HuddleCamHD Pro

USB 3.0 EPTZ CAMERA

INSTALLATION & OPERATION MANUAL

Precautions...

Safety Tips..

- Please read this manual carefully before using the camera.
- Avoid damage from stress, violent vibration or liquid intrusion during transportation, storage or installation.
- Take care of the camera during installation to prevent damage to the camera case, ports, or lens.
- Do not apply excessive voltage. (Use only the specified voltage.) Otherwise, you may experience electrical shock.
- Keep the camera away from strong electromagnetic sources.
- Do not aim the camera at bright light sources (e.g. bright lights, the sun, etc.) for extended periods of time.
- Do not clean the camera with any active chemicals or corrosive detergents.
- Do not disassemble the camera or any of the camera's components. If problems arise, please contact your authorized dealer.
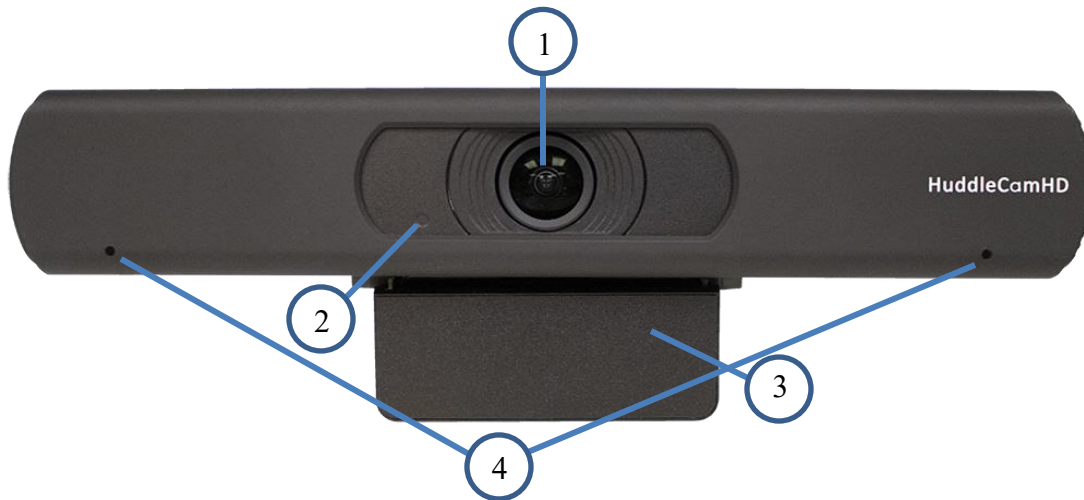- Contact your authorized dealer for repair.

In the Box...

Supplied Equipment..

- HC-EPTZ-USB Camera (1)
- USB 3.0 A-B cable (1)
- IR Remote Controller (1)
- User Manual (1)

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Physical Description...

1. Front View...

1. **Lens**

   108° Field of View lens

2. **Power LED**

   Blue LED lights when unit is powered and on.

3. **Mounting Base**

   Mounting base for camera. 1/4-20 mounting screw.

4. **Microphone Array**

   Beamforming microphone array

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2. Rear View..

5. **HDMI Connection**

   HDMI 1.4 (4K@30) connection to display

6. **USB 3.0 Connection**

   For connecting to PC for video and power

OSD MENU...

On Screen Display Menu

Use the OSD menu to access and change the camera's settings.

Note: Electronic P/T/Z functionality is disabled when the OSD menu is displayed.

The camera OSD Menu offers the following settings options:

- **Exposure**
  - **Full Auto**
    - **ExpCompMode**   On / Off
    - **Exp Comp**   -7 ~ +7

      Note: Only available when ExpCompMode is "On"
    - **Gain Limit**   0 ~ 15
    - **Backlight**   On / Off
    - **DRC Strength**   0 ~ 8
    - **Anti-Flicker**   Off / 50Hz / 60Hz
  - **Shutter Priority**
    - **Shutter**   1/30s, 1/60s, 1/90s, 1/100s, 1/125s, 1/200s, 1/250s, 1/350s, 1/500s, 1/725s, 1/1000s, 1/1500s, 1/2000s, 1/3000s, 1/4000s, 1/6000s, & 1/10000s
    - **DRC Strength**   0 ~ 8
  - **Bright**
    - **Bright**   0 ~ 17
    - **Gain Limit**   0 ~ 15
    - **DRC Strength**   0 ~ 8
    - **Anti-Flicker**   Off / 50Hz / 60Hz

