



DVY32

Video Conference Camera

User Manual



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Important notices

This manual briefly introduces the camera functions, installation, and operations. Please read carefully before application.

Application instructions

To prevent damages to this camera or any products connected to it, this product can only be used within the specified range:

1. Do not expose the camera to rain or moisture.
2. This product contains no parts which can be maintained by users themselves. Any damage caused by dismantling the product by user without permission is not covered by warranty.
3. To prevent an electric shock, do not disassemble the camera; only qualified technicians can perform installation and maintenance.
4. Do not use under conditions that exceed the limited temperature, humidity or power supply specifications.
5. When cleaning the camera lens, please wipe it with a dry soft cloth. When the product is heavily soiled, please wipe it gently with a neutral detergent. Do not use strong or corrosive cleaning agents to avoid scratching the lens and affecting the image quality.

Electric safety

This product must be installed in strict compliance with local electrical safety standards.

Transport caution

Avoid heavy pressure, severe vibration, soaking damage to the product in transportation, storage, and installation.

Careful installation

1. The camera body is made of organic material, please do keep away from corrosive liquid, gas, or solid material.
2. Do not rotate the camera head violently, otherwise it may cause mechanical failure;
3. This product should be placed on a stable desktop or other horizontal surface. Do not install the product obliquely, otherwise it may display inclined image.
4. Ensure there are no obstacles within rotation range of the holder.
5. Do not power on before completing installation.

Magnetic Interference

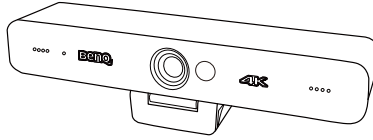
Electromagnetic fields at specific frequencies may affect the video image. This product is Class A. It may cause radio interference in household application. Appropriate measure is required.

Do not disassemble discretionarily

We are not responsible for any damage caused by unauthorized disassembling.

Package contents

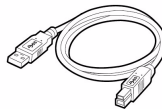
Open the sales package and check the contents. If any item is missing or damaged, please contact your dealer immediately.



Camera



Remote control



USB cable



Privacy Cover



Quick start guide



- Before discarding the package, check that you haven't left any accessories inside the box.
- Dispose of packaging materials wisely. You can recycle the cardboard carton. Consider storing the package (if possible) for future transport of the display.
- Do not leave plastic bags within reach of young children or babies.

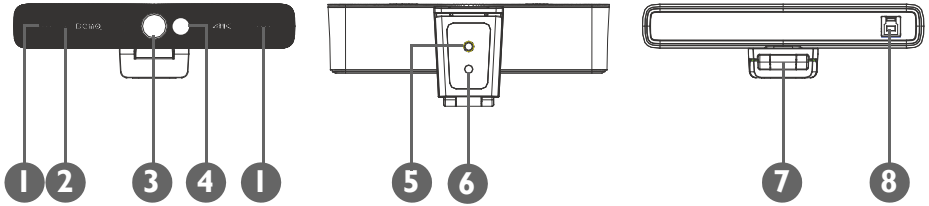
Features

This product is a new 4K ePTZ video conference camera. It is built with AI functions, which can automatically frame all people in the meeting and center them in the scene. It also has ideal functions and superior performance, adopting advanced ISP processing algorithms so as to provide vivid images with evenly clear brightness, strong color layering, high resolution, and fantastic color rendition. The camera is easy and convenient to install and maintain, as well as being stable and reliable.

- **Ultra HD 4K Resolution:** It employs a 1/2.8 inch high-quality CMOS sensor; supports 4K; provides 4K@ 30fps (MJPG or H.264) video resolution at most; and provides clear video and vivid expressions and movements. At the same time, it is compatible with 1080p and 720p resolution.
- **EPTZ:** EPTZ and 5X digital Zoom
- **Auto framing:** With an excellent facial detection algorithm, automatically adjust the zoom level according to the number of people in the meeting as well as centering them within the frame thereby allowing all the people in the meeting to be shown in the screen.
- **Optimized imaging:** Clear images even in dim lighting.
- **Built-in omnidirectional microphone:** Includes 2 built-in omnidirectional microphones, (all-round omnidirectional microphones). Features a noise suppression algorithm that ensures your voice will be perfect. The effective omnidirectional microphone range is up to 8 meters.
- **Multiple video encoding formats:** Support H.264, H.265, MJPEG, YUV video encoding which enables the video to play more fluidly.
- **Easy to use:** No need to download drivers; just plug and play via USB 3.0.
- **Multiple installations:** Standard equipped with mold clamp. Easy to install on any devices.
- **Dual stream output:** The USB 3.0 port support main stream and sub-stream output at the same time.
- **Wide variety of applications:** Can be used for personal video conferencing, enterprise video conferencing, unified collaboration and more.

