

4K AI Dual-lense Optical Camera

CAM-420-PTZ

WyreStorm

Quickstart Guide

💡 WyreStorm recommends reading through this document in its entirety to become familiar with the product's features prior to starting the installation process.



NDI HDMI

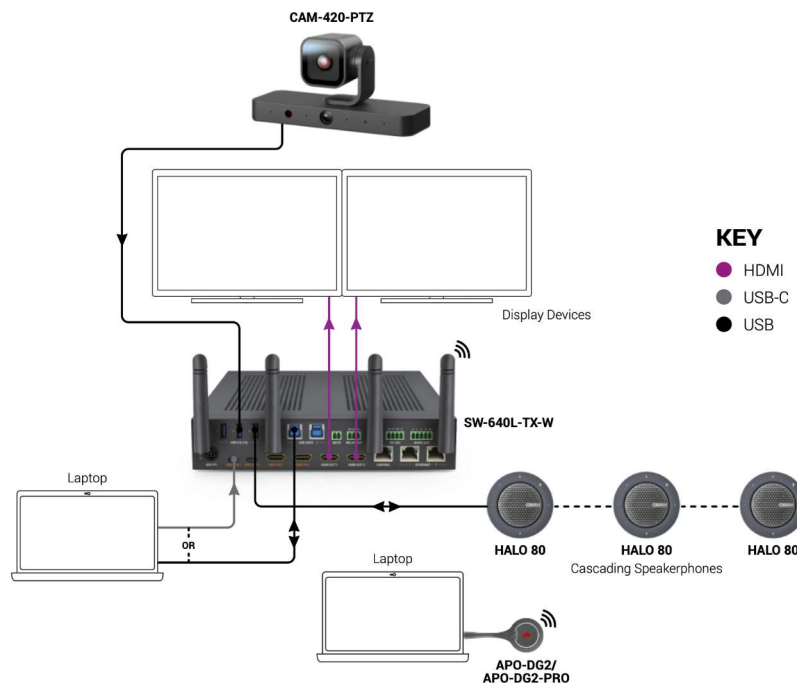
⚠️ IMPORTANT! Installation Requirements

- Visit the product pages to download the latest firmware, document version, additional documentation, and configuration tools.

In the Box

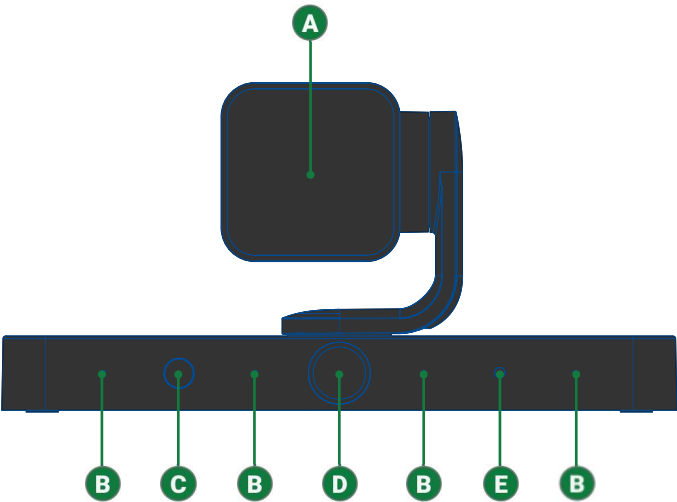
- 1x CAM-420-PTZ Camera
- 1x 12V/3.0A Power Supply (US/UK/EU/AU)
- 1x USB-C to USB 3.0 Type-A cable (1.8m)
- 1x Mounting Kits (installation on table or wall)
- 1x Quick Start Guide
- 1x Privacy Cover
- 1x Remote Controller

Basic Wiring Diagram



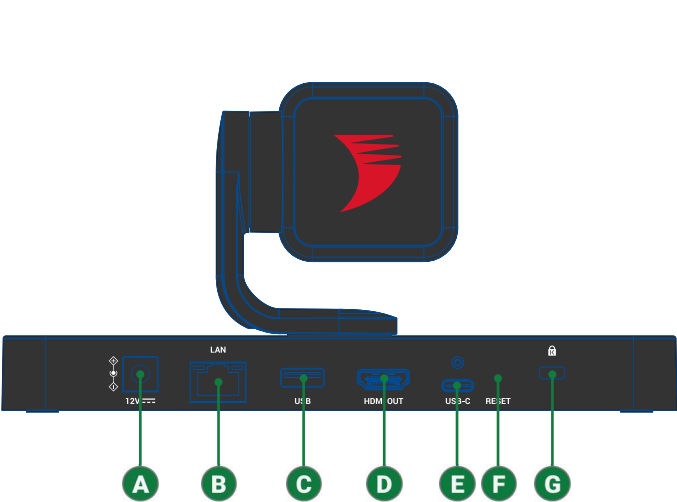
Panel Descriptions

Front Panel



A	Lens	4K optical zoom lens
B	MIC	4x Linear mic arrays for sound source location
C	IR Window	Receive IR signals from the provided IR remote
D	Lens	1080p fixed focus lens
E	Status LED	• Solid white for about 2s, and then off.: The device is starting up. • Slow blinking: The device is in idle mode, and the color can set to red or off through Web UI. • Solid white: The device is active • Fast blinking: The device is being upgraded.

