HD Integrated Camera Interface Specifications

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AVC Networks Company Panasonic Corporation

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Change History

Date	Description	Version
Mar. 23, 2011	Issued the first edition.	1.00
Sep. 14, 2011	 HTTP1.0→HTTP1.1 Status of the support provided changed: AW-HE50 camera is not supported, and AW-HE50 camera is supported by Ver.2 or a later version. 	1.01
Jan. 19, 2011	AW-HE120 camera supported.	1.02
Oct. 9, 2012	• AW-HE60 camera supported.	1.03
Nov. 28, 2014	AW-HE130 camera supported.	1.04
Jan. 19, 2015	AW-HE40/AW-HE65/AW-HE70 cameras supported.	1.05
Oct. 22, 2015	AW-UE70 camera supported AW-HE40/AW-HE65/AW-HE70 + AW-SFU01 supported.	1.06

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1. Introduction

This manual describes the external interface specifications which are applicable when the HD integrated camera is operated using Ethernet.

It consists of three main sections, namely, camera and pan-tilt head control, camera information update notifications and error return.

Applicable models

•AW-HE50 series^{*1}, AW-HE120 series, AW-HE60 series, AW-HE130 series

AW-HE40 series^{*2}, AW-HE65 series^{*2}, AW-HE70 series^{*2}, AW-UE70 series

- *1 The functions indicated as "Ver.2" in the text can be used when the activation process has been completed after the upgrade kit (AW-HEF5) is applied.
- *2 In the text, that indicates "SFU01", is a feature that can be used when AW-SFU01 is activated.

2. Configuration outline

This manual has the following general configuration.

1 Camera and pan-tilt head control

It is possible to control the pan, tilt and white balance adjustments.

It is also possible to acquire the gain and other camera information by initiating queries.

The various functions are employed for the operations with the camera using HTTP which is the host protocol of TCP.

For further details, refer to chapter 3.

(2) Camera information update notification

The local terminal is notified of the values of the gain and other settings which have been changed at another terminal or other terminals so that it can acquire the camera information. This feature is useful when one camera is controlled by a multiple number of terminals, and when the setting for enabling update notifications to be received has been established, the information which has been changed by other terminals can be acquired. For further details, refer to chapter 4.

③ Camera information batch acquisition

The camera information can be acquired in batch form. Since there is no need to query each and every camera information item when this feature is used, the feature is useful when all the camera information is required such as at startup.

For further details, refer to chapter 5.

④ Error return

An error — whether ER1, ER2 or ER3 — is returned when an error has been generated by a command in 1 above or when the AWB result contains an error. For further details, refer to chapter 6.

3. Camera and pan-tilt head control

Given below are the external interfaces which are used when operating the camera using Ethernet. This chapter presents the following details.

① Pan-tilt head control

This interface controls the pan-tilt head, and it uses the "pan-tilt head control commands".

2 Camera control

This interface is concerned with the camera's lens control and image adjustments, and it uses the "camera control commands".

3.1. Pan-tilt head control

The pan-tilt head control commands are in compliance with the HTTP1.1 communication specifications. Their format is given below.

For details on the HTTP messages, refer to <Appendix>.

[Command format]

[Send]

http://[**IP Address**]/cgi-bin/aw_ptz?cmd=[**Command**]&res=[**Type**] where **%IP Address**...... IP address of camera at connection destination **%Command**...... Details given in "Command" column in the command tables below **%Type**...... Fixed at "1"

[Receive]

200 OK "Command"

***Command**...... Response value of each command; set in the HTTP message body

Example: Pan/tilt (Stop)

[Send]

http://192.168.0.10/cgi-bin/aw_ptz?cmd=#PTS5050&res=1

[Receive]

200 OK "pTS5050"

Depending on the browser or middleware used, "#" may have to be converted to "%23" by ASCII conversion. http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23PTS5050&res=1 Given below is the communication sequence which accords with the command format presented on the previous page.

For the communication sequence of the errors generated in response to commands which have been sent, refer to "6. Error return".

[Sequence]

"PC1" is the control terminal in the sequence below.

```
Example: Pan/tilt (Stop) control
Camera IP Address = 192.168.0.10
Command = PTS5050
```

The control to stop the pan-tilt operation is exercised from PC1. [200 OK "pTS5050"] is returned as the response from the camera.

The control command and query command are available as the pan-tilt head control commands. Given below is the command sequence.

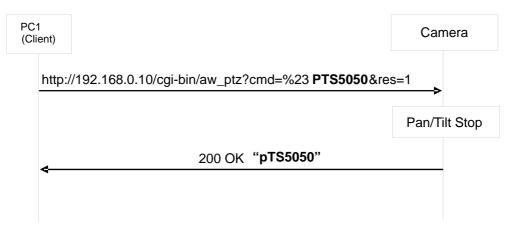
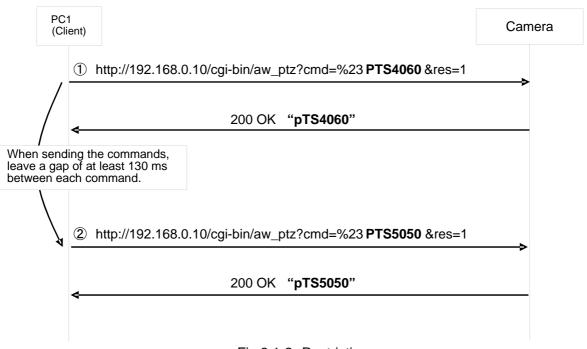


Fig.3.1-1 Command sequence of pan-tilt head control

It must be borne in mind that communication with the camera is subject to some restrictions. These restrictions are as follows.

[Restrictions]

1. When using the pan-tilt head control commands, send the commands with a gap of 130 ms between each command. Given below is the sequence.



- Fig.3.1-2 Restrictions
- 2. The number of sessions during which the camera can be accessed simultaneously is as follows.a) Maximum number of HTTP sessions: 72
 - b) Number of terminals which can receive update notifications at the same time: 5 When the AW-RP50 is connected, it is counted as one unit.
- Keep-Alive cannot be set with HTTP connections.
 Connect and disconnect are performed each time a command is sent or received.
- 4. Some settings and conditions may restrict the effects of other settings (*X* including those with exclusive control conditions). See also the operating instructions which are provided with the products.
- 5. Send the commands which change the settings only at the point in time when the changes are required. (Do not send them at regular intervals.)
 - * The applicable models incorporate an EEPROM for storing the settings, and each time a command that changes the settings is received, data is written in the EEPROM. The number of times data can be written in the EEPROM is limited so if data is sent frequently, the model will cease to operate normally when the maximum number of times for writing the data has been reached.

3.1.1. Power On/Standby

These commands enable the power On/Standby of the camera to be controlled and the current power On/Standby statuses to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
Power On/ Standby control command	Control	#O[Data]	0 f 1	Standby Standby Power On Power On	
	Response	p[Data]	n	Power On	
Power On/ Standby query command	Request Response	#O p[<i>Data</i>]	None 0 1	Standby Power On	
			3	Transferring from Standby to ON	Only supported by the AW-HE120/ AW-HE130/AW-HE40/AW-HE65/ AW-HE70/AW-UE70.

Example of use) Power: On [Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23O1&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "p1"

3.1.2. Installation and smart picture flip commands

These commands control the method used for the installation of the camera (stand-alone or suspended) and smart picture flip, and they enable the current installation and smart picture flip settings to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
Installation	Control	#INS[Data]	0	Desktop	
position			1	Hanging	
control command	Response	iNS[Data]			
Installation	Request	#INS	None		
position	Response	iNS[Data]	0	Desktop	
query command			1	Hanging	
Smart picture flip	Control	#SPF[Data]	0	Off	This command enables smart picture flip to be
Auto/Off	Response	sPF[Data]	1	Auto	set to Auto or Off
control command					Only supported by the AW-HE120/AW-HE130.
Smart picture flip	Request	#SPF	None		Only supported by the AW-HE120/AW-HE130.
Auto/Off	Response	sPF[<i>Data</i>]	0	Off	
query command			1	Auto	
Smart picture flip	Control	#FDA[Data]	3Ch	60degree	 This command enables the angle of smart
angle setting	Response	fDA[Data]	2	2	picture flip to be set.
control command			78h	120degree	Only supported by the AW-HE120/AW-HE130.
Smart picture flip	Request	#FDA	None		Only supported by the AW-HE120/AW-HE130.
angle setting	Response	fDA[Data]	3Ch	60degree	
query command			2	2	
			78h	120degree	

Example of use)

Installation position: Desktop
 [Control] PC → AW-HE50
 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23INS0&res=1

 [Response] AW-HE50 → PC
 200 OK "iNS0"

Smart picture flip: Auto

[Control] PC \rightarrow AW-HE120 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23SPF1&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "sPF1"

 Smart picture flip angle: 60deg
 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23FDA3C&res=1
 [Response] AW-HE120 → PC 200 OK "fDA3C"

3.1.3. Pan/tilt

These commands enable the pan and tilt of the pan-tilt head of the camera to be controlled and the current position information and operating speed to be acquired.

Command name	Category	Command	Data value	Setting	Remarks	
Pan/tilt position control command (specify an absolute value)	Control	#APC[Data1][Data2]	[Data1] 0000h 2 8000h 2 FFFFh [Data2] 0000h 2 8000h 2 FFFFh	[Data1]Pan Pos ccwLimit center cwLimit [Data2]Tilt Pos upLimit center downLimit	 The pan-tilt head moved to the home position by #APC[8000][8000]. Pan(-175) - (+175)deg 2D08 - D2F5 In the case of the AW-HE50/AW-HE60/ AW-HE40/AW-HE65/ AW-HE70/AW-UE70. Tilt(-30) - (+90)deg 5556 - 8E38 In the case of the AW-HE120/AW-HE130 Tilt(-30) - (+210)deg 1C73 - 8E38 The resolution is calculated to be 29.7 sec. 	
	Response		N 1			
Pan/tilt position	Request	#APC	None			
query command (specify an absolute value)	Response	aPC[Data1][Data2]	[Data1] 0000h ≀	[Data1]Pan Pos ccwLimit		
,			8000h ≀	center		
			FFFFh [Data2] 0000h <i>≹</i> 8000h	cwLimit [Data2]Tilt Pos upLimit center		
			≀ FFFFh	downLimit		
Pan/tilt position/speed control command (specify an absolute value)	Control	#APS[<i>Data1</i>][<i>Data2</i>] [Data3][Data4]	[Data1] 0000h	[Data1]Pan Pos ccwLimit center cwLimit [Data2]Tilt Pos upLimit	 Only supported by the AW-HE130/AW-HE40/ AW-HE65/AW-HE70/ AW-UE70. The pan-tilt head is moved to the home position by #APC[8000][8000][]]. For range, refer to #APC. 	
	Response	aPS[<i>Data1</i>][<i>Data2</i>] [Data3][Data4]	8000h FFFFh [Data3] 00h 1Dh [Data4] 0 1 2	center downLimit [Data3]Pst Spd 1 ? 30 [Data4]Spd Tbl SLOW MID FAST		

Table 3.1.3. Pan/tilt

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
Pan/tilt position control command (specify an relative value)	Control	#RPC[Data1][Data2]	[Data1] 0000h <i>≹</i> 8000h	[Data1]Pan Pos ccwLimit center	XOnly supported by the AW-HE130/AW-HE40/ AW-HE65/AW-HE70/ AW-UE70.
(4,4,5)			<pre></pre>	cwLimit [Data2]Tilt Pos upLimit	 The pan-tilt head is moved to the current position by #RPC[8000][8000] For range, refer to #APC.
	Response	rPC[Data1][Data2]	8000h ≀ FFFFh	center downLimit	
Pan/tilt position/speed	Control	#RPS[<i>Data1</i>][<i>Data2</i>] [Data3][Data4]	[Data1] 0000h	[Data1]Pan Pos ccwLimit	** Only supported by the AW-HE130/AW-HE40/
control command (specify an relative value)			≀ 8000h ≀	center	AW-HE65/AW-HE70/ AW-UE70. • The pan-tilt head is moved
			FFFFh [Data2] 0000h	cwLimit [Data2]Tilt Pos upLimit	to the current position by #RPS[8000][8000][][]
	Response	rPS[Data1][Data2]	≹ 8000h	center	For range, refer to #APC.
	Response	[Data3][Data4]	FFFFh [Data3] 00h	downLimit [Data3]Pst Spd 1	
			7 1Dh [Data4] 0 1	 30 [Data4]Spd Tbl SLOW MID 	
Speed	Control	#P[Data]	2 01	FAST Left Max. Speed	Pan speed to be controlled
(pan/tilt) control command	Control		<pre></pre>	Left Min. Speed Pan Stop Right Min. Speed ↓ Right Max. Speed	Fail speed to be controlled
	Response	pS[<i>Data</i>]			
	Control	#T[Data]	01	Down Max. Speed Cown Min. Speed Tilt Stop UP Min. Speed CUP Max. Speed	Tilt speed to be controlled
	Response	tS[Data]	-		

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
Speed	Control	#PTS[Data1][Data2]	[Data1]	[Data1]	[Data1]
(pan/tilt)			01	Left Max. Speed	Pan speed control
control command			2	2	[Data2]
			49	Left Min. Speed	Tilt speed control
			50	Pan Stop	
			51	Right Min. Speed	
			2	2	
			99	Right Max. Speed	
			[Data2]	[Data2]	
			01	Down Max. Speed	
			2	2	
			49	Down Min. Speed	
			50	Tilt Stop	
			51	UP Min. Speed	
			2	2	
			99	UP Max. Speed	
	Response	pTS[Data1][Data2]			

Example of use)

 Camera control: PAN= 7FFF, TILT= 7FFF (Home position)
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23APC7FFF7FFF&res=1
 [Response] AW-HE50 → PC 200 OK "aPC7FFF7FFF"

 Pan speed control: max. speed to the right
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23P99&res=1

 [Response] AW-HE50 → PC 200 OK "pS99"

 Tilt speed control: max. speed downward
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23T01&res=1
 [Response] AW-HE50 → PC 200 OK "tS01"

 Pan/tilt speed control: max. speed to the left, max. speed upward [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23PTS0199&res=1
 [Response] AW-HE50 → PC 200 OK "pTS0199"

3.1.4. Movement range limit On/Off

These commands enable the movement range settings (limiter settings) for the pan and tilt of the camera and the information of the current movement range limits to be acquired. Up, down, left and right limits can be set.

Command name	Category	Command	Data value	Setting	Remarks
Movement range limit On/Off control command	Control	#LC[Data1] [Data2]	[Data1] 1 2 3 4 [Data2] 0 1	[Data1] Up Down Left Right [Data2] Release Set	The directions in which the movement range is to be limited are controlled, and limit set or release is controlled. [Data1] Control in the movement range limit direction [Data2] Limit set/release
	Response	IC[Data1][Data2]			
	Control	#L[Data]	1 2 3 4	Up Down Left Right	The direction in which the movement range is to be limited is controlled.Operation toggles between set and release.
	Response	l [Data]	0 1	Release Set	Limit set/release
Movement range limit On/Off query command	Request	#LC[Data]	1 2 3 4	Up Down Left Right	
	Response	IC[Data1][Data2]	[Data1] 1 2 3 4 [Data2] 0 1	[Data1] Up Down Left Right [Data2] Release Set	[Data1] Control in the movement range limit direction [Data2] Limit set/release

Table 3.1.4	Movement range	limit On/Off
1abie 5.1.4.	wovement lange	

Example of use)

Setting the movement range limit in the upward direction
 [Control] PC → AW-HE50
 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23LC11&res=1

 [Response] AW-HE50 → PC
 200 OK "IC11"

 Releasing the movement range limit in the upward direction
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23LC10&res=1
 [Response] AW-HE50 → PC 200 OK "IC10"

 Setting/releasing the movement range limit in the upward direction [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23L1&res=1
 [Response] AW-HE50 → PC 200 OK "I1"

3.1.5. Lens operations

3.1.5.1. Zoom

These commands control the zooming (between Wide and Tele) of the camera lens and enable the current zoom position and zooming speed to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
Zoom (position control) control command	Control	#AXZ[Data]	555h ≹ FFFh	Wide ≀ Tele	
	Response	axz[Data]			
Zoom position	Request	#GZ	None		
query command	Response	gz[<i>Data</i>]	555h ≀ FFFh ""	Wide	The "" setting is supported only by the AW-HE50/AW-HE60/ AW-HE40/AW-HE65/AW-HE70/ AW-UE70.
Zoom (speed control) control command	Control	#Z[Data]	01	Wide Max. Speed Vide Min. Speed Zoom Stop Tele Min. Speed Tele Max. Speed	Zooming speed to be controlled
	Response	zS[Data]			

Example of use) •Zoom: Tele [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23AXZFFF&res=1 [Response] AW-HE50 → PC 200 OK "axzFFF"

 Speed control: zooming max. speed in Wide direction
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23Z01&res=1
 [Response] AW-HE50 → PC 200 OK "zS01"

3.1.5.2. Focus

These commands control the focusing (between Near and Far) of the camera and enable the current focus position and focus adjustment speed to be acquired.

They also enable On/Off for the auto focus to be controlled and the current auto focus On/Off status to be acquired.

Commands which control the focusing are also described in section "3.2.1.1. Focus" of "3.2. Camera control".

Command name	Category	Command	Data value	Setting	Remarks
Focus (position	Control	#AXF[Data]	555h	Near	 Invalid when auto focus is On
control)			<u> </u>	_{	(ER3 is returned).
control command	Response	axf[Data]	FFFh	Far	
Focus position	Request	#GF	None		
query command	Response	gf[<i>Data</i>]	555h	Near	
			<u> </u>	_{	
			FFFh ""	Far	T I " " ··· · · · · ·
			···	Standby	The "" setting is supported only
					by the AW-HE50/AW-HE60/ AW-HE40/AW-HE65/AW-HE70/
					AW-UE70.
Focus (speed	Control	#F[Data]	01	Near Max. Speed	Focusing speed to be controlled
control)	Control		Ž		 Invalid when auto focus is On
control command			49	Near Min. Speed	(ER3 is returned).
			50	Focus Stop	(,
			51	Far Min. Speed	
			2	2	
	Response	fS[Data]	99	Far Max. Speed	
Auto focus On/Off	Control	#D1[<i>Data</i>]	0	Off(Manual)	 In case of AW-HE130, auto focus
control command			1	On(Auto)	cannot be set to On when
					FrameMix is set to 18 [dB] or
	Deserves				higher.
	Response	d1[Data]			
Auto focus On/Off	Request	#D1	None	0 (())	
query command	Response	d1[<i>Data</i>]	0	Off(Manual)	
			1	On(Auto)	

Table 3.	1.5.2.	Focus

Example of use)

```
•Focus: Near
```

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23AXF555&res=1 [Response] AW-HE50 \rightarrow PC

200 OK "axf555"

 Speed control: max. focusing speed in Far direction
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23F99&res=1
 [Response] AW-HE50 → PC 200 OK "fS99"

• Auto focus: auto focus start **[Control]** PC \rightarrow AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23D11&res=1 [Response] AW-HE50 → PC 200 OK "d11"

3.1.5.3. Iris

These commands control the iris (between Close and Open) of the camera and enable the current iris position to be acquired.

In addition, they enable Auto/Manual control of the iris and the current iris Auto/Manual statuses to be acquired.

Commands which control the iris are also described in section "3.2.1.2. Iris" of "3.2. Camera control".

Command name	Category	Command	Data value	Setting	Remarks
Iris position control command	Control	#I [<i>Data</i>]	01 ₹	Iris Close	
	Response	iC[Data]	99	Iris Open	
	Control	#AXI [Data]	555h ≹	Iris Close	
	Response	axi [Data]	FFFh	Iris Open	
Iris position	Request	#GI	None		
Auto/Manual query command	Response	gi [Data1] [Data2]	[Data1] 555h	Iris Close	 The "" setting is supported only by the AW-HE50/AW-HE60/ AW-HE40/AW-HE65/AW-HE70/ AW-UE70. In case of AW-HE130, auto focus cannot be set to On when FrameMix is set to 18 [dB] or higher.
Auto Iris On/Off control command	Control	#D3[<i>Data</i>]	0 1	Manual Iris Auto Iris	
Austa Inia Ora /Off	Response	d3[Data]	News		
Auto Iris On/Off query command	Request Response	#D3 d3[<i>Data</i>]	None 0 1	Manual Iris Auto Iris	

Table 3.	153	Iris

Example of use) •Iris: Open [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23I99&res=1 [Response] AW-HE50 → PC 200 OK "iC99"

Iris: Close

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23AXI555&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "axi555"

•Auto iris: On

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23D31&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "d31"

3.1.6. Lens information notification

These commands enable On or Off to be set for the lens information notification of the camera and the current lens information notification On/Off status and lens information to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
Lens information	Control	#LPC[Data]	0	Off	Off: Information is not posted.
notification On/Off			1	On	On: Information is posted.
control command	Response	IPC[Data]			
Lens information	Request	#LPC	None		
notification On/Off	Response	IPC[Data]	0	Off	Off: Information is not posted.
query command			1	On	On: Information is posted.
Lens information	Request	#LPI	None		
query command	Response	IPI [Data1]	[Data1]	[Data1] Zoom Position	[Data1] Same return as #GZ
		[Data2][Data3]	555h	Wide	[Data2] Same return as #GF
			2	2	[Data3] Same return as #GI
			FFFh	Tele	
			[Data2]	[Data2] Focus Position	
			555h	Near	 The command is sent
			2	2	periodically (every 300 ms) to
			FFFh	Far	all the channels to which the
			[Data3]	[Data3] Iris Position	command can be sent.
			555h	Close	
			2	2	
			FFFh	Open	

Table 3.1.6. Le	ens information noti	fication On/Off
-----------------	----------------------	-----------------

Example of use)

• Lens information notification: On **[Control]** PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23LPC1&res=1 **[Response]** AW-HE50 \rightarrow PC 200 OK "IPC1"

·Lens information acquisition

[Control] $PC \rightarrow AW-HE50$

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23LPI&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "IPI [Data1][Data2][Data3]"

3.1.7. Preset

These commands register and play back the presets of the camera and enable the preset number last played back to be acquired.

They also enable the preset speed to be registered and the current preset speed to be acquired.

Command name	Category	Command	Data	Setting	Remarks
			value		
Preset (register)	Control	#M[Data]	00	Preset 001	
control command			99	≷ Preset 100	
	Response	s[Data]	33	116361100	
Preset (playback)	Control	#R[Data]	00	Preset 001	
control command			2	2	
			99	Preset 100	
	Response	s[Data]			
Preset number query command	Request	#S	None		Request for preset number last played back
	Response	s[<i>Data</i>]	00	Preset 001	
			≥		
Preset Speed	Request	#UPVS[Data]	99 000	Preset 100 30 : MaxSpeed	
control command	Request		250	1 : Slow	
			2	2	
			999	30 : Fast	
	Response	uPVS[Data]			
Preset Speed	Request	#UPVS			
query command	Response	uPVS[Data]	250	1 : Slow ♪	
			999	30 : Fast	
Freeze during	Control	#PRF[Data]	0	OFF	XOnly supported by the
preset control			1	ON	AW-HE130/AW-HE40/
command	Response	pRF[Data]	0	OFF	AW-HE65/AW-HE70/
Francis de minere	Democrat	"DDF	1	ON	AW-UE70.
Freeze during preset query	Request	#PRF	None		※Only supported by the AW-HE130/AW-HE40/
command	Response	pRF[Data]	0	OFF	AW-HE65/AW-HE70/
			1	ON	AW-UE70.
Preset Speed Table	Control	#PST[Data]	0	SLOW	Only supported by the
control command			1	MID	AW-HE130/AW-HE40/
	Response	pST[<i>Data</i>]	2	HIGH SLOW	AW-HE65/AW-HE70/ AW-UE70.
	response	por[Data]	1	MID	
			2	HIGH	
Preset Speed Table query command	Request	#PST	None		XOnly supported by the AW-HE130/AW-HE40/
query command	Response	pST[Data]	0	OFF	AW-HE65/AW-HE70/
			1	ON	AW-UE70.

Tabla	24	7	Dreast
Table	3.1	. / .	Preset

After the presets have all been played back, the completion notification is sent in the "q**" format. For details, refer to "4.4.4. Preset playback".

Example of use)

 Preset: registering a setting in Preset 08
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23M07&res=1
 [Response] AW-HE50 → PC 200 OK "s07"

 Preset: playing back Preset 12
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23R11&res=1
 [Response] AW-HE50 → PC 200 OK "s11"

 Preset: Preset Speed Set to 1(Slow)
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23UPVS250&res=1
 [Response] AW-HE50 → PC 200 OK "uPVS250"

3.1.8. Tally

These commands exercise enable/disable control over the tally input of the camera and enable the current tally input enable/disable statuses to be acquired.

In addition, they exercise tally On/Off control over the camera.

Command name	Category	Command	Data value	Setting	Remarks
Tally input enable/disable	Control	#TAE[Data]	0 1	Disable Enable	
control command	Response	tAE[Data]			
Tally input	Request	#TAE	None		
enable/disable	Response	tAE[Data]	0	Disable	
query command			1	Enable	
Tally On/Off	Control	#DA[Data]	0	Tally Off	
control command			1	Tally On	
	Response	dA[Data]			
Tally On/Off	Request	#DA	None		
query command	Response	dA[Data]	0	Tally Off	
			1	Tally On	

Table 3.1.8. Tally

Example of use)

·Tally input (enable/disable): Enable

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23TAE1&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "tAE1"

•Tally: On

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23DA1&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "dA1"

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3.1.9. Wireless remote controller setting

These commands make it possible for enable or disable to be set for the control which is exercised over the wireless remote controller of the camera and for the current enable/disable statuses to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
Wireless remote controller control	Control	#WLC[Data]	0 1	Disable Enable	
enable/disable control command	Response	wLC[Data]			
Wireless remote	Request	#WLC	None		
controller control	Response	wLC[Data]	0	Disable	
enable/disable query command			1	Enable	
Wireless remote	Control	#RID[Data]	0	CAM1	※Only supported by the
controller ID control	Response	rID[Data]	1	CAM2	AW-HE40/AW-HE65/
command			2	CAM3	AW-HE70/AW-UE70.
			3	CAM4	
Wireless remote	Request	#RID	None		Only supported by the
controller ID query	Response	rID[Data]	0	CAM1	AW-HE40/AW-HE65/
command			1	CAM2	AW-HE70/AW-UE70.
			2	CAM3	
			3	CAM4	

Table 3.1.9. Wireless remote controller enable/disable setting

Example of use) Wireless remote controller: Disable

[Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23WLC0&res=1 [Response] AW-HE50 → PC 200 OK "wLC0"

3.1.10. Zoom position-linked pan/tilt speed adjustment On/Off

These commands exercise On/Off control over the zoom position-linked pan/tilt speed adjustments of the camera and enable the current On/Off statuses to be acquired.

When the lens is zoomed toward Tele, the pan/tilt movement is set to the low speed.

Table 3.1.10.	Zoom position-link	ked pan/ti	lt speed adjustmer	nt On/Off
		_		

Command name	Category	Command	Data value	Setting	Remarks
Zoom position-linked pan/tilt speed adjustment On/Off	Control	#SWZ[Data]	0	Off On	
control command	Response	sWZ[Data]			
Zoom position-linked	Request	#SWZ	None		
pan/tilt speed adjustment On/Off query command	Response	sWZ[<i>Data</i>]	0 1	Off On	

Example of use)

·Zoom position-linked pan/tilt speed adjustment: On

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23SWZ1&res=1 [Response] AW-HE50 \rightarrow PC

200 OK "sWZ1"

3.1.11. Software version information

This command enables the software version information to be acquired.

Sottware version information query command #GSV[Data1] In the case of the AW-HE50/AW-HE60 [Data1] The Camera EEPROM setting is supported only by the AW-HE60. Query command Pan Tilt CPU 2 Camera CPU 4 OUT PLD 5 Reserve 6 Reserve 7 Reserve 8 Camera EEPROM The Camera EEPROM with AW-HE60. In the case of the AW-HE120 In the case of the AW-HE120 [Data1] [Data1] [Data1] In the case of the AW-HE120 In the case of the AW-HE120 [Data1] [Data1] [Data1] 0 Serve CPU 1 CameraMain CPU 2 Frontend FPGA 5 Interface CPU 6 Lens FPGA 7 Interface EEPROM In the case of the AW-HE130 10ata1] Data1] Data1] Data1] 0 Serve CPU 1 CameraMain CPU 2 COM FPGA 5 Interface EEPROM In the case of the AW-HE130 10ata1] Data1] Data1] Data1] 0 Serve CPU 1 CameraMain CPU 2 COM FPGA 5 Interface EEPROM 8 Reserved In the case of the AW-HE60/AW-HE65/AW-HE70/AW-UE70 10 Serve CPU 1 Camera EEPROM 8 Reserved In the case of the AW-HE60/AW-HE65/AW-HE70/AW-UE70 11 Data1] Data1] Data1] 0 Serve CPU 1 Camera EEPROM 8 Reserved Serve CPU 1 11 Cam CPU 2 FPGA 3 Serve CPU 3	Command name	Category	Command	Data value	Setting	Remarks
Information query command IData1] IData1] IData1] Camera CPU Camera CPU	Software version	Request	#QSV[Data1]	In the cas	e of the AW-HE50/AW-	HE60
[Data1] [Data1] 0 Servo CPU 1 CameraMain CPU 2 Frontend FPGA 3 Network CPU 4 Backend FPGA 5 Interface CPU 6 Lens FPGA 7 Interface EPROM 8 Camera EEPROM 8 Camera EEPROM 10 Servo CPU 1 CameraMain CPU 2 COM FPGA 3 Network CPU 4 AVIO FPGA 3 Network CPU 4 AVIO FPGA 5 Interface CPU 6 Lens FPGA 7 Interface CPU 6 Lens FPGA 7 Interface CPU 8 Reserved 1 Cam CPU 2 FPGA 3 BE CPU 4 reserve 5 Interface CPU 6 Reserve 7 Interface CPU 6 Reserve 7 <t< td=""><td>information</td><td></td><td></td><td>[Data1] 0 1 2 3 4 5 6 7</td><td>[Data1] Pan Tilt CPU Camera CPU Camera PLD Network CPU OUT PLD Reserve Reserve Reserve</td><td>The Camera EEPROM setting is supported only by</td></t<>	information			[Data1] 0 1 2 3 4 5 6 7	[Data1] Pan Tilt CPU Camera CPU Camera PLD Network CPU OUT PLD Reserve Reserve Reserve	The Camera EEPROM setting is supported only by
[Data1] [Data1] 0 Servo CPU 1 CameraMain CPU 2 Frontend FPGA 3 Network CPU 4 Backend FPGA 5 Interface EPROM 8 Camera EEPROM 8 Camera EEPROM 8 Camera EEPROM 9 Servo CPU 1 Com FPGA 3 Network CPU 1 CameraMain CPU 2 COM FPGA 3 Network CPU 1 CameraMain CPU 2 COM FPGA 3 Network CPU 4 AVIO FPGA 5 Interface EPROM 8 Reserved 1 Interface CPU 6 Lens FPGA 7 Interface CPU 8 Reserved 1 Cam CPU 2 FPGA 3 BE CPU 4 reserve 5 Interface CPU 6 Inserve 1				In the cas	e of the AW-HE120	
0 Servo CPU 1 CameraMain CPU 2 Frontend FPGA 3 Network CPU 4 Backend FPGA 5 Interface CPU 6 Lens FPGA 7 Interface EEPROM 8 Camera EEPROM 10 Servo CPU 1 Camera EEPROM 10 Servo CPU 1 CameraMain CPU 2 COM FPGA 3 Network CPU 4 AVIO FPGA 5 Interface CPU 6 Lens FPGA 7 Interface CPU 1 Cam CPU 2 FPGA 3 BE CPU 1 Cam CPU 2 FPGA 3 BE CPU 4 reserve 5 Interfa						
[Data1] 0Servo CPU 11CameraMain CPU 22COM FPGA 33Network CPU 44AVIO FPGA 55Interface CPU 66Lens FPGA 77Interface EEPROM 88Reserved1In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70[Data1] 0Servo CPU 11Cam CPU 22FPGA 33BE CPU 4 4 reserve4reserve 55Interface CPU 6 6 reserve6reserve 77Interface EEPROM				0 1 2 3 4 5 6 7	Servo CPU CameraMain CPU Frontend FPGA Network CPU Backend FPGA Interface CPU Lens FPGA Interface EEPROM	
[Data1] 0Servo CPU 1 1 CameraMain CPU 2 2 COM FPGA 3 Network CPU 4 AVIO FPGA 5 Interface CPU 6 6 Lens FPGA 7 Interface EEPROM 8 ReservedIn the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70[Data1] 0 1[Data1] 0 2Servo CPU 1 1 2Cam CPU 2 4 4 4 7 1Serve 5 5 1Interface CPU 6 6 7Serve 7 <td< td=""><td></td><td></td><td></td><td>In the cas</td><td>e of the AW-HE130</td><td></td></td<>				In the cas	e of the AW-HE130	
[Data1][Data1]0Servo CPU1Cam CPU2FPGA3BE CPU4reserve5Interface CPU6reserve7Interface EEPROM				[Data1] 0 1 2 3 4 5 6 7 8	[Data1] Servo CPU CameraMain CPU COM FPGA Network CPU AVIO FPGA Interface CPU Lens FPGA Interface EEPROM Reserved	
0 Servo CPU 1 Cam CPU 2 FPGA 3 BE CPU 4 reserve 5 Interface CPU 6 reserve 7 Interface EEPROM				In the cas	e of the AW-HE40/AW-	HE65/AW-HE70/AW-UE70
Response qSV[Data1]V[Data2]. [Data2] [Data2]				[Data1] 0 1 2 3 4 5 6 7	[Data1] Servo CPU Cam CPU FPGA BE CPU reserve Interface CPU reserve Interface EEPROM	

Table 3 1 11	Software version	information

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
		[Data3][Data4] [Data5][Data6]	00-99 [Data3] 00-99 [Data4] E L [Data5] 00-99 [Data6] 0 1	MAJOR VERSION [Data3] MINOR VERSION [Data4] (Debug Build) (Release Build) [Data5] (REVISION) [Data6] NTSC PAL	
			2	Other	

Example of use) Software version information acquisition: Camera CPU **[Control]** PC \rightarrow AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23QSV1&res=1

[Response] AW-HE50 \rightarrow PC

200 OK "qSV[Data1]V[Data2].[Data3][Data4][Data5][Data6]"

3.1.12. Error information

This command enables the error information mainly of the pan-tilt head to be acquired.

