

MD120UI Tracking Camera

— User Manual —

How to Clean and Disinfect

Warning**Risk of personal injury**

Do not use cleaning agents containing phenol, as phenol may cause skin burns if not rinsed thoroughly and does not contain sufficient cleaning or disinfectant properties.

Caution

1. The camera is designed for easy cleaning and disinfection.
2. Before cleaning the camera, disconnect it from the power source.
3. Cleaning procedures should only be carried out by personnel familiar with camera operation.
4. Do not spray cleaning fluid, especially water, into any internal electrical equipment or parts of the camera to avoid possible short circuits, corrosion, malfunction and electrical shock hazards to users or service personnel.
5. Corrosive cleaning agents may cause discoloration or damage the camera. Before using any cleaning agent, test it in an inconspicuous area.

When

Clean the camera before and after use.

Steps

1. Disconnect the camera from a power source.
2. Cleaning personnel must wear cleaning gloves.
3. Before using cleaning alcohol, make sure it has not expired.
4. Use a cleaning cloth dampened with cleaning alcohol (75%).
5. Wipe any surface that may come into contact with the camera.
6. After wiping the camera, avoid contact with bare hands.

Frequency

No regular cleaning is required. Clean before and after use.

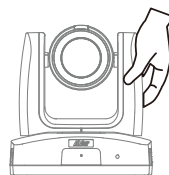
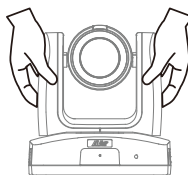
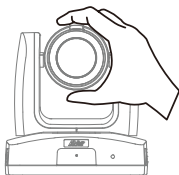
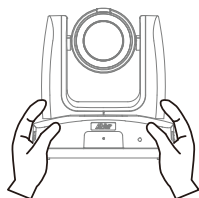
Precautions for Use

AVer does not accept any responsibility for accident or damage during installation if users do not follow the procedures described in this manual.

The AVer MD120UI Tracking Camera is a high definition medical grade camera designed for physicians and caregivers, and suitable for use in a hospital examination room, patient monitoring and similar medical environments. This non-contact device can be operated by physicians and caregivers without physical contact with patients, to document and update patients' injuries by taking snapshots or record videos.

To installation and operation personnel

The required information including the device's hardware parts, operations and important notice has been written and illustrated in this manual. Except for the information in this manual, no special skills, training and knowledge are required for the operators. Read the user manual thoroughly and operate the device correctly and safely. For common issues, please refer to the <[Troubleshooting](#)> chapter. For further assistance, please contact AVer technical support.



● Transportation

- Hold the bottom of the device with both hands. Do not grab the lens or the lens holder.
- When transporting, package the device in its original box.

● Operating conditions

This device is for indoor use only. Do not install or use the device in the following conditions to avoid malfunction or damage.

- Do not exposed to direct sunlight.
- Do not exposed to rain or water.
- Do not exposed to extreme temperatures. Recommended operating temperatures: 0°C to +35°C; humidity: 20% to 80%.
- Do not install the device sideways on a wall.
- At sea, in coastal areas or in locations where corrosive gases are emitted.
- Locations subject to strong vibrations. This unit is not suitable for use in vehicles or on carts travelling on uneven surfaces.

- **To ensure the device perform stably over a prolonged period**
 - Do not use this unit in a location with high temperature and humidity levels, which may cause its parts to deteriorate and shorten its service life.
 - Do not subject the device to sudden changes in temperature. Keep a cooling unit or heating unit away from this unit.
 - Do not leave the device with the camera facing the sun.
- **Operation instructions**
 - Make sure the cables behind the device are s untangled before powering on the device.
 - Use the device with care. Do not operate the device beyond its design limits to avoid damage.
- **Always use the supplied power adapter and power cord to connect the device to a power outlet**
 - Before installation, make sure to disconnect the device from a power outlet.
 - Install the device near the power outlet to make sure the power plug can be plugged and unplugged from the power outlet easily.
 - To avoid electric arc from damaging other electrical components, connect the power cord to the DC 12V power jack on the device before connecting to a power outlet.
 - The length of the power cord should be less than 3 m.
 - Do not place the device where the cord can be stepped on as this may fray or damage the cord or the plug.
- **Powering off the device**
 - The device does not have a power switch. Disconnect the device from a power outlet before maintenance, cleaning or in the event of an emergency.
- **Maintenance**
 - The device does not have a power switch. Disconnect the device from a power outlet before maintenance.
 - Designate personnel to clean the device. Please refer to the <How to Clean and Disinfect> chapter.
 - When the device surface is stained, please refer to the <How to Clean and Disinfect> chapter.
 - Regular maintenance keeps your device operational and safe. Check all parts, including the lens, camera unit and remote control.
- **Disposal of the device**
 - When the device is no longer used, turn off the device and dispose of it properly.
 - When disposing of the device or accessories, follow relevant regulations in your country or region and medical facility regarding environmental pollution.

Symbols on this Product

The symbols on this product, including the accessories, represent the following.



The WEEE symbol.

This symbol indicates that this product must not be disposed of with your other household waste. Instead, you need to dispose of the waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. For more information about where to drop off your waste equipment for recycling, please contact your household waste disposal service or the shop where you purchased the product.



The CE compliance logo.

This logo indicates that the product conforms to the relevant guidelines/standards for the European Union harmonization legislation.



The FCC compliance logo.

This logo indicates that the product conforms to Federal Communications Commission compliance standards.



The UKCA (UK Conformity Assessed) symbol.

This symbol indicates that a product placed on the Great Britain market meets the UKCA Marking requirements.



The RCM compliance logo.

This logo indicates that the product conforms with Australian RCM guidelines.



This logo is intended to alert the users to the presence of un-insulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This logo is intended to alert the users to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



The China RoHS symbol.

The figure of this symbol represents the number of years during which no hazardous substances would leak or mutate under normal conditions of use.



The alternating current symbol.

This symbol indicates that the power input/output for the product is alternating current.



The direct current symbol.

This symbol indicates that the power input/output for the product is direct current.

Federal Communications Commission

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radiofrequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This Class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Warning

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Caution

Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

PoE

The PoE+ port is connected only to PoE networks without routing to the outside plant.

DISCLAIMER

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More Help

For FAQs, technical support, software and user manual download, please visit:

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Technical Support: <https://www.aver.com/technical-support>

USA

Download Center: <https://www.averusa.com/pro-av/support>

Technical Support: <https://averusa.force.com/support/s/contactsupport>

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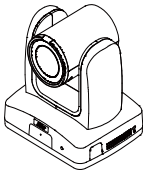
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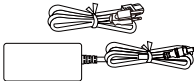
Overview

The MD120UI Tracking Camera is a medical grade camera designed for patient monitoring. It features infrared night vision and UV-resistant casing.

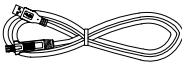
Package Contents



Camera



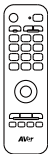
Power Adapter &
Power Cord



USB 3.0 Type-B to
Type-A Cable (1.5m)



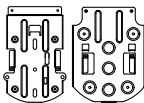
Cable Tie (x4)



Remote Control



Cable Fixing Plate



Ceiling Mount
Bracket (x2)



M2 x 4mm
Screw (x3)



1/4\"-20, L=6.5 mm
Screw (x2)



M3 x 6 mm
Screw (x3)

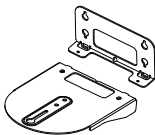


Drill Template



Quick Start Guide

Optional Accessories

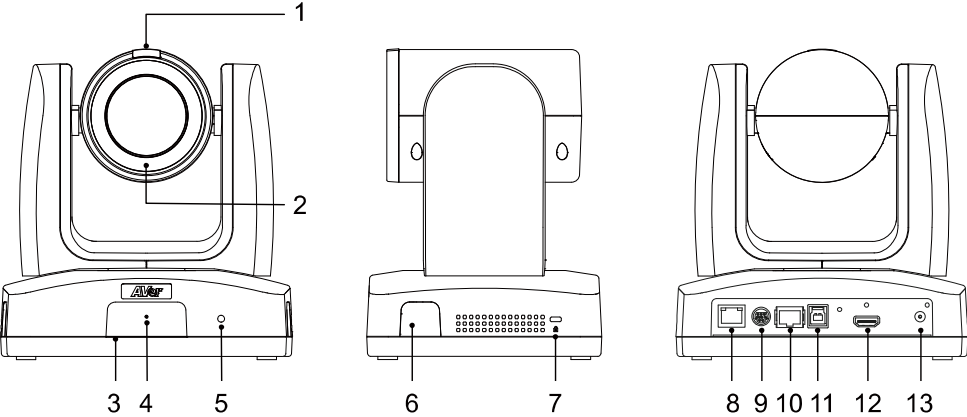


Wall Mount Bracket



Camera Controller
(CL01)

Parts Info



1. Privacy Indicator
2. Infrared Night Vision LED*
3. IR Sensor
4. Microphone
5. LED Indicator
6. R Sensor
7. Kensington Lock
8. PoE+ Port
9. RS-232 Port
10. RS-422 Port
11. USB 3.1 Type-B Port
12. HDMI Port
13. DC Power Jack

* To avoid infrared radiation hazards, keep a distance of over 1 meter between IR LED and human eyes when using Night Mode.

