SONY

CAMERA ADAPTOR

CA-950
CA-950P

INSTALLATION AND MAINTENANCE MANUAL
1st Edition
Serial No. 10001 and Higher: CA-950 (JN)
Serial No. 40001 and Higher: CA-950P (CE)

⚠警告

このマニュアルは，サービス専用です。
お客様が，このマニュアルに記載された設置や保守，点検，修理などを行うと感電や火災，人身事故につながることがあります。
危険をさけるため，サービストレーニングを受けた技術者のみご使用ください。

⚠WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
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.

Laser Diode Properties

Material	: In GaAsP
Wave length	: 1310 nm
Emission duration	: Pulse code modulation
Laser output power	: −8 dBm

CLASS 1
LASER PRODUCT

LASER KLASSE 1
PRODUKT

This camera adaptor is classified as a CLASS 1 LASER PRODUCT.
The CLASS 1 LASER PRODUCT label is located on the 68-pin connector panel.

Table of Contents

Manual Structure

1. Installation Overview

2. Service Overview

Manual Structure

Purpose of this manual

This manual is the installation and maintenance manual for Camera Adaptor CA-950/950P.
This manual is intended for use by trained system and service engineers, and provides the installation and maintenance information that is necessary at the time of primary service.

Relative manuals

Besides this “installation and maintenance manual”, the following manuals are available for this unit.

- **Operation Manual (Supplied with this unit)**
  This manual is necessary for application and operation of this unit.

- **Maintenance Manual Volume 1, Volume 2 (Available on request)**
  This manual describes the information items on maintenance, and items that premise the service based on the components parts such as alignment, schematic diagrams, board layouts and spare parts list.
  If this manual is required, please contact your local Sony Sales Office/Service Center.
  Part number: 9-968-571-XX (Volume 1)
  9-968-572-XX (Volume 2)

- **“Semiconductor Pin Assignments” CD-ROM (Available on request)**
  This “Semiconductor Pin Assignments” CD-ROM allows you to search for semiconductors used in Communication System Solutions Network Company equipment.
  Semiconductors that cannot be searched for on this CD-ROM are listed in the service manual for the corresponding unit. The service manual contains a complete list of all semiconductors and their ID Nos., and thus should be used together with the CD-ROM.
  Part number: 9-968-546-XX

Contents

The following are summaries of all the sections for understanding the contents of this manual.

Section 1 Installation Overview

Describes information about connector input/output signals, location of printed circuit boards and internal switches setting.

Section 2 Service Overview

Describes information about cleaning procedures and recommended replacement parts.

Section 1
Installation Overview

1-1. Confirmation of ROM version

When connecting the peripheral equipment in the list below, be sure to check that the version of ROM on each peripheral device is corresponding to the camera to be connected.
If ROM version is lower than the specified below, be sure to perform ROM replacement. (The ROM version of BVP-9500WS/9500WSP is already corresponding to CA-950/950P.)
If ROM replacement is required, contact your local Sony Sales Office/Service Center.

ROM version

Peripheral equipment	Board name	Ref No.	ROM version
BVP-550/550P/550WSPK	AT-95	IC36	Ver. 4.20 or higher
BVP-570/570WSPK	AT-126	IC36	Ver. 1.30 or higher
BVP-550/550P/550WSPK with BKP-5090 installed			
BVP-950/950P/950WSPK	AT-121	IC8, IC9	Ver. 1.30 or higher
MSU-700A	CPU-293	IC5, IC6	Ver. 1.10 or higher
MSU-750	CPU-286	IC5, IC6	Ver. 1.10 or higher
CNU-700	AT-89 or AT-89A	IC4, IC5	Ver. 3.20 or higher
CNU-500	AT-100	IC4, IC5	Ver. 2.80 or higher

Note

It is easy to confirm the ROM version of BVP-550/550P/550WSPK, BVP-570/570WSPK and BVP-950/950P/950WSPK on the viewfinder screen by following the procedures below.

BVP-550/550P/550WSPK, BVP-570/570WSPK

1. Turn the DISP switch off.
2. Turn the power on while pressing the MENU SEL switch to indicate the version on the viewfinder for about 3 seconds.

BVP-950/950P/950WSPK

1. While pressing the ENTER/CANCEL switch toward the ENTER side, set the DISPLAY switch to MENU.
2. The maintenance menu is displayed and the version is indicated below the menu item.

1-2. Connectors and Cables

1-2-1. Connector Input/Output Signals

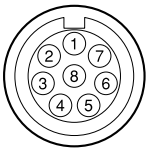
- **PROMTER *1/GENLOCK *2**
  BNC 75 Ω 1.0 V p-p

  ∗1: In connection with CCU
  ∗2: Standalone use

- **TEST OUT**
  BNC 75 Ω 1.0 V p-p

- **SERIAL IN/SERIAL OUT**
  BNC Based on SMPTE259M

REMOTE (8P FEMALE)

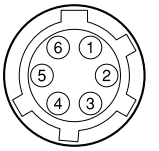


(External view)

No.	Signal	Specifications
1	TX (+)	BVP SERIAL DATA
2	TX (–)	
3	RX (+)	RM SERIAL DATA ∗1,
4	RX (–)	CA-905L IIC DATA ∗2
5	VIDEO (G)	GND for VIDEO
6	POWER (+) OUT	10.5 V to 17 V, 500 mA (MAX)
7	POWER (–) OUT	GND for +12 V
8	VIDEO (X) OUT	VBS 1.0 V p-p, Zo = 75 Ω
	CHASSIS GND	CHASSIS GND

∗1 : Standalone use
∗2 : In connection with CCU

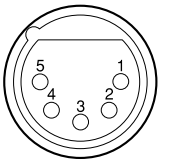
RET CONT (6P FEMALE)



(External view)

No.	Signal	Specifications
1	INCOM 1 MIC ON/OFF IN	Zi ≧ 10 kΩ ON: GND OFF: OPEN
2	INCOM 2 MIC ON/OFF IN	Zi ≧ 10 kΩ ON: GND OFF: OPEN
3	GND	
4	RET 3 ON/OFF IN	Zi ≧ 10 kΩ ON: GND OFF: OPEN
5	RET 1 ON/OFF IN	Zi ≧ 10 kΩ ON: GND OFF: OPEN
6	RET 2 ON/OFF IN	Zi ≧ 10 kΩ ON: GND OFF: OPEN

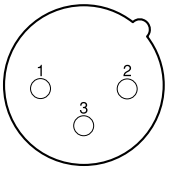
INCOM 1/2 (5P FEMALE)



(External view)

No.	Signal	Specifications
1	INCOM MIC IN (Y)	–20 dBu (CARBON MIC)
2	INCOM MIC IN (X)	–60 dBu (DYNAMIC MIC)
3	GND (PGM)	
4	INCOM RECEIVE OUT	–20 dBu (with INCOM level control set to mechanical center)
5	PGM 1/2 OUT	–20 dBu (with PGM level control set to mechanical center)

AUDIO IN 1/2 (3P MALE)

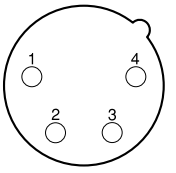


(External view)

No.	Signal	Specifications
1	AUDIO IN (G)	LINE (−20 dBu)/MIC (−60 dBu)
2	AUDIO IN (X)	SELECTABLE
3	AUDIO IN (Y)	High impedance balanced

(0 dBu = 0.775 Vrms)

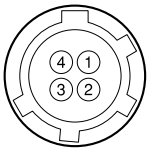
DC IN (4P MALE)



(External view)

No.	Signal	Specifications
1	GND	GND for DC (+)
2	NC	No connection
3	NC	No connection
4	DC (+) IN	DC 10.5 V to 17 V