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- **Color**
  - **Auto**
    - **AWB Sens**   Low / Middle / High
    - **RG Tuning**   -10 ~ +10
    - **BG Tuning**   -10 ~ +10
    - **Saturation**   60% ~ 200%
    - **Hue**   0 – 14
  - **Indoor**
    - **Saturation**   60% ~ 200%
    - **Hue**   0 ~ 14
  - **Outdoor**
    - **Saturation**   60% ~ 200%
    - **Hue**   0 ~ 14
  - **OnePush**
    - **AWB Sens**   High / Low / Normal
    - **RG Tuning**   -10 ~ +10
    - **BG Tuning**   -10 ~ +10
    - **Saturation**   60% ~ 200%
    - **Hue**   0 ~ 14
  - **Manual**
    - **RG Tuning**   0 ~ 255
    - **BG Tuning**   0 ~ 255
    - **Saturation**   60% ~ 200%
    - **Hue**   0 ~ 14
  - **VAR**
    - **Color Temp**   2500K ~ 8000K
    - **RG Tuning**   -10 ~ +10
    - **BG Tuning**   -10 ~ +10
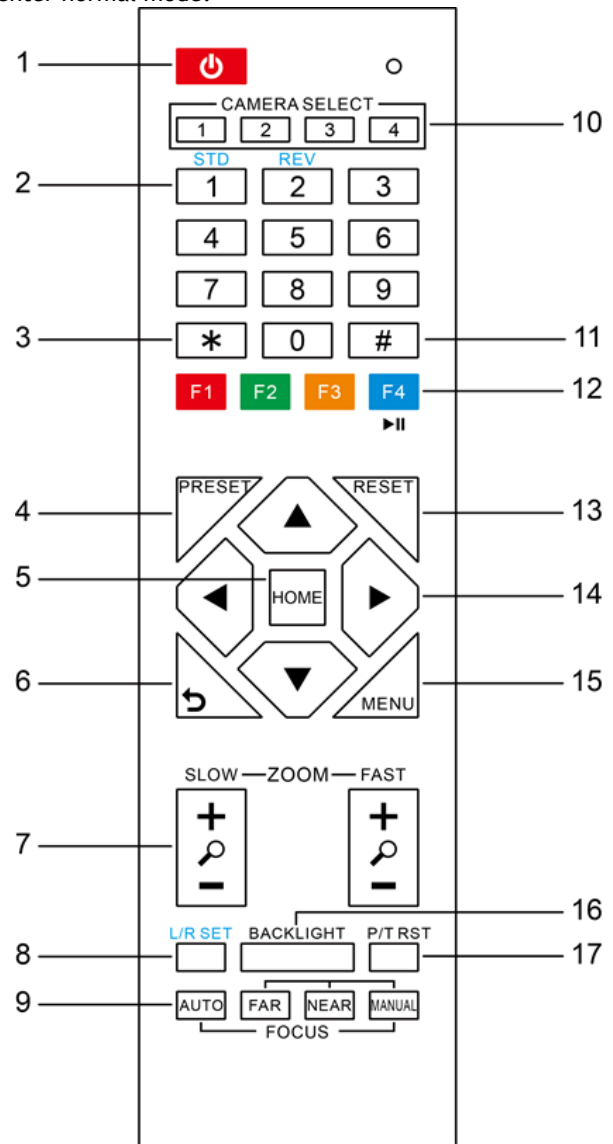   - **Saturation**   60% - 200%
    - **Hue**   0 ~ 14

