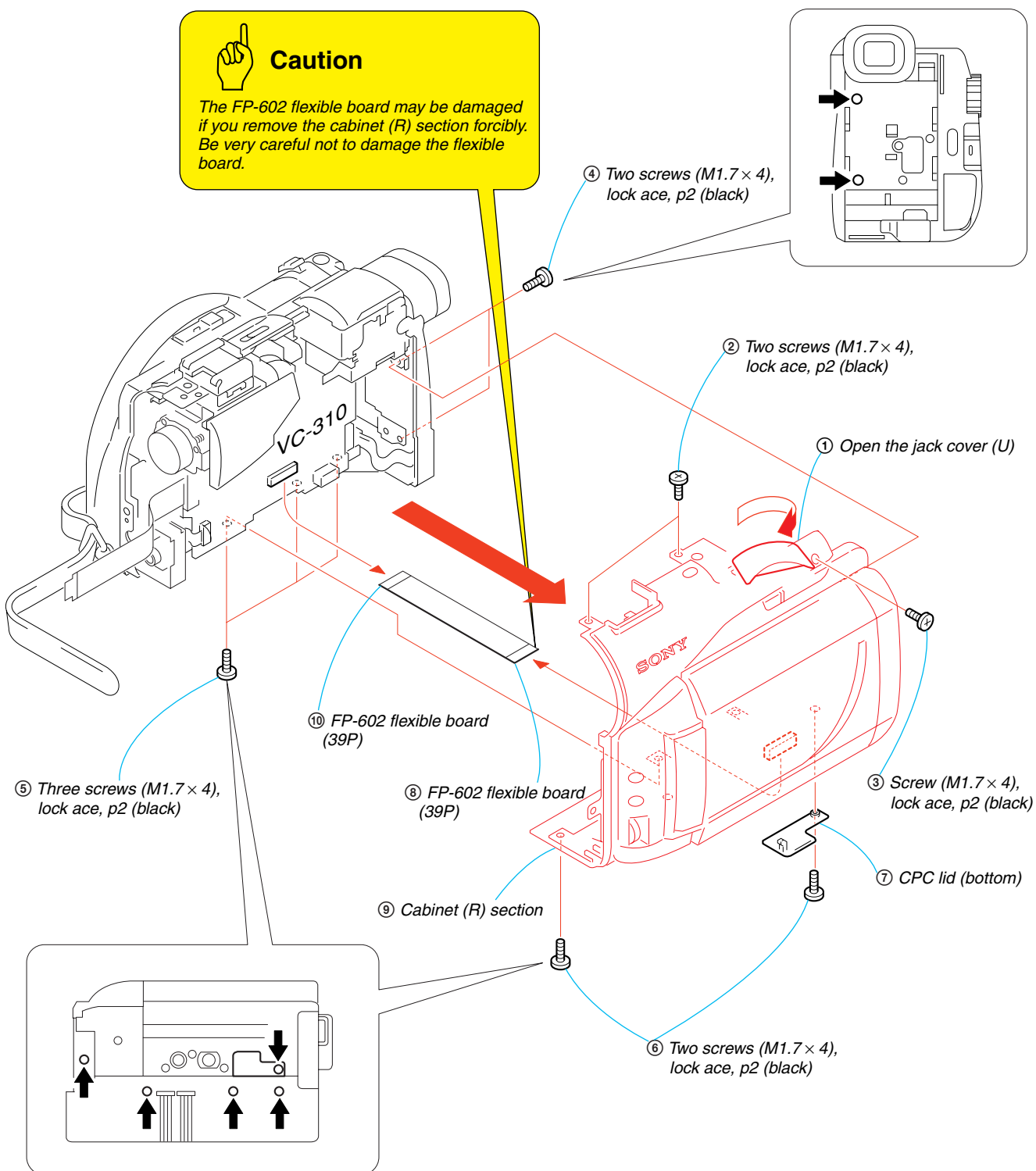


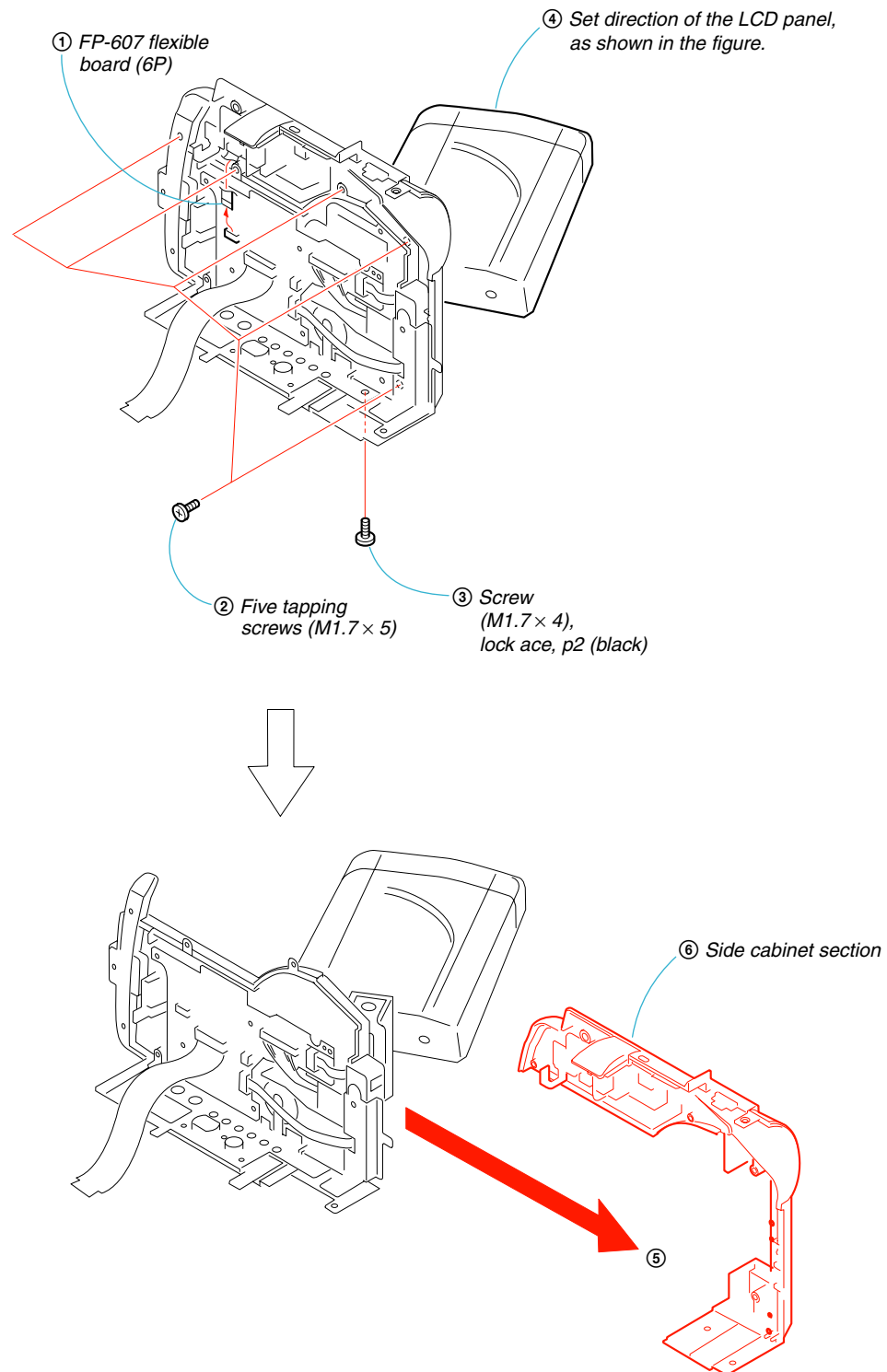
## 2-4. CABINET (R) SECTION



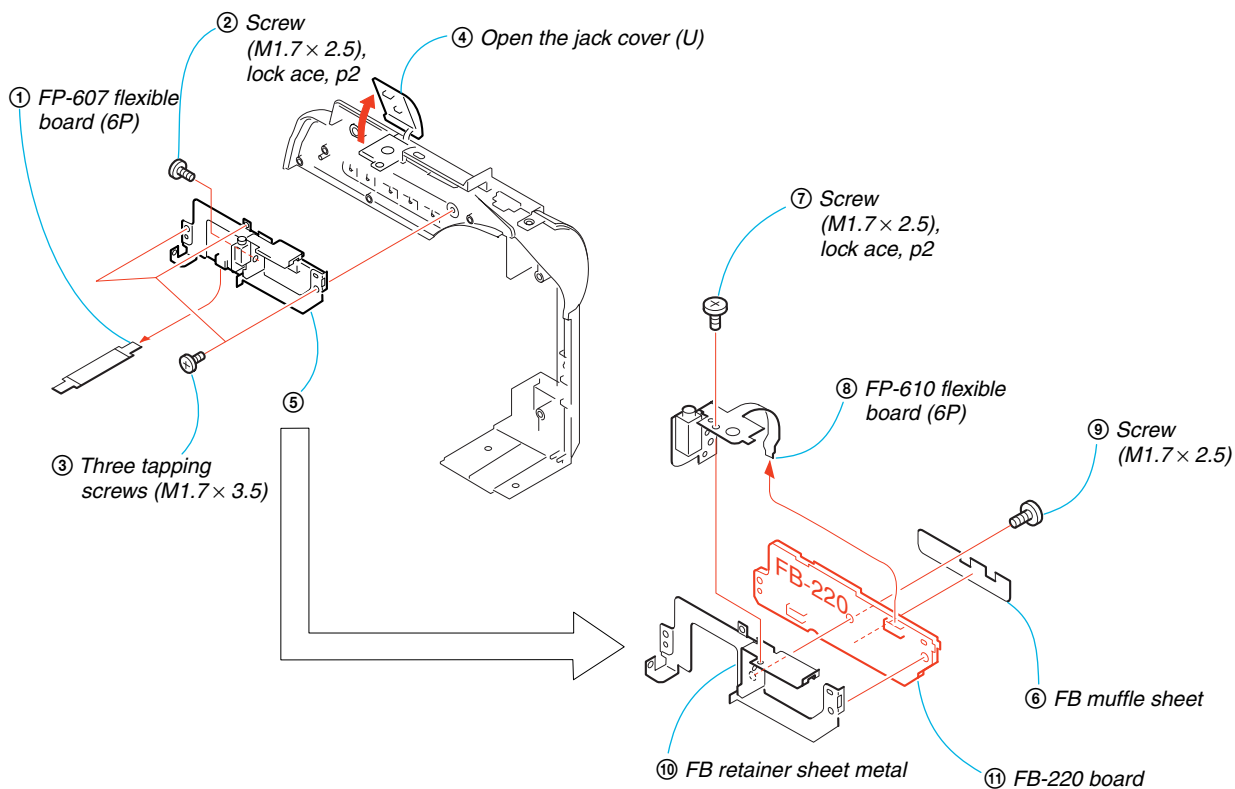
### Caution

The FP-602 flexible board may be damaged if you remove the cabinet (R) section forcibly. Be very careful not to damage the flexible board.

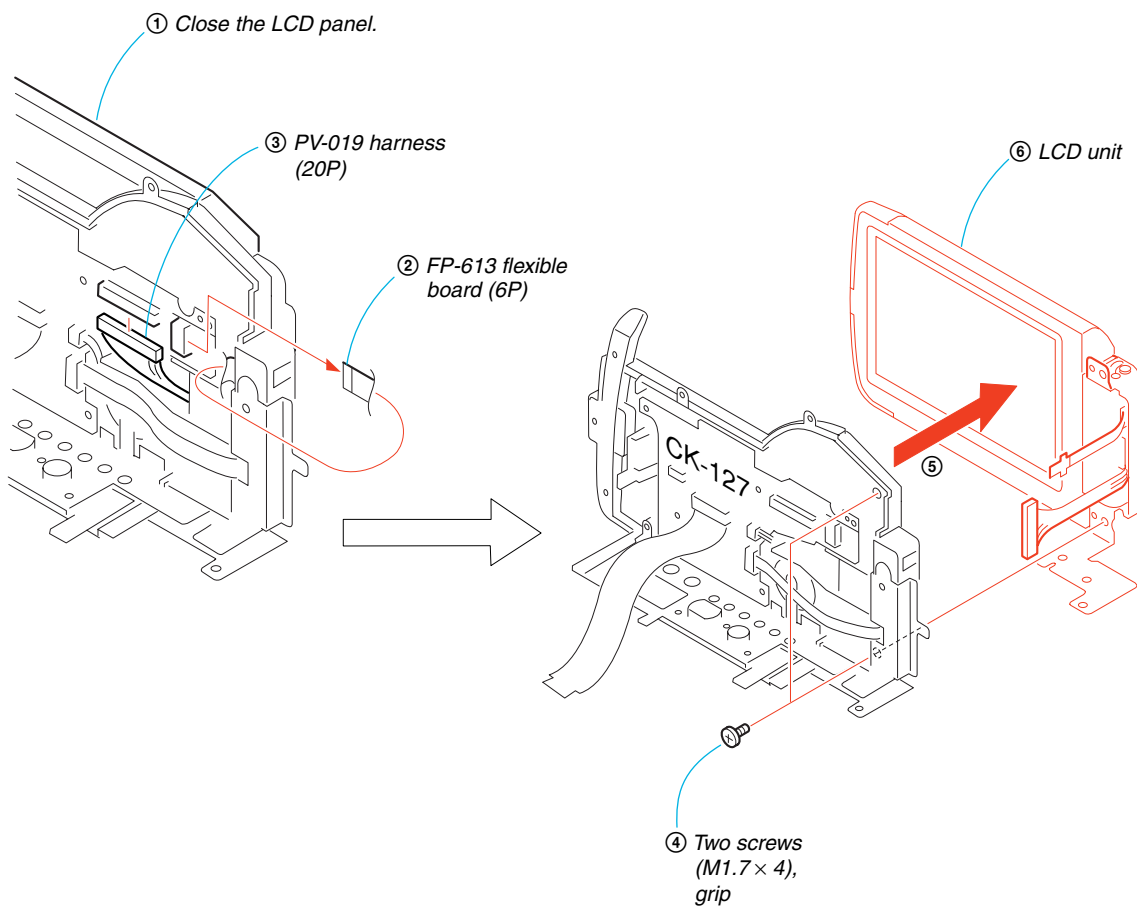


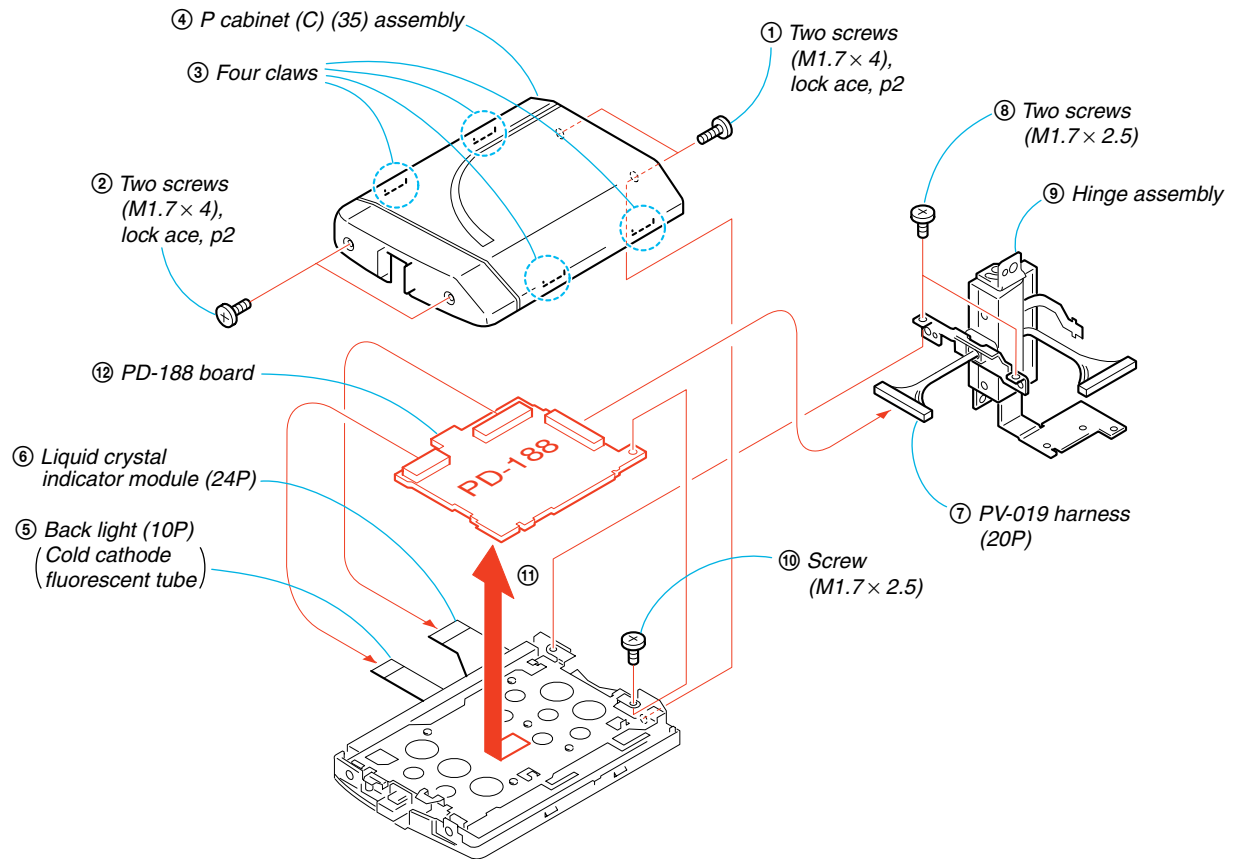
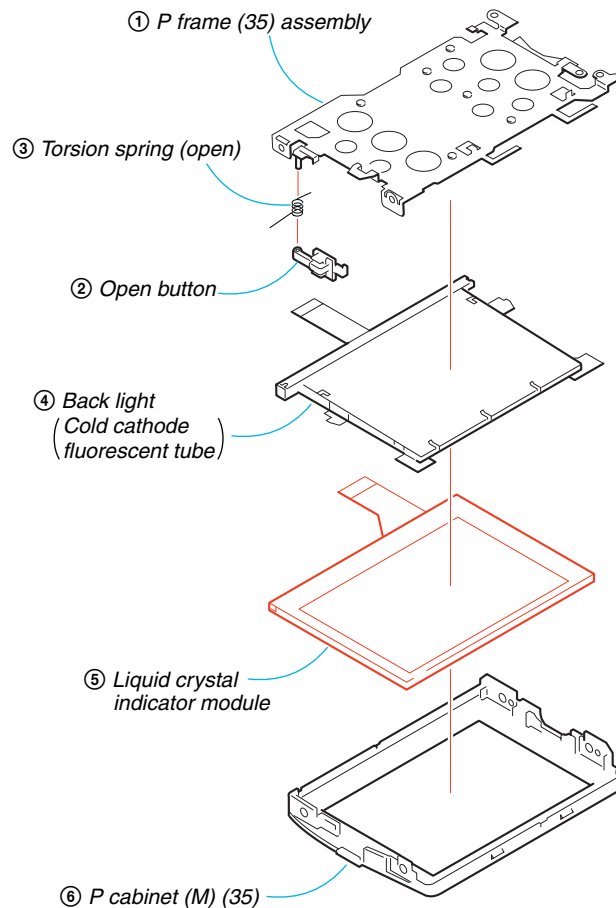
**2-5. SIDE CABINET SECTION (DVD300)**

## 2-6. FB-220 BOARD (DVD300)

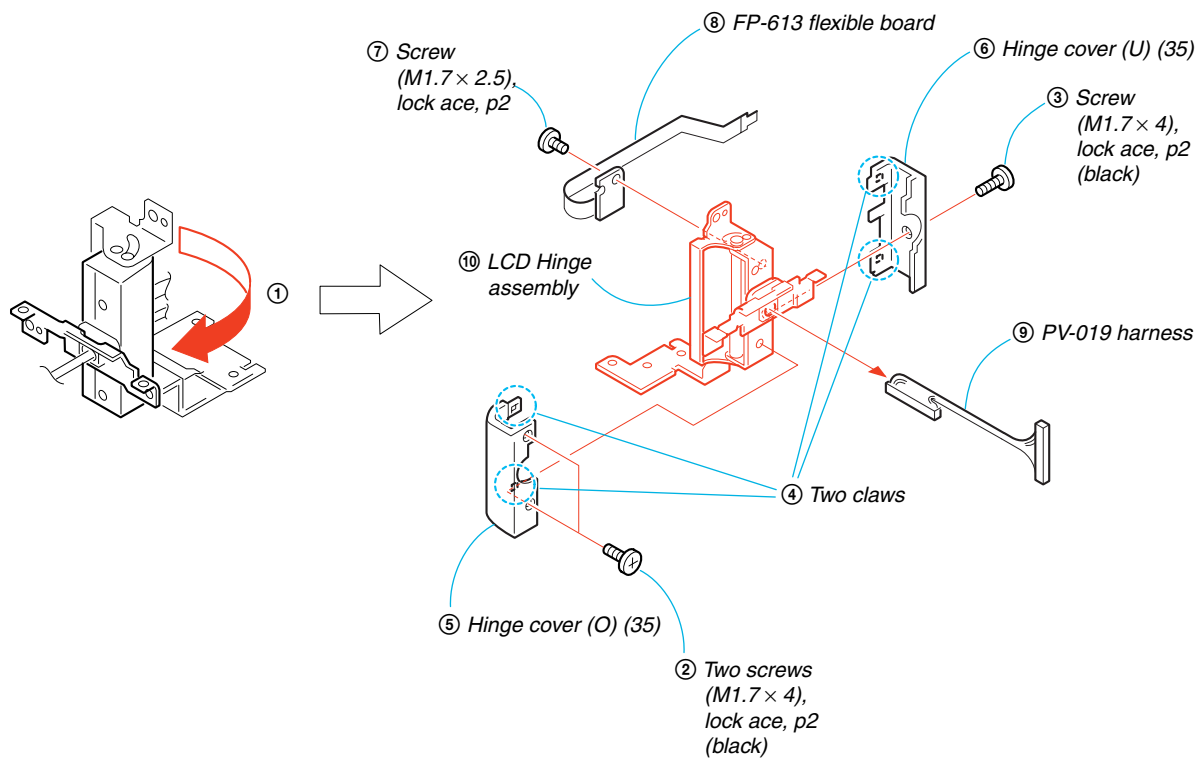


## 2-7. LCD UNIT (DVD300)

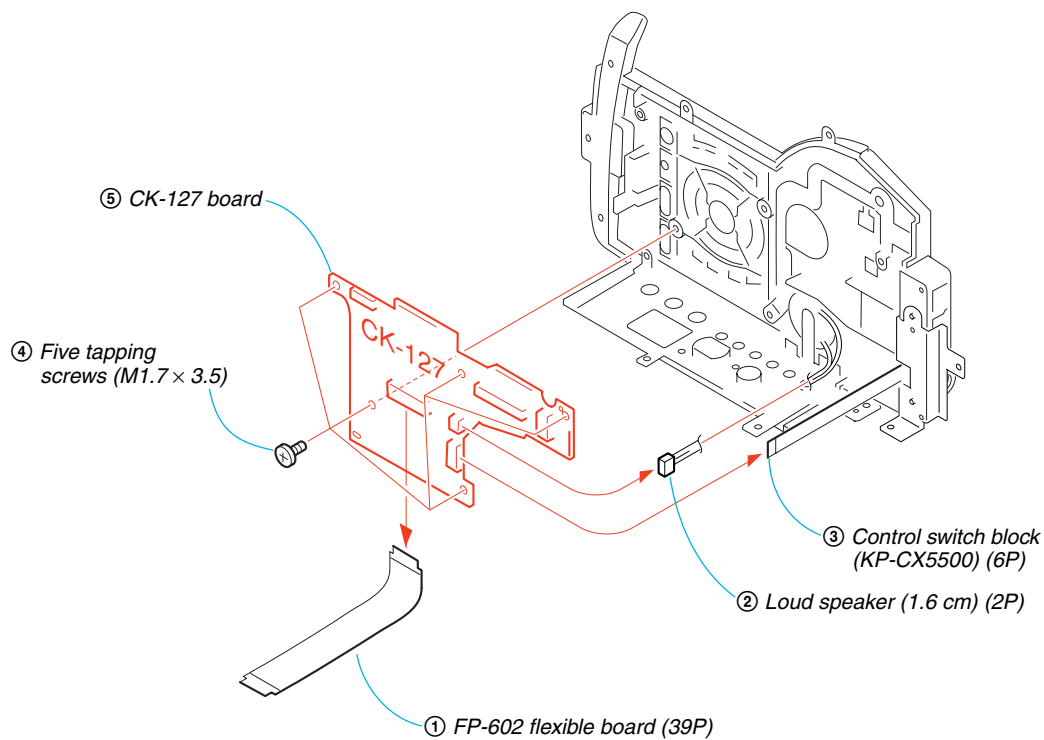


**2-8. PD-188 BOARD (DVD300)****2-9. LIQUID CRYSTAL INDICATOR MODULE (DVD300)**

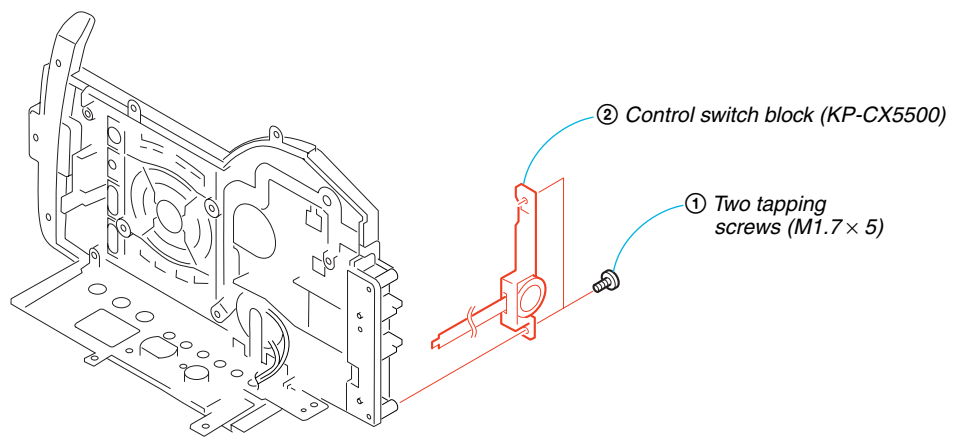
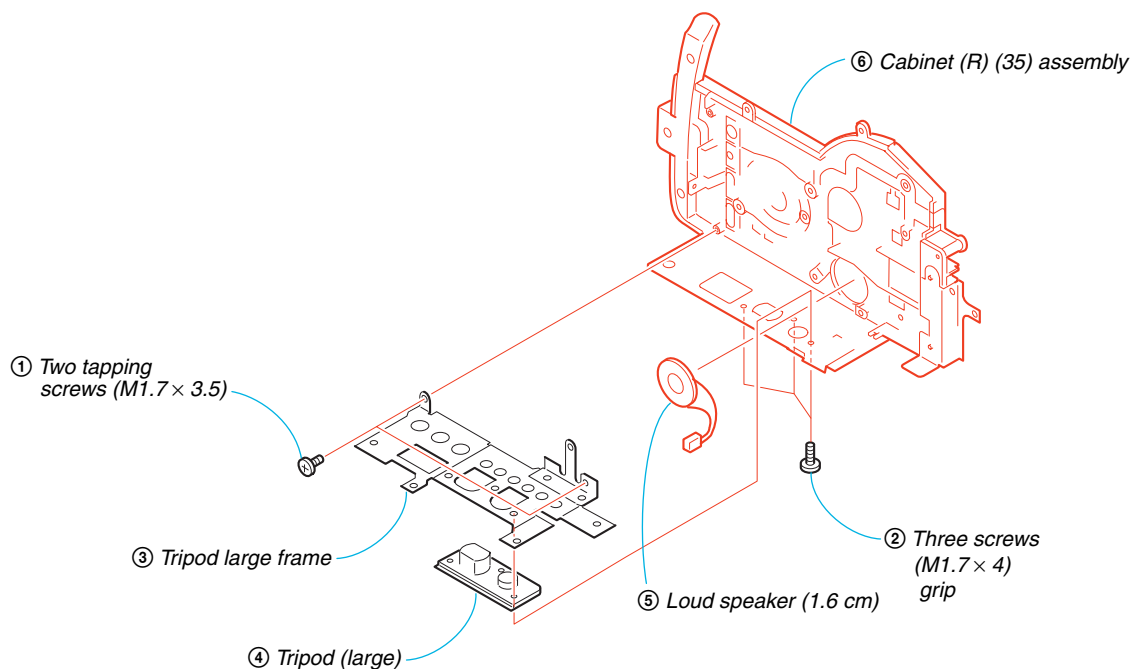
## 2-10.LCD HINGE ASSEMBLY (DVD300)



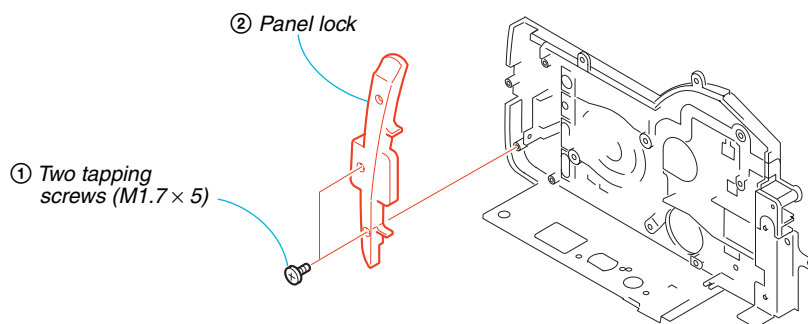
## 2-11.CK-127 BOARD (DVD300)



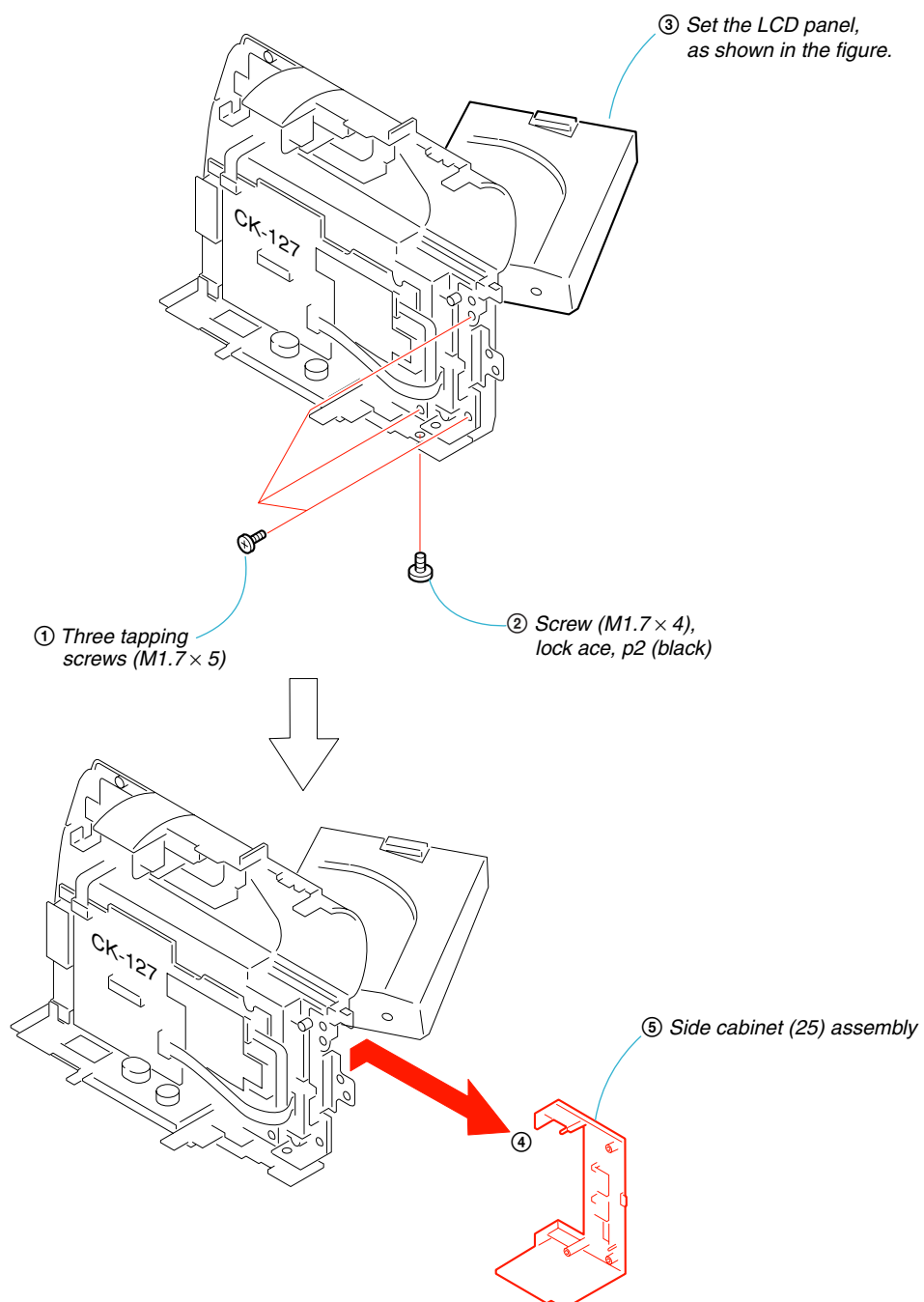


**2-12.CONTROL SWITCH BLOCK (KP-CX5500) (DVD300)****2-13.LOUD SPEAKER (1.6 cm), CABINET (R) (35) ASSEMBLY (DVD300)**

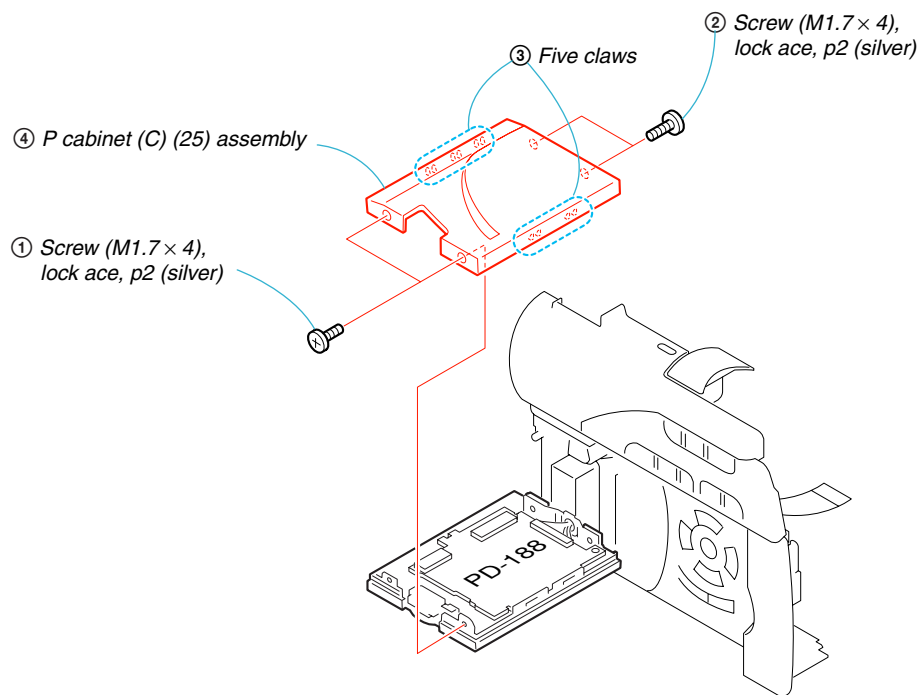
## 2-14. PANEL LOCK (DVD300)



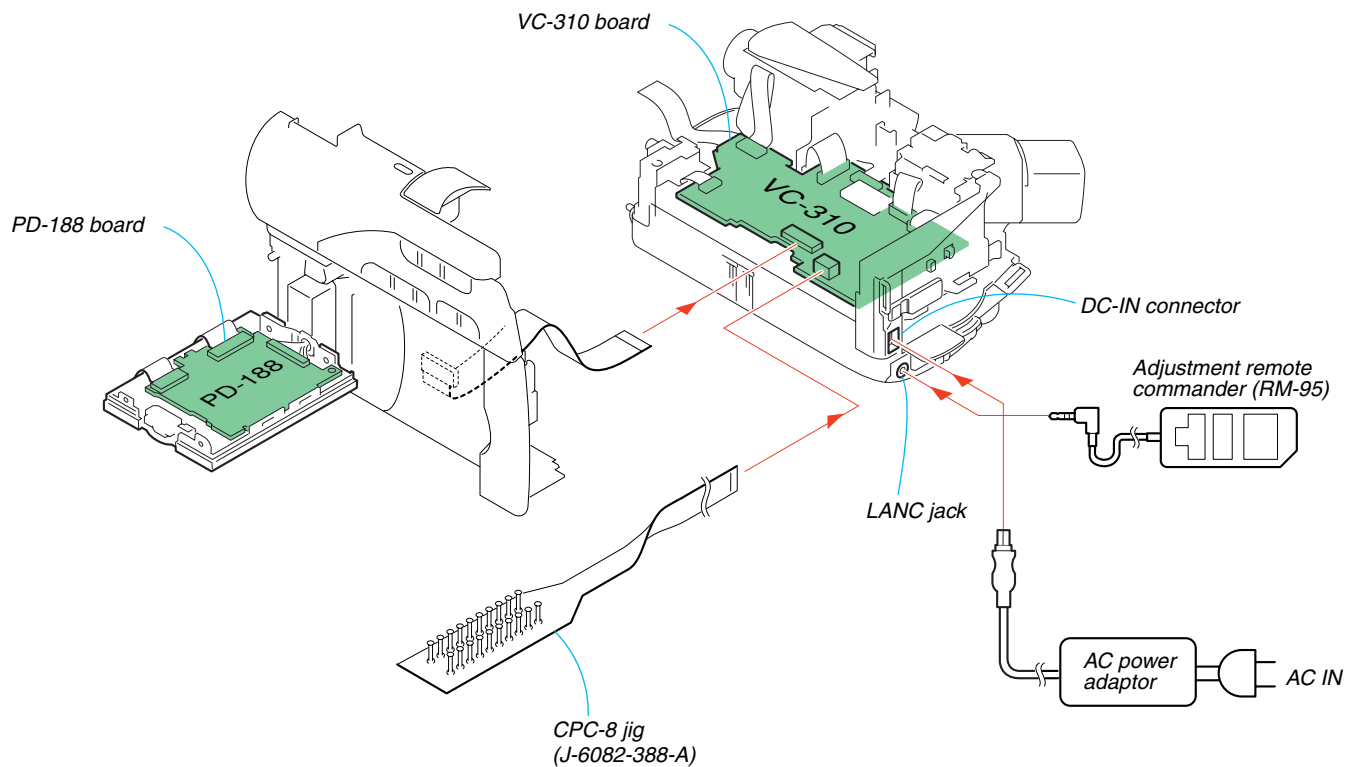
## 2-15. SIDE CABINET (25) ASSEMBLY (DVD200/DVD200E)



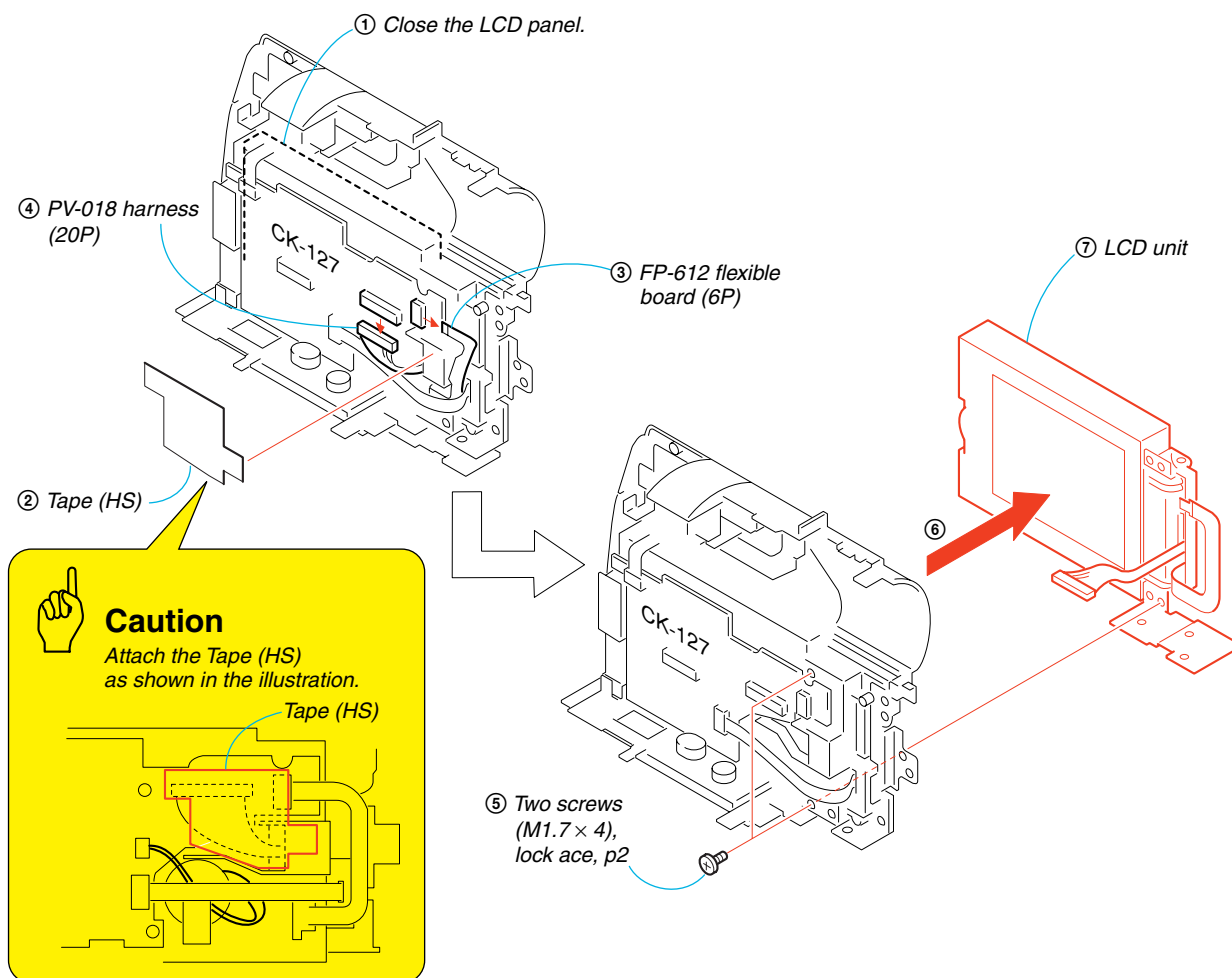
## 2-16.P CABINET (C) (25M) ASSEMBLY (DVD200/DVD200E)



