# Setting linking with a switcher

Configure the settings for linking the unit with an optional switcher. To use the function for linking with a switcher, you need to set the following in advance.

■ Settings for the connection between unit and switcher Refer to "Settings for connecting with the remote cameras and switcher" in <Basics> (page 29).

### ■Settings on the switcher

<AW-HS50>

Configure the following settings.

- Enabling the function for linking with the unit
   Set the "10. CamCont Link" item of [13] Operation Menu to "On".
- Displaying the remote camera names sent by the unit
   Set the "4. Name Type" item of [10.1] SDI-IN1 to [10.4] SDI-IN4
   or the "2. Name Type" item of [10.5] DVI-IN in [10] Input Menu to
   "CAM Name".
- Displaying icons at the bottom left of the sub screen for images of the remote camera selected on the unit when the switcher is outputting images of multi view

Set the "6. Input Status" item of [8] MultiView Out/Frame Menu to "On".

For details, refer to the operating instructions for the AW-HS50.

<AV-HS6000>

To link an AV-HS6000 to the unit, plug-in software must be registered on the AV-HS6000.

For details, refer to the Operating Guide for the AV-HS6000 Series. For details on using the plug-in software, refer to the User Guide for the AV-HS6000 Series Plug-in Software. Use Ver. 3.00 or later of "Main Frame" for the AV-HS6000 and Ver. 3.00 or later of "External Control" for the plug-in software.

■ Registering the camera numbers that will correspond to the image inputs of the switcher

Refer to the relevant explanation in this section.

■Enabling or disabling the function for linking with the switcher

Refer to the relevant explanation in this section.

# Registering the camera numbers that will correspond to the image inputs of the switcher

This operation is required to link with the AW-HS50 or AV-HS6000. Use Ver. 3.00 or later of "Main Frame" for the AV-HS6000 and Ver. 3.00 or later of "External Control" for the plug-in software.

- 1. Press the MENU button.
- 2. Open SW INPUT menu [43].
- 3. Turn the F1 dial to display the input signal of the switcher to be set.

Input signal: Select from 1. INPUT1 to 100. INPUT100.

 Turn the F2 dial to select the corresponding camera number, and then press the F2 dial to confirm the selection.

# Enabling or disabling the function for linking with the switcher

Enable or disable the entire function for linking between the unit and switcher.

- 1. Press the MENU button.
- 2. Open SW FUNCTION menu [42].
- 3. Turn the F1 dial to display the "1. SWLINK" item.

1.SWLINK On↓

4. Turn the F2 dial to select "On" or "Off", and then press the F2 dial to confirm the selection.

On: Enables the function for linking with the switcher.

Off: Disables the function for linking with the switcher.

5. Turn the F1 dial to display the "2. SW TYPE" item.

2.SW TYPE HS50↓

Turn the F2 dial to select the switcher you want to connect (HS50 / HS6000), and then press the F2 dial to confirm the selection.

**HS50** : Links with the AW-HS50. **HS6000** : Links with the AV-HS6000.

Memo

 Enabling and disabling the link function can be assigned to a USER button.

Open USER BUTTON menu [35], display one of the "1. USER1" to "8. USER8" items, and set "SWLINK".

 When the USER button with "SWLINK" assigned is pressed, the operation is as follows.

Button indicator on : Enables the function for linking with the

switcher.

Button indicator off: Disables the function for linking with the

switcher.

#### Note

- Up to one AW-RP120 or AW-RP50 can be linked to one switcher. Therefore, it is not possible to link the unit to a switcher that already has another AW-RP120 or an AW-RP50 linked. Disable the link function of the unit that is already linked and then enable the link function on this unit.
- Use Ver. 3.00 or later of "Main Frame" for the AV-HS6000 and Ver. 3.00 or later of "External Control" for the plug-in software.

# Setting the functions for when the unit is linked with the switcher

Set the functions that can be used when there is a link between the unit and switcher.

Each of the functions needs to be set in advance in SW FUNCTION menu [42] and SW INPUT menu [43].

- ⇒ "Registering the camera numbers that will correspond to the image inputs of the switcher" (page 31)
- ⇒ "Enabling or disabling the function for linking with the switcher" (page 31)

# **BUSCONT** function

This function is enabled when SW FUNCTION menu [42]  $\rightarrow$  "2. SW TYPE" is set to "HS50" or "HS6000".

