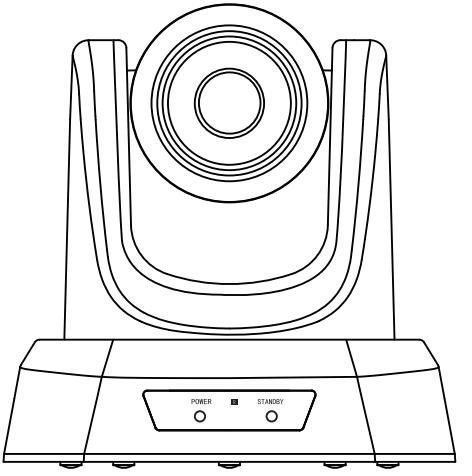


AI Auto Tracking PTZ Camera

User Manual



Version V1.0-05.02.0272

Warranty Certificate

(Please keep this for warranty claims)

User Information

Name: _____ Phone: _____

Email: _____ Postal Code: _____

Address: _____

Product Information

Model: _____

Barcode: _____

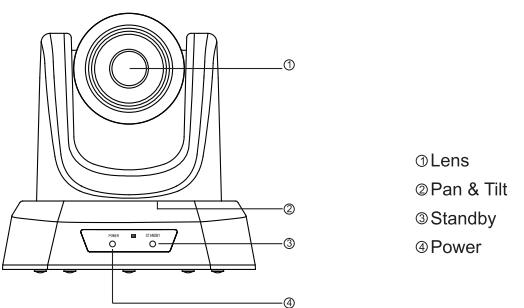
Fault Description

Notes

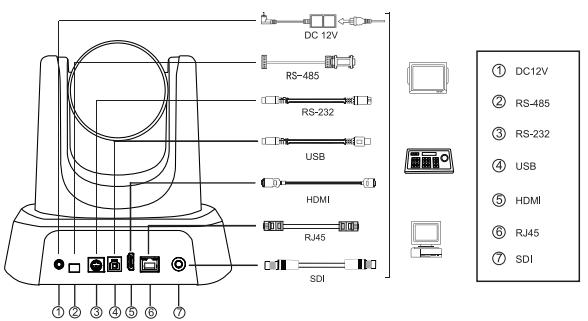
1. Please fill in your user information accurately and completely to ensure the repaired device can be returned to you promptly.
2. Specify the model, barcode, and provide a detailed description of the malfunction.