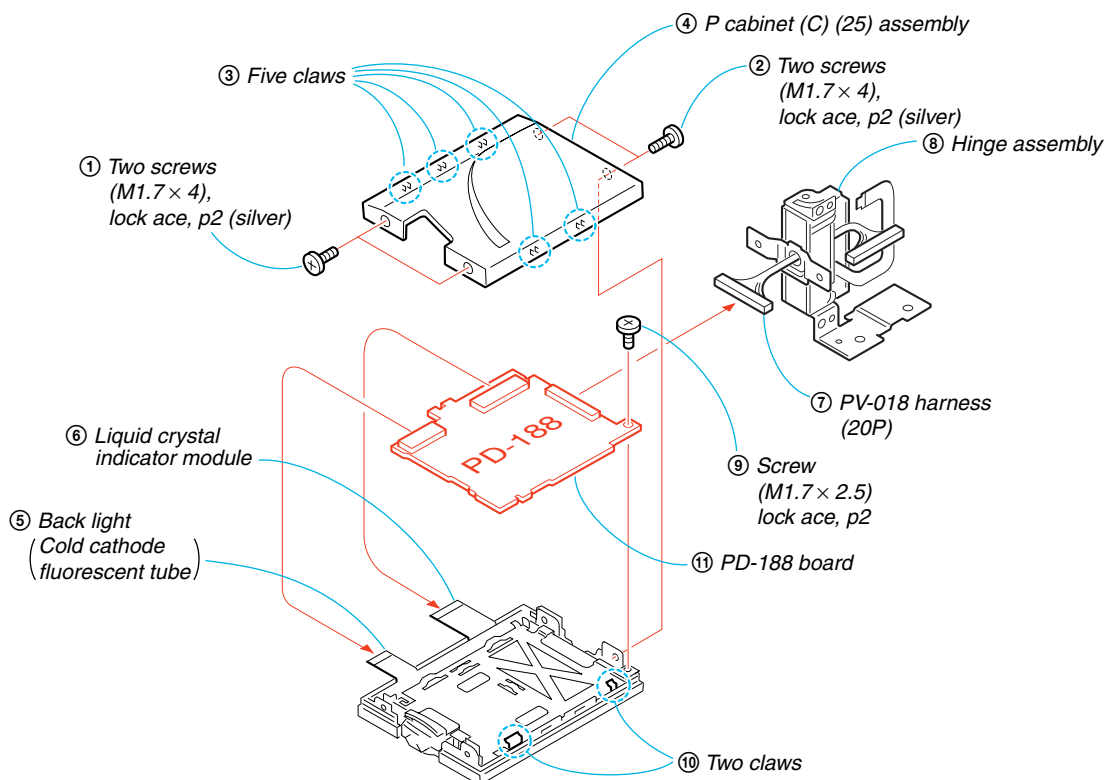
### [PD-188 BOARD SERVICE POSITION]



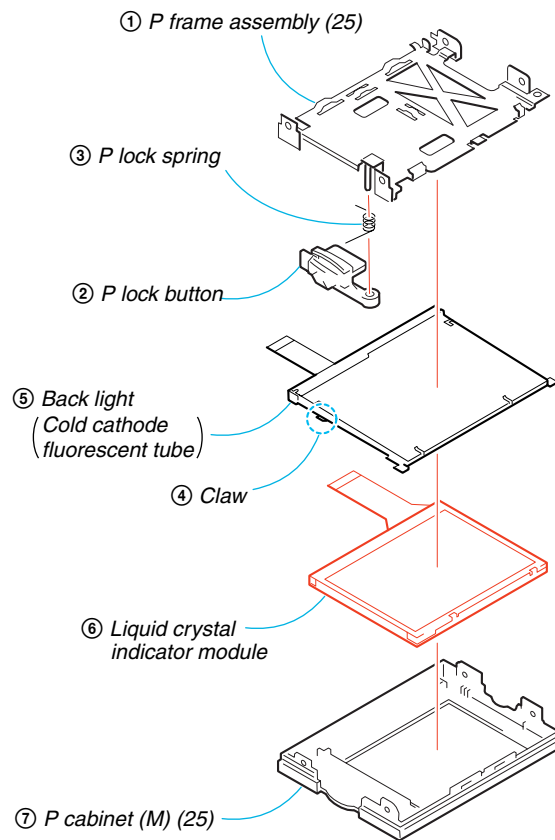
## 2-17.LCD UNIT (DVD200/DVD200E)



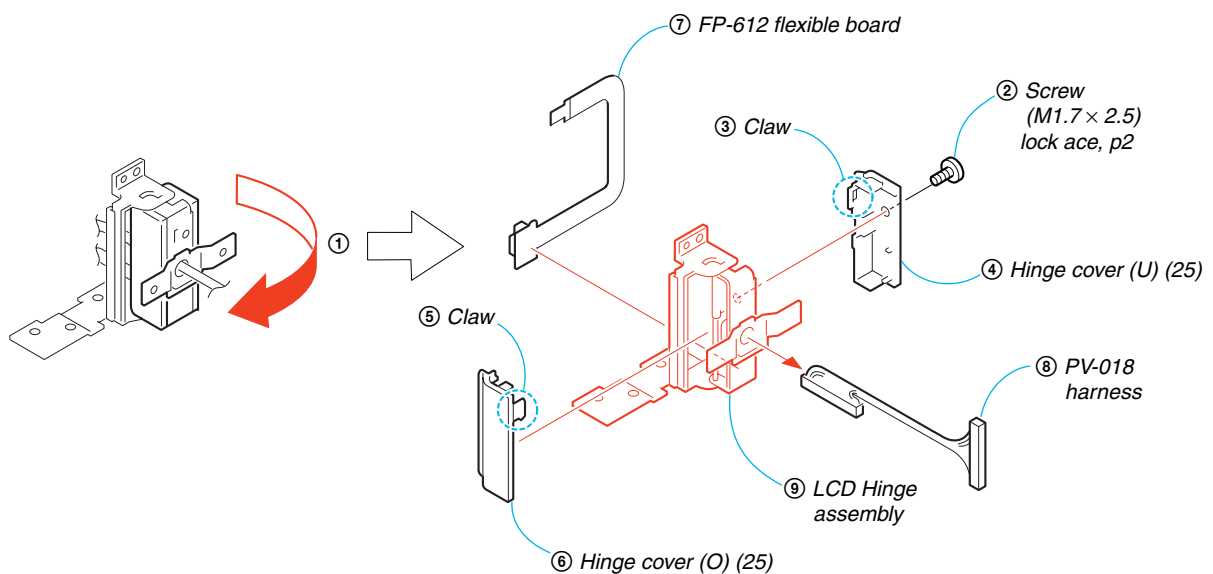
## 2-18.PD-188 BOARD (DVD200/DVD200E)



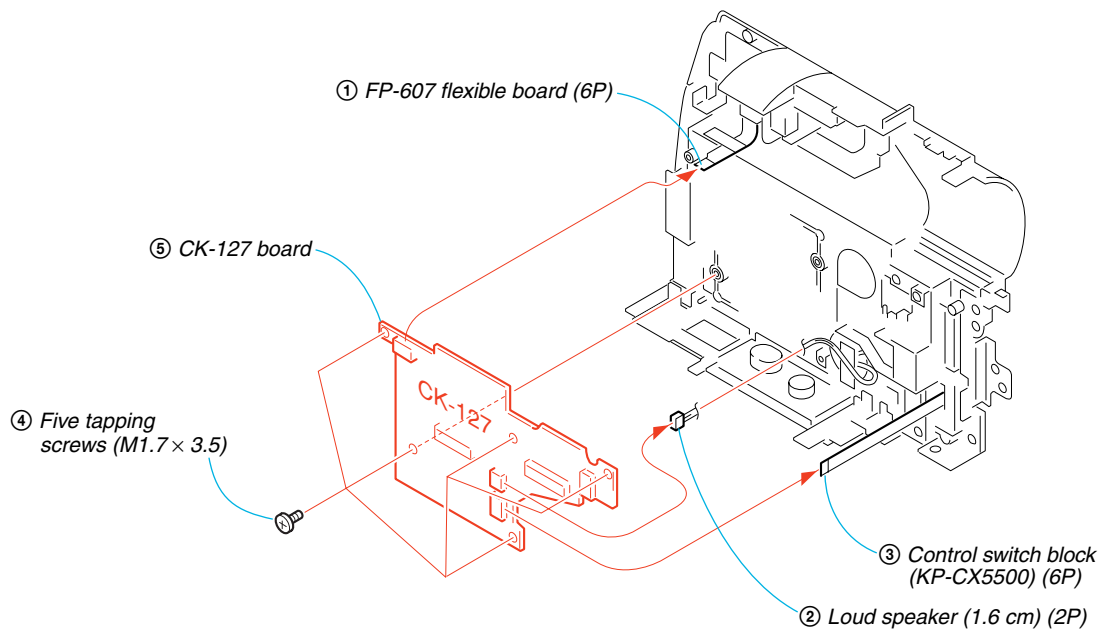
## 2-19. LIQUID CRYSTAL INDICATOR MODULE (DVD200/DVD200E)



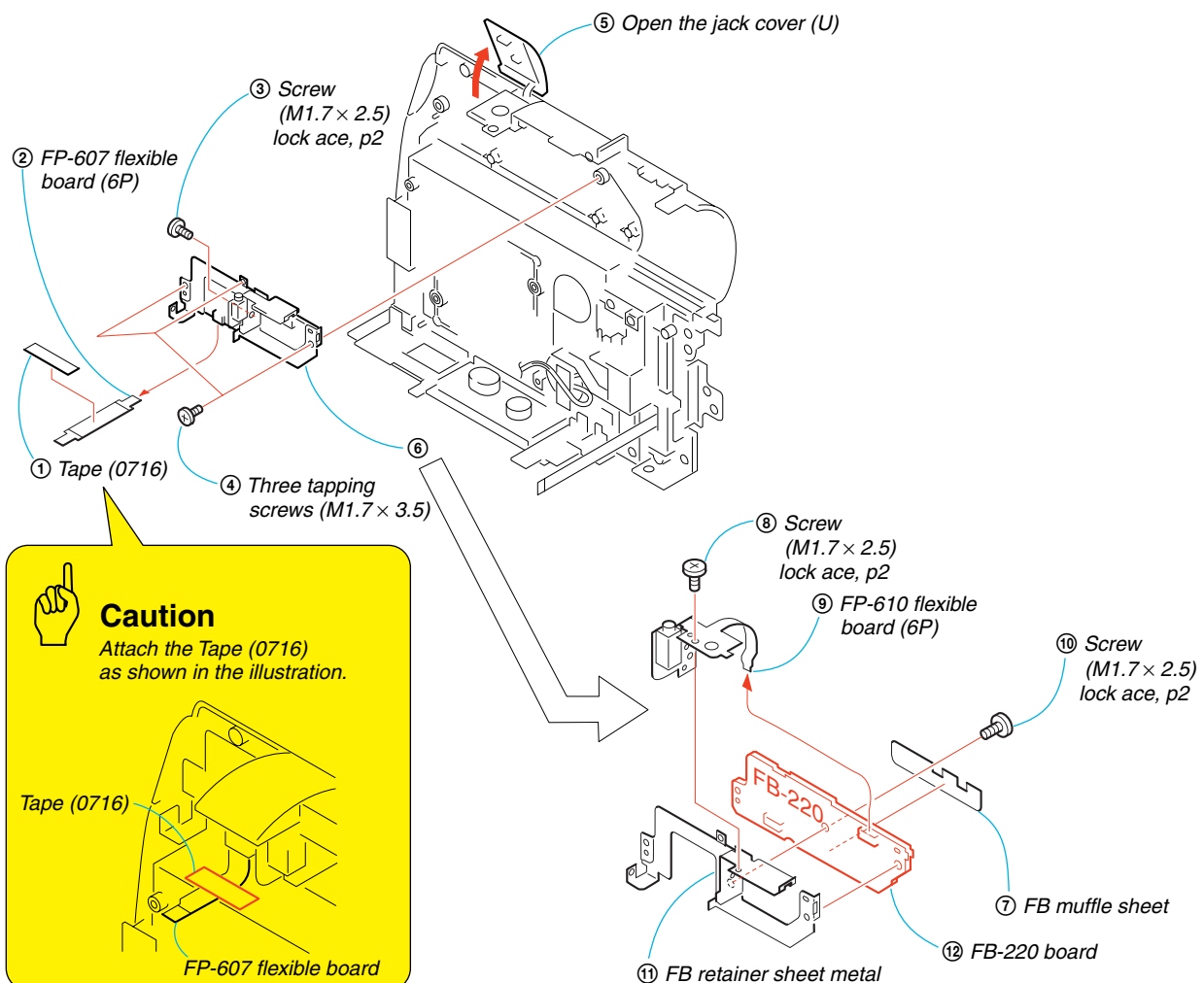
## 2-20. LCD HINGE ASSEMBLY (DVD200/DVD200E)



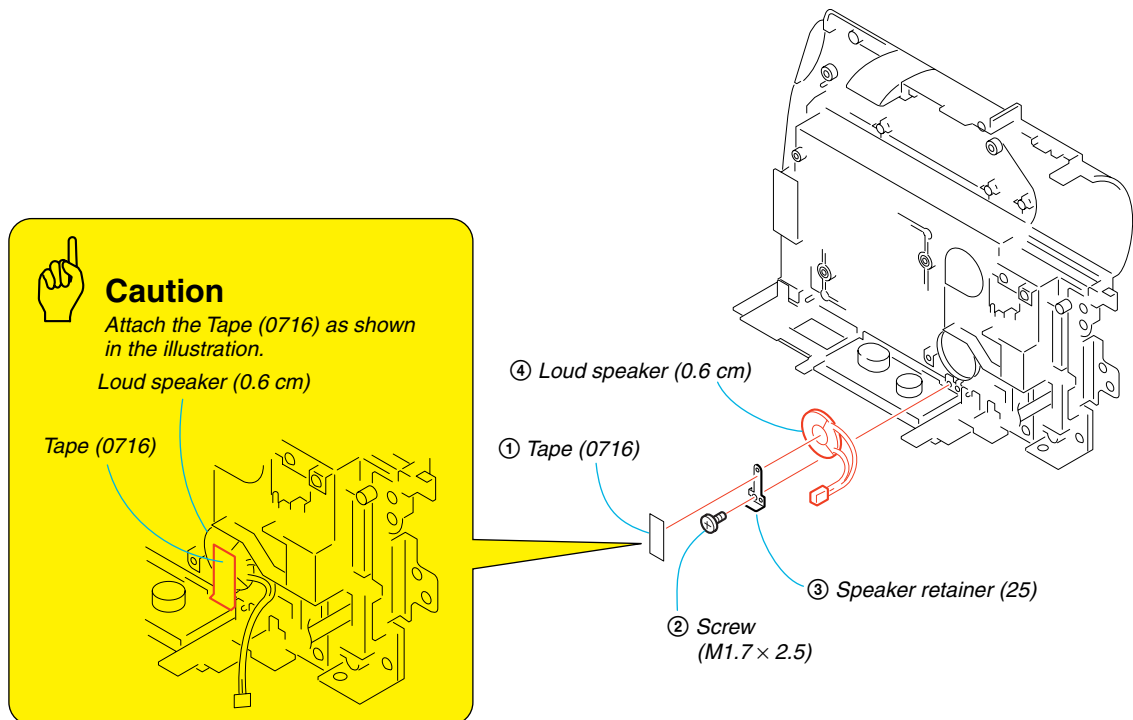
## 2-21. CK-127 BOARD (DVD200/DVD200E)



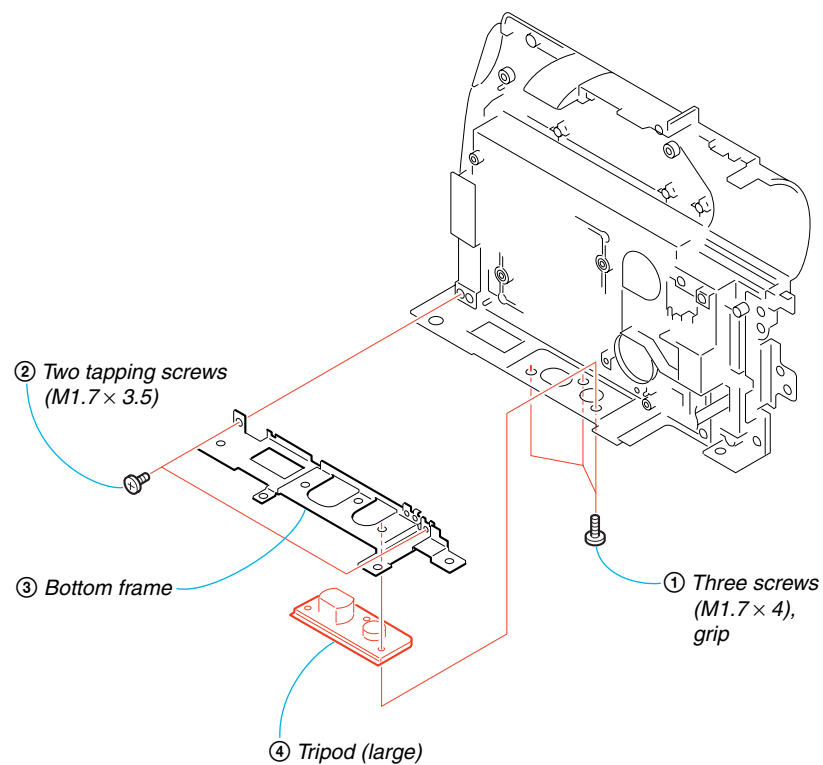
## 2-22. FB-220 BOARD (DVD200/DVD200E)



## 2-23. LOUD SPEAKER (1.6 cm) (DVD200/DVD200E)

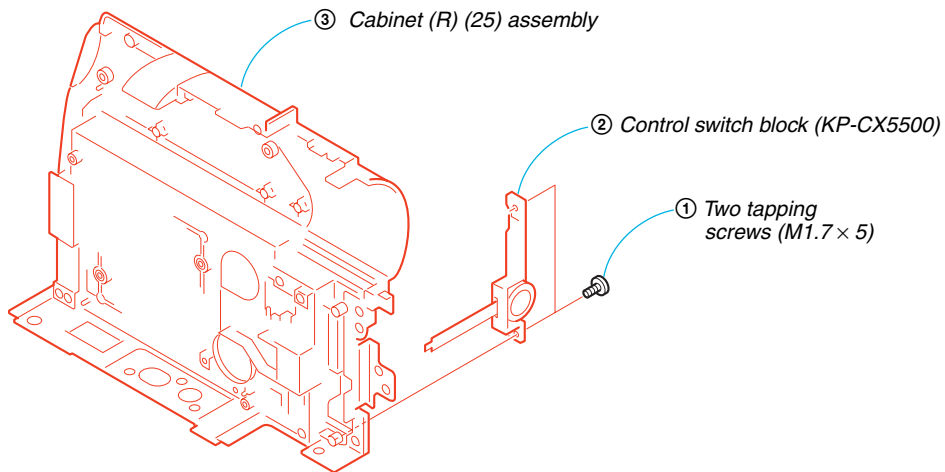


## 2-24. TRIPOD (LARGE) (DVD200/DVD200E)

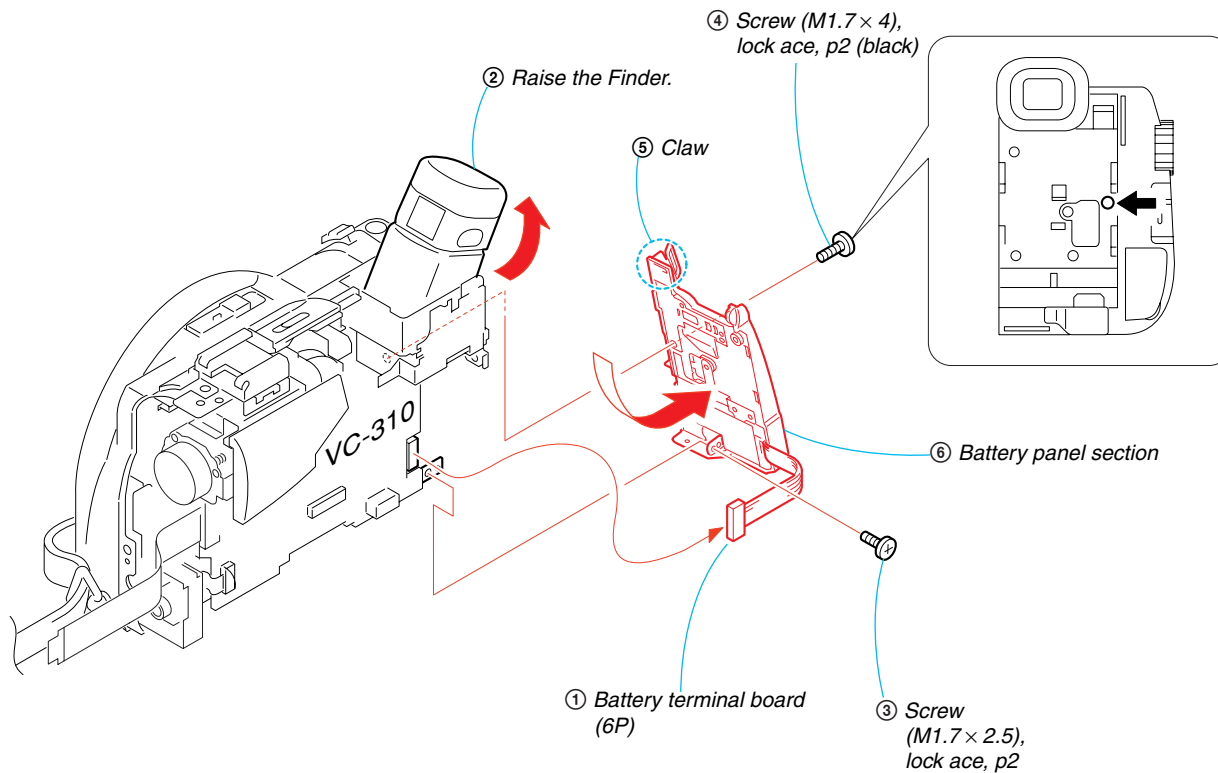




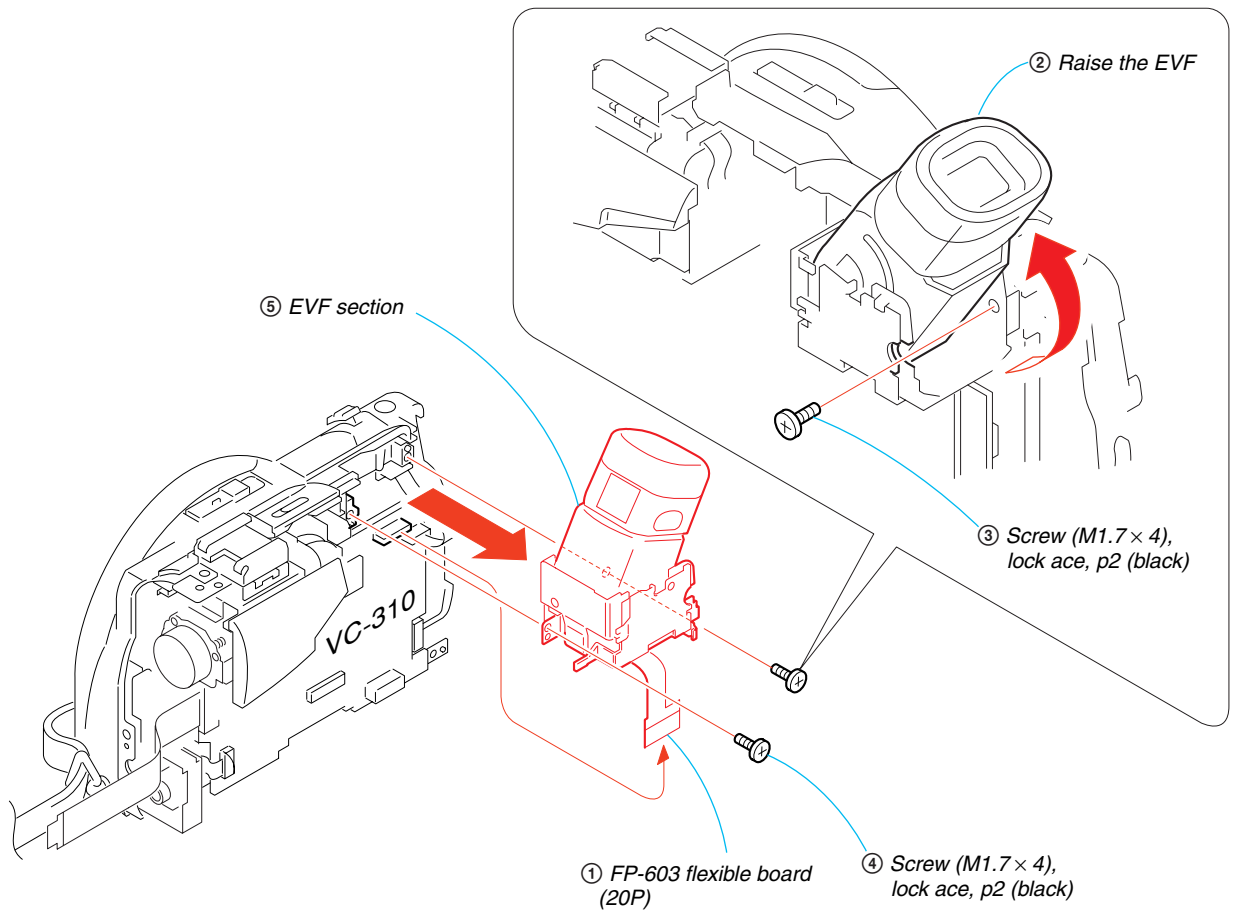
## 2-25.CONTROL SWITCH BLOCK (KP-CX5500), CABINET (R) (25) ASSEMBLY (DVD200/DVD200E)



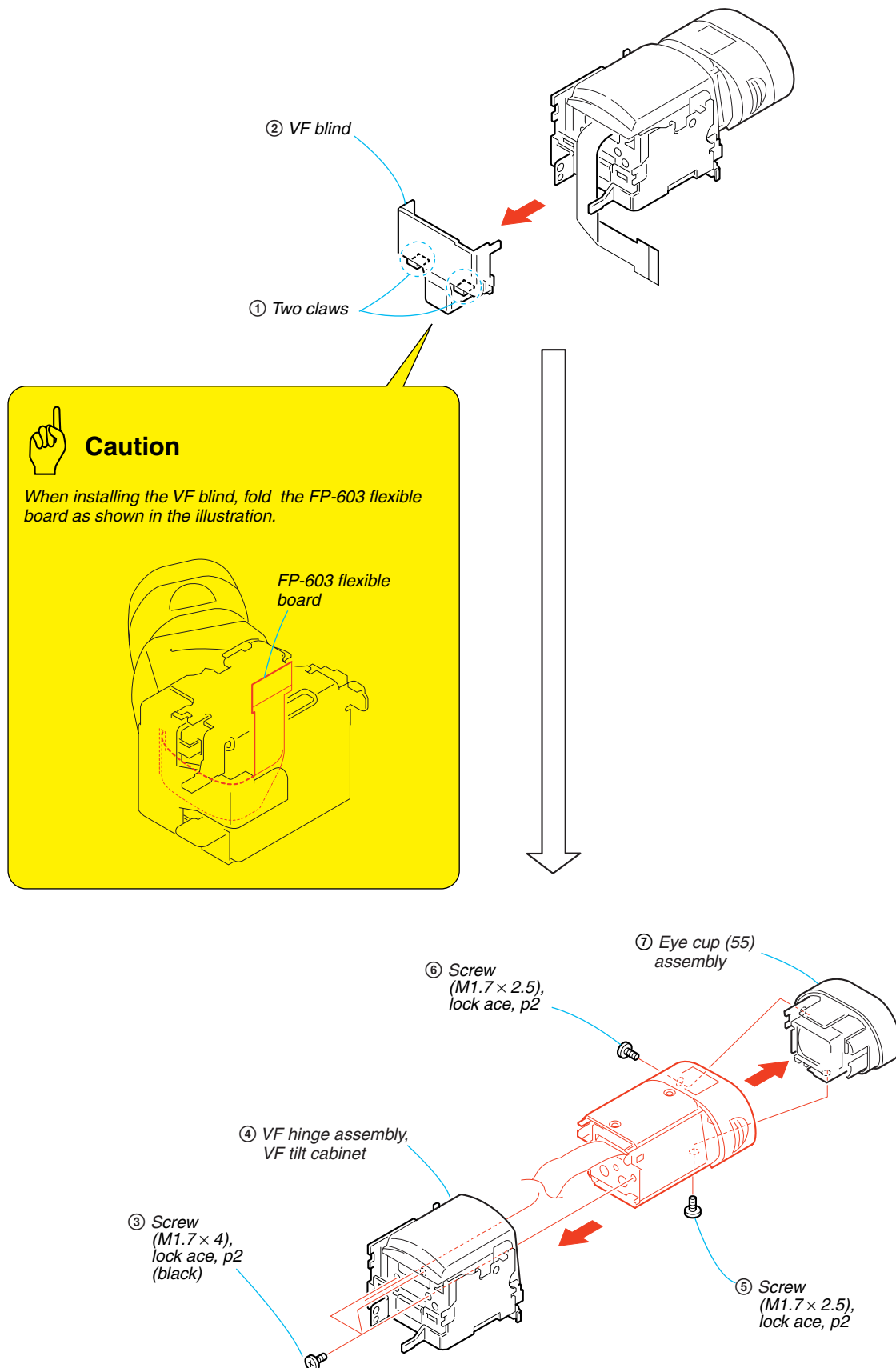
## 2-26.BATTERY PANEL SECTION



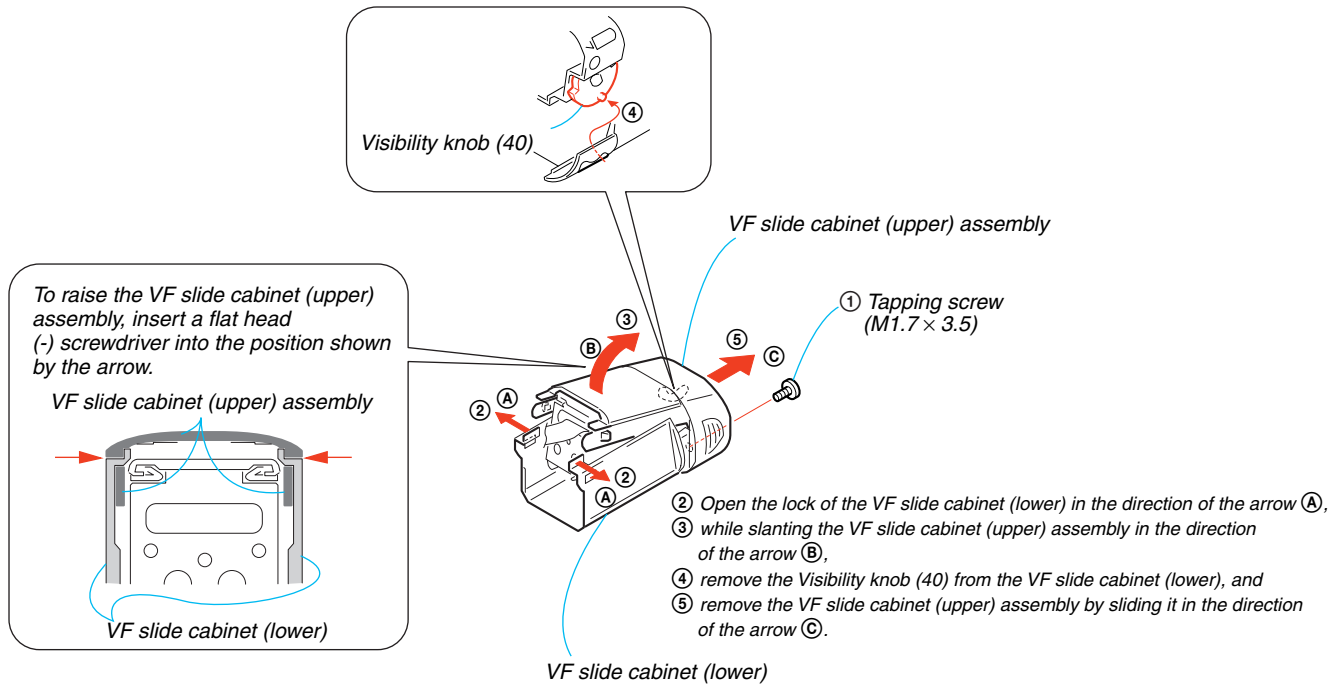
## 2-27.EVF SECTION



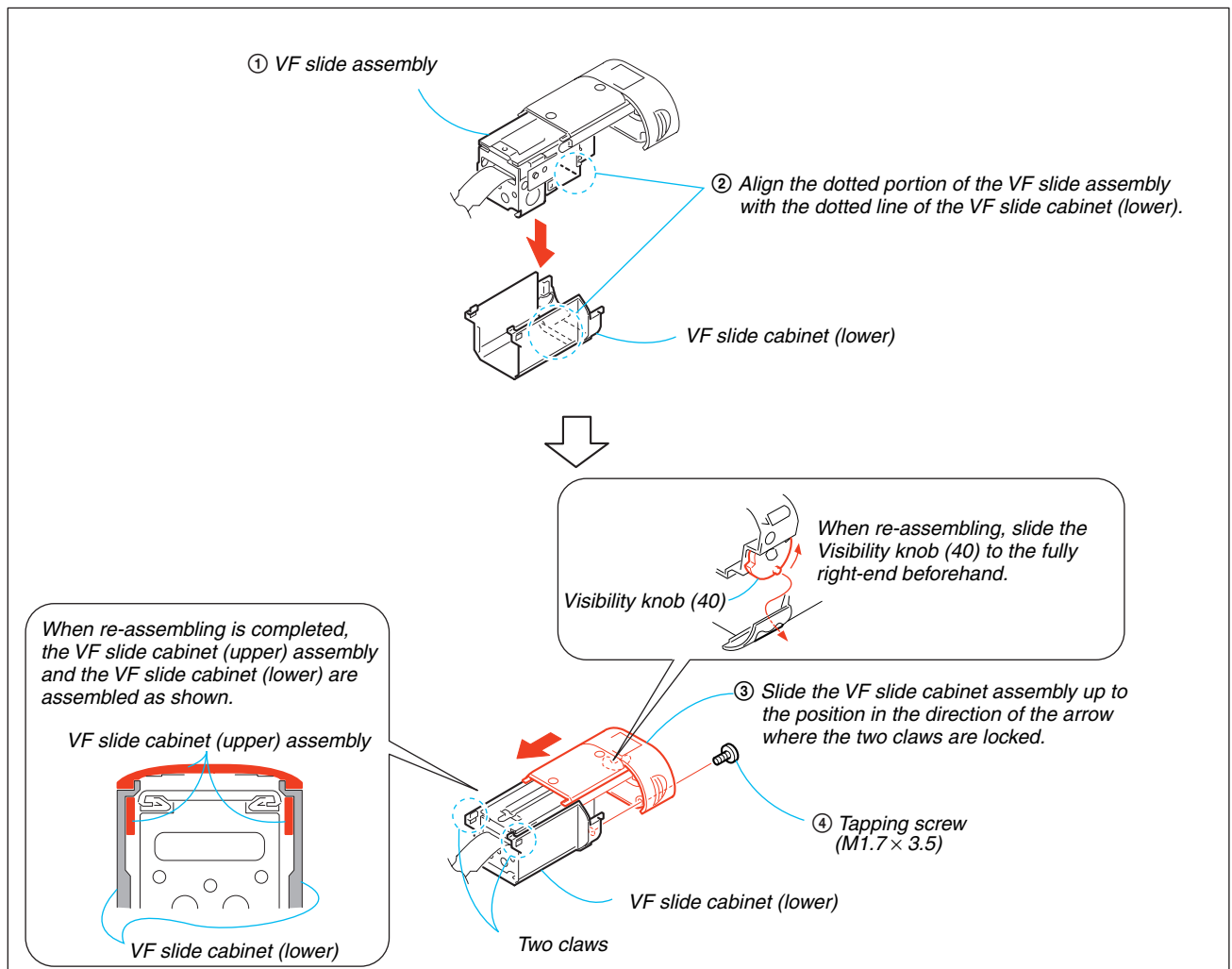
## 2-28.LB-084 BOARD (REMOVING OF THE EVF)-1



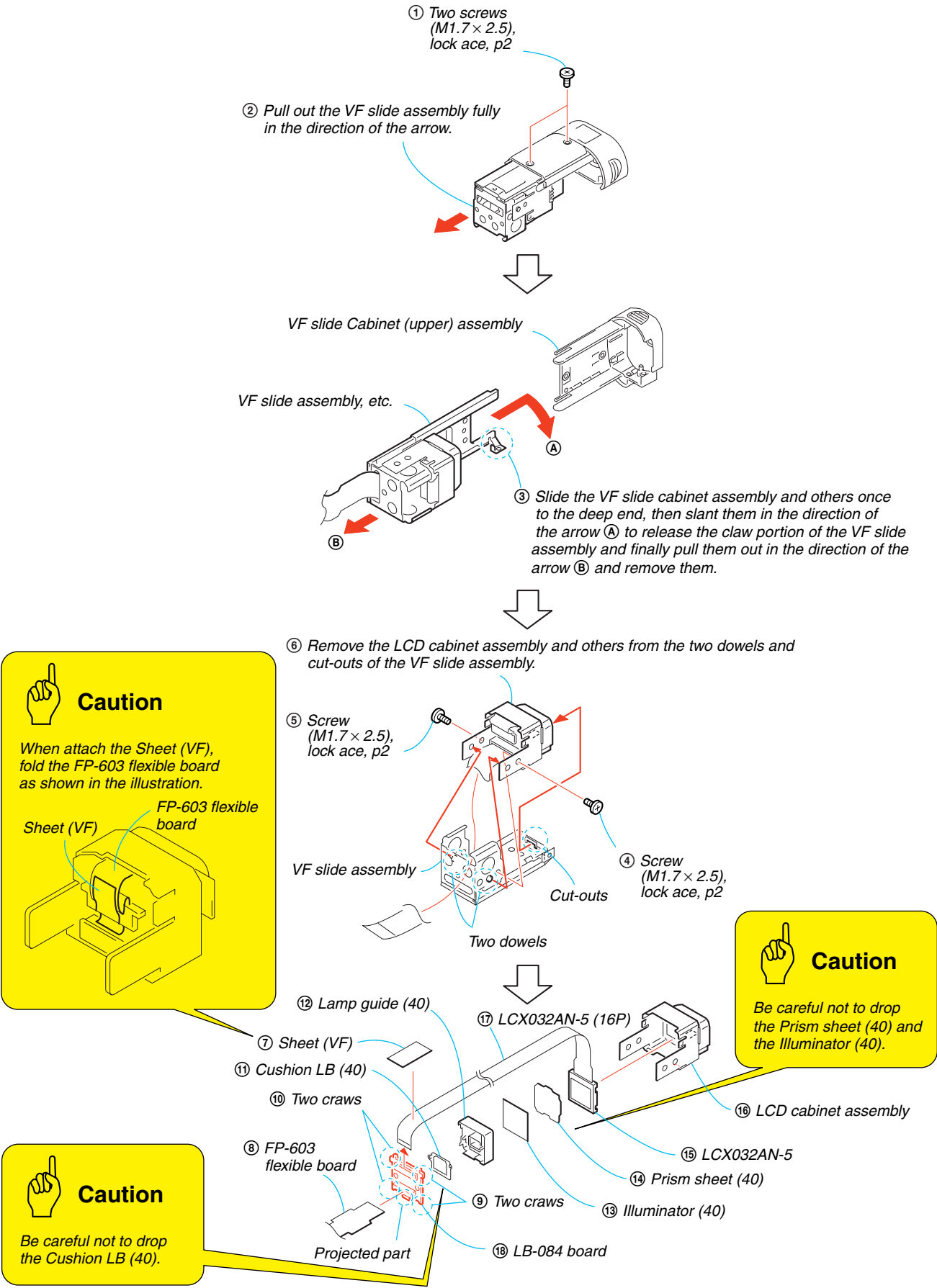
## 2-29.LB-084 BOARD (REMOVING OF THE EVF)-2



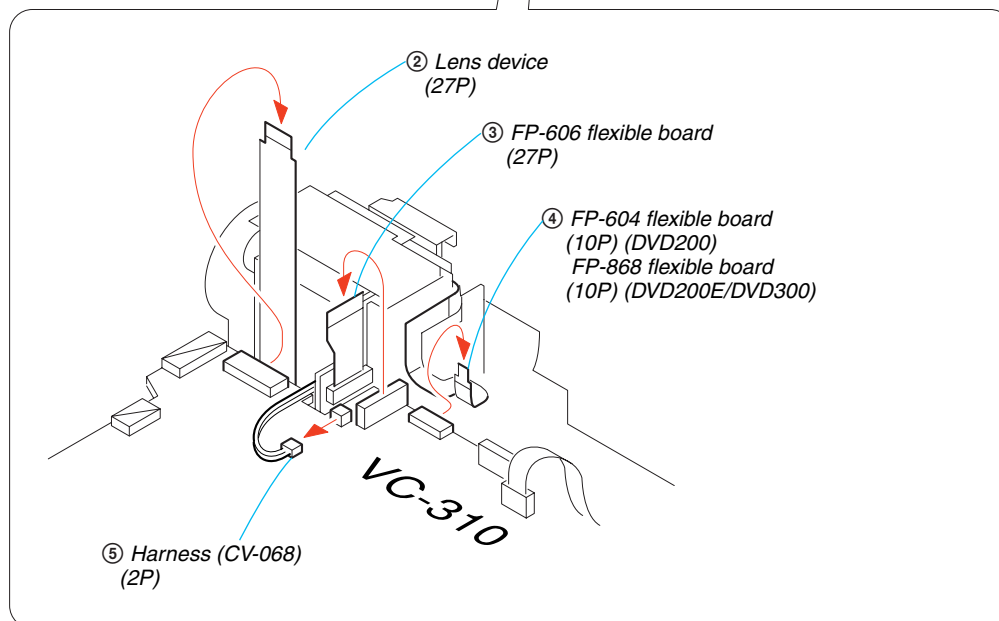
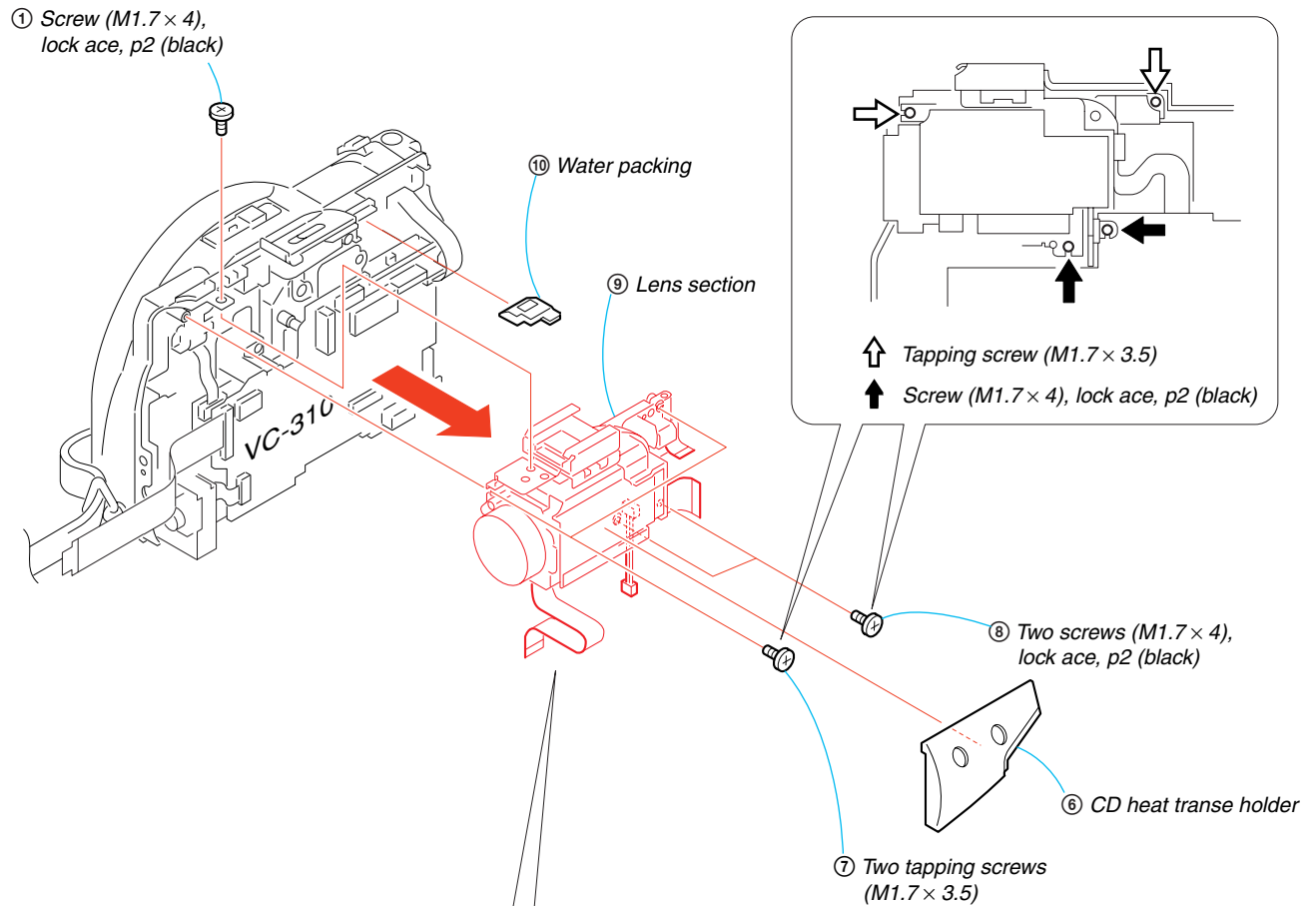
## RE-ASSEMBLING THE VF SLIDE CABINET



