

EVIS X1 Installation Guide Ver. 4.0

Olympus Europa SE & Co. KG

Revision history

V e r.	Date	Page	Content		Revised	Approved
1 . 0	2020.03.03	New prepar ation	-	New preparation	A.Sekiya	S.Tominaga
2 . 0	2020.06.24	5, 9, 11,12, 25,36, 70, 85	-	Information updated. nCare (ISM Product)	A.Sekiya	N.Ito
3 . 0	2021.01.25	108- 120	-	Added OIP-1 cabling	T. Dekker	H. van Duellen
4 . 0	2021.10.27	110, 111	-	Page added, information updated with Endobase and CV- 1500	D. Kelmendi	

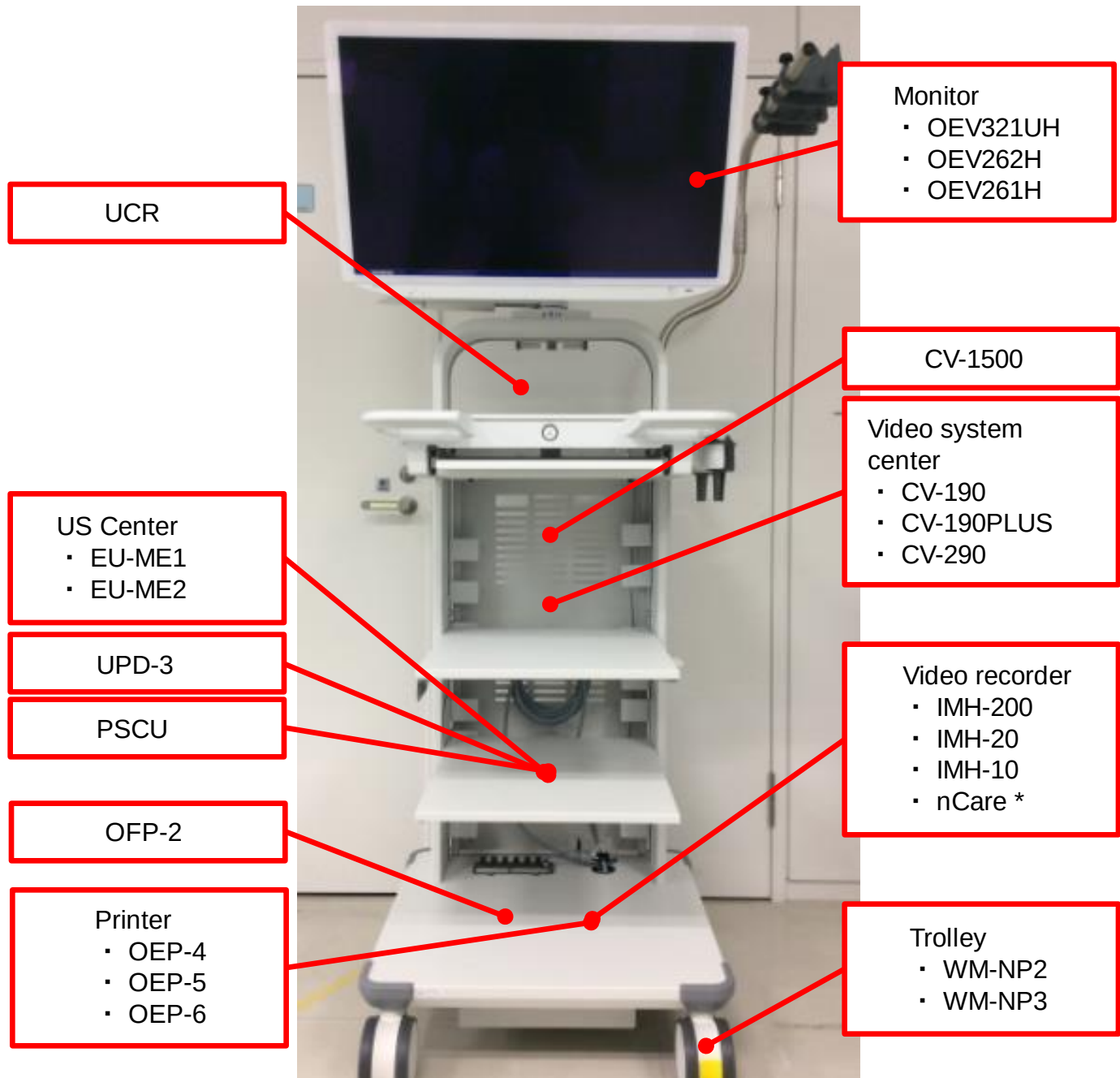
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10. Appendix

1. System organization

1. System organization

This document explains the installation, wiring, setting, and precautions for delivery and installation using the following system configuration.



*Touch panel monitor is required to operate nCare.

2. Package contents

2. Package contents

CV-1500 Package contents

■ CV-1500

Name : EVIS X1 Video Systems Center
 Brand symbol : OLYMPUS CV-1500

■ Main body

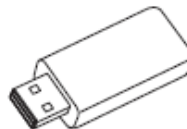
■ Accessories



12G-SDI cable 2.9M (MAJ-2428)



Cable color sheet



Portable memory2 (MAJ-2427)



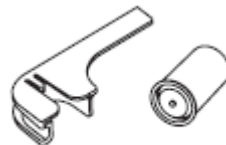
Operation manual



Water container (MAJ-901)



Installation manual



White cap set (MAJ-941)



Open source software



Foot holder (MAJ-2431, 4 pcs. with a pattern)

Product symbol	Name
MAJ-2428	12G-SDI cable 2.9M
MAJ-2427	Portable Memory 2
MAJ-901	Water container
MAJ-941	White cap set
MAJ-2431	Foot holder (4pcs, with a pattern)
-	Cable color sheet
-	Instructions for use (OSS)
-	Instructions for use (installation)
-	Instructions for use (operation)

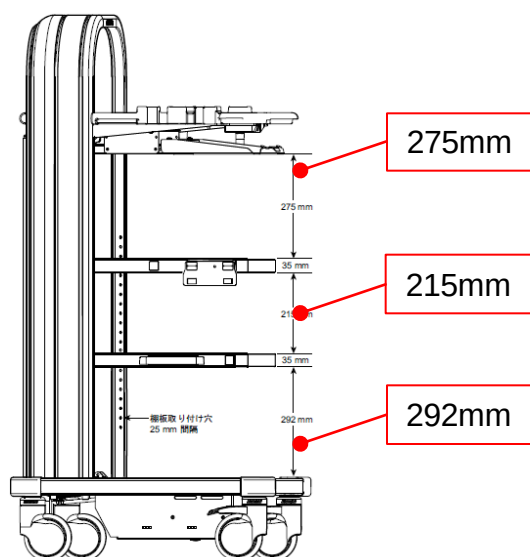
3. Precautions for installation

3. Precautions for installation

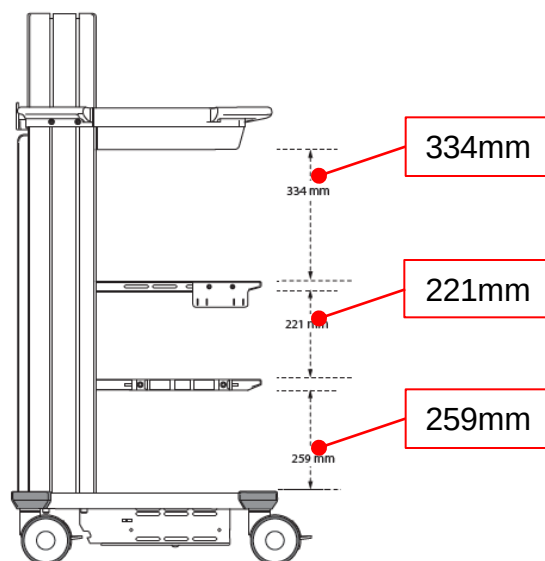
① Checking shelf height

Before installation, change the height of the shelf plate as needed.
Original shelf positions at delivery are as follows:

Installed on WM-NP2



Installed on WM-NP3



[Reference] Maximum dimension of each product

Product name	Maximum size [mm]		
	Width	Height	Depth
CV-1500	398	218	580
CV-190 CV-190PLUS CV-290	382	91	489
EU-ME1	430	185	500
EU-ME2	445	184	495
IMH-10	370	108.5	413
IMH-20	370	167.5	413
IMH-200	370	150	390

Product name	Maximum size [mm]		
	Width	Height	Depth
nCare	371	87	340
OEP-4	280	125	398
OEP-5	280	125	398
OEP-6	280	125	415
OFP-2	244	220	385
UPD-3	370	81	482
PSCU	375	75	477

*If CV1500 and CV-190/190PLUS/290 are placed on WM-NP2, position of the shelf plate needs to be changed.

3. Precautions for installation

② Checking shelf size

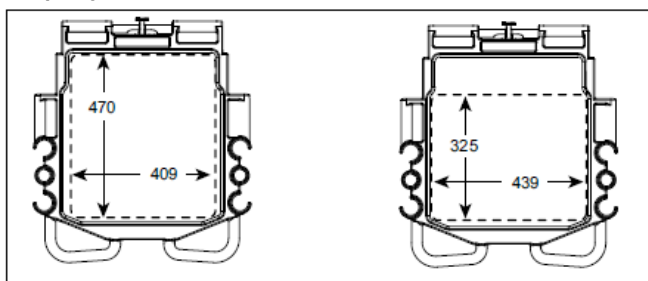
Device which exceeds the size of the shelf plate cannot be mounted.

<Supplementary Info>

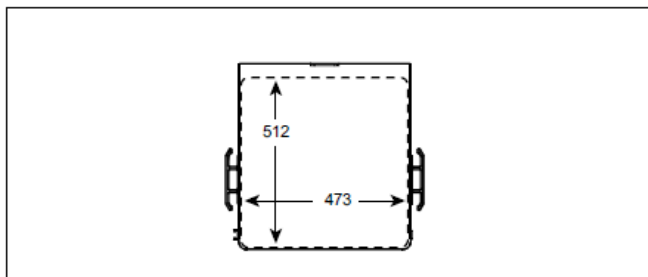
When CV-1500 on the mid shelf is placed on the pattern, the collar of the connector protrudes from the front end of the mid shelf. However, it is OK since it does not protrude from the base shelf.

WM-NP2

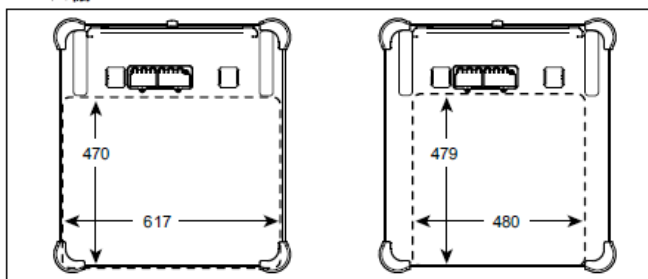
Top tray



中間棚板 Mid shelf

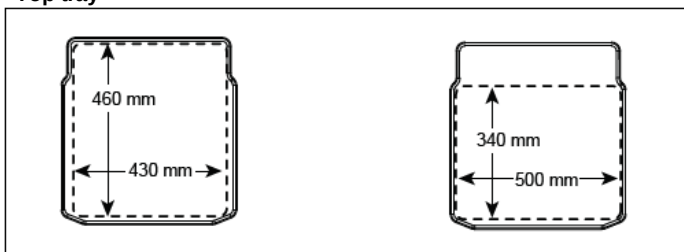


ベース棚 Base shelf

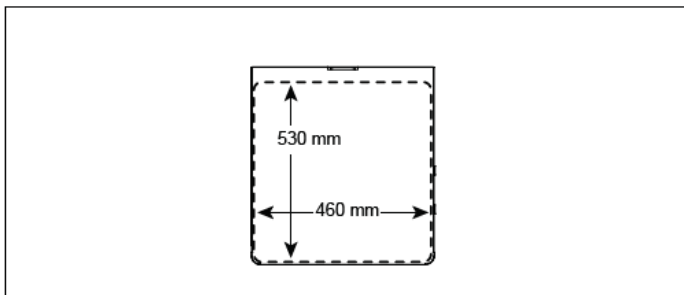


WM-NP3

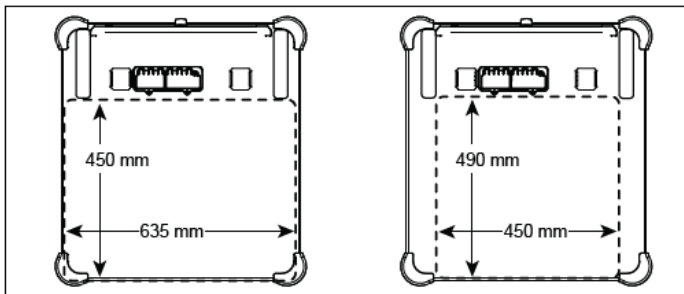
Top tray



中間棚板 Mid shelf



ベース棚 Base shelf



3. Precautions for installation

③ Check of shelf maximum load

Place the devices so that the total load should not exceed the limit

		WM-NP2	WM-NP3
maximum load [kg]	Top shelf	20	20
	mid shelf plate	30.5	31
	Base shelf	35	35

[Reference] Weight of each product

Product name	Weight [kg]
CV-1500	19.4
CV-190 CV-190PLUS CV-290	10.7
EU-ME1	23
EU-ME2	22.5

Product name	Weight [kg]
OEP-4	9
OEP-5	9
OEP-6	9.1
IMH-10	8.6
IMH-20	10.7
IMH-200	8.2
nCare	4.2
OFP-2	4 (when water container is empty)
UPD-3	9
PSCU	6.1

3. Precautions for installation

④ Check of Rated Power (Power Consumption)

When the device is powered from a isolation transformer, wire so that the total power does not exceed the maximal power of the isolation transformer.

	WM-NP2	WM-NP3
Maximum power consumption[VA]	1250	1300

[Reference] Rated power for each product

Product name	Rated power [VA]
OEV321UH	182
OEV262H	112
OEV261H	160
CV-1500	600
CV-190 CV-190PLUS CV-290	150

Product name	Rated power [VA]
OEP-4	280
OEP-5	280
OEP-6	280
IMH-10	130
IMH-20	190
IMH-200	125
nCare	180
EU-ME1	300
EU-ME2	370
OFP-2	100
UPD-3	110
PSCU	70

3. Precautions for installation

⑤ Precautions for SDI cable wiring

SDI terminals are structurally difficult to apply large-volume electroprotective devices, and are generally sensitive against electrostatic effects. Following information is example in case of Japan
Please note the following points when connecting the SDI cable:

- Do not use a 3-core to 2-core conversion plug on the device's power code. Connecting to a 3-core medical outlet directly or via an isolation transformer of the workstation.



- In order to reduce the electrostatics charge, perform wiring operations for while connecting all power codes of the devices to outlets. In case that the medical outlet is not available, perform wiring with connecting a power codes to the isolation transformer of the Workstation. Because the device disperses charged electrostatics, it will reduce electrostatics effect.
- To reduce Electrostatic charge, perform wiring after touching metallic objects, such as a steel cabinet.

3. Precautions for installation

- Take care so that clothing and human body do not touch the core of the SDI input/output terminals during installation

When touching the SDI input/output terminal directly



When touching the core of the other end of the connected SDI cable



- Ensure that the device to be connected is switched off, then connect the SDI cable. If connecting with the power on, the product or peripheral equipment may be damaged.

4. Set up device on WM-NP3

Set up device on WM-NP3

! Caution!

Do not place devices that exceed the size of the shelf plate.

Do not exceed the total load per shelf plate for each shelf plate.

(see 3. Precautions for installation)



[Monitor arm]
Place the monitor.



[Keyboard tray].
Place the keyboard.

[Top shelf]
Install the video processor.
※ When combining CV-1500 and CV-190 /190PLUS /290, place CV-190/190PLUS/290 under CV-1500.



[Mid shelf]
Place peripheral equipment.
(mainly US Center)



[Base shelf]
Place peripheral equipment.



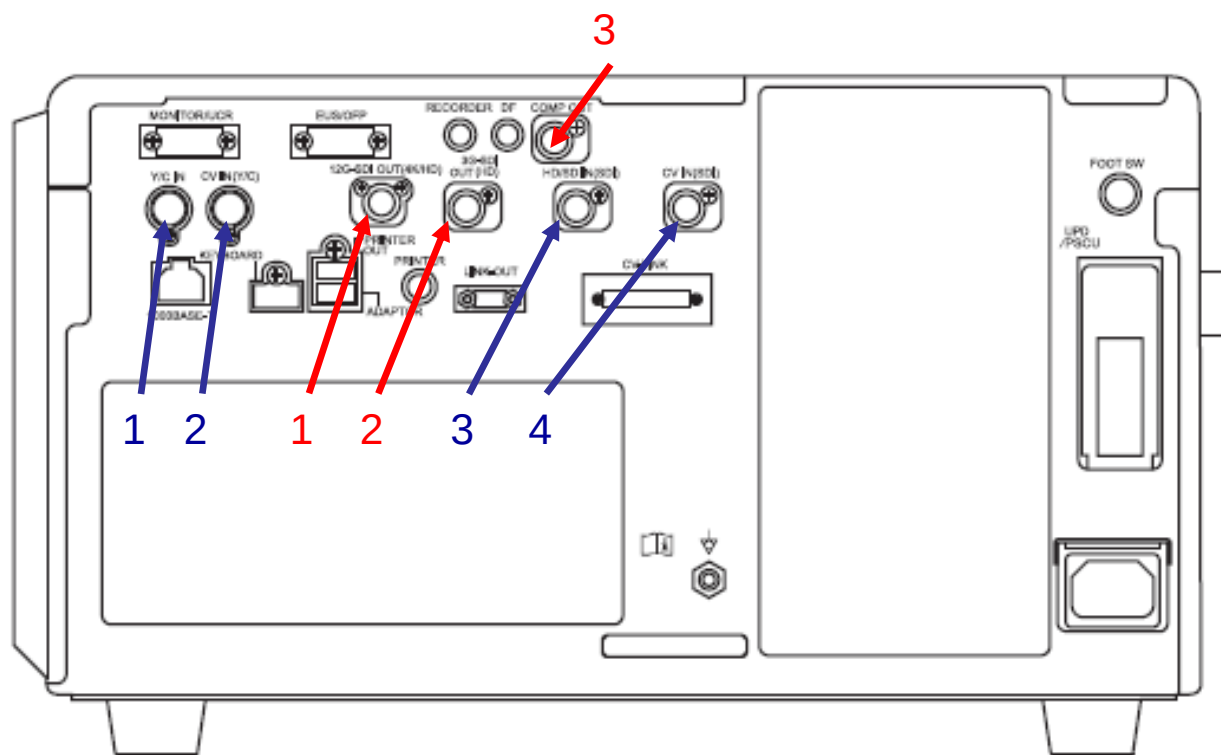
5. Installation and setting

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◆ Installation and setting

- Rear of CV-1500 ~ video terminal ~
- Rear of CV-1500 ~ Remote terminal ~
- Rear of OEV321UH ~ video terminal ~
- OEP-6 Rear Video/Remote Terminals
- Tips for installation and setting up
- Setting for recording images
- External image record setting

Rear of CV-1500 ~ video terminal ~



[Image output terminal]

1 : 12G-SDI output (4K/HD) terminals.

2 : 3G-SDI output (HD) terminals.

3 : Composite output terminal

Output terminal	Initial value	Selected Items			
12G-SDI output (4K/HD) signals	HD:1080p	4K	HD:1080p	HD:1080i	SD
3G-SDI output (HD) signals	HD:1080p		HD:1080p	HD:1080i	SD

[Video input terminal]

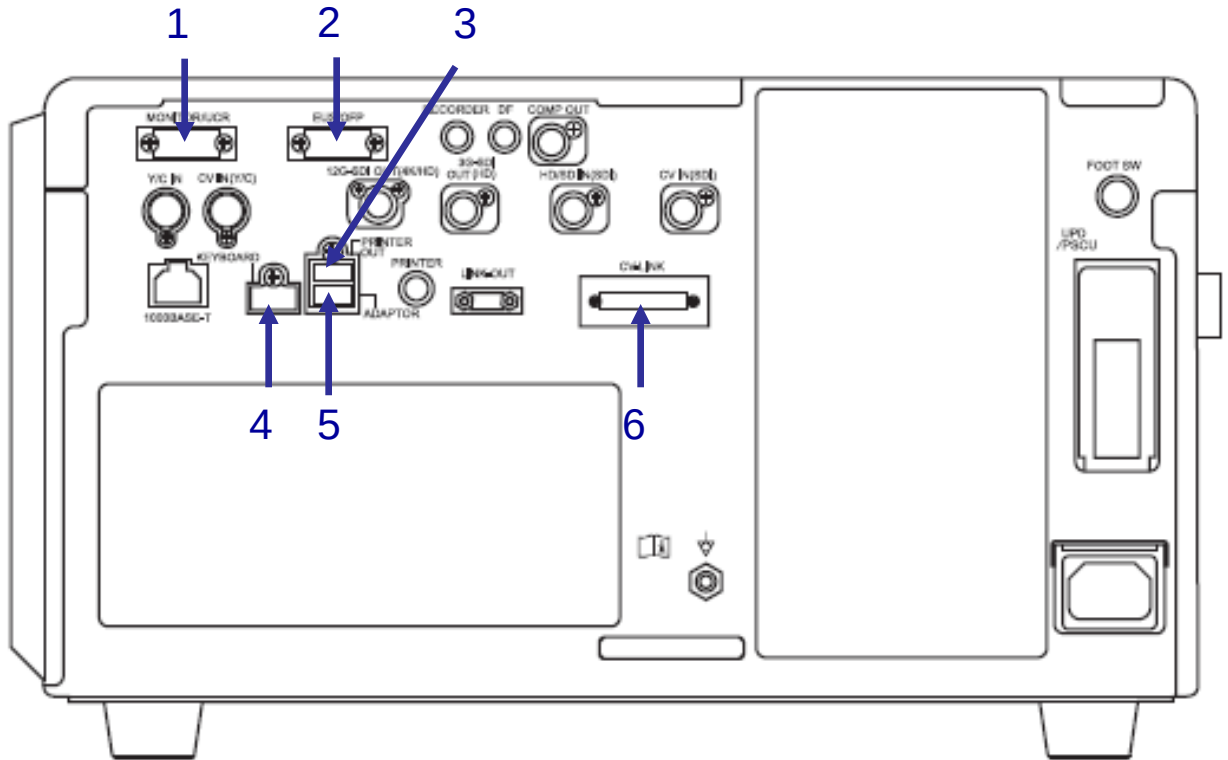
1 : Y/C input terminal

2 : CV inputs (Y/C) are used to connect to CV-190/190PLUS/290.

3 : HD/SD input (SDIs) terminals.

4 : CV inputs (SDIs) are used to connect to CV-190/190PLUS/290.

The main remote terminals used for wiring are as follows:



[Remote Terminals]

[Devices that can be connected].

- | | |
|------------------------------|--|
| 1: MONITOR/UCR terminals. | ▪ ▪ ▪ Observation monitor and insufflation system for endoscopes |
| 2: EUS/OFP terminals. | ▪ ▪ ▪ US center and flushing pumps for endoscopy |
| 3 : Printer output terminals | ▪ ▪ ▪ Color video printers, etc. |
| 4 : Keyboard Terminals | ▪ ▪ ▪ Keyboard, etc. |
| 5 : Adaptor Terminals | ▪ ▪ ▪ CV interface converter |
| 6 : CV-LINK terminals. | ▪ ▪ ▪ External video system center |

◆ SDI cable used

This product is capable to output three types of SDI signals:
 Depends on the SDI cable wiring, output signal can be limited
 Please check the setting parameter and the cables prepared.

Categories	Product symbol	Name	Signals that can be transmitted (CV-1500 image sets)
12G-SDI	MAJ-2426	12G-SDI cable (1.5M)	4 K, 1080p, 1080i,SD
	MAJ-2428	12G-SDI cable (2.9M)	
	MAJ-2429	12G-SDI cable (8.5M)	
3G-SDI	MAJ-2430	3G-SDI cable (1.5M)	1080p, 1080i,SD
	MAJ-2015	3G-SDI cable (3.0M)	
	MAJ-2016	3G-SDI cable (8.5M)	
Conventional products	MAJ-1951	SDI cable (2.5M)	1080i,SD
	MAJ-1912	SDI cable (8.5M)	
	MAJ-1464	SDI cable (22M)	

◆ Setting for CV interface converter

When connecting a peripheral device with using an interface converter, configure CV-1500 system setting in the order of "Select the communication device to connect" > "Select the peripheral device to connect".

If the setting of the connected interface converter is changed, the following settings will be reset.

◆ Up-Convert Function of External Imaging Signals

When an external image signal is input to CV-1500 and output from CV-1500, the external image signal is upconverted to output signal type setting in CV-1500.

◆ Set up a recording Exam image

Set the following Exam image recording settings as requested.

* Assign the optional Remote Switch Custom Button Release 1 or Release 2.

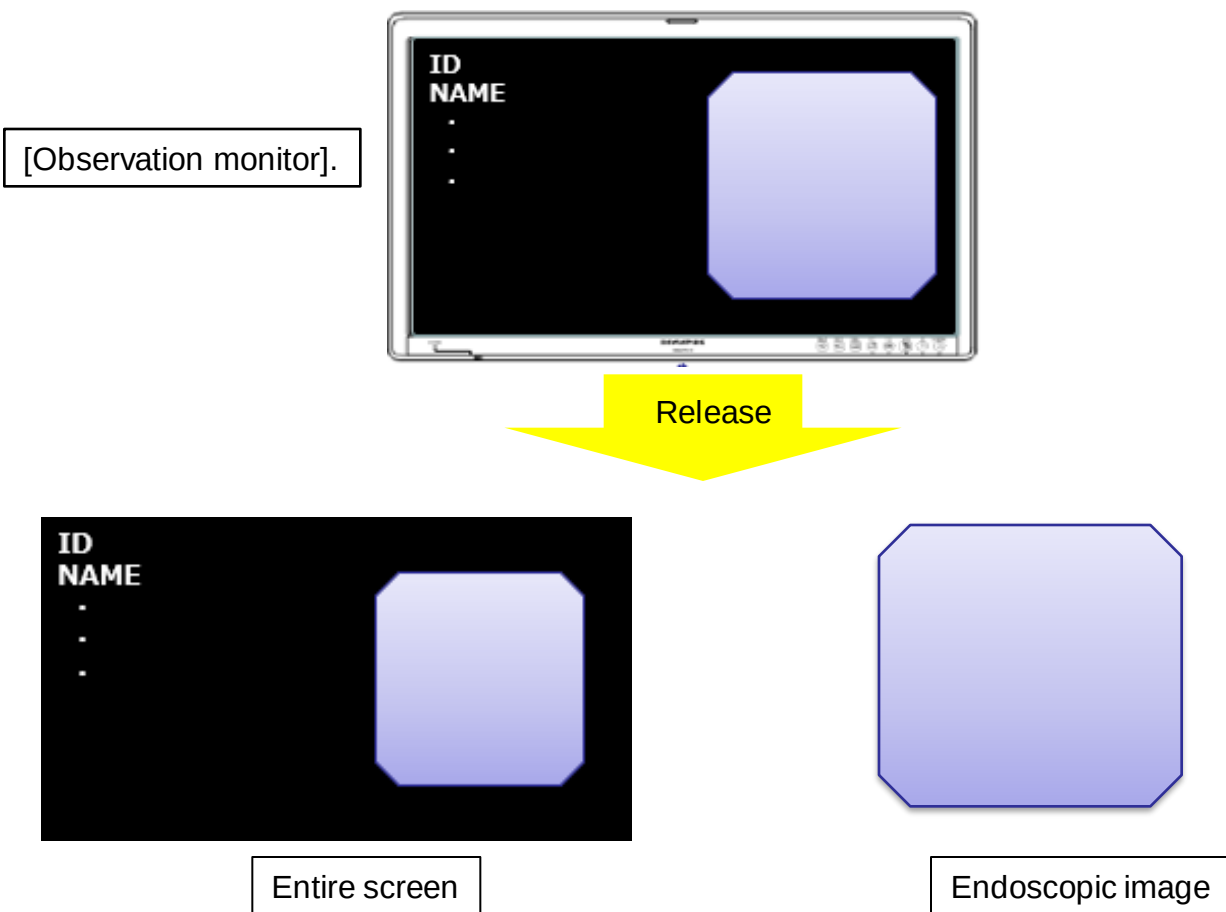
It can be operated from the touch panel of CV-1500 without assigning it to the Remote Switch Custom Button.

Step	Default	Setting parameter
Setting > User setting > Release/Pre-freeze > Release recording range	Endoscopic image	Whole screen or endoscopic image
Setting > User setting > Release/Pre-freeze > Capture area	HD	HD or SD *

* Select the image quality of the stored image.

[Supplement] Regarding Capture area

Images are saved based on the setting as follows:



External image record setting

◆ Record external images

When recording external images, the followings are two ways to set up.

1 Record the external image simultaneously with the recording of the endoscopic observation image.

*The exam and external images are stored at the same time as the release.

2 Record only external images

*Only external images are recorded.

The following is how to set up.

1 Record the external image simultaneously with the recording of the endoscopic observation image.

*Assign the optional Remote Switch Custom Button Release 1 or Release 2.

It can be operated from the touch panel of CV-1500 without assigning it to the Remote Switch Custom Button.

Step	Default	Setting Parameter
Setting > User setting > Release/Pre-freeze > Record ext. source	ON	ON
Setting > User setting > Release/Pre-freeze > Input terminal for external source	HD/SD input (SDI)	*

* Select the terminal that used to input the external image to CV-1500. (HD/SD input (SDI) or Y/C input)

2 Record only external images

* Assign an optional Remote Switch / Custom Button to External Imaging Releases.

You can operate from the touch panel of CV-1500 without assigning it to the Remote Switch Custom Button.

Step	Default	Setting parameter
Setting > User setting > Release/Prefreeze > Input terminal for external source	HD/SD input (SDI)	*

*Select the terminal that inputs the external image to CV-1500. (HD/SD input (SDI) or Y/C input)

Please refer to "10. Appendix: save images per user setting" for differences in stored images according to settings.

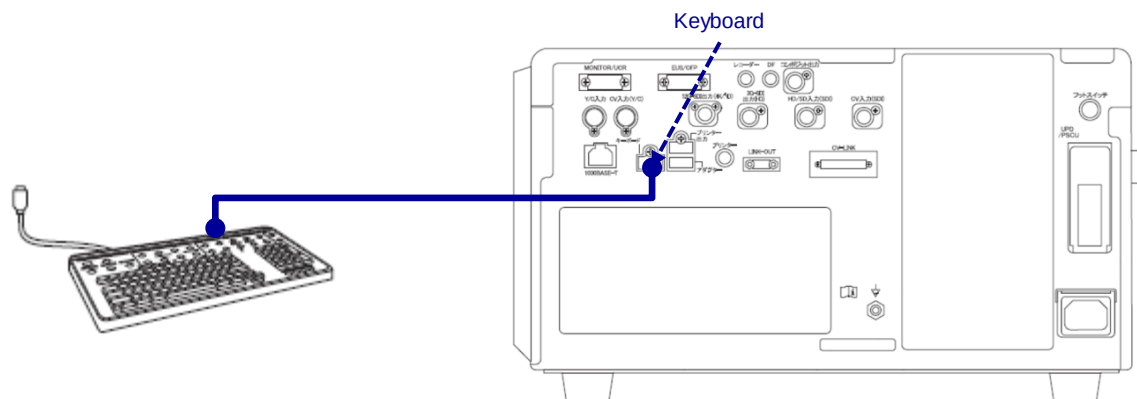
6. CV-1500 wiring and setting Peripheral equipment (excl. US center)

◆ Wiring setup with peripheral devices

- Keyboard
- OEV321UH
- OEV262H
- OEV261H
- OEP-6
- OEP-5
- OEP-4 (MAJ-1916)
- IMH-200(MAJ-1916)
- IMH-20(MAJ-1916)
- IMH-10(MAJ-1916)
- nCare (ISM Product)
- UPD-3
- PSCU
- UPD-3+PSCU
- OFP-2
- UCR

◆ Keyboard

*** Menu Key on the Keyboard cannot be used**
Use the Setting Button on CV-1500 Front Panel.



[Compatible Keyboard].

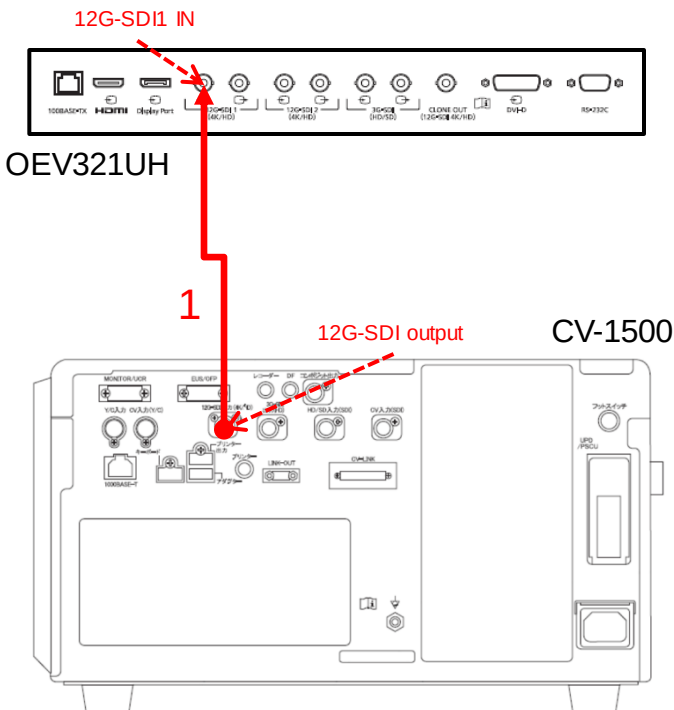
Type
MAJ-1921
MAJ-1922
MAJ-1924
MAJ-1995 *
MAJ-1710 *

*** A dedicated cable is required for the connection.**
Refer to "7. CV-1500 Wiring and Setting (US center) for wiring and setup.

