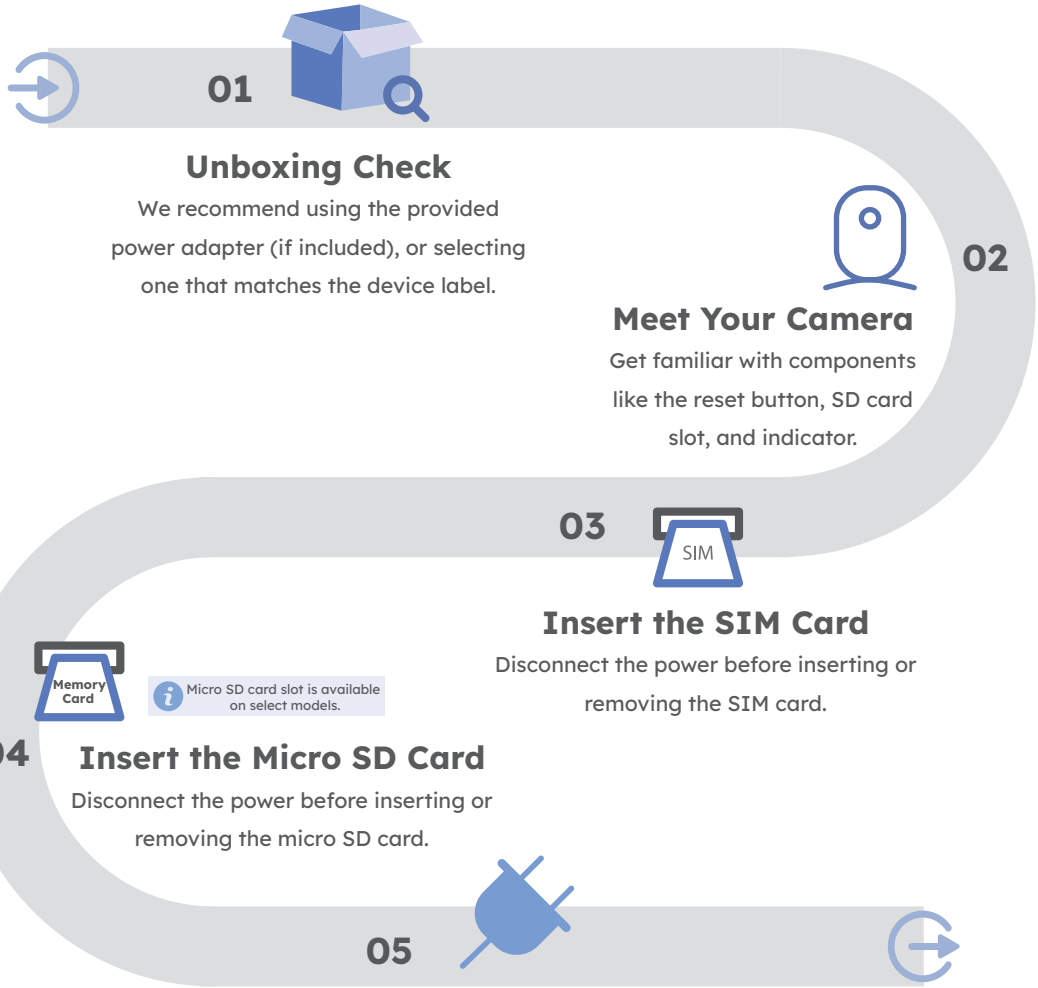
Network Camera

User Manual

Start Here

Follow the diagram below to complete unboxing, inserting the card, powering on, and other operations. For details, see the Quick Start Guide.



Set up Your Camera

Get the DMSS App

Scan the QR code to download the DMSS app, and then create a DMSS account.

