Network Camera Installation Guide

1.3 MP Mainline Bullet Camera

Model CV-M13B10-ODI

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Description

The ClareVision Midrange 1.3 MP Mainline Bullet Camera is a PoE 1.3 MP IP bullet camera for outdoor use. Capable of 1280 × 960 resolution, the camera features a varifocal lens, IR LEDs for nighttime vision up to 20 m, and digital wide dynamic range and zone-configurable backlight compensation for best-case images in various lighting conditions. Audio and alarm I/O and a micro SD slot for up to 32 GB local memory are also included.

Package contents

1X 12 VDC power supply

4X anchor screws

4X plastic anchors

1X drill template

1X composite video output pigtail adapter (black wire with BNC connector)

1X hex tool (90 degree wrench)

1X Ethernet weather housing

Safety instruction

Follow these instructions to ensure that the product is used correctly and to avoid danger or property loss. Serious injury or death may occur if any of the warnings are ignored. Injury or equipment damage may occur if any of the cautions are neglected.

WARNINGS

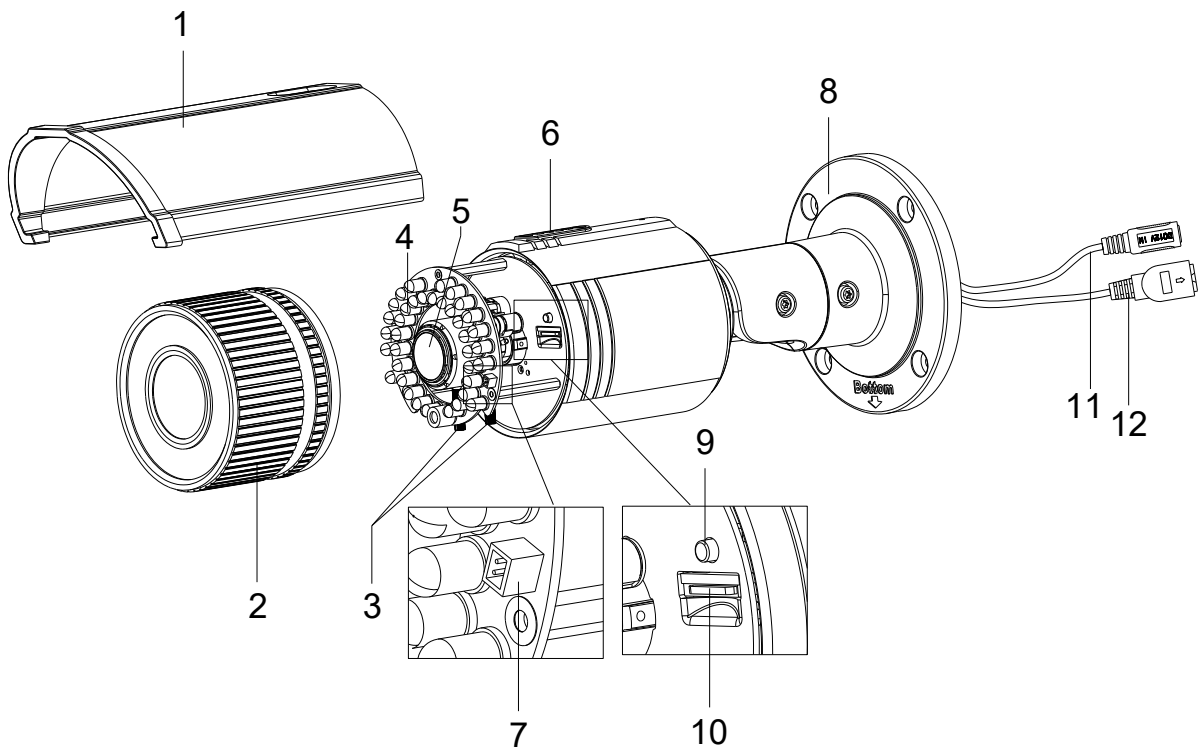
- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- Refer to the technical specifications for detailed information.
- Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 24 VAC or 12 VDC according to the IEC60950-1 standard. Refer to the technical specifications for detailed information.
- Do not connect several devices to one power adapter as adapter overload may cause over-heating or a fire hazard.
- Make sure that the plug is firmly connected to the power socket.
- When the product is mounted on the wall or ceiling, the device should be firmly fixed.
- If smoke, odor, or noise rise from the device, turn off the power at once and unplug the power cable. Contact the service center.
- If the product does not work properly, contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)

CAUTIONS

- Make sure the power supply voltage is correct before using the camera.
- Do not drop the camera or subject it to physical shock.
- Do not touch CMOS modules with fingers. If cleaning is necessary, use a clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period, replace the lens cap to protect the CMOS from dirt.
- Do not aim the camera at the sun or exceedingly bright places. Blooming or smearing may occur (which is not a malfunction), and affect the endurance of CMOS at the same time.
- The CMOS may be burned out by a laser beam, so when laser equipment is in use, make sure that the surface of CMOS will not be exposed to the laser beam.
- Do not expose the camera to high electromagnetic radiation, extremely hot or cold environments (the operating temperature should be -30 to +60℃), or dusty or damp locations.
- To avoid heat accumulation, good ventilation is required for operating environment.
- Keep the camera away from liquid while in use.
- When returning a camera, pack it in its original packing, or similar packing materials.
- Improper use or replacement of the battery may result in hazard of explosion. Replace it with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.

Overview

Figure 1: Camera overview

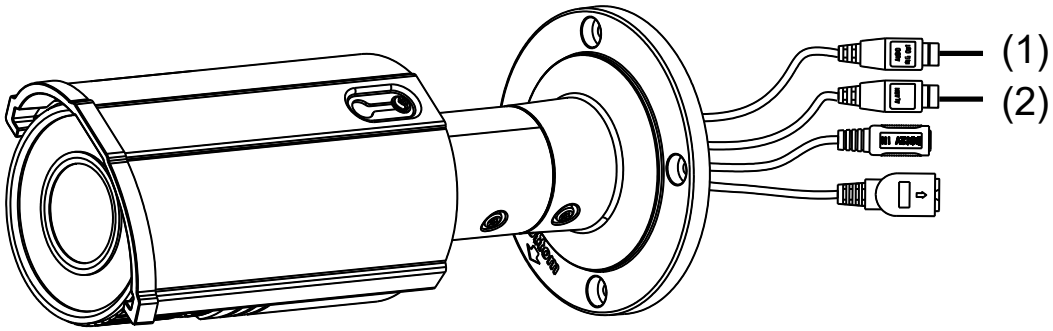


(1) Sun shield
(2) Front cover
(3) Zoom and focus lever
(4) IR LED
(5) Lens
(6) Air vent
(7) Video output interface
(8) Integrated bracket
(9) Reset button
(10) SD card slot
(11) Power interface
(12) Network interface

Note: To reset the default parameters to the camera, press and hold the reset button and power on the camera. After powered, continue to press and hold the reset button for another 10 seconds.