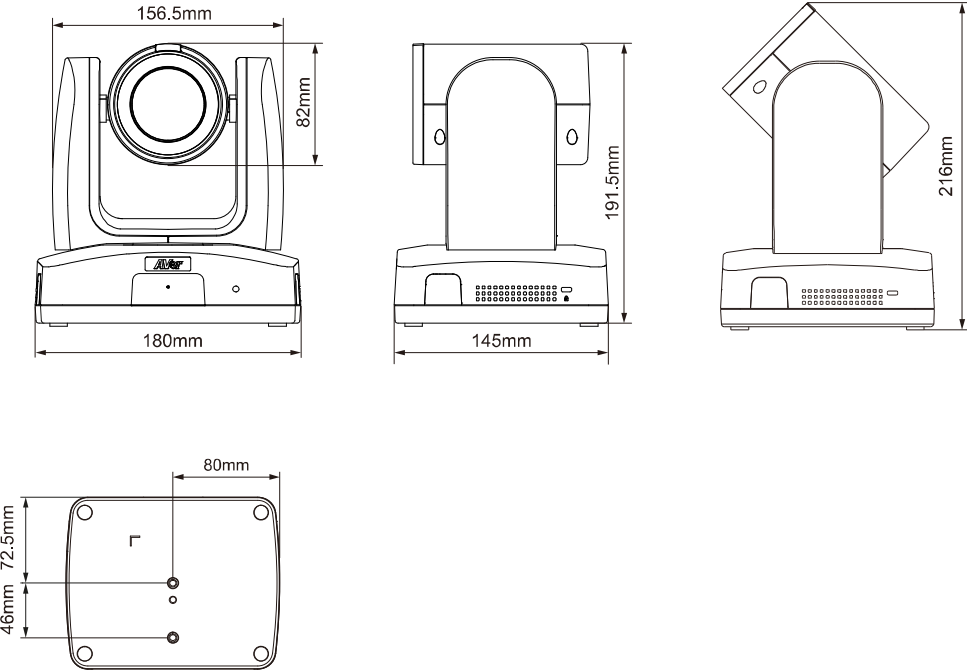
Privacy Indicator

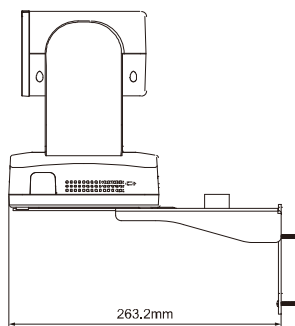
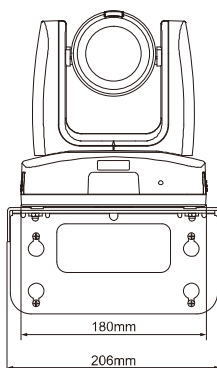
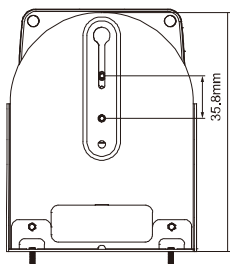
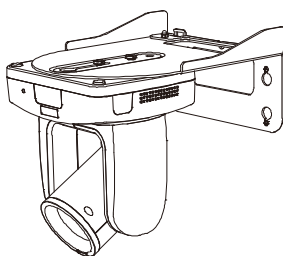
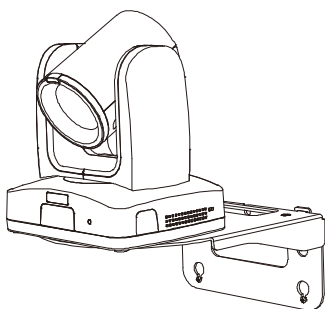
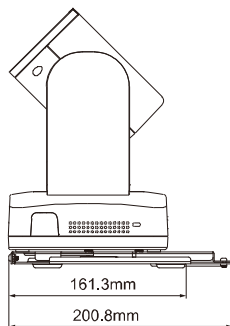
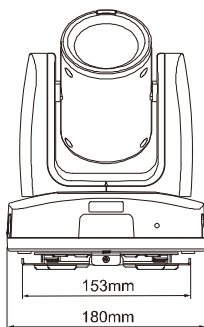
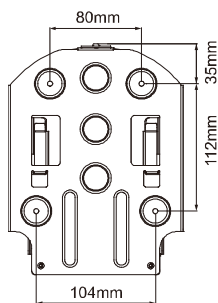
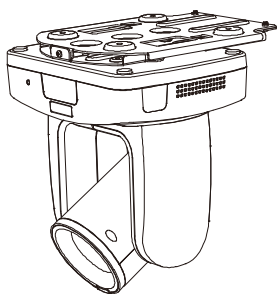
Color	Status
Solid green	Monitoring patient
No light	Privacy Mode / power off

LED Indicator

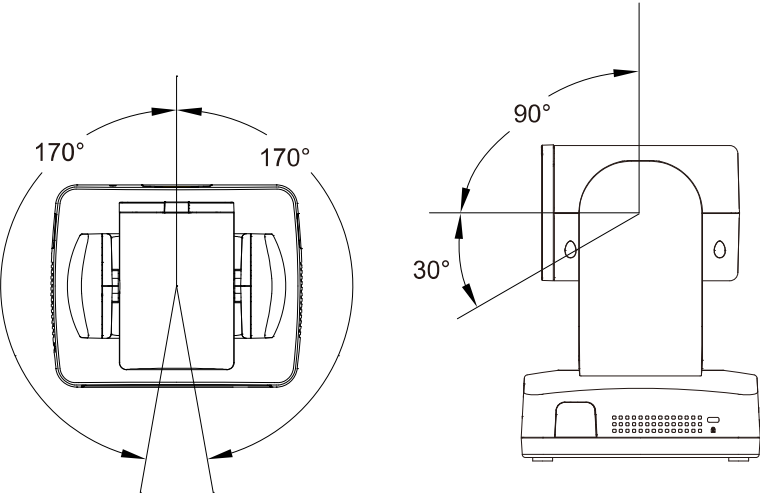
Color	Status
Flashing orange	Start-up
Solid blue	Normal
Solid orange	Standby
Flashing blue	Tracking on
Solid purple	OSD menu on
Flashing purple	Firmware update

Dimensions




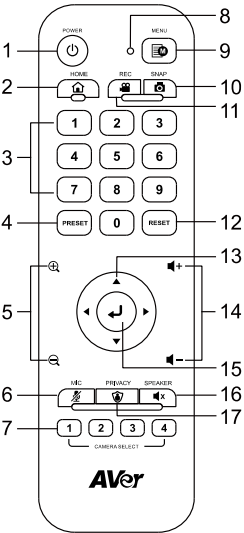


Pan and Tilt Angle



Remote Control

- To open the OSD menu, press and hold **Menu**  for 3 seconds.
- To disable remote control, open the OSD menu or the web interface, go to **System > Camera Selector > Disable Remote**.
- To resume remote control, open the web interface, go to **System > Camera Selector > All Channel** or assign a number (**1, 2, 3, 4**) to your camera.










