

HDR-SR11/SR11E/SR12/SR12E

RMT-835

SERVICE MANUAL

Ver. 1.0 2008.01

Revision History

LEVEL 2



Photo: HDR-SR12

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

Link

SPECIFICATIONS	DISASSEMBLY	SCHEMATIC DIAGRAMS
MODEL INFORMATION TABLE	BLOCK DIAGRAMS	PRINTED WIRING BOARDS
SERVICE NOTE	FRAME SCHEMATIC DIAGRAM	REPAIR PARTS LIST

- [Precaution on Replacing the VC-516 Board](#)
- [Precaution on Replacing the CABINET \(G\(900\)\) 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.

DIGITAL HD VIDEO CAMERA RECORDER

SONY®



SPECIFICATIONS

System

Video compression format: AVCHD (HD)/
MPEG2 (SD)/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: HDR-SR11E: 60 GB
HDR-SR12E: 120 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*

Viewfinder: Electric viewfinder: color

Image device: 5.8 mm (1/3.13 type) CMOS sensor
Recording pixels (still image, 4:3):
Max. 10.2 mega (3 680 × 2 760) pixels**
Gross: Approx. 5 660 000 pixels
Effective (movie, 16:9):
Approx. 3 810 000 pixels
Effective (still image, 16:9):
Approx. 3 810 000 pixels
Effective (still image, 4:3):
Approx. 5 080 000 pixels

Lens: Carl Zeiss Vario-Sonnar T*
12 × (Optical), 24 ×, 150 × (Digital)

Focal length: F1.8 ~ 3.1
Filter diameter: 37 mm (1 1/2 in.)
f=4.9 ~ 58.8 mm (7/32 ~ 2 3/8 in.)
When converted to a 35 mm still camera
For movies: 40 ~ 480 mm (1 5/8 ~ 19 in.)
(16:9)
For still images: 37 ~ 444 mm (1 1/2 ~ 17 1/2
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

Headphone jack: Stereo minijack (Ø 3.5mm)

MIC input jack: Stereo minijack (Ø 3.5mm)

USB jack: mini-B

LCD screen

Image: 8.0 cm (3.2 type, aspect ratio 16:9)
Total dot number: 921 600 (1 920 × 480)

General

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

Average power consumption: During camera
recording using the viewfinder with normal
brightness:
Hard disk:
HD: 4.2 W SD: 3.6 W
"Memory Stick PRO Duo":
HD: 4.2 W SD: 3.5 W
During camera recording using the LCD with
normal brightness:
Hard disk:
HD: 4.5 W SD: 3.8 W
"Memory Stick PRO Duo":
HD: 4.5 W SD: 3.8 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.): 83 × 76 × 138 mm
(3 3/8 × 3 × 5 1/2 in.) (w/h/d)
including the projecting parts
83 × 76 × 138 mm
(3 3/8 × 3 × 5 1/2 in.) (w/h/d)
including the projecting parts, and the supplied
rechargeable battery pack attached

Mass (approx.): HDR-SR11E: 560 g (1 lb 3 oz)
main unit only
640 g (1 lb 6 oz) including the supplied
rechargeable battery pack
HDR-SR12E: 570 g (1 lb 4 oz) main unit only
650 g (1 lb 6 oz) including the supplied
rechargeable battery pack

Handycam Station DCRA-C210

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 (SD)/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

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Movie (SD): MPEG2-PS
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[OUTDOOR] (5 800 K)

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

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MIC input jack: Stereo minijack (Ø 3.5mm)

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brightness:
Hard disk:
HD: 4.5 W SD: 3.6 W
"Memory Stick PRO Duo":
HD: 4.4 W SD: 3.6 W
During camera recording using the LCD with
normal brightness:
Hard disk:
HD: 4.8 W SD: 4.0 W
"Memory Stick PRO Duo":
HD: 4.6 W SD: 3.9 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.): 83 × 76 × 138 mm
(3 3/8 × 3 × 5 1/2 in.) (w/h/d)
including the projecting parts
83 × 76 × 138 mm
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including the projecting parts, and the supplied
rechargeable battery pack attached

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main unit only
640 g (1 lb 6 oz) including the supplied
rechargeable battery pack
HDR-SR12: 570 g (1 lb 4 oz) main unit only
650 g (1 lb 6 oz) including the supplied
rechargeable battery pack

Handycam Station DCRA-C210

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: AVCHD(HD)/MPEG2(SD)/JPEG
(静止画)

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

映像信号: NTSCカラー、EIA標準方式
1080/60i方式

ハードディスク: HDR-SR11: 60 GB
HDR-SR12: 120 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: 動画HD: AVCHD 1080/60i
動画SD: MPEG2-PS

静止画記録方式: Exif Ver.2.2*

ファインダー: 電子ファインダー: カラー

撮像素子: 5.8 mm (1/3.13型) CMOSセンサー
記録画素数: 静止画時最大1 020万画素相当**
(3 680×2 760)(4:3時)
総画素数: 約566万画素
動画時有効画素数(16:9): 約381万画素
静止画時有効画素数(16:9): 約381万画素
静止画時有効画素数(4:3): 約508万画素

ズームレンズ: カール ツァイス バリオゾナーT*
12倍(光学)、24倍、150倍(デジタル)
フィルター径37 mm
F1.8~3.1
f=4.9~58.8 mm
35mmカメラ換算では動画撮影時
40~480 mm(16:9)
静止画撮影時:
37~444 mm(4:3)

色温度切り換え: [オート]、[ワンプッシュ]、[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)

* (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。

** 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: コンポーネント、映像音声出力兼
用端子

HDMI OUT端子: HDMIタイプCミニ端子

ヘッドホン端子: ステレオミニジャック(φ3.5 mm)

MIC入力端子: ステレオミニジャック(φ3.5 mm)

USB端子: mini-B

液晶画面

画面サイズ: 8.0 cm(3.2型、アスペクト比16:9)

総ドット数: 921 600ドット

横1 920×縦480

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: ファインダー使用時、明るさ標準:

ハードディスク:

HD: 4.5 W SD: 3.6 W

"メモリスティック PRO デュオ":

HD: 4.4 W SD: 3.6 W

液晶画面使用時、明るさ標準:

ハードディスク:

HD: 4.8 W SD: 4.0 W

"メモリスティック PRO デュオ":

HD: 4.6 W SD: 3.9 W

動作温度: 0℃~+40℃

保存温度: -20℃~+60℃

外形寸法: 83×76×138 mm

(突起部を含む)

(幅×高さ×奥行き)

83×76×138 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: HDR-SR11: 約560 g(本体のみ)

HDR-SR12: 約570 g(本体のみ)

撮影時総質量: HDR-SR11: 約640 g(付属バッテ
リー含む。)

HDR-SR12: 約650 g(付属バッテリー含む。)

ハンディカムステーション

DCRA-C210

入/出力端子

A/V OUT端子: コンポーネント、映像音声出力兼用端
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℃~+40℃

保存温度: -20℃~+60℃

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	HDR-SR11	HDR-SR11E	HDR-SR12	HDR-SR12E
Destination	US, CND, E, KR, JE, J	AEP, UK, NE, E, CH, HK, AUS, JE	US, CND, E, KR, JE, J	AEP, UK, NE, E, CH, HK, AUS, JE
Color system	NTSC	PAL	NTSC	PAL
Hard disk	60GB	60GB	120GB	120GB

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

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

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

SAFETY CHECK-OUT

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

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
 - Keep the temperature of the soldering iron around 270°C during repairing.
 - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
 - Be careful not to apply force on the conductor when soldering or unsoldering.

Unleaded solder

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

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

**: LEAD FREE MARK**

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.

Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.

Soldering irons using a temperature regulator should be set to about 350°C.

Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!

- Strong viscosity

Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.

- Usable with ordinary solder

It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

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.

These following method is available to prevent this.

Method:

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

1-2. SELF-DIAGNOSIS FUNCTION

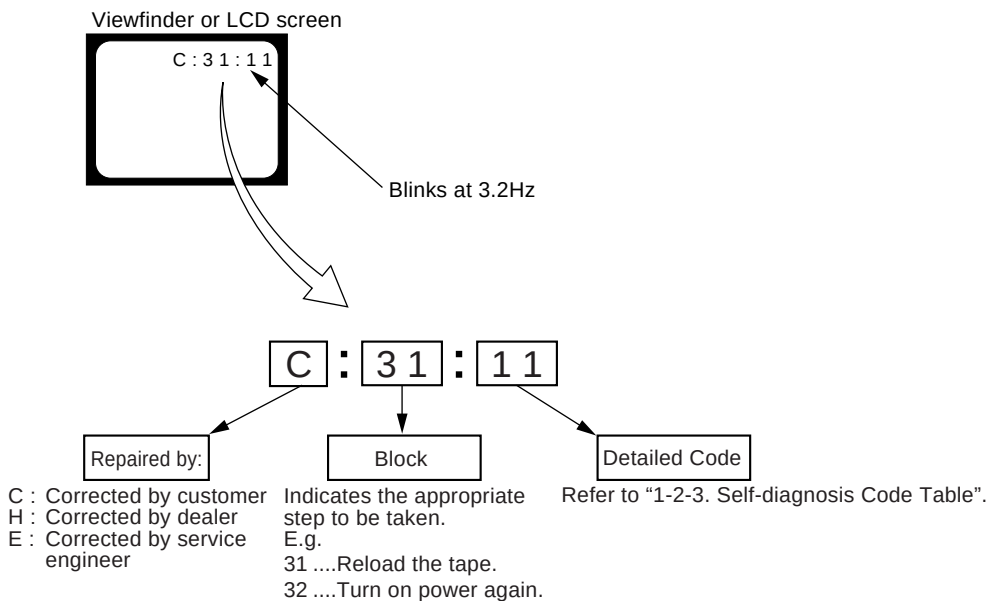
1-2-1. Self-diagnosis Function

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

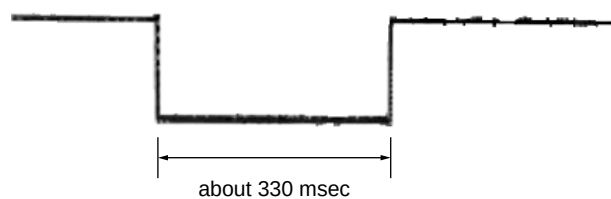
Repaired by:	Self-diagnosis Code		Symptom/State	Correction
	Block Function	Detailed Code		
C	0 4	0 0	Non-standard battery is used.	Use the InfoLITHIUM battery.
C	1 3	0 1	“Memory Stick Duo” is unformatted. “Memory Stick Duo” is broken.	Format the “Memory Stick Duo”. Insert a new “Memory Stick Duo”.
C	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 ⑳, ㉑ of CN5103 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 ⑆, ⑇ of CN5103 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 (SE9001 on the FR-278 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 (SE9002 on the FR-278 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)

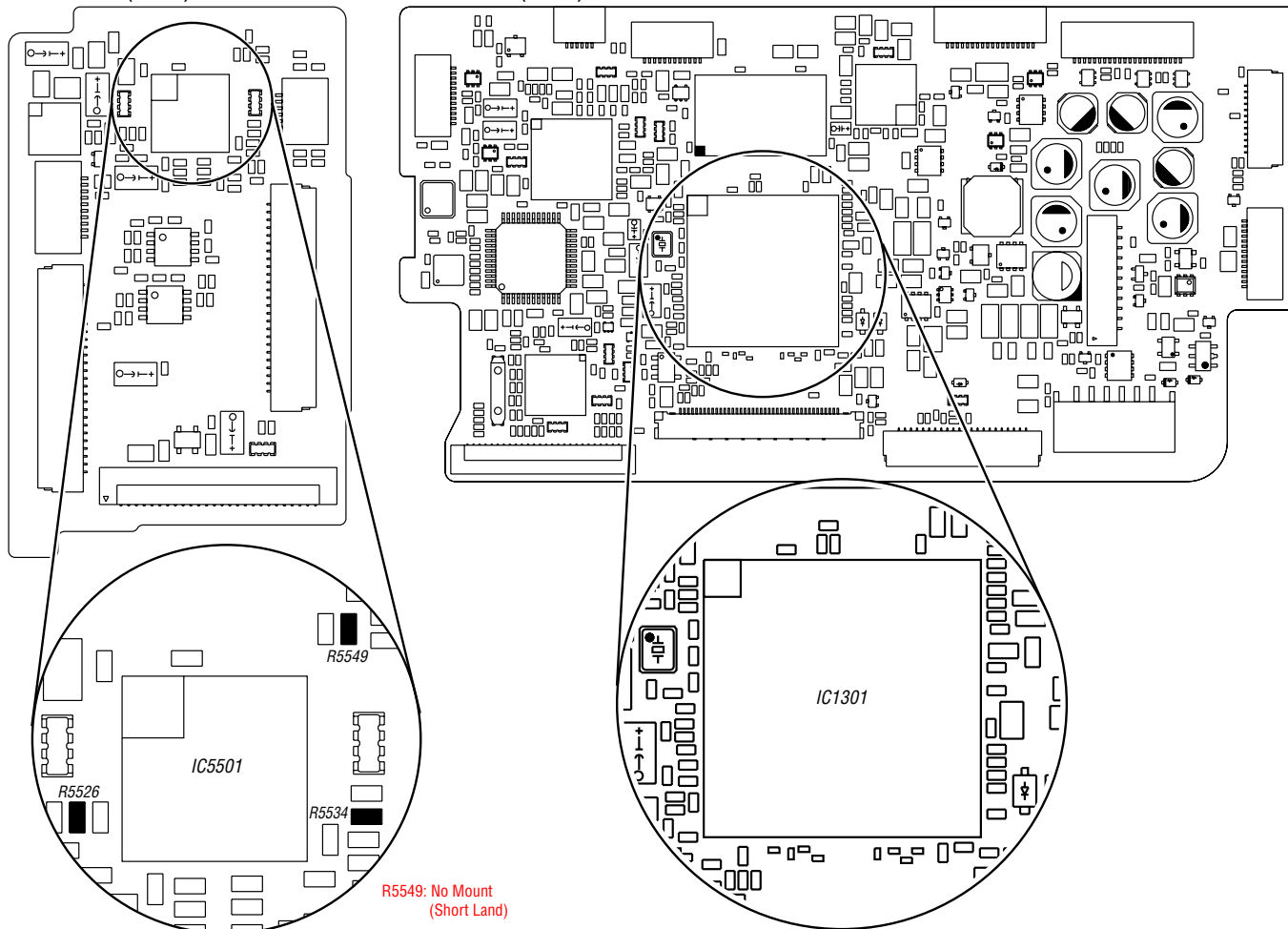


Fig. 1

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

1-3-1. E : 62 : 02 [Abnormality of IC for Steadyshot] 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 steadyshot 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 steadysht 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 steadysht 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 steadysht 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。）

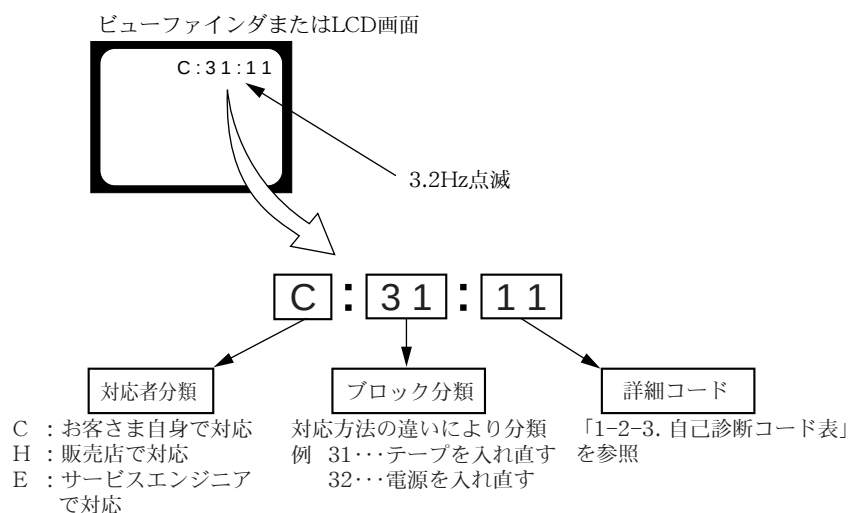
1-2. 自己診断機能

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、ビューファインダまたは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、ビューファインダまたは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。



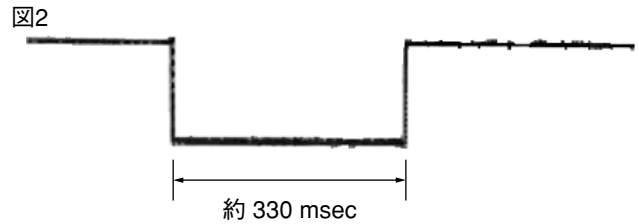
1-2-3. 自己診断コード表

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CN5103 ⑳, ㉑ピン) 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CN5103 ⑯, ⑰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-278基板SE9001) 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-278基板SE9002) 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き込み/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1

図2. LD-230基板R5549の出力電圧の変化

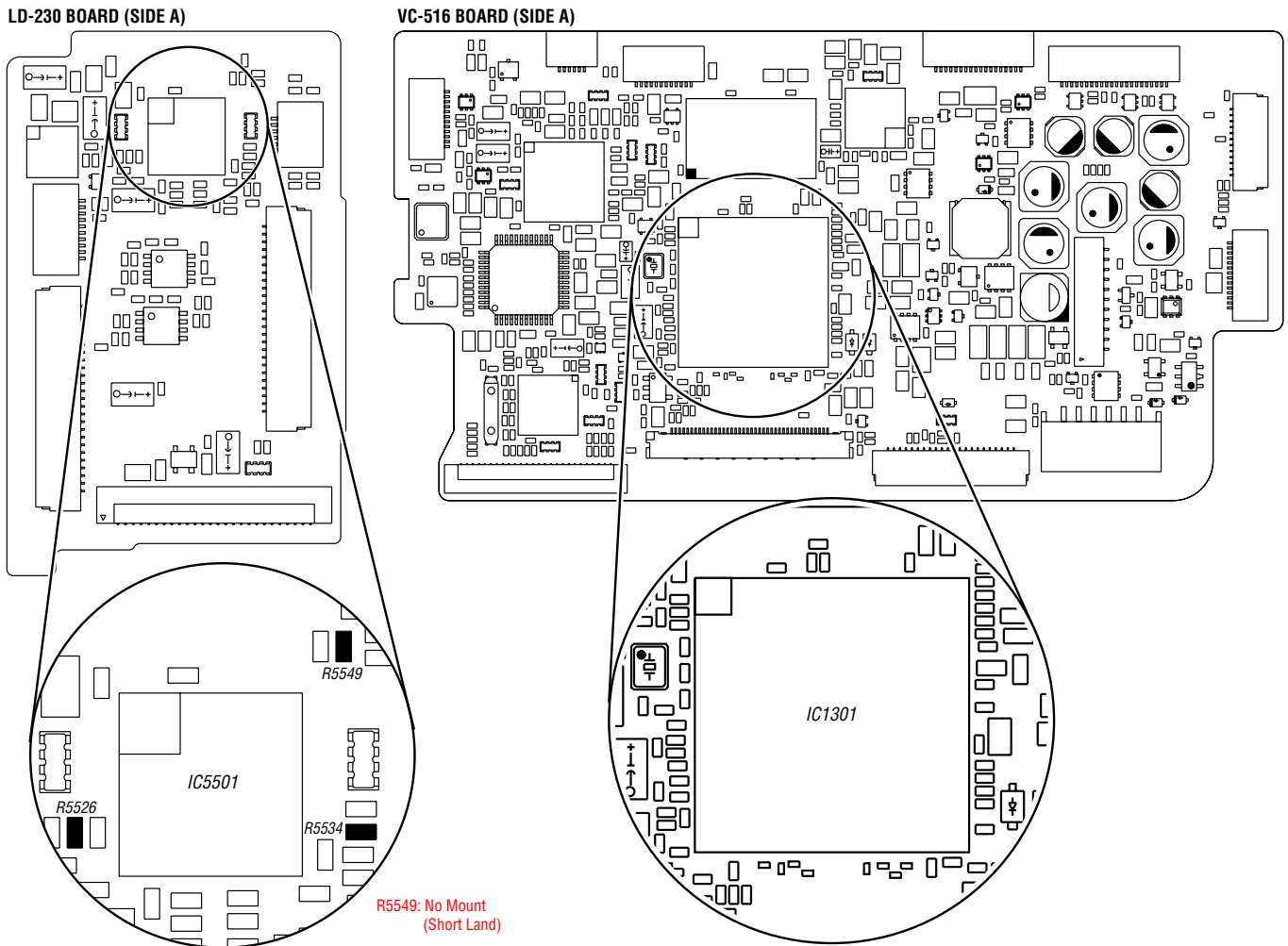


図1.LD-230基板、VC-516基板測定箇所

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の様に变化することを確認する。
					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2)。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(900)) ASSY (HDR-SR11)

The model display adopts the laser printing method. Therefore, the cabinet (G(900)) 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(900)) 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(900)) 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(900)) assy.

Note 3: When replacing the cabinet (G(900)) 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(900)) assy.

(JAPANESE)

1-6. キャビネット(G(900))組立交換時の注意 (HDR-SR11)

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(900))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(900))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。

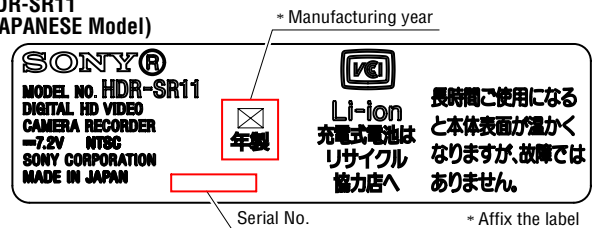
注意2: US仕向けキャビネット(G(900))組立を交換した際は「製造年月」を表すラベルと、「製造所」を表すラベルを図の指定位置に貼り付けてください。

なお、キャビネット(G(900))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(900))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(900))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-SR11 (JAPANESE Model)



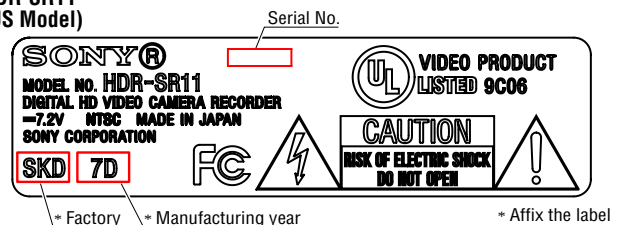
Part No. A-1526-522-A Description CABINET(G(900))(SR11J1)

HDR-SR11 (Tourist Model)



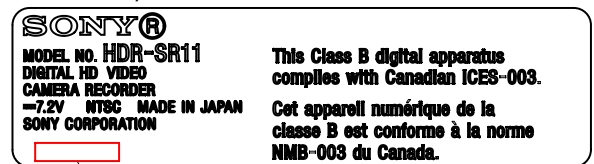
Part No. A-1526-524-A Description CABINET(G(900))(SR11JE3)

HDR-SR11 (US Model)



Part No. A-1526-525-A Description CABINET(G(900))(SR11U2)

HDR-SR11 (Canadian Model)



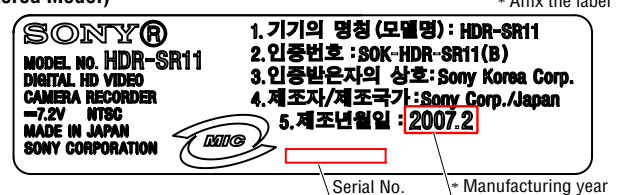
Part No. A-1526-526-A Description CABINET(G(900))(SR11CA2)

HDR-SR11 (E Model)



Part No. A-1526-527-A Description CABINET(G(900))(SR11E23)

HDR-SR11 (Korea Model)



Part No. A-1526-528-A Description CABINET(G(900))(SR11KR2)

(ENGLISH)

1-7. PRECAUTION ON REPLACING THE CABINET (G(900)) ASSY (HDR-SR11E)

The model display adopts the laser printing method. Therefore, the cabinet (G(900)) 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(900)) 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)

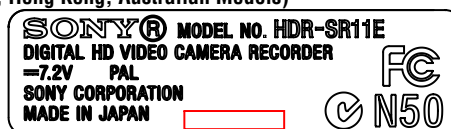
1-7. キャビネット(G(900))組立交換時の注意 (HDR-SR11E)

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(900))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(900))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-SR11E (E, Hong Kong, Australian Models)



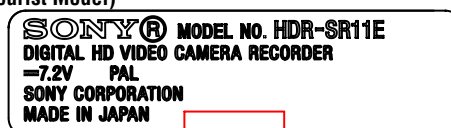
Serial No.
Part No. Description
A-1526-529-A CABINET(G(900))(SR11EE34)

HDR-SR11E (NE Models)



Serial No.
Part No. Description
A-1526-530-A CABINET(G(900))(SR11EECL)

HDR-SR11E (Tourist Model)



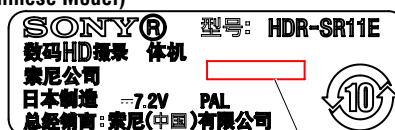
Serial No.
Part No. Description
A-1526-560-A CABINET(G(900))(SR11EJE3)

HDR-SR11E (AEP, UK Model)



Serial No.
Part No. Description
A-1526-561-A CABINET(G(900))(SR11ECEH)

HDR-SR11E (Chinese Model)



Serial No.
Part No. Description
A-1526-562-A CABINET(G(900))(SR11ECN2)

(ENGLISH)

1-8. PRECAUTION ON REPLACING THE CABINET (G(900)) ASSY (HDR-SR12)

The model display adopts the laser printing method. Therefore, the cabinet (G(900)) 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(900)) 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(900)) 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(900)) assy.

Note 3: When replacing the cabinet (G(900)) 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(900)) assy.

(JAPANESE)

1-8. キャビネット(G(900))組立交換時の注意 (HDR-SR12)

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(900))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(900))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(900))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。

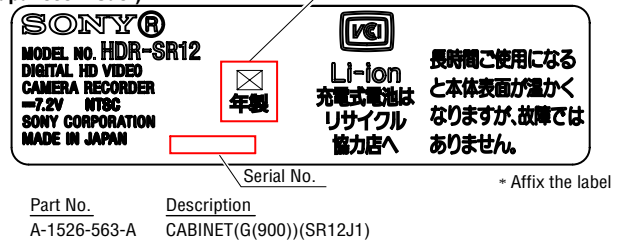
なお、キャビネット(G(900))組立には時期表示ラベル、投げ込み(ラベル貼り方)がセットで供給されます。

注意3: Korean仕向けキャビネット(G(900))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(900))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。

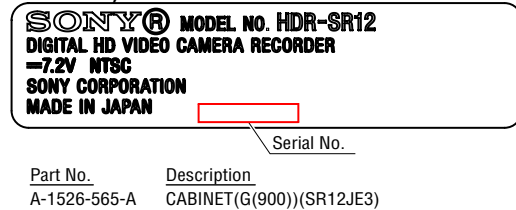
HDR-SR12

(Japanese Model)



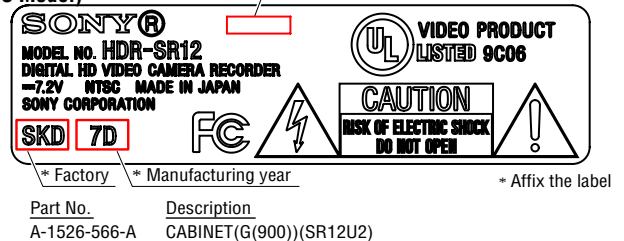
HDR-SR12

(Tourist Model)



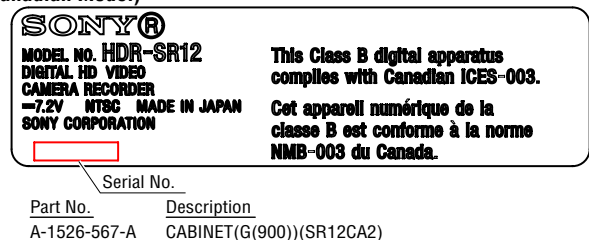
HDR-SR12

(US Model)



HDR-SR12

(Canadian Model)



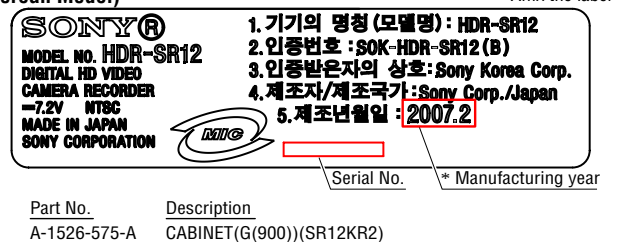
HDR-SR12

(E Model)



HDR-SR12

(Korean Model)



(ENGLISH)

1-9. PRECAUTION ON REPLACING THE CABINET (G(900)) ASSY (HDR-SR12E)

The model display adopts the laser printing method. Therefore, the cabinet (G(900)) 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(900)) 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.

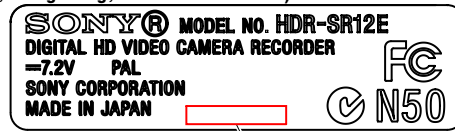
(JAPANESE)

1-9. キャビネット(G(900))組立交換時の注意 (HDR-SR12E)

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(900))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(900))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-SR12E (E, Hong Kong, Australian Models)



Serial No.

Part No.	Description
A-1526-576-A	CABINET(G(900))(SR12EE34)

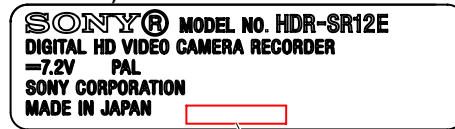
HDR-SR12E (NE Models)



Serial No.

Part No.	Description
A-1526-577-A	CABINET(G(900))(SR12ECEL)

HDR-SR12E (Tourist Model)



Serial No.

Part No.	Description
A-1526-578-A	CABINET(G(900))(SR12EJE3)

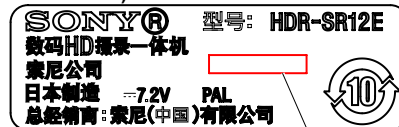
HDR-SR12E (AEP, UK Model)



Serial No.

Part No.	Description
A-1526-579-A	CABINET(G(900))(SR12ECEH)

HDR-SR12E (Chinese Model)



Serial No.

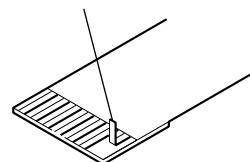
Part No.	Description
A-1526-580-A	CABINET(G(900))(SR12ECN2)

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)



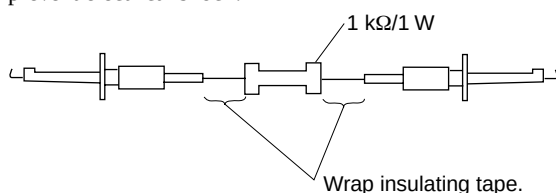
DISCHARGING OF THE ST-185 BOARD'S CHARGING CAPACITOR (C5006)

The charging capacitor (C5006) of the ST-185 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

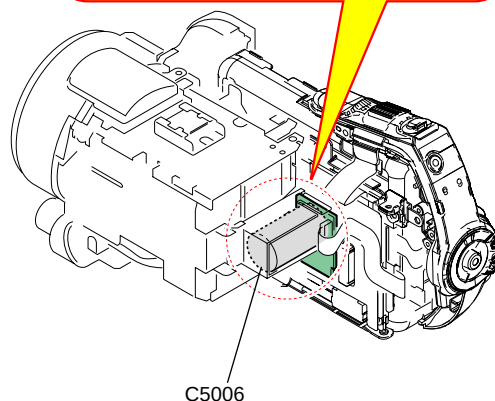
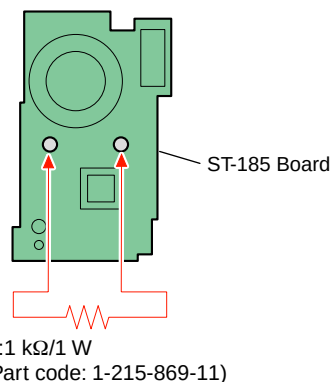
To preparing the short jig, a small clip is attached to each end of a resistor of 1 k Ω / 1 W (1-215-869-11).

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

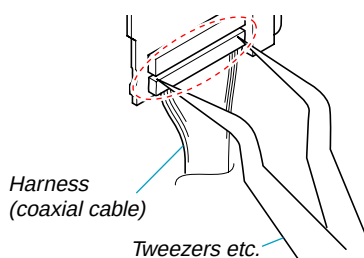


Note: High-voltage cautions

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

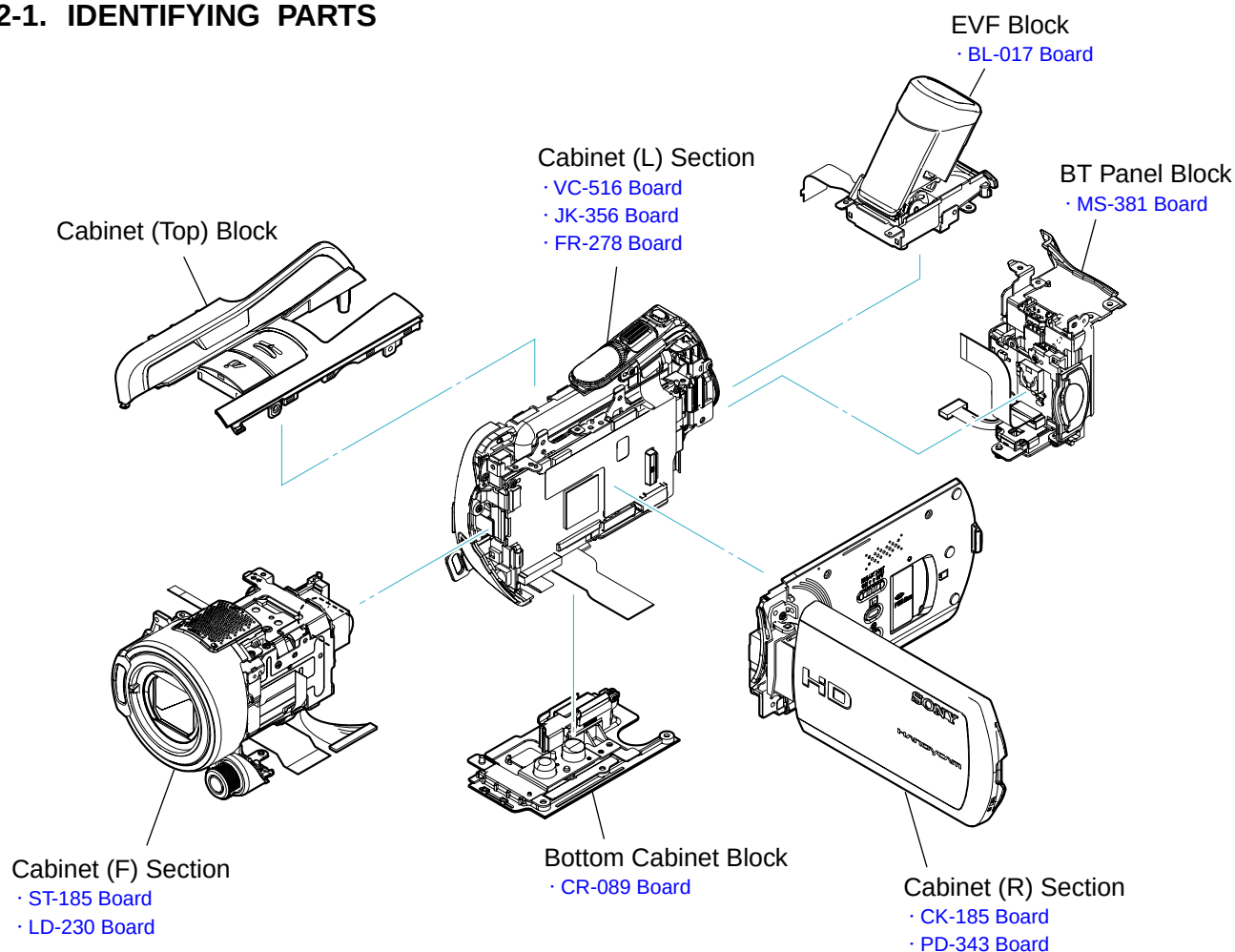


NOTE FOR DISCONNECTING THE HARNESS (COAXIAL CABLE)

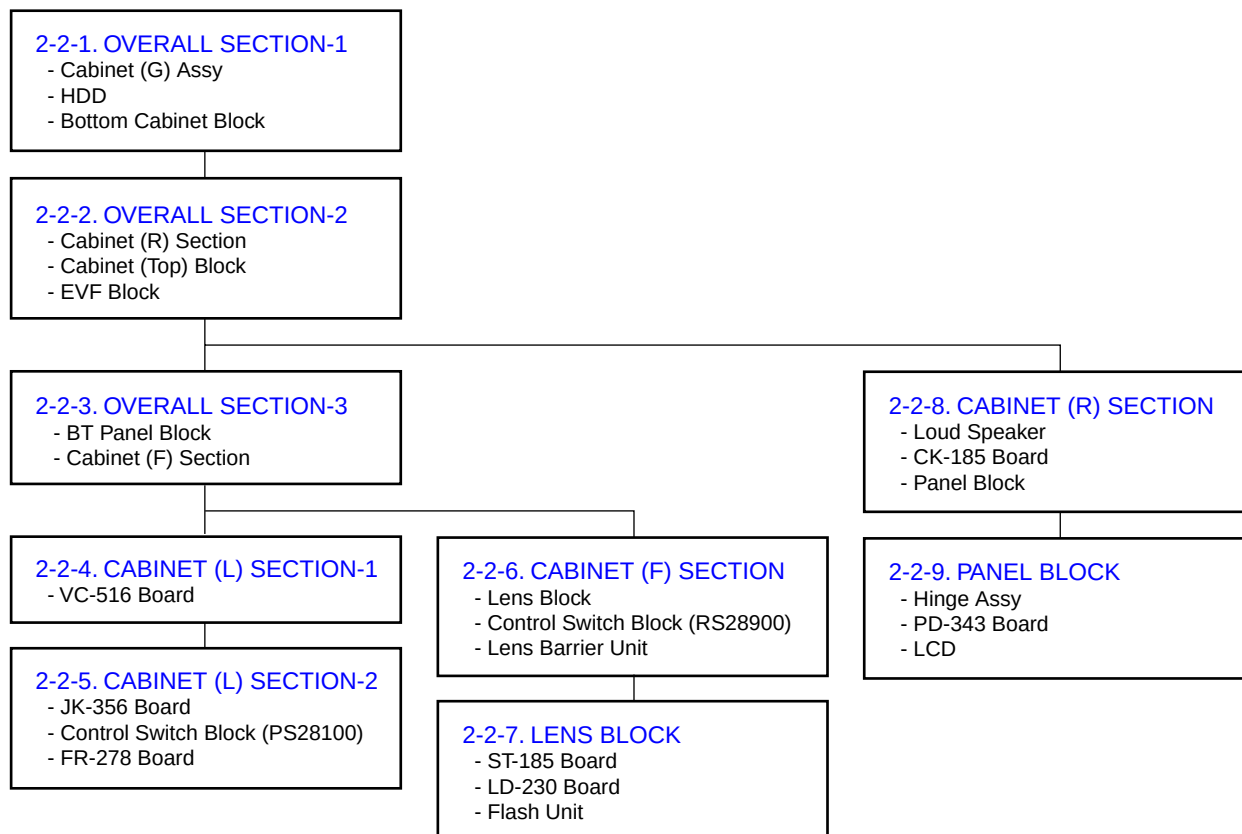


When disconnecting the harness (COAXIAL CABLE), do not pull the harness part but pull off the connector body with tweezers etc.

2-1. IDENTIFYING PARTS



- DISASSEMBLY FLOW -



2-2. DISASSEMBLY

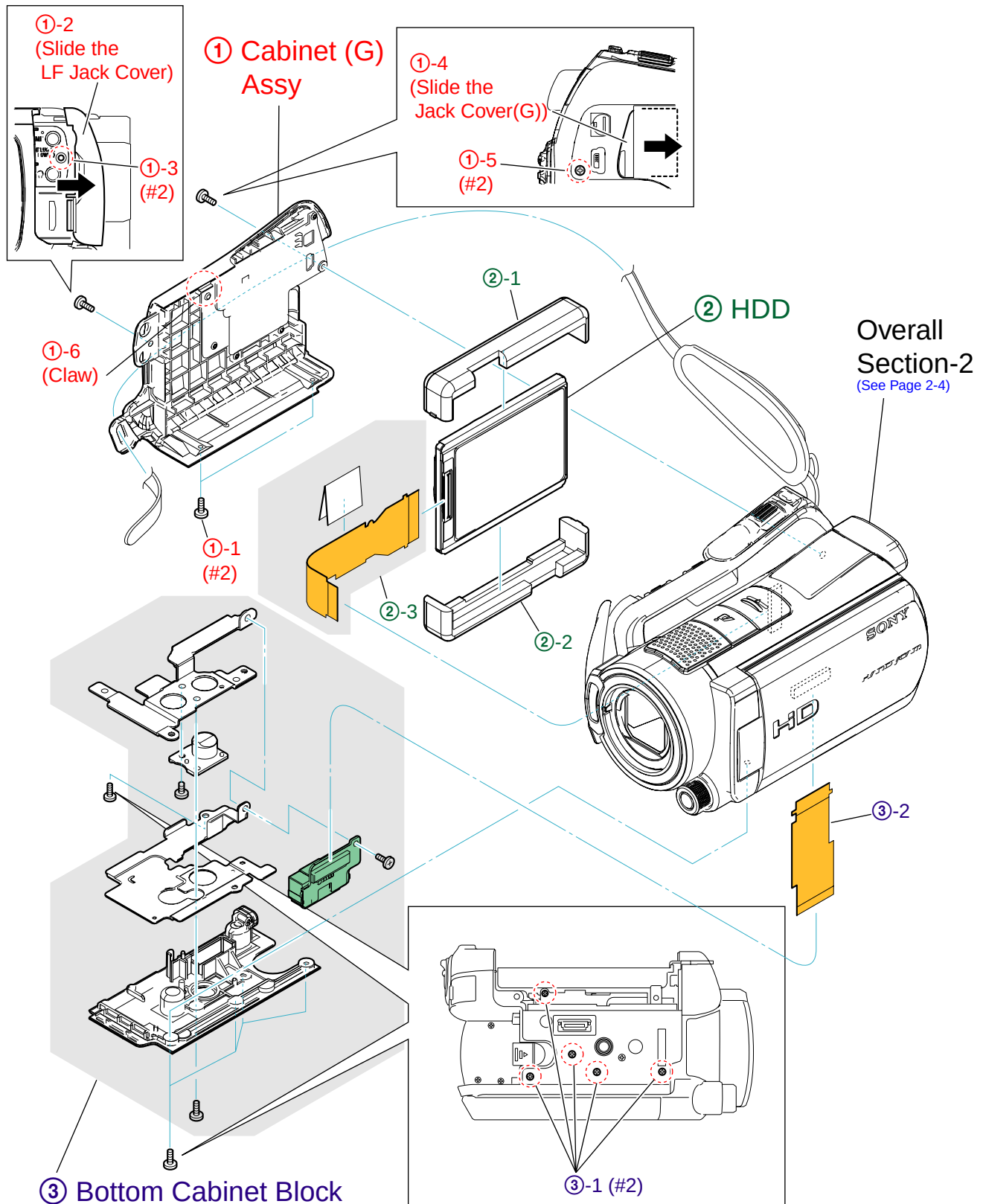
EXPLODED VIEW

HARDWARE LIST

2-2-1. OVERALL SECTION-1

Follow the disassembly in the numerical order given.

- ① Cabinet (G) Assy (①-1 to ①-6)
- ② HDD (②-1 to ②-3)
- ③ Bottom Cabinet Block (③-1 to ③-2)



2-2-2. OVERALL SECTION-2

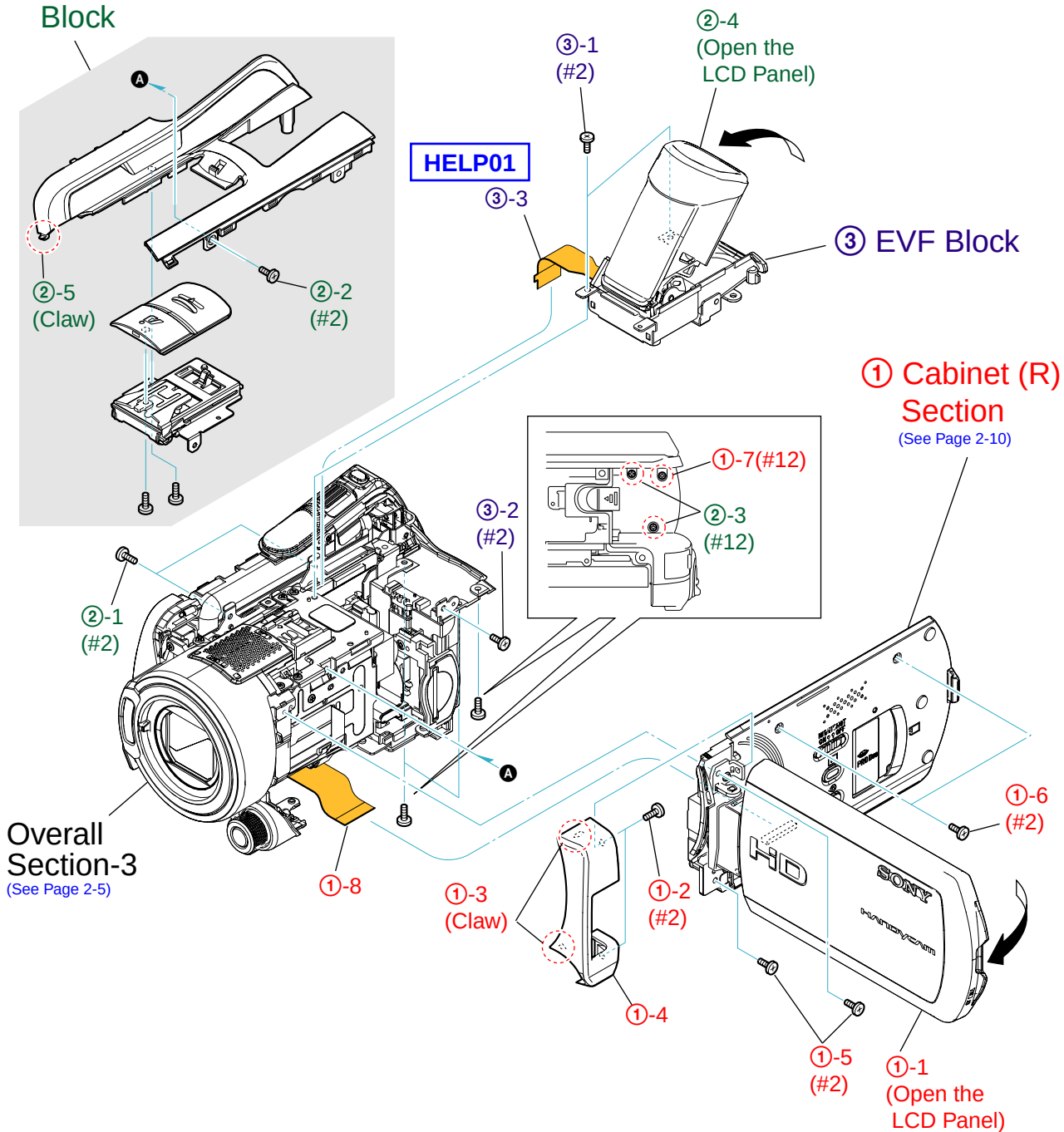
Follow the disassembly in the numerical order given.

