

PROTECH®

Optical Fiber Transmission System

CAMERA ADAPTOR ***PS-470/N***

BASE STATION ***PS-570/N***

Operating Instructions

Before operating the system, please read this manual thoroughly and keep it for future reference.

WARNING

NIPPON VIDEO SYSTEM accepts no liability whatever for incidental damages arising out of the use or inability to use the product, including, but not limited to, corruption or loss of data, lost business revenue or suspension of business operations.

NIPPON VIDEO SYSTEM accepts no liability whatever for damages arising from improper use not conforming to the instructions in the instruction manuals.

To ensure proper usage, be sure to read the Safety Precautions thoroughly before using the product. Always keep this manual available for future reference.

Be sure to follow the safety information to prevent injury to the user and other persons, as well as damage to property.

The following describes the meaning of safety symbols and signal words.

 **Warning** Indicates a potentially hazardous operation that could result in death or serious injury to the user.

- If something unusual happens ; for example, it emits smoke, an unusual odor or sound, turn the power switch off.
- If it is dropped or subjected to excessive shock or is damaged, turn the power switch off.
- If water or any other fluid enters it, turn the power switch off.
- If a foreign body enters it, turn the power switch off.

※Failing to do so may cause overheating, fire, electric shock, injury or malfunction.

※Contact the shop of purchase or PROTECH Service center.

 **Caution** Indicates a potentially hazardous operation that could result in minor or moderate injury to the user or damage to the property.



- **Do not place any containers of fluids or any metal objects on it.**
Doing so may cause overheating, fire, electric shock, injury or malfunction.



- **Do not insert or drop objects into an opening such as vent hole in it.**
Doing so may cause overheating, fire, electric shock, injury or malfunction.



- **Do not wet it with fluids such as water, perspiration or seawater.**
Doing so may cause overheating, fire, electric shock, injury or malfunction.
Take care especially when using in rainy or snowy weather or at the waterside.



- **Do not set up or leave it wherever water or any other fluid is used.**
Doing so may cause overheating, fire, electric shock, injury or malfunction.



- **Do not disassemble, modify or repair it.**
Doing so may cause overheating, fire, electric shock, injury or malfunction.

For inspection, overhaul or repair, contact the purchase shop or PROTECH Service center.

PS-470/N and PS-570/N are class 1 laser products.
Do not directly look into the Optical fiber connector, since the laser light is emitted from its tips.
Ensure that the dust cap is placed over the Optical fiber connector when this equipment is not in use.

Contents

Optical Fiber Transmission System PS-470/N PS-570/N

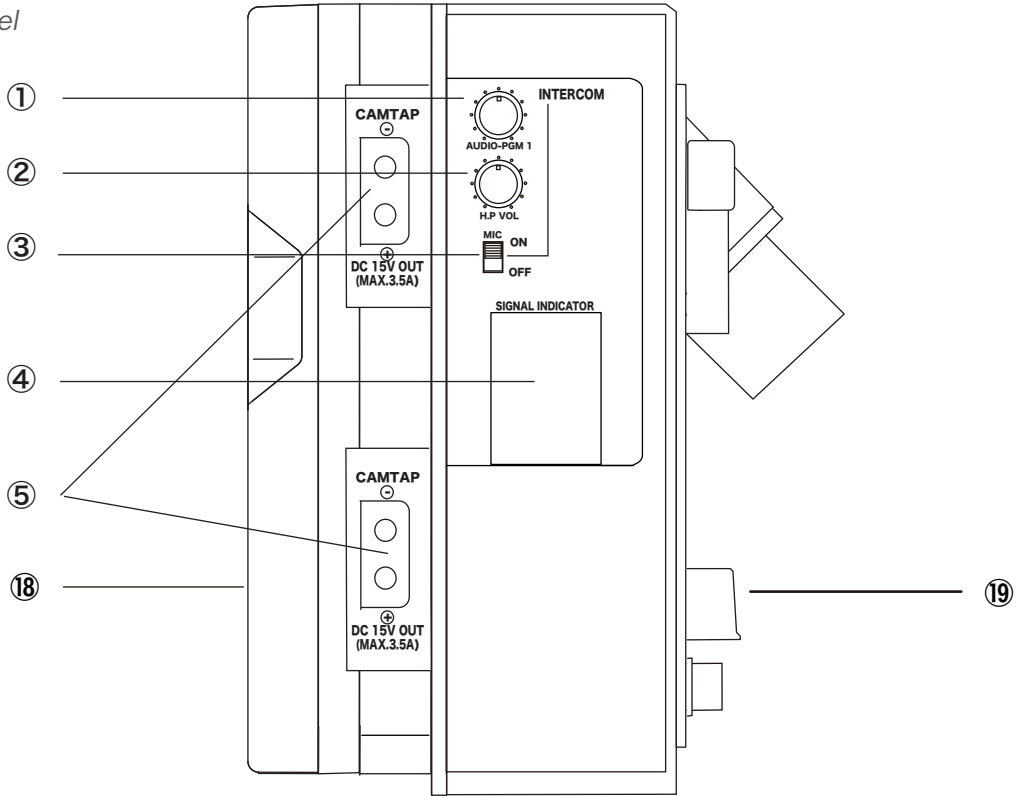
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Names and Functions of Parts

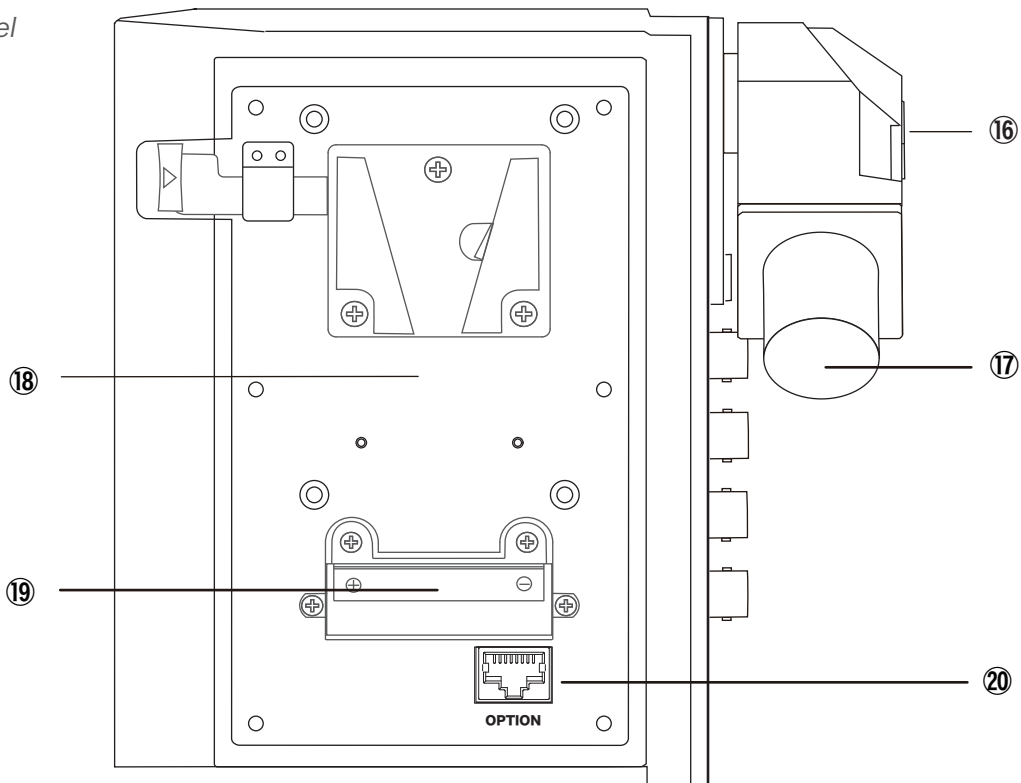
CAMERA ADAPTOR PS-470/N

Main panel / Rear panel

Main panel



Rear panel



① **INTERCOM AUDIO PGM 1**
Intercom PGM 1 Audio Volume Control

Adjusts the volume level of the PROGRAM audio which is mixed to the INTERCOM line.

② **INTERCOM H.P LEVEL**
Intercom Headset H.P Volume Control

Adjusts the volume of the headphone of the INTERCOM HEADSET.

③ **INTERCOM HEADSET MIC ON/OFF**
Intercom Headset Microphone Switch

Switches the intercom headset microphone on/off.

④ **SIGNAL INDICATOR**
Signal Status Indicator LED

Indicates the signal status, the connection of the connectors or the input/output of the signals.

⑤ **CAMTAP / DC 15V OUT (MAX.3.5A)**
DC 15V Output Connector CAMTAP x2

Can output the DC 15 V power.

⑱ **V-mount Camera Interface**

Used to mount the Camera Adaptor to the camera to supply the DC power.

⑲ **V-mount Battery Interface**
(Battery Holder)

Used for connection with the V-mount Li-ion battery (SONY type), to operate the Camera Adaptor by DC power.

