

Thermal Bullet Camera

Quick Manual

G Ver. 1.1 / 2021.03

Before installing and using the camera, please read this manual carefully. Be sure to keep it handy for future reference.

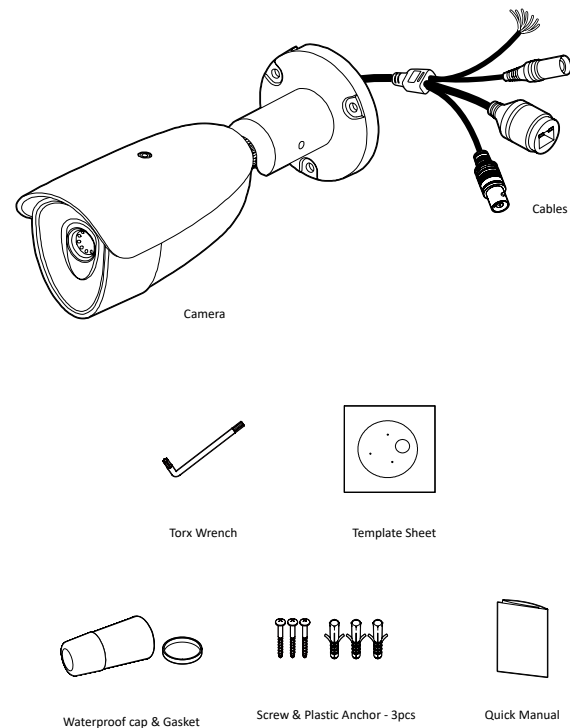


This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency 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.

To disconnect power from the mains, pull out the mains cord plug. When install the product, ensure that the plug is easily accessible.

1. Product & Accessories

Please check if all the camera and accessories are included in the package.



Safety Information

These instructions are intended to ensure that the user can use the product correctly to avoid danger or property loss. If the product is not functioning properly or damaged, contact the service center or purchasing office.

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

ATTENTION : Il y a risque d'explosion si la batterie est remplacée par une batterie de type incorrect. Mettre au rebut les batteries usagées conformément aux instructions.



WARNINGS : Serious injury or death may be caused if any of these warnings are neglected.

BATTERY

- There is a risk of explosion if the battery is incorrectly replaced. The battery should be replaced only with the same battery.
- Used batteries must be disposed of according to local regulations or battery manufacturer's instructions. Disposing of in a fire or in a hot oven, or mechanically crushing and cutting may cause an explosion.
- Leaving the battery in a very high temperature or low air pressure environment may result in an explosion or leak of flammable liquids or gases.

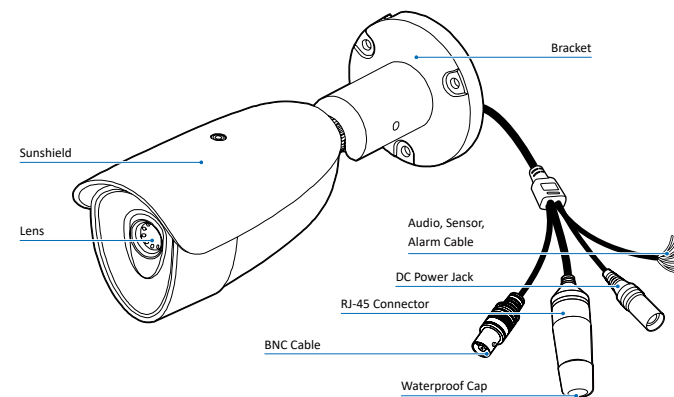
POWER

- Use only standardized adapters written in the manual. Incorrect connection of the power source can cause fire, electric shock, or failure.
- If there is smoke or a strange smell from the power source, disconnect the power immediately and contact the service center or purchasing office. If you continue to use it as it is, it can cause fire and electric shock.
- Disconnect the power plug from the outlet before connecting to the power terminal block.

INSTALLATION

- Install it according to the temperature and humidity environment suitable for the product specifications. Otherwise, it can cause fire and electric shock.
- Thunder and lightning can cause problems with the camera. When installing, be careful to minimize damage caused by lightning such as grounding.
- Do not place conductive materials (drivers, coins, metal sticks, etc.) and water-filled containers on the camera. It causes injuries caused by fire, electric shock, and falling.
- If you want to move the installed product, turn off the power and move it or reinstall it. Otherwise, it can cause fire and electric shock.