1. Product Description

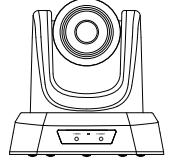
1.1 Front



1.2 Back



2. Packing List



AI Auto Tracking
PTZ Camera



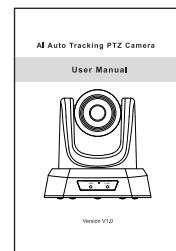
DC 12V Power Supply



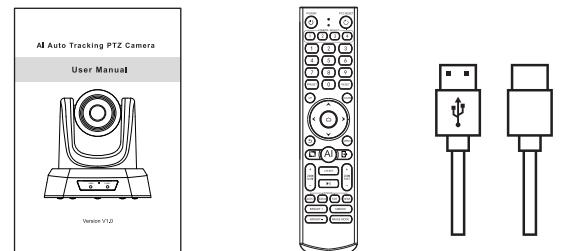
Wall Mount



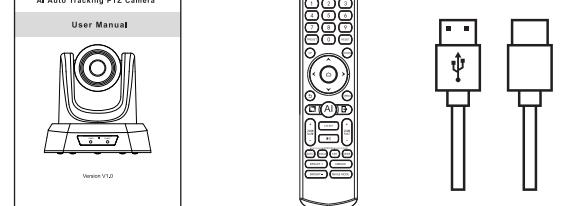
Mounting Screws



User Manual



Remote Control

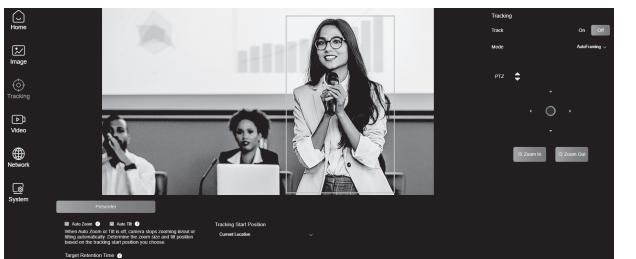


USB Cable

3. Performance Characteristics

Model No.	4K 20x Zoom	1080P 20x Zoom
Image Sensor	Sony 1/2.8" CMOS	Sony IMX371 1/2.8" CMOS
Effective Pixels	8.29MP	2.07MP
Optical Zoom	20x optical zoom	20x zoom
Lens	f=4.95mm-99mm	f=5.5-110mm
Aperture	F1.7-3.7	F1.6-3.5
Horizontal Angle	51.9°-3.0°	55.8°(W)-3.2°(T)
Vertical Angle	36.7°-2.2°	32.2°(W)-1.8°(T)
Diagonal Angle	63.1°-3.7°	61.1°(W)-3.64°(T)
Video Format	4K@30/25fps, 2K@60, 1080P@60/59.94/50/30/29.97/25fps, 1080P@60/59.94/50/30/29.97/25fps, 720P@60/59.94/50/30fps, 480P@30fps, 240P@30fps	H.264, H.265, MJPG, YUY2
Video Encoding Format		
Backlight Compensation		
SNR		≥50dB
Focus		Auto / Manual
Digital Noise Reduction		2D & 3D Noise Reduction
Exposure		Auto / Manual
Video Interfaces		Input: 1xHDMI, 1xRS-485, 1xRS-232
Video Compression Format		Output: H.264, H.265, MJPG, YUY2
LAN		10M/100M/1000M adaptive Ethernet port, Support POE IEEE802.3af
Network Protocol		NDI/HX2, RTSP, RTMP, VISCA over IP, QNVT, SRT, NDI/HX2
Control Protocol		VISCA/Pelco-D/Pelco-P, Baud Rate: 2400/4800/9600/38400
Control Interface		RS232 (Input only), RS485, USB3.0 (UVC1.1), RJ45
PTZ Parameter		
Horizontal Rotation		350° (±175°) 0.1°/s ~ 100°/s
Vertical Rotation		180° (±90°) 0.1°/s ~ 80°/s
Preset Number		User can set up to 255 presets (10 presets by IR remote)
General Parameter		
Operation Systems		Windows 10, Windows 11 or higher, Android, Mac OS 10.10 or higher, Linux (Required to support UVC.)
Input Voltage		DC 12V
Input Current		2.0A (Max.)
Power Consumption		24W (Max.)
Store Temperature		-20°C to 60°C
Store Humidity		20% ~ 95% RH
Working Temperature		0°C ~ 60°C
Working Humidity		20% ~ 80% RH
Dimension (W*H*D)		166*165*170mm/ 265*217*197mm (before/after packing)
N.W./G.W.		1.6kg/ 2.6kg (Net/ Gross weight) / 1.35kg/ 2.05kg (Net/ Gross weight)

5.AI Tracking Setting from WebUI



5.1 Tracking Settings

- (1)Tracking: Switch to enable/disable AI tracking.
- (2)Mode: Drop-down selection between Autoframing mode or Presenter tracking mode.

5.2 PTZ Control

PTZ control serves two purposes:

- (1)Before entering a mode: Adjust the camera's orientation to align with the target.
- (2)In Presenter tracking mode:
Use left/right clicks to switch between detectable targets.
Press the [Home] button to confirm the selected tracking target.
- (3)Presenter Tracking Settings:
(1)Auto Zoom & Auto Tilt (Enabled by default, recommended):
When Auto Tilt is disabled, the camera stops vertical movement.
(2)Timeout Duration:
Sets how many minutes the camera waits before exiting AI tracking after losing the target.
Default: 5 minutes.
(3)Tracking Starting Position:
Options: Current position /Preset position X/Home position.
Default: Current position.
Note: In AI tracking mode, the camera cannot be panned or tilted manually.

6.6 AI Mode

- 1)Press **[AI]** button to enter Multi-Person tracking mode and start auto-tracking.
Press **[AI]** button again to exit Multi-Person tracking mode.
- 2)While in Multi-Person tracking mode, press **[□]** button to enter Single-Person tracking mode. In Single-Person tracking mode, a green frame will appear when there are two or more people present. Use the left and right buttons to select the person you want to track, then press **[OK]** button to confirm and begin tracking.
- 3)Press **[□]** button to exit Single-Person tracking mode and return to Multi-Person tracking mode.