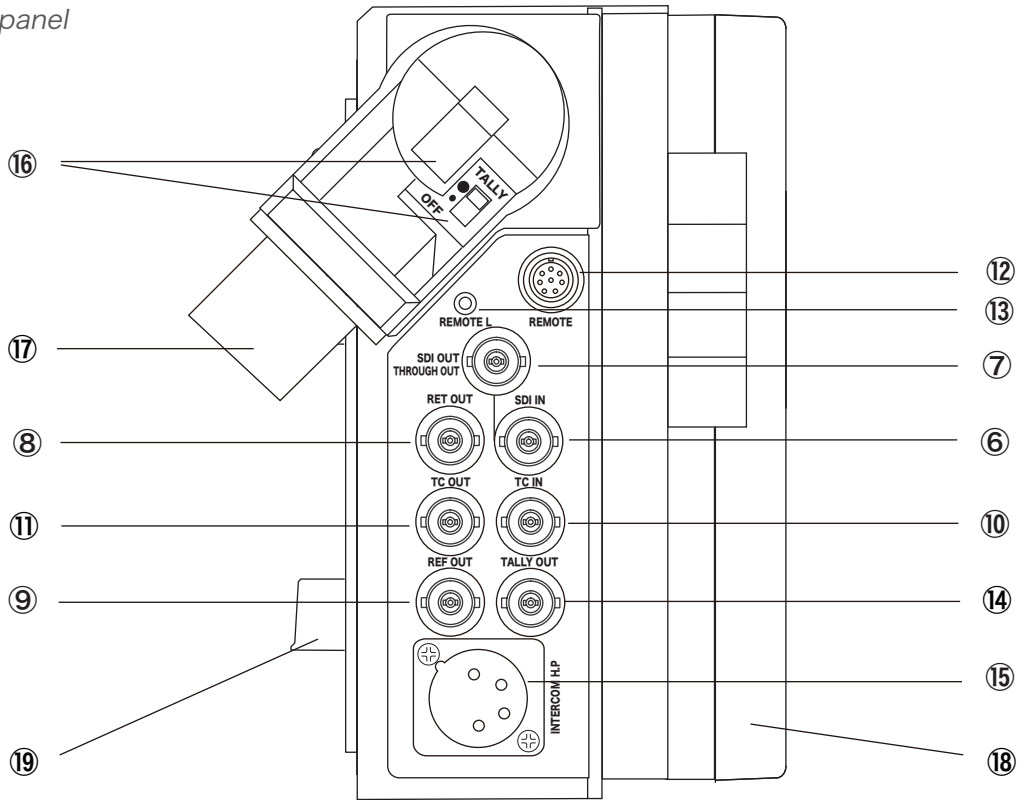
⑳ **OPTION**
LAN Connector(RJ45)

Use to connect to the LAN. (Optional)

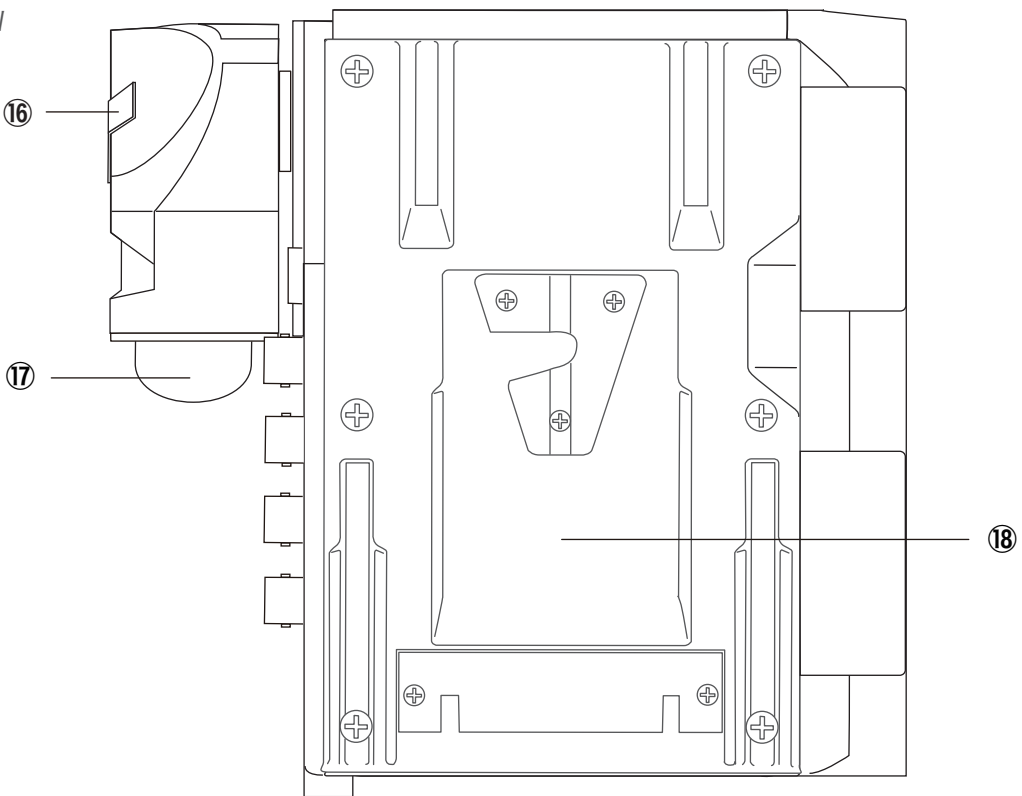
CAMERA ADAPTOR PS-470/N

Connector panel / Front panel

Connector panel



Front panel



⑥ SDI IN**SDI Input Connector(BNCx1)**

Used to input the SDI signal from a camera. The SDI signal input to SDI IN connector can be output by loop through.

Compatible with 3G-SDI

⑦ SDI OUT**SDI Through Output Connector (BNC)
(SDI IN Through output)**

Outputs the SDI IN input as is. (Through output).

⑧ RET OUT**Return SDI Output Connector (BNC)**

Outputs the return SDI signal input to the RET IN connector of the Base Station.

Compatible with 3G-SDI

⑨ REF OUT**Reference Signal Output Connector (BNC)**

Outputs the reference signal (ex. GENLOCK signal) input to REF IN of the Base Station.

⑩ TC IN**Time Code Input Connector (BNC)**

Use to input the Timecode.

⑪ TC OUT**Time Code Output Connector(BNC)**

Use to output the Time Code.

⑫ REMOTE**REMOTE Connector (8P female)**

For the SONY with the 8P remote control.

⑬ REMOTE L**REMOTE L Connector (2.5φ Mini jack)**

For LANC.

⑭ TALLY OUT**TALLY Signal Output Connector (BNC)**

Use to output the TALLY signal. It outputs the TALLY signal when the TALLY signal is input to the INTERCOM / TALLY IN connector (D-sub 25P) of the base station.

⑮ INTERCOM H.P**Intercom Headset Connector (XLR 4P)**

Used to connect the INTERCOM HEADSET.

HEADSET (XLR 4P)
Pin assignment

1	MIC(G)
2	MIC(H)
3	H.PHONE(G)
4	H.PHONE(H)

**⑯ TALLY(Red) and
○(High)/○(Low)/OFF Switch**

Lights on (Red only) when receiving the tally signal from the Base Station.

The indicator can be turned on, off and dimmed by the High/Low/OFF select switch.

⑰ SMPTE Optical Fiber Cable Connector and Cap

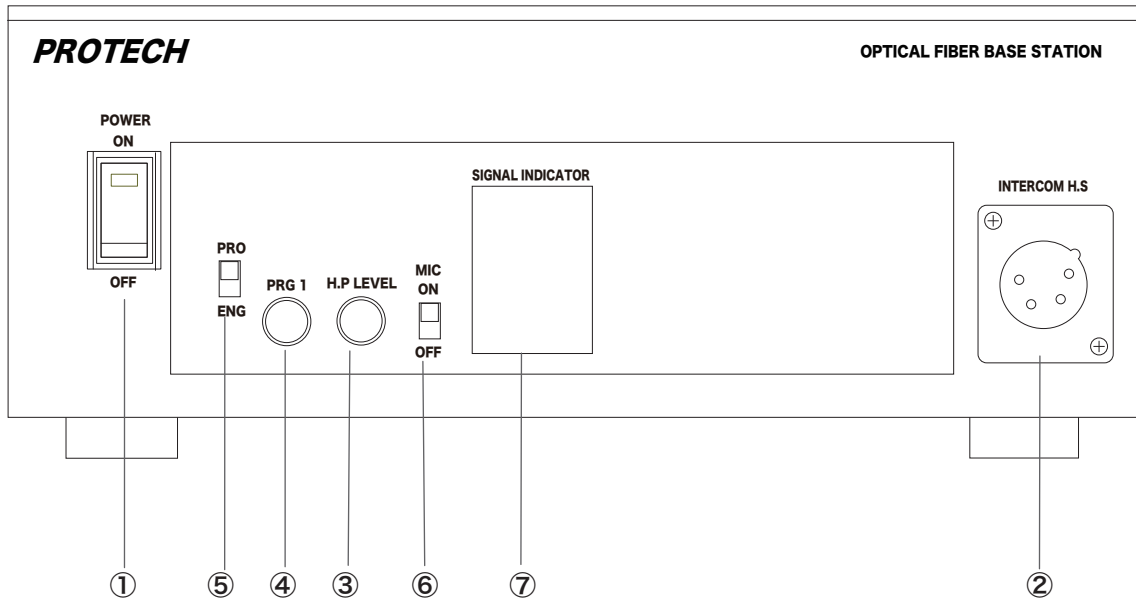
Connects to the Base Station with an optical fiber cable.