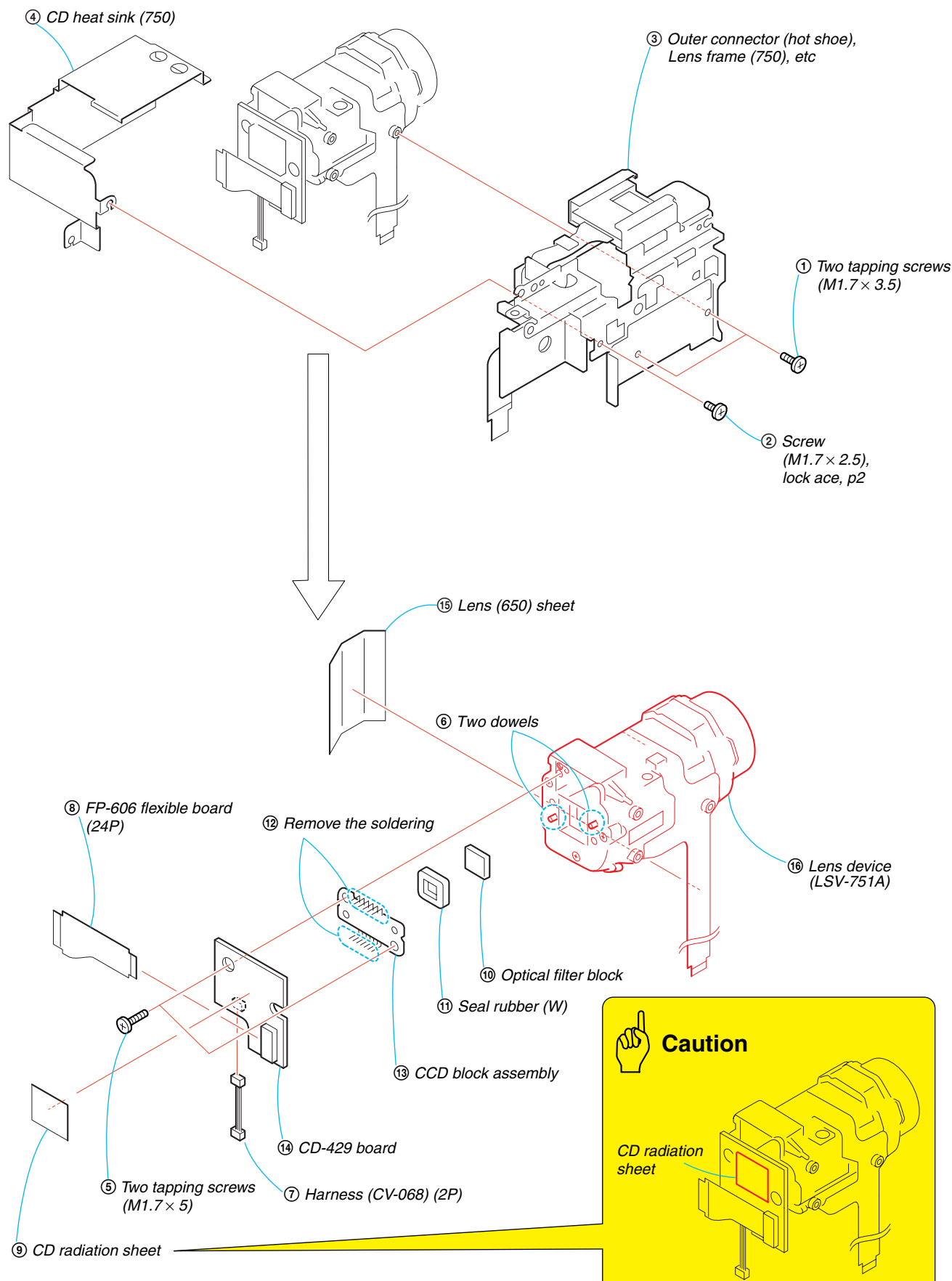
2-30.LB-084 BOARD (REMOVING OF THE EVF)-3



## 2-31.LENS SECTION

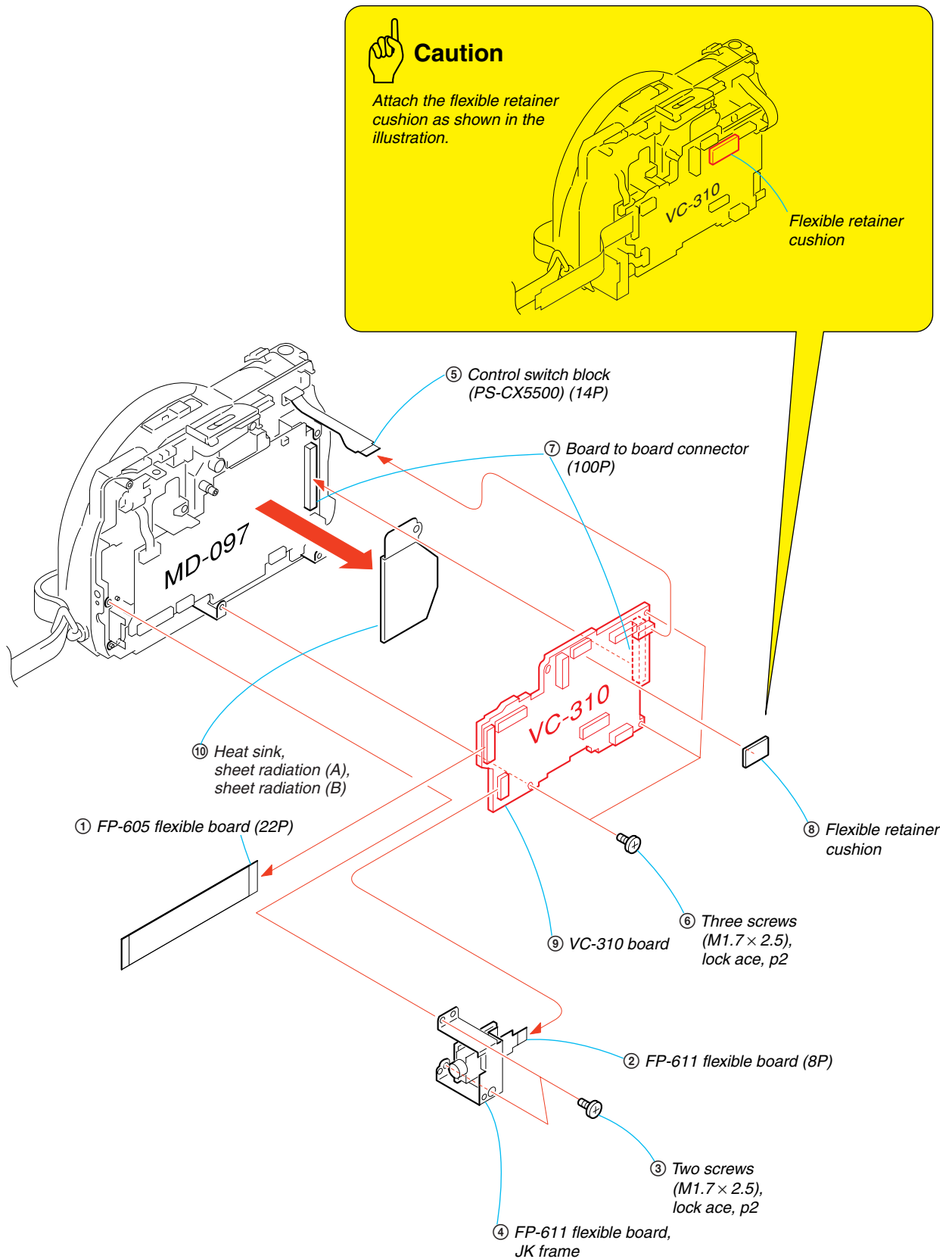


2-32.LENS DEVICE (LSV-751A)





## 2-33.VC-310 BOARD



[SERVICE POSITION TO CHECK THE DVD DRIVE SECTION]  
Connection to Check the VTR Section

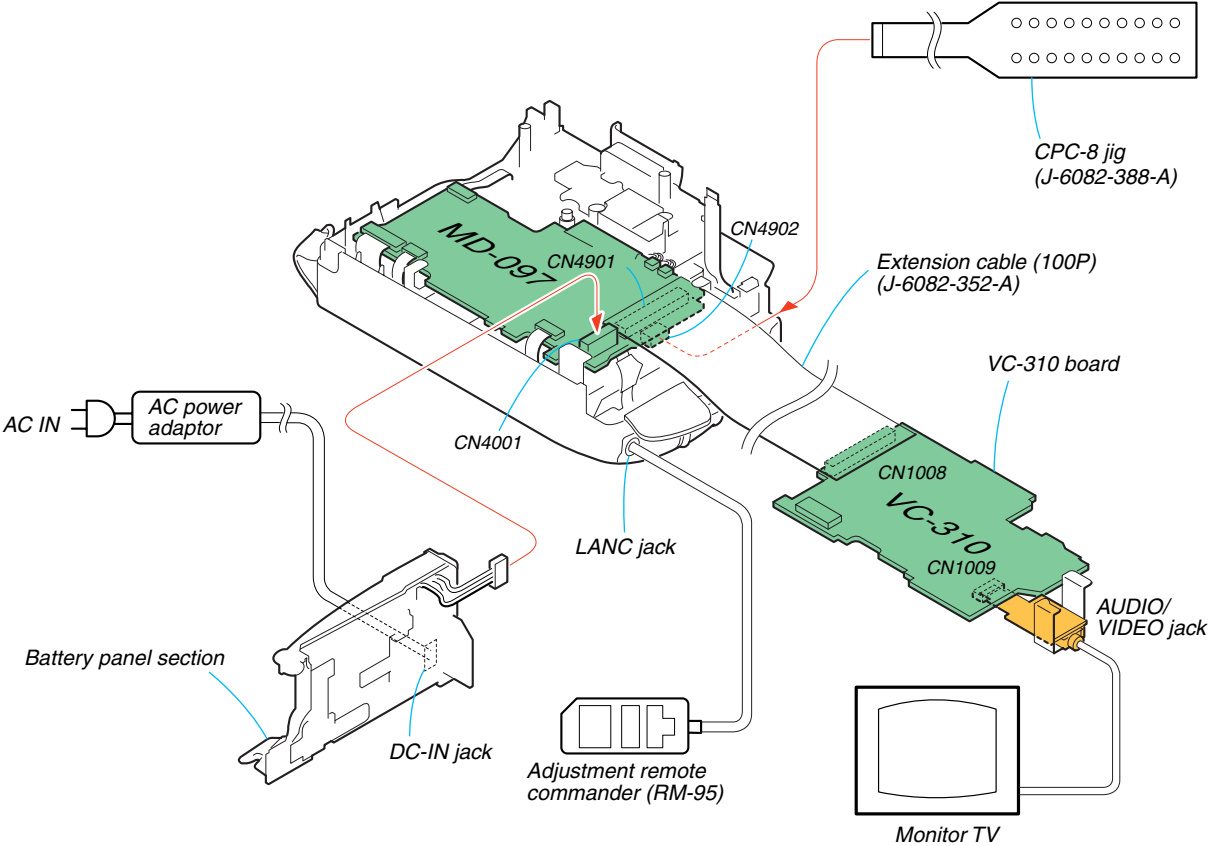
To check the DVD drive section, set the DVD drive to forced PLAY mode.  
Operate the DVD drive using the adjustment remote commander (with the HOLD switch set in the OFF position).

Setting the forced PLAY mode

- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 0, address: 10, and set data: 00.
- 3) Select page: D, address: 10, set data: 02, and press the PAUSE button of the adjustment remote commander.

Exiting the forced PLAY mode

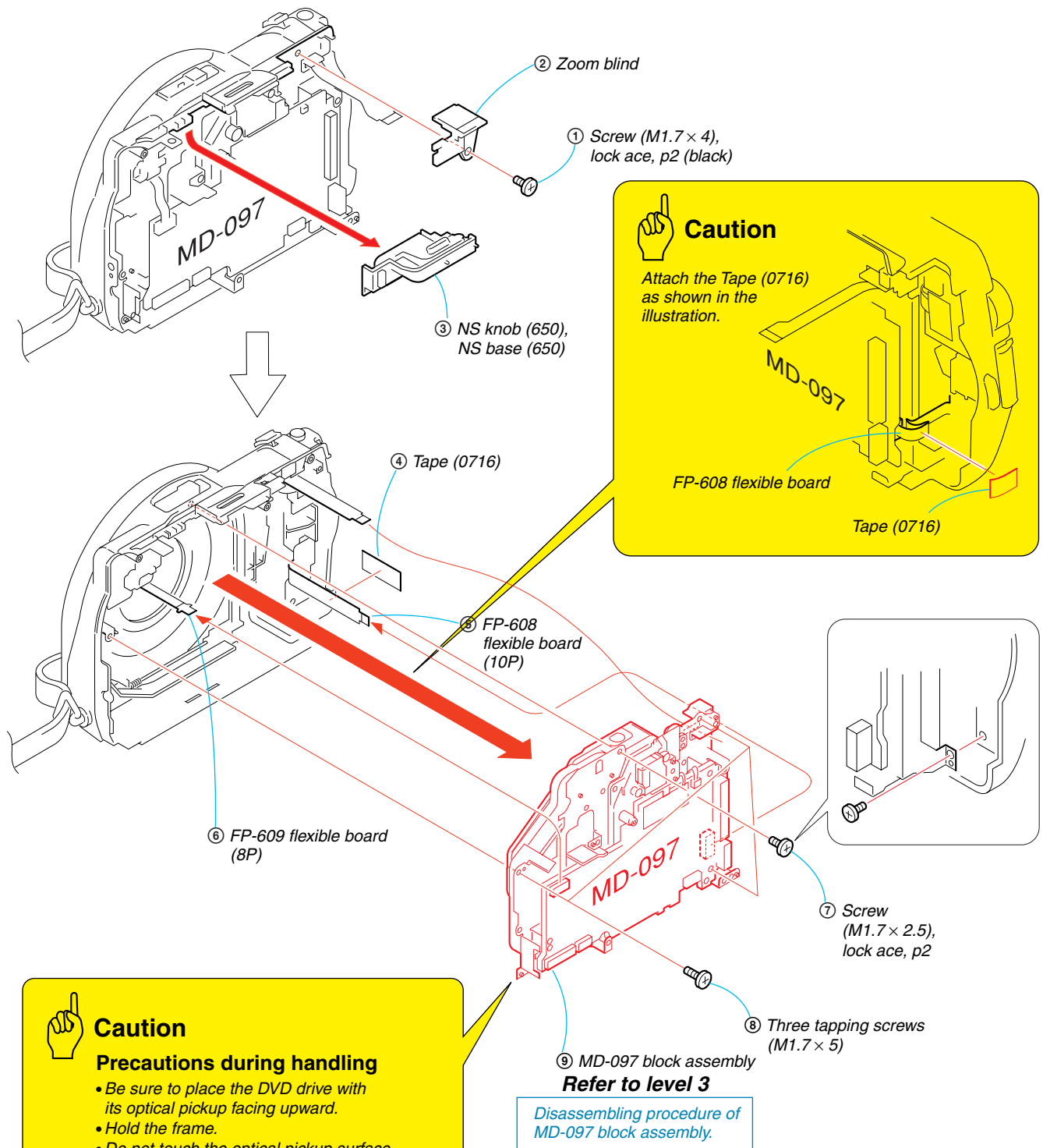
- 1) Select page: 0, address: 01, and set data: 01.
- 2) Select page: 0, address: 10, and set data: 00.
- 3) Select page: D, address: 10, set data: 00, and press the PAUSE button of the adjustment remote commander.
- 4) Select page: 0, address: 01, and set data: 00.



PROCEDURE OF REMOVING THE VC-310 BOARD.  
(SERVICE POSITION) TO CHECK THE DVD DRIVE SECTION)

① 2-2. F PANEL SECTION .....	(page 2-3)
② 2-4. CABINET (R) SECTION .....	(page 2-4)
③ 2-26. BATTERY PANEL SECTION.....	(page 2-16)
④ 2-27. EVF SECTION.....	(page 2-17)
⑤ 2-31. LENS SECTION.....	(page 2-21)
⑥ 2-33. VC-310 BOARD.....	(page 2-23)

## 2-34.MD-097 BLOCK ASSEMBLY

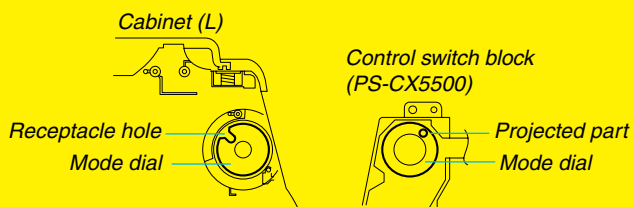


## 2-35.CONTROL SWITCH BLOCK (PS-CX5500)



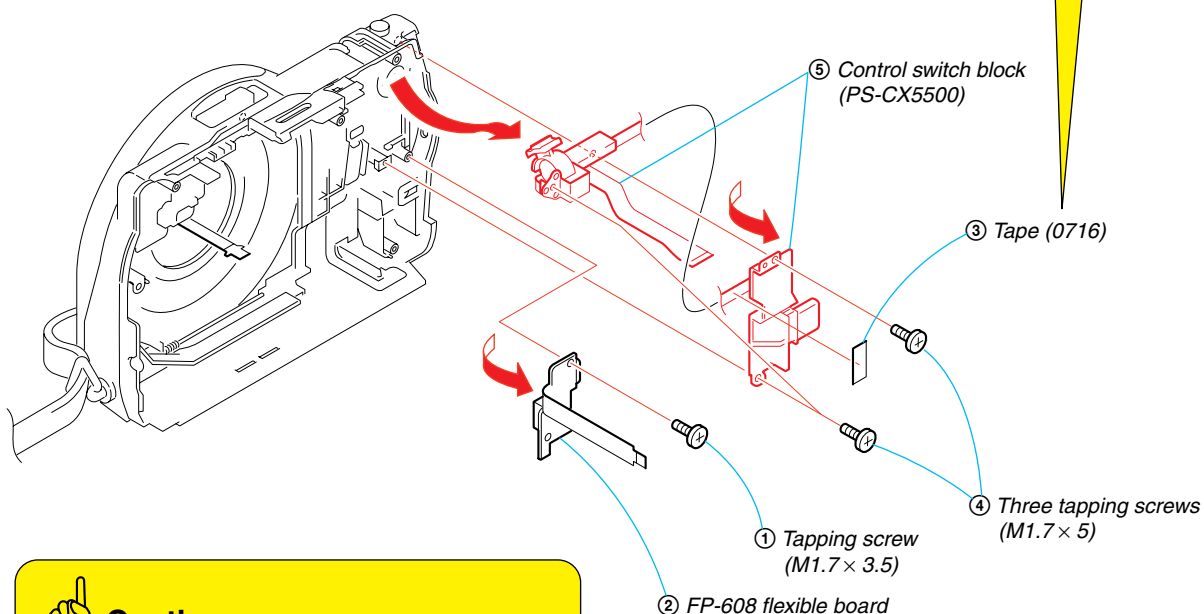
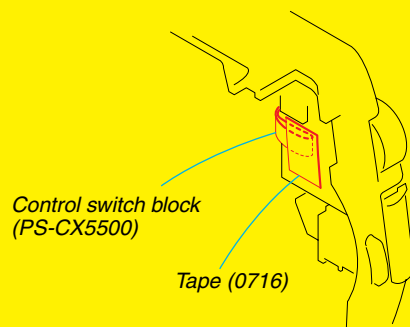
### Caution

Align the hole of the receptacle with the projection of the projected part, and install the Control switch block (PS-CX5500).



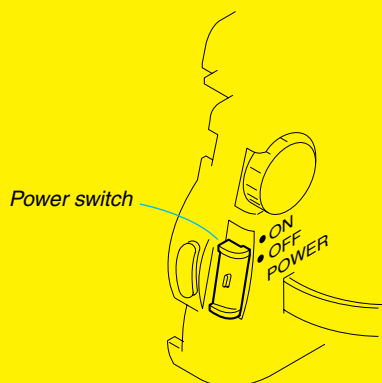
### Caution

Attach the Tape (0716) as shown in the illustration.

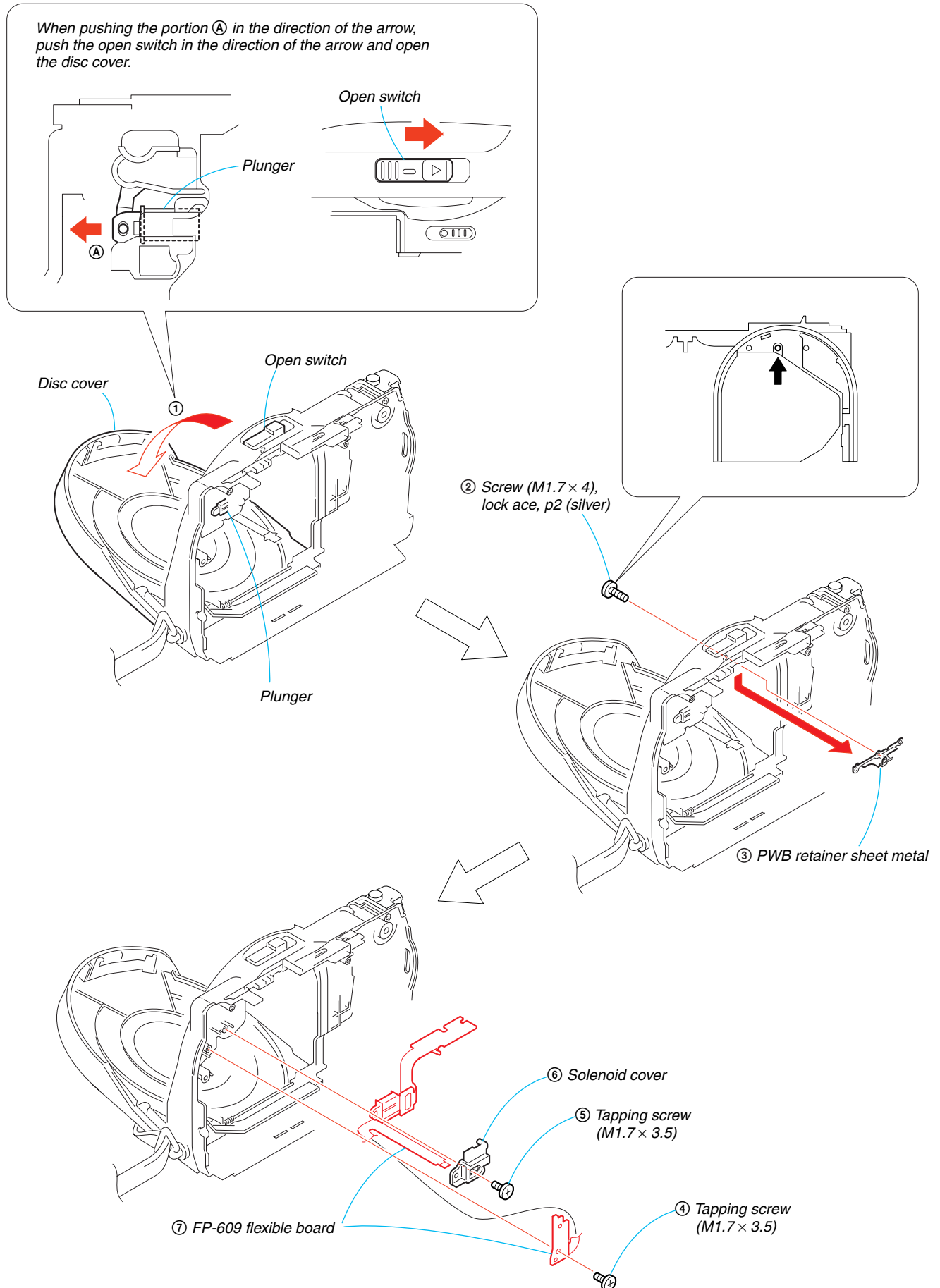


### Caution

When installing the Control switch block (PS-CX5500), make the power switch of cabinet (L) section into the position of OFF.

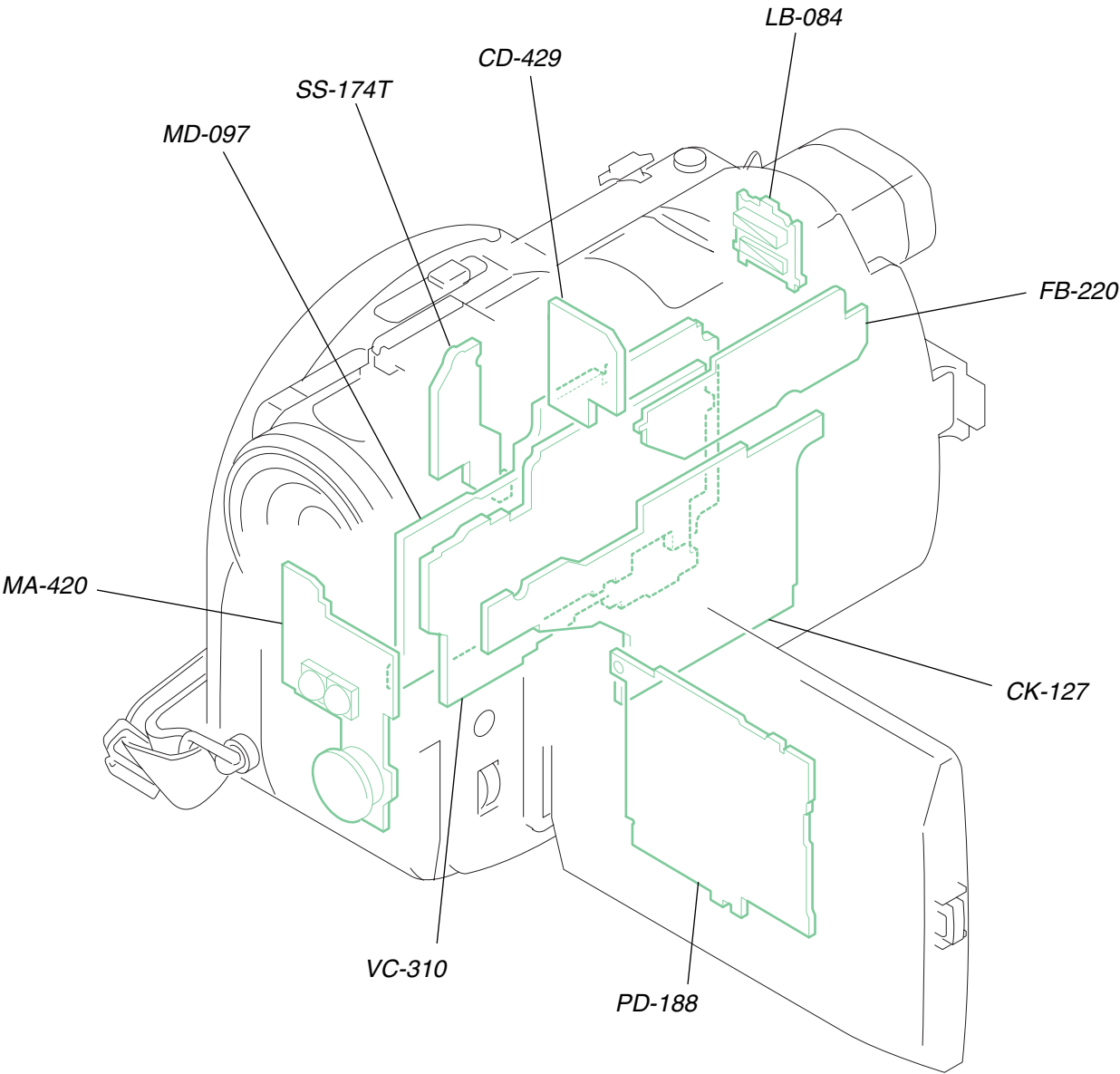


## 2-36.FP-609 FLEXIBLE BOARD





2-37.CIRCUIT BOARDS LOCATION

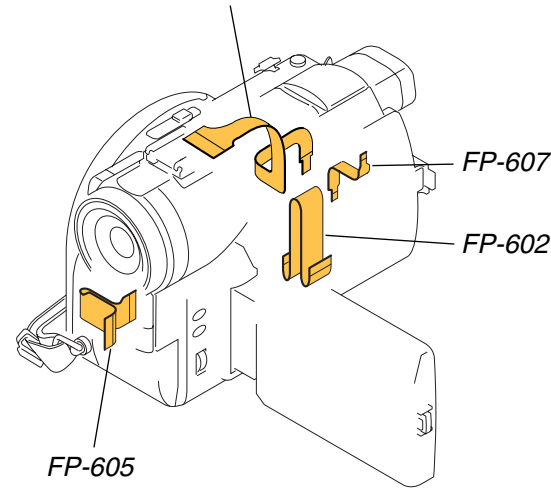


NAME	FUNCTION
CD-429	CCD IMAGER
CK-127	CONNECTOR, FUNCTION SWITCH
FB-220	FUNCTION SWITCH
LB-084	EVF CONNECTOR, EVF BACK LIGHT
MA-420	PITCH/YAW SENSOR, REMOTE SENSOR, MIC
MD-097	RF SKEW SENSOR, DVD DSP, MECHA DRIVE, UCON, FLASH, LATCH, USB I/F, CONNECTOR, DC/DC CONVERTER
PD-188	LCD DRIVE, BACK LIGHT DRIVE
SS-174T	TSB SHOCK SENSOR
VC-310	DC/DC CONVERTER, A/D CONVERTER, TIMING GENERATOR, EVR, CAMERA PROCESS, LENS DRIVE, DVD SYSTEM CONTROL, 128M SDRAM, 16M FCRAM, DVD CODEC, 64M SDRAM, VIDEO IN/OUT, VIDEO A/D CONVERTER, EVF DRIVE, CAMERA CONTROL, HI CONTROL, HI/DIGITAL STILL CONTROL, 32M FLASH MEMORY, AUDIO I/O, MIC AMP, PITCH/YAW SENSOR AMP, CONNECTOR, DD CONNECTOR

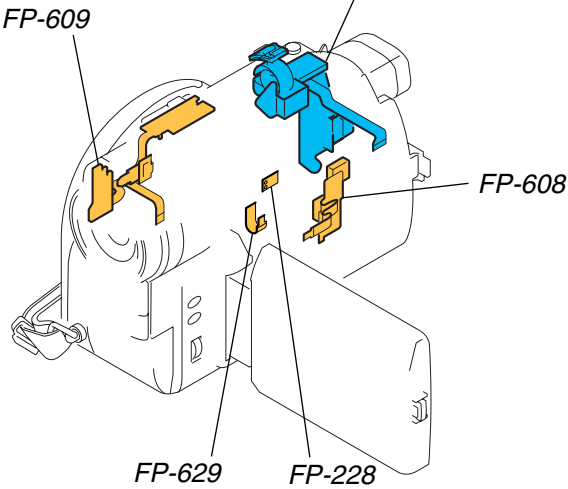


**2-38.FLEXIBLE BOARDS LOCATION**

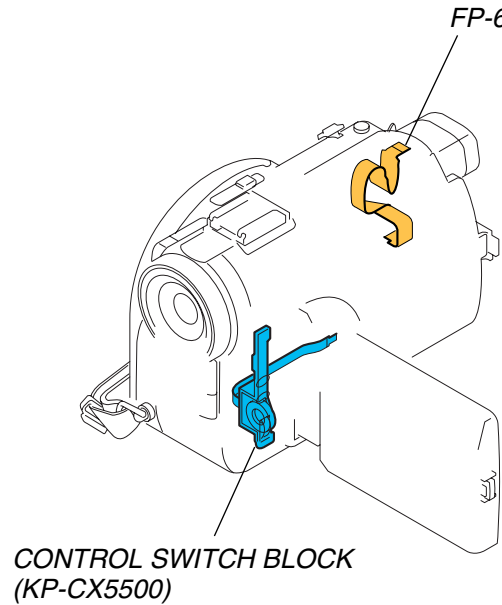
FP-604 (DVD200)  
FP-868 (DVD200E/DVD300)



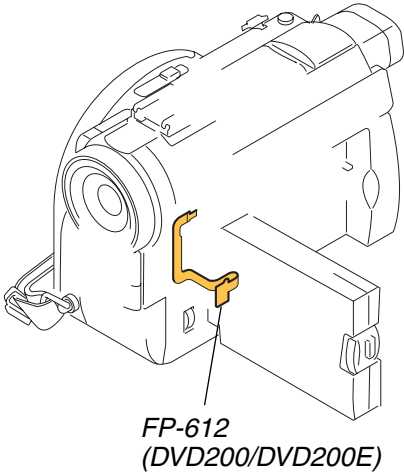
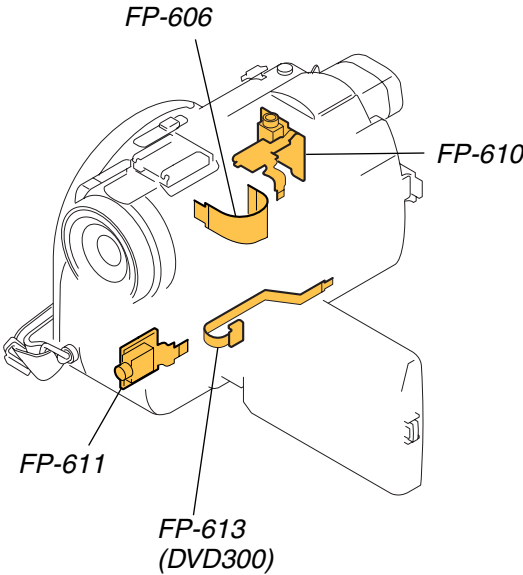
CONTROL SWITCH BLOCK  
(PS-CX5500)



FP-603



FP-606



**Disassembling procedure of MD-097 block assembly are not shown. Pages from 2-30 to 2-32 are not shown.**

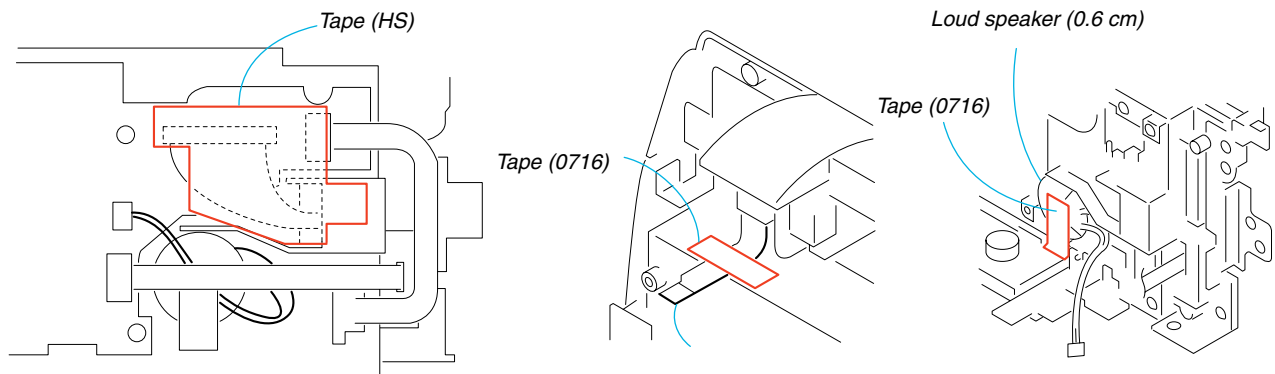




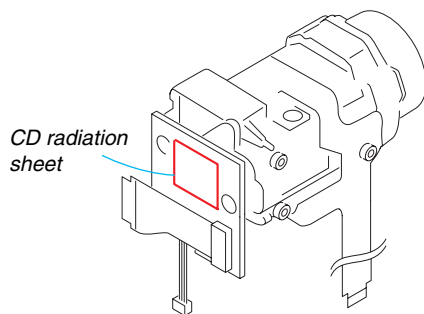
## HELP

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

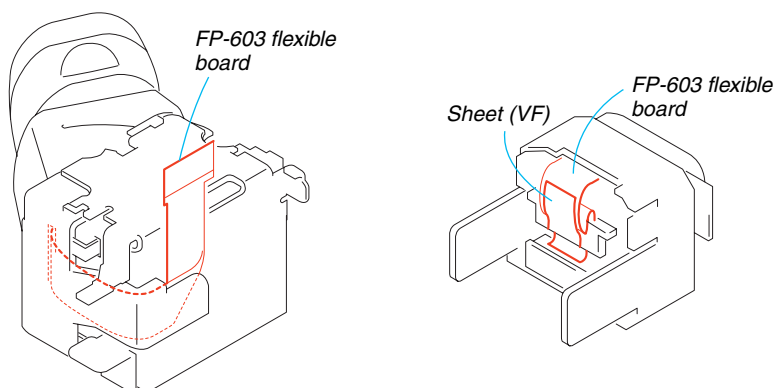
### CABINET (R) SECTION (DVD200)



### LENS SECTION

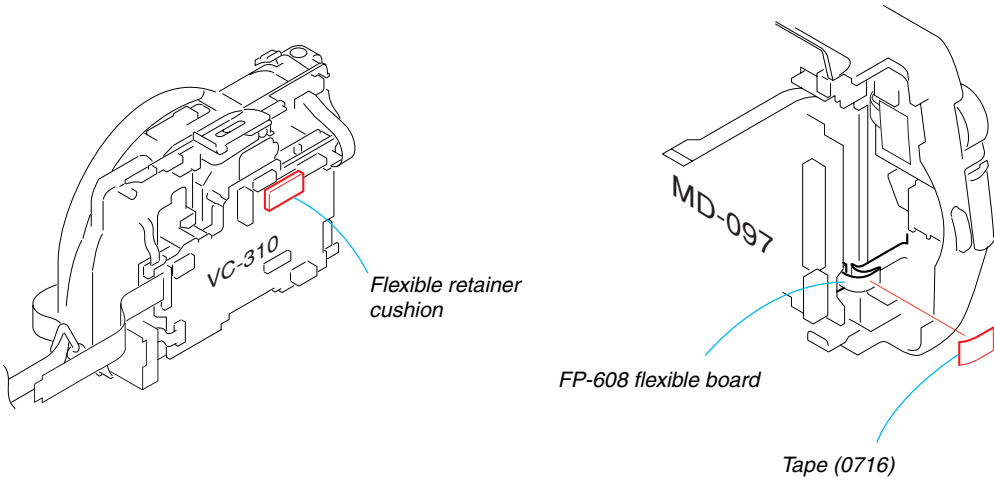


### EVF SECTION

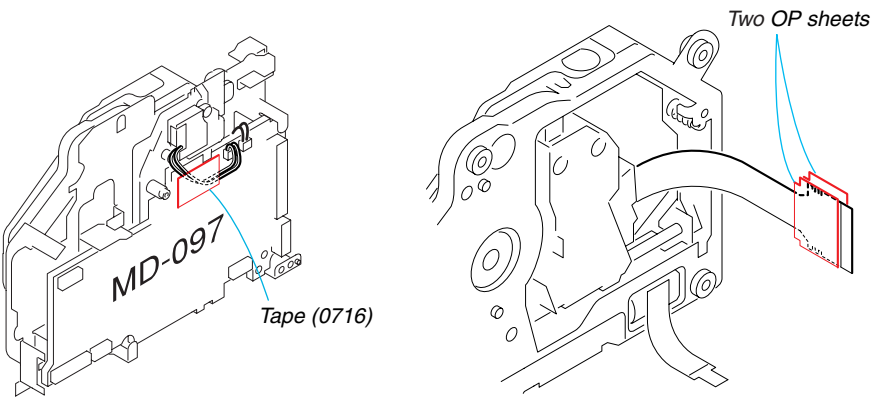




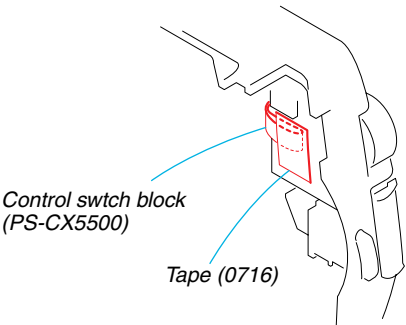
OVERALL



MD SECTION



CABINET (L) SECTION





### 3. BLOCK DIAGRAMS

#### Link

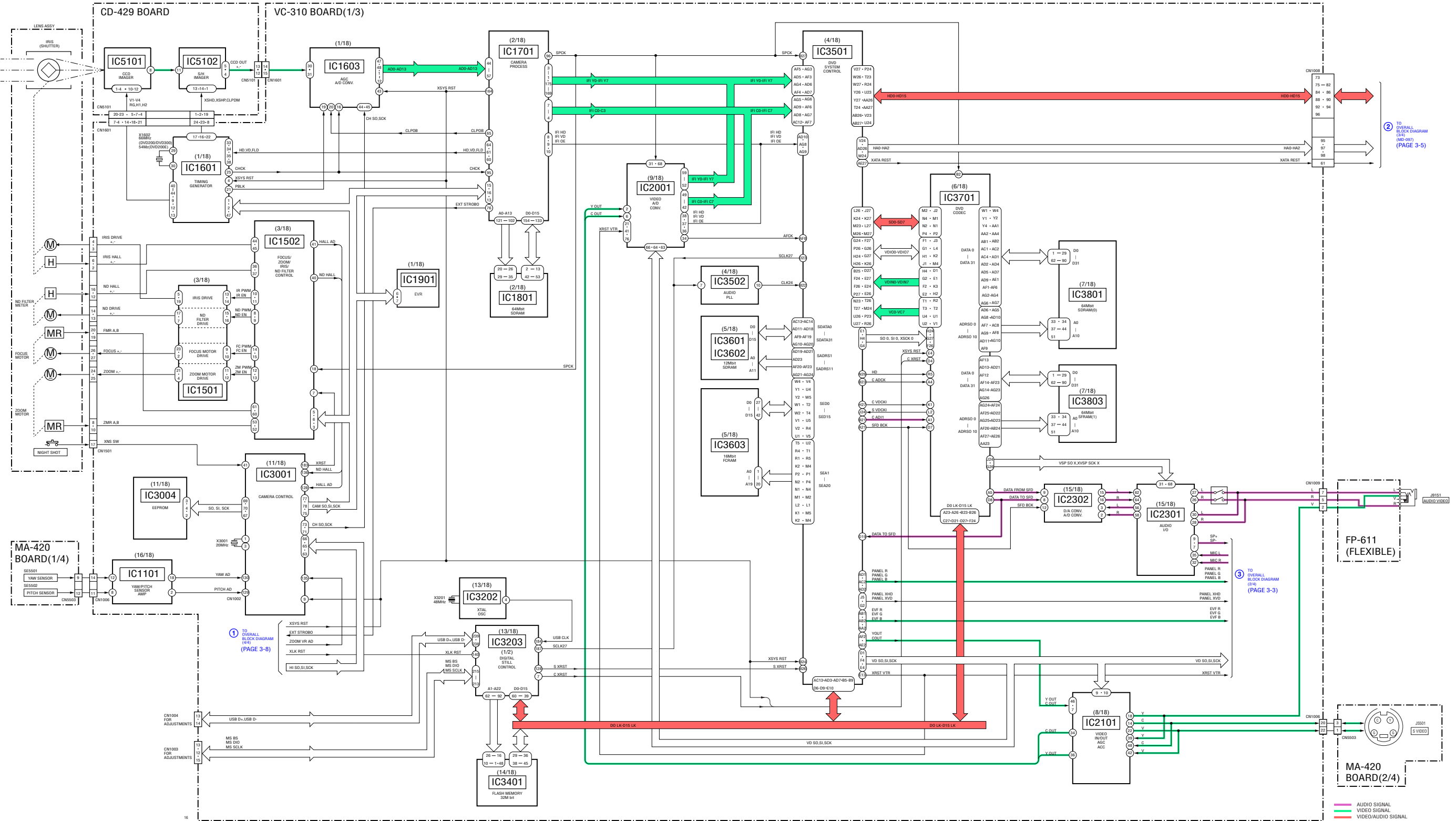
<a href="#">OVERALL BLOCK DIAGRAM (1/4)</a>	<a href="#">POWER BLOCK DIAGRAM (1/3)</a>
<a href="#">OVERALL BLOCK DIAGRAM (2/4)</a>	<a href="#">POWER BLOCK DIAGRAM (2/3)</a>
<a href="#">OVERALL BLOCK DIAGRAM (3/4)</a>	<a href="#">POWER BLOCK DIAGRAM (3/3)</a>
<a href="#">OVERALL BLOCK DIAGRAM (4/4)</a>	



