Network Fixed Dome Cameras Quick Guide

Thank you for purchasing our product. If there are any questions, or requests, please do not hesitate to contact the dealer.

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Disclaimer



The default password is used for your first login. To ensure account security, please change the password after your first login. You are recommended to set a strong password (no less than eight characters).

- To the maximum extent permitted by applicable law, the product described, with its hardware, software, firmware and documents, is provided on an "as is" basis.
- Best effort has been made to verify the integrity and correctness of the contents in this manual, but no statement, information, or recommendation in this manual shall constitute formal guarantee of any kind, expressed or implied. We shall not be held responsible for any technical or typographical errors in this manual. The contents of this manual are subject to change without prior notice. Update will be added to the new version of this manual.
- Use of this manual and product and the subsequent result shall be entirely on your own responsibility. In no event shall we be reliable to you for any special, consequential, incidental, or indirect damages, including, among others, damages for loss of business profits, business interruption, or loss of data or documentation, or product malfunction or

information leakage caused by cyber attack, hacking or virus in connection with the use of this product.

- Video and audio surveillance can be regulated by laws that vary from country to country. Check the law in your local region before using this product for surveillance purposes. We shall not be held responsible for any consequences resulting from illegal operations of the device.
- The illustrations in this manual are for reference only and may vary depending on the version or model. As a result, some of the examples and functions featured may differ from those displayed on your monitor.
- This manual is a guide for multiple product models and so it is not intended for any specific product.
- Due to uncertainties such as physical environment, discrepancy may exist between the actual values and reference values provided in this manual. The ultimate right to interpretation resides in our company.

Environmental Protection

This product has been designed to comply with the requirements on environmental protection. For the proper storage, use and disposal of this product, national laws and regulations must be observed.

Safety and Compliance Information

Safety Symbols

The symbols in the following table may be found on installation-related equipment. Be aware of the situations indicated and take necessary safety precautions during equipment installation and maintenance.

Symbol	Description
<u> </u>	Generic alarm symbol: To suggest a general safety concern.
A	ESD protection symbol: To suggest electrostatic-sensitive equipment.
4	Electric shock symbol: To suggest a danger of high voltage.

The symbols in the following table may be found in this manual. Carefully follow the instructions indicated by the symbols to avoid hazardous situations and use the product properly.

Symbol	Description
<u> </u>	WARNING! Indicates a hazardous situation which, if not avoided, could result in bodily injury or death.
i	CAUTION! Indicates a situation which, if not avoided, could result in damage, data loss or

Symbol	Description
	malfunction to product.
	NOTE! Indicates useful or supplemental information about the use of product.

Safety Information

Installation and removal of the unit and its accessories must be carried out by qualified personnel. Please read all of the safety instructions below before installation and operation.

Installation

- This device is a class A product and may cause radio interference. Take measures if necessary.
- If the product does not work properly, please contact your dealer. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance).
- Avoid squashing, shaking, or damping the camera during transport, storage, and mounting. Keep the camera from vibration sources during mounting.
- Please make sure that the ceiling can support more than 50(N) Newton gravities if the camera is fixed to the ceiling.

- Make sure the power supply voltage is correct before using the camera. Use a proper power adapter or a PoE power supply device. An improper power adapter may damage your camera.
- Disconnect the power before moving the camera, and take cautions to avoid electric shock when moving it. Once the cable is connected to the mains, the camera will be powered.
- During mounting, do not remove the protective film in the outer layer of housing to keep it clean. After finishing the mounting, remove the film when camera is powered off.
- Verify that the length of the power cable between the power adapter and the camera does not exceed 1.5 m. If the power cable is longer than 1.5 m, the voltage of the camera is lowered, causing the camera to work improperly. If it is required to lengthen the power cable, lengthen the cable between the power adapter and the mains.
- Do not hold the tail cable by hand for weight bearing.
 Otherwise, the cable connector of the camera could be loosened.
- Do not cut off the tail cable for connection purposes. A bare tail cable may easily cause a short circuit, resulting in abnormality of or damage to the camera.

- Use the waterproof tapes to protect the end of tail cable, and keep the tail cable from water.
- When connecting to an external interface, use an existing connection terminal, and ensure that the cable terminal (latch or buckle) is in good condition and properly fastened.
 Ensure that the cable is not tense during mounting, with a proper margin reserved to avoid poor port contact or loosening caused by shock or shake.
- Ensure that the high-level signal of the alarm input is not higher than 5 VDC when the alarm input interface is connected.
- As is often the case in the industry, dome housings tend to have static electricity. To prevent dust absorption by the static electricity, it is recommended to clean the dome housing surface with antistatic gloves after removing the protective film.
- Do not touch sensor 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 of time, put on the lens cap to protect the sensor from dirt.
- Do not aim the camera lens at the strong light such as sun or incandescent lamp. The strong light can cause fatal damage to the camera.