			Data	r informatior			
Command name	Category	Command	value	Setting	Remarks		
Error information	Request	#RER	None	6 41 - 0 10 () 1			
query command	Response	rER[Data]		In the case of the AW-HE50/AW-HE60			
			00h	Disable	Normal		
			01h	Enable	-		
			02h 03h		- Motor Driver Error		
			0311 04h		Pan Sensor Error		
			05h		Tilt Sensor Error		
			06h		Controller RX Over run Error		
			07h		Controller RX Framing Error		
			08h		Network RX Over run Error		
			09h		Network RX Framing Error		
			0Ah		-		
			0Bh		-		
			-		-		
			17h -		Controller RX Command Buffer Overflow		
			19h -		Network RX Command Buffer Overflow		
			21h		System Error		
			22h		Spec Limit Over		
			23h		FPGA Config Error		
			24h		Network communication Error		
			25h		Lens Initialize Error		
			-		-		
			30h 31h		Lvds_Adjustment_NG Bar_Signal_Check_NG		
			32h		H_Sync_Check_NG		
			33h		HDMI_Check_NG		
			In the acc				
			in the case	e or the AVV-H	E120/AW-HE130		

Table 3.1.12. Error information

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
			00h	Disable	Normal
			01h	Enable	-
			02h		- Matar Driver Error
			03h 04h		Motor Driver Error Pan Sensor Error
			0411 05h		Tilt Sensor Error
			06h		Controller RX Over run Error
			07h		Controller RX Framing Error
			08h		Network RX Over run Error
			09h		Network RX Framing Error
			0Ah		-
			0Bh		-
			-		-
			17h -		Controller RX Command Buffer Overflow
			19h -		Network RX Command Buffer Overflow
			21h		System Error
			22h		Spec Limit Over
			- 24h		- Network communication Error
			25h		CAMERA communication Error
			26h		CAMERA RX Over run Error
			27h		CAMERA RX Framing Error
			28h		CAMERA RX Command Buffer Overflow
					E40/AW-HE65/AW-HE70/AW-UE70
			00h	Disable	Normal(No Error)
			03h	Enable	Motor Driver Error
			04h		Pan Sensor Error
			05h		Tilt Sensor Error
			06h		IF/FPGA UART Over run Error
			07h		IF/FPGA UART Framing Error
			08h		IF/NET UART Over run Error
			09h		IF/NET UART Framing Error
			17h		IF/FPGA UART Buffer Overflow
			19h		IF/NET UART Buffer Overflow
			21h		System Error(IF/SERVO Error)
			22h		PT Limit Over
			24h		NET Life-monitoring Error
			25h		BE Life-monitoring Error
			26h		IF/BE UART Buffer Overflow
			27h		IF/BE UART Framing Error
			28h		IF/BE UART Buffer Overflow
			29h		CAM Life-monitoring Error

Example of use) Error information acquisition [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23RER&res=1 [Response] AW-HE50 → PC 200 OK "rER[Data]"

3.2. Camera control

The camera control commands are based on the HTTP1.1 communication specifications. Their format is given below. For details on the HTTP messages, refer to <Appendix>.

[Command format]

[Send]

http://[IP Address]/cgi-bin/aw_cam?cmd=[Command]&res=[Type]

IP Address...... IP address of camera at connection destination **Command**...... Details given in "Command" column in the command tables below **Type**...... Normally "1" (but "0" for the AWB[OWS] and ABB[OAS] commands)

[Receive]

200 OK "Command"

Command...... Response value of each command; described in the HTTP message body.

There is no response in the case of an AWB or ABB command whose Type is 0. Refer to "4. Camera information update notification" in order to receive the AWB/ABB result notifications.

Example: Focus setting = Auto

[Send]

http://192.168.0.10/cgi-bin/aw_cam?cmd=OAF:0&res=1

[Receive] The response is the HTTP response. 200 OK "**OAF:0**"

Given below is the sequence used when communication has been performed in accordance with the command format described on the previous page.

For the sequence when errors have been generated in response to commands, refer to "6. Error return".

[Sequence]

"PC1" is the control terminal in the sequence below. **Example:** Focus setting = Auto Camera IP Address = 192.168.0.10

Command = OAF:1

Auto focus control is performed from PC1, and [200 OK "OAF:1"] is returned as the response. Both a control command and query command are available as the camera control commands. Given below is the command sequence.

PC1 (Clie			Can	nera
	ht	p://192.168.0.10/cgi-bin/aw_cam?cmd= OAF:1 &res	=1	
				established setting
	~	200 OK " OAF:1 "		

Fig.3.2-1 Camera control command sequence

The following restrictions should be noted when using these commands. These restrictions are as follows.

[Restrictions]

1. When sending the camera control commands, send the commands with a gap of 130 ms between each command.

Given below is the command sequence.

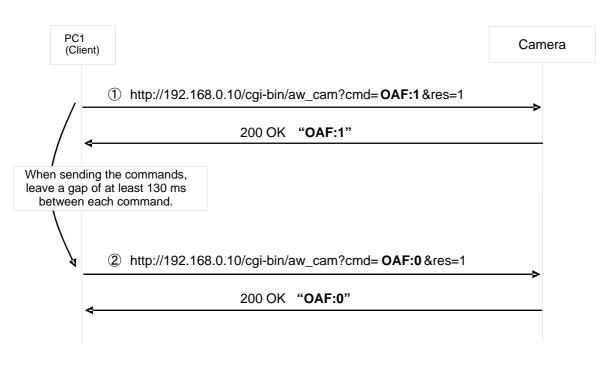


Fig.3.2-2 Restrictions

2. Send the commands which change the settings only at the point in time when the changes are required. (Do not send them at regular intervals.)

*The applicable models incorporate an EEPROM for storing the settings, and each time a command that changes the settings is received, data is written in the EEPROM. The number of times data can be written in the EEPROM is limited so if data is sent frequently, the model will cease to operate normally when the maximum number of times for writing the data has been reached.

3.2.1. Lens operations

3.2.1.1. Focus

These commands exercise Auto/Manual control of the focusing and one-touch auto focus control of the camera.

Commands which control the focusing are also described in section "3.1.5.2. Focus" of "3.1. Pan-tilt head control".

Command name	Category	Command	Data value	Setting	Remarks
Focus Auto/Manual control command	Control	OAF:[<i>Data</i>]	0 1	Manual Auto	 In case of AW-HE130, focus cannot be set to Auto when FrameMix is set to 18 [dB] or higher.
	Response	OAF:[Data]			Ĩ
Focus	Request	QAF	None		
Auto/Manual query command	Response	OAF:[Data]	0 1	Manual Auto	
One-touch focus	Control	OSE:69:[Data]	1	One Touch AF	One-touch focus On control
control command	Response	OSE:69:1			

Example of use)

·Focus (Auto/Manual): Auto

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OAF:1&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "OAF:1"

 Execution of one-touch focus control
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:69:1&res=1
 [Response] AW-HE50 → PC 200 OK "OSE:69:1"

3.2.1.2. Iris

These commands control the iris (between Close and Open) of the camera and enable the current iris position to be acquired.

They also enable iris Auto/Manual to be controlled, the iris Auto/Manual status to be checked and the 10 steps of the contrast level (AW-HE50/AW-HE60/AW-HE40/AW-HE65/AW-HE70/AW-UE70), the 20 steps of the picture level (AW-HE120) or the 100 steps of the picture level (AW-HE130) to be set and these settings to be checked.

Commands which control the iris are also described in section "3.1.5.3. Iris" of "3.1. Pan-tilt head control".

Command name	Category	Command	Data value	Setting	Remarks
Iris Auto/Manual control command	Control	ORS:[Data]	0 1	Manual Auto	 This command restores the held manual iris setting when control is switched from Auto to Manual. In the case of AW-HE130, Iris cannot be set to Auto when FrameMix is set to 18 [dB] or higher.
	Response	ORS:[Data]			
Iris Auto/Manual	Request	QRS	None		
query command	Response	ORS:[Data]	0	Manual	
			1	Auto	
Contrast level	Control	OSD:48:[Data]		of the AW-HE50/A	
Picture level			64h	+5	While "" is displayed for
control command			5Ah~63h	+4	Contrast Level on the OSD menu,
			50h~59h	+3	the setting is accepted but it is not
			46h~4Fh	+2	reflected in the images.
			3Ch~45h	+1	The setting is reflected in the
			32h~3Bh	0	images when the "" display is released.
			28h~31h 1Bh~27h	-1 -2	Contrast level control (Auto)
			14h~1Ah	-2	
			0Ah~13h		
			00h~09h	 5	
			0011~0311	-5	
			1 4		
			in the case	e of the AW-HE120	

Table 3.2.1.2. Iris

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
			64h	+10	While "" is displayed for
			63h~5Fh	+9	Picture Level on the OSD menu,
			5Eh~5Ah	+8	the setting is accepted but it is not
			59h~55h	+7	reflected in the images.
			54h~50h	+6	The setting is reflected in the
			4Fh~4Bh	+5	images when the "" display is
			4Ah~46h	+4	released.
			45h~41h	+3	 Valid when Gain AGC, Iris Auto
			40h~3Ch	+2	and Shutter ELC have been set.
			3Bh~37h	+1	
			36h~32h	0	
			31h~2Dh	-1	
			2Ch~28h	-2	
			27h~23h	-3	
			22h~1Eh	-4	
			1Dh~19h	-5	
			18h~14h	-6	
			13h~0Fh	-7	
			0Eh~0Ah	-8	
			09h~05h	-9	
			04h~00h	–10	
			In the case	of the AW-HE130	
			64h~33h	+50~+1	While "" is displayed for
			32h	0	Picture Level on the OSD menu,
			31h~00h	-1~-50	the setting is accepted but it is not
					reflected in the images.
					The setting is reflected in the
					images when the "" display is
					released.
					Valid when Gain AGC, Iris Auto
					and Shutter ELC have been set.
			In the case	of the AW-HE40/A	N-HE65/AW-HE70/AW-UE70
			64h~33h	+10~+1	While "" is displayed for
	Response	OSD:48:[Data]	32h	0	Contrast Level on the OSD menu,
			31h~00h	-1 ~ −10	the setting is not accepted.
		l		1 10	

Interface Specifications

	Category	Command	Data value	Setting	Remarks
Contrast level	Request	QSD:48	None		
Picture level	Response	OSD:48:[Data]		of the AW-HE50/AV	
query command			64h	+5	Contrast level
			5Ah~63h	+4	
			50h~59h 46h~4Fh	+3 +2	
			3Ch~45h	+2	
			32h~3Bh	0	
			28h~31h	-1	
			1Bh~27h	-2	
			14h~1Ah	-3	
			0Ah~13h	-4	
			00h~09h	-5	
				of the AW-HE120	
			64h	+10	Picture level
			63h~5Fh	+9	 Valid when Gain AGC, Iris Auto and Shutter ELC have been set.
			5Eh~5Ah 59h~55h	+8 +7	and Shuller ELC have been set.
			54h~50h	+6	
			4Fh~4Bh	+5	
			4Ah~46h	+4	
			45h~41h	+3	
			40h~3Ch	+2	
			3Bh~37h	+1	
			36h~32h	0	
			31h~2Dh	-1	
			2Ch~28h	-2	
			27h~23h 22h~1Eh	-3 -4	
			1Dh~19h	4 5	
			18h~14h	-6	
			13h~0Fh	-7	
			0Eh~0Ah	-8	
			09h~05h	-9	
			04h~00h	-10	
				of the AW-HE130	
			64h~33h	+50~+1	 Valid when Gain AGC, Iris Auto
			32h	0	and Shutter ELC have been set.
			31h~00h	-1~-50	
					N-HE65/AW-HE70/AW-UE70
			64h~33h	+10~+1	Contrast level
			32h	0	
			31h~00h	-1~-10	
Iris volume	Control	ORV:[Data]	000h	Close	Iris volume control (Manual)

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
control command			2	2	
	Response	ORV:[Data]	3FFh	Open	
Iris volume	Request	QRV	None		Iris volume status request (Manual)
query command	Response	ORV:[Data]	000h ≀	Close	
			3FFh	Open	
	Request	QSD:4F	None	•	
	Response	OSD:4F:[Data]	00h ≹	Close ≀	Iris volume status request
			FFh	Open	

Example of use)

Auto iris: On

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=ORS:1&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "ORS:1"

Iris: Open

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=ORV:3FF&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "ORV:3FF"

Contrast level: 0

[Control] $PC \rightarrow AW-HE50$ http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:48:32&res=1 [Response] AW-HE50 \rightarrow PC

200 OK "OSD:48:32"

3.2.1.3. ND filter setting

These commands control the ND filter of the camera, and they enable the ND filter status to be acquired.

Data Data Data						
Command name	Category	Command	value	Setting	Remarks	
ND filter	Control	OFT:[Data]	In the case of the AW-HE120			
control command			0	Through		
			1	1/4		
			2	1/16		
			3	1/64		
			In the case of the AW-HE130			
			0	Through	ND filter switching is not possible in	
			3	1/64	Night mode	
			4	1/8		
				e of the AW-UE70		
			0	Through		
			1	1/4 ND		
			2	1/16 ND		
			3	1/64 ND		
			8	Auto ND		
	Response	OFT:[Data]				
ND filter	Request	QFT	None			
query command	Response	OFT:[Data]	In the case of the AW-HE120			
			0	Through		
			1	1/4		
			2	1/16		
			3	1/64		
			In the case of the AW-HE130			
			0	Through		
			3	1/64		
			4	1/8		
			In the case of the AW-UE70			
			0	Through		
			1	1/4 ND		
			2	1/16 ND		
			3 8	1/64 ND Auto ND		
			0			

Example of use) ND filter: 1/4 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OFT:1&res=1 [Response] AW-HE120 → PC 200 OK "OFT:1"

3.2.2. Color Bars setting

These commands enable color bar/camera to be switched, the color bar setup to be set and the current settings to be acquired.

Category	Command	Data value	Setting	Remarks			
Control	DCB:[Data]	0	Camera				
		1	Color Bars				
Response	DCB:[Data]						
Request	QBR	None					
Response	OBR:[Data]	0	Camera				
		1	Color Bars				
Control	DCS:[Data]	0	Off	Only enabled for the			
		1	On	AW-HE120/AW-HE130.			
Response	OCS:[Data]	0	•	Only enabled for the			
		1	-	AW-HE120/AW-HE130.			
Control	OSD:BA:[<i>Data</i>]			*AW-UE70,			
		1	TYPE1	AW-HE40/AW-HE65/AW-HE7			
Response	OSD:BA:[Data]						
Request	QSD:BA	None		0(SFU01)			
Response	OSD:BA:[Data]	0	TYPE2				
-		1	TYPE1				
Control	OSD:BE:[Data]	0	Off				
		1	On				
Response	OSD:BE:[Data]	1					
Request	QSD:BE	None					
Response	OSD:BE:[Data]	0	Off	1			
		1	Ön				
	Control Response Request Response Request Response Control Response Request Response Control Response Request	CategoryCommandControlDCB:[Data]ResponseDCB:[Data]RequestQBRResponseOBR:[Data]ControlDCS:[Data]ControlDCS:[Data]ResponseDCS:[Data]RequestQCSResponseOCS:[Data]ControlOSD:BA:[Data]RequestQSD:BA:[Data]RequestQSD:BA:[Data]ResponseOSD:BA:[Data]ResponseOSD:BA:[Data]ResponseOSD:BA:[Data]ResponseOSD:BA:[Data]ResponseOSD:BA:[Data]ResponseOSD:BA:[Data]ControlOSD:BE:[Data]ResponseOSD:BE:[Data]RequestQSD:BERequestQSD:BE	CategoryCommandData valueControlDCB:[Data]0ResponseDCB:[Data]1RequestQBRNoneResponseOBR:[Data]0ResponseOBR:[Data]0ControlDCS:[Data]0ControlDCS:[Data]1ControlDCS:[Data]0ResponseDCS:[Data]0RequestQCSNoneResponseOCS:[Data]0ResponseOCS:[Data]0ControlOSD:BA:[Data]0RequestQSD:BA:[Data]0ResponseOSD:BA:[Data]0ResponseOSD:BA:[Data]0ResponseOSD:BA:[Data]0ResponseOSD:BA:[Data]0ControlOSD:BA:[Data]0ResponseOSD:BA:[Data]0ResponseOSD:BE:[Data]0ResponseOSD:BE:[Data]0ResponseOSD:BE:[Data]0ResponseOSD:BE:[Data]0ResponseOSD:BE:[Data]0ResponseOSD:BE:[Data]0ResponseOSD:BE:[Data]0ResponseOSD:BE:[Data]0ResponseOSD:BE:[Data]0ResponseOSD:BE:[Data]0ResponseOSD:BE:[Data]0ResponseOSD:BE:[Data]0ResponseOSD:BE:[Data]0ResponseOSD:BE:[Data]0ResponseOSD:BE:[Data]0<	CategoryCommandData valueSettingControlDCB:[Data]0Camera Color BarsResponseDCB:[Data]1Color BarsRequestQBRNone1Color BarsResponseOBR:[Data]0Camera Color BarsControlDCS:[Data]0OffControlDCS:[Data]0OffResponseDCS:[Data]0OffResponseDCS:[Data]0OffResponseDCS:[Data]0OffResponseOCS:[Data]0OffResponseOSD:BA:[Data]0TYPE2 TYPE1ResponseOSD:BA:[Data]0TYPE2 TYPE1ResponseOSD:BA:[Data]0TYPE2 TYPE1ControlOSD:BE:[Data]0Off OnResponseOSD:BE:[Data]0Off OnResponseOSD:BE:[Data]0Off OnResponseOSD:BE:[Data]0Off OnResponseOSD:BE:[Data]0Off OnResponseOSD:BE:[Data]0Off OnResponseOSD:BE:[Data]0Off OnResponseOSD:BE:[Data]0Off OnResponseOSD:BE:[Data]0Off OnResponseOSD:BE:[Data]0OffResponseOSD:BE:[Data]0OffResponseOSD:BE:[Data]0OffResponseOSD:BE:[Data]0OffResponse<			

Table 3.2.2.	Color Bars
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Example of use)

Color bar/Camera control: Color bar

[Control] PC \rightarrow AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=DGB:1&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "DGB:1"

•Color bar setup level: Off [Control] $PC \rightarrow AW$ -HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=DCS:0&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "DCS:0"

3.2.3. Scene file setting

These commands specify the scene files of the camera and enable the settings of the currently selected scene file to be acquired.

Command name	Category	Command	Data value	Setting	Remarks		
Scene file control command	Control	XSF:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-HE65/ AW-HE70/AW-UE70.				
			1 2 3 4	Manual1 Manual2 Manual3 FullAuto			
			In the case	e of the AW-HE120/	AW-HE130		
			1 2 3 4	Scene1 Scene2 Scene3 Scene4			
	Response	XSF:[Data]					
Scene file	Request	QSF	None				
query command	Response	OSF:[Data]		e of the AW-HE50/A /AW-UE70.	W-HE60/AW-HE40/AW-HE65/		
			0 1 2 3 In the case	Manual1 Manual2 Manual3 FullAuto e of the AW-HE120// Scene1	 The data value differs depending on the responses to the control command and query command. AW-HE130 The data value differs depending 		
			2 3 4	Scene2 Scene3 Scene4	on the responses to the control command and query command.		

Table 3.2.3. Scene file setting

Example of use) Scene file: Manual1 [Control] $PC \rightarrow AW-HE50$ http://192.168.0.10/cgi-bin/aw_cam?cmd=XSF:1&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "XSF:1"

3.2.4. Shutter mode setting

These commands control the shutter of the camera and enable the currently set shutter mode to be acquired.

		Table 3.2.4	able 3.2.4. Shutter mode setting				
Command name	Category	Command	Data value	Setting	Remarks		
Shutter control command	Control	OSH:[Data]		e of the AW-HE50/A AW-UE70.	W-HE60/AW-HE40/AW-HE65/		
			0h	Shutter Off	Disabled at the FullAuto setting		
			3h	1/100(59.94Hz)	(ER3 is returned).		
				1/120(50Hz)	• When auto iris is On, the setting is		
			5h	1/250	accepted but it is not reflected in		
			6h	1/500	the images. The setting is		
			7h	1/1000	reflected in the images when auto		
			8h	1/2000	iris is changed from On to Off.		
			9h	1/4000			
			Ah	1/10000			
			Bh	Synchro-Scan			
			In the case	e of the AW-HE120			
			0h	Shutter Off			
			3h	1/100(59.94Hz)			
				1/120(50Hz)			
			5h	1/250			
			6h	1/500			
			7h	1/1000			
			8h	1/2000			
			9h	1/4000			
			Ah	1/10000			
			Bh	Synchro-Scan			
			Ch	ELC			
				output format of AW 94i / 1080/59.94P / 7	-HE130 is set to 20/59.94P / 480/59.94P)		
			0h	Shutter Off			
			3h	1/100			
			4h	1/120			
			5h	1/250			
			6h	1/500			
			7h	1/1000			
			8h	1/2000			
			9h	1/4000			
			Ah	1/10000			
			Bh	Synchro-Scan			
			Ch	ELC			
			(1080/29.9	output format of AW 97p)	-HE 130 IS SET TO		
			0h	Shutter Off			
			2h	1/60			
			4h	1/120			
			5h	1/250			
			6h	1/500			
			7h	1/1000			
			8h	1/2000			
			9h	1/4000			
			Ah	1/10000			
			Bh	Synchro-Scan			
			Ch	ELC			
			Fh	1/30			
			When the	output format of AW	-HE130 is set to		

Command name	Category	Command	Data value	Setting	Remarks
			(1080/23.9	98p)	
			0h	Shutter Off	
			2h	1/60	
			4h	1/120	
			5h	1/250	
			6h	1/500	
			7h	1/1000	
			8h	1/2000	
			9h	1/4000	
			Ah	1/10000	
			Bh	Synchro-Scan	
			Ch	ELC	
			Dh	1/24	
				output format of AW	
				/ 1080/50P / 720/50I	P / 480/50P)
			0h	Shutter Off	
			2h	1/60	
			3h	1/120	
			5h	1/250	
			6h	1/500	
			7h	1/1000	
			8h	1/2000	
			9h	1/4000	
			Ah	1/10000	
			Bh	Synchro-Scan	
			Ch	ELC	
			When the (1080/25p	output format of AW	-HE130 is set to
			0h	Shutter Off	
			2h	1/60	
			3h	1/120	
			5h	1/250	
			6h	1/500	
			7h	1/1000	
			8h	1/2000	
			9h	1/4000	
			Ah	1/10000	
			Bh	Synchro-Scan	
			Ch	ELC	
			Eh	1/25	
	Response	OSH:[Data]			
Shutter	Request	QSH	None		
query command	Response	OSH:[Data]	In the case		W-HE60/AW-HE40/AW-HE65/
				/AW-UE70.	
			0h	Shutter Off	
			3h	1/100(59.94Hz)	
				1/120(50Hz)	
			5h	1/250	
			6h	1/500	
			7h	1/1000	
			8h	1/2000	
			9h	1/4000	
			Ah	1/10000	
			Bh	Synchro-Scan	
			In the acc	e of the AW-HE120	
L			in the cas	e or the AW-HE120	

Interface Specifications

Command name	Category	Command	Data	Setting	Remarks
	outogoly	Command	value	-	
			0h	Shutter Off	
			3h	1/100(59.94Hz)	
			5 1-	1/120(50Hz)	
			5h	1/250	
			6h	1/500	
			7h	1/1000	
			8h	1/2000	
			9h	1/4000	
			Ah	1/10000	
			Bh	Synchro-Scan	
			Ch	ELC	
			When the	output format of AW	-HE130 is set to
					20/59.94P / 480/59.94P)
			0h	Shutter Off	
			3h	1/100	
			4h	1/120	
			5h	1/250	
			6h	1/500	
			7h	1/1000	
			8h	1/2000	
			9h	1/4000	
			Ah	1/10000	
			Bh	Synchro-Scan	
			Ch	ELC	
				-	
			When the	output format of AW	-HE130 is set to
			(1080/29.9		
			0h	Shutter Off	
			2h	1/60	
			4h	1/120	
			5h	1/250	
			6h	1/500	
			7h	1/1000	
			8h	1/2000	
			9h	1/4000	
			Ah	1/10000	
			Bh	Synchro-Scan	
			Ch	ELC	
			Fh	1/30	
			When the (1080/23.9		-HE130 is set to
			0h	Shutter Off	
			2h	1/60	
			4h	1/120	
			5h	1/250	
			6h	1/500	
			7h	1/1000	
			8h	1/2000	
			9h	1/4000	
			Ah	1/10000	
			Bh	Synchro-Scan	
			Ch	ELC	
			Dh	1/24	
			When the	output format of AW	-HE130 is set to
	L		when the	output ionnat of AW	

Command name	Category	Command	Data value	Setting	Remarks
			(1080/50i	/ 1080/50P / 720/50	P / 480/50P)
			0h	Shutter Off	
			2h	1/60	
			3h	1/120	
			5h	1/250	
			6h	1/500	
			7h	1/1000	
			8h	1/2000	
			9h	1/4000	
			Ah	1/10000	
			Bh	Synchro-Scan	
			Ch	ELC	
				output format of AW	-HE130 is set to
			(1080/25p		
			0h	Shutter Off	
			2h	1/60	
			3h	1/120	
			5h	1/250	
			6h	1/500	
			7h	1/1000	
			8h	1/2000	
			9h	1/4000	
			Ah	1/10000	
			Bh	Synchro-Scan	
			Ch	ELC	
			Eh	1/25	

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
Synchro scan	Control	OMS:[Data]	In the cas	e of the AW-HE50/AW-	HE60
control command			001h ≀	60.24Hz(59.94Hz) 50.20Hz(50Hz) ₹	 Disabled at the FullAuto setting (ER3 is returned). When auto iris is On, the
			0FFh	646.21Hz(59.94Hz) 538.51Hz(50Hz)	setting is accepted but it is not reflected in the images. The setting is reflected in the images when auto iris is changed from On to Off.
			In the cas	e of the AW-HE120	
			001h ≀	60.17Hz(59.94Hz) 50.19Hz(50Hz) ₹	 While "" is displayed for Step/Synchro on the OSD menu, the setting is accepted but it is not reflected in the
			0FFh	644.26Hz(59.94Hz) 537.13Hz(50Hz)	images. The setting is reflected in the images when the "" display is released.
			In the cas	e of the AW-HE130	
			001h ≀	60.15Hz(59.94Hz) 50.15Hz(50Hz)	 While "" is displayed for Step/Synchro on the OSD menu, the setting is accepted
			0FFh	642.21Hz(59.94Hz)	but it is not reflected in the images.
				535.71Hz(50Hz)	The setting is reflected in the images when the "" display is released.
			In the cas	e of the AW-HE40/AW-	HE65/AW-HE70/AW-UE70.
			001h	59.94Hz(59.94Hz) 50.00Hz(50Hz)	• Disabled at the FullAuto setting (ER3 is returned).
			2	2	• While "" is displayed for Step/Synchro on the OSD
	Response	OMS:[Data]	0FFh	660.09Hz(59.94Hz) 570.13Hz(50Hz)	menu, the setting is not accepted.
0			Nezz		
Synchro scan query command	Request Response	QMS OMS:[Data]	None	e of the AW-HE50/AW-	HEGO
	Response	OMO.[Data]	001h	60.24Hz(59.94Hz) 50.20Hz(50Hz)	
			2	2	
			0FFh	646.21Hz(59.94Hz) 538.51Hz(50Hz) se of the AW-HE120	
			001h	60.17Hz(59.94Hz)	
			2	50.19Hz(50Hz)	
			0FFh	644.26Hz(59.94Hz)	
			In the cas	537.13Hz(50Hz) se of the AW-HE130	
			001h	60.15Hz(59.94Hz)	
			2	50.15Hz(50Hz)	
			0FFh	642.21Hz(59.94Hz) 535.71Hz(50Hz)	
			In the cas	· · · · ·	HE65/AW-HE70/AW-UE70.

Command name	Category	Command	Data value	Setting		Remarks
			001h	59.94Hz(5	59.94Hz)	
				50.00Hz(5	50Hz)	
			2	2		
			0FFh	660.09Hz		
				570.13Hz		
Auto shutter limit	Control	OSD:BF:[Data]	In the ca	se of the A		
control command				[59.94Hz]][50Hz]	
			0	Off	Off	
			1	1/60	1/50	
			2	1/100	1/100	
			3	1/120	1/125	
			4	1/250	1/250	
	Response	OSD:BF:[Data]				
Auto shutter limit	Request	QSD:BF	None			
query command	Response	OSD:BF:[Data]	In the ca	the case of the AW-UE70		
				[59.94Hz]][50Hz]	
			0	Off	Off	
			1	1/60	1/50	
			2	1/100	1/100	
			3	1/120	1/125	
			4	1/250	1/250	

Example of use)

•Shutter: 1/500

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSH:6&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "OSH:6"

 Synchro scan (when 59.94Hz has been set as the frequency): 60.24Hz
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OMS:001&res=1
 [Response] AW-HE50 → PC 200 OK "OMS:001"

3.2.5. Frame mix setting

These commands enable the frame mixing of camera to be set and the current settings to be acquired.

Command name	Category	Command	Data	Setting	Remarks
Frame mix	Control	OSA:65:[Data]	value	of the AW-HE50/A	
control command			00h 06h 0Ch 12h 80h	Off 6dB 12dB 18dB Auto	 Disabled at the FullAuto setting (ER3 is returned). When auto iris is On, the setting is accepted but it is not reflected in the images. The
					setting is reflected in the images when auto iris is changed from On to Off.
			00h	of the AW-HE120, Off	In the case of AW-HE120,
			06h 0Ch 12h 18h	6dB 12dB 18dB 24dB	when the format is 1050/59.94i and 1080/50i, or the shutter is set to other than OFF, the setting is accepted but it is not
					reflected in the images. The setting is reflected in the images when the above restrictions are released. • In the case of AW-HE130, FrameMix cannot be set to 18 [dB] or higher when either Iris,
					Gain, or Focus is set to Auto.
			In the case		W-HE65/AW-HE70/AW-UE70
			00h	Off	• Disabled at the FullAuto setting
			06h	6dB	(ER3 is returned).When auto iris is On, the setting
			0Ch 12h	12dB 18dB	is not accepted
	Response	OSA:65:[Data]	18h 80h	24dB Auto	
Frame mix	Request	QSA:65	None		
query command	Response	OSA:65:[Data]		of the AW-HE50/A	AW-HE60
			00h 06h 0Ch	Off 6dB 12dB	
			12h 80h	18dB Auto	
				e of the AW-HE120,	/AW-HE130
			00h 06h	Off 6dB	
			0Ch 12h	12dB 18dB	
			18h	24dB	
					W-HE65/AW-HE70/AW-UE70
			00h	Off	
			06h 0Ch	6dB 12dB	
			12h	12dB 18dB	
			1211 18h	24dB	
			80h	Auto	
Maximum frame mix	Control	OSE:74:[Data]	00	0dB	 Disabled at the FullAuto setting

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
value			01	6dB	(ER3 is returned).
control command			02	12dB	 Maximum frame mix value
			03	18dB	control (Auto)
					Supported only by the
					AW-HE50/AW-HE60/AW-HE40/
					AW-HE65/AW-HE70/AW-UE70.
	Response	OSE:74:[Data]			
Maximum frame mix	Request	QSE:74	None		
value	Response	OSE:74:[Data]	00	0dB	Supported only by the
query command			01	6dB	AW-HE50/AW-HE60/AW-HE40/
			02	12dB	AW-HE65/AW-HE70/AW-UE70.
			03	18dB	

Example of use)

Frame mix: 12dB

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:65:0C&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "OSA:65:0C"

•Maximum frame mix value: 18dB

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:74:03&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "OSE:74:03"

3.2.6. Gain setting

These commands enable the gain settings of the camera to be established and the current settings to be acquired.

