Operating Guide

Remote Operation Panel

Model No.

Read this document when using the AK-HRP1000G Remote Operation Panel in conjunction with AW-UE70 Series 4K Integrated Cameras or AW-HE35/ AW-HE38/AW-HE40/AW-HE70 Series HD Integrated Cameras.





For details of operating Remote Operation Panel AK-HRP1000G, please visit the Panasonic website (http://pro-av.panasonic.net/en/manual/index. html), and refer to the Operating Instructions (HTML or PDF).





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Connecting the Unit to AW-UE70/AW-HE35/AW-HE38/AW-HE40/AW-HE70 Series Cameras

Connection examples





Serial connection cable specifications

AW-UE70/AW-HE35/AW-HE38/			AK-HRF [CCU] conr	P1000G nector si	de
AW-HE40/AW-HE70		Pin No.	Function	Polarity	Flow of signal
[RS-422] connector side (RJ45)		• 1	CAM DATE(H)	+	CAM→ ROP
1 GRD •		• 2	COM DATE(L)	-	CAM→ ROP
2 TALLY		• 3	COM CONT(H)	+	$ROP \rightarrow CAM$
3 RXD-		• 4	COM CONT(L)	-	$ROP \rightarrow CAM$
4 TXD-	I	5	COM No. A		
5 TXD+ •		6	COM No. B		
6 RXD+		7	COM No. C		
7 —		8	COM No. D		
8 –		9	12 V		
		• 10	GND		

Hirose: HR10A-10P-105(73)

Connections

• Set the connection setting to [Serial(AW3)] or [LAN(AW3)] in the [CONNECT SETTING] menu.

CONNECT	SETTING		1 / 11
CONN	IECT MODE(push)	
Serial			
(AW3)	(ĀŴ3)		
	IECT MODE(push) ———	
CAM4	CAM5	<u>CÁM6</u>	
NON	NON	NON	
CONN		CAM9	
NON	NON	NON	

• To connect with the AW-UE70/AW-HE35/AW-HE38/AW-HE40/AW-HE70, upgrade the system version of the unit to 4.30-00-0.00 or later.

• When connecting, observe the following points.

Serial connection

- Use a dedicated cable to connect the [CCU] connector of this unit to the [RS-422] connector of the AW-UE70/AW-HE35/AW-HE38/AW-HE40/AW-HE70.
- Use a PoE power supply for the power supply.

LAN connection

- Connect the [LAN] connector on this unit to the [LAN ACT/LINK] connector on the AW-UE70/AW-HE35/AW-HE38/AW-HE40/AW-HE70 using a LAN cable (sold separately).
- Configure the camera IP address and port number settings of the connection destinations in [CAMERA IP SETTING] as well.
- This unit can be powered using PoE. Use a switching hub with PoE support.
- Use a straight cable (category 5e or higher; up to 100 m (328.0 ft) in length) for the LAN cable (STP).
- For details on switching hubs and PoE injectors that have been verified to support PoE, consult with your dealer.

Compatible Functions List

When the unit is used in conjunction with an AW-UE70 Series 4K Integrated Camera or AW-HE35/AW-HE38/AW-HE40/AW-HE70 Series HD Integrated Camera, there will be functions that are limited or disabled for some of the unit's buttons, dials, and other controls. Be sure to refer to the following table.



Number	Part name	✓ : Enabled ×: Disabled	Remarks
	[POWER HEAD] button	1	
	[POWER VF] button	×	
	[BARS/TEST] button	1	Only the ON/OFF for the color bar signal output will function.
	[REF. RECALL] button	×	
	[AUTO WHITE] button	1	
	[AUTO BLACK] button	1	
Front panel 1	[AUTO SET UP] button	×	
	[CHARA] button	×	
	[MATRIX] button	×	
	[SKIN DTL] button	×	
	[DRS] button	1	
	[B.GAMMA] button	×	
	[ASSIGN] button	✓	