QR code

Add Camera to DMSS

Prerequisites

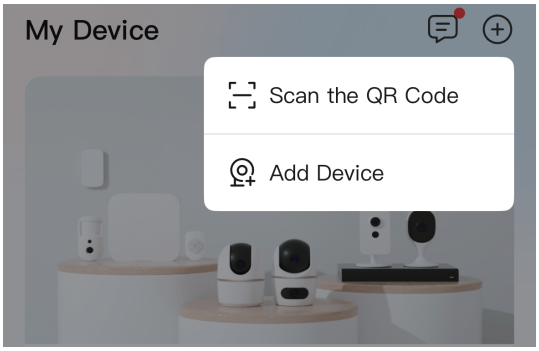
Make sure that the SIM card has been inserted and the LED is solid green.

Procedure

Step 1 Log in to the DMSS app, tap ⊕ to select **Scan the QR Code**, and then scan the device QR code.

CAUTION

Do not scan the IMEI code.

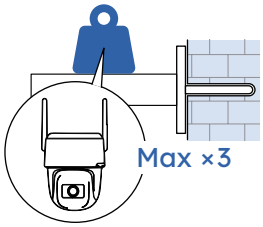


Add camera

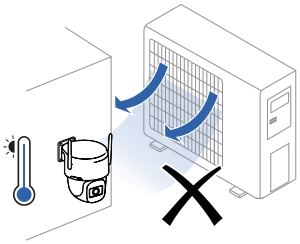
Step 2 Set the device information.
Tap **Modify** and follow the instructions to change the device password.

Find a Good Mounting Spot

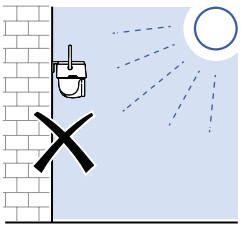
Product appearance is for reference only. The actual product might vary.



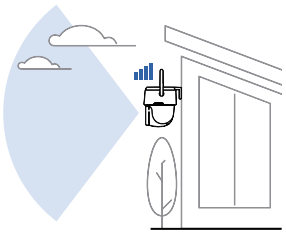
Make sure that the mounting surface is strong enough to hold at least 3 times the weight of the device and bracket.



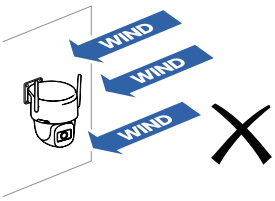
Do not place the device near vents, such as air conditioner vents or projector cooling vents.



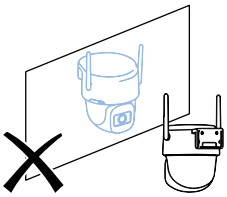
Do not aim the device at strong light sources, such as lamplight or sunlight.



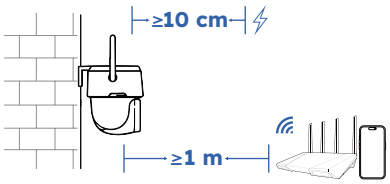
Position the device in a location with a clear field of view and a strong wireless signal.



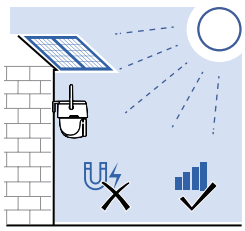
Do not place the device in a windy area.



Do not place the device in front of a mirror.



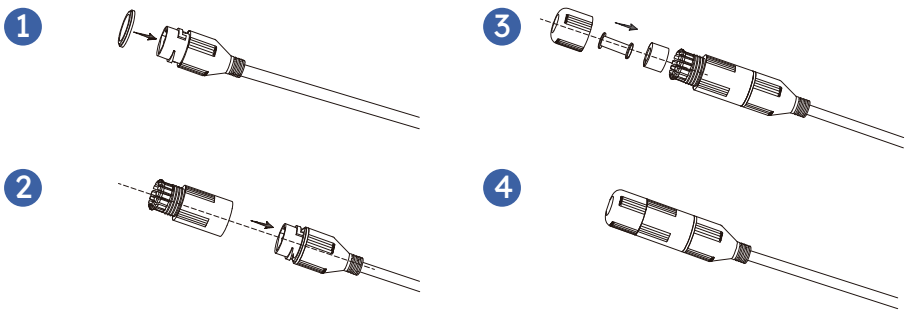
- Keep the 4G device at least one meter away from wireless devices such as Wi-Fi routers and phones.
- Maintain the antenna at least 10 cm away from metal, walls, and other conductive objects, and keep it as far as possible from large metal plates to reduce wireless interference.



