AW-UE20/HE20 Installation & Setup Guide

This guide explains the specifications, operations, and settings required to use the functions, based on frequently asked questions.

   Please refer to this guide along with the instruction manual.

  *You can find the download link for the instruction manual on the last page.
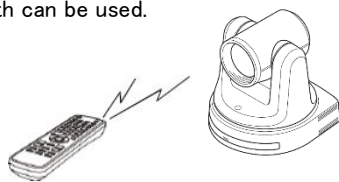
[Contents]

<Basic>

1. How to operate AW-UE20/HE20

AW-UE20/HE20 can be operated in the following methods.

1. **Using the wireless remote control: AW-RM50 (optional accessory).**

    *AW-RM50G and AW-RM50AG are fully compatible products with no differences in functions or specifications.

      Both can be used.

      （AW-RM50）   *Batteries are not included with AW-RM50.

Up to 4 cameras can be controlled from AW-RM50.

When operating multiple cameras with one remote control, set the [Wireless ID] for each camera to prevent interference.

The initial setting for [Wireless ID] on AW-UE20/HE20 is [1].

In this case, press the [CAMERA 1] button on AW-RM50, then operate zoom and other functions.

The Power ON/STANDBY button and MANU button operate when pressed and held.

*[Wireless ID] Setting

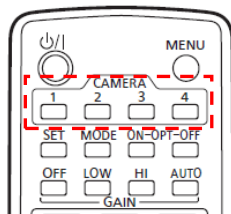   Camera Menu: SYSTEM > Wireless ID → [1-4] *Initial value [1]

   Web Menu: Setup > Image/Audio > System tab > Wireless ID → [1-4]

      *Personal computers are required to change settings via the web menu.

Power status indicator and wireless remote control

・Blinks green twice: Received signal from remote with matching Wireless ID.

・Blinks orange twice: Received signal from remote with non-matching Wireless ID.

(Wireless Remote Control: AW-RM50AG)   (AW-UE20)
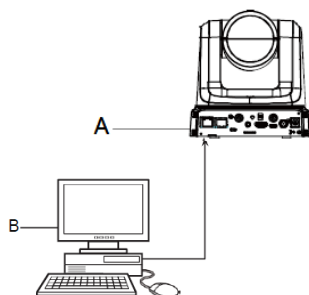

Power status indicator

2. Using Personal computers.

By connecting a computer (using a browser) to the camera via LAN cable, you can view the IP video (JPEG images only), operate the camera, and configure settings by the web menu.

(AW-UE20 Web Screen Image)

2

[Connect the camera's LAN port (A) and the computer (B) with a LAN cable (*)]

A

B

(*) Category 5e or higher, within 100m

・Directly connect to the camera: Crossover cable.

・Connecting via a switching hub: Straight cable.

[Set the computer's IP address to the same network segment as the camera]

　　The factory default network settings are as follows:

　　　[IP address (192.168.0.10), subnet mask (255.255.255.0)]

　　The range of private addresses is (192.168.0.1) to (192.168.0.254).

　　Therefore, set the computer's IP address to the unique (e.g., 192.168.0.100).

　　　*Set the subnet mask to the same as the camera (255.255.255.0).

　　　*For required personal computer environment, please refer to the instruction manual [Basic Edition].

[Displaying the web screen on the personal computer]

　Start the computer's web browser, input [http://camera's IP address] in the address bar, and press Enter.

　In the initial state, the initial account setup screen will be displayed when accessing the web screen.

Set the username and password.

After setting, click the [Set] button to display the web screen.

*For details on initial account setup, please refer to the instruction manual [Basic Edition].

(Initial Account Setup Screen)

3. Using the remote camera controller: AW-RP60.

　　　　For the AW-RP60, you can control up to 200 cameras including AW-UE20/HE20.

　　　　For details, please check the instruction manuals for AW-UE20/HE20 and AW-RP60.

＊To support connection and control of AW-UE20/HE20, AW-RP60 needs to be updated.

If the AW-RP60 firmware version is not Ver. 2.50-00-0.00 or higher, please update it.

