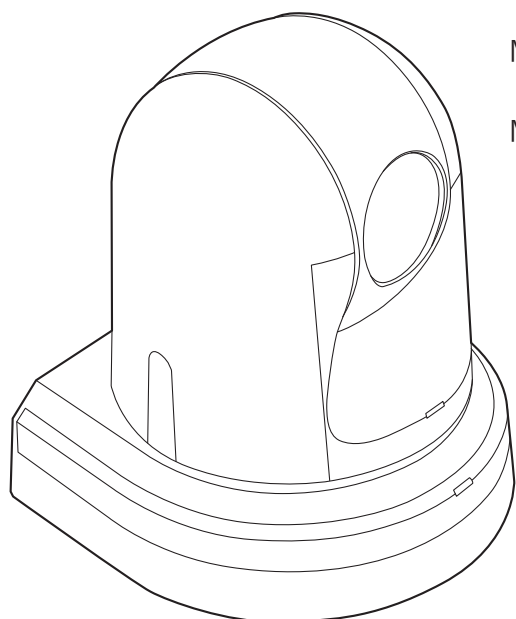


Operating Instructions <Operations and Settings>

HD Integrated Camera

Model No.	AW-HE40HWP
Model No.	AW-HE40HKP
Model No.	AW-HE40HWE
Model No.	AW-HE40HKE
Model No.	AW-HE40SWP
Model No.	AW-HE40SKP
Model No.	AW-HE40SWE
Model No.	AW-HE40SKE



HDMI

- **How the Operating Instructions are configured**

- **<Basics>:**

- The <Basics> describes the procedure for basic operation and installation. Before installing this unit, be sure to take the time to read through <Basics> to ensure that the unit will be installed correctly.

- **<Operations and Settings>** (this manual):

- This <Operations and Settings> describes how to operate the unit and how to establish its settings.

Trademarks and registered trademarks

- Microsoft®, Windows®, Windows® 7, Windows® 8, Windows® 8.1 and Internet Explorer® are either registered trademarks or trademarks of Microsoft Corporation in the United States and other countries.
- Intel® and Intel® Core™ are trademarks or registered trademarks of Intel Corporation in the United States and other countries.
- Adobe® and Reader® are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.
- HDMI, the HDMI logo and High-Definition Multimedia Interface are the trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.
- Apple, Mac, OS X, iPhone, iPod Touch, iPad, and Safari are registered trademarks of Apple Inc., in the United States and other countries.
- Android™ is a trademark of Google Inc.
- Other names of companies and products contained in these Operating Instructions may be trademarks or registered trademarks of their respective owners.

About copyright and licence

Distributing, copying, disassembling, reverse compiling, reverse engineering, and also exporting in violation of export laws of the software provided with the unit are expressly prohibited.

Abbreviations

The following abbreviations are used in this manual.

- Microsoft® Windows® 7 Professional SP1 32/64-bit is abbreviated to “Windows 7”.
- Microsoft® Windows® 8 Pro 32/64-bit is abbreviated to “Windows 8”.
- Microsoft® Windows® 8.1 Pro 32/64-bit is abbreviated to “Windows 8.1”.
- Windows® Internet Explorer® 8.0, Windows® Internet Explorer® 9.0, Windows® Internet Explorer® 10.0 and Windows® Internet Explorer® 11.0 are abbreviated to “Internet Explorer”.

For the purposes of this manual, the model numbers of the units are given as listed in the table below.

Model number of unit	Model number given in manual
AW-HE40HWP, AW-HE40HKP, AW-HE40HWE, AW-HE40HKE	AW-HE40
AW-HE40SWP, AW-HE40SKP, AW-HE40SWE, AW-HE40SKE	AW-HE40H
AW-HE40HWP, AW-HE40HKP, AW-HE40HWE, AW-HE40HKE	AW-HE40S
AW-HE40SWP, AW-HE40SKP, AW-HE40SWE, AW-HE40SKE	AW-HE40S
AW-HS50N	AW-HS50
AW-HS50E	
AW-RP50N	AW-RP50
AW-RP50E	
AW-RP120G	AW-RP120
AK-HRP200G	AK-HRP200

Illustrations and screen displays featured in the manual

- What is shown in the manual's illustrations and screen displays may differ from how it is actually appears.
- The screenshots are used in accordance with the guidelines of Microsoft Corporation.

Contents

Before use	4	Picture 3/3 screen	41
Overview	4	16-axis color matrix	42
Required personal computer environment	4	System screen	43
Disclaimer of warranty	5	Output screen	44
Network security	5	Others 1/3 screen	46
Basic shooting operations	6	Others 2/3 screen	47
How to turn the power on and off	7	Others 3/3 screen	48
Turning the power on	7	Maintenance screen	49
Turning the power off	8	Firmware Version screen	49
Selecting the units	9	IP Network screen	50
Selecting the shooting modes (scene files)	9	Camera menu item table	51
Types of shooting modes	9	Controls and settings from web screen	54
How to select the shooting mode	10	Displaying the web screen using a personal computer	55
Shooting	11	Live screen	57
What to do when encountering problems in the basic shooting operations	12	Setup screen	60
More advanced operations	13	Web screen item table	86
Manual shooting	14	Displaying the web screen using a mobile terminal	90
Manually adjusting the focus	14	Limiters	94
Manually adjusting the iris	14	Setting/releasing the limiters	95
Manually adjusting the shutter speed	15	Basic limiter operations	95
Manually adjusting the gain	15	Setting the limiters	95
Preset memories	16	Releasing the limiters	96
White balance adjustment	17	Resetting the limiters	96
White balance adjustment	17	Index	97
Black level (master pedestal) adjustment	21		
Black level (master pedestal) adjustment	21		
Basic operations	22		
When performing the operations using the wireless remote control	24		
Operations on the AW-RP50 Remote Camera Controller	25		
Operations on the AW-RP120 Remote Camera Controller	29		
Operations on the AK-HRP200 Remote Operation Panel	32		
Camera menu items	35		
Setting the camera menu items	35		
Top Menu screen	35		
Camera screen (when Full Auto is selected)	36		
Camera screen (when Manual1 to 3 is selected)	36		
Contrast 1/2 screen	37		
Contrast 2/2 screen	38		
Picture 1/3 screen	39		
Picture 2/3 screen	40		

Before use

■ Overview

- The unit is a compact full HD camera integrated with a pan-tilt head and featuring a 1/2.3-type MOS sensor and digital signal processor (DSP).
- In addition to its optical 30x zoom lens, the unit comes with a 16x digital zoom allowing you to capture high-quality images that overflow with ambience. Using i.Zoom allows up to 40x zoom while maintaining HD quality.
- The AW-HE40H is an HDMI model that is suited for transmitting images from video conferences, for example, and supports IP video transmission and IP control. The AW-HE40S is an SDI output model that is suited for content production and supports IP video transmission and IP control.
- When a controller is connected, camera operations can be performed smoothly via IP control or serial control.
- The unit features a Night mode, making it possible to shoot even under very-low-brightness conditions by exposing subjects to infrared rays.
- When the unit is connected to a computer via an IP network, it can be operated via a web browser while viewing the camera images on the screen.
- Connection with a Panasonic camera controller is also possible via Panasonic's proprietary serial communication format.
- The unit supports standard serial communication formats, allowing connection to commercially available controllers.
- The unit is available in two color variations (white or black) to suit your intended application and environment.

■ Required personal computer environment

CPU	Intel® Core™2 Duo 2.4 GHz or higher recommended
Memory	For Windows: 1 GB or higher (2 GB or higher for Microsoft® Windows® 8.1, Microsoft® Windows® 8, Microsoft® Windows® 7 64-bit edition) For Mac: 2 GB or more
Network function	10BASE-T or 100BASE-TX port × 1
Image display function	Resolution: 1024 × 768 pixels or more Color generation: True Color 24-bit or more
Supported operating system and Web browser	Windows Microsoft® Windows® 8.1 Pro 64-bit/32-bit *1 Windows® Internet Explorer® 11.0 Microsoft® Windows® 8 Pro 64-bit/32-bit *1 Windows® Internet Explorer® 10.0 *1 Microsoft® Windows® 7 Professional SP1 64-bit/32-bit *2 Windows® Internet Explorer® 8.0 / 9.0 / 10.0 / 11.0 *3
	Mac OS X v10.7 Safari 6.1.6 OS X v10.8 Safari 6.2 OS X v10.9 Safari 7.1
	iPhone / iPad / iPod touch iOS 7.1 Standard browser
	Android Android OS 4.3 Standard browser
Other	CD-ROM drive (for using the Operating Instructions and various software) Adobe® Reader® (for viewing the Operating Instructions on the CD-ROM)

*1: Use the desktop version of Internet Explorer. (Internet Explorer for Windows UI is not supported.)

*2: Windows® XP compatibility mode is not supported.

*3: The 64-bit version of Internet Explorer® is not supported.

IMPORTANT

- Failure to provide the required personal computer environment may slow down the delineation of the images on the screen, make it impossible for the web browser to work and cause other kinds of problems.

Memo

- Use the desktop version of Internet Explorer. (Internet Explorer for Windows UI is not supported.)
 - For the most recent information on compatible operating systems and web browsers, visit the support desk at the following web site.
<http://pro-av.panasonic.net/>
-

■ Disclaimer of warranty

IN NO EVENT SHALL Panasonic Corporation BE LIABLE TO ANY PARTY OR ANY PERSON, EXCEPT FOR REPLACEMENT OR REASONABLE MAINTENANCE OF THE PRODUCT, FOR THE CASES, INCLUDING BUT NOT LIMITED TO BELOW:

- ① ANY DAMAGE AND LOSS, INCLUDING WITHOUT LIMITATION, DIRECT OR INDIRECT, SPECIAL, CONSEQUENTIAL OR EXEMPLARY, ARISING OUT OF OR RELATING TO THE PRODUCT;
- ② PERSONAL INJURY OR ANY DAMAGE CAUSED BY INAPPROPRIATE USE OR NEGLIGENT OPERATION OF THE USER;
- ③ UNAUTHORIZED DISASSEMBLE, REPAIR OR MODIFICATION OF THE PRODUCT BY THE USER;
- ④ INCONVENIENCE OR ANY LOSS ARISING WHEN IMAGES ARE NOT DISPLAYED, DUE TO ANY REASON OR CAUSE INCLUDING ANY FAILURE OR PROBLEM OF THE PRODUCT;
- ⑤ ANY PROBLEM, CONSEQUENTIAL INCONVENIENCE, OR LOSS OR DAMAGE, ARISING OUT OF THE SYSTEM COMBINED BY THE DEVICES OF THIRD PARTY;
- ⑥ ANY DEMANDS FOR COMPENSATION, CLAIMS, ETC. OCCASIONED BY THE INFRINGEMENT OF PRIVACY BY INDIVIDUALS OR ORGANIZATIONS WHOSE IMAGES WERE SHOT BY THE USER BECAUSE THESE IMAGES (INCLUDING THE RECORDINGS MADE) WERE MADE AVAILABLE BY THE USER BECAUSE IN THE PUBLIC DOMAIN FOR SOME REASON OR OTHER OR BECAUSE THE IMAGES ENDED UP BEING USED FOR PURPOSES OTHER THAN THE ONE DESCRIBED ABOVE;
- ⑦ LOSS OF REGISTERED DATA CAUSED BY ANY FAILURE.

■ Network security

As you will use the unit connected to a network, your attention is called to the following security risks.

- ① Leakage or theft of information through the unit
- ② Use of the unit for illegal operations by persons with malicious intent
- ③ Interference with or stoppage of the unit by persons with malicious intent

It is your responsibility to take precautions such as those described below to protect yourself against the above network security risks.

- Use the unit in a network secured by a firewall, etc.
 - If the unit is connected to a network that includes personal computers, make sure that the system is not infected by computer viruses or other malicious entities (using a regularly updated antivirus program, anti-spyware program, etc.).
 - Protect your network against unauthorized access by restricting users to those who log in with an authorized user name and password.
 - After accessing the unit as an administrator, be sure to close all web browsers.
 - Change the administrator password periodically.
 - Restrict access to the unit by authenticating the users, for example, to prevent setting information stored on the unit from leaking over the network.
 - Do not install the camera in locations where the camera or the cables can be destroyed or damaged by persons with malicious intent.
 - Avoid connections that use public lines.
-

Memo

Concerning user authorization

User authentication on the unit can be performed via digest authentication or basic authentication. If basic authentication is used without using a dedicated line equipped with an authentication function, password leaks may occur.

Usage restrictions

Use of the same segment is recommended for the network in which the unit and the controller or personal computer are connected.

If the equipment uses connections with different segments, events based on the settings inherent to the network equipment, for instance, may occur so check this thoroughly prior to operation.

Basic shooting operations

1 Set the subject brightness to the appropriate level.

With the basic operations, it is assumed that the focus, iris and white balance will be adjusted automatically (as per the factory settings).

2 Turn on the power of all the units and devices in the system.

If the settings have already been changed and the original settings are to be restored, refer to the “What to do when encountering problems in the basic shooting operations” (page 12) and “Camera screen” (page 36) in “Camera menu items”.

3 Select the unit to be operated.

Even when using only one unit, it must still be selected from the wireless remote control or controller.

4 Select the shooting mode.

Select one of the four (Full Auto, Manual1, Manual2 and Manual3) preset shooting modes (scene files), each of which corresponds to a set of circumstances in which the subject will be shot.

Select the mode that satisfies the shooting conditions and suits your preferences.

When continuing to shoot in the same circumstances, there is no need to select another mode.

5 Start shooting. (After shooting, turn off the power of all the units and devices in the system.)

Note

- If “Full Auto” has been selected as the setting for Scene on the camera menu, for example, all the auto settings will be turned on, and manual operations will no longer be possible for some of the items.

How to turn the power on and off

■ Turning the power on

When performing the operations using the wireless remote control

When performing the operations using the controller

When using an AW-RP50, AW-RP120 or AK-HRP200:

Refer to the Operating Instructions of the controller.

1 Set all the power switches of the units and devices connected in the system to ON.

- The unit does not have a power switch.
When power is supplied to it, the status display lamp will light up orange.

2 Press one of the [CAM1] to [CAM4] buttons on the wireless remote control to select the unit.

3 Press the [ON/STANDBY] button on the wireless remote control for 2 seconds.

The POWER ON mode is established, images are output, and control can be exercised.

- The unit's status display lamp now lights up green.

Notes

- It takes about 30 seconds per unit for the initial settings operation to be completed. During this period, the unit cannot be operated.
- The unit stores its STANDBY / POWER ON mode status in the memory.
- If the power supply is cut off while the operation is in POWER ON mode, the operation will transferred to the POWER ON mode the next time power is supplied.
- **When transferring to the STANDBY mode**
(Status display lamp: Orange)
The pan/tilt position is stored in the memory, and the pan/tilt unit is moved so that it points backwards.
- **When transferring to the POWER ON mode**
(Status display lamp: Green (after the initial setting operation is completed))
The pan/tilt unit is moved to the position which was stored in the memory when the transition to the STANDBY mode was made.
- **POWER ON preset**
The pan/tilt unit is moved to the setting, which was established immediately prior to the transition to the STANDBY mode, when the power has been turned on.
- If the power is turned off without transferring to the STANDBY mode, the pan/tilt unit position will not be stored in the memory or reflected in the POWER ON preset. The previous POWER ON preset will be applied.

4 If a multiple number of units are going to be used, repeat steps 2 and 3 as required.

The unit's status display lamp blinks green when a signal matched by the remote control ID has been received, and it blinks orange when a signal that is not matched by the remote control ID has been received.

How to turn the power on and off (continued)

■ Turning the power off

When performing the operations using the wireless remote control

When performing the operations using the controller

When using an AW-RP50, AW-RP120 or AK-HRP200:

1 Press one of the [CAM1] to [CAM4] buttons on the wireless remote control to select the unit.

Refer to the Operating Instructions of the controller.

2 Press the [ON/STANDBY] button on the wireless remote control for 2 seconds.

The unit enters STANDBY mode.

- The unit's status display lamp now lights up orange.

3 If a multiple number of units are used, repeat steps 1 and 2 as required.

4 Set all the power switches of the units and devices connected in the system to OFF.

Notes

- **When transferring to the STANDBY mode**
(Status display lamp: Orange)
The pan/tilt position is stored in the memory, and the pan/tilt unit is moved so that it points backwards.
- **When transferring to the POWER ON mode**
(Status display lamp: Green (after the initial setting operation is completed))
The pan/tilt unit is moved to the position which was stored in the memory when the transition to the STANDBY mode was made.
- **POWER ON preset**
The pan/tilt unit is moved to the setting, which was established immediately prior to the transition to the STANDBY mode, when the power has been turned on.
- If the power is turned off without transferring to the STANDBY mode, the pan/tilt unit position will not be stored in the memory or reflected in the POWER ON preset. The previous POWER ON preset will be applied.

Selecting the units

When performing the operations using the wireless remote control

1 Press the [CAM1], [CAM2], [CAM3] or [CAM4] button.

The unit's status display lamp blinks green when a signal matched by the remote control ID has been received, and it blinks orange when a signal that is not matched by the remote control ID has been received.

When performing the operations using the controller

When using an AW-RP50, AW-RP120 or AK-HRP200:

Refer to the Operating Instructions of the controller.

Selecting the shooting modes (scene files)

■ Types of shooting modes

The unit has four preset shooting modes, each of which corresponds to a set of circumstances in which the subject will be shot.

Select the mode that satisfies the shooting conditions and suits your preferences.

The settings can be changed by menu operations.

- The results of the white balance and other adjustments are stored in the memory separately by shooting mode. Be absolutely sure to select the shooting mode before making any adjustments.

Note

- If "Full Auto" has been selected as the setting for Scene on the camera menu, for example, all the auto settings will be turned on, and manual operations will no longer be possible for some of the items.

Full Auto

Adjust the shutter speed, aperture, and white balance automatically.

Manual1

The settings of your preferences can be established in line with the shooting scene, lighting and other conditions.

Manual2

The settings of your preferences can be established in line with the shooting scene, lighting and other conditions.

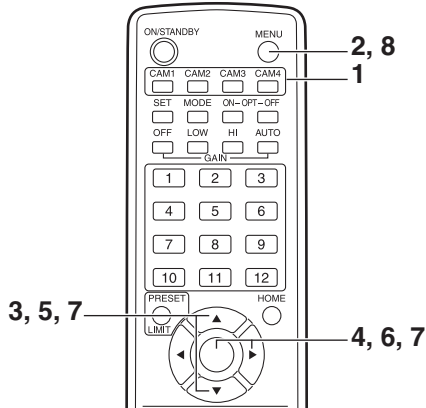
Manual3

The settings of your preferences can be established in line with the shooting scene, lighting and other conditions.

Selecting the shooting modes (scene files) (continued)

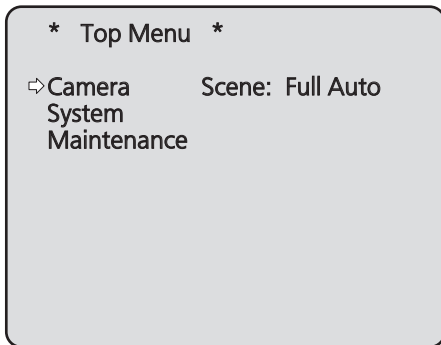
How to select the shooting mode

When performing the operations using the wireless remote control



1 Press the [CAM1], [CAM2], [CAM3] or [CAM4] button to select the unit.

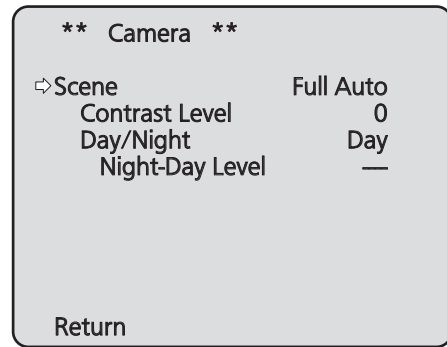
2 Press the [MENU] button for 2 seconds.
The Top Menu is displayed.



3 Press the [▲] or [▼] button to bring the cursor to "Camera".

4 Press the [○] button.

The "Camera" sub-menu is displayed on the monitor.



5 Press the [▲] or [▼] button to bring the cursor to "Scene".

6 Press the [○] button.

The shooting mode blinks.

7 Press the [▲] or [▼] button to select the shooting mode (Full Auto, Manual1, Manual2 or Manual3) to be used, and press the [○] button to enter the selection.

8 Press the [MENU] button for 2 seconds.

The camera menu display is exited.

When performing the operations using the controller

When using an AW-RP50, AW-RP120 or AK-HRP200:

Refer to the Operating Instructions of the controller.

Shooting

When performing the operations using the wireless remote control

● Changing the camera's direction

Moving the camera toward the left or right (panning):
Press the [◀] or [▶] button.

Moving the camera up or down (tilting):
Press the [▲] or [▼] button.

Moving the camera diagonally:
Press the [▲] or [▼] button and [◀] or [▶] button at the same time.

Returning the camera to the reference position:
Press the [HOME] button for 2 seconds.

● Using the zoom function

Zooming in (the subject becomes magnified in size):
Press the [T] button of [ZOOM].

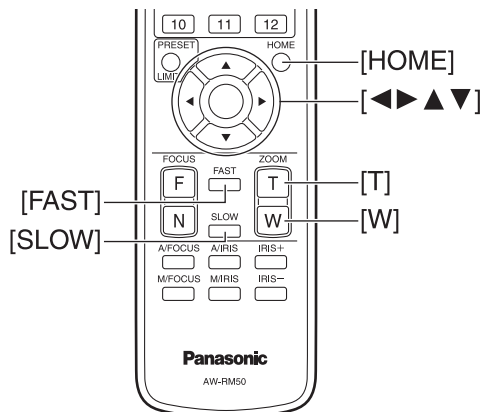
Zooming out (the subject becomes reduced in size):
Press the [W] button of [ZOOM].

● Switching the direction or zoom speed

Changing the direction or zoom at high speed:
Press the [FAST] button.
When this button is held down, the speed can be set to an even higher speed.
When it is tapped, the normal speed (high speed) is restored.

Changing the direction or zoom at low speed:
Press the [SLOW] button.
When this button is held down, the speed can be set to an even lower speed.
When it is tapped, the normal speed (low speed) is restored.

The lens focus control speed is also changed at the same time.



When performing the operations using the controller

● Changing the camera's direction

Moving the camera toward the left or right (panning):
Tilt the [PAN/TILT] lever toward L or R.

Moving the camera up or down (tilting):
Tilt the [PAN/TILT] lever toward UP or DOWN.

Moving the camera diagonally:
Tilt the [PAN/TILT] lever diagonally.

Returning the camera to the reference position:
If the controller has a [HOME] button, press the [HOME] button.

● Using the zoom function

Zooming in (the subject becomes magnified in size):
Tilt the [ZOOM] lever toward the TELE direction.

Zooming out (the subject becomes reduced in size):
Tilt the [ZOOM] lever toward the WIDE direction.

● Changing the pan/tilt direction and zoom speed

When using an AW-RP50, AW-RP120 or AK-HRP200:

Refer to the Operating Instructions of the controller.

What to do when encountering problems in the basic shooting operations

If the trouble is not resolved by taking the action suggested below, refer to “Troubleshooting” (page 47 in the <Basics>).

When performing the operations using the wireless remote control

The unit does not move.

- Press the [CAM1], [CAM2], [CAM3] or [CAM4] button to select the unit which is to be operated.
If only one unit is being used, it is normally selected using the [CAM1] button.
- Check that the IR ID has been set correctly. (Refer to pages 47 and 77.)
- If the unit’s status display lamp is off or lights up orange, it means that the unit’s power is not on.
Refer to “Turning the power on” (page 7), and turn on the power.
- If the unit’s status display lamp does not blink even when the wireless remote control is operated near the unit’s wireless remote control signal light-sensing area, it means that the wireless remote control’s batteries have run down.
Replace the batteries.

Multiple color bands (color bars) are displayed.

Press the [MODE] button to switch to the camera picture.

The menu screen is displayed.

Press the [MENU] button for 2 seconds to exit the camera menu.

The lens focus is not adjusted automatically.

Press the [A/FOCUS] button to switch to auto focusing.

The camera picture is too light or too dark.

1. Press the [A/IRIS] button to switch the lens iris adjustment to auto.
2. Press the [AUTO] button of [GAIN] to switch the gain adjustment to auto.

Something is wrong with the coloring of the camera pictures.

Refer to “Auto tracking white adjustment (ATW)” (page 19), and switch to “ATW”.

When performing the operations using the controller

The unit does not move.

- Select the unit to be operated by following the procedure below.

When using an AW-RP50, AW-RP120 or AK-HRP200:

Refer to the Operating Instructions of the controller.

- If the unit’s status display lamp is off or lights up orange, it means that the unit’s power is not on.
Refer to “Turning the power on” (page 7), and turn on the power.

Multiple color bands (color bars) are displayed.

Press the [BARS] button to switch to the camera picture.

The menu screen is displayed.

Press the [CAMERA OSD] button to exit the camera menu.

The lens focus is not adjusted automatically.

Press the [AUTO] button for focus control to switch to auto focusing.

The camera picture is too light or too dark.

- Press the [AUTO] button for IRIS to switch to auto lens iris adjustment.
- Press the [AUTO] button for GAIN to switch to auto gain adjustment.

Something is wrong with the coloring of the camera pictures.

Refer to “Auto tracking white adjustment (ATW)” (page 19), and switch to “ATW”.

More advanced operations

Manual shooting (see pages 14 to 15)

- Manual adjustment of focus
- Manual adjustment of iris
- Manual adjustment of shutter speed
- Manual adjustment of gain

Black level (master pedestal) adjustment (see page 21)

- This adjustment is performed to align the black level (pedestal level) of a multiple number of cameras.

Preset memories (see page 16)

- Up to 100 settings for the camera direction (panning and tilting), zoom, focus, iris, gain up and white balance can be registered in the preset memories, and called.
- The number of settings that can be registered and called depends on the type of wireless remote control (12 settings) or controller that is used for operation.

White balance adjustment (see pages 17 to 20)

- This adjustment is performed to express the white accurately. Its setting also has an effect on the color tones of the entire screen.
- It must be performed when using the unit for the first time or when the unit has not been used for a prolonged period.
- It must be performed when the lighting conditions or brightness has changed.
- Once the white balance has been attained, no further adjustment is required provided that the unit is going to be used under the same conditions.

Manual shooting

■ Manually adjusting the focus

The lens focus can be adjusted manually.

When performing the operations using the wireless remote control

- 1 Press the [M/FOCUS] button to switch the focus to manual adjustment.
- 2 Press the [F] or [N] button of [FOCUS] to adjust the focus.
When the [F] button is pressed, the focus moves further away (far); conversely, when the [N] button is pressed, it moves nearer (near).
The speed of focusing and other adjustments can be switched to fast or slow by pressing the [FAST] or [SLOW] button, respectively.
- 3 If necessary, press the [A/FOCUS] button to return the focus to the automatic adjustment.

When performing the operations using the controller

When using an AW-RP50, AW-RP120 or AK-HRP200:

Refer to the Operating Instructions of the controller.

Note

- When the focus is set to manual, the subject may go out of focus during panning, tilting and zooming. Therefore, the unit comes with a function which compensates for this. (Focus compensation during zooming function: Focus ADJ With PTZ.) (See page 46 and page 76.)

■ Manually adjusting the iris

The lens iris can be adjusted manually.

When performing the operations using the wireless remote control

- 1 Press the [M/IRIS] button to switch the iris to manual adjustment.
- 2 Adjust the iris using the [IRIS +] or [IRIS -] button.
Press the [IRIS +] button to adjust the lens iris in the opening direction; conversely, press the [IRIS -] button to adjust the lens iris in the closing direction.
- 3 If necessary, press the [A/IRIS] button to return the iris to the automatic adjustment.