<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)

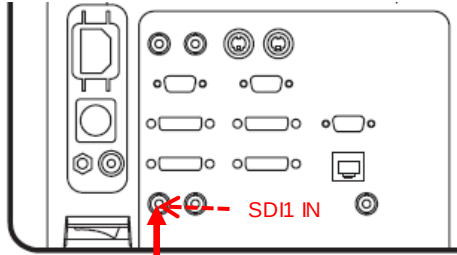
! Caution!
The 12G-SDI cable is required to output 4K image.



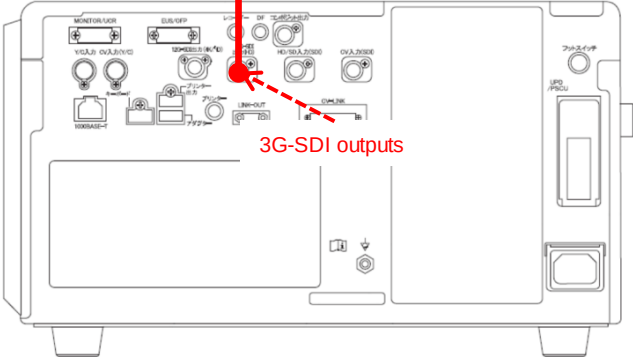
[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1

OEV262H



CV-1500



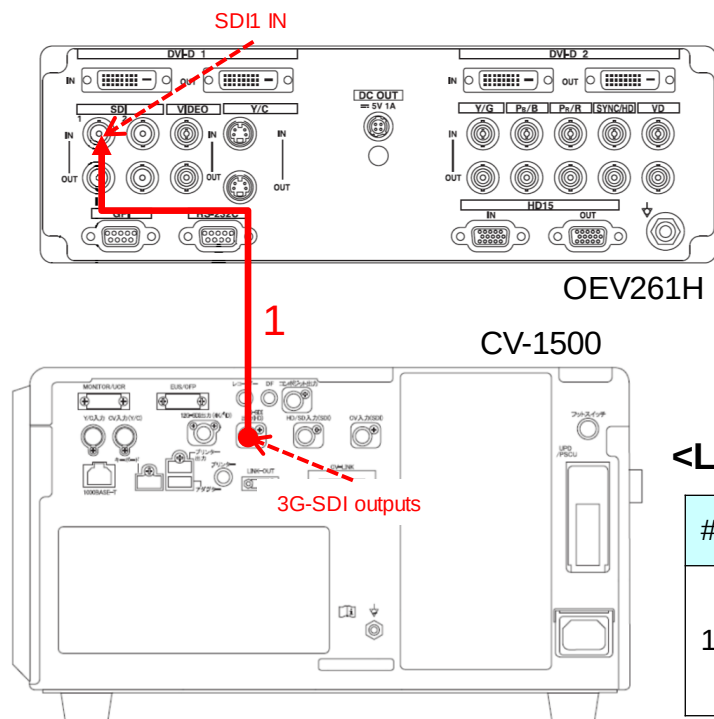
<List of Cables>

#	Product symbol	Name
1	MAJ-2430	3G-SDI cable (1.5M)
	MAJ-2015	3G-SDI cable (3.0M)
	MAJ-2016	3G-SDI cable (8.5M)

! Caution!
To use OEV262H as an observation monitor, set CV-1500 image output to HD:1080p or less, because OEV262H is not compatible with 4K format.

[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080p
OEV262H	MENU > Preset > Load Preset	B/C	B/C
	PORT A	SDI1	SDI1



! Caution!
To use OEV261H as an observation monitor, set CV-1500 image output to HD:1080i or less, because OEV262H is not compatible with 4K format.

<List of Cables>

#	Product symbol	Name
1	MAJ-1951	SDI cable (2.5M)
	MAJ-1912	SDI cable (8.5M)
	MAJ-1464	SDI cable (22 M)

[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080i
OEV261H	PRESET(OEV261H) > FILE LOAD	I	I
	INPUT(OEV261H) > port A	SDI1	SDI1

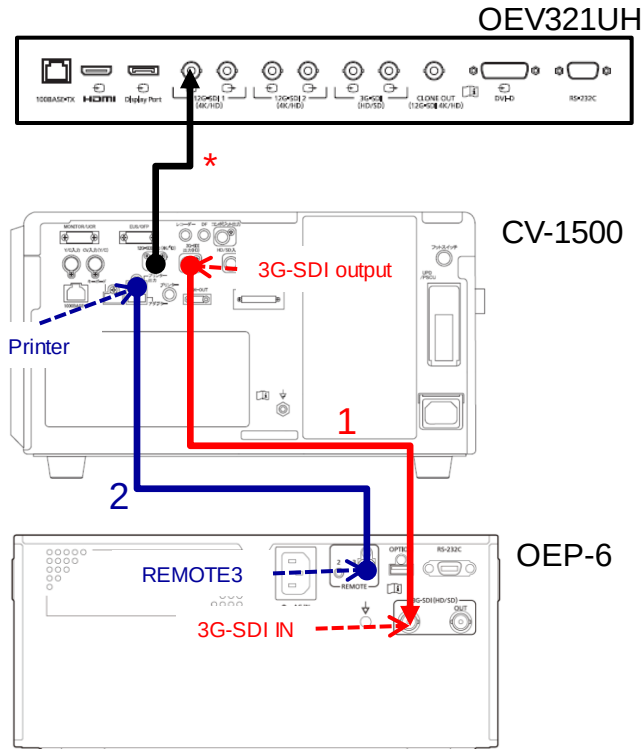
* Refer to OEV321UH for the connection and setting with OEV321UH.

<List of Cables>

#	Product symbol	Name
1	MAJ-2430	3G-SDI cable 1.5M
	MAJ-2015	3G-SDI cable 3.0M
	MAJ-2016	3G-SDI cable 8.5M
2	MAJ-1918	Remote cable 1.8M

! Caution!

To connect with OEP-6, set CV-1500 output to HD:1080p or less. Because OEP-6 is not compatible with 4K format.



[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080P
	Setting > System setup > Peripherals 1 > Video printer type	Not connected	OEP-6
	Setting> User Setting > Release/Pre-freeze >Release 1 save location or Release 2 save location	Portable memory	Portable memory Video printers
OEP-6	MENU > System setup > Remote setup >REMOTE3 Device type	CV	CV
	MENU > System setup > Input setup > Input signals	Auto	Auto

■ Supplement

* Connecting MAJ-1918 turns the remote locking ON, which overrides OEP-6's front-panel operation, and thereafter it can be operated with touch-panel of the CV.

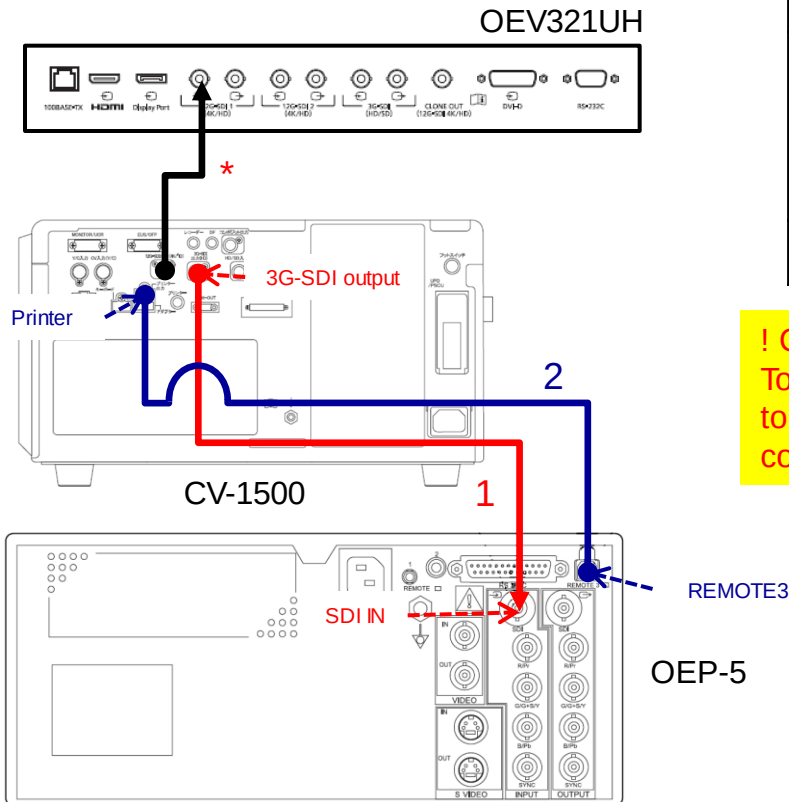
* Refer to OEV321UH for the connection and setting with OEV321UH.

<List of Cables>

#	Product symbol	Name
1	MAJ-1951	SDI-cable (2.5M)
	MAJ-1912	SDI-cable (8.5M)
	MAJ-1464	SDI cable (22M)
2	MAJ-1918	Remote Cables 1.8M

! Caution!

To connect with OEP-5, set CV-1500 output to HD:1080i or less. Because OPE-5 is not compatible with 4K and HD:1080p.



[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080i
	Setting > System setup > Peripherals 1 > Video printer type	Not connected	OEP-5
	Setting> User Setting > Release/Pre-freeze >Release 1 save location or Release 2 save location	Portable memory	Portable memory Video printers
OEP-5	SIGNAL SETUP > INPUT SETUP > INPUT SEL	SDI	SDI
	SIGNAL SETUP > INPUT SETUP > HD/SD SEL	Auto	Auto

■ Supplement

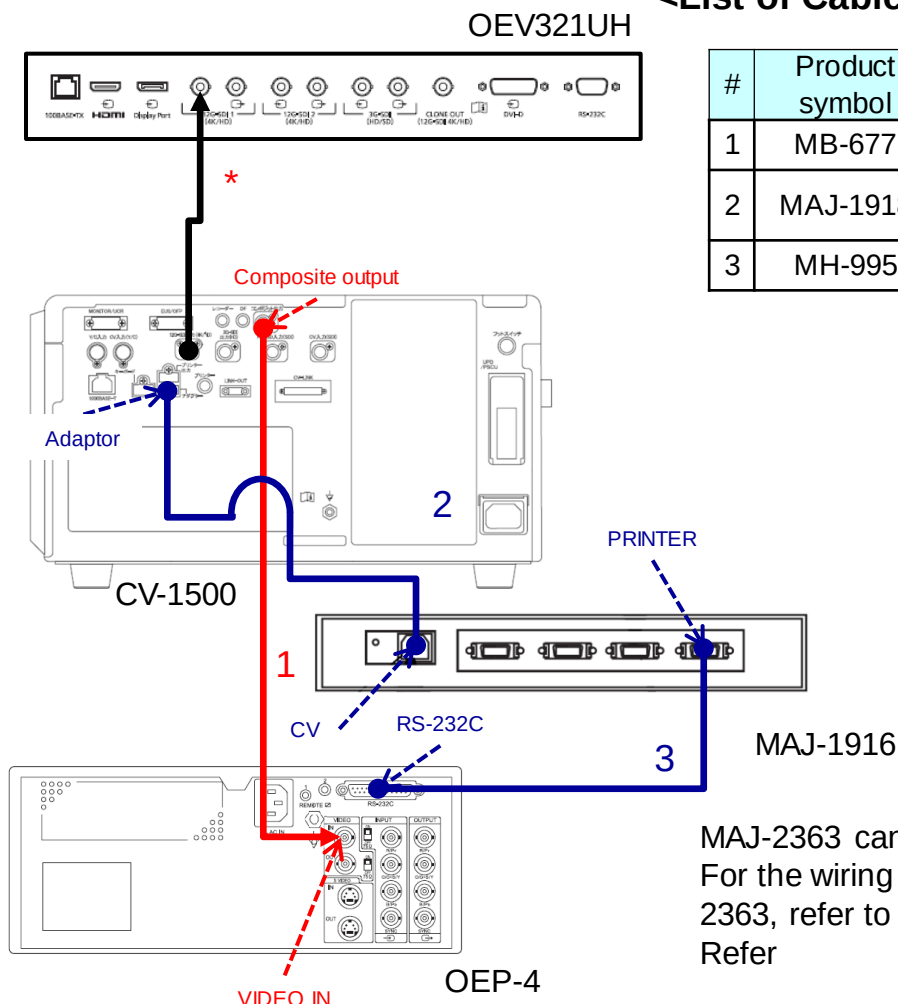
* Connecting MAJ-1918 turns the remote lock ON, which overrides OEP-5's front-panel operation, and thereafter it can be operated by touch-panel of the CV.

◆ OEP-4(MAJ-1916)

* Refer to OEV321UH for the connection and setting with OEV321UH.

<List of Cables>

#	Product symbol	Name
1	MB-677	BNC cable (3M)
2	MAJ-1918	Peripheral Device Remote Cable
3	MH-995	Remote cable



MAJ-2363 can be used instead of MAJ-1916.
For the wiring and setting when using MAJ-2363, refer to "CV-290+OEP-4(MAJ-2363)" Refer

[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting> System setup > Peripherals 1>CV interface converter type	Not connected	MAJ-1916
	Setting > System setup > Peripherals 1 > Video printer type	Not connected	OEP-4
	Setting> User Setting > Release/Pre-freeze >Release 1 save location or Release 2 save location	Portable memory	Portable memory Video printers
OEP-4	BASIC SETUP>INPUT SEL	COMPONENT	VIDEO
	INPUT SETUP>SD/HD SEL	AUTO	AUTO

■ Precautions

- Set in the order of "CV Communication Device Connecting Model" to "Video Printer Connecting Model". In the opposite order of setting If this is done, "Video printer type" will be "Not connected".

◆ IMH-200(MAJ-1916)

* Refer to OEV321UH for the connection and setting with OEV321UH.

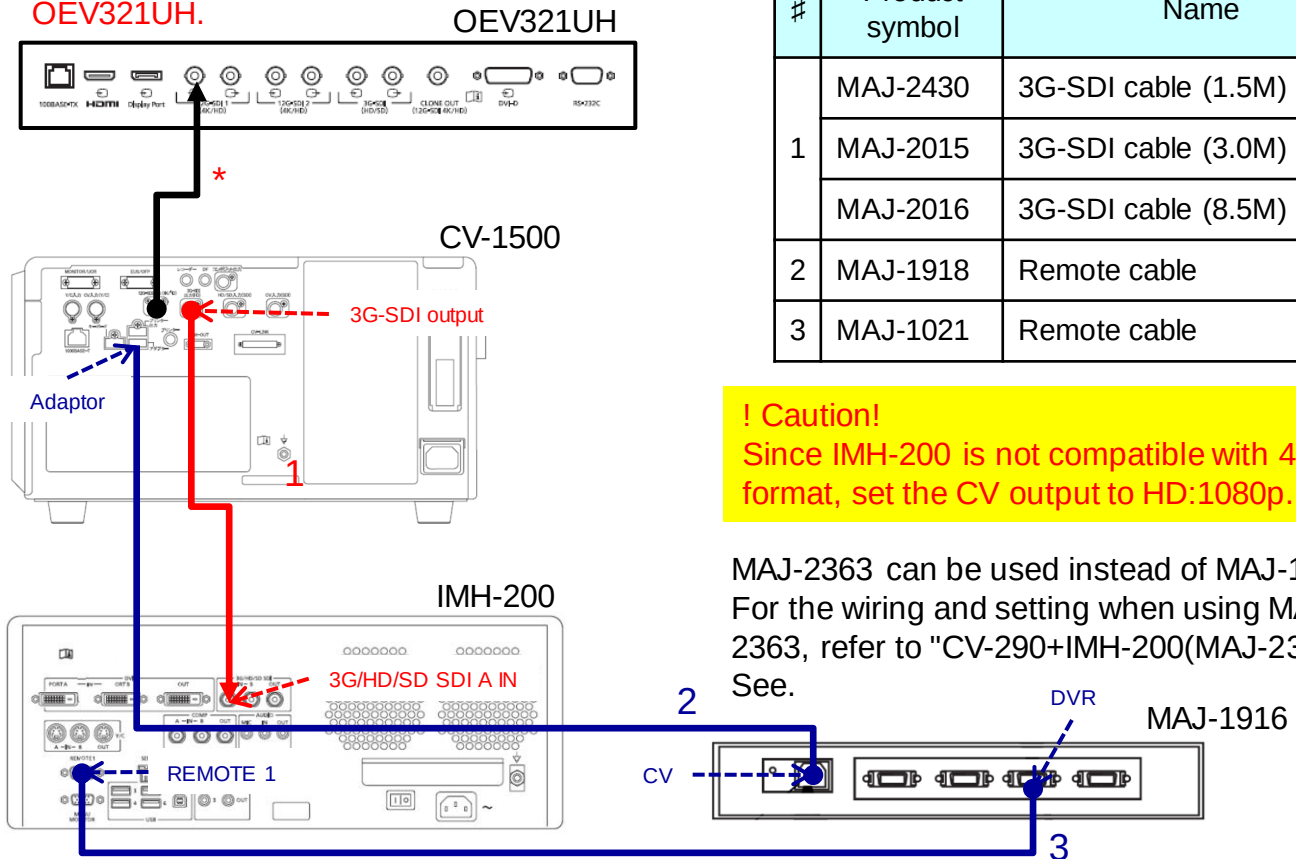
<List of Cables>

#	Product symbol	Name
1	MAJ-2430	3G-SDI cable (1.5M)
	MAJ-2015	3G-SDI cable (3.0M)
	MAJ-2016	3G-SDI cable (8.5M)
2	MAJ-1918	Remote cable
3	MAJ-1021	Remote cable

! Caution!

Since IMH-200 is not compatible with 4K format, set the CV output to HD:1080p.

MAJ-2363 can be used instead of MAJ-1916. For the wiring and setting when using MAJ-2363, refer to "CV-290+IMH-200(MAJ-2363)" See.



[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080p
	Setting> System setup > Peripherals 1>CV interface converter type	Not connected	MAJ-1916
	Setting > System setup > Peripherals 1 > Video recorder type	Not connected	Option
	Setting> User Setting > Release/Pre-freeze >Release 1 save location or Release 2 save location	Portable memory	Portable memory Video recorder
IMH-200	Settings > System Settings> Devices/Accessories > Devices >REMOTE1	No Device	Processor Type 1
	Settings > Rec Function Setting > VIDEO > PORT A	PORT A	PORT A

■ Precautions

- Set in the order of "CV Communication Device Connecting Model" to "Video Recorder Connecting Model". In the opposite order of setting When it is performed, the video recorder type will be not connected.
- Turn on the IMH Remote Lock.

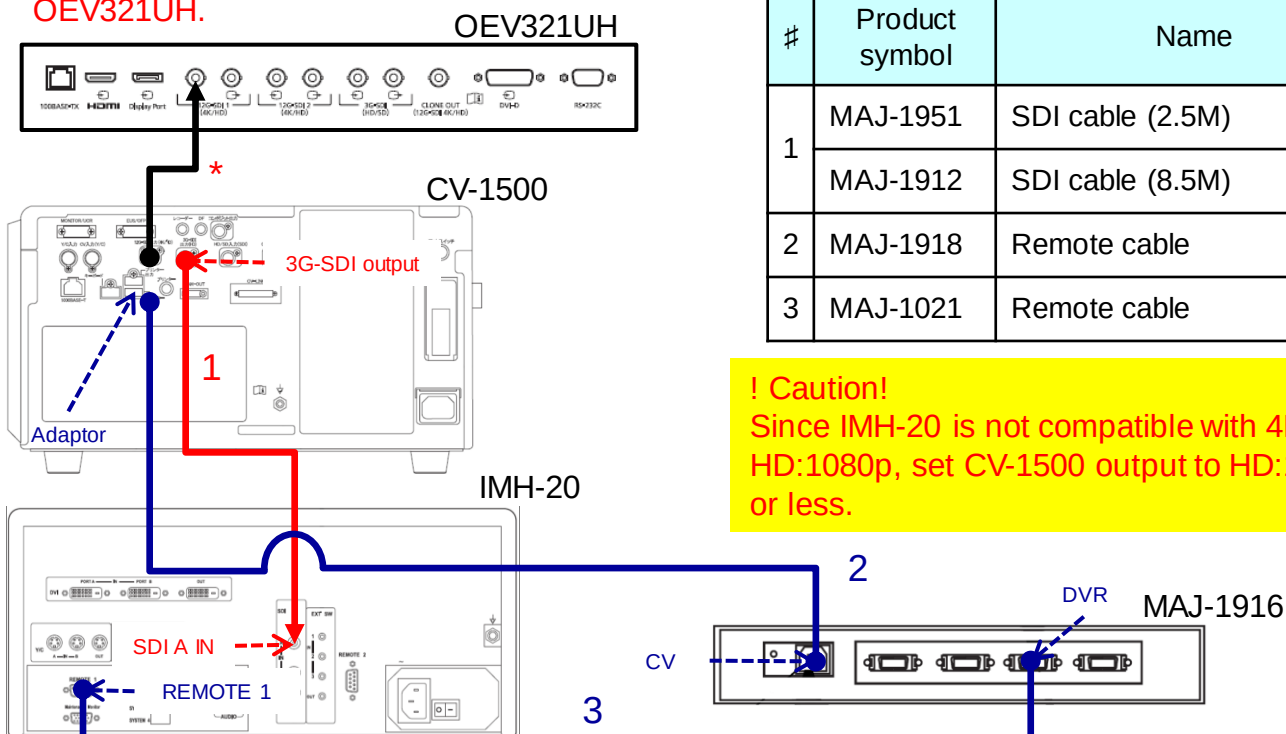
◆ IMH-20(MAJ-1916)

* Refer to OEV321UH for the connection and setting with OEV321UH.

<List of Cables>

#	Product symbol	Name
1	MAJ-1951	SDI cable (2.5M)
	MAJ-1912	SDI cable (8.5M)
2	MAJ-1918	Remote cable
3	MAJ-1021	Remote cable

! Caution!
Since IMH-20 is not compatible with 4K and HD:1080p, set CV-1500 output to HD:1080i or less.



MAJ-2363 can be used instead of MAJ-1916.
For the wiring and setting for MAJ-2363, refer to "CV-290+IMH-20(MAJ-2363)".

[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080i
	Setting> System setup > Peripherals 1>CV interface converter type	Not connected	MAJ-1916
	Setting > System setup > Peripherals 1 > Video recorder type	Not connected	IMH-10/ IMH-20
	Setting> User Setting > Release/Pre-freeze >Release 1 save location or Release 2 save location	Portable memory	Portable memory Video recorder
IMH-20	System settings> Function settings > Device >Remote 2	No Device	Processor type 1
	User settings > Select input	-	SDI

■ Precautions

- Set in the order of "CV Communication Device Connecting Model" to "Video Recorder Connecting Model". In the opposite order of setting When it is performed, the video recorder type will be not connected.
- Turn on the IMH Remote Lock.

◆ IMH-10(MAJ-1916)

* Refer to OEV321UH for the connection and setting with OEV321UH.

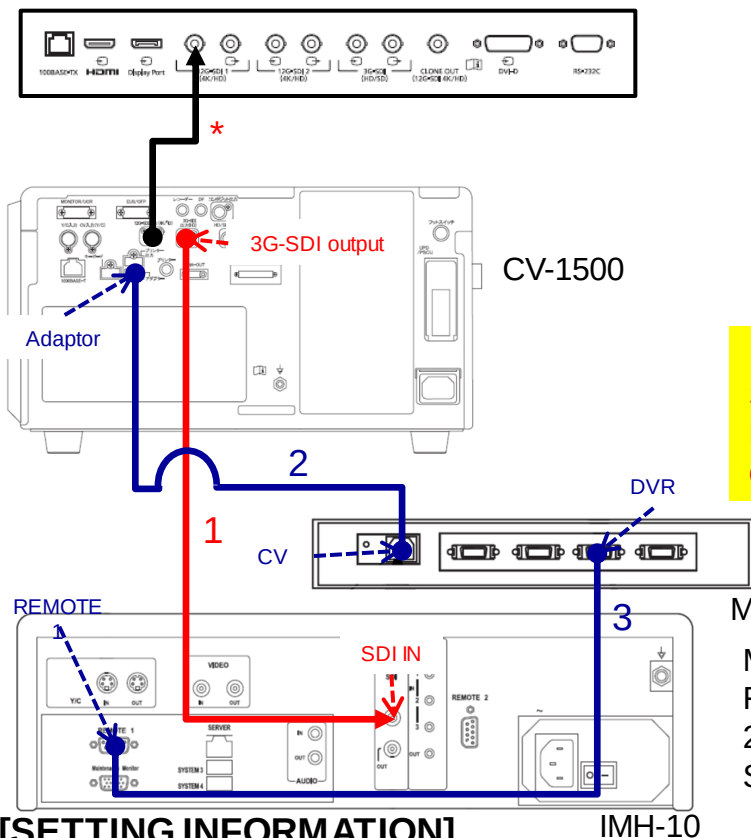
OEV321UH

<List of Cables>

#	Product symbol	Name
1	MAJ-1951	SDI cable (2.5M)
	MAJ-1912	SDI cable (8.5M)
2	MAJ-1918	Remote cable
3	MAJ-1021	Remote cable

! Caution!

Since IMH-10 is not compatible with 4K and HD:1080p, set CV-1500 output to HD:1080i or less.



MAJ-1916

MAJ-2363 can be used instead of MAJ-1916. For the wiring and setting when using MAJ-2363, refer to "CV-290+IMH-10(MAJ-2363)" See.

[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080i
	Setting> System setup > Peripherals 1>CV interface converter type	Not connected	MAJ-1916
	Setting > System setup > Peripherals 1 > Video recorder type	Not connected	IMH-10/ IMH-20
	Setting> User Setting > Release/Pre-freeze >Release 1 save location or Release 2 save location	Portable memory	Portable memory Video recorder
IMH-10	System settings> Function settings > Device >Remote 2	No Device	Processor Type 1
	User settings > Select input	-	SDI

■ Precautions

- Setting the CV communication device connecting model in the order of "Video recorder connecting model". If setting is performed in the reverse order, the "video recorder connecting model" will not be connected.
- Turn on the IMH Remote Lock.

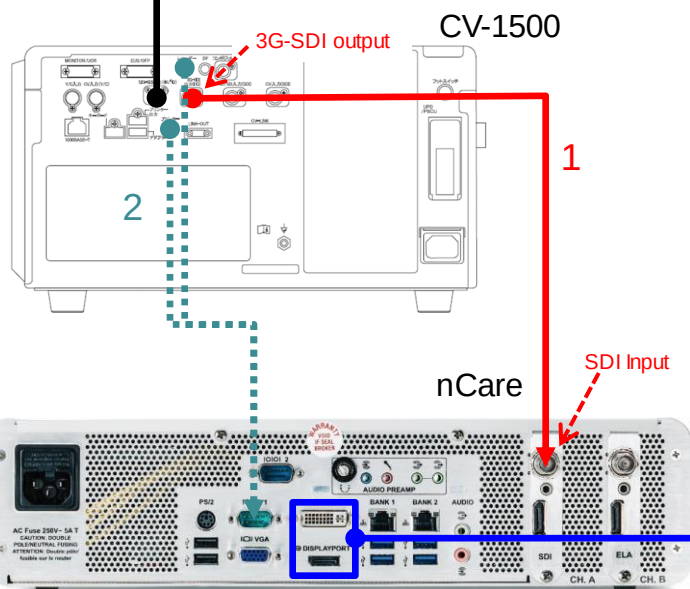
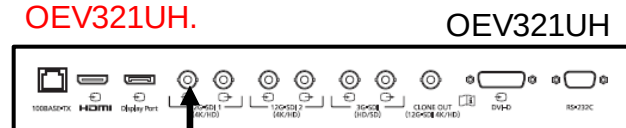
◆ nCare (ISM Product)

* Refer to OEV321UH for the connection and setting with OEV321UH.

<List of Cables>

#	Product symbol	Name
1	MAJ-2430	3G-SDI Cable 1.5M
	MAJ-2015	3G-SDI Cable 3.0M
	MAJ-2016	3G-SDI Cable 8.5M
2	N/A	Remote Cable

*Remote control function is under development in ISM



Nurses Control Panel Arm

Long Nurses Arm:
MAJ-1664

Short Nurses Arm*: MAJ-1662



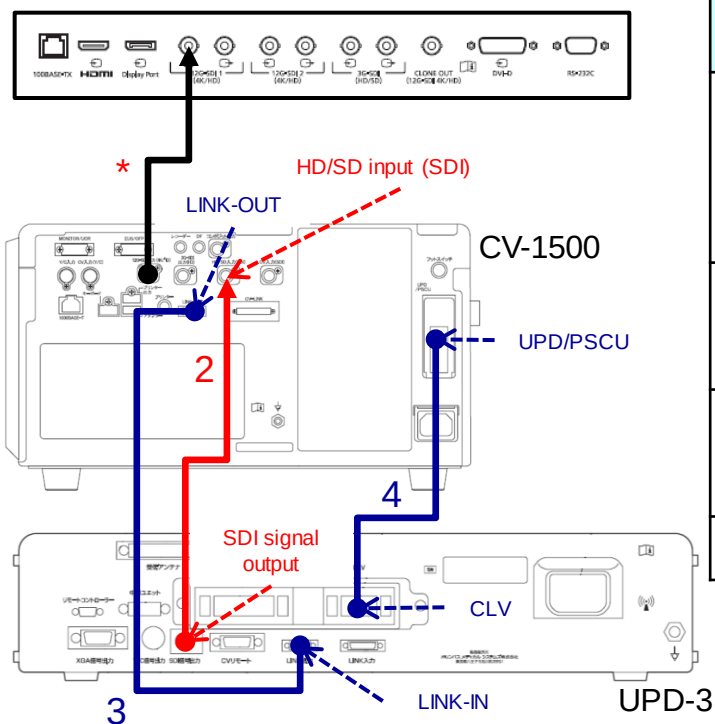
! Caution !

- Since nCare is not compatible with 4K and HD:1080p, set CV-1500 output to HD:1080i or less.
- nCare record status is not shown in CV-1500. Remote control function is under development in ISM.
- Touch panel monitor is needed to operate nCare. (refer to nCare Instruction manual for the connection and setting)

[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080i
	Setting > System setup > Peripherals 1 > Video recorder type	Not connected	Not connected

OEV321UH



#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-1912	SDI-cable (8.5M)
	MAJ-1951	SDI-cable (2.5M)
3	MAJ-1942	Communication cable (0.7M)
	MAJ-1948	Communication cable (1.8M)
4	MAJ-1898	CLV-UPD cable

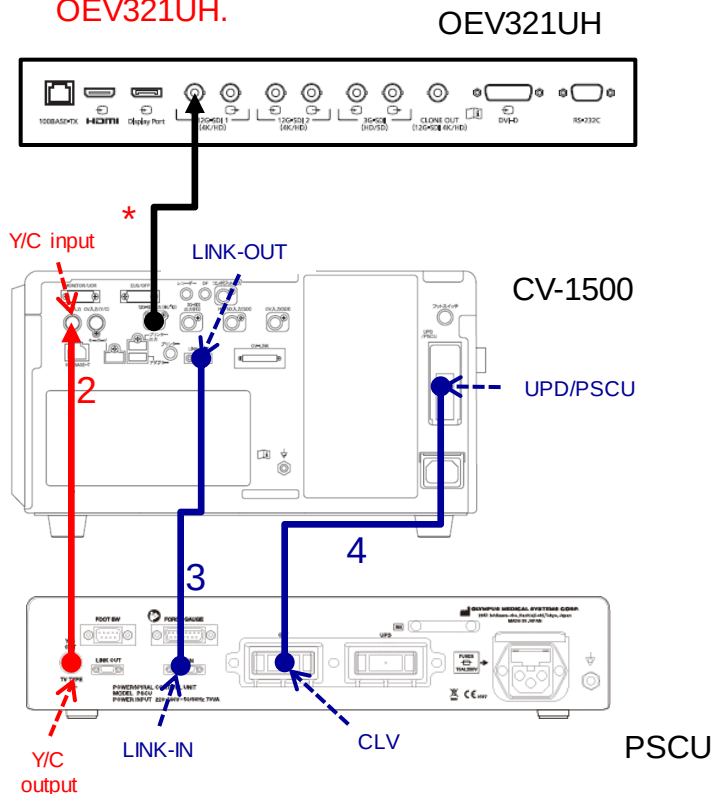
Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting> System setup > Peripherals 2> Select PIP/POP device	CV	CV
	Setting> System setup > Peripherals 2 > UPD ScopeGuide Type	Not connected	UPD-3
	Settings > User Settings > PIP/POP > Select CV ext. source	HD/SD input (SDI)	HD/SD input (SDI)
UPD-3	Menu > System settings > System > Remote > Connection	CV remote	LINK-IN

- When LINK connected, UPD-3's front-panel control is overridden, and the operation is performed from the V-touch panel.
- Please refer to the External Image Record Setting for how to record UPD-3 images.

Since the PIP has been entered into the CV, UPD-3 screen is displayed on the monitor by performing the following operations:

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* Refer to OEV321UH for the connection and setting with OEV321UH.



<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MH-985	Y/C cable
3	MAJ-1942	Communication cable (0.7M)
	MAJ-1948	Communication cable (1.8M)
4	MAJ-1898	CLV-UPD cable

[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting> System setup > Peripherals 2> Select PIP/POP device	CV	CV
	Settings > User Settings > PIP/POP > Select CV ext. source	HD/SD IN (SDI)	Y/C IN

■ Supplement

- Please refer to the External Image Record Setting for how to record PSCU images.

■ Reference

Since the PIP has been entered into the CV, Force gauge screen is displayed on the monitor by performing the following operations:

[How to display Force gauge screen]. Home > Function List > Info. > PIP/POP > PIP ON

OEV321UH



#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-1912	SDI-cable (8.5M)
	MAJ-1951	SDI-cable (2.5M)
3	MH-985	Y/C cable
4/5	MAJ-1942	Communication cable (0.7M)
	MAJ-1948	Communication cable (1.8M)
6/7	MAJ-1898	CLV-UPD cable

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting> System setup > Peripherals 2> Select PIP/POP device	CV	CV
	Setting> System setup > Peripherals 2 > UPD ScopeGuide Type	Not connected	UPD-3
	<Display UPD-3 image> Settings > User Settings > PIP/POP > Select CV ext. source	HD/SD IN (SDI)	HD/SD IN (SDI)
	<Display PSCU image> Settings > User Settings > PIP/POP > Select CV ext. source	HD/SD IN (SDI)	Y/C IN
UPD-3	Menu > System settings > System > Remote > Connection	CV remote	LINK-IN

■ Supplement

- When LINK connected , UPD-3's front-panel control is overridden, and the operation is performed from the CV-touch panel.

