

Multi-spectral EO PTZ Camera
Quick Start Guide

V1.0.0

2025.6

Foreword






General

This document provides a detailed description of the installation process, initial login, and other related information for the multi-spectral EO PTZ camera.

The multi-spectral EO pan-tilt system includes the dual-spectral EO PTZ camera, the tri-spectral EO PTZ camera with laser illumination, and the tri-spectral EO PTZ camera with laser range finder.

Safety Instructions

The following signal words with defined meaning might appear in the manual.

Signal Words	Meaning
 DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, reductions in performance, or unpredictable results
 LASER RADIATION	Indicates a laser radiation hazard. Take care to avoid exposure to a laser beam.
 NOTE	Provides additional information as a supplement to the text.

Important Safeguards and Warnings

The manual will help you to use the Device properly. Read the manual carefully before using the Device, and keep it well for future reference.

Requirements for Installation and Maintenance Personnel

Installation and maintenance personnel must possess qualifications or experience related to CCTV system installation and repair. They should also be certified for relevant tasks (e.g., working at heights). Additionally, they must have the following knowledge and operational skills:

- Basic knowledge of CCTV systems and their components, as well as installation skills.
- Basic knowledge and operational skills in low-voltage wiring and low-voltage electronic circuit connections.

Power Requirements

- Strictly follow all national and local electrical safety regulations.
- Verify that the power supply is correct before operating the device.
- Use a power supply that meets SELV (Safety Extra Low Voltage) standards and complies with IEC60950-1 Limited Power Source specifications. Refer to the device label for specific power requirements.
- Install an easily accessible power cutoff device during wiring for emergency shutdown if necessary.
- Protect the power cord from being stepped on or pinched, especially near the plug, socket, and connection points.
- A power adapter is provided by default. Input specifications for the adapter: 100VAC–240VAC, 50/60Hz, 4A.

Operation and Maintenance Requirements

- Use the device within the allowed humidity (<95% RH) and altitude (<3000m) range.
- Do not use the device in corrosive environments such as high salt spray areas (seasides, coastal regions), acidic gas environments, or chemical plants.
- Do not use the device in environments with strong vibrations, such as vehicle or vessel installations.



CAUTION

If you need to use the device in the above-mentioned environments, please contact our sales representative. We can recommend specialized models or customized solutions that meet environmental requirements. The company will not be liable for any damage caused by improper use.

- Store the device in a well-ventilated location without strong electromagnetic interference.
- Outdoor usage must comply with lightning protection standards.
- Do not subject the device to heavy pressure or strong vibration during transport and storage.
- Avoid installation in areas with oil fumes, steam, excessive temperatures, or heavy dust, as these can damage the device.

- Do not allow any liquid to enter the device.
- Do not block the ventilation openings around the device to prevent heat buildup and damage.
- Do not point the lens directly at strong radiation sources (e.g., the sun, lasers, molten steel), as this may cause irreversible damage to the thermal detector, potentially rendering it inoperable.
- Do not touch the photosensitive components (CCD or CMOS) directly. Use a blower to remove dust or dirt from the lens. If cleaning is necessary, lightly wipe with a soft cloth slightly moistened with alcohol.
- Clean the housing with a soft dry cloth. For persistent dirt, use a clean soft cloth with a small amount of neutral detergent and wipe gently, then dry. Do not use volatile solvents such as alcohol, benzene, or thinner, or strong abrasive cleaners, as these may damage the surface coating or affect device performance.
- The device must be transported using full packaging. Whether shipped by an installer or returned for factory repair, partial or missing packaging is likely to result in damage.
- If the device malfunctions, immediately disconnect the power and unplug the cord. Contact the dealer or after-sales service center. Do not disassemble or modify the device in any way.



WARNING

After logging into the device, please change the default user password promptly to prevent unauthorized access.

Only use accessories or components specified by the manufacturer, and have installation and maintenance performed by qualified personnel.

Avoid exposing the device's surface to laser beams during use of laser-based equipment. Do not supply power to the device through two or more power sources simultaneously, as this may cause damage.



LASER RADIATION

Additional Notes for Cameras with Laser Equipment

- Lasers can damage human eyes. Do not emit the laser beam toward people within 50 meters in front of the rangefinder.
- Lasers may cause permanent damage to equipment. Avoid ranging objects within 50 meters of the rangefinder.
- Laser radiation can cause permanent damage to skin and eyes and can ignite flammable materials. Avoid exposing any items (except diffusers or absorbers) to laser beams. Do not place volatile or flammable substances (e.g., alcohol) in the laser operating area to prevent ignition by laser radiation or electrical sparks.
- Remove any objects in the laser operating area that may cause specular reflection. Even reflected or scattered laser light can be intense enough to damage eyes. If reflective objects must be used, take measures to control their reflective or scattering range.
- If disassembly or relocation is required, wait 5 minutes after the laser rangefinder has powered off to allow internal charge to dissipate and prevent electric shock.

- Never touch the rangefinder circuitry while in operation, especially the laser power section, which carries high voltage over a kilovolt.
- Do not plug or unplug cables while the device is powered on.

Table of Contents

Foreword	1
Important Safeguards and Warnings	2
1 Unboxing Inspection	6
2 Device Structure	7
2.1 Device Dimensions	7
2.2 Device Mounting Hole	8
2.3 Cable Description	8
3 Device Installation	10
3.1 Installation Preparation	10
3.2 Device Installation	11
4 Basic Configuration	14
4.1 Device Login	14
4.2 Modifying the Device IP Address	16
4.3 Changing Username and Password	16
4.4 Video Preview and PTZ Control	17
Appendix 1 Lightning and Surge Protection	20
Appendix 2 Troubleshooting Guide	21
Appendix 3 Installation Environment Precautions	22
Appendix 4 Pre-Installation Test Checklist	23
Appendix 5 Installation Precautions	24
Appendix 6 Safety Regulations	25
Appendix 6.1 Legal Statement	25
Appendix 6.2 Cybersecurity Recommendations	26
Appendix 7 Installing the Web Plugin	28
Appendix 8 Setting the Computer's IP Address	30

1 Unboxing Inspection

When unpacking the outer packaging, please check the device for any visible damage, such as the viewing window glass and the wiper. Also verify that the items received match the packing list. Please refer to Table 1-1 for the detailed list.



NOTE

To facilitate future maintenance, please keep all original accessories in good condition.

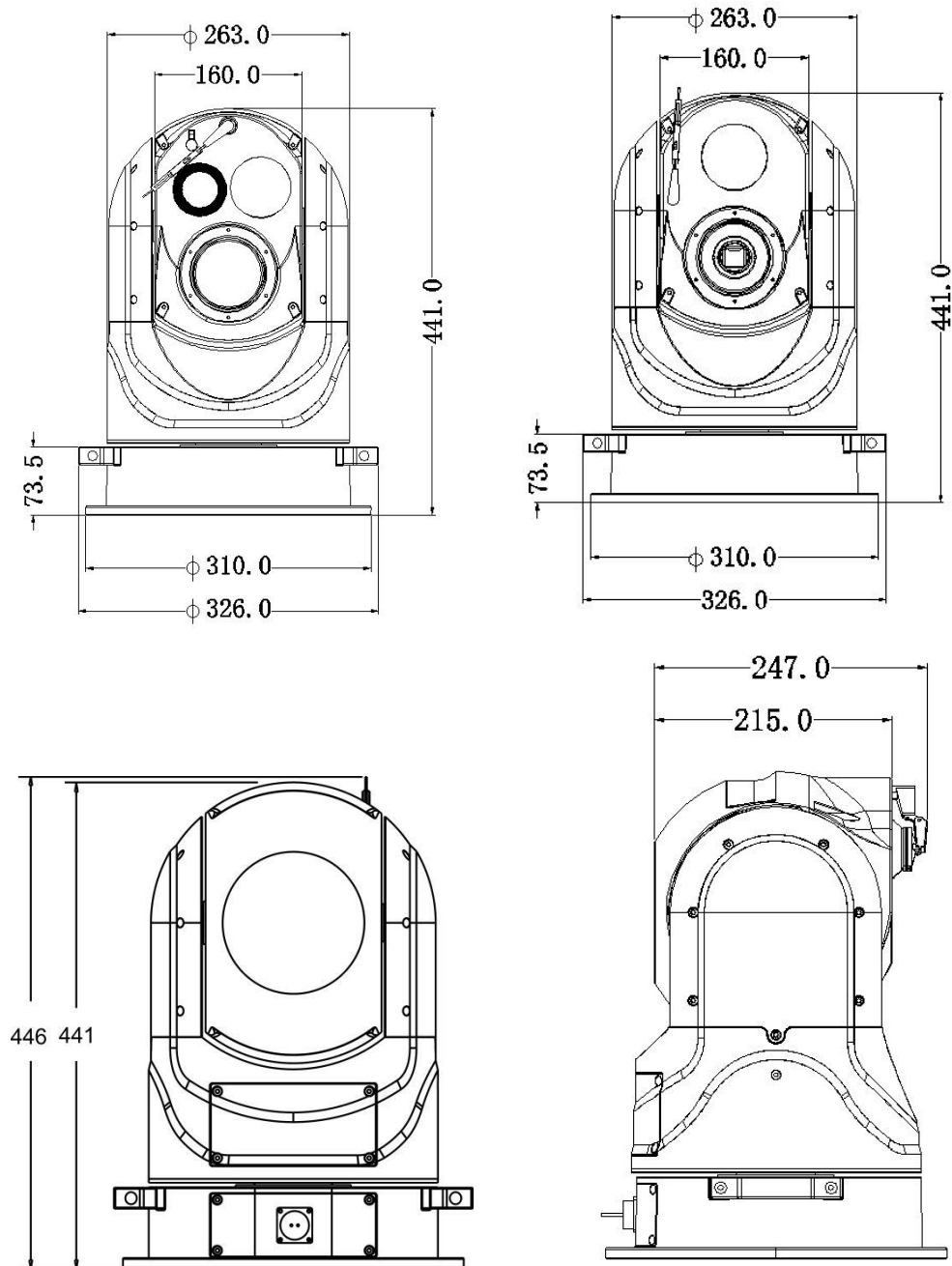
Accessories may vary depending on the model; please refer to the actual items received.