Model: LY033

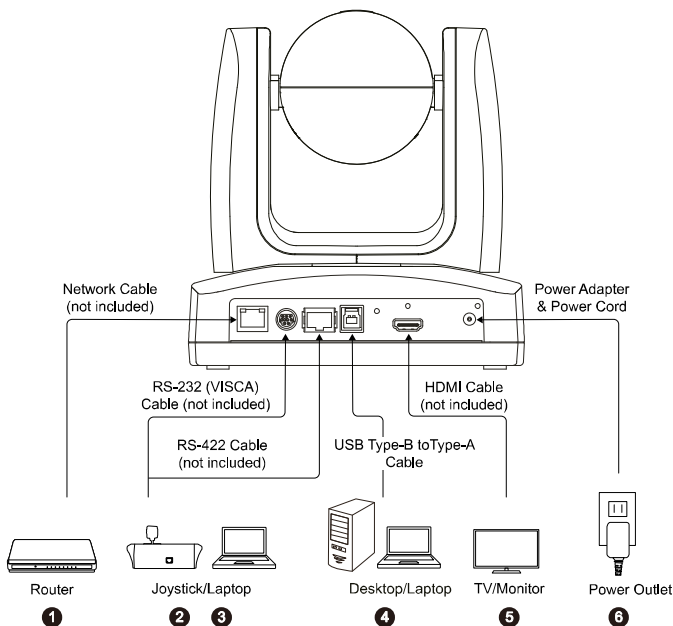
AAA batteries (x2)

Name		Function
1. Power		Enter or exit Standby Mode.
2. Home		Go to the Home position.
3. Number Pad		Press buttons 0~9 to load presets.
4. Preset		To save a preset: 1. Position the camera using pan, tilt and zoom controls. 2. Press and hold Preset , then press a number button (0~9) to save that preset.
5. Zoom +/-		Zoom in or out.
6. MIC		Mute or unmute the microphone.
7. Camera Select		Select a camera to operate. Specify a number in the OSD menu: System > Camera Selector .
8. Remote Control LED		When pressing the buttons on the remote control, the LED will light red.
9. Menu		Press and hold for 3 seconds to open the OSD menu. Edit this setting in the OSD menu: System > Trigger OSD .
10. Snap		N/A
11. Rec		N/A
12. Reset		To clear a preset, press and hold Reset , then press a number button (0~9).
13. Direction		Use the Direction Buttons to navigate the live view.
14. Volume +/-		N/A
15. Enter		Autofocus once. Or confirm a selection on the OSD menu.
16. Speaker		N/A
17. Privacy		Enter Privacy Mode. The camera turns downwards and the microphone is muted.

Shortcuts

Press	To
Menu  for 3 seconds	Open the OSD menu.
Menu 	Close the OSD menu.
Home 	Close the OSD menu and return the camera to the Home position.
Menu  then Zoom 	Switch between Day mode and Night mode.
Menu  then Zoom 	Switch between Day mode and Auto mode.
5 five times (55555)	Turn on DHCP.
6 six times (666666)	Reset the camera to factory default settings.
8 eight times (88888888)	Set the camera's static IP address to 192.168.1.168.

Device Connection

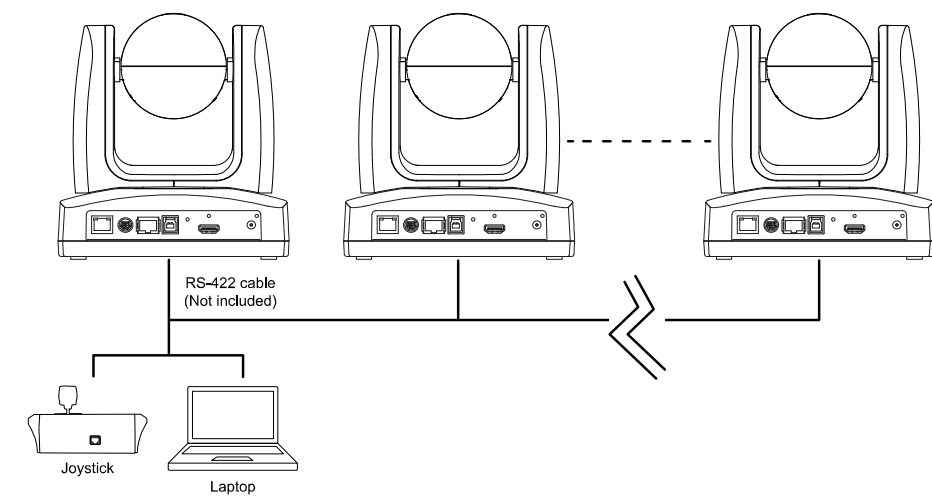


- 1. LAN:** Connect the camera to an IP route (Note).
- 2. RS-232:** Connect the camera to a Joystick or laptop to control the camera. You can optionally purchase the RS-232 Adapter. The PIN definition is shown as below (Note).

● Pin Definition

	Function	Mini DIN9 PIN #	I/O Type	Signal	Description
	VISCA IN	1	Output	DTR	Data Terminal Ready
		2	Input	DSR	Data Set Ready
		3	Output	TXD	Transmit Data
		6	Input	RXD	Receiver Data
	VISCA OUT	7	Output	DTR	Data Terminal Ready
		4	Input	DSR	Data Set Ready
		8	Output	TXD	Transmit Data
		9	Input	RXD	Receiver Data
		5	Input	I/O	Detect DIN8/DIN9
	---	Shield	---	GND	Ground

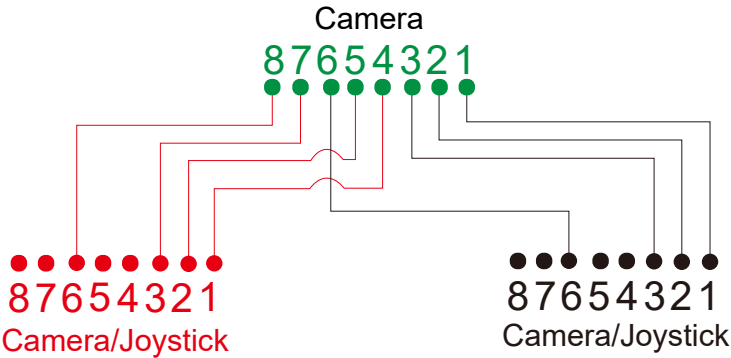
3. **RS-422:** Connect the camera to a Joystick or laptop to control the camera. Use a CAT5e splitter for multi-camera connection.



● **Pin Definition**

	No.	Pin	No.	Pin
	1	TX+	5	TX-
	2	TX-	6	RX-
	3	RX+	7	RX+
	4	TX+	8	RX-

● **CAT5e Splitter Pin Assignment**



4. **USB Type-B:** Connect the camera to a desktop or laptop for video transmission when using third-party video conferencing software such as Skype or Teams (Note).
5. **HDMI:** Connect the camera to a TV or a monitor to display video output. The camera and the connected TV or monitor must have grounding design. (Note).
6. **Power:** The camera and the connected TV or monitor must have grounding design. Use the supplied power adapter and power cord to connect the camera to a power outlet and make sure the power cord of the TV or monitor supports the grounding plug.

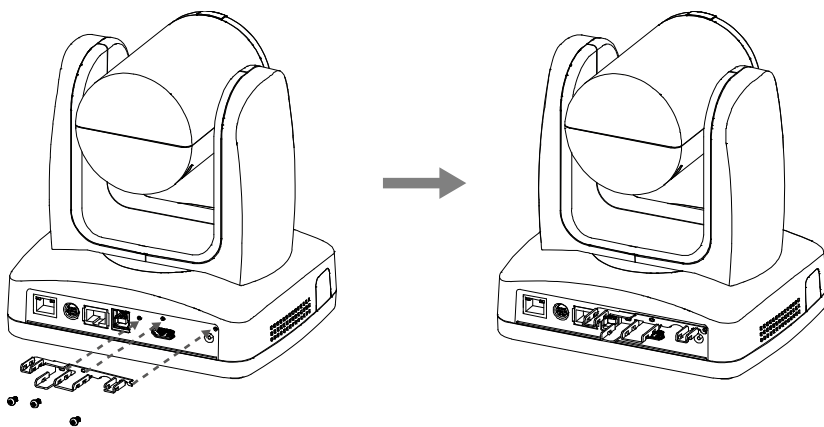
Note:

Accessory equipment connected to the analog and digital interfaces must be in compliance with the respective nationally harmonized IEC standards (i.e. IEC 60950 for data processing equipment, IEC 60065 for video equipment, IEC 61010-1 for laboratory equipment, and IEC 60601-1 for medical equipment.) Furthermore all configurations shall comply with the requirements of the system in standard IEC 60601-1. Everybody who connects additional equipment to the signal input part or signal output part configures a medical system, and is therefore, responsible that the system complies with the requirements of the system in standard IEC 60601-1. The unit is for exclusive interconnection with IEC 60601-1 certified equipment in the patient environment and IEC 60XXX certified equipment outside of the patient environment. If in doubt, consult the technical services department or your local representative.

