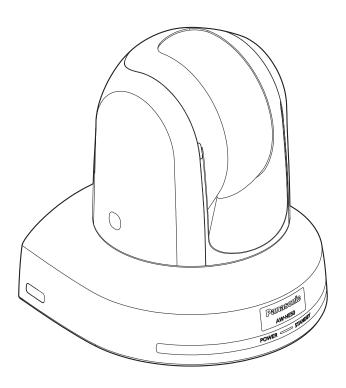
Panasonic[®]

Operating Instructions <Operations and Settings>

HD Integrated Camera

Model No. AW-HE50HN AW-HE50SN



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Before use

Overview

- This unit is a compact full HD camera integrated with a pan-tilt head and featuring a newly developed 1/3-inch full HD MOS sensor and digital signal processor (DSP).
- In addition to its optical 18× zoom lens, the unit comes with a 10× digital zoom to achieve high-quality shooting that overflows with ambiance.
- Two models are available: the HDMI model AW-HE50H
 which is ideal for distributing the signals of TV conference
 and other video events, and the SDI output model
 AW-HE50S which is ideal for creating content.
 Besides IP control, both models allow connection with
 existing camera controllers by way of serial control.

■ Concerning the Operating Instructions

 For the purposes of this manual, the model number AW-HE50HN is referred to as the "AW-HE50H", the AW-HE50SN as the "AW-HE50S" and model numbers AW-HE50HN and AW-HE50SN will be referred to together as the "AW-HE50".
 Similarly, the model number AW-RP655N is referred as the "AW-RP655", the AW-RP555N as the "AW-RP555" and the AW-RP50N as the "AW-RP50".

How the model's Operating Instructions manuals are configured

• The manual of this HD integrated camera (hereafter, "the unit") is divided into two manuals: one is the <Operations and Settings> (this manual in the CD-ROM), and the other is the <Basics>.

Before installing the unit, be sure to read the <Basics> to ensure that the unit is installed correctly.

■ Required personal computer environment

СРИ	Intel® Core™2 DUO 2.4 GHz or faster recommended		
Memory	512 MB or more (When using Microsoft® Windows Vista®: 1 GB or more, and when using Microsoft® Windows® 7: 1 GB [32 bits] or 2 GB [64 bits] 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 bits or more		
Supported operating system and Web browser	Microsoft® Windows® 7 Professional 64-bit*1 Microsoft® Windows® 7 Professional 32-bit*1		
	Windows® Internet Explorer® 8.0*2		
	Microsoft® Windows Vista® Business SP1 32-bit		
	Windows® Internet Explorer® 7.0		
	Microsoft® Windows® XP Home Edition SP3*3		
	Microsoft® Windows® XP Professional Edition SP3*3		
	Microsoft® Internet Explorer® 6.0 SP3		
	*1: This cannot be used in the Windows® XP compatibility mode.		
	*2: This cannot be used with the 64-bit version of Internet Explorer® 8.0.		
	*3: The Microsoft® Windows® XP Professional x64 Edition is not supported.		
Other	CD-ROM drive (for using the Operating Instructions and various software) Adobe® Reader® (for browsing the Operating Instructions on the CD-ROM)		

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.

When using Microsoft® Windows Vista® or Microsoft® Windows® 7, refer to the "Notes on Windows Vista®/ Windows® 7" (page 84) for details on the personal computer environment that is required and on the precautions and other items.

■ Trademarks and registered trademarks

- Microsoft, Windows, Windows Vista, Windows 7 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.
- 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 this unit are expressly prohibited.

Before use

■ Disclaimer of warranty

IN NO EVENT SHALL Panasonic System Networks Co., Ltd. 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 LOSS OF REGISTERED DATA CAUSED BY ANY FAILURE.

■ Network security

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

- 1) Leakage or theft of information through this unit
- Use of this unit for illegal operations by persons with malicious intent
- ③ Interference with or stoppage of this 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 this unit in a network secured by a firewall, etc.
- If this unit is connected to a network that includes PCs, 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.
- Apply measures such as user authentication to protect your network against leakage or theft of information, including authentication information (user names and passwords), FTP server information and DDNS server information.
- Do not install the camera in locations where the camera or the cables can be destroyed or damaged by persons with malicious intent.

Basic shooting operations

- 1 Set the subject brightness to the appropriate level.
- 2 Turn on the power of all the units and devices in the system.
- 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 (FullAuto, 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 "FullAuto" 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. With the basic operations, it is assumed that the focus, iris and white balance will be adjusted automatically (as per the factory settings).

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 13) and "Camera screen" (page 39) in "Setting the menu items".

How to turn the power on and off

■ Turning the power on

When performing the operations using the wireless remote control

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

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

The initial operation is then performed, and after this the unit is set to the standby mode.

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. (Status display lamp: light up orange)
- When operation is transferred to the standby mode: The current pan-tilt position is stored in the memory (as a POWER ON preset), and the panning/tilting moves so that the camera points in the backward-facing direction.
- When operation is transferred to the POWER ON mode: Panning/tilting moves to the position which was stored in the memory (as a POWER ON preset) when operation was transferred to the standby mode.

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.

When performing the operations using the controller

When the AW-RP655 or AW-RP555 is connected:

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

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

The initial operation is then performed, and after this the unit is set to the standby mode.

2 Set the [OPERATE] switch on the controller to ON.

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. (Status display lamp: light up orange)
- When operation is transferred to the standby mode: The current pan-tilt position is stored in the memory (as a POWER ON preset), and the panning/tilting moves so that the camera points in the backward-facing direction.
- When operation is transferred to the POWER ON mode: Panning/tilting moves to the position which was stored in the memory (as a POWER ON preset) when operation was transferred to the standby mode.

Before setting the [OPERATE] switch on the controller to ON, be absolutely sure to set all the power switches of the units and devices connected in the system to ON.

For further details, refer to the Operating Instructions of the controller.

When the AW-RP50 is connected:

Refer to the Operating Instructions of the controller.

How to turn the power on and off

■ Turning the power off

When performing the operations using the wireless remote control

- 1 Press one of the [CAM1] to [CAM4] buttons on the wireless remote control to select the unit.
- 2 Press the [ON/STANDBY] button on the wireless remote control for 2 seconds.

The unit's power is turned off.

- The unit's status display lamp now lights up orange.
- 3 If a multiple number of units are going to be 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 operation is transferred to the standby mode: The current pan-tilt position is stored in the memory (as a POWER ON preset), and the panning/tilting moves so that the camera points in the backwardfacing direction.
- When operation is transferred to the POWER ON mode: Panning/tilting moves to the position which was stored in the memory (as a POWER ON preset) when operation was transferred to the standby mode.

When performing the operations using the controller

- When the AW-RP655 or AW-RP555 is connected:
- 1 Set the [OPERATE] switch on the controller to OFF.

The power of all the cameras (including the unit) connected to the controller is turned off.

- The unit's status display lamp now lights up orange.
- 2 Set all the power switches of the units and devices connected in the system to OFF.

Notes

- When operation is transferred to the standby mode: The current pan-tilt position is stored in the memory (as a POWER ON preset), and the panning/tilting moves so that the camera points in the backwardfacing direction.
- When operation is transferred to the POWER ON mode: Panning/tilting moves to the position which was stored in the memory (as a POWER ON preset) when operation was transferred to the standby mode.

For further details, refer to the Operating Instructions of the controller.

When the AW-RP50 is connected:

Refer to the Operating Instructions of the controller.

Selecting the units

Up to four units can be operated using one wireless remote control.

Up to five units and devices can be operated using one controller.

Select the unit (or units) to be operated from the wireless remote control or controller.

Even when using only one unit, it must still be selected.

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 the AW-RP655 is connected:
- 1 Press the [1], [2], [3], [4] or [5] button of [CONTROL/PREVIEW MONITOR OUT SEL].
- When the AW-RP555 is connected:
- 1 Press the [1], [2], [3], [4] or [5] button of [CONTROL].
- When the AW-RP50 is connected:

Refer to the Operating Instructions of the controller.

Selecting the shooting modes (scene files)

■ Types of shooting modes

This 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 "FullAuto" 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.

FullAuto

The shutter speed and lens iris setting are adjusted 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.

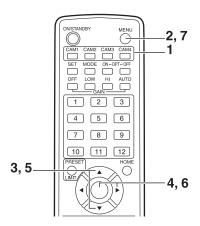
Manual3

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

Selecting the shooting modes (scene files)

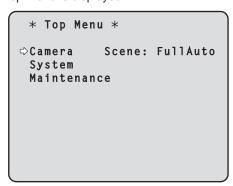
■ How to select the shooting mode

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.

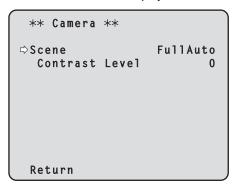
The Top Menu is displayed.



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

4 Press the [O] button.

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



- 5 Press the [▲] or [▼] button to bring the cursor to "Scene".
- **6** Press the [O] button. The shooting mode blinks.
- 7 Press the [▲] or [▼] button to select the shooting mode (FullAuto, Manual1, Manual2 or Manual3) to be used, and press the [○] button to enter the selection.
- 8 Press the [MENU] button for 2 seconds.

The menu display is exited.

Selecting the shooting modes (scene files)

When performing the operations using the controller

- When the AW-RP655 is connected:
- 1 Press the [1], [2], [3], [4] or [5] button of [CONTROL/PREVIEW MONITOR OUT SEL].
- **2** Press the [MENU] button.

The display on the LCD panel of the AW-RP655 switches to the menu mode.

3 Turn the jog dial (main).

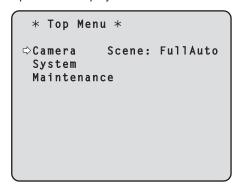
Display "CAMERA SETTING" on the LCD panel.

4 Press the [OK] button.

Display "OPEN CAMERA MENU? \rightarrow OK Key" on the LCD panel.

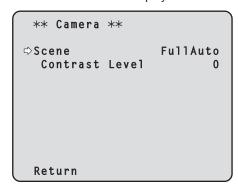
5 Press the [OK] button again.

The Top Menu is displayed on the monitor.



- **6** Turn the jog dial (main) to bring the cursor to "Camera".
- **7** Press the jog dial (main).

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



- 8 Turn the jog dial (main) to bring the cursor to "Scene", and then press the jog dial (main) to start the shooting mode blinking.
- **9** Turn the jog dial (main) to select the shooting mode to be used, and press the jog dial (main) to enter the selection.
- 10 Press the [MENU] button or [R/B GAIN/PED] button.

The menu display is exited.

- When the AW-RP555 is connected:
- 1 Press the [1], [2], [3], [4] or [5] button of [CONTROL] to select the unit.
- Press the [1], [2], [3] or [USER] button of [SCENE FILE] to select the shooting mode.

Shooting mode	[SCENE FILE] button
Manual1	[1]
Manual2	[2]
Manual3	[3]
FullAuto	[USER]

When the AW-RP50 is connected:

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 $[\blacktriangle]$ or $[\blacktriangledown]$ button and $[\blacktriangleleft]$ or $[\blacktriangleright]$ 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].

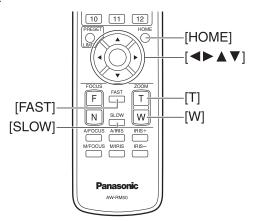
Zooming out (the subject becomes reduced in size): Press the [W] button of [ZOOM].

Switching the direction or zoom speed

Changing the direction or zoom at high speed: Press the [FAST] button.

Changing the direction or zoom at low speed: Press the [SLOW] button.

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.

Note

 The indicator displays of the AW-RP655 are indicators that show the positions of the optical zoom so they will not work for electronic zooming.

Changing the direction or zoom speed

AW-RP655 and AW-RP555

1 Press the [SPEED] button.

Each time the [SPEED] button is pressed, the control speed is switched between the high speed (the button's lamp is off) and low speed (the button's lamp is lighted). The lens focus control speed is also changed at the same time.

AW-RP50

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 36 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.
- 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 "How to turn the power on and off" (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 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.

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

Something is wrong with the coloring of the camera pictures.

Refer to "Auto tracking white adjustment (ATW)" (page 24), and switch to "ATW".

The camera menus are not displayed.