Number	Part name	✓ : Enabled×: Disabled	Remarks
	[ASSIGN STATUS] button	1	
Front panel 2	Buttons [1] to [5] (CONTROL/MODE)	1	
	[CONTROL/MODE] button	1	
	LCD panel	1	
	[MENU] dial	1	
Front panel 3	[EXIT] button	1	
	[UNDO] button	1	
	[MENU] button	1	
	[ON] indicator (SCENE FILE)	1	This is always lit.
	Scene file page switching button	×	
Front panel 4	[1/6], [2/7], [3/8], [4/EXT1], and [5/EXT2] buttons (SCENE FILE)	1	Only scenes 1 to 4 are enabled.
	[STORE] button	×	
	[ND] indicator	1	This is enabled only for the AW-UE70.
	[ND] setting button	1	This is enabled only for the AW-UE70.
	[ND] display	1	This is enabled only for the AW-UE70.
	[CC] indicator	×	
	[CC] setting button	×	
Front nonal 5	[CC] display	×	
Front pariers	[HEAD] button	×	
	[ECC] button	×	
	[M.GAIN] indicator	1	
	[M.GAIN] setting button	1	
	[M.GAIN] display	1	
	[VAR] button	×	
	[SHUTTER] display	1	"" is displayed on the [SHUTTER] display when the synchro shutter is selected. Also, the [SHUTTER] setting buttons cannot be used. When the shutter speed value is "10000", "9999" is displayed.
Front panel 6	[ON] button (SHUTTER)	1	
	[SYNC] button (SHUTTER)	1	
	[SHUTTER] setting buttons		"" is displayed on the [SHUTTER] display when the synchro shutter is selected. Also, the [SHUTTER] setting buttons cannot be used.

Number	Part name	✓ : Enabled ×: Disabled	Remarks
	[GAIN R] and [GAIN B] dials	✓	
	[GAIN G] dial	×	
	[BLACK R] and [BLACK B] dials	×	
	[BLACK G] dial	×	
	[FLARE] button	1	Stabilized using the pedestal adjustment. Flare adjustment cannot be performed.
	[PAINT LOCK] button	1	
Front panel 7	[DTL] dial	×	
	[CAM SEL] indicator	1	
	[SELECT] dial	1	[SYNC] and [M.FLR] adjustment cannot be performed.
	[TEMP] indicator	1	
	[SYNC] indicator	×	
	[MFLR] indicator	×	
	[USER] indicator	1	
	[EXT] indicator	×	
	[D.EXT] indicator	1	
	[IRIS] lever	1	
	[M.PED] dial	1	
	[RELATIVE] button	1	
	[SENSE] dial	1	
	[COARSE] dial	1	
Front panel 8	[IRIS] display	×	
	[AUTO] button	1	When the auto iris function is enabled, the iris gauge that appears at the bottom of the LCD panel (status screen) will not operate.
	[CLOSE] button	1	
	[M.PED] display	1	
	[IRIS LOCK] button	1	
	[M.PED LOCK] button	1	
	Camera number/tally display	1	
	[ALM] indicator	1	
	[OPT] indicator	×	
	[PANEL ACTIVE] button	1	
Front panel 9	[CALL] button	×	
	[PREVIEW] button	1	
	Memory card slot	1	
	Memory card access indicator	1	
	Torque adjustment screw	\checkmark	

ROP Menu (when AW-UE70/AW-HE35/AW-HE38/AW-HE40/AW-HE70 is connected)

ROP menu list

When an AW-UE70 4K Integrated Camera or AW-HE35/AW-HE38/AW-HE40/AW-HE70 HD Integrated Camera is connected, the ROP menu will be as follows. The setting values will vary depending on the connected model. Depending on the model, unsupported functions will be displayed as [-].

For details on menu operations, refer to the following sections in the Operating Instructions.