Installation

Cable Fixing Plate

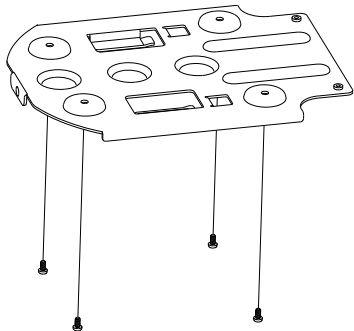
1. Secure the cable fixing plate to the camera with the included M2 x 4 mm screws (x3).
2. Connect the cables.
3. Use the cable ties to secure the cables to the cable fixing plate.



Ceiling Mount

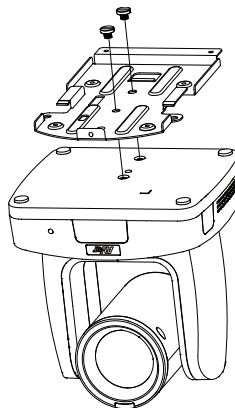
1. Secure the bracket to the ceiling.

Screw: 4 screws, M4 x 10mm (not Included)

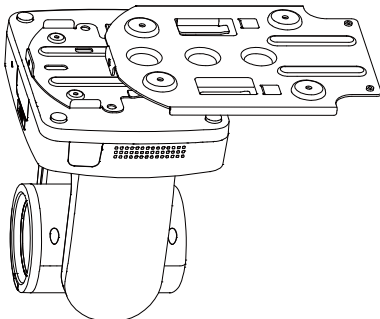


2. Secure the bracket to the camera.

Screw: 2 screws, 1/4"-20 L=6.5mm (included)

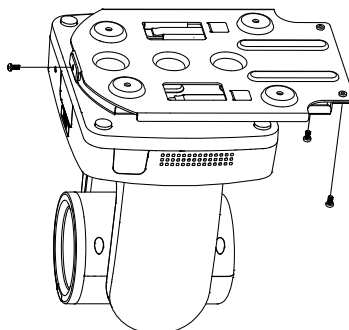


3. Slide the bracket with the camera into the bracket secured to the ceiling. And connect the cables.



4. Fix the brackets with screws.

Screw: 3 screws, M3 x 6mm (included)





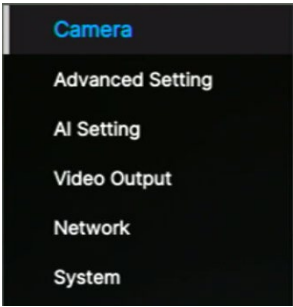
Set up Your Camera

Configure camera settings through the OSD menu or the web interface.

OSD Menu


To access the OSD menu, connect the camera to a monitor or TV using an HDMI cable, and then use the supplied remote control to operate the OSD menu.

Press and hold **Menu**  for 3 seconds to open the OSD menu. Use directional buttons **▲▼◀▶** to select and press **Enter**  to confirm settings.




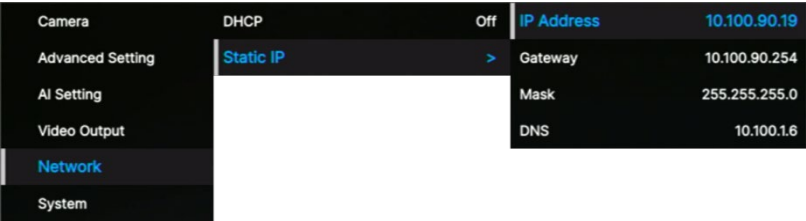
IP Address Setup

Static IP



1. Press and hold **Menu**  for 3 seconds on the remote control to open the OSD menu.
2. Go to **Network > Static IP**.

[Note] Turn the **DHCP** off before setting up static IP (**Network > DHCP > OFF**).

3. Select the **IP Address**, **Gateway**, **Netmask**, and **DNS** to configure. Press **Enter**  and use the number buttons to enter the value.



DHCP

- 1. Press and hold **Menu**  for 3 seconds on the remote control to open the OSD menu.
- 2. Select **Network > DHCP > On**.
- 3. Press Enter  to confirm setting.

Camera	DHCP	On	Off
Advanced Setting	Static IP	>	On
AI Setting			
Video Output			
Network			
System			

- 4. After turning the **DHCP** on, you can go to **System > Information** to view the IP address.

Camera	Trigger OSD	Press Menu 3 sec	Model Name	MD120UI
Advanced Setting	Camera Selector	All	Serial Number	5100435000010
AI Setting	Status OSD	Off	Version	1.10502.0
Video Output	Language	English	IP Address	0.0.0.0
Network	Information	>	MAC	00:18:1A:0C:BA:4E
System	Factory Default	>	Lens	C004
	System Reboot	>	Mcu	A001

OSD Menu Tree

1 st Level	2 nd Level	3 rd Level	4 th Level
Camera	Exposure Mode	Full Auto	Exposure Value
			Gain Limit Level
			Slow Shutter
			BLC
			WDR
		Shutter Priority	Exposure Value
			Shutter Speed
			Gain Limit Level
		Iris Priority	Exposure Value
			Iris Level
			Gain Limit Level
			Slow Shutter
		Manual	Iris Level
			Shutter Speed
			Gain Level
		Bright mode	Bright value
	White Balance	Auto	
		ATW	
		Indoor	
		Outdoor	
		One push trigger	
		Manual	R gain
			B gain
	Pan Tilt Zoom	Preset Speed	5, 25, 50, 100, 150, 200
		Preset Accuracy	Off / On
		Pan Speed	1~24
		Tilt Speed	1~24
		Zoom Speed	Low / High
		P/T Spd. Relative Z Ratio	Off / On
		Pan L/R Dir. Switch	Off / On
		Focus Mode	Manual / Auto
	Noise filter	Off / Low / Middle / High	
	Saturation	0 1 2 3 4 5 6 7 8 9 10	

	Contrast	0 1 2 3 4	
	Sharpness	0 1 2 3	
	Mirror	OFF / ON	
	Flip	OFF / ON	
Advanced Setting	Audio	Audio Volume	0~10
	Control	Type	RS232 / RS422
		Protocol	VISCA / PELCO D/PELCO P
		Camera Address	1 2 3 4 5 6 7
		Baud Rate	4800 / 9600 / 38400
	IR Cut Filter Mode	Auto / Day / Night	
	IR Cut Sensitivity	Low / Middle / High	
	AI Mosaic	Off / NET	
AI Setting	Eyes Tracking	Eyes Tracking	Off / On
		Tracking Site	Save
		Tracking Type	Full Face / Eyes
		Tracking Range	Close / Medium / Wide
		Timeout to Site	3/5/7/10 sec
	Fall/Egress Detection	Fall/Egress Detection	Off / On
		Detection Type	All Type / Fall / Egress
Video Output	Theme Mode	HDMI / UVC	
	Frequency	60	
		59.94	
		50	
	Resolution	2160p60	
		2160p59	
		2160p50	
		2160p30	
		2160p29	
		2160p25	
		1080p60	
		1080p59	
		1080p50	
		1080p30	
		1080p29	
		1080p25	

		1080i60	
		1080i59	
		1080i50	
		720p60	
		720p59	
		720p50	
Network	DHCP	OFF	
		ON	
	Static IP	IP Address	192.168.1.168
		Gateway	192.168.1.254
		Mask	255.255.255.0
		DNS	8.8.8.8
System	Trigger OSD	Click Menu to open, Press Menu 3 sec	
	Camera Selector	1,2,3,4,All channel, Disable Remote	
	Status OSD	OFF	
		ON	
	Language	English / 中文 / 日本語	
	Information	Model Name	MD120UI
		Serial number	xxxxxxxxxxxxx
		Firmware Version	0.0.0000.00
		IP	192.168.1.168
		MAC	00:18:1a:04:9e:81
		Lens	xxxx
		Mcu	xxxx
	Factory Default	Off / On	
	System Reboot	Off / On	