- ① Cabinet (R) Section (①-1 to ①-8)
- ② Cabinet (Top) Block (②-1 to ②-5)
- ③ EVF Block (③-1 to ③-3)

EXPLODED VIEW

HARDWARE LIST

② Cabinet (Top) Block



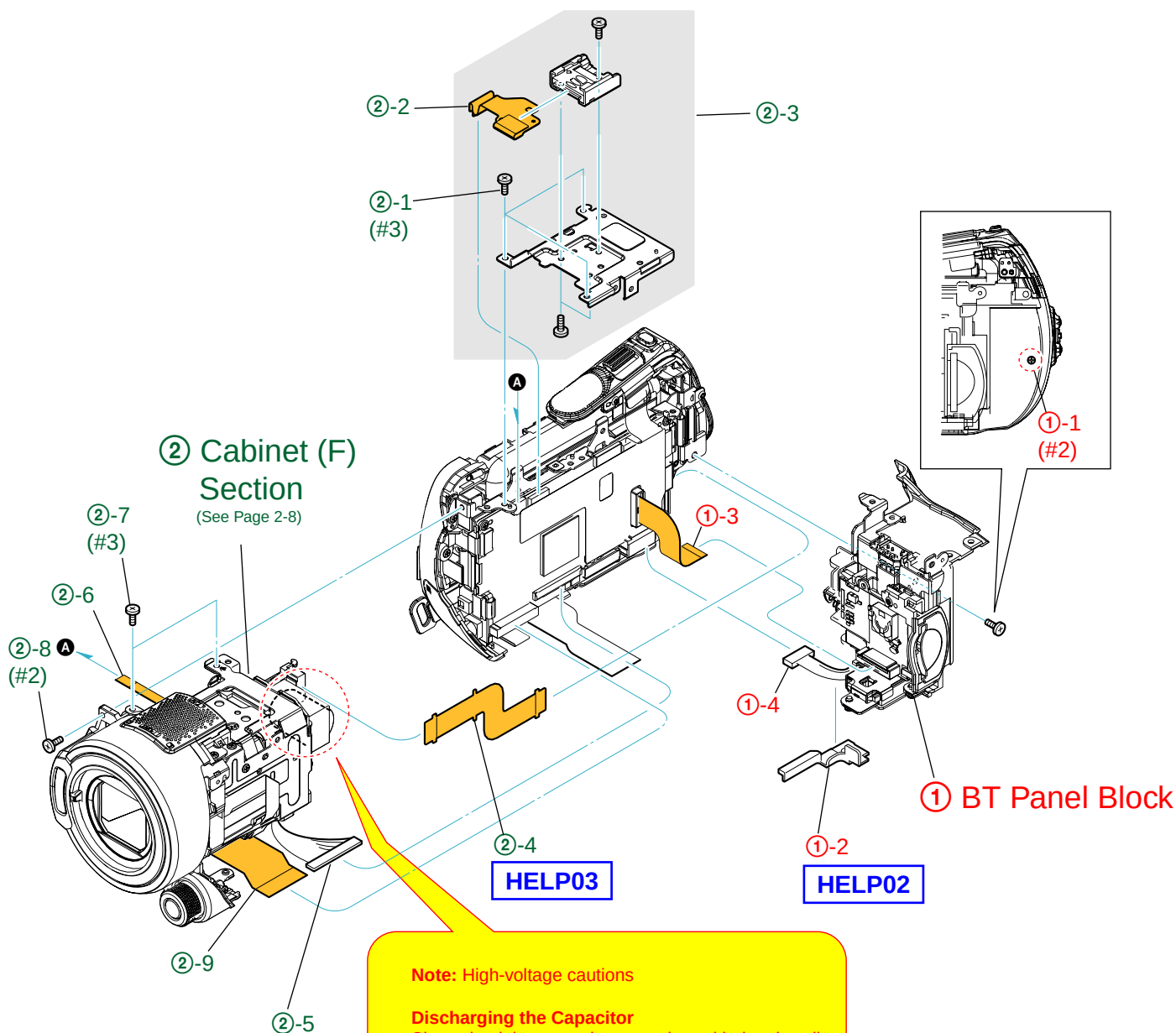
2-2-3. OVERALL SECTION-3

Follow the disassembly in the numerical order given.

- ① BT Panel Block (①-1 to ①-4)
- ② Cabinet (F) Section (②-1 to ②-9)

EXPLODED VIEW

HARDWARE LIST

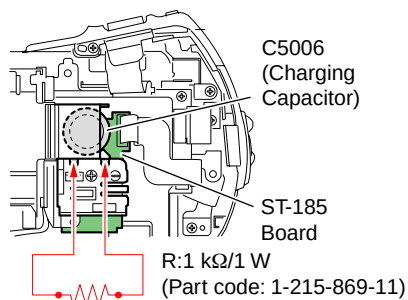


Refer to page 2-1 "Note for disconnecting the harness (coaxial cable)".

Note: High-voltage cautions

Discharging the Capacitor

Short-circuit between the two points with the short jig about 10 seconds. To avoid the spark with the metal plate, wrap the short jig with the insulation tape.



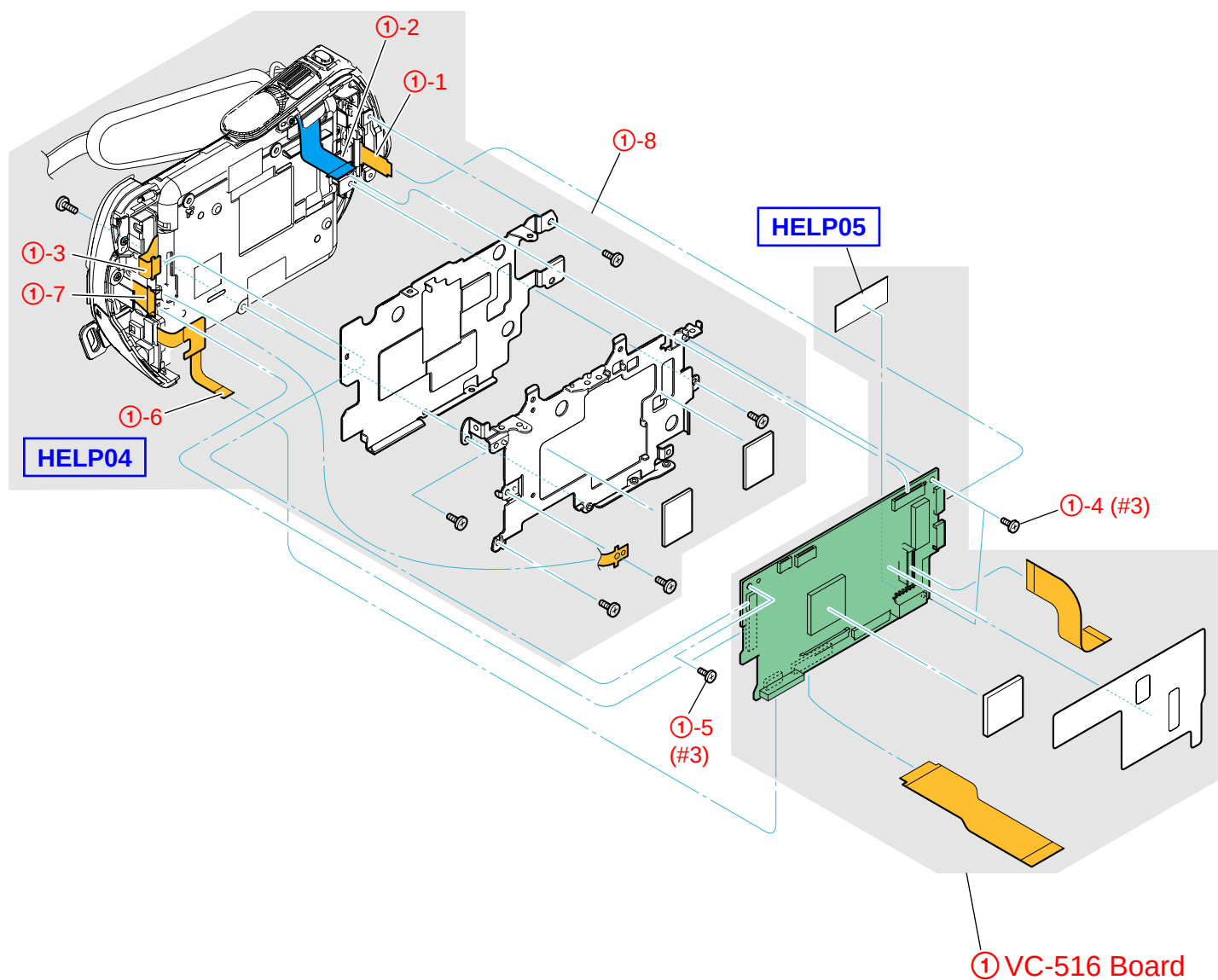
2-2-4. CABINET (L) SECTION-1

Follow the disassembly in the numerical order given.

① VC-516 Board (①-1 to ①-8)

EXPLODED VIEW

HARDWARE LIST



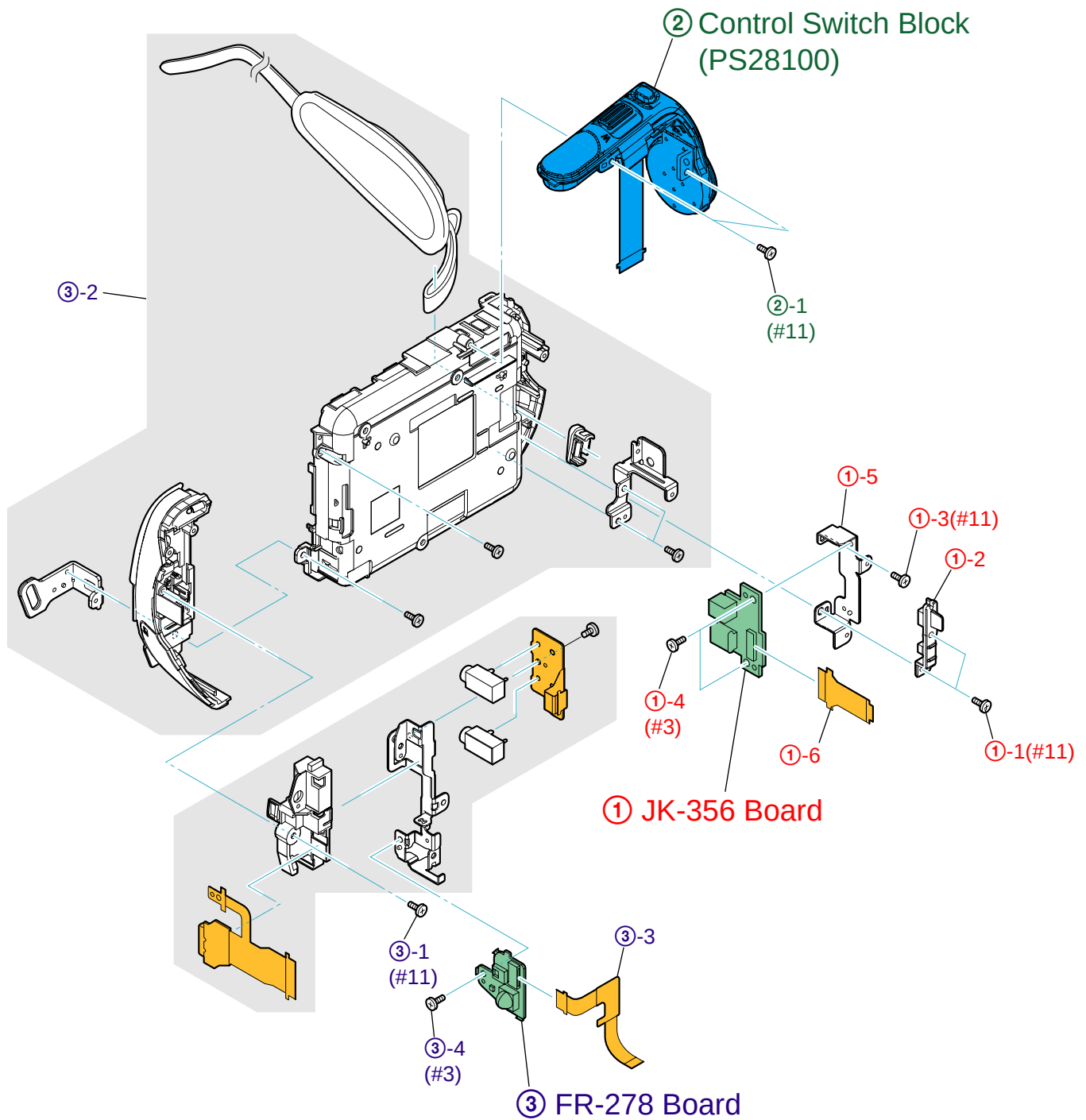
2-2-5. CABINET (L) SECTION-2

Follow the disassembly in the numerical order given.

- ① JK-356 Board (①-1 to ①-6)
- ② Control Switch Block (PS28100) (②-1)
- ③ FR-278 Board (③-1 to ③-4)

EXPLODED VIEW

HARDWARE LIST



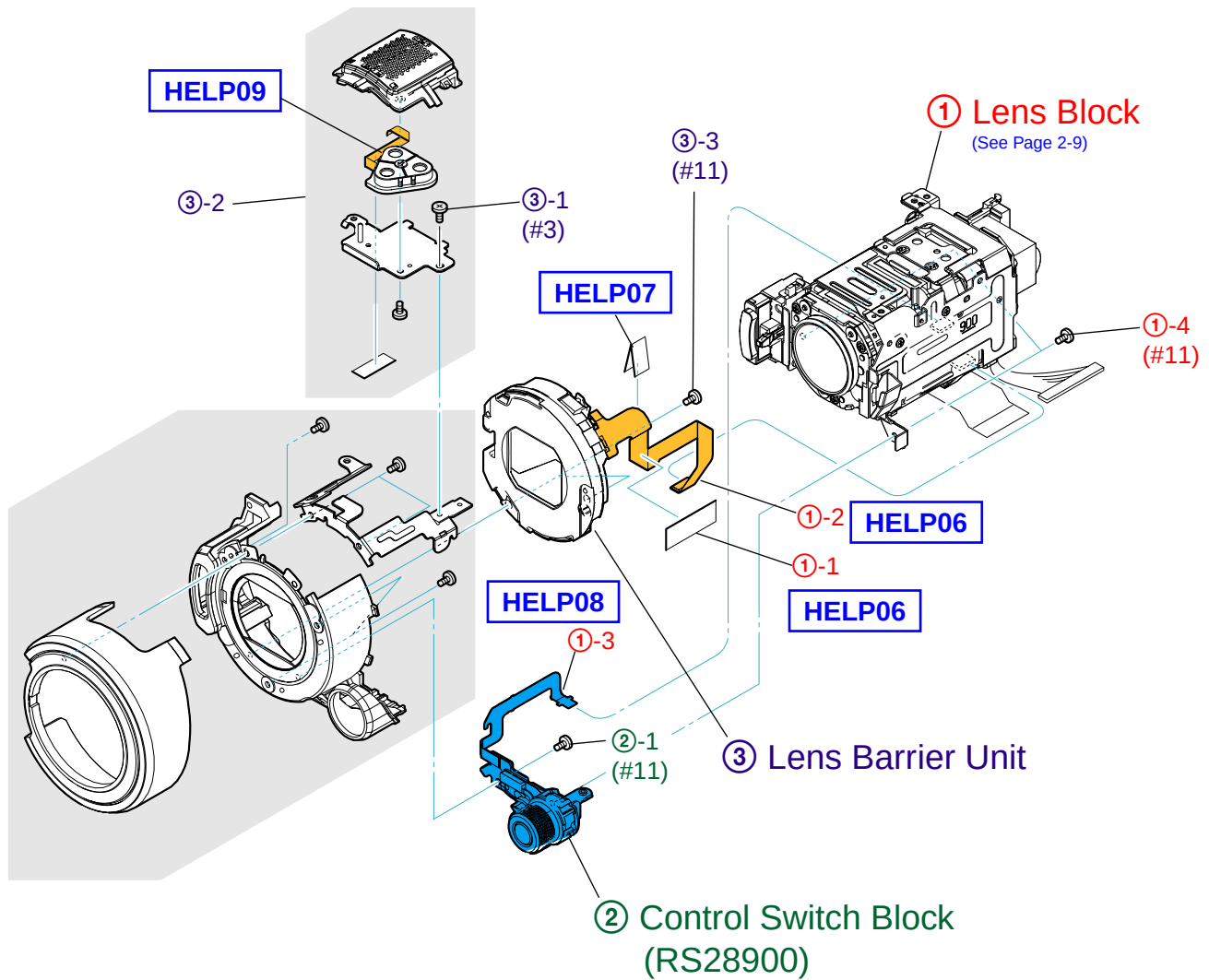
2-2-6. CABINET (F) SECTION

Follow the disassembly in the numerical order given.

- ① Lens Block (①-1 to ①-4)
- ② Control Switch Block (RS28900) (②-1)
- ③ Lens Barrier Unit (③-1 to ③-3)

EXPLODED VIEW

HARDWARE LIST



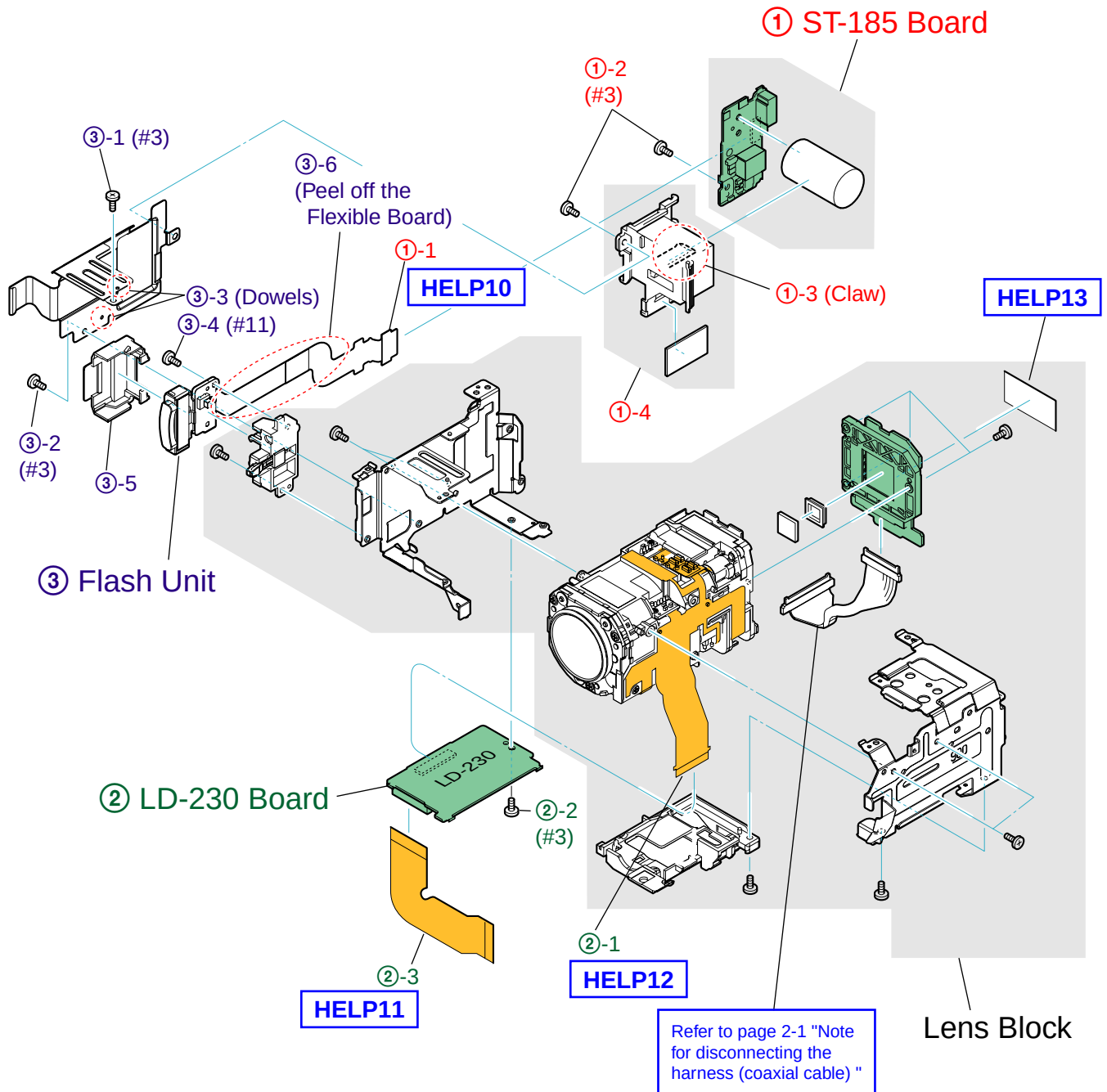
2-2-7. LENS BLOCK

Follow the disassembly in the numerical order given.

- ① ST-185 Board (①-1 to ①-4)
- ② LD-230 Board (②-1 to ②-3)
- ③ Flash Unit (③-1 to ③-6)

EXPLODED VIEW

HARDWARE LIST



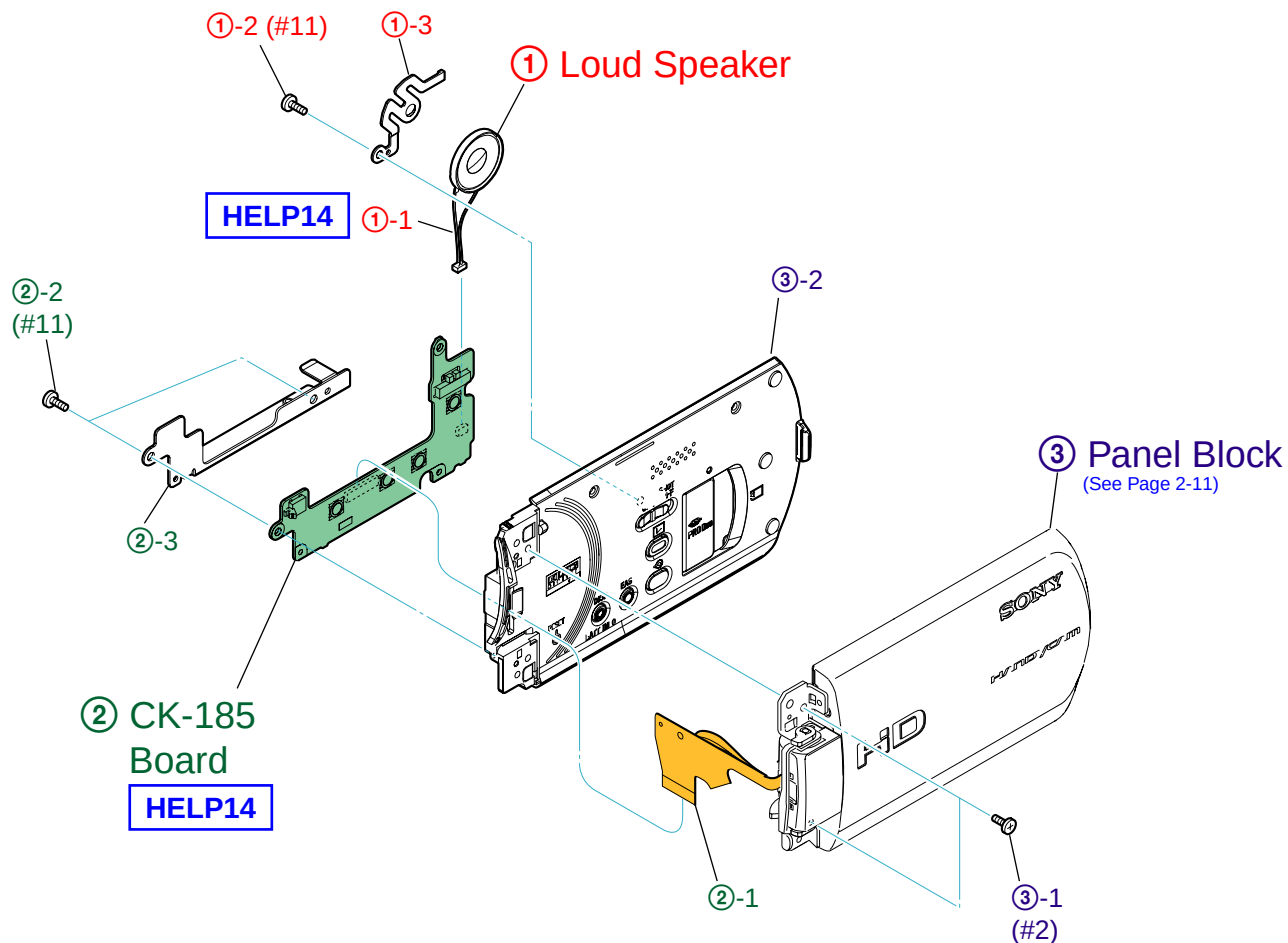
2-2-8. CABINET (R) SECTION

Follow the disassembly in the numerical order given.

- ① Loud Speaker (①-1 to ①-3)
- ② CK-185 Board (②-1 to ②-3)
- ③ Panel Block (③-1 to ③-2)

EXPLODED VIEW

HARDWARE LIST



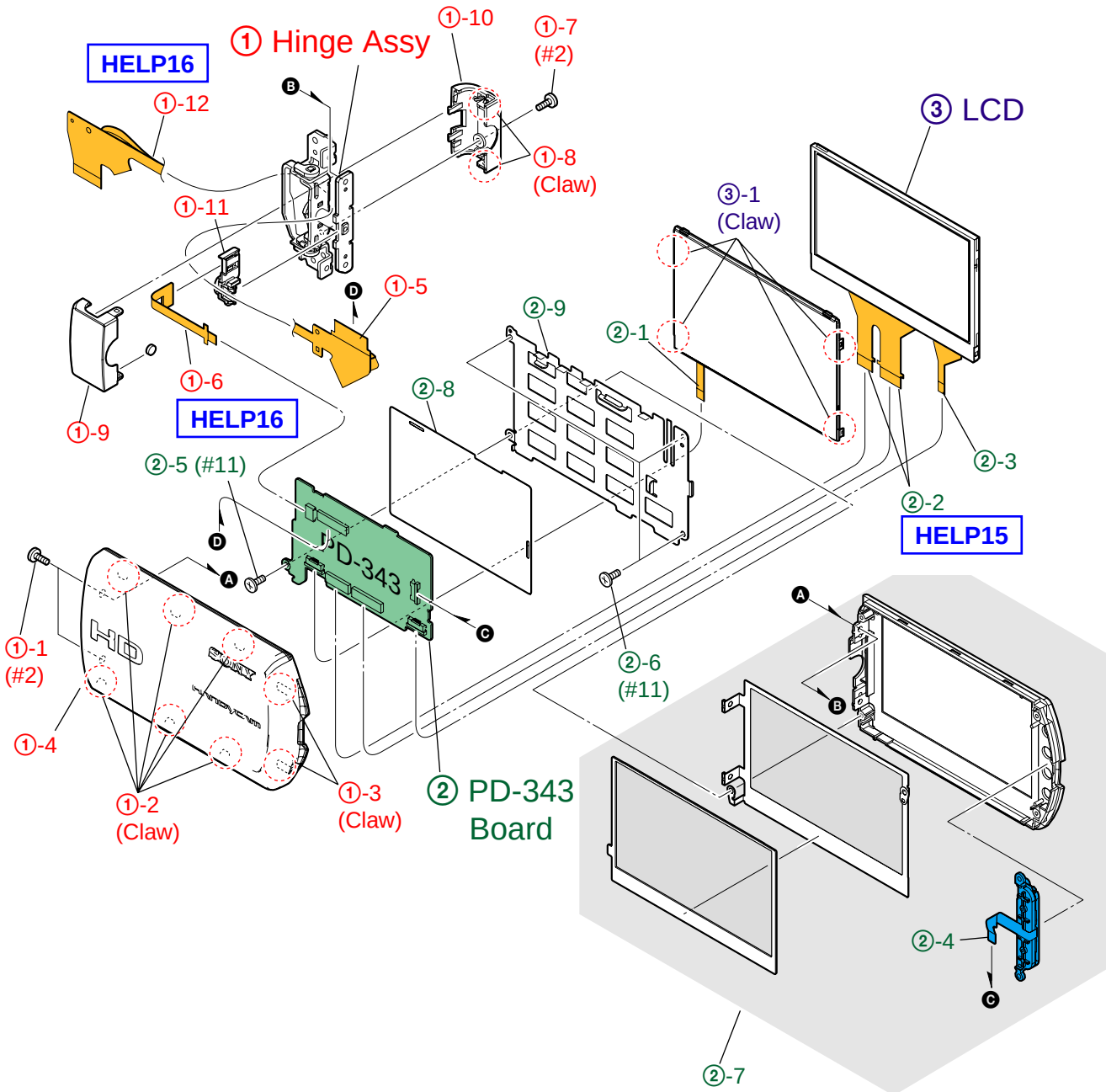
2-2-9. PANEL BLOCK

Follow the disassembly in the numerical order given.

- ① Hinge Assy (①-1 to ①-12)
- ② PD-343 Board (②-1 to ②-9)
- ③ LCD (③-1)

EXPLODED VIEW

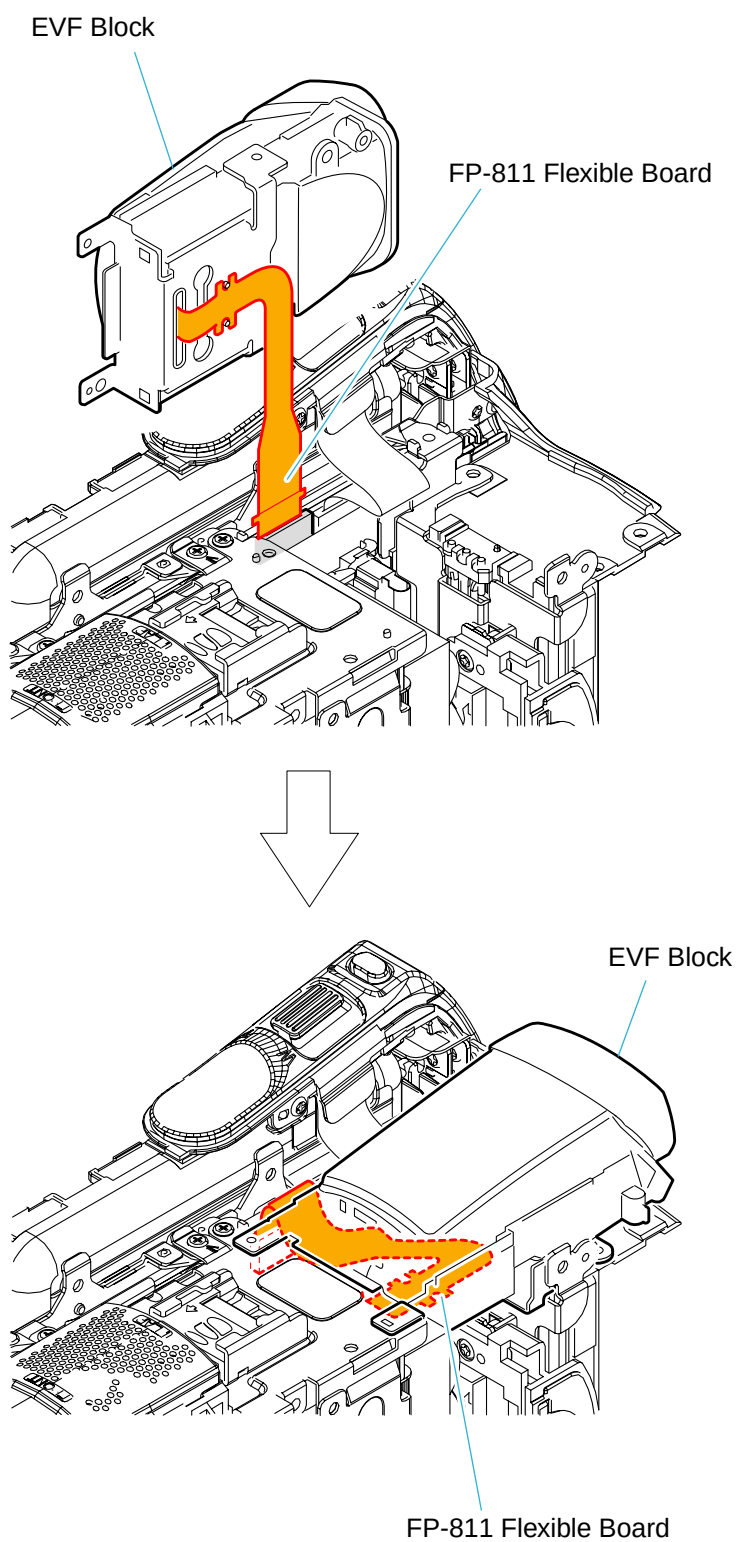
HARDWARE LIST



HELP

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

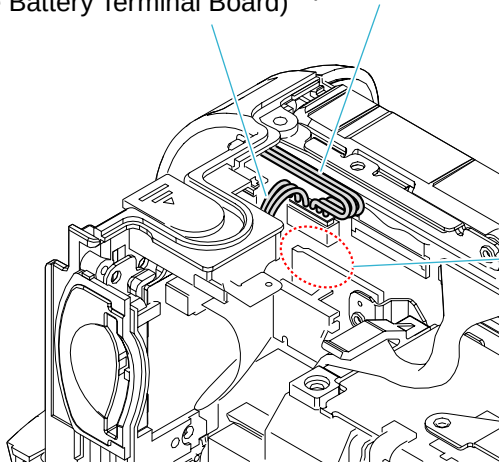
HELP01



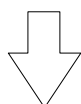
HELP02

DC Jack Harnesses
(to the Battery Terminal Board)

DC Jack Harnesses
(to the DC IN Jack)



Secure the space by arranging DC Jack Harness as shown in the figure.



BT Harness Retainer

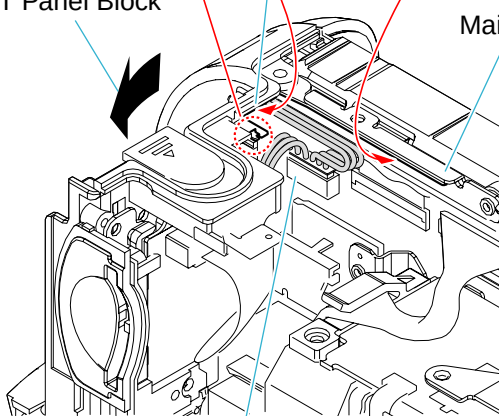
Insert the lib portion to
Main Frame.