- "Displaying menus"
- "Basic menu operations"

	MODE	➡ "MODE" (see page 14)	
01 SHUTTER SPEED	SPEED		
02 CHROMA	LEVEL	➡ "LEVEL" (see page 15)	
	GAIN	➡ "GAIN" (see page 16)	
U3 GAIN	AGC MAX GAIN	◆ "AGC MAX GAIN" (see page 16)	
	MODE		
	COLOR TEMP		
04 WHITE BALANCE	GAINR	➡ "GAIN R" (see page 17)	
	GAINB	➡ "GAIN B" (see page 17)	
	TYPE		
05 GAMMA	LEVEL	➡ "LEVEL" (see page 18)	
	DRS	➡ "DRS" (see page 18)	
	DTL	➡ "DTL" (see page 19)	
00 DET 11	LEVEL H	➡ "LEVEL H" (see page 19)	
06 DETAIL	LEVELL	➡ "LEVEL L" (see page 19)	
	FLESH TONE MD	➡ "FLESH TONE MD" (see page 19)	

	ТҮРЕ	
	COLOR CORRECT	
	SAT	➡ "SAT" (see page 21)
	PHASE	
	SATB	➡ "SAT B" (see page 21)
	PHASE B	➡ "PHASE B" (see page 21)
	SAT B_B_Mg	"SAT B_B_Mg" (see page 21)
	PHASE B_B_Mg	"PHASE B_B_Mg" (see page 21)
	SAT B_Mg_Mg	"SAT B_Mg_Mg" (see page 21)
	PHASE B_Mg_Mg	"PHASE B_Mg_Mg" (see page 21)
	SAT Mg_R	➡ "SAT Mg_R" (see page 21)
	PHASE Mg_R	"PHASE Mg_R" (see page 21)
	SATR	➡ "SAT R" (see page 21)
	PHASE R	"PHASE R" (see page 21)
	SATR_R_YI	"SAT R_R_YI" (see page 21)
	PHASE R_R_YI	"PHASE R_R_YI" (see page 21)
	SAT R_YI_YI	"SAT R_YI_YI" (see page 21)
07 COLOR CORRECTION	PHASE R_YI_YI	"PHASE R_YI_YI" (see page 21)
	SAT YI	➡ "SAT YI" (see page 21)
	PHASE YI	
	SAT YI_YI_G	"SAT YI_YI_G" (see page 21)
	PHASE YI_YI_G	"PHASE YI_YI_G" (see page 21)
	SAT YI_G_G	"SAT YI_G_G" (see page 21)
	PHASE YI_G_G	"PHASE YI_G_G" (see page 21)
	SATG	➡ "SAT G" (see page 21)
	PHASE G	"PHASE G" (see page 21)
	SAT G_Cy	"SAT G_Cy" (see page 21)
	PHASE G_Cy	"PHASE G_Cy" (see page 22)
	SAT Cy	➡ "SAT Cy" (see page 22)
	PHASE Cy	➡ "PHASE Cy" (see page 22)
	SAT Cy_Cy_B	"SAT Cy_Cy_B" (see page 22)
	PHASE Cy_Cy_B	"PHASE Cy_Cy_B" (see page 22)
	SAT Cy_B_B	➡ "SAT Cy_B_B" (see page 22)
	PHASE Cy_B_B	"PHASE Cy_B_B" (see page 22)
08 DNR	DNR	➡ "DNR" (see page 23)
	CONTRAST MODE	"CONTRAST MODE" (see page 24)
	CONTRASTLEVEL	"CONTRAST LEVEL" (see page 24)
09 CONTRAST	FRAME MIX	➡ "FRAME MIX" (see page 24)
	A.F.MIX MAX GAIN	"A.F.MIX MAX GAIN" (see page 24)
	DAY/NIGHT	"DAY/NIGHT" (see page 24)
	FOCUS MODE	➡ "FOCUS MODE" (see page 25)
	FOCUS SPEED	"FOCUS SPEED" (see page 25)
10 Ι FNS/ΡΔΝ/ΤΙΙ Τ ΟΩΝΤΡΩΙ	FOCUS	➡ "FOCUS" (see page 25)
	ZOOM WIDE	"ZOOM WIDE" (see page 25)
	ZOOMSPEED	"ZOOM SPEED" (see page 25)
	ZOOMTELE	"ZOOM TELE" (see page 25)