When performing the operations using the controller

When using an AW-RP50, AW-RP120 or AK-HRP200:

Refer to the Operating Instructions of the controller.

Memo

- In Night mode, the iris is set to open as a measure to prevent video spying.
Adjust the brightness at the light source.
-

Manual shooting (continued)

Manually adjusting the shutter speed

The shutter speed can be set using two methods. One is a method that specifies the time (where a time such as 1/250 sec. is designated), and the other is a method that specifies the frequency (where synchro scan, 60.15 Hz, etc. is designated).

When shooting a TV screen or PC monitor screen, the horizontal noise generated when the screen is shot can be minimized by adjusting the frequency to the screen frequency using synchro scan.

Note

- The shutter speed cannot be adjusted manually when HDR is set to "Low" or "High". (For details, refer to page 40.)

When performing the operations using the wireless remote control

Perform the adjustments on the Camera menu. For further details, refer to the [Shutter Mode] and [Step/Synchro] items on page 37.

When performing the operations using the controller

Note

- When the following settings are made on the AW-HE40, the shutter speed cannot be manually adjusted (as the camera is locked in auto mode).
 - Shooting mode (Scene) is in "Full Auto" (For details, refer to pages 9 to 10.)
 - Contrast Mode is in "Auto" (For details, refer to pages 37 and 65.)

When using an AW-RP50, AW-RP120 or AK-HRP200:

For details, refer to the operating instructions supplied with the controller.

Manually adjusting the gain

There are two ways to adjust the gain. One way involves using the buttons on the wireless remote control or controller; the other way involves using the Camera menu or Web setting.

The gain can be adjusted more precisely using the Camera menu or Web setting.

For further details, refer to the [Gain] item on page 37 and page 66.

Notes

- When Shooting mode (Scene) on the AW-HE40 is set to "Full Auto", the gain cannot be manually adjusted (as the camera is locked in auto mode). For details, refer to "Selecting the shooting modes (scene files)" (pages 9 to 10).
- The gain cannot be adjusted manually when HDR is set to "Low" or "High". (For details, refer to page 40.)
- When adjusting the gain, the light quantity may change suddenly (causing the image output to be subjected to a shock).

When performing the operations using the wireless remote control

1 Press the [OFF], [LOW] or [HI] button.

These buttons enable the gain increase to be selected in three steps.

[OFF] is set to 0 dB, [LOW] is set to 9 dB, and [HI] is set to 18 dB.

2 If necessary, press the [AUTO] button in order to return the gain to the automatic adjustment (AGC).

When performing the operations using the controller

When using an AW-RP50, AW-RP120 or AK-HRP200:

Refer to the Operating Instructions of the controller.

In any case, the maximum gain of the automatic adjustment can be set by the camera menu or Web setting. For further details, refer to the [AGC Max Gain] item on page 37 and page 66.

Preset memories

The unit enables up to 100 settings for the camera direction (panning and tilting), zoom, focus, iris, gain and white balance to be registered in its preset memories, and called. However, the number of settings that can be registered and called depends on the type of wireless remote control or controller that is used for operation.

- The focus and iris operating modes (manual and auto settings) are not registered. The current focus and iris values are registered.
- The focus and iris values can be recalled only when the manual settings are applicable.
- AWB A, AWB B, ATW, 3200K, 5600K or VAR is registered as the white balance setting. The values selected when AWB was established are recalled as the adjustment values of AWB A or AWB B.

Notes

- When there is a large difference in the environmental temperature between the time of registration and the time the setting is called, displacement of the preset position may occur.
- When recalling a preset with a different image stabilization setting from when the preset was registered, displacement in the zoom position may occur.
- If displacement occurs, perform registration again.
- Manual operations, such as pan, tilt, zoom, and iris control, can be performed while the recalling of a preset is in progress. However, the preset actions will be canceled.
- If a preset is recalled while the recalling of another preset is in progress, the current preset actions are canceled, and the newly selected preset is recalled.
- Nothing will occur if a preset memory number to which a preset has not been registered is recalled.

When performing the operations using the wireless remote control

Twelve settings (preset No.1 to No.12) can be registered and called using the wireless remote control. The [1] to [12] buttons correspond to the unit's preset memories No.1 to No.12.

● Registering the settings in the preset memories

1 Display the picture to be shot on the monitor.

Operate the pan, tilt or zoom buttons to determine the camera angle.

Adjust the focus, iris, gain and white balance if they need to be adjusted.

2 While holding down the [PRESET] button, press the button corresponding to the preset memory number.

- If a preset memory number with an already registered setting has been selected, the existing setting will be erased and replaced with the new one.

● Calling the settings of the preset memories

1 Press the button in which the preset memory setting has been registered.

When performing the operations using the controller

When using an AW-RP50 or AW-RP120:

Up to 100 entries can be registered/recalled. For details, refer to the operating instructions for the controller.

White balance adjustment

■ White balance adjustment

In order for the white to be reproduced accurately, the ratio between the three primary colors (RGB) is adjusted. If the white balance has shifted out of adjustment, not only will the white be reproduced poorly but the color tones of the entire screen will also be degraded.

- **This adjustment must be performed when using the unit for the first time or when the unit has not been used for a prolonged period.**
- **It must be performed when the lighting conditions or brightness has changed.**

As the type of adjustment used, AWB (automatic white balance adjustment) which is used to adjust the white balance when the [AWB] button on the controller is pressed, ATW (automatic tracking white balance adjustment) which is used to keep adjusting the white balance at all times, or manual adjustment can be selected.

The results of the AWB adjustment can be stored in two memories, A and B, when “AWB A” or “AWB B” has been selected for the white balance.

- Once the white balance values have been adjusted, their setup procedure will be completed simply by selecting them using the camera menus or web settings, or by pressing the buttons on the controller, provided that they are going to be used under the same conditions as the ones established when the values were set.
There is no need to set it again.
- Once a new setting is entered, the previous setting will be erased.

Use the two memories to store settings corresponding to different shooting conditions.

Note

- When Shooting mode (Scene) on the AW-HE40 is set to “Full Auto”, the white balance cannot be manually adjusted (ATW mode is activated).
For details, refer to “Selecting the shooting modes (scene files)” (pages 9 to 10).

● Automatic adjustment (AWB: AWB A or AWB B)

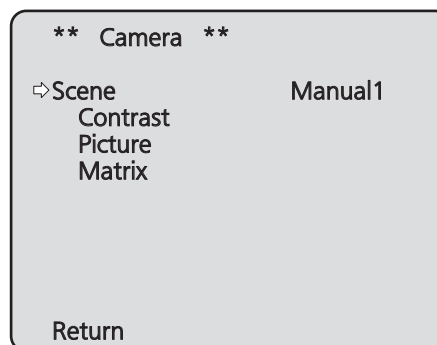
When performing the operations
using the wireless remote control

1 Shoot a white subject (such as a white wall or handkerchief) so that it fills the screen.

- Do not shoot shiny or very bright objects.

- Steps **2** through **8** represent the procedure for selecting the “AWB A” or “AWB B” memory. They need not be taken if a selection has already been made.

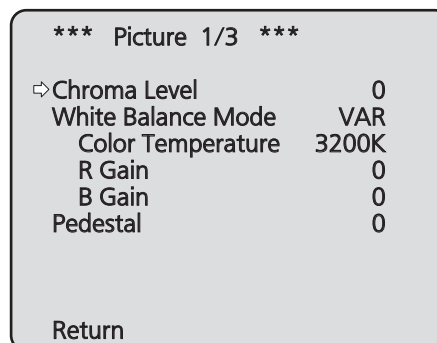
2 Select Manual1, Manual2 or Manual3 as the shooting mode by following the procedure in “Selecting the shooting modes (scene files)” (page 10).



3 Press the [▲] or [▼] button to bring the cursor to “Picture”.

4 Press the [○] button.

The “Picture 1/3” sub-menu is displayed.



White balance adjustment (continued)

5 Press the [▲] or [▼] button to bring the cursor to “White Balance Mode”.

6 Press the [○] button.

“White Balance Mode” starts blinking.

7 Press the [▲] or [▼] button to change the White Balance Mode to be used to “AWB A” or “AWB B”, and press the [○] button to enter the selection.

8 Press the [MENU] button for 2 seconds.

The camera menu display is exited.

9 Press the [SET] button for 2 seconds.

The auto white balance adjustment (AWB) is performed, and the white balance setting is entered.

- When the white balance adjustment is completed successfully, “AWB OK” appears in the center of the screen.

However, this does not appear when “OSD Status” is set to “Off” in the camera menu.



Notes

- The white balance cannot be adjusted when color bars are displayed. Press the [MODE] button to switch to the camera picture.
- When the adjustment has failed, an error message such as “OUT RANGE NG”, “HIGH LIGHT NG”, “LOW LIGHT NG”, “ATW NG”, “3200K NG”, “5600K NG” or “VAR NG” is displayed.
However, this does not appear when “OSD Status” is set to “Off” in the camera menu.
- In Night mode (pages 36 and 38), the white balance adjustment cannot be used.

When performing the operations using the controller

When using an AW-RP50, AW-RP120 or AK-HRP200:

Refer to the Operating Instructions of the controller.

Notes

- White balance may not be correctly set if the lighting of the object is too weak.
- Since the unit has a built-in memory, the set white balance will remain in the memory even if power is turned off. Therefore, it is not necessary to reset the white balance if the color temperature of those objects remains unchanged. However, it must be reset if the color temperature changes, such as when you move from indoors to outside, or vice versa.

White balance adjustment (continued)

● Auto tracking white adjustment (ATW)

When white balance adjustment is set to "ATW", the white balance will be corrected automatically, even if the light source or color temperature changes.

This function works when "ATW" is selected instead of "AWB A" or "AWB B" by following the steps for "Automatic adjustment" in "White balance adjustment" (page 17).

Notes

- ATW might not function properly when high brightness light (ex. fluorescent lamp) beams into a screen.
- White balance may not be accurately set if there is no white object in the scene being shot.
- The white balance may shift out of adjustment when a different kind of light source such as sunlight or fluorescent lighting applies.
- When switching from Night mode to Day mode, the white balance may shift out of adjustment.

● 3200K and 5600K presets

When "3200K" or "5600K" is selected for the white balance, the white balance is set using a color temperature of 3200K (equivalent to halogen light) or 5600K (equivalent to daylight), respectively.

This function works when "3200K" or "5600K" is selected instead of "AWB A" or "AWB B" in the "Automatic adjustment" procedure in "White balance adjustment" (page 17).

- From the controller, this operation can only be performed using the menu displays. See "Basic operations" (page 22).

● Color temperature adjustment (VAR)

When "VAR" is selected for the white balance, you can select a color temperature between 2400K to 9900K.

Note

- The displayed "VAR" value does not guarantee an absolute value.
Use the value as a reference.

White balance adjustment (continued)

● Manual adjustment (R gain and B gain adjustment)

White balance can be adjusted manually.

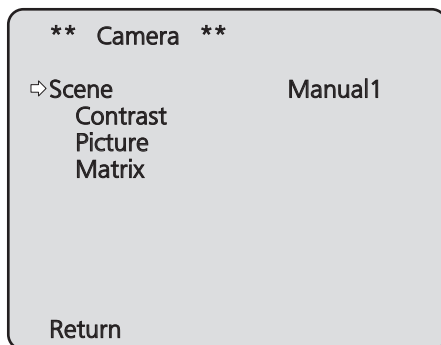
Note

- R/B gain adjustments can only be performed when White Balance Mode is set to “AWB A”, “AWB B” or “VAR”.

When performing the operations using the wireless remote control

- Steps 1 through 6 represent the procedure for selecting the “AWB A”, “AWB B” or “VAR” memory. They need not be taken if a selection has already been made.

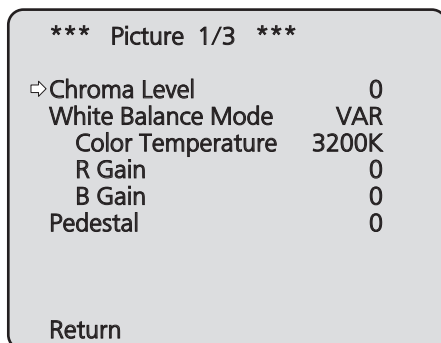
- 1 Select Manual1, Manual2 or Manual3 as the shooting mode by following the procedure in “Selecting the shooting modes (scene files)” (page 10).



- 2 Press the [▲] or [▼] button to bring the cursor to “Picture”.

- 3 Press the [○] button.

The “Picture 1/3” sub-menu is displayed.



- 4 Press the [▲] or [▼] button to bring the cursor to “White Balance Mode”.

- 5 Press the [○] button.

“White Balance Mode” starts blinking.

- 6 Press the [▲] or [▼] button to change the White Balance Mode to “AWB A”, “AWB B” or “VAR”, and press the [○] button to confirm the selection.

- 7 Press the [▲] or [▼] button to bring the cursor to “R Gain” or “B Gain.”

- 8 Press the [○] button to make the “R Gain” or “B Gain” value blink.

- 9 Press the [▲] or [▼] button to change the “R Gain” or “B Gain” numerical value, and press the [○] button to enter the setting.

When performing the operations using the controller

When using an AW-RP50, AW-RP120 or AK-HRP200:

Refer to the Operating Instructions of the controller.

Black level (master pedestal) adjustment

■ Black level (master pedestal) adjustment

The black level can be adjusted when using a multiple number of cameras including the unit. Ask your dealer to perform this adjustment.

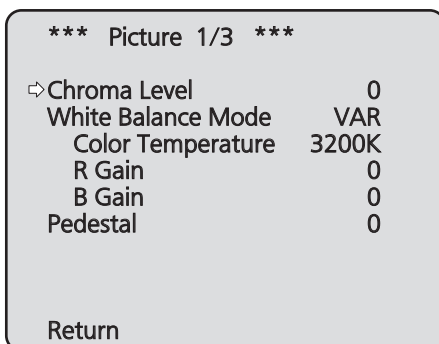
(Use an oscilloscope or waveform monitor for the adjustment.)

Adjust the black level in accordance with the units and devices used.

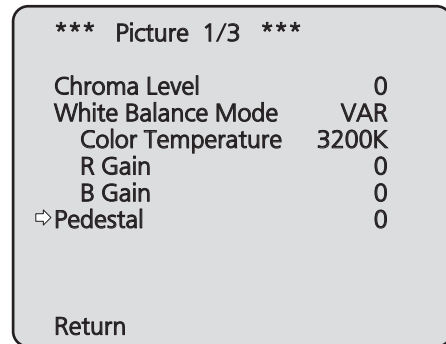
The black level can be adjusted only when Manual1, Manual2 or Manual3 is selected as the shooting mode (scene file).

When performing the operations using the wireless remote control

- 1 Press the [M/IRIS] button.**
Set the iris to the manual mode.
- 2 Press the [IRIS -] button.**
The lens iris closes until the image is completely black.
- 3 Select Manual1, Manual2 or Manual3 by following the procedure in “How to select the shooting mode” (page 10) under “Selecting the shooting modes (scene files)”.**
- 4 Press the [▲] or [▼] button to bring the cursor to “Picture”.**
- 5 Press the [○] button.**
The “Picture 1/3” sub-menu is displayed.



- 6 Press the [▲] or [▼] button, and bring the cursor to “Pedestal”.**



- 7 Press the [○] button to start the “Pedestal” value blinking.**
- 8 Press the [▲] or [▼] button, change the “Pedestal” value, and press the [○] button to enter the selection.**
- 9 Press the [MENU] button for 2 seconds.**
The camera menu display is exited.
- 10 If necessary, press the [A/IRIS] button to adjust the iris automatically.**

When performing the operations using the controller

When using an AW-RP50, AW-RP120 or AK-HRP200:

Refer to the Operating Instructions of the controller.

Basic operations

Camera menus are displayed on the monitor when the unit's settings are to be selected.

The monitor is connected to the video signal output connector.

The basic camera menu operations involve displaying sub-menus from the Top Menu items, and selecting settings on the sub-menus.

Some sub-menus have menu items for performing more detailed settings.

The camera menu operations are conducted using the wireless remote control.

If a controller is connected, they can also be conducted using the controller.

Only the steps taken using the wireless remote control will be described here for the operations conducted to select and set the items. For details of the operations conducted using the controller, substitute "controller" for "wireless remote control" when reading the basic operations. Also, refer to the Operating Instructions of the controller.

Note

- Check that your controller is the following version.
 AW-RP50: Ver 3.10.00 or later
 AW-RP120: Ver 2.10.00 or later
 AK-HRP200: Ver 4.10-00-0.00 or later
 If the version older, an upgrade is required.
 For details on upgrading, visit the support page on the following website.
<http://pro-av.panasonic.net/>

Described below are the basic operations for changing the camera menu item settings using the wireless remote control and controller (AW-RP50, AW-RP120 or AK-HRP200).

Table of operations

Camera menu operation	Wireless remote control	Controller		
		AW-RP50	AW-RP120	AK-HRP200
Selecting the unit to be operated	Press the [CAM1], [CAM2], [CAM3] or [CAM4] button.	Press one of the [CAMERA STATUS/SELECTION] buttons.		1. Press and hold the [SELECT] button for about 2 seconds. → The camera number in the camera number display area blinks. 2. Press the lit [UP]/[DOWN] button. → Press the lit [UP]/[DOWN] button to select the camera number. 3. Press the [SELECT] button. → Control of the selected camera is enabled.
Displaying the Top Menu	Press the [MENU] button for 2 seconds.	Press the [CAMERA OSD] button for 2 seconds.		Press and hold the [CHARA/MENU] button for about 2 seconds.
Selecting the items	Press the [▲] or [▼] ([◀] or [▶]) button.	Turn the F1 dial.		Turn the SELECT dial.
Displaying the sub-menus	Press the [○] button.	Press the F1 dial.		Press the SELECT dial.
Returning to the previous menu	With the cursor at the "Return" position, press the [○] button.	With the cursor at the "Return" position, press the F1 dial.		With the cursor at the "Return" position, press the SELECT dial.
Changing the settings	With the cursor at the item to be changed, press the [○] button to start the item's value blinking. Use the [▲], [▼], [◀] and [▶] buttons to change the value, and press the [○] button to enter the change.	1. Press the F1 dial to start the setting blinking. 2. Turn the F1 dial to change the setting. 3. Press the F1 dial to enter the setting (and stop the blinking).		1. Press the SELECT dial to start the setting blinking. 2. Turn the SELECT dial to change the setting. 3. Press the SELECT dial to enter the setting (and stop the blinking).
Canceling the setting change	While the setting is blinking, press the [MENU] button quickly (for less than 2 seconds).		—	—

Basic operations (continued)

Camera menu operation	Wireless remote control	Controller		
		AW-RP50	AW-RP120	AK-HRP200
Exiting the camera menu operations	Press the [MENU] button for 2 seconds.	Press the [CAMERA OSD] button for 2 seconds.	Press and hold the [CHARA/MENU] button for about 2 seconds.	

Notes

- Perform the menu operations and exit from the menus using the controller which displayed the Top Menu.
If a menu operation has been performed or a menu has been exited using another controller, first display the Top Menu and exit from it using one controller, and then display the Top Menu and exit from it using the other controller.
- The unit uses a different method to operate its menus from the one employed by the convertible cameras and HD integrated cameras which have already been launched onto the market.
For details, refer to the Operating Instructions of the camera concerned.
- The response speed of the camera differs slightly depending on the controller used.

Basic operations (continued)

■ When performing the operations using the wireless remote control

1 Press the [CAM1], [CAM2], [CAM3] or [CAM4] button to select the unit which is to be operated.

2 Press the [MENU] button for 2 seconds.
The Top Menu is displayed.

3 Press the [▲] or [▼] button to bring the cursor to the item to be selected.
Each time the [▲] or [▼] button is pressed, the cursor moves.
The cursor can be moved in the same way using the [◀] and [▶] buttons.

4 Press the [○] button.
The sub-menu of the selected item is displayed.
(Some sub-menu items have a sub-menu of their own.)

5 Press the [▲] or [▼] button to bring the cursor to the item to be set.
Each time the [▲] or [▼] button is pressed, the cursor moves.
The cursor can be moved in the same way using the [◀] and [▶] buttons.
With the cursor at the "Return" position, press the [○] button to return to the previous menu.

6 Press the [○] button.
The value of the item to be set starts blinking.

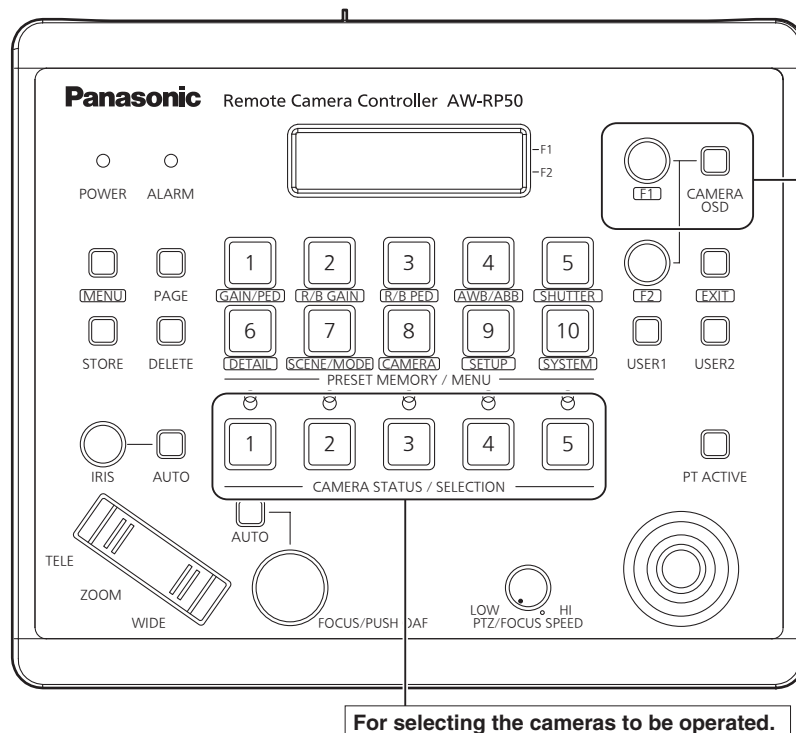
7 Press the [▲] or [▼] button to change the setting.
The setting can be changed in the same way using the [◀] and [▶] buttons.

8 Press the [○] button.
The value of the item to be set is entered, and it stops blinking.

9 After the setting has been completed, press the [MENU] button for 2 seconds.
The camera menu display is exited.

Basic operations (continued)

■ Operations on the AW-RP50 Remote Camera Controller



For operating the camera menu.

CAMERA OSD:

When this is pressed for 2 seconds, the selected camera menu is displayed, overlapping the camera output image. When it is pressed for 2 seconds while a camera menu is displayed, the menu is exited.

F1:

Turn F1 to move the cursor up and down in the camera menu or to change setting values. Press F1 to move to the next level of a menu item or to change a setting value at the lowest level.

For selecting the cameras to be operated.

● Camera menu operation

- 1 Press the appropriate [CAMERA STATUS/ SELECTION] button to select the unit you want to operate.**
- 2 Press and hold the [CAMERA OSD] button on the AW-RP50 for about 2 seconds.**
The AW-HE40 camera menu appears on the monitor.
- 3 Turn the F1 dial to select an AW-HE40 camera menu item or to change a setting value.**
Turn the F1 dial to move the cursor up and down or to change setting values.
Press the F1 dial to move to the next level of a menu item or to change a setting value at the lowest level.
- 4 To exit the camera menu, press and hold the [CAMERA OSD] button for about 2 seconds.**

● Switching between Day and Night mode

- 1 Press the [MENU] button on the AW-RP50.**
The [MENU] button lights, and the [PRESET MEMORY/ MENU] buttons become selectable.
- 2 Press the [9 (SETUP)] button in the [PRESET MEMORY/MENU] area.**
The button lights, and the SETUP menu appears on the LCD panel.
- 3 Turn the F1 dial to select "FUNCTION", then press the F1 dial.**
- 4 Turn the F1 dial to select "OPTION".**
"Off" or "On" appears on the bottom right (F2 area) of the LCD panel.
- 5 Turn the F2 dial to select "Off" or "On", then press the F2 dial.**
Off: Day mode
On: Night mode
 - Auto mode cannot be specified with this operation.

Basic operations (continued)

● Color temperature setting (COLOR TEMP)

- 1 Press the [MENU] button on the AW-RP50.**
The [MENU] button lights, and the [PRESET MEMORY/MENU] buttons become selectable.
- 2 Press the [4 (AWB/ABB)] button in the [PRESET MEMORY/MENU] area.**
The button lights, and the AWB/ABB menu appears on the LCD panel.
- 3 Turn the F1 dial to select “VAR”.**
Color temperature configuration is enabled when “VAR” is selected, and it is initially set to the color temperature held on the camera.
To adjust the setting, proceed to the following.
- 4 Press the [8 (CAMERA)] button in the [PRESET MEMORY/MENU] area.**
The button lights, and the GROUP menu appears on the LCD panel.
- 5 Turn the F1 dial to select “COLOR TEMP”, then press the F1 dial.**
The color temperature appears on the bottom right (F2 area) of the LCD panel.
- 6 Turn the F2 dial to select the color temperature, then press the F2 dial.**

● Preset speed table setting (PRESET SPEED)

- 1 Press the [MENU] button on the AW-RP50.**
The [MENU] button lights, and the [PRESET MEMORY/MENU] buttons become selectable.
- 2 Press the [9 (SETUP)] button in the [PRESET MEMORY/MENU] area.**
The button lights, and the SETUP menu appears on the LCD panel.
- 3 Turn the F1 dial to select “PRESET”, then press the F1 dial.**
- 4 Turn the F1 dial to select “PRESET SPEED”, then press the F1 dial.**
“Slow” or “Fast” appears on the bottom right (F2 area) of the LCD panel.
- 5 Turn the F2 dial to select “Slow” or “Fast”, then press the F2 dial.**

Basic operations (continued)

● Freezing images during preset playback (FREEZE DURING)

- 1 Press the [MENU] button on the AW-RP50.**
The [MENU] button lights, and the [PRESET MEMORY/MENU] buttons become selectable.
- 2 Press the [9 (SETUP)] button in the [PRESET MEMORY/MENU] area.**
The button lights, and the SETUP menu appears on the LCD panel.
- 3 Turn the F1 dial to select “FUNCTION”, then press the F1 dial.**
- 4 Turn the F1 dial to select “FREEZE DURING”, then press the F1 dial.**
“Off” or “On” appears on the bottom right (F2 area) of the LCD panel.
- 5 Turn the F2 dial to select “Off” or “On”, then press the F2 dial.**
Off: Do not freeze the current preset playback images.
On: Freeze the current preset playback images.

● Digital image stabilization function setting

- 1 Press the [MENU] button on the AW-RP50.**
The [MENU] button lights, and the [PRESET MEMORY/MENU] buttons become selectable.
- 2 Press the [9 (SETUP)] button in the [PRESET MEMORY/MENU] area.**
The button lights, and the SETUP menu appears on the LCD panel.
- 3 Turn the F1 dial to select “FUNCTION”, then press the F1 dial.**
- 4 Turn the F1 dial to select “I.S.”, then press the F1 dial.**
“Off” or “On” appears on the bottom right (F2 area) of the LCD panel.
- 5 Turn the F2 dial to select “Off” or “On”, then press the F2 dial.**
Off: Turn the digital image stabilization function off.
On: Turn the digital image stabilization function on.