BT Panel
(900) Assy

Claw

Open slightly
the BT Panel Block

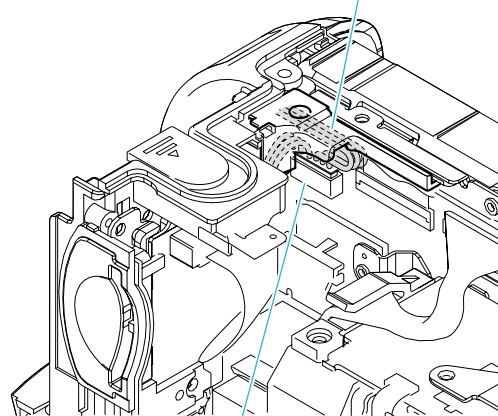
Main Frame



DC Jack Harnesses

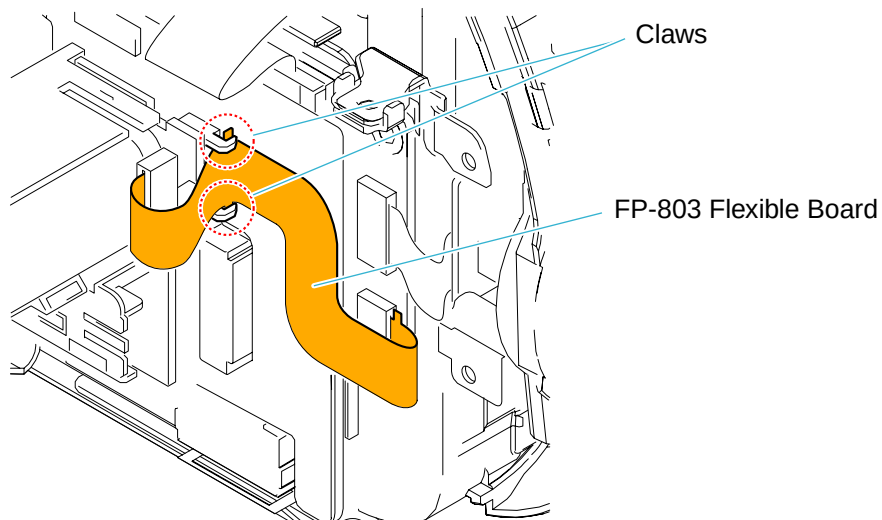


BT Harness Retainer

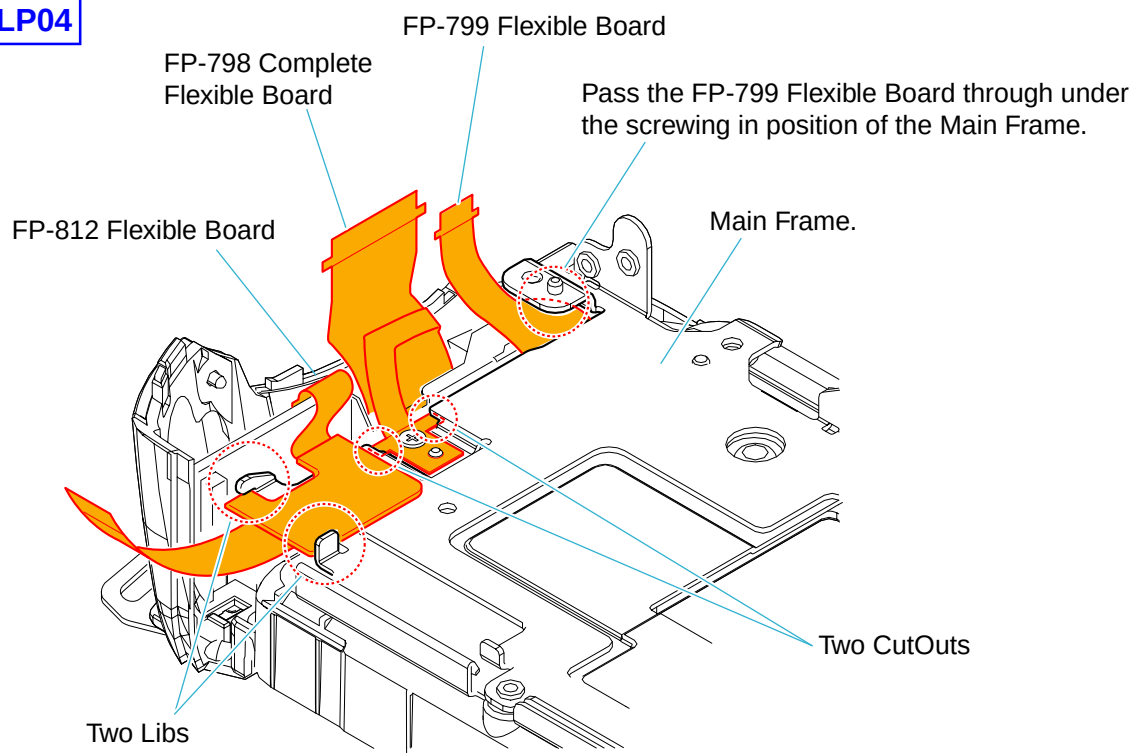


DC Jack Harnesses

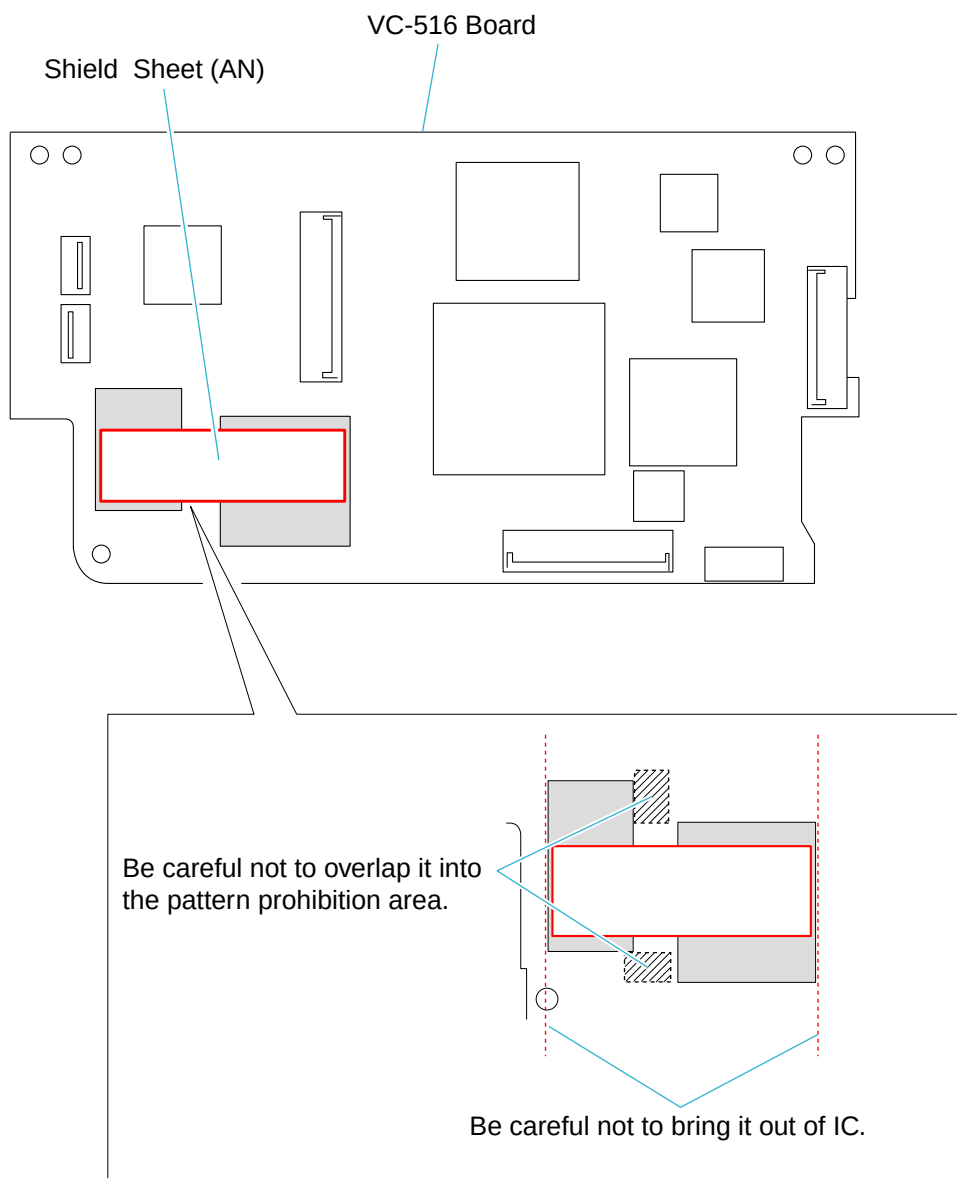
HELP03



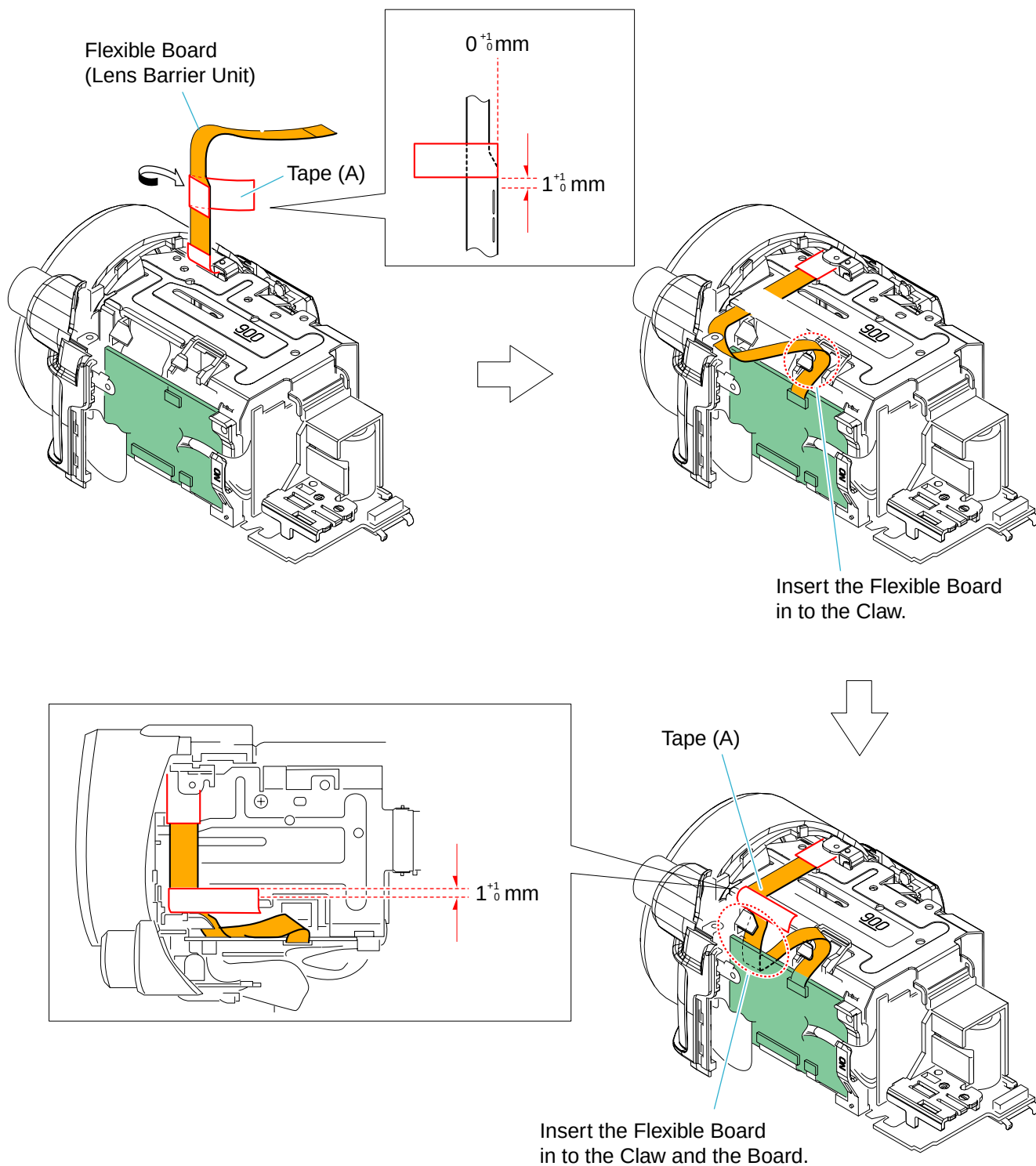
HELP04



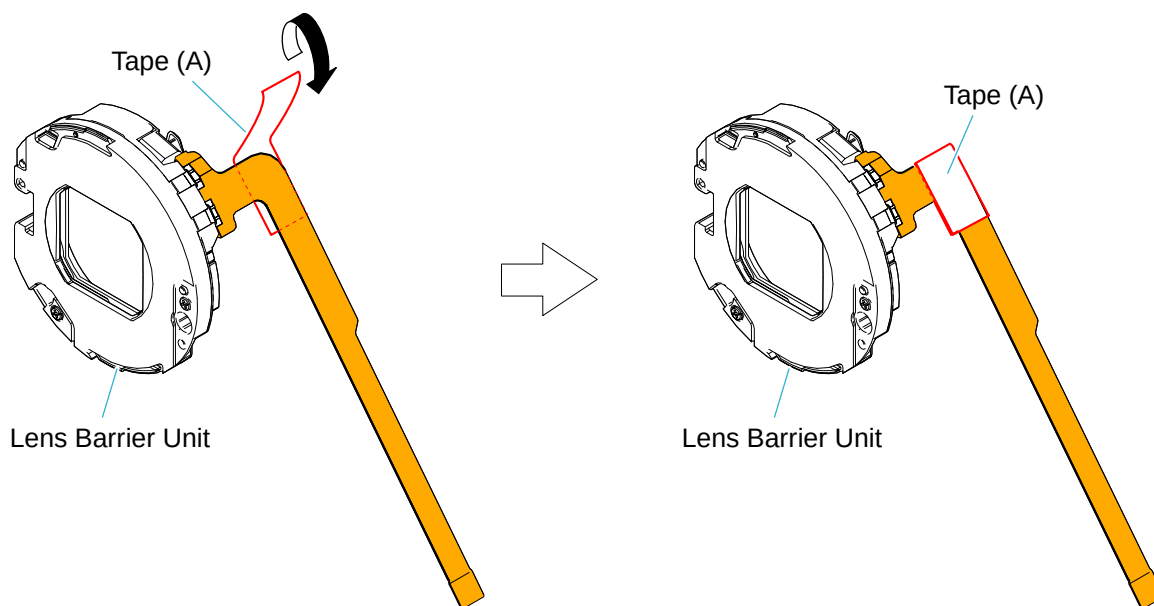
HELP05



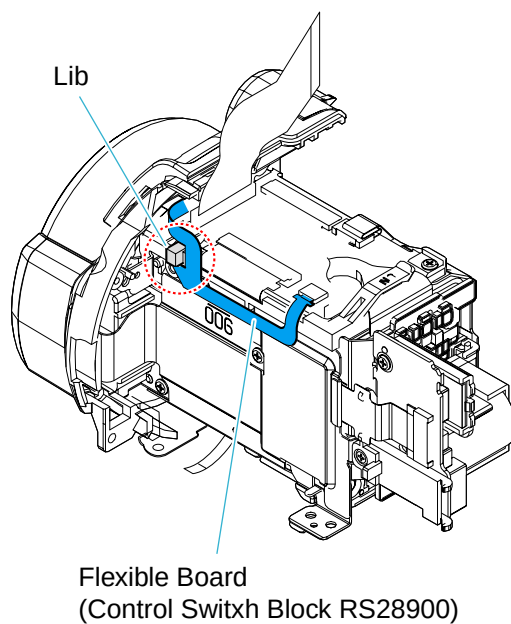
HELP06



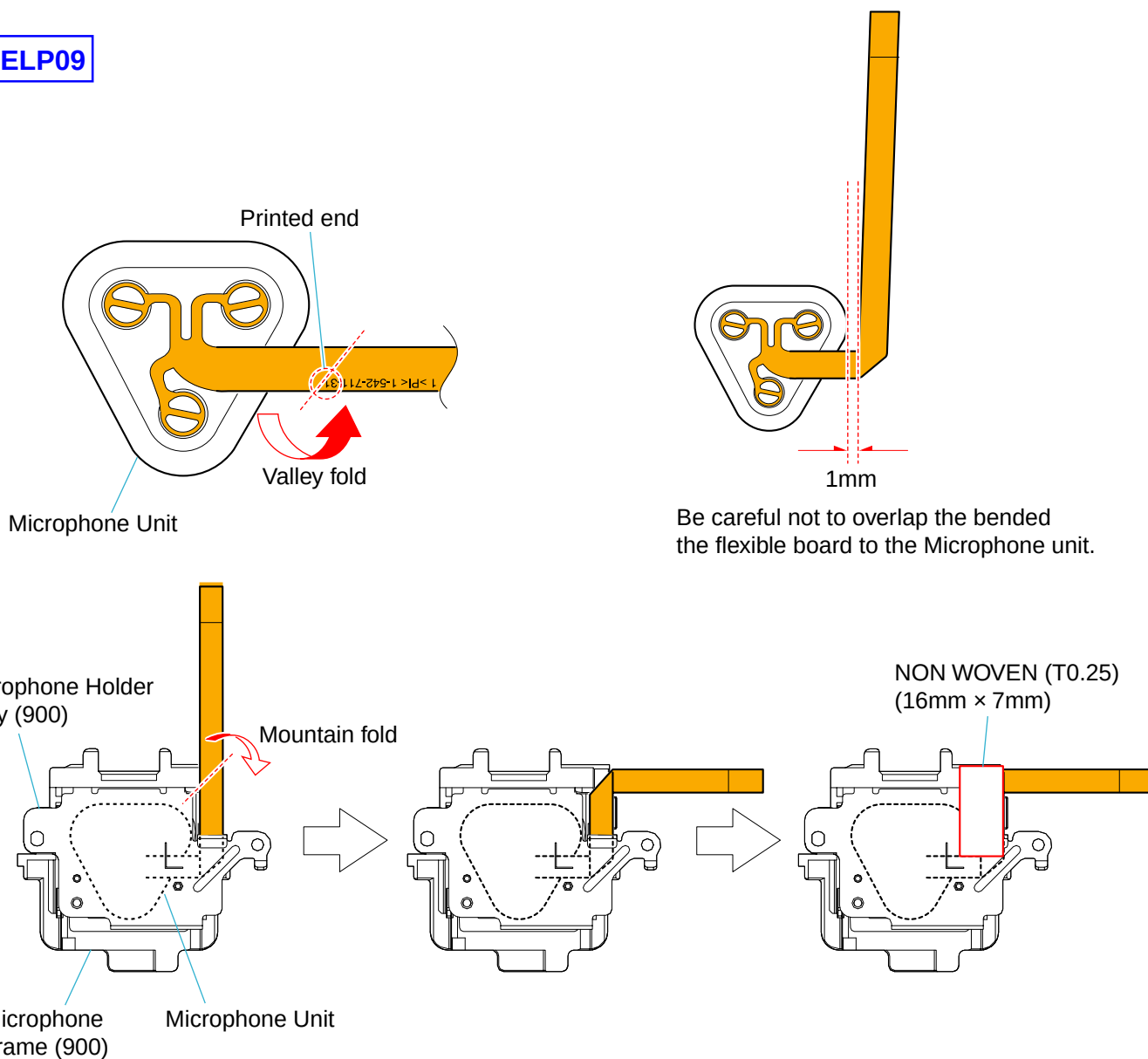
HELP07



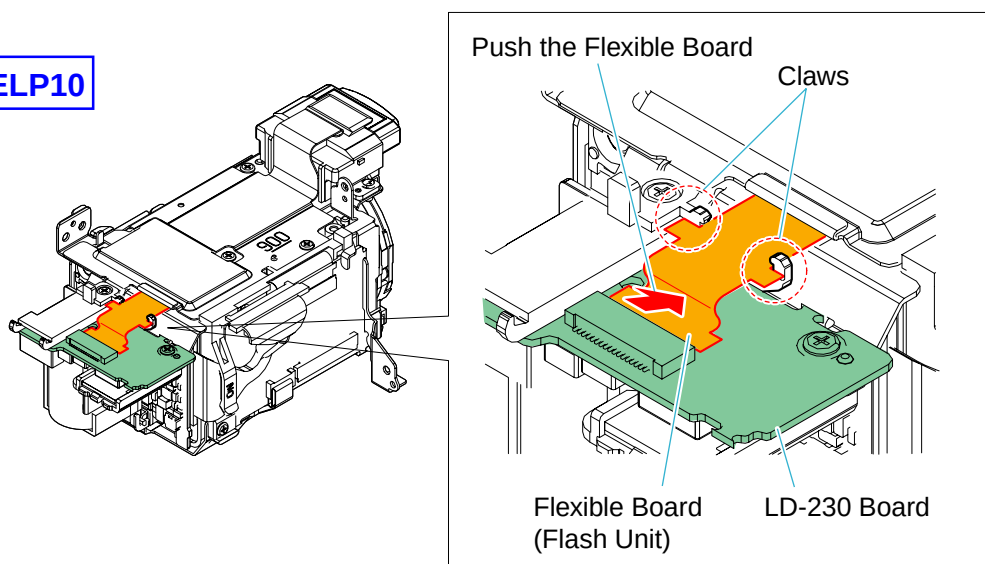
HELP08



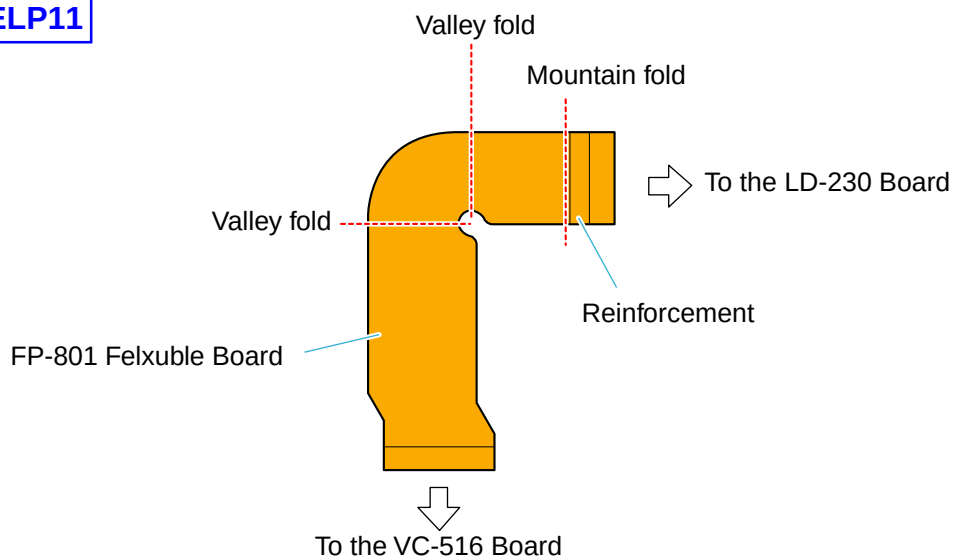
HELP09



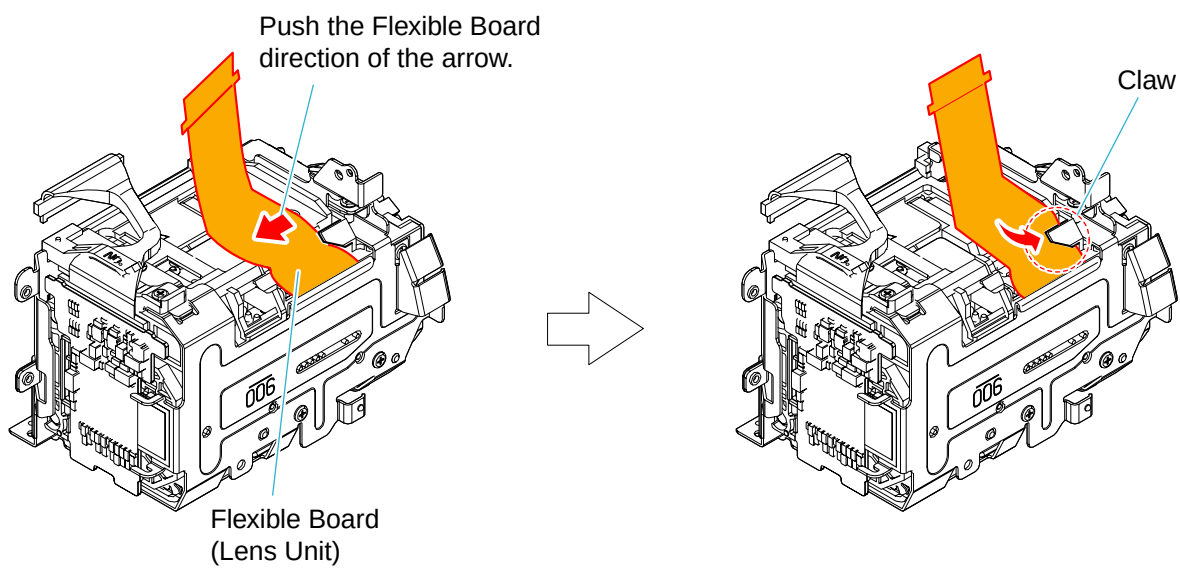
HELP10



HELP11



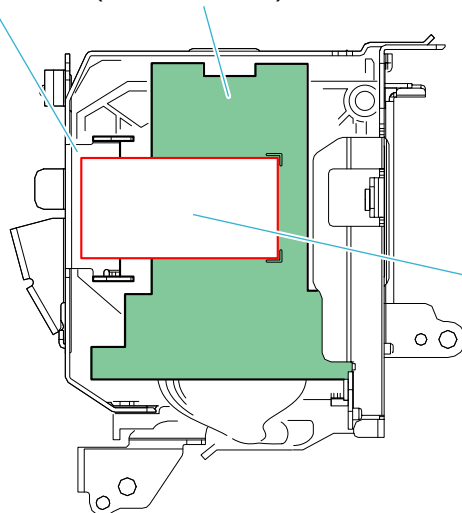
HELP12



HELP13

Lens Frame
(R(900))

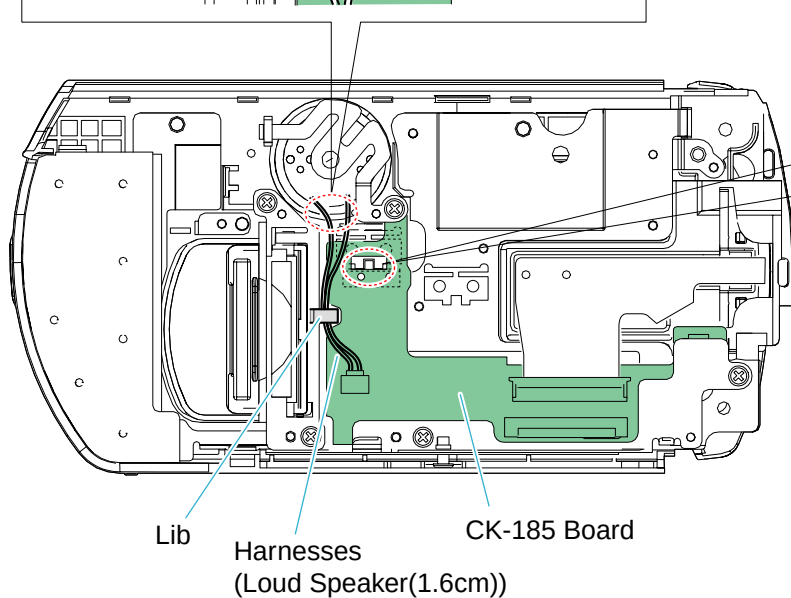
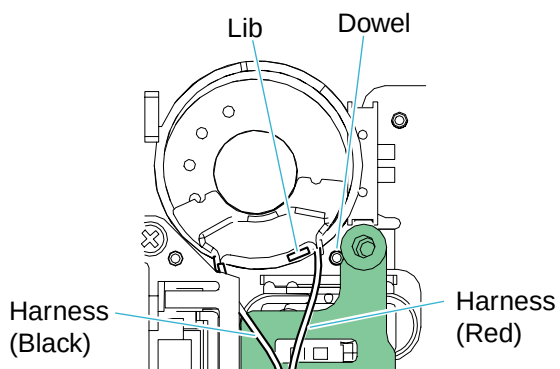
CMOS Block Assy
(CM-094 Board)



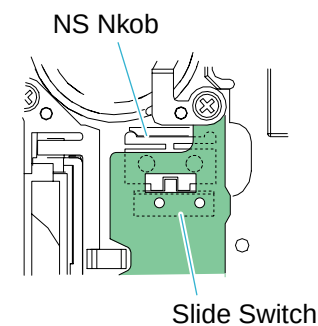
CM Radiation Sheet (900)

Be sure not to load to CM-094 Board
and not to bend the sheet.

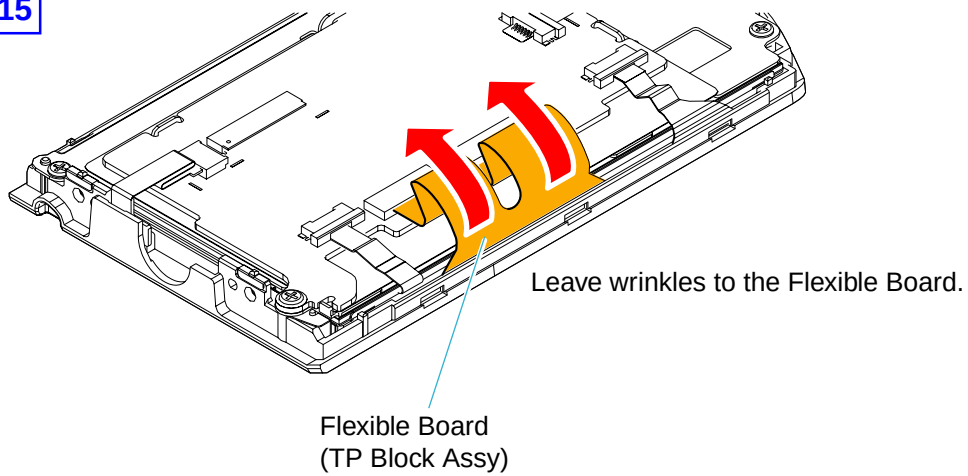
HELP14



Engage the NS knob with
the Slide switch.



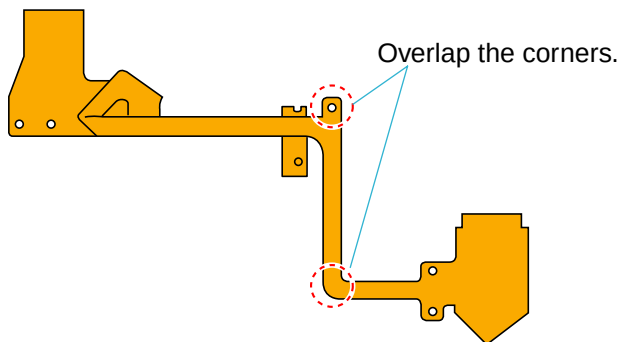
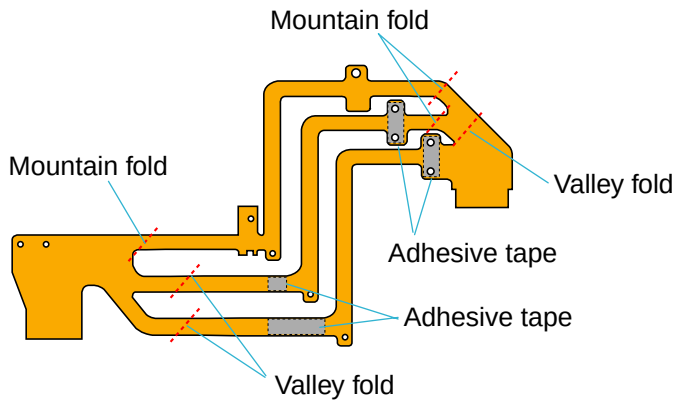
HELP15



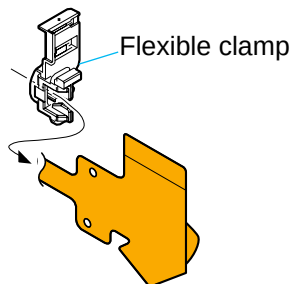
HELP16

THE METHOD OF ATTACHMENT OF FP-807 FLEXIBLE BOARD AND FP-454 FLEXIBLE BOARD

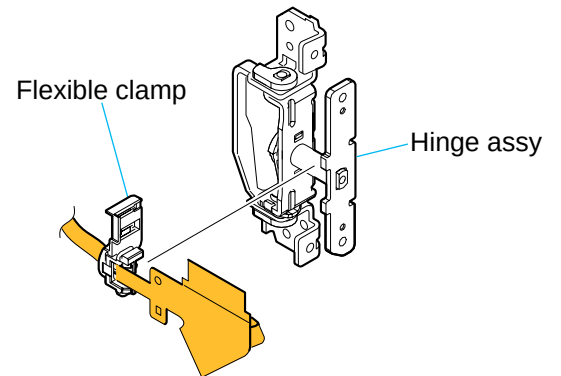
- ① Fold dotted line parts of the FP-807 flexible board as shown in figure.



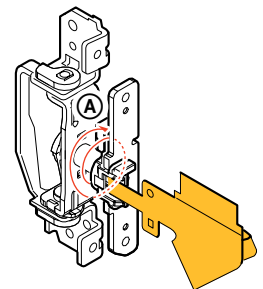
- ② Pass the FP-807 flexible board through the flexible clamp



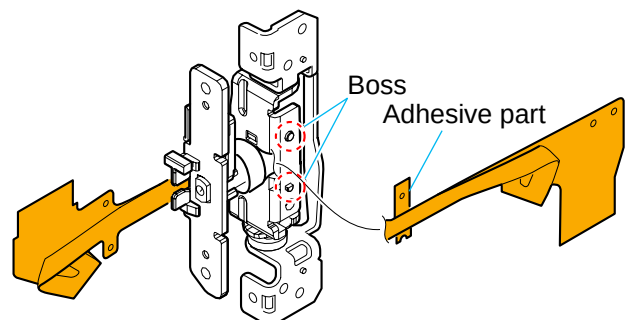
- ③ Install the flexible clamp in the hinge assy.



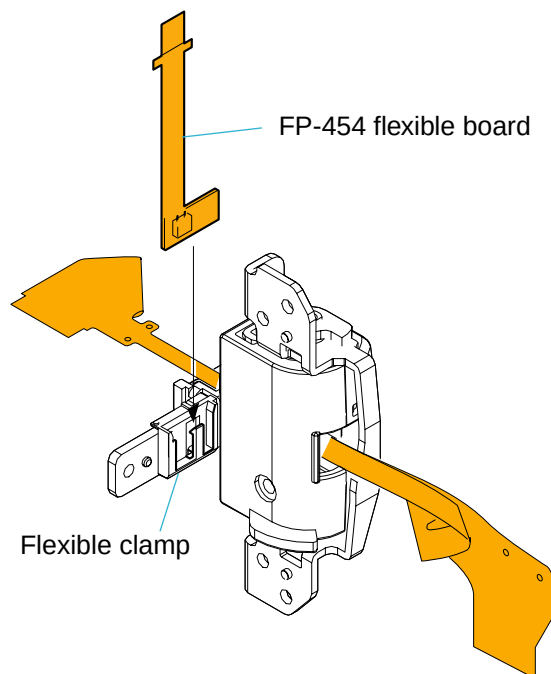
- ④ Roll the the FP-807 flexible board 1.5 times, in the direction of arrow ④.



- ⑤ Put the adhesive part and FP-807 flexible board on the hinge assy according to the position of the boss.



⑥ Insert the FP-454 flexible board to the flexible clamp as shown in figure.



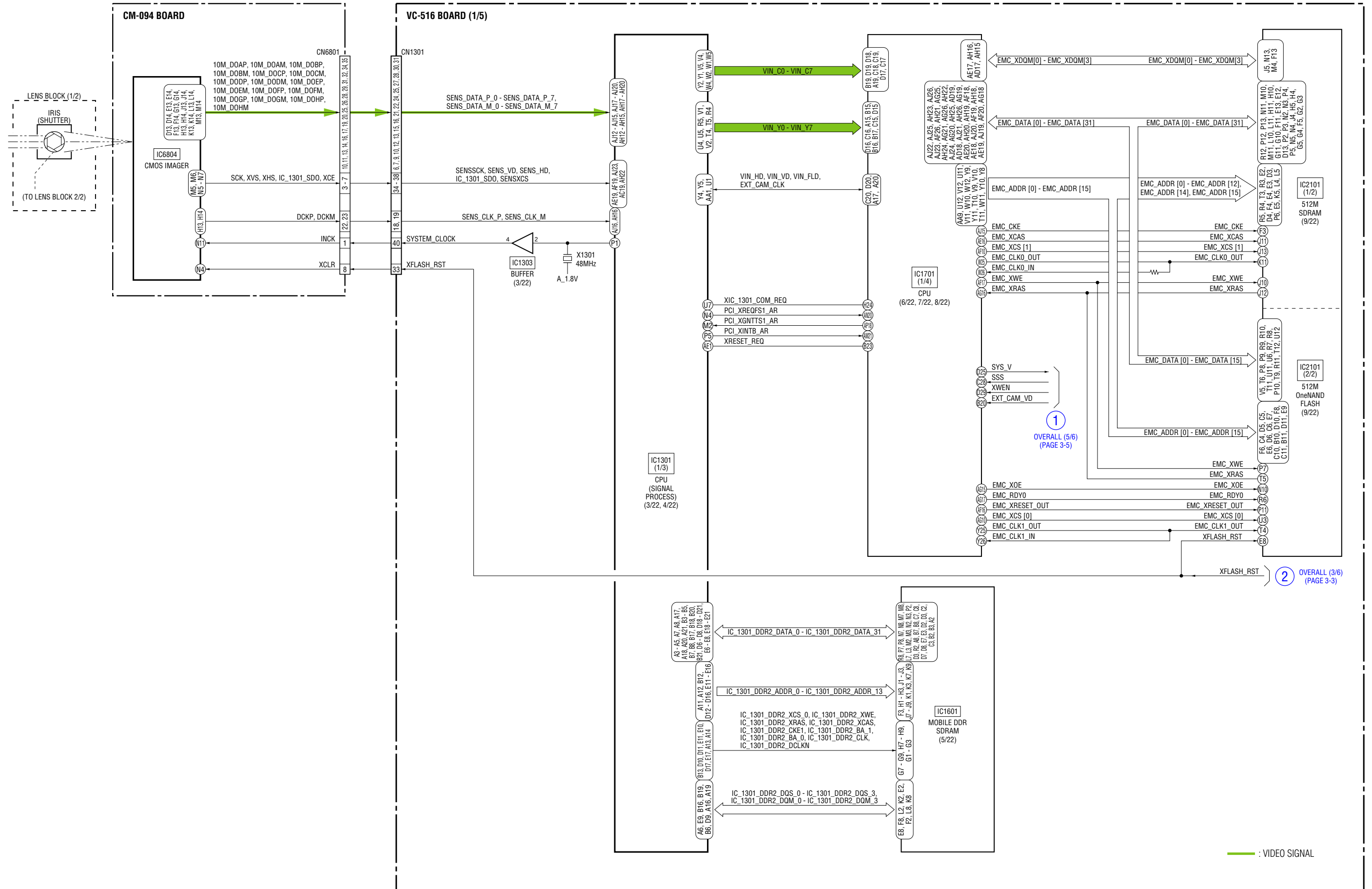
3. BLOCK DIAGRAMS

Link

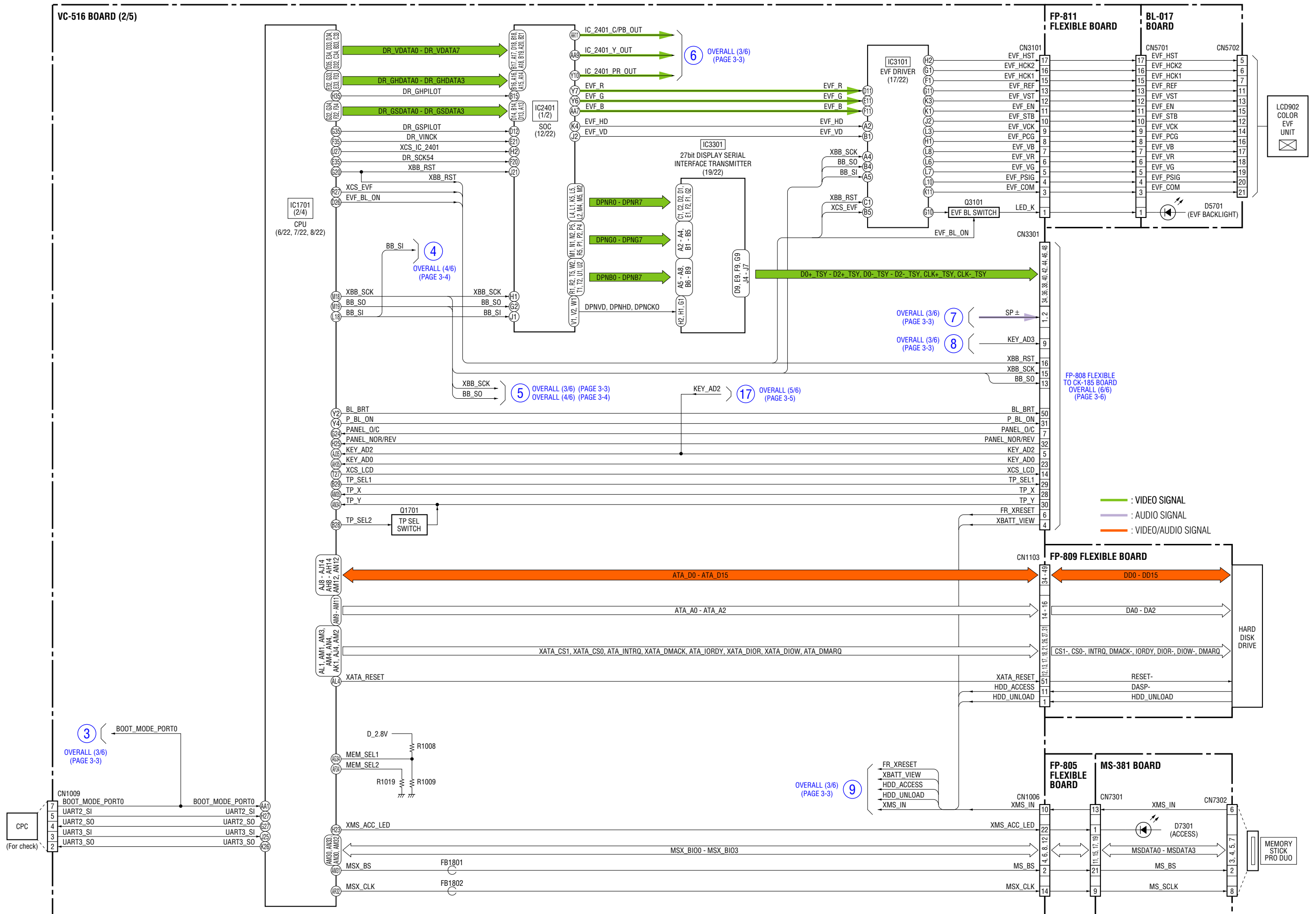
OVERALL BLOCK DIAGRAM (1/6)	OVERALL BLOCK DIAGRAM (6/6)
OVERALL BLOCK DIAGRAM (2/6)	POWER BLOCK DIAGRAM (1/3)
OVERALL BLOCK DIAGRAM (3/6)	POWER BLOCK DIAGRAM (2/3)
OVERALL BLOCK DIAGRAM (4/6)	POWER BLOCK DIAGRAM (3/3)
OVERALL BLOCK DIAGRAM (5/6)	

3. BLOCK DIAGRAMS

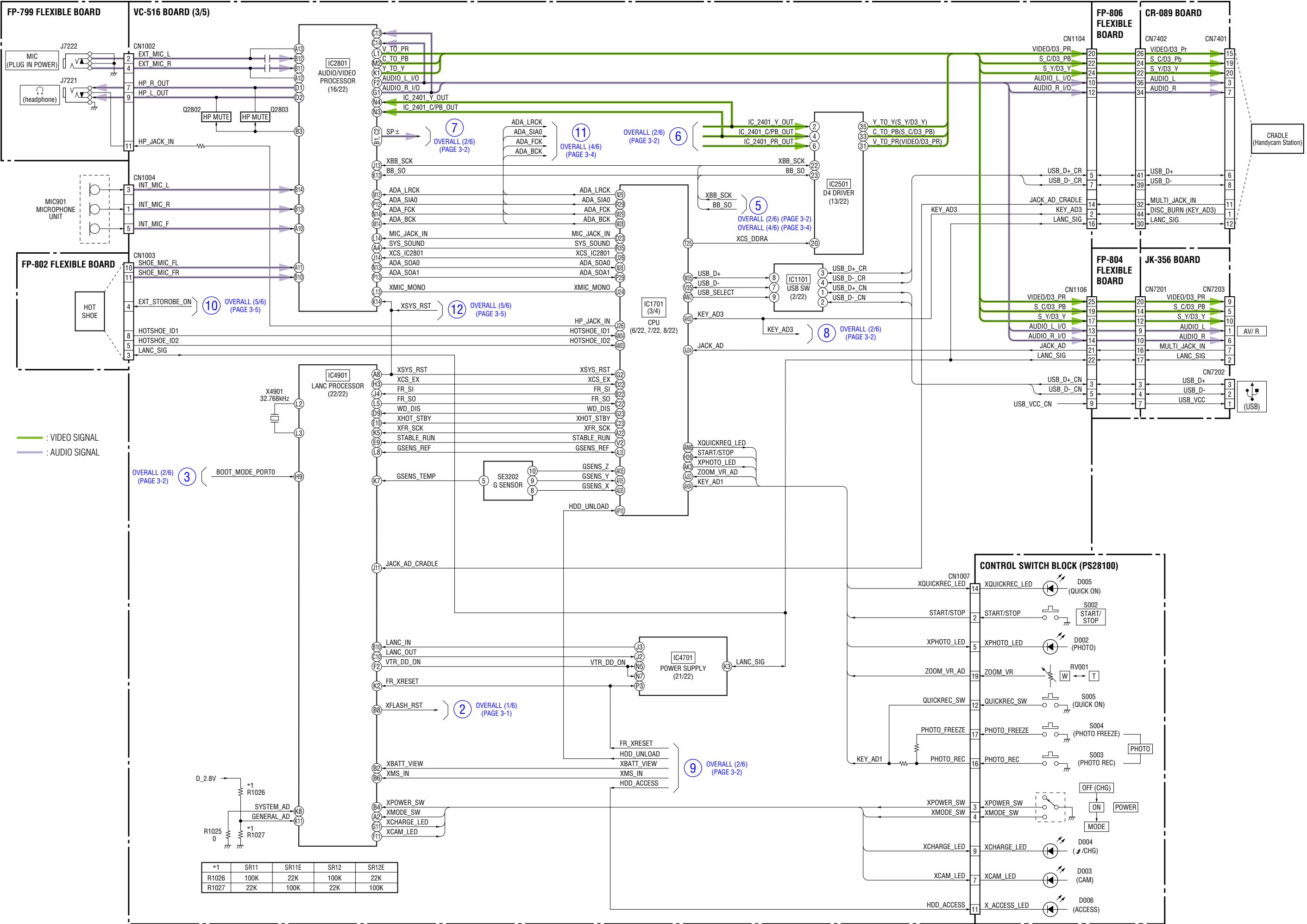
3-1. OVERALL BLOCK DIAGRAM (1/6) () : Number in parenthesis () indicates the division number of schematic diagram where the component is located.



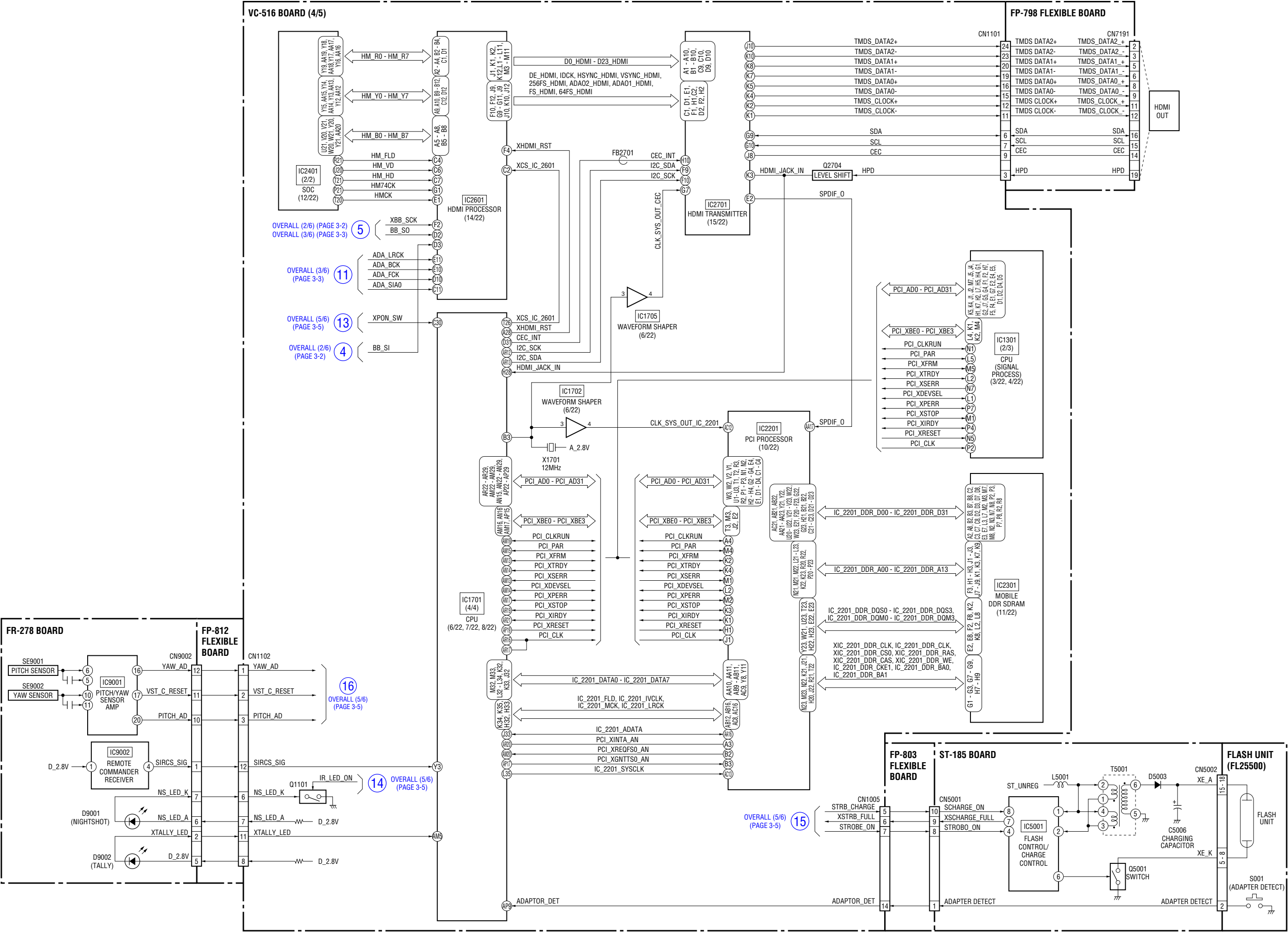
3-2. OVERALL BLOCK DIAGRAM (2/6) () : Number in parenthesis () indicates the division number of schematic diagram where the component is located.



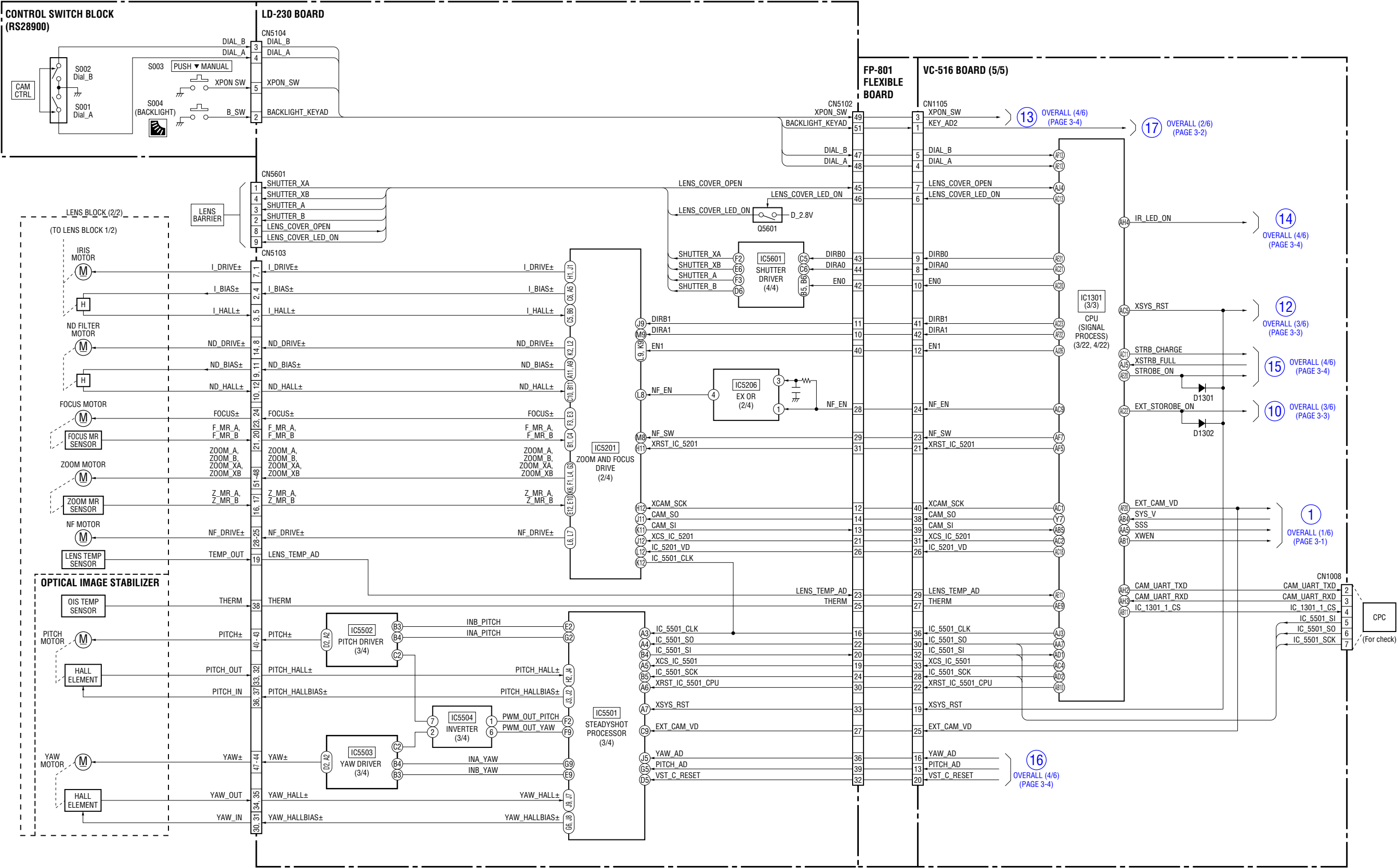
3-3. OVERALL BLOCK DIAGRAM (3/6) () : Number in parenthesis () indicates the division number of schematic diagram where the component is located.



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

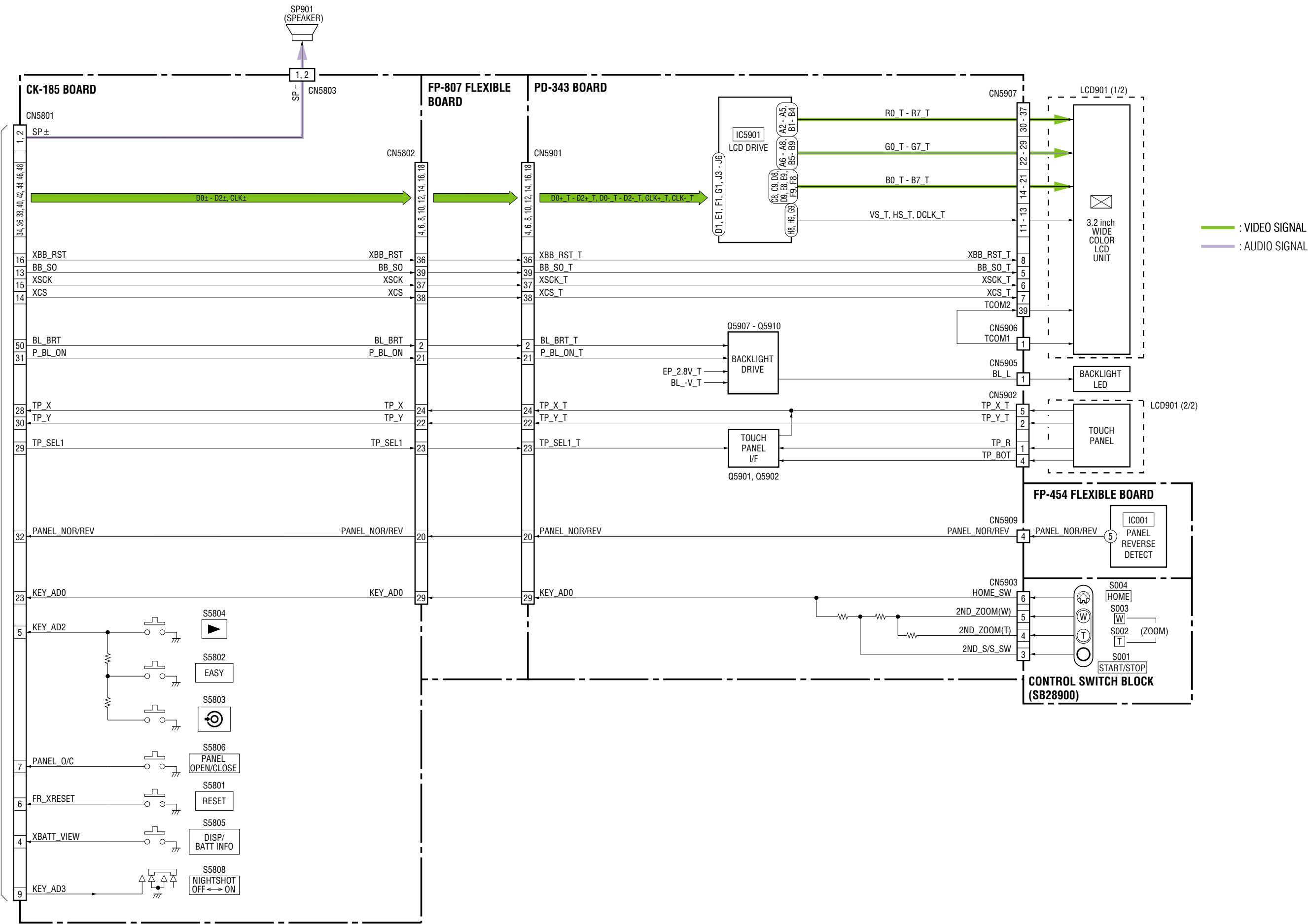


3-5. OVERALL BLOCK DIAGRAM (5/6) () : Number in parenthesis () indicates the division number of schematic diagram where the component is located.