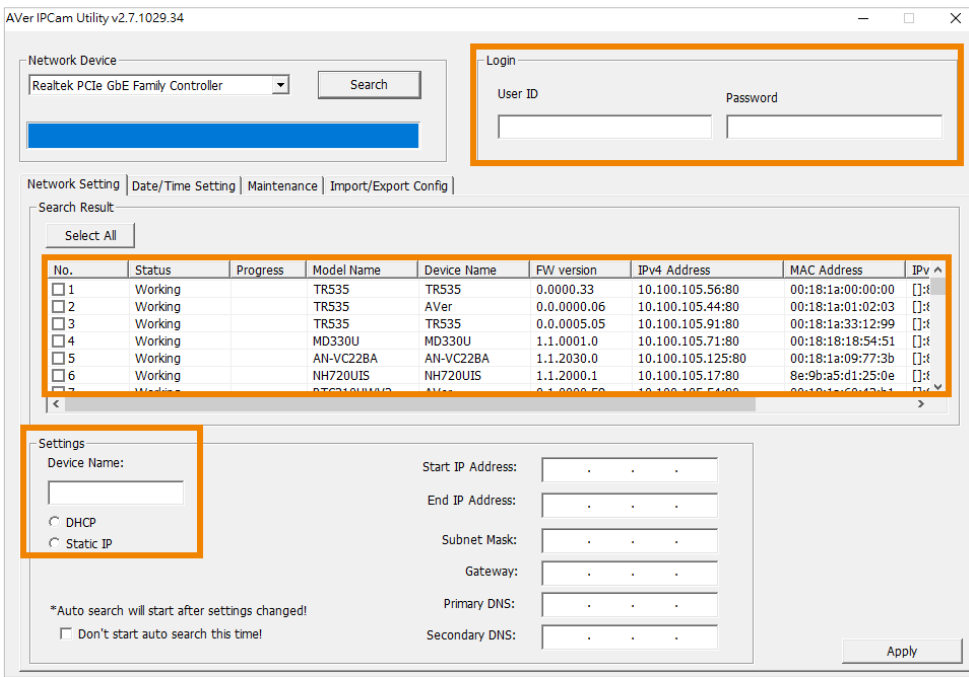
Access the Web Interface

To access the web interface of the camera, you can use any of the following software to find its IP address:

- AVer IPCam Utility
- AVer ViewCare

Note: The camera default network is DHCP.

AVer IPCam Utility



To access the web interface:

1. Download IPCam Utility from AVer Download Center (<https://www.aver.com/download-center>) and launch the software.
2. Click **Search** to see available devices on the same local area network (LAN).

Note:

- Make sure your camera has internet.
- IPCam Utility and camera must be on the same LAN.

3. Double-click on your camera's IP address in the **IPv4 Address** column to open the web interface in your browser. For first-time login, you'll be prompted to change the username and password.

When you log in for the first time:

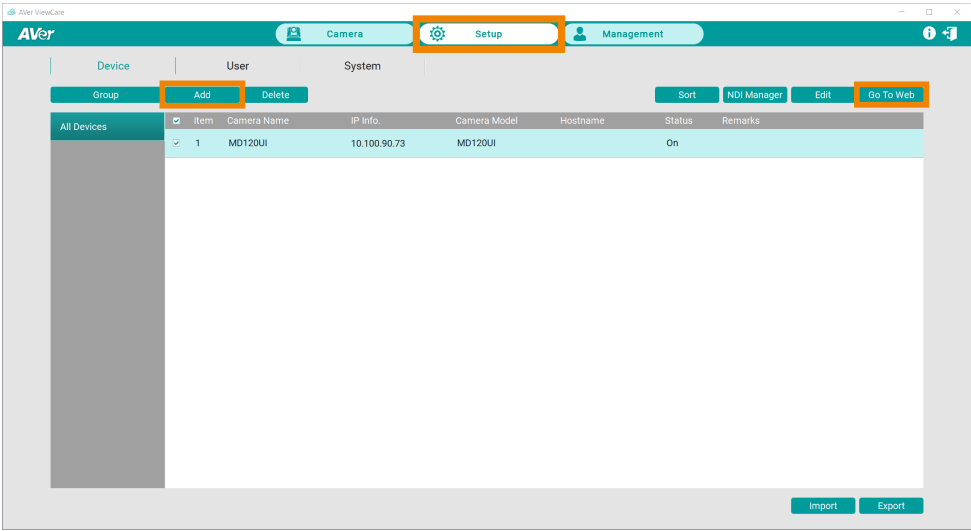
Change the username and password before logging in to the web interface.

- Username: Use 1-32 characters.
- Password: Use 8-32 characters and a combination of uppercase letters, lowercase letters, numbers, and symbols (%+=, _ ^/ @. ~). The password cannot be the same as the username.

To change your network to DHCP or static IP:

1. Select the checkbox of your camera.
2. Enter the changed username and password in the **Login** field.
3. Select **DHCP** or **Static IP**, then enter your network settings if applicable in the **Settings** section.
4. Click **Apply**.

AVer ViewCare



Note: The AVer ViewCare default username and password is **admin/admin**.

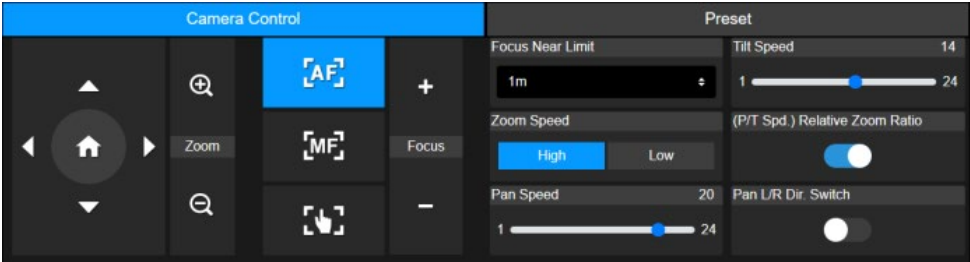
1. Download AVer ViewCare from AVer Download Center (<https://www.aver.com/download-center>) and launch the software.
2. Log in with the AVer ViewCare default username and password **admin/admin**. Then enter your email address for password recovery.
3. Go to **Setup > Add**, then click **Auto Search** to see available devices on the same local area network (LAN).
4. Click to select your camera, enter the changed camera username and password, then click **Save** to add the camera to the device list.
5. Select the checkbox of your camera, then click **Go to Web** button to open the web interface in your browser.

Web Interface







Live View



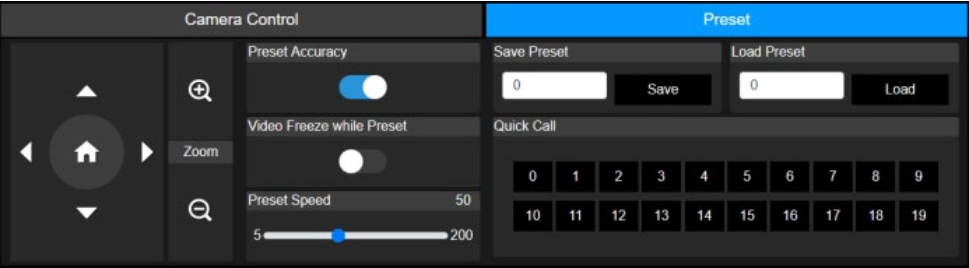
Camera Control



Item	Description
Pan and Tilt Controls ⬅️⬇️⬅️⬆️	<p>Position the camera.</p> <ul style="list-style-type: none">● Drag the slider to adjust Pan Speed and Tilt Speed.● Turn on Pan L/R Dir. Switch to invert panning direction.● Turn on P/T Spd. Relative Z Ratio to automatically adjust pan and tilt speeds based on the zoom ratio. <p>You can also turn it on in the OSD menu: Camera > Pan Tilt Zoom ></p>