Installation instructions

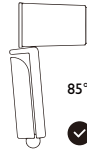
Product interface



No.	Name
1	Omni-Directional microphones for audio input
2	LED for indicating when the camera is activated
3	Lens (fixed focus)
4	IR sensor for remote control
5	Screw hole for tripod
6	Mounting and locating hole
7	Flexible clip/base
8	USB 3.0 output interface

Camera operation

1. Fix the product on top of the display, place it directly on a desktop, or install it on a tripod or mount.
2. The tilt angle of the camera mount should be less than 85 degrees.



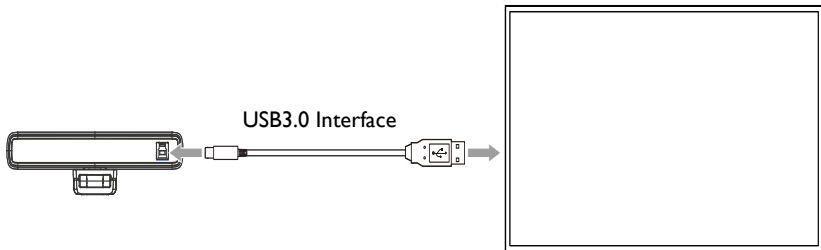
3. Connect the camera via the USB cable to the display, video conference terminal, or other USB input device, log in the video conference software, and select a video device to have image output.



If you want to adjust the camera parameters in a third-party software, go to **SETUP > Image Style** and select **Custom** mode to enable image adjustments in the third-party software. Refer to [Setup on page 13](#) for more information.

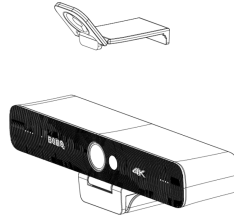
Interface instruction

The interface illustration is as shown below.

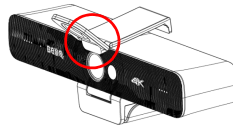


Using the privacy cover

1. Flip up the cap of the privacy cover.



2. Lean the privacy cover slightly forward on the front of the camera and make sure that the cap is lined up with the camera lens.

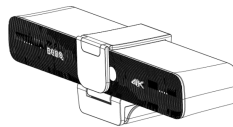


3. Push the privacy cover onto the top side of the camera to make sure that the indent on the cover fits properly on the camera.



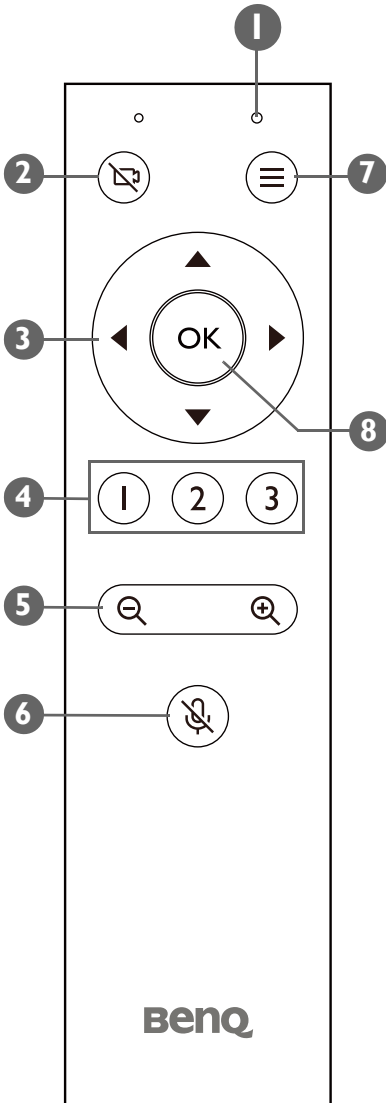
Once the privacy cover is installed on the camera, do not attempt to shift it to the right or left. This may scratch the surface of the camera. To move the cover's position, remove it from the camera and re-install it in the correct position.

4. To use, flip the cap down to cover the lens.



Application instructions

Remote control



1 Remote Control Indicator LED

Lights up anytime a button is pressed.

2 Disable Camera Key

Disables/Enables video from the camera.

3 Arrow Keys

- Allows you to navigate and select items in the OSD settings menu.
- Pans and/or tilts the view of the camera when zoomed in on a scene.

4 Preset Camera View Keys 1 / 2 / 3

- Press a key to have the camera switch to the view that has been preset for the respective key.
- Press and hold any of the keys for 2 seconds to set that the current camera view as the preset view for that key.