Table 1-1 List of Included Accessories

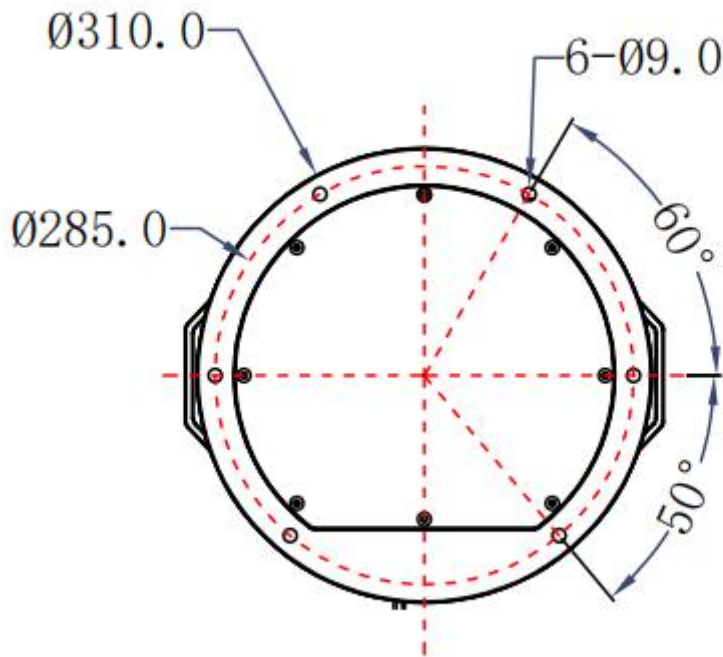
No.	Accessory Name	Specification	Quantity
1	SOAR977 PTZ	unit	1
2	Power Adapter / DC 24V / 5A (spec may vary by model)	pcs	1
3	Power Cord / Three-prong / Country-specific Standard	pcs	1
4	Power Cable / WY24K19TE / 10m	pcs	1
5	Allen Wrench / 3mm / CR-V	pcs	1
6	Allen Wrench / 6mm / CR-V	pcs	1
7	Screw / Stainless Steel / Hex Socket M8×25	pcs	6
8	Flat Washer / Stainless Steel / M8	pcs	6
9	Spring Washer / Stainless Steel / M8	pcs	6
10	Screw / Stainless Steel / Hex Socket M8×40	pcs	6
11	Nut / M8	pcs	6

2 Device Structure

2.1 Device Dimensions



2.2 Device Mounting Hole



2.3 Cable Description

The Device is equipped with an integrated aviation cable by default, including power cord, network cable, video cable, audio cable, alarm cable and RS-422 control cable.

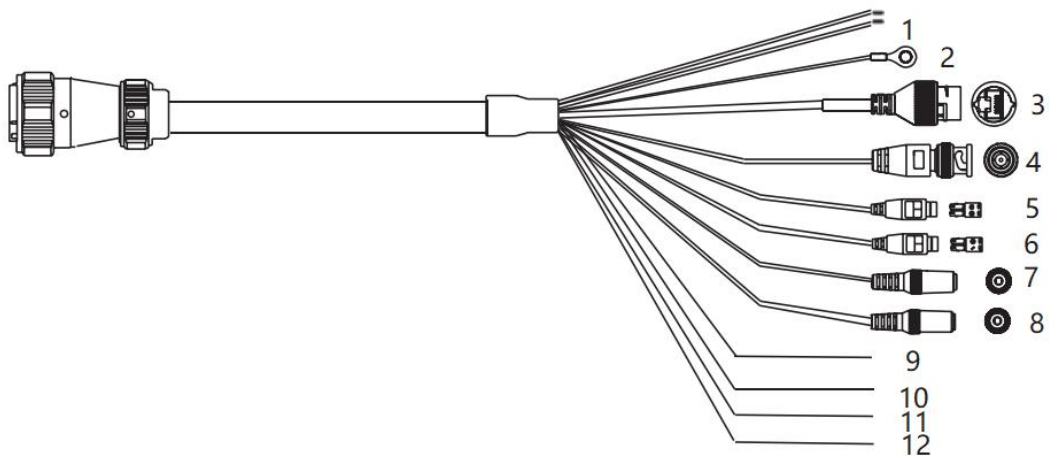


Table 2-1 Cable Description

No.	Interface	Function
1	Power Interface	PTZ unit power supply interface (typical DC24V/5A; actual voltage as marked on the side label of the PTZ unit; red =

		positive, black = negative)
2	GND	The GND (Ground) terminal is used to connect the device chassis to earth ground.
3	Network Interface	RJ45 Ethernet port, 10Base-T/100Base-TX
4	BNC Interface	CVBS analog video
5	ALARM_IN	Alarm input interface
6	ALARM__OUT	Alarm output interface
7	AUDIO_IN	Audio input interface
8	AUDIO__OUT	Audio output interface
9	A (Black wire)	422 T+
10	B (Orange wire)	422 T-
11	Y (Red wire)	422 R+
12	Z (Yellow wire)	422 R-



NOTE

Since some models are customized, the composition of the aviation power cable harness is subject to the final product. Please refer to the labels on the harness for the functional definitions of each wire.

3 Device Installation

3.1 Installation Preparation

3.1.1 Check Installation Space and Structural Strength

Ensure that the installation site provides sufficient space to accommodate the device and its mounting components. Please verify that the wall or bracket used to install the PTZ unit has adequate load-bearing capacity to support the total weight of the device and its mounting structure. By default, a safety factor of at least 8 times the total equipment weight is required.

3.1.2 Cable Preparation

- **Select the video cable depending on transmission distance.**

The device is equipped with a default DC 24V 5A power adapter.

If the user needs to extend the power cable, it is recommended to follow the specifications below:

Wire Diameter (mm)	Maximum Distance (meters)
1.25 (AW G 16)	35
1.63 (AW G 14)	60
2.00 (AW G 12)	90

- **Ethernet Cable Selection**

Copper-based Ethernet cable

◇ Type: Cat5e or higher standard, shielded (STP/FTP) to prevent electromagnetic interference.

◇ Jacket: Outdoor waterproof type (e.g., PE jacket) with lightning protection layer.

- **Signal Cable Selection**

For all signal lines (e.g., audio, alarm I/O, RS485), it is recommended to use cables with a minimum diameter of 0.56 mm (24 AWG) or above for extension.

- **Video Cable Selection**

◇ Impedance: 75 ohms

◇ Conductor: Pure copper core

◇ Shielding: 95% copper braid

Domestic Model	International Equivalent	Max Distance (ft/m)
RG59/U	RG59/U	750ft (229)
5C-2V	RG6/U	1,000ft (305)
7C-2V	RG11/U	1,500ft (457)

3.2 Device Installation

Given that installing and uninstalling the EO pan-tilt system is relatively difficult, it is essential to test the device before installation to ensure proper functionality. The main test items include power-on self-check, pan-tilt control, lens zoom and focus, as well as the setting and calling of presets. On-site installation should only proceed once all of these functions have been confirmed to work normally.