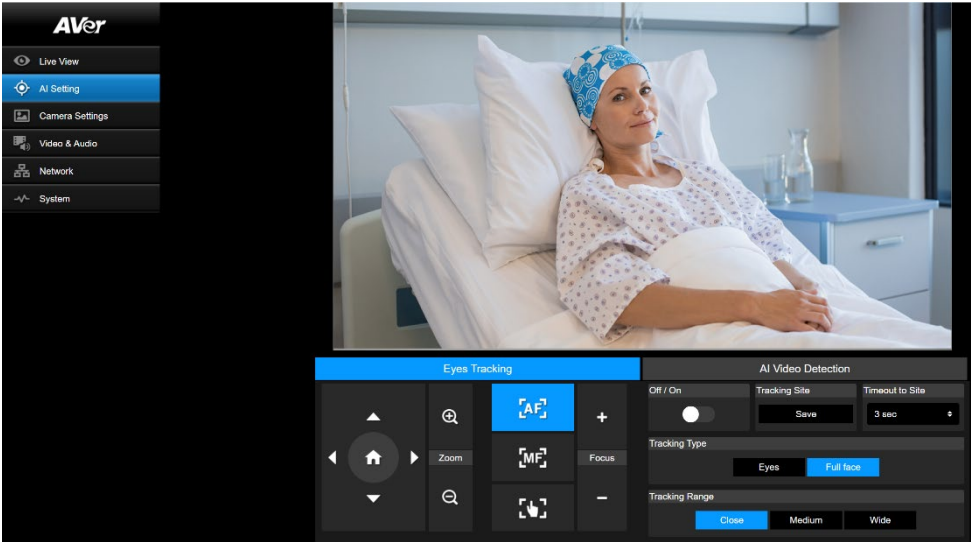
	P/T Spd. Relative Z Ratio.
Home Position 	Move the camera to the Home position.
Zoom  	Zoom in or zoom out the live view and select Zoom Speed.
Focus +/-	<ul style="list-style-type: none"> Auto Focus: Click to automatically focus. Manual Focus: Click to manually focus. Adjust the focus with +/- buttons. One Push Focus: Click to automatically focus once.Focus Near Limit: Set up the nearest focus limit.

Preset



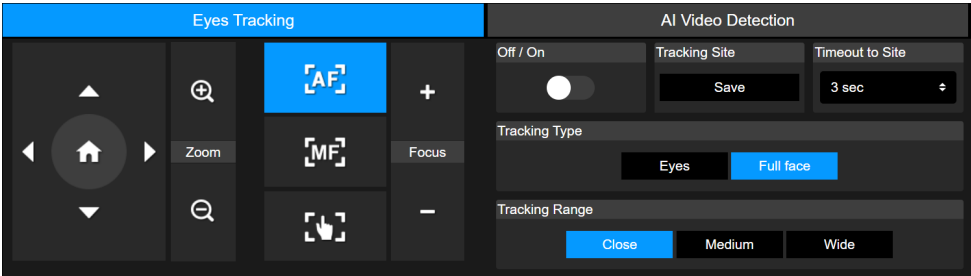
Item	Description
Save Preset	<ol style="list-style-type: none">Position the camera using pan, tilt and zoom controls.Enter a preset number (0~255) in the Save Preset field and click Save.
Load Preset	<ol style="list-style-type: none">Enter a preset number (0~255) in the Load Preset field and click Load.Or click a preset number (0~19) in the Quick Call section.
Preset Accuracy	Turn on to improve the accuracy of moving to presets.
Video Freeze while Preset	Turn on to display only the live view from presets. The live view from the moving path will not be displayed.
Preset Speed	Adjust the camera speed when moving to presets.

AI Setting



Eyes Tracking

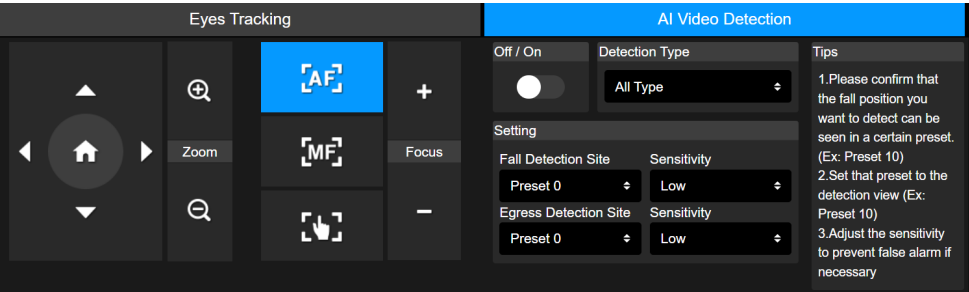
Manually adjusting pan, tilt and zoom controls during Eyes Tracking will turn off the function.



1. Position the camera using pan, tilt and zoom controls and then click **Save** to save a **Tracking Site**. The default is the Home position.
2. From the **Timeout to Site** drop-down list, select an interval before the camera returns to the tracking site when no one is on screen. The default is 3 seconds.
3. Select **Tracking Type** and **Tracking Range**.

4. Toggle on eyes tracking.
- One person: The camera automatically tracks and zooms in on the face.
 - Multiple people: The camera frames all faces in bounding boxes. Click a square to select a face you want to track and zoom in on.

AI Video Detection



To set up fall or egress detection:

1. Make sure you have defined the required preset where a fall or egress event may occur.
2. Select that preset from the **Fall Detection Site** or **Egress Detection Site** drop-down list, and select the detection sensitivity.
3. Select the **Detection Type**.
4. Toggle on AI video detection.

DISCLAIMER

Learn about the accuracy and limitations of the AI video detection.

The AI video detection is an advanced technology designed to enhance patient safety in hospital environments.

Limited Accuracy

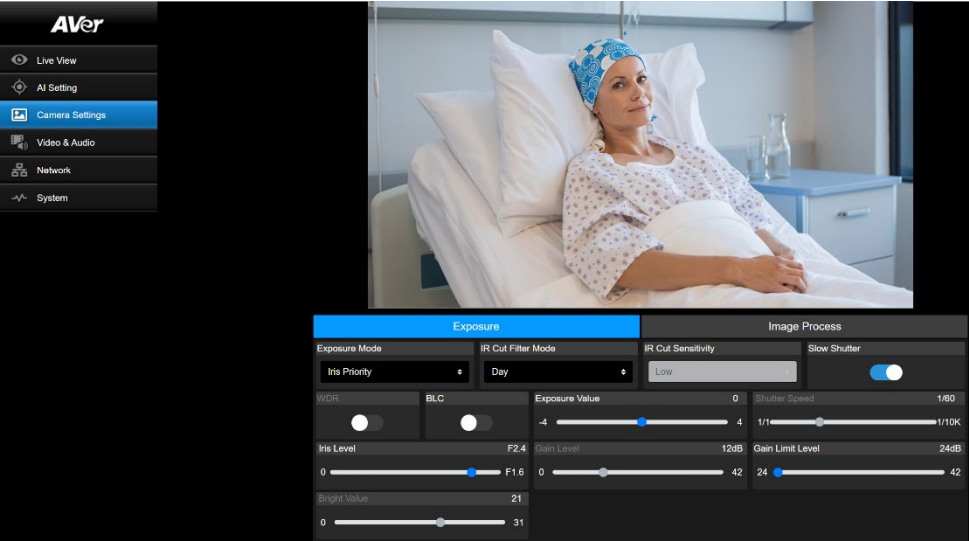
The ability of the AI video detection to accurately identify a fall or egress event was tested in a controlled environment. This does not guarantee the successful identification and alarms for all fall or egress events in real world use. Many factors can affect the performance of the AI video detection, such as an obstructed field of view or restricted view angle.

Dose not Replace Caregivers

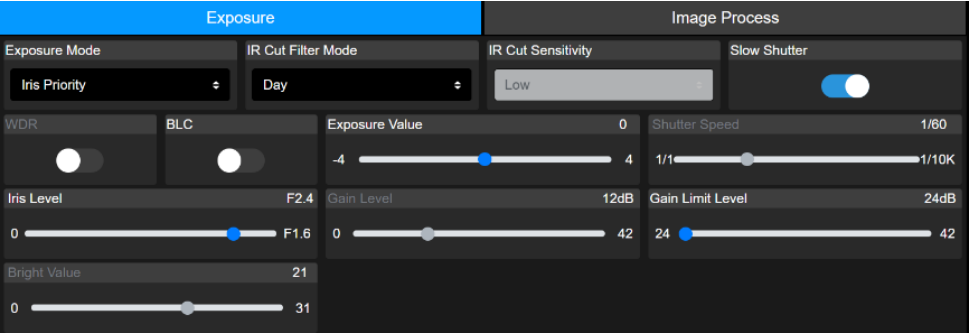
The AI video detection is intended as an assistive tool and must not be used as the replacement for caregivers. Frameworks which mandate periodic checks by a trained professional to ensure patient safety and which relate to clinical diagnosis, patient care or treatment must remain in place. If AI video detection fails to respond as described, take appropriate action immediately.