Basic operations (continued)

● Digital extender (D.EXTENDER) function setting

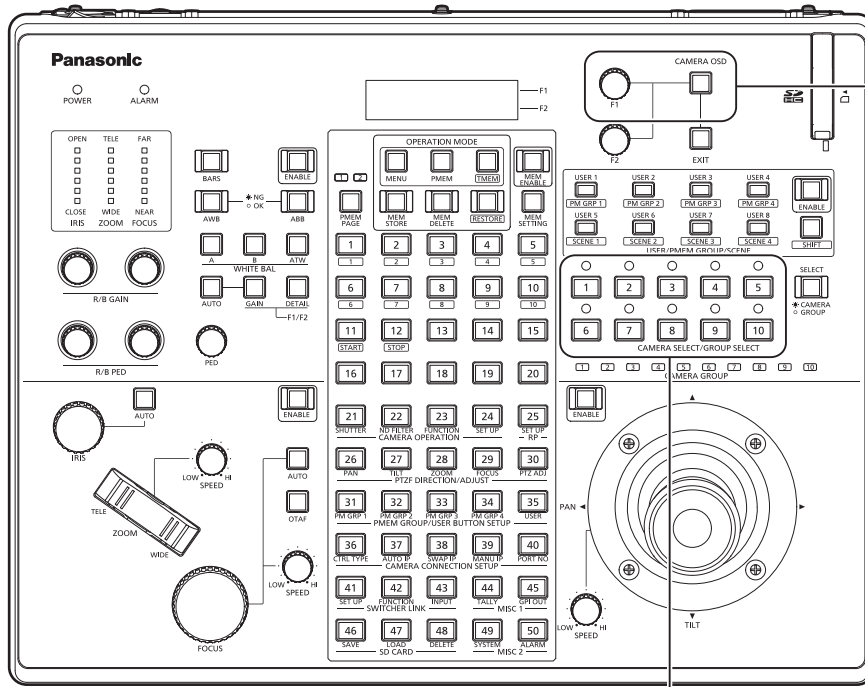
- 1 Press the [MENU] button on the AW-RP50.**
The [MENU] button lights, and the [PRESET MEMORY/MENU] buttons become selectable.
- 2 Press the [9 (SETUP)] button in the [PRESET MEMORY/MENU] area.**
The button lights, and the SETUP menu appears on the LCD panel.
- 3 Turn the F1 dial to select “FUNCTION”, then press the F1 dial.**
- 4 Turn the F1 dial to select “D. EXTENDER”, then press the F1 dial.**
“Off” or “On” appears on the bottom right (F2 area) of the LCD panel.
- 5 Turn the F2 dial to select “Off” or “On”, then press the F2 dial.**
Off: Turn the digital extender function off.
On: Turn the digital extender function on.

● Assigning [FREEZE DURING], [COLOR TEMP] and [DIGITAL EXTENDER] to the [USER] buttons

You can assign the on/off functions for freezing images during preset playback (FREEZE DURING), color temperature settings (COLOR TEMP) and digital extender function (DIGITAL EXTENDER) to the [USER] buttons.

- 1 Press the [MENU] button on the AW-RP50.**
The [MENU] button lights, and the [PRESET MEMORY/MENU] buttons become selectable.
- 2 Press the [9 (SETUP)] button in the [PRESET MEMORY/MENU] area.**
The button lights, and the SETUP menu appears on the LCD panel.
- 3 Turn the F1 dial to select “USER1” or “USER2”, then press the F1 dial.**
The functions that can be assigned to the [USER] button appear on the bottom right (F2 area) of the LCD panel.
- 4 Turn the F2 dial to select “FREEZE DURING”, “COLOR TEMP” or “D.EXT” then press the F2 dial.**
FREEZE DURING:
Function that freezes the current preset playback images.
COLOR TEMP:
Color temperature settings
D. EXT:
Digital extender function

Operations on the AW-RP120 Remote Camera Controller



For operating the camera menus. CAMERA OSD:

When this is pressed for 2 seconds, the selected camera menu is displayed, overlapping the camera output image. When it is pressed for 2 seconds while a camera menu is displayed, the menu is exited.

F1:

Turn F1 to move the cursor up and down in the camera menu or to change setting values. Press F1 to move to the next level of a menu item or to change a setting value at the lowest level.

For selecting the cameras to be operated.

● Camera menu operation

- 1** Press the appropriate [CAMERA SELECT/ GROUP SELECT] button ([1] to [10]) to select the unit you want to operate.
- 2** Press and hold the [CAMERA OSD] button on the AW-RP120 for about 2 seconds.
The AW-HE40 camera menu appears on the monitor.
- 3** Turn the F1 dial to select an AW-HE40 camera menu item or to change a setting value.
Turn the F1 dial to move the cursor up and down or to change setting values.
Press the F1 dial to move to the next level of a menu item or to change a setting value at the lowest level.
- 4** To exit the camera menu, press and hold the [CAMERA OSD] button for about 2 seconds.

● Switching between Day and Night mode

- 1** Press the [MENU] button on the AW-RP120.
The [MENU] button lights.
- 2** Press the FUNCTION menu [23] button.
The button lights, and the OPTION menu appears on the LCD panel.
- 3** Turn the F1 dial to select "FUNCTION", then press the F1 dial.
- 4** Turn the F1 dial to select "OPTION".
"Off" or "On" appears on the bottom right (F2 area) of the LCD panel.
- 5** Turn the F2 dial to select "Off" or "On", then press the F2 dial.
Off: Day mode
On: Night mode
 - Auto mode cannot be specified with this operation.

Basic operations (continued)

● Color temperature setting (COLOR TEMP)

1 Press the [EXIT] button and the [ATW] button of [WHITE BAL] simultaneously.

The [A], [B], and [ATW] buttons of [WHITE BAL] light, and color temperature setting mode is enabled. The color temperature setting value appears on the LCD screen during this time.

2 Turn the F1 dial to change the color temperature.

Press the [A], [B], and [ATW] buttons of [WHITE BAL] to return to the mode of the selected button. The mode will switch from the color temperature mode to the original mode after a specific amount of time passes. To configure the color temperature setting again, press the [EXIT] button and the [ATW] button of [WHITE BAL] simultaneously.

● Preset speed table setting (PRESET SPEED)

1 Press the [MENU] button on the AW-RP120.

The [MENU] button lights.

2 Press the FUNCTION menu [23] button.

The button lights, and the OPTION menu appears on the LCD panel.

3 Turn the F1 dial to select “PRESET SPEED”, then press the F1 dial.

“Slow” or “Fast” appears on the bottom right (F2 area) of the LCD panel.

4 Turn the F2 dial to select “Slow” or “Fast”, then press the F2 dial.

● Freezing images during preset playback (FREEZE DURING)

1 Press the [MENU] button on the AW-RP120.

The [MENU] button lights.

2 Press the FUNCTION menu [23] button.

The button lights, and the OPTION menu appears on the LCD panel.

3 Turn the F1 dial to select “FREEZE DURING”, then press the F1 dial.

“Off” or “On” appears on the bottom right (F2 area) of the LCD panel.

4 Turn the F2 dial to select “Off” or “On”, then press the F2 dial.

Off: Do not freeze the current preset playback images.
On: Freeze the current preset playback images.

● Digital image stabilization function setting

1 Press the [MENU] button on the AW-RP120.

The [MENU] button lights.

2 Press the FUNCTION menu [23] button.

The button lights, and the OPTION menu appears on the LCD panel.

3 Turn the F1 dial to select “I.S.”, then press the F1 dial.

“Off” or “On” appears on the bottom right (F2 area) of the LCD panel.

4 Turn the F2 dial to select “Off” or “On”, then press the F2 dial.

Off: Turn the digital image stabilization function off.
On: Turn the digital image stabilization function on.

Basic operations (continued)

● Digital extender (D.EXTENDER) function setting

- 1 Press the [MENU] button on the AW-RP120.**
The [MENU] button lights.
- 2 Press the FUNCTION menu [23] button.**
The button lights, and the OPTION menu appears on the LCD panel.
- 3 Turn the F1 dial to select “D. EXTENDER”, then press the F1 dial.**
“Off” or “On” appears on the bottom right (F2 area) of the LCD panel.
- 4 Turn the F2 dial to select “Off” or “On”, then press the F2 dial.**
Off: Turn the digital extender function off.
On: Turn the digital extender function on.

● Assigning [FREEZE DURING], [COLOR TEMP] and [DIGITAL EXTENDER] to the [USER] buttons

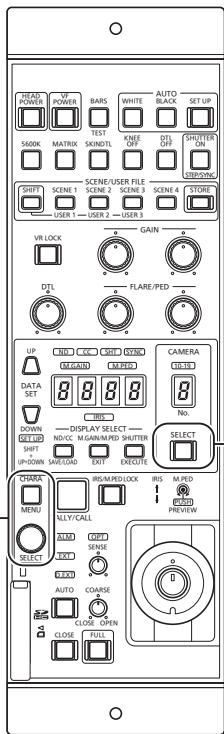
You can assign the on/off functions for freezing images during preset playback (FREEZE DURING), color temperature settings (COLOR TEMP) and digital extender function (DIGITAL EXTENDER) to the [USER] buttons.

- 1 Press the [MENU] button on the AW-RP120.**
The [MENU] button lights.
- 2 Press the USER menu [35] button.**
The button lights, and the USER1 menu appears on the LCD panel.
- 3 Turn the F1 dial to select “USER1” to “USER8”, then press the F1 dial.**
The functions that can be assigned to the [USER] button appear on the bottom right (F2 area) of the LCD panel.
- 4 Turn the F2 dial to select “FREEZE DURING”, “COLOR TEMP” or “D.EXT” then press the F2 dial.**
FREEZE DURING:
Function that freezes the current preset playback images.
COLOR TEMP:
Color temperature settings
D. EXT:
Digital extender function

Operations on the AK-HRP200 Remote Operation Panel

For operating the camera menus.
When the [CHARA/MENU] button is pressed for 2 seconds, the selected camera menu is displayed, overlapping the camera output image. When it is pressed for 2 seconds while a camera menu is displayed, the menu is exited.

SELECT:
Turn SELECT to move the cursor up and down in the camera menu or to change setting values. Press SELECT to move to the next level of a menu item or to change a setting value at the lowest level.



For selecting the cameras to be operated.

1. Press and hold the [SELECT] button for about 2 seconds.
The camera number in the camera number display area blinks.
2. Press the lit [UP]/[DOWN] button.
Press the lit [UP]/[DOWN] button to select the camera number.
3. Press the [SELECT] button.
Control of the selected camera is enabled.

● Camera menu operation

1 Press and hold the [CHARA/MENU] button on the AK-HRP200 for about 2 seconds.

The AW-HE40 camera menu appears on the monitor.

2 Turn the SELECT dial to select an AW-HE40 camera menu item or to change a setting value.

Turn the SELECT dial to move the cursor up and down or to change setting values.

Press the SELECT dial to move to the next level of a menu item or to change a setting value at the lowest level.

3 To exit the camera menu, press and hold the [CHARA/MENU] button for about 2 seconds.

Basic operations (continued)

The following operations can be performed from the AK-HRP200 Remote Operation Panel.
For details on operations, refer to the AK-HRP200 Operating Instructions <Basics>.

	Control/display component	Label	AW-HE40 ✓: Supported *: Supported with some restrictions —: Not supported	Remarks
1	Camera power switch	HEAD POWER	✓	
2	Viewfinder power switch	VF POWER	—	
3	Color bar signal output switch	BARS/TEST	*	Does not transition to TEST_ON.
4	Auto white balance switch	AUTO WHITE	✓	Running state after accepting AWB/ABB lasts at least 2 sec.
5	Auto black balance switch	AUTO BLACK	✓	
6	Auto setup switch	AUTO SETUP	—	
7	5600k switch	5600k	—	
8	Matrix switch	MATRIX	—	
9	Skin color detail switch	SKIN DTL ON	—	
10	Knee OFF switch	KNEE OFF	—	
11	Detail OFF switch	DTL OFF	—	
12	Shutter ON/OFF switch, STEP/SYNC switch	SHUTTER ON STEP/SYNC	*	The shutter value is fixed during transition from SYNC. (See No. 36)
13	Scene / user file selection switch	SCENE/USER FILE SHIFT	—	
14	Scene / user file 1 switch	SCENE/USER FILE1	✓	Equivalent to Manual1.
15	Scene / user file 2 switch	SCENE/USER FILE2	✓	Equivalent to Manual2.
16	Scene / user file 3 switch	SCENE/USER FILE3	✓	Equivalent to Manual3.
17	Scene file 4 switch	SCENE FILE 4	✓	Equivalent to Full Auto
18	Scene / user file storage switch	SCENE/USER FILE STORE	—	
19	Volume lock switch	VOL LOCK	✓	
20	R gain volume	GAIN R	✓	
21	B gain volume	GAIN B	✓	
22	R flare / pedestal volume	FLARE/PED	—	
23	B flare / pedestal volume	FLARE/PED	—	
24	DTL volume	DTL	—	
25	Data set (up)	DATA SET UP	✓	
26	Data set (down)	DATA SET DOWN	✓	
27	Adjustment value display	None	✓	
28	IRIS display	IRIS	*	Operation is supported, but the IRIS value cannot be displayed.
29	ND/CC display selection switch	DISPLAY SELECT	*	Used for ZOOM / FOCUS MODE switching.
		ND/CC		
30	ND display	ND	—	
31	CC display	CC	—	
32	M.GAIN / M.PED display	DISPLAY SELECT	✓	
	Selection switch	M.GAIN/M.PED		
33	M.GAIN display	M.GAIN	✓	
34	M.PED display	M.PED	✓	
35	SHUTTER display selection	DISPLAY SELECT	✓	
	Switch	SHUTTER		

Basic operations (continued)

	Control/display component	Label	AW-HE40 ✓: Supported *: Supported with some restrictions —: Not supported	Remarks
36	SHUTTER display	SHT	*	The shutter value is fixed during transition from SYNC. • For 59.94p, 59.94i: 1/100 • For 29.97p: 1/100 • For 50p, 50i: 1/120 • For 25p: 1/120
37	SYNC display	SYNC	*	The display for 7SEG will be “----” during SYNC.
38	Camera number display	CAM No.	✓	
39	Camera number tens display	10-19	✓	
40	Camera selection switch	CAM SEL	✓	
41	Menu / character switch	CHARA MENU ON/OFF	✓	
42	Rotary selection switch	SELECT	✓	When ZOOM is selected during MENU OFF, ZOOM adjustment is possible using the [UP] and [DOWN] buttons. When FOCUS is selected during MENU OFF, FOCUS adjustment is possible using the [UP] and [DOWN] buttons.
43	Red/green tally display, call switch	TALLY/CALL	*	CALL is disabled.
44	Alarm display	ALARM	—	
45	Optical alarm display	OPT	—	
46	Iris / master pedestal lock	IRIS/M.PED LOCK	✓	
47	Iris lever	IRIS (↑ ↓)	*	The IRIS value cannot be displayed for 7SEG.
48	Master pedestal volume	M.PED (← →)	✓	
49	Preview switch	PUSH PREVIEW	—	
50	Fader full switch	FADER FULL	—	
51	Auto iris switch	AUTO	✓	
52	Iris close switch	CLOSE	—	
53	Sense volume	SENSE	*	Used for ZOOM/FOCUS SPEED adjustment.
54	Coarse volume	COARSE	—	
55	Lens extender display	EXT	—	
56	Digital extender display	D.EXT	✓	The indicator lights when the Zoom Mode is set to “D.Extender”.
57	SD card access display	SD CARD	✓	
58	Zoom		✓	When ZOOM is selected, ZOOM adjustment is possible using the [UP] and [DOWN] buttons.
59	Focus		✓	When FOCUS is selected, FOCUS adjustment is possible using the [UP] and [DOWN] buttons.

Camera menu items

■ Setting the camera menu items

When the unit's settings are to be selected, the camera menus are displayed on the monitor.

The monitor is connected to the video signal output connector.

The basic camera menu operations involve displaying sub-menus from the Top Menu items, and selecting settings on the sub-menus.

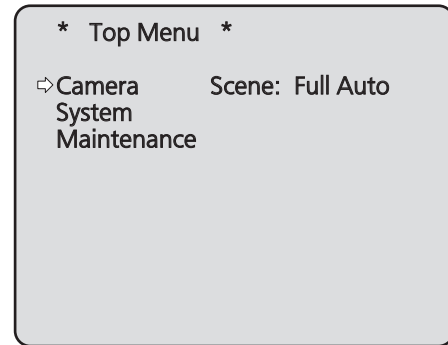
Some sub-menus have menu items for performing more detailed settings.

For details on the basic operations to display the camera menus and change the items using the wireless remote control or controller (AW-RP50, AW-RP120 or AK-HRP200), refer to pages 22 to 34.

The "*" and "#" marks in the menu titles indicate the hierarchical level of the menu currently displayed. For instance, "* Top Menu *" indicates the first hierarchical level whereas "** Camera **" and "## Maintenance ##" indicate that the second hierarchical level is now displayed.

Menu items accompanied by a "*" mark indicate data which is stored on a scene by scene basis; menu items accompanied by a "#" mark indicate data which is stored together for one camera regardless of the scenes.

■ Top Menu screen



Camera

Select this to open the camera menu relating to the camera images.

System

Display the System menu in which the camera's output image settings are configured.

Maintenance

Display the Maintenance menu which concerns checking the unit's firmware versions, checking the IP address and initialize the settings.

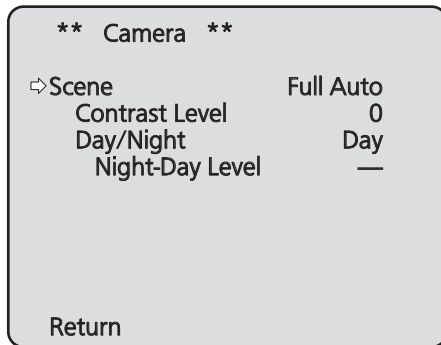
Note

- The Top Menu does not have a "Return" setting. To close the menu screen, use the controller to perform the operation to close the menu screen. For details, refer to pages 22 to 32.

Camera menu items (continued)

■ Camera screen (when Full Auto is selected)

This menu is used for the camera image settings.



Scene

[Full Auto, Manual1, Manual2, Manual3]

Selected here is the shooting mode that matches the shooting situation.

Select the mode which best suits the prevailing shooting conditions and the user's preferences.

Full Auto: In this mode, the optimum settings and adjustments for the shooting conditions at hand are automatically established. When "Full Auto" has been selected, the detailed setting and adjustment menus are not displayed.

Manual1 to 3: In these modes, the detailed settings and adjustments are established manually to match the prevailing shooting conditions and the user's preferences. When the Manual1, Manual2 or Manual3 mode has been selected, the detailed setting and adjustment menu for the mode concerned is displayed.

Contrast Level [-10 to +10]

Set here is the contrast level when the image brightness is adjusted.

Day/Night [Day, Night, Auto]

This is used to select normal shooting or low light shooting (by exposing the subjects to infrared rays).

For details, see "Contrast 2/2 screen" (page 38).

Night-Day Level [Low, Mid, High]

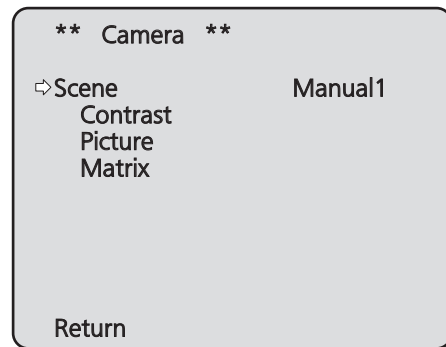
Adjust the level used while switching from Night mode to Day mode when Day/Night is set to "Auto".

- This can only be configured when Day/Night is set to "Auto".

Return

Use this to return to the previous menu.

■ Camera screen (when Manual1 to 3 is selected)



Scene

[Full Auto, Manual1, Manual2, Manual3]

Refer to section on Scene in the column on the left.

Contrast

Select this to display the Contrast screen to adjust the brightness.

Picture

This menu item displays the Picture screen on which to adjust the picture quality.

Three screens (Picture 1/3, Picture 2/3 and Picture 3/3) are provided for the picture quality adjustment menu.

Matrix

This menu item is used to adjust the 16-axis color matrix.

Return

Use this to return to the previous menu.

Camera menu items (continued)

■ Contrast 1/2 screen

*** Contrast 1/2 ***	
⇨ Contrast Mode	Auto
Contrast Level	0
Shutter Mode	—
Step/Synchro	—
Frame Mix	—
Auto F.Mix Max Gain	0dB
Gain	Auto
AGC Max Gain	24dB
Return	

Contrast Mode [Auto, Manual]

This item is used to select whether the image brightness (contrast) is to be controlled automatically or manually.

Auto: The iris, shutter speed and frame addition are controlled and the camera brightness is adjusted automatically.

Manual: Operations are performed using the manually set values.

Contrast Level [-10 to +10]

Set here is the contrast level when the image brightness is adjusted.

This item can be set when “Auto” has been selected as the “Contrast Mode” setting.

Shutter Mode [Off, Step, Synchro]

Select for camera shutter mode.

This item can be set when “Manual” has been selected as the “Contrast Mode” setting.

Off: The shutter is set to OFF (so that it cannot be tripped).

Step: The step shutter is set (the steps can be changed).

Synchro: The synchro shutter is set (the setting can be changed continuously).

Step/Synchro

This is used to adjust the shutter speed in the mode which was selected as the “Shutter Mode” setting.

When a higher shutter speed is selected, fast-moving subjects do not become blurred easily but the images will be darker.

The shutter speeds that can be set are listed below.

[When 59.94 Hz has been set as the unit’s frequency]

When “Step” is selected as the “Shutter Mode”	When “Synchro” is selected as the “Shutter Mode”
1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000	59.94 Hz to max. 660.09 Hz (255 steps)

[When 50 Hz has been set as the unit’s frequency]

When “Step” is selected as the “Shutter Mode”	When “Synchro” is selected as the “Shutter Mode”
1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000	50.00 Hz to max. 570.12 Hz (255 steps)

Frame Mix [Auto, Off, 6dB, 12dB, 18dB, 24dB]

Select for frame addition (gain-up using sensor storage) amount.

This item can be set when “Off” is selected as the “Shutter Mode” item setting.

When frame addition is performed, it will appear as if the images are missing some frames.

Auto F.Mix Max Gain [0dB, 6dB, 12dB, 18dB]

When “Auto” for the “Contrast Mode” or “Auto” for the “Frame Mix” is selected, the maximum frame addition amount can be set.

If frame addition is performed at the Auto setting, it will appear as if the images are missing some frames.

Gain

[Auto, 0dB, 3dB, 6dB, 9dB, 12dB, 15dB, 18dB, 21dB, 24dB, 27dB, 30dB, 33dB, 36dB, 39dB, 42dB, 45dB, 48dB]

The image gain is adjusted here.

In locations which are too dark, adjust the gain upward; conversely, in locations which are too bright, adjust it downward.

When “Auto” is set, the light quantity is adjusted automatically.

The noise increases when the gain is increased.

AGC Max Gain

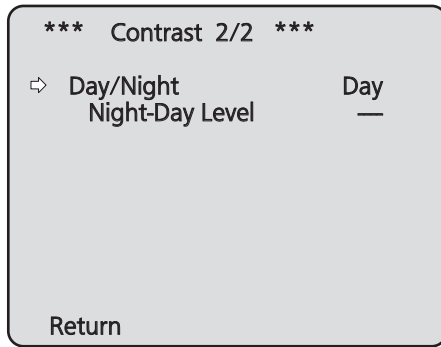
[6dB, 12dB, 18dB, 24dB, 30dB, 36dB, 42dB, 48dB]

When “Auto” is selected as the “Gain” setting, the maximum gain-up amount can be set.

Return

Use this to return to the previous menu.

■ Contrast 2/2 screen



Night-Day Level [Low, Mid, High]

Adjust the level used while switching from Night mode to Day mode when Day/Night is set to "Auto".

- This can only be configured when Day/Night is set to "Auto".

Return

Use this to return to the previous menu.

Day/Night [Day, Night, Auto]

This is used to select normal shooting or low light shooting (by exposing the subjects to infrared rays).

Day: Normal shooting

Night: Low light shooting

Auto: Automatically switch between standard shooting and night-vision shooting depending on the lighting conditions of the subject and shooting location.

Notes

- In Night mode, Black-and-white images are output. The lens iris is forcibly set to open.
- In Night mode, the white balance adjustment cannot be used.
- When focus is set to manual, the focus may shift when switching between Day and Night mode, depending on the shooting conditions. If necessary, either adjust the focus or set the focus to auto.
- Even when "Auto" is selected, shooting may not switch between day and Night mode as expected, depending on the subject.

In such cases, perform the following adjustments.

Switching from Day mode to Night mode

Switch when the gain value and frame storage value are at their maximum due to brightness adjustment.

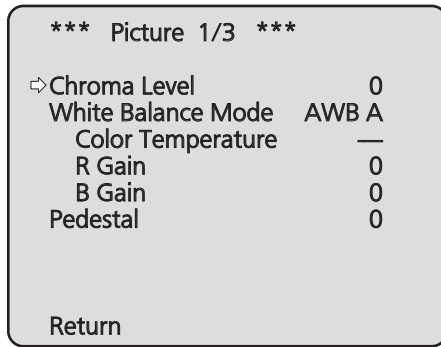
When the shooting mode (Scene) is "Manual1" to "Manual3", you can adjust the AGC Max Gain and Auto F.Mix Max Gain settings.

Switching from Night mode to Day mode

You can adjust with the Night-Day Level setting. If you perform a close-up on a black object, the unit may switch to Night mode, even after performing the above adjustments.

Camera menu items (continued)

Picture 1/3 screen



Chroma Level [-3 to +3]

Set here is the color intensity (chroma level) of the images.

White Balance Mode

[ATW, AWB A, AWB B, 3200K, 5600K, VAR]

The white balance mode is selected here. Select the mode when the coloring is not natural because of the nature of the light source or other factors. If the white color serving as the reference can be recognized, subjects can be shot with natural coloring.

ATW: This mode automatically corrects the white balance, even if the light source or color temperature changes.

AWB A, AWB B:

When AWB A or AWB B is selected and the white balance is executed, the adjustment results obtained are stored in the memory selected. When AWB A or AWB B is then selected, the white balance stored in the selected memory can be recalled.

3200K:

This white balance mode is ideal when a 3200K halogen light is used as the light source.

5600K:

This white balance mode is ideal when 5600K sunlight or fluorescent lighting is used as the light source.

VAR: Specify a color temperature from 2400K to 9900K.

Color Temperature [2400K to 9900K]

Specify a color temperature from 2400K to 9900K (in increments of about 100K).

This is enabled when White Balance Mode is set to "VAR".

R Gain, B Gain [-30 to +30]

When "AWB A", "AWB B" or "VAR" is selected as the White Balance Mode setting, the white balance can be finely adjusted after automatic white balance (AWB) has been performed.

Notes

- When automatic white balance (AWB) is executed, the R Gain and B Gain values are returned to "0".
- When "AWB A", "AWB B" or "VAR" is selected as the White Balance Mode setting, the R Gain and B Gain adjustment values can be stored in the three memories, A, B and VAR.
- When new values are set, the previous values are erased. Use each of the memories for a different purpose in accordance with the shooting conditions.
- R Gain and B Gain adjustments cannot be performed when White Balance Mode is set to "ATW", "3200K", or "5600K".

Pedestal [-10 to +10]

This item is used to adjust the black level (adjust the pedestal) so that the dark parts of the images are easier to see.

These parts become darker when a negative setting is selected and, conversely, lighter when a positive setting is selected.

Return

Use this to return to the previous menu.

Picture 2/3 screen

*** Picture 2/3 ***	
⇨ Detail	Low
Detail Level H	18
Detail Level L	9
Flesh Tone Mode	Off
HDR	Off
DRS	Off
Gamma Type	Normal
Gamma Level	Mid
Return	

Detail [Off, Low, High]

The image detail (image sharpness) is adjusted here.
When “Low” or “High” is selected, the detail is enhanced.

Detail Level H

[Detail Level L setting +1 to 18]

The image sharpness level is adjusted here when “High” has been selected as the “Detail” setting.

Detail Level L

[1 to Detail Level H setting –1]

The image sharpness level is adjusted here when “Low” has been selected as the “Detail” setting.