5 Zoom In/Out Key

Press to zoom in or out on a specific scene

6 Mute Key

Mutes/Unmutes the microphone on the camera.

7 Menu Key

Opens or closes the camera's OSD settings menu.

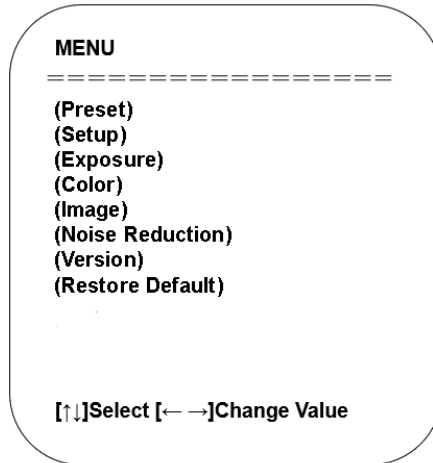
8 OK Key

Confirms any selection made in the camera's OSD settings menu.

Menu settings

Main Menu

Press the menu key on the remote control to display the camera's OSD settings menu, and then use the arrow and OK keys to navigate and select submenus or items.



The sections below will detail the available settings in each submenu.

Preset

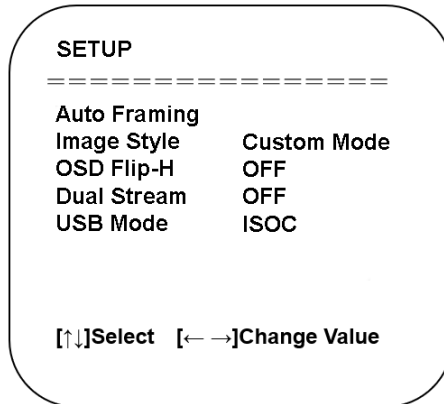
PRESET

Set	1
Call	1

[↑↓]Select [← →]Change Value

Setting	Descriptions
Set	Sets the current zoom in/out position as preset setup. Select a value from 1 - 10.
Call	Recalls the preset position. Select a value from 1 - 10.

Setup



Setting	Descriptions
Auto Framing	<ul style="list-style-type: none"> Enables the facial detection algorithm automatically adjust the zoom level according to the number of people in the meeting as well as centering them within the frame. The options include: ON / OFF When set to ON you can also set the level of sensitivity of the algorithm.
Image Style	<p>Changes the look of the image to preset styles. The options include: BenQ Color (Default) / Low Light Source / Zoom Optimized / Custom.</p>
OSD Flip-H	<p>Flips the OSD menu if the image is not presented in a mirrored orientation. The options include: ON / OFF</p>
Dual Stream	<p>Enables/Disables a second image stream for a second application. The options include: ON / OFF</p>
USB Mode	<p>Sets the mode for the camera's USB interface. The options include: ISOC / BULK</p>

Exposure:

EXPOSURE	
Mode	Auto
EV	OFF
BLC	OFF
Flicker	50Hz
Gain Limit	3
DRC	2

[↑↓]Select [← →]Change Value

Setting	Descriptions
Mode	Configures the exposure to preset modes based on the settings listed below. The options include: Auto / Manual / SAE / Bright.
EV	Enables/Disables the exposure value for the image (only available in Auto mode). The options include: ON / OFF
BLC	Activates a backlight for the image (only available in Auto mode). The options include: ON / OFF
Flicker	Selects the amount of flicker for the image (only available in Auto, SAE, or Bright mode). The options include: ON / OFF / 50Hz / 60Hz
Gain Limit	Adjusts the gain limit for the image (only available in Auto or Bright mode). Select a value from 1 to 15 (by intervals of 1)
DRC (Dynamic Range Correction)	Adjusts the amount of correction for the ratio between the darkest and brightest parts of an image (only available in Auto mode). The options include: Close or a value from 1 - 8 (by intervals of 1).
Shutter	Adjusts the shutter speed for the camera (only available in Manual or SAE mode). Select a value from 1/30 to 1/10000
Gain	Adjusts the gain value for the camera (only available in Manual or SAE mode). Select a value from 1 to 15 (by intervals of 1).