Device with solar panels: Install the solar panels in areas with year-round ample sunlight, minimal surrounding obstructions, low electromagnetic interference, and strong signal strength.

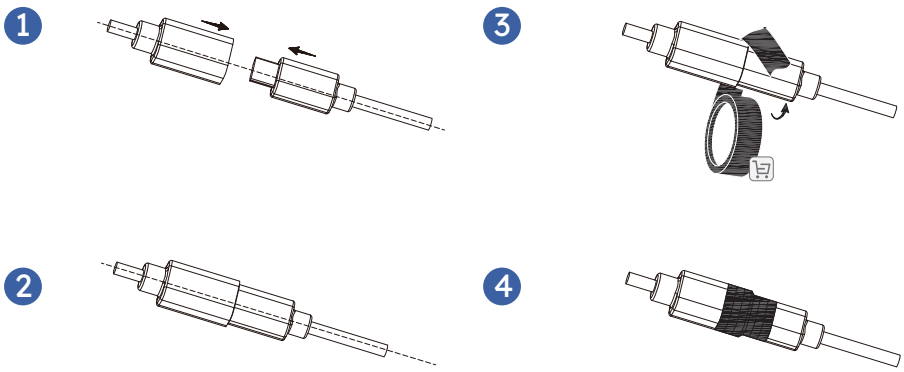
Waterproof the Network Cable

This section is only necessary if a waterproof connector is included in your package, and the device is installed outdoors.



Waterproof the network cable

Waterproof the Power Cord

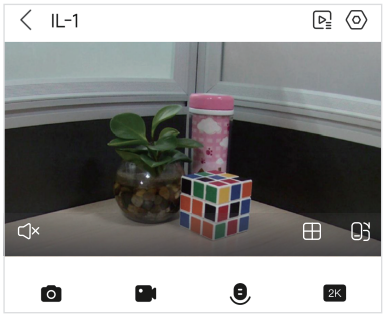


Waterproof the power cord

Preview

Preview Icons

You can view the live video of the channels and perform operations such as taking snapshots, recording videos, and adding channels to favorites.

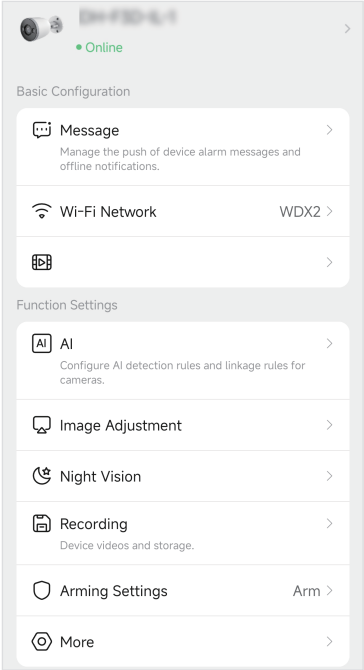


Preview

Table Description of preview function icons

Icon	Description
	Select the channels that you want to view the live video.
	Go to the device details screen, and then set your device.
	Take a snapshot.
	Switch the video stream to adjust video quality.
	Two-way audio. Talk to a person through the device.
	Record a video.
	Show more icons.
	Set the preset and tour, and the camera repeats performing tours among the presets.
	Calibrate the pan and tilt to its original position.
	Enable the warning light.
	Active deterrence with siren. For some devices, active deterrence includes siren and light alerts simultaneously. CAUTION The siren emits a high-decibel sound which can be startling.
	For multi-channel devices, you can play the live video of a single channel or multiple channels simultaneously.
	You can tap any spot in the preview from the fixed lens, allowing the PT lens to instantly rotate and focus on your selected area, delivering a clear close-up view of the target.