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

FP-808 FLEXIBLE
TO VC-516 BOARD
OVERALL (2/6)
(PAGE 3-2)

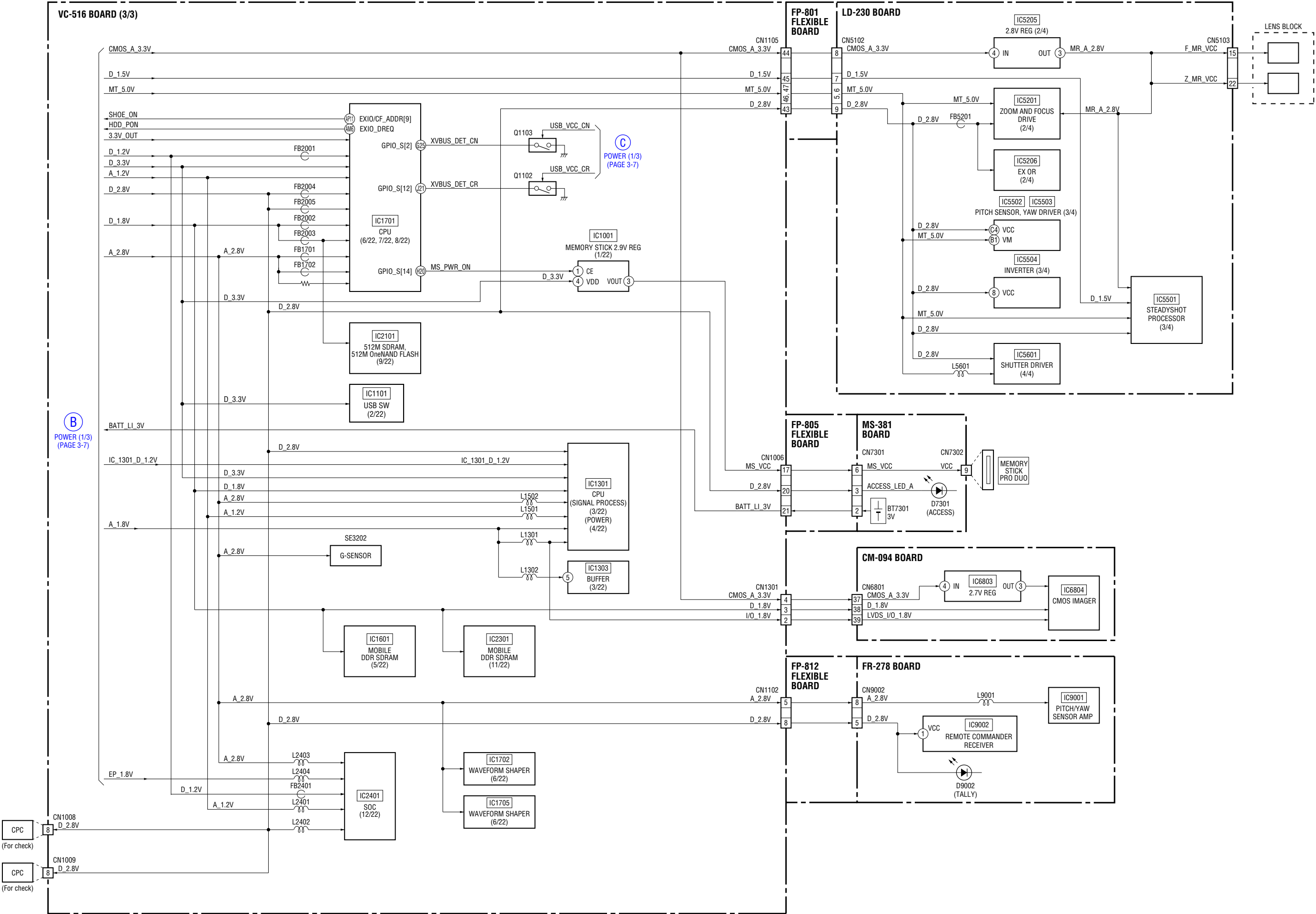


() : Number in parenthesis () indicates the division number of schematic diagram where the component is located.

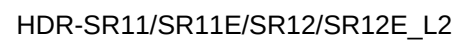


() : Number in parenthesis () indicates the division number of schematic diagram where the component is located.





4-1. FRAME SCHEMATIC DIAGRAM



4-2. SCHEMATIC DIAGRAMS

Link

• PD-343 BOARD (LCD DRIVE)	• FP-804 FLEXIBLE BOARD (VC-JK CONNECTION)
• FR-278 BOARD (PITCH/YAW SENSOR AMP, REMOTE COMMANDER RECEIVER)	• FP-805 FLEXIBLE BOARD (VC-MS CONNECTION)
• CK-185 BOARD (CONTROL SWITCH)	• FP-806 FLEXIBLE BOARD (VC-CR CONNECTION)
• ST-185 BOARD (FLASH DRIVER)	• FP-807 FLEXIBLE BOARD (PD-CK CONNECTION)
• JK-356 BOARD (JACK)	• FP-809 FLEXIBLE BOARD (HDD CONNECTION)
• CR-089 BOARD (CRADLE TERMINAL)	• FP-808 FLEXIBLE BOARD (VC-CK CONNECTION)
• BL-017 BOARD (EVF, EVF BACKLIGHT)	• FP-811 FLEXIBLE BOARD (BL-VC CONNECTION)
• MS-381 BOARD (MS CONNECTOR)	• FP-812 FLEXIBLE BOARD (VC-FR CONNECTION)
• FP-454 FLEXIBLE BOARD (PANEL REVERSE DETECT)	• CONTROL SWITCH BLOCK (RS28900)
• FP-798 FLEXIBLE BOARD (HDMI CONECTOR)	• CONTROL SWITCH BLOCK (SB28900)
• FP-799 FLEXIBLE BOARD (HP, MIC JACK)	• CONTROL SWITCH BLOCK (PS28100)
• FP-801 FLEXIBLE BOARD (LD-VC CONNECTION)	• FLASH UNIT (FL25500)
• FP-802 FLEXIBLE BOARD (HOT SHOE CONNECTION)	• FP-712 FLEXIBLE BOARD (BARRIER UNIT CONNECTION)
• FP-803 FLEXIBLE BOARD (VC-ST CONNECTION)	

• COMMON NOTE FOR SCHEMATIC DIAGRAMS

4-2. SCHEMATIC DIAGRAMS (ENGLISH)

THIS NOTE IS COMMON FOR SCHEMATIC DIAGRAMS

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

(For schematic diagrams)

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

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

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

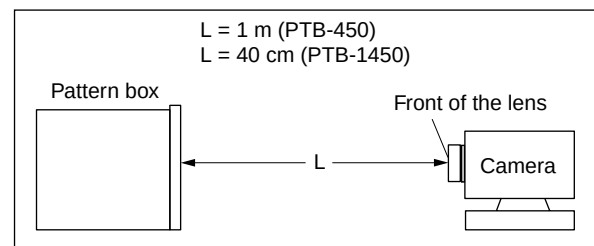
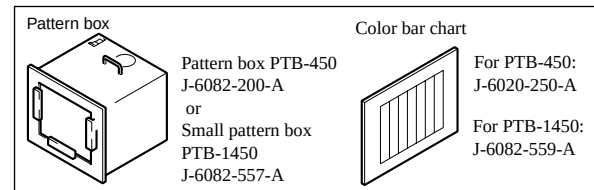
(Measuring conditions voltage and waveform)

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

Precautions for Replacement of Imager

- If the imager has been replaced, carry out all the adjustments for the camera section.
- As the imager may be damaged by static electricity from its structure, handle it carefully like for the MOS IC.
In addition, ensure that the receiver is not covered with dusts nor exposed to strong light.

1. Connection



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

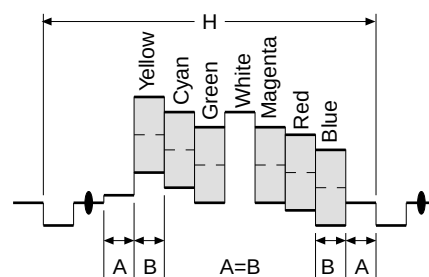


Fig. a (Video output terminal output waveform)

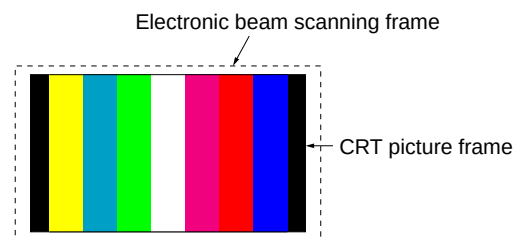


Fig.b (Picture on monitor TV)

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

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.

(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 μF (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。

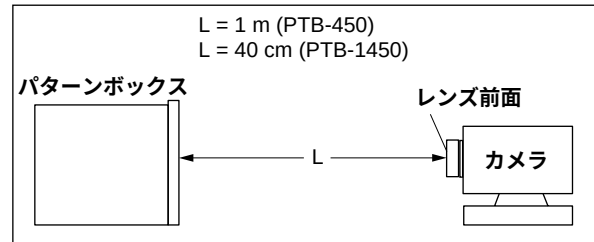
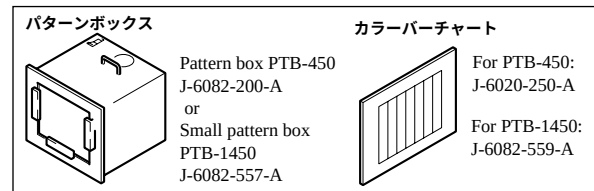
【電圧・波形測定条件ノート】

- ・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。

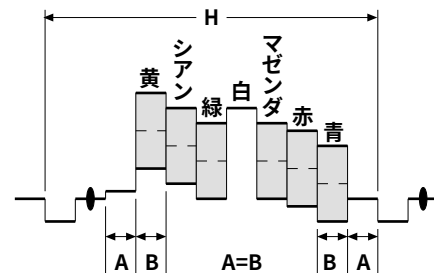
イメージ交換時の注意

- ・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

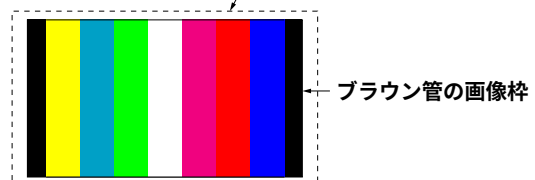


2. 図a及び図bの波形が得られるように画枠調整して下さい。



図a (映像入出力端子出力波形)

電子ビーム走査線



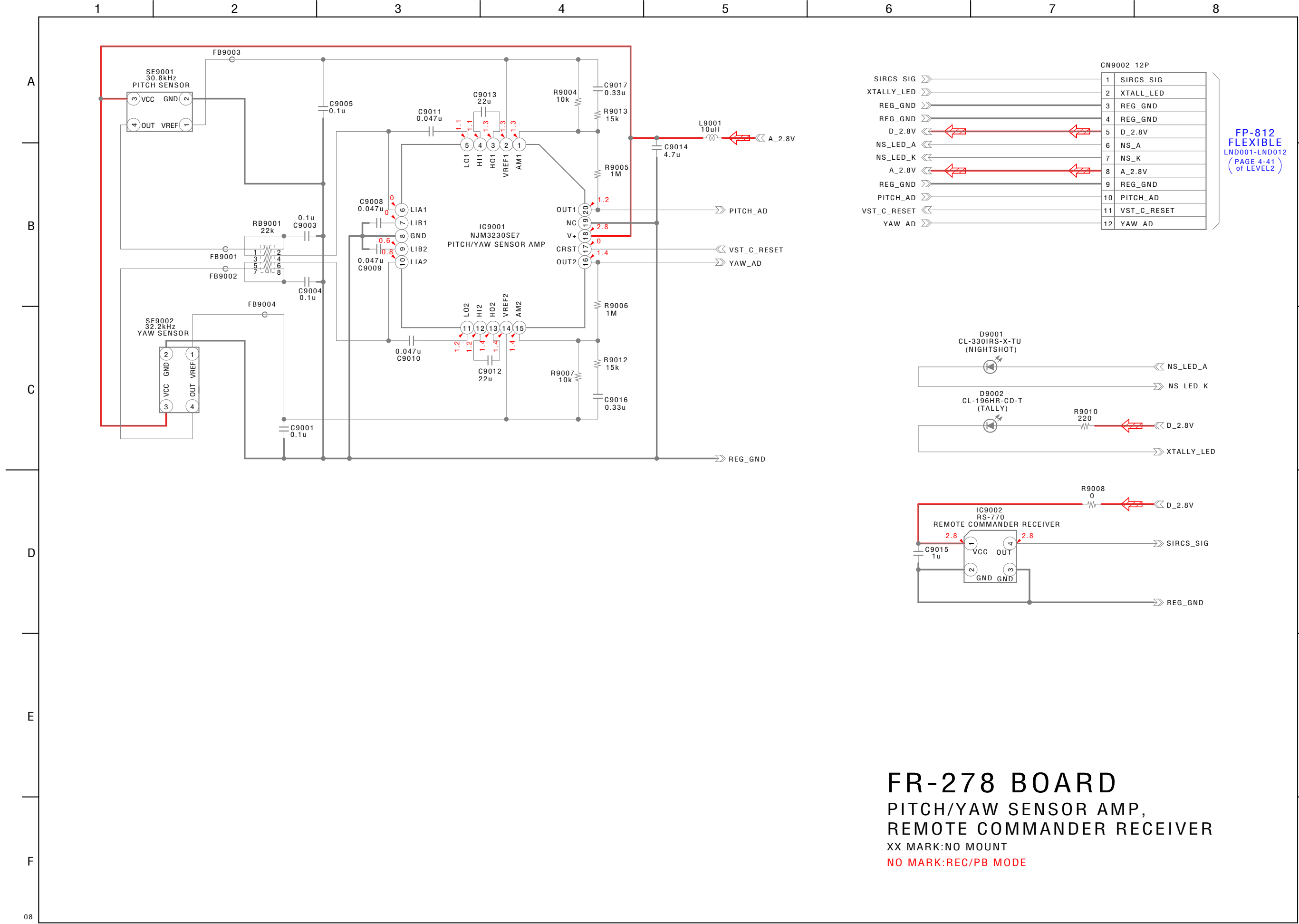
図b (テレビモニタの映像)

△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。

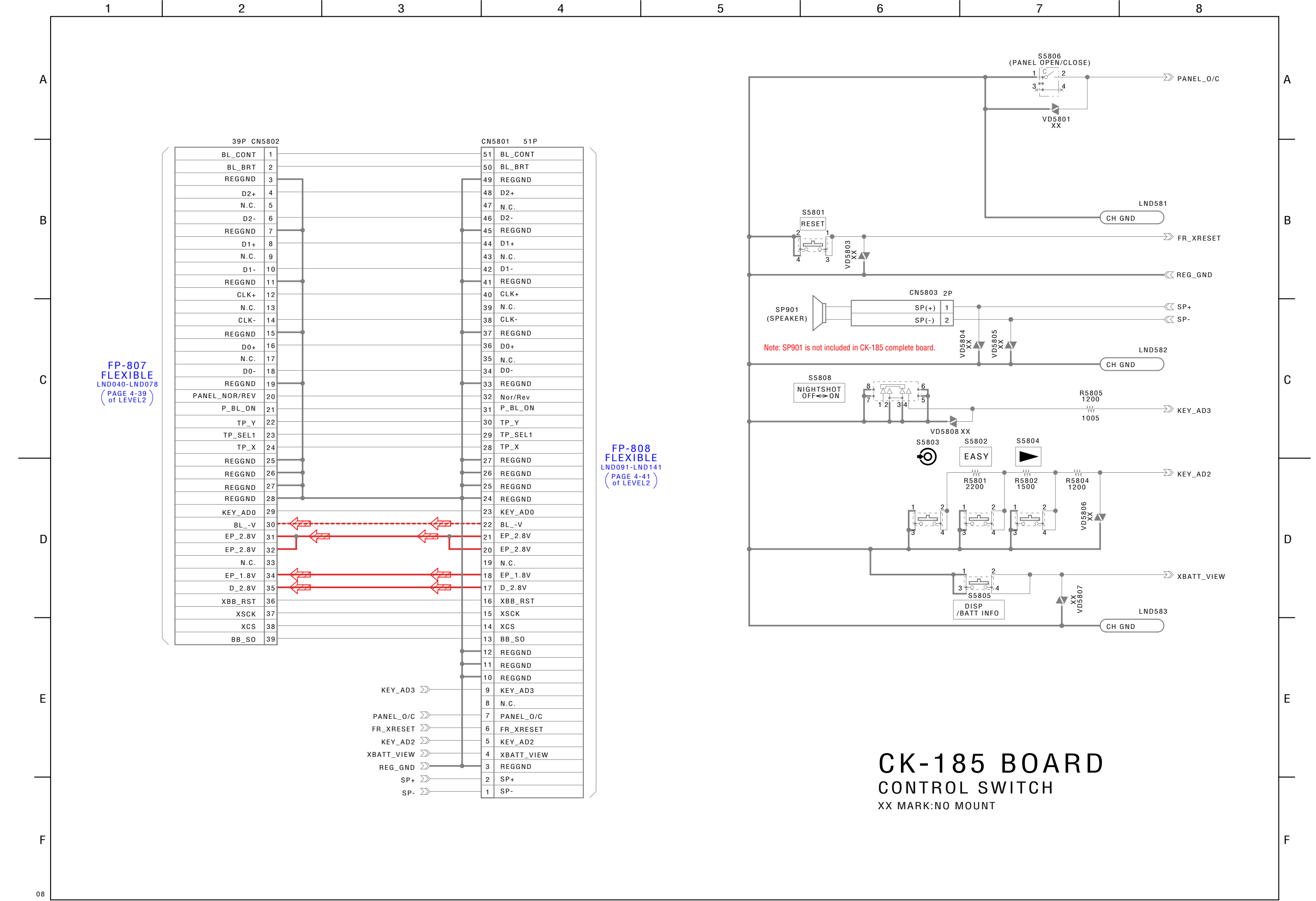
お願い

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-094, VC-516 and LD-230 boards are not shown.
Pages 4-4 to 4-30 are not shown.



FR-278 BOARD
PITCH/YAW SENSOR AMP,
REMOTE COMMANDER RECEIVER
XX MARK:NO MOUNT
NO MARK:REC/PB MODE

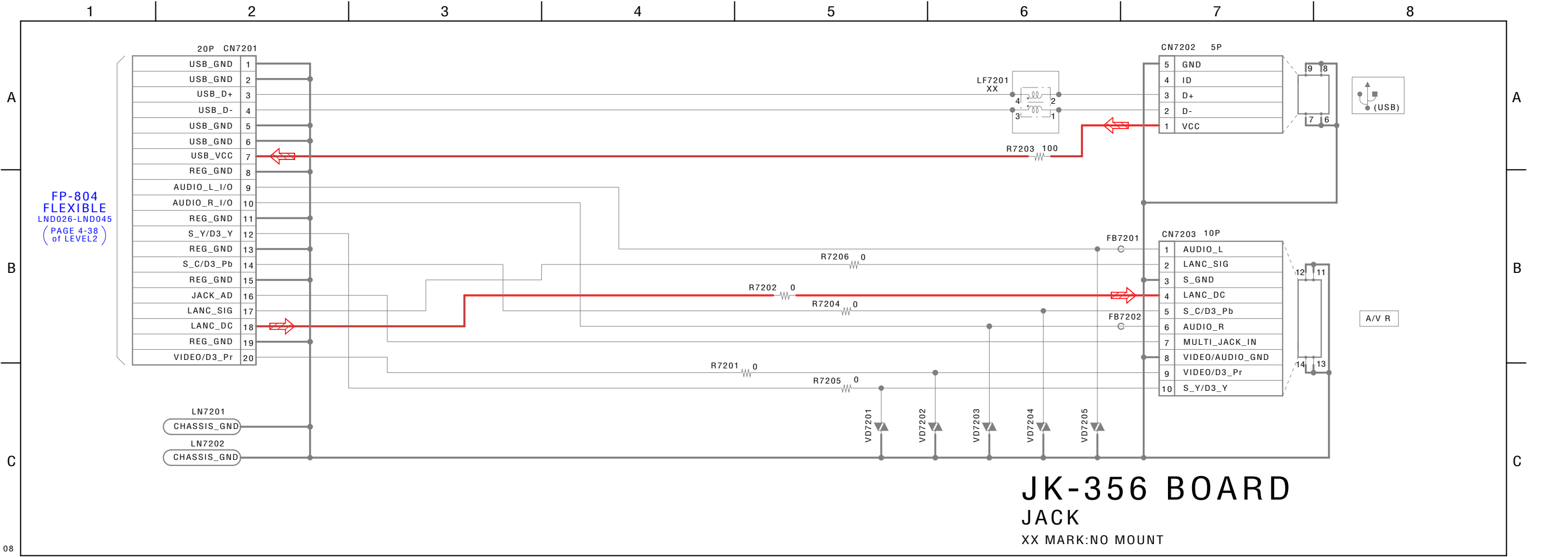
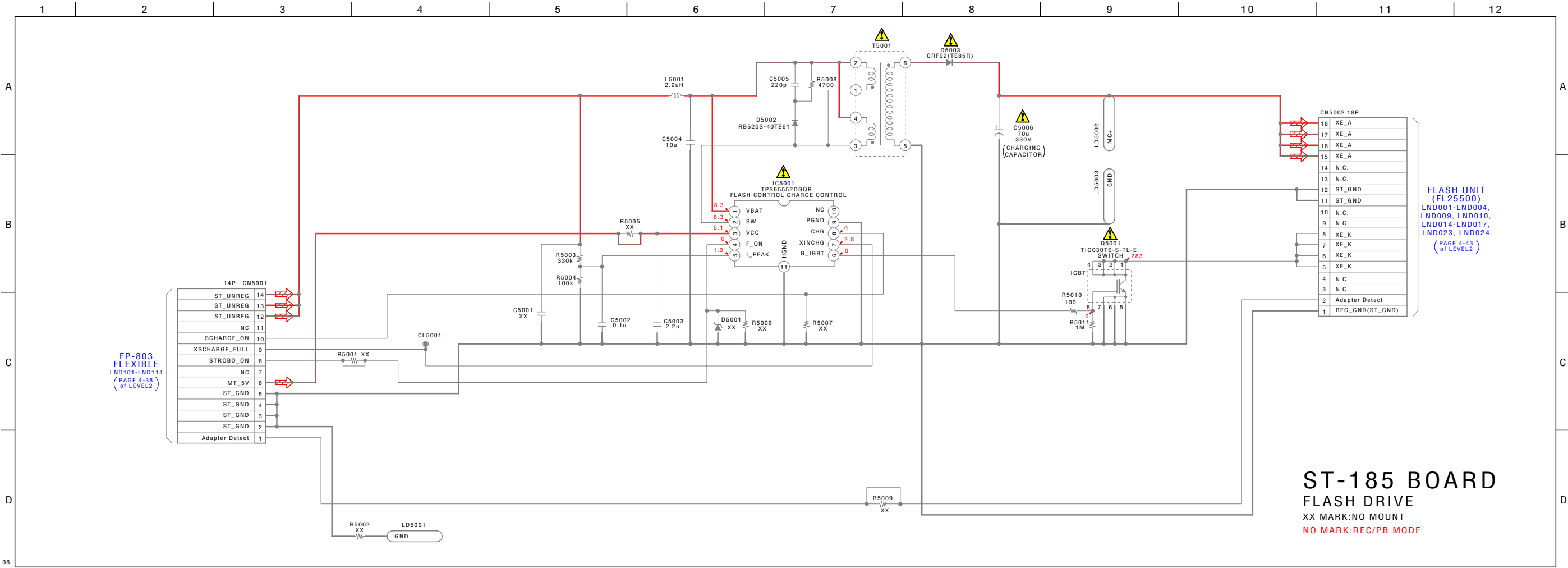


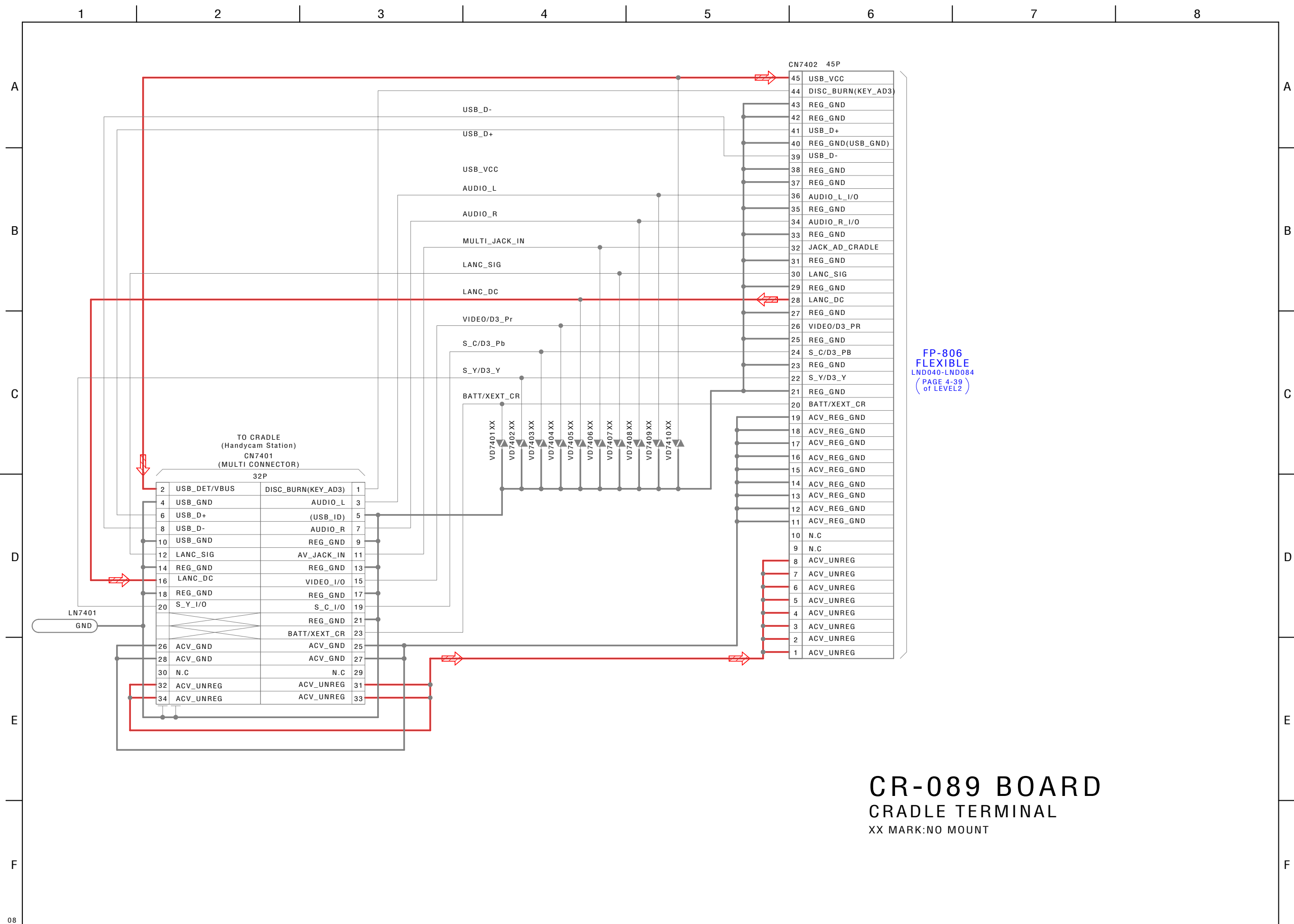
FP-807
FLEXIBLE
LND040-LND078
(PAGE 4-39
of LEVEL2)

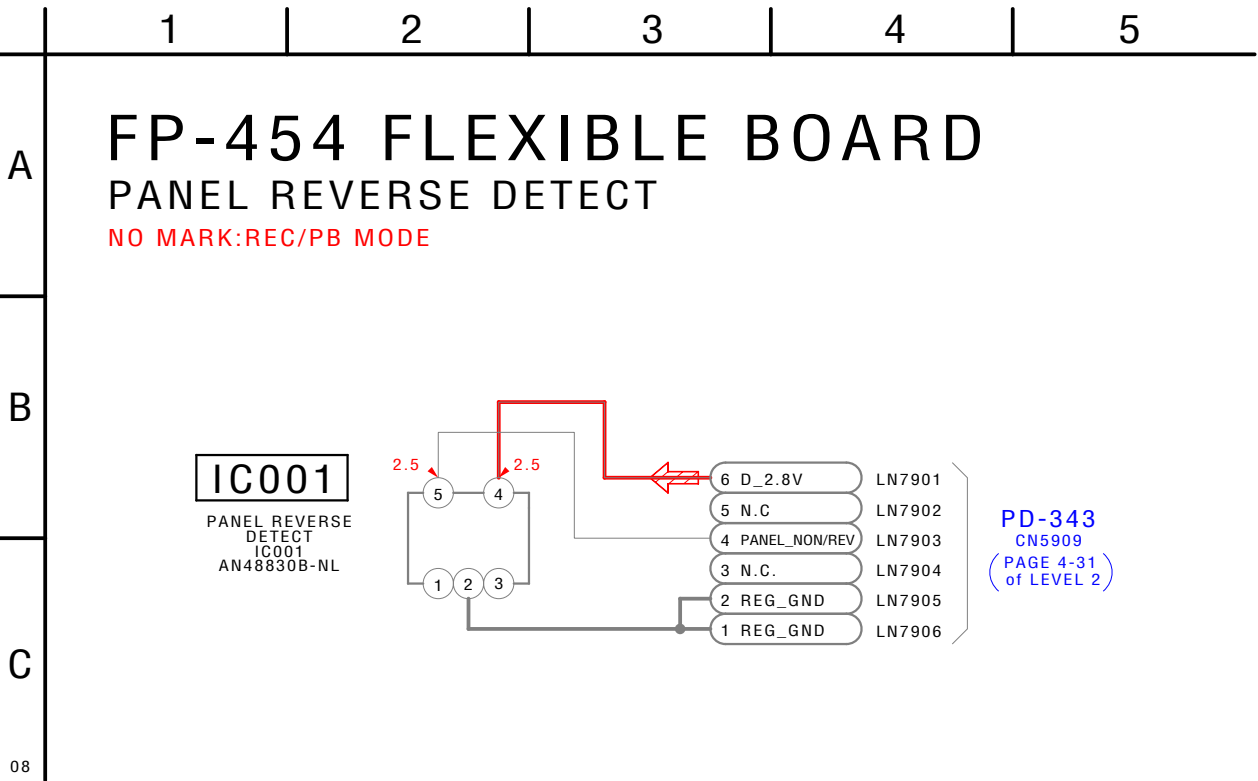
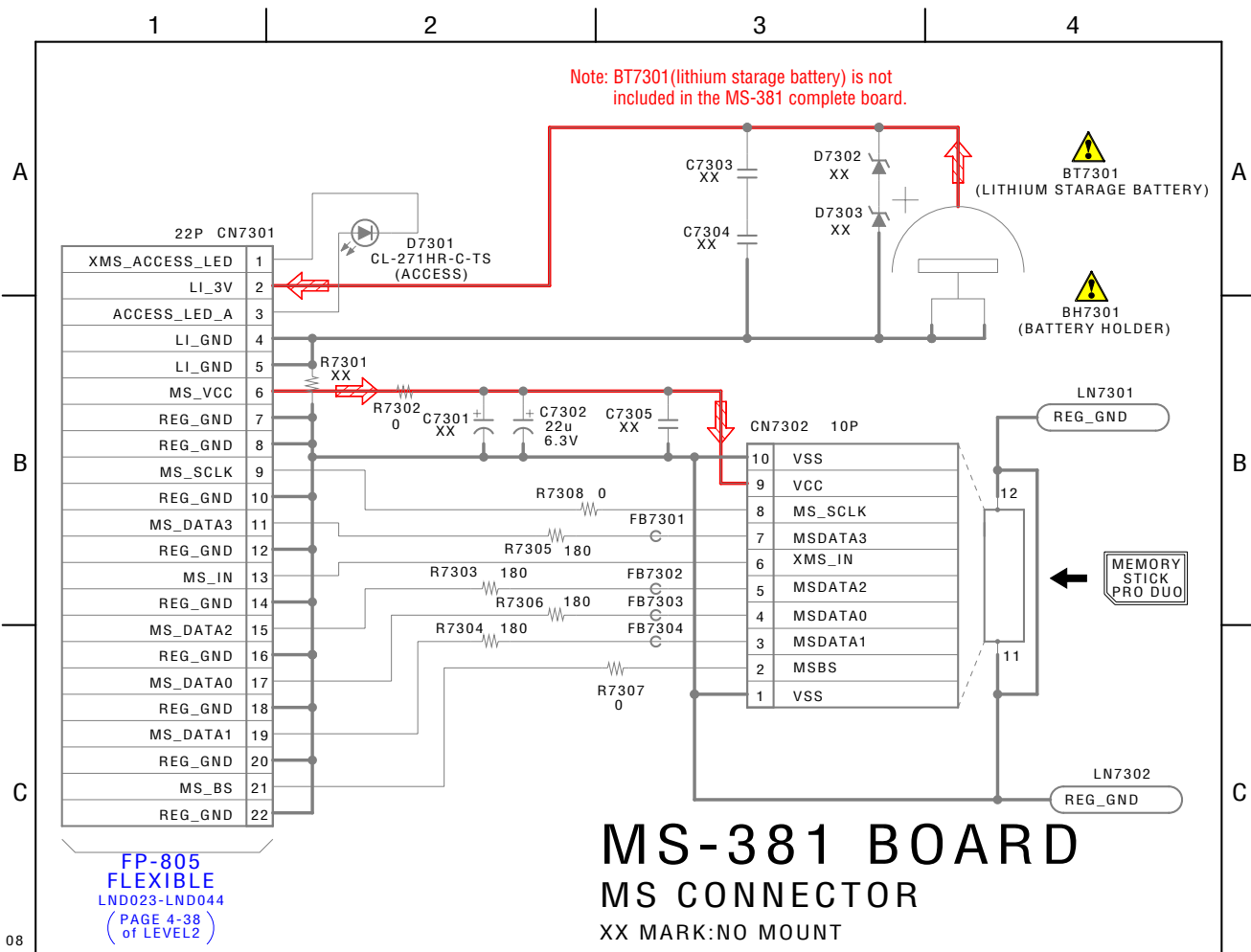
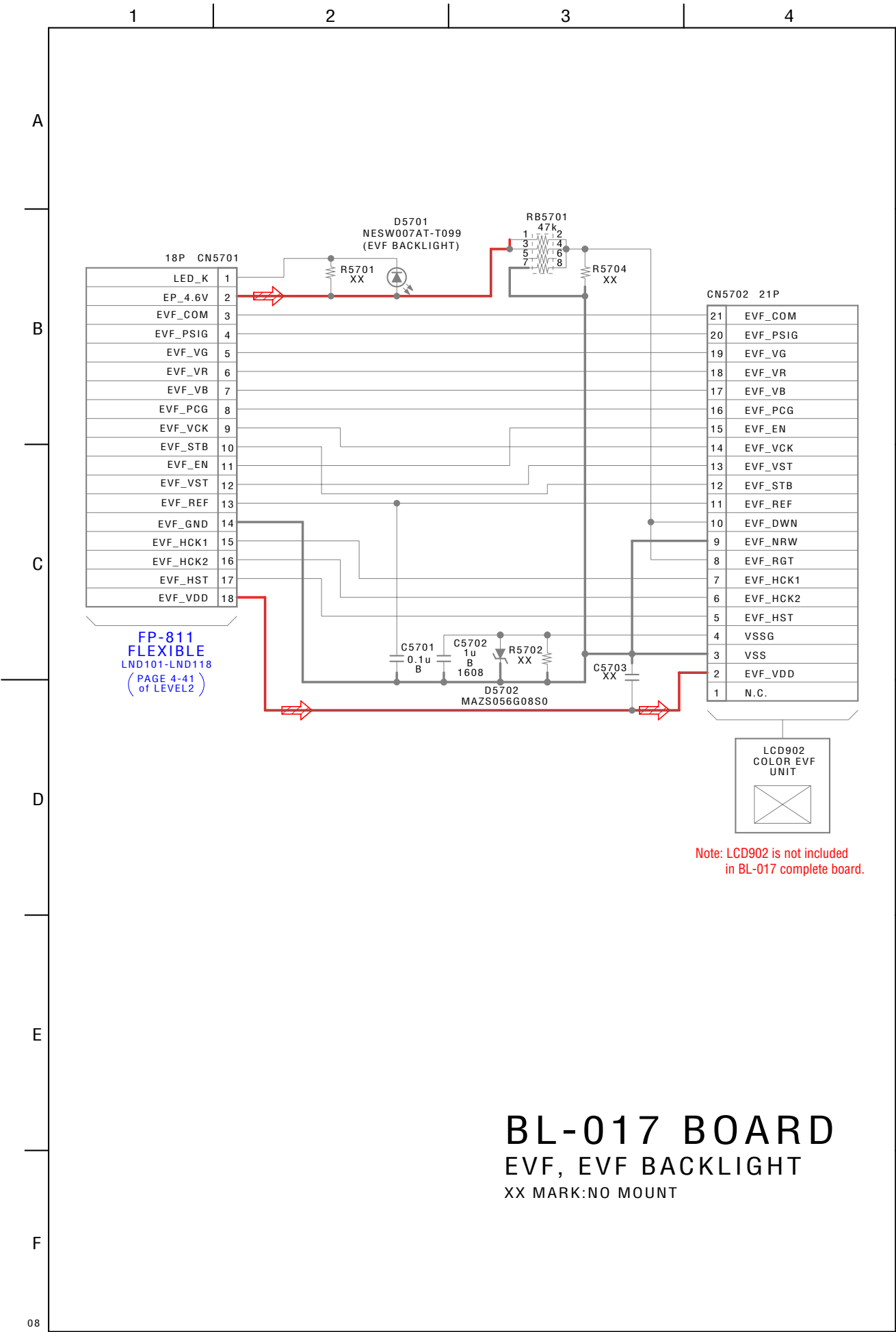
FP-808
FLEXIBLE
LND091-LND141
(PAGE 4-41
of LEVEL2)

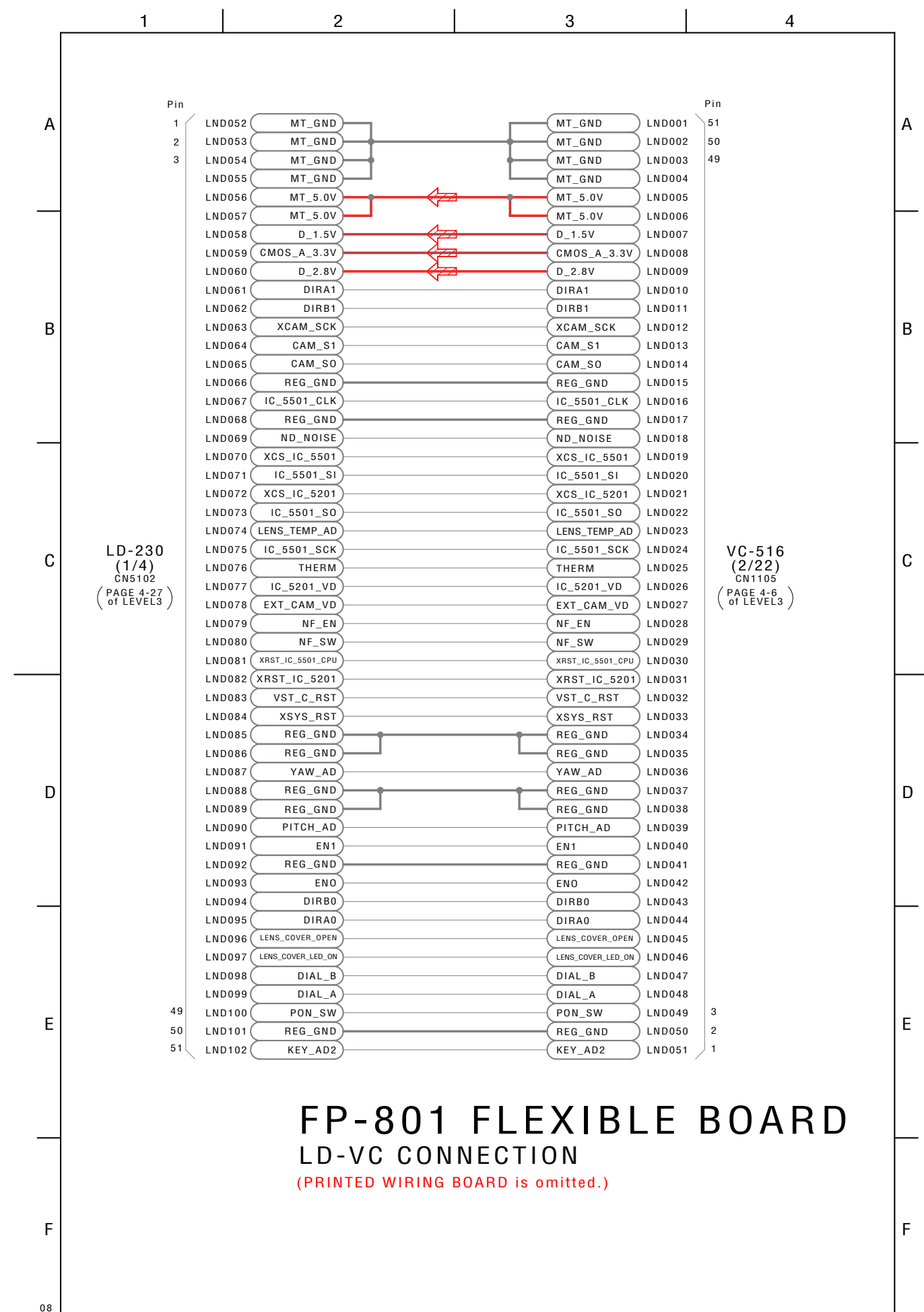
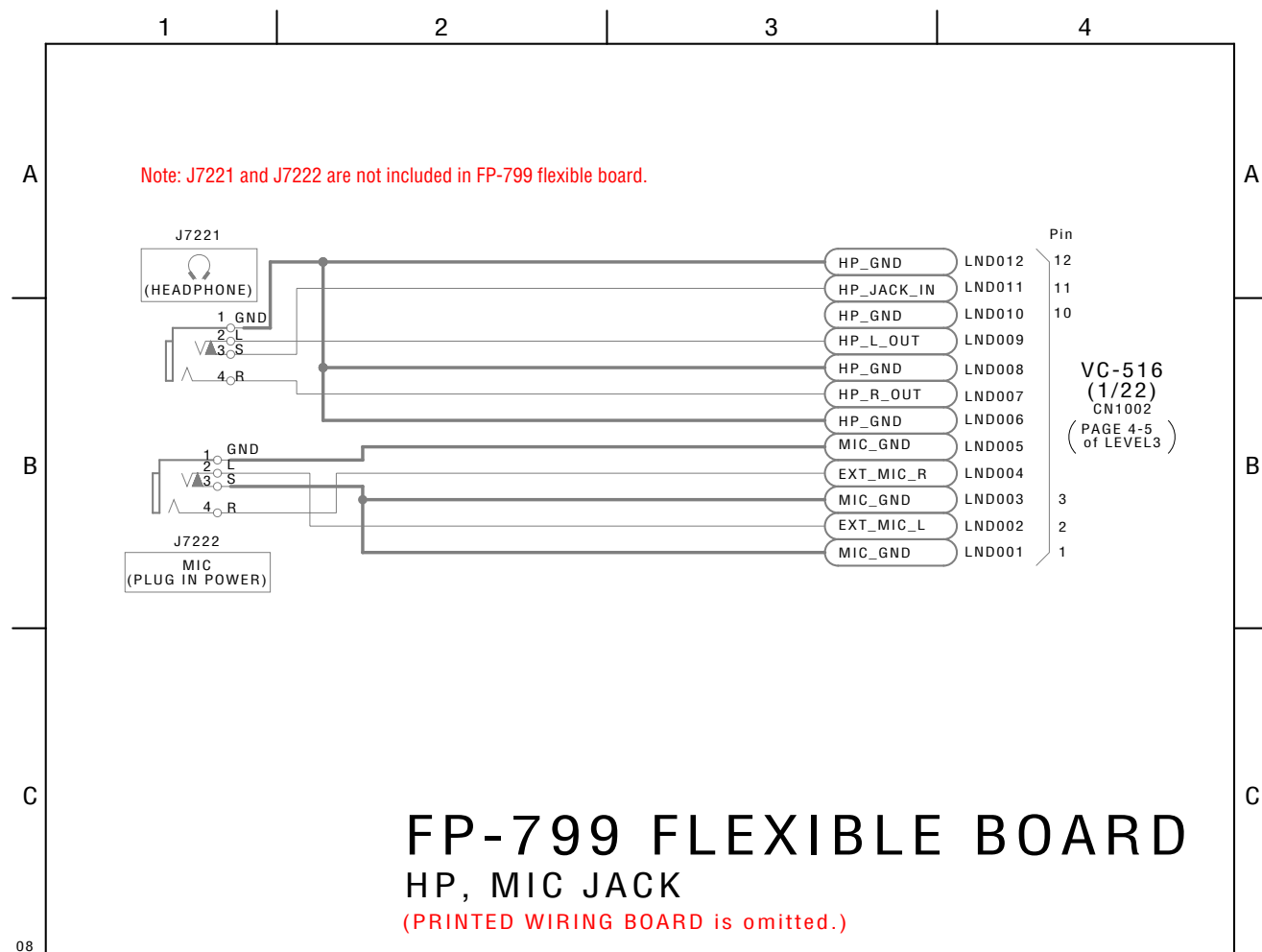
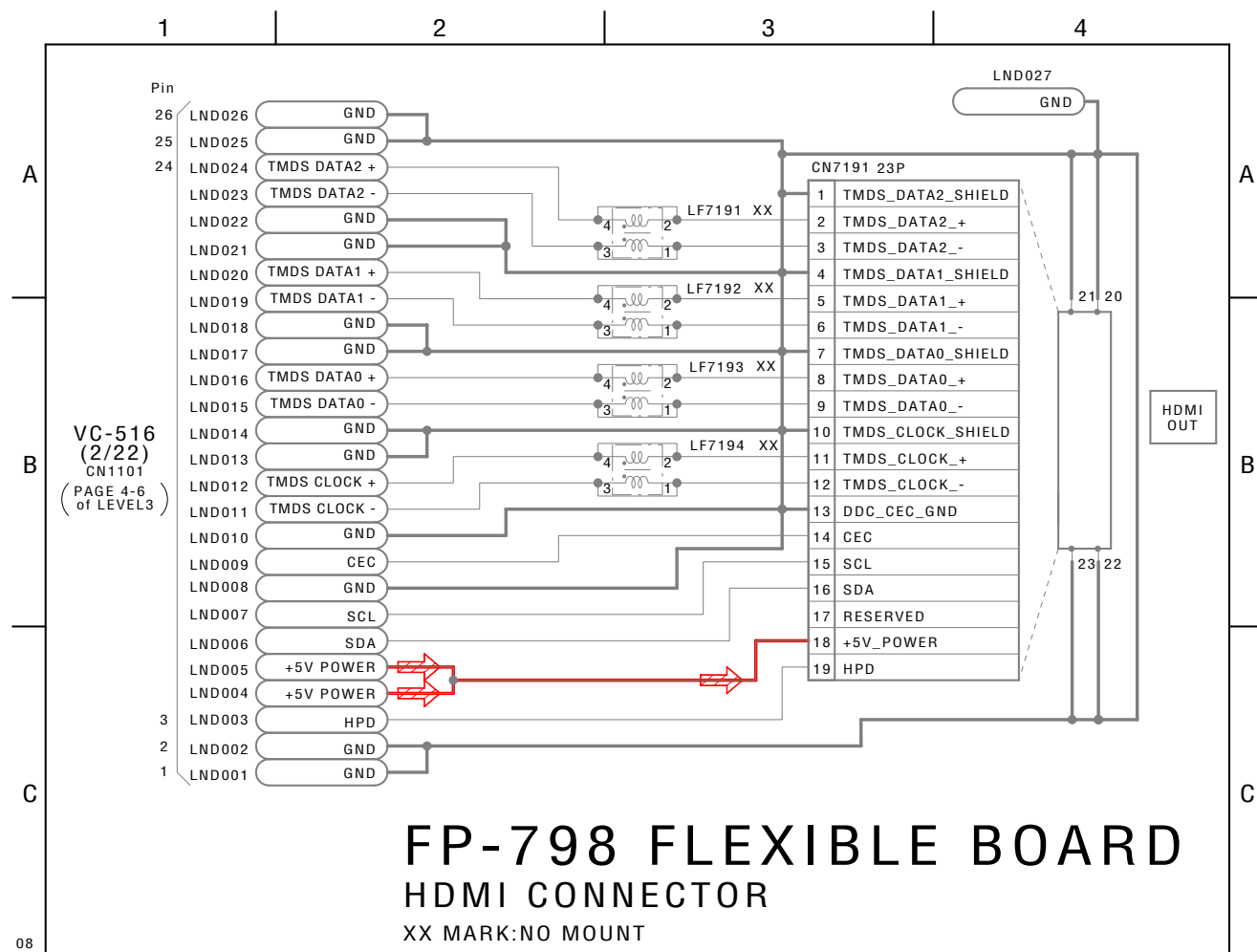
CK-185 BOARD
CONTROL SWITCH
XX MARK:NO MOUNT