The bullet camera supports audio and alarm functions. The interfaces are shown in Figure 2.

Figure 2: Audio and alarm interfaces

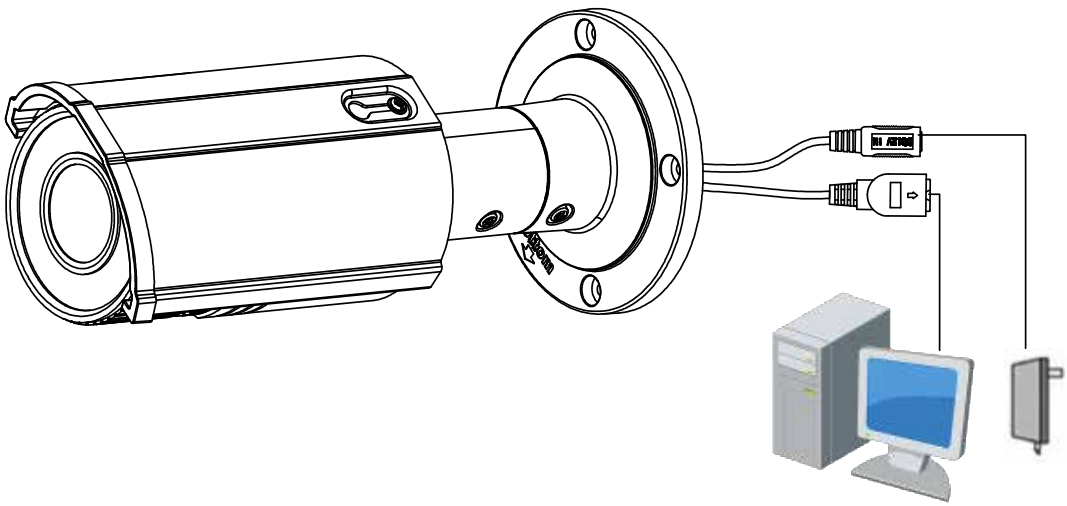


(1) Audio
(2) Alarm

Wiring

Wire your bullet camera as shown in Figure 3.

Figure 3: Wiring



Installation

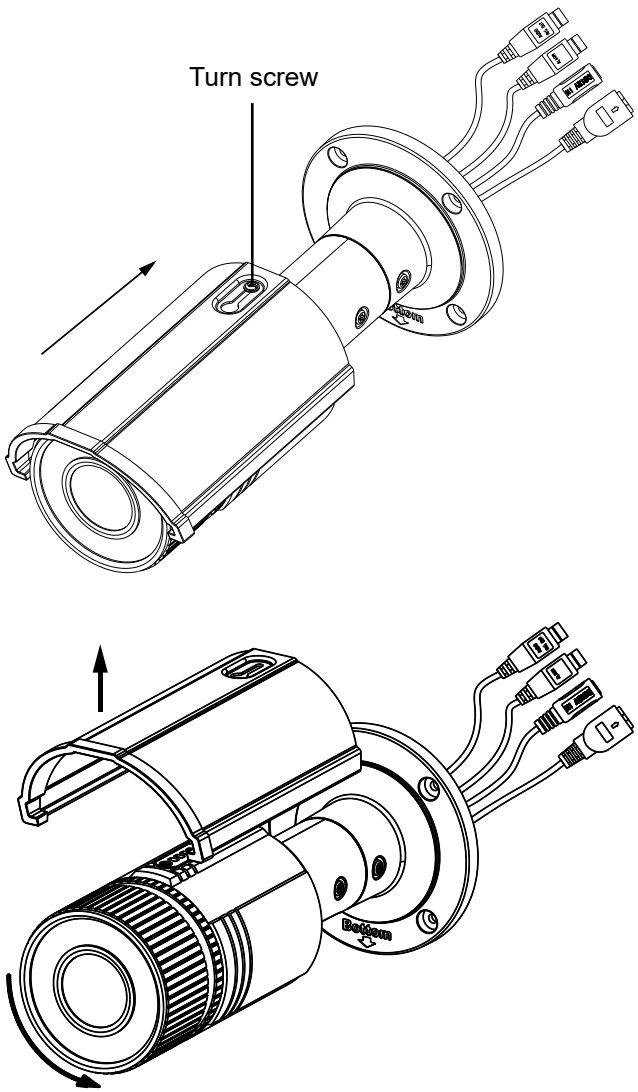
To ensure the camera operates properly, install the camera according to the instructions below.

Before you start

- Make sure that the device in the package is in good condition and all the assembly parts are included.
- Make sure that all the related equipment is powered off during the installation.
- To determine the proper environmental operating conditions, refer to Specifications on page 26.
- Make sure the power supply matches the required voltage to avoid damage.
- If the product does not function properly, contact your dealer or the nearest service center. Do not disassemble the camera for repair or maintenance by yourself.
- Make sure that the wall is strong enough to withstand three times the weight of the camera.

To mount the SD card:

1. Rotate the TW M3 × 5 screw counterclockwise about 3 to 4 rounds to loosen it. Slide the sun shield according to the arrow direction, as shown in the figure below (left).

