2022/07/07 04:35:36 (GMT+09:00)

SONY

LARGE LENS ADAPTOR

HDLA-3505
HDLA-3501

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SERVICE MANUAL
1st Edition

Corrected on June 27, 2022

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Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠ AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l’entretien. Afin de réduire les risques de décharge électrique, d’incendie ou de blessure n’effectuer que les réparations indiquées dans le mode d’emploi à moins d’être qualifié pour en effectuer d’autres. Pour toute réparation faire appel à une personne compétente uniquement.

Model Name	Serial No.
HDLA-3505 (J)	10001 and higher
HDLA-3505 (CED)	40001 and higher
HDLA-3501 (SY)	10001 and higher

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Section 1
Installation

1-1. Connectors and Cables

1-1-1. Connector Input/Output Signals

Input Signals

1. HD SDI IN (HDLA-3505)

BNC type

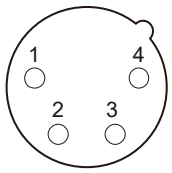
HD SDI signal

SMPTE ST 424/425-1, ST 292-1, BTA-S004 compliant

0.8Vpp 75 Ω 2.97 Gbps/2.9670 Gbps, 1.485 Gbps/1.48352 Gbps serial

2. DC IN

XLR 4-pin, Male



- External View -

No.	Signal	I/O	Specifications
1	EXT_DC (C)	–	GND for DC (+)
2	NC	–	No connection
3	NC	–	No connection
4	EXT_DC (H)	IN	+10.5 V to 17 V dc, 9.5 A (max)

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Output Signals

4. HD SDI OUT (HDLA-3505)

BNC type

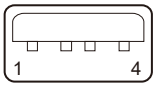
HD SDI signal

SMPTE ST 424/425-1, ST 292-1, BTA-S004 compliant

0.8Vpp 75 Ω 2.97 Gbps/2.9670 Gbps, 1.485 Gbps/1.48352 Gbps serial

5. DC OUT (USB Type-A)

USB (Series A), 4-pin



- External View -

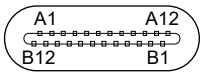
No.	Signal	I/O	Specifications
1	VBUS	OUT	+5 V dc, 2.5 A (max)
2	(D-)	–	1.5 kΩ Pull up to VBUS
3	(D+)	–	1.5 kΩ Pull up to VBUS
4	GND	–	GND

Note

This connector is for power supply only. It does not support data communication.

6. DC OUT (USB Type-C) (HDLA-3505)

Type C



- External View -

No.	Signal	I/O	Specifications
A1	GND	–	GND
A2	NC	–	No connection
A3	NC	–	No connection
A4	VBUS	OUT	5 V/3 A, 9 V/3 A, 15 V/2 A (USB PD compliant)
A5	CC1	IN/OUT	Configuration Channel
A6	NC	–	No connection
A7	NC	–	No connection
A8	NC	–	No connection
A9	VBUS	OUT	5 V/3 A, 9 V/3 A, 15 V/2 A (USB PD compliant)
A10	NC	–	No connection

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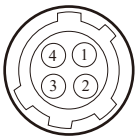
No.	Signal	I/O	Specifications
A11	NC	–	No connection
A12	GND	–	GND
B1	GND	–	GND
B2	NC	–	No connection
B3	NC	–	No connection
B4	VBUS	OUT	5 V/3 A, 9 V/3 A, 15 V/2 A (USB PD compliant)
B5	CC2	IN/OUT	Configuration Channel
B6	NC	–	No connection
B7	NC	–	No connection
B8	NC	–	No Connection
B9	VBUS	OUT	5 V/3 A, 9 V/3 A, 15 V/2 A (USB PD compliant)
B10	NC	–	No connection
B11	NC	–	No connection
B12	GND	–	GND

Note

This connector is for power supply only. It does not support data communication.

7. DC OUT (round)

4-pin, Female



- External View -

No.	Signal	I/O	Specifications
1	UNREG GND	–	GND for POWER
2	NC	–	No connection
3	NC	–	No connection
4	UNREG	OUT	+12 V dc, 1.5 A (max)

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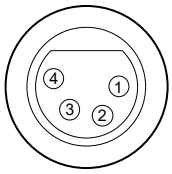
8. DC OUT (XLR)

XLR 4-pin, Female

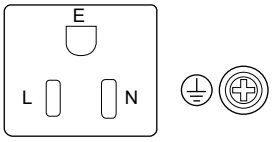


- External View -

No.	Signal	I/O	Specifications
1	UNREG GND	–	GND for POWER
2	NC	–	No connection
3	NC	–	No connection
4	UNREG	OUT	+12 V dc, 5 A (max)

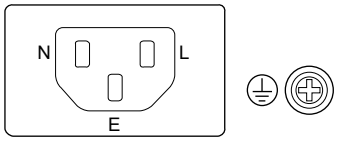
9. AC OUT (For service personnel only)

For J model



– External view –

For CED model



– External view –

No.	Signal	I/O	Specifications
E	GND	–	CHASSIS GND
N	UTL (C)	OUT	J: AC 100 V/120 V, 50 Hz/60 Hz, 50 VA/200 VA or less CED: AC 100 V/120 V/230 V, 50 Hz/60 Hz 50 VA/200 VA or less
L	UTL (H)	OUT	
-	Ground terminal	-	CHASSIS GND

Note

Be sure to ground the ground terminal when using AC OUT.

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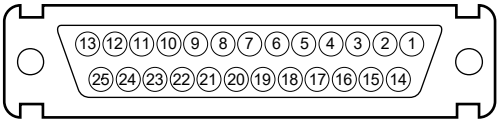
Input/Output Signals

10. VF (When the saddle is attached)

25-pin, Female



- External View -

No.	Signal	I/O	Specifications
1	VF-Y (X)	OUT	1.0 V p-p, Zo=75 Ω
2	VF-GND (Pr)	–	GND for VF-Pr (X)
3	VF-Pr (X)	OUT	0.7 V p-p, Zo=75 Ω
4	VF-GND (Pb)	–	GND for VF-Pb (X)
5	VF-Pb (X)	OUT	0.7 V p-p, Zo=75 Ω
6	PEAKING CONTROL	IN	ON: +5 V OFF: 0 V
7	VF-UNREG	OUT	+10.5 to +20 V
8	VF-UNREG	OUT	+10.5 to +20 V
9	NC	–	No connection
10	S-DATA	IN/OUT	TT level
11	TALLY (R)-VF	OUT	ON: +5 V OFF: 0 V
12	EFFECT	OUT	ON: +5 V OFF: 0 V
13	NC	–	No connection
14	VF-GND (Y)	–	GND for VF-Y (X)
15	S-CK	OUT	TTL level
16	BATT IND	OUT	ON: +5 V OFF: 0 V
17	CHASSIS GND	–	GND
18	TALLY (G)-VF	OUT	ON: +5 V OFF: 0 V
19	GND (UNREG)	–	GND for VF-UNREG
20	GND (UNREG)	–	GND for VF-UNREG
21	VF-SEL	IN	BW: 0 V COLOR: +5 V
22	H EXPAND	OUT	ON: GND OFF: +5 V
23	NC	–	No connection
24	NC	–	No connection
25	V EXPAND	OUT	ON: GND OFF: +5 V

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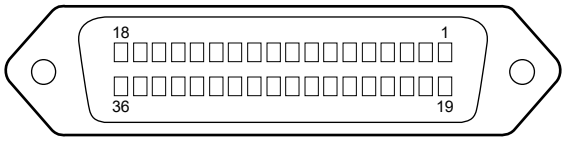
11. LENS

36-pin, Female



- External View -

No.	Signal	I/O	Specifications
1	NC	—	No connection
2	NC	—	No connection
3	NC	—	No connection
4	LENS +12 V	OUT	+12 V (at 3 A)
5	GND (LENS)	—	GND for +12 V (LENS)
6	GND (SIG)	—	GND
7	NC	—	No connection
8	LENS-EXT-1 (SERIAL RXD)	IN	*1 (LENS SERIAL DATA)
9	LENS-EXT-2	IN	*1
10	LENS-EXT-3	IN	*1
11	LENS-SERVO	OUT	ON: GND OFF: High impedance
12	IRIS-POSI	IN	Zi ≥ 10 kΩ 2 to 7 V “3.4 ±0.1 V (F16)” “6.2 ±0.1 V (F2.8)”
13	ZOOM-POSI	IN	Zi ≥ 10 kΩ 2 to 7 V “2 V (WIDE), 7 V (TELE)”
14	RET 1-ON	IN	Zi ≧ 10 kΩ ON: GND OFF: High impedance
15	RET 2-ON	IN	Zi ≥ 10 kΩ ON: GND OFF: High impedance
16	FOCUS-POSI	IN	Zi ≥ 10 kΩ 2 to 7 V “2 V (MIN), 7 V (∞)”
17	IRIS-CONT	OUT	2 to 7 V “3.4 ±0.1 V (F16)” “6.2 ±0.1 V (F2.8)” Zo ≤ 1 kΩ
18	IRIS-AUTO/MANU (SERIAL TXD)	OUT	AUTO: GND MANU: High impedance Zo ≤ 1 kΩ

Continued

*1: Zi ≥ 10 kΩ

1: High impedance

0: 0 ±0.5 V

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No.	Signal	I/O	Specifications
19	NC	—	No connection
20	NC	—	No connection
21	LENS R TALLY	OUT	ON: GND OFF: High impedance Zo ≤ 1 kΩ
22	LENS-EXP-POSI	IN	Zi ≥ 10 kΩ 1 to 4 V 1 V: –7.5° 4 V: +7.5°
23	RET 3-ON	IN	Zi ≥ 10 kΩ ON: GND OFF: High impedance
24	LENS-ADR-0	IN	*2
25	LENS-ADR-1	IN	*2
26	LENS-ADR-2	IN	*2
27	LENS-ADR-3	IN	*2
28	EXT 1-ON	OUT	ON: GND OFF: High impedance
29	EXT 2-ON	OUT	ON: GND OFF: High impedance
30	F-DEM (FAR)	IN	No connection
31	INCOM 1- ENG/PROD	IN	Zi ≥ 10 kΩ ENG: GND PRD: High impedance
32	INCOM 2- ENG/PROD	IN	Zi ≥ 10 kΩ ENG: GND PRD: High impedance
33	INCOM 1-MIC-ON	IN	Zi ≥ 10 kΩ ON: GND OFF: High impedance
34	INCOM 2-MIC-ON	IN	Zi ≥ 10 kΩ ON: GND OFF: High impedance
35	F-CONT-SIG	OUT	No connection
36	F-DEM (NEAR)	IN	No connection

*2: Zi ≥ 10 kΩ

1: High impedance

0: 0 +0.5/–0 V

LENS ADRS 0 (low-order bit)

LENS ADRS 3 (high-order bit)

EX1	EX2	EX3	MODE
1	1	1	EXTENDER OFF
1	0	1	EXT-1 (x 1.5) ON
0	1	1	EXT-2 (x 2) ON
0	0	1	EXT-3 (x 2.5) ON

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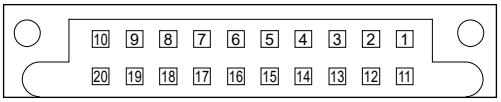
12. BUILT-UP

20-pin, Female



– External view –

No.	Signal	I/O
1	Y-VIDEO (X)	IN
2	GND (Y)	–
3	Pb-VIDEO (X)	IN
4	GND (Pb)	–
5	Pr-VIDEO (X)	IN
6	GND (Pr)	–
7	RESERVE (X)	–
8	GND (RESERVE)	–
9	G-TALLY	IN
10	R-TALLY	IN
11	AC 240 V/DC 240 V	IN
12	CA-TX-IN	IN
13	CA-RX-OUT	OUT
14	CA-SENSE-OUT	OUT
15	LENS-TX-IN	OUT
16	LENS-RX-OUT	IN
17	B-SPARE	–
18	STB-INCOM1-ON	OUT
19	CHASSIS-GND	–
20	AC 240 V/DC 240 V	IN

1-1-2. Connection Connectors/Cables

Connection made with the connector panels during installation or service, should be made with the connectors/complete cable assemblies specified in the following list, or equivalent parts.

Connector Name	Connector/Cable
DC OUT (4 pin, Female)	Plug, 4-Pin Male (Part No.: 1-566-425-11) or HIROSE HR10A-7P-4P equivalent
DC IN (XLR type 4 pin, Male)	XLR, 4-Pin Female (Part No.: 1-508-362-11/-21) or ITT Cannon XLR-4-11C equivalent Cable (Part No.: 1-551-578-11)
DC OUT (XLR type 4 pin, Female)	XLR, 4P Male (Part No.: 1-784-898-11, 1-508-369-11/21) or ITT Cannon XLR-4-12C equivalent

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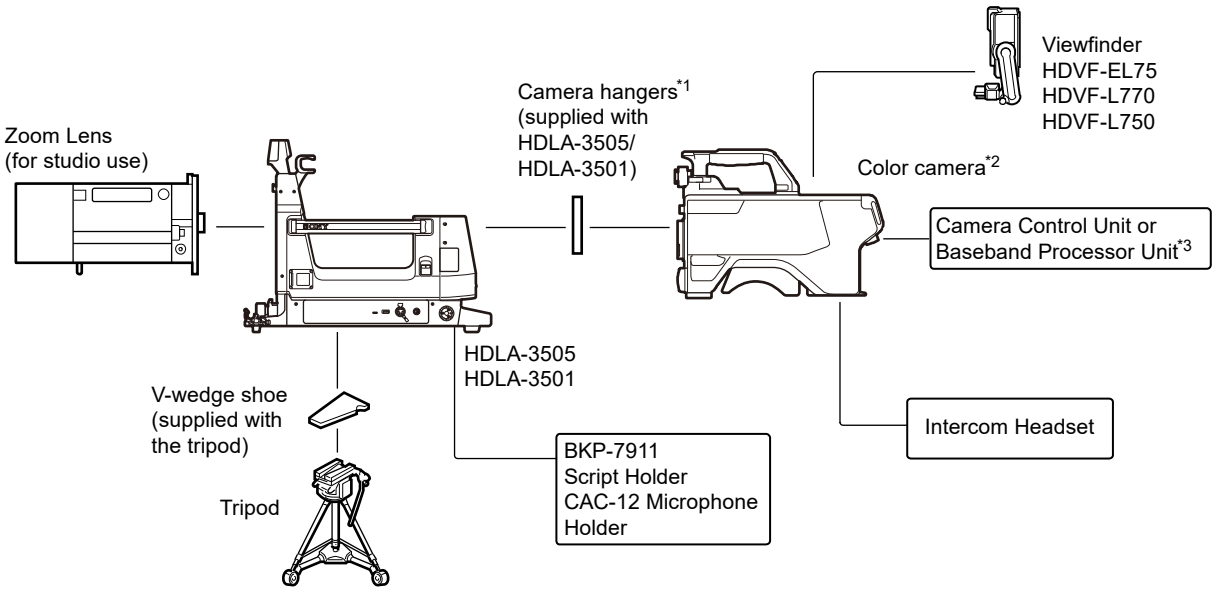
1-2. System Configuration



*1: Part No.: A-1128-405-A

*2: HDLA-3505 compatible model: HDC5500, HDC3500, HDC3200, HDC4300, HDC4800 (with B4 lens adaptor used), HDC2500 series, HDC3300 series, HDC1500 series, HSC300 series

HDLA-3501 compatible model: HDC5500, HDC3500, HDC3200 (software version 3.01 or later)
HDC4300 (software version 1.91 or later)
HDC2500 (software version 3.40 or later)

*3: For details about the Camera Control Unit or the Baseband Processor Unit, refer to the Operating Instructions of the Color Camera.

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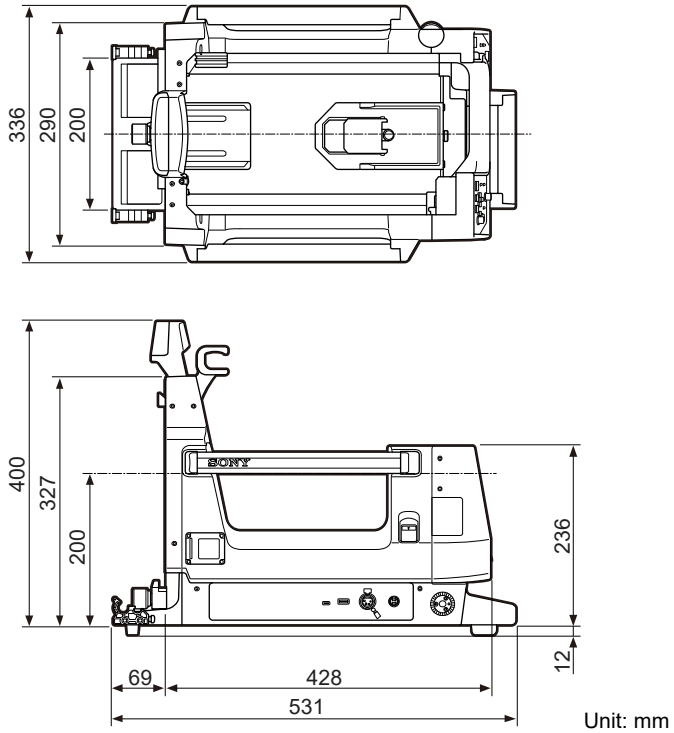
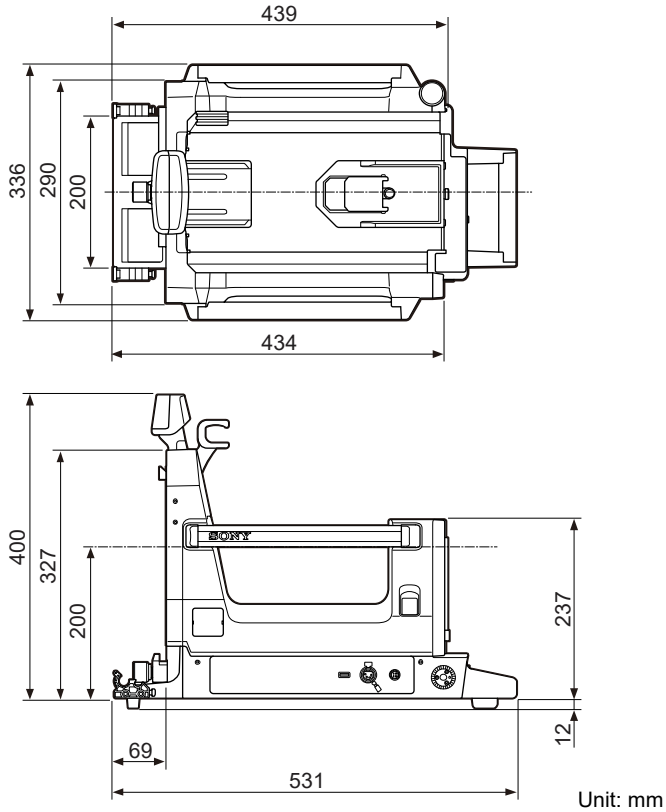
1-3. Dimensions

HDLA-3505



Unit: mm

HDLA-3501



Unit: mm

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1-4. Adjustment of Camera Height

Perform the adjustment in the following procedures when the camera cannot be smoothly set to the adapter.

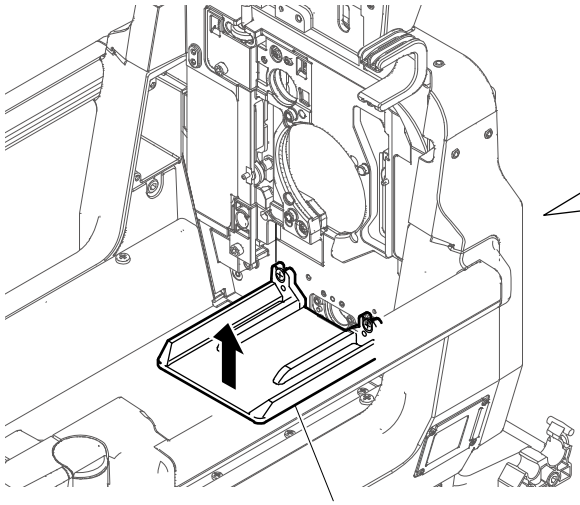
1-4-1. Front Side

Perform the adjustment in the following conditions.

- The camera is attached.
- The lens is not attached.

Procedure

1. Loosen the two bolts (M4).
2. Turn the screw (M8) in the clockwise direction to raise the V shoe base, then leave no space between the camera and V shoe base.
3. Turn (1/6) the screw in the counterclockwise direction.
4. Tighten the loosened two bolts (M4).
5. Check that the camera can be attached and detached smoothly.



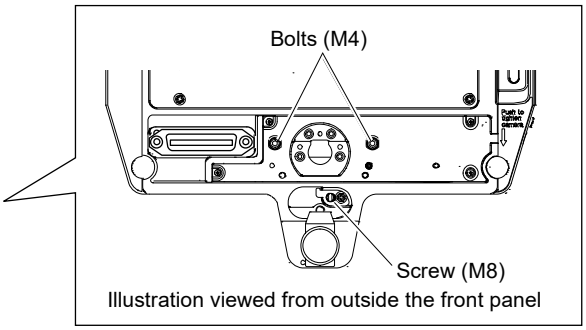


Illustration viewed from outside the front panel

This figure shows HDLA-3505.

Note

Perform the adjustment on the rear panel described below when the adjustment on the front panel is not sufficient for the height adjustment. The V shoe base may be excessively raised when a camera cannot be put at first. Lower the height of the V shoe base once and perform the adjustment again.

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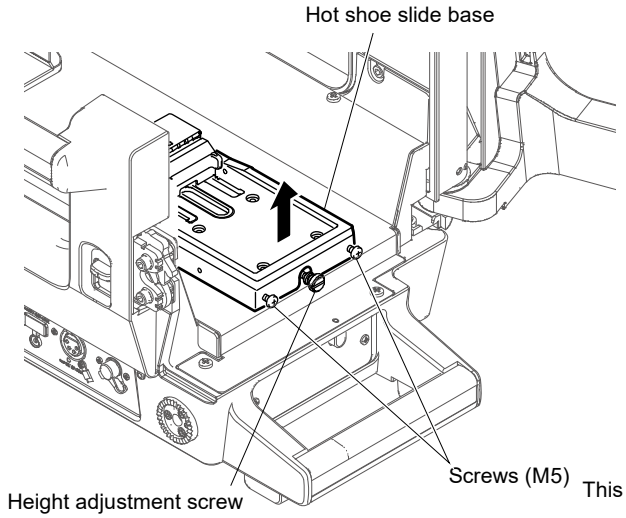
1-4-2. Rear Side

Perform the adjustment in the following conditions.

- The camera is attached.
- The lens is attached.

Procedure

1. Loosen the two screws (M5).
2. Turn the height adjustment screw in the clockwise direction to raise the hot shoe slide base.
   The hot shoe slide base is raised.
3. Raise the hot shoe slide base to the point where the camera can be smoothly detached.



This figure shows HDLA-3505.

4. Tighten the loosened two screws (M5).

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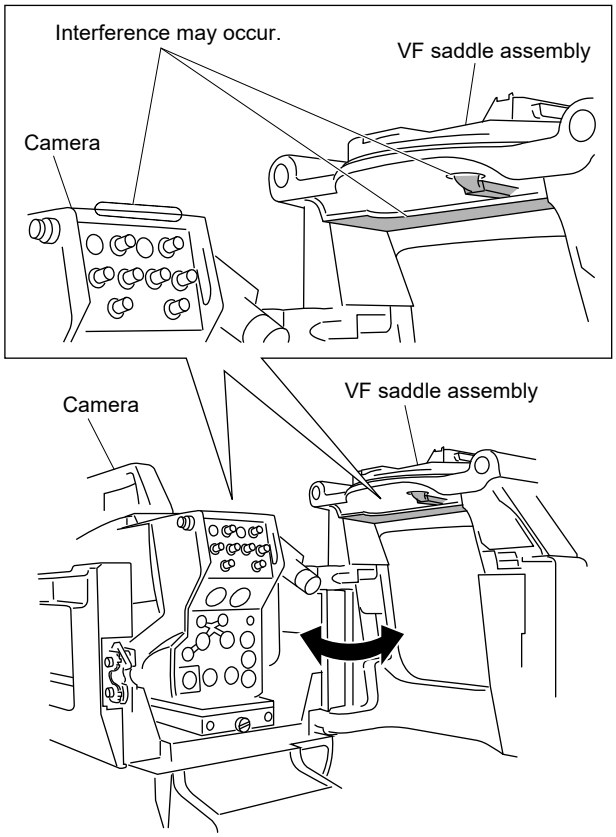
5. Check that the rear panel can be opened and closed with the camera (lens attached) attached.

   Note

   If the camera is raised excessively with the VF saddle assembly installed, the camera may interfere with the parts of the VF saddle assembly.



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1-5. Adjustment of Latch (HDLA-3505)

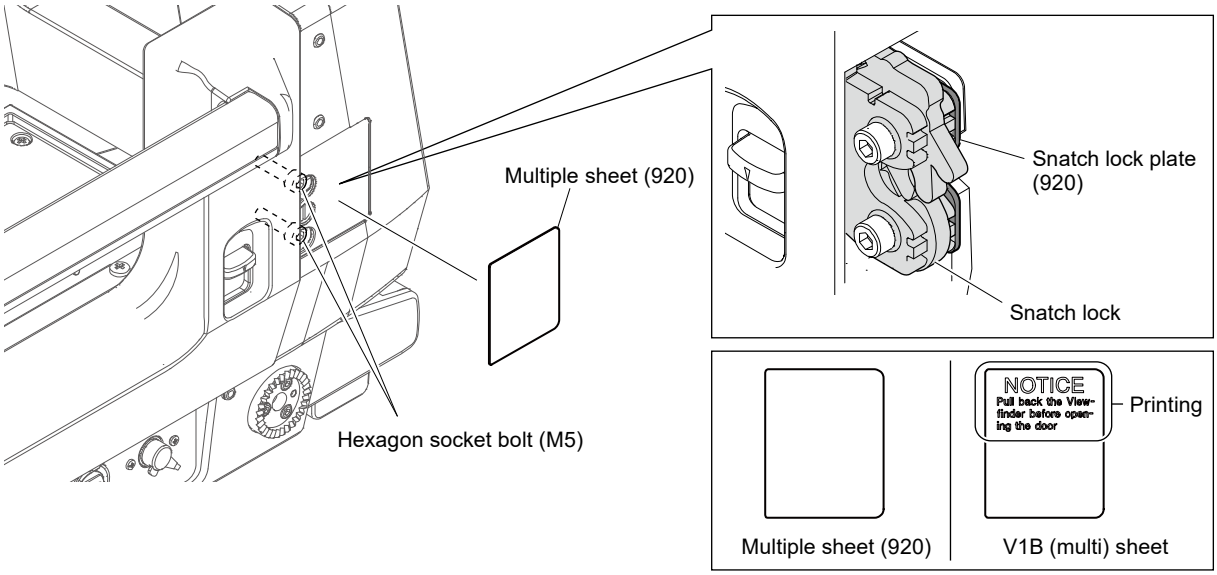
If the rear panel cannot be opened or closed smoothly with the VF saddle assembly (or the viewfinder on it) installed, adjust the latch.

Procedure

1. Peel off the multiple sheet (920).
2. Loosen the two hexagon socket bolts (M5). (The snatch lock position is adjusted according to the rear panel bent due to the weight of the VF saddle assembly.)

   Note

   - If the hexagon socket bolts (M5) are excessively loosened, the snatch lock plate (920) is disconnected from the dowel of the snatch lock. Loose the hexagon socket bolts (M5) to a degree so that the snatch lock can move.
   - Loosen the hexagon socket bolts (M5) with the rear panel locked.



3. Tighten the two hexagon socket bolts (M5) again.
4. Check that the rear panel can be smoothly opened and closed. If it cannot be opened or closed smoothly, repeat steps 1 to 3.
5. When the VF saddle assembly is installed, replace the multiple sheet (920) (without printing) with a multi (V1B) sheet (with printing).

   Tip

   If the VF saddle assembly is not installed, attach the multiple sheet (920) again. If its adhesive glue is peeled off, replace the multiple sheet (920) with a new one.

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1-6. Adjustment of Optical Axis (HDLA-3505)

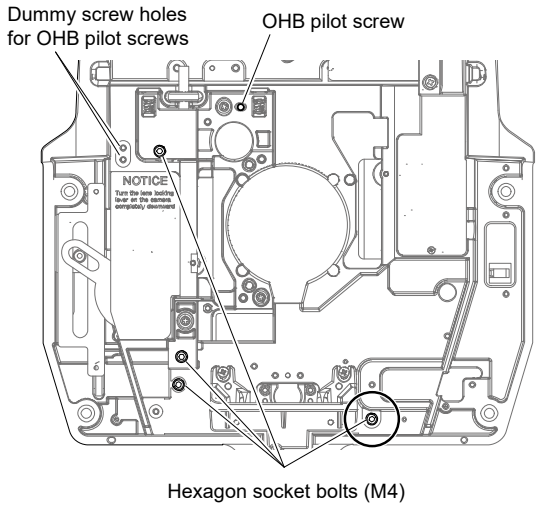
In case an image may shift during zooming when a high-magnification lens is used, the unit is provided with a fine-adjustment mechanism for the lens optical axis and the camera optical axis. (Use the unit in the factory default state usually.)

Note

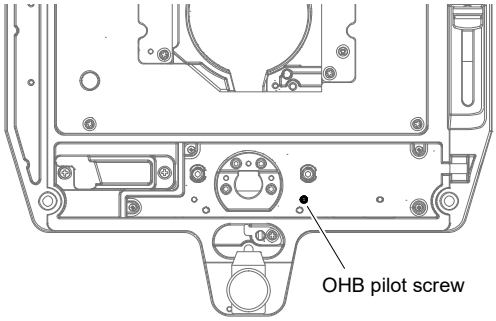
Adjust the optical axis with the lens and camera to be used installed.

1. Remove the two OHB pilot screws. (They can be stored in the dummy screw holes above the NOTICE label.)
2. Loosen the hexagon socket head bolt (M4) circled in the figure below. (This blot cannot be loosened after the camera is installed.)

Back side of front panel



Front side of front panel



3. Install a camera and a lens, and then output images on the viewfinder.
4. Loosen the other three hexagon socket head bolts (M4).
5. Display a center marker on the viewfinder.
6. Clear the H/V value of the center marker to 0.
7. Prepare an object chart (such as Siemens Star Chart) so that its center can be clearly viewed if the picture frame is enlarged or reduced to the tele end and wide end.
8. Zoom the camera to the tele end and move it, and then adjust the picture frame so that the center marker comes to the chart center.
9. Lock the pan and tilt of the tripod to fix the camera.
10. Zoom out the camera to the wide end.

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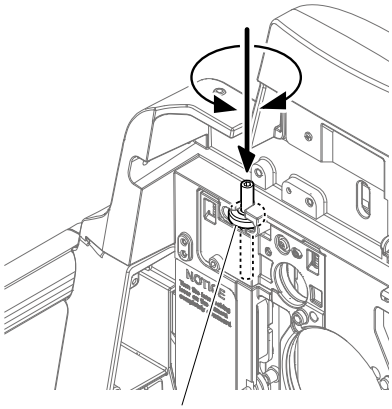
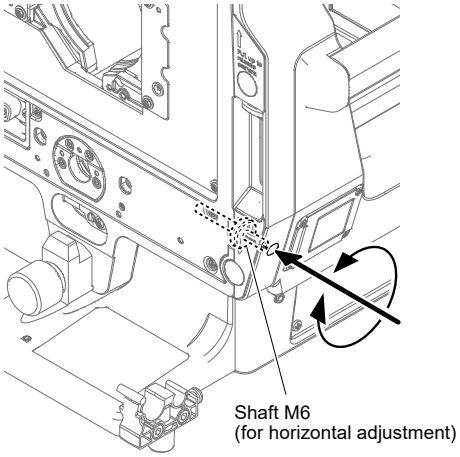
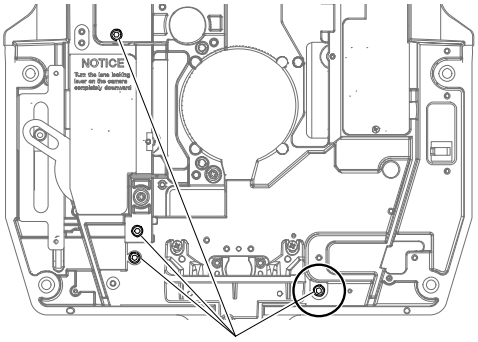
11. If the center marker shifts from the chart center, turn the shafts M6 for vertical adjustment and horizontal adjustment so that the center marker comes to the chart center.
12. Repeat steps 8 to 11 until there is no misalignment between the center marker and the chart center at the tele end and the wide end by zooming.
13. When there is no misalignment between the center marker and the chart center at the tele end and the wide end, tighten the four hexagon socket head bolts (M4) again.
    (Tighten the left three hexagon socket bolts (M4) before removing the camera, and then tighten the circled hexagon socket bolt (M4) after the camera is removed.)





Back side of front panel



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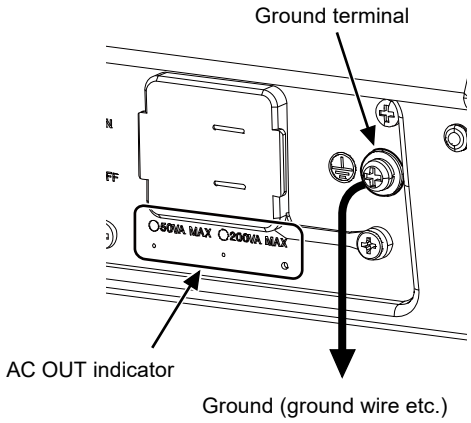
1-7. Setting AC OUT and Grounding Ground Terminal

The HDLA-3505 is equipped with the utility power supply (AC OUT) to service in places where power is not available. (The AC OUT can also be added in HDLA-3501.)
Be sure to attach the protective cover (outlet blank panel) after using the AC OUT.

Grounding ground terminal

When using the AC OUT, be sure to ground the ground terminal on the unit with the ground wire shown below.



WARNING

When using general power supply through the AC OUT, be sure to make a ground connection.

WARNING

- When making a ground connection or disconnecting it, make sure that the unit is not powered on.
- Use a ground wire with the following specifications.
  - Color of ground wire: Combined green-and-yellow.
  - Sizes of ground wire: Cross-sectional area Min 0.5 mm^2, AWG 20.
  - Material of ground wire or terminal: Zinc, or zinc alloy

Note

- The AC OUT is used during maintenance service.
  Persons other than a service personnel must not use the utility output.
- The AC OUT varies depending on the destination.

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AC OUT indicator

The following describes the AC OUT output rating and operating status.

The output rating varies depending on the CCU to be connected.

50VA max:	When a portable CCU such as HDCU2500/3500 is connected
200VA max:	When a large CCU such as HDCU2000/5000 is connected
Green:	Normal operation
Red:	The protection circuit is working or the internal fan is not working.

Note

Available power may be restricted by the CCU, camera, viewfinder, lens, and fiber cable length.

When the AC OUT indicator lights red and the output is disabled, turn off the OUTPUT switch. When the protection circuit is reset, this indicator lights green.

Turning on the OUTPUT switch in this state enables the AC OUT output.

While the fan is defective, the AC OUT indicator is lit red. Replace the fan.

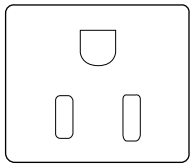
Output voltages

Available voltages vary depending on the AC OUT connector shape.

WARNING

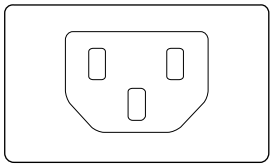
Do not set the voltage of the connector in Fig.1 to 230 V.

Fig.1 (MEMA 5-15 Type)



Output voltage: 100V, 120V

Fig.2 (IEC C14 Type)



Output voltage: 100V, 120V,230V

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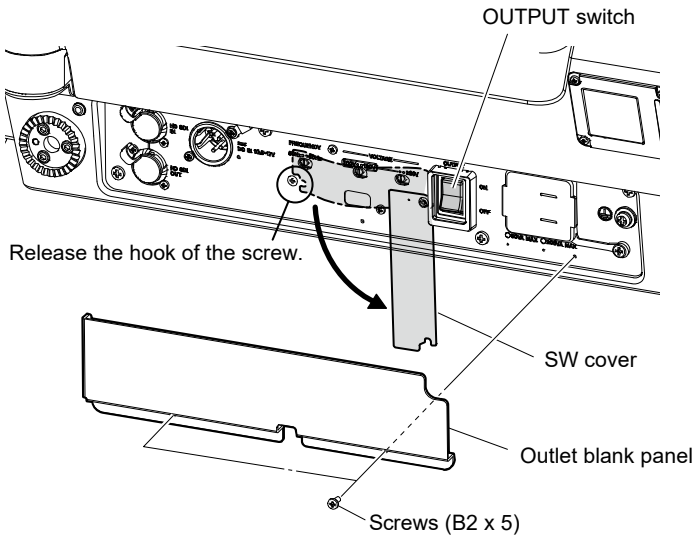
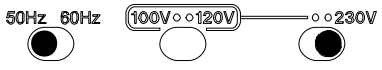
Output settings

1. Remove the outlet blank panel of the outlet panel.
2. Release the hook of the screw, and then turn the SW cover.



3. Turn off the OUTPUT switch.
4. Set the output voltage and frequency for the equipment to be used.

100 V, 50 Hz	
100 V, 60 Hz	
120 V, 60 Hz	
230 V, 50 Hz	

5. Set the SW cover to the original position.
6. Check that 50VA or 200V of the AC OUT indicator is lit green.
7. Connect the AC plug of the equipment to be used to the AC OUT connector.
8. Turn on the OUTPUT switch to enable the AC OUT output.

Note

Be sure to set the OUTPUT switch to OFF before changing the voltage.
If the voltage setting is changed while the OUTPUT switch is tuned on, the protection circuit is activated to disable the AC output and the AC OUT indicator lights red.
Turn off the OUTPUT switch, check that the AC OUT indicator changes to green, and then turn on the OUTPUT switch again.

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After using AC OUT

1. Turn off the OUTPUT switch.
2. Disconnect the AC plug of the equipment used.
3. Remove the cable from the ground Terminal.
4. Install the outlet blank panel.

Note

Make sure that the OUTPUT switch is set to OFF when connecting and disconnecting the AC plug.

1-8. Additional Options

1-8-1. Installing the VF Saddle Assembly (Equivalent to HDLA1500)

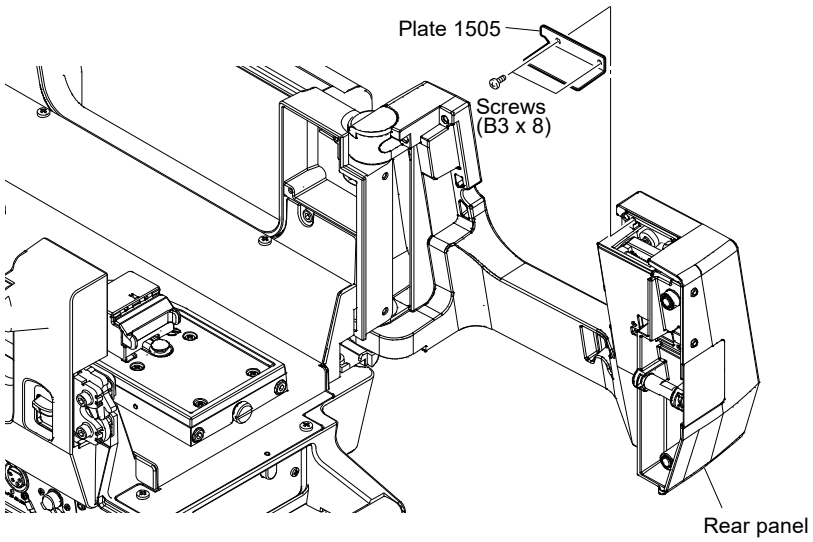
When a studio camera viewfinder is attached to HDLA-3505, perform the following procedure to install the VF saddle assembly.

Required parts

Part No.	Quantity	Name	Remarks
A-1128-416-B	1	SADDLE ASSY, VF	
2-391-520-21	4	BOLT (M5X12), HOLE, HEXAGON	
3-872-488-12	1	SHEET, V1B (MULTI)	

Procedure

1. Open the rear panel.
2. Remove the two screws (B3 x 8), and then remove the plate 1505.



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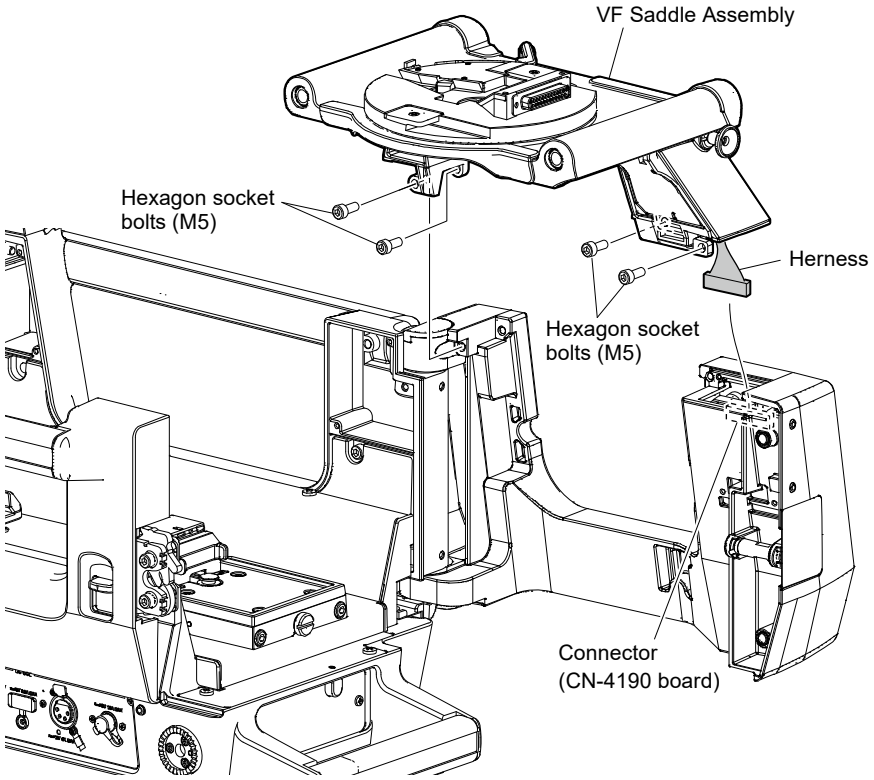
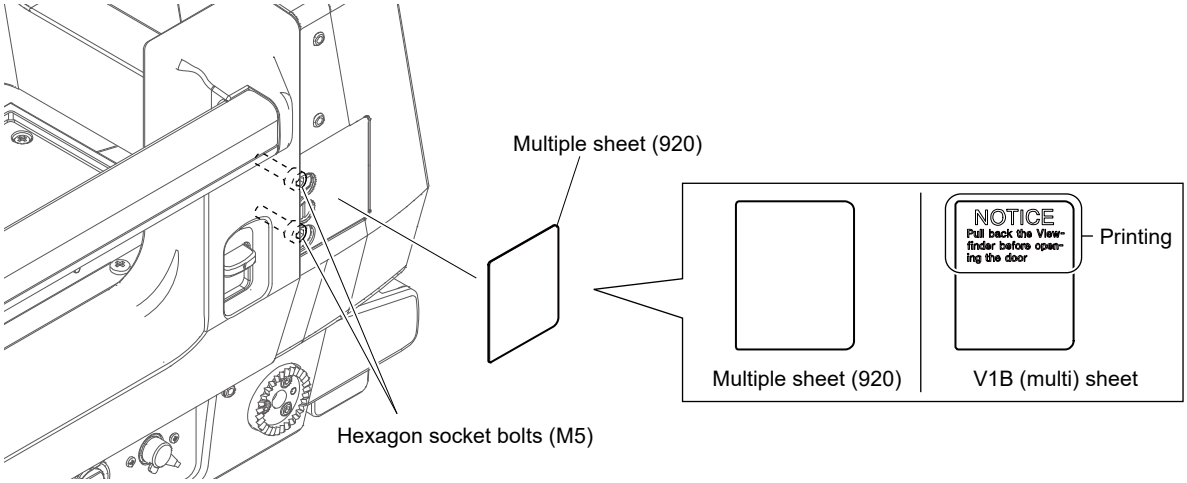
3. Connect the harness from the VF saddle assembly to the connector of the CN-4190 board.
4. Tighten four hexagon socket bolts (M5).



5. Peel off the multiple sheet (920) (without printing), and then replace it with a V1B (multi) sheet (with printing).



Operation check

Attach a studio camera viewfinder and check the following.

- Video is displayed on the viewfinder.
- The R tally, G tally, and indicators operate.
- The VF assignable button is enabled.

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When using HDVF-9900

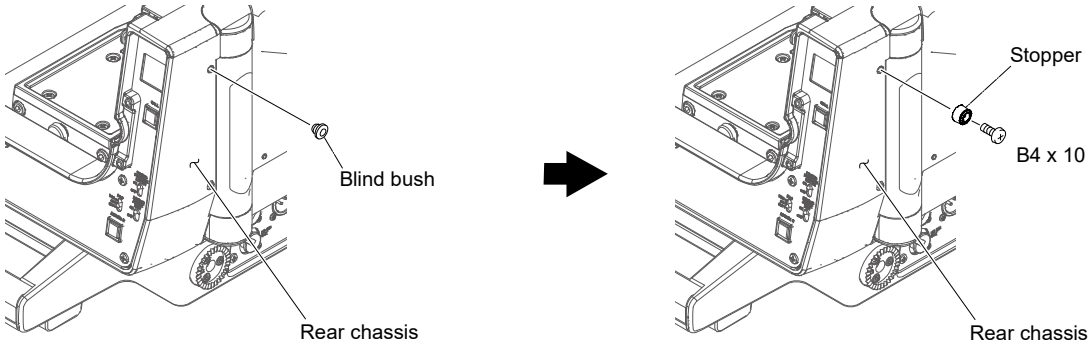
When adding a VF saddle and using HDVF-9900 (9-inch color CRT) as a viewfinder, add the following fall prevention parts.