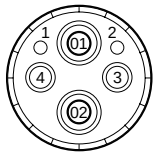
DC OUT (4P FEMALE)



(External view)

No.	Signal	Specifications
1	GND	GND for UNREG
2	NC	No connection
3	NC	No connection
4	UNREG +12 V OUT	DC 10.5 V to 17 V, 500 mA (MAX)

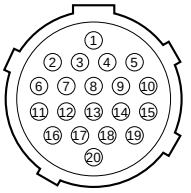
CCU (MALE)



(External view)

No.	Signal	Specifications
01	CA → CCU	OPTICAL OUTPUT −8.5 dB (Typ.)
02	CCU → CA	OPTICAL INPUT −20 dB (MIN)
1	CONTROL (CCU → CHU)	
2	CONTROL (CHU → CCU)	
3	POWER HOT	STANBY : DC38 V
4	POWER COLD	AC240 V
–	POWER GND	GND for POWER

TRACKER (FEMALE)



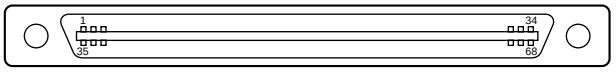
(External view)

No.	Signal	Specifications
1	TRACKER R OUT (X)	TRACKER RECEIVE 0 dBu unbalanced
2	TRACKER R OUT (G)	GND for TRACKER R
3	GND (UNREG/TALLY)	GND for UNREG/TALLY
4	R TALLY	ON : GND OFF : High impedance
5	PGM OUT (G)	GND for PGM
6	UNREG	+12 V (+10.5 to +17.0 V)
7	TRACKER T IN (X)	TRACKER TALK
8	TRACKER T IN (Y)	0 dBu /–20 dBu High impedance balanced
9	TRACKER T IN (G)	GND for TRACKER T
10	PGM OUT (X)	–20 dBu unbalanced
11	(Spare)	
12	G TALLY	ON : GND OFF : High impedance
13	NC	No connection
14	RX_DATA_IN (0)	TRUNK DATA IN, RS232-C
15	RX_DATA_IN (1)	
16	NC	No connection
17	NC	No connection
18	TX_DATA_OUT (0)	TRUNK DATA OUT, RS232-C
19	TX_DATA_OUT (1)	
20	GND	

(0 dBu = 0.775 Vrms)

CAMERA (68P MALE)

For Analog Interface (upper side)



(External view)

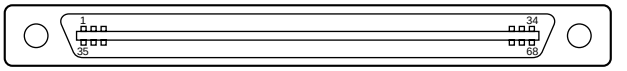
No.	Signal	Specifications
1	UNREG GND	GND for UNREG
2	UNREG GND	GND for UNREG
3	VF UNREG GND	GND for VF UNREG
4	LENS UNREG GND	GND for LENS UNREG
5	UNREG OUT	10.5 V to 17 V
6	UNREG OUT	10.5 V to 17 V
7	VF UNREG OUT	10.5 V to 17 V
8	LENS UNREG OUT	10.5 V to 17 V
9	R IN (X)	No connection
10	B IN (X)	No connection
11	VBS IN (G)	GND for VBS VIDEO
12	Y IN (X)	No connection
13	B-Y IN (X)	No connection
14	RET B-Y OUT (X)	0.7 V p-p, Zo = 75 Ω
15	C IN (X)	No connection
16	VBS GENLOCK OUT (X)	1.0 V p-p ±6 dB, Zo = 75 Ω
17	RET VIDEO OUT (G)	GND for RET VIDEO
18	MONITOR VIDEO IN (X)	VS 1 Vp-p, Zi = 75 kΩ
19	BATTERY ALARM OUT	Zo = 220 Ω
20	NC	No connection
21	AUDIO CH1 CONT IN	0 V (0 dB) to 7 ±0.5V (–50 dB)
22	MIC IN (Y)	Zi ≧ 600 Ω, –60 dBu balanced
23	NC	No connection
24	SKIN TONE GATE IN	No connection
25	TAPE REM OUT	No connection
26	VTR SYNC IN	No connection
27	RET EN IN	ENABLE; 0 V, DISABLE; OPEN
28	PB REF OUT	PB; +5.0 V, CAM; 0 V
29	H CONT OUT	0 V to 5 V, Max frequency at 5 V
30	ANALOG GND	
31	DIGITAL HD IN	3.3 V p-p for Digital
32	COM CONT OUT	5 V p-p
33	IIC CLOCK IN (CA)	5 V p-p
34	IIC CLOCK IN (ST)	5 V p-p

No.	Signal	Specifications
35	UNREG GND	GND for UNREG
36	UNREG GND	GND for UNREG
37	VF UNREG GND	GND for VF UNREG
38	LENS UNREG GND	GND for LENS UNREG
39	UNREG OUT	10.5 V to 17 V
40	UNREG OUT	10.5 V to 17 V
41	VF UNREG OUT	10.5 V to 17 V
42	LENS UNREG OUT	10.5 V to 17 V
43	G IN (X)	No connection
44	R/G/B GND	No connection
45	VBS IN (X)	1.0 V p-p ±10 %, Zi = 75 Ω
46	R-Y IN (X)	No connection
47	Y/R-Y/B-Y GND	No connection
48	RET R-Y OUT (X)	0.7 V p-p, Zo = 75 kΩ
49	C GND	No connection
50	VBS GENLOCK OUT (G)	GND for GENLOCK
51	RET VIDEO OUT (X)	1.0 V p-p, Zo = 75 Ω
52	MONITOR VIDEO IN (G)	GND for MONITOR VIDEO
53	VTR START/STOP IN	Zi ≦ 10 kΩ
54	NC	No connection
55	MIC IN (G)	GND for CAM MIC
56	MIC IN (X)	Zi ≧ 600 Ω, –60 dBu balanced
57	NC	No connection
58	NC	No connection
59	AUDIO LEVEL OUT	No connection
60	NC	No connection
61	V RESET OUT/CF IN	No connection
62	REC TALLY OUT	No connection
63	VTR SAVE IN	No connection
64	GND	
65	CA (CONT/DATA)	No connection
66	COM DATA IN	5 V p-p
67	IIC DATA IN/OUT (CA)	5 V p-p, 4700 Ω, Pull up
68	IIC DATA IN/OUT (ST)	No connection

(0 dBu = 0.775 Vrms)

CAMERA (68P MALE)

For Digital Interface (lower side)