Table 3.2.6. Gain setting					
Command name	Category	Command	Data value	Setting	Remarks
Gain	Control	OGU:[Data]	In the case	e of the AW-HE50/A	W-HE60
control command			08h	0dB	Disabled at the FullAuto setting
			0Bh	3dB	(ER3 is returned).
			0Eh	6dB	
			11h	9dB	
			14h	12dB	
			17h	15dB	
			1Ah	18dB	
			80h	Auto	
			In the case	e of the AW-HE120	
			08h	0dB	Value can be set in increments of
			2	2	1dB.
			11h	9dB	
			2	2	
			1Ah	18dB	
			80h	Auto	
				e of the AW-HE130	
			08h	0db	Value can be set in increments of
			2	2	1dB.
			11h	9db	
			2	2	
			1Ah	18db	
			2	2	
			2Ch	36db	
			80h	Auto	
					W-HE65/AW-HE70/AW-UE70
			08h	0dB	Disabled at the FullAuto setting
			0Bh	3dB	(ER3 is returned).
			0Eh	6dB	()
				2 2	
) 20h		Value can be set in increments of
			38h	48dB	3dB.
	Response	OGU:[Data]	80h	Auto	
Gain	Request	QGU	None	(
query command	Response	OGU:[Data]	In the case	e of the AW-HE50/A	VV-HE60

Table 3.2.6. Gain setting

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
			08h	0dB	
			0Bh	3dB	
			0Eh	6dB	
			11h	9dB	
			14h	12dB	
			17h	15dB	
			1Ah	18dB	
			80h	Auto	
				e of the AW-HE120	
			08h	0dB	
			2	2	
			11h	9dB	
			2	2	
			1Ah	18dB	
			80h	Auto	
				e of the AW-HE130	
			08h	0db	
			≀ 11h	≥	
			tin ₹	9db ≀	
			1Ah	18db	
			2	2	
			2Ch	36db	
			80h	Auto	
					W-HE65/AW-HE70/AW-UE70
			08h	0dB	Disabled at the FullAuto setting
			0Bh	3dB	(ER3 is returned).
			0Eh	6dB	· · · · · ·
			2	2	 Value can be set in increments of
			38h	48dB	
			80h	Auto	3dB.
			0011	Auto	

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
AGC maximum	Control	OSD:69:[Data]	In the case of the AW-HE50/AW-HE60		
gain value			01	6dB	 Disabled at the FullAuto setting
control command			02	12dB	(ER3 is returned).
			03	18dB	
				se of the AW-HE120	/AW-HE130
			01	6dB	
			02 03	12dB 18dB	
					AW-HE65/AW-HE70/AW-UE70
			01	6dB	Disabled at the FullAuto setting
			02	12dB	(ER3 is returned).
			03	18dB	()
			00	24dB	
			05	30dB	
			06	36dB	
	Response	OSD:69:[Data]	07	42dB	
	Response	03D.09.[<i>Data</i>]	08	48dB	
AGC maximum	Request	QSD:69	None		
gain value	Response	OSD:69:[<i>Data</i>]		se of the AW-HE50/	
query command			01	6dB	 Disabled at the FullAuto setting
			02	12dB	(ER3 is returned).
			03	18dB	
			01	e of the AW-HE120	/AVV-HE130
			01	12dB	
			03	18dB	
				se of the AW-HE40/	AW-HE65/AW-HE70/AW-UE70
			01	6dB	
			02	12dB	
			03	18dB	
			04	24dB	
			05	30dB	
			06	36dB	
			07	42dB	
			08	48dB	

Example of use)

•Gain: 3dB

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OGU:0B&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "OGU:0B"

•AGC maximum gain value: 18dB [Control] $PC \rightarrow AW$ -HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:69:03&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "OSD:69:03"

3.2.7. Color settings 3.2.7.1. R/B gain settings

These commands control the R/B gain levels of the camera, and they enable the current settings to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
R gain control command	Control	ORI:[Data]	In the case	e of the AW-HE50/A /AW-UE70	W-HE60/AW-HE40/AW-HE65/
			000h	-30	The AW-HE50 is supported by
			2	2	Ver.2 or a later version.
			096h	0	 Setting (menu display value)
			2	2	= (Data value - 0x96) / 5
			12Ch	+30	 Cleared to zero at AWB OK
					completion.
				e of the AW-HE120/	
			000h	-150	Setting (menu display value)
			2	2	= (Data value $- 0x96$)
			096h	0	Cleared to zero at AWB OK
			≀ 12Ch	≀ +150	completion.
	Posponso	ORI:[Data]	12011	+150	
	Response Control	ORG:[Data]	In the case	P of the $\Delta M_{-}HE50/\Delta^{2}$	W-HE60/AW-HE40/AW-HE65/
	Control	UNO.[Data]		AW-UE70	
			00h	-30	The AW-HE50 is supported by
			2	2	Ver.2 or a later version.
			1Eh	0	 Setting (menu display value)
			2	2	= (Data value – 0x1E)
			3Ch	+30	Cleared to zero at AWB OK
					completion.
			In the case	e of the AW-HE120/	AW-HE130
			00h	-150	 Setting (menu display value)
			2	2	= (Data value $- 0x1E$) x 5
			1Eh	0	Cleared to zero at AWB OK
			}	2	completion.
	Desperate		3Ch	+150	
Darain	Response	ORG[Data]	Nana		
R gain	Request	QRI	None		 The AW-HE50 is supported by Ver.2 or a later version.
query command	Response	ORI:[Data]	In the case	e of the $\Delta M_{-}HE50/\Delta'$	W-HE60/AW-HE40/AW-HE65/
	Response	ONILDataj		AW-UE70	
			000h	-30	The AW-HE50 is supported by
			2	2	Ver.2 or a later version.
			096h	0	 Data value of response
			2	2	= (Setting x 5 + 0x96)
			12Ch	+30	
			In the case	e of the AW-HE120/	
			000h	-150	 Data value of response
			2	2	= (Setting + 0x96)
			096h	0	
			2	2	
			12Ch	+150	

Command name	Category	Command	Data value	Setting	Remarks			
R gain query command	Request	QGR	None		The AW-HE50 is supported by Ver.2 or a later version.			
	Response	OGR:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-HE65/ AW-HE70/AW-UE70					
			00h ≀	-30 ≀	The AW-HE50 is supported by Ver.2 or a later version.			
			1Eh	0	 Data value of response 			
			≀ 3Ch	≀ +30	= (Setting + 0x1E)			
			In the cas	e of the AW-HE120/	AW-HE130			
			00h	-150	Data value of response			
			≀ 1Eh		= (Setting / 5 + 0x1E)			
			1E11 2	2				
			3Ch	+150				
B gain control command	Control	OBI:[Data]		e of the AW-HE50/A /AW-UE70	W-HE60/AW-HE40/AW-HE65/			
			000h	-30	□ The AW-HE50 is supported by			
			≀ 096h	2 0	Ver.2 or a later version. Setting (menu display value) 			
			2	ž	= (Data value $- 0x96$) / 5			
			12Ch	+30	Cleared to zero at AWB OK			
					completion.			
			In the cas	e of the AW-HE120/				
			000n 2	-150 ≀	 Setting (menu display value) = (Data value - 0x96) 			
			096h	0	Cleared to zero at AWB OK			
			2	2	completion.			
	Response	OBI:[Data]	12Ch	+150				
	Control	OBG:[Data]	BG:[Data] In the case of the AW-HE50/AW-HE60/AW-HE40/AW-HE AW-HE70/AW-UE70					
			00h	-30	□ The AW-HE50 is supported by			
			2	2	Ver.2 or a later version.			
			1Eh	0	 Setting (menu display value) = (Data value - 0x1E) 			
			} 3Ch		Cleared to zero at AWB OK			
			0011	100	completion.			
				e of the AW-HE120/				
			00h	-150	Setting (menu display value)			
			≀ 1Eh	2 0	 = (Data value - 0x1E) x 5 Cleared to zero at AWB OK 			
			2	l ĩ≀	completion.			
	Response	OBG:[Data]	3Ch	+150				
B gain query command	Request	QBI	None		 The AW-HE50 is supported by Ver.2 or a later version. 			
	Response	OBI:[Data]		e of the AW-HE50/A' /AW-UE70	W-HE60/AW-HE40/AW-HE65/			
			000h	-30	□ The AW-HE50 is supported by			
					Ver.2 or a later version. Data value of response 			
			096N ₹	2	= (Setting x 5 + $0x96$)			
			12Ch	+30				
				e of the AW-HE120/				
			000h	-150	Data value of response (Setting + 0:00)			
			≀ 096h		= (Setting + 0x96)			
			2	2				
			12Ch	+150				

Command name	Category	Command	Data value	Setting	Remarks	
B gain query command	Request	QGB	None		The AW-HE50 is supported by Ver.2 or a later version.	
	Response	OGB:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE40/AW-HE65/ AW-HE70/AW-UE70			
			00h ≀ 1Eh ≀ 3Ch	-30 2 0 2 +30	 The AW-HE50 is supported by Ver.2 or a later version. Data value of response = (Setting + 0x1E) 	
			In the case of the AW-HE120/AW-HE130			
			00h	-150	• Data value of response = (Setting / 5 + 0x1E)	

Example of use) •R gain: -30[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=ORG:00&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "ORG:00"

•R gain: +150

[Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw_cam?cmd=ORI:12C&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "ORI:12C"

•B gain: -30

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OBG:00&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "OBG:00"

•B gain: +150

[Control] PC \rightarrow AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OBI:12C&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "OBI:12C"

3.2.7.2. R/B pedestal settings

These commands control the R/B pedestal values of the camera, and they enable the current settings to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
R pedestal	Control	ORP:[Data]	In the cas	e of the AW-HE120	
control command			000h	-150 2 0 2	 Setting (menu display value) = (Data value - 0x96) Cleared to zero at ABB OK completion.
			12Ch	+150 e of the AW-HE130	
			032h ≀	_100 ₹	• Setting (menu display value) = (Data value - 0x96)
			096h ≀	0	 Cleared to zero at ABB OK completion.
	Response	ORP:[Data]	0Fah	+100	
	Control	ORD:[Data]	In the cas	e of the AW-HE120	
			00h ≀ 1Eh	-150 	 Setting (menu display value) =(Data value - 0x1E) x 5 Cleared to zero at ABB OK
			≀ ≷ 3Ch	≀ 150	Cleared to zero at ABB OK completion.
			In the cas	e of the AW-HE130	
			0Ah ≀ 1Eh ≀	-100	 Setting (menu display value) = (Data value - 0x1E) x 5 Cleared to zero at ABB OK
	Response	ORD:[<i>Data</i>]	32h	} +100	completion.
R pedestal query command	Request	QRP	None		Only supported by the AW-HE120/AW-HE130.
	Response	ORP:[Data]	In the cas	e of the AW-HE120	
			000h ≀	-150 ≀	• Data value of response = (Setting + 0x96)
			096h ≀ 12Ch	0	
				e of the AW-HE130	
			032h	-100	
			≀ 096h ≀	2 0 2	
			0Fah	+100	
	Request	QRD	None		
	Response	ORD:[Data]	In the cas	e of the AW-HE120 -150	Data value of reasonage
			liteh	<pre>-150</pre>	• Data value of response = (Setting / 5 + 0x1E)
			≀ 3Ch	`≀ +150	
				e of the AW-HE130	
			0Ah ≀ 1Eh	-100 ≀ 0	• Data value of response = (Setting / 5 + 0x1E)
			≀ 32h	≀ +100	
B pedestal	Control	OBP:[Data]	In the cas	e of the AW-HE120	

Table 3.2.7.2.	R/B pedestal settings
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ategory	Command	Data value	Setting	Remarks
		000h	-150	Setting (menu display value)
		2	2	= (Data value — 0x96)
		096h	0	 Cleared to zero at ABB OK
		2	{	completion.
		-		
		032h	-100	Setting (menu display value)
			(= (Data value $-$ 0x96)
		096h	0	Cleared to zero at ABB OK
		(OFab	(completion.
•				
Control	OBD:[<i>Data</i>]			
		00h	-150	 Setting (menu display value)
		<u> </u>	2	= (Data value — 0x1E) x 5
		1Eh	0	Cleared to zero at ABB OK
		{	2	completion.
		3Ch	+150	 The value displayed on the menu
				is the command setting multiplied by 5.
		In the case	e of the AW-HE130	
		0Ah	-100	 Setting (menu display value)
		2	2	= (Data value - 0x1E) x 5
		1Eh	0	 Cleared to zero at ABB OK
		2	2	completion.
		32h	+100	 The value displayed on the menu
				is the command setting multiplied by 5.
esponse	OBD:[Data]			by 0.
eC	sponse control sponse	sponse OBP:[Data] control OBD:[Data]	In the case 000h 2 096h 2 096h 2 12Ch In the case 032h 2 096h 3 1 </td <td>Itegory Command value Setting 000h -150 096h 0 12Ch +150 In the case of the AW-HE130 032h -100 32h -100 sponse OBP:[Data] 0Fah +100 control OBD:[Data] In the case of the AW-HE120 00h -150 iontrol OBD:[Data] In the case of the AW-HE120 00h -150 3Ch +150 In the case of the AW-HE130 0Ah -100 2 2 32h +100</td>	Itegory Command value Setting 000h -150 096h 0 12Ch +150 In the case of the AW-HE130 032h -100 32h -100 sponse OBP:[Data] 0Fah +100 control OBD:[Data] In the case of the AW-HE120 00h -150 iontrol OBD:[Data] In the case of the AW-HE120 00h -150 3Ch +150 In the case of the AW-HE130 0Ah -100 2 2 32h +100

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Command name	Category	Command	Data value	Setting	Remarks
B pedestal query command	Request	QBP	None		 Only supported by the AW-HE120/AW-HE130.
	Response	OBP:[Data]	In the cas	e of the AW-HE120	
			000h	-150	 Data value of response
			2	2	= (Setting + 0x96)
			096h	0	
			2	2	
			12Ch	+150	
				e of the AW-HE130	
			032h	-100	Data value of response
			2	2	= (Setting + 0x96)
			096h	0	
				{	
	_	000	0Fah	+100	
	Request	QBD	None		
	Response	OBD:[Data]		e of the AW-HE120	
			00h	-150	Data value of response (Setting (5 + 0)45)
				(= (Setting / 5 + 0x1E)
			1Eh	0	
			3Ch	+150	
				ase of the AW-HE13	30
			0Ah	-100	Data value of response
			2	>	= (Setting $/ 5 + 0x1E$)
			1Eh	0	(2000) 9 0 0 0002
			2	2	
			32h	+100	

Example of use)

 • R pedestal: -150
 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=ORP:000&res=1
 [Response] AW-HE120 → PC 200 OK "ORP:000"

•R pedestal: +150

[Control] PC \rightarrow AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=ORD:3C&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "ORD:3C"

·B pedestal: +150

[Control] PC \rightarrow AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OBP:12C&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "OBP:12C"

•B pedestal: -150

[Control] $PC \rightarrow AW-HE120$

http://192.168.0.10/cgi-bin/aw_cam?cmd=OBD:00&res=1 [Response] AW-HE120 → PC 200 OK "OBD:00"

3.2.7.3. Color matrix settings

These commands control the color matrix of the camera, and they enable the current settings to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
Color matrix control command	Control	OSE:31:[<i>Data</i>] OSE:31:[<i>Data</i>]	0 1 2 3	Normal EBU NTSC User	The linear matrix and color correction settings can be selected only at the User setting. Only supported by the AW-HE120/AW-HE130/AW-HE40/ AW-HE65/AW-HE70/AW-UE70.
	Response				Only supported by the AW-HE120/AW-HE130/AW-HE40/ AW-HE65/AW-HE70/AW-UE70.
Color matrix query command	Request	QSE:31	None		Only supported by the AW-HE120/AW-HE130/AW-HE40/ AW-HE65/AW-HE70/AW-UE70.
	Response	OSE:31:[<i>Data</i>]	0 1 2 3	Normal EBU NTSC User	Only supported by the AW-HE120/AW-HE130/AW-HE40/ AW-HE65/AW-HE70/AW-UE70.
Linear matrix R-G control command	Control	OSD:2F:[<i>Data</i>]	00h ≀ 1Fh ≀ 3Eh	-31 ≷ 0 ≷ +31	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Only supported by the AW-HE120.
	Control	OSD:2F:[Data] OSD:A4:[Data]	41h	-63	 Only supported by the AW-HE120. Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Only supported by the AW-HE130.
	Response	OSD:A4:[Data]	News		Only supported by the AW-HE130.
Linear matrix R-G query command	Request Response	QSD:2F OSD:2F:[<i>Data</i>]	None 00h ↓ 1Fh ↓ 3Eh	-31	Only supported by the AW-HE120. Only supported by the AW-HE120.
	Request	QSD:A4	None		Only supported by the AW-HE130.
	Response	OSD:A4:[Data]	41h	-63	Only supported by the AW-HE130.
Linear matrix	Control	OSD:30:[Data]	00h	-31	Settings cannot be changed if

Table 3.2.7.3.	Color matrix settings
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			Data		
Command name	Category	Command	value	Setting	Remarks
R-B control command			≀ 1Fh ≀ 3Eh	≷ 0 ≥ +31	 Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Only supported by the AW-HE120.
	Response	OSD:30:[Data]	-		 Only supported by the AW-HE120. Only supported by the AW-HE120.
	Control	OSD:A5:[Data]	41h	-63	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Only supported by the AW-HE130.
	Response	OSD:A5:[Data]			□ Only supported by the AW-HE130.
Linear matrix R-B query command	Request Response	QSD:30 OSD:30:[<i>Data</i>]	None 00h ≀	_31 ≹	 Only supported by the AW-HE120. Only supported by the AW-HE120.
			1Fh ≹ 3Eh	0	
	Request	QSD:A5	None		□ Only supported by the AW-HE130.
	Response	OSD:A5:[Data]	41h ≀ 80h ≀ BFh	-63	□ Only supported by the AW-HE130.
Linear matrix G-R control command	Control	OSD:31:[<i>Data</i>]	00h ≀ 1Fh ≀ 3Eh	-31 ≷ 0 ≷ +31	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Only supported by the AW-HE120.
	Response	OSD:31:[Data]	-		□ Only supported by the AW-HE120.
	Control	OSD:A6:[Data]	41h	-63	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Only supported by the AW-HE130.
I in a numeraturi.	Response	OSD:A6:[Data]	Nerre		□ Only supported by the AW-HE130.
Linear matrix G-R query command	Request Response	QSD:31 OSD:31:[<i>Data</i>]	None 00h ↓ 1Fh ↓ 3Eh	-31	 Only supported by the AW-HE120. Only supported by the AW-HE120.
	Request Response	QSD:A6 OSD:A6:[Data]	3Eh None 41h ≀ 80h ≀ BFh	+31 -63 2 0 2 +63	 Only supported by the AW-HE130. Only supported by the AW-HE130.
Linear matrix	Control	OSD:32:[Data]	00h	-31	Settings cannot be changed if

Command name	Category	Command	Data	Setting	Remarks
G-B			value	2	Normal, EBU or NTSC has been
control command			tFh ≀ 3Eh	0	 Setting is possible when User has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE120.
	Response	OSD:32:[Data]	_		WHILI20. Wonly supported by the AW-HE120.
	Control	OSD:A7:[Data]	41h	-63 ≀ 0 ≀ +63	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE130.
	Response	OSD:A7:[Data]			※Only supported by the AW-HE130.
Linear matrix	Request	QSD:32	None		□ Only supported by the AW-HE120.
G-B query command	Response	OSD:32:[<i>Data</i>]	00h	-31	Only supported by the AW-HE120.
	Request	QSD:A7	None		※Only supported by the AW-HE130.
	Response	OSD:A7:[Data]	41h	-63 2 0 2 +63	XOnly supported by the AW-HE130.
Linear matrix B-R control command	Control	OSD:33:[<i>Data</i>]	00h ≀ 1Fh ≀ 3Eh	-31 ≷ 0 ≷ +31	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Only supported by the AW-HE120.
	Response	OSD:33:[Data]			□ Only supported by the AW-HE120.
	Control	OSD:A8:[Data]	41h	-63	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. ※Only supported by the AW-HE130.
	Response	OSD:A8:[Data]			※Only supported by the AW-HE130.
Linear matrix	Request	QSD:33	None		□ Only supported by the AW-HE120.
B-R query command	Response	OSD:33:[<i>Data</i>]	00h	-31 ≷ 0 ≷ +31	Only supported by the AW-HE120.
	Request	QSD:A8	None		Only supported by the

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Command name	Category	Command	Data value	Setting	Remarks
					AW-HE130.
	Response	OSD:A8:[Data]	41h	-63	XOnly supported by the
			2	2	AW-HE130.
			80h	0	
			BEII	+03	
Linear matrix	Control	OSD:34:[Data]	00h	-31	Settings cannot be changed if
B-G control command			≀ 1Fh)	Normal, EBU or NTSC has been selected as the MatrixType setting.
control command			2	ĭ≀	• Setting is possible when User has
			3Eh	+31	been selected as the MatrixType
					setting.
					□ Only supported by the AW-HE120.
	Response	OSD:34:[Data]	-		□ Only supported by the AW-HE120.
	Control	OSD:A9:[Data]	41h	-63	Settings cannot be changed if
			2	2	Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
					 Setting is possible when User has been selected as the MatrixType
				+00	setting.
					XOnly supported by the
					AW-HE130.
	Response	OSD:A9:[Data]	-		※Only supported by the
	Пезропзе	000.7.5.[Data]			AW-HE130.
Linear matrix	Request	QSD:34	None		□ Only supported by the AW-HE120.
B-G	Response	OSD:34:[Data]	00h	-31	\Box Only supported by the AW-HE120.
query command			≀ 1Fh)	
			2	²	
			3Eh	+31	
	Request	QSD:A9	None		※Only supported by the AW-HE130.
	Response	OSD:A9:[Data]	41h	-63	*Only supported by the
			2	2	AW-HE130.
			80h	0	
				+63	
Color correction	Control	OSD:86:[Data]		e of the AW-HE120	
R GAIN/ SATURATION			01h 2	-127	 Settings cannot be changed if Normal, EBU or NTSC has been
control command			ر 80h	0	selected as the MatrixType setting.
			2	ĩ	Setting is possible when User has
			FFh	+127	been selected as the MatrixType
					setting.
				e of the AW-HE130	
			41h	-63	Settings cannot be changed if
)	2	Normal, EBU or NTSC has been
			80h ≀	0	selected as the MatrixType setting.Setting is possible when User has
			BFh	+63	been selected as the MatrixType
					setting.
			In the cas	L e of the <u>A</u> W-HE40//	AW-HE65/AW-HE70/AW-UE70
			61h	-31	Settings cannot be changed if

			Data	•	
Command name	Category	Command	value	Setting	Remarks
			≀ 80h ≀ 9Fh	≀ 0 ∤+31	 Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:86:[<i>Data</i>]			
Color correction	Request	QSD:86	None		
R GAIN/	Response	OSD:86:[Data]		e of the AW-HE120	
SATURATION query command			01h	-127 2 0 2 +127	
			In the case	e of the AW-HE130	
			41h	-63	
			2	2	
			80h ≹	0	
			BFh	+63	
					AW-HE65/AW-HE70/AW-UE70
			61h ≀	-31	
			80h	≀ 0	
			2	2	
			9Fh	+31	
Color correction	Control	OSD:87:[<i>Data</i>]		e of the AW-HE120	
R PHASE control command			01h ≀ 80h ≀ FFh	-127 2 0 2 +127	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			In the case AW-HE13		E65/AW-HE70/AW-UE70
			41h	-63	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:87:[Data]			
Color correction R PHASE	Request Response	QSD:87 OSD:87:[<i>Data</i>]	None	e of the AW-HE120	
query command	Response	USD.01.[Dala]	01h 80h FFh	-127 0 +127 -127	
			In the case		

Command name	Category	Command	Data value	Setting	Remarks
			AW-HE13	0/AW-HE40/AW-HE	65/AW-HE70/AW-UE70
			41h	-63	
			2	2	
			80h ≹	0	
			BFh	+63	
			ып	100	
Oslan sama stian	Oractural	000-00-00-1-1	la tha ana		
Color correction R_R_YI GAIN/	Control	OSD:9C:[Data]	41h	e of the AW-HE130 -63	Settings cannot be changed if
SATURATION			2	_03	Normal, EBU or NTSC has been
control command			80h	0	selected as the MatrixType setting.
			2	2	Setting is possible when User has
			BFh	+63	been selected as the MatrixType
			In the end		setting. AW-HE65/AW-HE70/AW-UE70
			61h		Settings cannot be changed if
			2	2	Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
			2	2	 Setting is possible when User has
			9Fh	+31	been selected as the MatrixType
			-		setting.
Color correction	Response Request	OSD:9C:[Data] QSD:9C	None		
R_R_YI GAIN/	Response	OSD:9C:[Data]		L e of the AW-HE130	
SATURATION	receptinee	000.00.[Data]	41h	-63	
query command			2	2	
			80h	0	
			≀ BFh	≀ +63	
					AW-HE65/AW-HE70/AW-UE70
			61h	-31	
			2	2	
			80h	0	
			≀ 9Fh	2	
Color correction	Control	OSD:9D:[Data]	In the case	+31	
R_R_YI PHASE	Control	000.00.[Data]			E65/AW-HE70/AW-UE70
control command			41h	-63	Settings cannot be changed if
			2	2	Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
			≀ BFh	≀ +63	 Setting is possible when User has been selected as the MatrixType
				+05	setting.
	Response	OSD:9D:[Data]			
Color correction	Request	QSD:9D	None		
R_R_YI PHASE	Response	OSD:9D:[Data]	In the case		
query command			41h	–63	E65/AW-HE70/AW-UE70
			2	~	
			80h	0	
			2	2	
Color correction	Control		BFh	+63	
Color correction R_YI GAIN/	Control	OSD:88:[<i>Data</i>]	01h	e of the AW-HE120 -127	Settings cannot be changed if
SATURATION			2	$\frac{127}{2}$	Normal, EBU or NTSC has been
control command			80h	0	selected as the MatrixType setting.

Command name	Category	Command	Data value	Setting	Remarks
			₹ FFh	≀ +127	 Setting is possible when User has been selected as the MatrixType setting.
			In the cas	e of the AW-HE130	
			41h	-63	 Settings cannot be changed if
			≹ 80h ≹ BFh	<pre></pre>	 Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:88:[Data]			□ Only supported by the AW-HE120/AW-HE130.
Color correction	Request	QSD:88	None		
R_YI GAIN/	Response	OSD:88:[Data]		e of the AW-HE120	
SATURATION query command			01h ≹ 80h	-127	
			≀ FFh	≀ +127	
				e of the AW-HE130	
			41h	-63	
			2	2	
			80h	0	
				2	
			BFh	+63	
Color correction	Control	OSD:89:[Data]	In the cas	e of the AW-HE120	
R_YI PHASE control command			01h え 80h え FFh	-127 ≷ 0 ≷ +127	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType
			In the cas	e of the AW-HE130	setting.
			41h	-63 2 0 2 +63	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:89:[Data]			□ Only supported by the AW-HE120/AW-HE130.
Color correction	Request	QSD:89	None		
R_YI PHASE	Response	OSD:89:[<i>Data</i>]		e of the AW-HE120	
query command			01h ≀	_127 ≹	
			80h ≀	0	
			FFh	+127	
				e of the AW-HE130	
			41h	-63	
			≀ 80h	≥	
			00n ₹	2	
			BFh	+63	
Color correction	Control	OSD:9E:[Data]	In the cas	e of the AW-HE130	
R_YI_YI GAIN/			41h	-63	Settings cannot be changed if

	[Data		
Command name	Category	Command	value	Setting	Remarks
SATURATION control command			≀ 80h ≀ BFh	<pre></pre>	 Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
					AW-HE65/AW-HE70/AW-UE70
			61h	-31	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:9E:[Data]			
Color correction	Request	QSD:9E	None		
R_YI_YI GAIN/	Response	OSD:9E:[Data]	In the cas	e of the AW-HE130	
SATURATION query command			41h え 80h え BFh	-63	
			In the eee		
			In the cas 61h ≀ 80h ≀ 9Fh	e of the AVV-HE40/A -31 ↓ 0 ↓ +31	AW-HE65/AW-HE70/AW-UE70
Color correction R_YI_YI PHASE control command	Control	OSD:9F:[Data]	In the cas AW-HE13 41h ↓ 80h ↓ BFh		 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:9F:[Data]			
Color correction	Request	QSD:9F	None		
R_YI PHASE query command	Response	OSD:9F:[Data]	In the cas		E65/AW-HE70/AW-UE70
Color correction	Control	OSD:8A:[Data]	In the cas	e of the AW-HE120	
YI GAIN/ SATURATION control command			01h	-127 2 0 2 +127	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			In the cas	e of the AW-HE130	
			41h ₹	-63	 Settings cannot be changed if Normal, EBU or NTSC has been

	1	[Dete	[
Command name	Category	Command	Data value	Setting	Remarks
			80h ≹ BFh	0	 selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			In the case	e of the AW-HF40/4	AW-HE65/AW-HE70/AW-UE70
			61h	-31 2 0 2 +31	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:8A:[Data]			
Color correction	Request	QSD:8A	None		
YI GAIN/	Response	OSD:8A:[Data]		e of the AW-HE120	
SATURATION query command			01h え 80h え FFh	-127 2 0 2 +127	
			In the case	e of the AW-HE130	
			41h	-63	
			≹ 80h ≹	2 0 2	
			BFh	+63	
			In the ease		AW-HE65/AW-HE70/AW-UE70
			61h	-31	
			2	2	
			80h	0	
			≀ 9Fh		
				+31	
Color correction	Control	OSD:8B:[Data]	In the case	Le of the AW-HE120	
YI PHASE control command		000.00.[Duta]	01h 2 80h 2 FFh	-127 2 0 2 +127	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			In the case	e of the	
			AW-HE13	0/AW-HE40/AW-HE	E65/AW-HE70/AW-UE70
			41h	-63	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType
					setting.
	Response	OSD:8B:[<i>Data</i>]	-		□ Only supported by the AW-HE120/AW-HE130.
Color correction	Request	QSD:8B	None		
YI PHASE	Response	OSD:8B:[Data]	In the case	e of the AW-HE120	

	ſ				
Command name	Category	Command	Data value	Setting	Remarks
query command			01h え 80h え FFh	-127 <i>i</i> 0 <i>i</i> +127	
			In the cas		L E65/AW-HE70/AW-UE70
			41h	-63	
			≹ 80h ≹ BFh	<pre></pre>	
Color correction	Control	OSD:8C:[Data]	In the cas	e of the AW-HE120	
YI_G GAIN/ SATURATION control command		USD.oC.[Data]	01h ≹ 80h ≹ FFh	-127 ≷ 0 ≷ +127	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
				e of the AW-HE130	
			41h ≹ 80h ≹ BFh	-63	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType
	Response	OSD:8C:[Data]	_		setting. Only supported by the AW-HE120/AW-HE130.
Color correction	Request	QSD:8C	None		
YI_G GAIN/	Response	OSD:8C:[Data]	In the cas	e of the AW-HE120	
SATURATION query command			01h	-127	
			41h ≀	-63 ≷	
			80h ≹ BFh	0	
Color correction YI_G PHASE control command	Control	OSD:8D:[<i>Data</i>]	In the cas 01h ≹ 80h ≹ FFh	e of the AW-HE120 -127 2 0 2 +127	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			In the cas 41h ≀ 80h ≀	e of the AW-HE130 -63	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has

Command name	Category	Command	Data value	Setting	Remarks
			BFh	+63	been selected as the MatrixType
	Response	OSD:8D:[<i>Data</i>]			setting. XOnly supported by the AW-HE120/AW-HE130.
Color correction	Request	QSD:8D	None		
YI_G PHASE	Response	OSD:8D:[Data]	In the case	e of the AW-HE120	
query command			01h 2	–127 ≷	
			80h	0	
			≀	2	
			FFh In the case	+127 e of the AW-HE130	
			41h	-63	
			2	2	
			80h ≀	0	
			BFh	+63	
Color correction	Control	OSD:8E:[Data]		e of the AW-HE120	
G GAIN/ SATURATION			01h 2	–127 ≷	 Settings cannot be changed if Normal, EBU or NTSC has been
control command			80h	0	selected as the MatrixType setting.
			≀	2	Setting is possible when User has
			FFh	+127	been selected as the MatrixType setting.
				e of the AW-HE130	
			41h	-63	Settings cannot be changed if
			≀ 80h	≀	Normal, EBU or NTSC has been selected as the MatrixType setting.
			2	2	 Setting is possible when User has
			BFh	+63	been selected as the MatrixType setting.
					AW-HE65/AW-HE70/AW-UE70
			61h _	–31 ≀	 Settings cannot be changed if Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
			≹ 9Fh	2	Setting is possible when User has
			3111	+31	been selected as the MatrixType setting.
	Response	OSD:8E:[Data]			
Color correction	Request	QSD:8E	None		
G GAIN/ SATURATION	Response	OSD:8E:[Data]	In the case 01h	e of the AW-HE120 -127	
query command			\ ₹	2	
			80h	0	
			≀ FFh	≀ +127	
				1121	
			In the case	e of the AW-HE130	
			41h	-63	
			≀ 80h	≀	
			2	2	
			BFh In the case	+63 e of the AW-HE40/A	AW-HE65/AW-HE70/AW-UE70
			61h	-31	
				2	
			80h ≀	0 2	
			9Fh	+31	

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
Color correction G PHASE control command	Control	OSD:8F:[<i>Data</i>]	In the cas 01h ↓ 80h ↓ FFh	e of the AW-HE120 -127 2 0 2 +127	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			In the cas		E65/AW-HE70/AW-UE70
			41h	-63 2 0 2 +63	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:8F:[Data]			
Color correction	Request	QSD:8F	None		
G PHASE query command	Response	OSD:8F:[<i>Data</i>]	In the cas 01h ↓ 80h ↓ FFh	e of the AW-HE120 -127 2 0 2 +127	
			41h ≀ 80h	0/AW-HE40/AW-HE -63	E65/AW-HE70/AW-UE70
			≀ BFh	} +63	
Color correction G_Cy GAIN/ SATURATION control command	Control	OSD:90:[<i>Data</i>]	In the cas 01h 2 80h 2 FFh	e of the AW-HE120 -127	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			In the cas	e of the AW-HE130	
			41h ≀ 80h ≀ BFh	-63	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
			In the cas	Le of the AW-HE40/A	AW-HE65/AW-HE70/AW-UE70
			61h	-31	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:90:[<i>Data</i>]	Nore		
Color correction G_Cy GAIN/	Request Response	QSD:90 OSD:90:[<i>Data</i>]	None In the cas	e of the AW-HE120	

		[Data		
Command name	Category	Command	value	Setting	Remarks
SATURATION			01h	-127	
query command			≀ 80h	2	
			2	Ĩ ≀	
			FFh	+127	
			In the cas	e of the AW-HE130	
			41h	-63	
			2	2	
			80h	0	
			≀ BFh	≀ +63	
					AW-HE65/AW-HE70/AW-UE70
			61h	-31	
			≹ 80h	2	
			80m 2	0	
			9Fh	+31	
Color correction	Control	OSD:91:[Data]		e of the AW-HE120	
G_Cy PHASE control command			01h ≹	–127 ₹	 Settings cannot be changed if Normal, EBU or NTSC has been
control command			80h	0	selected as the MatrixType setting.
			2	2	Setting is possible when User has
			FFh	+127	been selected as the MatrixType
					setting. Only supported by the AW-HE120.
			In the cas	e of the	
					E65/AW-HE70/AW-UE70
			41h ≹	-63 え	 Settings cannot be changed if Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
			2	2	Setting is possible when User has
			BFh	+63	been selected as the MatrixType
					setting.
	Response	OSD:91:[Data]	-		
Color correction	Request	QSD:91			
G_Cy PHASE query command	Response	OSD:91:[<i>Data</i>]	In the cas	e of the AW-HE120 -127	
query command			۱۳ ۲	2	
			80h	0	
				2	
			FFh	+127	
			In the cas	e of the	
					E65/AW-HE70/AW-UE70
			41h	-63	
			≀ 80h	≀	
			2	ĭ≀	
			BFh	+63	
Color correction	Control	OSD:92:[Data]	In the cas	e of the AW-HE120	
Color correction Cy GAIN/	Control		01h	–127	Settings cannot be changed if
SATURATION			2	2	Normal, EBU or NTSC has been
control command			80h	0	selected as the MatrixType setting.
			2	2	Setting is possible when User has