When color bar signals are output, the camera menus are not displayed with composite signals.

To operate the camera menus with composite signals, set the color bar display to OFF.

When performing the operations using the controller

The unit does not move.

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

When the AW-RP655 is connected:

Press the [1], [2], [3], [4] or [5] button of [CONTROL/PREVIEW MONITOR OUT SEL].

When the AW-RP555 is connected:

Press the [1], [2], [3], [4] or [5] button of [CONTROL].

When the AW-RP50 is connected:

Refer to the Operating Instructions of the controller.

- If the [OPERATE] lamp on the controller is off, it means that the power of the controller is not on.
- 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 "How to turn the power on and off" (page 7), and turn on the power.

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 to exit the menu.

The lens focus is not adjusted automatically.

Press the [EXT(AF)] button to switch to auto focusing.

The camera picture is too light or too dark.

- 1. Press the [IRIS] button several times to turn on its lamp, and switch the lens iris adjustment to auto.
- 2. Press the [GAIN] button several times to turn on its lamp, and switch the gain adjustment to auto.

Something is wrong with the coloring of the camera pictures.

Refer to "Auto tracking white adjustment (ATW)" (page 24), and switch to "ATW".

The camera menus are not displayed.

When color bar signals are output, the camera menus are not displayed with composite signals.

To operate the camera menus with composite signals, set the color bar display to OFF.

More advanced operations

Manual shooting (see pages 15 to 18)

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

Preset memories (see pages 19 to 21)

- 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 22 to 24)

- 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.

Black level (master pedestal) adjustment (see pages 25 to 26)

- This adjustment is performed to align the black level (pedestal level) of a multiple number of cameras.
- Ask your dealer to perform this adjustment.

Genlock adjustment (AW-HE50S only) (see pages 27 to 29)

- This adjustment is performed to achieve phase alignment by applying external synchronization (genlock) when a multiple number of cameras will be used or when the unit will be used in combination with other devices.
- · Ask your dealer to perform this adjustment.

■ 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], and 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.

If necessary, press the [A/FOCUS] button to return the focus to the automatic adjustment.

When performing the operations using the controller

When the AW-RP655 is connected:

- 1 Press the [EXT(AF)] button to switch the focus to manual adjustment.
- Adjust the focus manually by turning the dial above the lighted [FOCUS] lamp whether it is the lamp of the [PAN/TILT] lever or [ZOOM] lever.

Furthermore, every time the [SPEED] button is pressed, the speed of the focusing and other adjustments can be switched to fast or slow.

If necessary, press the [EXT(AF)] button to return the focus to the automatic adjustment.

When the AW-RP555 is connected:

- 1 Press the [EXT(AF)] button to switch the focus to manual adjustment.
- 2 Adjust the focus manually by tilting the [FOCUS] lever.

Furthermore, every time the [SPEED] button is pressed, the speed of the focusing and other adjustments can be switched to fast or slow.

3 If necessary, press the [EXT(AF)] button to return the focus to the automatic adjustment.

When the AW-RP50 is connected:

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 or zooming. Therefore, the unit comes with a function which compensates for this. (Focus compensation during zooming function: Focus ADJ With PTZ.) This function was set to ON at the factory. If the function has been set to OFF, either adjust the focus, as required, after zooming or set the focus to auto. (See page 46 and page 65.)

■ 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.

If necessary, press the [A/IRIS] button to return the iris to the automatic adjustment.

When performing the operations using the controller

When the AW-RP655 is connected:

- 1 Press the [IRIS] button several times to turn off the button's lamp and switch to manual adjustment.
- Adjust the iris manually by turning the dial above the lighted [IRIS] lamp whether it is the lamp of the [PAN/TILT] lever or [ZOOM] lever.
- If necessary, press the [IRIS] button several times and turn on its lamp to return the iris to the automatic adjustment.

When the AW-RP555 is connected:

- 1 Press the [IRIS] button to turn off its lamp and switch to manual adjustment.
- 2 Turn the [LEVEL] dial of [IRIS] to adjust the iris manually.

The position of the [LEVEL] dial does not represent an absolute value. This is why the brightness may differ from one camera to another even when the dial is set to the same position.

If necessary, press the [IRIS] button to turn on its lamp and switch to automatic adjustment in order to return the iris to automatic adjustment.

When the AW-RP50 is connected:

Refer to the Operating Instructions of the controller.

■ 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, 60.24 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.

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 40.

When performing the operations using the controller

The procedure is the same as for "When performing the operations using the wireless remote control" in "Basic operations" (pages 30 to 37).

When the AW-RP555 is connected:

1 Press the [SHUTTER] button and turn its lamp

The shutter speed set ahead of time is selected.

2 If necessary, press the [SHUTTER] button and turn its lamp off in order to return the shutter to the OFF setting.

- How to set the shutter speed using the AW-RP555
- 1 With the [MEMORY] button still held down, press the [SHUTTER] button.

The [PRESET] [1] to [5] and [6] to [10] buttons blink alternately.

2 Press one of the [1] to [8] buttons or the [10] [PRESET] button — whichever button corresponds to the shutter speed which is to be set.

Any of the shutter speeds in the table below can be set.

[1]	[2]	[3]	[4]	[5]
1/100	1/250	1/500	1/1000	1/2000
[6]	[7]	[8]		[10]
1/4000	1/10000	Synchr	o Scan	OFF

- Any change in the shutter speed is reflected the next time the [SHUTTER] button is pressed and its lamp is turned on.
- When OFF is selected, the shutter will not operate even when the [SHUTTER] button is pressed.
- Select the synchro scan setting on the menu.
- The shutter speed setting performed here is stored in the memory even when the power of the AW-RP555 is turned off.

For further details, refer to the Operating Instructions of the AW-RP555.

■ 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 40 and page 59.

Note

 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.

[LOW] is used to select 9 dB; [HI] is used to select 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 the AW-RP655 is connected:

1 Press the [GAIN] button to turn off its lamp, and then switch to manual adjustment.

The preset gain increase amount is now selected. For further details on the gain increase amount setting, refer to the Operating Instructions of the AW-RP655.

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

When the AW-RP555 is connected:

1 Press the [GAIN] button to turn off its lamp.

Each time this button is pressed, one of the three gain increase amounts can be selected in sequence.

The current status is displayed as follows.

	[MANU] [L] lamp	[MANU] [H] lamp	[GAIN] button
0 dB	Off	Off	Off
LOW	Lighted	Off	Off
HIGH	Off	Lighted	Off
AUTO	Off	Off	Lighted
Other	Lighted	Lighted	Off

2 If necessary, press the [GAIN] button several times and turn on its lamp in order to return the gain to the automatic adjustment (AGC).

When the AW-RP50 is connected:

Refer to the Operating Instructions of the controller.

In any case, the maximum gain of the automatic adjustment can be set by the menu.

For further details, refer to the [AGC Max Gain] item on page 40 and page 59.

Preset memories

This 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 operating mode (manual or auto setting) is not registered for the focus and iris settings.
 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 or ATW 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.
- The AWB Mode (ATW, AWB A or AWB B) stored using the AW-RP655 are recalled only when the AW-RP655 is connected.

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.
- If displacement occurs, perform registration again.
- While preset settings are being called, it is not possible to perform manual operations such as panning, tilting, zooming or iris adjustments.
- If, when one set of preset settings has been called, another set of preset settings is then called, the first set of preset settings which have been called will take precedence.

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
- 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.

Preset memories

When performing the operations using the controller

When the AW-RP655 is connected:

Up to 50 settings can be registered and called. The [1] to [50] buttons of [TRACING/PRESET MEMORY] correspond to the unit's preset memories No.1 to No.50.

- Registering the settings in the preset memories
- 1 Set to the preset memory mode.

 Press the [TR/PSET] button to turn off its lamp.
- 2 Set to the memory recording mode.

 Press the [M.LOCK] button to turn off its lamp.
- 3 Display the picture to be shot on the monitor.

 Operate the [PAN/TILT] lever and [ZOOM] lever to determine the camera angle.

 Adjust the focus, iris, gain and white balance if they need to be adjusted.
- 4 Hold down the [MEMORY] button.

The buttons among the [1] to [50] buttons of [TRACING/PRESET MEMORY] in which settings can be registered now start blinking in sequence.

- Preset memory settings cannot be registered in buttons whose lamps are off (since they contain tracing memory settings).
- 5 With the [MEMORY] button still held down, press the button of the preset memory number in which the setting is to be registered.

- Calling the settings of the preset memories
- 1 Set to the preset memory mode.

 Press the [TR/PSET] button to turn off its lamp.
- 2 Press the button among the [1] to [50] buttons of [TRACING/PRESET MEMORY] in which the desired setting was registered.
- Erasing preset memory settings
- 1 Set to the preset memory mode.

 Press the [TR/PSET] button to turn off its lamp.
- 2 Set the memory recording mode.

 Press the [M.LOCK] button to turn off its lamp.
- **3** Hold down the [RESET] button.

The buttons among the [1] to [50] buttons of [TRACING/PRESET MEMORY] whose settings can be erased now start blinking in sequence.

- The settings for the buttons whose lamps are off cannot be erased (since they contain tracing memory settings).
- 4 With the [RESET] button still held down, press the button of the preset memory number whose setting is to be erased.

Preset memories

When the AW-RP555 is connected:

Up to 10 settings can be registered and called. The [1] to [10] buttons of [PRESET] correspond to the unit's preset memories No.1 to No.10.

Registering the settings in the preset memories

1 Display the picture to be shot on the monitor.

Operate the [PAN/TILT] lever and [ZOOM] lever to determine the camera angle.
Adjust the focus, iris, gain and white balance if they need to be adjusted.

2 Hold down the [MEMORY] button.

The buttons among the [1] to [10] buttons of [PRESET] in which settings can be registered now start blinking in sequence.

- 3 With the [MEMORY] button still held down, press the button of the preset memory number in which the setting is to be registered.
- Calling the settings of the preset memories
- 1 Press the button among the [1] to [10] buttons of [PRESET] in which the desired setting was registered.

When the AW-RP50 is connected:

Refer to the Operating Instructions of 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.

Either AWB (automatic white balance adjustment) which initiates automatic adjustment when the AWB button on the controller has been pressed or ATW (automatic tracking white balance adjustment) which constantly adjusts the white balance can be selected for adjustment purposes.

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.

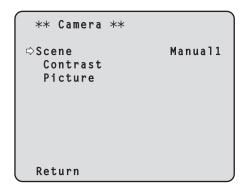
- Once the white balance has been adjusted when the unit is used with the same settings and under the same conditions, its setting is completed simply by selecting a menu setting or pressing a button on the controller. There is no need to set it again.
- Once a new setting is entered, the previous setting will be erased.

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

- Automatic adjustment (AWB: AWB A or AWB B)
- 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.

When performing the operations using the wireless remote control

- 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 [O] button.

The "Picture 1/2" sub-menu is displayed.

```
*** Picture 1/2 ***

Chroma Level 0

AWB Mode AWB A

Detail High

Flesh Tone Mode Off

Color Matrix EBU

DNR High

Return
```

White balance adjustment

- Press the [▲] or [▼] button to bring the cursor to "AWB Mode".
- 6 Press the [○] button.

"AWB Mode" starts blinking.

- 7 Press the [▲] or [▼] button to change the AWB 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 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.

- The white balance cannot be adjusted when color bars are displayed. Press the [MODE] button to switch to the camera picture.
- When the white balance adjustment is completed successfully, "AWB OK" appears in the center of the screen.

AWB OK

 When the adjustment has failed, an error message such as "OUT RANGE NG", "HIGH LIGHT NG", "LOW LIGHT NG" or "ATW NG" is displayed. When performing the operations using the controller

When the AW-RP655 or AW-RP555 is connected:

Press the [A] button or [B] button of [WHITE BAL] to select "AWB A" or "AWB B" for the white balance.

The selected button's lamp lights.

- The white balance setting is not entered if "ATW" has been selected.
- 3 Press the [AWC] button.

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

The [AWC] button's lamp blinks while the white balance is being adjusted, and its lamp goes off when the adjustment is completed successfully. Its lamp lights if the white balance could not be adjusted.