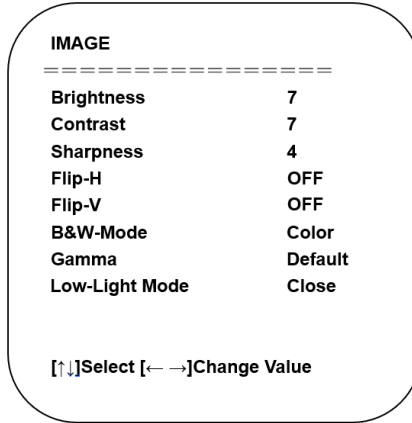
Color:

COLOR	
WB Mode	Auto
RG Tuning	0
BG Tuning	0
Saturation	50
Hue	7
AWB Sensitivity	High

[↑↓]Select [← →]Change Value

Name	Descriptions
WB Mode	Configures the white balance setting to preset modes based on the settings listed below. The options include: Auto / Manual / One Push / VAR
RG Tuning	Adjusts the amount of red in the image (only available in Auto or Manual mode). Select a value from -10 to 10 (by intervals of 1).
BG Tuning	Adjusts the amount of blue in the image (only available in Auto or Manual mode). Select a value from -10 to 10 (by intervals of 1).
Saturation	Adjusts the amount of color saturation in the image. Select a value from 0 to 50 (by intervals of 1).
Hue	Adjusts the hue level in the image. Select a value from 0 to 8 (by intervals of 1).
AWB Sensitivity	Selects the level of sensitivity for the auto white balance feature (only available in Auto mode). The options include: High / Middle / Low
Color Temp	Adjusts the color temperature value for the image (only available in VAR mode). Select a value from 2400K to 7100K (by intervals of 100).

Image:



Name	Descriptions
Brightness	Adjusts the brightness level for the image. Select a value from 0 - 100 (by intervals of 1).
Contrast	Adjusts the contrast level (the difference between dark and light colors) for the image. Select a value from 0 - 100 (by intervals of 1).
Sharpness	Adjusts the sharpness level (the distinctness between different tones or colors) for the image. Select a value from 0 - 15 (by intervals of 1).
Flip-H	Flips the image horizontally. The options include: ON / OFF
Flip-V	Flips the image vertically. The options include: ON / OFF
B&W Mode	Toggles the image between color or black and white. The options include: Color / Black/White
Gamma	Adjusts the tone luminance. The options include: Default / 0.34 / 0.39 / 0.47 / 0.50
Low-Light Mode	Enables/Disables low-light mode. The options include: Close / Open

Noise Reduction:

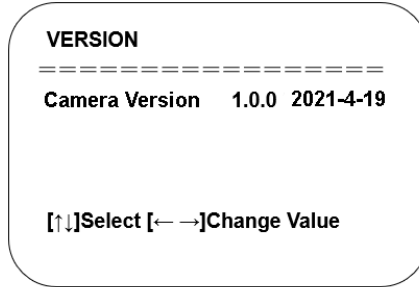
NOISE REDUCTION	
NR-2D	2
NR-3D	5

[↑↓]Select [← →]Change Value

Name	Descriptions
NR-2D	Disables or adjusts the level of 2D noise reduction. The options include: OFF or a value from 1 to 7 (by intervals of 1).
NR-3D	Disables or adjusts the level of 3D noise reduction. The options include: OFF or a value from 1 to 8 (by intervals of 1).

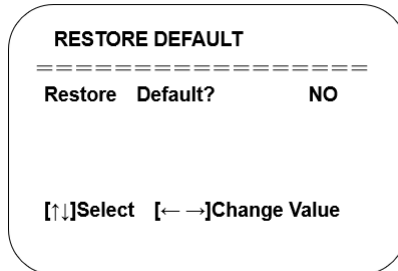
Version

This menu displays the version number for the camera.



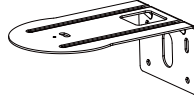
Restore Default

Select YES for this option and press OK to restore the camera's settings to their default values.



Appendix A: The Optional Wall Mount

If you purchase an optional wall mount, first open the package and check the contents. If any item is missing or damaged, please contact your dealer immediately.



Mount



1/4-20 screw (for Camera)



Bracket stopper



M6 screw anchor x 4



Nut and washer x 4



- Before discarding the package, check that you haven't left any accessories inside the box.
- Dispose of packaging materials wisely. You can recycle the cardboard carton. Consider storing the package (if possible) for future transport of the display.
- Do not leave plastic bags within reach of young children or babies.