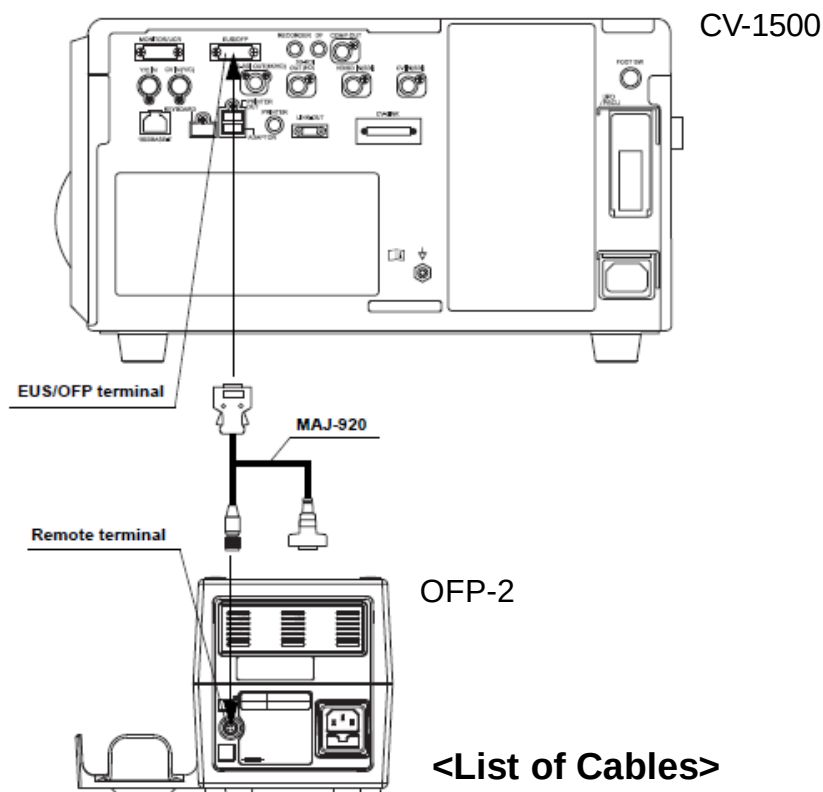
- Please refer to the External Image Record Setting for how to record UPD-3/PSCU images.

■ Reference

- Since the PIP has been entered into the CV, UPD-3/PSCU screen is displayed on the monitor by performing the following operations:

[How to display UPD-3/PSCU screen]. Home > Function List > Info. > PIP/POP > PIP ON

- It is able to switch UPD-3 or PSCU image by using PIP input select button.



<List of Cables>

*	Product symbol	Name
	MAJ-920	Pump remote cable

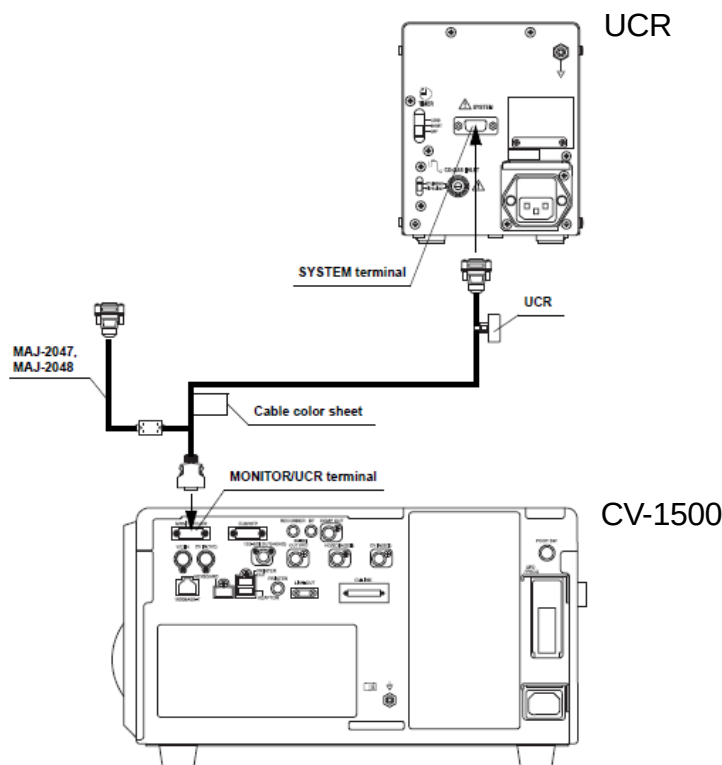
[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Peripherals 1 > Flushing pump type	Not connected	Remote
	Setting > User Setting > New Entry or Edit > Remote Switch / Customized key	-	Flushing pump

■ Reference

Assign the function of OFP-2 operation to the Remote Switch/Custom Button as optional.
 You can operate from the touch panel of CV-1500 without assigning a function to the Remote Switch Custom Button.

[Operation from touch panel]. Home > Function List > Pumps / peripheral > Pump > Flushing pump



<List of Cables>

#	Product symbol	Name
	MAJ-2047	UCR Communication cable (2.5M)
	MAJ-2048	UCR Communication cable (8.5M)

[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Peripheral 1>CO2 Regulation Unit type	Not connected	UCR
	Setting > User setting > new entry or edit > Equipment settings > Supply type	Air	CO2
	Setting > user setting > new entry or edit > Equipment settings > Air flow level	High	Optional
	Setting > user setting > new entry or edit > Remote Switch / Customized key	-	Air supply/Air supply CO2 insufflation

■ Reference

Assign the operating function to the Remote Switch and Custom Button as option

You can operate from the touch panel of CV-1500 without assigning a function to the Remote Switch Custom Button.

[Operation from touch panel]. Home > Function List > Pump/Peripheral > Supply type > CO2 flow

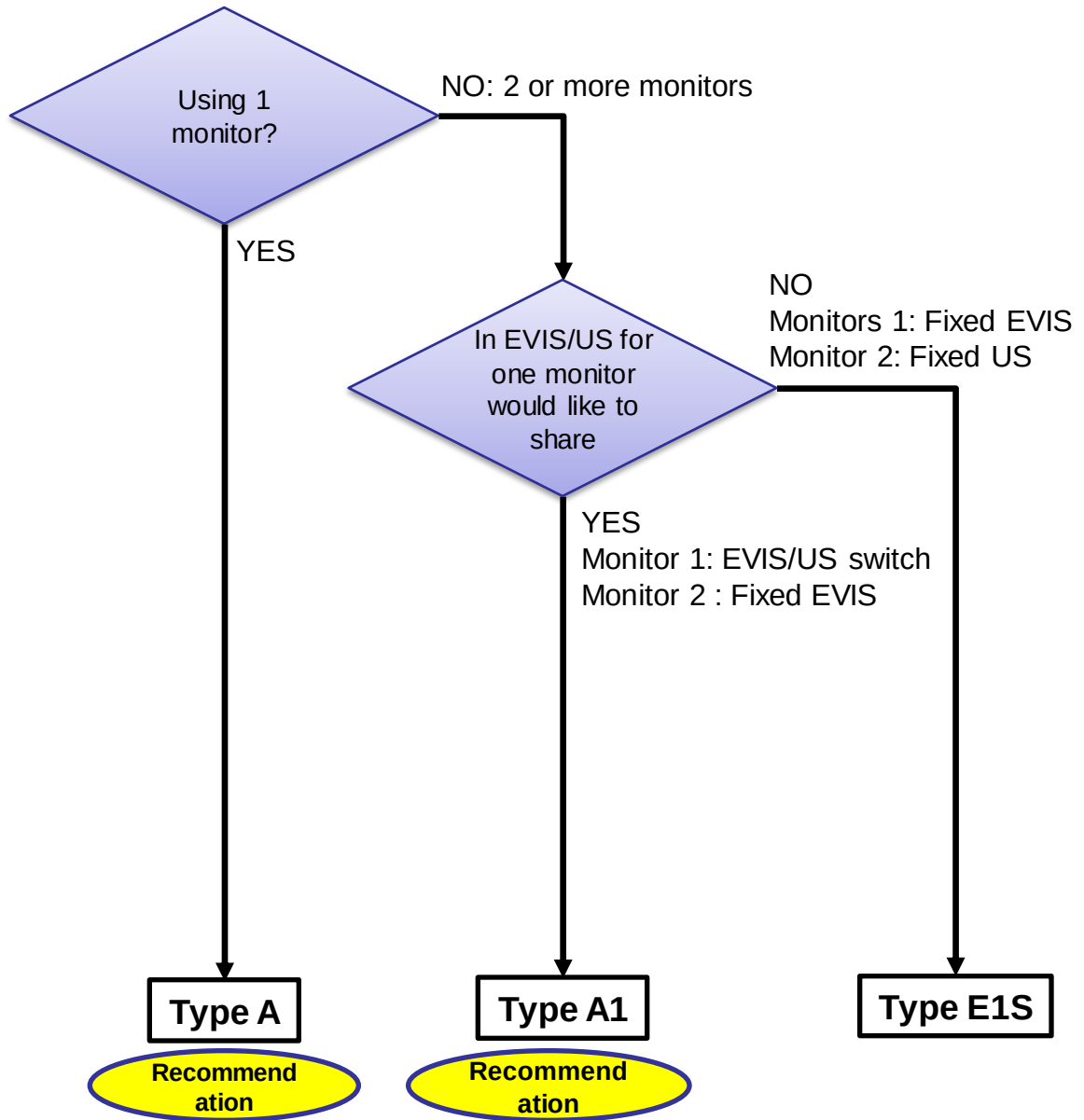
7. CV-1500 wiring and setting (US Center)

◆ Wiring with an US center

- EU-ME2 Type Selection Flow
- Outline of EU-ME2 Setting types
- EU-ME2 type A
- EU-ME2 type A1
- EU-ME2 type E1S
- Precautions when connecting EU-ME1
- EU-ME1 Type Selection Flow
- Outline of EU-ME1 setting type (using one monitor)
- Outline of EU-ME1 setting type (using two monitors)
- EU-ME1 type A
- EU-ME1 type B
- EU-ME1 type A1
- EU-ME1 type B1
- EU-ME1 type E1S
- EU-ME1 type E1Y

EU-ME2 Type Selection Flow

Select the connection type by reference to the flow below.



Outline of EU-ME2 setting type

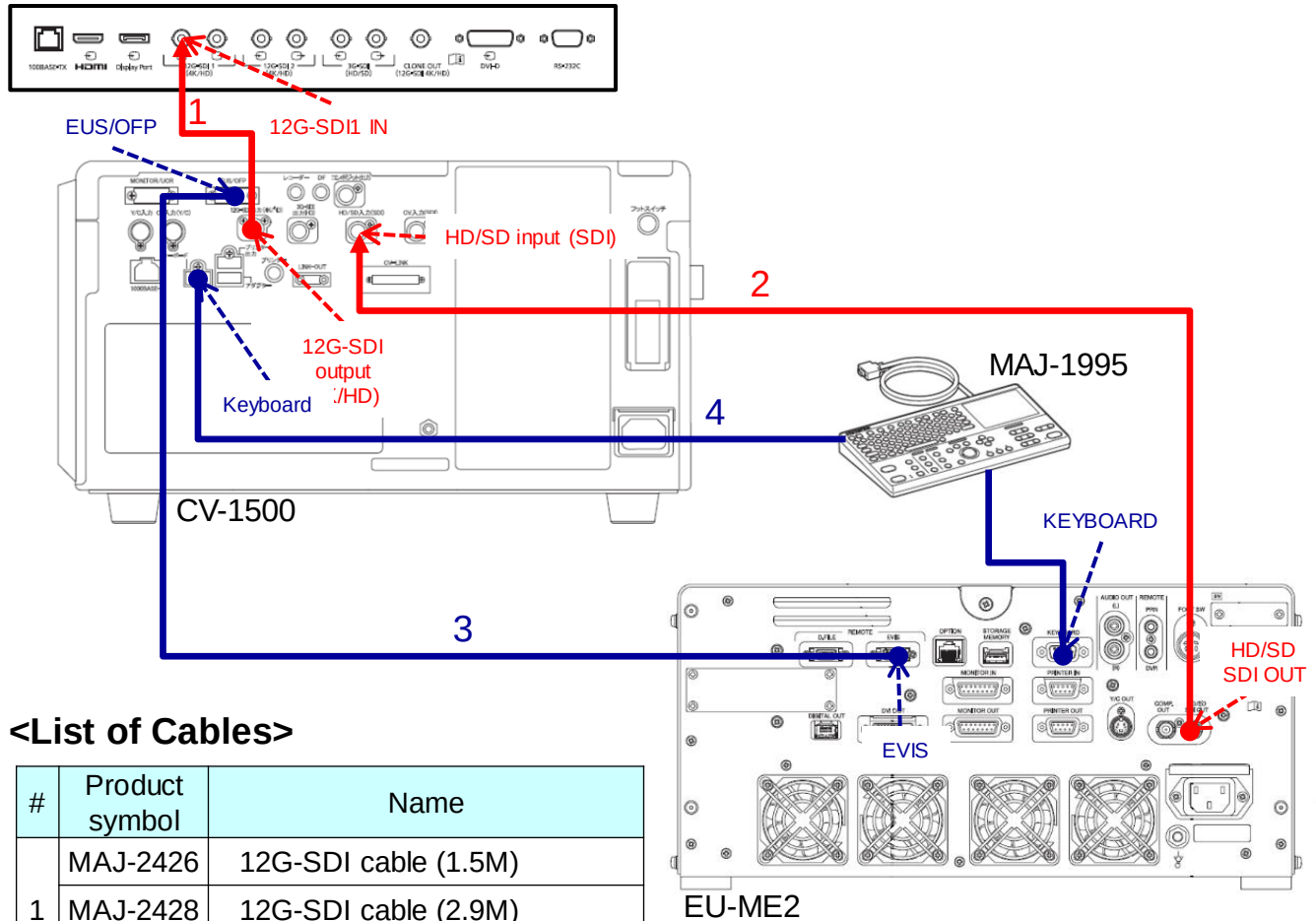
The outline of each connection type is as follows

Type		Recommendation A	Recommendation A1	E1S
		CV PinP(SDI IN)	CV PinP(SDI IN)	SDI IN
US image	Monitor display	EVIS Imaging Comparable (4K, HD, SD)		HD
	Save image quality	Selectable in the setting * Same as EVIS images	Selectable in the setting * Same as EVIS images	Selectable in the setting * Same as EVIS images
Simple diagram				
Remarks	Wiring	Use MAJ-1951 (2.5M) to connect CV-1500 and EU-ME2		
	P in P	-	In US mode No sub-screen display	In US mode No sub-screen display
	Maneuverability	-	-	If no ME2 is used, additional wiring is required for US- based monitors.
	Stored image	Options*	Options*	Options*
	Other	1 Monitor	2 Monitors Monitors 1: Fixed EVIS Monitors 2: EVIS/US	2 Monitors Monitors 1: Fixed EVIS Monitor 2: Fixed US

* Select images to be stored by setting (see Appendix)

CV-1500 and EU-ME2 should be connected with SDI cable (2.5M).
 Voltage fluctuations, such as lightning strikes, can cause noise in images.

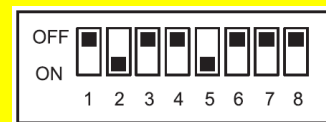
OEV321UH



<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-1951	SDI cable (2.5M)
3	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
4	MAJ-1711	EVIS-EUS connecting cable

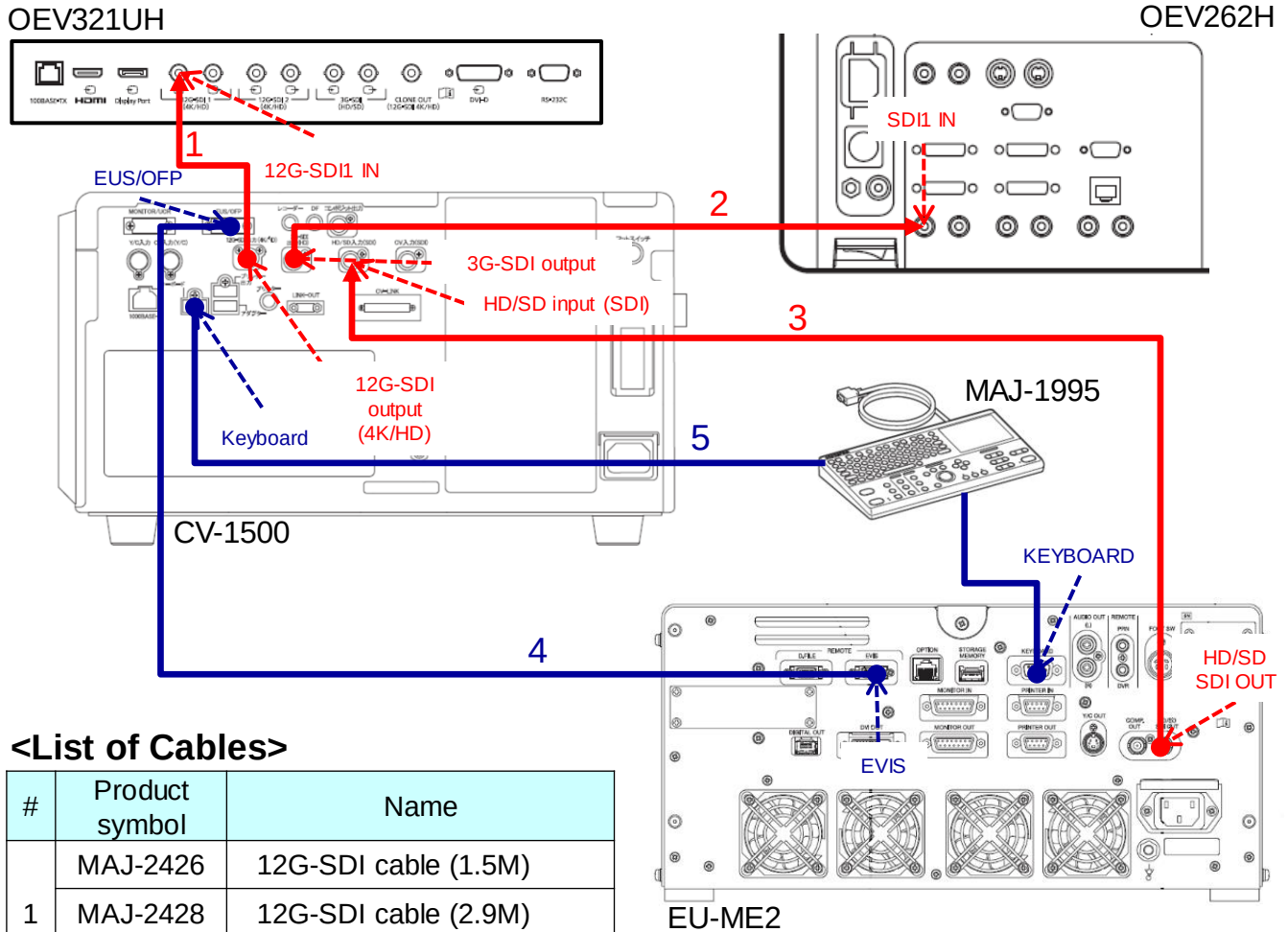
DIP-switching setup for MAJ-1995



[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System Setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	HD/SD input (SDI)
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Disabled
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	HD/SD input (SDI)
EU-ME2	System setup > Remote > Remote > EVIS	Video system Center	Video system Center
	System setup > Remote > Monitor, keyboard setting (CV combination)	1 Monitor + 1 Keyboard	1 Monitor + 1 Keyboard
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1

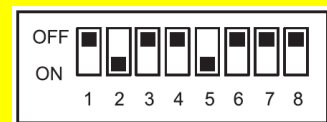
CV-1500 and EU-ME2 should be connected with SDI cable (2.5M).
Voltage fluctuations, such as lightning strikes, can cause noise in images.



<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-2430	3G-SDI cable (1.5M)
	MAJ-2015	3G-SDI cable (3.0M)
	MAJ-2016	3G-SDI cable (8.5M)
3	MAJ-1951	SDI cable (2.5M)
4	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
5	MAJ-1711	EVIS-EUS connecting cable

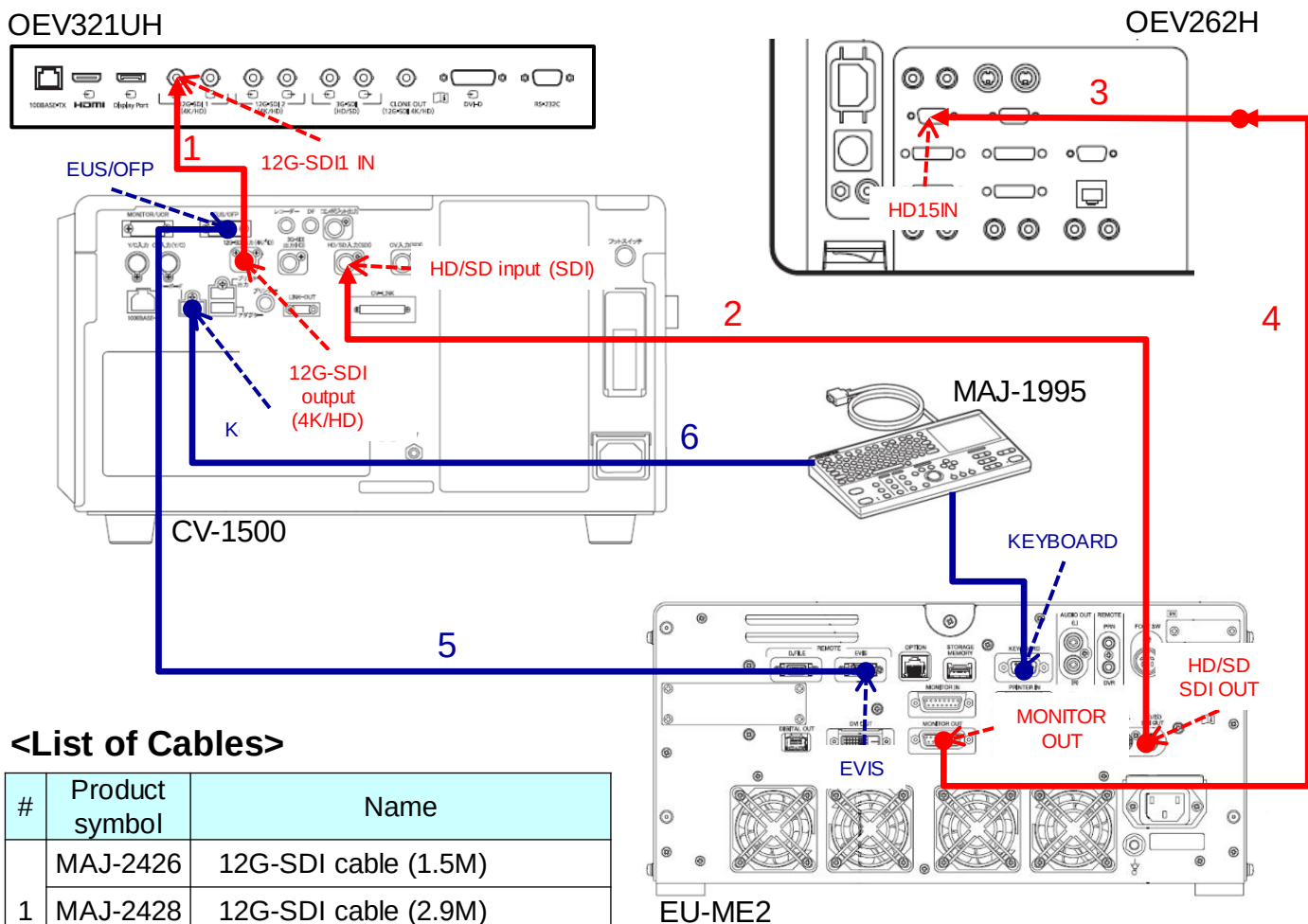
DIP-switching setup for MAJ-1995



[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Video output > 3G-SDI OUT (HD) signal	HD:1080p	HD:1080p
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	HD/SD input (SDI)
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Enabled
	Setting > System setup > Peripherals 2 > 12G-SDI OUT (4K/HD)	Fixed EVIS	Fixed EVIS
	Setting > System setup > Peripherals 2 > 3G-SDI OUT (HD)	EVIS/US switch	EVIS/US switch
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	HD/SD input (SDI)
EU-ME2	System setup > Remote > Remote > EVIS	Video system Center	Video system Center
	System setup > Remote > Monitor, keyboard setting (CV combination)	1 Monitor + 1 Keyboard	1 Monitor + 1 Keyboard
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1
OEV262H	MENU > Preset > Load Preset	B/C	B/C
	PORT A	SDI1	SDI1

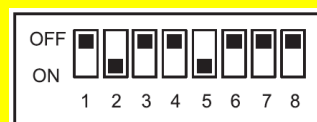
CV-1500 and EU-ME2 should be connected with SDI cable (2.5M).
Voltage fluctuations, such as lightning strikes, can cause noise in images.



<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-1951	SDI cable (2.5M)
3	SMF-405	Monitor cable (0.5M)
4	MAJ-1586	HD/SD Monitor cable (2M)
	MAJ-970	HD/SD Monitor cable (4M)
	MAJ-1462	HD/SD Monitor cable (7M)
	MAJ-1584	HD/SD Monitor cable (15M)
5	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
6	MAJ-1711	EVIS-EUS connecting cable

DIP-switching setup for MAJ-1995



[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	HD/SD input (SDI)
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Enabled
	Setting > System setup > Peripherals 2 > 12G-SDI OUT (4K/HD)	Fixed EVIS	Fixed EVIS
	Setting > System setup > Peripherals 2 > 3G-SDI OUT (HD)	EVIS/US switch	EVIS/US switch
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	HD/SD input (SDI)
EU-ME2	System setup > Video signal > Video signal format > MONITOR OUT	HDTV(RGB)	HDTV(RGB)
	System setup > Video signal > HD aspect ratio > MONITOR OUT	4:3	4:3
	System setup > Remote > Remote > EVIS	Video system Center	Video system Center
	System setup > Remote > Monitor, keyboard setting (CV combination)	1 Monitor + 1 Keyboard	1 Monitor + 1 Keyboard
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1
OEV262H	Preset > Load preset	B/C	B/C
	PORT A	SDI	HD15

Precautions when connecting

Take care when using the Keyboard for Ultrasound center (MAJ-1710).

When the serial number of the keyboard is combined with a number smaller than the following,

Keyboard may not work.

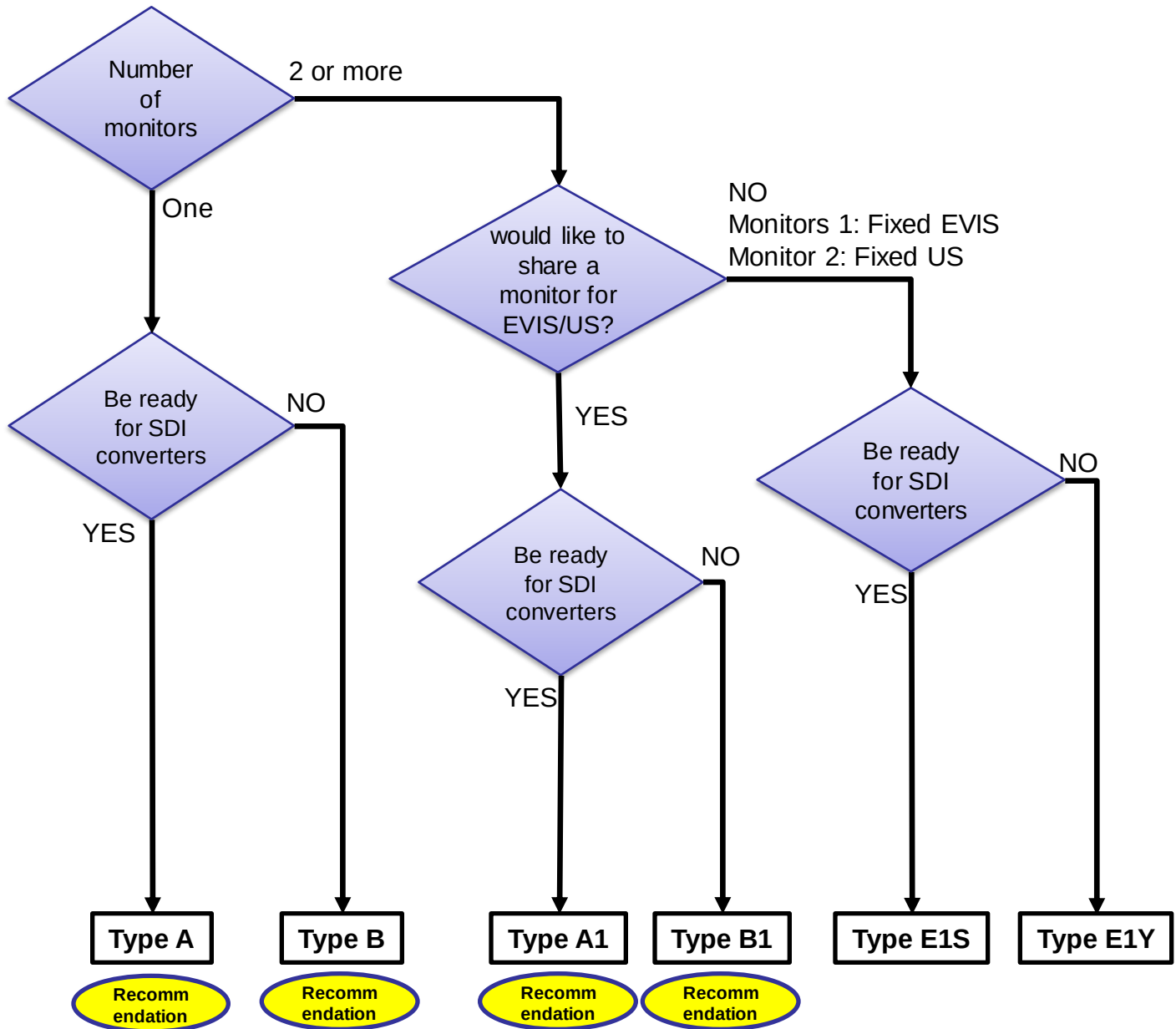
Please check MAJ-1710 serial number prior to delivery.

【Body No】 Items before "7523880"

If you are using the affected keyboard, please contact Olympus personnel.

EU-ME1 Type Selection Flow

Select the connection type by reference to the flow below.



Outline of EU-ME1 setting type (using one monitor)

The outline of each connection type is as follows

Type		Recomm ndation A	Recomm ndation B
		CV PinP(SDI IN)	CV PinP(Y/C IN)
US image	Monitor display	EVIS Imaging Comparable (4K, HD, SD)	
	Save image quality	Selectable in the setting *Same as EVIS images	SD image quality only
Simple diagram			
Remarks	Wiring	Need an SDI converter	Simple
	P in P	-	-
	Maneuverability	-	-
	Stored image	Options*	Options*

*Setting allows you to select images to be stored during PIP display ON.
(【10. Appendix】Reference)

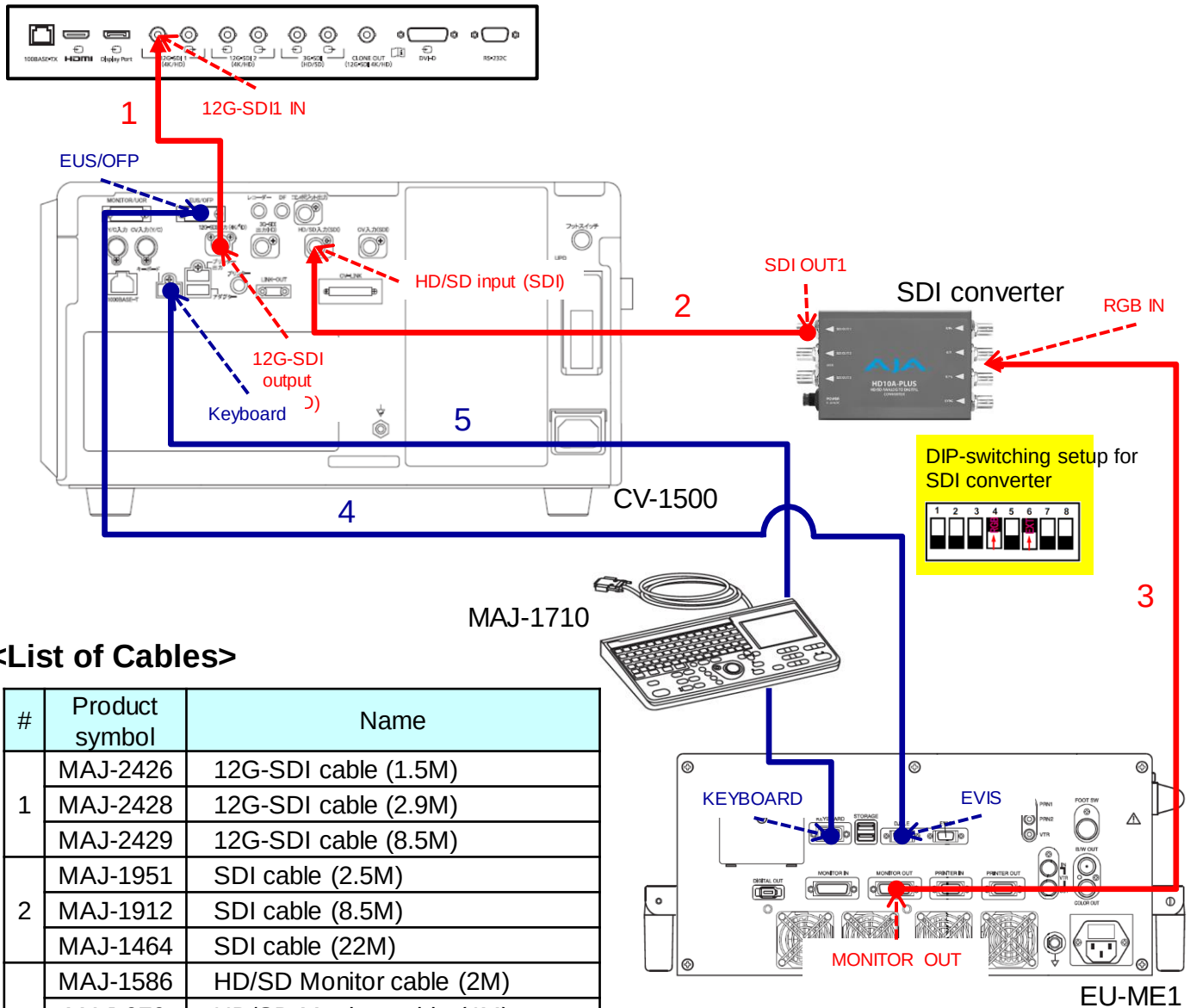
Outline of EU-ME1 setting type (using two monitors)

The outline of each connection type is as follows

Type		Recommendation Recommendation		E1S	E1Y
		A1	B1	SDI IN	Y/C IN
US image	Monitor display	EVIS Imaging Comparable (4K, HD, SD)		HD	SD
	Save image quality	Selectable in the setting *Same as EVIS images	SD image quality only	Selectable in the setting *Same as EVIS images	SD image quality only
Simple diagram					
Remarks	Wiring	Need for SDI converters	Simple	Need for SDI converters	Simple
	P in P	During US mode Subscreen No indication	During US mode Subscreen No indication	During US mode Subscreen No indication	During US mode Subscreen No indication
	Maneuverability	-	-	Additional wiring is required according to the operation of monitors for US when ME1 is not used.	Additional wiring is required according to the operation of monitors for US when ME1 is not used.
	Stored image	Options*	Options*	Options*	Options*
	Other	2 Monitors Monitors 1: Fixed EVIS Monitor 2: EVIS/US switch		2 Monitors Monitors 1: Fixed EVIS Monitor 2: Fixed US	

* Setting allows you to select images to be stored during PIP display ON. (【10. Appendix】Reference)

OEV321UH



<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-1951	SDI cable (2.5M)
	MAJ-1912	SDI cable (8.5M)
	MAJ-1464	SDI cable (22M)
3	MAJ-1586	HD/SD Monitor cable (2M)
	MAJ-970	HD/SD Monitor cable (4M)
	MAJ-1462	HD/SD Monitor cable (7M)
4	MAJ-1584	HD/SD Monitor cable (15M)
	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
5	MAJ-1711	EVIS-EUS connecting cable

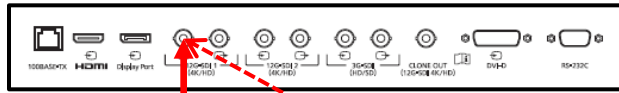
Precautions for SDI Converters

- Do not place beside CV-1500.
- Take power from the isoration transformer.
(Reference: SDI converter is a non-medical device.)