Color correction Cy GAIN SATURATION query command Control OSD-932[Date] Color correction Color correction Cy GAIN Query command Response Color S22[Date] Color correction Cy GAIN Query command OSD-932[Date] Color correction Cy GAIN Query command Normal Color S22[Date] Color correction Cy GAIN Query command Control OSD-932[Date] Color S22[Date] Nore All Color Correction Cy GAIN Query command Control OSD-932[Date] Color correction Cy GAIN Query command Normal Color Correction Cy GAIN Query command Control OSD-932[Date] Color correction Cy GAIN Query command Normal Color Correction Cy GAIN Query command Control OSD-932[Date] Color correction Cy GAIN Query command Normal Color correction Cy GAIN Query command Control OSD-932[Date] Color correction Cy GAIN Query command Normal Color correction Color correction Cy GAIN Query command Control OSD-932[Date] Color correction Color corection Color corection Color correction Color Correction Color cor	Command name	Category	Command	Data	Setting	Remarks
Color correction Cy FHASE control command Sching cannot be changed if Normal.EBU or NTSC has been selected as the MatriXType setting, BFh -63 -Settings cannot be changed if Normal.EBU or NTSC has been selected as the MatriXType setting, -Settings cannot be changed if Normal.EBU or NTSC has been selected as the MatriXType setting. Response OSD:92:[Date] -Settings cannot be changed if Normal.EBU or NTSC has been selected as the MatriXType setting. Color correction Cy GAIN Request QSD:92:[Date] Response OSD:92:[Date] None Color correction Cy FHASE Request QSD:92:[Date] Color correction Cy HASE Control OSD:92:[Date] Color correction Cy FHASE Control OSD:93:[Date] Color correction Cy FHASE Control					+127	
Solution Solution Solution Selected as the MatriXType setting. In the case of the AW-HE40/AW-HE66/AW-HE70/AW-UE70 In the case of the AW-HE40/AW-HE66/AW-HE70/AW-UE70 In the case of the AW-HE40/AW-HE66/AW-HE70/AW-UE70 In the case of the AW-HE40/AW-HE66/AW-HE70/AW-UE70 In the case of the AW-HE40/AW-HE66/AW-HE70/AW-UE70 In the case of the AW-HE40/AW-HE66/AW-HE70/AW-UE70 Color correction Cy GAIN/ query command OSD:32:[Date] None - Response OSD:32:[Date] In the case of the AW-HE10 - Color correction Cy GAIN/ query command Request QSD:32:[Date] None - In the case of the AW-HE10 - - - Query command QSD:32:[Date] In the case of the AW-HE130 - In the case of the AW-HE40/AW-HE66/AW-HE70/AW-UE70 In the case of the AW-HE40/AW-HE66/AW-HE70/AW-UE70 - In the case of the AW-HE40/AW-HE66/AW-HE70/AW-UE70 - - - Color correction Cy PHASE Control Solution - - - Color correction Cy PHASE Control OSD:33:[Date] In the case of the AW-HE40/AW-HE66/AW-HE70/AW-UE70 - -				41h	-63	Settings cannot be changed if
Color correction Cy GAIN/ Query command Costrol QSD:92:[Data] None				80h ≀	0 2	selected as the MatrixType setting.Setting is possible when User has been selected as the MatrixType
Color correction Cy GAIN/ SATURATION query command Control OSD:92:[Data] None -				In the cas	e of the AW-HE40/A	AW-HE65/AW-HE70/AW-UE70
ResponseOSD:92:[Data]NoneImage: Control Cy GAIN/ SATURATION query commandResponseOSD:92:[Data]In the case of the AW-HE12SATURATION query commandResponseOSD:92:[Data]In the case of the AW-HE130In the case of the AW-HE130Color correction Cy PHASE control commandOSD:93:[Data]Color correction Cy PHASE control commandOSD:93:[Data]In the case of the AW-HE120In the case of the AW-HE120In the case of the AW-HE120In the case of the AW-HE120Color correction Cy PHASE control commandOSD:93:[Data]In the case of the AW-HE120In the case of the case of the AW-HE120In the case of the AW-HE120In the case of the case of the case of the case of the AW-HE120/AW-HE20/AW-HE20/AW-HE20/AW-HE20/AW-HE20/AW-HE20/AW-HE20/AW-HE20/AW-HE				≀ 80h ≀	2 0 2	Normal, EBU or NTSC has been selected as the MatrixType setting.Setting is possible when User has been selected as the MatrixType
$ \begin{array}{ c c c c c } \hline Color correction \\ Cy GAIN/ \\ query command \\ \hline Pequest QSD:92 Data \\ \hline Response \\ SATURATION \\ query command \\ \hline Perturbation \\ query command \\ \hline Perturbation \\ \hline Perturb$		_		-		ootting.
Cy GN/ SATURATION query command Response OSD:92:[Data] In the case of the AW-HE120 Oth -127 80h 0 2 2 80h 0 2 2 1 10h 4 80h 0 1 1 10h -127 1 80h 0 1 1 10h -127 1 1 80h 0 1 1 11 -63 1 1 80h 0 1 1 80h 0 1 1 9Fh +63 1 1 10h -31 1 1 10h -127 Setings cannot be changed if Normal, EBU or NTSC has been solected as the MatrixType setting. 10h -127 Setting is possible when User has been solected as the MatrixType setting. 1 10h -127 Setting is possible when User has been solected as the MatrixType setting. 1 11h -127 Setting is possible when User has been solected as the MatrixType setting. 1 11h				None		
SATURATION 01h -127 query command 01h -127 2 2 80h 2 FFh +127 In the case of the AW-HE130 41h -63 2 2 80h 0 2 2 80h 0 10h -127 11h -63 2 2 80h 0 2 2 9Fh +31 10h -127 30h 2 10h -31 2 2 9Fh +31 10h -127 30h 2 10h -127 10h -127 <td></td> <td></td> <td></td> <td></td> <td>e of the AW-HE120</td> <td></td>					e of the AW-HE120	
Boh 0 ? ? FFh +127 In the case of the AW-HE130 41h -63 ? ? 80h 0 ? ? BFh +63 In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 61h -31 ? ? 80h 0 ? ? 80h 0 ? ? 80h 0 ? ? 80h ? ?	-			-		
$ \begin{array}{c c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array}\\ \\ \end{array}\\ \end{array} \end{array} \\ \\ \begin{array}{c} \begin{array}{c} \\ \end{array} \\ \\ \end{array} \\ \\ \end{array} \\ \\ \end{array} \\ \\ \begin{array}{c} \begin{array}{c} \\ \end{array} \\ \\ \end{array} \\ \\ \end{array} \\ \\ \end{array} \\ \\ \begin{array}{c} \begin{array}{c} \\ \end{array} \\ \\ \end{array} \\ \\ \end{array} \\ \\ \begin{array}{c} \end{array} \\ \\ \end{array} \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \end{array} \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \end{array} \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \\ \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \\ \end{array} \\ \\ \end{array} \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \\ \\ \\ \\ \\ \\ \\ \end{array} \\ \\ \\ \\ \\ \\ \\ \\ \end{array} \\$	query command			•		
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Soh 0 2 3 BFh +63 In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 61h -31 2 30h 80h 0 2 30h 9Fh +31 01h -127 9Fh +31 01h -127 01h 58tings cannot be changed if Normal, EBU or NTSC has been 80h 0 selected as the MatrixType setting. 2 2 FFh +127 In the case of the AW-HE130/AW-HE40/AW-HE65/AW-HE70/AW-UE70 11h -63 80h 0 selected as the MatrixType setting. 11h -63 80h 0 selected as the MatrixType setting. 11h -63 80h 0 selected as the MatrixType setting. 12 11h 80h 0 selected as the MatrixType setting. 13 2 141h -63						
BFh +63 In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 61h -31 2 80h 0 80h 0 2 9Fh +31				•		
Color correction Cy PHASE control command Control OSD:93:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 61h -31 3 3 3 0 SD:93:[Data] In the case of the AW-HE120 In the case of the AW-HE120 01h -127 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 30h 0 • Setting is possible when User has been selected as the MatrixType setting. 1 +127 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 1 +127 • Setting is possible when User has been selected as the MatrixType setting. 1 +127 • Settings cannot be changed if Normal, EBU or NTSC has been setting. 1 +127 • Setting is possible when User has been selected as the MatrixType setting. 1 +127 • Settings cannot be changed if Normal, EBU or NTSC has been setting. 1 +127 • Settings cannot be changed if Normal, EBU or NTSC has been setting. 1 +127 • Setting is possible when User has been selected as the MatrixType setting. 3 +127 • Setting is possible when User has				•		
Color correction Cy PHASE control command Control OSD:93:[Data] In the case of the AW-HE120 01h -127 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 80h 0 • Setting is possible when User has been selected as the MatrixType setting. In the case of the AW-HE130/AW-HE40/AW-HE65/AW-HE70/AW-UE70 41h -63 80h 0 80h 80h 80h 0 80h 0 80h 0 80h 0 <td< td=""><td></td><td></td><td></td><td>BFh</td><td>+63</td><td></td></td<>				BFh	+63	
Color correction Cy PHASE control command Control OSD:93:[Data] In the case of the AW-HE120 01h -127 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 80h 0 • Setting is possible when User has been selected as the MatrixType setting. In the case of the AW-HE130/AW-HE40/AW-HE65/AW-HE70/AW-UE70 41h -63 80h 0 80h 80h 80h 0 80h 0 80h 0 80h 0 <td< td=""><td></td><td></td><td></td><td>In the cas</td><td>e of the AW-HE40/A</td><td>AW-HE65/AW-HE70/AW-UE70</td></td<>				In the cas	e of the AW-HE40/A	AW-HE65/AW-HE70/AW-UE70
Color correction Cy PHASE control command Control OSD:93:[Data] In the case of the AW-HE120 01h -127 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 0 0 • Setting is possible when User has been selected as the MatrixType setting. In the case of the AW-HE130/AW-HE40/AW-HE65/AW-HE70/AW-UE70 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. In the case of the AW-HE130/AW-HE40/AW-HE65/AW-HE70/AW-UE70 • Setting is possible when User has been selected as the MatrixType setting. In the case of the AW-HE130/AW-HE40/AW-HE65/AW-HE70/AW-UE70 • Setting is possible when User has been selected as the MatrixType setting. 80h 0 • Setting is possible when User has been selected as the MatrixType setting.					1	
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Cy PHASE control command 01h -127 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 2 2 2 • Setting is possible when User has been selected as the MatrixType setting. 2 2 • Setting is possible when User has been selected as the MatrixType setting. In the case of the AW-HE130/AW-HE40/AW-HE65/AW-HE70/AW-UE70 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 80h 0 • Setting is possible when User has been selected as the MatrixType setting. 80h 0 • Setting is cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 80h 0 • Setting is possible when User has been selected as the MatrixType setting. 80h 0 • Setting is possible when User has				-		
Cy PHASE control command 01h -127 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 2 2 2 • Setting is possible when User has been selected as the MatrixType setting. 2 2 • Setting is possible when User has been selected as the MatrixType setting. In the case of the AW-HE130/AW-HE40/AW-HE65/AW-HE70/AW-UE70 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 80h 0 • Setting is possible when User has been selected as the MatrixType setting. 80h 0 • Setting is cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 80h 0 • Setting is possible when User has been selected as the MatrixType setting. 80h 0 • Setting is possible when User has		Control		In the ere		
control command 		Control	05D:93:[<i>Data</i>]			
				-		
FFh +127 been selected as the MatrixType setting. In the case of the AW-HE130/AW-HE40/AW-HE65/AW-HE70/AW-UE70 41h -63 • Settings cannot be changed if & Normal, EBU or NTSC has been 80h 0 selected as the MatrixType setting. • Setting is possible when User has					0	
In the case of the AW-HE130/AW-HE40/AW-HE65/AW-HE70/AW-UE70 41h -63 • Settings cannot be changed if ↓ ↓ Normal, EBU or NTSC has been 80h 0 selected as the MatrixType setting. ↓ ↓ • Setting is possible when User has				•	•	
AW-HE130/AW-HE40/AW-HE65/AW-HE70/AW-UE70 41h -63 • Settings cannot be changed if				FFN	+127	
AW-HE130/AW-HE40/AW-HE65/AW-HE70/AW-UE70 41h -63 • Settings cannot be changed if						
41h-63• Settings cannot be changed ifええNormal, EBU or NTSC has been80h0selected as the MatrixType setting.ええ• Setting is possible when User has						E65/AW-HE70/AW-UE70
80h0selected as the MatrixType setting.え2• Setting is possible when User has				41h	-63	Settings cannot be changed if
				•		
setting.						been selected as the MatrixType

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
	Response	OSD:93:[Data]			
Color correction	Request	QSD:93	None		
Cy PHASE	Response	OSD:93:[<i>Data</i>]		e of the AW-HE120	
query command			01h	-127	
			2	2	
			80h	0	
			<u>}</u>	2	
			FFh	+127	
			In the case		65/AW-HE70/AW-UE70
			41h	-63	
			2	~	
			80h	0 O	
			2	ž	
			BFh	+63	
Color correction	Control	OSD:94:[Data]	In the case	e of the AW-HE120	
Cy_B GAIN/	Control	000.34.[Data]	01h	-127	Settings cannot be changed if
SATURATION			2	2	Normal, EBU or NTSC has been
control command			80h	0	selected as the MatrixType setting.
			2	ž	Setting is possible when User has
			FFh	+127	been selected as the MatrixType
					setting.
			In the case	e of the AW-HE130	
			41h	-63	 Settings cannot be changed if
			2	2	Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
			2	2	 Setting is possible when User has
			BFh	+63	been selected as the MatrixType
	_				setting.
	Response	OSD:94:[<i>Data</i>]			□ Only supported by the AW-HE120/
Color correction	Request	QSD:94	None		AW-HE130.
Cy_B GAIN/	Response	OSD:94:[Data]		e of the AW-HE120	
SATURATION			01h	–127	
query command			2	2	
			80h	0	
			2	2	
			FFh	+127	
			In the case	e of the AW-HE130	
			41h	-63	
			2	2	
			80h	0	
			≀ BFh	≀ +63	
Color correction	Control	OSD:95:[<i>Data</i>]		e of the AW-HE120	
Cy_B PHASE	Control		01h	–127	Settings cannot be changed if
control command			2	2	Normal, EBU or NTSC has been
control commund			80h	0	selected as the MatrixType setting.
			2	Ĩ ≀	 Setting is possible when User has
			FFh	+127	been selected as the MatrixType
					setting.
					□ Only supported by the AW-HE120.
			In the case	e of the AW-HE130	· · · · · ·

			Data		
Command name	Category	Command	value	Setting	Remarks
			41h	-63	 Settings cannot be changed if
			2	2	Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
				2	Setting is possible when User has
			BFh	+63	been selected as the MatrixType
	Boononco				setting. Only supported by the AW-HE120/
	Response	OSD:95:[<i>Data</i>]			AW-HE130.
Color correction	Request	QSD:95	None		
Cy_B PHASE	Response	OSD:95:[<i>Data</i>]		e of the AW-HE120	
query command			01h	-127	
			2	2	
			80h	0	
) □□□□	2	
			FFh	+127 e of the AW-HE130	
			41h	–63	
			2	~	
			80h	0	
			2	Ĩ ≀	
			BFh	+63	
Color correction	Control	OSD:96:[Data]	In the cas	e of the AW-HE120	
B GAIN/			01h	-127	 Settings cannot be changed if
SATURATION			2	2	Normal, EBU or NTSC has been
control command			80h	0	selected as the MatrixType setting.
			2	2	Setting is possible when User has
			FFh	+127	been selected as the MatrixType
			1 (1		setting.
			41h	e of the AW-HE130 -63	Settings cannot be changed if
			2	2	Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
			2	ž	 Setting is possible when User has
			BFh	+63	been selected as the MatrixType
					setting.
			In the cas	e of the AW-HE40/A	W-HE65/AW-HE70/AW-UE70
			61h	-31	 Settings cannot be changed if
			2	2	Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
) 05h	2	Setting is possible when User has
			9Fh	+31	been selected as the MatrixType
					setting.
Color correction	Response	OSD:96:[<i>Data</i>] QSD:96	None		
B GAIN/	Request Response	OSD:96:[Data]		e of the AW-HE120	
SATURATION	response		01h	–127	
query command			2	2	
4			80h	0	
			2	2	
			FFh	+127	
			In the cas	e of the AW-HE130	
			41h	-63	
			2	2	
			80h	0	
)	
			BFh	+63	
			In the cas	e of the AVV-HE40/A	W-HE65/AW-HE70/AW-UE70

	1	ſ			
Command name	Category	Command	Data value	Setting	Remarks
			61h	-31	
			2	2	
			80h ≀	0	
			9Fh	+31	
Color correction	Control	OSD:97:[Data]		e of the AW-HE120	
B PHASE	Control	CCD.cr.[Data]	01h	-127	Settings cannot be changed if
control command			2	2	Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
			<u>}</u>	2	Setting is possible when User has
			FFh	+127	been selected as the MatrixType
					setting.
			In the cos	a of the	
			In the cas		E65/AW-HE70/AW-UE70
			41h	-63	Settings cannot be changed if
			2	2	Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
			2	2	Setting is possible when User has
			BFh	+63	been selected as the MatrixType
	Response	OSD:97:[Data]	-		setting.
	Пезропзе	000.37.[Data]			
Color correction	Request	QSD:97	None		
B PHASE	Response	OSD:97:[Data]		e of the AW-HE120	
query command			01h	-127	
			2	2	
			80h	0	
			≀ FFh	≀ +127	
			In the cas		
					E65/AW-HE70/AW-UE70
			41h	-63	
			≀ 80h	≥	
			2	Ĩ≀	
			BFh	+63	
Color correction	Control	OSD:80:[Data]	In the cas	e of the AW-HE120	
B_Mg GAIN/			01h	-127	 Settings cannot be changed if
SATURATION			2	2	Normal, EBU or NTSC has been
control command			80h ≀	0	selected as the MatrixType setting.Setting is possible when User has
			FFh	+127	been selected as the MatrixType
				1121	setting.
			In the case	e of the AW-HE130	
			41h	-63	Settings cannot be changed if
			≥	2	Normal, EBU or NTSC has been
			80h ≀	0	selected as the MatrixType setting.Setting is possible when User has
			BFh	+63	 Setting is possible when User has been selected as the MatrixType
					setting.
	Response	OSD:80:[Data]	1		Only supported by the
		000 55			AW-HE120/AW-HE130.
Color correction	Request	QSD:80	None		
B_Mg GAIN/ SATURATION	Response	OSD:80:[<i>Data</i>]	In the cas	e of the AW-HE120 -127	
query command			۱۳ ۲	2	
			80h	0	
B		•	-	•	•

Command name	Category	Command	Data value	Setting	Remarks
			2	2	
			FFh	+127	
			In the case	e of the AW-HE130 -63	
			2	2	
			80h	0	
			≀ BFh	≀ +63	
Color correction	Control	OSD:81:[<i>Data</i>]		e of the AW-HE120	
B_Mg PHASE	Control	000.01.[Data]	01h	-127	Settings cannot be changed if
control command			2	2	Normal, EBU or NTSC has been
			80h ≹	0	selected as the MatrixType setting.
			FFh	+127	 Setting is possible when User has been selected as the MatrixType
					setting.
					□ Only supported by the AW-HE120.
			In the case	e of the AW-HE130 -63	Settings cannot be changed if
			2	_03	Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
			≀ BFh	≀ +63	 Setting is possible when User has been selected as the MatrixType
			DFII	+03	setting.
	Response	OSD:81:[Data]	-		□ Only supported by the
					AW-HE120/AW-HE130.
Color correction	Request	QSD:81	None		
B_Mg PHASE	Response	OSD:81:[<i>Data</i>]		e of the AW-HE120	
query command			01h ≹	_127 ≹	
			80h	0	
			2	2	
			FFh	+127	
			In the case	e of the AW-HE130	
			41h	-63	
			2	2	
			80h ≹	0	
			BFh	+63	
Color correction	Control	OSD:82:[Data]		e of the AW-HE120	
Mg GAIN/ SATURATION			01h ≹	_127 _}	 Settings cannot be changed if Normal, EBU or NTSC has been
control command			80h	0	selected as the MatrixType setting.
			2	2	 Setting is possible when User has
			FFh	+127	been selected as the MatrixType
			In the case	Le of the AW-HE130	setting.
			41h	-63	Settings cannot be changed if
			∂	2	Normal, EBU or NTSC has been
			80h ≹	0	selected as the MatrixType setting.Setting is possible when User has
			BFh	+63	been selected as the MatrixType
			la the		setting.
			In the case 61h	e of the AW-HE40// 31	AW-HE65/AW-HE70/AW-UE70 • Settings cannot be changed if
			2	2	Normal, EBU or NTSC has been
			80h		selected as the MatrixType setting.

	[
Command name	Category	Command	Data value	Setting	Remarks
			2	0	 Setting is possible when User has
			9Fh	2	been selected as the MatrixType
				+31	setting.
	Response	OSD:82:[Data]			
Color correction	Request	QSD:82	None		
Mg GAIN/	Response	OSD:82:[<i>Data</i>]		e of the AW-HE120	
SATURATION			01h	-127	
query command			2	2	
			80h	0	
			<u>}</u>	2	
			FFh	+127	
			In the case	e of the AW-HE130	
			41h	-63	
			2	ž	
			80h	0	
			2	2	
			BFh	+63	
			In the case		AW-HE65/AW-HE70/AW-UE70
			61h	-31	
			2	2	
			80h	0	
			2	2	
			9Fh	+31	
Color correction	Control	OSD:83:[Data]	In the eee	e of the AW-HE120	
Mg PHASE	Control	03D.03.[<i>Data</i>]	01h	–127	Settings cannot be changed if
control command			2	\mathbf{z}	Normal, EBU or NTSC has been
control communa			80h	0	selected as the MatrixType setting.
			2	ĭ2	 Setting is possible when User has
			FFh	+127	been selected as the MatrixType
					setting.
			In the case	e of the	
					E65/AW-HE70/AW-UE70
			41h	-63	 Settings cannot be changed if
			2	2	Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
			2	2	Setting is possible when User has
			BFh	+63	been selected as the MatrixType
					setting.
	Response	OSD:83:[<i>Data</i>]	-		Only supported by the
					AW-HE120/AW-HE130.
Color correction	Request	QSD:83	None		
Mg PHASE	Response	OSD:83:[Data]		e of the AW-HE120	
query command			01h	-127	
			2	2	
			80h	0	
			≀ FFh	} +127	
			In the case		E65/AW-HE70/AW-UE70
			41h	–63	
			2	~03	
			80h	o	
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Interface Specifications

Command name	Category	Command	Data	Setting	Remarks
			BFh	+63	
Color correction	Control	OSD:84:[Data]		e of the AW-HE120	
Mg_R GAIN/ SATURATION control command			01h え 80h え FFh	-127	 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting
					setting.
			In the cas	Le of the AW-HE130	
			41h	-63	Settings cannot be changed if
			2	2	Normal, EBU or NTSC has been
			80h ≀	0	selected as the MatrixType setting.
			BFh	+63	 Setting is possible when User has been selected as the MatrixType
					setting.
					AW-HE65/AW-HE70/AW-UE70
			61h	–31	Settings cannot be changed if
			2	2	Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
			} 9Fh	} +31	• Setting is possible when User has
			3111	+31	been selected as the MatrixType setting.
	Response	OSD:84:[<i>Data</i>]	-		
Color correction	Request	QSD:84	None		
Mg_R GAIN/	Response	OSD:84:[Data]		e of the AW-HE120	
SATURATION query command			01h ♪	-127	
query command			80h	≀	
			2	2	
			FFh	+127	
			In the eee	e of the AW-HE130	
			41h	–63	
			2	2	
			80h	0	
			≀ BFh	≀ +63	
			In the cas	e of the AW-HE40/	AW-HE65/AW-HE70/AW-UE70
			61h	-31	
			≹ 80h	2 0	
			2	2	
			9Fh	+31	
Color correction	Control	OSD:85:[<i>Data</i>]	In the cas	e of the AW-HE120	
Mg_R PHASE			01h	-127	Settings cannot be changed if
control command			₹	2	Normal, EBU or NTSC has been
			80h ≀	0	selected as the MatrixType setting.Setting is possible when User has
			FFh	+127	been selected as the MatrixType
			In the cas	e of the	setting.
					E65/AW-HE70/AW-UE70

Command name Category Command Value value Setting Remarks Image: state of the stat				Data		
ki ki<	Command name	Category	Command		Setting	Remarks
Color correction Mg. R PHASE query command Request Response QSD:35[Date] OSD:35[Date] None In the case of the AW-HE120 01h				≀ 80h ≀	2 0 2	Normal, EBU or NTSC has been selected as the MatrixType setting.Setting is possible when User has been selected as the MatrixType
Mg, R. PHASE query command Response OSD:85:[Data] In the case of the AW-HE120 01h -127 80h 0 1 80h 0 2 80h 0 2 80h 0 2 80h 0 2 1 the case of the AW-HE130/AW-HE60/AW-HE70/AW-UE70 1 1 1 the case of the AW-HE130/AW-HE60/AW-HE70/AW-UE70 1 41h -63 Color correction ontrol command Control OSD:9A:[Data] In the case of the AW-HE130 • Settings cannot be changed if XaTURATION control command Response OSD:9A:[Data] In the case of the AW-HE130 • Settings cannot be changed if Response OSD:9A:[Data] In the case of the AW-HE130 • Setting is possible when User has been selected as the MatrixType setting. Response OSD:9A:[Data] In the case of the AW-HE130 • Origonal (BU or NTSC has been setting. Color correction Mg, R, R PHASE control command Request QSD:9A None • Origonal (BU or NTSC has been setting. Color correction Mg, R, R PHASE control command Control OSD:9B:[Data] In the case of the AW-HE130 • Settings cannot be changed		Response				
query command 01h -127 80h 0 2 2 2 80h 0 2 2 2 FF.h +127 In the case of the						
Color correction Mg_R_R GAIN/ SATURATION control command Control Color correction Mg_R_R GAIN/ SATURATION Control Color SD:9A:[Data] In the case of the AW-HE130 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Response OSD:9A:[Data] In the case of the AW-HE130 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Color correction Mg_R_R PHASE control command Reguest QSD:9A.[Data] None		Response	OSD:85:[<i>Data</i>]	01h	-127 え 0 え +127	
Color correction Mg.R.R.GAIN/ SATURATION control command Control OSD:9A:[Data] In the case of the AW-HE130 4'th -63 80h Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatriXType setting. 2 k Response OSD:9A:[Data] * * * Response OSD:9A:[Data] * * * Color correction Mg.R.R PHASE control command Request QSD:9A.[Data] None - Color correction Mg.R.R PHASE control command Request QSD:9A.[Data] In the case of the AW-HE130 - Color correction Mg.R.R PHASE control command Control OSD:9A:[Data] In the case of the AW-HE130 - Color correction Mg.R.R PHASE control command Control OSD:9B:[Data] In the case of the AW-HE130 None Color correction Mg.R_R PHASE control command Control OSD:9B:[Data] In the case of the AW-HE130 None Color correction Mg.R_R PHASE query command Control OSD:9B:[Data] In the case of the AW-HE130 None Response OSD:9B:[Data] In the case of the AW-HE130 None None Response OSD:9B:[Data] In the case of the AW-HE130 None None Color correction Mg.R_R PHASE query command OSD:9B:[Data] In the case of the AW-HE130 None Mg.R_R						E65/AW-HE70/AW-UE70
Mg_R_R GAIN/ SATURATION control command 41h -63 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting, Response OSD:9A:[Date] BFh +63 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting, Color correction Mg_R_R PHASE control command Request QSD:9A None - Mg_R_R PHASE control command Response OSD:9A:[Date] In the case of the AW-HE130 - Color correction Mg_R_R PHASE control command Control OSD:9B:[Data] In the case of the AW-HE130 - Color correction Mg_R_R PHASE control command Control OSD:9B:[Data] In the case of the AW-HE130 - Color correction Mg_R_R PHASE control command Control OSD:9B:[Data] In the case of the AW-HE130 - Color correction Mg_R_R PHASE control command Control OSD:9B:[Data] In the case of the AW-HE130 - Response OSD:9B:[Data] In the case of the AW-HE130 - - Response OSD:9B:[Data] In the case of the AW-HE130 - - Response OSD:9B:[Data] In the case of the AW-HE130 - - Mg_R_R PHASE que				41h え 80h え	-63	
SATURATION control command control command 		Control	OSD:9A:[Data]		e of the AW-HE130	
Response OSD:9A:[Data] Image: Control convertion Request QSD:9A None Mg_R_R PHASE control command Response OSD:9A:[Data] In the case of the AW-HE130 Image: Control command Image	SATURATION			≀ 80h ≀	2 0 2	Normal, EBU or NTSC has been selected as the MatrixType setting.Setting is possible when User has been selected as the MatrixType
Mg_R_R PHASE control command Response OSD:9A:[Data] In the case of the AW-HE130 Color correction Mg_R_R PHASE control command Control OSD:9B:[Data] In the case of the AW-HE130 Color correction Mg_R_R PHASE control command Control OSD:9B:[Data] In the case of the AW-HE130 Response Cost:9B:[Data] In the case of the AW-HE130 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Response OSD:9B:[Data] In the case of the AW-HE130 Response OSD:9B:[Data] • Setting is possible when User has been selected as the MatrixType setting. Response OSD:9B:[Data] In the case of the AW-HE130 Color correction Mg_R_R PHASE query command QSD:9B None In the case of the AW-HE130 In the case of the AW-HE130 Color correction Response OSD:9B:[Data] In the case of the AW-HE130 11h -63 2 80h BFh +63 Color correction Control OSD:A:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70		Response	OSD:9A:[Data]	_		Only supported by the
control command 41h -63 2 80h 0 80h 0 2 BFh +63 -63 Mg_R_R PHASE control command Control OSD:9B:[Data] In the case of the AW-HE130 Mg_R_R PHASE control command Control OSD:9B:[Data] In the case of the AW-HE130 Response OSD:9B:[Data] 80h 0 selected as the MatrixType setting. Response OSD:9B:[Data] -63 Setting is possible when User has been selected as the MatrixType setting. Response OSD:9B:[Data] -63 Setting is possible when User has been selected as the MatrixType setting. Mg_R_R PHASE query command OSD:9B:[Data] In the case of the AW-HE130 Mg_R_R PHASE query command OSD:9B:[Data] In the case of the AW-HE130 Golor correction Response OSD:9B:[Data] 1n the case of the AW-HE130 Golor correction Response OSD:9B:[Data] 41h -63 & labeh labeh labeh labeh Golor correction Response OSD:9A:[Data] 1n the case of the AW-HE10/W-HE65/AW-HE70/AW-UE70 Color correction						
Mg_R_R PHASE control command 41h -63 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 80h 0 ? ? ? 80h 1 ? ? ? 80h 0 ? ? ? 0 Only supported by the AW-HE130 ? ? 0 Response OSD:9B:[Data] In the case of the AW-HE130 1 1 1 ? ? 80h 0 ? ? ?	u = -	Response	OSD:9A:[<i>Data</i>]	41h え 80h え	-63	
control command ¹ / ₂	Color correction	Control	OSD:9B:[Data]	In the cas	e of the AW-HE130	
Color correction Request QSD:9B None AW-HE130. Mg_R_R PHASE Response OSD:9B:[Data] In the case of the AW-HE130 41h -63 query command AW-HE130 AW-HE130 41h -63 2 2 80h 0 2 2 80h 0 2 2 BFh +63 +63 -63 2 2 2 Color correction Control OSD:AA:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70				≀ 80h ≀	2 0 2	Normal, EBU or NTSC has been selected as the MatrixType setting.Setting is possible when User has been selected as the MatrixType
Mg_R_R PHASE query command Response OSD:9B:[Data] In the case of the AW-HE130 41h -63 2 2 80h 0 2 2 BFh +63 Color correction Control OSD:AA:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70		Response	OSD:9B:[Data]	-		
query command 41h -63 2 2 80h 0 2 2 BFh +63 Color correction Control OSD:AA:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70						
		Response	OSD:9B:[<i>Data</i>]	41h え 80h え	-63	
	Color correction	Control	OSD:AA:[Data]		r	

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Command name	Category	Command	Data value	Setting	Remarks
Cy_Cy_B GAIN/ SATURATION control command			≀ 80h ≀ 9Fh	≷ 0 ≷ +31	 Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:AA:[Data]	-		
Color correction	Request	QSD:AA	None		
Cy_Cy_B GAIN/	Response	OSD:AA:[Data]		e of the AW-HE40/A	AW-HE65/AW-HE70/AW-UE70
SATURATION		••••	61h	-31	
query command			2	2	
			80h	0	
			2	2	
			9Fh	+31	
Color correction	Control	OSD:AB:[Data]	In the case	e of the AW-HE40/A	AW-HE65/AW-HE70/AW-UE70
Cy_Cy_B PHASE			41h	-63	 Settings cannot be changed if
control command			2	2	Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
			2	2	 Setting is possible when User has
			BFh	+63	been selected as the MatrixType
					setting.
	Response	OSD:AB:[Data]			
Color correction	Request	QSD:AB	None		
Cy_Cy_B PHASE	Response	OSD:AB:[Data]	In the cas	e of the AW-HE40/A	AW-HE65/AW-HE70/AW-UE70
query command			41h	-63	
			2	2	
			80h	0	
			2	2	
			BFh	+63	
Color correction	Control	OSD:AC:[Data]			AW-HE65/AW-HE70/AW-UE70
Cy_B_B GAIN/ SATURATION			61h ≀	-31	 Settings cannot be changed if Normal, EBU or NTSC has been
control command			80h	{ 0	selected as the MatrixType setting.
control command			2	د ۲	 Setting is possible when User has
			9Fh	+31	been selected as the MatrixType
					setting.
	Response	OSD:AC:[Data]			ootting.
Color correction	Request	QSD:AC	None		
Cy_B_B GAIN/	Response	OSD:AC:[Data]		e of the AW-HE40/A	AW-HE65/AW-HE70/AW-UE70
SATURATION			61h	-31	
query command			2	2	
			80h	0	
			2	2	
			9Fh	+31	
Color correction	Control	OSD:AD:[Data]		-	AW-HE65/AW-HE70/AW-UE70
Cy_B_B PHASE			41h	-63	Settings cannot be changed if
control command			≹ 80h	{ 0	Normal, EBU or NTSC has been selected as the MatrixType setting.
			2	2	 Setting is possible when User has
			BFh	+63	been selected as the MatrixType
					setting.
					ootanig.
	Doctorer		-		<u> </u>
	Response	OSD:AD:[<i>Data</i>] QSD:AD	None		
Color correction Cy_B_B PHASE	Request Response	OSD:AD OSD:AD:[Data]		P of the $\Delta M_{-}HE AO//$	L AW-HE65/AW-HE70/AW-UE70
query command	response		41h	-63	
guory command	I	I	_ · · · ·		1

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Command name	Category	Command	Data value	Setting	Remarks
			≀ 80h	₹ 0	
			2	ž	
			BFh	+63	
Color correction	Control	OSD:C0:[Data]	In the case	e of the AW-HE40/A	AW-HE65/AW-HE70/AW-UE70
B_B_Mg GAIN/			61h	-31	Settings cannot be changed if
SATURATION control command			≀ 80h	{ 0	Normal, EBU or NTSC has been selected as the MatrixType setting.
control command			2	2	 Setting is possible when User has
			9Fh	+31	been selected as the MatrixType
					setting.
	Response	OSD:C0:[Data]			
Color correction	Request	QSD:C0	None		
B_B_Mg GAIN/ SATURATION	Response	OSD:C0:[Data]			AW-HE65/AW-HE70/AW-UE70
query command			61h ≀	_31 ≹	
query command			80h	0	
			2	2	
			9Fh	+31	
Color correction	Control	OSD:C1:[Data]	In the cas 41h	e of the AW-HE40// 63	AW-HE65/AW-HE70/AW-UE70 • Settings cannot be changed if
B_B_Mg PHASE control command			2	~	Normal, EBU or NTSC has been
control command			80h	0	selected as the MatrixType setting.
			2	2	 Setting is possible when User has
			BFh	+63	been selected as the MatrixType
					setting.
	_		4		
Color correction	Response Request	OSD:C1:[Data] QSD:C1	None		
B_B_Mg PHASE	Response	OSD:C1:[Data]		e of the AW-HE40/A	AW-HE65/AW-HE70/AW-UE70
query command	reception	••••••	41h	-63	
			2	2	
			80h	0	
Color correction	Control	OSD:C2:[Data]			AW-HE65/AW-HE70/AW-UE70
B_Mg_Mg GAIN/			61h	-31	Settings cannot be changed if
SATURATION			2	2	Normal, EBU or NTSC has been
control command			80h ≀	0	selected as the MatrixType setting.Setting is possible when User has
			9Fh	+31	been selected as the MatrixType
					setting.
					5
	Response	OSD:C2:[Data]	1		
Color correction	Request	QSD:C2	None		
B_Mg_Mg GAIN/	Response	OSD:C2:[Data]			AW-HE65/AW-HE70/AW-UE70
SATURATION query command			61h ≀	-31	
quory command			80h	2 0	
			2	2	
			9Fh	+31	
Color correction	Control	OSD:C3:[Data]			AW-HE65/AW-HE70/AW-UE70
B_Mg_Mg PHASE			41h ≀	-63	 Settings cannot be changed if Normal, EBU or NTSC has been
			((Normal, EDU ULINT SC HAS DEEN