NOTE

The following conditions must be met during installation:

- The mounting holes on the installation platform must match those on the pan-tilt base of the device.
- It is recommended to mount the device on a platform that can bear a load of over 1 ton.
- The device should not be installed in environments subject to vibration or shaking.
- All mounting screws on the device must be securely tightened. Failure to do so may affect the pan-tilt's rotation accuracy, wind resistance, waterproof performance, and service life.
- At least three people are required for installation, and care should be taken to protect the lens during the process.
- Do not power on the device before it is securely fixed to the installation platform. Otherwise, the self-check process during startup may cause the pan-tilt to tip over, potentially damaging upper components, especially the lens.

3.2.1 Installation Height

To ensure a wide field of view and maximize the device's performance, it is recommended to install the system at a relatively elevated position — such as on poles several meters high, towers dozens of meters tall, or even rooftops of buildings nearly a hundred meters high. The exact installation height should be determined based on the actual environment and requirements.

To avoid strong backlighting during the day, it is recommended to place the camera on the south side of the monitored area in the Northern Hemisphere, and on the north side in the Southern Hemisphere during site surveying.



On a Pole

On a Tower

On a Building Rooftop

Figure 3-1: Installation Case

3.2.2 Installing the EO PTZ Camera

Place a spring washer and a flat washer onto each of the six M8×40 bolts in order. Align the mounting holes of the base with those of the pan-tilt unit, insert the bolts, and tighten the nuts to securely fix the electro-optical pan-tilt unit to the base.

As shown in the figure below:



CAUTION

- Requirements for Lifting Equipment:
 - ① Use safe lifting equipment that is suitable for the installation site and the mounting method of the intelligent PTZ camera.
 - ② The lifting equipment must have sufficient height to reach the installation position.
 - ③ The lifting equipment must have reliable safety performance.
- Avoid collisions when transporting or hoisting the pan-tilt unit.
- It is recommended to install the electro-optical pan-tilt in an upright position. Inverted installation may cause unforeseen issues.

3.2.3 Aviation Cable Connection

Do not forcefully plug or unplug the aviation cable when connecting it to the electro-optical pan-tilt, as this may damage the pins. Ensure a secure connection between the aviation cable and the device to prevent control failures. Do not hot-plug the aviation connector at the device end, as this may damage the equipment.

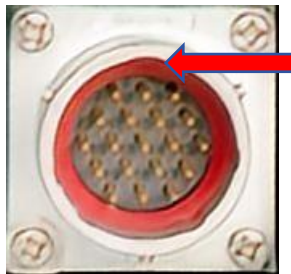


Figure 3-2: Device Aviation Connector

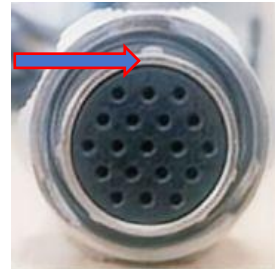


Figure 3-3: Power Cable Aviation Connector



① Align for insertion ② Twist the locking ring clockwise ③ Completed

 **CAUTION**

As shown in the diagram above, align the large protrusion on the cable connector with the large notch on the aviation socket, then insert the connector and twist the locking ring clockwise using your thumb and index finger to secure it.

3.2.4 Waterproof and Lightning Protection

- Ensure the tail cables face downward and pay special attention to waterproofing at the wiring points. Connect the corresponding power, video output, RS485 control, alarm input/output, and other interfaces on the aviation cable as needed. Then, use insulating tape to wrap each connection point to ensure waterproofing.
- Since the device is typically installed at a relatively high position and is made of a fully metallic structure, it is recommended to install a lightning rod near the pan-tilt unit. The equipment should be installed within the 45° protection range of the lightning rod. **For details, please refer to Appendix 1.**

4 Basic Configuration



NOTE

The web interface may vary slightly between different devices. The illustrations in this manual are for reference only; please refer to the actual interface.

Currently supported browsers include Chrome and Edge. The following instructions use Edge as an example.

4.1 Device Login



CAUTION

- The factory default IP address is: 192.168.1.10,
Subnet mask: 255.255.255.0,
Gateway: 192.168.1.1;
Username: admin, Default password: system123
- To ensure device security, please keep the admin password safe and update it regularly.
- You can only log in to the device when the device's IP address (default: 192.168.1.10) and the PC's IP address are on the same subnet. **For guidance on setting the PC IP, please refer to Appendix 8.**

4.1.1 Connection Between PC and Device

When performing basic configuration via a browser, the computer and the device can be connected in either of the following ways:

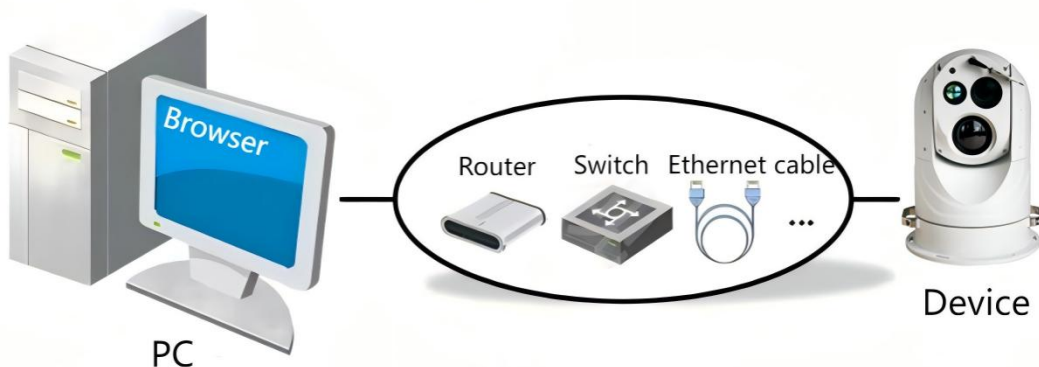
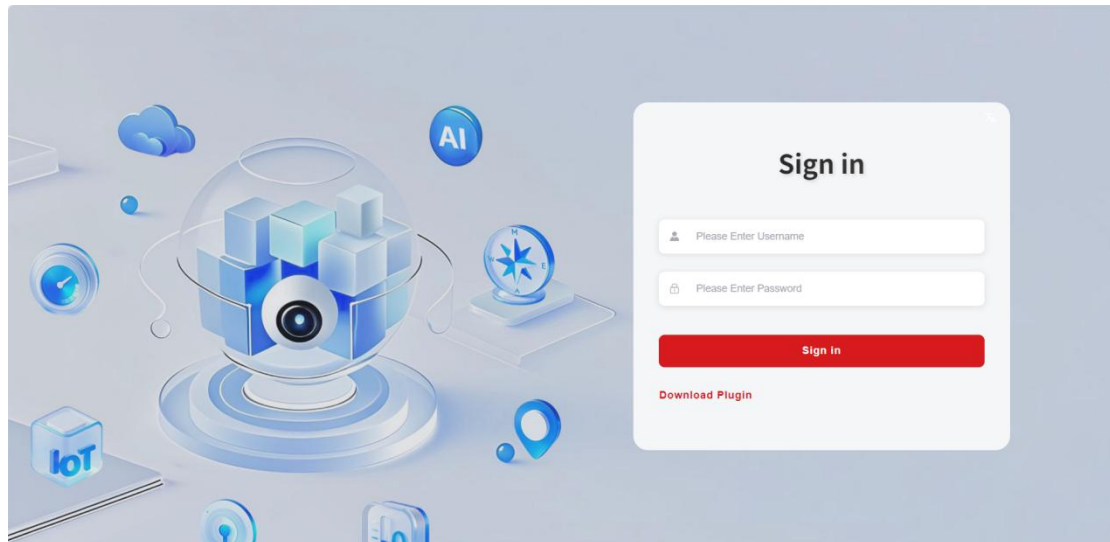


Figure 4-1: PC-to-Device Connection

4.1.2 Logging in via Edge Browser

Step 1: Open the Edge browser, enter the device's default IP address (192.168.1.10) in the address bar, and press Enter.