 If color bars have been selected (the [MODE] button or [BAR/CAM] button's lamp lights) or if ATW is selected (the [ATW] button's lamp lights), it means that the [AWC] button is not working or that the auto white balance adjustment has failed. (The button's lamp lights.)

Note

 In the case of the AW-RP655, even when it is not possible to adjust the white balance, the [AWC] button's lamp will not light and after blinking it will go off.

White balance adjustment

When the AW-RP50 is connected:

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.

• Auto tracking white adjustment (ATW)

When the white balance adjustment is set to "ATW", the white balance continues to be adjusted automatically all the time, and it is automatically corrected even when the light source or color temperature has changed to produce completely natural pictures.

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 22).

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.

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 is stopped down.

- 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 [O] button.

The "Picture 1/2" sub-menu is displayed.

```
*** Picture 1/2 ***

Chroma Level 0

AWB Mode AWB A

Detail High

Flesh Tone Mode Off

Color Matrix EBU

DNR High

Return
```

6 Press the [▲] or [▼] button to move to the "Picture 2/2" sub-menu, and bring the cursor to "Pedestal".

```
*** Picture 2/2 ***

Pedestal 0
DRS Off
Gamma Type Normal
Gamma Level Mid
Back Light COMP. Off
```

- 7 Press the [O] button to start the "Pedestal" value blinking.
- 8 Press the [▲] or [▼] button, change the "Pedestal" value, and press the [○] button to enter the selection.

Adjust the black level to a value of approx. 5 IRE (0.035 V).



9 Press the [MENU] button for 2 seconds.

The menu display is exited.

10 If necessary, press the [A/IRIS] button to adjust the iris automatically.

Black level (master pedestal) adjustment

When performing the operations using the controller

When the AW-RP655 is connected:

1 Press the [IRIS] button several times to turn off its lamp.

Set the iris to the manual ([MANU]) mode.

- 2 Turn the [FOCUS/IRIS] dial to stop down the lens iris.
- 3 Press the [R/B GAIN/PED] button several times so that the "PEDESTAL TOTAL" item is displayed on the LCD panel.
- 4 Turn the jog dial (main) and adjust the black level to 5 IRE (0.035 V).
- 5 If necessary, adjust the iris automatically.
 - → Press the [IRIS] button several times to turn on its lamp.

When the AW-RP555 is connected:

1 Press the [IRIS] button several times to turn off its lamp.

Set the iris to the manual ([MANU]) mode.

- 2 Turn the [LEVEL] dial of [IRIS] to stop down the lens iris.
- 3 Follow the operation steps in "Basic operations" (page 36), and use the menu to perform the adjustment.

When the AW-RP50 is connected:

Refer to the Operating Instructions of the controller.

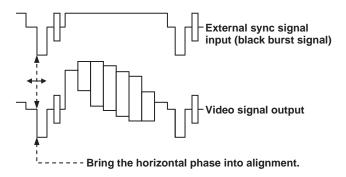
Genlock adjustment (AW-HE50S only)

■ Genlock adjustment

The genlock adjustment is performed to achieve phase alignment by applying external synchronization (genlock) when a multiple number of cameras will be used or when the unit will be used in combination with other devices. This unit supports the BBS signal as the genlock signal. Ask your dealer to perform this adjustment. (Use a dual-trace oscilloscope for the adjustment.) (The genlock function is not available with the AW-HE50H.)

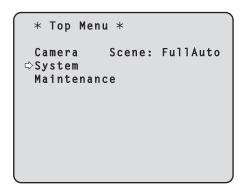
Horizontal phase adjustment

Observe the waveforms of the external sync signal input (black burst signal) and video signal output on the dual-trace oscilloscope, and use the wireless remote control or controller to bring the horizontal phase into alignment.



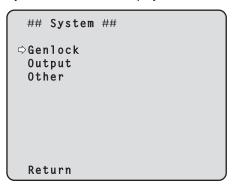
When performing the operations using the wireless remote control

- 1 Follow the operation steps in "Basic operations" (page 32) to display the "Top Menu".
- 2 Press the [▲] or [▼] button to bring the cursor to "System".



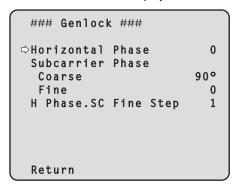
3 Press the [○] button.

The "System" sub-menu is displayed.



4 Press the [▲] or [▼] button to bring the cursor to "Genlock", and press the [○] button.

The "Genlock" sub-menu is displayed.



5 Press the [▲] or [▼] button to bring the cursor to "Horizontal Phase", and press the [○] button.

The "Horizontal Phase" value starts blinking.

- 6 Press the [▲] or [▼] button to change the "Horizontal Phase" value, adjust the value so that the horizontal phase is brought into alignment, and press the [○] button.
- 7 Press the [MENU] button for 2 seconds.

The menu display is exited.

When performing the operations using the controller

These operations can be performed using the camera menus by following the operation steps in "Basic operations" (pages 30 to 37).

Genlock adjustment (AW-HE50S only)

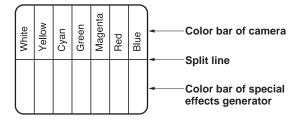
Color phase adjustment

The color phase adjustment must be performed if the pictures are to be switched using a video switcher or other device when the video output signals have been set as composite signals.

It need not be performed when the video output signals have been set as component signals.

The camera's color phase is aligned with the program output (split color bar output) signals of a color special effect device or other color tones that will serve as the reference.

(The color phase can be adjusted more accurately if a vectorscope is used for the adjustment.)

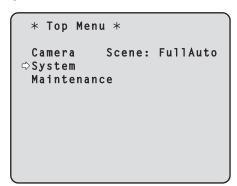


When performing the operations using the wireless remote control

1 Press the [MODE] button.

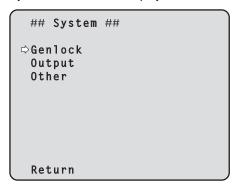
The mode is switched to the color bar display.

- 2 Follow the operation steps in "Basic operations" (page 32) to display the Top Menu.
- 3 Press the [▲] or [▼] button to bring the cursor to "System".



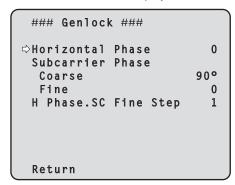
4 Press the [○] button.

The "System" sub-menu is displayed.



5 Press the [▲] or [▼] button to bring the cursor to "Genlock", and press the [○] button.

The "Genlock" sub-menu is displayed.



6 Press the [▲] or [▼] button to bring the cursor to "Coarse" or "Fine" of "Subcarrier Phase", and press the [○] button.

The "Coarse" or "Fine" value starts blinking.

- 7 Press the [▲] or [▼] button to change the "Coarse" or "Fine" value of "Subcarrier Phase", adjust the value so that the color phase is brought into alignment, and press the [○] button.
- 8 Press the [MENU] button for 2 seconds.

The menu display is exited.

9 Press the [MODE] button.

The mode is switched to the camera picture display.

Genlock adjustment (AW-HE50S only)

When performing the operations using the controller

These operations can be performed using the camera menus by following the operation steps in "Basic operations" (pages 30 to 37).

To switch between "BAR" (color bar display) and "CAM" (camera pictures), press the [MODE] or [BAR/CAM] button.

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 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 menu operations are conducted using the wireless remote control.

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

 It may be necessary to upgrade the controller's version in order to support the AW-HE50.

For further details, consult with your dealer.

Described below are the basic operations for changing the menu item settings using the wireless remote control and controller (AW-RP655, AW-RP555 or AW-RP50).

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.

Table of operations

Manu aparation	Wireless remote	Controller		
Menu operation	control	AW-RP655	AW-RP555	AW-RP50
Selecting the unit to be operated	Press the [CAM1], [CAM2], [CAM3] or [CAM4] button.	Press one of the [1] to [5] buttons of [CONTROL/PREVIEW MONITOR OUT SEL].	Press one of the [1] to [5] buttons of [CONTROL].	Press one of the [CAMERA STATUS/SELECTION] buttons.
Displaying the Top Menu	Press the [MENU] button for 2 seconds.	 Press the [MENU] button. The display on the AW-RP655's LCD panel changes to the menu mode. Turn the jog dial (main) to display "CAMERA SETTING" on the LCD panel, and press the [OK] button. The scene selection menu now appears on the LCD panel so select the scene to be set, and press the [OK] button. If the "OPEN CAMERA MENU? → OK Key" message appears on the LCD panel, press the [OK] button again. 	Press the [MENU] button for 2 seconds.	Press the [CAMERA OSD] button for 2 seconds.
Selecting the items	Press the [▲] or [▼] ([◄] or [▶]) button.	Turn the jog dial (main).	Press the [YES] or [NO] button.	Turn the F1 dial.
Displaying the sub-menus	Press the [○] button.	Press the jog dial (main).	Press the [ITEM] button.	Press the F1 dial.

Menu operation Wireless remote control		Controller			
		AW-RP655	AW-RP555	AW-RP50	
Returning to the previous menu	With the cursor at the [Return] position, press the [○] button.	With the cursor at the [Return] position, press the jog dial (main).	With the cursor at the [Return] position, press the [ITEM] button.	With the cursor at the [Return] position, press the F1 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.	 Press the jog dial (main) to start the setting blinking. Turn the jog dial (main) to change the setting. Press the jog dial (main) to enter the setting (and stop the blinking). 	Press the [ITEM] button to start the setting blinking. Press the [YES] or [NO] button to change the setting. Press the [ITEM] button to enter the setting (and stop the blinking).	 Press the F1 dial to start the setting blinking. Turn the F1 dial to change the setting. Press the F1 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).	While the setting is blinking, press the jog dial (R).	While the setting is blinking, press the [MENU] button.	While the setting is blinking, press the [CAMERA OSD] button.	
Exiting the menu operations	Press the [MENU] button for 2 seconds.	Press the [MENU] button or [R/B GAIN/PED] button.	Press the [MENU] button for 2 seconds.	Press the [CAMERA OSD] button for 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 (except for the AW-HE870) and HD integrated cameras which have already been launched onto the market.
 For details, refer to the Operating Instructions of the camera concerned.

■ 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 $[\blacktriangle]$ or $[\blacktriangledown]$ button is pressed, the cursor moves.

The cursor can be moved in the same way using the $[\blacktriangleleft]$ and $[\blacktriangleright]$ buttons.

4 Press the [O] button.

The sub-menu of the selected item is displayed. (Some sub-menu items have a sub-menu of their own.)

Press the [▲] or [▼] button to bring the cursor to the item to be set.

Each time the $[\blacktriangle]$ or $[\blacktriangledown]$ button is pressed, the cursor moves.

The cursor can be moved in the same way using the $[\blacktriangleleft]$ and $[\blacktriangleright]$ buttons.

With the cursor at the "Return" position, press the $[\bigcirc]$ button to return to the previous menu.

6 Press the [O] 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 $[\blacktriangleleft]$ and $[\blacktriangleright]$ buttons.

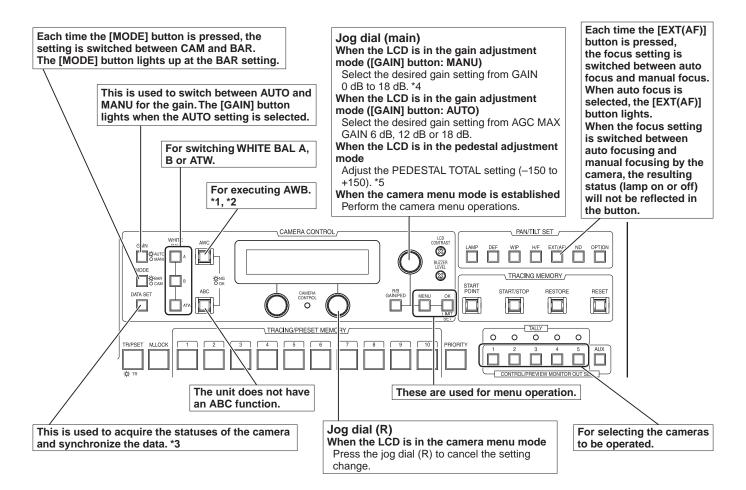
8 Press the [O] button.

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 menu display is exited.