System Settings



System settings

Table Description of system settings

Function	Description
Message	Receive alarm messages from your device.
SIM Card Info	View the information of SIM card.
Battery Management	Set the working mode of the device based on the scene.
AI	Set AI rules and linkage rules for the device.
Image Adjustment	Adjust settings for the live view image such as focus, zoom, brightness, contrast, and image quality.
Night Vision	Select the illumination mode of the device, including smart illumination, white light illumination, and IR illumination. You can also turn off the illumination.
Recording	View the storage information, or format the storage. CAUTION Format will clear all the files in the storage, please be advised.
Disable Alarm Linkage	Disable the function of alarm linkage.

Function	Description
Time Zone	When your region has Daylight Saving Time (DST), you can select the time zone and set DST.
Audio Collection	You can record video with audio.
Microphone Volume	Adjust the microphone volume of the device.
Speaker Volume	Adjust the speaker volume of the device.
LED Indicator	Turn on the indicator of the device.
RTSP Over TLS	RTSP over TLS provides secure and private protection for real-time streaming, enhancing its overall security.
Video Frame Rate	Choose between PAL and NTSC based on the local video standard.
Wi-Fi Network	Select an available Wi-Fi network in the area, and then enter the network password to connect to the network.
	You can flip the image or record video with audio.

FAQ

Charging Problems

Q: The device only powers on with USB charging, and it cannot be turned on with solar charging

If USB power is turned off, you need to toggle the on/off switch inside the device cover to the **on** position for it to work.

Q: How to verify if the device is charging properly

1. Ensure that the device is upgraded to the latest version.
2. After the upgrade, the live view will display overlay information about the battery status. You can determine the charging condition by observing the displayed current value.

Q: Slow USB charging or unable to charge the device

- Use a standard or compliant USB cable for power supply, and monitor the real-time current through the webpage or DMSS. If the real-time current is positive, it indicates that the power-related components are functioning normally.
- The current level can be affected by power source, so we recommend you use a mobile phone adapter for power supply.
- When the battery is depleted, the charging current will be in a low current, and it might take a relatively long time to see a significant increase in charge. You can assess the charging status by checking the real-time current.

Q: The solar panel cannot charge

1 When the sun is at its peak, usually around noon, place the device in direct sunlight and adjust the angle of the solar panel to be as close to vertical as possible to the sun.

For the orientation of the panels: In the Northern Hemisphere, face the device to true south; In the Southern Hemisphere, face the device to true north.

2 At this time, monitor the real-time current value. If the real-time current is positive, it indicates that the solar-powered components are functioning normally.

3 At this point, leave the device online via 4G, connect it to the DMSS, and let it stay in sleep mode for a few hours.

4 Then, wake it up and check if the battery percentage has increased, which can indicate whether it is charging properly.

Connectivity Problems

Q: What type of SIM card to choose

The SIM card size is Micro SIM or Nano SIM. In high-temperature areas, we recommend you use M2M SIM cards, as retail SIM cards might deform or get damaged in high heat.

Q: The 4G connection doesn't work after you insert the SIM card

- Some SIM cards require a PIN unlock to be used.
- For devices that support the webpage, check whether the card's APN and other settings have been configured correctly.
- Confirm with your operator whether the device's IMEI needs to be registered.

Q: The SIM card cannot be used after you switch devices

Check with your operator to confirm whether the SIM card is tied to the device's IMEI (For example, whether there is a device-SIM binding). If so, unbind it.