Select the bus material of the switcher from the unit. When the BUSCONT function is enabled, the bus material of the switcher can be selected in conjunction with camera selection on the unit.

#### Note

- When the link setting of a camera number is changed with AUTO IP menu [37], SWAP IP menu [38], or MANUAL IP menu [39] or a camera number corresponding to an image input of the switcher is changed with SW INPUT menu [43], the bus material of the switcher will not be changed immediately even if the BUSCONT function is enabled. Press one of the camera selection buttons [CAMERA SELECT/GROUP SELECT] to make a selection again.
- Use Ver. 3.00 or later of "Main Frame" for the AV-HS6000 and Ver. 3.00 or later of "External Control" for the plug-in software.

#### **Enabling or disabling the BUSCONT function**

- 1. Press the MENU button.
- 2. Open SW FUNCTION menu [42].
- 3. Turn the F1 dial to display the "3. BUSCONT" item.

3.BUSCONT Off↓

4. Turn the F2 dial to select "On" or "Off", and then press the F2 dial to confirm the selection.

**On**: Enables the BUSCONT function. **Off**: Disables the BUSCONT function.

 Enabling and disabling the BUSCONT function can be assigned to a USER button.

Open USER BUTTON menu [35], display one of the "1. USER1" to "8. USER8" items, and set "BUSCONT".

 When the USER button with "BUSCONT" assigned is pressed, the operation is as follows.

**Button indicator on**: Enables the BUSCONT function. **Button indicator off**: Disables the BUSCONT function.

# Setting the switcher bus to control with the BUSCONT function

When the BUSCONT function is enabled, you can set the switcher bus to control with a camera selection button [CAMERA SELECT/ GROUP SELECT] on the unit.

- 1. Press the MENU button.
- 2. Open SW FUNCTION menu [42].
- 3. Turn the F1 dial to display the "4. BUS" item.

4.BUS AUX↓

Turn the F2 dial to select a setting, and then press the F2 dial to confirm the setting.

<When "HS50" is selected>

AUX: The AUX bus of the switcher is the control target.

PVW: The PVW bus of the switcher is the control target.

PinP: The PinP bus of the switcher is the control target.

KEY: The KEY bus of the switcher is the control target.

<When "HS6000" is selected>

AUX1-16: The AUX buses of the switcher are the control targets.

ME1PVW: PVW of ME1 on the switcher is the control target.

ME1KEY1-S/F, ME1KEY2-S/F, ME1KEY3-S/F, ME1KEY4-S/F

: KEY1 to 4F/S of ME1 on the switcher are the control targets.

ME2PVW: PVW of ME2 on the switcher is the control target.

ME2KEY1-S/F, ME2KEY2-S/F, ME2KEY3-S/F, ME2KEY4-S/F

: KEY1 to 4F/S of ME2 on the switcher are the control targets.

DSK1-S/F, DSK2-S/F, DSK3-S/F, DSK4-S/F

: DSK1 to 4F/S of the switcher are the control targets.

Use Ver. 3.00 or later of "Main Frame" for the AV-HS6000 and Ver.
 3.00 or later of "External Control" for the plug-in software.

### **FOCUS ASSIST function**

This function is enabled when SW FUNCTION menu [42]  $\rightarrow$  "2. SW TYPE" is set to "HS50" or "HS6000".

Control the AUX bus of the switcher and switch between the "images of multi view" and the "images of the selected remote camera". Assigning this function to a USER button makes it optimal for adjusting the focus and other settings because you can fill the screen with the images of the selected remote camera with just the press of a button.

Use Ver. 3.00 or later of "Main Frame" for the AV-HS6000 and Ver.
 3.00 or later of "External Control" for the plug-in software.

#### **Setting the FOCUS ASSIST function**

- 1. Press the MENU button.
- 2. Open SW FUNCTION menu [42].
- 3. Turn the F1 dial to display the "5. FOCUS ASSIST" item.

5.FOCUS ASSIST Off↓

- 4. Turn the F2 dial to select "On" or "Off", and then press the F2 dial to confirm the selection.
  - On: Switches the images of the AUX bus output from the switcher to the images of the remote camera selected with the unit.
  - **Off:** Switches the images of the AUX bus output from the switcher to the images of multi view.