■ Control exercised from the Multi-Function Controller AW-RP655



- *1: The AWC switch indicator blinks while the white balance is being adjusted. It goes off whether the AWB adjustment is completed successfully or unsuccessfully.
- *2: The switch lights without AWB being executed when the white balance mode of the main unit is ATW, or when the Color Bar is being displayed.
- *3: SCENE FILE, CAM/BAR, and GAINUP of each SCENE, as well as the W/B MODE and PED statuses are synchronized.
- *4: With this unit, the gain setting is reflected in increments of 3 dB in the control.

range from -10 to +10.

*5: With this unit, the setting is reflected in increments of 15 dB in the control.

On the camera menu, the setting is adjusted in

- Procedure for camera menu operation (AW-RP655)
- 1 Press one of the [1] to [5] buttons of [CONTROL/PREVIEW MONITOR OUT SEL] to select the unit which is to be operated.
- 2 Press the [MENU] button to set the LCD panel display to the menu mode.
- Turn the jog dial (main) until CAMERA SETTING appears, and press the [OK] button.

4 When the scene selection menu has appeared on the LCD panel, select the scene to be set, and press the [OK] button.

The scene names displayed on the LCD panel correlate with the scene files of the AW-HE50 as shown below.

AW-RP655 display	AW-HE50 scene file
HALOGEN	Manual1
FLUORESCENT	Manual2
OUTDOOR	Manual3
USER	FullAuto

When the following message appears on the LCD panel, press the [OK] button again.

The menu of the AW-HE50 is displayed on the monitor.

6 Turn the jog dial (main) to select menu items of the AW-HE50 and change the data.

Turn the jog dial (main) when the cursor is to be moved up or down or the settings are to be changed.

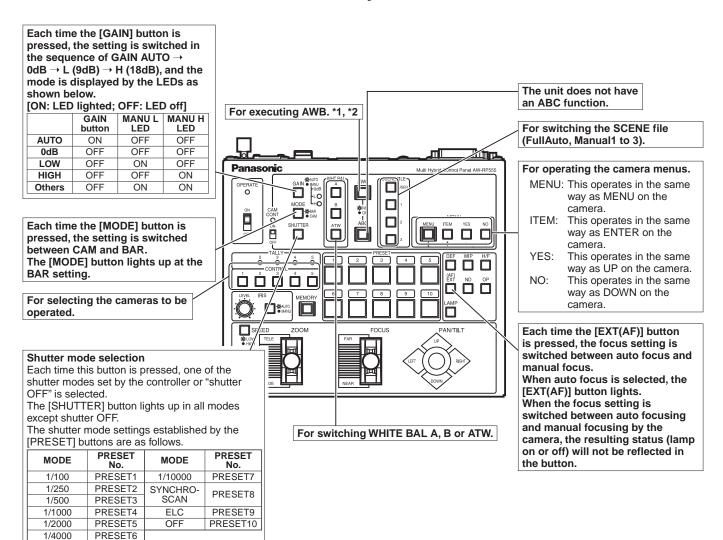
Press it when moving to the menu at the next lower hierarchical level or changing a setting at the very bottom hierarchical level.

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

Notes

- Genlock is set using the camera menu for the AW-HE50.
- It may be necessary to upgrade the software version in order to operate an AW-HE50 from an AW-RP655.
 Ask your dealer for details.

■ Control exercised from the Multi Hybrid Control Panel AW-RP555



- *1: The lamp of the AWC switch flashes while automatic white balance is being executed.

 When AWB is completed successfully, the lamp goes off; when it is not completed successfully, it lights up.
- *2: The switch lights without AWB being executed when the white balance mode of the main unit is ATW, or when the Color Bar is being displayed.

- Procedure for camera menu operation (AW-RP555)
- 1 Press one of the [1] to [5] buttons of [CONTROL] to select the unit which is to be operated.
- 2 Press the [MENU] button of the AW-RP555 for 2 seconds.

The camera menu of the AW-HE50 is displayed on the monitor.

3 Perform one of the following steps to select the menu item.

If the [YES] button is pressed, the selection item moves up; if the [NO] button is pressed, it moves down.

4 Press the [ITEM] button.

The value of the item to be set starts blinking.

- Press the [YES] or [NO] button to change the setting.
- 6 After deciding on the setting, press the [ITEM]

The value of the item to be set is entered, and it stops blinking.

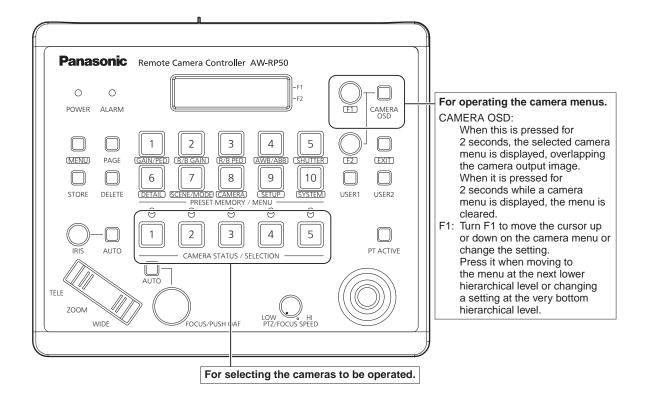
7 Press the [MENU] button for 2 seconds to exit the camera menu.

Note

 It may be necessary to upgrade the software version in order to operate an AW-HE50 from an AW-RP555. Ask your dealer for details.

Basic operations

■ Control exercised from the Remote Camera Controller AW-RP50



- Procedure for camera menu operation (AW-RP50)
- Press one of the [CAMERA STATUS/ SELECTION] buttons to select the unit which is to be operated.
- 4 Press the [CAMERA OSD] button for 2 seconds to exit the camera menu.
- 2 Press the [CAMERA OSD] button of the AW-RP50 for 2 seconds.

The camera menu of the AW-HE50 is displayed on the monitor.

3 Turn the F1 dial to select the AW-HE50 menu item or change the data.

Turn the F1 dial to move the cursor up or down or change the setting.

Press it to move to the menu at the next lower hierarchical level or change a blinking setting at the very bottom hierarchical level.

■ Setting the menu items

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

The monitor is connected to the video signal output connector.

The basic 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 menus and change the items using the wireless remote control or controller (AW-RP655, AW-RP555 or AW-RP50), refer to pages 30 to 37.

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 "## System ##" 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

* Top Menu *

⇒Camera Scene: FullAuto
System
Maintenance

Camera

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

System

Select this to display the System menu used to adjust the genlock (external synchronization) phase or establish the camera output image settings.

Maintenance

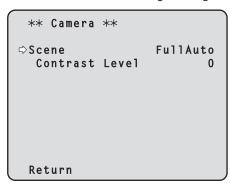
Select this to display the Maintenance menu used to check the camera's firmware version or initialize its settings.

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 30 to 37.

■ Camera screen (when FullAuto is selected)

This menu is used for the camera image settings.



Scene

[FullAuto, 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.

FullAuto:

In this mode, the optimum settings and adjustments for the shooting conditions at hand are automatically established. When "FullAuto" 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.

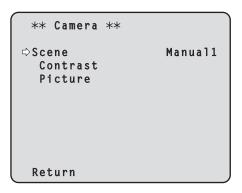
Contrast Level [-5 to +5]

Use the contrast level to adjust the image brightness.

Return

Use this to return to the previous menu.

■ Camera screen (when Manual1 to 3 is selected)



[FullAuto, 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

Select this to display the Picture screen to adjust the image quality.

Two screens (Picture 1/2 and Picture 2/2) are provided for the image quality adjustment menu.

Return

■ Contrast screen

*** Contrast ***	
⇔Contrast Mode	Auto
Contrast Level	0
Shutter Mode	
Step/Synchro	
Frame Mix	
AutoF.Mix Max Gain	18dB
Gain	Auto
AGC Max Gain	18dB
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 [-5 to +5]

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 speed.

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 "Synchro" is selected as the "Shutter Mode"		
1	60.24 Hz to max. 646.21 Hz (255 steps)		

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

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.

AutoF. 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]

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.

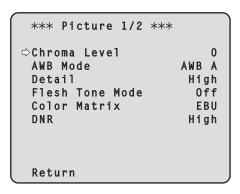
The noise increases when the gain is increased.

AGC Max Gain [6dB, 12dB, 18dB]

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

Return

■ Picture 1/2 screen



Chroma Level [-3 to +3]

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

AWB Mode [ATW, AWB A, AWB B]

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: In this mode, the white balance is compensated for automatically, even if changes occur in the light source or color temperature, by a process of continuous and automatic adjustment.

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.

Note

 When preset settings have been called from the AW-RP655, the AWB mode which was set when the preset data was registered by the AW-RP655 will be called.

Detail [Off, Low, High]

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

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 even more.

Color Matrix [Normal, EBU, NTSC]

This item is used to load the preset color matrix data and compensate for the saturation and color phase.

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, even more noise can be eliminated.

However, there is an increased possibility that afterimages may occur.

Return

■ Picture 2/2 screen

*** Picture 2/2 ***

Pedestal 0
DRS Off
Gamma Type Normal
Gamma Level Mid
Back Light COMP. Off

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.

This may make noise more perceptible with some scenes.

Gamma Type [Off, Normal, Cinema]

Selected here is the type of gamma curve.

The selected setting takes effect when "Off" is selected as the "DRS" item setting. 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. The selected setting takes effect when "Off" is selected as the "DRS" item setting or when "Normal" is selected as the "Gamma Type" setting.

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

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.

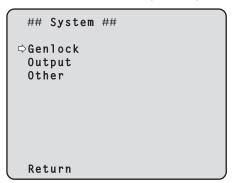
The function takes effect when "Auto" has been selected as the Contrast Mode, Gain or Frame Mix item setting.

Return

Use this to return to the previous menu.

■ System screen

This menu has items that relate to the genlock phase adjustment and camera's output image settings.



Genlock (AW-HE50S only)

This displays the Genlock screen on which to perform the phase adjustments.

With the AW-HE50H, this item cannot be selected.

Output

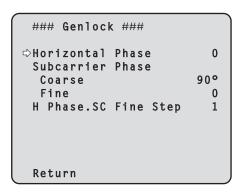
This displays the Output screen on which to select the camera's output image settings.

Other

This displays the Other 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

■ Genlock screen (AW-HE50S only)



Horizontal Phase [-206 to +49]

This is used to adjust the horizontal phase during genlock.

Subcarrier Phase Coarse [0° to 315°]

This is used to adjust coarsely the color phase during genlock.

This setting is valid for the VBS signal output.

Subcarrier Phase Fine [-127 to +127]

This is used to adjust finely the color phase during genlock.

This setting is valid for the VBS signal output.

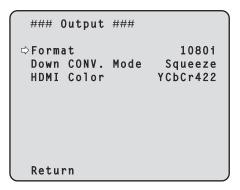
H Phase. SC Fine Step [1 to 10]

This is used to select the amount by which the horizontal phase (Horizontal Phase) is to be adjusted and by which the color phase (Subcarrier Phase Fine) is to be adjusted finely.

Return

Use this to return to the previous menu.

■ Output screen



Format [1080i, 720p, 480i]

The video format is changed on this screen. For details on how to change the format, refer to "Changing the format" (page 45).

Down CONV. Mode [Squeeze, SideCut, LetterBox]

The down-conversion mode is selected here.

Squeeze	When the 4:3 aspect ratio has been set for the monitor screen, the images are squeezed horizontally and extended vertically changing the view of the angle.
SideCut	With the vertical height serving as the reference, the parts which extend beyond this at the two sides are cropped changing the view of the angle.
LetterBox	With the horizontal width serving as the reference, black bands are added at the top and bottom changing the view of the angle.

 When output is selected for the color bar, the mode is fixed to Squeeze.

If "SideCut" or "LetterBox" has been selected, the HDMI output will not appear for a few seconds when the color bar display is set to ON or OFF.

HDMI Color (AW-HE50H only) [RGB-NOR, RGB-ENH, YCbCr422, YCbCr444]

Set here is the HDMI color output.

- When an HDMI monitor is used, use "YCbCr422" under normal circumstances.
- In cases where, for instance, HDMI (RGB) signals are converted and output to a DVI monitor, the settings required will differ depending on the color gradation supported by the monitor.

RGB-NOR	The RGB output signals are output in the 16 to 235 range.
	The RGB output signals are output in the 0 to 255 range.