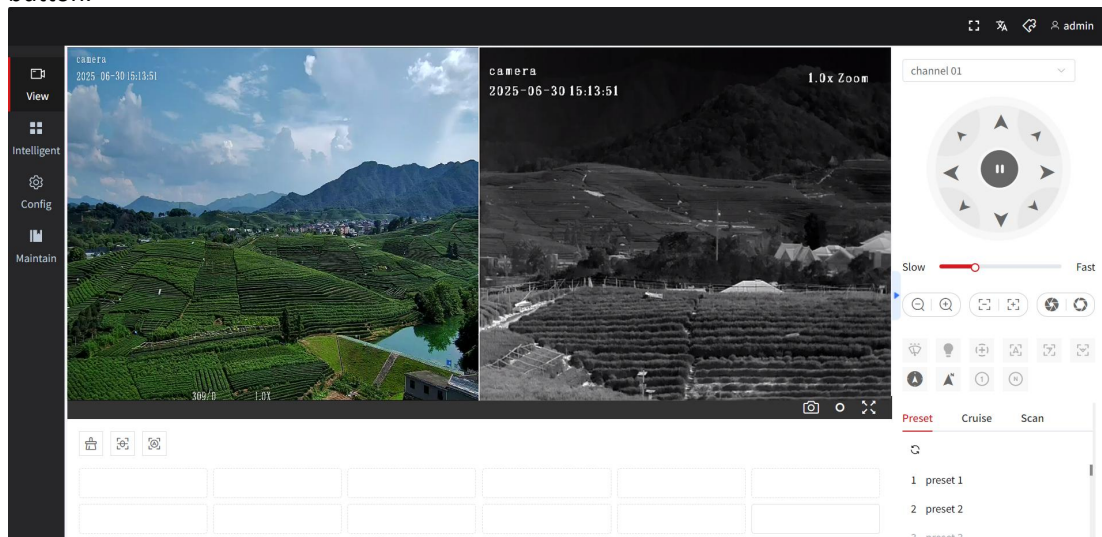
Device Login



NOTE

If this is your first time using the device, please download and install the required plugin from the login page. Otherwise, the device may not function properly. **For detailed instructions, please refer to Appendix 7.**

Step 2: Enter the username admin and the default password system123, then click the “Login” button.



Device Preview

4.2 Modifying the Device IP Address

To ensure the device connects smoothly to the network, please plan the IP address according to your actual network environment.

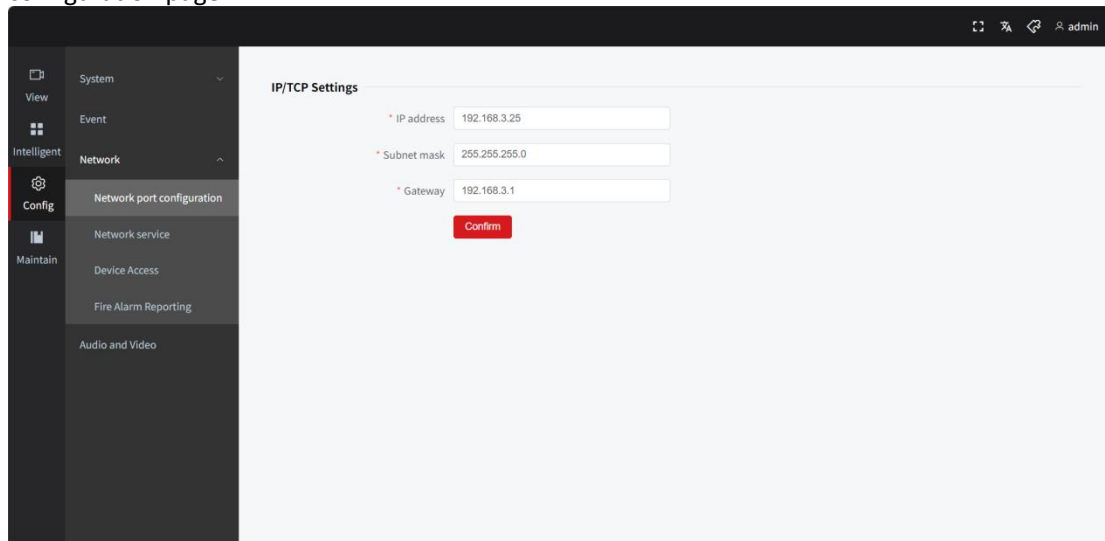
Step 1: Log in to the device's web interface



NOTE

Default factory settings: IP: 192.168.1.10 Username: admin Password: system123

Step 2: Go to Configuration > Network > Ethernet Configuration. The system will display the IP configuration page.



Step 3: Enter the required IP address settings and click “OK”.

4.3 Changing Username and Password

To ensure device security, please change the admin password promptly, keep it safe, and update it regularly.

Step 1: Log in to the device web interface.

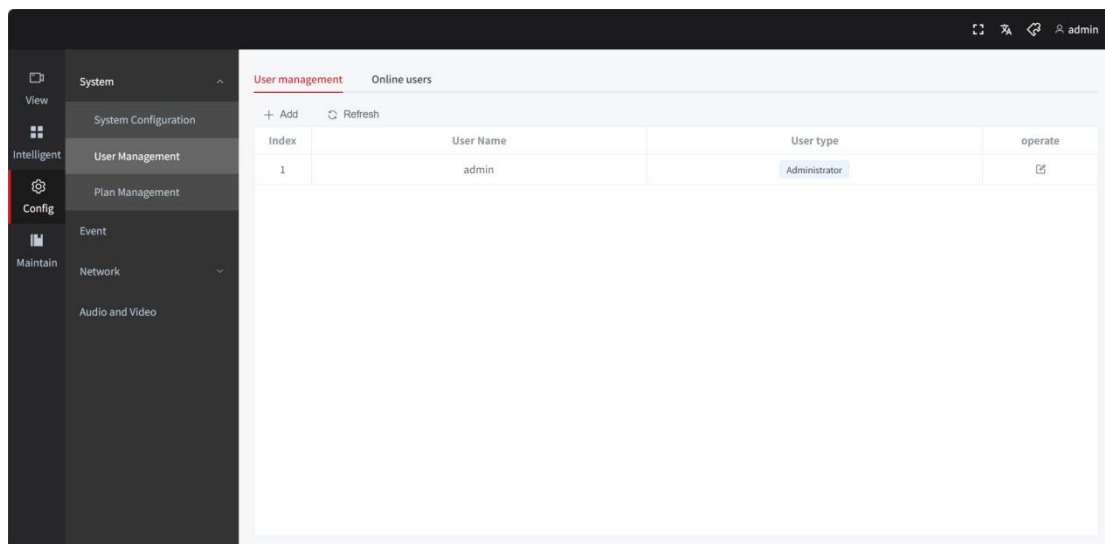


NOTE

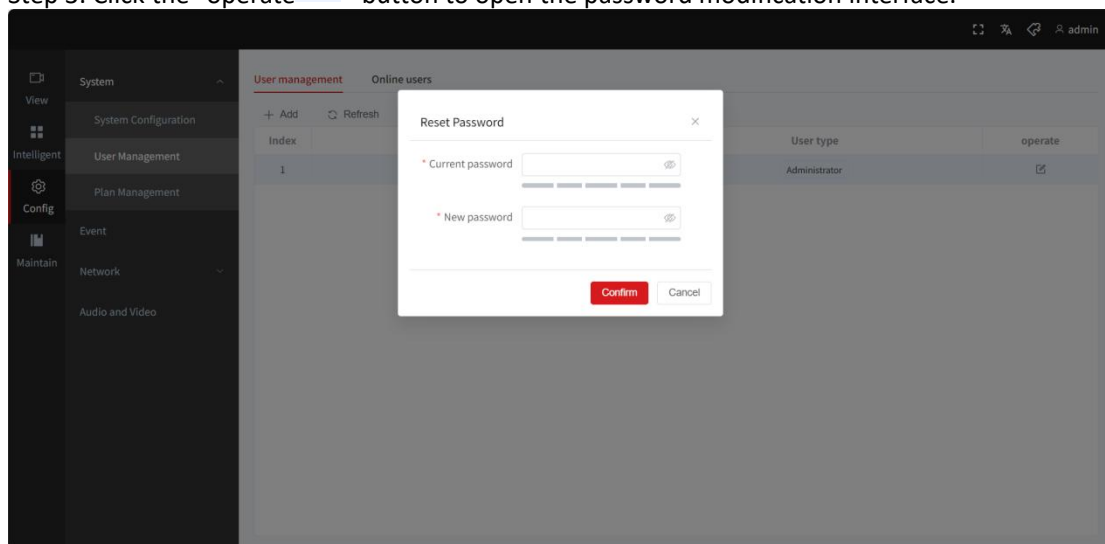
Factory default settings:

IP: 192.168.1.10 Username: admin Password: system123

Step 2: Navigate to Configuration > System > User Management > User Management. The system will display the user management interface.



Step 3: Click the “operate ” button to open the password modification interface.