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- **Image**
  - **Luminance**   0 ~ 14
  - **Contrast**   0 ~ 14
  - **Sharpness**   Auto / 0 ~ 15
  - **Flip-H**   Off / On
  - **Flip-V**   Off / On
  - **Gamma**   Default / 0.45 / 0.5 / 0.56 / 0.63
  - **Style**   Clarity / Bright / PC / Clarity (LED) / Norm
  - **LDC**   Off /-10 ~ +10
- **Noise Reduction**
  - **2D-NR**   Close / Auto / 1 ~ 5
  - **3D-NR**   Close / 1 ~ 8
- **Setting**
  - **Language**   English, Chinese, French
  - **EPTZ**   On / Off
  - **Zoom Limit**   1x-3x / 1x-4x / 1x-8x / 2x-4x / 2x-8x / 3x-8x
  - **DVI Mode**   DVI / HDMI
  - **HDMI Format**   1080p30 / 1080i60, 1080i50, 4K@30
  - **Auto Framing**   On / Off
  - **H264 Enable**   On / Off *
  - **Audio Enable**   On / Off *
    - *Requires power cycle
- **Information**   Displays current camera settings
- **Restore Default**   Restore camera *default settings*

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IR Remote Controller...

Note: IR Remote will not work on other HuddleCamHD cameras

1. **Standby Button:**
    Press this button to enter standby mode. Press it again to enter normal mode.
    NOTE: Power consumption in standby mode is approximately half of the normal mode.
2. **Position Buttons:**
    To set preset or call preset
3. *** Button:**
    For multiple functions.
4. **Preset Button**
    Allows for setting a preset
    NOTE: [PRESET] + Numeric button (0-9) to set
5. **Home Buttons**
    Press the Home button to send the camera back to front
6. **Return Button**
    Press the button to back previous menu
7. **Zoom Buttons**
    Zoom+: Zoom In (Slow and fast speed)
    Zoom-: Zoom Out (Slow and fast speed)
8. **L/R Set Button**
    Set the left & right direction of the remote control.
    (not available on this model)
9. **Focus Buttons**
    Used for focus adjustment
    Press AUTO to adjust the focus on the center of the object automatically. To adjust the focus manually, press the MANUAL button, and adjust it with FAR and NEAR.
10. **Camera Address Select Buttons**
    Camera the button corresponding to the camera which you want to operate with the remote controller
11. **# Button**
    For multiple functions
12. **Multiple function Buttons**
    Function 1. Set camera IR address
    Press 3 keys contiguously can set camera IR address as follow:
    [*] + [#] + [F1]: IR Address 1
    [*] + [#] + [F2]: IR Address 2
    [*] + [#] + [F3]: IR Address 3
    [*] + [#] + [F4]: IR Address 4
    Function 2. Image freezing function
    Press [F4] to start the freeze function. The word "Freeze" displays on the upper left corner. After five seconds, the display disappears automatically (though the freeze feature continues). To cancel the freeze, press the [F4] key the word "Unfreeze" displays on the upper left corner. After five seconds, the display disappears automatically.
13. **Reset Button**
    Clear preset: Erase a preset position [RESET] + numeric button (0-9), or: [*] + [#] + [RESET]: Erase all presets
14. **Pan/Tilt Control Buttons**
    Allows for Electronic Pan/Tilt control (Note you must digitally zoom before electronic P / T is available)
15. **Menu Buttons**
    Menu Button: Press this button to enter or exit the OSD menu.
16. **Backlight Button**
    Backlight button: Press this button to enable the backlight compensation. Pres it again to disable the backlight

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compensation.
NOTE: Only available in manual exposure mode.
NOTE: If there is a light begin the subject, the subject will appear dark. In this case, press the backlight ON/OFF button. To cancel the function, press the backlight ON/OFF button

17.   **P/T RST Button**
Press this button to self-calibrate pan & tilt once again.
NOTE: not available on this model
[*] + [#] + [1]: Display OSD menu in English
[*] + [#] + [3]: Display OSD menu in Chinese
[*] + [#] + [6]: Quickly restore the default settings
[*] + [#] + [8]: Show the camera version
[*] + [#] + [9]: Quickly set mount mode (flip/normal)

Connection Instructions…………………………………………………………………

1. Connect included USB 3.0 cable to camera and USB 3.0 port of PC.
2. Wait for camera to power on.
3. Select and configure camera in your software of choice.

NOTE: Failure to follow this sequence may result in no connection to PC.

Care Of The Unit……………………………………………………………………….

Remove dust or dirt on the surface of the lens with a blower (commercially available).