Required parts

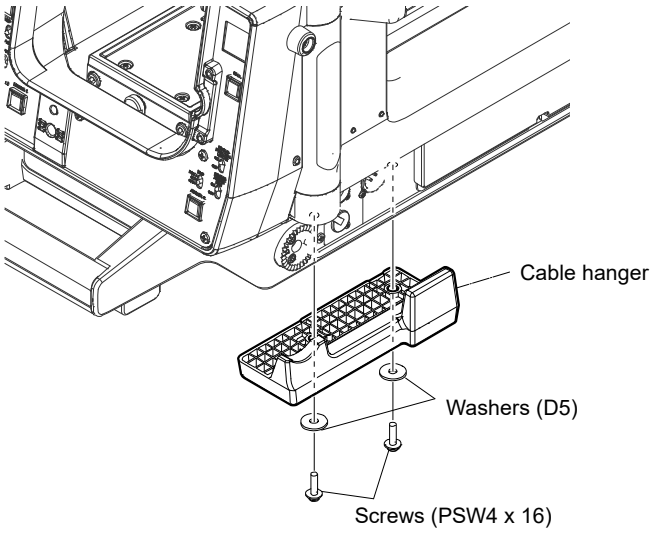
Part No.	Quantity	Name	Remarks
3-992-868-01	1	CABLE HANGER	
3-607-677-01	2	WASHER(D5)	
2-580-603-01	2	SCREW, +PSW M4X16	
3-100-881-01	1	STOPPER	
7-682-562-09	1	SCREW +B 4X10	

Procedure

1. Remove the blind bush from the rear chassis.
2. Attach the stopper with the screw.



3. Attach the cable hanger with two screws and two washers.



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1-8-2. Removal of the Front Panel (Equivalent to HDLA1507)

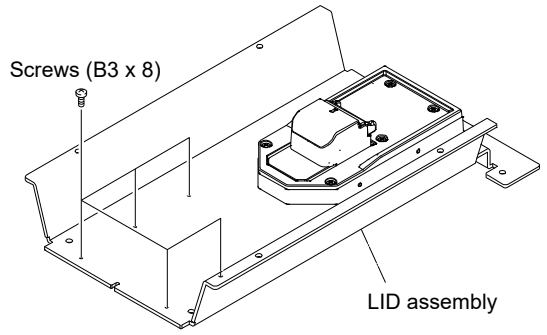
When using HDLA-3505 and a camera (with a portable lens) together , perform the following procedure to detach the front panel and attach the shoe adapter to the LID assembly.
Install the VF saddle to enable the use in the same manner as the conventional HDLA1507.

Required parts

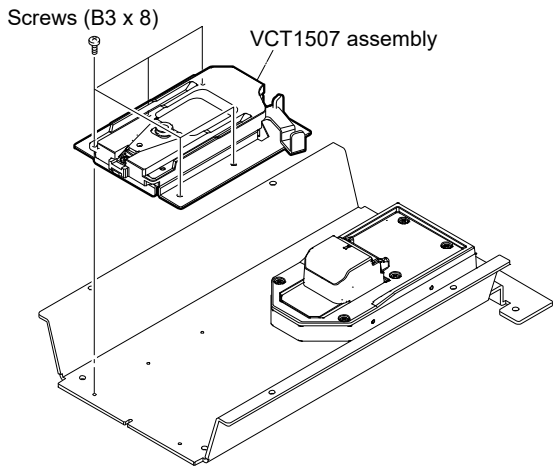
Part No.	Quantity	Name	Remarks
A-1248-343-A	1	VCT1507 ASSY	
4-138-679-01	5	SCREW, BLIND	
3-100-878-01	1	SHEET, 1507	

Procedure

1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)
2. Remove the front assembly. (Refer to “3-2. Front Assembly”.)
3. Remove the five screws from the LID assembly.



4. Install the VCT1507 assembly with the screws removed in step 3.



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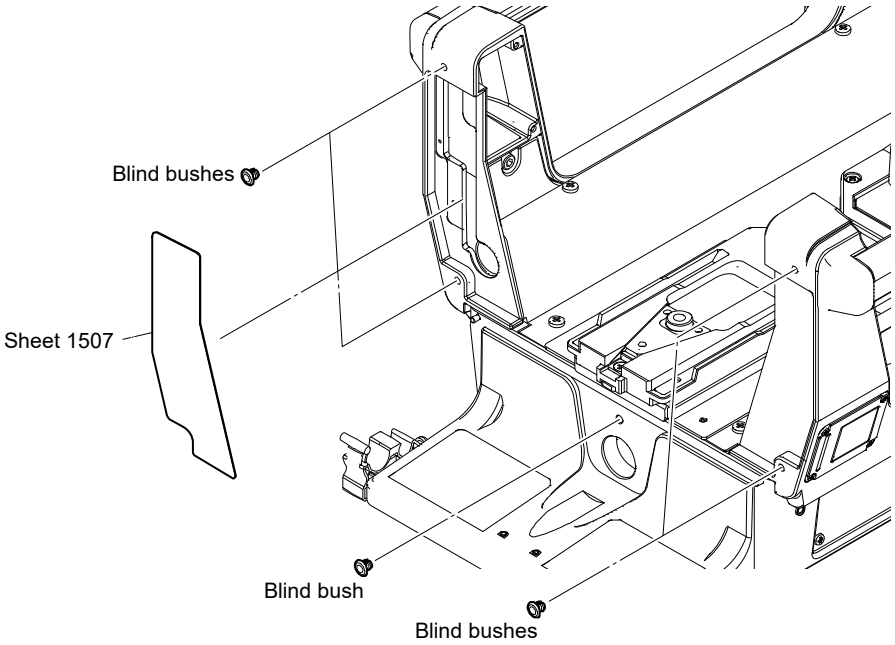
5. Attach the five blind bushes and the sheet 1507.



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1-8-3. Adding AC OUT to HDLA-3501

The HDLA-3501 is not provided with a utility power supply (AC OUT) as standard. The following procedure is required to add AC OUT.

Required parts ＊1

Part No.	Quantity	Name	Remarks
A-5050-720-A	1	AC OUTLET ATTACHMENT KIT(JN3)	JN3
A-5050-721-A	1	AC OUTLET ATTACHMENT KIT(CED)	CED
⚠A-5042-003-A	1	INVERTER ASSY	JN3, CED

Parts packed in KIT ＊2

Part No.	Quantity	Name	Remarks
A-5050-723-A	1	OUTLET PANEL ASSY(3501CED)	CED
A-5050-722-A	1	OUTLET PANEL ASSY(3501JN3)	JN3
⚠1-013-177-11	1	SUB HARNESS (IVT2PS)	JN3, CED
1-013-178-11	1	SUB HARNESS (IVTCTL)	JN3, CED
1-013-180-11	1	SUB HARNESS (IVTSW)	JN3, CED
3-872-496-01	1	HEAT CONDUCTIVE SHEET PS	JN3, CED
4-191-654-01	1	BRACKET (PS), FRONT	JN3, CED
4-191-655-01	1	BRACKET (PS), REAR	JN3, CED
4-382-854-51	7	SCREW (M3X6), P, SW (+)	JN3, CED
⚠4-429-116-02	1	SADDLE, LOCKING WIRE	JN3, CED
4-696-019-01	2	SCREW IB-LOCK(M2,BINDING HEAD)	JN3, CED
5-015-414-01	2	SCREW, SPECIAL (M2)	JN3, CED
5-033-527-01	1	COVER, SW	JN3, CED
5-033-528-01	2	CUSHION, LED SHADING	JN3, CED
5-033-599-01	1	PANEL, OUTLET BLANK	JN3, CED
7-682-962-09	1	SCREW +PSW 4X10	JN3, CED

＊1 There are two types of AC OUTLET ATTACHIMENT KIT, JN3 and CED, depending on the shape of the AC OUT connector.
Check the AC OUT connector shape and select either AC OUTLET ATTACHIMENT KIT.
(Refer to 1-1-1　9. AC OUT (For service personnel only).)
INVERTER ASSY is common.

＊2 AC OUTLET ATTACHMENT KIT includes common parts and OUTLET PANEL ASSY (JN3 or CED) according to the destination.

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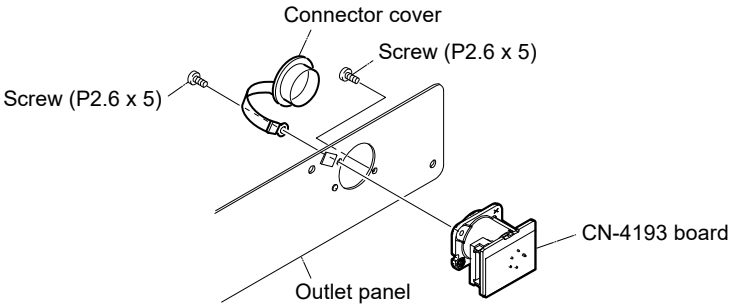
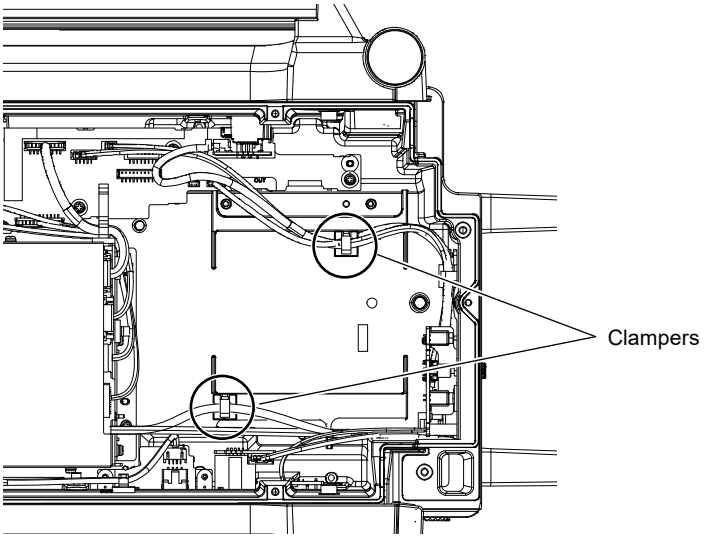
Replacement procedure

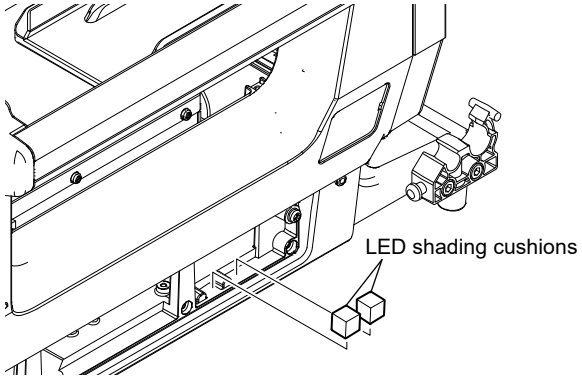
1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)
2. Remove the outlet panel. (Refer to “3-3. Outlet Panel”.)
3. Remove the two screws, and then remove the CN-4193 board and the connector cover.

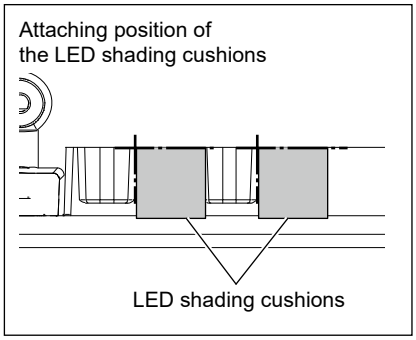


4. Remove the two clampers and completely remove remaining adhesive glue.



5. Remove the screws from the SY-479 board (without disconnecting the harness).
6. Lift the SY-479 board diagonally, and then attach the two LED shading cushions (5-033-528-01).





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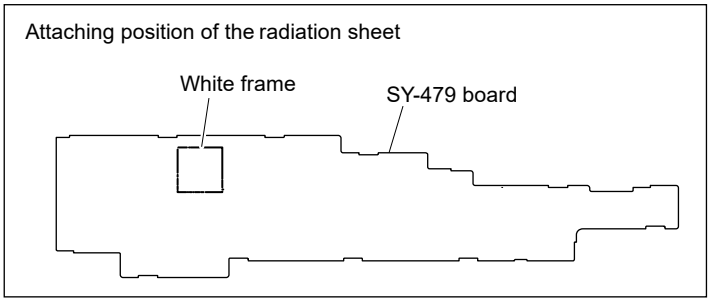
7. Install the SY-479 board. (Refer to “3-5. SY-479 Board”.)

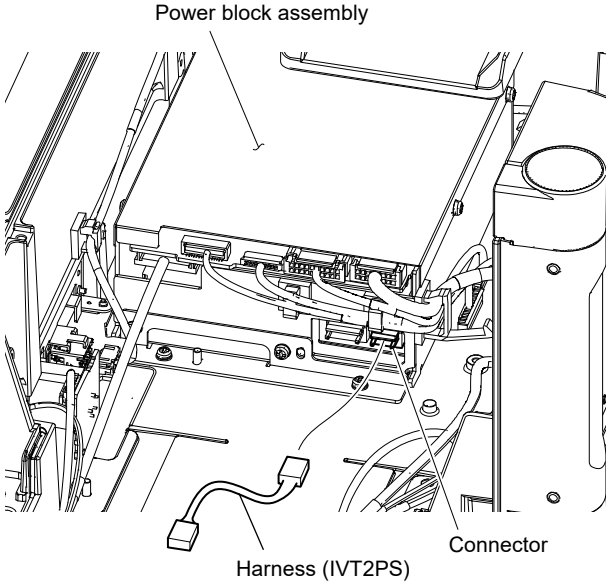
   Note

   The radiation sheet is attached to the back side of the SY-479 board.

   If the radiation sheet adheres to the bottom chassis, remove it and attach it to the position (white frame) as shown in the figure on the SY-479 board.



8. Connect the harness (IVT2PS) (⚠1-013-177-11) to the connector of the power block assembly.



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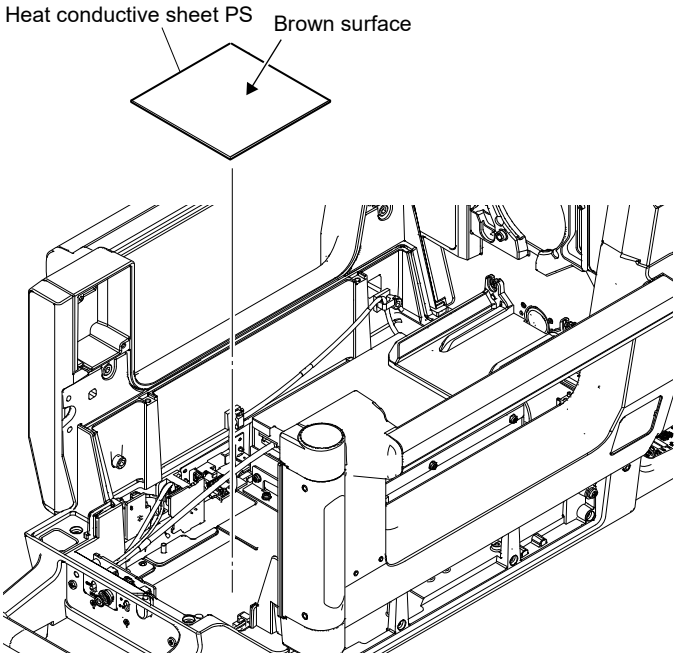
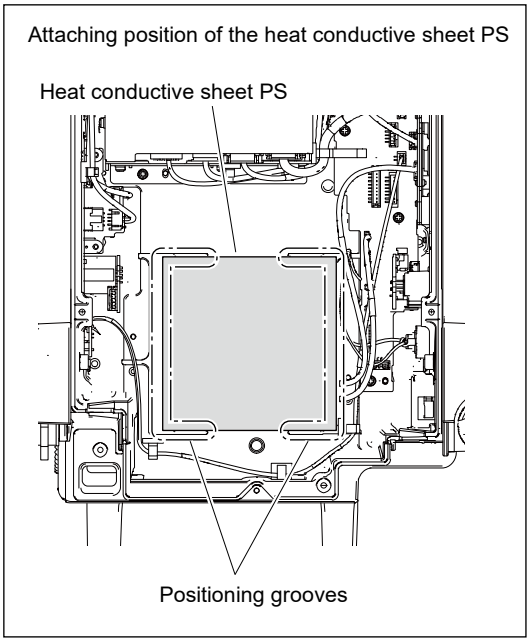
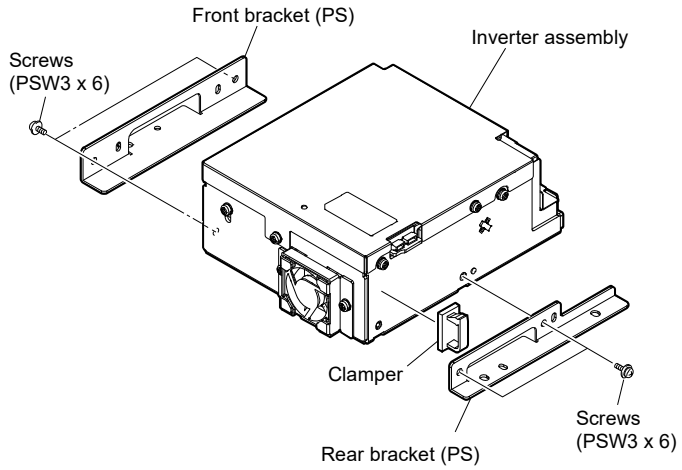
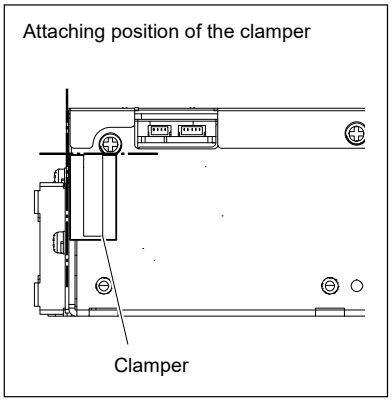
9. Attach the conductive sheet PS (3-872-496-01) with its brown surface facing up.





10. Attach the front bracket (PS) (4-191-654-01) and the rear bracket (PS) (4-191-655-01) to the inverter assembly (A-5042-003-A) with the four screws (4-382-854-51).
11. Attach the clamper (⚠4-429-116-02).





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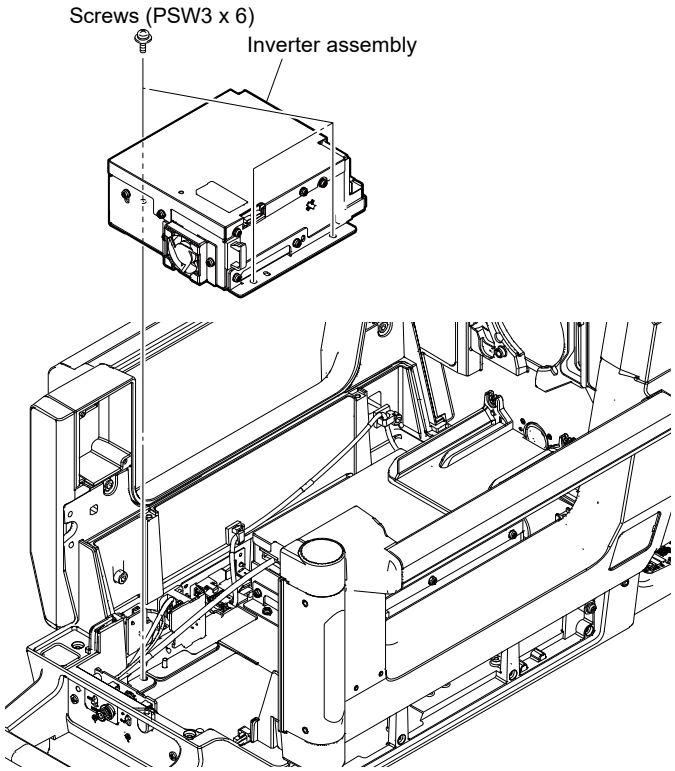
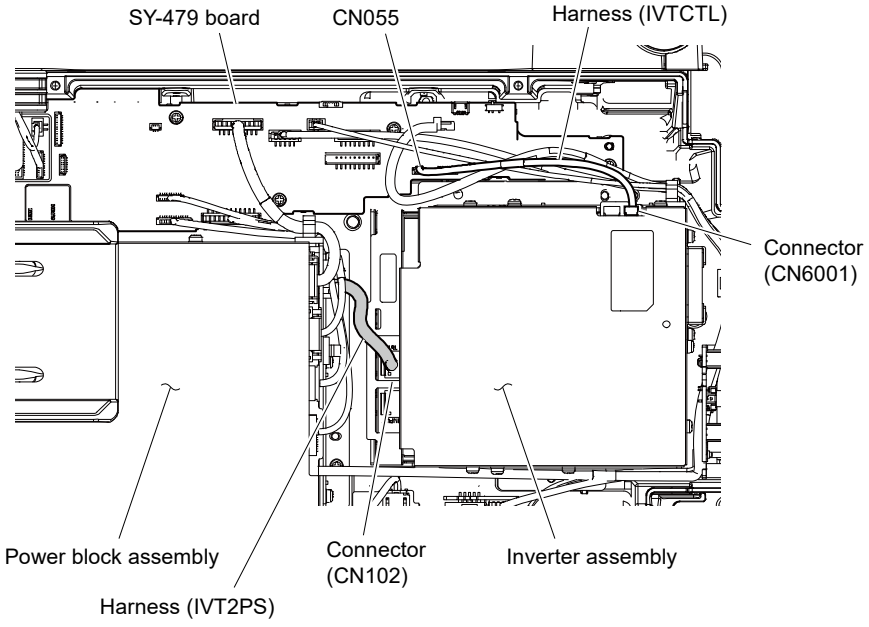
12. Attach the inverter assembly with the three screws (4-382-854-51).

Note

Be careful not to pinch the harness.



13. Connect the harness (IVT2PS) to the connector (CN102) of the inverter assembly.
14. Connect the harness (IVTCTL) (1-013-178-11) to the connector (CN055) on the SY-479 and the connector (CN6001) of the inverter assembly.



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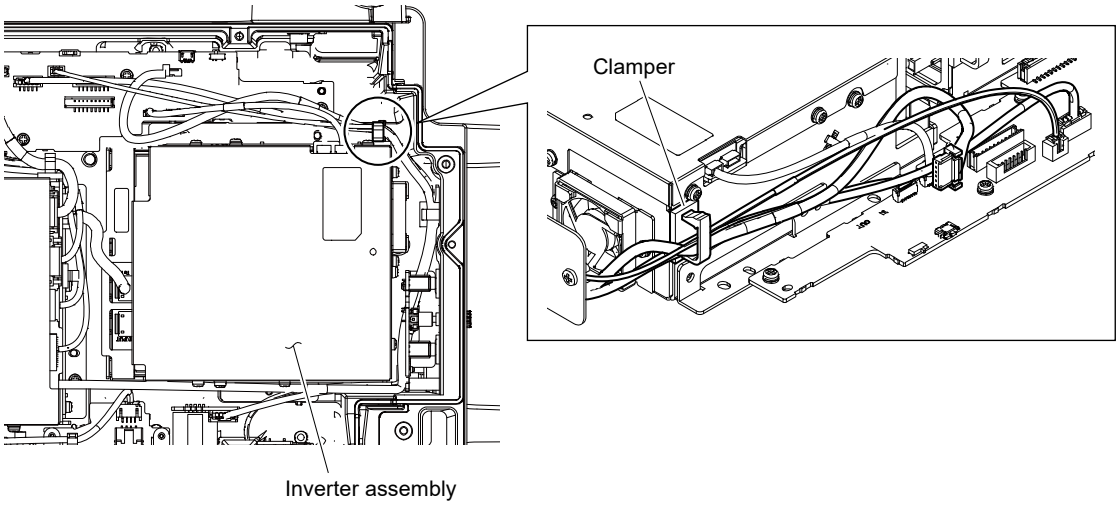
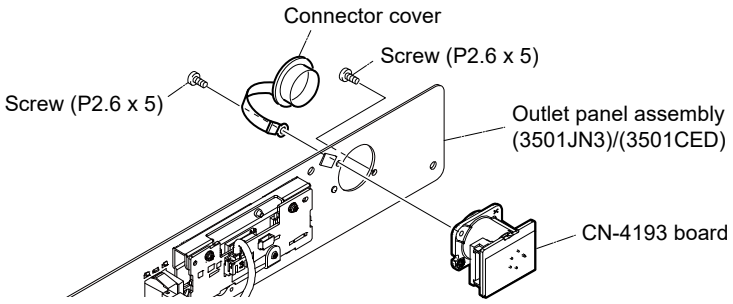
15. Fix the four harnesses with the clamper.



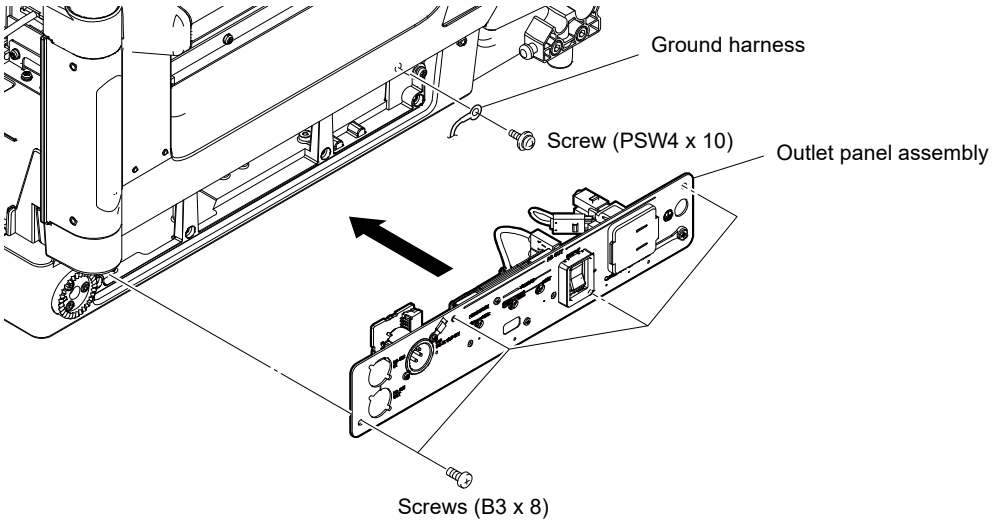
16. Install the CN-4193 board removed in step 3 to the outlet panel assembly (3501JN3) (A-5050-722-A) / (3501CED) (A-5050-723-A).



17. Secure the green/yellow ground wire connected to AC OUTLET to the screw hole to the left of the ground terminal with a screw (PSW4 x 10) (7-682-962-09).
18. Attach the outlet panel with the four screws (B3 x 8).

Note

Be careful not to pinch the harness.



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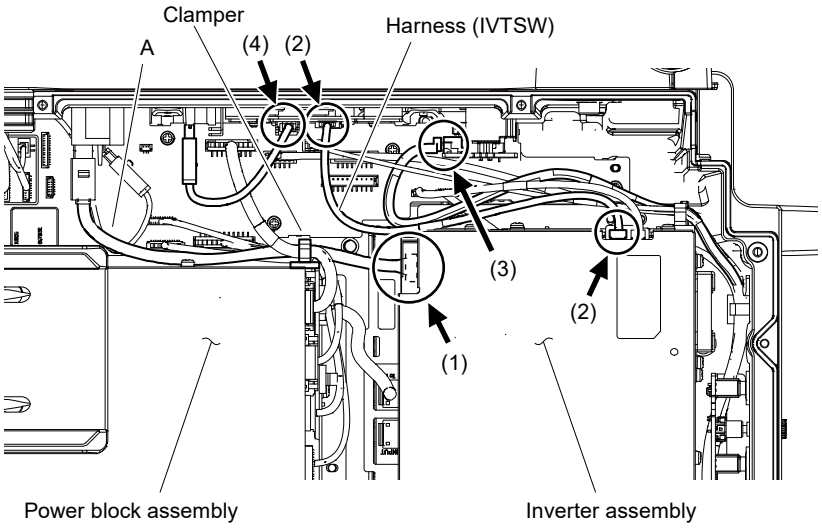
19. Connect the harnesses to the connectors circled in the figure below.
    (1) Connect the harness of the AC OUTLET to the connector (CN501) of the inverter assembly.
    (2) Connect the harness (IVTSW) (1-013-180-11) to the connector (CN001) on the SW-1795 board and the connector (CN7001) of the inverter assembly.
    (3) Connect the harness to the connector (CN002) on the DC IN (CN-4193 board) removed in step 3.
    (4) Connect the harness (IVTPW) of the power switch to the connector (CN002) on the SW-1795 board.
20. Clamp the harness A (between AC OUTLET and the inverter assembly) with the clamper.



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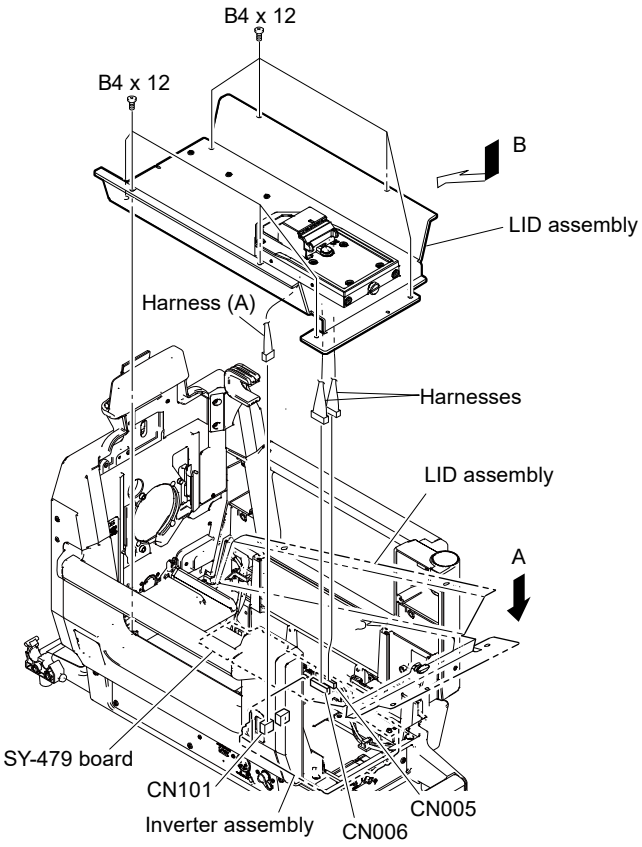
SYS SET

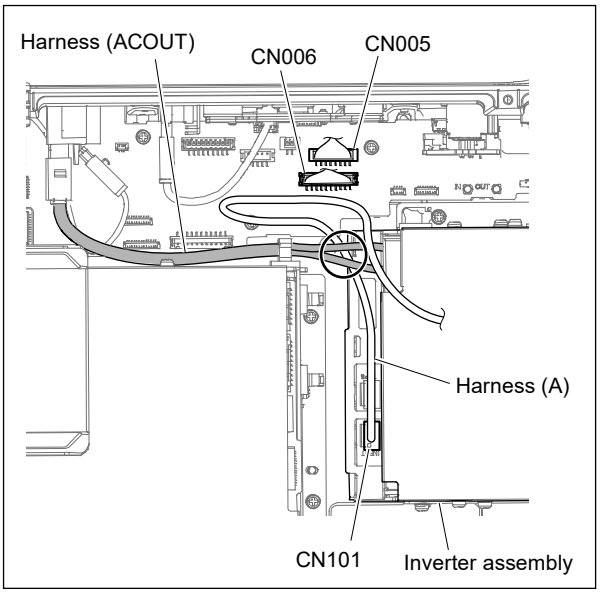
21. Insert the LID assembly in the direction of the arrow B, and then connect the three harnesses to the two connectors (CN005, CN006) on the SY-479 board and the connector (CN101) of the inverter assembly.

    Note

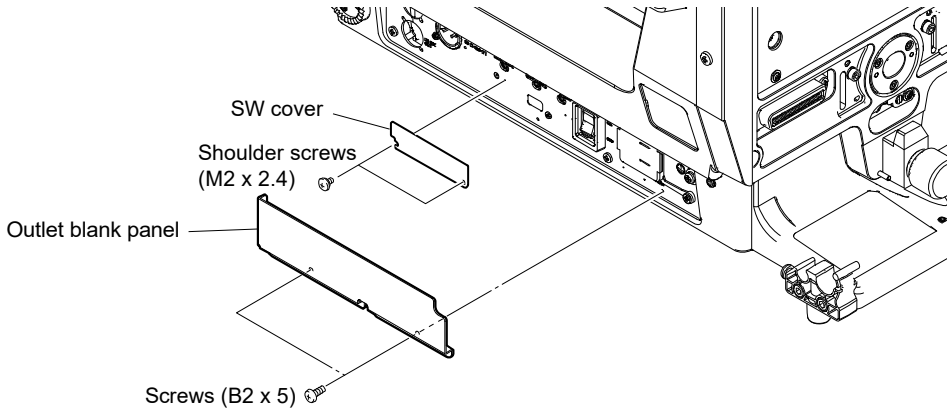
    Pass the harness (A) (to be connected to the connector (CN101) on the inverter assembly) under the harness (AC OUT) as shown below.

22. Tilt the LID assembly in the direction of the arrow A, and then fix it with the eight screws.





23. Remove the protection tapes, and then attach the SW cover (5-033-527-01).
24. Attach the SW cover with the two shoulder screws (M2 x 2.4) (5-015-414-01).
25. Attach the outlet blank panel (5-033-599-01) with the two screws (4-696-019-01).



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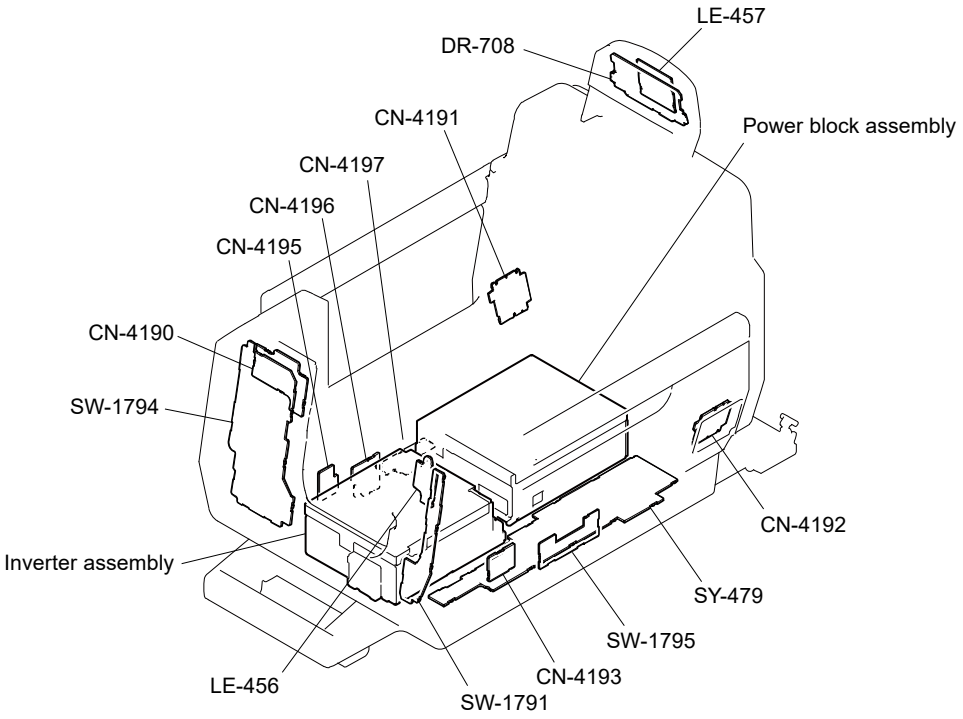
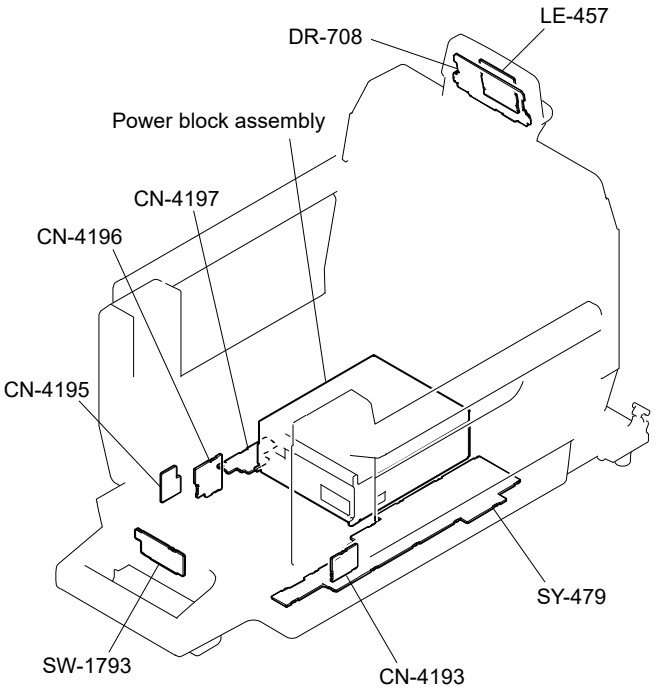
Section 2
Service Overview

2-1. Location of Main Parts

HDLA-3505



HDLA-3501



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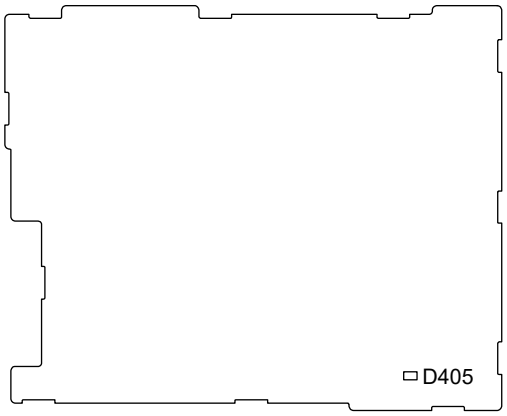
SYS SET

2-2. Functions of Onboard Switches and LED Indicators

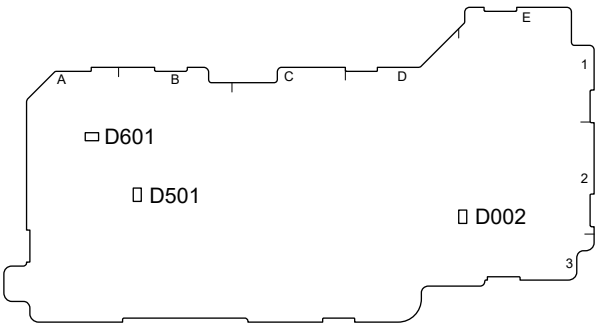
2-2-1. PS-964 Board



PS-964 Board/Side A

Ref No.	Name	Color	Description	Normal State
D405	STATUS LED	Off	Standby	Indefinite
		Green	Lights when an AC100 V/120 V power is output.	
		Orange	Lights when an AC230 V power is output.	
		Red	Lights when an error occurs.	

2-2-2. SW-1794 Board



SW-1794 Board/Side B

Ref No.	Name	Color	Description	Normal State
D002	PW_GD	Yellow green	Lights when all power supplies are running normally.	Lit
D501	UNREG	Yellow green	Lights when the +14 V power is supplied.	Lit
D601	CONF_DONE	Yellow green	Lights when PLD data is written normally.	Lit

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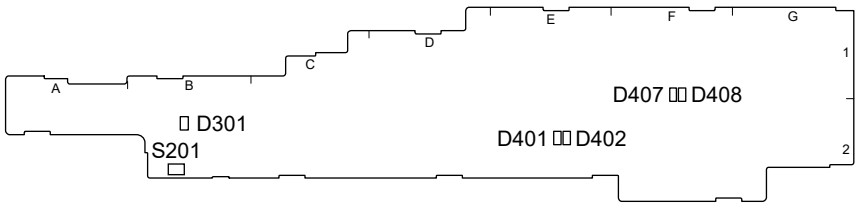
2-2-3. SY-479 Board



SY-479 Board/Side A

LED

Ref No.	Name	Color	Description	Normal State
D301	LOCK_N	Yellow green	Lights when the SDI signal is input to the SDI IN.	Off
D401	UNREG	Yellow green	Lights when the +14VSY is supplied.	Lit
D402	PGOOD	Yellow green	Lights when all power supplies on the SY board are running normally.	Lit
D407	PLUGDET	Yellow green	Lights when a USB Type-C plug is detected. Blinks when an abnormality is detected.	Off
D408	ORIENT	Yellow green	Blinks when an abnormality is detected in the USB Type-C plug connection.	Off

Switch

Ref No.	Name	Bit	Description	Factory Setting
S201	-	-	For test	NORMAL

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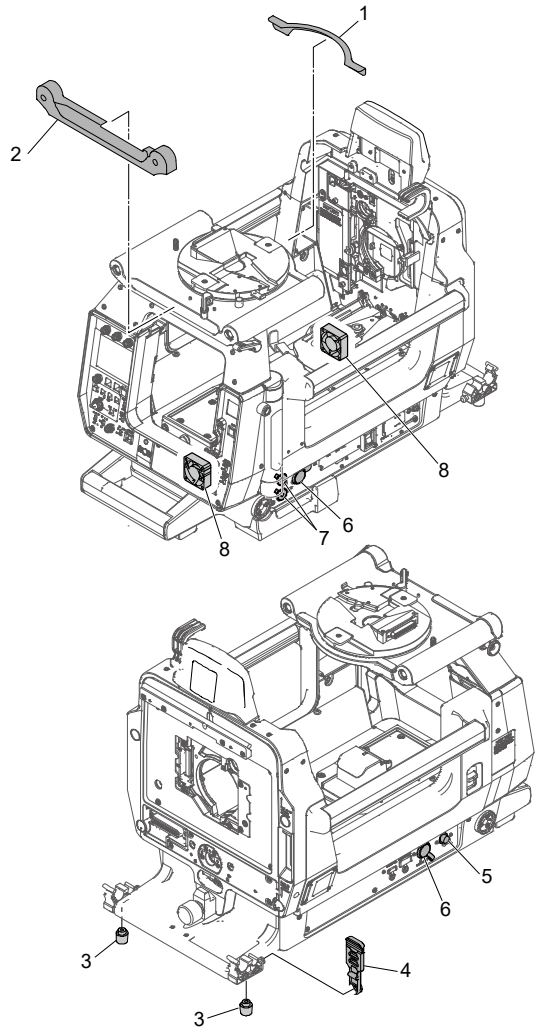
2-3. Recommended Replacing Parts

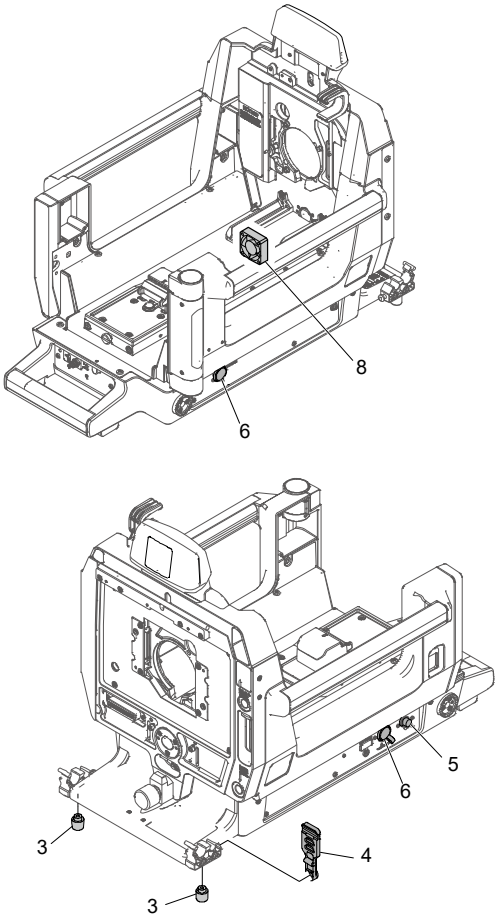
Following parts are recommended replacing parts. These parts may become cracked and split with the lapse of time, therefore replace it if necessary.

No.	Parts	Sony parts No.	Recommended Replacement Timing
1	Saddle cushion (front)	3-872-575-0X	Check for deformation and deterioration (abraded, damaged, or lost) from time to time. Replace it as necessary.
2	Saddle cushion (rear)	3-872-576-0X	
3	Front foot	3-992-867-0X	
4	Clamp band	3-612-712-0X	
5	Drop protection cap (6P)	3-685-115-1X	
6	Connector cover	3-748-142-0X	
7	BNC cap	3-872-935-0X	
8	DC Fan (30 square)	⚠ 1-855-292-1X	

HDLA-3505



HDLA-3501



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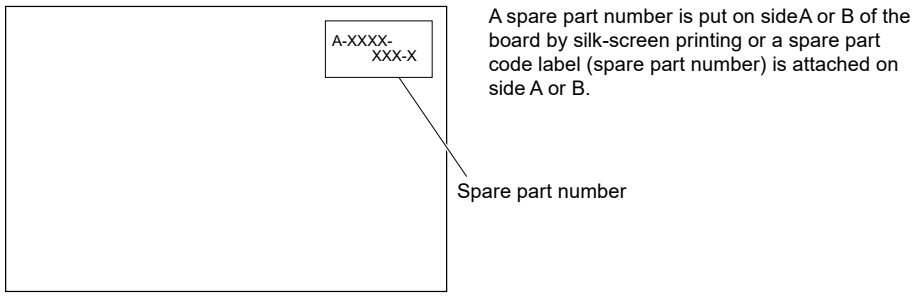
SYS SET

2-4. Notes for Replacing the Board

Replace the board with a board of the same number as the spare part number of the board to be removed when replacing a board.