Be sure to put the cap on the SMPTE optical fiber cable connector when the cable isn't connected.

Names and Functions of Parts

BASE STATION PS-570/N

Front panel



**① POWER ON/OFF
POWER Switch**

Turns on /off the power. When it is turned on the DC power is supplied to the camera adaptor PS-470/N.

**② INTERCOM H.S (XLR 4P male)
INTERCOM HEADSET Connector**

Connects the intercom headset the DL-500.

INTERCOM H.S (XLR 4P)
Pin assignment

1	MIC(G)
2	MIC(H)
3	H.PHONE(G)
4	H.PHONE(H)

**③ INTERCOM H.P LEVEL
HEADSET HEADPHONE LEVEL Control**

Adjusts the audio level of the headphone of the intercom headset.

**④ PRG 1
PROGRAM AUDIO 1 LEVEL Control**

Adjusts the mix level of the PGM 1 audio to the intercom line.

**⑤ INTERCOM PROD/ENG
PRODUCER / ENGINEER LINE Switch**

The switch functions for PRO(Producer line)only. The switch for ENG is optional use. It selects the intercom line, the producer line or engineer line when using ENG line optional.

**⑥ INTERCOM HEADSET MIC ON/OFF
INTERCOM HEADSET Microphone
ON/OFF Switch**

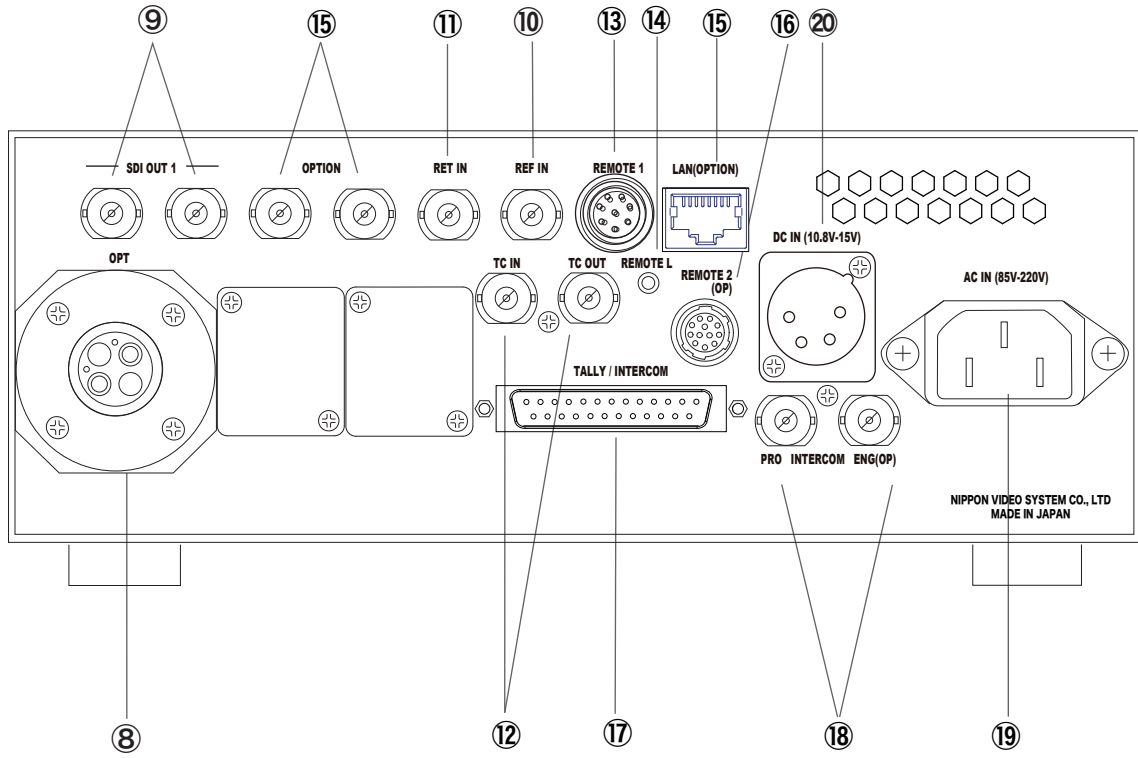
Turns on or off the microphone of the intercom headset connected to the INTERCOM H.S connector.

**⑦ SIGNAL STATUS
SIGNAL STATUS Indicator**

Indicates the signal status. Each indicator lights up under the following status.

BASE STATION PS-570/N

Rear panel



**⑧ OPT
SMPTE Optical Fiber Cable Connector**

Connects to the Optical Fiber Camera Adaptor with an optical fiber cable.

Be sure to put the cap on the SMPTE optical fiber cable connector when the cable isn't connected.

**⑨ SDI OUT 1 (BNCx2)
SDI OUTPUT Connectors (2 outputs)**

Outputs the SDI signal input to the PS-470/N SDI IN 1 connector.

Compatible with 3G-SDI.

**⑩ REF IN (BNC)
REFERENCE Signal INPUT Connector**

Used to input the reference signal from the external equipment.

**⑪ RET IN (BNC)
SDI RETURN Signal Input Connector**

Used to input the SDI return signal from a switcher, etc.

**⑫ TC IN (BNC)
TC OUT (BNC)
Time Code Input Connector (BNC)
Time Code Output Connector (BNC)**

Used to input the timecode signal.

**⑬ REMOTE 1 (8P)
REMOTE 1 Connector**

Used to connect to the remote controller.

**⑭ REMOTE L (2.5φ Mini Jack)
LANC connector**

Used to connect to the LANC remote controller.

**⑮ LAN(OPTION) (RJ45)
Option Connector**

**⑯ REMOTE 2 (12P)
REMOTE 2 Connector**

NC. Optional use.

**⑰ TALLY / INTERCOM (D-Sub 25P)
TALLY / INTERCOM Signal Connector**

Used for connection to INTERCOM line and input of TALLY signal.

TALLY / INTERCOM (D-Sub 25P)
Pin assignment

1		14	PROD OUT +
2		15	PROD OUT -
3		16	
4		17	PROD IN +
5		18	PROD IN -
6	PGM 1 +	19	PGM 2 +
7	PGM 1 -	20	PGM 2 -
8	GND	21	GND
9		22	
10		23	
11	R TALLY IN	24	G TALLY IN
12	GND	25	GND
13		—	

**⑱ INTERCOM PRO (BNC)
ENG(OP) (BNC)
2W INTERCOM PRODUCER Line
ENGINEER Line(optional)
Connection Connector**

Used for connection to the 2W INTERCOM line.

**⑱ AC IN (85V-220V)
AC Power Supply Connector**

Connects to the AC power supply with the supplied AC power cable.

**⑳ DC IN (10.5V-15V) (XLR 4P male)
DC Power Input Connector**

Connects to the external DC 12V(10.5V-15V) power supply.
Then the DC power cannot be supplied to the camera adaptor.

Connection and Settings

Optical Fiber Transmission System PS-470/N PS-570/N

⚠ Make sure to turn off the POWER switch of each unit before connecting.