Installing the wall mount

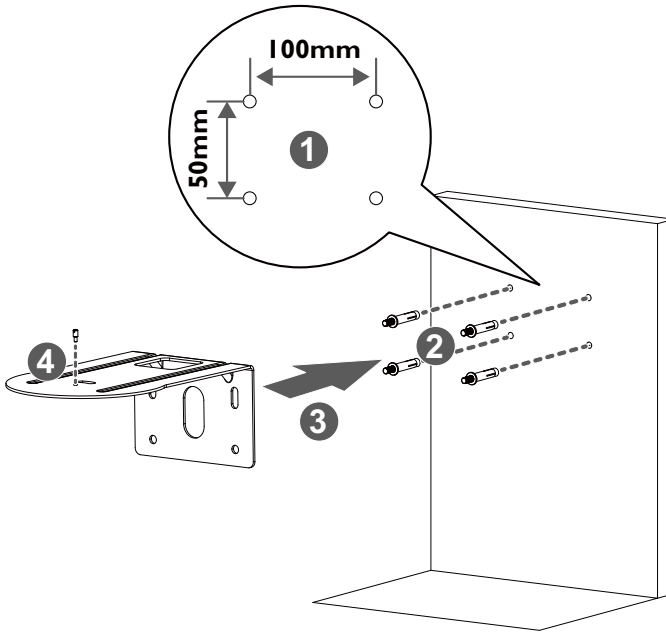
To install the wall mount:

1. Choose the location on the wall for the mount and then mark the four screw anchor installation points on the wall.

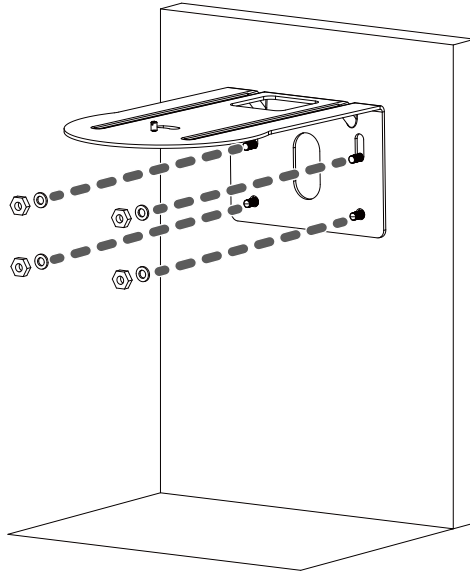


The screw holes on the mount for the measure 100mm x 50mm.

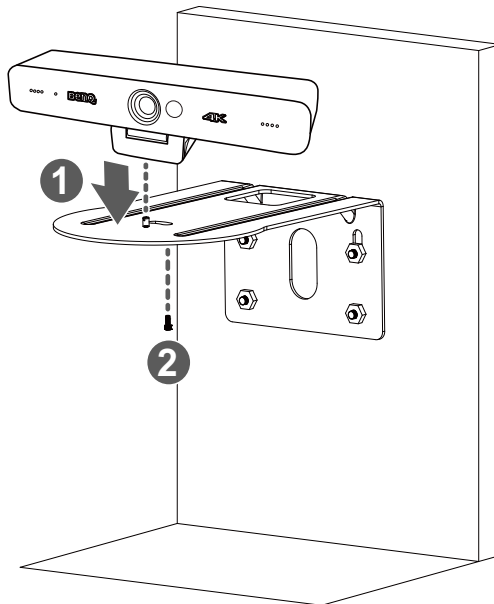
2. Install the four screw anchors into the wall at the marked points.
3. Install the mount onto the screw anchors.
4. Install the bracket stopper onto the top side of the wall mount.



5. Secure the wall mount onto the wall with the four sets of nuts and washers.



6. Install the camera onto the wall mount so that the bracket stopper on the mount fits into the tripod screw hole on the camera, and then secure the camera by screwing the 1/4-20 screw into the camera's mounting hole.



Appendix B: The Optional Display Mount

If you purchase an optional display mount, first open the package and check the contents. If any item is missing or damaged, please contact your dealer immediately.



Mount



Bracket stopper



Rubber washer x 4



Cape screw x 2



Anti-skid nut x 2



Metal washer x 2



1/4 screw (for camera)

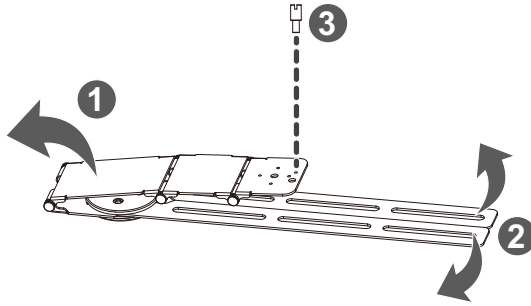


- Before discarding the package, check that you haven't left any accessories inside the box.
 - Dispose of packaging materials wisely. You can recycle the cardboard carton. Consider storing the package (if possible) for future transport of the display.
 - Do not leave plastic bags within reach of young children or babies.
-