[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	HD/SD input (SDI)
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Disabled
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	HD/SD input (SDI)
EU-ME1	System setup > Remote > Remote > EVIS	Video system Center 2	Video system Center 2
	Setting > Display > Video signal format	SDTV(RGB)	HDTV
	Setting > Display > Aspect	4:3	4:3
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1

OEV321UH



1

12G-SDI1 IN

EUS/OFB

12G-SDI
output
(4K/HD)

Keyboard

Y/C
input

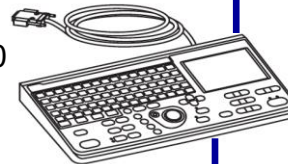
2

3

4

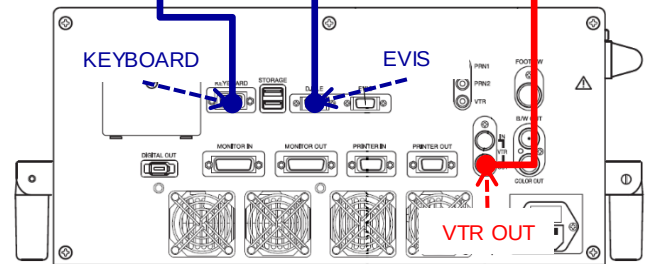
CV-1500

MAJ-1710



<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MH-985	Y/C cable (2.95M)
	MAJ-987	Y/C cable (15M)
3	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
4	MAJ-1711	EVIS-EUS connecting cable



EU-ME1

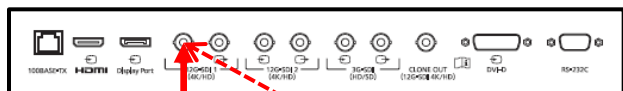
DIP-switching setup for MAJ-1710



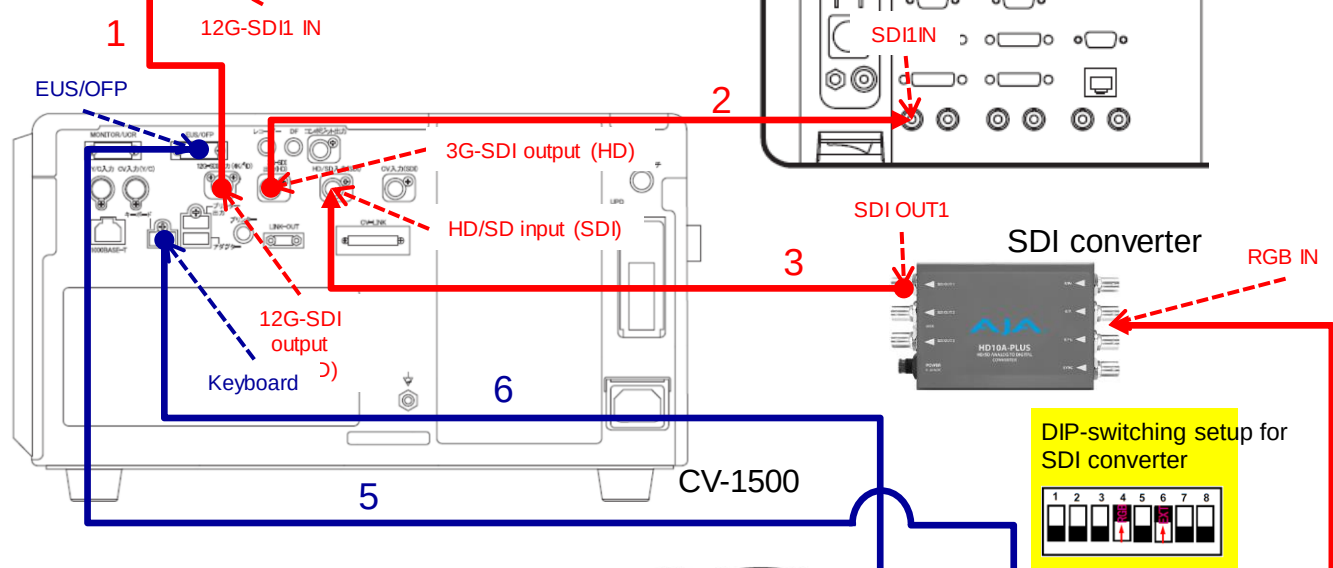
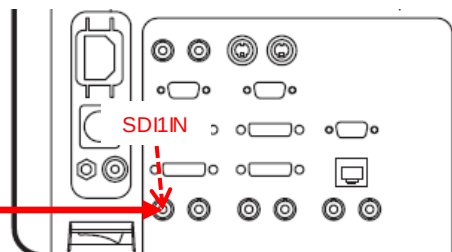
[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	Y/C input
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Disabled
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	Y/C input
EU-ME1	System setup > Remote > Remote > EVIS	Video system Center 2	Video system Center 2
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1

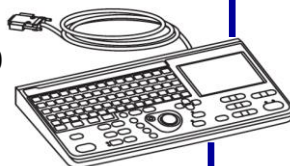
OEV321UH



OEV262H

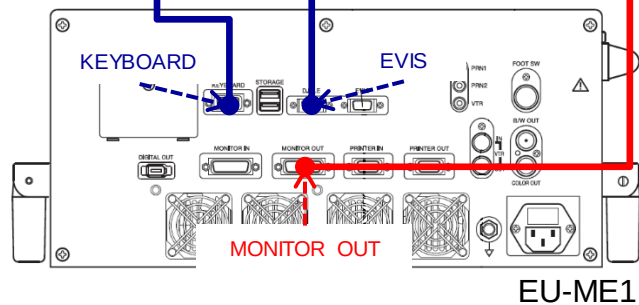


MAJ-1710



<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-2430	3G-SDI cable (1.5M)
	MAJ-2015	3G-SDI cable (3.0M)
	MAJ-2016	3G-SDI cable (8.5M)
3	MAJ-1951	SDI cable (2.5M)
	MAJ-1912	SDI cable (8.5M)
	MAJ-1464	SDI cable (22M)
4	MAJ-1586	HD/SD Monitor cables (2M)
	MAJ-970	HD/SD Monitor cables (4M)
	MAJ-1462	HD/SD Monitor cables (7M)
	MAJ-1584	HD/SD Monitor cables (15M)
5	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
6	MAJ-1711	EVIS-EUS connecting cable



DIP-switching setup for MAJ-1710



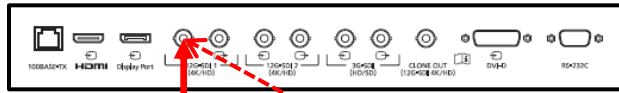
Precautions for SDI Converters

- Do not place beside CV-1500.
 - Take the power from the isolation transformer.
- (Reference: SDI converter is a non-medical device.)

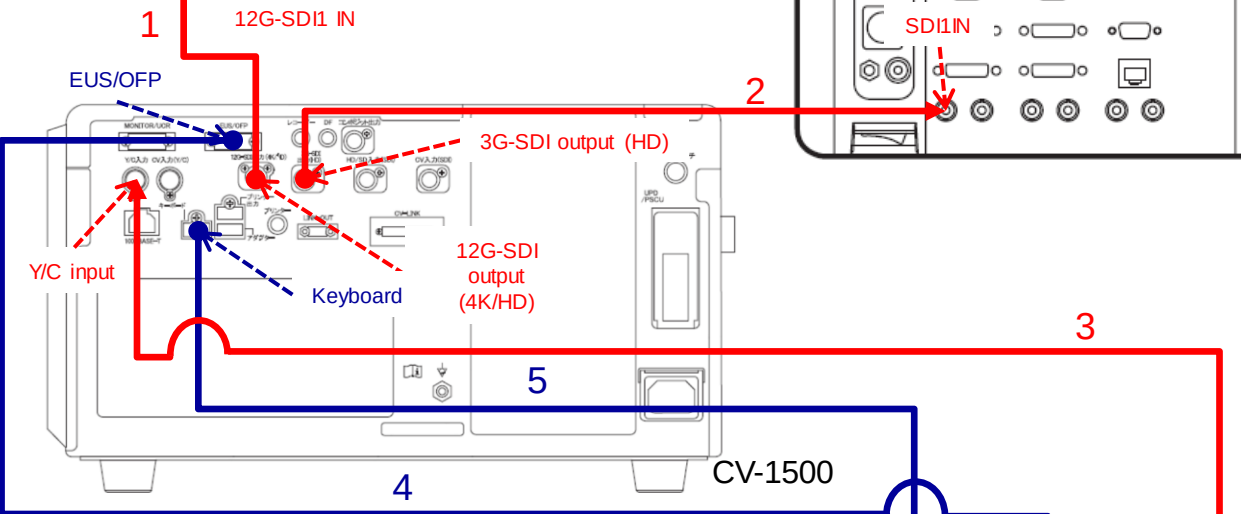
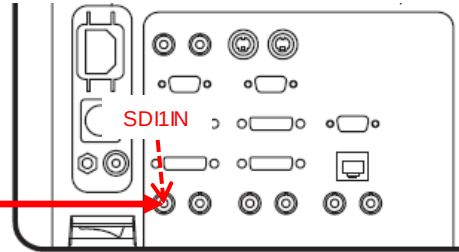
[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Video output > 3G-SDI OUT (HD) signal	HD:1080p	HD:1080p
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	HD/SD input (SDI)
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Enabled
	Setting > System setup > Peripherals 2 > 12G-SDI OUT (4K/HD)	Fixed EVIS	Fixed EVIS
	Setting > System setup > Peripherals 2 > 3G-SDI OUT (HD)	EVIS/US switch	EVIS/US switch
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	HD/SD input (SDI)
EU-ME1	System setup > Remote > Remote > EVIS	Video system Center 2	Video system Center 2
	Setting > Display > Video signal format	SDTV(RGB)	HDTV
	Setting > Display > Aspect	4:3	4:3
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1
OEV262H	Preset > Load preset	B/C	B/C
	PORT A	SDI 1	SDI1

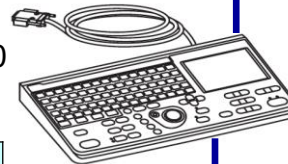
OEV321UH



OEV262H

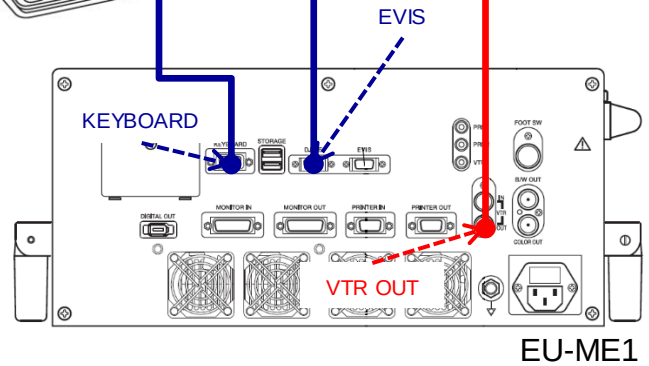


MAJ-1710

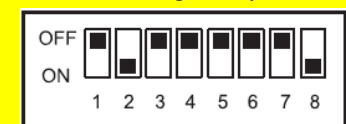


<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-2430	3G-SDI cable (1.5M)
	MAJ-2015	3G-SDI cable (3.0M)
	MAJ-2016	3G-SDI cable (8.5M)
3	MH-985	Y/C cable (2.95M)
	MAJ-987	Y/C cable (15M)
4	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
5	MAJ-1711	EVIS-EUS connecting cable



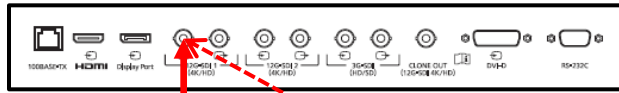
DIP-switching setup for MAJ-1710



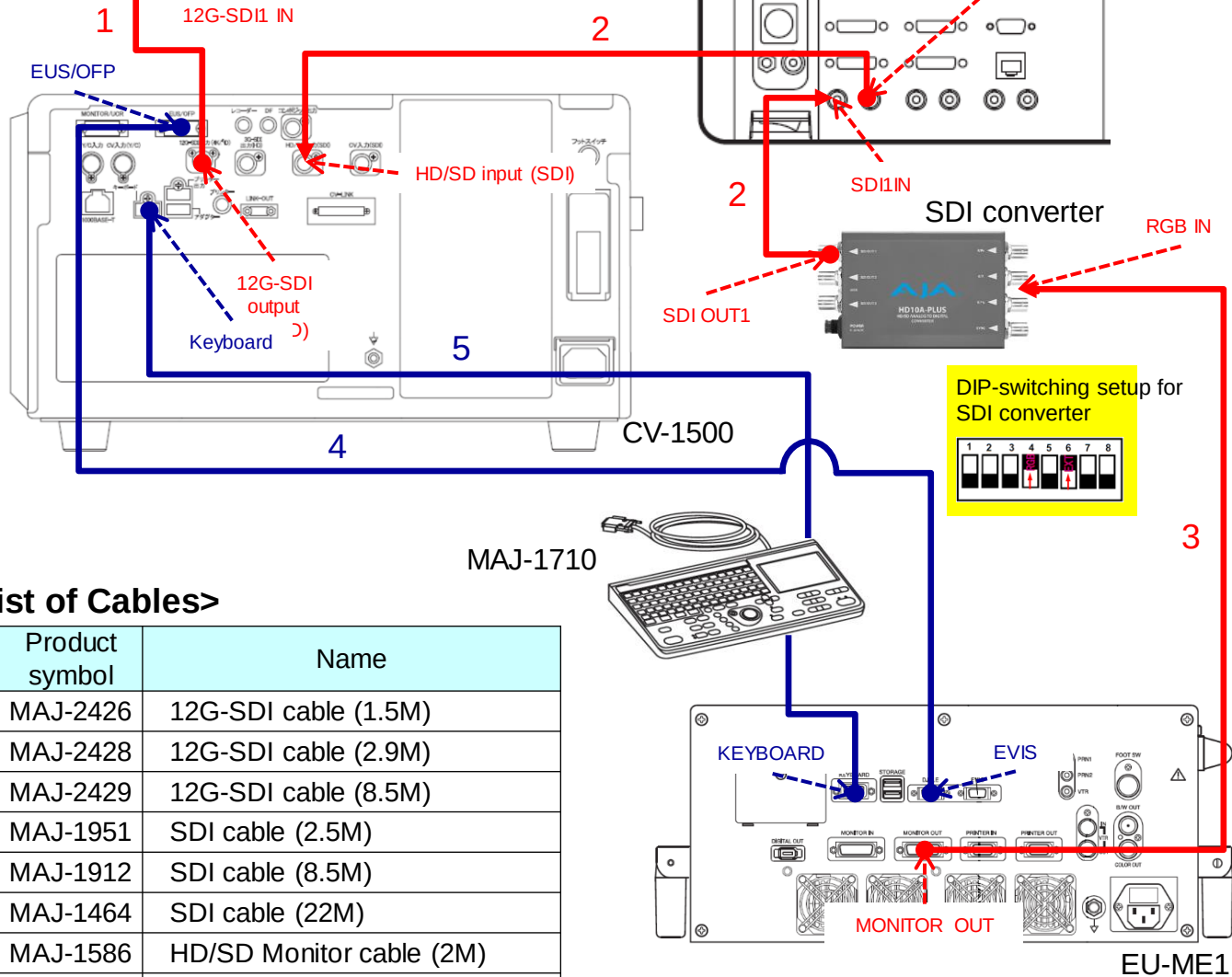
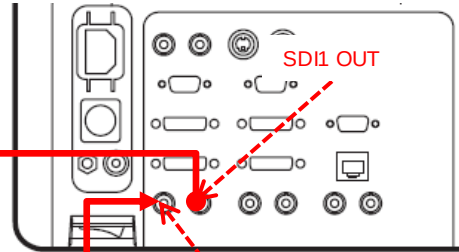
[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Video output > 3G-SDI OUT (HD) signal	HD:1080p	HD:1080p
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	Y/C input
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Enabled
	Setting > System setup > Peripherals 2 > 12G-SDI OUT (4K/HD)	Fixed EVIS	Fixed EVIS
	Setting > System setup > Peripherals 2 > 3G-SDI OUT (HD)	EVIS/US switch	EVIS/US switch
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Settings > User Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	Y/C input
EU-ME1	System setup > Remote > Remote > EVIS	Video system Center 2	Video system Center 2
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1
OEV262H	Preset > Load preset	B/C	B/C
	PORT A	SDI1	SDI1

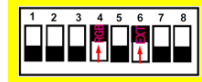
OEV321UH



OEV262H



DIP-switching setup for SDI converter



DIP-switching setup for MAJ-1710



<List of Cables>

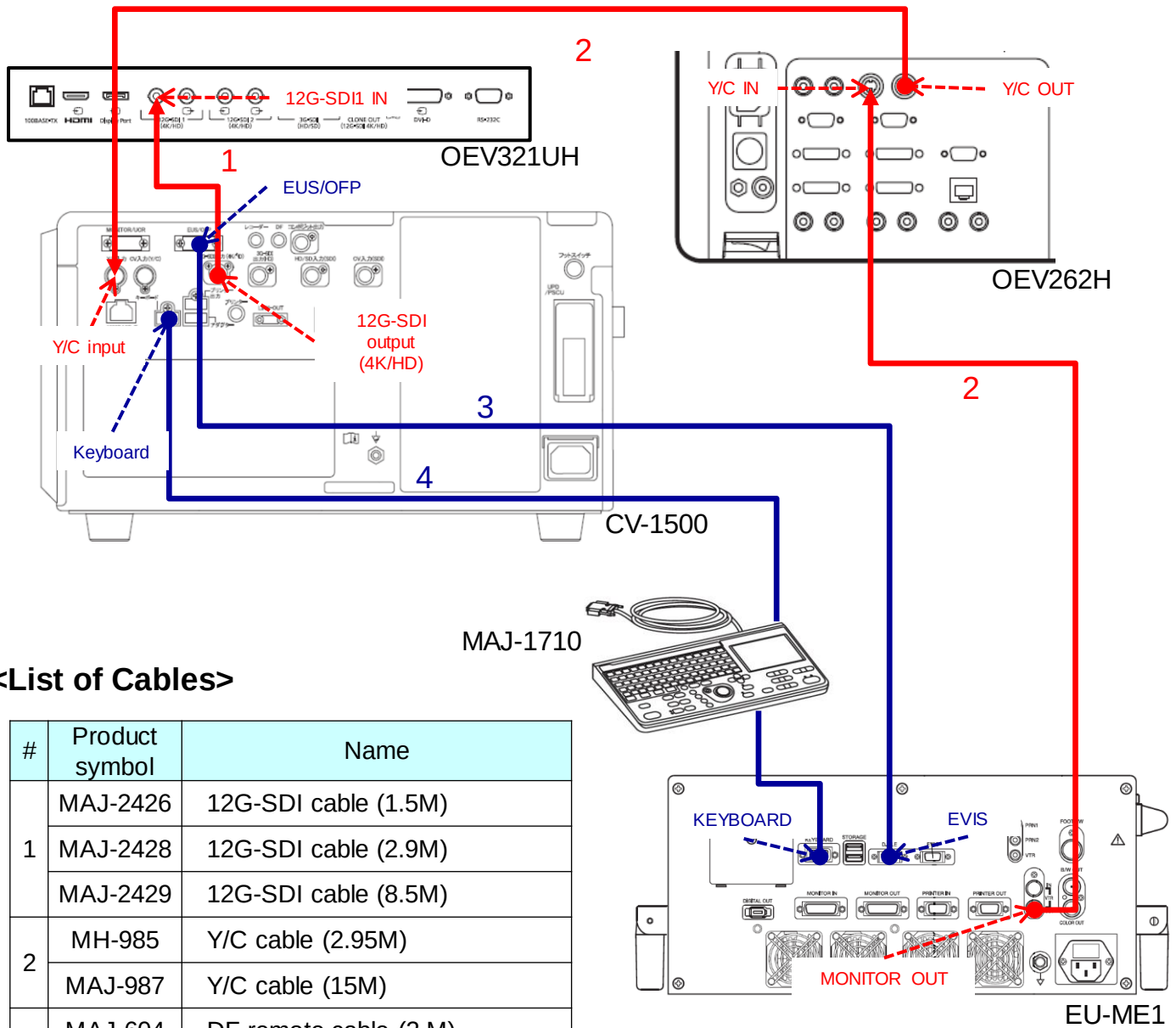
#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-1951	SDI cable (2.5M)
	MAJ-1912	SDI cable (8.5M)
	MAJ-1464	SDI cable (22M)
3	MAJ-1586	HD/SD Monitor cable (2M)
	MAJ-970	HD/SD Monitor cable (4M)
	MAJ-1462	HD/SD Monitor cable (7M)
	MAJ-1584	HD/SD Monitor cables (15M)
4	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
5	MAJ-1711	EVIS-EUS connecting cable

Precautions for SDI Converters

- Do not place beside CV-1500.
- Take the power from the isolation transformer.
(Reference: SDI converter is a non-medical device.)

[SETTING INFORMATION]

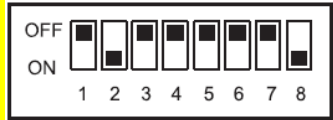
Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	HD/SD input (SDI)
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Enabled
	Setting > System setup > Peripherals 2 > 12G-SDI OUT (4K/HD)	Fixed EVIS	Fixed EVIS
	Setting > System setup > Peripherals 2 > 3G-SDI OUT (HD)	EVIS/US switch	EVIS/US switch
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	HD/SD input (SDI)
EU-ME1	System setup > Remote > Remote > EVIS	Video system Center 2	Video system Center 2
	Setting > Display > Video signal format	SDTV(RGB)	HDTV
	Setting > Display > Aspect	4:3	4:3
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1
OEV262H	Preset > Load preset	B/C	B/C
	PORT A	SDI1	SDI1



<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MH-985	Y/C cable (2.95M)
	MAJ-987	Y/C cable (15M)
3	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
4	MAJ-1711	EVIS-EUS connecting cable

DIP-switching setup for MAJ-1710



[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	Y/C input
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Enabled
	Setting > System setup > Peripherals 2 > 12G-SDI OUT (4K/HD)	Fixed EVIS	Fixed EVIS
	Setting > System setup > Peripherals 2 > 3G-SDI OUT (HD)	EVIS/US switch	EVIS/US switch
	Settings > User Presets > New entry or edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	Y/C input
EU-ME1	System setup > Remote > Remote > EVIS	Video system Center 2	Video system Center 2
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1
OEV262H	Preset > Load preset	B/C	B/C
	PORT A	SDI1	Y/C

8. CV-1500 wiring and setting (CV-190/190PLUS/290 And peripheral equipment)

Table of Contents

- When using the 180/260 Series Scope
- Wiring/setting
- Procedures for connecting with CV-190/190PLUS/290
- CV-190/190PLUS/290
- CV-190/190PLUS/290 +OEV321UH
- CV-190/190PLUS/290 +OEV262H
- CV-190/190PLUS/290 +OEV261H
- CV-190/190PLUS/290 +OEP-6
- CV-190/190PLUS/290 +OEP-5
- CV-190/190PLUS/290 +OEP-4(MAJ-2363)
- CV-190/190PLUS/290 +IMH-200(MAJ-2363)
- CV-190/190PLUS/290 +IMH-20(MAJ-2363)
- CV-190/190PLUS/290 +IMH-10(MAJ-2363)
- CV-190/190PLUS/290 +nCare (ISM product)
- CV-190/190PLUS/290 +UPD-3
- CV-190/190PLUS/290+PSCU
- CV-190/190PLUS/290+PSCU+UPD-3
- CV-190/190PLUS/290 +EU-ME2 type A
- CV-190/190PLUS/290 +EU-ME2 type A1
- CV-190/190PLUS/290 +EU-ME2 type E1S
- CV-190/190PLUS/290 +EU-ME1 type A
- CV-190/190PLUS/290 +EU-ME1 type B
- CV-190/190PLUS/290 +EU-ME1 type A1
- CV-190/190PLUS/290 +EU-ME1 type B1
- CV-190/190PLUS/290 +EU-ME1 type E1S
- CV-190/190PLUS/290 +EU-ME1 type E1Y

It is necessary to connect CV-1500 to CV-190/190PLUS/290.

* The scope before the 260-180 series cannot be used.

* When using the 290-190 series, there is no need to connect CV-190/190PLUS/CV-290.

■ Pre-setup checks

- ◆ Ensure that CV-190/190PLUS/290's patient-information display settings are set to "Compatible Modes".

If the compatibility mode is not set, set the compatibility mode before connecting with CV-1500. When connecting without setting, the error "E301" will occur.

* The patient information display setting can be changed only by Olympus service personnel.

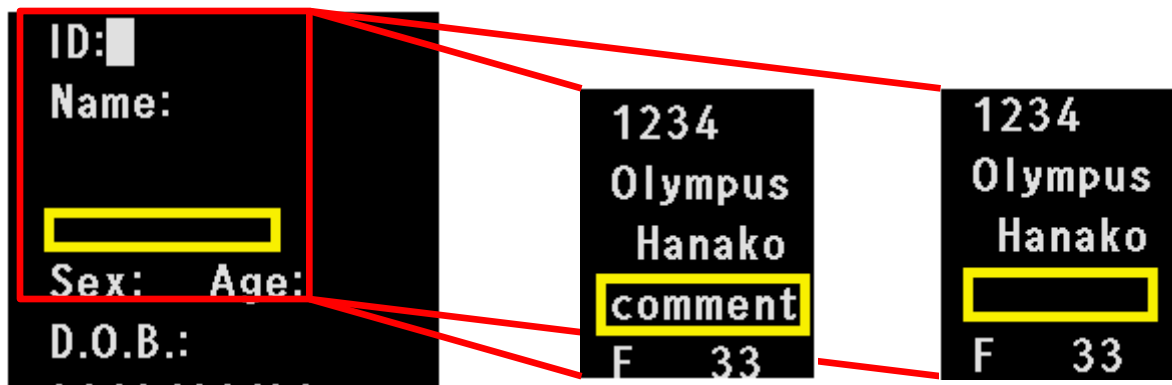
Please check by the following methods and contact service personnel prior to the establishment of CV-1500 if setting is required.

[Confirmation method]

It can be determined whether the cursors can be moved to the image yellow frame, when the patient information is entered.

Compatible mode: The cursors can move to the part indicated in the yellow box (letter can be input)

Not in compatible mode: The cursors cannot be moved to the part indicated in the yellow box (letter input not possible)



CV-190/190PLUS/290 screen

Compatibility mode

Not in compatibility mode

■ Precautions for placement

◆ Check if CV-190/190PLUS/290 is "end of Exam" prior to connecting.

◆ Install CV-1500 on CV-190/190PLUS/290 to make the touch panel easier to operate.

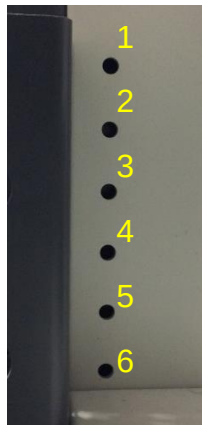
*If set up in oppsite way, the scope cable prevents the touch panel from operating.

◆ When CV-190/190PLUS/290 is connected, CV-190/190PLUS/290 sets are automatically changed. If it is necessary, note the setting beforehand.

◆ If it is placed in WM-NP2, the height of the top shelf needs to be changed (NP3 does not need to be changed.)

[When placing on a WM-NP2].

When positioning the top row so that six holes are visible above the shelf plate, it can be placed as in the right panel.



■ Preparation for connection

Connecting CV-1500 to CV-190/190PLUS/290 requires the following cable types:

#	Product symbol	Name	Numbers
1	MAJ-2477	Sets of EXERA III/LUCERA ELITE connections	1
	Set Breakdown	MAJ-2363	CV interface converter 2
		MAJ-1918	Peripheral Device Remote Cable (1.8M)
		MAK-2432	Activation connectors
		MAJ-1433	Foothold
2	MAJ-1951	SDI-cable (2.5M)	1
	MAJ-1912	SDI-cable (8.5M)	
3	MH-985	Y/C video cable (2.95M)	1
	MAJ-987	Y/C cable (15M)	
4	MAJ-1941	Light source cable	1

※ Use CV communicatin converter 2 (MAJ-2363) when connecting with CV-190/190PLUS/290. It is required.
Conventional MAJ-1916 cannot be used.

■ Operational constraints

- ◆ Turn both CV-190/190PLUS/290 and CV-1500 on when using the 180/260 system scope.
- ◆ When removing the 180/260 system scope, be sure to turn off CV-190/190PLUS/290 and remove the scope.
- ◆ When CV-190/190PLUS/290 is turned off, the error "E532 (image cable not connected)" will occur, but the error will be resolved by turning on the power supply again. (Not a defect.)
- ◆ The display position of the PIP screen is limited to the lower left display regardless the user setting.
- ◆ Do not operate from CV-190/190PLUS/290 front panel. Operate from CV-1500 touch panel. It may cause errors such as "white balance cannot be completed" and "CV-190/190PLUS/290 error display" etc. (If it occurs, restart both CVs.)
- ◆ The water container should be placed on the holder of the trolley.

1 Connecting HD-SDI Cables (MAJ-1951/MAJ-1912)

Connects to "SDI output 1" in CV-190/190PLUS/290 and "CV input (SDI) in CV-1500.

2 Y/C cable connection (MH-985/MAJ-987).

Connects to the S-video output of CV-190/190PLUS/290 and the CV input (Y/C) of CV-1500.

3 Light source cable connection (MAJ-1941)

Connects to the "light source device 1" in CV-190/190PLUS/290 and the "CV-LINK" in CV-1500.

***This is the same cable used to connect CV-190/190PLUS/290 to the light source device.**



MAJ-1941

4 Connecting Peripheral Device Remote Cables (MAJ-1918) 1

It connects to the adapter in CV-1500 and the "CV" of MAJ-2363.



MAJ-1918(×3)

5 Connecting Peripheral Device Remote Cables (MAJ-1918) 2

Connects to the "Keyboard" in CV-190/190PLUS/290 and the "CV-190/CV-290 KEYBOARD" in MAJ-2363.

6 Connecting Peripheral Device Remote Cables (MAJ-1918) 3

Connects to the adaptor in CV-190/190PLUS/290 and CV-190/CV-290 ADAPTER in MAJ-2363.

⑦ Connecting the activation connectors (MAJ-2432).

