HD Integrated Camera Interface Specifications

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AVC Networks Company Panasonic Corporation

Change History

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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 supportedAW-HE40/AW-HE65/AW-HE70 + AW-SFU01 supported.	1.06
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Contents

			[Total: 204 pages]
1.	Introduc	tion	5
2.	Configur	ation outline	5
3.	Camera	and pan-tilt head control	6
(3.1. Pan-	tilt head control	6
	3.1.1.	Power On/Standby	g
	3.1.2.	Installation and smart picture flip commands	10
	3.1.3.	Pan/tilt	11
	3.1.4.	Movement range limit On/Off	14
	3.1.5.	Lens operations	15
	3.1.6.	Lens information notification	18
	3.1.7.	Preset	19
	3.1.8.	Tally	21
	3.1.9.	Wireless remote controller setting	22
	3.1.10.	Zoom position-linked pan/tilt speed adjustment On/Off	23
	3.1.11.	Software version information	24
	3.1.12.	Error information	26
;	3.2. Cam	era control	28
	3.2.1.	Lens operations	31
	3.2.2.	Color Bars setting	39
	3.2.3.	Scene file setting	40
	3.2.4.	Shutter mode setting	41
	3.2.5.	Frame mix setting	49
	3.2.6.	Gain setting	51
	3.2.7.	Color settings	55
	3.2.8.	Chroma level setting	93
	3.2.9.	AWB/ABB setting	95
	3.2.10.	Detail setting	102
	3.2.11.	Flesh Tone Mode setting	110
	3.2.12.	Digital noise reduction (DNR) setting	111
	3.2.13.	Pedestal setting	112
	3.2.14.	Gamma/DRS setting	114
	3.2.15.	Backlight compensation setting	117
	3.2.16.	Genlock setting	118
	3.2.17.	Output setting	120
	3.2.18.	Preset playback range setting	125
	3.2.19.	Digital zoom settings	126
	3.2.20.	Camera information acquisition	128
	3.2.21.	OSD menu	
	3.2.22.	Smart picture flip information	
	3.2.23.	Focus Adjust with PTZ setting	133

	3.2.24.	Frequency setting	134
	3.2.25.	Error information	135
	3.2.26.	Option switch settings	136
	3.2.27.	Audio settings	137
	3.2.28.	Tally Brightness settings	138
	3.2.29.	Knee settings	139
	3.2.30.	White Clip settings	140
	3.2.31.	OIS settings	141
	3.2.32.	HDR settings	142
	3.2.33.	Software version information	143
	3.2.34.	Tally settings	144
	3.2.35.	SKIN TONE DETAIL settings	145
	3.2.36.	Haze reduction	148
	3.2.37.	4K crop	149
4.	Camera i	nformation update notification	151
4	.1. Proce	dure for receiving the update notifications	152
4	.2. Data f	format for update notifications	154
4	.3. Settin	g change sequence	155
	4.3.1.	Changing the settings from a terminal	155
	4.3.2.	Setting value initialization	
	4.3.3.	Scene file selection	170
4	.4. Specia	al sequences	181
	4.4.1.	Version information notification	181
	4.4.2.	Error information	182
	4.4.3.	LPI information (lens information)	185
	4.4.4.	Preset playback	186
	4.4.5.	AWB/ABB execution	187
	4.4.6.	AWB Mode switching	189
5.	Camera i	nformation batch acquisition	190
6.		ırn	
	ppendix>		204

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 AK-UB300 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.

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  
XIP 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.

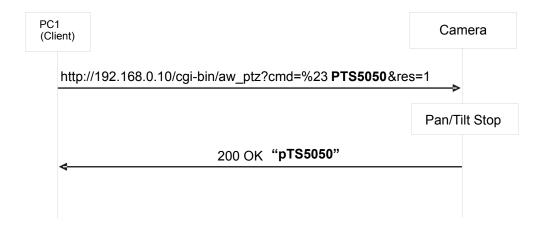


Fig.3.1-1 Command sequence of pan-tilt head control

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.

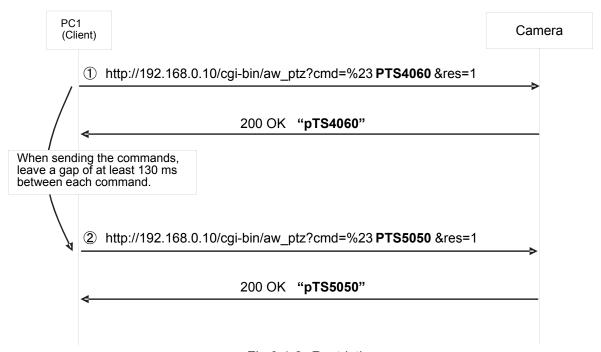


Fig.3.1-2 Restrictions

- 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 (** 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.

Table 3.1.1. Power On/Standby

Table 21111 : One of motionally							
Command name	Category	Command	Data value	Setting	Remarks		
Power On/	Control	#O[Data]	0	Standby	※ Not supported by the AK-UB300.		
Standby			f	Standby			
control command			1	Power On			
			n	Power On			
	Response	p[Data]					
Power On/	Request	#O	None				
Standby	Response	p[Data]	0	Standby			
query command			1	Power On			
			3	Transferring	※Only supported by the AW-HE120/		
				from Standby to	AW-HE130/AW-HE40/AW-HE65/		
				ON	AW-HE70/AW-UE70.		

Example of use) Power: On **[Control]** PC → 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.

Table 3.1.2. Installation position

Table 6.1.2. Installation position						
Command name	Category	Command	Data value	Setting	Remarks	
Installation	Control	#INS[Data]	0	Desktop	※ Not supported by the AK-UB300.	
position			1	Hanging		
control command	Response	iNS[Data]				
Installation	Request	#INS	None		※ Not supported by the AK-UB300.	
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[Data]	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]	₹	₹	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			₹	≀		
			78h	120degree		

Example of use)

Installation position: Desktop

[Control] $PC \rightarrow AW-HE50$

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 → PC

200 OK "sPF1"

Smart picture flip angle: 60deg

[Control] $PC \rightarrow AW-HE120$

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.

Table 3.1.3. Pan/tilt

	ſ	Table 3.1	.3. Pan/t	IIL	
Command name	Category	Command	Data value	Setting	Remarks
Pan/tilt position control command (specify an absolute value)	Control	#APC[Data1][Data2]	[Data1] 0000h	[Data1]Pan Pos ccwLimit center	 The pan-tilt head moved to the home position by #APC[8000][8000]. Pan(-175) – (+175)deg
			\ FFFFh [Data2] 0000h \ 8000h	cwLimit [Data2]Tilt Pos upLimit center	2D08 – D2F5 ■In the case of the AW-HE50/AW-HE60/ AW-HE40/AW-HE65/ AW-HE70/AW-UE70. • Tilt(-30) – (+90)deg
			FFFFh	downLimit	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	aPC[Data1][Data2]			Not supported by the AK-UB300.
Pan/tilt position	Request	#APC	None		※ Not supported by the
query command (specify an absolute value)	Response	aPC[Data1][Data2]	[Data1] 0000h }	[Data1]Pan Pos ccwLimit	AK-UB300.
,			8000h }	center	
			FFFFh [Data2]	cwLimit [Data2]Tilt Pos	
			0000h	upLimit	
			8000h	center	
- ""·		## DOID / ##D / ##	FFFFh	downLimit	24.0
Pan/tilt position/speed control command	Control	#APS[Data1][Data2] [Data3][Data4]	[Data1] 0000h }	[Data1]Pan Pos ccwLimit	**Only supported by the AW-HE130/AW-HE40/ AW-HE65/AW-HE70/
(specify an absolute value)			8000h ≀	center	AW-UE70. • The pan-tilt head is moved
			FFFFh [Data2] 0000h	cwLimit [Data2]Tilt Pos upLimit	to the home position by #APC[8000][8000][][].
	Response	aPS[Data1][Data2]	8000h	center	For range, refer to #APC.
		[Data3][Data4]	FFFFh [Data3] 00h	downLimit [Data3]Pst Spd 1	
			1Dh [Data4] 0	30 [Data4]Spd Tbl SLOW	
			1 2	MID FAST	

Command name	Category	Command	Data	Setting	Remarks
		#PP01D (4#FD (4	value		
Pan/tilt position control command	Control	#RPC[Data1][Data2]	[Data1] 0000h	[Data1]Pan Pos ccwLimit	※Only supported by the AW-HE130/AW-HE40/
(specify an relative			₹		AW-HE65/AW-HE70/
value)			8000h	center	AW-UE70.
			≀ FFFFh	cwLimit	The pan-tilt head is moved to the current position by
			[Data2]	[Data2]Tilt Pos	#RPC[8000][8000]
			0000h	upLimit	
			\ \ \		For range, refer to #APC.
	Response	rPC[Data1][Data2]	8000h	center	
			FFFFh	downLimit	
Pan/tilt	Control	#RPS[Data1][Data2]	[Data1]	[Data1]Pan Pos	※Only supported by the
position/speed		[Data3][Data4]	0000h	ccwLimit	AW-HE130/AW-HE40/
control command (specify an relative			≀ 8000h	center	AW-HE65/AW-HE70/ AW-UE70.
value)			₹	Contor	The pan-tilt head is moved
			FFFFh	cwLimit	to the current position by
			[Data2] 0000h	[Data2]Tilt Pos	#RPS[8000][8000][][]
			\ \	upLimit	
	Response	rPS[Data1][Data2]	8000h	center	For range, refer to #APC.
	rvesponse	[Data3][Data4]	}		
		1 1 1	FFFFh [Data3]	downLimit [Data3]Pst Spd	
			00h	1	
			₹	≀	
			1Dh	30	
			[Data4] 0	[Data4]Spd Tbl SLOW	
			1	MID	
			2	FAST	
Speed	Control	#P[Data]	01	Left Max. Speed ≀	Pan speed to be controlled
(pan/tilt) control command			∤ 49	Left Min. Speed	
			50	Pan Stop	
			51	Right Min. Speed	
			99	│	
	Response	pS[Data]] 99	Right Max. Speed	Not supported by the
	-				AK-UB300.
	Control	#T[Data]	01	Down Max. Speed	Tilt speed to be controlled
			≀ 49	│	
			50	Tilt Stop	
			51	UP Min. Speed	
			≀ 99	│	
] 99	or Max. Speeu	
	Response	tS[Data]			Not supported by the AK-UB300.

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			₹	}	[Data2]
			49	Left Min. Speed	Tilt speed control
			50	Pan Stop	
			51	Right Min. Speed	
			₹	₹	
			99	Right Max. Speed	
			[Data2]	[Data2]	
			01	Down Max. Speed	
			₹	}	
			49	Down Min. Speed	
			50	Tilt Stop	
			51	UP Min. Speed	
			₹		
			99	UP Max. Speed	
	Response	pTS[Data1][Data2]	1		※ Not supported by the
					AK-UB300.

Example of use)

•Camera control: PAN= 7FFF, TILT= 7FFF (Home position)

[Control] $PC \rightarrow AW-HE50$

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] $PC \rightarrow AW-HE50$

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 \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23T01&res=1 [Response] AW-HE50 \rightarrow PC

•Pan/tilt speed control: max. speed to the left, max. speed upward

[Control] PC → AW-HE50

200 OK "tS01"

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23PTS0199&res=1

[Response] AW-HE50 \rightarrow 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.

Table 3.1.4. Movement range limit On/Off

Command name	Category	Command	Data value	Setting	Remarks
Movement range limit On/Off control command	Control	#LC[Data1] [Data2] IC[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 ※ Not supported by the AK-UB300.
	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. ※ Not supported by the AK-UB300.
	Response	l [Data]	0	Release Set	Limit set/release X Not supported by the AK-UB300.
Movement range limit On/Off query command	Request	#LC[Data]	1 2 3 4	Up Down Left Right	Not supported by the AK-UB300.
	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 ※ Not supported by the AK-UB300.

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.

Table 3.1.5.1. Zoom

Command name	Category	Command	Data value	Setting	Remarks
Zoom (position control) control command	Control	#AXZ[Data]	555h } FFFh	Wide	※ Not supported by the AK-UB300.
	Response	axz[Data]			
Zoom position query command	Request Response	#GZ gz[Data]	None 555h { FFFh ""	Wide Tele Standby	The "" setting is supported only by the AW-HE50/AW-HE60/ AW-HE40/AW-HE65/AW-HE70/ AW-UE70. ** Not supported by the AK-UB300.
Zoom (speed control) control command	Control	#Z[Data]	01	Wide Max. Speed Wide Min. Speed Zoom Stop Tele Min. Speed Tele Max. Speed	Zooming speed to be controlled
	Response	zS[Data]			Not supported by the AK-UB300.

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 \rightarrow AW-HE50 http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23Z01&res=1 [Response] AW-HE50 \rightarrow 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".

Table 3.1.5.2. Focus

			Data		
Command name	Category	Command	value	Setting	Remarks
Focus (position	Control	#AXF[Data]	555h	Near	Invalid when auto focus is On
control)				≀	(ER3 is returned).
control command	Response	axf[Data]	FFFh	Far	Not supported by the AK-UB300.
Focus position	Request	#GF	None		Not supported by the AK-UB300.
query command	Response	gf[<i>Data</i>]	555h	Near	
			""	Standby	The "" setting is supported only by the AW-HE50/AW-HE60/ AW-HE40/AW-HE65/AW-HE70/ AW-UE70.
Focus (speed control) control command	Control	#F[Data]	01 49 50 51 2 99	Near Max. Speed \(\) Near Min. Speed Focus Stop Far Min. Speed \(\) Far Max. Speed	Focusing speed to be controlled Invalid when auto focus is On (ER3 is returned).
	Response	fS[Data]	1		※ Not supported by the AK-UB300.
Auto focus On/Off control command	Control	#D1[Data]	0	Off(Manual) On(Auto)	In case of AW-HE130, auto focus cannot be set to On when FrameMix is set to 18 [dB] or higher.
	Response	d1[Data]			※ Not supported by the AK-UB300.
Auto focus On/Off	Request	#D1	None		X Not supported by the AK-UB300.
query command	Response	d1[Data]	0	Off(Manual) On(Auto)	

Example of use)

•Focus: Near

[Control] PC → AW-HE50

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23AXF555&res=1

[Response] AW-HE50 → 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 \rightarrow 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 \rightarrow 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".

Table 3.1.5.3. Iris

Command name	Category	Command	Data value	Setting	Remarks
Iris position control command	Control Response Control Response	#I [Data] iC[Data] #AXI [Data] axi [Data]	01	Iris Close Iris Open Iris Close	Not supported by the AK-UB300.Not supported by the AK-UB300.
	·		FFFh	Iris Open	
Iris position Auto/Manual query command	Request Response	#GI gi [Data1] [Data2]	None [Data1] 555h	Iris Close Iris Open Standby Manual Iris Auto Iris	 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. Not supported by the AK-UB300.
Auto Iris On/Off control command	Control Response	#D3[<i>Data</i>]	0 1	Manual Iris Auto Iris	Not supported by the AK-UB300.
Auto Iris On/Off query command	Request Response	#D3 d3[<i>Data</i>]	None 0 1	Manual Iris Auto Iris	Not supported by the AK-UB300.

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 → 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 → 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.

Data **Command name** Category Command Setting Remarks value Lens information Control #LPC[Data] 0 Off Off: Information is not posted. notification On/Off On On: Information is posted. control command Not supported by the AK-UB300. Response IPC[Data] Lens information #LPC None Not supported by the Request notification On/Off AK-UB300. query command IPC[Data] 0 Off Response Off: Information is not posted. On On: Information is posted. #LPI Lens information Not supported by the Request None AK-UB300. query command IPI [Data1] [Data1] Same return as #GZ [Data1] [Data1] Zoom Position Response [Data2][Data3] 555h Wide [Data2] Same return as #GF 7 7 [Data3] Same return as #GI FFFh Tele [Data2] [Data2] Focus Position 555h Near · The command is sent 7 periodically (every 300 ms) 7 **FFFh** Far to all the channels to which [Data3] [Data3] Iris Position the command can be sent. 555h Close 7 ₹ **FFFh** Open

Table 3.1.6. Lens information notification On/Off

Example of use)

·Lens information notification: On

[Control] PC → 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 → 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.

Table 3.1.7. Preset

Category	Command	Data value	Setting	Remarks
Control	#M[Data]	00	Preset 001	※ Not supported by the AK-UB300.
		1 *	•	
<u> </u>	15.(1	99	Fleset 100	
		00	Draget 004	W Net comported by the AK LID200
Control	#K[Data]			Not supported by the AK-UB300.
		99	Preset 100	
Response	s[Data]	-		
Request	#S	None		※ Not supported by the AK-UB300.
				Request for preset number last
D	-10-4-1	00	D====+ 004	played back
Response	s[Data]			
		99	Preset 100	
Request	#UPVS[Data]	000	30 : MaxSpeed	※ Not supported by the AK-UB300.
		250		
		1 *	-	
	D) (OID ()	999	30 . Fast	
				W Niet europented by the AIC LID200
		250	1 · Slow	Not supported by the AK-UB300.
ТСЭРОПЭС	ui vo[Data]	250	1 . Slow	
		999	30 : Fast	
Control	#PRF[Data]	0	OFF	※Only supported by the
D	- DEID : (-1			AW-HE130/AW-HE40/AW-HE65/
Response	pRF[<i>Data</i>]	_		AW-HE70/AW-UE70.
Request	#PRF	None	OIV	%Only supported by the
Daananaa	nDC[Detel	0	OFF	AW-HE130/AW-HE40/AW-HE65/
Response	prri <i>Dala</i> j	U	011	
Response	pRF[<i>Data</i>]	1	ON	AW-HE70/AW-UE70.
Control	#PST[Data]	1 0	ON SLOW	※Only supported by the
•		1 0 1	ON SLOW MID	**Only supported by the AW-HE130/AW-HE40/AW-HE65/
Control	#PST[Data]	1 0 1 2	ON SLOW MID HIGH	※Only supported by the
•		1 0 1	ON SLOW MID	**Only supported by the AW-HE130/AW-HE40/AW-HE65/
Control	#PST[Data]	1 0 1 2 0 1 2	ON SLOW MID HIGH SLOW	**Only supported by the AW-HE130/AW-HE40/AW-HE65/AW-HE70/AW-UE70.
Control	#PST[Data]	1 0 1 2 0 1	ON SLOW MID HIGH SLOW MID	**Only supported by the AW-HE130/AW-HE40/AW-HE65/
	Response Control Response Request Response Request Response Control Response	Control #M[Data] Response s[Data] Control #R[Data] Response s[Data] Request #S Response s[Data] Request #UPVS[Data] Response uPVS[Data] Request #UPVS Response uPVS[Data] Response uPVS[Data] Response uPVS[Data] Response uPVS[Data]	Control #M[Data] 00	Control #M[Data] 00

*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] $PC \rightarrow AW-HE50$

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23M07&res=1

[Response] AW-HE50 \rightarrow 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.

Table 3.1.8. Tally

Command name	Category	Command	Data value	Setting	Remarks
Tally input enable/disable	Control	#TAE[Data]	0	Disable Enable	% Not supported by the AK-UB300.
control command	Response	tAE[Data]			
Tally input	Request	#TAE	None		Not supported by the AK-UB300.
enable/disable guery command	Response	tAE[Data]	0	Disable Enable	
Tally On/Off control command	Control	#DA[Data]	0	Tally Off Tally On	※ Not supported by the AK-UB300.
	Response	dA[Data]			
Tally On/Off	Request	#DA	None		Not supported by the AK-UB300.
query command	Response	dA[Data]	0	Tally Off Tally On	

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"

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.

Table 3.1.9. Wireless remote controller enable/disable setting

Command name	Category	Command	Data value	Setting	Remarks
Wireless remote controller control enable/disable control command	Control Response	#WLC[Data] wLC[Data]	0	Disable Enable	Not supported by the AK-UB300.
Wireless remote controller control enable/disable query command	Request Response	#WLC wLC[Data]	None 0 1	Disable Enable	※ Not supported by the AK-UB300.
Wireless remote controller ID control command	Control Response	#RID[Data] rID[Data]	0 1 2 3	CAM1 CAM2 CAM3 CAM4	**Only supported by the AW-HE40/AW-HE65/AW-HE70/ AW-UE70.
Wireless remote controller ID query command	Request Response	#RID rID[Data]	None 0 1 2 3	CAM1 CAM2 CAM3 CAM4	**Only supported by the AW-HE40/AW-HE65/AW-HE70/ AW-UE70.

Example of use) Wireless remote controller: Disable

[Control] $PC \rightarrow AW-HE50$

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-linked pan/tilt speed adjustment On/Off

Category	Command	Data value	Setting	Remarks
Control	#SWZ[Data]	0	Off On	※ Not supported by the AK-UB300.
Response	sWZ[Data]			
Request	#SWZ	None		※ Not supported by the AK-UB300.
Response	sWZ[Data]	0	Off On	
	Control Response Request	Control #SWZ[Data] Response sWZ[Data] Request #SWZ	Category Command value Control #SWZ[Data] 0 Response sWZ[Data] Request #SWZ None	Category Command value Setting Control #SWZ[Data] 0 Off 1 On On Response sWZ[Data] Response sWZ[Data] Response sWZ[Data] O Off

Example of use)

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

 $\textbf{[Control]} \ \mathsf{PC} \to \mathsf{AW}\text{-HE50}$

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23SWZ1&res=1

[Response] AW-HE50 → PC 200 OK "sWZ1"

3.1.11. Software version information

This command enables the software version information to be acquired.

Table 3.1.11. Software version information

		Table 3.1.11. Soπ\		sion information	
Command name	Category	Command	Data value	Setting	Remarks
Software version	Request	#QSV[Data1]	In the ca	se of the AW-HE50/AV	V-HE60
information			[Data1]	[Data1]	%The Camera EEPROM
query command			0	Pan Tilt CPU	setting is supported only by
			1	Camera CPU	the AW-HE60.
			2	Camera PLD	Not supported by the
			3	Network CPU	AK-UB300.
			4	OUT PLD	
			5	Reserve	
			6	Reserve	
			7	Reserve	
			8	Camera EEPROM	
				se of the AW-HE120	
			[Data1]	[Data1]	Not supported by the
			0	Servo CPU	AK-UB300.
			1	CameraMain CPU	
			2	Frontend FPGA	
			3	Network CPU	
			4	Backend FPGA	
			5	Interface CPU	
			6	Lens FPGA	
			7	Interface EEPROM	
			8	Camera EEPROM	
				se of the AW-HE130	
			[Data1]	[Data1]	Not supported by the
			0	Servo CPU	AK-UB300.
			1 2	CameraMain CPU COM FPGA	
			3	Network CPU	
			4	AVIO FPGA	
			5	Interface CPU	
			6	Lens FPGA	
			7	Interface EEPROM	
			8	Reserved	
			In the ca	se of the AW-HE40/AV	V-HE65/AW-HE70/AW-UE70
			[Data1]	[Data1]	※ Not supported by the
			0	Servo CPU	AK-UB300.
			1	Cam CPU	
			2	FPGA	
			3	BE CPU	
			4		
			· ·	reserve	
			5	Interface CPU	
			6	reserve	
			7	Interface EEPROM	
			8	reserve	

Command name	Category	Command	Data value	Setting	Remarks
	Response	qSV[Data1]V[Data2].	[Data2]	[Data2]	Not supported by the
			00-99	MAJOR VERSION	AK-UB300.
		[Data3][Data4]	[Data3]	[Data3]	
		[Data5][Data6]	00-99	MINOR VERSION	
			[Data4]	[Data4]	
			E	(Debug Build)	
			L	(Release Build)	
			[Data5]	[Data5]	
			00-99	(REVISION)	
			[Data6]	[Data6]	
			0	NTSC	
			1	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.

Table 3.1.12. Error information

Command name	Category	Command	Data value	Setting	Remarks
Error information	Request	#RER	None		
query command	Response	rER[Data]	In the case	e of the AW-H	E50/AW-HE60
			00h	Disable	Normal
			01h	Enable	-
			02h		
			03h		Motor Driver Error
			04h 05h		Pan Sensor Error 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		Lvds_Adjustment_NG
			31h		Bar_Signal_Check_NG
			32h		H_Sync_Check_NG
			33h		HDMI_Check_NG
					※ Not supported by the AK-UB300.
			In the case	e of the AW-H	E120/AW-HE130
			00h	Disable	Normal
			01h	Enable	-
			02h		-
			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

Command name	Category	Command	Data value	Setting	Remarks
			25h		CAMERA communication Error
			26h		CAMERA RX Over run Error
			27h		CAMERA RX Framing Error
			28h		CAMERA RX Command Buffer Overflow
					Not supported by the AK-UB300.
			In the case	e of the AW-H	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
					※ Not supported by the AK-UB300.