Rear Panel



A	DC 12V	Connect to the provided power adapter
B	LAN	Connect to the network for web UI or telnet control
C	USB	USB 2.0 Type-A port. Connect to USB peripherals, such as speakerphones
D	HDMI OUT	Connect to a HDMI display, video conferencing system, projector, or video capture device
E	USB-C	USB 3.0 Type-C port. Connect to a laptop, room PC or all-in-one conference device for transmitting audio and camera video signal, using the USB-A to USB-C cable provided
F	RESET	• Press once to show IP address and tracking mode on the connected display • Hold and press for at least 5 seconds to set the device to factory defaults
G		Kensington security slot

Camera Operating Modes

The CAM-420-PTZ operates in three modes:

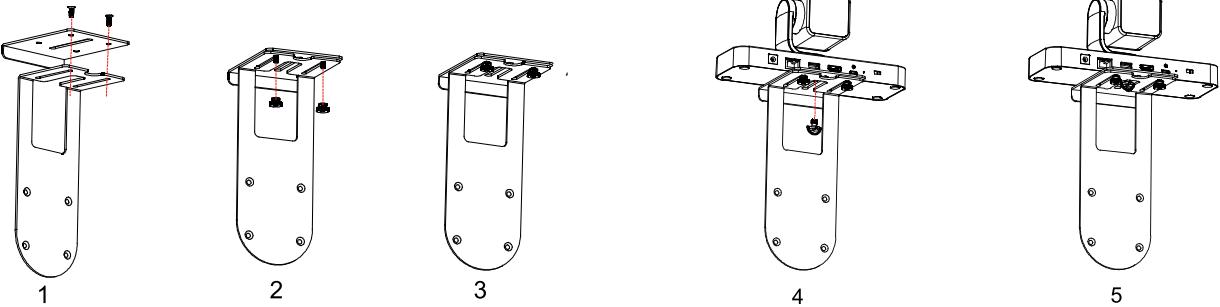
- **Init Mode**
 - When the camera is powered on, it starts in Init mode.
 - If no UVC signal is transmitted and no HDMI display is connected to the HDMI OUT port within 10 seconds after startup, the camera will switch to Idle mode.
 - If the UVC channel is opened or the HDMI OUT port is connected to a display within 10 seconds after startup, the camera will switch to Active mode.
- **Idle Mode**
 - In Idle mode, inserting a USB cable or pressing any button on the IR remote will switch the camera to Init mode.
 - Once in Init mode, if the UVC channel is opened, the camera will switch to Active mode.
- **Active Mode**
 - If the UVC channel is closed in this mode, the camera returns to Init mode.
 - If no UVC signal is transmitted and no HDMI display is connected to the HDMI OUT port within 10 seconds, the camera will switch to Idle mode.

Notes:

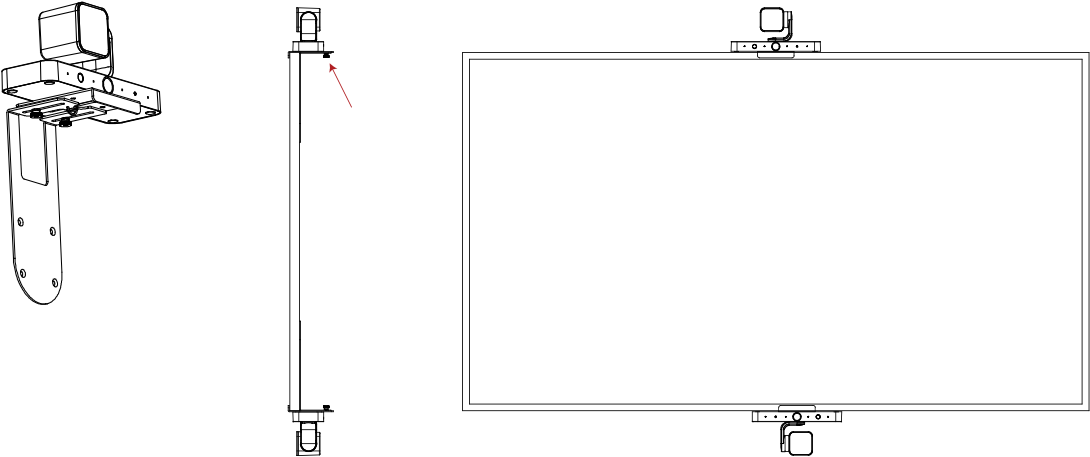
- The camera supports receiving commands from the UVC channel through AI mode, the IR remote, Web UI, or third-party applications (e.g., Zoom or Teams).
- When an external cascade speakerphone is connected, it transmits audio only. The microphone and speaker of the cascade device will still appear in the UC app menu and remain operational, regardless of whether the camera is active.