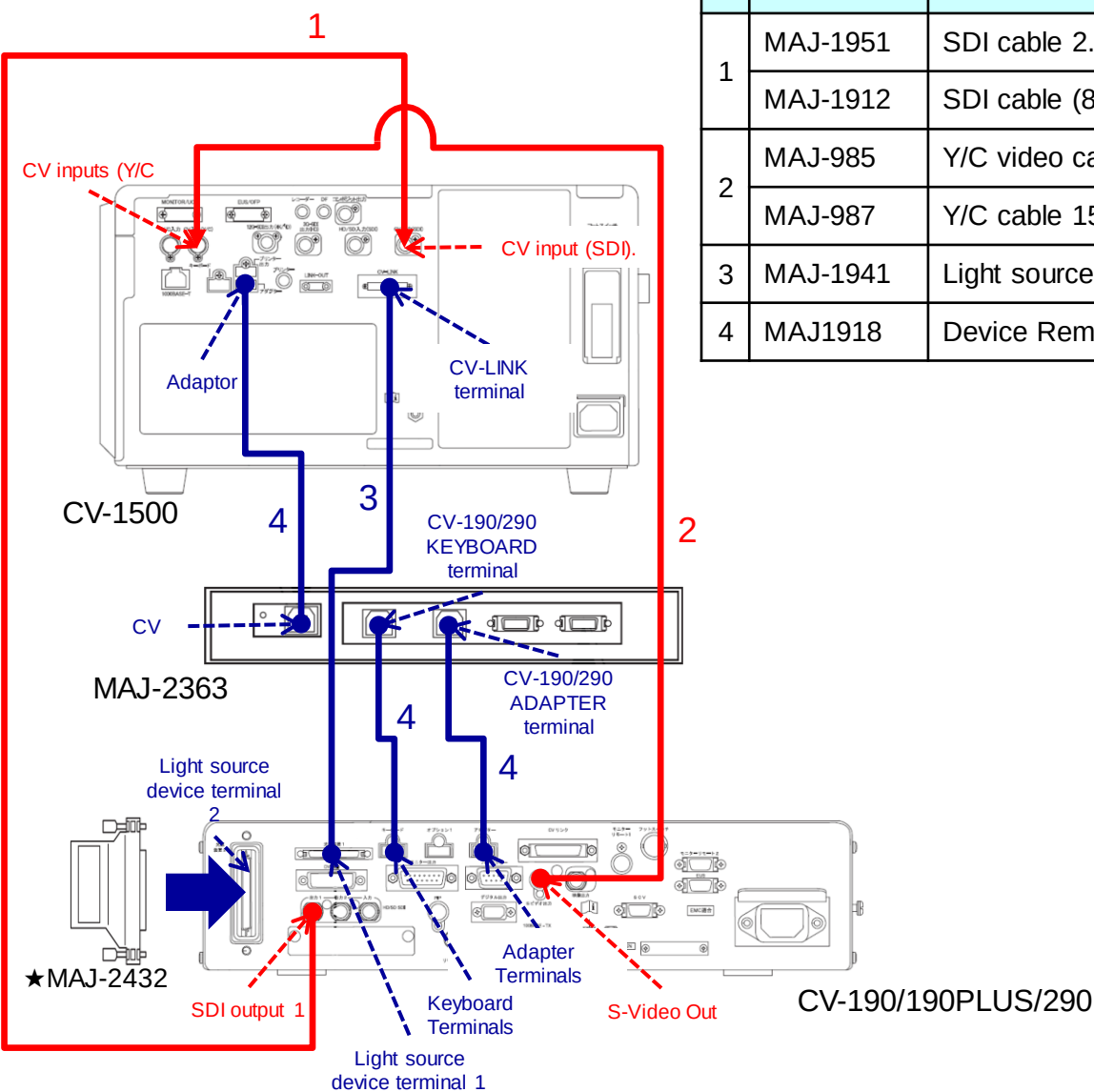
To CV-190/190PLUS/290's Light Source 2

Connect the activation connector (MAJ-2432).



MAJ-2432

<List of Cables>



[SETTING INFORMATION]

#	Product symbol	Name
1	MAJ-1951	SDI cable 2.5M
	MAJ-1912	SDI cable (8.5M)
2	MAJ-985	Y/C video cable 2.95M
	MAJ-987	Y/C cable 15M
3	MAJ-1941	Light source cable
4	MAJ1918	Device Remote Cables 1.8M

Setting model	Step	Default	After change
CV-1500	Setting> System setup > Peripherals 1>CV interface converter type	Not connected	MAJ-2363
	Setting > System setup > Pripherals 1 > Ext. video processor type	Not connected	CV-190/190PLUS CV-290

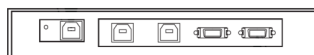
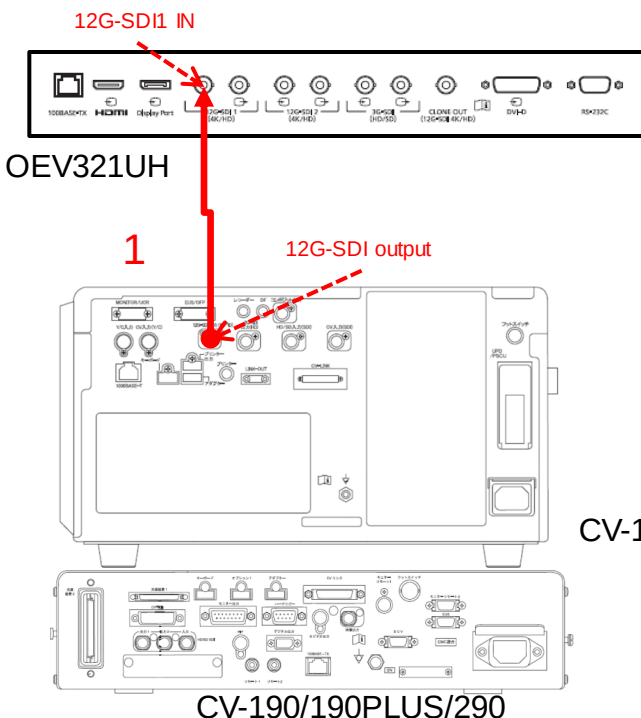
◆ CV-190/190PLUS/290+OEV321UH

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)

! Caution!
The 12G-SDI cable is required to output 4K image.



MAJ-2363

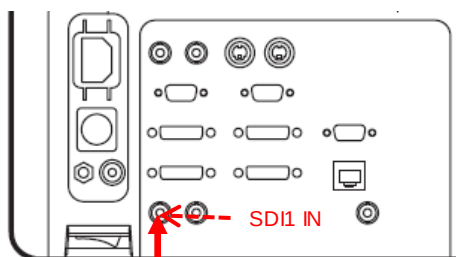
[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1

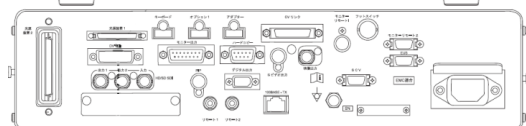
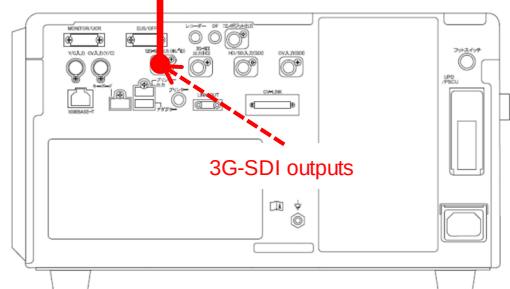
◆ CV-190/190PLUS/290+OEV262H

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

OEV262H



1



CV-190/190PLUS/290

<List of Cables>

#	Product symbol	Name
1	MAJ-2430	3G-SDI cable (1.5M)
	MAJ-2015	3G-SDI cable (3.0M)
	MAJ-2016	3G-SDI cable (8.5M)

! Caution!

To use OEV262H as an observation monitor, set CV-1500 image output to HD:1080p or less, because OEV262H is not compatible with 4K format.

CV-1500



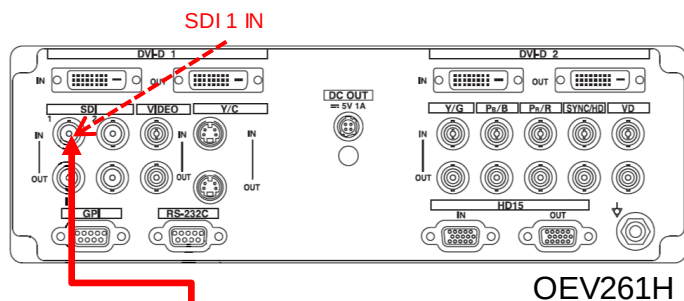
MAJ-2363

[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080p
OEV262H	MENU > Preset > Load Preset	B/C	B/C
	PORT A	SDI1	SDI1

◆ CV-190/190PLUS/290+OEV261H

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.



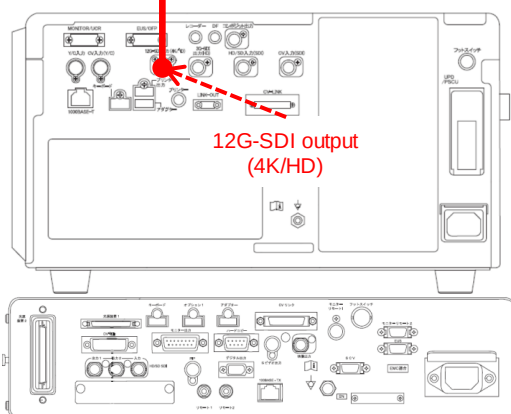
OEV261H

! Caution!

To use OEV261H as an observation monitor, set CV-1500 image output to HD:1080p or less, because OEV262H is not compatible with 4K format.

1

CV-1500



CV-190/190PLUS/290

<List of Cables>

#	Product symbol	Name
1	MAJ-1951	SDI cable (2.5M)
	MAJ-1912	SDI cable (8.5M)
	MAJ-1464	SDI cable (22M)



MAJ-2363

[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080i
OEV261H	PRESET(OEV261H) > FILE LOAD	I	I
	INPUT(OEV261H) > port A	SDI 1	SDI 1

◆ CV-190/190PLUS/290+OEP-6

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

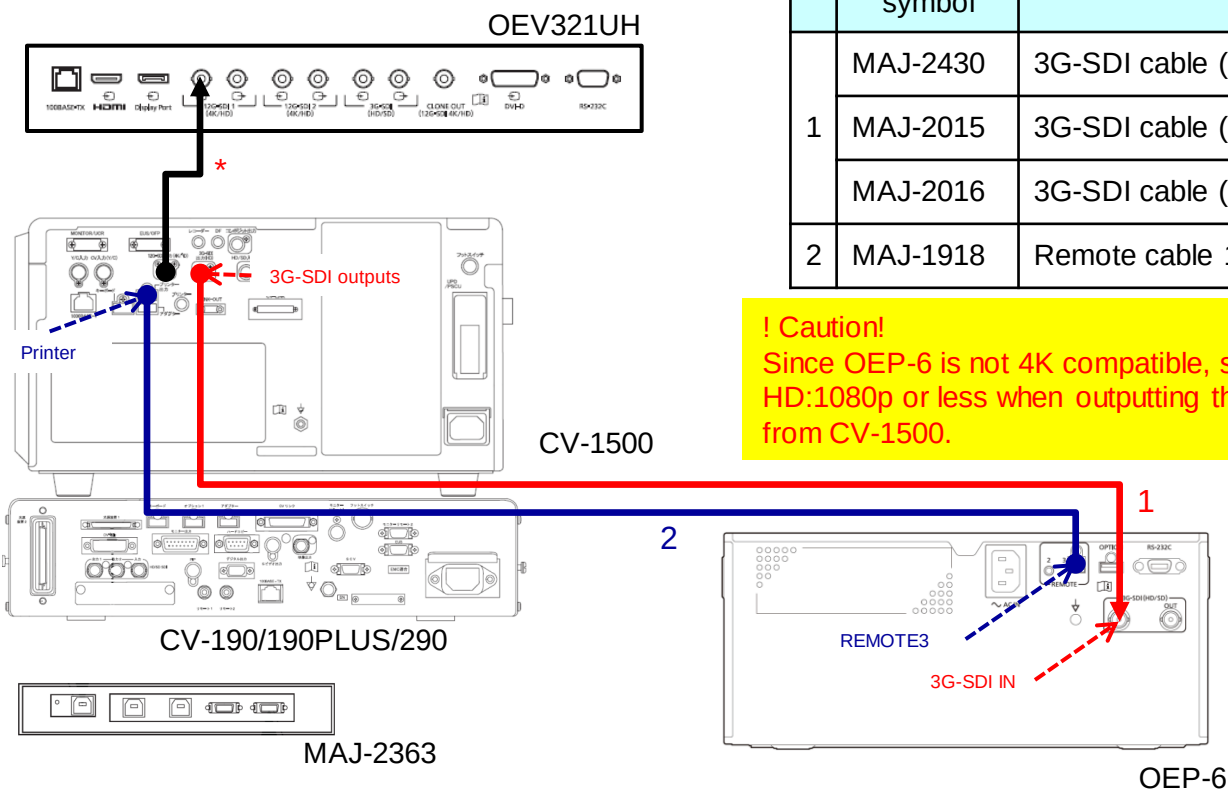
* For OEV321UH connection and setting
Please refer to "CV-190/190PLUS/290+OEV321UH".

<List of Cables>

#	Product symbol	Name
1	MAJ-2430	3G-SDI cable (1.5M)
	MAJ-2015	3G-SDI cable (3.0M)
	MAJ-2016	3G-SDI cable (8.5M)
2	MAJ-1918	Remote cable 1.8M

! Caution!

Since OEP-6 is not 4K compatible, set to HD:1080p or less when outputting the image from CV-1500.



[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080P
	Setting > System setting > Peripherals 1 > Video printer type	Not connected	OEP-6
	Setting> User Setting > Release/Pre-freeze >Release 1 save location or Release 2 save location	Portable memory	Portable memory Video printers
OEP-6	MENU > System setup > Remote setup >REMOTE3 Device type	CV	CV
	MENU > System setup > Input setup > Input signals	Auto	Auto

■ Supplement

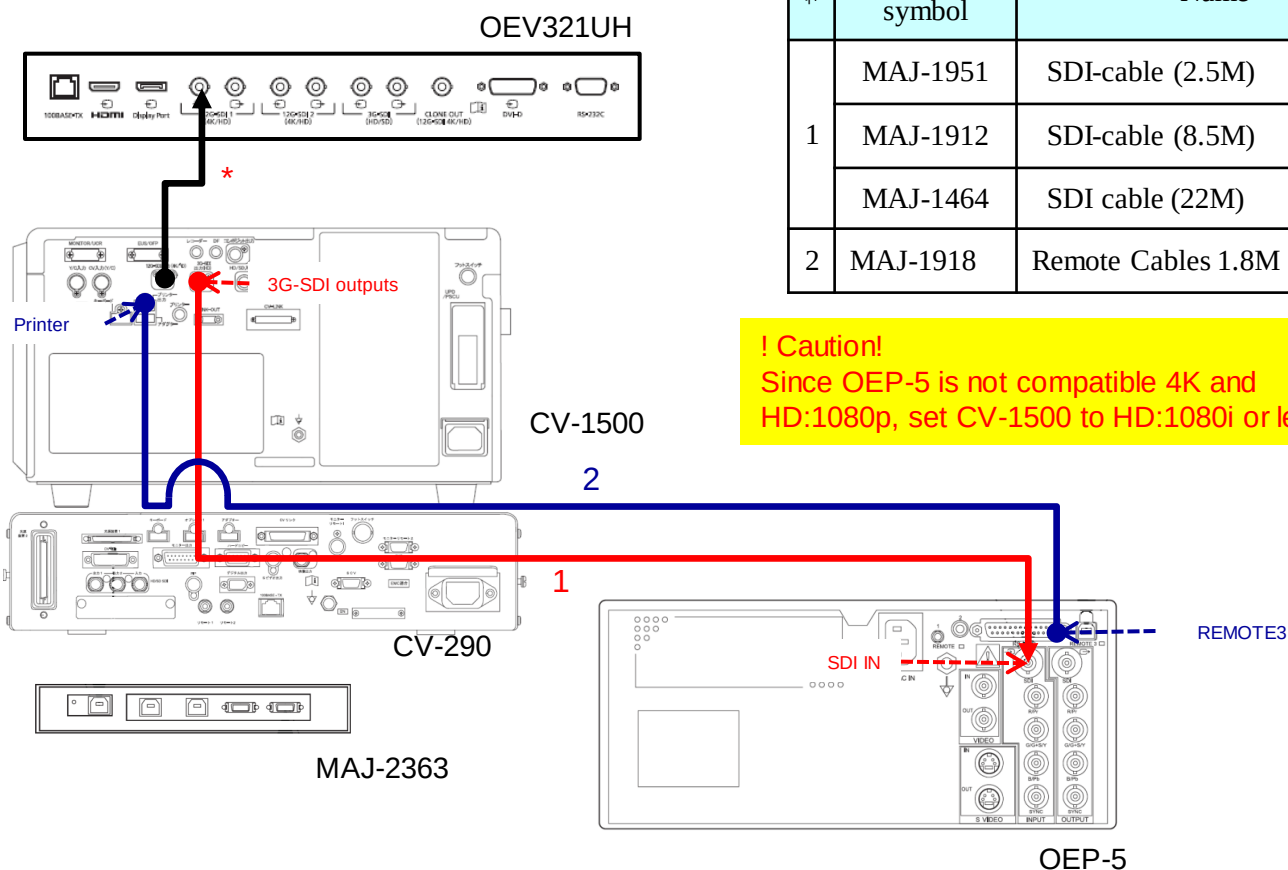
* Connecting MAJ-1918 turns the remote lock ON, which overrides OEP-5's front-panel operation, and thereafter it can be operated by touch-panel of the CV.

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<List of Cables>

#	Product symbol	Name
1	MAJ-1951	SDI-cable (2.5M)
	MAJ-1912	SDI-cable (8.5M)
	MAJ-1464	SDI cable (22M)
2	MAJ-1918	Remote Cables 1.8M

! Caution!
Since OEP-5 is not compatible 4K and
HD:1080p, set CV-1500 to HD:1080i or less.



[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080i
	Setting > System setting > Peripherals 1 > Video printer type	Not connected	OEP-5
	Setting> User Setting > Release/Pre-freeze >Release 1 save location or Release 2 save location	Portable memory	Portable memory Video printers
OEP-5	Signal setup > input setup > input selection	SDI	SDI
	Signal setting > input setting > HD/SD selection	Auto	Auto

■ Supplement

* Connecting MAJ-1918 turns the remote lock ON, which overrides OEP-5's front-panel operation, and thereafter it can be operated by touch-panel of the CV.

◆ CV-190/190PLUS/290+OEP-4 1

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

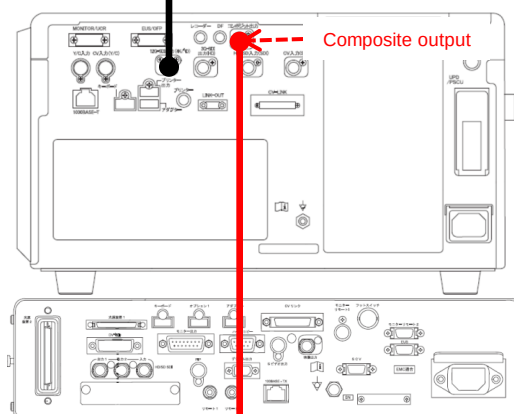
* For OEV321UH connection and setting
Refer to "CV-190/190PLUS/290+OEV321UH".

<List of Cables>

OEV321UH



#	Product symbol	Name
1	MB-677	BNC cable (3M)
2	MH-995	Remote cable

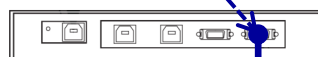


CV-1500

1 CV-190/190PLUS/290

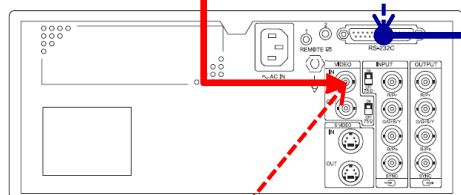
RS-232C

PRINTER · IMH



MAJ-2363

2



OEP-4

VIDEO IN

[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setting > Peripherals 1 > Video printer type	Not connected	OEP-4
	Setting> User Setting > Release/Pre-freeze >Release 1 save location or Release 2 save location	Portable memory	Portable memory Video printers
OEP-4	BASIC SETUP>INPUT SEL	COMPONENT	VIDEO
	INPUT SETUP>SD/HD SEL	AUTO	AUTO

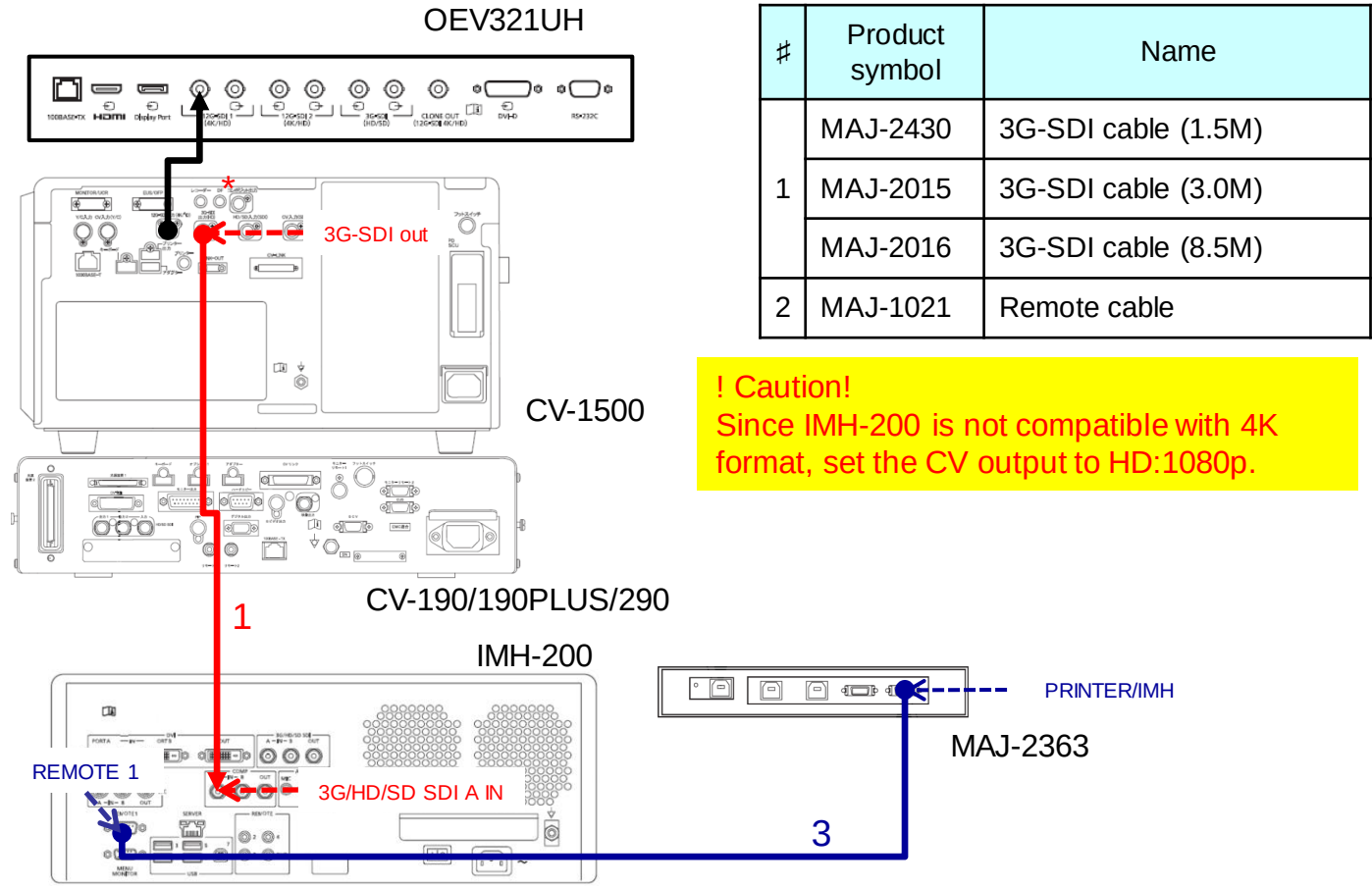
■ Precautions

- Set in the order of "CV Communication Device Connecting Model" to "Video Printer Connecting Model".
In the opposite order of setting
If this is done, "Video printer type" will be "Not connected".

◆ CV-190/190PLUS/290+IMH-200 1

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

* For OEV321UH connection and setting
Refer to "CV-90/190PLUS/290+OEV321UH" <List of Cables>



[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080p
	Setting > System setup > Peripherals 1 > Video recorder type	Not connected	Option
	Setting> User Setting > Release/Pre-freeze >Release 1 save location or Release 2 save location	Portable memory	Portable memory Video recorder
IMH-200	Settings > System Settings> Devices/Accessories > Devices >REMOTE1	No Device	Processor Type 1
	Settings > Rec Function Setting > VIDEO > PORT A	PORT A	PORT A

■ Precautions

- Set in the order of "CV Communication Device Connecting Model" to "Video Recorder Connecting Model". Set in the opposite order of setting
- When it is performed, the video recorder type will be not connected.
- Turn on the IMH Remote Lock.

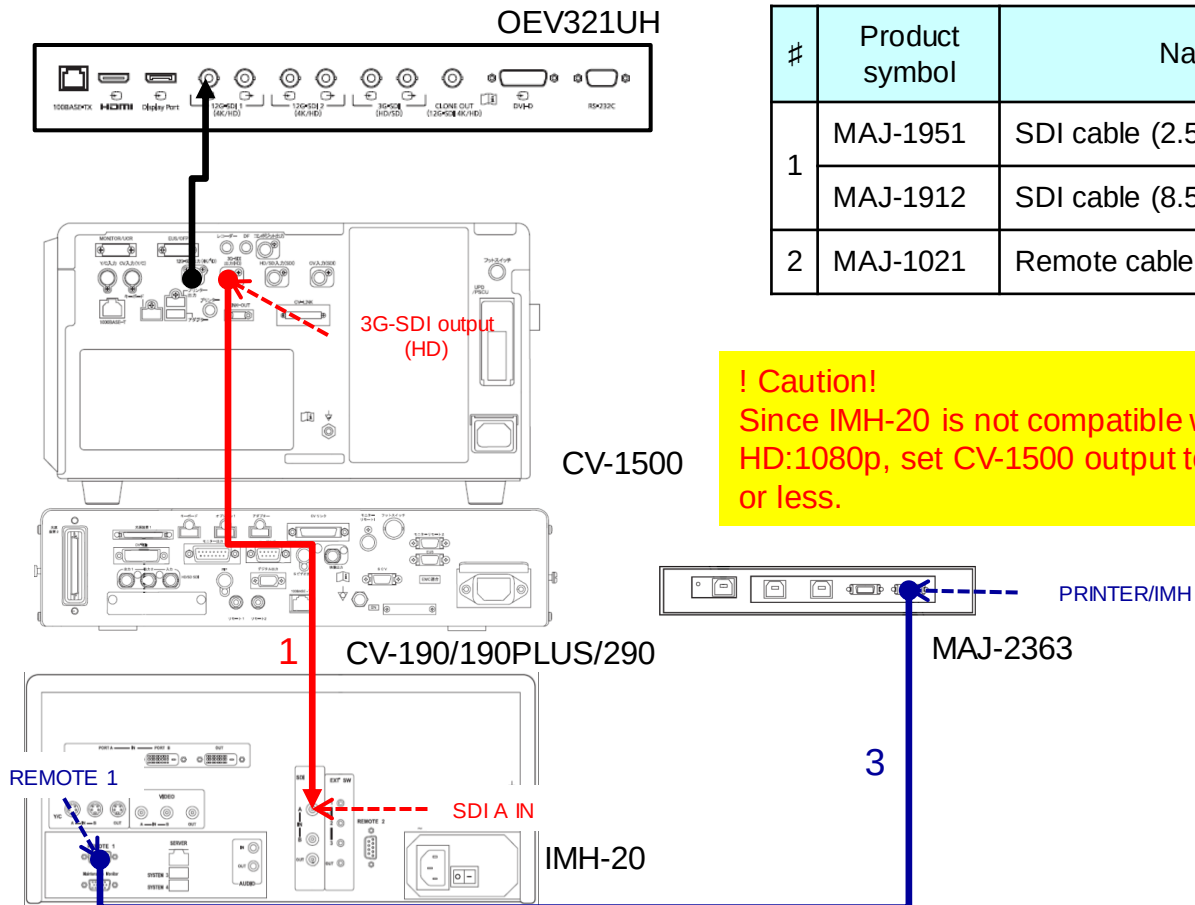
◆ CV-190/190PLUS/290+IMH-20(MAJ-2363)

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

* For OEV321UH connection and setting
Refer to "CV-90/190PLUS/290+OEV321UH".

<List of Cables>

#	Product symbol	Name
1	MAJ-1951	SDI cable (2.5M)
	MAJ-1912	SDI cable (8.5M)
2	MAJ-1021	Remote cable



! Caution!
Since IMH-20 is not compatible with 4K and HD:1080p, set CV-1500 output to HD:1080i or less.

[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080i
	Setting > System setup > Peripherals 1 > Video recorder type	Not connected	IMH-10/ IMH-20
	Setting> User Setting > Release/Pre-freeze >Release 1 save location or Release 2 save location	Portable memory	Portable memory Video recorder
IMH-20	System settings> Function settings > Device >Remote 2	No Device	Processor Type 1
	User settings > Select input	-	SDI

■ Precautions

- Set in the order of "CV Communication Device Connecting Model" to "Video Recorder Connecting Model". In the opposite order of setting
When it is performed, the video recorder type will be not connected.
- Turn on the IMH Remote Lock.

◆ CV-190/190PLUS/290+IMH-10(MAJ-2363)

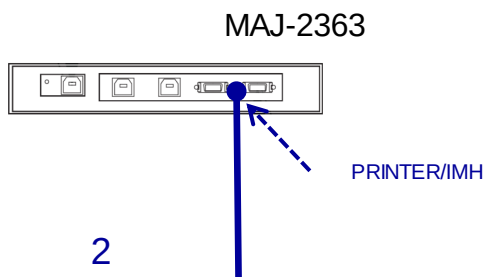
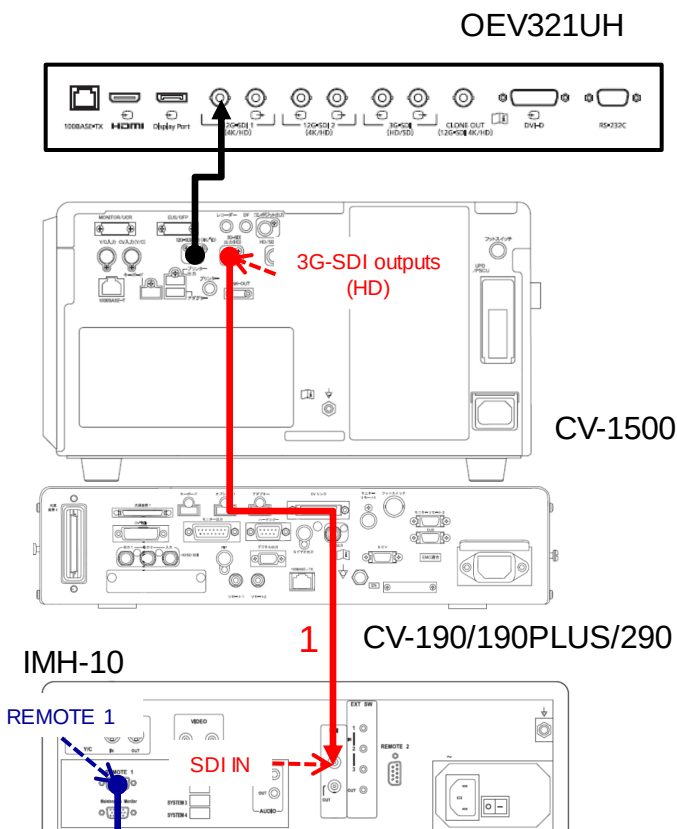
* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

*For OEV321UH connection and setting
Refer to "CV-190/190PLUS/290+OEV321UH".

<List of Cables>

#	Product symbol	Name
1	MAJ-1951	SDI cable (2.5M)
	MAJ-1912	SDI cable (8.5M)
2	MAJ-1021	Remote cable

! Caution!
Since IMH-10 is not compatible with 4K and HD:1080p, set CV-1500 output to HD:1080i or less.



[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080i
	Setting > System setup > Peripherals 1 > Video recorder type	Not connected	IMH-10/IMH-20
	Setting> User Setting > Release/Pre-freeze >Release 1 save location or Release 2 save location	Portable memory	Portable memory Video recorder
IMH-10	System settings> Function settings > Device >Remote 2	No Device	Processor Type 1
	User settings > Select input	-	SDI

■ Precautions

- Set in the order of "CV Communication Device Connecting Model" to "Video Recorder Connecting Model". If setting is performed in the reverse order, the "video recorder connecting model" will be "not connected".
- Turn on the IMH Remote Lock.

◆ CV-190/190PLUS/290+nCare (ISM Product)

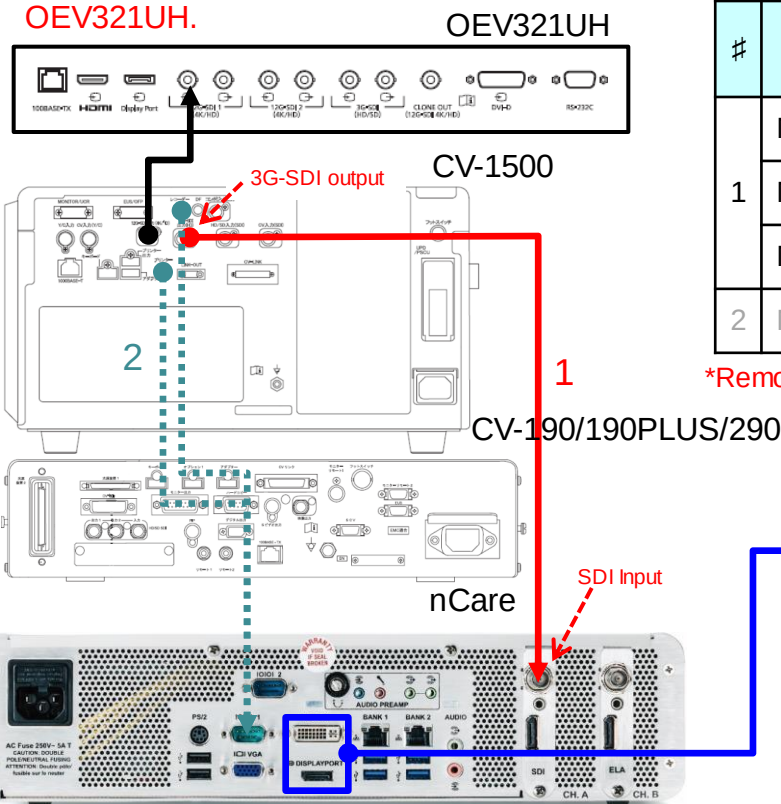
* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

* Refer to OEV321UH for the connection and setting with OEV321UH.

<List of Cables>

#	Product symbol	Name
1	MAJ-2430	3G-SDI Cable 1.5M
	MAJ-2015	3G-SDI Cable 3.0M
	MAJ-2016	3G-SDI Cable 8.5M
2	N/A	Remote Cable

*Remote control function is under development in ISM



Nurses Control Panel Arm

Long Nurses Arm:
MAJ-1664

Short Nurses Arm*: MAJ-1662



! Caution !