Flesh Tone Mode [Off, Low, High]

Set here is the flesh tone mode for displaying the subjects’ skin so that it appears more smoothly and eye-pleasingly.
When “Low” or “High” is selected, the effect is enhanced.

HDR [Off, Low, High]

Adjust the effect of the high dynamic range mode.
When HDR is set to “Low”, correction is performed so that the appropriate exposure is obtained for the light and dark areas on subjects with extremely high contrast. When “High” is selected, dark areas are made brighter.
Depending on the shooting conditions, however, the picture quality may drop with increased noise.
In addition, unit vibration may result in blurry or distorted images.
This effect is not recommended in shooting locations where significant vibration may occur.

Notes

- When the HDR setting is changed, the image will go black and the audio will be muted temporarily.
- When “Low” or “High” is selected, it will take longer for the brightness of the image to converge.
- When “Low” or “High” is selected, brightness cannot be adjusted.
- When “Low” or “High” is selected, video will be delayed by 4 frames.
- When “Low” or “High” is selected, the following settings cannot be changed.
 - Day/Night
 - Night-Day Level
 - Pedestal
 - DRS
 - Gamma Type
 - Back Light COMP.
 - Freeze During Preset
 - Image Stabilizer

DRS [Off, Low, High]

Set here is the DRS function which provides just the right amount of compensation when images with significant light/dark differences are displayed.
When “Low” or “High” is selected, the effect is enhanced even more.
Depending on the shooting conditions, however, the picture quality may drop with increased noise.

Gamma Type [Off, Normal, Cinema]

Selected here is the type of gamma curve.
Normally, the “Normal” setting is used.
When “Cinema” is selected, images giving off an atmosphere like movies can be shot.

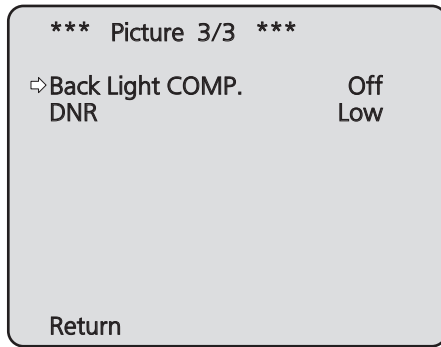
Gamma Level [Low, Mid, High]

This item is used to adjust the gamma compensation level.
This is enabled when Gamma Type is set to “Normal”.
When “Low” is set, the images appear sedate and composed. The resulting gamma curve has a gentle gradient in the low-brightness areas, and the contrast is sharper.
Conversely, when “High” is set, the tonal range in the dark area is expanded so that the images take on a lighter tone. The resulting gamma curve has a sharp gradient in the low-brightness areas, and the contrast is softer.

Return

Use this to return to the previous menu.

■ Picture 3/3 screen



Back Light COMP. [Off, On]

“On” or “Off” is set here for the backlight compensation function.

Under backlight conditions, the function prevents darkening as a result of light striking the backs of subjects, and makes it possible to shoot images in shade or shadow more brightly.

The function takes effect when “Auto” has been selected as the Contrast Mode, Gain or Frame Mix item setting.

DNR [Off, Low, High]

Set here is the level of the digital noise reduction effect so that light, noise-free and clear images will be output even at night and in other low-brightness environments.

When “Low” or “High” is selected, noise can be eliminated. However, there is an increased possibility that afterimages may occur.

Return

Use this to return to the previous menu.

Camera menu items (continued)

16-axis color matrix

(These operations can be performed only when Manual1 to 3 has been selected as the Scene setting.)

<Matrix 1/3 screen>

*** Matrix 1/3 ***		
Matrix Type	Normal	
[Saturation]	[Phase]	
B	—	—
B_B_Mg	—	—
B_Mg_Mg	—	—
Mg	—	—
Mg_R	—	—
R	—	—
Return		

<Matrix 2/3 screen>

*** Matrix 2/3 ***		
Matrix Type	Normal	
[Saturation]	[Phase]	
R_R_YI	—	—
R_YI_YI	—	—
YI	—	—
YI_YI_G	—	—
YI_G_G	—	—
G	—	—
Return		

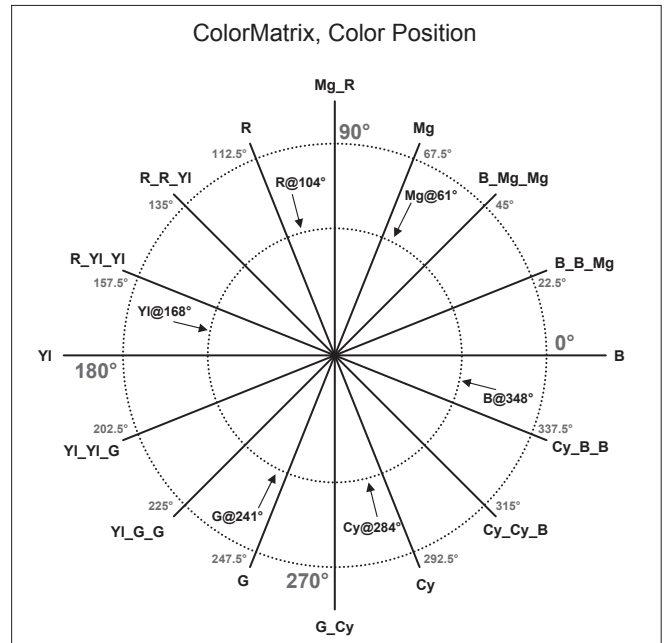
<Matrix 3/3 screen>

*** Matrix 3/3 ***		
Matrix Type	Normal	
[Saturation]	[Phase]	
G_Cy	—	—
Cy	—	—
Cy_Cy_B	—	—
Cy_B_B	—	—
Return		

Matrix Type [Normal, EBU, NTSC, User]

The preset color matrix data is loaded, and the saturation and phase are compensated accordingly.

When "User" is selected, the saturation and phase can be finely adjusted using the 16-axis color matrix (B to Cy_B_B).



B to Cy_B_B: Saturation [-31 to +31]

The saturation of B to Cy_B_B can be finely adjusted.

B to Cy_B_B: Phase [-63 to +63]

The phase of B to Cy_B_B can be finely adjusted.

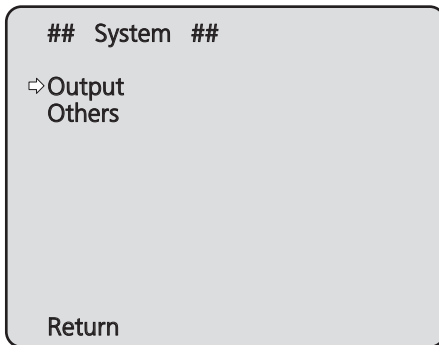
Return

Use this to return to the previous menu.

Camera menu items (continued)

■ System screen

This is the menu in which the camera's output image settings are configured.



Output

This displays the Output screen on which to select the camera's output image settings.

Others

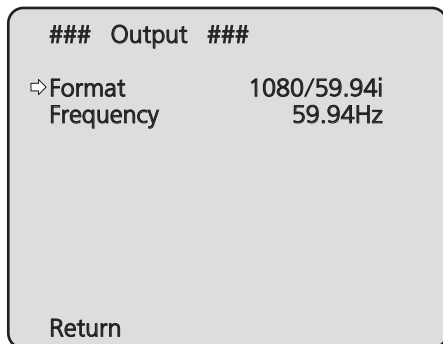
This displays the Others screen on which to select the settings for the installation status of the camera's pan-tilt head unit and operating speed as well as the settings relating to the other functions.

Return

Use this to return to the previous menu.

Camera menu items (continued)

■ Output screen



Return

Use this to return to the previous menu.

Format

For 59.94Hz:

[Auto, 1080/59.94p, 1080/59.94i, 1080/29.97PsF, 1080/29.97p, 720/59.94p]

For 50Hz:

[Auto, 1080/50p, 1080/50i, 1080/25PsF, 1080/25p, 720/50p]

The video format is changed on this screen.

The formats of the images which can be output differ between the AW-HE40H and AW-HE40S.

For details on how to change the format, refer to "Changing the format" (page 45).

Note

- When "Auto" is selected, the unit automatically determines the output video resolution based on information from the connected device. If the proper resolution is not displayed when "Auto" is selected, switch to a video format other than "Auto".

Frequency [59.94Hz, 50Hz]

This item is selected to switch the frame frequency.

- When the frequency is switched, "Format" is set as follows.

59.94Hz		50Hz
1080/59.94p	↔	1080/50p
1080/59.94i	↔	1080/50i
1080/29.97PsF	↔	1080/25PsF
1080/29.97p	↔	1080/25p
720/59.94p	↔	720/50p

- For details on how to change the frequency, see "Changing the frequency" (page 45).

Note

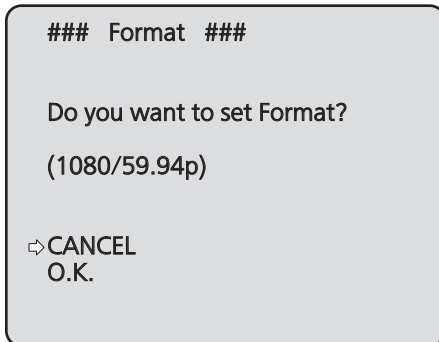
- If you change the frequency, the unit will restart automatically. Operation will not be possible while the unit is restarting. Some peripheral devices may not recognize that the unit has restarted. If you change the frequency, be sure to restart all peripheral devices.

Camera menu items (continued)

● Changing the format

When the format is changed on the Output screen from its current setting, the pre-format-change confirmation screen appears.

Pre-format-change confirmation screen

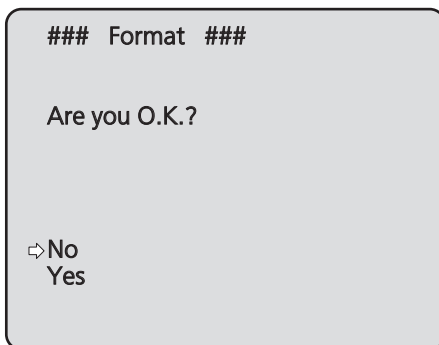


- The format to be set is displayed within the parentheses on the screen.

Field frequency	59.94 Hz	50 Hz
When using the AW-HE40H	Auto, 1080/59.94p, 1080/59.94i, 1080/29.97PsF, 1080/29.97p, 720/59.94p	Auto, 1080/50p, 1080/50i, 1080/25PsF, 1080/25p, 720/50p
When using the AW-HE40S	1080/59.94i, 1080/29.97PsF, 1080/29.97p, 720/59.94p	1080/50i, 1080/25PsF, 1080/25p, 720/50p

- When you move the cursor to “O.K.” on the pre-format-change confirmation screen and confirm, the format is changed, and then the post-format-change confirmation screen appears.

Post-format-change confirmation screen



- If you move the cursor to “Yes” and confirm, the format is set to the post-change format, and the display returns to the Output screen.
- If you move the cursor to “No” and confirm, the format is set to the pre-change format, and the display returns to the Output screen. Similarly, the display will return to the Output screen if an operation is not performed within 10 seconds.

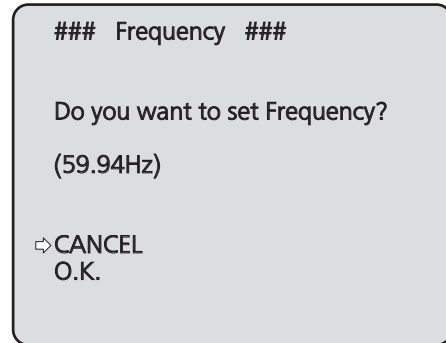
● Changing the frequency

When the currently selected frequency is changed in the Output screen, the frequency-change confirmation screen appears.

Note

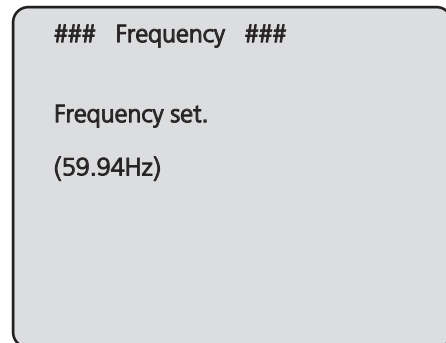
- When using a monitor that does not support the 59.94 Hz or 50 Hz frequencies, images may not be output after the frequency is changed. Verify that the monitor supports the post-change frequency before changing the frequency.

Frequency-change confirmation screen



- The frequency to be set is displayed within the parentheses on the screen.
- When you move the cursor to “O.K.” on the frequency-change confirmation screen and confirm, the unit restarts and the Frequency Set screen appears for 5 seconds.

Frequency Set screen



Camera menu items (continued)

Others 1/3 screen

### Others 1/3 ###	
⇨ Install Position	Desktop
Preset Speed Table	Fast
Preset Speed	10
Preset Scope	Mode A
Freeze During Preset	Off
Speed With Zoom POS.	On
Focus Mode	Auto
Focus ADJ With PTZ.	—
Return	

Install Position [Desktop, Hanging]

“Desktop” or “Hanging” is selected here as the method used to install the unit.

Desktop: Stand-alone installation

Hanging: Suspended installation

- When “Hanging” has been selected, the top, bottom, left and right of the images will be reversed, and up/down/left/right control for panning and tilting will also be reversed.

Preset Speed Table [Slow, Fast]

Set the preset speed table (Slow, Fast).

During preset playback, preset actions are performed at Preset Speed (1 to 30) values that are based on the table set here.

Slow: Set the preset speed table to “Slow”.

Fast: Set the preset speed table to “Fast”.

Preset Speed [1 to 30]

There are 30 preset pan-tilt operation speeds when regenerating the camera direction and other information which are registered in the preset memory.

Note

- If a high value is selected for the Preset Speed setting, the image on the screen may shake when operation stops.

Preset Scope [Mode A, Mode B, Mode C]

Selected here are the setting items to be recalled when the contents of the preset memory are regenerated.

Mode A: Pan, Tilt, Zoom (including digital zoom), Focus, Iris, Gain, White-BAL

Mode B: Pan, Tilt, Zoom (including digital zoom), Focus, Iris

Mode C: Pan, Tilt, Zoom (including digital zoom), Focus

Freeze During Preset [Off, On]

Turn the function for freezing images during preset playback off/on.

When this is set to “On”, preset playback is performed with a still of the image immediately preceding the start of preset playback being output. The image freeze is released when preset playback is finished.

Notes

- When this is set to “On”, the start of preset operations may be delayed momentarily due to the image being frozen.
- When HDR is set to “Low” or “High”, this is set to “Off”.

Speed With Zoom POS. [Off, On]

“Off” or “On” is set here for the function used to adjust the camera direction’s adjustment speed in conjunction with the zoom magnification.

When “On” is set, the panning and tilting operations will become slower in the zoom status.

This function has no effect during preset operations.

Focus Mode [Auto, Manual]

“Auto” or “Manual” is set here for the focusing function.

Auto: The subjects are always brought into focus automatically.

Manual: The focus is operated manually.

Focus ADJ With PTZ. [Off, On]

“Off” or “On” is set here for the function which compensates for out-of-focusing when it occurs during panning, tilting or zooming operations at the manual focus setting.

This item can be selected only when “Manual” has been selected as the “Focus Mode” setting.

Return

Use this to return to the previous menu.

Camera menu items (continued)

Others 2/3 screen

### Others 2/3 ###	
Zoom Mode	D.Zoom
Max Digital Zoom	×16
Image Stabilizer	Off
Tally	Enable
IR Control	Enable
IR ID	CAM1
CAM/BAR	Camera
Return	

Zoom Mode

[Opt.Zoom, i.Zoom, D.Zoom, D.Extender]

Configure the maximum zoom magnification.

Opt.Zoom: Use only the optical zoom. Up to 30x optical zoom is possible.

i.Zoom: Enable the i.Zoom function. Enabling this function allows you to perform electronic zoom while reducing drops in picture quality. Combining optical zoom and electronic zoom, up to 40x zoom is possible.

D.Zoom: Enable the digital zoom function. Picture quality degrades as zoom increases with digital zoom.

D.Extender: Enable the digital extender function. When this function is enabled, you can perform optical zoom while maintaining a fixed digital zoom magnification. Smooth zooming operations will be possible at the cost of slight degradation in the image quality.

Max Digital Zoom [x2 to x16]

Set the maximum digital zoom magnification.

This is only enabled when Zoom Mode is set to "D.Zoom".

Image Stabilizer [Off, On]

Turn the digital image stabilization function off/on.

Notes

- The field of view will be narrower when the image stabilization function is active.
- When "On" is selected, video will be delayed by 1 frame.
- When switching between "On" and "Off", the image may go black and the audio may be muted temporarily.
- Image stabilization cannot be performed while Frame Mix is active.
- The effect of the image stabilization function is reduced in low-light environments.
- The unit's image stabilizer function detects movement from the image signal and performs correction. Depending on the shooting conditions, the function may not be able to differentiate between movement of the subject and movement of the unit, resulting in correction errors.

Tally [Disable, Enable]

"Enable" or "Disable" is set here for the function which turns on or turns off the tally lamp using the tally control signal.

IR Control [Disable, Enable]

"Enable" or "Disable" is set here for operations conducted from the wireless remote control.

The operations are enabled when the unit's power is turned on from an external device other than a wireless remote control, and they are disabled when the power is turned on from a wireless remote control.

Notes

- At the point when this item's setting is changed, the new setting is not reflected in operation. It is reflected when the unit is set to standby mode and its power is turned on.
- Follow one of the procedures below if the item's setting is changed by mistake and the unit can no longer be operated from a wireless remote control.

When menu operations can be performed using another control device:

- First change the item using a control device capable of performing menu operations, and then turn off the unit's power and turn it back on.

When menu operations cannot be performed using other control devices:

1. Turn off the power of the units and devices that are connected.
2. Disconnect the unit's AC adaptor cable and LAN cable, and plug them back in.
3. Perform the operation for turning on the unit's power from the wireless remote control.
4. After changing this item, turn off the unit's power and turn it back on.

IR ID [CAM1, CAM2, CAM3, CAM4]

Configure the unit's remote control ID.

The settings for this item correspond to the [CAM1] to [CAM4] buttons on the wireless remote control.

CAM/BAR [Camera, Colorbar]

Switch between color bar display and camera image display on the monitor and the web setup screen.

Note

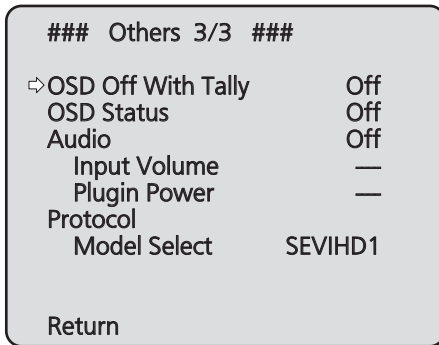
- When the color bar is displayed, a test tone (1 kHz) is output according to the Audio setting in the camera menu.

Return

Use this to return to the previous menu.

Camera menu items (continued)

Others 3/3 screen



Protocol Model Select

[SEVIHD1, SBRC300, SBRCZ330, Reserved1 to 7]

Set the protocol model for standard serial communication. Do not select "Reserved1" to "Reserved7".

Return

Use this to return to the previous menu.

OSD Off With Tally [Off, On]

This is used to enable or disable the function for clearing the OSD menu displays when the tally signal is received by a command or contact.

When the tally signal is released, the original OSD menu displays are restored.

OSD Status [Off, On]

"Off" or "On" is set here for the status display which appears during AWB operations.

Audio [Off, On]

Enable/disable the audio input signal from the device connected to the audio input connector.

Input Volume

[Mic High, Mic Middle, Mic Low, Line High, Line Middle, Line Low]

Set the mic input, line input, and volume.

Mic High:

Use the mic input with the volume set to high.

Mic Middle:

Use the mic input with the volume set to medium.

Mic Low:

Use the mic input with the volume set to low.

Line High:

Use the line input with the volume set to high.

Line Middle:

Use the line input with the volume set to medium.

Line Low:

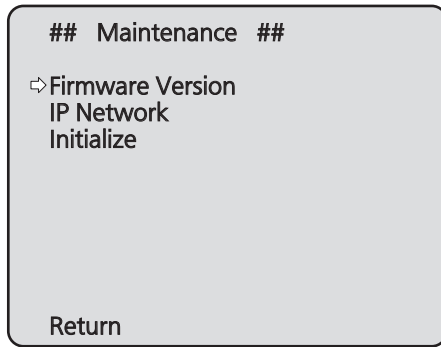
Use the line input with the volume set to low.

Plugin Power [Off, On]

Turn the plugin power for the audio off/on.

Camera menu items (continued)

■ Maintenance screen



Firmware Version

This is selected to display the Firmware Version screen on which to check the version of the firmware used.

IP Network

This is selected to display the IP Network screen on which the user can check the IP Address, Subnet Mask and Default Gateway settings which have been established in the unit.

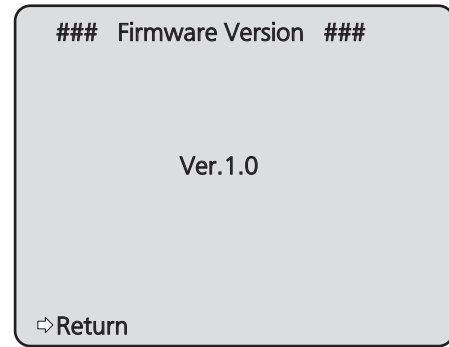
Initialize

This is selected to display the Initialize screen on which the user can initialize the camera settings.
For details on operation, refer to “Concerning initialization” on page 50.

Return

Use this to return to the previous menu.

■ Firmware Version screen



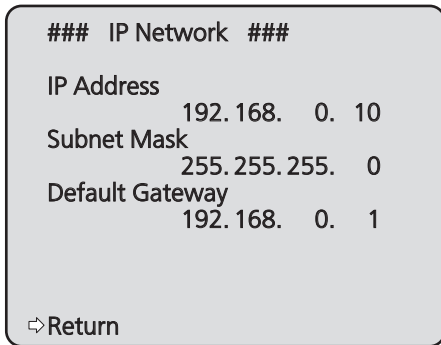
This displays the unit's firmware version.

Return

Use this to return to the previous menu.

Camera menu items (continued)

■ IP Network screen



IP Address

This is selected to display the IP address which has been set for the unit.

Subnet Mask

This is selected to display the subnet mask which has been set for the unit.

Default Gateway

This is selected to display the default gateway which has been set for the unit.

Note

- On this screen, the IP Address, Subnet Mask and Default Gateway settings can be displayed but they cannot be changed.
To change an address, use “Network” (page 79) on the Web setting screen or “Easy IP Setup Software” (page 45 in the <Basics>).

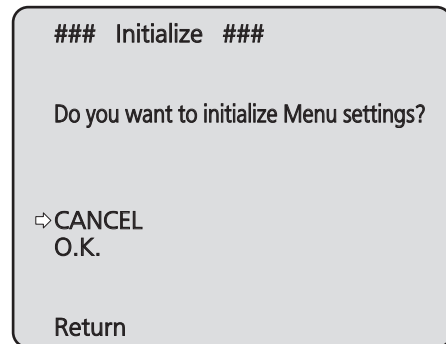
Return

Use this to return to the previous menu.

● Concerning initialization

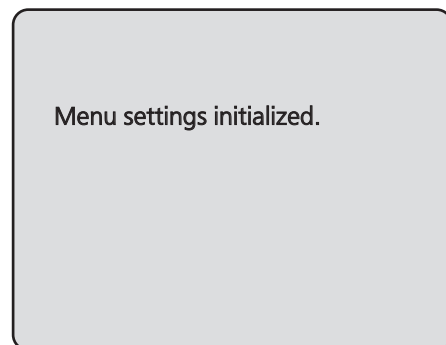
When “Initialize” is selected on the Maintenance screen, the Initialize screen appears.

Initialize screen



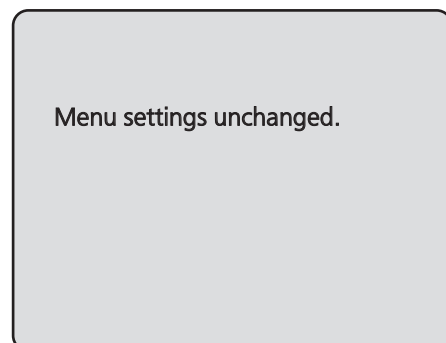
- When the cursor is moved to “O.K.” on the Initialize screen and the setting is entered, the Menu settings initialized screen is displayed for 5 seconds, and the camera settings are restored to the settings which were established when the camera was purchased (“Camera menu item table” (pages 51 to 53)). However, the Format settings and Frequency settings (page 44) and network settings are not initialized. When the initialization operation is completed, the Initialize screen is restored to the display.

Menu settings initialized screen



- When the cursor is moved to “CANCEL” on the Initialize screen and the setting is entered, the Menu settings unchanged screen is displayed for 5 seconds, the initialization operation is not performed, and the Initialize screen returns to the display.