- If the black parts of the images appear overexposed when "RGB-NOR" has been selected, use the "RGB-ENH" setting instead.
- Conversely, if the images are displayed with a loss of dark detail when "RGB-ENH" has been selected, use the "RGB-NOR" setting instead.

Note

 If an HDMI Color setting which is not supported by the monitor has been specified, the HDMI Color setting may be changed automatically. (The menu display will remain unchanged.)

With the AW-HE50S, this item cannot be selected.

Return

Changing the format

When the format is changed on the Output screen from its current setting, the Format change check screen appears.

Format change check screen

```
### Format ###

Do you want to set Format(1080i)?

CANCEL O.K.
```

- The format (1080i, 720p or 480i) to be set is displayed within the parentheses on the screen.
- When the cursor is moved to "O.K." on the format change check screen and the setting is entered, the Format Set screen appears for 5 seconds, and the format is changed.

After the format has been changed, the display returns to the Output screen.

Format Set screen

Format(1080i) Set

- The format (1080i, 720p or 480i) to be set is displayed within the parentheses on the screen.
- When the cursor is moved to "CANCEL" on the format change check screen and the setting is entered, the Format unchanged screen appears for 5 seconds, the format is left unchanged, and the display returns to the Output screen.

Format unchanged screen

Format unchanged

■ Other 1/2 screen

Other 1/2 ### □ Install Position Desktop Preset Speed 10 Preset Scope Mode A Digital Zoom Disable Speed With Zoom POS. 0 n Focus Mode Auto Focus ADJ With PTZ. 0 n 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 [1 to 30]

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

Notes

- If a high value is selected for the Preset Speed setting, the image on the screen may shake when operation stops.
- When connecting the unit to the AW-RP655 for use, the "DIAGONAL SPEED (P/T SETTING)" setting of the AW-RP655 takes effect.
 To change the Preset Speed, change the AW-RP655 setting.

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,

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

Digital Zoom [Disable, Enable]

"Enable" or "Disable" is set here for the digital zoom function.

If zooming is performed toward the Tele end beyond the maximum position when "Enable" has been selected, the digital zoom can be operated continuously. Zooming will stop temporarily at the position where the optical zoom and digital zoom are switched so after it has stopped at this position, proceed with zooming again.

When the setting is changed to "Disable" while already in the digital zoom region, the zoom will automatically move to the maximum position of the optical zoom.

Speed With Zoom POS. [Off, On]

"On" or "Off" 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]

"On" or "Off" 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.

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.

Return

Other 2/2 screen

Other 2/2

Tally Enable Enable
OSD Off With Tally Off
OSD Status Off
Wireless Control Enable

Return

Tally Enable [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.

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]

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

Wireless 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.

 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 the 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:

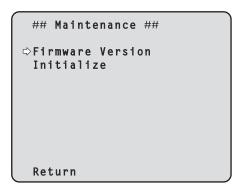
First change the item using a control device capable of performing menu operations, and then turn off the unit's power and turn it back on.

When menu operations cannot be performed using other control devices:

- Turn off the power of the units and devices that are connected.
- Disconnect the unit's power cable, and plug it 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.

Return

■ Maintenance screen



Firmware Version

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

Initialize

This is selected to display the Initialize screen on which to initialize the camera's settings.

For details on operation, refer to "Concerning initialization" on page 49.

Return

Use this to return to the previous menu.

■ Firmware Version screen

### Firmware	Version ###
CPU Software Camera Main Pan/Tilt Network	V01.00 V01.00 V01.00
PLD Camera Output	V01.00 V01.00
⇔Return	

CPU Software Camera Main

This is selected to display the software version of the camera unit.

CPU Software Pan/Tilt

This is selected to display the software version of the pan-tilt unit.

CPU Software Network

This is selected to display the software version of the network unit.

PLD Camera

This is selected to display the PLD version of the camera unit.

PLD Output

This is selected to display the PLD version of the output

Return

Concerning initialization

When "Initialize" is selected on the Maintenance screen, the Initialize screen appears.

Initialize screen

Initialize

Do you want to initialize Menu settings?

CANCEL O.K.

Return

• When the cursor is moved to "O.K." on the Initialize screen and the setting is entered, the Menu settings initialize screen is displayed for 5 seconds, and the camera settings are restored to the settings which were established when the camera was purchased. However, the Format settings (see page 43) and network settings are not initialized. When the initialization operation is completed, the Initialize screen is restored to the display.

Menu settings initialized screen

Menu settings initialized

 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

Menu settings unchanged

Menu item table

Menu					Item	Factory setting		Selection items
			-			FullAuto	Manual1 to 3	
Top Menu	Camera	Scene			Scene	FullAuto		FullAuto, Manual1, Manual2, Manual3
			Contras	t	Contrast Mode		Auto	Auto, Manual
					Contrast Level	0	0	-5 to +5
					Shutter Mode			Off, Step, Synchro
					Step/Synchro (When "Step" is selected as the "Shutter Mode")			1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000
					Step/Synchro (When "Synchro" is selected as the "Shutter Mode")			60.24Hz to 646.21Hz (1 to 255 steps)
					Frame Mix			Auto, Off, 6dB, 12dB, 18dB
					AutoF.Mix Max Gain		18dB	0dB, 6dB, 12dB, 18dB
					Gain		Auto	Auto, 0dB, 3dB, 6dB, 9dB, 12dE 15dB, 18dB
					AGC Max Gain		18dB	6dB, 12dB, 18dB
			Picture	Picture 1/2	Chroma Level		0	-3 to +3
					AWB Mode		AWB A	ATW, AWB A, AWB B
					Detail		High	Off, Low, High
					Flesh Tone Mode		Off	Off, Low, High
					Color Matrix		EBU	Normal, EBU, NTSC
					DNR		High	Off, Low, High
				Picture 2/2	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, On
	System	Genloc			Horizontal Phase	0		-206 to +49
		(AW-I	HE50S o	nly)	Subcarrier Phase			
					Coarse	90°		0° to 315°
					Fine	0		-127 to +127
			-		H Phase.SC Fine Step	1		1 to 10
		Output			Format	1080i		1080i, 720p, 480i
					Down CONV. Mode	Squeeze		Squeeze, SideCut, LetterBox
					HDMI Color (AW-HE50H only)	YCbCr422		RGB-NOR, RGB-ENH, YCbCr422, YCbCr444
		Other	Other 1/	2	Install Position	Desktop		Desktop, Hanging
					Preset Speed	10		1 to 30
					Preset Scope	Mode A		Mode A, Mode B, Mode C
					Digital Zoom	Disable		Disable, Enable
					Speed With Zoom POS.	On		Off, On
					Focus Mode	Auto		Auto, Manual
			01101	·0	Focus ADJ With PTZ.			Off, On
			Other 2/	2	Tally Enable	Enable		Disable, Enable
					OSD Off With Tally	Off		Off, On
					OSD Status	Off		Off, On
	Maintonana	- :	\/		Wireless Control	Enable		Disable, Enable
	iviairiteriance	Firmware Version			CPU Software Camera Main	Varaian akir z s		
						Version shipped Version shipped		
					Pan/Tilt	<u> </u>		
					Network PLD	Version shi	ppeu	
						Manaian alai		
						Version shipped		
					Camera Output	Version shi	•	

Connect the unit and a personal computer, and establishing the settings on the Web browser screen.

The LAN crossover cable is used when connecting a personal computer directly to the unit's LAN connector for IP control, and the LAN straight cable is used when making the connection through a switching hub.

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.

Note

 If you need to change the IP address and subnet mask, be sure to ask your dealer to make these changes for you.

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

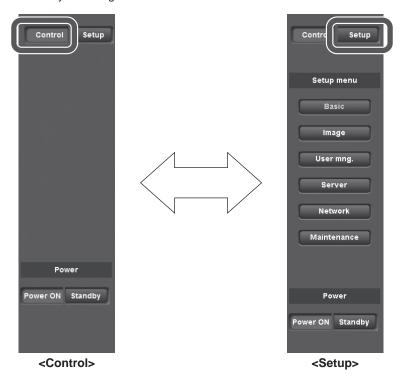
IP address: 192.168.0.10 Subnet mask: 255.255.255.0 For details of the required personal computer environment, refer to page 4.

■ Menu operations

Start the Web browser, and enter "http://192.168.0.10/" in the [Address] box of the Web browser. When the IP address has been changed, the URL will also change. If this is the case, set the changed IP address to the URL (http://changed IP address/).



• The menus can be switched by selecting the buttons on the left side of the screen.



Control button / Setup button



Press the Control button to switch to the Control screen on which to control such operations as the panning, tilting, zooming and focusing of the camera. (See page 54)

Press the Setup button to switch to the Image Adjust screen on which to establish the camera's settings. (See page 56)

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



When logging in for the first time, input the following default values.

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

 On the User auth. screen (see page 66), register the user name and password of your choice at the earliest possible opportunity.

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.

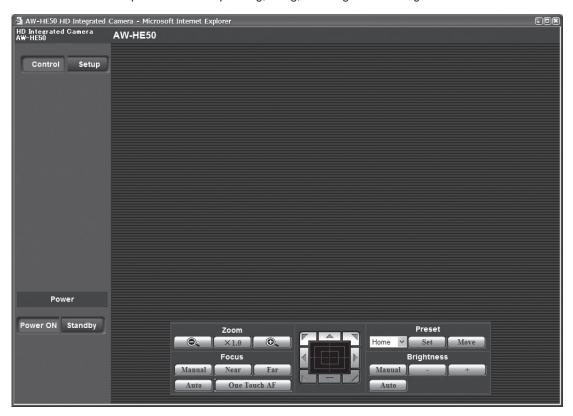
While the standby mode is established, the control over the camera's operations exercised on the Control screen and both the Image button and Maintenance button on the Setup screen are disabled.

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, press the F5 key to restore the correct status display.
- When operation is transferred to the standby mode: The current pan-tilt position is stored in the memory (as a POWER ON preset), and the panning/tilting moves so that the camera points in the backward-facing direction.
- When operation is transferred to the POWER ON mode: Panning/tilting moves to the position which was stored in the memory (as a POWER ON preset) when operation was transferred to the standby mode.

■ Control screen

This is the screen on which such operations as the panning, tilting, zooming and focusing of the unit can be controlled.



Zoom

0	Use this to adjust the zoom (magnification) in the Wide direction.
×1.0	Use this to adjust the zoom (magnification) to 1.0×.
•	Use this to adjust the zoom (magnification) in the Tele direction.

• Focus

Manual	Use this to adjust the focus manually.
Near	Use this to adjust the focus in the Near direction. It does not work during automatic adjustments.
Far	Use this to adjust the focus in the Far direction. It does not work during automatic adjustments.
One Touch AF	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.
Auto	Use this to adjust the focus automatically.

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 adjusted, 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 adjusted, 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.

Preset

Home 🔻	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.
Set	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.
Move	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 page 65). The camera direction moves to the home position if "Home" has been selected on the pull-down menu.

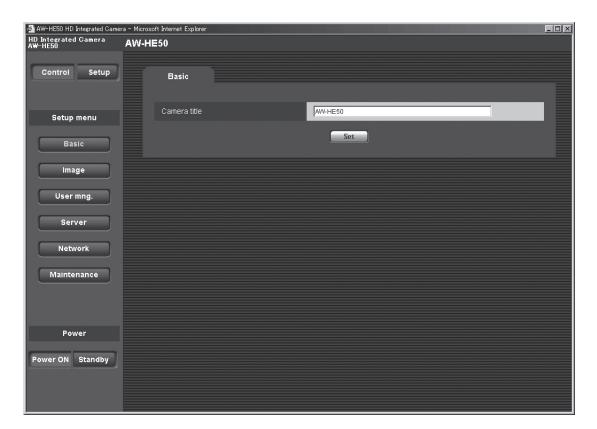
Brightness

Manual	Use this to adjust the image brightness manually.
-	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.
Auto	Use this to adjust the image brightness automatically.

■ Setup screen

Pressing the Setup button switches the display to this screen on which the unit's settings are established.

Basic screen



Basic button Basic

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-HE50> Input the name of the camera here.
When the Set button is clicked, the input name appears in

the status display area.