Example: A spare part number is put on the board.



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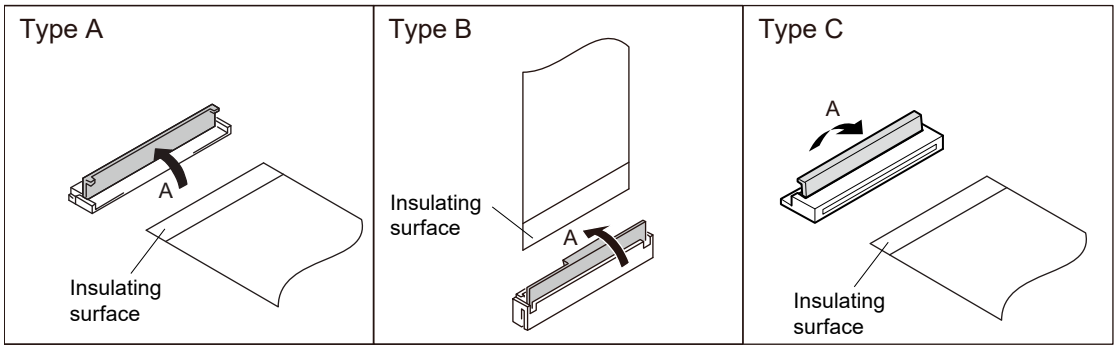
2-5. Flexible Flat Cable

2-5-1. Disconnecting/Connecting Flexible Flat Cable

Note

- Be very careful not to fold flexible flat cable. Life of flexible card wire will be significantly shortened if it is folded.
- Each flexible flat cable has conductive side and insulated side. If the flexible flat cable is connected in the wrong orientation of the conductive side and the insulated side, the circuit will not function.
- Insert the flexible flat cable straight.
- Check that the conductive side of the flexible flat cable is not contaminated.

Type A, B, C



Disconnecting

1. Turn off the power.
2. Slide or lift up the portion A in the direction of the arrow to unlock and pull out the flexible flat cable.

Connecting

1. Slide or lift up the portion A in the direction of the arrow and securely insert the flexible flat cable into the deep end of the connector.
2. Return the portion A to its original position and lock the connector.

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SYS SET

2-6. Circuit Protection Parts

2-6-1. Fuses

WARNING

Fuses are essential parts for safe operation. Be sure to use the parts specified in this manual. Replacing a fuse with an unspecified one may cause fire or electric shock.

CAUTION

Replacing any fuse is replaced while power is supplied to the unit may cause electric shock.
Before replacing any fuse, turn off the unit and also disconnect the cable from the DC IN connector.

This unit is equipped with fuses. The fuses blow if overcurrent flows in the unit due to an abnormality. In that case, turn off the power of the unit, inspect inside of the unit, and then remove the cause of the overcurrent. After that, replace the defective parts.

Board Name	Ref. No.	Part No.	Part Name/Rating
CN-4197	F001	⚠1-576-751-11	Fuse (32V11CF) 5 A/32 V
PS-956	F101	⚠1-523-179-11	Fuse (SMD) 6.3 A/250 V
	F102	⚠1-523-179-11	Fuse (SMD) 6.3 A/250 V
PS-964	F101	⚠1-523-179-11	Fuse (SMD) 6.3 A/250 V
RE-354	F1001	1-576-566-21	Fuse (SMD) 15 A/65 V

2-6-2. Circuit Protection Element

This unit is equipped with positive-characteristic thermistors (power thermistors) as circuit protection elements.
The positive-characteristic thermistor limits the electric current flowing through the circuit as the internal resistance increases when an excessive current flows or when the ambient temperature increases. If the positive-characteristic thermistor works, turn off the main power of the unit and inspect the internal circuit of the unit.
After the cause of the fault is eliminated and the positive-characteristic thermistor is cooled down, turn on the main power again. The unit works normally. It takes about one minute to cool down the positive-characteristic thermistor after the main power is turned off.

Board Name	Ref. No.	Part No.	Hold Current
PS-956	TH2001	⚠1-802-108-11	1.50 A/20 °C
RE-354	TH1001	⚠1-803-615-21	0.50 A/25 °C
	TH3001	⚠1-802-263-11	1.50 A/20 °C
	TH3002	⚠1-802-263-11	1.50 A/20 °C
SY-479	TH401	⚠1-802-108-11	1.50 A/20 °C

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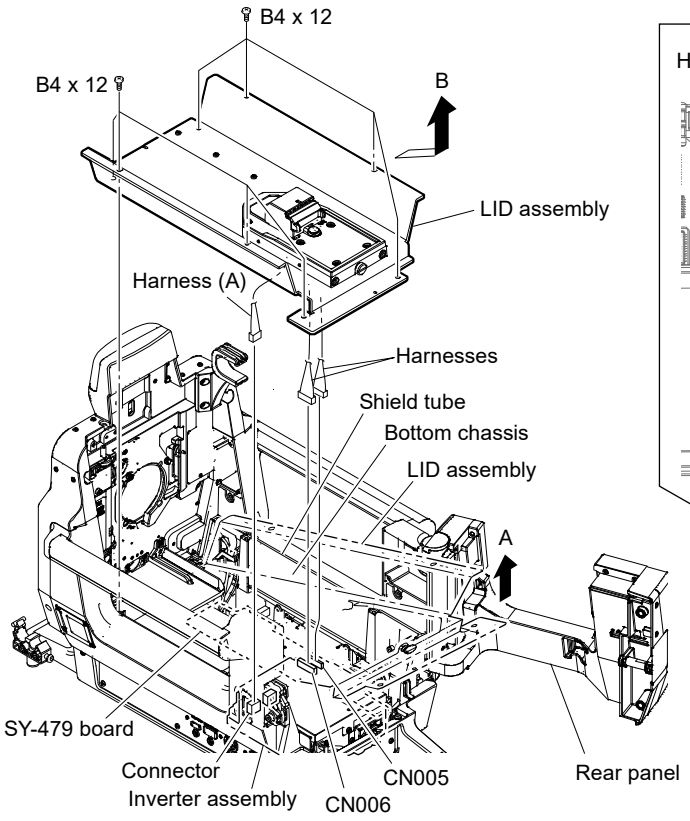
Section 3
Replacement of Main Parts

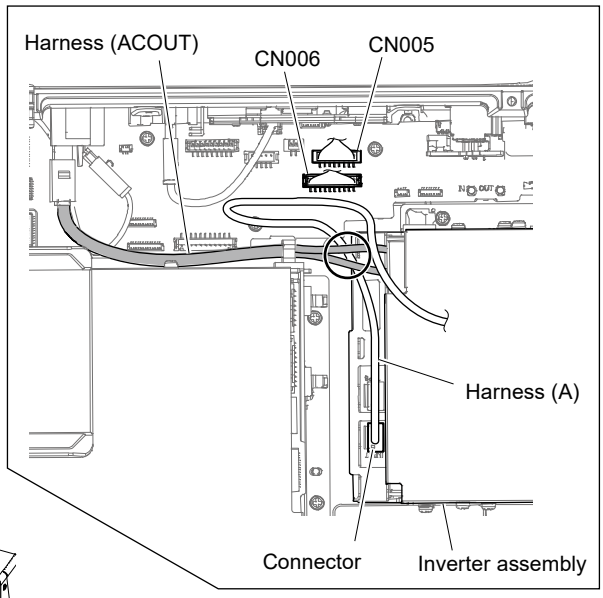
3-1. LID Assembly

HDLA-3505

Procedure

1. Open the rear panel.
2. Remove the eight screws, and then lift up the rear portion of the LID assembly in the direction of the arrow A.
3. Disconnect the two harnesses from the (CN005, CN006) on the SY-479 board.
4. Disconnect the harness from the connector of the inverter assembly.
5. Remove the LID assembly in the direction of the arrow B.





Note

- At the time of the installation, pass the harness (A) under the harness (ACOUT) as shown above.
- Check that the shield tube (attached to the entire joint surface between the bottom chassis and the LID assembly) is fitted with the groove of the bottom chassis.

6. Install the removed parts by reversing the steps of removal.

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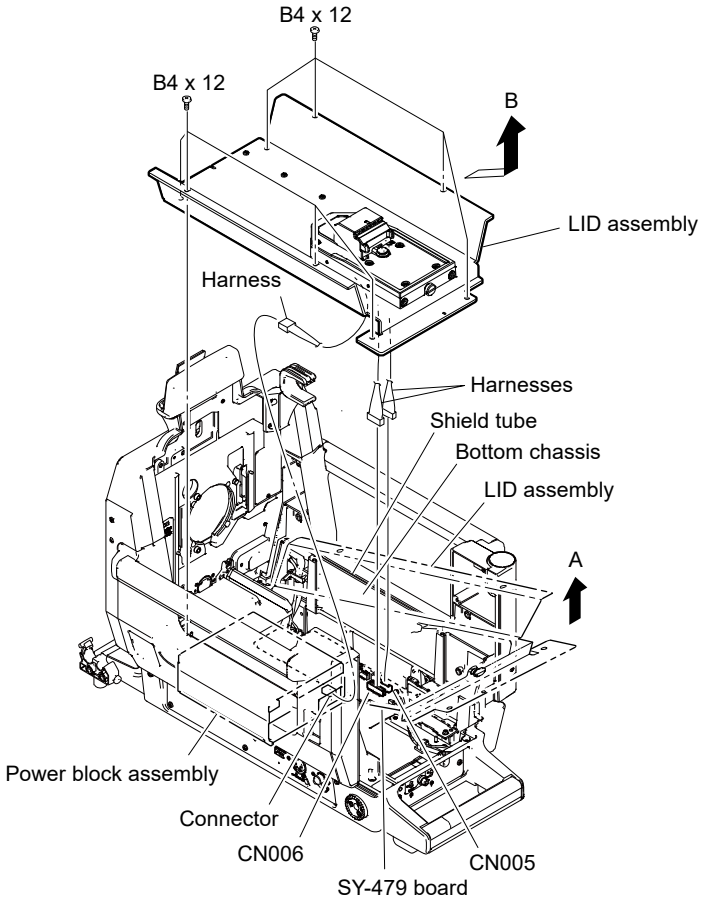
SYS SET

HDLA-3501

1. Remove the eight screws, and then lift up the rear portion of the LID assembly in the direction of the arrow A.
2. Disconnect the two harnesses from the two connectors (CN005, CN006) on the SY-479 board.
3. Disconnect the harness from the connector of the power block assembly.
4. Remove the LID assembly in the direction of the arrow B.



Note

Check that the shield tube (attached to the entire joint surface between the bottom chassis and the LID assembly) is fitted with the groove of the bottom chassis.

5. Install the removed parts by reversing the steps of removal.

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3-1-1. Harness (BUILD UP)

Procedure

1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)

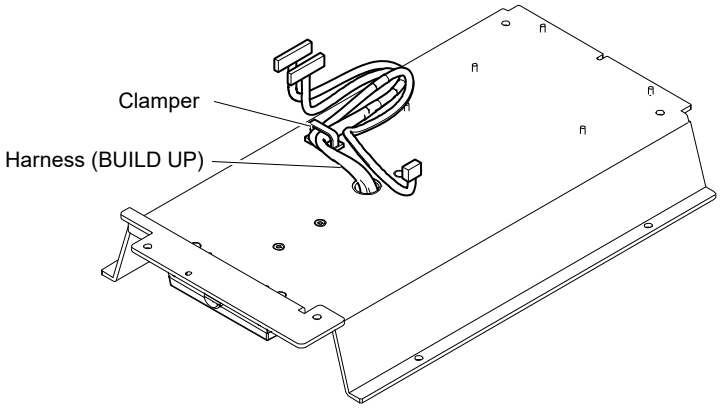
   Note

   After the smooth sheet is removed, it cannot be reused.

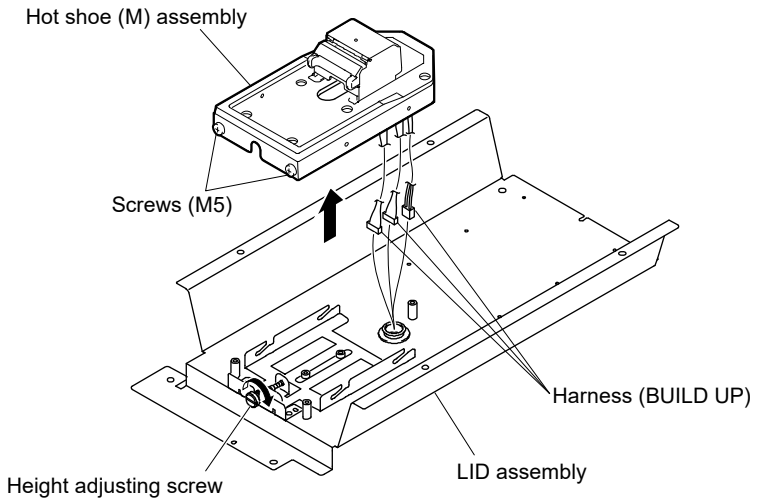
   When it is necessary to replace the smooth sheet, use a new one.

Removal

1. Release the harness (BUILD UP) from the clamper.



2. Loosen the two screws.
3. Rotate the height adjusting screw fully clockwise.
4. Remove the hot shoe (M) assembly in the direction of the arrow.



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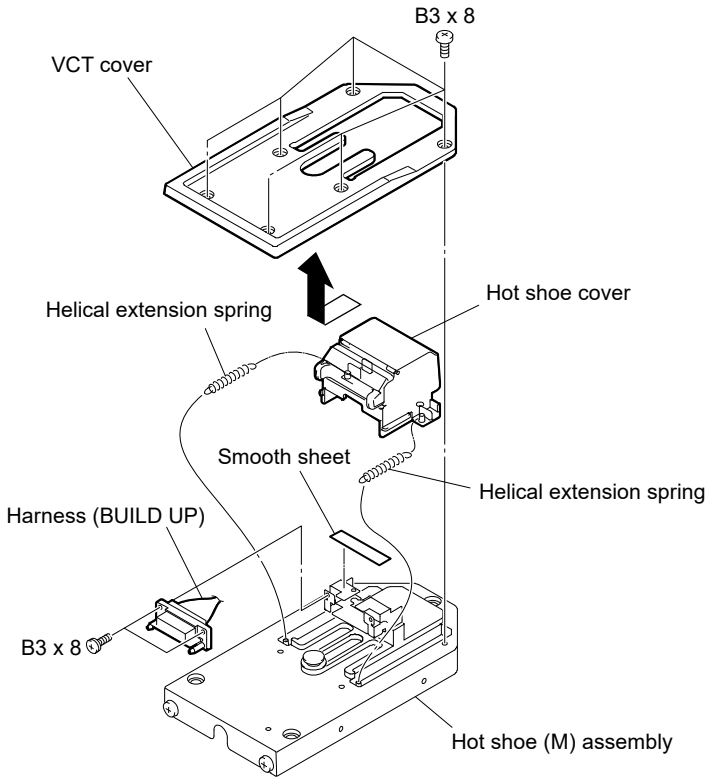
SYS SET

5. Remove the six screws (B3 x 8).
6. Remove the VCT cover by sliding it in the direction of the arrow.

   Note

   When removing the VCT cover, be careful of the spring because it may pops out.

7. Remove the two helical extension springs.
8. Remove the hot shoe cover upward.
9. Remove the smooth sheet from the hot shoe (M) assembly.
10. Remove the two screws (B3 x 8) to detach the harness (BUILD UP).

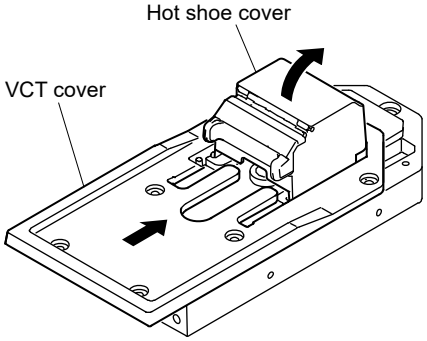


Installation

11. Install the harness (BUILD UP), smooth sheet, hot shoe cover, two helical extension springs, and the VCT cover by reversing the steps of removal.

    Note

    When attaching the VCT cover, slightly raise the hot shoe cover.



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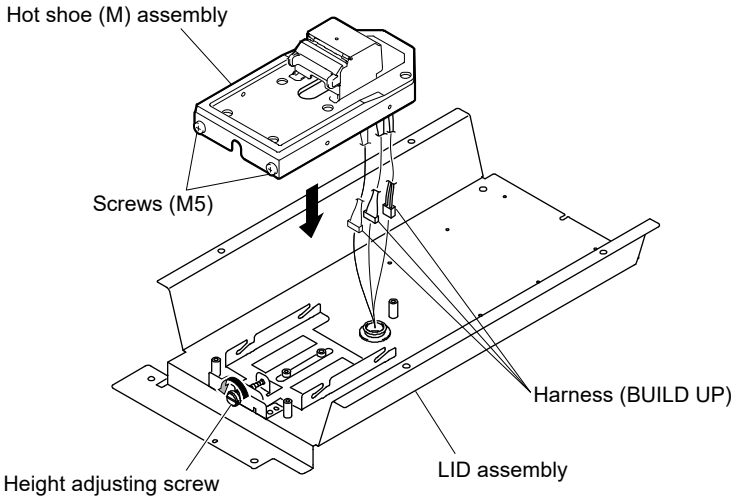
12. Install the hot shoe (M) assembly.

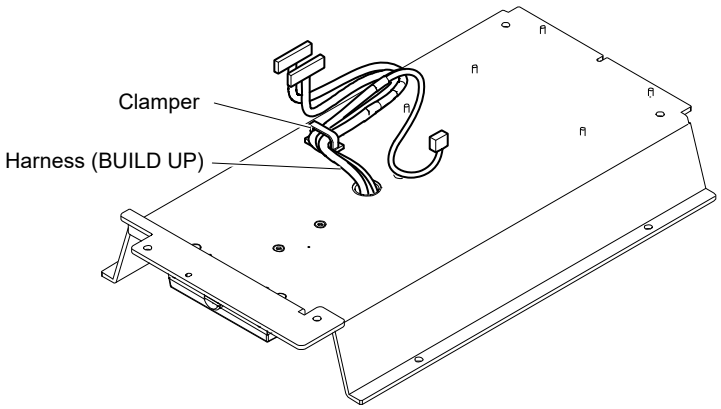
Note

When running the harness through the hole of the LID assembly, be careful not to catch the harness.

13. Rotate the height adjusting screw fully counterclockwise.
14. Tighten the two screws.



15. Fix the harness (BUILD UP) to the clamper.



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3-2. Front Assembly

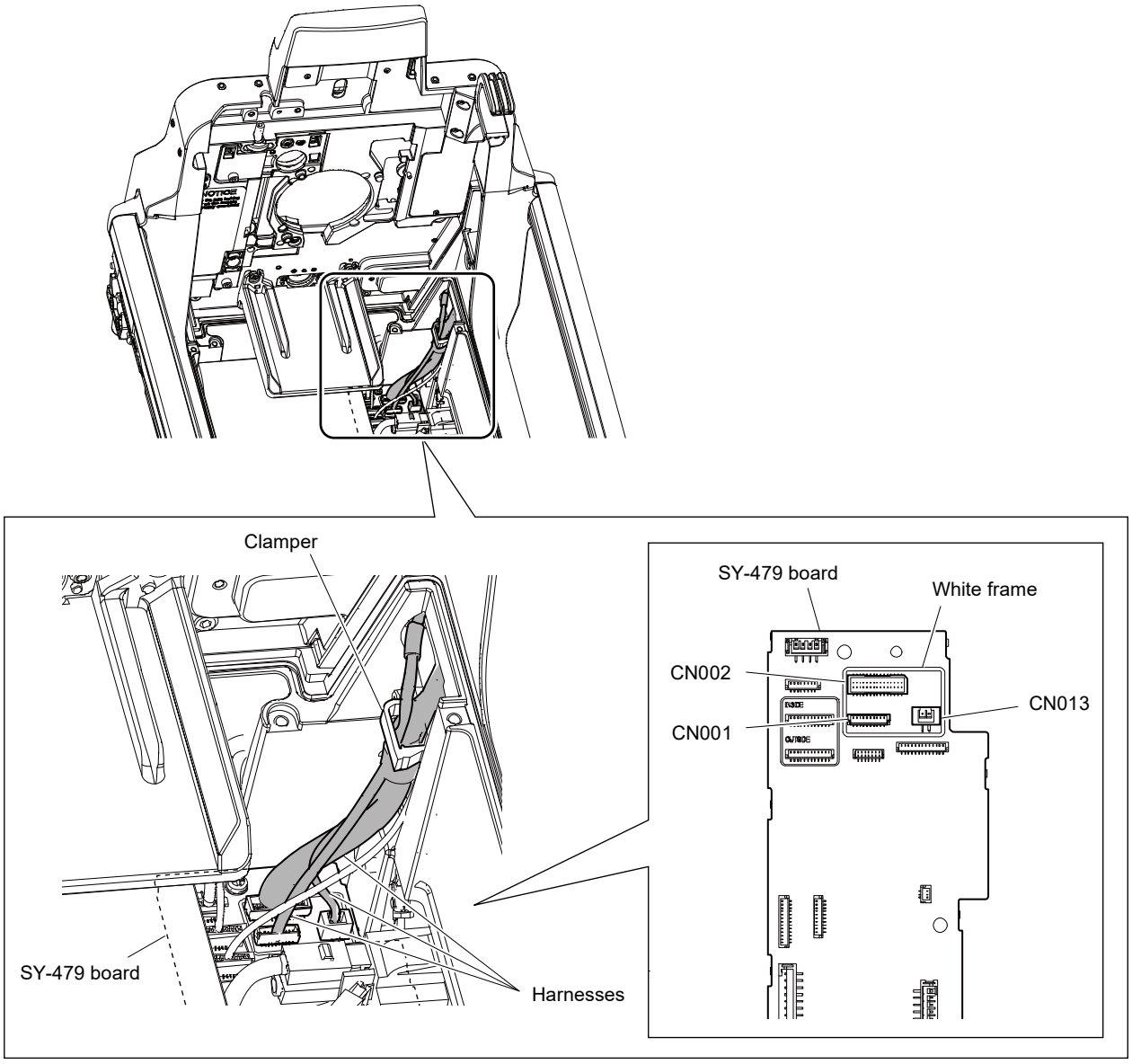
Preparation

1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)

HDLA-3505

Procedure

1. Disconnect the three harnesses from the three connectors (CN001, CN002, and CN013) on the SY-479 board shown in the figure below (connectors surrounded by white frame).
2. Release the three harnesses from the clamper.



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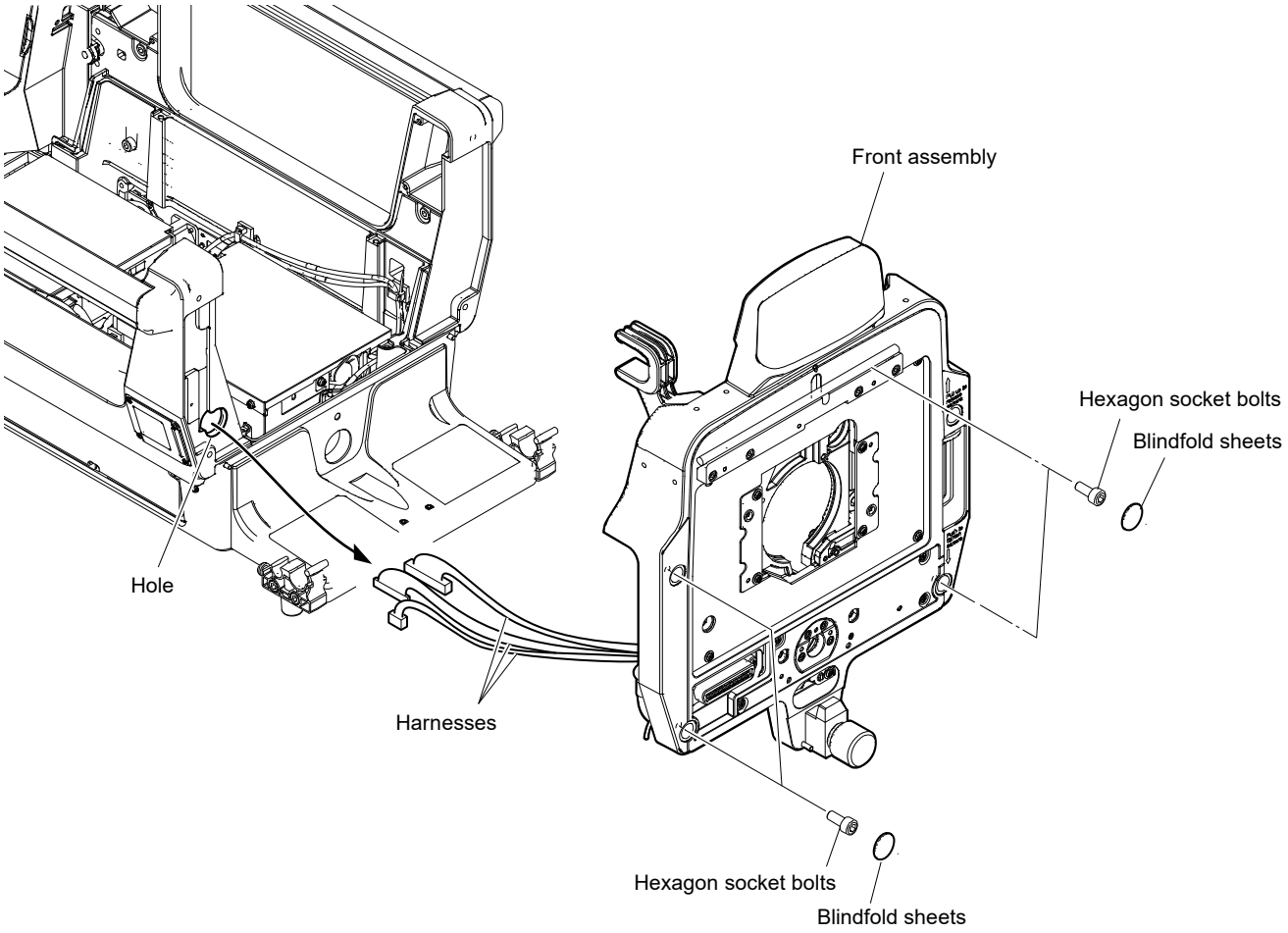
3. Peel off the four blindfold sheets, and then remove the four hexagon socket bolts.
4. Pull the three harnesses out of the hole and remove the front assembly.

   Note

   Carefully remove the front assembly so as not to damage the harnesses.



5. Install the removed parts by reversing the steps of removal.

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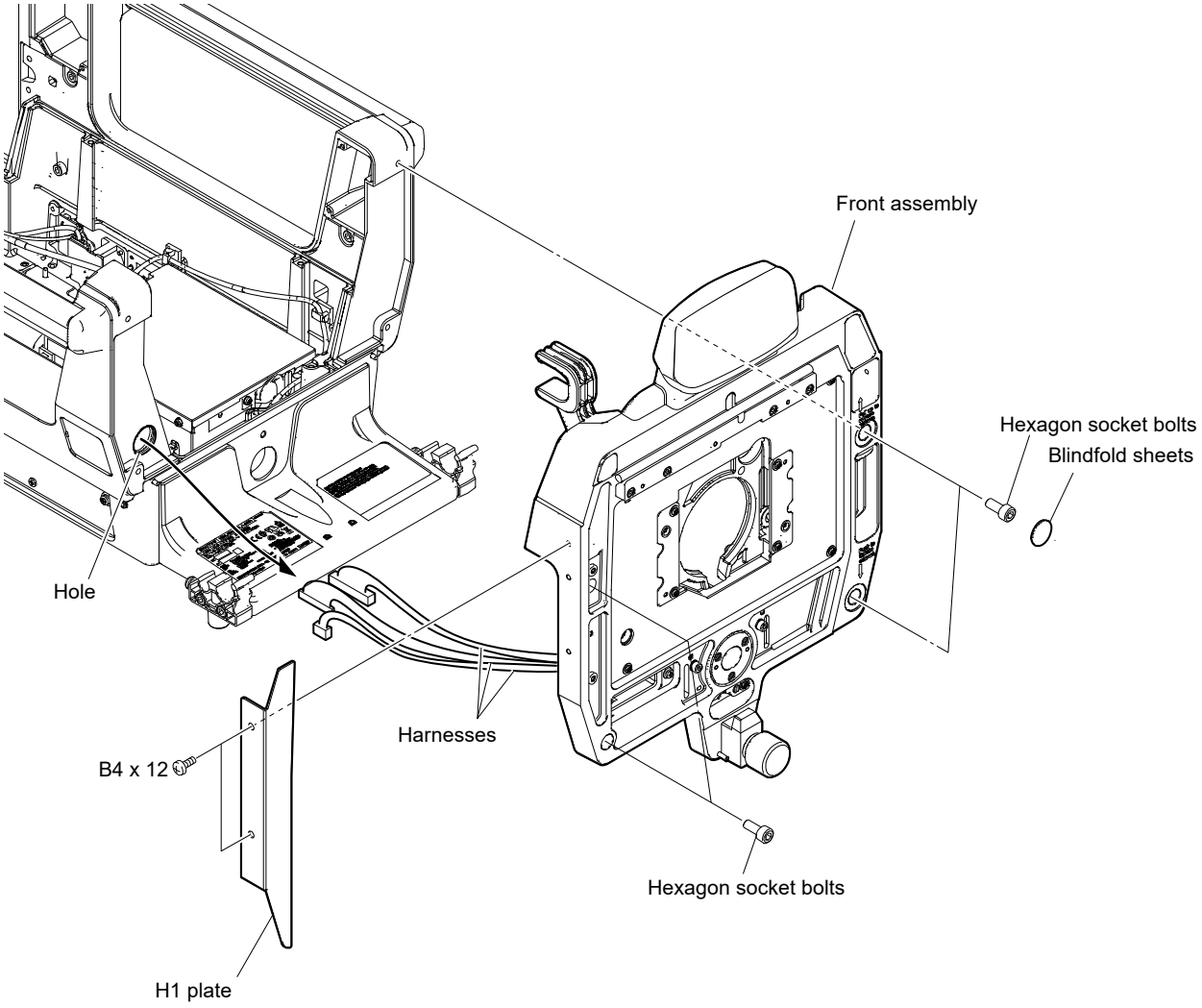
HDLA-3501

1. Disconnect the harnesses and release them from the clamper according to steps 1 and 2 of HDLA-3505.
2. Remove the two screws (B4 x 12), and then remove the H1 plate.
3. Peel off the two blindfold sheets, and then remove the four hexagon socket bolts.
4. Pull the three harnesses out of the hole and remove the front assembly.

   Note

   Carefully remove the front assembly so as not to damage the harnesses.



5. Install the removed parts by reversing the steps of removal.

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SYS SET

3-3. Outlet Panel

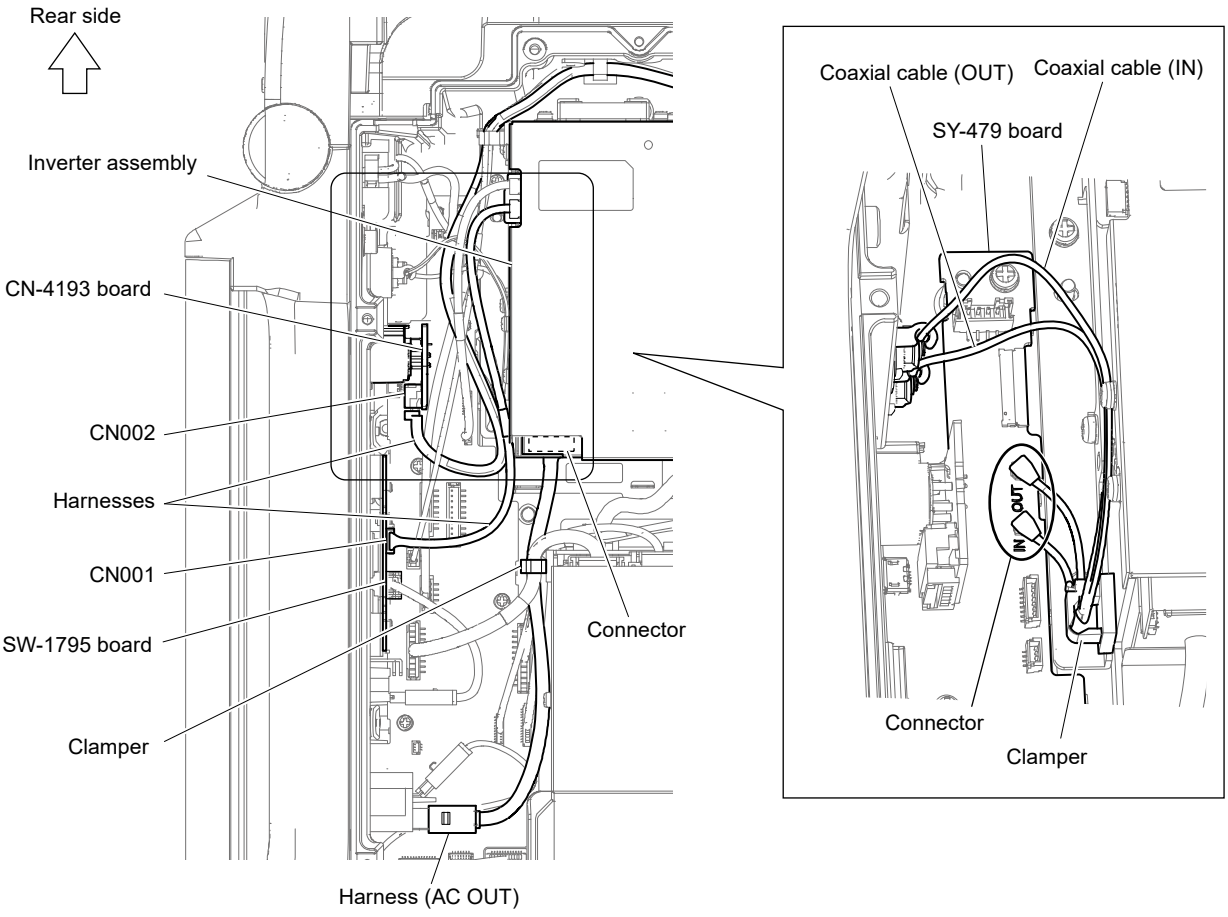
Preparation

1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)

HDLA-3505

Procedure

1. Release the harness (AC OUT) from the clamper, and then disconnect the harness (AC OUT) from the connector of the inverter assembly.
2. Disconnect the harness from the connector (CN002) on the CN-4193 board.
3. Disconnect the harness from the connector (CN001) on the SW-1795 board.
4. Release the two coaxial cables from the clamper, and then disconnect the two coaxial cables from the two connectors on the SY-479 board.



Note

When installing the outlet panel, connect the two coaxial cables correctly according to the indication (IN/OUT) on the SY-479 board.

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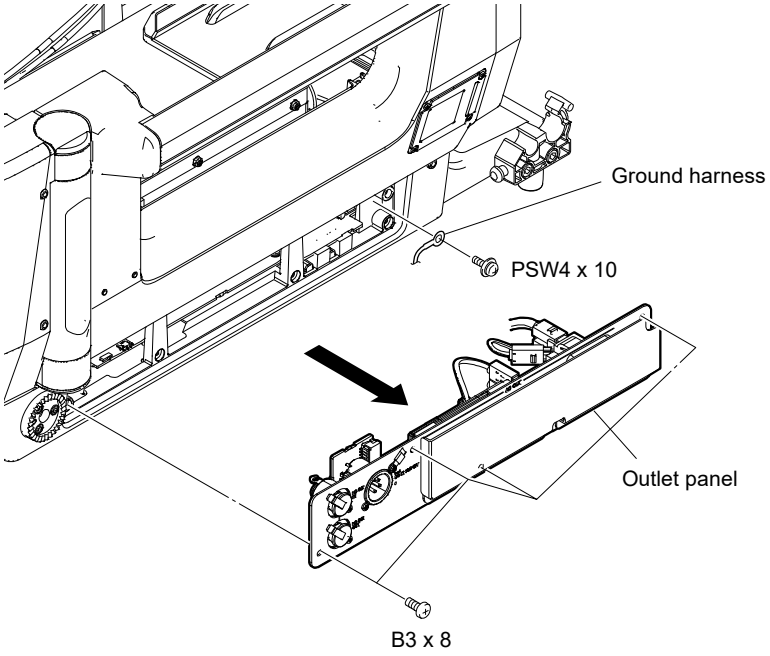
5. Remove the four screws (B3 x 8), and then pull out the outlet panel in the direction of the arrow.

   Note

   Carefully pull out the outlet panel so as not to damage the connected ground wire.

6. Remove the four screws (PSW4 x 10), and then remove the ground harness.



   Note

   At the time of the installation, be careful not to pinch the harness.

7. Install the removed parts by reversing the steps of removal.

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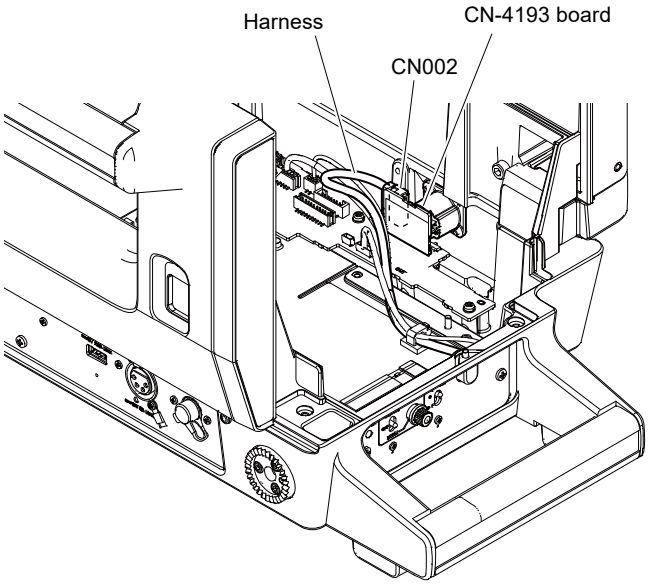
SYS SET

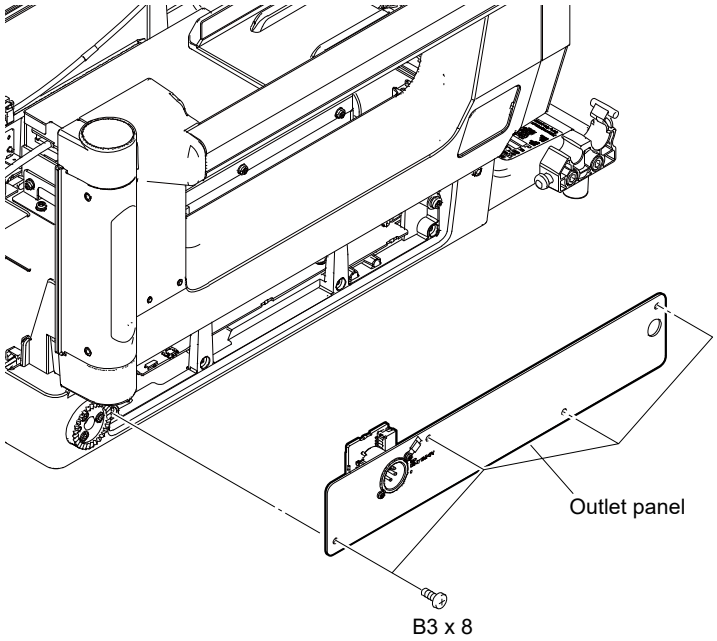
HDLA-3501

Procedure

1. Disconnect the harness (CN002) on the CN-4193 board.



2. Remove the four screws, and then remove the outlet panel.



3. Install the removed parts by reversing the steps of removal.

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3-4. Inside Panel

Preparation

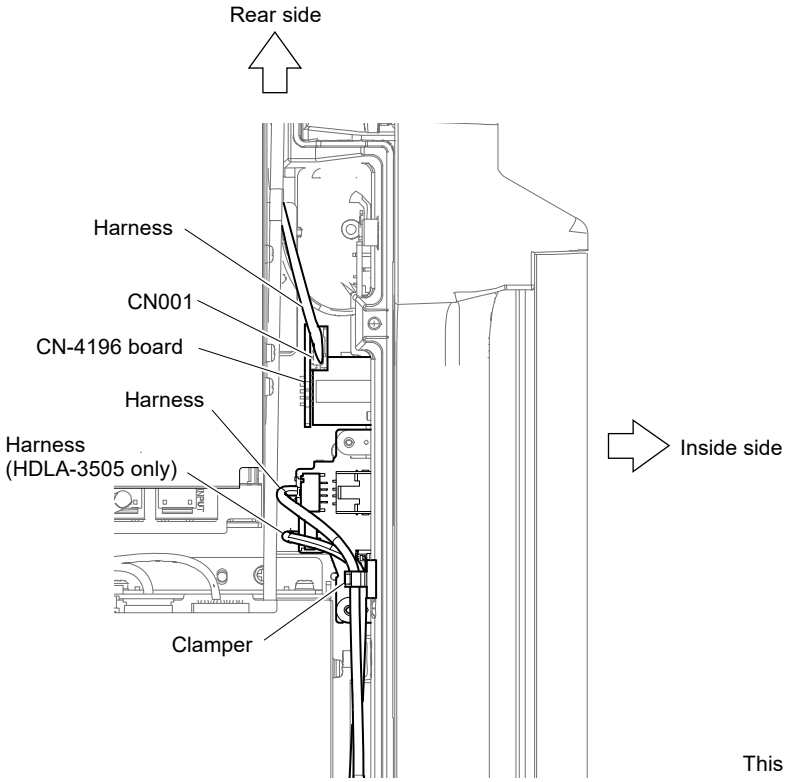
1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)

Procedure

1. Disconnect the harness from the connector (CN001) on the CN-4196 board.
2. Release the two harnesses from the clamper.

   Tip

   Only one harness is provided in HDLA-3501.



This figure shows HDLA-3505.

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SYS SET

3. Remove the four screws, and then remove the inside panel in the direction of the arrow.

   Note

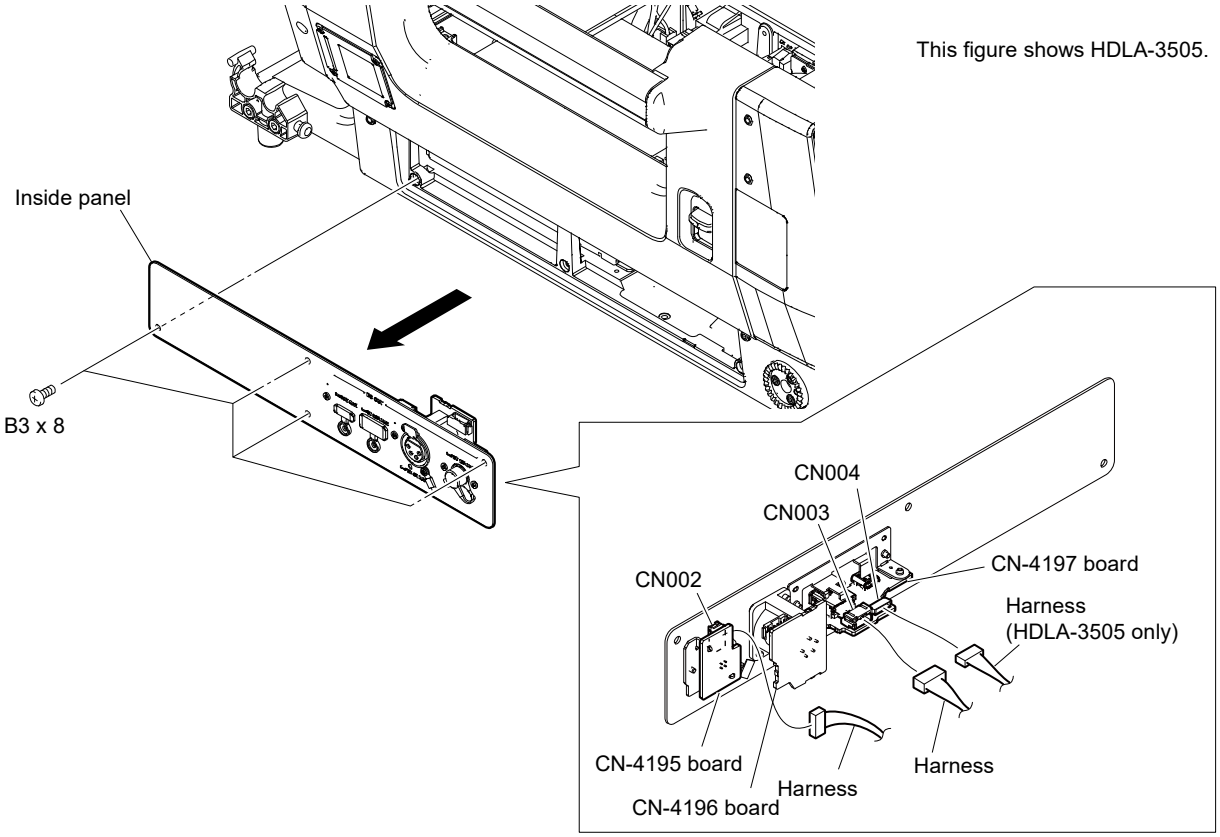
   Carefully remove the inside panel so as not to damage the harnesses.

4. Disconnect the two harnesses from the connectors (CN003, CN004) on the CN-4197 board.

   Tip

   Only the harness of HDLA-3505 is connected to the connector (CN004).

5. Disconnect the harness from the connector (CN002) on the CN-4195 board.



6. Install the removed parts by reversing the steps of removal.

3-5. SY-479 Board

Preparation

1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)
2. Remove the outlet panel. (Refer to “3-3. Outlet Panel”.)