Menu settings unchanged screen



Camera menu item table

Camera menu			Item	Factory setting		Selection items		
				Full Auto	Manual1 to 3			
Top Menu	Camera	Scene	Scene	Full Auto	Manual1 to Manual3	Full Auto, Manual1, Manual2, Manual3		
			Contrast 1/2	Contrast Mode	----	Auto	Auto, Manual	
		Contrast Level		0	0	-10 to +10		
		Shutter Mode		----	Off	Off, Step, Synchro		
		Step/Synchro (When "Step" is selected as the "Shutter Mode")		----	[59.94Hz] 1/100 [50Hz] 1/120	<ul style="list-style-type: none"> When 59.94 Hz is selected: 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 When 50 Hz is selected: 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 		
		Step/Synchro (When "Synchro" is selected as the "Shutter Mode")		----	[59.94Hz] 59.94Hz [50Hz] 50.00Hz	<ul style="list-style-type: none"> When 59.94 Hz is selected: 59.94Hz to 660.09Hz (1 to 255 step) When 50 Hz is selected: 50.00Hz to 570.12Hz (1 to 255 step) 		
		Frame Mix		----	Auto	Auto, Off, 6dB, 12dB, 18dB, 24dB		
		Auto F.Mix Max Gain		----	0dB	0dB, 6dB, 12dB, 18dB		
		Gain		----	Auto	Auto, 0dB to 48dB (3dB increments)		
		AGC Max Gain		----	24dB	6dB to 48dB (6dB increments)		
		Contrast 2/2		Day/Night	Day	Day	Day, Night, Auto	
			Night-Day Level	Mid	Mid	Low, Mid, High		
		Picture	Picture 1/3	Chroma Level	----	+2	-3 to +3	
				White Balance Mode	----	Manual1: ATW Manual2: AWB A Manual3: AWB B	ATW, AWB A, AWB B, 3200K, 5600K, VAR	
				Color Temperature	----	3200K	2400K to 9900K (approx. 100K increments)	
				R Gain	----	0	-30 to +30	
				B Gain	----	0	-30 to +30	
				Pedestal	----	0	-10 to +10	
			Picture 2/3	Detail	----	Low	Off, Low, High	
				Detail Level H	----	18	Detail Level L setting +1 to 18	
				Detail Level L	----	9	1 to Detail Level H setting -1	
				Flesh Tone Mode	----	Off	Off, Low, High	
				HDR	----	Off	Off, Low, High	
				DRS	----	Off	Off, Low, High	
				Gamma Type	----	Normal	Off, Normal, Cinema	
			Gamma Level	----	Mid	Low, Mid, High		
			Picture 3/3	Back Light COMP.	----	Off	Off, On	
				DNR	----	Low	Off, Low, High	
			Matrix	Matrix 1/3	Matrix Type	----	Normal	Normal, EBU, NTSC, User
					B Saturation	----	0	-31 to +31
		B Phase			----	0	-63 to +63	
		B_B_Mg Saturation			----	0	-31 to +31	
		B_B_Mg Phase			----	0	-63 to +63	
		B_Mg_Mg Saturation			----	0	-31 to +31	
		B_Mg_Mg Phase			----	0	-63 to +63	
		Mg Saturation			----	0	-31 to +31	
		Mg Phase			----	0	-63 to +63	
		Mg_R Saturation			----	0	-31 to +31	
		Mg_R Phase			----	0	-63 to +63	
		R Saturation			----	0	-31 to +31	
R Phase	----	0			-63 to +63			

Camera menu item table (continued)

Camera menu					Item	Factory setting		Selection items			
						Full Auto	Manual1 to 3				
Top Menu	Camera	Scene	Matrix	Matrix 2/3	Matrix Type	----	Normal	Normal, EBU, NTSC, User			
					R_R_YI Saturation	----	0	-31 to +31			
					Phase	----	0	-63 to +63			
					R_YI_YI Saturation	----	0	-31 to +31			
					Phase	----	0	-63 to +63			
					YI Saturation	----	0	-31 to +31			
					Phase	----	0	-63 to +63			
					YI_YI_G Saturation	----	0	-31 to +31			
					Phase	----	0	-63 to +63			
					YI_G_G Saturation	----	0	-31 to +31			
					Phase	----	0	-63 to +63			
					G Saturation	----	0	-31 to +31			
				Phase	----	0	-63 to +63				
				Matrix 3/3	Matrix Type	----	Normal	Normal, EBU, NTSC, User			
					G_Cy Saturation	----	0	-31 to +31			
					Phase	----	0	-63 to +63			
					Cy Saturation	----	0	-31 to +31			
					Phase	----	0	-63 to +63			
	Cy_Cy_B Saturation	----	0		-31 to +31						
	Phase	----	0	-63 to +63							
	Cy_B_B Saturation	----	0	-31 to +31							
	Phase	----	0	-63 to +63							
	System	Output			Format	[AW-HE40H]		Auto, 1080/59.94p, 1080/59.94i, 1080/29.97PsF, 1080/29.97p, 720/59.94p			
						[59.94Hz]	Auto	Auto, 1080/50p, 1080/50i, 1080/25PsF, 1080/25p, 720/50p			
						[50Hz]	Auto	Auto, 1080/50p, 1080/50i, 1080/25PsF, 1080/25p, 720/50p			
						[AW-HE40S]		1080/59.94i, 1080/29.97PsF, 1080/29.97p, 720/59.94p			
					[59.94Hz]	1080/59.94i	1080/59.94i, 1080/29.97PsF, 1080/29.97p, 720/59.94p				
					[50Hz]	1080/50i	1080/50i, 1080/25PsF, 1080/25p, 720/50p				
Frequency					AW-HE40HWP, AW-HE40HKP, AW-HE40SWP, AW-HE40SKP: 59.94Hz AW-HE40HWE, AW-HE40HKE, AW-HE40SWE, AW-HE40SKE: 50Hz	59.94Hz, 50Hz					
Others					Others 1/3			Install Position	Desktop	Desktop, Hanging	
								Preset Speed Table	Fast	Slow, Fast	
								Preset Speed	10	1 to 30	
								Preset Scope	Mode A	Mode A, Mode B, Mode C	
								Freeze During Preset	Off	Off, On	
		Speed With Zoom POS.	On	Off, On							
		Focus Mode	Auto	Auto, Manual							
		Focus ADJ With PTZ.	Off	Off, On							
		Others 2/3							Zoom Mode	i.Zoom	Opt.Zoom, i.Zoom, D.Zoom, D.Extender
									Max Digital Zoom	x16	x2 to x16
Image Stabilizer					Off	Off, On					
Tally					Enable	Disable, Enable					
IR Control					Enable	Disable, Enable					
IR ID					CAM1	CAM1, CAM2, CAM3, CAM4					
CAM/BAR		Camera	Camera, Colorbar								

Camera menu item table (continued)

Camera menu				Item	Factory setting		Selection items
					Full Auto	Manual1 to 3	
Top Menu	System	Others	Others 3/3	OSD Off With Tally	Off		Off, On
				OSD Status	Off		Off, On
				Audio	Off		Off, On
				Input Volume	Line Middle		Mic High, Mic Middle, Mic Low, Line High, Line Middle, Line Low
				Plugin Power	Off		Off, On
				Protocol			
				Model Select	SEVIHD1		SEVIHD1, SBRC300, SBRCZ330, Reserved1, Reserved2, Reserved3, Reserved4, Reserved5, Reserved6, Reserved7
	Maintenance	Firmware Version	IP Network	----	Version shipped		----
				IP Address	192.168.0.10		----
				Subnet Mask	255.255.255.0		----
				Default Gateway	192.168.0.1		----
				Initialize	----	CANCEL	CANCEL, OK

Controls and settings from web screen

With a personal computer connected to the unit, it is possible to view the camera's IP videos or select various settings from the web browser screen.

Select an IP address for the personal computer within the private address range while ensuring that it is different from the address of the unit. Set the subnet mask to the same address as the unit.

Notes

Unit's IP address and subnet mask (factory settings)

IP address: 192.168.0.10

Subnet mask: 255.255.255.0

Range of private addresses:

192.168.0.0 to 192.168.0.255

- If the controller and web browser are being used at the same time, the content selected using the controller may not be reflected on the web browser display. When using both the controller and web browser, be absolutely sure to check the settings using the controller or camera menu.

For details of the required personal computer environment, refer to page 4.

Memo

- Some functions on the web setting screen can be used only from a personal computer which is running Windows.
-

Controls and settings from web screen (continued)

■ Displaying the web screen using a personal computer

The procedure is explained here using Windows screens (Internet Explorer), but it is the same when using the Mac (Safari)* screens.

*: There may be differences in some parts of the screen displays.

1 Start the web browser of the personal computer.

Use one of the web browsers below depending on the operating system installed in the personal computer.

Operating system installed	Web browser
Windows	Internet Explorer
OS X (Mac)	Safari

2 Input "http://192.168.0.10/" in the address box of the web browser.

If the IP address has been changed, input "http://changed IP address/" instead.

If "HTTP port" (page 80) has been changed from its initial setting of "80", input "http://camera's IP address: port number".

Example: If the HTTP port number has been set to "8080":

→ http://192.168.0.10:8080/



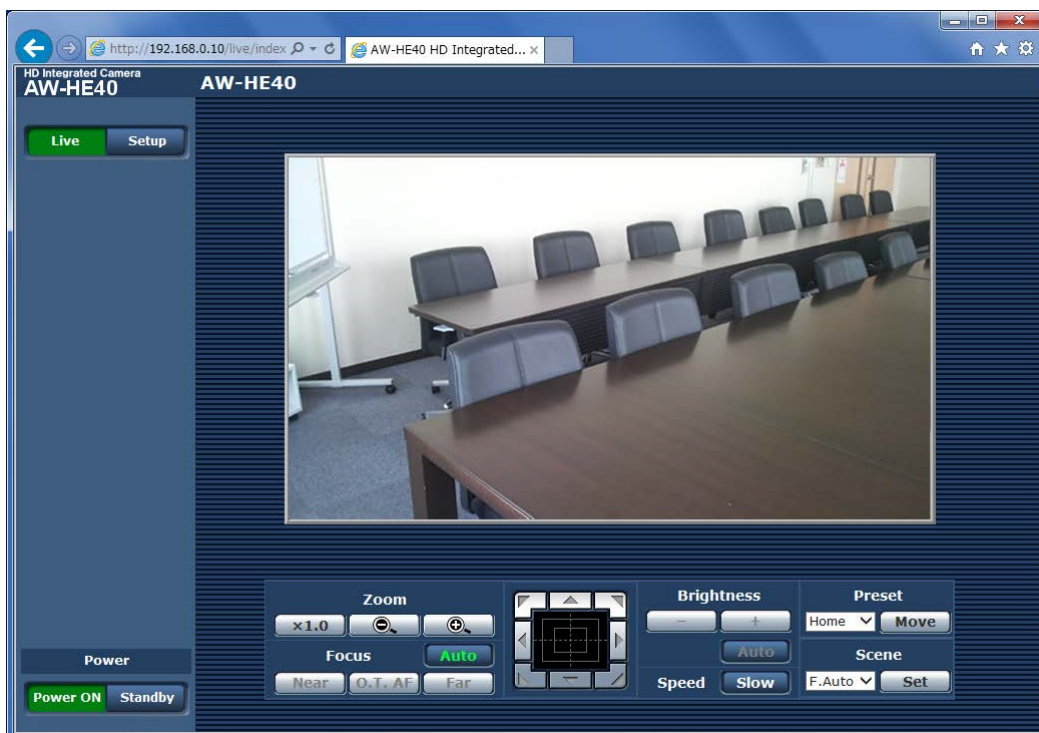
Note

- If the unit is located on the local network, configure proxy server settings on the web browser ([Tool] → [Internet Options] in the menu bar) so that a proxy server is not used for the local address.

3 Press the [Enter] key.

A Live screen is displayed.

For details on the Live screen, see page 57.



Controls and settings from web screen (continued)

Note

- If “On” has been selected as the “User auth.” (page 78), a screen on which to input the user name and password appears before the Live screen is displayed.
The initial settings for the user name and password are given below.

User name	admin
Password	12345

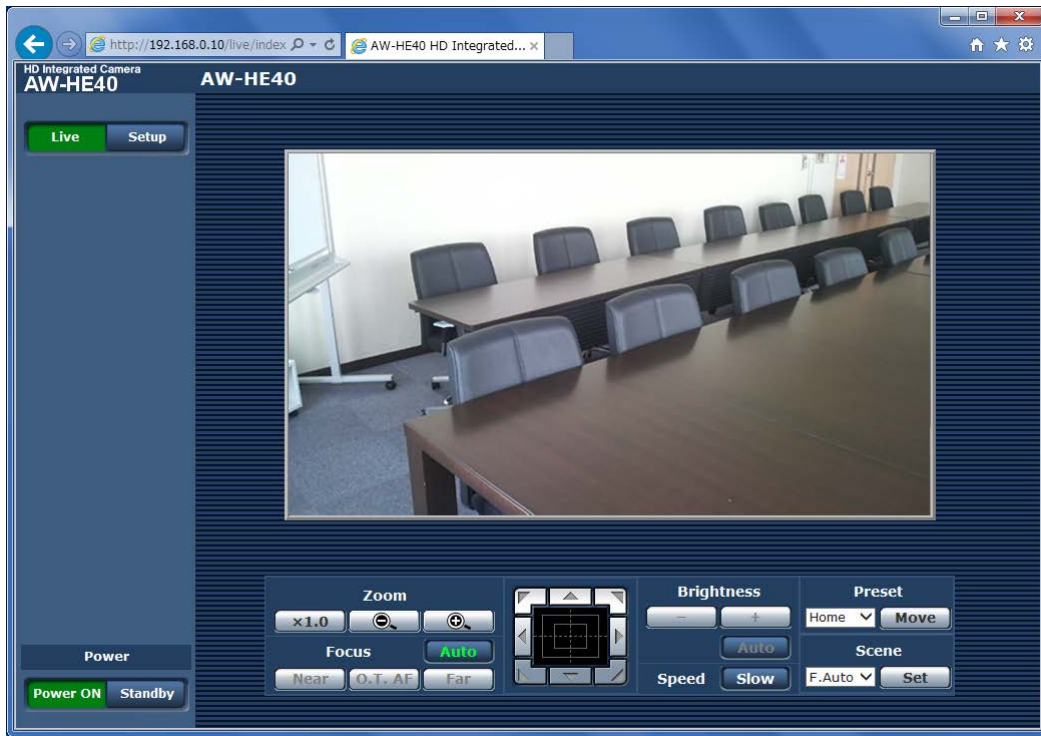
Memo

- While the initial settings remain used for the user name and password, a message prompting the user to change the user name and password is displayed after authorization.
In order to ensure security, the password for the user name of “admin” must be changed without fail.
It is also recommended that the password be changed at regular intervals.
-

Controls and settings from web screen (continued)

■ Live screen

When the **Live** button is pressed, the display switches to the Live screen on which the camera images are displayed and the camera's panning, tilting, zooming, focusing and other functions can be controlled.



- **Power ON button / Standby button**



The unit's power is turned on when the [Power ON] button is pressed.

When the [Standby] button is pressed, the unit is set to the standby mode.

In standby mode, all the buttons on the Live screen except for the [Setup] button and [Power ON] button are disabled.

Notes

- If Power ON or Standby is selected too quickly, the status selected and the display shown may not correspond. In a case like this, follow the steps below to restore the correct status display:

[When using Windows]

Press the [F5] key on the keyboard of the personal computer.

[When using Mac]

Press the [Command] + [R] keys on the keyboard of the personal computer.

- When operation is transferred to the STANDBY mode: The current zoom, focus and iris positions are stored in the memory (POWER ON preset).
- When operation is transferred to the POWER ON mode: The zoom, focus and iris are transferred to the positions which were stored in the memory (POWER ON preset) when operation was transferred to the STANDBY mode.

Controls and settings from web screen (continued)

- **Main area (IP video display area)**



The IP video of the connected camera will be displayed. While the tally lamp is on, the area frame will turn red. When the tally lamp is off, the display area will return to normal.

Notes

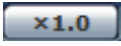


- The IP video refresh speed may be reduced and operations from the web screen may be slower, depending on the network environment used, performance of the personal computer or the mobile terminal, subjects and access count.
- The number of users that can access the unit may be less than 5 depending on the network environment.
- When “Disable” is selected for “Tally” (page 47, page 76), the camera’s tally lamp will not light even when the tally signal is input. However, the area frame of the main area (IP video display area) will turn red.

Memo

- When the shooting scenes vary significantly, restrictions imposed by the graphics processing (GDI) of the operating system installed may give rise to a phenomenon called “screen tearing” (where parts of the picture are not displayed in synchronization) although this will depend on the personal computer used.
-

Controls and settings from web screen (continued)


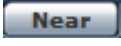
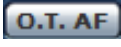

• Zoom

	Use this to adjust the zoom (magnification) to 1.0x.
	Use this to adjust the zoom (magnification) in the Wide direction.
	Use this to adjust the zoom (magnification) in the Tele direction.

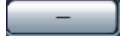
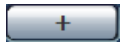

Note

- When the mouse is used for dragging and dropping from the control pad area to a position outside this area, the panning, tilting and other operations will not stop. In a case like this, click the control pad area to stop these operations.


• Focus

	Use this to switch between auto and manual focusing. When Auto is selected, the focus is adjusted automatically.
	Use this to adjust the focus in the Near direction. It does not work during automatic adjustments.
	When this is pressed while the focus is being adjusted manually, the focus will be temporarily adjusted automatically. It does not work during automatic adjustments.
	Use this to adjust the focus in the Far direction. It does not work during automatic adjustments.


• Brightness

	Use this to make the image darker. It does not work during automatic adjustments.
	Use this to make the image lighter. It does not work during automatic adjustments.
	Use this to switch the brightness adjustment between auto and manual. When Auto is selected, the picture brightness is adjusted automatically.

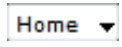

• Speed

	Use this to select the speed at which the pan, tilt, zoom and focus operations are to be performed.
---	---

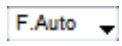

• Control pad and its buttons

	To adjust the image in the horizontal or vertical direction (panning or tilting), left-click the pad and the buttons. The more the outside of the pad is clicked, the faster the camera operates. Adjustment is also possible by dragging the mouse.
	Right-click the pad to initiate zooming and focusing. When the top half of the pad is clicked in the up or down direction, the zoom (magnification) is adjusted in the Tele direction; conversely, when the bottom half of the pad is clicked, the zoom is adjusted in the Wide direction. When the left half of the pad is clicked in the left or right direction, the focus is adjusted in the Near direction; conversely when the right half of the pad is clicked, the focus is adjusted in the Far direction.
	The zooming can also be adjusted by operating the mouse wheel.

• Preset

	When the preset position is selected from the pull-down menu and the [Move] button is clicked, the camera direction moves to the preset position which was registered ahead of time. Preset positions are registered on the preset position screen.
	The camera direction moves to the preset position which is now selected on the pull-down menu. The settings that are reproduced at this position are the settings which were established on the "Preset Scope" menu (see pages 46, 72 and 75). The camera direction moves to the home position if "Home" has been selected on the pull-down menu.

• Scene

	Use this if the scenes are to be switched when the shooting mode is selected from the pull-down menu and the [Set] button is clicked.
	Use this to switch to the shooting mode now being selected using the pull-down menu.

Controls and settings from web screen (continued)

■ Setup screen

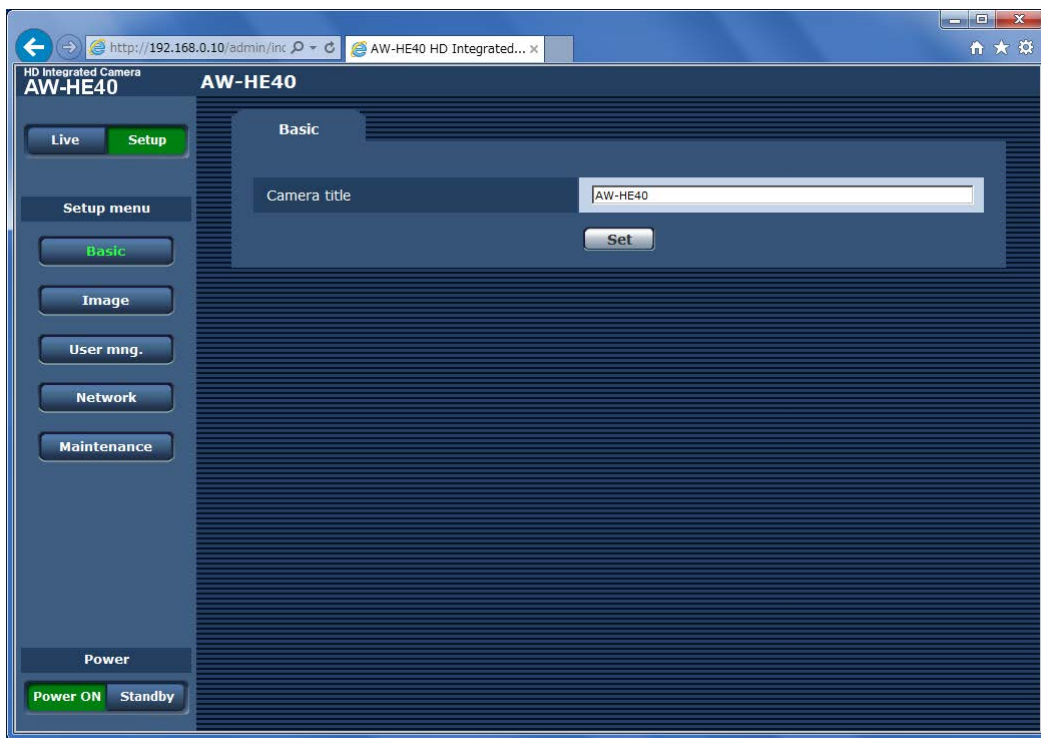
The settings for the unit are selected on this screen.

✎ Memo ✎

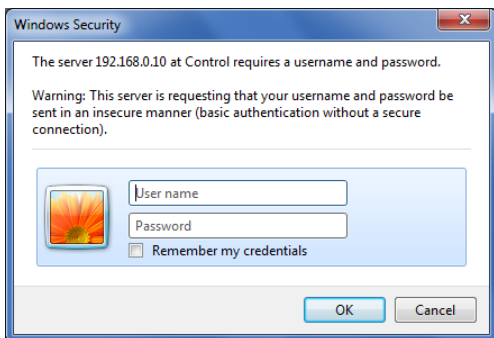
- The setting menu operations can be performed only by users whose access level is “1. Administrator”. For the procedure used to set the access level, refer to page 78.

● Basic screen

Press the **Setup** button to switch to the Setup screen on which to establish the camera’s settings.



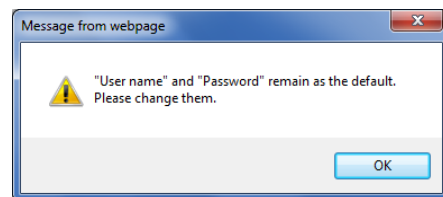
When the [Setup] button is pressed, the login screen shown below is displayed.



The initial settings for the user name and password are given below.

User name	admin
Password	12345

When the [OK] button is clicked after inputting the values, the screen shown below is displayed. Click the [OK] button.



Note

- While the initial settings remain used for the user name and password, a message prompting the user to change the user name and password is displayed after authorization. In order to ensure security, the password for the user name of “admin” must be changed without fail. It is also recommended that the password be changed at regular intervals.

Controls and settings from web screen (continued)

- **Basic button**

A rectangular button with a dark blue background and the word "Basic" in white text.

When the [Basic] button is pressed, the Basic screen is displayed in the area on the right.

Camera title [0 to 20 half-size characters]

<Initial setting: AW-HE40>

Input the name of the camera here.

When the [Set] button is clicked, the input name appears in the camera title display area.

The following characters can be displayed.

● Half-size numeric characters	0123456789
● Half-size alphabetical characters (upper and lower cases)	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz
● Symbols	!#\$%^`() *+, - . / : ; = ? @ [] ^ _ ` { } ~ \

- **Camera title display area**

A dark blue horizontal bar containing the text "HD Integrated Camera" in small white font on the left and "AW-HE40" in larger white font on the right.

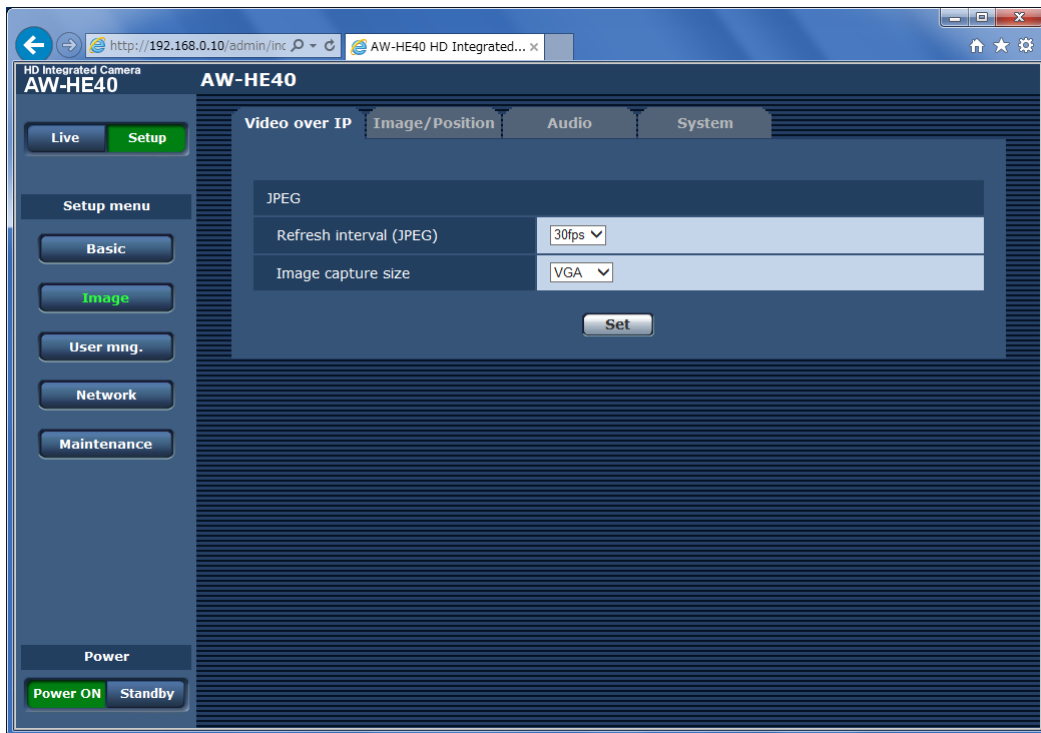
The name of the camera which was set on the Basic screen is displayed here.

Controls and settings from web screen (continued)

● Image screen

IP video settings (Video over IP)

Configure settings for JPEG images.



JPEG image settings

The image refresh interval (refresh speed) and image capture size (resolution) is set here.

Refresh interval (JPEG)

[1fps, 2fps, 3fps, 5fps, 6fps, 10fps, 15fps, 30fps]

Select the speed at which the JPEG images are to be refreshed.

Image capture size [QVGA, VGA]

Set the default resolution for displaying JPEG video in the Live screen.

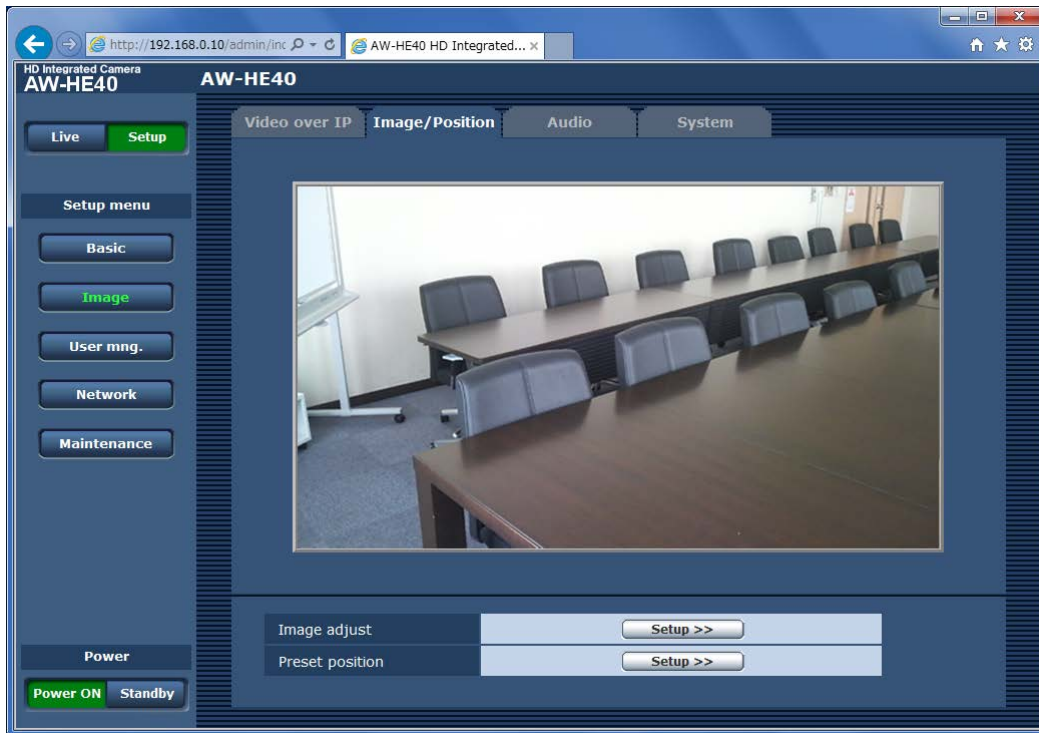
Notes

- If the Live screen of the same camera is opened from multiple computers and the “Refresh interval (JPEG)” value is changed, the change will not be automatically applied to the other computers. To apply the changed value, switch to a different screen from the Live screen, or close and reopen the browser.
- When you change the frame rate and resolution, the bandwidth of the network used will also change.

Controls and settings from web screen (continued)

Image quality adjustment / preset position screen (Image/Position)

Display the image quality adjustment / preset position screen.



- **Main area (IP video display area)**



The IP video of the connected camera will be displayed. While the tally lamp is on, the area frame will turn red. When the tally lamp is off, the display area will return to normal.

Image adjust

When the [Setup] button is clicked, the Image adjust screen is displayed.

Preset position

When the [Setup] button is clicked, the Preset position setting screen is displayed.

Controls and settings from web screen (continued)

Image adjust screen

When Scene is set to "Full Auto"

The screenshot shows the 'Image adjust' web interface in Internet Explorer. The 'Scene' dropdown is set to 'Full Auto'. The interface is divided into several sections: Contrast, Gain, Picture, and Color Matrix. In the Contrast section, 'Contrast Mode' is set to 'Auto' and 'Contrast Level' is 0. In the Gain section, 'Gain' is 'Auto' and 'AGC Max Gain' is 0. In the Picture section, 'AWB' is 'Execute', 'White Balance Mode' is 'ATW', 'Color Temperature' is 0, 'R Gain' and 'B Gain' are 0, 'Detail Level H' is 18, and 'Detail Level L' is 9. In the Color Matrix section, 'Color Matrix' is 'Normal'. A 'Close' button is at the bottom.