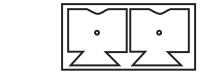
6.7 RS-232 Interface Distribution



No.	Function	No.	Function
1	DTR IN	5	TXD
2	DSR IN	6	RXD
3	TXD	7	RTS OUT
4	GND	8	NC

6.8 RS-485 Interface Distribution

PIN NUM	FUNCTION
A	DTR IN (connect to RS-485)
B	DSR IN (connect to RS-485)



7. Camera Menu Setup

When operating remote control, press **[MENU]** to enter main menu of the video camera.

7.1 Level 1 Menu - Main Menu

Main Menu	
→ Exposure	
Color	
Image	
P/T/Z	
Communication	
Tracking	Off
Information	
Restore Default	
Language	English
[Home]	Enter
[Menu]	Back

Tracking: off/Presenter/Autoframing

Language: Support Chinese/English

Press the **[□]** button on the Remote to enter level 2 sub-menu
Press the **[Menu]** button on the Remote to exit menu

7.2 Level 2 Menu - Exposure

Exposure	
→ Mode	Auto
Backlight	Off
ExpComp	00
Flicker	50Hz
[Return]	

Mode: Auto/Manual/SAE/AE/Bright

Backlight: On/Off(only effective under Auto mode)

ExpComp: Optional item is 7~7 (only effective under Auto mode)

Flicker: Support 50HZ/60HZ

When changing the exposure mode to Manual, the sub-menu is as shown below

6.1 Camera Select

Set the IR remote control's address to control the corresponding camera, option item 1/2/3/4



6.2 Camera Direction Control



Note: Press the direction key when you need to adjust the angle.

If you want to move the camera slowly, just click the direction key;

If you want to move the camera fast at a large scale, just long-press the button;

If you want to adjust left and right direction, just press and hold the L/R button for 10S.

6.3 Camera Focusing Mode Control

[AUTO FOCUS] Switch the focus mode to AUTO

[MANUAL FOCUS] Switch the focus mode to MANUAL



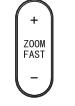
[FAR] Far focus manually

[NEAR] Near focus manually

6.4 Camera Zoom Control

Press any one of the 4 [ZOOM] to make the zoom functioning.

These 4 keys are not applicable for fixed focus cameras.



6.5 Preset Setup, Call, Cancel

(1) Reserve Preset: Press **[PRESET]**, then press one of the numbers (0-9) to reserve a preset that corresponds to the NUMBER.

Note: You can setup 10 presets at most by the remote control.

(2) Call Preset: Press the NUMBER (0-9) directly to call the reserved preset.

Note: It won't work if there's no preset reserved in the corresponded number.

(3) Remove Preset: Press **[RESET]**, then press one of the number (0-9) to remove a preset that corresponds to the NUMBER.



7.3 Level 2 Menu - Color

Color	
→ Brightness	50
Contrast	50
Hue	50
Saturation	50
Sharpness	50
WB Mode	Auto
Rtuning	00
Btuning	00
[Return]	

Brightness: Optional item is 0-99
 Contrast: Optional item is 0-99
 Hue: Optional item is 0-99
 Saturation: Optional item is 0-99
 Sharpness: Optional item is 0-99
 WB mode: Auto/Manual/VAR/Indoor/Outdoor/Onepush
 When the WB mode is Auto, the Rtuning and Btuning value can be tuning.
 The range is 0 to 99.
 When the WB mode is Manual, the sub-menu will be as shown below:

7.4 Level 2 Menu-Image

Image	
→ Flip	Off/On
Mirror	Off/On
Video Format	1080P60
Menu Mirror	Off
USB Mode	ISOC/BULK
UVC Format	YUY2
Style	Normal/PC/Bright
HDMI Mode	Force
[Return]	

Flip: Enable/disable the picture up/down flip
 Mirror: Enable/disable the picture left/right flip
 Video Format: 4K30(Only available for 4K 12x Zoom)/1080P60/1080P50/
 1080P30/1080P25/720P60/720P50
 Menu Mirror:Off/On
 USB Mode: ISOC/BULK
 USB mode: Adjust between Isochronous transfers mode and Bulk

transfers mode
 UVC Format:YUY2
 Style Mode: Normal, PC, Bright
 HDMI Mode:Force

7.5 Level 2 Menu- P/T/Z

P/T/Z	
→ Acc Curve	Fast/Middle/Slow
L/R SET	On/off
ZOOM Speed	6
AF Zone	Bottom
AF Sense	Low
AF Scene	Normal
[Return]	