Connection and Settings

1. Power supply connection

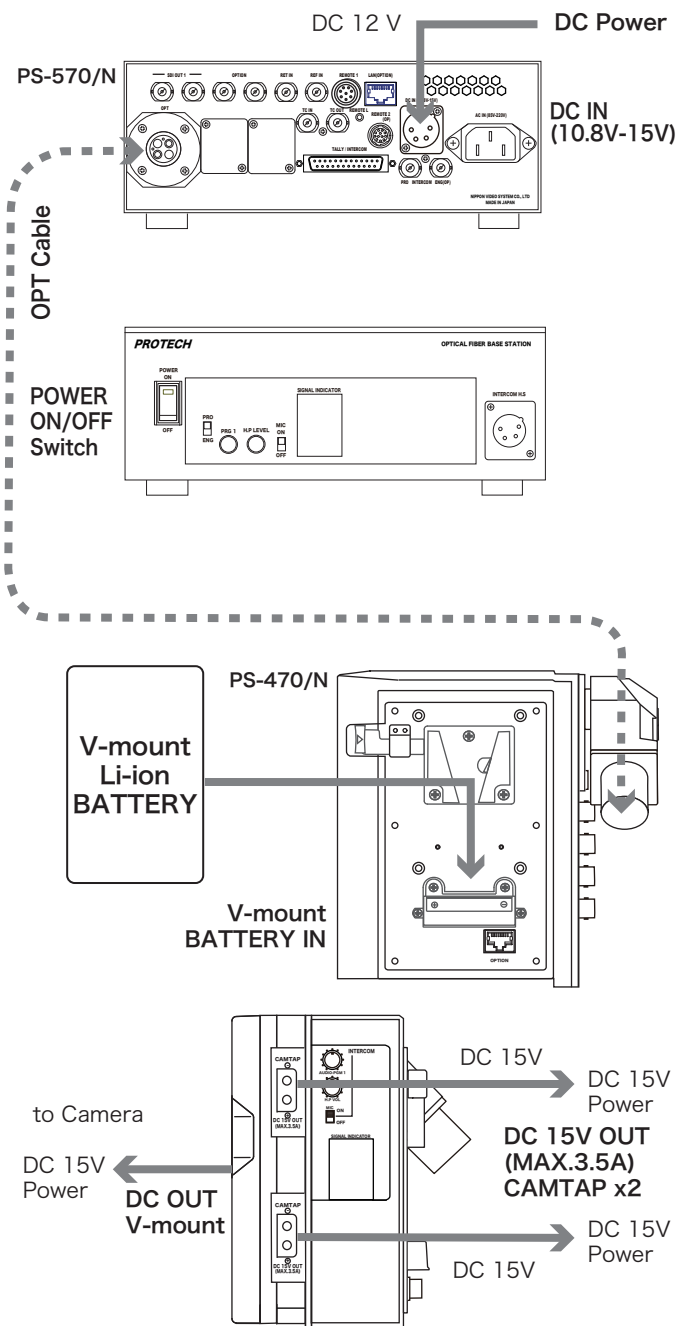
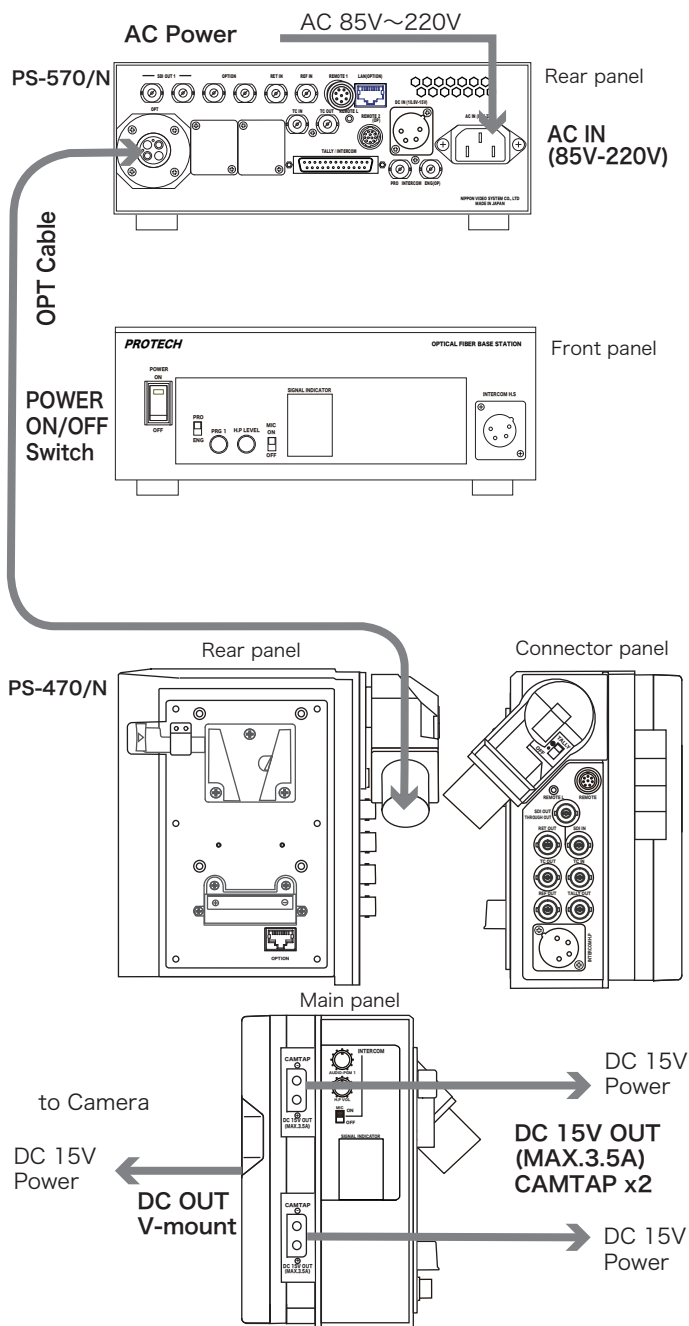
1-1. Power supply connection / AC Operation

DC power is supplied to the Camera Adaptor from the Base Station.
The DC power is supplied to the camera.

1-2. Power supply connection / DC Operation

The DC power to the camera is supplied from the battery.

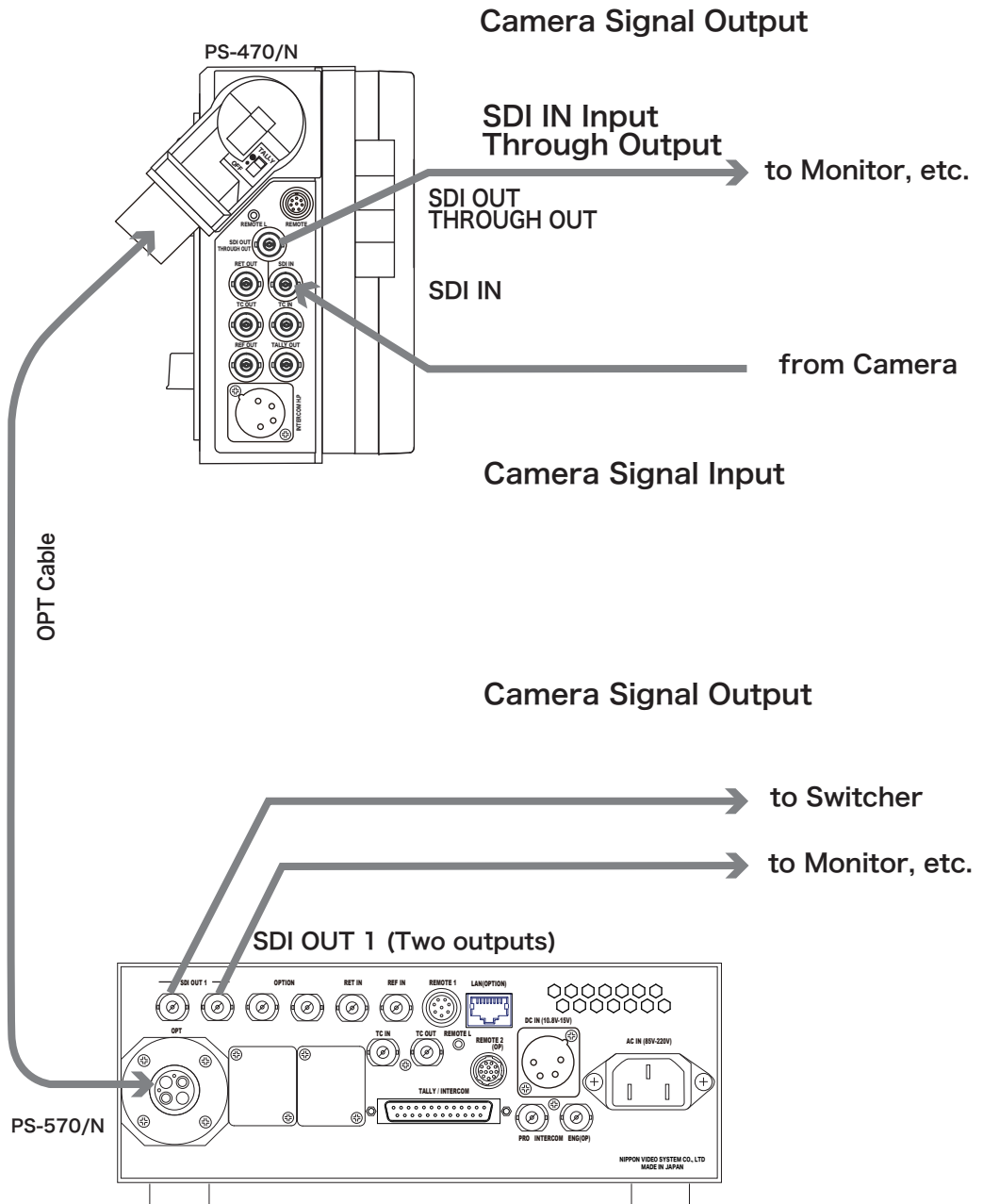
* When the DC operation, the Base Station cannot supply the DC power to the Camera Adaptor.