The AI video detection is intended as an assistive tool and is not part of a medical device. It is not a patient monitor and cannot be used to make a medical or clinical decision.

Camera Settings



Exposure



Item	Description
Exposure Mode	Select an exposure mode.
WDR	Adjust exposure, shutter, iris and gain.
BLC	
Exposure Value	
Shutter Speed	
Iris Level	

Gain Level	
Gain Limit Level	
IR Cut Filter Mode	Select Day mode, Night mode to switch infrared night vision on or off., Or select Auto mode and adjust IR Cut Sensitivity .
Slow Shutter	Turn Slow Shutter on or off.
Bright Value	Adjust brightness.

Image Process

Exposure

Image Process

White Balance

One Push

AWB

Set

If you select "One push", please press SET when placing a sheet of white paper to the camera

R Gain

66

B Gain

78

Saturation

5

0

255

0

255

0

10

Contrast

2

Sharpness

2

Mirror

Flip

0

4

0

3

Noise Filter

Off

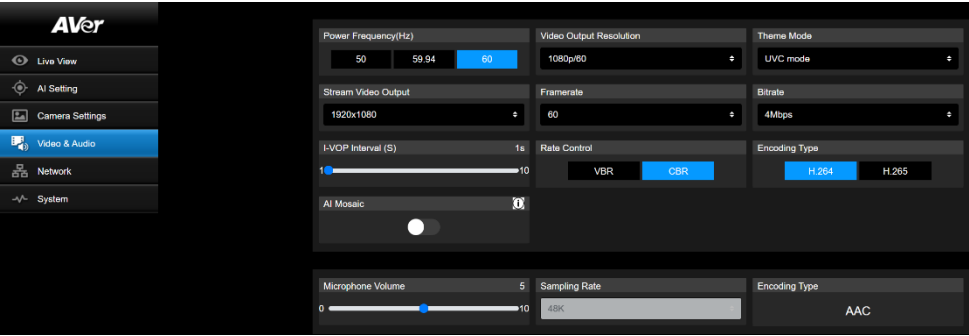
Low

Middle

High

Item	Description
White Balance	<ul style="list-style-type: none">Select a white balance mode. When Manual is selected, you can also adjust the R Gain and B Gain.When One Push is selected, place a piece of white paper in front of the camera lens and click Set to calibrate white balance.
Saturation	Adjust saturation, contrast and sharpness.
Contrast	
Sharpness	
Mirror	Turn Mirror or Flip on or off.
Flip	
Noise Filter	Select a noise filtering level.

Video & Audio



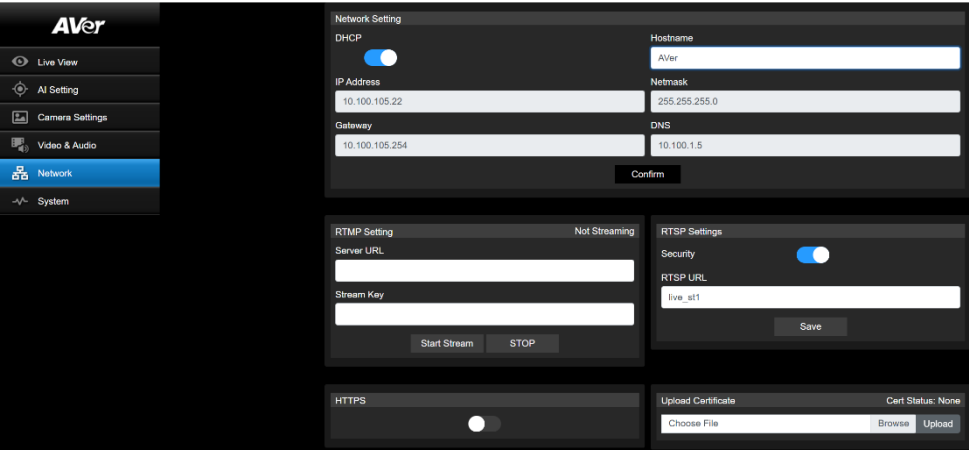
Video Setting

Item	Description
Power Frequency (Hz)	Select 50Hz , 59.94Hz or 60Hz based on your country or region.
Video Out Resolution	Select a video output. resolution RTSP: Max. 4K/60fps HDMI: Max. 4K 60Hz
Theme Mode	Select a video overlay to prioritize UVC or HDMI output.
Stream Video Output	Select a streaming output resolution for the live view.
Framerate	Select a framerate
Bitrate	Select a bitrate.
I-VOP Interval (S)	<ul style="list-style-type: none">● Drag the slider to choose how often I-VOPs appear in a video stream.● Shorter I-VOP intervals result in higher video quality but also larger file sizes.
Rate Control	Select VBR or CBR .
Encoding Type	Select H.264 or H.265 .
AI Mosaic	Turn on to pixelate the face for privacy on an IP stream.

Audio Setting

Item	Description
Microphone Volume	Drag the slider to adjust the microphone volume.
Sampling Rate	48K
Encoding Type	AAC

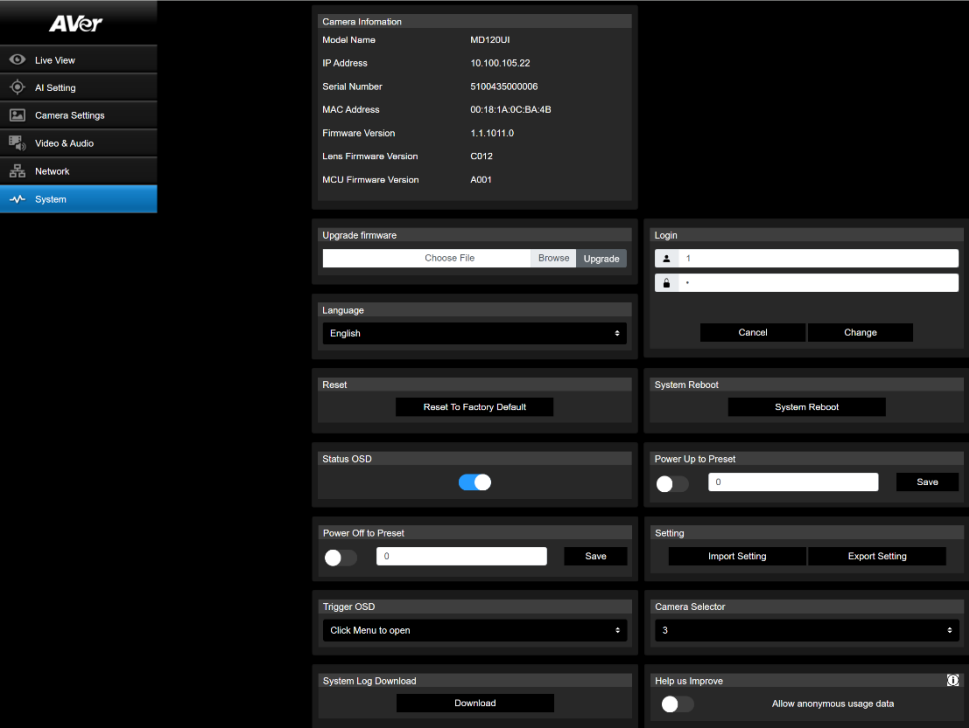
Network



Item	Description
Hostname	The default hostname is AVer. Change the hostname to be displayed on devices such as an IP router.
DHCP	Set the network to DHCP or Static IP. <ul style="list-style-type: none">● DHCP: Turn on DHCP and click Confirm to save the setting. The camera will be assigned IP settings automatically.● Static IP: Turn off DHCP, enter IP Address, Netmask, Gateway and DNS, and click Confirm to save the settings.
RTMP Setting	Stream live video to a video platform such as YouTube. <ol style="list-style-type: none">1. Enter the Server URL and Stream Key of your video platform. Please refer to the instruction of your platform to obtain the server URL and stream key.2. Click Start Stream to start streaming, Stop to stop streaming.
RTSP Settings	Protect your video stream on media players such as VLC, PotPlayer and QuickTime by ensuring that only authorized users can access it. <ul style="list-style-type: none">● When Security is turned off:<ol style="list-style-type: none">1. Enter your camera's RTSP URL into the media player.2. RTSP URL: rtsp://[camera IP address]/live_st1 Example: rtsp://192.168.1.100/live_st1● When Security is turned on:<ol style="list-style-type: none">1. Enter your camera's RTSP URL and username/password into the media player.2. RTSP URL: rtsp://[username:password]@[camera IP address]/live_st1