（How to check AW-RP60 firmware version）

   Camera Menu: MENU button > [3] MAINTENANCE > [303] RP VERSION → SYSTEM VERSION

（AW-RP60 firmware download URL）
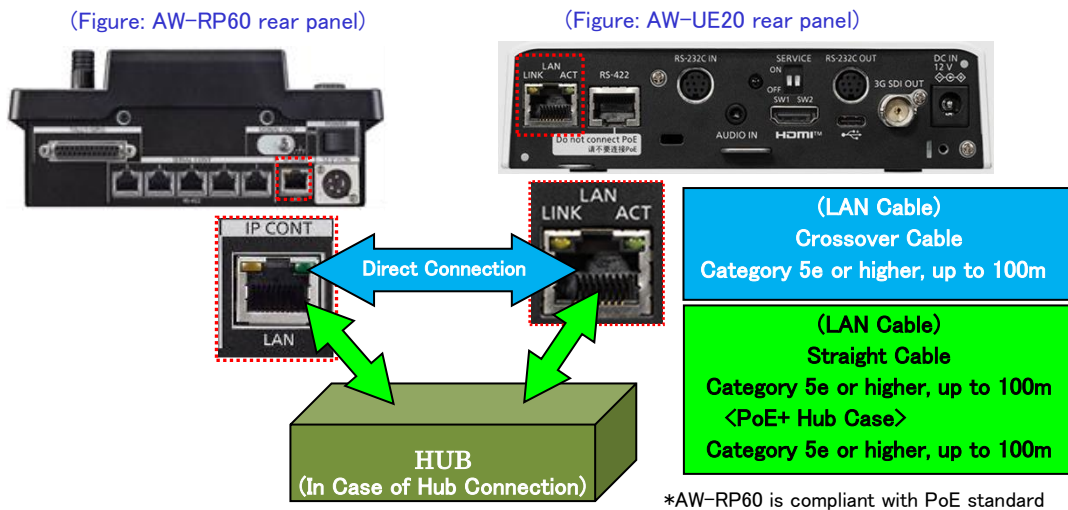
https://eww.pass.panasonic.co.jp/pro-av/support/content/download/EN/ep2main/soft/upgrp60_e.htm

3-1. Connect the LAN cable

[IP connection]

✓ By using a network hub, you can control up to 200 remote cameras from AW-RP60.

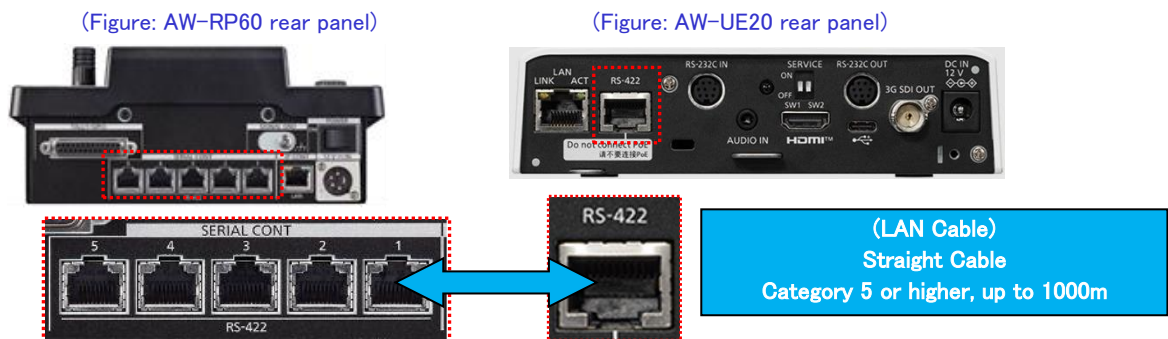   Connect the [LAN] port of AW-RP60 and the [LAN] port of AW-UE20/HE20 with a LAN cable.

（Figure: AW-RP60 rear panel）   （Figure: AW-UE20 rear panel）

Direct Connection

(LAN Cable)
Crossover Cable
Category 5e or higher, up to 100m

(LAN Cable)
Straight Cable
Category 5e or higher, up to 100m
<PoE+ Hub Case>
Category 5e or higher, up to 100m

HUB
(In Case of Hub Connection)

＊AW-RP60 is compliant with PoE standard

[Serial connection]

✓ The cable can be extended up to 1000m.

   Up to 5 AW-UE20/HE20 cameras can be controlled via serial connection from AW-RP60.

   Connect the SERIAL CONT [1]-[5] ports of AW-RP60 and the [RS-422] port of AW-UE20/HE20 with a LAN cable.

（Figure: AW-RP60 rear panel）   （Figure: AW-UE20 rear panel）

RS-422

SERIAL CONT

(LAN Cable)
Straight Cable
Category 5 or higher, up to 1000m

＊SERIAL CONT [1]-[5] ports correspond to AW-RP60 connection settings "CAM1"-"CAM5".

To control a camera serially with "CAM2", connect the LAN cable to the SERIAL CONT [2] port.

3-2. Set up the connection

[Operating one AW-UE20/HE20 with AW-RP60] *Assign the camera to CAM1 for control

① Press the MENU button. – (Fig. 1-A)

② Operate the F5 dial – (Fig. 1-B) to display the menu at [5 SYSTEM] > [502 CONNECT SETTING]. – (Fig. 2)

At this time, operate the F5 dial so that the yellow frame is on the first line – (Fig. 2).