Image screen

Image



Image

Image adjust

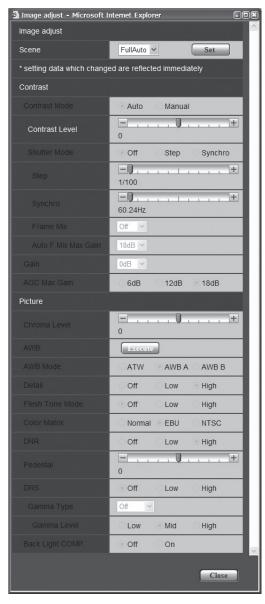
This is used to display the Image Adjust screen.

Preset position

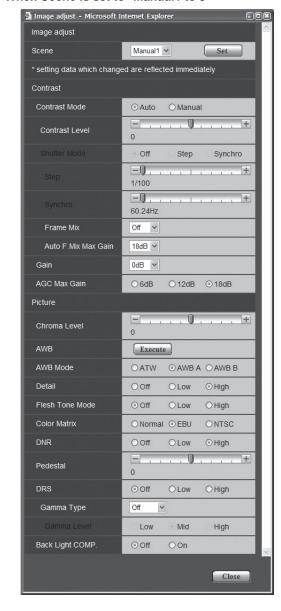
This is used to display the Preset Position setting screen.

Image adjust screen

When Scene is set to "FullAuto"



When Scene is set to "Manual1 to 3"



Scene

[FullAuto, 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.

FullAuto	In this mode, the optimum settings and adjustments for the shooting conditions at hand are automatically established. When "FullAuto" 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 [-5 to +5]

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 speed.

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 "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	60.24 Hz to max. 646.21 Hz (255 steps)

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

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.

AutoF. 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]

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]

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

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 22.

AWB Mode [ATW, AWB A, AWB B]

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	In this mode, the white balance is compensated for automatically, even if changes occur in the light source or color temperature, by a process of continuous and automatic adjustment.
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.

Note

 When preset settings have been called from the AW-RP655, the AWB mode which was set when the preset data was registered by the AW-RP655 will be called.

Detail [Off, Low, High]

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

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 even more.

Color Matrix [Normal, EBU, NTSC]

This item is used to load the preset color matrix data and compensate for the saturation and color phase.

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, even more 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.

This may make noise more perceptible with some scenes.

Gamma Type [Off, Normal, Cinema]

Selected here is the type of gamma curve. The selected setting takes effect when "Off" is selected as the "DRS" item setting. 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. The selected setting takes effect when "Off" is selected as the "DRS" item setting or when "Normal" is selected as the "Gamma Type" setting.

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.

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

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

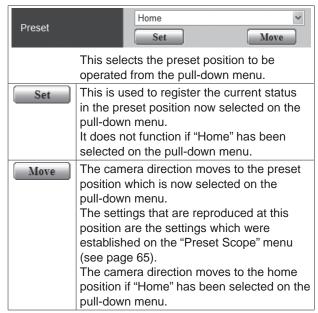


This is used to close this panel.

Preset position setting screen



Preset



Zoom

0	Use this to adjust the zoom (magnification) in the Wide direction.
×1.0	Use this to adjust the zoom (magnification) to 1.0×.
(1)	Use this to adjust the zoom (magnification) in the Tele direction.

• Focus

Manual	Use this to adjust the focus manually.
Near	Use this to adjust the focus in the Near direction. It does not work during automatic adjustments.
Far	Use this to adjust the focus in the Far direction. It does not work during automatic adjustments.
One Touch AF	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.
Auto	Use this to adjust the focus automatically.

Brightness

Manual	Use this to adjust the image brightness manually.
-	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.
Auto	Use this to adjust the image brightness automatically.

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 adjusted, 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 adjusted, 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.

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.

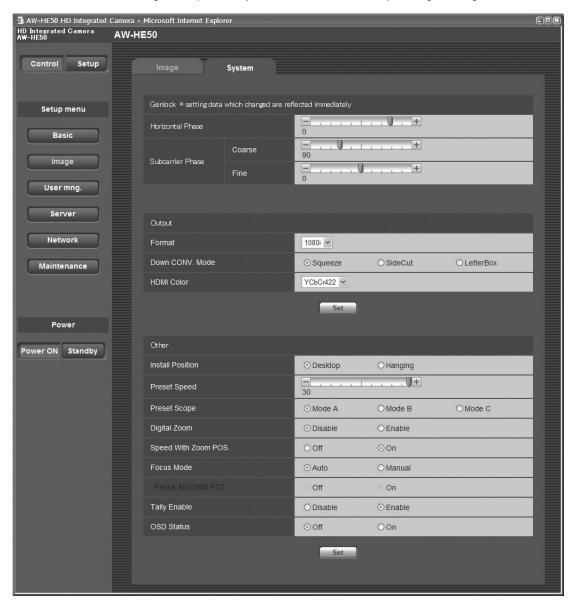
Tilt Up	Use this to save the current position as the upward limit.
Tilt Down	Use this to save the current position as the downward limit.
Pan Left	Use this to save the current position as the leftward limit.
Pan Right	Use this to save the current position as the rightward limit.
Set/Reset	Use this to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



This is used to close this panel.

System

This menu has items that relate to the genlock phase adjustment and camera's output image settings.



Genlock (AW-HE50S only)

This item's setting is reflected immediately.

Horizontal Phase [-206 to +49]

This is used to adjust the horizontal phase during genlock.

Subcarrier Phase Coarse [0° to 315°]

This is used to adjust coarsely the color phase during genlock.

This setting is valid for the VBS signal output.

Subcarrier Phase Fine [-127 to +127]

This is used to adjust finely the color phase during genlock.

This setting is valid for the VBS signal output.

Output

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

Format [1080i, 720p, 480i]

The video format is changed on this screen.

Down CONV. Mode [Squeeze, SideCut, LetterBox]

The down-conversion mode is selected here.

Squeeze	With the vertical height serving as the reference, the parts which extend beyond this at the two sides are cropped changing the view of the angle. With the horizontal width serving as the reference, black bands are added at the top and bottom changing the view of the angle.	
SideCut		
LetterBox		

 When output is selected for the color bar, the mode is fixed to Squeeze.

If "SideCut" or "LetterBox" has been selected, the HDMI output will not appear for a few seconds when the color bar display is set to ON or OFF.

HDMI Color (AW-HE50H only) [RGB-NOR, RGB-ENH, YCbCr422, YCbCr444]

Set here is the HDMI color output.

- When an HDMI monitor is used, use "YCbCr422" under normal circumstances.
- In cases where, for instance, HDMI (RGB) signals are converted and output to a DVI monitor, the settings required will differ depending on the color gradation supported by the monitor.

RGB-NOR	The RGB output signals are output in the 16 to 235 range.
RGB-ENH	The RGB output signals are output in the 0 to 255 range.

- If the black parts of the images appear overexposed when "RGB-NOR" has been selected, use the "RGB-ENH" setting instead.
- Conversely, if the images are displayed with a loss of dark detail when "RGB-ENH" has been selected, use the "RGB-NOR" setting instead.

Note

 If an HDMI Color setting which is not supported by the monitor has been specified, the HDMI Color setting may be changed automatically. (The menu display will remain unchanged.)

With the AW-HE50S, this item cannot be selected.

Other

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 [1 to 30]

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

Notes

- If a high value is selected for the Preset Speed setting, the image on the screen may shake when operation stops.
- When connecting the unit to the AW-RP655 for use, the "DIAGONAL SPEED (P/T SETTING)" setting of the AW-RP655 takes effect.
 To change the Preset Speed, change the AW-RP655 setting.

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

Digital Zoom [Disable, Enable]

"Enable" or "Disable" is set here for the digital zoom function.

If zooming is performed toward the Tele end beyond the maximum position when "Enable" has been selected, the digital zoom can be operated continuously. Zooming will stop temporarily at the position where the optical zoom and digital zoom are switched so after it has stopped at this position, proceed with zooming again.

When the setting is changed to "Disable" while already in the digital zoom region, the zoom will automatically move to the maximum position of the optical zoom.

Speed With Zoom POS. [Off, On]

"On" or "Off" 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]

"On" or "Off" 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.

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.

Tally Enable [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.

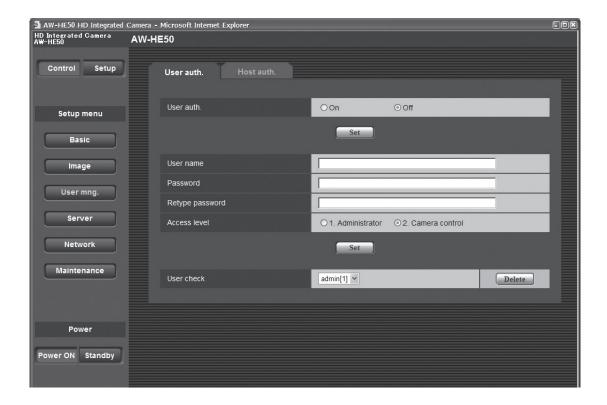
OSD Status [Off, On]

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

User mng.

The authorization of those users who can access the camera from a PC 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. The screen itself consists of two tabs, "User auth." and "Host auth".

User auth. screen



• User auth.

<Initial setting: Off>
User authorization is set to "On" or "Off" here.
Enter the setting using the Set button.

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

<Initial setting: blank>
The user name is input here.
Enter the setting using the Set button.

Password

Retype password [4 to 32 half-size characters]

<Initial setting: blank>

The password is input here.

Enter the setting using the Set button.

Access level

<Initial setting: 2. Camera control>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 Control screen operations to be performed.

User check

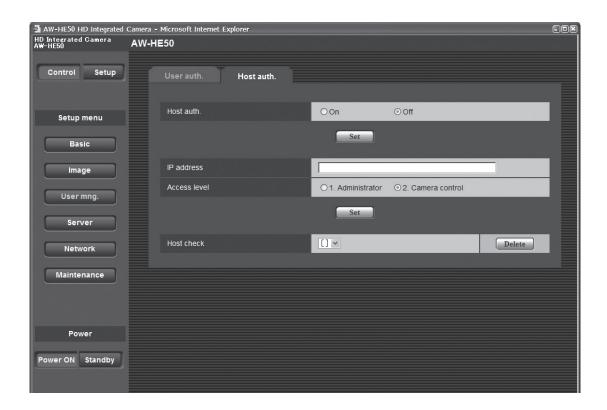
A pull-down menu can be opened here, and the registered users checked.

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.

Host auth. screen



Host auth.

<Initial setting: Off>
Host authorization is set to "On" or "Off" here.

IP address

<Initial setting: blank>

The IP address of the PC from which access to the camera is allowed is input here.

The host name cannot be input as the IP address.



- When the "IP address/subnet mask length" is input, the PCs which are allowed to access the camera can be restricted on a subnet by subnet basis. If, for instance, "192.168.0.1/24" has been input and the "2. Camera control" setting has been selected as the access level setting, the PCs from "192.168.0.0" to "192.168.0.255" will be able to access the camera at the "2. Camera control" access level.
- When an already registered IP address is input and the Set button is clicked, the host information will be overwritten.

Access level

<Initial setting: 2. Camera control> Select one of the following settings as the host access level.

Administrator
 Camera control

For details on the access level, refer to page 66.

Host check

A pull-down menu can be opened here, and the IP addresses of the registered hosts checked.

A host is indicated in the form of "Registered IP address [Access level]".

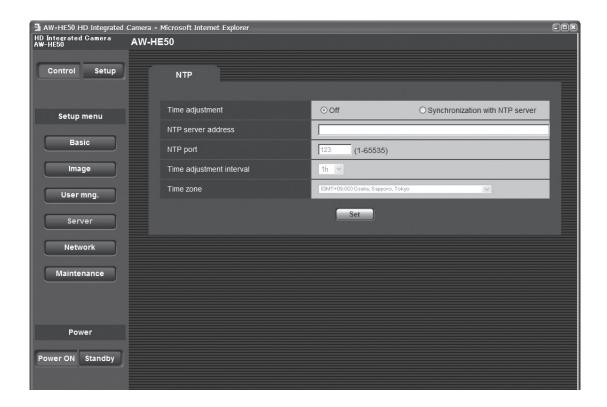
(Example: 192.168.0.21 [1])

To delete a registered host (IP address), select the host to be deleted, and click the Delete button on the right.