When Scene is set to "Manual1 to 3"

The screenshot shows the 'Image adjust' web interface in Internet Explorer. The 'Scene' dropdown is set to 'Manual1'. The interface is divided into several sections: Contrast, Gain, Picture, and Color Matrix. In the Contrast section, 'Contrast Mode' is set to 'Auto' and 'Contrast Level' is 0. In the Gain section, 'Gain' is 'Auto' and 'AGC Max Gain' is 24dB. In the Picture section, 'AWB' is 'Execute', 'White Balance Mode' is 'ATW', 'Color Temperature' is 0, 'R Gain' and 'B Gain' are 0, 'Detail Level H' is 18, and 'Detail Level L' is 9. In the Color Matrix section, 'Color Matrix' is 'Normal'. A 'Close' button is at the bottom.

Controls and settings from web screen (continued)

- **Scene**

[Full Auto, Manual1, Manual2, Manual3]

Selected here is the shooting mode that matches the shooting situation.

Select the mode which best suits the prevailing shooting conditions and the user's preferences.

Full Auto	In this mode, the optimum settings and adjustments for the shooting conditions at hand are automatically established. When "Full Auto" has been selected, the detailed setting and adjustment menus are not displayed.
Manual1 to 3	In these modes, the detailed settings and adjustments are established manually to match the prevailing shooting conditions and the user's preferences. When the Manual1, Manual2 or Manual3 mode has been selected, the detailed setting and adjustment menu for the mode concerned is displayed.

- **Contrast**

Contrast Mode [Auto, Manual]

This item is used to select whether the image brightness (contrast) is to be controlled automatically or manually.

Auto	The iris, shutter speed and frame addition are controlled and the camera brightness is adjusted automatically.
Manual	Operations are performed using the manually set values.

Contrast Level [-10 to +10]

Set here is the contrast level when the image brightness is adjusted.

This item can be set when "Auto" has been selected as the "Contrast Mode" setting.

Shutter Mode [Off, Step, Synchro]

Select for camera shutter mode.

This item can be set when "Manual" has been selected as the "Contrast Mode" setting.

When a higher shutter speed is selected, fast-moving subjects do not become blurred easily but the images will be darker.

Off	The shutter is set to OFF (so that it cannot be tripped).
Step	The step shutter is set (the steps can be changed).
Synchro	The synchro shutter is set (the setting can be changed continuously).

The shutter speeds that can be set are listed below.

[When 59.94 Hz has been set as the unit's frequency]

When "Step" is selected as the "Shutter Mode"	When "Synchro" is selected as the "Shutter Mode"
1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000	59.94 Hz to max. 660.09 Hz (255 steps)

[When 50 Hz has been set as the unit's frequency]

When "Step" is selected as the "Shutter Mode"	When "Synchro" is selected as the "Shutter Mode"
1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000	50.00 Hz to max. 570.12 Hz (255 steps)

Controls and settings from web screen (continued)

Frame Mix [Auto, Off, 6dB, 12dB, 18dB, 24dB]

Select for frame addition (gain-up using sensor storage) amount.

This item can be set when “Off” is selected as the “Shutter Mode” item setting.

When frame addition is performed, it will appear as if the images are missing some frames.

Auto F.Mix Max Gain

[0dB, 6dB, 12dB, 18dB]

When “Auto” for the “Contrast Mode” or “Auto” for the “Frame Mix” is selected, the maximum frame addition amount can be set.

If frame addition is performed at the Auto setting, it will appear as if the images are missing some frames.

Gain

[Auto, 0dB, 3dB, 6dB, 9dB, 12dB, 15dB, 18dB, 21dB, 24dB, 27dB, 30dB, 33dB, 36dB, 39dB, 42dB, 45dB, 48dB]

The image gain is adjusted here.

In locations which are too dark, adjust the gain upward; conversely, in locations which are too bright, adjust it downward.

When “Auto” is set, the light quantity is adjusted automatically.

The noise increases when the gain is increased.

AGC Max Gain

[6dB, 12dB, 18dB, 24dB, 30dB, 36dB, 42dB, 48dB]

When “Auto” is selected as the “Gain” setting, the maximum gain-up amount can be set.

Day/Night [Day, Night, Auto]

This is used to select normal shooting or low light shooting (by exposing the subjects to infrared rays).

For details, see “Contrast 2/2 screen” (page 38).

Night-Day Level [Low, Mid, High]

Adjust the level used while switching from Night mode to Day mode when Day/Night is set to “Auto”.

- This can only be configured when Day/Night is set to “Auto”.

• Picture

Chroma Level [–3 to +3]

Set here is the color intensity (chroma level) of the images.

AWB

This is used to execute automatic white balance (AWB) to set the white balance.

For details, refer to page 17.

White Balance Mode

[ATW, AWB A, AWB B, 3200K, 5600K, VAR]

The white balance mode is selected here.

Select the mode when the coloring is not natural because of the nature of the light source or other factors.

If the white color serving as the reference can be recognized, subjects can be shot with natural coloring.

ATW	This mode automatically corrects the white balance, even if the light source or color temperature changes.
AWB A, AWB B	When AWB A or AWB B is selected and the white balance is executed, the adjustment results obtained are stored in the memory selected. When AWB A or AWB B is then selected, the white balance stored in the selected memory can be recalled.
3200K	This white balance mode is ideal when a 3200K halogen light is used as the light source.
5600K	This white balance mode is ideal when 5600K sunlight or fluorescent lighting is used as the light source.
VAR	Specify a color temperature from 2400K to 9900K.

Color Temperature [2400K to 9900K]

Specify a color temperature from 2400K to 9900K (in increments of about 100K).

This is enabled when White Balance Mode is set to “VAR”.

Controls and settings from web screen (continued)

R Gain, B Gain [–30 to +30]

When “AWB A”, “AWB B” or “VAR” is selected as the White Balance Mode setting, the white balance can be finely adjusted after automatic white balance (AWB) has been performed.

Notes

- When automatic white balance (AWB) is executed, the R Gain and B Gain values are returned to “0”.
- When “AWB A”, “AWB B” or “VAR” is selected as the White Balance Mode setting, the R Gain and B Gain adjustment values can be stored in the three memories, A, B and VAR.
- When new values are set, the previous values are erased.
Use each of the memories for a different purpose in accordance with the shooting conditions.
- R Gain and B Gain adjustments cannot be performed when [White Balance Mode] is set to “ATW”, “3200K”, or “5600K”.

Detail [Off, Low, High]

The image detail (image sharpness) is adjusted here. When “Low” or “High” is selected, the detail is enhanced.

Detail Level H

[Detail Level L setting +1 to 18]

The image sharpness level is adjusted here when “High” has been selected as the “Detail” setting.

Detail Level L

[1 to Detail Level H setting –1]

The image sharpness level is adjusted here when “Low” has been selected as the “Detail” setting.

Flesh Tone Mode [Off, Low, High]

Set here is the flesh tone mode for displaying the subjects' skin so that it appears more smoothly and eye-pleasingly. When “Low” or “High” is selected, the effect is enhanced.

HDR [Off, Low, High]

Adjust the effect of the high dynamic range mode. When HDR is set to “Low”, correction is performed so that the appropriate exposure is obtained for the light and dark areas on subjects with extremely high contrast. When “High” is selected, dark areas are made brighter. Depending on the shooting conditions, however, the picture quality may drop with increased noise. In addition, unit vibration may result in blurry or distorted images.

This effect is not recommended in shooting locations where significant vibration may occur.

Notes

- When the HDR setting is changed, the image will go black and the audio will be muted temporarily.
- When “Low” or “High” is selected, it will take longer for the brightness of the image to converge.
- When “Low” or “High” is selected, brightness cannot be adjusted.
- When “Low” or “High” is selected, video will be delayed by 4 frames.
- When “Low” or “High” is selected, the following settings cannot be changed.
 - Day/Night
 - Night-Day Level
 - Pedestal
 - DRS
 - Gamma Type
 - Back Light COMP.
 - Freeze During Preset
 - Image Stabilizer

DNR [Off, Low, High]

Set here is the level of the digital noise reduction effect so that light, noise-free and clear images will be output even at night and in other low-brightness environments. When “Low” or “High” is selected, noise can be eliminated. However, there is an increased possibility that afterimages may occur.

Pedestal [–10 to +10]

This item is used to adjust the black level (adjust the pedestal) so that the dark parts of the images are easier to see.

These parts become darker when a negative setting is selected and, conversely, lighter when a positive setting is selected.

DRS [Off, Low, High]

Set here is the DRS function which provides just the right amount of compensation when images with significant light/dark differences are displayed.

When “Low” or “High” is selected, the effect is enhanced even more.

Depending on the shooting conditions, however, the picture quality may drop with increased noise.

Gamma Type [Off, Normal, Cinema]

Selected here is the type of gamma curve.

Normally, the “Normal” setting is used.

When “Cinema” is selected, images giving off an atmosphere like movies can be shot.

Controls and settings from web screen (continued)

Gamma Level [Low, Mid, High]

This item is used to adjust the gamma compensation level. This is enabled when Gamma Type is set to "Normal". When "Low" is set, the images appear sedate and composed. The resulting gamma curve has a gentle gradient in the low-brightness areas, and the contrast is sharper. Conversely, when "High" is set, the tonal range in the dark area is expanded so that the images take on a lighter tone. The resulting gamma curve has a sharp gradient in the low-brightness areas, and the contrast is softer.

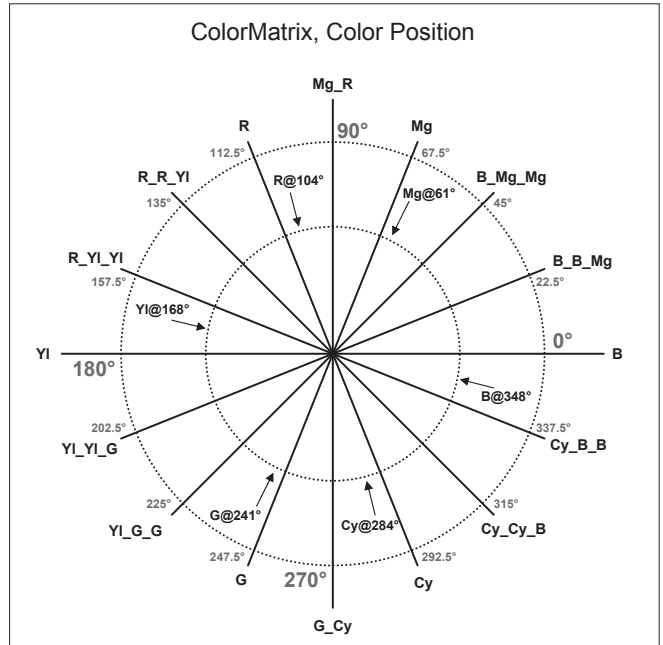
Back Light COMP. [Off, On]

"On" or "Off" is set here for the backlight compensation function. Under backlight conditions, the function prevents darkening as a result of light striking the backs of subjects, and makes it possible to shoot images in shade or shadow more brightly. The function takes effect when "Auto" has been selected as the Contrast Mode, Gain or Frame Mix item setting.

- **Color Matrix**

Color Matrix [Normal, EBU, NTSC, User]

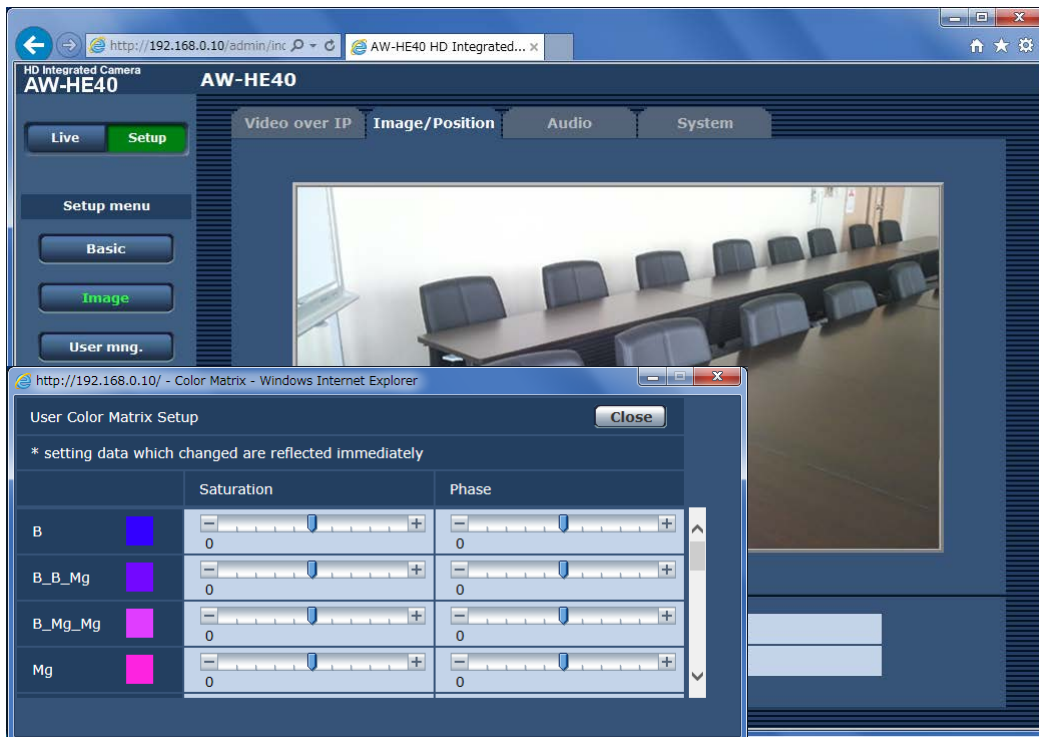
The preset color matrix data is loaded, and the saturation and phase are compensated accordingly. When "User" is selected, the saturation and phase can be finely adjusted using the 16-axis color matrix (B to Cy_B_B).



Controls and settings from web screen (continued)

User Color Matrix Setup screen (color matrix settings screen)

The User Color Matrix Setup screen is displayed when "User" is selected as the "Color Matrix" setting on the Image adjust screen and the [Setup] button is clicked.



B to Cy_B_B: Saturation [-31 to +31]

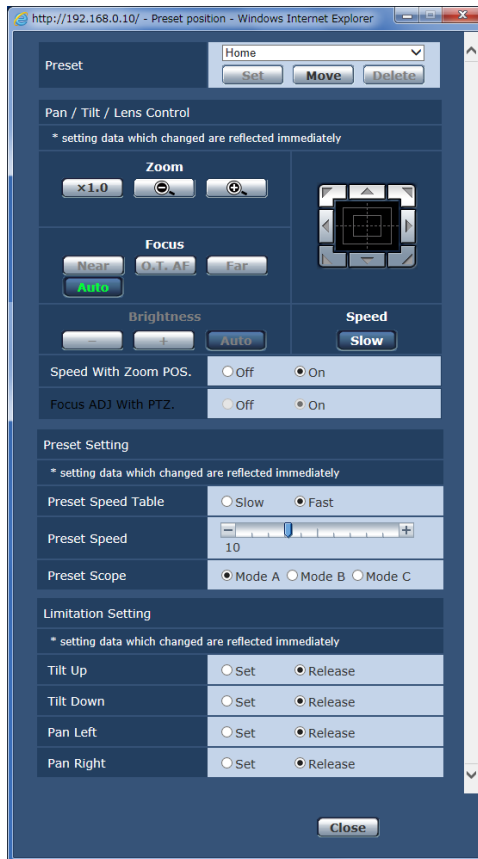
The saturation of B to Cy_B_B can be finely adjusted.

B to Cy_B_B: Phase [-63 to +63]

The phase of B to Cy_B_B can be finely adjusted.

Controls and settings from web screen (continued)

Preset position screen



● Preset

	<p>This selects the preset position to be operated from the pull-down menu. Home or any presets from Preset1 to Preset100 can be selected.</p>
	<p>This is used to register the current status in the preset position now selected on the pull-down menu. It does not function if "Home" has been selected on the pull-down menu.</p>
	<p>The camera direction moves to the preset position which is now selected on the pull-down menu. The settings that are reproduced at this position are the settings which were established on the "Preset Scope" menu (see pages 46, 72 and 75). The camera direction moves to the home position if "Home" has been selected on the pull-down menu.</p>
	<p>This is used to delete the preset position setting which is currently being selected. It does not function if "Home" has been selected on the pull-down menu.</p>

● Pan/Tilt/Lens Control

Zoom




	Use this to adjust the zoom (magnification) to 1.0x.
	Use this to adjust the zoom (magnification) in the Wide direction.
	Use this to adjust the zoom (magnification) in the Tele direction.

Focus

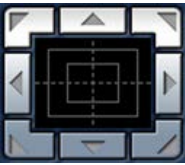
	Use this to adjust the focus in the Near direction. It does not work during automatic adjustments.
	When this is pressed while the focus is being adjusted manually, the focus will be temporarily adjusted automatically. It does not work during automatic adjustments.
	Use this to adjust the focus in the Far direction. It does not work during automatic adjustments.
	Use this to switch between auto and manual focusing.

Controls and settings from web screen (continued)

Brightness

	Use this to make the image darker. It does not work during automatic adjustments.
	Use this to make the image lighter. It does not work during automatic adjustments.
	Use this to switch the picture brightness adjustment between auto and manual.


Control pad and its buttons

	To adjust the image in the horizontal or vertical direction (panning or tilting), left-click the pad and the buttons. The more the outside of the pad is clicked, the faster the camera operates. Adjustment is also possible by dragging the mouse.
	Right-click the pad to initiate zooming and focusing. When the top half of the pad is clicked in the up or down direction, the zoom (magnification) is adjusted in the Tele direction; conversely, when the bottom half of the pad is clicked, the zoom is adjusted in the Wide direction.
	When the left half of the pad is clicked in the left or right direction, the focus is adjusted in the Near direction; conversely when the right half of the pad is clicked, the focus is adjusted in the Far direction.
	The zooming can also be adjusted by operating the mouse wheel.

Note

- When the mouse is used for dragging and dropping from the control pad area to a position outside this area, the panning, tilting and other operations will not stop. In a case like this, click the control pad area to stop these operations.

Speed

	Use this to select the speed at which the pan, tilt, zoom and focus operations are to be performed.
---	---

Speed With Zoom POS.

“Off” or “On” is set here for the function used to adjust the pan-tilt adjustment speed in conjunction with the zoom magnification.

Off	The panning and tilting operations will not become slower in the zoom status.
On	The panning and tilting operations will become slower in the zoom status.

This function has no effect during preset operations.

Focus ADJ With PTZ.

“Off” or “On” is set here for the function which compensates for out-of-focusing when it occurs during panning, tilting or zooming operations.

Off	Out-of-focusing is not compensated.
On	Out-of-focusing is compensated.

When “Off” is set, adjust the focus as required after zooming or set the focus to the auto mode. This item can be selected only when “Manual” has been selected as the “Focus Mode” setting.

Controls and settings from web screen (continued)

- **Preset Setting**

Preset Speed Table [Slow, Fast]

Set the preset speed table (Slow, Fast).
 During preset playback, preset actions are performed at Preset Speed (1 to 30) values that are based on the table set here.

Slow	Set the preset speed table to "Slow".
Fast	Set the preset speed table to "Fast".

Preset Speed [1 to 30]

There are 30 preset pan-tilt operation speeds when regenerating the camera direction and other information which are registered in the preset memory.

Note

- If a high value is selected for the Preset Speed setting, the image on the screen may shake when operation stops.

Preset Scope [Mode A, Mode B, Mode C]

Selected here are the setting items to be recalled when the contents of the preset memory are regenerated.

Mode A	Pan, Tilt, Zoom (including digital zoom), Focus, Iris, Gain, white balance adjustment value
Mode B	Pan, Tilt, Zoom (including digital zoom), Focus, Iris
Mode C	Pan, Tilt, Zoom (including digital zoom), Focus

- **Limitation Setting**

This establishes the up, down, left and right limit settings of the pan-tilt head.
 First, move the pan-tilt head to the position where the limit is to be set, and press the corresponding button below to set the direction (up, down, left or right) in which the limit is to be set.

After each setting has been selected, press the [Set] button to enter the setting.

Tilt Up	Use this to save the current position as the upward limit.
Tilt Down	Use this to save the current position as the downward limit.
Pan Left	Use this to save the current position as the leftward limit.
Pan Right	Use this to save the current position as the rightward limit.
Set/Release	Use this to enable or disable the limit setting in each direction.

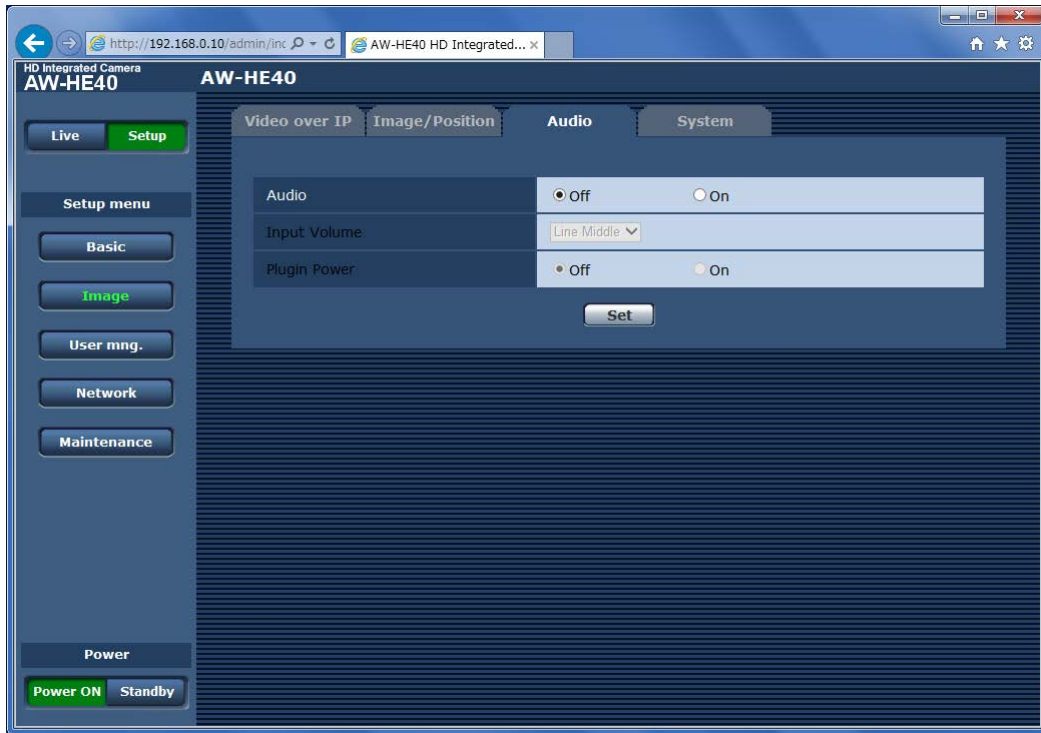
When the [Set/Release] button is pressed, the tally lamp of the AW-HE40 blinks.

When a limiter is set, it blinks once; when a limiter is released, it blinks twice.

Controls and settings from web screen (continued)

Audio screen

This is the menu in which audio settings are configured.



Audio [Off, On]

Enable/disable the audio input signal from the device connected to the audio input connector.

Input Volume

[Mic High, Mic Middle, Mic Low, Line High, Line Middle, Line Low]

Set the mic input, line input, and volume.

Mic High	Use the mic input with the volume set to high.
Mic Middle	Use the mic input with the volume set to medium.
Mic Low	Use the mic input with the volume set to low.
Line High	Use the line input with the volume set to high.
Line Middle	Use the line input with the volume set to medium.
Line Low	Use the line input with the volume set to low.

Plugin Power [Off, On]

Turn the plugin power for the audio off/on.

Note

- This can be configured from the web screen, but audio will not be output for IP videos.

Controls and settings from web screen (continued)

System screen

This is the menu in which the camera's output image settings are configured.

The screenshot displays the web interface for the AW-HE40 camera, specifically the 'System' settings page. The browser address bar shows 'http://192.168.0.10/admin/inc'. The interface is divided into several sections:

- Navigation:** 'Live' and 'Setup' buttons at the top left. A 'Setup menu' sidebar on the left contains buttons for 'Basic', 'Image', 'User mng.', 'Network', and 'Maintenance'. A 'Power' section at the bottom left has 'Power ON' and 'Standby' buttons.
- Tabs:** 'Video over IP', 'Image/Position', 'Audio', and 'System' tabs are visible at the top of the main content area.
- Output Settings:**
 - Format:** A dropdown menu set to '1080/59.94i' with a 'Set' button below it.
 - Frequency:** Radio buttons for '59.94Hz(NTSC)' (selected) and '50Hz(PAL)', with a 'Set' button below.
- Others:** A group of settings including:
 - Install Position:** Radio buttons for 'Desktop' (selected) and 'Hanging'.
 - Preset Speed Table:** Radio buttons for 'Slow' and 'Fast' (selected).
 - Preset Speed:** A slider set to '10'.
 - Preset Scope:** Radio buttons for 'Mode A' (selected), 'Mode B', and 'Mode C'.
 - Freeze During Preset:** Radio buttons for 'Off' (selected) and 'On'.
 - Zoom Mode:** Radio buttons for 'Opt.Zoom', 'i.Zoom' (selected), 'D.Zoom', and 'D.Extender'.
 - Max Digital Zoom:** A slider.
 - Image Stabilizer:** Radio buttons for 'Off' (selected) and 'On'.
 - Speed With Zoom POS.:** Radio buttons for 'Off' and 'On' (selected).
 - Focus Mode:** Radio buttons for 'Auto' (selected) and 'Manual'.
 - Focus ADJ With PTZ.:** Radio buttons for 'Off' and 'On' (selected).
 - Tally:** Radio buttons for 'Disable' and 'Enable' (selected).
 - IR Control:** Radio buttons for 'Disable' and 'Enable' (selected).
 - IR ID:** Radio buttons for 'CAM1' (selected), 'CAM2', 'CAM3', and 'CAM4'.
 - CAM/BAR:** Radio buttons for 'Camera' (selected) and 'Colorbar'.
- OSD Mix:**
 - OSD Off With Tally:** Radio buttons for 'Off' (selected) and 'On'.
 - OSD Status:** Radio buttons for 'Off' (selected) and 'On'.
- Protocol:**
 - Model Select:** A dropdown menu set to 'SEVIHD1' with a 'Set' button below.

Controls and settings from web screen (continued)

- **Output**

This item's setting is reflected when the [Set] button is pressed.

Format

For 59.94Hz:

[Auto, 1080/59.94p, 1080/59.94i, 1080/29.97PsF, 1080/29.97p, 720/59.94p]

For 50Hz:

[Auto, 1080/50p, 1080/50i, 1080/25PsF, 1080/25p, 720/50p]

The video format is changed on this screen.

The formats of the images which can be output differ between the AW-HE40H and AW-HE40S.

For details on how to change the format, refer to "Changing the format" (page 45).

- **Frequency [59.94Hz(NTSC), 50Hz(PAL)]**

This item is selected to switch the frame frequency.

- When the frequency is switched, "Format" is set as follows.

59.94Hz			50Hz	
1080/59.94p	↔		1080/50p	
1080/59.94i	↔		1080/50i	
1080/29.97PsF	↔		1080/25PsF	
1080/29.97p	↔		1080/25p	
720/59.94p	↔		720/50p	

Note

- If you change the frequency, the unit will restart automatically. Operation will not be possible while the unit is restarting. Some peripheral devices may not recognize that the unit has restarted. If you change the frequency, be sure to restart all peripheral devices.