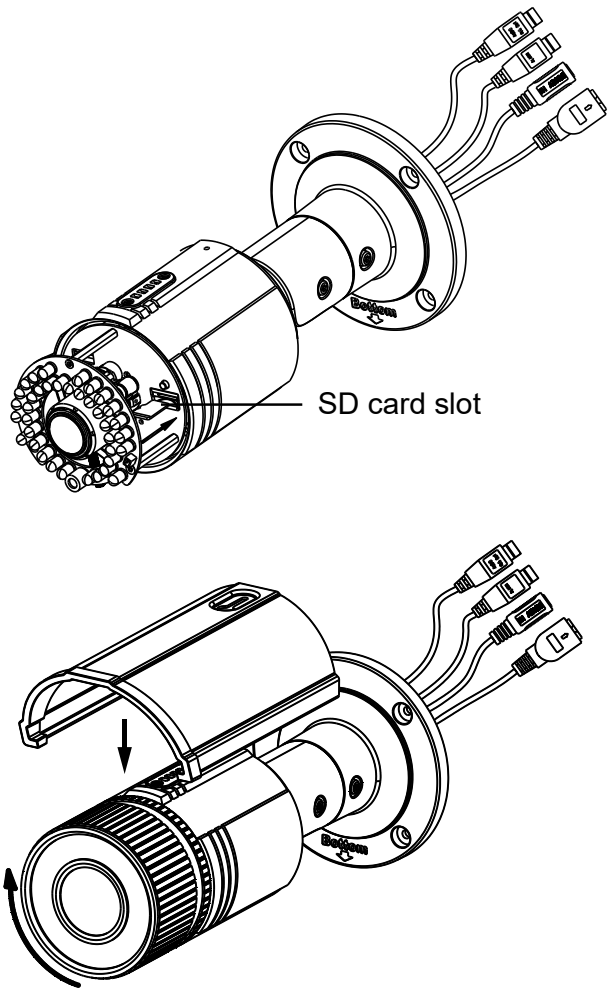


2. Remove the sun shield according to the arrow direction, as shown in the figure above (right).

3. Remove the front cover by rotating it counterclockwise, as shown in the figure above (right).

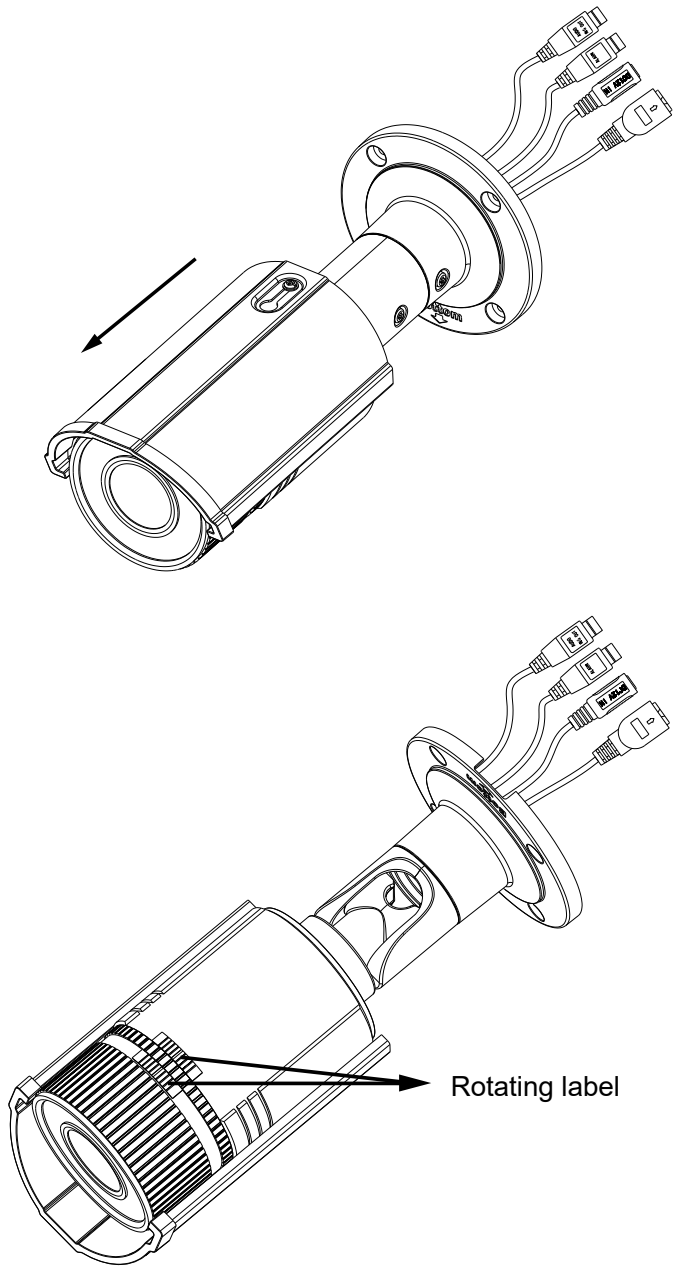
4. Insert the SD card to the SD card slot.

5. Place the cover back on the front of the camera and rotate it clockwise, as shown. Reinstall the sun shield according to the arrow direction, as shown below.