Acc Curve: Fast/Middle/Slow
 L/R SET: On/Off
 Zoom Speed: Optional items are 0-7
 AF Zone: Bottom/Left/Right/Front/Top/Middle
 AF Sense: Normal/High/Low
 AF Scene: Normal/Macro/Live

7.6 Level 2 Menu - Communication

Communication	
→ Protocol	Auto
Baudrate	9600
RC Address	All
[Return]	

Protocol: Option items are Auto/Visca/PELCO-D/PELCO-P

Baudrate: Option items are 2400/4800/9600/38400

RC Address: Set the IR remote control's address to control the corresponding camera.

Option items are ALL/1/2/3/4.

Address: Set the camera's address. Option items are 1-7 in Visca, 0-255 in PELCO-D, 0-31 in PELCO-P.

7.7 Level 2 Menu -Information

Information	
Model	UHD Camera
PTZ Version	1.0.1.1
SOC Version	1.1.134
→ AF Version	1.22
IQ Version	3.02.001
HW Version	1.2
IP	192.168.0.206
[Return]	

Model: UHD Camera (FHD for 1080P Camera and UHD for 4K Camera)

PTZ Version: 1.0.1.1

SOC Version: 1.1.32

AF Version: 1.0.1

IQ Version: 3.02.001

HW Version: 1.2

Notice: The version number here is just an example. The actual parameters shall prevail.

7.8 Level 2 Menu - Restore Default

Restore Default	
→ Yes	
No	
[Return]	

Steps:

- 1)Access camera's web interface.
- 2)Enter <http://192.168.0.206> in a browser.
- 3)Navigate to: Setup > Network Settings > Local Network.
- Update settings:
 IP Address: 192.168.x.206 (match your subnet, e.g., 192.168.1.206)
 Subnet Mask: 255.255.255.0
 Default Gateway: 192.168.x.xxx (typically your router's IP, e.g., 192.168.1.1 or 192.168.1.254)

8.4 IE Login

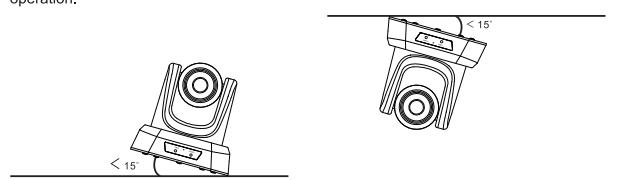
Input <http://192.168.0.206> to IE (better with IE or Google web browser), a login window will pop up, input user name: admin, password: admin, language: English. After successfully login, you can do preview, configurations, etc.



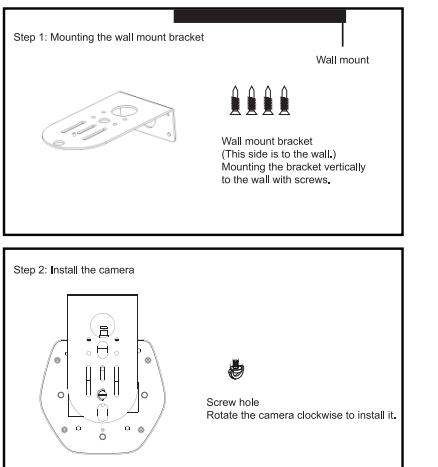
9. Installation Instructions

9.1 Surface Installation

Put the camera on the desk flatly, and make sure the camera is in a horizontal position. If you want to put the camera on an oblique surface, please make sure the angle of inclination is less than 15 degrees to ensure the camera pan and tilt work in normal operation.



9.2 Wall Mount Installation



8. Network Function

8.1 Equipment Installation

Connect the camera to either a PC's external network port via Ethernet cable, or an Internet network through a router/switch. Access the camera's web interface by entering its IP address in a web browser (default IP varies by model - refer to the label on the camera's bottom).

8.2 Configure Computer IP to Match Camera's Network

Purpose: Ensure computer and camera are on the same subnet for communication.