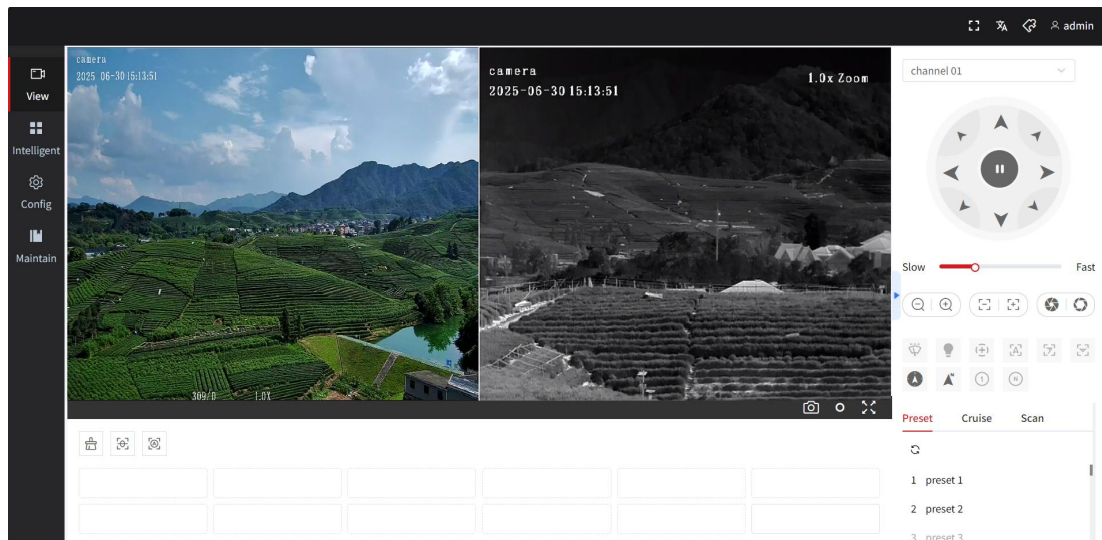
Step 4: Enter the original password and the new password, then click “Confirm”.

4.4 Video Preview and PTZ Control

4.4.1 Video Preview

Step 1: Log in to the device web interface.

Step 2: Click “Preview”, and the system will display the live video preview interface.

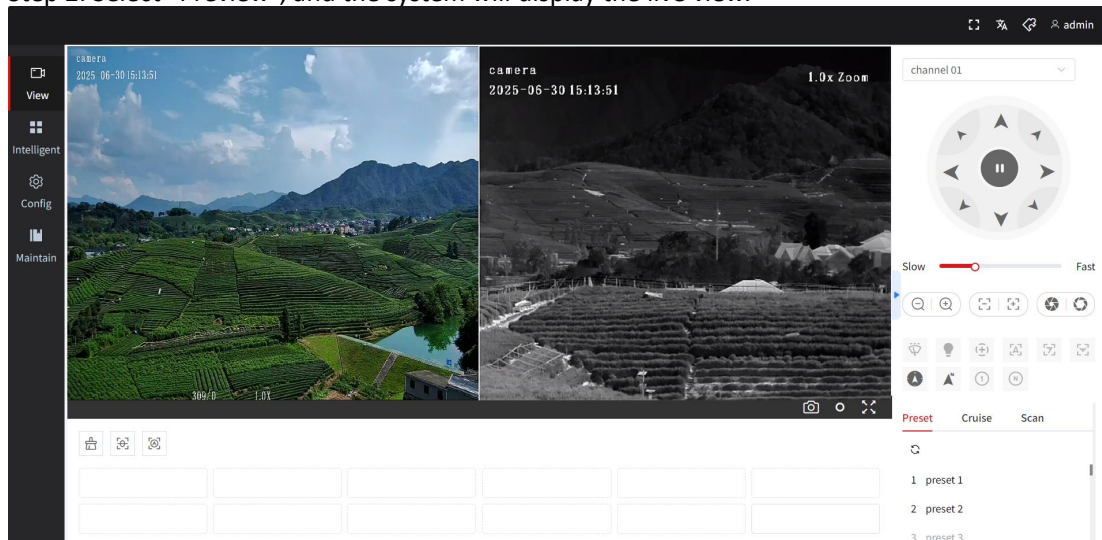


4.4.2 PTZ Control

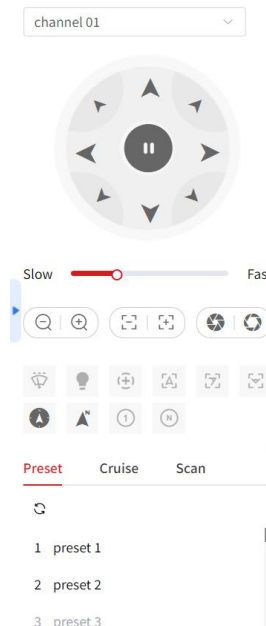
The EO PTZ camera supports pan, tilt, zoom, and focus control.

Step 1: Log in to the device web interface.

Step 2: Select “Preview”, and the system will display the live view.



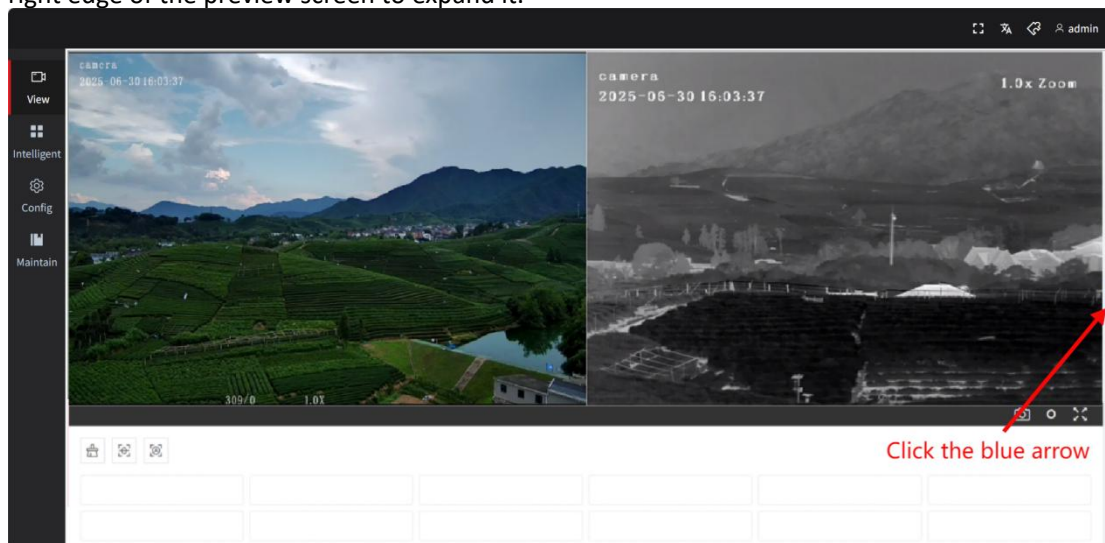
Step 3: The PTZ control panel will appear on the right side of the preview screen.



Step 4: Use the panel to control pan, tilt, zoom, and focus functions.

CAUTION

If the “PTZ control” panel is not visible on the right side, please click the blue arrow icon on the right edge of the preview screen to expand it.



Appendix 1 Lightning and Surge Protection

This product adopts TVS board-level surge protection technology, effectively preventing damage from transient induced surges below 6000V. However, for outdoor installations, necessary protective measures must be taken to ensure electrical safety based on actual site conditions.

- Signal transmission lines must be kept at least 50 meters away from high-voltage equipment or cables.
- Outdoor wiring should follow the eaves or similar protected paths whenever possible.
- In open areas, cabling must be buried in sealed steel conduits with equipotential grounding at both ends. Overhead cabling is strictly prohibited.
- For open areas, install 10kA surge protectors at the power and network input points. For AC to DC power adapters, a 10kA surge protector should be installed near the adapter's output.
- For devices installed on towers, if the device is close to a lightning rod, ensure an air gap of at least 3 meters between the device and the lightning tip, and that the device is within the lightning protection zone.
- In areas with frequent thunderstorms or high induced voltage (e.g., high-voltage substations), additional high-capacity lightning protection equipment and lightning rods must be installed.
- Lightning and grounding design for outdoor devices and wiring must be coordinated with building-level lightning protection requirements and comply with national and industry standards.
- The system must be connected to an equipotential ground. The grounding setup must meet both anti-interference and electrical safety requirements, and must not be connected to or share grounding with the neutral line of a power grid. For standalone grounding, impedance should not exceed 4Ω , and the grounding wire cross-sectional area should be no less than 25mm^2 .