2. Part Name



- Do not install it in places where there is a lot of moisture, dust, soot, etc. It causes fire and electric shock.
- Avoid places where direct sunlight comes in or where heat comes out, such as heating appliances. It causes fire and electric shock.

CLEANING

- Do not spray water directly on each part of the product when cleaning. It causes fire and electric shock.



CAUTIONS : Injury or equipment damage may be caused if any of these cautions are neglected.

POWER

- Use the power line after fixing it firmly to the power connection terminal. Incomplete connection can cause a fire.
- Do not extend the adapter output cable. If you need to install the power cable extension, please contact the service center.
- Use insulated power for PoE connected external power.

INSTALLATION

- It is recommended not to touch the lens when installing the product as the factory ships with a focus adjustment completed during the manufacturing completion inspection phase.
- Avoid installing cameras facing bright lights like sunlight. Causes damage to the image sensor.
- Make sure it safe and securely when installing camera on the wall or ceiling. This can cause injury by the fall.
- Do not connect multiple cameras to one adapter. Excess capacity causes abnormal heat and fire.
- Wear protective gloves when installing/uninstalling the camera. This causes burns caused by high temperature on the surface of the product.
- Don't drop or shock the product. Please stay away from places where vibration is severe or magnet types are present.
- Install it in a well-ventilated place. This can cause fire and failure.

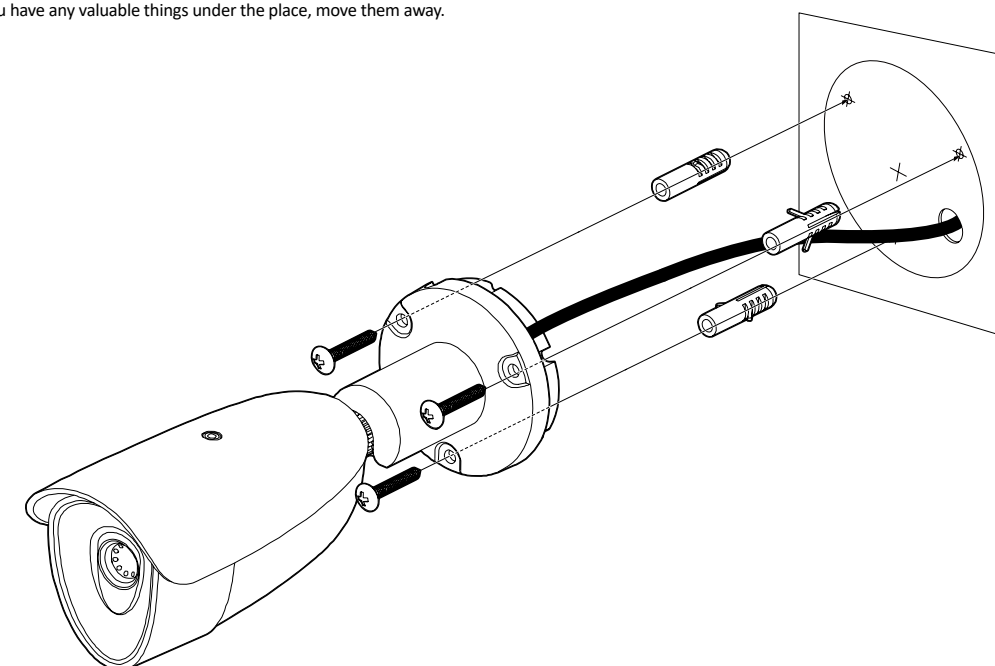
CLEANING

- Wipe the contaminated surface with a clean, soft, dry cloth or wet the soft, dry cloth to prevent water from flowing, then wipe the contaminated area.

3. Installation

Before installing your camera, you have to read the following cautions.

- You have to check whether the location can bear five times of the weight of your camera.
- Don't let the cable to be caught in improper place or the electric line cover to be damaged. Otherwise it may cause a breakdown or fire.
- When installing your camera, don't allow any person to approach the installation site. If you have any valuable things under the place, move them away.



- Drill three holes on the installation surface based on the provided installation template.
- Insert the plastic anchors into the holes.
- Install the provided ferrite core on the cable.
- Attach the provided wall cushion to the bottom of the camera's pan/tilt bracket.
- Fix the camera to the installation surface.
 - Align the screw holes of the camera's pan/tilt bracket and the plastic anchors.
 - Insert the provided screw into the plastic anchors through the screw holes of the camera's pan/tilt bracket.
 - Tighten the screws firmly into the plastic anchors.
- Connect all the necessary cables.
- Adjust the angle.