2. Camera SDI signal connection

Camera signal

3G/HD/SD-SDI



3. SDI RETURN signal connection
REFERENCE signal connection

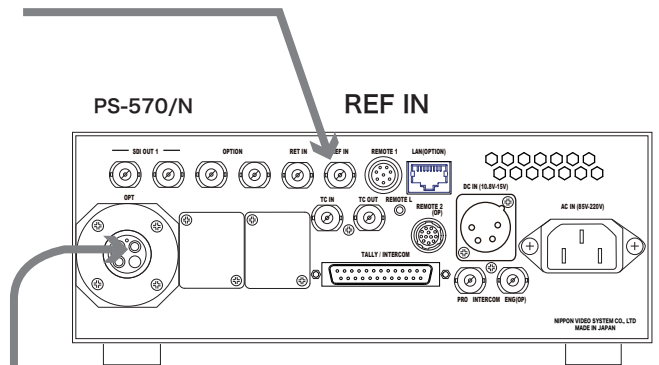
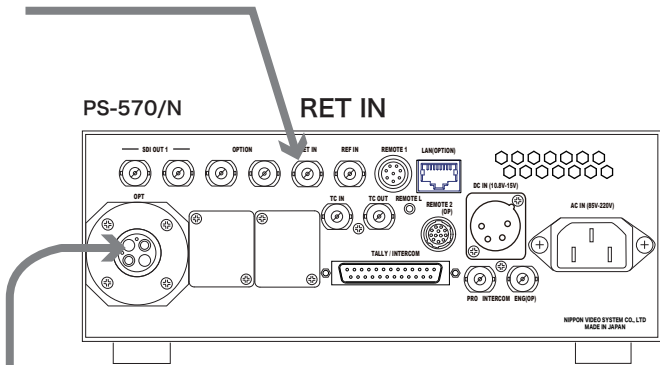
Return signal

3G/HD/SD-SDI

Reference signal

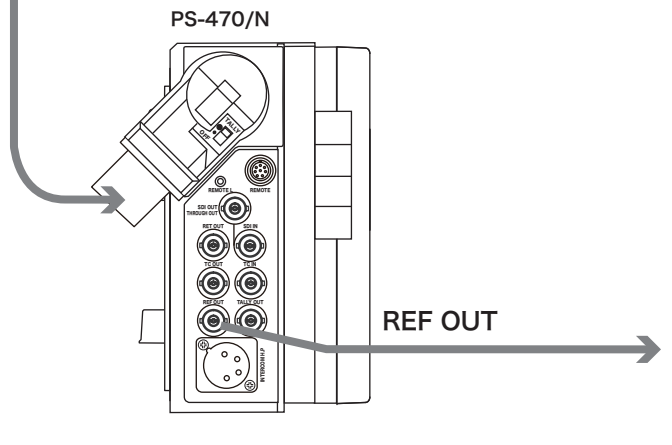
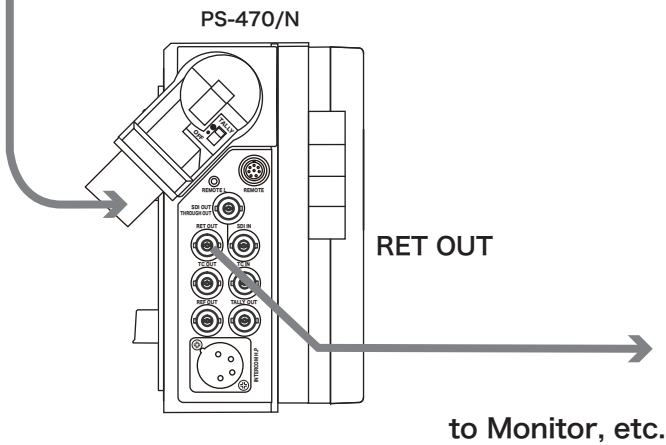
Return SDI signal Input

