

# DCR-SR210E/SR220/SR220D/SR220E/ HDR-SR10/SR10D/SR10E

RMT-835

## SERVICE MANUAL

LEVEL 2

Ver. 1.1 2008.05

Revision History



Photo: HDR-SR10

*US Model  
Canadian Model  
AEP Model  
UK Model  
North European Model  
E Model  
Australian Model  
Hong Kong Model  
Chinese Model  
Korea Model  
Tourist Model  
Thai Model  
Japanese Model*

### Link

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

- [Precaution on Replacing the VC-516 Board](#)
- [Precaution on Replacing the CABINET \(G\(700\)\) ASSY](#)

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.

DCR-SR210E/SR220/SR220D/SR220E  
**DIGITAL VIDEO CAMERA RECORDER**  
HDR-SR10/SR10D/SR10E  
**DIGITAL HD VIDEO CAMERA RECORDER**

# SONY®



## SPECIFICATIONS

### System

Video compression format: MPEG2/JPEG (Still images)

Audio compression format: Dolby Digital 2/5.1ch  
Dolby Digital 5.1 Creator

Video signal: PAL color, CCIR standards

Hard Disk: 60 GB

When measuring media capacity, 1GB equals 1 billion bytes, a portion of which is used for data management.

Recording format: Movie: MPEG2-PS

Still image: Exif Ver.2.2 \*

Image device: 3.6 mm (1/5 type) CMOS sensor

Recording pixels (still image, 4:3):

Max. 4.0 mega (2 304 × 1 728) pixels\*\*

Gross: Approx. 2 360 000 pixels

Effective (Movie, 16:9)

Approx. 1 490 000 pixels

Effective (Still image, 16:9)

Approx. 1 490 000 pixels

Effective (Still image, 4:3)

Approx. 1 990 000 pixels

Lens: Carl Zeiss Vario-Sonnar T\*

Optical: 15 ×, Digital: 30×, 180×

Filter diameter: 30 mm (1 3/16 in.)

Focal length: F=1.8 - 2.6

f=3.1 - 46.5 mm (1/8 - 1 7/8 in.)

When converted to a 35 mm still camera

For movies: 40 - 600 mm (1 5/8 - 23 5/8 in.)

(16:9)

For still images: 37 - 555 mm (1 1/2 - 21 7/8

in.) (4:3)

Color temperature: [AUTO], [ONE PUSH],

[INDOOR] (3 200 K), [OUTDOOR] (5 800

K)

Minimum illumination: 5 lx (lux) (when [AUTO

SLW SHUTTR] is set to [ON], Shutter speed

1/25 second)

0 lx (lux) (during NightShot function)

\* "Exif" is a file format for still images, established by the JEITA (Japan Electronics and Information Technology Industries Association). Files in this format can have additional information such as your camcorder's setting information at the time of recording.

\*\*The unique pixel array of Sony's ClearVid CMOS Sensor and image processing system (BIONZ) allows still image resolution equivalent to the sizes described.

### Input/Output connectors

A/V Remote Connector: Video/audio output jack

USB jack: mini-B

(DCR-SR210E: output only)

### LCD screen

Picture: 6.7 cm (2.7 type, aspect ratio 16:9)

Total number of pixels: 211 200 (960 × 220)

### General

Power requirements: 6.8 V/7.2 V (battery pack)  
8.4 V (AC Adaptor)

Average power consumption: Hard disk: 3.5 W  
"Memory Stick PRO Duo": 3.5 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.): 81 × 76 × 129 mm (3 1/4  
× 3 × 5 1/8 in.)

(w×h×d) including the projecting parts

81 × 76 × 134 mm (3 1/4 × 3 × 5 3/8 in.)

(w×h×d) including the projecting parts with  
supplied battery pack attached

Mass (Approx.): 470 g (1 lb) main unit only

550 g (1 lb 3 oz) including the supplied  
rechargeable battery pack

### Handycam Station DCRA-C220

#### Input/Output connector

A/V OUT jack: Video/audio output jack

USB jack: mini-B

(DCR-SR210E: output only)

#### AC Adaptor AC-L200/L200B

Power requirements: AC 100 V - 240 V, 50/60 Hz

Current consumption: 0.35 - 0.18A

Power consumption: 18 W

Output voltage: DC 8.4 V\*

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.): 48 × 29 × 81 mm (1 15/16  
× 1 3/16 × 3 1/4 in.) (w×h×d) excluding the  
projecting parts

Mass (Approx.): 170 g (6.0 oz) excluding the  
power cord (mains lead)

\* See the label of AC Adaptor for other  
specifications.

#### Rechargeable battery pack NP-FH60

Maximum output voltage: DC 8.4 V

Output voltage: DC 7.2 V

Capacity: 7.2 wh (1 000 mAh)

Type: Li-ion

Design and specifications are subject to change  
without notice.



## SPECIFICATIONS

### System

Video compression format: MPEG2/JPEG (Still images)

Audio compression format: Dolby Digital 2/5.1ch  
Dolby Digital 5.1 Creator

Video signal: NTSC color, EIA standards

Hard Disk : 60 GB (DCR-SR220)  
: 120 GB (DCR-SR220D)

When measuring media capacity, 1GB equals 1 billion bytes, a portion of which is used for data management.

Recording format: Movie: MPEG2-PS

Still image: Exif Ver.2.2 \*

Image device: 3.6 mm (1/5 type) CMOS sensor

Recording pixels (still image, 4:3):  
Max. 4.0 mega (2 304 × 1 728) pixels\*\*  
Gross: Approx. 2 360 000 pixels  
Effective (Movie, 16:9)  
Approx. 1 490 000 pixels  
Effective (Still image, 16:9)  
Approx. 1 490 000 pixels  
Effective (Still image, 4:3)  
Approx. 1 990 000 pixels

Lens: Carl Zeiss Vario-Sonnar T\*

Optical: 15 ×, Digital: 30 ×, 180 ×  
Filter diameter: 30 mm (1 3/16 in.)

Focal length: F=1.8 - 2.6

f=3.1 - 46.5 mm (1/8 - 1 7/8 in.)

When converted to a 35 mm still camera  
For movies: 40 - 600 mm (1 5/8 - 23 5/8 in.)  
(16:9)  
For still images: 37 - 555 mm (1 1/2 - 21 7/8 in.)  
(4:3)

Color temperature: [AUTO], [ONE PUSH],  
[INDOOR] (3 200 K), [OUTDOOR] (5 800 K)

Minimum illumination: 5 lx (lux) (when [AUTO  
SLW SHUTTR] is set to [ON], Shutter speed  
1/30 second)  
0 lx (lux) (during NightShot function)

\* "Exif" is a file format for still images, established by the JEITA (Japan Electronics and Information Technology Industries Association). Files in this format can have additional information such as your camcorder's setting information at the time of recording.

\*\*The unique pixel array of Sony's ClearVid CMOS Sensor and image processing system (BIONZ) allows still image resolution equivalent to the sizes described.

### Input/Output connectors

A/V Remote Connector: Video/audio output jack

USB jack: mini-B

### LCD screen

Picture: 6.7 cm (2.7 type, aspect ratio 16:9)

Total number of pixels: 211 200 (960 × 220)

### General

Power requirements: 6.8 V/7.2 V (battery pack)  
8.4 V (AC Adaptor)

Average power consumption: Hard disk: 3.6 W  
"Memory Stick PRO Duo": 3.5 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.): 81 × 76 × 129 mm (3 1/4 × 3 × 5 1/8 in.)  
(w×h×d) including the projecting parts  
81 × 76 × 134 mm (3 1/4 × 3 × 5 3/8 in.)  
(w×h×d) including the projecting parts with supplied battery pack attached

Mass (Approx.): 470 g (1 lb) main unit only  
550 g (1 lb 3 oz) including the supplied rechargeable battery pack (DCR-SR220)

: 480 g (1 lb) main unit only  
560 g (1 lb 3 oz) including the supplied rechargeable battery pack (DCR-SR220D)

### Handycam Station DCRA-C220

#### Input/Output connector

A/V OUT jack: Video/audio output jack

USB jack: mini-B

#### AC Adaptor AC-L200/L200B

Power requirements: AC 100 V - 240 V, 50/60 Hz

Current consumption: 0.35 - 0.18A

Power consumption: 18 W

Output voltage: DC 8.4 V\*

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.): 48 × 29 × 81 mm (1 15/16 × 1 3/16 × 3 1/4 in.) (w×h×d) excluding the projecting parts

Mass (Approx.): 170 g (6.0 oz) excluding the power cord (mains lead)

\* See the label of AC Adaptor for other specifications.

#### Rechargeable battery pack NP-FH60

Maximum output voltage: DC 8.4 V

Output voltage: DC 7.2 V

Capacity: 7.2 wh (1 000 mAh)

Type: Li-ion

Design and specifications are subject to change without notice.



## SPECIFICATIONS

### System

Video compression format: AVCHD (HD)/MPEG2/JPEG (Still images)  
Audio compression format: Dolby Digital 2/5.1ch  
Dolby Digital 5.1 Creator  
Video signal: PAL color, CCIR standards  
1080/50i specification  
Hard disk: 40 GB  
When measuring media capacity, 1 GB equals 1 billion bytes, a portion of which is used for data management.  
Recording format: Movie (HD): AVCHD 1080/50i  
Movie (SD): MPEG2-PS  
Still image: Exif Ver.2.2\*  
Image device: 3.6 mm (1/5 type) CMOS sensor  
Recording pixels (still image, 4:3):  
Max. 4.0 mega (2 304 × 1 728) pixels\*\*  
Gross: Approx. 2 360 000 pixels  
Effective (movie, 16:9):  
Approx. 1 490 000 pixels  
Effective (still image, 16:9):  
Approx. 1 490 000 pixels  
Effective (still image, 4:3):  
Approx. 1 990 000 pixels  
Lens: Carl Zeiss Vario-Sonnar T\*  
15 × (Optical), 30 ×, 180 × (Digital)  
Focal length: F1.8 ~ 2.6  
Filter diameter: 30 mm (1 3/16 in.)  
f=3.1 ~ 46.5 mm (1/8 ~ 1 7/8 in.)  
When converted to a 35 mm still camera  
For movies: 40 ~ 600 mm (1 5/8 ~ 23 5/8 in.) (16:9)  
For still images: 37 ~ 555 mm (1 1/2 ~ 21 7/8 in.) (4:3)  
Color temperature: [AUTO], [ONE PUSH], [INDOOR] (3 200 K), [OUTDOOR] (5 800 K)  
Minimum illumination: 5 lx (lux) ([AUTO SLW SHUTTR] [ON], Shutter speed 1/25 sec)  
0 lx (lux) (during NightShot function)  
\* "Exif" is a file format for still images, established by the JEITA (Japan Electronics and Information Technology Industries Association). Files in this format can have additional information such as your camcorder's setting information at the time of recording.  
\*\* The unique pixel array of Sony's ClearVid CMOS sensor and image processing system (BIONZ) allows for still image resolution equivalent to the sizes described.

### Input/Output connectors

A/V Remote Connector: Component/video and audio output jack  
HDMI OUT jack: HDMI Type C mini connector  
USB jack: mini-B

### LCD screen

Image: 6.7 cm (2.7 type, aspect ratio 16:9)  
Total dot number: 211 200 (960 × 220)

### General

Power requirements: DC 6.8 V/7.2 V (battery pack)  
DC 8.4 V (AC Adaptor)  
Average power consumption: During camera recording with normal brightness:  
Hard disk:  
HD: 4.2 W SD: 3.6 W  
"Memory Stick PRO Duo":  
HD: 4.2 W SD: 3.6 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.): 81 × 76 × 129 mm (3 1/4 × 3 × 5 1/8 in.) (w/h/d) including the projecting parts  
81 × 76 × 134 mm (3 1/4 × 3 × 5 3/8 in.) (w/h/d) including the projecting parts, and the supplied rechargeable battery pack attached  
Mass (approx.): 480 g (1 lb) main unit only  
560 g (1 lb 3 oz) including the supplied rechargeable battery pack

### Handycam Station DCRA-C220

#### Input/Output connectors

A/V OUT jack: Component/video and audio output jack  
USB jack: mini-B

### AC Adaptor AC-L200/L200B

Power requirements: AC 100 V - 240 V, 50/60 Hz  
Current consumption: 0.35 - 0.18 A  
Power consumption: 18 W  
Output voltage: DC 8.4 V\*  
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.): 48 × 29 × 81 mm (1 15/16 × 1 3/16 × 3 1/4 in.) (w/h/d) excluding the projecting parts  
Mass (approx.): 170 g (6.0 oz) excluding the power cord (mains lead)  
\* See the label on the AC Adaptor for other specifications.

### Rechargeable battery pack NP-FH60

Maximum output voltage: DC 8.4 V  
Output voltage: DC 7.2 V  
Capacity: 7.2 Wh (1 000 mAh)  
Type: Li-ion  
Design and specifications of your camcorder and accessories are subject to change without notice.



## SPECIFICATIONS

### System

Video compression format: AVCHD (HD)/MPEG2/JPEG (Still images)  
Audio compression format: Dolby Digital 2/5.1ch Dolby Digital 5.1 Creator  
Video signal: NTSC color, EIA standards 1080/60i specification  
Hard disk: 40 GB (HDR-SR10)  
: 120 GB (HDR-SR10D)  
When measuring media capacity, 1 GB equals 1 billion bytes, a portion of which is used for data management.  
Recording format: Movie (HD): AVCHD 1080/60i  
Movie (SD): MPEG2-PS  
Still image: Exif Ver.2.2\*  
Image device: 3.6 mm (1/5 type) CMOS sensor  
Recording pixels (still image, 4:3):  
Max. 4.0 mega (2 304 × 1 728) pixels\*\*  
Gross: Approx. 2 360 000 pixels  
Effective (movie, 16:9):  
Approx. 1 490 000 pixels  
Effective (still image, 16:9):  
Approx. 1 490 000 pixels  
Effective (still image, 4:3):  
Approx. 1 990 000 pixels  
Lens: Carl Zeiss Vario-Sonnar T\*  
15 × (Optical), 30 ×, 180 × (Digital)  
Focal length: F1.8 ~ 2.6  
Filter diameter: 30 mm (1 3/16 in.)  
f=3.1 ~ 46.5 mm (1/8 ~ 1 7/8 in.)  
When converted to a 35 mm still camera  
For movies: 40 ~ 600 mm (1 5/8 ~ 23 5/8 in.) (16:9)  
For still images: 37 ~ 555 mm (1 1/2 ~ 21 7/8 in.) (4:3)  
Color temperature: [AUTO], [ONE PUSH], [INDOOR] (3 200 K), [OUTDOOR] (5 800 K)  
Minimum illumination: 5 lx (lux) ([AUTO SLW SHUTTR] [ON], Shutter speed 1/30 sec) 0 lx (lux) (during NightShot function)  
\* "Exif" is a file format for still images, established by the JEITA (Japan Electronics and Information Technology Industries Association). Files in this format can have additional information such as your camcorder's setting information at the time of recording.  
\*\* The unique pixel array of Sony's ClearVid CMOS sensor and image processing system (BIONZ) allows for still image resolution equivalent to the sizes described.

### Input/Output connectors

A/V Remote Connector: Component/video and audio output jack  
HDMI OUT jack: HDMI Type C mini connector  
USB jack: mini-B

### LCD screen

Image: 6.7 cm (2.7 type, aspect ratio 16:9)  
Total dot number: 211 200 (960 × 220)

### General

Power requirements: DC 6.8 V/7.2 V (battery pack)  
DC 8.4 V (AC Adaptor)  
Average power consumption: During camera recording with normal brightness:  
Hard disk:  
HD: 4.5 W SD: 3.7 W  
"Memory Stick PRO Duo":  
HD: 4.5 W SD: 3.7 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.): 81 × 76 × 129 mm (3 1/4 × 3 × 5 1/8 in.) (w/h/d) including the projecting parts  
81 × 76 × 134 mm (3 1/4 × 3 × 5 3/8 in.) (w/h/d) including the projecting parts, and the supplied rechargeable battery pack attached  
Mass (approx.): 480 g (1 lb) main unit only  
560 g (1 lb 3 oz) including the supplied rechargeable battery pack (HDR-SR10)  
: 490 g (1 lb) main unit only  
570 g (1 lb 3 oz) including the supplied rechargeable battery pack (HDR-SR10D)

### Handycam Station DCRA-C220

#### Input/Output connectors

A/V OUT jack: Component/video and audio output jack  
USB jack: mini-B

### AC Adaptor AC-L200/L200B

Power requirements: AC 100 V - 240 V, 50/60 Hz  
Current consumption: 0.35 - 0.18 A  
Power consumption: 18 W  
Output voltage: DC 8.4 V\*  
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.): 48 × 29 × 81 mm (1 15/16 × 1 3/16 × 3 1/4 in.) (w/h/d) excluding the projecting parts  
Mass (approx.): 170 g (6.0 oz) excluding the power cord (mains lead)  
\* See the label on the AC Adaptor for other specifications.

### Rechargeable battery pack NP-FH60

Maximum output voltage: DC 8.4 V  
Output voltage: DC 7.2 V  
Capacity: 7.2 Wh (1 000 mAh)  
Type: Li-ion

Design and specifications of your camcorder and accessories are subject to change without notice.



## 概略仕様

### システム

映像圧縮方式: MPEG 2 / JPEG (静止画)

音声圧縮方式: Dolby Digital2/5.1ch  
ドルビーデジタル5.1クリエイター搭載

映像信号: NTSCカラー、EIA標準方式

ハードディスク: 60 GB

容量は、1GBを10億バイトで計算した場合の数値です。また管理用ファイルなどを含むため、実際使用できる容量は若干減少する場合があります。

動画記録方式: MPEG2-PS

静止画記録方式: Exif Ver.2.2\*1

撮像素子: 3.6 mm (1/5 型) CMOSセンサー

記録画素数: 静止画時最大 400万画素相当\*2

(2 304×1 728) (4:3時)

総画素数: 約236万画素

動画時有効画素数 (16:9): 約149万画素

静止画時有効画素数 (16:9): 約149万画素

静止画時有効画素数 (4:3): 約199万画素

ズームレンズ: カール ツァイス バリオゾナーT\*

15倍 (光学)、30倍、180倍 (デジタル)

フィルター径 30 mm

F1.8~2.6

f=3.1~46.5 mm

35mmカメラ換算では

動画撮影時:

40~600 mm (16:9)

静止画撮影時:

37~555 mm (4:3)

色温度切り換え: [オート]、[ワンタッチ]、[屋内]

(3 200 K)、[屋外] (5 800 K)

最低被写体照度: 5 lx (ルクス) ([オートスロシャッタ]

[入]、[シャッタースピード] 1/30秒)

0 lx (ルクス) (NightShot時)

\*1 (社)電子情報技術産業協会 (JEITA)にて制定された、撮影情報などの付帯情報を追加することができる静止画用のファイルフォーマット。

\*2 ソニー独自のクリアビッドCMOSセンサーの画素配列と画像処理システムBIONZにより、静止画は表記の記録サイズを実現しています。

### 入/出力端子

A/Vリモート端子: 映像音声出力端子

USB端子: mini-B

### 液晶画面

画面サイズ: 6.7 cm (2.7型、アスペクト比16:9)

総ドット数: 211 200ドット

横960×縦220

### 電源部、その他

電源電圧: バッテリー端子入力 6.8 V/7.2 V

DC端子入力 8.4 V

### 消費電力:

ハードディスク: 3.6 W

メモリースティック PRO デュオ : 3.5 W

動作温度: 0 °C ~ +40 °C

保存温度: -20 °C ~ +60 °C

外形寸法: 81×76×129 mm

(突起部を含む)

(幅×高さ×奥行き)

81×76×134 mm

(突起部を含む、付属バッテリー装着状態)

(幅×高さ×奥行き)

本体質量: 約470 g (本体のみ)

撮影時総質量: 約550 g (付属バッテリー含む。)

### ハンディカムステーション

DCRA-C220

### 入/出力端子

A/V OUT端子: 映像音声出力端子

USB端子: mini-B

### ACアダプター AC-L200/L200B

電源: AC 100 V - 240 V、50/60 Hz

消費電力: 18 W

定格出力: DC 8.4 V \*

動作温度: 0 °C ~ +40 °C

保存温度: -20 °C ~ +60 °C

外形寸法: 約 48×29×81 mm (最大突起部をのぞく) (幅×高さ×奥行き)

質量: 約170 g (本体のみ)

\* その他の仕様については AC アダプターのラベルをご覧ください。

### リチャージャブルバッテリーパック

NP-FH60

最大電圧: DC 8.4 V

公称電圧: DC 7.2 V

容量: 7.2 Wh (1 000 mAh)

使用電池: Li-ion

本機やアクセサリーの仕様および外観は、改良のため予告なく変更することがありますが、ご了承ください。

## Model information table

Model		DCR-SR210E	DCR-SR220	DCR-SR220D	DCR-SR220E
Destination		AEP, UK	US, CND, E, KR, JE, J	US	NE, E, CH, HK, AUS, JE
Color system		PAL	NTSC	NTSC	PAL
Hard disk		60GB	60GB	120GB	60GB
HDMI OUT jack		×	×	×	×
Data copy	CAM → PC	○	○	○	○
	PC → CAM	×	○	○	○
Video compression format		MPEG2/JPEG (Still image)	MPEG2/JPEG (Still image)	MPEG2/JPEG (Still image)	MPEG2/JPEG (Still image)
FP-855 Flexible Board		×	×	×	×

Model		HDR-SR10	HDR-SR10D	HDR-SR10E
Destination		US, CND, E, KR, JE	US	AEP, UK, NE, E, CH, HK, AUS, JE
Color system		NTSC	NTSC	PAL
Hard disk		40GB	120GB	40GB
HDMI OUT jack		○	○	○
Data copy	CAM → PC	○	○	○
	PC → CAM	○	○	○
Video compression format		AVCHD (HD)/ MPEG2/JPEG (Still image)	AVCHD (HD)/ MPEG2/JPEG (Still image)	AVCHD (HD)/ MPEG2/JPEG (Still image)
FP-855 Flexible Board		○	○	○

- Abbreviation

- AUS : Australian model
- CH : Chinese model
- CND : Canadian model
- HK : Hong Kong model
- J : Japanese model
- JE : Tourist model
- KR : Korea model
- NE : North European model

**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 IDENTIFIÉS 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.



## 注意

電池の交換は、正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

## サービス、点検時には次のことにご注意下さい。

## 1. 注意事項をお守りください。

サービスのとき特に注意を要する箇所については、キャビネット、シャーシ、部品などにラベルや捺印で注意事項を表示しています。これらの注意書き及び取扱説明書等の注意事項を必ずお守り下さい。

## 2. 指定部品のご使用を

セットの部品は難燃性や耐電圧など安全上の特性を持ったものとなっています。従って交換部品は、使用されていたものと同じ特性の部品を使用して下さい。特に回路図、部品表に△印で指定されている安全上重要な部品は必ず指定のものをご使用下さい。

## 3. 部品の取付けや配線の引きまわしはもとどおりに

安全上、チューブやテープなどの絶縁材料を使用したり、プリント基板から浮かして取付けた部品があります。また内部配線は引きまわしやクランパによって発熱部品や高圧部品に接近しないよう配慮されていますので、これらは必ずもとどおりにして下さい。

## 4. サービス後は安全点検を

サービスのために取外したネジ、部品、配線がもとどおりにになっているか、またサービスした箇所の周辺を劣化させてしまったところがないかなどを点検し、安全性が確保されていることを確認して下さい。

## 5. チップ部品交換時の注意


- 取外した部品は再使用しないで下さい。
- タンタルコンデンサのマイナス側は熱に弱いため交換時は注意して下さい。

## 6. フレキシブルプリント基板の取扱いについて

- コテ先温度を270℃前後にして行なって下さい。
- 同一パターンに何度もコテ先を当てないで下さい。(3回以内)
- パターンに力が加わらないよう注意して下さい。

## 7. 無鉛半田について

無鉛半田を使用している基板には、無鉛 (Lead Free) を意味するレッドフリーマークがプリントされています。(注意：基板サイズによっては、無鉛半田を使用してもレッドフリーマークがプリントされていないものがあります)

 : レッドフリーマーク

無鉛半田には、以下の特性があります。

- 融点が従来の半田よりも約40℃高い。  
従来の半田こてをそのまま使用することは可能ですが、少し長めにこてを当てる必要があります。  
温度調節機能のついた半田こてを使用する場合、約350℃に設定して下さい。  
注意：半田こてを長く当てすぎると、基板のパターン（銅箔）がはがれてしまうことがありますので、注意して下さい。
- 粘性が強い  
従来の半田よりも粘性が強いため、IC端子などが半田ブリッジしないように注意して下さい。
- 従来の半田と混ぜて使用可能  
無鉛半田には無鉛半田を追加するのが最適ですが、従来の半田を追加しても構いません。

## 1-1. 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 method is available to prevent this.

**Method:**

Use the AC power adaptor (AC-L200/L200B).

## 1-2. SELF-DIAGNOSIS FUNCTION

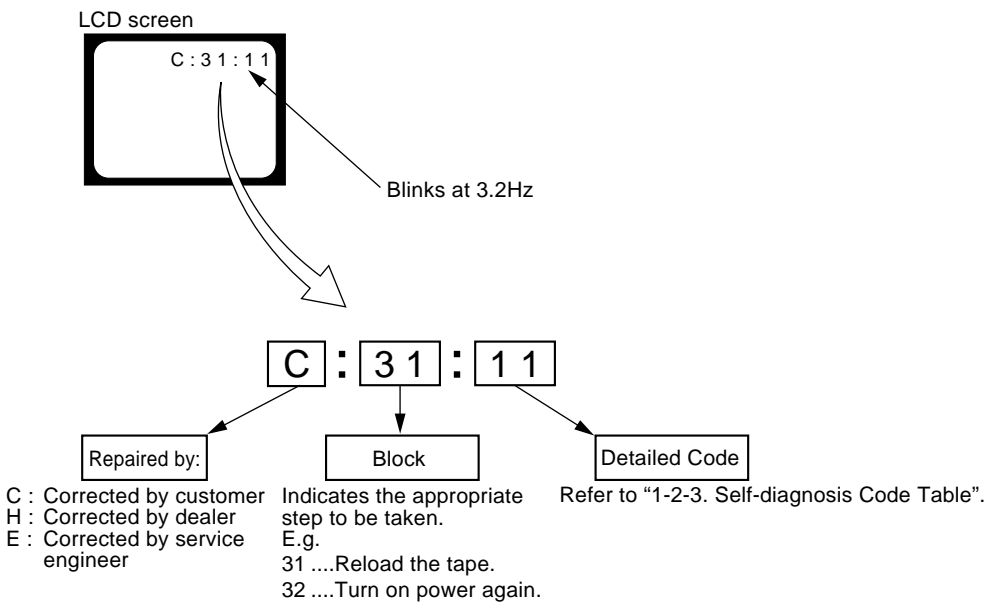
### 1-2-1. Self-diagnosis Function

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

### 1-2-2. Self-diagnosis Display

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



## 1-2-3. Self-diagnosis Code Table

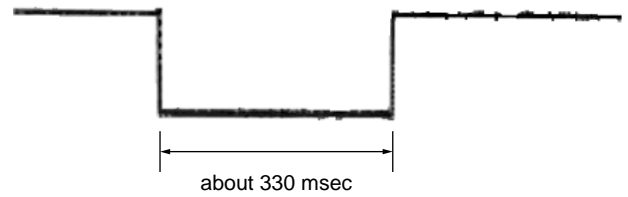
Repaired by:	Self-diagnosis Code		Symptom/State	Correction
	Block Function	Detailed Code		
C	0 4	0 0	Non-standard battery is used.	Use the InfoLITHIUM battery.
C	1 3	0 1	“Memory Stick Duo” is unformatted. “Memory Stick Duo” is broken.	Format the “Memory Stick Duo”. Insert a new “Memory Stick Duo”.
C	1 3	0 2	Disc access error	Remove the power source. Reconnect it again and operate your camcorder again
C	3 2	6 0	Difficult to adjust focus (Cannot initialize focus)	Retry turn the power on by the power switch. If it does not recover, check the focus MR sensor of lens block (pin ④⑤, ④⑥ of CN5101 on the LD-230 board). If it is OK, check the focus motor drive IC (IC5201 on the LD-230 board).
E	2 0	0 0	Flash memory data are rewritten.	Make flash memory data correct value. (Note 1)
E	3 1	0 0	Drive fault	Inspect or replacement of the hard disk drive.
E	6 1	1 0	Zoom operations fault (Cannot initialize zoom lens.)	Inspect the lens block zoom MR sensor (pin ④①, ④② of CN5101 on the LD-230 board) when zooming is performed when the zoom lever is operated, and the zoom motor drive circuit (IC5201 on the LD-230 board) when zooming is not performed.
E	6 1	1 1	The abnormalities in initialization of the focus lens and the abnormalities in initialization of the zoom lens occurred simultaneously.	Check both C: 32: 60 and E: 61: 10 of the self-diagnosis code.
E	6 2	0 0	Handshake correction function does not work well. (With PITCH angular velocity sensor output stopped.)	Inspect PITCH angular velocity sensors (SE9501 on the FR-285 board) peripheral circuits.
E	6 2	0 1	Handshake correction function does not work well. (With YAW angular velocity sensor output stopped.)	Inspect YAW angular velocity sensors (SE9502 on the FR-285 board) peripheral circuits.
E	6 2	0 2	Abnormality of IC for steadyspot.	Refer to [1-3-1. E : 62 : 02 (Abnormality of IC for Steadyspot) Occurred].
E	6 2	0 3	IC for steadyspot and micro controller communication abnormality among.	Inspect the steadyspot circuit (IC5501 on the LD-230 board).
E	6 2	1 0	Shift lens initializing failure.	Replacement of lens block. If an error occurs again, replace the LD-230 board. (Note 2)
E	6 2	1 1	Shift lens overheating (Pitch)	Refer to [1-3-2. E : 62 : 11 (Shift Lens Overheating (Pitch)) Occurred].
E	6 2	1 2	Shift lens overheating (Yaw)	Refer to [1-3-3. E : 62 : 12 (Shift Lens Overheating (Yaw)) Occurred].
E	6 2	2 0	Abnormality of thermistor.	Refer to [1-3-4. E : 62 : 20 (Abnormality of Thermistor) Occurred].
E	9 1	0 1	Abnormality when flash is being charged.	Checking of flash unit or replacement of flash unit.
E	9 4	0 0	Fault of writing or erasing the flash memory	Inspect the flash memory (IC2101 on the VC-516 board).

Note 1 :Refer to Service Manual, ADJ (“1-3. DESTINATION DATA WRITE”).

Note 2 : When the lens block was replaced, execute the necessary adjustment items referring to Service Manual, ADJ.

After the adjustment, make sure with the STEADYSHOT turned ON that the steadyspot functions appropriately in the handheld operation.

### 1-3. METHOD OF COPING WITH SHIFT LENS ERROR

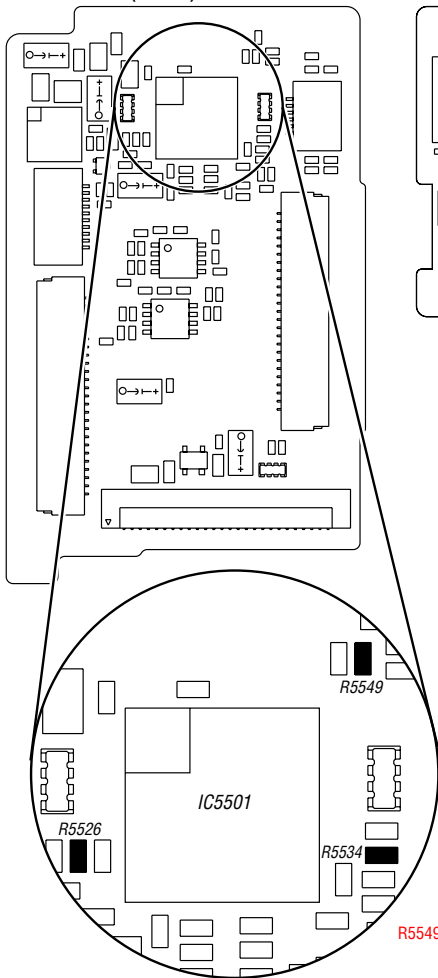


Note: The length of low section will vary a little depending on the conditions.

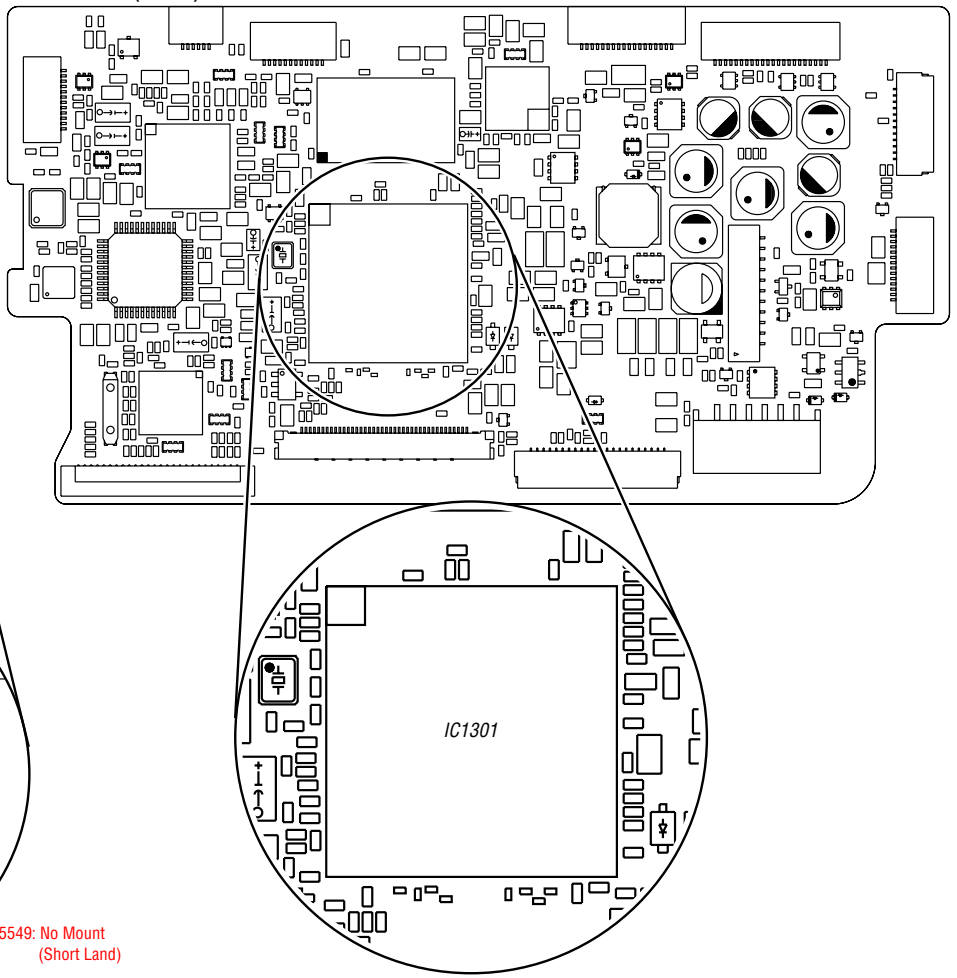
**Fig. 2**

**Change in output voltage of R5549 on the LD-230 board**

**LD-230 BOARD (SIDE A)**



**VC-516 BOARD (SIDE A)**



**Fig. 1**

**Measurement points on the LD-230 board and the VC-516 board**

#### 1-3-1. E : 62 : 02 [Abnormality of IC for Steadyspot] Occurred

Order	Procedure
1	Turn the power OFF.
2	While measuring with an oscilloscope the output voltage of R5549 in the periphery of IC5501 on the LD-230 board, turn the power ON to check that the output voltage immediately after the power on change as shown in Fig. 2.
3	If the output voltage change as shown in Fig. 2, replace the lens block (Note). If it does not change as shown in Fig. 2, inspect the camera control circuit (IC1301 of VC-516 board) periphery.

Note: When the lens block was replaced, execute a necessary adjustment items referring to Service Manual, ADJ.  
After the adjustment, make sure with the STEADYSHOT turned ON that the steadyspot functions appropriately in the handheld operation.

**1-3-2. E : 62 : 11 [Shift Lens Overheating (Pitch)] Occurred**

Connect by the SeusEX and perform the following process.

Order	Block	Page	Address	Data	Procedure
1	11	80	7430	01	Write the data. (After it starts, set it before caution is displayed.)
2	11	8E	F946	F0	Write the data.
3	11	8E	F948	01	Write the data. (Note 1)
4	11	8E	F948	00	Write the data.
5	11	8E	F946	10	Write the data.
6	11	8E	F948	01	Write the data. (Note 1)
7	11	8E	F948	00	Write the data.
8	11	80	7430	00	Write the data.
9					Check if the shift lens moves while setting the order 2 to 7. If the shift lens does not move, replace the lens block (Note 2). When the shift lens moved, proceed to the order 10.
10					While setting the order 2 to 7, measure with an oscilloscope the output voltage of R5526 in the periphery of IC5501 on the LD-230 board to check the output voltage varies.
11					If the output voltage does not vary, replace the lens block (Note 2). When the output voltage varied, proceed to the order 12.
12					Turn the power OFF.
13					While measuring with an oscilloscope the output voltage of R5549 in the periphery of IC5501 on the LD-230 board, turn the power ON to check that the output voltage immediately after the power on change as shown in Fig. 2.
14					If the output voltage change as shown in Fig. 2, replace the lens block (Note 2). If it does not change as shown in Fig. 2, inspect the camera control circuit (IC1301 of VC-516 board) periphery.

Note 1: Finish this operation within 10 seconds. If it is likely to take more than 10 seconds, set block: 11, page: 8E, address: F948, data: 00, and then retry.

Note 2: When the lens block was replaced, execute the necessary adjustment items referring to Service Manual, ADJ. After the adjustment, make sure with the STEADYSHOT turned ON that the steadyspot functions appropriately in the handheld operation.

**1-3-3. E : 62 : 12 [Shift Lens Overheating (Yaw)] Occurred**

Connect by the SeusEX and perform the following process.

Order	Block	Page	Address	Data	Procedure
1	11	80	7430	01	Write the data. (After it starts, set it before caution is displayed.)
2	11	8E	F947	F0	Write the data.
3	11	8E	F949	01	Write the data. (Note 1)
4	11	8E	F949	00	Write the data.
5	11	8E	F947	10	Write the data.
6	11	8E	F949	01	Write the data. (Note 1)
7	11	8E	F949	00	Write the data.
8	11	80	7430	00	Write the data.
9					Check if the shift lens moves while setting the order 2 to 7. If the shift lens does not move, replace the lens block (Note 2). When the shift lens moved, proceed to the order 10.
10					While setting the order 2 to 7, measure with an oscilloscope the output voltage of R5534 in the periphery of IC5501 on the LD-230 board to check the output voltage varies.
11					If the output voltage does not vary, replace the lens block (Note 2). When the output voltage varied, proceed to the order 12.
12					Turn the power OFF.
13					While measuring with an oscilloscope the output voltage of R5549 in the periphery of IC5501 on the LD-230 board, turn the power ON to check that the output voltage immediately after the power on change as shown in Fig. 2.
14					If the output voltage change as shown in Fig. 2, replace the lens block (Note 2). If it does not change as shown in Fig. 2, inspect the camera control circuit (IC1301 of VC-516 board) periphery.

Note 1: Finish this operation within 10 seconds. If it is likely to take more than 10 seconds, set block: 11, page: 8E, address: F949, data: 00, and then retry.

Note 2: When the lens block was replaced, execute the necessary adjustment items referring to Service Manual, ADJ. After the adjustment, make sure with the STEADYSHOT turned ON that the steadyspot functions appropriately in the handheld operation.

**1-3-4. E : 62 : 20 [Abnormality of Thermistor] Occurred**

Order	Procedure
1	Turn the power ON.
2	Confirm the connections of flexible flat cables and connectors between the lens block and LD-230 board, LD-230 board and VC-516 board.
3	In case of no malfunction of connections, replace the lens block with new one. (Note) When the error has occurred in spite of the lens replacement, replace LD-230 board with new one.

Note: When the lens block was replaced, execute the necessary adjustment items referring to Service Manual, ADJ. After the adjustment, make sure with the STEADYSHOT turned ON that the steadyspot functions appropriately in the handheld operation.

## 1-4. PRECAUTION ON REPLACING THE VC-516 BOARD

### DESTINATION DATA

When you replace to the repairing board, the written destination data of repairing board also might be changed to original setting. Refer to Service Manual ADJ, and perform "DESTINATION DATA WRITE".

### USB SERIAL No.

The set is shipped with a unique ID (USB Serial No.) written in it.

This ID has not been written in a new board for service, and therefore it must be entered after the board replacement.

Refer to Service Manual ADJ, and perform "USB SERIAL No. INPUT".

## 1-1. 修理時の電源供給について

本機では、安定化電源（8.4Vdc）からバッテリー端子に電源を供給した場合、約10秒後にシャットオフし、動作しなくなります。これを避けるため、下記の方法を用いてください。

方法：

DC入力端子を使用する。（ACアダプタ（AC-L200/L200Bなど）を使用する。）

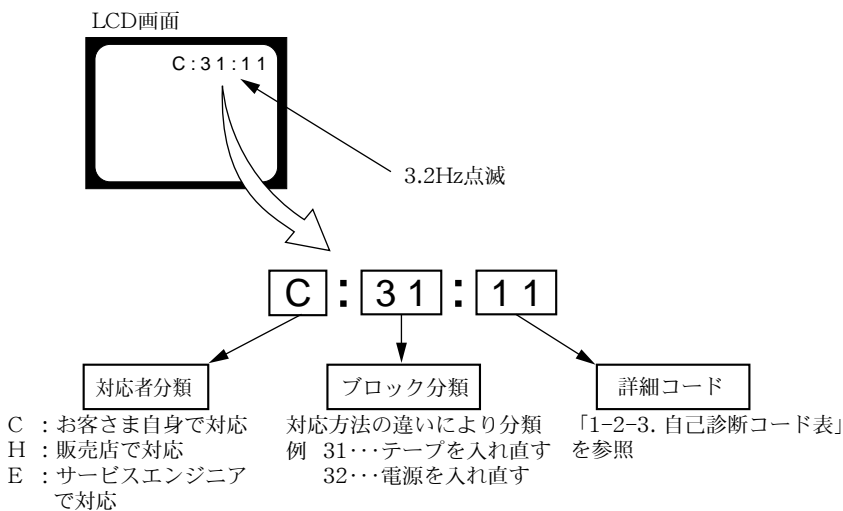
## 1-2. 自己診断機能

### 1-2-1. 自己診断機能について

本機の動作に不具合が生じたとき、自己診断機能が働き、LCD画面に、どう処置したらよいか判断できる表示を行います。「自己診断表示」と「サービスモード表示」の2つの表示があります。自己診断機能については取扱説明書にも掲載されています。

### 1-2-2. 自己診断表示

本機の動作に不具合が生じたとき、LCD画面のカウンタ表示部分がアルファベットと数字の4桁表示になり、3.2Hzで点滅します。この5文字の表示によって対応者分類および不具合の生じたブロックの分類、不具合の詳細コードを示します。





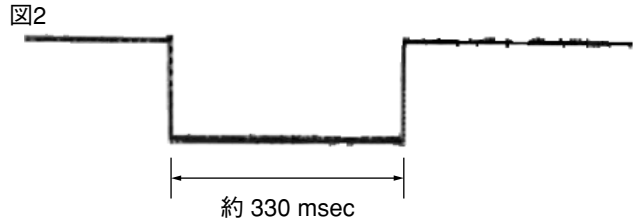
## 1-2-3. 自己診断コード表

自己診断コード			症状/状態	対応/方法
対応者	ブロック機能	詳細コード		
C	0 4	0 0	標準以外のバッテリーを使用している	インフォリチウムバッテリーを使用する。
C	1 3	0 1	フォーマットしていない“メモリーステック デュオ”を入れた“メモリーステック デュオ”が壊れている	“メモリーステック デュオ”をフォーマットする。 新しい“メモリーステック デュオ”に交換する。
C	1 3	0 2	ディスクアクセスエラー	電源を外し、再度入れ直してから操作する。
C	3 2	6 0	フォーカスが合いにくい (フォーカスの初期化ができない)	操作スイッチの電源を入れ直す。 復帰しない場合、レンズブロックのフォーカスMRセンサ (LD-230基板CN5101 ㉟, ㊱) を点検する。異常なければフォーカスマータ駆動回路 (LD-230基板IC5201) を点検する。
E	2 0	0 0	フラッシュメモリが書き換えられている	フラッシュメモリのデータを元の値に戻す。(注意1)
E	3 1	0 0	ドライブ不良	ハードディスクドライブを点検または交換する。
E	6 1	1 0	ズーム動作の異常 (ズームレンズの初期化ができない)	ズームレバーを操作したときにズーム動作をすれば、レンズブロックのズームMRセンサ (LD-230基板CN5101 ㉟, ㊱ピン) を点検する。ズーム動作をしなければズームモータ駆動回路 (LD-230基板IC5201) を点検する。
E	6 1	1 1	フォーカス, ズーム異常	自己診断コードC: 32: 60とE: 61: 10の両方を点検する。
E	6 2	0 0	手振れ補正が効きにくい (PITCH角速度センサ出力張り付き)	PITCH角速度センサ (FR-285基板SE9501) 周辺回路を点検する。
E	6 2	0 1	手振れ補正が効きにくい (YAW角速度センサ出力張り付き)	YAW角速度センサ (FR-285基板SE9502) 周辺回路を点検する。
E	6 2	0 2	手振れ補正用ICの異常	[1-3-1. E:62:02(手振れ補正用ICの異常)が出た場合]を参照。
E	6 2	0 3	手振れ補正用ICとマイクロコントローラーとの通信異常	手振れ補正回路 (LD-230基板IC5501) を点検。
E	6 2	1 0	シフトレンズ初期化異常	レンズブロックを交換する。エラーが再度発生する場合は、LD-230基板を交換する。(注意2)
E	6 2	1 1	シフトレンズオーバーヒート (PITCH)	[1-3-2. E:62:11(シフトレンズオーバーヒート (PITCH))が出た場合]を参照。
E	6 2	1 2	シフトレンズオーバーヒート (YAW)	[1-3-3. E:62:12(シフトレンズオーバーヒート (YAW))が出た場合]を参照。
E	6 2	2 0	サーミスタの異常	[1-3-4. E:62:20(サーミスタの異常)が出た場合]を参照。
E	9 1	0 1	フラッシュの充電異常	フラッシュユニットの点検または交換をする。
E	9 4	0 0	フラッシュメモリの書込み/消去動作不良	フラッシュメモリ (VC-516基板IC2101) を点検する。

注意1: ADJ編, 「1-3. DESTINATION DATA WRITE」を参照してください。

注意2: レンズブロックを交換した場合は、ADJ編を参照して必要な調整項目を実施すること。調整後は手振れ補正ONの状態にして、手持ち動作で手振れ補正が適切に動作していることを確認する。

1-3. シフトレンズエラーの対処方法



注意：Lowの区間の長さは場合によって多少異なる

図2. LD-230基板R5549の出力電圧の変化

図1

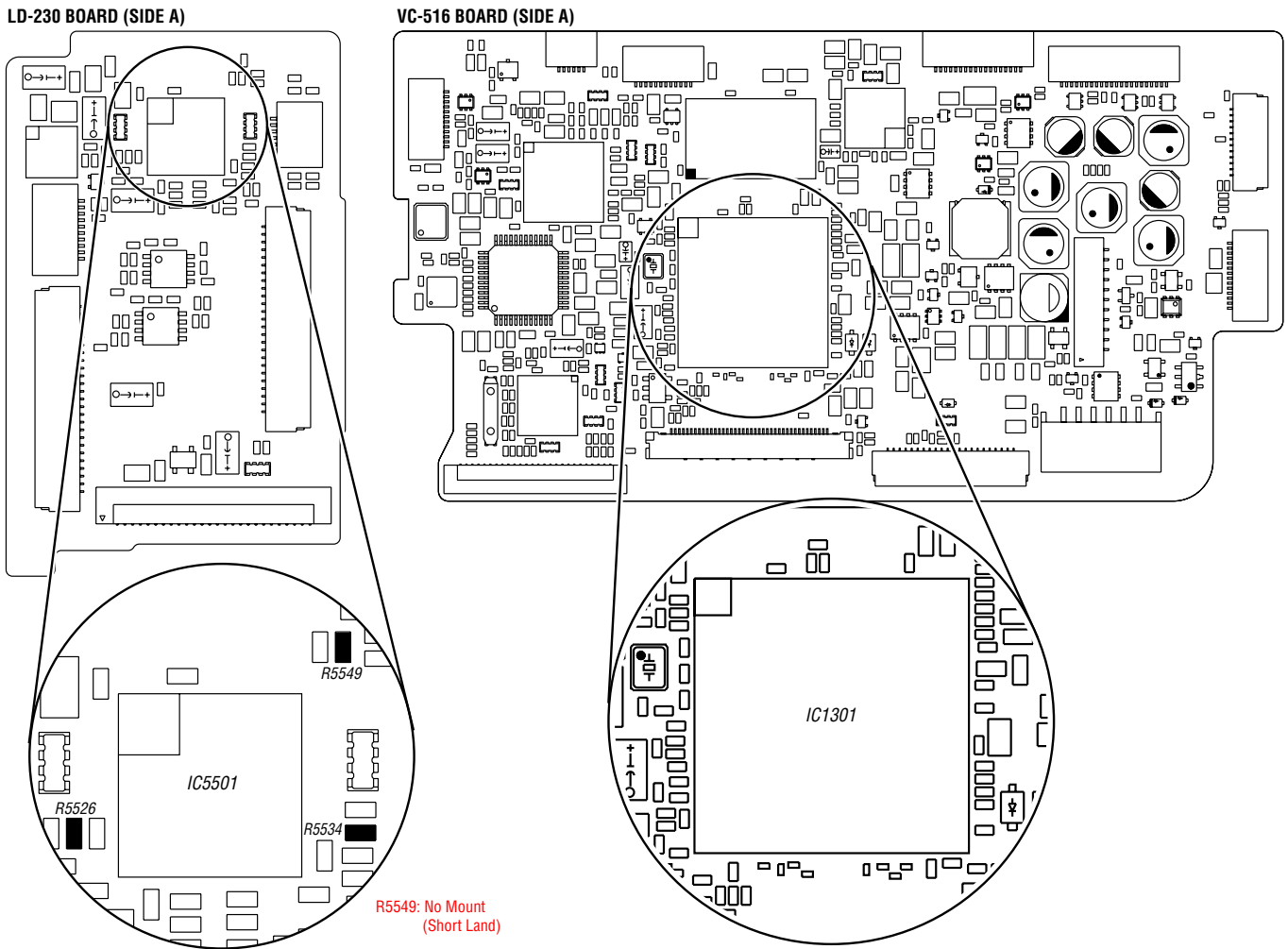


図1.LD-230基板, VC-516基板測定箇所

1-3-1. E : 62 : 02(手振れ補正用ICの異常)が出た場合

順序	作業内容
1	電源を切る。
2	LD-230基板IC5501の周辺にあるR5549の出力電圧をオシロスコープで測定しながら電源を入れる。電源投入直後の出力電圧が図2の様に变化することを確認する。
3	出力電圧が図2の様に变化するときはレンズブロックを交換する(注意)。図2の様に变化しないときはカメラコントロール回路(VC-516基板IC1301)周辺を点検する。

注意：レンズブロックを交換した場合は、ADJ編を参照して必要な調整項目を実施すること。調整後は手振れ補正ONの状態にして、手持ち動作で手振れ補正が適切に動作していることを確認する。

1-3-2. E : 62 : 11 (シフトレンズオーバーヒート (PITCH)) が出た場合  
SeusEXで接続し、次の手順を行う。

順序	ブロック	ページ	アドレス	データ	作業内容
1	11	80	7430	01	データを書き込む。(セット起動後、コーションが表示される前に設定する事。)
2	11	8E	F946	F0	データを書き込む。
3	11	8E	F948	01	データを書き込む。(注意1)
4	11	8E	F948	00	データを書き込む。
5	11	8E	F946	10	データを書き込む。
6	11	8E	F948	01	データを書き込む。(注意1)
7	11	8E	F948	00	データを書き込む。
8	11	80	7430	00	データを書き込む。
9					順序2~7を設定している間にシフトレンズが動いたか確認する。もしシフトレンズが動かない場合はレンズブロックを交換する(注意2)。動く場合は順序10に進む。
10					LD-230基板IC5501の周辺にあるR5526の出力電圧をオシロスコープで測定しながら、順序2~7を設定したときに出力電圧が変化することを確認する。
11					出力電圧が変化しないときはレンズブロックを交換する(注意2)。変化するときは順序12に進む。
12					電源を切る。
13					LD-230基板IC5501の周辺にあるR5549の出力電圧をオシロスコープで測定しながら電源を入れる。電源投入直後の出力電圧が図2の様に変化することを確認する。
14					出力電圧が図2の様に変化するときはレンズブロックを交換する(注意2)。図2の様に変化しないときはカメラコントロール回路(VC-516基板IC1301)周辺を点検する。

注意1：この操作は10秒以内に終了してください。もし10秒以上経過しそうな場合は、ブロック：11、ページ：8E、アドレス：F948、データ：00 に設定しなおしてから再度実行してください。

注意2：レンズブロックを交換した場合は、ADJ編を参照して必要な調整項目を実施すること。調整後は手振れ補正ONの状態にして、手持ち動作で手振れ補正が適切に動作していることを確認する。

1-3-3. E : 62 : 12(シフトレンズオーバーヒート(YAW))が出た場合  
SeusEXで接続し、次の手順を行う。

順序	ブロック	ページ	アドレス	データ	作業内容
1	11	80	7430	01	データを書き込む。(セット起動後、コーションが表示される前に設定する事。)
2	11	8E	F947	F0	データを書き込む。
3	11	8E	F949	01	データを書き込む。(注意1)
4	11	8E	F949	00	データを書き込む。
5	11	8E	F947	10	データを書き込む。
6	11	8E	F949	01	データを書き込む。(注意1)
7	11	8E	F949	00	データを書き込む。
8	11	80	7430	00	データを書き込む。
9					順序2~7を設定している間にシフトレンズが動いたか確認する。もしシフトレンズが動かない場合はレンズブロックを交換する(注意2)。動く場合は順序10に進む。
10					LD-230基板IC5501の周辺にあるR5534の出力電圧をオシロスコープで測定しながら、順序2~7を設定したときに出力電圧が変化することを確認する。
11					出力電圧が変化しないときはレンズブロックを交換する(注意2)。変化するときは順序12に進む。
12					電源を切る。
13					LD-230基板IC5501の周辺にあるR5549の出力電圧をオシロスコープで測定しながら電源を入れる。電源投入直後の出力電圧が図2の様に変化することを確認する。
					出力電圧が図2の様に変化するときはレンズブロックを交換する(注意2)。図2の様に変化しないときはカメラコントロール回路(VC-516基板IC1301)周辺を点検する。

注意1 : この操作は10秒以内に終了してください。もし10秒以上経過しそうな場合は、ブロック : 11, ページ : 8E, アドレス : F949, データ : 00 に設定しなおしてから再度実行してください。

注意2 : レンズブロックを交換した場合は、ADJ編を参照して必要な調整項目を実施すること。調整後は手振れ補正ONの状態にして、手持ち動作で手振れ補正が適切に動作していることを確認する。

1-3-4. E : 62 : 20(サーミスタの異常)が出た場合

順序	作業内容
1	電源を入れる。
2	レンズブロックとLD-230基板間、LD-230基板とVC-516基板間の各フレキシブルフラットケーブルとコネクタの接続を確認する。
3	接続に異常がなければレンズブロックを交換する。(注意) 交換してもエラーが発生する場合はLD-230基板を交換する。

注意 : レンズブロックを交換した場合は、ADJ編を参照して必要な調整項目を実施すること。調整後は手振れ補正ONの状態にして、手持ち動作で手振れ補正が適切に動作していることを確認する。

## 1-4. VC-516基板交換時の注意

### 仕向けデータ

補修用基板と交換する時、補修用基板に書かれている仕向けデータは元の設定と違っている場合があります。ADJ編を参照して、「DESTINATION DATA WRITE」を行ってください。

### USBシリアルNo.

セットは、1台毎に異なる固有のID（USB Serial No.）を書き込んだ後、出荷されています。新品の補修用基板には、このIDが書き込まれていないので、基板交換後にIDを入力する必要があります。ADJ編を参照して、「USB SERIAL No. INPUT」を行ってください。

**(ENGLISH)**

**1-6. PRECAUTION ON REPLACING THE CABINET (G(700)) ASSY (DCR-SR210E)**

The model display adopts the laser printing method. Therefore, the cabinet (G(700)) assy for replacement differs depending on the destination.