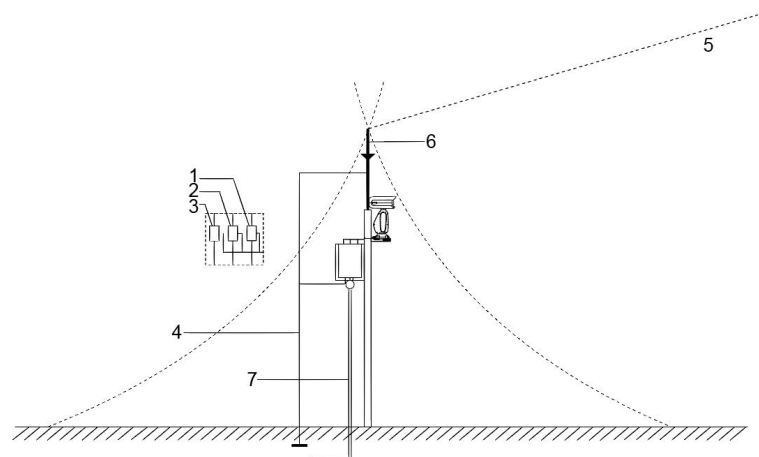


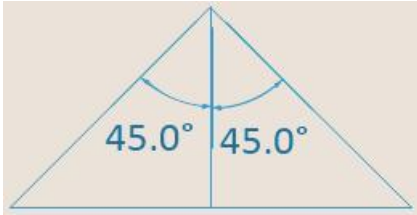
Figure A1-1: Lightning Protection Installation

Appendix 2 Troubleshooting Guide

Issue	Possible Cause	Solution
Self-check fails or produces noise	Insufficient power supply	Replace with a compliant power supply
	Mechanical fault	Requires inspection or repair
Image loss during high-speed rotation	Insufficient power supply	Replace with a compliant power supply
Unstable image	Loose connection	Reconnect wiring
Blurry image	Manual focus mode	Adjust focus through PTZ control
	Dirty glass	Clean the viewing window
PTZ rotates continuously and uncontrollably	Low voltage or insufficient power	Use a multimeter to check voltage and current; improve power supply as needed

Appendix 3 Installation Environment Precautions

The following precautions are provided to minimize post-installation maintenance caused by environmental factors.

No.	Item	Notes	Inspection Record
1	Installation Environment	Avoid strong electromagnetic interference sources such as TV towers or high-power radars (recommend installation at least 80 meters away or based on site conditions). Use shielded cables or run cables in steel conduits.	
2	Mounting Bracket	<ol style="list-style-type: none"> 1. Must support 8× the weight of the device and ensure secure installation. 2. Must be rust- and corrosion-resistant. 3. The base/support must be capable of bearing the device's load. 	
3	Lightning Rod	<p>Device should be within the 45° protection range of the lightning rod.</p> 	
4	Installation Space	Ensure enough space for full PTZ rotation and an unobstructed field of view.	
5	Network & Power	Confirm network and power are stable and operational before installation. If the device is not used for a long time, it should still remain powered on to maintain performance stability.	

Appendix 4 Pre-Installation Test Checklist

It is recommended to complete the following tests before transporting or installing the device on site.

No.	Item	Test Content	Inspection Record
1	Appearance	Check for physical damage (photos recommended). Check the wiper for proper contact with the glass (photos recommended).	
2	Self-Check	Confirm whether device performs a normal self-check.	
3	Video	Check whether live preview is functional.	
4	Zoom	Confirm zooming works properly.	
5	Focus	Confirm autofocus is accurate and manual focus is functional.	
6	PTZ Control	Test pan and tilt control.	
7	Preset Points	Set 3 presets, call them, and verify position accuracy.	

Appendix 5 Installation Precautions

The following table lists precautions to avoid problems caused during the installation process.

No.	Item	Note	Inspection Record
1	Transport & Hoisting	Avoid any collisions or impacts.	
2	Aviation Connector	Do not hot-plug. Ensure all connections are firm and reliable.	
3	Power & Network Cables	Connect polarities correctly; insulate and waterproof connections. When installed at height, secure all cables to prevent long-term swinging and poor contact.	
4	Cable Length & Gauge	Select cable gauge based on power distance requirements.	
5	Power Supply	Distinguish between AC input and DC output of the adapter. Do not reverse DC polarity. Each device must be connected to a dedicated power supply. Do not daisy-chain power supplies.	

Appendix 6 Safety Regulations

Appendix 6.1 Legal Statement

Trademark Statement

- VGA is a trademark of IBM.
- Windows logo and Windows are trademarks or registered trademarks of Microsoft Corporation.
- Other trademarks or company names mentioned in this document are owned by their respective holders.

Disclaimer

- To the extent permitted by applicable law, our company shall not be liable for any special, incidental, indirect, or consequential damages arising from the content of this document or the described products, including but not limited to loss of profit, data, goodwill, documents, or anticipated savings.
- The products described in this document are provided “as is.” Unless required by applicable law, our company makes no express or implied warranties regarding the content of this document, including but not limited to merchantability, satisfactory quality, fitness for a particular purpose, or non-infringement of third-party rights.

Privacy Protection Notice

- When using our products, you may collect personal information such as facial data, fingerprints, license plate numbers, emails, phone numbers, and GPS locations. You must comply with local or national privacy laws and regulations and protect the legitimate rights of others. For example, you should provide clear and visible signage to inform relevant individuals of surveillance areas and provide contact information.

About This Document

- This document applies to multiple product models. Please refer to the actual product for appearance and functionality.
- Any loss resulting from failure to follow the instructions in this document shall be borne by the user.
- The content of this document will be updated in accordance with local laws and regulations. Please refer to the printed manual, CD, QR code, or official website for updates. In case of discrepancies between printed and electronic versions, the electronic version shall prevail.
- Our company reserves the right to modify any information in this document at any time. Revisions will be included in new versions without prior notice.
- This document may contain technical inaccuracies, functional discrepancies, or typographical errors. The final interpretation belongs to the company.
- If the PDF document cannot be opened, please use the latest or most widely used reader.

Appendix 6.2 Cybersecurity Recommendations

Essential Measures to Ensure Basic Network Security

1. Use Complex Passwords

Passwords should meet the following criteria

- At least 8 characters in length.
- Include at least two character types (uppercase/lowercase letters, numbers, symbols).
- Should not contain the account name or its reverse.
- Avoid sequences (e.g., 123, abc).
- Avoid repeated characters (e.g., 111, aaa).

2. Update Firmware and Client Software Promptly

- Update device firmware to the latest version per industry best practices to ensure functionality and security. If the device is connected to the internet, enable auto-check for updates.
- Use the latest version of the client software.

Recommended Measures to Enhance Network Security

1. Physical Protection

Physically secure devices (especially storage devices), ideally in a server room or cabinet with access control to prevent unauthorized hardware tampering or USB/serial connections.

2. Regularly Change Passwords

Change passwords periodically to reduce the risk of being guessed or cracked.

3. Set and Update Password Recovery Information Promptly

Configure recovery options (reserved mobile/email, security questions). Avoid using easily guessed answers.

4. Enable Account Lockout

Keep the default account lockout function enabled. This locks accounts and source IPs after multiple failed login attempts.

5. Change Default HTTP and Other Service Ports

Modify default service ports to a range between 1024 and 65535 to reduce port scanning risks.

6. Enable HTTPS

Use HTTPS for secure access to web services.

7. Enable IP Whitelist

Restrict device access to specific IP addresses. Ensure that your PC and other device IPs are added to the whitelist.

8. MAC Address Binding

Bind the gateway's IP and MAC address to reduce the risk of ARP spoofing.

9. Proper Account and Permission Allocation

Create accounts as needed and assign the minimum necessary permissions.

10. Disable Unnecessary Services; Use Secure Modes

- Disable features such as SNMP, SMTP, UPnP if not needed.
- Use secure versions of services when required:
 - ✧ SNMP: Use SNMP v3 with strong encryption/authentication.
 - ✧ SMTP: Use TLS.
 - ✧ FTP: Use SFTP with strong passwords.
 - ✧ AP Hotspot: Use WPA2-PSK with a strong password.

11. Encrypted Audio & Video Transmission

If your data includes sensitive content, enable encryption for A/V transmission.

12. Use PoE for Device Connection

If supported, connect devices via PoE to isolate them from other network equipment.

13. Security Auditing

- Regularly check online users for suspicious activity.
- Review device logs for login attempts and key operations.

14. Network Log Backup

Since local storage is limited, enable remote log backup to ensure key logs are retained.