Setup Troubleshooting

Q: The device cannot bind with the DMSS app

1. Check if the device has powered on successfully. If not, we recommend you troubleshoot the power supply or consider repair.
   - For pan and tilt devices: The self-test upon powering on indicates the device is on.
   - For other devices: The illuminated power indicator indicates the device is on.
2. Check if the indicator light is slowly blinking green. If not, the device is not in network configuration. We recommend you press and hold the reset button to restore factory settings and go through the network configuration process again.

Storage and Recording

Q: Does the device support offline recording

Yes, but after a power outage or reboot, the offline recording function will not work properly. A power outage will reset the device's time to the year 2000, and recordings will be stored with that timestamp. Most devices cannot automatically calibrate the time, so we recommend you connect to the NVR or platform for time synchronization.

Q: No audio is captured in videos when the device is connected to other platforms (other than DMSS)

The audio is disabled by default. When the device connects to the NVR or platform, you need to enable the audio first:

- For devices not supporting the webpage, you can enable the audio using DMSS or ConfigTool.
- For devices supporting the webpage, you can enable it on the device's webpage, DMSS or ConfigTool.

Important Safeguards and Warnings

This section introduces content covering the proper handling of the device, hazard prevention, and prevention of property damage. Read carefully before using the device, comply with the guidelines when using it.

Electrical Requirements

⚠ DANGER

- Make sure that the power is off when you connect the cables, install or disassemble the device.
- Do not connect multiple devices to the same power adapter to avoid the risk of overheating or fire if the rated load is exceeded. Please use the power adapter provided by the manufacturer.

⚠ WARNING

- Strictly comply with the local electrical safety code and standards. Make sure that the ambient voltage is stable and meets the power supply requirements of the device.
- The power supply must meet the rated voltage requirements as indicated on the device label.
- If the device uses a power adapter, ensure it meets the following requirements:
  - If a power adapter was shipped with your device, we recommend you use it. If you need to buy a separate adapter, make sure it meets the following requirements.
    - The power supply must conform to the requirements of IEC 60950-1 and IEC 62368-1 standards.
    - The voltage must meet the SELV (Safety Extra Low Voltage) requirements and not exceed ES-1 standards.
    - When the power of the device does not exceed 100 W, the power supply must meet LPS requirements and be no higher than PS2.
  - Do not connect the power adapter to the device while the adapter is powered on.
- Do not connect the device to two or more kinds of power supplies, unless otherwise specified, to avoid damage to the device.
- Protect the line cord and wires from being walked on or squeezed particularly at plugs, power sockets, and the point where they exit from the device.

! CAUTION

An emergency disconnect device must be installed during installation and wiring at a readily accessible location for emergency power cut-off.

Installation Requirements

⚠ DANGER

Buckle the safety hook before installing the device if it is included.

ⓘ CAUTION

- We recommend that installation be performed by qualified professionals.
- When installing the device, make sure that the converter is installed inside the bracket.
- To avoid damage, keep the device away from televisions, radio transmitters, electromagnetic devices, electric machines, transformers, and speakers. Do not install it in places with smoke or vapor, high temperature, and lots of dust. Do not install the device near a heating furnace and other heat sources, such as a spotlight, kitchen, and boiler room.
- We recommend you use the device with a lightning protection device for stronger protection against lightning. For outdoor scenarios, strictly comply with the lightning protection regulations.
- Do not install the device in an environment that shares common ground with a switch or NVR to avoid interference from electrical signals, which affect the negotiation of the terminal. If the device must share common ground, use insulation material to separate the device from the common ground such as expansion bolts.
-  Reliably ground the grounding terminal of the device to improve safety. The grounding terminal differs depending on the device, and some devices do not have grounding terminals. Process the situation according to the device model.