1) Open Network Adapter Settings

Navigate to:
 Control Panel > Network and Sharing Center > Change adapter settings
 Right-click your active connection → Select Properties

2) Configure IPv4 Settings

From the list, double-click:
 Internet Protocol Version 4 (TCP/IPv4)
 (or select it and click Properties)

3) Add IP Address Manually

Select:
 Use the following IP address
 Enter:
 IP Address: 192.168.0.xxx (e.g., 192.168.0.245)

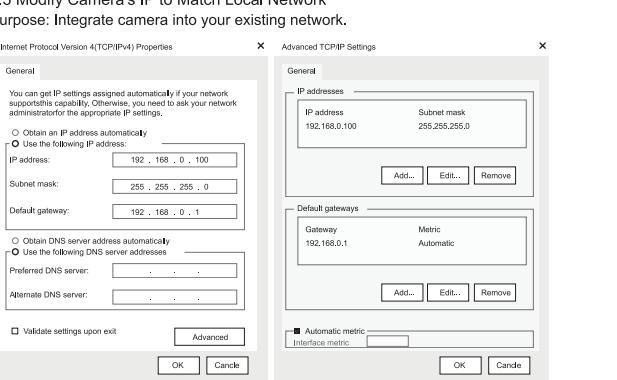
Subnet Mask: 255.255.255.0
 Default Gateway: 192.168.0.xxx
 (typically your router's IP, e.g., 192.168.0.1 or 192.168.0.254)

4) Finalize Changes

Click OK to close all configuration windows
 Changes take effect immediately

8.3 Modify Camera's IP to Match Local Network

Purpose: Integrate camera into your existing network.



Configure parameters according to the network environment.

For example, Camera default IP Address: 192.168.0.206

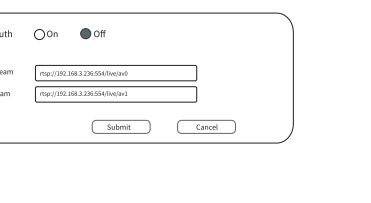
Here is the way to get RTSP video streaming.

Default RTSP main streaming address: <rtsp://192.168.0.206:554/live/av0>Main>

Default RTSP sub streaming address: <rtsp://192.168.0.206:554/live/av1>Sub>

3) RTMP video streaming

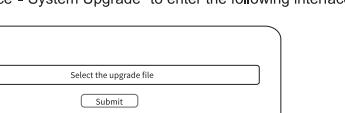
Select "Setup"->"Network Settings"->"RTMP" to enter following interface:



Enable and turn on the RTMP video stream to the server
 Server URL: server address, which can be domain name or IP address
 Streaming code: Persistent Stream Key/Name

8.6 Software upgrade (upgrade if there is a new version)

Select "Setup"->"Maintenance"->"System Upgrade" to enter the following interface:



1)Open the upgrade file to Upgrade automatically if needed.

2)Restart the camera and prompts "Upgrade succeeded". Log in to the network and check whether the software version is consistent with the upgrade file to ensure that the upgrading is successful. Then click "Restore factory default" to restart and restore the parameters to the factory default setting. (IP default 192.168.0.206, User default: admin, password default: admin)

8.7 VISCA over IP

VISCA Protocol is transmitted through IP to reduce RS232/RS485

cabling(the controller must support IP communication)

Communication Port Specification:

Control Port: RJ45

IP Protocol: IPv4

Transmission Protocol: Sony VISCA;

IP address: Setting through the web

Port address: Sony VISCA(52381)

Application Range: Under the same network segment

10. Trouble Shooting

Before requesting service to service engineer, please refer to the following methods to remove failures. If the failures still can't be solved, please contact us for assistance.

Q: The video of the camera cannot be displayed on the screen.

A: Please check the connection between power cable, video cable, camera and monitor, fix the connector on each end.

Q: It's unable to Pan, Tilt and Zoom camera.

A: Because the menu was displayed on monitor. Please re-operate after exiting the menu

Q: Why the camera rotates for about 10 seconds after power on?

A: This is the normal self-test of the camera

Q: Poor Image quality while using in church or other low-light conditions.

A: Press menu (ON/OFF) to adjust backlight effect to suit the church lighting property.

Q: Remote control is not working or insensitive.

A: ①Not work, please replace batteries

②Not sensitive: Choose the correct "IR select" number to correspond to the camera.