Installation and Use Precautions

- The battery (battery pack or equipped battery) must not be exposed to excessive heat such as sunlight, fire, etc.
- Do not disassemble the camera at your discretion.
- If you forcefully install the product with excessive force, malfunction can damage the camera.
- Do not punch or shake the camera and be careful not to damage the camera with careless storage or malfunction.
- Be careful not to install the camera in a rainy or humid place, and do not leave it in a wet place.
- Installing or using the product in water can cause serious product failure.
- Do not install the product if there is chemical or vapor in the place where the product is installed, or if it can be generated.
- Be careful not to get chemicals on the surface of the product when installing the product. Chemical solvents such as cleaning agents and adhesive components can cause fatal damage to the surface of the product.
- Do not install it near the kitchen or cooking table as edible oil such as soybean oil can also cause product damage and deformation. It can cause product damage.
- Be careful not to get foreign substances on the Micro SD card terminal. If there is any foreign substance, wipe it with a soft cloth.
- Data will not be saved at the end of the life of the Micro SD card. In this case, purchase a new Micro SD card.
- Moisture may occur in the glass of the camera when the new product box is opened (or when the product is initially running). The generated moisture is removed by a Gore vent attached to the camera within hours of the power connection.
- For products enclosed with a desiccant or card-type absorbent, please install it according to the manual.
- Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
- Unplug this apparatus when a cart is used. Use caution when moving the cart/apparatus combination to avoid injury from tip-over.



4. Cabling

Two Options

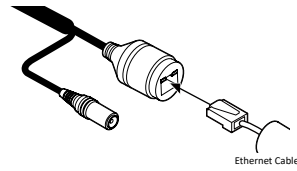
Use a PoE-enabled switch to connect data and power through a single cable and begin viewing and recording images instantly. A non-PoE switch will require an adaptor for power transmission.

1. Using a PoE-Enabled Switch

The Camera is PoE-compliant, allowing transmission of power and data via a single Ethernet cable.

PoE eliminates the need for the different cables used to power, record, or control the camera.

Follow the illustration below to connect the camera to a PoE-enabled switch using an Ethernet cable.

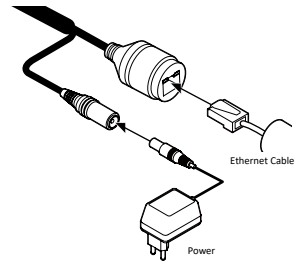


2. Using a Non-PoE Switch

If a PoE-enabled switch is not used, use a power adaptor for power transmission and non-PoE switch for data transmission.

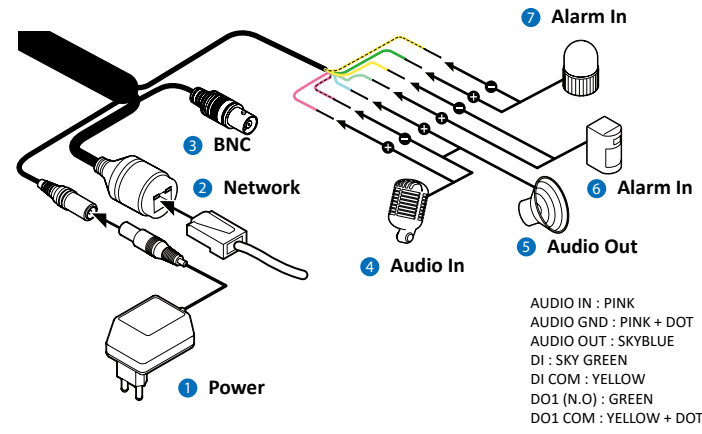
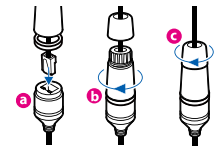
Follow the illustrations below to connect the camera without a PoE-enabled switch.

Follow the illustration below to connect the camera to a PoE-enabled switch using an Ethernet cable.



How to connect to the network through the water proof cable

Put the Lan cable into (a), then (b) will be assembled to (a) tightly. As a final step, (c) need to be assembled to (b) without making any space.



1. Power Connection

Please, check the voltage and current capacity of rated power carefully.

Rate Power	Power Consumption	PoE
DC 12V	11.9W	IEEE 802.3af class3

2. Network Connection

Connect the crossover cable into the RJ-45.

3. BNC Connection

Used to connect video output device such as monitor using the BNC coaxial cable.

4. Audio In

Connect the 'Audio In' cable of the camera to the device like microphone.