- Since nCare is not compatible with 4K and HD:1080p, set CV-1500 output to HD:1080i or less.
- nCare record status is not shown in CV-1500. Remote control function is under development in ISM.
- Touch panel monitor is needed to operate nCare. (refer to nCare Instruction manual for the connection and setting)

[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 3G-SDI OUT (HD/SD) signal	HD:1080p	HD:1080i
	Setting > System setup > Peripherals 1 > Video recorder type	Not connected	Not connected

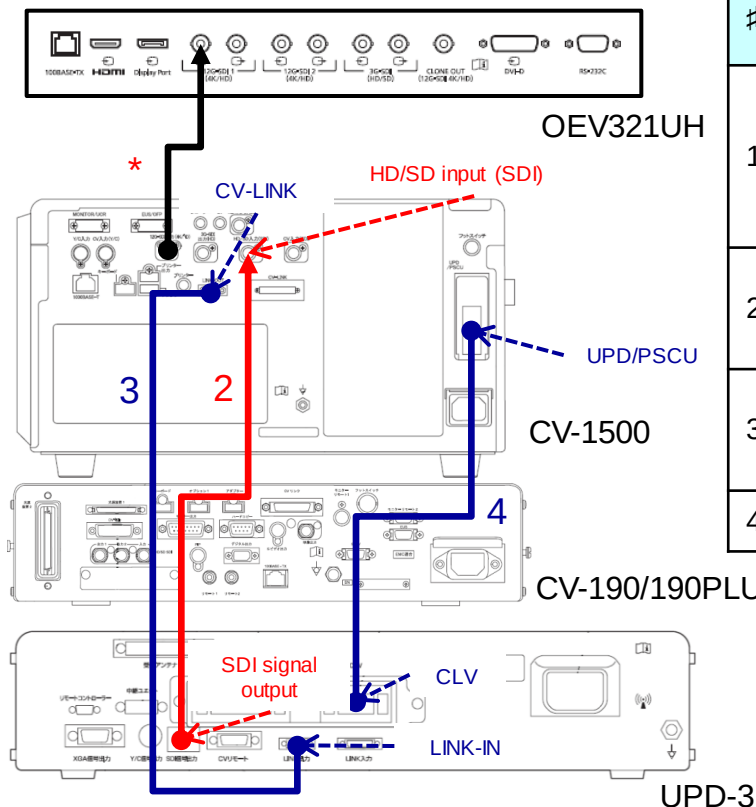
◆ CV-190/190PLUS/290+UPD-3

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

* For OEV321UH connection and setting
Refer to "CV-
190/190PLUS/290+OEV321UH".

<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-1912	SDI cable (8.5M)
	MAJ-1951	SDI cable 2. 5M
3	MAJ-1942	Communication cables (0.7M)
	MAJ-1948	Communication cables (1.8M)
4	MAJ-1898	CLV-UPD cable



[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting> System setup > Peripherals 2> Select PIP/POP device	CV	CV
	Setting> System setup > Peripherals 2 > UPD ScopeGuide Type	Not connected	UPD-3
	Settings > User Settings > PIP/POP > Select CV ext. source	HD/SD input (SDI)	HD/SD input (SDI)
UPD-3	Menu > System settings > System> Remote > Connection	CV remote	LINK-IN

■ Supplement

- When LINK connected , UPD-3's front-panel control is overridden, and the operation is performed from the CV-touch panel.
- External image record setting allow UPD-3 to be released.

■ Reference

Since the PIP is input to the CV, UPD-3 screen is displayed on the monitor by performing the following operations:

[How to display UPD-3 screen]. Home > Function List > Info. > PIP/POP > PIP ON

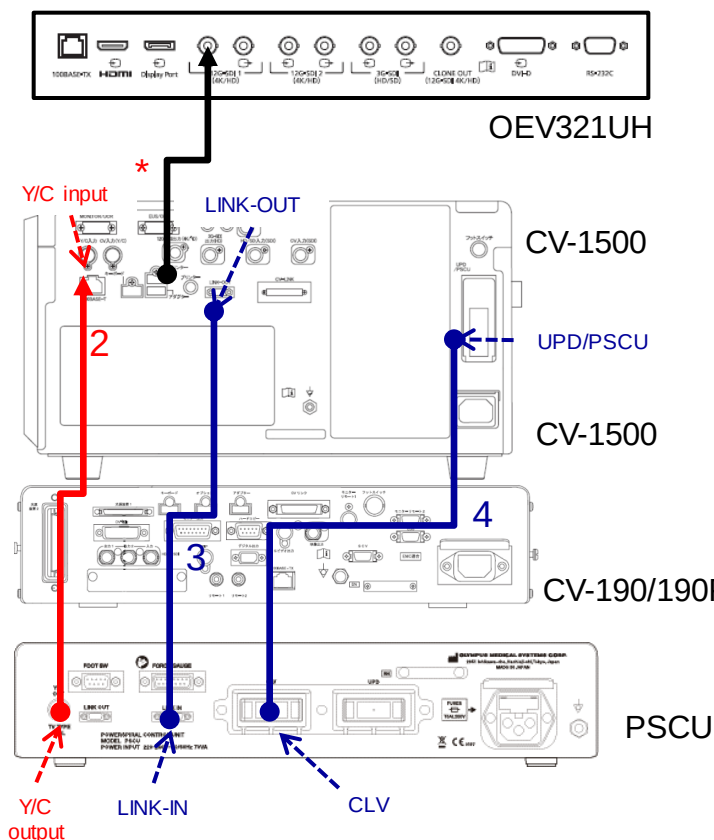
◆ CV-190/190PLUS/290+PSCU

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

* For OEV321UH connection and setting
Refer to "CV-190/190PLUS/290+OEV321UH".

<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MH-985	Y/C cable
3	MAJ-1942	Communication cable (0.7M)
	MAJ-1948	Communication cable (1.8M)
4	MAJ-1898	CLV-UPD cable



[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting> System setup > Peripherals 2> Select PIP/POP device	CV	CV
	Settings > User Settings > PIP/POP > Select CV ext. source	HD/SD IN (SDI)	Y/C IN

■ Supplement

- Please refer to the External Image Record Setting for how to record PSCU images.

■ Reference

Since the PIP has been entered into the CV, Force gauge screen is displayed on the monitor by performing the following operations:

[How to display Force gauge screen]. Home > Function List > Info. > PIP/POP > PIP ON

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[SETTING INFORMATION]

Setting model	Step	Default	After change
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting> System setup > Peripherals 2> Select PIP/POP device	CV	CV
	Setting> System setup > Peripherals 2 > UPD ScopeGuide Type	Not connected	UPD-3
	<Display UPD-3 image> Settings > User Settings > PIP/POP > Select CV ext. source	HD/SD IN (SDI)	HD/SD IN (SDI)
	<Display PSCU image> Settings > User Settings > PIP/POP > Select CV ext. source	HD/SD IN (SDI)	Y/C IN
UPD-3	Menu > System settings > System > Remote > Connection	CV remote	LINK-IN

■ Supplement

- When LINK connected , UPD-3's front-panel control is overridden, and the operation is performed from the CV-touch panel.

- Please refer to the External Image Record Setting for how to record UPD-3/PSCU images.

■ Reference

- Since the PIP has been entered into the CV, UPD-3/PSCU screen is displayed on the monitor by performing the following operations:

[How to display UPD-3/PSCU screen]. Home > Function List > Info. > PIP/POP > PIP ON

- It is able to switch UPD-3 or PSCU image by using PIP input select button.

* Please refer to EU-ME2 setting type Selection Flow and determine the wiring type.

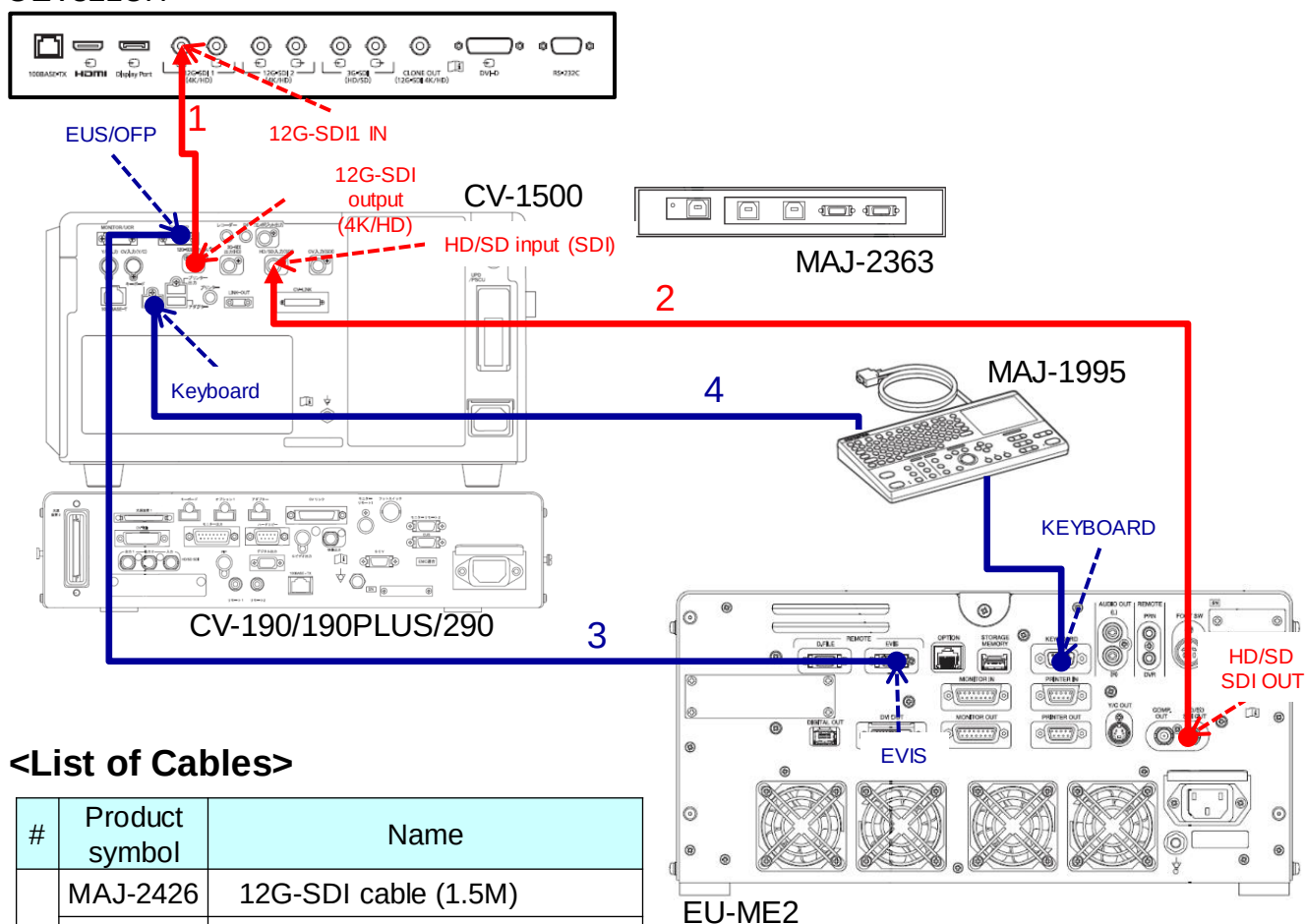
◆ CV-190/190PLUS/290+EU-ME2 type A 1/2

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* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

CV-1500 and EU-ME2 should be connected with SDI cable (2.5M).
Voltage fluctuations, such as lightning strikes, can cause noise in images.

OEV321UH



<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-1951	SDI cable (2.5M)
3	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
4	MAJ-1711	EVIS-EUS connecting cable

DIP-switching setup for MAJ-1995



◆ CV-190/190PLUS/290+EU-ME2 type A 2/2

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	HD/SD input (SDI)
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Disabled
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	HD/SD input (SDI)
EU-ME2	System setup > Remote > Remote > EVIS	Video system Center	Video system Center
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1

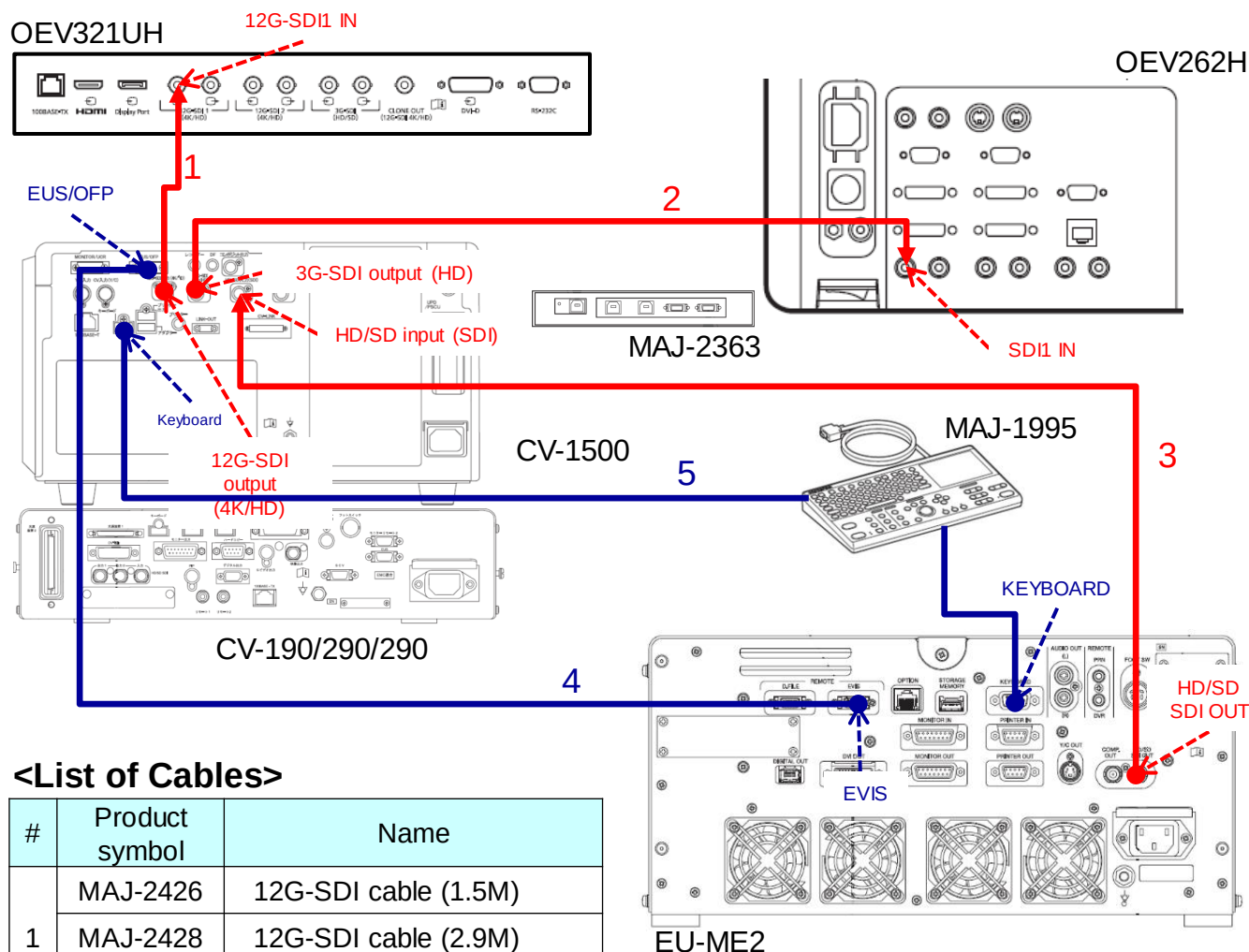
* Please refer to EU-ME2 setting type Selection Flow and determine the wiring type.

◆ CV-190/190PLUS/290+EU-ME2 type A1 1/2

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* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

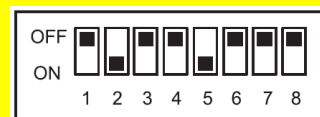
CV-1500 and EU-ME2 should be connected with SDI cable (2.5M).
Voltage fluctuations, such as lightning strikes, can cause noise in images.



<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-2430	3G-SDI Cable (1.5M)
	MAJ-2015	3G-SDI Cable (3.0M)
	MAJ-2016	3G-SDI Cable (8.5M)
3	MAJ-1951	SDI cable (2.5M)
4	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
5	MAJ-1711	EVIS-EUS connecting cable

DIP-switching setup for MAJ-1995



◆ CV-190/190PLUS/290+EU-ME2 type A1 2/2

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Video output > 3G-SDI OUT (HD) signal	HD:1080p	HD:1080p
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	HD/SD input (SDI)
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Enabled
	Setting > System setup > Peripherals 2 > 12G-SDI OUT (4K/HD)	Fixed EVIS	Fixed EVIS
	Setting > System setup > Peripherals 2 > 3G-SDI OUT (HD)	EVIS/US switch	EVIS/US switch
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	HD/SD input (SDI)
EU-ME2	System setup > Remote > Remote > EVIS	Video system Center	Video system Center
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1
OEV262H	MENU > Preset > Load Preset	B/C	B/C
	PORT A	SDI1	SDI1

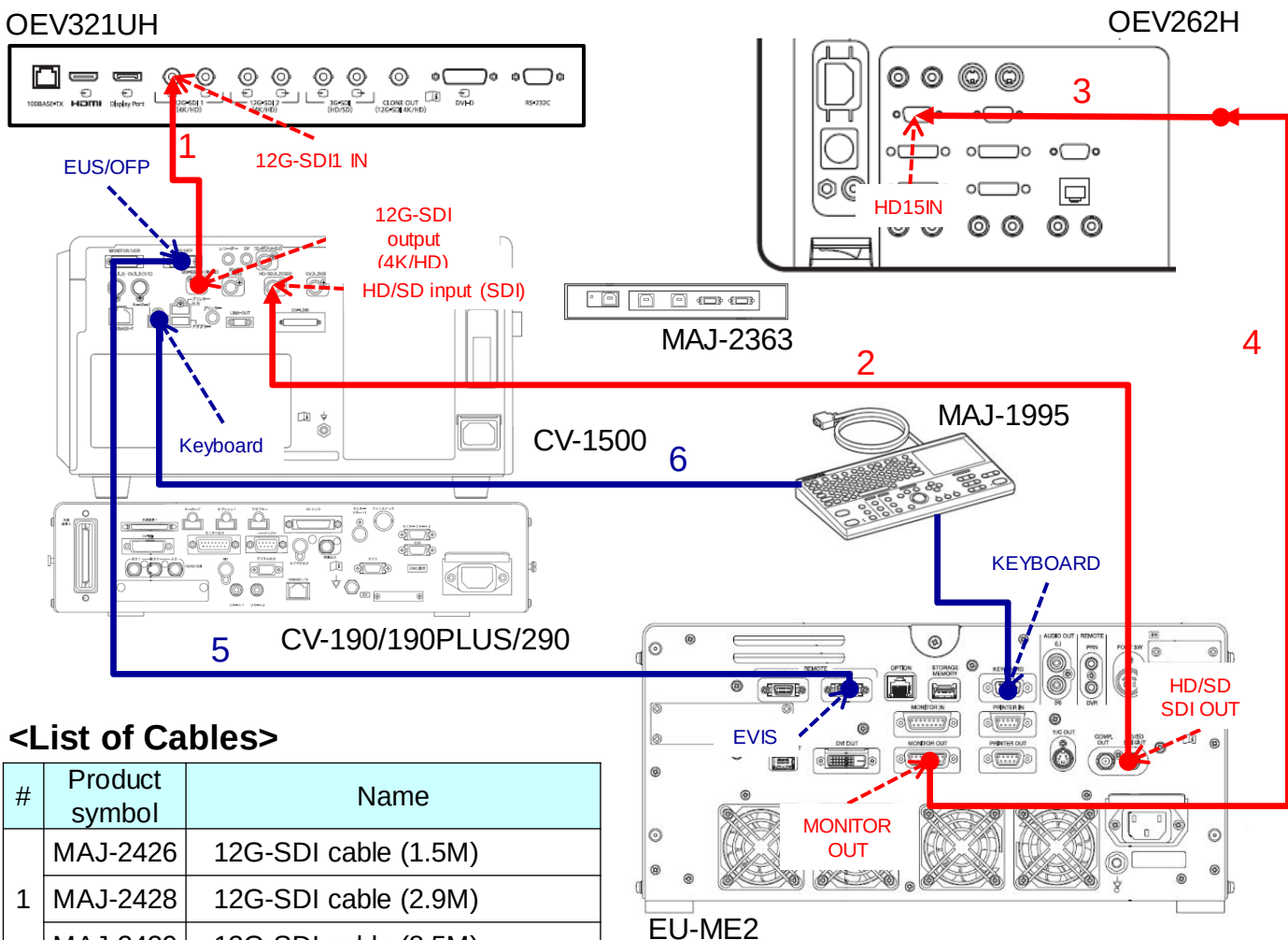
* Please refer to EU-ME2 setting type Selection Flow and determine the wiring type.

◆ CV-190/190PLUS/290+EU-ME2 type E1S1/2

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* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

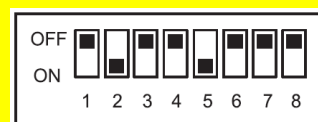
CV-1500 and EU-ME2 should be connected with SDI cable (2.5M).
Voltage fluctuations, such as lightning strikes, can cause noise in images.



<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-1951	SDI cable (2.5M)
3	SMF-405	Monitor cable (0.5M)
4	MAJ-1586	HD/SD Monitor cables (2M)
	MAJ-970	HD/SD Monitor cables (4M)
	MAJ-1462	HD/SD Monitor cables (7M)
	MAJ-1584	HD/SD Monitor cables (15M)
5	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
6	MAJ-1711	EVIS-EUS connecting cable

DIP-switching setup for MAJ-1995



◆ CV-190/190PLUS/290+EU-ME2 type E1S2/2

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	HD/SD input (SDI)
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Enabled
	Setting > System setup > Peripherals 2 > 12G-SDI OUT (4K/HD)	Fixed EVIS	Fixed EVIS
	Setting > System setup > Peripherals 2 > 3G-SDI OUT (HD)	EVIS/US switch	EVIS/US switch
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	HD/SD input (SDI)
EU-ME2	System setup > Video signal > Video signal format > MONITOR OUT	HDTV(RGB)	HDTV(RGB)
	System setup > Video signal > HD aspect ratio > MONITOR OUT	4:3	4:3
	System setup > Remote > Remote > EVIS	Video system Center	Video system Center
	System setup > Remote > Monitor, keyboard setting (CV combination)	1 Monitor + 1 Keyboard	1 Monitor + 1 Keyboard
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1
OEV262H	Preset > Load preset	B/C	B/C
	PORT A	SDI	HD15

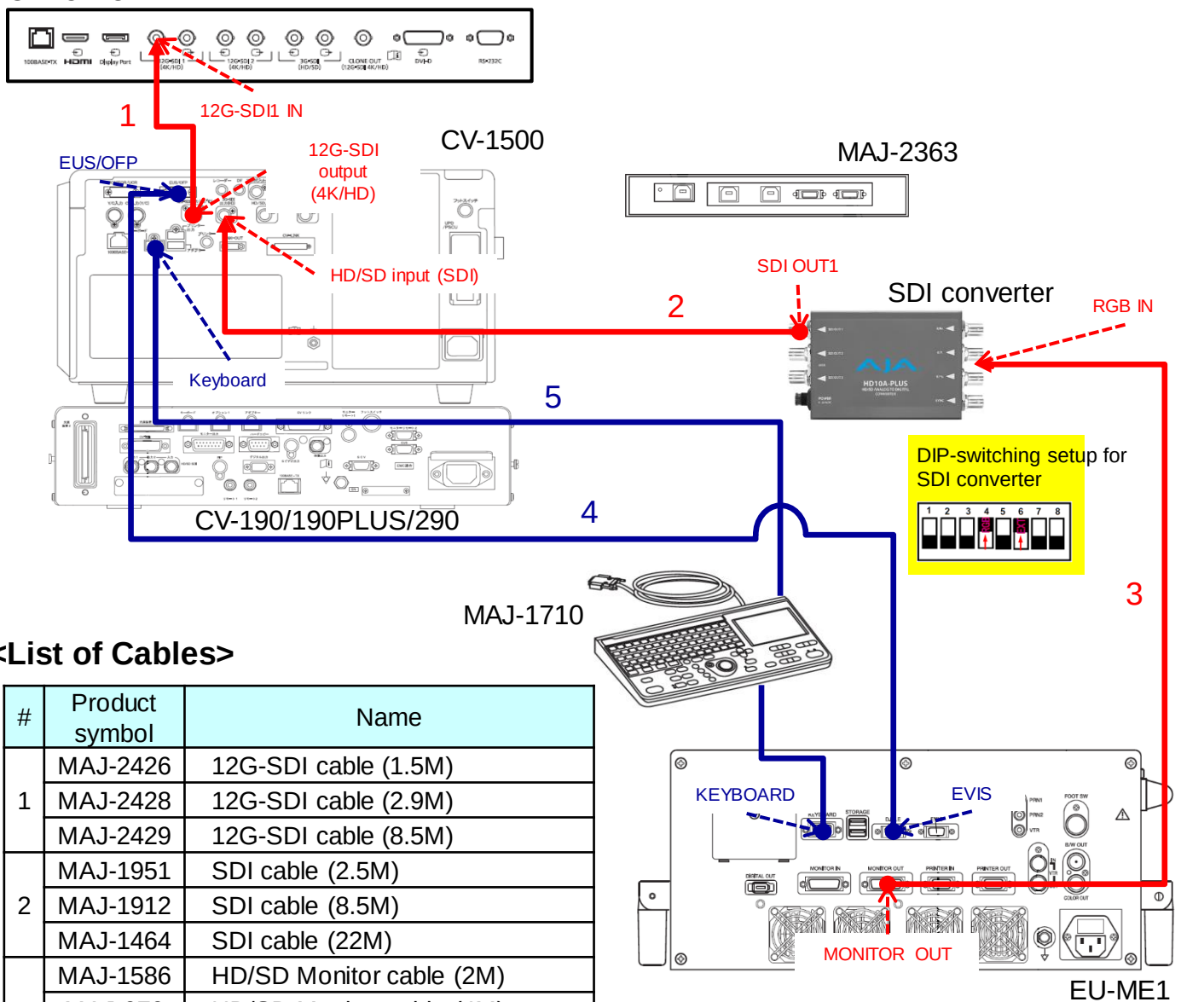
* Please refer to EU-ME1 setting type Selection Flow and determine the wiring type.

◆ CV-190/190PLUS/290+EU-ME1 type A 1/2

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* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

OEV321UH



<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-1951	SDI cable (2.5M)
	MAJ-1912	SDI cable (8.5M)
	MAJ-1464	SDI cable (22M)
3	MAJ-1586	HD/SD Monitor cable (2M)
	MAJ-970	HD/SD Monitor cable (4M)
	MAJ-1462	HD/SD Monitor cable (7M)
4	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
5	MAJ-1711	EVIS-EUS connecting cable

DIP-switching setup for MAJ-1711

OFF	ON	ON	ON	ON	ON	ON	ON
1	2	3	4	5	6	7	8

Precautions for SDI Converters

- Do not place beside CV-1500.
 - Take the power from the isolation transformer.
- (Reference: SDI converter is a non-medical device.)

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	HD/SD input (SDI)
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Disabled
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	HD/SD input (SDI)
EU-ME1	System setup > Remote > Remote > EVIS	Video system Center 2	Video system Center 2
	Setting > Display > Video signal format	SDTV(RGB)	HDTV
	Setting > Display > Aspect	4:3	4:3
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1

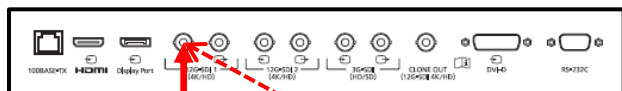
* Please refer to EU-ME1 setting type Selection Flow and determine the wiring type.

◆ CV-190/190PLUS/290+EU-ME1 type B 1/2

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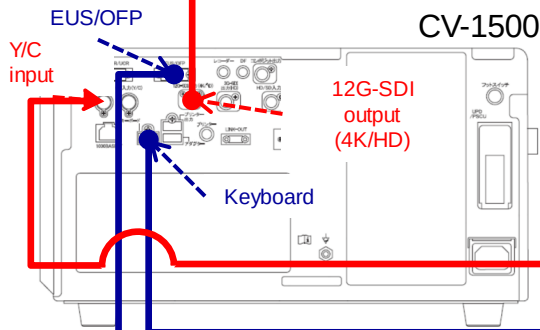
* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

OEV321UH



1

12G-SDI1 IN



CV-1500

MAJ-2363



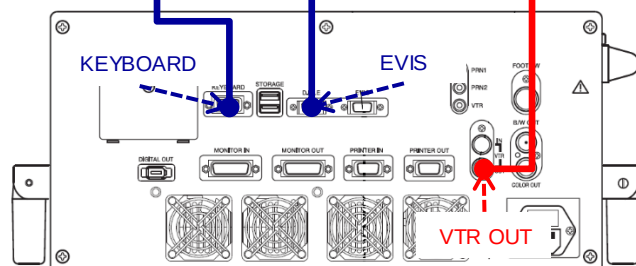
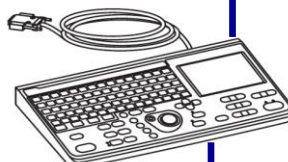
2

3

4

CV-190/190PLUS/290

MAJ-1710

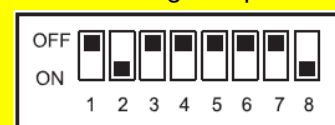


EU-ME1

<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MH-985	Y/C cable (2.95M)
	MAJ-987	Y/C cable (15 M)
3	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
4	MAJ-1711	EVIS-EUS connecting cable

DIP-switching setup for MAJ-1710



◆ CV-190/190PLUS/290+EU-ME1 type B 2/2

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

[SETTING INFORMATION]

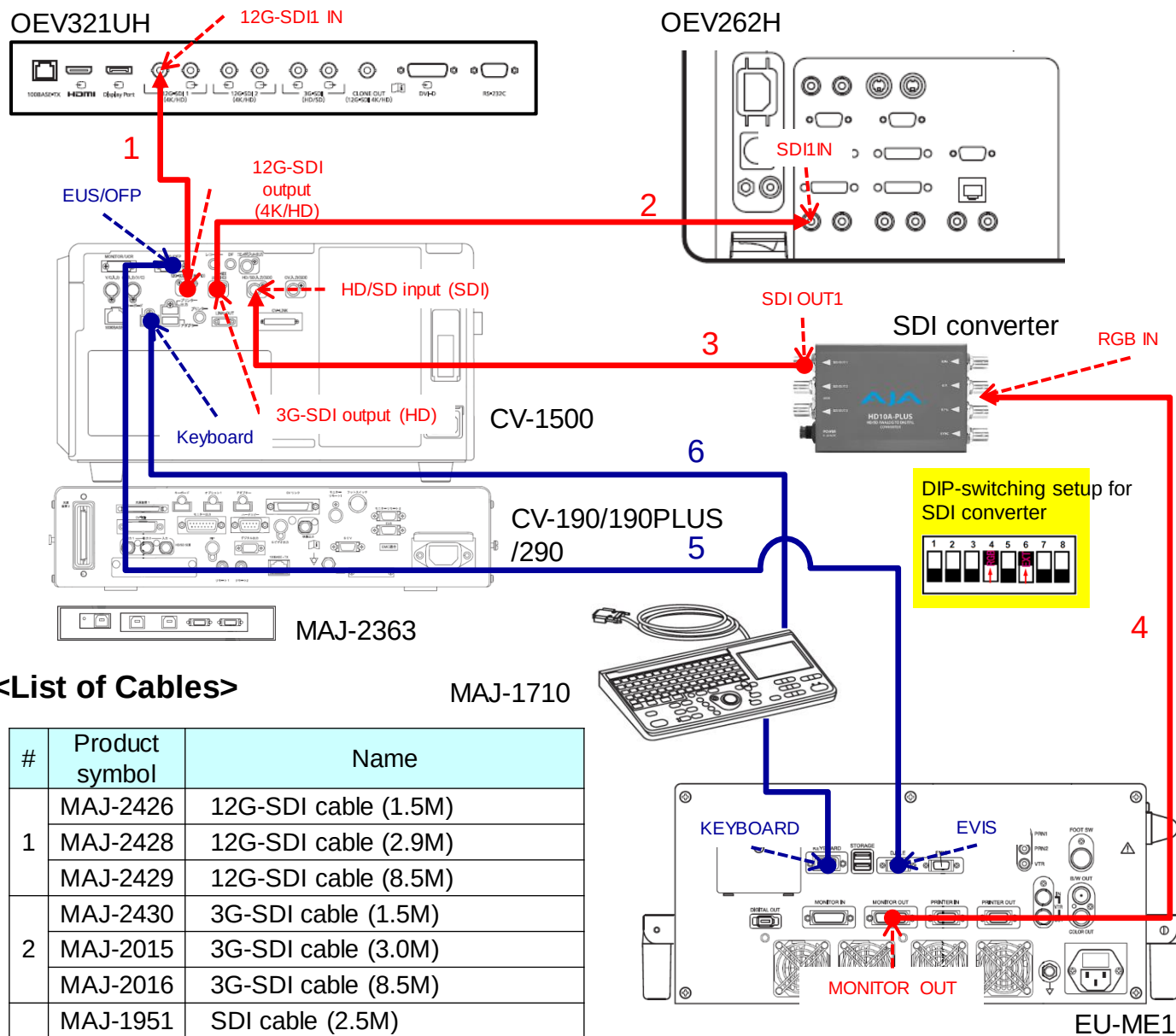
Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	Y/C input
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Disabled
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	Y/C input
EU-ME1	System setup > Remote > Remote > EVIS	Video system Center 2	Video system Center 2
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1

* Please refer to EU-ME1 setting type Selection Flow and determine the wiring type.

◆ CV-190/190PLUS/290+EU-ME1 type A1 1/2

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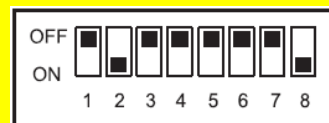
* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.