15. Establish a Secure Network Environment

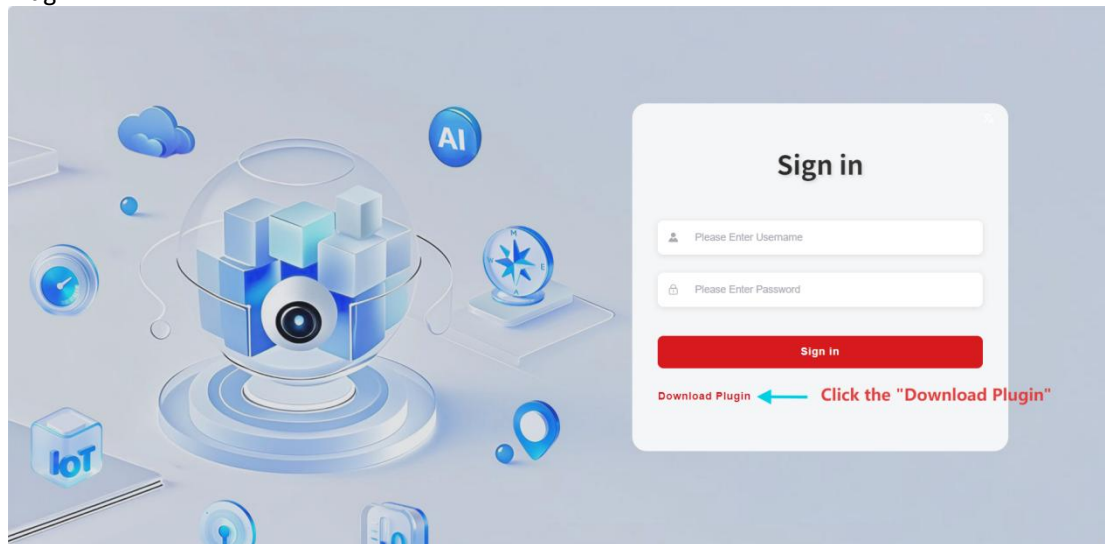
To better ensure the security of your devices and reduce network security risks, we recommend the following:

- Disable router port forwarding to prevent external access.
- Use network segmentation (e.g., VLAN, firewalls) if different subnets don't need to communicate.
- Use 802.1x for access control.
- Enable device firewall or whitelist/blacklist functions.

Appendix 7 Installing the Web Plugin

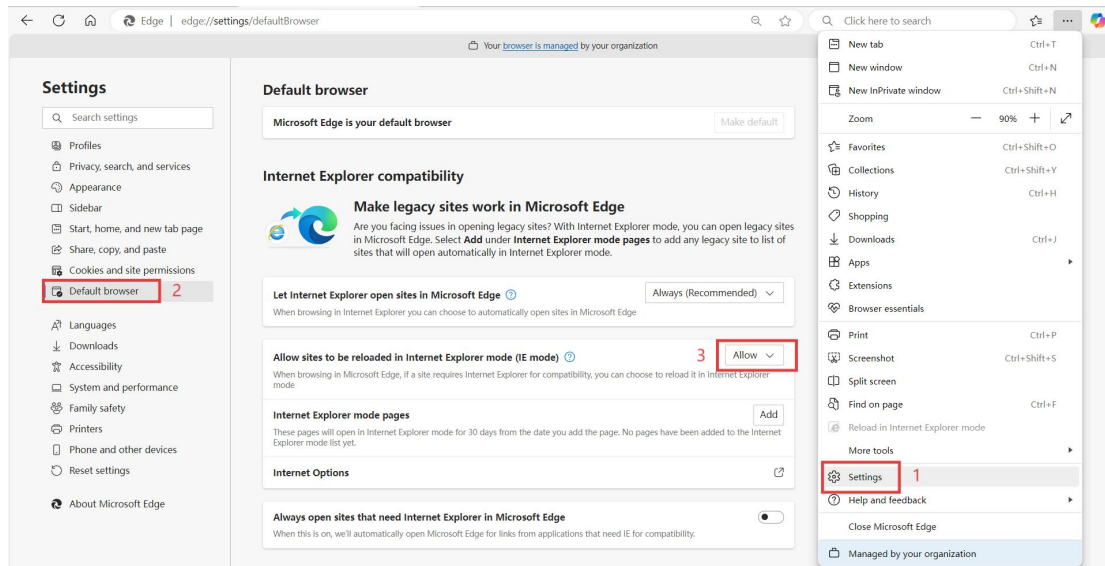
If this is your first time using the device, please download and install the web plugin; otherwise, the device may not function properly.

Step 1: Open the Edge browser, enter the IP address of the PTZ camera, and select “Download Plugin”.

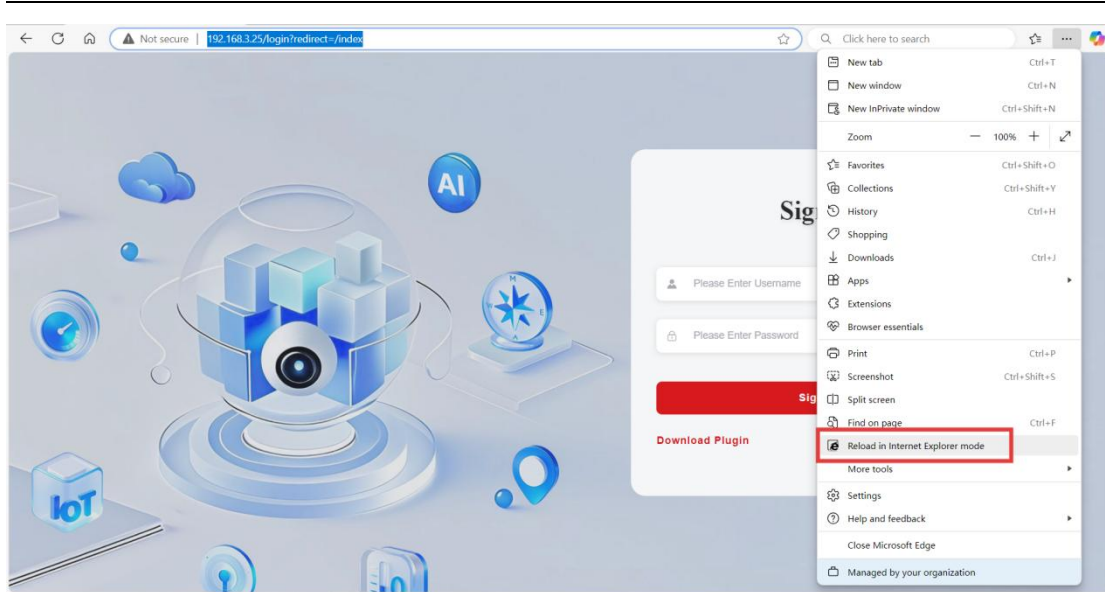


Step 2: After the download is complete, close the browser and run the plugin installer. The installation interface will close automatically once completed.

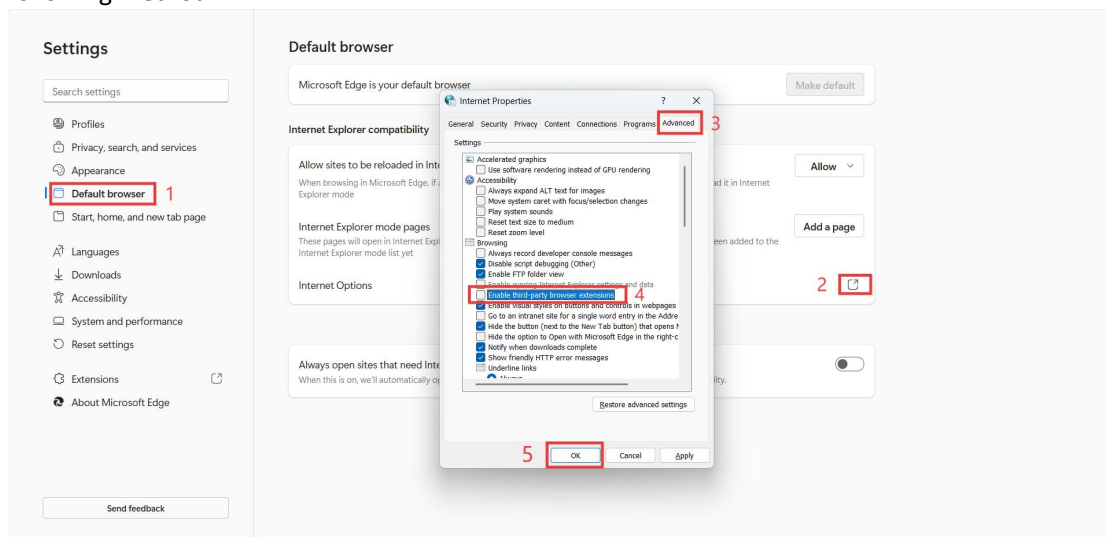
Step 3: Open Edge settings, and in the default browser section, change “Allow sites to be reloaded in Internet Explorer mode (IE mode)” to “Allow”.



Step 4: In Edge settings, select the option to reload pages in IE mode.