Reference signal Input



Return SDI signal Output

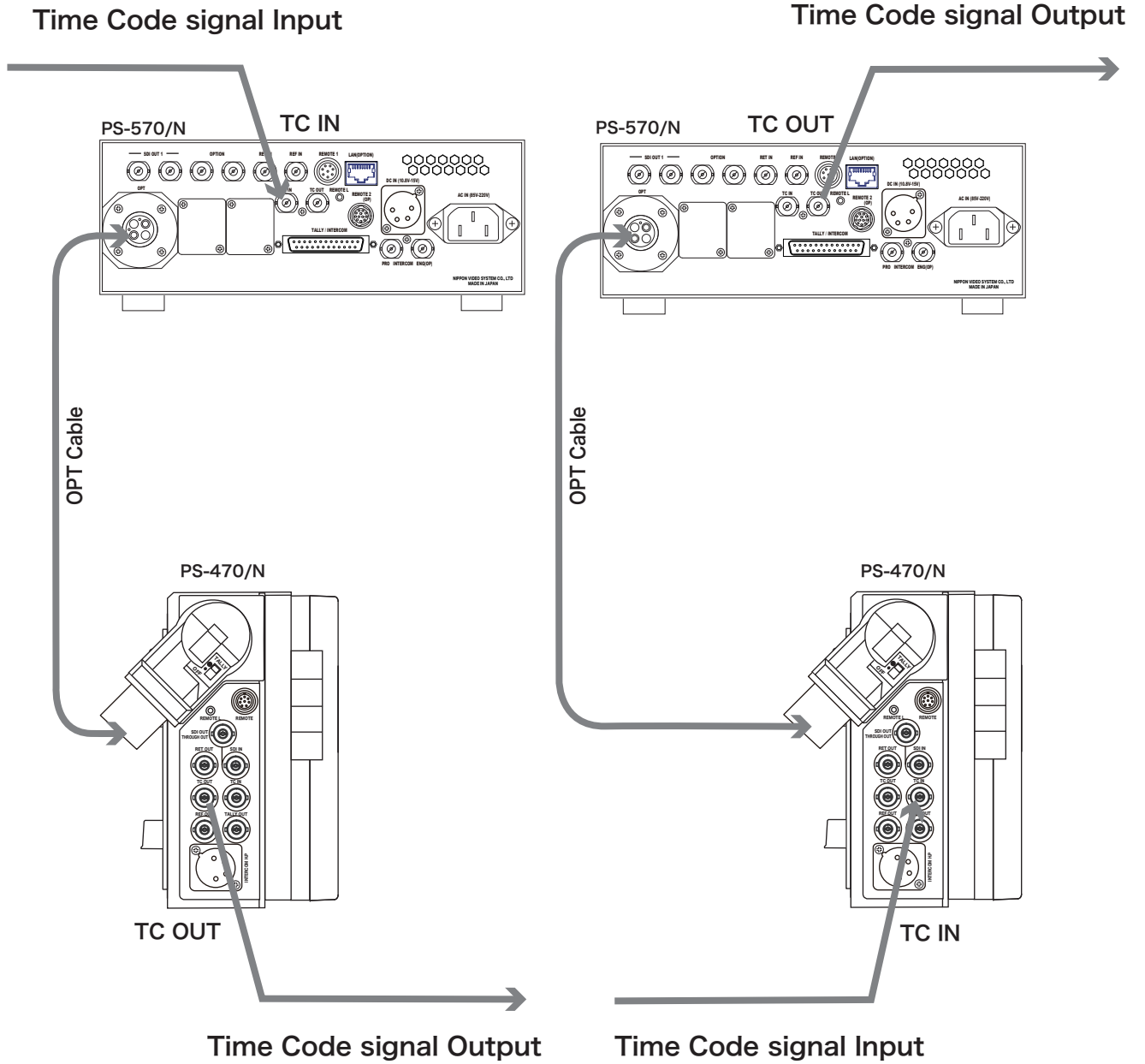
Reference signal Output



4. TIME CODE signal connection

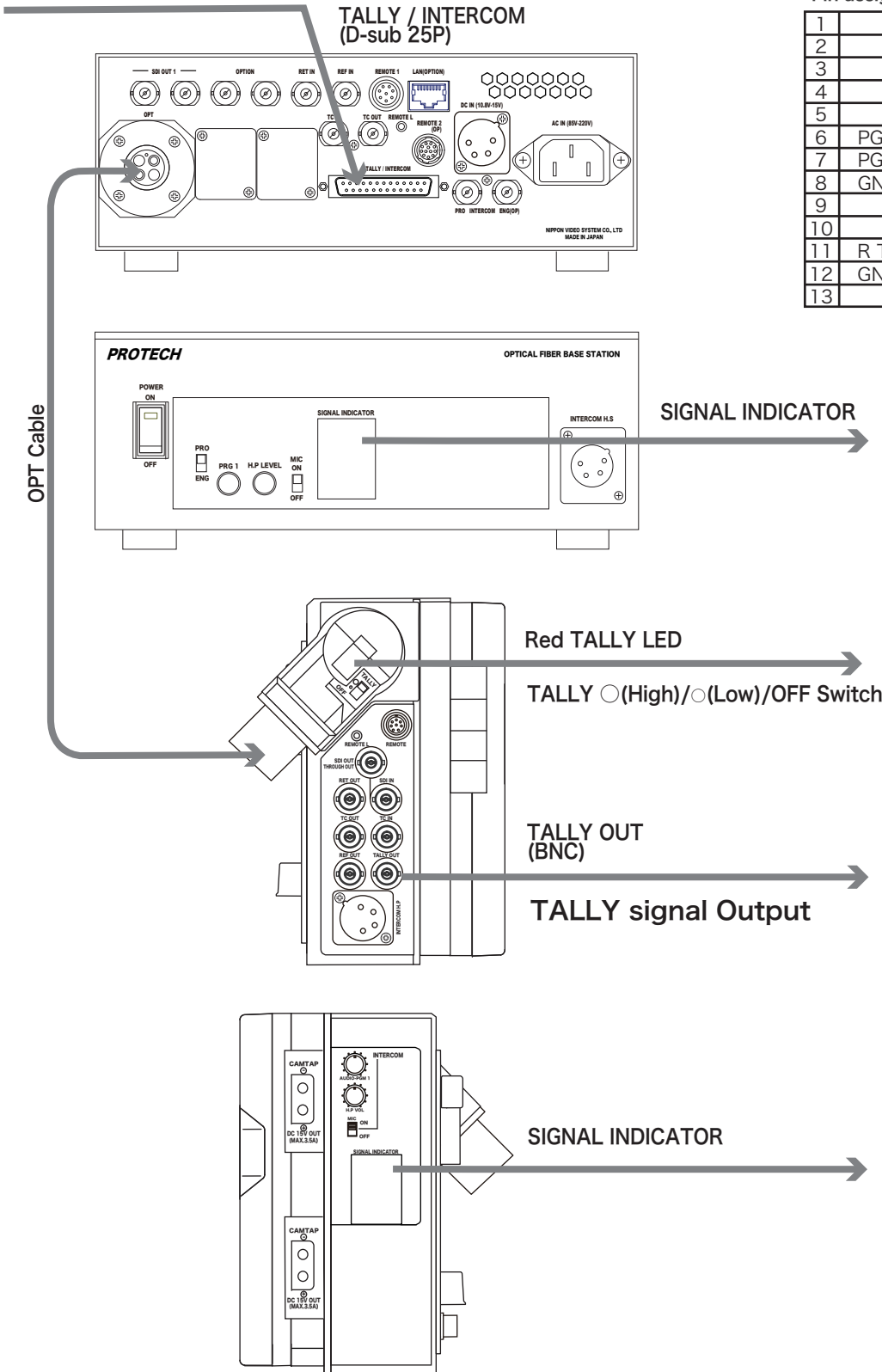
4-1. Time Code signal from Base Station to Camera Adaptor

4-2. Time Code signal from Camera Adaptor to Base Station



5. TALLY signal Connection

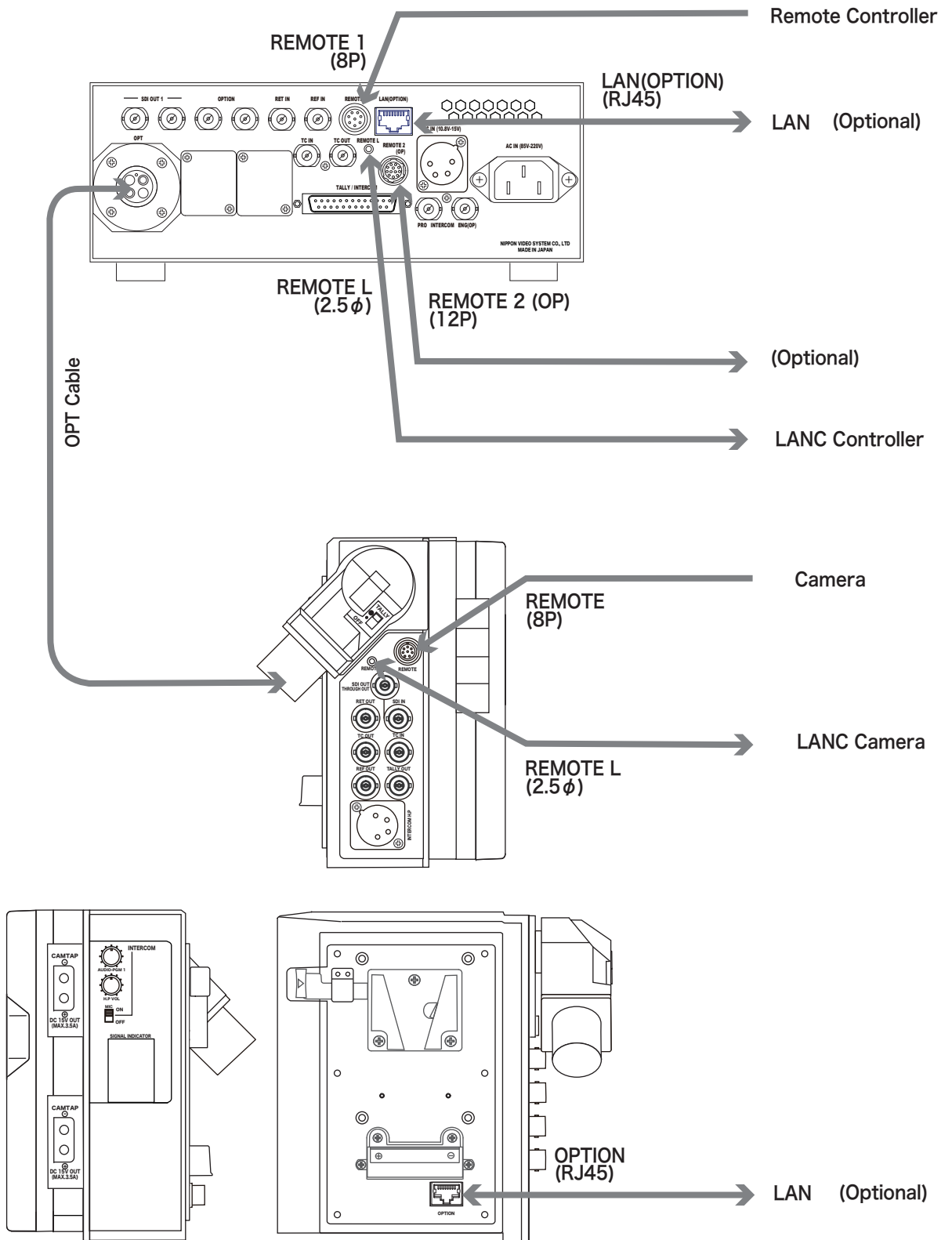
TALLY signal Input



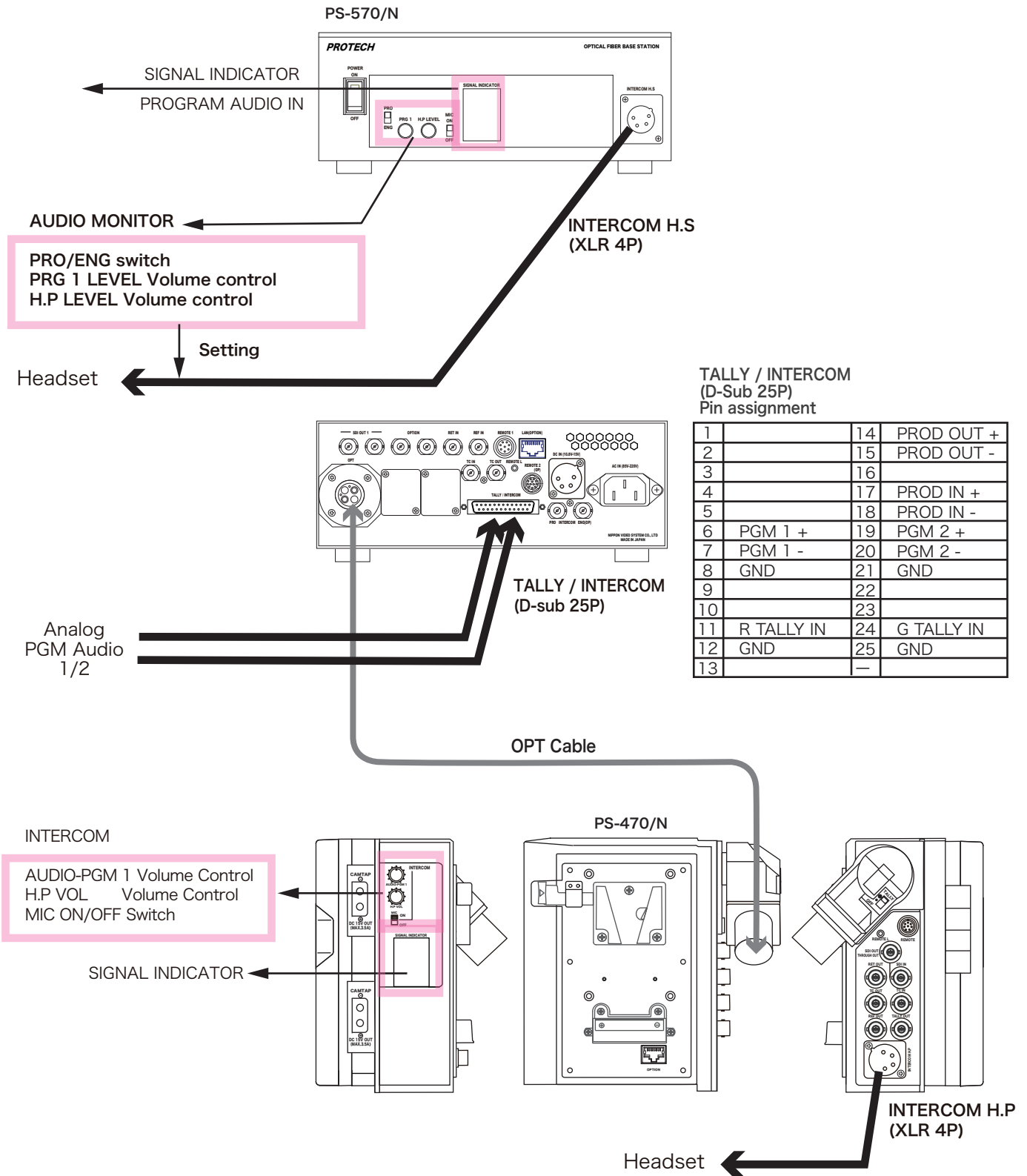
TALLY / INTERCOM (D-Sub 25P) Pin assignment