Procedure

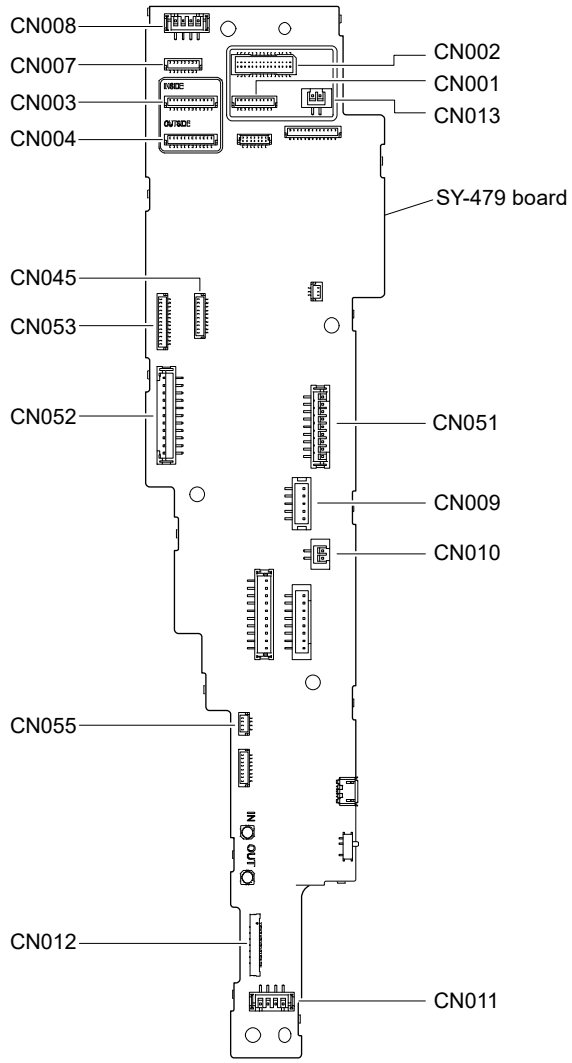
1. Disconnect all harnesses, fine-wire coaxial cables, and coaxial cables from the SY-479 board.

   Tip

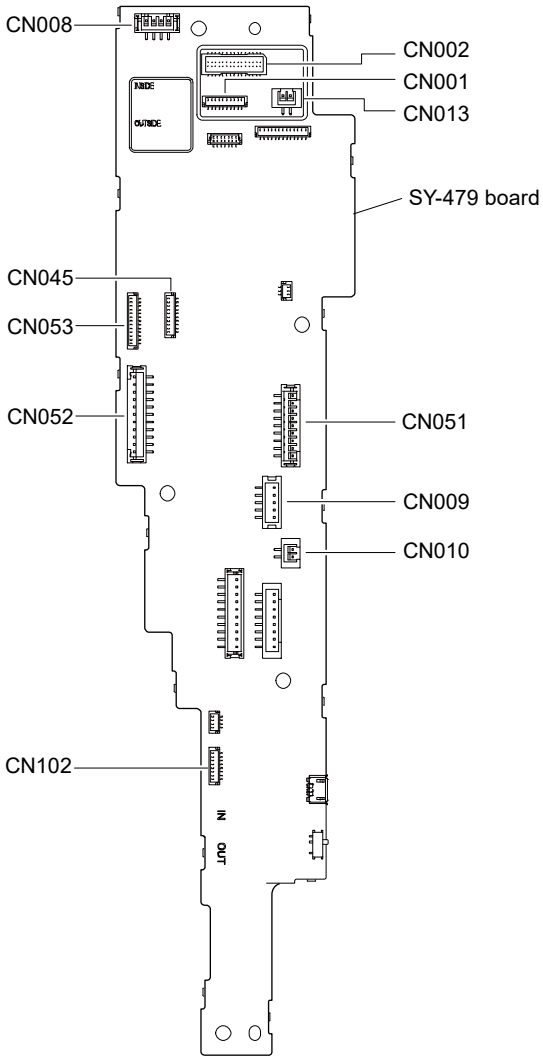
   HDLA-3505: 16 pcs

   HDLA-3501: 11 pcs

HDLA-3505



HDLA-3501



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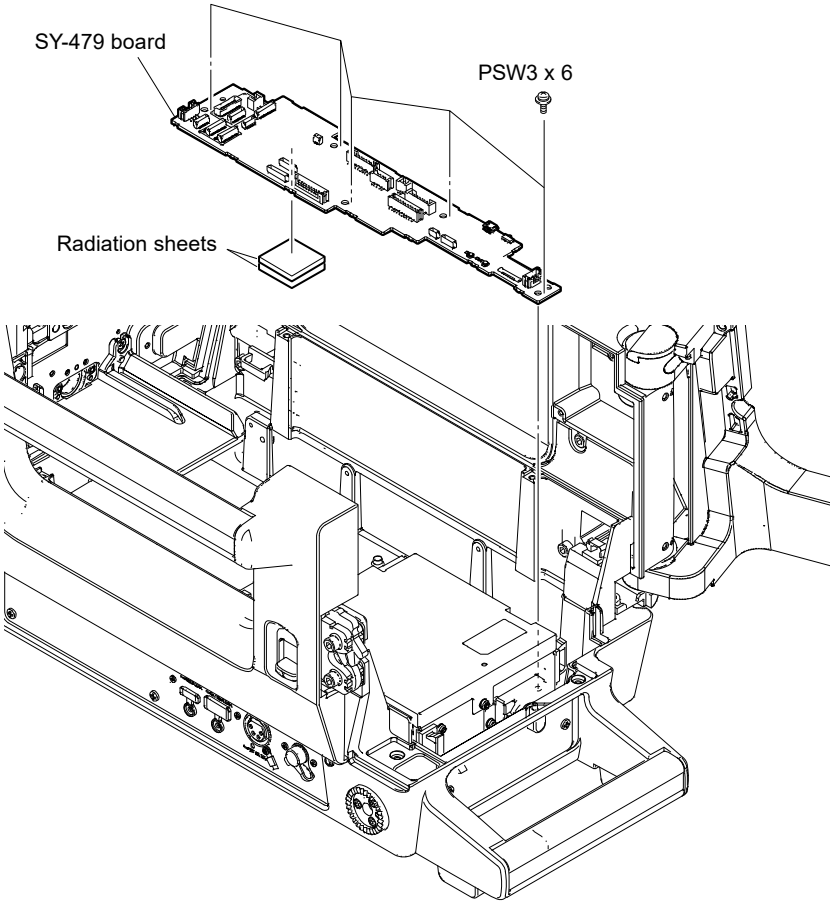
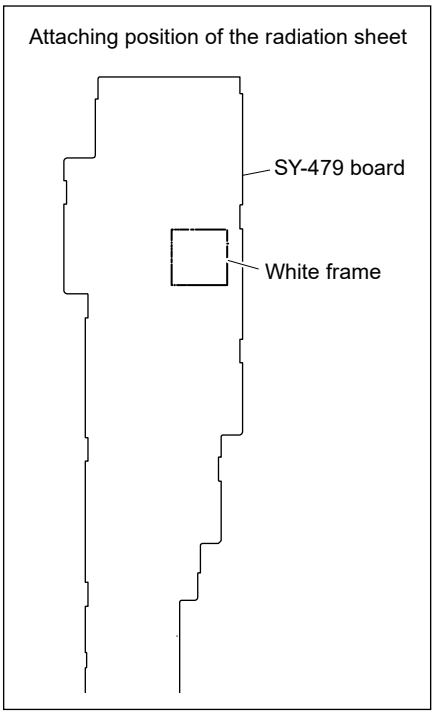
SYS SET

2. Remove the five screws, and then remove the SY-479 board.
3. Peel off the two radiation sheets.





This figure shows HDLA-3505.

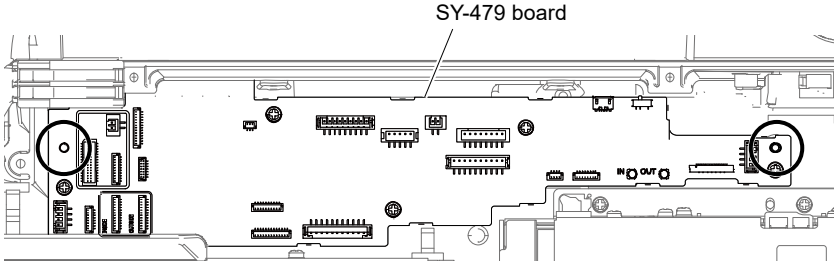
Note

- At the time of the installation, be careful not to pinch the cables.
- At the time of the installation, attach the radiation sheets as shown in the figure (white frame).

4. Install the removed parts by reversing the steps of removal.

Note

Tighten the five screws (removed in step 2), and then check that the bosses are fit in the holes (circled in the figure below) at both sides of the board.



This figure shows HDLA-3505.

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SYS SET

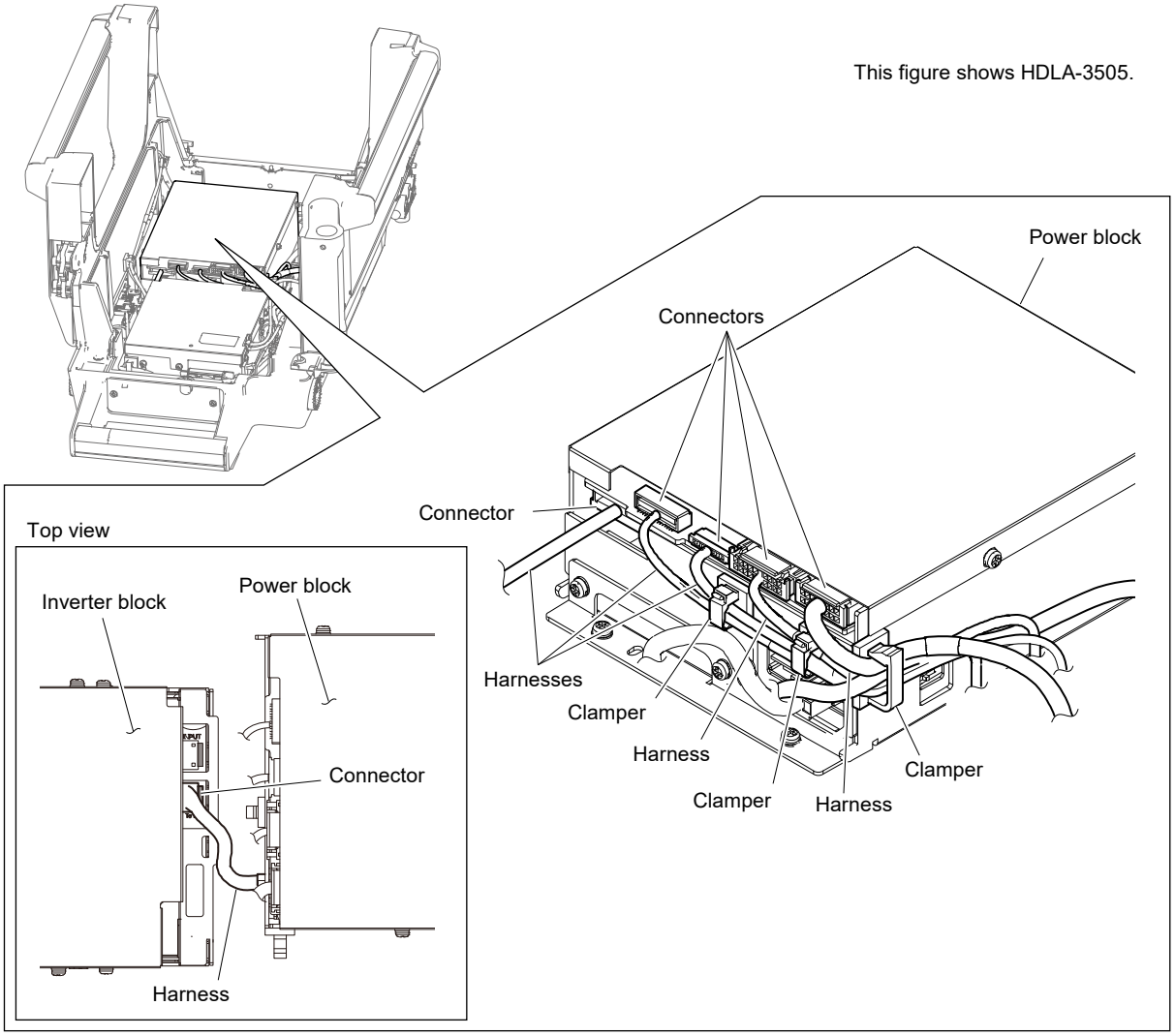
3-6. Power Block

Preparation

1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)
2. Remove the front assembly. (Refer to “3-2. Front Assembly”.)

Procedure

1. Release the harness from the three clampers.
2. Disconnect the five harnesses from the five connectors of the power block.
3. Disconnect the harness from the connector of the inverter block.



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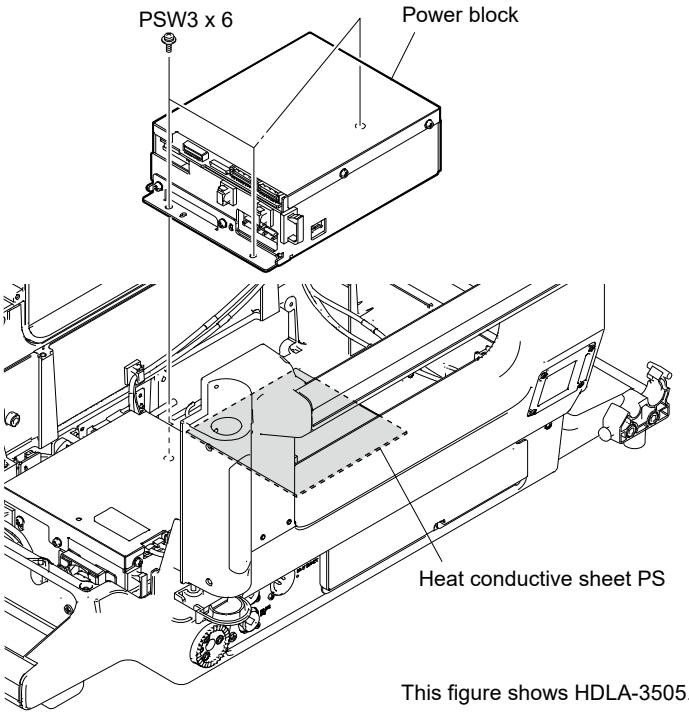
SYS SET

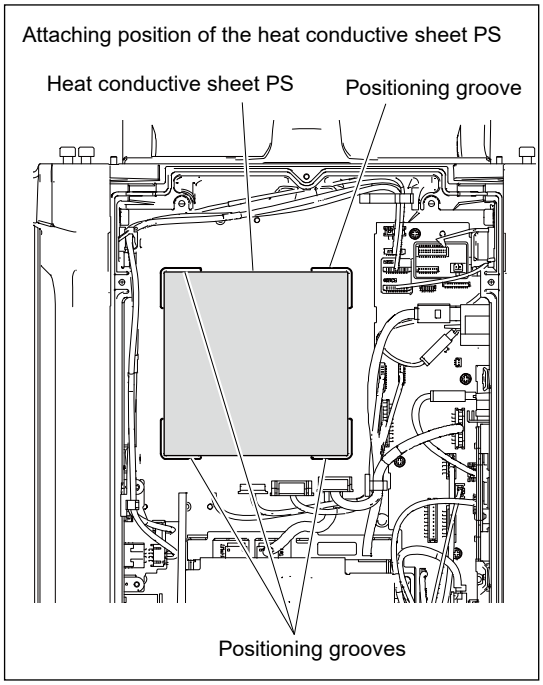
4. Remove the three screws, and then remove the power block.

   Tip

   Remove the power block gradually and strongly because it adheres to the heat conductive sheet PS.



This figure shows HDLA-3505.



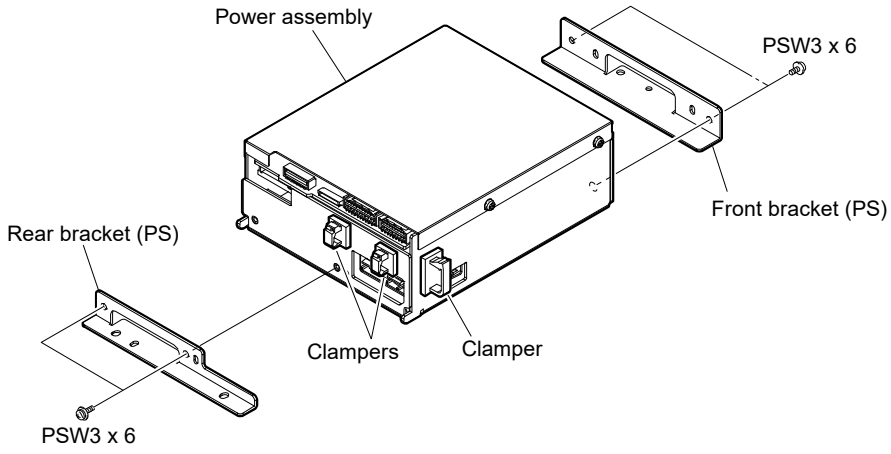
   Note

   If the heat conductive sheet PS adheres to the power block side, remove it and stick it at the position (shown in the figure above) on the bottom chassis.

5. Remove the four screws, and then remove the rear bracket (PS) and the front bracket (PS).

   Tip

   If the clampers are removed from the power assembly, attach new clampers when installing the power assembly.



6. Install the removed parts by reversing the steps of removal.

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SYS SET

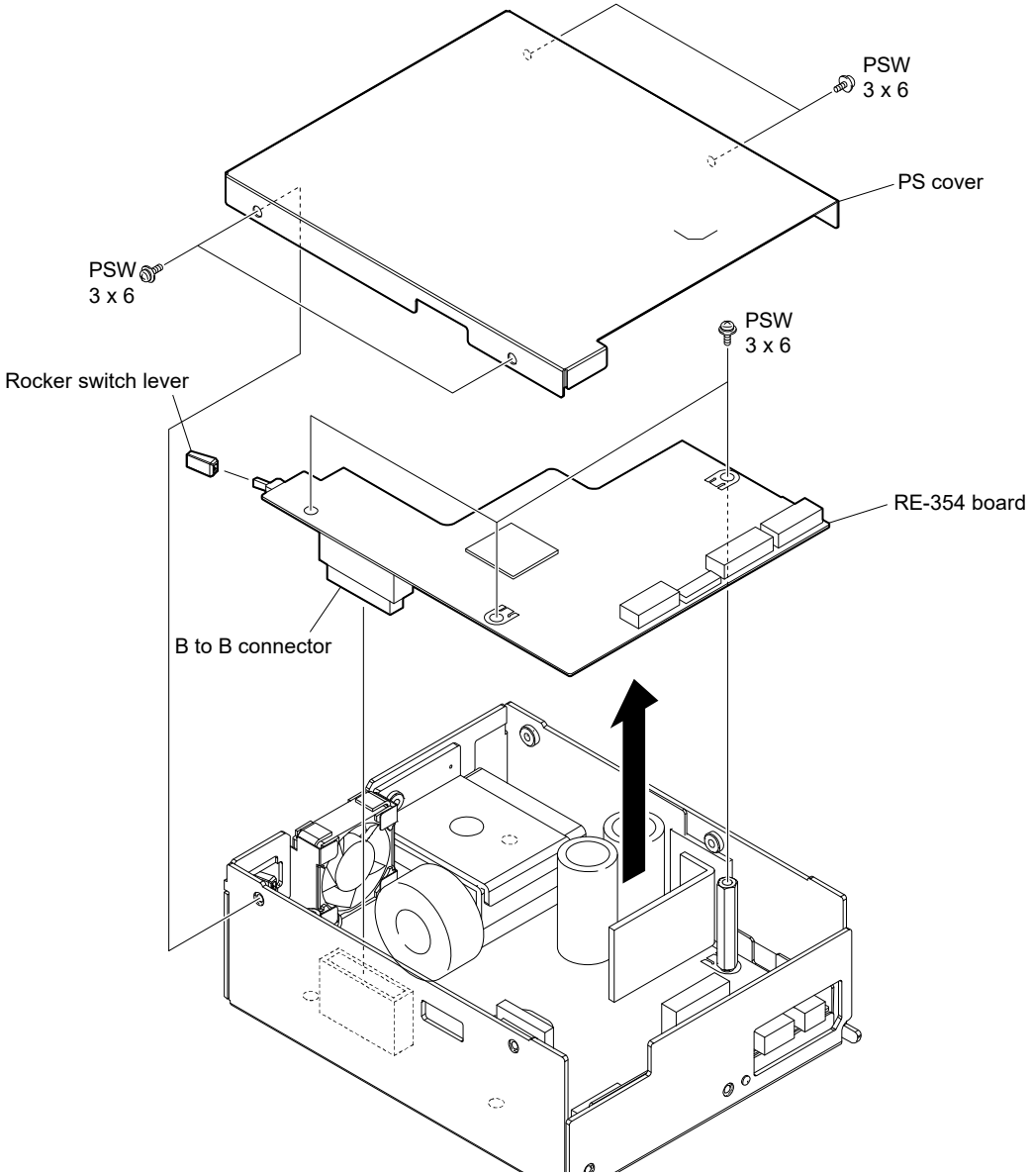
3-6-1. RE-354 Board

Preparation

1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)
2. Remove the front assembly. (Refer to “3-2. Front Assembly”.)
3. Remove the power block. (Refer to “3-6. Power Block”.)

Procedure

1. Disconnect the four screws to detach the PS cover.
2. Remove the three screws.
3. Disconnect the B to B connector on the RE-354 board and remove the RE-354 board in the direction of the arrow.
4. Remove the rocker switch lever.



5. Install the removed parts by reversing the steps of removal.

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SYS SET

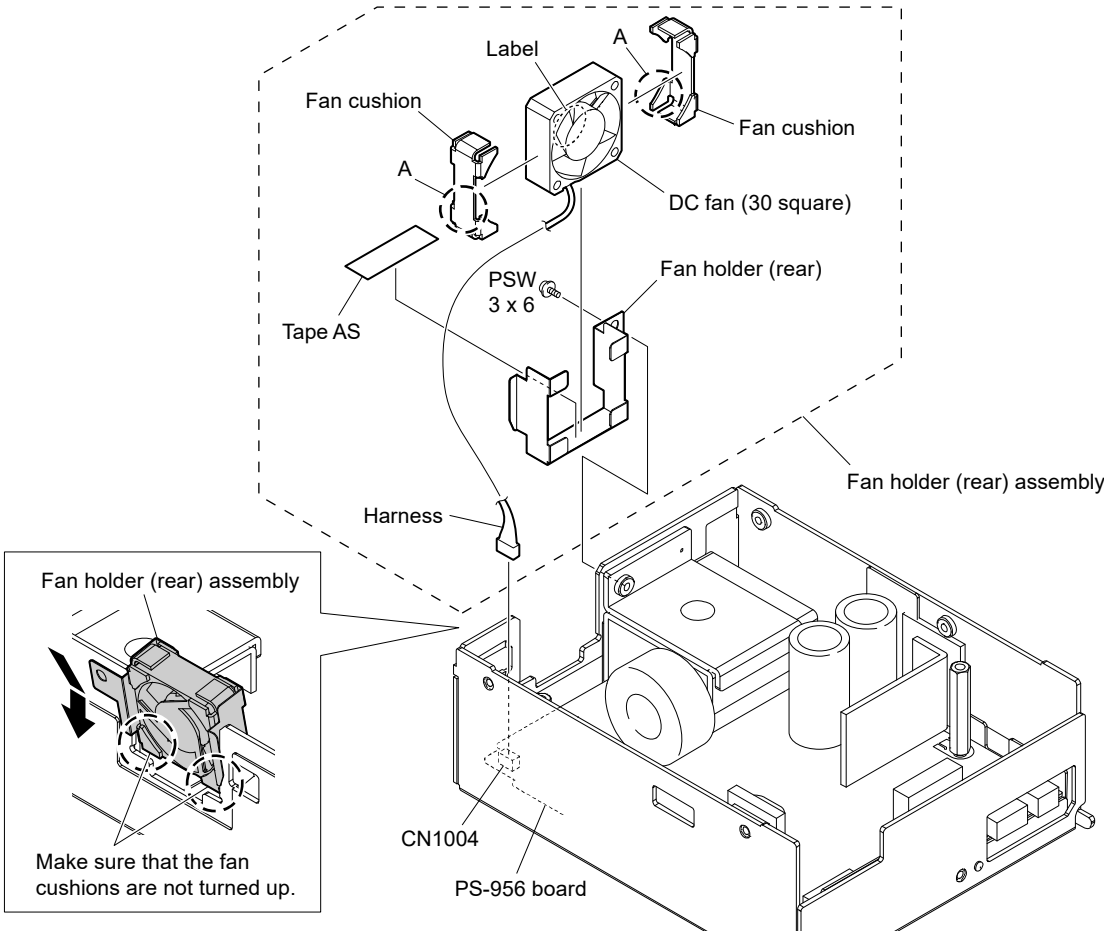
3-6-2. DC Fan (30 Square)

Preparation

1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)
2. Remove the front assembly. (Refer to “3-2. Front Assembly”.)
3. Remove the power block. (Refer to “3-6. Power Block”.)
4. Remove the RE-354 board. (Refer to “3-6-1. RE-354 Board”.)

Procedure

1. Disconnect the harness from the connector (CN1004) on the PS-956 board.
2. Remove the screw to detach the fan holder (rear).
3. Remove the DC fan (30 square).
4. Remove the two fan cushions.



Note

- Install the DC fan (30 square) carefully paying attention to the label side and the harness position.
- Tilt the fan holder (rear) assembly to install it, making sure that the two portions A are not turned up.

5. Install the removed parts by reversing the steps of removal.

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SYS SET

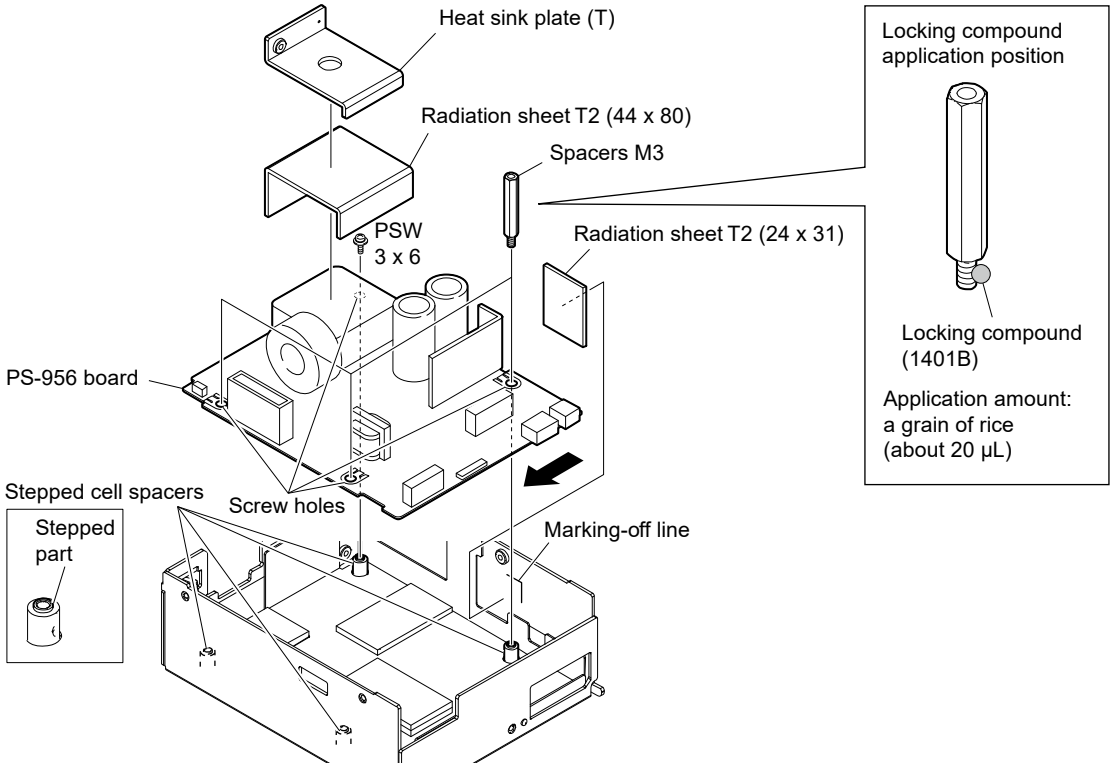
3-6-3. PS-956 Board

Preparation

1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)
2. Remove the front assembly. (Refer to “3-2. Front Assembly”.)
3. Remove the power block. (Refer to “3-6. Power Block”.)
4. Remove the RE-354 board. (Refer to “3-6-1. RE-354 Board”.)
5. Remove the DC fan (30 square). (Refer to “3-6-2. DC Fan (30 Square)”.)

Procedure

1. Detach the heat sink plate (T).
2. Remove the three spacers M3 and the screw to detach the PS-956 board.
3. Remove the radiation sheet T2 (44 x 80) and the radiation sheet T2 (24 x 31).



Note

- When installing the radiation sheet T2 (24 x 31), make sure that it is aligned with the marking-off line.
- Apply the locking compound (1401B) on the thread of spacer M3.
- When installing the PS-956 board, carefully install it so that the radiation sheet T2 (24 x 31) does not peel off in the direction of the arrow or it is not damaged.
- When installing the PS-956 board, fit the stepped parts of the four stepped cell spacers in the four screw holes of the PS-956 board.

4. Install the removed parts by reversing the steps of removal.

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SYS SET

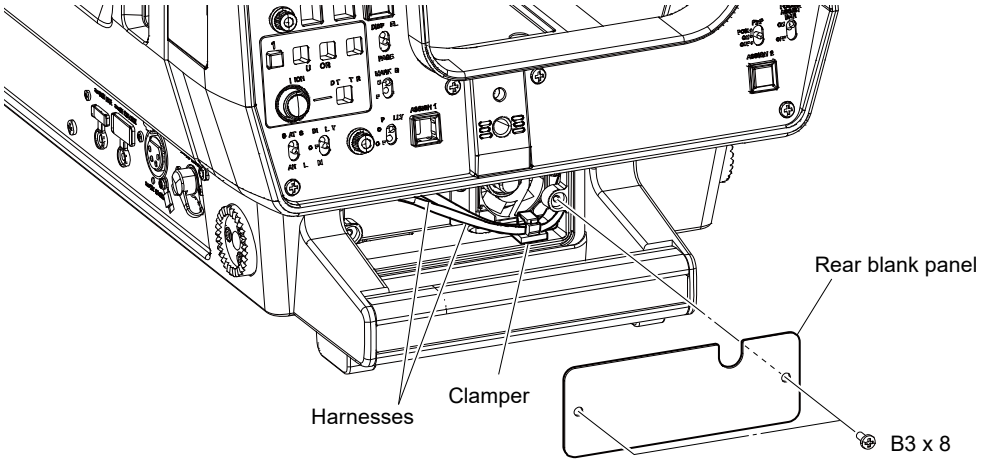
3-7. Inverter Assembly (HDLA-3505)

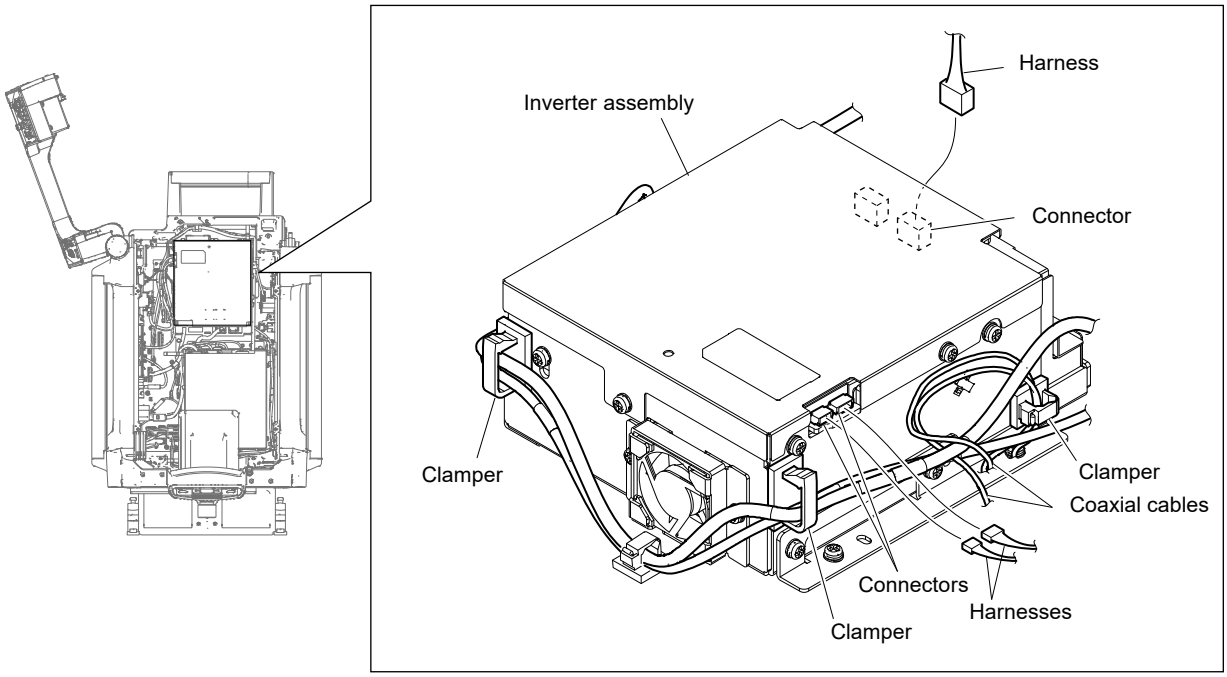
Preparation

1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)

Procedure

1. Remove the two screws, and then remove the rear blank panel.
2. Release the harnesses and the coaxial cables from the four clampers.
3. Disconnect the three harnesses from the three connectors of the inverter assembly.





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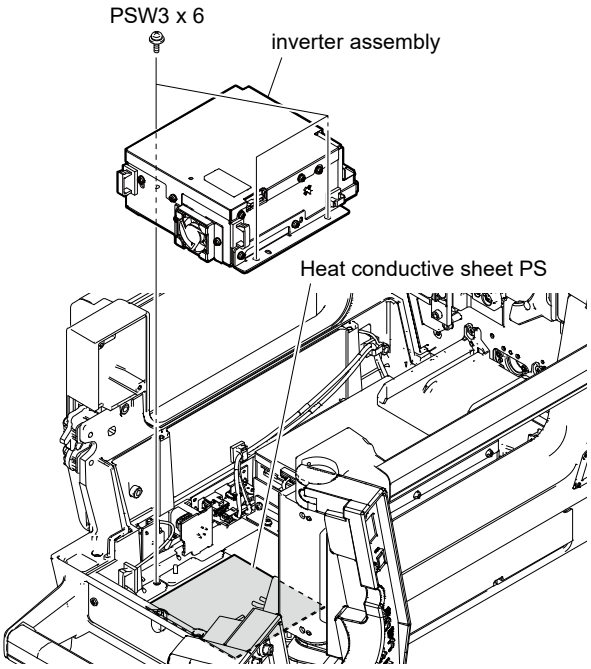
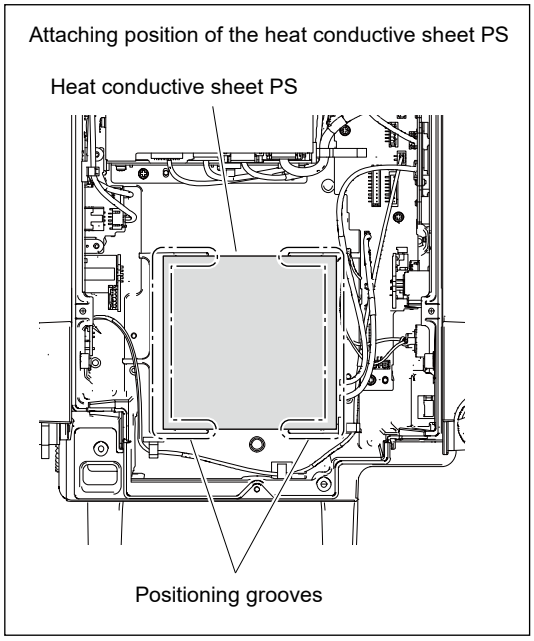
SYS SET

4. Remove the three screws, and then remove the inverter assembly.

   Tip

   Remove the inverter assembly gradually and strongly because it adheres to the heat conductive sheet PS.





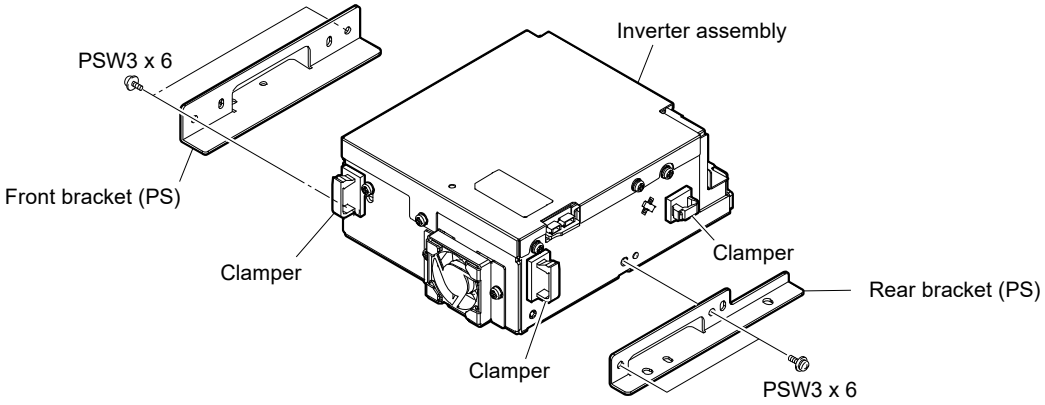
   Note

   If the heat conductive sheet PS adheres to the inverter assembly side, remove it and stick it at the position (shown in the figure above) on the bottom chassis.

5. Remove the four screws, and then remove the rear bracket (PS) and the front bracket (PS).

   Tip

   If the clampers are removed from the inverter assembly, attach new clampers when installing the inverter assembly.



7. Install the removed parts by reversing the steps of removal.

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SYS SET

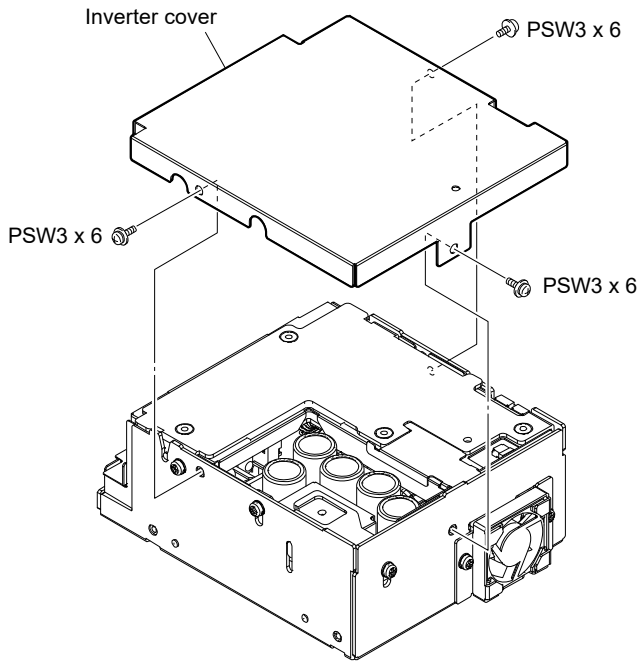
3-7-1. PS Bracket Assembly

Preparation

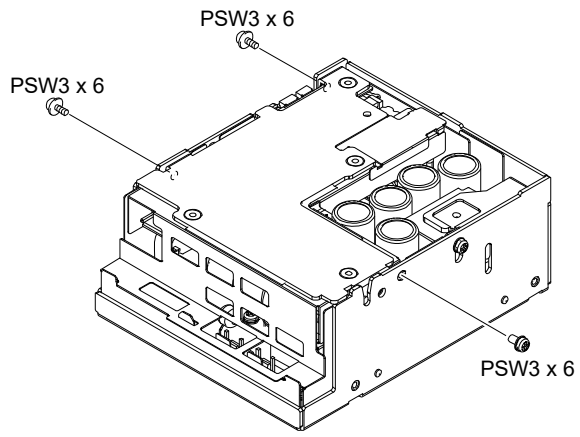
1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)
2. Remove the inverter assembly. (Refer to “3-7. Inverter Assembly (HDLA-3505)”.)

Removal

1. Remove the three screws, and then remove the inverter cover.



2. Remove the three screws.



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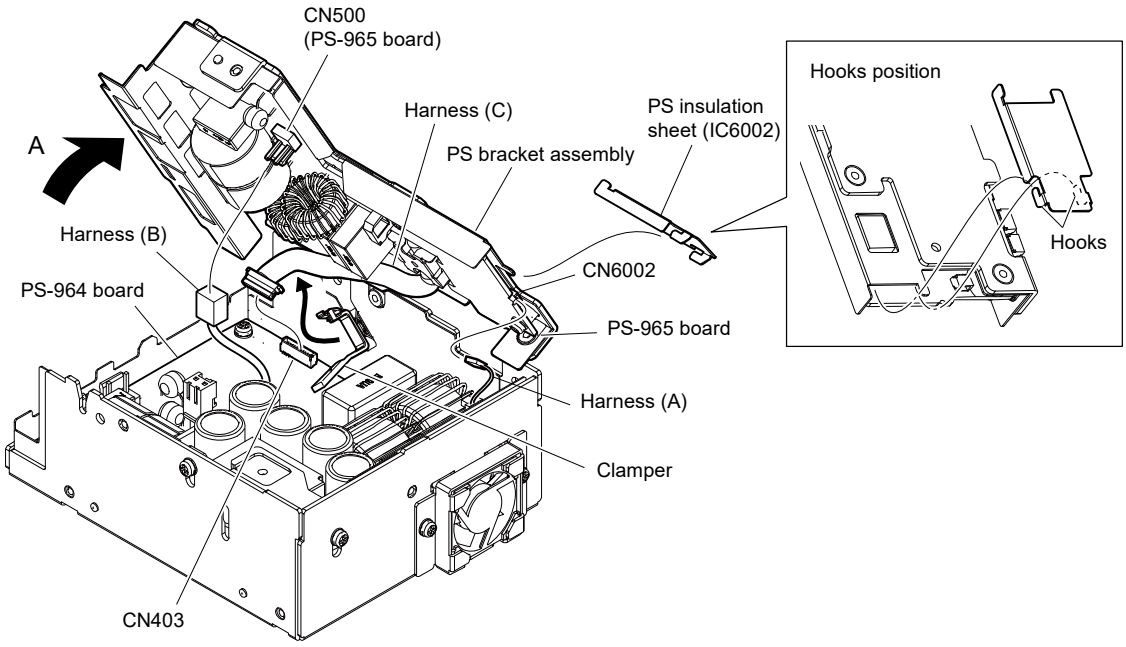
SYS SET

3. Open the PS bracket assembly in the direction of arrow A.
4. Remove the PS insulation sheet (IC6002).
5. Disconnect the harness (A) from the connector (CN6002) on the PS-965 board.
6. Disconnect the harness (B) from the connector (CN500) on the PS-965 board.
7. Release the harness (C) from the clamper, and then disconnect it from the connector (CN403) on the PS-964 board.



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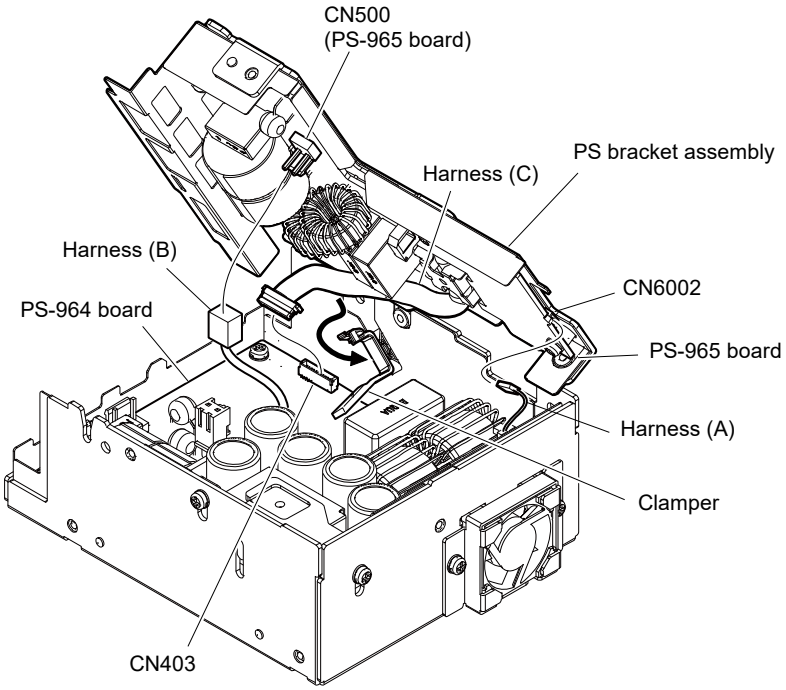
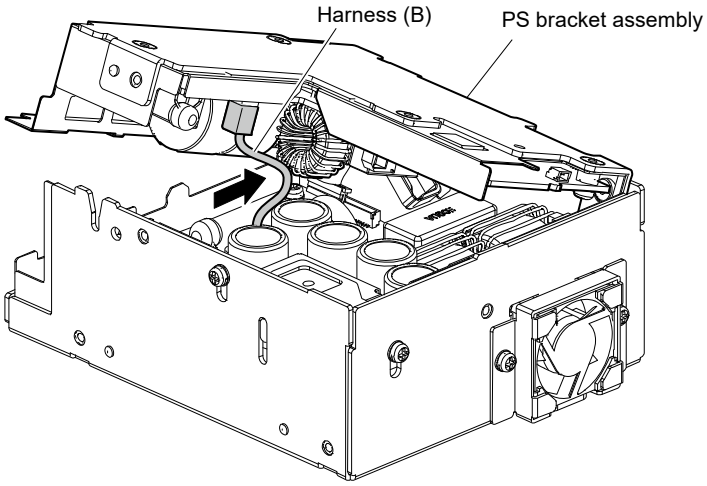
SYS SET

Installation

8. Connect the harness (C) to the connector (CN403) on the PS-964 board, and then fix the harness (C) to the clamper.
9. Connect the harness (B) to the connector (CN500) on the PS-965 board.
10. Connect the harness (A) to the connector (CN6002) on the PS-965 board.