- The FOCUS ASSIST function can be assigned to a USER button.
   Open USER BUTTON menu [35], display one of the "1. USER1" to "8. USER8" items, and set "FASSIST".
- When the USER button with "FASSIST" assigned is pressed, the operation is as follows.
  - ${\bf Button\ indicator\ on\ }$  : Switches the images of the AUX bus output

from the switcher to the images of the remote

camera selected with the unit.

**Button indicator off**: Switches the images of the AUX bus output

from the switcher to the images of multi view.

 When SW FUNCTION menu [42] → "2. SW TYPE" is set to "HS6000", perform SW FUNCTION menu [42] MV bus assignment to specify the output destination (AUX1 to 16) for MV (fixed MV4 for HS6000).

6. MV OUTBUS : AUX1 to 16

# **CAMERA SELECT view function**

This function is enabled when SW FUNCTION menu [42]  $\rightarrow$  "2. SW TYPE" is set to "HS50" or "HS6000".

Set the unit to display icons at the bottom left of the sub screen for images of the selected remote camera when the switcher is outputting images of multi view.

Use Ver. 3.00 or later of "Main Frame" for the AV-HS6000 and Ver.
 3.00 or later of "External Control" for the plug-in software.

# **Enabling or disabling the CAMERA SELECT function**

- 1. Press the MENU button.
- 2. Open SW FUNCTION menu [42].
- Turn the F1 dial to display the "7. CAMERA SELECT" item.

7.CAMERA SELECT Off↓

4. Turn the F2 dial to select "On" or "Off", and then press the F2 dial to confirm the selection.

On: Enables the CAMERA SELECT view function.

Off: Disables the CAMERA SELECT view function.

 When SW FUNCTION menu [42] → "2. SW TYPE" is set to "HS6000", the name is applied to <CONF> button → "SOURCE NAME" → "MV NAME" of the AV-HS6000 in the "CAMERA TITLE name + (@)" format and displayed.

# **TALLY IP function**

This function is enabled when SW FUNCTION menu [42]  $\rightarrow$  "2. SW TYPE" is set to "HS50" or "HS6000".

Enable TALLY IP to receive OA tally information from the switcher via the network.

The lighting statuses of the camera status indicators on the unit and the tally lamps on the remote cameras are changed based on the received OA tally information.

Use Ver. 3.00 or later of "Main Frame" for the AV-HS6000 and Ver.
 3.00 or later of "External Control" for the plug-in software.

### **Enabling or disabling the TALLY IP function**

- 1. Press the MENU button.
- 2. Open SW FUNCTION menu [42].
- 3. Turn the F1 dial to display the "8. TALLY\_IP" item.

4. Turn the F2 dial to select "On" or "Off", and then press the F2 dial to confirm the selection.

On: Enables the TALLY IP function.
Off: Disables the TALLY IP function.

 To enable tally lamp on instructions to be sent to a remote camera based on the tally information received from the switcher, you need to display the "4. TALLY OUT" item in CAMERA SETUP menu [24] and then set it to "On".

#### Note

 The unit also sends the tally lamp on instruction to the corresponding remote camera when the unit receives tally information for a camera number belonging to a camera group that is not selected.

# Operating the switcher with the PAN/TILT lever and ZOOM button

This function is enabled when SW FUNCTION menu [42]  $\rightarrow$  "2. SW TYPE" is set to "HS50".

You can use the unit's PAN/TILT lever and ZOOM button to change switcher settings (PinP position and size, etc.).

# Setting the application of the PAN/TILT lever and ZOOM button

- 1. Press the MENU button.
- 2. Open SW FUNCTION menu [42].
- 3. Turn the F1 dial to display the "9. P/T/Z CONTROL" item.

9.P/T/Z CONTROL CAM↓

4. Turn the F2 dial to select a setting, and then press the F2 dial to confirm the selection.

#### CAM:

Allows you to operate the remote camera selected on the unit with the PAN/TILT lever and ZOOM button.

#### SW:

Allows you to change the switcher settings with the PAN/TILT lever and ZOOM button.

#### **Button Select:**

Allows you to select the operation target of the PAN/TILT lever and ZOOM button (remote cameras or switcher) by pressing the PAN/TILT ENABLE button or FOCUS/ZOOM/IRIS ENABLE button.

For each of the setting values above, the lighting state of the button indicator changes as follows when the PAN/TILT ENABLE button or FOCUS/ZOOM/IRIS ENABLE button is pressed.