As similar displays are provided, choose the suitable one for order.

**Note1: After replacing the cabinet (G(700)) assy, the serial number for it will be changed to the one exclusive for service use.**

**Inform a customer of the serial number change and change the serial number in the repair data.**

**(JAPANESE)**

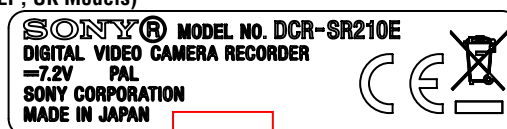
**1-6. キャビネット(G(700))組立交換時の注意 (DCR-SR210E)**

機種が表示部はレーザー印字方式を採用しております。

この為、交換用のキャビネット(G(700))組立は仕向けにより異なります。類似の表示もありますので、該当するものを選んで注文して下さい。

**注意1: キャビネット(G(700))組立交換後はシリアルナンバーがサービス専用のシリアルナンバーに変更されます。お客様への案内と修理データのシリアルナンバー変更を行ってください。**

DCR-SR210E  
(AEP, UK Models)



Part No.	Description	Serial No.
A-1517-464-A	CABINET(G(700))(SR210ECEH)	

## (ENGLISH)

### 1-7. PRECAUTION ON REPLACING THE CABINET (G(700)) ASSY (DCR-SR220)

The model display adopts the laser printing method. Therefore, the cabinet (G(700)) assy for replacement differs depending on the destination.

As similar displays are provided, choose the suitable one for order.

**Note1:** After replacing the cabinet (G(700)) assy, the serial number for it will be changed to the one exclusive for service use.

Inform a customer of the serial number change and change the serial number in the repair data.

**Note 2:** When replacing the cabinet (G(700)) assy for US, affix the "Manufacturing year" label and the "Factory" label on the specified location as shown in the figure.

The replacement caution label and inset (how to affix) are supplied together with the cabinet (G(700)) assy.

**Note 3:** When replacing the cabinet (G(700)) assy for Korea, affix the "Manufacturing year" label on the specified location as shown in the figure.

The replacement caution label and inset (how to affix) are supplied together with the cabinet (G(700)) assy.

## (JAPANESE)

### 1-7. キャビネット(G(700))組立交換時の注意 (DCR-SR220)

機種が表示部はレーザー印字方式を採用しております。

この為、交換用のキャビネット(G(700))組立は仕向けにより異なります。類似の表示もありますので、該当するものを選んで注文して下さい。

**注意1:** キャビネット(G(700))組立交換後はシリアルナンバーがサービス専用のシリアルナンバーに変更されます。お客様への案内と修理データのシリアルナンバー変更を行ってください。

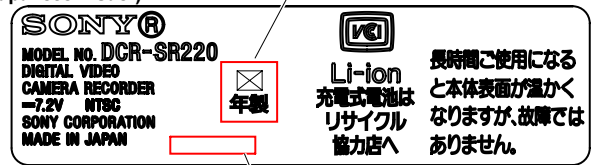
**注意2:** US仕向けキャビネット(G(700))組立を交換した際は「製造年月」を表すラベルと、「製造所」を表すラベルを図の指定位置に貼り付けてください。

なお、キャビネット(G(700))組立には時期表示ラベル、投げ込み(ラベル貼り方)がセットで供給されます。

**注意3:** Korean仕向けキャビネット(G(700))組立を交換した際は、「製造年月」を表すラベルを図の指定位置に貼り付けてください。

なお、キャビネット(G(700))組立には時期表示ラベル、投げ込み(ラベル貼り方)がセットで供給されます。

#### DCR-SR220 (Japanese Model)



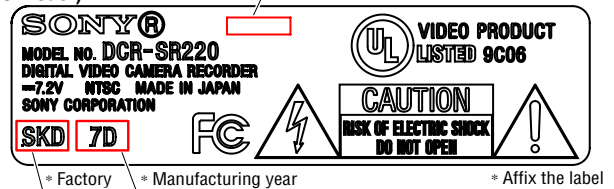
Part No. Description  
A-1517-443-A CABINET(G(700))(SR220J1)

#### DCR-SR220 (Tourist Model)



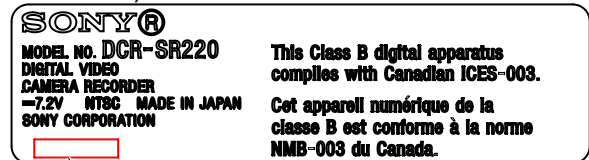
Part No. Description  
A-1517-445-A CABINET(G(700))(SR220JE3)

#### DCR-SR220 (US Model)



Part No. Description  
A-1517-446-A CABINET(G(700))(SR220U2)

#### DCR-SR220 (Canadian Model)



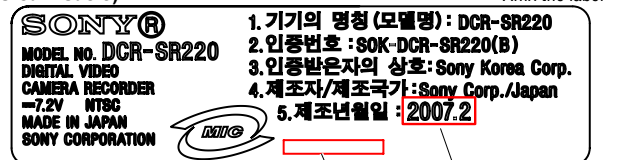
Serial No.  
Part No. Description  
A-1517-447-A CABINET(G(700))(SR220CA2)

#### DCR-SR220 (E Model)



Serial No.  
Part No. Description  
A-1517-448-A CABINET(G(700))(SR220E23)

#### DCR-SR220 (Korea Models)



Serial No. \* Manufacturing year  
Part No. Description  
A-1517-449-A CABINET(G(700))(SR220KR2)

## (ENGLISH)

### 1-8. PRECAUTION ON REPLACING THE CABINET (G(700)) ASSY (DCR-SR220D)

The model display adopts the laser printing method. Therefore, the cabinet (G(700)) assy for replacement differs depending on the destination.

As similar displays are provided, choose the suitable one for order.

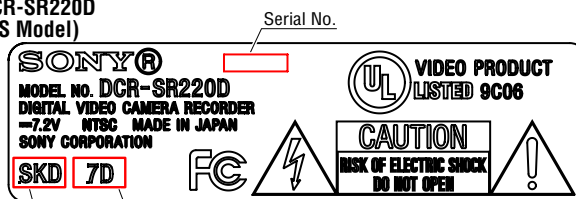
**Note1:** After replacing the cabinet (G(700)) assy, the serial number for it will be changed to the one exclusive for service use.

Inform a customer of the serial number change and change the serial number in the repair data.

**Note 2:** When replacing the cabinet (G(700)) assy for US, affix the "Manufacturing year" label and the "Factory" label on the specified location as shown in the figure.

The replacement caution label and inset (how to affix) are supplied together with the cabinet (G(700)) assy.

DCR-SR220D  
(US Model)



Part No.	Description
A-1517-450-A	CABINET(G(700))(SR220DU2)

## (JAPANESE)

### 1-8. キャビネット(G(700))組立交換時の注意 (DCR-SR220D)

機種が表示部はレーザー印字方式を採用しております。

この為、交換用のキャビネット(G(700))組立は仕向けにより異なります。類似の表示もありますので、該当するものを選んで注文して下さい。

**注意1:** キャビネット(G(700))組立交換後はシリアルナンバーがサービス専用のシリアルナンバーに変更されます。お客様への案内と修理データのシリアルナンバー変更を行ってください。

**注意2:** US仕向けキャビネット(G(700))組立を交換した際は「製造年月」を表すラベルと、「製造所」を表すラベルを図の指定位置に貼り付けてください。

なお、キャビネット(G(700))組立には時期表示ラベル、投げ込み(ラベル貼り方)がセットで供給されます。



## (ENGLISH)

### 1-9. PRECAUTION ON REPLACING THE CABINET (G(700)) ASSY (DCR-SR220E)

The model display adopts the laser printing method. Therefore, the cabinet (G(700)) assy for replacement differs depending on the destination.

As similar displays are provided, choose the suitable one for order.

**Note1:** After replacing the cabinet (G(700)) assy, the serial number for it will be changed to the one exclusive for service use.

Inform a customer of the serial number change and change the serial number in the repair data.

## (JAPANESE)

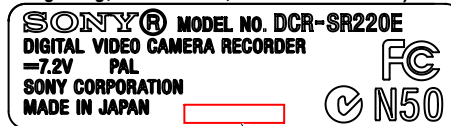
### 1-9. キャビネット(G(700))組立交換時の注意 (DCR-SR220E)

機種が表示部はレーザー印字方式を採用しております。

この為、交換用のキャビネット(G(700))組立は仕向けにより異なります。類似の表示もありますので、該当するものを選んで注文して下さい。

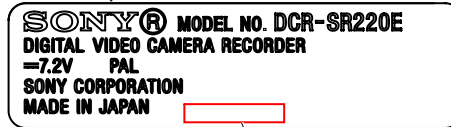
**注意1:** キャビネット(G(700))組立交換後はシリアルナンバーがサービス専用のシリアルナンバーに変更されます。お客様への案内と修理データのシリアルナンバー変更を行ってください。

#### DCR-SR220E (E, Hong Kong, Vietnamese, Austrarian Models)



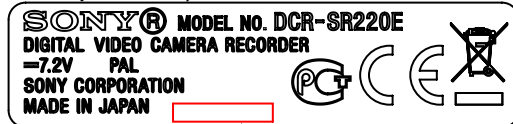
Part No.	Description	Serial No.
A-1517-459-A	CABINET(G(700))(SR220EE34)	

#### DCR-SR220E (Tourist Model)



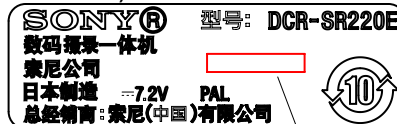
Part No.	Description	Serial No.
A-1517-460-A	CABINET(G(700))(SR220EJE3)	

#### DCR-SR220E (North European Model)



Part No.	Description	Serial No.
A-1517-461-A	CABINET(G(700))(SR220ECEL)	

#### DCR-SR220E (Chinese Model)



Part No.	Description	Serial No.
A-1517-462-A	CABINET(G(700))(SR220ECN2)	

## (ENGLISH)

### 1-10. PRECAUTION ON REPLACING THE CABINET (G(700)) ASSY (HDR-SR10)

The model display adopts the laser printing method. Therefore, the cabinet (G(700)) assy for replacement differs depending on the destination.

As similar displays are provided, choose the suitable one for order.

**Note1:** After replacing the cabinet (G(700)) assy, the serial number for it will be changed to the one exclusive for service use.

Inform a customer of the serial number change and change the serial number in the repair data.

**Note 2:** When replacing the cabinet (G(700)) assy for US, affix the "Manufacturing year" label and the "Factory" label on the specified location as shown in the figure.

The replacement caution label and inset (how to affix) are supplied together with the cabinet (G(700)) assy.

**Note 3:** When replacing the cabinet (G(700)) assy for Korea, affix the "Manufacturing year" label on the specified location as shown in the figure.

The replacement caution label and inset (how to affix) are supplied together with the cabinet (G(700)) assy.

## (JAPANESE)

### 1-10. キャビネット(G(700))組立交換時の注意 (HDR-SR10)

機種が表示部はレーザー印字方式を採用しております。

この為、交換用のキャビネット(G(700))組立は仕向けにより異なります。類似の表示もありますので、該当するものを選んで注文して下さい。

**注意1:** キャビネット(G(700))組立交換後はシリアルナンバーがサービス専用のシリアルナンバーに変更されます。お客様への案内と修理データのシリアルナンバー変更を行ってください。

**注意2:** US仕向けキャビネット(G(700))組立を交換した際は「製造年月」を表すラベルと、「製造所」を表すラベルを図の指定位置に貼り付けてください。

なお、キャビネット(G(700))組立には時期表示ラベル、投げ込み(ラベル貼り方)がセットで供給されます。

**注意3:** Korean仕向けキャビネット(G(700))組立を交換した際は、「製造年月」を表すラベルを図の指定位置に貼り付けてください。

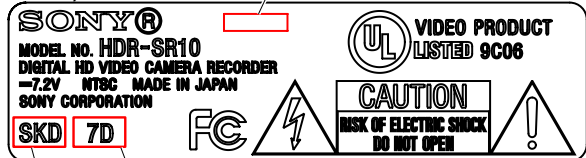
なお、キャビネット(G(700))組立には時期表示ラベル、投げ込み(ラベル貼り方)がセットで供給されます。

#### HDR-SR10 (Tourist Model)



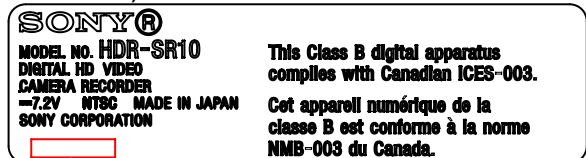
Part No.	Description
A-1517-465-A	CABINET(G(700))(SR10JE3)

#### HDR-SR10 (US Model)



Part No.	Description
A-1517-466-A	CABINET(G(700))(SR10U2)

#### HDR-SR10 (Canadian Model)



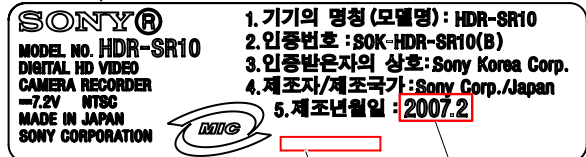
Part No.	Description
A-1517-467-A	CABINET(G(700))(SR10CA2)

#### HDR-SR10 (E Model)



Part No.	Description
A-1517-469-A	CABINET(G(700))(SR10E23)

#### HDR-SR10 (Korea Model)



Part No.	Description
A-1517-470-A	CABINET(G(700))(SR10KR2)

## (ENGLISH)

### 1-11. PRECAUTION ON REPLACING THE CABINET (G(700)) ASSY (HDR-SR10D)

The model display adopts the laser printing method. Therefore, the cabinet (G(700)) assy for replacement differs depending on the destination.

As similar displays are provided, choose the suitable one for order.

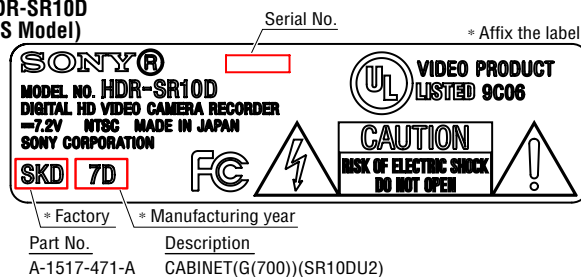
**Note1:** After replacing the cabinet (G(700)) assy, the serial number for it will be changed to the one exclusive for service use.

Inform a customer of the serial number change and change the serial number in the repair data.

**Note 2:** When replacing the cabinet (G(700)) assy for US, affix the "Manufacturing year" label and the "Factory" label on the specified location as shown in the figure.

The replacement caution label and inset (how to affix) are supplied together with the cabinet (G(700)) assy.

HDR-SR10D  
(US Model)



## (JAPANESE)

### 1-11. キャビネット(G(700))組立交換時の注意 (HDR-SR10D)

機種が表示部はレーザー印字方式を採用しております。

この為、交換用のキャビネット(G(700))組立は仕向けにより異なります。類似の表示もありますので、該当するものを選んで注文して下さい。

**注意1:** キャビネット(G(700))組立交換後はシリアルナンバーがサービス専用のシリアルナンバーに変更されます。お客様への案内と修理データのシリアルナンバー変更を行ってください。

**注意2:** US仕向けキャビネット(G(700))組立を交換した際は「製造年月」を表すラベルと、「製造所」を表すラベルを図の指定位置に貼り付けてください。

なお、キャビネット(G(700))組立には時期表示ラベル、投げ込み(ラベル貼り方)がセットで供給されます。

**(ENGLISH)**  
**1-12. PRECAUTION ON REPLACING  
 THE CABINET (G(700)) ASSY  
 (HDR-SR10E)**

The model display adopts the laser printing method. Therefore, the cabinet (G(700)) assy for replacement differs depending on the destination.

As similar displays are provided, choose the suitable one for order.

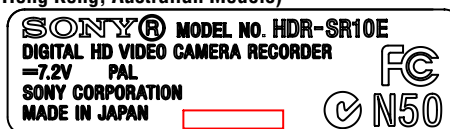
**Note1:** After replacing the cabinet (G(700)) assy, the serial number for it will be changed to the one exclusive for service use. Inform a customer of the serial number change and change the serial number in the repair data.

**(JAPANESE)**  
**1-12. キャビネット(G(700))組立交換時の注意  
 (HDR-SR10E)**

機種が表示部はレーザー印字方式を採用しております。この為、交換用のキャビネット(G(700))組立は仕向けにより異なります。類似の表示もありますので、該当するものを選んで注文して下さい。

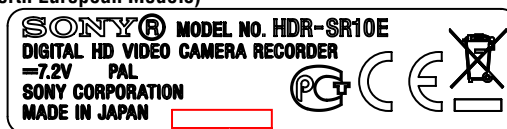
**注意1:** キャビネット(G(700))組立交換後はシリアルナンバーがサービス専用のシリアルナンバーに変更されます。お客様への案内と修理データのシリアルナンバー変更を行ってください。

**HDR-SR10E  
 (E, Hong Kong, Australian Models)**



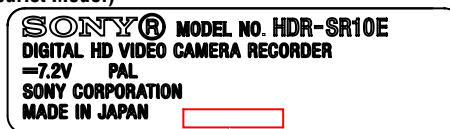
Part No.	Description
A-1517-472-A	CABINET(G(700))(SR10EE34)

**HDR-SR10E  
 (North European Models)**



Part No.	Description
A-1517-473-A	CABINET(G(700))(SR10ECEL)

**HDR-SR10E  
 (Tourist Model)**



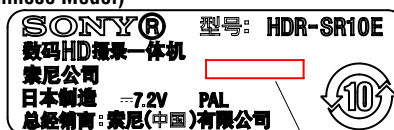
Part No.	Description
A-1517-474-A	CABINET(G(700))(SR10EJE3)

**HDR-SR10E  
 (AEP, UK Model)**



Part No.	Description
A-1517-475-A	CABINET(G(700))(SR10ECEH)

**HDR-SR10E  
 (Chinese Model)**



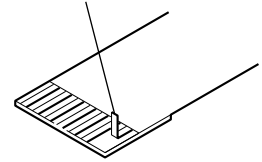
Part No.	Description
A-1517-476-A	CABINET(G(700))(SR10ECN2)

## 2. DISASSEMBLY

### NOTE FOR REPAIR

- Make sure that the flat cable and flexible board are not cracked or bent at the terminal. Do not insert the cable insufficiently nor crookedly.
- When remove a connector, don't pull at wire of connector. It is possible that a wire is snapped.
- When installing a connector, don't press down at wire of connector. It is possible that a wire is snapped.

Cut and remove the part of gilt which comes off at the point. (Be careful or some pieces of gilt may be left inside)



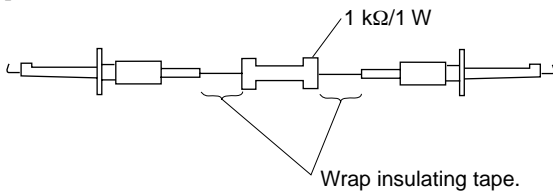
### DISCHARGING OF THE ST-189 BOARD'S CHARGING CAPACITOR (C5056)

The charging capacitor (C5056) of the ST-189 board is charged up to the maximum 330 V potential. There is a danger of electric shock by this high voltage when the capacitor is handled by hand. The electric shock is caused by the charged voltage which is kept without discharging when the main power of the unit is simply turned off. Therefore, the remaining voltage must be discharged as described below.

#### Preparing the Short Jig

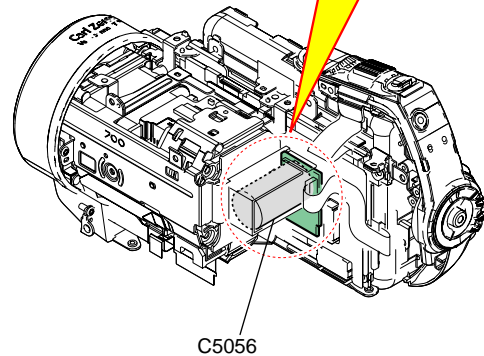
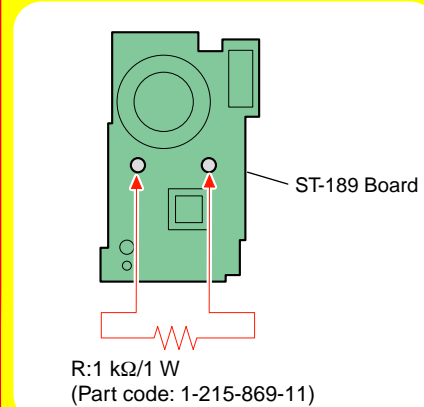
To preparing the short jig, a small clip is attached to each end of a resistor of 1 k $\Omega$  / 1 W (1-215-869-11).

Wrap insulating tape fully around the leads of the resistor to prevent electrical shock.

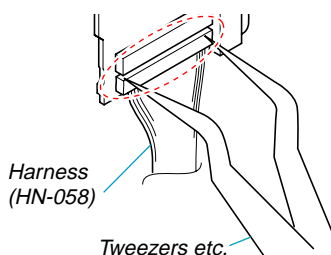


**Note:** High-voltage cautions

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

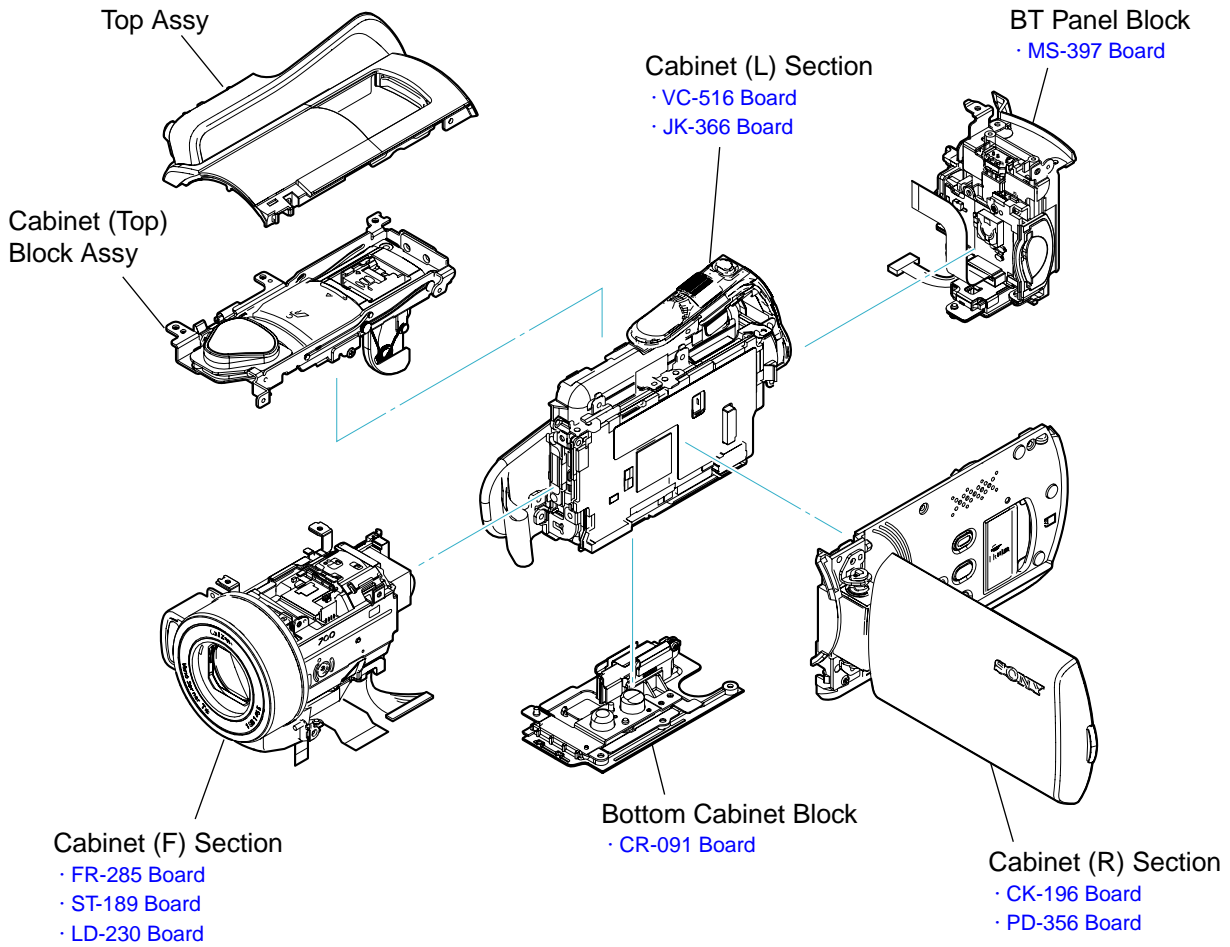


### NOTE FOR DISCONNECTING THE HARNESS (HN-058)

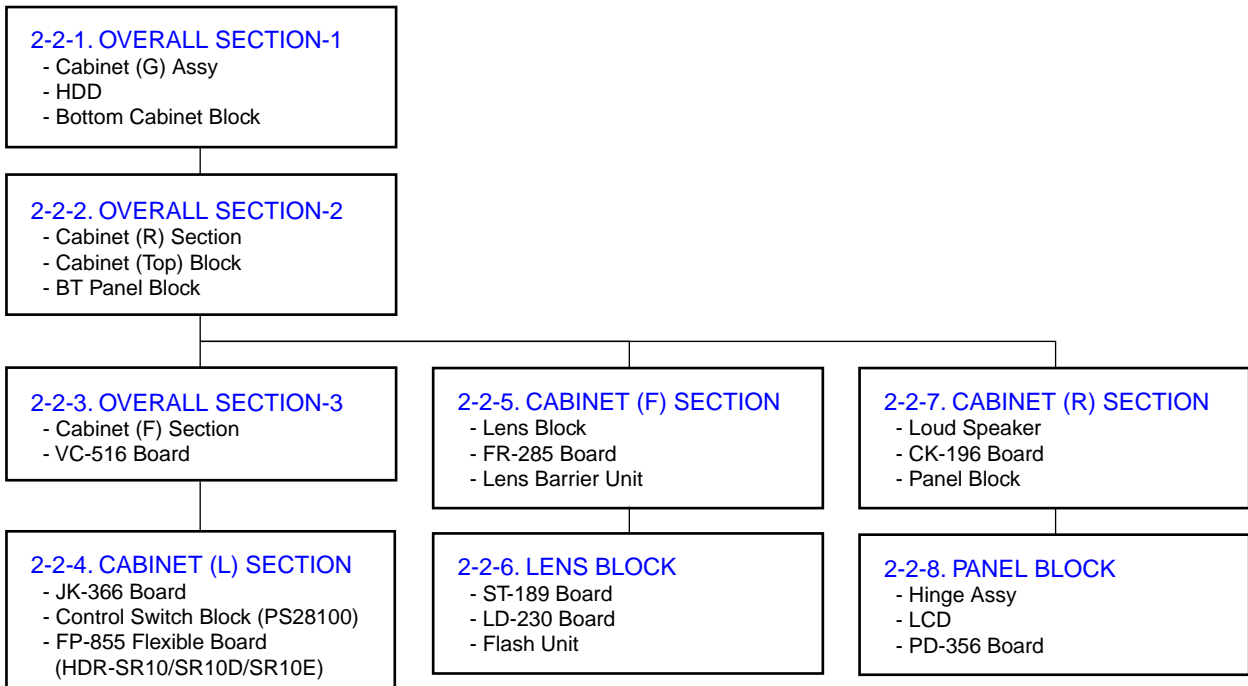


When disconnecting the harness (HN-058), do not pull the harness part but pull off the connector body with tweezers etc.

## 2-1. IDENTIFYING PARTS



### - DISASSEMBLY FLOW -



## 2-2. DISASSEMBLY

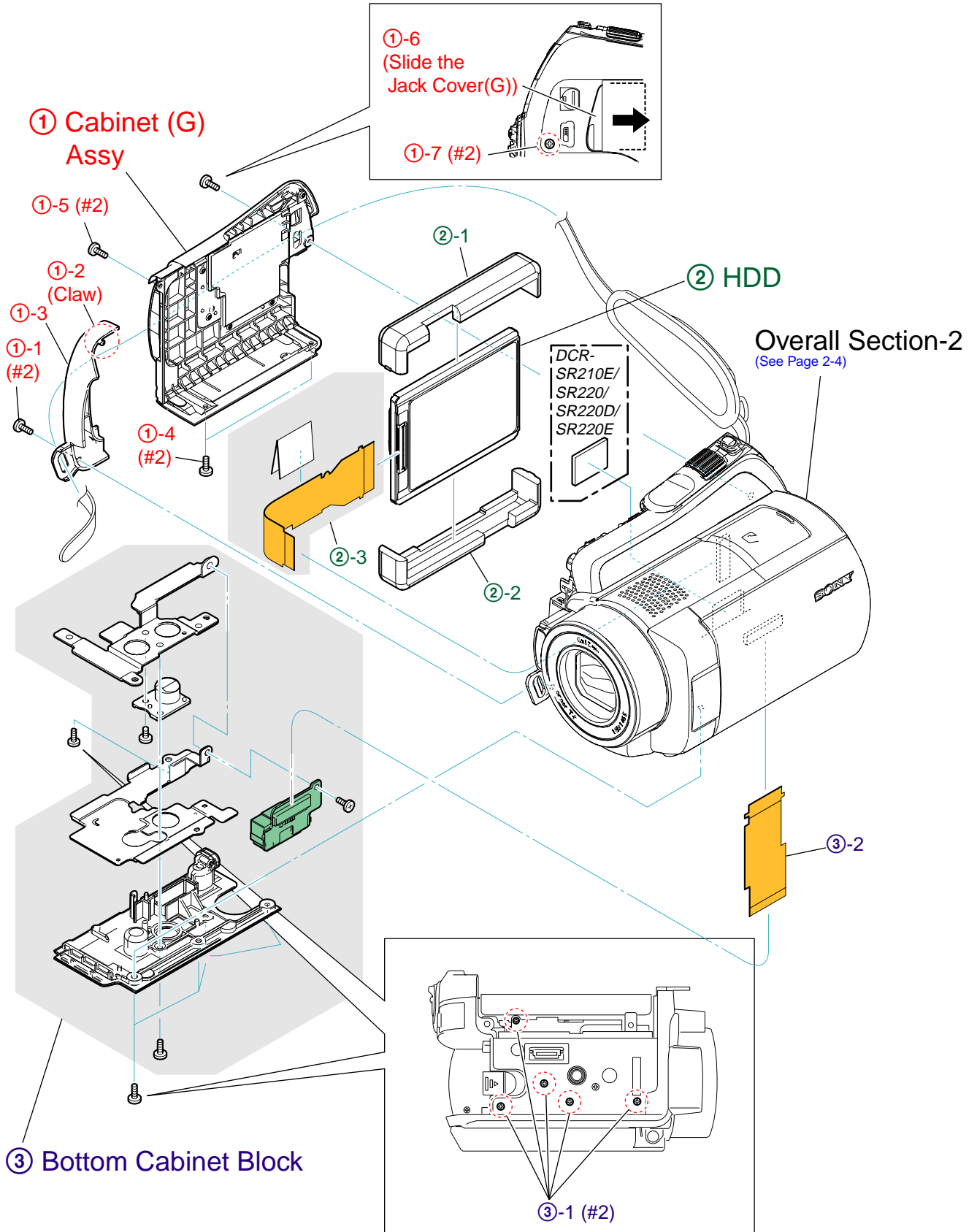
EXPLODED VIEW

HARDWARE LIST

### 2-2-1. OVERALL SECTION-1

Follow the disassembly in the numerical order given.

- ① Cabinet (G) Assy (①-1 to ①-7)
- ② HDD (②-1 to ②-3)
- ③ Bottom Cabinet Block (③-1 to ③-2)



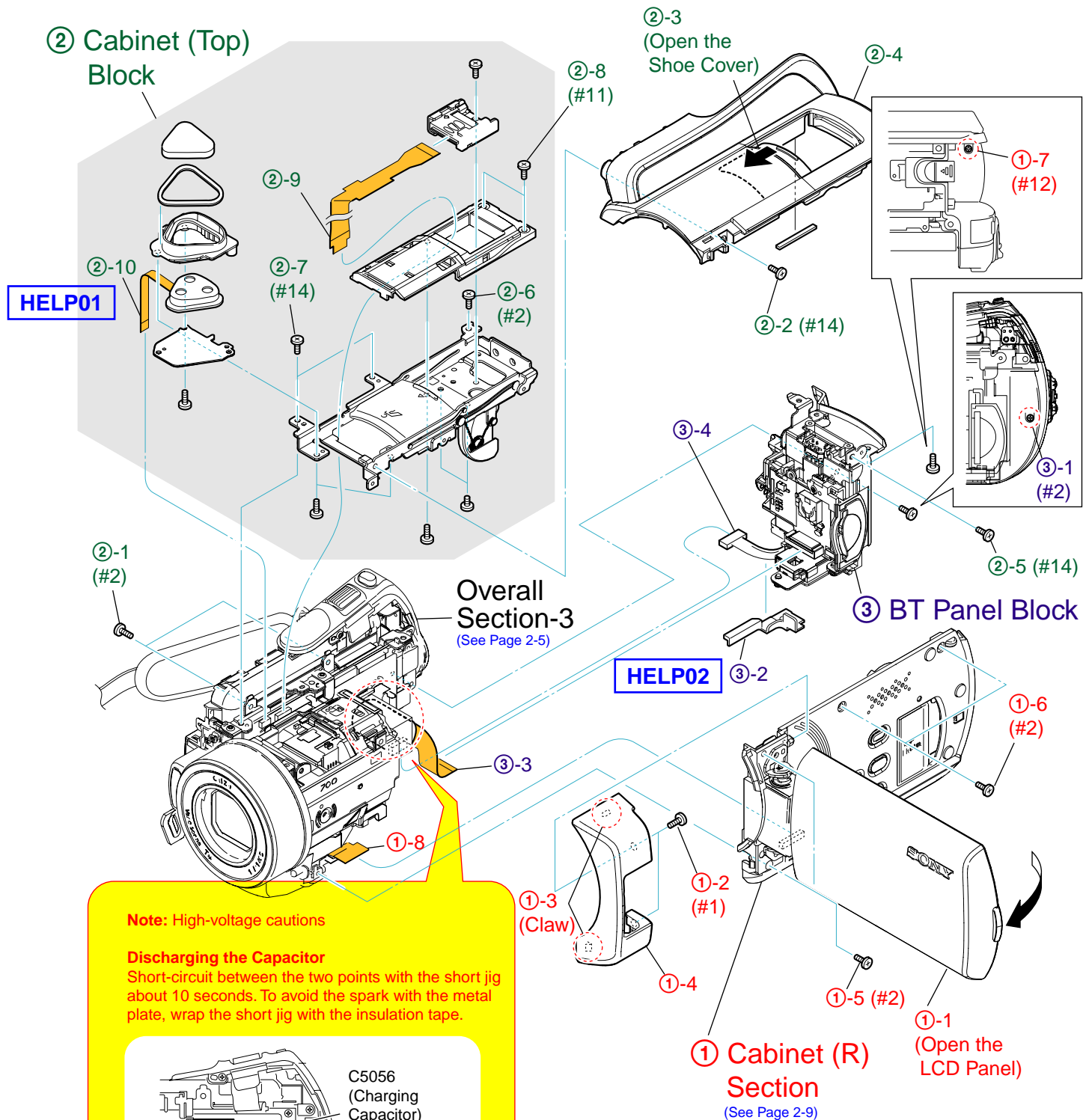
## 2-2-2. OVERALL SECTION-2

Follow the disassembly in the numerical order given.

- ① Cabinet (R) Section (①-1 to ①-8)
- ② Cabinet (Top) Block (②-1 to ②-10)
- ③ BT Panel Block (③-1 to ③-4)

EXPLODED VIEW

HARDWARE LIST





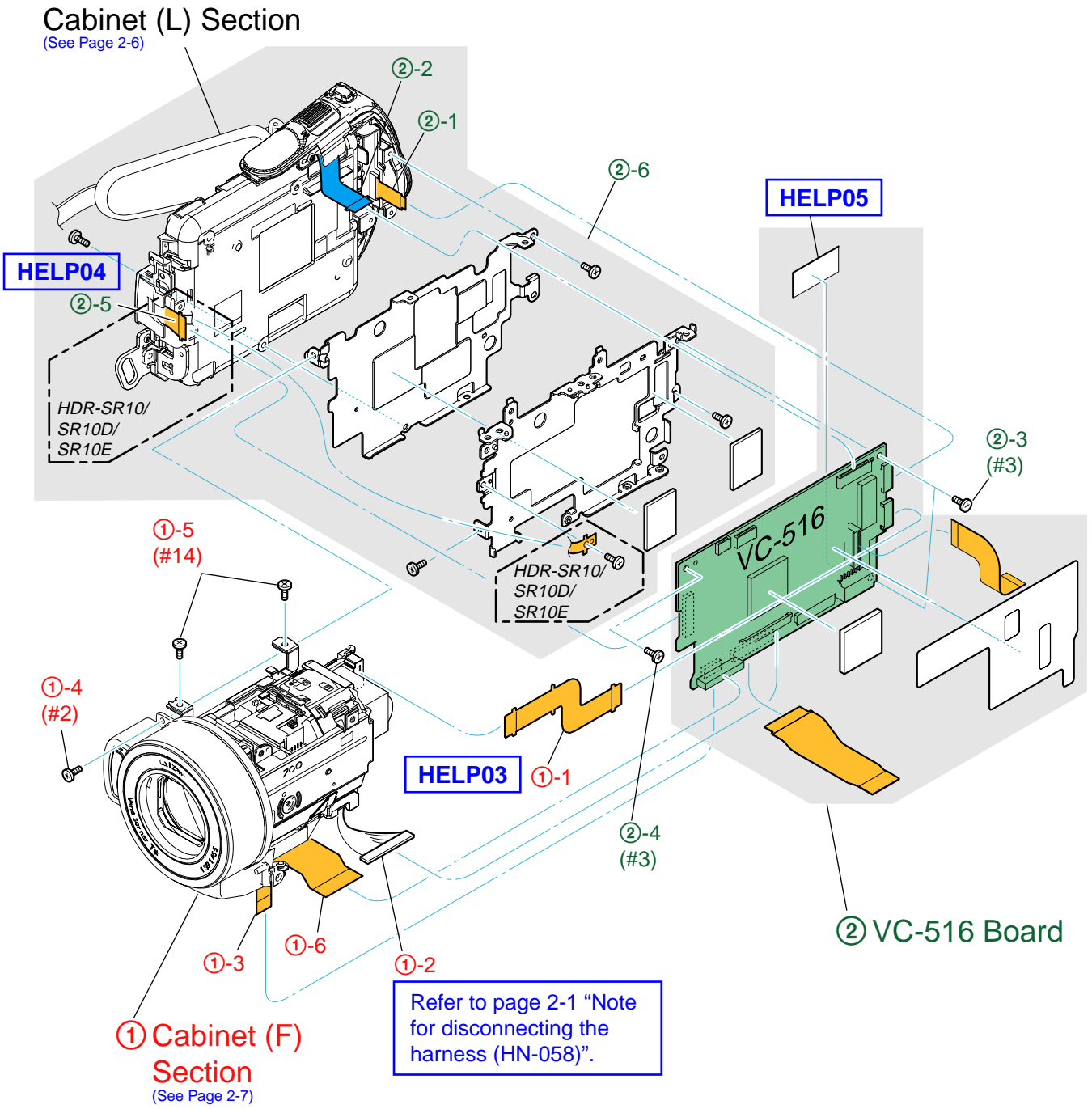
### 2-2-3. OVERALL SECTION-3

Follow the disassembly in the numerical order given.

- ① Cabinet (F) Section (①-1 to ①-6)
- ② VC-516 Board (②-1 to ②-6)

**EXPLODED VIEW**

**HARDWARE LIST**



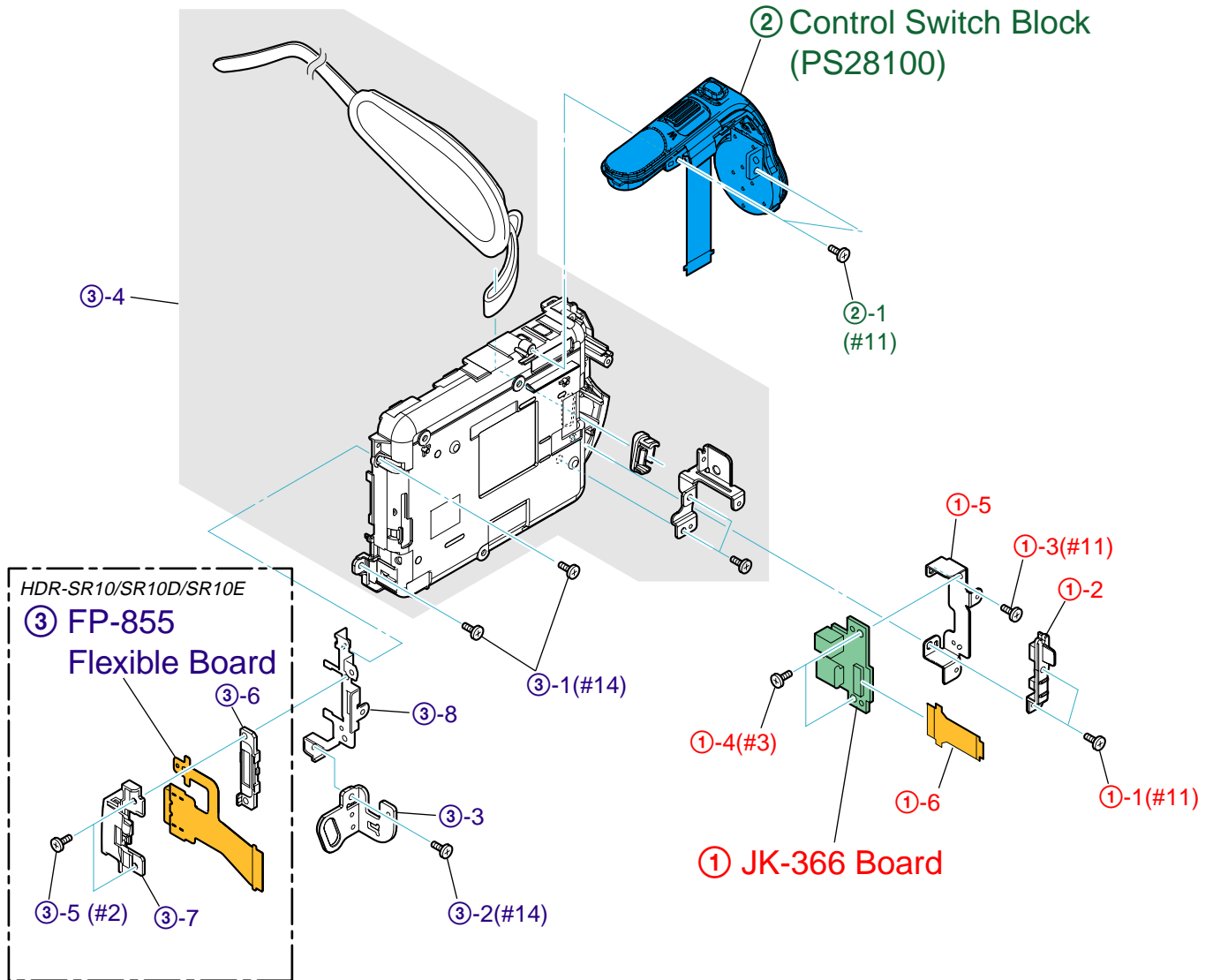
## 2-2-4. CABINET (L) SECTION

Follow the disassembly in the numerical order given.

- ① JK-366 Board (①-1 to ①-6)
- ② Control Switch Block (PS28100) (②-1)
- ③ FP-855 Flexible Board (③-1 to ③-8) (HDR-SR10/SR10D/SR10E)

EXPLODED VIEW

HARDWARE LIST



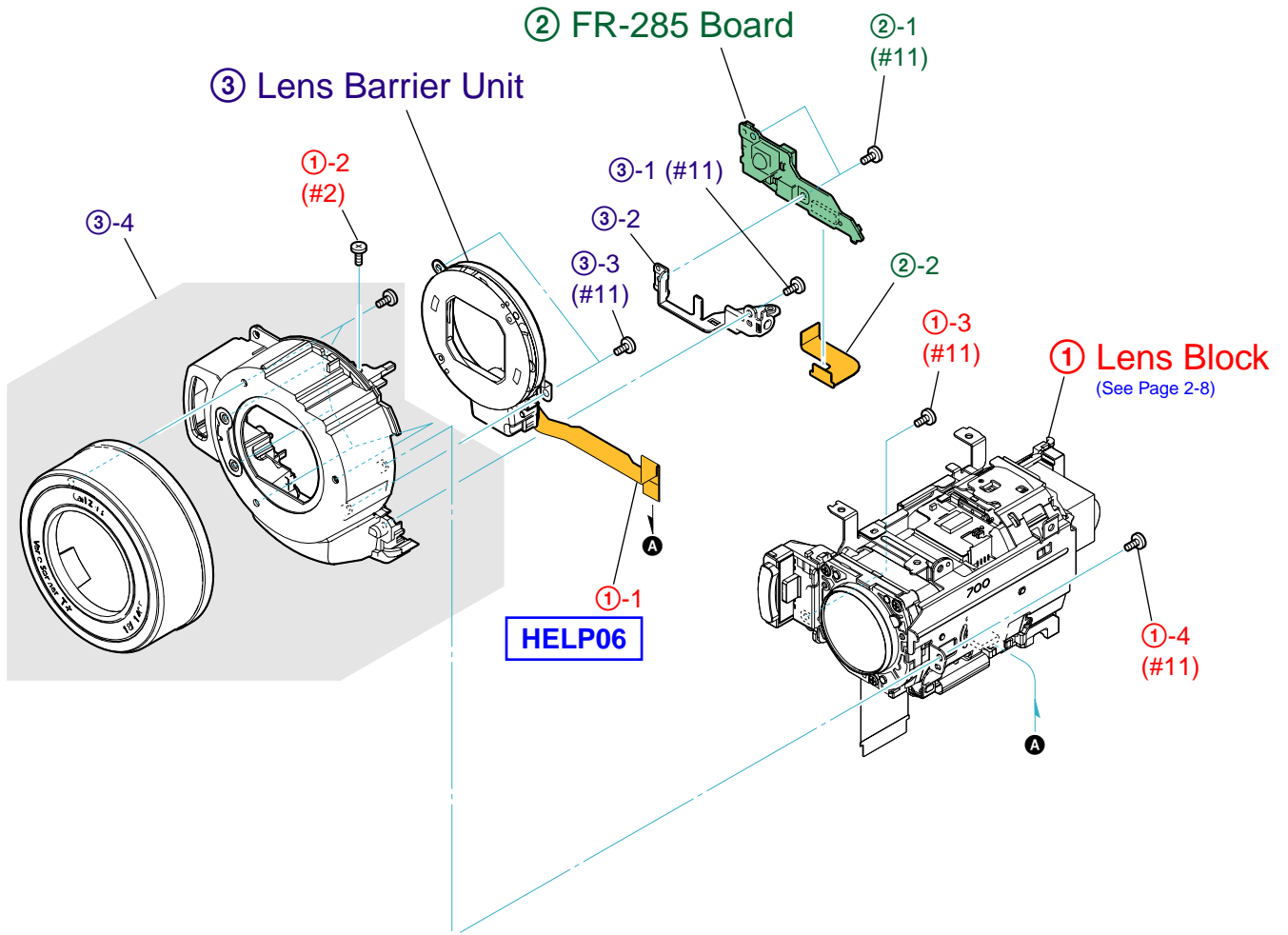
## 2-2-5. CABINET (F) SECTION

Follow the disassembly in the numerical order given.