SECTION 3  
BLOCK DIAGRAMS

3. BLOCK DIAGRAMS

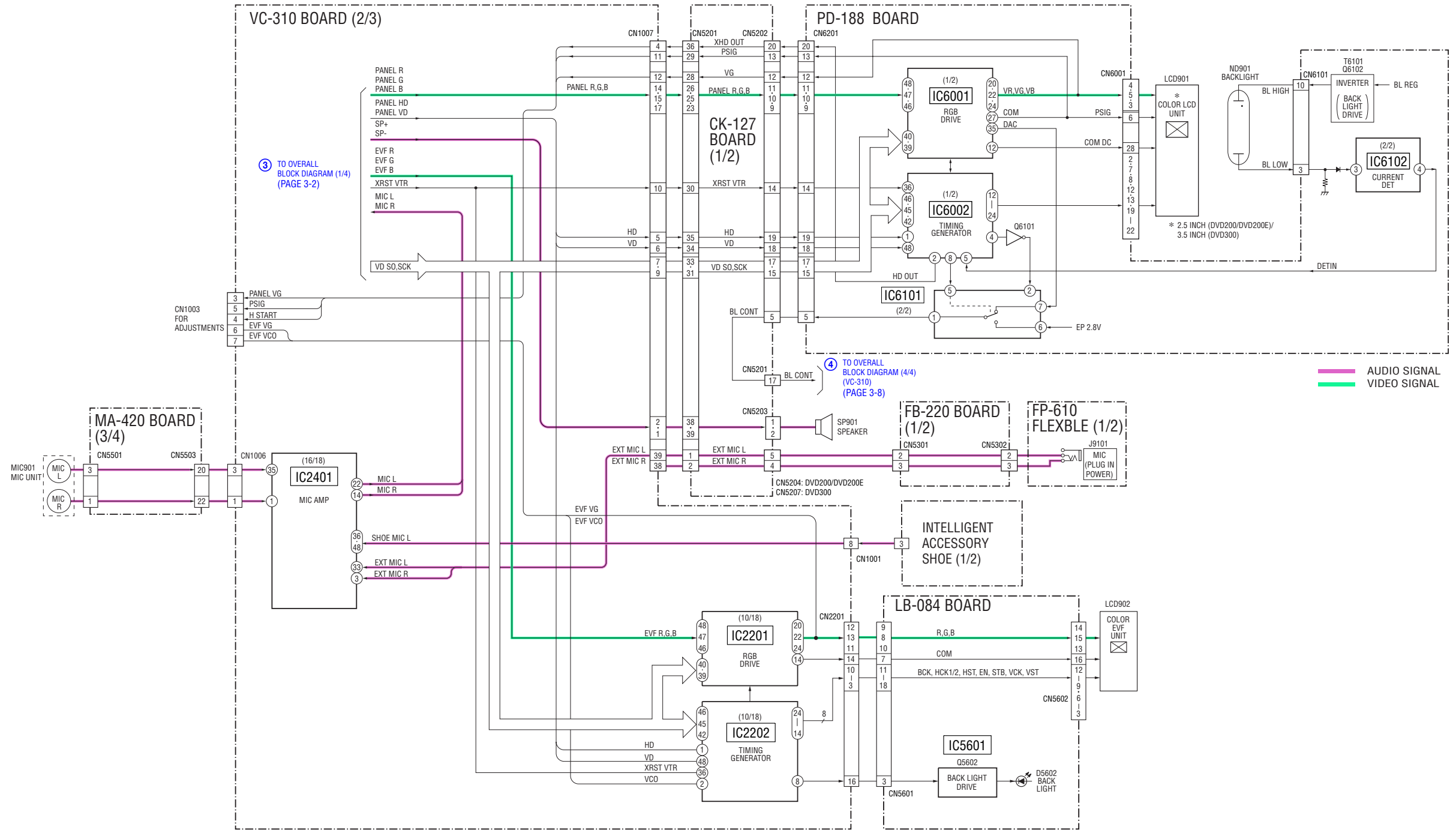
3-1. OVERALL BLOCK DIAGRAM (1/4) ( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.





### 3. BLOCK DIAGRAMS

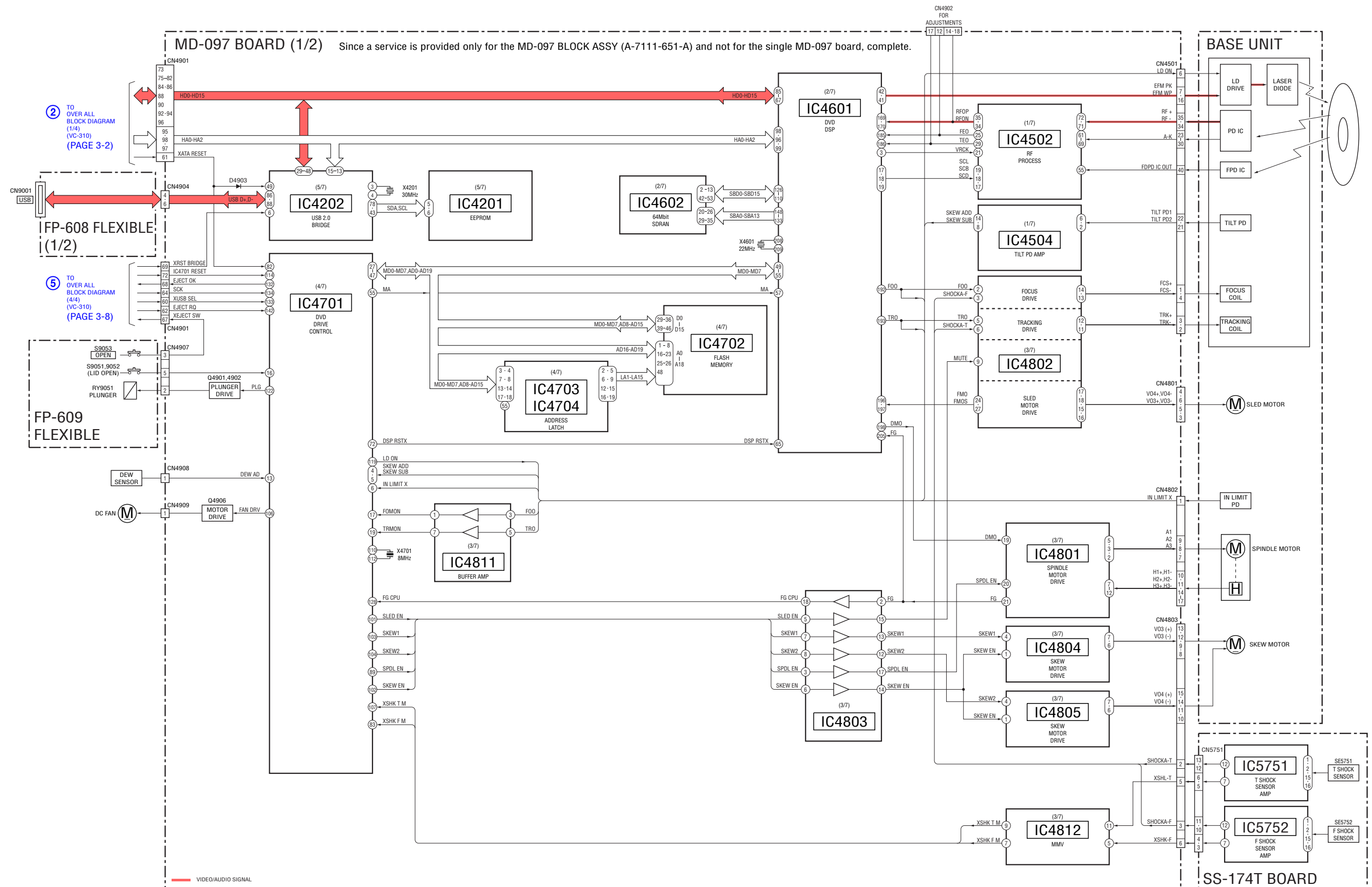
#### 3-2. OVERALL BLOCK DIAGRAM (2/4) ( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.





### 3. BLOCK DIAGRAMS

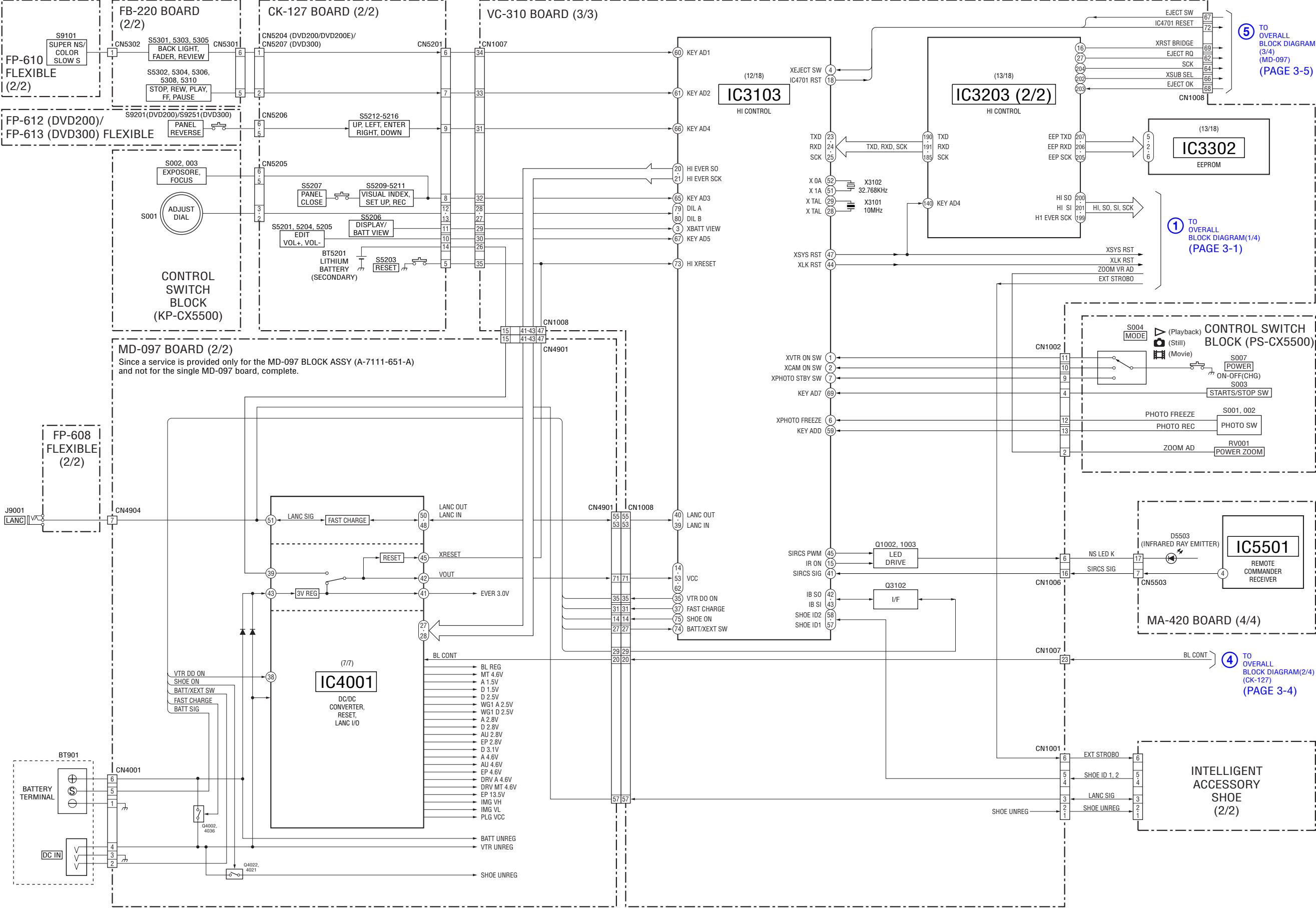
#### 3-3. OVERALL BLOCK DIAGRAM (3/4) ( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.





3. BLOCK DIAGRAMS

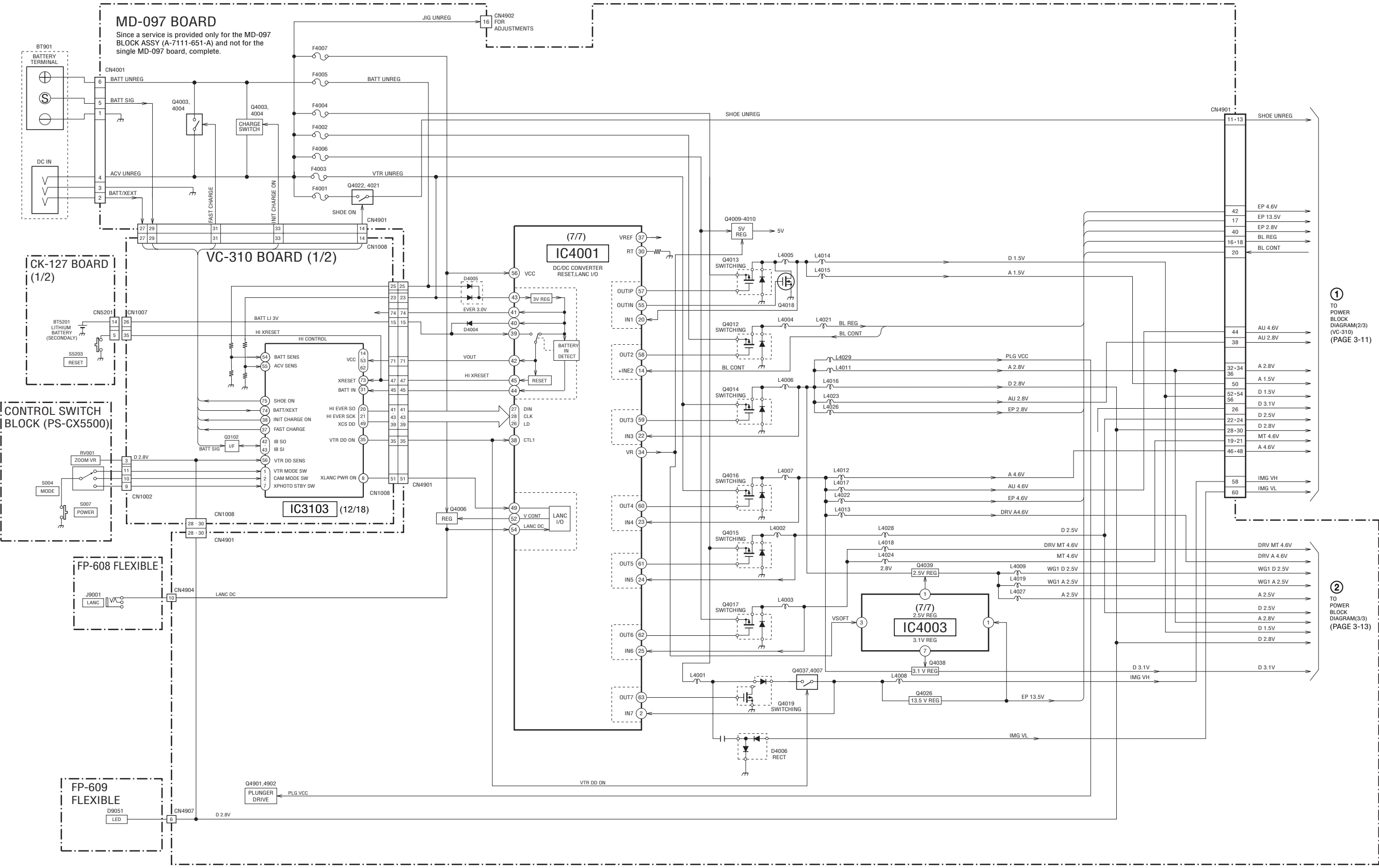
3-4. OVERALL BLOCK DIAGRAM (4/4) ( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.





3. BLOCK DIAGRAMS

3-5. POWER BLOCK DIAGRAM (1/3) ( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



① TO POWER BLOCK DIAGRAM(2/3) (VC-310) (PAGE 3-11)

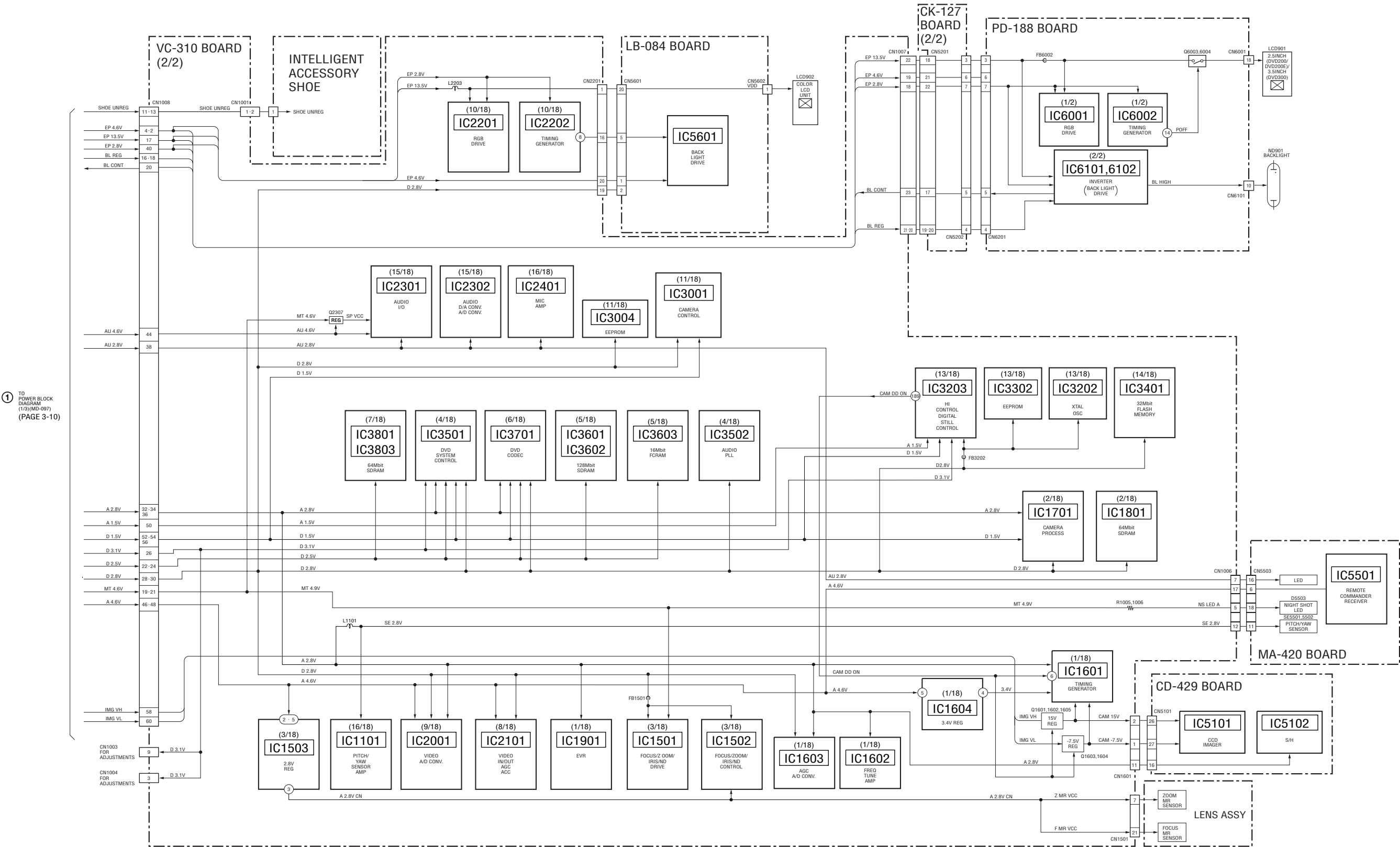
② TO POWER BLOCK DIAGRAM(3/3) (PAGE 3-13)





3. BLOCK DIAGRAMS

3-6. POWER BLOCK DIAGRAM (2/3) ( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



### 3-7. POWER BLOCK DIAGRAM (3/3)

MD-097 BOARD (2/2)

[illegible]

BASE UNIT

| SS-174T BOARD

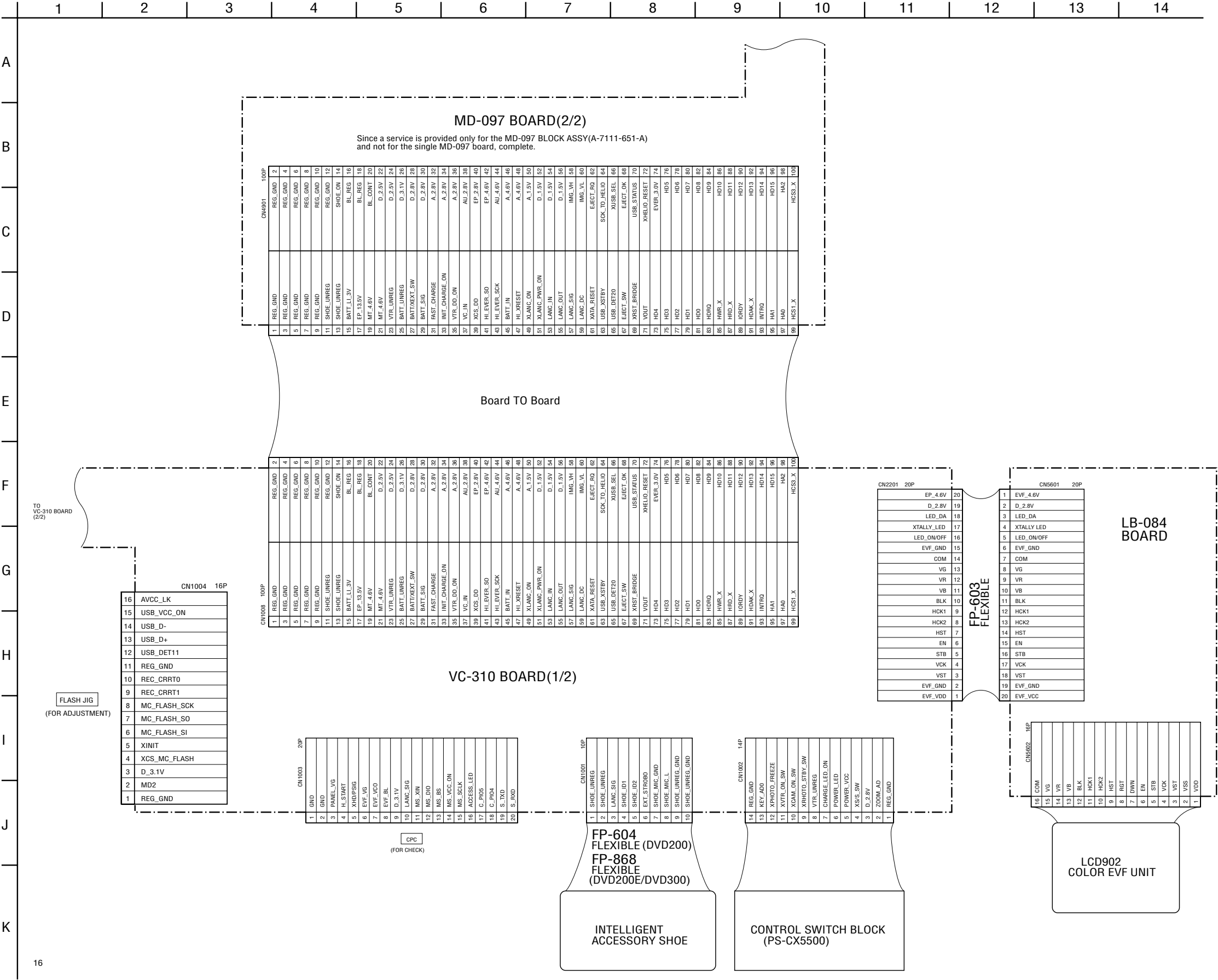


4-2. SCHEMATIC DIAGRAMS

4-3. PRINTED WIRING BOARDS

SECTION 4  
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. FRAME SCHEMATIC DIAGRAM (1/3)

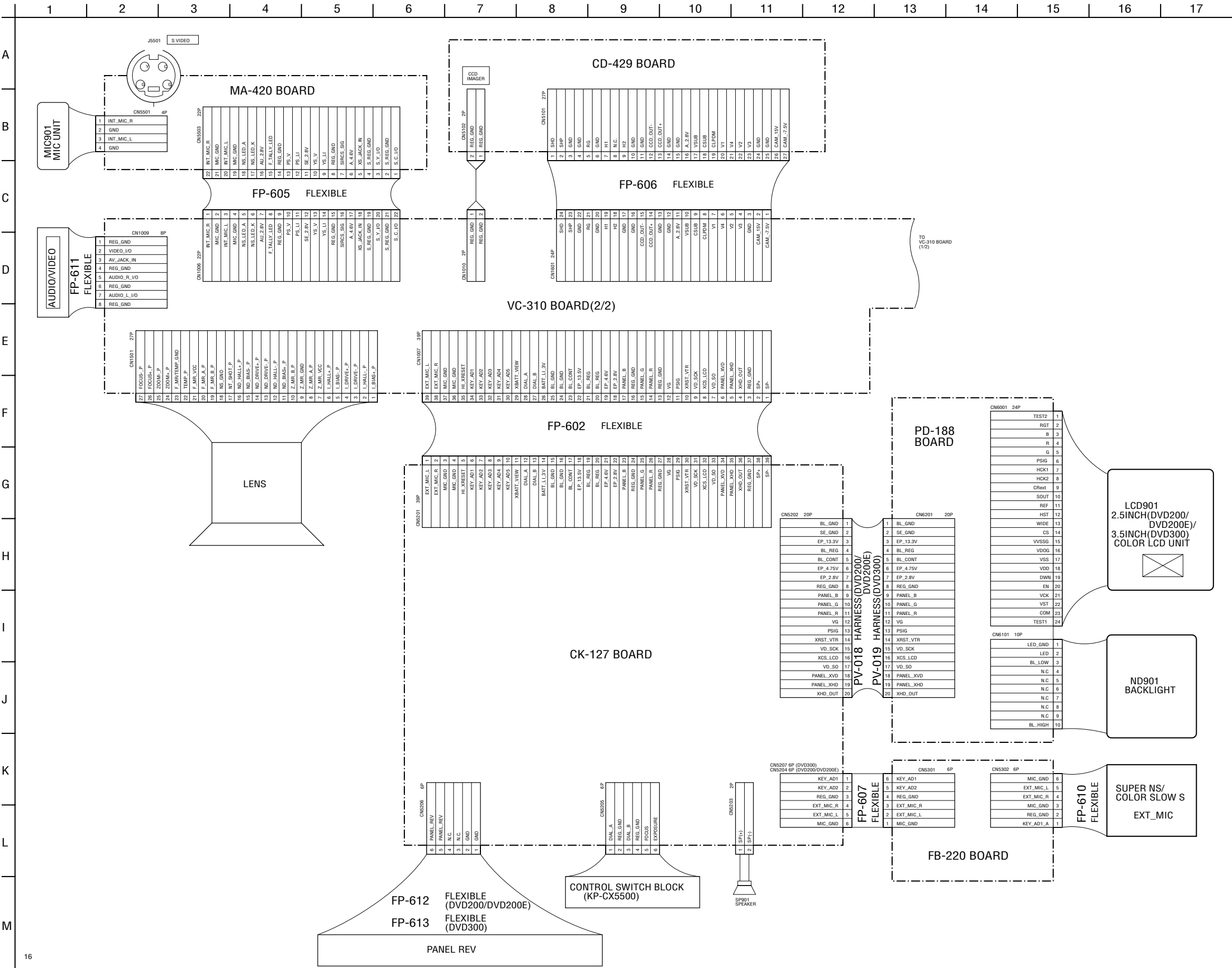




4-2. SCHEMATIC DIAGRAMS

4-3. PRINTED WIRING BOARDS

FRAME SCHEMATIC DIAGRAM (2/3)

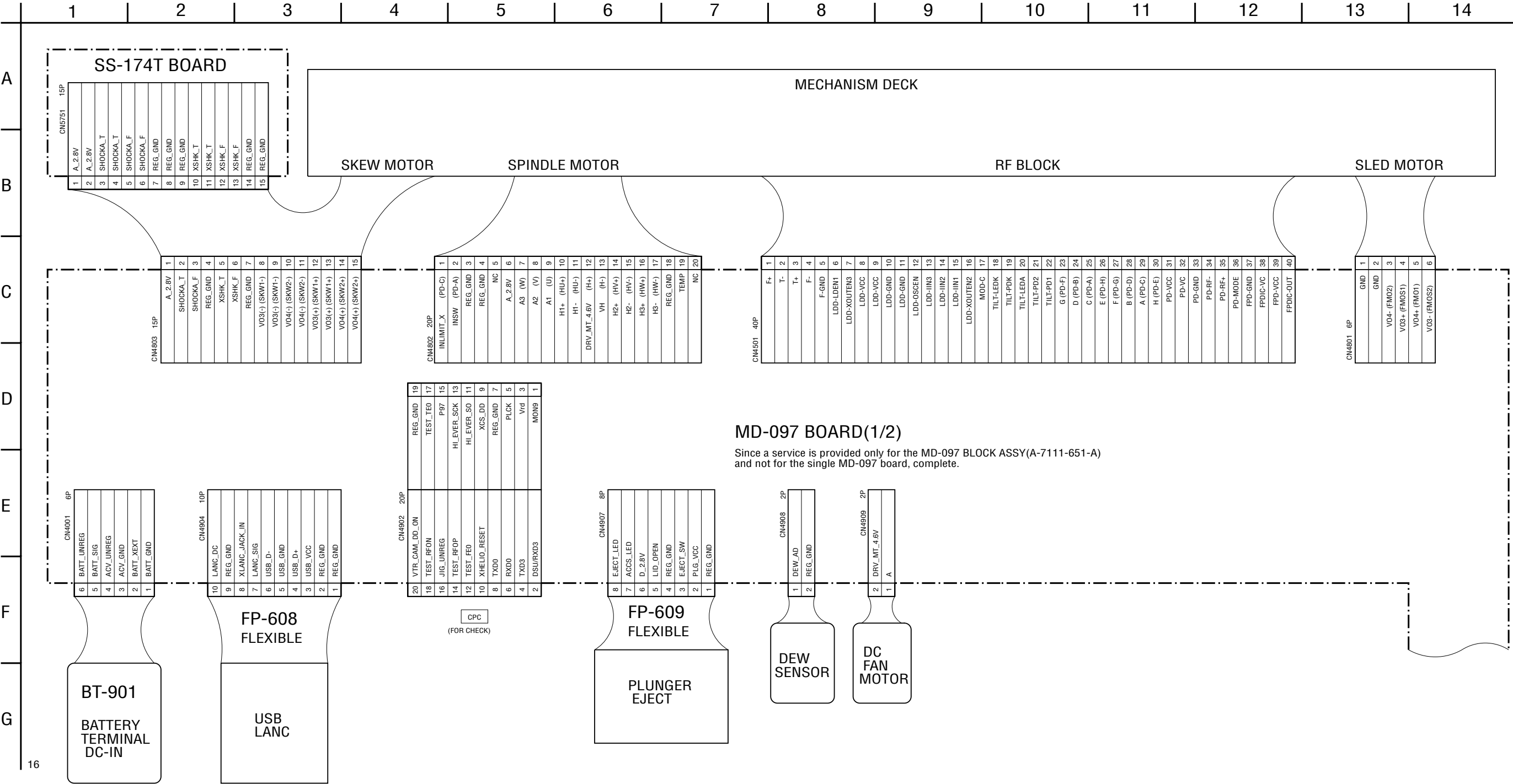




4-2. SCHEMATIC DIAGRAMS

4-3. PRINTED WIRING BOARDS

FRAME SCHEMATIC DIAGRAM (3/3)





## 4-2. SCHEMATIC DIAGRAMS

### Link

• CD-429 BOARD (CCD IMAGER)	• CK-127 BOARD (CONNECTOR, FUNCTION SWITCH)
• FP-609 FLEXIBLE	• FB-220 BOARD (FUNCTION SWITCH)
• PD-188 BOARD (1/2) (LCD DRIVE)	• FP-610 FLEXIBLE (EXT MIC)
• PD-188 BOARD (2/2) (BACKLIGHT DRIVE)	• CONTROL SWITCH BLOCK (KP-CX5500)
• LB-084 BOARD (EVF CONNECTOR, EVF BACK LIGHT)	• CONTROL SWITCH BLOCK (PS-CX5500)
• FP-608 FLEXIBLE (USB, LANC)	• FP-611 FLEXIBLE (AUDIO/VIDEO JACK)
• MA-420 BOARD (PITCH/YAW SENSOR, REMOTE SENSOR, MIC)	

• COMMON NOTE FOR SCHEMATIC DIAGRAMS

• WAVEFORMS



## 4-2. SCHEMATIC DIAGRAMS

### THIS NOTE IS COMMON FOR SCHEMATIC DIAGRAMS

(In addition to this, the necessary note is printed in each block)

#### (For schematic diagrams)

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF :  $\mu\text{F}$ . 50 V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10 W unless otherwise noted.  
 $\text{k}\Omega=1000 \Omega$ ,  $\text{M}\Omega=1000 \text{k}\Omega$ .
- Caution when replacing chip parts.  
New parts must be attached after removal of chip.  
Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.

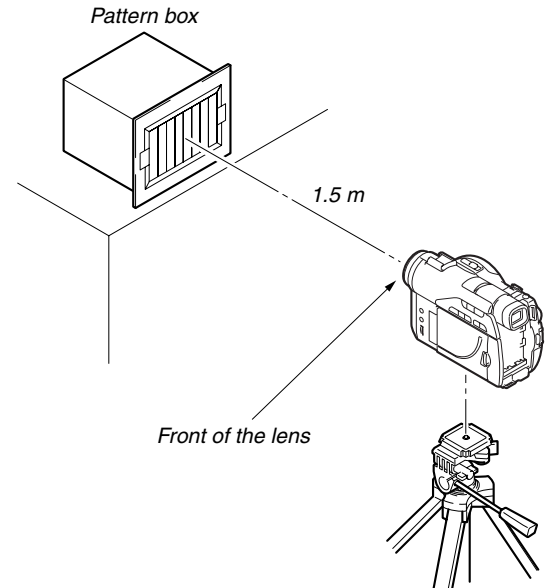
Example	C541	L452
	22U	10UH
	TA A	2520
Kinds of capacitor		
Temperature characteristics		
External dimensions (mm)		

- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used.  
In such cases, the unused circuits may be indicated.
- Parts with \* differ according to the model/destination.  
Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name  
XEDIT  $\rightarrow$  EDIT PB/XREC  $\rightarrow$  PB/REC
- : non flammable resistor
- : fusible resistor
- : panel designation
- : B+ Line
- : B- Line
- : IN/OUT direction of (+,-) B LINE.
- : adjustment for repair.
- : VIDEO SIGNAL (ANALOG)
- : AUDIO SIGNAL (ANALOG)
- : VIDEO/AUDIO SIGNAL
- : VIDEO/AUDIO/SERVO SIGNAL
- : SERVO SIGNAL
- Circled numbers refer to waveforms.

#### (Measuring conditions voltage and waveform)

- Voltages and waveforms are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values and reference waveforms.  
(VOM of DC 10  $\text{M}\Omega$  input impedance is used)
- Voltage values change depending upon input impedance of VOM used.)

#### 1. Connection



#### 2. Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

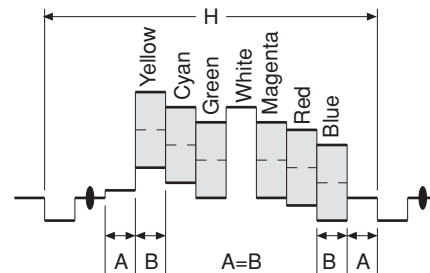


Fig. a (Video output terminal output waveform)

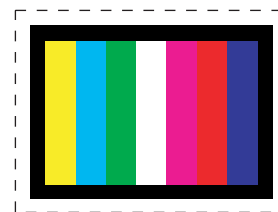


Fig.b (Picture on monitor TV)

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

#### Note :

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

#### Note :

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

## FP-609 FLEXIBLE BOARD


FP-609 FLEXIBLE

TO  
MD-097 BOARD  
(6/7)  
CN4907

(PAGE 4-38  
of LEVEL3)

Pin	Signal	Component
1	REG_GND	RY9501 PLUNGER
2	PLG_VCC	S9053 OPEN
3	EJECT_SW	S9052, S9051 (LID OPEN)
4	REG_GND	
5	LID_OPEN	
6	D_2.8V	
7	ACCS_LED	D9051 (CL-165HR/YG-D-T) with R9052 (390)
8	EJECT_LED	D9051 (CL-165HR/YG-D-T) with R9051 (100)

# SIGNAL PATH

	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC			
PB			

## CD-429/FP-609

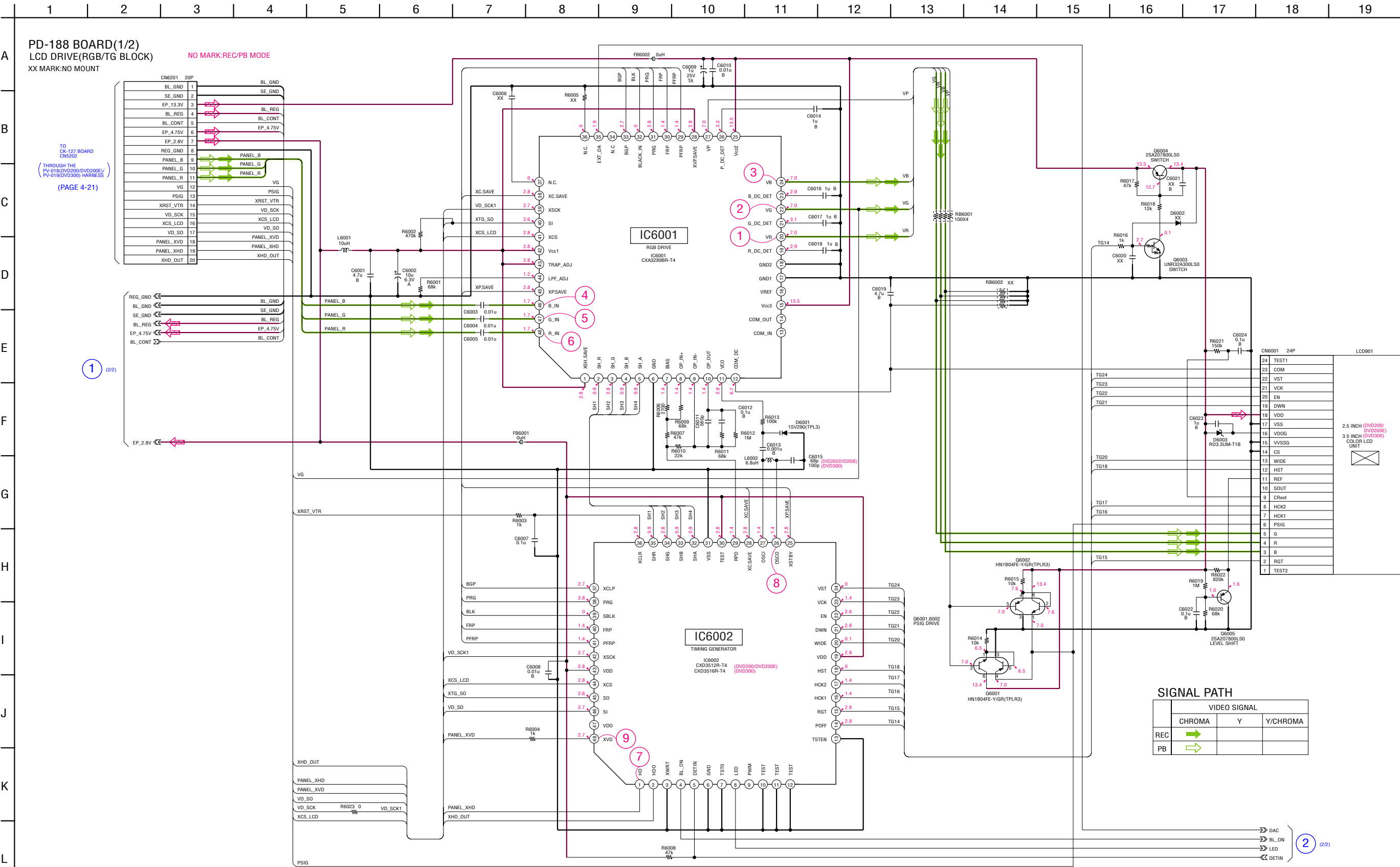




4-2. SCHEMATIC DIAGRAMS

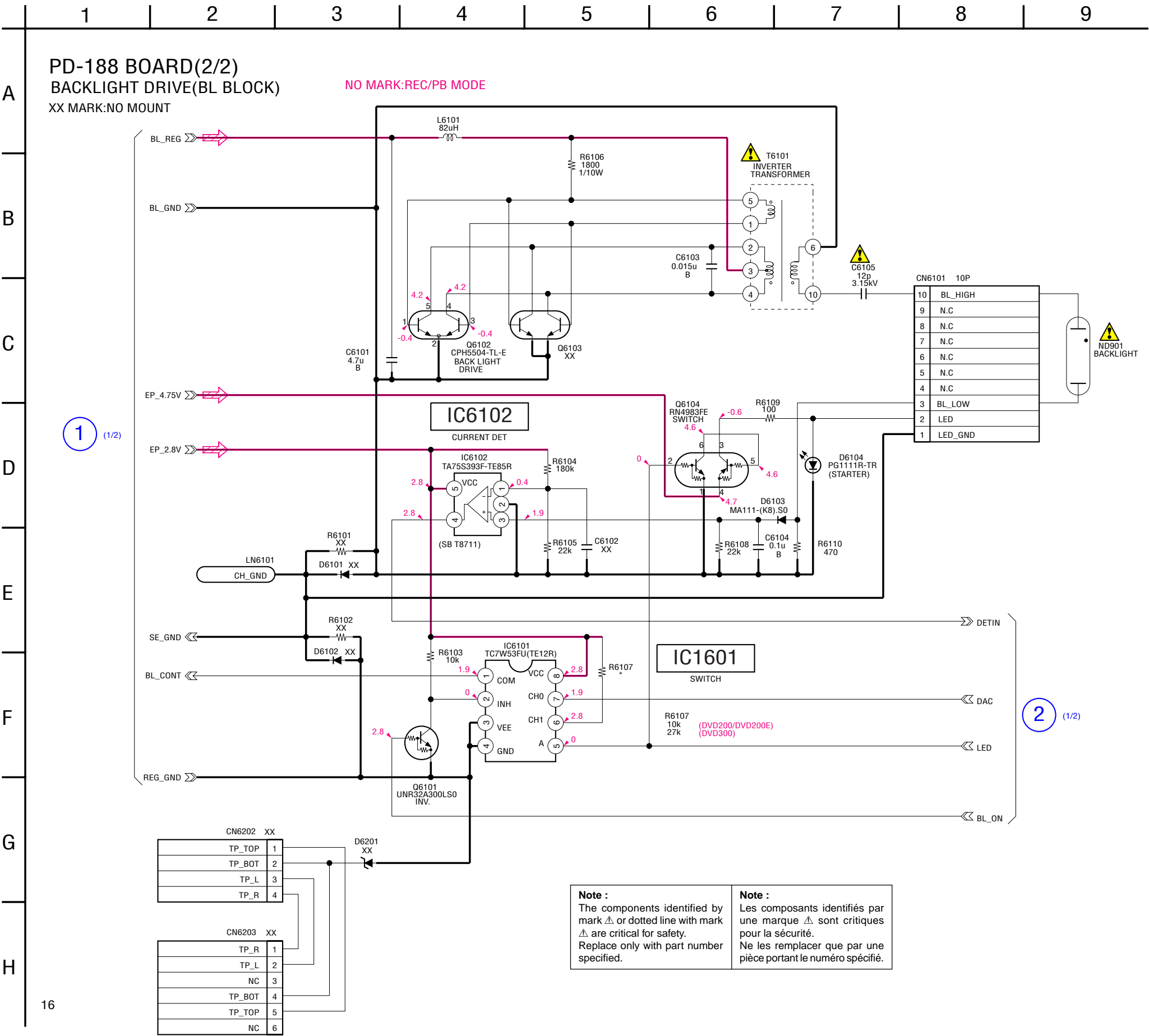
PD-188 PRINTED WIRING BOARD

For Schematic Diagram  
• Refer to page 4-85 for printed wiring board.  
• Refer to page 4-107 for waveforms.