5. Audio Out

Connect the 'Audio Out' cable of the camera to device like speaker.
Audio Out supports only RTSP Back channel function. It plans to make it available on the web later.

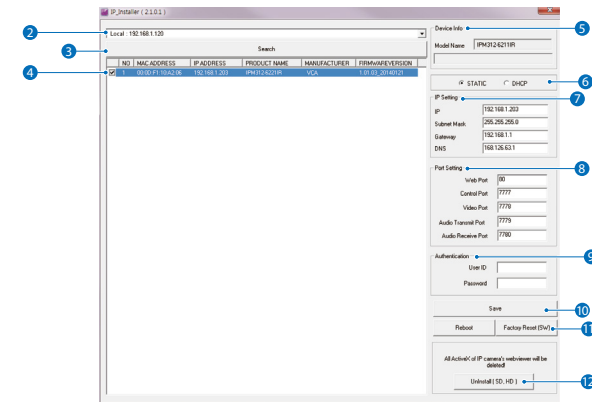
6. Alarm In

Cable of the sensor/alarm input device should connect to Yellow and Sky Green line of the Alarm cable.

7. Alarm Out

It connects to the alarm lights, siren or lamps and the sensor types are normal open and normal close. Cable of the alarm output device should connect to DO1(N.O.) and DO1 COM of the cable slot.

5. IP Installer



1. Run IP Installer

1. Run the IP installer.

2. Click on Network Adaptor selection Menu (NIC) after run this program.

3. Select a network which a camera is connected then click on a 'Search' button. (Takes about 5 sec.)

4. Select a camera to set.

5. The information of the selected camera will be shown at Device Info.

6. Select the network type.

1. The default network type of the camera is STATIC.

1. When set to DHCP, if you have a DHCP server, it will automatically set the Camera IP.

1. When set to DHCP, if you do not have a DHCP server, Camera IP is set to 192.168.xxx.xxx after one minute.

7. Convert the device's MAC address to the IP address.

1. The MAC Address of the device is attached on the Product label.

MAC address = 00-13-23-01-14-B1
↓ ↓ ↓ ↓ ↓ ↓
IP address = 192.168.20.177

1. Convert the last two sets of hexadecimal numbers to decimal numbers.

2. Input IP setting information when the network type is set to STATIC.

1. Default TCP/IP information
- IP: 192.168.xxx.xxx
- Subnet Mask: 255.255.0.0
- Gateway: 192.168.0.1
- DNS: 168.126.63.1

8. Change the port as necessary when the network type is set to STATIC.

1. A 'Port Forwarding' has to be set for external access to the camera.

1. Refer to the manual of the network hub for 'Port Forwarding' settings.

1. An additional change of HTTPS, RTSP port can be done at Web Viewer > Admin page.

9. Input ID and PW of the camera for authentication.

2. Make sure to change the ID and PW for security reason.

3. Go to "Web viewer>Setup>System>Users Management" for ID and PW change.

2. The ID and PW will be set to default value when 'factory reset' the camera.

1. Default ID / PW : root / pass

10. Make sure to click on 'Save' button to save changed values.

2. An "Apply" message will be popped-up when the settings are applied normally, or an error message will be popped-up when failed.

11. To reboot or reset (except network setting) the camera.

2. Select a camera (multiple camera can be selected) > Input ID and PW > Click on Reboot or Factory Reset button.

12. Able to delete an Active-X which is installed when accessing to Web Viewer.

2. You don't need the function because this camera use the VLC plugin instead of the Active-X.

Preparing to Mount the Camera

- The mounting surface must bear five times the weight of your camera.
- Do not let the cables get caught in improper places or the electric line cover to be damaged. This may cause a breakdown or fire.
- CAUTION: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.
- This product is intended to be supplied by a UL Listed Power Supply Unit marked "Class 2" or "LPS" or "PS2" and rated 12 Vdc, 1A min.
- The wired LAN hub providing power over the Ethernet (PoE) in accordance with IEEE 802.3af shall be a UL Listed device with the output evaluated as a Limited Power Source as defined in UL60950-1 or PS2 as defined in UL62368-1.
- Unit is intended for installation in a Network Environment 0 as defined in IEC TR 62102. As such, associated Ethernet wiring shall be limited to inside the building.
- Using the mounting template sheet or the camera itself, mark and drill the necessary holes in the wall or ceiling.

Disposal of Old Appliance



- The symbol marked in the product, will follow and covered by the Europe Directive 2002/95/EC.
- All electronic disposal of waste is different by the government or locally, so it need to check.
- The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
- For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.