- ① Lens Block (①-1 to ①-4)
- ② FR-285 Board (②-1 to ②-2)
- ③ Lens Barrier Unit (③-1 to ③-4)

EXPLODED VIEW

HARDWARE LIST



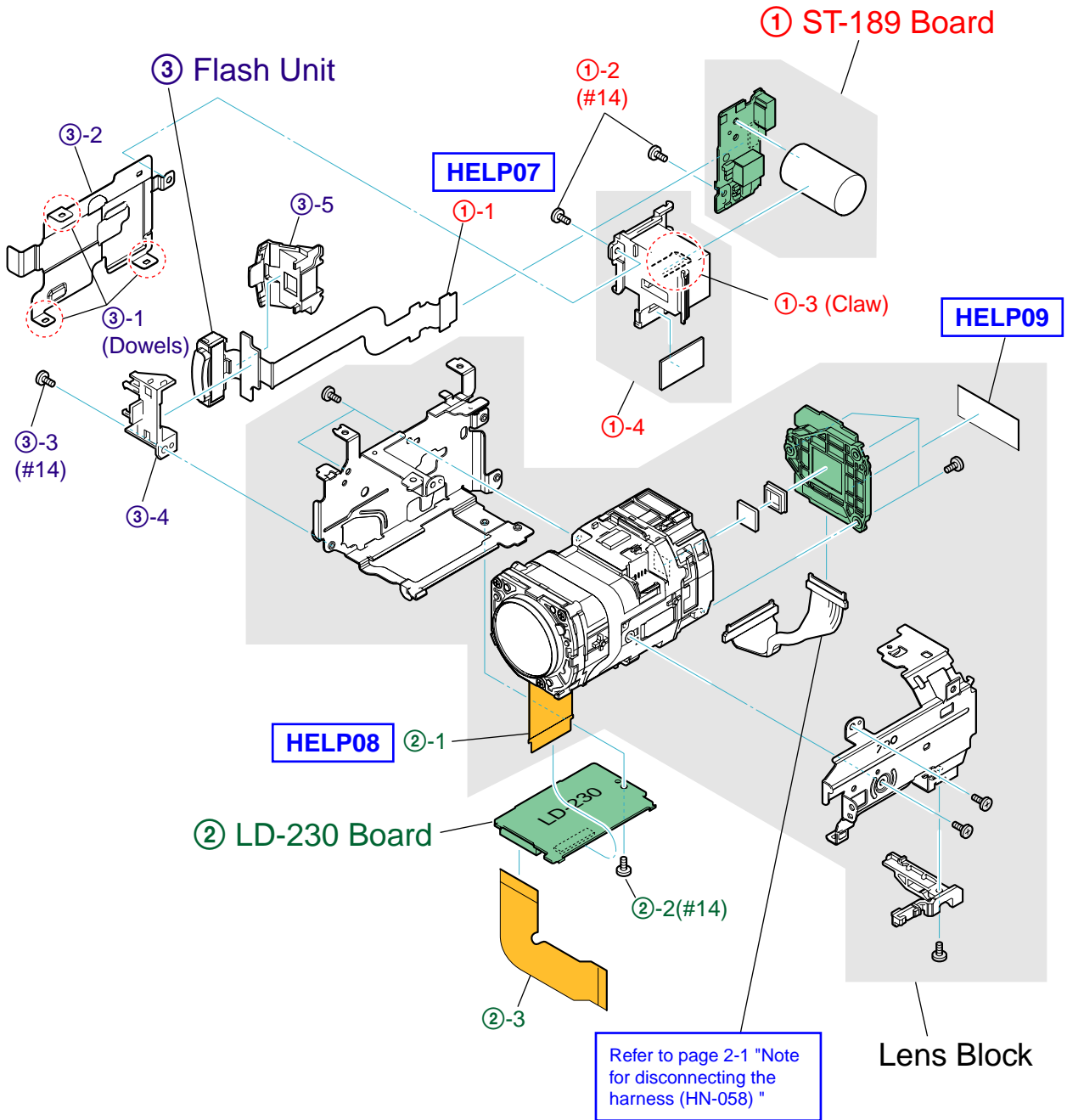
## 2-2-6. LENS BLOCK

Follow the disassembly in the numerical order given.

- ① ST-189 Board (①-1 to ①-4)
- ② LD-230 Board (②-1 to ②-3)
- ③ Flash Unit (③-1 to ③-5)

EXPLODED VIEW

HARDWARE LIST



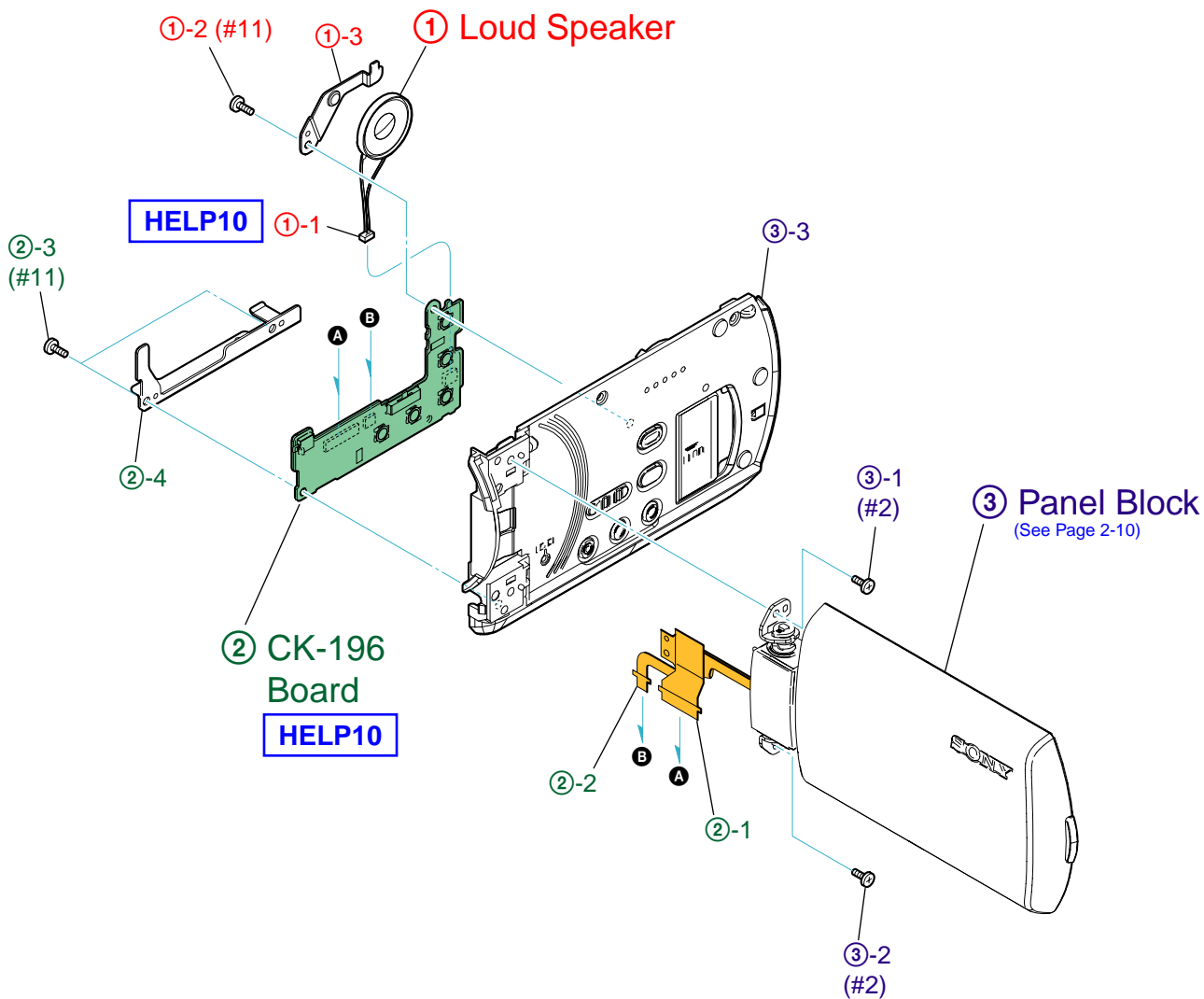
## 2-2-7. CABINET (R) SECTION

Follow the disassembly in the numerical order given.

- ① Loud Speaker (①-1 to ①-3)
- ② CK-196 Board (②-1 to ②-4)
- ③ Panel Block (③-1 to ③-3)

EXPLODED VIEW

HARDWARE LIST



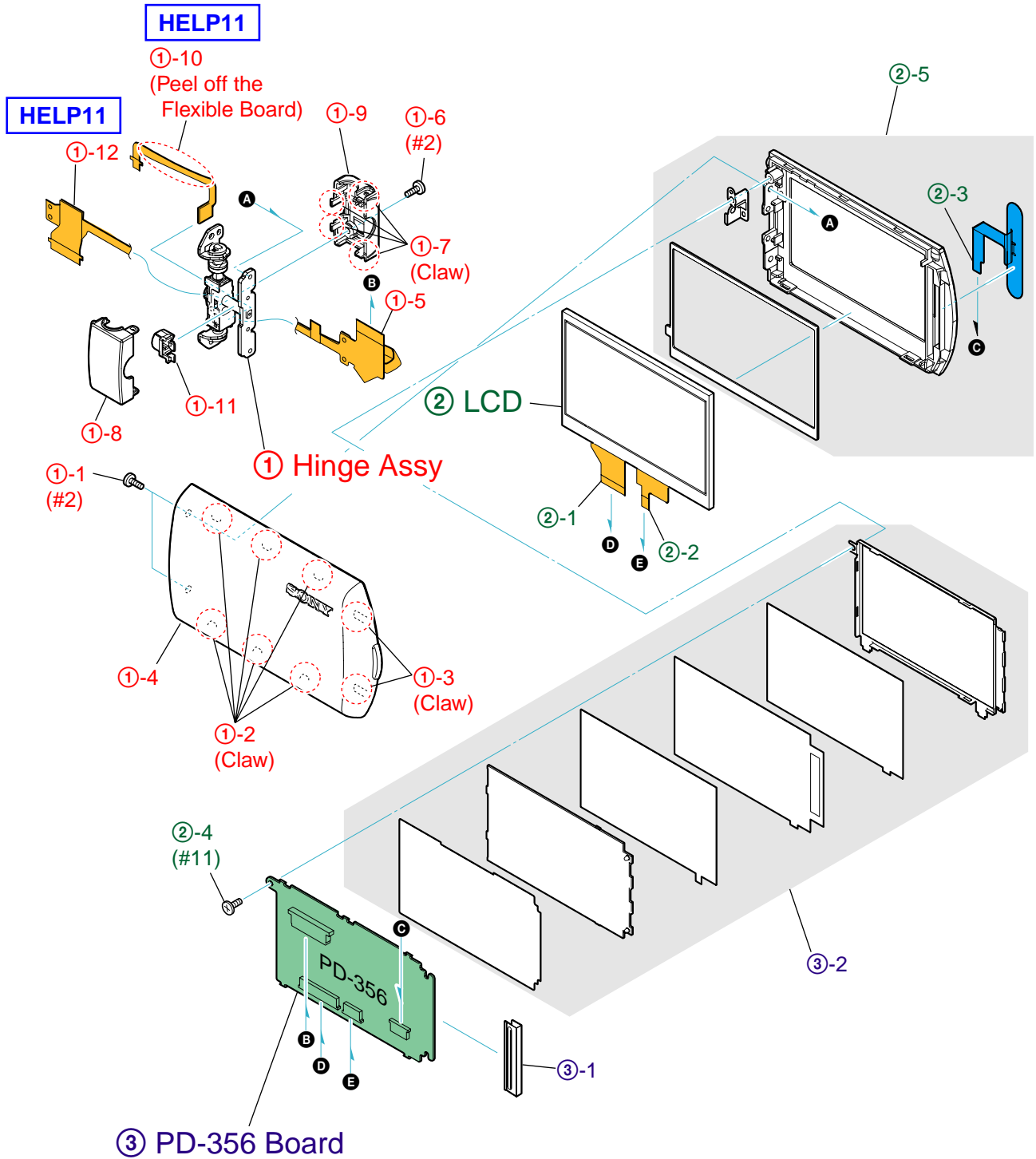
## 2-2-8. PANEL BLOCK

Follow the disassembly in the numerical order given.

- ① Hinge Assy (①-1 to ①-12)
- ② LCD (②-1 to ②-5)
- ③ PD-356 Board (③-1 to ③-2)

EXPLODED VIEW

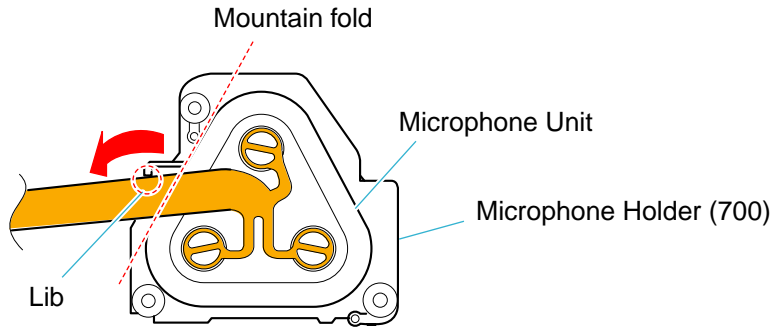
HARDWARE LIST



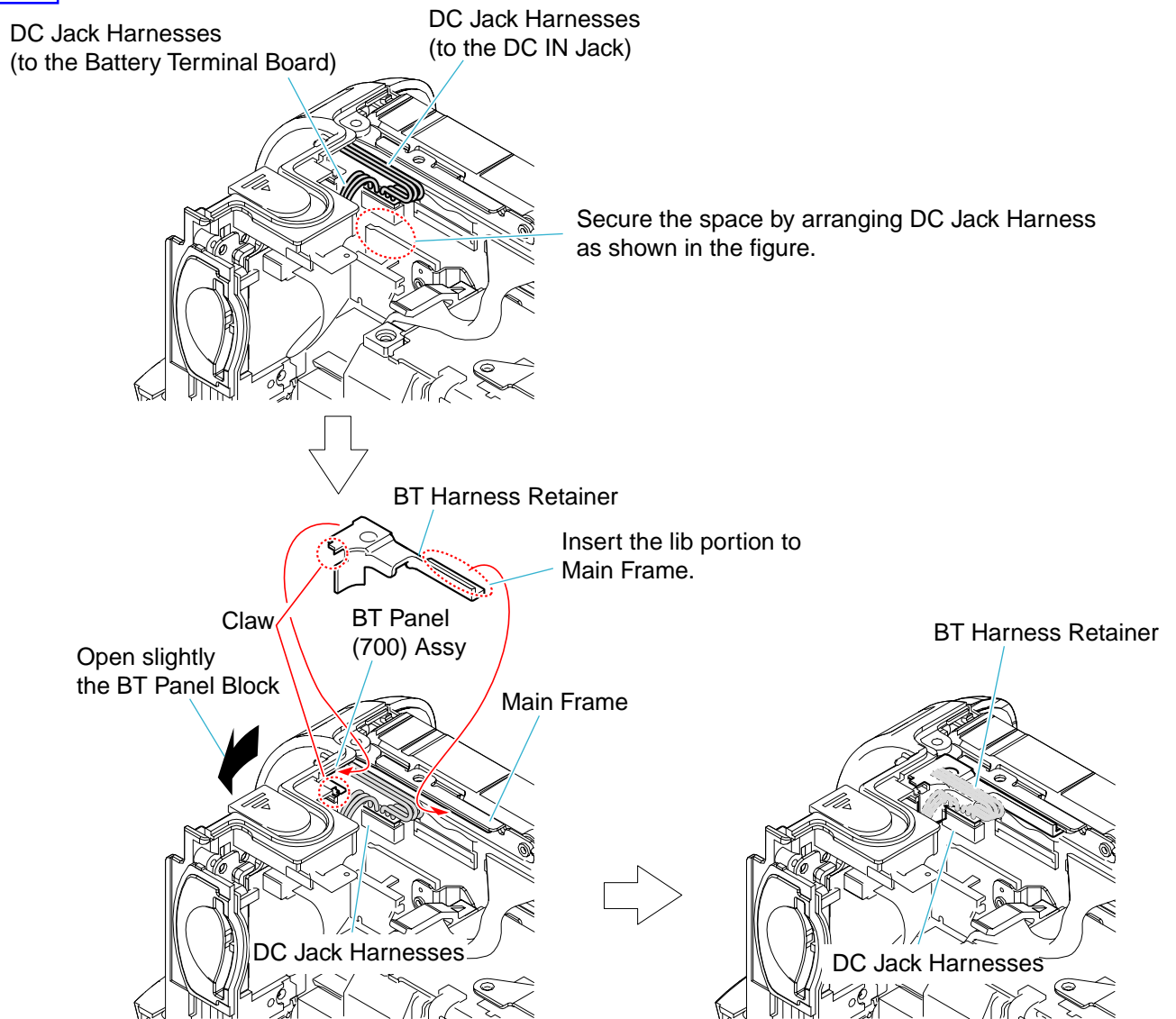
# HELP

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

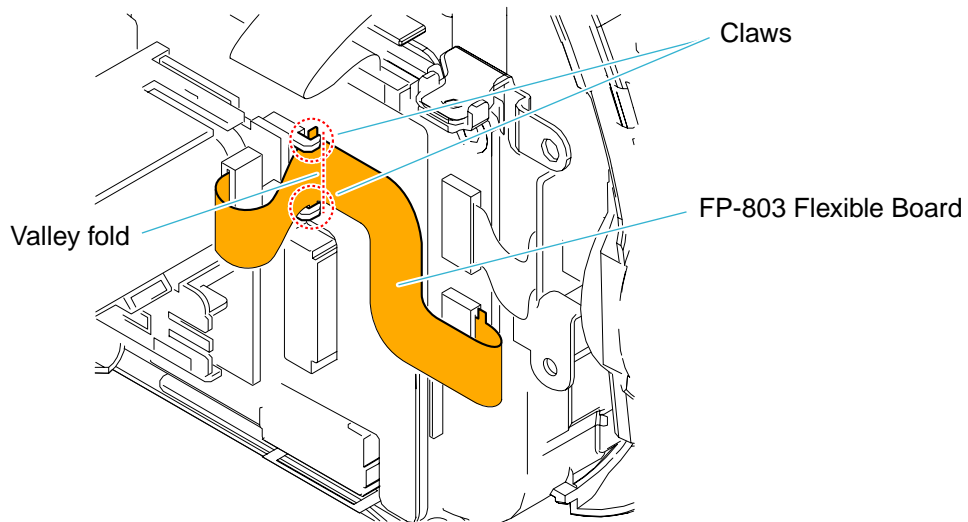
## HELP01



## HELP02

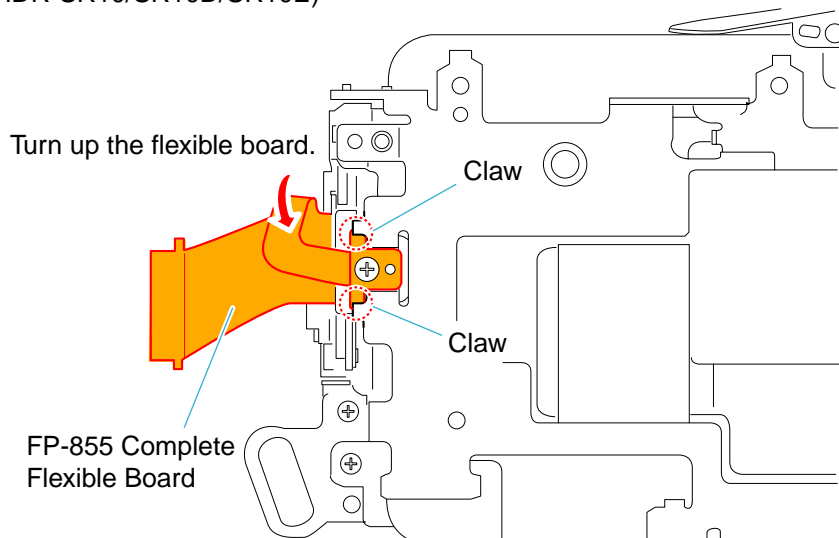


**HELP03**



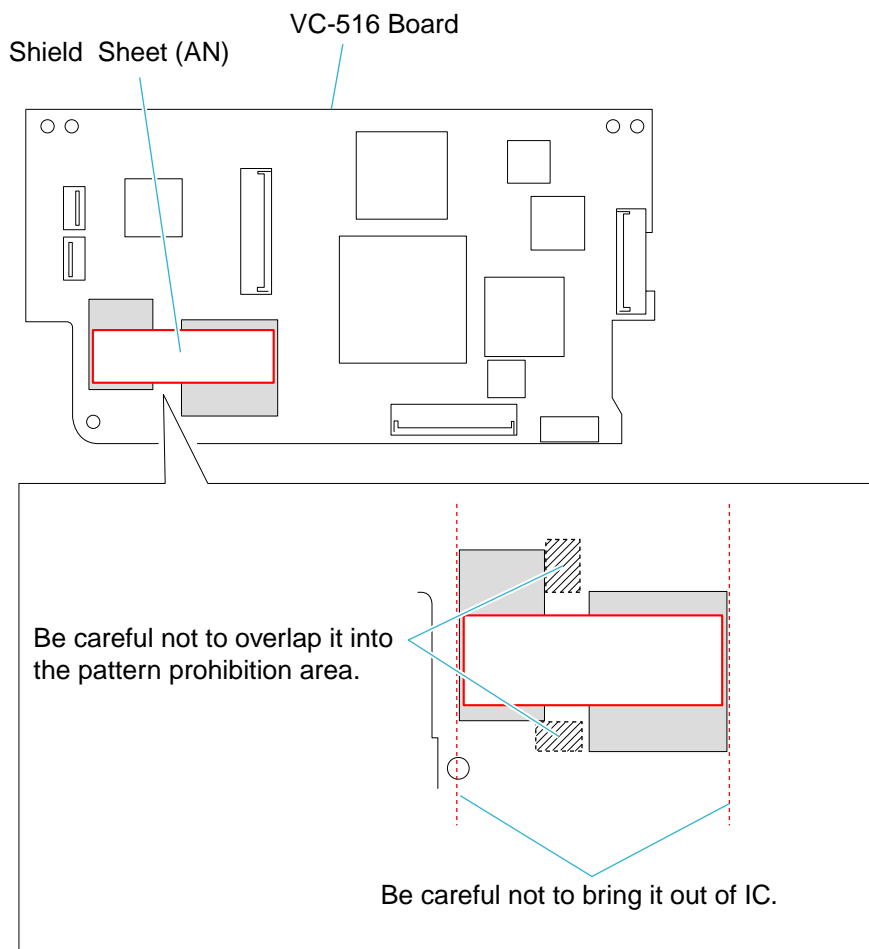
**HELP04**

(HDR-SR10/SR10D/SR10E)

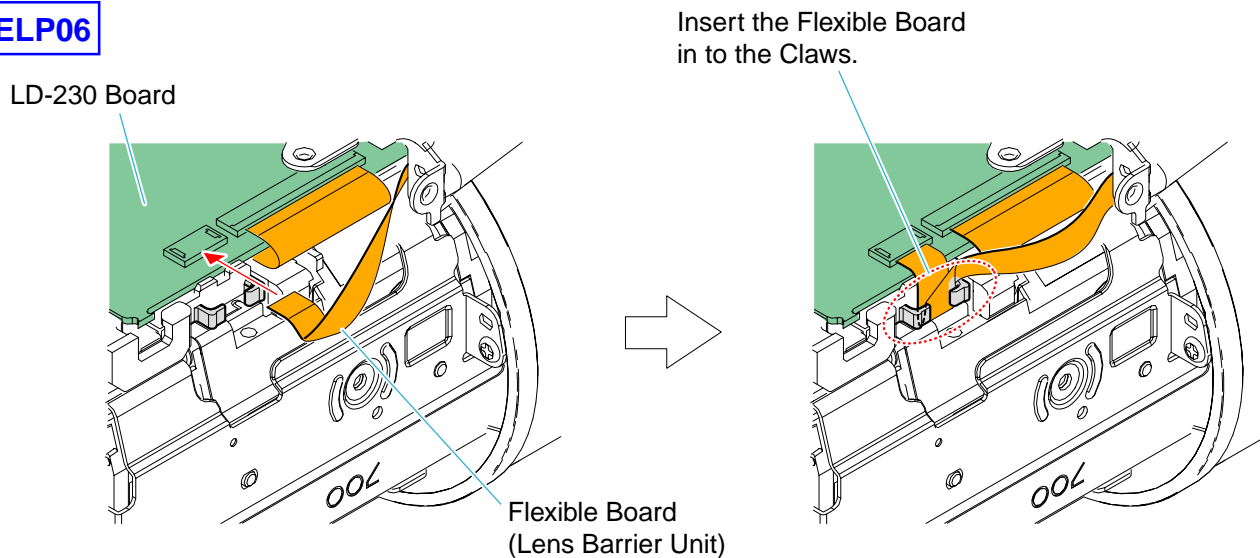




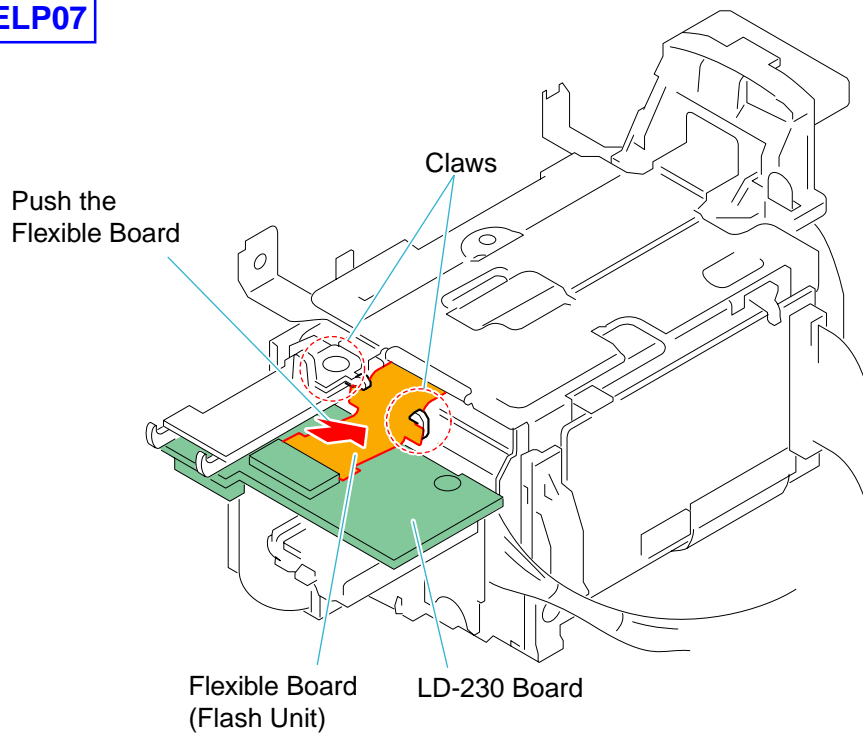
**HELP05**



**HELP06**

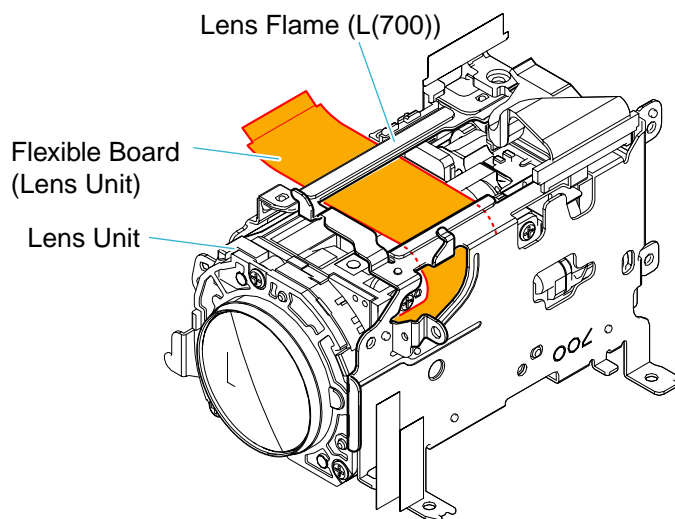


**HELP07**

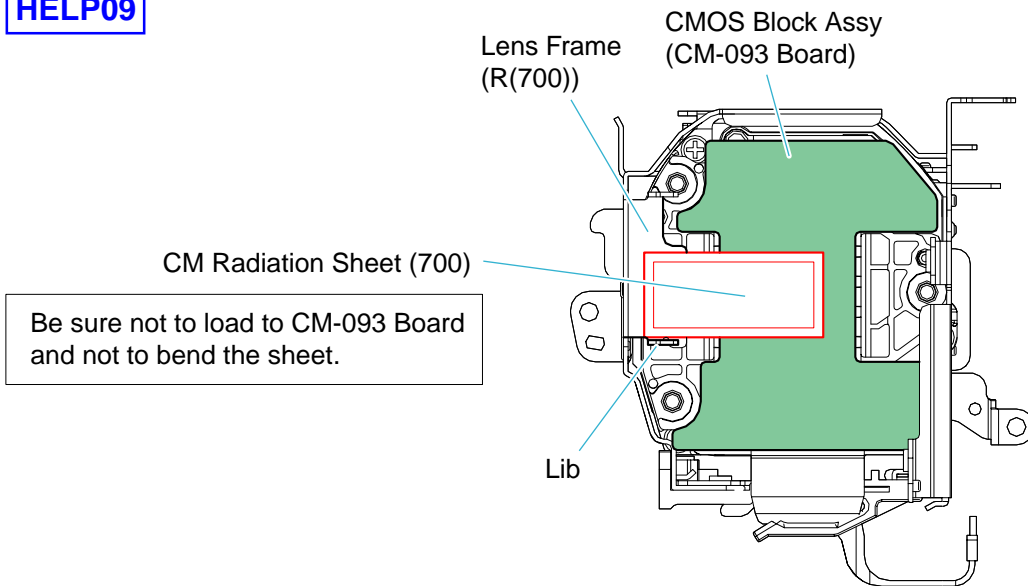


**HELP08**

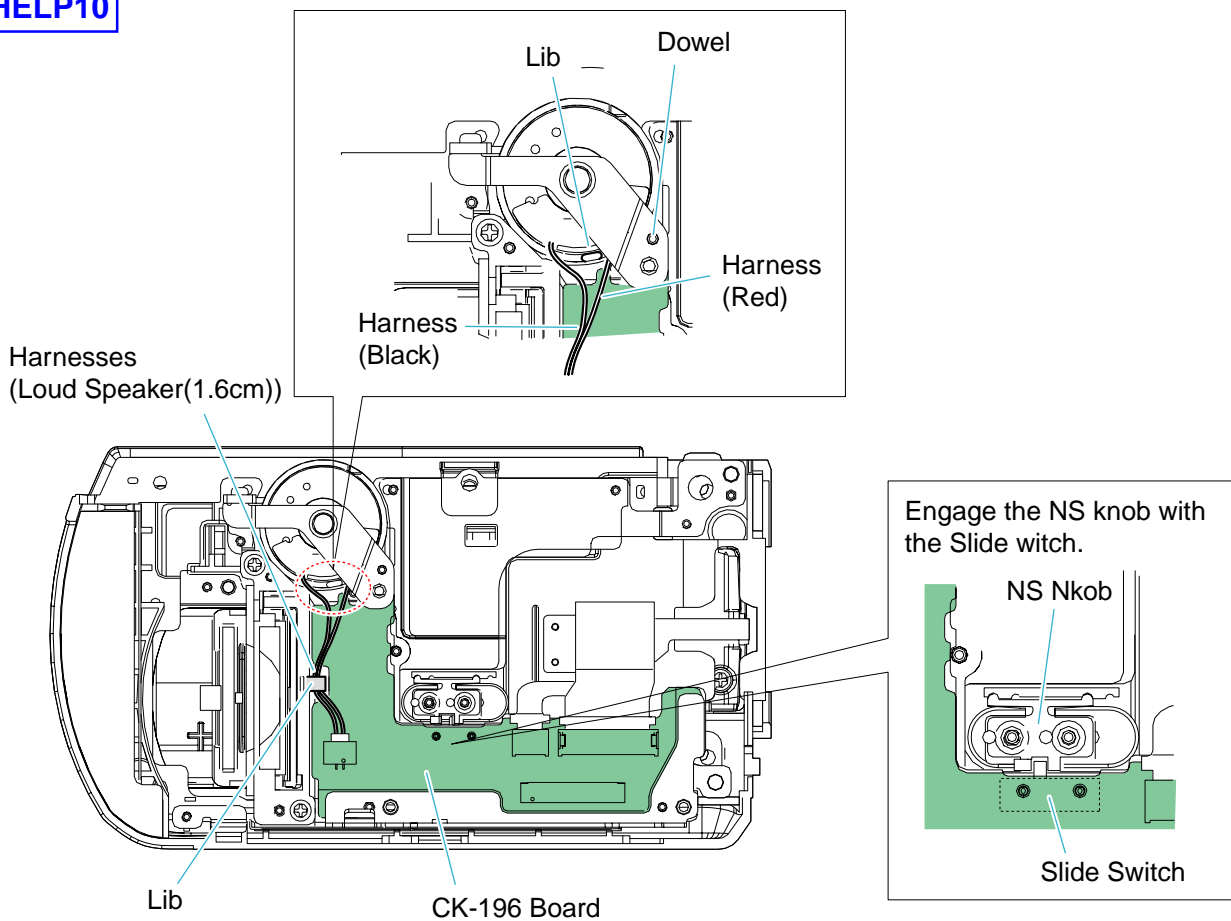
Pass the Flexible Board (Lens Unit) through between the Lens Unit and the Lens Frame (L(700)).



**HELP09**



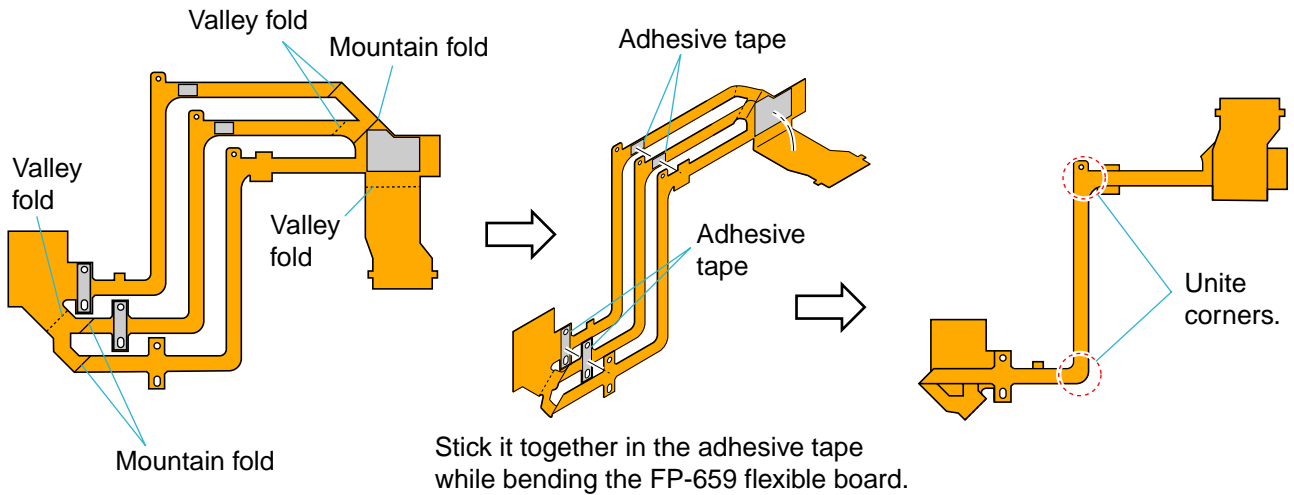
**HELP10**



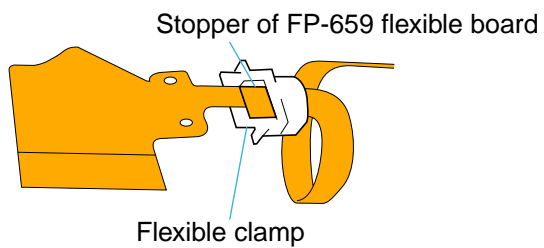
## HELP11

### THE METHOD OF ATTACHMENT OF FP-659 FLEXIBLE BOARD AND FP-854 FLEXIBLE BOARD

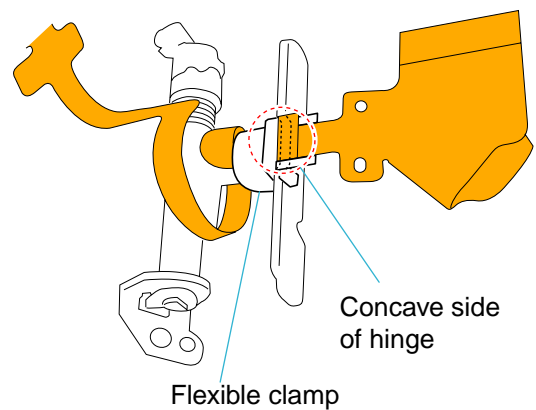
- ① Fold dotted line parts of the FP-659 flexible board as shown in figure.



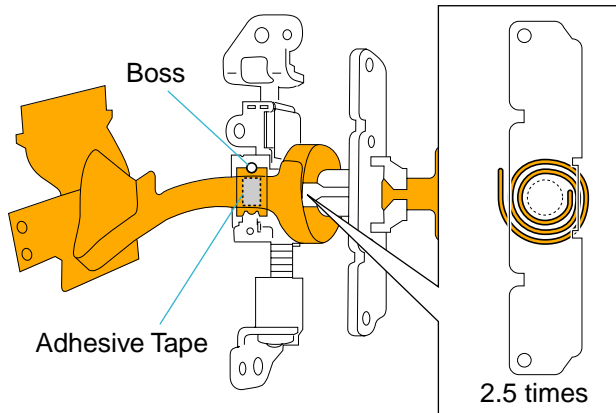
- ② Pass FP-659 flexible board through the flexible clamp as shown in figure.



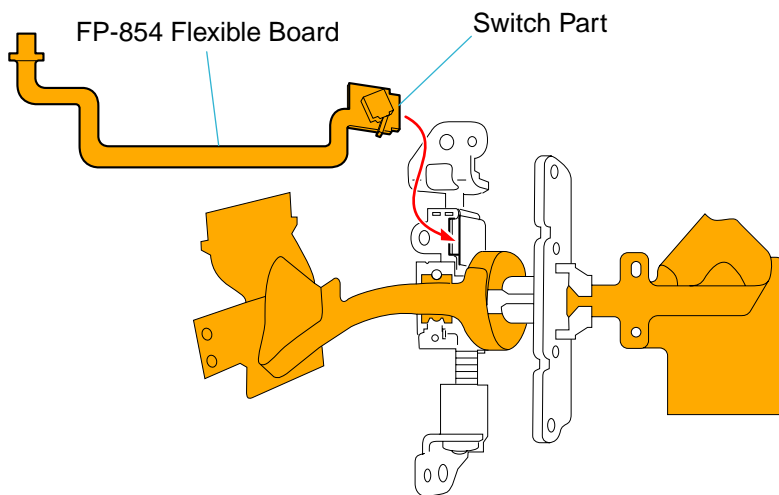
- ③ Install the flexible clamp in the hinge assembly as shown in figure.



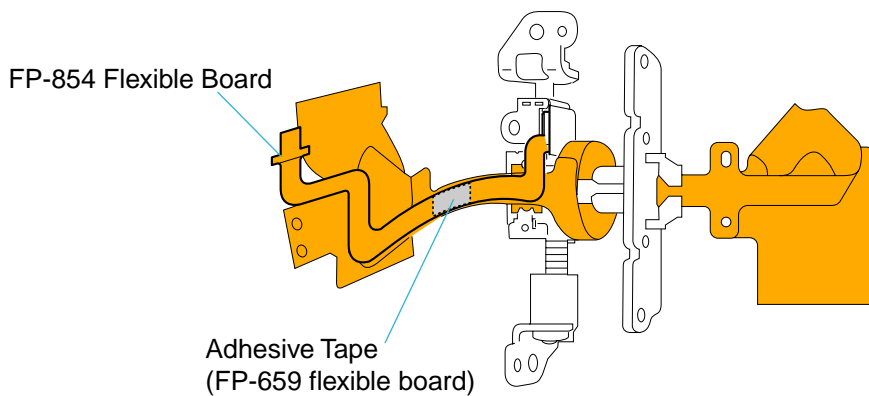
- ④ Roll the FP-659 flexible board 2.5 times in the hinge assy and put it on the hinge assy with the adhesive tape as shown in figure.



- ⑤ Insert the switch part of the FP-854 flexible board as shown in figure.



- ⑥ Stick FP-854 flexible board.



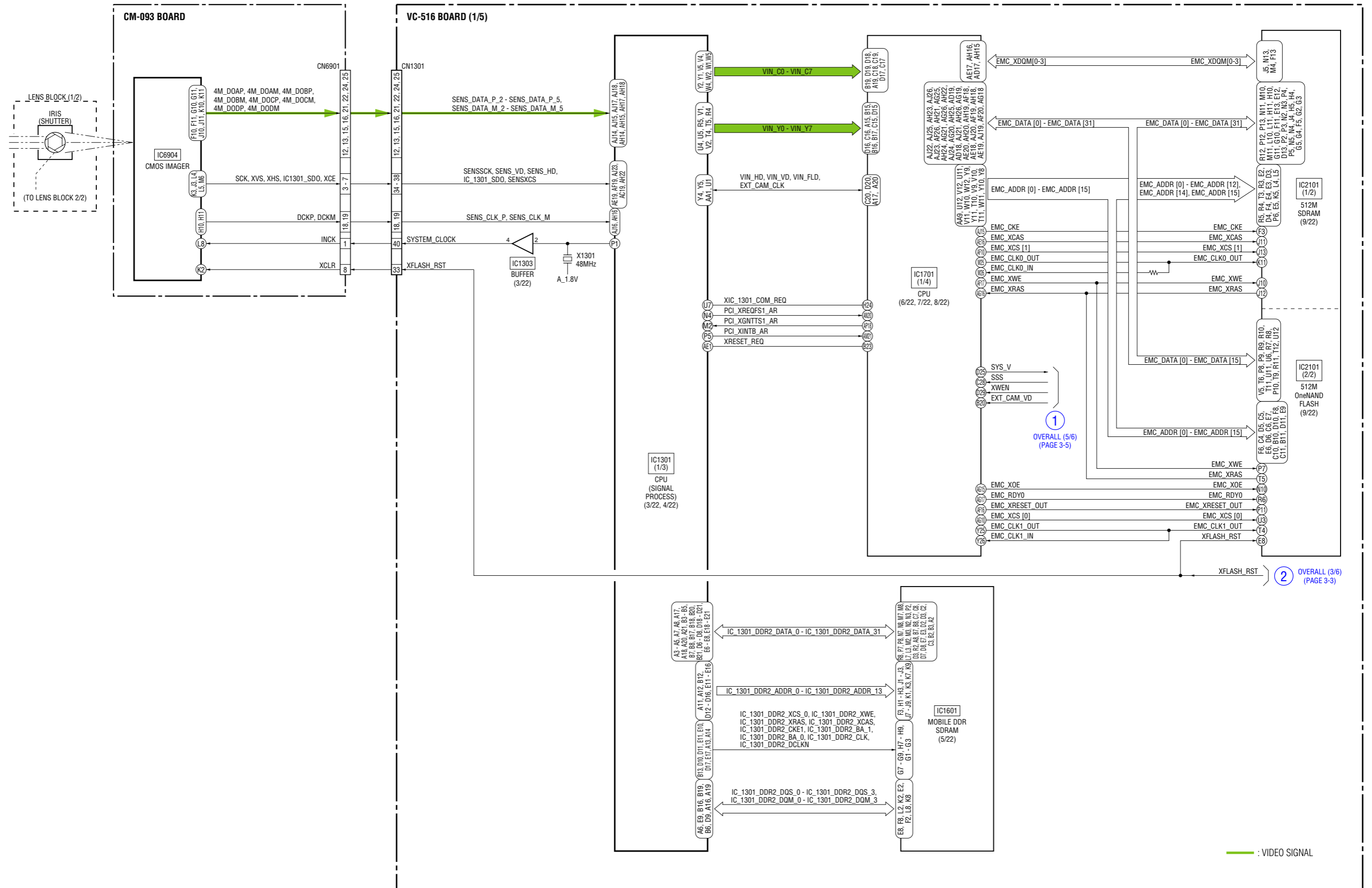
### 3. BLOCK DIAGRAMS

#### Link

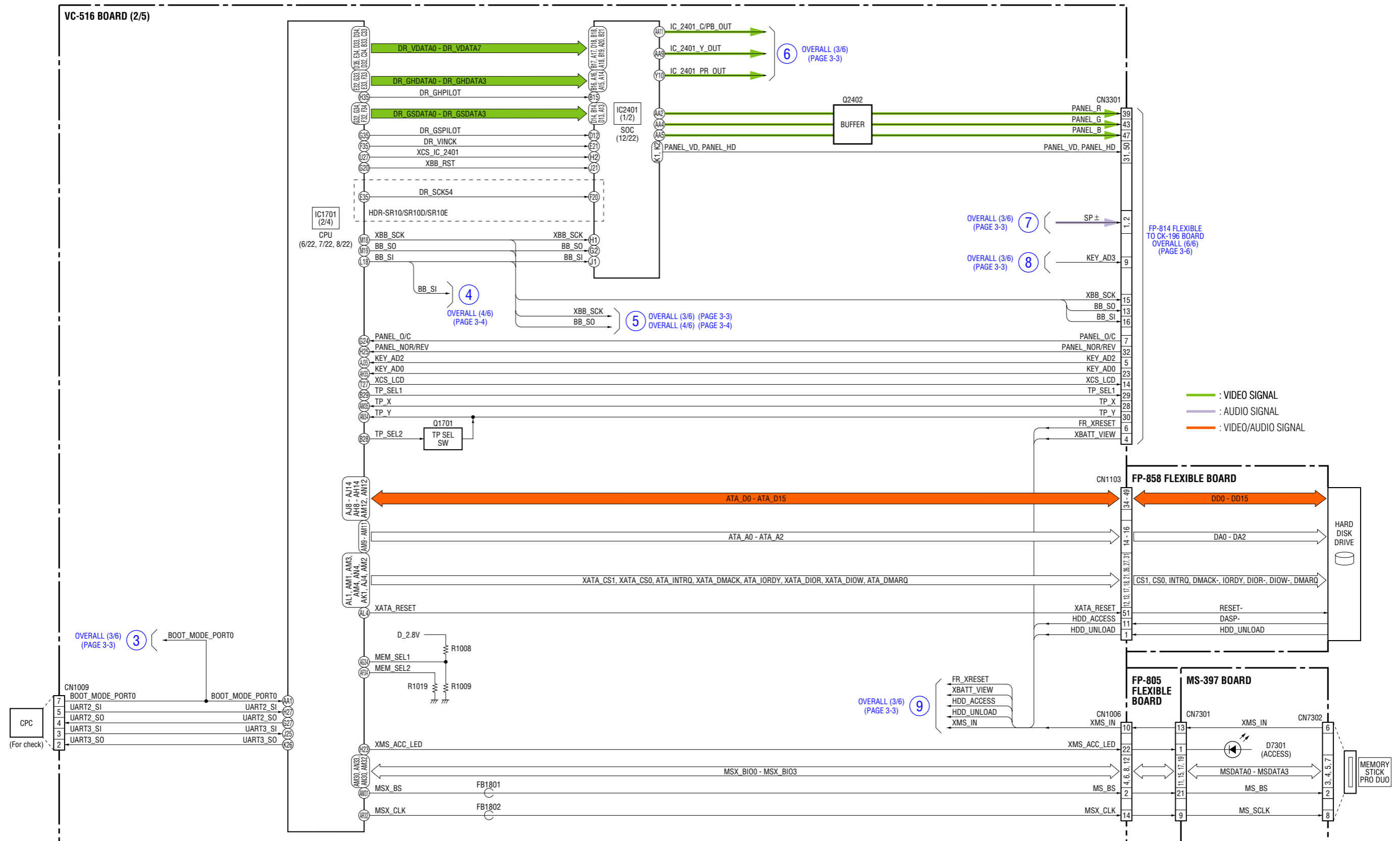
<a href="#">OVERALL BLOCK DIAGRAM (1/6)</a>	<a href="#">OVERALL BLOCK DIAGRAM (6/6)</a>
<a href="#">OVERALL BLOCK DIAGRAM (2/6)</a>	<a href="#">POWER BLOCK DIAGRAM (1/3)</a>
<a href="#">OVERALL BLOCK DIAGRAM (3/6)</a>	<a href="#">POWER BLOCK DIAGRAM (2/3)</a>
<a href="#">OVERALL BLOCK DIAGRAM (4/6)</a>	<a href="#">POWER BLOCK DIAGRAM (3/3)</a>
<a href="#">OVERALL BLOCK DIAGRAM (5/6)</a>	

### 3. BLOCK DIAGRAMS

3-1. OVERALL BLOCK DIAGRAM (1/6) ( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.

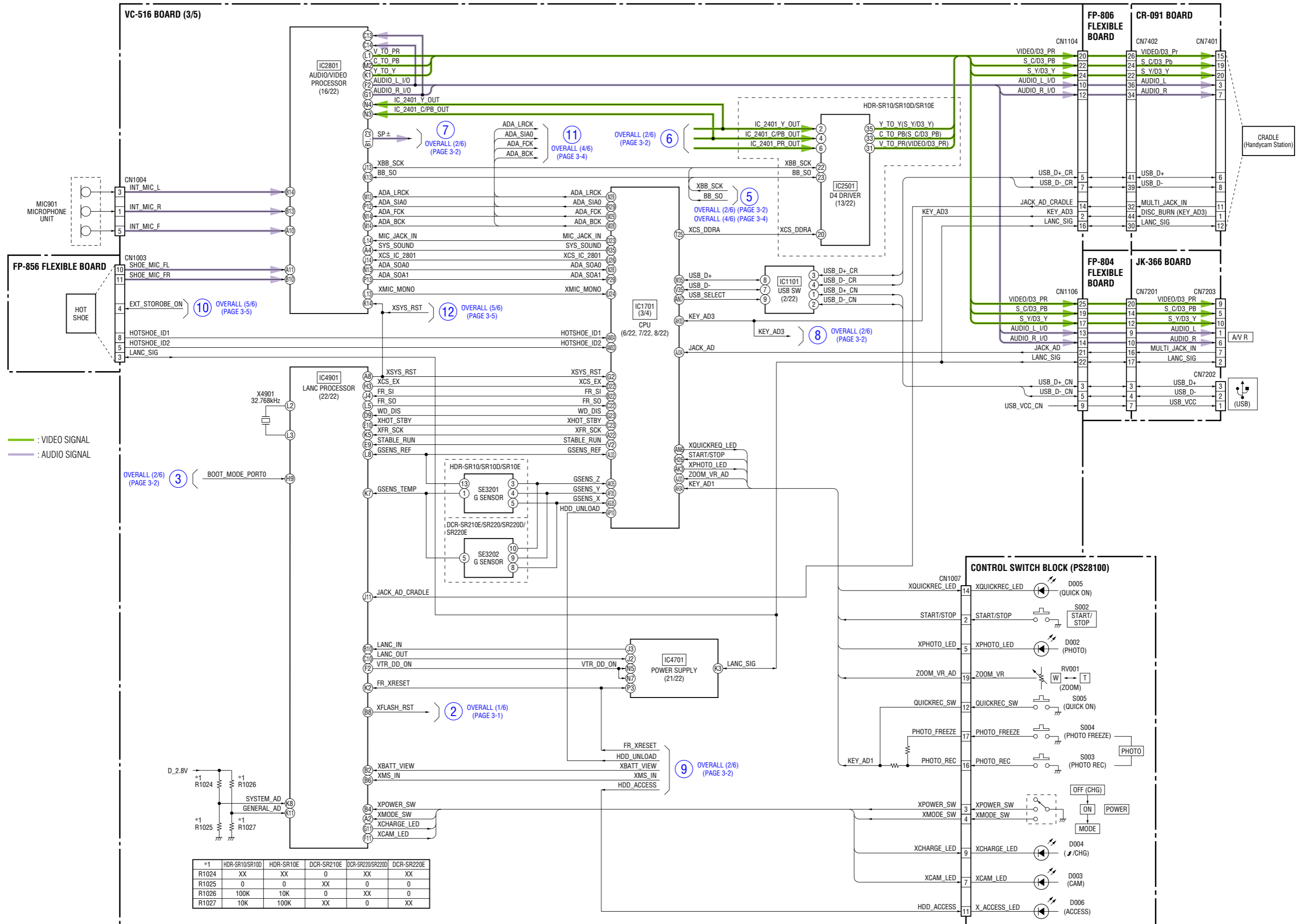


3-2. OVERALL BLOCK DIAGRAM (2/6) ( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.