Command name Category Command Value value Setting Remarks control command Response 80h 0 selected as the MatrixType setting. color correction Response OSD:C3:[Date] None setting is possible when User has been selected as the MatrixType Color correction Response OSD:C3:[Date] None - Mg Mg PHAKE query command Response OSD:C3:[Date] None - Query command Color correction Response OSD:C4:[Date] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Y H G GAIN/ SATURATION control command Control OSD:C4:[Date] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Y H G GAIN/ SATURATION query command Response OSD:C4:[Date] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Y H G GAIN/ SATURATION query command Response OSD:C4:[Date] None - Color correction Y L G GAIN/ SATURATION query command Control OSD:C5:[Date] None - Color correction Y L G GAIN/ SATURATION query command Control OSD:C5:[Date] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70		[[Data		
	Command name	Category	Command	Data value		
BFh +63 been selected as the MatrixType setting. Color correction Response QSD:C3:[Date] None	control command					
Response OSD:C3:[Data] None setting. SM_M_QPHARASE Response OSD:C3:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Query command Color correction Response OSD:C3:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction Control OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction Control OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction Control OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction Control OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction Response OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction Response OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction Control OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 V_1_L_G PHASE Control OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 V_1_L_G PHASE Color correction Color correction C				-		
Response OSD:C3:[Data] None Color correction B.Mg. Mg PHASE query command Request OSD:C3:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YL_G GAINY SATURATION control command Control OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YL_G GAINY SATURATION control command Control OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YL_G GAINY SATURATION control command Control OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YL_G GAINY SATURATION query command OSD:C4:[Data] None In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YL_G PHASE control command OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YL_G PHASE control command Control OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YL_G GAIN/ SATURATION control command Control OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YL_G GAIN/ SATURATION control command Control OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YL_G GA				BFh	+63	been selected as the MatrixType
Color correction B Mg Mg PHASE query command Request Response OSD:C3:[Date] None						setting.
Color correction B Mg Mg PHASE query command Request Response OSD:C3:[Date] OSD:C3:[Date] None						
B. Mg, Mg PHASE query command Response OSD:C3:[Date] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YL_G GAIN' Control OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YL_G GAIN' Control OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YL_G GAIN' Response OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YL_G GAIN' SATURATION query command Response OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YL_G GAIN' SATURATION query command Response OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YL_YL_G PHASE control command Control OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YL_YL_G PHASE control command Control OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Response OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 VL_YL_G PHASE control command OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Response OSD:C5:[Data]		Response	OSD:C3:[Data]			
query command 41h -63 30h 0 20 concorrection VL/YLG GAINV BFh +63 - Color correction VL/YLG GAINV OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 SATURATION Response OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction Response OSD:C4:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 YL/YL G GAINV Response OSD:C4:[Data] None - YL/YL G GAINV Response OSD:C4:[Data] None - YL/YL G GAINV Response OSD:C4:[Data] None - YL/YL G PHASE Control OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 YL/YL G PHASE Control OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 YL/YL G PHASE Control OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 YL/YL G PHASE Response OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 YL/YL G PHASE Color correction Request </td <td>Color correction</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Color correction					
Color correction YI_YI_G GAINV Control Gain Control QSD:C4:[Date] In the case of the AW-HE40/AW-HE55/AW-HE70/AW-UE70 Response OSD:C4:[Date] In the case of the AW-HE40/AW-HE55/AW-HE70/AW-UE70 Normal, EBU or NTSC has been selected as the MatrixType setting. Color correction control command Response OSD:C4:[Date] In the case of the AW-HE40/AW-HE55/AW-HE70/AW-UE70 Color correction YI_YI_G GAINV SATURATION query command Response OSD:C4:[Date] None Color correction YI_YI_G GAINV SATURATION query command Control OSD:C4:[Date] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YI_G GAINV X_IY_G PHASE control command Control OSD:C5:[Date] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_YI_G PHASE control command Control OSD:C5:[Date] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Response OSD:C5:[Date] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 41h -63 Response OSD:C5:[Date] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 50D:C5:[Date] * Setting is possible when User has been selected as the MatrixType setting. Color correction YI_YI_G PHASE color correction YI_YI_G FHASE Response OSD:C5:[Date] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70		Response	OSD:C3:[Data]	1	1	W-HE65/AW-HE70/AW-UE70
Boh 0	query command					
Color correction YL_YL G GAIW SATURATION control command Control V Provide Color correction YL YL G GAIW SATURATION control command Control Color Correction YL YL G GAIW SATURATION control command Control Provide Color correction YL YL G GAIW SATURATION query command Control Color Correction YL YL G GAIW SATURATION query command Control Color Correction YL YL G GAIW SATURATION control command Control Response Color Correction YL YL G GAIW SATURATION query command Control Response Control Control Control Control Control Control command Control Color Correction YL YL G CAINU QUERY CONTROL CONTR						
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YI_YI_G PHASE control command 41h -63 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Color correction YI_YI_G PHASE query command Response OSD:C5:[Data] • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Color correction YI_YI_G PHASE query command Request QSD:C5 None • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Color correction YI_G_G G GAIN/ SATURATION Response OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_G_G G GAIN/ SATURATION Control OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 YI_G_G G GAIN/ SATURATION Control OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 • Setting is possible when User has been selected as the MatrixType setting. PFh +31 · Setting is possible when User has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting. Color correction YI_G_G G AIN/ SATURATION Response OSD:C6:[Data] In the case	Color correction	Control		-		
control command ↓ ↓ ↓ Normal, EBU or NTSC has been selected as the MatrixType setting. ℓ ↓ <		Control	000.00.[Data]		1	
Response OSD:C5:[Data] None Seting is possible when User has been selected as the MatrixType setting. Color correction Request QSD:C5 None In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Y_Y_G P HASE Response OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 query command Response OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Y_Y_G G PHASE OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Query command OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Y_G_G G AIN/ Control OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Y_G_G G AIN/ Control OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Y_G_G G AIN/ Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction Request QSD:C6 None Y_G_G G AIN/ Response						
ResponseOSD:C5:[Data]BFh+63been selected as the MatrixType setting.Color correction YI_YI_G PHASE query commandRequestQSD:C5None				80h	0	
Response OSD:C5:[Data] None setting. Color correction YI_YI_G PHASE query command Request QSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 YI_YI_G PHASE query command Response OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 YI_YI_G G AIN/ SATURATION control command Control OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 YI_G_G G AIN/ SATURATION control command Control OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Z 3 3 Setting is possible when User has been selected as the MatrixType setting. YI_G_G G AIN/ SATURATION Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_G_G G AIN/ SATURATION Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 SATURATION Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70				2	2	 Setting is possible when User has
Response OSD:C5:[Data] Color correction YI_YI_G PHASE query command Request QSD:C5 None Response OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Query command OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Query command OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_G_G G GAIN/ SATURATION control command Control OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Normal, EBU or NTSC has been selected as the MatrixType setting. VI_G_G GAIN/ SATURATION Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_G_G G GAIN/ SATURATION Request QSD:C6 None Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 YI_G_G G GAIN/ SATURATION Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70				BFh	+63	been selected as the MatrixType
Color correction YI_YL_G PHASE query command Request Response QSD:C5: [Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 41h -63 2 2 80h 0 2 2 BFh +63 -63 Color correction YI_G_G G AIN/ SATURATION control command Control OSD:C6: [Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Mathematical Control Control OSD:C6: [Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 61h -31 • Settings cannot be changed if Normal, EBU or NTSC has been 80h • Settings cannot be changed if Normal, EBU or NTSC has been 80h • Setting is possible when User has been selected as the MatrixType setting. PFh +31 • Setting is possible when User has been selected as the MatrixType setting. Color correction YI_G_G G AIN/ SATURATION Request QSD:C6 None Response OSD:C6: [Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70						setting.
YI_YI_G PHASE query command Response OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 YI_YI_G PHASE query command Response OSD:C5:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_G_G GAIN/ SATURATION control command Control OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 61h -31 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting. Color correction YI_G_G GAIN/ SATURATION Request QSD:C6 None Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Color correction YI_G_G GAIN/ SATURATION Response OSD:C6:[Data]						
query command 41h -63 Query command 41h -63 Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 YL_G_G G GAIN/ SATURATION control command Control OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Response OSD:C6:[Data] • Setting is possible when User has been selected as the MatrixType setting. Color correction YL_G_G G GAIN/ SATURATION Request QSD:C6 Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 61h -31 -31		•				
Color correction Control OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 YL_G_G GAIN/ SATURATION control command Control OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting. Color correction YL_G_G GAIN/ SATURATION Request QSD:C6 None - Color correction YL_G_G GAIN/ SATURATION Request QSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 61h -31 -		Response	USD:C5:[Data]		1	10/10/10/10/10/10/10/10/10/10/10/10/10/1
Color correction YL_G_G GAIN/ SATURATION control commandControlOSD:C6:[Data] OSD:C6:[Data]In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE7061h 2 61h-31 2 3• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 2 9Fh• Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.Color correction YL_G_G GAIN/ SATURATIONRequestQSD:C6:[Data] QSD:C6:[Data]In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 61hColor correction YL_G_G GAIN/ SATURATIONResponseQSD:C6:[Data] OSD:C6:[Data]In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 61h	query command					
Image: constraint of the sector correction YI_G_G G AIN/ SATURATION control commandControlOSD:C6:[Data]In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE7061h 2 80h 9Fh-31 2 3 3 9Fh-31 2 3 3 3 4 3 4 3 4 3 4 3 4 3 4 3 4 4 4 3-Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 4 3 4 4 3 4 3 4 3 4						
Color correction YI_G_G GAIN/ SATURATION control command Control OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 61h -31 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. 0 * * • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. Response OSD:C6:[Data] ************************************						
YI_G_G G GAIN/ SATURATION control command -31 -31 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting. Response OSD:C6:[Data] -31 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting. Color correction YI_G_G G AIN/ SATURATION Request QSD:C6 None Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70				BFh	+63	
SATURATION control command A B B Color correction Y Response QSD:C6:[Data] Normal, EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Setting. Color correction Request QSD:C6:[Data] None In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 YI_G_G G AIN/ SATURATION Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70	Color correction	Control	OSD:C6:[Data]	In the cas	e of the AW-HE40/A	W-HE65/AW-HE70/AW-UE70
control command 80h 0 selected as the MatrixType setting. ? ? ? ? PFh PFh ? ? Response OSD:C6:[Data] . . Color correction Request QSD:C6 None YI_G_G G AIN/ Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 SATURATION 0 -31 -31				-	-31	
Color correction Request QSD:C6:[Data] None - YI_G_G GAIN/ Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 SATURATION OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70						
Color correction YI_G_G GAIN/ SATURATION Request QSD:C6:[Data] 9Fh +31 been selected as the MatrixType setting. Provide Request QSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70	control command				-	
Response OSD:C6:[Data] None YI_G_G GAIN/ SATURATION Response OSD:C6:[Data]						÷ .
Response OSD:C6:[Data] Color correction YI_G_G GAIN/ SATURATION Request QSD:C6 None In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 61h -31				3111	+31	
Color correction Request QSD:C6 None YI_G_G GAIN/ Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 SATURATION 61h -31		Posparas		-		setting.
YI_G_G GAIN/ SATURATION Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 61h -31		response				
YI_G_G GAIN/ Response OSD:C6:[Data] In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70 SATURATION 61h -31	Color correction	Request	QSD:C6	None		
			OSD:C6:[Data]	In the cas	e of the AW-HE40/A	W-HE65/AW-HE70/AW-UE70
query command					-31	
	query command			2	2	

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
			80h	0	
			2	2	
			9Fh	+31	
Color correction	Control	OSD:C7:[Data]	In the case	e of the AW-HE40/A	AW-HE65/AW-HE70/AW-UE70
YI_G_G PHASE			41h	-63	 Settings cannot be changed if
control command			2	2	Normal, EBU or NTSC has been
			80h	0	selected as the MatrixType setting.
			2	2	 Setting is possible when User has
			BFh	+63	been selected as the MatrixType
					setting.
	Response	OSD:C7:[Data]			
Color correction	Request	QSD:C7	None		
YI_G_G PHASE	Response	OSD:C7:[Data]	In the case	e of the AW-HE40/A	AW-HE65/AW-HE70/AW-UE70
query command			41h	-63	
			2	2	
			80h	0	
			2	2	
			BFh	+63	

Example of use) •Color matrix: User [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:31:3&res=1 [Response] AW-HE120 → PC 200 OK "OSE:31:3"

Linear matrix R-G: +31
 [Control] PC → AW-HE120
 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:2F:3E&res=1

 [Response] AW-HE120 → PC
 200 OK "OSD:2F:3E"

Linear matrix R-B: +31
 [Control] PC → AW-HE120
 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:30:3E&res=1

 [Response] AW-HE120 → PC
 200 OK "OSD:30:3E"

Linear matrix G-R: +31
 [Control] PC → AW-HE120
 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:31:3E&res=1

 [Response] AW-HE120 → PC
 200 OK "OSD:31:3E"

Linear matrix G-B: +31
 [Control] PC → AW-HE120
 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:32:3E&res=1

 [Response] AW-HE120 → PC
 200 OK "OSD:32:3E"

 Linear matrix B-R: +31
 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:33:3E&res=1
 [Response] AW-HE120 → PC 200 OK "OSD:33:3E"

•Linear matrix B-G: +31 **[Control]** PC \rightarrow AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:34:3E&res=1 **[Response]** AW-HE120 \rightarrow PC 200 OK "OSD:34:3E"

 Color correction R GAIN/SATURATION: +127
 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:86:FF&res=1
 [Response] AW-HE120 → PC 200 OK "OSD:86:FF"

 Color correction R PHASE: +127
 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:87:FF&res=1
 [Response] AW-HE120 → PC 200 OK "OSD:87:FF"

 Color correction R_YI GAIN/SATURATION: +127
 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:88:FF&res=1
 [Response] AW-HE120 → PC 200 OK "OSD:88:FF"

 Color correction R_YI PHASE: +127
 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:89:FF&res=1
 [Response] AW-HE120 → PC 200 OK "OSD:89:FF"

 Color correction YI GAIN/SATURATION: +127
 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:8A:FF&res=1
 [Response] AW-HE120 → PC 200 OK "OSD:8A:FF"

 Color correction YI PHASE: +127
 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:8B:FF&res=1
 [Response] AW-HE120 → PC 200 OK "OSD:8B:FF"

 Color correction YI_G GAIN/SATURATION: +127
 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:8C:FF&res=1
 [Response] AW-HE120 → PC 200 OK "OSD:8C:FF"

 Color correction YI G PHASE: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:8D:FF&res=1 [Response] AW-HE120 → PC 200 OK "OSD:8D:FF" Color correction G GAIN/SATURATION: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:8E:FF&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "OSD:8E:FF" Color correction G PHASE: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw cam?cmd=OSD:8F:FF&res=1 [Response] AW-HE120 → PC 200 OK "OSD:8F:FF" Color correction G_Cy GAIN/SATURATION: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:90:FF&res=1 [Response] AW-HE120 → PC 200 OK "OSD:90:FF" Color correction G_Cy PHASE: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:91:FF&res=1 [Response] AW-HE120 → PC 200 OK "OSD:91:FF" Color correction Cy GAIN/SATURATION: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:92:FF&res=1 [Response] AW-HE120 → PC 200 OK "OSD:92:FF" Color correction Cy PHASE: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw cam?cmd=OSD:93:FF&res=1 [Response] AW-HE120 → PC 200 OK "OSD:93:FF" Color correction Cy B GAIN/SATURATION: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:94:FF&res=1 [Response] AW-HE120 → PC 200 OK "OSD:94:FF"

 Color correction Cy_B PHASE: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:95:FF&res=1 [Response] AW-HE120 → PC 200 OK "OSD:95:FF" Color correction B GAIN/SATURATION: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:96:FF&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "OSD:96:FF" Color correction B PHASE: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw cam?cmd=OSD:97:FF&res=1 [Response] AW-HE120 → PC 200 OK "OSD:97:FF" Color correction B_Mg GAIN/SATURATION: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:80:FF&res=1 [Response] AW-HE120 → PC 200 OK "OSD:80:FF" Color correction B_Mg PHASE: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:81:FF&res=1 [Response] AW-HE120 → PC 200 OK "OSD:81:FF" Color correction Mg GAIN/SATURATION: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:82:FF&res=1 [Response] AW-HE120 → PC 200 OK "OSD:82:FF" Color correction Mg PHASE: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw cam?cmd=OSD:83:FF&res=1 [Response] AW-HE120 → PC 200 OK "OSD:83:FF" Color correction Mg R GAIN/SATURATION: +127 [Control] $PC \rightarrow AW-HE120$ http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:84:FF&res=1 [Response] AW-HE120 → PC 200 OK "OSD:84:FF"

•Color correction Mg_R PHASE: +127 [Control] PC \rightarrow AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:85:FF&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "OSD:85:FF"

3.2.8. Chroma level setting

These commands enable the chroma level of the camera to be set and the current settings to be acquired.

				a level setting	
Command name	Category	Command	Data value	Setting	Remarks
Chroma level	Control	OCG:[Data]	In the cas	e of the AW-HE50/A	W-HE60/AW-HE120/AW-HE40/
control command			AW-HE65	AW-HE70/AW-UE7	0
			00	-3	■ In the case of the AW-HE50/
			01	-2	AW-HE60
			02	-1	 Disabled at the FullAuto setting
			03	0	(ER3 is returned).
			04	+1	
			05	+2	
	Response	OCG:[Data]	06	+3	
	Control	OSD:B0:[Data]	In the cas	e of the AW-HE130	
			00h	OFF	
			1Dh	-99%	
			2	2	
			80h	0	
			2	2	
	Response	OSD:B0:[Data]	A8h	40%	
Chroma level	Request	QCG	In the cas	e of the AW-HE50/A	W-HE60/AW-HE120/AW-HE40/
query command	-		AW-HE65	/AW-HE70/AW-UE7	0
			None		
	Response	OCG:[Data]	00	-3	
			01	-2	
			02	-1	
			03	0	
			04	+1	
			05	+2	
			06	+3	
	Request	QSD:B0	In the case	e of the AW-HE130	
			None		
	Response	OSD:B0:[Data]	00h	OFF	
			1Dh	-99%	
			2	2	
			80h	0	
			2	2	
			A8h	40%	

Table 3.2.8	Chroma level setting
10010 0.2.0.	Onionia ievei setting

Example of use) •Chroma level: 0 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OCG:03&res=1 [Response] AW-HE50 → PC 200 OK "OCG:03"

3.2.9. AWB/ABB setting

These commands select the AWB mode of the camera, execute AWB/ABB and enable the current AWB mode status to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
AWB (AWC)	Control	OWS	None		AWB (AWC) is executed.
execution control command	Notification	OWS ER3:OWS		AWC/AWB OK AWC/AWB NG	• There is no response which supports this control command. Notification is given by the separate update notification function. For details, refer to "4. Camera information update notification".
AWB execution underway status display On/Off control command	Control	OSA:88:[<i>Data</i>]	0 1	Off On	 On or Off for screen display of AWB OK/NG. The status is fixed at Off when TALLY signals are present.
	Response	OSA:88:[Data]			
AWB execution	Request	QSA:88	None		
underway status display On/Off query command	Response	OSA:88:[<i>Data</i>]	0 1	Off On	
AWB (AWC) Mode	Control	OAW:[Data]	In the ca	ase of the AW-HE50)/AW-HE60
control command			0 1 2 3	ATW AWB A AWB B ATW	 Disabled at the FullAuto setting (ER3 is returned).
			In the ca	ase of the AW-HE12	20
			0 1 2 3 4 5	ATW AWB A AWB B ATW PRESET 3200K PRESET 5600K	
				ase of the 130 / AW-HE40/AW-ł	HE65/AW-HE70/AW-UE70
			0 1 2 3 4 5 9	ATW AWB A AWB B ATW PRESET 3200K PRESET 5600K VAR	
	Response	OAW:[<i>Data</i>]			
AWB (AWC) Mode	Request	QAW	None		

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Command name	Category	Command	Data value	Setting	Remarks
query command	Response	OAW:[Data]	In the c	ase of the AW-HE50	
			0	ATW	• The data value differs depending on
			2 3	AWB A AWB B	the responses to the control command and query command.
				ase of the AW-HE12	
			0	ATW	• The data value differs depending on
			2	AWB A	the responses to the control
			3	AWB B	command and query command.
			4 5	PRESET 3200K PRESET 5600K	
			In the c	ase of the	
				ATW	HE65/AW-HE70/AW-UE70
			1	AWBA	
			2	AWB B	
			3	ATW	
			4	PRESET 3200K	
			5	PRESET 5600K	
			9	VAR	
ABB (ABC)	Control	OAS	None		ABB (ABC) is executed.
execution	Notification	OAS		ABB(ABC) OK	□ Only supported by the AW-HE120/
control command		ER3:OAS		ABB(ABC) NG	AW-HE130/AW-HE40/AW-HE65/ AW-HE70/AW-UE70.
					There is no response which
					supports this control command.
					Notification is given by the separate
					update notification function. For
					details, refer to "4. Camera
					information update notification".
Color Temperature	Control	OSD:B1:[Data]		ase of the AW-HE13	30
control command			000h 001h	2000K 2010K	
			001h 002h	2010K 2020K	
			003h	2040K	
			004h	2050K	
			005h	2070K	
			006h	2080K	
			007h	2090K	
			008h	2110K	
			009h 00Ah	2120K 2140K	
			00An 00Bh	2150K	
			00Ch	2170K	
			00Dh	2180K	
			00Eh	2200K	
			00Fh	2210K	
			010h	2230K	
			011h	2240K	
			012h 013h	2260K 2280K	
			013h 014h	2300K	
			015h	2310K	
			016h	2330K	
			017h	2340K	
			018h	2360K	
			019h	2380K	

Command name	Category	Command	Data value	Setting	Remarks
			01Ah	2400K	
			01Bh	2420K	
			01Ch	2440K	
			01Dh	2460K	
			01Eh	2480K	
			01Fh	2500K	
			020h	2520K	
			021h	2540K	
			022h	2560K	
			023h	2600K	
			024h	2620K	
			025h	2640K	
			026h	2680K	
			027h	2700K	
			028h	2720K	
			029h	2740K	
			02Ah	2780K	
			02Bh	2800K	
			02Ch	2820K	
			02Dh	2850K	
			02Eh	2870K	
			02Fh	2920K	
			030h	2950K	
			031h	2970K	
			032h	3000K	
			033h	3020K	
			034h	3070K	
			035h	3100K	
			036h	3120K	
			037h 038h	3150K	
			039h	3200K 3250K	
			03911 03Ah	3270K	
			03Bh	3330K	
			03Ch	3360K	
			03Dh	3420K	
			03Eh	3450K	
			03Fh	3510K	
			040h	3570K	
			041h	3600K	
			042h	3660K	
			043h	3720K	
			044h	3780K	
			045h	3840K	
			046h	3870K	
			047h	3930K	
			048h	3990K	
			049h	4050K	
			04Ah	4110K	
			04Bh	4170K	
			04Ch	4240K	
			04Dh	4320K	
			04Eh	4360K	
			04Fh	4440K	
			050h	4520K	

			D		
Command name	Category	Command	Data value	Setting	Remarks
			051h	4600K	
			052h	4680K	
			053h	4760K	
			054h	4840K	
			055h	4920K	
			056h 057h	5000K 5100K	
			057h 058h	5200K	
			059h	5300K	
			05Ah	5400K	
			05Bh	5500K	
			05Ch	5600K	
			05Dh	5750K	
			05Eh	5850K	
			05Fh	6000K	
			060h	6150K	
			061h	6300K	
			062h	6450K	
			063h	6650K	
			064h	6800K	
			065h	7000K	
			066h	7150K	
			067h	7400K	
			068h	7600K	
			069h	7800K	
			06Ah	8100K	
			06Bh	8300K	
			06Ch	8600K	
			06Dh	8900K	
			06Eh	9200K	
			06Fh	9600K	
			070h	10000K	
			071h 072h	10500K 11000K	
			072h 073h	11500K	
			073h 074h	12000K	
			075h	12500K	
			076h	13000K	
			077h	14000K	
			078h	15000K	
)/AW-HE65/AW-HE70/AW-UE70
			000h	2400K	
			001h	2500K	
			002h	2600K	
			003h	2700K	
			004h	2800K	
			005h	2900K	
			006h	3000K	
			007h	3100K	
			008h	3200K	
			009h	3300K	
			00Ah	3400K	
			00Bh	3500K	
			00Ch	3600K	
			00Dh	3700K	

Command name	Category	Command	Data value	Setting	Remarks
			00Eh	3800K	
			00Fh	3900K	
			010h	4000K	
			011h	4100K	
			012h	4200K	
			013h	4300K	
			014h	4400K	
			015h	4500K	
			016h	4600K	
			017h	4700K	
			018h	4800K	
			019h	4900K	
			01Ah	5000K	
			01Bh	5100K	
			01Ch	5200K	
			01Dh 01Eh	5300K	
			01En 01Fh	5400K 5500K	
			020h	5600K	
			02011 021h	5700K	
			02111 022h	5800K	
			02211 023h	5900K	
			023h 024h	6000K	
			02411 025h	6100K	
			026h	6200K	
			027h	6300K	
			028h	6400K	
			029h	6500K	
			02Ah	6600K	
			02Bh	6700K	
			02Ch	6800K	
			02Dh	6900K	
			02Eh	7000K	
			02Fh	7100K	
			030h	7200K	
			031h	7300K	
			032h	7400K	
			033h	7500K	
			034h	7600K	
			035h	7700K	
			036h	7800K	
			037h	7900K	
			038h	8000K	
			039h	8100K	
			03Ah	8200K	
			03Bh	8300K	
			03Ch	8400K	
			03Dh	8500K	
			03Eh	8600K	
			03Fh 040h	8700K 8800K	
			040n 041h	8900K	
			04 m 042h	9000K	
			04211 043h	9100K	
			043h	9200K	

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Command name	Category	Command	Data value	Setting	Remarks
			045h	9300K	
			046h	9400K	
			047h	9500K	
			048h	9600K	
			049h	9700K	
			04Ah	9800K	
			04Bh	9900K	
	Response	OSD:B1:[Data]			
Color Temperature	Request	QSD:B1	None		
query command	Response	OSD:B1:[Data]	In the c	ase of the AW-HE13	30
			000h	2000K	 Refer to the Data/Setting values of
			2	2	the control command.
			078h	15000K	
			In the c	ase of the AW-HE40)/AW-HE65/AW-HE70/AW-UE70
			000h	2400K	 Refer to the Data/Setting values of
			2	2	the control command.
			04Bh	9900K	

Example of use) •AWB (AWC) execution [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OWS&res=0 [Response] AW-HE50 → PC None

 AWB (AWC), ABB execution underway status display: On
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:88:1&res=1
 [Response] AW-HE50 → PC 200 OK "OSA:88:1"

•AWB (AWC) mode: ATW

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OAW:0&res=1 [Response] AW-HE50 \rightarrow PC

200 OK "OAW:0"

ABB execution

[Control] PC \rightarrow AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OAS&res=0 [Response] AW-HE120 \rightarrow PC 200 OK "OAS"

3.2.10. Detail setting

These commands control the detail of the camera and enable the current settings to be acquired.

			.2.10. Deta		
Command name	Category	Command	value	Setting	Remarks
Detail	Control	ODT:[Data])/AW-HE60/AW-HE120/AW-HE40/
control command				AW-HE70/AW-U	
			0	Off	Disabled at the FullAuto setting
			1	Low	(ER3 is returned).
			2	High	
				of the AW-HE13	30
			0	Off On	
			1	On	
	Response	ODT:[Data]	2	OII	
Detail	Request	QDT	None		
query command	Response	ODT:[Data]			L)/AW-HE60/AW-HE120/AW-HE40/
query command	Response	OD I.[Dala]		W-HE70/AW-U	
			0	Off	Disabled at the FullAuto setting
			1	Low	(ER3 is returned).
			2	High	
				of the AW-HE13	30
			0	Off	
			1	On	
			2	On	
			-	011	
H.DTL LEVEL H	Control	OSD:0A:[Data]	02h	2	Even when Off is selected as the
control command	Control		2	2	detail setting, this command is
control command			3Fh	63	received, and its setting is reflected.
			0.11	00	• The setting can never be lower than
					the H.DTL LEVEL L.
					Only supported by the AW-HE120.
	Response	OSD:0A:[Data]			Only supported by the AW-HE120.
H.DTL LEVEL H	Request	QSD:0A	None		Only supported by the AW-HE120.
query command	Response	OSD:0A:[Data]	02h	2	Only supported by the AW-HE120.
			2	2	
			3Fh	63	
V DTL LEVEL H	Control	OSD:0E:[Data]	02h	2	 Even when Off is selected as the
control command			2	2	detail setting, this command is
			1Fh	31	received, and its setting is reflected.
					• The setting can never be lower than
					the V DTL LEVEL L.
			-		Only supported by the AW-HE120.
	Response	OSD:0E:[Data]			Only supported by the AW-HE120.
V DTL LEVEL H	Request	QSD:0E	None		Only supported by the AW-HE120.
query command	Response	OSD:0E:[Data]	02h	2	Only supported by the AW-HE120.
			} 1⊑b	21	
			1Fh	31	
H.DTL LEVEL L	Control	OSD:12:[Data]	01h	1	Even when Off is selected as the
control command	Control	500.12.[Data]	2	2	detail setting, this command is
			3Eh	62	received, and its setting is reflected.
					• The level is set to less than the
					H.DTL LEVEL H setting.
					Only supported by the AW-HE120.
	Response	OSD:12:[Data]	1		Only supported by the AW-HE120.
H.DTL LEVEL L	Request	QSD:12	None		Only supported by the AW-HE120.

Table 3.2.10. Detail setting

Command name	Category	Command	Data value	Setting	Remarks
query command	Response	OSD:12:[Data]	01h	1	□ Only supported by the AW-HE120.
			≹ 3Eh		
			SEII	02	
V DTL LEVEL L	Control	OSD:16:[Data]	01h	1	Even when Off is selected as the
control command			2	2	detail setting, this command is
			1Eh	30	received, and its setting is reflected.The level is set to less than the V
					DTL LEVEL H setting.
					□ Only supported by the AW-HE120.
	Response	OSD:16:[<i>Data</i>]	News		□ Only supported by the AW-HE120.
V DTL LEVEL L query command	Request Response	QSD:16 OSD:16:[<i>Data</i>]	None 01h	1	 Only supported by the AW-HE120. Only supported by the AW-HE120.
quory command	Response	COD. TO.[Data]	2	2	
			1Eh	30	
V DTL LEVEL control command	Control	OSD:A1:[Data]	79h ∢	-7 ≷	Only supported by the AW-HE130.
control command			80h	0	
			2	2	
	Response	OSD:A1:[Data]	87h	7	Only supported by the AW-HE130.
V DTL LEVEL query command	Request	QSD:A1	None		□ Only supported by the AW-HE130.
	Response	OSD:A1:[Data]	79h	-7	□ Only supported by the AW-HE130.
				\ \	
			80h ≀	0	
			87h	7	
DETAIL BAND	Control	OSD:1E:[Data]	01	1	• Even when Off is selected as the
control command				} 5	detail setting, this command is received, and its setting is reflected.
					• The detail boost frequency can be
					controlled and the settings can be
					acquired.If a high frequency is set, smaller
					subjects can be provided with the
					detail effect.
	Response	OSD:1E:[Data]			 Only supported by the AW-HE120. Only supported by the AW-HE120.
	Control	OSD:A2:[Data]	79h	-7	□ Only supported by the AW-HE130.
			2	2	
			80h ≀	0	
			87h	7	
DETAIL BAND	Response	OSD:A2:[Data]		1	□ Only supported by the AW-HE130.
query command	Request Response	QSD:1E OSD:1E:[Data]	None 01	1	 Only supported by the AW-HE120. Only supported by the AW-HE120.
		[20:0]	2	2	,,,,,
	Derwest		05 None	5	
	Request	QSD:A2	None	7	□ Only supported by the AW-HE130.
	Response	OSD:A2:[Data]	79h ≀	-7 ≷	Only supported by the AW-HE130.
			80h	o	
				2	
NOISE	Control	OSD:22:[Data]	87h	7 e of the AW-HE12	20

Command name	Category	Command	Data value	Setting	Remarks
SUPPRESS/CRISP control command			00h ≀ 07h	0 2 7	 Even when Off is selected as the detail setting, this command is received, and its setting is reflected. The screen noise produced by the detail is reduced. The higher the value, the lower the noise. Only supported by the AW-HE120.
			In the case	of the AW-HE13	
			00h ≀ 3Ch	0 ≀ 60	
	Response	OSD:22:[<i>Data</i>]			□ Only supported by the AW-HE120/ AW-HE130.
NOISE	Request	QSD:22	None		□ Only supported by the AW-HE120.
SUPPRESS/CRISP	Response	OSD:22:[Data]		of the AW-HE12	20
query command			00h ≀ 07h	0 ≀ 7	
			In the case	of the AW-HE13	30
			00h ≀ 3Ch	0 ₹	
FLESH TONE NOISE SUPPRESS control command	Control	OSD:4B:[Data]	00 01 02	60 Off Low High	 Even when Off is selected as the detail setting, this command is received, and its setting is reflected. The amount of detail can be reduced for scenes having flesh tones in accordance with the settings. Only supported by the AW-HE120.
	Response	OSD:4B:[Data]			□ Only supported by the AW-HE120.
	Control	OSD:A3:[Data]	80h ≀ 9Fh	0 ≀ 31	□ Only supported by the AW-HE130.
	Response	OSD:A3:[Data]			□ Only supported by the AW-HE130.
FLESH TONE	Request	QSD:4B	None		□ Only supported by the AW-HE120.
NOISE SUPPRESS query command	Response	OSD:4B:[Data]	00 01 02	Off Low High	□ Only supported by the AW-HE120.
	Request	QSD:A3	None		□ Only supported by the AW-HE130.
	Response	OSD:A3:[Data]	80h ≀ 9Fh	0 ≀ 31	□ Only supported by the AW-HE130.

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Command name	Category	Command	Data value	Setting	Remarks
TOTAL DTL	Control	OSA:30:[Data]	In the c	ase of the AW-HE60	0
LEVEL control command		81h ≀ 92h	1	 Even when Off is selected as the detail setting, this command is received, and its setting is reflected. In the case of the AW-HE60 The level is set to less than the TOTAL DTL LEVEL HIGH. Supported only by AW-HE60 CameraMain V3.05 or subsequent versions. 	
			In the c	ase of the AW-HE13	30
			61h ≀ 9Fh	0	
			In the cas	se of the AW-HE40/	AW-HE65/AW-HE70/AW-UE70
			81h	1	• The level is set to less than the
			2	2	TOTAL DTL LEVEL HIGH.
	Response	OSA:30:[Data]	91h	17	
TOTAL DTL LEVEL query command	Request	QSA:30	None		 AW-HE60 CameraMain V3.05 or subsequent versions. Only supported by the AW-HE130.
	Response	OSA:30:[Data]	In the cas 81h	se of the AW-HE60	CameraMain V3.05 or subsequent
			2	2	versions.
			92h	18	
			In the cas	se of the AW-HE130)
			61h	0	
			≀ 9Fh	≹ 62	
					AW-HE65/AW-HE70/AW-UE70
			81h		
			≀ 91h	≀ 17	
TOTAL DTL	Control	OSA:B1:[Data]	In the cas	se of the AW-HE60	
LEVEL HIGH			82h	2	• Even when Off is selected as the
control command			≀ 92h	≀ 18	detail setting, this command is received, and its setting is reflected.A level below the TOTAL DTL
					LEVEL setting cannot be set. ☐ Supported only by AW-HE60 CameraMain V3.05 or subsequent versions.
			In the cas	se of the AW-HE40/	AW-HE65/AW-HE70/AW-UE70
			82h	2	A level below the TOTAL DTL
			≀ 92h	≀ 18	LEVEL setting cannot be set.
	Response	OSA:B1:[Data]	N.		
TOTAL DTL	Request	QSA:B1	None		Supported only by AW-HE60

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
LEVEL HIGH					CameraMain V3.05 or subsequent
query command					versions.
	Response	OSA:B1:[Data]	In the cas	se of the AW-HE60	
			82h	2	Supported only by AW-HE60
			2	2	CameraMain V3.05 or subsequent
			92h	18	versions.
			In the cas	se of the AW-HE40/	AW-HE65/AW-HE70/AW-UE70
			82h	2	
			2	2	
			92h	18	

Example of use)

·Detail: Low

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=ODT:1&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "ODT:1"

•H.DTL LEVEL: H 63

[Control] PC \rightarrow AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:0A:3F&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "OSD:0A:3F"

•V DTL LEVEL: H 31

[Control] PC \rightarrow AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:0E:1F&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "OSD:0E:1F"

•H.DTL LEVEL: L 62

 $\label{eq:control} \begin{array}{l} \mbox{PC} \rightarrow \mbox{AW-HE120} \\ \mbox{http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:12:3E&res=1} \\ \mbox{[Response]} \ \mbox{AW-HE120} \rightarrow \mbox{PC} \\ \mbox{200 OK "OSD:12:3E"} \end{array}$

•V DTL LEVEL: L 30

[Control] PC \rightarrow AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:16:1E&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "OSD:16:1E"

 DETAIL BAND: 1
 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:1E:01&res=1
 [Response] AW-HE120 → PC 200 OK "OSD:1E:01" •NOISE SUPPRESS/CRISP: 7 [Control] PC \rightarrow AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:22:07&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "OSD:22:07"

 FLESH TONE NOISE SUPPRESS: Low
 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:4B:01&res=1
 [Response] AW-HE120 → PC 200 OK "OSD:4B:01"

 TOTAL DTL LEVEL: 12
 [Control] PC → AW-HE60 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:30:8C&res=1
 [Response] AW-HE60 → PC 200 OK "OSA:30:8C"

 TOTAL DTL LEVEL HIGH: 18
 [Control] PC → AW-HE60 http://192.168.0.10/cgi-bin/aw_cam?cmd= OSA:B1:92&res=1
 [Response] AW-HE60 → PC 200 OK "OSA:B1:92"

3.2.11. Flesh Tone Mode setting

These commands control the flesh tone mode of the camera and enable the current settings to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
Flesh Tone Mode	Control	OSE:32:[Data]	0	Off	 Disabled at the FullAuto setting
control command			1	Low	(ER3 is returned).
			3	High	Supported only by the
					AW-HE50/AW-HE60/AW-HE40/
					AW-HE65/AW-HE70/AW-UE70.
	Response	OSE:32:[Data]			Supported only by the
					AW-HE50/AW-HE60/AW-HE40/
					AW-HE65/AW-HE70/AW-UE70.
Flesh Tone Mode	Request	QSE:32	None		Supported only by the
query command					AW-HE50/AW-HE60/AW-HE40/
					AW-HE65/AW-HE70/AW-UE70.
	Response	OSE:32:[Data]	0	Off	Supported only by the
			1	Low	AW-HE50/AW-HE60/AW-HE40/
			3	High	AW-HE65/AW-HE70/AW-UE70.