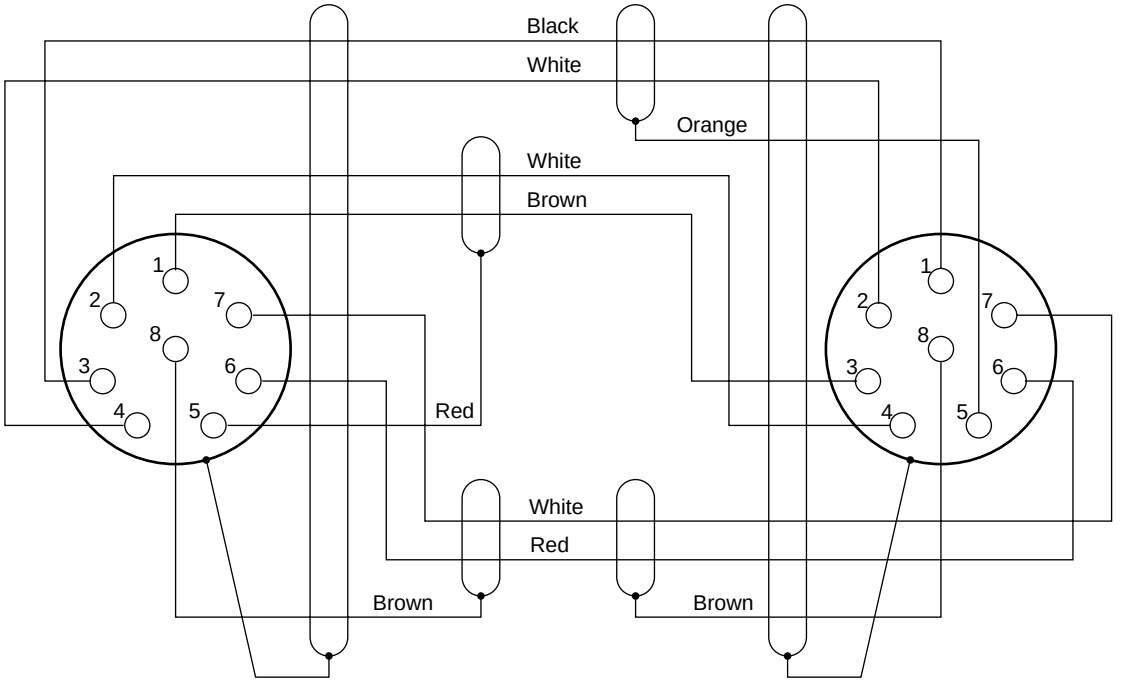


(External view)

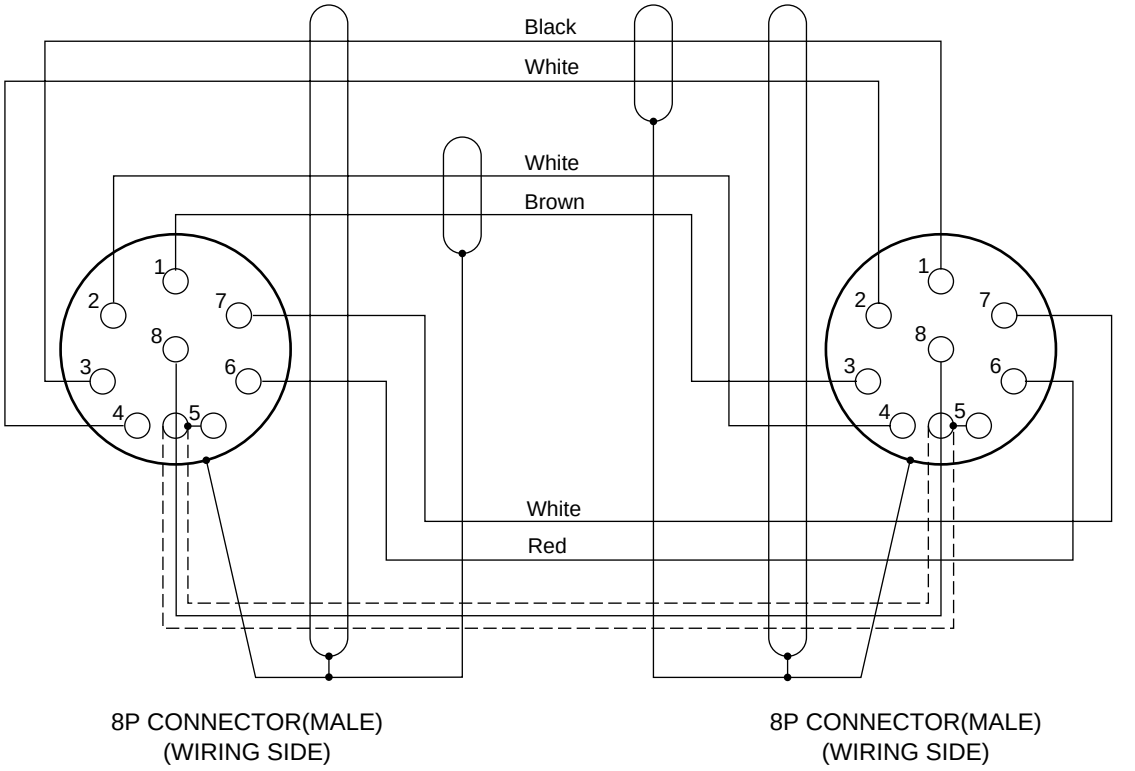
No.	Signal	Specifications	No.	Signal	Specifications
1	G/Y (L) IN		35	G/Y (1) IN	
2	G/Y (2) IN		36	G/Y (3) IN	
3	G/Y (4) IN	3.3 V p-p to 2.5 V p-p	37	G/Y (5) IN	3.3 V p-p to 2.5 V p-p
4	G/Y (6) IN		38	G/Y (7) IN	
5	G/Y (8) IN		39	G/Y (M) IN	
6	R/R-Y (L) IN		40	R/R-Y (1) IN	
7	R/R-Y (2) IN		41	R/R-Y (3) IN	
8	R/R-Y (4) IN	3.3 V p-p to 2.5 V p-p	42	R/R-Y (5) IN	3.3 V p-p to 2.5 V p-p
9	R/R-Y (6) IN		43	R/R-Y (7) IN	
10	R/R-Y (8) IN		44	R/R-Y (M) IN	
11	R/B-Y (L) IN		45	B/B-Y (1) IN	
12	R/B-Y (2) IN		46	B/B-Y (3) IN	
13	R/B-Y (4) IN	3.3 V p-p to 2.5 V p-p	47	B/B-Y (5) IN	3.3 V p-p to 2.5 V p-p
14	R/B-Y (6) IN		48	B/B-Y (7) IN	
15	R/B-Y (8) IN		49	B/B-Y (M) IN	
16	DIGITAL GND	GND for DIGITAL	50	DIGITAL GND	GND for DIGITAL
17	DIGITAL BLANKING IN	No connection	51	SAMPLE IN/CONT1	3.3 V p-p to 2.5 V p-p
18	DIGITAL SYNC IN	No connection	52	DIGITAL VD IN	3.3 V p-p to 2.5 V p-p
19	DIGIRAL GND	GND for DIGITAL	53	CF IN/CONT2	3.3 V p-p to 2.5 V p-p
20	VF CHARA IN	3.3 V p-p to 2.5 V p-p	54	DIGITAL SKIN GATE IN	3.3 V p-p to 2.5 V p-p
21	L2 (L) IN		55	L2 (1) IN	
22	L2 (2) IN		56	L2 (3) IN	
23	L2 (4) IN	3.3 V p-p to 2.5 V p-p	57	L2 (5) IN	3.3 V p-p to 2.5 V p-p
24	L2 (6) IN		58	L2 (7) IN	
25	L2 (8) IN		59	L2 (M) IN	
26	DIGITAL GND	GND for DIGITAL	60	DIGITAL GND	GND for DIGITAL
27	L3 (L) IN		61	H REF OUT	3.3 V p-p
28	L3 (2) IN		62	L3 (1) IN	
29	L3 (4) IN	3.3 V p-p to 2.5 V p-p	63	L3 (3) IN	
30	L3 (6) IN		64	L3 (5) IN	3.3 V p-p to 2.5 V p-p
31	L3 (8) IN		65	L3 (7) IN	
32	NC	No connection	66	L3 (M) IN	
33	27 MHz (G)	GND for 27 MHz	67	27 MHz IN (X)	3.3 V p-p to 2.5 V p-p
34	18 MHz IN (G)	GND for 18 MHz	68	18 MHz IN (X)	3.3 V p-p to 2.5 V p-p

1-2-2. Wiring Diagrams for Cables

CCA-5 Cable
(Outer sheath color : White)



REMOTE Cable (supplied with RM-B150)
(Outer sheath color : Black)