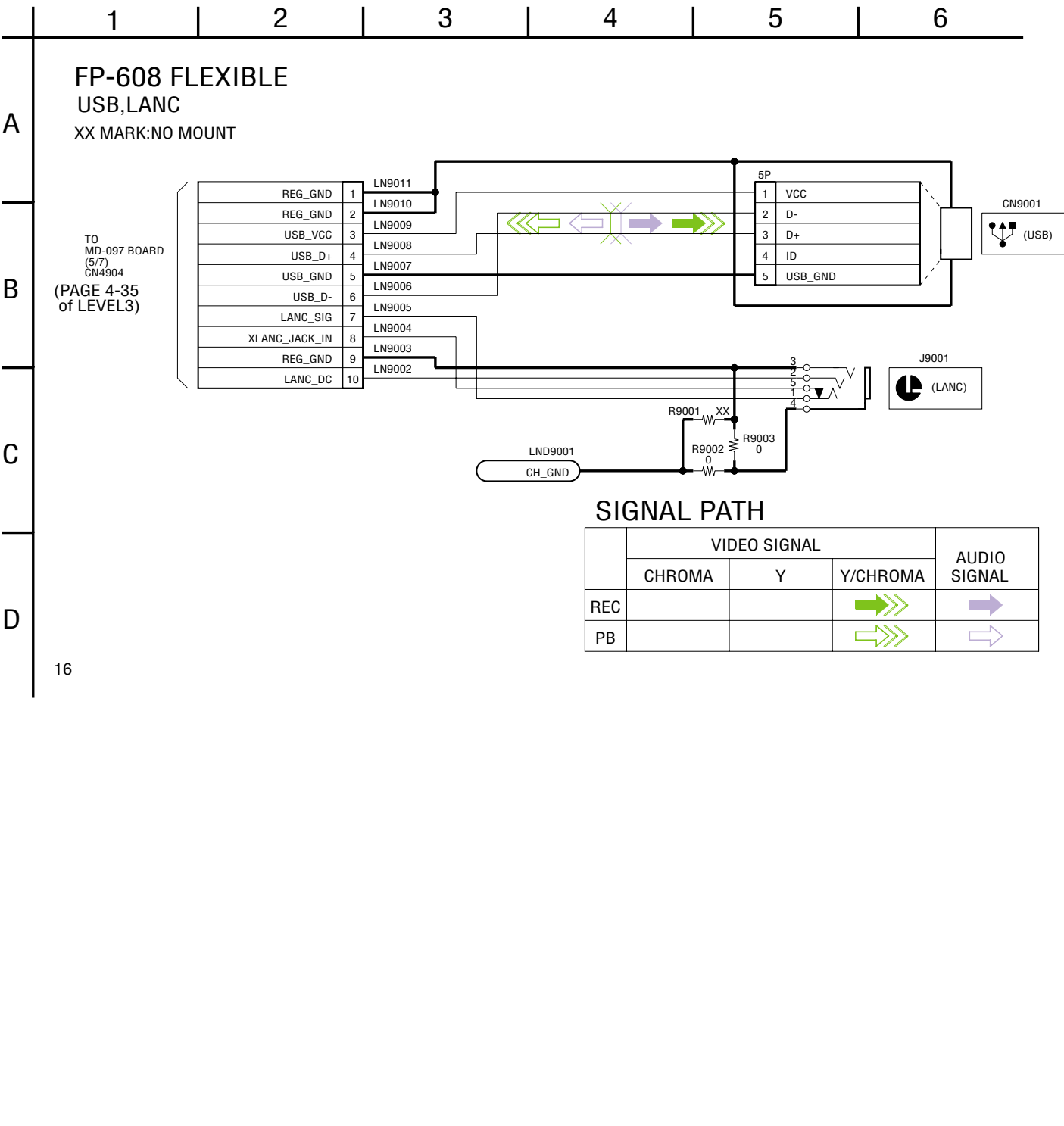
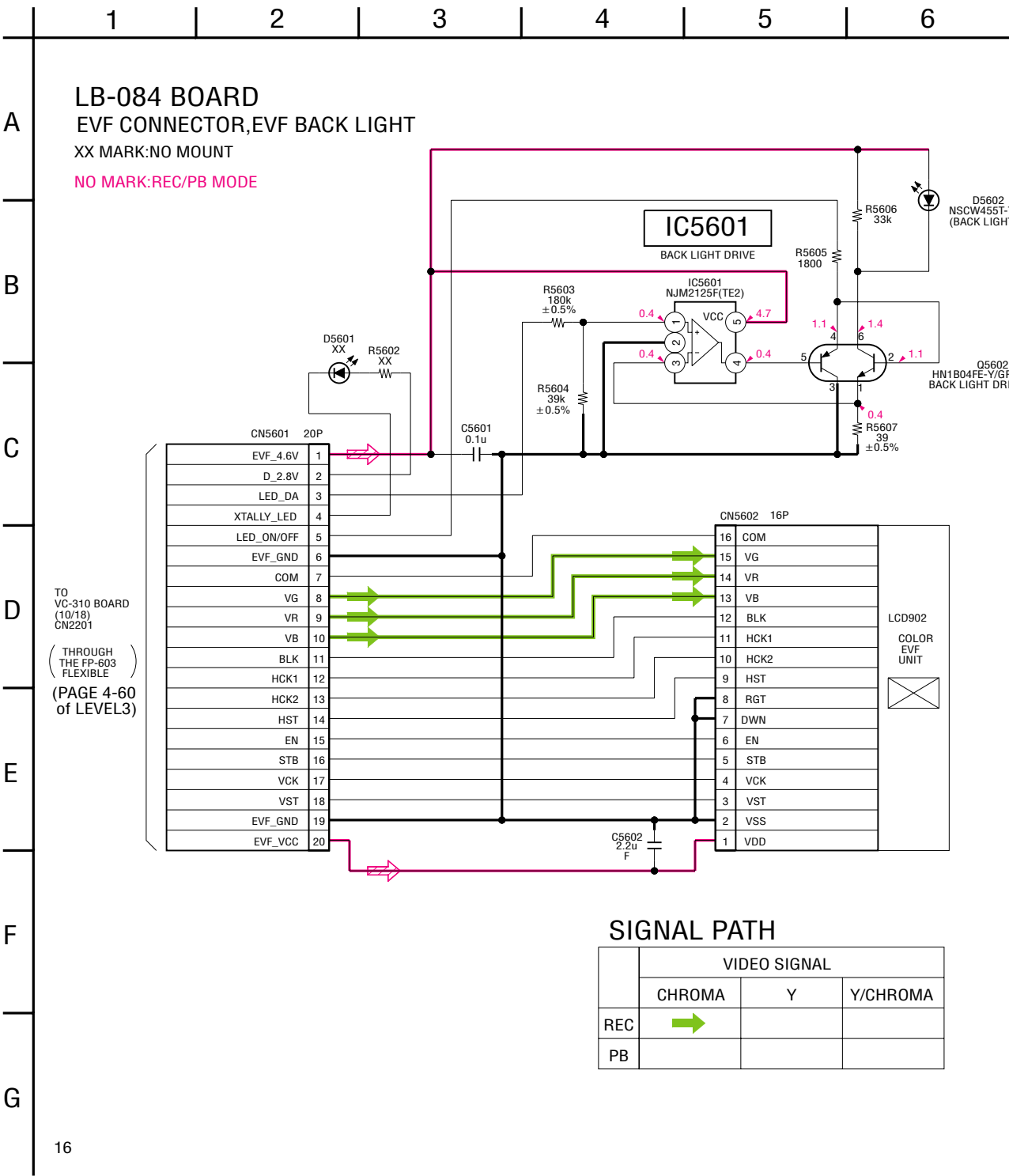
For Schematic Diagram

- Refer to page 4-85 for printed wiring board.
- Refer to page 4-107 for waveforms.





For Schematic Diagram  
• Refer to page 4-87 for printed wiring board of LB-084 board.  
• Refer to page 4-93 for printed wiring board of FP-608 flexible board.

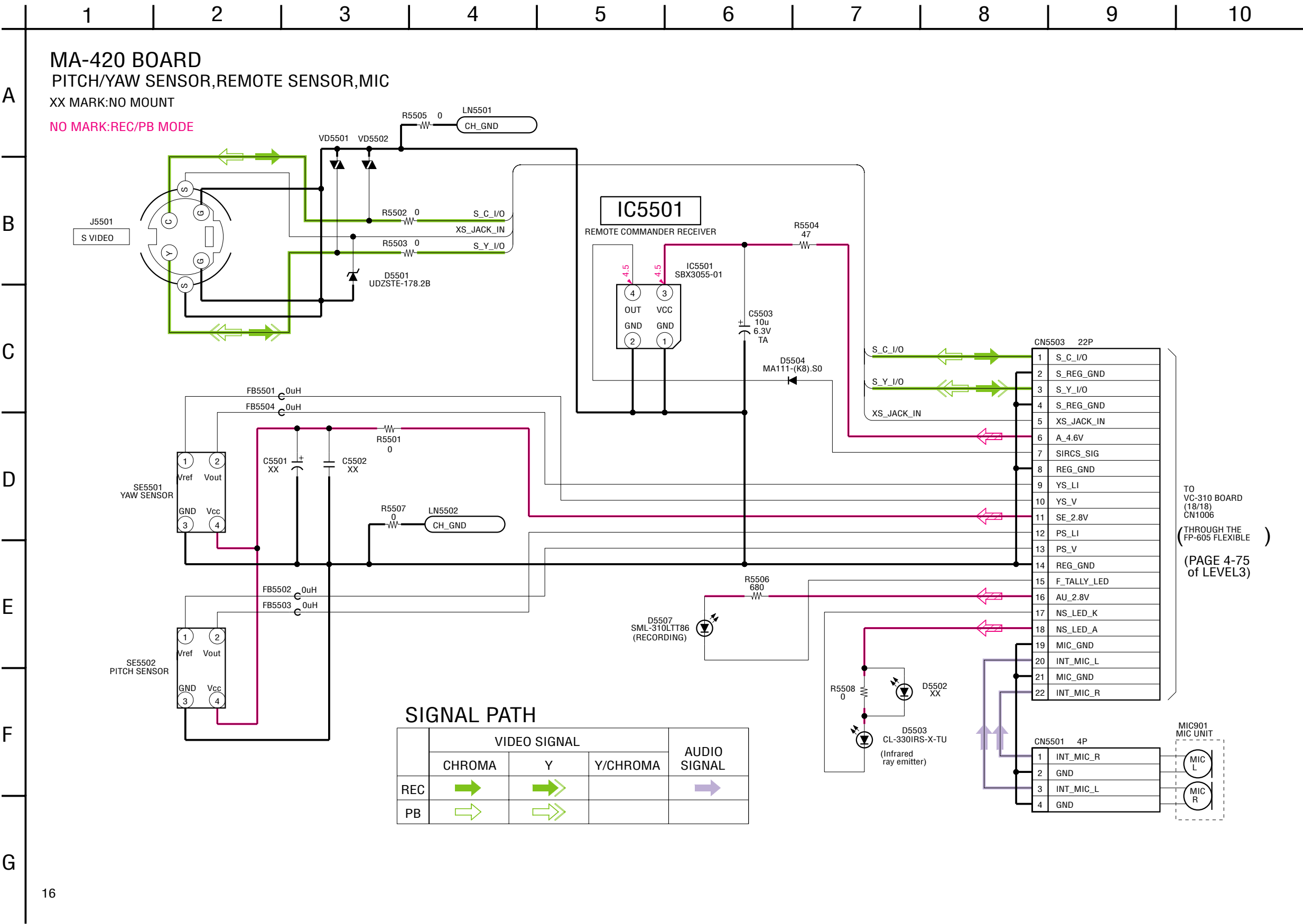




4-2. SCHEMATIC DIAGRAMS

MA-420 PRINTED WIRING BOARD

For Schematic Diagram  
• Refer to page 4-89 for printed wiring board.



- Refer to page 4-91 for printed wiring board.





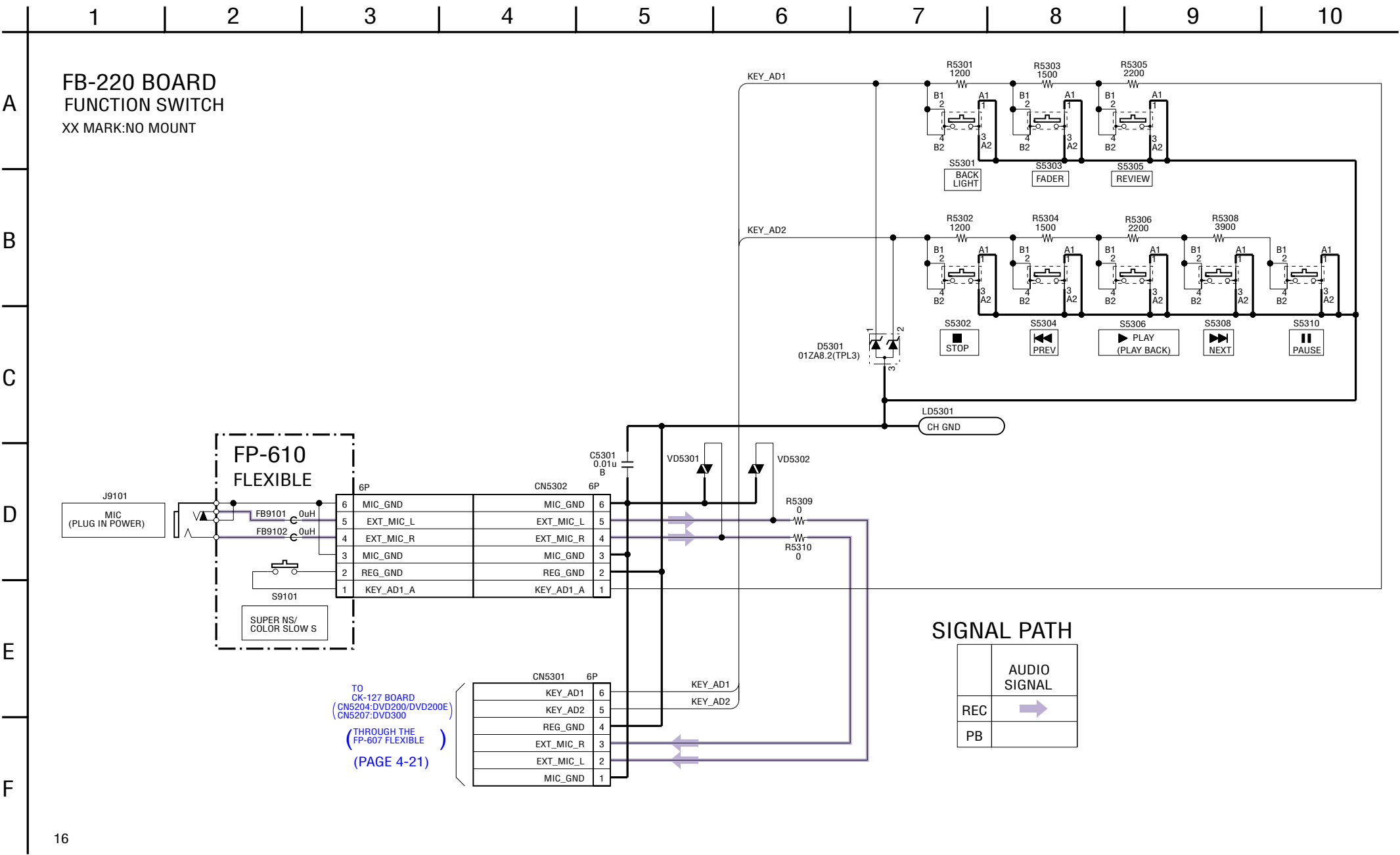
4-2. SCHEMATIC DIAGRAMS

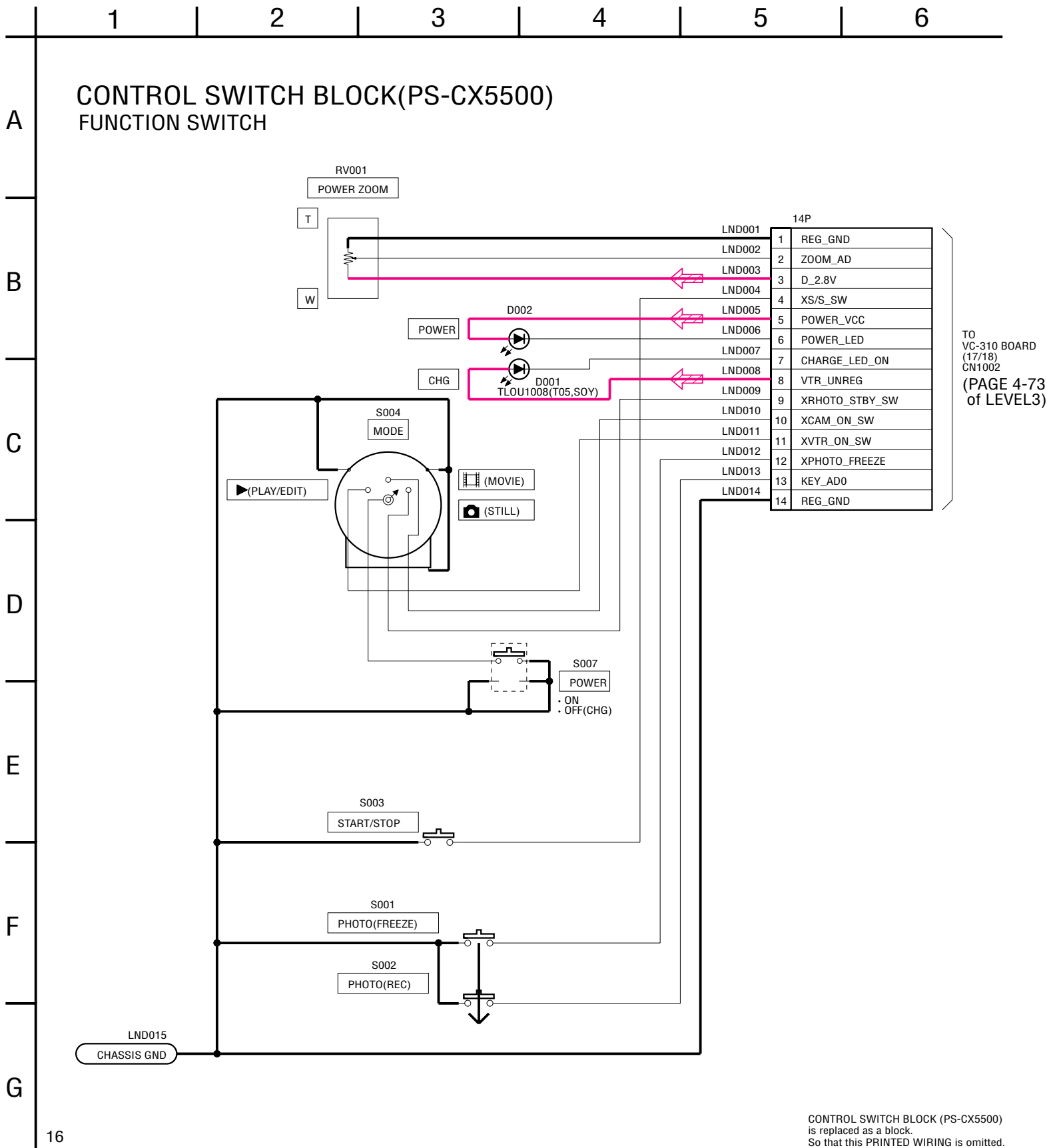
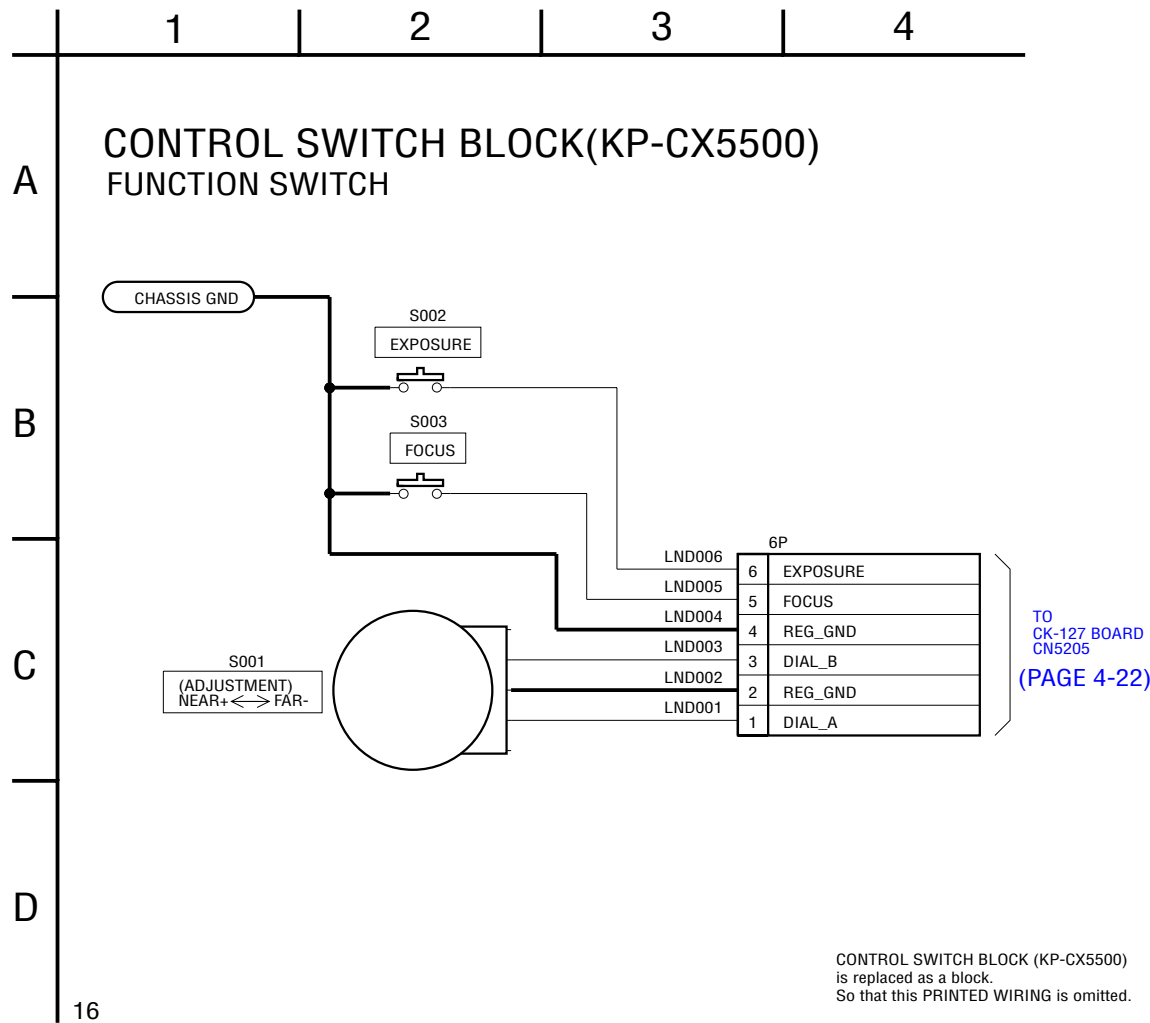
FB-220 BOARD

FP-610 FLEXIBLE BOARD

For Schematic Diagram

- Refer to page 4-87 for printed wiring board of FB-220 board.
- Refer to page 4-93 for printed wiring board of FP-610 flexible board.



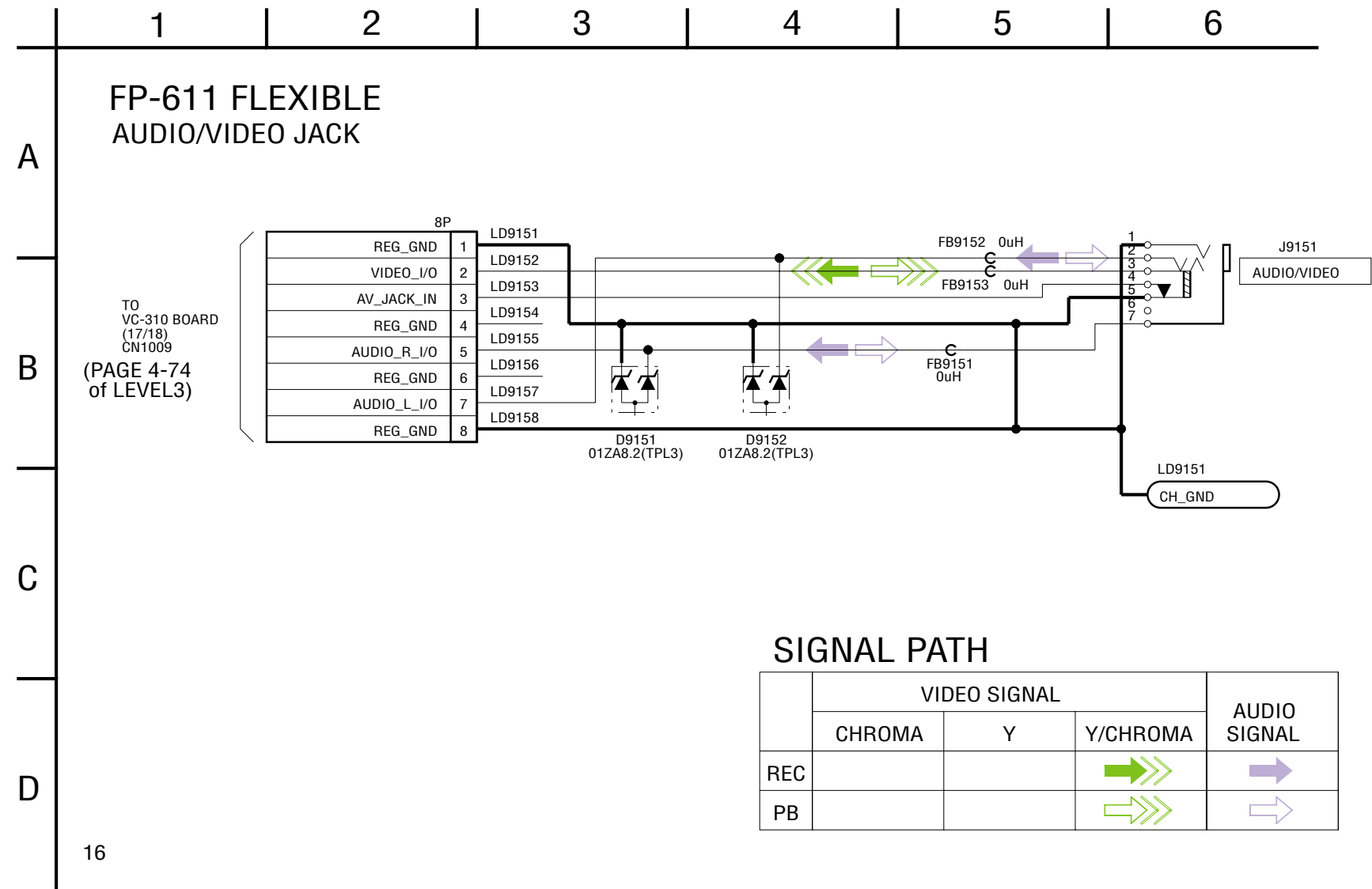


Schematic diagram of the MD-097, SS-174T and VC-310 board are not shown.  
Pages from 4-27 to 4-78 are not shown.





For Schematic Diagram  
• Refer to page 4-94 for printed wiring board of FP-611 flexible board.





## 4-3. PRINTED WIRING BOARDS

### Link

<a href="#">• CD-429 BOARD</a>	<a href="#">• MA-420 BOARD</a>
<a href="#">• PD-188 BOARD</a>	<a href="#">• CK-127 BOARD</a>
<a href="#">• LB-084 BOARD</a>	<a href="#">• FP-608/609/610/611 FLEXIBLE BOARD</a>
<a href="#">• FB-220 BOARD</a>	<a href="#">• FP-612/613 FLEXIBLE BOARD</a>

<a href="#">• COMMON NOTE FOR PRINTED WIRING BOARDS</a>		<a href="#">• WAVEFORMS</a>
<a href="#">• MOUNTED PARTS LOCATION</a>	<a href="#">• CIRCUIT BOARDS LOCATION</a>	<a href="#">• FLEXIBLE BOARDS LOCATION</a>



### 4-3. PRINTED WIRING BOARDS

#### THIS NOTE IS COMMON FOR WIRING BOARDS

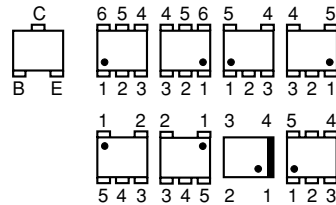
(In addition to this, the necessary note is printed in each block)

##### (For printed wiring boards)

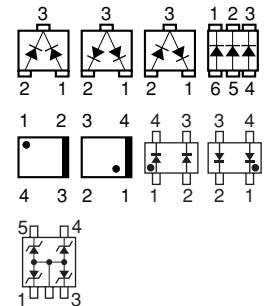
- : Uses unleaded solder.
- : Pattern from the side which enables seeing.  
(The other layers' patterns are not indicated)
- Through hole is omitted.
- Circled numbers refer to waveforms.
- There are a few cases that the part printed on diagram isn't mounted in this model.
- : panel designation

##### • Chip parts.

###### Transistor



###### Diode




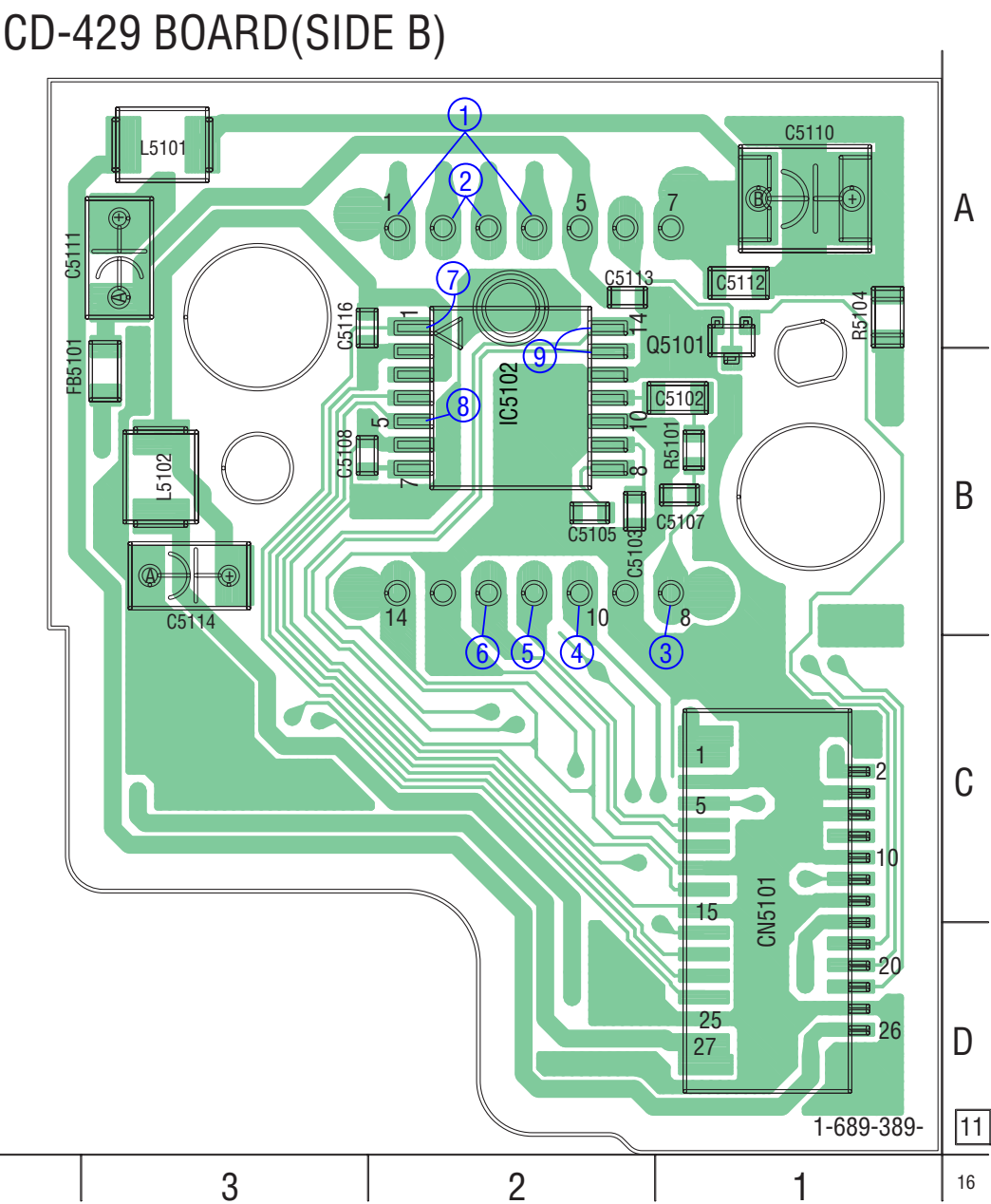
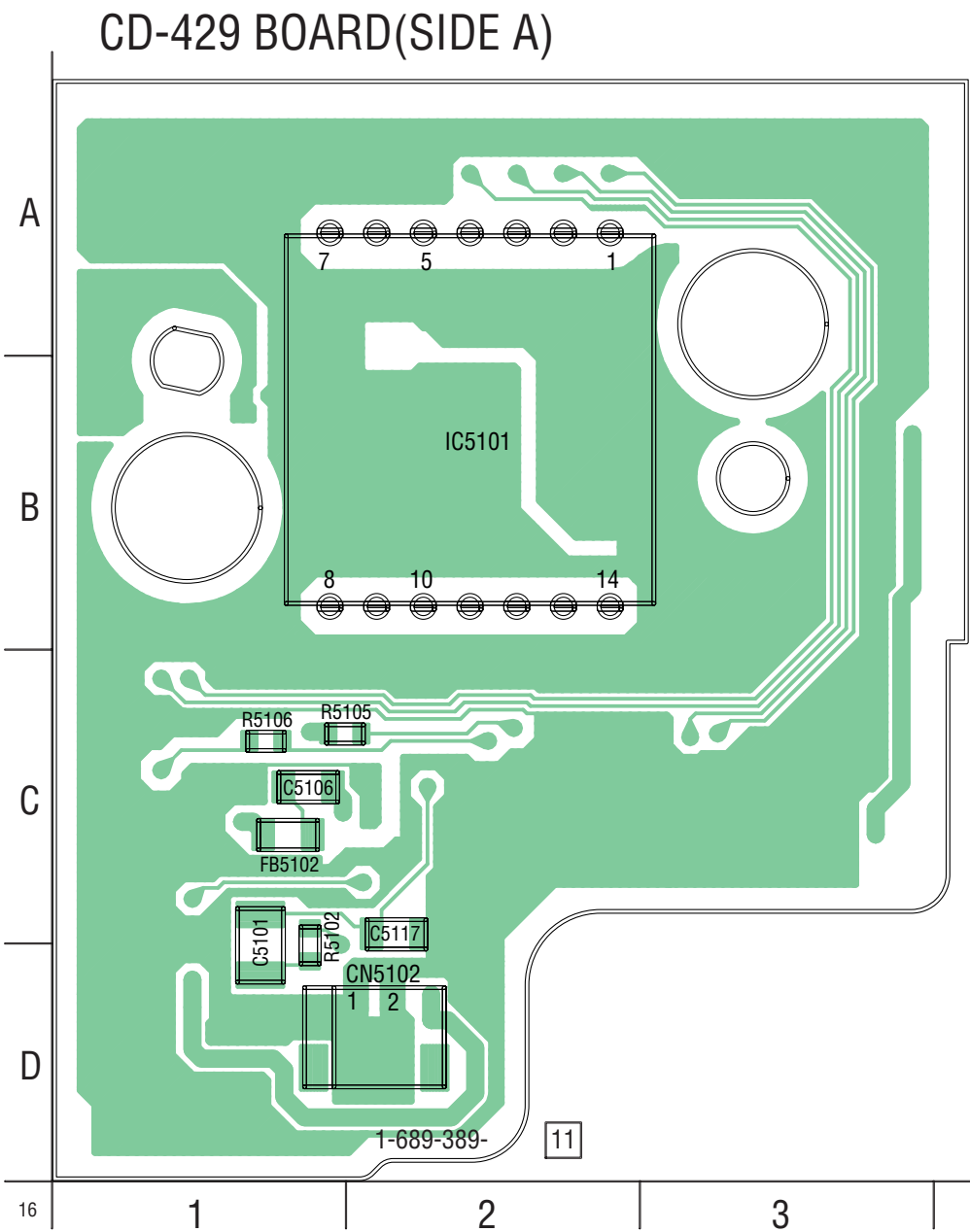
#### BOARD INFORMATION

board name	parts location (shown on page)	waveform (shown on page)	pattern		CSP IC
			number of layers	layers not shown	
CD-429	4-111	4-107	2	—	—
PD-188	4-111	4-107	2	—	—
LB-084	4-111	—	2	—	—
FB-220	4-111	—	2	—	—
MA-420	4-112	—	2	—	—
CK-127	4-112	—	2	—	—
SS-174T	4-116	—	8	2 to 7	—
MD-097	4-113	—	8	2 to 7	IC4602
VC-310	4-114	4-109	8	2 to 7	IC1701, 1801, 2001, 3001, 3103, 3203, 3401, 3403, 3501, 3601, 3602, 3603, 3701, 3801, 3803



4-3. PRINTED WIRING BOARDS  
CD-429 (CCD IMAGER) PRINTED WIRING BOARD  
• Refer to page 4-81 for common note for printed wiring board.


•  : Uses unleaded solder.