6. Slide the sun shield according to the arrow direction, as shown below.

7. Rotate the TW M3 × 5 screw clockwise to tighten the sun shield.



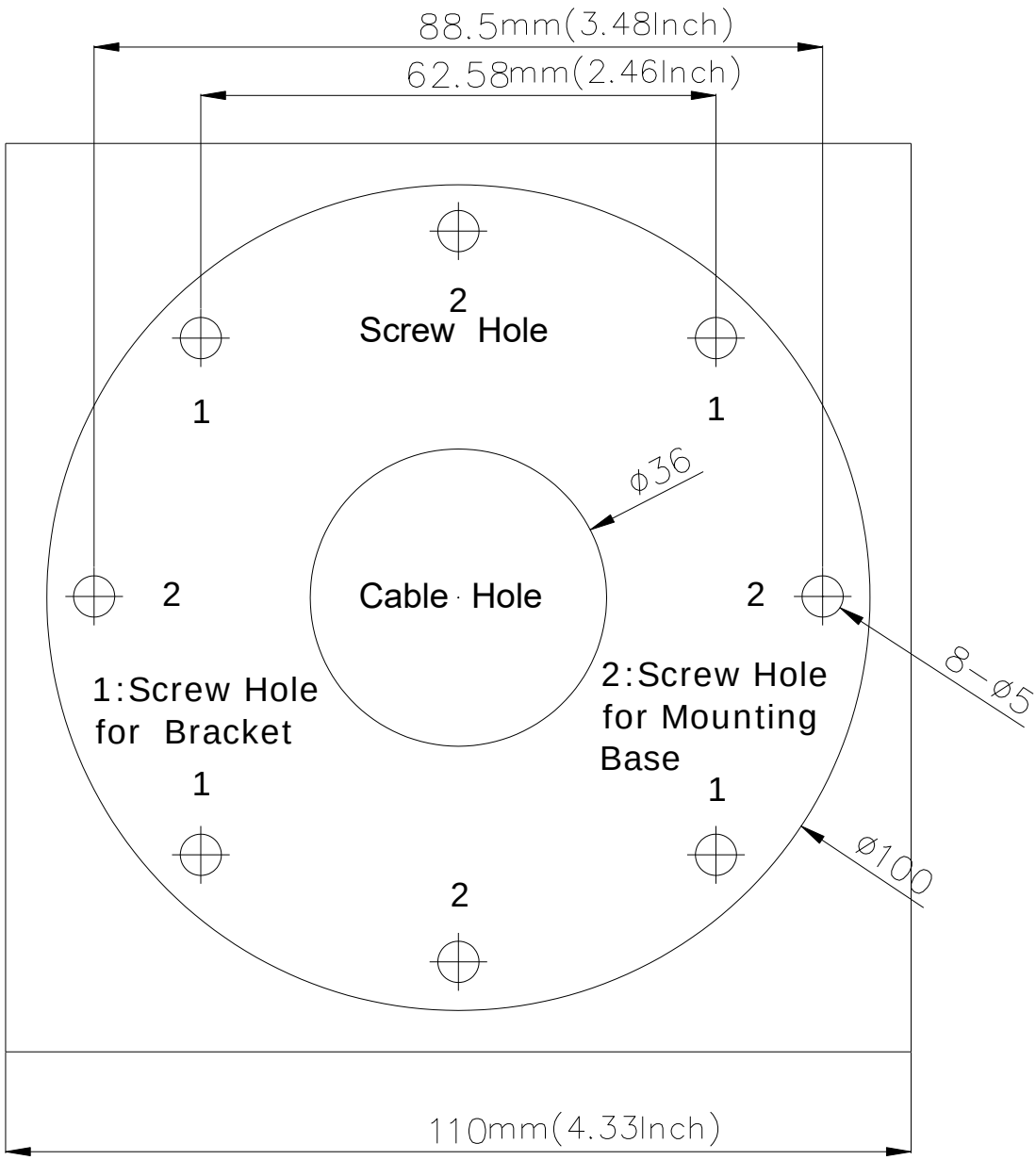
Note: For waterproofing, align the rotating label on the front cover with that on the camera when you rotate the front cover clockwise.

Mounting

This camera is equipped with a bracket on the bottom. It can be mounted to a wall or ceiling directly or it can be mounted to a wall with a junction box (not included) or a gang box (not included).

To mount directly to the wall:

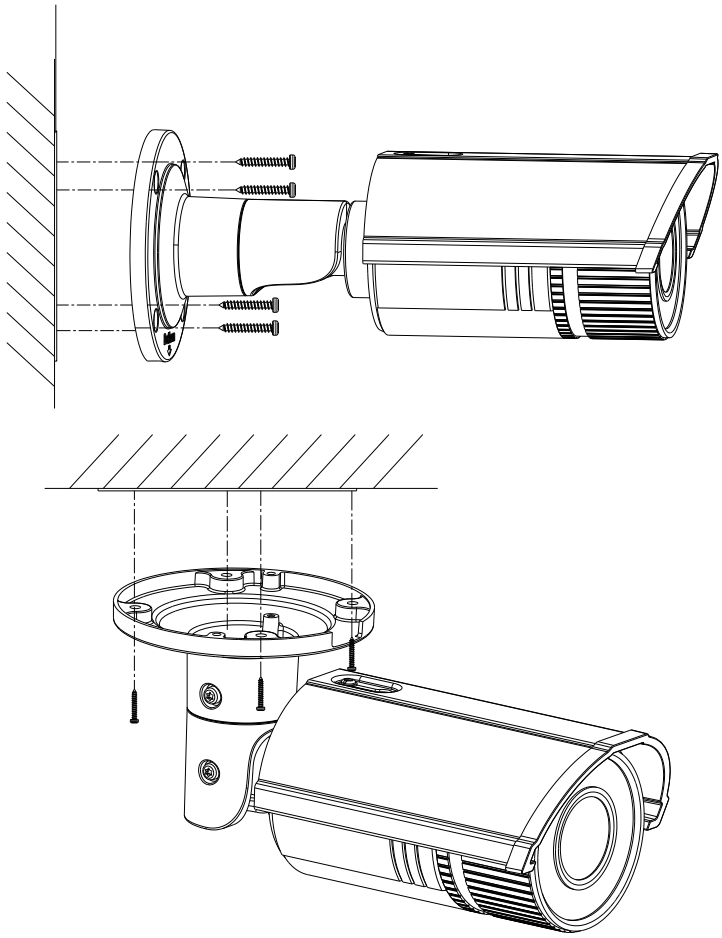
1. Attach the drill template to the wall where the camera is to be mounted.
2. Drill screw holes in the wall according to the number one holes of the drill template, shown below.



3. If you need to route cables through the wall or ceiling, cut a cable hole according to the drill template. Skip this step, if you want to route the cables on the surface of the ceiling.