Maintenance Requirements

ⓘ CAUTION

- Strictly follow the instructions to disassemble the device. Non-professionals dismantling the device can result in it leaking water or producing poor quality images. For a device that is required to be disassembled before use, make sure the seal ring is flat and in the seal groove when putting the cover back on.
- When you find condensed water forming on the lens or the desiccant changes color after you disassemble the device, contact after-sales service to replace the desiccant. Desiccants might not be provided depending on the model.
- Use the accessories suggested by the manufacturer. We recommend that maintenance be performed by qualified professionals.
- Clean the device body with a soft dry cloth. If there are any stubborn stains, clean them away with a soft cloth dipped in a neutral detergent, and then wipe the surface dry. Do not use volatile solvents such as ethyl alcohol, gasoline, benzene, diluent, or abrasive detergents on the device. Also, avoid prolonged contact between plastic and rubber materials and the device housing, as these may damage the coating and degrade the performance of the device.
- Pack the device with packaging provided by its manufacturer or packaging of the same quality. The warranty does not cover damage resulting from inadequate packaging.
- We are not liable for any problems caused by the incorrect use of the device.
- We are not liable for any problems caused by overuse of certain components.

Operation Requirements

⚠ WARNING

- Make sure there are no foreign metal objects or flammables in the device. Foreign objects inside the device might cause fire, short-circuits and damage to the device.
- Do not allow any liquid to enter the device, and avoid exposure to rain or sea water to prevent damage to internal components. Power off the device and disconnect the power cord immediately if water or other liquids flow into it, and contact after-sales service. Devices with an enclosure protection rating lower than IP66 might pose a risk of fire or electric shock if exposed to rain or moisture.
- Immediately cut the power and disconnect the power cord if smoke, noise or a disgusting smell comes from the camera. Make sure to contact your local retailer or after-sales service.

ⓘ CAUTION

- Transport, store and operate the device under allowed humidity and temperature conditions. Do not place heavy stress on the device, throw, violently vibrate, immerse it in liquid or let it fall.
- Keep the device away from fire sources, and corrosive, flammable or explosive materials. Do not place the device in an explosive, humid, dusty, extremely hot or cold site that has corrosive gas, strong electromagnetic radiation or unstable illumination.
- Do not block the ventilation opening near the device to avoid heat accumulation.
- Do not touch the heat dissipation component of the device to avoid the risk of getting burnt.
- Do not aim the device at strong light sources (such as lamplight, and sunlight) when focusing it, to avoid reducing the lifespan of the CMOS sensor, and causing overbrightness and flickering.
- When using a laser beam device, avoid exposing the device surface to laser beam radiation.
- Do not directly touch the photosensitive CMOS. Use an air blower to clean the dust or dirt on the lens. When it is necessary to clean the device, slightly wet a soft cloth with alcohol, and gently wipe away the dirt.
- The dome cover is an optical component. Do not directly touch or wipe the surface of the cover when using it. When it is contaminated with dust, grease, or fingerprints, use degreasing cotton moistened with a little ether or a clean soft cloth dipped in water to gently wipe it clean. An air gun is useful for blowing dust away.
- There might be a risk of electrostatic discharge on the dome cover. Power off the device when installing the cover after the camera finishes adjustment. Do not directly touch the cover and make sure the cover is not exposed to other equipment or human bodies.
- Strengthen the protection of the network, device data and personal information. All necessary safety measures to ensure the network security of the device must be taken, such as using strong passwords, regularly changing your password, updating firmware to the latest version, and isolating computer networks. For the IPC firmware of some previous versions, the ONVIF password will not be automatically synchronized after the main password of the system has been changed. You need to update the firmware or change the password manually.

Battery Requirements

Safety Warnings

⚠ DANGER

- Do not transport, store or use the batteries in high altitudes with low pressure and environments with extremely high and low temperatures.
- Do not dispose the batteries in fire or a hot oven, or mechanically crush or cut the batteries to avoid an explosion.
- Do not leave the batteries in environments with extremely high temperatures to avoid explosions and leakage of flammable liquid or gas.
- Do not subject the batteries to extremely low air pressure to avoid explosions and the leakage of flammable liquid or gas.