Server

This screen has items that relate to the NTP server addresses, port numbers and other NTP server settings.

NTP screen



• Time adjustment

<Initial setting: Off>

Select one of the following settings as the time adjustment method.

The time is adjusted by the method selected here and used as the unit's standard time.

Off	The time is counted from 0:00 on January 1, 1990 as the unit's startup
Synchronization with NTP server	time. The time automatically adjusted in synchronization with the NTP server
	is used as the unit's standard time.

NTP server address [1 to 63 half-size characters]

<Initial setting: blank>

The host name or IP address of the NTP server is input here.

Note

 To input the "NTP server address" host name, the DNS setting must be selected on the Network screen (see page 70) of the Network settings.

• NTP port [1 to 65535]

<Initial setting: 123>

The port number of the NTP server is input here.

• Time adjustment interval

<Initial setting: 1h>

The interval (1 to 24 hours in 1-hour increments) for acquiring the time from the NTP server and updating the time is selected here.

Time zone

<Initial setting: (GMT -08:00) Pacific Time (US & Canada), Tijuana>

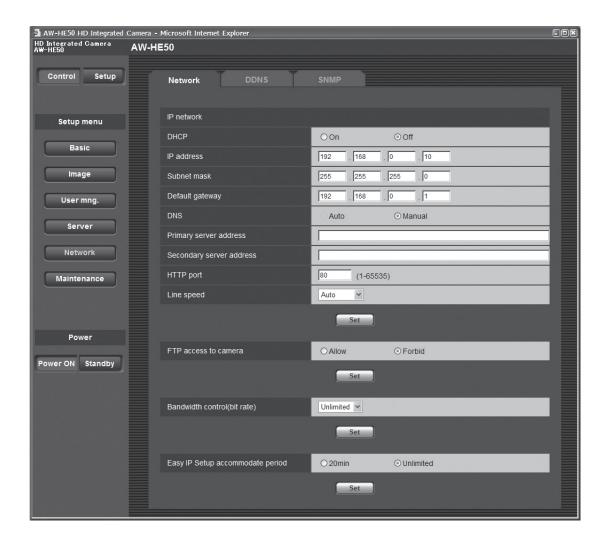
Select the time zone that corresponds with the region in which the unit is going to be used.

Network

This screen has items that relate to the network settings, DDNS (Dynamic DNS) and SNMP (Simple Network Management Protocol).

It consists of the three tabs of "Network", "DDNS" and "SNMP".

Network screen



• IP network

DHCP

<Initial setting: Off>

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 PCs without the DHCP function or by other network cameras. For details on the server settings, consult your network administrator.

IP address

Initial setting: 192.168.0.10>

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 PC or another network camera.



 Multiple IP addresses cannot be used even when the DHCP function is used.

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

Subnet mask

<Initial setting: 255.255.255.0>

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

Default gateway

< Initial setting: 192.168.0.1>

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



 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

<Initial setting: Manual>

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

<Initial setting: blank>

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]

<Initial setting: 80>

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

Line speed

<Initial setting: Auto>

Select one of the following data line speeds. Normally, it is recommended that the "Auto" default setting be used.

Auto	The line speed is set automatically.	
100 M-Full	The line speed is set to 100 Mbps full duplex.	
100 M-Half	The line speed is set to 100 Mbps half duplex.	
10 M-Full	The line speed is set to 10 Mbps full duplex.	
10 M-Half	The line speed is set to 10 Mbps half duplex.	

FTP access to camera

<Initial setting: Forbid>

Whether FTP access to the camera is to be allowed is set by selecting "Allow" or "Forbid".

Bandwidth control(bit rate)

<Initial setting: Unlimited>

Select one of the following data bandwidth settings.

Unlimited	384 kbps	2048 kbps
64 kbps	512 kbps	4096 kbps
128 kbps	768 kbps	8192 kbps
256 kbps	1024 kbps	

Easy IP Setup accommodate period

<Initial setting: Unlimited>

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

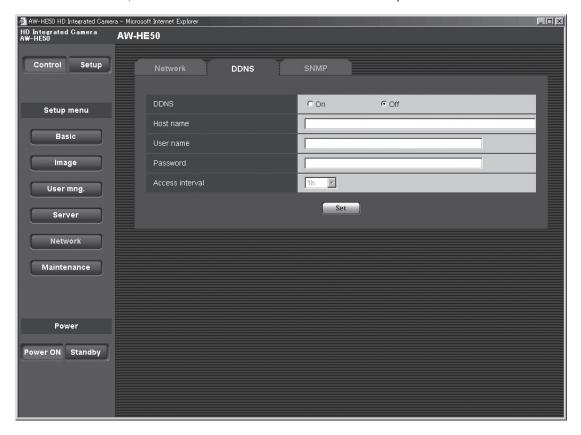
	The setting operations from the Easy IP Setup Software are enabled for 20 minutes after the camera has started operating.
Unlimited	The setting operations from the Easy IP Setup Software are enabled at all times.

DDNS screen

Use DHCP to acquire the global IP address.

The DDNS function must be set in order to access the unit over the Internet.

When using the DDNS function, access the unit using the "address of host name.nmdns.net" which was registered in the DDNS server. To use the DDNS function, a connection with a dedicated DDNS server is required.



DDNS

<Initial setting: Off>
Whether the DDNS function is to be used is selected by setting "On" or "Off".

• Host name [1 to 64 half-size characters]

<Initial setting: blank>
Input here the host name to be used.

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

<Initial setting: blank>

Input here the user name (log-in name) for accessing the DDNS server.

• Password [0 to 32 half-size characters]

<Initial setting: blank>

Input here the password for accessing the DDNS server.

Access interval

<Initial setting: 1h>

Select one of the settings below to be used as the access interval in which the IP address and host name are checked with the DDNS server.

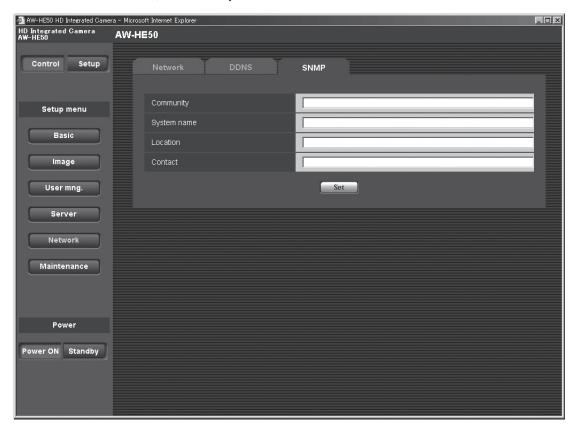
1min	1 minute	
10min	10 minutes	
30min	30 minutes	
1h	1 hour	
6h	6 hours	
24h	24 hours	

SNMP screen

The settings related to the SNMP function are selected on this screen.

When the SNMP manager is used for the connection, the unit's statuses can be checked.

When the SNMP function is to be used, consult with your network administrator.



• Community [0 to 32 half-size characters]

<Initial setting: blank>

Input here the community name which is to be monitored.

Note

• When using the SNMP function, be absolutely sure to input the community name.

This function cannot be used if the community name field is left blank.

• System name [0 to 32 half-size characters]

<Initial setting: blank>

Input here the system name for controlling the unit using the SNMP function.

• Location [0 to 32 half-size characters]

<Initial setting: blank>

Input here the location where the unit has been installed.

• Contact [0 to 255 half-size characters]

<Initial setting: blank>

Input here the email address or telephone number of the administrator.

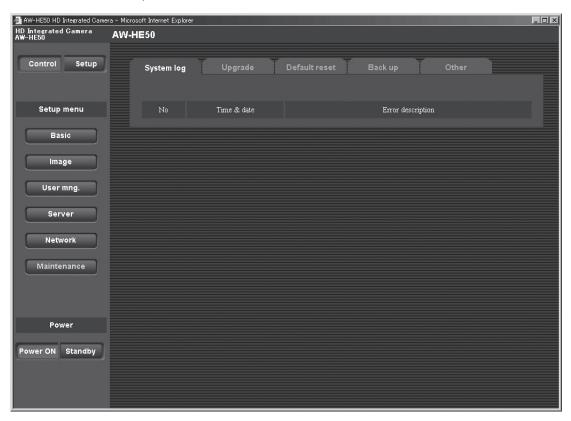
Maintenance

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 five tabs: "System log", "Upgrade", "Default reset", "Back up" and "Other".

System log screen

A maximum of a hundred system logs can be stored in the unit's internal memory. When this maximum number has been exceeded, the old logs are overwritten successively by the new logs. The logs are cleared when the unit's power is turned off.



No

The running numbers of the system logs are displayed here.

Time & date

The times and dates when the logs were generated are displayed here.

The 24-hour system is used to display this information.

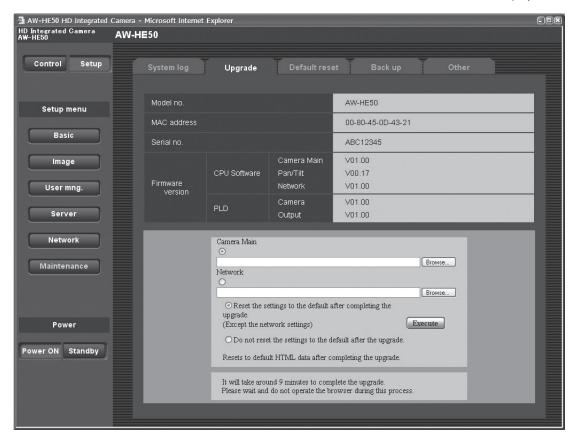
• Error description

Details of the error logs are displayed here. For further details on the system logs, refer to page 79.

Upgrade screen

On this screen, it is possible to check the unit's software versions and upgrade them to the latest versions. For details on the software used for version upgrading, consult your dealer.

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



1 After consulting with your dealer, download the latest software to the hard disk of your personal computer.

Note

- No spaces or full-size characters can be used for the directory in which the software will be stored.
- 2 Select the software to be upgraded by clicking the [Camera Main] or [Network] radio button.
- 3 Click the Browse button, and specify the downloaded software.

4 Click the radio button underneath, and after the software version has been upgraded, select whether to initialize the data.



 Judge whether or not to initialize the data after reading through the Readme file which accompanies the software.

5 Click the Execute button.

The software version is upgraded, and the screen on which to check data initialization is displayed. If the data is not going to be initialized after the version has been upgraded, the check screen is not displayed. After upgrading the software version, be absolutely sure to delete the temporary Internet files.

Notes

- 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 with your dealer, and follow the dealer's instructions.
- Use the following files specified by Panasonic System Networks Co., Ltd. as the software used for version upgrading.

Camera Main	bin files
Network	img files

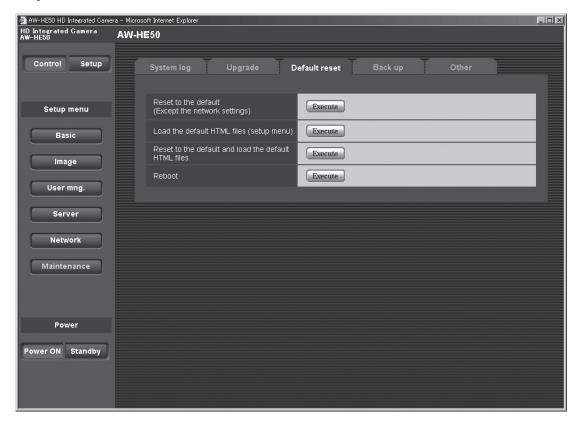
 Be absolutely sure to write the filenames as below (see *) for the files of the software used for version upgrading.

Camera Main	he50_cameramain_xxxxx.bin*
Network	he50_network_xxxxx.img*

- *: Enter the software version in the "xxxxx" part.
- Do not turn off the unit's power while a software version is being upgraded.
- While a software version is being upgraded, do not attempt to execute any other operations until the version has been upgraded.
- Even when "Reset the settings to the defaults after completing the upgrade" has been selected, the network-related data listed below will not be initialized.
 - · DHCP On/Off
 - · IP address
 - · Subnet mask
 - · Default gateway
 - · HTTP port
 - · Line speed
 - · Bandwidth control (bit rate)

Default reset screen

The unit's setting data and HTML files are 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.