Installation Instructions……………………………………………………………

Monitor Installation……………………………………………………………………
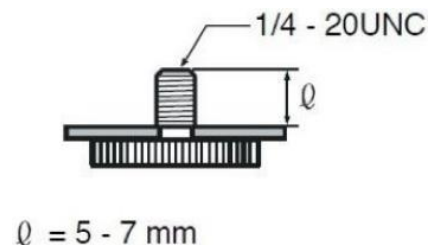
When mounting the HuddleCamHD camera on a monitor, ensure that the mount screw is fastened tightly to the camera. Use the top mount to rest the camera on a monitor. Position the bottom mount on the back of the monitor to secure the camera in position. You can rotate the camera lens as necessary.

Tripod Installation………………………………………………………………………

When using the HuddleCamHD camera with a tripod, screw the tripod to the bottom of the camera.
The tripod screw must fit shown specifications:

1/4 - 20UNC

ℓ

ℓ = 5 - 7 mm

Troubleshooting..........……..

Problem	Cause	Resolution
There is no power to the camera	USB Port is not supplying proper power	Test another USB port
	USB Cable is Disconnected	Ensure cable connections are secure
Camera will not connect to the PC via USB	USB cable is faulty	Try new USB Cable
	Camera connects sometimes.	Test another USB port and ensure you are not using a USB extender or USB hub
Camera is unable to pan or Tilt	Menu is currently displayed on the screen	Retry after exiting the menu
	No electronic zoom has been performed	Zoom first then try panning or tilting
Remote control not working	The "camera select" button on the remote control is not set to match the "IR select" switch number set on the camera	Choose the correct "IR select" number to match camera settings
Camera is unable to Zoom	EPTZ is not enabled in the OSD	Make sure EPTZ has been enabled in the OSD
	Digital Zoom limit is 1x	Increase Digital Zoom range via OSD
The Camera is not working at all	No response or image from camera	Disconnect power, and wait a few minutes, then connect the power again. Retry.

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Important Notes Regarding USB Connectivity:

USB 3.0 ports are backwards compatible with USB 2.0 devices. USB 2.0 ports are not completely forward compatible with USB 3.0 devices (some USB 3.0 devices will connect to USB 2.0 with limited functionality).

External USB hubs should be avoided (i.e. give the camera its own USB port on the device) as they are not well suited to transmitted HD video reliably.

USB extension systems must be fully compatible with the version of the USB that you are using and must utilize an external power supply, when required. Caution: Some "Compatible" USB 3.0 extenders do not actually have the full 5Gbps bandwidth required for uncompressed HD video – so check bandwidth specs.

Always connect the HuddleCamHD camera directly to the device in order to associate the UVC drivers before attempting to use any extension system.
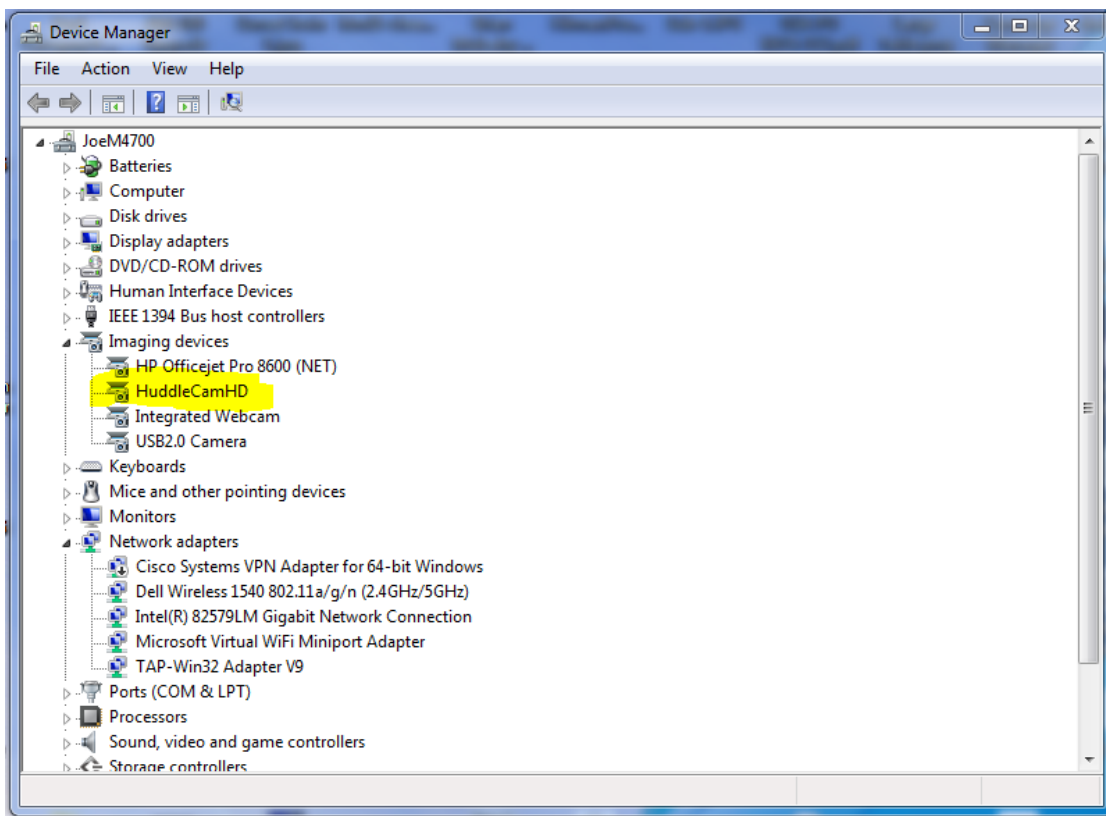
USB 3.0 power saving settings in the devices operating system should be turned off completely for reliable USB camera connectivity.