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]

```
XIP 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"

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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.

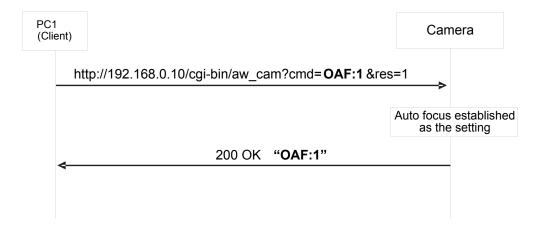


Fig.3.2-1 Camera control command sequence

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.

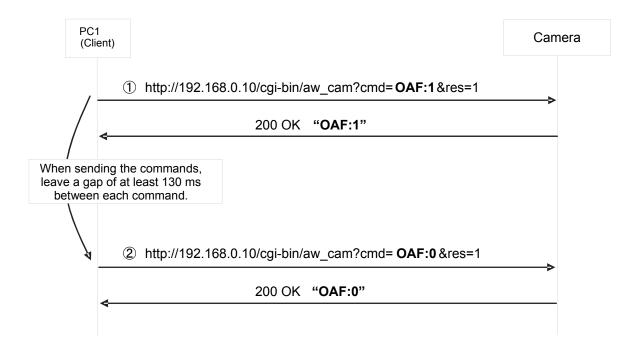


Fig.3.2-2 Restrictions

- 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".

Table 3.2.1.1. Focus

Command name	Category	Command	Data value	Setting	Remarks
Focus Auto/Manual control command	Control	OAF:[Data]	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]			Not supported by the AK-UB300.
Focus	Request	QAF	None		Not supported by the AK-UB300.
Auto/Manual query command	Response	OAF:[Data]	0	Manual Auto	
One-touch focus	Control	OSE:69:[Data]	1	One Touch AF	One-touch focus On control
control command	Response	OSE:69:1			Not supported by the AK-UB300.
Focus control (toward FAR end) control command	Control	HFF	None		※ Only supported by the AK-UB300.
	Response	HFF			
Focus control (toward NEAR end) control command	Control	HFN	None		※ Only supported by the AK-UB300.
	Response	HFN			
Focus control (STOP) control command	Control	HFS	None		※ Only supported by the AK-UB300.
	Response	HFS			
Focus speed setting control command	Control	LFS:[Data]	0	Slow ≀ Fast	※ Only supported by the AK-UB300.
	Response	LFS:[Data]			

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] $PC \rightarrow AW-HE50$

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".

Table 3.2.1.2. Iris

		I d	ible 3.2.1.2	. 1115	
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]	In the case	of the AW-HE50/A	
Picture level			64h	+5	While "" is displayed for
Iris offset			5Ah~63h	+4	Contrast Level on the OSD
control command			50h~59h	+3	menu, the setting is accepted but
			46h~4Fh	+2	it is not reflected in the images.
			3Ch~45h	+1	The setting is reflected in the
			32h~3Bh	0	images when the "" display is released.
			28h~31h	-1 -2	
			1Bh~27h 14h~1Ah	-2 -3	Contrast level control (Auto)
			0Ah~13h	_3 _4	
			00h~09h	_5	
			0011 0011		
	1		l		

			Data		
Command name	Category	Command	value	Setting	Remarks
			In the case	of the AW-HE120	<u> </u>
			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
			59h~55h	+7	not 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	e 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.
					V-HE65/AW-HE70/AW-UE70
			64h~33h	+10~+1	While "" is displayed for
			32h	0	Contrast Level on the OSD
			31h~00h	-1~-10	menu, the setting is not
					accepted.
			In the case	of the AK-UB300	
			00h	0	•Functions as iris offset.
	Response	OSD:48:[Data]	₹	₹	
			64h	+100	

Command name	Category	Command	Data value	Setting	Remarks
Contrast level	Request	QSD:48	None		
Picture level	Response	OSD:48:[<i>Data</i>]		1	50/AW-HE60
query command			64h	+5	Contrast level
			5Ah~63h	+4	
			50h~59h	+3	
			46h~4Fh	+2	
			3Ch~45h	+1	
			32h~3Bh	0	
			28h~31h	– 1	
			1Bh~27h	-2	
			14h~1Ah	– 3	
			0Ah~13h	-4	
			00h~09h	- 5	
			In the case o	f the AW-HE	120
			64h	+10	Picture level
			63h~5Fh	+9	Valid when Gain AGC, Iris Auto and
			5Eh~5Ah	+8	Shutter ELC have been set.
			59h~55h	+7	
			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	_3	
			22h~1Eh	-4	
			1Dh~19h	_ 5	
			18h~14h	- 6	
			13h~0Fh	_ 7	
			0Eh~0Ah	_8	
			09h~05h	_9	
			04h~00h	_3 _10	
			In the case o		130
			64h~33h	+50~+1	
			32h	0	Valid when Gain AGC, Iris Auto and Shutter ELC have been set.
				0 -1 ~ -50	Shuller ELC have been set.
			31h~00h	L.	(40/4)4/ LIEGE/A\A/ LIEZO/A\A/ LIEZO
				T .	40/AW-HE65/AW-HE70/AW-UE70
			64h~33h	+10~+1	Contrast level
			32h	0	
			31h~00h	_1~_10	
			In the case o		
			00h	0	•Functions as iris offset.
			} }	₹	
	_		64h	+100	
Auto iris level	Control	OSI:1D:[Data]	00h	0	※ Only supported by the AK-UB300.
control command	Response	OSI:1D:[Data]	₹	₹	
			64h	+100	
Auto iris level	Request	QSI:1D	None		※ Only supported by the AK-UB300.
query command	Response	OSI:1D:[Data]	00h	0	
			₹	₹	
			64h	+100	

Command name	Category	Command	Data value	Setting	Remarks
Iris F value	Request	QIF	None		Only supported by the AK-UB300.
query command	Response	OIF:[Data]	0Eh (=14)	F1.4	
			₹	₹	
			1Ch (=28)	F2.8	
			₹	₹	
			38h (=56)	F5.6	
			₹	₹	
			A0h (=160)	F16	
			FFh	CLOSE	
Iris volume	Control	ORV:[Data]	000h	Close	Iris volume control (Manual)
control command			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	≀	
			3FFh	Open	
	Response	ORV:[Data]			
Iris volume	Request	QRV	None		Iris volume status request (Manual)
query command	Response	ORV:[Data]	000h	Close	
			₹	. ₹	
			3FFh	Open	
	Request	QSD:4F	None		Not supported by the AK-UB300.
	Response	OSD:4F:[Data]	00h	Close	Iris volume status request
			((
ì			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 → AW-HE50

http://192.168.0.10/cgi-bin/aw_cam?cmd=ORV:3FF&res=1

[Response] AW-HE50 → PC

200 OK "ORV:3FF"

·Contrast level: 0

 $\textbf{[Control]} \ \mathsf{PC} \to \mathsf{AW}\text{-HE50}$

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. Zoom

These commands control the camera's zoom.

Commands that control the zoom are also described in section "3.1.5.2. Zoom" of "3.1. Pan-tilt head control".

Table 3.2.25. Zoom control

Command name	Category	Command	Data	Setting	Remarks
Zoom control (toward TELE end) control command	Control	HZT	None		※ Only supported by the AK-UB300.
	Response	HZT			
Zoom control (toward WIDE end) control command	Control	HZW	None		※ Only supported by the AK-UB300.
	Response	HZW			
Zoom control (STOP) control command	Control	HZS	None		※ Only supported by the AK-UB300.
	Response	HZS	1		
Zoom speed setting control command	Control	LZS:[Data]	0 }	Slow	※ Only supported by the AK-UB300.
	Response	LZS:[Data]			

Example of use)

Zoom control (toward TELE end)

[Control] PC → AK-UB300

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

[Response] AK-UB300 → PC 200 OK "HZT"

3.2.1.4. ND filter setting

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

Table 3.2.1.4. ND filter setting

	Table 3.2.1.4. ND filter setting					
Command name	Category	Command	Data value	Setting	Remarks	
ND filter	Control	OFT:[Data]	In the case	e of the AW-HE120		
control command			0	Through		
			1	1/4		
			2	1/16		
			3	1/64		
				e of the AW-HE130		
			0	Through	ND filter switching is not possible	
			3	1/64	in Night mode	
			4	1/8		
				e of the AW-UE70		
			0	Through 1/4 ND		
			2	1/4 ND 1/16 ND		
			3	1/64 ND		
			8	Auto ND		
				e of the AK-UB300		
			0	Clear		
			1	1/4		
			2	1/16		
	Response	OFT:[Data]	3	1/64		
ND filter	Request	QFT.[Data]	None			
query command	Response	OFT:[Data]		e of the AW-HE120		
quory communa	response	Or r.[Dala]	0	Through		
			1	1/4		
			2	1/16		
			3	1/64		
			In the case	e of the AW-HE130		
			0	Through		
			3	1/64		
			4	1/8		
				e of the AW-UE70		
			0	Through		
			1	1/4 ND 1/16 ND		
			2	1/16 ND 1/64 ND		
			8	Auto ND		
				e of the AK-UB300		
			0	Clear		
			1	1/4		
			2	1/16		
			3	1/64		

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 \rightarrow PC

200 OK "OFT:1"

3.2.1.5. Lens information notification

These commands acquire lens information.

Commands that acquire lens information are also described in section "3.1.5.26. Lens information notification" of "3.1. Pan-tilt head control".

Table 3.2.254. Lens information notification

Command	Category	Command	Data value	Setting	Remarks
Lens information query command	Request	QSI:18	[Data1] 555h	[Data1] Zoom Position Wide	Only supported by the AK-UB300.
	Response	OSI:18:[Data1]: [Data2]:[Data3]	FFFh [Data2] 555h FFFh [Data3] 555h TFFFh	Tele [Data2] Focus Position Near	

Example of use)

·Lens information notification

[Control] PC → AK-UB300

http://192.168.0.10/cgi-bin/aw_cam?cmd=QSI:18&res=1

[Response] AK-UB300 → PC 200 OK "QSI:18:555:555:555"

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.

Table 3.2.2. Color Bars

Command name	Category	Command	Data value	Setting	Remarks
Color bar/Camera	Control	DCB:[Data]	0	Camera	
control command			1	Color Bars	
	Response	DCB:[Data]			
Color bar/Camera	Request	QBR	None		
query command	Response	OBR:[Data]	0 1	Camera Color Bars	
Color bar setup level control command	Control	DCS:[Data]	0	Off On	**Only enabled for the AW-HE120/ AW-HE130.
	Response	DCS:[Data]			
Color bar setup	Request	QCS	None		
level query command	Response	OCS:[Data]	0	Off On	**Only enabled for the AW-HE120/ AW-HE130.
Color bar type control command	Control	OSD:BA:[Data]	0	TYPE2 TYPE1	**Only enabled for the AW-UE70, AW-HE40/AW-HE65/
	Response	OSD:BA:[Data]			
Color bar type	Request	QSD:BA	None		AW-HE70(SFU01)
query command	Response	OSD:BA:[Data]	0	TYPE2 TYPE1	
Color bar title control command	Control	OSD:BE:[Data]	0	Off On	
	Response	OSD:BE:[Data]			
Color bar title	Request	QSD:BE	None]
query command	Response	OSD:BE:[Data]	0	Off On	

Example of use)

Color bar/Camera control: Color bar

 $\textbf{[Control]} \ \mathsf{PC} \to \mathsf{AW}\text{-HE50}$

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

[Response] AW-HE50 → 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.

Table 3.2.3. Scene file setting

Table 3.2.3. Scene file setting					
Command name	Category	Command	Data value	Setting	Remarks
Scene file	Control	XSF:[Data]			W-HE60/AW-HE40/AW-HE65/ AW-
control command			HE70/AW	-UE70.	
			1	Manual1	
			2	Manual2	
			3	Manual3	
			4	FullAuto	NACHE 400
				e of the AW-HE120/	AVV-HE130 I
			1	Scene 1	
			2	Scene2 Scene3	
			3	Scene4	
				e of the AK-UB300	
			1	CURRENT	
	Decrees	V0F-(D-4-)	-	SCENE1	
	Response	XSF:[Data]	2	SCENE2	
			3		
			4	SCENE3	
			5	SCENE4	
			6	SCENE5	
			7	SCENE6	
			8	SCENE7	
0	Danisat	005	9	SCENE8	
Scene file	Request	QSF QSF:[Dete]	None	o of the AVV HEED/AV	
query command	Response	OSF:[Data]	HE70/AW		W-HE60/AW-HE40/AW-HE65/ AW-
			0	Manual1	The data value differs depending
			1	Manual2	on the responses to the control
			2	Manual3	command and query command.
			3	FullAuto	
				e of the AW-HE120/	
			0	Scene1	The data value differs depending
			1	Scene2	on the responses to the control
			2	Scene3	command and query command.
			3	Scene4	
				e of the AK-UB300	. The data value differe depending
			0	CURRENT	The data value differs depending on the responses to the control
			1	SCENE1	command and query command.
			2	SCENE2	Command and query command.
			3	SCENE3	
			4	SCENE4	
			5	SCENE5	
			6	SCENE6	
			7	SCENE7	
			8	SCENE8	

Example of use) Scene file: Manual1

[Control] PC → 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. Shutter mode setting

		14510 0.2.	_	mode setting	
Command name	Category	Command	Data value	Setting	Remarks
Shutter	Control	OSH:[Data]	In the cas	se of the AW-HE50/AW-	HE60/AW-HE40/AW-HE65/AW-
control command			HE70/AW	/-UE70.	
			0h	Shutter Off	Disabled at the FullAuto
			3h	1/100(59.94Hz)	setting
				1/120(50Hz)	(ER3 is returned).
			5h	1/250	When auto iris is On, the
			6h	1/500	setting is accepted but it is not
			7h	1/1000	reflected in the images. The
			8h	1/2000	setting is reflected in the
			9h	1/4000	images when auto iris is
			Ah	1/10000	changed from On to Off.
			Bh	Synchro-Scan	
				se 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 Bh	1/10000	
			Ch	Synchro-Scan ELC	
				output format of AW-H	E130 is set to
				94i / 1080/59.94P / 720	
			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	F400 : 11:
			(1080/29.	e output format of AW-H	E130 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	
				output format of AW-H	E130 is set to
			(1080/23.	98p)	

Command name	Category	Command	Data value	Setting	Remarks
			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	
				e output format of AW-H i / 1080/50P / 720/50P /	
			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-H	F130 is set to
			(1080/25)		2100 13 301 10
			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	
	Response	OSH:[Data]	Eh	1/25	
Shutter	Request	QSH	None		
query command	Response	OSH:[Data]		se of the AW-HF50/AW-	HE60/AW-HE40/AW-HE65/ AW-
4.5. y 50und	1.00001100	301[Bata]	HE70/AW	/-UE70.	I I I I I I I I I I I I I I I I I I I
			0h	Shutter Off	
			3h	1/100(59.94Hz)	
			- F-	1/120(50Hz)	
			5h	1/250	
			6h	1/500	
			7h	1/1000	
			8h	1/2000	
			9h	1/4000	
			Ah	1/10000	
			Bh In the cas	Synchro-Scan se 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	
		<u> </u>	UII	1/2000	L

Command name	Category	Command	Data value	Setting	Remarks
			9h	1/4000	
			Ah	1/10000	
			Bh	Synchro-Scan	
			Ch	ELC	[
				e output format of AW-H .94i / 1080/59.94P / 720	
			0h	Shutter Off	
			3h	1/100	
			4h	1/120	
			5h	1/250	
			6h 7h	1/500 1/1000	
			8h	1/2000	
			9h	1/4000	
			Ah	1/10000	
			Bh	Synchro-Scan	
			Ch	ELC	
			When the (1080/29	e output format of AW-H	E130 IS Set to
			0h	Shutter Off	
			2h	1/60	
			4h	1/120	
			5h	1/250	
			6h	1/500	
			7h	1/1000	
			8h 9h	1/2000 1/4000	
			Ah	1/10000	
			Bh	Synchro-Scan	
			Ch	ELC	
			Fh	1/30	
			(1080/23	e output format of AW-H	E130 is set to
			0h	Shutter Off	
			2h	1/60	
			4h	1/120	
			5h	1/250	
			6h	1/500	
			7h 8h	1/1000 1/2000	
			9h	1/4000	
			Ah	1/10000	
			Bh	Synchro-Scan	
			Ch	ELC	
			Dh	1/24	[[[]]] [] [] [] [] [] [] []
				e output format of AW-H i / 1080/50P / 720/50P /	
			0h	Shutter Off	
			2h	1/60	
			3h	1/120	
			5h	1/250	
			6h 7h	1/500 1/1000	
			8h	1/2000	
1			9h	1/4000	
			Ah	1/10000	
			Bh	Synchro-Scan	
			Ch	ELC	
1				e output format of AW-H	E130 is set to
			(1080/25	ν)	

Command name	Category	Command	Data	Setting	Remarks
Command mame	Category	Command	value		itemarks
			0h 2h	Shutter Off	
			3h	1/60 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	
Synchro scan	Control	OMS:[Data]		se of the AW-HE50/AW-	L HE60
control command	Control	Olvio.[Data]	001h		
Control Command			00111	60.24Hz(59.94Hz)	Disabled at the FullAuto
			1	50.20Hz(50Hz)	setting
			(≀	(ER3 is returned).
			٥٦٦٨	040 0411-/50 0411-)	When auto iris is On, the
			0FFh	646.21Hz(59.94Hz)	setting is accepted but it is not
				538.51Hz(50Hz)	reflected in the images. The
					setting is reflected in the
					images when auto iris is
				() A)A() [() () () () () () () () () (changed from On to Off.
				se of the AW-HE120	
			001h	60.17Hz(59.94Hz)	While "" is displayed for
				50.19Hz(50Hz)	Step/Synchro on the OSD
			\ \	}	menu, the setting is accepted
					but it is not reflected in the
			0FFh	644.26Hz(59.94Hz)	images.
				537.13Hz(50Hz)	The setting is reflected in the
					images when the "" display
					is released.
			In the cas	se of the AW-HE130	
			001h	60.15Hz(59.94Hz)	While "" is displayed for
				50.15Hz(50Hz)	Step/Synchro on the OSD
			₹	\	menu, the setting is accepted
					but it is not reflected in the
			0FFh	642.21Hz(59.94Hz)	images.
				535.71Hz(50Hz)	The setting is reflected in the
					images when the "" display
					is released.
			In the cas	se of the AW-HE40/AW-	HE65/AW-HE70/AW-UE70.
			001h	59.94Hz(59.94Hz)	Disabled at the FullAuto
				50.00Hz(50Hz)	setting
			≀	30.00112(00112)	(ER3 is returned).
			`	`	While "" is displayed for
			٥٥٦	660 00H=/50 04H=)	Step/Synchro on the OSD
			0FFh	660.09Hz(59.94Hz)	menu, the setting is not
				570.13Hz(50Hz)	accepted.
	Dogranas	OMS:[Data]	1		αυσεριεά.
Cynobro coco	Response	OMS:[Data]	None		
Synchro scan	Request	QMS QMS:[Deta]	None	of the AVALUE FOLAVAL	UE60
query command	Response	OMS:[Data]		se of the AW-HE50/AW-	neuu
			001h	60.24Hz(59.94Hz)	
			,	50.20Hz(50Hz)	
			≀	\ \	
			0000	040 0411 (50 0411)	
			0FFh	646.21Hz(59.94Hz)	
			1	538.51Hz(50Hz)	
				se of the AW-HE120	
			001h	60.17Hz(59.94Hz)	

Command name	Category	Command	Data value	Setting	Remarks
			Value	50.19Hz(50Hz)	
			₹	}	
			·		
			0FFh	644.26Hz(59.94Hz)	
				537.13Hz(50Hz)	
				se of the AW-HE130	
			001h	60.15Hz(59.94Hz)	
			}	50.15Hz(50Hz) ≀	
			'	(
			0FFh	642.21Hz(59.94Hz)	
				535.71Hz(50Hz)	
			In the cas	se of the AW-HE40/AW	-HE65/AW-HE70/AW-UE70.
			001h	59.94Hz(59.94Hz)	
				50.00Hz(50Hz)	
			₹	₹	
			0FFh	660.09Hz(59.94Hz)	
				570.13Hz(50Hz)	
Auto shutter limit	Control	OSD:BF:[Data]	In the cas	se of the AW-UE70	
control command				[59.94Hz] [50Hz]	
			0	Off Off	
			1	1/60 1/50	
			2	1/100 1/100	
			3	1/120 1/125	
	_	000 000 100 100	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	se 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 1/250 1/250	
Chutter CM	Comtral	000.50.[0=4=1	1		WOrk analysis of factors ALC LID200
Shutter SW	Control	OSG:59:[Data]	0	Off	**Only enabled for the AK-UB300.
control command	Doononoo	OSC:50:[Doto]	1	On	
Ob., # OW	Response	OSG:59:[Data]	Nama		WOrk and the different of AIV LIDOOD
Shutter SW	Request	QSG:59	None	0#	**Only enabled for the AK-UB300.
query command	Response	OSG:59:[Data]	0	Off	
			1	On	
Shutter mode	Control	OSG:5A:[Data]	0	Shutter	**Only enabled for the AK-UB300.
control command			1	Synchro	
	Response	OSG:5A:[Data]			1
Shutter mode	Request	QSG:5A	None		**Only enabled for the AK-UB300.
query command	Response	OSG:5A:[Data]	0	Shutter	
			1	Synchro	

Command name	Category	Command	Data value	Setting	Remarks
Shutter speed	Control	OSG:5D:[Data]		e output format of AK-UI	B300 is set to
control command			(59.94i / s		
			04h	1/100	
			05h	1/120	
			06h	1/125	
			07h 08h	1/250 1/500	
			09h	1/1000	
			0Ah	1/1500	
			0Bh	1/2000	
			0Ch	180.0deg	
			0Dh	172.8deg	
			0Eh	144.0deg	
			0Fh	120.0deg	
			10h 11h	90.0deg 45.0deg	
			1111	45.0deg	
			When the (50i / 50p	e output format of AK-UI	B300 is set to
			02h	1/60	
			04h	1/100	
			06h	1/125	
			07h	1/250	
			08h	1/500	
			09h	1/1000	
			0Ah 0Bh	1/1500 1/2000	
			0Ch	180.0deg	
			0Dh	172.8deg	
			0Eh	144.0deg	
			0Fh	120.0deg	
			10h	90.0deg	
			11h	45.0deg	
			When the (29.97p /	e output format of AK-U	B300 is set to
			00h	1/48	
			00H	1/50	
			02h	1/60	
			03h	1/96	
			04h	1/100	
			05h	1/120	
			06h	1/125	
			07h 08h	1/250 1/500	
			09h	1/1000	
			0Ah	1/1500	
			0Bh	1/2000	
			0Ch	180.0deg	
			0Dh	172.8deg	
			0Eh	144.0deg	
			0Fh 10h	120.0deg 90.0deg	
			10h	45.0deg	
				J	

Command name	Category	Command	Data value	Setting	Remarks
				e output format of AK-Ui	2300 is set to
			(25p)	output format of Art-of	5300 is set to
			00h	1/48	
			00h	1/50	
			02h	1/60	
			02h	1/96	
			04h	1/100	
			06h	1/125	
			07h	1/250	
			08h	1/500	
			09h	1/1000	
			0Ah	1/1500	
			0Bh	1/2000	
			0Ch	180.0deg	
			0Dh	172.8deg	
			0Eh	144.0deg	
			0Fh	120.0deg	
			10h	90.0deg	
			11h	45.0deg	
	Response	OSG:5D:[Data]			
Shutter speed	Request	QSG:5D	None When the	autout format of AK LII	**Only enabled for the AK-UB300.
query command	Response	OSG:5D:[Data]	(59.94i /	e output format of AK-UI	B300 is set to
			00h	1/48	
			01h	1/50	
			02h	1/60	
			03h	1/96	
			04h	1/100	
			05h	1/120	
			06h	1/125	
			07h 08h	1/250 1/500	
			09h	1/1000	
			0Ah	1/1500	
			0Bh	1/2000	
			0Ch	180.0deg	
			0Dh	172.8deg	
			0Eh	144.0deg	
			0Fh	120.0deg	
			10h 11h	90.0deg	
				45.0deg output format of AK-UI	3300 is set to
			(50i / 50p		
			02h	1/60	
			04h	1/100	
			06h	1/125	
			07h	1/250	
			08h	1/500	
			09h	1/1000	
			0Ah	1/1500	
			0Bh	1/2000	
			0Ch	180.0deg	
			0Dh	172.8deg	
			0Eh	144.0deg	
			0Fh	120.0deg	
			10h	90.0deg	
			11h	45.0deg	

Command name	Category	Command	Data value	Setting	Remarks
				e output format of AK-UI	3300 is set to
			(29.97p /		5300 is set to
			00h	1/48	
			01h	1/50	
			02h	1/60	
			03h	1/96	
			04h	1/100	
			05h	1/120	
			06h	1/125	
			07h	1/250	
			08h	1/500	
			09h	1/1000	
			0Ah	1/1500	
			0Bh	1/2000	
			0Ch	180.0deg	
			0Dh	172.8deg	
			0Eh	144.0deg	
			0Fh	120.0deg	
			10h	90.0deg	
			11h	45.0deg	
				e output format of AK-UI	3300 is set to
			(25p)		
			00h	1/48	
			01h	1/50	
			02h	1/60	
			03h	1/96	
			04h	1/100 1/125	
			06h 07h	1/250	
			0711 08h	1/500	
			09h	1/1000	
			0911 0Ah	1/1500	
			0Bh	1/2000	
			0Ch	180.0deg	
			0Dh	172.8deg	
			0Eh	144.0deg	
			0Fh	120.0deg	
			10h	90.0deg	
			11h	45.0deg	

•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] $PC \rightarrow AW-HE50$

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.

Table 3.2.5. Frame mix setting

Command name	Category	Command	Data value	Setting	Remarks
Frame mix	Control	OSA:65:[Data]		of the AW-HE50/A	AW-HE60
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. /AW-HE130/AK-UB300
			00h	Off	In the case of AW-HE120, when
			06h 0Ch 12h	6dB 12dB 18dB	the format is 1050/59.94i and 1080/50i, or the shutter is set to other than OFF, the setting is
			18h	24dB	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	L of the AW-HF40//	AW-HE65/AW-HE70/AW-UE70
			00h	Off	Disabled at the FullAuto setting
			06h	6dB	(ER3 is returned).
			0Ch	12dB	When auto iris is On, the
			12h	18dB	setting is not accepted
	Response	OSA:65:[<i>Data</i>]	18h	24dB	
			80h	Auto	
Frame mix	Request	QSA:65	None		
query command	Response	OSA:65:[<i>Data</i>]		of the AW-HE50/A	AW-HE60
			00h	Off 6dB	
			06h 0Ch	12dB	
			12h	18dB	
			80h	Auto	
					/AW-HE130/AK-UB300
			00h	Off	
			06h	6dB	
			0Ch 12h	12dB 18dB	
			18h	24dB	
					AW-HE65/AW-HE70/AW-UE70
			00h	Off	
			06h	6dB	
			0Ch	12dB	
			12h	18dB	
			18h	24dB	
			80h	Auto	

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

•Frame mix: 12dB

[Control] PC → 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

		Table	able 3.2.6. Gain setting			
Command name	Category	Command	Data value	Setting	Remarks	
Gain	Control	OGU:[Data]	In the case	of the AW-HE50/AV	V-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		
			08h	of the AW-HE120 0dB	• Value can be get in increments of	
			\ \ \	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	 Value can be set in increments of 1dB. 	
			11h	9dB	IUD.	
			≀	₹		
			1Ah	18dB		
			80h	Auto		
				of the AW-HE130		
			08h	0db	Value can be set in increments of	
			₹	₹	1dB.	
			11h	9db		
			₹	₹		
			1Ah	18db		
			₹	₹		
			2Ch	36db		
			80h	Auto		
					V-HE65/AW-HE70/AW-UE70	
			08h	0dB	Disabled at the FullAuto setting	
			0Bh	3dB	(ER3 is returned).	
			0Eh	6dB		
			₹	₹	Value can be set in increments of	
			38h	48dB	3dB.	
	Response	OGU:[Data]	80h	Auto		
Gain	Request	QGU	None			
query command	Response	OGU:[Data]		of the AW-HE50/AV	V-HE60	
			08h	0dB		
			0Bh	3dB		
			0Eh	6dB		
			11h	9dB		
			14h 17h	12dB 15dB		
			1711 1Ah	18dB		
			80h	Auto		
				of the AW-HE120		
			08h	0dB		
			₹	₹		
			11h	9dB		
			₹	₹		
			1Ah	18dB		
			80h	Auto		

Command name	Category	Command	Data value	Setting	Remarks
			In the case	of the AW-HE130	
			08h ≀	0db ≀	
			11h	9db	
			₹	≀	
			1Ah	18db	
			≀ 2Ch	} 36db	
			80h	Auto	
			In the case	of the AW-HE40/AV	V-HE65/AW-HE70/AW-UE70
			08h	0dB	Disabled at the FullAuto setting (FD2 is returned)
			0Bh	3dB	(ER3 is returned).
			0Eh ≀	6dB ≀	. Value can be get in incremente of
			38h	48dB	 Value can be set in increments of 3dB.
			80h	Auto	SGD.

Command name	Category	Command	Data value	Setting	Remarks
AGC maximum	Control	OSD:69:[<i>Data</i>]		of the AW-HE50/A\	
gain value			01	6dB	Disabled at the FullAuto setting
control command			02	12dB	(ER3 is returned).
			03	18dB	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
			01	of the AW-HE120/A	AVV-HE 130
			02	12dB	
			03	18dB	
					N-HE65/AW-HE70/AW-UE70
			01	6dB	Disabled at the FullAuto setting
			02	12dB	(ER3 is returned).
			03	18dB	,
			04	24dB	
			05	30dB	
			06	36dB	
			07	42dB	
	Response	OSD:69:[Data]	07	48dB	
AGC maximum	Request	QSD:69	None	4000	
gain value	Response	OSD:69:[<i>Data</i>]		of the AW-HE50/A\	N HE60
query command	rvesponse	OSD.03.[Data]	01	6dB	Disabled at the FullAuto setting
query communa			02	12dB	(ER3 is returned).
			03	18dB	(Litto io retarried).
				of the AW-HE120/A	AW-HE130
			01	6dB	
			02	12dB	
			03	18dB	
			In the case	of the AW-HE40/AV	N-HE65/AW-HE70/AW-UE70
			01	6dB	
			02	12dB	
			03	18dB	
			04	24dB	
			05	30dB	
			06	36dB	
			07	42dB	
			08	48dB	
Gain select	Control	OGS:[Data]	01h	LOW	※Only enabled for the AK-UB300.
control command	Response	OGS:[Data]	04h	MID	,
- -		[]	08h	HIGH	
			06h	S.GAIN1	
			0Ch	S.GAIN2	
			0Eh	S.GAIN3	
Gain select	Request	QGS	None		**Only enabled for the AK-UB300.
query command	Response	OGS:[Data]	01h	LOW	,
1 J		المامة عن	04h	MID	
			08h	HIGH	
			06h	S.GAIN1	
			0Ch	S.GAIN2	
			0Eh	S.GAIN2	
LOW gain	Control	OSA:50:[<i>Data</i>]	7Ah	-6dB	※Only enabled for the AK-UB300.
-	Control	USA.50.[Data]			Monity enabled for the AR-OB300.
control command			7Ch) \ \	
			7Ch	0dB	
			•) }	
	Response	OSA:50:[<i>Data</i>]	88h	36dB	

Command name	Category	Command	Data value	Setting	Remarks
LOW gain	Request	QSA:50	None		※Only enabled for the AK-UB300.
query command	Response	OSA:50:[Data]	7Ah	-6dB	
			₹	≀	
			7Ch	0dB	
			₹	₹	
			88h	36dB	
MID gain	Control	OSA:51:[<i>Data</i>]	7Ah	-6dB	※Only enabled for the AK-UB300.
control command	Response	OSA:51:[Data]	₹	₹	
			7Ch	0dB	
			₹	₹	
			88h	36dB	
MID gain	Request	QSA:51	None		※Only enabled for the AK-UB300.
query command	Response	OSA:51:[<i>Data</i>]	7Ah	-6dB	
			₹	₹	
			7Ch	0dB	
			₹	₹	
			88h	36dB	
HIGH gain	Control	OSA:52:[Data]	7Ah	-6dB	**Only enabled for the AK-UB300.
control command	Response	OSA:52:[<i>Data</i>]	}	}	
			7Ch	0dB	
			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \) }	
HOLL	D	004.50	88h	36dB	N/O - I I I - I I II - AI/ I I DOO
HIGH gain	Request	QSA:52	None	O ID	
query command	Response	OSA:52:[<i>Data</i>]	7Ah	-6dB	
			≀ 7Ch) }	
			7Cn }	0dB	
			88h		
0	Control	OSA:60:[<i>Data</i>]	0	S.GAIN1	**Only enabled for the AK-UB300.
Super gain mode	Control	COA.00.[Data]	1	S.GAIN1	Acting enabled for the Art-00300.
control command	Response	OSA:60:[Data]	2	S.GAIN3	
Cupor goin made	Request	QSA:60	None	3.3/1110	
Super gain mode	Response	OSA:60:[<i>Data</i>]	0	S.GAIN1	Acting chapies for the Art-Oboto.
query command	1 (Copolise	- CO/1.00.[Duta]	1	S.GAIN2	
			2	S.GAIN3	

·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.

Table 3.2.7.1. R/B gain settings

Command name	Category	Command	Data value	Setting	Remarks
R gain control command	Control	ORI:[Data]	In the case o		E50/AW-HE60/AW-HE40/AW-HE65/
			000h	-30	※The AW-HE50 is supported by Ver.2
			₹	₹	or a later version.
			096h	0	Setting (menu display value)
			}	}	= (Data value — 0x96) / 5
			12Ch	+30	Cleared to zero at AWB OK completion. 5430/AWA 15430
			000h		E120/AW-HE130
			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	_150 }	Setting (menu display value) = (Data value — 0x96)
			096h	0	Cleared to zero at AWB OK completion.
			₹	₹	
	D	00110.41	12Ch	+150	
	Response	ORI:[Data]			
	Control	ORG:[Data]	AW-HE70/AV		E50/AW-HE60/AW-HE40/AW-HE65/
			00h	-30	**The AW-HE50 is supported by Ver.2
				}	or a later version.
			\ \ \	0	Setting (menu display value) = (Data value — 0x1E)
			3Ch	+30	Cleared to zero at AWB OK completion.
					E120/AW-HE130
			00h	-150	Setting (menu display value)
			₹	₹	= (Data value — 0x1É) x 5
			1Eh	0	Cleared to zero at AWB OK completion.
			₹	₹	
	Response	ORG[Data]	3Ch	+150	
R gain	Request	QRI	None		The AW-HE50 is supported by Ver.2
query command	- 4				or a later version.
	Response	ORI:[Data]	In the case o	f the AW-H	E50/AW-HE60/AW-HE40/AW-HE65/
			AW-HE70/AV	V-UE70	
			000h	-30	※The AW-HE50 is supported by Ver.2
			}	. ₹	or a later version.
			096h ≀	0	• Data value of response = (Setting x 5 + 0x96)
			12Ch	+30	= (Setting x 3 + 0x30)
					E120/AW-HE130
			000h	-150	Data value of response
			₹	₹	= (Setting + 0x96)
			096h	0	
			}	₹	
D. main	Danisat	000	12Ch	+150	. The AVALUE 50 is accompanied by AVALUE 0
R gain	Request	QGR	None		The AW-HE50 is supported by Ver.2 or a later version.
query command	Response	OGR:[Data]	In the case of	f the AW-H	E50/AW-HE60/AW-HE40/AW-HE65/
	1.00001100	o o[butu]	AW-HE70/AV		
			00h	-30	※The AW-HE50 is supported by Ver.2
			?	₹.	or a later version.
			1Eh	0	Data value of response
			} 2Cb	}	= (Setting + 0x1E)
			3Ch	+30	

Command name	Category	Command	Data value	Setting	Remarks
			In the case of	f the AW-H	E120/AW-HE130
			00h	-150	Data value of response
			₹	₹	= (Setting / 5 + 0x1E)
			1Eh	0	
			}	\ \.450	
Desir	Control	OSG:39:[<i>Data</i>]	3Ch	+150	
R gain control command	Control	03G.39.[Data]	418h ≀	-1000 }	%Only enabled for the AK-OB300.
control communa			800h	0	
			}	₹	
	Response	OSG:39:[Data]	BE8h	+1000	
R gain	Request	QSG:39	None		※Only enabled for the AK-UB300.
query command	Response	OSG:39:[Data]	418h	-1000	
			₹	₹	
			800h	0	
) DE0 -	\ \.4000	
B gain	Control	OBI:[Data]	BE8h	+1000	L E50/AW-HE60/AW-HE40/AW-HE65/
control command	Control	OBI.[Data]	AW-HE70/AV		1E30/AVV-HE00/AVV-HE40/AVV-HE03/
			000h	-30	%The AW-HE50 is supported by Ver.2
			₹	₹	or a later version.
			096h	0	Setting (menu display value)
				+30	 = (Data value - 0x96) / 5 Cleared to zero at AWB OK completion.
					IE120/AW-HE130
			000h	-150	Setting (menu display value)
			₹	₹	= (Data value — 0x96)
			096h	0	Cleared to zero at AWB OK completion.
	Response	OBI:[Data]	12Ch	} +150	
	Control	OBG:[Data]		L	I IE50/AW-HE60/AW-HE40/AW-HE65/
			AW-HE70/AV		
			00h	-30	%The AW-HE50 is supported by Ver.2
			\ 155	}	or a later version.
			1Eh 	0 	• Setting (menu display value) = (Data value — 0x1E)
			3Ch	+30	Cleared to zero at AWB OK completion.
			In the case of	f the AW-H	E120/AW-HE130
			00h	-150	Setting (menu display value)
			₹	`	= (Data value — 0x1E) x 5
	Despess	ODC:[Dete]	1Eh ≀	0	Cleared to zero at AWB OK completion.
	Response	OBG:[Data]	3Ch	+150	
B gain	Request	QBI	None		The AW-HE50 is supported by Ver.2
query command					or a later version.
	Response	OBI:[Data]			IE50/AW-HE60/AW-HE40/AW-HE65/
			AW-HE70/AV 000h	V-UE70 -30	WThe AW HEED is supported by Ver 2
			00011	_30	※The AW-HE50 is supported by Ver.2 or a later version.
			096h	o`	Data value of response
			₹	₹	= (Setting x 5 + 0x96)
			12Ch	+30	
					E120/AW-HE130
			000h ≀	-150 ≀	• Data value of response = (Setting + 0x96)
			096h	0	(Coung : 0/00)
			₹	₹	
			12Ch	+150	
	1		<u> </u>		

Command name	Category	Command	Data value	Setting	Remarks
B gain	Request	QGB	None		The AW-HE50 is supported by Ver.2
query command					or a later version.
	Response	OGB:[Data]	In the case o	f the AW-H	IE50/AW-HE60/AW-HE40/AW-HE65/
			AW-HE70/AV		
			00h	-30	%The AW-HE50 is supported by Ver.2
			₹	. ₹	or a later version.
			1Eh	0	Data value of response
			}	}	= (Setting + 0x1E)
			3Ch	+30	
			I 41	£ 41 A\A/	F400/ANA LIF400
					E120/AW-HE130
			00h	- 150	Data value of response
			\	(= (Setting / 5 + 0x1E)
			1Eh	0	
			3Ch	+150	
Darain	Control	000.24.[Detel			WOrks anabled for the AK LIP200
B gain	Control	OSG:3A:[Data]	418h	-1000	**Only enabled for the AK-UB300.
control command			((
			800h	0	
	D	000 04 (0.44)	((
	Response	OSG:3A:[Data]	BE8h	+1000	
B gain	Request	QSG:3A	None		※Only enabled for the AK-UB300.
query command	Response	OSG:3A:[Data]	418h	-1000	
			₹ .	₹	
			800h	0	
			₹ .	₹	
			BE8h	+1000	

•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 → 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 → 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 → 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 → 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.