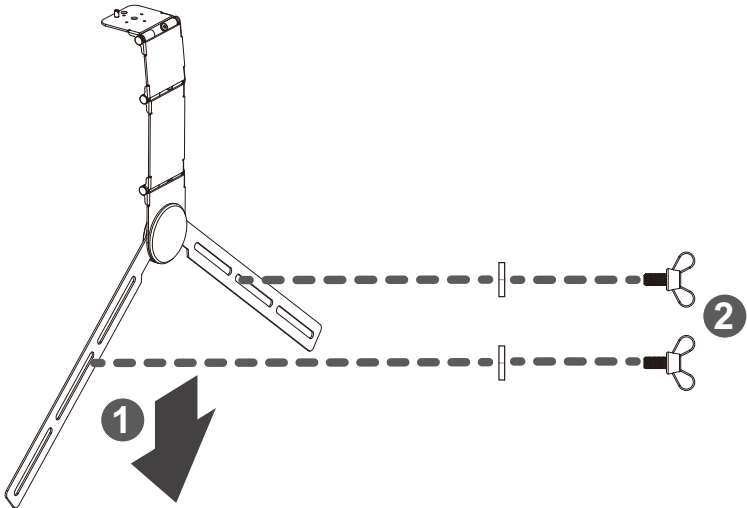
Installing the display mount on a display

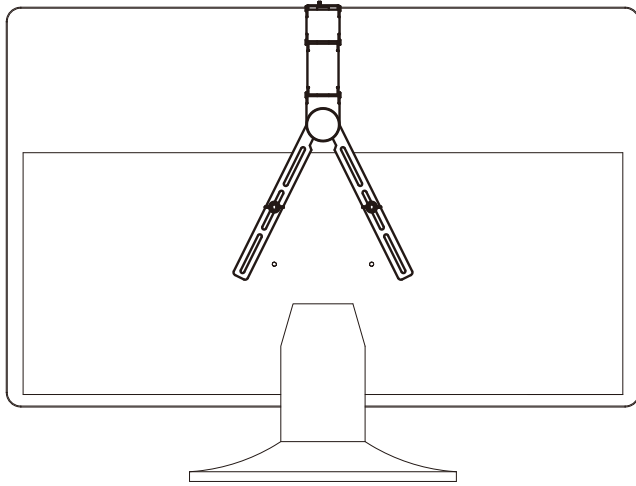
To install the display mount directly on a display:

1. Flip open the neck of the mount.
2. Rotate the legs of the mount outward.
3. Install the bracket stopper onto the mount.

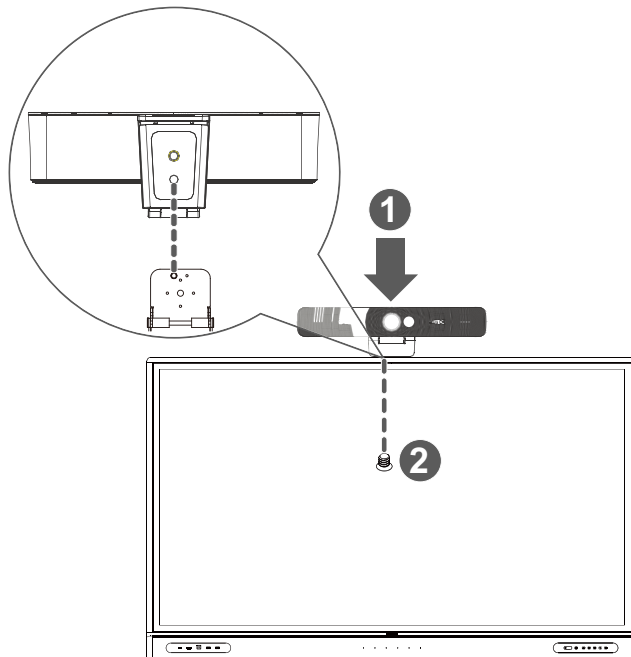


4. Align the mount to the location you want it to be on the display and then lower it onto the display.
5. If necessary further rotate the legs of the mount so that the openings on the legs align with the screw holes on the rear of the display.
6. Secure the mount to the display by installing, from the outside-in, a washer and a cape screw through the openings on both legs of the mount and into the screw holes on the display.





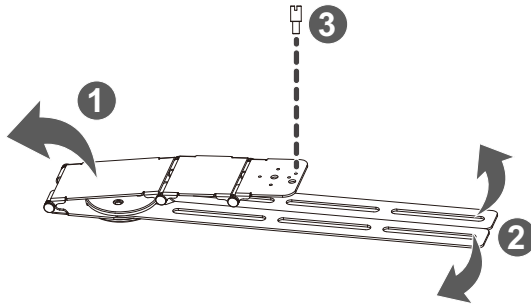
7. Install the camera onto the wall mount so that the bracket stopper on the mount fits into the tripod screw hole on the camera, and then secure the camera by screwing the 1/4-20 screw into the camera's mounting hole.