4. Route the cables of the camera.

5. Secure the camera to the wall (or ceiling) with expansion screws, as shown below.

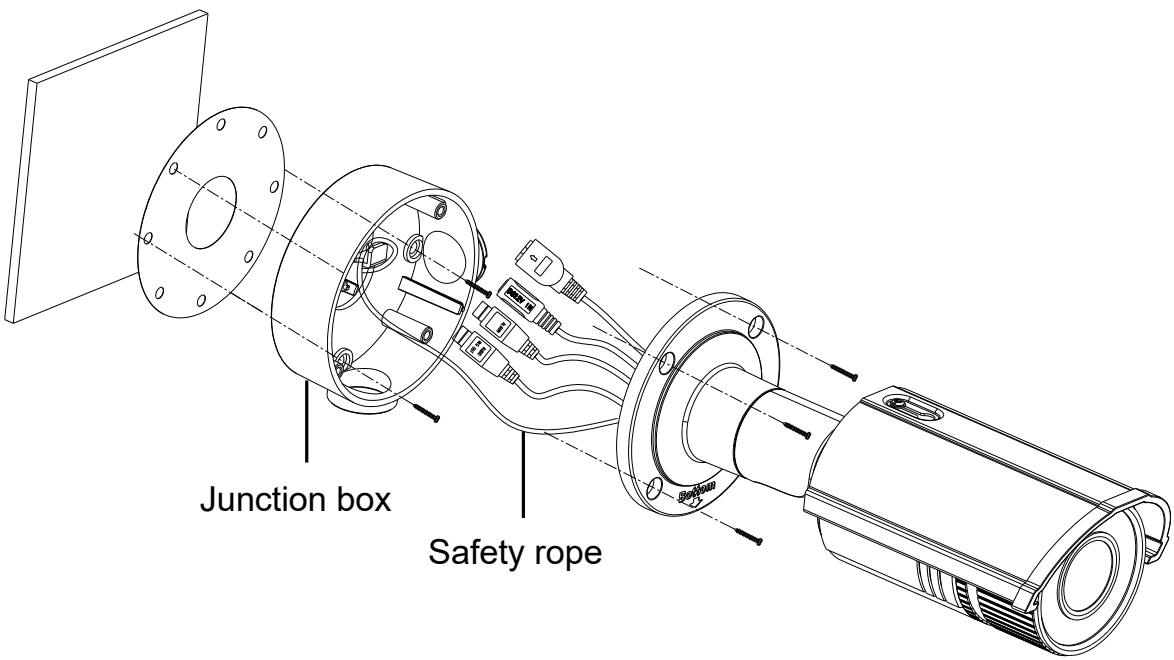


To mount with a junction box:

1. Attach the drill template to the wall where the camera is to be mounted.
2. Drill holes in the wall according to the number two holes of the drill template.

3. If you need to route cables through the wall, cut a cable hole according to the drill template. Skip this step, if you want to route the cables on the surface of the wall or ceiling.
4. Secure the junction box to the wall with expansion screws.
5. Route the cables of the camera.
6. Connect the video output connector to the monitor and the power connector to the power supply.

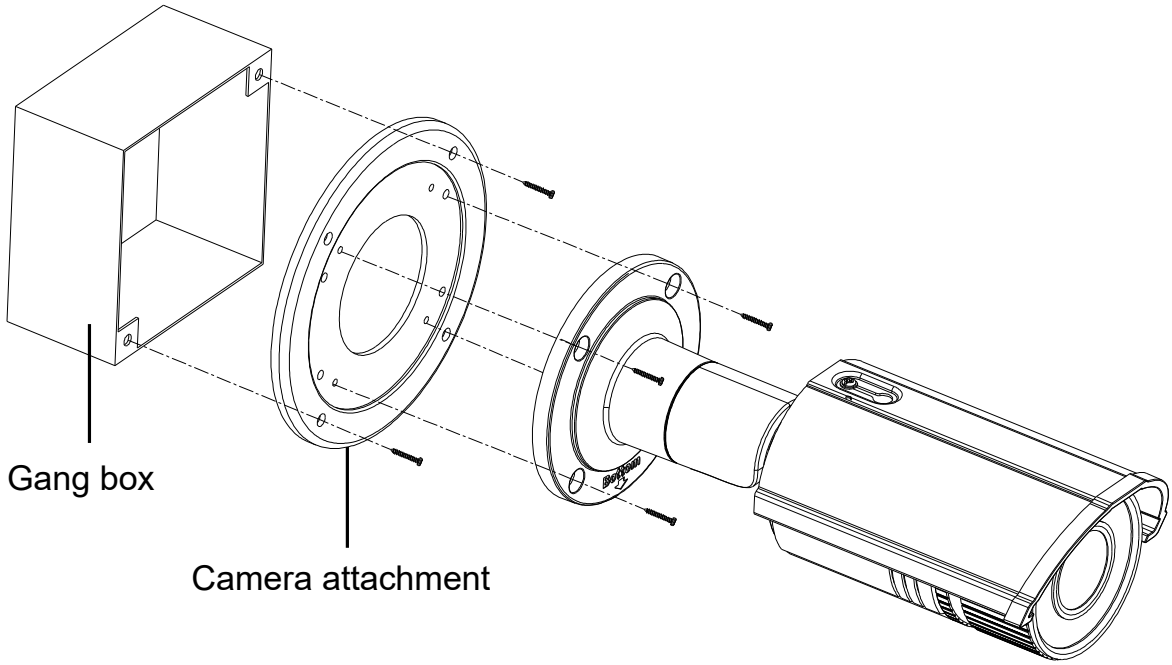
   Adjust the image and focus. See “View angle adjusting” and “Zoom and focus adjusting.”
7. Hook the camera to the junction box with the safety rope.



8. Secure the camera to the junction box with screws.

To mount with a gang box:

1. Secure the camera attachment to a gang box with screws.
2. Route the cables of the camera.



View angle adjusting

The 3-axis (pan/tilt/rotation) adjusting allows adjustment for optimum camera rotation and placement. You can use this function to get the angle of view that you want.

To adjust pan:

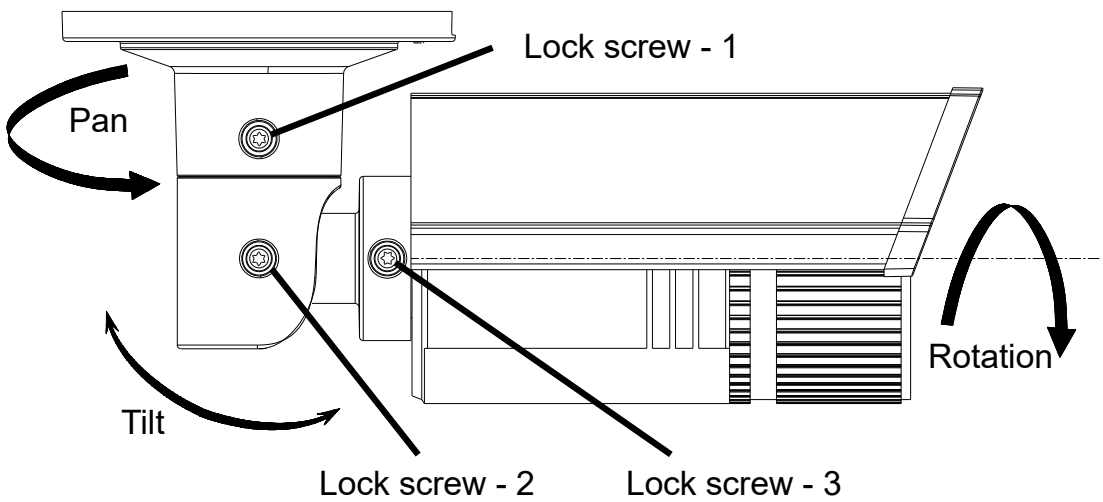
1. Loosen the lock screw-1.
2. Adjust the panning position of the camera. The adjusting range is from 0 degrees to 360 degrees.
3. Tighten the lock screw-1.