Table 3.2.7.2. R/B pedestal settings

		Table 3.2.7.2.		stal settilit	J S
Command name	Category	Command	Data value	Setting	Remarks
R pedestal	Control	ORP:[Data]	In the cas	se of the AW	-HE120
control command			000h	-150	Setting (menu display value)
			₹	₹	= (Data value — 0x96)
			096h	0	Cleared to zero at ABB OK
					completion.
				se 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]		se of the AW-	
			00h	–150	Setting (menu display value)
				≀	=(Data value — 0x1E) x 5
			l Fu	0	Cleared to zero at ABB OK application.
			3Ch	+150	completion.
				se of the AW-	-HE130
			0Ah	-100	Setting (menu display value)
			₹	₹	= (Data value - 0x1E) x 5
			1Eh	0	Cleared to zero at ABB OK
			}	}	completion.
	Response	ORD:[Data]	32h	+100	
R pedestal query command	Request	QRP	None		**Only supported by the AW-HE120/ AW-HE130.
query command	Response	ORP:[Data]	In the cas	se of the AW	
	response	Ora [Bala]	000h	-150	Data value of response
			₹	₹	= (Setting + 0x96)
			096h	0	, ,
			₹	₹	
			12Ch	+150	
				se of the AW-	-HE130 I
			032h }	− 100 }	
			096h	0	
			₹	≀	
			0Fah	+100	
	Request	QRD	None		
	Response	ORD:[Data]		se of the AW-	
			00h	–150	Data value of response
				0	= (Setting / 5 + 0x1E)
			\ \		
			3Ch	+150	
				se of the AW-	-HE130
			0Ah	-100	Data value of response
			₹	₹	= (Setting / 5 + 0x1E)
			1Eh	0	
))	}	
			32h	+100	

			Doto		
Command name	Category	Command	Data value	Setting	Remarks
R pedestal	Control	OSG:4C:[Data]	4E0h	-800	※Only enabled for the AK-UB300.
control command			} 900b	}	
			800h ≀	0	
	Response	OSG:4C:[Data]	B20h	+800	
R pedestal	Request	QSG:4C	None		※Only enabled for the AK-UB300.
query command	Response	OSG:4C:[Data]	4E0h	-800	
			₹	₹	
			800h	0	
			} D00b	₹ .000	
B pedestal	Control	OBP:[<i>Data</i>]	B20h	+800 se of the AW-	 -HE120
control command	Control	ODI .[Data]	000h	-150	Setting (menu display value)
			₹	₹	= (Data value — 0x96)
			096h	0	Cleared to zero at ABB OK
					completion.
				se of the AW	-HE130
			032h	-100	Setting (menu display value)
			≀ 096h	0	= (Data value — 0x96)
			109011		Cleared to zero at ABB OK completion.
	Response	OBP:[Data]	0Fah	+100	completion.
	Control	OBD:[Data]		se of the AW-	
			00h	–150	Setting (menu display value)
				0	= (Data value — 0x1E) x 5 • Cleared to zero at ABB OK
			≀	ì	completion.
			3Ch	+150	The value displayed on the menu is
			1. (1		the command setting multiplied by 5.
			0Ah	se of the AW-	Setting (menu display value)
			₹	}	= (Data value — 0x1E) x 5
			1Eh	0	Cleared to zero at ABB OK
			} 32h	} +100	completion.
			3211	+100	• The value displayed on the menu is the command setting multiplied by 5.
	Response	OBD:[Data]	-		the command setting maniphed by 5.
B pedestal	Request	QBP	None		**Only supported by the AW-HE120/
query command	D	000-10-4-1	lin Alba and		AW-HE130.
	Response	OBP:[Data]	000h	se of the AW- -150	Data value of response
			}	}	= (Setting + 0x96)
			096h	0	, C
			1005	₹ .450	
			12Ch	+150 se of the AW-	HF130
			032h	-100	Data value of response
			₹	₹	= (Setting + 0x96)
			096h	0	
			l ≀ 0Fah	} +100	
	Request	QBD	None	7.00	
	Response	OBD:[Data]	In the cas	se of the AW	
			00h	-150 `	Data value of response (Sotting / F + Ovd F)
				0	= (Setting / 5 + 0x1E)
			}	``	
			3Ch	+150	

Command name	Category	Command	Data value	Setting	Remarks
			• In the c	ase of the AV	N-HE130
			0Ah	-100	Data value of response
			₹	₹	= (Setting / 5 + 0x1E)
			1Eh	0	
			₹	₹	
			32h	+100	
B pedestal	Control	OSG:4E:[Data]	4E0h	-800	※Only enabled for the AK-UB300.
control command			₹	₹	
			800h	0	
			₹	₹	
	Response	OSG:4E:[Data]	B20h	+800	
B pedestal	Request	QSG:4E	None		※Only enabled for the AK-UB300.
query command	Response	OSG:4E:[Data]	4E0h	-800	
			₹	₹	
			800h	0	
			₹	₹	
			B20h	+800	

•R pedestal: -150

[Control] $PC \rightarrow AW-HE120$

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 → 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 → PC

200 OK "OBP:12C"

•B pedestal: -150

[Control] PC → 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.

Table 3.2.7.3. Color matrix settings

Cotomomo		Data		
		value		Remarks
Control	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	OSE:31:[Data]			
				**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	
Control	OSG:A0:[Data]	0	Off	※Only enabled for the AK-UB300.
Response	OSG:A0:[Data]	1	On	
Request	QSG:A0	None		※Only enabled for the AK-UB300.
Response	OSG:A0:[Data]	0	Off On	
Control	OSA:00:[Data]	0	TABLE A	※Only enabled for the AK-UB300.
Response	OSA:00:[<i>Data</i>]	1	TABLE B	
Request	QSA:00	None		
Response	OSA:00:[<i>Data</i>]	0	TABLE A TABLE B	
Control	OSA:84:[Data]	0	Off On	**Only enabled for the AK-UB300.
-			On	WO
•			0"	
Response	USA:84:[<i>Data</i>]	1	On	
Response Control Response	OSD:2F:[Data] OSD:2F:[Data] OSD:A4:[Data] OSD:A4:[Data]	00h	-31 \(\) 0 \(\) +31 -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-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 Control Response Request Response Control Response Request Response Control Response Control Response Request Response Request Response Control Response	Category Command Control OSE:31:[Data] Response OSE:31:[Data] Request QSE:31 Response OSE:31:[Data] Response OSG:A0:[Data] Response OSG:A0:[Data] Response OSG:A0:[Data] Response OSA:00:[Data] Response OSA:00:[Data] Response OSA:00:[Data] Response OSA:84:[Data] Response OSA:84:[Data] Control OSD:2F:[Data] Response OSD:2F:[Data] Control OSD:A4:[Data]	Category Command value Control OSE:31:[Data] 0 Response OSE:31:[Data] 0 Request QSE:31 None Response OSE:31:[Data] 0 Response OSG:A0:[Data] 0 Response OSG:A0:[Data] 1 Response OSG:A0:[Data] 0 Response OSA:00:[Data] 0 Response OSA:00:[Data] 1 Request QSA:00 None Response OSA:00:[Data] 0 Response OSA:00:[Data] 0 Response OSA:84:[Data] 0 Response OSA:84:[Data] 0 Response OSA:84:[Data] 0 Response OSD:2F:[Data] 00h Response OSD:A4:[Data] 41h Response OSD:A4:[Data] 41h Response OSD:A4:[Data] 41h	Category Command value Setting Control OSE:31:[Data] 0 Normal EBU NTSC User Response OSE:31:[Data] None Normal EBU NTSC User Response OSE:31:[Data] 0 Normal EBU NTSC User Control OSG:A0:[Data] 0 Off Response OSG:A0:[Data] 1 On Response OSG:A0:[Data] 1 On Response OSG:A0:[Data] 0 Off Control OSA:00:[Data] 0 TABLE A TABLE B Response OSA:00:[Data] 1 TABLE B Control OSA:84:[Data] 0 TABLE B Control OSA:84:[Data] 0 Off Response OSA:84:[Data] 0 Off 1 On 2 On Response OSA:84:[Data] 0 Off 1 On 2 On Control OSD:2F:[Data] 0 Off 1 0

Linear matrix Reguest QSD:2F: Data	Command name	Category	Command	Data value	Setting	Remarks
Query command Request Aspense		Request		None		※Only supported by the AW-HE120.
Request OSD:A4 None SC	-	Response	OSD:2F:[Data]			
Request SSD:A4 None SSD:A4 None Response OSD:A4:[Data] 41h -63 2 3 3 3 3 3 3 3 3	query command					
Response						
Response OSD:A4 None Response OSD:A4:[Data] 41h -63 2 80h 0 2 1 80h 0 2 2 1 80h 2 80h 2 80h 2 80h 2 80h 2 80h 2 80h				,	1	
Response OSD:A4:[Data]		Request	QSD:A4			*Only supported by the AW-HE130.
Control command			OSD:A4:[Data]	41h	-63] , ,
Linear matrix R-G(N) Response OSG:A5:P:[Data] On -31					,	
Control Cont						
Control command Control OSG:A5:N:[Data] O0h 2 1					,	
Response	Linear matrix	Control	OSG:A5:N:[Data]			*Only enabled for the AK-UB300.
Linear matrix Request QSG;A5:N;[Data] 3Eh +31						,
Response	control command			1Fh	0	
Linear matrix R-G (N) Response OSG:A5:N:[Data] ONh -31				₹	₹	
Response OSG:A5:N:[Data 00h 31 2 1 1 1 1 1 1 1 1		Response	OSG:A5:N:[Data]	3Eh	+31	
Query command		•				
Linear matrix R-G (P) Control command Response OSG:A5:P:[Data] ON -31 X		Response	OSG:A5:N:[Data]			
Linear matrix R-G (P) Control command Response OSG:A5:P:[Data] 3Eh +31 31 32 32 32 32 32 32	query command			·		
Linear matrix Reguest Control OSD:30:[Data] None Response OSD:30:[Data] None None Response OSD:30:[Data] None None Response OSD:30:[Data] None None Response OSD:30:[Data] None N						
Control command Control Control Control Control command Control command Control command Control command Control command Control Contro				·	1	
Response	Lineau matrix	Comtral	OCC: A F: D: [Dota]	+		WOrks anabled for the AICLIDSON
control command Response OSG:A5:P:[Data] 3Eh 43 Linear matrix R-G(P) query command Response OSG:A5:P:[Data] 00h -31 X Linear matrix R-B control command Control OSD:30:[Data] 00h -31 X R-B control command Response OSD:30:[Data] 00h -31 X EBU or NTSC has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. Setting is possible when User has been selected		Control	USG:A5:P:[Data]			*Chiy enabled for the AK-UB300.
Response OSG:A5:P:[Data] 3Eh +31 3Eh +31 3Eh +31 3Eh +31 3Eh +31 3Eh +31 3Eh +31 3Eh +31 3Eh +31 3Eh +31 3Eh +31 3Eh +31 3Eh +31						
Linear matrix Request QSG:A5:P:[Data] 3Eh +31	control command					
Response OSG:A5:P:[Data] O0h -31		Response	OSG:A5:P:[Data]	4	1	
Control Control OSD:30:[Data] Control OSD:30:[Data] Control OSD:30:[Data] Control OSD:A5:[Data] Control OSD:A5:[Data] Control Control Control OSD:A5:[Data] Control	Linear matrix			None		**Only enabled for the AK-UB300.
Linear matrix Response OSD:30:[Data] O	R-G(P)	Response	OSG:A5:P:[Data]	00h	-31	
Control Cont	query command			≀	₹	
Linear matrix R-B control command Response Control OSD:30:[Data] 2 2 3Eh 431 Response Control command Teh 0						
Linear matrix R-B control command Response Control OSD:30:[Data] Response Control OSD:A5:[Data] Response Control						
R-B control command Response Control command Response Control Command Response Control Cosd: [Data] Control Cosd: [Data] Response Control Cosd: [Data] Response Control Cosd: [Data] Response Control Cosd: [Data] Response Control Cosd: [Data] Response Control Cosd: [Data] Response Control Cosd: [Data] Response Control Cosd: [Data] Response Cosd: [Lincar matrix	Control	OSD:20:[Data]	-		Sottings cannot be changed if Normal
control command 1Fh 2 3Eh +31 5 5 5 5 5 5 5 5 5						
Control OSD:A5:[Data]		response	000.00.[Data]			
Control OSD:A5:[Data]				₹	₹	
Control OSD:A5:[Data] 41h -63 Response OSD:A5:[Data] 2				3Eh	+31	
Response OSD:A5:[Data]		Osatasl	00D: A5:[D-4-1	445	00	
Request QSD:30 None Seponse QSD:30 Properties Response QSD:30 Properties P				-		
Request QSD:30 None Work None Setting is possible when User has been selected as the MatrixType setting. Wonly supported by the AW-HE130. Wonly supported by the AW-HE120.		Response	OSD.AS.[Data]			
BFh						
Request QSD:30 None				BFh	+63	selected as the MatrixType setting.
R-B query command Response OSD:30:[Data] 00h -31	Linear matrix	Request	QSD:30	None		
					-31	,
	query command	•				
SEh +31						
Request QSD:A5 None **Only supported by the AW-HE130. Response OSD:A5:[Data] 41h -63				-	I -	
Response OSD:A5:[Data]		Request	OSD:A5	1	†31	∴ Only supported by the AW-HF130
					-63	A. C Capported by the fitter file foo.
≀ ≀		,		₹		
BFh +63					,	

Command name	Category	Command	Data value	Setting	Remarks
Linear matrix	Control	OSG:A6:N:[Data]	00h	-31	%Only enabled for the AK-UB300.
R-B(N)			₹	₹	
control command			1Fh	0	
			}	₹	
	Response	OSG:A6:N:[Data]	3Eh	+31	
Linear matrix	Request	QSG:A6:N	None		
R-B(N)	Response	OSG:A6:N:[Data]	00h	-31	
query command			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	}	
			1Fh ≀	0	
			3Eh	+31	
Linear matrix	Control	OSG:A6:P:[Data]	00h	-31	**Only enabled for the AK-UB300.
R-B(P)	Control	CCC., to.: .[Buta]	}	\	Acting chabled for the fire decor.
control command			1Fh	0	
			₹	₹	
	Response	OSG:A6:P:[Data]	3Eh	+31	
Linear matrix	Request	QSG:A6:P	None		※Only enabled for the AK-UB300.
R-B(P)	Response	OSG:A6:P:[Data]	00h	-31	
query command			₹	₹	
			1Fh	0	
			₹	₹	
			3Eh	+31	
Linear matrix	Control	OSD:31:[Data]	00h	_31 }	Settings cannot be changed if Normal, Settings cannot be changed if Normal,
G-R control command			∤ 1Fh	0	EBU or NTSC has been selected as the
CONTROL COMMINANT			1511		MatrixType setting.Setting is possible when User has been
			3Eh	+31	selected as the MatrixType setting.
					※Only supported by the AW-HE120.
	Response	OSD:31:[Data]			
	Control	OSD:A6:[Data]	41h	- 63	Settings cannot be changed if Normal,
			} 20b	0	EBU or NTSC has been selected as the
			80h ≀		MatrixType setting.Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
					**Only supported by the AW-HE130.
	Response	OSD:A6:[Data]			
Linear matrix	Request	QSD:31	None		
G-R	Response	OSD:31:[Data]	00h	_31 }	
query command			∤ 1Fh	0	
			';''	ĭ	
			3Eh	+31	
	Request	QSD:A6	None		**Only supported by the AW-HE130.
	Response	OSD:A6:[Data]	41h	-63	
			\ \ \	≀	
			80h ≀	0	
			BFh	+63	
Linear matrix	Control	OSG:A7:N:[Data]	00h	-31	*Only enabled for the AK-UB300.
G-R(N)		[₹	₹	,
control command			1Fh	0	
			₹	₹	
	Response	OSG:A7:N:[Data]	3Eh	+31	

Command name	Category	Command	Data value	Setting	Remarks
Linear matrix	Request	QSG:A7:N	None		**Only enabled for the AK-UB300.
G-R(N)	Response	OSG:A7:N:[Data]	00h	-31	
query command			₹	₹	
			1Fh	0	
			₹	₹	
			3Eh	+31	
Linear matrix	Control	OSG:A7:P:[Data]	00h	-31	**Only enabled for the AK-UB300.
G-R(P)			₹	₹	
control command			1Fh	0	
			_	₹	
	Response	OSG:A7:P:[Data]	3Eh	+31	
Linear matrix	Request	QSG:A7:P	None		※Only enabled for the AK-UB300.
G-R(P)	Response	OSG:A7:P:[Data]	00h	-31	
query command			₹	₹	
			1Fh	0	
			₹	₹	
			3Eh	+31	
Linear matrix	Control	OSD:32:[Data]	00h	-31	Settings cannot be changed if Normal,
G-B			₹	₹	EBU or NTSC has been selected as the
control command			1Fh	0	MatrixType setting.
			₹	₹	Setting is possible when User has been
			3Eh	+31	selected as the MatrixType setting.
		000.0015.41			**Only supported by the AW-HE120.
	Response	OSD:32:[Data]	4.41	00	0.00
	Control	OSD:A7:[Data]	41h	-63	Settings cannot be changed if Normal, EBU or NTSC has been selected as the
			≀ 80h	0	MatrixType setting.
			\ \ \ \		Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
					*Only supported by the AW-HE130.
	Response	OSD:A7:[Data]			
Linear matrix	Request	QSD:32	None		**Only supported by the AW-HE120.
G-B	Response	OSD:32:[Data]	00h	-31	
query command			₹	₹	
			1Fh	0	
			}	₹	
		000 47	3Eh	+31	WO I
	Request	QSD:A7	None	00	**Only supported by the AW-HE130.
	Response	OSD:A7:[Data]	41h	-63	
			≀ 80h	0	
			\ \{\}		
			BFh	+63	
Linear matrix	Control	OSG:A8:N:[Data]	00h	-31	XOnly enabled for the AK-UB300.
G-B(N)	3011101	300 tot.[Duta]	\ \{\}	}	Acting chasica for the fact oboot.
control command			1Fh	0	
John John Maria			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	≀	
	Response	OSG:A8:N:[Data]	3Eh	+31	
Linear matrix	Request	QSG:A8:N	None		%Only enabled for the AK-UB300.
G-B(N)	Response	OSG:A8:N:[Data]	00h	-31	
	response	JOO., NO. IN. [Data]	\ \{\}	\ \ \	
query command					
			1Fh }	0 2	

Command name	Category	Command	Data value	Setting	Remarks
Linear matrix	Control	OSG:A8:P:[Data]	00h	-31	**Only enabled for the AK-UB300.
G-B(P)			₹	`	
control command			1Fh ≀	0	
	Response	OSG:A8:P:[Data]	3Eh	+31	
Linear matrix	Request	QSG:A8:P	None	.01	XOnly enabled for the AK-UB300.
G-B(P)	Response	OSG:A8:P:[Data]	00h	-31	Acting chasica for the fit observe
query command			₹	₹	
			1Fh	0	
			₹	₹	
12	0 ()	000 00 (0.4)	3Eh	+31	0.00
Linear matrix B-R	Control Response	OSD:33:[<i>Data</i>] OSD:33:[<i>Data</i>]	00h }	_31 ≀	Settings cannot be changed if Normal, EBU or NTSC has been selected as the
control command	rresponse	OSD.SS.[Data]	1Fh	0	MatrixType setting.
			₹	₹	Setting is possible when User has been
			3Eh	+31	selected as the MatrixType setting.
	Control	OSD:A8:[Data]	41h	– 63	**Only supported by the AW-HE120.Settings cannot be changed if Normal,
	Response	OSD:A8:[Data]] 4 111 }	- 03 }	EBU or NTSC has been selected as the
	reopenee	OOD., to.[Data]	80h	o o	MatrixType setting.
			₹	₹	Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
l in a an manthis	Desweet	QSD:33	None		**Only supported by the AW-HE130.
Linear matrix B-R	Request Response	OSD:33:[Data]	None 00h	–31	WOnly supported by the AW-HE120.
query command	response	000.00.[Data]	1	₹ .	
			1Fh	0	
			₹	\	
	Request	QSD:A8	3Eh None	+31	**Only supported by the AW-HE130.
	Response	OSD:A8:[Data]	41h	-63	%Only supported by the AVV-HE 130.
	. кооролюо		₹	₹	
			80h	0	
			≀ BFh	} +63	
Linear matrix	Control	OSG:A9:N:[Data]	00h	-31	**Only enabled for the AK-UB300.
B-R(N)	Control	000.73.11.[Data]	\ \{\}	} } }	Monly chabled for the Art-obsoc.
control command			1Fh	0	
			. ≀	₹	
	Response	OSG:A9:N:[Data]	3Eh	+31	
Linear matrix	Request	QSG:A9:N	None		**Only enabled for the AK-UB300.
B-R(N)	Response	OSG:A9:N:[Data]	00h	-31	
query command			\ \	≀	
			1Fh ≀	0	
			3Eh	+31	
Linear matrix	Control	OSG:A9:P:[Data]	00h	-31	%Only enabled for the AK-UB300.
B-R(P)			₹	₹	
control command			1Fh	0	
			}	₹	
	Response	OSG:A9:P:[Data]	3Eh	+31	
Linear matrix	Request	QSG:A9:P	None	0.4	
B-R(P) query command	Response	OSG:A9:P:[Data]	00h	-31	
		1	\ \	}	
query command			1Fh	1.0	
query communa			1Fh ≀	0	

Command name	Category	Command	Data value	Setting	Remarks
Linear matrix	Control	OSD:34:[Data]	00h	-31	Settings cannot be changed if Normal,
B-G	Response	OSD:34:[Data]	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ \	EBU or NTSC has been selected as the
control command			1Fh	0	MatrixType setting.
				∤ +31	Setting is possible when User has been selected as the MatrixType setting.
			JEII	731	**Only supported by the AW-HE120.
	Control	OSD:A9:[Data]	41h	-63	Settings cannot be changed if Normal,
	Response	OSD:A9:[Data]		₹	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			₹	₹	Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
Linear matrix	Request	QSD:34	None		**Only supported by the AW-HE130.**Only supported by the AW-HE120.
B-G	Response	OSD:34:[Data]	00h	–31	Solily supported by the AVV-HE 120.
query command	. 100p000	002.0[24.0]	₹	₹	
			1Fh	0	
			₹	}	
		000 40	3Eh	+31	WO I
	Request	QSD:A9	None	60	
	Response	OSD:A9:[Data]	41h ≀	-63 ≀	
			80h	0	
			₹	`≀	
			BFh	+63	
Linear matrix	Control	OSG:AA:N:[Data]	00h	-31	※Only enabled for the AK-UB300.
B-G(N)			₹	₹	
control command			1Fh	0	
			≀	₹	
	Response	OSG:AA:N:[Data]	3Eh	+31	
Linear matrix	Request	QSG:AA:N	None		
B-G(N)	Response	OSG:AA:N:[Data]	00h	-31	
query command			}	. ₹	
			1Fh	0	
			\ \ \ \	\ \ . 24	
12	0	000 44 8 8 8	3Eh	+31	WO I would be for the AKLIPOOD
Linear matrix B-G(P)	Control	OSG:AA:P:[Data]	00h	-31	**Only enabled for the AK-UB300.
control command	Response	OSG:AA:P:[Data]	≀ 1Fh	}	
Control Command			1 1 1	0	
			3Eh	+31	
Linear matrix	Request	QSG:AA:P	None	101	%Only enabled for the AK-UB300.
B-G(P)	Response	OSG:AA:P:[Data]	00h	-31	1
query command			₹	₹	
			1Fh	0	
			₹	₹	
			3Eh	+31	
Color correction	Control	OSA:85:[<i>Data</i>]	0	Off	**Only enabled for the AK-UB300.
control command	Response	OSA:85:[<i>Data</i>]	1	On	
Color correction	Request	QSA:85	None		**Only enabled for the AK-UB300.
query command	Response	OSA:85:[<i>Data</i>]	0	Off	
	0	000 4 4 7 7 7 7	1	On	
Color correct table	Control	OSG:A4:[Data]	0	A	**Only enabled for the AK-UB300.
control command	Response	OSG:A4:[Data]	1	В	WO I
Color correct table	Request	QSG:A4	None		∴ Monly enabled for the AK-UB300.
query command	Response	OSG:A4:[Data]	0	A	
		1	1	В	

			Data		
Command name	Category	Command	value	Setting	Remarks
Color correction	Control	OSD:86:[<i>Data</i>]	In the c	ase of the AV	N-HE120
R GAIN/			01h	-127	 Settings cannot be changed if Normal,
SATURATION			₹	₹	EBU or NTSC has been selected as the
control command			80h	0	MatrixType setting.
			. ₹	₹	Setting is possible when User has been
			FFh	+127	selected as the MatrixType setting.
			In the c	L ase of the AV	l W-HE130
			41h	-63	Settings cannot be changed if Normal,
			₹	₹	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			\	₹	Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
			In the c	ase of the AV	 N-HE40/AW-HE65/AW-HE70/AW-UE70
			61h	-31	Settings cannot be changed if Normal,
			₹	₹	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			₹	₹	Setting is possible when User has been
			9Fh	+31	selected as the MatrixType setting.
			In the c	ase of the Al	
			01h	-127	
			≀ 80h	0	
			₹	``≀	
			FEh	+126	
	Response	OSD:86:[<i>Data</i>]			
Color correction	Request	QSD:86	None	5 (1	A. I.
R GAIN/ SATURATION	Response	OSD:86:[<i>Data</i>]		ase of the AV	/V-HE120
query command			01h {	_127 }	
400.7			80h	0	
			₹	₹	
			FFh	+127	
			In the c	ase of the AV	/-HE130
			41h	_63	
			₹	₹	
			80h	0	
			\ \ \	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
			BFh	+63	
					N-HE40/AW-HE65/AW-HE70/AW-UE70
			61h	-31	
			} 90h	. ₹	
			80h }	0	
			9Fh	+31	
			1 (:		
				ase of the Ak	(-UB300
			01h ≀	_127 }	
			80h	0	
			₹	}	
			FEh	+126	

Command name	Category	Command	Data	Setting	Remarks
Color correction	Control		value	_	
R PHASE control command	Control	OSD:87:[<i>Data</i>]	01h	-127	V-HE120/AK-UB300 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.
				l ase of the AV AW-UE70	 N-HE130/AW-HE40/AW-HE65/AW-
			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:[<i>Data</i>]]		colocida de die madisktype codding.
Color correction	Request	QSD:87	None		
R PHASE query command	Response	OSD:87:[<i>Data</i>]	In the country of the	-127	V-HE120/AK-UB300
				W-UE70	W-HE130/AW-HE40/AW-HE65/AW-
			41h	-63	
Color correction	Control	OSD:9C:[Data]	In the c	ase of the AV	V-HE130
R_R_YI GAIN/ SATURATION control command	2		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.
			In the c	rase of the Al	I N-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.
	Response	OSD:9C:[Data]			
Color correction	Request	QSD:9C	None		M. H. F. 4.00
R_R_YI GAIN/ SATURATION query command	Response	OSD:9C:[Data]	41h	1	N-HE130 N-HE40/AW-HE65/AW-HE70/AW-UE70
			61h	-31	

Command name	Category	Command	Data value	Setting	Remarks
Color correction R_R_YI PHASE	Control	OSD:9D:[Data]	In the c	case of the AN	W-HE130/AW-HE40/AW-HE65/AW-
control command			41h	<u>-63</u>	Settings cannot be changed if Normal,
			₹	}	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			∤ BFh	∤ +63	Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:9D:[Data]] BFII	+03	Selected as the Matrix Type Setting.
Color correction	Request	QSD:9D	None		
R_R_YI PHASE	Response	OSD:9D:[Data]	In the c	ase of the A	W-HE130/AW-HE40/AW-HE65/AW-
query command				W-UE70	
			41h }	_63 }	
			80h	0	
			1	`	
			BFh	+63	
Color correction	Control	OSD:88:[<i>Data</i>]		ase of the A	
R_YI GAIN/ SATURATION			01h }	_127 }	Settings cannot be changed if Normal, EBU or NTSC has been selected as the
control command			80h	0	MatrixType setting.
			₹	₹	Setting is possible when User has been
			FFh	+127	selected as the MatrixType setting.
				ase of the A	
			41h }	_63 ≀	Settings cannot be changed if Normal, EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			1	`	Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
				ase of the Al	K-UB300
			01h ≀	_127	
			80h	0	
				₹	
	Response	OSD:88:[Data]	FEh	+126	
Color correction R YI GAIN/	Request	QSD:88	None	case of the A	M HE420
SATURATION	Response	OSD:88:[<i>Data</i>]	01h	-127	W-HE120
query command			₹	₹	
			80h	0	
			\ \{	\ \.107	
			FFh In the c	+127 case of the A	 W-HE130
			41h	_63	W-112 100
			₹	}	
			80h	0	
			} BFh	∤ +63	
				case of the Al	K-LIB300
			01h	–127	X-0D000
			₹	}	
			80h	0	
			}	1126	
			FEh	+126	

Command name	Category	Command	Data value	Setting	Remarks
Color correction	Control	OSD:89:[Data]	In the c	ase of the A	W-HE120/AK-UB300
R_YI PHASE			01h	-127	Settings cannot be changed if Normal,
control command			₹	₹	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			₹	₹	Setting is possible when User has been
			FFh	+127	selected as the MatrixType setting.
			In the c	ase of the A	N-HE130
			41h	-63	Settings cannot be changed if Normal,
			₹	₹	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			₹	₹	Setting is possible when User has been
			BFh	+63	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:[Data]	In the c	ase of the A	N-HE120/AK-UB300
query command			01h	-127	
			₹	₹	
			80h	0	
			₹	₹	
			FFh	+127	
			In the c	ase of the A	N-HE130
			41h	-63	
			₹	₹	
			80h	0	
			₹	₹	
			BFh	+63	
Color correction	Control	OSD:9E:[Data]	In the c	ase of the A	N-HE130
R_YI_YI GAIN/			41h	-63	Settings cannot be changed if Normal,
SATURATION			₹	₹	EBU or NTSC has been selected as the
control command			80h	0	MatrixType setting.
			₹	₹	Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
				ase of the A	<u>N-HE40/AW-HE65/AW-HE70/AW-UE70</u>
			61h	– 31	Settings cannot be changed if Normal,
			₹	₹	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			≀	₹	Setting is possible when User has been
	Response	OSD:9E:[Data]	9Fh	+31	selected as the MatrixType setting.
Color correction	Request	QSD:9E	None		
R_YI_YI GAIN/	Response	OSD:9E:[Data]	In the c	ase of the A	N-HE130
SATURATION			41h	-63	
query command			₹	₹	
		i e			
			80h	0	
			80h ≀	0	
			≀ BFh	≀ +63	<i>N</i> -HE40/AW-HE65/AW-HE70/AW-UE70
			≀ BFh	≀ +63	N-HE40/AW-HE65/AW-HE70/AW-UE70
			₹ BFh In the c	₹ +63 ase of the A\	N-HE40/AW-HE65/AW-HE70/AW-UE70
			BFh In the c	+63 ase of the A\ -31	N-HE40/AW-HE65/AW-HE70/AW-UE70
			BFh In the co	₹ +63 ase of the A\ -31 ₹	W-HE40/AW-HE65/AW-HE70/AW-UE70
			₹ BFh In the c 61h ₹ 80h		W-HE40/AW-HE65/AW-HE70/AW-UE70
Color correction	Control	OSD:9F:[Data]	BFh In the c 61h 80h 9Fh	+63 ase of the Al -31 0 +31	W-HE40/AW-HE65/AW-HE70/AW-UE70 W-HE130/AW-HE40/AW-HE65/AW-
Color correction R_YI_YI PHASE	Control	OSD:9F:[Data]	BFh In the c 61h 80h 9Fh In the c	+63 ase of the Al -31 0 +31	
	Control	OSD:9F:[Data]	BFh In the c 61h 80h 9Fh In the c	+63 ase of the Al -31 0 1 +31 ase of the Al	
R_YI_YI PHASE	Control	OSD:9F:[Data]	BFh In the c 61h 80h 9Fh In the c HE70/A	+63 ase of the AV -31 0 1 +31 ase of the AV W-UE70	W-HE130/AW-HE40/AW-HE65/AW-
R_YI_YI PHASE	Control	OSD:9F:[Data]	BFh In the c 61h 80h 9Fh In the c HE70/A	+63 ase of the AV -31	N-HE130/AW-HE40/AW-HE65/AW- • Settings cannot be changed if Normal,
R_YI_YI PHASE	Control	OSD:9F:[Data]	BFh In the c 61h 80h 9Fh In the c HE70/A		N-HE130/AW-HE40/AW-HE65/AW- Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting.
R_YI_YI PHASE	Control	OSD:9F:[Data]	BFh In the c 61h 80h 9Fh In the c HE70/A		N-HE130/AW-HE40/AW-HE65/AW- • Settings cannot be changed if Normal, EBU or NTSC has been selected as the

			Data		
Command name	Category	Command	value	Setting	Remarks
Color correction	Request	QSD:9F	None		
R_YI PHASE	Response	OSD:9F:[Data]			N-HE130/AW-HE40/AW-HE65/AW-HE70/
query command			AW-UE		
			41h }	_63 }	
			80h	0	
			\ \ \		
			BFh	+63	
Color correction	Control	OSD:8A:[Data]		ase of the A	V-HE120
YI GAIN/			01h	-127	Settings cannot be changed if Normal,
SATURATION			₹	₹	EBU or NTSC has been selected as the
control command			80h	0	MatrixType setting.
			. ₹	}	Setting is possible when User has been
			FFh	+127	selected as the MatrixType setting.
				ase of the A	
			41h }	_63 }	Settings cannot be changed if Normal, EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			₹	`≀	Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
			In the c	ase of the A	N-HE40/AW-HE65/AW-HE70/AW-UE70
			61h	–31	Settings cannot be changed if Normal,
			₹	₹	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			\ \ \ \	₹	Setting is possible when User has been
			9Fh	+31	selected as the MatrixType setting.
				ase of the Al	K-UB300 T
			01h ≀	_127 }	
			80h	0	
			\ \{\}		
	D	000-04-10-4-1	FEh	+126	
Color correction	Response Request	OSD:8A:[<i>Data</i>] QSD:8A	None		
YI GAIN/	Response	OSD:8A:[Data]		ase of the A	
SATURATION	rvesponse	OSD.oA.[Data]	01h	-127	
query command			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	}	
' '			80h	0	
			₹	₹	
			FFh	+127	
				ase of the A	N-HE130
			41h	-63	
			≀ 80h	0	
			}	\ \{\cdot\}	
			BFh	+63	
					N-HE40/AW-HE65/AW-HE70/AW-UE70
			61h	–31	
			₹	₹	
			80h	0	
			}	₹	
			9Fh	+31	()
				ase of the Al	√-∪B300 I
			01h ≀	_127 }	
			80h	0	
			\ \ \		
			FEh	+126	
					<u> </u>

Command name	Category	Command	Data	Setting	Remarks
			value		
Color correction YI PHASE	Control	OSD:8B:[Data]			W-HE120/AK-UB300 • Settings cannot be changed if Normal,
control command			01h ≀	–127 	EBU or NTSC has been selected as the
control command			80h	0	MatrixType setting.
			₹	ĭ	Setting is possible when User has been
			FFh	+127	selected as the MatrixType setting.
			In the c	ase of the A	W-HE130/AW-HE40/AW-HE65/AW-HE70/
			AW-UE		
			41h	- 63	Settings cannot be changed if Normal,
			₹	≀	EBU or NTSC has been selected as the
			80h ≀	0	MatrixType setting. • Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
	Response	OSD:8B:[Data]	J DI II	103	**Only supported by the AW-HE120/
	Теоропос	OOD.OD.[Duiu]			AW-HE130.
Color correction	Request	QSD:8B	None	541 41	ALLE CONTACT DOOR
YI PHASE	Response	OSD:8B:[Data]			W-HE120/AK-UB300
query command			01h }	_127 }	
			80h	0	
			₹	ì	
			FFh	+127	
					W-HE130/AW-HE40/AW-HE65/AW-HE70/
			AW-UE		
			41h	-63	
			≀ 80h	0	
			\ \ \		
			BFh	+63	
Color correction	Control	OSD:8C:[Data]	In the c	ase of the A	W-HE120
YI_G GAIN/			01h	-127	Settings cannot be changed if Normal,
SATURATION			₹	≀	EBU or NTSC has been selected as the
control command			80h	0	MatrixType setting.
			} FFh	∤ +127	Setting is possible when User has been selected as the MatrixType setting.
				ase of the A	, , ,
			41h	–63	Settings cannot be changed if Normal,
			₹	₹	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
				₹	Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
			01h	ase of the Al	K-UB300
			₹	127	
			80h	0	
			₹	₹	
	Response	OSD:8C:[Data]	FEh	+126	
Color correction	Request	QSD:8C	None		
YI_G GAIN/	Response	OSD:8C:[Data]		ase of the A	W-HE120
SATURATION			01h	–127	
query command			≀ 80h	0	
			\ \ \		
			FFh	+127	
				ase of the A	W-HE130
			41h	-63	
))	}	
			80h ≀	0	
			BFh	+63	
			וווט	. 55	<u>l</u>

			Data		
Command name	Category	Command	value	Setting	Remarks
				ase of the Al	K-UB300
			01h	-127	
))	}	
			80h ≀	0	
			FEh		
Color correction	Control	OSD:8D:[Data]			N-HE120/AK-UB300
YI G PHASE	Control	OOD.OD.[Data]	01h	-127	Settings cannot be changed if Normal,
control command			₹	₹	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			₹	₹	Setting is possible when User has been
			FFh	+127	selected as the MatrixType setting.
				ase of the AV	
			41h	-6 3	Settings cannot be changed if Normal,
			\ \ \	≀	EBU or NTSC has been selected as the
			80h ≀	0	MatrixType setting.
			BFh	+63	Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:8D:[Data]	וווט	103	**Only supported by the AW-HE120/
	response	OOD.oD.[Data]			AW-HE130.
Color correction	Request	QSD:8D	None		7
YI_G PHASE	Response	OSD:8D:[Data]	In the c	ase of the AV	N-HE120/AK-UB300
query command	·		01h	-127	
			₹	₹	
			80h	0	
				\	
			FFh	+127	A/ LIE 400
				ase of the A	W-HE130
			41h }	_63 }	
			80h	0	
			\{\bar{\}}	ĭ	
			BFh	+63	
Color correction	Control	OSD:8E:[Data]	In the c	ase of the AV	N-HE120
G GAIN/			01h	-127	Settings cannot be changed if Normal,
SATURATION			₹	₹	EBU or NTSC has been selected as the
control command			80h	0	MatrixType setting.
			\ \	}	Setting is possible when User has been