However, the network-related settings are not initialized. (See page 75)

When the initialization operation is started, no operations can be undertaken for about 2 minutes.

• Load the default HTML files (setup menu)

When the Execute button is clicked, the HTML files are returned to their defaults.

When the initialization operation is started, no operations can be undertaken for about 2 minutes.

Reset to the default and load the default HTML files

When the Execute button is clicked, the unit's settings and HTML files are returned to their defaults.

However, the network-related settings are not initialized. (See page 75)

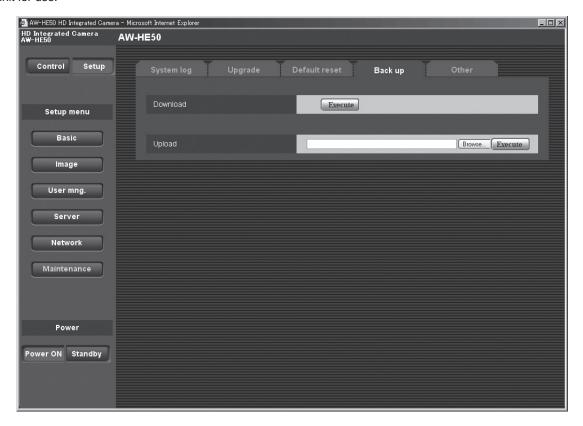
When the initialization operation is started, no operations can be undertaken for about 2 minutes.

Reboot

When the Execute button is clicked, the unit is rebooted. After the unit has been rebooted, no operations can be undertaken for about 2 minutes as is the case when the unit's power is turned on.

Back up 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.

Listed below are the settings to be saved.

- Scene FullAuto settings
- Scene Manual1 settings
- Scene Manual2 settings
- Scene Manual3 settings
- System settings
- Preset settings

Upload

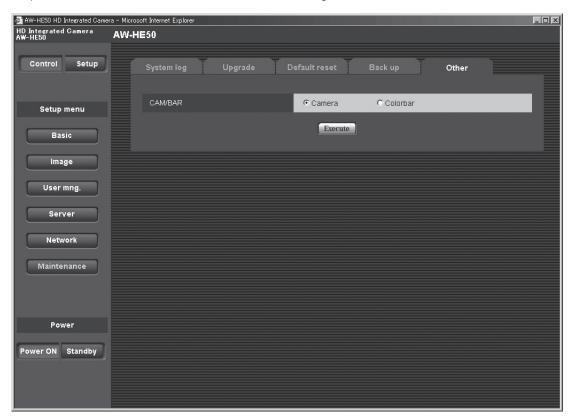
The unit's setting files, which were saved in the personal computer by the download function, are uploaded. Click the Browse button to display the dialog box, and specify the saved file.

Notes

- Use the files downloaded by the unit as the data to be used for uploading.
 - Do not change the extension (.dat) of the files which have been downloaded.
- 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.

Other screen

The images output from the unit can be switched between camera images and color bars on this screen.



• CAM/BAR

Camera	The unit's output images are switched to "camera images".
Colorbar	The unit's output images are switched to "color bar".

System log displays

DDNS-related error displays

Category	Display	Description of error
Connection error	No response from the DDNS server.	 A mistake may have been made in specifying the DDNS server. Check the DDNS settings again. The DDNS server may be down. Consult your network administrator.
	User name or password isn't correct.	 The user name or password may be incorrect. Check the DDNS settings again.
	IP address update failed.	 An IP address update error has occurred in the DDNS server. Consult your network administrator.
Internal error	Undefined error.	 A problem has occurred in the DDNS function. Check the DDNS settings again.

NTP-related error displays

Category	Display	Description of error
Connection error	No response from the NTP server.	 The IP address of the server may be incorrect. Check the server's IP address settings again. The NTP server may be down. Consult your server administrator.
Internal error	Undefined error.	 A problem has occurred in the NTP function. Check the NTP settings again.
Successful NTP-based time synchronization	NTP update succeeded.	The time has been updated successfully.

Login-related displays

Category	Display	Description of error
Login	(User name or IP address)	 If user authorization has been set, the name of the user who has logged onto the unit is displayed. If host authorization has been set, the IP address of the user who has logged onto the unit is displayed.

Limiters

This 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, a menu will appear. If this happens, press the [MENU] button again for 2 seconds to clear the menu. Then start again from step 1.

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

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.

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

Setting the upper limit position of the movement range

Press the $[\blacktriangle]$ or $[\blacktriangledown]$ 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

■ 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".

Safe mode

■ Concerning the safe mode

The unit is equipped with a safe mode for protection from damage.

When a safe mode is established, some or all of operations will no longer be accepted.

Trouble-triggered safe mode

When the unit has detected trouble, the "trouble-triggered safe mode" is established: In this mode, the unit's functions are shut down and then the unit is returned to its regular status in about 30 seconds after it has been started up again or the initial setting operation is performed.

(When the unit has detected trouble again, the "trouble-triggered safe mode" will be established again.)

Note

 The output of pictures might be suspended when the safe mode is established.
 In this case, the output of pictures will be restarted about 5 to 10 seconds later.

When using Microsoft® Windows Vista® or Microsoft® Windows® 7, symptoms described in this document may happen. If any of them occurred, follow the instructions to solve each problem.

The symptoms that happen when using Windows Vista® may also happen when using Windows® 7.

If using Windows 7, refer to the section "Precautions when using Windows Vista" in addition to the section "Precautions when using Windows 7" in this document.

- This document describes solutions for administrators.
- If necessary, install the viewer software.
 (Refer to the Operating Instructions of each device for details on how to install the viewer software.)
- Descriptions in this document are based on operation check by Panasonic System Networks Co., Ltd.
 Possible symptoms may vary depending on platforms or operating system versions, etc.

■ System requirements for a PC

Refer to the section "System requirements for a PC" in the installation guide or Operating Instructions provided with the product to be used for further information about the recommended specifications of a PC. In case there are no descriptions of Windows Vista® or Windows® 7, refer to the following.

CPU	Intel [®] Core [™] 2 Duo 2.4 GHz or faster	
Memory	1 GB or more	
Network interface	10BASE-T/100BASE-TX 1 port	
Monitor	1024 $ imes$ 768 pixels or more, 24-bit True color or better	
OS and web browser	Windows® 7 Professional 64-bit*1 Windows® 7 Professional 32-bit*1	Windows® Internet Explorer® 8.0*2
	Windows Vista® Business SP1 32-bit	Windows® Internet Explorer® 7.0

^{*1:} Windows® XP compatibility mode is unavailable.

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- Microsoft, Windows, Windows Vista, and Internet Explorer are registered 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.
 - Trademarks and registered trademarks are abbreviated in the subsequent descriptions in this document.

^{*2:} Internet Explorer® 8.0 64-bit version is unavailable.

■ Precautions when using Windows Vista

Symptom 1

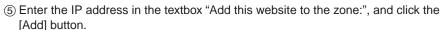
When accessing the web browser, the following message is displayed on the information bar.
 "Pop-up blocked. To see this pop-up or additional options click here..."



Solution

Add the IP address of the product to "Trusted sites", and perform the security setting.

- 1) Start up the web browser, and click "Internet Options" on the Tools menu.
- ② Click the [Security] tab. Then, select the "Trusted sites". (Refer to the screenshot.)
- ③ Select "Low" for "Security level for this zone". If the lower setting is selected, the security level of PC will go down.
- 4 Click the [Sites] button to open the "Trusted sites" window.



Note: Make sure "Require server verification (https:) for all sites in this zone" is unchecked. (Refer to the screenshot.)

⑥ After adding all IP addresses, click the [Close] button to close the "Trusted Sites" window.





Symptom 2

Easy IP Setup Software does not display the detected IP address.

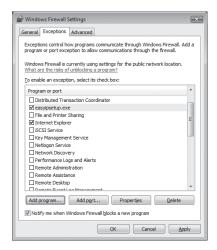
Solution

Check the firewall settings. If firewall is activated, add the web browser or Easy IP Setup Software to the [Exceptions] tab on the "Windows Firewall Settings" menu.

- (1) Open the control panel, and click "Security".
- ② Click "Allow a program through Windows Firewall" of "Windows Firewall". (Refer to the screenshot.)



- ③ Click the [Continue] button on the "User Account Control" window.
- 4 Click the [Exceptions] tab on the "Windows Firewall Settings" windows. Check "Internet Explorer" or "easyipsetup.exe". (Refer to the screenshot.)
- ⑤ Click the [OK] button.



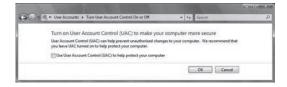
Symptom 3

- When starting the Easy IP Setup Software, a message is displayed to request the password of administrator.
- When exiting the Easy IP Setup Software, the message "This program might not have installed correctly" is displayed.

Solution

Turn off User Account Control (UAC) from the control panel of Windows Vista.

- ① Open the control panel, and click "User Accounts".
- ② Select "User Accounts" from "User Accounts".
- 3 Click "Turn User Account Control On or Off".
- ④ Click the [Continue] button on the "User Account Control" window.
- (5) Uncheck "Use User Account Control (UAC) to help protect your computer". (Refer to the screenshot.)
- (6) Click the [OK] button.



Symptom 4

• The screens of the administrator console or the windows of the browser are not displayed properly. (Refer to the screenshot.)



Solution

Check the font size (DPI) of screenshot by clicking "Personalize"— "Adjust font size (DPI)". If the DPI is set to "Larger scale", set to "Default scale".

- 1) Right-click on the desktop.
- 2 Click "Personalize".
- 3 Click "Adjust font size (DPI)".
- (4) Click the [Continue] button on the "User Account Control" window.
- ⑤ Click "Default scale" on the "DPI Scaling" window, and restart the PC. (Refer to the screenshot.)



Restrictions

Restriction 1	When two browser windows are open and one is being displayed on another The back window may come to the front when the mouse pointer is placed.
Restriction 2	When accessing this product from the web browser Another window may open, and pop-up may be displayed. In this case, audio may be transmitted even after the pop-up is closed.
Restriction 3	When activating audio on the web browser Audio may be transmitted even after users are changed. When changing users, close all browser windows that activate audio.
Restriction 4	When activating the window switcher while displaying images on a full screen on the web browser The live images may not be refreshed.

■ Precautions when using Windows 7

Symptom 1

Screen is deformed. / When activating the compatibility view, part of the screen is not displayed or a pop-up window appears
to say that the screen is not displayed again.

Solution

Check "Display all websites in Compatibility View" on the "Compatibility View Settings" window.

- 1) Start up the web browser, and click "Tools" on the menu bar.
- ② Click "Compatibility View Settings".
- ③ Check "Display all websites in Compatibility View", and click the [Close] button. (Refer to the screenshot.)



Symptom 2

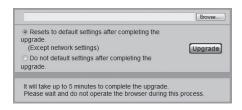
Network disconnection occurs when the PC enters the sleep mode.

Solution

After canceling the sleep mode, reload the screen as necessary.

Symptom 3

Characters such as a file name cannot be entered directly on the window or tab to upgrade the software.
 (Refer to the screenshot.)





Solution

Click the [Browse...] button to display the "File Selection" window to select a file.

Symptom 4

 Software upgrade is impossible even when selecting a file from the dialog box displayed from the window or tab to upgrade the software.

Solution

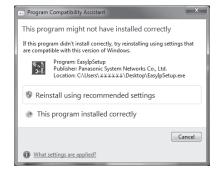
Perform the custom level setting on the "Security Settings" window.

- 1) Start up the web browser, and click "Tools" on the menu bar.
- 2 Select "Internet Options".
- ③ Click the "Security" on the displayed window, and click the [Custom Level...] button.
- ④ Click "Include local directory path when uploading files to a server" to activate the setting. (Refer to the screenshot.)



Symptom 5

 The "Program Compatibility Assistant" is displayed after exiting the Easy IP Setup Software. (Refer to the screenshot.)



Solution

This symptom happens only when the software has been used for the first time. Select "This program installed correctly".

Restrictions

Restriction 1	On the setup pages for some products The display positions of setting items and setting values may not be correspondent.
Restriction 2	When using Windows 7 with some products Two web browser windows may be displayed at the same time. Images are displayed on either window.

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