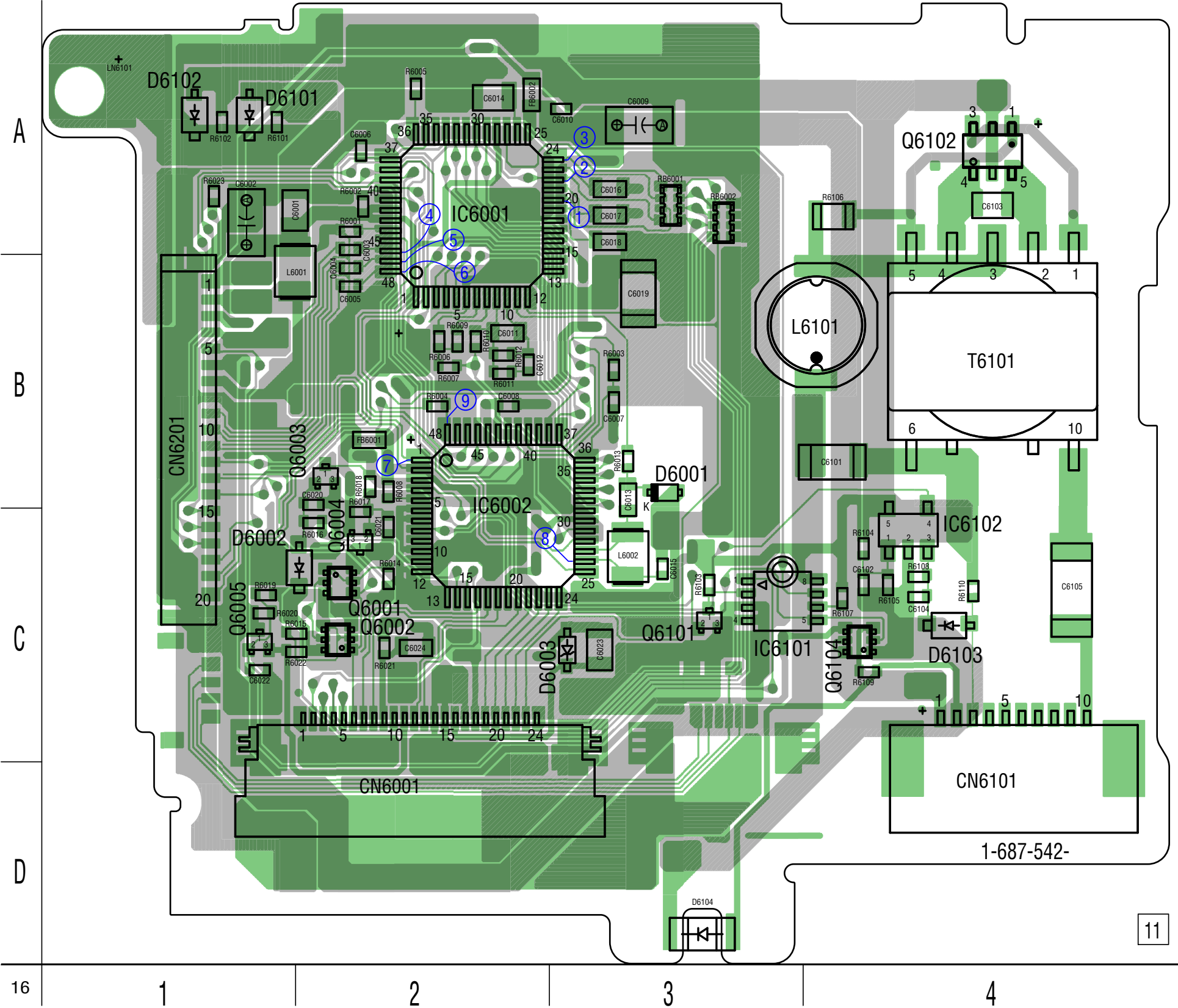


PD-188 (LCD DRIVE, BACKLIGHT DRIVE) PRINTED WIRING BOARD

• Refer to page 4-81 for common note for printed wiring board.

•  : Uses unleaded solder.

PD-188 BOARD





## 4-2. SCHEMATIC DIAGRAMS

## 4-3. PRINTED WIRING BOARDS

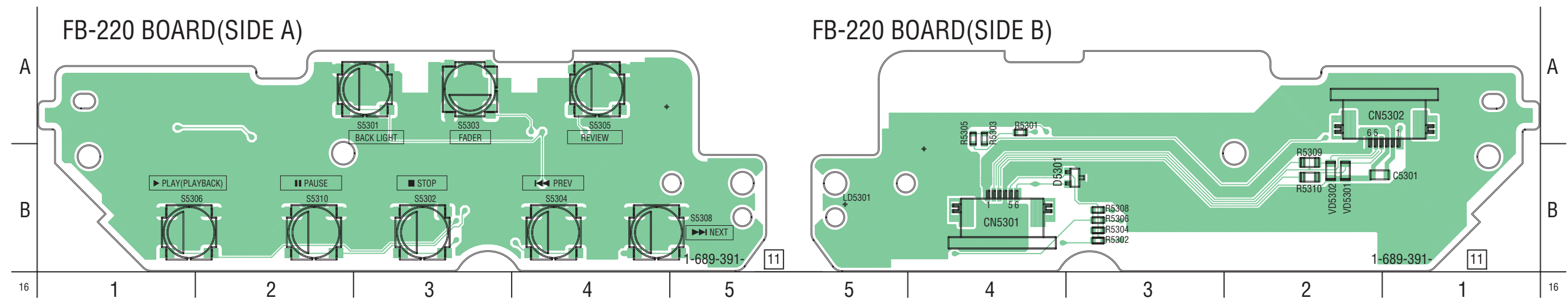
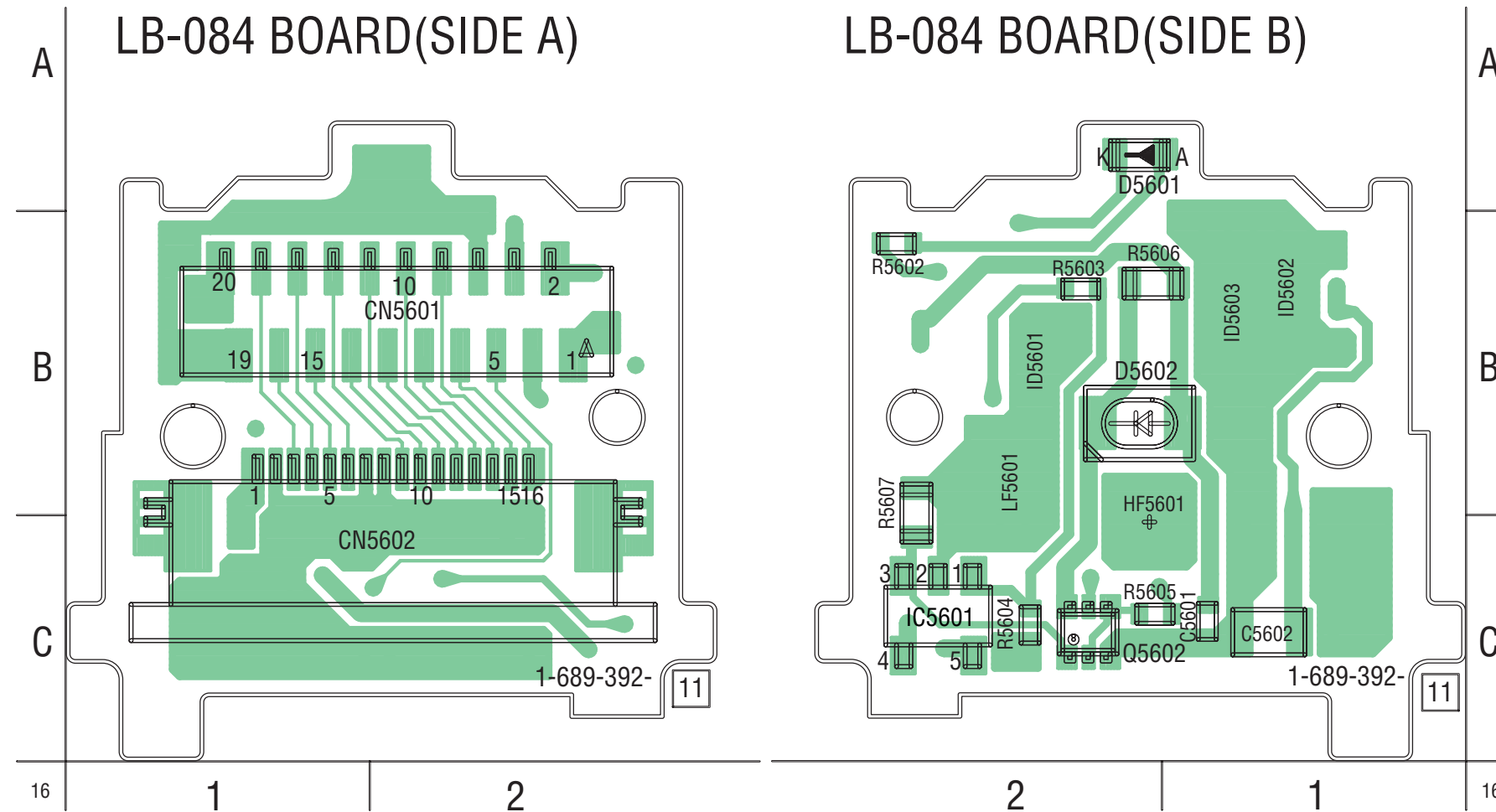
## MOUNTED PARTS LOCATION

## LB-084 (EVF CONNECTOR, EVF BACK LIGHT) PRINTED WIRING BOARD

## FB-220 (FUNCTION SWITCH) PRINTED WIRING BOARD

• Refer to page 4-81 for common note for printed wiring board.


• : Uses unleaded solder.

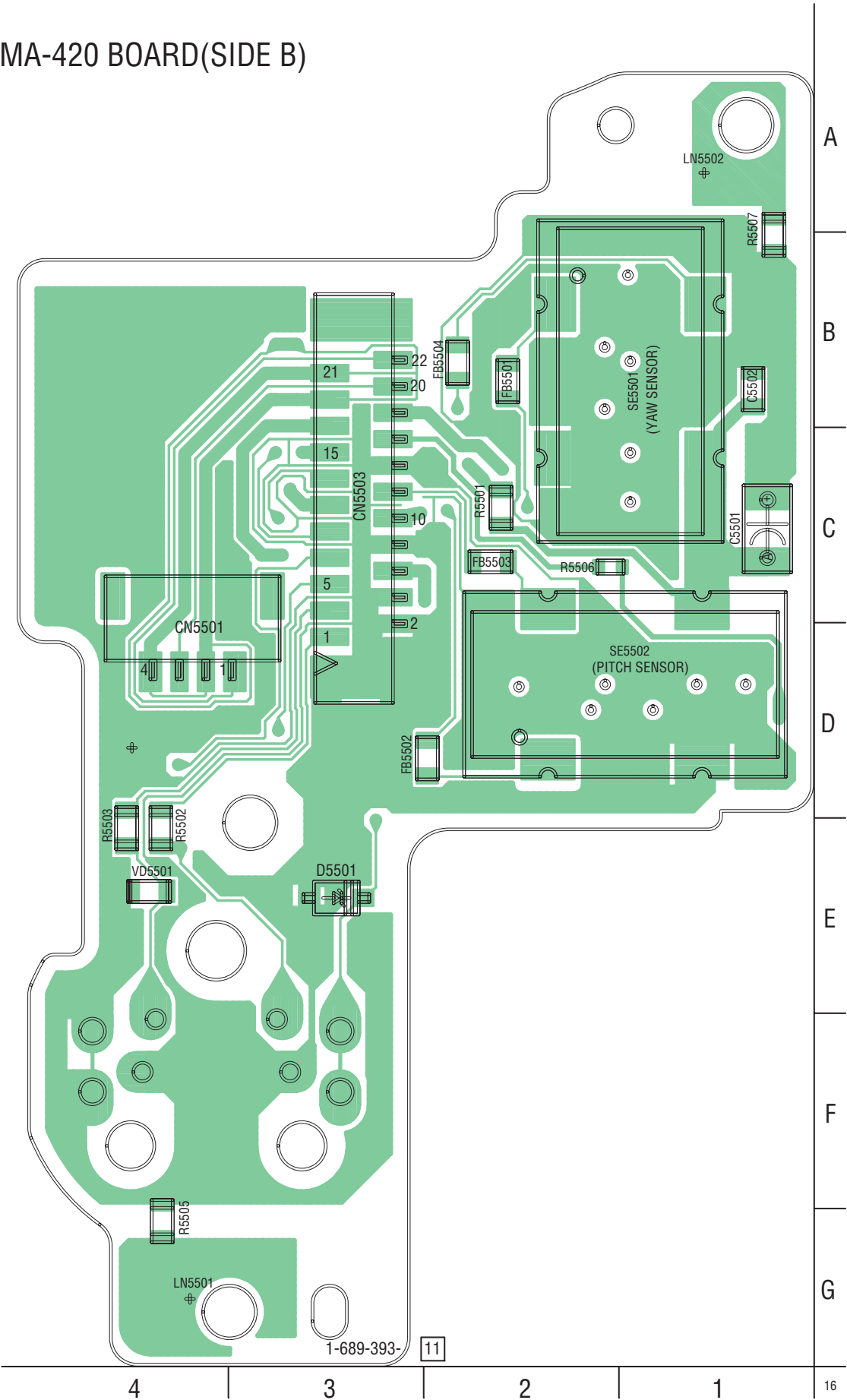
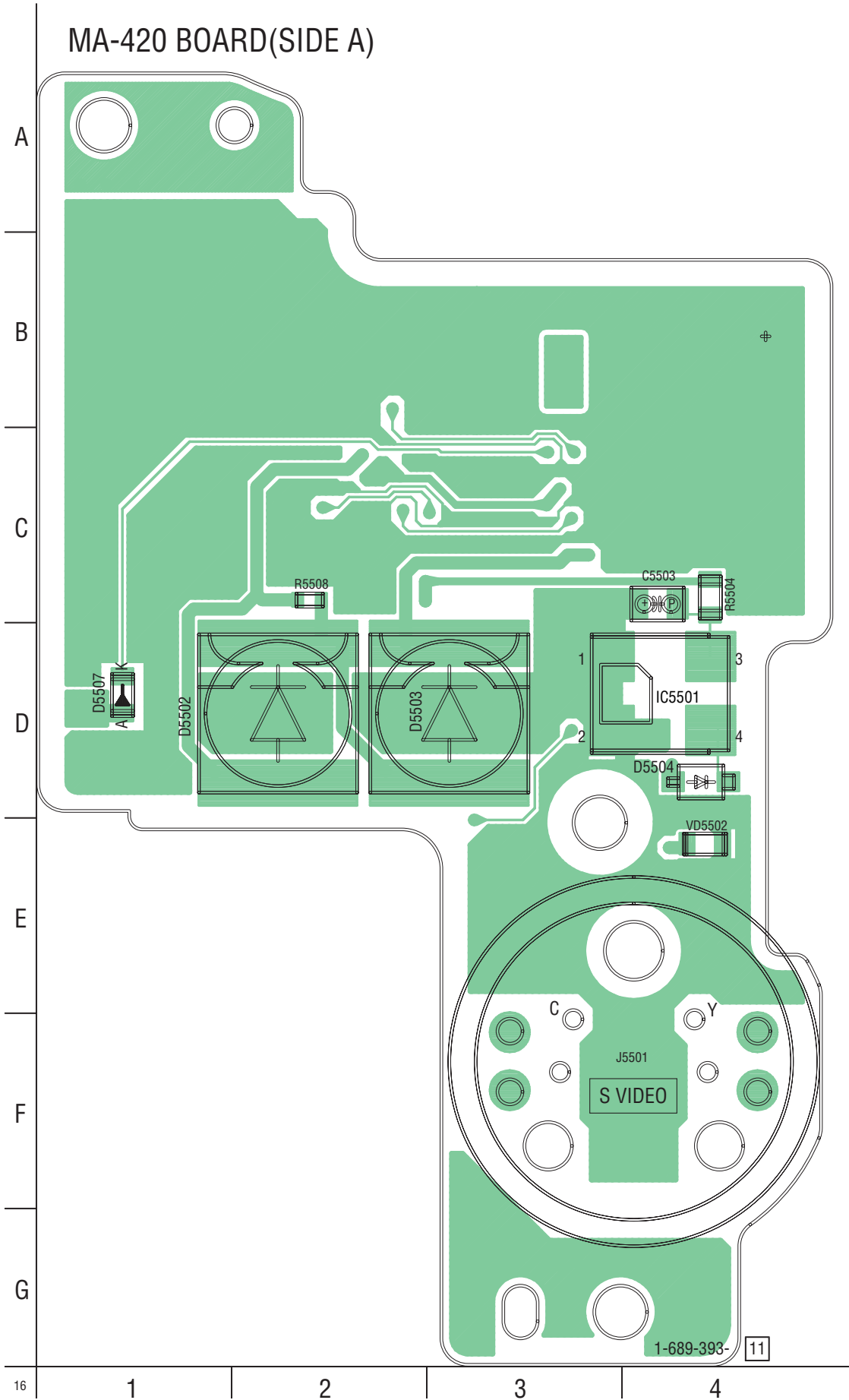




MA-420 (PITCH/YAW SENSOR, REMOTE SENSOR, MIC) PRINTED WIRING BOARD

• Refer to page 4-81 for common note for printed wiring board.

•  : Uses unleaded solder.










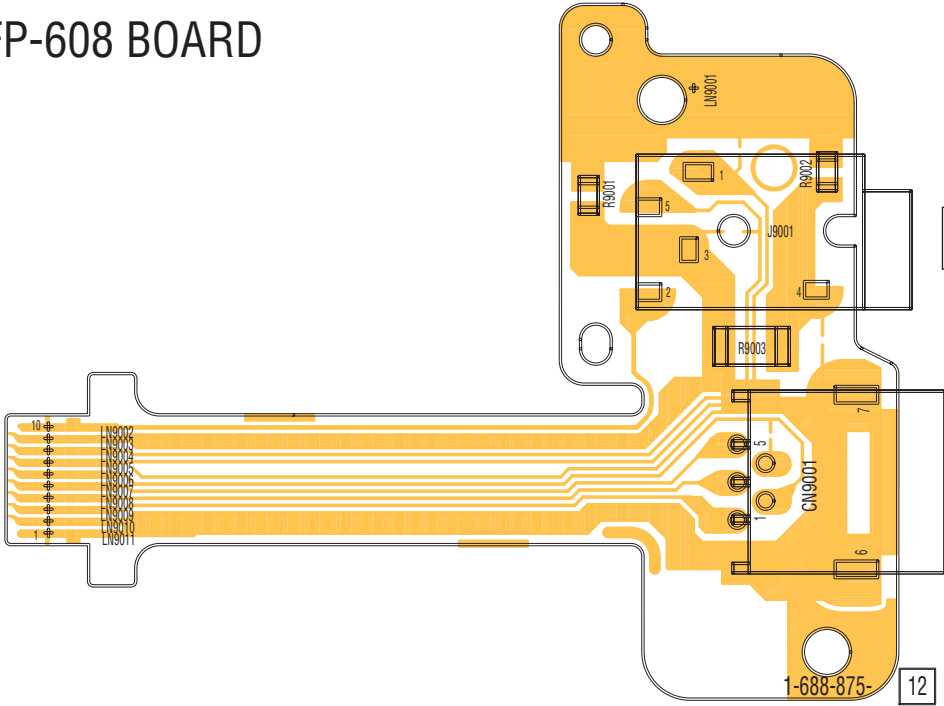


FP-608 (USB, LANC), FP-609 (PLUNGER, EJECT), FP-610 (EXT MIC), FP-611 (AV CONNECTOR) FLEXIBLE PRINTED WIRING BOARD

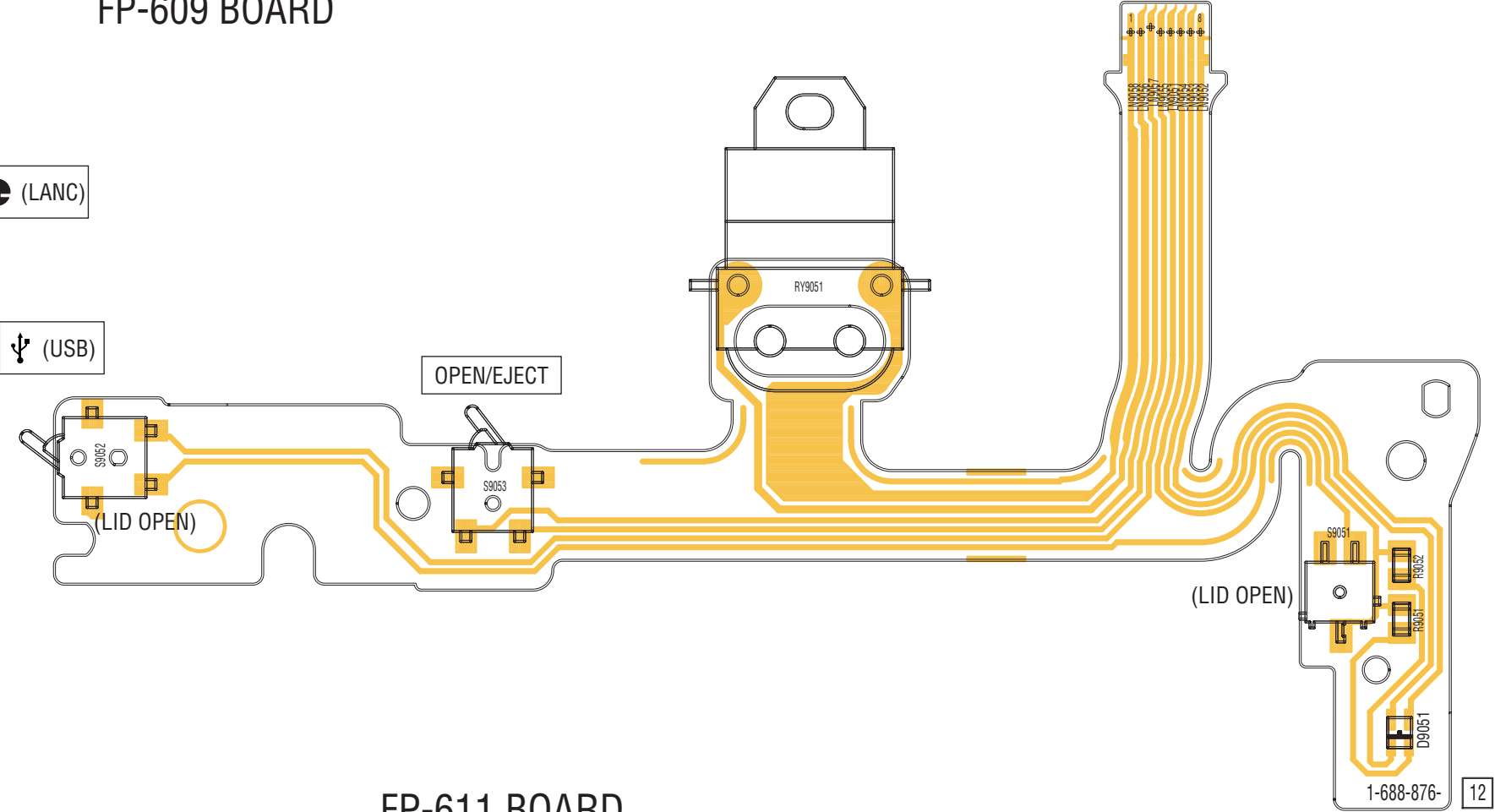
• Refer to page 4-81 for common note for printed wiring board.

•  : Uses unleaded solder.

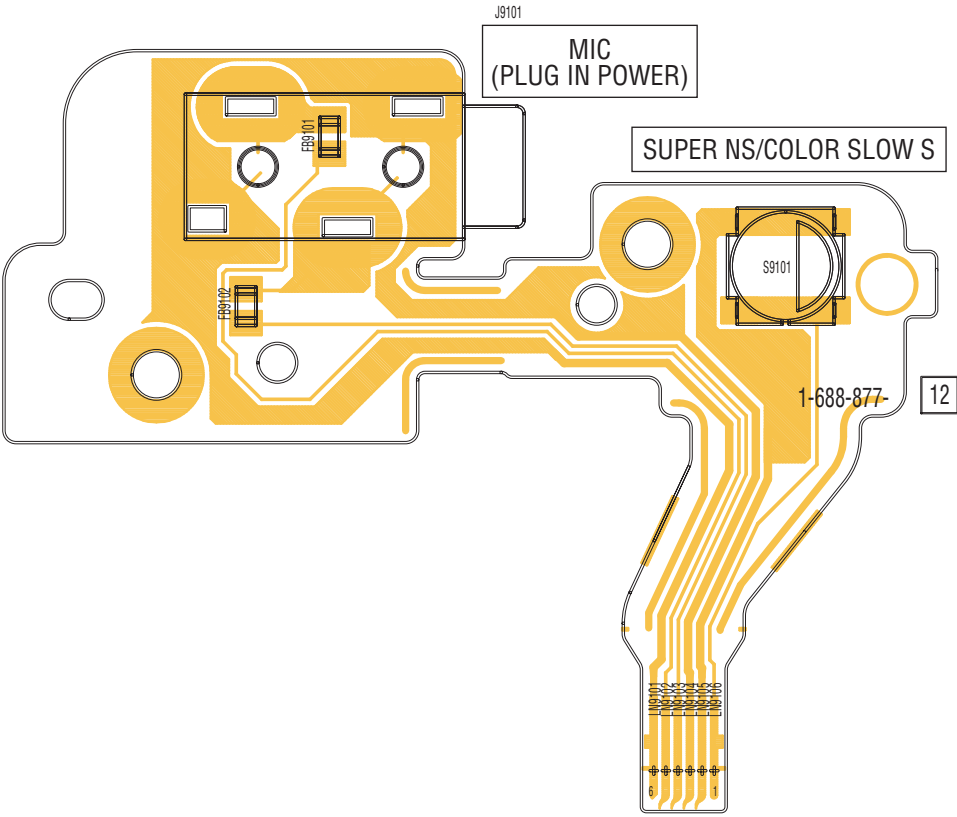
FP-608 BOARD



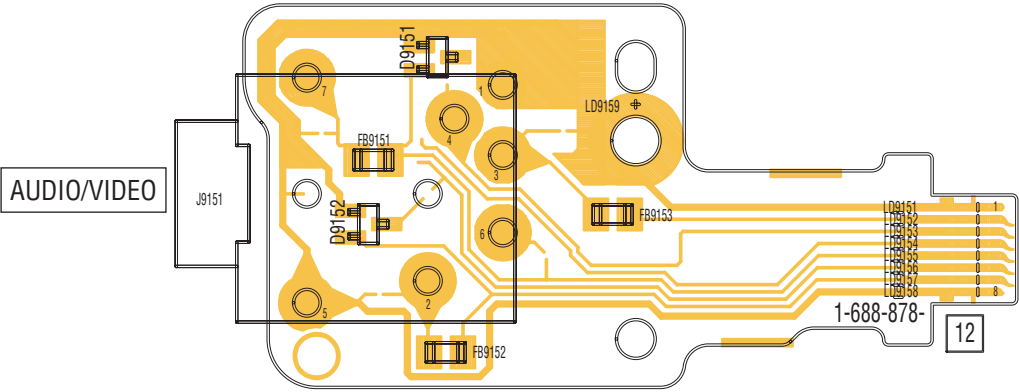
FP-609 BOARD



FP-610 BOARD




FP-611 BOARD



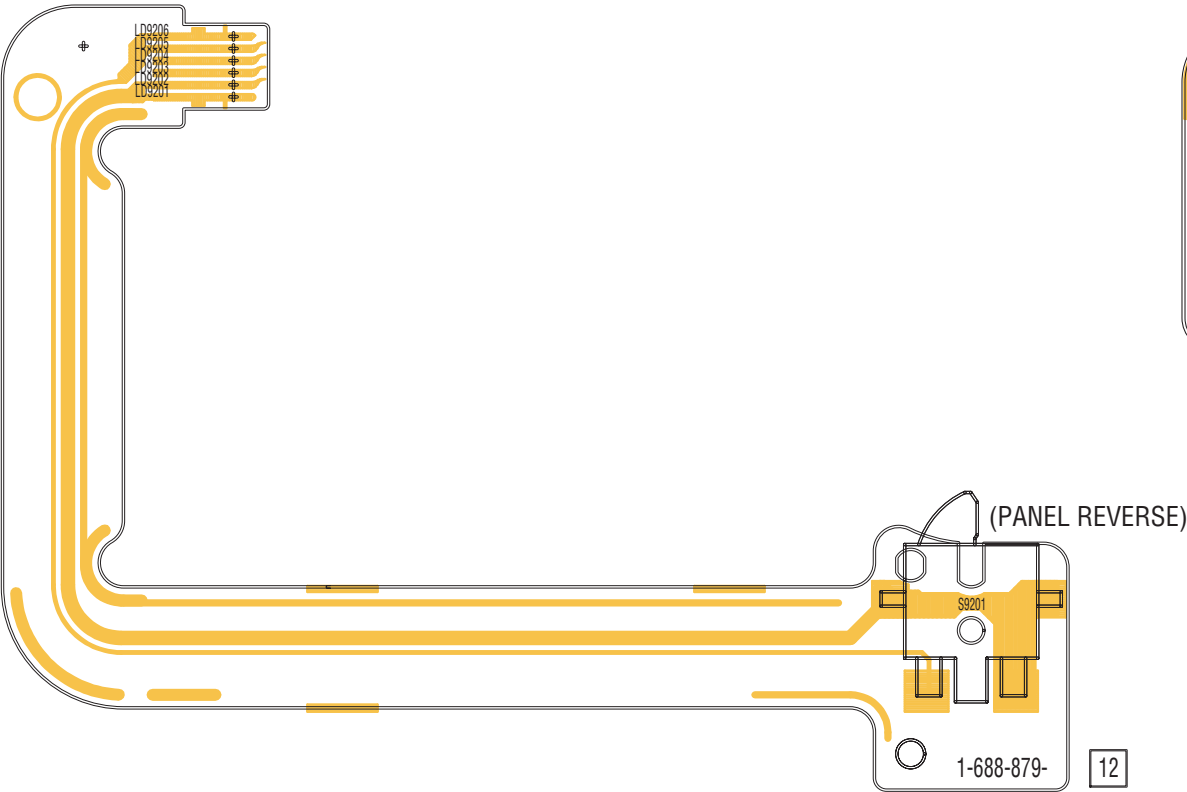


FP-612 (PANEL REVERSE), FP-613 (PANEL REVERSE) FLEXIBLE PRINTED WIRING BOARD

• Refer to page 4-81 for common note for printed wiring board.

•  : Uses unleaded solder.

FP-612 BOARD  
(DVD200/DVD200E ONLY)



FP-613 BOARD  
(DVD300 ONLY)

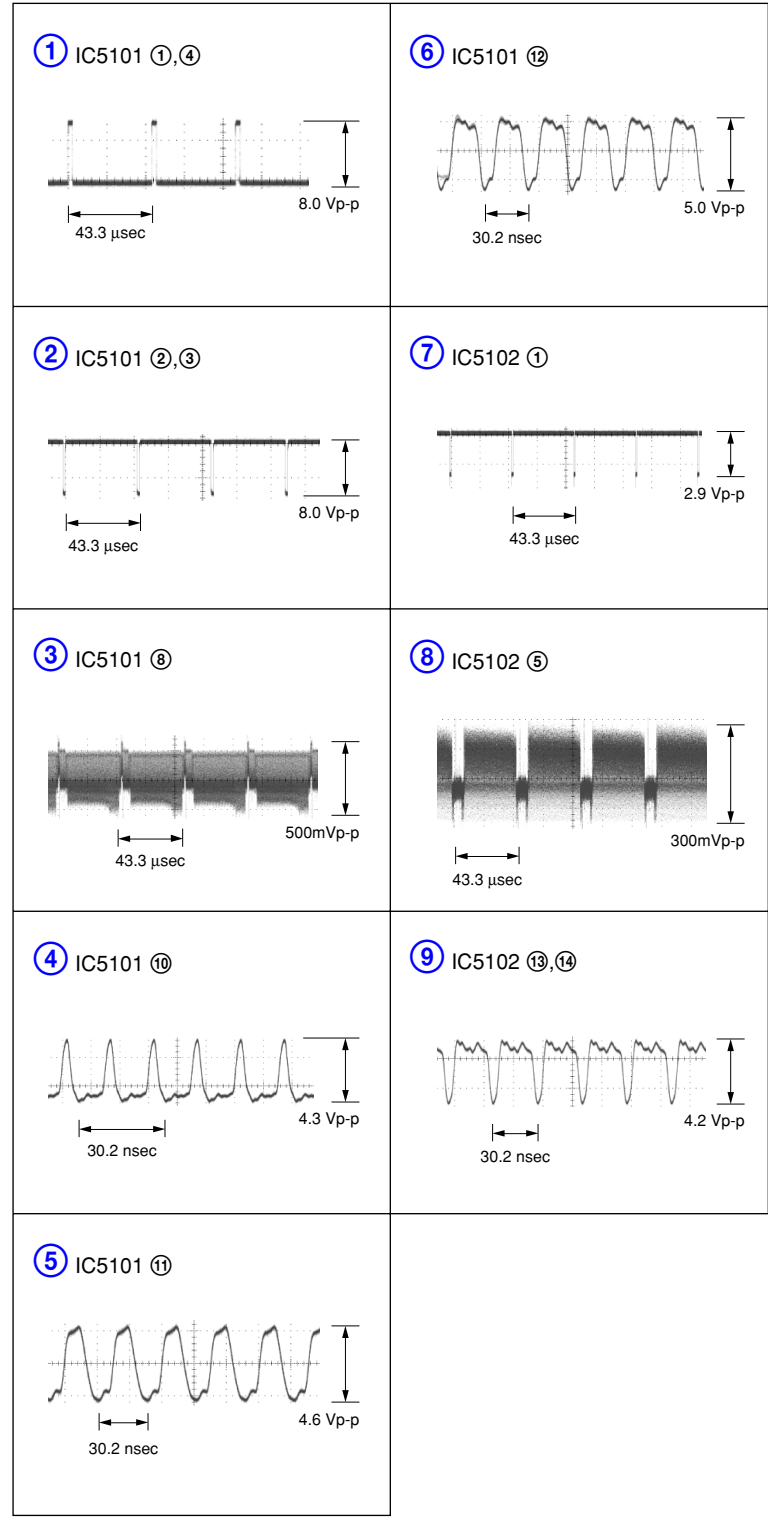


Printed wiring board of the MD-097, SS-174T and VC-310 board are not shown.  
Pages from 4-97 to 4-106 are not shown.



4-4. WAVEFORMS

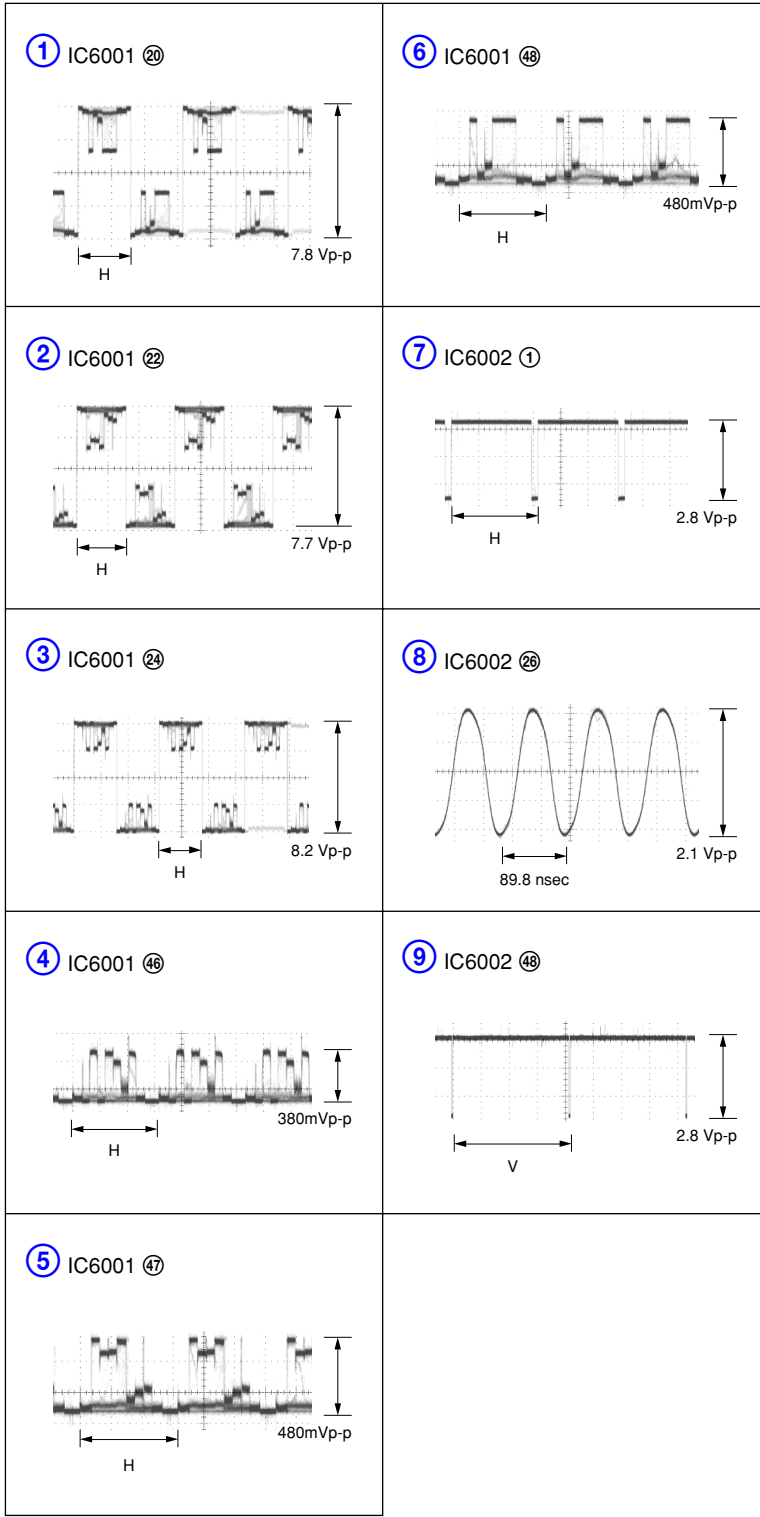
CD-429 BOARD



CD-429 PRINTED WIRING BOARD

PD-188 PRINTED WIRING BOARD

PD-188 BOARD



Waveforms of the VC-310 board is not shown.  
Pages from 4-109 to 4-110 are not shown.



### 4-3. PRINTED WIRING BOARDS

#### 4-5. MOUNTED PARTS LOCATION

no mark : side A

\* mark : side B

##### CD-429 BOARD

C5101 C-1  
 \* C5102 B-1  
 \* C5103 B-2  
 \* C5105 B-2  
 C5106 C-1  
 \* C5107 B-1  
 \* C5108 B-2  
 \* C5110 A-1  
 \* C5111 A-3  
 \* C5112 A-1  
 \* C5113 A-2  
 \* C5114 B-3  
 \* C5116 A-2  
 C5117 C-2  
  
 \* CN5101 C-1  
 CN5102 D-2  
  
 \* FB5101 B-3  
 FB5102 C-1  
  
 IC5101 B-2  
 \* IC5102 B-2  
  
 \* L5101 A-3  
 \* L5102 B-3  
  
 \* Q5101 A-1  
  
 \* R5101 B-1  
 R5102 C-1  
 \* R5104 A-1  
 R5105 C-1  
 R5106 C-1

##### PD-188 BOARD

C6001 A-2	R6001 A-2
C6002 A-1	R6002 A-2
C6003 A-2	R6003 B-3
C6004 B-2	R6004 B-2
C6005 B-2	R6005 A-2
C6006 A-2	R6006 B-2
C6007 B-3	R6007 B-2
C6008 B-2	R6008 B-2
C6009 A-3	R6009 B-2
C6010 A-3	R6010 B-2
C6011 B-2	R6011 B-2
C6012 B-2	R6012 B-2
C6013 B-3	R6013 B-3
C6014 A-2	R6014 C-2
C6015 C-3	R6015 C-2
C6016 A-3	R6016 C-2
C6017 A-3	R6017 C-2
C6018 A-3	R6018 B-2
C6019 B-3	R6019 C-1
C6020 B-2	R6020 C-1
C6021 C-2	R6021 C-2
C6022 C-1	R6022 C-2
C6023 C-3	R6023 A-1
C6024 C-2	R6101 A-1
C6101 B-4	R6102 A-1
C6102 C-4	R6103 C-3
C6103 A-4	R6104 C-4
C6104 C-4	R6105 C-4
C6105 C-4	R6106 A-4
	R6107 C-4
	R6108 C-4
	R6109 C-4
	R6110 C-4
	RB6001 A-3
	RB6002 A-3
	T6101 B-4
D6001 B-3	
D6002 C-2	
D6003 C-3	
D6101 A-1	
D6102 A-1	
D6103 C-4	
D6104 D-3	
FB6001 B-2	
FB6002 A-2	
IC6001 A-2	
IC6002 C-2	
IC6101 C-3	
IC6102 C-4	
L6001 B-2	
L6002 C-3	
L6101 B-4	
Q6001 C-2	
Q6002 C-2	
Q6003 B-2	
Q6004 C-2	
Q6005 C-1	
Q6101 C-3	
Q6102 A-4	
Q6103 A-4	
Q6104 C-4	

##### LB-084 BOARD

\* C5601 C-1  
 \* C5602 C-1  
  
 CN5601 B-1  
 CN5602 C-2  
  
 \* D5601 A-2  
 \* D5602 B-2  
  
 \* IC5601 C-2  
  
 \* Q5602 C-2  
  
 \* R5602 B-2  
 \* R5603 B-2  
 \* R5604 C-2  
 \* R5605 C-2  
 \* R5606 B-2  
 \* R5607 B-2

##### FB-220 BOARD

\* C5301 B-2  
  
 \* CN5301 B-4  
 \* CN5302 A-1  
  
 \* D5301 B-3  
  
 \* R5301 A-4  
 \* R5302 B-3  
 \* R5303 A-4  
 \* R5304 B-3  
 \* R5305 A-4  
 \* R5306 B-3  
 \* R5308 B-3  
 \* R5309 B-2  
 \* R5310 B-2  
  
 S5301 A-3  
 S5302 B-3  
 S5303 A-3  
 S5304 B-4  
 S5305 A-4  
 S5306 B-1  
 S5308 B-4  
 S5310 B-2  
  
 \* VD5301 B-2  
 \* VD5302 B-2



4-3. PRINTED WIRING BOARDS

no mark : side A  
\* mark : side B

MA-420 BOARD

- \* C5501 C-1
- \* C5502 B-1
- C5503 C-4
- \* CN5501 C-4
- \* CN5503 C-3
- \* D5501 E-3
- D5502 D-2
- D5503 D-3
- D5504 D-4
- D5507 D-1
- \* FB5501 B-2
- \* FB5502 D-3
- \* FB5503 C-2
- \* FB5504 B-2
- IC5501 D-4
- J5501 F-4
- \* R5501 C-2
- \* R5502 E-4
- \* R5503 E-4
- R5504 C-4
- \* R5505 G-4
- \* R5506 C-2
- \* R5507 A-1
- R5508 C-2
- \* SE5501 B-1
- \* SE5502 D-1
- \* VD5501 E-4
- VD5502 E-4

CK-127 BOARD

- BT5201 A-2
- \* C5201 B-3
- \* C5202 A-2
- \* C5203 A-2
- \* CN5201 B-3
- \* CN5202 A-2
- \* CN5203 B-3
- \* CN5204 A-4
- \* CN5205 C-3
- \* CN5206 A-1
- \* CN5207 B-4
- \* D5201 A-2
- \* D5202 A-2
- \* D5203 B-3
- \* D5204 B-3
- \* D5205 B-3
- \* D5207 B-4
- \* D5208 B-4
- \* D5209 B-3
- \* R5201 B-3
- \* R5204 B-4
- \* R5206 B-3
- \* R5207 B-3
- \* R5208 B-4
- \* R5210 A-3
- \* R5211 B-3
- \* R5212 B-4
- \* R5215 B-4
- \* R5218 B-4
- \* R5222 B-4
- \* R5223 A-4
- \* R5224 A-4
- \* R5225 A-1
- \* R5226 B-3
- \* R5227 B-3
- S5201 C-3
- S5203 B-4
- S5204 B-4
- S5205 C-4
- S5206 C-4
- S5207 A-1
- S5208 A-1
- S5209 A-3
- S5210 A-4
- S5211 A-4
- S5212 B-3
- S5213 B-3
- S5214 B-3
- S5215 B-4
- S5216 B-3

Mounted parts location of the MD-097,  
SS-174T and VC-310 board are not shown.  
Pages from 4-113 to 4-116 are not shown.