To adjust tilt:

1. Loosen the lock screw-2.
2. Adjust the tilting position of the camera. The adjusting range is from 0 degrees to 90 degrees.
3. Tighten the lock screw-2.

To adjust rotation:

1. Loosen the lock screw-3.
2. Rotate the rotation position to adjust the azimuth angle of the image. The adjusting range is from 0 degrees to 360 degrees.
3. Tighten the lock screw-3.

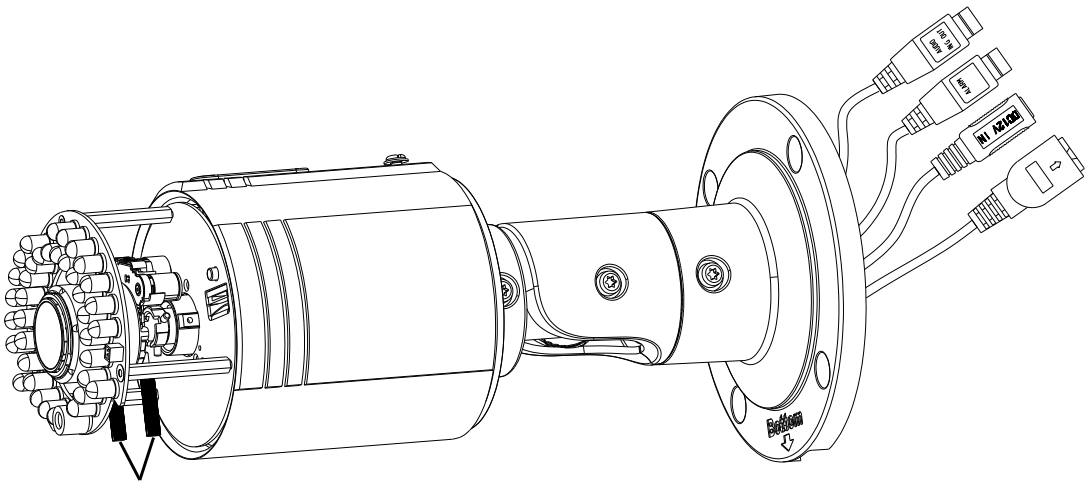


Zoom and focus adjusting

You can use the zoom lever and focus lever to adjust the zoom value and focus value.

To adjust zoom and focus:

1. Disassemble the camera.
2. View the camera image using the monitor.
3. Loosen the zoom lever and move the lever between T (Tele) and W (Wide) to obtain the appropriate angle of view.
4. Tighten the zoom lever.
5. Loosen the focus lever and move the screw between F (Far) and N (Near) to obtain the optimum focus.
6. Tighten the focus lever.
7. Assemble the camera.



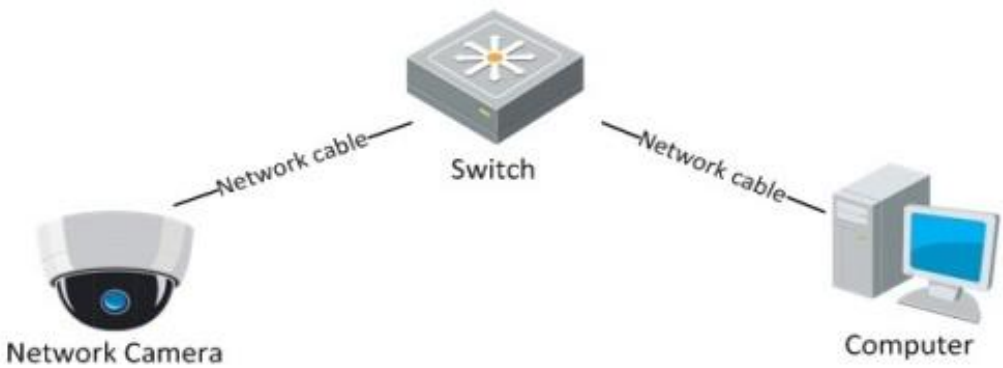
Levers

Setting the network camera over LAN

To view and configure the camera via LAN (Local Area Network), you need to connect the network camera in the same subnet with your PC. Then, install the SADP software to search and change the IP of network camera.

The following figure shows the cable connection of network camera and PC:

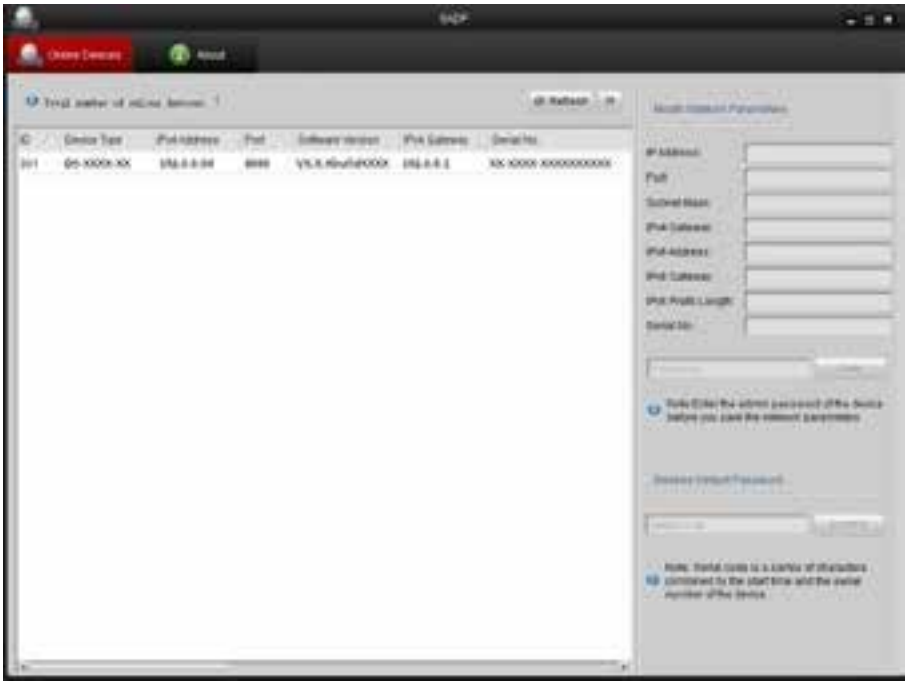
Figure 4: Wiring over LAN



To set the IP address of the camera for accessing via LAN:

1. To get the IP address, use the SADP tool. It can automatically detect the network camera in the LAN. It can also list the device information like IP address, subnet mask, port number, device serial number, and device version, shown in the figure below.
2. Change the IP address and subnet mask to the same subnet as of your PC.