			FFh	+127	selected as the MatrixType setting.
			41h	ase of the A\ -63	Settings cannot be changed if Normal,
			4 111	- 03	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			₹	`≀	Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
			In the c	ase of the AV	W-HE40/AW-HE65/AW-HE70/AW-UE70
			61h	–31	Settings cannot be changed if Normal,
			₹	. ≀	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			l ≀ 9Fh	}	Setting is possible when User has been Addition and the Matrix Transportation
				+31	selected as the MatrixType setting.
				ase of the Al	N-UD3UU
			01h	-127 \	
			} 20b	}	
			80h ≀	0	
	Dogganas	OSD:0E:[Data]	FEh	+126	
	Response	OSD:8E:[Data]		. 120	

Command name	Category	Command	Data value	Setting	Remarks
Color correction	Request	QSD:8E	None		
G GAIN/ SATURATION	Response	OSD:8E:[Data]		ase of the A	W-HE120
query command			01h	_127 }	
query communa			80h	0	
			₹	₹	
			FFh	+127	
			In the c	ase of the A	W-HE130
			4 III	_63 }	
			80h	0	
			}	}	
			BFh	+63	A/ UE 40/A\A/ UE 65/A\A/ UE 70/A\A/ UE 70
			61h	ase of the Av	N-HE40/AW-HE65/AW-HE70/AW-UE70
			}	-31	
			80h	0	
			}	₹	
			9Fh	+31	(LID200
			01h	ase of the Al	\-UB300
			\ \{\}	121	
			80h	0	
			₹	₹	
			FEh	+126	
Color correction	Control	OSD:8F:[Data]			N-HE120/AK-UB300
G PHASE control command			01h	−127 	Settings cannot be changed if Normal, EBU or NTSC has been selected as the
Control communa			80h	0	MatrixType setting.
			₹	₹	Setting is possible when User has been
			FFh	+127	selected as the MatrixType setting.
			In the c		N-HE130/AW-HE40/AW-HE65/AW-HE70/
			41h	-63	Settings cannot be changed if Normal,
			₹	. ₹	EBU or NTSC has been selected as the
			80h }	0	MatrixType setting. • Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
	Response	OSD:8F:[Data]]		, and the same of
Color correction	Request	QSD:8F	None		
G PHASE	Response	OSD:8F:[Data]	In the c		W-HE120/AK-UB300
query command			01h	-127	
			80h	}	
			80h }	0	
			FFh	+127	
					W-HE130/AW-HE40/AW-HE65/AW-HE70/
			AW-UE	70 _63	
			1	-03	
			80h	0	
			\ \ \	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
			BFh	+63	

			Data		
Command name	Category	Command	value	Setting	Remarks
Color correction	Control	OSD:90:[Data]		ase of the AV	
G_Cy GAIN/			01h	-127	Settings cannot be changed if Normal,
SATURATION			}	≀	EBU or NTSC has been selected as the
control command			80h	0	MatrixType setting.
			\ \ \	}	Setting is possible when User has been
			FFh	+127	selected as the MatrixType setting.
			In the c	ase of the A\	N-HE130
			41h	-63	Settings cannot be changed if Normal,
			7	₹	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			₹	₹	Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
			In the c	ase of the Al	N-HE40/AW-HE65/AW-HE70/AW-UE70
			61h	_31	Settings cannot be changed if Normal,
			}	-31	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			₹		Setting is possible when User has been
			9Fh	+31	selected as the MatrixType setting.
				101	selected as the matrix type setting.
				ase of the Al	K-UB300
			01h ≀	_127 }	
			80h	0	
			₹	₹	
	Response	OSD:90:[<i>Data</i>]	FEh	+126	
Color correction	Request	QSD:90	None		
G_Cy GAIN/	Response	OSD:90:[Data]		ase of the AV	V-HE120
SATURATION guery command			01h	-127	
query command			≀ 80h	0	
			\ \	ĭ	
			FFh	+127	
			In the c	ase of the AV	N-HE130
			41h	- 63	
			₹	. ≀	
			80h ≀	0	
			BFh	+63	
				100	
					N-HE40/AW-HE65/AW-HE70/AW-UE70
			61h	- 31	
			} 90b	}	
			80h	0	
			} 9Fh	} +31	
			01 11	T31	
				ase of the Al	C-UB300
			01h	-127	
			}	. ≀	
			80h	0	
			≀ FEh	} +126	
				120	
	1	1	1	1	<u> </u>

Color correction Color corre				Doto		
G_Cy PHASE control command Control command	Command name	Category	Command	Data value	Setting	Remarks
Color correction G_Cy PHASE query command Color correction Color Color Correction Color Correction Color Correction Color Co		Control	OSD:91:[Data]	In the c	ase of the AV	
AW-UE70				≀ 80h ≀	0	EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been selected as the MatrixType setting.
Color correction Cy GAIN SATURATION control command Color correction Cy GAIN Control command Color correction Cy GAIN C						W-HE130/AW-HE40/AW-HE65/AW-HE70/
Color correction G_Cy PHASE query command Request GSD:91:[Data] Response QSD:91:[Data] Response QSD:91:[Data] In the case of the AW-HE120/AK-UB300 In the case of the AW-HE130/AW-HE65/AW-HE70/AW-UE70 Ath				41h	-63	EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been
Response query command Response query comm		Response	OSD:91:[<i>Data</i>]]	100	sciected as the matrix type setting.
Query command	Color correction	Request				
HE70/AW-UE70			OSD:91:[<i>Data</i>]	01h	-127	W-HE120/AK-UB300
Color correction Cy GAIN/ SATURATION control command Control control command Control command Control control command Control control command Control control control command Control control command Control control control control control control control command Control contr						W-HE130/AW-HE40/AW-HE65/AW-
Color correction Cy GAIN/ SATURATION control command Control control command Control command Control command Control command Control command Control command Control contro				₹	₹	
Cy GAIN/ SATURATION control command Oth				₹	₹	
Cy GAIN/ SATURATION control command Oth	Color correction	Control	OSD:92:[Data]	In the c	ase of the AV	N-HE120
80h 0 MatrixType setting. Setting is possible when User has been selected as the MatrixType setting. 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. Setting is possible when User has been selected as the MatrixType setting. In the case of the AK-UB300 1 the case of the AK-UB300 1 the case of the AK-UB300	Cy GAIN/ SATURATION		. ,	01h	-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. W-HE130 Settings cannot be changed if Normal,
61h -31				≀ BFh	0 } +63	Setting is possible when User has been selected as the MatrixType setting.
Red						
In the case of the AK-UB300 01h				≀ 80h ≀	0	EBU or NTSC has been selected as the MatrixType setting.
01h				9Fh	+31	
01h				In the c	ase of the Al	K-UB300
80h 0 ₹						
				80h	0	
		Response	OSD:92:[<i>Data</i>]		· ·	

Command name	Cotogony	Command	Data	Catting	Remarks
	Category	Command	value	Setting	Remarks
Color correction Cy GAIN/	Request Response	QSD:92 OSD:92:[<i>Data</i>]	None In the c	ase of the A\	 N-HE120
SATURATION	response	000.02.[Data]	01h	-127	V 11E 120
query command			₹	₹	
			80h	0	
			\ \ \ \	\ \.107	
			FFh In the c	+127 ase of the A	 N-HE130
			41h	-63	V-11E 130
			₹	1	
			80h	0	
			≀ BFh	∤ +63	
				L	I N-HE40/AW-HE65/AW-HE70/AW-UE70
			61h	<u>–31</u>	THE 16th WY THESON WY THEF STATES OF THE TOTAL CONTROL OF THE TOTAL CONT
			₹	₹	
			80h	0	
			∤ 9Fh	} +31	
				ase of the Al	(-LIB300
			01h	-127	05000
			1	≀	
			80h	0	
			} CCb	} +126	
			FEh	+120	
Color correction	Control	OSD:93:[<i>Data</i>]	In the c	l ase of the A\	N-HE120/AK-UB300
Cy PHASE	00.14.0.	002.00.[24.44]	01h	_127	Settings cannot be changed if Normal,
control command			₹	₹	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			} FFh	∤ +127	Setting is possible when User has been selected as the MatrixType setting.
					W-HE130/AW-HE40/AW-HE65/AW-
				W-UE70	
			41h	-63	Settings cannot be changed if Normal,
			\ \ \	}	EBU or NTSC has been selected as the
			80h ≀	0	MatrixType setting. • Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
	Response	OSD:93:[Data]	1		,, , , , , , , , , , , , , , , , , , ,
Color correction	Request	QSD:93	None		
Cy PHASE	Response	OSD:93:[Data]			N-HE120/AK-UB300
query command			01h	-127	
			≀ 80h	0	
			\ \	ĭ	
			FFh	+127	
					N-HE130/AW-HE40/AW-HE65/AW-HE70/
			AW-UE 41h	_63	
			₹	₹	
			80h	0	
) DEb	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
			BFh	+63	

Command name	Category	Command	Data value	Setting	Remarks
Color correction	Control	OSD:94:[<i>Data</i>]	In the c	ase of the A	
Cy_B GAIN/ SATURATION control command			01h	-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 c	ase of the A	
			41h ≀	_63	Settings cannot be changed if Normal, EBU or NTSC has been selected as the
			80h ≀ BFh	0	MatrixType setting. Setting is possible when User has been selected as the MatrixType setting.
				ase of the Al	
			01h ≀	−127 }	
	Posnonos	OSD:04:[Data]	80h ≀ FEh	0	
Color correction	Response Request	OSD:94:[<i>Data</i>] QSD:94	None	1120	
Cy_B GAIN/	Response	OSD:94:[<i>Data</i>]		ase of the A	W-HE120
SATURATION query command	·		01h	-127	
			≀ FFh	≀ +127	
			la tha a	£45 - A1	A/ 115420
			41h	ase of the AV	/V-HE130
			₹ 80h	0	
			≀ BFh	≀ +63	
			In the c	ase of the Al	LIB300
			01h	-127	\-0B300
			≀ 80h	 0	
			≀ FEh	≀ +126	
Color correction	Control	OSD:05:[Det=1	In the	one of the A	 N-HE120/AK-UB300
Cy_B PHASE control command	Control	OSD:95:[<i>Data</i>]	01h	-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. **Only supported by the AW-HE120.
			In the c	ase of the A	W-HE130
			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:95:[<i>Data</i>]			**Only supported by the AW-HE120/ AW-HE130.

Command name	Category	Command	Data value	Setting	Remarks
Color correction	Request	QSD:95	None		
Cy_B PHASE	Response	OSD:95:[<i>Data</i>]			N-HE120/AK-UB300
query command			01h }	_127 }	
			80h	0	
			₹	₹	
			FFh	+127	
			In the c	ase of the A\	N-HF130
			41h	<u>-63</u>	
			₹	₹	
			80h	0	
			∤ BFh	} +63	
			DITI	+03	
Color correction	Control	OSD:96:[<i>Data</i>]		ase of the A	
B GAIN/			01h	-127	Settings cannot be changed if Normal,
SATURATION control command			80h	}	EBU or NTSC has been selected as the
Control Command			80h ≀	0	MatrixType setting. • Setting is possible when User has been
			FFh	+127	selected as the MatrixType setting.
			In the c	ase of the AV	V-HE130
			41h	-63	Settings cannot be changed if Normal,
			\ \ \	₹	EBU or NTSC has been selected as the
			80h ≀	0	MatrixType setting. • Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
			In the c	ase of the A	V-HE40/AW-HE65/AW-HE70/AW-UE70
			61h	–31	Settings cannot be changed if Normal,
			≀ 80h	}	EBU or NTSC has been selected as the MatrixType setting.
			\ \	0	Setting is possible when User has been
			9Fh	+31	selected as the MatrixType setting.
			In the c	ase of the Al	
			01h	-127 \	
			≀ 80h	0	
			₹	₹	
	Response	OSD:96:[Data]	FEh	+126	
		000.00			
Color correction B GAIN/	Request Response	QSD:96 OSD:96:[<i>Data</i>]	None In the c	ase of the A\	 N-HF120
SATURATION	rtesponse	OSD.90.[Data]	01h	-127	V-11L 120
query command			₹.	₹	
			80h	0	
				} }	
			FFh In the c	+127 ase of the A\	M HE420
			41h	-63	V-11E 100
			₹	\ \`	
			80h	0	
) 	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
			BFh In the c	+63 ase of the AV	 N-HE40/AW-HE65/AW-HE70/AW-UE70
			61h	-31	13
			₹	}	
			80h	0	
			} 9Fh	} +31	
L			31 11	T31	

Command name	Category	Command	Data value	Setting	Remarks
			In the c	ase of the Al	K-UB300
			01h	-127	
			\ \	}	
			80h ≀	0	
			FEh	+126	
Color correction	Control	OSD:97:[Data]	In the c	ase of the AV	N-HE120/AK-UB300
B PHASE			01h	-127	Settings cannot be changed if Normal,
control command))	}	EBU or NTSC has been selected as the
			80h ≀	0	MatrixType setting. • Setting is possible when User has been
			FFh	+127	selected as the MatrixType setting.
			In the c	ase of the AV	N-HE130/AW-HE40/AW-HE65/AW-HE70/
			AW-UE		
			41h	-63	Settings cannot be changed if Normal, EBU or NTSC has been selected as the
			≀ 80h	0	MatrixType setting.
			₹	ì	Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
	Response	OSD:97:[<i>Data</i>]			
Color correction	Request	QSD:97	None		
B PHASE	Response	OSD:97:[<i>Data</i>]		ase of the AV	N-HE120/AK-UB300
query command			01h }	121	
			80h	o`	
			₹	₹	
			FFh	+127	
			In the c		N-HE130/AW-HE40/AW-HE65/AW-HE70/
			41h	-63	
			₹	₹	
			80h	0	
			\ \ \	₹	
			BFh	+63	
Color correction	Control	OSD:80:[<i>Data</i>]	In the c	ase of the AV	N HE120
B_Mg GAIN/	Control	USD.60.[Data]	01h	-127	Settings cannot be changed if Normal,
SATURATION			₹	₹	EBU or NTSC has been selected as the
control command			80h	0	MatrixType setting.
				}	Setting is possible when User has been
			FFh	+127	selected as the MatrixType setting.
			la tha a	f H A\	M. I.E. 4.00
			In the c	ase of the AV	Settings cannot be changed if Normal,
			₹ 111	-03	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			\ 	}	Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
			In the	one of the Al	(LIB200
			01h	ase of the Al	\-UD3UU
			₹	127	
			80h	0	
			\ 	₹ 100	
	Response	OSD:80:[Data]	FEh	+126	

Command name	Category	Command	Data value	Setting	Remarks
Color correction	Request	QSD:80	None		
B_Mg GAIN/	Response	OSD:80:[Data]		ase of the A	W-HE120
SATURATION			01h	-127	
query command))	}	
			80h ≀	0	
			FFh	+127	
				ase of the A	W-HE130
			41h	-63	
			₹	₹	
			80h	0	
			} BFh	} +63	
				ase of the Al	K LIB300
			01h	-127	K-0B300
			}	₹	
			80h	0	
			₹	₹	
			FEh	+126	
Color correction	Control	OSD:81:[<i>Data</i>]			W-HE120/AK-UB300
B_Mg PHASE control command			01h ≀	–127 	Settings cannot be changed if Normal, EBU or NTSC has been selected as the
Control Command			80h	l o	MatrixType setting.
			₹	≀	Setting is possible when User has been
			FFh	+127	selected as the MatrixType setting.
					※Only supported by the AW-HE120.
				ase of the A	
			41h	-63	Settings cannot be changed if Normal, EDIT on NTCO has been salested as the
			≀ 80h	0	EBU or NTSC has been selected as the MatrixType setting.
			\ \		Setting is possible when User has been
			BFh	+63	selected as the MatrixType 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>]			W-HE120/AK-UB300
query command			01h ≀	_127 }	
			80h	0	
			₹	≀	
			FFh	+127	
				ase of the A	W-HE130
			41h	-63	
))	}	
			80h ≀	0	
			BFh	+63	
Color correction	Control	OSD:82:[<i>Data</i>]		ase of the A	W-HE120
Mg GAIN/			01h	-127	Settings cannot be changed if Normal,
SATURATION			₹	≀	EBU or NTSC has been selected as the
control command			80h	0	MatrixType setting.
			≀ FFh		Setting is possible when User has been selected as the Matrix Type setting.
				ase of the A	selected as the MatrixType setting. W-HF130
			41h	-63	Settings cannot be changed if Normal,
			₹	₹	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			?	₹	Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.

Command name	Category	Command	Data value	Setting	Remarks
				ase of the A\	N-HE40/AW-HE65/AW-HE70/AW-UE70
	1		61h	_31	Settings cannot be changed if Normal,
	1		₹	}	EBU or NTSC has been selected as the
	1		80h	0	MatrixType setting.
	1		₹	₹	Setting is possible when User has been
	1		9Fh	+31	selected as the MatrixType setting.
	1			ase of the Al	K-UB300
	1		01h	-127	
	1		≀ 80h	0	
	1		\ \ \ \	\ \{\cdot\}	
	Response	OSD:82:[<i>Data</i>]	FEh	+126	
Color correction	Request	QSD:82	None		
Mg GAIN/	Response	OSD:82:[Data]		ase of the A	I W-HF120
SATURATION	1.00001.00	005.02.[54.4]	01h	_127	112.120
query command	1		₹	₹	
	1		80h	0	
	1		}	\	
	1		FFh	+127	M. HE420
	1		41h	ase of the A\ -63	/V-HE130
	1		1	-03	
	1		80h	0	
	1		₹	₹	
	1		BFh	+63	
	1				N-HE40/AW-HE65/AW-HE70/AW-UE70
	1		61h	–31	
	1		≀ 80h	}	
	1		\ \ \	0	
	1		9Fh	+31	
	1		In the c	ase of the Al	K-UB300
	1		01h	-127	
	1		₹	≀	
	1		80h	0	
	1		\ 	1126	
Color correction	Control	OSD:83:[<i>Data</i>]		+126	l N-HE120/AK-UB300
Mg PHASE	Control	000.00.[Dulu]	01h	-127	Settings cannot be changed if Normal,
control command	1		₹	₹	EBU or NTSC has been selected as the
	1		80h	0	MatrixType setting.
	1			₹	Setting is possible when User has been
	1		FFh	+127	selected as the MatrixType setting.
	1		AW-UE		N-HE130/AW-HE40/AW-HE65/AW-HE70/
	ı		41h	_63	Settings cannot be changed if Normal,
	ı		1	-03	EBU or NTSC has been selected as the
	1		80h	0	MatrixType setting.
	1		₹	₹	Setting is possible when User has been
		000 0015	BFh	+63	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]			N-HE120/AK-UB300
query command	İ		01h	-127	
	İ		≀ 80h	0	
			OUL		1
	l		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	ĭ	

Command name	Category	Command	Data value	Setting	Remarks
			In the c		N-HE130/AW-HE40/AW-HE65/AW-HE70/
			41h	-63	
			₹	₹	
			80h	0	
			≀ BFh	∤ +63	
Color correction	Control	OSD:84:[Data]		ase of the A\	N-HE120
Mg_R GAIN/			01h	-127	Settings cannot be changed if Normal,
SATURATION			₹	. ₹	EBU or NTSC has been selected as the
control command			80h ≀	0	MatrixType setting. • Setting is possible when User has been
			FFh	+127	selected as the MatrixType setting.
				ase of the AV	
			41h	-63	Settings cannot be changed if Normal,
			}	`	EBU or NTSC has been selected as the
			80h ≀	0	MatrixType setting. • Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
			In the c	ase of the AV	W-HE40/AW-HE65/AW-HE70/AW-UE70
			61h	– 31	Settings cannot be changed if Normal,
			≀ 80h	}	EBU or NTSC has been selected as the
			\ \ \	0	MatrixType setting. • Setting is possible when User has been
			9Fh	+31	selected as the MatrixType setting.
			In the c	ase of the Al	
			01h	-127	
) }	}	
			80h ≀	0	
	Response	OSD:84:[<i>Data</i>]	FEh	+126	
Color correction	Request	QSD:84	None		
Mg_R GAIN/	Response	OSD:84:[Data]	In the c	ase of the AV	W-HE120
SATURATION			01h	-127	
query command			\ \ \	}	
			80h ≀	0	
			FFh	+127	
				ase of the AV	W-HE130
			41h	-63	
			≀ 80h	0	
			₹	ĭ	
			BFh	+63	
					W-HE40/AW-HE65/AW-HE70/AW-UE70
			61h ≀	_31 }	
			80h	0	
			1	`≀	
			9Fh	+31	
				ase of the Al	K-UB300 T
			01h ≀	_127 }	
			80h	0	
			₹	≀	
			FEh	+126	

Command name	Category	Command	Data value	Setting	Remarks
Color correction	Control	OSD:85:[<i>Data</i>]	In the c	ase of the A	N-HE120/AK-UB300
Mg_R PHASE			01h	-127	Settings cannot be changed if Normal,
control command			₹	₹	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			₹	₹	Setting is possible when User has been
			FFh	+127	selected as the MatrixType setting.
					W-HE130/AW-HE40/AW-HE65/AW-HE70/
			AW-UE		- Cattings connet be about ad if Normal
			41h	-63	Settings cannot be changed if Normal, Settings cannot be changed if Normal,
))	≀	EBU or NTSC has been selected as the
			80h }	0	MatrixType setting.
			,	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Setting is possible when User has been
		000 05 10 (1)	BFh	+63	selected as the MatrixType setting.
<u> </u>	Response	OSD:85:[Data]	+		
Color correction	Request	QSD:85	None		
Mg_R PHASE	Response	OSD:85:[<i>Data</i>]			N-HE120/AK-UB300
query command			01h	-127	
			\ \	\	
			80h	0	
			\	} }	
			FFh	+127	
			In the c	ase of the A	N-HE130/AW-HE40/AW-HE65/AW-HE70/
			AW-UE	70	
			41h	-63	
			₹	} }	
			80h	0	
			1		
			BFh	+63	
Color correction	Control	OSD:9A:[Data]	In the c	ase of the A	N. HE130
Mg_R_R GAIN/	Control	OSD.9A.[Data]	41h	-63	Settings cannot be changed if Normal,
SATURATION			4 111	-03	EBU or NTSC has been selected as the
control command					
Control Command			80h	0	MatrixType setting.
			} BFh	-	Setting is possible when User has been selected as the MatrixType setting
		000.04 (0.43	Brn	+63	selected as the MatrixType setting.
	Response				
Color correction		OSD:9A:[Data]	-		※Only supported by the AW-HE130.
	Request	QSD:9A	None	5 (I A)	
Mg_R_R PHASE			In the c	ase of the A	
	Request	QSD:9A	In the c	-63	
Mg_R_R PHASE	Request	QSD:9A	In the c	–63 ≀	
Mg_R_R PHASE	Request	QSD:9A	In the c 41h	_63	
Mg_R_R PHASE	Request	QSD:9A	In the co	_63	
Mg_R_R PHASE	Request	QSD:9A	In the c 41h	_63	
Mg_R_R PHASE	Request	QSD:9A	In the co	_63	
Mg_R_R PHASE control command	Request Response	QSD:9A OSD:9A:[<i>Data</i>]	In the c 41h 2 80h 3 BFh	-63	W-HE130
Mg_R_R PHASE control command Color correction	Request	QSD:9A	In the country and the country	-63	W-HE130 W-HE130
Mg_R_R PHASE control command Color correction Mg_R_R PHASE	Request Response	QSD:9A OSD:9A:[<i>Data</i>]	In the c 41h 2 80h 3 BFh	-63 0 1 +63 -63	W-HE130 W-HE130 • Settings cannot be changed if Normal,
Mg_R_R PHASE control command Color correction	Request Response	QSD:9A OSD:9A:[<i>Data</i>]	In the country and the country	-63	W-HE130 W-HE130 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the
Mg_R_R PHASE control command Color correction Mg_R_R PHASE	Request Response	QSD:9A OSD:9A:[<i>Data</i>]	In the country and the country	-63 0 1 +63 -63	W-HE130 W-HE130 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting.
Mg_R_R PHASE control command Color correction Mg_R_R PHASE	Request Response	QSD:9A OSD:9A:[<i>Data</i>]	In the country and the country	-63	W-HE130 W-HE130 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been
Mg_R_R PHASE control command Color correction Mg_R_R PHASE	Request Response	QSD:9A OSD:9A:[<i>Data</i>] OSD:9B:[<i>Data</i>]	In the country and the country	-63	W-HE130 • 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.
Mg_R_R PHASE control command Color correction Mg_R_R PHASE control command	Request Response Control Response	QSD:9A OSD:9A:[<i>Data</i>] OSD:9B:[<i>Data</i>]	In the country of the	-63	W-HE130 W-HE130 • Settings cannot be changed if Normal, EBU or NTSC has been selected as the MatrixType setting. • Setting is possible when User has been
Mg_R_R PHASE control command Color correction Mg_R_R PHASE control command Color correction	Request Response Control Response Request	QSD:9A OSD:9A:[<i>Data</i>] OSD:9B:[<i>Data</i>] OSD:9B:[<i>Data</i>] QSD:9B	In the country of the	-63	W-HE130 • 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.
Mg_R_R PHASE control command Color correction Mg_R_R PHASE control command Color correction Mg_R_R PHASE	Request Response Control Response	QSD:9A OSD:9A:[<i>Data</i>] OSD:9B:[<i>Data</i>]	In the country of the	-63	W-HE130 • 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.
Mg_R_R PHASE control command Color correction Mg_R_R PHASE control command Color correction	Request Response Control Response Request	QSD:9A OSD:9A:[<i>Data</i>] OSD:9B:[<i>Data</i>] OSD:9B:[<i>Data</i>] QSD:9B	In the country of the	-63	W-HE130 • 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.
Mg_R_R PHASE control command Color correction Mg_R_R PHASE control command Color correction Mg_R_R PHASE	Request Response Control Response Request	QSD:9A OSD:9A:[<i>Data</i>] OSD:9B:[<i>Data</i>] OSD:9B:[<i>Data</i>] QSD:9B	In the country of the	-63	W-HE130 • 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.
Mg_R_R PHASE control command Color correction Mg_R_R PHASE control command Color correction Mg_R_R PHASE	Request Response Control Response Request	QSD:9A OSD:9A:[<i>Data</i>] OSD:9B:[<i>Data</i>] OSD:9B:[<i>Data</i>] QSD:9B	In the country of the	-63	W-HE130 • 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.
Mg_R_R PHASE control command Color correction Mg_R_R PHASE control command Color correction Mg_R_R PHASE	Request Response Control Response Request	QSD:9A OSD:9A:[<i>Data</i>] OSD:9B:[<i>Data</i>] OSD:9B:[<i>Data</i>] QSD:9B	In the country of the	-63	W-HE130 • 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.
Mg_R_R PHASE control command Color correction Mg_R_R PHASE control command Color correction Mg_R_R PHASE	Request Response Control Response Request	QSD:9A OSD:9A:[<i>Data</i>] OSD:9B:[<i>Data</i>] OSD:9B:[<i>Data</i>] QSD:9B	In the country of the	-63	W-HE130 • 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.

			Data		
Command name	Category	Command	value	Setting	Remarks
Color correction	Control	OSD:AA:[Data]	In the c	ase of the AV	W-HE40/AW-HE65/AW-HE70/AW-UE70
Cy_Cy_B GAIN/			61h	– 31	 Settings cannot be changed if Normal,
SATURATION			}	₹	EBU or NTSC has been selected as the
control command			80h	0	MatrixType setting.
			₹	₹	Setting is possible when User has been
			9Fh	+31	selected as the MatrixType setting.
	Response	OSD:AA:[Data]	1		
Color correction	Request	QSD:AA	None		
Cy_Cy_B GAIN/	Response	OSD:AA:[Data]	In the c	ase of the AV	W-HE40/AW-HE65/AW-HE70/AW-UE70
SATURATION			61h	–31	
query command			₹	₹ .	
			80h	0	
			₹	₹	
			9Fh	+31	
Color correction	Control	OSD:AB:[Data]	In the c	ase of the AV	W-HE40/AW-HE65/AW-HE70/AW-UE70
Cy_Cy_B PHASE			41h	-63	Settings cannot be changed if Normal,
control command			}	₹ .	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
			₹	₹	Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
	Response	OSD:AB:[Data]	†		constitut de une manimer, per coming.
Color correction	Request	QSD:AB	None		
Cy_Cy_B PHASE	Response	OSD:AB:[Data]		ase of the Al	W-HE40/AW-HE65/AW-HE70/AW-UE70
query command	Теоропос	COD:, (D.[Data]	41h	<u>–63</u>	107 107 107 112007 107 1127 07 107 0270
query communa			 ₹	}	
			80h	o o	
			}	\ \`\\	
			BFh	+63	
Color correction	Control	OSD:AC:[Data]			W-HE40/AW-HE65/AW-HE70/AW-UE70
Cy_B_B GAIN/	Control	005 (0.[54.4]	61h	<u>-31</u>	Settings cannot be changed if Normal,
SATURATION			₹	-31	EBU or NTSC has been selected as the
control command			80h	0	MatrixType setting.
Control communa			}		Setting is possible when User has been
			9Fh	+31	selected as the MatrixType setting.
	Response	OSD:AC:[Data]	1	'01	scieded as the matrix type setting.
Color correction	Request	QSD:AC:[Data]	None		
	Response	OSD:AC:[Data]		easo of the Al	N-HE40/AW-HE65/AW-HE70/AW-UE70
Cy_B_B GAIN/ SATURATION	Response	OSD.AC.[Data]	61h		
			\ \{\}	_31 ``	
query command			80h	≀	
			\ \{\	0	
			9Fh		
0-1	Control	OCD: A D: [Doto]		<u> </u>	A/ HE40/A\A/ HE65/A\A/ HE70/A\A/ HE70
Color correction	Control	OSD:AD:[Data]			W-HE40/AW-HE65/AW-HE70/AW-UE70
Cy_B_B PHASE			41h	-63	Settings cannot be changed if Normal, EBU or NTSC has been selected as the
control command			} 80h	}	MatrixType setting.
			80h ≀	0	· · · · · · · · · · · · · · · · · · ·
			BFh	+63	Setting is possible when User has been adjusted as the Matrix Type setting.
	Dear	OCD-AD/(D-4-1	- 5' ''	.03	selected as the MatrixType setting.
Onland to the state of the stat	Response	OSD:AD:[Data]	Now-		
Color correction	Request	QSD:AD	None	ooo of the a Al	N HE40/AM HE65/AM HE70/AM HE70
Cy_B_B PHASE	Response	OSD:AD:[Data]			W-HE40/AW-HE65/AW-HE70/AW-UE70 I
query command			41h	-63	
			} 00b	}	
			80h	0	
			} DEb	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
			BFh	+63	
			J	Î	

Command name	Category	Command	Data value	Setting	Remarks
Color correction	Control	OSD:C0:[Data]		ase of the A\	N-HE40/AW-HE65/AW-HE70/AW-UE70
B_B_Mg GAIN/			61h	-31	Settings cannot be changed if Normal,
SATURATION			₹	₹	EBU or NTSC has been selected as the
control command			80h	0	MatrixType setting.
			₹	₹	Setting is possible when User has been
			9Fh	+31	selected as the MatrixType setting.
	Response	OSD:C0:[Data]	1		,,,
Color correction	Request	QSD:C0	None		
B_B_Mg GAIN/	Response	OSD:C0:[Data]	In the c	ase of the Al	N-HE40/AW-HE65/AW-HE70/AW-UE70
SATURATION			61h	-31	
query command			₹	₹	
			80h	0	
			₹	₹	
			9Fh	+31	
Color correction	Control	OSD:C1:[Data]		1	W-HE40/AW-HE65/AW-HE70/AW-UE70
B_B_Mg PHASE			41h	-63	Settings cannot be changed if Normal,
control command			}	`	EBU or NTSC has been selected as the
			80h	0	MatrixType setting.
) }	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
	Response	OSD:C1:[Data]	1		
Color correction	Request	QSD:C1	None	£41- A\	A/ LIE 40/A\A/ LIE 65/A\A/ LIE 70/A\A/ LIE 70
B_B_Mg PHASE	Response	OSD:C1:[Data]			N-HE40/AW-HE65/AW-HE70/AW-UE70
query command			41h ≀	–63 ≀	
			80h	0	
			\ \{\}	\ \	
			BFh	+63	
Color correction	Control	OSD:C2:[Data]			N-HE40/AW-HE65/AW-HE70/AW-UE70
B_Mg_Mg GAIN/	00111101	002.02.[20.0]	61h	_31	Settings cannot be changed if Normal,
SATURATION			₹	₹	EBU or NTSC has been selected as the
control command			80h	o`	MatrixType setting.
			₹	₹	Setting is possible when User has been
			9Fh	+31	selected as the MatrixType setting.
	Response	OSD:C2:[Data]	1		,,,
Color correction	Request	QSD:C2	None		
B_Mg_Mg GAIN/	Response	OSD:C2:[Data]	In the c	ase of the AV	N-HE40/AW-HE65/AW-HE70/AW-UE70
SATURATION			61h	-31	
query command			₹	₹	
			80h	0	
			₹	₹	
			9Fh	+31	
Color correction	Control	OSD:C3:[Data]			N-HE40/AW-HE65/AW-HE70/AW-UE70
B_Mg_Mg PHASE			41h	-63	Settings cannot be changed if Normal, DILLOR NITSC has been selected as the
control command			} 90b	}	EBU or NTSC has been selected as the
			80h ≀	0	MatrixType setting.
			BFh	+63	Setting is possible when User has been selected as the MatrixType setting.
	Response	OSD:C3:[Data]	- 2	100	Selected as the Matrix Lype Setting.
Color correction	Request	QSD:C3.[Data]	None		
B_Mg_Mg PHASE	Response	OSD:C3:[Data]		ase of the A\	I N-HE40/AW-HE65/AW-HE70/AW-UE70
query command	. 100001100	302.00.[2414]	41h	-63	
720.7 30			₹'''	}	
			80h	0	
			₹	``≀	
			BFh	+63	
		i .		i	1

			Data	l	
Command name	Category	Command	value	Setting	Remarks
Color correction	Control	OSD:C4:[Data]			N-HE40/AW-HE65/AW-HE70/AW-UE70
YI_YI_G GAIN/			61h	–31	Settings cannot be changed if Normal,
SATURATION			}	. ≀	EBU or NTSC has been selected as the
control command			80h	0	MatrixType setting.
			≀ 9Fh		Setting is possible when User has been Addition and the Machine Transportation
	Doononoo	OSD:C4:[Data]	9511	+31	selected as the MatrixType setting.
Color correction	Response Request	QSD:C4:[Data]	None		
YI_YI_G GAIN/	Response	OSD:C4:[Data]		ase of the A	N-HE40/AW-HE65/AW-HE70/AW-UE70
SATURATION			61h	–31	
query command			₹	1	
			80h	0	
			₹	₹	
			9Fh	+31	
Color correction	Control	OSD:C5:[Data]		1	W-HE40/AW-HE65/AW-HE70/AW-UE70
YI_YI_G PHASE			41h	-6 3	Settings cannot be changed if Normal,
control command) }	}	EBU or NTSC has been selected as the
			80h ≀	0	MatrixType setting.
			BFh	+63	Setting is possible when User has been Setting is possible when User has been
	Doggogo	OSD:C5:[Data]	-	103	selected as the MatrixType setting.
Color correction	Response Request	QSD:C5.[Data]	None		
YI YI G PHASE	Response	OSD:C5:[Data]		ase of the Al	N-HE40/AW-HE65/AW-HE70/AW-UE70
query command	response	OOD.OO.[Data]	41h	<u>-63</u>	V 112+0// (V 11200// (V 11270// (V 0270
query communa				}	
			80h	0	
			₹	₹	
			BFh	+63	
Color correction	Control	OSD:C6:[Data]			V-HE40/AW-HE65/AW-HE70/AW-UE70
YI_G_G GAIN/			61h	-31	Settings cannot be changed if Normal, The ANTON has been added to the set of t
SATURATION control command			≀ 80h	0	EBU or NTSC has been selected as the MatrixType setting.
Control Command			\ \{\}	\ \{\}	Setting is possible when User has been
			9Fh	+31	selected as the MatrixType setting.
	Response	OSD:C6:[Data]			colocida de ma manariye coming.
Color correction	Request	QSD:C6	None		
YI_G_G GAIN/	Response	OSD:C6:[Data]		ase of the AV	W-HE40/AW-HE65/AW-HE70/AW-UE70
SATURATION			61h	-31	
query command			₹	₹	
			80h	0	
) }	₹	
Calar samaatian	Control	OSD:C7:[Data]	9Fh	+31	N HE40/A\A/ HE65/A\A/ HE70/A\A/ HE70
Color correction YI_G_G PHASE	Control	USD.C1.[Data]	41h	-63	N-HE40/AW-HE65/AW-HE70/AW-UE70 • Settings cannot be changed if Normal,
control command			1 7 111	_03	EBU or NTSC has been selected as the
Control Communa			80h	o o	MatrixType setting.
			}	1	Setting is possible when User has been
			BFh	+63	selected as the MatrixType setting.
	Response	OSD:C7:[Data]	<u> </u>		<i>3</i> . <i>3</i>
Color correction	Request	QSD:C7	None		
YI_G_G PHASE	Response	OSD:C7:[Data]		T .	N-HE40/AW-HE65/AW-HE70/AW-UE70
query command			41h	-6 3	
			} 20b	}	
			80h ≀	0	
			BFh	+63	
	<u> </u>	<u> </u>	J-111		<u> </u>