<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-2430	3G-SDI cable (1.5M)
	MAJ-2015	3G-SDI cable (3.0M)
	MAJ-2016	3G-SDI cable (8.5M)
3	MAJ-1951	SDI cable (2.5M)
	MAJ-1912	SDI cable (8.5M)
	MAJ-1464	SDI cable (22 M)
4	MAJ-1586	HD/SD Monitor cable (2 M)
	MAJ-970	HD/SD Monitor cable (4 M)
	MAJ-1462	HD/SD Monitor cable (7 M)
	MAJ-1584	HD/SD Monitor cable (15 M)
5	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
6	MAJ-1711	EVIS-EUS connecting cable

DIP-switching setup for MAJ-1710



Precautions for SDI Converters

- Do not place beside CV-1500.
- Take the power from the isolation transformer. (Reference: SDI converter is a non-medical device.)

◆ CV-190/190PLUS/290+EU-ME1 type A1 2/2

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Video output > 3G-SDI OUT (HD) signal	HD:1080p	HD:1080p
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	HD/SD input (SDI)
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Enabled
	Setting > System setup > Peripherals 2 > 12G-SDI OUT (4K/HD)	Fixed EVIS	Fixed EVIS
	Setting > System setup > Peripherals 2 > 3G-SDI OUT (HD)	EVIS/US switch	EVIS/US switch
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	HD/SD input (SDI)
EU-ME1	System setup > Remote > Remote > EVIS	Video system Center 2	Video system Center 2
	Setting > Display > Video signal format	SDTV(RGB)	HDTV
	Setting > Display > Aspect	4:3	4:3
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1
OEV262H	Preset > Load preset	B/C	B/C
	PORT A	SDI 1	SDI1

* Please refer to EU-ME1 setting type Selection Flow and determine the wiring type.

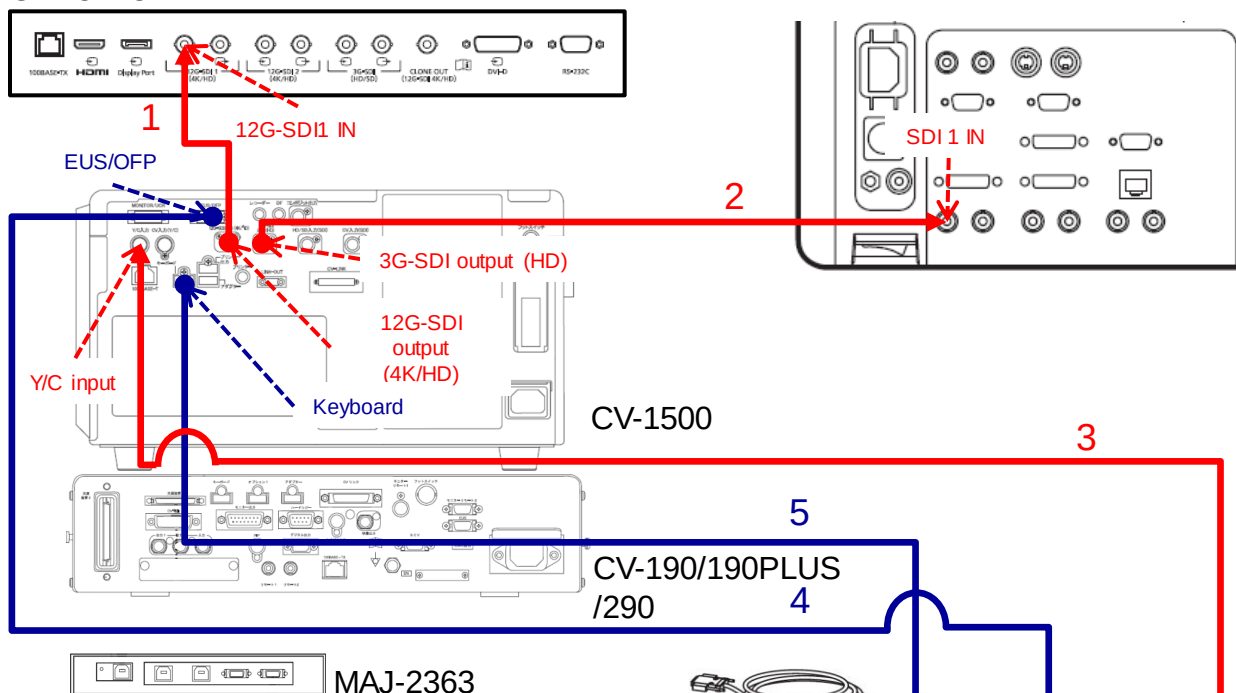
◆ CV-190/190PLUS/290+EU-ME1 type B1 1/2

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* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

OEV321UH

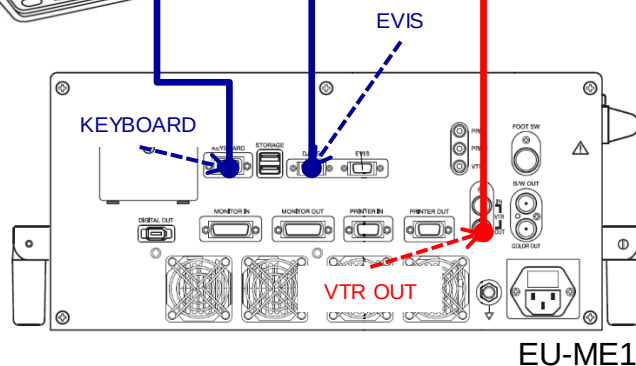
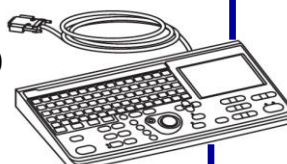
OEV262H



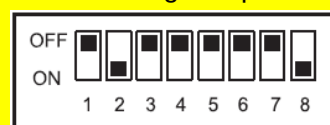
MAJ-1710

<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-2430	3G-SDI cable (1.5M)
	MAJ-2015	3G-SDI cable (3.0M)
	MAJ-2016	3G-SDI cable (8.5M)
3	MH-985	Y/C cable (2.95M)
	MAJ-987	Y/C cable (15M)
4	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
5	MAJ-1711	EVIS-EUS connecting cable



DIP-switching setup for MAJ-1711



◆ CV-190/190PLUS/290+EU-ME1 type B1 2/2

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Video output > 3G-SDI OUT (HD) signal	HD:1080p	HD:1080p
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	Y/C input
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Enabled
	Setting > System setup > Peripherals 2 > 12G-SDI OUT (4K/HD)	Fixed EVIS	Fixed EVIS
	Setting > System setup > Peripherals 2 > 3G-SDI OUT (HD)	EVIS/US switch	EVIS/US switch
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Settings > User Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	Y/C input
EU-ME1	System setup > Remote > Remote > EVIS	Video system Center 2	Video system Center 2
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1
OEV262H	Preset > Load preset	B/C	B/C
	PORT A	SDI1	SDI1

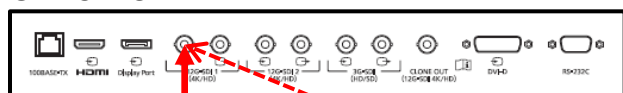
* Please refer to EU-ME1 setting type Selection Flow and determine the wiring type.

◆ CV-190/190PLUS/290+EU-ME1 type E1S1/2

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* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

OEV321UH



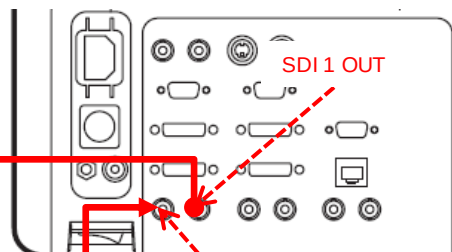
EUS/OFP

1

12G-SDI1 IN

2

OEV262H



SDI 1 OUT

2

SDI 1 IN

SDI converter

RGB IN

SDI OUT1

CV-1500

CV-190/190PLUS /290

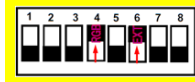
4

Keyboard

MAJ-2363

MAJ-1710

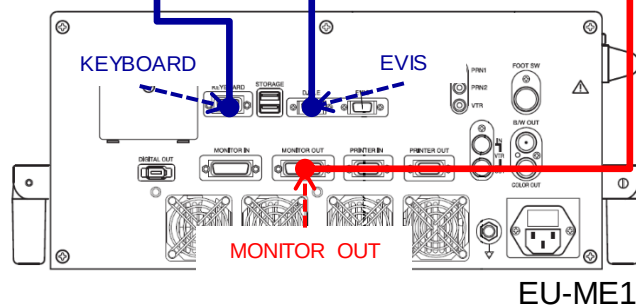
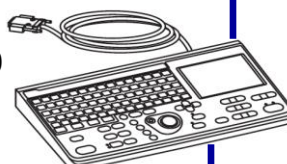
DIP-switching setup for SDI converter



3

<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MAJ-1951	SDI cable (2.5M)
	MAJ-1912	SDI cable (8.5M)
	MAJ-1464	SDI cable (22 M)
3	MAJ-1586	HD/SD Monitor cable (2 M)
	MAJ-970	HD/SD Monitor cable (4 M)
	MAJ-1462	HD/SD Monitor cable (7 M)
	MAJ-1584	HD/SD Monitor cable (15 M)
4	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
5	MAJ-1711	EVIS-EUS connecting cable



EU-ME1

DIP-switching setup for MAJ-1710



Precautions for SDI Converters

- Do not place beside CV-1500.
- Take the power source from the isolation transformer.
(Reference: SDI converter is a non-medical device.)

◆ CV-190/190PLUS/290+EU-ME1 type E1S2/2

* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

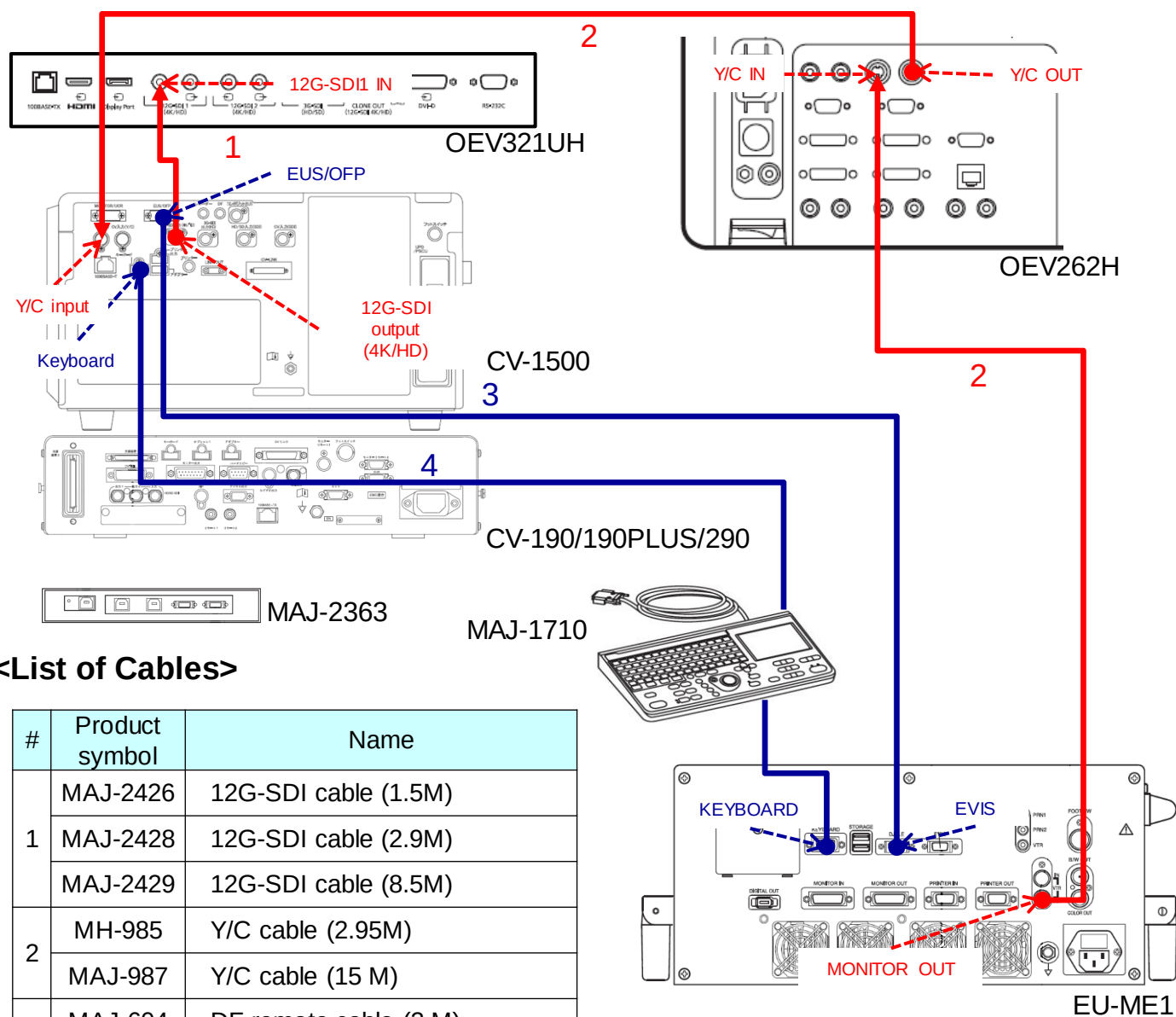
[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	HD/SD input (SDI)
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Enabled
	Setting > System setup > Peripherals 2 > 12G-SDI OUT (4K/HD)	Fixed EVIS	Fixed EVIS
	Setting > System setup > Peripherals 2 > 3G-SDI OUT (HD)	EVIS/US switch	EVIS/US switch
	Settings > User Presets > New entry or Edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	HD/SD input (SDI)
EU-ME1	System setup > Remote > Remote > EVIS	Video system Center 2	Video system Center 2
	Setting > Display > Video signal format	SDTV(RGB)	HDTV
	Setting > Display > Aspect	4:3	4:3
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1
OEV262H	Preset > Load preset	B/C	B/C
	PORT A	SDI1	SDI1

* Please refer to EU-ME1 setting type Selection Flow and determine the wiring type.

◆ CV-190/190PLUS/290+EU-ME1 type E1Y 1/2

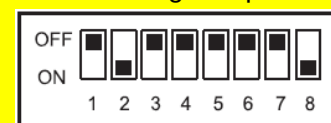
* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.



<List of Cables>

#	Product symbol	Name
1	MAJ-2426	12G-SDI cable (1.5M)
	MAJ-2428	12G-SDI cable (2.9M)
	MAJ-2429	12G-SDI cable (8.5M)
2	MH-985	Y/C cable (2.95M)
	MAJ-987	Y/C cable (15 M)
3	MAJ-604	DF remote cable (2 M)
	MAJ-608	DF remote cable (15 M)
4	MAJ-1711	EVIS-EUS connecting cable

DIP-switching setup for MAJ-1710



◆ CV-190/190PLUS/290+EU-ME1 type E1Y 2/2

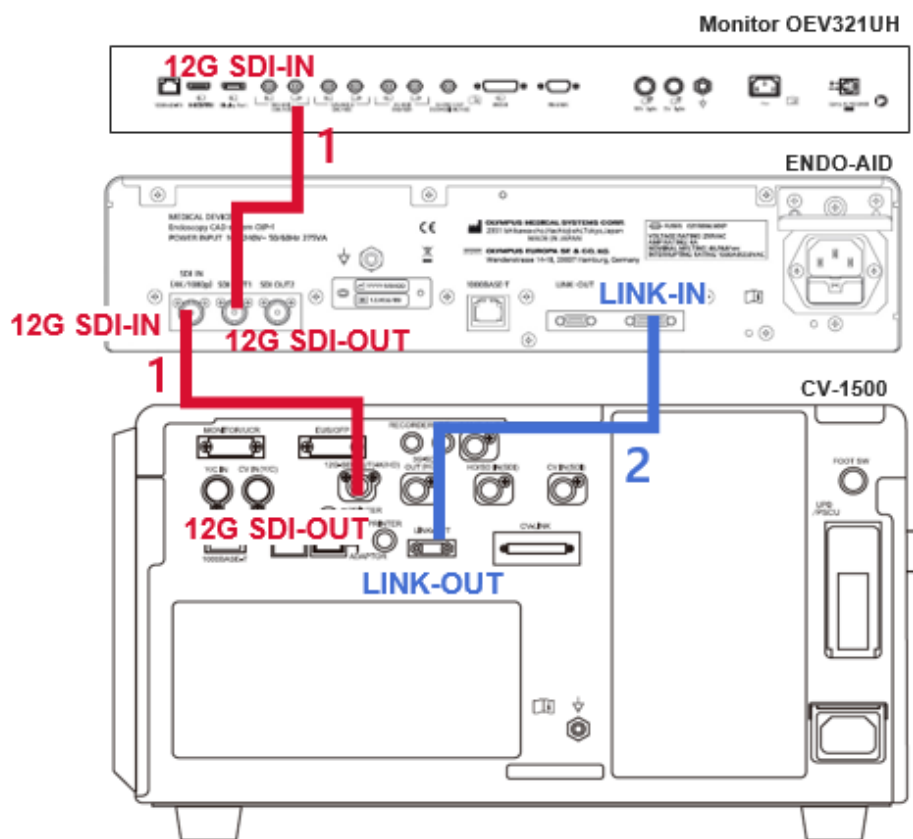
* Please refer to CV-190/190PLUS/290 for the setting of connection with CV-190/190PLUS/290.

[SETTING INFORMATION]

Setting model	Step	Default	Setting parameter
CV-1500	Setting > System setup > Video output > 12G-SDI OUT (4K/HD) signal	HD:1080p	4K
	Setting > System setup > Peripherals 1 > Keyboard type	MAJ-1923	US MAJ-1710/1995 (EN)
	Setting > System setup > Peripherals 2 > Select PIP/POP device	CV	CV
	Setting > System setup > Peripherals 2 > Ultrasound center type	Not connected	EU-ME1/ EU-ME2
	Setting > System setup > Peripherals 2 > CV PIP/POP US input terminal	HD/SD input (SDI)	Y/C input
	Setting > System setup > Peripherals 2 > US/multi-monitor Fixed EVIS output	Disabled	Enabled
	Setting > System setup > Peripherals 2 > 12G-SDI OUT (4K/HD)	Fixed EVIS	Fixed EVIS
	Setting > System setup > Peripherals 2 > 3G-SDI OUT (HD)	EVIS/US switch	EVIS/US switch
	Settings > User Presets > New entry or edit > Release/Pre-freeze > Record ext. source	ON	OFF
	Setting > Users Presets > New entry or edit > PIP/POP > Display method	PIP	PIP
	Setting > Users Presets > New entry or edit > PIP/POP > PIP position	Lower left	Lower left
	Setting > Users Presets > New entry or edit > PIP/POP > Select CV ext. source	HD/SD input (SDI)	Y/C input
EU-ME1	System setup > Remote > Remote > EVIS	Video system Center 2	Video system Center 2
OEV321UH	MENU > Preset > Load Preset	B/C	B/C
	MENU > Input/Output Configuration > Port A Input Select	12G-SDI 1	12G-SDI 1
OEV262H	Preset > Load preset	B/C	B/C
	PORT A	SDI1	Y/C

9. CV-1500 wiring and setting ENDO-AID CADe

Cabling Standard Setup: ENDO-AID + CV-1500 + OEV321UH

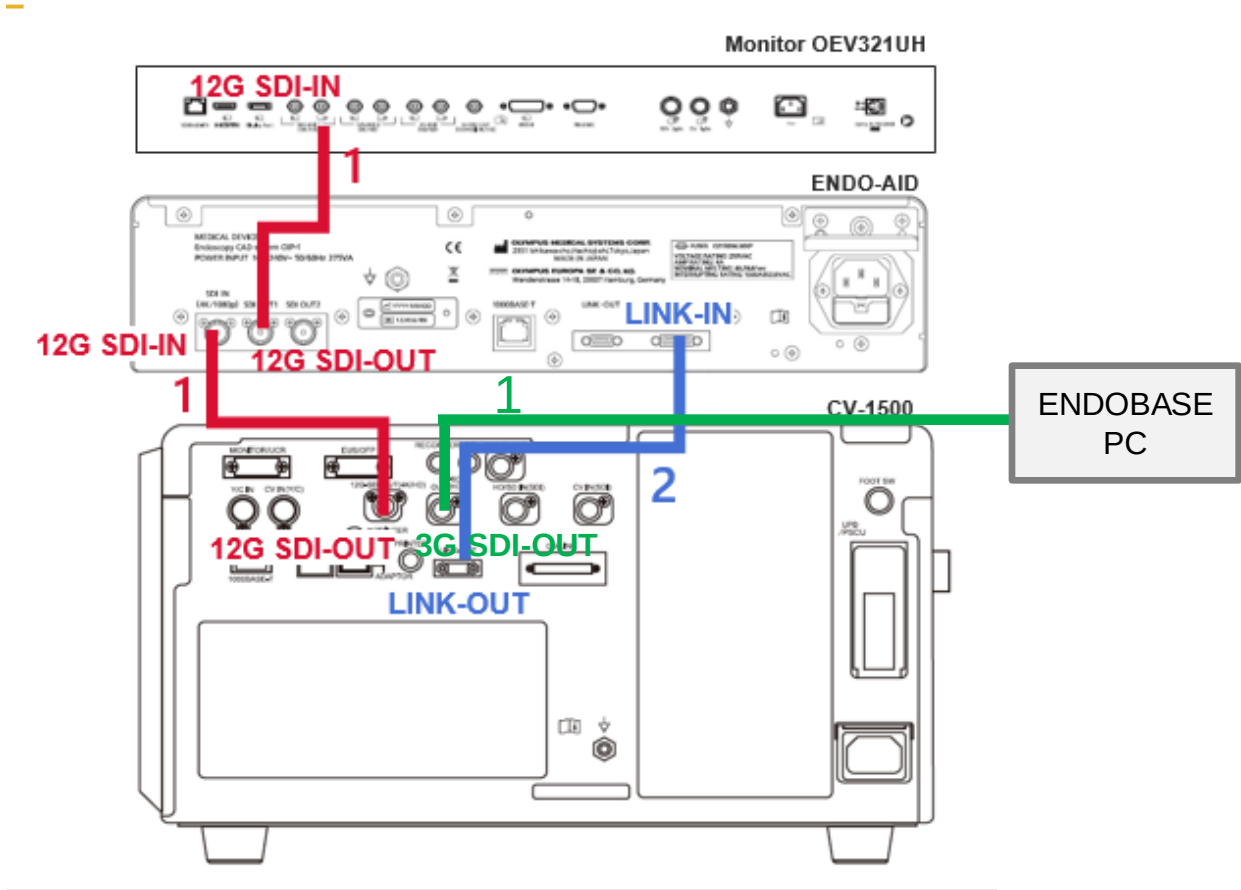


List of cables

#	Product name	Description
1	2x MAJ-2426	12G-SDI cable 1.5m
2	MAJ-1948	Communication cable 1.8m aka Link Cable



Cabling Standard Setup: ENDO-AID + CV-1500 + OEV321UH+ ENDOBASE



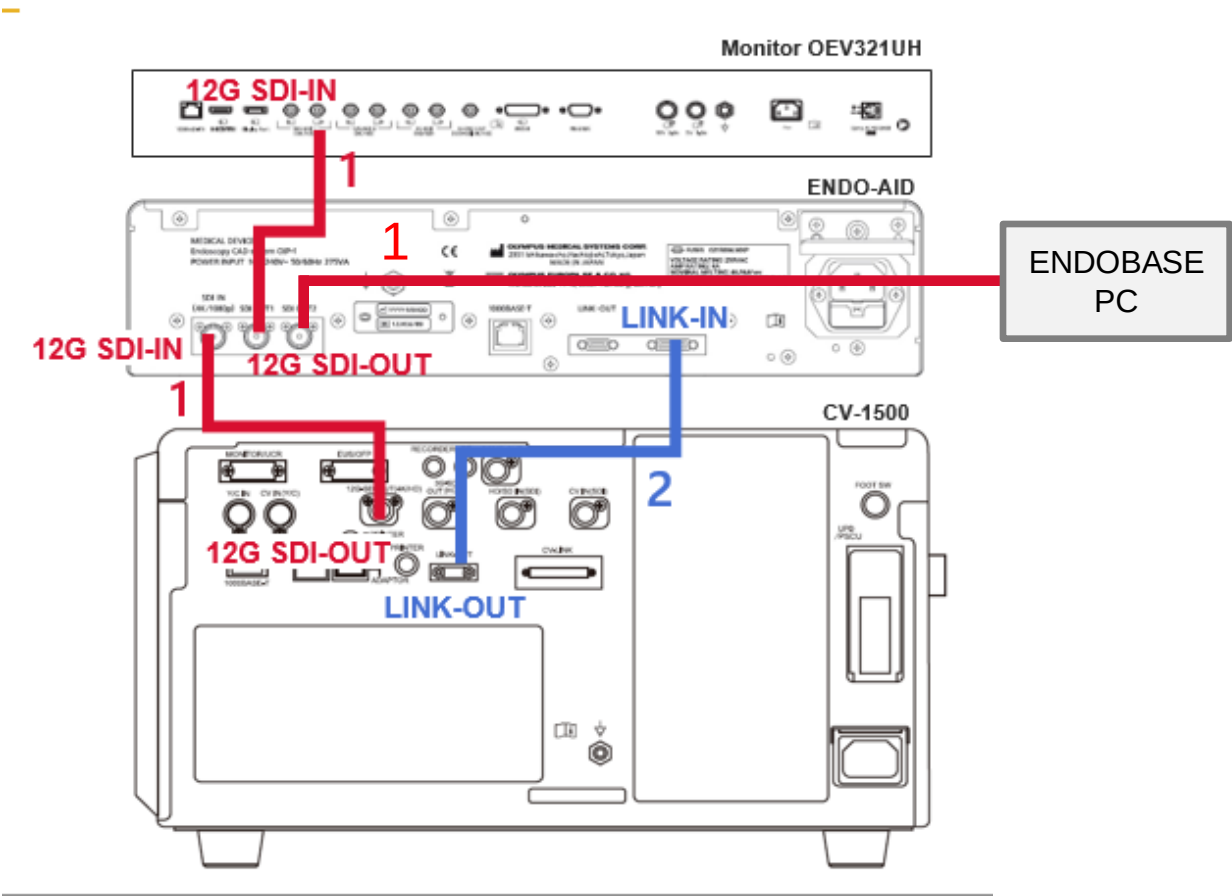
List of Cables

#	Product name	Description
1	2x MAJ-2426	12-SDI cable 1.5m
2	MAJ-1948	Communication cable 1.8m aka Link cable
3	MAJ-1951 MAJ-1912 MAJ-1464	3-SDI cable 2.5m 3-SDI cable 8.5m 3-SDI cable 22m



Documentation with ENDOBASE. Screenshot with CADe marker. Images acquired by ENDOBASE will never include any CADe markers around detected polyps.
Check that the resolution from OIP-1 the SGI output going to ENDOBASE is **max. 1080i**.

Cabling Standard Setup: ENDO-AID + CV-1500 + OEV321UH+ ENDOBASE



List of Cables

#	Product name	Description
1	3x MAJ-2426	12-SDI cable 1.5m
2	MAJ-1948	Communication cable 1.8m aka Link cable

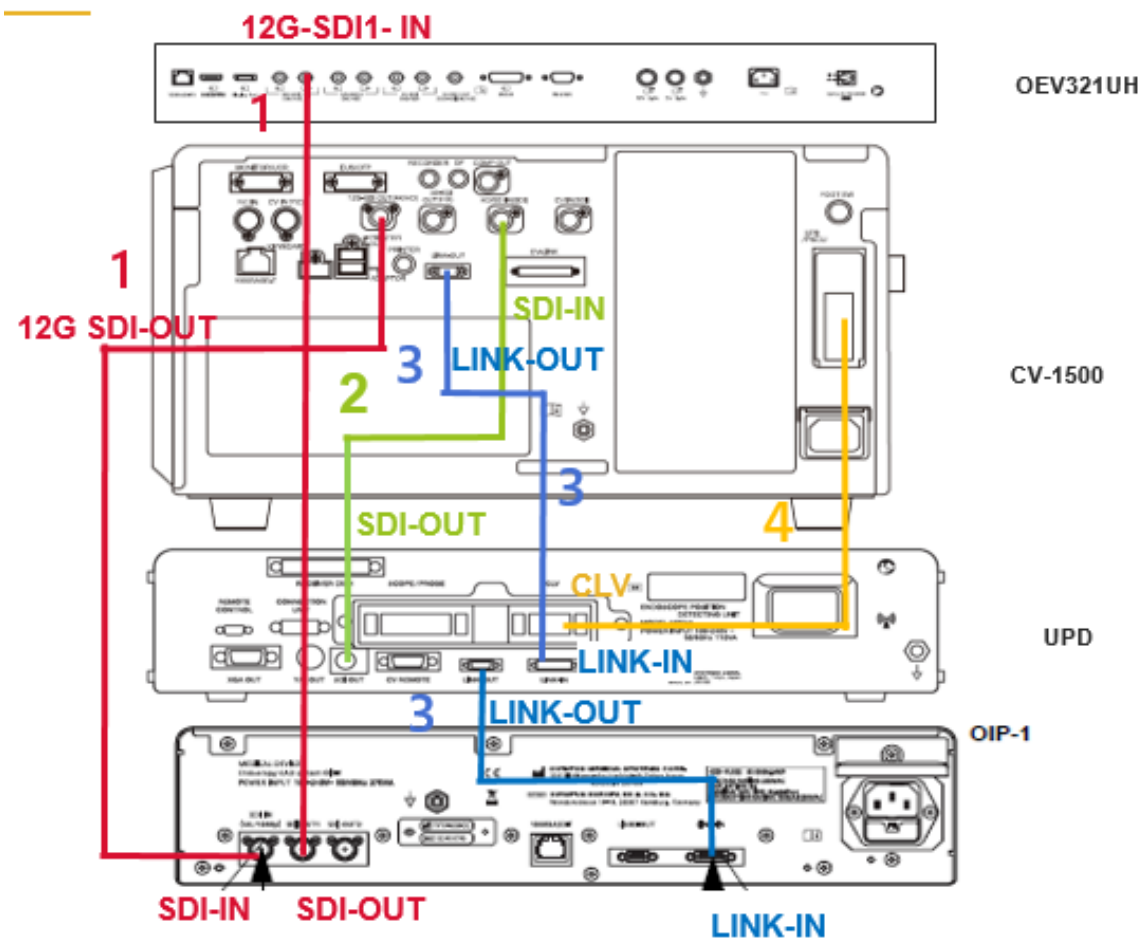


Documentation with ENDOBASE. Screenshot without CADE marker. Images acquired by ENDOBASE, which were not frozen during acquisition, will contain a marker surrounding the detected polyps.

Check that the resolution from OIP-1 the SGI output going to ENDOBASE is **max. 1080i**.