Example of use) Flesh Tone Mode: High [Control] $PC \rightarrow AW-HE50$ http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:32:3&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "OSE:32:3"

3.2.12. Digital noise reduction (DNR) setting

These commands control the digital noise reduction (DNR) of the camera and enable the current settings to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
Digital noise reduction (DNR) control command	Control	OSD:3A:[<i>Data</i>]	00 01 02	Off Low High	 In the case of the AW-HE50/AW-HE60/ AW-HE40/AW-HE65/ AW-HE70/AW-UE70 Disabled at the FullAuto setting
	Response	OSD:3A:[Data]			(ER3 is returned).
Digital noise	Request	QSD:3A	None		
reduction (DNR) query command	Response	OSD:3A:[Data]	00 01	Off Low	
			02	High	

Table 3.2.12.	Digital noise reduction (D	NR) setting
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Example of use) Digital noise reduction (DNR): High

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:3A:02&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "OSD:3A:02"

3.2.13. Pedestal setting

These commands control the pedestal of the camera and enable the current settings to be acquired.

	Table 3.2.13. Pedestal setting					
Command name	Category	Command	Data value	Setting	Remarks	
Pedestal	Control	OTP:[Data]	In the case	of the AW-HE50/AW	/-HE60/AW-HE40/AW-HE65/	
control command			AW-HE70/A	AW-UE70		
			000h	-10	 Setting (menu display value) 	
			2	2	= (Data value — 0x96) / 15	
			096h	0	Disabled at the FullAuto setting	
			2	2	(ER3 is returned).	
			12Ch	+10		
				of the AW-HE120/A		
			000h	-150	Setting (menu display value)	
				2	= (Data value $-$ 0x96)	
			096h	0		
			≀ 12Ch			
			12011	+150		
	Response	OTP:[Data]				
	Control	OTD:[Data]	In the case	of the AW-HE50/AW	/-HE60/AW-HE40/AW-HE65/	
			AW-HE70/A	AW-UE70		
			00h	-10	 Setting (menu display value) 	
			2	2	= (Data value — 0x96) / 3	
			1Eh	0	 Disabled at the FullAuto setting 	
			2	2	(ER3 is returned).	
			3Ch	+10		
				of the AW-HE120/A		
			00h	-150	Setting (menu display value)	
			2	2	= (Data value — 0x1E) x 5	
			1Eh	0		
				2		
			3Ch	+150		
	Response	OTD:[Data]				
Pedestal	Request	QTP	None			
query command	Response	OTP:[Data]	In the case AW-HE70/		/-HE60/AW-HE40/AW-HE65/	
			000h	-10	Data value of response	
			2	2	= (Setting x 15 + 0x96)	
			096h	0		
			2	2		
			12Ch	+10		
			In the case	of the AW-HE120/A	W-HE130	
			000h	-150	Data value of response	
			2	2	= (Setting + 0x96)	
			096h	0		
			2	2		
			12Ch	+150		

Table 3.2.13. Pedestal setting

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
Pedestal	Request	QTD	None		
query command	Response	OTD:[Data]		e of the AW-HE50/A\ /AW-UE70	W-HE60/AW-HE40/AW-HE65/
			00h	-10	 Data value of response
			2	2	= (Setting $x 3 + 0x1E$)
			1Eh	0	
			2	2	
			3Ch	+10	
			In the case	e of the AW-HE120/	AW-HE130
			00h	-150	 Data value of response
			2	2	= (Setting / 5 + 0x1E)
			1Eh	0	
			2	2	
			3Ch	+150	

Example of use)

·Pedestal: -10

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OTP:000&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "OTP:000"

·Pedestal: +10

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OTD:3C&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "OTD:3C"

3.2.14. Gamma/DRS setting

These commands control the Gamma or DRS of the camera and enable the current settings to be acquired.

There are three setting items: DRS, gamma type and gamma level.

			Data		
Command name	Category	Command	value	Setting	Remarks
DRS control command	Control	OSE:33:[Data]		e of the AW-HE /AW-UE70	50/AW-HE60/AW-HE40/AW-HE65/
			0	Off	Disabled at the FullAuto setting
			1	Low	(ER3 is returned).
			3	High	
			In the case	e of the AW-HE	120/AW-HE130
			0	Off	 When any setting except Off is used
			1	Low	for DRS and any setting except
			2	Mid	Normal is used for the gamma type or
			3	High	when digital zooming is valid, the
					setting is accepted but it is not reflected in the images. The setting is
					reflected in the images when the
					above restrictions are released.
	Response	OSE:33:[Data]	-		
DRS	Request	QSE:33	None		
query command	Response	OSE:33:[Data]		e of the AW-HE /AW-UE70	50/AW-HE60/AW-HE40/AW-HE65/
			0	Off	Disabled at the FullAuto setting
			1	Low	(ER3 is returned).
			3	High	
			In the case	e of the AW-HE	120/AW-HE130
			0	Off	
			1	Low	
			2 3	Mid	
Gamma type	Control	OSE:72:[Data]	-	High	50/AW-HE60/AW-HE120/AW-HE40/
control command	Control			AW-HE70/AW-	
			0	Off	In the case of the AW-HE50/
			1	Normal	AW-HE60/AW-HE40/AW-HE65
			2	Cinema	/AW-HE70/AW-UE70
					Disabled at the FullAuto setting
					(ER3 is returned).
					When the DRS is in any mode except Off, the setting is accepted but it is not
					reflected in the images. The setting is
					reflected in the images when DRS is
					changed from the mode which is not Off
					to Off.
			In the case	e of the AW-HE	130
			0	HD	
			1	SD	
			2	FILMLIKE1	
	Response	OSE:72:[Data]	3 4	FILMLIKE2 FILMLIKE3	
	iveshouse		+	TILIVILINES	
Gamma type	Request	QSE:72	None		
	L		1	1	

Table 3.2.14. Gamma/DRS setting

Command name	Category	Command	Data value	Setting	Remarks
query command	Response	OSE:72:[Data]		e of the AW-HE /AW-HE70/AW-	50/AW-HE60/AW-HE120/AW-HE40/ UE70
			0 1 2	Off Normal Cinema	 In the case of the AW-HE50/ AW-HE60/AW-HE40/AW-HE65 /AW-HE70/AW-UE70 Disabled at the FullAuto setting (ER3 is returned).
			In the case	e of the AW-HE	130
			0	HD	
			1 2 3 4	SD FILMLIKE1 FILMLIKE2 FILMLIKE3	
Gamma level control command	Control	OSD:50:[Data]	00 01 02	Low Mid High	 In the case of the AW-HE50/AW-HE60/AW-HE40/ AW-HE65/AW-HE70/AW-UE70 Disabled at the FullAuto setting (ER3 is returned). In the case of the AW-HE50/AW-HE60 When the DRS is in any mode except Off, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when DRS is changed from the mode which is not Off to Off. When the DRS is in any mode except Off and any setting except Normal is established for the gamma type, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when DRS is changed to Off and the gamma type is changed to Normal. In the case of the AW-HE120 When any setting except Normal is used for the gamma type, the setting is accepted but it is not reflected in the images. The setting is reflected in the images when the above restrictions are released.
	Response	OSD:50:[Data]			
Gamma level	Request	QSD:50	None		
query command	Response	OSD:50:[<i>Data</i>]	00 01 02	Low Mid High	
Gamma	Control	OSA:6A:[Data]	67h	0.30	※Only supported by the AW-HE130.

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Command name	Category	Command	Data value	Setting	Remarks
			2	2	
			6Ch	0.35	
			2	2	
			80h	0.55	
	Response	OSA:6A:[Data]	2	2	XOnly supported by the AW-HE130.
			94h	0.75	
	Request	QSA:6A	None		XOnly supported by the AW-HE130.
	Response	OSA:6A:[Data]	67h	0.30	XOnly supported by the AW-HE130.
			2	2	
			6Ch	0.35	
			2	2	
			80h	0.55	
			2	2	
			94h	0.75	

Example of use) •DRS: Off [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:33:0&res=1 [Response] AW-HE50 → PC 200 OK "OSE:33:0"

 Gamma type: Normal
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:72:1&res=1
 [Response] AW-HE50 → PC 200 OK "OSE:72:1"

•Gamma level: Mid

[Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:50:01&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "OSD:50:01"

3.2.15. Backlight compensation setting

These commands exercise On/Off control over the backlight compensation of the camera and enable the current settings to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
Backlight compensation control command	Control	OSE:73:[<i>Data</i>]	0 1	Off On	 Disabled at the FullAuto setting (ER3 is returned). In the case of the AW-HE50/ AW-HE60 When On is set for auto iris, or Auto is set for Frame Mix or Gain, the setting is accented but it is not
					the setting is accepted but it is not reflected in the images. The setting is reflected in the images when auto iris is changed from On to Off, or Frame Mix or Gain is changed to Manual.
	Response	OSE:73:[<i>Data</i>]			Xupported only by the AW-HE50/AW-HE60/AW-HE40/ AW-HE65/AW-HE70/AW-UE70.
Backlight compensation query command	Request	QSE:73	None		Supported only by the AW-HE50/AW-HE60/AW-HE40/ AW-HE65/AW-HE70/AW-UE70.
	Response	OSE:73:[<i>Data</i>]	0 1	Off On	Supported only by the AW-HE50/AW-HE60/AW-HE40/ AW-HE65/AW-HE70/AW-UE70.

Example of use)

 Backlight compensation: Off
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:73:0&res=1
 [Response] AW-HE50 → PC 200 OK "OSE:73:0"

3.2.16. Genlock setting

These commands exercise genlock control over the camera and enable the current settings to be acquired.

The setting items include horizontal sync phase, subcarrier sync phase (coarse) and subcarrier sync phase (fine).

Command name	Category	Command	Data value	Setting	Remarks
Horizontal sync phase control command	Control	OHP:[<i>Data</i>]	000h	-206	This command has no effect with the AW-HE50H/AW-HE60H. • Setting (menu display value) = (Data value/ 4 - 206)
	Response	OHP:[Data]	-		
Horizontal sync phase query command	Request Response	QHP OHP:[Data]	None 000h ≀ 338h	-206 ₹ 0	This command has no effect with the AW-HE50H/AW-HE60H. • Data value = (Setting + 206) x 4
Subcarrier sync phase (coarse) control command	Control	OSC:[Data]	} 3FCh 0 1 2 3	<pre></pre>	Supported only by the AW-HE50S/ AW-HE60S.
	Response	OSC:[Data]			Supported only by the AW-HE50S/ AW-HE60S.
Subcarrier sync phase (coarse)	Request	QSC	None		Supported only by the AW-HE50S/ AW-HE60S.
query command	Response	OSC:[Data]	0 1 2 3 5 6 7 8	90° 180° 270° 0° 45° 135° 225° 315°	Supported only by the AW-HE50S/ AW-HE60S. • The data value differs depending on the responses to the control command and query command.
Subcarrier sync phase (fine) control command	Control	OSN:[<i>Data</i>]	000h	-127 ≥ -127 -126 ≥ 0 ≥ +126 +127 ≥ +127	Supported only by the AW-HE50S/ AW-HE60S.
	Response	OSN:[Data]	1		Supported only by the AW-HE50S/ AW-HE60S.

Table 3 2 16	Genlock setting
	Oemook setting

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
Subcarrier sync phase (fine)	Request	QSN	None		 Supported only by the AW-HE50S/ AW-HE60S.
query command	Response	OSN:[Data]	000h	-127 < -127 -126 < 0 0 1 +126 +127 1 1 +127 1 1	□ Supported only by the AW-HE50S/ AW-HE60S.

Example of use)

 Horizontal sync phase: +49
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OHP:3FF&res=1

[Response] AW-HE50 → PC 200 OK "OHP:3FF"

 Subcarrier sync phase (coarse): 90°
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSC:0&res=1
 [Response] AW-HE50 → PC 200 OK "OSC:0"

 Subcarrier sync phase (fine): +127
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSN:3FF&res=1
 [Response] AW-HE50 → PC 200 OK "OSN:3FF"

3.2.17. Output setting

These commands control the output settings of the camera and enable the current settings to be acquired.

The setting items include format, down-conversion mode and HDMI color components.

Table 3.2.17. Output setting						
Command name	Category	Command	Data value	Setting	Remarks	
Format	Control	OSA:87:[Data]	In the case of the AW-HE50			
control command			1h	720/59.94p(59.94Hz)	Data values with different	
control command			2h	720/50p(50Hz)	field frequencies are	
			4h	1080/59.94i(59.94Hz)	invalid (ER3 is returned).	
			5h	1080/50i(50Hz)	 The following formats are 	
			7h	1080/29.97PsF(59.94Hz)	supported by Ver.2 or a	
			8h	1080/25PsF(50Hz)	later version.	
			Bh	480/59.94i(59.94Hz)	1080/29.97PsF	
			Dh			
			10h	576/50i(50Hz) 1080/59.94p(59.94Hz)	1080/25PsF 1080/59.94p	
			11h	1080/50p(50Hz)	1080/50p	
				1080/300(30112)	The following formats are	
					supported only by the	
					HDMI models.	
					1080/59.94p	
					1080/50p	
			In the case of the AW-HE60			
			1h 720/59.94p(59.94Hz) • Data values with different			
			2h	720/50p(50Hz)	field frequencies are	
			4h	1080/59.94i(59.94Hz)	invalid (ER3 is returned).	
			5h	1080/50i(50Hz)	• The following formats are	
			7h	1080/29.97PsF(59.94Hz)	supported only by the	
			8h	1080/25PsF(50Hz)	HDMI models.	
			Bh	480/59.94i(59.94Hz)	1080/59.94p	
			Dh	576/50i(50Hz)	1080/50p	
			10h	1080/59.94p(59.94Hz)	480/59.94p	
			11h	1080/50p(50Hz)	576/50p	
			12h	480/59.94p(59.94Hz)		
			13h	576/50p(50Hz)		
			In the case of the AW-HE120			
			1h	720/59.94p(59.94Hz)	Data values with different	
			2h	720/50p(50Hz)	field frequencies are	
			4h	1080/59.94i(59.94Hz)	invalid (ER3 is returned).	
			5h	1080/50i(50Hz)	、 · · · · · · · · · · · · · · · · · · ·	
			Bh	480/59.94i(59.94Hz)		
			Dh	576/50i(50Hz)		
			10h	1080/59.94p(59.94Hz)		
			11h	1080/50p(50Hz)		
			12h	480/59.94p(59.94Hz)		
			13h	576/50p(50Hz)		
			-	se of the AW-HE130		
			1h	720/59.94p(59.94Hz)	• When 480/59.94p is	
			2h	720/50p(50Hz)	selected, the HDMI	
			4h	1080/59.94i(59.94Hz)	output is set to	
			5h	1080/50i(50Hz)	480/59.94p and SID	
			7h	1080/29.97PsF(59.94Hz)	output will be 480/59.94i.	
			8h	1080/25PsF(50Hz)		
			Ah	1080/23.98PsF(59.94Hz)		
			10h	1080/59.94p(59.94Hz)	• When 576/50p is	

Table 3.2.17. Output setting

Interface Specifications

Command name	Category	Command	Data value	Setting	Remarks
			11h 12h 13h 14h 15h 16h	1080/50p(50Hz) 480/59.94p(59.94Hz) 576/50p(50Hz) 1080/29.97p(59.94Hz) 1080/25p(50Hz) 1080/23.98p(59.94Hz) se of the AW-HE40/AW-HE65	selected, the HDMI output is set to 576/50p and SID output will be 576/50i.
			1h 4h 7h 10h 14h 17h 80h	[59.94Hz] 720/59.94p 1080/59.94i 1080/29.97PsF 1080/59.94p ** 1080/29.97p 2160/29.97p *** Auto **	 The formats marked with ** are supported only by the HDMI models. The formats marked with *** are supported only by the AW-UE70.
			2h 5h 8h 11h 15h 18h 80h	 [50Hz] 720/50p 1080/50i 1080/25PsF 1080/50p ** 1080/25p 2160/25p *** Auto **	 Auto is supported only by control commands.
	Response	OSA:87:[Data]			

Interface Specifications

	Category	Command	Data value	Setting	Remarks
Format	Request	QSA:87	None		
query command	Response	OSA:87:[<i>Data</i>]		e of the AW-HE50	
			1h	720/59.94p(59.94Hz)	
			2h	720/50p(50Hz)	
			4h	1080/59.94i(59.94Hz)	
			5h	1080/50i(50Hz)	
			7h	1080/29.97PsF(59.94Hz)	
			8h	1080/25PsF(50Hz)	
			Bh	480/59.94i(59.94Hz)	
			Dh	576/50i(50Hz)	
			10h 11h	1080/59.94p(59.94Hz)	
			TIN	1080/50p(50Hz)	
				se of the AW-HE60	
			1h	720/59.94p(59.94Hz)	
			2h	720/50p(50Hz)	
			4h	1080/59.94i(59.94Hz)	
			5h	1080/50i(50Hz)	
			7h	1080/29.97PsF(59.94Hz)	
			8h Ph	1080/25PsF(50Hz)	
			Bh Dh	480/59.94i(59.94Hz) 576/50i(50Hz)	
			10h	1080/59.94p(59.94Hz)	
			10n 11h	1080/50p(50Hz)	
			12h	480/59.94p(59.94Hz)	
			13h	576/50p(50Hz)	
			1011	010/00000000000000000000000000000000000	
			In the cas	se of the AW-HE120 720/59.94p(59.94Hz)	
			2h	720/50p(50Hz)	
			211 4h	1080/59.94i(59.94Hz)	
			5h	1080/50i(50Hz)	
			Bh	480/59.94i(59.94Hz)	
			Dh	576/50i(50Hz)	
			10h	1080/59.94p(59.94Hz)	
			11h	1080/50p(50Hz)	
			12h	480/59.94p(59.94Hz)	
			13h	576/50p(50Hz)	
				e of the AW-HE130	
			1h	720/59.94p(59.94Hz)	• When 480/59.94p is
			2h	720/50p(50Hz)	selected, the HDMI output
			4h	1080/59.94i(59.94Hz)	is set to 480/59.94p and
			5h	1080/50i(50Hz)	SID output will be
			7h	1080/29.97PsF(59.94Hz)	480/59.94i.
			8h	1080/25PsF(50Hz)	• When 576/50p is
			Ah	1080/23.98PsF(59.94Hz)	selected, the HDMI output
			10h	1080/59.94p(59.94Hz)	is set to 576/50p and SID
			11h	1080/50p(50Hz)	output will be 576/50i.
			12h 13h	480/59.94p(59.94Hz) 576/50p(50Hz)	
			13n 14h	1080/29.97p(59.94Hz)	
			14n 15h	1080/29.97p(59.94Hz) 1080/25p(50Hz)	
			15h 16h	1080/230(50H2) 1080/23.98p(59.94Hz)	
				1000/20.300(03.34112)	

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Command name	Category	Command	Data value	Setting	Remarks
			In the cas	se of the AW-HE40/AW-HE65	5/AW-HE70/AW-UE70
			1h 4h 7h 10h 14h 17h 	[59.94Hz] 720/59.94p 1080/59.94i 1080/29.97PsF 1080/59.94p ** 1080/29.97p 2160/29.97p ***	 The formats marked with ** are supported only by the HDMI models. The formats marked with *** are supported only by the AW-UE70.
			2h 5h 8h 11h 15h 18h	[50Hz] 720/50p 1080/50i 1080/25PsF 1080/50p ** 1080/25p 2160/25p ***	
Format (SDI)	Control	OSD:B9:[Data]	In the cas	se of the AW-UE70	
Control command			1h 4h 7h 10h 14h 2h 5h 8h 11h	[59.94Hz] 720/59.94p 1080/59.94i 1080/29.97psF 1080/59.94p 1080/29.97p [50Hz] 720/50p 1080/50i 1080/25psF 1080/50p	
			15h	1080/25p	
	Response	OSD:B9:[Data]			
Format (SDI)	Request	QSD:B9	None		
Query command	Response	OSD:B9:[<i>Data</i>]	In the cas 1h 4h 7h 10h 14h 2h 5h 8h 11h 15h	se of the AW-UE70 [59.94Hz] 720/59.94p 1080/59.94i 1080/29.97psF 1080/59.94p 1080/29.97p [50Hz] 720/50p 1080/50i 1080/25psF 1080/25psF 1080/25p	

Command name	Category	Command	Data value	Setting	Remarks
Down-conversion mode control command	Control	OSE:20:[Data]	0 1 2	SideCut Squeeze LetterBOX	
Down-conversion mode query command	Response Request Response	OSE:20:[<i>Data</i>] QSE:20 OSE:20:[<i>Data</i>]	None 0 1 2	SideCut Squeeze LetterBOX	
HDMI color component control command	Control	OSE:68:[<i>Data</i>]	0 1 2 3	RGB-NOR RGB-ENH YCbCr422 YCbCr444	 This command has no effect with the AW-HE50S/AW-HE60S/ AW-HE130.
	Response	OSE:68:[<i>Data</i>]			
HDMI color component query command	Request Response	QSE:68 OSE:68:[<i>Data</i>]	None 0 1 2 3	RGB-NOR RGB-ENH YCbCr422 YCbCr444	 This command has no effect with the AW-HE50S/AW-HE60S/ AW-HE130.
Analog component output control command	Control	OSD:65:[<i>Data</i>]	00 01	YPbPr RGB	□ Only supported by the AW-HE120.
	Response	OSD:65:[Data]			
Analog component output query command	Request Response	QSD:65 OSD:65:[<i>Data</i>]	None 00 01	YPbPr RGB	□ Only supported by the AW-HE120.

Example of use) •Format: 720/59.94p **[Control]** PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:87:01&res=1 **[Response]** AW-HE50 → PC 200 OK "OSA:87:01"

 Down-conversion mode: Squeeze
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:20:1&res=1
 [Response] AW-HE50 → PC 200 OK "OSE:20:1"

•HDMI color components: RGB-NOR **[Control]** PC \rightarrow AW-HE50H http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:68:0&res=1 **[Response]** AW-HE50H \rightarrow PC 200 OK "OSE:68:0"

 Analog component output: RGB
 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:65:01&res=1
 [Response] AW-HE120 → PC 200 OK "OSD:65:01"

3.2.18. Preset playback range setting

These commands control the playback range when the presets of the camera are to be played back and enable the current settings to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
Preset playback	Control	OSE:71:[Data]	0	Mode A	
range			1	Mode B	
control command			2	Mode C	
	Response	OSE:71:[Data]			
Preset playback	Request	QSE:71	None		
range	Response	OSE:71:[Data]	0	Mode A	
query command			1	Mode B	
			2	Mode C	

Example of use) Preset playback range: Mode A [Control] $PC \rightarrow AW-HE50$ http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:71:0&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "OSE:71:0"

3.2.19. Digital zoom settings

These commands control the digital zoom of the camera, and they enable the digital zoom settings to be acquired.

			Data	200m settings	
Command name	Category	Command	value	Setting	Remarks
Digital zoom	Control	OSE:70:[Data]	0	Disable	
On/Off			1	Enable	
control command	Response	OSE:70:[Data]			
Digital zoom	Request	QSE:70	None		
On/Off	Response	OSE:70:[Data]	0	Disable	
query command			1	Enable	
Digital zoom	Control	OSE:7A:[Data]	02	x2	This command enables the
maximum	Response	OSE:7A:[Data]	2	2	maximum digital zoom
magnification			10	x10	magnification to be set.
control command				} x16	* Only supported by the
Digital zoom	Deguest			X10	* Only supported by the AW-HE120/AW-HE130/AW-HE40/
Digital zoom maximum	Request Response	QSE:7A OSE:7A:[Data]	None 02	x2	AW-HE65/AW-HE70/AW-UE70.
magnification	Response	USE. TA.[Dala]	2	2	witheosin wither of with office.
query command			10	x10	
query command			2	2	*Max x12 magnification
			16	x16	for AW-UE70
Digital zoom	Control	OSE:76:[Data]	0100	x1.00	This command enables the digital
magnification	Control	00L.10.[Dutu]	2	2	zoom magnification to be set.
control command			1000	x10.00	200m magnification to be both
			2	2	*Max x12 magnification
	Response	OSE:76:[Data]	1600	x16.00	-
Digital zoom	Request	QSE:76	None		for AW-UE70
magnification	Response	OSE:76:[Data]	0100	x1.00	
query command			2	2	
			1000	x10.00	
			2	2	
			1600	x16.00	
Digital Extender	Control	ODE:[Data]	0	Off	Only supported by the
control command	Response	ODE:[Data]	1	On	AW-HE130/AW-HE40/AW-HE65/
Digital Extender	Request	QDE	None		AW-HE70/AW-UE70.
query command	Response	ODE:[Data]	0	Off	
			1	On	
Digital Extender		OSD:B8:[Data]	0	x1.4	*Only AW-UE70 supported
magnification	Control		1	x2.0	
control command			2	x4.0	
	Deepenag		3	x6.0	
	Response	OSD:B8:[Data]	4	x8.0	
Digital Extender	Request	QSD:B8	None		
magnification	Response	OSD:B8:[Data]	0	x1.4	
query command			1	x2.0	
			2	x4.0	
			3	x6.0	
			4	x8.0	
iZoom	Control	OSD:B3:[Data]	0	Off	Only supported by the
control command	Response	OSD:B3:[Data]	1	On	AW-HE40/AW-HE65/
iZoom	Request	QSD:B3	None		AW-HE70/AW-UE70.
query command	Response	OSD:B3:[Data]	0	Off	
			1	On	

Example of use)
Digital zoom: Enable
[Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:70:1&res=1
[Response] AW-HE50 → PC 200 OK "OSE:70:1"
Maximum digital zoom magnification: 10×

[Control] PC \rightarrow AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:7A:10&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "OSE:7A:10"

• Digital zoom magnification: $1 \times$ [Control] PC \rightarrow AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:76:0100&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "OSE:76:0100"

3.2.20. Camera information acquisition

These commands enable the current camera information of the camera to be acquired.

Command name	Cotogony	Command	Data value	Sotting	Pomorko
Command name	Category	Command	Data value	Setting	Remarks
Model number	Request	QID	None		
query command	Response	OID:[Data]	In the case of	the AW-HE50	
			AW-HE50		Model number of camera
			In the case of	the AW-HE60	
			AW-HE60		Model number of camera
			In the case of	the AW-HE120	
			AW-HE120		Model number of camera
			In the case of	the AW-HE130	
			AW-HE130		Model number of camera
			In the case of	the AW-HE40	-
			AW-HE40		Model number of camera
			In the case of	the AW-HE65	
			AW-HE65		Model number of camera
			In the case of	the AW-HE70	
			AW-HE70		Model number of camera
			In the case of	the AW-UE70	
			AW-UE70		Model number of camera
Camera	Request	QSV	None		
microcontroller	Response	OSV:[Data]			Camera Microcontroller
software version					software version
query command					Example: V01.28

Table 3.2.20. Camera information acquisition	Table 3.2.20.	Camera	information	acquisition
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Example of use)

Model number acquisition

※In the case of the AW-HE50 ※In the case of the AW-HE120

 Camera microcontroller software version acquisition
 [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=QSV&res=1
 [Response] AW-HE50 → PC

200 OK "OSV:V01.00"

3.2.21. OSD menu

These commands exercise control over the OSD menu of the camera and enable the current settings to be acquired.

Table 3.2.21. OSD menu					
Command name	Category	Command	value	Setting	Remarks
OSD menu On/Off control command	Control	DUS:[Data]	0 1	Menu Off Menu On	The camera OSD menu is turned On or Off.
	Response	DUS:[Data]			
OSD menu On/Off	Request	QUS	None		
query command	Response	OUS:[Data]	0 1	Menu Off Menu On	
MENU switch On	Control	DPG	None		
control command		DPG:[Data]	1		This cancels the (blinking) settings that are not confirmed yet.
	Response	DPG:[Data]			
ITEM switch On	Control	DIT	None		
control command		DIT:[Data]	1		Entered.
	Response	DIT:[Data]			
YES switch On	Control	DUP	None		
control command		DUP:[Data]	1h Ah	1Step 10Step	The cursor moves up (the value is changed)
	Response	DUP:[Data]			
NO switch On	Control	DDW	None		
control command		DDW:[Data]	1h Ah	1Step 10Step	The cursor moves down (the value is changed).
	Response	DDW:[Data]			
RIGHT switch control command	Control	DRT:[Data]	1h Ah	1Step 10Step	Only supported by the AW-HE120/AW-HE130.
	Response	DRT:[<i>Data</i>]			Only supported by the AW-HE120/AW-HE130.
LEFT switch control command	Control	DLT:[Data]	1h Ah	1Step 10Step	Only supported by the AW-HE120/AW-HE130.
	Response	DLT:[Data]			Only supported by the AW-HE120/AW-HE130.
OSD Off With TALLY control command	Control	OSE:75:[Data]	0 1	Off On	• The OSD menus are not displayed when "On" is selected as this setting and TALLY is On.
	Response	OSE:75:[Data]	1		
OSD Off With	Request	QSE:75	None		
TALLY query command	Response	OSE:75:[Data]	0 1	Off On	
OSD Mix	Control	OSE:7B:[Data]	In the ca	se of the AW-HE120	
control command	Control		00h	OSD Mix Off	• Bit0: SD1, bit1: HDMI, bit2:

Table 3.2.21. OSD menu

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Commendation	Cotomorry	Commond	Data	Cotting	Demortes
Command name	Category	Command	value	Setting	Remarks
			01h	SDI On	Analog, bit3: Video — On or Off
			02h	HDMI On	settings for each of the above
			04h	Component On	can be selected and combined.
			08h	Video On	※ Only supported by the AW-HE120.
			In the cas	se of the AW-HE130	AW-HE120.
			00h	OSD Mix Off	
			01h	SDI On	
			02h	HDMI On	
			08h	Video On	
	Response	OSE:7B:[Data]	10h	IP On	Only supported by the
					AW-HE120/AW-HE130.
OSD Mix	Request	QSE:7B	None		Only supported by the
query command			1.4		AW-HE120/AW-HE130.
	Response	OSE:7B:[Data]		se of the AW-HE120	
			00h	OSD Mix Off	
			01h 02h	SDI On HDMI On	
			0211 04h	Component On	
			04h	Video On	
				se of the AW-HE130	
			00h	OSD Mix Off	
			01h	SDI On	
			02h	HDMI On	
			08h	Video On	
			10h	IP On	
CHARACTER	Control	OSD:98:	[Data1]	[Data1]Output	Only supported by the
MIX		[Data1]:[Data2]	0	Browser/Video	AW-HE60.
control command			1	SDI/HDMI,COMP	• The Off By Browser setting takes
			[Data2]	[Data2]MixSelect	effect only when SDI/HDMI or
			0	Off	COMP has been selected as the
	Deserves	000.00	1	On Off By Browner	Output setting.
	Response	OSD:98:	2	Off By Browser	
CHARACTER	Request	[Data1]:[Data2] QSD:98:[Data1]	[Data1]	[Data1] Output	Only supported by the
MIX	Request	230.30.[Data 1]		Browser/Video	AW-HE60.
query command			1	SDI/HDMI,COMP	
	Response	OSD:98:	[Data1]	[Data1] Output	Only supported by the
		[Data1]:[Data2]	0	Browser/Video	AW-HE60.
			1	SDI/HDMI,COMP	
			[Data2]	[Data2] MixSelect	
			0	Off	
			1	On	
			2	Off By Browser	

Example of use) •OSD menu: On [Control] PC → AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=DUS:1&res=1 [Response] AW-HE50 → PC 200 OK "DUS:1"

•OSD Off With TALLY: On [Control] $PC \rightarrow AW$ -HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:75:1&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "OSE:75:1"

•OSD Mix: Off

[Control] PC \rightarrow AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:7B:00&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "OSE:7B:00"

 SDI/HDMI, COMP CHARACTER MIX: Off
 [Control] PC → AW-HE60 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:98:1:0&res=1
 [Response] AW-HE60 → PC 200 OK "OSD:98:1:0"

3.2.22. Smart picture flip information

This command enables the status of the camera's smart picture flip to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
Smart picture flip status query command	Request	QFS	None		 Basically, the information is generated by the camera itself, and posted. The current status is posted at startup as well. Current status queries are also supported by the query command. Normal is switched to Flip or vice versa depending on the Install Position setting. Only supported by the AW-HE120/AW-HE130.
	Response	OFS:[Data]	0 1	Normal Flip	Only supported by the AW-HE120/AW-HE130.

Table 3.2.22.	Smart nicture	flin	information
	Smart picture	шp	iniomation

Example of use)

 Smart picture flip status acquisition
 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=QFS&res=1
 [Response] AW-HE120 → PC 200 OK "OFS:[Data]"

3.2.23. Focus Adjust with PTZ setting

These commands control the Focus Adjust with PTZ and enable the current settings to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
Focus ADJ With	Control	OAZ:[Data]	0	Off	
PTZ			1	On	
control command	Response	OAZ:[Data]			
Focus ADJ With	Request	QAZ	None		
PTZ	Response	OAZ:[Data]	0	Off	
query command			1	On	

Table 3.2.23. Focus Adjust with PTZ

Example of use) Focus Adjust with PTZ: On [Control] PC \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_cam?cmd=OAZ:1&res=1 [Response] AW-HE50 \rightarrow PC 200 OK "OAZ:1"

3.2.24. Frequency setting

These commands enable the system frequency to be switched and the current setting to be acquired.

Command name	Category	Command	Data value	Setting	Remarks
Frequency	Control	OSE:77:[Data]	0	59.94Hz	□ The AW-HE50 is supported by
control command			1	50Hz	Ver.2 or a later version.
	Response	OSE:77:[Data]			
Frequency	Request	QSE:77	None		
query command	Response	OSE:77:[Data]	0	59.94Hz	The AW-HE50 is supported by
			1	50Hz	Ver.2 or a later version.

Table 3.2.24. Frequency

Example of use) Frequency: 50Hz [Control] PC \rightarrow AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSE:77:1&res=1 [Response] AW-HE120 \rightarrow PC 200 OK "OSE:77:1"

3.2.25. Error information

This command acquires the error information mainly of the camera.

Command name	Category	Command	Data value	Setting	Remarks
Error information	Request	QER	None		Only supported by the
query command	Deenenee		0	Nerreel	AW-HE120.
	Response	OER:[Data]	U	Normal	Only supported by the
			1	Fan Error	AW-HE120.

Table 3.2.25. Error information

Example of use)

 Error information acquisition
 [Control] PC → AW-HE120 http://192.168.0.10/cgi-bin/aw_cam?cmd=QER&res=1
 [Response] AW-HE120 → PC 200 OK "OER:[Data]"

3.2.26. Option switch settings

These commands control the On/Off of the option functions.

Command name	Category	Command	Data value	Setting	Remarks
Option switch control command	Control	#D6[Data]	0	OFF ON	 Only supported by the AW-HE60/AW-HE130/AW-HE40/ AW-HE65/AW-HE70/AW-UE70. OFF: Switching to Day mode.
	Response	d6[Data]			ON: Switching to Night mode.
Option switch	Request	#D6	None		□ Only supported by the
query command	Response	d6[Data]	0 1	OFF ON	AW-HE60/AW-HE130/AW-HE40/ AW-HE65/AW-HE70/AW-UE70. OFF: Day mode ON: Night mode
Night mode selection control command	Control	OSD:B2:[Data]	0 1	Manual Auto	□ Only supported by the AW-HE40/ AW-HE65/AW-HE70/AW-UE70.
	Response	OSD:B2:[Data]			
Night mode	Request	QSD:B2	None		□ Only supported by the AW-HE40/
selection query command	Response	OSD:B2:[Data]	0	Manual Auto	AW-HE65/AW-HE70/AW-UE70.
Night mode level control command	Control	OSD:B7:[Data]	0 1 2	Low Mid High	□ Only supported by the AW-HE40/ AW-HE65/AW-HE70/AW-UE70.
	Response	OSD:B7:[Data]			
Night mode level	Request	QSD:B7	None		□ Only supported by the AW-HE40/
query command	Response	OSD:B7:[Data]	0 1 2	Low Mid High	AW-HE65/AW-HE70/AW-UE70.