11. Close the PS bracket assembly to the position shown in the figure below, and then fold the harness (B) as shown below.



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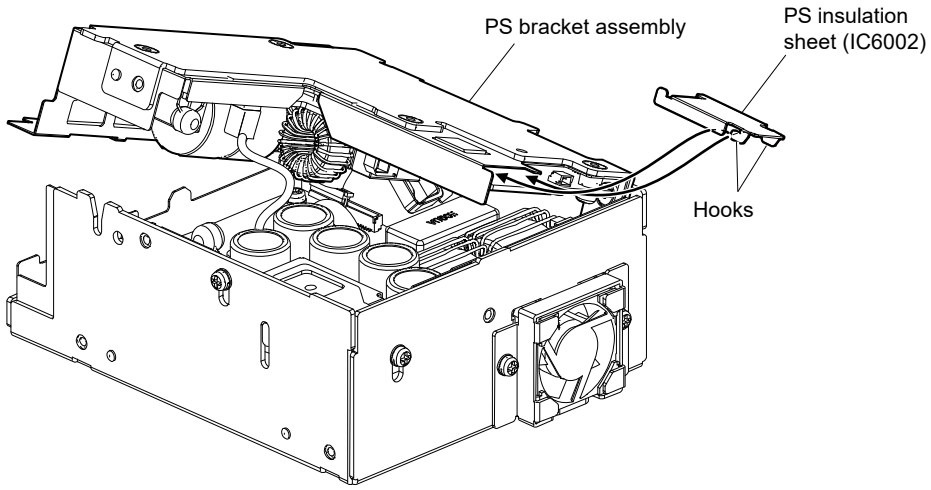
SYS SET

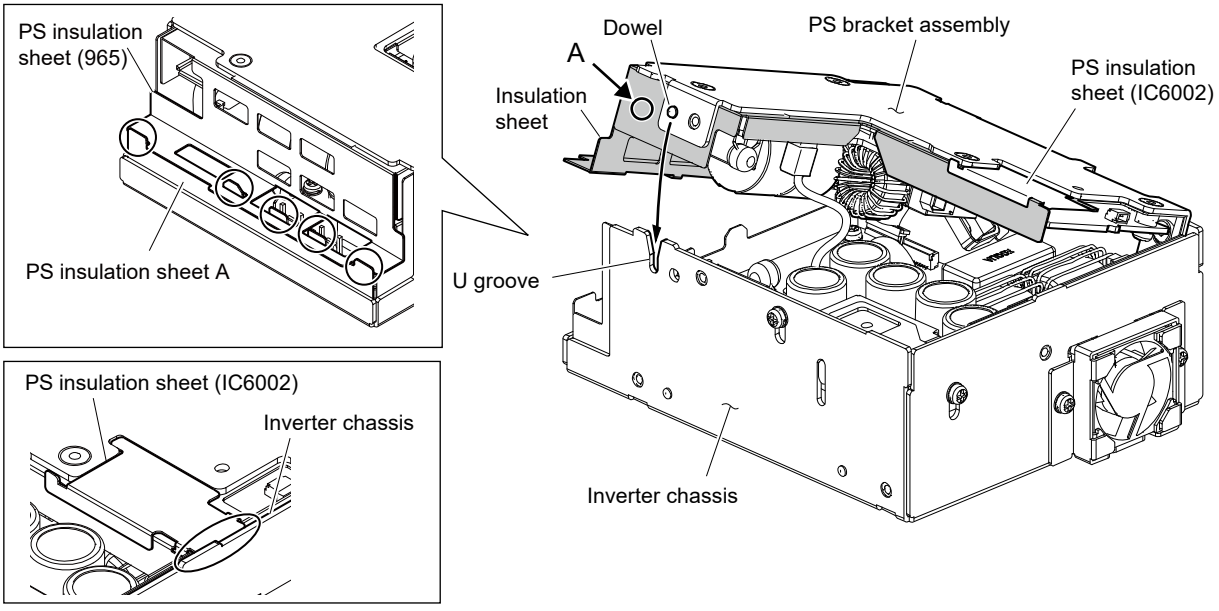
12. Attach the PS insulation sheet (IC6002).



13. Push the A portion of the insulation sheet inside, insert the dowel of the PS bracket assembly into the U groove of the inverter chassis, and then close the PS bracket assembly.

Note

- Check that the convex shape of the PS insulation sheet A is engaged with the holes and the notch of the PS insulation sheet (965).
- Check that the PS insulation sheet (IC6002) is under the inverter chassis.



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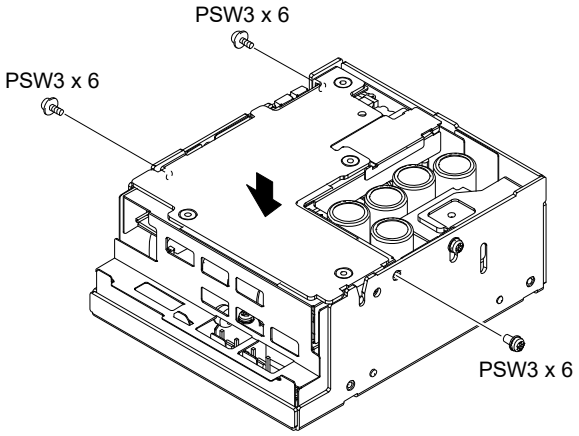
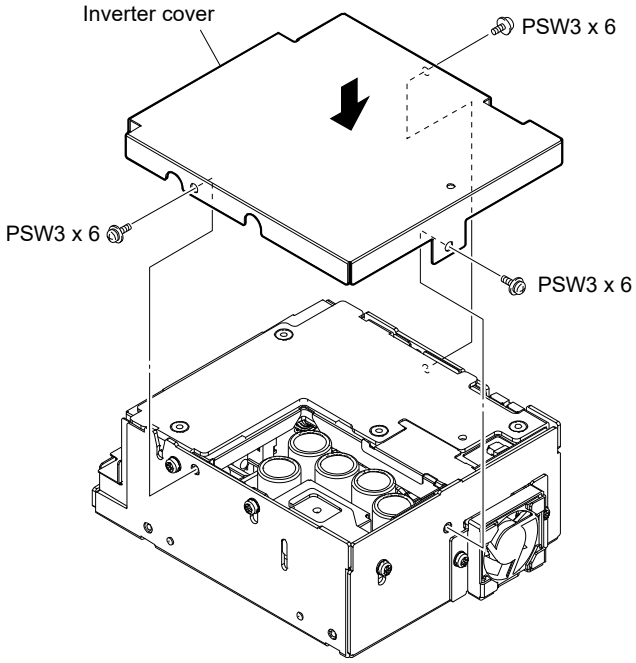
SYS SET

14. Push the PS bracket assembly in the direction of the arrow and secure it with three screws.



15. Attach the inverter cover, and then push it in the direction of the arrow and secure it with three screws.



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SYS SET

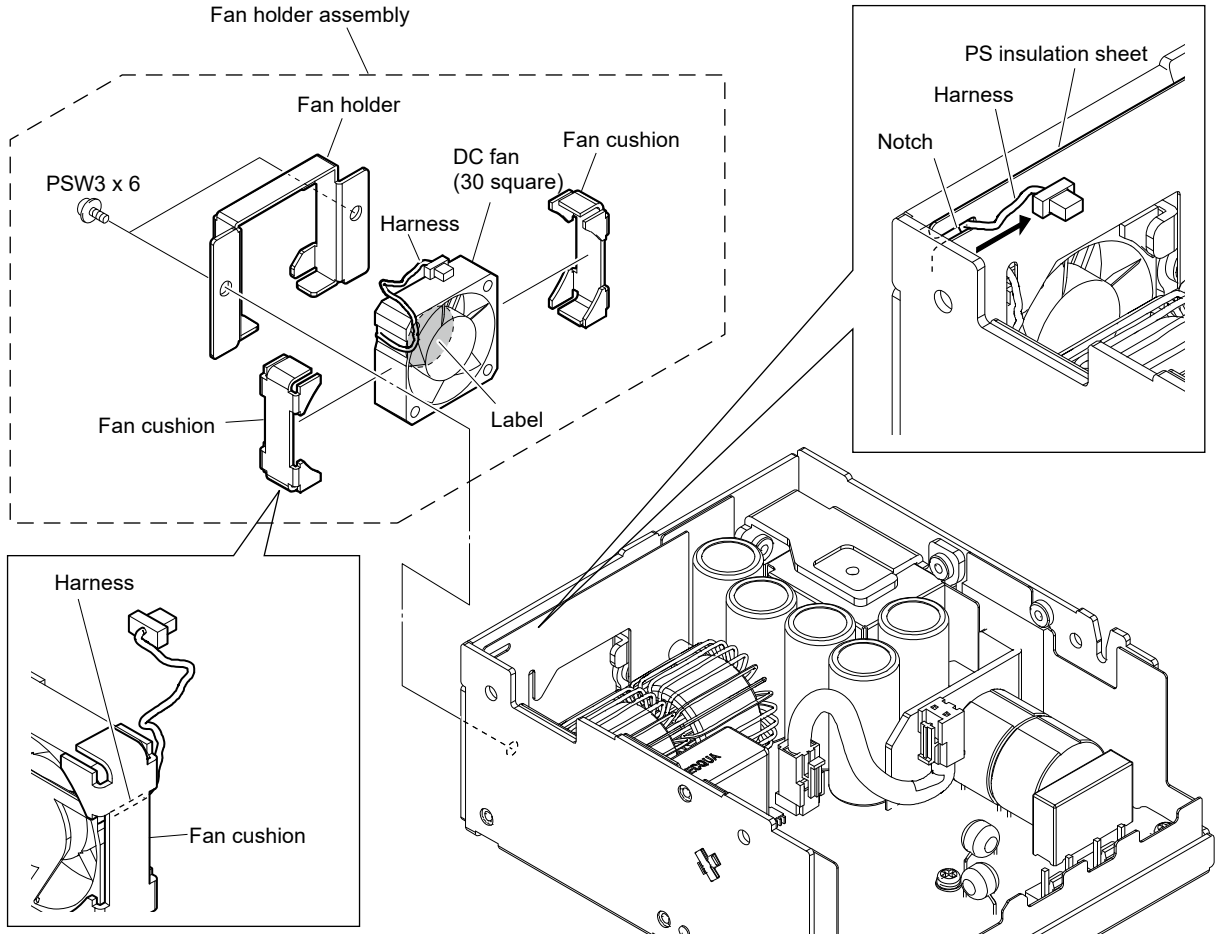
3-7-2. DC Fan (30 Square)

Preparation

1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)
2. Remove the inverter assembly. (Refer to “3-7. Inverter Assembly (HDLA-3505)”.)
3. Remove the PS bracket assembly. (Refer to “3-7-1. PS Bracket Assembly”.)

Procedure

1. Remove the two screws, and then remove the fan holder assembly.
2. Remove the DC fan (30 square).
3. Remove the two fan cushions.



Note

- Attach the fan cushion while covering the harness as well.
- Install the DC fan (30 square) carefully paying attention to the label side and the harness position.
- When installing the fan holder assembly, pass the harness through the notch of the PS insulation sheet and fold it in the direction of the arrow.

4. Install the removed parts by reversing the steps of removal.

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SYS SET

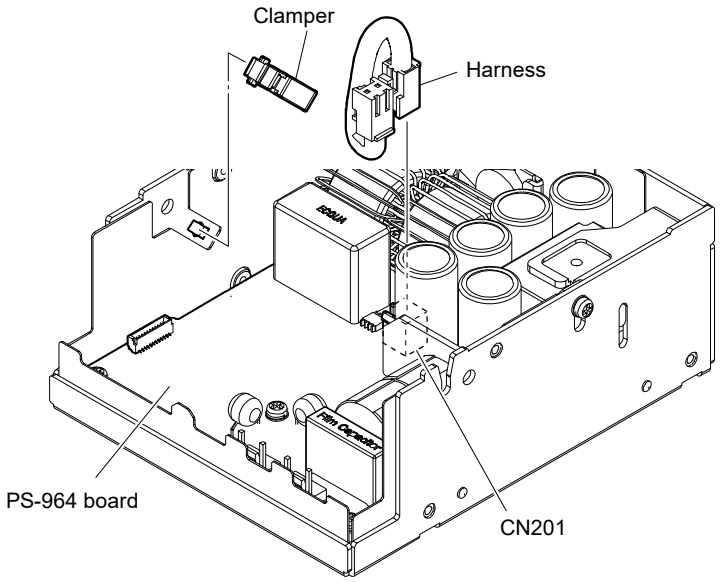
3-7-3. PS-964 Board

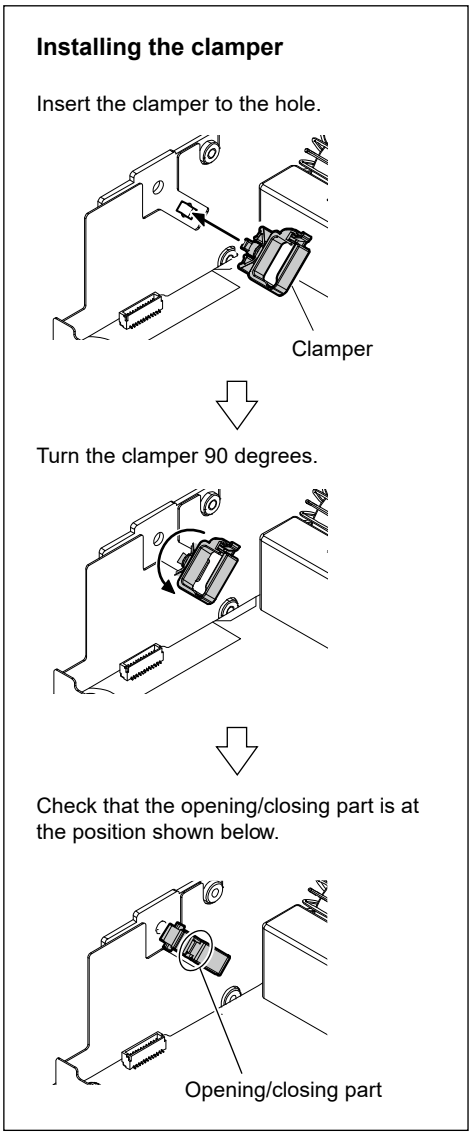
Preparation

1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)
2. Remove the inverter assembly. (Refer to “3-7. Inverter Assembly (HDLA-3505)”.)
3. Remove the PS bracket assembly. (Refer to “3-7-1. PS Bracket Assembly”.)

Procedure

1. Remove the clamper.
2. Disconnect the harness from the connector (CN201) on the PS-964 board.





Note

Attach the clamper as shown above so that the opening/closing part comes at the shown position.

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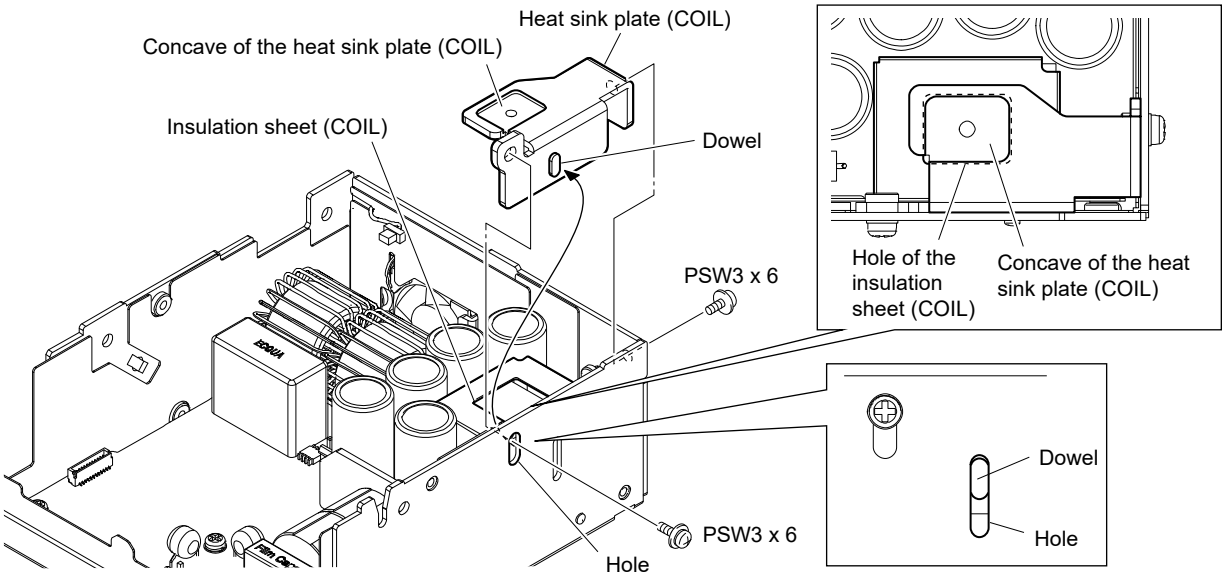
SYS SET

3. Remove the two screws, and then remove the heat sink plate (COIL).



Note

- When installing the heatsink plate (COIL), insert the dowel into the inverter chassis hole. Then check that the concave of the heatsink plate (COIL) is fit in the hole of the insulation sheet (COIL).
- When installing the heatsink plate (COIL), push its concave and secure it with screws.

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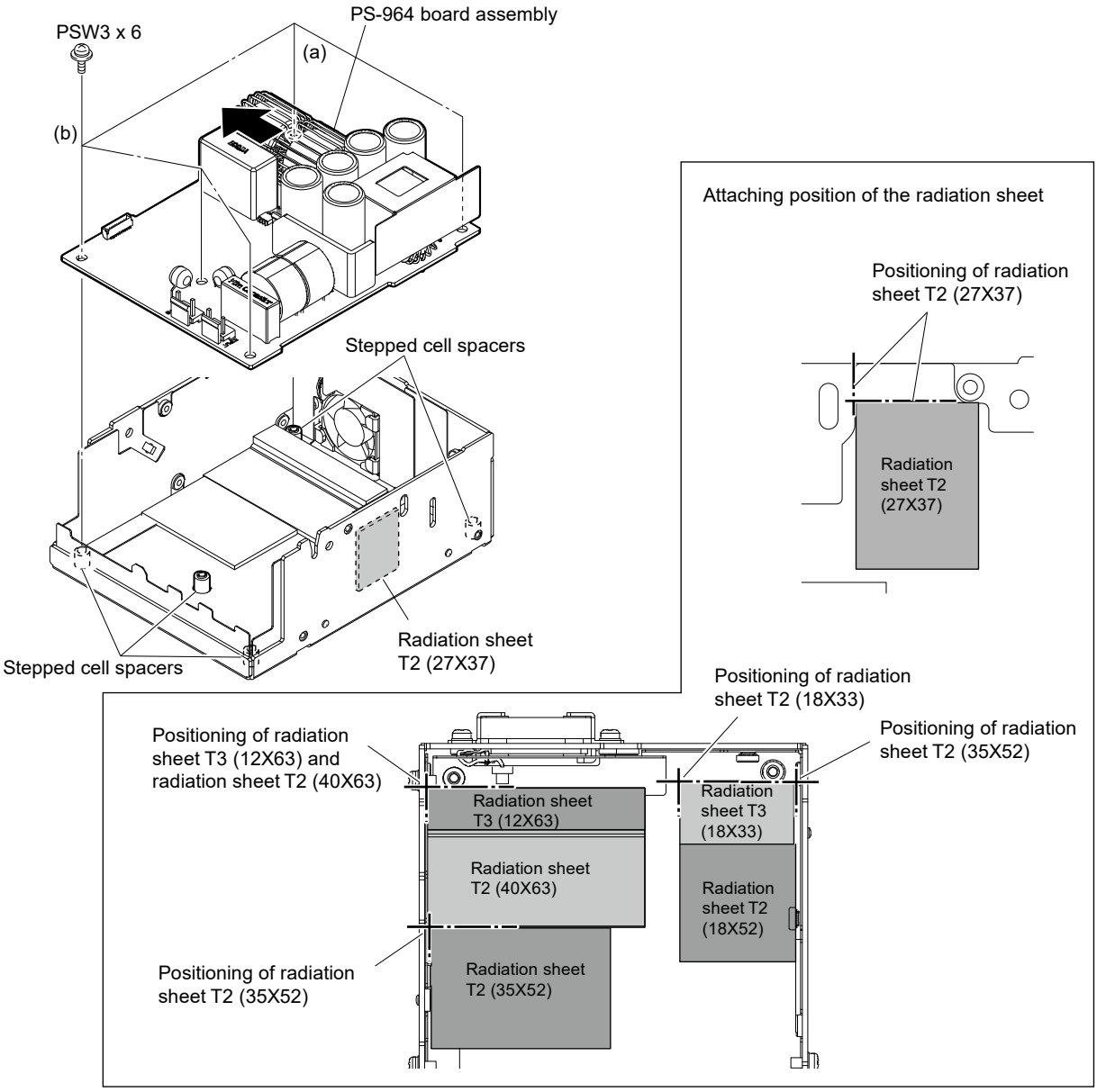
SYS SET

4. Remove the five screws, and then remove the PS-964 board assembly.

Note

- The PS-964 board may adhere to the radiation sheet at the bottom of the inverter chassis.
- Carefully remove the PS-964 board assembly so that the radiation sheet T2 (27X37) on the inverter chassis does not peel off.



Note

- If the radiation sheet at the bottom of the inverter chassis peels off, attach it at the position shown in the figure above.
- When installing the PS-964 board assembly, check that the stepped parts of the five stepped cell spacers are fit in the holes of the board.
- When installing the PS-964 board assembly, push it in the direction of the arrow, fit the stepped parts of the five stepped cell spacers in the holes of the board, and then tighten screw (a), screw (b), and other screws in this order.

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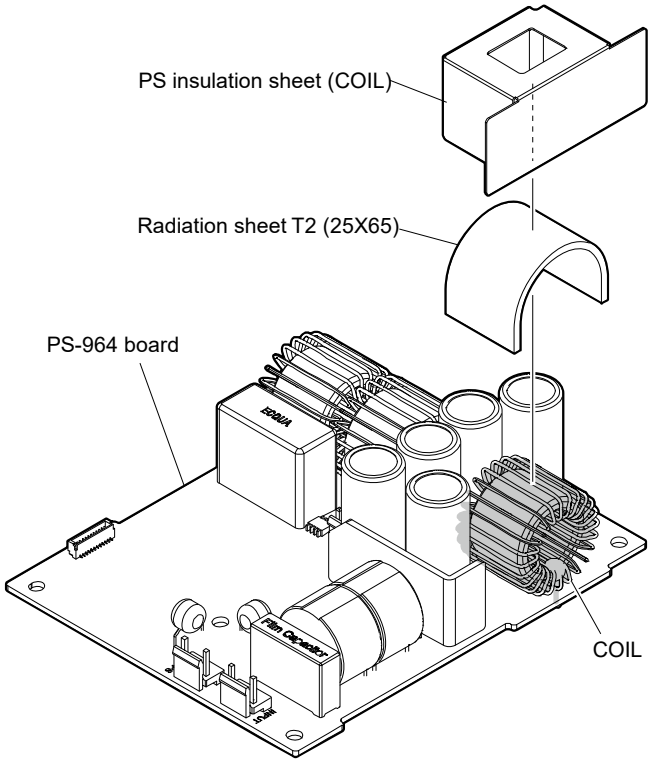
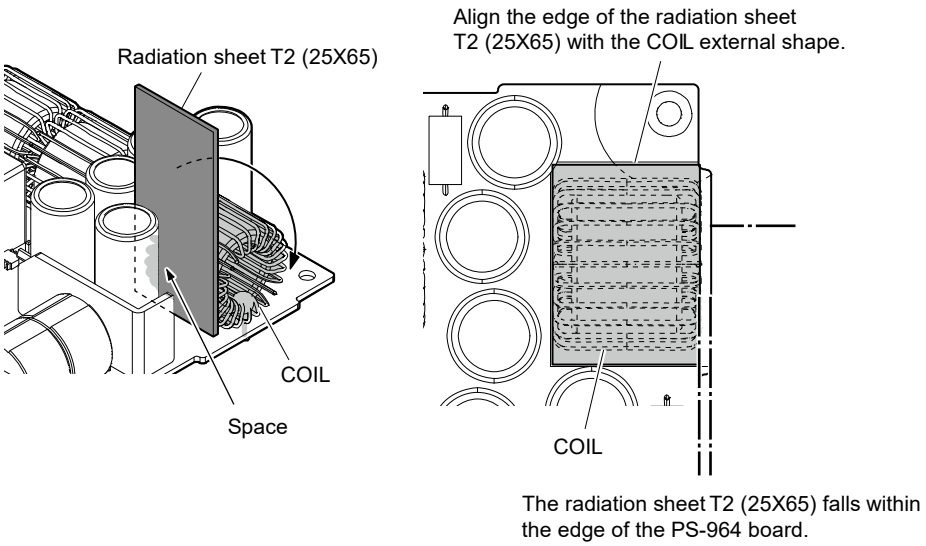
SYS SET

5. Remove the PS insulation sheet (COIL) and the radiation sheet T2 (25X65) from the PS-964 board.



Note

When attaching the radiation sheet T2 (25X65), put it in the space as shown below and adhere it aligning its edge with the COIL external shape. Check that the radiation sheet T2 (25X65) falls within the edge of the PS-964 board.



6. Install the removed parts by reversing the steps of removal.

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SYS SET

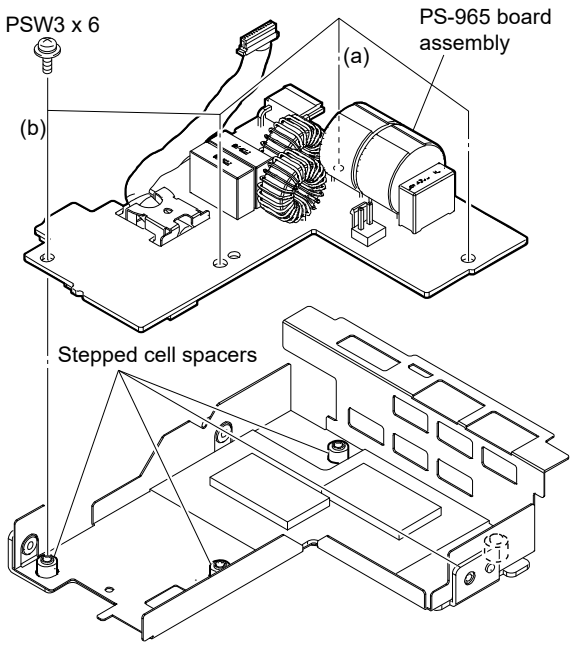
3-7-4. PS-965 Board

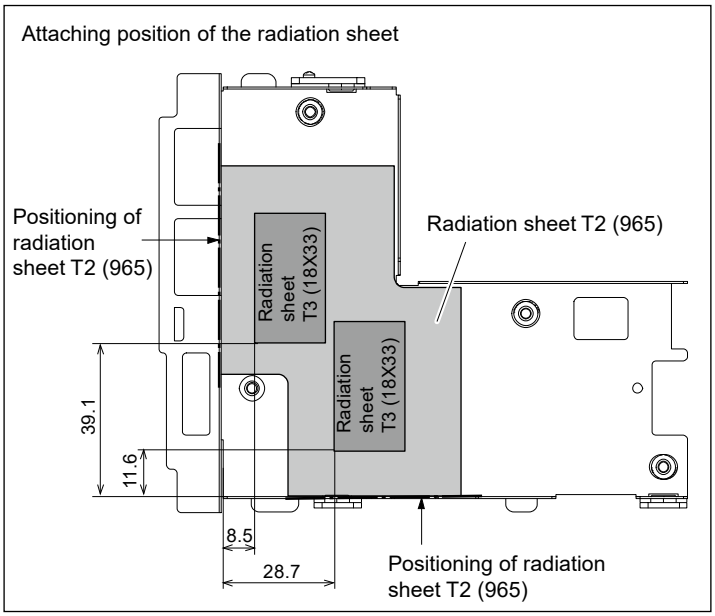
Preparation

1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)
2. Remove the inverter assembly. (Refer to “3-7. Inverter Assembly (HDLA-3505)”.)
3. Remove the PS bracket assembly. (Refer to “3-7-1. PS Bracket Assembly”.)

Procedure

1. Remove the four screws, and then remove the PS-965 board assembly.

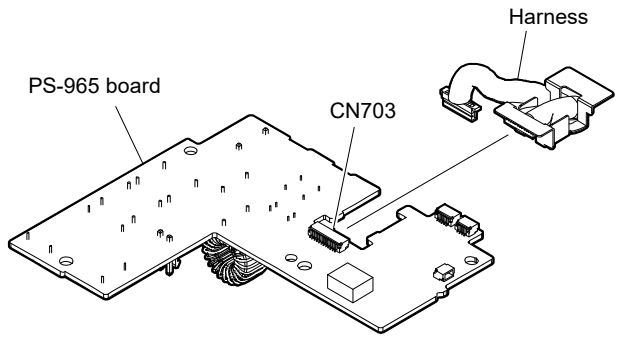




Note

- When installing the PS-965 board assembly, fit the stepped parts of the four stepped cell spacers in the holes of the board, and then tighten screw (a), screw (b), and other screws in this order.
- If the radiation sheet peels off, attach it at the position shown in the figure above.

2. Disconnect the harness from the connector (CN703) on the PS-965 board.



3. Install the removed parts by reversing the steps of removal.

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SYS SET

3-8. EPD Assembly (HDLA-3505)

Tip

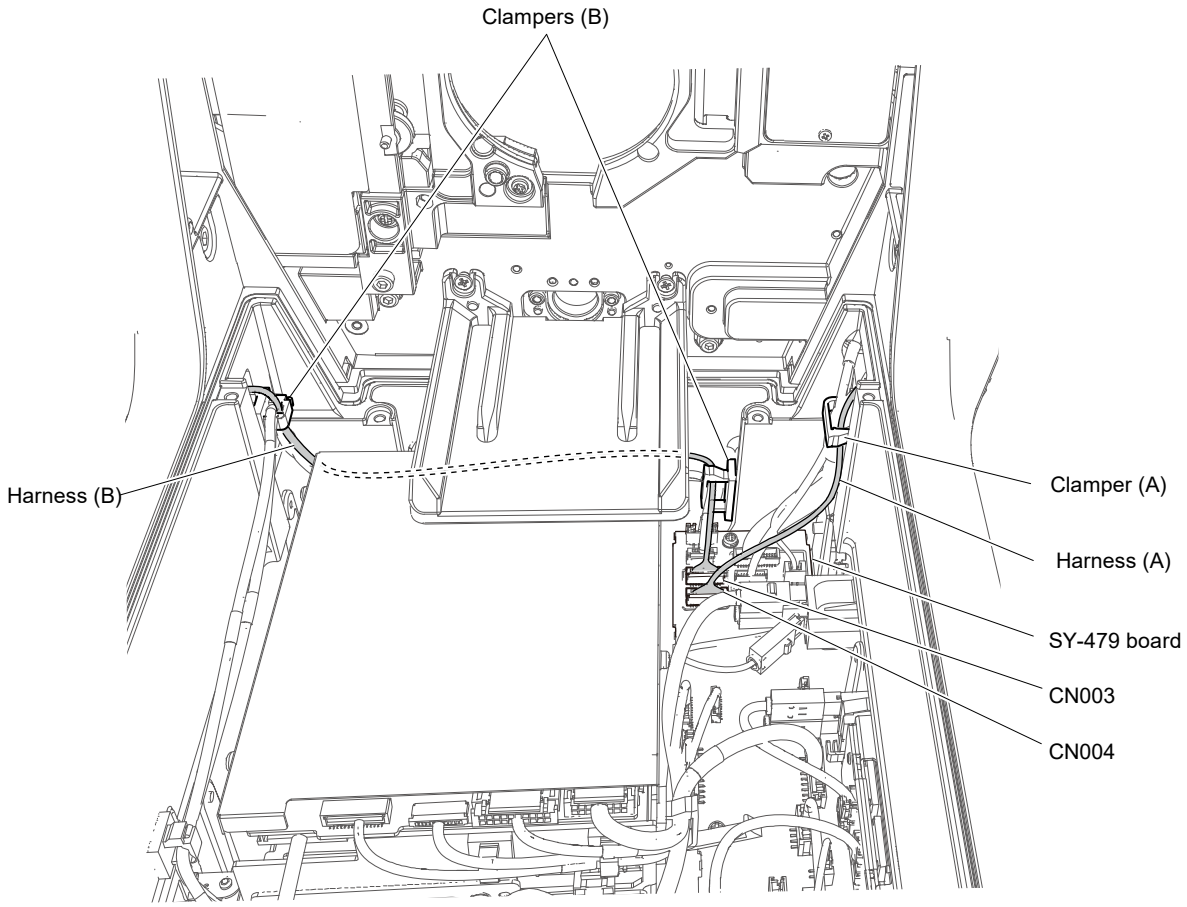
The unit has an EPD assembly on each outlet side and inside. These EPD assemblies can be replaced in the same way in step 2 and the subsequent steps.

Preparation

1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)

Procedure

1. Disconnect the harnesses from the connectors on the SY-479 board, and release the harnesses from the clampers.
   EPD assembly on the outlet side: CN004, harness (A), clamper (A)
   EPD assembly on the inside side: CN003, harness (B), two clampers (B)



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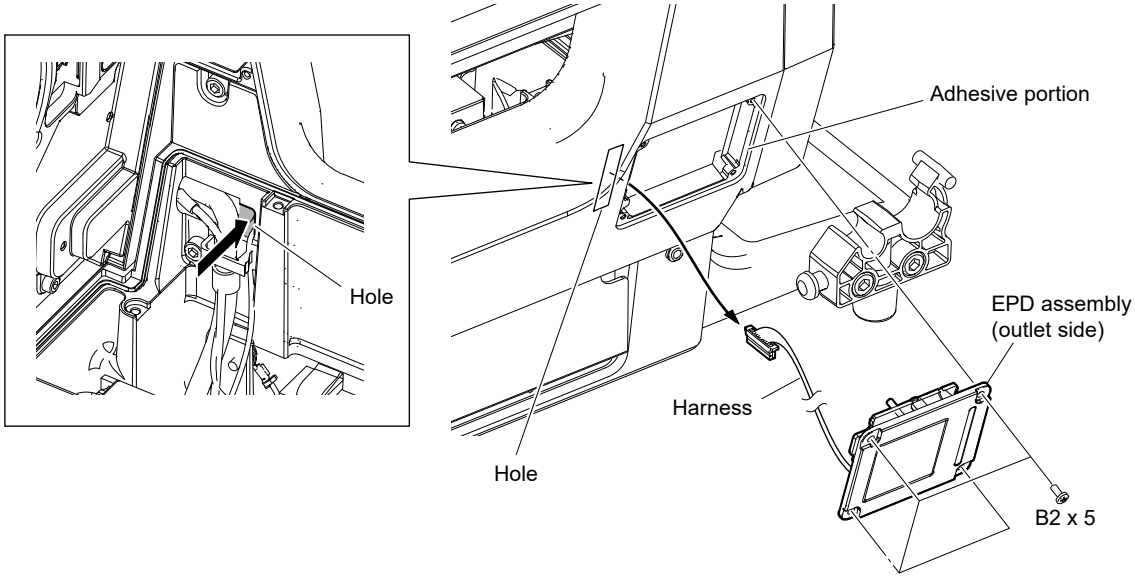
2. Remove the four screws, and then pull out the EPD assembly.

   Tip

   Insert a bar (such as head of tweezers) from the inside hole and eject the EPD assembly.

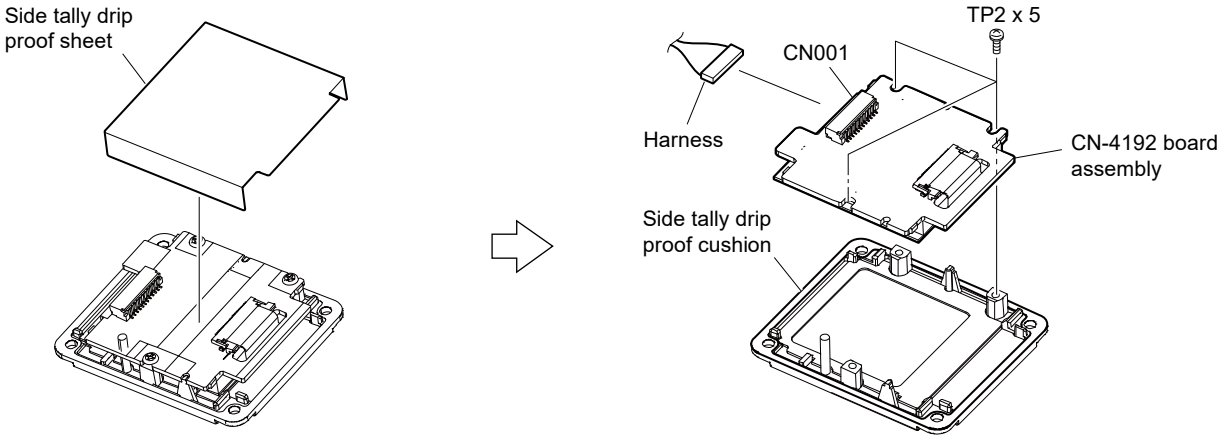
3. Pull out harness from the hole.



   Note

   When installing the EPD assembly, completely remove remaining adhesive glue.

4. Remove the side tally drip proof sheet.
5. Disconnect the harness from the connector (CN001) on the CN-4192 board.
6. Remove the three screws, and then remove the CN-4192 board assembly.



   Note

   When installing the EPD assembly, completely remove the side tally drip-proof cushion and attach a new one.

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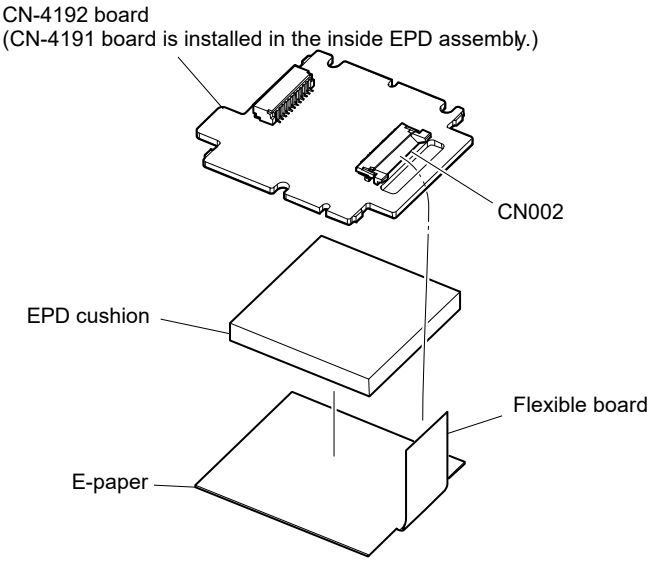
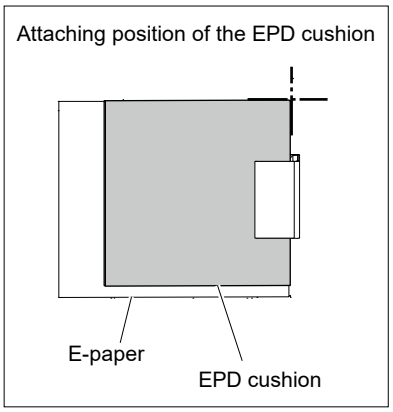
7. Disconnect the flexible board from the connector (CN002) on the CN-4192 board.
8. Remove the EPD cushion from the E-paper.





9. Install the removed parts by reversing the steps of removal.

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SYS SET

3-9. CN-4190 Board, SW-1794 Board (HDLA-3505)

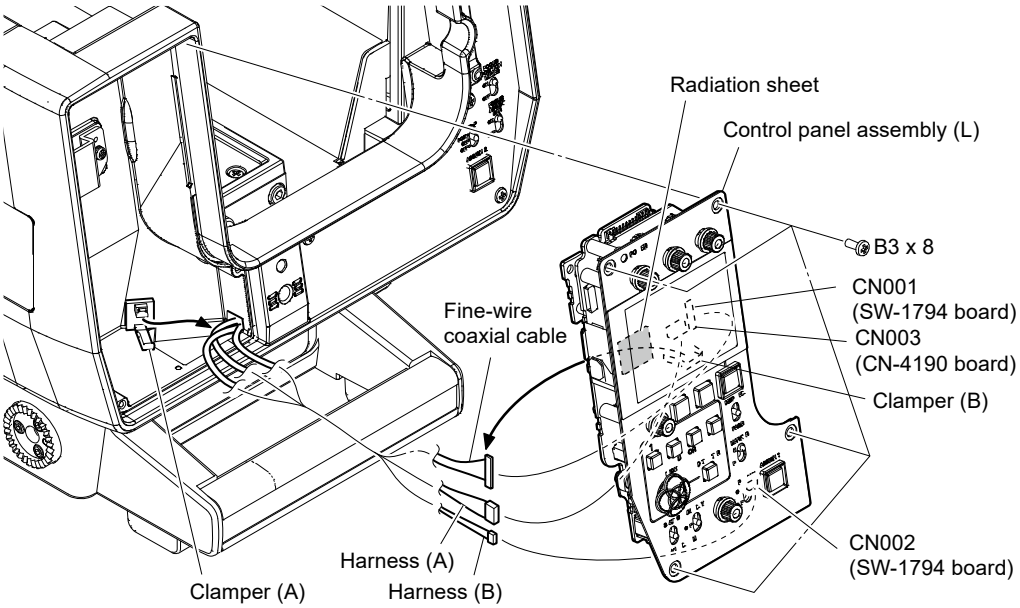
Procedure

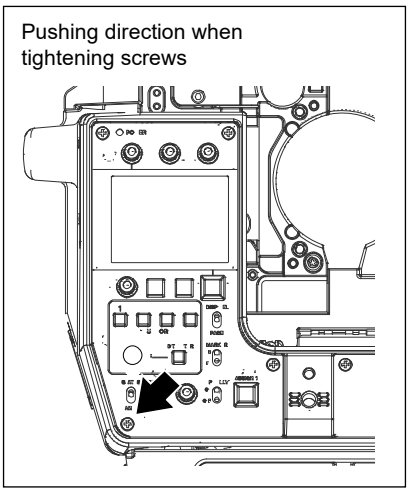
1. Remove the four screws, and then pull out the control panel assembly (L).

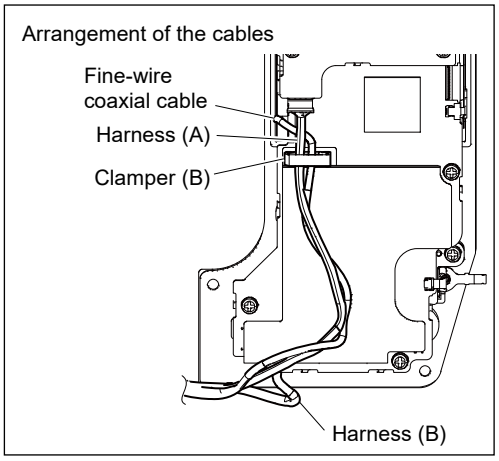
   Note

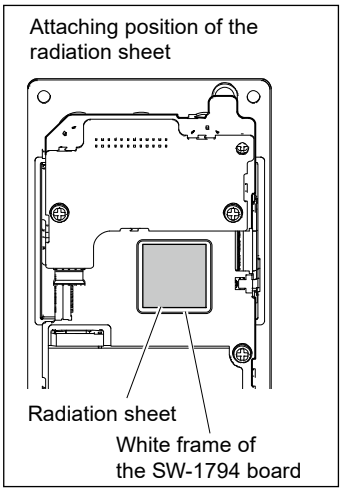
   The operation panel assembly (L) may strongly adhere to the radiation sheet.

2. Release the harness (A) and the fine-wire coaxial cable from the clamper (A).
3. Release the harness (A) and the fine-wire coaxial cable from the clamper (B).
4. Disconnect the cables from the connectors (CN001, CN002) on the SW-1794 board and the connector(CN003) on the CN-4190 board.









Note

- If the radiation sheet peels off, stick it at the position specified in the figure above.
- When installing these boards, push the operation panel assembly (L) in the direction of the arrow and secure it with screws.