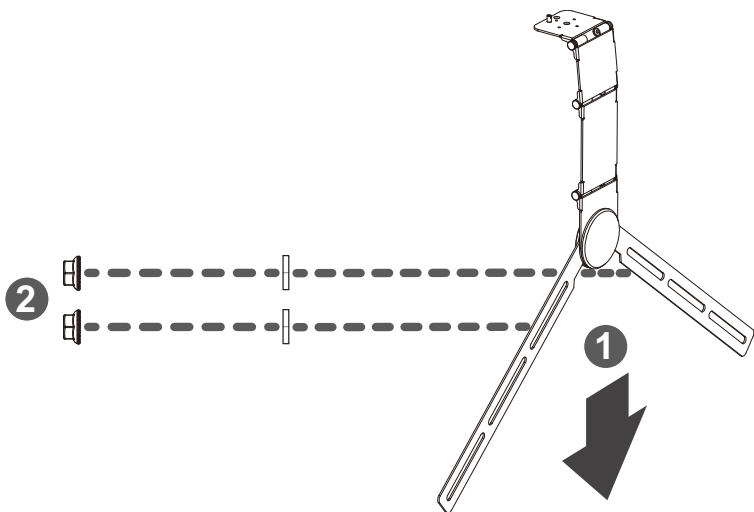
Installing the display mount on a display with a VESA mount

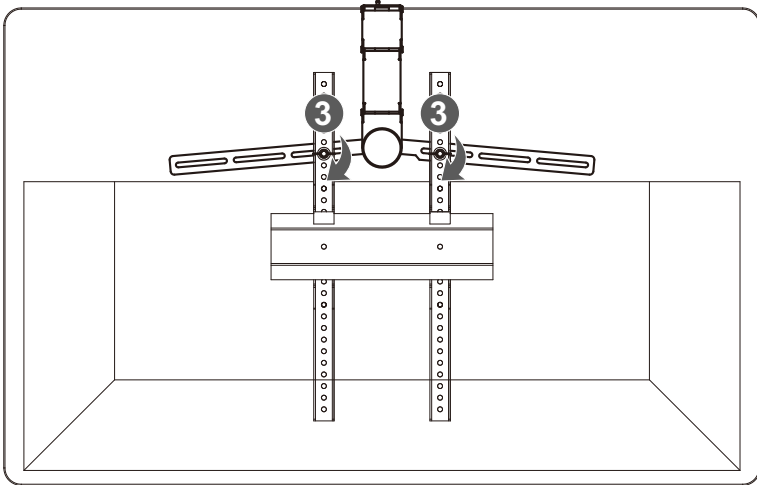
To install the display mount on a display with a VESA mount:

1. Flip open the neck of the mount.
2. Rotate the legs of the mount outward.
3. Install the bracket stopper onto the mount.

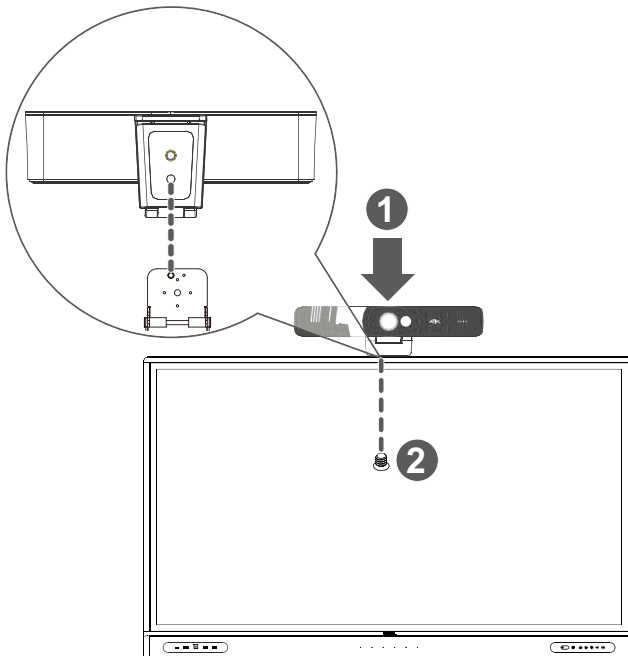


4. Align the mount to the location you want it to be on the display and then lower it onto the display so that the legs are in between the rear of the display and the VESA mount.
5. If necessary further rotate the legs of the mount so that the openings on the legs align with the openings on brackets of the VESA mount.
6. Align, from the inside-out, a washer and anti-skid nut through the openings on both legs of the mount and the openings on the bracket of the VESA mount, and then secure the mount to the VESA mount by installing a cape screw to each of the anti-skid nuts.