Example of use) •Option switch: ON [Control] PC → AW-HE60 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23D61&res=1 [Response] AW-HE60 → PC 200 OK "d61"

3.2.27. Audio settings

These commands control over audio functions.

Command name	Category	Command	Data value	Setting	Remarks
Audio settings control command	Control	OSA:D0:[Data]	0 1	OFF ON	□ Only supported by the AW-HE130/AW-HE40/AW-HE65/ AW-HE70/AW-UE70.
	Response	OSA:D0:[Data]			
Audio settings	Request	QSA:D0	None		
query command	Response	OSA:D0:[Data]	0 1	OFF ON	
Audio Input Volume control command Audio Input Volume query command	Control Response Request Response	OSA:D1:[Data] OSA:D1:[Data] QSA:D1 OSA:D1:[Data]	0 1 2 3 4 5 None 0 1 2 3 4 5	Mic High Mic Middle Mic Low Line High Line Middle Line Low Mic High Mic Middle Mic Low Line High Line Middle Line Low	□ Only supported by the AW-HE130/AW-HE40/AW-HE65/ AW-HE70/AW-UE70.
Audio Plugin Power	Control	OSA:D2:[Data]	0	OFF ON	□ Only supported by the AW-HE130/AW-HE40/AW-HE65/
control command	Response	OSA:D2:[Data]			AW-HE70/AW-UE70.
Audio Plugin	Request	QSA:D2	None		1
Power query command	Response	OSA:D2:[Data]	0 1	OFF ON	

Table	3227	Audio	settings
Table	5.2.27	Audio	Settings

Audio auto level	Control	OSD:BB:[Data]	0	OFF	*AW-UE70,
adjust			1	ON	AW-HE40/AW-HE65/AW-HE70
control command	Response	OSD:BB:[Data]	-		(SFU01)
Audio auto level	Request	QSD:BB	None		
adjust	Response	OSD:BB:[Data]	0	OFF	
query command			1	ON	
Audio equalizer	Control	OSD:BC:[Data]	0	OFF	
control command			1	LowCUT	
			2	VOICE	
	Response	OSD:BC:[Data]			
Audio equalizer	Request	QSD:BC	None		
control command	Response	OSD:BC:[Data]	0	OFF	
			1	LowCUT	
			2	VOICE	

Example of use) •Audio settings: ON [Control] PC → AW-HE130 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:D0:1&res=1 [Response] AW-HE130→ PC 200 OK "OSA:D0:1"

 Audio Input Volume: Mic High
 [Control] PC → AW-HE130 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:D1:0&res=1
 [Response] AW-HE130→ PC 200 OK "OSA:D1:0"

 Audio Plugin Power: ON
 [Control] PC → AW-HE130 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:D2:1&res=1
 [Response] AW-HE130→ PC 200 OK "OSA:D2:1"

3.2.28. Tally Brightness settings

These commands control the brightness of the tally LEDs.

Command name	Category	Command	Data value	Setting	Remarks
Tally Brightness settings control command	Control	OSA:D3:[Data]	0 1 2	LOW MID HIGH	XOnly supported by the AW-HE130.
	Response	OSA:D3:[Data]			
Tally Brightness	Request	QSA:D3	None		Only supported by the
settings	Response	OSA:D3:[Data]	0	LOW	AW-HE130.
query command			1	MID	
			2	HIGH	

Table 3.2.28. Tally Brightness settings

Example of use)

 Tally Brightness settings: MID
 [Control] PC → AW-HE130 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:D3:1&res=1
 [Response] AW-HE130→ PC 200 OK "OSA:D3:1"

3.2.29. Knee settings

These commands control over Knee.

Command name	Category	Command	Data value	Setting	Remarks
Knee settings control command	Control	OSA:2D:[Data]	0 1 2	OFF MANUAL AUTO	 ※Only supported by the AW-HE130. •When DRS is set to On, the knee setting is disabled.
	Response	OSA:2D:[Data]			setting is disabled.
Knee settings	Request	QSA:2D	None		XOnly supported by the
query command	Response	OSA:2D:[Data]	0 1 2	OFF MANUAL AUTO	AW-HE130.
Knee Point control command	Control	OSA:20:[Data]	22h ≹ 80h ≹ B6h	70.00%	※Only supported by the AW-HE130.
	Response	OSA:20:[Data]			
Knee Point query command	Request Response	QSA:20 OSA:20:[Data]	None 22h ₹ 80h ₹ B6h	70.00%	₩Only supported by the AW-HE130.
Knee Slope control command	Control	OSA:24:[Data]	00h ≀ 63h	0 ≀ 99	※Only supported by the AW-HE130.
Knee Slope	Response Request	OSA:24:[Data] QSA:24	None		XOnly supported by the
query command	Response	OSA:24:[Data]	00h	0	AW-HE130.

Table 3.2.29. Knee settings

Example of use)

Knee settings: MANUAL

[Control] PC \rightarrow AW-HE130 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:2D:1&res=1 [Response] AW-HE130 \rightarrow PC 200 OK "OSA:2D:1"

•Knee Point: 93.50%

[Control] PC → AW-HE130 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:20:80&res=1 [Response] AW-HE130→ PC 200 OK "OSA:20:80"

Knee Slope: 0

[Control] $PC \rightarrow AW-HE130$

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:24:00&res=1 [Response] AW-HE130 \rightarrow PC

200 OK "OSA:24:00"

3.2.30. White Clip settings

These commands control over White Clip.

Command name	Category	Command	Data value	Setting	Remarks
White Clip settings	Control	OSA:2E:[Data]	0	OFF	※Only supported by the
control command			1	ON	AW-HE130.
	Response	OSA:2E:[Data]			
White Clip settings	Request	QSA:2E	None		※Only supported by the
query command	Response	OSA:2E:[Data]	0	OFF	AW-HE130.
			1	ON	
White Clip Level	Control	OSA:2A:[Data]	00h	90%	XOnly supported by the
control command			2	2	AW-HE130.
			13h	109%	When [Knee Mode] is set to Auto
	Response	OSA:2A:[Data]			and the White Clip value is
					changed, the Knee value will also change.
White Clip Level	Request	QSA:2A	None		XOnly supported by the
query command	Response	OSA:2A:[Data]	00h	90%	AW-HE130.
			2	2	
			13h	109%	

Table 3.2.30. White Clip settings

Example of use) •White Clip settings: ON [Control] PC → AW-HE130 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:2E:1&res=1 [Response] AW-HE130→ PC 200 OK "OSA:2E:1"

 White Clip Level: 90%
 [Control] PC → AW-HE130 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:2A:00&res=1
 [Response] AW-HE130→ PC 200 OK "OSA:2A:00"

3.2.31. OIS settings

These commands control over OIS.

Command name	Category	Command	Data value	Setting	Remarks
OIS settings control command	Control	OIS:[Data]	0 1 2	Off On On(Mode2) **	Only supported by the AW-HE130/AW-HE40/AW-HE65/ AW-HE70/AW-UE70.
	Response	OIS:[Data]			■ Models AW-HE40/AW-HE65/
OIS settings	Request	QIS	None		AW-HE70 provide electronic image
OIS settings query command	Response	OIS:[Data]	0 1 2	Off On On(Mode2) **	stabilization instead. •The formats marked with ** are supported only by the AW-UE70.

Table 3.2.31. OIS settings

Example of use)

 OIS settings: On
 [Control] PC → AW-HE130 http://192.168.0.10/cgi-bin/aw_cam?cmd=OIS:1&res=1
 [Response] AW-HE130→ PC 200 OK "OIS:1"

3.2.32. HDR settings

These commands control over HDR.

				0	
Command name	Category	Command	Data value	Setting	Remarks
HDR settings	Control	OSD:B4:[Data]	In the case	of the AW-HE40/AW-H	E65/AW-HE70/AW-UE70
control command			0	Off	
			1	Low	
			3	High	
	Response	OSD:B4:[Data]			
HDR settings	Request	QSD:B4	None		
query command	Response	OSD:B4:[Data]	In the case	of the AW-HE40/AW-H	E65/AW-HE70/AW-UE70
			0	Off	
			1	Low	
			3	High	

Table 3.2.32. HDR settings

Example of use) •HDR settings: Off [Control] PC → AW-HE40 http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:B4:0&res=1 [Response] AW-HE40 → PC 200 OK "OSD:B4:0"

4. Camera information update notification

The following restrictions apply to camera operations that are performed using HTTP communication and that have been described in the previous chapters:

- A) Even when a camera setting is changed by one terminal, the other terminals will not know that the setting has been changed unless they send the query command to the camera.
- B) In the case of a preset playback, AWB/ABB execution or other control commands that take time to be processed, it is necessary to wait until the processing is completed for the response.

By sending information autonomously from the camera to the terminals, it is possible to do the following:

- A) When a camera setting is changed by one terminal, the other terminals are notified of the setting change immediately.
- B) With a control command that takes time to be processed, the HTTP response is returned as soon as the command has been received, and separate notification of the processing result is given as soon as the processing is completed.

These functions are referred to as the camera information update notification function.

This chapter uses the term "update notification" to refer to this function.

4.1. Procedure for receiving the update notifications

An HTTP message is sent to the camera to start or stop the reception of the update notification from the camera.

At a time like this, the number of the TCP port on the terminal for receiving the update notification (having the update notification sent) is specified.

The 1 update notification receive start steps and 2 update notification receive end steps are each described below.

1 Update notification receive start step

Example)

When reception is to be started with "192.168.0.10" used as the IP address of the camera http://192.168.0.10/cgi-bin/event?connect=start&my_port=31004&uid=0 my_port ... Number of the TCP port on the terminal (fixed at 31004)

Given below is the sequence which is followed when receiving the update notifications is started.

[Update notification receive start sequence]

The update notification receive start command is sent from the terminal where the update notifications are to be received.

"204 No Content" is returned from the camera which has received the command.

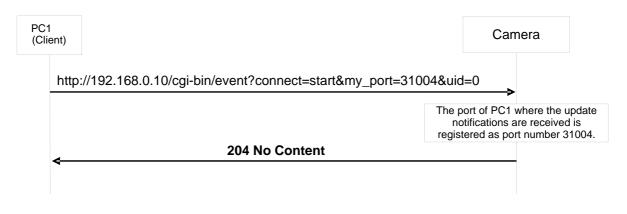


Fig.4-1 Update notification receive start sequence

[Caution]

Proceed with the update notification receive start step when communication has been cut off because the LAN cable has been disconnected, for example.

2 Update notification receive end step

To close the application of the client, the update notification receive end step must be taken without fail.

Example)

When reception is to be ended with "192.168.0.10" used as the IP address of the camera http://192.168.0.10/cgi-bin/event?connect=stop&my_port=31004&uid=0 my_port ... Number of the TCP port on the terminal (fixed at 31004)

Given below is the sequence which is followed when receiving the update notifications is to be ended.

[Update notification receive end sequence]

The update notification receive end command is sent from the terminal which has received the update notifications.

"204 No Content" is returned from the camera which received the command.

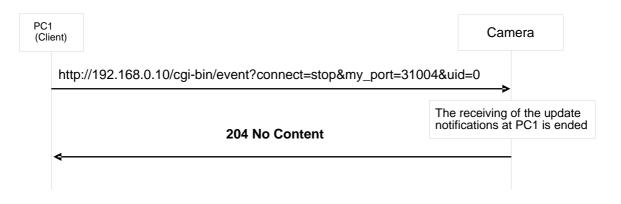


Fig.4-2 Update notification receive end sequence

4.2. Data format for update notifications

The data received in the update notifications will be described next.

The update notification is given to the TCP port on the terminal whose number was specified using the update notification start command by TCP protocol communication.

A breakdown of the data received is given below.

[Receive data]

Reserve	Size	Reserve	Update notification information	Reserve
(22 bytes)	(2 bytes)	(4 bytes)	(Variable length: Max. 504 bytes)	(24 bytes)

Fig.4-3 Receive data format

The updated information is set in "Update notification information" of the receive data format. The data received from the camera has a variable length.

The size of the update notification information is the value obtained by subtracting 8 bytes from the "Size" area setting.

• "Update notification information" data length = "Size" - 8 bytes

The updates of the camera are described in the update notification information.

The format used for the update notification information received from the camera is given below.

[Update notification information format]

[CR][LF][Command response format][CR][LF]

%[CR]:0x0d, [LF]:0x0a

Example 1) Power: On [CR][LF]**p1**[CR][LF]

Example 2) Color bar: On [CR][LF]**DCB:1**[CR][LF]

4.3. Setting change sequence

Update notifications are sent when the settings or statuses of the camera have been changed. Given below is an example of the update notification sequence.

It is assumed that the update notification start command has been sent to all the terminals in the sequence and that the terminals can receive the update notifications from the camera.

4.3.1. Changing the settings from a terminal

[Changing the settings from the local terminal]

When the settings of the camera have been changed from the local terminal (PC1), the changes are also posted by an update notification separately from the HTTP response to the command.

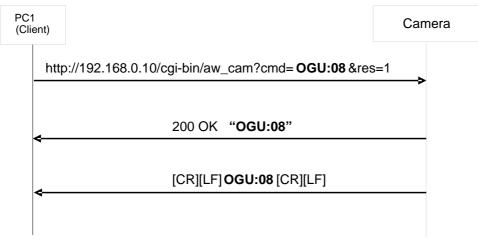


Fig.4-4 Changing the settings from the local terminal

[Changing the settings from another terminal]

When a camera setting has been changed from another terminal (PC2), the local terminal (PC1) is also notified of the change.

In addition to the HTTP response to the command, the other terminal (PC2) is notified of the change by an update notification as well.

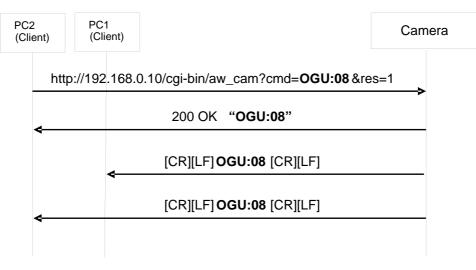


Fig.4-5 Changing the settings from another terminal

(Remarks)

When the camera receives the control command and its setting is changed, it gives an update notification.

(It does not give an update notification if a query command has been received.)

However, when any of the following commands have been received, the update notification is not given.

① OSD menu

	Table 4-1	
Com	imand name	Command
OSD menu Off/On	control command	DUS:[Data]
MENU switch On	control command	DPG
ITEM switch On	control command	DIT
YES switch On	control command	DUP
NO switch On	control command	DDW
RIGHT switch On	control command	DRT
LEFT switch On	control command	DLT

The RIGHT/LEFT switch On control command is supported only by the AW-HE120.

2 Pan, tilt, zoom, focus and iris operation commands <Pan-tilt head control commands>

Та	ble	4-2
l a	bie	4-Z

	Command name	Command
Pan/tilt	control command	#APC[Data1][Data2]
		#P[Data]
		#T[Data]
		#PTS[Data1][Data2]
Zoom	control command	#AXZ[Data]
		#Z[Data]
Focus	control command	#AXF[Data]
		#F[Data]
Iris position	control command	#I [Data]
		#AXI [Data]

<Camera control commands>

	Table 4-3	
Command name		Command
One-touch focus	control command	OSE:69:[Data]
Contrast level	control command	
(Picture level)		OSD:48:[Data]
Iris volume	control command	ORV:[Data]

4.3.2. Setting value initialization

The contents of the table below are posted in succession by the update notifications when the settings have been initialized using the OSD menu of the camera or from the web screen.

Notification		
XSF	Scene file	
ORS	Iris (Auto/Manual)	
OSD:48	Contrast level	
OSH	Shutter	
OMS	Synchro scan	
OGU	Gain	
OSA:65	Frame mix	
OSD:69	Maximum gain value	
OSE:74	Maximum frame mix value	
OCG	Chroma level	
OAW	AWB (AWC) mode	
ODT	Detail	
OSA:B1	TOTAL DTL LEVEL HIGH	raMain V3.05 or subsequent versions.
OSA:30	TOTAL DTL LEVEL	-
OSE:32	Flesh Tone Mode	•
OSE:31	Color matrix	
OSD:3A	Digital noise reduction (DNR)	
OTD	Pedestal	
OSE:72	Gamma type	
OSD:50	Gamma level	
OSE:73	Backlight compensation	
OSE:33	DRS	
OHP	Horizontal sync phase	
OSC	Subcarrier sync phase (coarse)	
OSN	Subcarrier sync phase (fine)	
OSE:20	Down-conversion mode	
OSE:68	HDMI color component	
iNS	Installation position	
uPVS	Pan preset speed	
OSE:71	Preset playback range	
OSE:70	Digital zoom On/Off	
sWZ	Zoom position-linked pan/tilt speed adjustment On/Off	
OAF	Focus Auto/Manual	
OAZ	Auto focus On/Off during zooming	
tAE	Tally input enable/disable	
OSA:88	AWB execution underway status display On/Off	
wLC	Wireless Control	
OSE:75	OSD Off With TALLY	
d6	Option switch	XOnly supported by the AW-HE60.
OSD:98:1	CHARACTER MIX (SDI/HDMI, COMP)	XOnly supported by the AW-HE60.
	CHARACTER MIX (Browser/Video)	*Only supported by the AW-HE60.

Table 4-4-1 (In the case of the AW-HE50/AW-HE60)

Table 4-4-2 (In the case of the AW-HE120)			
Notification	Remarks		
XSF	Scene file		
iNS	Installation position		
ORS	Iris (Auto/Manual)		
sPF	Smart Picture Flip		
OSD:48	Picture level		
fDA	Flip Detect Angle		
OSH	Shutter		
uPVS	Pan preset speed		
OMS	Synchro scan		
sWZ	Zoom position-linked pan/tilt speed adjustment On/Off		
OGU	Gain		
wLC	Wireless Control		
OSA:65	Frame mix		
OSD:69	Maximum gain value		
OSE:74	Maximum frame mix value		
OCG	Chroma level		
OAW	AWB (AWC) mode		
ODT	Detail		
OSE:31	Color matrix		
OSD:3A	Digital noise reduction (DNR)		
ORI	R GAIN		
OBI	B GAIN		
OTP	Pedestal		
ORP	R PEDESTAL		
OBP	B PEDESTAL		
OSE:72	Gamma type		
OSD:50	Gamma level		
OSD:2F	Linear Matrix (R-G)		
OSD:30	Linear Matrix (R-B)		
OSD:31	Linear Matrix (G-R)		
OSD:32	Linear Matrix (G-B)		
OSD:33	Linear Matrix (B-R)		
OSD:34	Linear Matrix (B-G)		
OSD:0A	H Detail Level H		
OSD:0E	V Detail Level H		
OSD:12	H Detail Level L		
OSD:12	V Detail Level L		
OSD:1E	Detail Band		
OSD:22	Noise Suppress		
OSD:4B	FleshTone Noise Suppress		
OSD:80	Color Correction (B_Mg GAIN/SATURATION)		
OSD:81	Color Correction (B_Mg PHASE)		
OSD:82	Color Correction (Mg GAIN/SATURATION)		
OSD:82	Color Correction (Mg PHASE)		
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	Table 4-4-2 (In the case of the AW-HE120) (continued)
Notification	Remarks
OSD:84	Color Correction (Mg_R GAIN/SATURATION)
OSD:85	Color Correction (Mg_R PHASE)
OSD:86	Color Correction (R GAIN/SATURATION)
OSD:87	Color Correction (R PHASE)
OSD:88	Color Correction (R_YI GAIN/SATURATION)
OSD:89	Color Correction (R_YI PHASE)
OSD:8A	Color Correction (YI GAIN/SATURATION)
OSD:8B	Color Correction (YI PHASE)
OSD:8C	Color Correction (YI_G GAIN/SATURATION)
OSD:8D	Color Correction (YI_G PHASE)
OSD:8E	Color Correction (G GAIN/SATURATION)
OSD:8F	Color Correction (G PHASE)
OSD:90	Color Correction (G_Cy GAIN/SATURATION)
OSD:91	Color Correction (G_Cy PHASE)
OSD:92	Color Correction (Cy GAIN/SATURATION)
OSD:93	Color Correction (Cy PHASE)
OSD:94	Color Correction (Cy_B GAIN/SATURATION)
OSD:95	Color Correction (Cy_B PHASE)
OSD:96	Color Correction (B GAIN/SATURATION)
OSD:97	Color Correction (B PHASE)
OFT	ND Filter
OSE:33	DRS
OAF	Focus Auto/Manual
OSE:7B	OSD Mix
OHP	Horizontal sync phase
ORV	Iris Mode (AUTO/MANUAL)
OSA:87	Format
OSA:88	AWB execution underway status display On/Off
OSE:20	Down-conversion mode
OSE:68	HDMI color component
OSE:70	Digital zoom On/Off
OSE:71	Preset playback range
OSE:75	OSD Off With TALLY
OSE:77	Frequency
OSE:7A	Maximum Digital Zoom
DCB	COLOR BAR/CAMERA
OAZ	Auto focus On/Off during zooming
DCS	Color Bars Setup
OSD:65	OUTPUT SELECT

Table 4-4-3 (In the case of the AW-HE130)			
Notification	Remarks		
XSF	Scene file		
OSD:48	Picture Level		
ORS	Iris Mode		
OSH	Shutter Mode		
OMS	Step/Synchro		
OGU	Gain		
OSD:69	AGC Max Gain		
OSA:65	Frame Mix		
OFT	ND Filter		
d6	Day/Night		
OSD:B0	Chroma Level		
OAW	White Balance Mode		
OSD:B1	Color Temperature		
ORI	R Gain		
OBI	B Gain		
OTP	Pedestal		
ORP	R Pedestal		
OBP	B Pedestal		
ODT	Detail		
OSA:30	Master Detail		
OSD:A1	V Detail Level		
OSD:A2	Detail Band		
OSD:22	Noise Suppress		
OSD:A3	FleshTone NoiseSUP.		
OSE:72	Gamma Type		
OSA:6A	Gamma		
OSE:33	DRS		
OSA:2D	Knee Mode		
OSA:20	Knee Point		
OSA:24	Knee Slope		
OSA:2E	White Clip		
OSA:2A	White Clip Level		
OSD:3A	DNR		
OSE:31	Matrix Type		
OSD:A4	Linear Matrix (R-G)		
OSD:A5	Linear Matrix (R-B)		
OSD:A6	Linear Matrix (G-R)		
OSD:A7	Linear Matrix (G-B)		
OSD:A8	Linear Matrix (B-R)		
OSD:A9	Linear Matrix (B-G)		
OSD:80	Color Correction (B_Mg GAIN/SATURATION)		
OSD:81	Color Correction (B_Mg PHASE)		
OSD:82	Color Correction (Mg GAIN/SATURATION)		
OSD:83	Color Correction (Mg PHASE)		

	Table 4-4-3 (In the case of the AW-HE130) (continued)
Notification	Remarks
OSD:84	Color Correction (Mg_R GAIN/SATURATION)
OSD:85	Color Correction (Mg_R PHASE)
OSD:9A	Color Correction (Mg_R_R GAIN/SATURATION)
OSD:9B	Color Correction (Mg_R_R PHASE)
OSD:86	Color Correction (R GAIN/SATURATION)
OSD:87	Color Correction (R PHASE)
OSD:9C	Color Correction (R_R_YI GAIN/SATURATION)
OSD:9D	Color Correction (R_R_YI PHASE)
OSD:88	Color Correction (R_YI GAIN/SATURATION)
OSD:89	Color Correction (R_YI PHASE)
OSD:9E	Color Correction (R_YI_YI GAIN/SATURATION)
OSD:9F	Color Correction (R_YI_YI PHASE)
OSD:8A	Color Correction (YI GAIN/SATURATION)
OSD:8B	Color Correction (YI PHASE)
OSD:8C	Color Correction (YI_G GAIN/SATURATION)
OSD:8D	Color Correction (YI_G PHASE)
OSD:8E	Color Correction (G GAIN/SATURATION)
OSD:8F	Color Correction (G PHASE)
OSD:90	Color Correction (G_Cy GAIN/SATURATION)
OSD:91	Color Correction (G_Cy PHASE)
OSD:92	Color Correction (Cy GAIN/SATURATION)
OSD:93	Color Correction (Cy PHASE)
OSD:94	Color Correction (Cy_B GAIN/SATURATION)
OSD:95	Color Correction (Cy_B PHASE)
OSD:96	Color Correction (B GAIN/SATURATION)
OSD:97	Color Correction (B PHASE)
OHP	Horizontal Phase
OSE:20	Down CONV. Mode
OSE:68	HDMI Color
DCS	Color Bars Setup
iNS	Installation position
sPF	Smart Picture Flip
fDA	Flip Detect Angle
pST	Preset Speed Table
uPVS	Preset Speed
OSE:71	Preset Scope
pRF	Freeze During Preset
sWZ	Speed With Zoom POS.
OAF	Focus Mode
OAZ	Focus ADJ With PTZ.
OSE:70	Digital Zoom
OSE:7A	Max Digital Zoom
ODE	Digital Extender
OIS	OIS

Notification	Remarks
tAE	Tally Enable
OSA:D3	Tally Brightness
wLC	Wireless Control
OSE:7B	OSD Mix
OSE:75	OSD Off With Tally
OSA:88	OSD Status
OSA:D0	Audio Enable
OSA:D1	Audio Input Volume
OSA:D2	Audio Plugin Power
OVP:01	Model Select

Table 4-4-3 (In the case of the AW-HE130) (continued)

	-4-4 (In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70)			
Notification	Remarks			
XSF	Scene file			
OSE:70	Digital Zoom			
OSE:7A	Max Digital Zoom			
OSD:B3	i.Zoom			
ODE	Digital Extender			
OSD:B8	Digital Extender Magnification *only AW-UE70			
OAF	Focus Mode			
d1	Extender/AF Control			
OAZ	Focus ADJ With PTZ.			
ORS	Iris Mode			
d3	Iris Auto/Manual			
ORV	Iris Mode (AUTO/MANUAL)			
OSH	Shutter Mode			
OMS	Step/Synchro			
OSD:BF	AutoShutterLimit *only AW-UE70			
OGU	Gain			
OSD:69	AGC Max Gain			
OSA:65	Frame Mix			
OSE:74	Maximum frame mix value			
OFT	ND Filter *only AW-UE70			
OCG	Chroma Level			
OSD:48	Picture Level			
OIS	OIS			
OAW	White Balance Mode			
OSD:B1	Color Temperature			
OTD	Pedestal			
ODT	Detail			
OSA:30	Master Detail			
OSA:B1	TOTAL DTL LEVEL HIGH			
OSE:72	Gamma Type			
OSD:50	Gamma Level			
OSE:33	DRS			
OSD:3A	DNR			
d6	Day/Night			
OSD:B2	Night Mode Sel			
OSD:B2	NIGHT-DAY LEVEL			
OSD:B4	HDR			
OSE:31	Matrix Type			
OSD:82	Color Correction (Mg GAIN/SATURATION)			
OSD:83	Color Correction (Mg PHASE)			
OSD:84	Color Correction (Mg_R GAIN/SATURATION)			
OSD:85	Color Correction (Mg_R PHASE)			
OSD:86	Color Correction (R GAIN/SATURATION)			
OSD:87	Color Correction (R PHASE)			
OSD:9C	Color Correction (R_R_YI GAIN/SATURATION)			
OSD:9D	Color Correction (R_R_YI PHASE)			
OSD:9E	Color Correction (R_YI_YI GAIN/SATURATION)			
560.0L				

Table 4-4-4 (In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70)

Notification	Remarks		
OSD:9F	Color Correction (R_YI_YI PHASE)		
OSD:8A	Color Correction (YI GAIN/SATURATION)		
OSD:8B	Color Correction (YI PHASE)		
OSD:8E	Color Correction (G GAIN/SATURATION)		
OSD:8F	Color Correction (G PHASE)		
OSD:90	Color Correction (G_Cy GAIN/SATURATION)		
OSD:91	Color Correction (G_Cy PHASE)		
OSD:92	Color Correction (Cy GAIN/SATURATION)		
OSD:93	Color Correction (Cy PHASE)		
OSD:96	Color Correction (B GAIN/SATURATION)		
OSD:97	Color Correction (B PHASE)		
OSD:AA	Color Correction (Cy_Cy_B GAIN/SATURATION)		
OSD:AB	Color Correction (Cy_Cy_B PHASE)		
OSD:AC	Color Correction (Cy_B_B GAIN/SATURATION)		
OSD:AD	Color Correction (Cy_B_B PHASE)		
OSD:C0	Color Correction (B_B_Mg GAIN/SATURATION)		
OSD:C1	Color Correction (B_B_Mg PHASE)		
OSD:C2	Color Correction (B_Mg_Mg GAIN/SATURATION)		
OSD:C3	Color Correction (B_Mg_Mg PHASE)		
OSD:C4	Color Correction (YI_YI_G GAIN/SATURATION)		
OSD:C5	Color Correction (YI_YI_G PHASE)		
OSD:C6	Color Correction (YI_G_G GAIN/SATURATION)		
OSD:C7	Color Correction (YI_G_G PHASE)		
OHP	H PHASE *only AW-UE70		
OSD:B9	Format_SDI *only AW-UE70		
DCB	COLOR BAR/CAMERA		
OSD:BA	Color Bars Type *only AW-UE70 or need AW-SFU01		
OSD:BE	Bars Title *only AW-UE70 or need AW-SFU01		
OSA:D0	Audio Enable		
OSA:D1	Audio Input Volume		
OSA:D2	Audio Plugin Power		
OSD:BB	Audio ALC *only AW-UE70 or need AW-SFU01		
OSD:BC	Audio Equalize *only AW-UE70 or need AW-SFU01		
sWZ	Speed With Zoom POS.		
pST	Preset Speed Table		
uPVS	Preset Speed		
uTVS	Preset Speed		
OSE:71	Preset Scope		
pRF	Freeze During Preset		
iNS	Installation position		
OSA:88	OSD Status		
OSE:75	OSD Off With Tally		
wLC	Wireless Control		
rID	Wireless Controller ID		
rZL	IP image resolution		
OVP:01	Model Select		

The sequence during setting value initialization is as follows.

[Setting value initialization sequence]

The items whose settings have been changed by initialization are notified in succession when the settings are initialized using the OSD menu of the camera or from the web screen.

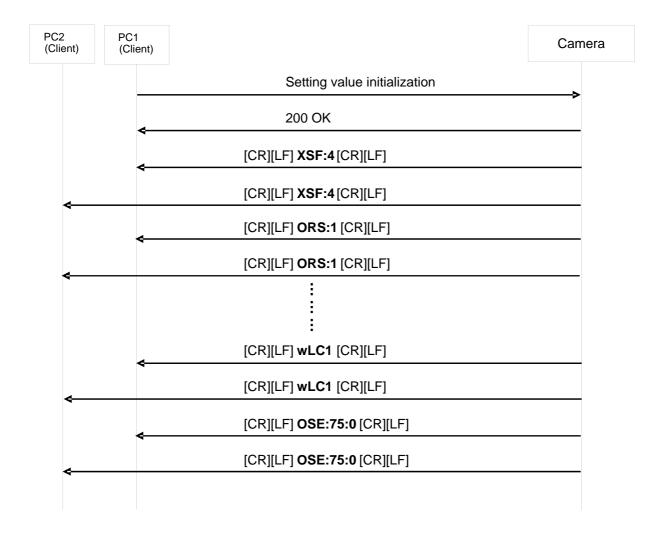


Fig.4-6 Setting value initialization

4.3.3. Scene file selection

The contents of the table below are posted in succession by the update notifications when scene files have been switched.