1-2-3. Connection Connectors

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	Connection Connectors/Cables
PROMPTER/GENLOCK TEST OUT (BNC)	1-569-370-12 Connector, BNC
SERIAL IN SERIAL OUT (BNC)	1-569-370-12 Connector, BNC or BELDEN 8281 cable equivalent
RET CONT (6P FEMALE)	1-560-078-00 Plug, 6P Male or HIROSE HR10-7PA-6P equivalent
REMOTE (8P FEMALE)	1-766-848-11 Plug, 8P Male or CCA-5 cable assembly (option) ∗2 CCA-5-10 (10 m)/CCA-5-3 (3 m) or REMOTE cable 1-783-372-11 (supplied with RM-B150, 10 m) ∗1 ∗2
INCOM 1/2 (5P FEMALE)	1-508-370-11 XLR, 5P Male or CANNON XLR-5-12C equivalent
AUDIO IN 1/2 (3P MALE)	1-508-083-00 XLR, 3P Female or CANNON XLR-3-11C equivalent
DC IN (4P MALE)	1-508-362-00 XLR, 4P Female or CANNON XLR-4-11C equivalent or Cable assembly (supplied with AC-550) 1-551-577-00
DC OUT (4P FEMALE)	1-566-425-11 Plug, 4P Male or HIROSE HR10A-7P-4P equivalent
TRACKER (20P FEMALE)	HIROSE HR25-9P-20P equivalent

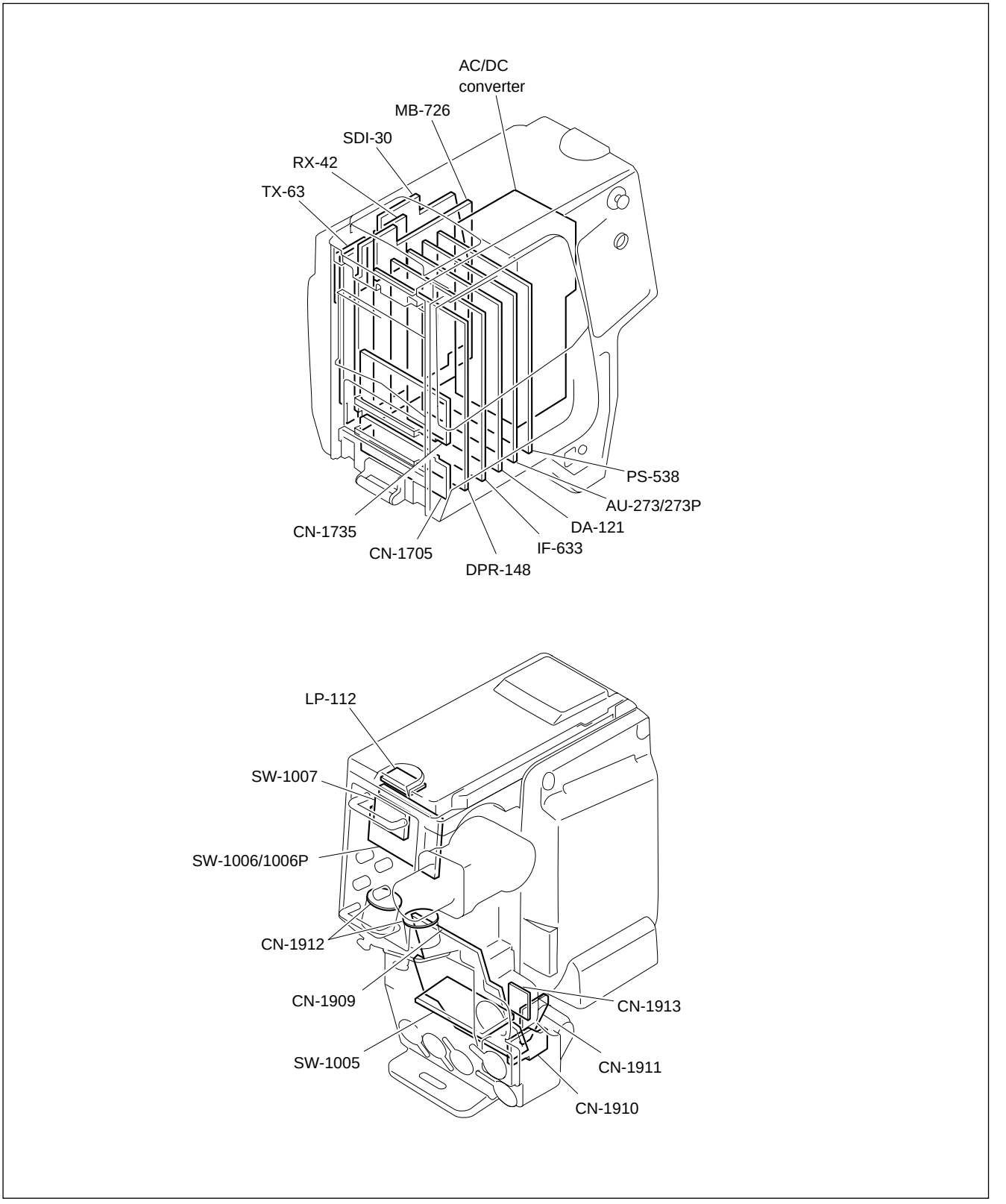
∗1: Use of REMOTE cable enables to monitor video signals.
∗2: If using a cable of length different from a standard product, consult your local Sony Sales Office/Service Center.

1-2-4. Note in Connecting CCU Connector

Before connecting this unit to the camera control unit, it is recommendable to clean the following optical contact portions.
For details on a cleaning method, refer to Section 2-1 “Cleaning of Connector/Cable”.

- CCU connector of this unit
- CAMERA connector of the camera control unit
- Optical/Electrical cable

1-3. Location of Printed Circuit Boards



1-4. Removal of Cabinet

Right side panel

To remove the right side panel, loosen the four screws.

Left side panel

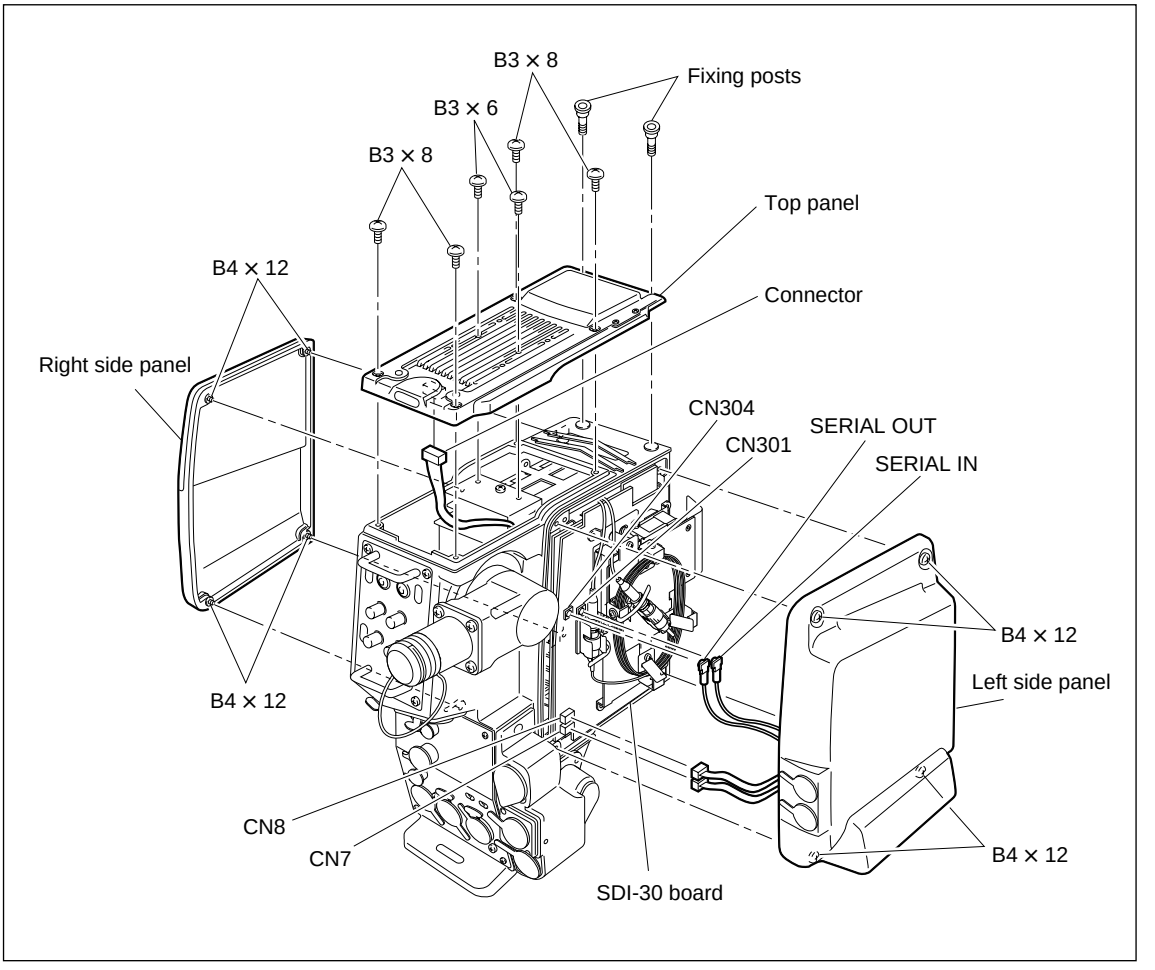
1. Loosen the four screws, and pull out the left side panel from the main unit.
2. Remove the connectors (CN7, CN8, CN301, CN304) of the SDI-30 board, and remove the left side panel.