7. Install the camera onto the wall mount so that the bracket stopper on the mount fits into the tripod screw hole on the camera, and then secure the camera by screwing the 1/4-20 screw into the camera's mounting hole.



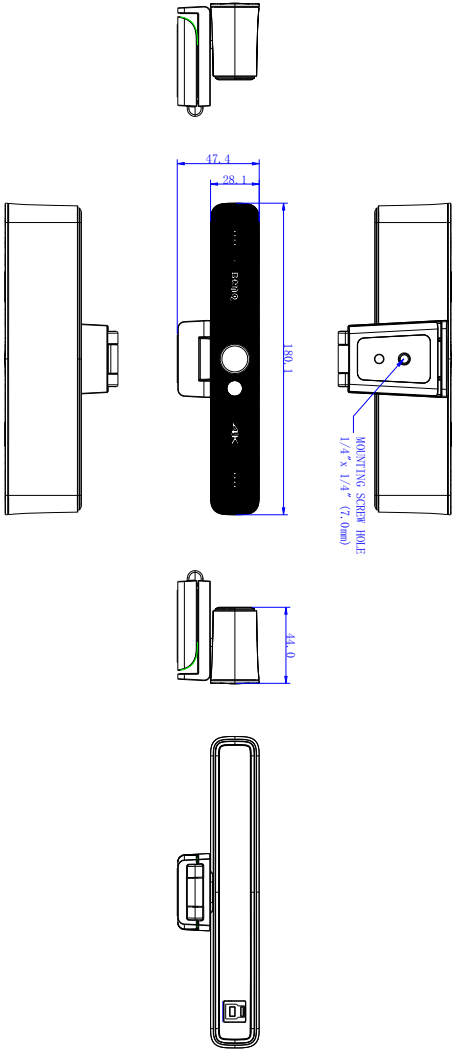
Product information

Specifications

Item		Specifications
		DVY32
Camera	Sensor	4K UHD
	Effective Pixels	8.28MP, 16:9
	Field of View	120°(D) / 110°(H) / 72°(V)
	Resolution	Main Stream: 4K@30fps, 1080p@30fps, 720p@30 fps Sub Stream: 720P@fps, 480P@30fps
	Zoom	Digital: 5x
	Pan / Tilt	Digital
	Focus	Auto and Manual
	Lens Type	Glass
	Low Light Performance	0.1 Lux
	Auto Framing	Yes
	Preset position	OSD: 10, Remote Control: 3
	Backlight contrast	On/Off
	Exposure	Auto/Manual
	Video adjustments	Brightness, Definition, Saturation, Contrast, White Balance, Gain, Anti- Flicker, Low Brightness Compensation, BLC
	DNR	2D and 3D DNR
SNR	>50dB	
Audio	Microphone	Omni-Directional mics
	Pickup Range	Up to 8m
	Echo Cancellation	Yes
Video	Output	USB3.0
	Compression Format	MJPEG, YUY2, H.264, H.265
Power	Input Voltage	DC5V
	Input Current	1A (max)
	Power Consumption	5W (max)
Compatibility	Operating Systems	Windows 7, 8.1, or 10, Linux, Chrome™ OS*, macOS™ 10.10 and higher *Contact BenQ service for available Chromebook models
	USB	Plug and Play
Dimensions	Dimensions (HxWxD)	180.1mm x 47.4mm x 44.0mm
	Weight	0.4 kg

Item		Specifications
		DVY32
Package Contents	Included	<ul style="list-style-type: none">• 4K UHD conference cam• Remote control• USB 3.0 Type-B cable• Privacy cover

Dimensions



Unit: mm

Maintenance and troubleshooting

Maintenance

1. Please disconnect the camera if it is not used for a long time.
2. Use soft cloth or tissue to clean the camera cover.
3. Wipe it with a soft, dry cloth when cleaning the camera lens. Wipe it gently with a mild detergent if needed. Do not use strong or corrosive detergents to avoid scratching the lens and affecting the image.

Troubleshooting

1. No video output
 - Check whether the USB cable is well connected and the power indicator light is ON.
 - Check whether the machine could do self-check after being restarted.
 - Restart the display.
 - Check whether the camera is well recognized by display.
2. No image: Check the USB cable quality and whether it is well connected.
3. Image dithering when zoom-in or zoom-out
 - Check whether the camera installation position is solid.
 - Check whether there is a shaking machine or object around the camera.