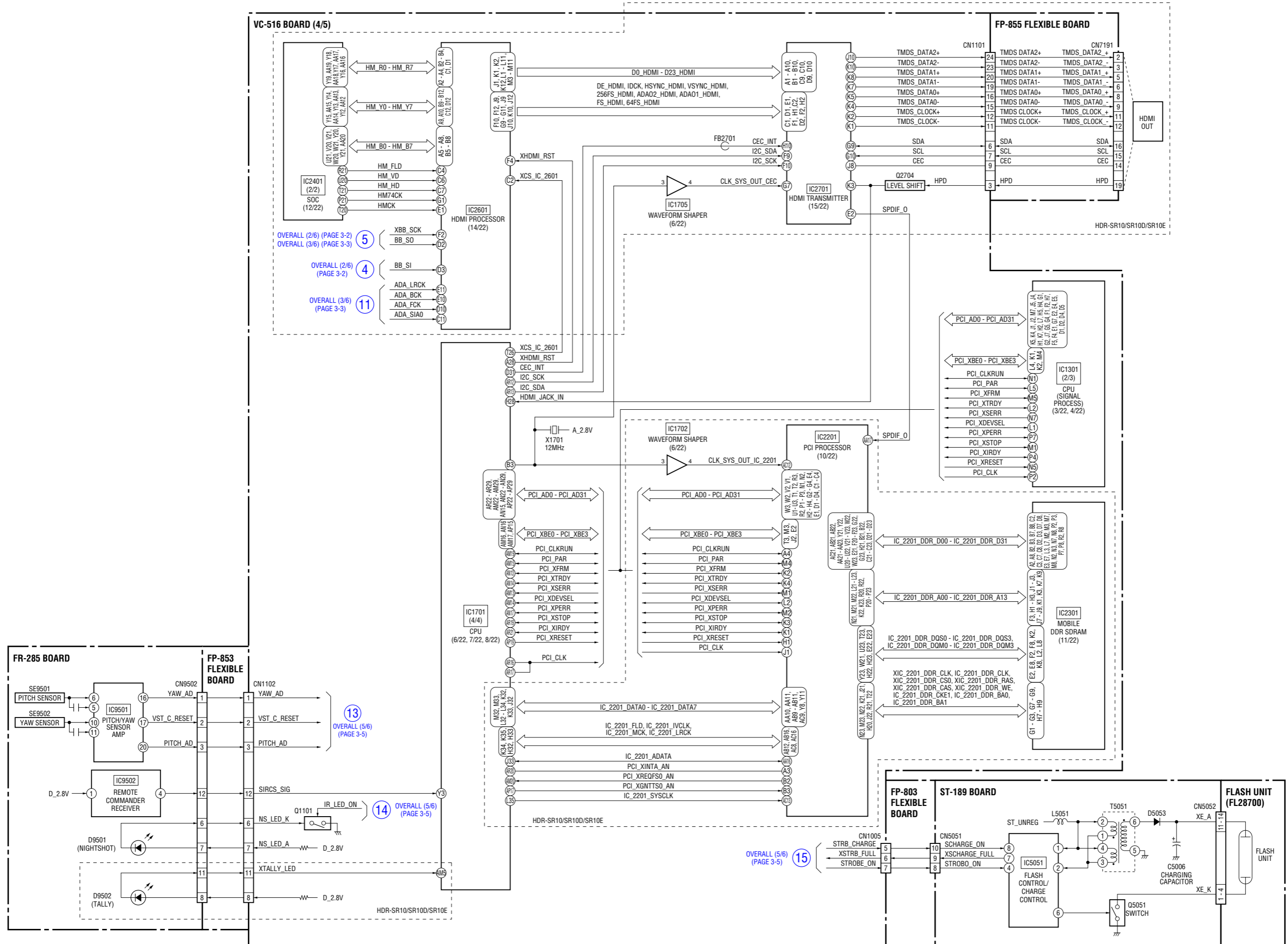




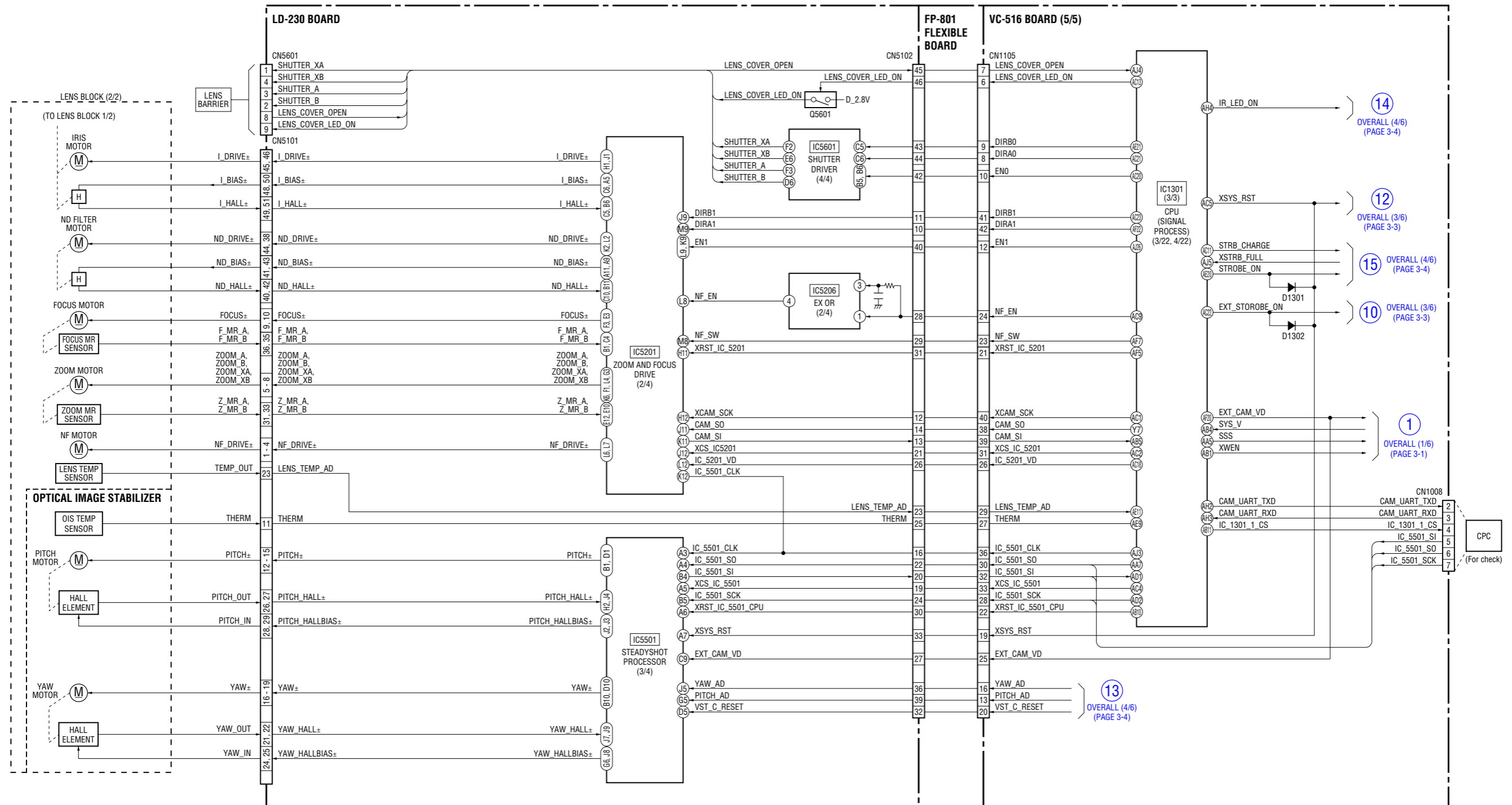
3-3. OVERALL BLOCK DIAGRAM (3/6) ( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



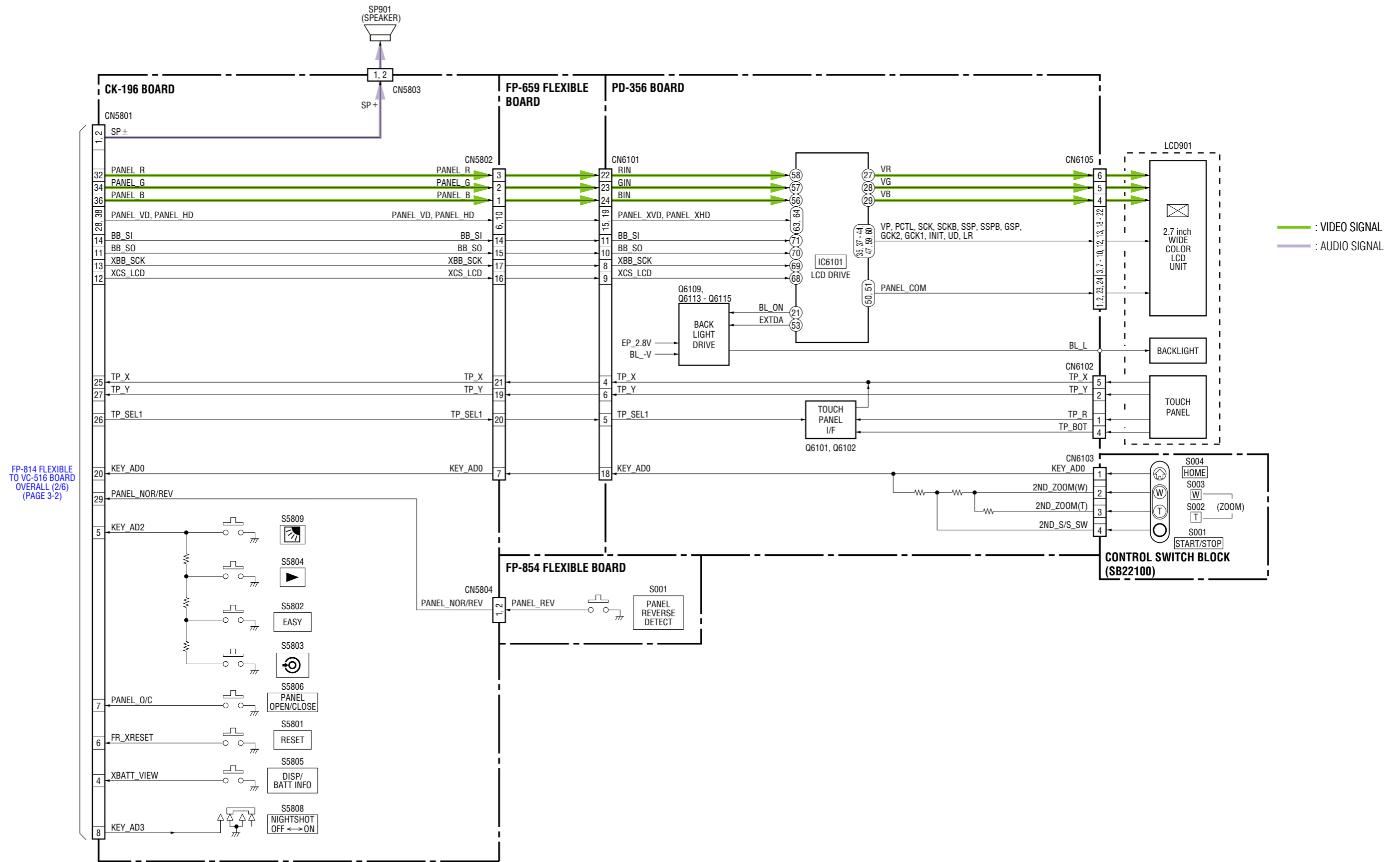
3-4. OVERALL BLOCK DIAGRAM (4/6) ( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



3-5. OVERALL BLOCK DIAGRAM (5/6) ( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.

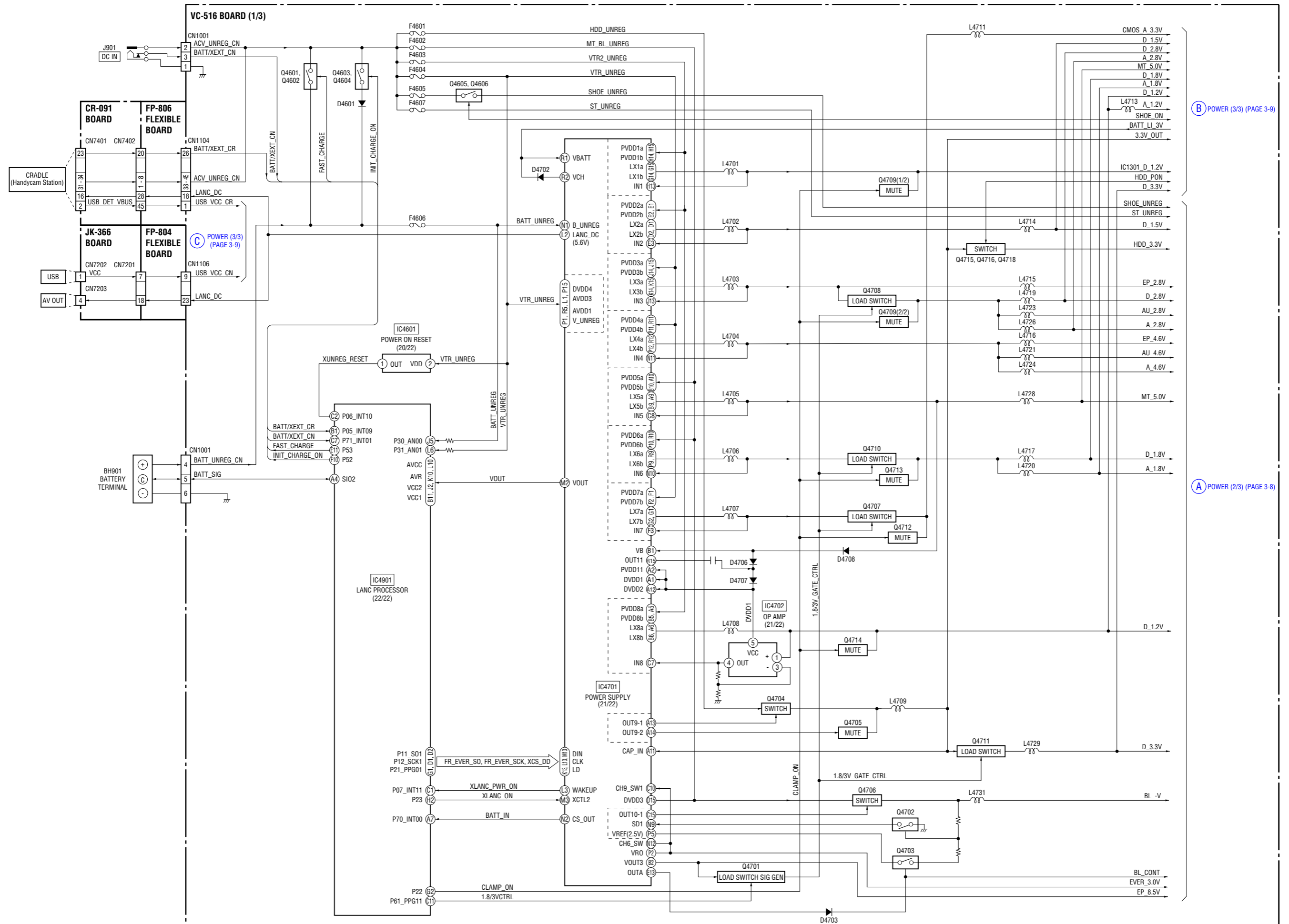


3-6. OVERALL BLOCK DIAGRAM (6/6) ( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



3-7. POWER BLOCK DIAGRAM (1/3)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.

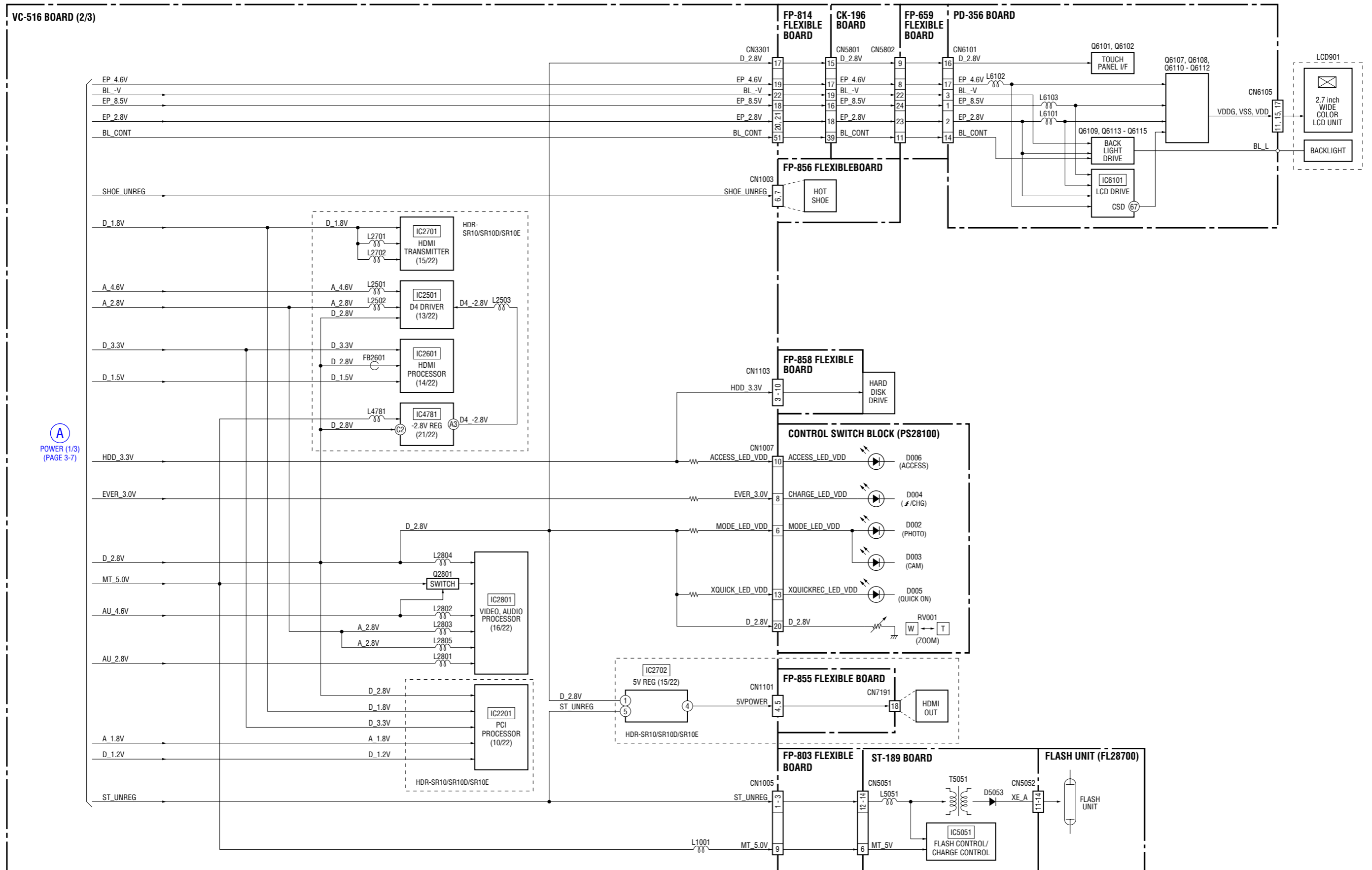


(B) POWER (3/3) (PAGE 3-9)

(A) POWER (2/3) (PAGE 3-8)

3-8. POWER BLOCK DIAGRAM (2/3)

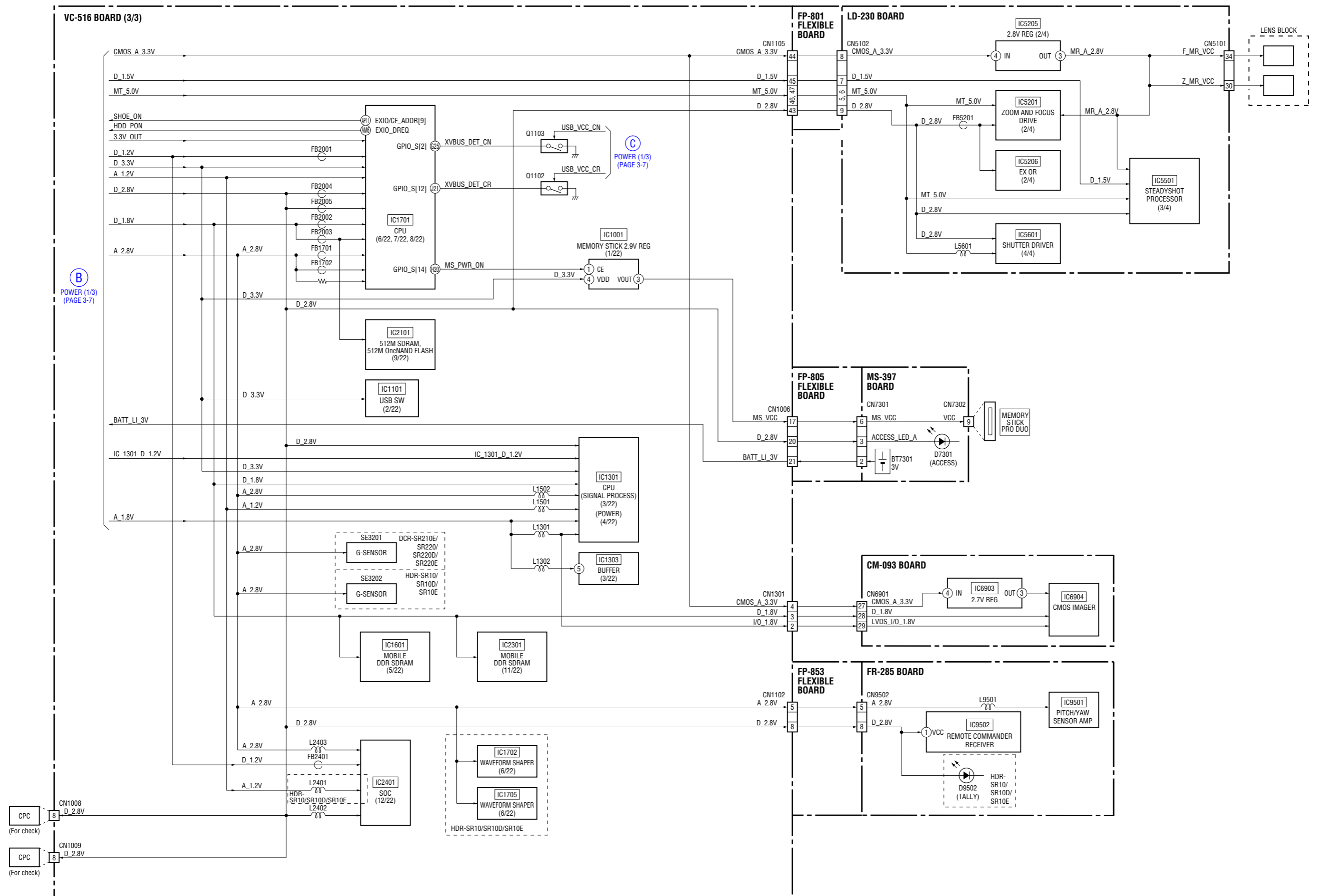
( ): Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



A  
POWER (1/3)  
PAGE 3-7

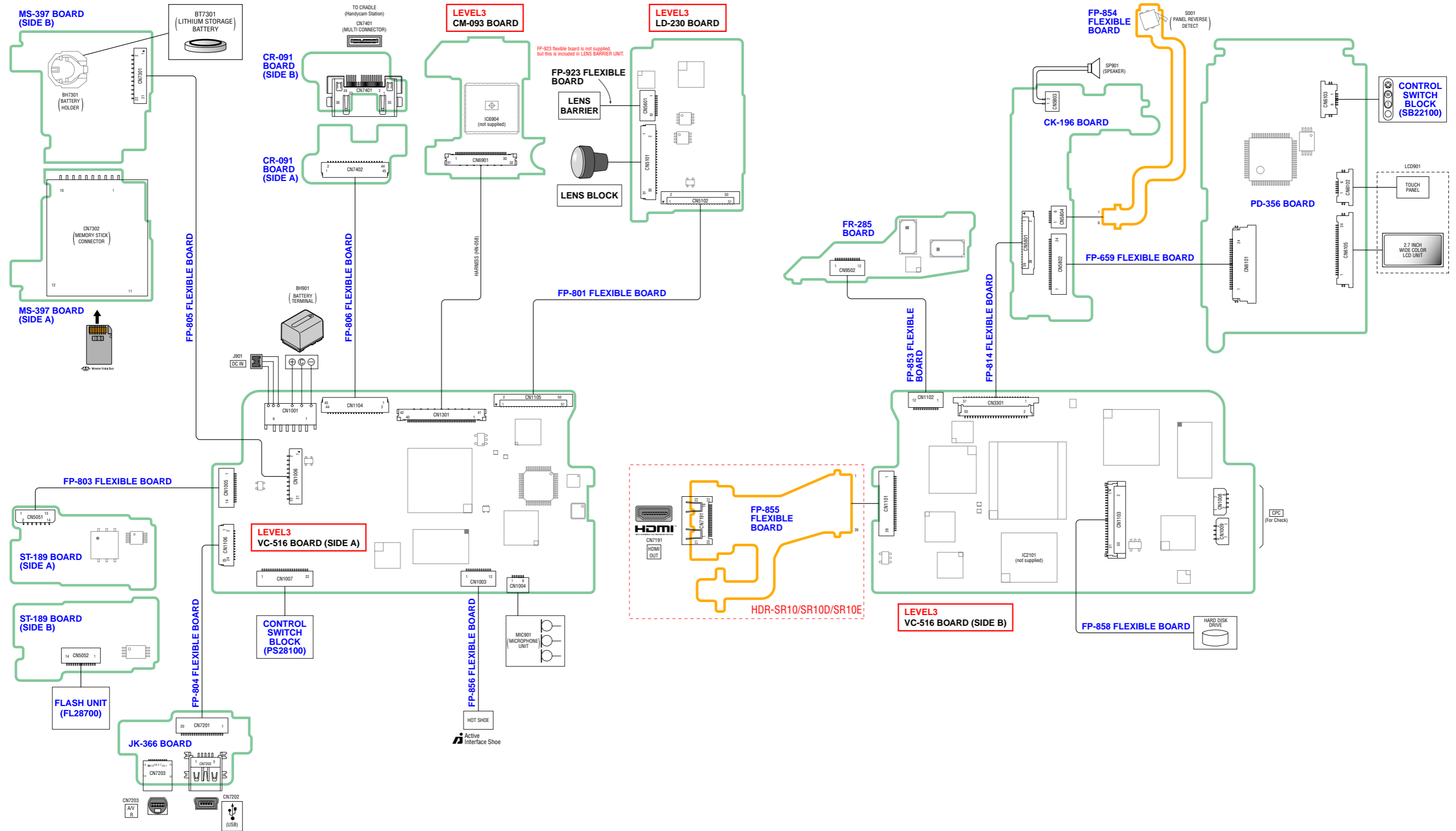
3-9. POWER BLOCK DIAGRAM (3/3)

( ): Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



# 4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

## 4-1. FRAME SCHEMATIC DIAGRAMS





## 4-2. SCHEMATIC DIAGRAMS

### Link

<ul style="list-style-type: none"> <li>• PD-356 BOARD (LCD DRIVE)</li> </ul>	<ul style="list-style-type: none"> <li>• FP-806 FLEXIBLE BOARD (VC-CR CONNECTION)</li> </ul>
<ul style="list-style-type: none"> <li>• FR-285 BOARD (PITCH/YAW SENSOR AMP, REMOTE COMMANDER RECEIVER)</li> </ul>	<ul style="list-style-type: none"> <li>• FP-814 FLEXIBLE BOARD (VC-CK CONNECTION)</li> </ul>
<ul style="list-style-type: none"> <li>• CK-196 BOARD (CONTROL SWITCH)</li> </ul>	<ul style="list-style-type: none"> <li>• FP-853 FLEXIBLE BOARD (VC-FR CONNECTION)</li> </ul>
<ul style="list-style-type: none"> <li>• ST-189 BOARD (FLASH DRIVER)</li> </ul>	<ul style="list-style-type: none"> <li>• FP-854 FLEXIBLE BOARD (PANEL REVERSE DETECTION SWITCH)</li> </ul>
<ul style="list-style-type: none"> <li>• JK-366 BOARD (JACK)</li> </ul>	<ul style="list-style-type: none"> <li>• FP-855 FLEXIBLE BOARD: HDR-SR10/SR10D/SR10E (HDMI CONNECTOR)</li> </ul>
<ul style="list-style-type: none"> <li>• CR-091 BOARD (CRADLE TERMINAL)</li> </ul>	<ul style="list-style-type: none"> <li>• FP-856 FLEXIBLE BOARD (HOT SHOE CONNECTION)</li> </ul>
<ul style="list-style-type: none"> <li>• MS-397 BOARD (MS CONNECTOR)</li> </ul>	<ul style="list-style-type: none"> <li>• FP-858 FLEXIBLE BOARD (HDD CONNECTION)</li> </ul>
<ul style="list-style-type: none"> <li>• FP-659 FLEXIBLE BOARD (CK-PD CONNECTION)</li> </ul>	<ul style="list-style-type: none"> <li>• CONTROL SWITCH BLOCK (SB22100)</li> </ul>
<ul style="list-style-type: none"> <li>• FP-801 FLEXIBLE BOARD (LD-VC CONNECTION)</li> </ul>	<ul style="list-style-type: none"> <li>• FLASH UNIT (FL28700)</li> </ul>
<ul style="list-style-type: none"> <li>• FP-803 FLEXIBLE BOARD (VC-ST CONNECTION)</li> </ul>	<ul style="list-style-type: none"> <li>• CONTROL SWITCH BLOCK (PS28100)</li> </ul>
<ul style="list-style-type: none"> <li>• FP-804 FLEXIBLE BOARD (VC-JK CONNECTION)</li> </ul>	
<ul style="list-style-type: none"> <li>• FP-805 FLEXIBLE BOARD (VC-MS CONNECTION)</li> </ul>	

• COMMON NOTE FOR SCHEMATIC DIAGRAMS



## (JAPANESE)

## 回路図共通ノート

(他に必要なノートは各ブロックに記載してあります)

## 【回路図ノート】









- ・ケミコン、タンタルを除くコンデンサで、耐圧50V以下のものはその耐圧を省略。単位はすべて $\mu\text{F}$  (pはpF)。
- ・チップ抵抗で指示のないものは、 $1/10\text{W}$ 以下。  
 $k\Omega=1000\Omega$ ,  $M\Omega=1000k\Omega$
- ・チップ部品交換時の注意  
取り外した部品は再使用せず、未使用の部品をご使用ください。

タンタルコンデンサのマイナス側は熱に弱いので注意してください。

- ・チップ部品には下記のように表示したものがああります。

例	C 541	L 452
	22U	10UH
	TA A	2520
	↑ ↑	↑
	種類 ケースサイズ	外形寸法 (mm)

- ・抵抗、コンデンサ、ICなど定数にXXがあるものは、使用していない事を示しています。このため、使用していない回路が記載されている事があります。
- ・★印のある部品は、機種などにより異なりますので機能別マウント一覧表を参照してください。
- ・可変抵抗と半固定抵抗で、B特性の表示を省略。
- ・信号名表記について、下記のような場合があります。  
XEDIT → EDIT PB/XREC → PB/REC

- ・ は不燃性抵抗。
- ・ はヒューズ抵抗。
- ・ はパネル表示名称。
- ・ はB+ライン。
- ・ はB-ライン。
- ・ はBライン (+, -) の入出力方向を示す。
- ・ は調整名称。
- ・ は未使用回路。

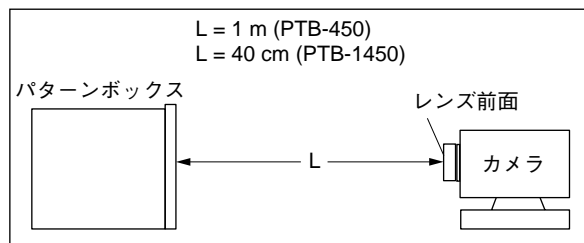
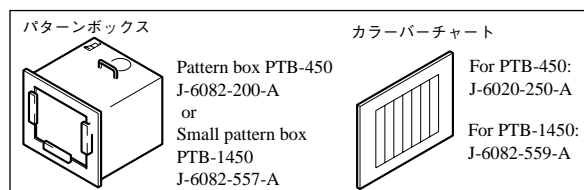
## 【電圧・波形測定条件ノート】

- ・電圧値及び信号波形はパターンボックスのカラーバーチャートを被写体としたときの測定点对アース間の参考値。  
(デジタルマルチメータ; 入力インピーダンス DC10M $\Omega$ 使用)
- ・使用テスタの入力インピーダンスにより電圧値が多少異なります。

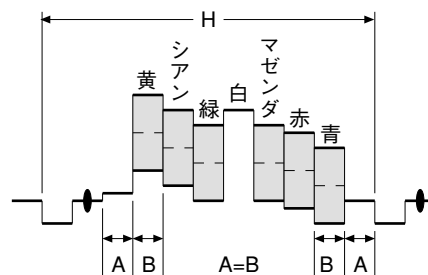
## イメージ交換時の注意

- ・イメージを交換した場合は、カメラ部の全調整を行ってください。
- ・イメージは構造上、静電気により破壊される恐れがあるため、MOS ICと同様に注意して取り扱ってください。  
また、受光部にはゴミの付着、および強い光がはいることのないように注意してください。

## 1. 接続図

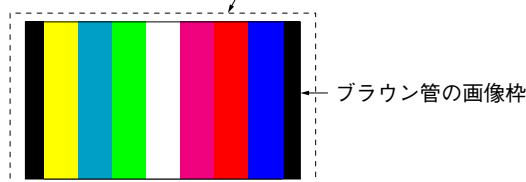


- 2. 図a及び図bの波形が得られるように画枠調整して下さい。



図a (映像入出力端子出力波形)

電子ビーム走査線

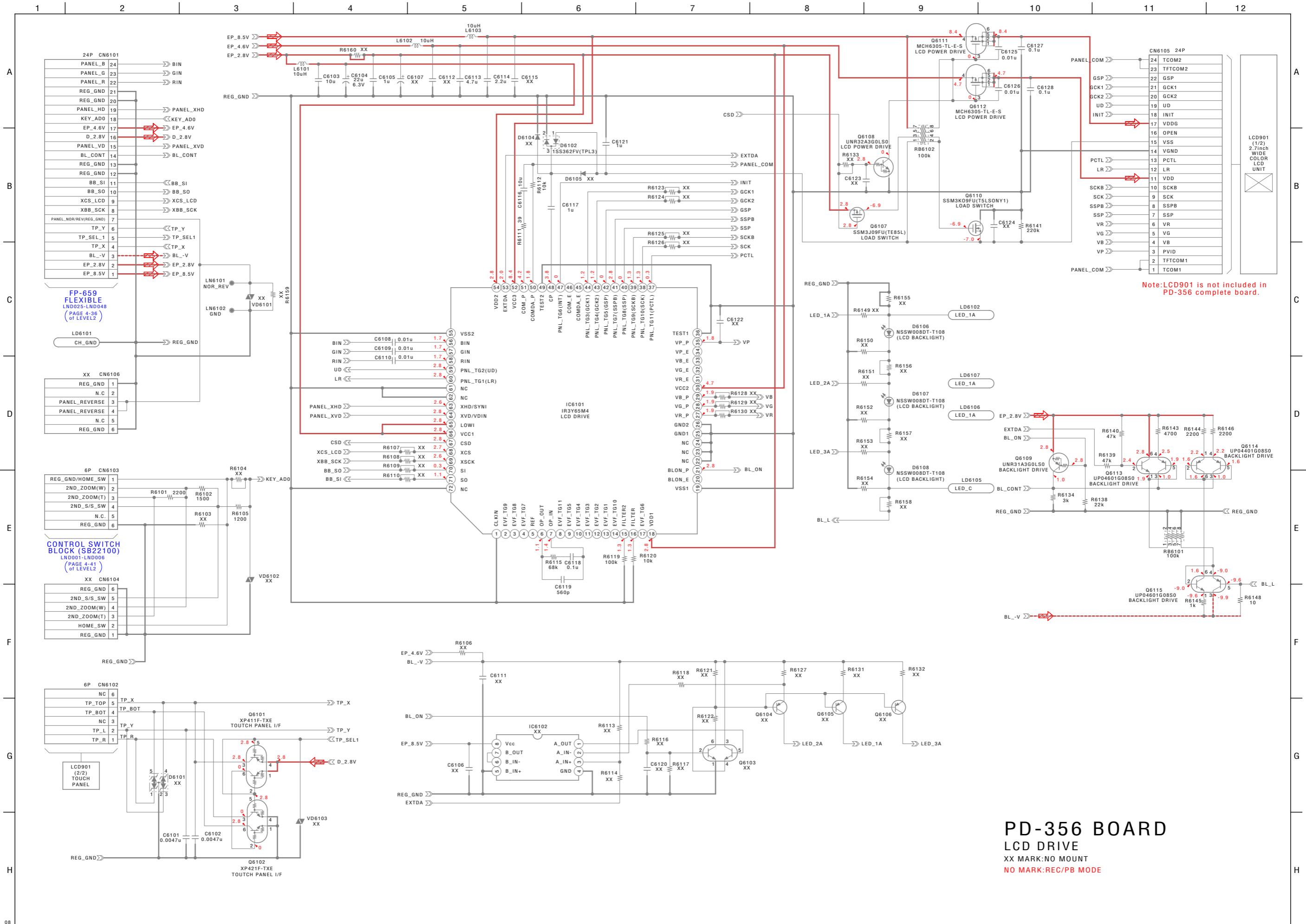


図b (テレビモニタの映像)

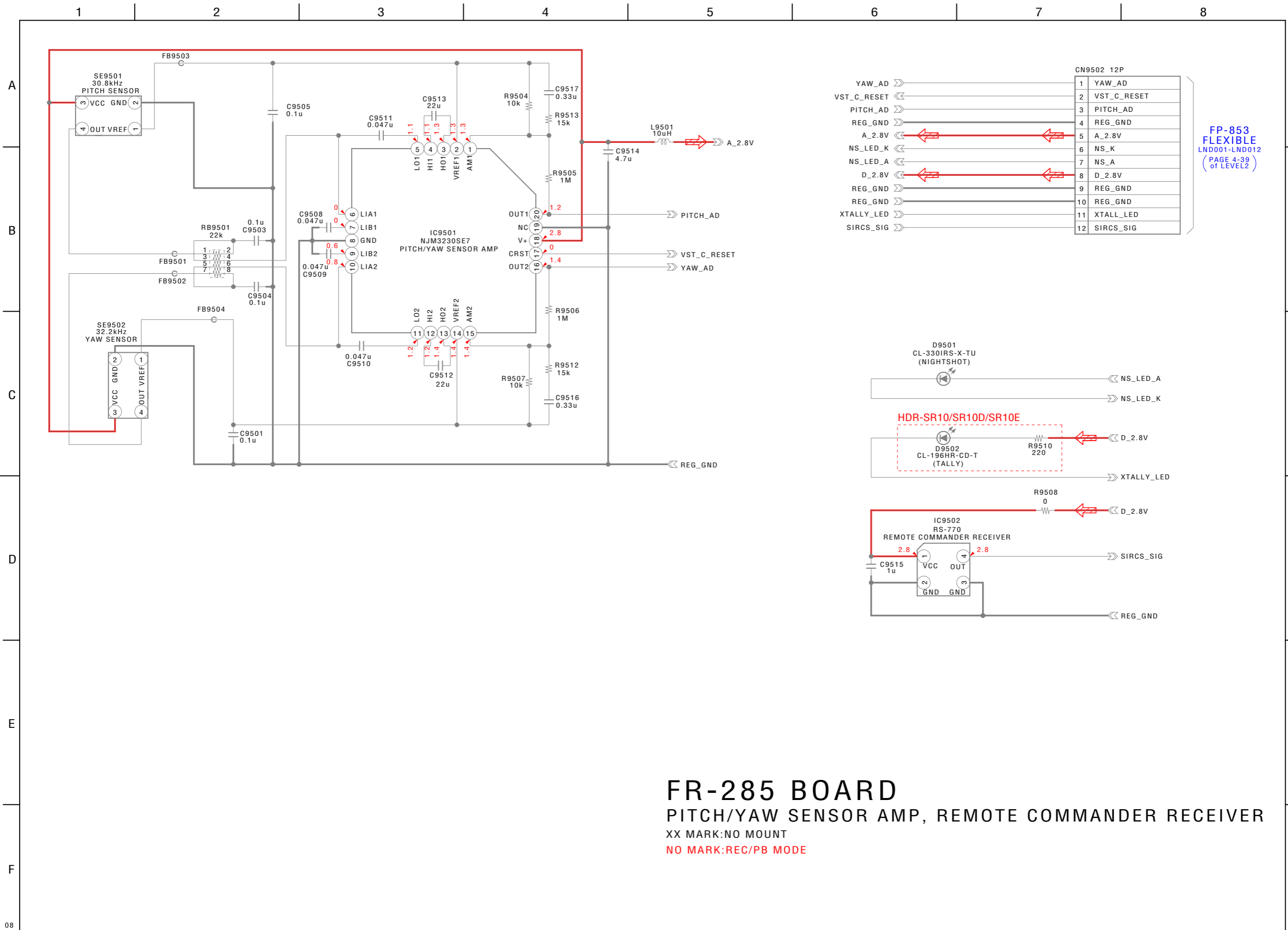
△印の部品、または△印付きの点線で囲まれた部品は、安全性を維持するために重要な部品です。従って交換時は、必ず指定の部品を使用して下さい。

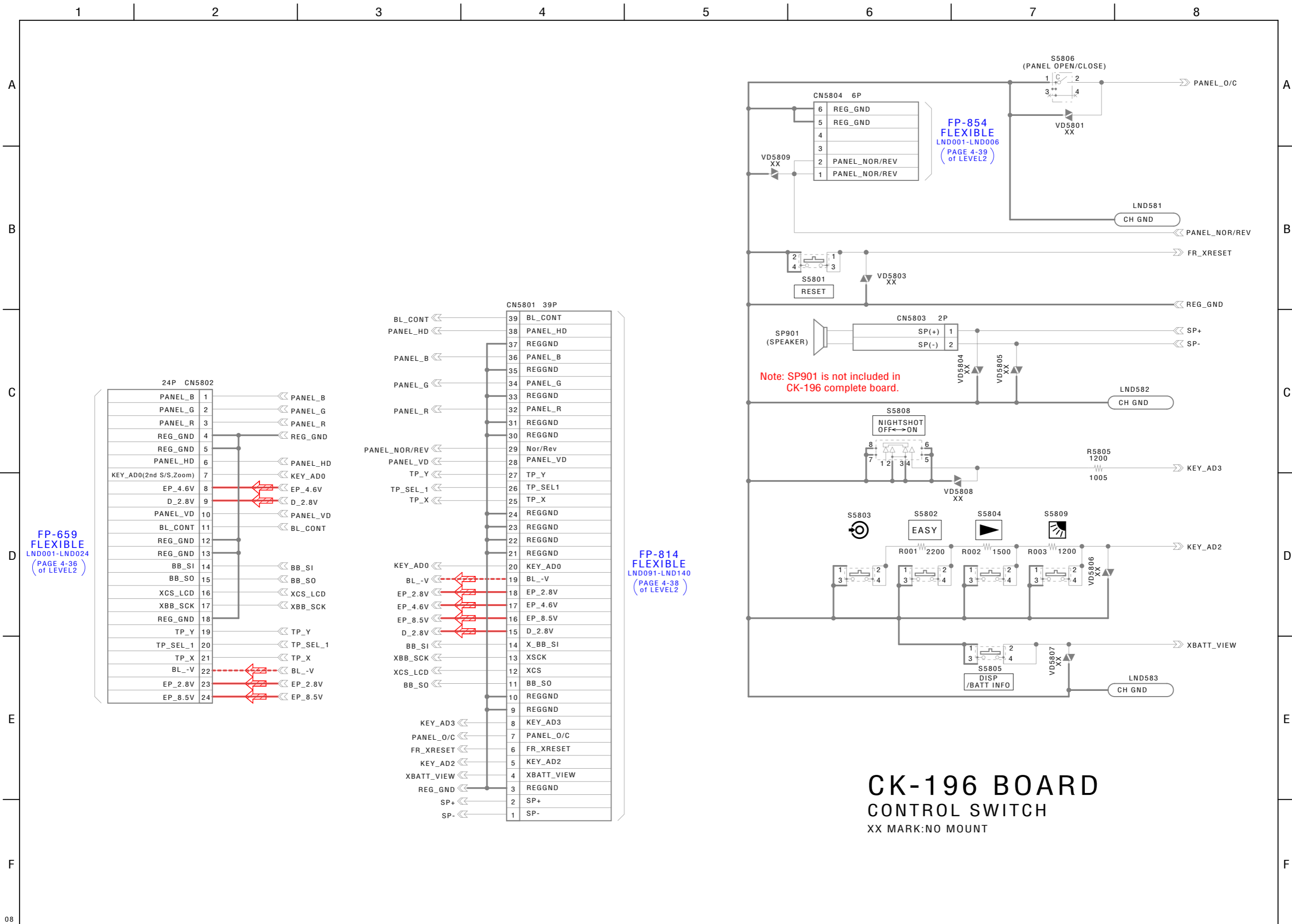
お願い  
図面番号で部品を指定するときは基板名又はブロックを併せて指定して下さい。

Schematic diagrams of the CM-093, VC-516 and LD-230 boards are not shown.  
Pages 4-4 to 4-30 are not shown.



Note:LCD901 is not included in PD-356 complete board.





FP-659 FLEXIBLE LND001-LND024 (PAGE 4-36 of LEVEL2)

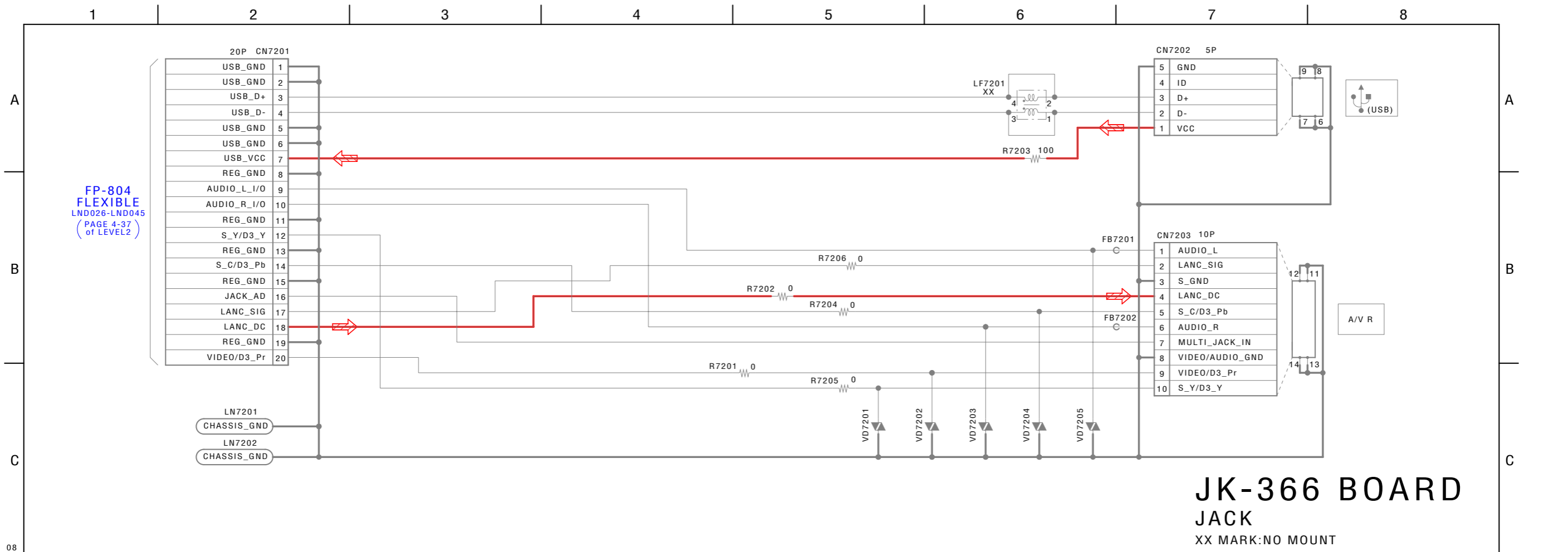
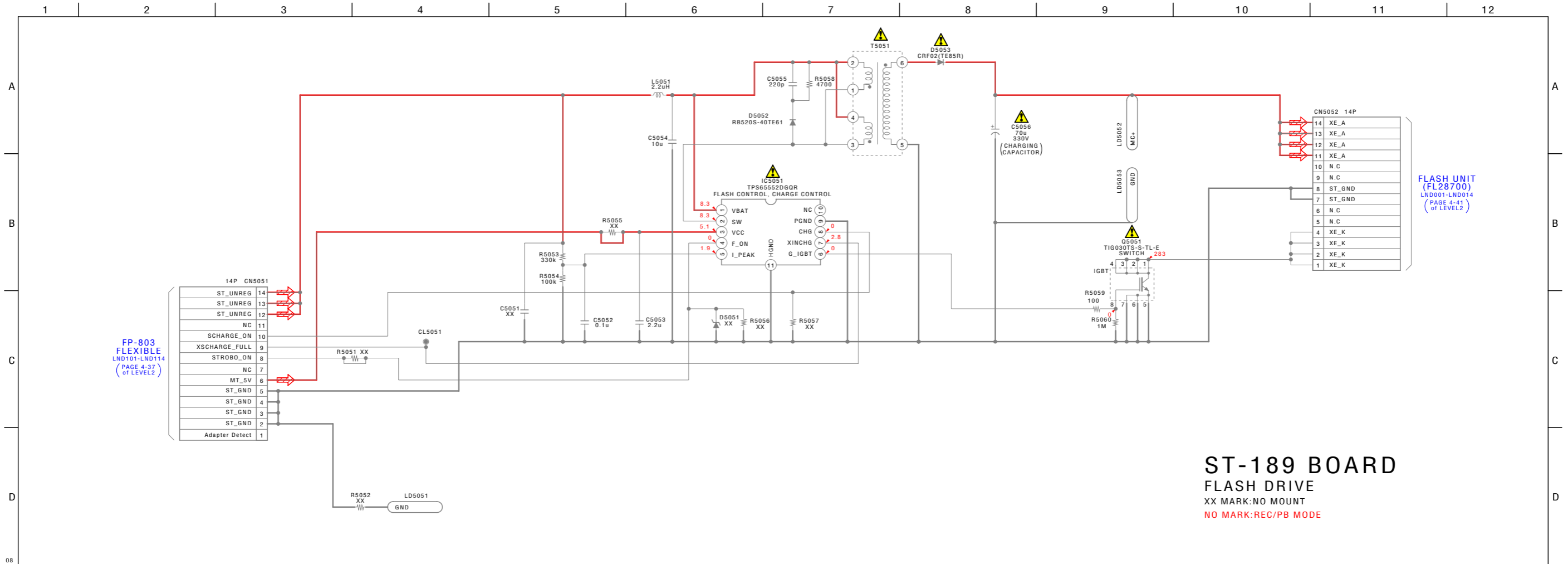
FP-814 FLEXIBLE LND091-LND140 (PAGE 4-38 of LEVEL2)

FP-854 FLEXIBLE LND001-LND006 (PAGE 4-39 of LEVEL2)

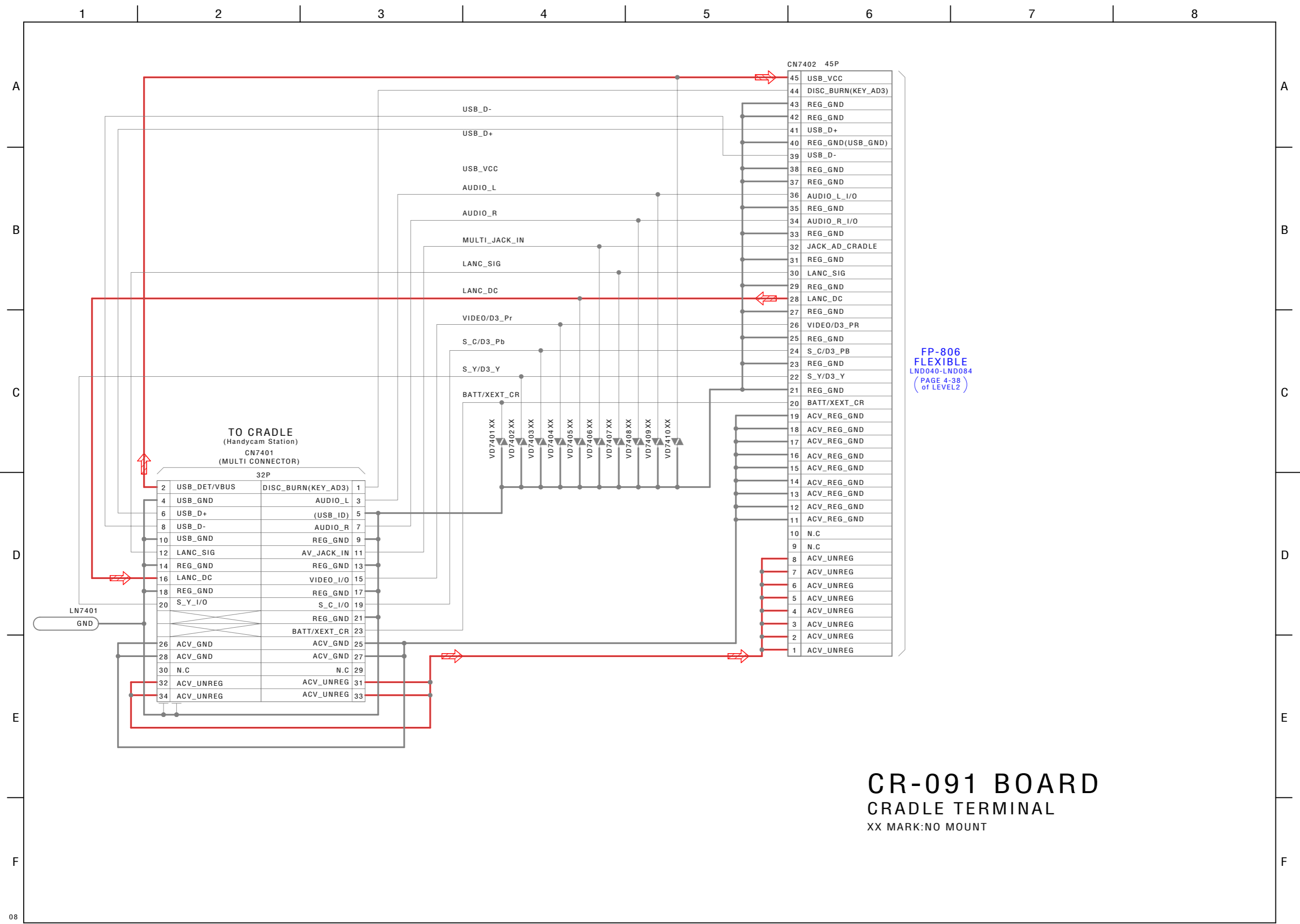
# CK-196 BOARD CONTROL SWITCH

XX MARK:NO MOUNT

• Refer to page 4-2 (English), 4-3 (Japanese) for mark  $\triangle$ .