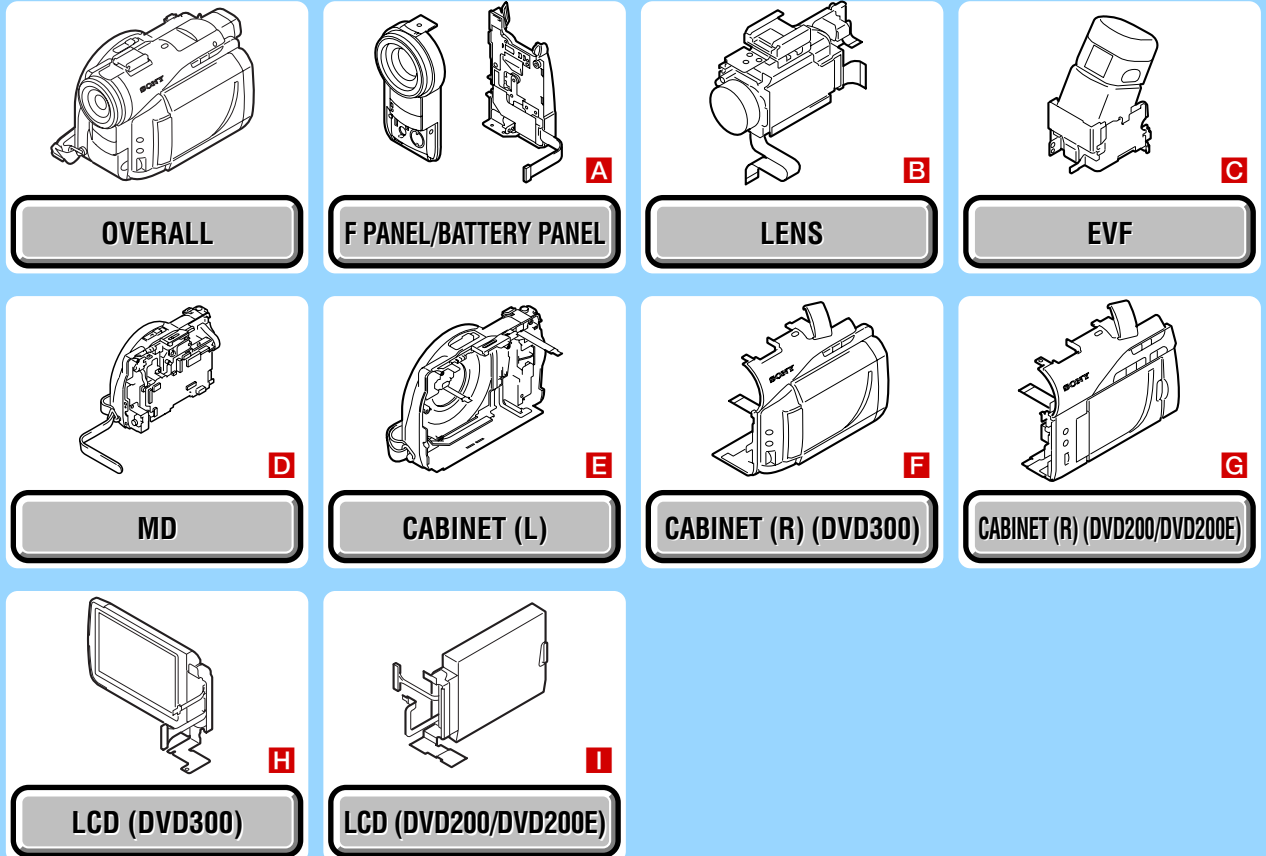
NOTE

## 5. REPAIR PARTS LIST

NOTE: Characters **A** to **Z** of the electrical parts list indicate location of exploded views in which the desired part is shown.

Link

### EXPLODED VIEWS



Link

### ELECTRICAL PARTS LIST

ACCESSORIES

• CD-429 BOARD <b>B</b>	• FP-610 BOARD <b>F G</b>	• MA-420 BOARD <b>A</b>
• CK-127 BOARD <b>F G</b>	• FP-611 BOARD <b>D</b>	• PD-188 BOARD <b>H I</b>
• FB-220 BOARD <b>F G</b>	• FP-612 BOARD <b>I</b>	• MD-097 BOARD
• FP-608 BOARD <b>E</b>	• FP-613 BOARD <b>H</b>	• SS-174T BOARD <b>D</b>
• FP-609 BOARD <b>E</b>	• LB-084 BOARD <b>C</b>	• VC-310 BOARD <b>D</b>



## 5. 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 diagrams or the components used on the set.
- CAPACITORS:  
uF:  $\mu$ F
- COILS  
uH:  $\mu$ H
- RESISTORS  
All resistors are in ohms.  
METAL: metal-film resistor  
METAL OXIDE: Metal Oxide-film resistor  
F: nonflammable
- SEMICONDUCTORS  
In each case, u:  $\mu$ , for example:  
uA...:  $\mu$ A..., uPA...,  $\mu$ PA...,  
uPB...,  $\mu$ PB..., uPC...,  $\mu$ PC...,  
uPD...,  $\mu$ PD...
- Abbreviation  
CND : Canadian model  
AUS : Australian model  
EE : East European model  
HK : Hong Kong model  
KR : Korea model

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.



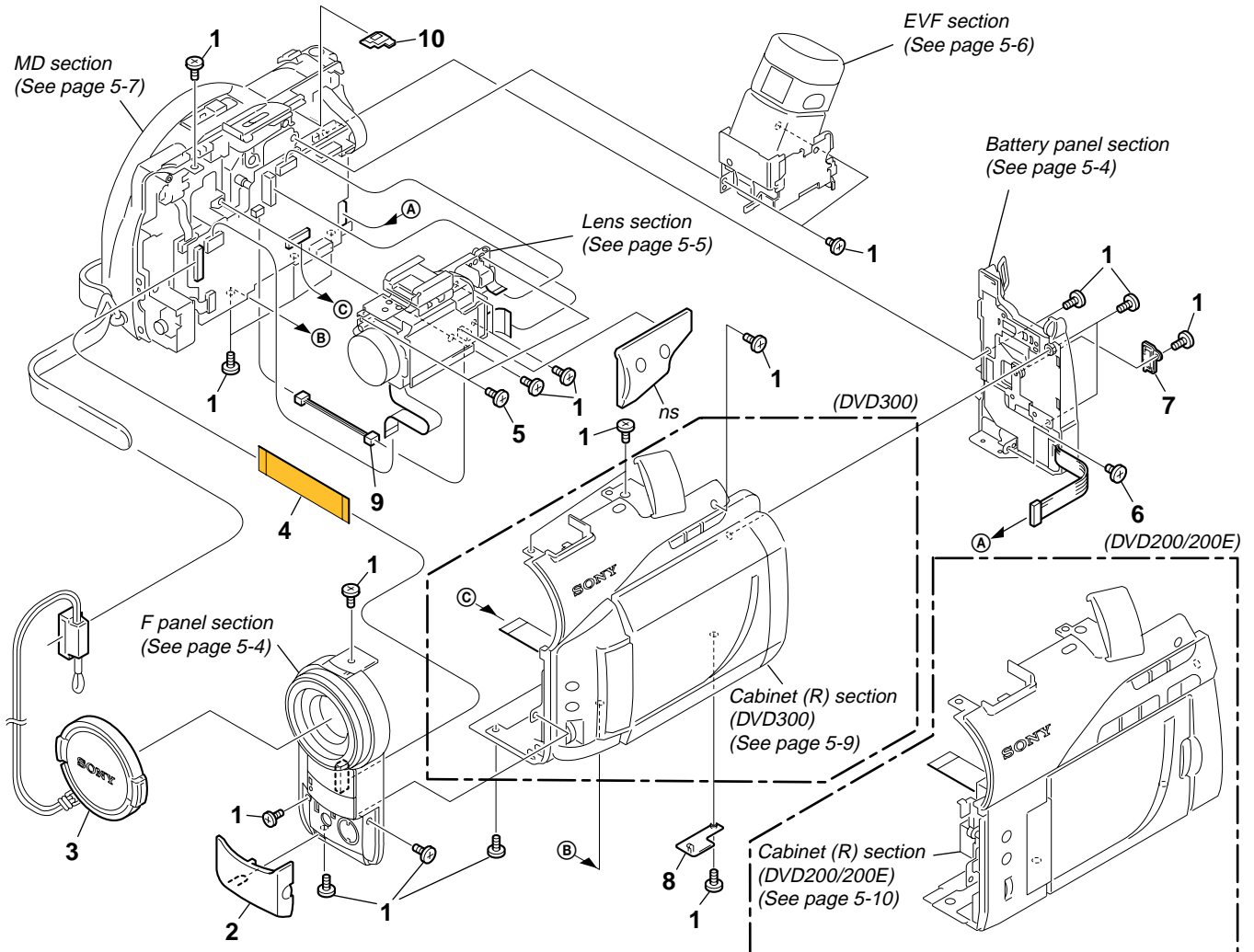
Ver 1.1 2003. 12

## 5. REPAIR PARTS LIST

## 5-1. EXPLODED VIEWS

## 5-1-1. OVERALL SECTION

ns : not supplied



Ref. No.	Part No.	Description
1	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
2	3-084-647-11	COVER (F), JACK (DVD200)
2	3-084-647-21	COVER (F), JACK (DVD300)
2	3-084-647-41	COVER (F), JACK (DVD200E)
3	X-3953-658-1	CAP ASSY, LENS
4	1-688-710-11	FP-605 FLEXIBLE BOARD

Ref. No.	Part No.	Description
5	3-078-890-01	SCREW, TAPPING
6	3-078-889-11	SCREW (M1.7)
7	3-084-659-01	LID (BT), CPC
8	3-084-660-01	LID (BOTTOM), CPC
9	1-962-367-11	HARNESS (CV-068)
10	3-084-667-01	WATER PACKING

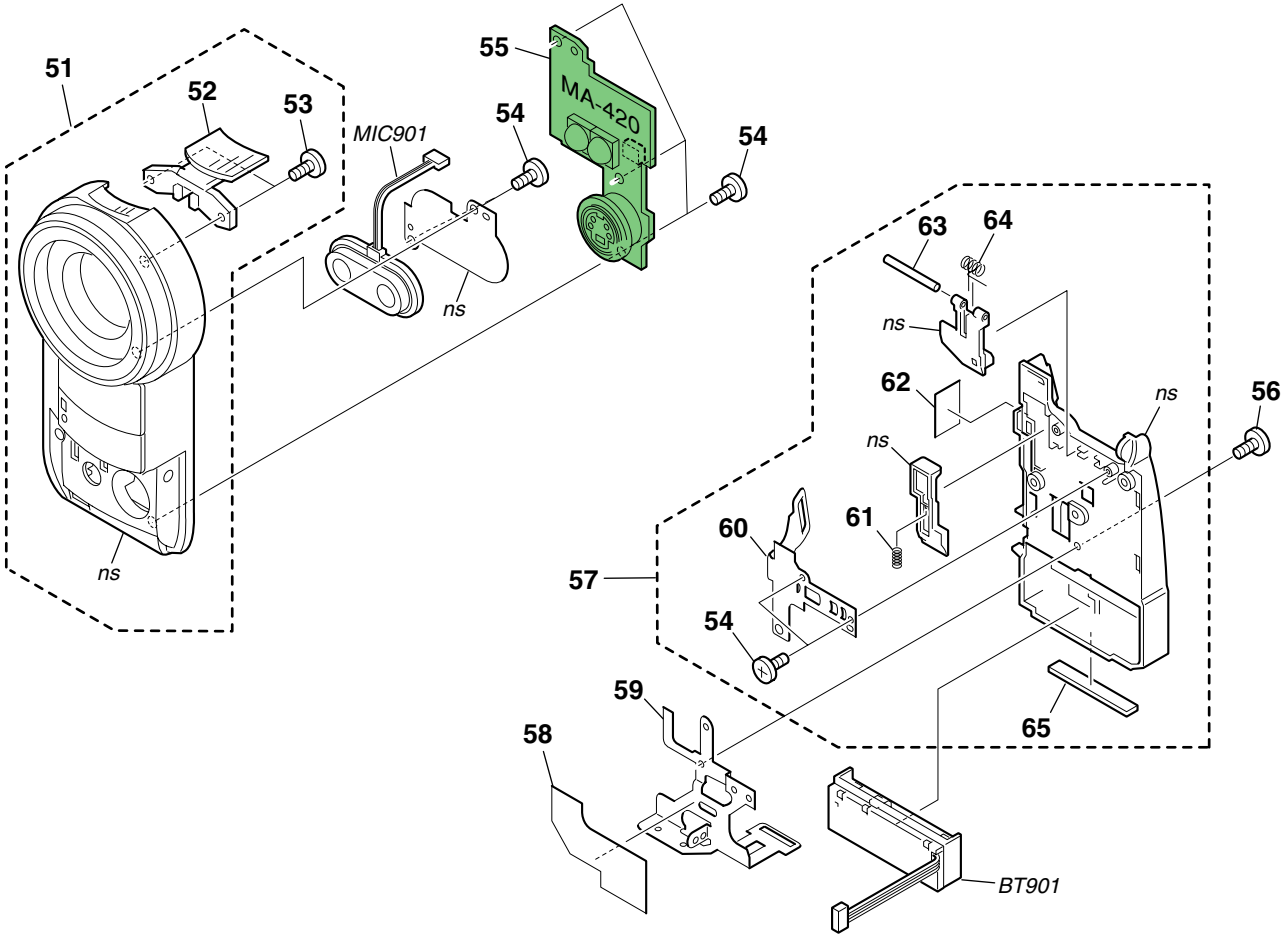




5. REPAIR PARTS LIST

5-1-2. F PANEL/BATTERY PANEL SECTION

ns : not supplied



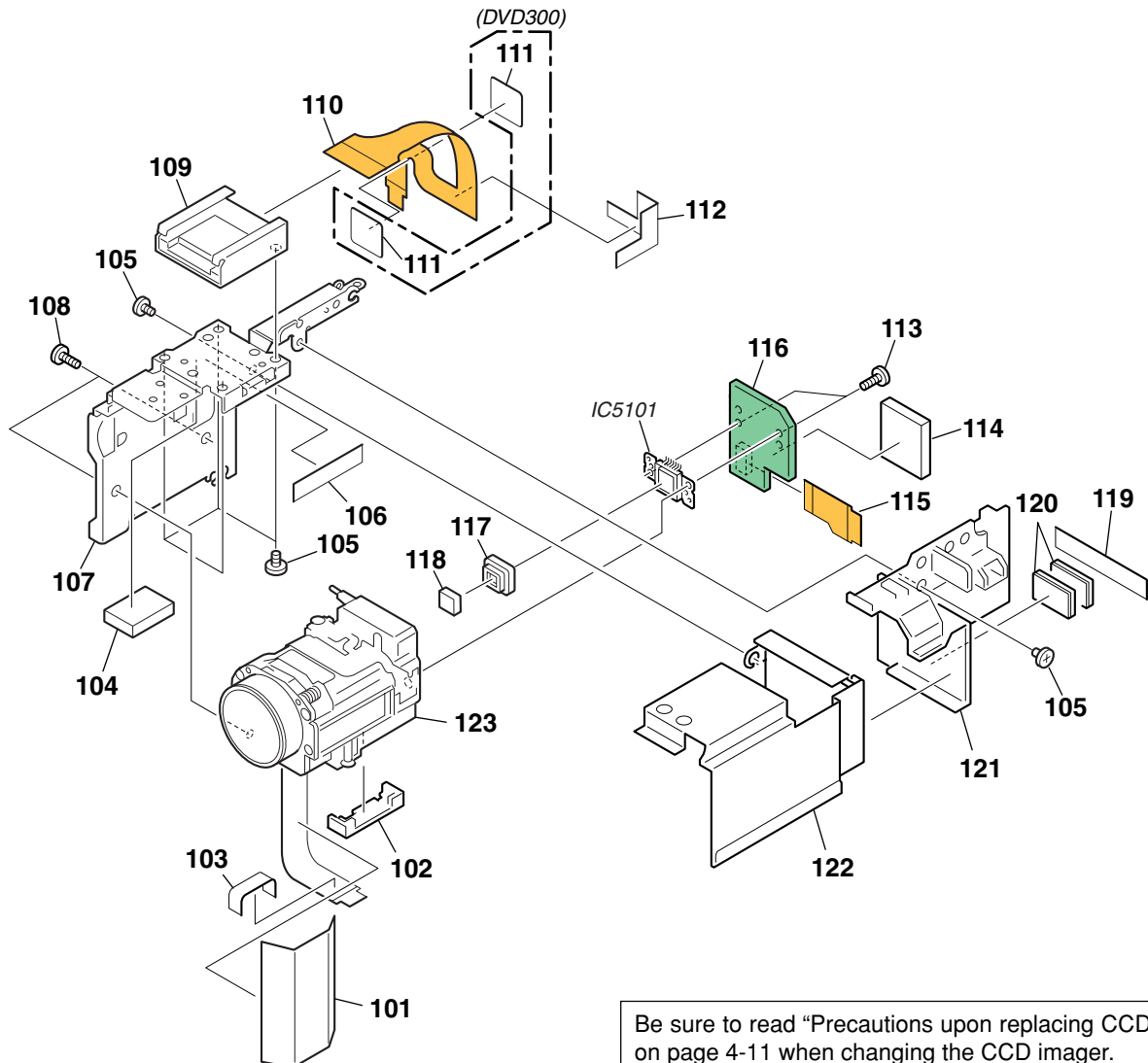
Ref. No.	Part No.	Description
51	X-3953-609-1	PANEL (750) ASSY, FRONT
52	3-084-724-01	PLATE, FRONT HEAT
53	3-055-573-21	SCREW (M1.7), LOCK ACE, P2
54	3-078-890-01	SCREW, TAPPING
55	A-7078-801-A	MA-420 BOARD, COMPLETE
56	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
57	X-3953-600-1	PANEL ASSY, BATTERY
58	3-084-666-01	SHEET, BATT
59	3-084-661-01	BRACKET (LOWER), STRAP

Ref. No.	Part No.	Description
60	3-084-750-01	SHEET METAL (UPPER), STRAP
61	3-968-771-01	SPRING, COMPRESSION
62	3-084-773-01	TAPE (BT)
63	3-968-770-01	SHAFT, BT
64	3-968-768-01	SPRING, LOCK
* 65	3-055-189-01	FOOT (A)
BT901	1-694-772-11	TERMINAL BOARD, BATTERY
MIC901	1-418-351-11	MICROPHONE UNIT



## 5. REPAIR PARTS LIST

### 5-1-3. LENS SECTION



Be sure to read "Precautions upon replacing CCD imager" on page 4-11 when changing the CCD imager.

Ref. No.	Part No.	Description
101	3-084-692-01	SHEET, LENS (650)
102	X-3953-094-2	PROTECTOR ASSY, MR
103	3-087-636-01	SHEET (FPC), SUCTION WATER
104	3-084-691-01	SHEET, LF650 RADIATION
105	3-078-889-11	SCREW (M1.7)
106	3-084-688-01	SHEET (L), SUCTION WATER
107	3-084-786-01	FRAME (750), LENS
108	3-078-890-01	SCREW, TAPPING
109	1-785-594-11	CONNECTOR (HOT SHOE), OUTER
110	1-688-709-11	FP-604 FLEXIBLE BOARD (DVD200)
110	1-860-323-01	FP-868 FLEXIBLE BOARD (DVD200E/DVD300)
111	3-086-147-01	SHEET, ABSORPTION (DVD300)
112	3-084-689-01	SHEET, HOT COPPER LEAF (DVD200/DVD300)

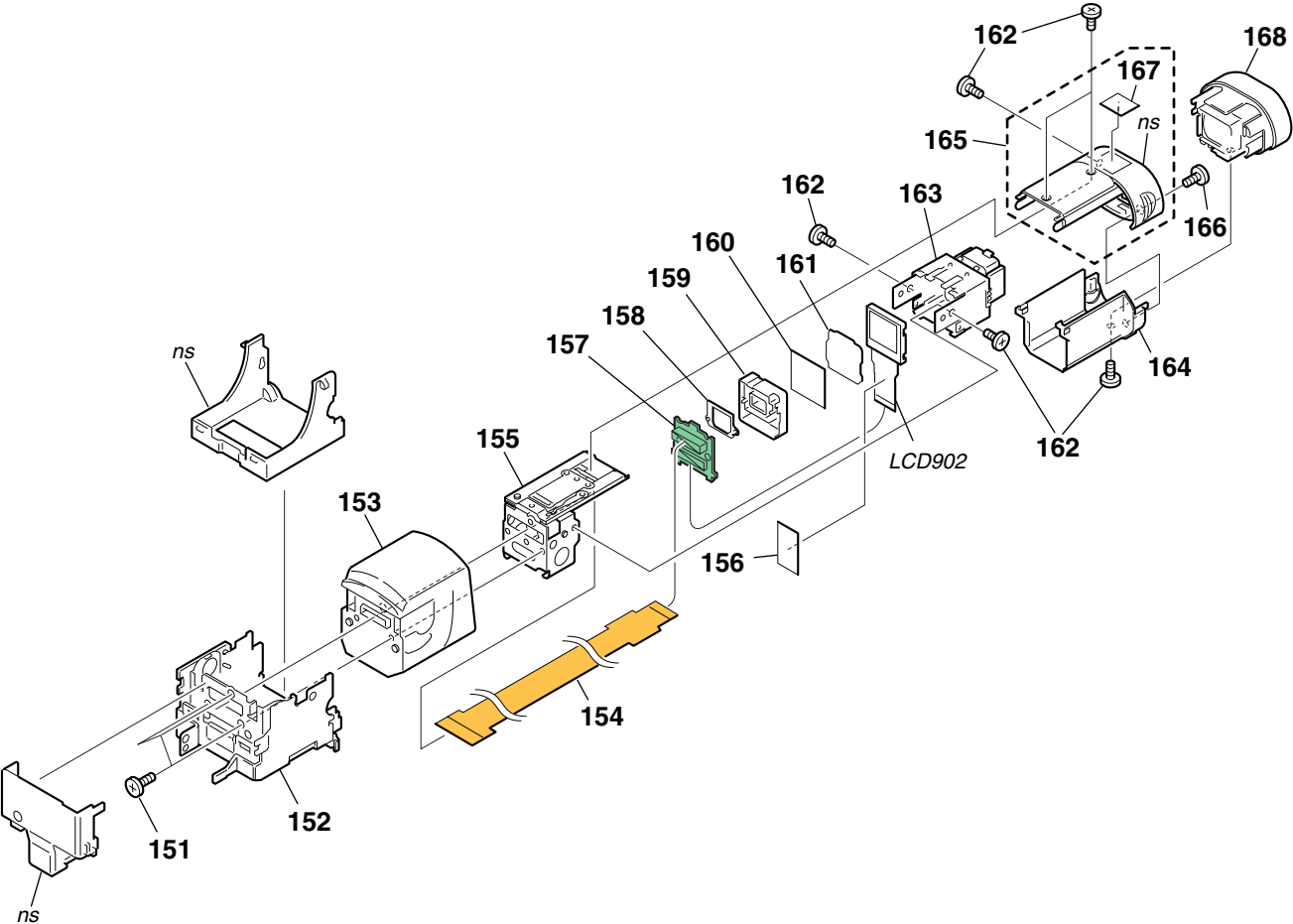
Ref. No.	Part No.	Description
112	3-086-146-01	SHEET, HOT COPPER LEAF (DVD200E)
113	3-080-204-21	SCREW, TAPPING, P2
114	3-084-685-01	SHEET, CD RADIATION
115	1-688-711-11	FP-606 FLEXIBLE BOARD
116	A-7078-816-A	CD-429 (MEGA) BOARD, COMPLETE
117	3-053-973-01	RUBBER (W), SEAL
118	1-758-569-11	FILTER BLOCK, OPTICAL
119	3-084-690-01	SHEET, ADHESIVE, CORE
120	1-469-298-31	FILTER, EMI
121	3-084-343-01	HOLDER, LENS
122	3-084-791-01	HEAT SINK (750), CD
123	A-7111-109-A	751B (CZ) BLOCK ASSEMBLY
IC5101	A-7111-336-A	CCD BLOCK ASSY (CCD IMAGER)



5. REPAIR PARTS LIST

5-1-4. EVF SECTION

ns : not supplied

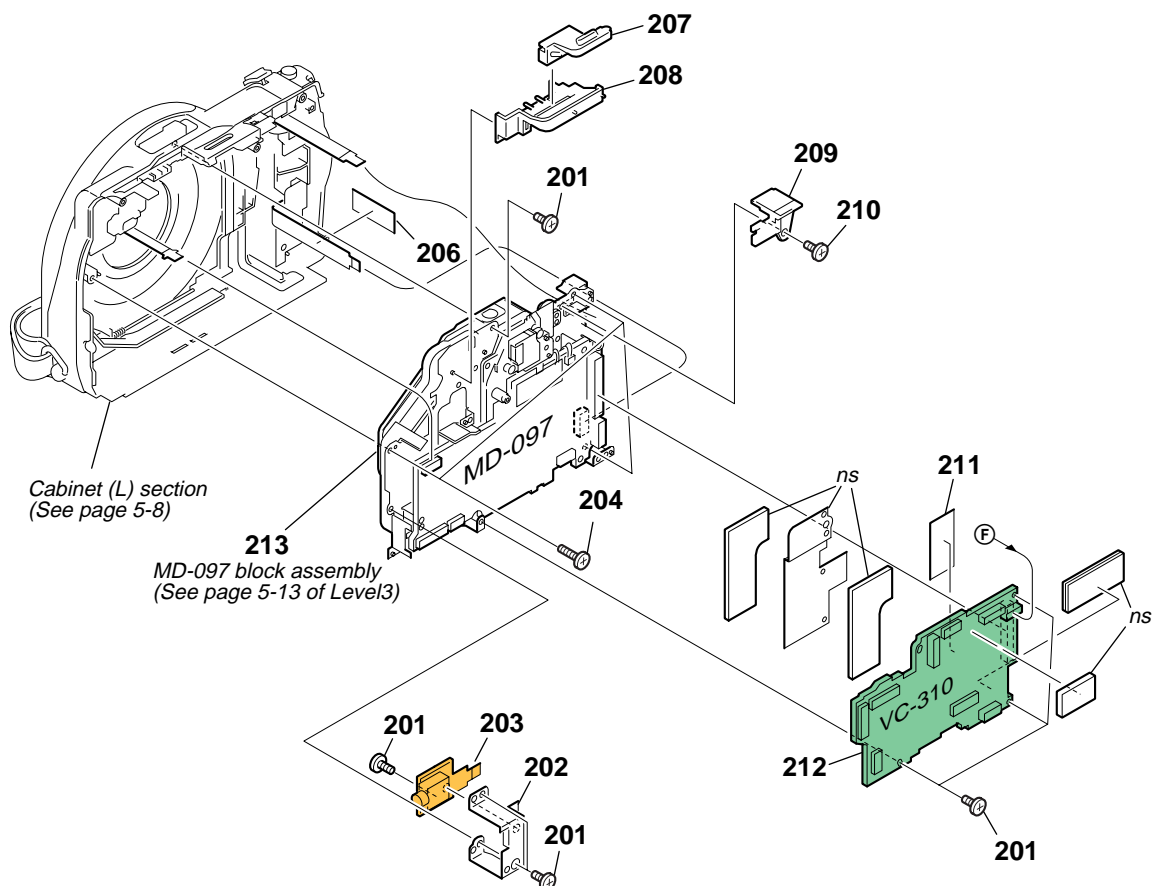


Ref. No.	Part No.	Description
151	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
152	X-3953-605-1	HINGE ASSY, VF
153	3-084-760-01	CABINET, VF TILT
154	1-688-708-11	FP-603 FLEXIBLE BOARD
155	X-3953-118-1	SLIDE ASSY, VF
156	3-083-290-01	SHEET VF
157	A-7078-802-A	LB-084 BOARD, COMPLETE
158	3-080-615-01	CUSHION (LB) (40)
159	3-080-618-01	GUIDE (40), LAMP
160	3-080-613-01	ILLUMINATOR (40)

Ref. No.	Part No.	Description
161	3-080-614-01	SHEET (40), PRISM
162	3-080-198-11	SCREW(M1.7),LOCK ACE,P2
163	X-3953-119-1	CABINET ASSY, LCD
164	3-080-617-11	CABINET (LOWER), VF SLIDE
165	X-3953-602-1	CABINET (UPPER) ASSY, VF SLIDE
166	3-078-890-01	SCREW, TAPPING
167	3-074-433-01	LABEL, COLOR (VF)
168	X-3953-603-2	EYE CUP (55) ASSY
LCD902	8-753-036-70	LCX032ANA-5

**5. REPAIR PARTS LIST****5-1-5. MD SECTION**

ns : not supplied



Ref. No.	Part No.	Description
201	3-078-889-11	SCREW (M1.7)
202	3-084-658-01	FRAME, JK
203	A-7078-812-A	FP-611 BOARD, COMPLETE (DVD200/DVD200E)
203	A-7078-822-A	FP-611 (35) BOARD, COMPLETE (DVD300)
204	3-080-204-21	SCREW, TAPPING, P2
206	CAUTION	TAPE (0716)
207	3-084-787-01	BASE (750), NS

Ref. No.	Part No.	Description
208	3-084-788-01	NOB (750), NS
209	3-084-662-01	BLIND, ZOOM
210	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
211	3-087-264-01	SHEET, INSULATING, VC
212	A-7078-815-A	VC-310 (MEGA) BOARD, COMPLETE (DVD200/DVD300) (SERVICE)
212	A-7111-388-A	VC-310 (MEGA P) BOARD, COMPLETE (DVD200E) (SERVICE)
213	A-7111-651-A	MD-097 BLOCK ASSY (SERVICE)

**CAUTION :**

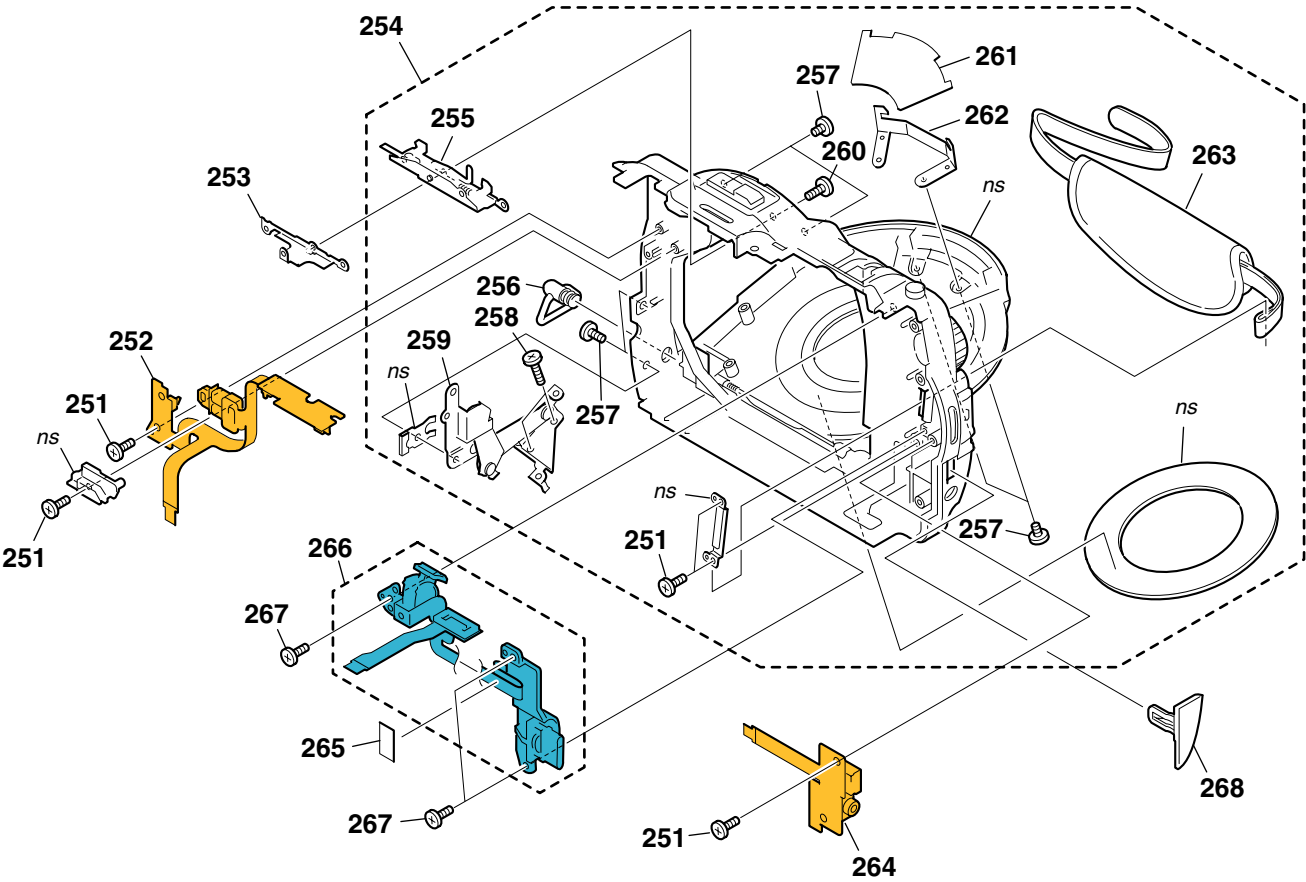
For the parts of 206 : TAPE (0716) (3-084-668-01) cut WOVEN (T0.25), FABRIC NON (3-076-631-01) into the desired length and use it.



5. REPAIR PARTS LIST

5-1-6. CABINET (L) SECTION

ns : not supplied



Ref. No.	Part No.	Description
251	3-078-890-01	SCREW, TAPPING
252	A-7078-811-A	FP-609 BOARD, COMPLETE (DVD200/DVD200E)
252	A-7078-821-A	FP-609 (35) BOARD, COMPLETE (DVD300)
253	3-084-664-01	SHEET METAL, PWB RETAINER
254	X-3953-601-3	CABINET (L) ASSY
255	X-3953-598-2	FRAME ASSY, EJECT
256	3-068-457-01	SHAFT, STRAP
257	3-973-497-91	SCREW (M1.7), 0-NO. +P 2
258	3-080-204-01	SCREW, TAPPING, P2
259	X-3953-599-1	HINGE ASSY, D LID

Ref. No.	Part No.	Description
260	3-087-322-01	SCREW (M1.7), EG GRIP, P2
261	3-084-764-01	COVER, D LID
262	3-084-737-01	CLAW, LID LOCK
263	3-084-771-01	BELT, GRIP
264	A-7078-800-A	FP-608 BOARD, COMPLETE (DVD200/DVD200E)
264	A-7078-823-A	FP-608 (35) BOARD, COMPLETE (DVD300)
265	CAUTION	TAPE (0716)
266	1-477-795-11	SWITCH BLOCK, CONTROL (PS-CX5500)
267	3-080-204-21	SCREW, TAPPING, P2
268	3-084-645-01	COVER (L), JACK

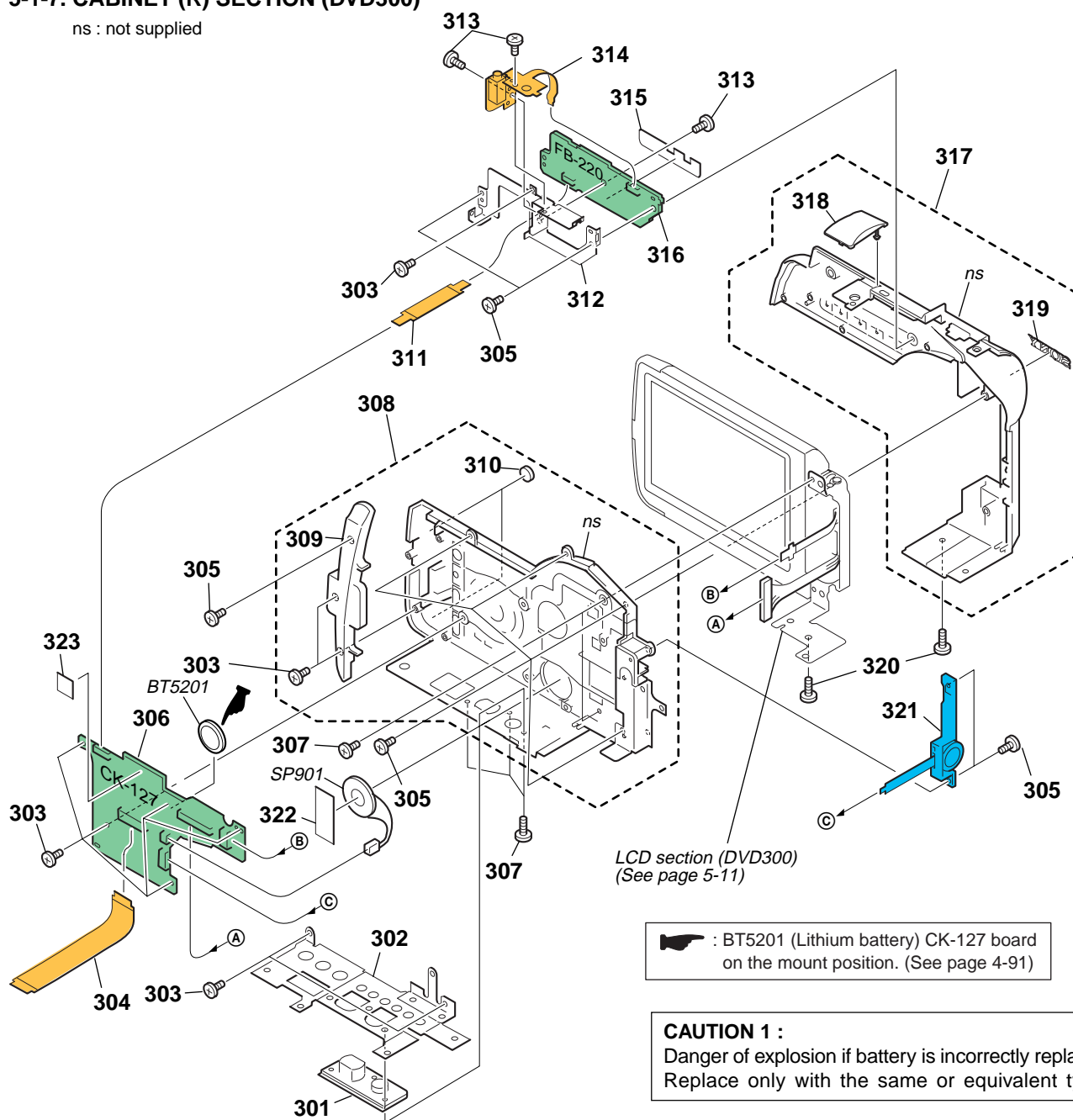
**CAUTION :**  
For the parts of 265 : TAPE (0716) (3-084-668-01) cut WOVEN (T0.25), FABRIC NON (3-076-631-01) into the desired length and use it.



## 5. REPAIR PARTS LIST

## 5-1-7. CABINET (R) SECTION (DVD300)

ns : not supplied



Ref. No.	Part No.	Description
301	3-055-257-11	TRIPOD (LARGE)
302	3-084-804-01	FRAME, TRIPOD LARGE
303	3-078-890-01	SCREW, TAPPING
304	1-688-707-11	FP-602 FLEXIBLE BOARD
305	3-080-204-21	SCREW, TAPPING, P2
306	A-7078-819-A	CK-127 (35) BOARD, COMPLETE
307	3-084-817-31	GRIP
308	X-3953-616-1	CABINET (R) (35) ASSY
309	3-084-801-01	LOCK, PANEL
310	3-959-978-02	CUSHION, PANEL
311	1-688-712-11	FP-607 FLEXIBLE BOARD
312	3-084-697-01	SHEET METAL, FB RETAINER

Ref. No.	Part No.	Description
313	3-078-889-11	SCREW (M1.7)
314	A-7078-824-A	FP-610 (35) BOARD, COMPLETE
315	3-085-252-01	SHEET, FB MUFFLE
316	A-7078-808-A	FB-220 BOARD, COMPLETE
317	X-3953-617-2	CABINET (35) ASSY, SIDE
318	3-084-693-01	COVER (U), JACK
319	4-942-636-01	EMBLEM (NO.3.5), SONY
320	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
321	1-477-796-11	SWITCH BLOCK, CONTROL (KP-CX5500)
322	CAUTION 2	TAPE (0716)
323	3-085-070-01	CD INSULATING SHEET
SP901	1-825-260-21	LOUD SPEAKER (1.6CM)

**CAUTION 2 :**

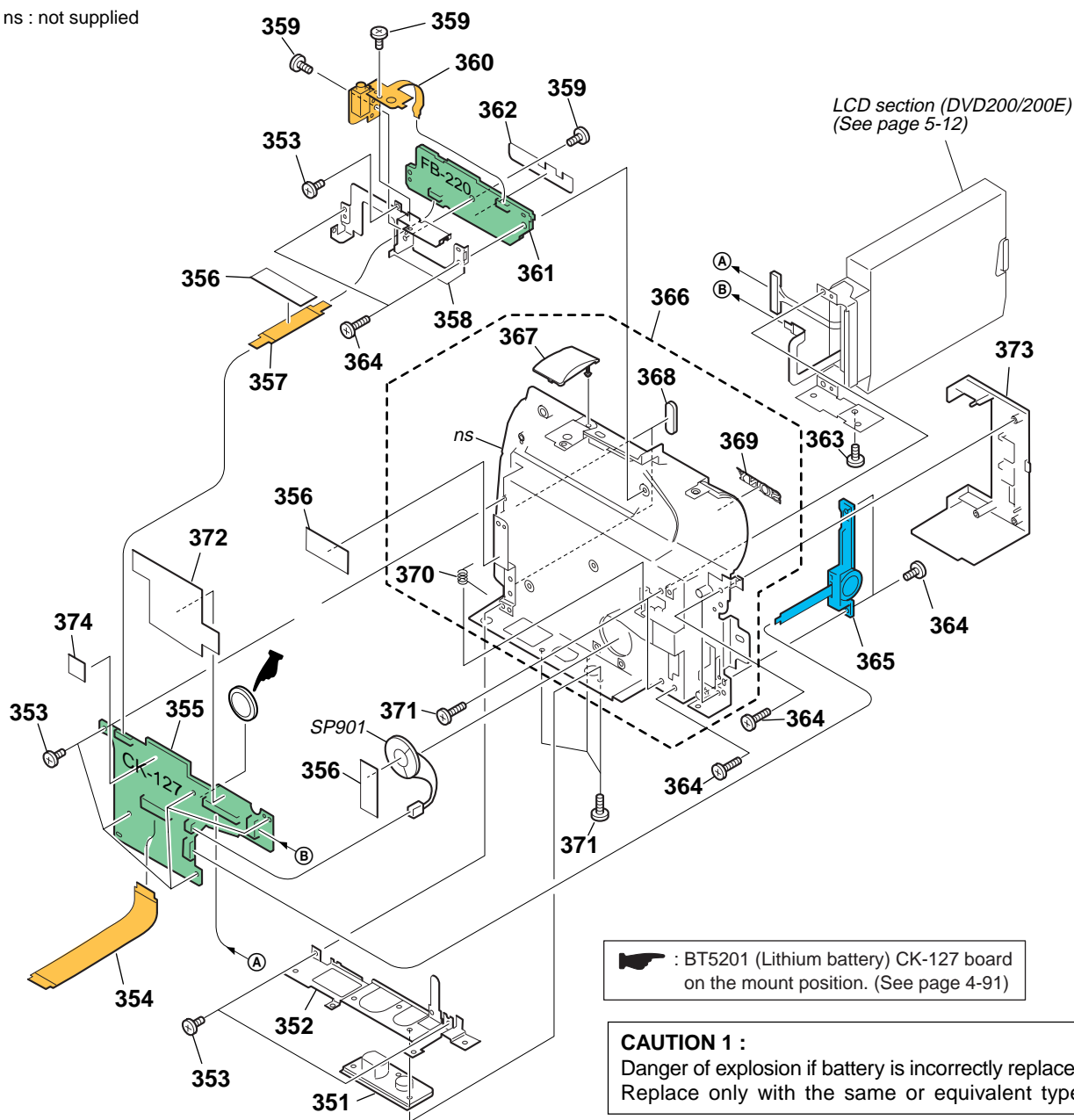
For the parts of 322 :TAPE (0716) (3-084-668-01) cut WOVEN (T0.25), FABRIC NON (3-076-631-01) into the desired length and use it.