1		14	PROD OUT +
2		15	PROD OUT -
3		16	
4		17	PROD IN +
5		18	PROD IN -
6	PGM 1 +	19	PGM 2 +
7	PGM 1 -	20	PGM 2 -
8	GND	21	GND
9		22	
10		23	
11	R TALLY IN	24	G TALLY IN
12	GND	25	GND
13			

6. REMOTE Control Connection



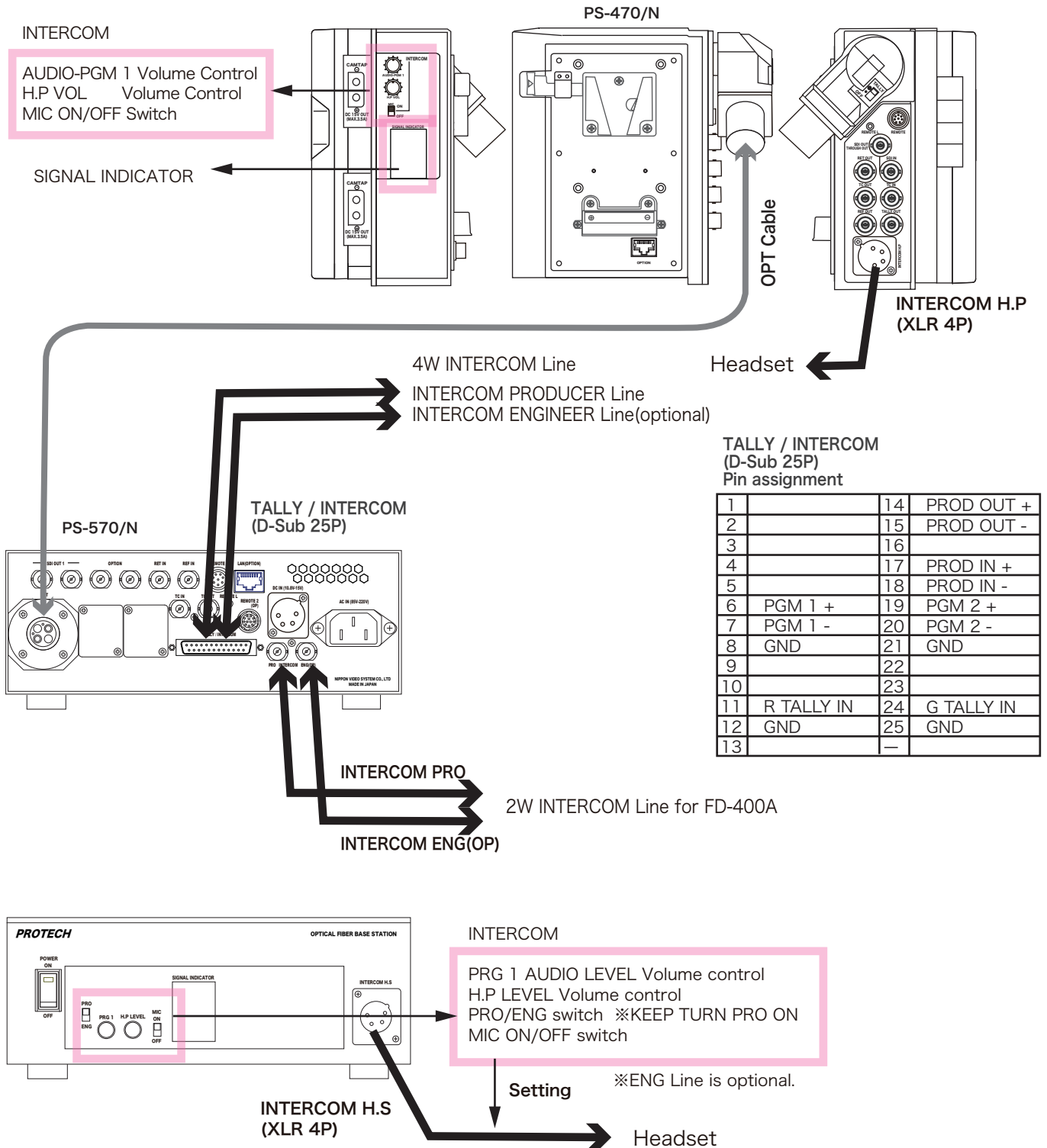
7. PGM Audio (Analog) Connection and Settings