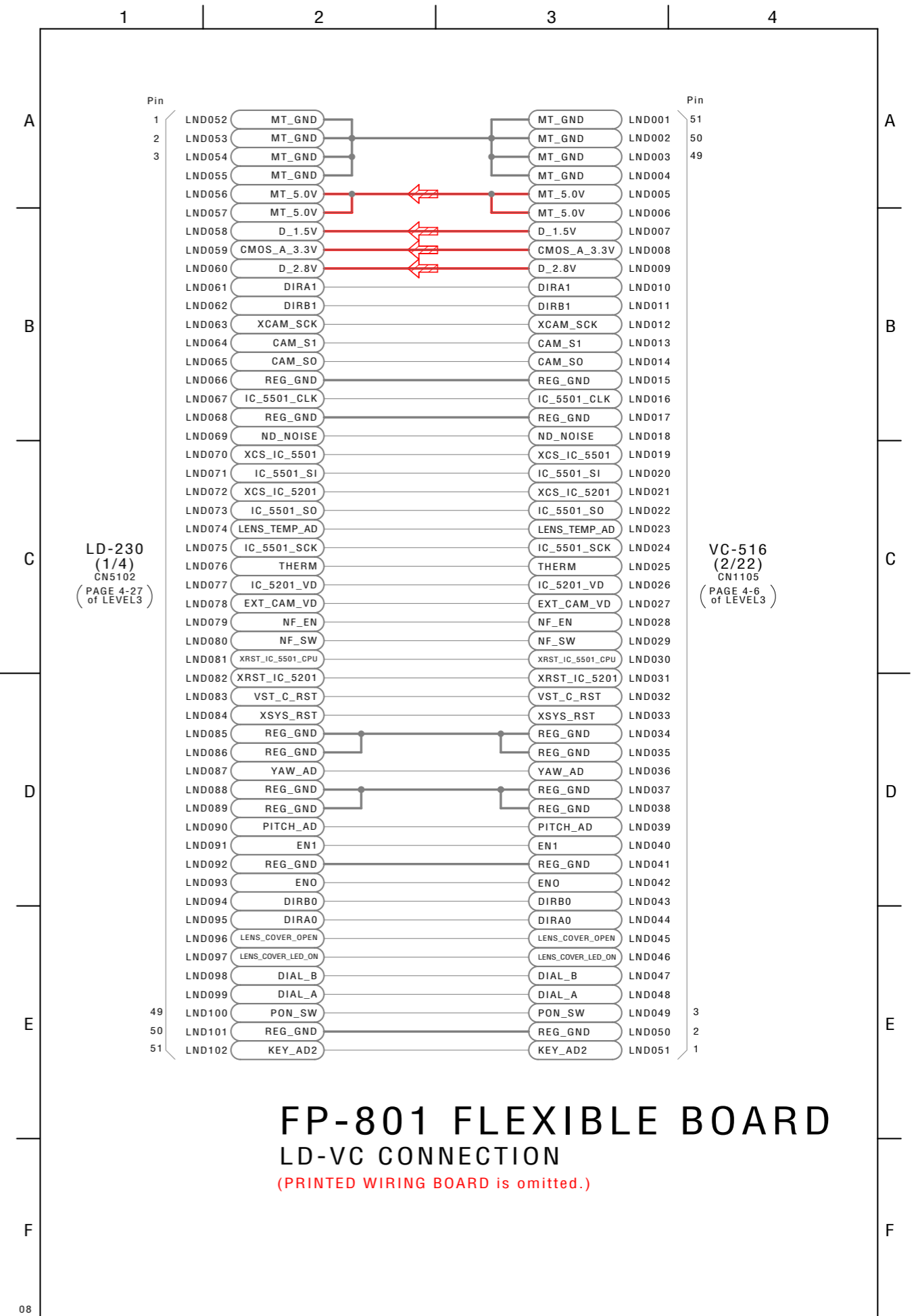
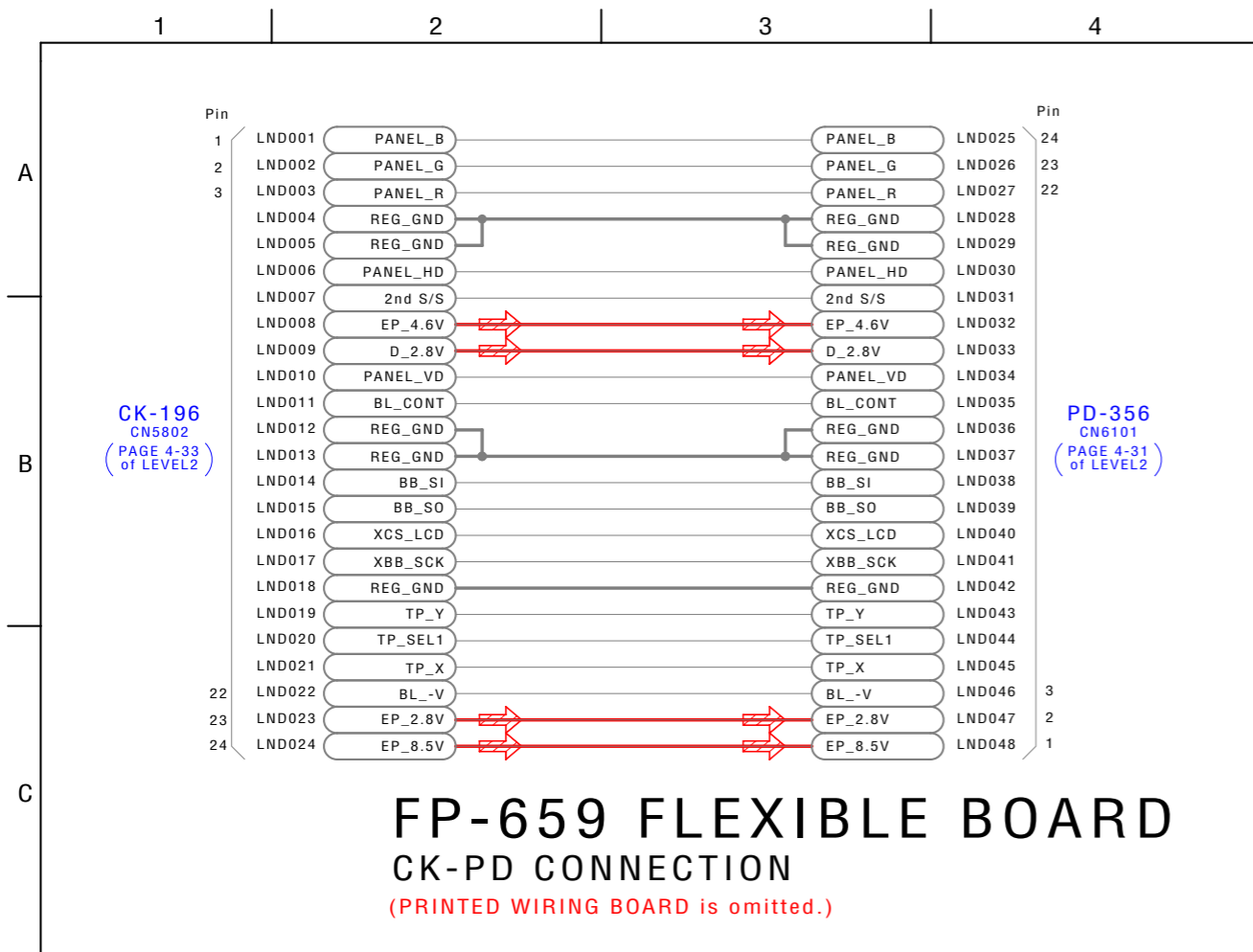
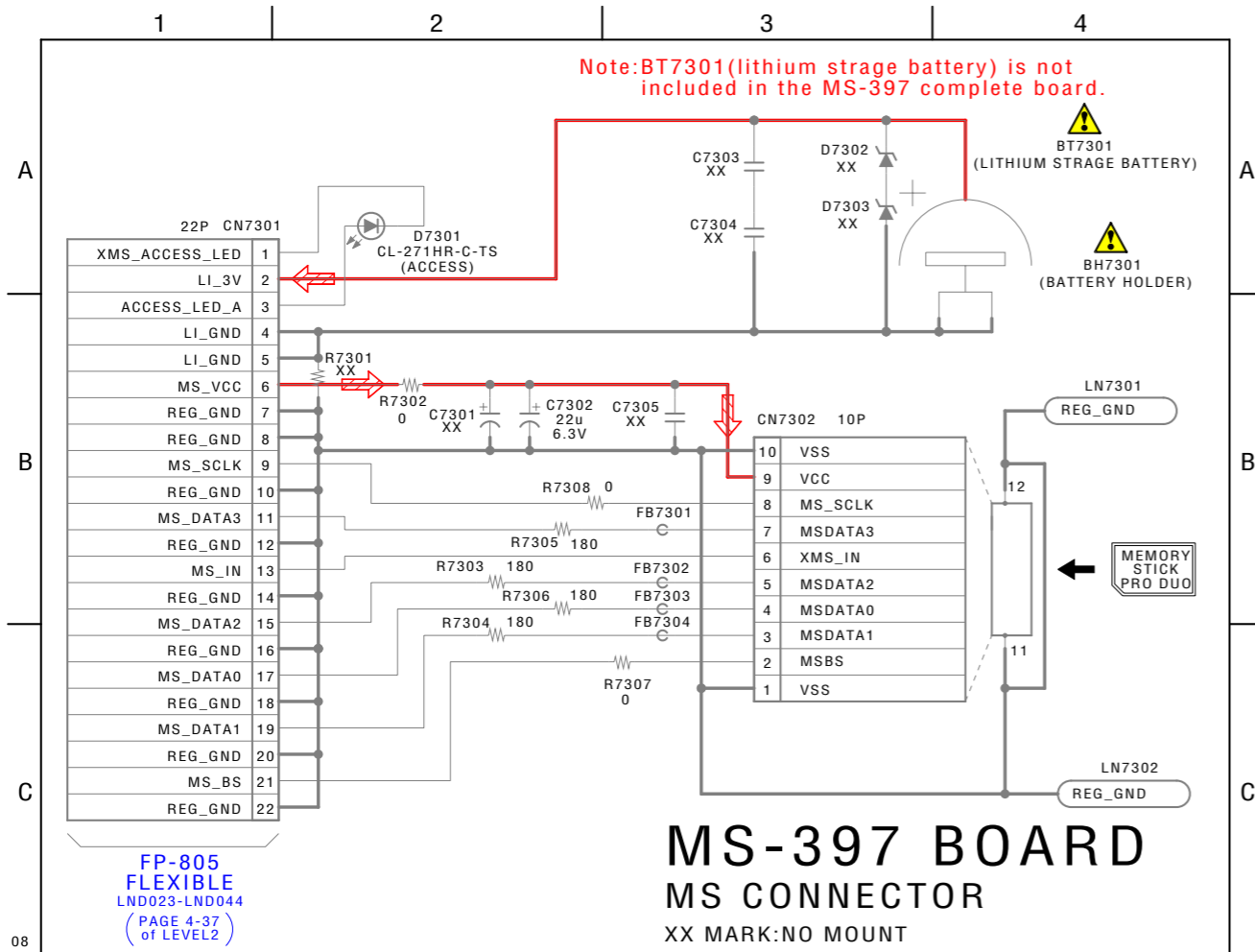


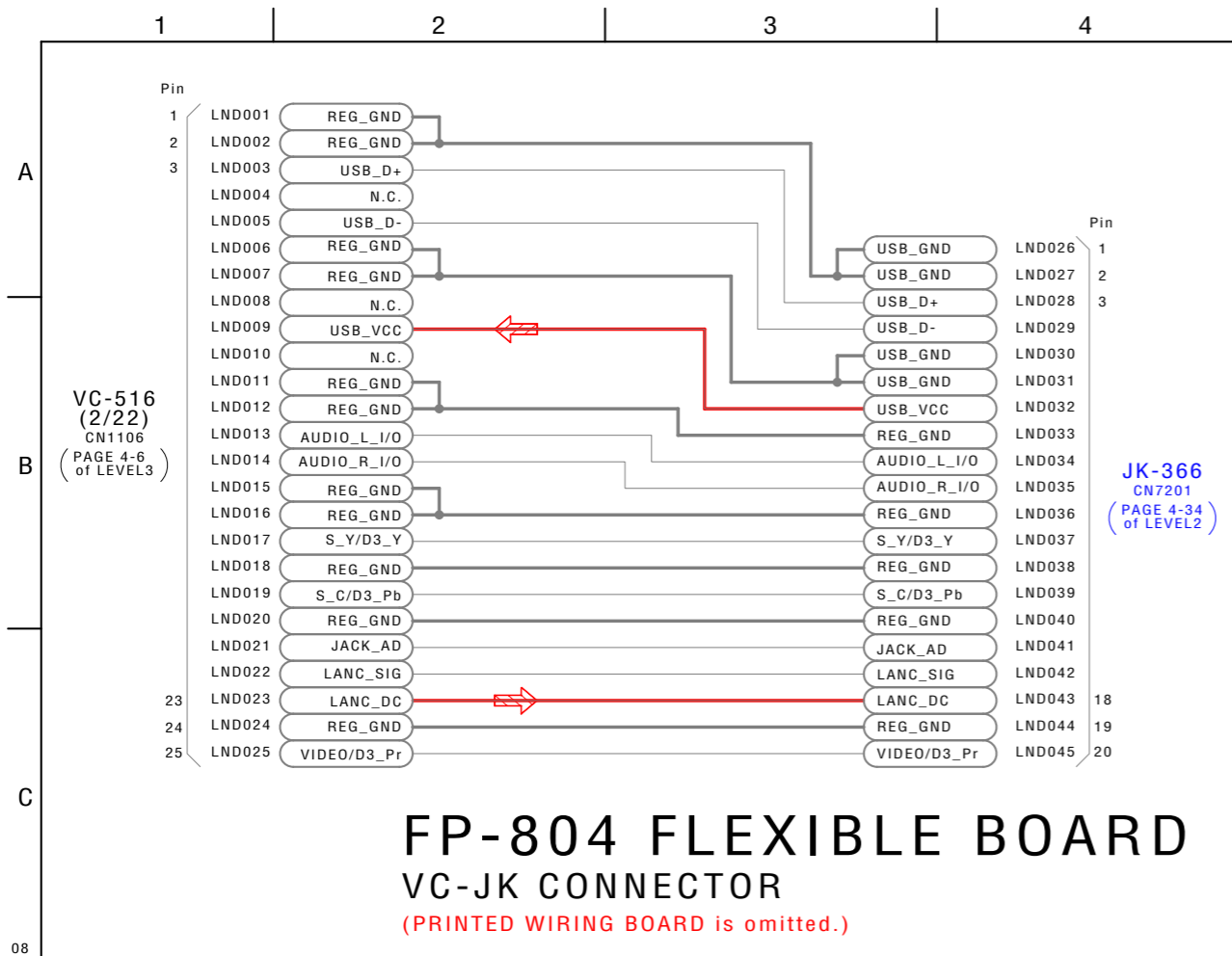
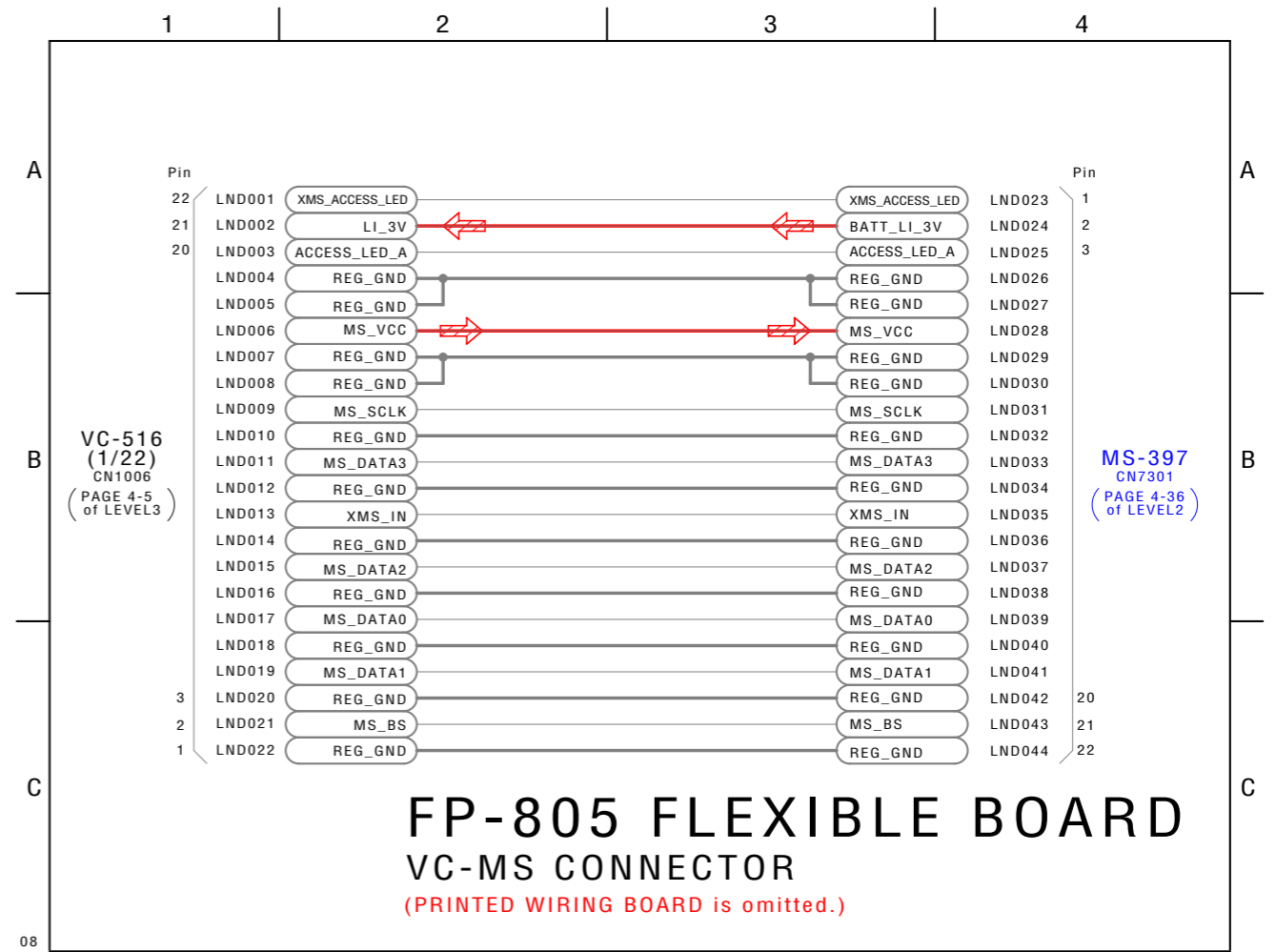
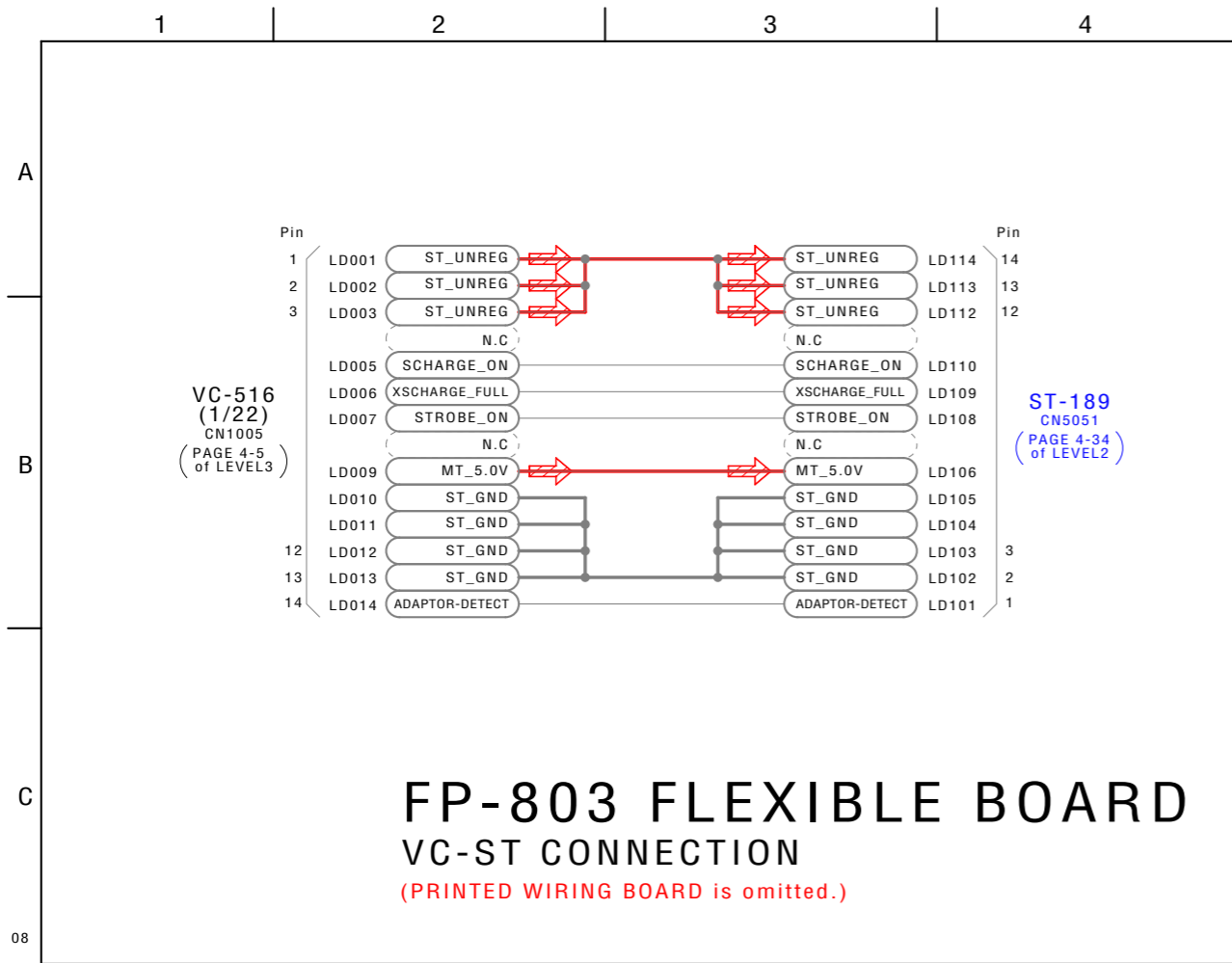


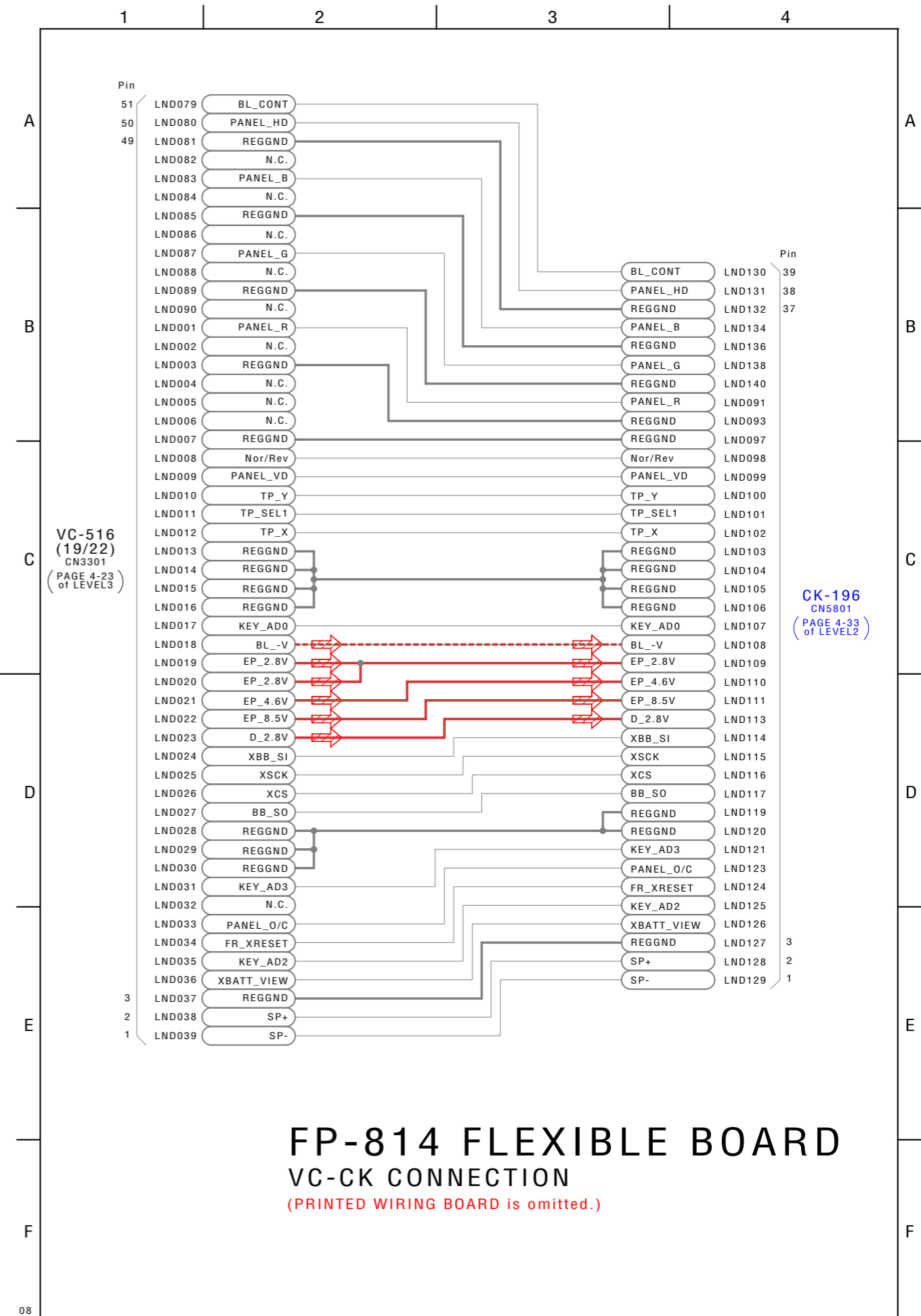
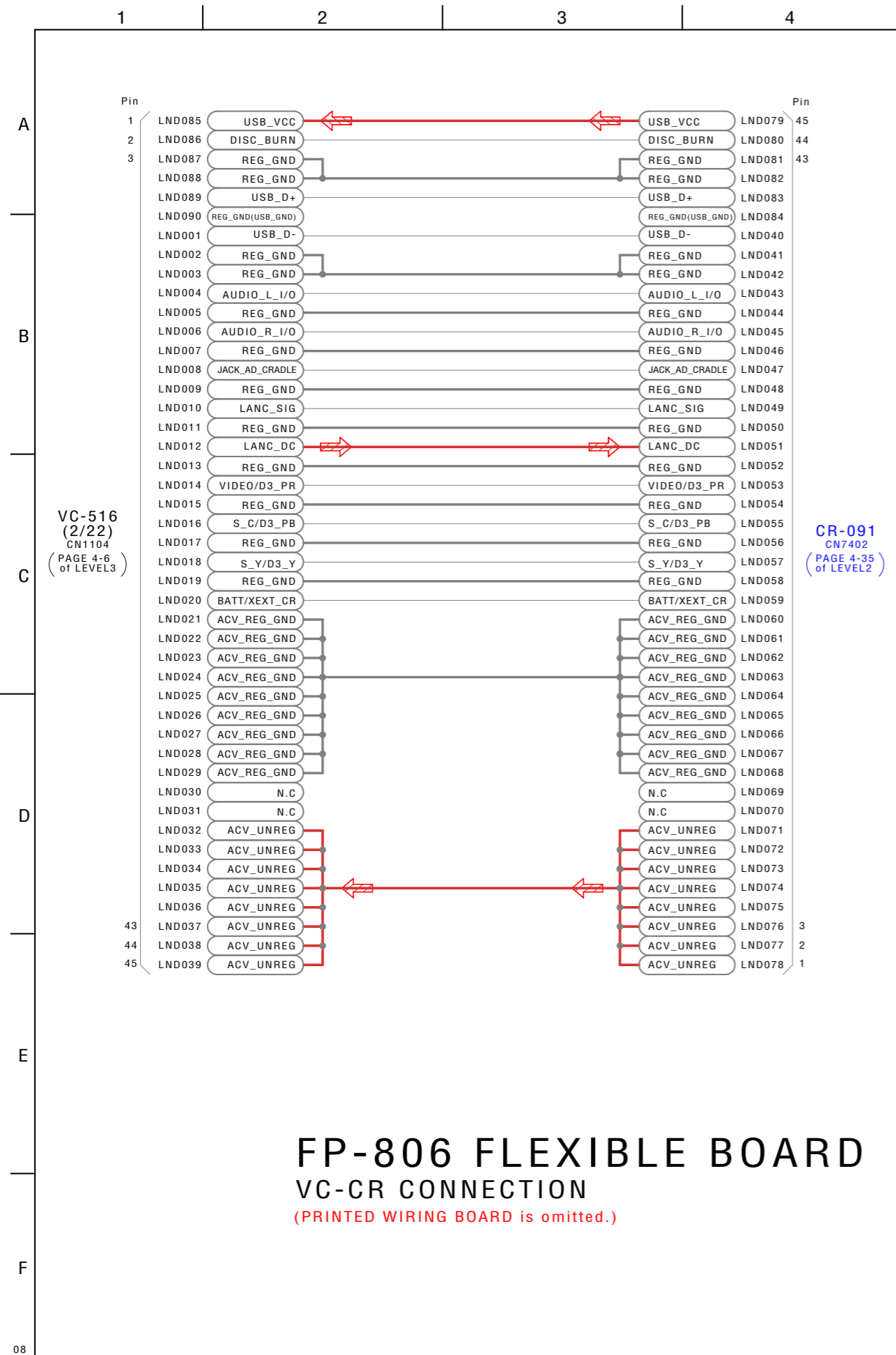
FP-806  
FLEXIBLE  
LND040-LND084  
(PAGE 4-38  
of LEVEL2)

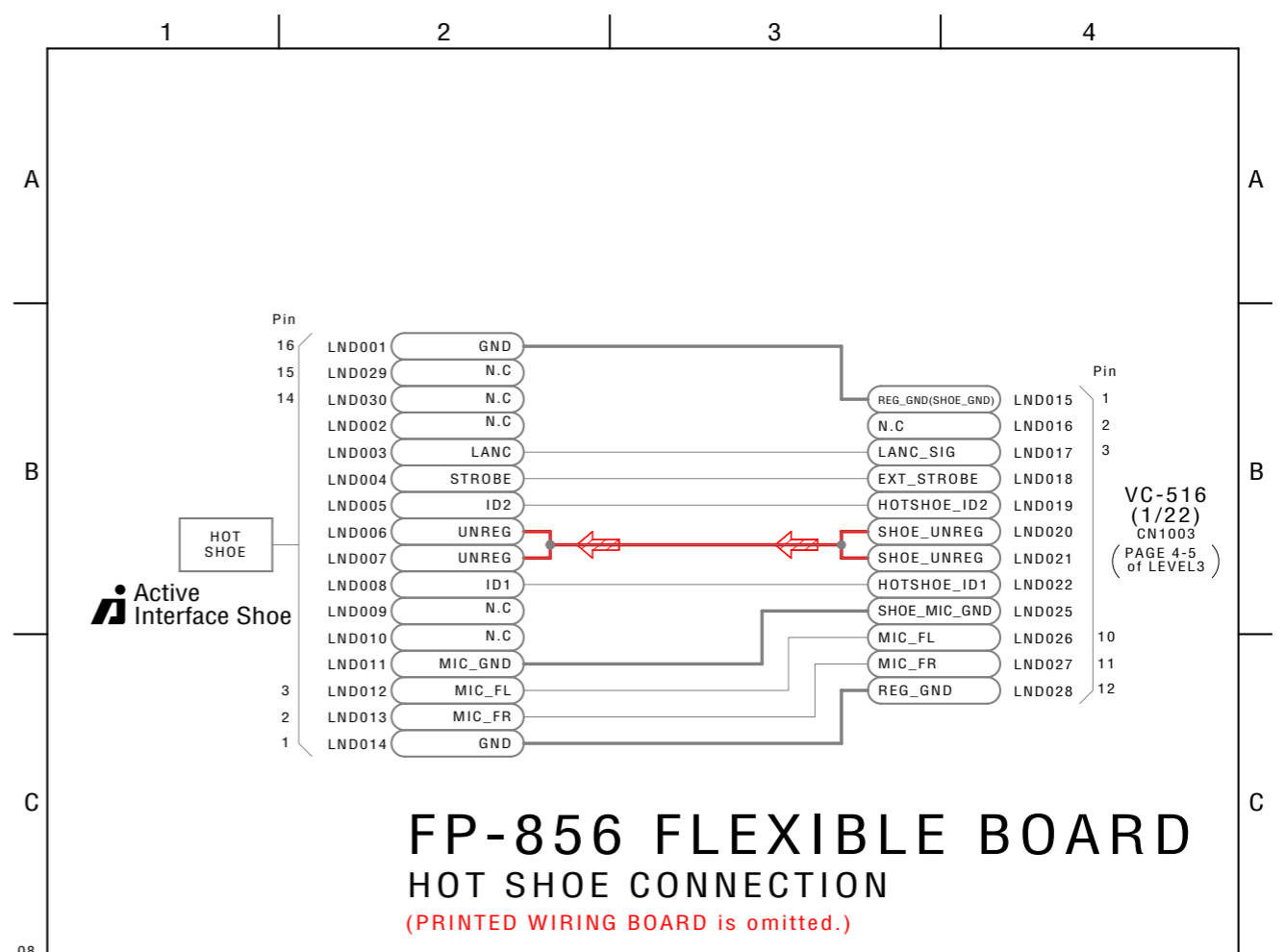
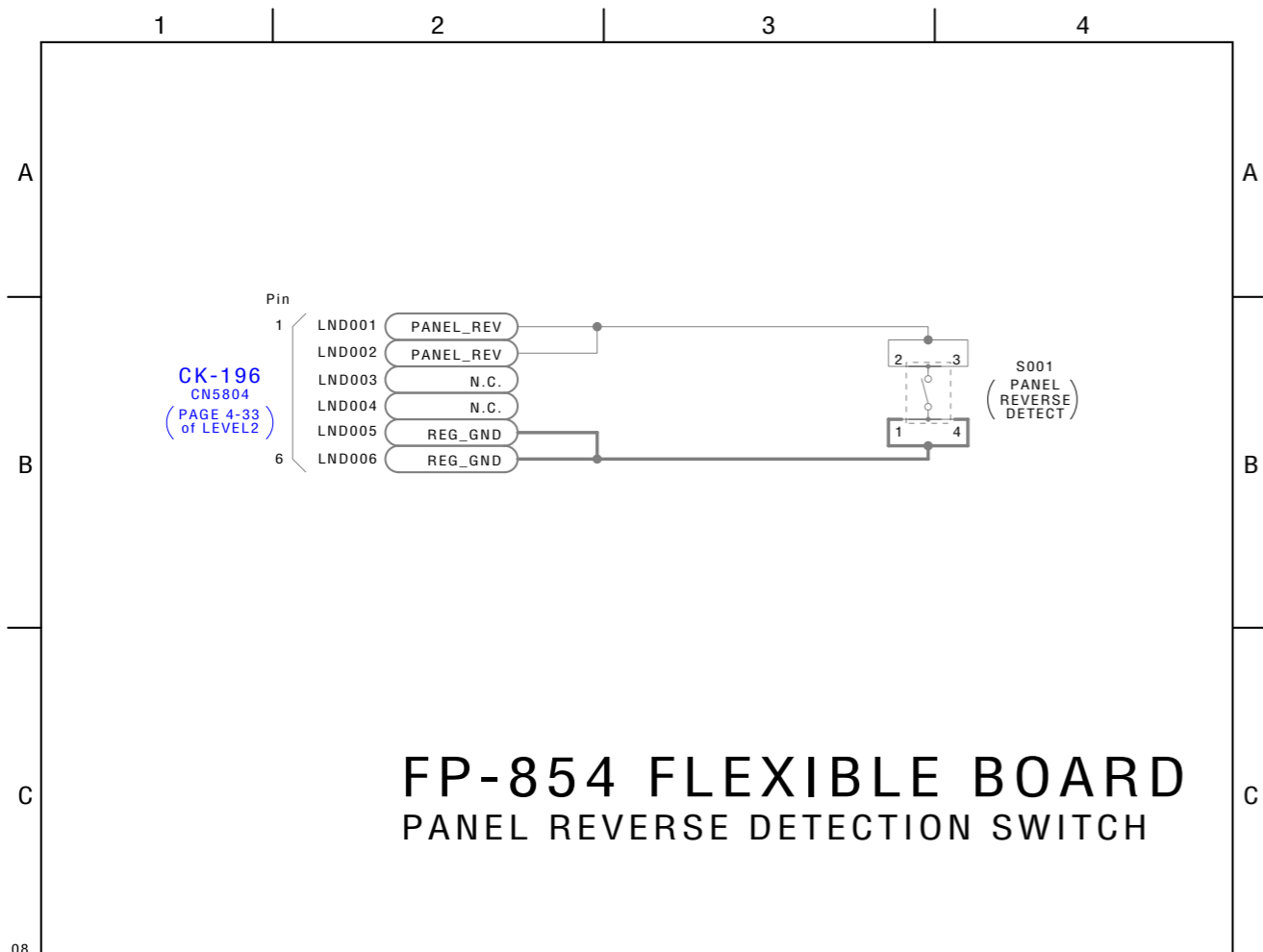
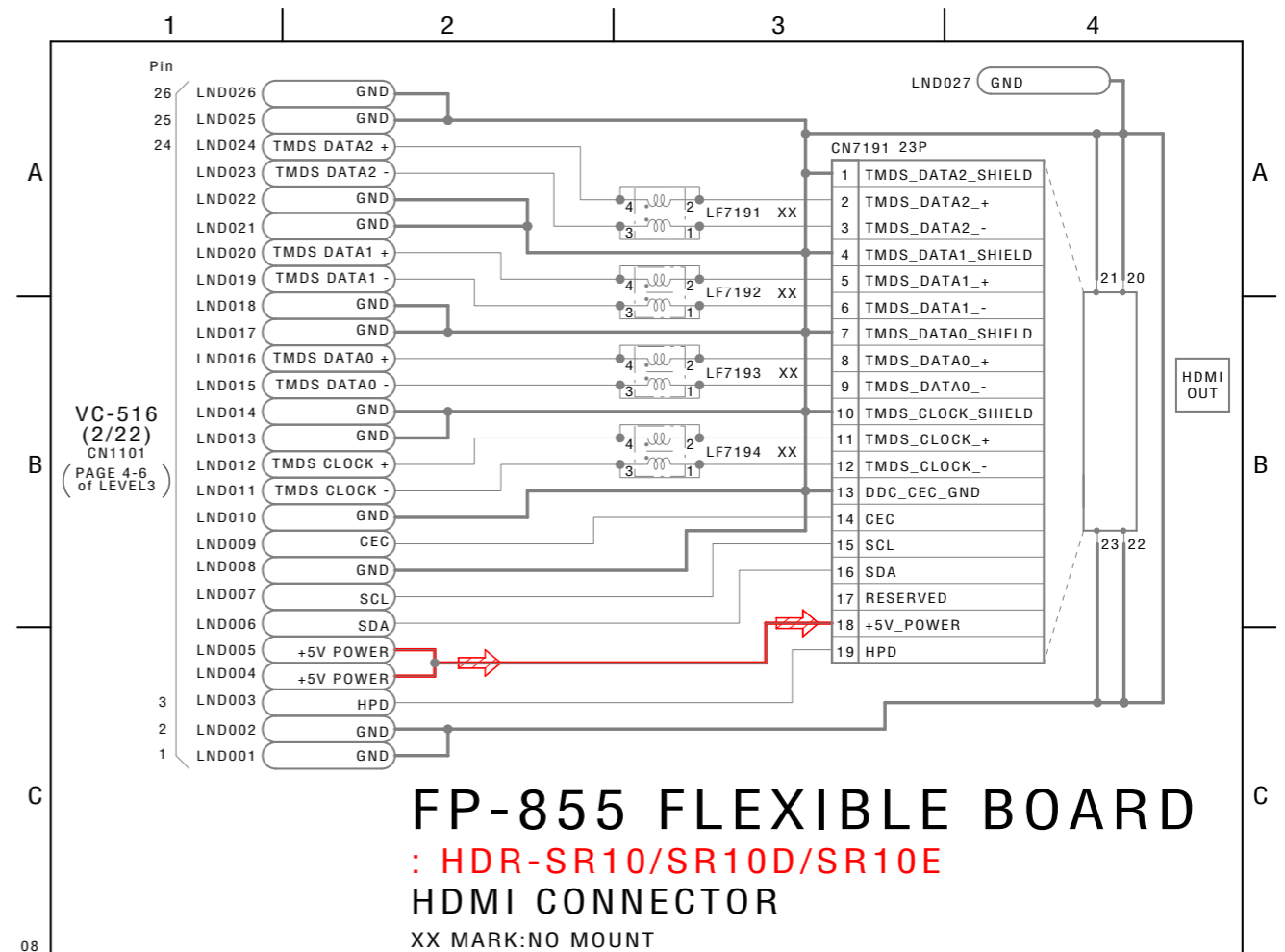
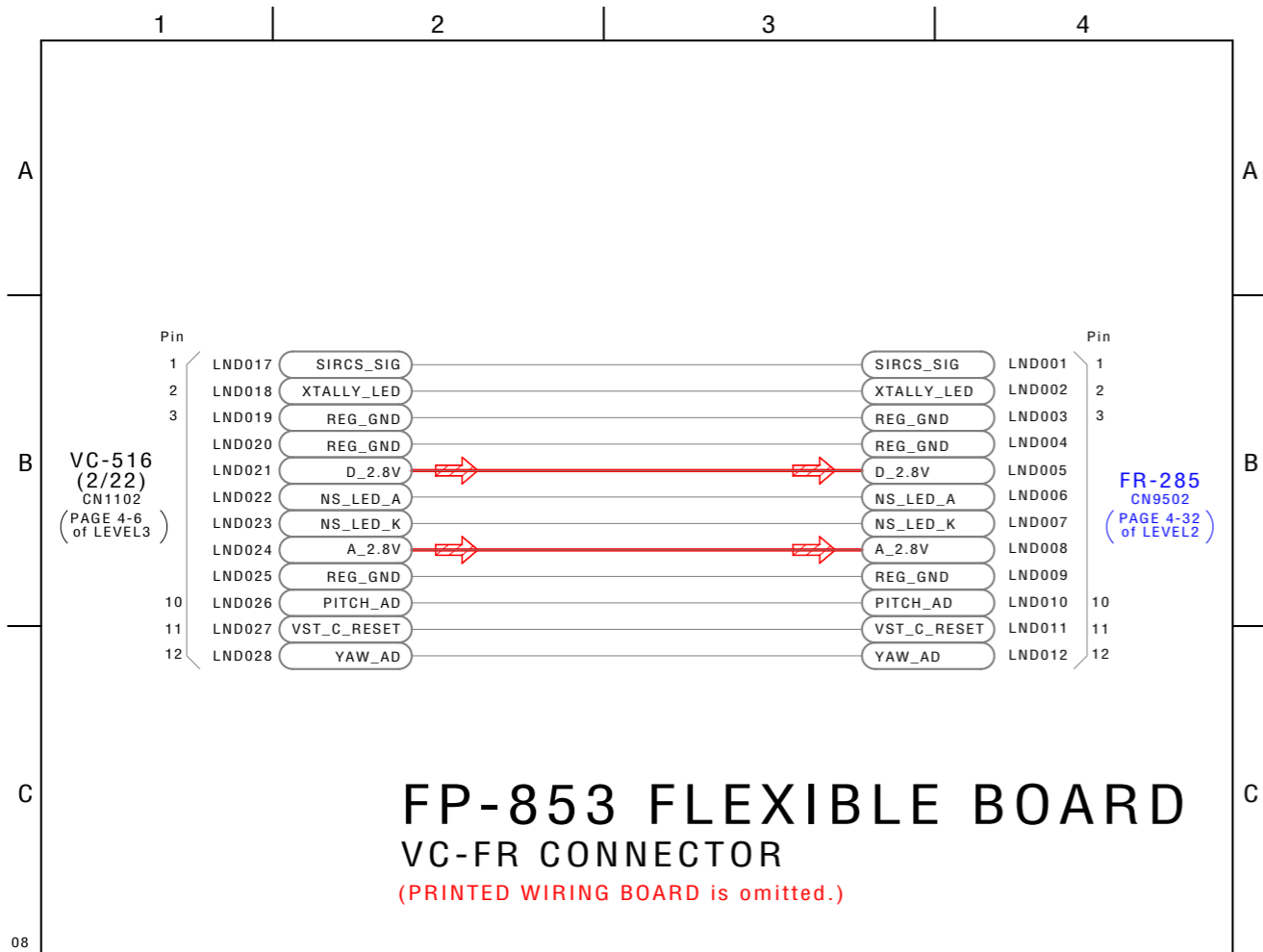
**CR-091 BOARD**  
**CRADLE TERMINAL**  
XX MARK:NO MOUNT

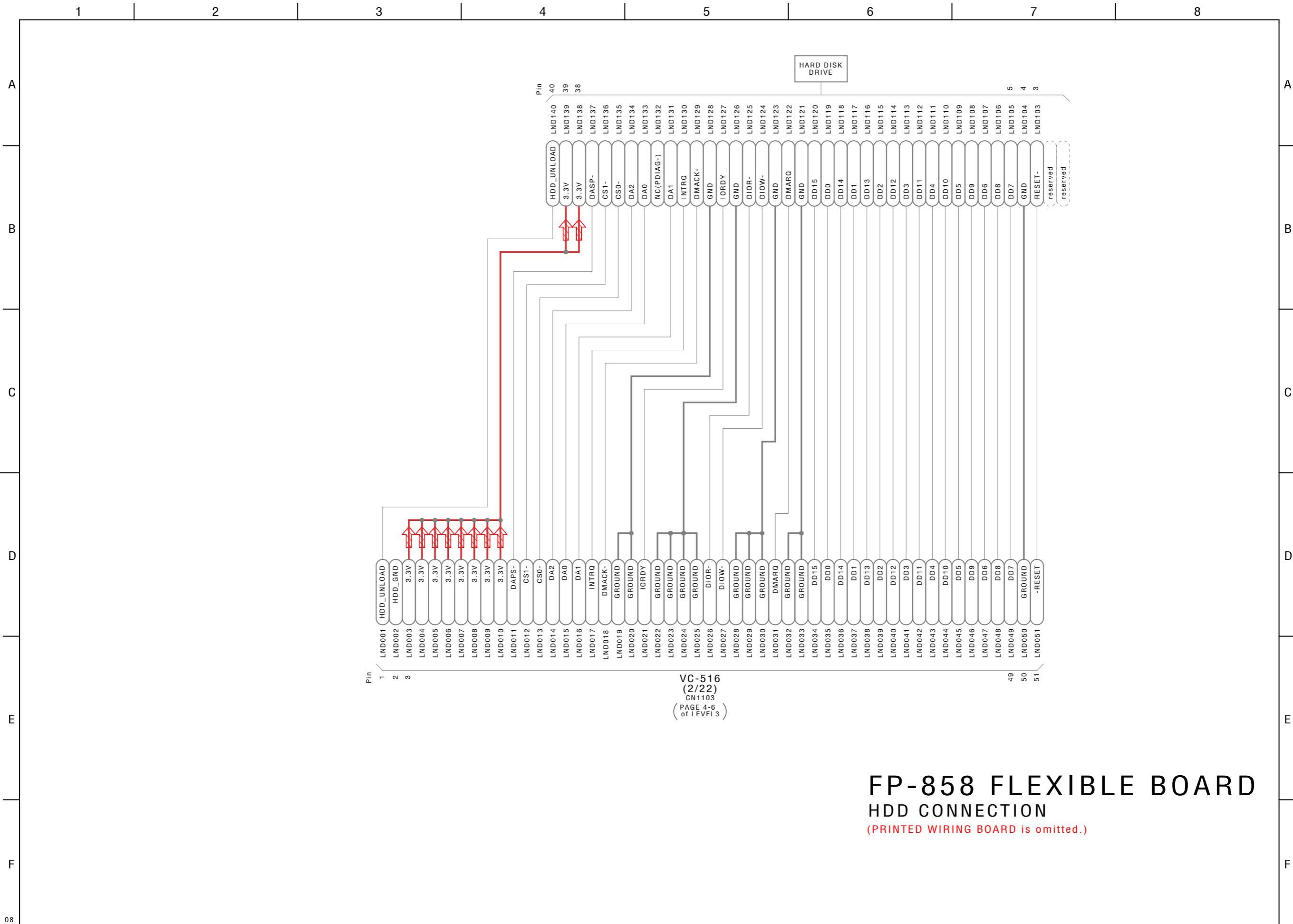
• Refer to page 4-2 (English), 4-3 (Japanese) for mark △.