	FORMAT	➡ "FORMAT" (see page 26)	
	FREQUENCY	➡ "FREQUENCY" (see page 26)	
	I.S.	➡ "I.S." (see page 26)	
	BARS TYPE	"BARS TYPE" (see page 26)	
11 SYSTEM CAM	OSD STATUS	"OSD STATUS" (see page 26)	
	AUDIO	➡ "AUDIO" (see page 26)	
	GENLOCK PHASE	"GENLOCK PHASE" (see page 26)	
	HDR	"HDR" (see page 26)	
	BACK LIGHT CMP	"BACK LIGHT CMP" (see page 26)	
	MENU ON/OFF	➡ "MENU ON/OFF" (see page 27)	
12 CAMERA MENU CONTROL	CURSOR/PARAMETER	"CURSOR/PARAMETER" (see page 27)	
	EXECUTE	➡ "EXECUTE" (see page 27)	

		Refer to the following section in the Operating Instructions. *34 ROP SETTING"
	MODE(ON/OFF)1	
	MODE(ON/OFF)2	
	MODE(ON/OFF)3	
	MODE(ON/OFF)4	
	MODE(ON/OFF)5	
	ECC BTN CTRL	
	ASSIGNBUTTON	
	USERASSIGN	
	IRIS LEV MOD	
	CAMERA SELECT	
	DTL VOL	
	SKIN DTL SW	
	LCD BRIGHT	
	PNL LED BRIGHT	
	7SEG BRIGHT GROUP1	
13 ROP SETTING	7SEG BRIGHT GROUP2	
	BUZZER	
	PERIOD	
	CYCLE	
	STD POSITION M.PED	
	STD POSITION VAR	
	IRIS/PED LOCK	
	STD POSITION ND	
	STD POSITION CC	
	IRIS PRIORITY	
	ROP DATA SAVE	
	ROP DATA LOAD	
	INITIAL with NW	
	INITIAL	
	POWERBUTTON	
	IRIS CALIBRATION TOP	
	IRIS CALIBRATION BOTTOM	
	UPGRADE	
	SYSTEMVERSION	
	SOFT VERSION	
	FPGAVERSION	
	CONNECT MODE(push) CAM1	"CONNECT MODE(push) CAM1" (see page 29)
14 CONNECT SETTING	CONNECT MODE (push) CAM2	
	to CAM99	"CONNECT MODE(push) CAM2 to CAM99" (see page 29)

15 ROP IP SETTING	ROP IP ADDRESS	Refer to the following section in the Operating Instructions.
	ROP PORT	◆ "36 ROP IP SETTING"
	UPLOAD	
	ROP SUBNET MASK	
	UPLOAD	
	ROP DEFAULT GATEWAY	
	UPLOAD	
	MACADDRESS	
	CAM1 to CAM99 IP ADDRESS	Refer to the following section in the Operating Instructions.
16 CAMERA IP SETTING	CAM1 to CAM99 PORT	◆ "37 CAMERA IP SETTING"
	CAM1 to CAM99 INF UPLOAD	

01 SHUTTER SPEED



Item	Setting details	
MODE	Selects the operation mode of the shutter.	
SPEED	Sets the shutter speed. The setting can be changed when [MODE] is [STEP].	
	The shutter speed of [SYNC] is not displayed.	

02 CHROMA

CHROMA	1 / 1
LEVEL	
+2	

Item	Setting details
LEVEL	Sets the color intensity of images.