After launching the SADP software, it automatically searches the online devices every 15 seconds from the subnet where your computer is located. It displays the total number and information of the searched devices in the Online Devices interface. The interface displays the device type, IP address, port number, and gateway.



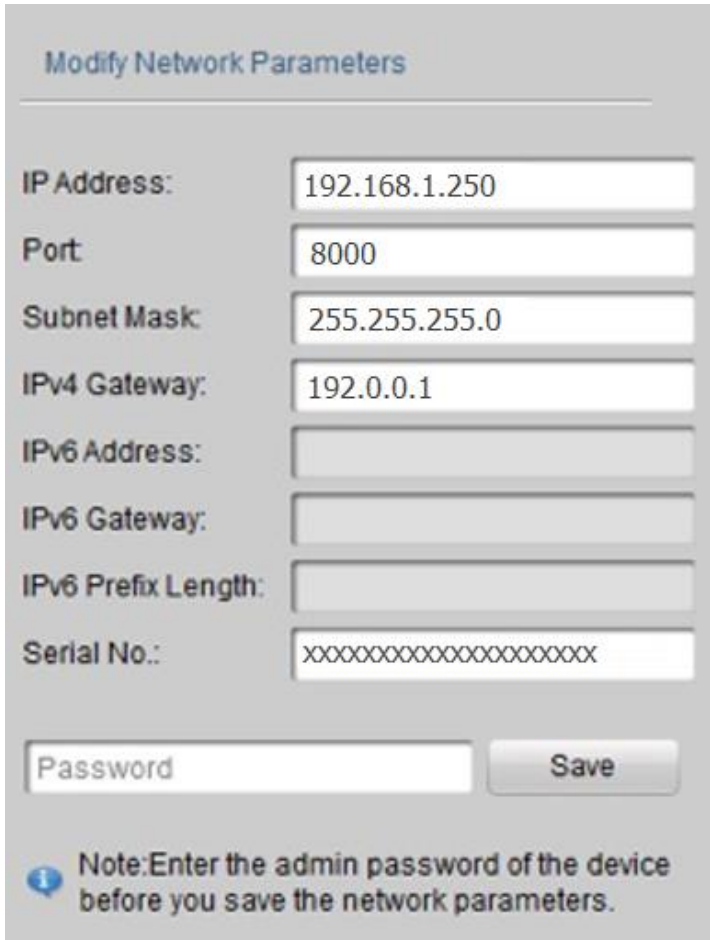
Notes

- The camera takes 15 seconds to show up online, and 45 seconds to show offline when it is removed.
- Click **Refresh Every 15s** to refresh the online device list manually.
- Click or on each column heading to change the order of the displayed information.
- Click » to show the device table and hide the network parameter panel, or click « to show the network parameter panel.

To modify device information:

1. Select the device from the list, as shown below.

2. The network parameters of the device are displayed in the Modify Network Parameters panel, as shown below.



3. Edit the modifiable network parameters – for example, IP address and port number.

4. Enter the password of the admin account of the device in the Password field and click **Save** to save the changes.

5. Enter the IP address of the network camera in the address field of the web browser to view the live video.

Notes

- The default user name is “clareadmin,” and password is “secure7.”
- When accessing the network camera from different subnets, set the gateway for the network camera after you log in.

Accessing via a web browser

System requirements

- Operating System: Microsoft Windows XP SP1 and above version / Vista / Win7 / Server 2003 / Server 2008 32 bits
- CPU: Intel Pentium IV 3.0 GHz or higher
- RAM: 1 G or higher
- Display: 1024 × 768 resolution or higher
- Web browser: Internet Explorer 7.0 and above, Apple Safari 5.02 and above, Mozilla Firefox 3.5 and above, and Google Chrome8 and above

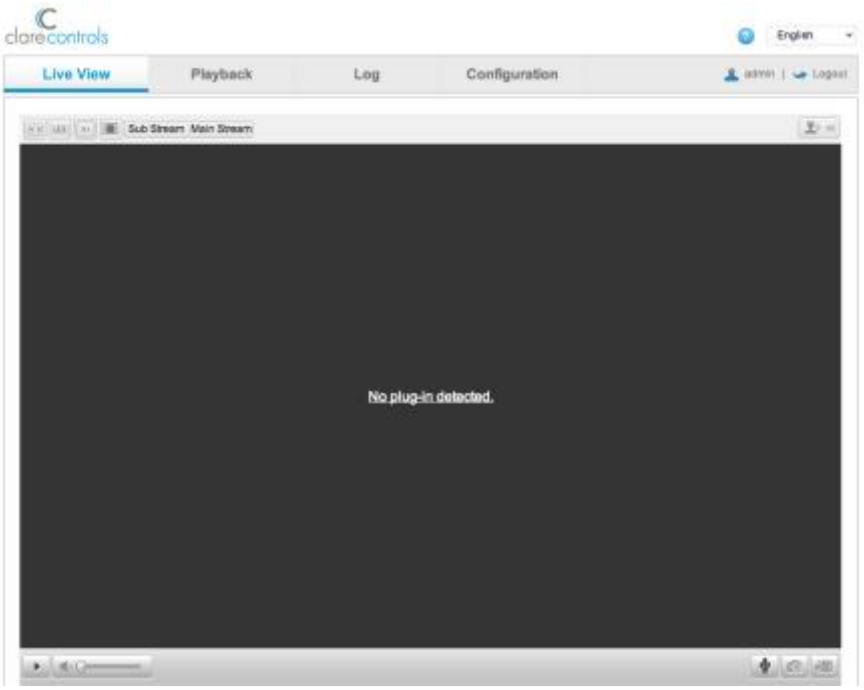
To access via a web browser:

1. Open the web browser.
2. In the browser address bar, enter the IP address of the network camera – for example, 192.168.1.250 and press **Enter** to display the login interface.
3. Enter the user name and password, and then click **Login**.