Note

When installing, connect each connector (CN7, CN8, CN301, CN304) properly as shown in the figure below.

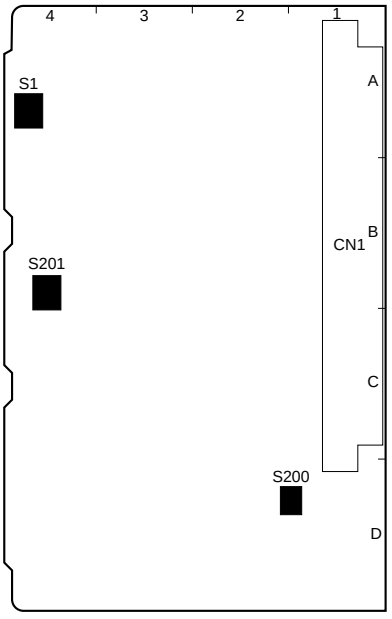
Top panel

Remove the six screws (B3 × 8, B3 × 6) and the two fixing posts, and disconnect the connector as shown below.



1-5. Internal Switches Setting

1-5-1. IF-633 board

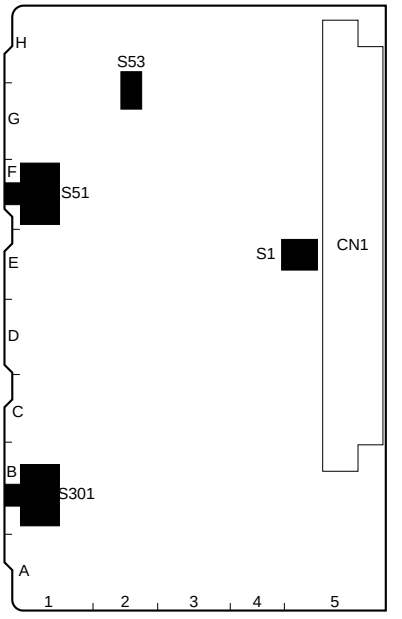


IF-633 board (A side)

Ref. No.	Switch name	Description	Factory setting
S1-1 to 4	TEST OUT SELECT	Refer to the operation manual.	S1-1: OFF S1-2 to 4: ON
S200-1	–	Factory use	OFF
S200-2	RET/SDI SEL	ON: With return video selector such as CAC-6 connected to the RET CONT connector, switching this switch ON can select the SERIAL OUT signal. To switch the SERIAL OUT output, use the control button of the return video selector. The setup menu for CCU determines the selection of signals. **Note** With this switch set to ON, the return video selector functions only for selecting the SERIAL OUT signal, and it cannot select the return signal output to VF or TEST OUT of this unit. To select the return signal output to VF or TEST OUT of this unit, use the return video selection switch on the rear panel of this unit, or on the camera handle, or the side of the camera. OFF: Normal mode.	OFF
S201-1, 2,4	–	Factory use	OFF
S201-3 *	SETUP	Sets ON or OFF the setup function of the return video signal to be output to VF or TEST OUT. ON: Setup of 7.5 IRE is available. OFF: Setup is unavailable.	OFF

* : Only used for CA-950, not for CA-950P.

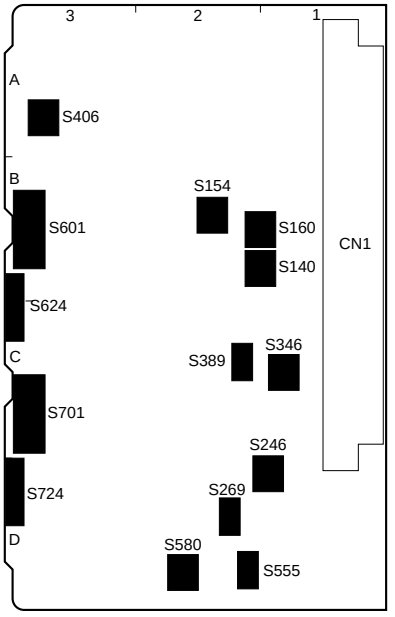
1-5-2. DA-121 board



DA-121 board (A side)

Ref. No.	Switch name	Description	Factory setting
S1-1	PGM	Turns on and off the function to monitor the PGM (program audio) by the earphone ON: Monitoring is enabled OFF: Monitoring is disabled	ON
S1-2	INCOM 2	Turns on and off the function to monitor the INCOM 2 intercom audio by the earphone ON: Monitoring is enabled OFF: Monitoring is disabled	OFF
S1-3	INCOM 1	Turns on and off the function to monitor the INCOM 1 intercom audio by the earphone ON: Monitoring is enabled OFF: Monitoring is disabled	OFF
S1-4	MIC1	Turns on and off the function to output the MIC1 input audio by the earphone. ON: Monitoring is enabled OFF: Monitoring is disabled	OFF
S51	MIC1 SELECT FRONT/REAR	Refer to the operation manual.	REAR
S53	MIC +12 V	Sets MIC POWER +12 V ON or OFF. When using AB POWERING +12 V microphone, set ON. **Note** When MIC POWER switch on the rear panel is set to OFF or +48 V, the power cannot be supplied even if this switch is turned ON.	OFF
S301	MIC TEST	Refer to the operation manual.	OFF

1-5-3. AU-273/273P board

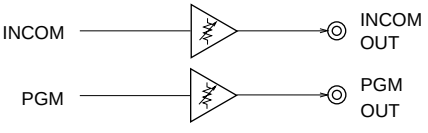
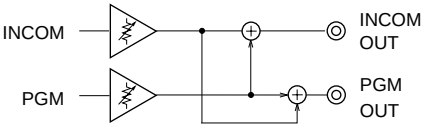
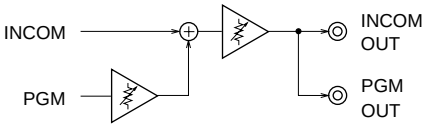


AU-273/273P board (A side)

Ref. No.	Switch name	Description	Factory setting
S140-1 *	INCOM1 PGM MIX	Selects the method of outputting INCOM and PGM of the INCOM1 connector by the combination of S160-1, S160-3 and S246-1 switches. (See the figure below.)	OFF
S140-2 *	INCOM2 PGM MIX	Selects the method of outputting INCOM and PGM of the INCOM2 connector by the combination of S154-2, S154-4 and S346-2 switches. (See the figure below.)	OFF
S140-3	RTS2 TO PGM1 (for AU-273) RTS2 TO TRACKER (for AU-273P)	ON : Mixes RTS2 TALK line to PGM1. (for AU-273) ON : Mixes RTS2 TALK line to TRACKER. (for AU-273P) OFF : Normal mode	OFF
S140-4	RTS1 TO PGM2 (for AU-273) RTS1 TO PGM (for AU-273P)	ON : Mixes RTS1 TALK line to PGM2. (for AU-273) ON : Mixes RTS1 TALK line to PGM. (for AU-273P) OFF : Normal mode	OFF

* : Only used for AU-273. For AU-273P, always set to OFF.