## 5. REPAIR PARTS LIST

## 5-1-8. CABINET (R) SECTION (DVD200/DVD200E)

ns : not supplied



Ref. No.	Part No.	Description
351	3-055-257-11	TRIPOD (LARGE)
352	X-3953-607-1	FRAME (25) ASSY, BOTTOM
353	3-078-890-01	SCREW, TAPPING
354	1-688-707-11	FP-602 FLEXIBLE BOARD
355	A-7078-807-A	CK-127 (25) BOARD, COMPLETE

356	CAUTION 2	TAPE (0716)
357	1-688-712-11	FP-607 FLEXIBLE BOARD
358	3-084-697-01	SHEET METAL, FB RETAINER
359	3-078-889-11	SCREW (M1.7)
360	A-7078-809-A	FP-610 BOARD, COMPLETE

361	A-7078-808-A	FB-220 BOARD, COMPLETE
362	3-085-252-01	SHEET, FB MUFFLE
363	3-080-198-31	SCREW(M1.7),LOCK ACE,P2

Ref. No.	Part No.	Description
364	3-080-204-21	SCREW, TAPPING, P2
365	1-477-796-11	SWITCH BLOCK, CONTROL (KP-CX5500)
366	X-3953-612-1	CABINET (R) (25M) ASSY (DVD200)
366	X-3953-639-1	CABINET (R) (25M) ASSY (DVD200E)
367	3-084-693-01	COVER (U), JACK
368	3-084-706-01	CUSHION (25), PANEL
369	4-942-636-01	EMBLEM (NO.3.5), SONY
370	3-084-696-01	SPRING, HINGE BLIND
371	3-084-817-31	GRIP
372	CAUTION 2	TAPE (HS)
373	X-3953-606-1	CABINET (25) ASSY, SIDE
374	3-085-070-01	SHEET, INSULATING , CD
SP901	1-825-260-21	LOUD SPEAKER (1.6CM)

**CAUTION 2 :**

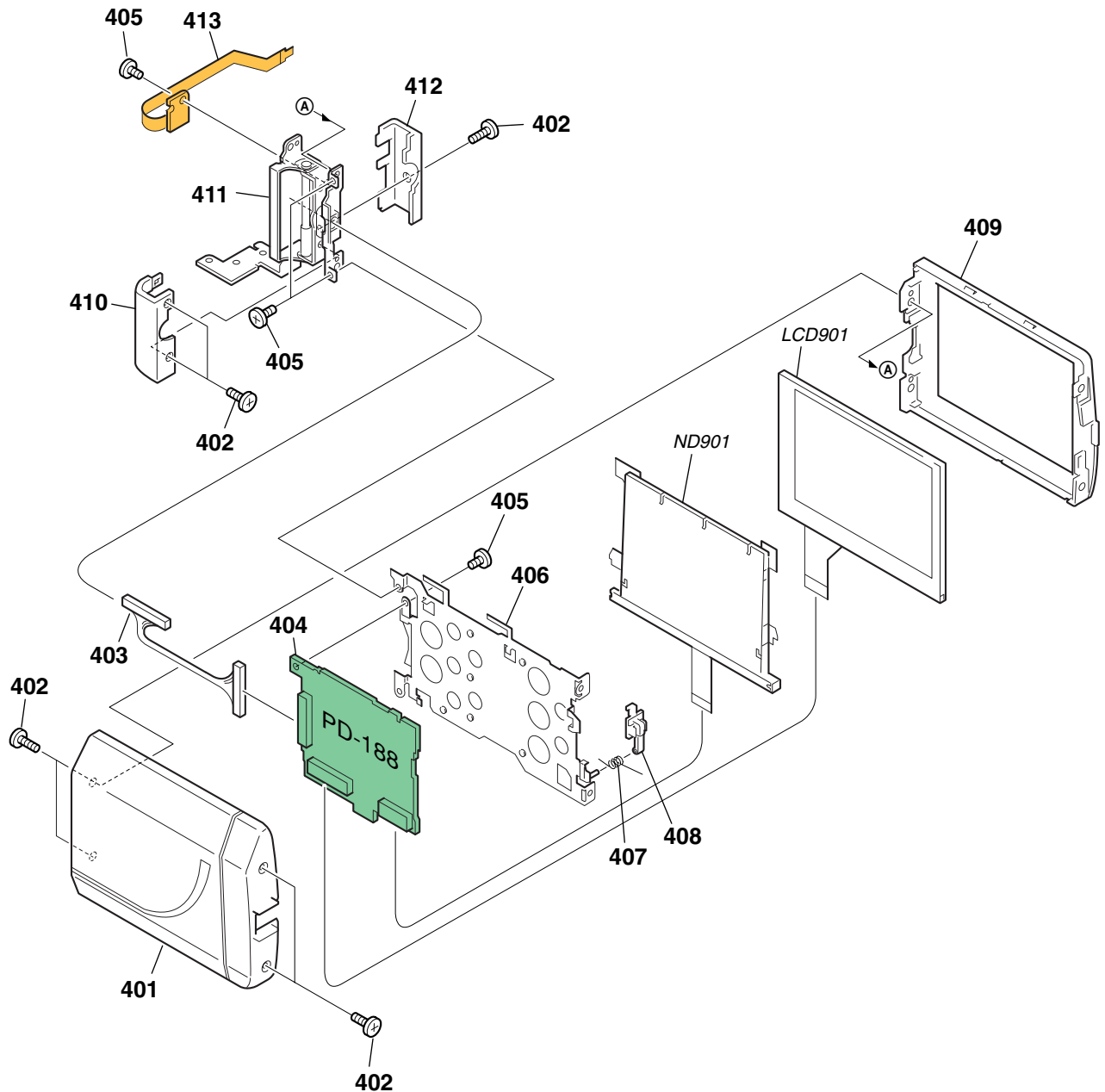
For the parts of 356 : TAPE (0716) (3-084-668-01) and 372 : TAPE (HS) (3-084-810-01) cut WOVEN (T0.25), FABRIC NON (3-076-631-01) into the desired length and use it.





## 5. REPAIR PARTS LIST

### 5-1-9. LCD SECTION (DVD300)



Ref. No.	Part No.	Description
401	X-3953-618-1	CABINET (C) (35) ASSY, P
402	3-080-198-31	SCREW(M1.7),LOCK ACE,P2
403	1-962-365-12	HARNESS (PV-019)
404	A-7078-818-A	PD-188 (35) BOARD, COMPLETE
405	3-078-889-11	SCREW (M1.7)
406	X-3953-614-1	FRAME (35) ASSY, P
407	3-084-919-01	SPRING (OPEN), TORSION
408	3-084-795-01	BUTTON, OPEN

Ref. No.	Part No.	Description
409	3-083-281-01	CABINET (M) (35), P
410	3-083-282-01	COVER (O) (35), HINGE
411	X-3953-615-1	HINGE (35) ASSY, LCD
412	3-083-283-01	COVER (U) (35), HINGE
413	A-7078-820-A	FP-613 BOARD, COMPLETE
LCD901	8-753-051-00	ACX310AK-J
△ND901	1-477-758-11	BLOCK LIGHT GUIDE PLATE (3.5)

**Note :**

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

**Note :**

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

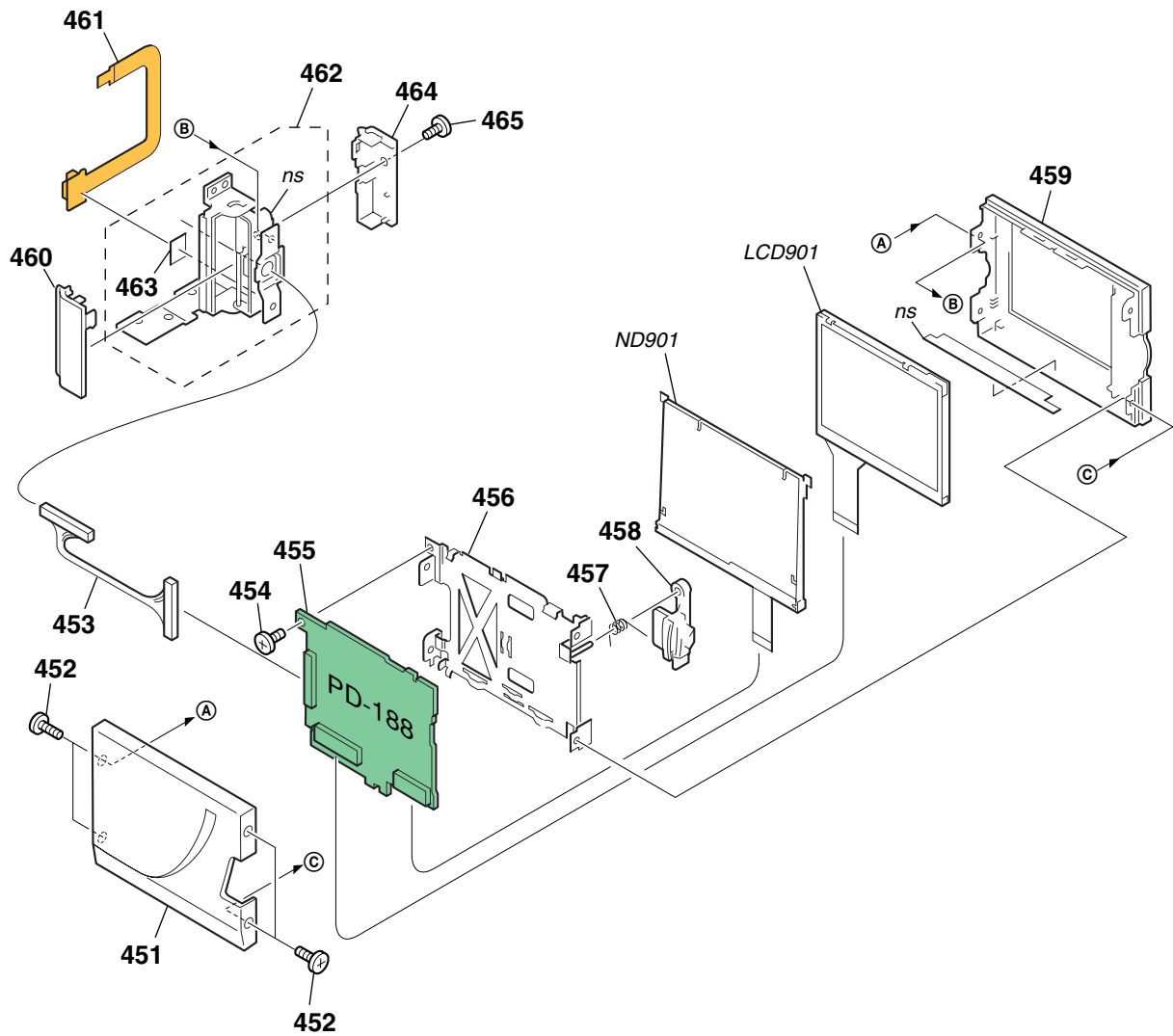




5. REPAIR PARTS LIST

5-1-10. LCD SECTION (DVD200)

ns : not supplied



Ref. No.	Part No.	Description
451	X-3953-610-1	CABINET (C) (25M) ASSY, P
452	3-087-322-01	SCREW (M1.7), EG GRIP, P2
453	1-962-364-12	HARNESS (PV-018)
454	3-078-889-11	SCREW (M1.7)
455	A-7078-799-A	PD-188 (25) BOARD, COMPLETE
456	X-3953-594-1	FRAME (25) ASSY, P
457	3-084-782-01	SPRING, P LOCK
458	3-084-785-01	BUTTON, P LOCK
459	3-083-291-01	CABINET (M) (25), P

Ref. No.	Part No.	Description
460	3-083-293-01	COVER (O) (25), HINGE
461	A-7078-810-A	FP-612 BOARD, COMPLETE
462	X-3953-595-1	HINGE (25) ASSY, LCD
463	3-084-710-01	SHEET, ADHESIVE, PR
464	3-083-294-01	COVER (U) (25), HINGE
465	3-973-497-91	SCREW (M1.7), 0-NO. +P 2
LCD901	8-753-052-14	ACX307AKA-J
△ND901	1-477-756-31	BLOCK LIGHT GUIDE PLATE (2.5)

Exploded view and parts list of MD-097 BLOCK are not shown. Page 5-13 and 5-14 are not shown.

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

**Note :**  
Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

**5-2. ELECTRICAL PARTS LIST**

Ref. No.	Part No.	Description
	A-7078-816-A	CD-429 (MEGA) BOARD, COMPLETE ***** (IC5101 is not included in this complete board.)
		< CAPACITOR >
C5101	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V
C5102	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
C5103	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C5105	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C5106	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
C5108	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C5110	1-113-987-11	TANTAL. CHIP 4.7uF 20% 25V
C5111	1-104-851-11	TANTAL. CHIP 10uF 20% 10V
C5112	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
C5113	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C5114	1-119-750-11	TANTAL. CHIP 22uF 20% 6.3V
C5116	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
		< CONNECTOR >
CN5101	1-784-421-11	CONNECTOR, FFC/FPC (ZIF) 27P
CN5102	1-794-375-21	PIN, CONNECTOR 2P
		< FERRITE BEAD >
FB5101	1-414-445-11	FERRITE 0uH
FB5102	1-414-554-21	FERRITE 0uH
		< IC >
IC5101	A-7111-336-A	IC CCD BLOCK ASSY (CCD IMAGER)
IC5102	6-701-755-01	IC AD80017AJRURL
		< COIL >
L5101	1-469-528-91	INDUCTOR 100uH
L5102	1-469-525-91	INDUCTOR 10uH
		< TRANSISTOR >
Q5101	6-550-119-01	TRANSISTOR DTC144EMT2L
		< RESISTOR >
R5101	1-218-990-11	SHORT CHIP 0
R5102	1-218-990-11	SHORT CHIP 0
R5105	1-218-941-81	RES-CHIP 100 5% 1/16W
R5106	1-218-941-81	RES-CHIP 100 5% 1/16W
	A-7078-807-A	CK-127 (25) BOARD, COMPLETE (DVD200/DVD200E)
	A-7078-819-A	CK-127 (35) BOARD, COMPLETE (DVD300) *****
		< BATTERY >
△BT5201	1-756-128-11	BATTERY, LITHIUM (SECONDARY)

Be sure to read "Precautions upon replacing CCD imager" on page 4-11 when changing the CCD imager.

**CAUTION :**

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

Ref. No.	Part No.	Description
		< CONNECTOR >
CN5201	1-784-423-21	CONNECTOR, FFC/FPC (ZIF) 39P
CN5202	1-794-997-11	PIN, CONNECTOR 20P
CN5203	1-778-506-21	PIN, CONNECTOR (PC BOARD) 2P
CN5204	1-691-344-11	CONNECTOR, FFC/FPC (ZIF) 6P (DVD200/DVD200E)
CN5205	1-766-336-21	CONNECTOR, FFC/FPC 6P
CN5206	1-766-336-21	CONNECTOR, FFC/FPC 6P
CN5207	1-691-344-11	CONNECTOR, FFC/FPC (ZIF) 6P (DVD300)
		< DIODE >
D5203	8-719-062-16	DIODE 01ZA8.2(TPL3)
D5204	8-719-062-16	DIODE 01ZA8.2(TPL3)
D5205	8-719-062-16	DIODE 01ZA8.2(TPL3)
D5207	8-719-062-16	DIODE 01ZA8.2(TPL3)
D5208	8-719-056-85	DIODE UDZSTE-178.2B
D5209	8-719-062-16	DIODE 01ZA8.2(TPL3)
		< RESISTOR >
R5201	1-218-990-11	SHORT CHIP 0
R5204	1-218-953-11	RES-CHIP 1K 5% 1/16W
R5206	1-218-954-11	RES-CHIP 1.2K 5% 1/16W
R5207	1-218-954-11	RES-CHIP 1.2K 5% 1/16W
R5208	1-218-954-11	RES-CHIP 1.2K 5% 1/16W
R5210	1-218-955-11	RES-CHIP 1.5K 5% 1/16W
R5211	1-218-955-11	RES-CHIP 1.5K 5% 1/16W
R5212	1-218-955-11	RES-CHIP 1.5K 5% 1/16W
R5215	1-218-957-11	RES-CHIP 2.2K 5% 1/16W
R5218	1-218-960-11	RES-CHIP 3.9K 5% 1/16W
R5222	1-218-964-11	RES-CHIP 8.2K 5% 1/16W
R5223	1-218-957-11	RES-CHIP 2.2K 5% 1/16W
R5224	1-218-960-11	RES-CHIP 3.9K 5% 1/16W
R5225	1-218-964-11	RES-CHIP 8.2K 5% 1/16W
R5226	1-218-990-11	SHORT CHIP 0
R5227	1-218-949-11	RES-CHIP 470 5% 1/16W
		< SWITCH >
S5201	1-786-157-11	SWITCH, TACTILE (EDIT)
S5203	1-786-157-11	SWITCH, TACTILE (RESET)
S5204	1-786-157-11	SWITCH, TACTILE (VOL+)
S5205	1-786-157-11	SWITCH, TACTILE (VOL-)
S5206	1-786-157-11	SWITCH, TACTILE (DISPLAY/BATT INFO)
S5207	1-762-805-21	SWITCH, PUSH (1 KEY) (PANEL_CLOSE) (DVD200/DVD200E)
S5208	1-762-805-21	SWITCH, PUSH (1 KEY) (PANEL_CLOSE) (DVD300)
S5209	1-786-157-11	SWITCH, TACTILE (VISUAL INDEX)
S5210	1-786-157-11	SWITCH, TACTILE (SETUP)
S5211	1-786-157-11	SWITCH, TACTILE (REC ●)
S5212	1-786-157-11	SWITCH, TACTILE (▲ UP)
S5213	1-786-157-11	SWITCH, TACTILE (◀ LEFT)
S5214	1-786-157-31	TACTILE SWITCH (ENTER)
S5215	1-786-157-11	SWITCH, TACTILE (▶ RIGHT)
S5216	1-786-157-11	SWITCH, TACTILE (▼ DOWN)

**Note :**

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

**Note :**

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

DCR-DVD200/DVD200E/DVD300

FB-220	FP-608	FP-609	FP-610	FP-611	FP-612	FP-613
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Ref. No.	Part No.	Description
	A-7078-808-A	FB-220 BOARD, COMPLETE *****
		< CAPACITOR >
C5301	1-162-970-11	CERAMIC CHIP    0.01uF    10%    25V
		< CONNECTOR >
CN5301	1-691-344-11	CONNECTOR, FFC/FPC (ZIF) 6P
CN5302	1-691-344-11	CONNECTOR, FFC/FPC (ZIF) 6P
		< DIODE >
D5301	8-719-062-16	DIODE    01ZA8.2(TPL3)
		< RESISTOR >
R5301	1-218-954-11	RES-CHIP    1.2K    5%    1/16W
R5302	1-218-954-11	RES-CHIP    1.2K    5%    1/16W
R5303	1-218-955-11	RES-CHIP    1.5K    5%    1/16W
R5304	1-218-955-11	RES-CHIP    1.5K    5%    1/16W
R5305	1-218-957-11	RES-CHIP    2.2K    5%    1/16W
R5306	1-218-957-11	RES-CHIP    2.2K    5%    1/16W
R5308	1-218-960-11	RES-CHIP    3.9K    5%    1/16W
R5309	1-216-864-11	METAL CHIP    0    5%    1/16W
R5310	1-216-864-11	METAL CHIP    0    5%    1/16W
		< SWITCH >
S5301	1-786-157-11	SWITCH, TACTILE (BACK LIGHT)
S5302	1-786-157-11	SWITCH, TACTILE (■ STOP)
S5303	1-786-157-11	SWITCH, TACTILE (FADER)
S5304	1-786-157-11	SWITCH, TACTILE (◀◀ PREV)
S5305	1-786-157-11	SWITCH, TACTILE (REVIEW)
S5306	1-786-157-11	SWITCH, TACTILE (▶▶ PLAY(PLAYBACK))
S5308	1-786-157-11	SWITCH, TACTILE (▶▶ NEXT)
S5310	1-786-157-11	SWITCH, TACTILE (⏸ PAUSE)
		< VARISTOR >
VD5301	1-801-862-11	VARISTOR, CHIP    (1608)
VD5302	1-801-862-11	VARISTOR, CHIP    (1608)
		*****
	A-7078-800-A	FP-608 BOARD, COMPLETE (DVD200/DVD200E)
	A-7078-823-A	FP-608 (35) BOARD, COMPLETE (DVD300)
		*****
		< CONNECTOR >
CN9001	1-794-962-11	CONNECTOR, SQUARE TYPE(USB 5P)
		< JACK >
J9001	1-793-995-21	JACK, SUPER SMALL TYPE ( Ⓛ (LANC))
		< RESISTOR >
R9002	1-216-864-11	METAL CHIP    0    5%    1/16W
R9003	1-216-296-11	SHORT CHIP    0
		*****
	A-7078-811-A	FP-609 BOARD, COMPLETE (DVD200/DVD200E)
	A-7078-821-A	FP-609 (35) BOARD, COMPLETE (DVD300)
		*****
		< DIODE >
D9051	8-719-073-33	DIODE    CL-165HR/YG-D-T

Ref. No.	Part No.	Description
		< RESISTOR >
R9051	1-216-809-11	METAL CHIP    100    5%    1/16W
R9052	1-216-816-11	METAL CHIP    390    5%    1/16W
		< RELAY >
RY9051	1-454-583-11	SOLENOID, PLUNGER
		< SWITCH >
S9051	1-762-805-21	SWITCH, PUSH (1KEY) (LID OPEN)
S9052	1-786-179-31	SWITCH, PUSH (1KEY) (LID OPEN)
S9053	1-786-180-31	SWITCH, PUSH (1KEY) (OPEN)
		*****
	A-7078-809-A	FP-610 BOARD, COMPLETE (DVD200/DVD200E)
	A-7078-824-A	FP-610 (35) BOARD, COMPLETE (DVD300)
		*****
		< FERRITE BEAD >
FB9101	1-500-444-11	FERRITE    0uH
FB9102	1-500-444-11	FERRITE    0uH
		< JACK >
J9101	1-691-737-41	JACK (SMALL TYPE) (MIC (PLUG IN POWER))
		< SWITCH >
S9101	1-786-157-11	SWITCH, TACTILE (SUPER NS/COLOR SLOW S)
		*****
	A-7078-812-A	FP-611 BOARD, COMPLETE (DVD200/DVD200E)
	A-7078-822-A	FP-611 (35) BOARD, COMPLETE (DVD300)
		*****
		< DIODE >
D9151	8-719-062-16	DIODE    01ZA8.2(TPL3)
D9152	8-719-062-16	DIODE    01ZA8.2(TPL3)
		< FERRITE BEAD >
FB9151	1-500-444-11	FERRITE    0uH
FB9152	1-500-444-11	FERRITE    0uH
FB9153	1-500-444-11	FERRITE    0uH
		< JACK >
J9151	1-778-040-11	JACK, SMALL TYPE (AUDIO/VIDEO)
		*****
	A-7078-810-A	FP-612 BOARD, COMPLETE (DVD200/DVD200E)
		*****
		< SWITCH >
S9201	1-771-338-31	SWITCH, PUSH (PANEL REVERSE)
		*****
	A-7078-820-A	FP-613 BOARD, COMPLETE (DVD300)
		*****
		< SWITCH >
S9251	1-771-039-31	SWITCH, PUSH (PANEL REVERSE)

LB-084

MA-420

PD-188

Ref. No.	Part No.	Description
	A-7078-802-A	LB-084 BOARD, COMPLETE *****
		< CAPACITOR >
C5601	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C5602	1-164-505-11	CERAMIC CHIP 2.2uF 16V
		< CONNECTOR >
CN5601	1-779-334-11	CONNECTOR, FFC/FPC 20P
CN5602	1-691-354-21	CONNECTOR, FFC/FPC (ZIF) 16P
		< DIODE >
D5602	6-500-375-01	DIODE NSCW455T-TC9
		< IC >
IC5601	8-759-581-11	IC NJM2125F(Te2)
		< TRANSISTOR >
Q5602	8-729-054-48	TRANSISTOR N1B04FE-Y/GR(TPLR3)
		< RESISTOR >
R5603	1-208-941-11	METAL CHIP 180K 0.5% 1/16W
R5604	1-208-721-11	METAL CHIP 39K 0.5% 1/16W
R5605	1-218-956-11	RES-CHIP 1.8K 5% 1/16W
R5606	1-216-839-11	METAL CHIP 33K 5% 1/16W
R5607	1-211-983-11	METAL CHIP 39 0.5% 1/10W
	A-7078-801-A	MA-420 BOARD, COMPLETE *****
		< CAPACITOR >
C5503	1-117-919-11	TANTAL. CHIP 10uF 20% 6.3V
		< CONNECTOR >
CN5501	1-778-507-21	PIN, CONNECTOR (PC BOARD) 4P
CN5503	1-764-529-11	CONNECTOR, FFC/FPC (ZIF) 22P
		< DIODE >
D5501	8-719-056-85	DIODE UDZSTE-178.2B
D5503	6-500-512-01	DIODE CL-330IRS-X-TU
D5504	8-719-073-01	DIODE MA111-(K8).S0
D5507	8-719-064-07	DIODE SML-310LTT86
		< FERRITE BEAD >
FB5501	1-469-179-21	FERRITE 0uH
FB5502	1-469-179-21	FERRITE 0uH
FB5503	1-469-179-21	FERRITE 0uH
FB5504	1-469-179-21	FERRITE 0uH
		< IC >
IC5501	8-742-221-00	HYB IC SBX3055-01
		< JACK >
J5501	1-778-518-11	CONNECTOR, EXTERNAL (S VIDEO)

Ref. No.	Part No.	Description
		< RESISTOR >
R5501	1-216-864-11	METAL CHIP 0 5% 1/16W
R5502	1-216-864-11	METAL CHIP 0 5% 1/16W
R5503	1-216-864-11	METAL CHIP 0 5% 1/16W
R5504	1-216-805-11	METAL CHIP 47 5% 1/16W
R5505	1-216-864-11	METAL CHIP 0 5% 1/16W
R5506	1-218-951-11	RES-CHIP 680 5% 1/16W
R5507	1-216-864-11	METAL CHIP 0 5% 1/16W
R5508	1-218-990-11	SHORT CHIP 0
		< SENSOR >
SE5501	1-476-807-31	SENSOR, ANGULAR VELOCITY (YAW)
SE5502	1-476-807-41	SENSOR, ANGULAR VELOCITY (PITCH)
		< VARISTOR >
VD5501	1-803-974-21	VARISTOR, CHIP (1608)
VD5502	1-803-974-21	VARISTOR, CHIP (1608)
	A-7078-799-A	PD-188 (25) BOARD, COMPLETE (DVD200/DVD200E)
	A-7078-818-A	PD-188 (35) BOARD, COMPLETE (DVD300) *****
		< CAPACITOR >
C6001	1-127-760-11	CERAMIC CHIP 4.7uF 10% 6.3V
C6002	1-135-259-11	TANTAL. CHIP 10uF 20% 6.3V
C6003	1-164-943-11	CERAMIC CHIP 0.01uF 10% 16V
C6004	1-164-943-11	CERAMIC CHIP 0.01uF 10% 16V
C6005	1-164-943-11	CERAMIC CHIP 0.01uF 10% 16V
C6007	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C6008	1-164-943-11	CERAMIC CHIP 0.01uF 10% 16V
C6009	1-135-177-21	TANTALUM CHIP 1uF 20% 20V
C6010	1-164-943-11	CERAMIC CHIP 0.01uF 10% 16V
C6011	1-164-739-11	CERAMIC CHIP 560PF 5% 50V
C6012	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C6013	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V
C6014	1-109-982-11	CERAMIC CHIP 1uF 10% 10V
C6015	1-164-870-11	CERAMIC CHIP 68PF 5% 50V
		(DVD200/DVD200E)
C6015	1-164-874-11	CERAMIC CHIP 100PF 5% 50V (DVD300)
C6016	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C6017	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C6018	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C6019	1-115-566-11	CERAMIC CHIP 4.7uF 10% 10V
C6022	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C6023	1-109-982-11	CERAMIC CHIP 1uF 10% 10V
C6024	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
C6101	1-115-566-11	CERAMIC CHIP 4.7uF 10% 10V
C6103	1-164-657-11	CERAMIC CHIP 0.015uF 10% 50V
C6104	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
△C6105	1-100-371-11	CERAMIC CHIP 12PF 5% 3.15KV

**Note :**

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

**Note :**

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

PD-188	MD-097	SS-174T	VC-310
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Ref. No.	Part No.	Description
< CONNECTOR >		
CN6001	1-815-031-11	CONNECTOR, FFC/FPC (ZIF) 24P
CN6101	1-764-709-11	CONNECTOR, FFC/FPC (LIF) 10P
CN6201	1-794-997-11	PIN, CONNECTOR 20P
< DIODE >		
D6001	8-719-084-47	DIODE 1SV290(TPL3)
D6003	8-719-050-42	DIODE RD3.3UM-T1B
D6103	8-719-073-01	DIODE MA111-(K8).S0
D6104	8-719-059-47	DIODE PG1111R-TR
< FERRITE BEAD >		
FB6001	1-414-760-21	FERRITE 0uH
FB6002	1-414-760-21	FERRITE 0uH
< IC >		
IC6001	8-752-109-08	IC CXA3289BR-T4
IC6002	8-752-407-33	IC CXD3512R-T4 (DVD200)
IC6002	8-752-409-15	IC CXD3516R-T4 (DVD300)
IC6101	8-759-564-49	IC TC7W53FU(TE12R)
IC6102	8-759-075-70	IC TA75S393F-TE85R
< COIL >		
L6001	1-469-525-91	INDUCTOR 10uH
L6002	1-412-949-21	INDUCTOR 6.8uH
L6101	1-428-878-11	INDUCTOR 82uH
< TRANSISTOR >		
Q6001	8-729-054-48	TRANSISTOR N1B04FE-Y/GR(TPLR3)
Q6002	8-729-054-48	TRANSISTOR N1B04FE-Y/GR(TPLR3)
Q6003	6-550-234-01	TRANSISTOR UNR32A300LS0
Q6004	6-550-232-01	TRANSISTOR 2SA207800LS0
Q6005	6-550-232-01	TRANSISTOR 2SA207800LS0
Q6101	6-550-234-01	TRANSISTOR UNR32A300LS0
Q6102	6-550-065-01	TRANSISTOR CPH5504-TL-E
Q6104	8-729-054-48	TRANSISTOR RN4983FE(TPLR3)
< RESISTOR >		
R6001	1-208-931-11	METAL CHIP 68K 0.5% 1/16W
R6002	1-218-985-11	RES-CHIP 470K 5% 1/16W
R6003	1-218-953-11	RES-CHIP 1K 5% 1/16W
R6004	1-218-953-11	RES-CHIP 1K 5% 1/16W
R6006	1-218-958-11	RES-CHIP 2.7K 5% 1/16W
R6007	1-218-973-11	RES-CHIP 47K 5% 1/16W
R6008	1-218-973-11	RES-CHIP 47K 5% 1/16W
R6009	1-218-975-11	RES-CHIP 68K 5% 1/16W
R6010	1-218-969-11	RES-CHIP 22K 5% 1/16W
R6011	1-218-975-11	RES-CHIP 68K 5% 1/16W
R6012	1-218-989-11	RES-CHIP 1M 5% 1/16W
R6013	1-218-977-11	RES-CHIP 100K 5% 1/16W
R6014	1-218-965-11	RES-CHIP 10K 5% 1/16W
R6015	1-218-965-11	RES-CHIP 10K 5% 1/16W
R6016	1-218-953-11	RES-CHIP 1K 5% 1/16W
R6017	1-218-973-11	RES-CHIP 47K 5% 1/16W
R6018	1-218-966-11	RES-CHIP 12K 5% 1/16W
R6019	1-218-989-11	RES-CHIP 1M 5% 1/16W
R6020	1-218-975-11	RES-CHIP 68K 5% 1/16W
R6021	1-218-979-11	RES-CHIP 150K 5% 1/16W

Ref. No.	Part No.	Description
R6022	1-208-957-11	RES-CHIP 820K 5% 1/16W
R6023	1-218-990-11	SHORT CHIP 0
R6103	1-218-965-11	RES-CHIP 10K 5% 1/16W
R6104	1-218-980-11	RES-CHIP 180K 5% 1/16W
R6105	1-218-969-11	RES-CHIP 22K 5% 1/16W
R6106	1-216-055-00	METAL CHIP 1.8K 5% 1/10W
R6107	1-218-965-11	RES-CHIP 10K 5% 1/16W
R6107	1-218-970-11	RES-CHIP 27K 5% 1/16W (DVD200/DVD200E)
R6108	1-218-969-11	RES-CHIP 22K 5% 1/16W (DVD300)
R6109	1-218-941-81	RES-CHIP 100 5% 1/16W
R6110	1-218-949-11	RES-CHIP 470 5% 1/16W
< COMPOSITION CIRCUIT BLOCK >		
RB6001	1-234-372-21	RES, NETWORK 100X4 (1005)
< TRANSFORMER >		
△ T6101	1-435-786-31	TRANSFORMER, INVERTER (DVD200/DVD200E)
△ T6101	1-437-472-11	TRANSFORMER, INVERTER (DVD300)
A-7078-804-A MD-097 BOARD, COMPLETE (Note1)		
*****		
A-7078-805-A SS-174T BOARD, COMPLETE		
*****		
A-7078-815-A VC-310 (MEGA) BOARD, COMPLETE		
(SERVICE) (DVD200/DVD300)		
A-7111-388-A VC-310 (MEGA P) BOARD, COMPLETE		
(SERVICE) (DVD200E)		
*****		

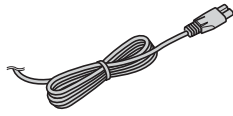
Electrical parts list of the MD-097, SS-174T, and VC-310 board are not shown. Pages from 5-19 to 5-34 are not shown.

**Note1 :**  
Since a service is provided only for the MD-097 BLOCK ASSY (A-7111-651-A) and not for the single MD-097 board, complete.

<b>Note :</b> The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	<b>Note :</b> Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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**Checking supplied accessories.**

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



Power cord (Main lead)(1)  
(AEP, EE, E model)

△ 1-769-608-11

Power cord (Main lead)(1)  
(AUS model)

△ 1-696-819-21

Power cord (Main lead)(1)  
(KR model)

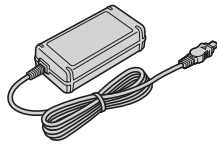
△ 1-776-985-11

Power cord (Main lead)(1)  
(UK, HK model)

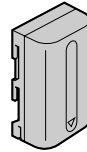
△ 1-783-374-11

Power cord (Main lead)(1)  
(US, CND model)

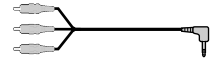
△ 1-790-107-22



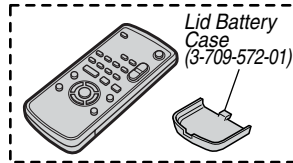
AC power adaptor (1) (AC-L15A)  
△ 1-477-533-32



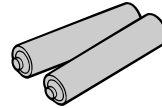
NP-FM50 battery pack (1)  
(not supplied)



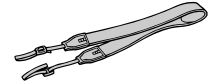
A/V connecting cable  
(1.5m) (1)  
1-824-097-11



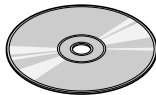
Wireless Remote Commander (1)  
(RMT-820)  
1-477-868-21



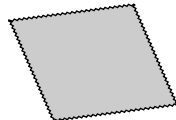
R6 (size AA) batteries  
for the Remote  
Commander (2)  
(not supplied)



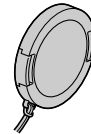
Shoulder strap (1)  
3-987-015-01



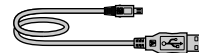
CD-ROM  
(SPVD-011 (I) USB Driver) (1)  
(US, CND model)  
3-086-131-01  
CD-ROM  
(SPVD-011 USB Driver) (1)  
(AEP, UK, EE, E, HK,  
KR, AUS model)  
3-086-132-01



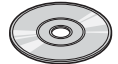
Cleaning cloth (1)  
3-073-861-01



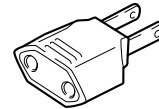
Lens cap (1)  
X-3953-658-1



USB cable (1)  
1-823-930-11



DVD-R (DMR30) (1)  
(not supplied)



2-pin conversion adaptor (1)  
(E, HK model)  
1-569-008-12



21-pin conversion connector (1)  
(AEP, UK, EE model)  
1-770-783-21

• Abbreviation

CND : Canadian model  
EE : East European model  
HK : Hong Kong model

AUS : Australian model  
KR : Korea model

**Other accessories**

3-081-300-13	MANUAL, INSTRUCTION (ENGLISH) (DVD200:US,CND,E/DVD300)
3-081-300-21	MANUAL, INSTRUCTION (FRENCH)(DVD200:CND)
3-081-300-31	MANUAL, INSTRUCTION (SPANISH/PORTUGUESE) (DVD200:E)
3-081-300-41	MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (DVD200:E)
3-081-300-51	MANUAL, INSTRUCTION (KOREAN)(DVD200:KR)
3-081-300-61	MANUAL, INSTRUCTION (ARABIC)(DVD200:E)
3-081-302-11	MANUAL, INSTRUCTION (ENGLISH/FRENCH) (DVD200E:AEP,UK,E,HK,AUS)
3-081-302-21	MANUAL, INSTRUCTION (SPANISH/PORTUGUESE) (DVD200E:AEP)
3-081-302-31	MANUAL, INSTRUCTION (ITALIAN/GREEK) (DVD200E:AEP)

3-081-302-41	MANUAL, INSTRUCTION (GERMAN/DUTCH) (DVD200E:AEP)
3-081-302-51	MANUAL, INSTRUCTION (SWEDISH/RUSSIAN) (DVD200E:E)
3-081-302-61	MANUAL, INSTRUCTION (ARABIC/PERSIAN) (DVD200E:E)
3-081-302-71	MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (DVD200E:HK)
3-081-302-81	MANUAL, INSTRUCTION (SIMPLIFIED CHINESE) (DVD200E:E)

**Note :**

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

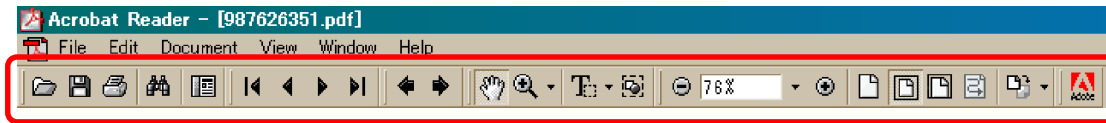
**Note :**

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







## [Description of main button functions on toolbar of the Adobe Acrobat Reader Ver5.0 (for Windows)]




### Printing a text

1. Click the Print button .
2. Specify a printer, print range, number of copies, and other options, and then click [OK].

#### Application of printing:

To set a range to be printed within a page, select the graphic selection tool  and drag on the page to enclose a range to be printed, and then click the Print button.

### Finding a text





1. Click the Find button .
2. Enter a character string to be found into a text box, and click the [Find]. (Specify the find options as necessary)
3. Open the find dialog box again, and click the [Find Again] and you can find the matched character strings displayed next. (Character strings entered previously are displayed as they are in the text box.)

#### Application to the Service Manual:



The parts on the drawing pages (block diagrams, circuit diagrams, printed circuit boards) and parts list pages in a text can be found using this find function. For example, find a Ref. No. of IC on the block diagram, and click the [Find Again] continuously, so that you can move to the Ref. No. of IC on the circuit diagram or printed circuit board diagram successively.

**Note:** The find function may not be applied to the Service Manual depending on the date of issue.

### Switching a page

- To move to the first page, click the .
- To move to the last page, click the .
- To move to the previous page, click the .
- To move to the next page, click the .






### Reversing the screens displayed once

- To reverse the previous screens (operation) one by one, click the .
- To advance the reversed screens (operation) one by one, click the .


#### Application to the Service Manual:


This function allows you to go and back between circuit diagram and printed circuit board diagram, and accordingly it will be convenient for the voltage check.

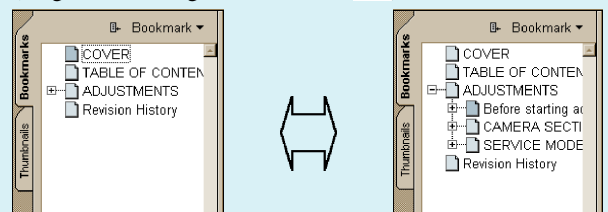
### Moving with link

1. Select either palm tool , zoom tool , text selection tool , or graphic selection tool .
2. Place the pointer in the position in a text where the link exists (such as a button on cover and the table of contents page, or blue characters on the removal flowchart page or drawing page), and the pointer will change to the forefinger form .
3. Then, click the link. (You will go to the link destination.)

#### Moving with bookmark:



Click an item (text) on the bookmark pallet, and you can move to the link destination. Also, clicking  can display the hidden items.

(To go back to original state, click )





### Zooming or rotating the screen display



#### “Zoom in”

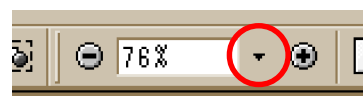
- Select the zoom tool  and click the page.
- Select the zoom tool  and drag a range to be zoomed in.

#### “Zoom out”


- Select the zoom-out tool  and click the page.
- Select the zoom-out tool  and drag a range to be zoomed out.

#### “Zoom in/out”

- Click the triangle button in the zoom control box to select the display magnification. Or, you may click  or  for zooming in or out.



#### “Rotate”

- Click rotate tool , and the page then rotates 90 degrees each.

#### Application to the Service Manual:

The printed circuit board diagram you see now can be changed to the same direction as the set.



Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2003.08	Official Release	—	—
1.1	2003.12	Correction-1	Correction of the schematic diagrams, printed wiring boards, waveforms, repair parts list. S.M. correction: Page <a href="#">4-13</a> , <a href="#">4-15</a> , <a href="#">4-92</a> , <a href="#">5-3</a> , <a href="#">5-7</a> , <a href="#">5-10</a> , <a href="#">5-18</a>	Yes
1.2	2004.05	Correction-2	Correction of the repair parts list. S.M. correction: Page <a href="#">5-9</a>	Yes