*From the second line onward, you can display and change the CONNECT MODE for each camera number.

③ Operate the F1 dial to select [CAM SEL] → [1].

   [For IP connection]

④ Operate the F2 dial to select [CONNECT MODE] → [LAN].

   [For serial connection]

⑤ Operate the F2 dial to select [CONNECT MODE] → [Serial].

(Figure 1: AW-R60 Control Section)

CAM SEL	CONNECT MODE		
1	Serial		
CAM1	CAM2	CAM3	CAM4
Serial	NON	NON	NON
CAM5	CAM6	CAM7	CAM8
NON	NON	NON	NON

C001:AW-UE70　　TALLY:
CONNECT SETTING　　1/17
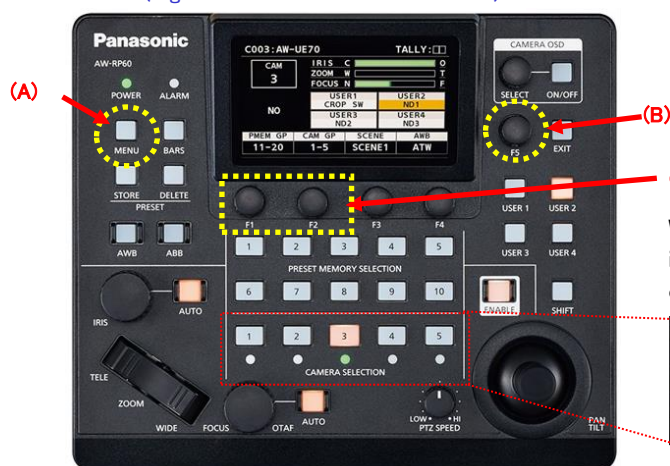
★ Initial Values for CONNECT SETTING
・CAM1: Serial
・CAM2 to CAM200: NON

(A)

(B)

(F1, F2 Dials)

When the setting is executed correctly, the LED in section ○ will light up according to the camera's status indicator lamp.

(Status Indicator Lamp … Shows the camera's power status)
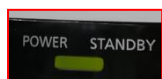
Green lit … Power ON status
　　　　　(Video is also output)

Orange lit … Standby mode
Power ON operation is required

Status Indicator Lamp

5

2. How to turn on AW-UE20/HE20

[Turning on each camera individually]

①Press and hold the [1] button on [CAMERA SELECTION] - (Fig. 5-A) for about 3 seconds, and the camera name and

[ON (F2)], [OFF (F3)] buttons will be displayed on the LCD screen. - (Fig. 6)

②While holding the [1] button, press the F2 dial - (Fig. 5-B) to turn on the camera connected to CAM1.

*To switch to standby mode from power ON, press the F3 button in the same way.

(Figure 5: AW-RP60 Control Section)
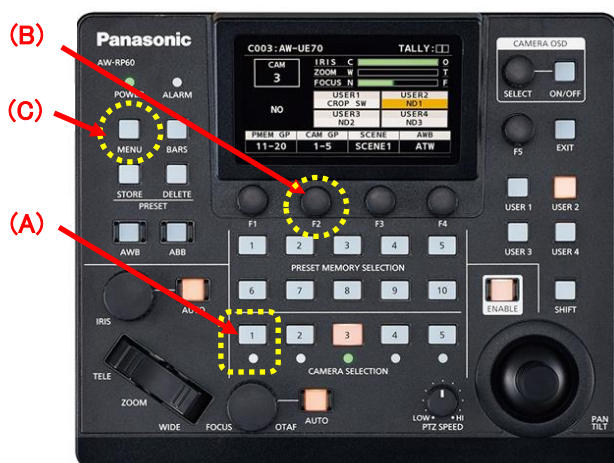
(Figure 6: AW-RP60 LCD Screen)

★This operation is valid when the status screen is displayed.
Turn off the MENU button (Fig. 5-C),
Please operate after displaying the status screen.

[Turning on multiple cameras]

①　Press the MENU button - (Fig. 5-C).

②　Operate the F5 dial to display the [5 SYSTEM] > [501 CAMERA] menu.

③　Operate the F1 dial to select [CAM POWER] → [ALL ON],

Press the F1 dial to turn on all connected cameras.

*Executing [CAM POWER] → [ALL OFF] will switch all connected cameras

to standby mode.

(CAMERA Menu)

[Turning on the camera in conjunction with AW-RP60 power (ON)]

Operate up to step ② above to display the [501 CAMERA] menu.

①　Operate the F2 dial to select [AUTO POWER] → [ON], then press the F2 dial.

*When AW-RP60 power is ON, cameras set to [Serial] or [LAN] connection type will turn ON.

★There is no function to turn off the camera in conjunction with AW-RP60 power (OFF).