```
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 \rightarrow 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 → AW-HE120
    http://192.168.0.10/cgi-bin/aw cam?cmd=OSD:34:3E&res=1
  [Response] AW-HE120 → 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] $PC \rightarrow AW-HE120$

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 \rightarrow 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] $PC \rightarrow AW-HE120$

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 → 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 → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:8E:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:8E:FF"

Color correction G PHASE: +127

[Control] PC → 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 → 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 → 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 \rightarrow PC

200 OK "OSD:92:FF"

Color correction Cy PHASE: +127

[Control] PC → 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 → 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 → PC

200 OK "OSD:96:FF"

Color correction B PHASE: +127

[Control] PC → 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 → 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 → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:82:FF&res=1

[Response] AW-HE120 \rightarrow PC

200 OK "OSD:82:FF"

Color correction Mg PHASE: +127

[Control] PC → 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 → 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 → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:85:FF&res=1

[Response] AW-HE120 → PC

200 OK "OSD:85:FF"

3.2.7.4. Skin correction setting

These commands control the camera's skin correction and acquire the current setting values.

Table 3.2.7.2. Skin correction setting

Command name	Category	Command	Data	Setting	Remarks
Skin area SW	Control	OSG:B0:[Data]	0	Off	**Only enabled for the AK-UB300.
control command	Response	OSG:B0:[Data]	1	On	
Skin area SW	Request	QSG:B0	None		**Only enabled for the AK-UB300.
query command	Response	OSG:B0:[Data]	0	Off	
			1	On	
Skin area table	Control	OSG:B1:[Data]	0	Α	※Only enabled for the AK-UB300.
control command	Response	OSG:B1:[Data]	1	В	
Skin area table	Request	QSG:B1	None		※Only enabled for the AK-UB300.
query command	Response	OSG:B1:[Data]	0	Α	
			1	В	
Skin area HUE	Control	OSG:B2:[Data]	01h	-127	*Only enabled for the AK-UB300.
control command	Response	OSG:B2:[Data]	₹	₹	
			80h	0	
			₹	₹	
			FFh	+127	
Skin area HUE	Request	QSG:B2	None		※Only enabled for the AK-UB300.
query command	Response	OSG:B2:[Data]	01h	-127	
			₹	₹	
			80h	0	
			₹	₹	
			FFh	+127	
Skin area TONE	Control	OSG:B3:[Data]	01h	-127	**Only enabled for the AK-UB300.
control command	Response	OSG:B3:[Data]	₹	\ \	
			80h	0	
			}	}	
			FEh	+126	
Skin area TONE	Request	QSG:B3	None		
query command	Response	OSG:B3:[Data]	01h	-127	
			}	≀	
			80h	0	
			₹	}	
			FEh	+126	

Example of use)

·Skin area SW: Off

[Control] PC → AK-UB300

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSG:B0:0&res=1

[Response] AK-UB300 → PC

200 OK "OSG:B0:0"

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.

Table 3.2.8. Chroma level setting

Command name	Category	Command	Data value	Setting	Remarks
Chroma level SW	Control	OSG:93:[<i>Data</i>]	0	Off	**Only enabled for the AK-UB300.
control command	Response	OSG:93:[Data]	1	On	,
Chroma level SW	Request	QSG:93	None		※Only enabled for the AK-UB300.
query command	Response	OSG:93:[Data]	0	Off	
	-	-	1	On	
Chroma level control command	Control	OCG:[Data]		of the AW-HE50 W-HE70/AW-U	0/AW-HE60/AW-HE120/AW-HE40/
Control Command			00	_3	■ In the case of the AW-HE50/
			01	_3 _2	AW-HE60
			02	_1 _1	Disabled at the FullAuto setting
			03	0	(ER3 is returned).
			04	+1	
	Despess	000:[0=4=]	05	+2	
	Response	OCG:[Data]	06	+3	
	Control	OSD:B0:[Data]	In the case of	f the AW-HE1	30
			00h	OFF	
			1Dh	- 99%	
			₹	₹	
			80h	0	
			₹	₹	
			A8h	40%	
				f the AK-UB30	00
			00h 1Dh	-100% -99%	
)	-99%	
			80h	0	
			\ \cdot\	l ĭ₁	
	Response	OSD:B0:[Data]	A8h	40%	
Chroma level	Request	QCG	In the case of	f the AW HES	D/AW-HE60/AW-HE120/AW-HE40/
query command	rtoquoot	QUU		V-HE70/AW-U	
' '			None	11127077410	
	Response	OCG:[Data]	00	-3	
			01	– 2	
			02	– 1	
			03	0	
			04	+1	
			05	+2	
			06	+3	
	Request	QSD:B0		f the AW-HE1	30/AK-UB300
			None		
	Response	OSD:B0:[Data]		f the AW-HE1	30
			00h	OFF	
			1Dh	-99%	
			}	}	
			80h	0	
			\ \	∤ 40%	
			A8h	4U70	

	In the case o	f the AK-UB30	0
	00h	-100%	
	1Dh	-99%	
	₹	₹	
	80h	0	
	₹	₹	
	A8h	40%	

Example of use)

·Chroma level: 0

 $\textbf{[Control]} \ \mathsf{PC} \to \mathsf{AW}\text{-HE50}$

http://192.168.0.10/cgi-bin/aw_cam?cmd=OCG:03&res=1

[Response] AW-HE50 \rightarrow 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.

Table 3.2.9. AWB/ABB setting

		14510 0.2		ADD Selling	
Command name	Category	Command	Data value	Setting	Remarks
AWB (AWC)	Control	OWS	None		AWB (AWC) is executed.
execution control command	Notification	OWS ER3:OWS ER2:OWS		AWC/AWB OK AWC/AWB NG AWC/AWB NG (Busy)	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	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:[<i>Data</i>]			※ Not supported by the AK-UB300
AWB execution	Request	QSA:88	None		Not supported by the AK-UB300
underway status display On/Off query command	Response	OSA:88:[<i>Data</i>]	0	Off On	
AWB (AWC) Mode	Control	OAW:[Data]	In the cas	e of the AW-HE50/	AW-HE60
control command			0 1 2 3 In the cas 0 1 2 3 4 5	ATW AWB A AWB B ATW Se of the AW-HE120 ATW AWB A AWB B ATW PRESET 3200K PRESET 5600K Se of the AW-HE130	Disabled at the FullAuto setting (ER3 is returned).
	Response	OAW:[Data]			

Command name	Category	Command	Data value	Setting	Remarks
AWB (AWC) Mode	Request	QAW	None		
query command	Response	OAW:[Data]		se of the AW-HE50/	
			0	ATW	The data value differs depending
			2	AWB A	on the responses to the control
			3	AWB B se of the AW-HE120	command and query command.
			0	ATW	The data value differs depending
			2	AWB A	on the responses to the control
			3	AWB B	command and query command.
			4	PRESET 3200K	communa and quory communa.
			5	PRESET 5600K	
			In the cas	se of the AW-HE130	
			0	ATW	
			2	AWB A	
			3	AWB B	
			4	PRESET 3200K	
			5	PRESET 5600K	
			9	VAR	AAA HEGE (AAA HEZO (AAA HEZO
					AW-HE65/AW-HE70/AW-UE70
			0	ATW	
			1	AWB A	
			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
control command		ER3:OAS		ABB(ABC) NG	AW-HE120/AW-HE130/AW-HE40/
		ER2:OAS		ABB(ABC) NG	AW-HE65/AW-HE70/AW-UE70/
				(Busy)	AK-UB300.
					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]		se of the AW-HE130	
control command			000h	2000K	
			001h	2010K	
			002h	2020K	
			003h	2040K	
			004h	2050K	
			005h	2070K	
			006h	2080K	
			007h	2090K	
			008h	2110K	
			009h	2120K	
			00Ah	2140K	
			00Bh	2150K	
			00Ch	2170K	
I	i .	1	00Dh	2180K	
			00Eh	2200K	

Command name	Category	Command	Data value	Setting	Remarks
			011h	2240K	
			012h	2260K	
			013h	2280K	
			014h	2300K	
			015h	2310K	
			016h	2330K	
			017h	2340K	
			018h	2360K	
			019h	2380K	
			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 02Dh	2820K 2850K	
			02DII 02Eh	2870K	
			02En	2920K	
			030h	2950K	
			031h	2970K	
			031h	3000K	
			033h	3020K	
			034h	3070K	
			035h	3100K	
			036h	3120K	
			037h	3150K	
			038h	3200K	
			039h	3250K	
			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	

Command name	Category	Command	Data value	Setting	Remarks
			048h	3990K	
			049h	4050K	
			04Ah	4110K	
			04Bh	4170K	
			04Ch	4240K	
			04Dh	4320K	
			04Eh	4360K	
			04Fh 050h	4440K	
			050H 051h	4520K 4600K	
			05111 052h	4680K	
			052H 053h	4760K	
			053h	4840K	
			055h	4920K	
			056h	5000K	
			057h	5100K	
			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 069h	7600K 7800K	
			069h 06Ah	8100K	
			06Bh	8300K	
			06Ch	8600K	
			06Dh	8900K	
			06Eh	9200K	
			06Fh	9600K	
			070h	10000K	
			071h	10500K	
			072h	11000K	
			073h	11500K	
			074h	12000K	
			075h	12500K	
			076h	13000K	
			077h	14000K	
			078h	15000K	

Command name	Category	Command	Data value	Setting	Remarks
				se of the AW-HF40/	AW-HE65/AW-HE70/AW-UE70
			000h	2400K	W HESSH W HETSH W SETS
	Response	OSD:B1:[Data]	001h	2500K	
	Пооролю	002.21.[24(4)	002h	2600K	
			003h	2700K	
			004h	2800K	
			005h	2900K	
			006h	3000K	
			007h	3100K	
			008h	3200K	
			009h	3300K	
			00Ah	3400K	
			00Bh	3500K	
			00Ch	3600K	
			00Dh	3700K	
			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 5400K	
			01EII	5500K	
			020h	5600K	
			02011 021h	5700K	
			02111 022h	5800K	
			023h	5900K	
			024h	6000K	
			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	
	<u> </u>		035h	7700K	

Command name	Category	Command	Data value	Setting	Remarks
			036h	7800K	
			037h	7900K	
			038h	8000K	
			039h	8100K	
			03Ah	8200K	
			03Bh	8300K	
			03Ch	8400K	
			03Dh 03Eh	8500K 8600K	
			03En	8700K	
			040h	8800K	
			040H	8900K	
			042h	9000K	
			043h	9100K	
			044h	9200K	
			045h	9300K	
			046h	9400K	
			047h	9500K	
			048h	9600K	
			049h	9700K	
			04Ah	9800K	
			04Bh	9900K	
Color Temperature	Request	QSD:B1	None		
query command	Response	OSD:B1:[Data]	In the cas	se of the AW-HE130	
			000h	2000K	Refer to the Data/Setting values
			₹	₹	of the control command.
			078h	15000K	
			In the cas	se of the AW-HE40/	AW-HE65/AW-HE70/AW-UE70
			000h	2400K	Refer to the Data/Setting values
			}	}	of the control command.
	0	001457541	04Bh	9900K	W 0 1 1 1 1
Color temperature	Control	OSI:1E:[Data]	1		※ Only supported by the
(increment)	D	00145/0-4-1			AK-UB300.
control command	Response	OSI:1E:[Data]			•Increment from the current color
Color temperature	Control	OSI:1F:[Data]	1		temperature value. X Only supported by the
(decrement)	Control	OSI. II .[Data]	'		AK-UB300.
control command	Response	OSI:1F:[Data]	1		•Decrement from the current color
Control command	rresponse	OSI. II .[Data]			temperature value.
Color temperature	Request	QSI:20	None		Only supported by the
query command			1100		AK-UB300.
`	Response	OSI:20:[Data1]	[Data1]		※ Only supported by the
	·	:[Data2]	00000h	0 K	AK-UB300.
			₹	}	Returns the current color
			FFFFFh	1048575 K	temperature value in [Data1].
			[Data2]		If the color temperature value is
			0h	Valid	within the device specifications
			1h	Under	range, "0h:Valid" is returned in
			2h	Over	[Data2].
					If the color temperature value is
					outside the device specifications
					range, "1h: Under" or "2h: Over" is
]		returned in [Data2].

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 \rightarrow PC

None

•AWB (AWC), ABB execution underway status display: On

[Control] $PC \rightarrow AW-HE50$

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 → 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 → 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.

Table 3.2.10. Detail setting

Table 5.2.10. Detail Setting							
Command name	Category	Command	Data value	Setting	Remarks		
Detail	Control	ODT:[Data]	In the case of the AW-HE50/AW-HE60/AW-HE120/AW-HE40/				
control command			AW-HE6	5/AW-HE70/AW-			
			0	Off	Disabled at the FullAuto setting		
			1	Low	(ER3 is returned).		
			2	High			
				se of the AW-HE	130/AK-UB300		
1			0	Off			
			1	On			
 		00717	2	On			
<u> </u>	Response	ODT:[Data]					
Detail .	Request	QDT	None				
query command	Response	ODT:[Data]			50/AW-HE60/AW-HE120/AW-HE40/		
1				5/AW-HE70/AW-			
			0	Off	Disabled at the FullAuto setting		
1			1	Low	(ER3 is returned).		
]			2	High	100/A/(1/2005		
 				se of the AW-HE	130/AK-UB300		
1			0	Off			
			1	On			
		000 00	2	On			
H.DTL LEVEL H	Control	OSD:0A:[Data]	02h	2	Even when Off is selected as the		
control command			\ \ \	}	detail setting, this command is		
			3Fh	63	received, and its setting is reflected.		
1					The setting can never be lower than		
1					the H.DTL LEVEL L.		
1	Doorsess	OCD:04:10-4-1	1		**Only supported by the AW-HE120.		
L DTI I EVEL !!	Response	OSD:0A:[Data]	None		WORK supported by the AVALUE 100		
H.DTL LEVEL H	Request	QSD:0A	None	2			
query command	Response	OSD:0A:[Data]	02h				
]							
H.DTL LEVEL L	Control	OSD-12-[D-4-1			Even when Off is selected as the		
H.DTL LEVEL L control command	Control	OSD:12:[<i>Data</i>]	01h ≀	1	detail setting, this command is		
Control Command			3Eh	62	received, and its setting is reflected.		
]			JEII	02	The level is set to less than the		
]					H.DTL LEVEL H setting.		
					**Only supported by the AW-HE120.		
	Response	OSD:12:[Data]					
H.DTL LEVEL L	Request	QSD:12	None		**Only supported by the AW-HE120.		
query command	Response	OSD:12:[Data]	01h	1]		
			₹	₹			
	<u> </u>		3Eh	62			
H.DTL LEVEL	Control	OSA:31:[Data]	00h	0	**Only supported by the AK-UB300.		
control command			₹	₹			
	Response	OSA:31:[Data]	3Fh	63			
H.DTL LEVEL	-	QSA:31.[<i>Data</i>]	None		**Only supported by the AK-UB300.		
	Request				Monny supported by the AK-UB300.		
query command	Response	OSA:31:[Data]	00h	0			
]			\ \ \ \	}			
			3Fh	63			

Command name	Category	Command	Data value	Setting	Remarks
V DTL LEVEL H control command	Control	OSD:0E:[Data]	02h ≀ 1Fh	2	Even when Off is selected as the detail setting, this command is 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]			
V DTL LEVEL H	Request	QSD:0E	None		※Only supported by the AW-HE120.
query command	Response	OSD:0E:[Data]	02h	2 } 31	
V DTL LEVEL L control command	Control	OSD:16:[Data]	01h ≀ 1Eh	1 2 30	 Even when Off is selected as the detail setting, this command is 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.
\/ DTL E\/EL	Response	OSD:16:[<i>Data</i>]	Nana		WO-b
V DTL LEVEL L	Request	QSD:16 OSD:16:[<i>Data</i>]	None 01h	1	
query command	Response	OSD. 10.[Data]		≀ 30	
V DTL LEVEL control command	Control	OSD:A1:[Data]	79h	-7	**Only supported by the AW-HE130.
	Response	OSD:A1:[Data]	87h	7	
V DTL LEVEL	Request	QSD:A1	None		※Only supported by the AW-HE130.
query command	Response	OSD:A1:[Data]	79h	-7	
V.DTL LEVEL control command	Control	OSG:32:[Data]	00h ≀	0 ?	**Only supported by the AK-UB300.
	Response	OSG:32:[Data]	3Fh	63	
V.DTL LEVEL query command	Request Response	QSG:32 OSG:32:[<i>Data</i>]	None 00h ≀ 3Fh	0	
DETAIL BAND control command	Control	OSD:1E:[Data] OSD:1E:[Data]	01	1	 Even when Off is selected as the 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. ※Only supported by the AW-HE120.
	Control	OSD:A2:[Data]	79h	-7 ≀	**Only supported by the AW-HE130.
	Doores	OOD:40:10-4-3	80h ≀ 87h	0	
	Response	OSD:A2:[Data]			

Command name	Category	Command	Data	Setting	Remarks
			value	Jetting	
DETAIL BAND query command	Request Response	QSD:1E OSD:1E:[Data]	None 01	1	**Only supported by the AW-HE120.
query communa	response	OOD. IL.[Data]			
			05	5	
	Request	QSD:A2	None		**Only supported by the AW-HE130.
	Response	OSD:A2:[Data]	79h	- 7	
				0	
			}		
			87h	7	
PEAK	Control	OSG:30:[Data]	00h	0	%Only supported by the AK-UB300.
FREQUENCY			₹	₹	• During 4K format: Only 00h(0)~
control command			04h	4	04h(4) supported
			₹		• During HD format: 00h(0)~1Fh(31)
	Response	OSG:30:[Data]	1Fh	31	supported
PEAK	Request	QSG:30	None		*Only supported by the AK-UB300.
FREQUENCY	Response	OSG:30:[Data]	00h	0	• During 4K format: Only 00h(0)~
query command	·		₹	₹	04h(4) supported
			04h	4	• During HD format: 00h(0)~1Fh(31)
			}	}	supported
			1Fh	31	
V DETAIL	Control	OSG:35:[Data]	00h	0	
FREQUENCY			₹	₹	• During 4K format: Only 00h(0)~
control command			04h	4	04h(4) supported • During HD format: 00h(0)~1Fh(31)
				31	supported
	Response	OSG:35:[Data]	1 1 1 1 1	31	
V DETAIL	Request	QSG:35	None		※Only supported by the AK-UB300.
FREQUENCY	Response	OSG:35:[Data]	00h	0	• During 4K format: Only 00h(0)~
query command			}	} }	04h(4) supported • During HD format: 00h(0)~1Fh(31)
			04h ≀	4	supported
			1Fh	31	
NOISE	Control	OSD:22:[Data]	In the car	se of the AW-HE	120
SUPPRESS/CRISP			00h	0	Even when Off is selected as the
control command			} 07h		detail setting, this command is
			0711	'	received, and its setting is reflected. • The screen noise produced by the
					detail is reduced.
					The higher the value, the lower the
			In the car	 se of the AW-HE	noise.
			00h		
			₹	`≀	
			3Ch	60	
			In the case of the AW-UB300		
			00h	0	
			}	₹	
	Response	OSD:22:[<i>Data</i>]	3Fh	63	
	ТСОРОПОС	JOD.ZZ.[Data]			

Command name	Category	Command	Data	Setting	Remarks
NOISE	Request	QSD:22	value None		
SUPPRESS/CRISP	Response	OSD:22:[<i>Data</i>]	In the case of the AW-HE120		
query command	response	OOD.22.[Data]	00h	0	120
, , , , , , , ,			}	≀	
			07h	7	
			In the cas	se of the AW-HE	130
			00h	0	
			₹	₹	
			3Ch	60	
			In the cas	se of the AW-UB	300
			00h	0	
			₹	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
			3Fh	63	
FLESH TONE	Control	OSD:4B:[Data]	00	Off	Even when Off is selected as the
NOISE SUPPRESS			01	Low	detail setting, this command is
control command			02	High	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]			,
	Control	OSD:A3:[Data]	80h	0	**Only supported by the AW-HE130.
			₹	}	
			9Fh	31	
	Response	OSD:A3:[Data]			
FLESH TONE	Request	QSD:4B	None		※Only supported by the AW-HE120.
NOISE SUPPRESS	Response	OSD:4B:[Data]	00	Off	
query command			01	Low	
			02	High	
	Request	QSD:A3	None		**Only supported by the AW-HE130.
	Deenenee	OCD: A 2: [Deta]	00h	0	
	Response	OSD:A3:[Data]	80h ≀	0	
			9Fh	31	
TOTAL DTL LEVEL	Control	OSA:30:[Data]		se of the AW-HE	-60
control command	Control	OOA.30.[Data]	81h	1	Even when Off is selected as the
Control Communa			\ \ \	'≀	detail setting, this command is
			92h	18	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.
				se of the AW-HE	130
			61h	0	
			\ \ \ \	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
			9Fh	62	40/444 LIEGE/444 LIEZO/444 LIEZO
					40/AW-HE65/AW-HE70/AW-UE70
			81h ≀	1,	The level is set to less than the TOTAL DTILLEVEL HIGH
			91h		TOTAL DTL LEVEL HIGH.
				e of the AW-UB	300
			61h	-31	
			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	-31	
			80h	0	
			}	₁	
	Response	OSA:30:[Data]	9Fh	+31	
L	response		l	1	l .