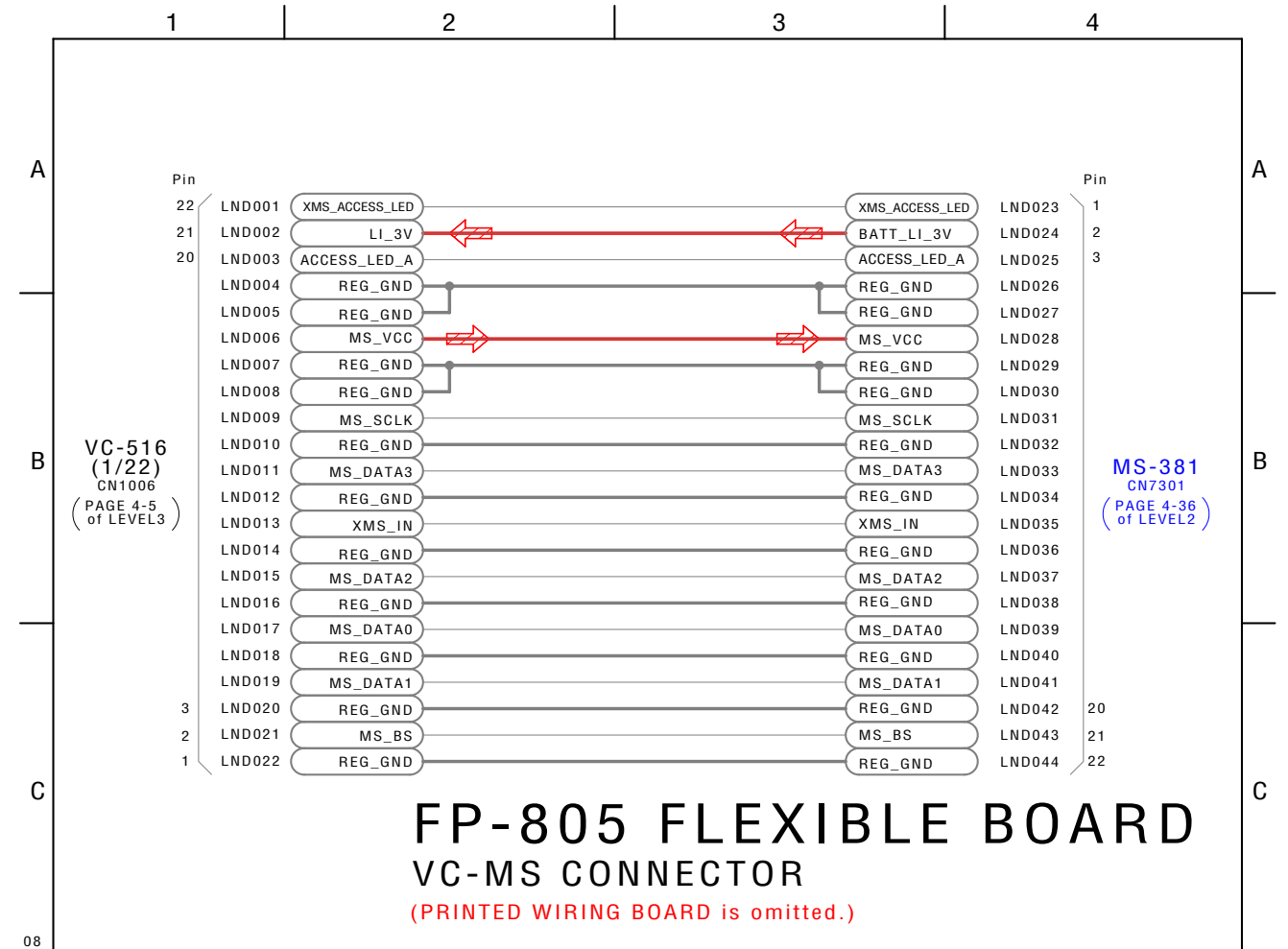
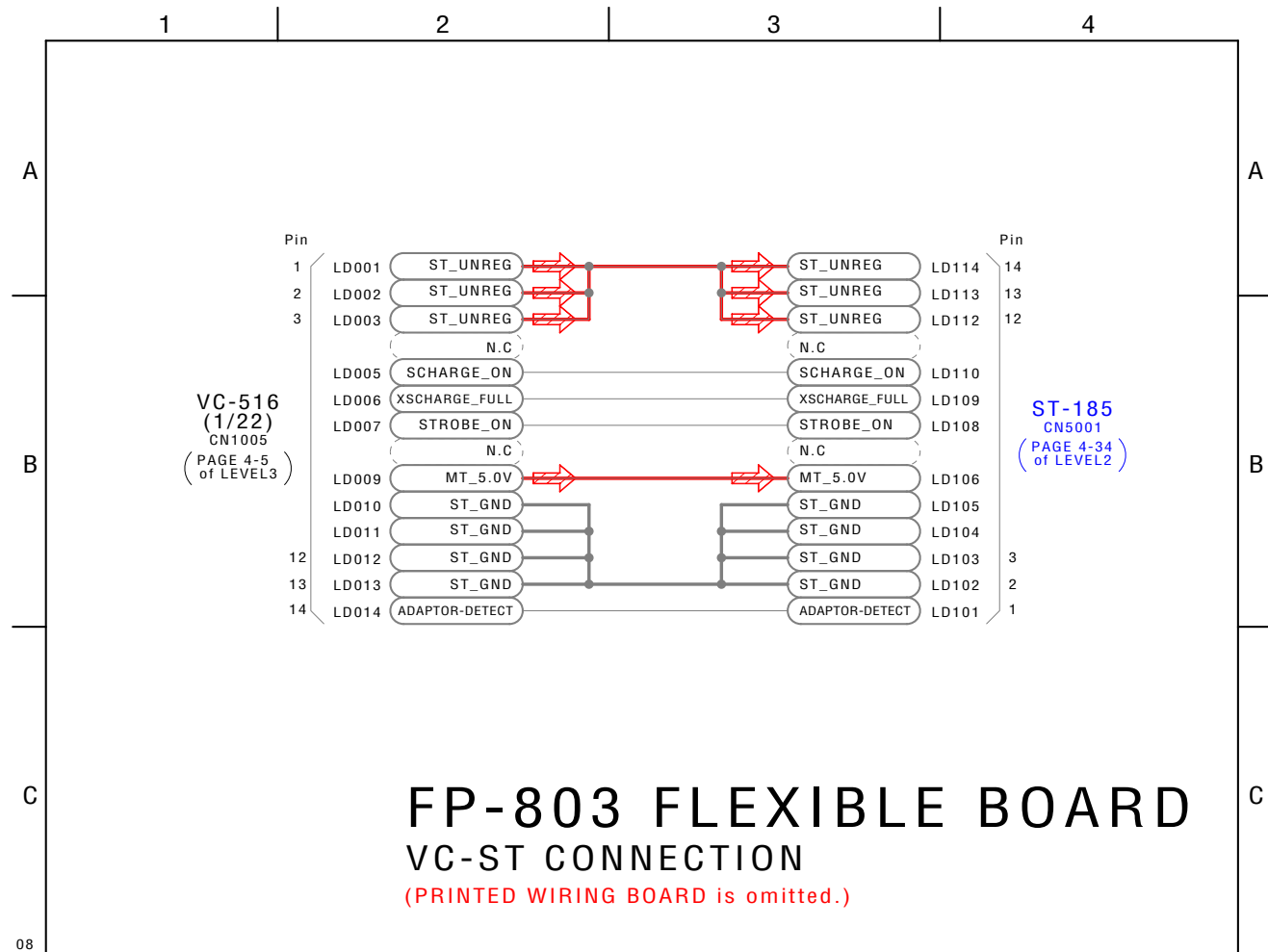
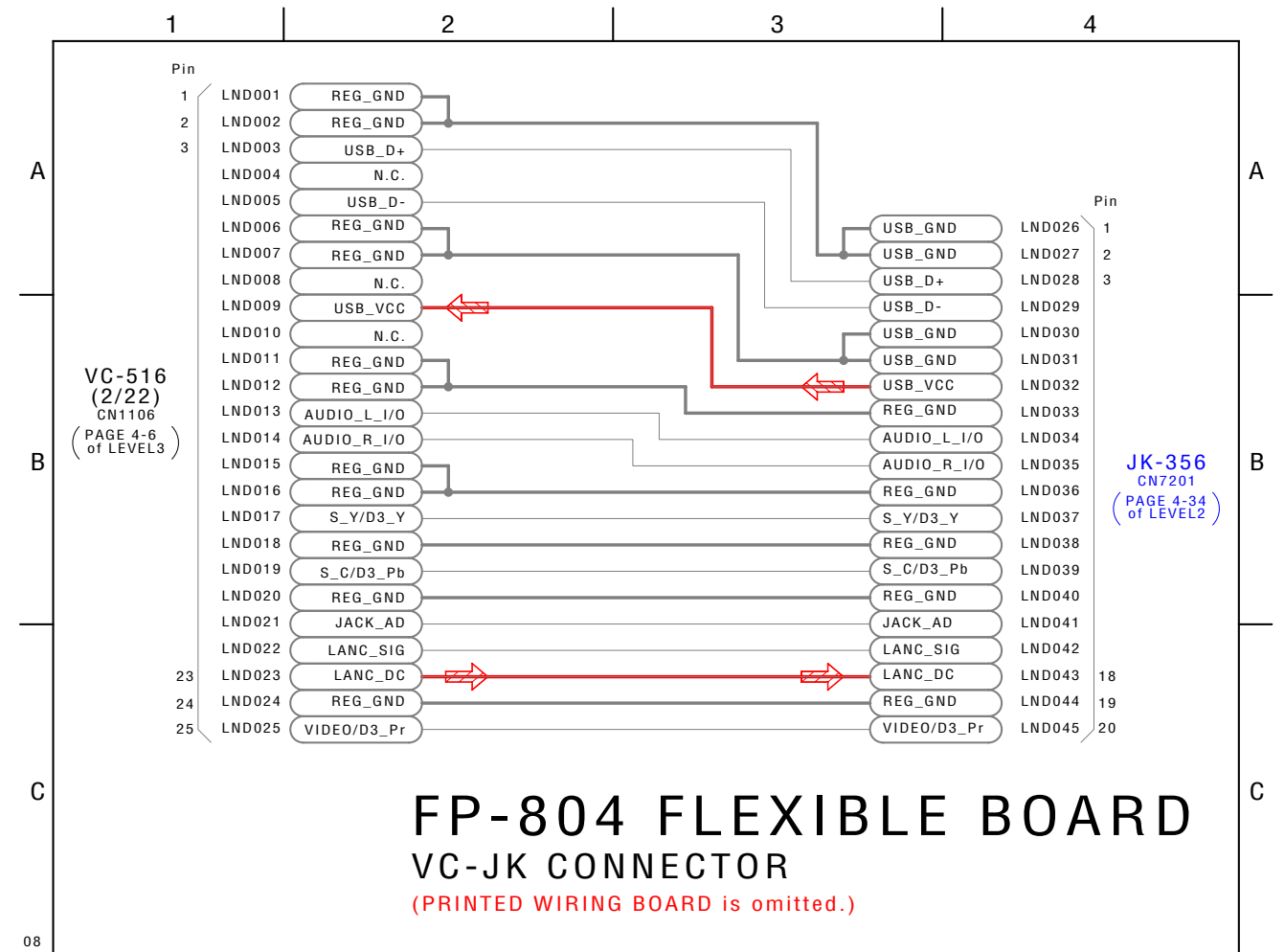
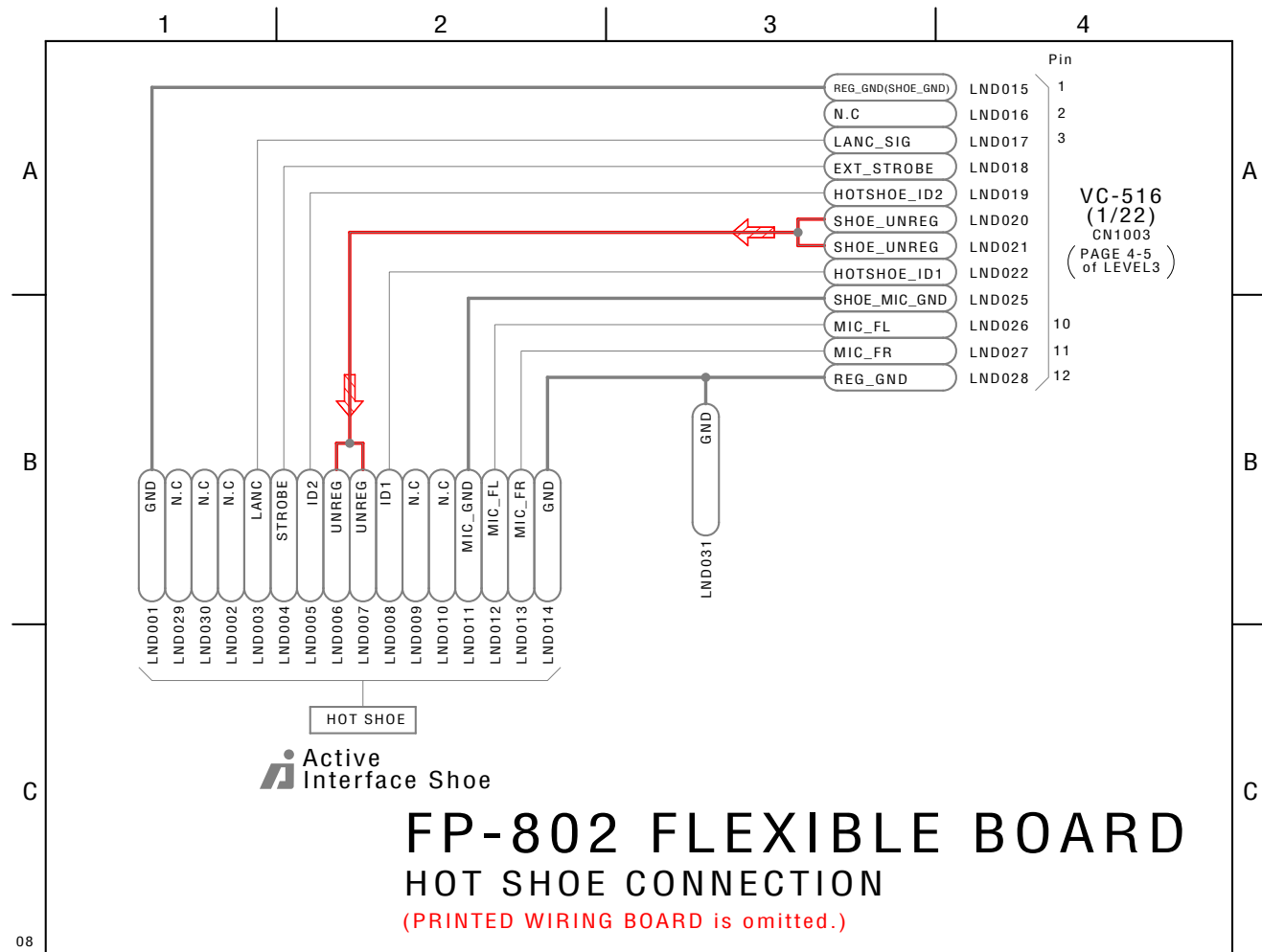
• Refer to page 4-2 (English), 4-3 (Japanese) for mark △.

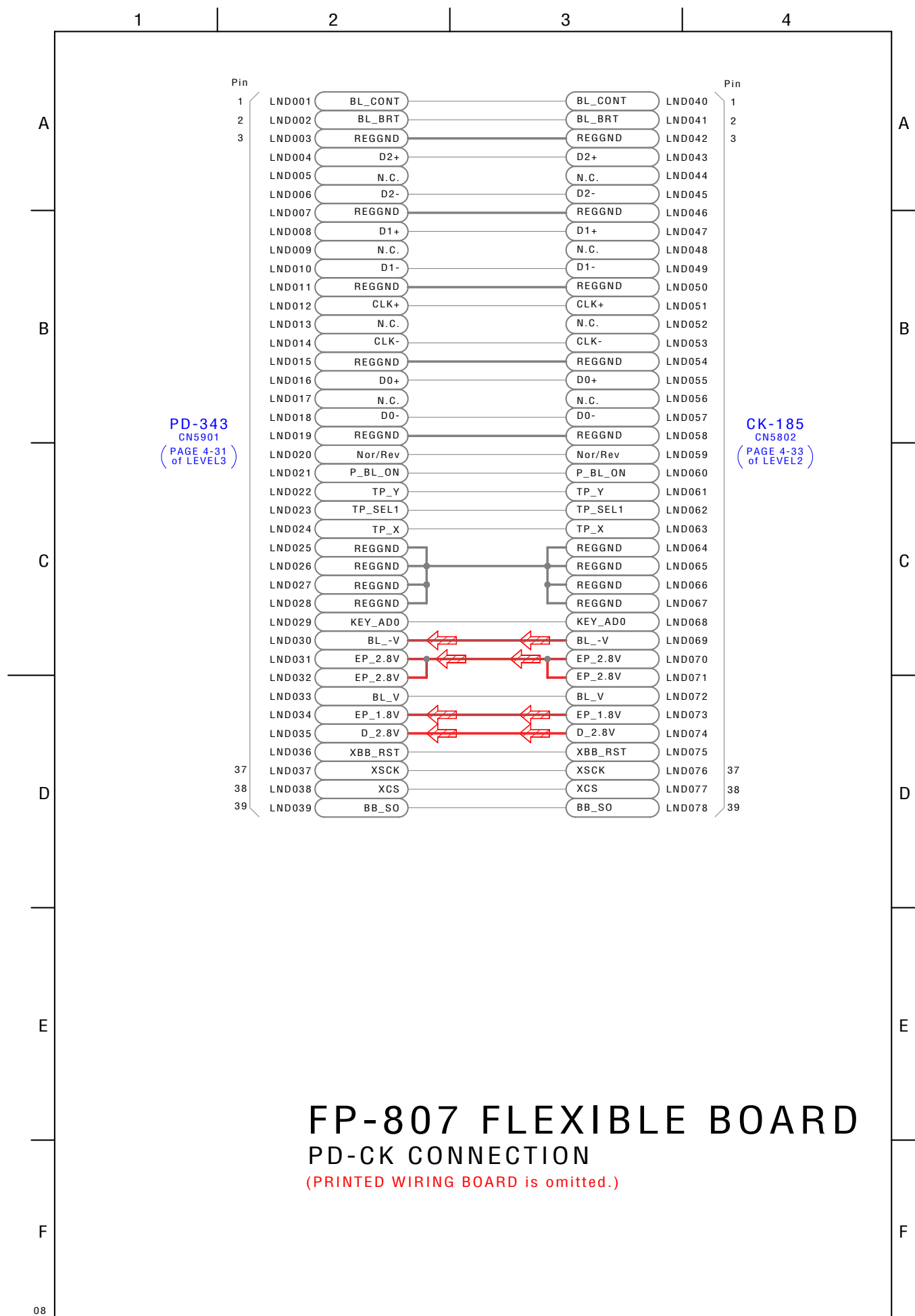
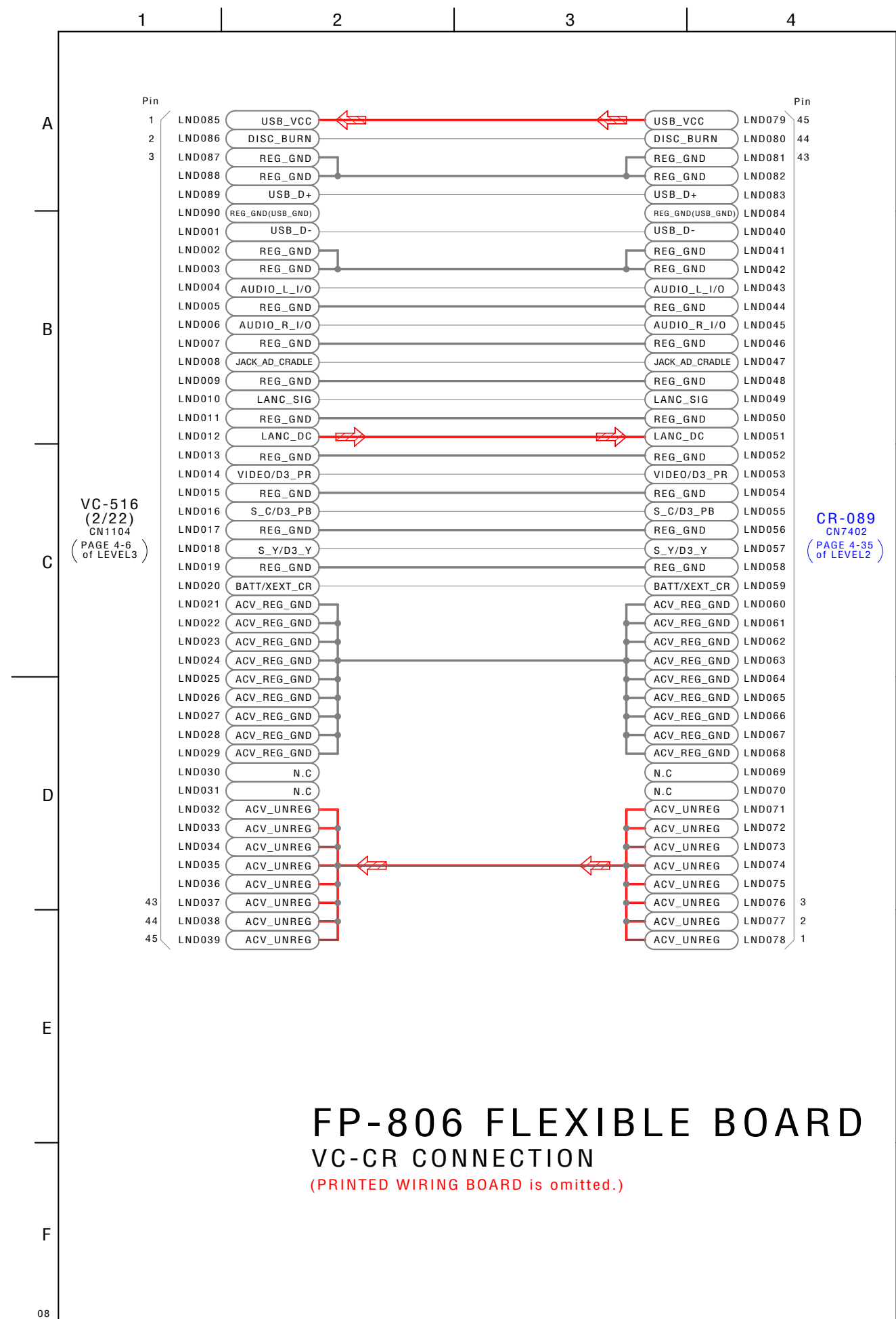


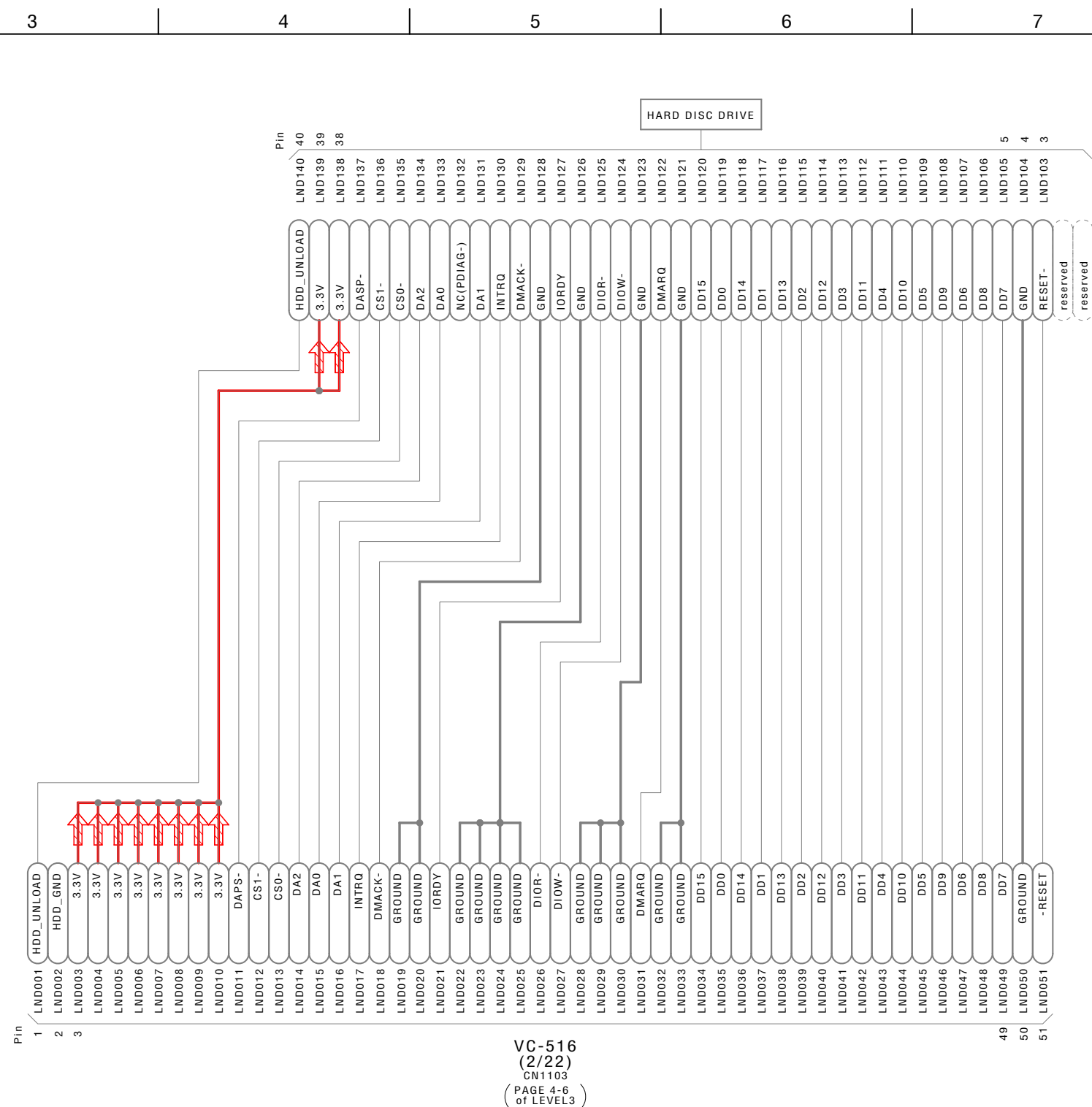




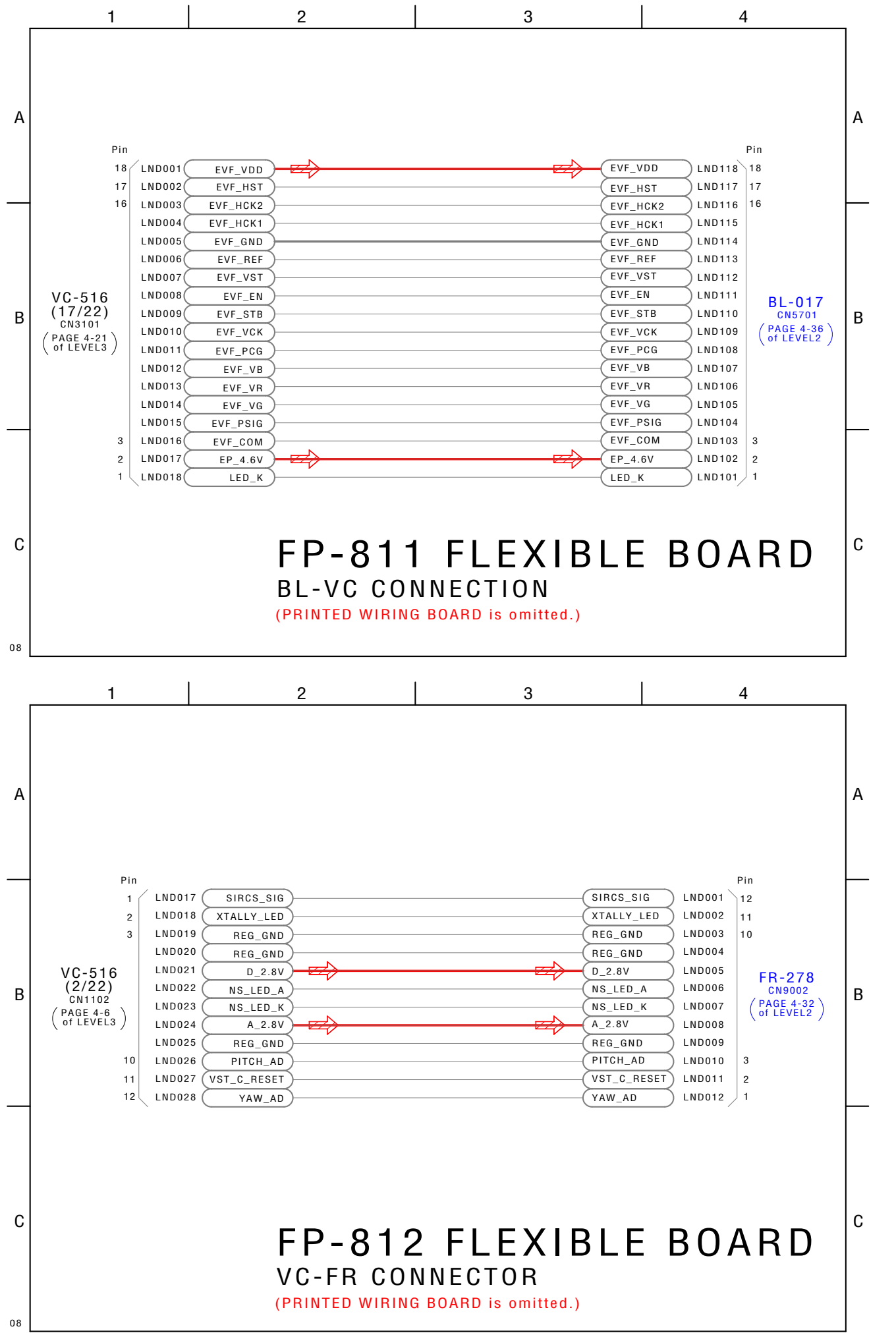
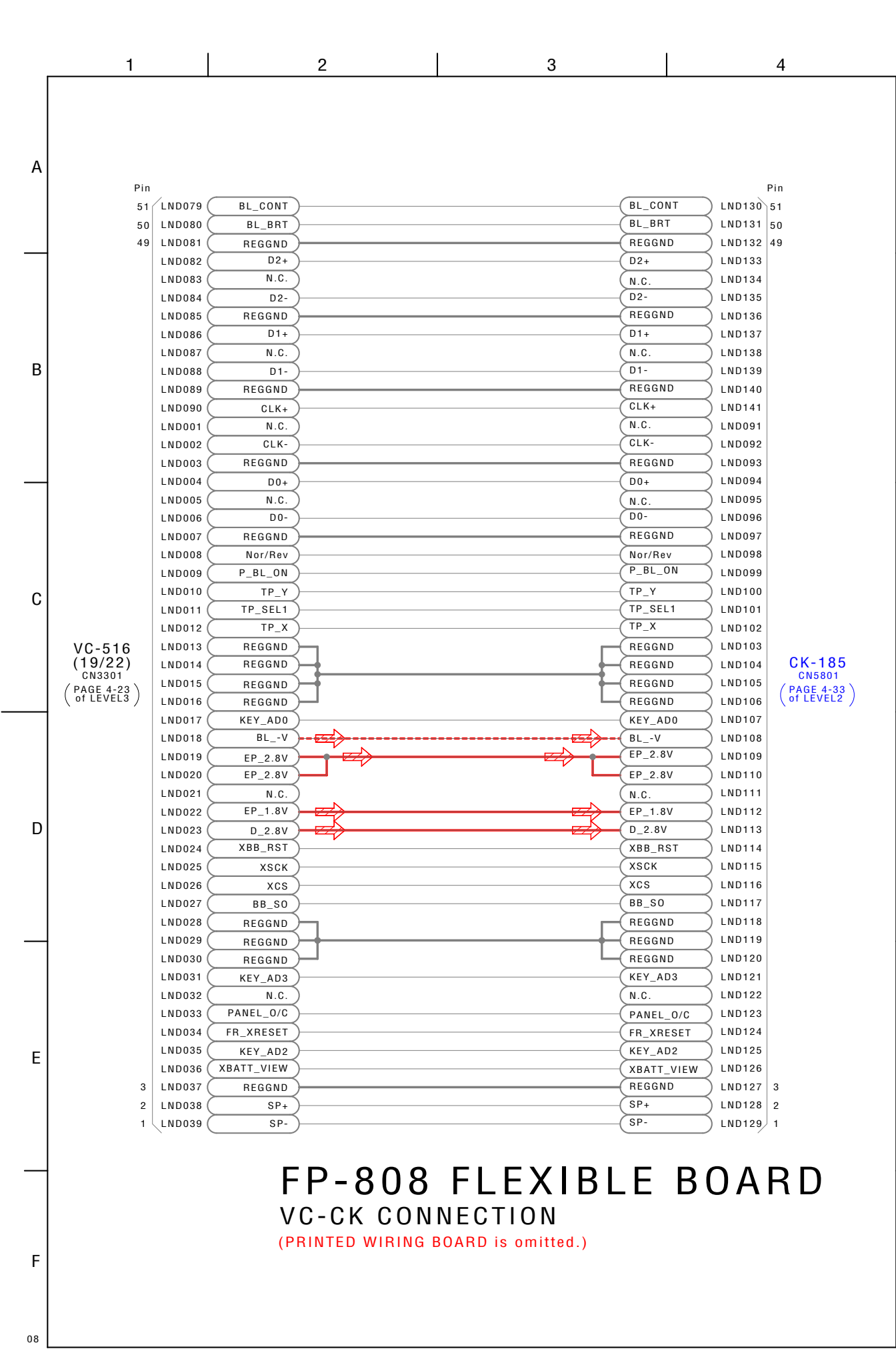


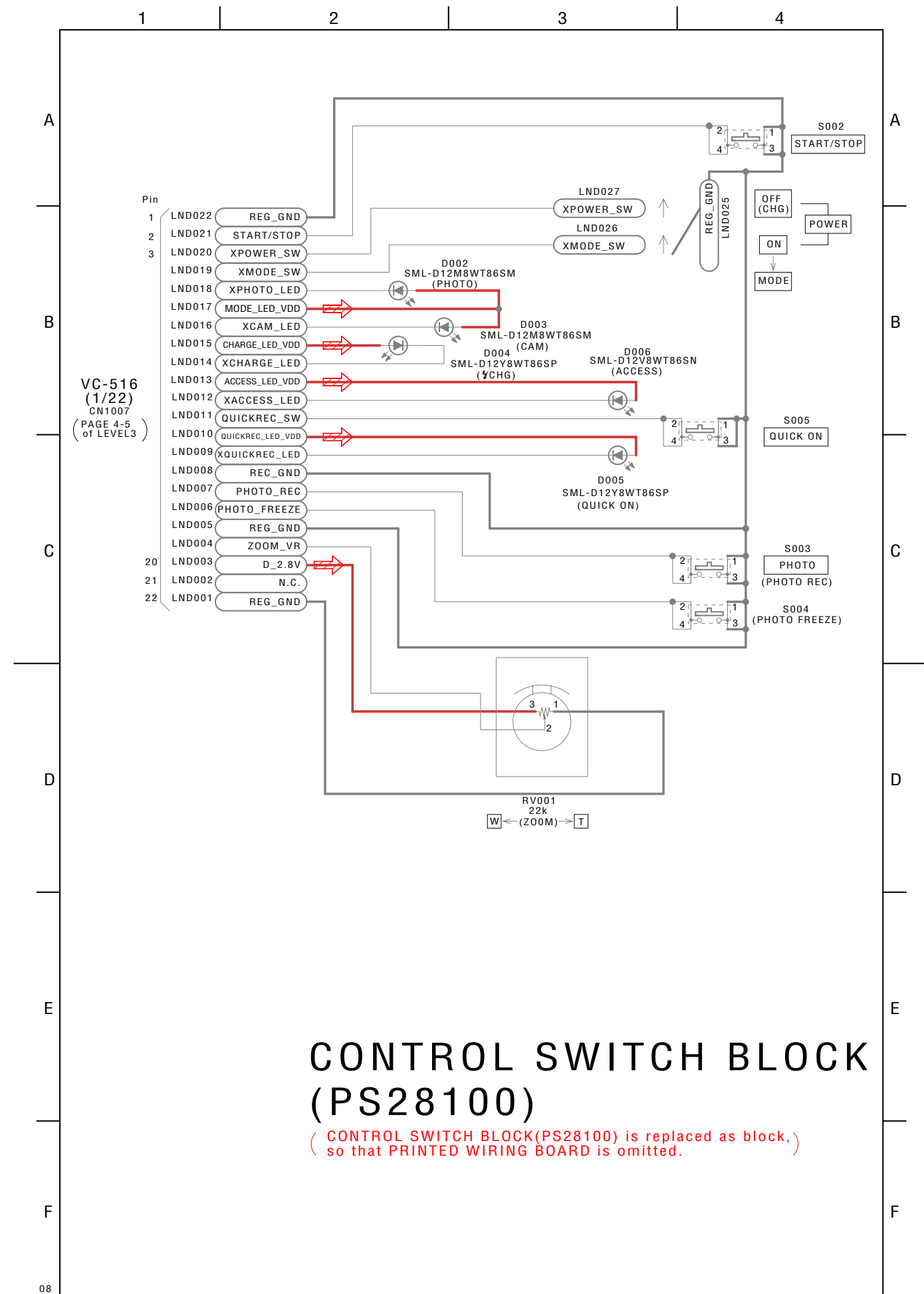
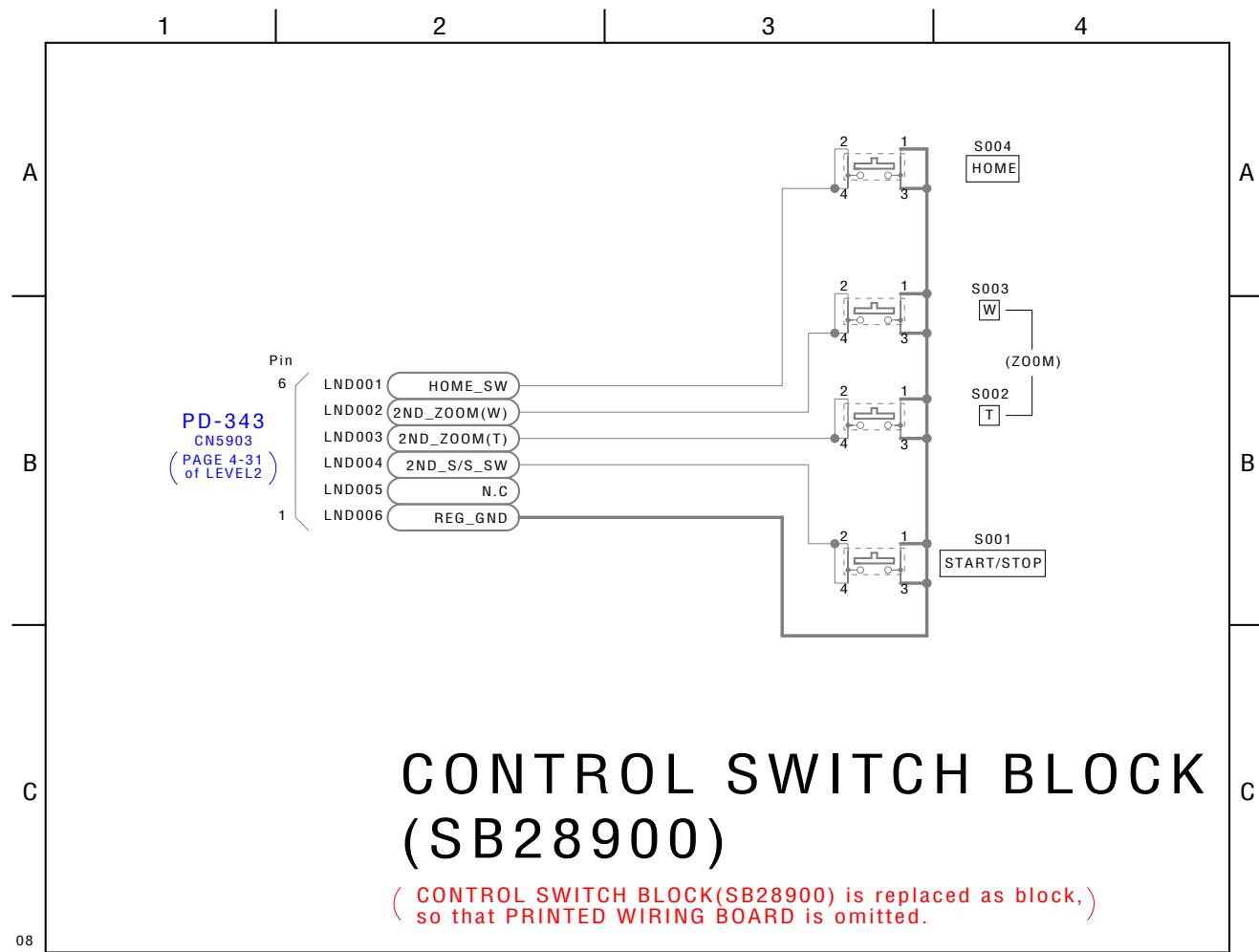
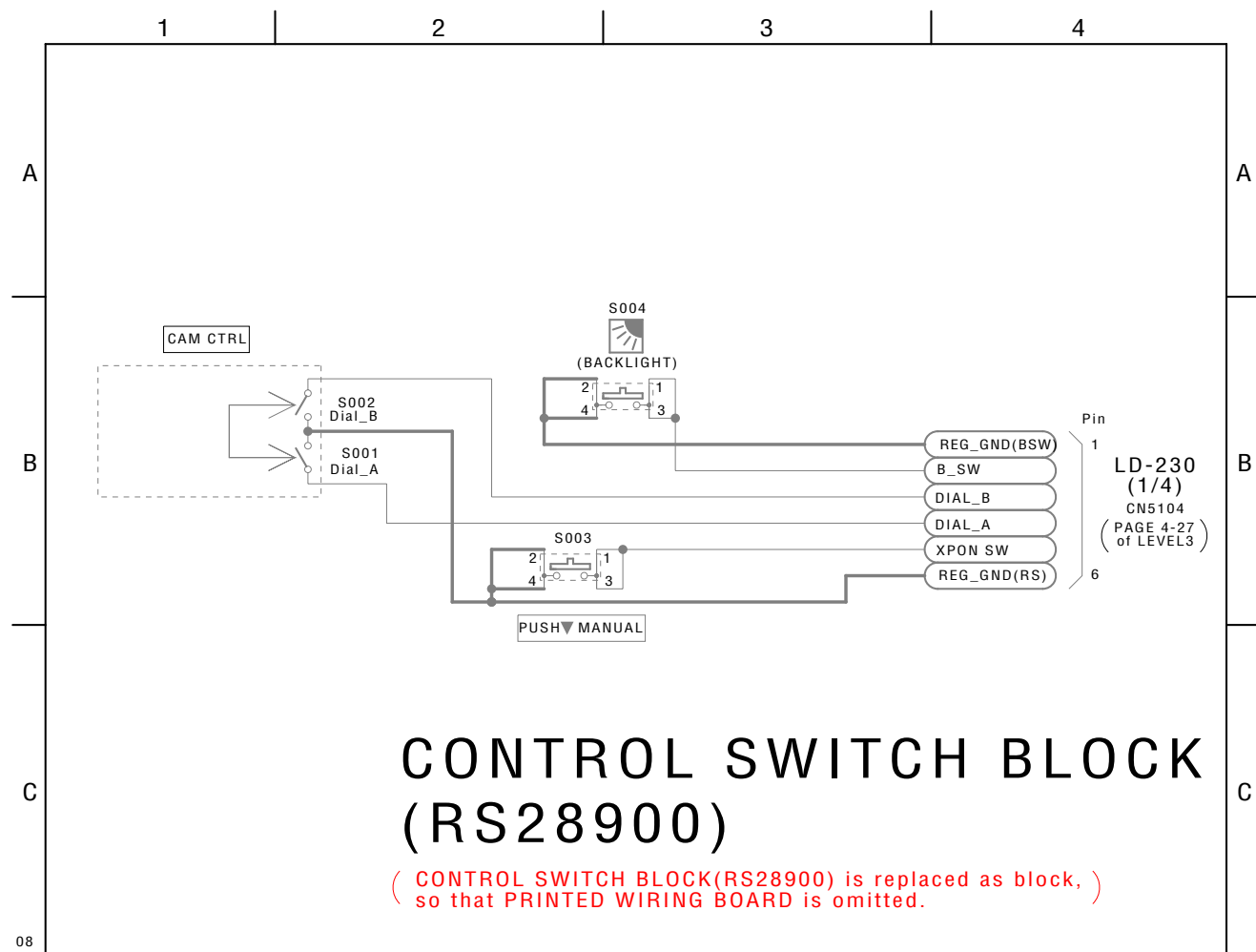




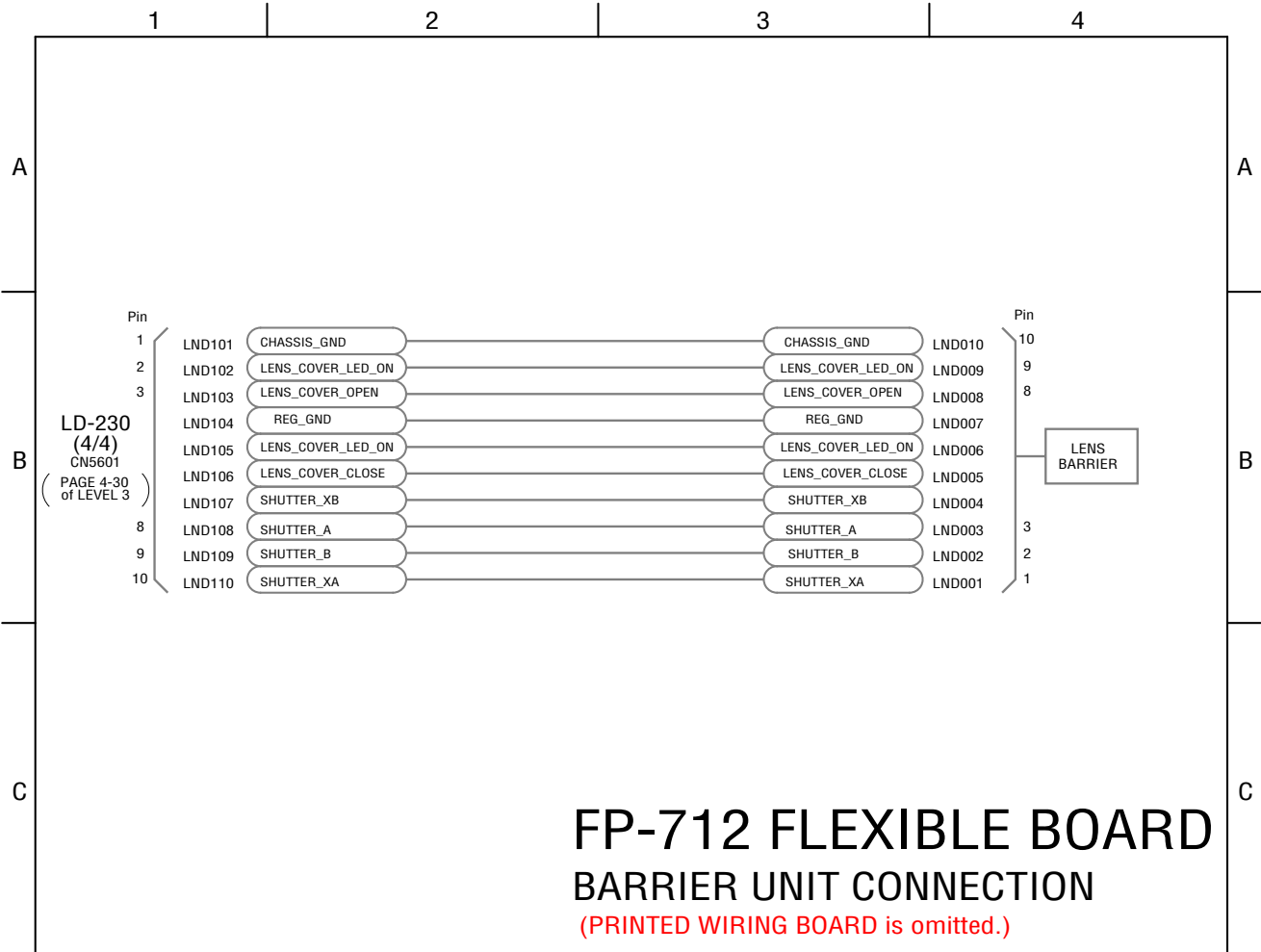
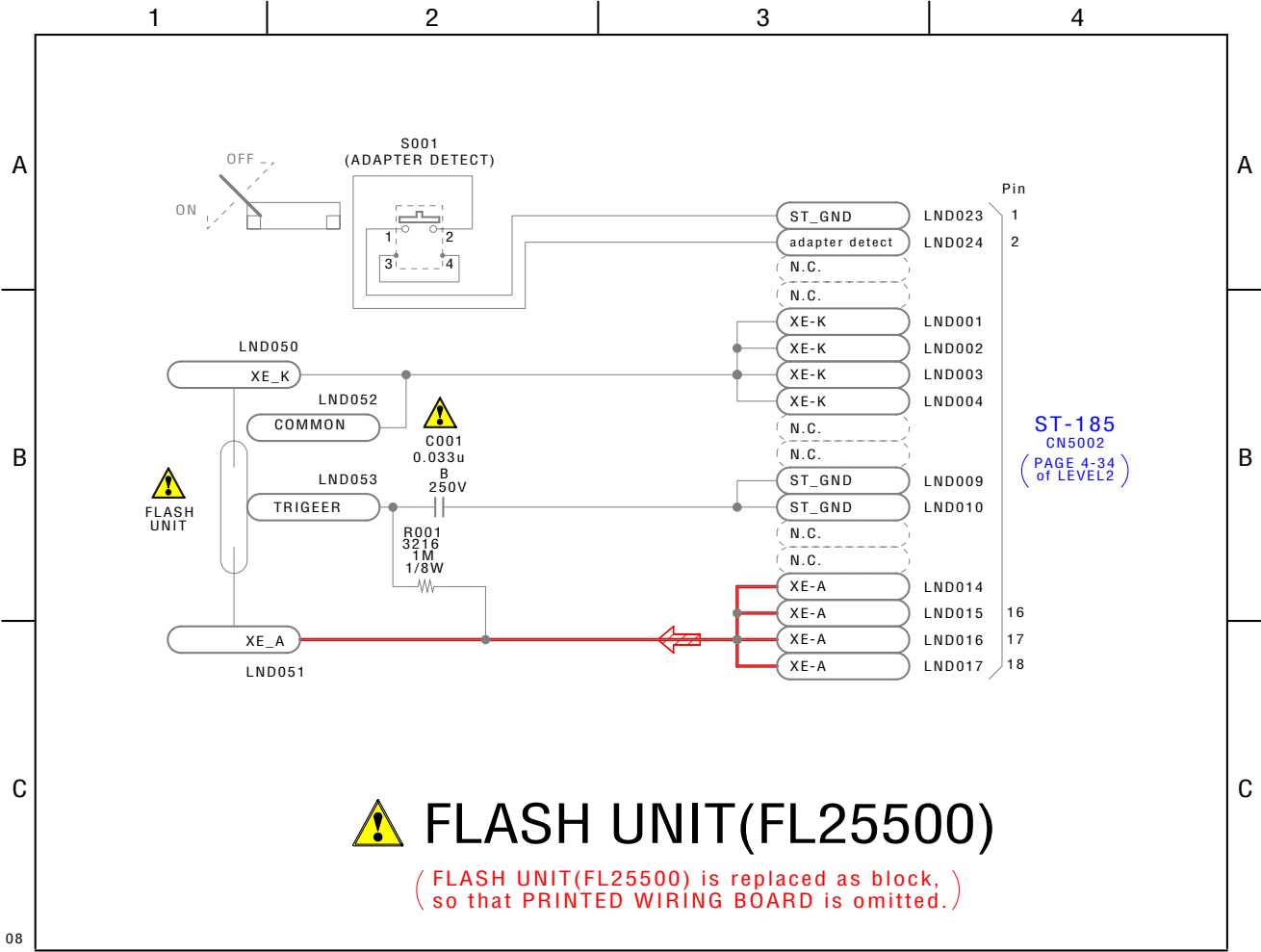


FP-809 FLEXIBLE BOARD
HDD CONNECTION
(PRINTED WIRING BOARD is omitted.)