CAMERA Menu

6

●From here, we introduce the main operations and settings based on frequently
asked questions.

## 3. How to set up the image settings when the camera is installed on the ceiling?

★To invert the output image, change the camera's menu settings.

　＊To invert the output image of the camera linked to [CAM1]:

①　Press the number 1 button on <CAMERA SELECTION>. – (Fig. 7-A)

②　Press the CAMERA OSD: ON/OFF button – (Fig. 7-B) to turn it on (ON: lit / OFF: unlit), and the on-screen menu –
(Fig. 8) will be displayed on the SDI or HDMI output image of AW-UE20/HE20.

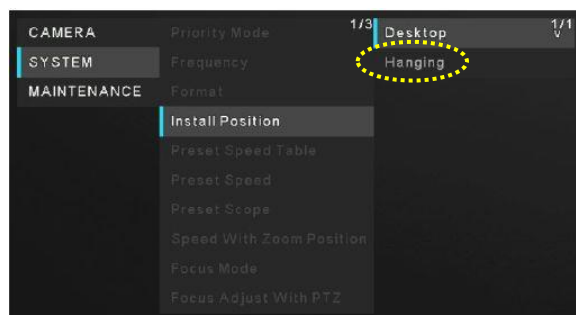③　Operate the SELECT dial – (Fig. 7-B) to change the following camera menu settings.

　Camera Menu: SYSTEM > Install Position ⇒ Select [Hanging]

（Figure 7: AW-RP60 Control Section）

（CAMERA OSD）

(B)

(A)
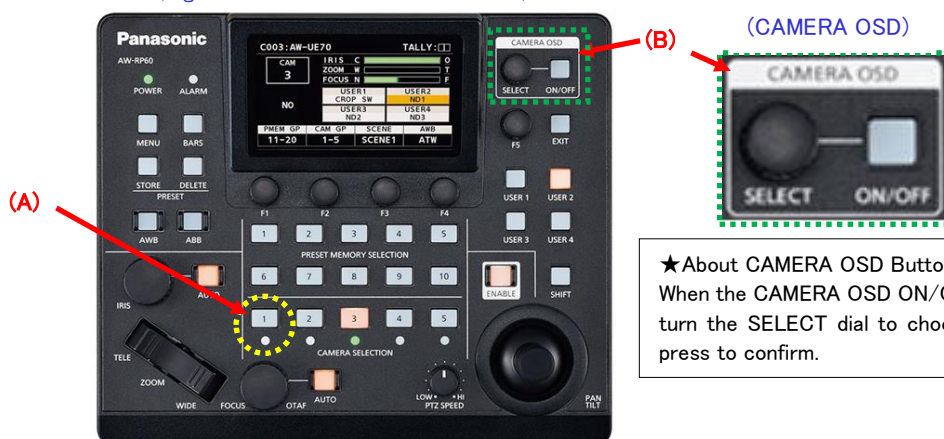
★About CAMERA OSD Button Operation
When the CAMERA OSD ON/OFF button is lit,
turn the SELECT dial to choose a menu and
press to confirm.

（Figure 8: AW-UE20/HE20 On-Screen Menu）

7

4. How to set up the start-up camera position when powering on?

★To start with the camera with a fixed angle, use the [POWER ON Preset Function (*2)].

(*2) A function to set a fixed angle (pan/tilt/zoom position) when powering on.

When AW-UE20/HE20 switches from power ON mode to standby mode,

camera memorizes the current pan/tilt/zoom position (POWER ON preset).

Steps to set the angle using the POWER ON preset function:

① Adjust the camera angle.

② Switch the camera to standby mode.

*For how to switch power modes, refer to this guide: "2. How to turn on AW-UE20/HE20".

③ Turn the power ON again.

That's all for the setting.

If you turn off the power from the AC side or PoE side without switching to standby mode, the angle will not be memorized.

Therefore, after setting, operate the main power ON/OFF to always start with the fixed angle.

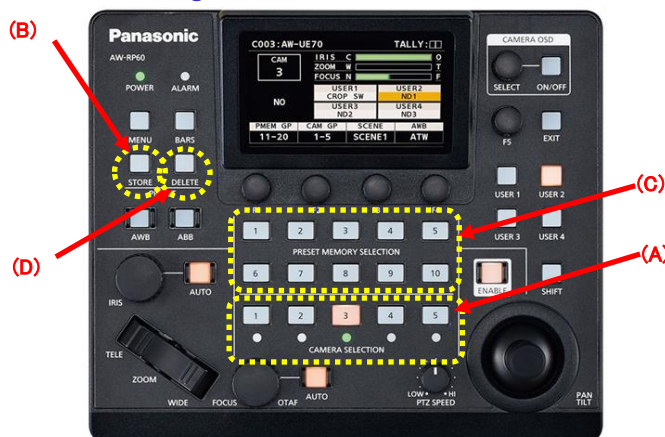## 5. How to set up camera preset memories (registration and playback)?