Temperature and Charging Guidelines

ⓘ CAUTION

- Check the device parameters and charge the device within its defined temperature range.
- Do not charge the battery in environments below the minimum temperature listed in the specification table. If the battery has a low-temperature charging lock protection mechanism, preheat the battery to an appropriate temperature before charging it.
- When the battery temperature exceeds the defined maximum charging temperature, charging automatically stops to prevent the battery cell from bulging.

Manufacturer Safety Notes

⚠ DANGER

Replace unwanted batteries with new batteries of the same type and model to avoid the risk of fire and explosion.

ⓘ CAUTION

- Do not replace the battery yourself if it is non-removable.
- Use a good quality power adapter or solar kit for charging as specified on the device label.
- Do not use inferior or non-standard chargers to avoid battery damage from overcharging.

Long-Term Storage and Maintenance

⚠ WARNING

Dispose of waste batteries in accordance with local lithium battery recycling regulations. Do not dispose of them in your regular household trash.

ⓘ CAUTION

- Store batteries in a well-ventilated and dry environment. Protect the charging port and battery compartment from liquids, such as rainwater.
- For devices with batteries that will not be used for an extended period, store them under the following environmental conditions:
  - Short-term (less than 3 months): Store the battery at an ambient temperature of 0°C to 30°C.
  - Medium to long-term (3 months or more): Store the battery at an ambient temperature of 23 ± 5°C and a relative humidity of 65% ± 20% RH.
  - Extended idle periods: Recharge the battery every 3 months and maintain its state of charge between 40% and 60%.
- The battery's self-discharge might cause its voltage to drop below the over-discharge protection voltage. Failure to charge the battery for an extended period can result in permanent damage to the battery cells and, in severe cases, prevent the battery from functioning properly.

About the Manual

Important Notice

- Installation items not included in the package, or those marked with the icon, can be purchased separately.
- The DMSS page might vary by its version and the device type. Please refer to the actual page.
- This manual is provided for general reference only. Discrepancies might exist between the product and this manual, including but not limited to printed, electronic, or any other editions.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. Specifications and documentation are subject to change without prior notice. For the latest versions, as well as legal notices, consult the printed manual, the product webpage, our official website, or scan the QR code to access the electronic edition.
- The manual will be updated as necessary to reflect product changes and applicable legal requirements. These updates will not diminish your statutory rights, nor will they remove or weaken the safety information or essential instructions provided at the time of purchase.
- Although we make every effort to ensure accuracy, errors or deviations in descriptions of functions, operations, or technical data might occur. If there is any uncertainty or controversy, we reserve the right of final explanation.
- All trademarks, registered trademarks and company names referenced in this manual are the property of their respective owners.

Privacy Protection Notice

As the device user, you might collect the personal data of individuals such as their names, email addresses, face images, audio and fingerprints. You shall be fully responsible for any activities associated with processing personal data. You commit to comply with your local privacy protection laws and regulations to protect the legitimate rights and interests of individuals, and shall implement measures which are required by applicable law, including but not limited to, providing clear and comprehensive information to individuals before processing their personal data, obtaining consent from individuals when necessary, informing individuals of the existence of the surveillance area, and providing required contact information.

Intelligent Product Usage Statement

Intelligent products utilize AI technology to effectively enhance security. The intelligent recognition and alarm functions of the product might be affected by factors such as environmental lighting, camera angles, object obstructions, and network delays, potentially leading to false alarms, missed alerts, or response delays. This intelligent product is solely intended to be used as a security assistance tool. The results from performing identification are for reference only and do not constitute absolute guarantee of personal or property safety. Users need to combine these products with necessary physical security measures to enhance overall protection. Except as otherwise provided by laws or in the event of intentional or gross negligence on the part of the company, the company shall not be liable for any losses caused by the aforementioned factors not attributable to the company.

Symbols

The following symbols might appear in the manual.

Symbols	Description
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.