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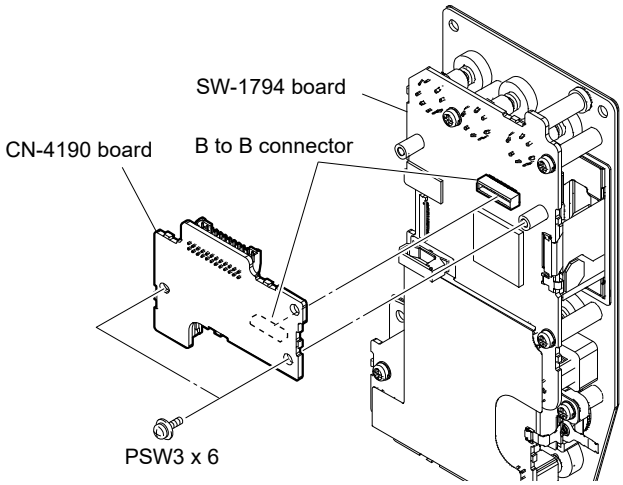
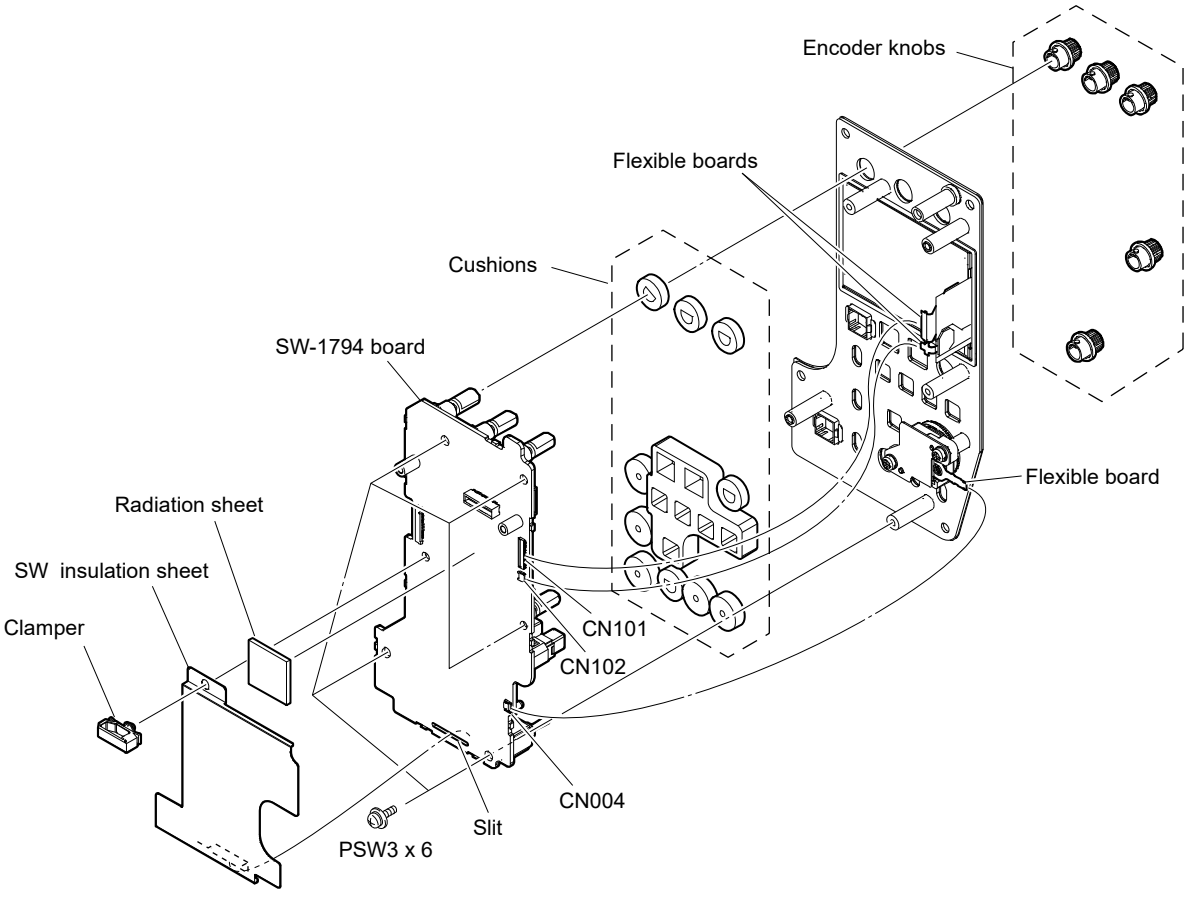
5. Remove the two screws.
6. Remove the CN-4190 board from the B to B connector on the SW-1794 board.



7. Remove the radiation sheet, clamper, SW insulation sheet.
8. Remove the five encoder knobs.
9. Disconnect the three flexible boards from the connectors (CN004, CN101, CN102) on the SW-1794 board.
10. Remove the five screws, and then remove SW-1794 board.
11. Remove the cushions from the SW-1794 board.



12. Install the removed parts by reversing the steps of removal.

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SYS SET

3-10. Joystick (HDLA-3505)

Tip

The joystick knob is not reusable. Prepare new parts in advance.

Preparation

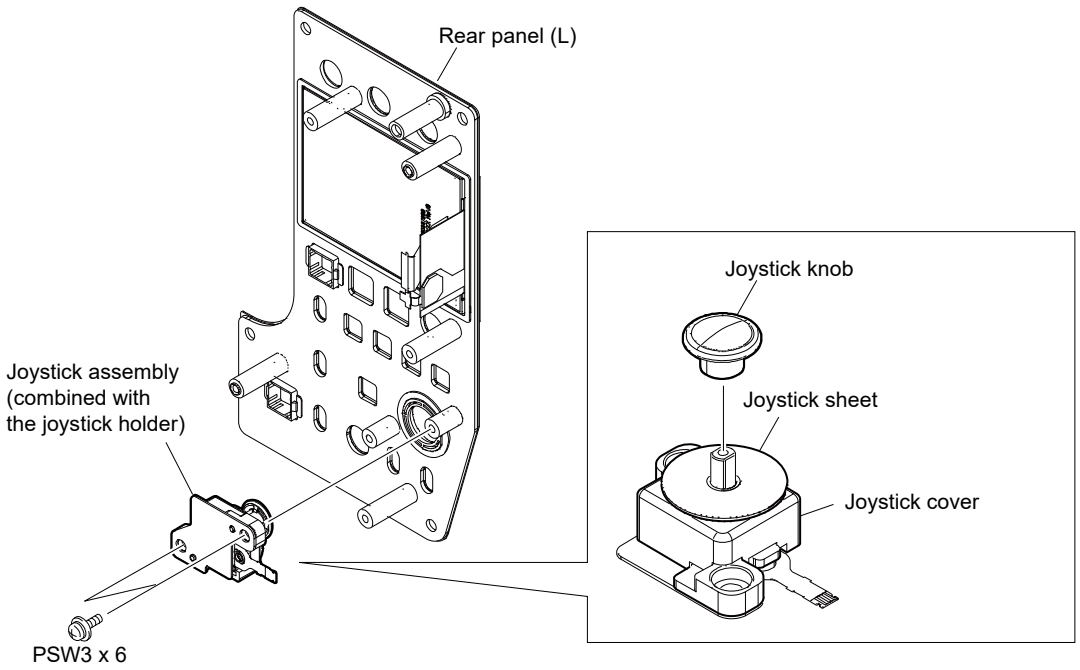
1. Remove the CN-4190 board and the SW-1794 board. (Refer to “3-9. CN-4190 Board, SW-1794 Board (HDLA-3505)”.)

Removal

1. Remove the two screws, and then remove the joystick assembly related parts from the rear panel (L).
2. Pull out the joystick knob.

   Note

   Pull out the glued joystick knob strongly holding the joystick cover so as not to bend the joystick sheet.



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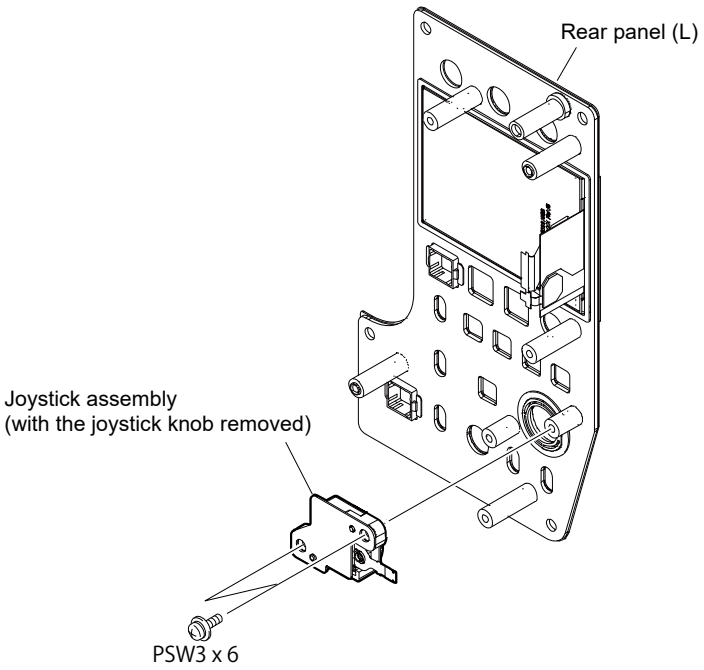
Installation

3. Install other parts in the reverse order of step 1 with the joystick knob removed.

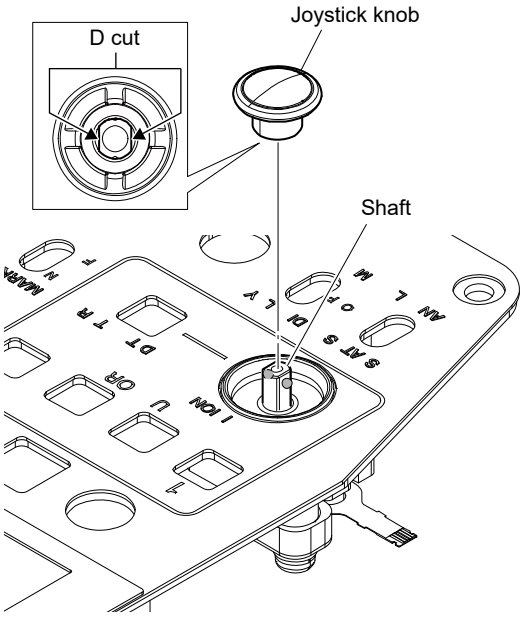


4. Install the removed parts by reversing the steps of removal in “3-9. CN-4190 Board, SW-1794 Board (HDLA-3505)”.
5. Apply Loctite 403 to the joystick shaft.

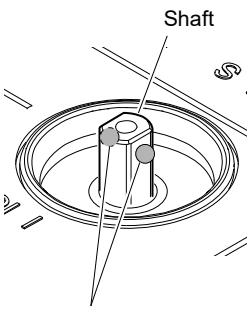
   Tip

   The size of a grain of rice means about 20 μL.

6. Fit the D-cut of the joystick knob with the joystick shaft shape and attach the joystick knob.



Notes on applying Loctite 403



Apply Loctite 403 to the D cuts on both sides of the shaft.

Apply Loctite 403 at 1/3 distance from the end of the shaft.

Do not apply Loctite 403 to the top of the shaft.

After the joystick knob is attached, do not use the unit for at least 1.5 hours.

Note

Do not touch the knob for one and half hour after it is attached.

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3-11. Panel Module (HDLA-3505)

Tip

The following parts are not reusable. Prepare new parts in advance.

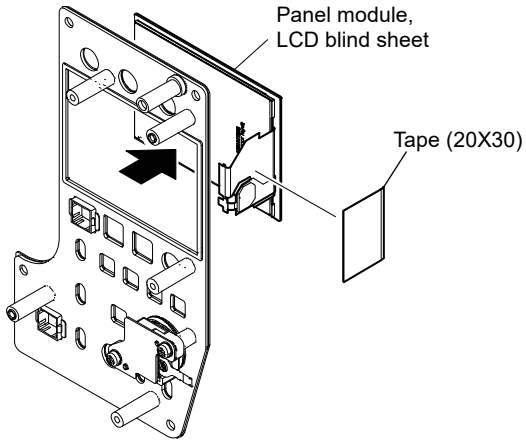
- LCD blind sheet
- Adhesive sheet (LCD) (64400)

Preparation

1. Remove the SW-1794 board. (Refer to “3-9. CN-4190 Board, SW-1794 Board (HDLA-3505)”.)

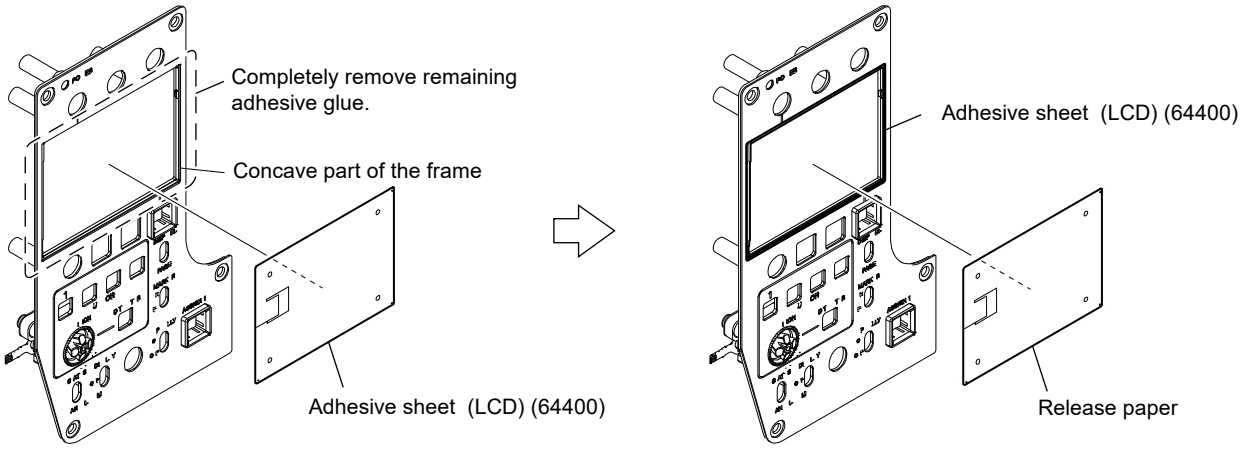
Removal

1. Push the panel module in the direction of the arrow, and then remove the panel module and the LCD blind sheet together.
2. Remove the tape (20X30).



Installation

3. Completely remove remaining adhesive glue.
4. Attach a new LCD adhesive sheet (LCD) (64400) according to the shape of the concave part of the frame, and then remove the release paper.



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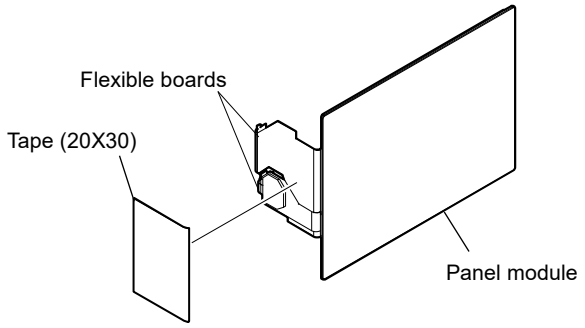
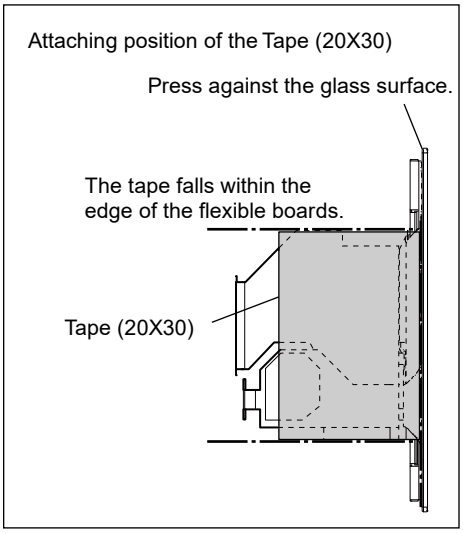
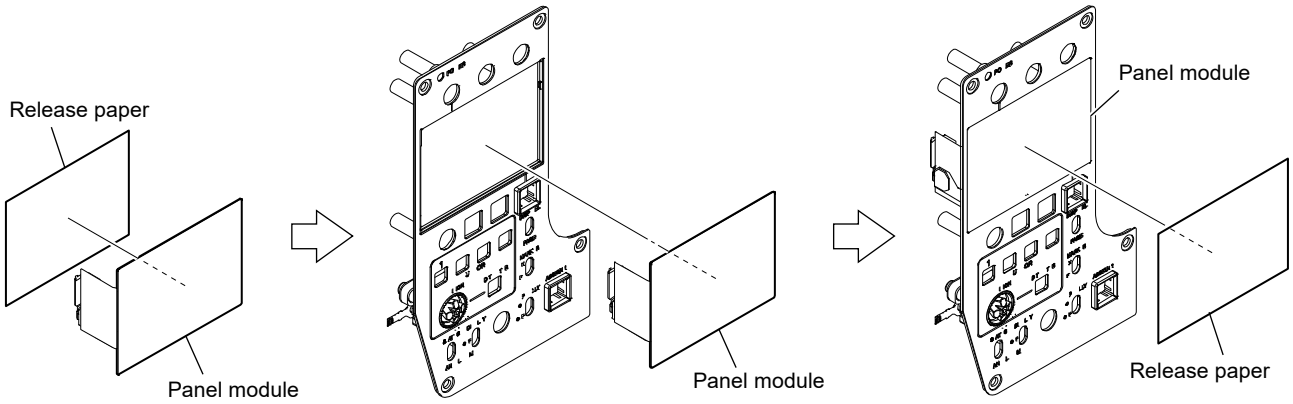
5. Attach the tape (20X30) at the position as shown in the figure.





6. Peel off the release paper, and then attach the panel module.
7. Peel off the release paper from the panel module.



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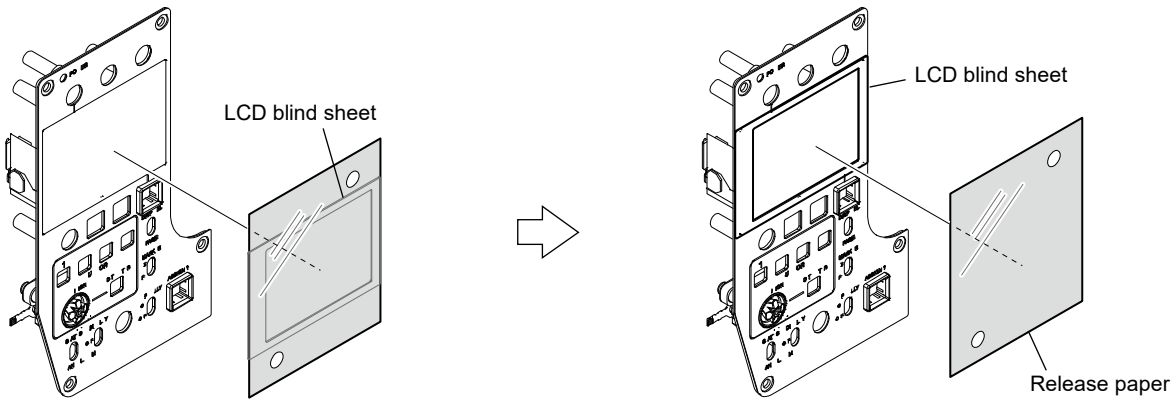
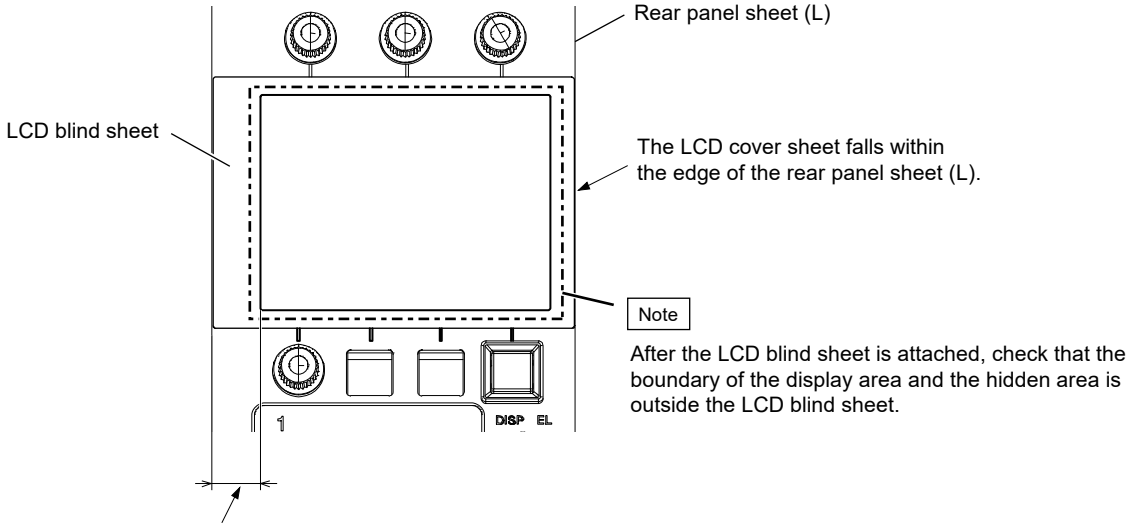
8. Attach the LCD cover sheet at the position shown in the figure below, and then remove its release paper.



Attaching position of the LCD blind sheet



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3-12. SW-1791 Board, LE-456 Board

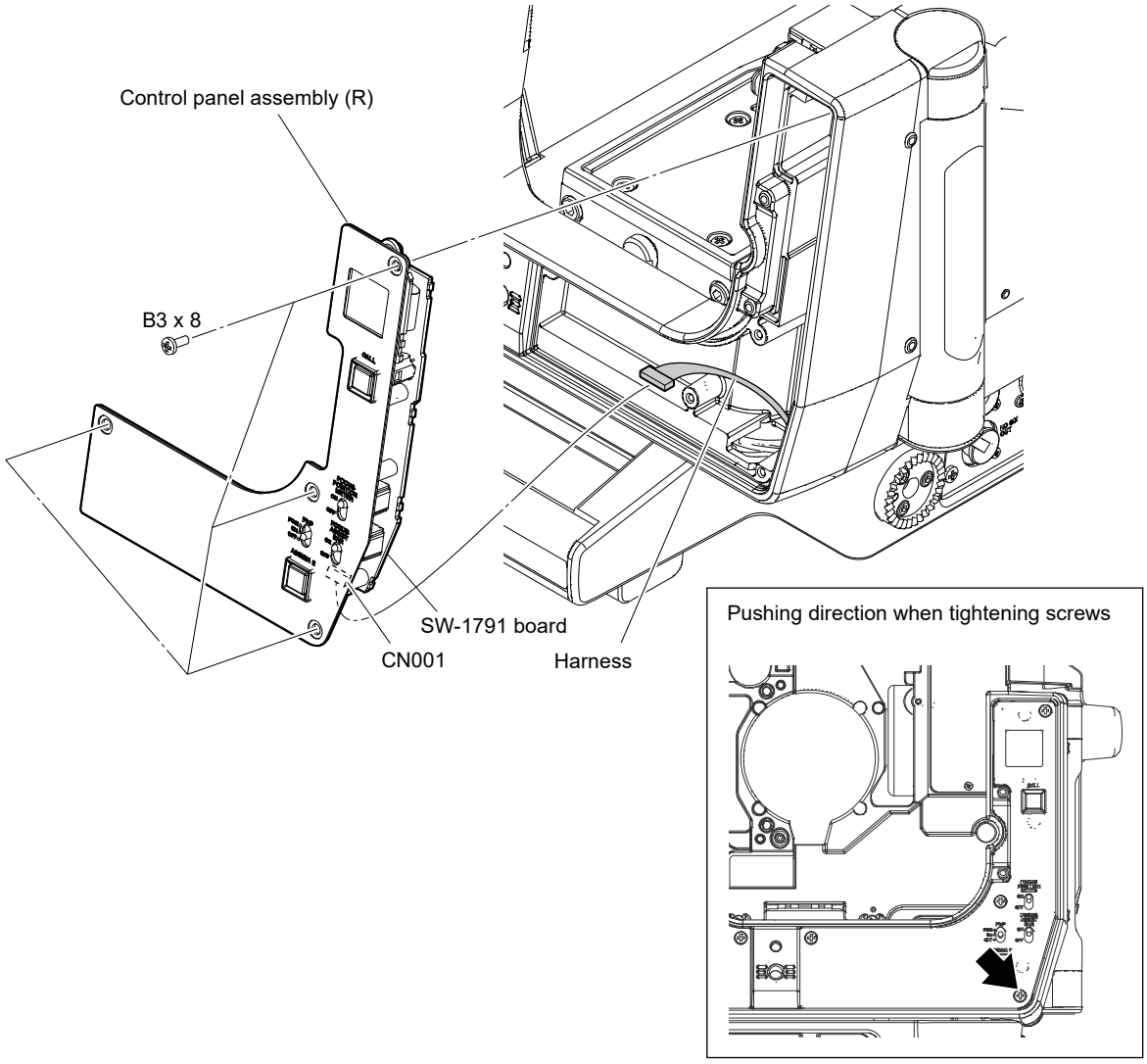
Procedure

1. Remove the four screws, and then pull out the control panel assembly (R).

   Note

   Carefully remove the control panel assembly (R) so as not to damage the harnesses.

2. Disconnect the harness from the connector (CN001) on the SW-1791 board.



Note

When installing these boards, push the operation panel assembly (R) in the direction of the arrow and secure it with screws.

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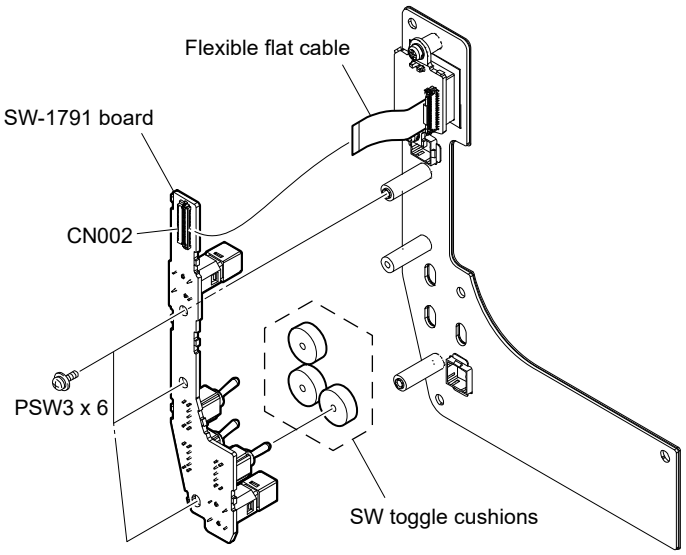
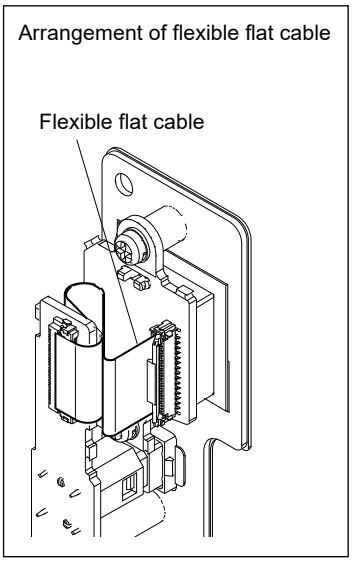
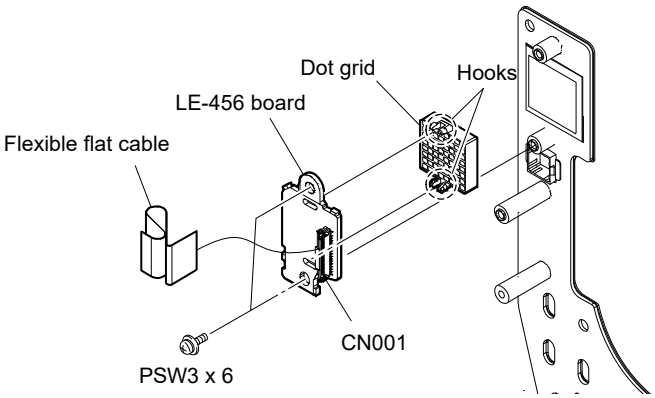
3. Disconnect the flexible flat cable from the connector (CN002) on the SW-1791 board.
4. Remove the three screws, and then remove the SW-1791 board.
5. Remove the three SW toggle cushions.



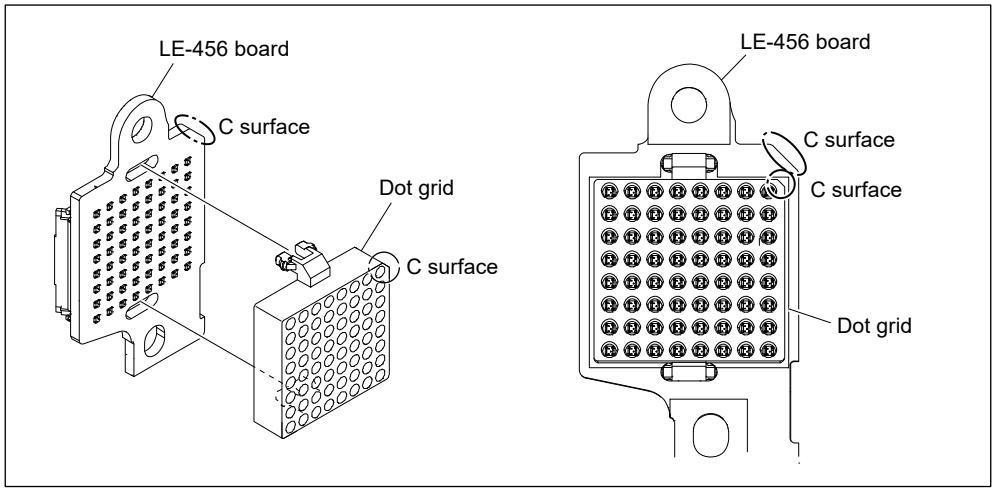


6. Disconnect the flexible flat cable from the connector (CN001) on the LE-456 board.
7. Remove the two screws, and then remove the LE-456 board.
8. Release the two hooks, and then remove the dot grid.



Note

When installing the dot grid, align the C surface of the LE-456 board with the C surface of the dot grid.



9. Install the removed parts by reversing the steps of removal.

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3-13. SW-1793 Board (HDLA-3501)

Preparation

1. Remove the LID assembly. (Refer to “3-1. LID Assembly”.)

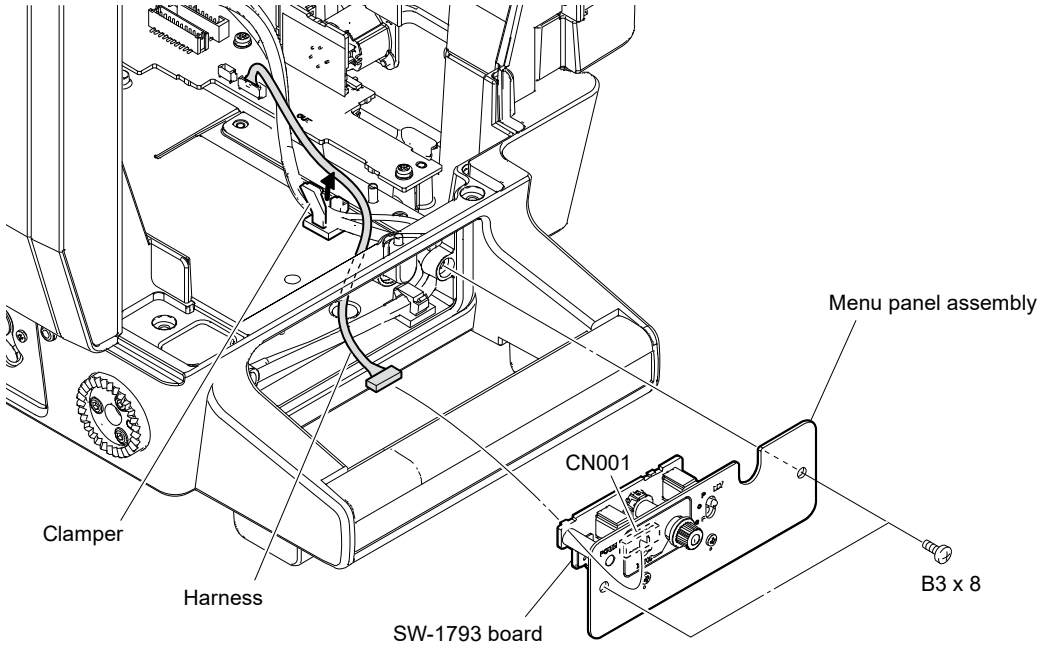
Procedure

1. Release the harness from the clamper.
2. Remove the two screws, and then pull out the menu panel assembly.

   Note

   Carefully remove the menu panel assembly so as not to damage the harnesses.

3. Disconnect the harness from the connector (CN001) on the SW-1793 board.



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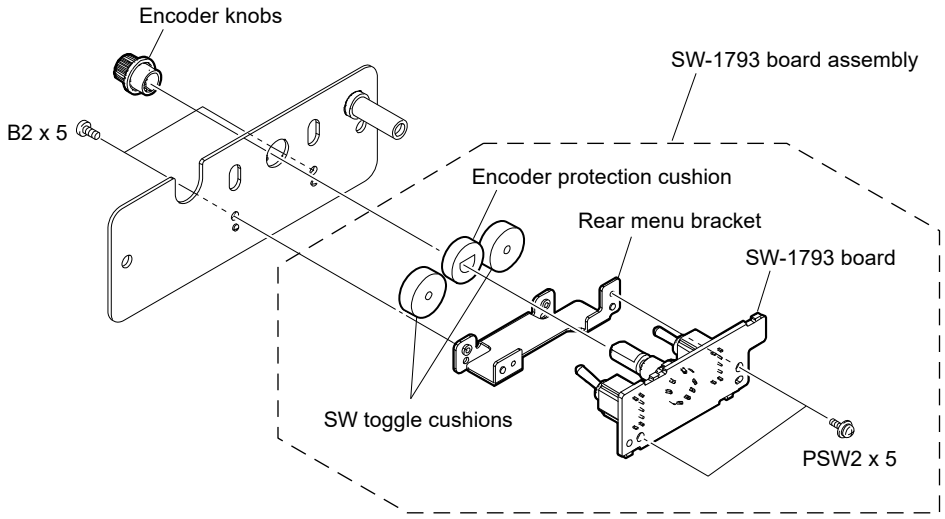
4. Remove the encoder knobs and two screws (B2 x 5), and then remove the SW-1793 board assembly.
5. Remove the encoder protection cushion and the two SW toggle cushions.
6. Remove the two screws (PSW2 x 5), and then remove the SW-1793 board.



7. Install the removed parts by reversing the steps of removal.

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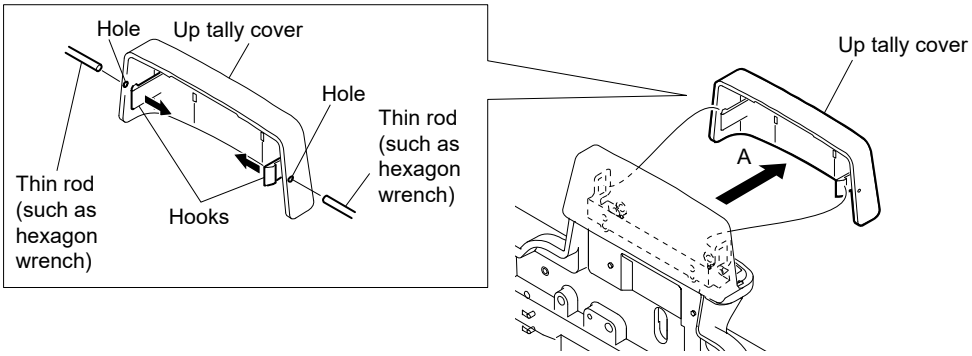
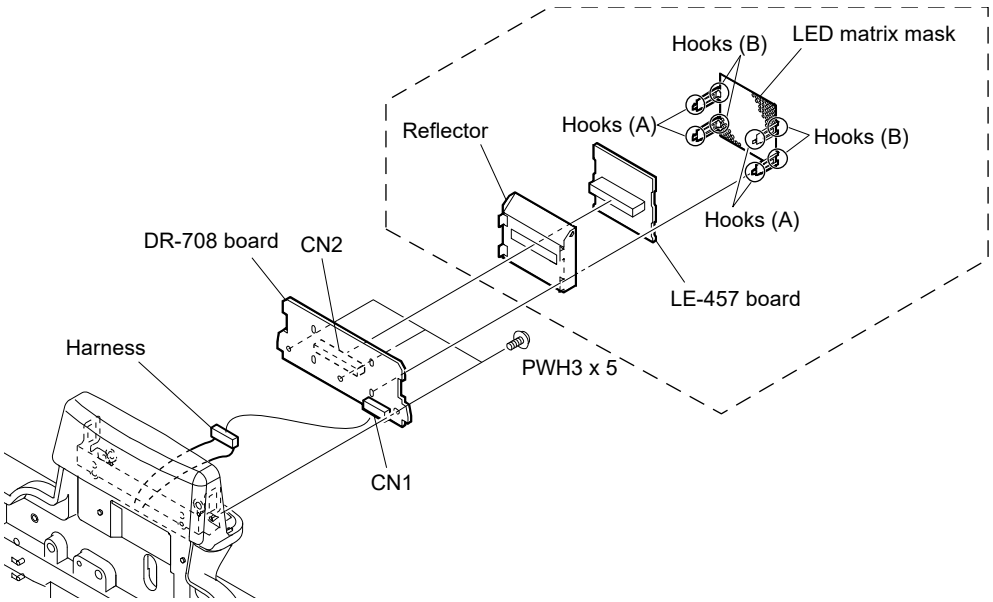
3-14. LE-457 Board, DR-708 Board

Procedure

1. Release the two claws by inserting a thin rod (such as hexagon wrench) through the two holes of the up tally cover.
2. Remove the up tally cover in the direction of the arrow A.



3. Release the four hooks (A) of the LED matrix mask, and then remove the LE-457 board, LED matrix mask, and reflector together from the connector (CN2) on the DR-708 board.
4. Remove the three screws, and then draw the DR-708 board.
5. Disconnect the harness from the connector (CN1) on the DR-708 board.
6. Remove the reflection plate from the LE-457 board.
7. Release the four hooks (B), and then remove the LED matrix mask from the LE-457 board.



8. Install the removed parts by reversing the steps of removal.

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Section 4
Circuit Description

4-1. Circuit Description of Each Board

4-1-1. CN-4190 Board (HDLA-3505)

The CN-4190 board has functions for interface with an optional VF saddle and power input to the rear panel. Two power voltages for the viewfinder and the SW board are supplied from the SY board to the connector CN002. The viewfinder control signals are input from the PLD on the SW-1794 board through the I2C interface, and are output from IC706 and IC002 through the 5 V interface. Signals from the camera are directly input to the viewfinder so that the R-Tally and G-Tally signals are not delayed. IC703 converts I2C interface signals (only for the viewfinder) that are input to and output from the PLD through the 3.3 V interface to the 5 V interface signals.

4-1-2. CN-4191 Board (HDLA-3505)

The CN-4191 side tally board is provided inside. The LED driver (IC002) on this board controls five three-color LEDs. IC003 supplies a voltage of 3.3 V for the LED driver.
The connector CN001 is used for connection to an E-Paper controlled by the three-wire serial signal from the CPU. Q001 generates a high voltage and a negative voltage for updating contents of the E-Paper.

4-1-3. CN-4192 Board (HDLA-3505)

The CN-4192 side tally board is provided outside. This board differs from the CN-4191 board in external shape and the I2C address of IC002. This board cannot be mounted on the inside.

4-1-4. CN-4193 Board

This DC IN connector board supplies the UNREG power (maximum 9.5 A) from the 4-pin XLR connector to the power unit.

4-1-5. CN-4195 Board

This DC OUT (4-pin round type) connector board outputs the script light power (1.5 A maximum).

4-1-6. CN-4196 Board

This DC OUT (XLR) connector board outputs a power voltage of 14 V (5 A maximum).

4-1-7. CN-4197 Board

This board contains DC OUT connectors (USB Type-A and Type-C).

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4-1-8. DR-708 Board

IC009, IC011, IC012, and IC013 on this board are Up Tally LED drivers. Each of these ICs controls 15 LEDs. The UP_TLY_CNT PWM signal controls LED brightness (maximum voltage 40 V).
Camera number drivers (IC005, IC006, IC007, IC008, and Q003 to Q026) are controlled by the SPI signal of the CPU.

4-1-9. LE-456 Board (HDLA-3505)

This rear camera number board displays a camera number with 64 (8 x 8) LEDs. Two colors of three-color LEDs are used.

4-1-10. LE-457 Board

This Up Tally camera number board uses 256 (16 x 16) orange LEDs.

4-1-11. PS-956 Board

The PS-956 board contains ACDC isolation converters (IC201, IC2004) for MAIN_14V and an ACDC isolation converter (IC203) for 13.5V_Stanbay to supply these voltages to the RE-354 board. IC102 on the PS-956 board monitors input voltages and sends voltage information through the I2C interface.

4-1-12. PS-964 Board

The PS-964 board is the main inverter board for AC output. CN101 and CN102 are the same type of connectors, but are connected to different destinations. The BuidUp harness is connected to CN101 and the power assembly harness is connected to CN102.
A high voltage from CN101 is rectified by D101, and is then boosted to an approximately 400 VDC by IC101 and Q106. This DC voltage is switched by the FETs (Q203, Q204, Q207, and Q208) with a switching frequency of approx. 30 kHz, and is then smoothed by L201, L202, and C219. Thus an AC output voltage is generated and is output to the connector CN201. The FETs are controlled by the CPU (IC401).
In addition, the PS-964 board has the following functions.

- D112, PH101: Input AC/DC discrimination
- TH201: Temperature protection thermistor
- IC201: Current detection
- IC202: Output voltage monitoring
- IC301: Average current monitoring
- IC304, IC305, IC3068: Inverter output protection
- IC407: High input voltage detection
- IC408: Booster circuit malfunction detection

Detection results are input to the CPU. If an error occurs, the booster circuit and the inverter output are deactivated.

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The OUTPUT ON/OFF signal, voltages, frequency setting switch input, fan speed, output relay control output, and I2C communication signals with the HDLA unit are input to the CPU from the connector CN403. The CPU of the unit reads inverter input/output voltages, current, frequency, and protective circuit operation status through I2C communication.

4-1-13. PS-965 Board

The PS-965 board isolates the AC OUT output filter and control signals. The AC output that is input to CN500 passes through the noise filter, and is then controlled (ON/OFF) by RY500 and RY501. The output protection fuses F500 and F501 are connected to the AC outlet through the connector CN501. All power voltages and control signals for the inverter are completely isolated. The isolated DC/DC converter (IC6002) generates a voltage 12 V (to be used for inverter CPU operation) from +14 V that is input to the connector CN6001. I2C communication signals are also isolated by IC702 and are input to the CPU. IC6000 is a fan drive circuit. When the fan stops, the 50VA/200VA LED below the AC outlet turns red, but the inverter output continues until the thermistor temperature reaches the predetermined level. The output ON/OFF signal, voltages, and the frequency setting switch signal are connected to the connector CN7001. The switch is also isolated by the photocoupler.

4-1-14. RE-354 Board

The RE-354 board contains the following functions and ICs.
This board has the following functions.

- DCDC converter (IC3005) for +5.5V
- DCDC converter (IC3004) for -5.5V
- DCDC converter (IC1006) for -5.5V_Standby
- DCDC converter (IC3001) for the fan
- Power monitoring of 14V_LENS, 14V_VF, 14V_SY, 14V_DPR, 14V_TX, and 14V_OTHER and I2C communication (IC2008, IC2007, IC2016, IC2015, IC2017, IC2009)

4-1-15. SW-1791 Board (HDLA-3505)

The SW-1791 switch board is mounted on the rear right panel. IC001 (I2C PIO) controls switches and LEDs. IC101 to IC103 and Q101 to Q124 configure a rear tally drive circuit. This circuit is connected to the LE-456 board with a 30-pin flexible flat cable from CN002. The switch inputs/outputs and tally are controlled by the PLD on the SW-1794 board.

4-1-16. SW-1793 Board (HDLA-3501)

The SW-1793 menu operation board is mounted on the rear of the unit. The power LED is lit yellow while the VF POWER is turned off.

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4-1-17. SW-1794 Board (HDLA-3505)

The SW-1794 board contains switches and a PLD on the left rear panel.
The PLD and the CPU are connected to the two SPIs for control and LCD display. The control SPI reads and writes the registers in the PLD. The LCD display SPI sends display data generated by the CPU to the PLD.
Onboard switch input signals and illumination switch LED output signals are connected to the PLD and are accessed from the CPU as PIO data. The stick controller analog voltage is read by the PLD from the A/D converter (IC101). The PWM output for LCD backlight, I2C signals for the left panel, and control signals for rear tally display are also generated by the PLD.
The CPU writes LCD display data to the PLD's frame buffer using the LCD display SPI.
When the SDI IN video input format is detected, the 184 MHz PLL is activated. The SDI IN video data is received by the serializer/deserializer (SERDES) and is down-converted to 640 x 360 data, and the down-converted data is displayed on the LCD. Whether an SDI signal is present is detected by the LOCK_N signal of the SDI I/O (IC301) on the SY board.
The I2C bus from the SY board is used for control (such as power LED display during VF power-off and PLD data update) while the PLD is not operating.
Analog video signals for the viewfinder are received with a resistance of 50 Ω (equivalent to the impedance of the fine-wire coaxial cable) and are amplified by the video amplifier, and are then output with a resistance of 75 Ω.
This board is supplied with various voltages, including 3.3 V, 1.8 V, and 1.0 V (generated by the DC/DC converters IC614, IC617, and IC618) from 14 V on the CN-4190 board, 1.2 V and 1.0 V for SERDES (generated by the series regulator) from 1.8 V, and STBY_+5V, +5 V, and -5 V from the SY-479 board with a fine-wire coaxial cable.
The standby voltage +5 V is used for power LED display. The voltages +5 V and -5 V are used for the video amplifier.

4-1-18. SW-1795 Board (HDLA-3505)

The SW-1795 board contains an inverter voltage setting switch. The ON/OFF switch is connected to the connector CN002. The inverter is connected to the connector CN001.