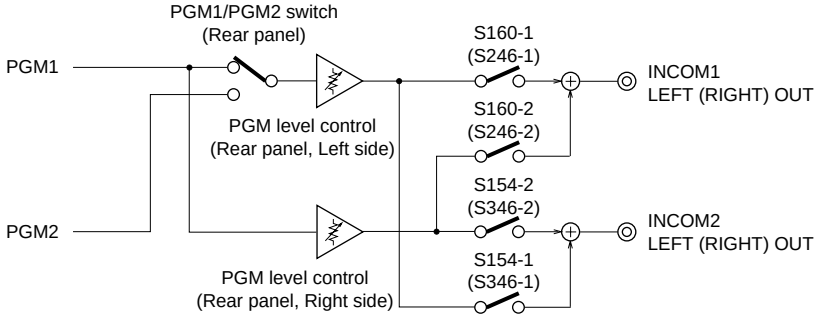
INCOM/PGM MIX mode select switches (for AU-273 only)

INCOM1	S140-1	S160-1	S160-3	S246-1	S246-3	Description
INCOM2	S140-2	S154-2	S154-4	S346-2	S346-4	
	OFF	ON	OFF	OFF	ON	 INCOM and PGM are output independently
	(Factory setting)					
	OFF	ON	ON	ON	ON	 Mixed signal of INCOM and PGM is output as INCOM and PGM outputs. INCOM level control knob adjusts INCOM audio level and PGM level control knob adjusts the PGM audio level.
	ON	OFF	ON	OFF	ON	 Mixed signal of INCOM and PGM is output as INCOM and PGM outputs. INCOM level control knob adjusts mixed signal level of the INCOM and PGM, and PGM level control knob adjusts the balance between them.

INCOM SELECT switch (S160, S246, S154, S346) (for AU-273)

Ref. No.	Switch name	Description	Factory setting
S160	INCOM1 LEFT SELECT	Selects output of INCOM1 to the left ear.	
S160-1	PGM1/2 ∗1	Turns PGM1/2 ON or OFF. ∗3	ON
S160-2	PGM1 ∗2	Turns PGM1 ON or OFF. ∗3	OFF
S160-3	INCOM1	Turns INCOM1 ON or OFF. ∗3	OFF
S160-4	INCOM2	Turns INCOM2 ON or OFF. ∗3	OFF
S246	INCOM1 RIGHT SELECT	Selects output of INCOM1 to the right ear.	
S246-1	PGM1/2 ∗1	Turns PGM1/2 ON or OFF. ∗3	OFF
S246-2	PGM1 ∗2	Turns PGM1 ON or OFF. ∗3	OFF
S246-3	INCOM1	Turns INCOM1 ON or OFF. ∗3	ON
S246-4	INCOM2	Turns INCOM2 ON or OFF. ∗3	OFF
S154	INCOM2 LEFT SELECT	Selects output of INCOM2 to the left ear.	
S154-1	PGM1/2 ∗1	Turns PGM1/2 ON or OFF. ∗3	OFF
S154-2	PGM1 ∗2	Turns PGM1 ON or OFF. ∗3	ON
S154-3	INCOM1	Turns INCOM1 ON or OFF. ∗3	OFF
S154-4	INCOM2	Turns INCOM2 ON or OFF. ∗3	OFF
S346	INCOM2 RIGHT SELECT	Selects output of INCOM2 to the right ear.	
S346-1	PGM1/2 ∗1	Turns PGM1/2 ON or OFF. ∗3	OFF
S346-2	PGM1 ∗2	Turns PGM1 ON or OFF. ∗3	OFF
S346-3	INCOM1	Turns INCOM1 ON or OFF. ∗3	OFF
S346-4	INCOM2	Turns INCOM2 ON or OFF. ∗3	ON

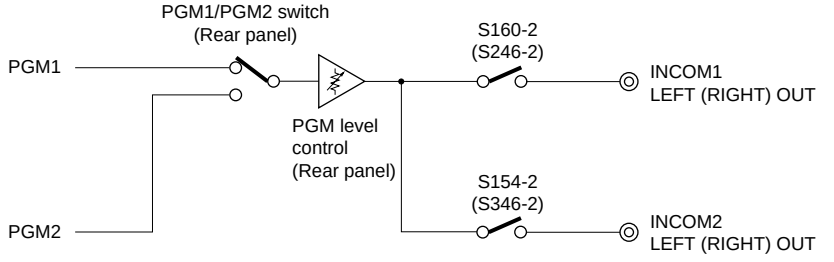
∗1: In PGM1/2 setting, PGM1 or PGM2 is output by the PGM1/PGM2 switch on the rear panel. (See the figure below.)
∗2: In the PGM1 setting, PGM1 is output regardless of the PGM1/PGM2 switch on the rear panel. (See the figure below.)
∗3: Volume is adjustable by level controls for each of INCOM and PGM on the rear panel.



INCOM SELECT switch (S160, S246, S154, S346) (for AU-273P)

Ref. No.	Switch name	Description	Factory setting
S160	INCOM1 LEFT SELECT	Selects output of INCOM1 to the left ear.	
S160-1	TRACKER	Turns TRACKER ON or OFF ∗2	OFF
S160-2	PGM1/2 ∗1	Turns PGM1/2 ON or OFF ∗2	ON
S160-3	ENG	Turns ENG ON or OFF ∗2	OFF
S160-4	PROD	Turns PROD ON or OFF ∗2	OFF
S246	INCOM1 RIGHT SELECT	Selects output of INCOM1 to the right ear.	
S246-1	TRACKER	Turns TRACKER ON or OFF ∗2	ON
S246-2	PGM1/2 ∗1	Turns PGM1/2 ON or OFF ∗2	ON
S246-3	ENG	Turns ENG ON or OFF ∗2	ON
S246-4	PROD	Turns PROD ON or OFF ∗2	ON
S154	INCOM2 LEFT SELECT	Selects output of INCOM2 to the left ear.	
S154-1	TRACKER	Turns TRACKER ON or OFF ∗2	OFF
S154-2	PGM1/2 ∗1	Turns PGM1/2 ON or OFF ∗2	ON
S154-3	ENG	Turns ENG ON or OFF ∗2	OFF
S154-4	PROD	Turns PROD ON or OFF ∗2	OFF
S346	INCOM2 RIGHT SELECT	Selects output of INCOM2 to the right ear.	
S346-1	TRACKER	Turns TRACKER ON or OFF ∗2	ON
S346-2	PGM1/2 ∗1	Turns PGM1/2 ON or OFF ∗2	ON
S346-3	ENG	Turns ENG ON or OFF ∗2	ON
S346-4	PROD	Turns PROD ON or OFF ∗2	ON

∗1: In PGM1/2 setting, PGM1 or PGM2 is output by the PGM1/PGM2 switch on the rear panel. (See the figure below.)
∗2: Volume is adjustable by a level control for each of TRACKER, PGM, ENG and PROD on the rear panel.