	<p>Example: rtsp://1:1@192.168.1.100/live_st1</p> <p>3. username/password: camera's username/password (web interface login)</p>
HTTPS	<p>Enable HTTPS to establish a secure connection between your browser and your camera. To enable HTTPS access on your camera:</p> <ol style="list-style-type: none"> 1. Obtain a SSL certificate for encryption and decryption in base-64 encoded format and use a private key in PKCS#8 format (unencrypted). 2. Package the required certificate content into PEM format. The SSL certificate uploaded to the camera must be in PEM format. 3. Click Browse to select the certificate file, and then click Upload. 4. Turn on HTTPS.

System



Item	Description
Camera Information	Display camera information.
Upgrade Firmware	<p>Follow these steps to upgrade the firmware:</p> <ol style="list-style-type: none">1. Download the latest firmware from the AVer Download Center (https://www.aver.com/download-center/).2. On the Web page, go to System > Upgrade firmware.3. Click Browse to select the firmware.4. Click Upgrade to start upgrading the firmware.5. Refresh the browser after the upgrade process is complete. <p>Note: Keep your camera connected to a power source during firmware upgrade. Network connection will be lost during the process and camera will reboot automatically after upgrading.</p>
Login	<p>For first-time login, you'll be prompted to change the username and password:</p> <ul style="list-style-type: none">● Username: Use 1-32 characters.● Password: Use 8-32 characters and a combination of uppercase

	letters, lowercase letters, numbers, and symbols (%+=,~^/@.~). The password cannot be the same as the username.
Language	Change the web interface language.
Reset	Reset the camera to factory default settings.
System Reboot	Restart your camera.
Status OSD	Enable to display preset status on the HDMI output during functions such as saving, loading and canceling presets.
Power Up to Preset	When enabled, the camera will move to the defined position after powering on. <ul style="list-style-type: none"> ● Click the toggle to turn on > enter a preset number > click Save. ● Make sure the preset number has been defined before enabling this function.
Power Off to Preset	When enabled, the camera will move to the defined position before powering off. <ul style="list-style-type: none"> ● Click the toggle to turn on > enter a preset number > click Save. ● Make sure the preset number has been defined before enabling this function.
Setting	Import or export your camera settings.
Trigger OSD	Select how the OSD menu is opened with the remote control.
Camera Selector	Assign a number to your camera that corresponds to the Camera Select buttons on the remote control. When All Channel is selected, no selection is required on the remote control to operate your camera
System Log Download	Click to download system log.
Help Us Improve	Opt-in or opt-out of providing anonymous usage data.

AVerCamera Setting Tool

AVerCamera Setting Tool is an application software that supports the operation of AVer PTZ cameras when you stream to a third-party software. It enables users to configure image, audio and video settings without a remote control, as well as connect the camera via USB.

- Download AVerCamera Setting Tool from the AVer website:
(<https://www.aver.com/Downloads/search?q=AVer%20Camera%20Setting%20Tool>).
- For details on settings, see <AVerCamera Setting Tool> in the user manual for CaptureShare.

Specifications

Camera	
Image Sensor	1/2.8" CMOS
Effective Picture Elements	8 Megapixels
Output Resolutions	Resolution: 4K/1080p/720p Frame Rate: 60/59.94/50/30/29.97/25
Minimum Illumination	0.5 lux (50 IRE, F1.6, Max. AGC, 1/30)
S/N Ratio	≥ 50dB
Gain	Auto, Manual
TV Lines	1000 (center/wide)
Shutter Speed	1/1 to 1/10,000 sec
Exposure Control	Auto, Manual, Priority AE (Shutter, IRIS), BLC, WDR
White Balance	Auto, Manual
Optical Zoom	20X
Digital Zoom	1X
Total Zoom	20X
Viewing Angles	DFOV : 69.2° (Wide) to 4.1° (Tele) HFOV : 62.3° (Wide) to 3.6° (Tele) VFOV : 37.3° (Wide) to 2.1° (Tele)
Focal Length	f = 4.5 mm (Wide) to 90 mm (Tele)
Aperture (Iris)	F = 1.8 (Wide) to 4.7 (Tele)
Minimum Working Distance	Wide: 0.1 m, Tele: 1.2 m
Pan / Tilt Angles	Pan: ±170°, Tilt: +90° / -30°
Pan / Tilt Speed (Manual)	Pan: 0.1° to 100°/sec, Tilt: 0.1° to 100°/sec
Preset Speed	Pan: 200°/sec, Tilt: 200°/sec
Preset Position	10 (IR), 256 (RS-232, RS-422, IP)
Camera Control - Interfaces	RS-232 / RS-422 / Ethernet
Camera Control - Protocols	VISCA (RS-232/RS-422/IP), CGI (IP)
Image Processing	Mirror / Flip / Freeze / WDR / BLC
Power Frequencies	50 Hz, 60 Hz
AI Functions	
Modes	Eyes Tracking
Privacy	
Protection Mode	Privacy Mode



General	
Power Requirement	12V
Power Consumption	24W
PoE	PoE+ (IEEE802.3at)
Dimension (W x H x D)	180(W) x 145(D) x 183.5(H) mm
Net Weight	1.7±0.1 kg
Application	Indoor
Tally Lamp	Yes
Security	Kensington Slot
IR Remote Control	Yes
Operating Conditions	Temperature : 0 °C to +40 °C Humidity : 20% to 80%
Storage Conditions	Temperature : -20 °C to +60 °C Humidity : 20% to 95%
Audio	
Channels	2ch Stereo
Codecs	AAC-LC (48K)
Interface	
Video Outputs	HDMI, IP, USB
Audio Outputs	HDMI, IP, USB
Audio Inputs	N/A
IP Streaming	
Resolution	4K 60fps
Network Video Compress Formats	H.264, H.265, MJPEG
Maximum Frame Rate	4K 60fps
Bit-Rate Control Modes	VBR, CBR
Range of Bit-Rate	512Kbps ~ 64Mbps
Network interfaces	10 / 100 / 1000 Base-T
Multi-Stream Capability	2 (RTSP/Web page), MAX: 4K 60fps
Network Protocols	IPv6,IPv4, TCP, UDP, ARP, IMCP, IGMP, HTTP, DHCP RTP/RTCP, RTSP, RTMP,VISCA over IP

USB	
Connector	USB3.0 (Type-B)
Video Formats	MJPEG
Maximum Video	2160p
USB Video Class (UVC)	UVC1.1
USB Audio Class (UAC)	UAC 1.0
Web UI	
Live Video Preview	Yes
Camera PTZ Control	Pan, Tilt, Zoom, Focus, Preset Control
Camera / Image	Exposure, White Balance, Image Process
Network Configuration	DHCP, IP Address, Gateway, Subnet Mask, DNS
Software Tools	
IP Search and Configuration Tool	Support Windows® 7 or later
PTZ Management	Support Windows® 7 or later
PTZ Control Panel	Supports iOS & iPadOS® 11 or later
Camera Setting Tool	Supports Windows® 7 or later, macOS® 10.14 or later


Specifications are subject to change without prior notice.

Troubleshooting

The image is distorted or blurry.

- On the web interface, go to **Live View > Camera Control** and click  **Auto Focus**.
- On the remote control, press and hold **Menu**  for 3 seconds > **Factory Default > On** to return all settings to factory default.

How to open the on-screen display (OSD) menu?

1. Make sure the HDMI cable is connected to your camera and display.
2. On the remote control, press and hold **Menu**  for 3 seconds to open the OSD menu.
3. A solid purple light on the LED indicator will indicate that the OSD menu is turned on.