4-1-19. SY-479 Board (HDLA-3505)

The SY-479 board is a system control board to control the HDLA.
The signals form the camera are input to this board from the connectors CN005 and CN006. CN005 transfers the component analog video signals for viewfinder. CN005 is used when an optional VF saddle is mounted. The R/G Tally signals, communication signals between the camera and the HDLA, and the serial communication signal of the lens are input to CN006.
The up tally ON/OFF and brightness control signals and the camera number control SPI signals are output from the connector CN001. The SPI signals and the e-Paper control signals are output from the CPU.
The connector CN002 transfers lens control signals. This connector is available for both serial communication studio lenses and analog control lenses that do not support serial communication. The

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analog input signals ZOOM, FOCUS, IRIS, and PUPIL are switched by IC108 and IC110, and are then input to the A/D converter of the CPU. IC101 also reads the temperature sensor value of the power unit.
The IRIS control signals are output by converting the DAC voltage level of the CPU. The connector CN013 is used for power supply to the lens (maximum 3 A).
The connector CN003 connected to the CN-4191 board is used for displaying the inside side tally and the camera number. The connector CN004 connected to CN-4192 board is used for displaying the outside side tally and the camera number. IC113 and IC114 are voltage regulators for the E-Paper. IC112 (I2C PIO) controls initialization, enabling, and power for the E-Paper. IC112 enables individual update of the right and left E-Paper units. In addition, IC112 selects AD input signals and displays data on the LED below the AC OUTLET connector.
The connector CN102 is not used for HDLA-3505.
IC204 (I2C PIO) controls the power status and the SPI.
IC206 performs system reset. IC208 is the CPU. IC214 (EEPROM) stores LCD brightness settings.
IC209 (serial flash memory) is used for updating software and PLD versions. If no setting is stored in IC214 or IC209, the CPU performs initialization processing.

The analog video signals for the viewfinder that are input to CN005 are amplified by the video amplifiers (IC302, IC303, and IC304), and are then output to the connector CN012. These signals are used when a VF saddle is mounted.
The HD SDI IN and HD SDI OUT signals on the outside panel are connected to J001 and J002 with coaxial cables. IC301 is a 3G SDI IO. The SDI IN signal is output (active through) to the SDI OUT connector. This signal is also output to CN012 as a differential signal to be used for display on the rear LCD.
Connectors CN051, CN052, and CN053 are used for input from the power unit. The connector CN054 transfers power control signals. Input voltages and output currents are monitored with the two I2C interfaces. The connector CN009 is used for XLR power output. The USB Type-A connector CN008 is used for DC output. IC407 is an overcurrent protection circuit only for USB. Output signals are restricted at approximately 3 A. The DC OUT connector CN010 is used for script light. IC413, IC414, IC415, and IC416 are DC/DC converters that generate various voltages to be used in the SY board from the +14V_SY signal. IC411 is a step-up/step-down DC/DC converter for the USB PD. IC410 is a USB PD controller that generates a USB Type-C DC OUT signal.
The connector CN055 is used for I2C communication with the power unit for controlling the inverter unit. This connector is used for monitoring the inverter protection circuit operating status and output power status.
HDLA-3505 and HDLA-3501 have the same software. These models are discriminated by detecting the presence of R149. The SY-479 board contains R149.

4-1-20. SY-479A Board (HDLA-3501)

The SY-479A board functions as an SY-479 board for HDLA-3501. The SY-479A board does not contain a connector for E-Paper, a USB PD power voltage, SDI IO, a video amplifier for viewfinder, a connector for the rear board, and R149.
The rear menu board (SW-1793) is connected to the connector CN102.

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Section 5
Spare Parts

5-1. Note on Repair Parts

1. Safety Related Components Warning

WARNING

Components marked ⚠ are critical to safe operation. Therefore, specified parts should be used in the case of replacement.

2. Standardization of Parts

Some repair parts supplied by Sony differ from those used for the unit. These are because of parts commonality and improvement.

3. Stock of Parts

Parts marked with “o” at SP (Supply Code) column of the spare parts list may not be stocked. Therefore, the delivery date will be delayed.

4. Harness

Harnesses with no part number are not registered as spare parts.

1. 安全重要部品

⚠警告

⚠印のついた部品は安全性を維持するために重要な部品です。したがって，交換する時は必ず指定の部品を使ってください。

2. 部品の共通化

ソニーから供給する補修用部品は，セットに使われているものと異なることがあります。
これは部品の共通化，改良等によるものです。

3. 部品の在庫

部品表のSP（Supply code）欄に “o” で示される部品は在庫していないことがあり，納期が長くなることがあります。

4. ハーネス

部品番号の記載されていないハーネスは，サービス部品として登録されていません。

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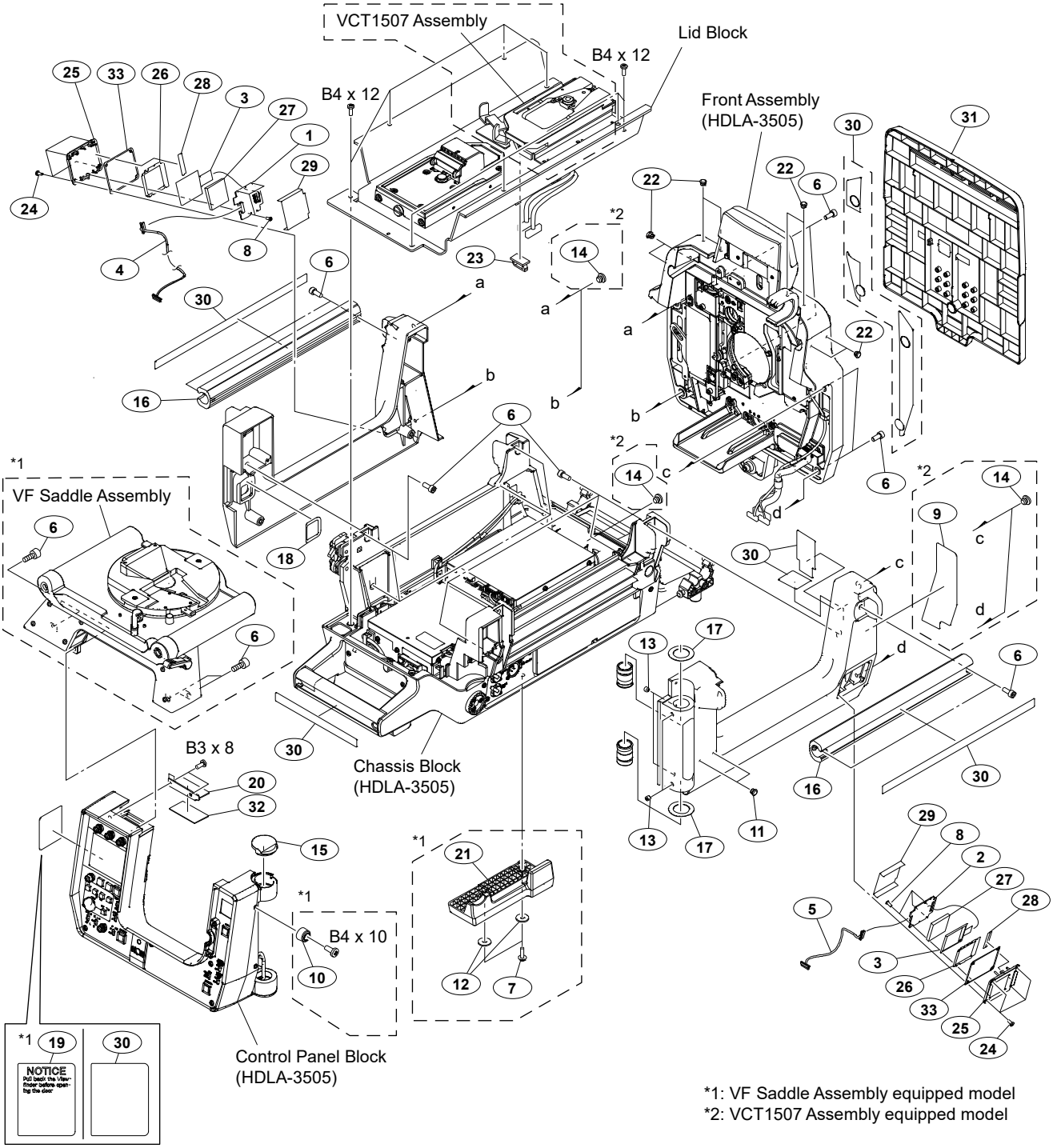
5-2. Exploded Views

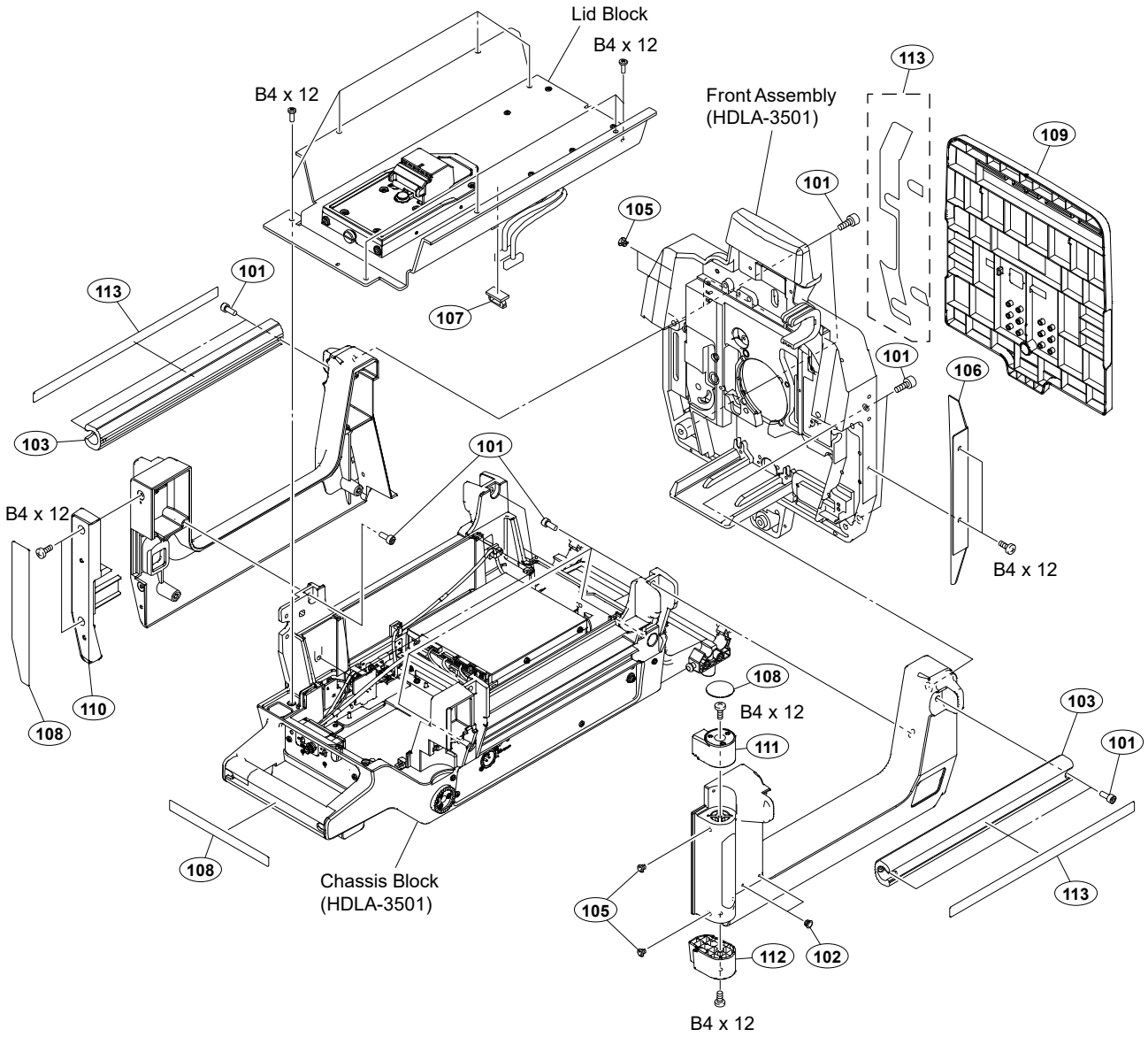
Overall (HDLA-3505)



SYS SET

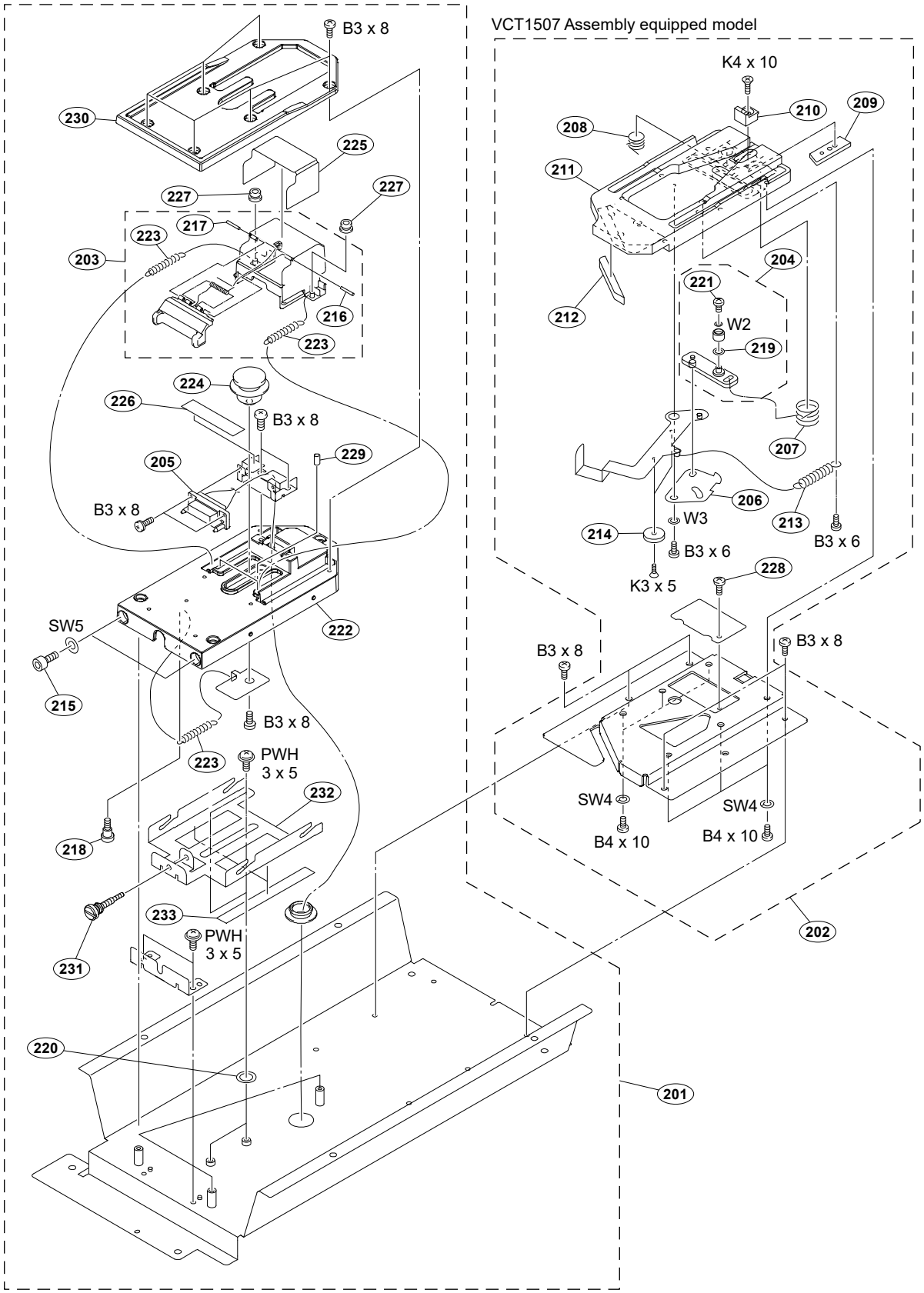
No.	Part No.	SP	Description
1	A-5028-200-A	s	CN-4191 MOUNT
2	A-5028-201-A	s	CN-4192 MOUNT
3	1-011-897-11	s	E-PAPER (HINK-E0154A122)
4	1-013-167-11	s	SUB HARNESS (EPPL)
5	1-013-168-11	s	SUB HARNESS (EPPR)
6	2-391-520-21	s	BOLT (M5X12), HOLE, HEXAGON
7	2-580-603-01	s	SCREW, +PSW M4X16
8	3-080-206-21	s	SCREW, TAPPING, P2
9	3-100-878-01	s	SHEET, 1507
10	3-100-881-01	s	STOPPER
11	3-545-657-11	s	BUSH
12	3-607-677-01	s	WASHER(D5)
13	3-701-510-01	s	SET SCREW, DOUBLE POINT 4X4
14	3-725-907-02	s	BUSHING, BLIND
15	3-872-425-11	s	CAP UPPER
16	3-872-442-11	s	HANDLE
17	3-872-466-01	s	WASHER,HINGE
18	3-872-476-02	s	SHEET,SLIDE T0.25(MULTI)
19	3-872-488-12	s	SHEET,V1B (MULTI)
20	3-990-683-11	s	PLATE 1505
21	3-992-868-01	s	CABLE HANGER
22	4-138-679-01	s	SCREW, BLIND
23	⚠ 4-429-116-02	s	SADDLE, LOCKING WIRE
24	4-696-019-01	s	SCREW IB-LOCK(M2,BINDING HEAD)
25	5-011-038-01	s	CASE (670), CAMERA NUMBER
26	5-011-903-01	s	CUSHION, CAMERA NUMBER
27	5-011-905-01	s	CUSHION, EPD
28	5-011-969-01	s	SHEET, SIDE TALLY DIFFUSION
29	5-033-529-01	s	SHEET, SIDE TALLY DRIP PROOF
30	5-033-556-01	s	SHEET (920), MULTIPLE
31	5-033-559-01	s	COVER, FRONT
32	5-039-289-01	s	CUSHION (920), VF
33	5-011-904-01	s	CUSHION, SIDE TALLY DRIP PROOF
	7-682-548-09	s	SCREW +B 3X8
	7-682-563-09	s	SCREW +B 4X12
	7-682-562-09	s	SCREW +B 4X10

Overall (HDLA-3501)



No.	Part No.	SP	Description
101	2-391-520-21	s	BOLT (M5X12), HOLE, HEXAGON
102	3-545-657-11	s	BUSH
103	3-872-442-11	s	HANDLE
105	4-138-679-01	s	SCREW, BLIND
106	4-296-567-11	s	H1 PLATE
107	⚠ 4-429-116-02	s	SADDLE, LOCKING WIRE
108	5-033-557-01	s	SHEET (921), MULTIPLE
109	5-033-559-01	s	COVER, FRONT
110	5-033-560-01	s	COVER, LATCH
111	5-033-561-01	s	COVER (UPPER), HINGE
112	5-033-562-01	s	COVER (LOWER), HINGE
113	3-872-488-12	s	SHEET,V1B (MULTI)
	7-682-563-09	s	SCREW +B 4X12

Lid Block



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No.	Part No.	SP	Description
201	⚠ A-1128-415-A	s	LID ASSY
202	A-1248-343-A	s	VCT1507 ASSY
203	A-2043-203-A	s	HOT SHOE COVER ASSY
204	A-8277-622-A	o	ARM ASSY, SLIDE
205	⚠ 1-013-171-11	s	HARNESS (BUIDUP
206	2-381-632-03	o	ARM, LOCKER
207	2-381-637-02	o	SPRING
208	2-381-638-03	o	SPRING
209	2-381-640-03	o	DOG
210	2-381-641-01	o	COLLAR
211	2-381-642-02	o	MOUNT
212	2-381-648-11	o	INSULATOR, KNOB
213	2-381-652-01	o	SPRING, TENSION
214	2-382-110-01	o	LEG
215	2-391-520-21	s	BOLT (M5X12), HOLE, HEXAGON
216	3-669-481-04	s	PIN (DIA. 1X12), PARALLEL
217	3-669-481-05	s	PIN (DIA. 1X15), PARALLEL
218	3-694-825-12	s	SCREW (M3) (STEP), SPECIAL HEAD
219	3-701-443-01	s	WASHER, 5
220	3-701-444-11	s	WASHER, 6
221	3-713-786-51	s	SCREW +P 2X3
222	X-2590-863-1	s	HOT SHOE SLIDE BASE ASSY
223	3-872-444-01	s	SPRING, EXTENSION
224	3-872-463-03	s	STOPPER PIN
225	3-872-487-01	s	SHEET, PROTECT HOT SHOE
226	3-903-994-01	s	SHEET, SMOOTH
227	3-993-634-01	s	FLANGE-SPACER
228	4-654-273-02	s	ACE (M2), LOCK
229	3-657-842-11	s	SPACER (3X7)
230	3-872-441-02	s	VCT COVER
231	3-872-447-03	s	HEIGHT ADJUST SCREW
232	3-872-520-02	s	HEIGHT ADJUST PLATE
233	3-872-514-01	s	SHEET,SLIDE HEIGHT ADJUST
	7-623-210-22	s	SW 4, TYPE 2
	7-623-212-22	s	SW 5, TYPE 2
	7-682-246-04	s	SCREW +K 3X5
	7-682-262-04	s	SCREW +K 4X10
	7-682-547-09	s	SCREW +B 3X6
	7-682-548-09	s	SCREW +B 3X8
	7-682-562-09	s	SCREW +B 4X10
	7-682-903-01	s	SCREW +PWH 3X5
	7-688-001-11	s	W 2, MIDDLE
	7-688-003-11	s	W 3, MIDDLE

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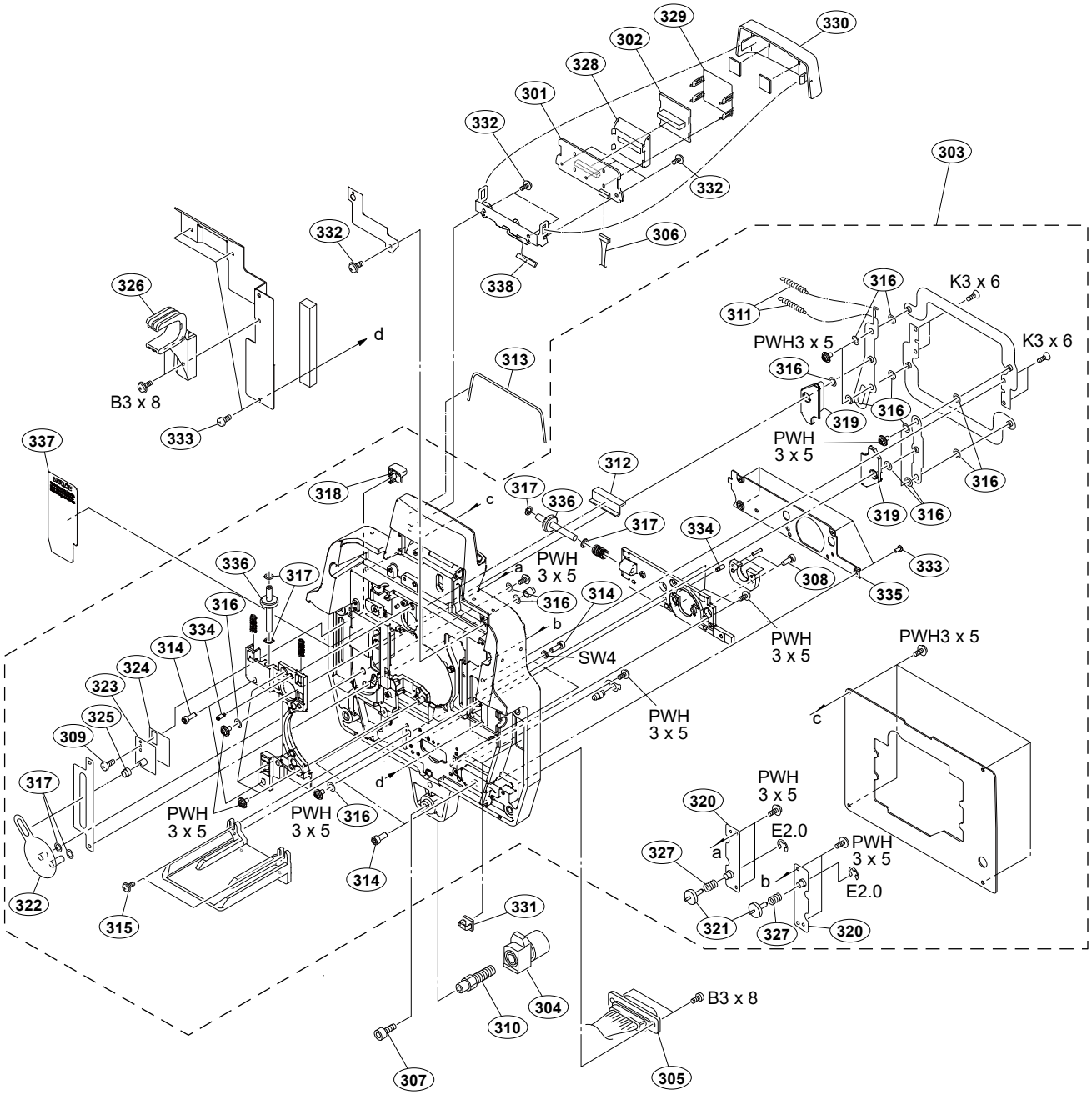
Front Block (HDLA-3505)



No.	Part No.	SP	Description
301	A-5028-209-A	s	DR-708 MOUNT
302	A-5028-211-A	s	LE-457 MOUNT
303	A-5042-011-A	s	QMT ASSY (920)
304	X-3692-305-3	o	RETAINER ASSY, LENS
305	1-013-182-11	s	SUB HARNESS (LENS)
306	1-013-189-11	s	SUB HARNESS (UPTALLY)
307	2-391-520-21	s	BOLT (M5X12), HOLE, HEXAGON
308	2-623-773-11	s	BOLT (M3X8), STAINLESS
309	3-166-603-02	s	SCREW (2.6), +B
310	3-185-912-02	o	SHAFT M10
311	3-437-289-01	s	SPRING, TENSION
312	3-622-558-01	o	RUBBER,PROTECTION
313	3-624-455-01	s	TUBE,SHIELD
314	3-657-705-41	s	BOLT (M4X12), HEXAGON HOLE
315	3-694-825-12	s	SCREW (M3) (STEP),SPECIAL HEAD
316	3-701-444-01	s	WASHER, 6
317	3-701-444-11	s	WASHER, 6
318	3-872-426-13	s	LOCK KNOB
319	3-872-427-03	s	SLIDE HANGER
320	3-872-449-02	s	PLUNGER PLATE
321	3-872-453-01	s	PLUNGER
322	3-872-458-01	s	LOCK LEVER
323	3-872-459-01	s	LOCK LEVER PLATE
324	3-872-476-02	s	SHEET,SLIDE T0.25(MULTI)
325	3-872-478-01	s	ROLLER,B
326	3-872-480-01	s	CLAMP, HANDLE
327	3-872-493-01	s	SPRING,COMPRESSION
328	3-872-495-02	s	REFLECTOR
329	3-872-517-01	s	LED MATRIX MASK
330	3-872-521-01	s	UP TALLY COVER
331	4-198-668-21	s	SADDLE, LOCKING WIRE
332	4-382-854-51	s	SCREW (M3X6), P, SW (+)
333	4-696-019-01	s	SCREW IB-LOCK(M2,BINDING HEAD)
334	5-011-105-01	s	SCREW, OHB PILOT
335	5-021-505-01	s	COVER (OPT-H), LENS MOUNT
336	5-021-509-01	s	SHAFT M6
337	5-033-556-01	s	SHEET (920), MULTIPLE
338	5-036-955-01	s	GASKET 2X7 (30), SOFT
	7-623-210-22	s	SW 4,TYPE 2
	7-624-104-04	s	STOP RING 2.0, TYPE -E
	7-682-247-04	s	SCREW +K 3X6
	7-682-548-09	s	SCREW +B 3X8
	7-682-903-01	s	SCREW +PWH 3X5

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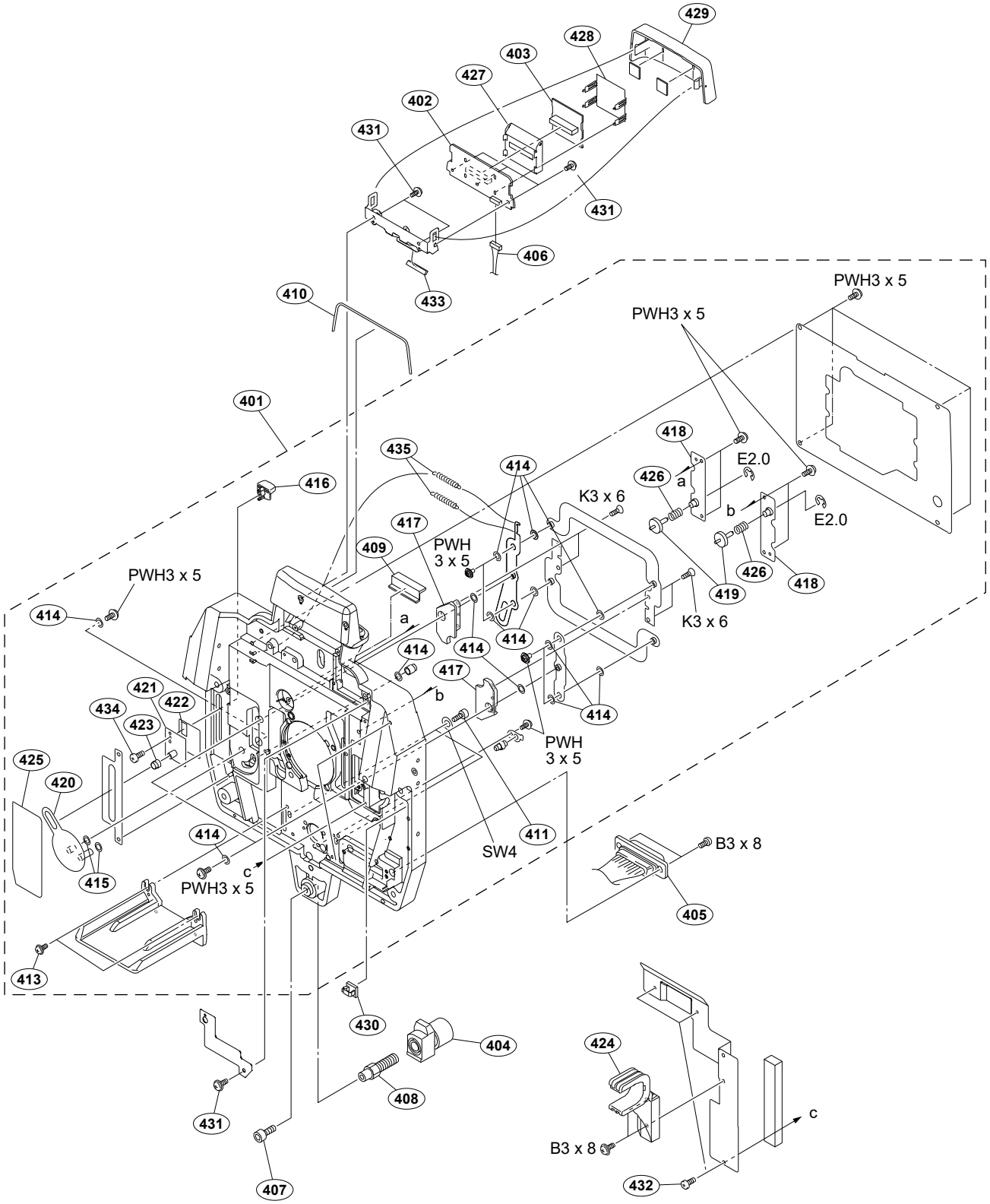
Front Block (HDLA-3501)



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No.	Part No.	SP	Description
401	A-1142-013-C	s	QMT ASSY(V4B)
402	A-5028-209-A	s	DR-708 MOUNT
403	A-5028-211-A	s	LE-457 MOUNT
404	X-3692-305-3	o	RETAINER ASSY, LENS
405	1-013-182-11	s	SUB HARNESS (LENS)
406	1-013-189-11	s	SUB HARNESS (UPTALLY)
407	2-391-520-21	s	BOLT (M5X12), HOLE, HEXAGON
408	3-185-912-02	o	SHAFT M10
409	3-622-558-01	o	RUBBER,PROTECTION
410	3-624-455-01	s	TUBE,SHIELD
411	3-657-705-41	s	BOLT (M4X12), HEXAGON HOLE
413	3-694-825-12	s	SCREW (M3) (STEP),SPECIAL HEAD
414	3-701-444-01	s	WASHER, 6
415	3-701-444-11	s	WASHER, 6
416	3-872-426-13	s	LOCK KNOB
417	3-872-427-03	s	SLIDE HANGER
418	3-872-449-02	s	PLUNGER PLATE
419	3-872-453-01	s	PLUNGER
420	3-872-458-01	s	LOCK LEVER
421	3-872-459-01	s	LOCK LEVER PLATE
422	3-872-476-02	s	SHEET,SLIDE T0.25(MULTI)
423	3-872-478-01	s	ROLLER,B
424	3-872-480-01	s	CLAMP, HANDLE
425	3-872-488-12	s	SHEET,V1B (MULTI)
426	3-872-493-01	s	SPRING,COMPRESSION
427	3-872-495-02	s	REFLECTOR
428	3-872-517-01	s	LED MATRIX MASK
429	3-872-521-01	s	UP TALLY COVER
430	4-198-668-21	s	SADDLE, LOCKING WIRE
431	4-382-854-51	s	SCREW (M3X6), P, SW (+)
432	4-696-019-01	s	SCREW IB-LOCK(M2,BINDING HEAD)
433	5-036-955-01	s	GASKET 2X7 (30), SOFT
434	3-166-603-02	s	SCREW (2.6), +B
435	3-437-289-01	s	SPRING, TENSION
	7-623-210-22	s	SW 4,TYPE 2
	7-624-104-04	s	STOP RING 2.0, TYPE -E
	7-682-247-04	s	SCREW +K 3X6
	7-682-548-09	s	SCREW +B 3X8
	7-682-903-01	s	SCREW +PWH 3X5

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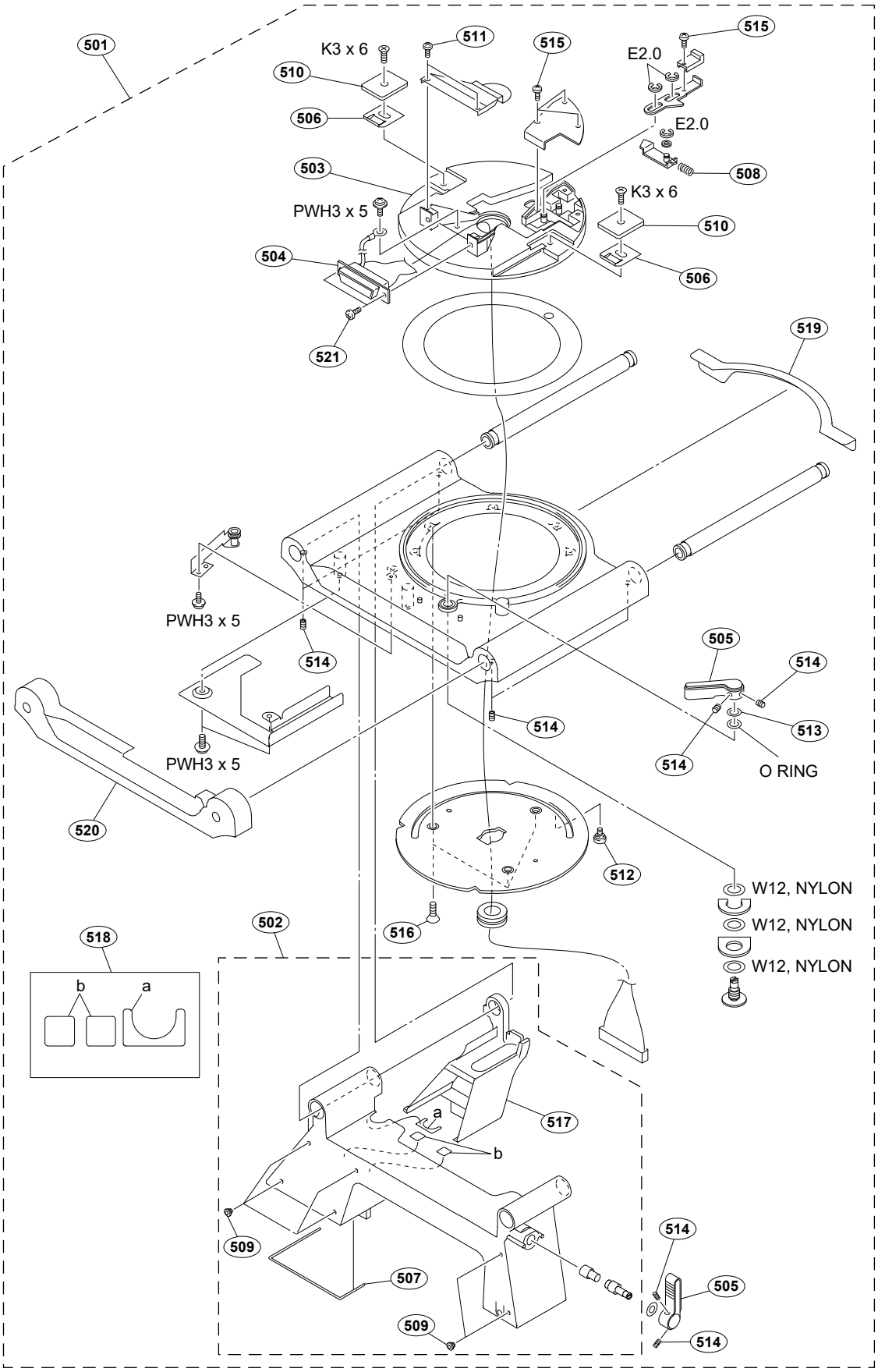
VF Saddle Block (HDLA-3505)



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SYS SET

No.	Part No.	SP	Description
501	A-1128-416-B	s	SADDLE ASSY, VF
502	A-2043-822-A	s	BASE ASSY, VF SADDLE
503	X-3605-552-2	s	RETAINER ASSY, PAN BASE
504	1-963-936-11	s	HARNESS, SUB (VF)
505	3-185-886-04	s	LEVER, PAN LOCK
506	3-613-969-02	o	SPRING, EMC
507	3-624-455-01	s	TUBE, SHIELD
508	3-634-355-02	s	SPRING
509	3-673-018-11	s	SCREW, BLIND
510	3-692-332-01	o	PLATE (A)
511	3-694-181-03	s	TYPE 1, AROCK PRECISION +P2.6X5
512	3-694-825-12	s	SCREW (M3) (STEP), SPECIAL HEAD
513	3-701-444-11	s	WASHER, 6
514	3-701-510-01	s	SET SCREW, DOUBLE POINT 4X4
515	3-719-381-02	s	SCREW (M2X4)
516	3-729-072-02	s	SCREW +K4X8
517	3-872-432-01	s	VF CABLE COVER
518	3-872-513-01	s	SHEET, SLIDE T0.5 (MULTI)
519	3-872-575-02	s	CUSHION, SADDLE FRONT
520	3-872-576-02	s	CUSHION, SADDLE REAR
521	4-654-273-02	s	ACE (M2), LOCK
	7-623-930-11	s	WASHER 12, NYLON
	7-624-106-04	s	STOP RING 2.0 TYPE-E
	7-624-209-00	s	O RING, P-5
	7-682-247-04	s	SCREW +K 3X6
	7-682-903-01	s	SCREW +PWH 3X5

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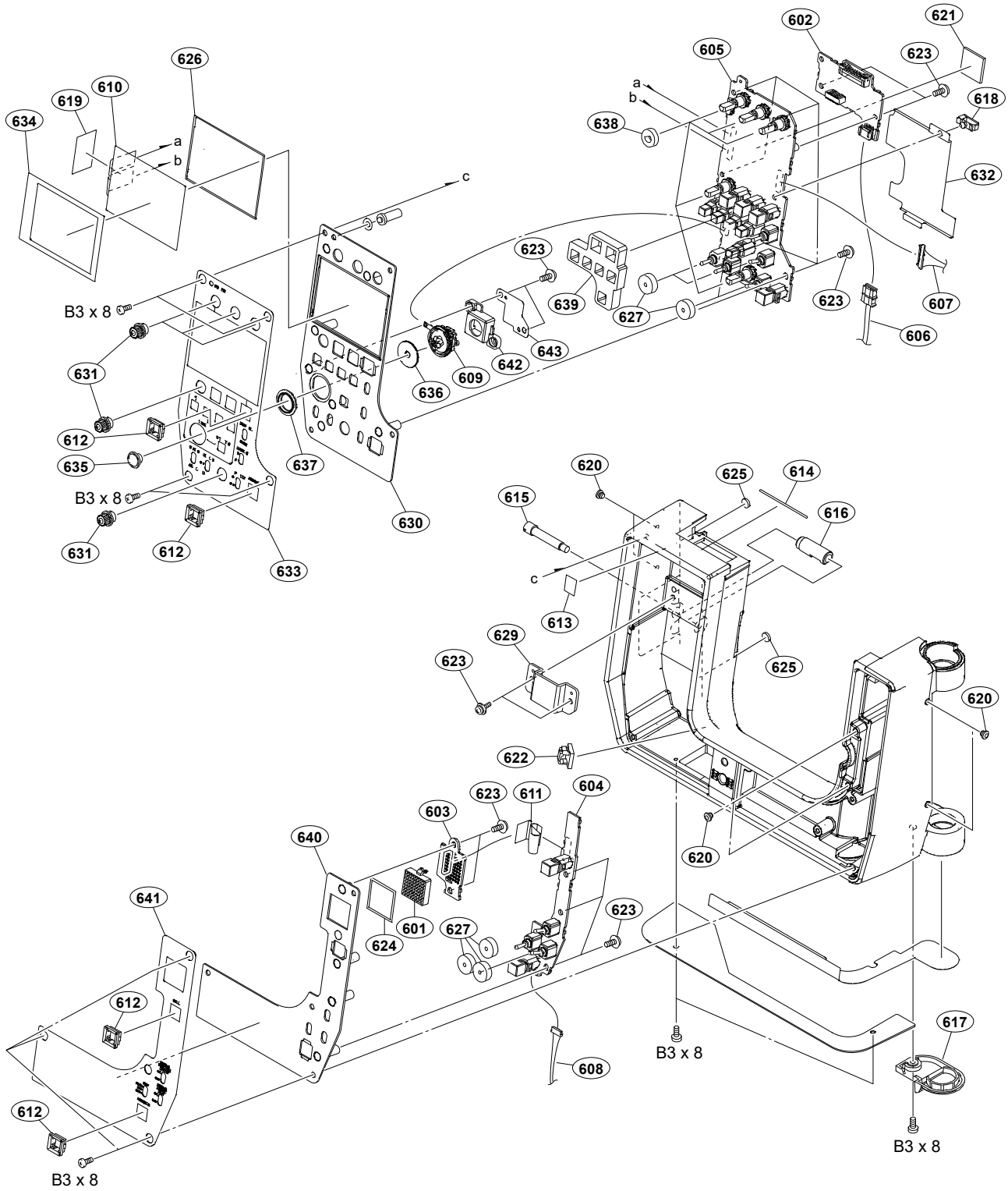
Control Panel Block (HDLA-3505)



No.	Part No.	SP	Description
601	A-1753-998-A	s	DOT GRID ASSY
602	A-5028-199-A	s	CN-4190 MOUNT
603	A-5028-210-A	s	LE-456 MOUNT
604	A-5028-213-A	s	SW-1791 MOUNT
605	A-5042-045-A	s	SW-1794 COMPL
606	1-013-186-11	s	SUB HARNESS (REARPW)
607	1-013-187-11	s	CONNECTOR, COAXIAL 30P
608	1-013-188-11	s	SUB HARNESS (RR1941)
609	1-014-802-11	s	STICK CONTROLER
610	1-812-364-15	s	PANEL MODULE (PK1-BTE)
611	1-849-299-11	s	CABLE, FLEXIBLE FLAT (30 CORE)
612	2-118-858-01	o	GUARD (SQUARE 9), SWITCH
613	2-590-635-01	s	TAPE (AS 1/2)
614	3-624-455-01	s	TUBE,SHIELD
615	3-872-461-02	s	ROD
616	3-872-479-01	s	SPACER,D CUT
617	3-872-506-12	s	CAP LOWER
618	4-098-033-01	s	SADDLE WIRE (C)
619	4-121-237-01	s	TAPE (20X30)
620	4-138-679-01	s	SCREW, BLIND
621	4-167-983-01	s	SHEET, RADIATION
622	4-198-668-21	s	SADDLE, LOCKING WIRE
623	4-382-854-51	s	SCREW (M3X6), P, SW (+)
624	4-420-449-01	s	SHEET, LED COVER
625	4-644-879-11	s	FOOT (B-2)
626	4-742-380-01	s	SHEET (LCD) (64400), ADHESIVE
627	5-012-567-01	s	CUSHION, TOGGLE SW
629	5-033-526-01	s	PLATE, REAR PLD HEAT SINK
630	5-033-541-01	s	PANEL (L), REAR
631	5-033-542-01	s	KNOB, ENCODER
632	5-033-543-01	s	SHEET, SW INSULATION
633	5-033-544-01	s	SHEET (L), REAR PANEL
634	5-033-545-01	s	SHEET, LCD BLIND
635	5-033-546-01	s	KNOB, JOYSTICK
636	5-033-547-01	s	SHEET, JOYSTICK
637	5-033-548-01	s	ESCUTCHEON, JOYSTICK
638	5-033-549-01	s	CUSHION, ENCODER PROTECTION
639	5-033-550-01	s	CUSHION (LWR), REAR PROTECTION
640	5-033-551-01	s	PANEL (R), REAR
641	5-033-552-01	s	SHEET (R), REAR PANEL
642	5-039-804-01	s	COVER, JOYSTICK
643	5-040-893-01	s	RETAINER, JOYSTICK
	7-682-548-09	s	SCREW +B 3X8