Ref. No.	Switch name	Description	Factory setting
S269	RTS1	Sets when connecting RTS kit to INCOM1 connector. RTS: Can use RTS CH1 as INCOM1 connector NORM: Normal mode	NORM
S389	RTS2	Sets when connecting RTS kit to INCOM2 connector. RTS: Can use RTS CH2 as INCOM2 connector NORM: Normal mode	NORM
S406-1	PGM1 TO TRACKER	ON: Mixes PGM1 to TRACKER. OFF: Does not mix.	ON
S406-2	PGM2 TO TRACKER	ON: Mixes PGM2 to TRACKER. OFF: Does not mix.	OFF
S406-3	INCOM2 R TO TRACKER (for AU-273)	ON: Mixes INCOM2 RECEIVE to TRACKER. OFF: Does not mix.	OFF
	PROD R TO TRACKER (for AU-273P)	ON: Mixes PROD RECEIVE to TRACKER. OFF: Does not mix.	ON
S406-4	INCOM2 T TO TRACKER (for AU-273)	ON: Mixes INCOM2 TALK to TRACKER. OFF: Does not mix.	OFF
	PROD T TO TRACKER (for AU-273P)	ON: Mixes PROD TALK to TRACKER. OFF: Does not mix.	ON
S555	TRACKER (T) 0/–20	Selects TRACKER TALK level of TRACKER connector. 0: 0 dBu (Standard) –20: –20dBu (Use this when input level is low.) (0 dBu = 0.775 Vrms)	0 (0 dBu)
S580-1*	TRACKER TO INCOM1 R	ON: Mixes TRACKER to INCOM1 RECEIVE. OFF: Does not mix.	ON (for AU-273) OFF (for AU-273P)
S580-2*	TRACKER TO INCOM2 R	ON: Mixes TRACKER to INCOM2 RECEIVE. OFF: Does not mix.	OFF
S580-3	TRACKER TO INCOM1 T	ON: Mixes TRACKER to INCOM1 TALK. OFF: Does not mix.	ON
S580-4	TRACKER TO INCOM2 T	ON: Mixes TRACKER to INCOM2 TALK. OFF: Does not mix.	ON
S601	INCOM1 CM/DYM (Panel)	Refer to the operation manual.	CM (Carbon)
S701	INCOM2 CM/DYM (Panel)	Refer to the operation manual.	CM (Carbon)
S624	GAIN (Panel)	Refer to the operation manual.	0 (0 dB)
S724	GAIN (Panel)	Refer to the operation manual.	0 (0 dB)

* : Only used for AU-273. For AU-273P, always set to OFF.

Section 2
Service Overview

2-1. Cleaning of Connector/Cable

Before connecting this unit to the camera control unit, it is recommendable to clean the following optical contact portions.

- CCU connector of this unit
- CAMERA connector of the camera control unit
- Optical/Electrical cable

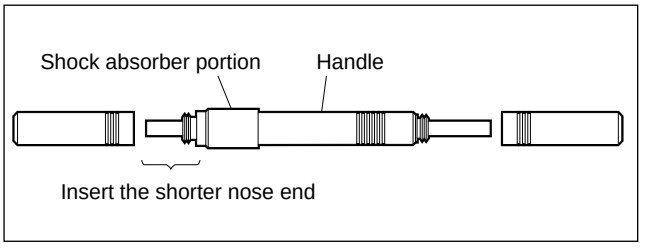
Follow the procedures below for cleaning.

Tools Required

- Alignment sleeve remover HC-001
  (for female connector)
  Sony P/N: J-6480-010-A

Note

Insert the shorter nose end when removing/installing the alignment sleeve.
Grasp not the shock absorber portion of the remover but the handle in use.



- Cotton swabs (commercially available)

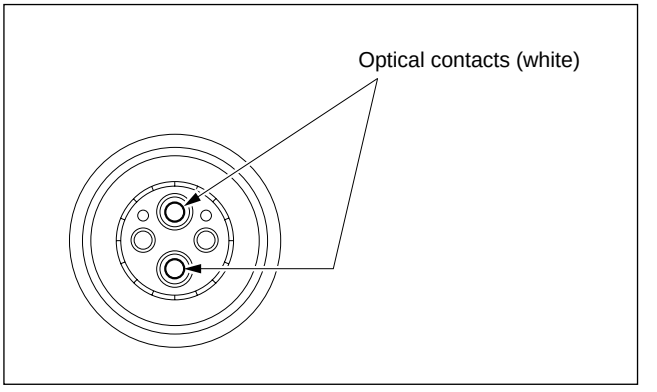
Note

Use a cotton swab whose diameter is about 4 mm.
If a cotton swab whose diameter exceed 5 mm is used, the cotton swab cannot be inserted into the end of the connector and the tip of the optical contact cannot be cleaned.

Cleaning

Male connector

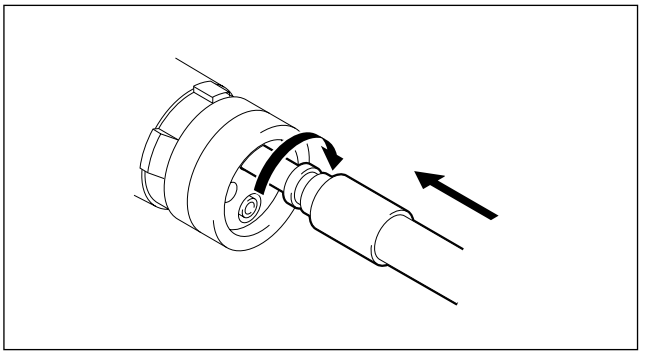
Clean the tip of the white optical contacts by a cotton swab moistened with alcohol.



Female connector

The optical contacts for female connector are in an unexposed state. In cleaning, it is necessary to be exposed by removing the alignment sleeve in advance. Proceed as follows.

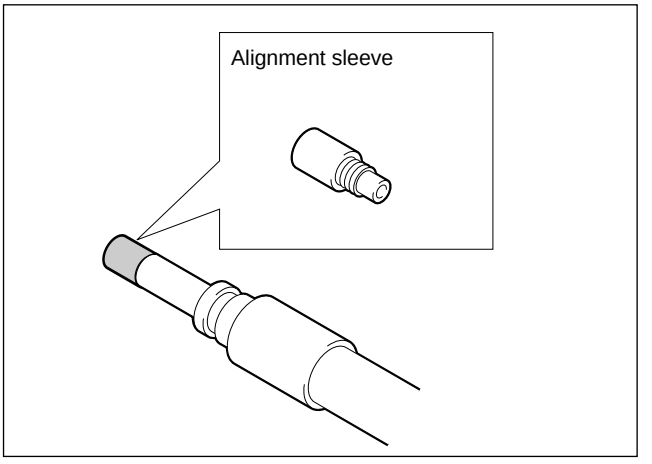
1. Insert the alignment sleeve remover into the alignment sleeve in the straight line and turn it clockwise.



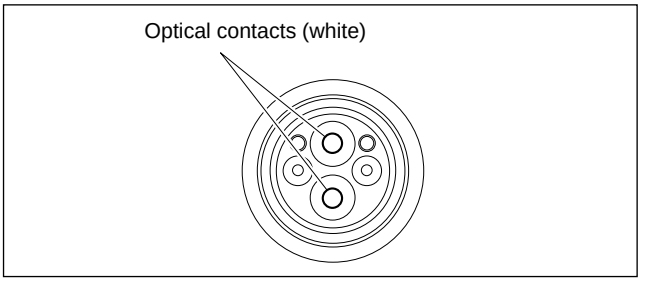
2. When the turn stops, pull out the remover in the straight line forcebly.