			D-t-			
Command name	Category	Command	Data value	Setting	Remarks	
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 case of the AW-HE60			
			81h	1	CameraMain V3.05 or subsequent	
			\ \ \	\ \ \	versions.	
			92h	18 se of the AW-HE	120	
			61h	0 the AVV-HE	130	
			\ \	\ \{\cdot\}		
			9Fh	62		
			In the cas	se of the AW-HE	40/AW-HE65/AW-HE70/AW-UE70	
			81h	1		
			≀ 91h			
				se of the AW-UB	300	
			61h	-31		
			₹	₹		
			80h	0		
			∤ 9Fh			
TOTAL DTL LEVEL	Control	OSA:B1:[Data]		se of the AW-HE	60	
HIGH			82h	2	Even when Off is selected as the	
control command			≀	₹	detail setting, this command is	
			92h	18	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.	
				1	40/AW-HE65/AW-HE70/AW-UE70	
			82h }	2	A level below the TOTAL DTL LEVEL setting cannot be set.	
	Response	OSA:B1:[Data]	92h	18	ELVEL Sound same so sou	
TOTAL DTL LEVEL	Request	QSA:B1	None		**Supported only by AW-HE60	
HIGH					CameraMain V3.05 or subsequent	
query command	-	004 84 (5.4.1	1. 0		versions.	
	Response	OSA:B1:[Data]	82h	se of the AW-HE	XSupported only by AW-HE60	
			}	[CameraMain V3.05 or subsequent	
			92h	18	versions.	
				1	40/AW-HE65/AW-HE70/AW-UE70	
			82h ≀	2		
			92h	18		
DETAIL (+)	Control	OSA:38:[Data]	61h	-31	Only supported by the AK-UB300.	
control command			\ \ \	}		
			80h ≀	0		
	Dette	004.00.55 / 5	9Fh	+31		
DETAIL (+)	Response Request	OSA:38:[<i>Data</i>] QSA:38	None		※ Only supported by the AK-UB300.	
query command	•			24	∞ Only supported by the AN-UB300.	
12.2.7 30	Response	OSA:38:[<i>Data</i>]	61h }	-31 		
			80h	0		
			₹	₹		
			9Fh	+31		

			Data		
Command name	Category	Command	value	Setting	Remarks
DETAIL (-)	Control	OSA:39:[Data]	61h	-31	※ Only supported by the AK-UB300.
control command			≀ 80h	0	
	Decree	004-20-10-4-1	≀	1	
DETAIL ()	Response	OSA:39:[Data]	9Fh	+31	W Only supported by the AK HD200
DETAIL (-) query command	Request	QSA:39	None	0.4	W Only supported by the AK-UB300.
query communa	Response	OSA:39:[<i>Data</i>]	61h }	-31 ≀	
			80h	0	
			} 9Fh	} +31	
DETAIL +CLIP	Control	OSG:40:[Data]	00h	0	Only supported by the AK-UB300.
control command			₹	₹	// ciny cappointed by another electric
	Response	OSG:40:[Data]	3Fh	63	
DETAIL +CLIP	Request	QSG:40	None		W Only supported by the AK-UB300.
query command	Response	OSG:40:[Data]	00h	0	
			} 3Fh		
DETAIL -CLIP	Control	OSG:41:[Data]	00h	0	※ Only supported by the AK-UB300.
control command			₹	. ₹	
	Response	OSG:41:[<i>Data</i>]	3Fh	63	
DETAIL -CLIP	Request	QSG:41	None		Only supported by the AK-UB300.
query command	Response	OSG:41:[Data]	00h	0	
			₹	₹	
DETAIL SOURCE	Control	OSA:3B:[Data]	3Fh 0	63 (G+R)/2	Only supported by the AK-UB300.
control command	Control	OO/ (.OB.[Bata]	1	(G+B)/2	X only supported by the 7th Oboot.
		004.007.0	2	(2G+B+R)/4	
	Response	OSA:3B:[Data]	3	(3G+R)/4 R	
			5	G	
DETAIL SOURCE	Request	QSA:3B	None		X Only supported by the AK-UB300.
query command	Response	OSA:3B:[Data]	0	(G+R)/2	
			1 2	(G+B)/2 (2G+B+R)/4	
			3	(3G+R)/4	
			4 5	R	
KNEE APERTURE	Control	OSG:3F:[Data]	00h	G 0	Only supported by the AK-UB300.
LEVEL			₹	₹	, , , , , , , , , , , , , , , , , , ,
control command	Response	OSG:3F:[Data]	27h	39	
KNEE APERTURE	Request	QSG:3F	None		Only supported by the AK-UB300.
LEVEL	Response	OSG:3F:[Data]	00h	0	7
query command	. 100po00		₹	₹	
1.57/51	Occident	000.05.15-4-1	27h	39	W Only suggested by the AK HDOO
LEVEL DEPENDENT SW	Control	OSG:3E:[Data]	0	Off On	※ Only supported by the AK-UB300.
control command	Response	OSG:3E:[Data]		*··	
LEVEL CW	Request	QSG:3E	None		※ Only supported by the AK-UB300.
DEPENDENT SW query command	Response	OSG:3E:[Data]	0	Off	
-	Control	OSD:26:[D-4-1	1 00h	On	W. Only gunnerted by the AV LIDGO
LEVEL DEPENDENT	Control	OSD:26:[Data]	00h ≀	00	※ Only supported by the AK-UB300.
control command			0Fh	15	
	Response	OSD:26:[Data]			

Command name	Category	Command	Data value	Setting	Remarks
LEVEL	Request	QSD:26	None		※ Only supported by the AK-UB300.
DEPENDENT guery command	Response	OSD:26:[Data]	00h	00	
query communa			≀ 0Fh		

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 → PC

200 OK "ODT:1"

•H.DTL LEVEL: H 63

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:0A:3F&res=1

[Response] AW-HE120 → 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 → PC

200 OK "OSD:0E:1F"

•H.DTL LEVEL: L 62

[Control] PC → AW-HE120

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:12:3E&res=1

[Response] AW-HE120 → PC

200 OK "OSD:12:3E"

·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 → 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 → PC

200 OK "OSD:22:07"

•FLESH TONE NOISE SUPPRESS: Low

[Control] $PC \rightarrow AW-HE120$

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.

Table 3.2.11. Flesh Tone Mode setting

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	
					AW-HE50/AW-HE60/AW-HE40/
					AW-HE65/AW-HE70/AW-UE70.
	Response	OSE:32:[Data]			
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	
			1	Low	
			3	High	

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.

Table 3.2.12. Digital noise reduction (DNR) setting

Command name	Category	Command	Data value	Setting	Remarks			
Digital noise	Control	OSD:3A:[Data]	In the case of the AW-HE50/AW-HE60/ AW-HE40/AW-HE65/					
reduction (DNR)			AW-HE70/AW-UE70					
control command			00	Off	Disabled at the FullAuto			
			01	Low	setting (ER3 is returned).			
			02	High				
			In the case of	of the AK-UB300				
			00	Off				
			01	On				
	Response	OSD:3A:[Data]	02	On				
Digital noise	Request	QSD:3A	None					
reduction (DNR)	Response	OSD:3A:[Data]	In the case of	of the AW-HE50/AW-H	E60/ AW-HE40/AW-HE65/			
query command			AW-HE70/A\	N-UE70				
			00	Off				
			01	Low				
			02	High				
			In the case of	of the AK-UB300				
			00	Off				
			01	On				
			02	On				
DNR LEVEL	Control	OSG:B5:[Data]	1	1	※Only supported by the			
control command			}	} }	AK-UB300.			
	Response	OSG:B5:[Data]	5	5				
DNR LEVEL	Request	QSG:B5	None					
query command	Response	OSG:B5:[Data]	1	1				
			₹	}				
			5	5				

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

		Table 0.	_	estai setting	
Command name	Category	Command	Data value	Setting	Remarks
Pedestal	Control	OTP:[Data]	In the case	of the AW-HE50/AV	V-HE60/AW-HE40/AW-HE65/
control command			AW-HE70/A	AW-UE70	
			000h	–10	Setting (menu display value)
			₹	₹	= (Data value — 0x96) / 15
			096h	0	Disabled at the FullAuto setting
			₹	₹ .	(ER3 is returned).
			12Ch	+10	
				of the AW-HE120/A	
			000h	–150	Setting (menu display value)
			₹	\	= (Data value — 0x96)
			096h	0	
			} }	\ \	
			12Ch	+150	
	Response	OTP:[Data]			
	Control	OTD:[Data]	In the case	of the AW-HE50/AV	V-HE60/AW-HE40/AW-HE65/
			AW-HE70/A	AW-UE70	
			00h	-10	Setting (menu display value)
			₹	₹	= (Data value - 0x96) / 3
			1Eh	0	Disabled at the FullAuto setting
			₹	₹	(ER3 is returned).
			3Ch	+10	
				of the AW-HE120/A	
			00h	–150	Setting (menu display value)
			₹	₹	= (Data value — 0x1E) x 5
			1Eh	0	
			}	₹ 150	
			3Ch	+150	
	Response	OTD:[Data]			
Pedestal	Request	QTP	None		
query command	Response	OTP:[Data]			V-HE60/AW-HE40/AW-HE65/
			AW-HE70/A	AW-UE70	
			000h	–10	Data value of response
			₹	\	= (Setting x 15 + 0x96)
			096h	0	
			}	\	
			12Ch	+10	
				of the AW-HE120/A	
			000h	–150	Data value of response O (2)
			\ \ \	}	= (Setting + 0x96)
			096h	0	
			} 400b	\ \.450	
			12Ch	+150	

Command name	Category	Command	Data value	Setting	Remarks
Pedestal	Request	QTD	None		
query command	Response	OTD:[Data]	In the case o	f the AW-HE	50/AW-HE60/AW-HE40/AW-HE65/
			AW-HE70/AV	V-UE70	
			00h	-10	Data value of response
			₹ .	₹	= (Setting x 3 + 0x1E)
			1Eh	0	
			₹	\ \	
			3Ch	+10	
					120/AW-HE130
			00h	-150	Data value of response
			\	₹	= (Setting / 5 + 0x1E)
			1Eh	0	
			((.450	
D 1 ()	Operatoral	000 44 55 43	3Ch	+150	N/O
Pedestal	Control	OSG:4A:[Data]	1Dh	-99	※Only enabled for the AK-UB300.
control command			₹	. ₹	
			80h	0	
			}	₹	
	Response	OSG:4A:[Data]	E3h	+99	
Pedestal	Request	QSG:4A	None		※Only enabled for the AK-UB300.
query command	Response	OSG:4A:[Data]	1Dh	-99	
			₹	₹	
			80h	0	
			} }	₹	
			E3h	+99	

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.

Table 3.2.14. Gamma/DRS setting

		Table 3.2.1	4. Gamma/i	DRS setting	
Command name	Category	Command	Data value	Setting	Remarks
DRS control command	Control	OSE:33:[Data]	In the case of AW-HE70/AV		0/AW-HE60/AW-HE40/AW-HE65/
			0	Off	Disabled at the FullAuto setting
			1	Low	(ER3 is returned).
			3	High	00/40/4/11/5420
			0	f the AW-HE12 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
			3	High	or 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]			0/AW-HE60/AW-HE40/AW-HE65/
			AW-HE70/AV		Disabled at the Full Auto cotting
			0	Off Low	Disabled at the FullAuto setting (ER3 is returned).
			3	High	(Live is retained).
			In the case of the AW-HE120/AW-HE130		
			0	Off	
			1	Low	
			2	Mid	
Commo timo	Control	OSE:72:[Dotal	3	High	
Gamma type control command	Control	OSE:72:[Data]		V-HE70/AW-U	0/AW-HE60/AW-HE120/AW-HE40/ E70
			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 of	the AW-HE1	
			0	HD	
			1	SD	
			2	FILMLIKE1	
	D	005-70 55 7 7	3	FILMLIKE2	
	Response	OSE:72:[Data]	4	FILMLIKE3	
	1	I	I.		

Command name	Category	Command	Data value	Setting	Remarks
		QSE:72	None None	Setting	Remarks
Gamma type query command	Request Response	•	In the case o	f the AW-HE50 V-HE70/AW-U	
			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 o	f the AW-HE13	30
			0 1 2 3 4	HD 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. The setting is reflected in the images when the above restrictions are released. ※Only supported by the AK-UB300.
Commoderal	Degrees	000.50	None		WOnly assessment of health - AIC LIDCOC
Gamma level query command	Request Response	QSD:50 OSD:50:[<i>Data</i>]	None 00 01 02	Low Mid High	

Command name	Category	Command	Data value	Setting	Remarks
Gamma	Control	OSA:6A:[Data]	67h	0.30	※Only supported by the AW-HE130.
			₹	₹	
			6Ch	0.35	
			₹	₹	
			80h	0.55	
	Response	OSA:6A:[Data]	\	₹	
			94h	0.75	
	Request	QSA:6A	None		※Only supported by the AW-HE130.
	Response	OSA:6A:[Data]	67h	0.30	
			\ \	₹	
			6Ch	0.35	
			₹	₹	
			80h	0.55	
			₹	₹	
			94h	0.75	
Extended DRS	Control	OSD:C8:[Data]	0	Off	※In the case of the AW-HE40/
control command			1	Low	AW-HE65/AW-HE70/AW-UE70
			3	High	
	Response	OSD:C8:[Data]			
Extended DRS	Request	QSD:C8	None		
query command	Response	OSD:C8:[Data]	0	Off	※In the case of the AW-HE40/
			1	Low	AW-HE65/AW-HE70/AW-UE70
			3	High	

Example of use)

·DRS: Off

[Control] $PC \rightarrow AW-HE50$

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] $PC \rightarrow AW-HE50$

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.

Table 3.2.15. Backlight compensation setting

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 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>]			Supported only by the AW-HE50/AW-HE60/AW-HE40/ AW-HE65/AW-HE70/AW-UE70.
Backlight	Request	QSE:73	None		*Supported only by the
compensation	Response	OSE:73:[Data]	0	Off	AW-HE50/AW-HE60/AW-HE40/
query command			1	On	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 \rightarrow 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).

Table 3.2.16. Genlock setting

		14510 01		nock setting	
Command name	Category	Command	Data value	Setting	Remarks
Horizontal sync	Control	OHP:[Data]	000h	-206	*This command has no effect with the
phase			}	₹	AW-HE50H/AW-HE60H.
control command			338h	0	Setting (menu display value)
	Response	OHP:[Data]	- }	\	= (Data value/ 4 — 206)
			3FFh	+49	
Horizontal sync	Request	QHP	None		*This command has no effect with the
phase	Response	OHP:[Data]	000h	–206	AW-HE50H/AW-HE60H.
query command			} 338h	0	• Data value = (Setting + 206) x 4
			33011	1	- (Setting + 200) x 4
			3FCh	+49	
Subcarrier sync	Control	OSC:[Data]	0	90°	Supported only by the AW-HE50S/
phase (coarse)	Control	000.[Data]	1	180°	AW-HE60S.
control command			2	270°	
	Response	OSC:[Data]	3	0°	
Subcarrier sync	Request	QSC	None		*Supported only by the AW-HE50S/
phase (coarse)	Response	OSC:[Data]	0	90°	AW-HE60S.
query command			1	180°	The data value differs depending on
			2	270°	the responses to the control
			3	0°	command and query command.
			5	45°	
			6	135°	
			7	225°	
	0 1 1	00115 (1	8	315°	WO
Subcarrier sync	Control	OSN:[Data]	000h	_127	**Supported only by the AW-HE50S/
phase (fine) control command			007h		AW-HE60S.
control command			007H 008h	-12 <i>1</i> -126	
			\ \	120	
			200h	0	
			20011	lĭ≀	
			3FBh	+126	
			3FCh	+127	
			₹	₹	
	Response	OSN:[Data]	3FFh	+127	
Subcarrier sync	Request	QSN	None		*Supported only by the AW-HE50S/
phase (fine)	Response	OSN:[Data]	000h	-127	AW-HE60S.
query command			₹	₹	
			007h	-127	
			008h	–126	
			\ \ \	₹	
			200h	0	
			≀ 3FBh		
			3FCh	+120	
) }	121	
			3FFh	+127	
		l	1	1 '	1

Command name	Category	Command	Data value	Setting	Remarks
GEN-LOCK INPUT	Control	OSG:CA:[Data]	0	BNC	*Only supported by the AK-UB300.
control command	Response	OSG:CA:[Data]	1	DSUB	
GEN-LOCK INPUT	Request	QSG:CA	None		
query command	Response	OSG:CA:[Data]	0	BNC	
			1	DSUB	
H PHASE-	Control	OSG:CB:[Data]	3h	-5	※Only supported by the AK-UB300.
COARSE			₹	₹	
control command			8h	0	
		000 00 15 11	₹	₹	
	Response	OSG:CB:[Data]	Dh	+5	
H PHASE-	Request	QSG:CB	None		
COARSE	Response	OSG:CB:[Data]	3h	-5	
query command			₹	₹	
			8h	0	
			₹	₹	
			Dh	+5	
H PHASE-FINE	Control	OSG:CC:[Data]	1Ch	-100	※Only supported by the AK-UB300.
control command			₹	₹	
			80h	0	
	_		. ≀	₹	
	Response	OSG:CC:[Data]	E4h	+100	
H PHASE-FINE	Request	QSG:CC	None		
query command	Response	OSG:CC:[Data]	1Ch	-100	
			₹	₹	
			80h	0	
			₹	₹	
			E4h	+100	

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] $PC \rightarrow AW-HE50$

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] $PC \rightarrow AW-HE50$

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSN:3FF&res=1

[Response] AW-HE50 \rightarrow 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

		Tubic	bie 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		
			2h	720/50p(50Hz)	different field frequencies		
			4h	1080/59.94i(59.94Hz)	are invalid (ER3 is		
			5h	1080/50i(50Hz)	returned).		
			7h	1080/29.97PsF(59.94Hz)	The following formats		
			8h	1080/25PsF(50Hz)	are supported by Ver.2		
			Bh	480/59.94i(59.94Hz)	or a later version.		
			Dh	576/50i(50Hz)	1080/29.97PsF		
			10h	1080/59.94p(59.94Hz)	1080/25PsF		
			11h	1080/50p(50Hz)	1080/59.94p		
				1000/0000(00112)	1080/50p		
					The following formats		
					are supported only by		
					the HDMI models.		
					1080/59.94p		
					1080/50p		
			In the case	of the AW-HE60	1000/00р		
			1h	720/59.94p(59.94Hz)	 Data values with 		
			2h	720/50p(50Hz)	different field frequencies		
			4h	1080/59.94i(59.94Hz)	are invalid (ER3 is		
			5h	1080/50i(50Hz)	returned).		
			7h	1080/29.97PsF(59.94Hz)	 The following formats 		
			8h	1080/25PsF(50Hz)	are supported only by		
			Bh	480/59.94i(59.94Hz)	the HDMI models.		
			Dh	576/50i(50Hz)	1080/59.94p		
			10h	1080/59.94p(59.94Hz)	1080/50p		
			11h	1080/50p(50Hz)	480/59.94p		
			12h	480/59.94p(59.94Hz)	576/50p		
			13h	576/50p(50Hz)			
				of the AW-HE120			
			1h	720/59.94p(59.94Hz)	Data values with		
			2h	720/50p(50Hz)	different field frequencies		
			4h	1080/59.94i(59.94Hz)	are invalid (ER3 is		
			5h	1080/50i(50Hz)	returned).		
			Bh	480/59.94i(59.94Hz)			
			Dh 10h	576/50i(50Hz) 1080/59.94p(59.94Hz)			
			1011 11h	1080/59.94p(59.94h2)			
			12h	480/59.94p(59.94Hz)			
			13h	576/50p(50Hz)			
				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)	-		
			7h	1080/29.97PsF(59.94Hz)	480/59.94p and SID		
			8h	1080/25PsF(50Hz)	output will be		
			Ah	1080/23.98PsF(59.94Hz)	480/59.94i.		
			10h	1080/59.94p(59.94Hz)			

Command name	Category	Command	Data value	Setting	Remarks
			11h	1080/50p(50Hz)	• When 576/50p is
			12h	480/59.94p(59.94Hz)	selected, the HDMI
			13h	576/50p(50Hz)	output is set to 576/50p
			14h	1080/29.97p(59.94Hz)	and SID output will be
			15h 16h	1080/25p(50Hz) 1080/23.98p(59.94Hz)	576/50i.
			1011	1000/20.30p(33.34112)	
			In the case	of the AW-HE40/AW-HE65/	AW-HE70/AW-UE70
				[59.94Hz]	The formats marked with
			1h	720/59.94p	** are supported only by
			4h	1080/59.94i	the HDMI models.
			7h	1080/29.97PsF	
			10h	1080/59.94p **	The formats marked with
			14h	1080/29.97p	*** are supported only by
			17h	2160/29.97p ***	the AW-UE70.
			80h	Auto **	
					Auto is supported only
				[50Hz]	by control commands.
			2h	720/50p	
			5h	1080/50i	
			8h	1080/25PsF	
			11h	1080/50p **	
			15h	1080/25p	
			18h 80h	2160/25p *** Auto **	
				of the AK-UB300	
			01h	720/59.94p(59.94Hz)	
			02h	720/50p(50Hz)	
			04h	1080/59.94i(59.94Hz)	
			05h	1080/50i(50Hz)	
			07h	1080/29.97PsF(59.94Hz)	
			08h	1080/25PsF(50Hz)	
			0Ah	1080/23.98PsF(59.94Hz)	
			10h	1080/59.94p(59.94Hz)	
			11h	1080/50p(50Hz)	
			16h	1080/23.98p(59.94Hz)	
			17h	2160/29.97p(59.94Hz)	
			18h	2160/25p(50Hz)	
			19h	2160/59.94p(59.94Hz)	
			1Ah	2160/50p(50Hz)	
			1Bh	2160/23.98p(59.94Hz)	
			50h	1080/59.94p CROP	
			51h	(59.94Hz)	
				1080/50p CROP (50Hz)	
	Response	OSA:87:[<i>Data</i>]			

Command name	Category	Command	Data value	Setting	Remarks
Format	Request	QSA:87	None		
query command	Response	OSA:87:[Data]	In the c	ase 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	1080/59.94p(59.94Hz)	
			11h	1080/50p(50Hz)	
				ase 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	1080/25PsF(50Hz)	
			Bh	480/59.94i(59.94Hz)	
			Dh	576/50i(50Hz)	
			10h	1080/59.94p(59.94Hz)	
			11h 12h	1080/50p(50Hz)	
			1211 13h	480/59.94p(59.94Hz)	
				576/50p(50Hz) ase of the AW-HE120	
			1h	720/59.94p(59.94Hz)	
			2h	720/59.94p(59.94H2) 720/50p(50Hz)	
			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)	
				ase 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)	•
			5h	1080/50i(50Hz)	output is set to
			7h	1080/29.97PsF(59.94Hz)	480/59.94p and SID
			8h	1080/25PsF(50Hz)	output will be
			Ah	1080/23.98PsF(59.94Hz)	480/59.94i.
			10h	1080/59.94p(59.94Hz)	 When 576/50p is
			11h	1080/50p(50Hz)	selected, the HDMI
			12h	480/59.94p(59.94Hz)	output is set to 576/50p
			13h	576/50p(50Hz)	and SID output will be
			14h	1080/29.97p(59.94Hz)	576/50i.
			15h	1080/25p(50Hz)	
			16h	1080/23.98p(59.94Hz)	
			In the c	ase of the AW-HE40/AW-HE65/AV	W-HE70/AW-UE70
				[59.94Hz]	The formats marked
			1h	720/59.94p	with ** are supported
			4h	1080/59.94i	only by the HDMI
			7h	1080/29.97PsF	models.
			10h	1080/59.94p **	IIIOUGIS.
			14h	1080/29.97p	
			17h	2160/29.97p ***	 The formats marked
				·	with *** are supported

Command name	Category	Command	Data value	Setting	Remarks
				[50Hz]	only by the AW-UE70.
			2h	720/50p	
			5h	1080/50i	
			8h 11h	1080/25PsF 1080/50p **	
			15h	1080/25p	
			18h	2160/25p ***	
				ase of the AK-UB300	
			01h	720/59.94p(59.94Hz)	
			02h	720/50p(50Hz)	
			04h	1080/59.94i(59.94Hz)	
			05h	1080/50i(50Hz)	
			07h	1080/29.97PsF(59.94Hz)	
			08h	1080/25PsF(50Hz)	
			0Ah	1080/23.98PsF(59.94Hz)	
			10h	1080/59.94p(59.94Hz)	
			11h	1080/50p(50Hz)	
			16h	1080/23.98p(59.94Hz)	
			17h	2160/29.97p(59.94Hz)	
			18h	2160/25p(50Hz)	
			19h	2160/59.94p(59.94Hz)	
			1Ah	2160/50p(50Hz)	
			1Bh	2160/23.98p(59.94Hz)	
			50h	1080/59.94p CROP(59.94Hz)	
Format (SDI)	Control	OSD:B9:[Data]	51h	1080/50p CROP(50Hz) ase of the AW-UE70	
Control command	Control	OSD.B9.[Data]	III tile C	[59.94Hz]	
Control Command			1h	720/59.94p	
			4h	1080/59.94i	
			7h	1080/29.97psF	
			10h	1080/59.94p	
			14h	1080/29.97p	
				[50Hz]	
			2h	720/50p	
			5h	1080/50i	
			8h	1080/25psF	
			11h	1080/50p	
			15h	1080/25p	
	Response	OSD:B9:[Data]			
Format (SDI)	Request	QSD:B9	In the c	ase of the AW-UE70	
Query command		·	None		
·	Response	OSD:B9:[Data]		[59.94Hz]	
		COD.DO.[Data]	1h	720/59.94p	
			4h	1080/59.94i	
			7h	1080/29.97psF	
			10h 14h	1080/59.94p	
			1411	1080/29.97p	
				[50Hz]	
			2h	720/50p	
			5h	1080/50i	
			8h	1080/25psF	
			11h	1080/50p	
			15h	1080/25p	
1					

Command name	Category	Command	Data value	Setting	Remarks
Down-conversion	Control	OSE:20:[Data]	0	SideCut	※ Not supported by the
mode			1	Squeeze	AK-UB300.
control command			2	LetterBOX	
	Response	OSE:20:[Data]			
Down-conversion	Request	QSE:20	None		※ Not supported by the
mode	Response	OSE:20:[Data]	0	SideCut	AK-UB300.
query command			1	Squeeze	
			2	LetterBOX	
HDMI color	Control	OSE:68:[<i>Data</i>]	0	RGB-NOR	%This command has no
component			1	RGB-ENH	effect with the
control command			2	YCbCr422	AW-HE50S/AW-HE60S/
			3	YCbCr444	AW-HE130/AK-UB300.
	Response	OSE:68:[Data]			
HDMI color	Request	QSE:68	None		*This command has no
component	Response	OSE:68:[Data]	0	RGB-NOR	effect with the
query command			1	RGB-ENH	AW-HE50S/AW-HE60S/
			2	YCbCr422	AW-HE130/AK-UB300.
			3	YCbCr444	
Analog	Control	OSD:65:[Data]	00	YPbPr	※Only supported by the
component output			01	RGB	AW-HE120.
control command	Response	OSD:65:[Data]			
Analog	Request	QSD:65	None		※Only supported by the
component output	Response	OSD:65:[Data]	00	YPbPr	AW-HE120.
query command	_		01	RGB	

Example of use)

•Format: 720/59.94p

[Control] $PC \rightarrow AW-HE50$

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] $PC \rightarrow AW-HE50$

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 → PC

200 OK "OSE:68:0"

·Analog component output: RGB

[Control] $PC \rightarrow AW-HE120$

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.