Pin 1 LND001 HDD\_UNLOAD  
 Pin 2 LND002 HDD\_GND  
 Pin 3 LND003 3.3V  
 LND004 3.3V  
 LND005 3.3V  
 LND006 3.3V  
 LND007 3.3V  
 LND008 3.3V  
 LND009 3.3V  
 LND010 3.3V  
 LND011 DAPS-  
 LND012 CS1-  
 LND013 CS0-  
 LND014 DA2  
 LND015 DA0  
 LND016 DA1  
 LND017 INTRQ  
 LND018 DMACK-  
 LND019 GROUND  
 LND020 GROUND  
 LND021 IORDY  
 LND022 GROUND  
 LND023 GROUND  
 LND024 GROUND  
 LND025 GROUND  
 LND026 DIOR-  
 LND027 DIOW-  
 LND028 GROUND  
 LND029 GROUND  
 LND030 GROUND  
 LND031 DMARQ  
 LND032 GROUND  
 LND033 GROUND  
 LND034 DD15  
 LND035 DD0  
 LND036 DD14  
 LND037 DD1  
 LND038 DD13  
 LND039 DD2  
 LND040 DD12  
 LND041 DD3  
 LND042 DD11  
 LND043 DD4  
 LND044 DD10  
 LND045 DD5  
 LND046 DD9  
 LND047 DD6  
 LND048 DD8  
 LND049 DD7  
 LND050 GROUND  
 LND051 -RESET

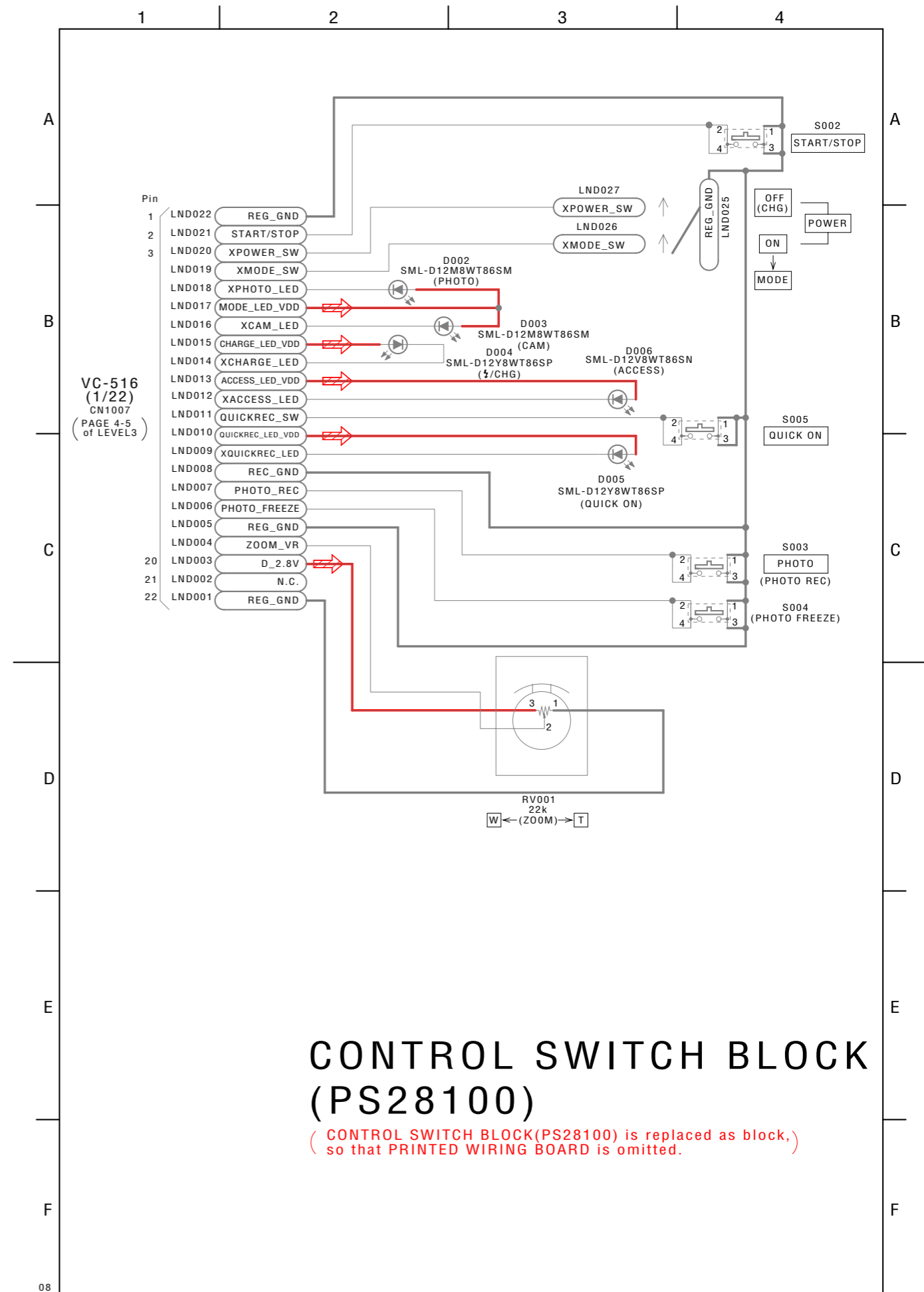
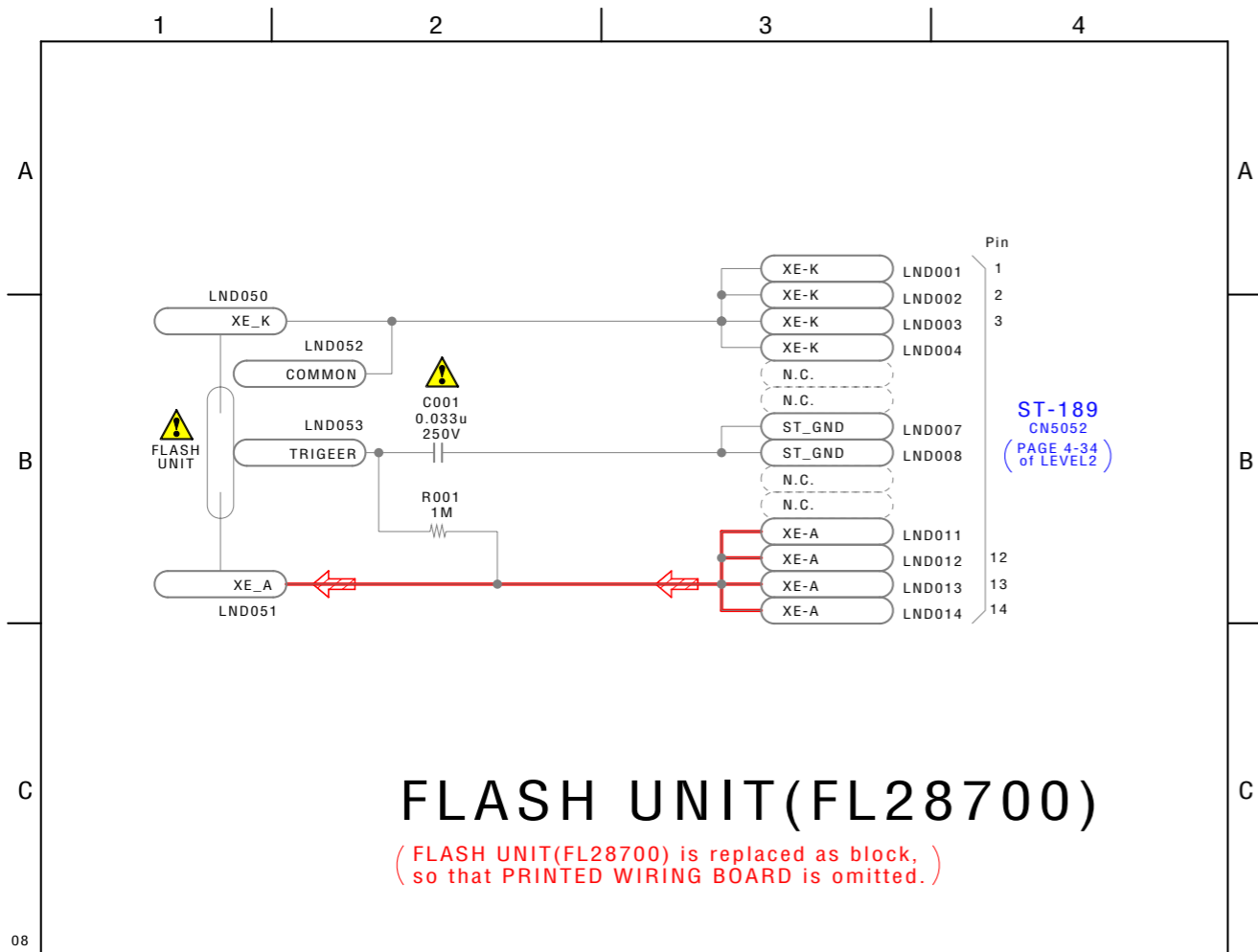
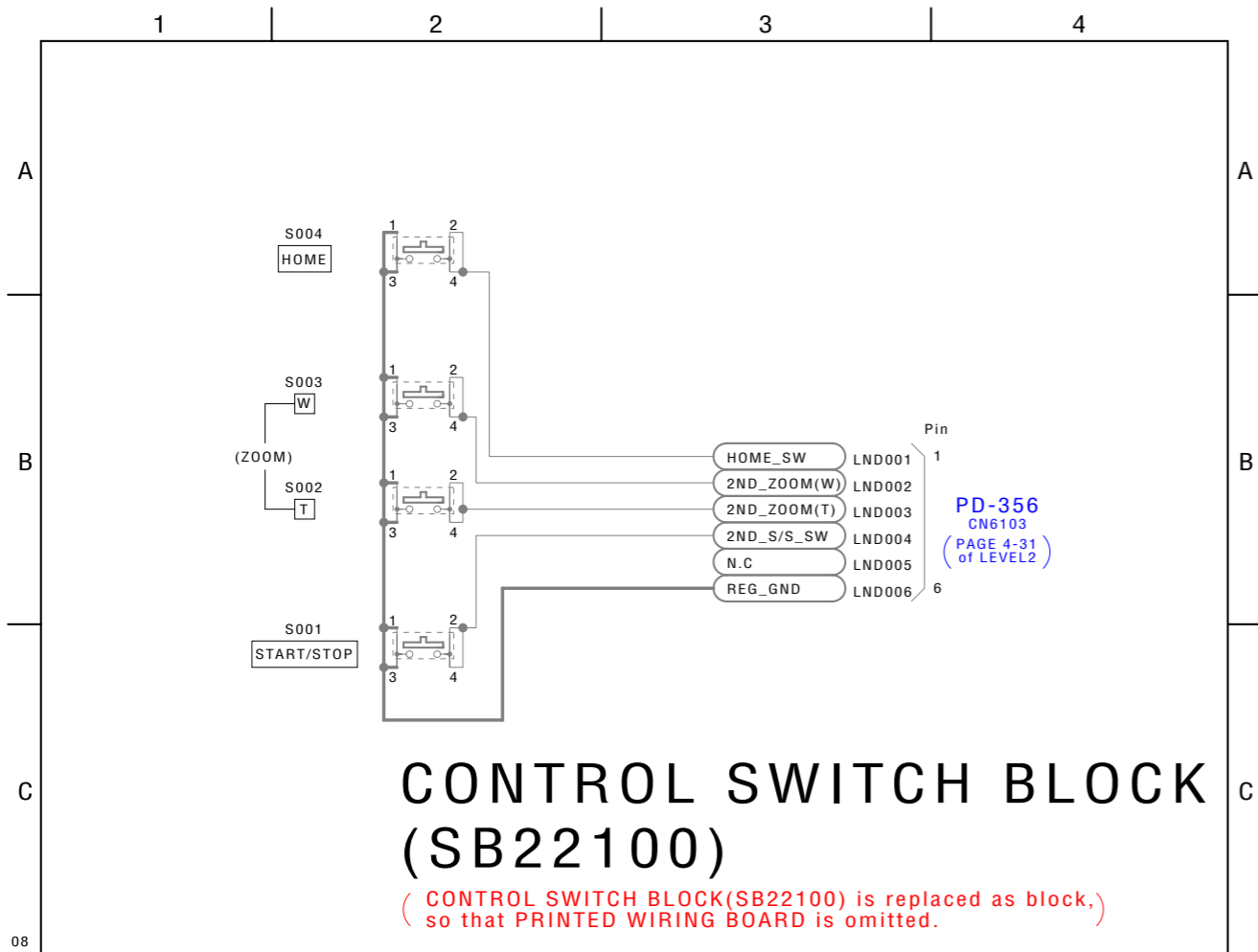
VC-516  
 (2/22)  
 CN1103  
 (PAGE 4-6  
 of LEVEL3)

Pin 40 LND140 HDD\_UNLOAD  
 Pin 39 LND139 3.3V  
 Pin 38 LND138 3.3V  
 LND137 DASP-  
 LND136 CS1-  
 LND135 CS0-  
 LND134 DA2  
 LND133 DA0  
 LND132 NC(PDIAG-)  
 LND131 DA1  
 LND130 INTRQ  
 LND129 DMACK-  
 LND128 GND  
 LND127 IORDY  
 LND126 GND  
 LND125 DIOR-  
 LND124 DIOW-  
 LND123 GND  
 LND122 DMARQ  
 LND121 GND  
 LND120 DD15  
 LND119 DD0  
 LND118 DD14  
 LND117 DD1  
 LND116 DD13  
 LND115 DD2  
 LND114 DD12  
 LND113 DD3  
 LND112 DD11  
 LND111 DD4  
 LND110 DD10  
 LND109 DD5  
 LND108 DD9  
 LND107 DD6  
 LND106 DD8  
 LND105 DD7  
 LND104 GND  
 LND103 -RESET  
 reserved

# FP-858 FLEXIBLE BOARD

## HDD CONNECTION

(PRINTED WIRING BOARD is omitted.)



## 4-3. PRINTED WIRING BOARDS

### Link

<a href="#">• PD-356 BOARD</a>	<a href="#">• CR-091 BOARD</a>
<a href="#">• FR-285 BOARD</a>	<a href="#">• MS-397 BOARD</a>
<a href="#">• CK-196 BOARD</a>	<a href="#">• FP-854 FLEXIBLE BOARD</a>
<a href="#">• ST-189 BOARD</a>	<a href="#">• FP-855 FLEXIBLE BOARD</a>
<a href="#">• JK-366 BOARD</a>	

<a href="#">• COMMON NOTE FOR PRINTED WIRING BOARDS</a>
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# 4-3. PRINTED WIRING BOARDS

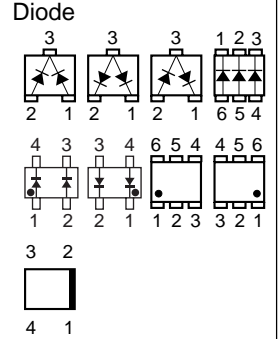
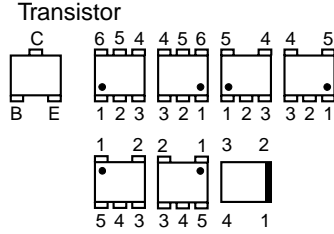
## 4-3. PRINTED WIRING BOARDS

### (ENGLISH)

#### THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS

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







- Chip parts.



### (JAPANESE)

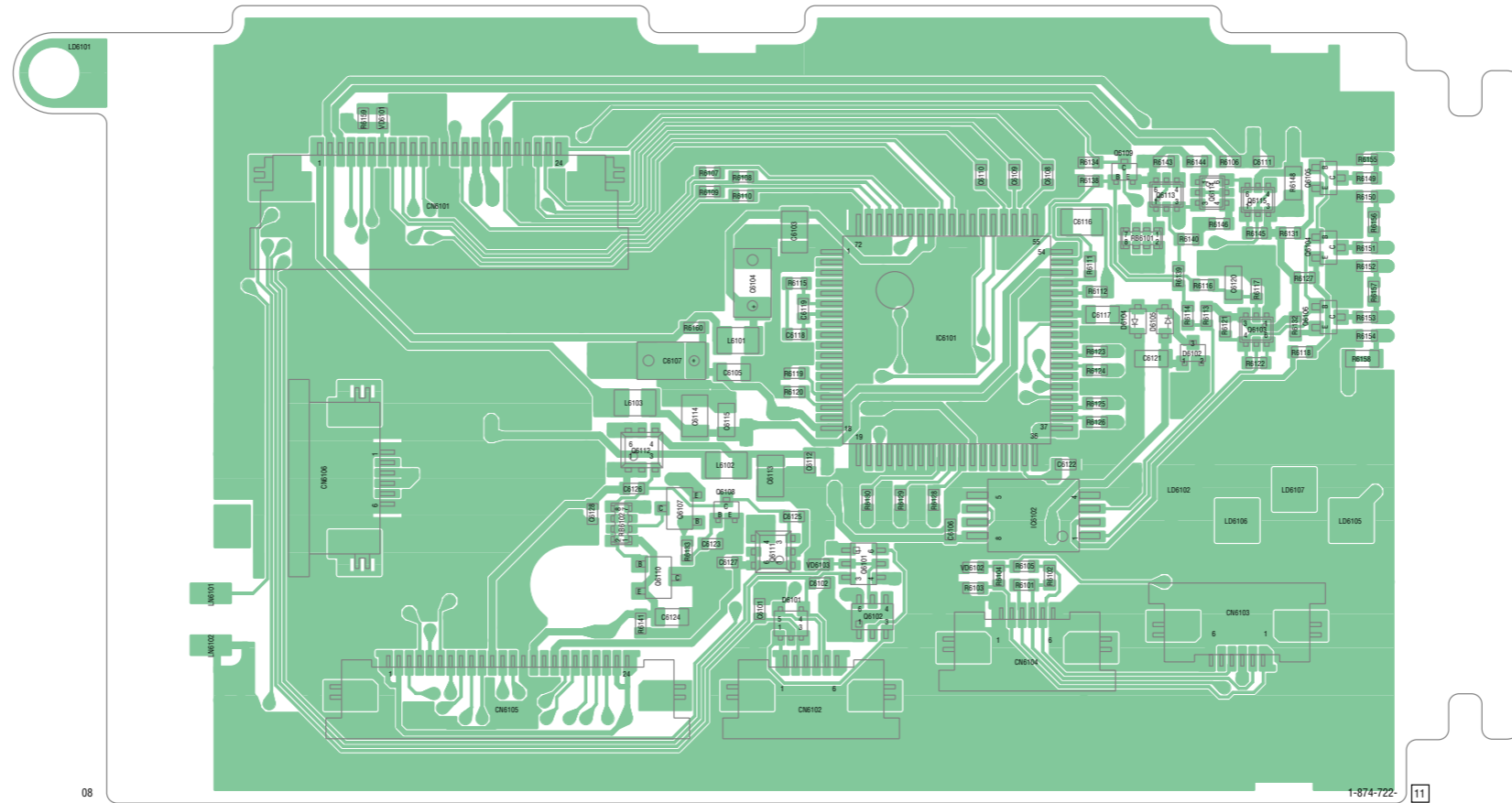
プリント図共通ノート

【プリント図ノート】

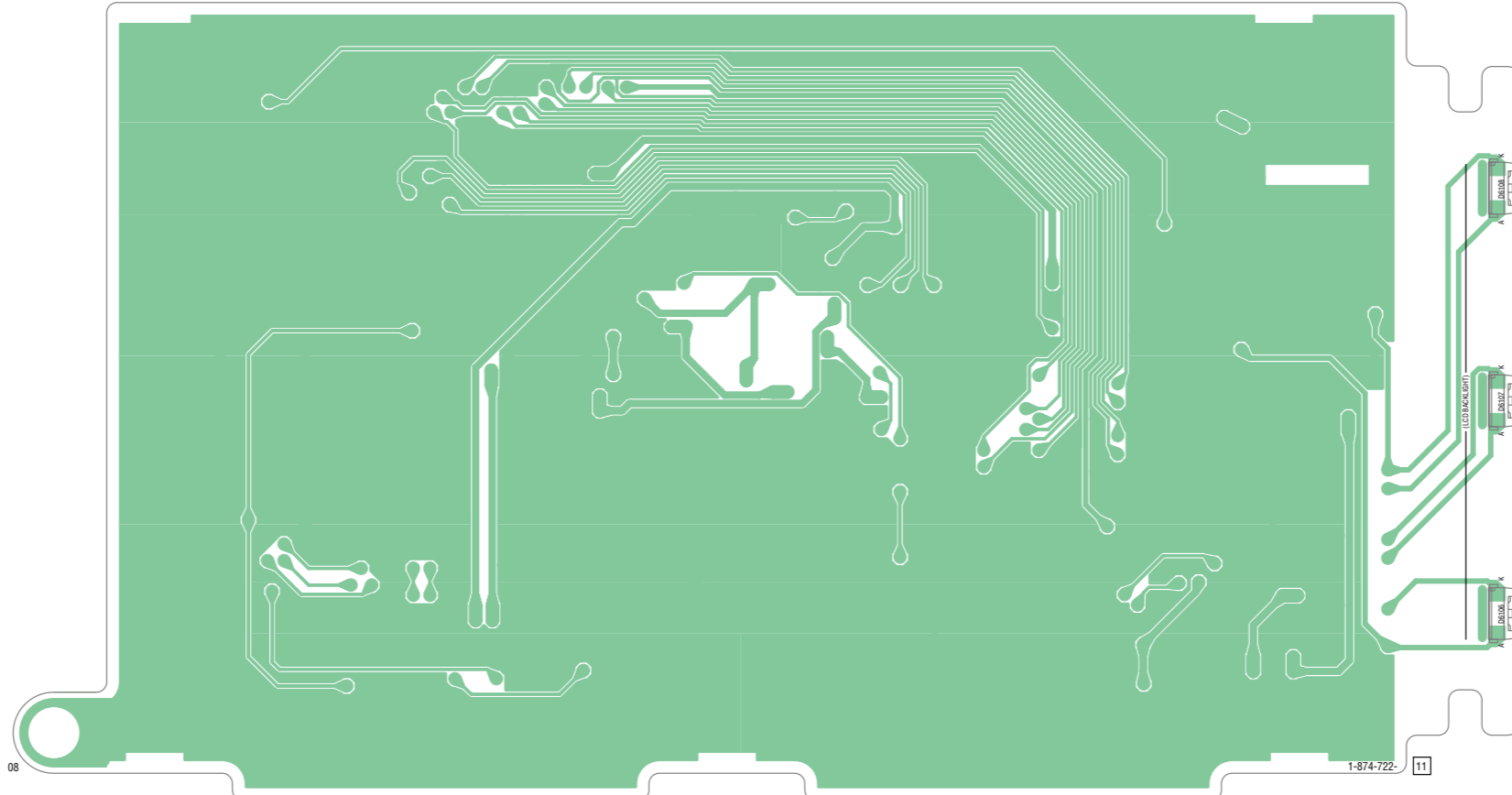
-  : 無鉛半田を使用しています。
-  : 基板
-  : フレキシブル配線板
-  : 見ている面側のパターン。
-  : 裏側のパターン  
(他のパターンについては表示されていません)
- スルーホールは省略。
- プリント図には、本機で使用していない部品が記載されている場合があります。
-  はパネル表示名称。

Printed wiring boards of the CM-093, VC-516 and LD-230 boards are not shown.  
Pages 4-43 to 4-46 are not shown.

PD-356 BOARD (SIDE A)

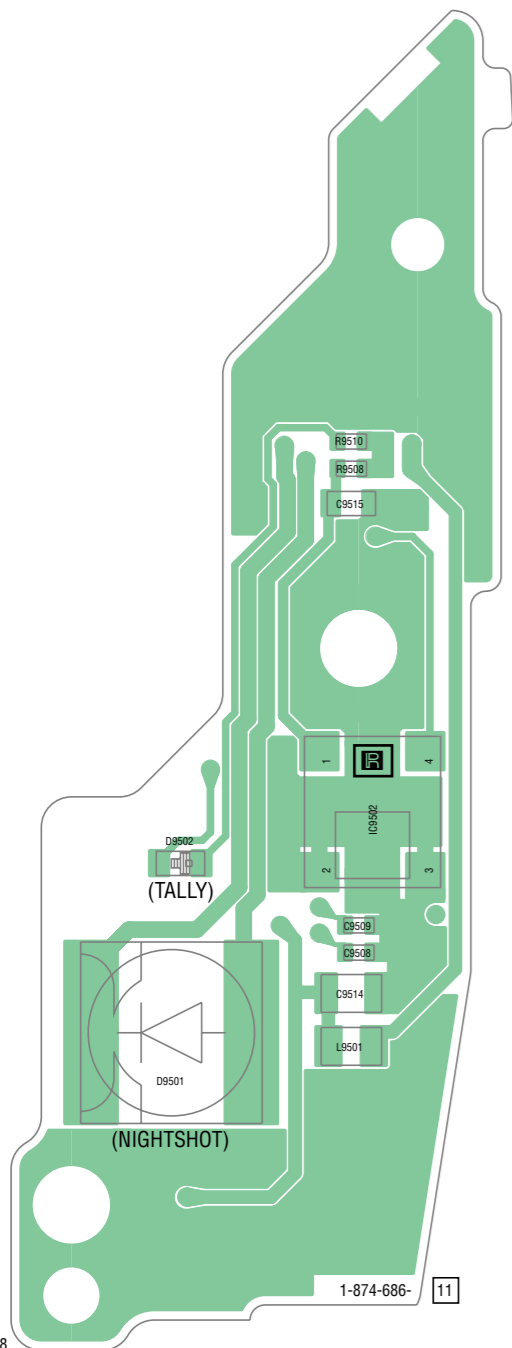


PD-356 BOARD (SIDE B)

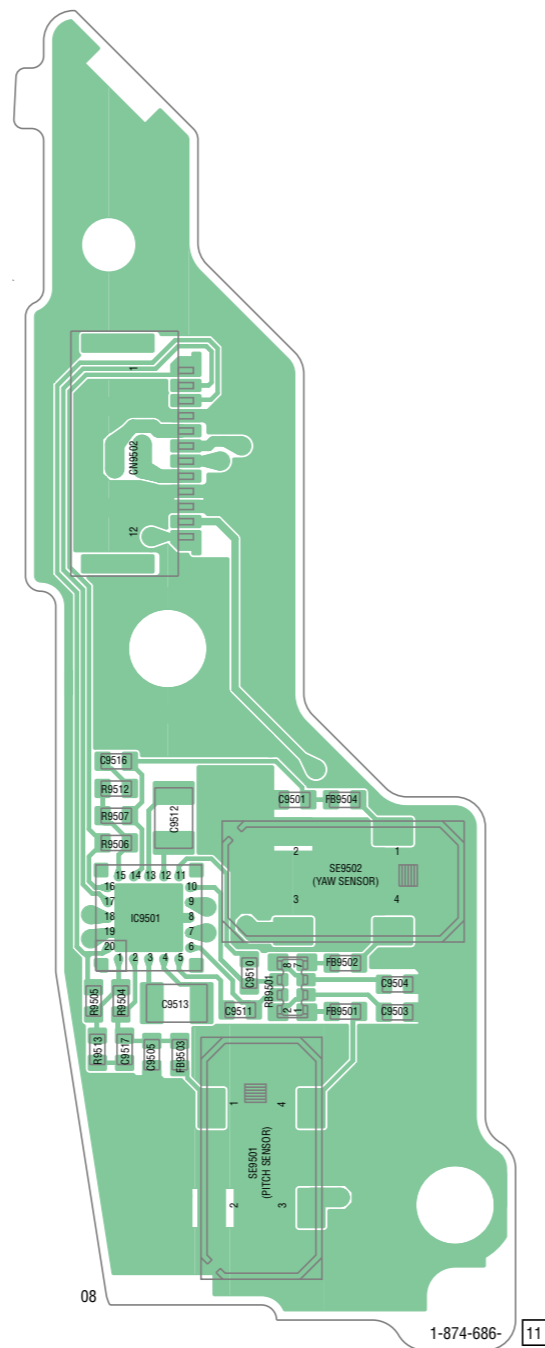


 : Uses unleaded solder.

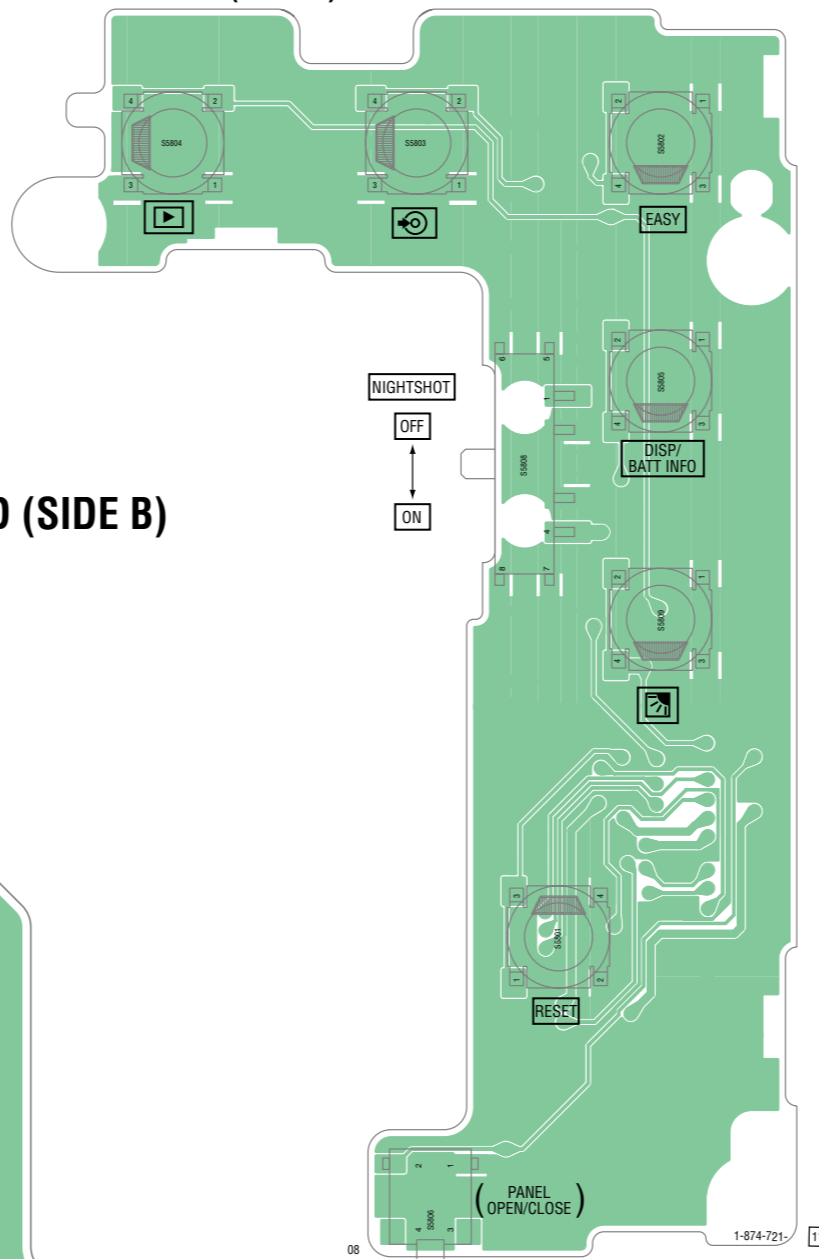
FR-285 BOARD (SIDE A)



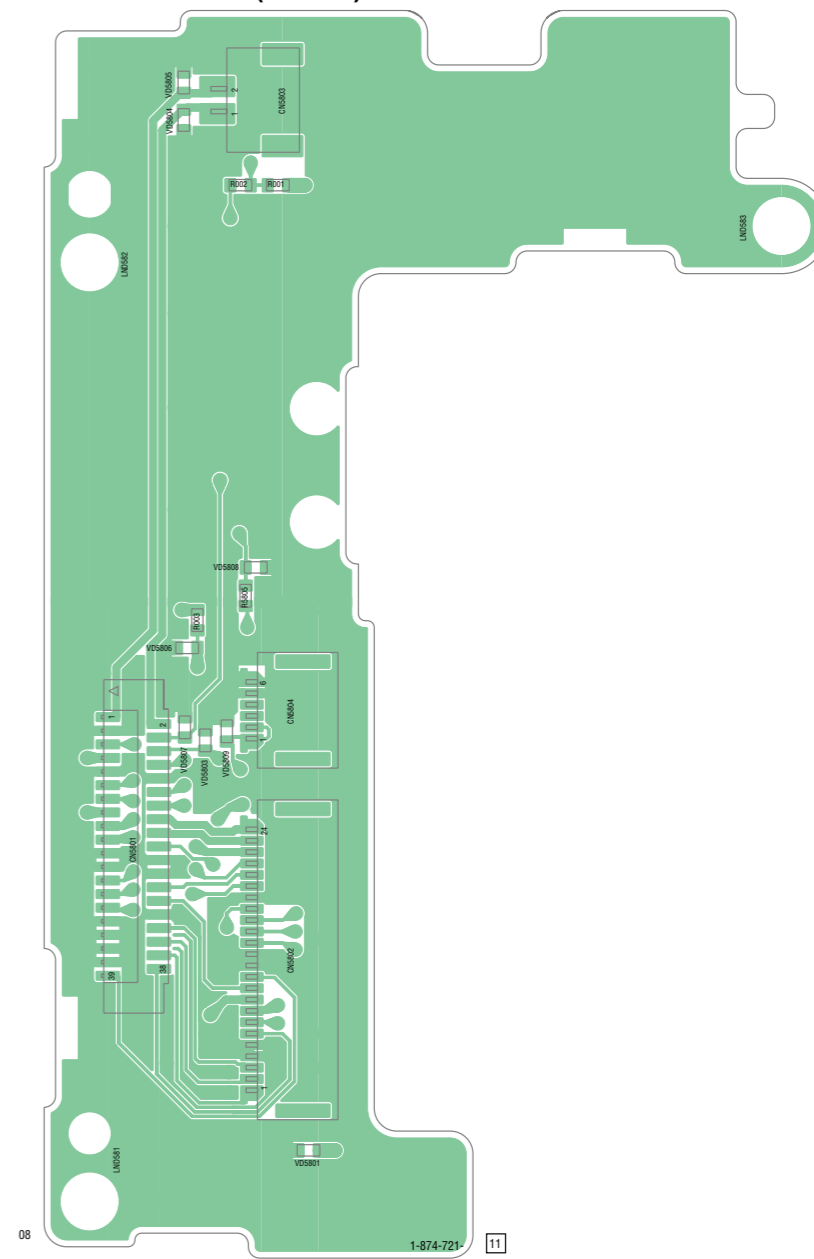
FR-285 BOARD (SIDE B)



CK-196 BOARD (SIDE A)



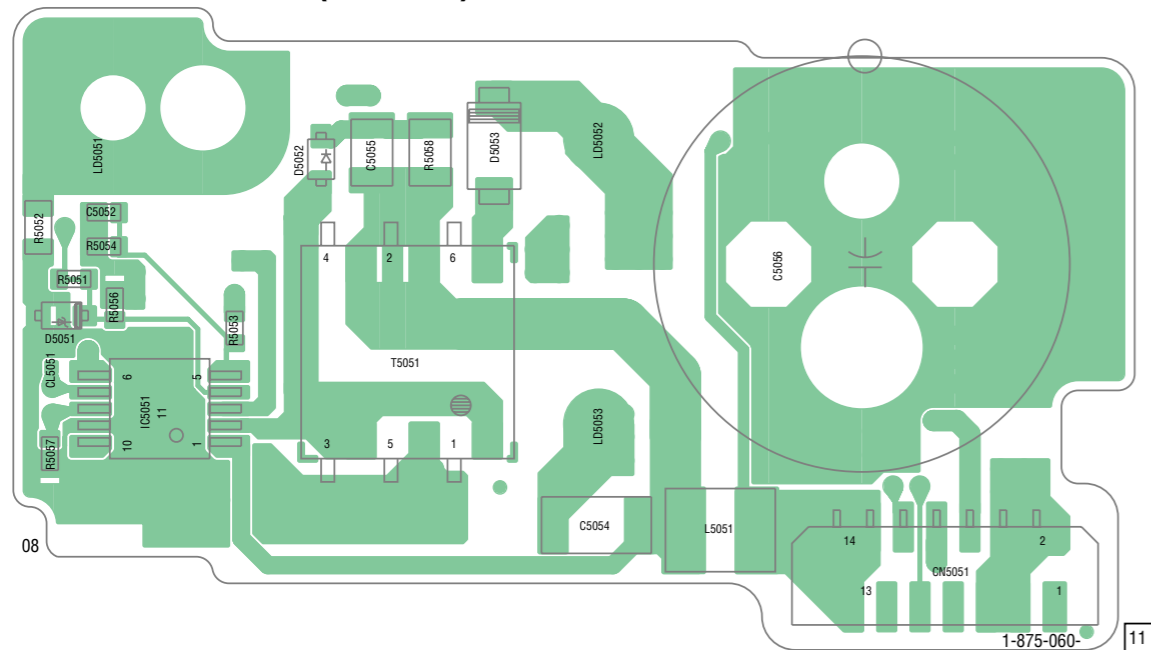
CK-196 BOARD (SIDE B)



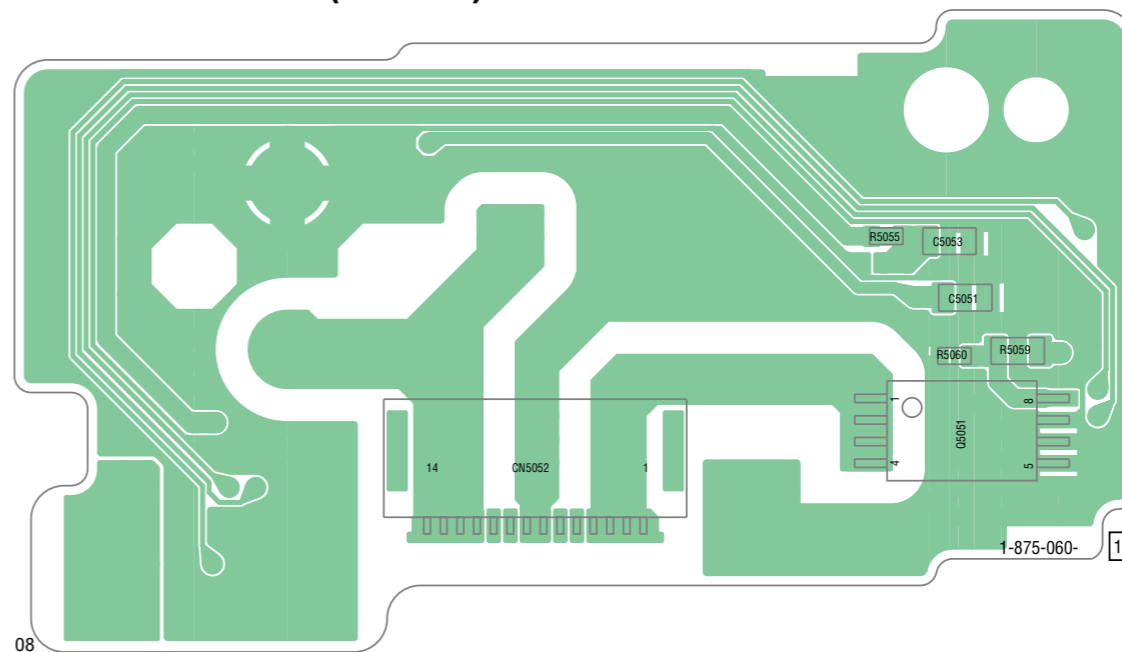
ST-189 (4 layers), JK-366 (2 layers), CR-091 (2 layers)

 : Uses unleaded solder.

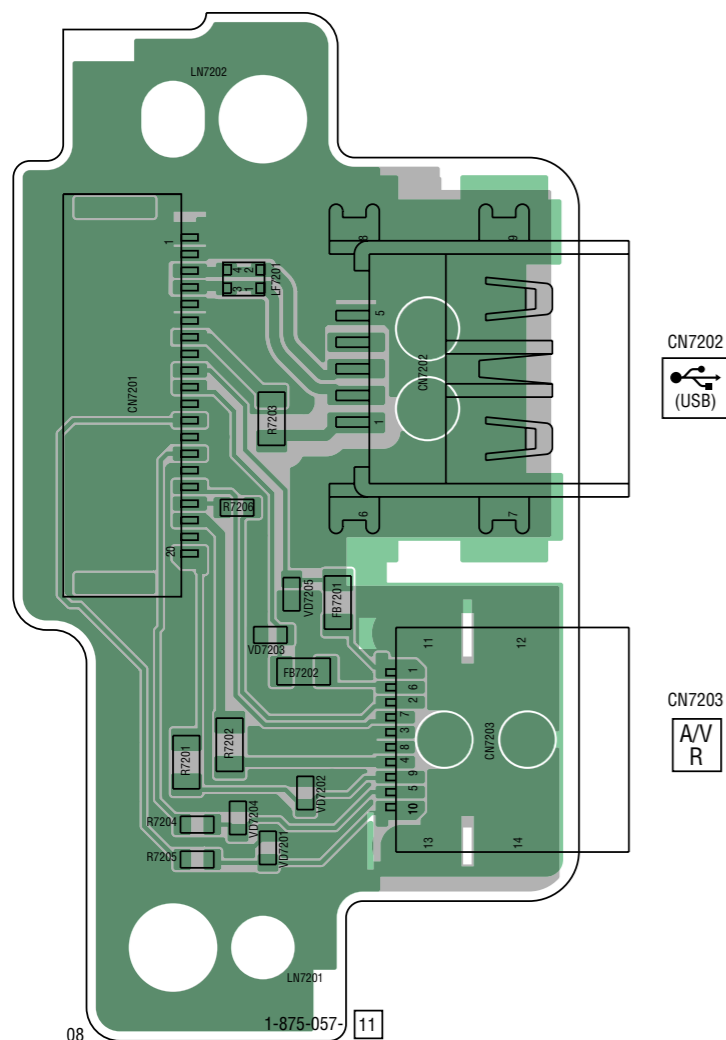
### ST-189 BOARD (SIDE A)



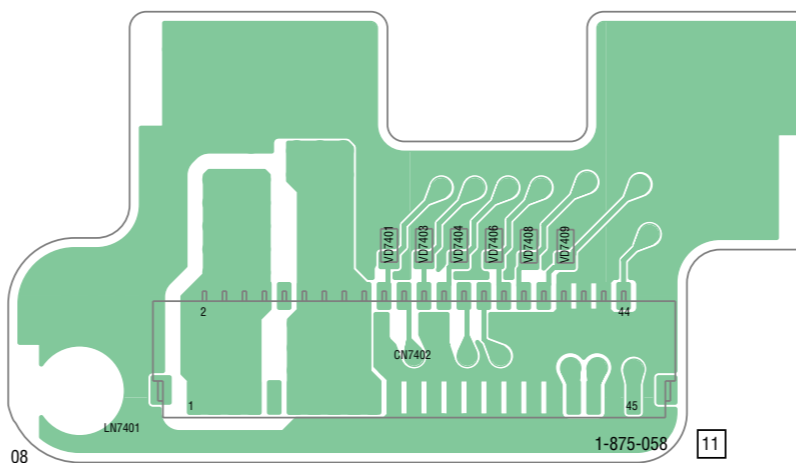
### ST-189 BOARD (SIDE B)



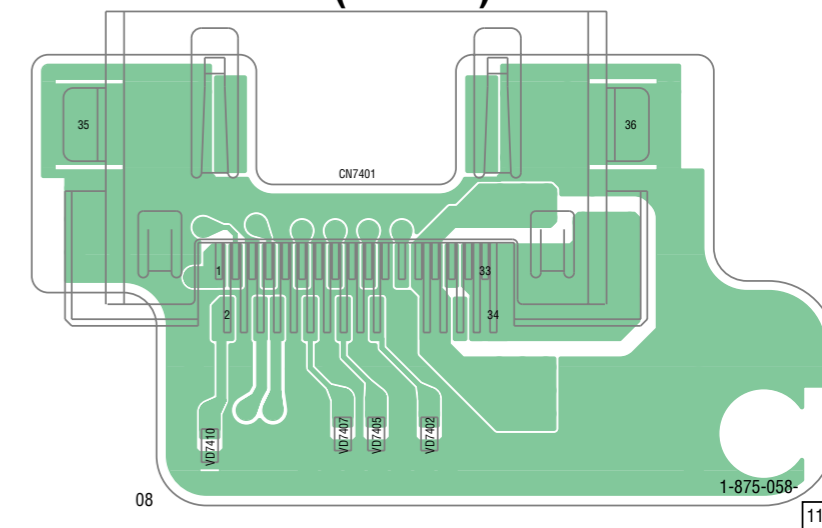
### JK-366 BOARD



### CR-091 BOARD (SIDE A)



### CR-091 BOARD (SIDE B)



MS-397 (2 layers)

 : Uses unleaded solder.

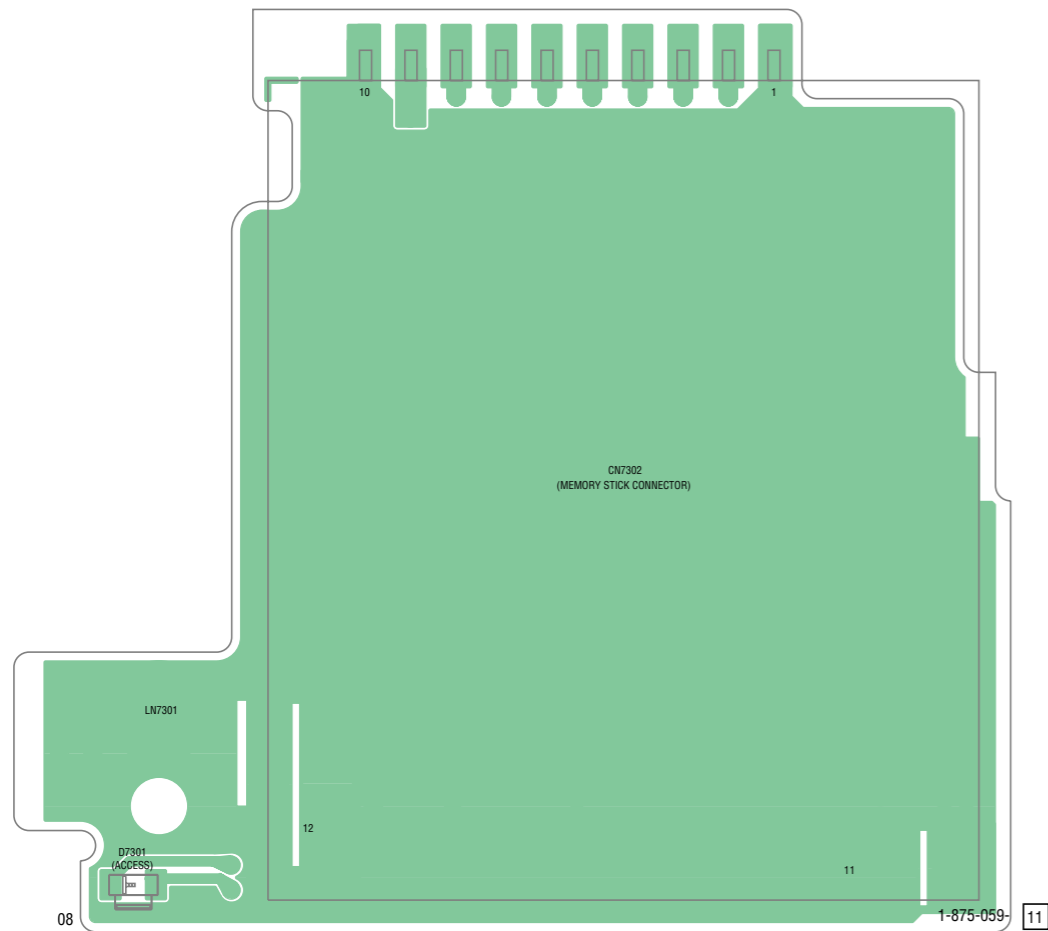
**CAUTION**  
 Danger of explosion if battery is incorrectly replaced.  
 Replace only with the same or equivalent type.

**注意**  
 電池の交換は、正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

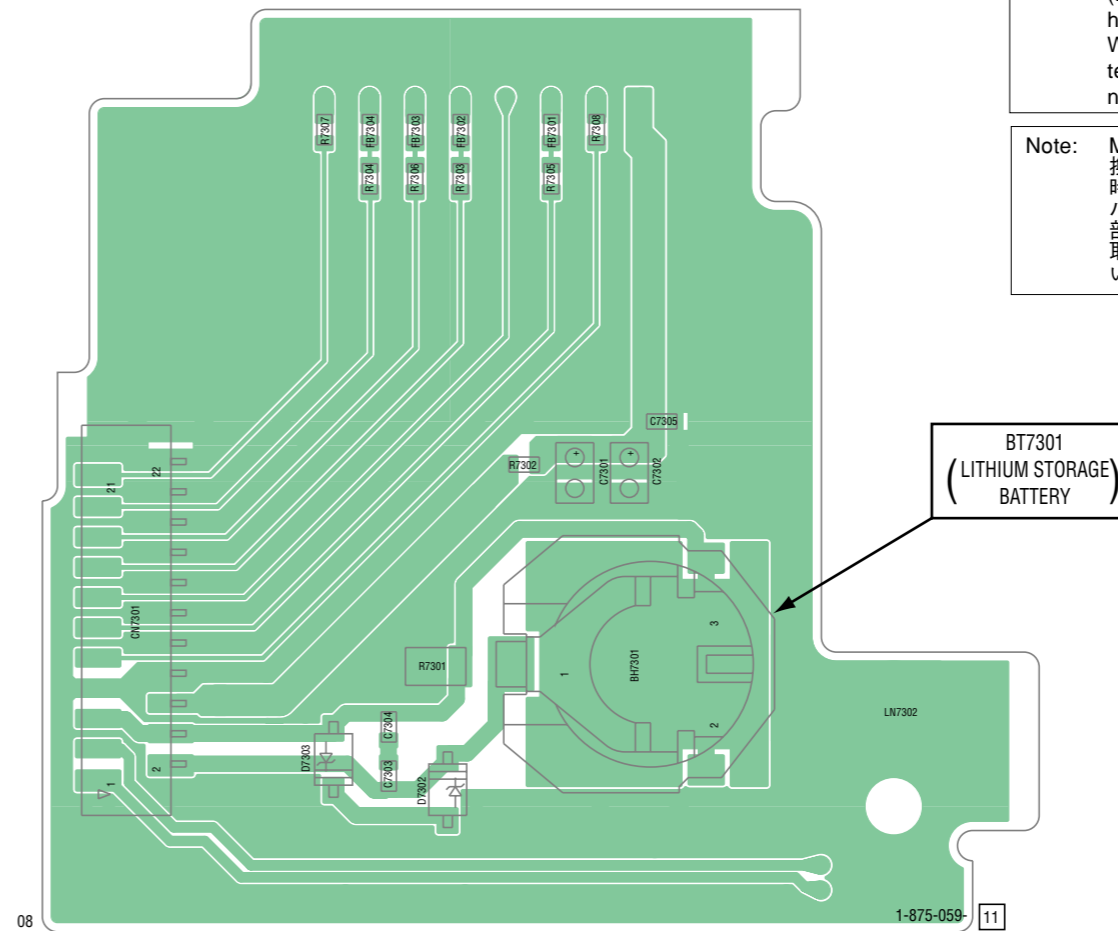
**Note:** Replace the battery holder (BH7301) together when replacing the lithium storage battery (BT7301) on the MS-397 board. (The battery holder removed once cannot be used again.) When mounting these parts, mount new battery holder first and attach new lithium battery next.

**Note:** MS-397基板のリチウム蓄電池 (BT7301) を交換する場合はバッテリーホルダ (BH7301) も同時に新品に交換して下さい。(一度使用したバッテリーホルダは再使用できません。) 部品取り付けの際は、先にバッテリーホルダを取り付けてからリチウム電池を装着して下さい。

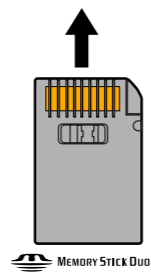
**MS-397 BOARD (SIDE A)**



**MS-397 BOARD (SIDE B)**



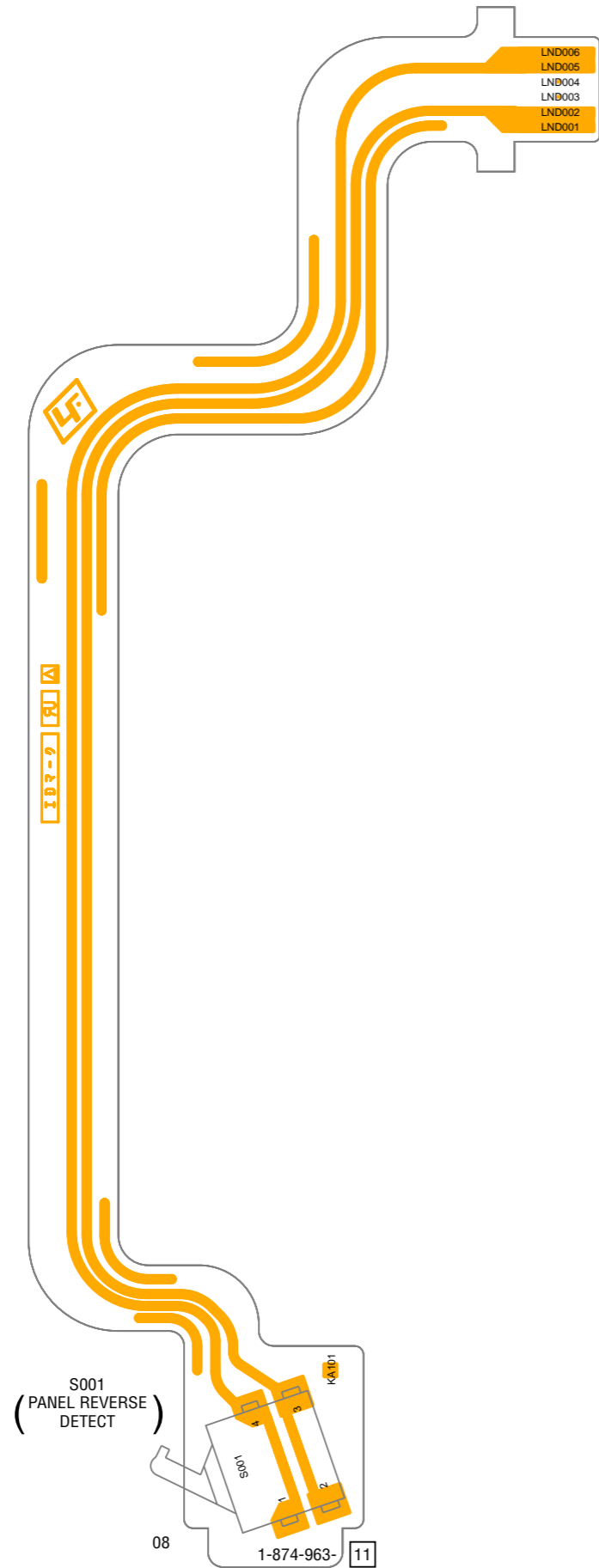
**Note:** BT7301 (lithium storage battery) is not included in the MS-397 complete board.