[Registering preset memory]

① Press CAMERA SELECTION buttons 1-5 to select the remote camera to operate. – (Fig. 9-A)

② Operate PAN/TILT and ZOOM to adjust the angle. Adjust focus and iris as needed.

③ Press the STORE button. – (Fig. 9-B) *STORE button lights up

④ Press the PRESET MEMORY SELECTION button – (Fig. 9-C) for the number you want to register.

*The registered number lights up. Registering again to an already registered number will overwrite it.

⑤ Press the STORE button. – (Fig. 9-B) *STORE button turns off

(Figure 9: AW-RP60 Control Section)

(If you want to delete a preset memory)
After pressing the DELETE button (Fig. 9-D), press the number (Fig. 9-C) you want to delete.
*The DELETE button turns off after each deletion.

8

[Recalling preset memory]

① Press CAMERA SELECTION buttons 1-5 to select the remote camera to operate. – (Fig. 10-A)

② Press the registered number (PRESET MEMORY SELECTION) button – (Fig. 9-C) to move the camera to the registered position.

[NOTE]

For detailed settings regarding preset memory, please refer to the instruction manual [Operation/Settings Edition].

6. How to adjust Iris settings?

★It's enable to adjust the iris value. The case for shooting in scenes that are too dark (or too bright).

*It's necessary to change the camera menu setting [Scene File].

<Ex. Adjust the iris of AW-UE20/HE20 connected to CAM1>

① Press the number 1 button on CAMERA SELECTION When the status light is lit. – (Fig. 10-A)

② Press the CAMERA OSD button – (Fig. 10-B) to display the camera's on-screen menu – (Fig. 11).

③ Operate the SELECT dial to change the following camera menu settings.
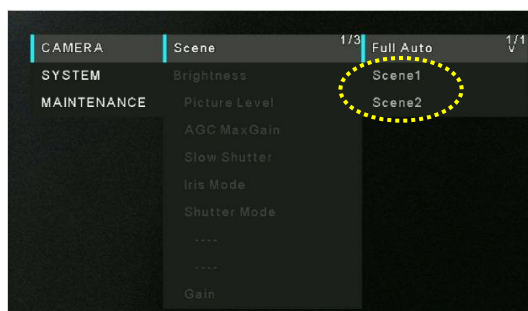
Camera Menu: Camera > Scene ⇒ Set to [Scene 1 or Scene 2]

④ Press the IRIS AUTO (*3) button – (Fig. 10-C) to switch between auto/manual.

(*3) When lit, it is auto; when off, it is manual, and you can adjust with the IRIS dial – (Fig. 10-D).

(Figure 10: AW-RP60 Control Section)
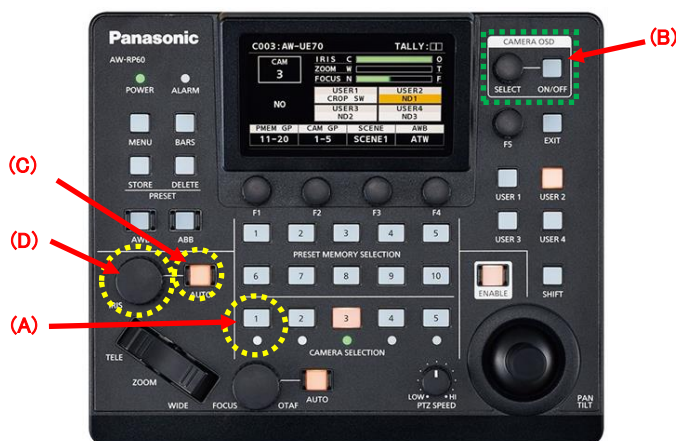
(Figure 11: AW-UE20/HE20 On-Screen Menu)

NOTE

・IRIS dial

When the iris mode (IRIS AUTO button lit) is set to auto, you can adjust the convergence level of the camera's auto iris with the IRIS dial.

・Scene files

AW-UE20/HE20 allows you to select from three types of scene files (Full Auto, Scene 1, Scene 2) according to shooting conditions. For details, please refer to the instruction manual [Operation/Settings Edition].

●Advanced Usage

### 7. Using as a USB camera

AW-UE20/HE20 can be used as a USB camera for conference application software in the following methods.

　*AW-UE20/HE20 complies with USB Video Class Ver1.1 and USB Audio Class Ver1.0 standards.

For details, please refer to the instruction manual.