Table 3.2.18. Preset playback range setting

Command name	Category	Command	Data value	Setting	Remarks
Preset playback	Control	OSE:71:[Data]	0	Mode A	※ Not supported by the AK-UB300.
range			1	Mode B	
control command	Response	OSE:71:[Data]	2	Mode C	
Preset playback	Request	QSE:71	None		Not supported by the AK-UB300.
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.

Table 3.2.19. Digital zoom settings

Command name	Category	Command	Data value	Setting	Remarks
Digital zoom	Control	OSE:70:[Data]	0	Disable	※ Not supported by the AK-UB300.
On/Off	Response	OSE:70:[Data]	1	Enable	
control command	·				
Digital zoom	Request	QSE:70	None		Not supported by the AK-UB300.
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]	₹	₹	maximum digital zoom
magnification			10	x10	magnification to be set.
control command			₹	\	
			16	x16	* Only supported by the AW-
Digital zoom	Request	QSE:7A	None		HE120/AW-HE130/AW-HE40/ AW-
maximum	Response	OSE:7A:[Data]	02	x2	HE65/AW-HE70/AW-UE70.
magnification			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
query command			10	x10	*Max x12 magnification
					for AW-UE70
Digital = a ana	Comtral	OCE:70:[Dete]			
Digital zoom	Control	OSE:76:[Data]	0100	x1.00	This command enables the digital room magnification to be
magnification control command			1000		digital zoom magnification to be set.
Control Command			1000	₹10.00	Set.
	Response	OSE:76:[Data]	1600	x16.00	W Manual O manufication for
Digital zoom	Request	QSE:76	None	X10.00	→ ※ Max x12 magnification for
magnification	Response	OSE:76:[Data]	0100	x1.00	AW-UE70
query command	rtooporioo	002.70.[24.4]	}	}	Not supported by the AK-UB300.
1,			1000	x10.00	
			1	₹	
			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	Control		2	x4.0	
			3	x6.0	
	Response	OSD:B8:[Data]	4	x8.0	
Digital Extender	Request	QSD:B8	None		7
magnification	Response	OSD:B8:[Data]	0	x1.4	7
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]	$\exists 1$	On	AW-HE40/AW-HE65/ AW-HE70/
iZoom	Request	QSD:B3	None		AW-UE70.
query command	Response	OSD:B3:[Data]	0	Off	†
quoi y communa	. 100001100	000.00.[00.0]	1	On	
	I	1	1 .	UII	

Example of use)

·Digital zoom: Enable

[Control] $PC \rightarrow AW-HE50$

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×

[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.

Table 3.2.20. Camera information acquisition

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
			In the case of	the AK-UB300	
			AK-UB300		Model number of camera
Camera	Request	QSV	None		※ Not supported by the
microcontroller					AK-UB300.
software version	Response	OSV:[Data]			Camera Microcontroller
query command					software version
					Example: V01.28

Example of use)

Model number acquisition

[Control] PC → AW-HE50/AW-HE120

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

[Response] AW-HE50/AW-HE120 → PC

200 OK "OID:AW-HE50" 200 OK "OID:AW-HE120" ※In the case of the AW-HE50
※In the case of the AW-HE120

Camera microcontroller software version acquisition

[Control] $PC \rightarrow AW-HE50$

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

OSD menu			value	Setting	Remarks
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	Request	QUS	None		
On/Off	Response	OUS:[Data]	0	Menu Off	
query command			1	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	Control	DUP:[Data]	1h	1Step	The cursor moves up (the value
		DOF.[Data]	Ah	10Step	is changed) %1h (1Step) is supported by the AK-UB300.
	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). ※1h (1Step) is supported by the AK-UB300.
	Response	DDW:[Data]			
RIGHT switch control command	Control	DRT:[Data]	1h Ah	1Step 10Step	**Only supported by the AW-HE120/AW-HE130/AK-UB300.**1h (1Step) is supported by the AK-UB300.
	Response	DRT:[Data]			
LEFT switch control command	Control	DLT:[Data]	1h Ah	1Step 10Step	**Only supported by the AW-HE120/AW-HE130/AK-UB300.**AH (1Step) is supported by the AK-UB300.
	Response	DLT:[Data]			
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:[<i>Data</i>]			※ Not supported by the AK-UB300.
OSD Off With	Request	QSE:75	None		Not supported by the AK-UB300.
TALLY query command	Response	OSE:75:[Data]	0 1	Off On	

Command name	Category	Command	Data value	Setting	Remarks
OSD Mix	Control	OSE:7B:[Data]	In the cas	e of the AW-HE120	
control command			00h 01h 02h 04h 08h	OSD Mix Off SDI On HDMI On Component On Video On	Bit0: SD1, bit1: HDMI, bit2: Analog, bit3: Video — On or Off settings for each of the above can be selected and combined. XONUS 1888
			In the cas	le of the AW-HE130	AW-HE120.
			00h	OSD Mix Off	
			01h 02h	SDI On HDMI On	
	Response	OSE:7B:[Data]	08h 10h	Video On IP On	※Only supported by the AW-HE120/AW-HE130.
OSD Mix query command	Request	QSE:7B	None		※Only supported by the AW-HE120/AW-HE130.
	Response	OSE:7B:[Data]		e of the AW-HE120	
			00h 01h 02h 04h 08h	OSD Mix Off SDI On HDMI On Component On Video On	
				e of the AW-HE130	
			00h 01h 02h 08h 10h	OSD Mix Off SDI On HDMI On Video On IP On	
CHARACTER MIX control command	Control	OSD:98: [Data1]:[Data2]	[Data1] 0 1 [Data2] 0	[Data1]Output Browser/Video SDI/HDMI,COMP [Data2]MixSelect Off On	 *Only supported by the AW-HE60. The Off By Browser setting takes effect only when SDI/HDMI or COMP has been selected as the Output setting.
	Response	OSD:98: [Data1]:[Data2]	2	Off By Browser	
CHARACTER MIX query command	Request	QSD:98:[Data1]	[Data1] 0 1	[Data1] Output Browser/Video SDI/HDMI,COMP	**Only supported by the AW-HE60.
	Response	OSD:98: [Data1]:[Data2]	[Data1] 0 1 [Data2] 0 1	[Data1] Output Browser/Video SDI/HDMI,COMP [Data2] MixSelect Off On Off By Browser	**Only supported by the AW-HE60.

Example of use)

•OSD menu: On

[Control] $PC \rightarrow AW-HE50$

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

[Response] AW-HE50 \rightarrow 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] $PC \rightarrow AW-HE60$

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSD:98:1:0&res=1

[Response] AW-HE60 \rightarrow 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.

Table 3.2.22. Smart picture flip information

Table 6.2.22. Smart plotare in information							
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	Normal Flip			

Example of use)

·Smart picture flip status acquisition

[Control] PC → AW-HE120 http://192.168.0.10/cgi-hin/aw

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.

Table 3.2.23. Focus Adjust with PTZ

Command name	Category	Command	Data value	Setting	Remarks
Focus ADJ With	Control	OAZ:[Data]	0	Off	※ Not supported by the AK-UB300.
PTZ			1	On	
control command	Response	OAZ:[Data]			
Focus ADJ With	Request	QAZ	None		※ Not supported by the AK-UB300.
PTZ	Response	OAZ:[Data]	0	Off	
query command			1	On	

Example of use) Focus Adjust with PTZ: On

[Control] PC → 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.

Table 3.2.24. Frequency

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]			※ Not supported by the AK-UB300.
Frequency	Request	QSE:77	None		※ Not supported by the AK-UB300.
query command	Response	OSE:77:[Data]	0	59.94Hz	XThe AW-HE50 is supported by
			1	50Hz	Ver.2 or a later version.

Example of use) Frequency: 50Hz

 $\textbf{[Control]} \ \mathsf{PC} \to \mathsf{AW}\text{-HE}120$

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.

Table 3.2.25. Error information

Command name	Category	Command	Data value	Setting	Remarks
Error information	Request	QER	None		*Only supported by the
query command					AW-HE120/AK-UB300.
	Response	OER:[Data]	0	Normal	
			1	Fan Error	

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.

Table 3.2.26. Option switch

Command name	Category	Command	Data value	Setting	Remarks
Option switch control command	Control	#D6[Data]	0 1	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.
Night mode	Response Request	OSD:B2:[Data] QSD:B2	None		*Only supported by the
selection query command	Response	OSD:B2:[Data]	0	Manual Auto	AW-HE40/ 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.
Night made level	Response	OSD:B7:[Data]	None		Woody accompanied by the
Night mode level query command	Request Response	QSD:B7 OSD:B7:[Data]	None 0 1 2	Low Mid High	**Only supported by the AW-HE40/ AW-HE65/AW-HE70/ AW-UE70.

Example of use)

·Option switch: ON

 $\textbf{[Control]} \ \mathsf{PC} \to \mathsf{AW}\text{-}\mathsf{HE}60$

http://192.168.0.10/cgi-bin/aw_ptz?cmd=%23D61&res=1

[Response] AW-HE60 \rightarrow PC

200 OK "d61"

3.2.27. Audio settings

These commands control over audio functions.

Table 3.2.27. Audio settings

Command name	Category	Command	Data value	Setting	Remarks
Audio settings control command	Control	OSA:D0:[Data]	0	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	Control	OSA:D1:[Data]	0 1 2 3 4 5	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.
	Response	OSA:D1:[Data]			
Audio Input	Request	QSA:D1	None		7
Volume query command	Response	OSA:D1:[Data]	0 1 2 3 4 5	Mic High Mic Middle Mic Low Line High Line Middle Line Low	
Audio Plugin	Control	OSA:D2:[Data]	0	OFF	%Only supported by the
Power	Control	OO/ (.DZ.[Data]	1	ON	AW-HE130/AW-HE40/AW-HE65/
control command	Response	OSA:D2:[Data]			AW-HE70/AW-UE70.
Audio Plugin	Request	QSA:D2	None		
Power query command	Response	OSA:D2:[Data]	0	OFF ON	
Audio auto level adjust	Control	OSD:BB:[Data]	0	OFF ON	*AW-UE70, AW-HE40/ AW-HE65/AW-HE70(SFU01)
control command	Response	OSD:BB:[Data]			
Audio auto level	Request	QSD:BB	None		
adjust query command	Response	OSD:BB:[Data]	0 1	OFF ON	
Audio equalizer control command	Control	OSD:BC:[Data]	0 1 2	OFF LowCUT VOICE	
	Response	OSD:BC:[Data]] _		
Audio equalizer	Request	QSD:BC	None		1
control command	Response	OSD:BC:[Data]	0 1 2	OFF LowCUT VOICE	

Example of use)

Audio settings: ON

[Control] $PC \rightarrow AW-HE130$

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:D0:1&res=1

[Response] AW-HE130→ PC

200 OK "OSA:D0:1"

3.2.28. Tally Brightness settings

These commands control the brightness of the tally LEDs.

Table 3.2.28. Tally Brightness settings

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

Example of use)

•Tally Brightness settings: MID

[Control] $PC \rightarrow AW-HE130$

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.

Table 3.2.29. Knee settings

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]			
Knee settings	Request	QSA:2D	None		※Only supported by the AW-HE130.
query command	Response	OSA:2D:[Data]	0 1 2	OFF MANUAL AUTO	
Knee Point control command	Control	OSA:20:[Data]	22h	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	70.00%	※Only supported by the AW-HE130.
Knee Slope control command	Control Response	OSA:24:[Data] OSA:24:[Data]	00h	0	**Only supported by the AW-HE130.
Knee Slope	Request	QSA:24	None		*Only supported by the AW-HE130.
query command	Response	OSA:24:[Data]	00h ≀ 63h	0	

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→ PC

200 OK "OSA:2D:1"

•Knee Point: 93.50%

[Control] $PC \rightarrow AW-HE130$

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→ PC

200 OK "OSA:24:00"

3.2.30. White Clip settings

These commands control over White Clip.

Table 3.2.30. White Clip settings

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

Example of use)

·White Clip settings: ON

[Control] $PC \rightarrow AW-HE130$

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] $PC \rightarrow AW-HE130$

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.

Table 3.2.31. OIS settings

14310 01210 11 010 004111190						
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	
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.	

Example of use)

•OIS settings: On

[Control] $PC \rightarrow AW-HE130$

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.

Table 3.2.32. HDR settings

1000 0.2.02. 1101 0.000.1190						
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-HE65/AW-HE70/AW-UE70			
			0	Off		
			1	Low		
			3	High		

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"

3.2.33. Software version information

This command enables the software version information to be acquired.

Table 3.2.25. Software version information

Command name	Category	Command	Data value	Setting	Remarks
Software version	Request	QSI:19:[Data1]	[Data1]		※ Only
information			0	SYSTEM VERSION	supported by
query command			1	CAM MAIN	the AK-UB300.
			2	NETWORK	
			3	ROM TABLE	
			4	CAM FPGA	
			5	AVIO FPGA	
			6	OPTION FPGA	
	Response	OSI:19:[Data1]:[Data2]	[Data1]		※ Only
			0	SYSTEM VERSION	supported by
			1	CAM MAIN	the AK-UB300.
			2	NETWORK	
			3	ROM TABLE	
			4	CAM FPGA	
			5	AVIO FPGA	
			6	OPTION FPGA	
			[Data2]		
			(Ver. String)	EX) 01.00-000-00.00	

Example of use)

Software version information acquisition: CAM MAIN

[Control] $PC \rightarrow AK-UB300$

http://192.168.0.10/cgi-bin/aw_cam?cmd=QSI:19:1&res=1

[Response] AK-UB300 → PC

200 OK "OSI:19:1:01.00-000-00.00"

3.2.34. Tally settings

These commands perform ON/OFF controls for tallies.

Table 3.2.25. Tally settings

Command name	Category	Command	Data value	Setting	Remarks
RED tally settings	Control	TLR:[Data]	0	Off	※ Only supported by the
control command			1	On	AK-UB300.
	Response	TLR:[Data]			
RED tally settings	Request	QLR	None		
query command	Response	OLR:[Data]	0	Off	
			1	On	
GREEN tally settings	Control	TLG:[Data]	0	Off	※ Only supported by the
control command			1	On	AK-UB300.
	Response	TLG:[Data]			
GREEN tally settings	Request	QLG	None		
query command	Response	OLG:[Data]	0	Off	
			1	On	

Example of use)

•RED tally settings: On

[Control] $PC \rightarrow AK-UB300$

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

[Response] AK-UB300 \rightarrow PC

200 OK "TLR:1"

3.2.35. SKIN TONE DETAIL settings

These commands configure the skin tone detail settings and acquire the current setting values.

Table 3.2.25. SKIN TONE DETAIL settings

	10	ble 3.2.25. SKIN	Data	TO THE SOUTH	gs
Command name	Category	Command	value	Setting	Remarks
SKIN TONE DETAIL	Control	OSA:40:[Data]	0	Off	※ Only supported by the AK-UB300.
control command			1	On	
			_		
	Response	OSA:40:[Data]	1		_
SKIN TONE DETAIL	Request	QSA:40	None	0"	-
query command	Response	OSA:40:[Data]	0	Off On	
SKIN GET	Control	OSA:41:[Data]	0	Off	Only supported by the AK-UB300.
control command	00111101	00/ 11.[2010]	1	On	// Ciny capperiod by the fix object
			2	Get	
	Response	OSA:41:[Data]	-		
SKIN GET	Request	QSA:41	None		1
query command	Response	OSA:41:[Data]	0	Off	
			1	On	
			2	Get	
MEMORY SELECT	Control	OSG:42:[Data]	0	A	※ Only supported by the AK-UB300.
control command			1	B C	
			2		
	Response	OSG:42:[Data]			_
MEMORY SELECT	Request	QSG:42	None		
query command	Response	OSG:42:[Data]	0	A B	
			1 2	С	
H POSITION	Control	OSG:44:[Data]	000h	0%	※ Only supported by the AK-UB300.
control command			₹	₹	•0.25% steps
			190h	100.00%	
	Response	OSG:44:[Data]	1		
H POSITION	Request	QSG:44	None		
query command	Response	OSG:44:[Data]	000h	0%	
			₹	≀	
\		202 / 5 / 5	190h	100.00%	W. a. i.
V POSITION	Control	OSG:45:[Data]	000h	0%	* Only supported by the AK-UB300.
control command			≀ 190h	≀ 100.00%	•0.25% steps
		000 15 10 1 1	13011	100.0070	
V POSITION	Response	OSG:45:[Data]	None		-
query command	Request Response	QSG:45 OSG:45:[Data]	None 000h	0%	-
quory communic	Response	OOG.40.[Data]	\ \	\ \{\bar{\chi}{\chi}	
			190h	100.00%	
SKIN TONE ZEBRA	Control	OSA:49:[Data]	0	Off	※ Only supported by the AK-UB300.
control command			1	On	
	Response	OSA:49:[Data]	<u></u>		
SKIN TONE ZEBRA	Request	QSA:49	None		
query command	Response	OSA:49:[Data]	0	Off	
			1	On	

Command name	Category	Command	Data	Setting	Remarks
ZEBRA EFFECT	Control	OSG:47:[Data]	value 0	A	Only supported by the AK-UB300.
MEMORY	Control	COO. 17.[Data]	1	В	2. Only supported by the 7th observe.
control command			2	C	
			3	A+B	
			4	A+C	
			5	B+C	
	Response	OSG:47:[Data]	6	A+B+C	
ZEBRA EFFECT	Request	QSG:47	None		
MEMORY	Response	OSG:47:[Data]	0	Α	
query command			1	В	
			2	С	
			3	A+B	
			4	A+C	
			5	B+C	
			6	A+B+C	
SKIN TONE EFFECT	Control	OSG:48:[Data]	0	Α	※ Only supported by the AK-UB300.
MEMORY			1	В	
control command			2	С	
			3	A+B	
			4	A+C	
		000 10 50 1	5	B+C	
	Response	OSG:48:[Data]	6	A+B+C	
SKIN TONE EFFECT	Request	QSG:48	None		
MEMORY	Response	OSG:48:[Data]	0	Α	
query command			1	В	
			2	С	
			3	A+B	
			4	A+C	
			5	B+C	
			6	A+B+C	
SKIN TONE CRISP	Control	OSG:49:[Data]	41h	-63	※ Only supported by the AK-UB300.
control command			₹	₹	
			80h	0	
	Response	OSG:49:[Data]	- ≀	₹	
	Теоропос	000.40.[Data]	BFh	+63	
SKIN TONE CRISP	Request	QSG:49	None		
query command	Response	OSG:49:[Data]	41h	-63	
			₹	₹	
			80h	0	
			₹	₹	
			BFh	+63	
SKIN TONE DTL	Control	OSA:45:[Data]	00h	0	※ Only supported by the AK-UB300.
I CENTER			₹	₹	
control command			FFh	255	
	Response	OSA:45:[Data]	1		
SKIN TONE DTL	Request	QSA:45	None		
I CENTER	Response	OSA:45:[Data]	00h	0	
query command		' '	₹	₹	
			FFh	255	
	<u> </u>	<u> </u>	1	<u> </u>	<u> </u>

Command name	Category	Command	Data value	Setting	Remarks
SKIN TONE DTL	Control	OSA:46:[Data]	00h	0	Only supported by the AK-UB300.
I WIDTH			₹	}	
control command	Response	OSA:46:[Data]	FFh	255	
SKIN TONE DTL	Request	QSA:46	None		
I WIDTH	Response	OSA:46:[Data]	00h	0	
query command			₹	₹	
			FFh	255	
SKIN TONE DTL	Control	OSA:47:[Data]	00h	0	※ Only supported by the AK-UB300.
Q WIDTH			}	₹	
control command	Response	OSA:47:[Data]	FFh	255	
SKIN TONE DTL	Request	QSA:47	None		
Q WIDTH	Response	OSA:47:[Data]	00h	0	
query command			₹	₹	
			FFh	255	
SKIN TONE	Control	OSG:4F:[Data]	000h	0	※ Only supported by the AK-UB300.
Q PHASE			₹	₹	
control command	Response	OSG:4F:[Data]	167h	359	
SKIN TONE	Request	QSG:4F	None		
Q PHASE	Response	OSG:4F:[Data]	000h	0	
query command			₹	₹	
			167h	359	

Example of use)

•SKIN TONE DETAIL settings: On

[Control] PC → AK-UB300

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSA:40:1&res=1

[Response] AK-UB300 → PC

200 OK "OSA:40:1"

3.2.36. Haze reduction

These commands configure the haze reduction settings and acquire the current setting values.

Table 3.2.25. Haze reduction

Command name	Category	Command	Data value	Setting	Remarks
HAZE REDUCTION	Control	OSG:B6:[Data]	0	Off	※ Only supported by the AK-UB300.
control command			<u> </u>	On	
	Response	OSG:B6:[Data]			
HAZE REDUCTION	Request	QSG:B6	None		
query command	Response	OSG:B6:[Data]	0	Off	
			1	On	
HAZE REDUCTION	Control	OSG:B7:[Data]	1	1	※ Only supported by the AK-UB300.
LEVEL			₹	₹	
control command	Response	OSG:B7:[Data]	3	3	
HAZE REDUCTION	Request	QSG:B7	None		
LEVEL	Response	OSG:B7:[Data]	1	1	
query command			₹	₹	
			3	3	

Example of use)

•HAZE REDUCTION settings: On

[Control] PC → AK-UB300

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSG:B6:1&res=1

[Response] AK-UB300 → PC

200 OK "OSG:B6:1"

3.2.37.4K crop

These commands configure the 4K crop settings and acquire the current setting values.

Table 3.2.25. 4K crop

Command name	Category	Command	Data value	Setting	Remarks
CROP OUT SEL	Control	OSI:16:[Data]	1	YL	※ Only supported by the
control command			2	G	AK-UB300.
	Response	OSI:16:[Data]	- 3	MG	
CROP OUT SEL	Request	QSI:16	None		
query command	Response	OSI:16:[Data]	1	YL	
' '			2	G	
			3	MG	
CROP ADJ SEL	Control	OSI:17:[Data]	1	YL	※ Only supported by the
control command			2	G	AK-UB300.
	Response	OSI:17:[Data]	3	MG	
CROP ADJ SEL	Request	QSI:17	None		
query command	Response	OSI:17:[Data]	1	YL	
			2	G	
			3	MG	
CROP H/V POSITION	Control	OSI:15:[Data1]:	[Data1]	[Data1]	※ Only supported by the
Speed Control		[Data2]	01	Left Max. Speed	AK-UB300.
control command			₹	₹	
			50	Stop	
			₹	}	
			99	Right Max. Speed	
			[Data2] 01	[Data2] Down Max. Speed	
				Down Max. Speed	
			50	Stop	
			₹	} }	
	Response	OSI:15:[Data1]:	99	Up Max. Speed	
	-	[Data2]			
CROP MARKER SEL	Control	OSI:1A:[Data]	1	YL	※ Only supported by the
control command			2	G	AK-UB300.
			3	MG	
			4	YL+G	
			5	YL+MG G+MG	
		00144 [D.1.1	6 7	YL+G+MG	
CROP MARKER SEL	Response	OSI:1A:[Data]		TETOTING	
query command	Request	QSI:1A	None	YL	-
query command	Response	OSI:1A:[Data]	1 2	G	
			3	MG	
			4	YL+G	
			5	YL+MG	
			6	G+MG	
			7	YL+G+MG	
	l .	l .	1	1	l

Command name	Category	Command	Data value	Setting	Remarks
CROP H POSITION	Control	OSI:1B:[Data]	738h	-50%	※ Only supported by the
control command			} }	₹	AK-UB300.
			800h	0%	•0.25% units
			} }	₹	
			8C8h	+50%	
	Response	OSI:1B:[Data]			
CROP H POSITION	Request	QSI:1B	None		
query command	Response	OSI:1B:[Data]	738h	-50%	
			₹	}	
			800h	0%	
			₹	}	
			8C8h	+50%	
CROP V POSITION	Control	OSI:1C:[Data]	738h	-50%	Only supported by the
control command				}	AK-UB300.
			800h	0%	•0.25% units
				}	
	Despera	OCI-4C-(Data)	8C8h	+50%	
ODOD V DOOLTION	Response	OSI:1C:[Data]	NI.		_
CROP V POSITION	Request	QSI:1C	None		
query command	Response	OSI:1C:[Data]	738h	-50%	
			₹	₹	
			800h	0%	
			₹	\	
1			8C8h	+50%	

Example of use)

•CROP OUT SEL settings: YL [Control] PC → AK-UB300

http://192.168.0.10/cgi-bin/aw_cam?cmd=OSI:16:1&res=1

[Response] AK-UB300 \rightarrow PC

200 OK "OSI:16:1"

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)

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.

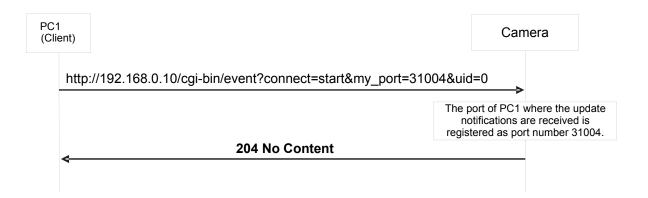


Fig.4-1 Update notification receive start sequence

[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)

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.

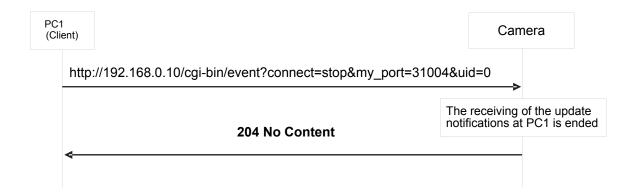


Fig.4-2 Update notification receive end sequence

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.

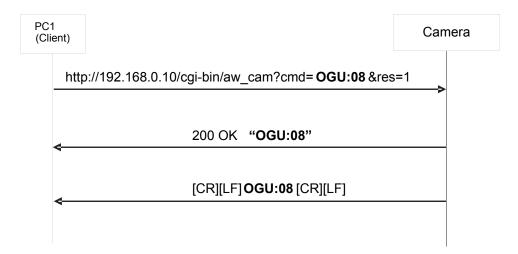


Fig.4-4 Changing the settings from the local terminal

[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.

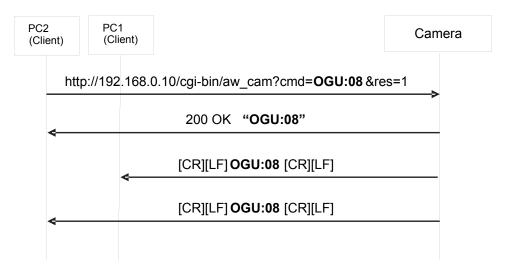


Fig.4-5 Changing the settings from another terminal

(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	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>

Table 4-2

	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

Co	Command	
One-touch focus	control command	OSE:69:[Data]
Contrast level	control command	OSD:48:[Data]
(Picture level)		OSD.40.[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. However, in the case of the AK-UB300, when the setting values are initialized from the web screen, the camera information is not changed so the update notification will not be sent. (The update notification will be sent during initialization from the OSD menu.)

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

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 **Supported only by AW-HE60 CameraMain V3.05 or subsequent versions
OSA:30	TOTAL DTL LEVEL **Supported only by AW-HE60 CameraMain V3.05 or subsequent versions
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 **Only supported by the AW-HE60
OSD:98:1	CHARACTER MIX (SDI/HDMI, COMP) *Only supported by the AW-HE60
OSD:98:0	CHARACTER MIX (Browser/Video)

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: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)

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	Table 4-4-3 (In the case of the AW-HE130) 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	
OSD:84 (Remarks Color Correction (Mg R GAIN/SATURATION)
	Color Correction (Mg_R PHASE)
	Color Correction (Mg R R GAIN/SATURATION)
	Color Correction (Mg_R_R_PHASE)
	Color Correction (R GAIN/SATURATION)
-	Color Correction (R PHASE)
	Color Correction (R R YI GAIN/SATURATION)
	Color Correction (R R YI PHASE)
	Color Correction (R YI GAIN/SATURATION)
	Color Correction (R YI PHASE)
	Color Correction (R YI YI GAIN/SATURATION)
 	Color Correction (R YI YI PHASE)
	Color Correction (YI GAIN/SATURATION)
-	Color Correction (YI PHASE)
	Color Correction (YL G GAIN/SATURATION)
	Color Correction (YI_G PHASE)
	Color Correction (G GAIN/SATURATION)
	Color Correction (G PHASE)
	Color Correction (G. Cy GAIN/SATURATION)
	Color Correction (G Cy PHASE)
-	Color Correction (Cy GAIN/SATURATION)
-	Color Correction (Cy PHASE)
	Color Correction (Cy B GAIN/SATURATION)
	Color Correction (Cy B PHASE)
	Color Correction (B GAIN/SATURATION)
	Color Correction (B PHASE)
	Horizontal Phase
	Down CONV. Mode
-	HDMI Color
-	Color Bars Setup
<u> </u>	Installation position
-	Smart Picture Flip
-	Flip Detect Angle
	Preset Speed Table
	Preset Speed
 	Preset Scope
 	Freeze During Preset
-	Speed With Zoom POS.
-	Focus Mode
	Focus ADJ With PTZ.
OSE:70 [Digital Zoom
	Max Digital Zoom
	Digital Extender
	OIS

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

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

Notification	-4-4 (In the case of the AVV-HE40/AVV-HE65/AVV-HE70/AVV-UE70) 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: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)

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

Table 4-4-5 (In the case of the AK-UB300)

Notification	Remarks
OSA:87	Output format DCB
DCB	COLOR BAR/CAMERA
OSI:1D	Auto iris level
OFT	ND filter
XSF	Scene file
OSG:59	Shutter SW
OSG:5A	Shutter Mode
OSG:5D	Shutter Speed
OSA:65	Frame Mix
OGS	Gain select
OSA:50	LOW Gain
OSA:51	MID Gain
OSA:52	HIGH Gain
OSA:60	Super gain mode
OSG:39	R GAIN
OSG:3A	B GAIN
OSG:4A	Pedestal
OSG:4C	R PEDESTAL
OSG:4E	B PEDESTAL
OSG:A0	Color matrix
OSA:00	Matrix table
OSG:A5:N	Linear Matrix R-G(N)
OSG:A5:P	Linear Matrix R-G(P)
OSG:A6:N	Linear Matrix R-B(N)
OSG:A6:P	Linear Matrix R-B(P)
OSG:A7:N	Linear Matrix G-R(N)
OSG:A7:P	Linear Matrix G-R(P)
OSG:A8:N	Linear Matrix G-B(N)
OSG:A8:P	Linear Matrix G-B(P)
OSG:A9:N	Linear Matrix B-R(N)
OSG:A9:P	Linear Matrix B-R(P)
OSG:AA:N	Linear Matrix B-G(N)
OSG:AA:P	Linear Matrix B-G(P)
OSA:85	Color Correction
OSG:A4	Color correct table
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

Table 4-4-5 (In the case of the AK-UB300) (Continued)

Notification	Remarks
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 Phase 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
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
OSG:B0	Skin area SW
OSG:B0	Skin area table
OSG:B1	Skin area HUE
OSG:B3	Skin area TONE
OSG:93	Chroma Level SW
OSD:B0	Chroma Level
OSI:20	Color Temperature
ODT	Detail
OSA:30	TOTAL DTL LEVEL
OSA:31	H.DTL LEVEL
OSG:32	V.DTL LEVEL
OSG:30	PEAK FREQUENCY
OSG:35	V DETAIL FREQUENCY
OSD:22	NOISE SUPPRESS/CRISP
OSA:38	DETAIL (+)
OSA:39	DETAIL (-)
OSG:40	DETAIL +CLIP
OSG:41	DETAIL -CLIP
OSA:3B	DETAIL SOURCE
OSG:3F	KNEE APERTURE LEVEL
	LEVEL DEPENDENT SW
OSA:40	SKIN TONE DETAIL
OSA:41	SKIN GET
OSG:42	MEMORY SELECT
OSG:44	H POSITION
OSG:45	V POSITION
OSA:49	SKIN TONE ZEBRA
OSG:47	ZEBRA EFFECT MEMORY
OSA:41 OSG:42 OSG:44 OSG:45 OSA:49	LEVEL DEPENDENT SKIN TONE DETAIL SKIN GET MEMORY SELECT H POSITION V POSITION SKIN TONE ZEBRA

Table 4-4-5 (In the case of the AK-UB300) (Continued)

Notification	Remarks
OSG:48	SKIN TONE EFFECT MEMORY
OSG:49	SKIN TONE CRISP
OSA:45	SKIN TONE DTL I CENTER
OSA:46	SKIN TONE DTL I WIDTH
OSA:47	SKIN TONE DTL Q WIDTH
OSG:4F	SKIN TONE Q PHASE
OSD:3A	DNR
OSG:B5	DNR LEVEL
OSG:B6	HAZE REDUCTION
OSG:B7	HAZE REDUCTION LEVEL
OSG:CA	GEN-LOCK INPUT
OSG:CB	H PHASE-COARSE
OSG:CC	H PHASE-FINE
OSI:16	CROP OUT SEL
OSI:17	CROP ADJ SEL
OSI:1A	CROP MARKER SEL
OSI:1B	CROP H POSITION
OSI:1C	CROP V POSITION

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.