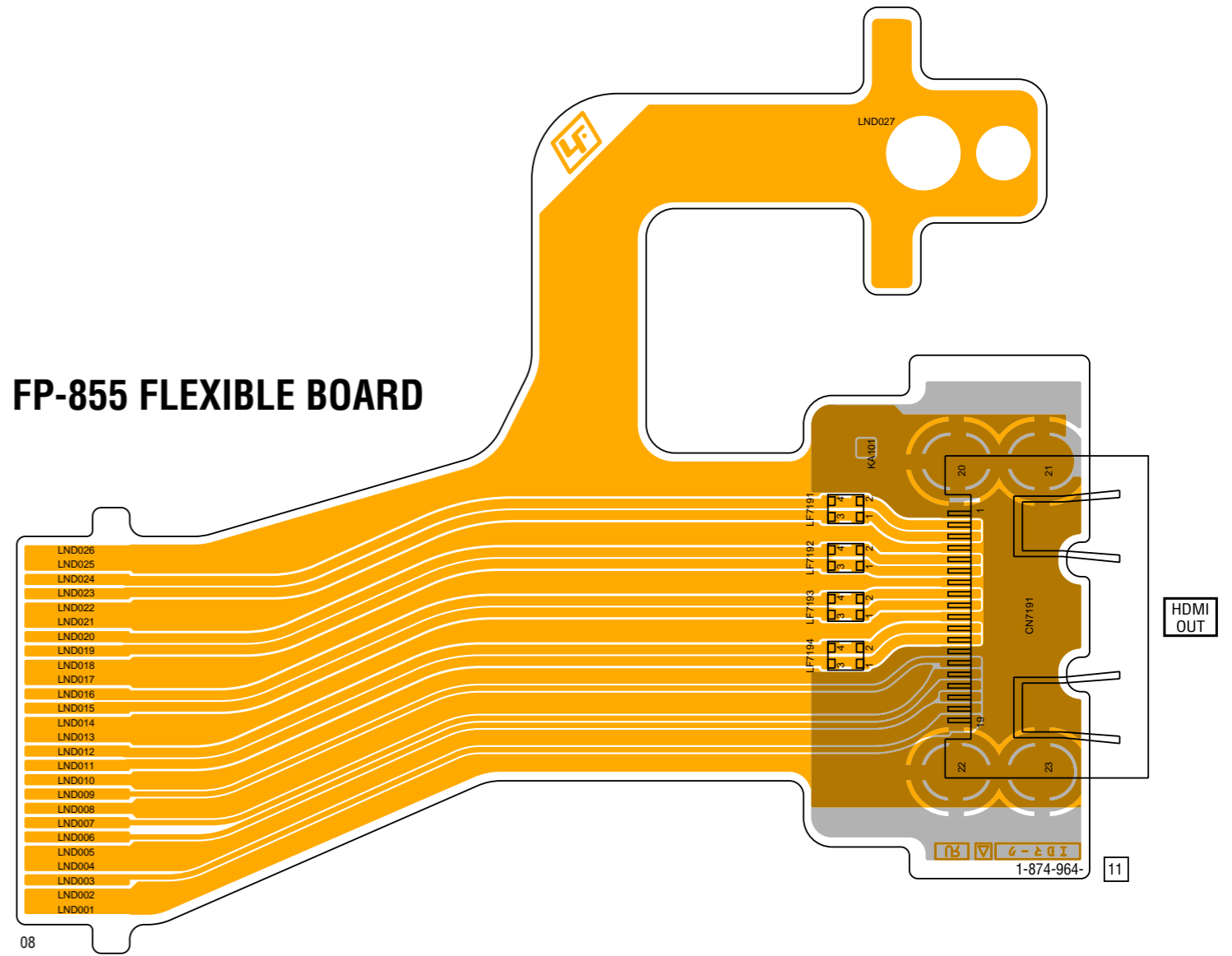
FP-854 (1 layer), FP-855 (2 layers)

 : Uses unleaded solder.

## FP-854 FLEXIBLE BOARD

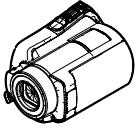
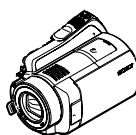
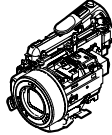
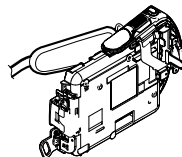
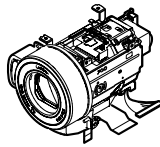
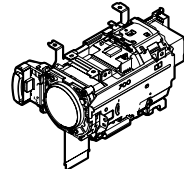
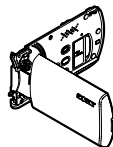
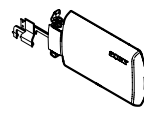
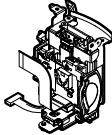


## FP-855 FLEXIBLE BOARD



## 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			
				
<b>OVERALL SECTION-1</b>	<b>OVERALL SECTION-2</b>	<b>OVERALL SECTION-3</b>	<b>CABINET (L) SECTION</b>	
				
<b>CABINET (F) SECTION</b>	<b>LENS BLOCK</b>	<b>CABINET (R) SECTION</b>	<b>PANEL BLOCK</b>	
				
<b>BT PANEL BLOCK</b>				

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

Link	ELECTRICAL PARTS LIST			ACCESSORIES
• CK-196 BOARD <b>G</b>	• FP-806 FLEXIBLE BOARD <b>A</b>	• FP-858 FLEXIBLE BOARD <b>A</b>		
• CR-091 BOARD <b>A</b>	• FP-814 FLEXIBLE BOARD <b>C</b>	• FR-285 BOARD <b>E</b>		
• FP-659 FLEXIBLE BOARD <b>H</b>	• FP-853 FLEXIBLE BOARD <b>E</b>	• JK-366 BOARD <b>D</b>		
• FP-801 FLEXIBLE BOARD <b>F</b>	• FP-854 FLEXIBLE BOARD <b>H</b>	• MS-397 BOARD <b>I</b>		
• FP-803 FLEXIBLE BOARD <b>C</b>	• FP-855 FLEXIBLE BOARD <b>D</b>	• PD-356 BOARD <b>H</b>		
• FP-804 FLEXIBLE BOARD <b>D</b>	• FP-856 FLEXIBLE BOARD <b>B</b>	• ST-189 BOARD <b>A</b>		
• FP-805 FLEXIBLE BOARD <b>C</b>				



## 5. REPAIR PARTS LIST

### 5. REPAIR PARTS LIST

#### (ENGLISH)

##### 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...

#### (JAPANESE)

##### 【使用上の注意】

- ここに記載されている部品は、補修用部品であるため、回路図及びセットに付いている部品と異なる場合があります。
- -XX, -Xは標準化部品のため、セットに付いている部品と異なる場合があります。
- \*印の部品は常備在庫しておりません。
- コンデンサの単位でuFは $\mu$ Fを示します。
- 抵抗の単位 $\Omega$ は省略してあります。
  - 金 被：金属被膜抵抗。
  - サンキン：酸化金属被膜抵抗。
- インダクタの単位でuHは $\mu$ Hを示します。
- 半導体の名称でuA..., uPA..., uPB..., uPC..., uPD...等はそれぞれ $\mu$ A...,  $\mu$ PA...,  $\mu$ PB...,  $\mu$ PC...,  $\mu$ PD...を示します。

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

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

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

- Color Indication of Appearance Parts  
Example:  
(SILVER) : Cabinet's Color  
(Silver) : Parts Color

— お願い —

図面番号で部品を指定するときは基板名又はブロックを併せて指定してください。

$\triangle$ 印の部品、または $\triangle$ 印付の点線で囲まれた部品は、安全性を維持するために、重要な部品です。従って交換時は、必ず指定の部品を使用してください。

- 外装部品色表示  
例：  
(SILVER):セットの色を表す。  
(Silver) : 部品の色を表す。

##### • Abbreviation

- AUS : Australian model
- CH : Chinese model
- CND: Canadian model
- HK : Hong Kong model
- J : Japanese model
- JE : Tourist model
- KR : Korea model
- NE : North European model

# 5. REPAIR PARTS LIST

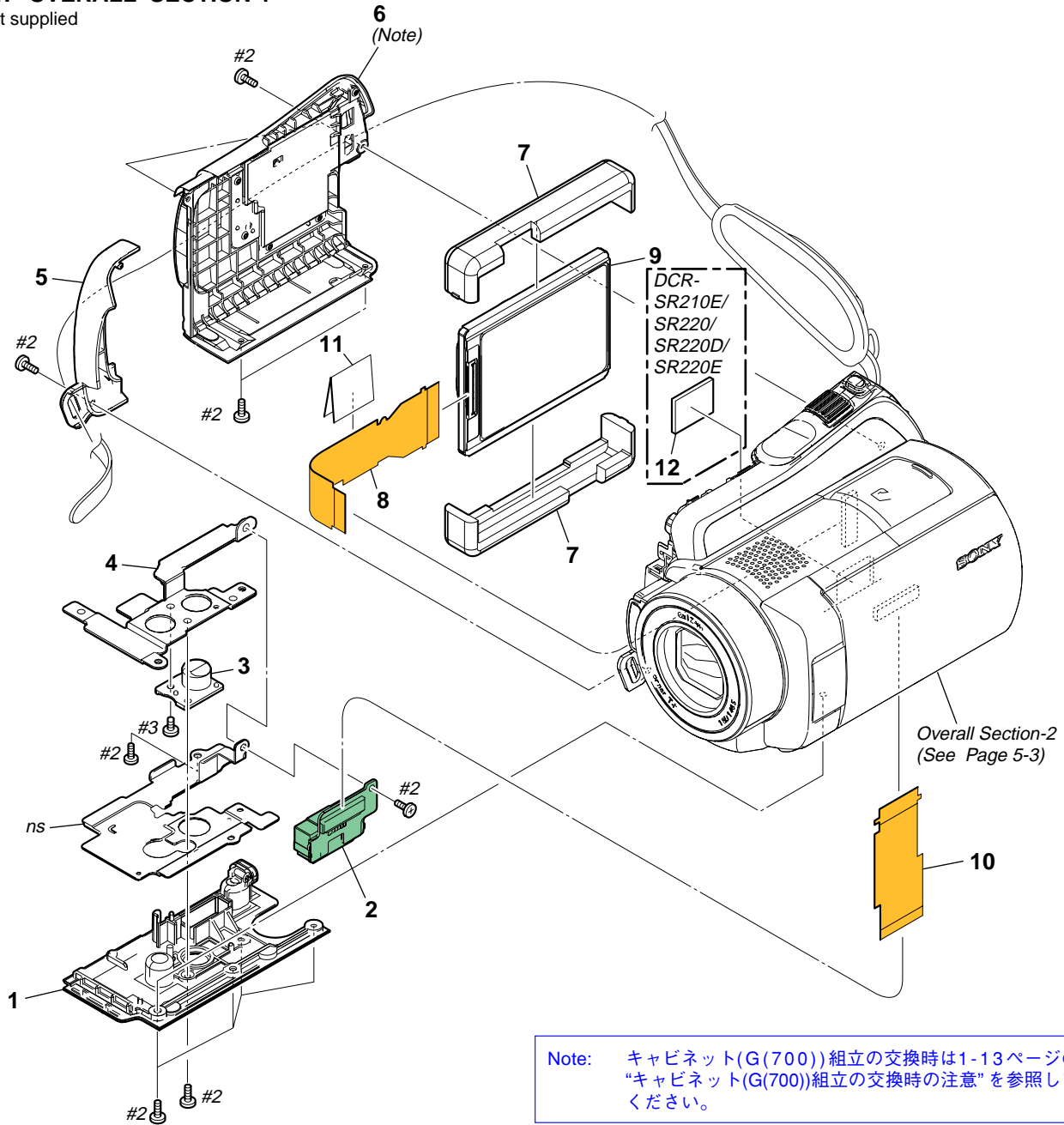
## 5-1. EXPLODED VIEWS

DISASSEMBLY

HARDWARE LIST

### 5-1-1. OVERALL SECTION-1

ns: not supplied



**Note:** キャビネット(G(700))組立の交換時は1-13ページの“キャビネット(G(700))組立の交換時の注意”を参照してください。

**Note:** Refer to page 1-13 “Precaution on replacing the Cabinet (G(700)) Assy” when changing the Cabinet (G(700)) Assy.

Ref. No.	Part No.	Description
1	X-2188-804-1	CABINET (700) ASSY, BOTTOM
2	A-1494-350-A	CR-091 BOARD, COMPLETE
3	2-664-982-01	SCREW, TRIPOD
* 4	3-290-644-01	FRAME, BOTTOM CABINET
5	3-290-675-01	LF (600), CABINET (DCR-SR210E/SR220/SR220D/SR220E)
5	X-2188-779-2	LF (700) ASSY, CABINET (HDR-SR10/SR10D/SR10E)
6	(Note)	CABINET (G(700)) ASSY
7	3-294-308-01	DAMPER (1), 08STYLE (DCR-SR210E/SR220/SR220E/HDR-SR10/SR10E)
7	3-298-143-01	DAMPER (2), 08STYLE (DCR-SR220D/HDR-SR10D)
8	1-874-967-11	FP-858 FLEXIBLE BOARD

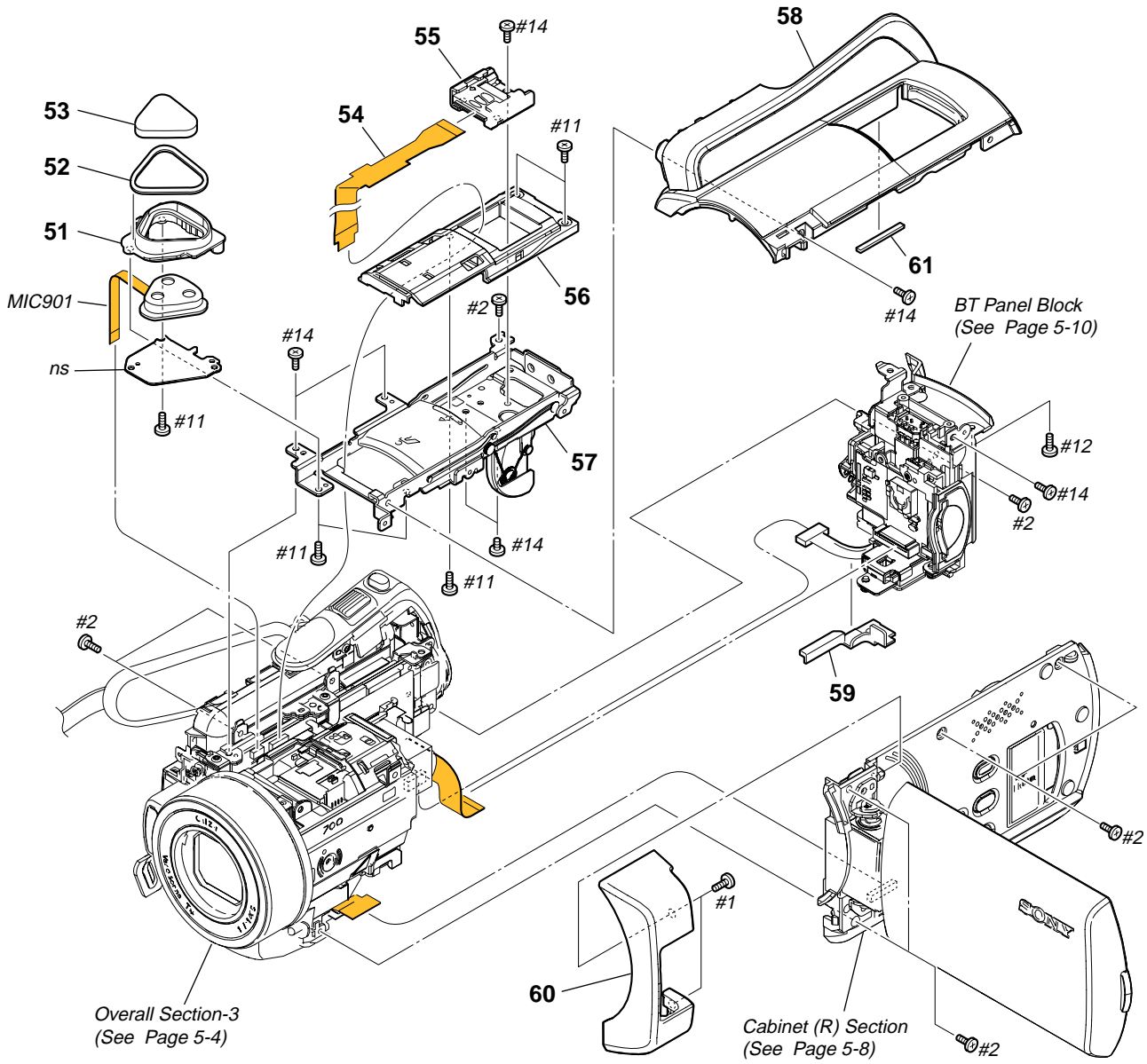
Ref. No.	Part No.	Description
9	1-797-994-21	HDD (MK6014GAL-60GB) (DCR-SR210E/SR220/SR220E)
9	1-797-995-21	HDD (MK1214GAH-120GB) (DCR-SR220D/HDR-SR10D)
9	1-797-998-21	HDD (MK6014GAL-40GB) (HDR-SR10/SR10E)
10	1-874-805-11	FP-806 FLEXIBLE BOARD
* 11	2-890-813-01	SHEET (CK), SHIELD
* 12	2-673-770-01	GASKET (D) (DCR-SR210E/SR220/SR220D/SR220E)
#2	2-635-562-31	SCREW (M1.7) (Black)
#3	2-660-401-01	SCREW (M1.7), NEW TRU-STAR, P2 (Red)

# 5. REPAIR PARTS LIST

**5-1-2. OVERALL SECTION-2**  
 ns: not supplied

**DISASSEMBLY**

**HARDWARE LIST**



Ref. No.	Part No.	Description
* 51	3-290-654-01	HOLDER (700), MICROPHONE
* 52	3-296-520-01	SPACER, MICROPHONE
53	3-290-653-01	SCREEN, WIND
54	1-874-965-11	FP-856 FLEXIBLE BOARD
55	1-818-890-11	CONNECTOR, EXTERNAL (HOT SHOE)
* 56	3-290-655-01	HOLDER (700), SHOE
57	X-2188-788-1	FRAME (700) ASSY, SHOE
58	X-2188-784-1	TOP (700) ASSY (HDR-SR10/SR10D/SR10E)
58	X-2188-785-1	TOP (600) ASSY (DCR-SR220/SR220D/SR220E)
58	X-2188-786-1	TOP (551) ASSY (DCR-SR210E)

Ref. No.	Part No.	Description
* 59	3-290-652-01	RETAINER, BT HARNESS
60	3-290-636-01	COVER (R (700)), HINGE (HDR-SR10/SR10D/SR10E)
60	3-290-636-11	COVER (R (700)), HINGE (DCR-SR210E/SR220/SR220D/SR220E)
61	3-870-674-01	SPACER (700), TOP
MIC901	1-542-711-31	MICROPHONE UNIT
#1	2-635-562-11	SCREW (M1.7) (Black)
#2	2-635-562-31	SCREW (M1.7) (Black)
#11	3-078-890-11	SCREW, TAPPING (Silver)
#12	3-080-204-21	SCREW, TAPPING, P2 (Black)
#14	2-599-475-11	SCREW (M1.7) (Silver)

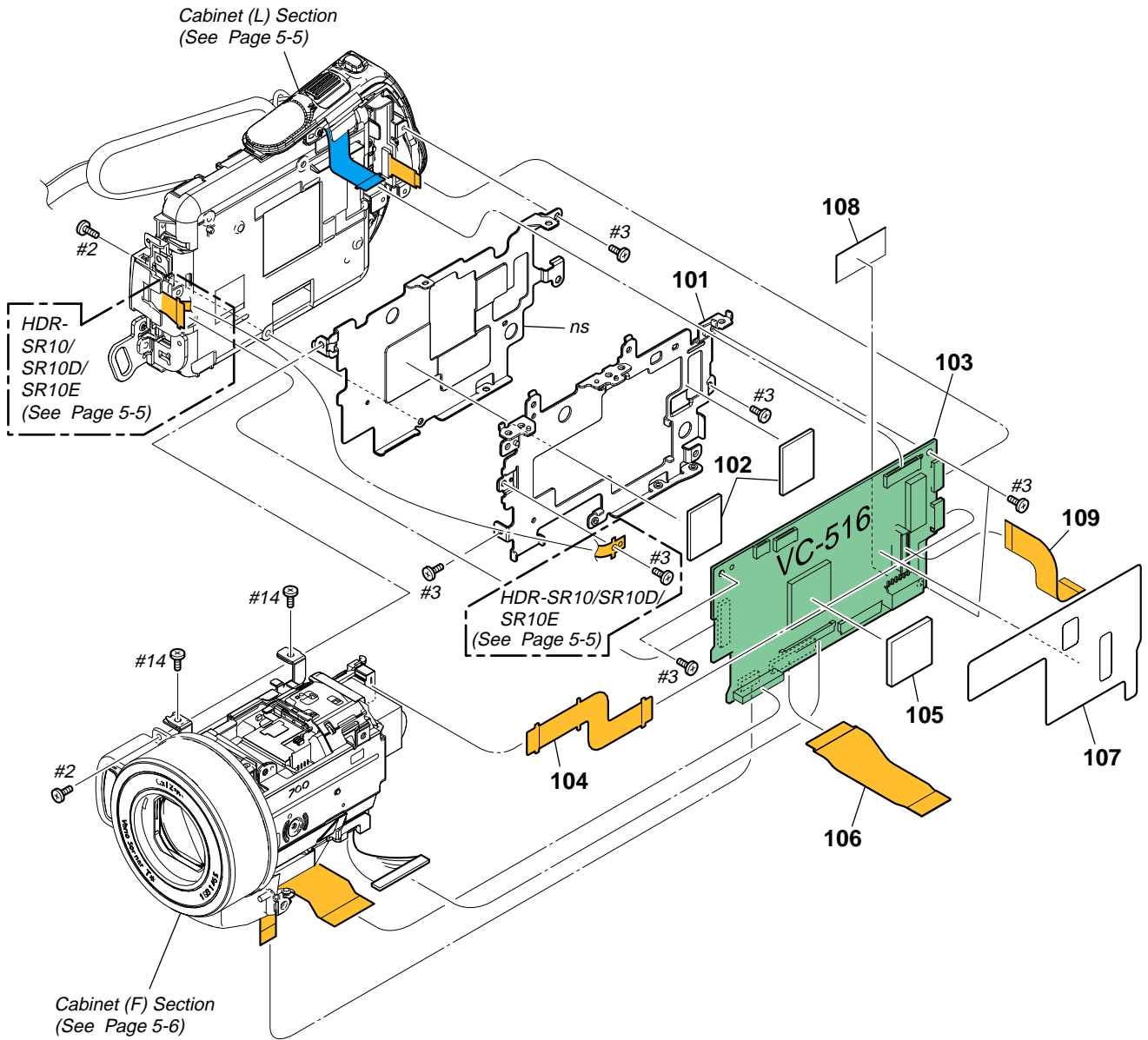
# 5. REPAIR PARTS LIST

## 5-1-3. OVERALL SECTION-3

ns: not supplied

### DISASSEMBLY

### HARDWARE LIST



Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
101	3-290-668-01	FRAME (700), MAIN	103	A-1497-996-A	VC-516 BOARD, COMPLETE (SERVICE) (DCR-SR210E)
102	3-290-677-01	SHEET (B), VC RADIATION	104	1-874-802-11	FP-803 FLEXIBLE BOARD
103	A-1497-992-A	VC-516 BOARD, COMPLETE (SERVICE) (HDR-SR10/SR10D)	105	3-290-676-01	SHEET (A), VC RADIATION
103	A-1497-993-A	VC-516 BOARD, COMPLETE (SERVICE) (HDR-SR10E)	106	1-874-813-11	FP-814 FLEXIBLE BOARD
103	A-1497-994-A	VC-516 BOARD, COMPLETE (SERVICE) (DCR-SR220/SR220D)	* 107	3-290-678-01	LABEL, FUSE REPLACEMENT CAUTION
103	A-1497-995-A	VC-516 BOARD, COMPLETE (SERVICE) (DCR-SR220E)	* 108	3-398-042-01	SHEET (AM), SHIELD
			109	1-874-804-11	FP-805 FLEXIBLE BOARD
			#2	2-635-562-31	SCREW (M1.7) (Black)
			#3	2-660-401-01	SCREW (M1.7), NEW TRU-STAR, P2 (Red)
			#14	2-599-475-11	SCREW (M1.7) (Silver)

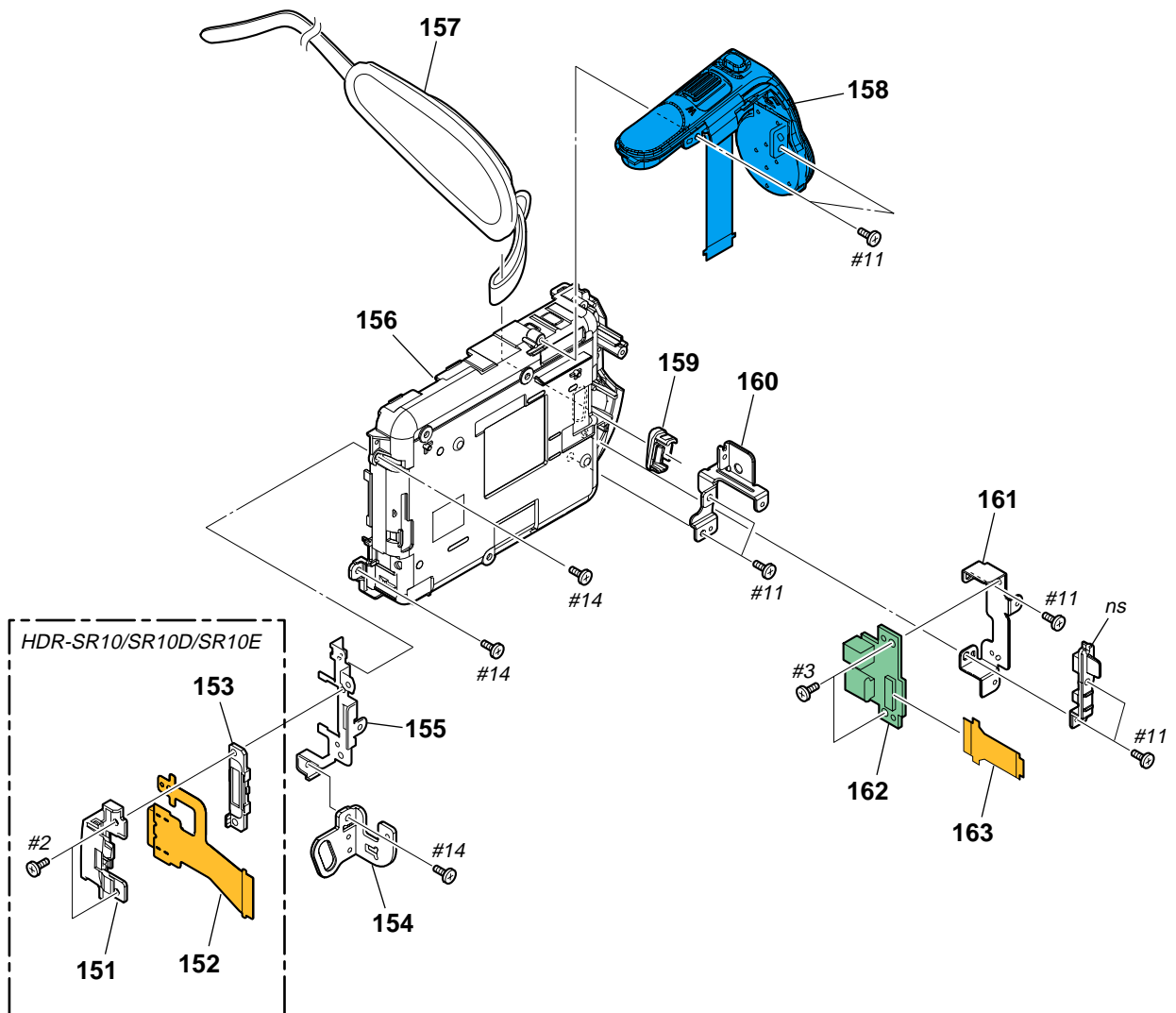
## 5. REPAIR PARTS LIST

### 5-1-4. CABINET (L) SECTION

ns: not supplied

DISASSEMBLY

HARDWARE LIST



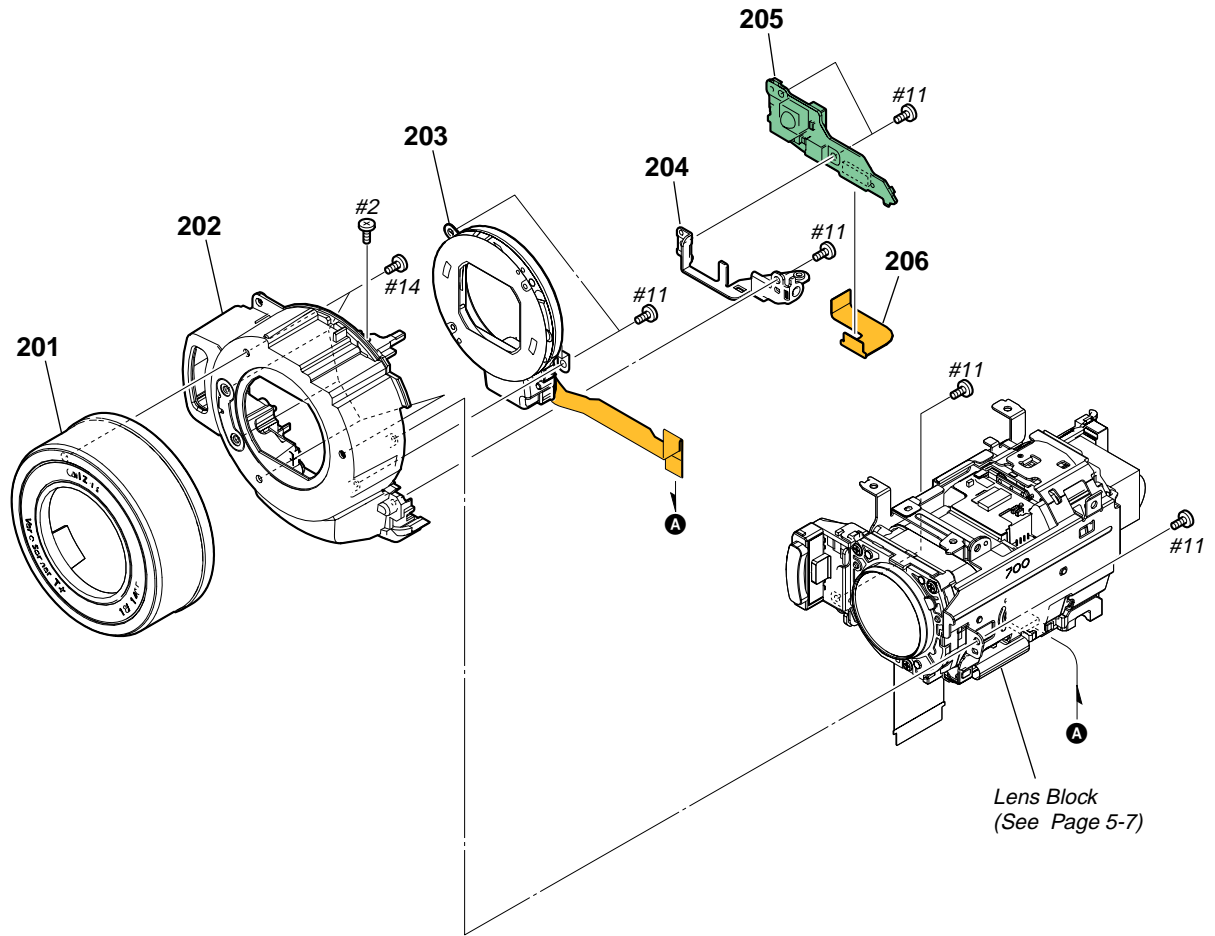
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
* 151	3-290-674-01	BASE (700), LFJK (HDR-SR10/SR10D/SR10E)	158	1-480-427-31	SWITCH BLOCK, CONTROL (PS28100)
152	A-1494-343-A	FP-855 FLEXIBLE BOARD, COMPLETE (HDR-SR10/SR10D/SR10E)	158	1-480-427-41	SWITCH BLOCK, CONTROL (PS28100) (DCR-SR210E/SR220/SR220D/SR220E)
* 153	3-296-445-01	RETAINER (700), LFJK (HDR-SR10/SR10D/SR10E)	* 161	3-290-672-01	FRAME, JK
* 154	3-290-670-01	FRAME (F (700)), STRAP	162	A-1494-342-A	JK-366 BOARD, COMPLETE
* 155	3-290-671-01	FRAME (700), LF	163	1-874-803-11	FP-804 FLEXIBLE BOARD
156	3-290-483-01	CABINET (L) (EXCEPT DCR-SR220: US: /SR220D/ HDR-SR10: US/SR10D)	#2	2-635-562-31	SCREW (M1.7) (Black)
156	3-290-483-03	CABINET (L) (DCR-SR220: US/SR220D/ HDR-SR10: US/SR10D)	#3	2-660-401-01	SCREW (M1.7), NEW TRU-STAR, P2 (Red)
157	2-664-928-41	BELT, GRIP	#11	3-078-890-11	SCREW, TAPPING (Silver)
			#14	2-599-475-11	SCREW (M1.7) (Silver)

# 5. REPAIR PARTS LIST

## 5-1-5. CABINET (F) SECTION

DISASSEMBLY

HARDWARE LIST



Lens Block  
(See Page 5-7)

Ref. No.	Part No.	Description
201	3-290-658-01	RING (700), LENS
202	X-2188-781-1	CABINET (F (700)) ASSY (HDR-SR10/SR10D/SR10E)
202	X-2188-782-1	CABINET (F (600)) ASSY (DCR-SR210E/SR220/SR220D/SR220E)
203	A-1419-023-A	LENS BARRIER UNIT
* 204	3-290-659-01	FRAME (700), F

Ref. No.	Part No.	Description
205	A-1497-997-A	FR-285 BOARD, COMPLETE (SERVICE) (HDR-SR10/SR10D/SR10E)
205	A-1497-998-A	FR-285 BOARD, COMPLETE (SERVICE) (DCR-SR210E/SR220/SR220D/SR220E)
206	1-874-962-11	FP-853 FLEXIBLE BOARD
#2	2-635-562-31	SCREW (M1.7) (Black)
#11	3-078-890-11	SCREW, TAPPING (Silver)
#14	2-599-475-11	SCREW (M1.7) (Silver)

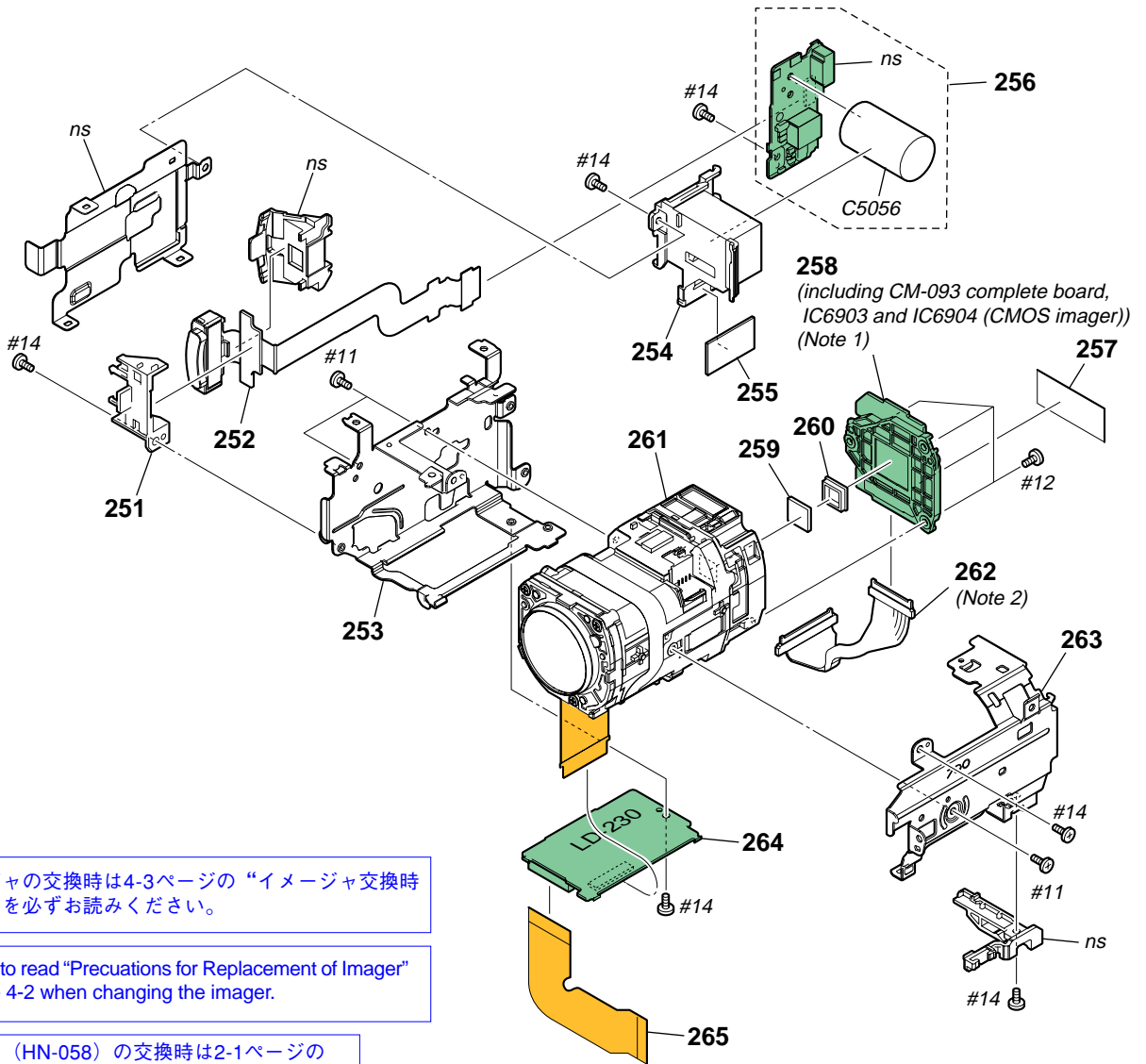
# 5. REPAIR PARTS LIST

## 5-1-6. LENS BLOCK

ns: not supplied

DISASSEMBLY

HARDWARE LIST



Note 1: イメージャの交換時は4-3ページの“イメージャ交換時の注意”を必ずお読みください。

Note 1: Be sure to read “Precautions for Replacement of Imager” on page 4-2 when changing the imager.

Note 2: ハーネス (HN-058) の交換時は2-1ページの“Note for disconnecting the harness (HN-058)”を参照してください。

Note 2: Refer to page 2-1 “Note for disconnecting the harness (HN-058)” when changing the harness (HN-058).

• Refer to page 5-1 for mark △.

Ref. No.	Part No.	Description
* 251	3-290-666-01	HOLDER (700), ST
△ 252	1-480-263-41	FLASH UNIT
253	3-290-660-01	FRAME (L (700)), LENS
254	3-290-663-01	HOLDER, CAPACITOR
255	1-481-251-11	CORE, FERRITE
256	A-1494-352-A	ST-189 BOARD, COMPLETE
257	3-295-427-01	SHEET (700), CM RADIATION
258	A-1512-349-A	CMOS BLOCK ASSY (1260) (including CM-093 complete board, IC6903 and IC6904 (CMOS imager))(Note 1)
259	1-788-709-11	OPTICAL FILTER BLOCK (OFB-03-37)
260	3-217-744-01	RUBBER (1260), SEAL

Ref. No.	Part No.	Description
261	A-1497-728-A	LSV-1260A (SERVICE)
262	1-965-669-11	HARNESS (HN-058) (Note 2)
263	3-290-661-01	FRAME (R (700)), LENS
264	A-1494-351-A	LD-230 BOARD, COMPLETE
265	1-874-800-11	FP-801 FLEXIBLE BOARD
*△C5056	1-114-393-11	ELECT            70uF    99%    330V
#11	3-078-890-11	SCREW, TAPPING (Silver)
#12	3-080-204-21	SCREW, TAPPING, P2 (Black)
#14	2-599-475-11	SCREW (M1.7) (Silver)

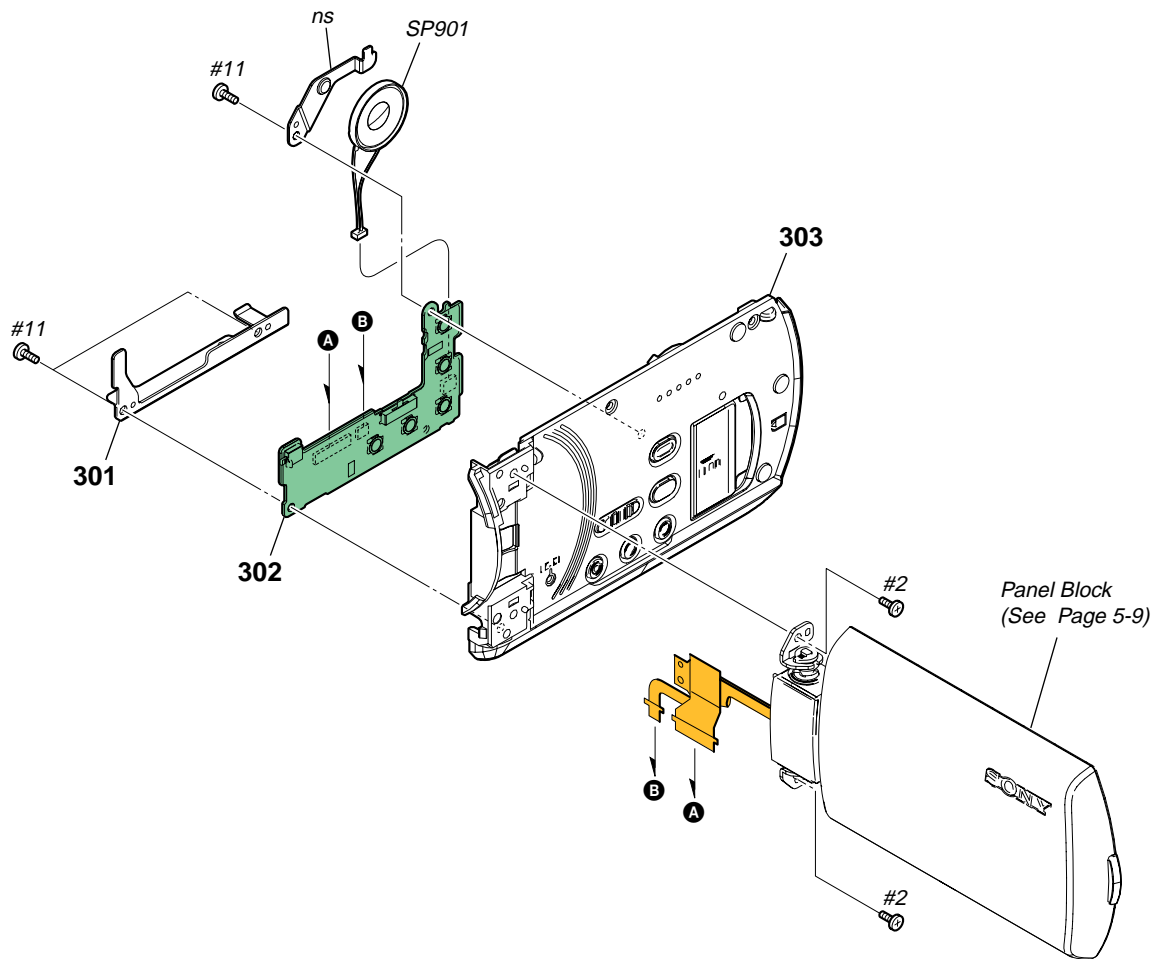
## 5. REPAIR PARTS LIST

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

ns: not supplied

DISASSEMBLY

HARDWARE LIST



Ref. No.	Part No.	Description
* 301	3-290-640-01	FRAME (700), CK
302	A-1494-347-A	CK-196 BOARD, COMPLETE
303	X-2188-806-1	CABINET (R (700)) ASSY

Ref. No.	Part No.	Description
SP901	1-825-262-82	LOUD SPEAKER (1.6CM)
#2	2-635-562-31	SCREW (M1.7) (Black)
#11	3-078-890-11	SCREW, TAPPING (Silver)



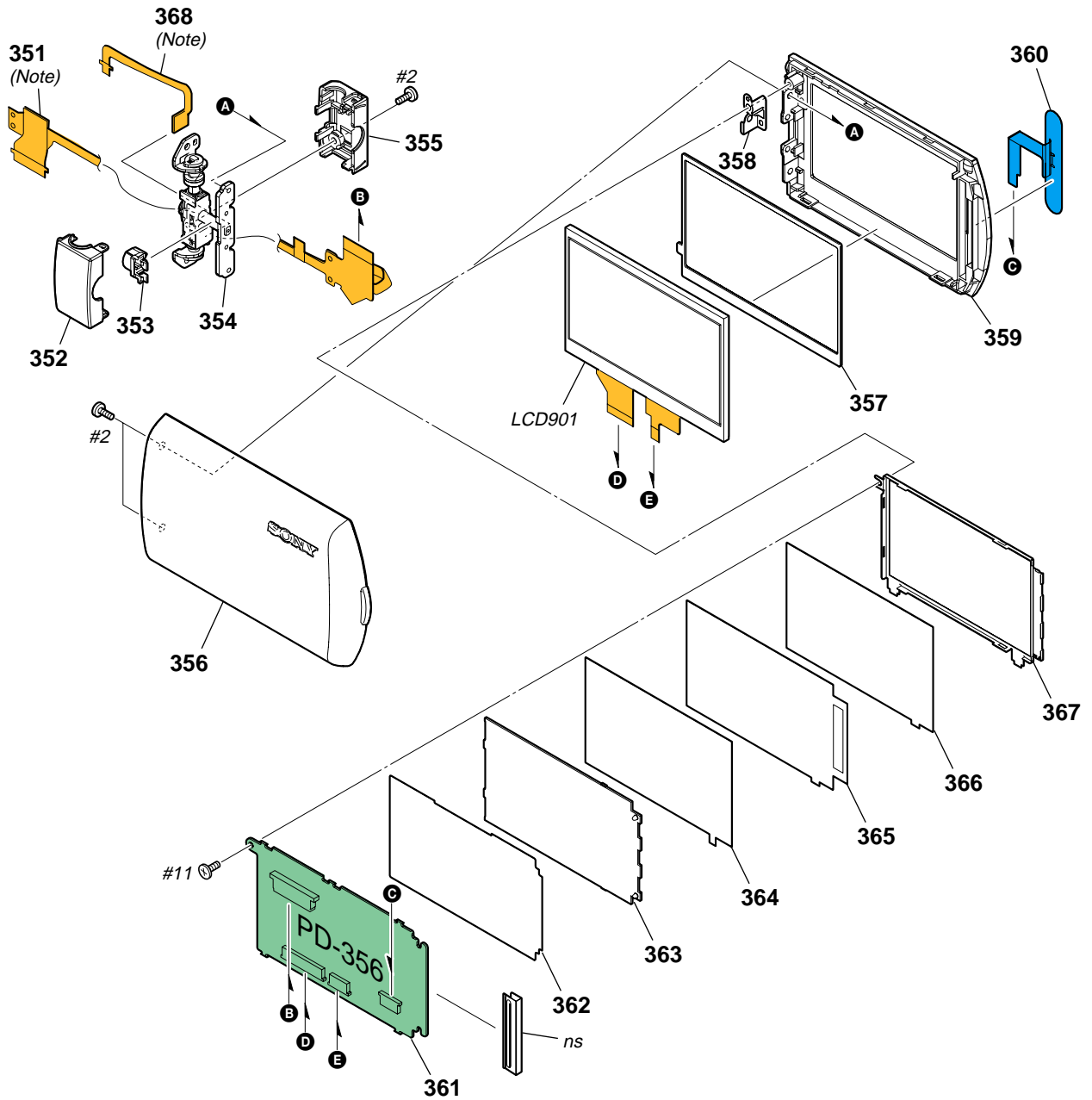
# 5. REPAIR PARTS LIST

## 5-1-8. PANEL BLOCK

ns: not supplied

### DISASSEMBLY

### HARDWARE LIST



Note: FP-659, FP-854フレキシブル基板取付時は「HELP11」を必ずお読みください。

Note: Be sure to read "HELP11" when you install the FP-659, FP-854 flexible boards.

Ref. No.	Part No.	Description
351	1-871-774-11	FP-659 FLEXIBLE BOARD (Note)
352	3-290-637-01	COVER (O (700)), HINGE (HDR-SR10/SR10D/SR10E)
352	3-290-637-11	COVER (O (700)), HINGE (DCR-SR210E/SR220/SR220D/SR220E)
353	2-668-087-01	CLAMP, FLEXIBLE
354	X-2188-805-1	HINGE (NC), 08 STYLE ASSY
355	3-290-638-02	COVER (U (700)), HINGE
356	X-2188-807-1	CABINET (C (700)) ASSY, P (HDR-SR10/SR10D/SR10E)
356	X-2188-808-1	CABINET (C (600)) ASSY, P (DCR-SR210E/SR220/SR220D/SR220E)
* 357	3-290-642-01	CUSHION (700), TP
* 358	3-290-639-01	PLATE (700), P GROUND

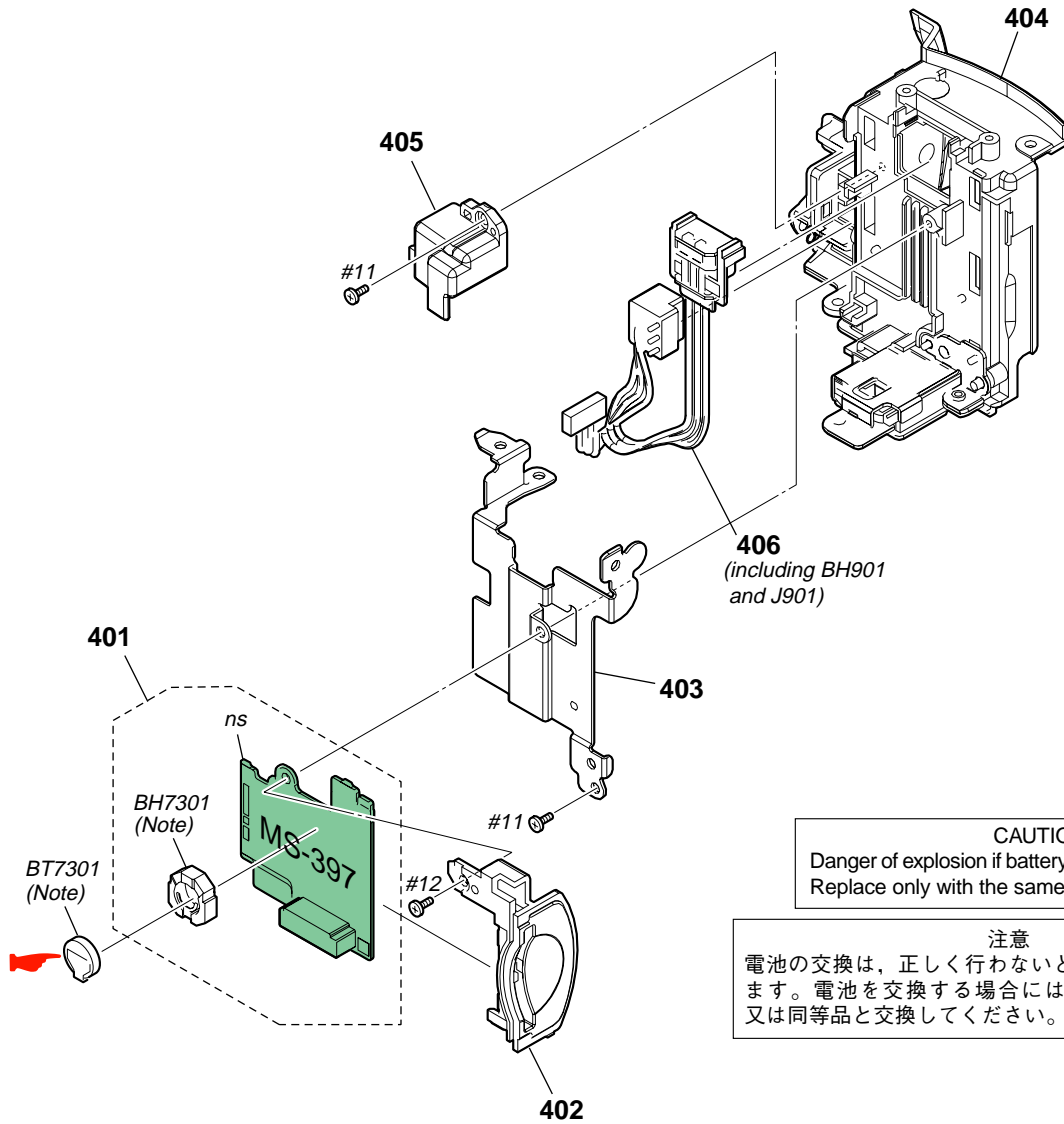
Ref. No.	Part No.	Description
359	3-290-635-01	CABINET (M (700)), P
360	1-479-926-11	SWITCH BLOCK, CONTROL (SB22100)
361	A-1494-349-A	PD-356 BOARD, COMPLETE
362	2-694-515-01	REFLECTION SHEET (2.7)
363	2-666-801-01	LIGHT GUIDE (2.7)
364	2-694-514-01	DIFFUSION SHEET (2.7)
365	2-694-513-01	PRISM SHEET H (2.7)
366	2-694-512-01	PRISM SHEET V (2.7)
367	2-694-516-01	FRONT FRAME (2.7)
368	A-1494-348-A	FP-854 FLEXIBLE BOARD, COMPLETE (Note)
LCD901	A-1202-058-A	TP BLOCK ASSY (27ESHMG07)
#2	2-635-562-31	SCREW (M1.7) (Black)
#11	3-078-890-11	SCREW, TAPPING (Silver)

## 5. REPAIR PARTS LIST

### HARDWARE LIST

### 5-1-9. BT PANEL BLOCK

ns: not supplied



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

注意  
 電池の交換は、正しく行わないと破裂する恐れがあります。  
 電池を交換する場合には必ず同じ型名の電池  
 又は同等品と交換してください。

: BT7301 (LITHIUM STORAGE BATTERY)  
 Board on the mount position.  
 (See page 4-50.)