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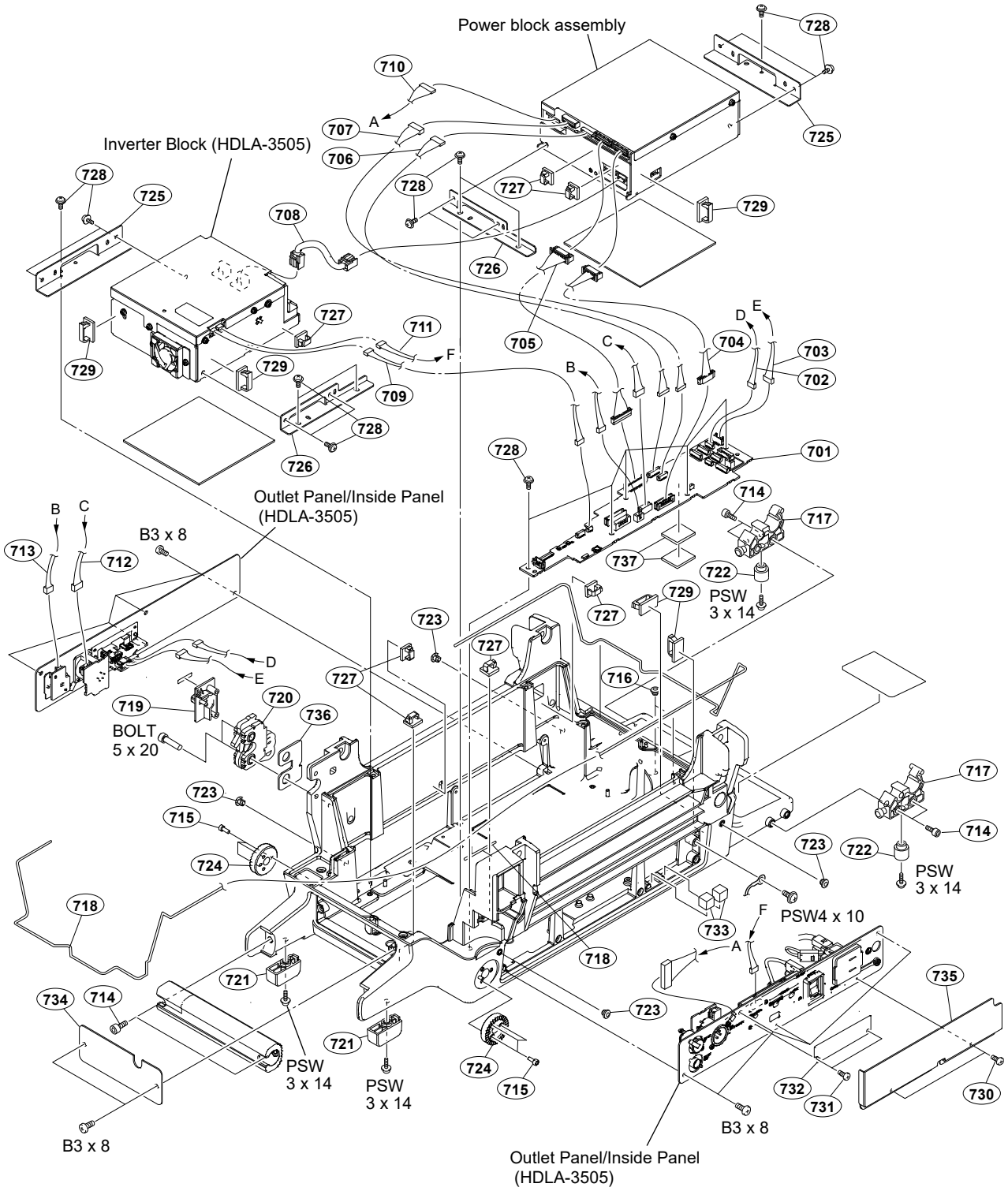
Chassis Block (HDLA-3505)



No.	Part No.	SP	Description
701	A-5042-044-A	s	SY-479 COMPL
702	1-013-169-11	s	SUB HARNESS (USBC)
703	1-013-170-11	s	SUB HARNESS (USBA)
704	1-013-173-11	s	SUB HARNESS (PS3004)
705	1-013-174-11	s	SUB HARNESS (PS3005)
706	1-013-175-11	s	SUB HARNESS (PS3006)
707	1-013-176-11	s	SUB HARNESS (PS3007)
708	⚠ 1-013-177-11	s	SUB HARNESS (IVT2PS)
709	1-013-178-11	s	SUB HARNESS (IVTCTL)
710	1-013-179-11	s	SUB HARNESS (DCIN)
711	1-013-180-11	s	SUB HARNESS (IVTSW)
712	1-013-183-11	s	SUB HARNESS (DCOUTXLR)
713	1-013-184-11	s	SUB HARNESS (DCOUT4P)
714	2-391-520-21	s	BOLT (M5X12), HOLE, HEXAGON
715	2-623-773-11	s	BOLT (M3X8), STAINLESS
716	3-545-657-11	s	BUSH
717	3-612-710-02	o	CLAMP,CABLE
718	3-624-455-01	s	TUBE,SHIELD
719	3-872-428-11	s	SNACH KNOB
720	3-872-473-01	s	SNACH LOCK
721	3-992-866-01	s	FOOT,REAR
722	3-992-867-01	s	FOOT,FRONT
723	4-138-679-01	s	SCREW, BLIND
724	4-146-076-04	s	BRACKET, ANGLE ADJUSTMENT
725	4-191-654-01	s	BRACKET (PS), FRONT
726	4-191-655-01	s	BRACKET (PS), REAR
727	4-198-668-21	s	SADDLE, LOCKING WIRE
728	4-382-854-51	s	SCREW (M3X6), P, SW (+)
729	⚠ 4-429-116-02	s	SADDLE, LOCKING WIRE
730	4-696-019-01	s	SCREW IB-LOCK(M2,BINDING HEAD)
731	5-015-414-01	s	SCREW, SPECIAL (M2)
732	5-033-527-01	s	COVER, SW
733	5-033-528-01	s	CUSHION, LED SHADING
734	⚠ 5-033-553-01	s	PANEL, REAR BLANK
735	5-033-599-01	s	PANEL, OUTLET BLANK
736	5-039-479-01	s	PLATE (920), SNATCH LOCK
737	4-167-983-01	s	SHEET, RADIATION
	7-682-548-09	s	SCREW +B 3X8
	7-682-951-01	s	SCREW +PSW 3X14
	7-682-962-09	s	SCREW +PSW 4X10
	7-683-440-04	o	BOLT,HEXAGON SOCKET 5X20

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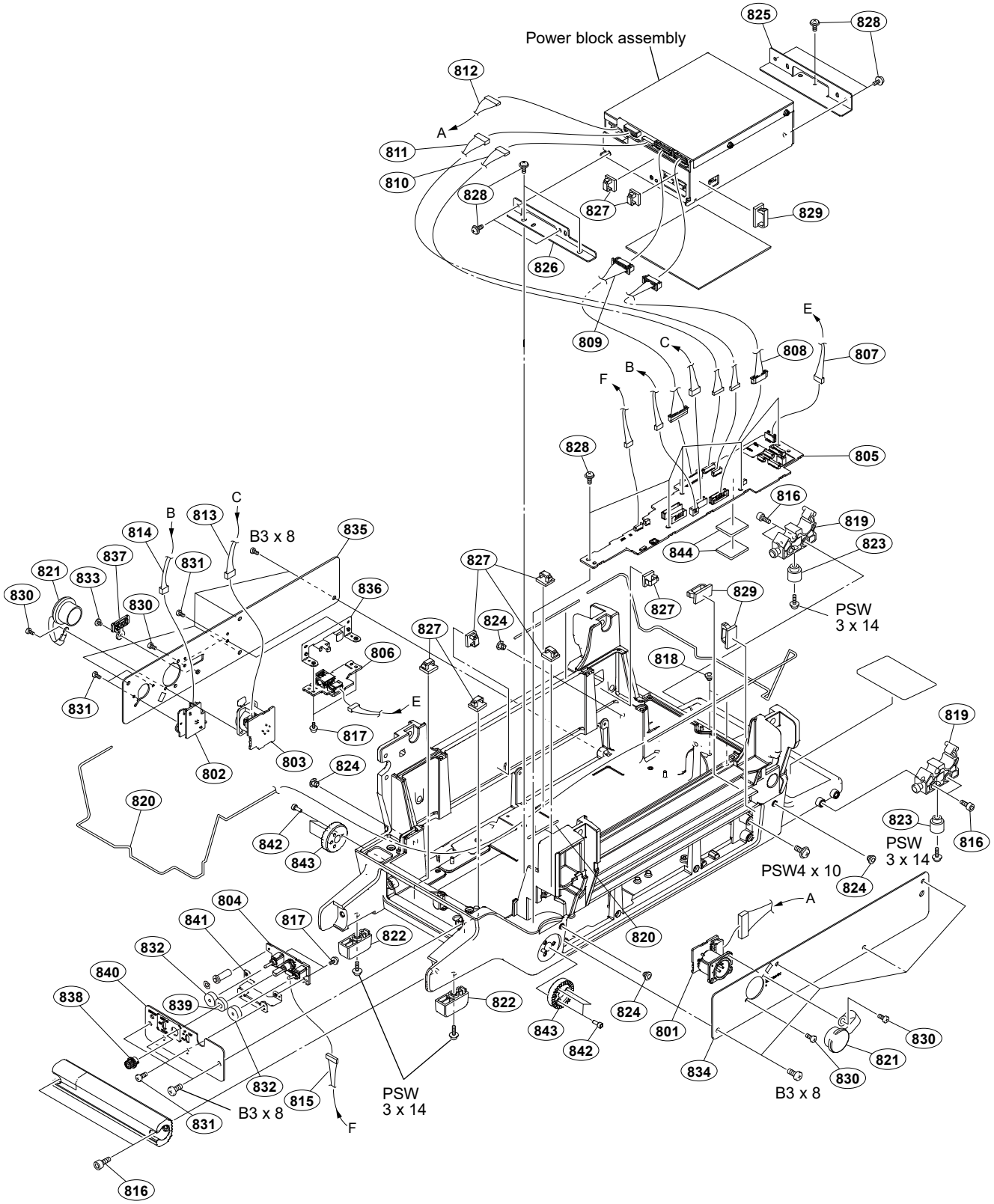
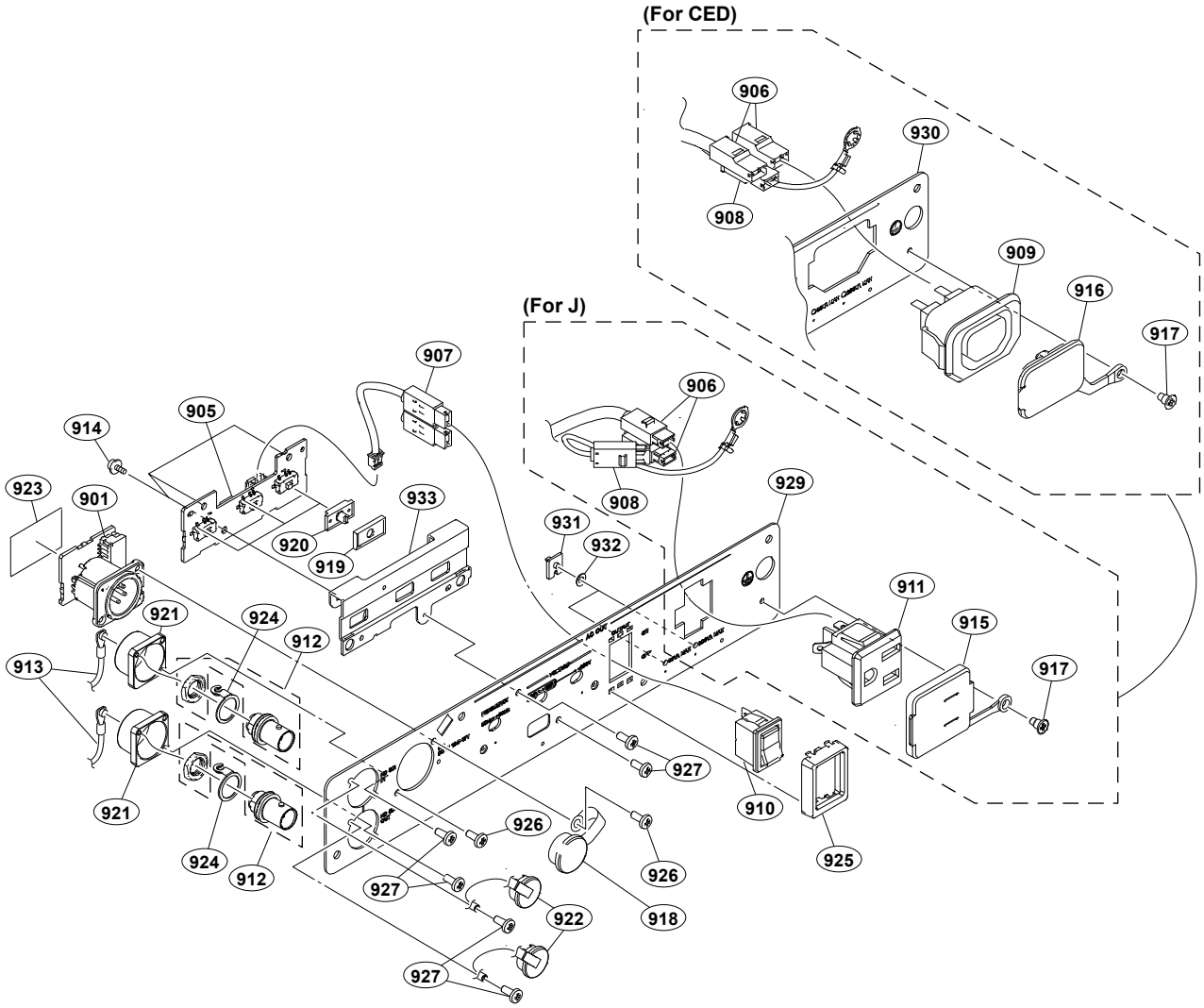
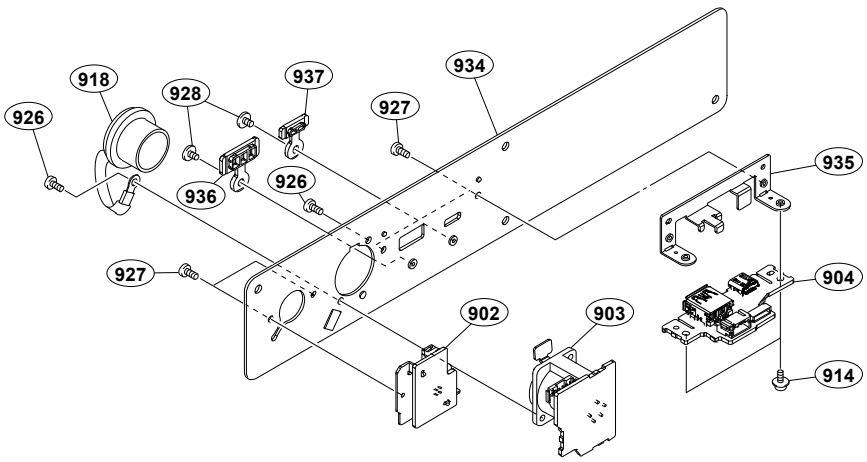
Chassis Block (HDLA-3501)



No.		Part No.	SP	Description
801		A-5028-202-A	s	CN-4193 MOUNT
802		A-5028-204-A	s	CN-4195 MOUNT
803		A-5028-205-A	s	CN-4196 MOUNT
804		A-5028-215-A	s	SW-1793 MOUNT
805		A-5044-760-A	s	SY-479A COMPL
806		A-5028-206-A	s	CN-4197 MOUNT
807		1-013-170-11	s	SUB HARNESS (USBA)
808		1-013-173-11	s	SUB HARNESS (PS3004)
809		1-013-174-11	s	SUB HARNESS (PS3005)
810		1-013-175-11	s	SUB HARNESS (PS3006)
811		1-013-176-11	s	SUB HARNESS (PS3007)
812		1-013-179-11	s	SUB HARNESS (DCIN)
813		1-013-183-11	s	SUB HARNESS (DCOUTXLR)
814		1-013-184-11	s	SUB HARNESS (DCOUT4P)
815		1-013-190-11	s	SUB HARNESS (MENUSW)
816		2-391-520-21	s	BOLT (M5X12), HOLE, HEXAGON
817		2-640-315-02	s	SCREW (M2X5), SMALL, +P, SW
818		3-545-657-11	s	BUSH
819		3-612-710-02	o	CLAMP,CABLE
820		3-624-455-01	s	TUBE,SHIELD
821		3-748-142-01	s	COVER,CONNECTOR
822		3-992-866-01	s	FOOT,REAR
823		3-992-867-01	s	FOOT,FRONT
824		4-138-679-01	s	SCREW, BLIND
825		4-191-654-01	s	BRACKET (PS), FRONT
826		4-191-655-01	s	BRACKET (PS), REAR
827		4-198-668-21	s	SADDLE, LOCKING WIRE
828		4-382-854-51	s	SCREW (M3X6), P, SW (+)
829	⚠	4-429-116-02	s	SADDLE, LOCKING WIRE
830		4-559-446-02	s	SCREW, +P2.6X5 NEW TRUSTER
831		4-696-019-01	s	SCREW IB-LOCK(M2,BINDING HEAD)
832		5-012-567-01	s	CUSHION, TOGGLE SW
833		5-015-414-01	s	SCREW, SPECIAL (M2)
834	⚠	5-033-522-01	s	PANEL (921), OUTLET
835	⚠	5-033-531-01	s	PANEL (921), INSIDE CONNECTOR
836		5-033-533-01	s	BRACKET, USB
837		5-033-534-01	s	CAP (A), USB
838		5-033-542-01	s	KNOB, ENCODER
839		5-033-549-01	s	CUSHION, ENCODER PROTECTION
840	⚠	5-033-554-01	s	PANEL (921), MENU
841		5-033-555-01	s	BRACKET, REAR MENU
842		2-623-773-11	s	BOLT (M3X8), STAINLESS
843		4-146-076-04	s	BRACKET, ANGLE ADJUSTMENT
844		4-167-983-01	s	SHEET, RADIATION
		7-682-548-09	s	SCREW +B 3X8
		7-682-951-01	s	SCREW +PSW 3X14
		7-682-962-09	s	SCREW +PSW 4X10

Outlet Panel/Inside Panel (HDLA-3505)





No.	Part No.	SP	Description
901	A-5028-202-A	s	CN-4193 MOUNT
902	A-5028-204-A	s	CN-4195 MOUNT
903	A-5028-205-A	s	CN-4196 MOUNT
904	A-5028-206-A	s	CN-4197 MOUNT
905	A-5028-217-A	s	SW-1795 MOUNT
906	⚠ 1-013-181-11	s	SUB HARNESS (ACOUT)
907	1-013-185-11	s	SUB HARNESS (IVTPW)
908	⚠ 1-013-224-11	s	SUB HARNESS (ACOUT_FG)
909	⚠ 1-014-816-11	s	OUTLET, AC (3P)
910	1-771-182-11	s	SWITCH, POWER
911	⚠ 1-843-350-11	s	OUTLET, AC (3P)
912	1-844-930-11	s	CONNECTOR, COAXIAL (BNC)
913	1-912-829-21	s	COAXIAL CABLE(SDI3)
914	2-640-315-02	s	SCREW (M2X5), SMALL, +P, SW
915	3-186-500-02	s	LID (N), OUTLET
916	3-186-501-01	s	LID (P), OUTLET
917	3-694-825-12	s	SCREW (M3) (STEP),SPECIAL HEAD
918	3-748-142-01	s	COVER,CONNECTOR
919	3-796-995-02	s	DROP PROTECTION(SW)
920	3-796-996-04	s	KNOB(A),SW
921	3-863-319-01	s	BRACKET BNC
922	3-872-935-01	s	CAP,BNC
923	4-121-237-01	s	TAPE (20X30)
924	4-136-517-01	s	WASHER, BNC COAXIAL FIXED
925	4-171-340-01	s	GUARD, SWITCH AC
926	4-559-446-02	s	SCREW, +P2.6X5 NEW TRUSTER
927	4-696-019-01	s	SCREW IB-LOCK(M2,BINDING HEAD)
928	5-015-414-01	s	SCREW, SPECIAL (M2)
929	⚠ 5-033-520-01	s	PANEL (JN), OUTLET
930	5-033-521-01	s	PANEL (CE), OUTLET
931	5-033-523-01	s	GUIDE, OUTLET LED LIGHT
932	5-033-524-01	s	SHEET, OUTLET LED ADHESIVE
933	5-033-525-01	s	BRACKET, OUTSIDE SW
934	⚠ 5-033-530-01	s	PANEL (920), INSIDE CONNECTOR
935	5-033-533-01	s	BRACKET, USB
936	5-033-534-01	s	CAP (A), USB
937	5-033-535-01	s	CAP (C), USB

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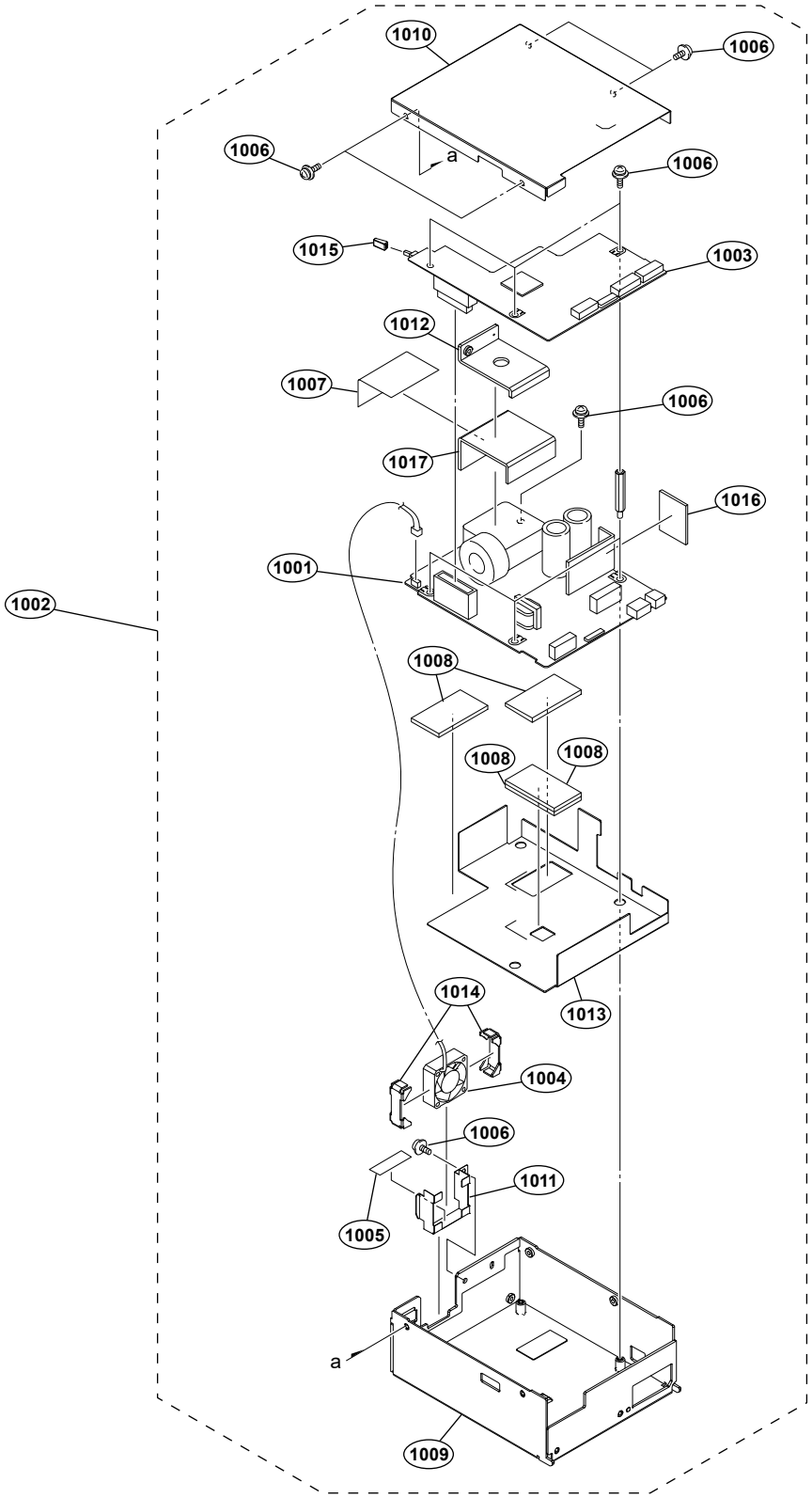
Power Block Assembly



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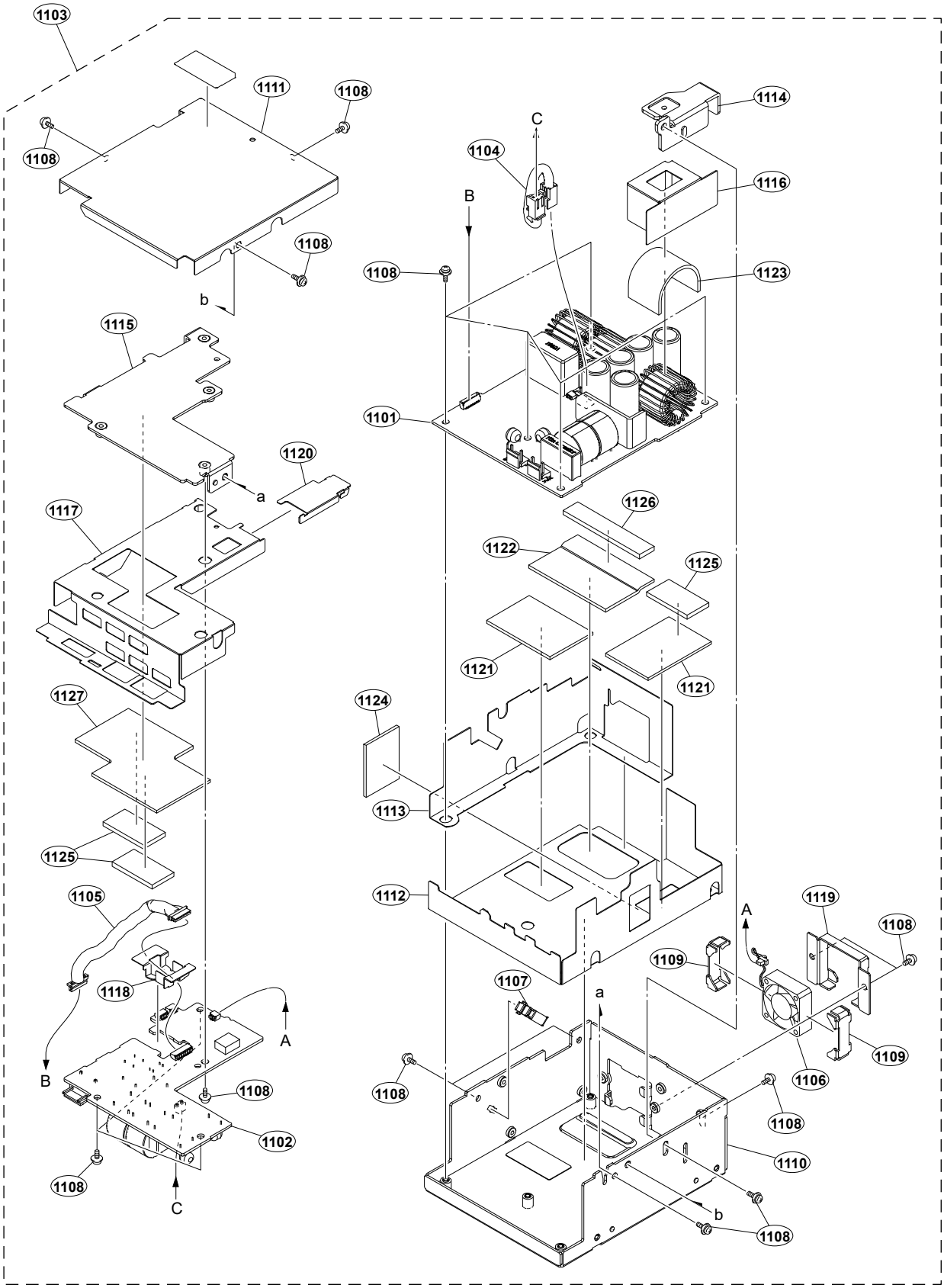
No.	Part No.	SP	Description
1001	A-5004-576-A	s	PS-956 MOUNT
1002	⚠ A-5010-987-B	s	POWER BLOCK ASSY
1003	A-5014-644-B	s	RE-354 COMPL
1004	⚠ 1-855-292-11	s	FAN, DC (30 SQUARE)
1005	3-079-115-01	s	TAPE AS
1006	4-382-854-51	s	SCREW (M3X6), P, SW (+)
1007	4-584-940-01	s	SHEET, SLIDE
1008	⚠ 4-742-796-01	s	SHEET (3 (25X45)), RADIATION
1009	⚠ 5-008-002-01	s	CHASSIS, BASE
1010	⚠ 5-008-003-01	s	COVER, PS
1011	5-008-004-01	s	HOLDER (REAR), FAN
1012	⚠ 5-008-005-01	s	PLATE (T), HEAT SINK
1013	⚠ 5-008-085-01	s	SHEET, INSULATING PS
1014	5-008-192-01	s	CUSHION, FAN
1015	5-010-835-01	s	LEVER, ROCKER SWITCH
1016	⚠ 5-011-326-01	s	SHEET T2(24X31), RADIATION
1017	⚠ 5-011-326-11	s	SHEET T2(44X80), RADIATION

Inverter Block (HDLA-3505)



No.	Part No.	SP	Description
1101	A-5029-909-A	s	PS-964 MOUNT
1102	A-5029-910-A	s	PS-965 MOUNT
1103	⚠ A-5042-003-A	s	INVERTER ASSY
1104	1-014-785-11	s	SUB HARNESS INVERTER_OUT
1105	1-014-786-11	s	SUB HARNESS PS-PS_I/F
1106	⚠ 1-855-292-11	s	FAN, DC (30 SQUARE)
1107	⚠ 4-098-147-31	s	CLAMP
1108	4-382-854-51	s	SCREW (M3X6), P, SW (+)
1109	5-008-192-01	s	CUSHION, FAN
1110	⚠ 5-030-882-01	s	CHASSIS, INVERTER
1111	⚠ 5-030-883-01	s	COVER, INVERTER
1112	⚠ 5-030-884-01	s	SHEET A, PS INSULATION
1113	⚠ 5-030-885-01	s	SHEET B, PS INSULATION
1114	⚠ 5-030-886-01	s	PLATE (COIL), HEAT SINK
1115	⚠ 5-035-930-01	s	BRACKET, PS-965
1116	⚠ 5-035-931-01	s	SHEET (COIL), PS INSULATION
1117	⚠ 5-035-932-01	s	SHEET (965), PS INSULATION
1118	⚠ 5-035-950-01	s	HANGER, HARNESS
1119	5-035-951-01	s	HOLDER, FAN
1120	⚠ 5-035-953-01	s	SHEET (IC6002), PS INSULATION
1121	⚠ 5-039-291-01	s	SHEET T2(35X52), RADIATION
1122	⚠ 5-039-291-11	s	SHEET T2(40X63), RADIATION
1123	⚠ 5-039-291-21	s	SHEET T2(25X65), RADIATION
1124	⚠ 5-039-291-31	s	SHEET T2(27X37), RADIATION
1125	⚠ 5-039-292-01	s	SHEET T3(18X33), RADIATION
1126	⚠ 5-039-292-11	s	SHEET T3(12X63), RADIATION
1127	⚠ 5-039-805-01	s	SHEET T2(965), RADIATION

5-3. Supplied Accessories

HDLA-3505

Q'ty	Part No.	SP	Description
1pc	A-1128-405-A	s	HANGER ASSY, CAMERA
2pcs	3-612-712-02	s	BAND,CLAMP
1pc	3-992-267-01	s	PLATE,NUMBER
1pc	4-138-677-01	s	BRACKET, BELT
1pc	4-138-758-01	s	CLAMP BELT, CABLE
2pcs	7-682-548-09	s	SCREW +B 3X8

HDLA-3501

Q'ty	Part No.	SP	Description
1pc	A-1128-405-A	s	HANGER ASSY, CAMERA
2pcs	3-612-712-02	s	BAND,CLAMP
2pcs	3-622-537-02	s	PLATE,NUMBER(LLA)
1pc	3-992-267-01	s	PLATE,NUMBER
1pc	4-138-677-01	s	BRACKET, BELT
1pc	4-138-758-01	s	CLAMP BELT, CABLE
2pcs	7-682-548-09	s	SCREW +B 3X8

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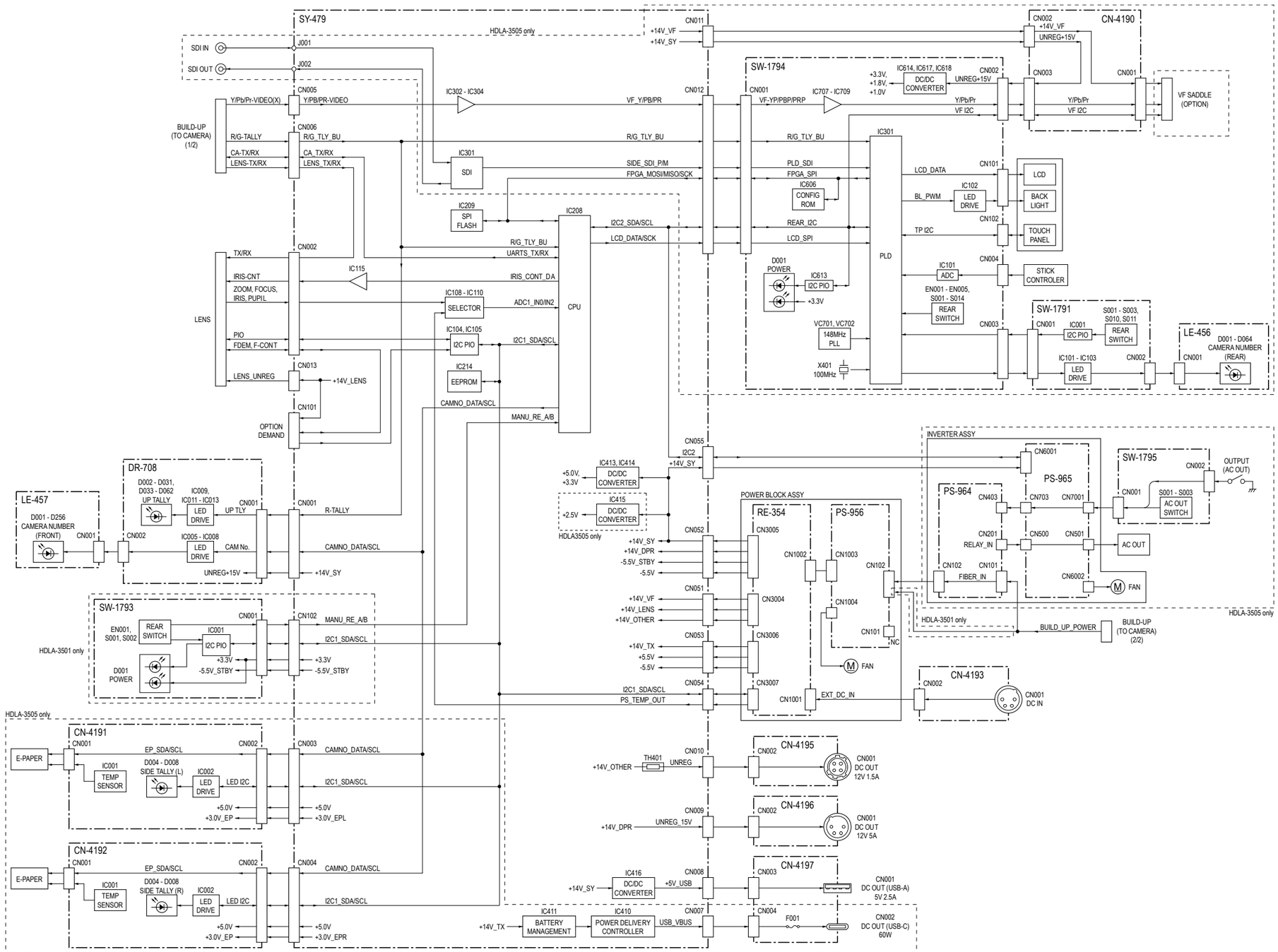
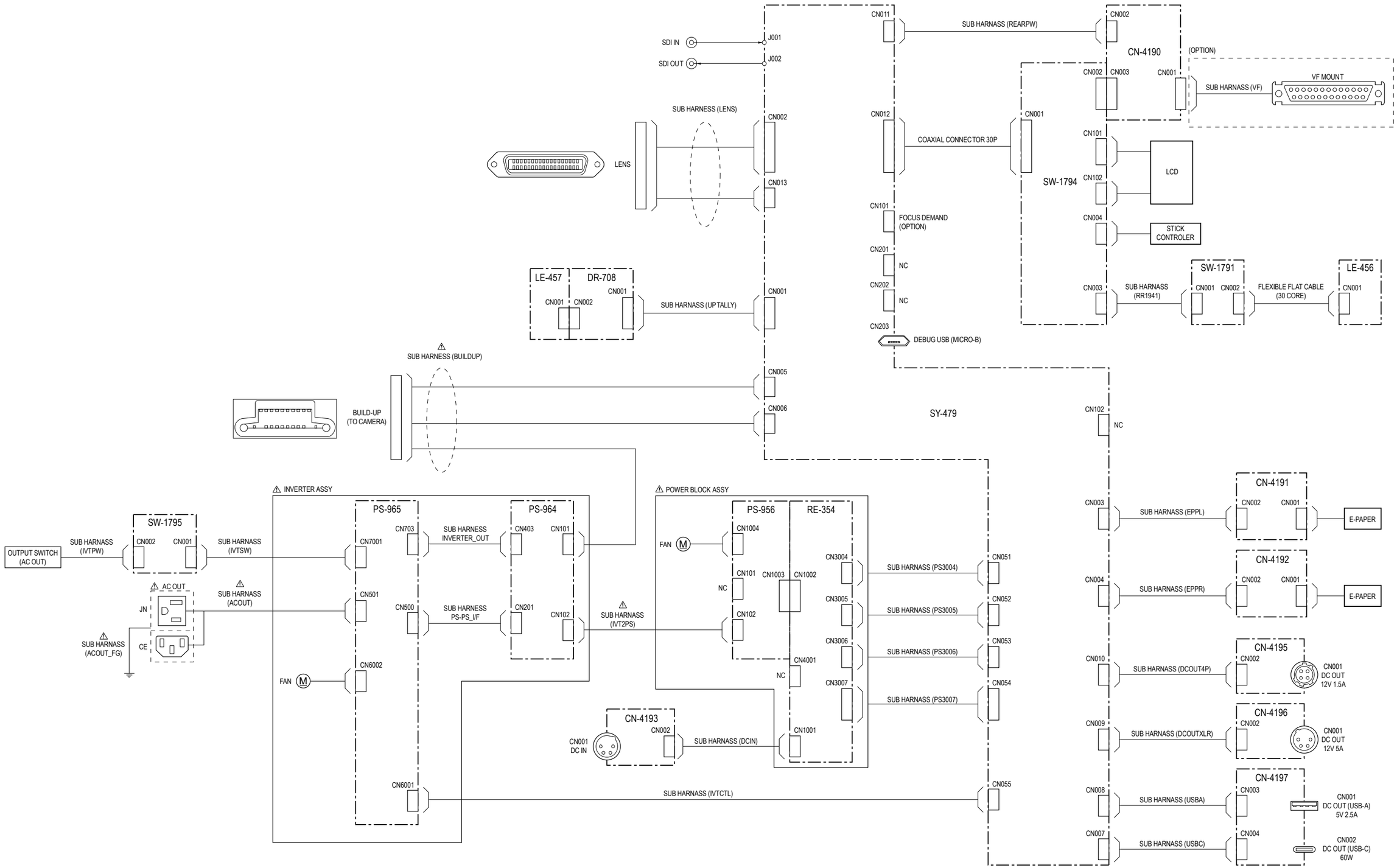
Section 6
Diagrams

Overall

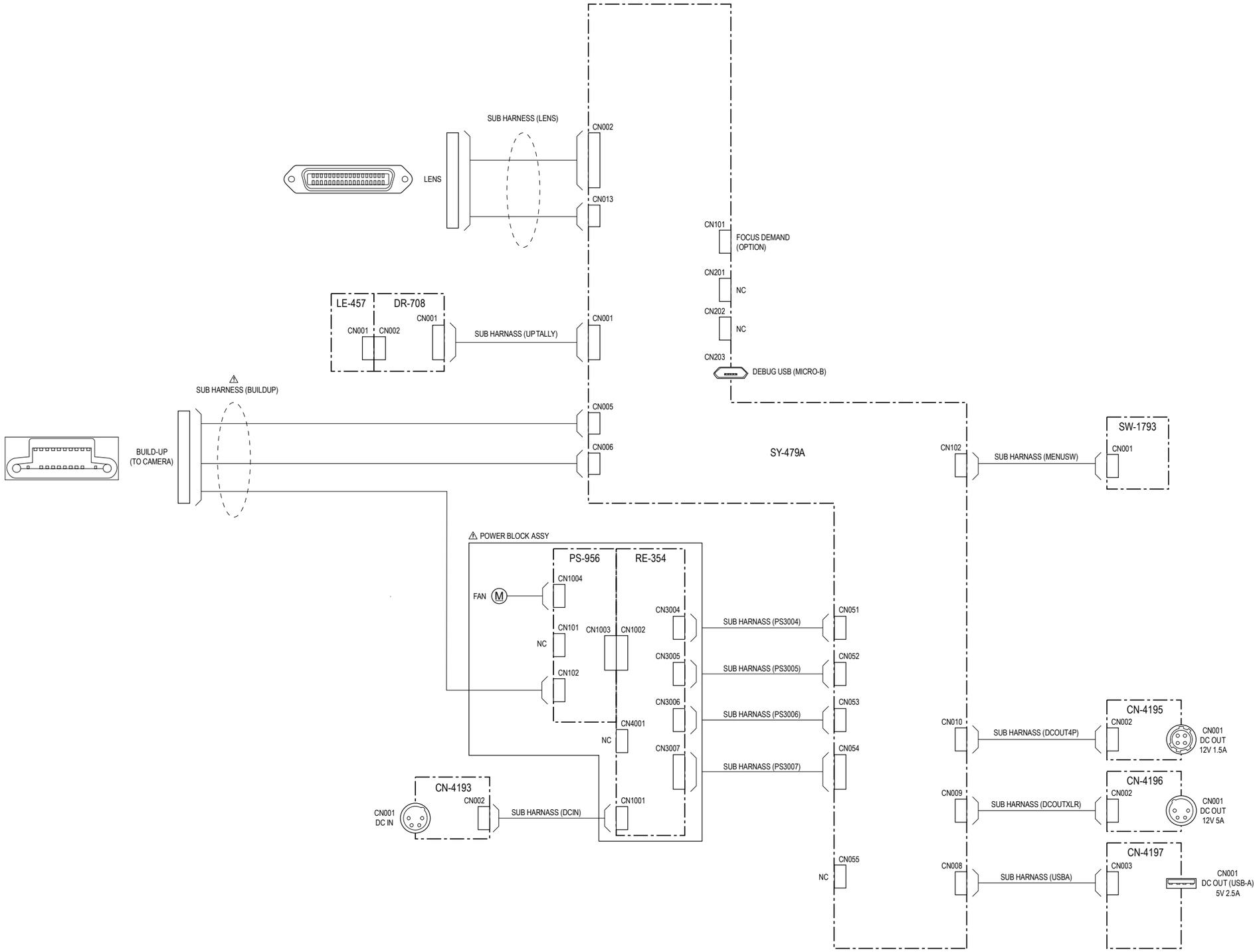


Frame Wiring

HDLA-3505



HDLA-3501


SUB HARNESS (LENS)
LENS
CN002
CN013
CN101
FOCUS DEMAND
(OPTION)
CN201
NC
CN202
NC
CN203
DEBUG USB (MICRO-B)
LE-457
DR-708
CN001
CN002
CN001
SUB HARNASS (UP TALLY)
CN001
SUB HARNESS (BUILDUP)
BUILD-UP
(TO CAMERA)
CN005
CN006
SY-479A
CN102
SUB HARNASS (MENUSW)
SW-1793
CN001
POWER BLOCK ASSY
PS-956
RE-354
FAN
M
CN1004
CN101
NC
CN102
CN1003
CN1002
CN4001
NC
CN1001
CN3004
CN3005
CN3006
CN3007
SUB HARNASS (PS3004)
SUB HARNASS (PS3005)
SUB HARNASS (PS3006)
SUB HARNASS (PS3007)
CN051
CN052
CN053
CN054
CN055
NC
CN-4193
CN001
DC IN
CN002
SUB HARNASS (DCIN)
CN010
SUB HARNASS (DCOUT4P)
CN-4195
CN002
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DC OUT
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CN009
SUB HARNASS (DCOUTXLR)
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CN002
CN001
DC OUT
12V 5A
CN008
SUB HARNASS (USBA)
CN-4197
CN003
CN001
DC OUT (USB-A)
5V 2.5A

Revision History

Date	History	Contents
2022. 6	1st Edition 9-932-807-01	—

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HDLA-3505 (J)
HDLA-3505 (CED)
HDLA-3501 (SY) J,E
9-932-807-01 V1.00A

Sony Corporation

Printed in Japan
2022. 6 08
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