#### <Change of lighting state when each ENABLE button is pressed>

remaining of might might be proceed and the process and the pr					
Setting value	Lighting state				
CAM	On → Off				
SW	Blinking —→ Off				
Button Select	On → Blinking → Off				

The following shows the operation with respect to the lighting state of each ENABLE button.

#### <PAN/TILT ENABLE button>

Button indicator state	Operation when the PAN/TILT lever is operated		
On	The remote camera is able to move horizontally and vertically.		
Blinking	<ul> <li>The operation is as follows depending on the state of the switcher.</li> <li>When Wipe Menu is open The transition start position (X, Y) can be moved horizontally and vertically.</li> <li>When PinP Menu is open The PinP position (X, Y) can be moved horizontally and vertically.</li> <li>When a chroma key marker is superimposed on the image output The chroma key marker position (X, Y) can be moved horizontally and vertically.</li> </ul>		
Off	Operation is disabled.		

#### <FOCUS/ZOOM/IRIS ENABLE button>

Button indicator state	Operation when the ZOOM button is operated				
On	The lens zoom of the remote camera can be changed.				
Blinking	The operation is as follows depending on the state of the switcher.  When PinP Menu is open The PinP size can be changed.  When a chroma key marker is superimposed on the image output The chroma key marker size can be changed.				
Off	Operation is disabled.				

### **CAM INF function**

This function is enabled when SW FUNCTION menu [42]  $\rightarrow$  "2. SW TYPE" is set to "HS50" or "HS6000".

You can display the remote camera setting information acquired by the unit on the switcher AUX bus output images or multi view images.

- The setting information for the remote cameras included in the selected camera group is displayed.
- The setting information for a remote camera connected via a serial connection is displayed only when the camera is selected with a camera selection button [CAMERA SELECT/GROUP SELECT].
- Use Ver. 3.00 or later of "Main Frame" for the AV-HS6000 and Ver. 3.00 or later of "External Control" for the plug-in software.

#### **Enabling or disabling the CAM INF function**

- 1. Press the MENU button.
- 2. Open SW FUNCTION menu [42].
- 3. Turn the F1 dial to display the "10. CAM INF" item.

4. Turn the F2 dial to select "On" or "Off", and then press the F2 dial to confirm the selection.

On: Enables the CAM INF view function. Off: Disables the CAM INF view function.



• Enabling and disabling the CAM INF function can be assigned to a USER button.

Open USER BUTTON menu [35], display one of the "1. USER1" to "8. USER8" items, and set "CAMINF".

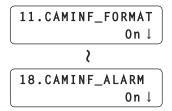
• When the USER button with "CAMINF" assigned is pressed, the operation is as follows.

Button indicator on : Enables the CAM INF function. Button indicator off: Disables the CAM INF function.

## Selecting the remote camera setting information to superimpose on the images output from the switcher

- 1. Press the MENU button.
- 2. Open SW FUNCTION menu [42].

3. Turn the F1 dial to display any of the "11. CAMINF\_ FORMAT" to "18. CAMINF\_ALARM" items.



11. CAMINF\_FORMAT: 1) Video format

(This is left blank when the video format of the remote camera cannot be

recognized.)

12. CAMINF\_CNAME : ② Remote camera name

(When SW FUNCTION menu [42]  $\rightarrow$ "2. SW TYPE" is set to "HS6000", the name is displayed in the "CAMERA TITLE name + (@)" format.

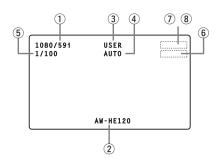
13. CAMINF\_SCENE : 3 Shooting mode 14. CAMINF\_GAIN : 4 Gain value

15. CAMINF\_SHUTER: 5 Shutter information (ON/OFF, shutter

value)

16. CAMINF\_IRIS : 6 Iris value 17. CAMINF\_FILTER : ① Filter information

18. CAMINF\_ALARM : 8 Remote camera alarm information



4. For each of the items, turn the F2 dial to select "On" or "Off", and then press the F2 dial to confirm the selection.

On: Enables display on the switcher. Off: Disables display on the switcher.

• CAMINF\_IRIS and CAMINF\_FILTER may not be displayed depending on the remote camera. (Refer to the following table.)