1.　Connect the camera (USB Type-C port) and the computer with a USB cable (USB2.0, sold separately).

(Connection Example When Used as a USB Camera)

Please supply power using the included AC adapter or a PoE+ switching hub.
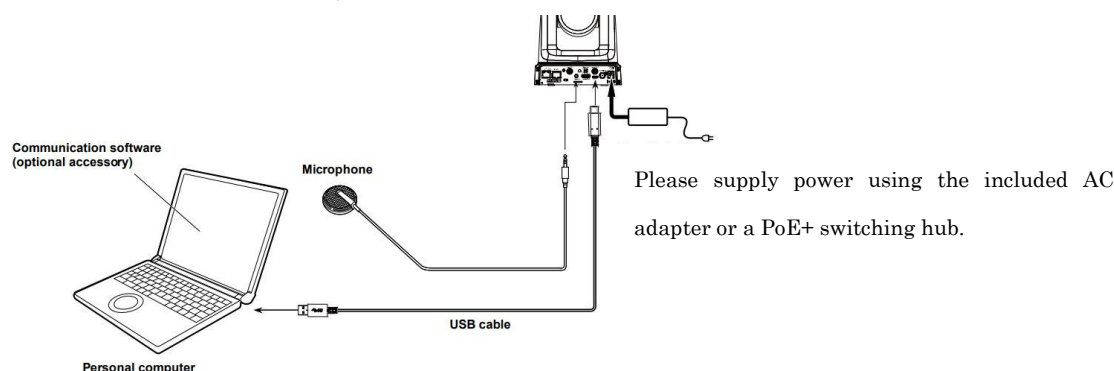
*Controllable functions depend on the application used.

[Set the camera's priority mode]

For AW-UE20: Set to [USB (4K)], [HDMI/USB], or [USB (Video Conference)].

For AW-HE20: Set to [HDMI/USB] or [USB (Video Conference)].
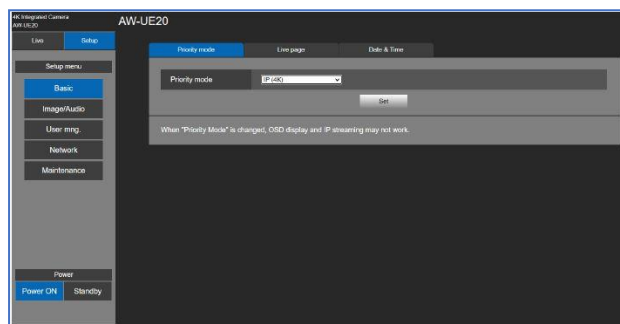
*Initial setting value: [HDMI/USB]

*[Priority Mode] Setting

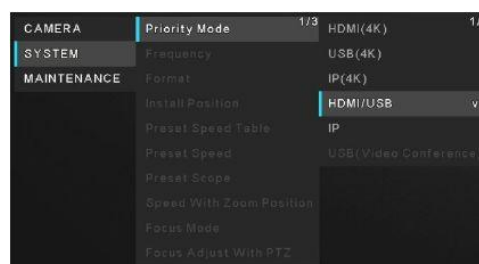Camera Menu: SYSTEM > Priority Mode

Web Menu: Setup > Basic > Priority mode

*Personal computers connected via LAN is required to change settings from the web menu.

(AW-UE20 Web Screen)　　　　　　　　　(AW-UE20 On-Screen Menu)

*About USB (Video Conference) mode

This unit can be used as a webcam. It is optimized for online use (*1), and when the online meeting ends, the unit automatically switches to standby mode. When an online meeting starts in standby mode, the unit automatically switches to power ON mode.

NOTE:

　　Video output is not available from HDMI or SDI, and no video is output via IP transmission.

　　Also, audio output is forcibly turned off.

　　(*1) Minimizes UVC output delay, and the tally lights up blue.

　After setting, select "AW-UE20" or "AW-HE20" as the video and audio device in the application software.

2. Use the PTZ Virtual USB Driver

PTZ Virtual USB Driver is software that runs on Windows.

By running this software on a Windows PC, you can use a connected camera via LAN cable as a virtual USB camera recognized by Windows.

PTZ Virtual USB Driver can be downloaded from the following URL:

　https://pro-av.panasonic.net/en/software/ptz_vud/
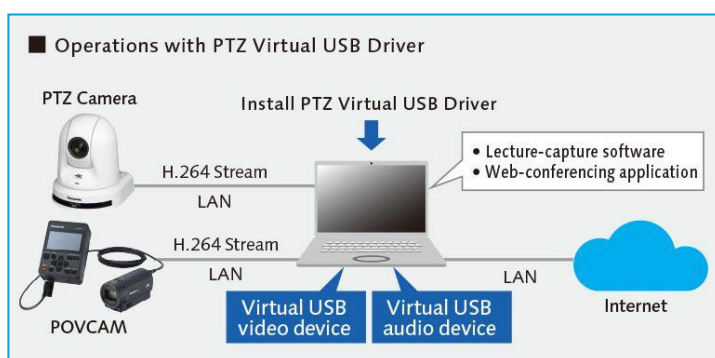
[Required settings for AW-UE20/HE20]