- **Others**

This item's setting is reflected when the [Set] button is pressed.

Install Position [Desktop, Hanging]

"Desktop" or "Hanging" is selected here as the method used to install the unit.

Desktop	Stand-alone installation
Hanging	Suspended installation

- When "Hanging" has been selected, the top, bottom, left and right of the images will be reversed, and up/down/left/right control for panning and tilting will also be reversed.

Preset Speed Table [Slow, Fast]

Set the preset speed table (Slow, Fast).

During preset playback, preset actions are performed at Preset Speed (1 to 30) values that are based on the table set here.

Slow	Set the preset speed table to "Slow".
Fast	Set the preset speed table to "Fast".

Preset Speed [1 to 30]

There are 30 preset pan-tilt operation speeds when regenerating the camera direction and other information which are registered in the preset memory.

Note

- If a high value is selected for the Preset Speed setting, the image on the screen may shake when operation stops.

Preset Scope [Mode A, Mode B, Mode C]

Selected here are the setting items to be recalled when the contents of the preset memory are regenerated.

Mode A	Pan, Tilt, Zoom (including digital zoom), Focus, Iris, Gain, White-BAL
Mode B	Pan, Tilt, Zoom (including digital zoom), Focus, Iris
Mode C	Pan, Tilt, Zoom (including digital zoom), Focus

Controls and settings from web screen (continued)

Freeze During Preset [Off, On]

Turn the function for freezing images during preset playback off/on.

When this is set to "On", preset playback is performed with a still of the image immediately preceding the start of preset playback being output. The image freeze is released when preset playback is finished.

Notes

- When this is set to "On", the start of preset operations may be delayed momentarily due to the image being frozen.
- When HDR is set to "Low" or "High", this is set to "Off".

Zoom Mode

[Opt.Zoom, i.Zoom, D.Zoom, D.Extender]

Configure the maximum zoom magnification.

Opt.Zoom	Use only the optical zoom. Up to 30x optical zoom is possible.
i.Zoom	Enable the i.Zoom function. Enabling this function allows you to perform electronic zoom while reducing drops in picture quality. Combining optical zoom and electronic zoom, up to 40x zoom is possible.
D.Zoom	Enable the digital zoom function. Picture quality degrades as zoom increases with digital zoom.
D.Extender	Enable the digital extender function. When this function is enabled, you can perform optical zoom while maintaining a fixed digital zoom magnification. Smooth zooming operations will be possible at the cost of slight degradation in the image quality.

Max Digital Zoom [x2 to x16]

Set the maximum digital zoom magnification.

This is only enabled when Zoom Mode is set to "D.Zoom".

Image Stabilizer [Off, On]

Turn the digital image stabilization function off/on.

Notes

- The field of view will be narrower when the image stabilization function is active.
- When "On" is selected, video will be delayed by 1 frame.
- When switching between "On" and "Off", the image may go black and the audio may be muted temporarily.
- Image stabilization cannot be performed while Frame Mix is active.
- The effect of the image stabilization function is reduced in low-light environments.
- The unit's image stabilizer function detects movement from the image signal and performs correction. Depending on the shooting conditions, the function may not be able to differentiate between movement of the subject and movement of the unit, resulting in correction errors.

Speed With Zoom POS. [Off, On]

"Off" or "On" is set here for the function used to adjust the camera direction's adjustment speed in conjunction with the zoom magnification.

When "On" is set, the panning and tilting operations will become slower in the zoom status.

This function has no effect during preset operations.

Focus Mode [Auto, Manual]

"Auto" or "Manual" is set here for the focusing function.

Auto	The subjects are always brought into focus automatically.
Manual	The focus is operated manually.

Focus ADJ With PTZ. [Off, On]

"Off" or "On" is set here for the function which compensates for out-of-focusing when it occurs during panning, tilting or zooming operations at the manual focus setting.

This item can be selected only when "Manual" has been selected as the "Focus Mode" setting.

Tally [Disable, Enable]

"Enable" or "Disable" is set here for the function which turns on or turns off the tally lamp using the tally control signal.

Controls and settings from web screen (continued)

IR Control [Disable, Enable]

“Enable” or “Disable” is set here for operations conducted from the wireless remote control.

The operations are enabled when the unit's power is turned on from an external device other than a wireless remote control, and they are disabled when the power is turned on from a wireless remote control.

Notes

- At the point when this item's setting is changed, the new setting is not reflected in operation. It is reflected when the unit is set to standby mode and its power is turned on.
- Follow one of the procedures below if the item's setting is changed by mistake and the unit can no longer be operated from a wireless remote control.

When menu operations can be performed using another control device:

- First change the item using a control device capable of performing menu operations, and then turn off the unit's power and turn it back on.

When menu operations cannot be performed using other control devices:

1. Turn off the power of the units and devices that are connected.
2. Disconnect the unit's AC adaptor cable and LAN cable, and plug them back in.
3. Perform the operation for turning on the unit's power from the wireless remote control.
4. After changing this item, turn off the unit's power and turn it back on.

IR ID [CAM1, CAM2, CAM3, CAM4]

Configure the unit's remote control ID.

The settings for this item correspond to the [CAM1] to [CAM4] buttons on the wireless remote control.

CAM/BAR [Camera, Colorbar]

Switch between color bar display and camera image display on the monitor and the web setup screen.

Note

- When the color bar is displayed, a test tone (1 kHz) is output according to the Audio setting in the camera menu.

• OSD Mix

Whether the camera menus, statuses and other displays are to be turned Off or On can be selected here.

Note

- This can be configured from the web screen, but the OSD menu will not be displayed for IP videos.

OSD Off With Tally [Off, On]

This is used to enable or disable the function for clearing the OSD menu displays when the tally signal is received by a command or contact.

When the tally signal is released, the original OSD menu displays are restored.

OSD Status [Off, On]

“Off” or “On” is set here for the status display which appears during AWB operations.

• Protocol

Model Select

[SEVIHD1, SBRC300, SBRCZ330, Reserved1 to 7]

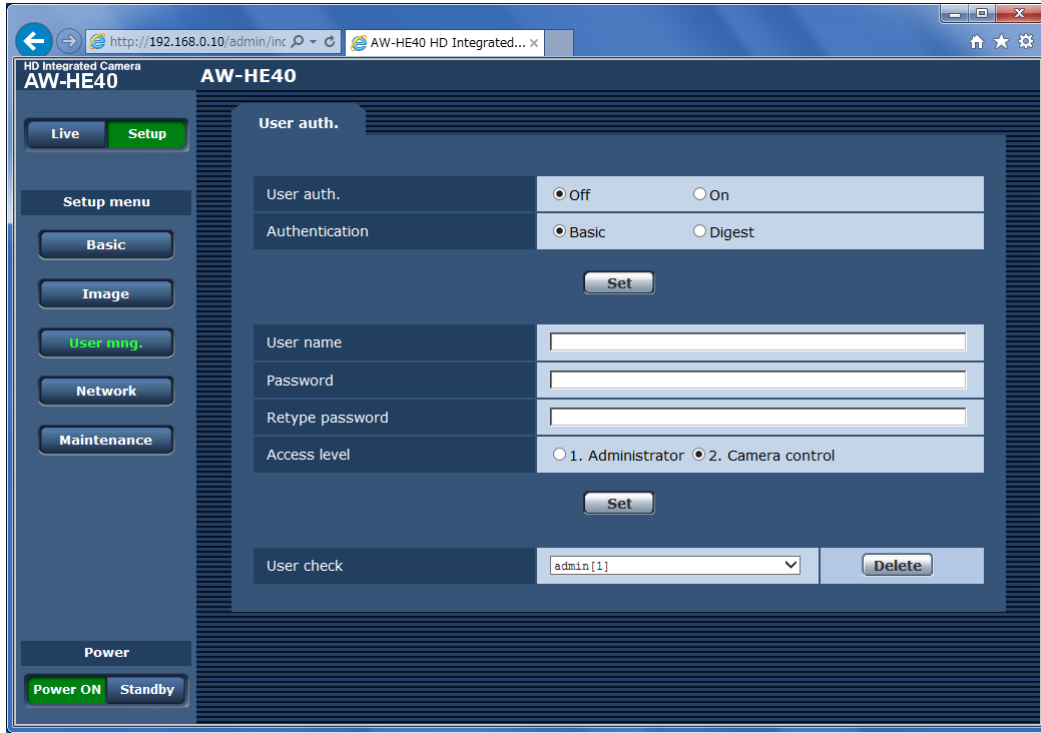
Set the protocol model for standard serial communication. Do not select “Reserved1” to “Reserved7”.

Controls and settings from web screen (continued)

● User mng.

The authorization of those users who can access the camera from a personal computer or AW-RP50 and those IP addresses, from which the camera can be accessed, is registered on this screen in order to restrict any other access.

User auth. screen



● User auth.

User authorization is set to “On” or “Off” here. Enter the setting using the [Set] button.

● Authentication

Specify the method of user authentication to use.

Basic	Use basic authentication.
Digest	Use digest authentication.

Note

- If you change the Authentication setting, close the browser and perform access again.

● User name [1 to 32 half-size characters]

The user name is input here. Enter the setting using the [Set] button.

- For details of usable characters, refer to page 61.

● Password

● Retype password [4 to 32 half-size characters]

The password is input here. Enter the setting using the [Set] button.

● Access level

Select one of the following settings as the user access level. Enter the setting using the [Set] button.

1. Administrator	This access level allows the user to perform all the unit’s operations.
2. Camera control	This access level allows only Live screen operations to be performed.

● User check

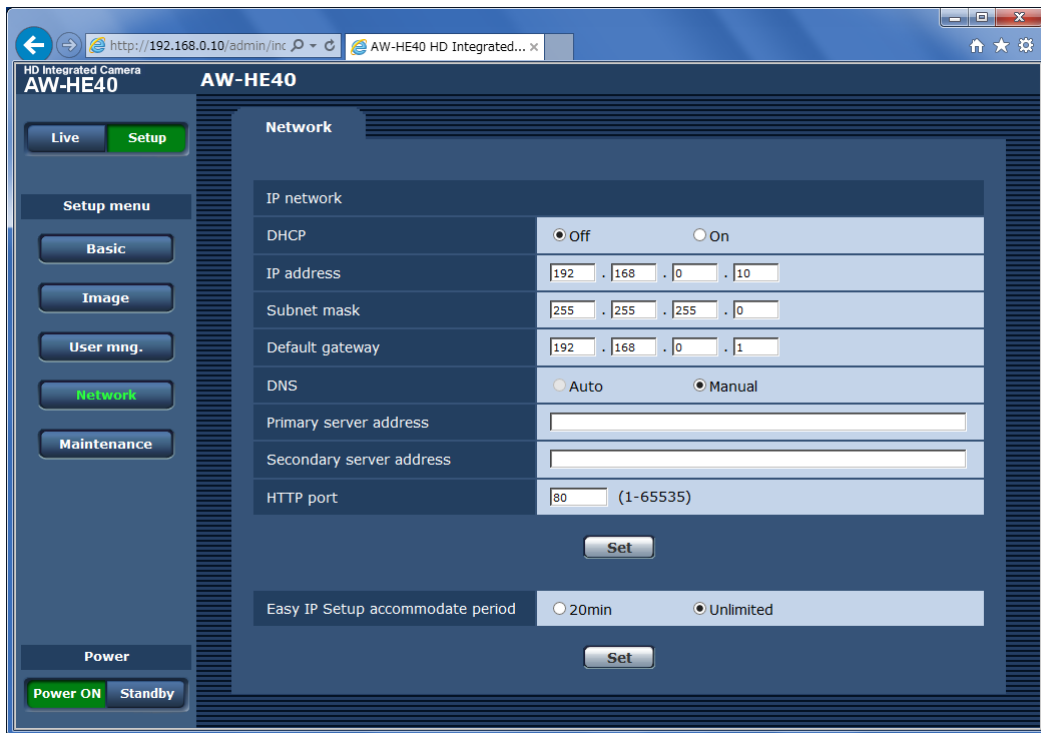
A pull-down menu can be opened here, and the registered users checked. A registered user is indicated in the form of “Registered user name [Access level]”. (Example: admin[1]) To delete a registered user, select the user to be deleted, and click the [Delete] button on the right. Up to 9 users can be registered as users.

Controls and settings from web screen (continued)

● Network

Configure network settings.

Network screen



● IP network

DHCP

Whether the DHCP function is to be used is set by selecting “On” or “Off” here. Set the DHCP server in such a way that the same IP address cannot be used by personal computers without the DHCP function or by other network cameras.

For details on the server settings, consult your network administrator.

IP address

Input the unit's IP address here when the DHCP function is not going to be used. Input an address that will not duplicate an existing IP address which has been set for a personal computer or another network camera.

Memo

- Multiple IP addresses cannot be used even when the DHCP function is used. For details on the DHCP server settings, consult your network administrator.

Controls and settings from web screen (continued)

Subnet mask

Input the unit's subnet mask here if the DHCP function is not going to be used.

Default gateway

Input the unit's default gateway if the DHCP function is not going to be used.

Memo

- Multiple IP addresses cannot be used for the default gateway even when the DHCP function is used. For details on the DHCP server settings, consult your network administrator.

DNS

Whether the DNS server address is to be acquired automatically (Auto) or manually (Manual) is input here. If "Manual" has been selected, the DNS settings must be established.

If "Auto" is selected when the DHCP function is going to be used, the DNS server address is acquired automatically.

For further details, consult your system administrator.

Primary server address

Secondary server address

Input the IP address of the DNS server if the "Manual" setting has been selected for "DNS".

For details on the IP address of the DNS server, consult your system administrator.

HTTP port [1 to 65535]

The port number is allocated here separately.

The following port numbers are used by the unit therefore cannot be used.

Port numbers already used

20, 21, 23, 25, 42, 53, 67, 68, 69,
110, 123, 161, 162, 554, 995, 10669, 10670,
59000 to 59999, 60000 to 61000

- **Easy IP Setup accommodate period**

Select "20min" or "Unlimited" as the time for enabling the operation of the network settings from the Easy IP Setup Software.

20min	The setting operations from the Easy IP Setup Software are enabled for 20 minutes after the camera has started operating.
Unlimited	The setting operations from the Easy IP Setup Software are enabled at all times.

Controls and settings from web screen (continued)

● Maintenance

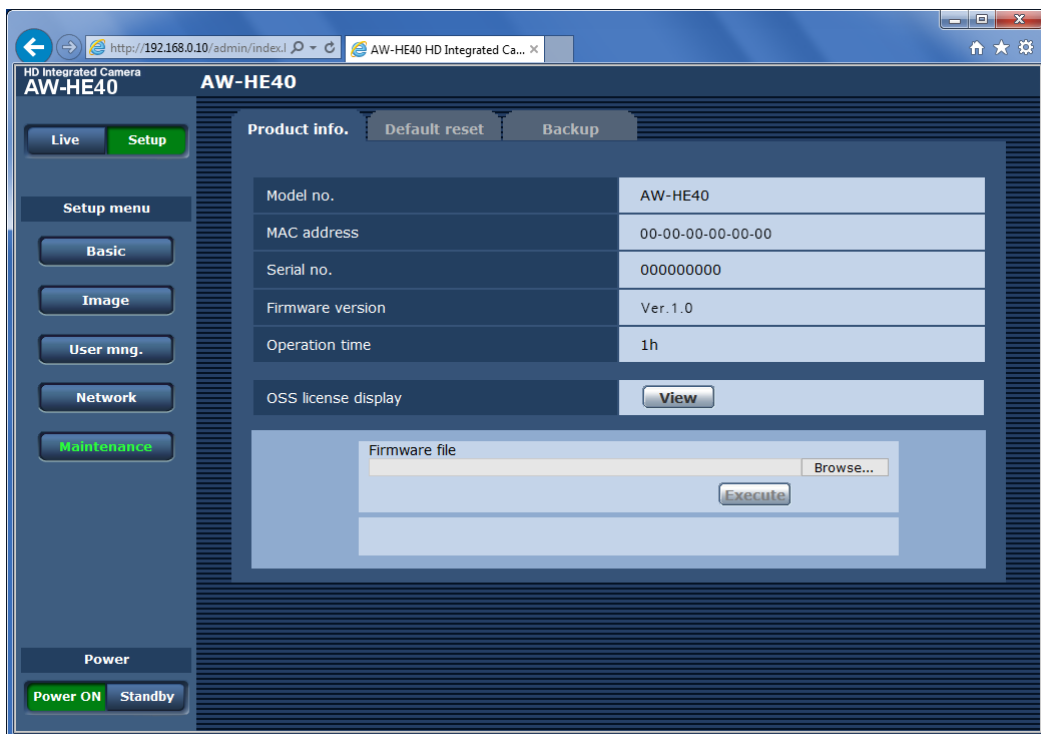
Among the various maintenance operations performed on this screen are system log checks, system version upgrading and initialization of the unit.

The screen itself consists of three tabs: "Product info.", "Default reset" and "Backup".

Product info. screen

The versions of the unit's software can be checked on this screen.

The "Model no.", "MAC address", "Serial no.", "Firmware version" and other information about the unit is displayed.



- **Model no.**
The unit's model number is displayed here.
- **MAC address**
The unit's MAC address is displayed here.
- **Serial no.**
The unit's serial number is displayed here.
- **Firmware version**
This displays the unit's firmware version.
- **Operation time**
Display the unit's total operating time. (Up to 99999h)
- **OSS license display**
When you press the [View] button, the OSS license appears.
Press the [Close] button to close the OSS license display screen.

Controls and settings from web screen (continued)

- Firmware file

1 Download the latest software to your personal computer.

Note

- Keep the maximum combined number of characters to be used for the name of the directory in which the software will be stored and for the name of the software which has been downloaded to less than 250 characters.

2 Click the [Browse] button, and specify the downloaded software.

3 Click the [Execute] button.

The software upgrade check screen is displayed. After upgrading the software version, be absolutely sure to delete the temporary Internet files.

Notes

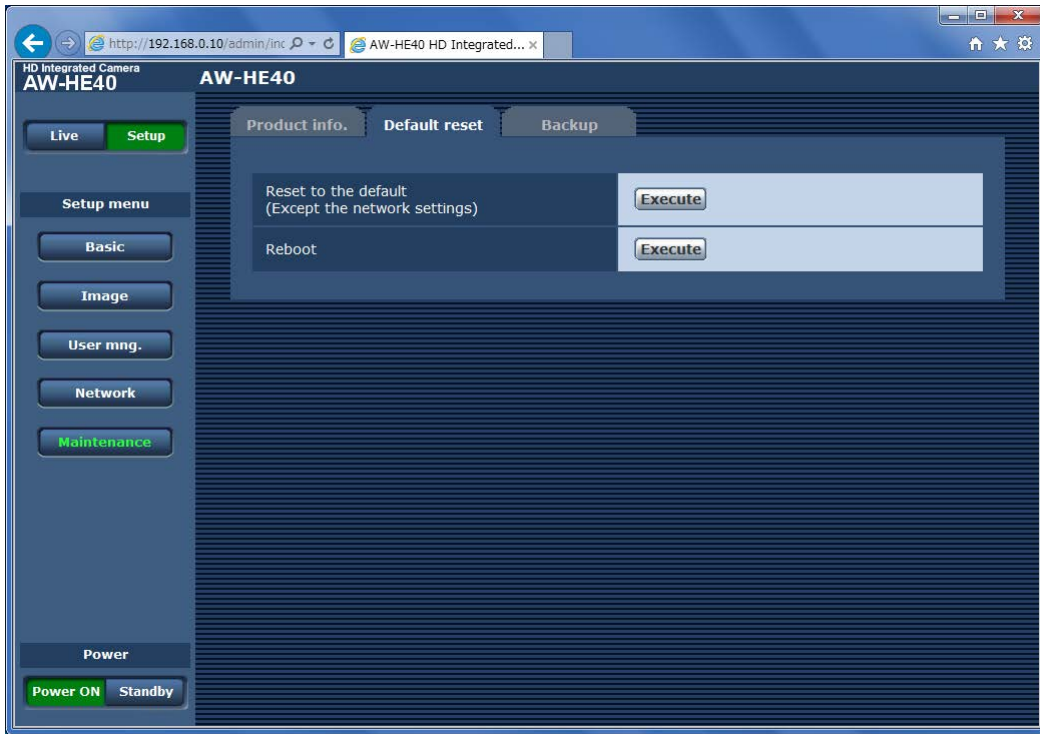
- An upgrade progress bar appears after you click the [Execute] button, and the process will take about 1 minute.
- Use the personal computer on the same subnet as the camera to upgrade the software version.
- Before using the version upgrading software, be absolutely sure to check the precautions to be observed, and follow the instructions.
- Use the following files specified by Panasonic Corporation as the software used for version upgrading.

UPDATE.HDC
- Do not turn off the unit's power while a software version is being upgraded. (A pop-up screen will appear to indicate that the process is complete.)
- While a software version is being upgraded, do not attempt to execute any other operations until the version has been upgraded.

Controls and settings from web screen (continued)

Default reset screen

The unit's setting data is initialized and the unit is restarted on this screen.



- **Reset to the default**

- (Except the network settings)**

- When the [Execute] button is clicked, the unit's settings are returned to their defaults.

The following settings are not initialized.

- All the settings under [Setup] → [Basic]
- All the settings under [Setup] → [Image] → [Video over IP]
- The Format and Frequency settings under [Setup] → [Image] → [System]
- All the settings under [Setup] → [User mng.]
- All the settings under [Setup] → [Maintenance]

When the initialization operation is started, no operations can be undertaken for about 1 minute.

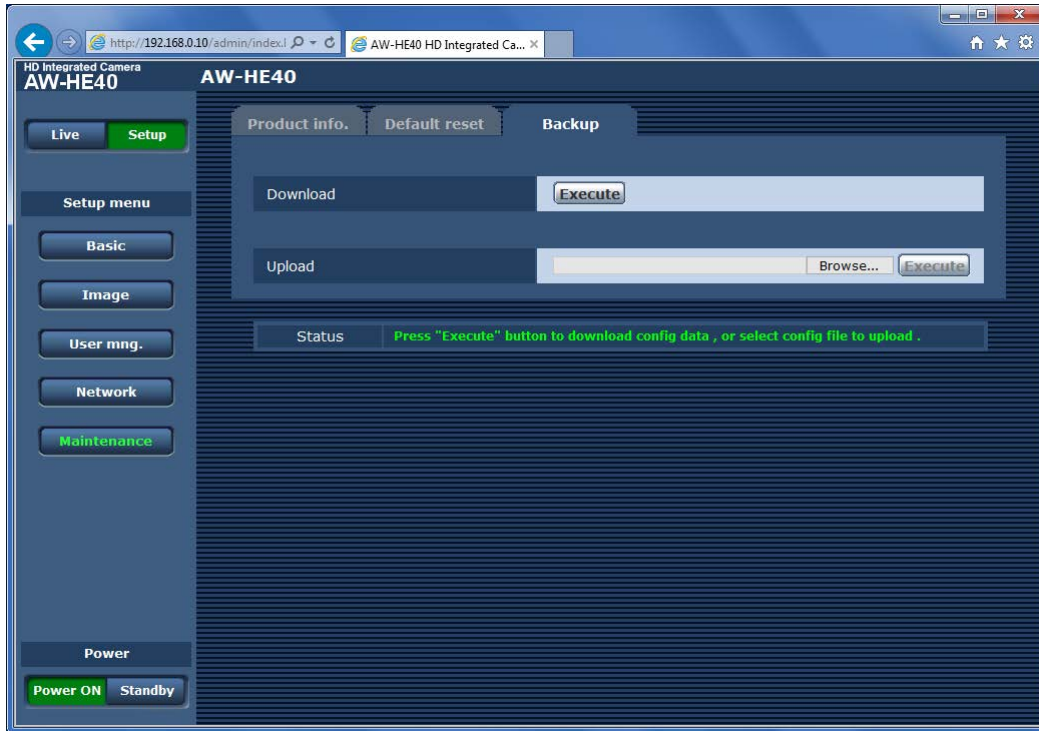
- **Reboot**

- When the [Execute] button is clicked, the unit is rebooted. After the unit has been rebooted, no operations can be undertaken for about 1 minute as is the case when the unit's power is turned on.

Controls and settings from web screen (continued)

Backup screen

On this screen, the unit's settings can be saved to a personal computer or settings saved in a personal computer can be loaded into the unit for use.



• Download

The unit's settings are saved in the personal computer. After displaying the save destination dialog box using the [Execute] button, specify the save destination folder.

The following settings are not saved.

- All the settings under [Setup] → [Basic]
- All the settings under [Setup] → [Image] → [Video over IP]
- The Format and Frequency settings under [Setup] → [Image] → [System]
- All the settings under [Setup] → [User mng.]
- All the settings under [Setup] → [Maintenance]

✎ Memo ✎

- It takes about 10 seconds after the [Execute] button has been clicked for the save destination dialog box to appear.

Controls and settings from web screen (continued)

- **Upload**

The unit's setting files, which were saved in the personal computer by the download function, are uploaded.

Click the [Browse] button to display the dialog box, and specify the saved file.

Uploading starts when the [Execute] button is clicked.

The uploading is completed in about 1 minute, after which a popup display notifying the user that the uploading is completed appears.

Notes

- Depending the security settings of your web browser, “fakepath” may appear for the file path (location) when you click the [Execute] button. However, this does not affect operations.
- Use the files downloaded by the unit as the data to be used for uploading.
Do not change the extension of the files which have been downloaded.
- If the firmware version of the unit at the time a setting file is downloaded differs from that at the time of upload, it may not be possible to upload the setting file.
- Do not turn off the unit's power while downloading or uploading is underway.
- Do not attempt to perform any operations while downloading or uploading is underway. Instead, wait until the downloading or uploading is completed.

- **Status**

The current status of the unit is displayed here.