 The sensor may be burned out by a laser beam, so when any laser equipment is being used, make sure that the surface of the sensor not be exposed to the laser beam.

Maintenance

- If there is dust on the lens or the transparent dome cover, remove the dust gently using an oil-free brush or a rubber dust blowing ball.
- If there is grease on the lens, remove the grease using an oil-free cloth gently and then clean the lens in a circular spiral from the center outward using an oil-free cloth or a lens cleaning paper dipped with small amount of cleaning solution. If the grease still cannot be removed, change another oil-free cloth or lens cleaning paper and clean the lens gently until it is removed.
- If there is grease or a dust stain on the transparent dome cover, clean the cover gently from the center outward using anti-static gloves or an oil-free cloth. If the grease or the stain still cannot be removed, use anti-static gloves or an oil-free cloth dipped with detergent and clean the dome cover gently until it is removed.
- Do not use organic solvents, such as benzene or ethanol when cleaning the transparent dome cover.





- Never look at the transmit laser while the power is on.
 Never look directly at the fiber ports and the fiber cable ends when they are powered on.
- Use of controls or adjustments to the performance or procedures other than those specified herein may result in hazardous laser emissions.

Regulatory Compliance

FCC Part 15

This equipment has been tested and found to comply with the limits for 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.

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

LVD/EMC Directive



This product complies with the European Low Voltage Directive 2006/95/EC and EMC Directive 2004/108/EC.

WEEE Directive-2002/96/EC



The product this manual refers to is covered by the Waste Electrical & Electronic Equipment (WEEE) Directive and must be disposed of in a responsible manner.

Contents

1 Appearance	1
Dimensions and Appearance	1
Cable Connection	2
Camera Structure	4
2 Installation	5
Hardware Installation	6
Insert the Micro SD Card (Optional)	6
Mount your Camera	9
Start the Camera	37
Reset the Camera to Default Settings	37
Waterproof Measures	38
Waterproof Components for an RJ45 Plug	38
Waterproof Tail Cable	41

3 Set Your Camera over the LAN	
4 Access Your Camera	45
System Requirements for Your PC	45
Access Your Camera	46
Install the ActiveX	47
Adjust the Display	48

1 Appearance

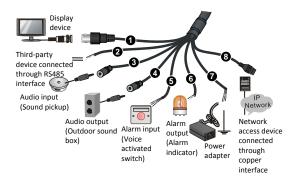
Dimensions and Appearance

The following takes the infrared camera as an example. The actual appearance may vary with the product. For the detailed information about the product, please refer to the datasheet.



Cable Connection

All the cables are tagged to indicate their functions. This section takes full cable as an example. You can connect cables by referring to the following figure.



- 1: Local video output interface (outputting composite video signals), BNC connector
- 2: RS485 serial port
- 3: Audio input
- 4: Audio output
- 5: Alarm input
- 6: Alarm output
- 7: Power interface. The white cable is used to ground the camera.

Note:

The power interface can serve as a 12 VDC power input interface, or serve as a power output interface to support the charging function (see datasheet).

8: 10M/100M Base-TX adaptive Ethernet interface, RJ45

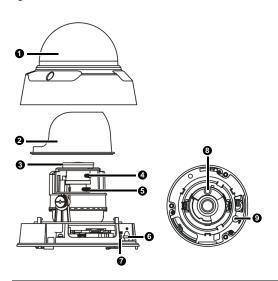


For the latest specifications, see the product datasheets.

Camera Structure

The camera structure may vary with your product.

Figure 1 Camera Structure



^{2:} Lining 3: Darkening ring

4: Focusing knob (supported by manual-focusing cameras)

- 5: Zooming knob (supported by manual-focusing cameras)
- 6: Micro SD card slot
- 7: System status indicator

Note:

The indicator has the following states: If the indicator is yellow, the system is being started; if green, the system has been started; if red, a device alarm is generated.

- 8: Infrared lamp (supported only by infrared cameras)
- 9: Reset button

Note:

Press and hold the Reset button for about 15 seconds to restore factory default settings. The reset button only works within ten minutes after the device is powered on. Some model may not support this function, please refer to the actual internal structure.

2 Installation



There are two types of cameras (metal type and plastic type). The following mounting steps are for your reference only. Please install your camera according to the actual product and field conditions.

Hardware Installation

Insert the Micro SD Card (Optional)

The Micro SD card slot is inside the camera. Therefore, you need to open the bottom cover of the camera. Do not hot plug the Micro SD card after it is inserted. Otherwise the camera or the SD card might be damaged.