　To receive and recognize H.264 stream video and audio from the camera with the PTZ Virtual USB Driver, set the priority mode as follows:

　　For AW-UE20: [IP(4K)] or [IP]

　　For AW-HE20: [IP]

11

Confirm that the H.264 stream output settings are as follows:

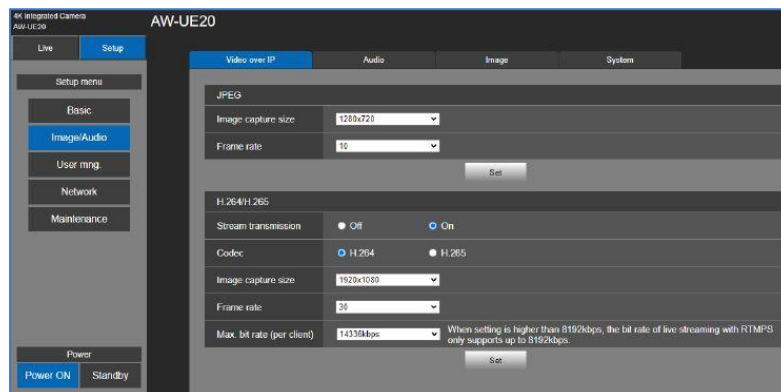Web Menu: Setup > Image/Audio > Video over IP > H.264/H.265

→ Streaming transmission: On

→ Codec: H.264

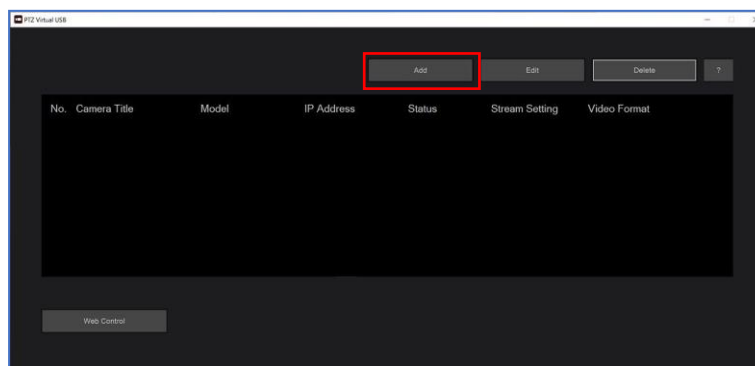→ Image capture size: 3840x2160/1920x1080/1280x720/640x360

→ Frame rate: 60fps/50fps/30fps/25fps/15fps/10fps/5fps
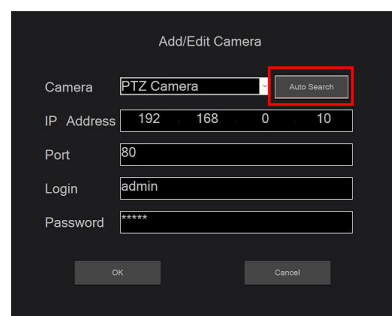
(AW-UE20 Web Screen)

[Register AW-UE20/HE20 with the PTZ Virtual USB Driver]

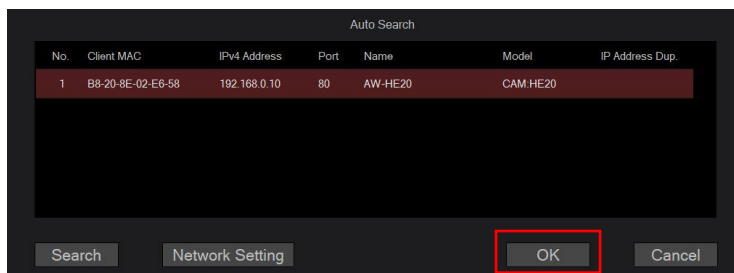・Start the PTZ Virtual USB Driver and click the Add button on the main screen.

・On the Add/Edit Camera screen, select "PTZ Camera" from the pull-down menu, and click the "Auto Search" button.

・The Auto Search screen will appear, and cameras on the network will be listed.

 Select the camera you want to register from the list and close the window with the OK button.