03 GAIN

GAIN		1/1
GAIN	AGC MAX GAIN	
AUTO	24	

Item	Setting details
GAIN	Adjusts the gain of images.
AGC MAX GAIN	When [AUTO] is selected as the [GAIN] setting, the maximum gain-up amount can be set.

04 WHITE BALANCE



Item	Setting details
MODE	Sets the white balance mode.
COLOR TEMP	Sets color temperature settings.
GAIN R	Adjusts the R gain.
GAIN B	Adjusts the B gain.

05 GAMMA

GAMMA			1 / 1
ТҮРЕ	LEVEL	DRS	
NORMAL	MID	OFF]

Item	Setting details
ТҮРЕ	Selects the type of gamma curve.
LEVEL	Adjusts the gamma correction level.
DRS	Sets the DRS function which performs correction when video with high light/dark contrast is displayed.

06 DETAIL



Item	Setting details
DTL	Adjusts the image contour (i.e., image sharpness).
LEVEL H	Adjusts the contour correction level when [DTL] is set to [HIGH].
LEVEL L	Adjusts the contour correction level when [DTL] is set to [LOW].
FLESH TONE MD	Sets flesh tone mode to make the skin of subjects appear smoother and more attractive.

07 COLOR CORRECTION





COLOR CC	RRECTION	6 / 6
SAT	PHASE	
Су	<u>су</u>	
SAT	PHASE	
<u> </u>	<u> Cy_Cy_B </u>	
0	0	
SAT CV B B	PHASE Cv B B	
0	0	

ltem	Setting details
ТҮРЕ	Selects the type of color matrix.
COLOR CORRECT	Selects the color component in 12-axis matrix memory to adjust.
SAT	Adjusts the saturation of the color component selected in [COLOR CORRECT].
PHASE	Adjusts the hue of the color component selected in [COLOR CORRECT].
SAT B	Adjusts blue color saturation.
PHASE B	Adjusts blue hue.
SAT B_B_Mg	Adjusts the color saturation with a 3:1 blue and magenta.
PHASE B_B_Mg	Adjusts the hue (color phase) with a 3:1 blue and magenta.
SAT B_Mg_Mg	Adjusts the color saturation with a 1:3 blue and magenta.
PHASE B_Mg_Mg	Adjusts the hue (color phase) with a 1:3 blue and magenta.
SAT Mg_R	Adjusts the color saturation between magenta and red.
PHASE Mg_R	Adjusts the hue between magenta and red.
SAT R	Adjusts red color saturation.
PHASE R	Adjusts red hue.
SAT R_R_YI	Adjusts the color saturation with a 3:1 red to yellow ratio.
PHASE R_R_YI	Adjusts the hue (color phase) with a 3:1 red to yellow ratio.
SAT R_YI_YI	Adjusts the color saturation with a 1:3 red to yellow ratio.
PHASE R_YI_YI	Adjusts the hue (color phase) with a 1:3 red to yellow ratio.
SAT YI	Adjusts yellow color saturation.
PHASE YI	Adjusts yellow hue.
SAT YI_YI_G	Adjusts the color saturation with a 3:1 yellow and green ratio.
PHASE YI_YI_G	Adjusts the hue (color phase) with a 3:1 yellow and green ratio.
SAT YI_G_G	Adjusts the color saturation with a 1:3 yellow and green ratio.
PHASE YI_G_G	Adjusts the hue (color phase) with a 1:3 yellow and green ratio.
SAT G	Adjusts green color saturation.
PHASE G	Adjusts green hue.
SAT G_Cy	Adjusts the color saturation between green and cyan.

Item	Setting details
PHASE G_Cy	Adjusts the hue between green and cyan.
SAT Cy	Adjusts cyan color saturation.
PHASE Cy	Adjusts cyan hue.
SAT Cy_Cy_B	Adjusts the color saturation with a 3:1 cyan and blue ratio.
PHASE Cy_Cy_B	Adjusts the hue (color phase) with a 3:1 cyan and blue ratio.
SAT Cy_B_B	Adjusts the color saturation with a 1:3 cyan and blue ratio.
PHASE Cy_B_B	Adjusts the hue (color phase) with a 1:3 cyan and blue ratio.