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



4-3. PRINTED WIRING BOARDS

Link

• PD-343 BOARD	• CR-089 BOARD
• FR-278 BOARD	• MS-381 BOARD
• CK-185 BOARD	• BL-017 BOARD
• ST-185 BOARD	• FP-454 FLEXIBLE BOARD
• JK-356 BOARD	• FP-798 FLEXIBLE BOARD

• COMMON NOTE FOR PRINTED WIRING BOARDS

4-3. PRINTED WIRING BOARDS

4-3. PRINTED WIRING BOARDS

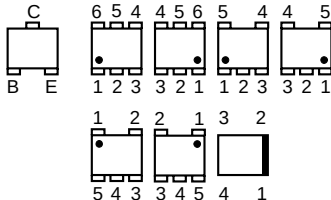
(ENGLISH)

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS

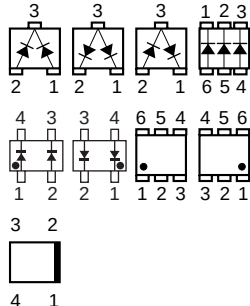
-  : Uses unleaded solder.
 -  : Circuit board
 -  : Flexible board
- Pattern from the side which enables seeing.
-  : pattern of the rear side
(The other layers' patterns are not indicated)
- Through hole is omitted.
 - There are a few cases that the part printed on diagram isn't mounted in this model.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

- Chip parts.

Transistor



Diode



(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

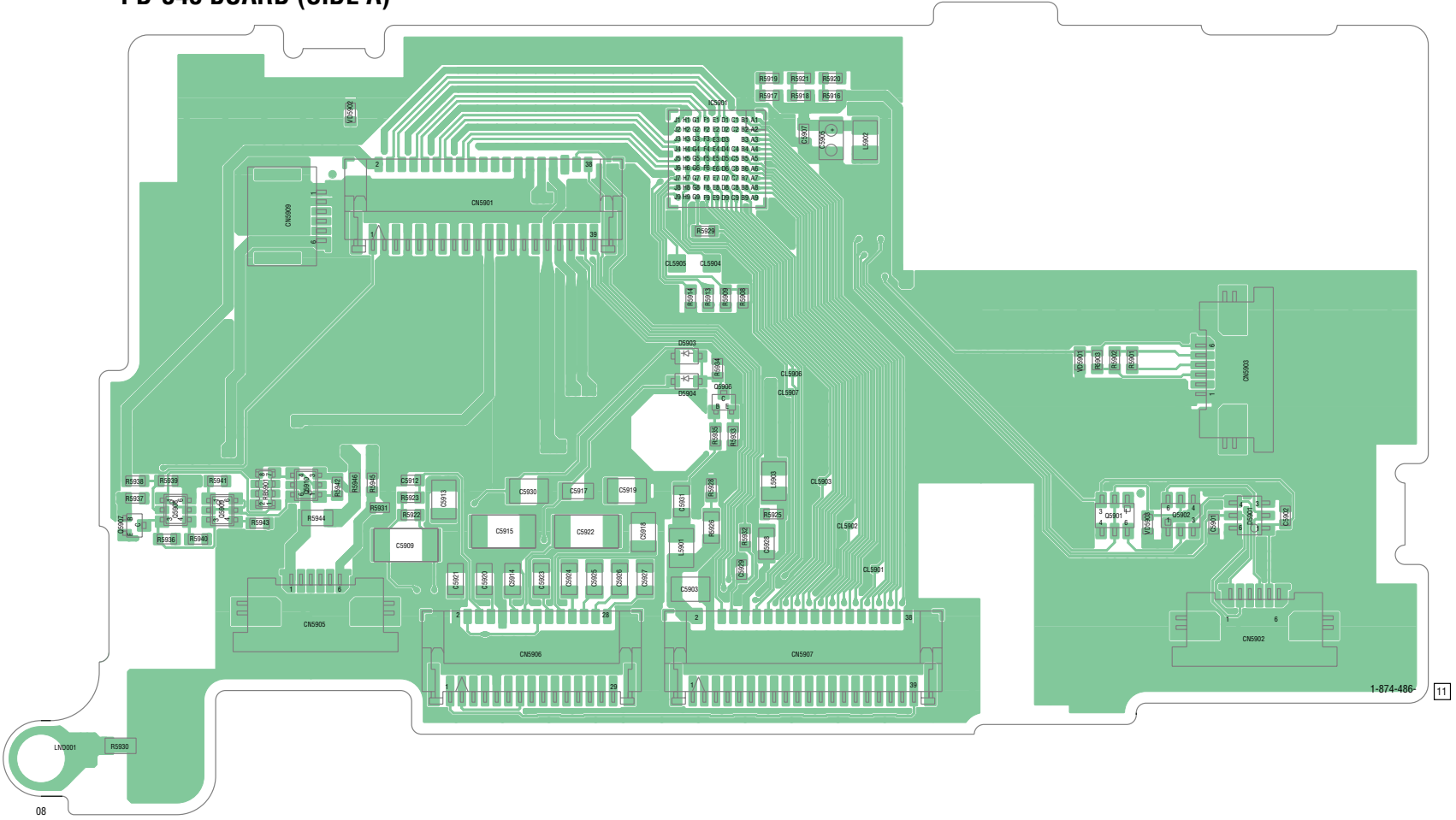
(他のパターンについては表示されていません)

- ・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。

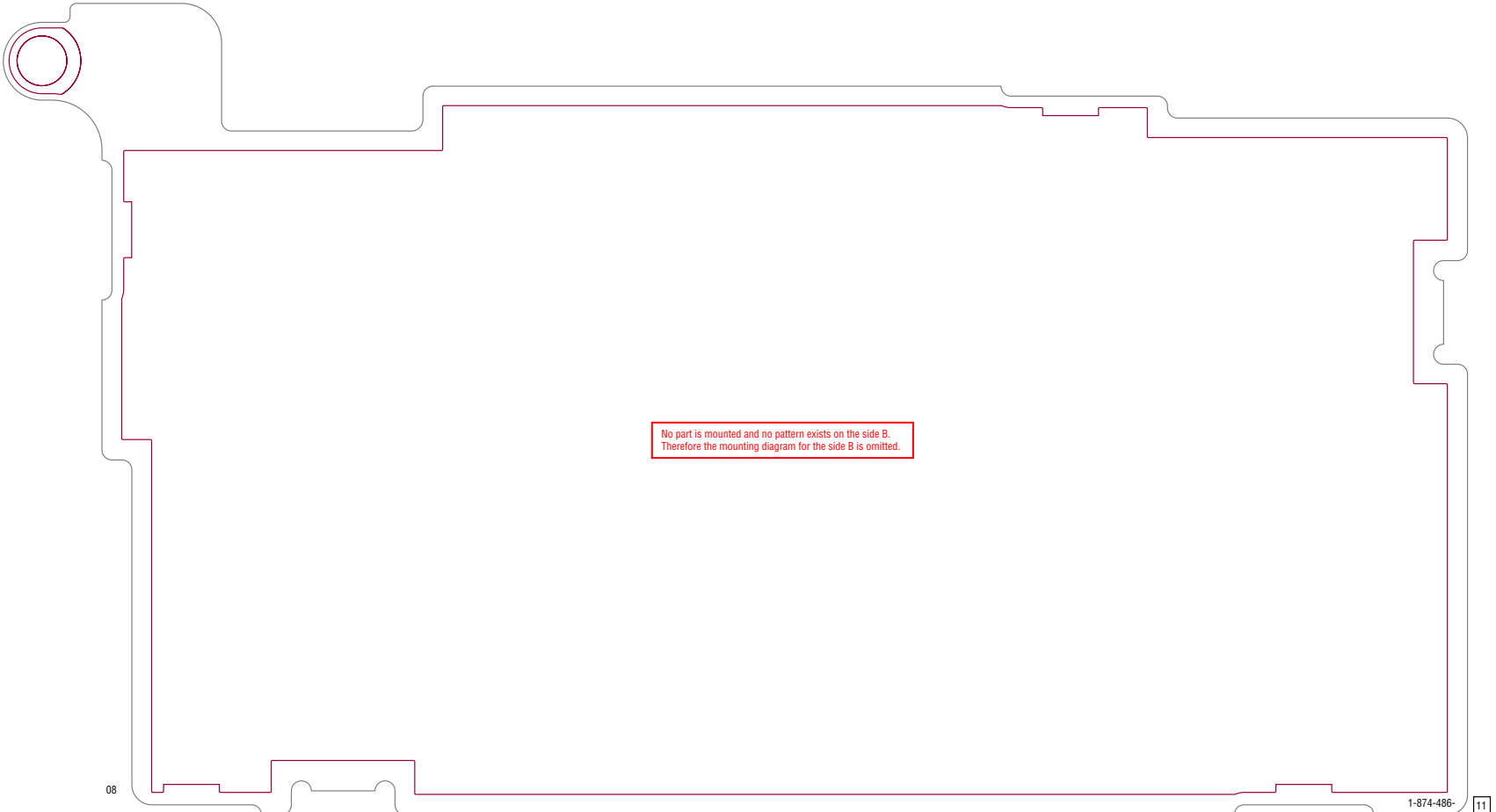
Printed wiring boards of the CM-094, VC-516 and LD-230 boards are not shown.
Pages 4-45 to 4-48 are not shown.

 : Uses unleaded solder.

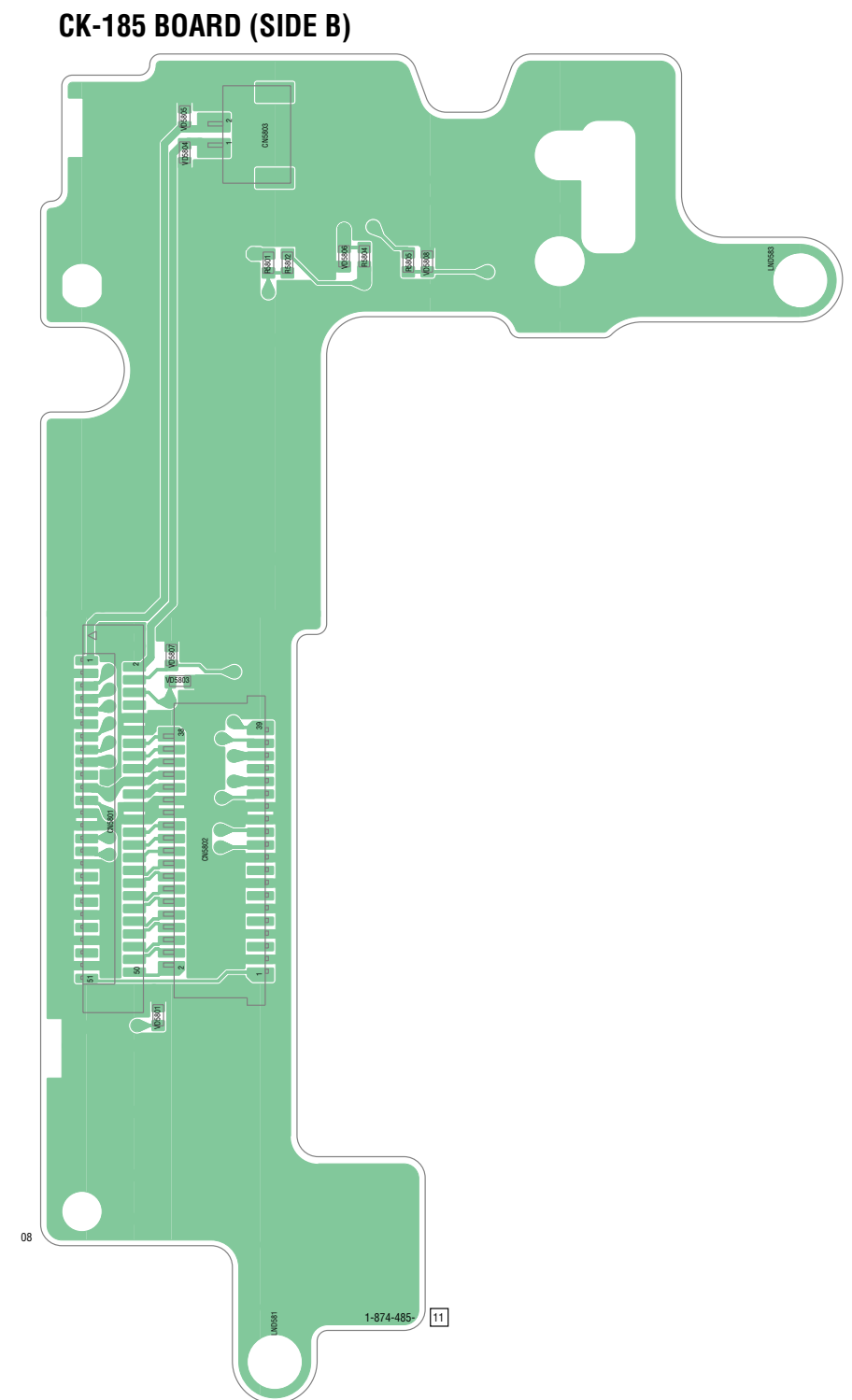
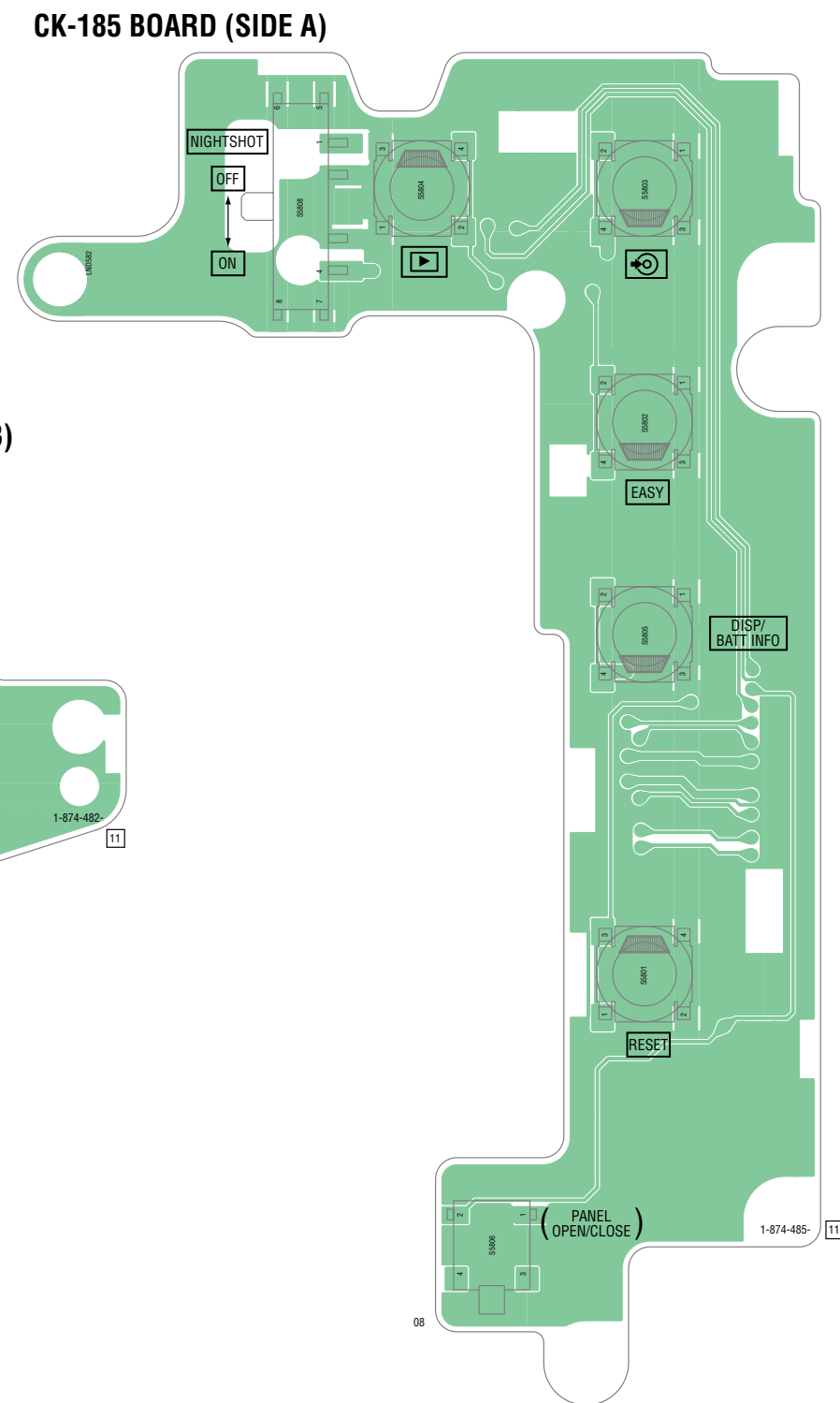
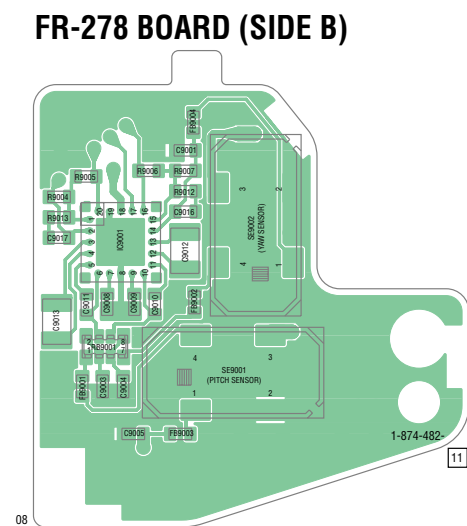
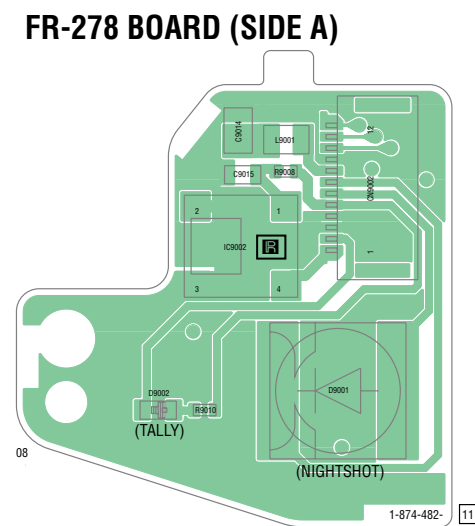
PD-343 BOARD (SIDE A)



PD-343 BOARD (SIDE B)



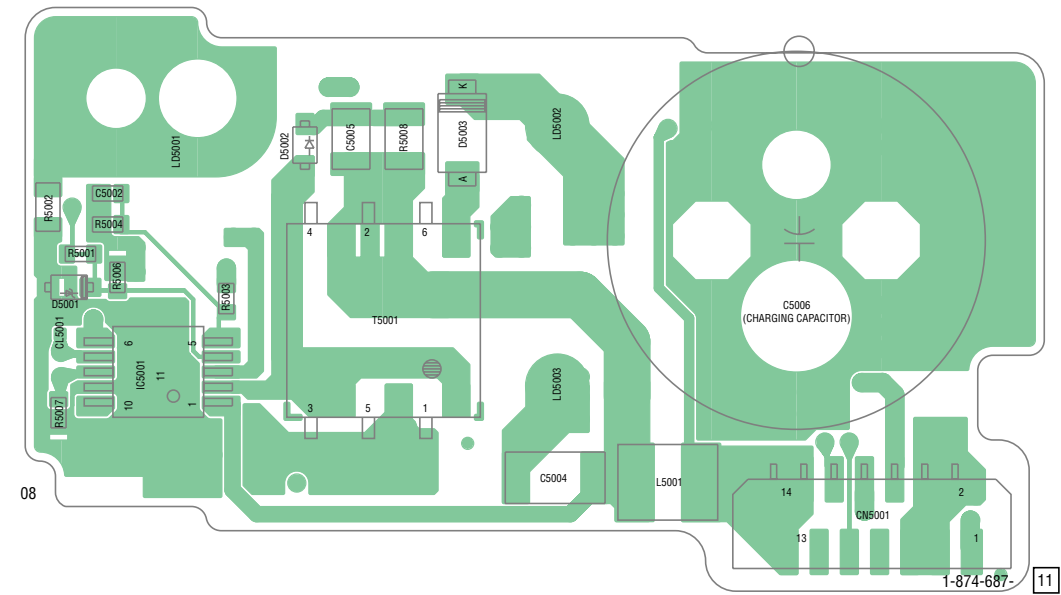
LF : Uses unleaded solder.



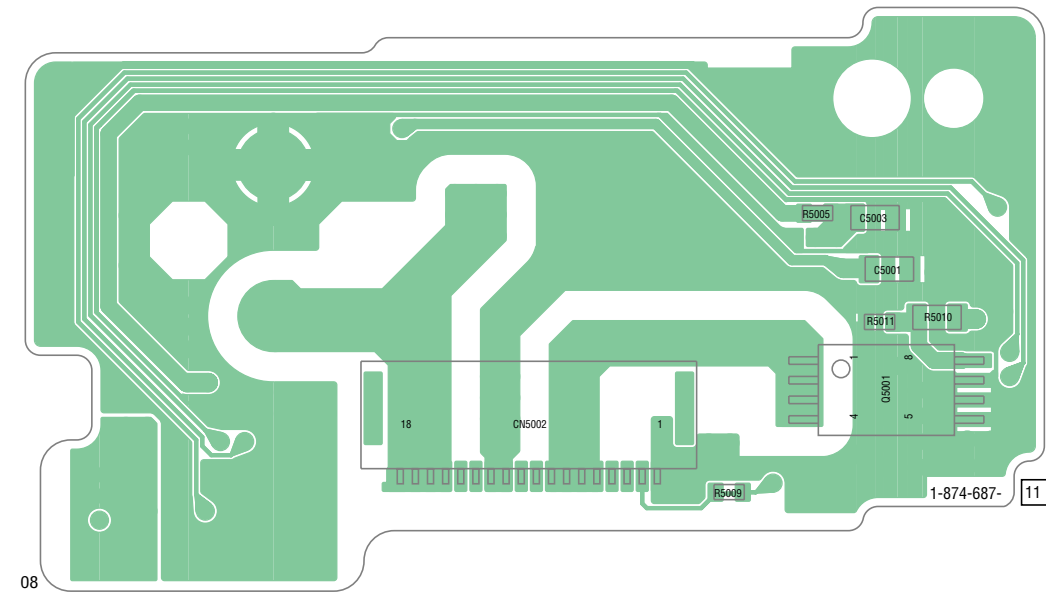
ST-185 (4 layers), JK-356 (2 layers), CR-089 (2 layers)

 : Uses unleaded solder.

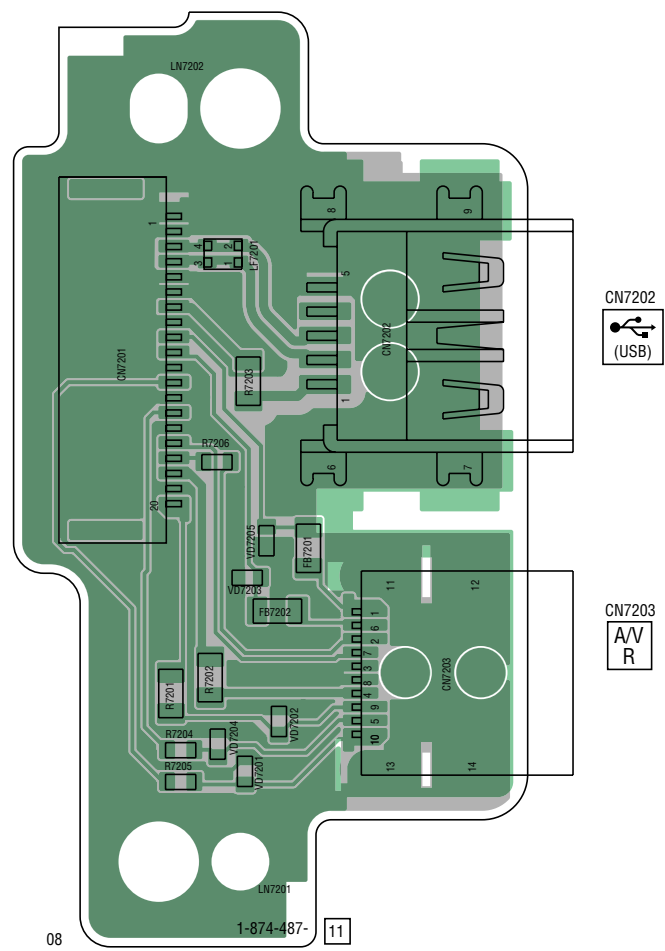
ST-185 BOARD (SIDE A)



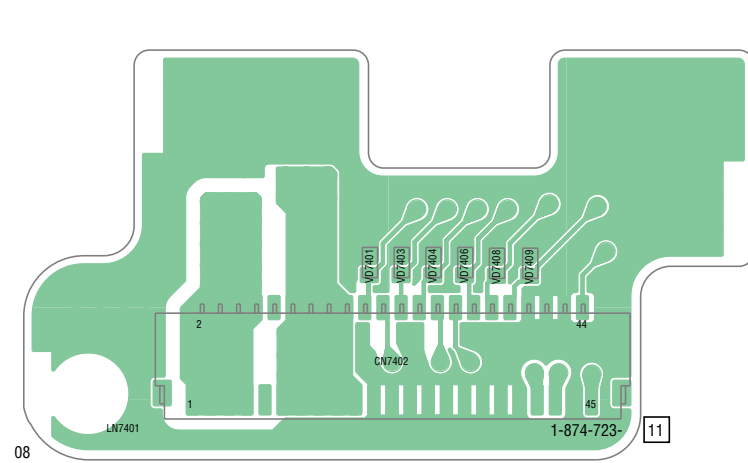
ST-185 BOARD (SIDE B)



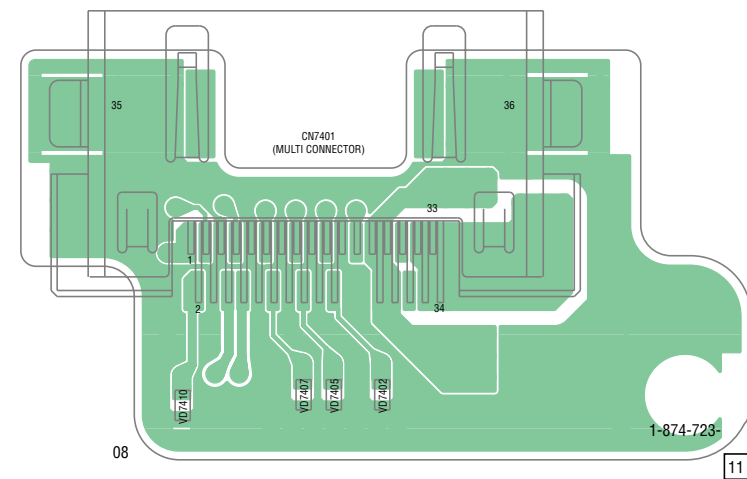
JK-356 BOARD



CR-089 BOARD (SIDE A)



CR-089 BOARD (SIDE B)



4 : Uses unleaded solder.



Note: BT7301 (lithium storage battery) is not included in the MS-381 complete board.

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-381 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.

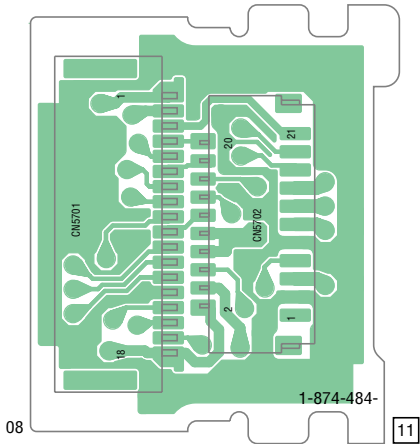
Note: MS-381基板のリチウム蓄電池 (BT7301) を交換する場合はバッテリーホルダ (BH7301) も同時に新品に交換して下さい。(一度使用したバッテリーホルダは再使用できません。) 部品取り付けの際は、先にバッテリーホルダを取り付けてからリチウム電池を装着して下さい。

BT7301
(LITHIUM STORAGE)
BATTERY

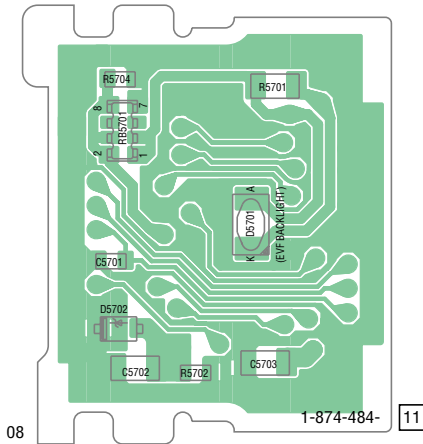
BL-017 (2 layers), FP-454 (1 layer), FP-798 (2 layers)

 : Uses unleaded solder.

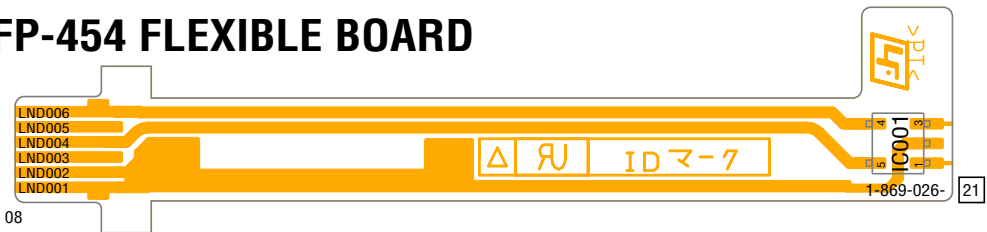
**BL-017 BOARD
(SIDE A)**



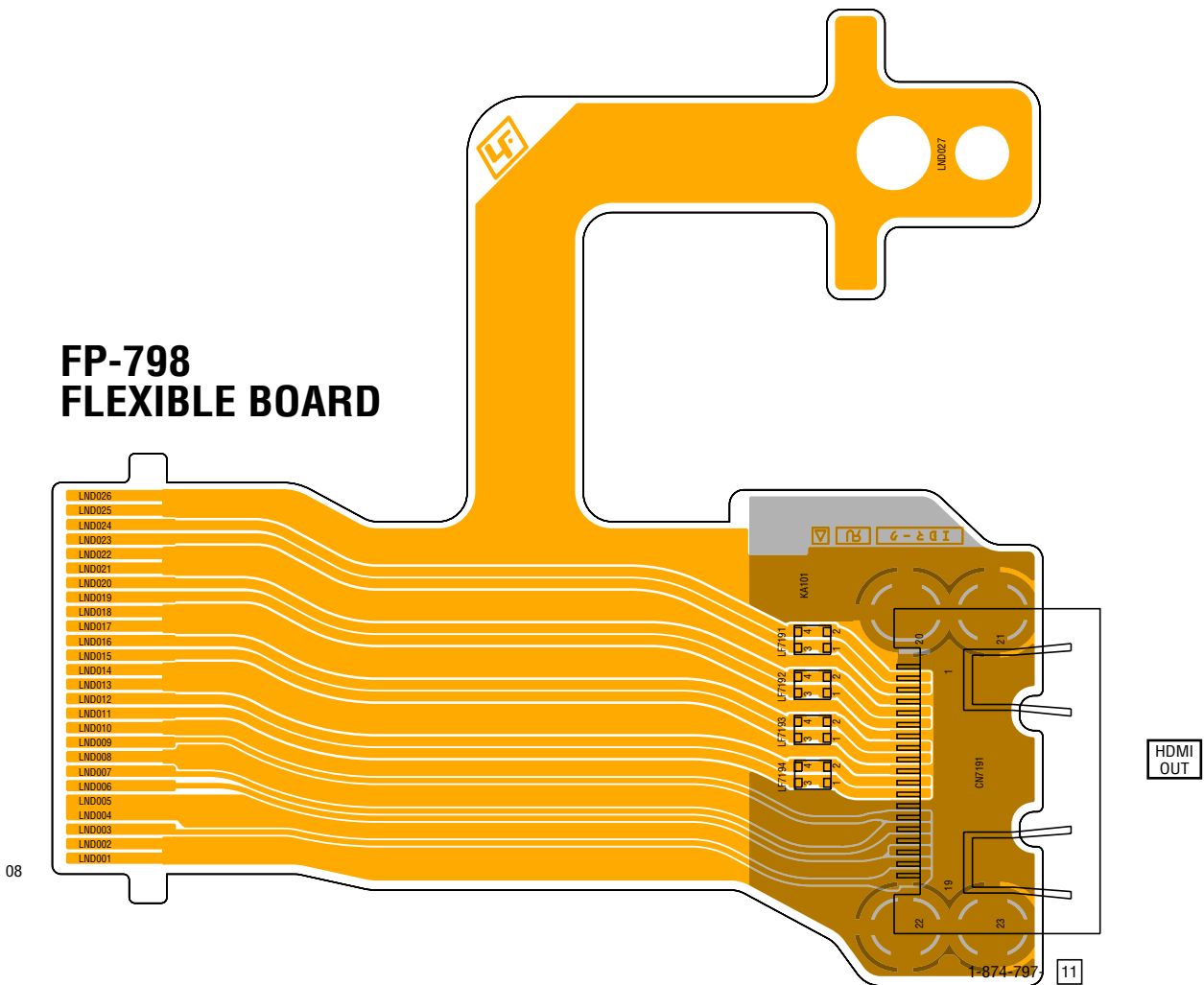
**BL-017 BOARD
(SIDE B)**



FP-454 FLEXIBLE BOARD

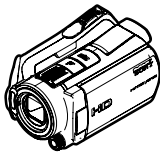
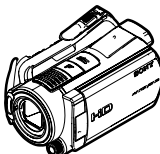
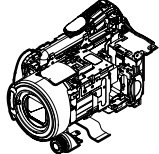
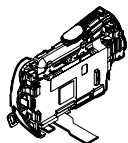
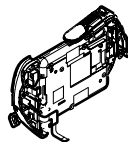
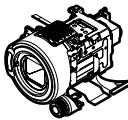
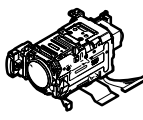
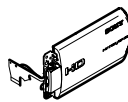
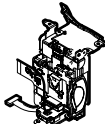


**FP-798
FLEXIBLE BOARD**



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			
				
OVERALL SECTION-1	OVERALL SECTION-2	OVERALL SECTION-3	CABINET (L) SECTION-1	
				
CABINET (L) SECTION-2	CABINET (F) SECTION	LENS BLOCK	CABINET (R) SECTION	
				
PANEL BLOCK	EVF BLOCK	BT PANEL BLOCK		

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
• BL-017 BOARD J	• FP-803 FLEXIBLE BOARD C	• FP-811 FLEXIBLE BOARD J	
• CK-185 BOARD H	• FP-804 FLEXIBLE BOARD E	• FP-812 FLEXIBLE BOARD E	
• CR-089 BOARD A	• FP-805 FLEXIBLE BOARD D	• FR-278 BOARD E	
• FP-454 FLEXIBLE BOARD I	• FP-806 FLEXIBLE BOARD A	• JK-356 BOARD E	
• FP-798 FLEXIBLE BOARD E	• FP-807 FLEXIBLE BOARD I	• MS-381 BOARD K	
• FP-799 FLEXIBLE BOARD E	• FP-808 FLEXIBLE BOARD D	• PD-343 BOARD I	
• FP-801 FLEXIBLE BOARD G	• FP-809 FLEXIBLE BOARD A	• ST-185 BOARD G	
• FP-802 FLEXIBLE BOARD C			

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: μ F
- COILS
uH: μ H
- RESISTORS
All resistors are in ohms.
METAL: metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA..., μ PA...,
uPB..., μ PB..., uPC..., μ PC...,
uPD..., μ PD...

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

(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 μ Fを示します。
- 抵抗の単位 Ω 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 μ Hを示します。
- 半導体の名称でuA..., uPA..., uPB..., uPC..., uPD...等はそれぞれ μ A..., μ PA..., μ PB..., μ PC..., μ PD...を示します。

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

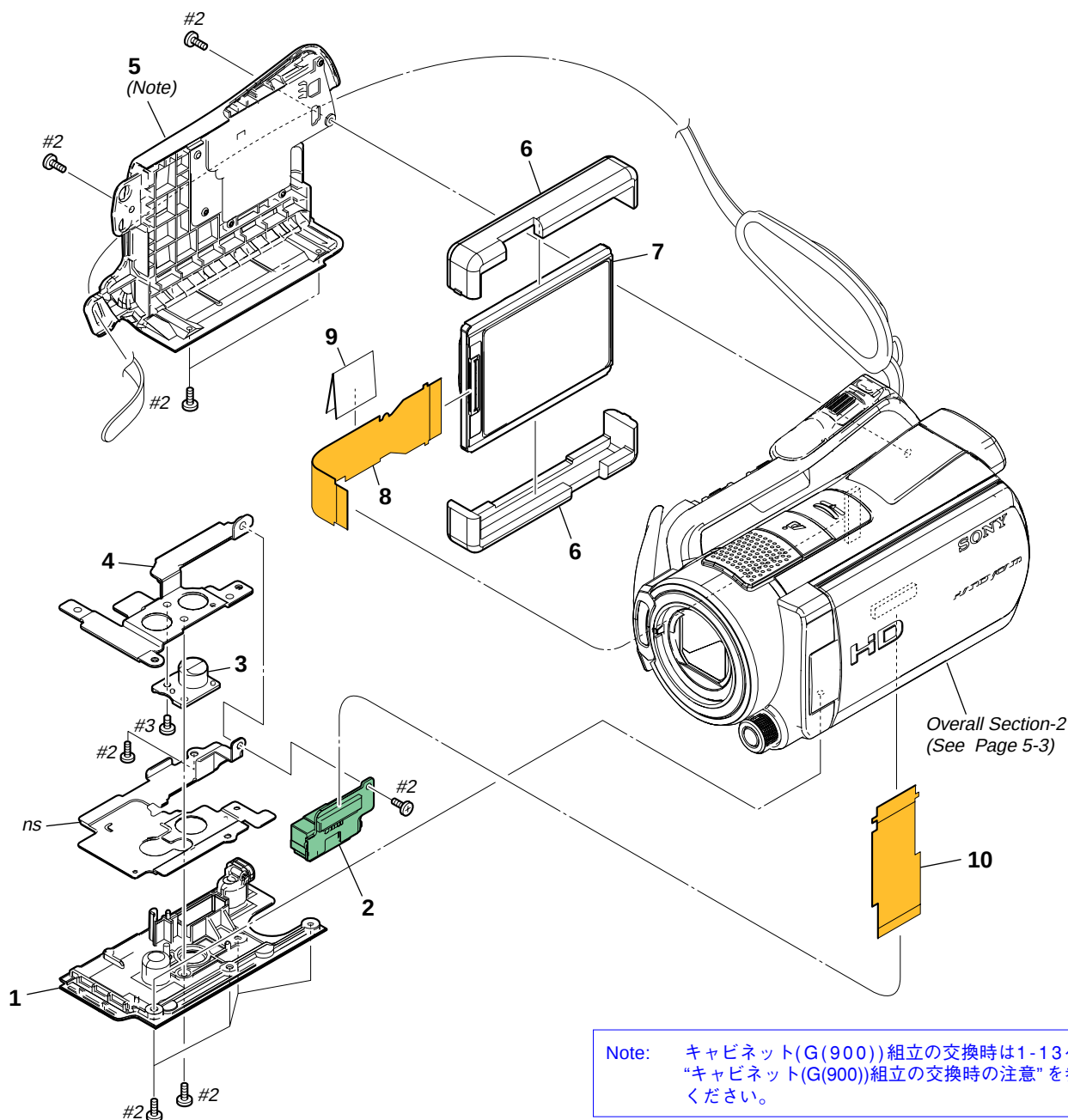
5-1. EXPLODED VIEWS

5-1-1. OVERALL SECTION-1

ns: not supplied

DISASSEMBLY

HARDWARE LIST



Note: キャビネット(G(900))組立の交換時は1-13ページの
"キャビネット(G(900))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(900)) Assy" when changing the Cabinet (G(900)) Assy.