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HuddleCamHD Cameras

All HuddleCamHD camera utilize the UVC (USB Video Class) drivers that are built into Windows, Mac OSD and Linux to stream HD video to your device via your device's USB port (USB 2.0 or 3.0 depending upon the HuddleCamHD model).

When your device successfully recognizes the camera, your device will register the HuddleCamHD camera as an "imaging device".

You can see this in your Windows Device Manager program (type "device manager" into the Windows search tool) as shown in the screenshot, below:

In this example, you can see the HuddleCamHD model in use connected as a fully functional USB 3.0 device (HuddleCamHD) as well as a USB 2.0 device with limited functionality (USB2.0 Camera).

If your device has not connected to or has not recognized the HuddleCamHD camera as an imaging device, try reconnecting the camera via USB (USB 2.0 or USB 3.0 depending upon HuddleCamHD model). If the camera still does not operate properly, please contact HuddleCamHD support at support@huddlecamhd.com for further assistance.

Similarly, you can see a connected device in System Information on a Apple computer. See screenshot below:

In this example, you can see the HuddleCamHD model in use connected as a fully functional USB 3.0 device "HuddleCamHD" as well as a "USB2.0 camera" with limited functionality (USB2.0 camera).

Specs...

Model Number: HC-EPTZ-USB

Camera & Lens

- **Video CMOS Sensor**   1/2.5" CMOS 8.51M Mega Pixel
- **Resolution**   3840x2160, 1920x1080, 1280x720, 1024x576, 960x540, 640x480, 640x360
- **Frame Rate**   50Hz: 1 ~ 25
  60Hz: 1 ~ 30
- **Zoom**   8X Digital Zoom
- **Focal Length**   f=2.8mm
- **Field of View**   108°
- **Min Lux**   0.05 Lux (@ F1.8, AGC ON)
- **Warranty**   3 years parts and labor

Rear Board Connectors

- **Video Interface**   USB 3.0, HDMI 1.4
  USB 2.0 with reduced quality
- **Power Supply Interface**   USB 3.0
- **Working Environment**   Indoor

Physical

- **Material**   Aluminum, Plastic
- **Dimensions**   7.63"W x 2.36"H x 3.66"D
  (194mm x 60mm x 93mm)
- **Weight**   0.7 lbs (0.34 kg)
- **Box Dimensions**   9.375" x 4.3125" x 4.625" (238mm x 109.5mm x 117.5mm)
- **Boxed Weight**   2.4 lbs (1.1 kg)
- **Color**   Black
- **Operating Temperature**   32°F to +113°F (0°C to +45°C)
- **Storage Temperature**   -14°F to 140°F (-10°C +60°C)
- **Working Environment**   Indoor only