・On the Add/Edit Camera screen, enter the account information you set for AW-UE20/HE20_x000D_ Login (username),

 Password in the respective (yellow frame), and click the OK button.
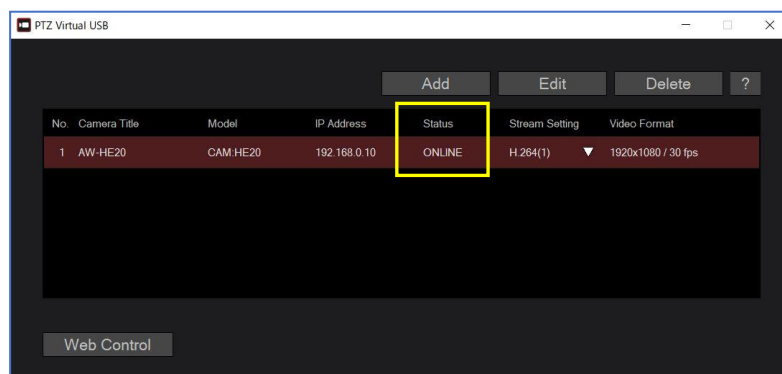
 Then, registration is complete.

 *For account registration, please refer to [Displaying the web screen on the computer] in this document.
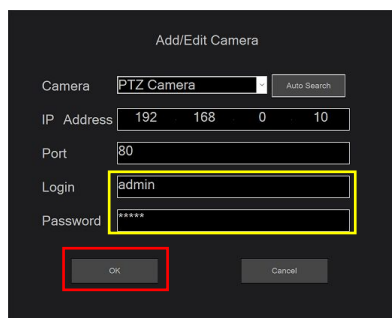
・A few seconds after the camera is added, the Status display on the main screen will change according to the camera status.

Confirm that the Status display shows "ONLINE".

*If the Status display shows anything other than "ONLINE", please refer to the PTZ Virtual USB Driver operation manual [About camera Status display].

Once registration is complete, a corresponding virtual USB camera device will be created on Windows for the registered camera.

The name of the created virtual USB camera device is as follows.

Select the corresponding virtual Video/Audio device in your application software.

Virtual Video Device: Panasonic AV Stream Camera(*)

Virtual Audio Device: Panasonic Virtual Microphone(*)

（*）The number corresponds to the camera No. in the main screen camera list.

If the virtual USB device is created correctly, the virtual Video device will appear under "Cameras" in Device Manager, and the virtual Audio device will appear under "Sound, video and game controllers".

Below is an example of Device Manager display when five cameras are registered.
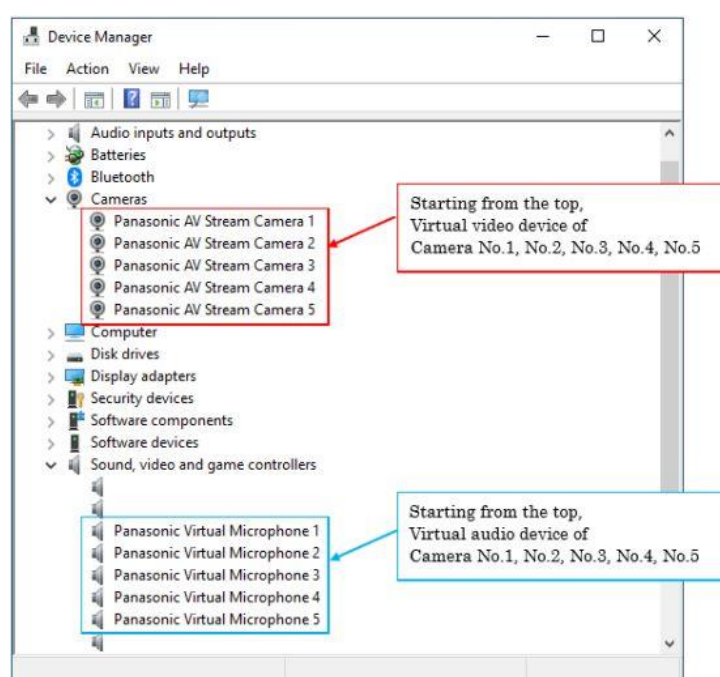
8. Receiving H.264/H.265 IP Streaming Video

AW-UE20/HE20 supports the standard RTSP protocol. By sending RTSP requests from RTSP-compatible application software or devices to AW-UE20/HE20, you can receive IP streaming video and audio.

Audio is not output on the web screen, so if you want to output audio, please receive IP streaming video and audio via RTSP request.

H.264/H.265 streaming video is output from the LAN port (RTSP/RTMP).

To output RTSP from this unit, set the priority mode as follows:

For AW-UE20: [IP(4K)] or [IP]

For AW-HE20: [IP]

RTSP request URLs are as follows:

＊Please make requests according to the ［Codec］ → ［H.264/H.265］ settings on the web menu screen.

＊For settings on application software or receiving devices, please check with the software or device manufacturer.

（For H.264）rtsp://<IP address>/mediainput/h264/stream_1

（For H.265）rtsp://<IP address>/mediainput/h265/stream_1