08 DNR



Item	Setting details
DNR	Sets the level for the noise reduction.

09 CONTRAST



Item	Setting details
CONTRAST MODE	Selects auto/manual for image brightness (contrast) control.
CONTRAST LEVEL	Sets the convergence level for adjusting image brightness.
FRAME MIX	Selects for frame addition (gain-up using sensor storage) amount.
A.F.MIX MAX GAIN	Sets the maximum amount of frame addition for when [AUTO] is selected in [CONTRAST MODE] or [AUTO] is selected in [FRAME MIX].
DAY/NIGHT	Switches between standard shooting (day mode) and night-vision shooting (night mode: shooting with infrared light). [AUTO] cannot be selected from the unit.

10 LENS/PAN/TILT CONTROL

LENS/PAN	/TILT CONT	ROL	1 / 1
FOCUS MODE	FOCUS SPEED	FOCUS	_
MANUAL	1	(turn)	
			•
WIDE	SPEED	TELE	
(push)	1	(push)	J

ltem	Setting details
FOCUS MODE	Selects auto or manual mode for the focus adjustment function.
FOCUS SPEED	Adjusts the focus operation speed.
FOCUS	Adjusts the lens focus manually.
ZOOM WIDE	Adjusts the lens zoom to wide angle (Wide).
ZOOM SPEED	Adjusts the zoom operation speed.
ZOOM TELE	Adjusts the lens zoom to telephoto (Tele).

11 SYSTEM CAM



Item	Setting details
FORMAT	Displays the system format.
FREQUENCY	Displays the frame frequency.
I.S.	Select the image stabilization mode.
	 When connected with AW-HE35/AW-HE38/AW-HE40/AW-HE70 series cameras, both the [MODE1] and [MODE2] selection parameters are treated as [ON] on the camera side.
BARS TYPE	Changes the type of color bar to display.
OSD STATUS	Enables/disables the status display during AWB.
AUDIO	Enables/disables audio input.
GENLOCK PHASE	This is used to adjust the horizontal phase during genlock.
HDR	Adjusts the effect of the high dynamic range mode.
BACK LIGHT CMP	Enables/disables the backlight correction function.

12 CAMERA MENU CONTROL



Item	Setting details
MENU ON/OFF	Tums the menu on or off.
CURSOR/PARAMETER	Moves the menu cursor or changes setting values.
EXECUTE	Executes the selected process.

13 ROP SETTING

For details on operations and settings, refer to the following sections in the Operating Instructions.

➡ "34 ROP SETTING"

14 CONNECT SETTING



Item	Setting details
CONNECT MODE(push) CAM1	Sets the connection method for camera 1. Changes to settings are applied by pressing the [MENU] dial. Select [LAN(AW3)] and [Serial(AW3)] when connecting with the AW-UE70 series and AW-HE35/AW- HE38/AW-HE40/AW-HE70 series.
	 [Senai(Avv3)] cannot be set for multiple cameras.
CONNECT MODE(push) CAM2 to CAM99	Sets the connection method for cameras 2 to 99. Changes to settings are applied by pressing the [MENU] dial. Select [LAN(AW3)] and [Serial(AW3)] when connecting with the AW-UE70 series and AW-HE35/AW- HE38/AW-HE40/AW-HE70 series.
	• [Serial(AW3)] cannot be set for multiple cameras.

15 ROP IP SETTING

For details on operations and settings, refer to the following sections in the Operating Instructions.

➡ "36 ROP IP SETTING"

16 CAMERA IP SETTING

For details on operations and settings, refer to the following sections in the Operating Instructions.

➡ "37 CAMERA IP SETTING"