Notification	Remarks
XSF	Scene file
ORS	Iris (Auto/Manual)
OSD:48	Contrast level
OSH	Shutter
OMS	Synchro scan
OGU	Gain
OSA:65	Frame mix
OSD:69	Maximum gain value
OSE:74	Maximum frame mix value
OCG	Chroma level
OAW	AWB (AWC) mode
ODT	Detail
OSA:B1	TOTAL DTL LEVEL HIGH
OSA:30	TOTAL DTL LEVEL
OSE:32	Flesh Tone Mode
OSE:31	Color matrix
OSD:3A	Digital noise reduction (DNR)
ORG	R GAIN %The AW-HE50 is supported by Ver.2 or a later version.
OBG	B GAIN %The AW-HE50 is supported by Ver.2 or a later version.
OTD	Pedestal
OSE:72	Gamma type
OSD:50	Gamma level
OSE:73	Backlight compensation
OSE:33	DRS
d6	Option switch

Table 4-5-1 (In the case of the AW-HE50/AW-HE60)

Table 4-5-2 (In the case of the AW-HE120)		
Notification	Remarks	
XSF	Scene file	
ORS	Iris (Auto/Manual)	
OSD:48	Picture level	
OSH	Shutter	
OMS	Synchro scan	
OGU	Gain	
OSA:65	Frame mix	
OSD:69	Maximum gain value	
OSE:74	Maximum frame mix value	
OCG	Chroma level	
OAW	AWB (AWC) mode	
ODT	Detail	
OSE:31	Color matrix	
OSD:3A	Digital noise reduction (DNR)	
ORI	R GAIN	
OBI	B GAIN	
OTP	Pedestal	
ORP	R PEDESTAL	
OBP	B PEDESTAL	
OSE:72	Gamma type	
OSD:50	Gamma level	
OSD:2F	Linear Matrix (R-G)	
OSD:30	Linear Matrix (R-B)	
OSD:31	Linear Matrix (G-R)	
OSD:32	Linear Matrix (G-B)	
OSD:33	Linear Matrix (B-R)	
OSD:34	Linear Matrix (B-G)	
OSD:0A	H Detail Level H	
OSD:0E	V Detail Level H	
OSD:12	H Detail Level L	
OSD:16	V Detail Level L	
OSD:1E	Detail Band	
OSD:22	Noise Suppress	
OSD:4B	FleshTone Noise Suppress	
OSD:80	Color Correction (B_Mg GAIN/SATURATION)	
OSD:81	Color Correction (B_Mg PHASE)	
OSD:82	Color Correction (Mg GAIN/SATURATION)	
OSD:83	Color Correction (Mg PHASE)	
OSD:84	Color Correction (Mg_R GAIN/SATURATION)	
OSD:85	Color Correction (Mg_R PHASE)	
OSD:86	Color Correction (R GAIN/SATURATION)	
OSD:87	Color Correction (R PHASE)	
OSD:88	Color Correction (R_YI GAIN/SATURATION)	
OSD:89	Color Correction (R_YI PHASE)	

Table 4-5-2 (In the case of the AW-HE120) (continued)		
Notification	Remarks	
OSD:8A	Color Correction (YI GAIN/SATURATION)	
OSD:8B	Color Correction (YI PHASE)	
OSD:8C	Color Correction (YI_G GAIN/SATURATION)	
OSD:8D	Color Correction (YI_G PHASE)	
OSD:8E	Color Correction (G GAIN/SATURATION)	
OSD:8F	Color Correction (G PHASE)	
OSD:90	Color Correction (G_Cy GAIN/SATURATION)	
OSD:91	Color Correction (G_Cy PHASE)	
OSD:92	Color Correction (Cy GAIN/SATURATION)	
OSD:93	Color Correction (Cy PHASE)	
OSD:94	Color Correction (Cy_B GAIN/SATURATION)	
OSD:95	Color Correction (Cy_B PHASE)	
OSD:96	Color Correction (B GAIN/SATURATION)	
OSD:97	Color Correction (B PHASE)	
OFT	ND Filter	
OSE:33	DRS	
OAF	Focus Auto/Manual	
OSE:7B	OSD Mix	
OHP	Horizontal Phase	
ORV	Iris Mode (AUTO/MANUAL)	
OSA:87	Format	
OSA:88	OSD Status	
OSE:20	DownCONV.Mode	
OSE:68	HDMI COLOR	
OSE:70	DIGITAL ZOOM ENABLE	
OSE:71	PRESET SCOPE	
OSE:75	OSD Off With Tally	
OSE:77	Frequency	
OSE:7A	Maximum Digital Zoom	
DCB	COLOR BAR/CAMERA	
OAZ	Focus ADJ with PTZ	
DCS	Color Bars Setup	
OSD:65	OUTPUT SELECT	

Table 4-5-3 (In the case of the AW-HE130)		
Notification	Remarks	
XSF	Scene file	
OSD:48	Picture Level	
ORS	Iris Mode	
OSH	Shutter Mode	
OMS	Step/Synchro	
OGU	Gain	
OSD:69	AGC Max Gain	
OSA:65	Frame Mix	
OFT	ND Filter	
d6	Day/Night	
OSD:B0	Chroma Level	
OAW	White Balance Mode	
OSD:B1	Color Temperature	
ORI	R Gain	
OBI	B Gain	
OTP	Pedestal	
ORP	R Pedestal	
OBP	B Pedestal	
ODT	Detail	
OSA:30	Master Detail	
OSD:A1	V Detail Level	
OSD:A2	Detail Band	
OSD:22	Noise Suppress	
OSD:A3	FleshTone NoiseSUP.	
OSE:72	Gamma Type	
OSA:6A	Gamma	
OSE:33	DRS	
OSA:2D	Knee Mode	
OSA:20	Knee Point	
OSA:24	Knee Slope	
OSA:2E	White Clip	
OSA:2A	White Clip Level	
OSD:3A	DNR	
OSE:31	Matrix Type	
OSD:A4	Linear Matrix (R-G)	
OSD:A5	Linear Matrix (R-B)	
OSD:A6	Linear Matrix (G-R)	
OSD:A7	Linear Matrix (G-B)	
OSD:A8	Linear Matrix (B-B)	
OSD:A0	Linear Matrix (B-G)	
OSD:80	Color Correction (B_Mg GAIN/SATURATION)	
OSD:80	Color Correction (B_Mg PHASE)	
OSD:82	Color Correction (Mg GAIN/SATURATION)	
OSD:82	Color Correction (Mg PHASE)	
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	Table 4-5-3 (In the case of the AW-HE130) (continued)
Notification	Remarks
OSD:84	Color Correction (Mg_R GAIN/SATURATION)
OSD:85	Color Correction (Mg_R PHASE)
OSD:9A	Color Correction (Mg_R_R GAIN/SATURATION)
OSD:9B	Color Correction (Mg_R_R PHASE)
OSD:86	Color Correction (R GAIN/SATURATION)
OSD:87	Color Correction (R PHASE)
OSD:9C	Color Correction (R_R_YI GAIN/SATURATION)
OSD:9D	Color Correction (R_R_YI PHASE)
OSD:88	Color Correction (R_YI GAIN/SATURATION)
OSD:89	Color Correction (R_YI PHASE)
OSD:9E	Color Correction (R_YI_YI GAIN/SATURATION)
OSD:9F	Color Correction (R_YI_YI PHASE)
OSD:8A	Color Correction (YI GAIN/SATURATION)
OSD:8B	Color Correction (YI PHASE)
OSD:8C	Color Correction (YI_G GAIN/SATURATION)
OSD:8D	Color Correction (YI_G PHASE)
OSD:8E	Color Correction (G GAIN/SATURATION)
OSD:8F	Color Correction (G PHASE)
OSD:90	Color Correction (G_Cy GAIN/SATURATION)
OSD:91	Color Correction (G_Cy PHASE)
OSD:92	Color Correction (Cy GAIN/SATURATION)
OSD:93	Color Correction (Cy PHASE)
OSD:94	Color Correction (Cy_B GAIN/SATURATION)
OSD:95	Color Correction (Cy_B PHASE)
OSD:96	Color Correction (B GAIN/SATURATION)
OSD:97	Color Correction (B PHASE)

Table 4-5-4 (In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70)		
Notification	Remarks	
XSF	Scene file	
ORS	Iris Mode	
d3	Iris Auto/Manual	
OSH	Shutter Mode	
OMS	Step/Synchro	
OSD:BF	AutoShutterLimit	
OGU	Gain	
OSD:69	AGC Max Gain	
OSA:65	Frame Mix	
OSE:74	Maximum frame mix value	
OFT	ND Filter	
OCG	Chroma Level	
OSD:48	Picture Level	
OSE:73	BACK LIGHT COMPENSATION	
OAW	White Balance Mode	
OSD:B1	Color Temperature	
OTD	Pedestal	
ODT	Detail	
OSA:30	Master Detail	
OSA:30 OSA:B1	TOTAL DTL LEVEL HIGH	
OSA.BT	SOFT SKIN	
OSE:72	Gamma Type	
OSD:50	Gamma Level	
OSE:33	DRS	
OSD:3A	DNR	
d6	Day/Night	
OSD:B2	Night Mode Sel	
OSD:B7	NIGHT-DAY LEVEL	
OSD:B4	HDR	
OSE:31	Matrix Type	
OSD:82	Color Correction (Mg GAIN/SATURATION)	
OSD:83	Color Correction (Mg PHASE)	
OSD:84	Color Correction (Mg_R GAIN/SATURATION)	
OSD:85	Color Correction (Mg_R PHASE)	
OSD:86	Color Correction (R GAIN/SATURATION)	
OSD:87	Color Correction (R PHASE)	
OSD:9C	Color Correction (R_R_YI GAIN/SATURATION)	
OSD:9D	Color Correction (R_R_YI PHASE)	
OSD:9E	Color Correction (R_YI_YI GAIN/SATURATION)	
OSD:9F	Color Correction (R_YI_YI PHASE)	
OSD:8A	Color Correction (YI GAIN/SATURATION)	
OSD:8B	Color Correction (YI PHASE)	
OSD:8E	Color Correction (G GAIN/SATURATION)	
OSD:8F	Color Correction (G PHASE)	
OSD:90	Color Correction (G_Cy GAIN/SATURATION)	
OSD:91	Color Correction (G_Cy PHASE)	
OSD:92	Color Correction (Cy GAIN/SATURATION)	
OSD:93	Color Correction (Cy PHASE)	
OSD:96	Color Correction (B GAIN/SATURATION)	
OSD:97	Color Correction (B PHASE)	
OSD:AA	Color Correction (Cy_Cy_B GAIN/SATURATION)	
OSD:AB	Color Correction (Cy_Cy_B PHASE)	
OSD:AC	Color Correction (Cy_B_B GAIN/SATURATION)	
000.00		

Table 4-5-4 (In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70)

Notification	Remarks
OSD:AD	Color Correction (Cy_B_B PHASE)
OSD:C0	Color Correction (B_B_Mg GAIN/SATURATION)
OSD:C1	Color Correction (B_B_Mg PHASE)
OSD:C2	Color Correction (B_Mg_Mg GAIN/SATURATION)
OSD:C3	Color Correction (B_Mg_Mg PHASE)
OSD:C4	Color Correction (YI_YI_G GAIN/SATURATION)
OSD:C5	Color Correction (YI_YI_G PHASE)
OSD:C6	Color Correction (YI_G_G GAIN/SATURATION)
OSD:C7	Color Correction (YI_G_G PHASE)

Given below is the sequence which is followed when scene files are selected.

[Scene file selection sequence]

The sequence below is followed if the scene file is changed to "Manual1".

When "XSF:1" is returned in the response to the scene selection command and the scene file change is completed, the settings changed by the change in the scene file are posted in sequence by update notifications.

PC2 (Client)	PC1 (Client)		Camera
	http	://192.168.0.10/cgi-bin/aw_cam?cmd= XSF:1 &res=1	>
	«	200 OK " XSF:1 "	
	4	[CR][LF] XSF:1 [CR][LF]	
د		[CR][LF] XSF:1 [CR][LF]	
	<	[CR][LF] ORS:1 [CR][LF]	
« ——		[CR][LF] ORS:1 [CR][LF]	
	٠	[CR][LF] OSE:73:0 [CR][LF]	
<u>ج</u>		[CR][LF] OSE:73:0 [CR][LF]	
	<	[CR][LF] OSE:33:0 [CR][LF]	
		[CR][LF] OSE:33:0 [CR][LF]	
•			

%The backlight compensation response (OSE:73:[Data]) is not supported by the AW-HE120.

Fig.4-7 Scene file selection

Described below are sequences which differ from the ones described in the previous pages.

4.4. Special sequences

Update notifications are sometimes sent at times other than when the settings or statuses of the camera have been changed.

Some cases are presented below.

It is assumed that the update notification start command has been sent to all the terminals in the sequence and that the terminals can receive the update notifications from the camera.

4.4.1. Version information notification

The version information is posted in 60-second cycles. The information posted is given below.

Table	e 4-6
Notification	Version information
qSV3V**.*****	qSV3V01.00L.002

Given below is the sequence which is followed when the version information is received.

[Sequence when the version information is received]

The camera sends the version information in 60-second cycles, and this information is received by terminals PC1 and PC2.

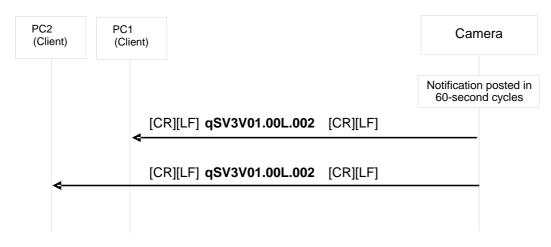


Fig.4-8 Sequence when the version information is received

4.4.2. Error information

In cases where the camera has detected error information, the error information is posted in 30-second cycles.

When operation has been restored from an error condition, [Error Code 00:Normal] is posted only once.

If the error has not been detected, the error information is not posted.

Given below is the information which is posted.

Table 4-7		
Notification	Error Code	
rER[Error Code]	In the case of the AW-HE50/AW-HE60	
	00h : Normal	
	03h:Motor Driver Error	
	04h:Pan Sensor Error	
	05h: Tilt Sensor Error	
	06h:Controller RX Over run Error	
	07h:Controller RX Framing Error	
	08h:Network RX Over run Error	
	09h:Network RX Framing Error	
	17h: Controller RX Command Buffer Overflow	
	19h:Network RX Command Buffer Overflow	
	21h:System Error	
	22h:Spec Limit Over	
	23h: FPGA Config Error	
	24h:Network communication Error	
	25h: Lens Initialize Error	
	30h:Lvds_Adjustment_NG	
	31h:Bar_Signal_Check_NG	
	32h:H_Sync_Check_NG	
	33h:HDMI_Check_NG	
	In the case of the AW-HE120/AW-HE130	
	00h:Normal	
	01h:-	
	02h:-	
	03h:Motor Driver Error	
	04h:Pan Sensor Error	
	05h:Tilt Sensor Error	
	06h:Controller RX Over run Error	
	07h:Controller RX Framing Error	
	08h:Network RX Over run Error	
	09h:Network RX Framing Error	
	0Ah:- 0Bh:-	
	17h:Controller RX Command Buffer Overflow	
	19h:Network RX Command Buffer Overflow	
	21h:System Error	
	22h:Spec Limit Over	
	24h:Network communication Error	
	25h:CAMERA communication Error	
	26h:CAMERA RX Over run Error	
	27h:CAMERA RX Framing Error	
	28h:CAMERA RX Command Buffer Overflow	
	In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70	

Table 4-7

Notification	Error Code
	00h:Normal(No Error)
	03h:Motor Driver Error
	04h:Pan Sensor Error
	05h:Tilt Sensor Error
	06h:IF/FPGA UART Over run Error
	07h:IF/FPGA UART Framing Error
	08h:IF/NET UART Over run Error
	09h:IF/NET UART Framing Error
	17h:IF/FPGA UART Buffer Overflow
	19h:IF/NET UART Buffer Overflow
	21h:System Error(IF/SERVO Error)
	22h:PT Limit Over
	24h:NET Life-monitoring Error
	25h:BE Life-monitoring Error
	26h:IF/BE UART Buffer Overflow
	27h:IF/BE UART Framing Error
	28h:IF/BE UART Buffer Overflow
	29h:CAM Life-monitoring Error

Given below is the sequence which is followed when error information is received.

[Error information receive sequence]

When the camera detects an error, it sends the error information to the terminals, and terminals PC1 and PC2 receive this information.

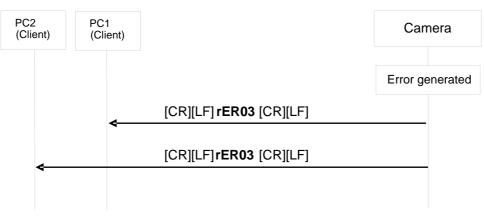


Fig.4-9 Sequence when error information is received

4.4.3. LPI information (lens information)

Notification is sent in a 300ms cycle when "On: Information is posted" has been set for the lens information notification On/Off control command in "3.1.6. Lens information notification" and a change has been made in the LPI information (lens information). The information posted is given below.

Table 4-8			
Notification	Lens information		
IPI [ZZZ] [FFF] [III]	ZZZ ······Zoom position FFF ······Focus position III ······Iris position		

Given below is the sequence which is followed when changes in the LPI (lens) information are received.

[Sequence when LPI information (lens information) is changed]

When the camera detects changes in the LPI (lens) information, the changed LPI (lens) information is sent to the terminals, and terminals PC1 and PC2 receive this information.

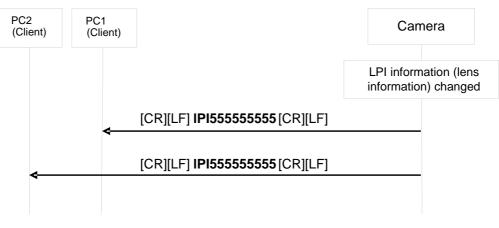


Fig.4-10 Sequence when LPI information is changed

4.4.4. Preset playback

This command sends the preset playback completion notification as an update notification when preset playback in the camera has been completed. The table below gives the notification details.

Table 4-9		
Notification Remarks		
q[numeral]	Number of the preset which was played back	

Given below is the sequence which is followed when presets are played back.

[Preset playback sequence]

This is the sequence in which preset number 08 is played back.

As soon as the preset playback command is received, "s07" is returned as the HTTP response, and as soon as the playback is completed after this, "q07" is posted separately as the update notification.

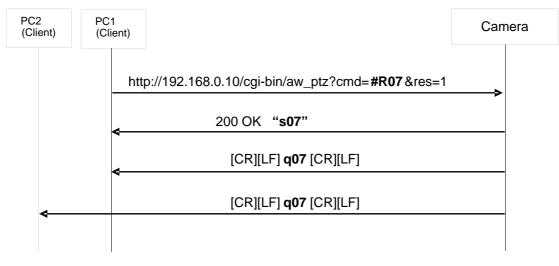


Fig.4-11 Preset playback

4.4.5. AWB/ABB execution

This command sends the execution results as an update notification when execution of AWB/ABB has been completed by the camera.

The information posted is given below.

Table 4-10 AWB result		
Notification	Remarks	
OWS	AWB execution successful	
ORI:096	R Gain (only when AWB is successfully executed) %1 * Notified with the AW-HE120/AW-HE130	
OBI:096	B Gain (only when AWB is successfully executed) %1 * Notified with the AW-HE120/AW-HE130	
ORG:1E	R Gain (only when AWB is successfully executed) ※1 * Notified by AW-HE50 Ver.2 or subsequent versions or by AW-HE60.	
OBG:1E	B Gain (only when AWB is successfully executed) ※1 * Notified by AW-HE50 Ver.2 or subsequent versions or by AW-HE60.	
ER3:OWS	AWB execution failed	

%1: The R gain and B gain update notifications are supported by Ver.2 or a later version for the AW-HE50.

Notification	Remarks	
OAS	ABB execution successful	
ORP:096	R Pedestal (only when ABB is successfully executed) ※2	
OBP:096	B Pedestal (only when ABB is successfully executed) ※2	
ER3:OAS	ABB execution failed %2	

Table 4-11 ABB result

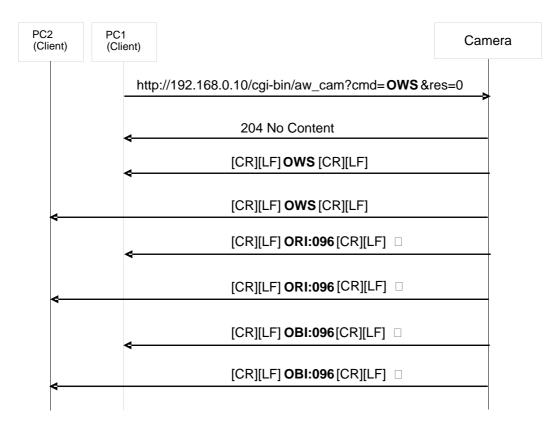
X2: With the AW-HE50 or the AW-HE60, the HTTP response is always given immediately for OAS, and no update notification is sent.

Given below is an example of the sequence which is followed when AWB is executed.

[AWB execution sequence]

As soon as the AWB execution command is received, "204 No Content" is returned as the HTTP response, and as soon as the AWB execution is completed, "OWS" is posted separately as the update notification.

For details on what happens if AWB execution has failed, refer to "6. Error return".



- % The R gain and B gain update notifications are supported by Ver.2 or a later version for the AW-HE50.
- % In AW-HE50 Ver.2 or subsequent versions or in AW-HE60, if AWB A or AWB B is set as the AWB mode after switching, ORG or OBG is posted instead of ORI or OBI.

Fig.4-12 AWB execution

4.4.6. AWB Mode switching

The contents of the table below are posted in succession by update notifications when the AWB Mode setting has been switched.

Notification	Remarks		
OAW	AWB Mode		
ORI	R Gain	□ Only supported by the AW-HE120/AW-HE130.	
OBI	B Gain	□ Only supported by the AW-HE120/AW-HE130.	
ORG	R Gain	 Notified by AW-HE50 Ver.2 or subsequent versions or by AW-HE60/ AW-HE40/AW-HE65/AW-HE70/AW-UE70. 	
OBG	B Gain	 Notified by AW-HE50 Ver.2 or subsequent versions or by AW-HE60/ AW-HE40/AW-HE65/AW-HE70/AW-UE70. 	

Tab	le	4-	1	2	

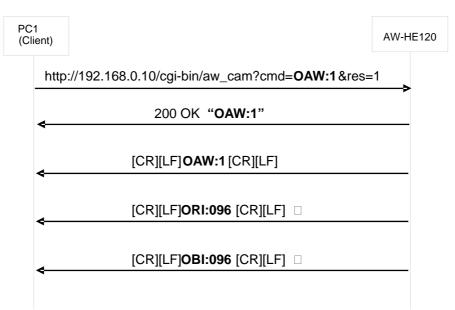
% The R gain and B gain are notified only when the AWB mode after switching has been set to AWB A or AWB B.

The sequence below is followed when the AWB Mode is switched.

[AWB Mode switching sequence]

This sequence is followed if AWB Mode is switched to "AWB A".

As the response to the AWB Mode switching command, "OAW:1" is returned, and the R gain and B gain settings stored for the AWB Mode after switching are posted in sequence by update notifications.



- ※ The R gain and B gain update notifications are supported by Ver.2 or a later version for the AW-HE50.
- ※ In AW-HE50 Ver.2 or subsequent versions or in AW-HE60/AW-HE40/AW-HE65/AW-HE70/ AW-UE70, if AWB A or AWB B is set as the AWB mode after switching, ORG or OBG is posted instead of ORI or OBI.

Fig.4-13 AWB Mode switching

5. Camera information batch acquisition

All the information of the camera can be acquired together as a batch.

[Command format]

[Send]

http://[IP Address]/live/camdata.html

%IP Address IP address of camera at connection destination

[Receive] 200 OK "Camera information"

Where:

***Camera information** Camera information listed in Table 5-1. [CR] and [LF] are used as the delimiters of the information.

[Sequence]

The camera information is acquired from PC1. "200 OK [Camera information]" is returned as the response from the camera.

Given below is the command sequence.

t)	Camera
http://192.168.0.10/live/camdata.html	>
200 OK "[Camera information]"	

Fig.5-1 Camera information batch acquisition sequence

Command	
Commanu	[data] section
p[data]	0 : PowerOff 1 : PowerOn
OID:[data]	In the case of the AW-HE50 AW-HE50 (fixed) In the case of the AW-HE60 AW-HE60 (fixed) In the case of the AW-HE120 AW-HE120 (fixed) In the case of the AW-HE130 AW-HE130 (fixed) In the case of the AW-HE40 AW-HE40 (fixed) In the case of the AW-HE65 AW-HE65 (fixed) In the case of the AW-HE70 AW-HE70 (fixed) In the case of the AW-UE70 AW-UE70 (fixed)
	In the case of the AW-HE130 CGI_TIME:130 (fixed) In the case of other models CGI_TIME:0 (fixed) □ The AW-HE50 is supported by Ver.2 or a later version.
OSA:87:[data]	In the case of the AW-HE50 1h: 720/59.94p 2h: 720/50p 4h: 1080/59.94i 5h: 1080/29.97PsF 8h: 1080/25PsF Bh: 480/59.94i Dh:576/50i 10h: 1080/59.94p 11h: 1080/50p In the case of the AW-HE60 1h: 720/59.94p 2h: 720/50p 4h: 1080/59.94i 5h: 1080/59.94i 5h: 1080/29.97PsF 8h: 1080/29.97PsF 8h: 1080/29.94i Dh: 576/50i 10h: 1080/59.94j 11h: 1080/59.94p 11h: 1080/59.94p 11h: 1080/59.94p 11h: 1080/59.94p 11h: 1080/59.94p 11h: 1080/59.94p 13h: 576/50p
-	DID:[data]

Camera information	Command	[data] section
	Connara	1h: 720/59.94p
		2h: 720/50p
		4h: 1080/59.94i
		5h: 1080/50i
		Bh:480/59.94i
		Dh:576/50i
		10h: 1080/59.94p
		11h: 1080/50p
		12h: 480/59.94p
		13h: 576/50p
		In the case of the AW-HE130
		1h: 720/59.94p
		2h: 720/50p
		4h: 1080/59.94i
		5h: 1080/50i
		7h: 1080/29.97PsF
		8h: 1080/25PsF
		Ah: 1080/23.98PsF
		10h: 1080/59.94p
		11h: 1080/50p
		12h: 480/59.94p
		13h: 576/50p
		14h: 1080/29.97p
		15h: 1080/25p
		16h: 1080/23.98p In the case of the AW-HE40/AW-HE65/
		AW-HE70/AW-UE70
		1h(720/59.94p)
		2h(720/50p)
		4h(1080/59.94i)
		5h(1080/50i)
		7h(1080/29.97PsF)
		8h(1080/25PsF)
		10h(1080/59.94p)
		11h(1080/50p)
		14h(1080/29.97p)
		15h(1080/25p) 17h:2160/29.97p
		18h:2160/25p
Camera Title		TITLE:[data (Max. 20 half-size characters)]
Output format (SDI)	OSD:B9:[data]	In the case of the AW-UE70
(Format_SDI)	COD.DO.[data]	1h:720/59.94p
(romat_obr)		2h:720/50p
		4h:1080/59.94i
		5h:1080/50i
		7h:1080/29.97psF
		8h:1080/25psF
		10h:1080/259.94p
		11h:1080/50p
		14h:1080/29.97p
		15h:1080/25p
Gain	OGU:[data]	In the case of the AW-HE50/AW-HE60
Gaill	UGU.[uata]	
		80h: Auto
		08h: 0dB
		0Bh: 3dB
		0Eh: 6dB

Camera information	Command	[data] section
Camera information	Command	[data] section11h: 9dB14h: 12dB17h: 15dB1Ah: 18dBIn the case of the AW-HE12080h : Auto08 h: 0dB211 h: 9dB21A h: 18dB• Value can be set in increments of 1dB.In the case of the AW-HE13080h : Auto08h : 0dB21Ah : 18dB2Ch : 36dB• Value can be set in increments of 1dB.In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE7080h : Auto08h : 0dB21Ah : 18dB1Ah : 18dB
Pedestal	OTD:[data]	IAn: 180B
AWB Mode	OAW:[data]	In the case of the AW-HE50/AW-HE60 0: ATW 2: AWB A 3: AWB B In the case of the AW-HE120 0: ATW 2: AWB A 3: AWB B 4: 3200K

Camera information	Command	[data] section
		5: 5600K In the case of the AW-HE130/AW-HE40/ AW-HE65/ AW-HE70/AW-UE70 0: ATW 2: AWB A 3: AWB B 4: 3200K 5: 5600K 9: VAR
Shutter Mode	OSH:[data]	In the case of the AW-HE50/AW-HE60/ AW-HE120/AW-HE40/AW-HE65/AW-HE70/ AW-UE70 Oh: Off 3h: Step -1/100(59.94Hz)
		Ch ELC In the case of the following formats of AW-HE130 (1080/29.97p)

Comoro information	Commond	[dete] eaction
Camera information	Command	[data] section
		0h OFF
		2h 1/60
		4h 1/120
		5h 1/250
		6h 1/500
		7h 1/1000
		8h 1/2000
		9h 1/4000
		Ah 1/10000
		Bh Synchro-Scan
		Ch ELC
		Fh 1/30
		In the case of the following formats of
		AW-HE130
		(1080/23.98p)
		0h OFF
		2h 1/60
		4h 1/120
		5h 1/250
		6h 1/500
		7h 1/1000
		8h 1/2000
		9h 1/4000
		Ah 1/10000
		Bh Synchro-Scan
		Ch ELC
		Dh 1/24
		In the case of the following formats of
		AW-HE130
		(1080/50i / 1080/50P / 720/50P / 480/50P)
		0h OFF
		2h 1/60
		3h 1/120
		5h 1/250
		6h 1/500
		7h 1/1000
		8h 1/2000
		9h 1/4000
		Ah 1/10000
		Bh Synchro-Scan
		Ch ELC
		In the case of the following formats of
		AW-HE130
		(1080/25p)
		0h OFF
		2h 1/60
		3h 1/120
		5h 1/250

Camera information	Command	[data] section
		6h 1/500 7h 1/1000 8h 1/2000 9h 1/4000 Ah 1/10000 Bh Synchro-Scan Ch ELC Eh 1/25
Detail	ODT:[data]	In the case of the AW-HE50/AW-HE60/AW-HE120/AW-HE40/ AW-HE65/AW-HE70/AW-UE70 0: Off 1: Low 2: High In the case of the AW-HE130 0: Off 1: On 2: On
Scene	OSF:[data]	In the case of the AW-HE50/AW-HE60/ AW-HE40/AW-HE65/ AW-HE70/AW-UE70 0: Manual1 1: Manual2 2: Manual3 3: FullAuto In the case of the AW-HE120/AW-HE130 0: Scene1 1: Scene2 2: Scene3 3: Scene4
Camera/ColorBar	OBR:[data]	0: Camera 1: ColorBar
Speed With Zoom Pos.	sWZ[data]	0: Off 1: On
Preset Mode	OSE:71:[data]	0: Mode A 1: Mode B 2: Mode C
Install Position	iNS[data]	0: Desktop 1: Hanging
OSD On/Off	OUS:[data]	0: Off 1: On
Focus Mode	d1[data]	0: Manual 1: Auto
Iris Mode	d3[data]	0: Manual 1: Auto
Latest Call Preset No.	s[data]	1~100
Total Detail Level	OSA:30:[data]	In the case of the AW-HE60 81h : 1

Camera information	Command	[data] section
		61h:0
		2
		80h : 31
		2
		9Fh : 62
ND Filter	d2[data]	0 (fixed)
Option SW	d6[data]	0: Off
% In the case of AW-HE60 (V3.00 or		1: On
later) and AW-HE130/AW-HE40/ AW-HE65/AW-HE70/AW-UE70, used		
as Day/Night switching.		
Lamp	d4[data]	0 (fixed)
Iris Follow	OSD:4F:[data]	00h: Close
		FFh: Open
Error Notice	OER:[data]	0: Normal
		1: Fan Error
P/T Mode of Preset	rt[data]	1 (fixed)
Zoom Position	axz[data]	555h: Wide
		FFFh: Tele
Error Status Info.	rER[data]	00h: No Error
		01h: Error01
		0Ah: Error10
		: 24h: Error30
		25h: (Reserved)
		2Fh: (Reserved)
		30h: Error48
		31h: Error49
		32h: Error50
		33h: Error51
Focus Position	axf[data]	555h: Near
		FFFh: Far
Preset Entry No.001~040	pE00[data]	000000000~FFFFFFFFF(40bit)
		bit01: Preset-No.001
		bit40: Preset-No.040
		0: No Entry
		1: Entry
Preset Entry No.041~080	pE01[data]	0000000000~FFFFFFFFF(40bit)
	[[aa.a]	bit01: Preset-No.041
		bit40: Preset-No.080
		0: No Entry
		0: No Entry 1: Entry
Preset Entry No.081~100	pE02[data]	0000000000~FFFFFFFFF(40bit)
1 1030L LINU 1000 1 * 100	μοσίασια]	bit01: Preset-No.081

Camera information	Command	[data] section
		: bit20: Preset-No.100 bit21: 0 (fixed) : bit40: 0 (fixed)
		0: No Entry 1: Entry
Preset Speed	uPVS[data]	000: Max Speed (Preset Speed:30) 250: Slow (Preset Speed:1) 999: Fast(Preset Speed:30)
Tilt-Up Limitation Set	IC1[data]	0: Release 1: Set
Tilt-Down Limitation Set	IC2[data]	0: Release 1: Set
Pan-Left Limitation Set	IC3[data]	0: Release 1: Set
Pan-Right Limitation Set	IC4[data]	0: Release 1: Set
R Gain	ORG:[data]	In the case of the AW-HE50 (Ver.2 or a later version)/AW-HE60/AW-HE40/AW-HE65/ AW-HE70/AW-UE70 00h: -30 1Eh: 0 3Ch: +30
	ORI:[data]	In the case of the AW-HE120/AW-HE130 000h: -150 : 096h: 0 : 12Ch: +150
B Gain	OBG:[data]	In the case of the AW-HE50 (Ver.2 or a later version)/AW-HE60/AW-HE40/AW-HE65/ AW-HE70/AW-UE70 00h: -30 : 1Eh: 0 : 3Ch: +30
	OBI:[data]	In the case of the AW-HE120/AW-HE130 000h: -150 096h: 0 12Ch: +150
Pedestal □Only AW-HE120/AW-HE130	OTP:[data]	000h: -150 E

Camera information	Command	[data] section
	Command	096h: 0
		:
		12Ch: +150
R Pedestal	ORP:[data]	In the case of the AW-HE120
□Only AW-HE120/AW-HE130		000h: –150
		: 096h: 0
		:
		12Ch: +150
		In the case of the AW-HE130
		032h: –100
		: 096h: 0
		:
		0FAh: +100
B Pedestal	OBP:[data]	In the case of the AW-HE120
□Only AW-HE120/AW-HE130		000h: –150
		: 096h: 0
		:
		12Ch: +150
		In the case of the AW-HE130
		032h: –100
		: 096h: 0
		0FAh: +100
Color Temperature	OSD:B1:[data]	In the case of the AW-HE130
		000h: 2000K
		: 078h: 15000K
		In the case of the AW-HE40/AW-HE65/
		AW-HE70/AW-UE70
		000h: 2400K
Preset Speed Table	pST[data]	04Bh: 9900K 0: Slow
Only AW-HE130/AW-HE40/	portaataj	2: Fast
AW-HE65/ AW-HE70/AW-UE70		2.100
Freezing images during preset	pRF[data]	0: Off
playback		1: On
(Freeze During Preset) □Only AW-HE130/AW-HE40/		
AW-HE65/ AW-HE70/AW-UE70		
Image Stabilization (IS)	OIS:[data]	0: Off
*Only AW-HE130 (Optical)/		1: On
AW-HE40/AW-HE65/		
AW-HE70/AW-UE70 Digital Extender	ODE:[data]	0: Off
Only AW-HE130/AW-HE40/		1: On
AW-HE65/ AW-HE70/AW-UE70		
Digital Zoom	OSE:70:[Data]	0: Off

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Camera information	Command	[data] section
※Only AW-HE40/AW-HE65/ AW-HE70/AW-UE70		1: On
iZoom ※Only AW-HE40/AW-HE65/ AW-HE70/AW-UE70	OSD:B3:[Data]	0: Off 1: On

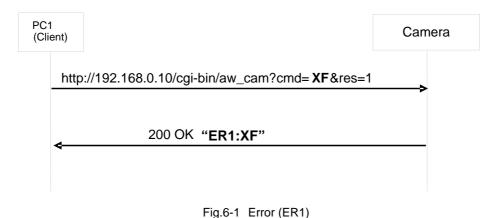
6. Error return

The three errors ER1, ER2 and ER3 below are returned in response to control or query commands by the camera.

① ER1 (unsupported command)

This error is generated when a command which is not supported by the camera has been received by the camera.

Example) When the non-existent "XF" command is executed for the camera



2 ER2 (busy status)

This error is generated during Standby (Power Off) or at other times when the camera is in the busy status.

Example) When the scene file is changed to "Manual1" during Standby.

XIn the case of the AW-HE50/AW-HE60

When the scene file is changed to "Scene1" during Standby.

% In the case of the AW-HE120

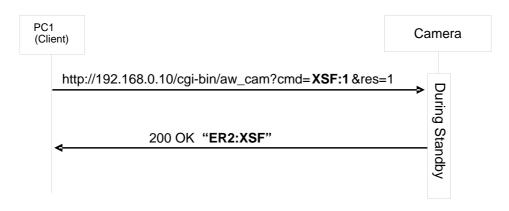


Fig.6-2 Error (ER2)

③ ER3 (outside acceptable range)

This error is generated when the data value of a command is outside the acceptable range.

Example)

The "OGU (gain setting)" command was executed with a data value of "90" which is outside the acceptable range.

PC [.] (Cli	1 ent)	Camera
	http://192.168.0.10/cgi-bin/aw_cam?cmd= OGU:90 &r	es=1
	200 OK "ER3:OGU" ←	

Fig.6-3 Error (ER3)

<Appendix>

This manual describes the HTTP messages using the format for input to the address bar of the web browser as in the example given below.

(Example: http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23PTS5050&res=1)

The actual HTTP messages are in compliance with the HTTP1.1 communication specifications, and have the [Send] and [Receive] formats as given below.

[Send]

A command such as the ones listed below is sent after connection has been made to the specified port (default: 80) which has been set for the camera.

Method: GET

GET /cgi-bin/aw_ptz?cmd=#PTS5050&res=1 HTTP/1.1[CR][LF]	Request
Accept: image/gif, (omitted) , */*[CR][LF]	
Referer: http://192.168.0.10/[CR][LF]	
Accept-Language: en[CR][LF]	
Accept-Encoding: gzip, deflate[CR][LF]	Header
User-Agent: AW-Cam Controller[CR][LF]	
Host: 192.168.0.10[CR][LF]	
Connection: Keep-Alive[CR][LF]	
[CR][LF]	Blank line

[Receive]

A message with the command name and result value contained in the message body of the HTTP response message is received.

In this manual, this message is given as 200 OK "pTS5050", but in actual fact commands such as the following ones are received.

HTTP/1.1 200 OK[CR][LF]	Response
Status: 200[CR][LF]	Header
Date: Mon, 05 Dec 2011 00:00:00 GMT[CR][LF]	
Server: ver2.4 rev0[CR][LF]	
Connection: Close[CR][LF]	
Content-Type: Text/plain[CR][LF]	
Set-Cookie: Session=0[CR][LF]	
Accept-Ranges: bytes[CR][LF]	
Cache-control: no-cache[CR][LF]	
Content-length: 7[CR][LF]	XSize of message body
[CR][LF]	Blank line
pTS5050	Message body