Alternative with Scopeguide

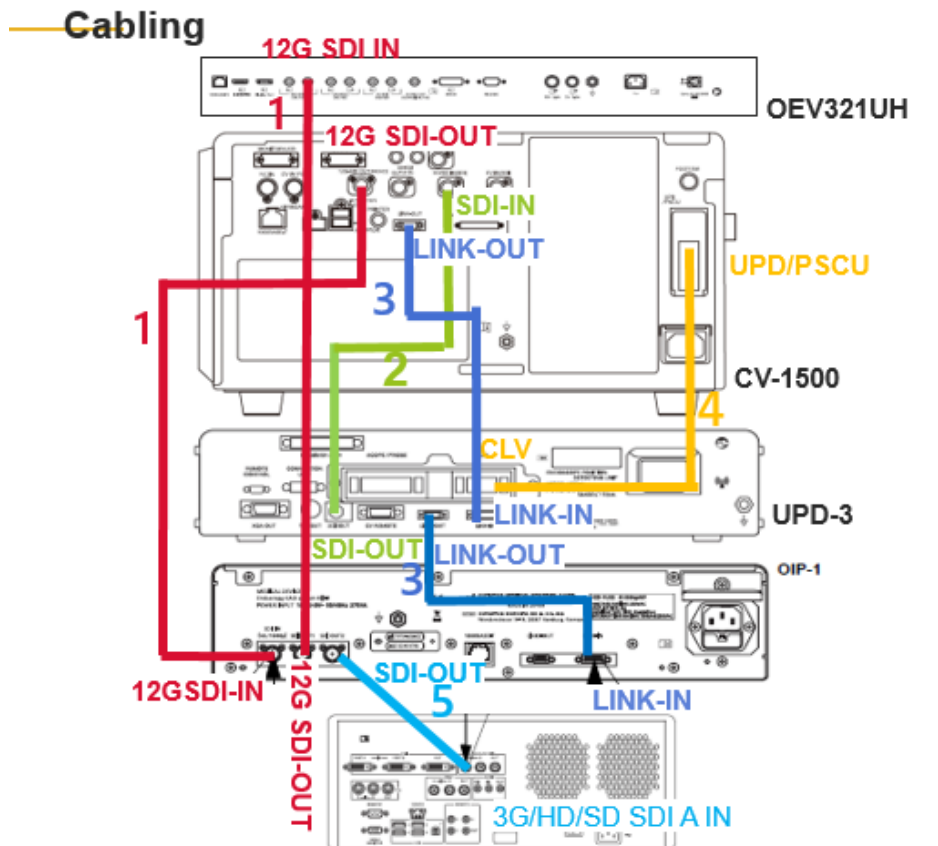
OIP-1 + CV-1500 + UPD-3



List of cables

#	Product name	Description
1	MAJ-2426	12G SDI Cable (1.5M)
	MAJ-2428	12G SDI Cable (2.9M)
	MAJ-2429	12G-SDI Cable (8.5)
2	MAJ-1912	SDI Cable (8.5M)
	MAJ-1951	SDI Cable (2.5)
3	MAJ-1942	Communication Cable (0.7M)
	MAJ-1948	Communication Cable (1.8M)
4	MAJ-1898	CLV-UPD Cable

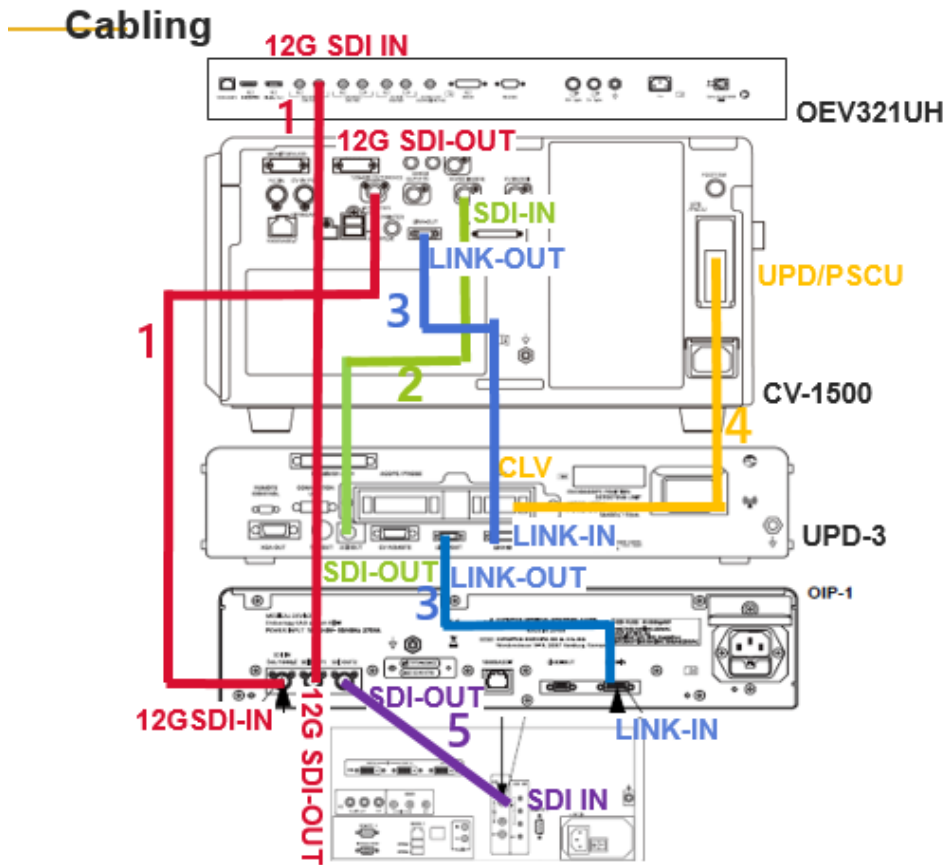
Setup 3a: OIP-1 + CV-1500 + UPD-3 + IMH-200



List of cables

#	Product name	Description
1	MAJ-2426	12G SDI Cable (1.5M)
	MAJ-2428	12G SDI Cable (2.9M)
	MAJ-2429	12G-SDI Cable (8.5)
2	MAJ-1912	SDI Cable (8.5M)
	MAJ-1951	SDI Cable (2.5)
3	MAJ-1942	Communication Cable (0.7M)
	MAJ-1948	Communication Cable (1.8M)
4	MAJ-1898	CLV-UPD Cable
5	MAJ-2430	3G-SDI cable 1.5 M
	MAJ-2015	3G-SDI cable 3.0 M
	MAJ-2016	3G-SDI cable 8.5 M

Setup 3b: OIP-1 + CV-1500 + UPD-3 + IMH-10/20

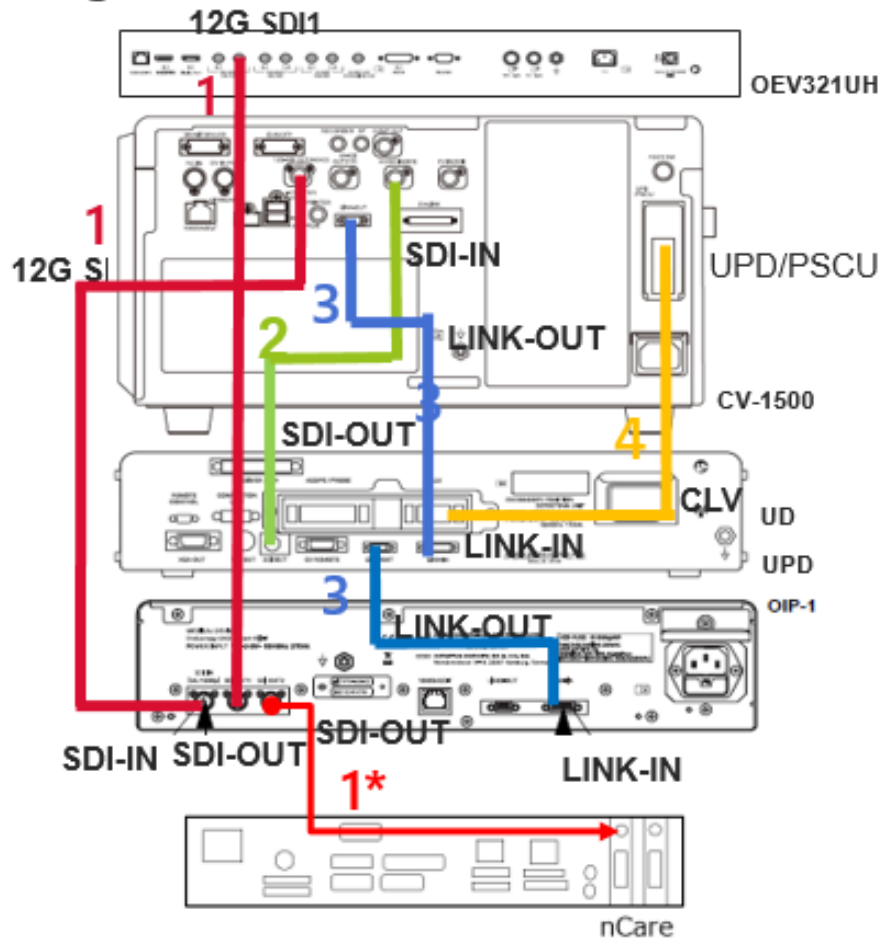


List of cables

#	Product name	Description
1	MAJ-2426	12G SDI Cable (1.5M)
	MAJ-2428	12G SDI Cable (2.9M)
	MAJ-2429	12G-SDI Cable (8.5)
2	MAJ-1912	SDI Cable (8.5M)
	MAJ-1951	SDI Cable (2.5)
3	MAJ-1942	Communication Cable (0.7M)
	MAJ-1948	Communication Cable (1.8M)
4	MAJ-1898	CLV-UPD Cable
5	MAJ-1951	SDI cable 2.5 M
	MAJ-1912	SDI cable 8.5 M
	MAJ-1464	SDI cable 22 M

Case 4 OIP-1 + CV-1500 + UPD-3 + nCare

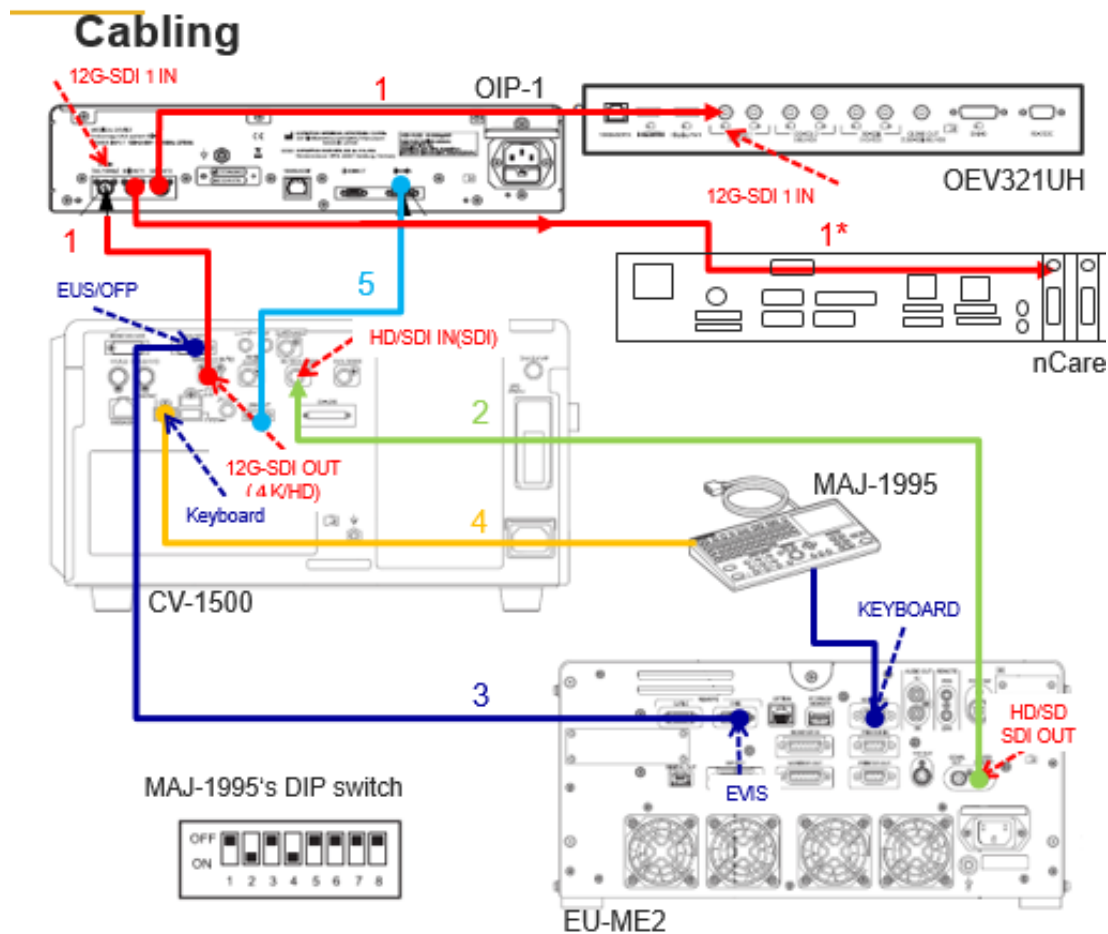
Cabling



#	Product name	Description
1	MAJ-2426	12G SDI Cable (1.5M)
	MAJ-2428	12G SDI Cable (2.9M)
	MAJ-2429	12G-SDI Cable (8.5)
2	MAJ-1912	SDI Cable (8.5M)
	MAJ-1951	SDI Cable (2.5)
3	MAJ-1942	Communication Cable (0.7M)
	MAJ-1948	Communication Cable (1.8M)
4	MAJ-1898	CLV-UPD Cable

* Connection between OIP-1 and IMH cable is also compatible with SDI cable; MAJ-1912 and 1951

Case 5 OIP-1 + CV-1500 + UPD-3 + nCare + EUS

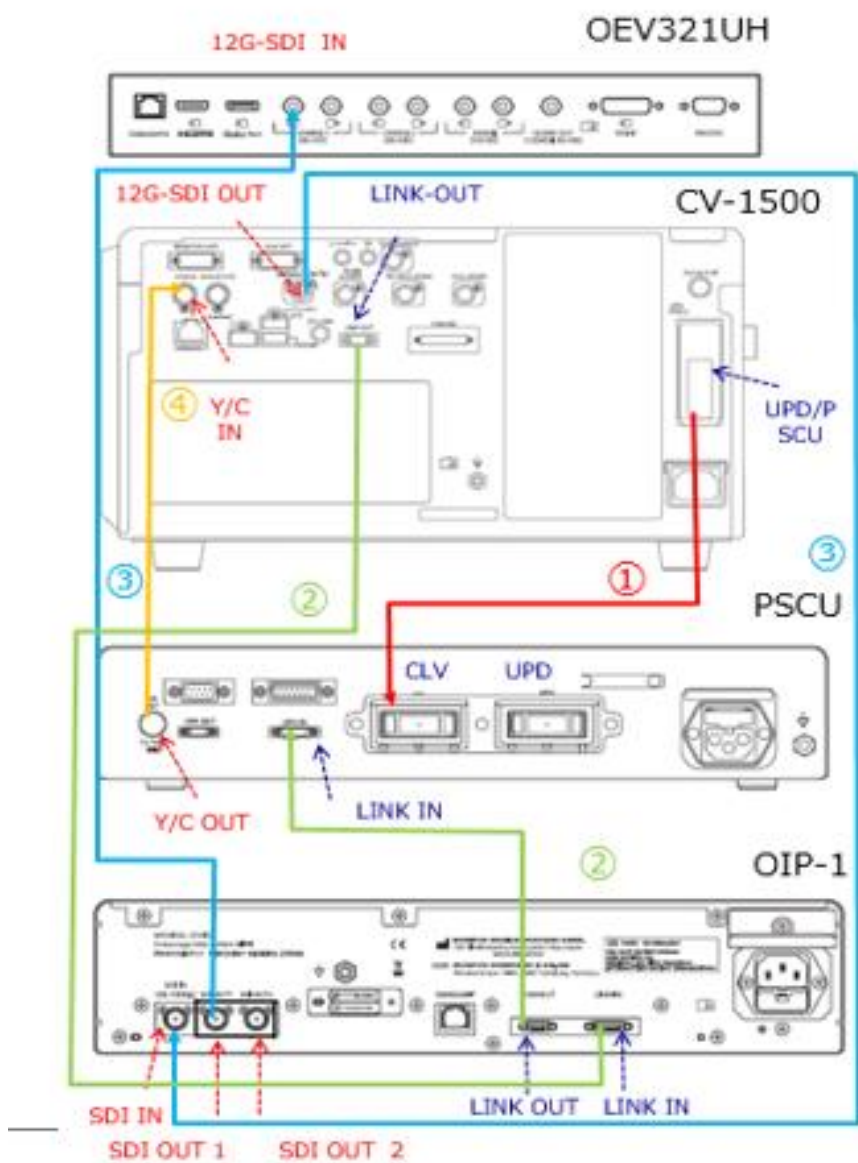


List of cables

#	Product name	Description
1	MAJ-2426	12G SDI Cable (1.5M)
	MAJ-2428	12G SDI Cable (2.9M)
	MAJ-2429	12G-SDI Cable (8.5)
2	MAJ-1912	SDI Cable (8.5M)
	MAJ-1951	SDI Cable (2.5)
3	MAJ-1942	Communication Cable (0.7M)
	MAJ-1948	Communication Cable (1.8M)
4	MAJ-1898	CLV-UPD Cable

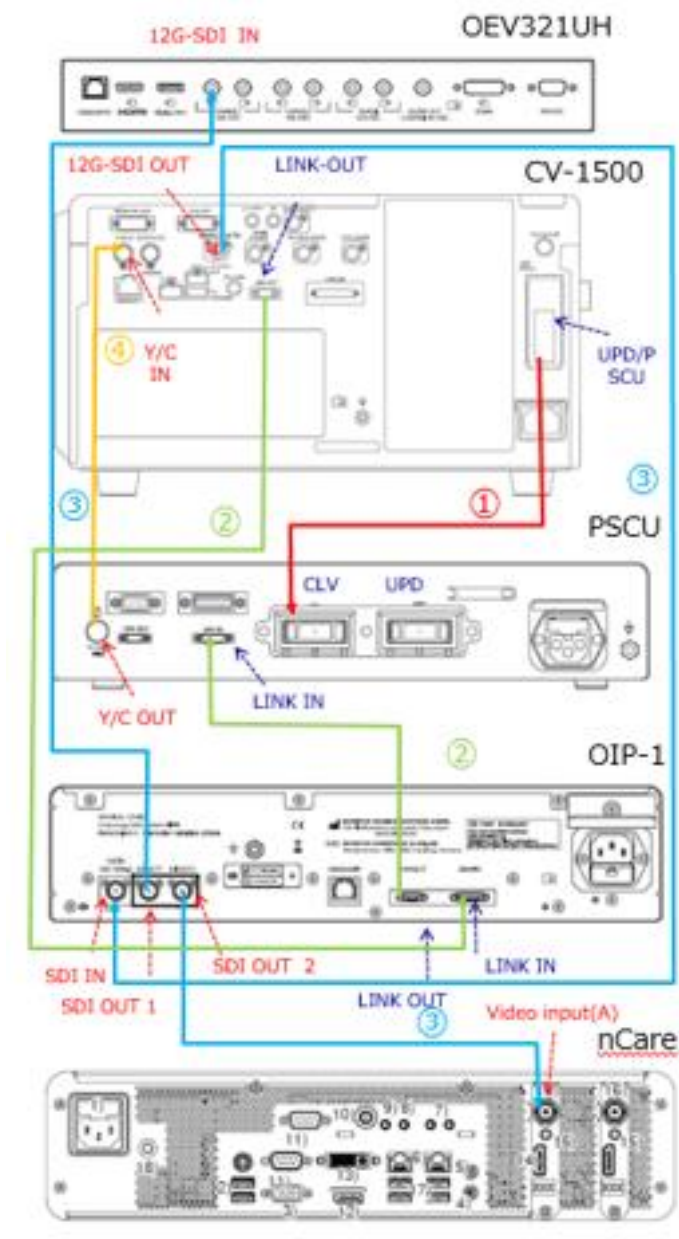
* Connection between OIP-1 and IMH cable is also compatible with SDI cable; MAJ-1912 and 1951

Case 6 CV-1500+OEV321UH+OIP-1+PSCU



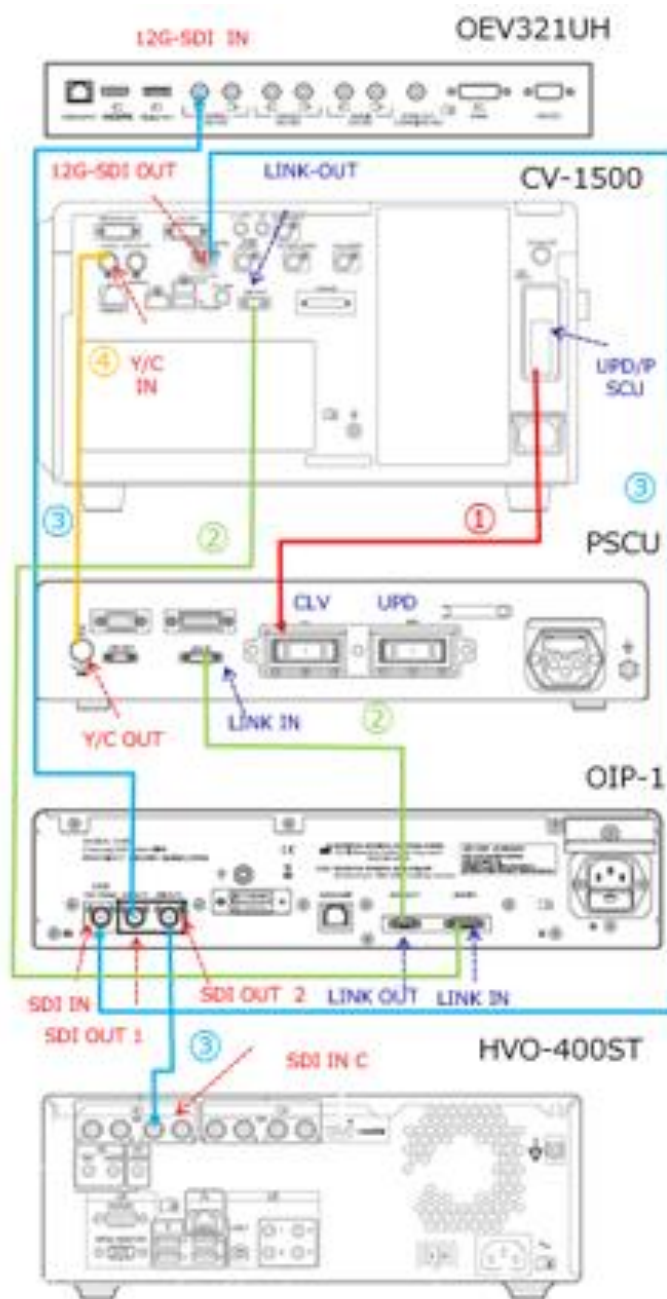
#	Product name	Description
1	MAJ-1898	CLV-UPD cable
2	MAJ-1948	Communication cable 1.8M
3	MAJ-2426	12G SDI Cable (1.5M)
	MAJ-2428	12G SDI Cable (2.9M)
	MAJ-2429	12G-SDI Cable (8.5)
4	NA	Y/C cable

Case 7 CV-1500+OEV321UH+OIP-1+PSCU+nCare



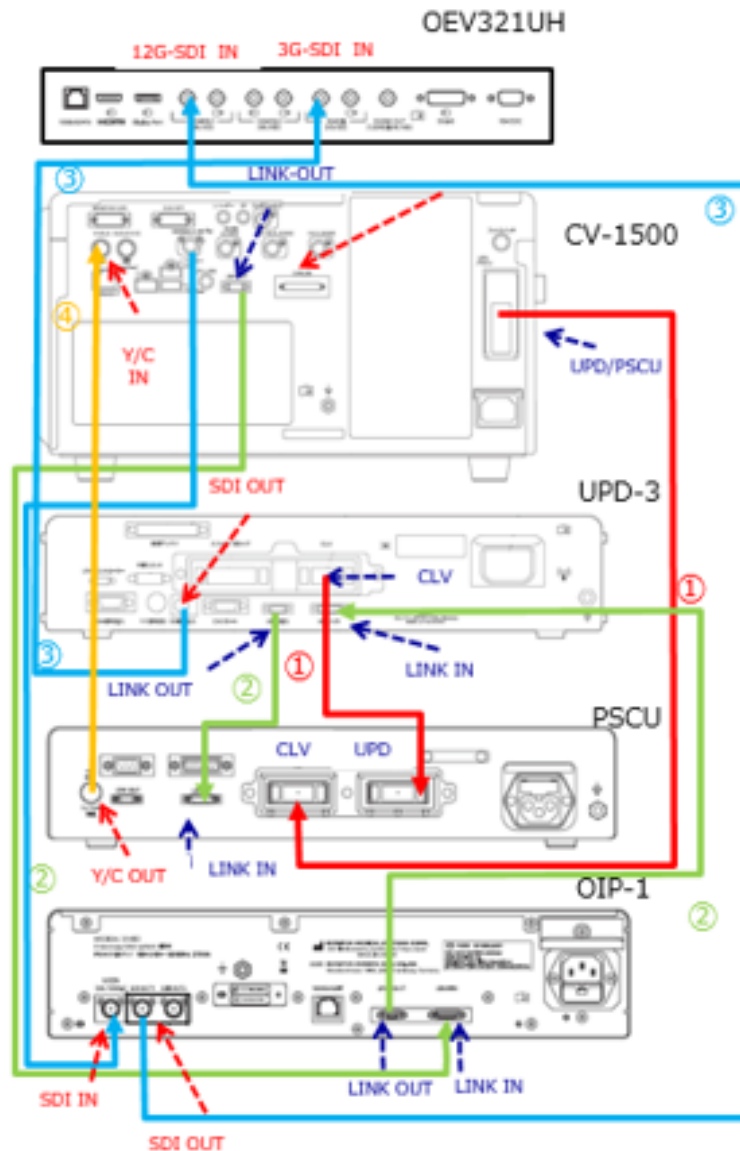
#	Product name	Description
1	MAJ-1898	CLV-UPD cable
2	MAJ-1948	Communication cable 1.8M
3	MAJ-2426	12G SDI Cable (1.5M)
	MAJ-2428	12G SDI Cable (2.9M)
	MAJ-2429	12G-SDI Cable (8.5)
4	NA	Y/C cable

Case 8 CV-1500+OEV321UH+OIP-1+PSCU+HVO-400ST



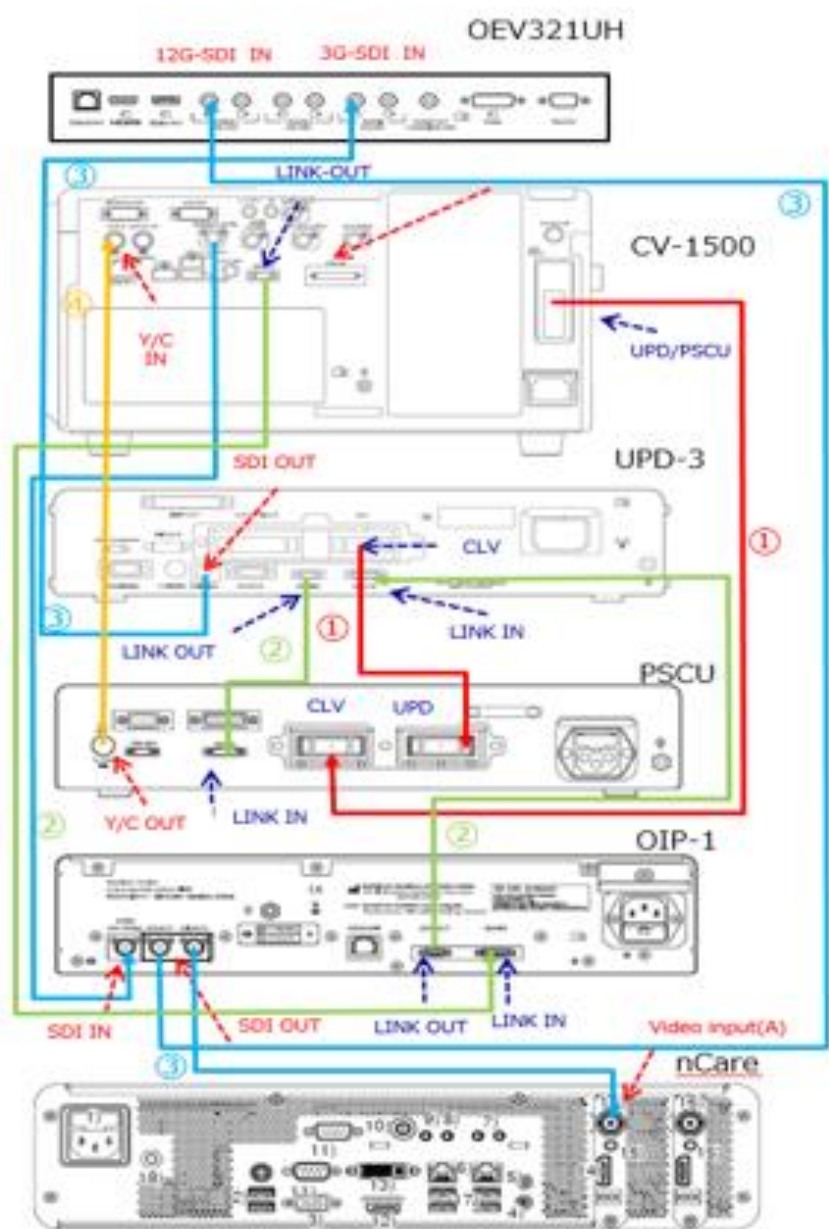
#	Product name	Description
1	MAJ-1898	CLV-UPD cable
2	MAJ-1948	Communication cable 1.8M
3	MAJ-2426	12G SDI Cable (1.5M)
	MAJ-2428	12G SDI Cable (2.9M)
	MAJ-2429	12G-SDI Cable (8.5)
4	NA	Y/C cable

Case 9 CV-1500+OEV321UH+OIP-1+UPD-3+PSCU



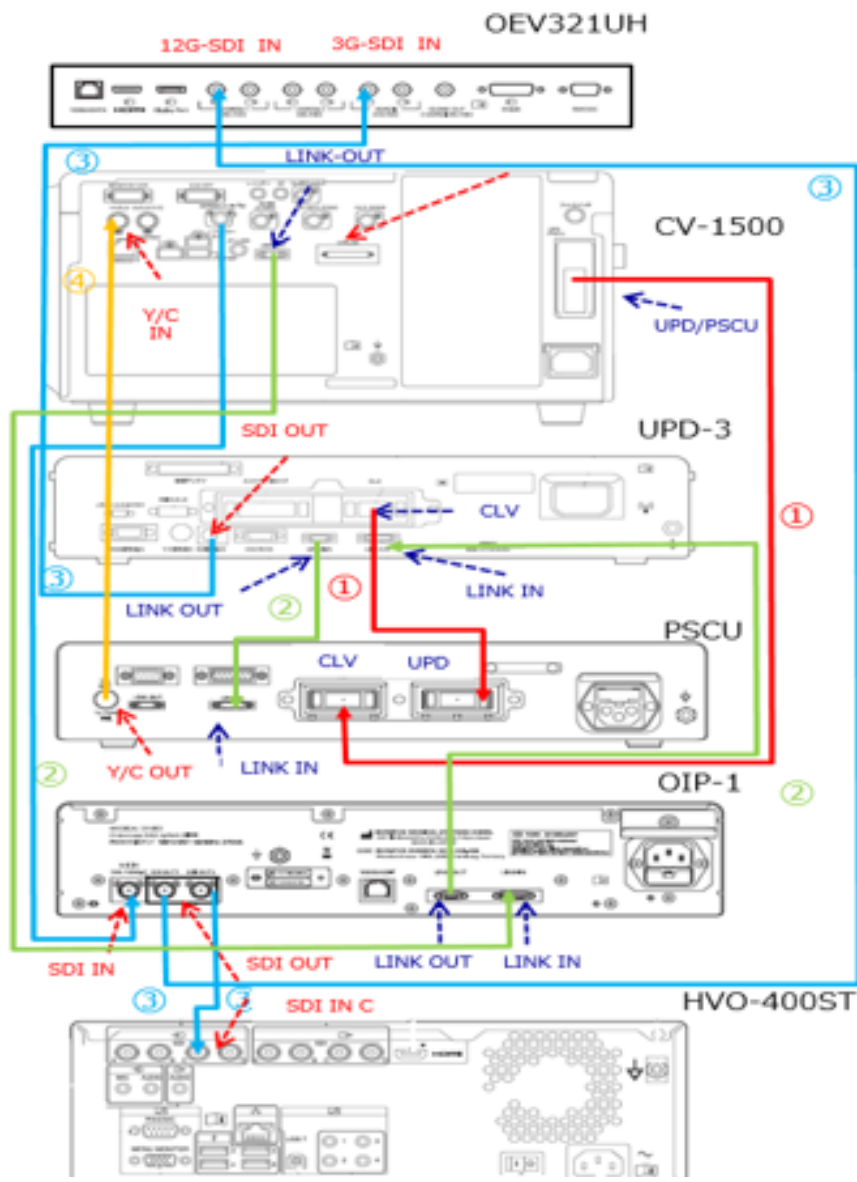
#	Product name	Description
1	MAJ-1898	CLV-UPD cable
2	MAJ-1948	Communication cable 1.8M
3	MAJ-2426	12G SDI Cable (1.5M)
	MAJ-2428	12G SDI Cable (2.9M)
	MAJ-2429	12G-SDI Cable (8.5)
4	NA	Y/C cable

Case 10 CV-1500+OEV321UH+OIP-1+UPD-3+PSCU+ nCare



#	Product name	Description
1	MAJ-1898	CLV-UPD cable
2	MAJ-1948	Communication cable 1.8M
3	MAJ-2426	12G SDI Cable (1.5M)
	MAJ-2428	12G SDI Cable (2.9M)
	MAJ-2429	12G-SDI Cable (8.5)
4	NA	Y/C cable

Case 11 CV-1500+OEV321UH+OIP-1+UPD-3+PSCU+HVO400

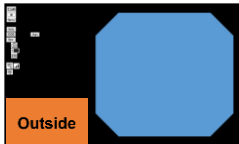


#	Product name	Description
1	MAJ-1898	CLV-UPD cable
2	MAJ-1948	Communication cable 1.8M
3	MAJ-2426	12G SDI Cable (1.5M)
	MAJ-2428	12G SDI Cable (2.9M)
	MAJ-2429	12G-SDI Cable (8.5)
4	NA	Y/C cable

10. Appendix

Stored images for each user setup

User setting type	1	2	3	4
Setting > User setting > Release/Pre-freeze > Release recording range	Entire screen		Endoscopic image	
Setting > User setting > Release/Pre-freeze > Record ext. source	ON	OFF	ON	OFF

		Release 1 / Release 2				External Images Release
		User setting type				
Mode	Observation monitor	1	2	3	4	
		Stored image				
PIP OFF		 Outside		 Outside		Outside
PIP ON		 Outside		 Outside		Outside

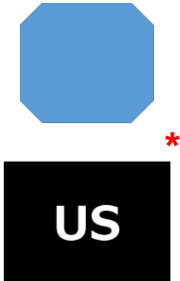
Outside

▪ ▪ ▪ External image

Wiring type A,B

With the user setup combination, the images are stored as follows:

User Presets	1	2	3
Releases/Pre-freeze > Capture area	Entire screen	Entire screen	Endoscopic image
Release/Pre-freeze > Release time PIP sub Screen	Delete	Retain	Elimination/maintenance

		Stored image		
		User setting type		
Mode	Monitor A display image	①	②	③
EVIS Mode PIP: OFF 				
EVIS Mode PIP: ON 				
US Mode Sub screen: ON 				
US Mode Sub screen: OFF 				

* When the system setup > Image Record > US image record during EVIS is OFF, US images will not be stored.

Stored image when connecting the US center

Wiring type A1 and B1

With the user setup combination, the images are stored as follows:

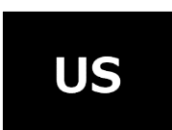
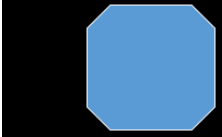
User Presets			1	2	3
Releases/Pre-freeze > Capture area			Entire screen	Entire screen	Endoscopic image
Release/pre-freeze > Release time PIP sub Screen			Delete	Retain	Delete / Retain

Mode	Monitor 1 display	Monitor 2 display	Stored image		
			User setting type		
			①	②	③
EVIS Mode PIP: OFF 					
EVIS Mode PIP: ON 					
US Mode Sub screen: ON 	No indication				
US Mode Sub screen: OFF 					

* When the system setup > Image Record > US image record during EVIS is OFF, US images will not be stored.

Wiring type E1S, E1Y

With the user setup combination, the images are stored as follows:

User Presets			1	2
Releases/Pre-freeze > Capture area			Entire screen	Endoscopic image
Mode	Monitor 1 display	Monitor 2 display	Stored image	
			User setting type	
			①	②
EVIS Mode PIP: OFF 			  *	  *
EVIS Mode PIP: ON 			  *	  *
US Mode Sub screen: ON 	No indication	No indication		
US Mode Sub screen: OFF 				

* When the system setup > Image Record > US image record during EVIS is OFF, US images will not be stored.

OLYMPUS