8. Intercom Connection and Settings

Intercom Connection

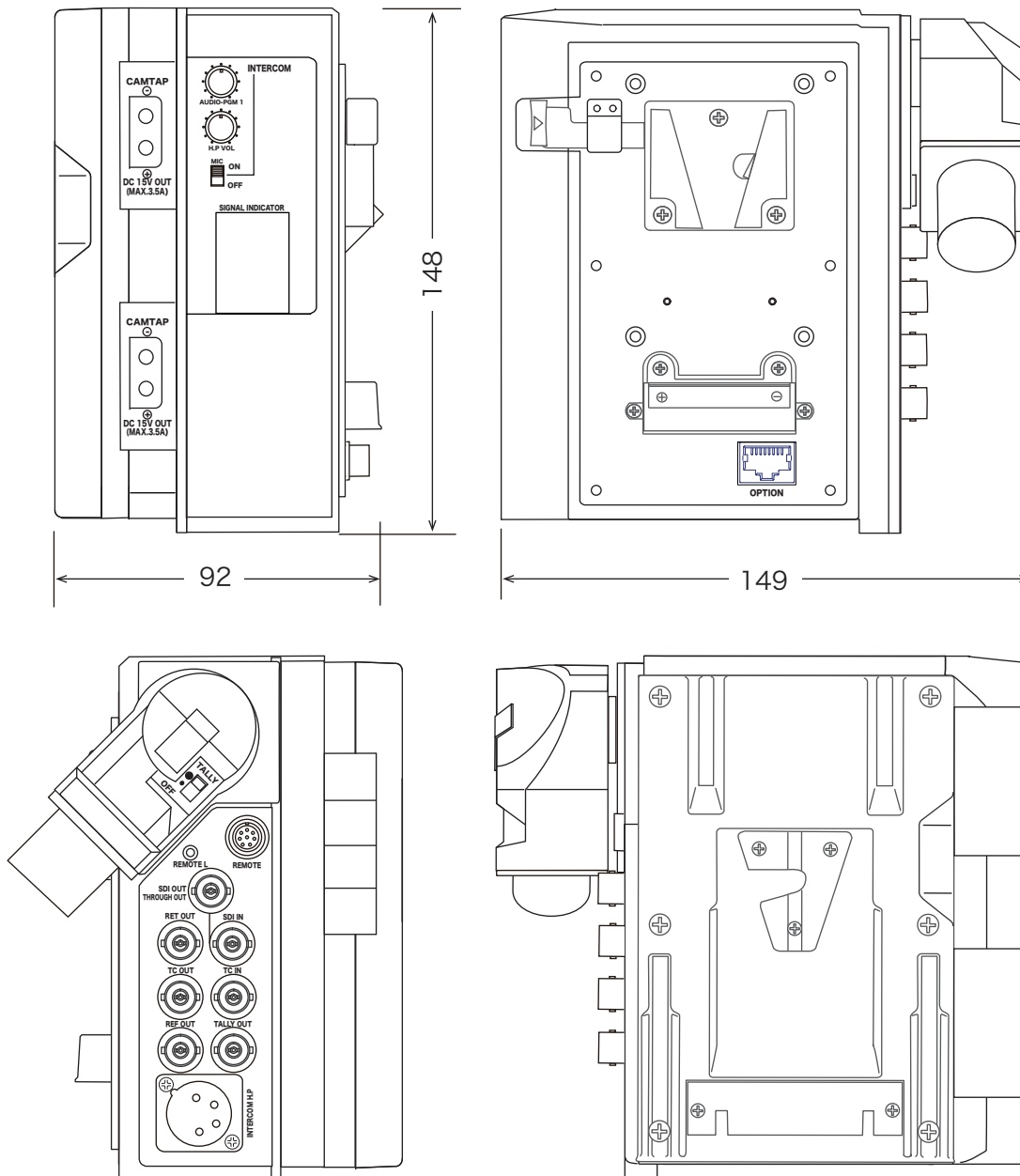
Intercom Settings



Dimensions

CAMERA ADAPTOR PS-470/N

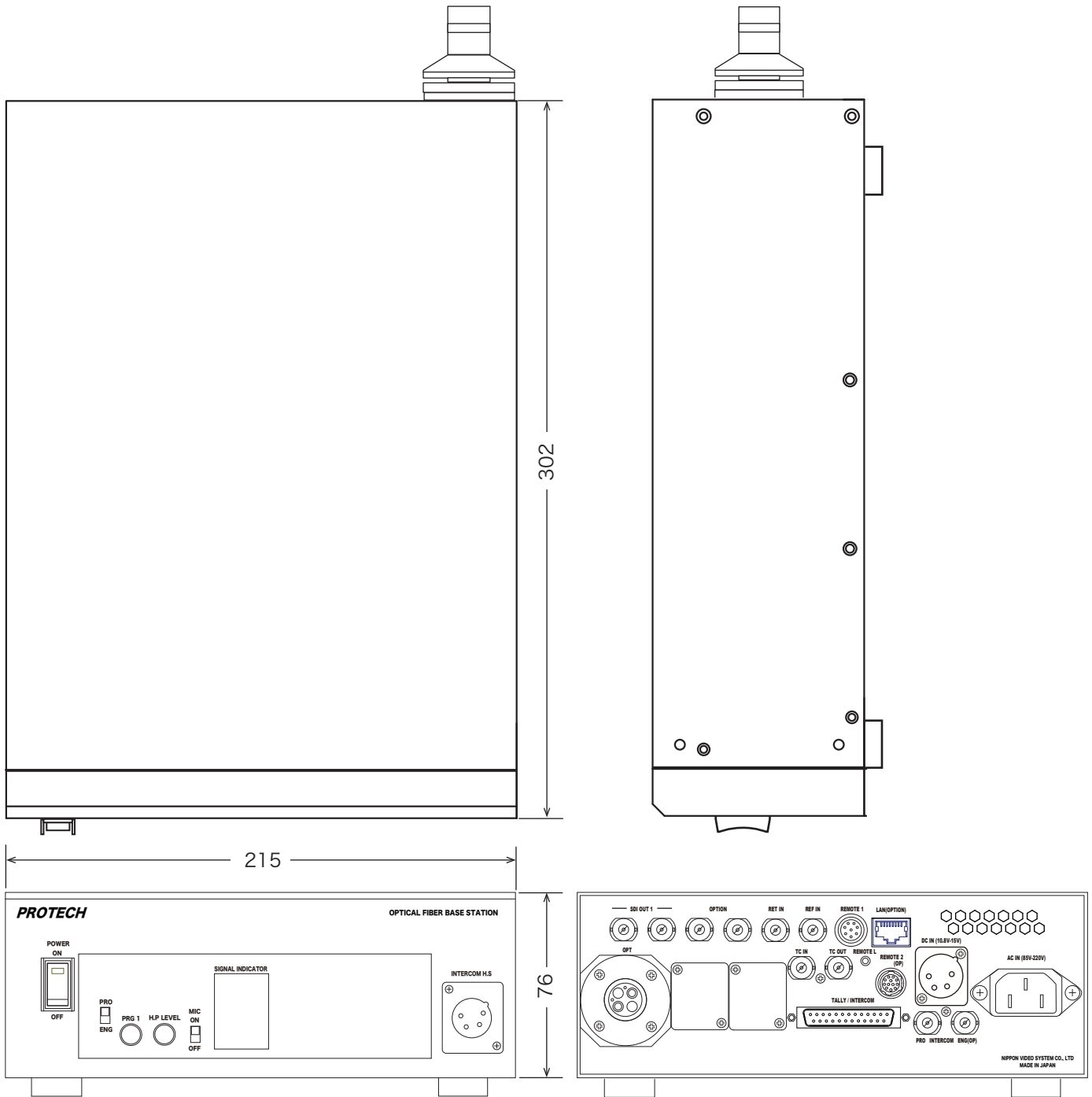
PS-470/N



Dimensions

BASE STATION PS-570/N

PS-570/N



Dimensions (unit: mm)

Specifications

CAMERA ADAPTOR PS-470/N

PS-470/N

Input/Output			
SDI Input	SDI IN	BNC x1 3G/HD/SD	
SDI Through Output	SDI OUT THROUGH OUT	BNC x1	SDI IN SDI Input Through Output
SDI Return Output	RET OUT	BNC x1 3G/HD/SD	
Timecode Input	TC IN	BNC x1	
Timecode Output	TC OUT	BNC x1	
Reference Output	REF OUT	BNC x1	
DC Power			
DC Input	OPT	SMPTE	Via OPT Cable from Base Station when AC operation only
	BATTERY IN	V-mount x1	When DC operation
DC Output	DC 15V OUT	V-mount x1	For the camera
	DC 15V OUT (MAX.3.5A)	CAMTAP female x2	
DC Power Output Max.	120 W*	*But the output may be limited by the condition of the load or the input, etc.	
			*When DC operation, Base station cannot supply the DC power to Camera adaptor.
Intercom			
Intercom Headset	INTERCOM H.P	XLR 4P male x1	
Tally			
Tally Signal Output	TALLY OUT	BNC x1	Voltage type : Output voltage : 2-4V=Green/4.1-5V=Red
Tally Indicator	TALLY / ○/○/OFF	(Side connector panel) : RED tally, with ○High/○Low/OFF switch	
Remote			
Remote Connector	REMOTE	8P x1	for SONY
	REMOTE L	2.5φ Mini jack x1	for LANC
LAN connector	OPTION	RJ45 x1	for LAN (Optional)
Opt. Fiber Cable			
Socket	OPT	SMPTE	LEMO
Maximum distance		approx. 2 km(1.25 miles) with DC power supplied from Base Station via optical fiber cable	
General			
Power requirement	BATTERY IN	(DC operation) : DC 12 V / approx. 20 W MAX.	
Operating temperature	0°C to +40°C (+32°F to +104°F)		
Storage temperature	-20°C to +60°C (-4°F to +140°F)		
Weight	approx. 1.2 kg		
Dimensions (WxHxD)	approx. 149 x 148 x 91 mm (Main body)		
Accessories			

NOTE Features, design and specifications are subject to change without notice.

Specifications

BASE STATION PS-570/N

PS-570/N

Input/Output			
SDI Output	SDI OUT 1	BNC x2 3G/HD/SD	
Return Input	RET IN	BNC x1 3G/HD/SD	
Time Code Input	TC IN	BNC x1	
Time Code Output	TC OUT	BNC x1	
Reference Input	REF IN	BNC x1	
DC Power			
AC Input	AC IN (85V-220V)	AC 100/200 V	*When DC operation, Base station cannot supply the DC power to Camera adaptor.
DC Input	DC IN (10.5V-15V)	XLR 4P x1 DC 12 V	
DC Output	OPT	SMPTE via OPT Cable to Camera Adaptor	
DC Power Output Max.	150 W*	*But the output may be limited by the condition of the load or the input, etc.	
Audio			
Audio Input	TALLY / INTERCOM	D-Sub 25P x1 ※	AUDIO-PGM 1/2 IN ANALOG 2 channels
Intercom			
Intercom	INTERCOM PRO/ENG(OP)	BNC x1/BNC x1 (OP) PRODUCER line/ENGINEER line(optional) for FD-400A (Optional) Compatible with the Clear-Com	
	TALLY / INTERCOM	D-Sub 25P x1 ※	PROD IN/OUT / ENG IN/OUT(optional)
Intercom Headset	HEADSET	XLR 4P female x1	
Tally			
Tally signal Input	TALLY / INTERCOM	D-Sub 25P x1 ※	ON/OFF(Short to GND) type R TALLY IN/G TALLY IN
Remote			
Remote connector	REMOTE 1	8P female x1	for SONY
	REMOTE 2 (OP)	12P female x1	NC
	REMOTE L	2.5φ Mini jack x1	for LANC
LAN connector	LAN (OPTION)	RJ45 x1	
Opt. Fiber Cable			
Plug	OPT	SMPTE	LEMO
Maximum distance		approx. 2 km (1.25 miles) with DC power supplied to Camera Adaptor via optical fiber cable	
General			
Power requirement	AC IN (85V-220V)	(AC operation) : AC 100/200 V	
	DC IN (10.5V-15V)	(DC operation) : XLR 4P x1 DC 12 V / approx. 20 W MAX.	
Operating temperature	0°C to +40°C (+32°F to +104°F)		
Storage temperature	-20°C to +60°C (-4°F to +140°F)		
Weight	approx. 2.9 kg		
Dimensions (WxHxD)	approx. 215 x 76 x 302 mm		
Accessories			

※ TALLY / INTERCOM D-Sub 25P is shared between following.
INTERCOM PRO IN/OUT, R/G TALLY IN, AUDIO-PGM IN
INTERCOM ENG IN/OUT(optional)

NOTE Features, design and specifications are subject to change without notice.

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