Brackets

1. Assemble the base bracket panel and base support bracket using the two bracket assembly screws provided. As shown in the following figures:
2. Using the thumb screw to fix the mounting brackets to the camera, as shown in figure below.

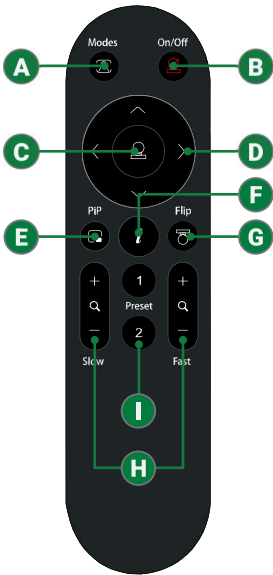


Note: If users want to install the camera on the wall, please assemble the base support bracket as shown in following figure



IR Remote Control

The camera supports IR remote control. Point the provided IR remote to the IR window on the front panel of the camera.



Button	Description
A Tracking Mode	Press to toggle Auto-framing, Speaker tracking, Presenter tracking, Individuals gallery and Off.
B Standby Mode	Press to set idle image on/off
C Home	Press once to return to the default view. Hold it for about 2s, overlay display the current tracking mode information and IP address.
D Navigation Button	Press to perform PTZ (only available when Tracking mode is off).
E PiP	Press to toggle between single picture mode (only from 4K optical zoom lens) and dual-picture mode (from 4K optical zoom lens and 1080P fixed focus lens). Note: This setting is only available in Speaker Tracking mode, Presenter Tracking mode and Off mode.
F Information	Press to show the information including tracking mode and IP information on the image of the camera.
G Flip	Press to flip the camera image, useful when the camera is mounted upside down.
H Zoom (Slow/Fast)	Press to adjust the zoom. Press and hold to adjust the zoom continuously. +: Zoom in -: Zoom out Note: The function is only available when tracking mode is off.
I Preset 1/2	Press and hold 3s to save current camera view to preset 1 or 2. Press to switch the camera view to preset 1 or 2. Note: The function is only available when Tracking mode is off.

Specifications

Video	
Outputs	1x USB-C Output 1x HDMI Output 1x NDI Output
Video Resolution (Max)	4K@30fps
Output Video Encoding	MJPEG (default) H.265 H.264 NV12
Camera and Sensor	
Sensor	AI lens: 8M effective pixels Panoramic lens: 2M effective pixels
Lens	AI lens: 8MP 3x optical zoom DFOV: 110° Panoramic lens: 2MP DFOV: 120°
Rotation	Horizontal: ±75° Vertical: ±45°
Smart AI	Auto Framing (default as on) Speaker Tracking Presenter Tracking Individuals Gallery
Auto Exposure	Yes
Auto White Balance	Yes
Auto Digital Noise Reduction	Yes
Audio	
Microphone	4x MEMS mic array Pickup Range: 5m Note: Mic for detecting human voices and offers audio tracking, can't use as video conference audio source.
Communication and Control	
USB	1x USB-C: USB 3.1 Gen Max Bandwidth: 5.0 Gbps backward compatible with USB 2.0 1x USB-A: USB 2.0 Max Bandwidth: 480Mbps
USB Protocols	UVC 1.1
Ethernet	1x LAN: 8-pin RJ-45 Female Web UI API
Control Methods	Web UI RCU I Control APP
Power	
Power Supply	12V DC 3A
Environmental	
Operating Temperature	0 to + 45°C (32 to + 113 °F), 10% to 90%, non-condensing
Storage Temperature	-20 to +70°C (-4 to + 158 °F), 10% to 90%, non-condensing
Dimensions and Weight	
Length x Width x Height	200mm/7.87in x 69mm/2.72in x 97mm/3.82in
Regulatory	
Safety and Emission	CE FCC RoHS EAC UKCA

Note: WyreStorm reserves the right to change product specification, appearance or dimensions of this product at any time without prior notice.

Warranty Information

WyreStorm Technologies ProAV Corporation warrants that its products to be free from defects in material and workmanship under normal use for a period of five (5) years from the date of purchase. Refer to the Product Warranty page on wyrestorm.com for more details on our limited product warranty.