**Note:** MS-397基板のリチウム蓄電池 (BT7301) を交換する場合はバッテリーホルダ (BH7301) も同時に新品に交換して下さい。(一度使用したバッテリーホルダは再使用できません。)  
 部品取り付けの際は、先にバッテリーホルダを取り付けてからリチウム電池を装着して下さい。

**Note:** Replace the battery holder (BH7301) together when replacing the lithium storage battery (BT7301) on the MS-397 board. (The battery holder removed once cannot be used again.)  
 When mounting these parts, mount new battery holder first and attach new lithium battery next.

• Refer to page 5-1 for mark △.

Ref. No.	Part No.	Description
401	A-1494-344-A	MS-397 BOARD, COMPLETE
402	3-290-650-01	CABINET, MS
* 403	3-290-649-01	FRAME (700), BT TERMINAL
404	X-2188-803-1	PANEL (700) ASSY, BT
* 405	3-290-651-01	RETAINER, DCIN

Ref. No.	Part No.	Description
△ 406	1-821-575-21	DC JACK (including BH901 and J901)
△*BH7301	1-756-615-51	HOLDER, BATTERY (Note)
△BT7301	1-756-134-12	BATTERY, STORAGE, LITHIUM (Note)
#11	3-078-890-11	SCREW, TAPPING (Silver)
#12	3-080-204-21	SCREW, TAPPING, P2 (Black)

**5-2. ELECTRICAL PARTS LIST**

Ref. No.	Part No.	Description
	A-1494-347-A	CK-196 BOARD, COMPLETE *****
< CONNECTOR >		
CN5801	1-819-934-61	CONNECTOR, FPC (ZIF) 39P
* CN5802	1-816-650-51	FFC/FPC CONNECTOR (LIF) 24P
CN5803	1-778-506-21	PIN, CONNECTOR (PC BOARD) 2P
* CN5804	1-816-654-51	FFC/FPC CONNECTOR (LIF) 6P
< RESISTOR >		
R001	1-218-957-11	RES-CHIP 2.2K 5% 1/16W
R002	1-218-955-11	RES-CHIP 1.5K 5% 1/16W
R003	1-218-954-11	RES-CHIP 1.2K 5% 1/16W
R5805	1-218-954-11	RES-CHIP 1.2K 5% 1/16W
< SWITCH >		
S5801	1-771-138-21	SWITCH, KEY BOARD (RESET)
S5802	1-771-138-21	SWITCH, KEY BOARD (EASY)
S5803	1-771-138-21	SWITCH, KEY BOARD (DISC BURN)
S5804	1-771-138-21	SWITCH, KEY BOARD (PLAY)
S5805	1-771-138-21	SWITCH, KEY BOARD (DISP/BATT INFO)
S5806	1-786-148-11	SWITCH, PUSH (1 KEY) (PANEL OPEN/CLOSE)
S5808	1-771-731-11	SWITCH, SLIDE (NIGHTSHOT)
S5809	1-771-138-21	SWITCH, KEY BOARD (BACKLIGHT)

Electrical parts list of the CM-093 is not shown.  
Pages 5-12 is not shown.

CR-091

FP-659

FP-801

FP-803

FP-804

FP-805

FP-806

FP-814

FP-853

FP-854

FP-855

FP-856

FP-858

FR-285

Ref. No.	Part No.	Description
	A-1494-350-A	CR-091 BOARD, COMPLETE *****
		< CONNECTOR >
* CN7401	1-821-664-21	CONNECTOR, MULTIPLE (PLUG) 32P
* CN7402	1-821-202-81	CONNECTOR, FPC (ZIF) 45P
	1-871-774-11	FP-659 FLEXIBLE BOARD ***** (There isn't mounted electrical parts in FP-659 flexible board.)
	1-874-800-11	FP-801 FLEXIBLE BOARD ***** (There isn't mounted electrical parts in FP-801 flexible board.)
	1-874-802-11	FP-803 FLEXIBLE BOARD ***** (There isn't mounted electrical parts in FP-803 flexible board.)
	1-874-803-11	FP-804 FLEXIBLE BOARD ***** (There isn't mounted electrical parts in FP-804 flexible board.)
	1-874-804-11	FP-805 FLEXIBLE BOARD ***** (There isn't mounted electrical parts in FP-805 flexible board.)
	1-874-805-11	FP-806 FLEXIBLE BOARD ***** (There isn't mounted electrical parts in FP-806 flexible board.)
	1-874-813-11	FP-814 FLEXIBLE BOARD ***** (There isn't mounted electrical parts in FP-814 flexible board.)
	1-874-962-11	FP-853 FLEXIBLE BOARD ***** (There isn't mounted electrical parts in FP-853 flexible board.)
	A-1494-348-A	FP-854 FLEXIBLE BOARD, COMPLETE *****
		< SWITCH >
S001	1-786-707-11	SWITCH, DETECTION (SMD) (PANEL REVERSE DETECT)
	A-1494-343-A	FP-855 FLEXIBLE BOARD, COMPLETE (HDR-SR10/SR10D/SR10E) *****
		< CONNECTOR >
CN7191	1-821-166-21	CONNECTOR, HDMI (HDMI OUT)

Ref. No.	Part No.	Description
	1-874-965-11	FP-856 FLEXIBLE BOARD ***** (There isn't mounted electrical parts in FP-856 flexible board.)
	1-874-967-11	FP-858 FLEXIBLE BOARD ***** (There isn't mounted electrical parts in FP-858 flexible board.)
	A-1497-997-A	FR-285 BOARD, COMPLETE (HDR-SR10/SR10D/SR10E)
	A-1497-998-A	FR-285 BOARD, COMPLETE (DCR-SR210E/SR220/SR220D/SR220E) *****
		< CAPACITOR >
C9501	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C9503	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C9504	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C9505	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C9508	1-119-923-11	CERAMIC CHIP 0.047uF 10% 10V
C9509	1-119-923-11	CERAMIC CHIP 0.047uF 10% 10V
C9510	1-119-923-11	CERAMIC CHIP 0.047uF 10% 10V
C9511	1-119-923-11	CERAMIC CHIP 0.047uF 10% 10V
C9512	1-100-611-91	CERAMIC CHIP 22uF 20% 6.3V
C9513	1-100-611-91	CERAMIC CHIP 22uF 20% 6.3V
C9514	1-127-760-11	CERAMIC CHIP 4.7uF 10% 6.3V
C9515	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C9516	1-114-411-21	CERAMIC CHIP 0.33uF 10% 6.3V
C9517	1-114-411-21	CERAMIC CHIP 0.33uF 10% 6.3V
		< CONNECTOR >
* CN9502	1-816-644-51	FFC/FPC CONNECTOR (LIF) 12P
		< DIODE >
D9501	6-500-512-01	DIODE CL-330IRS-X-TU (NIGHTSHOT)
D9502	8-719-077-09	DIODE CL-196HR-CD-T (TALLY) (HDR-SR10/SR10D/SR10E)
		< FERRITE BEAD >
FB9501	1-400-833-21	SMD EMI FERRITE
FB9502	1-400-833-21	SMD EMI FERRITE
FB9503	1-400-833-21	SMD EMI FERRITE
FB9504	1-400-833-21	SMD EMI FERRITE
		< IC >
IC9501	6-707-333-01	IC NJM3230SE7
IC9502	6-600-163-01	IC RS-770
		< COIL >
L9501	1-400-588-11	INDUCTOR 10uH
		< RESISTOR >
R9504	1-218-965-11	RES-CHIP 10K 5% 1/16W
R9505	1-218-989-11	RES-CHIP 1M 5% 1/16W
R9506	1-218-989-11	RES-CHIP 1M 5% 1/16W
R9507	1-218-965-11	RES-CHIP 10K 5% 1/16W
R9508	1-218-990-11	SHORT CHIP 0

Ref. No.	Part No.	Description			
R9510	1-218-945-11	RES-CHIP	220	5%	1/16W (HDR-SR10/SR10D/SR10E)
R9512	1-208-711-11	METAL CHIP	15K	0.5%	1/16W
R9513	1-208-711-11	METAL CHIP	15K	0.5%	1/16W

< COMPOSITION CIRCUIT BLOCK >

\* RB9501 1-234-379-21 RES, NETWORK 22K (1005X4)

< SENSOR >

\* SE9501 1-479-022-51 SENSOR, ANGULAR VELOCITY (PITCH)

\* SE9502 1-479-022-61 SENSOR, ANGULAR VELOCITY (YAW)

A-1494-342-A JK-366 BOARD, COMPLETE

\*\*\*\*\*

< CONNECTOR >

\* CN7201 1-816-648-51 FFC/FPC CONNECTOR (LIF) 20P  
 CN7202 1-819-436-11 CONNECTOR (SQUARE TYPE) (USB) 5P (USB)  
 CN7203 1-815-794-13 CONNECTOR (MULTIPLE) (A/V R)

< FERRITE BEAD >

FB7201 1-500-238-11 BEAD, FERRITE (CHIP) (1608)  
 FB7202 1-500-238-11 BEAD, FERRITE (CHIP) (1608)

< RESISTOR >

R7201 1-216-864-11 SHORT CHIP 0  
 R7202 1-216-864-11 SHORT CHIP 0  
 R7203 1-216-809-11 METAL CHIP 100 5% 1/10W  
 R7204 1-218-990-11 SHORT CHIP 0  
 R7205 1-218-990-11 SHORT CHIP 0

R7206 1-218-990-11 SHORT CHIP 0

< VARISTOR >

\* VD7201 1-802-279-11 VARISTOR (SMD)  
 \* VD7202 1-802-279-11 VARISTOR (SMD)  
 \* VD7203 1-802-279-11 VARISTOR (SMD)  
 \* VD7204 1-802-279-11 VARISTOR (SMD)  
 \* VD7205 1-802-279-11 VARISTOR (SMD)

Electrical parts list of the LD-230 is not shown.  
 Pages 5-15 to 5-16 are not shown.

Ref. No.	Part No.	Description
	A-1494-344-A	MS-397 BOARD, COMPLETE *****
(BT7301 (lithium storage battery) is not included in the MS-397 complete board.)		
< BATTERY HOLDER >		
△*BH7301	1-756-615-51	HOLDER, BATTERY (Note)
< BATTERY >		
△BT7301	1-756-134-12	BATTERY, STORAGE, LITHIUM (Note)
< CAPACITOR >		
C7302	1-100-786-91	TANTAL. CHIP 22uF 20% 6.3V
< CONNECTOR >		
* CN7301	1-779-335-51	CONNECTOR, FFC/FPC 22P
* CN7302	1-819-990-21	MEMORY STICK DUO CONNECTOR 10P
< DIODE >		
D7301	6-501-216-01	DIODE CL-271HR-C-TS (ACCESS)
< FERRITE BEAD >		
FB7301	1-469-580-21	INDUCTOR, FERRITE BEAD (1005)
FB7302	1-469-580-21	INDUCTOR, FERRITE BEAD (1005)
FB7303	1-469-580-21	INDUCTOR, FERRITE BEAD (1005)
FB7304	1-469-580-21	INDUCTOR, FERRITE BEAD (1005)
< RESISTOR >		
R7302	1-218-990-11	SHORT CHIP 0
R7303	1-218-944-11	RES-CHIP 180 5% 1/16W
R7304	1-218-944-11	RES-CHIP 180 5% 1/16W
R7305	1-218-944-11	RES-CHIP 180 5% 1/16W
R7306	1-218-944-11	RES-CHIP 180 5% 1/16W
R7307	1-218-990-11	SHORT CHIP 0
R7308	1-218-990-11	SHORT CHIP 0

## CAUTION

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

## 注意

電池の交換は、正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。

Note: Replace the battery holder (BH7301) together when replacing the lithium storage battery (BT7301) on the MS-397 board. (The battery holder removed once cannot be used again.)  
When mounting these parts, mount new battery holder first and attach new lithium battery next.

ノート: MS-397基板のリチウム蓄電池 (BT7301) を交換する場合はバッテリーホルダ (BH7301) も同時に新品に交換して下さい。(一度使用したバッテリーホルダは再使用できません。)  
部品取り付けの際は、先にバッテリーホルダを取り付けてからリチウム電池を装着して下さい。

Ref. No.	Part No.	Description
	A-1494-349-A	PD-356 BOARD, COMPLETE *****
< CAPACITOR >		
C6101	1-100-581-81	CERAMIC CHIP 0.0047uF 10% 50V
C6102	1-100-581-81	CERAMIC CHIP 0.0047uF 10% 50V
C6103	1-165-989-11	CERAMIC CHIP 10uF 10% 6.3V
C6104	1-119-750-11	TANTAL. CHIP 22uF 20% 6.3V
C6105	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C6108	1-100-567-81	CERAMIC CHIP 0.01uF 10% 25V
C6109	1-100-567-81	CERAMIC CHIP 0.01uF 10% 25V
C6110	1-100-567-81	CERAMIC CHIP 0.01uF 10% 25V
C6113	1-127-760-11	CERAMIC CHIP 4.7uF 10% 6.3V
C6114	1-125-889-11	CERAMIC CHIP 2.2uF 10% 10V
C6116	1-165-989-11	CERAMIC CHIP 10uF 10% 6.3V
C6117	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C6118	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
* C6119	1-100-741-81	CERAMIC CHIP 560PF 5% 50V
C6121	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C6125	1-100-567-81	CERAMIC CHIP 0.01uF 10% 25V
C6126	1-100-567-81	CERAMIC CHIP 0.01uF 10% 25V
C6127	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C6128	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
< CONNECTOR >		
CN6101	1-815-031-51	CONNECTOR, FFC/FPC (ZIF) 24P
* CN6102	1-794-322-51	CONNECTOR, FFC/FPC (ZIF) 6P
CN6103	1-816-180-71	CONNECTOR, FPC (ZIF) 6P
* CN6105	1-819-913-71	CONNECTOR, FPC (ZIF) 24P
< DIODE >		
* D6102	6-501-082-01	DIODE 1SS362FV (TPL3)
* D6106	6-501-597-01	DIODE NSSW008DT-T108 (LCD BACKLIGHT)
* D6107	6-501-597-01	DIODE NSSW008DT-T108 (LCD BACKLIGHT)
* D6108	6-501-597-01	DIODE NSSW008DT-T108 (LCD BACKLIGHT)
< IC >		
* IC6101	6-710-240-01	IC IR3Y65M4
< COIL >		
L6101	1-400-588-11	INDUCTOR 10uH
L6102	1-400-588-11	INDUCTOR 10uH
L6103	1-400-588-11	INDUCTOR 10uH
< TRANSISTOR >		
Q6101	8-729-427-37	TRANSISTOR XP411F-TXE
Q6102	8-729-427-67	TRANSISTOR XP421F-TXE
Q6107	6-550-150-01	TRANSISTOR SSM3J09FU (TE85L)
* Q6108	6-551-766-01	TRANSISTOR UNR32A3G0LS0
* Q6109	6-551-760-01	TRANSISTOR UNR31A3G0LS0
Q6110	8-729-053-84	TRANSISTOR SSM3K09FU (T5LSONY1)
Q6111	6-551-184-01	TRANSISTOR MCH6305-TL-E-S
Q6112	6-551-184-01	TRANSISTOR MCH6305-TL-E-S
Q6113	8-729-054-48	TRANSISTOR UP04601008S0
* Q6114	6-551-846-01	TRANSISTOR UP04401G08S0
Q6115	8-729-054-48	TRANSISTOR UP04601008S0

• Refer to page 5-1 for mark △.

Ref. No.	Part No.	Description
< RESISTOR >		
R6101	1-218-957-11	RES-CHIP 2.2K 5% 1/16W
R6102	1-218-955-11	RES-CHIP 1.5K 5% 1/16W
R6105	1-218-954-11	RES-CHIP 1.2K 5% 1/16W
R6111	1-208-649-11	RES-CHIP 39 0.5% 1/16W
R6112	1-218-965-11	RES-CHIP 10K 5% 1/16W
R6115	1-208-931-11	RES-CHIP 68K 0.5% 1/16W
R6119	1-208-935-11	METAL CHIP 100K 0.5% 1/16W
R6120	1-208-911-11	METAL CHIP 10K 0.5% 1/16W
R6134	1-208-898-11	METAL CHIP 3K 0.5% 1/16W
R6138	1-218-969-11	RES-CHIP 22K 5% 1/16W
R6139	1-208-927-11	METAL CHIP 47K 0.5% 1/16W
R6140	1-208-927-11	METAL CHIP 47K 0.5% 1/16W
R6141	1-218-981-91	RES-CHIP 220K 5% 1/16W
R6143	1-208-699-11	METAL CHIP 4.7K 0.5% 1/16W
R6144	1-208-691-11	METAL CHIP 2.2K 0.5% 1/16W
R6145	1-208-683-11	METAL CHIP 1K 0.5% 1/16W
R6146	1-208-691-11	METAL CHIP 2.2K 0.5% 1/16W
R6148	1-211-969-11	METAL CHIP 10 0.5% 1/10W
< COMPOSITION CIRCUIT BLOCK >		
RB6101	1-234-381-11	RES, NETWORK 100K (1005X4)
RB6102	1-234-381-11	RES, NETWORK 100K (1005X4)

A-1494-352-A ST-189 BOARD, COMPLETE  
\*\*\*\*\*

< CAPACITOR >		
C5052	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C5053	1-165-884-91	CERAMIC CHIP 2.2uF 10% 6.3V
C5054	1-165-875-11	CERAMIC CHIP 10uF 10% 10V
C5055	1-163-001-11	CERAMIC CHIP 220PF 10% 50V
△*C5056	1-114-393-11	ELECT 70uF 99% 330V
< CONNECTOR >		
* CN5051	1-779-331-51	CONNECTOR, FFC/FPC 14P
* CN5052	1-816-645-51	FFC/FPC CONNECTOR (LIF) 14P
< DIODE >		
D5052	6-500-619-01	DIODE RB520S-40TE61
△D5053	6-501-096-01	DIODE CRF02 (TE85R)
< IC >		
△IC5051	6-707-554-01	IC TPS65552DGQR
< COIL >		
L5051	1-412-027-11	INDUCTOR 2.2uH
< TRANSISTOR >		
△*Q5051	6-551-686-01	TRANSISTOR TIG030TS-S-TL-E
< RESISTOR >		
R5053	1-208-947-11	METAL CHIP 330K 0.5% 1/16W
R5054	1-208-935-11	METAL CHIP 100K 0.5% 1/16W

Ref. No.	Part No.	Description
R5058	1-216-065-91	RES-CHIP 4.7K 5% 1/10W
R5059	1-216-809-11	METAL CHIP 100 5% 1/10W
R5060	1-218-989-11	RES-CHIP 1M 5% 1/16W
< TRANSFORMER >		
△T5051	1-443-568-31	TRANSFORMER, D.C.-D.C.CONVERTER

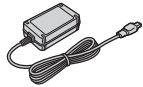
Electrical parts list of the VC-516 is not shown.  
Pages 5-19 to 5-27 are not shown.

• Refer to page 5-1 for mark △.

• EXCEPT J MODEL

Checking supplied accessories.

to J MODEL



AC Adaptor  
(AC-L200/L200B)  
\* Compatible in L200 and L200B.  
△ 1-479-285-21



Conversion (2P) Adaptor  
△ 1-569-007-12 (E:NTSC, JE)



21-Pin Adaptor  
1-770-783-21 (AEP, UK, NE)



A/V connecting cable  
1-823-156-51



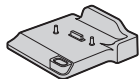
Wireless Remote Commander (RMT-835)  
1-479-275-41



DVD-ROM  
"ENJOY HANDYCAM"  
3-282-264-01 (KR)  
ENGLISH/KOREA/JAPANESE  
3-282-264-11 (US, CND)  
ENGLISH/FRENCH/SPANISH/PORTUGUESE  
3-282-264-21 (UK, NE)  
ENGLISH/RUSSIAN/GERMAN/TURKISH  
3-282-264-51 (AEP)  
ENGLISH / FRENCH / GERMAN / DUTCH / SPANISH / PORTUGUESE / ITALIAN / TURKISH  
3-282-264-61 (HK, AUS, CH, E)  
ENGLISH / FRENCH / SIMPLIFIED CHINESE / TRADITIONAL CHINESE  
3-282-264-71 (E)  
ENGLISH / TRADITIONAL CHINESE / SPANISH / PORTUGUESE



Power cord (Mains lead)  
△ 1-555-074-91 (AUS)  
△ 1-790-107-61 (US, CND)  
△ 1-792-549-41 (JE)  
△ 1-824-910-71 (AEP, NE, E:PAL)  
△ 1-827-269-12 (UK, HK)  
△ 1-832-121-31 (CH)  
△ 1-833-892-21 (KR)  
△ 1-834-852-11 (E:NTSC)  
△ 1-835-434-11 (TH)



Handycam Station (DCRA-C220)  
1-821-691-11



USB cable  
1-829-868-31



Rechargeable battery pack (NP-FH60)  
△ A-1201-666-A (US, CND)  
△ A-1201-667-A (EXCEPT US, CND, CH)  
△ A-1201-668-A (CH)



Operating Guide (HDR-SR10/SR10D)  
3-286-593-11 (ENGLISH, SPANISH) (US, CND, JE, E:NTSC)  
3-286-593-21 (FRENCH) (CND)  
3-286-593-31 (PORTUGUESE) (JE)  
3-286-593-41 (TRADITIONAL CHINESE) (E:NTSC)  
3-286-593-51 (KOREAN) (KR, JE)

Operating Guide (HDR-SR10E)  
3-286-594-11 (ENGLISH) (AEP, UK, HK, AUS, JE, E:PAL, TH)  
3-286-594-21 (FRENCH, DUTCH, GREEK) (AEP)  
3-286-594-31 (GERMAN, ITALIAN, TURKISH) (AEP)  
3-286-594-41 (SPANISH, PORTUGUESE, POLISH) (AEP)  
3-286-594-51 (CZECH, HUNGARIAN, SLOVAK) (AEP)  
3-286-594-61 (RUSSIAN, UKRAINIAN) (NE, JE)  
3-286-594-71 (SWEDISH, DANISH, FINNISH) (NE)  
3-286-594-81 (SIMPLIFIED CHINESE) (CH, JE, E:PAL)  
3-286-594-91 (ARABIC, PERSIAN) (E:PAL)  
3-286-595-41 (TRADITIONAL CHINESE) (HK)  
3-286-595-51 (Thai) (TH)

Operating Guide (DCR-SR220/SR220D)  
3-287-849-11 (ENGLISH, SPANISH) (US, CND, JE, E:NTSC)  
3-287-849-21 (FRENCH) (CND)  
3-287-849-31 (PORTUGUESE) (JE)  
3-287-849-41 (TRADITIONAL CHINESE) (E:NTSC)  
3-287-849-51 (KOREAN) (KR, JE)

Operating Guide (DCR-SR210E/SR220E)  
3-287-850-11 (ENGLISH) (AEP, UK, HK, AUS, JE, E:PAL, Vietnamese)  
3-287-850-21 (FRENCH, DUTCH, GREEK) (AEP)  
3-287-850-31 (GERMAN, ITALIAN, TURKISH) (AEP)  
3-287-850-41 (SPANISH, PORTUGUESE, POLISH) (AEP)  
3-287-850-51 (CZECH, HUNGARIAN, SLOVAK) (AEP)  
3-287-850-62 (RUSSIAN, UKRAINIAN) (NE, JE)  
3-287-850-71 (SIMPLIFIED CHINESE) (CH, JE, E:PAL)  
3-287-850-81 (ARABIC, PERSIAN) (E:PAL)  
3-287-851-31 (TRADITIONAL CHINESE) (HK)



CD-ROM "Handycam Application Software"  
— Picture Motion Browser (Software)  
— PMB Guide  
— Handycam Handbook  
3-286-596-01 (HDR-SR10/SR10D/SR10E)  
3-287-844-01 (DCR-SR210E/SR220/SR220D/SR220E)



The CD-ROM supplied contains all of language version of the Instruction Manual in pdf (Handycam Handbook.pdf) for printing.

- The printed matter is not supplied. If required, please order it with the part number below.
- (Only for destination Japanese model)  
日本国内については日本語のみが印刷での部品供給可能です。

Handycam Handbook (PDF)

**DCR-SR220/SR220D**

- 3-287-845-01 (JAPANESE)
- \* 3-287-845-11 (ENGLISH)
- \* 3-287-845-21 (FRENCH)
- \* 3-287-845-31 (SPANISH)
- \* 3-287-845-41 (PORTUGUESE)
- \* 3-287-845-51 (TRADITIONAL CHINESE)
- \* 3-287-845-61 (KOREAN)

**DCR-SR210E/SR220E**

- \* 3-287-846-11 (ENGLISH)
- \* 3-287-846-21 (FRENCH)
- \* 3-287-846-31 (DUTCH)
- \* 3-287-846-41 (GREEK)
- \* 3-287-846-51 (GERMAN)
- \* 3-287-846-61 (ITALIAN)
- \* 3-287-846-71 (TURKISH)
- \* 3-287-846-81 (SPANISH)
- \* 3-287-846-91 (PORTUGUESE)
- \* 3-287-847-11 (POLISH)
- \* 3-287-847-21 (CZECH)
- \* 3-287-847-31 (HUNGARIAN)
- \* 3-287-847-41 (SLOVAK)
- \* 3-287-847-51 (RUSSIAN)
- \* 3-287-847-61 (UKRAINIAN)
- \* 3-287-847-71 (SIMPLIFIED CHINESE)
- \* 3-287-847-81 (ARABIC)
- \* 3-287-847-91 (PERSIAN)
- \* 3-287-848-11 (MALAY)
- \* 3-287-848-21 (THAI)
- \* 3-287-848-31 (INDONESIAN)
- \* 3-287-848-41 (TRADITIONAL CHINESE)

**HDR-SR10/SR10D**

- \* 3-286-597-11 (ENGLISH)
- \* 3-286-597-21 (FRENCH)
- \* 3-286-597-31 (SPANISH)
- \* 3-286-597-41 (PORTUGUESE)
- \* 3-286-597-51 (TRADITIONAL CHINESE)
- \* 3-286-597-61 (KOREAN)

**HDR-SR10E**

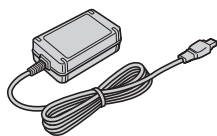
- \* 3-286-598-11 (ENGLISH)
- \* 3-286-598-21 (FRENCH)
- \* 3-286-598-31 (DUTCH)
- \* 3-286-598-41 (GREEK)
- \* 3-286-598-51 (GERMAN)
- \* 3-286-598-61 (ITALIAN)
- \* 3-286-598-71 (TURKISH)
- \* 3-286-598-81 (SPANISH)
- \* 3-286-598-91 (PORTUGUESE)
- \* 3-286-599-11 (POLISH)
- \* 3-286-599-21 (CZECH)
- \* 3-286-599-31 (HUNGARIAN)
- \* 3-286-599-41 (SLOVAK)
- \* 3-286-599-51 (RUSSIAN)
- \* 3-286-599-61 (UKRAINIAN)
- \* 3-286-599-71 (SWEDISH)
- \* 3-286-599-81 (DANISH)
- \* 3-286-599-91 (FINNISH)
- \* 3-286-600-11 (SIMPLIFIED CHINESE)
- \* 3-286-600-21 (ARABIC)
- \* 3-286-600-31 (PERSIAN)
- \* 3-286-600-41 (MALAY)
- \* 3-286-600-51 (THAI)
- \* 3-286-600-61 (INDONESIAN)
- \* 3-286-600-71 (TRADITIONAL CHINESE)

• Refer to page 5-1 for mark △.



## ● J MODEL

### 付属品



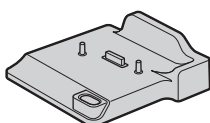
ACアダプター  
(AC-L200/L200B)  
\* L200とL200Bには  
互換性があります。  
△ 1-479-285-21



電源コード  
△ 1-792-549-41



取扱説明書  
3-287-849-01 (日本語)



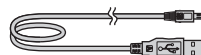
ハンディカムステーション  
(DCRA-C220)  
1-821-691-11



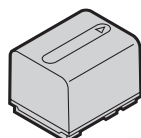
A/V接続ケーブル  
1-823-156-51



DVD-ROM  
“エンジョイハンディーカム”  
3-282-264-01  
英語/韓国語/日本語



USBケーブル  
1-829-868-31



リチャージャブルバッテリーパック  
(NP-FH60)  
△ A-1201-665-A



ワイヤレスリモコン  
(RMT-835)  
1-479-275-41



CD-ROM「Handycam  
Application Software」  
- 「Picture Motion Browser」  
(ソフトウェア)  
- 「PMB ガイド」  
- 「ハンディカム ハンドブック」  
3-287-844-01



ハンディカム ハンドブック(PDF)

印刷用の取扱説明書.pdf(ハンディカム ハンドブック.pdf)は  
全ての言語が付属品のCD-ROMに含まれています。

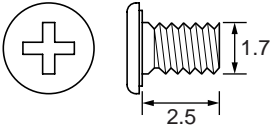
- 印刷物は付属されておりません。  
必要な場合は下記部品番号にて注文となります。

3-287-845-01 (日本語)

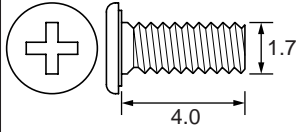
● △マークについては、5-1ページを参照して下さい。

# HARDWARE LIST (1/7)

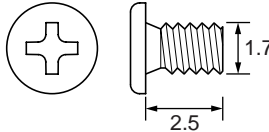
#1: M1.7 X 2.5  
(Black)  
2-635-562-11



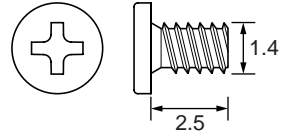
#2: M1.7 X 4.0  
(Black)  
2-635-562-31



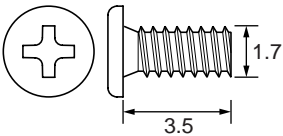
#3: M1.7 X 2.5  
(Red)  
2-660-401-01



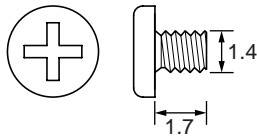
#4: M1.4 X 2.5 (Tapping)  
(Dark Silver)  
3-348-998-81



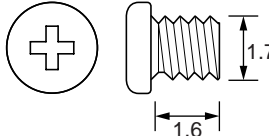
#5: M1.7 X 3.5 (Tapping)  
(Black)  
3-080-204-01



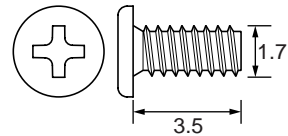
#6: M1.4 X 1.7  
(Silver)  
2-598-474-01



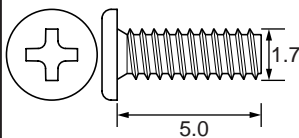
#7: M1.7 X 1.6  
(Black)  
7-627-552-18



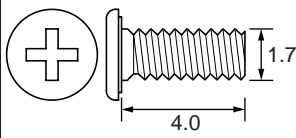
#8: M1.7 X 3.5 (Tapping)  
(Silver)  
3-078-890-01



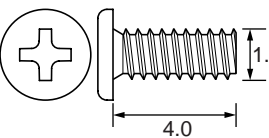
#9: M1.7 X 5.0 (Tapping)  
(Silver)  
3-078-890-21



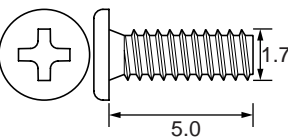
#10: M1.7 X 4.0  
(Silver)  
2-599-475-31



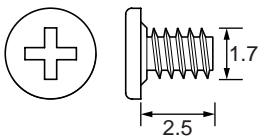
#11: M1.7 X 4.0 (Tapping)  
(Silver)  
3-078-890-11



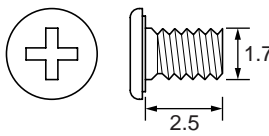
#12: M1.7 X 5.0 (Tapping)  
(Black)  
3-080-204-21



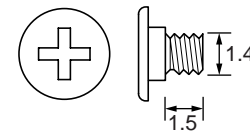
#13: M1.7 X 2.5 (Tapping)  
(Silver)  
3-085-397-01



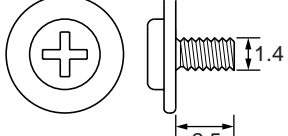
#14: M1.7 X 2.5  
(Silver)  
2-599-475-11



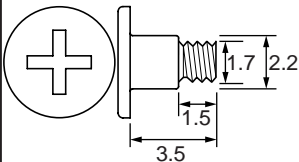
#15: M1.4 X 1.5  
(Silver)  
3-062-214-01



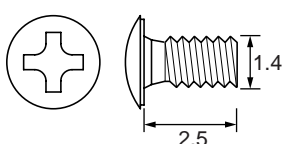
#16: M1.4 X 2.5  
(Silver)  
2-586-337-01



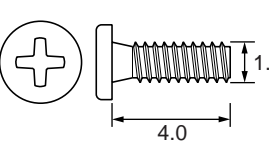
#17: M1.7 X 1.5  
(Silver)  
2-586-389-01



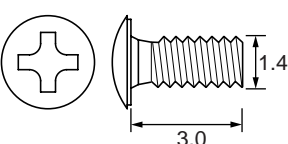
#18: M1.4 X 2.5  
(Silver)  
2-635-591-21



#19: M1.2 X 4.0 (Tapping)  
(Red)  
3-086-156-21



#20: M1.4 X 3.0  
(Silver)  
2-635-591-31



## HARDWARE LIST (2/7)

#21: M1.4 X 3.0  
(Black)  
2-662-396-21

#22: M1.7 X 5.0 (Tapping)  
(Silver)  
3-083-261-01

#23: M1.7 X 4.0 (Tapping)  
(Black)  
3-080-204-11

#24: B1.7 X 5.5 (Tapping)  
(Black)  
4-679-805-11

#25: M1.7 X 3.0  
(Black)  
2-635-562-21

#26: M1.4 X 2.0  
(Silver)  
2-635-591-11

#27: M1.4 X 2.0  
(Black)  
2-662-396-11

#28: M1.4 X 4.0 (Tapping)  
(Silver)  
3-348-998-61

#29: M1.4 X 2.5  
(Black)  
2-662-396-01

#30: M1.2 X 4.0 (Tapping)  
(White)  
3-086-156-11

#31: M3.0 X 4.0  
(Silver)  
2-102-434-01

#32: M2.0 X 4.5 (Tapping)  
(Silver)  
2-102-498-01

#33: M3.0 X 6.0  
(Silver)  
3-077-331-21

#34: M3.0 X 8.0  
(Black)  
3-077-331-41

#35: M4.0 X 6.0 (Tapping)  
(Silver)  
3-975-291-02

#36: M3.0 X 6.0  
(Silver)  
4-886-821-11

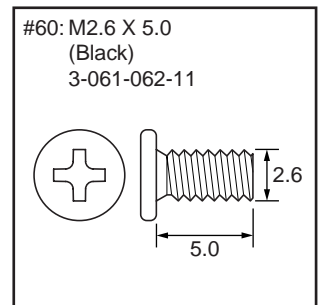
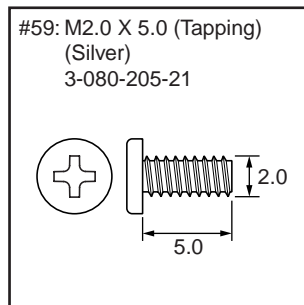
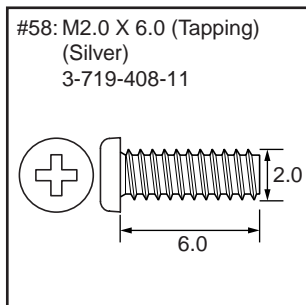
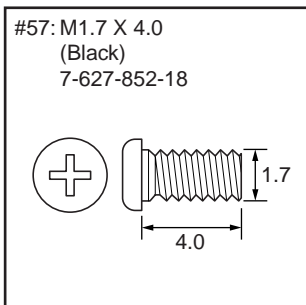
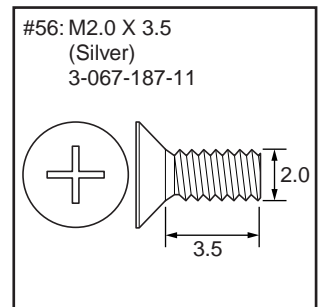
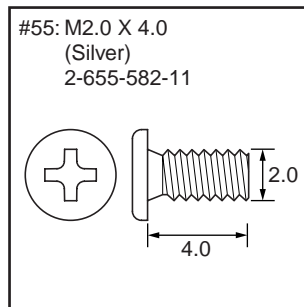
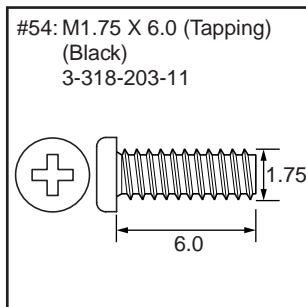
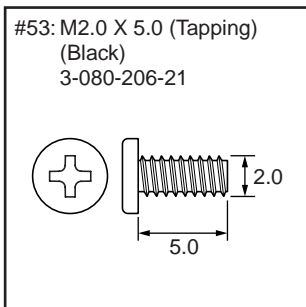
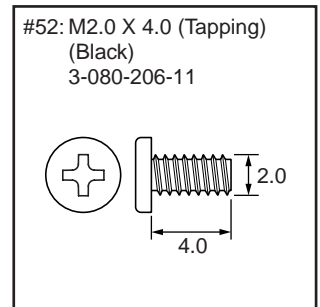
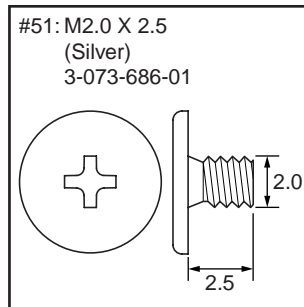
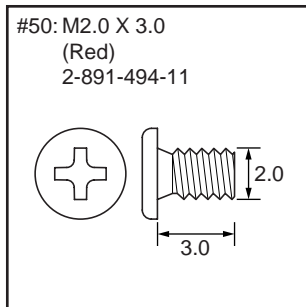
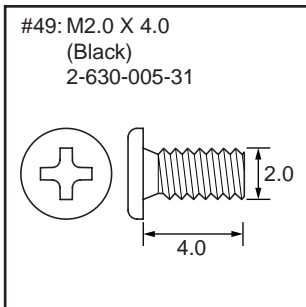
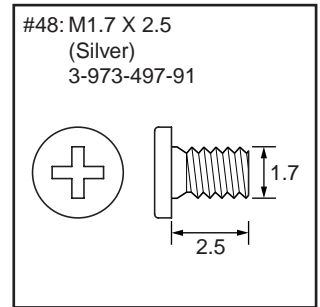
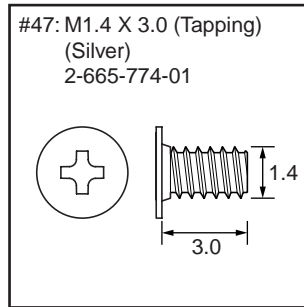
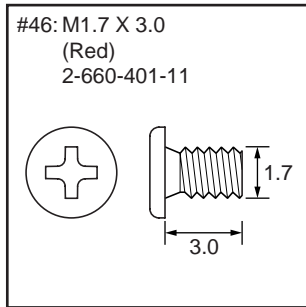
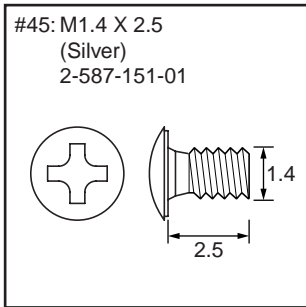
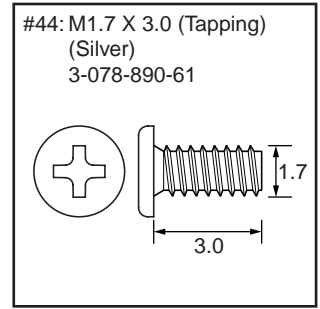
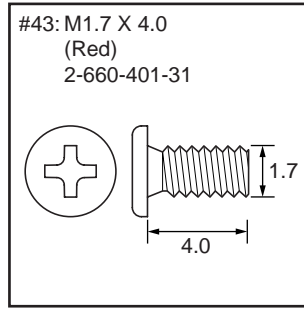
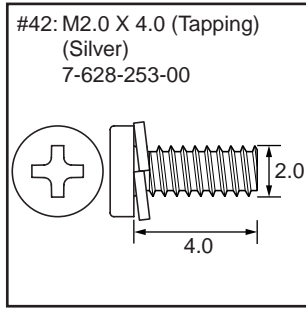
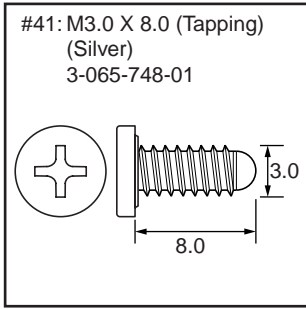
#37: M2.0 X 6.0 (Tapping)  
(Black)  
3-080-206-31

#38: M3.0 X 20.0 (Tapping)  
(Silver)  
7-685-651-79

#39: M2.6 X 5.0 (Tapping)  
(Black)  
7-685-791-09

#40: M2.0 X 4.0 (Tapping)  
(Silver)  
7-685-851-04

## HARDWARE LIST (3/7)



# HARDWARE LIST (4/7)

#61: M3.0 X 10.0  
(Black)  
7-682-549-09

#62: M2.0 X 3.0  
(Silver)  
3-080-202-21

#63: M5.0 X 12.5  
(Black)  
3-060-811-21

#64: M1.7 X 5.0 (Tapping)  
(Silver)  
2-666-551-21

#65: M1.4 X 3.5  
(Silver)  
2-635-591-01

#66: M1.4 X 1.4  
(Silver)  
2-635-591-41

#67: M1.4 X 2.0  
(Silver)  
3-389-523-16

#68: M1.7 X 4.0  
(Silver)  
2-655-581-01

#69: M1.7 X 3.0  
(Silver)  
2-599-475-21

#70: M1.7 X 5.0  
(Silver)  
2-599-475-41

#71: M1.4 X 2.0  
(Red)  
3-208-537-01

#72: M1.4 X 2.0  
(Silver)  
4-663-621-41

#73: M1.2 X 4.0 (Tapping)  
(Black)  
3-086-156-61

#74: M1.7 X 6.0 (Tapping)  
(Silver)  
2-666-551-31

#75: M1.7 X 3.5 (Tapping)  
(Silver)  
2-666-551-01

#76: M1.7 X 4.0 (Tapping)  
(Silver)  
2-666-551-11

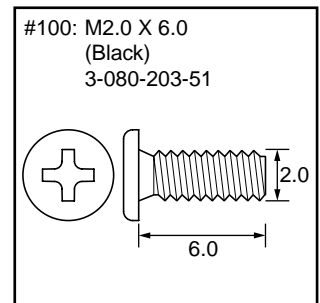
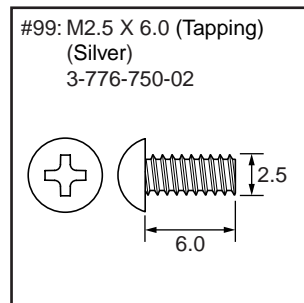
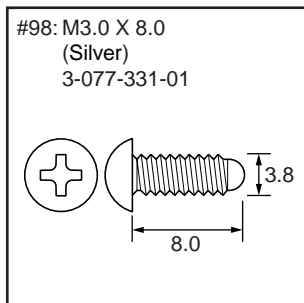
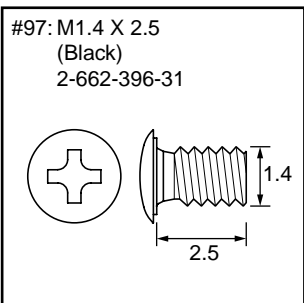
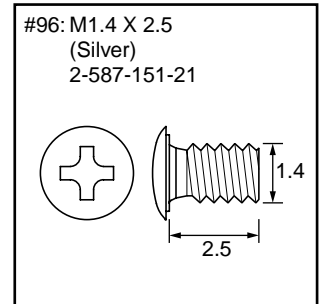
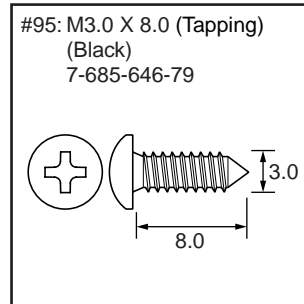
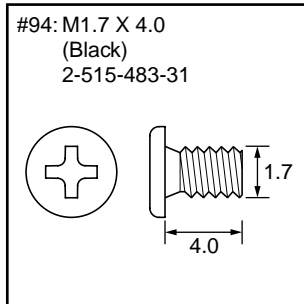
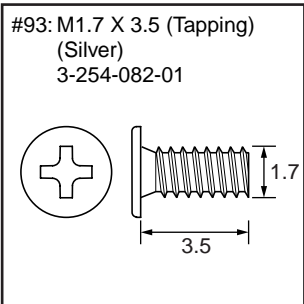
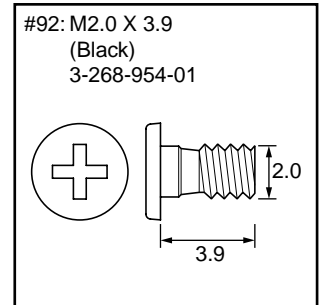
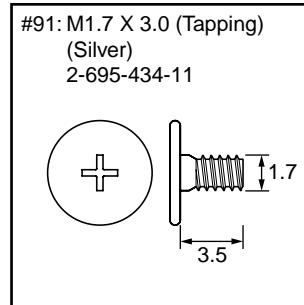
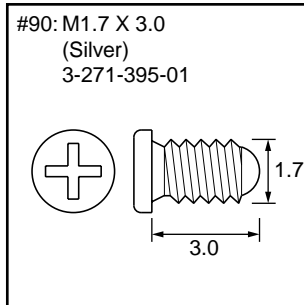
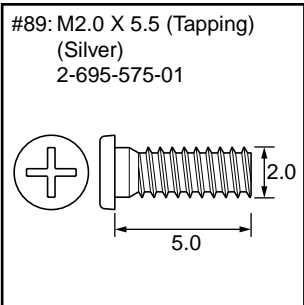
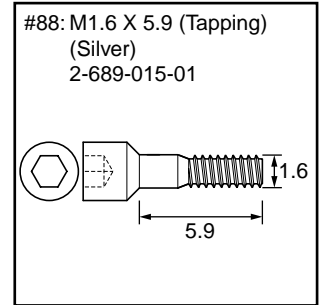
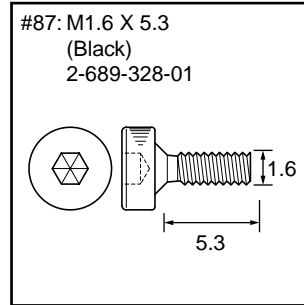
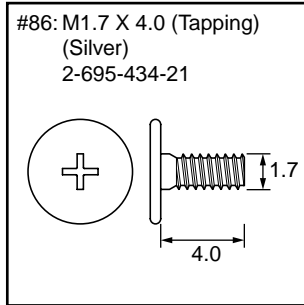
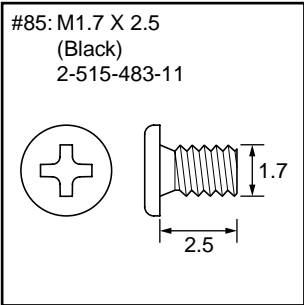
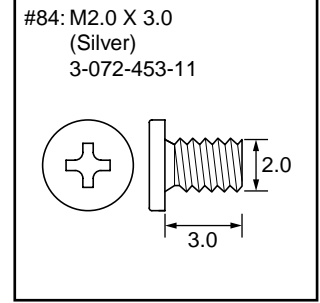
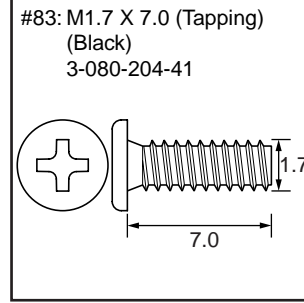
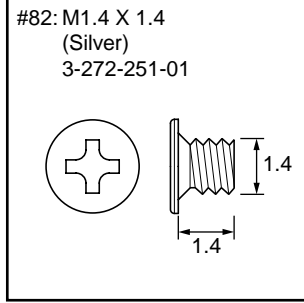
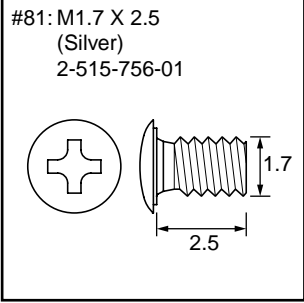
#77: M1.2 X 5.0 (Tapping)  
(Silver)  
3-086-156-31

#78: M1.4 X 3.5  
(Red)  
3-208-537-11

#79: M1.4 X 2.0  
(Silver)  
2-587-151-11

#80: M1.4 X 2.0  
(Black)  
3-279-411-01

## HARDWARE LIST (5/7)



## HARDWARE LIST (6/7)

#101: M2.0 X 5.0  
(Silver)  
7-621-555-39

#102: M2.6 X 8.0  
(Black)  
7-621-284-30

#103: M2.6 X 10.0  
(Silver)  
7-685-794-09

#104: M3.0 X 8.0  
(Black)  
7-682-548-09

#105: M2.0 X 4.0  
(Red)  
2-891-494-31

#106: M2.0 X 6.0  
(Black)  
3-713-786-11

#107: M2.0 X 5.0  
(Silver)  
3-032-750-01

#108: M1.7 X 3.0 (Tapping)  
(Black)  
2-695-430-01

#109: M1.7 X 3.0  
(Black)  
2-515-483-21

#110: M2.0 X 3.0  
(Black)  
2-630-005-21

#111: M1.7 X 4.0 (Tapping)  
(Black)  
2-887-124-01

#112: M1.4 X 5.0  
(Black)  
2-178-410-11

#113: M1.7 X 5.0  
(Black)  
2-635-562-41

#114: M2.0 X 5.5 (Tapping)  
(Silver)  
2-698-464-01

#115: M1.4 X 3.5 (Tapping)  
(Silver)  
3-348-998-51

#116: M2.0 X 3.5 (Tapping)  
(Silver)  
2-695-435-01

#117: M1.7 X 4.5 (Tapping)  
(Silver)  
2-695-429-31

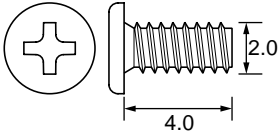
#118: M1.4 X 2.0  
(Black)  
2-655-580-01

#119: M2.6 X 5.0  
(Black)  
7-627-556-58

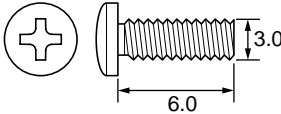
#120: M2.6 X 6.0  
(Silver)  
7-621-770-67

# HARDWARE LIST (7/7)

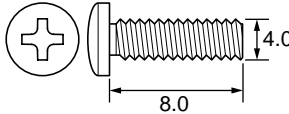
#121: M2.0 X 4.0 (Tapping)  
(Silver)  
3-080-205-11



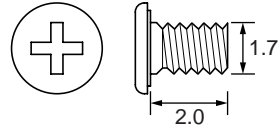
#122: M3.0 X 6.0  
(Black)  
7-682-547-09



#123: M4.0 X 8.0  
(Black)  
7-682-561-09



#124: M1.7 X 2.0  
(Silver)  
2-599-475-01





# DCR-SR210E/SR220/SR220D/SR220E/ HDR-SR10/SR10D/SR10E

RMT-835

SONY®

## SERVICE MANUAL

Ver. 1.1 2008.05

LEVEL 2

US Model  
Canadian Model  
AEP Model  
UK Model  
North European Model  
E Model  
Australian Model  
Hong Kong Model  
Chinese Model  
Korea Model  
Tourist Model  
Thai Model  
Japanese Model

## SUPPLEMENT-1


File this supplement with the service manual.  
(D108-056)

### Subject

- Addition of Thai Model for HDR-SR10E
- Revision of Accessories

Note : Please refer to Ver.1.1 of SERVICE MANUAL (9-852-255-31) for the revision of accessories.


### Model information table



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# 1. SERVICE NOTE


## 1-12. PRECATUTION ON REPLACING THE CABINET (G (700)) ASSY (HDR-SR10E)

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Page	Before Change					
1-19	<p><b>ACING ASSY</b></p> <p>ethod. Therefore, the rs depending on the</p> <p>uitable one for order.</p> <p>sy, the serial number service use. and change the serial</p>	<p>HDR-SR10E (E, Hong Kong, Australian Models)</p>  <p>Serial No.</p> <table border="1"> <tr> <th>Part No.</th> <th>Description</th> </tr> <tr> <td>A-1517-472-A</td> <td>CABINET(G(700))(SR10EE34)</td> </tr> </table> <p>HDR-SR10E (North European Models)</p> 	Part No.	Description	A-1517-472-A	CABINET(G(700))(SR10EE34)
Part No.	Description					
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# 5. REPAIR PARTS LIST

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Page	Before Change	After Change
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