Web screen item table

Web menu	Setup menu	Sheet	Item		Factory setting		Selection items		
Live				Power	Standby		Power ON, Standby		
				Focus	Auto		Auto, Manual		
				Brightness	Auto		Auto, Manual		
				Speed	Fast		Slow, Fast		
				Preset	Home		Home, Preset1 to Preset100		
			Scene	F.Auto		F.Auto, Man.1, Man.2, Man.3			
Setup	Basic	Basic		Camera title	AW-HE40		----		
	Image	Video over IP	JPEG	Refresh interval (JPEG)	30fps		1fps, 2fps, 3fps, 5fps, 6fps, 10fps, 15fps, 30fps		
				Image capture size	VGA		QVGA, VGA		
		Image/Position	Image adjust	Scene	Full Auto	Manual1 to Manual3	Full Auto, Manual1, Manual2, Manual3		
	Contrast			Contrast Mode	----	Auto	Auto, Manual		
				Contrast Level	0	0	-10 to +10		
				Shutter Mode	----	Off	Off, Step, Synchro		
	Step/Synchro (When "Step" is selected as the "Shutter Mode")			[59.94Hz] 1/100	[50Hz] 1/120	[59.94Hz] 1/100	[50Hz] 1/120	<ul style="list-style-type: none"> When 59.94 Hz is selected: 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 When 50 Hz is selected: 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 	
									Step/Synchro (When "Synchro" is selected as the "Shutter Mode")
	Frame Mix			----	Auto	Auto, Off, 6dB, 12dB, 18dB, 24dB			
	Auto F.Mix Max Gain			----	0dB	0dB, 6dB, 12dB, 18dB			
	Gain			----	Auto	Auto, 0dB to 48dB (3dB increments)			
	AGC Max Gain			----	24dB	6dB to 48dB (6dB increments)			
	Day/Night			Day	Day	Day, Night, Auto			
	Night-Day Level			Mid	Mid	Low, Mid, High			
	Picture					Chroma Level	----	+2	-3 to +3
						White Balance Mode	----	Manual1: ATW Manual2: AWB A Manual3: AWB B	ATW, AWB A, AWB B, 3200K, 5600K, VAR
						Color Temperature	----	3200K	2400K to 9900K (approx. 100K increments)
						R Gain	----	0	-30 to +30
						B Gain	----	0	-30 to +30
						Detail	----	Low	Off, Low, High
						Detail Level H	----	18	Detail Level L setting +1 to 18
						Detail Level L	----	9	1 to Detail Level H setting -1
						Flesh Tone Mode	----	Off	Off, Low, High
						HDR	----	Off	Off, Low, High
						DNR	----	Low	Off, Low, High
						Pedestal	----	0	-10 to +10
						DRS	----	Off	Off, Low, High
	Gamma Type			----	Normal	Off, Normal, Cinema			
	Gamma Level			----	Mid	Low, Mid, High			
	Back Light COMP.	----	Off	Off, On					
	Color Matrix	----	Normal	Normal, EBU, NTSC, User					

Web screen item table (continued)

Web menu	Setup menu	Sheet	Item	Factory setting	Selection items		
Setup	Image	Image/Position	Color Matrix	B Saturation	----	0	-31 to +31
				B Phase	----	0	-63 to +63
				B_B_Mg Saturation	----	0	-31 to +31
				B_B_Mg Phase	----	0	-63 to +63
				B_Mg_Mg Saturation	----	0	-31 to +31
				B_Mg_Mg Phase	----	0	-63 to +63
				Mg Saturation	----	0	-31 to +31
				Mg Phase	----	0	-63 to +63
				Mg_R Saturation	----	0	-31 to +31
				Mg_R Phase	----	0	-63 to +63
				R Saturation	----	0	-31 to +31
				R Phase	----	0	-63 to +63
				R_R_YI Saturation	----	0	-31 to +31
				R_R_YI Phase	----	0	-63 to +63
				R_YI_YI Saturation	----	0	-31 to +31
				R_YI_YI Phase	----	0	-63 to +63
				YI Saturation	----	0	-31 to +31
				YI Phase	----	0	-63 to +63
				YI_YI_G Saturation	----	0	-31 to +31
				YI_YI_G Phase	----	0	-63 to +63
				YI_G_G Saturation	----	0	-31 to +31
				YI_G_G Phase	----	0	-63 to +63
				G Saturation	----	0	-31 to +31
				G Phase	----	0	-63 to +63
				G_Cy Saturation	----	0	-31 to +31
				G_Cy Phase	----	0	-63 to +63
				Cy Saturation	----	0	-31 to +31
				Cy Phase	----	0	-63 to +63
				Cy_Cy_B Saturation	----	0	-31 to +31
				Cy_Cy_B Phase	----	0	-63 to +63
				Cy_B_B Saturation	----	0	-31 to +31
				Cy_B_B Phase	----	0	-63 to +63
		Preset position	Preset	Home	Home, Preset1 to Preset100		
			Focus	Auto	Auto, Manual		
			Brightness	Auto	Auto, Manual		
			Speed	Fast	Slow, Fast		
			Speed With Zoom POS.	On	Off, On		
			Focus ADJ With PTZ.	Off	Off, On		
			Preset Speed Table	Fast	Slow, Fast		
			Preset Speed	10	1 to 30		
			Preset Scope	Mode A	Mode A, Mode B, Mode C		
			Preset position	Tilt Up	Release	Set, Release	
		Tilt Down		Release	Set, Release		
		Pan Left		Release	Set, Release		
		Pan Right		Release	Set, Release		
		Audio	Audio	Off	Off, On		
			Input Volume	Line Middle	Mic High, Mic Middle, Mic Low, Line High, Line Middle, Line Low		
			Plugin Power	Off	Off, On		

Web screen item table (continued)

Web menu	Setup menu	Sheet	Item		Factory setting	Selection items	
Setup	Image	System	Output	Format	[AW-HE40H]		
					[59.94Hz] Auto	Auto, 1080/59.94p, 1080/59.94i, 1080/29.97PsF, 1080/29.97p, 720/59.94p	
					[50Hz] Auto	Auto, 1080/50p, 1080/50i, 1080/25PsF, 1080/25p, 720/50p	
					[AW-HE40S]		
					[59.94Hz] 1080/59.94i	1080/59.94i, 1080/29.97PsF, 1080/29.97p, 720/59.94p	
					[50Hz] 1080/50i	1080/50i, 1080/25PsF, 1080/25p, 720/50p	
				Frequency	AW-HE40HWP, AW-HE40HWP, AW-HE40SWP, AW-HE40SKP: 59.94Hz(NTSC) AW-HE40HWE, AW-HE40HKE, AW-HE40SWE, AW-HE40SKE: 50Hz(PAL)	59.94Hz(NTSC), 50Hz(PAL)	
				Others	Install Position	Desktop	Desktop, Hanging
			Preset Speed Table		Fast	Slow, Fast	
			Preset Speed		10	1 to 30	
			Preset Scope		Mode A	Mode A, Mode B, Mode C	
			Freeze During Preset		Off	Off, On	
			Zoom Mode		i.Zoom	Opt.Zoom, i.Zoom, D.Zoom, D.Extender	
			Max Digital Zoom		x16	x2 to x16	
			Image Stabilizer		Off	Off, On	
			Speed With Zoom POS.		On	Off, On	
			Focus Mode		Auto	Auto, Manual	
			Focus ADJ With PTZ.		Off	Off, On	
	Tally	Enable	Disable, Enable				
	IR Control	Enable	Disable, Enable				
	IR ID	CAM1	CAM1, CAM2, CAM3, CAM4				
	CAM/BAR	Camera	Camera, Colorbar				
	OSD Mix						
	OSD Off With Tally	Off	Off, On				
	OSD Status	Off	Off, On				
	Protocol						
		Model Select	SEVIHD1	SEVIHD1, SBRC300, SBRCZ330, Reserved1, Reserved2, Reserved3, Reserved4, Reserved5, Reserved6, Reserved7			
		User mng.	User auth.	User auth.	Off	On, Off	
				Authentication	Basic	Basic, Digest	
				User name	----		
				Password	----		
				Retype password	----		
				Access level	2. Camera control	1. Administrator, 2. Camera control	
	User check	----					
	Network	Network	IP network	DHCP	Off	On, Off	
				IP address	192.168.0.10		
				Subnet mask	255.255.255.0		
				Default gateway	192.168.0.1		
				DNS	Manual	Auto, Manual	
				Primary server address	----		
				Secondary server address	----		
				HTTP port	80	1 to 65535	
	Easy IP Setup accommodate period	Unlimited	20min, Unlimited				

Web screen item table (continued)

Web menu	Setup menu	Sheet	Item	Factory setting	Selection items
Setup	Maintenance	Product info.	Model no.	AW-HE40	
			MAC address	Separate setting	
			Serial no.	Separate setting	
			Firmware version	Version shipped	
			Operation time	0h	
		Default reset	Reset to the default (Except the network settings)	----	
			Reboot	----	
		Backup	Download	----	
			Upload	----	

Displaying the web screen using a mobile terminal

Connect the mobile terminal to the unit, and display the unit's images. Refreshing to the latest images takes place automatically.
 Operations such as panning, tilting and zooming can also be performed from the mobile terminal.
 The following models are supported as mobile terminals (as of August 2014).

Memo

- For the most recent information on compatible operating systems and web browsers, visit the support desk at the following web site.
<http://pro-av.panasonic.net/>

Mobile terminal	Specifications
iPad iPhone iPod touch	iOS 7.1
Android™ terminals	Android 4.3

- Use a standard browser with an Android terminal.

Memo

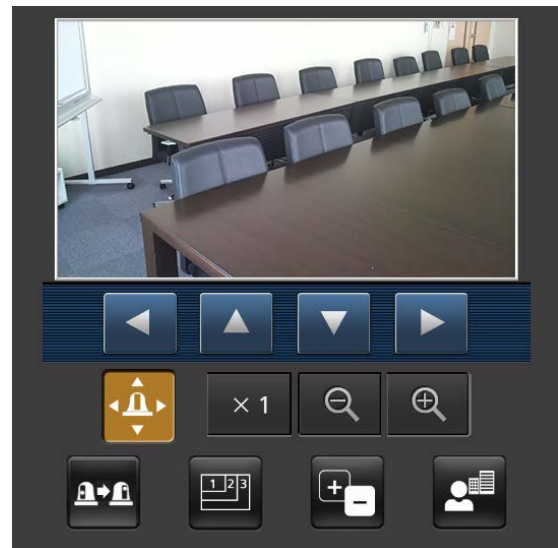
- Input the user name and password if the authorization dialog box is displayed.
 The initial settings for the user name and password are given below.

User name	admin
Password	12345

- In order to ensure security, the password for the user name of "admin" must be changed without fail. (see page 78)
- If the mobile terminal does not support the character code UTF-8, the characters cannot be displayed properly.





1 Input "http://IP address/mobile/" using the mobile terminal, and press the enter button.

The unit's images will now be displayed.



• Pan/Tilt

When this button is pressed, the buttons for performing the pan/tilt operations are displayed on the screen.




	The camera is panned toward the left.
	The camera is tilted upward.
	The camera is tilted downward.
	The camera is panned toward the right.

Note

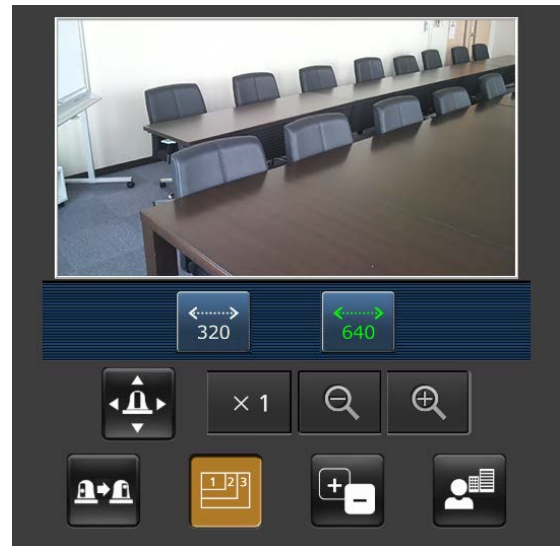
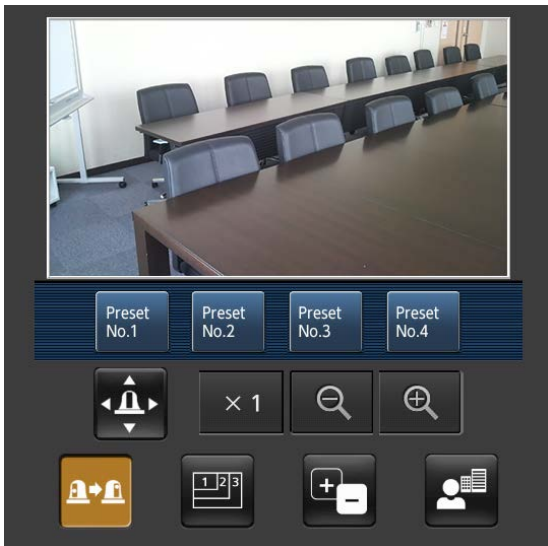
- The camera will not move diagonally even when the pan button and tilt buttons are pressed at the same time. (The button pressed first takes precedence.)

• Zoom

The unit's zooming operations are performed using these buttons.





	Use this to adjust the zoom (magnification) to 1.0x.
	Use this to adjust the zoom (magnification) in the Wide direction.
	Use this to adjust the zoom (magnification) in the Tele direction.


Displaying the web screen using a mobile terminal (continued)



● **Preset** 



When this button is pressed, the buttons for selecting the preset positions are displayed on the screen.

	When one of the displayed buttons is pressed, the camera's pan/tilt position moves to the preset position that was registered ahead of time.
	
	The settings that are reproduced at this position are the settings which were established on the "Preset Scope" menu (see pages 46, 72 and 75).
	

● **Resolution switching** 

When this button is pressed, the buttons for selecting the resolution are displayed on the screen.

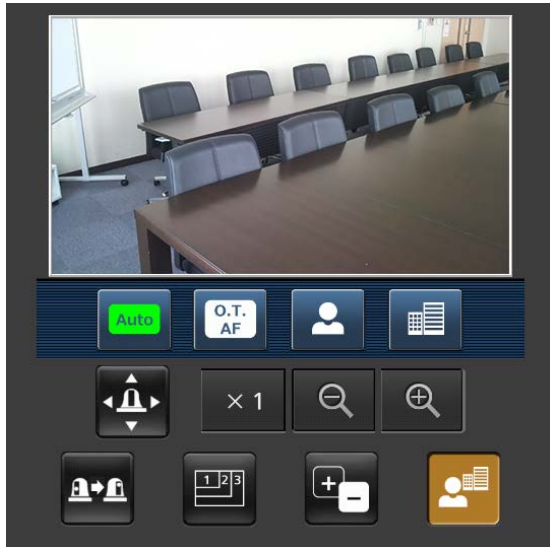
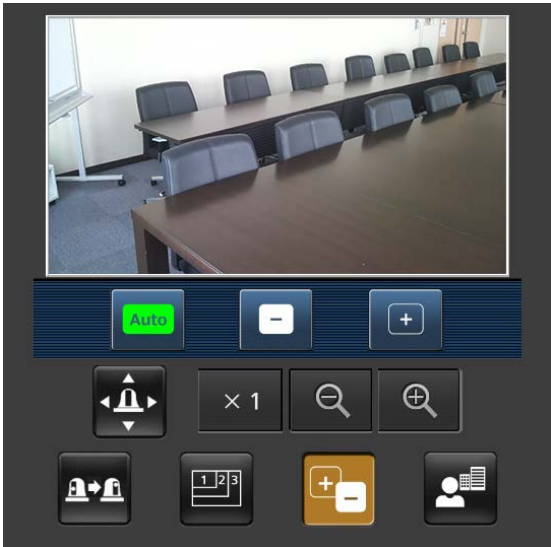
The characters are displayed in green for the resolution button which is currently selected.

	The images are displayed with a resolution of 320 x 180 pixels.
	The images are displayed with a resolution of 640 x 360 pixels.

Note

- The resolution for displaying the images will change but the image size may not change even when the "Resolution switching" button is pressed.

Displaying the web screen using a mobile terminal (continued)



• **Iris**

When this button is pressed, the buttons for performing the iris operations are displayed on the screen.

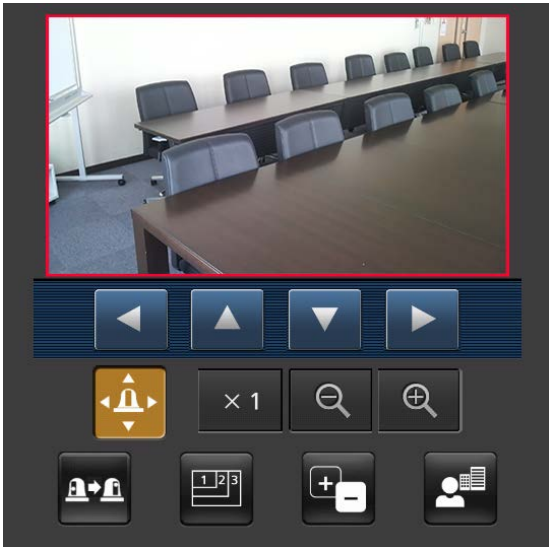
	This switches the iris between auto and manual. At the auto setting, the button label is green.
	This adjusts the iris in the “close” direction. It is disabled in the auto mode.
	This adjusts the iris in the “open” direction. It is disabled in the auto mode.

• **Focus**

When this button is pressed, the buttons for performing the focusing operations are displayed on the screen.

	Use this to switch between auto and manual focusing. At the auto setting, focusing is performed (the focal point is adjusted) automatically. At the auto setting, the button label turns green.
	When this is pressed while the focus is being adjusted manually, the focus will be temporarily adjusted automatically. It does not work during automatic adjustments.
	Use this to adjust the focus in the Near direction. It does not work during automatic adjustments.
	Use this to adjust the focus in the Far direction. It does not work during automatic adjustments.

Displaying the web screen using a mobile terminal (continued)



● Tally lamp lighting status displays

The lighting status of the camera's tally lamp is monitored at regular intervals while the camera is connected, and the lamp's display is updated.

While the tally lamp is on, the IP video display area frame turns red.

When the tally lamp goes off, the display area returns to normal.

Notes

- It may take 2 seconds or so for a change in the lighting status of the tally lamp to be reflected on the display of the mobile terminal.
- When "Disable" is selected for "Tally" (page 47, page 76) the camera's tally lamp will not light even when the tally signal is input. However, the IP video display area frame turns red.

Memo

- If the HTTP port number has been changed from "80", input "http://IP address/mobile/" to specify the unit's port number.
- If the authorization dialog box has appeared, input the administrator or user name and the password. Depending on the mobile terminal, it may be necessary to input the password each time the screen changes.
- If the "User auth." (page 78) setting has been changed to "On" from a personal computer while the mobile terminal screen is displayed, it may not be possible to refresh the mobile terminal screen. In a case like this, first close the web browser which is running on the mobile terminal, and then open the mobile terminal screen again.
- If the images are large, it may not be possible to display them on some mobile terminals.
- If, when using an Android terminal, more than one button is pressed at the same time, one of the buttons may remain pressed even after it has been released. At a time like this, press again only that button that has remained pressed to release it.

Example

When the pan (left) button and pan (right) button are pressed at the same time, either the pan (left) button or pan (right) button will remain pressed, and panning will continue.

→ When the pan (left) button or pan (right) button that has remained pressed is pressed again, the panning will stop.

Limiters

The unit comes with settings (referred to as “limiters”) that restrict the panning and tilting movement ranges.

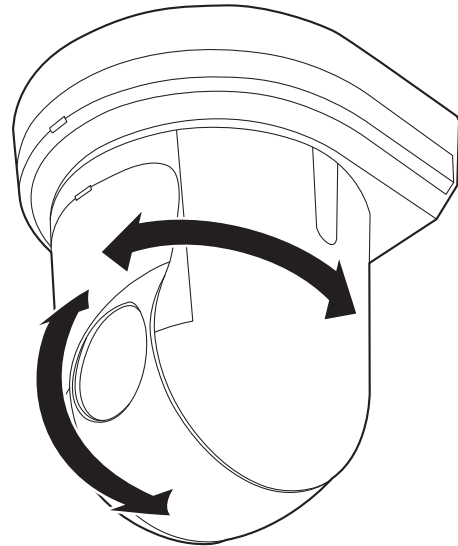
Depending on where the unit has been installed, a subject which the user does not wish to be shot may be present in the movement ranges.

In a case like this, the unit’s shooting range can be limited by setting the limiters at the positions just before the subject which the user does not wish to be shot.

The positions of four limiters — namely, the upper, lower, left-most and right-most limits of the travel range — can be set. Once they have been set, the positions will not be lost even after the power has been turned off.

The limiters can be set or released both by the wireless remote control and controller or web setting screen. Whatever was set or released last takes precedence. For the controller operations, refer to the Operating Instructions of the controller.

The settings of the limiters using the wireless remote control will be described here.



Setting/releasing the limiters

■ Basic limiter operations

1 Press the [MENU] button.

Tap the button (rather than pressing it).
When it is pressed for 2 seconds, the camera menu will appear.
If this happens, press the [MENU] button again for 2 seconds to clear the camera menu.
Then start again from step 1.

2 Press the [▲], [▼], [◀] or [▶] button for 2 seconds while holding down the [PRESET] button.

The limiter for the upper limit, lower limit, left limit or right limit is set (or released) using these direction buttons, respectively.
The tally lamp will blink at this time.
When a limiter is set, it blinks once; when a limiter is released, it blinks twice.
If any other button was operated between steps 1 and 2, start again from step 1.

■ Setting the limiters

The limiter positions can be set by following the steps below.
When the position is set, the tally lamp blinks once.

1 Press one of the [CAM1] to [CAM4] buttons to select the unit.

- **Setting the upper limit position of the movement range**

Press the [▲] or [▼] button of the wireless remote control to turn the unit as far as the position which will serve as the upper limit.

Next, perform the steps in “Basic limiter operations”.
(Press the [MENU] button quickly and then press the [▲] button for 2 seconds while holding down the [PRESET] button.)

- **Setting the lower limit position of the movement range**

Press the [▲] or [▼] button of the wireless remote control to turn the unit as far as the position which will serve as the lower limit.

Next, perform the steps in “Basic limiter operations”.
(Press the [MENU] button quickly and then press the [▼] button for 2 seconds while holding down the [PRESET] button.)

- **Setting the left-most limit position of the movement range**

Press the [◀] or [▶] button of the wireless remote control to turn the unit as far as the position which will serve as the left-most limit.

Next, perform the steps in “Basic limiter operations”.
(Press the [MENU] button quickly and then press the [◀] button for 2 seconds while holding down the [PRESET] button.)

- **Setting the right-most limit position of the movement range**

Press the [◀] or [▶] button of the wireless remote control to turn the unit as far as the position which will serve as the right-most limit.

Next, perform the steps in “Basic limiter operations”.
(Press the [MENU] button quickly and then press the [▶] button for 2 seconds while holding down the [PRESET] button.)

Setting/releasing the limiters (continued)

■ Releasing the limiters

The limiter positions that are set can be released by following the steps below.

When the position is released, the tally lamp blinks twice.

1 Press one of the [CAM1] to [CAM4] buttons to select the unit.

2 Release the limiters by taking the steps below.

- **Releasing the upper limit position of the movement range**
Perform the steps in “Basic limiter operations”.
(Press the [MENU] button quickly and then press the [▲] button for 2 seconds while holding down the [PRESET] button.)
- **Releasing the lower limit position of the movement range**
Perform the steps in “Basic limiter operations”.
(Press the [MENU] button quickly and then press the [▼] button for 2 seconds while holding down the [PRESET] button.)
- **Releasing the left-most limit position of the movement range**
Perform the steps in “Basic limiter operations”.
(Press the [MENU] button quickly and then press the [◀] button for 2 seconds while holding down the [PRESET] button.)
- **Releasing the right-most limit position of the movement range**
Perform the steps in “Basic limiter operations”.
(Press the [MENU] button quickly and then press the [▶] button for 2 seconds while holding down the [PRESET] button.)

■ Resetting the limiters

To reset the limiters, the currently established settings must be released.

The limiter positions that are set can be reset by following the steps below.

1 Release the settings of the limiter positions to be reset by following the steps in “Releasing the limiters”.

2 Set the limiter positions by following the steps in “Setting the limiters”.

Index

Numerics	
16-axis color matrix	42
A	
Menu Access level	78
Menu AGC Max Gain	37, 66
AK-HRP200	32
Menu Audio	48, 73
Audio screen	73
Menu Authentication	78
Menu Auto F.Mix Max Gain	37, 66
Automatic adjustment (AWB)	17
Auto tracking white adjustment (ATW)	19
Menu AWB	66
AW-RP50	25
AW-RP120	29
B	
Menu Back Light COMP.	41, 68
Backup screen	84
Basic button	61
Basic screen	60
Menu B Gain	39, 67
Menu Brightness	59, 71
Menu B to Cy_B_B	
Phase	42, 69
Saturation	42, 69
C	
Menu CAM/BAR	47, 77
Menu Camera	35
Camera screen	36
Menu Camera title	61
Camera title display area	61
Changing the format	45
Changing the frequency	45
Menu Chroma Level	39, 66
Menu Color Matrix	68
Menu Color Temperature	39, 66
Concerning initialization	50
Menu Contrast	36, 65
Contrast 1/2 screen	37
Contrast 2/2 screen	38
Menu Contrast Level	36, 37, 65
Menu Contrast Mode	37, 65
Control pad and its buttons	59, 71
D	
Menu Day/Night	36, 38, 66
Menu Default gateway	80
Menu Default Gateway	50
Default reset screen	83
Menu Detail	40, 67
Menu Detail Level H	40, 67
Menu Detail Level L	40, 67
Menu DHCP	79
Menu DNR	41, 67
Menu DNS	80
Menu Download	84
Menu DRS	40, 67

E	
Menu Easy IP Setup accommodate period	80
F	
Menu Firmware file	82
Menu Firmware version	81
Menu Firmware Version	49
Firmware Version screen	49
Menu Flesh Tone Mode	40, 67
Menu Focus	59, 70, 92
Menu Focus ADJ With PTZ.	46, 71, 76
Menu Focus Mode	46, 76
Menu Format	44, 75
Menu Frame Mix	37, 66
Menu Freeze During Preset	46, 76
Menu Frequency	44, 75
G	
Menu Gain	37, 66
Menu Gamma Level	40, 68
Menu Gamma Type	40, 67
H	
Menu HDR	40, 67
Menu HTTP port	80
I	
Menu Image adjust	63
Image adjust screen	64
Menu Image capture size	62
Image/Position screen	63
Image screen	62
Menu Image Stabilizer	47, 76
Initialize	50
Menu Initialize	49
Menu Input Volume	48, 73
Menu Install Position	46, 75
Menu IP address	79
Menu IP Address	50
Menu IP network	79
Menu IP Network	49
IP Network screen	50
IP video display area	58, 63
Menu IR Control	47, 77
Menu IR ID	47, 77
Menu Iris	92
J	
Menu JPEG	62
L	
Menu Limitation Setting	72
Live screen	57

Index (continued)

M

Menu	MAC address	81
	Main area	58, 63
	Maintenance	81
Menu	Maintenance	35
	Maintenance screen	49
	Manual adjustment (R gain and B gain adjustment)	20
Menu	Matrix	36
Menu	Matrix Type	42
Menu	Max Digital Zoom	47, 76
Menu	Model no.	81
Menu	Model Select	77

N

	Network	79
	Network screen	79
Menu	Night-Day Level	36, 38, 66

O

Menu	Operation time	81
Menu	OSD Mix	77
Menu	OSD Off With Tally	48, 77
Menu	OSD Status	48, 77
Menu	OSS license display	81
Menu	Others	43, 75
	Others 1/3 screen	46
	Others 2/3 screen	47
	Others 3/3 screen	48
Menu	Output	43, 75
	Output screen	44

P

Menu	Pan/Tilt	90
Menu	Pan/Tilt/Lens Control	70
Menu	Password	78
Menu	Pedestal	39, 67
Menu	Picture	36, 66
	Picture 1/3 screen	39
	Picture 2/3 screen	40
	Picture 3/3 screen	41
Menu	Plugin Power	48, 73
	Power ON button / Standby button	57
Menu	Preset	59, 70, 91
	Preset memories	16
Menu	Preset position	63
	Preset position screen	70
Menu	Preset Scope	46, 72, 75
Menu	Preset Setting	72
Menu	Preset Speed	46, 72, 75
Menu	Preset Speed Table	46, 72, 75
Menu	Primary server address	80
	Product info. screen	81
Menu	Protocol	77
Menu	Protocol Model Select	48

R

Menu	Reboot	83
Menu	Refresh interval (JPEG)	62
	Remote Camera Controller	25, 29
	Remote Operation Panel	32
Menu	Reset to the default	83
Menu	Resolution switching	91
Menu	Retype password	78
Menu	R Gain	39, 67

S

Menu	Scene	36, 59, 65
Menu	Secondary server address	80
Menu	Serial no.	81
	Setup screen	60
Menu	Shutter Mode	37, 65
	Shutter speed	15, 37, 65
Menu	Speed	59, 71
Menu	Speed With Zoom POS.	46, 71, 76
	Status	85
Menu	Step/Synchro	37
Menu	Subnet mask	80
Menu	Subnet Mask	50
Menu	System	35
	System screen	43, 74

T

Menu	Tally	47, 76
Menu	Tally lamp lighting status displays	93
Menu	Top Menu	35
	Top Menu screen	35

U

Menu	Upload	85
Menu	User auth.	78
	User auth. screen	78
Menu	User check	78
	User Color Matrix Setup screen	69
	User mng.	78
Menu	User name	78

V

	Video over IP screen	62
--	----------------------------	----

W

Menu	White Balance Mode	39, 66
-------------	--------------------------	--------

Z

Menu	Zoom	59, 70, 90
Menu	Zoom Mode	47, 76