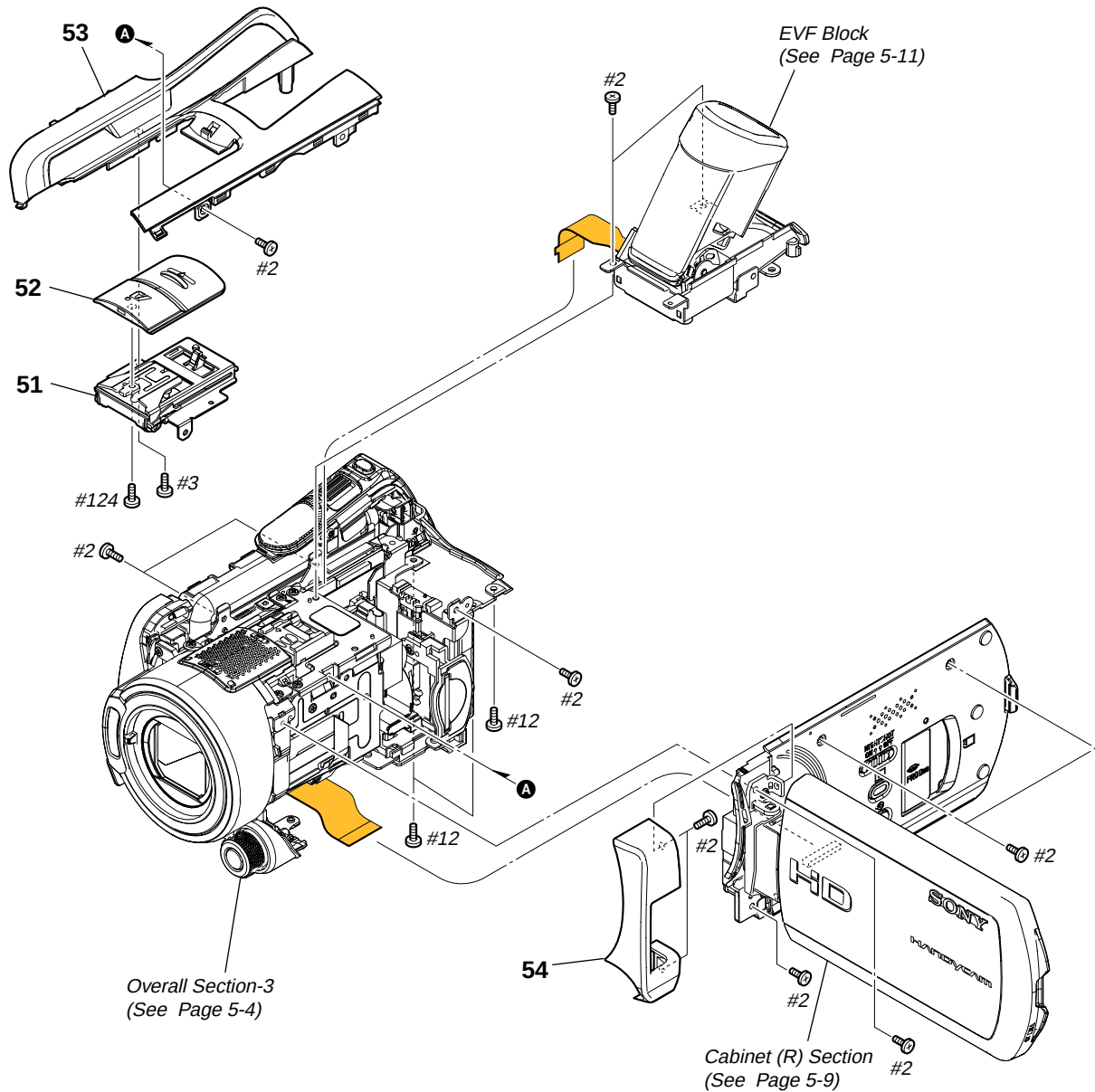
Ref. No.	Part No.	Description
1	X-2188-804-1	CABINET (700) ASSY, BOTTOM
2	A-1494-362-A	CR-089 BOARD, COMPLETE
3	2-664-982-01	SCREW, TRIPOD
* 4	3-290-644-01	FRAME, BOTTOM CABINET
5	(Note)	CABINET (G(900)) ASSY
6	3-294-308-01	DAMPER (1), 08STYLE (SR11/SR11E)
6	3-298-143-01	DAMPER (2), 08STYLE (SR12/SR12E)

Ref. No.	Part No.	Description
7	1-797-994-21	HDD (MK6014GAL-60GB) (SR11/SR11E)
7	1-797-995-21	HDD (MK1214GAH-120GB) (SR12/SR12E)
8	1-874-808-11	FP-809 FLEXIBLE BOARD
* 9	2-890-813-01	SHEET (CK), SHIELD
10	1-874-805-11	FP-806 FLEXIBLE BOARD
#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

DISASSEMBLY

HARDWARE LIST



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
51	X-2189-073-1	BASE (900) ASSY, SHOE COVER
52	X-2189-071-1	COVER (900S) ASSY, SHOE (SR11: J)
52	X-2189-072-1	COVER (900B) ASSY, SHOE (EXCEPT SR11: J)
53	X-2189-068-1	TOP (900S) ASSY (SR11: J)
53	X-2189-069-1	TOP (900B2) ASSY (SR12/SR12E)
53	X-2189-070-1	TOP (900B) ASSY (SR11: EXCEPT J/SR11E)

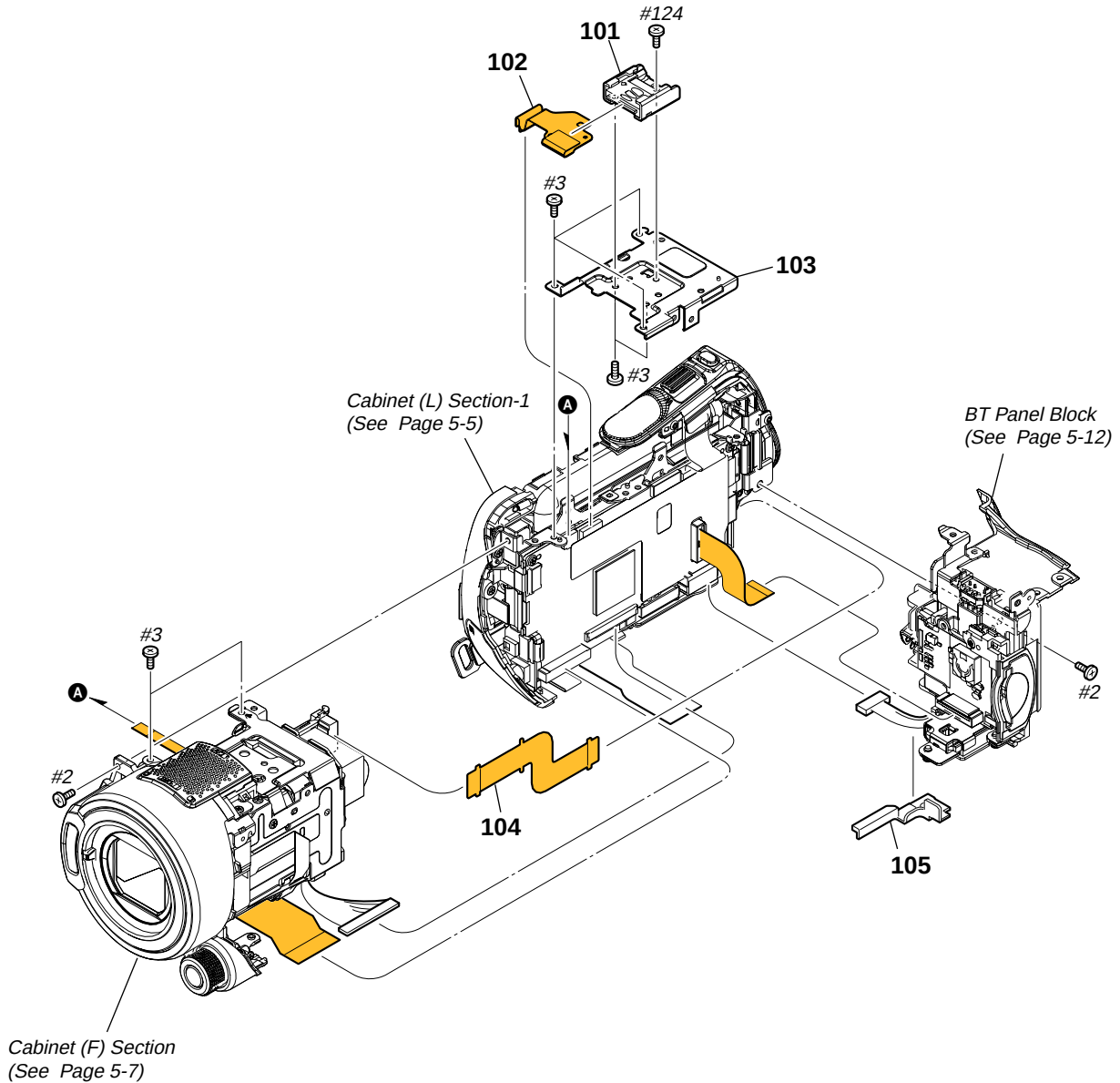
<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
54	3-292-369-01	COVER (R (900)), HINGE (SR11: J)
54	3-292-369-11	COVER (R (900)), HINGE (EXCEPT SR11: J)
#2	2-635-562-31	SCREW (M1.7) (Black)
#3	2-660-401-01	SCREW (M1.7), NEW TRU-STAR, P2 (Red)
#12	3-080-204-21	SCREW, TAPPING, P2 (Black)
#124	2-599-475-01	SCREW (M1.7) (Silver)

5. REPAIR PARTS LIST

5-1-3. OVERALL SECTION-3

DISASSEMBLY

HARDWARE LIST



Ref. No.	Part No.	Description
101	1-818-890-11	CONNECTOR, EXTERNAL (HOT SHOE)
102	1-874-801-11	FP-802 FLEXIBLE BOARD
103	3-292-296-01	FRAME (900), SHOE
104	1-874-802-11	FP-803 FLEXIBLE BOARD
* 105	3-290-652-01	RETAINER, BT HARNESS

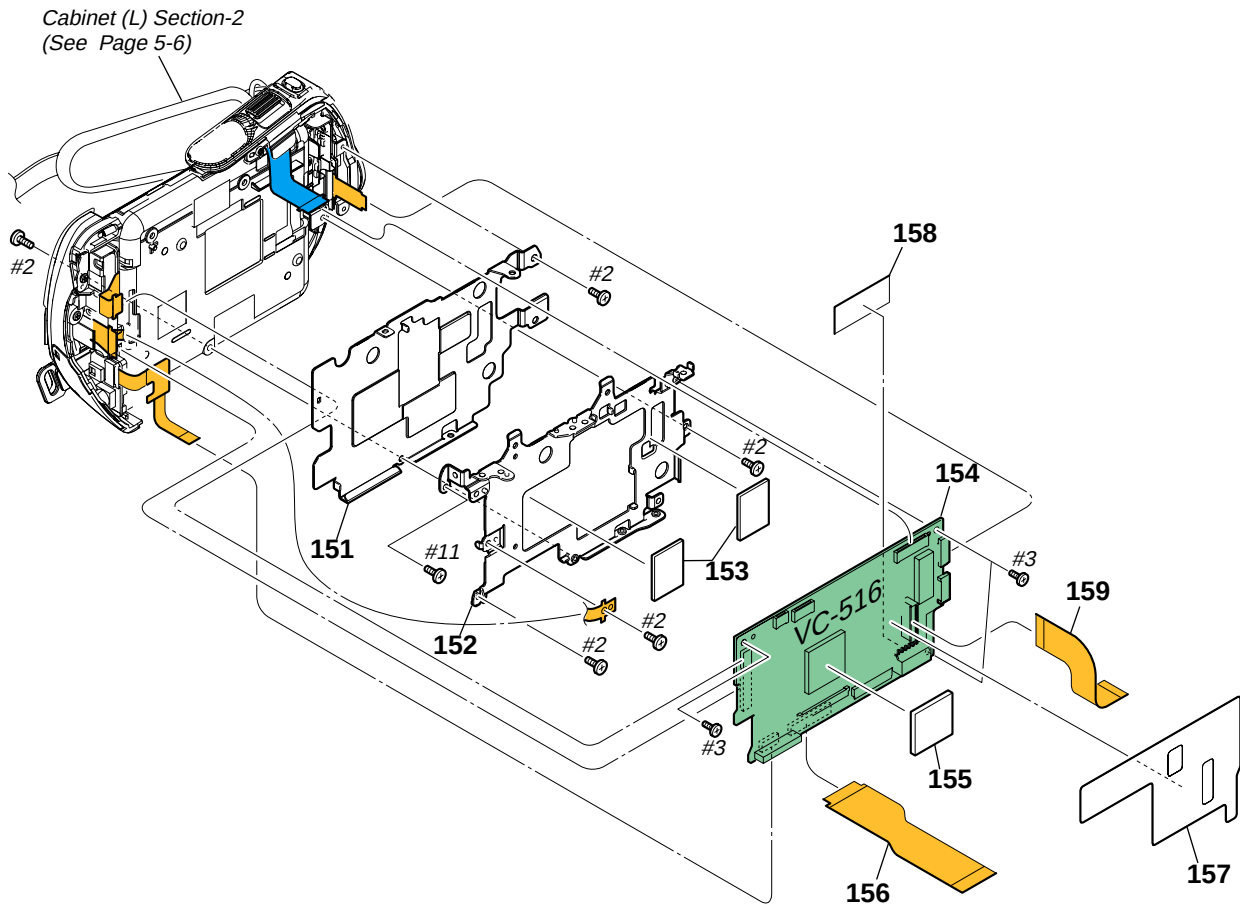
Ref. No.	Part No.	Description
#2	2-635-562-31	SCREW (M1.7) (Black)
#3	2-660-401-01	SCREW (M1.7), NEW TRU-STAR, P2 (Red)
#124	2-599-475-01	SCREW (M1.7) (Silver)

5. REPAIR PARTS LIST

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

DISASSEMBLY

HARDWARE LIST



Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
* 151	3-292-179-01	HEAT SINK (B (900)), VC	155	3-290-676-01	SHEET (A), VC RADIATION
152	3-292-178-01	FRAME (900), MAIN	156	1-874-807-11	FP-808 FLEXIBLE BOARD
153	3-290-677-01	SHEET (B), VC RADIATION	* 157	3-290-678-01	LABEL, FUSE REPLACEMENT CAUTION
154	A-1508-553-A	VC-516 BOARD, COMPLETE (SERVICE)	* 158	3-398-042-01	SHEET (AN), SHIELD
		(SR11/SR12)	159	1-874-804-11	FP-805 FLEXIBLE BOARD
154	A-1508-554-A	VC-516 BOARD, COMPLETE (SERVICE)			
		(SR11E/SR12E)	#2	2-635-562-31	SCREW (M1.7) (Black)
			#3	2-660-401-01	SCREW (M1.7), NEW TRU-STAR, P2 (Red)
			#11	3-078-890-11	SCREW, TAPPING (Silver)

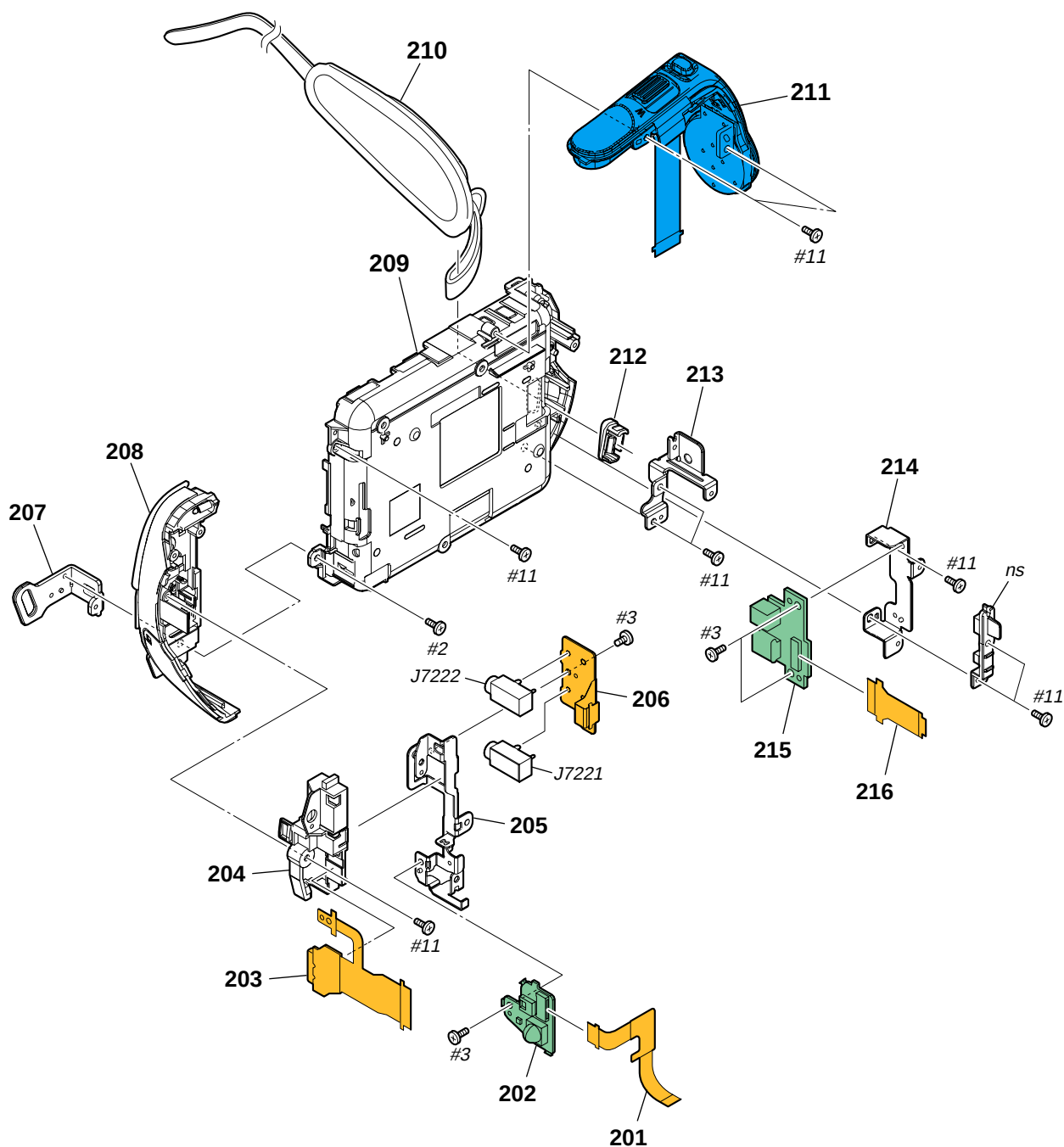
5. REPAIR PARTS LIST

5-1-5. CABINET (L) SECTION-2

ns: not supplied

DISASSEMBLY

HARDWARE LIST



Ref. No.	Part No.	Description
201	1-874-811-11	FP-812 FLEXIBLE BOARD
202	A-1508-570-A	FR-278 BOARD, COMPLETE (SERVICE)
203	A-1494-357-A	FP-798 FLEXIBLE BOARD, COMPLETE
* 204	3-292-182-01	RETAINER, JACK
* 205	3-292-181-01	FRAME (900), LF
206	1-874-798-11	FP-799 FLEXIBLE BOARD
* 207	3-292-180-01	FRAME (F (900)), STRAP
208	X-2189-050-1	LF (900) ASSY, CABINET
209	3-290-483-01	CABINET (L) (EXCEPT SR11: US/SR12: US)
209	3-290-483-03	CABINET (L) (SR11: US/SR12: US)
210	2-664-928-41	BELT, GRIP
211	1-480-427-51	SWITCH BLOCK, CONTROL (PS28100)

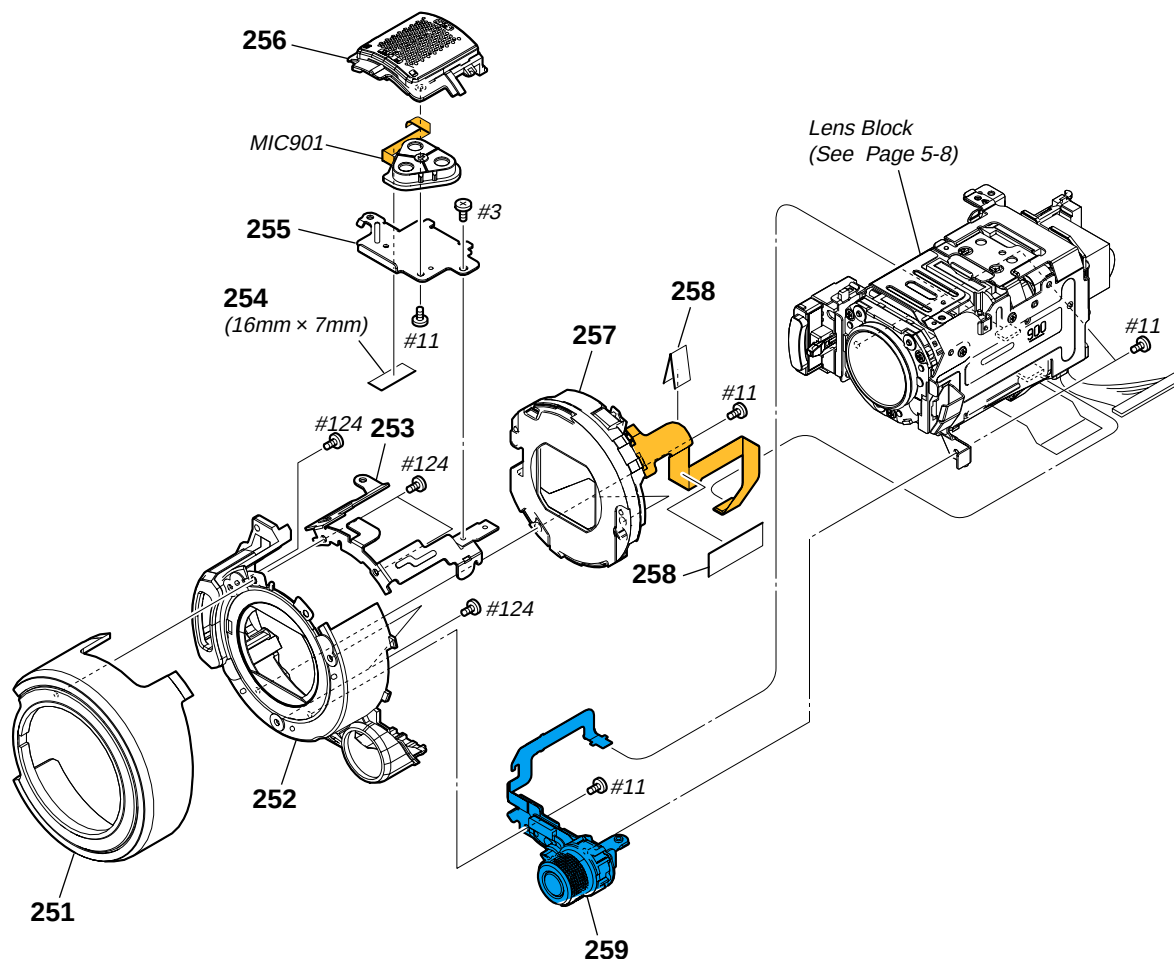
Ref. No.	Part No.	Description
212	3-290-484-01	RETAINER, GRIP BELT
* 213	3-290-485-01	FRAME, BELT
* 214	3-290-672-01	FRAME, JK
215	A-1494-355-A	JK-356 BOARD, COMPLETE
216	1-874-803-11	FP-804 FLEXIBLE BOARD
J7221	1-569-950-41	JACK (SMALL TYPE) (HEADPHONE)
J7222	1-691-737-41	JACK (SMALL TYPE) (MIC)
#2	2-635-562-31	SCREW (M1.7) (Black)
#3	2-660-401-01	SCREW (M1.7), NEW TRU-STAR, P2 (Red)
#11	3-078-890-11	SCREW, TAPPING (Silver)

5. REPAIR PARTS LIST

5-1-6. CABINET (F) SECTION

DISASSEMBLY

HARDWARE LIST



注意： 254 : TAPE (0716) (3-084-668-01) は、ヒメロン T0.25 (3-076-631-01) を切って使用してください。

CAUTION: For the part of 254 : TAPE (0716) (3-084-668-01), cut NON WOVEN (T0.25) (3-076-631-01) into the desired length and use it.

Ref. No.	Part No.	Description
251	3-292-211-01	RING (900), LENS (SR11: J)
251	3-292-211-11	RING (900), LENS (EXCEPT SR11: J)
252	X-2189-053-1	CABINET (F (900S)) ASSY (SR11: J)
252	X-2189-054-1	CABINET (F (900B)) ASSY (EXCEPT SR11: J)
253	3-292-212-01	FRAME (900), F
254	CAUTION	TAPE (0716)
255	3-292-213-01	FRAME (900), MICROPHONE
256	X-2189-055-1	HOLDER (900S) ASSY, MICROPHONE (SR11: J)
256	X-2189-056-1	HOLDER (900B) ASSY, MICROPHONE (EXCEPT SR11: J)

Ref. No.	Part No.	Description
257	A-1217-971-A	LENS BARRIER UNIT
258	3-080-272-01	TAPE (A)
259	1-480-432-11	SWITCH BLOCK, CONTROL (RS28900)
MIC901	1-542-711-31	MICROPHONE UNIT
#3	2-660-401-01	SCREW (M1.7), NEW TRU-STAR, P2 (Red)
#11	3-078-890-11	SCREW, TAPPING (Silver)
#124	2-599-475-01	SCREW (M1.7) (Silver)

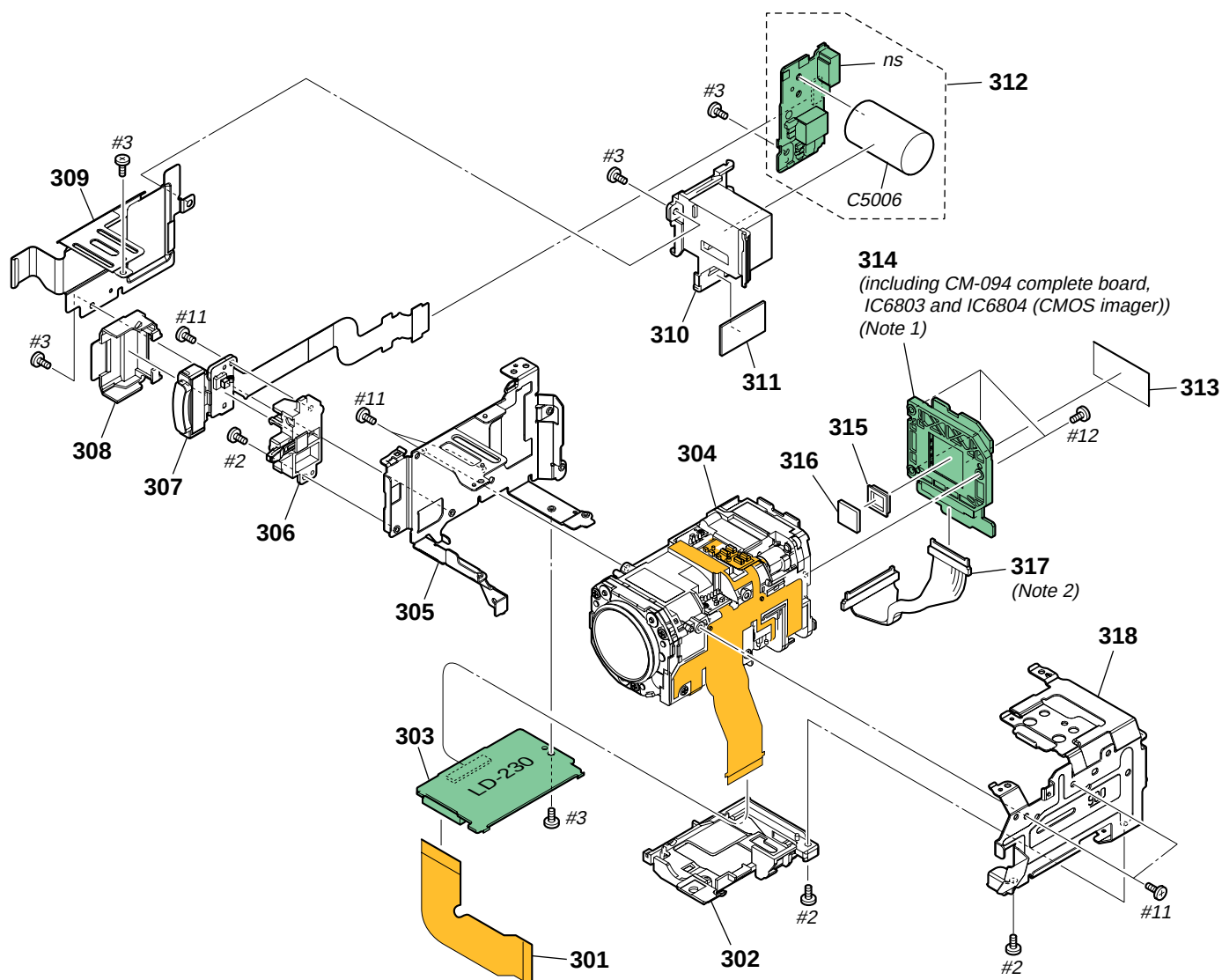
5. REPAIR PARTS LIST

5-1-7. 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 2: ハーネス（同軸ケーブル）の交換時は2-1ページの“Note for disconnecting the harness (coaxial cable)”を参照してください。

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

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

• Refer to page 5-1 for mark △.

Ref. No.	Part No.	Description
301	1-874-800-11	FP-801 FLEXIBLE BOARD
302	3-292-207-01	CLAMP (900), HARNESS
303	A-1494-364-A	LD-230 BOARD, COMPLETE
304	A-1497-729-A	LSV-1270A (SERVICE)
305	3-292-204-01	FRAME (L (900)), LENS
306	X-2189-052-1	HOLDER ASSY, ST
△ 307	1-480-263-11	FLASH UNIT
308	3-292-208-01	GUARD (900), ST
309	3-292-206-01	HEAT SINK (A (900)), VC
310	3-290-663-01	HOLDER, CAPACITOR
311	1-481-251-11	CORE, FERRITE
312	A-1494-365-A	ST-185 BOARD, COMPLETE
* 313	3-292-209-01	SHEET (900), CM RADIATION

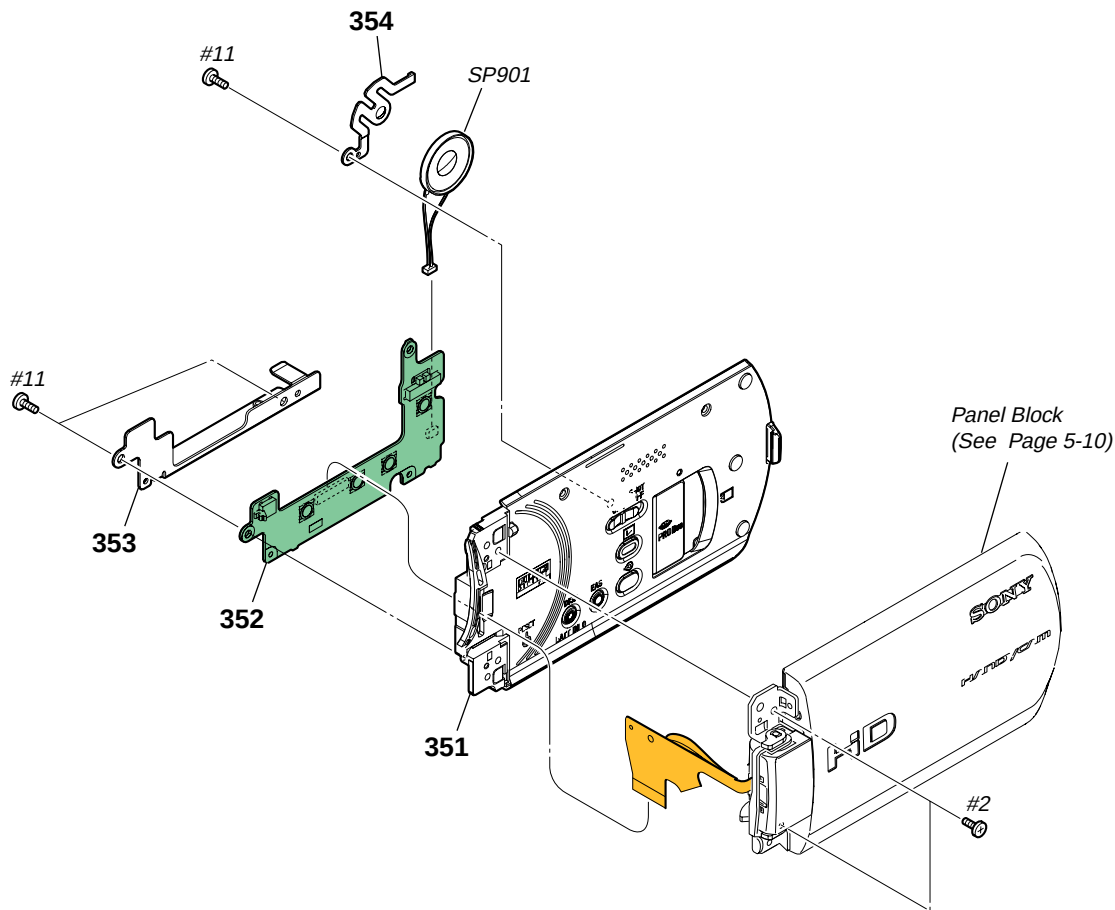
Ref. No.	Part No.	Description
314	A-1512-350-A	CMOS BLOCK ASSY (1270) (including CM-094 complete board, IC6803 and IC6804 (CMOS imager)) (Note 1)
315	3-216-044-01	RUBBER (1270), SEAL
316	1-788-709-11	OPTICAL FILTER BLOCK (OFB-03-37)
317	1-965-256-31	HARNESS (COAXIAL CABLE) (Note 2)
318	3-292-205-01	FRAME (R (900)), LENS
△ *C5006	1-114-393-11	ELECT 70uF 99% 330V
#2	2-635-562-31	SCREW (M1.7) (Black)
#3	2-660-401-01	SCREW (M1.7), NEW TRU-STAR, P2 (Red)
#11	3-078-890-11	SCREW, TAPPING (Silver)
#12	3-080-204-21	SCREW, TAPPING, P2 (Black)

5. REPAIR PARTS LIST

5-1-8. CABINET (R) SECTION

DISASSEMBLY

HARDWARE LIST



Ref. No.	Part No.	Description
351	X-2189-086-1	CABINET (R (900)) ASSY
352	A-1494-360-A	CK-185 BOARD, COMPLETE
* 353	3-292-375-01	FRAME (900), CK
* 354	3-292-376-01	RETAINER (900), SP

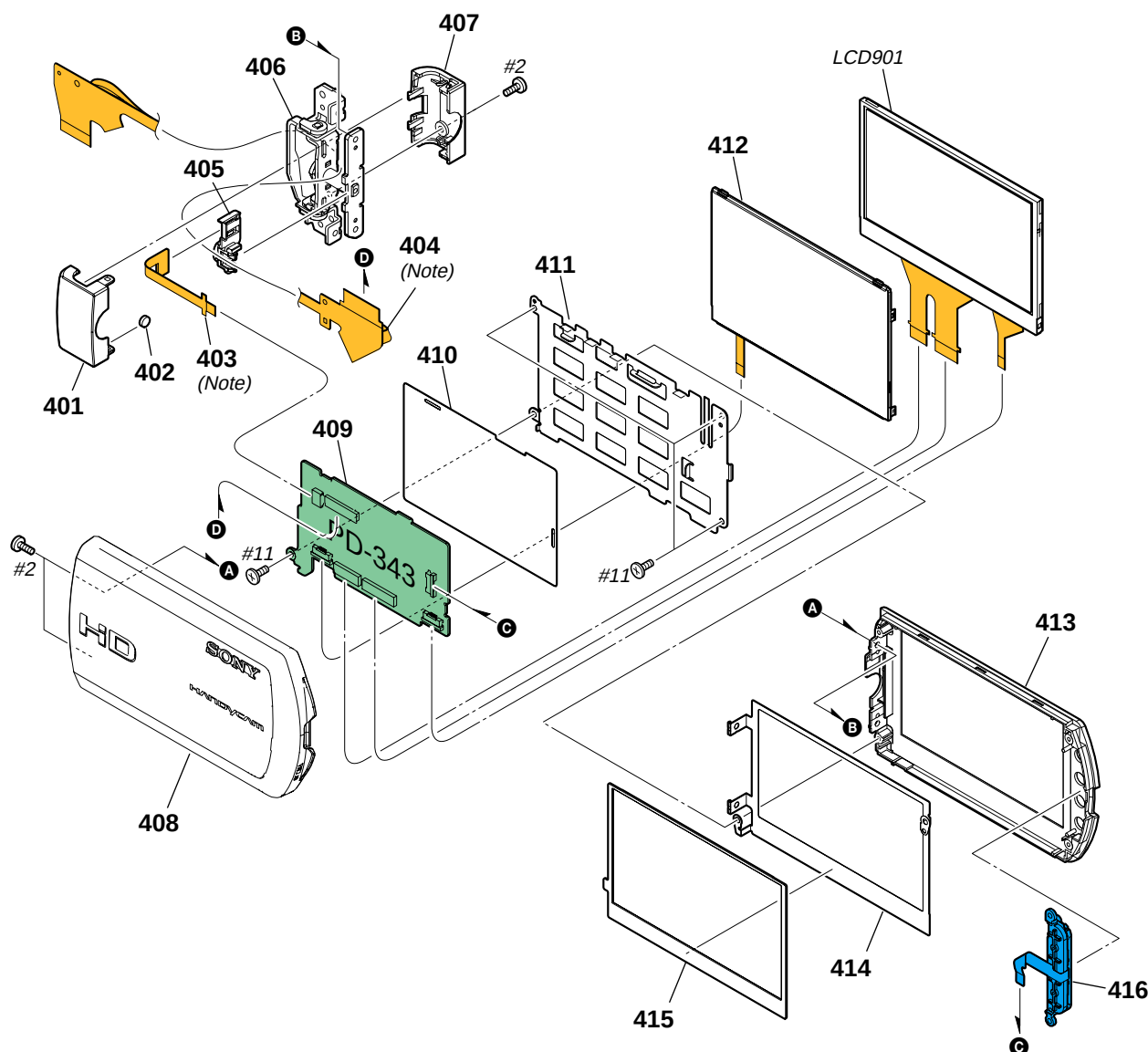
Ref. No.	Part No.	Description
SP901	1-825-262-82	LOUD SPEAKER (1.6CM)
#2	2-635-562-31	SCREW (M1.7) (Black)
#11	3-078-890-11	SCREW, TAPPING (Silver)

5. REPAIR PARTS LIST

5-1-9. PANEL BLOCK

DISASSEMBLY

HARDWARE LIST



Note: FP-454, FP-807フレキシブル基板取付時は「HELP16」を必ずお読みください。

Note: Be sure to read "HELP16" when you install the FP-454, FP-807 flexible boards.

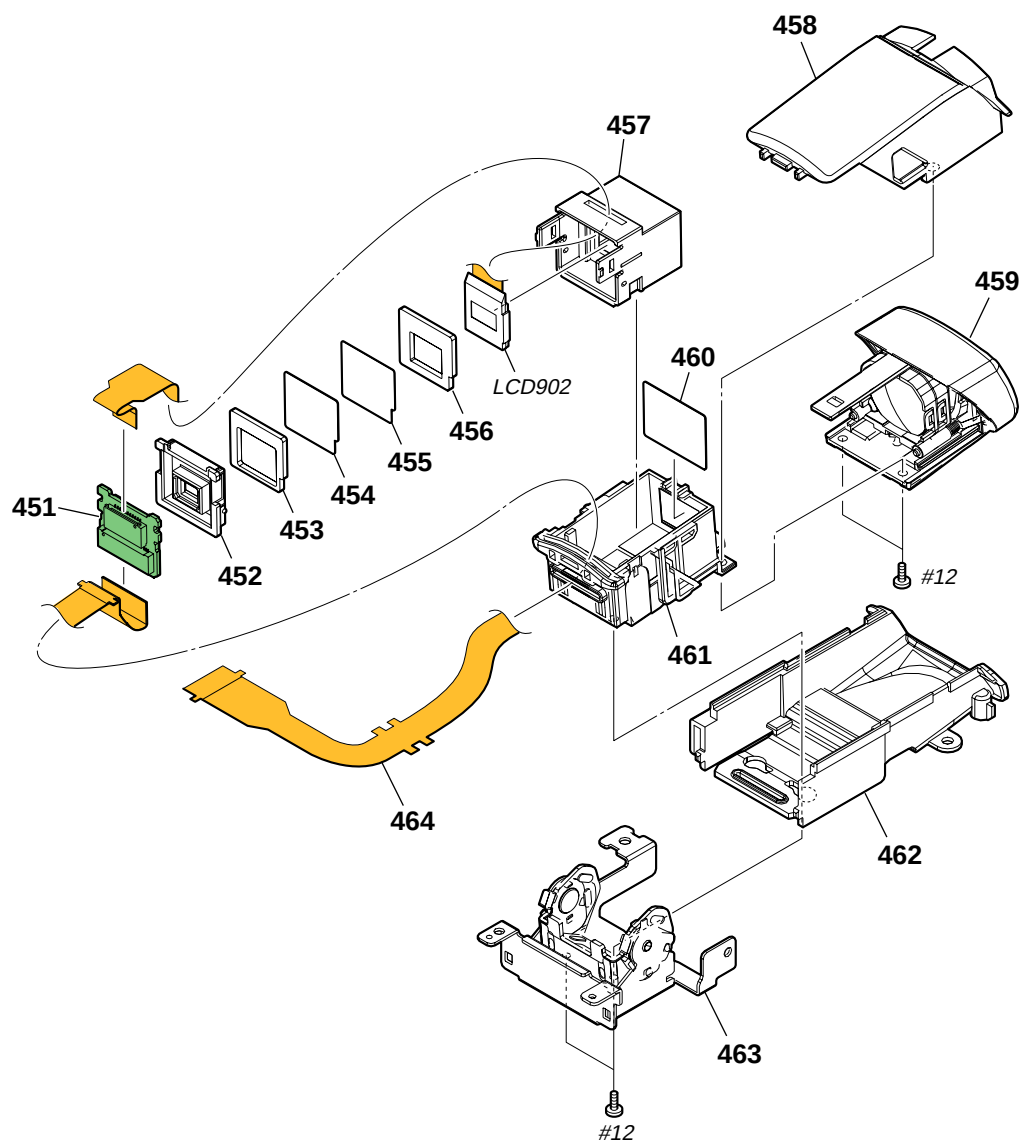
Ref. No.	Part No.	Description
401	3-292-370-01	COVER (O (900)), HINGE (SR11: J)
401	3-292-370-11	COVER (O (900)), HINGE (EXCEPT SR11: J)
402	1-471-278-11	MAGNET
403	A-1239-344-A	FP-454 FLEXIBLE BOARD, COMPLETE (Note)
404	1-874-806-11	FP-807 FLEXIBLE BOARD (Note)
* 405	3-292-372-01	CLAMP, FLEXIBLE
406	X-2189-085-1	HINGE (Y), 08 STYLE ASSY
407	3-292-371-01	COVER (U (900)), HINGE
408	A-1527-539-A	P CABINET(C (900)) SILVER (SR11: J)
408	X-2189-088-1	CABINET (C (900B)) ASSY, P (EXCEPT SR11: J)
409	A-1494-361-A	PD-343 BOARD, COMPLETE

Ref. No.	Part No.	Description
410	3-292-378-01	SHEET (P), INSULATING
* 411	3-292-374-01	RETAINER, P
412	1-480-358-21	BLOCK, LIGHT GUIDE PLATE (3.2)
413	3-292-368-01	CABINET (M (900)), P
* 414	3-292-373-01	PLATE (900), P GROUND
415	3-292-377-01	CUSHION (900), TP
416	1-480-458-11	SWITCH BLOCK, CONTROL (SB28900)
LCD901	A-1363-618-A	TP BLOCK ASSY (32ESHGU08)
#2	2-635-562-31	SCREW (M1.7) (Black)
#11	3-078-890-11	SCREW, TAPPING (Silver)

5. REPAIR PARTS LIST

5-1-10. EVF BLOCK

HARDWARE LIST



Ref. No.	Part No.	Description
451	A-1494-359-A	BL-017 BOARD, COMPLETE
452	2-664-672-01	GUIDE, LAMP
* 453	2-638-819-01	CUSHION, LCD
* 454	2-638-818-01	ILLUMINATOR
* 455	2-638-816-01	PLATE (TFT), DEFLECTION
456	2-664-671-01	SPACER, LCD
* 457	2-699-236-01	CABINET (222), INNER
458	3-292-322-01	CABINET (UPPER), VF (SR11: J)
459	3-292-322-11	CABINET (UPPER), VF (EXCEPT SR11: J)
	X-2189-076-1	EYE CUP ASSY

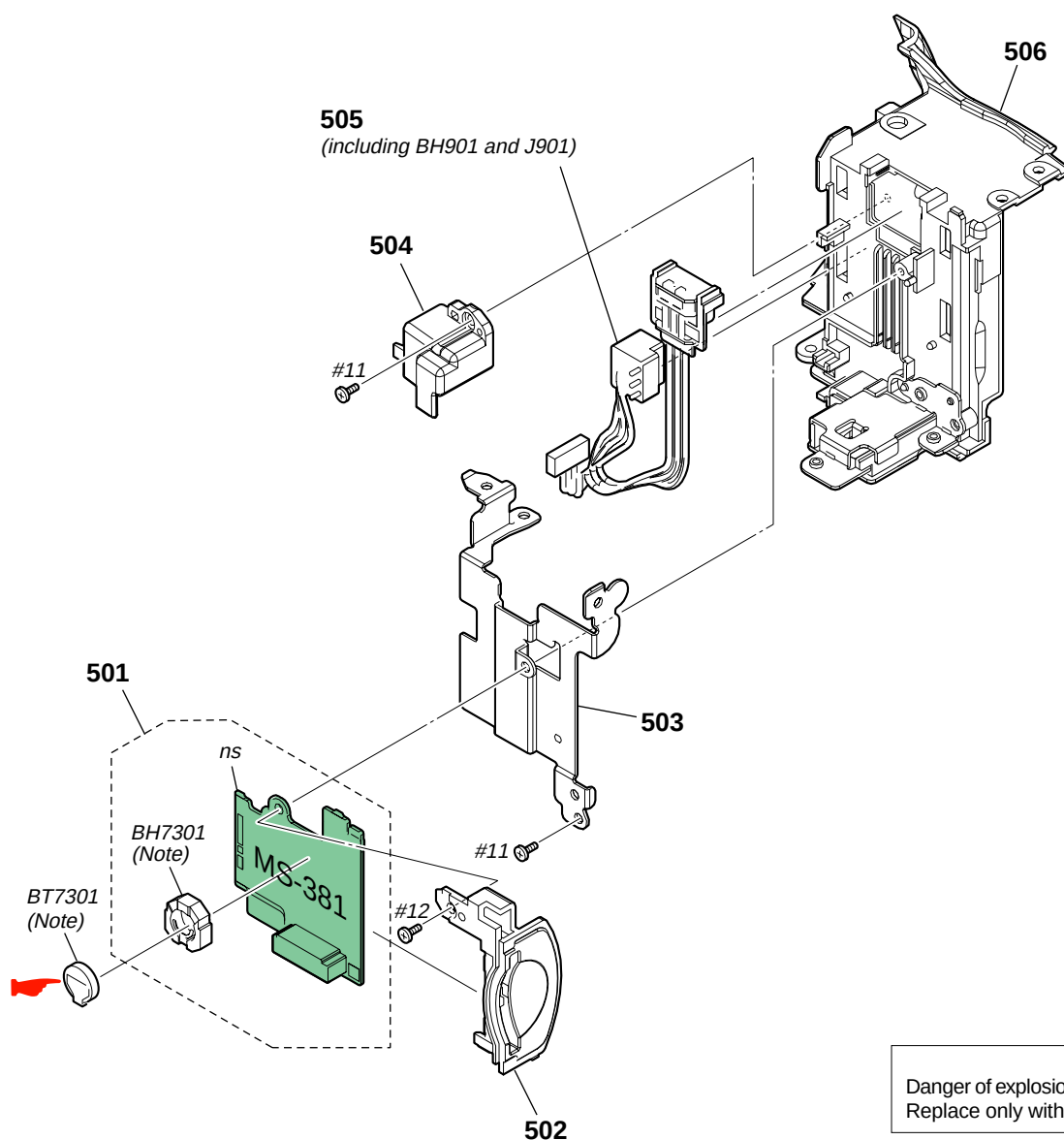
Ref. No.	Part No.	Description
* 460	2-668-134-01	PANEL (CF), POLARIZATION
461	3-292-323-01	CABINET (LOWER), VF
462	3-292-324-01	COVER, VF BASE (SR11: J)
462	3-292-324-11	COVER, VF BASE (EXCEPT SR11: J)
463	X-2189-075-1	BASE ASSY, VF TILT
464	1-874-810-11	FP-811 FLEXIBLE BOARD
LCD902	8-753-241-14	LCX076AKE-1
#12	3-080-204-21	SCREW, TAPPING, P2 (Black)

5. REPAIR PARTS LIST

5-1-11. BT PANEL BLOCK

ns: not supplied

HARDWARE LIST



 : BT7301 (LITHIUM STORAGE BATTERY)
Board on the mount position.
(See page 4-52.)