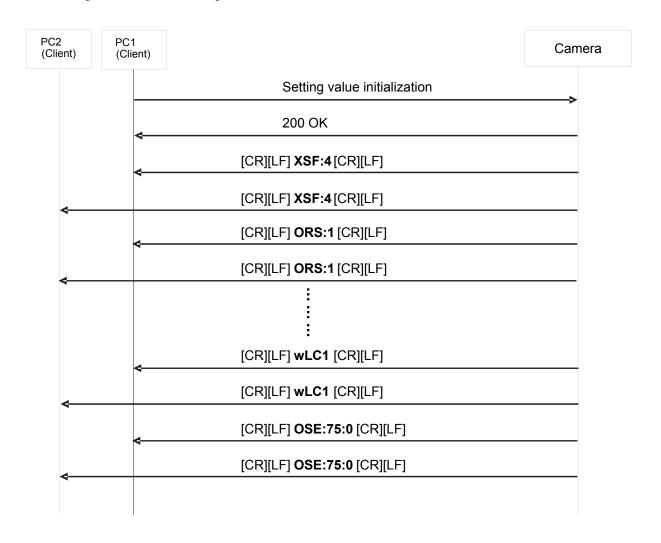


Fig.4-6 Setting value initialization

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.

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

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 **Supported only by AW-HE60 CameraMain V3.05 or subsequent versions.
OSA:30	TOTAL DTL LEVEL **Supported only by AW-HE60 CameraMain V3.05 or subsequent versions.
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
OTD	Pedestal
OSE:72	Gamma type
OSD:50	Gamma level
OSE:73	Backlight compensation
OSE:33	DRS
d6	Option switch **Only supported by the 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-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 4-5-3 (In the case of the AW-HE130) (continued)

Table 4-5-3 (In the case of the AVV-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)

	-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 ODT	Pedestal Detail
OSA:30	Master Detail
OSA:B1	TOTAL DTL LEVEL HIGH
OSE:32	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)
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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)

Table 4-4-5 (In the case of the AK-UB300)

Notification	Table 4-4-5 (In the case of the AK-UB300) Remarks
OFT	ND filter
XSF	Scene file
OSG:59	Shutter SW
OSG:5A	Shutter Mode
OSG:5A	Shutter Speed
OSA:65	Frame mix
OGS OGS	Gain select
OSA:50	LOW Gain
OSA:51	MID Gain
	HIGH Gain
OSA:52	
OSA:60	Super gain mode
OSG:39	R GAIN
OSG:3A	B GAIN
OSG:4A	Pedestal
OSG:4C	R PEDESTAL
OSG:4E	B PEDESTAL
OSG:A0	Color Matrix
OSA:00	Matrix Table
OSG:A5:N	Linear Matrix R-G(N)
OSG:A5:P	Linear Matrix R-G(P)
OSG:A6:N	Linear Matrix R-B(N)
OSG:A6:P	Linear Matrix R-B(P)
OSG:A7:N	Linear Matrix G-R(N)
OSG:A7:P	Linear Matrix G-R(P)
OSG:A8:N	Linear Matrix G-B(N)
OSG:A8:P	Linear Matrix G-B(P)
OSG:A9:N	Linear Matrix B-R(N)
OSG:A9:P	Linear Matrix B-R(P)
OSG:AA:N	Linear Matrix B-G(N)
OSG:AA:P	Linear Matrix B-G(P)
OSA:85	Color Correction
OSG:A4	Color correct table
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
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Table 4-5-5 (In the case of the AK-UB300) (Continued)

Notification	Remarks
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
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
OSG:B0	Skin area SW
OSG:B1	Skin area table
OSG:B2	Skin area HUE
OSG:B3	Skin area TONE
OSG:93	Chroma Level SW
OSD:B0	Chroma Level
OSI:20	Color Temperature
ODT	Detail
OSA:30	TOTAL DTL LEVEL
OSA:31	H.DTL LEVEL
OSG:32	V.DTL LEVEL
OSG:30	PEAK FREQUENCY
OSG:35	V DETAIL FREQUENCY
OSD:22	NOISE SUPPRESS/CRISP
OSA:38	DETAIL (+)
OSA:39	DETAIL (-)
OSG:40	DETAIL +CLIP
OSG:41	DETAIL -CLIP
OSA:3B	DETAIL SOURCE
OSG:3F	KNEE APERTURE LEVEL
OSG:3E	LEVEL DEPENDENT SW
OSD:26	LEVEL DEPENDENT
OSA:40	SKIN TONE DETAIL
OSA:41	SKIN GET
OSG:42	MEMORY SELECT
OSG:44	H POSITION
OSG:45	V POSITION
OSA:49	SKIN TONE ZEBRA
OSG:47	ZEBRA EFFECT MEMORY
OSG:48	SKIN TONE EFFECT MEMORY
OSG:49	SKIN TONE CRISP
OSA:45	SKIN TONE DTL I CENTER

Table 4-5-5 (In the case of the AK-UB300) (Continued)

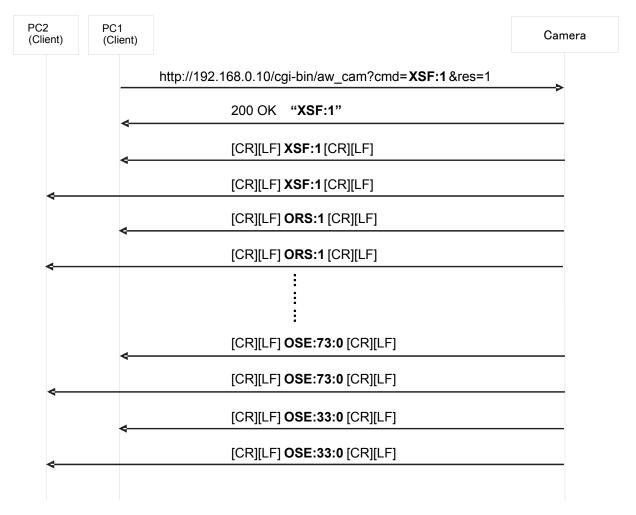
Notification	Remarks
OSA:46	SKIN TONE DTL I WIDTH
OSA:47	SKIN TONE DTL Q WIDTH
OSG:4F	SKIN TONE Q PHASE
OSD:3A	DNR
OSG:B5	DNR LEVEL
OSG:B6	HAZE REDUCTION
OSG:B7	HAZE REDUCTION LEVEL

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.



*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. (Version information notifications are not supported for the AK-UB300.)

The information posted is given below.

Table 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.

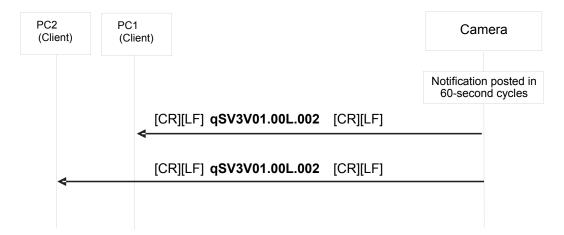


Fig.4-8 Sequence when the version information is received

4.4.2. Error information

In cases where the camera has detected error information, the error information is posted in 30second cycles. (Error information notifications are not supported for the AK-UB300.)

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		
	2011. OAWIELVATOX COMMINICING DUNIEL CVENIOW		

Notification	Error Code		
	In the case of the AW-HE40/AW-HE65/AW-HE70/AW-UE70		
	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.

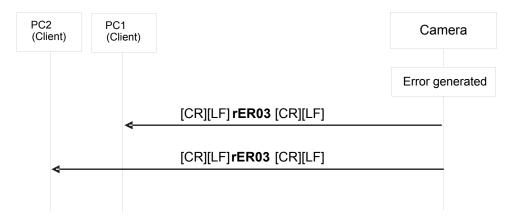


Fig.4-9 Sequence when error information is received

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). (LPI information notifications are not supported for the AK-UB300.)

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.

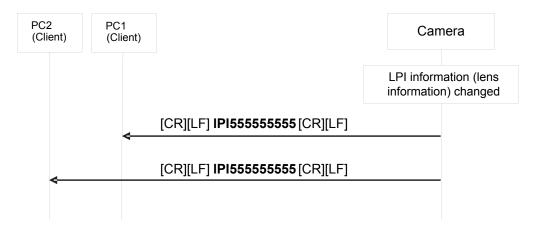


Fig.4-10 Sequence when LPI information is changed

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. (Preset playback is not supported for the AK-UB300.)

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.

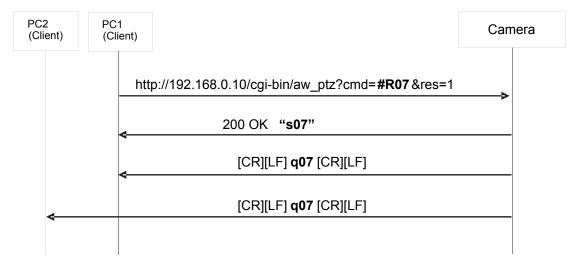


Fig.4-11 Preset playback

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	
ER2:OWS	AWB execution failed (busy status)	

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

Table 4-11 ABB result

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	
ER2:OAS	ABB execution failed (busy status) %2	

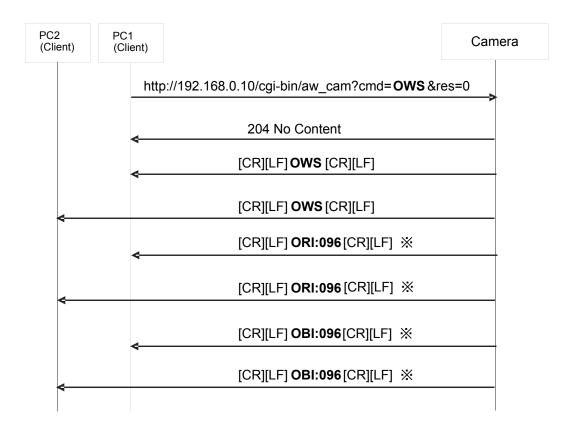
****2:** With the AW-HE50 or the AW-HE60, the HTTP response is always given immediately for OAS, and no update notification is sent.

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.

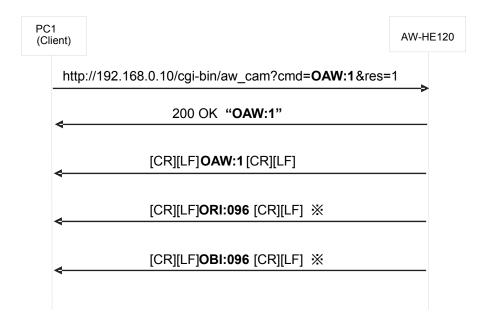
Table 4-12

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

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

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.

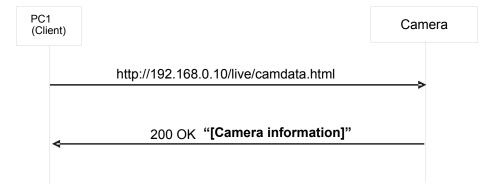


Fig.5-1 Camera information batch acquisition sequence

Table 5-1

Camera information	Command	[data] section
PowerOn/Off status	p[data]	0 : PowerOff
※ Not supported by the AK-UB300.	' '	1 : PowerOn
A Not supported by the fire species.		
Model Name	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 AK-UB300
		AK-UB300 (fixed)
CGI send interval		In the case of the AW-HE130
		CGI_TIME:130 (fixed)
		In the case of the AK-UB300
		CGI_TIME:70 (fixed)
		In the case of other models
		CGI_TIME:0 (fixed)
		**The AW-HE50 is supported by Ver.2 or a
		later version.
Format	OSA:87: 0x[data]	In the case of the AW-HE50
		1h: 720/59.94p
		2h: 720/50p 4h: 1080/59.94i
		5h: 1080/59.941
		7h: 1080/301 7h: 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: 1080/50i
		7h: 1080/29.97PsF
		8h: 1080/25PsF
		Bh: 480/59.94i
		Dh: 576/50i
		10h: 1080/59.94p
		11h: 1080/50p
		12h: 480/59.94p
		13h: 576/50p

Camera information	Command	[data] section
		In the case of the AW-HE120
		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:1080/23FSF
		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
		In the case of the AK-UB300
		01h: 720/59.94p
		02h: 720/50p
		04h: 1080/59.94i
		05h: 1080/50i
		07h: 1080/29.97psF
		08h: 1080/25psF 0Ah: 1080/23.98psF
		10h: 1080/59.94p
		11h: 1080/50p
		16h: 1080/23.98p
		17h: 2160/29.97p
		18h: 2160/25p
		19h: 2160/59.94p
		1Ah: 2160/50p
		1Bh: 2160/23.98p
		50h: 1080/59.94p CROP
		51h: 1080/50p CROP

Camera information	Command	[data] section
Camera Title		TITLE:[data (Max. 20 half-size characters)]
Output format (SDI)	OSD:B9: 0x[data]	In the case of the AW-UE70
(Format SDI)	COD.DO. Ox[data]	1h:720/59.94p
(1 office_ob))		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
Gain	OGU: 0x[data]	In the case of the AW-HE50/AW-HE60
Sum .	o o o . ox[aata]	80h: Auto
		08h: 0dB
		0Bh: 3dB
		0Eh: 6dB
		11h: 9dB
		14h: 12dB
		17h: 15dB
		1Ah: 18dB
		In the case of the AW-HE120
		80h : Auto
		08 h: 0dB
		}
		11 h: 9dB
		≀
		1A h: 18dB
		Value can be set in increments of 1dB.
		In the case of the AW-HE130
		80h : Auto
		08h : 0dB
		1
		1Ah : 18dB
		≀
		2Ch : 36dB
		 Value can be set in increments of 1dB.
		In the case of the AW-HE40/AW-HE65/
		AW-HE70/AW-UE70
		80h : Auto
		08h : 0dB
		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
		1Ah : 18dB
		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
		38h : 48dB
		Value can be set in increments of 3dB.
Pedestal	OTD: 0x[data]	In the case of the AW-HE50/AW-HE60/
	J. D. Onjudiuj	AW-HE40/AW-HE65/ AW-HE70/AW-UE70
		3Ch: +10 1Bh: -1
		39h: +9 18h: –2
		36h: +8 15h: -3
		33h: +7 12h: -4
		30h: +6 0Fh: -5
		2Dh: +5 0Ch: -6
		2011. 10 0011. Tu

Camera information	Command	[data] section
		2Ah: +4 09h: -7 27h: +3 06h: -8 24h: +2 03h: -9 21h: +1 00h: -10 1Eh: 0
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 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
Shutter Mode	OSH: 0x[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)

Camera information	Command	[data] section
	Johnnaria	Ah 1/10000
		Bh Synchro-Scan
		Ch ELC
		In the case of the following formats of
		AW-HE130
		(1080/29.97p)
		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
		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
		6h 1/500
		7h 1/1000
L	I	1000

Camera information	Command	[data] section
	- Jiiiiiaiia	8h 1/2000
		9h 1/4000
		Ah 1/10000
		Bh Synchro-Scan
		Ch ELC
5.4.11	00771	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/AK-UB300
		0: Off 1: On
		2: On
Scene	OSF:[data]	In the case of the AW-HE50/AW-HE60/
	[and]	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
		In the case of the AK-UB300
		0:Current
		1:Scene1 2:Scene2
		3:Scene3
		4:Scene4
		5:Scene5
		6:Scene6 7:Scene7
		8:Scene8
Camera/ColorBar	OBR:[data]	0: Camera
		1: ColorBar
Speed With Zoom Pos.	sWZ[data]	0: Off
Not supported by the AK-UB300.		1: On
Preset Mode	OSE:71:[data]	0: Mode A
Not supported by the AK-UB300.		1: Mode B
Install Decition	:NOEdet=1	2: Mode C
Install Position	iNS[data]	0: Desktop 1: Hanging
Not supported by the AK-UB300.	OLIC:[date]	
OSD On/Off	OUS:[data]	0: Off 1: On
Focus Mode	d1[data]	0: Manual
※ Not supported by the AK-UB300.		1: Auto
Iris Mode	d3[data]	0: Manual
※ Not supported by the AK-UB300.		1: Auto
Latest Call Preset No.	s[data]	1~100
Not supported by the AK-UB300.		
	I.	ı.

Camera information	Command	[data] section
Total Detail Level	OSA:30:[data]	In the case of the AW-HE60
2010.	5 5 50.[44.44]	81h : 1
		₹
		91h : 17
		In the case of the AW-HE50/AW-HE120/
		AW-HE40/AW-HE65/AW-HE70/AW-UE70
		0 (fixed)
		In the case of the AM/ LIF120
		In the case of the AW-HE130 61h: 0
		8111.0
		80h : 31
		₹
		9Fh : 62
		In the case of the AK-UB300
		61h : -31
		₹
		80h : 0
		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
ND Filton	dOldate1	9Fh:+31
ND Filter	d2[data]	0 (fixed)
Not supported by the AK-UB300.	1051-1-1	0.0%
Option SW	d6[data]	0: Off 1: On
Not supported by the AK-UB300.		1. 011
In the case of AW-HE60 (V3.00 or later) and AW-HE130/AW-HE40/AW-		
HE65/AW-HE70/AW-UE70, used as		
Day/Night switching.		
Lamp	d4[data]	0 (fixed)
X Not supported by the AK-UB300.		
Iris Follow	OSD:4F:[data]	00h: Close
Not supported by the AK-UB300.		:
		FFh: Open
Error Notice	OER:[data]	0: Normal
D/T Made of Dress	-41-4-1	1: Fan Error
P/T Mode of Preset	rt[data]	1 (fixed)
Not supported by the AK-UB300. Zeem Registion	ova[dete]	EEEb: Wido
Zoom Position	axz[data]	555h: Wide :
Not supported by the AK-UB300.		: FFFh: Tele
Error Status Info.	rER[data]	00h: No Error
Not supported by the AK-UB300.	[01h: Error01
		:
		0Ah: Error10
		; 04h Fara 200
		24h: Error30
		25h: (Reserved)
		:
		2Fh: (Reserved)
		30h: Error48
		31h: Error49
		32h: Error50
		33h: Error51
		JOH. LITUIOT

Camera information	Command	[data] section
Focus Position	axf[data]	555h: Near
※ Not supported by the AK-UB300.		:
		FFFh: Far
Preset Entry No.001~040	pE00[data]	0000000000~FFFFFFF(40bit)
※ Not supported by the AK-UB300.		bit01: Preset-No.001
		: bit40: Preset-No.040
		bit40. Freset-No.040
		0: No Entry
		1: Entry
Preset Entry No.041~080	pE01[data]	000000000~FFFFFFFF(40bit)
※ Not supported by the AK-UB300.		bit01: Preset-No.041
		bit40: Preset-No.080
		0: No Entry
		0: No Entry 1: Entry
Preset Entry No.081~100	pE02[data]	000000000~FFFFFFFF(40bit)
* Not supported by the AK-UB300.		bit01: Preset-No.081
		:
		bit20: Preset-No.100
		bit21: 0 (fixed)
		: h:t40: 0 (fixed)
		bit40: 0 (fixed)
		0: No Entry
		1: Entry
Preset Speed	uPVS[data]	000: Max Speed (Preset Speed:30)
Not supported by the AK-UB300.		250: Slow (Preset Speed:1)
		<u>:</u>
		999: Fast(Preset Speed:30)
Tilt-Up Limitation Set	IC1[data]	0: Release
Not supported by the AK-UB300.	IC1[data]	1: Set
Tilt-Down Limitation Set	IC2[data]	0: Release
Not supported by the AK-UB300.	Toziaaraj	1: Set
Pan-Left Limitation Set	IC3[data]	0: Release
※ Not supported by the AK-UB300.		1: Set
Pan-Right Limitation Set	IC4[data]	0: Release
* Not supported by the AK-UB300.		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
		: 000h: 0
		096h: 0
		: 12Ch: +150
	1	12011. 1 130

Description	Camera information	Command	[dotal coation
Version)/AW-HE60/AW-HE40/AW-HE65/ AW-HE70/AW-UE70 00h: -30 :: 1Eh: 0 :: 3Ch: +30 1n the case of the AW-HE120/AW-HE130 000h: -150 :: 12Ch: +150 11Ch: +150 1			[data] section
AW-HE70/AW-UE70 O0h: -30	D Gaill	ODG.[uata]	
Onh: -30			
Signature Sign			
Signature Sign			:
OBI:[data] In the case of the AW-HE120/AW-HE130			1Eh: 0
OBI:[data] In the case of the AW-HE120/AW-HE130			:
Double - 150		ODI/Idata1	
September Sept		OBI:[data]	
Pedestal			00011. – 150
Pedestal			096h: 0
Pedestal **Only AW-HE120/AW-HE130 OTP: 0x[data] 000h: -150 096h: 0 12Ch: +150 R Pedestal **Only AW-HE120/AW-HE130 ORP: 0x[data] In the case of the AW-HE120 000h: -150 12Ch: +150 In the case of the AW-HE130 032h: -100 1096h: 0 1096h			:
#Only AW-HE120/AW-HE130 R Pedestal #Only AW-HE120/AW-HE130 ORP: 0x[data] In the case of the AW-HE120 000h: -150 096h: 0 12Ch: +150 In the case of the AW-HE130 In the case of the AW-HE130 o32h: -100 096h: 0 096h: 0 096h: 0 100 OFAh: +100 B Pedestal #Only AW-HE120/AW-HE130 OBP: 0x[data] In the case of the AW-HE120 000h: -150 000h: -150			12Ch: +150
#Only AW-HE120/AW-HE130 R Pedestal #Only AW-HE120/AW-HE130 ORP: 0x[data] In the case of the AW-HE120 000h: -150 096h: 0 12Ch: +150 In the case of the AW-HE130 In the case of the AW-HE130 o32h: -100 096h: 0 096h: 0 096h: 0 100 OFAh: +100 B Pedestal #Only AW-HE120/AW-HE130 OBP: 0x[data] In the case of the AW-HE120 000h: -150 000h: -150			
OPP: 0x[data]	Pedestal	OTP: 0x[data]	000h: –150
R Pedestal	**Only AW-HE120/AW-HE130		:
R Pedestal **Only AW-HE120/AW-HE130 ORP: 0x[data] In the case of the AW-HE120 000h: -150 :			096h: 0
R Pedestal **Only AW-HE120/AW-HE130 ORP: 0x[data] In the case of the AW-HE120 000h: -150 :			: 400h: 1450
**Only AW-HE120/AW-HE130 000h: -150 096h: 0 12Ch: +150 In the case of the AW-HE130 032h: -100 096h: 0 096h: 0 096h: +100 100 096h: 0 100 000h: -150 100 000h: -150 100			12Cn: +150
**Only AW-HE120/AW-HE130 000h: -150 096h: 0 12Ch: +150 In the case of the AW-HE130 032h: -100 096h: 0 096h: 0 096h: +100 100 096h: 0 100 000h: -150 100 000h: -150 100	D. Do do stol	ODD: 0:/detel	In the case of the AVA/115400
: 096h: 0 : 12Ch: +150 In the case of the AW-HE130 032h: -100 : 096h: 0 : 0FAh: +100		ORP: 0x[data]	
: 12Ch: +150 In the case of the AW-HE130 032h: -100 : 096h: 0 : 0FAh: +100	※Offity AVV-FIE 120/AVV-FIE 130		00011. – 150
: 12Ch: +150 In the case of the AW-HE130 032h: -100 : 096h: 0 : 0FAh: +100			096h: 0
In the case of the AW-HE130 032h: -100 096h: 0 0FAh: +100			:
032h: -100 : 096h: 0 : 0FAh: +100 B Pedestal **Only AW-HE120/AW-HE130 OBP: 0x[data] In the case of the AW-HE120 000h: -150 : :			
: 096h: 0			
: 0FAh: +100 : 0FAh: +100 : 0FAh: +100 :			032h: –100
: 0FAh: +100 : 0FAh: +100 : 0FAh: +100 :			: 006b: 0
B Pedestal OBP: 0x[data] In the case of the AW-HE120			:
B Pedestal OBP: 0x[data] In the case of the AW-HE120			OFAh: +100
**Only AW-HE120/AW-HE130 000h: -150			
**Only AW-HE120/AW-HE130 000h: -150	B Pedestal	OBP: 0x[data]	In the case of the AW-HE120
		' '	
096h: 0 :			:
			096h: 0
4001 1450			:
In the case of the AW-HE130			
032h: –100			
00211. = 100 			:
096h: 0			096h: 0
			:
0FAh: +100			
Color Temperature OSD:B1: 0x[data] In the case of the AW-HE130	Color Temperature	OSD:B1: 0x[data]	
000h: 2000K			000h: 2000K
: 078h: 15000K			: 078b: 15000K
In the case of the AW-HE40/AW-HE65/			
AW-HE70/AW-UE70			
000h: 2400K			
			:
04Bh: 9900K			04Bh: 9900K

Camera information	Command	[data] section
Preset Speed Table	pST[data]	0: Slow
**Only AW-HE130/AW-HE40/	portualaj	
AW-HE65/ AW-HE70/AW-UE70		2: Fast
Freezing images during preset	pRF[data]	0: Off
playback	prvi [data]	1: On
(Freeze During Preset)		1. 611
*Only AW-HE130/AW-HE40/		
AW-HE65/ AW-HE70/AW-UE70		
Image Stabilization (IS)	OIS:[data]	0: Off
*Only AW-HE130 (Optical)/	o.o.[uata]	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
**Only AW-HE40/AW-HE65/		1: On
AW-HE70/AW-UE70		
iZoom	OSD:B3:[Data]	0: Off
**Only AW-HE40/AW-HE65/		1: On
AW-HE70/AW-UE70	Ol Dildotol	0: Off
RED Tally	OLR:[data]	1: On
Lens Information	OSI:18:0x[data1]:0x[[data1]
*Only AK-UB300	data2]:0x[data3]	555h: Wide
20 My Air-Obooo	datazj.ox[dataoj	}
		FFFh: Tele
		[data2]
		555h: Near
		₹ 1
		FFFh: Far
		[data3]
		555h: Close
		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Inic Auto/Manual	ODC:[dete]	FFFh: Open
Iris Auto/Manual	ORS:[data]	0: Manual 1: Auto
XOnly AK-UB300 Iris Volume	ORV:0x[data]	000h: Close
*Only AK-UB300	Ortv.ox[uata]	≥ loom. Glose
2Komy / IK Obood		3FFh: Open
Iris Offset	OSD:48:0x[data]	00h: 0
**Only AK-UB300		₹
		64h: 100
Iris F Volume	OIF:0x[data]	0Eh: F1.4
		₹ 1
		A0h: F16
ND E''	OFT.L.	FFh: CLOSE
ND Filter	OFT:[data]	0: Clear
		1: 1/4
		2: 1/16 3: 1/64
Shutter SW	OSG:59:[data]	0: Off
*Only AK-UB300	USG.58.[uata]	1: On
Shutter Mode	OSG:5A:[data]	0: Shutter
*Only AK-UB300	555.07 (.[uata]	1: Synchro
,	1	

Camera information	Command	[data] section
Shutter Speed	OSG:5D:0x[data]	00h: 1/48
		01h: 1/50
		02h: 1/60
		03h: 1/96
		04h: 1/100 05h: 1/120
		06h: 1/125
		07h: 1/250
		08h: 1/500
		09h: 1/1000
		0Ah: 1/1500
		0Bh: 1/2000
		0Ch: 180.0deg
		0Dh: 172.8deg
		0Eh: 144.0deg 0Fh: 120.0deg
		10h: 90.0deg
		11h: 45.0deg
Gain Select	OGS:0x[data]	01h: LOW
		04h: MID
		08h: HIGH
		06h: S.GAIN1
		0Ch: S.GAIN2
D. Coin	000,00,0,14-4-1	0Eh: S.GAIN3
R Gain ※Only AK-UB300	OSG:39:0x[data]	418h: -1000
%Only AK-0B300		800h: 0
		}
		BE8h: 1000
B Gain	OSG:3A:0x[data]	418h: -1000
		₹
		800h: 0
) DE9h: 1000
Pedestal	OSG:4A:0x[data]	BE8h: 1000 1Dh: -99
※Only AK-UB300	OSG.4A.UX[uala]	\ \ \
2. Chily rate Oboot		80h: 0
		₹
		E3h: 99
R Pedestal	OSG:4C:0x[data]	4E0h: -800
		\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \
		800h: 0
B Pedestal	OSG:4E:0x[data]	4E0h: -800
**Only AK-UB300	200. IZ.on[adia]	₹
		800h: 0
		1
		B20h: 800
CROP OUT SEL	OSI:16:[data]	1: YL
		2: G
CROP ADJ SEL	OSI:17:[data]	3: MG 1: YL
**SONIVAK-UB300	OSI. 17.[uala]	2: G
2. Striy / ii. S B S S S		3: MG
	1	J J

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

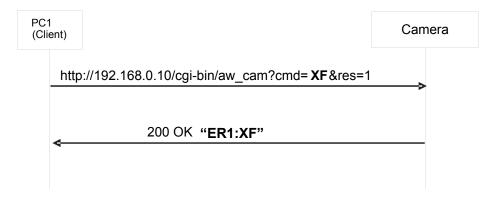


Fig.6-1 Error (ER1)

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

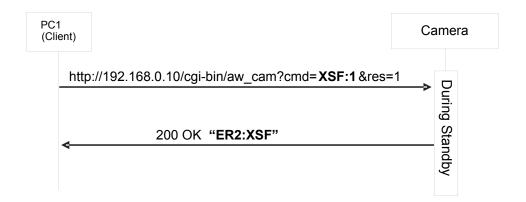


Fig.6-2 Error (ER2)

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.

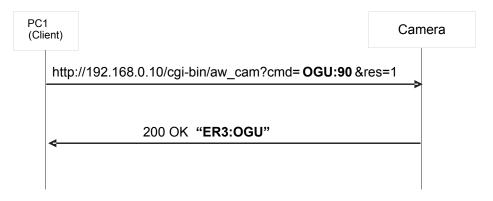


Fig.6-3 Error (ER3)

<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

ictioa. 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]	Size of message body
[CR][LF]	Blank line
pTS5050	Message body