	CAMINF_IRIS	CAMINF_FILTER
AW-HE120	_	√
AW-HE60, AW-HE50	_	_
AW-HE100	√	_
AW-HE870	√	_
AW-E860, AW-E750, AW-E650, AW-E350	_	_
AK-HC1500, AK-HC1800	√	√

√: Displayed. —: Not displayed.

Button number	Menu name	Setting item	Remote camera	Initial value on unit (*1)	Setting
[38]	SWAP IP	1. CAM1		,,	
		:		:	
		100. CAM100		,,	
[39]	MANUAL IP	1. CAM1		192.168.0.10	
		:		:	
[40]	PORT NO	100. CAM100 1. CAM1		192.168.0.109 80	1 to 65535
[40]	FORTINO	i. CAIVIT		:	1 10 00000
		100. CAM100		80	1 to 65535
[41]	SW SETUP	1. SW CTL		NoAsign	Network, NoAsign
		2. SW IP ADDRESS		192.168.000.008	, , , , , ,
[42]	SW FUNCTION	1. SWLINK		On	Off, On
		2. SW TYPE		HS50	HS50, HS6000
		3. BUSCONT		Off	Off, On
		4. BUS		AUX	When "2. SW TYPE" is "HS50":
					AUX, PVW, PinP, KEY
					When "2. SW TYPE" is "HS6000":
					AUX1-16, ME1PVW, ME1KEY1-S/F,
					ME1KEY2-S/F, ME1KEY3-S/F,
					ME1KEY4-S/F, ME2PVW, ME2KEY1-
					S/F, ME2KEY2-S/F, ME2KEY3-S/F,
					ME2KEY4-S/F, DSK1-S/F, DSK2-S/F, DSK3-S/F, DSK4-S/F
		5. FOCUS ASSIST		Off	Off, On
		6. MV OUTBUS		AUX1	AUX1 to 16
		7. CAMERA SELECT		Off	Off, On
		8. TALLY IP		Off	Off, On
		9. P/T/Z CONTROL		CAM	CAM, SW, Button Select
		10. CAM INF		On	Off, On
		11. CAMINF FORMAT		On	Off, On
		12. CAMINF_CNAME		On	Off, On
		13. CAMINF_SCENE		On	Off, On
		14. CAMINF_GAIN		On	Off, On
		15. CAMINF_SHUTER		On	Off, On
		16. CAMINF_IRIS		On	Off, On
		17. CAMINF_FILTER		On	Off, On
	014/11/19/17	18. CAMINF_ALARM		On	Off, On
[43]	SW INPUT	1. INPUT1		CAM1	NoAsign, CAM1 to CAM100
		2. INPUT2		CAM2	_
		3. INPUT3		CAM3 CAM4	_
		4. INPUT4 5. INPUT5		CAM5	_
		6. INPUT6		NoAsign	_
		5: 1141 616		i	
		100. INPUT100		NoAsign	
[44]	TALLY	1. TALLY IN1		CAM1	CAM1 to CAM100
				:	
		10. TALLY IN10		CAM10	
[45]	GPI OUT	1. CAM OUT1		CAM1	CAM1 to CAM100
		:		:	
		10. CAM OUT10		CAM10	
[46]	SD SAVE	SAVE MODE		RPDAT	RPDAT, CAM, RPMEM, LOG (*2)
[47]	SD LOAD	LOAD MODE		RPDAT	RPDAT, CAM, RPMEM, UPG (*2)
[48]	SD DELETE	DEL MODE		RPDAT	RPDAT, CAM, RPMEM, LOG, INIT
[49]	SYSTEM	1. INITIALIZE		ALL	ALL, SETUP
		2. SYSTEM VER			V*.**.** (displayed only)
		3. PROGRAM VER			V*.**.** (displayed only)
		4. FPGA VER			V*.**.** (displayed only)
[50]	ALARM	1. POWER			ALARM, No ALARM (displayed only)
		2. CAM###			FAN ALM, P/T ALM,
		:			FAN ALM+P/T ALM,
		11. CAM### (*3)			No ALARM (displayed only)

(\*1) "-" indicates a setting saved to the remote camera.

A diagonal line indicates a setting that can only be displayed. It cannot be changed.

<sup>(\*2)</sup> When a camera number with Serial or NoAsign set in CTRL TYPE menu [36] is selected, "CAM" and "RPMEM" are not displayed.

<sup>(\*3)</sup> CAM### indicates a camera number included in the selected camera group.