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。

ノート: MS-381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-381 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
501	A-1494-358-A	MS-381 BOARD, COMPLETE
502	3-290-650-01	CABINET, MS
* 503	3-290-649-01	FRAME (700), BT TERMINAL
* 504	3-290-651-01	RETAINER, DCIN
 505	1-821-575-21	DC JACK (including BH901 and J901)

Ref. No.	Part No.	Description
506	X-2189-081-1	PANEL (900) ASSY, BT
 *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-1494-359-A	BL-017 BOARD, COMPLETE *****
		< CAPACITOR >
C5701	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C5702	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
		< CONNECTOR >
* CN5701	1-816-647-51	FFC/FPC CONNECTOR (LIF) 18P
* CN5702	1-817-698-81	CONNECTOR, FPC (ZIF) 21P
		< DIODE >
* D5701	6-501-591-01	DIODE NESW007AT-T099 (EVF BACKLIGHT)
* D5702	6-501-955-01	DIODE MAZS056G08S0
		< COMPOSITION CIRCUIT BLOCK >
* RB5701	1-234-380-21	RES, NETWORK 47K (1005X4)

	A-1494-360-A	CK-185 BOARD, COMPLETE *****
		< CONNECTOR >
* CN5801	1-820-729-61	CONNECTOR, FPC (ZIF) 51P
* CN5802	1-816-058-61	CONNECTOR, FPC (ZIF) 39P
CN5803	1-778-506-21	PIN, CONNECTOR (PC BOARD) 2P
		< RESISTOR >
R5801	1-218-957-11	RES-CHIP 2.2K 5% 1/16W
R5802	1-218-955-11	RES-CHIP 1.5K 5% 1/16W
R5804	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)

Electrical parts list of the CM-094 is not shown.
Pages 5-14 is not shown.

			CR-089	FP-454	FP-798	FP-799	FP-801	FP-802	FP-803
FP-804	FP-805	FP-806	FP-807	FP-808	FP-809	FP-811	FP-812	FR-278	
Ref. No.	Part No.	Description		Ref. No.	Part No.	Description			
	A-1494-362-A	CR-089 BOARD, COMPLETE *****			1-874-806-11	FP-807 FLEXIBLE BOARD *****			
		< CONNECTOR >				(There isn't mounted electrical parts in FP-807 flexible board.)			
* CN7401	1-821-664-21	CONNECTOR, MULTIPLE (PLUG) 32P (MULTI CONNECTOR)			1-874-807-11	FP-808 FLEXIBLE BOARD *****			
* CN7402	1-821-202-71	CONNECTOR, FPC (ZIF) 45P				(There isn't mounted electrical parts in FP-808 flexible board.)			
	A-1239-344-A	FP-454 FLEXIBLE BOARD, COMPLETE *****			1-874-808-11	FP-809 FLEXIBLE BOARD *****			
		< IC >				(There isn't mounted electrical parts in FP-809 flexible board.)			
IC001	6-705-011-01	IC AN48830B-NL			1-874-810-11	FP-811 FLEXIBLE BOARD *****			
	A-1494-357-A	FP-798 FLEXIBLE BOARD, COMPLETE *****				(There isn't mounted electrical parts in FP-811 flexible board.)			
		< CONNECTOR >			1-874-811-11	FP-812 FLEXIBLE BOARD *****			
CN7191	1-821-166-21	CONNECTOR, HDMI (HDMI OUT)				(There isn't mounted electrical parts in FP-812 flexible board.)			
	1-874-798-11	FP-799 FLEXIBLE BOARD *****			A-1508-570-A	FR-278 BOARD, COMPLETE (SERVICE) *****			
		(J7221 and J7222 are not included in FP-799 flexible board.)				< CAPACITOR >			
		< JACK >		C9001	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
J7221	1-569-950-41	JACK (SMALL TYPE) (HEADPHONE)		C9003	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
J7222	1-691-737-41	JACK (SMALL TYPE) (MIC)		C9004	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
				C9005	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
				C9008	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V
	1-874-800-11	FP-801 FLEXIBLE BOARD *****		C9009	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V
		(There isn't mounted electrical parts in FP-801 flexible board.)		C9010	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V
				C9011	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V
	1-874-801-11	FP-802 FLEXIBLE BOARD *****		C9012	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
		(There isn't mounted electrical parts in FP-802 flexible board.)		C9013	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
				C9014	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
	1-874-802-11	FP-803 FLEXIBLE BOARD *****		C9015	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
		(There isn't mounted electrical parts in FP-803 flexible board.)		C9016	1-114-411-21	CERAMIC CHIP	0.33uF	10%	6.3V
				C9017	1-114-411-21	CERAMIC CHIP	0.33uF	10%	6.3V
						< CONNECTOR >			
	1-874-803-11	FP-804 FLEXIBLE BOARD *****		* CN9002	1-816-644-51	FFC/FPC CONNECTOR (LIF) 12P			
		(There isn't mounted electrical parts in FP-804 flexible board.)				< DIODE >			
				D9001	6-500-512-01	DIODE CL-330IRS-X-TU (NIGHTSHOT)			
				D9002	8-719-077-09	DIODE CL-196HR-CD-T (TALLY)			
	1-874-804-11	FP-805 FLEXIBLE BOARD *****				< FERRITE BEAD >			
		(There isn't mounted electrical parts in FP-805 flexible board.)		FB9001	1-400-833-21	SMD EMI FERRITE			
				FB9002	1-400-833-21	SMD EMI FERRITE			
	1-874-805-11	FP-806 FLEXIBLE BOARD *****		FB9003	1-400-833-21	SMD EMI FERRITE			
		(There isn't mounted electrical parts in FP-806 flexible board.)		FB9004	1-400-833-21	SMD EMI FERRITE			
						< IC >			
				IC9001	6-707-333-01	IC NJM3230SE7			
				IC9002	6-600-163-01	IC RS-770			

Ref. No.	Part No.	Description				
< COIL >						
L9001	1-400-588-11	INDUCTOR	10uH			
< RESISTOR >						
R9004	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R9005	1-218-989-11	RES-CHIP	1M	5%	1/16W	
R9006	1-218-989-11	RES-CHIP	1M	5%	1/16W	
R9007	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R9008	1-218-990-11	SHORT CHIP	0			
R9010	1-218-945-11	RES-CHIP	220	5%	1/16W	
R9012	1-208-711-11	METAL CHIP	15K	0.5%	1/16W	
R9013	1-208-711-11	METAL CHIP	15K	0.5%	1/16W	
< COMPOSITION CIRCUIT BLOCK >						
* RB9001	1-234-379-21	RES, NETWORK	22K (1005X4)			
< SENSOR >						
* SE9001	1-479-022-51	SENSOR, ANGULAR VELOCITY (PITCH)				
* SE9002	1-479-022-61	SENSOR, ANGULAR VELOCITY (YAW)				
A-1494-355-A		JK-356 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 5-17 to 5-18 are not shown.

Ref. No.	Part No.	Description
	A-1494-358-A	MS-381 BOARD, COMPLETE

		(BT7301 (lithium storage battery) is not included in MS-381 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
		(PRO DUO)
		< 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-381 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-381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-1494-361-A	PD-343 BOARD, COMPLETE

		< CAPACITOR >
C5901	1-100-581-81	CERAMIC CHIP 0.0047uF 10% 50V
C5902	1-100-581-81	CERAMIC CHIP 0.0047uF 10% 50V
C5903	1-112-300-91	CERAMIC CHIP 4.7uF 10% 10V
C5905	1-100-786-91	TANTAL. CHIP 22uF 20% 6.3V
C5907	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C5909	1-165-875-11	CERAMIC CHIP 10uF 10% 10V
C5912	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V
C5913	1-112-300-91	CERAMIC CHIP 4.7uF 10% 10V
C5914	1-165-884-91	CERAMIC CHIP 2.2uF 10% 6.3V
C5915	1-127-861-11	CERAMIC CHIP 2.2uF 10% 16V
C5917	1-165-884-91	CERAMIC CHIP 2.2uF 10% 6.3V
C5918	1-112-300-91	CERAMIC CHIP 4.7uF 10% 10V
C5919	1-112-300-91	CERAMIC CHIP 4.7uF 10% 10V
C5920	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C5921	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C5922	1-127-861-11	CERAMIC CHIP 2.2uF 10% 16V
C5923	1-165-884-91	CERAMIC CHIP 2.2uF 10% 6.3V
C5924	1-165-884-91	CERAMIC CHIP 2.2uF 10% 6.3V
C5925	1-165-884-91	CERAMIC CHIP 2.2uF 10% 6.3V
C5926	1-165-884-91	CERAMIC CHIP 2.2uF 10% 6.3V
C5927	1-165-884-91	CERAMIC CHIP 2.2uF 10% 6.3V
* C5928	1-112-746-11	CERAMIC CHIP 4.7uF 10% 6.3V
C5930	1-125-889-11	CERAMIC CHIP 2.2uF 10% 10V
		< CONNECTOR >
* CN5901	1-817-544-71	CONNECTOR, FPC (ZIF) 39P
* CN5902	1-794-322-51	CONNECTOR, FPC (ZIF) 6P
CN5903	1-816-180-71	CONNECTOR, FPC (ZIF) 6P
* CN5905	1-794-322-51	CONNECTOR, FPC (ZIF) 6P
* CN5906	1-819-914-71	CONNECTOR, FPC (ZIF) 29P
* CN5907	1-817-544-71	CONNECTOR, FPC (ZIF) 39P
* CN5909	1-816-654-51	FFC/FPC CONNECTOR (LIF) 6P
		< DIODE >
D5903	6-500-813-01	DIODE MA2SD32008S0
D5904	6-500-813-01	DIODE MA2SD32008S0
		< IC >
* IC5901	6-712-051-01	IC SN65LVDS302ZQER
		< COIL >
L5901	1-400-588-11	INDUCTOR 10uH
L5902	1-400-588-11	INDUCTOR 10uH
L5903	1-400-588-11	INDUCTOR 10uH
		< TRANSISTOR >
Q5901	8-729-427-37	TRANSISTOR XP411F-TXE
Q5902	8-729-427-67	TRANSISTOR XP421F-TXE
* Q5907	6-551-760-01	TRANSISTOR UNR31A3G0LS0
Q5908	8-729-053-48	TRANSISTOR 2SK3235
* Q5909	6-551-846-01	TRANSISTOR UP04401G08S0
Q5910	8-729-053-48	TRANSISTOR 2SK3235

• Refer to page 5-1 for mark △.

Ref. No.	Part No.	Description				
< RESISTOR >						
R5901	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	
R5902	1-218-955-11	RES-CHIP	1.5K	5%	1/16W	
R5903	1-218-954-11	RES-CHIP	1.2K	5%	1/16W	
R5909	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R5913	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R5914	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R5916	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R5919	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R5921	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R5923	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R5926	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R5928	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R5929	1-218-990-11	SHORT CHIP	0			
R5932	1-218-990-11	SHORT CHIP	0			
R5936	1-208-695-11	METAL CHIP	3.3K	0.5%	1/16W	
R5937	1-218-969-11	RES-CHIP	22K	5%	1/16W	
R5938	1-208-923-11	METAL CHIP	33K	0.5%	1/16W	
R5939	1-208-911-11	METAL CHIP	10K	0.5%	1/16W	
R5940	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W	
R5941	1-208-691-11	METAL CHIP	2.2K	0.5%	1/16W	
R5942	1-208-683-11	METAL CHIP	1K	0.5%	1/16W	
R5943	1-208-691-11	METAL CHIP	2.2K	0.5%	1/16W	
R5944	1-211-973-11	METAL CHIP	15	0.5%	1/10W	

< COMPOSITION CIRCUIT BLOCK >

RB5901 1-234-381-11 RES, NETWORK 100K (1005X4)

A-1494-365-A ST-185 BOARD, COMPLETE

< CAPACITOR >

C5002	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	
C5003	1-165-884-91	CERAMIC CHIP	2.2uF	10%	6.3V	
C5004	1-165-875-11	CERAMIC CHIP	10uF	10%	10V	
C5005	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
△*C5006	1-114-393-11	ELECT	70uF	99%	330V	

< CONNECTOR >

* CN5001	1-779-331-51	CONNECTOR, FFC/FPC 14P				
* CN5002	1-816-647-51	FFC/FPC CONNECTOR (LIF) 18P				

< DIODE >

D5002	6-500-619-01	DIODE RB520S-40TE61				
△D5003	6-501-096-01	DIODE CRF02 (TE85R)				

< IC >

△IC5001	6-707-554-01	IC TPS65552DGQR				
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< COIL >

L5001	1-412-027-11	INDUCTOR	2.2uH			
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< TRANSISTOR >

*△Q5001	6-551-686-01	TRANSISTOR	TIG030TS-S-TL-E			
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<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>				
< RESISTOR >						
R5003	1-208-947-11	METAL CHIP	330K	0.5%	1/16W	
R5004	1-208-935-11	METAL CHIP	100K	0.5%	1/16W	
R5008	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	
R5010	1-216-809-11	METAL CHIP	100	5%	1/10W	
R5011	1-218-989-11	RES-CHIP	1M	5%	1/16W	

< TRANSFORMER >

△ T5001 1-443-568-31 TRANSFORMER, D.C.-D.C.CONVERTER

Electrical parts list of the VC-516 is not shown.

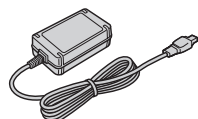
Pages 5-21 to 5-28 are not shown.

• 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



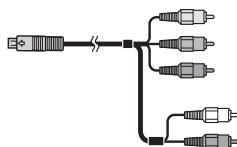
Power cord (Mains lead)
△ 1-555-074-91 (AUS)
△ 1-790-107-61 (US, CND)
△ 1-792-549-41 (JE)
△ 1-824-910-71 (AEP, NE, E:PAL)
△ 1-827-269-12 (UK, HK)
△ 1-832-121-31 (CH)
△ 1-833-892-21 (KR)
△ 1-834-852-11 (E:NTSC)



Operating Guide
(HDR-SR11/SR12)
3-286-585-11 (ENGLISH, SPANISH) (US, CND, JE, E:NTSC)
3-286-585-21 (FRENCH) (CND)
3-286-585-31 (PORTUGUESE) (JE)
3-286-585-41 (TRADITIONAL CHINESE) (E:NTSC)
3-286-585-51 (KOREAN) (KR, JE)



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



Component A/V cable
1-834-647-11

Operating Guide
(HDR-SR11E/SR12E)

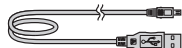
3-286-586-11 (ENGLISH) (AEP, UK, HK, AUS, JE, E:PAL)
3-286-586-21 (FRENCH, DUTCH, GREEK) (AEP)
3-286-586-31 (GERMAN, ITALIAN, TURKISH) (AEP)
3-286-586-41 (SPANISH, PORTUGUESE, POLISH) (AEP)
3-286-586-51 (CZECH, HUNGARIAN, SLOVAK) (AEP)
3-286-586-61 (RUSSIAN, UKRAINIAN) (NE, JE)
3-286-586-71 (SWEDISH, DANISH, FINNISH) (NE)
3-286-586-81 (SIMPLIFIED CHINESE) (CH, JE, E:PAL)
3-286-586-91 (ARABIC, PERSIAN) (E:PAL)
3-286-587-41 (TRADITIONAL CHINESE) (HK)



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



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



USB cable
1-829-868-31



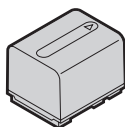
DVD-ROM

"ENJOY HANDYCAM"

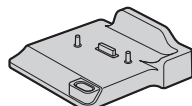
3-282-264-01 (KR)
ENGLISH/KOREA/JAPANESE
3-282-264-11 (US, CND)
ENGLISH/FRENCH/SPANISH/PORTUGUESE
3-282-264-21 (UK, NE)
ENGLISH/RUSSIAN/GERMAN/TURKISH
3-282-264-51 (AEP)
ENGLISH / FRENCH / GERMAN / DUTCH / SPANISH
/ PORTUGUESE / ITALIAN / TURKISH
3-282-264-61 (HK, AUS, CH, E)
ENGLISH / FRENCH / SIMPLIFIED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



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



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



Handycam Station
(DCRA-C210)
1-821-692-11



Handycam Handbook (PDF)

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。



CD-ROM "Handycam
Application Software"
— Picture Motion Browser
(Software)
— PMB Guide
— Handycam Handbook
3-286-588-01

HDR-SR11/SR12

* 3-286-589-01 (JAPANESE)
* 3-286-589-11 (ENGLISH)
* 3-286-589-21 (FRENCH)
* 3-286-589-31 (SPANISH)
* 3-286-589-41 (PORTUGUESE)
* 3-286-589-51 (TRADITIONAL CHINESE)
* 3-286-589-61 (KOREAN)

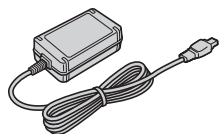
HDR-SR11E/SR12E

* 3-286-590-11 (ENGLISH)	* 3-286-591-71 (SWEDISH)
* 3-286-590-21 (FRENCH)	* 3-286-591-81 (DANISH)
* 3-286-590-31 (DUTCH)	* 3-286-591-91 (FINNISH)
* 3-286-590-41 (GREEK)	* 3-286-592-11 (SIMPLIFIED CHINESE)
* 3-286-590-51 (GERMAN)	
* 3-286-590-61 (ITALIAN)	* 3-286-592-21 (ARABIC)
* 3-286-590-71 (TURKISH)	* 3-286-592-31 (PERSIAN)
* 3-286-590-81 (SPANISH)	* 3-286-592-41 (MALAY)
* 3-286-590-91 (PORTUGUESE)	* 3-286-592-51 (THAI)
* 3-286-591-11 (POLISH)	* 3-286-592-61 (INDONESIAN)
* 3-286-591-21 (CZECH)	* 3-286-592-71 (TRADITIONAL CHINESE)
* 3-286-591-31 (HUNGARIAN)	
* 3-286-591-41 (SLOVAK)	
* 3-286-591-51 (RUSSIAN)	
* 3-286-591-61 (UKRAINIAN)	

• Refer to page 5-1 for mark △.

• J MODEL

付属品



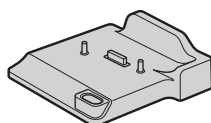
ACアダプター
(AC-L200/L200B)
* L200とL200Bには
互換性があります。
△ 1-479-285-21



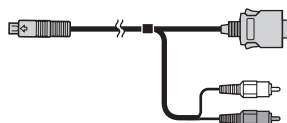
電源コード
△ 1-792-549-41



取扱説明書
3-286-585-01 (日本語)



ハンディカムステーション
(DCRA-C210)
1-821-692-11



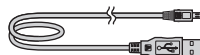
D端子A/Vケーブル
1-834-646-21



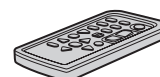
DVD-ROM
“エンジョイハンディーカム”
3-282-264-01
英語/韓国語/日本語



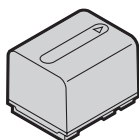
A/V接続ケーブル
1-823-156-51



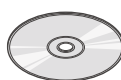
USBケーブル
1-829-868-31



ワイヤレスリモコン
(RMT-835)
1-479-275-41



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



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」
3-286-588-01



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。

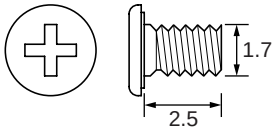
- 印刷物は付属されておりません。
必要の場合は下記部品番号にて注文となります。

* 3-286-589-01 (日本語)

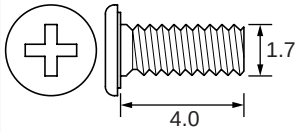
• △マークについては、5-1ページを参照して下さい。

HARDWARE LIST (1/7)

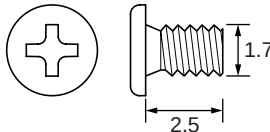
#1: M1.7 X 2.5
(Black)
2-635-562-11



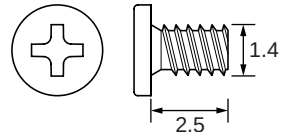
#2: M1.7 X 4.0
(Black)
2-635-562-31



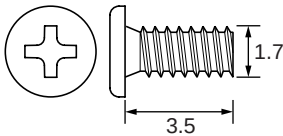
#3: M1.7 X 2.5
(Red)
2-660-401-01



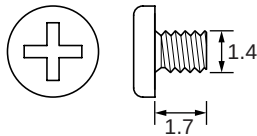
#4: M1.4 X 2.5 (Tapping)
(Dark Silver)
3-348-998-81



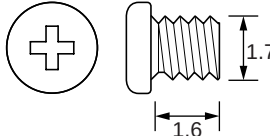
#5: M1.7 X 3.5 (Tapping)
(Black)
3-080-204-01



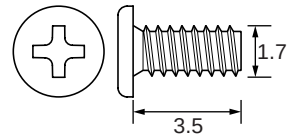
#6: M1.4 X 1.7
(Silver)
2-598-474-01



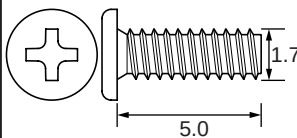
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7-627-552-18



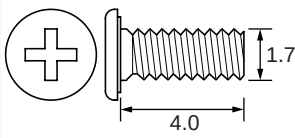
#8: M1.7 X 3.5 (Tapping)
(Silver)
3-078-890-01



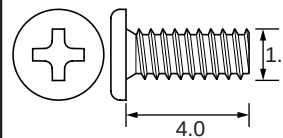
#9: M1.7 X 5.0 (Tapping)
(Silver)
3-078-890-21



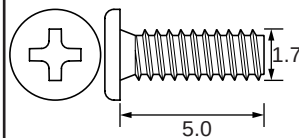
#10: M1.7 X 4.0
(Silver)
2-599-475-31



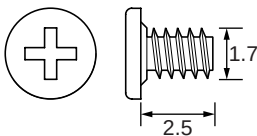
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(Silver)
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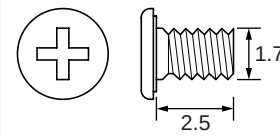
#12: M1.7 X 5.0 (Tapping)
(Black)
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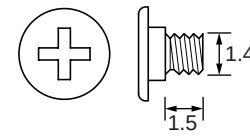
#13: M1.7 X 2.5 (Tapping)
(Silver)
3-085-397-01



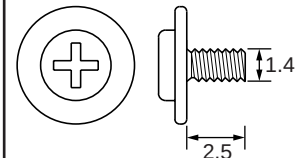
#14: M1.7 X 2.5
(Silver)
2-599-475-11



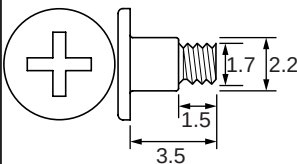
#15: M1.4 X 1.5
(Silver)
3-062-214-01



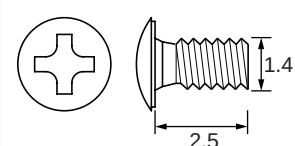
#16: M1.4 X 2.5
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2-586-337-01



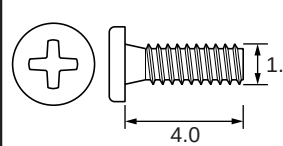
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2-586-389-01



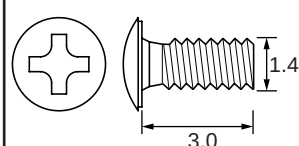
#18: M1.4 X 2.5
(Silver)
2-635-591-21



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

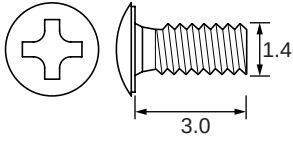


#20: M1.4 X 3.0
(Silver)
2-635-591-31

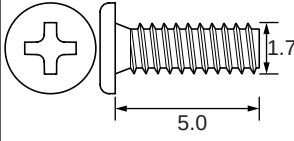


HARDWARE LIST (2/7)

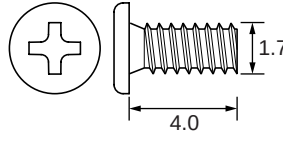
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2-662-396-21



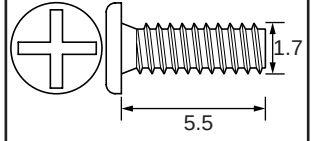
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(Silver)
3-083-261-01



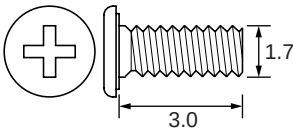
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(Black)
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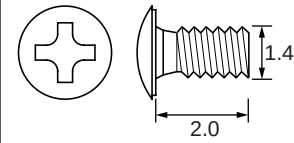
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(Black)
4-679-805-11



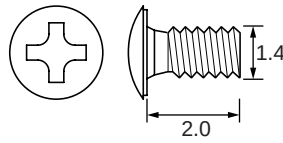
#25: M1.7 X 3.0
(Black)
2-635-562-21



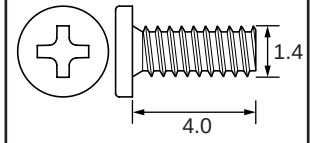
#26: M1.4 X 2.0
(Silver)
2-635-591-11



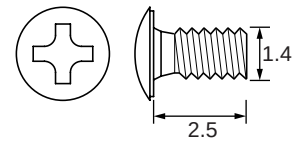
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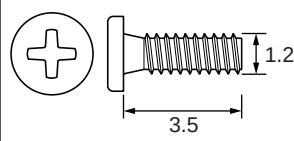
#28: M1.4 X 4.0 (Tapping)
(Silver)
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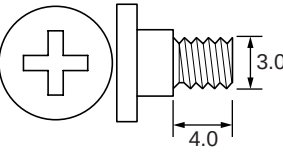
#29: M1.4 X 2.5
(Black)
2-662-396-01



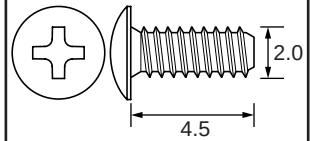
#30: M1.2 X 4.0 (Tapping)
(White)
3-086-156-11



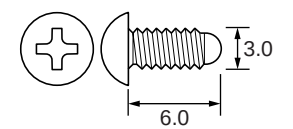
#31: M3.0 X 4.0
(Silver)
2-102-434-01



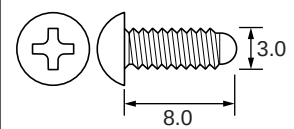
#32: M2.0 X 4.5 (Tapping)
(Silver)
2-102-498-01



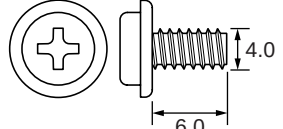
#33: M3.0 X 6.0
(Silver)
3-077-331-21



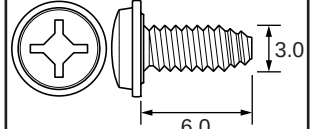
#34: M3.0 X 8.0
(Black)
3-077-331-41



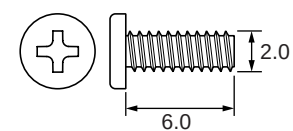
#35: M4.0 X 6.0 (Tapping)
(Silver)
3-975-291-02



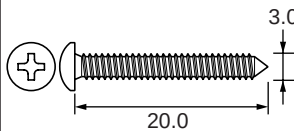
#36: M3.0 X 6.0
(Silver)
4-886-821-11



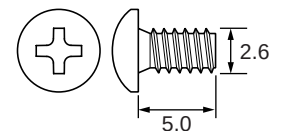
#37: M2.0 X 6.0 (Tapping)
(Black)
3-080-206-31



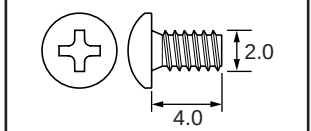
#38: M3.0 X 20.0 (Tapping)
(Silver)
7-685-651-79



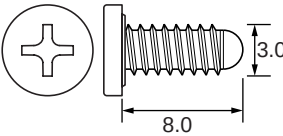
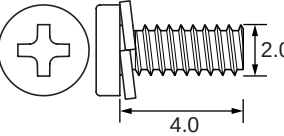
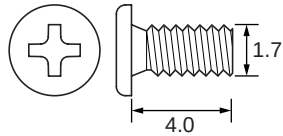
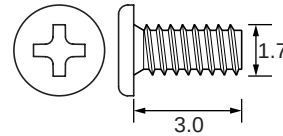
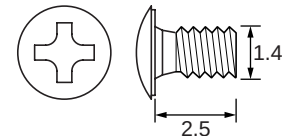
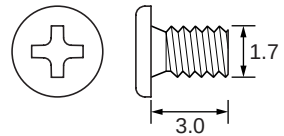
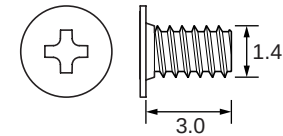
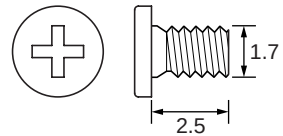
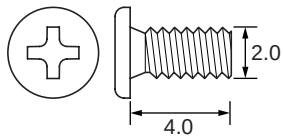
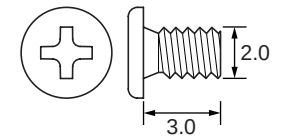
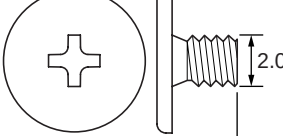
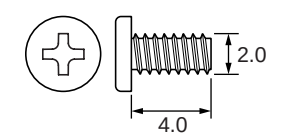
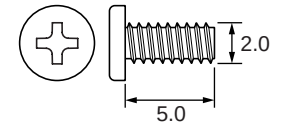
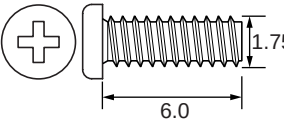
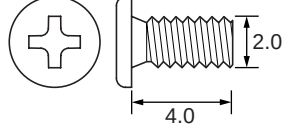
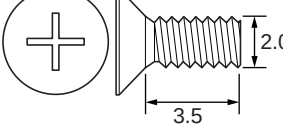
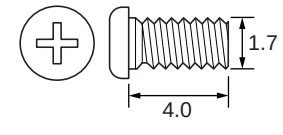
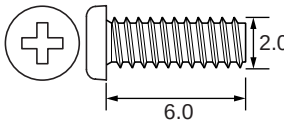
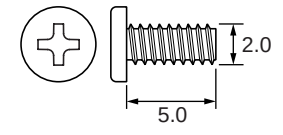
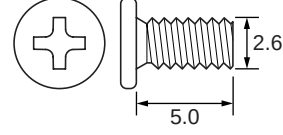
#39: M2.6 X 5.0 (Tapping)
(Black)
7-685-791-09



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

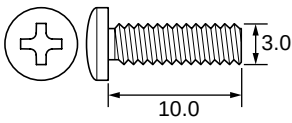


HARDWARE LIST (3/7)

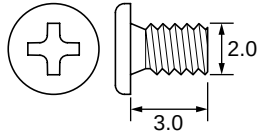
#41: M3.0 X 8.0 (Tapping) (Silver) 3-065-748-01 	#42: M2.0 X 4.0 (Tapping) (Silver) 7-628-253-00 	#43: M1.7 X 4.0 (Red) 2-660-401-31 	#44: M1.7 X 3.0 (Tapping) (Silver) 3-078-890-61 
#45: M1.4 X 2.5 (Silver) 2-587-151-01 	#46: M1.7 X 3.0 (Red) 2-660-401-11 	#47: M1.4 X 3.0 (Tapping) (Silver) 2-665-774-01 	#48: M1.7 X 2.5 (Silver) 3-973-497-91 
#49: M2.0 X 4.0 (Black) 2-630-005-31 	#50: M2.0 X 3.0 (Red) 2-891-494-11 	#51: M2.0 X 2.5 (Silver) 3-073-686-01 	#52: M2.0 X 4.0 (Tapping) (Black) 3-080-206-11 
#53: M2.0 X 5.0 (Tapping) (Black) 3-080-206-21 	#54: M1.75 X 6.0 (Tapping) (Black) 3-318-203-11 	#55: M2.0 X 4.0 (Silver) 2-655-582-11 	#56: M2.0 X 3.5 (Silver) 3-067-187-11 
#57: M1.7 X 4.0 (Black) 7-627-852-18 	#58: M2.0 X 6.0 (Tapping) (Silver) 3-719-408-11 	#59: M2.0 X 5.0 (Tapping) (Silver) 3-080-205-21 	#60: M2.6 X 5.0 (Black) 3-061-062-11 

HARDWARE LIST (4/7)

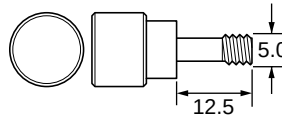
#61: M3.0 X 10.0
(Black)
7-682-549-09



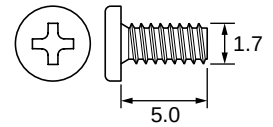
#62: M2.0 X 3.0
(Silver)
3-080-202-21



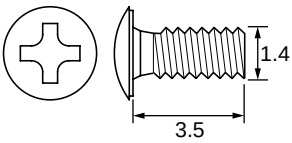
#63: M5.0 X 12.5
(Black)
3-060-811-21



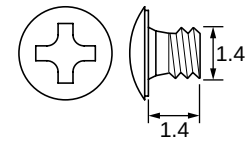
#64: M1.7 X 5.0 (Tapping)
(Silver)
2-666-551-21



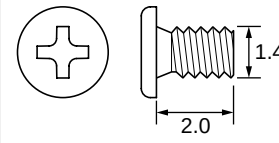
#65: M1.4 X 3.5
(Silver)
2-635-591-01



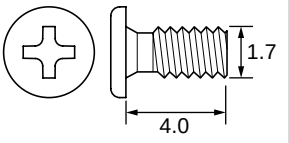
#66: M1.4 X 1.4
(Silver)
2-635-591-41



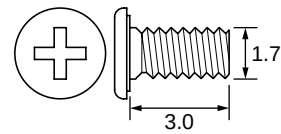
#67: M1.4 X 2.0
(Silver)
3-389-523-16



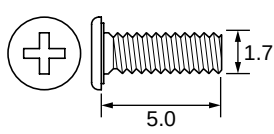
#68: M1.7 X 4.0
(Silver)
2-655-581-01



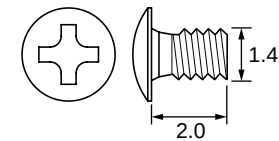
#69: M1.7 X 3.0
(Silver)
2-599-475-21



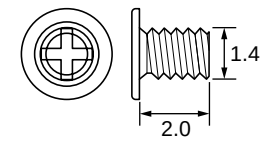
#70: M1.7 X 5.0
(Silver)
2-599-475-41



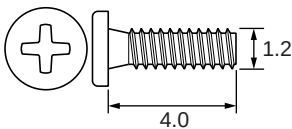
#71: M1.4 X 2.0
(Red)
3-208-537-01



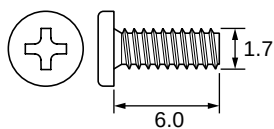
#72: M1.4 X 2.0
(Silver)
4-663-621-41



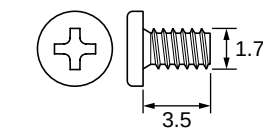
#73: M1.2 X 4.0 (Tapping)
(Black)
3-086-156-61



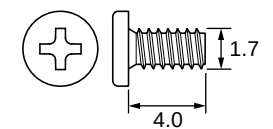
#74: M1.7 X 6.0 (Tapping)
(Silver)
2-666-551-31



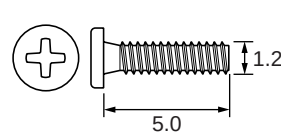
#75: M1.7 X 3.5 (Tapping)
(Silver)
2-666-551-01



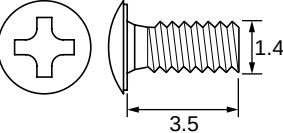
#76: M1.7 X 4.0 (Tapping)
(Silver)
2-666-551-11



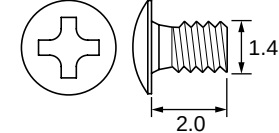
#77: M1.2 X 5.0 (Tapping)
(Silver)
3-086-156-31



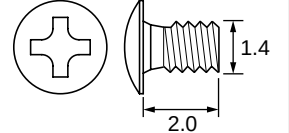
#78: M1.4 X 3.5
(Red)
3-208-537-11



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

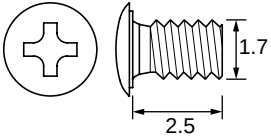


#80: M1.4 X 2.0
(Black)
3-279-411-01

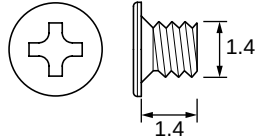


HARDWARE LIST (5/7)

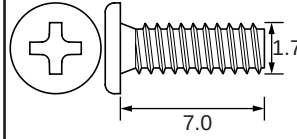
#81: M1.7 X 2.5
(Silver)
2-515-756-01



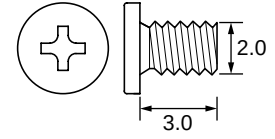
#82: M1.4 X 1.4
(Silver)
3-272-251-01



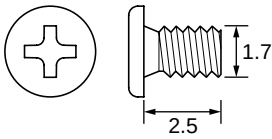
#83: M1.7 X 7.0 (Tapping)
(Black)
3-080-204-41



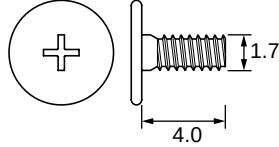
#84: M2.0 X 3.0
(Silver)
3-072-453-11



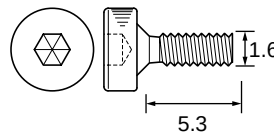
#85: M1.7 X 2.5
(Black)
2-515-483-11



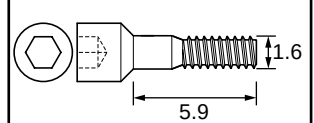
#86: M1.7 X 4.0 (Tapping)
(Silver)
2-695-434-21



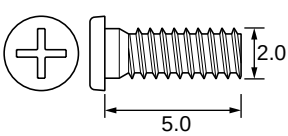
#87: M1.6 X 5.3
(Black)
2-689-328-01



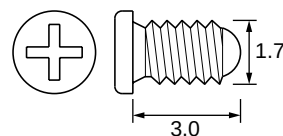
#88: M1.6 X 5.9 (Tapping)
(Silver)
2-689-015-01



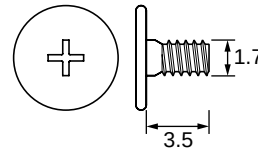
#89: M2.0 X 5.5 (Tapping)
(Silver)
2-695-575-01



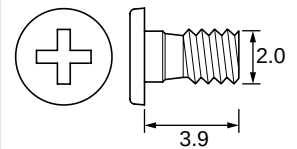
#90: M1.7 X 3.0
(Silver)
3-271-395-01



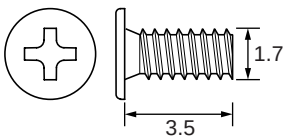
#91: M1.7 X 3.0 (Tapping)
(Silver)
2-695-434-11



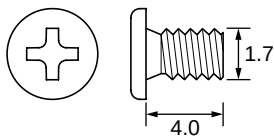
#92: M2.0 X 3.9
(Black)
3-268-954-01



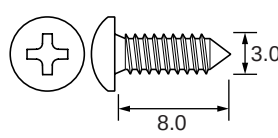
#93: M1.7 X 3.5 (Tapping)
(Silver)
3-254-082-01



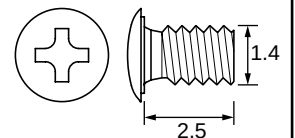
#94: M1.7 X 4.0
(Black)
2-515-483-31



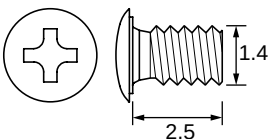
#95: M3.0 X 8.0 (Tapping)
(Black)
7-685-646-79



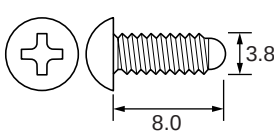
#96: M1.4 X 2.5
(Silver)
2-587-151-21



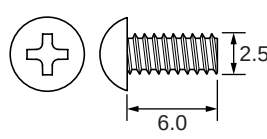
#97: M1.4 X 2.5
(Black)
2-662-396-31



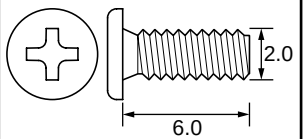
#98: M3.0 X 8.0
(Silver)
3-077-331-01



#99: M2.5 X 6.0 (Tapping)
(Silver)
3-776-750-02

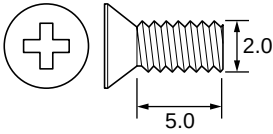


#100: M2.0 X 6.0
(Black)
3-080-203-51

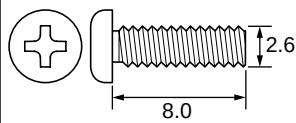


HARDWARE LIST (6/7)

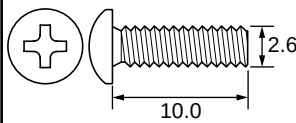
#101: M2.0 X 5.0
(Silver)
7-621-555-39



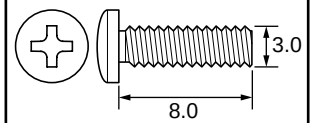
#102: M2.6 X 8.0
(Black)
7-621-284-30



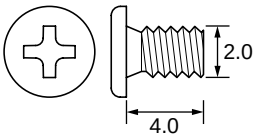
#103: M2.6 X 10.0
(Silver)
7-685-794-09



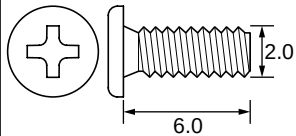
#104: M3.0 X 8.0
(Black)
7-682-548-09



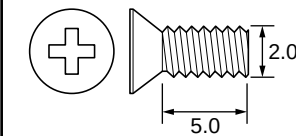
#105: M2.0 X 4.0
(Red)
2-891-494-31



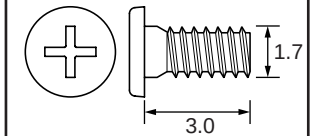
#106: M2.0 X 6.0
(Black)
3-713-786-11



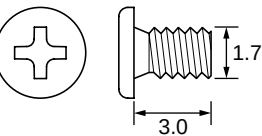
#107: M2.0 X 5.0
(Silver)
3-032-750-01



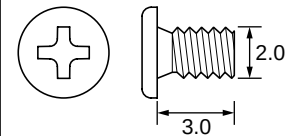
#108: M1.7 X 3.0 (Tapping)
(Black)
2-695-430-01



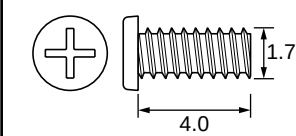
#109: M1.7 X 3.0
(Black)
2-515-483-21



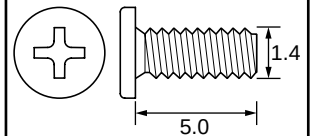
#110: M2.0 X 3.0
(Black)
2-630-005-21



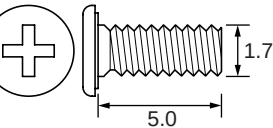
#111: M1.7 X 4.0 (Tapping)
(Black)
2-887-124-01



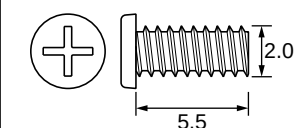
#112: M1.4 X 5.0
(Black)
2-178-410-11



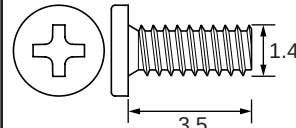
#113: M1.7 X 5.0
(Black)
2-635-562-41



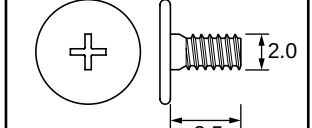
#114: M2.0 X 5.5 (Tapping)
(Silver)
2-698-464-01



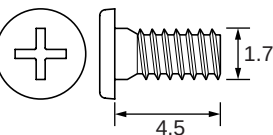
#115: M1.4 X 3.5 (Tapping)
(Silver)
3-348-998-51



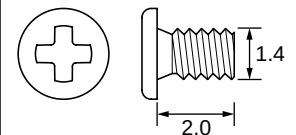
#116: M2.0 X 3.5 (Tapping)
(Silver)
2-695-435-01



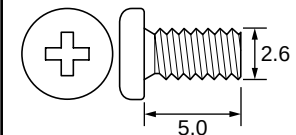
#117: M1.7 X 4.5 (Tapping)
(Silver)
2-695-429-31



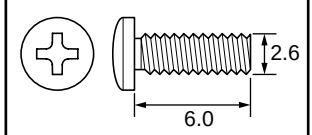
#118: M1.4 X 2.0
(Black)
2-655-580-01



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

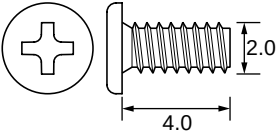


#120: M2.6 X 6.0
(Silver)
7-621-770-67

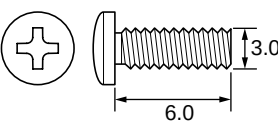


HARDWARE LIST (7/7)

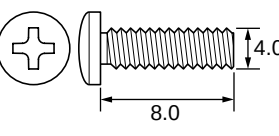
#121: M2.0 X 4.0 (Tapping)
(Silver)
3-080-205-11



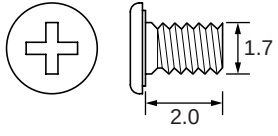
#122: M3.0 X 6.0
(Black)
7-682-547-09



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



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



Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2008.01	Official Release	—	—