Note

The alignment sleeve can be removed/reinstalled with the sleeve itself attached to the tip of the remover. Great care should be taken so as not to lose or damage the alignment sleeve.
(Alignment sleeve: Sony P/N 9-980-074-01)



3. Clean the tip of the white optical contacts by a cotton swab moistened with alcohol.



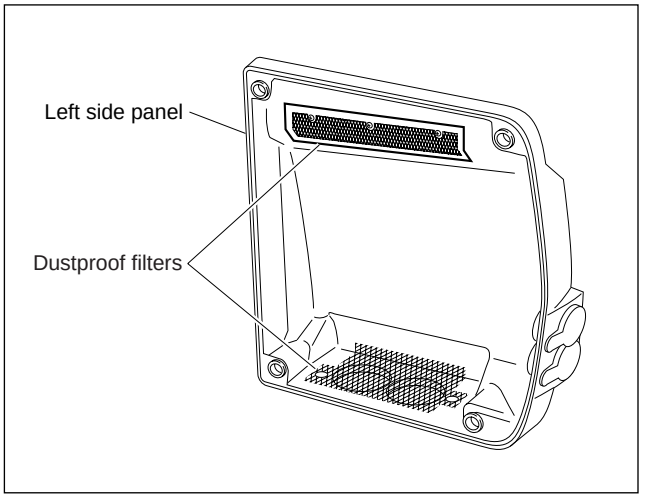
4. Insert the remover with the alignment sleeve attached to its tip, and push it until it clicks.
5. Rotate the remover counterclockwise to extract the remover.

2-2. Cleaning of Dustproof Filter

Clean the dustproof filters periodically every two or three months. Clogged filter may cause trouble because the inside temperature of the unit will rise.

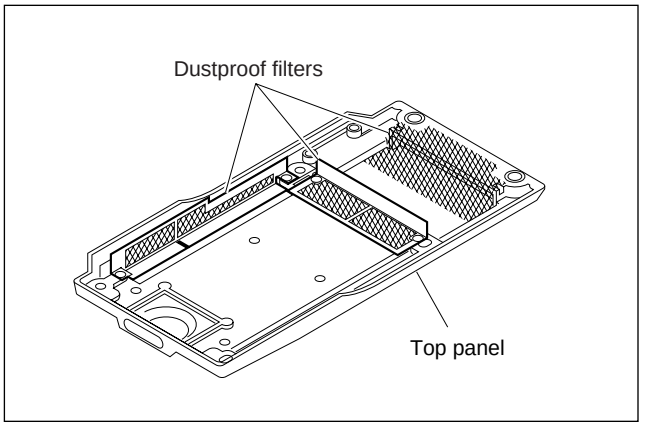
Left side panel

1. Loosen the four screws and open the left side panel.
2. Dust the dustproof filter each with a blower.



Top panel

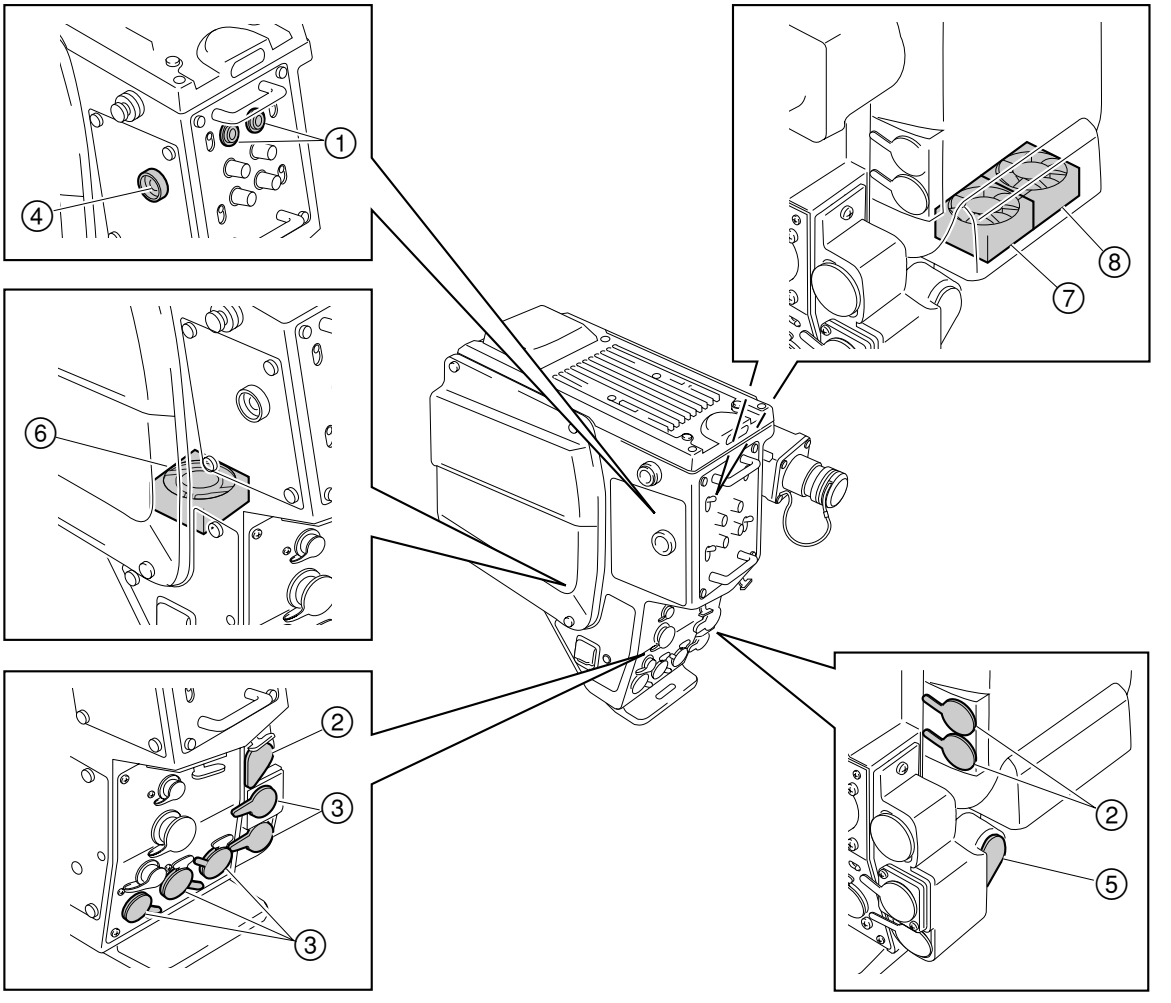
1. Separate a CA-950/950P from the camera.
2. Remove the top panel. (Refer to Section 1-4.)
3. Clean off dust of the dustproof filters with a blower.



2-3. Recommended Replacement Part

Following parts are recommended replacing parts. We recommend that the fan motors mounted in this unit is replacing every two years. As for the method of replacing the fan, refer to the maintenance manual Vol.1.
Besides, the rubber parts below may become cracked or split with the lapse of time, therefore check the status on occasion and replace it if necessary.

No.	Description	Sony P/N	Reference
①	COVER SW	3-676-244-1X	Rubber part
②	RUBBER (EA), DROP PROTECTION	3-724-730-0X	Rubber part
③	CAP, CONNECTOR	3-605-338-0X	Rubber part
④	COVER (LARGE), SW	3-731-742-0X	Rubber part
⑤	CONNECTOR, COVER	3-187-015-0X	Rubber part
⑥, ⑦, ⑧	MOTOR, FAN	1-698-236-3X	Replace every two years



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