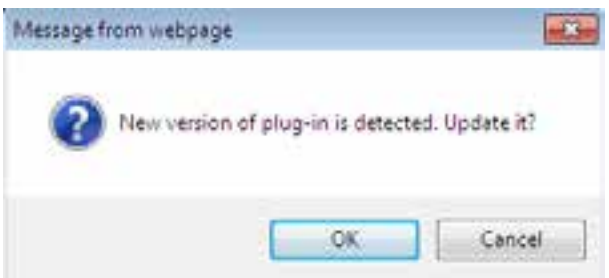
4. Install the plug-in as prompted to view the live video and manage the camera.

Notes

- You may need to close the web browser to finish the installation of the plug-in.
- Mac's require the plug-in to be downloaded manually. See the Clare Controls ClareVision IP CCTV Dashboard to download the plug-in.

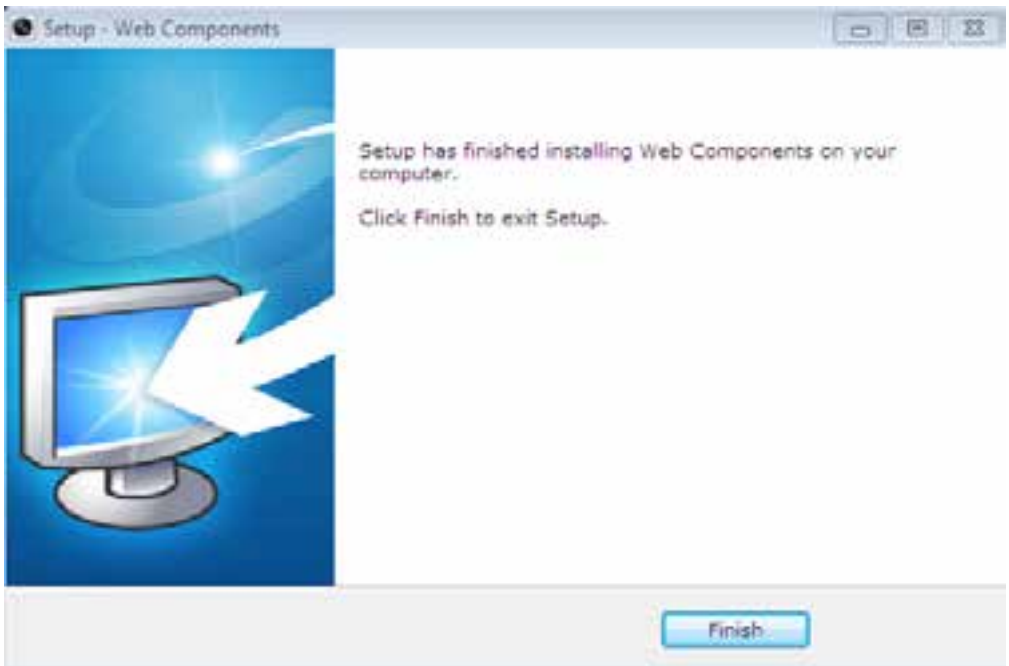


5. Click **OK**.



6. Click **Next**.

7. Click **Finish**.



8. Reopen the web browser after the installation of the plug-in and repeat steps 2 and 3 to login.

   Note: For detailed instructions of further configuration, refer to the *Network Camera User Guide* (Doc ID 343).

Specifications

Camera module	
Image sensor	1/3 in. progressive scan CMOS
Image resolution	1280 × 960 max.
Shutter time	1/25 s (1/30 s) ~ 1/100,000 s
Minimum illumination	0.01 lux at F1.2, AGC on 0 lux with IR
Lens	2.8 ~ 12 mm at F1.4, angle of view: 98° ~ 28.7°
Day and night	ICR
Video	
Compression format	H.264 / MJPEG
Frame rate	50 Hz: 25 fps (1280 × 960), 25 fps (1280 ×720) 60 Hz: 30 fps (1280 × 960), 30 fps (1280 ×720)
it rate	32 Kbps ~ 16 Mbps
On-board storage	Built-in Micro SD card slot, up to 32 GB
Digital noise reduction	3D DNR
Wide dynamic range	Digital WDR
Function	
Communication interface	1 RJ45 10M / 100M Ethernet port
System compatibility	ONVIF, PSIA, CGI
Protocol	TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, SMTP, NTP, SNMP, HTTPS, FTP, 802.1 ×, QoS (SIP, SRTP, IPv6 optional)
Network storage	NAS (iSCSI optional)

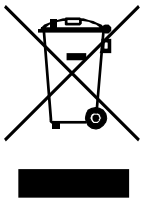
Electrical	
Power source	12 V DC ± 10 %, PoE (802.3 af)
Power consumption	Max. 5.5 W (7.5 W with ICR on)
Environmental	
Temperature	-22 to 140°F (-30 to 60°C)
Relative humidity	0 to 95% noncondensing
Mechanical	
Housing	IP66
Dimension	3.74 × 4.13 × 10.18 in. (9.5 × 10.5 × 25.86 cm)
Weight (approx.)	2.65 lbs. (1200 g)

Regulation information

DISCLAIMER

Underwriters Laboratories Inc. (UL) has not tested the performance or reliability of the security or signaling aspects of this product. UL has only tested for fire, shock or casualty hazards as outlined in UL's Standard(s) for Safety, UL60950-1. UL Certification does not cover the performance or reliability of the security or signaling aspects of this product. UL MAKES NO REPRESENTATIONS, WARRANTIES OR CERTIFICATIONS WHATSOEVER REGARDING THE PERFORMANCE OR RELIABILITY OF ANY SECURITY OR SIGNALING RELATED FUNCTIONS OF THIS PRODUCT.

FCC	This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
CE	This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC, the RoHS Directive 2011/65/EU

	2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see www.recyclethis.info.
	2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see www.recyclethis.info.

Warranty information

Clare Controls offers a three (3) year limited warranty on original Clare Controls components, from the date of shipment from Clare Controls. To view complete limited warranty details, including limitations and exclusions, www.clarecontrols.com/warranty.

Scan the code to view product warranty details.

Contact information

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