Step 5: On some Windows computers, Edge may not support IE mode, or launching the system's Internet Explorer may automatically redirect to Edge. You can disable this redirection using the following method:

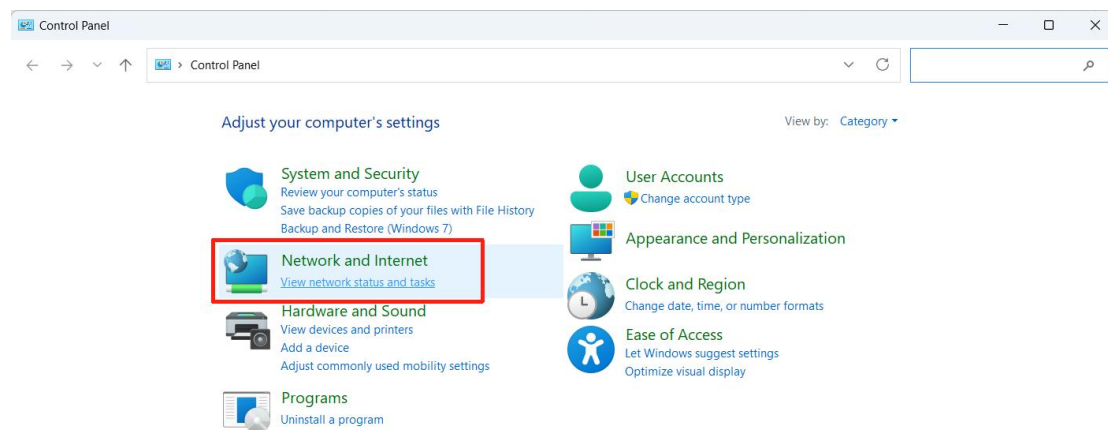


Appendix 8 Setting the Computer's IP Address

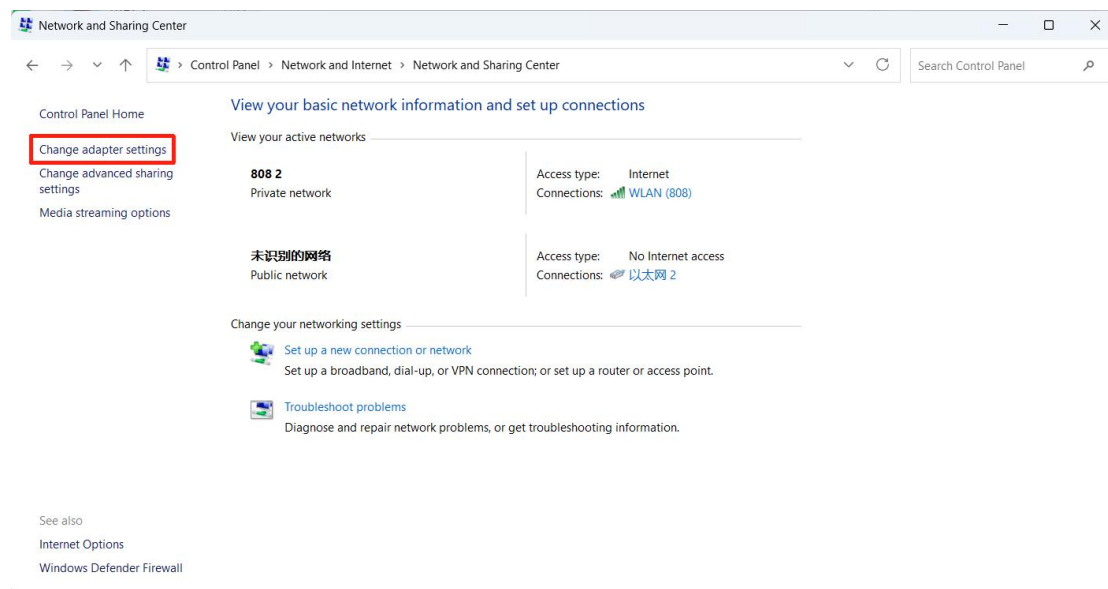
Set your computer's IP address in the same subnet as the device (default device IP: 192.168.1.10, subnet mask: 255.255.255.0, gateway: 192.168.1.1). The steps below are based on Windows 11:

Step 1: In the search box next to Start  on the taskbar, type control panel. Select Control Panel from the list of results.

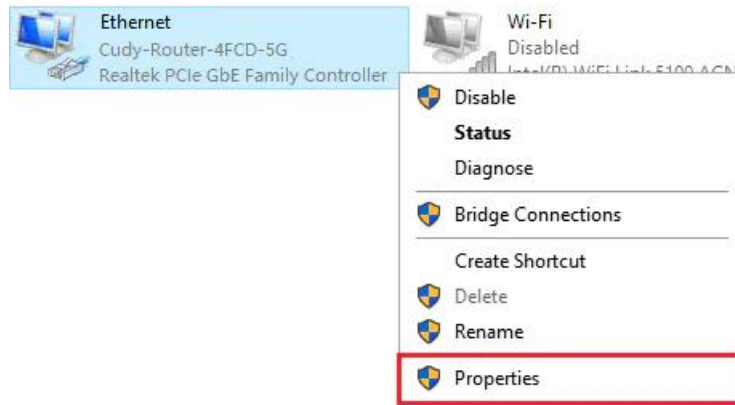
Step 2: Click on Network and Internet -> Network and Sharing Center



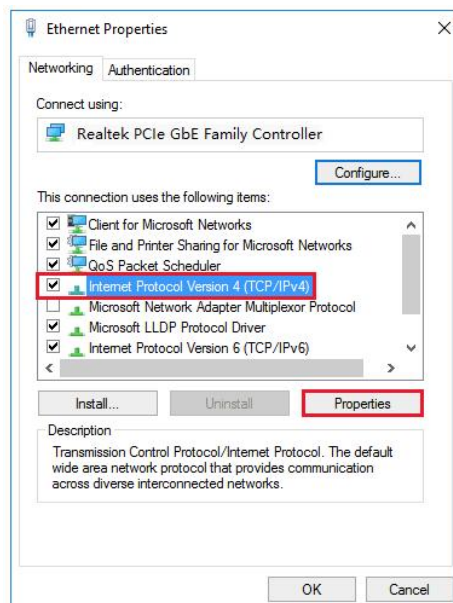
Step 3: Click on “Change adapter settings” on the left side.



Step 4: Highlight and right-click on “Ethernet”, go to “Properties”.

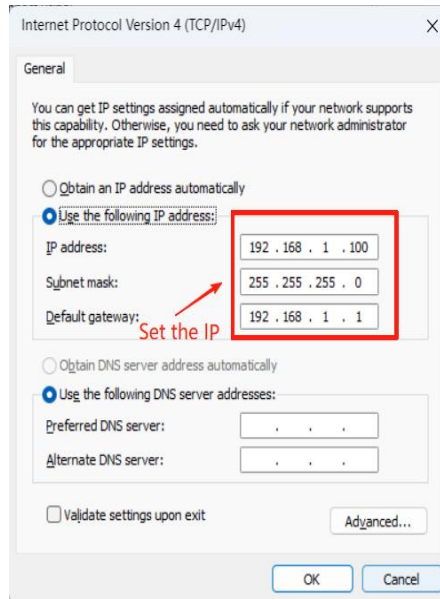


Step 5: Select “Internet Protocol Version 4 (TCP/IPv4)” and click “Properties”.

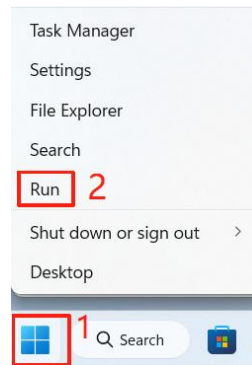


Step 6: In the pop-up dialog box, configure the computer’s IP address.

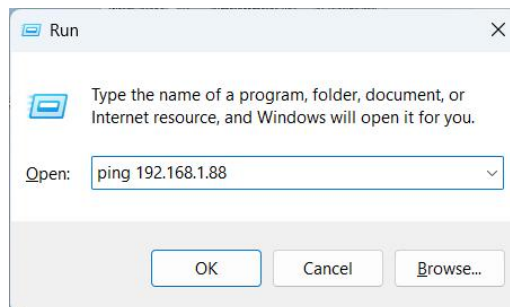
- If the device’s DHCP function is enabled, you may choose to obtain an IP address automatically, or manually configure an address in the same subnet as the device (default: 192.168.1.10).
- If DHCP is disabled, you must manually assign a computer IP address in the same subnet as the device. After entering the IP settings, click “OK” to return to the “Ethernet Properties” window, then click “OK” again.



Step 7: Right-click the Windows icon, select “Run” to open the Run dialog.



Step 8: In the Run dialog, enter the device’s default IP: 192.168.1.10, and click “OK”.



Step 9: If a response is returned from the device, it indicates a successful network connection. If not, please check the network cable or configuration.