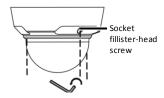


For details about recommended SD card specifications, contact your dealer.

Metal Camera

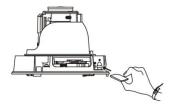
1. Remove the dome bubble

Remove the three socket fillister-head screws along the edge of the transparent dome bubble.



2. Insert the Micro SD card into the slot.

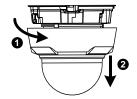
Insert the Micro SD card and mount the dome bubble.



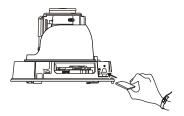
Plastic Camera

1. Remove the dome bubble.

Loosen dome bubble in "open" direction.

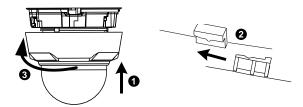


2. Insert the SD card.



3. Replace the dome bubble.

Rotate dome bubble (opposite to "open" direction) till it clicks into position.



Mount your Camera

Metal Camera

Ceiling Mount

When mounting the camera on the wall or ceiling, ensure that the wall or ceiling can hold self-tapping screws and bear the weight of the camera. The ceiling bracket is delivered with the camera.

1. Locate the positions of the holes.

Paste installation positioning stickers on the ceiling. Lead the cables across the hole on the wall.



2. Drill holes on the wall.

Use a Ø6-6.5mm drill bit to drill 30 mm-depth guide holes according to the positions marked by stickers.



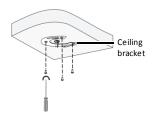
3. Mount the plastic rivets of self-tapping screws.

Knock the plastic rivets into the guide holes and ensure that they are tightened up.



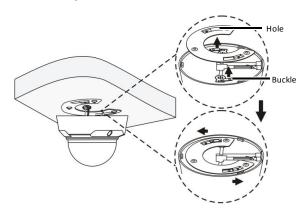
4. Mount the ceiling bracket.

Lead self-tapping screws through the guide holes in the base and fix them on the ceiling by using a screwdriver.



5. Connect all cables.

- **6.** Fix the camera and ceiling bracket.
 - a. Align the two buckles at the top of the camera to the opening holes of the ceiling bracket and push the camera upward.
 - b. Rotate the camera in the direction shown in the following figure and ensure that the camera is clamped by the ceiling bracket.



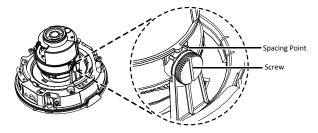
 Remove the transparent dome bubble by referring to Remove the dome bubble and adjust the monitoring direction of the lens.

The lens can be rotated horizontally and vertically.

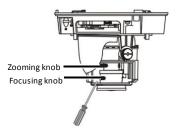
When you adjust infrared camera lens, put the infrared indicator below the lens (see <u>Camera Structure</u>). Otherwise, light supplementation could be abnormal.



8. When you adjust the camera vertically, loosen the fixing screws on both sides lightly, rotate the camera to the desired monitoring direction and then fasten the screws. Please stop rotating the camera when the spacing point is blocked, otherwise the camera lens might be damaged.



- **9.** For a manual zoom lens camera, power on the camera and adjust the manual zoom lens to get clear images.
 - a. Loosen the zooming and focusing knobs by using a flathead screwdriver and adjust the knobs to obtain clear images.
 - **b.** Then mount the dome bubble to complete the mounting.



10. For a motorized zoom lens camera, it will automatically adjust the lens to present images.



- The preceding installation process is concealed installation, during which holes are drilled in the ceiling and the tail cable is led out from the top of the camera. Cables are connected and frapped at the ceiling side to prevent messy cables from affecting camera mounting. If open installation is adopted, the tail cable is led out from one side of the camera and can be routed from one side where a piece of plastic skin is broken off.
- After mounting the dome bubble, check that the three socket fillister-head screws along the edge of the dome bubble are tightened up to ensure that the camera is properly sealed. For details, see <u>Insert the Micro SD</u> <u>Card (Optional)</u>.

In-Ceiling Mount

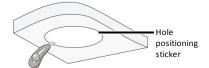
In-ceiling mount is usually used in indoors applications for suspended ceilings. You need to purchase an in-ceiling bracket separately for in-ceiling mount. For details about the bracket model, see the recommended list provided by your dealer.

Before mounting your camera, please check:

 Ensure that the space beyond the suspended ceiling is at least 300 mm high, and the suspended ceiling is 10–40 mm thick. Otherwise, the in-ceiling bracket cannot be properly mounted to the ceiling.

- Ensure that the ceiling can bear the weight of the camera and the in-ceiling bracket. Otherwise, it is recommended to consolidate the ceiling by using a customized mounting kit.
- 1. Drill holes in the ceiling.

Paste the hole positioning sticker of the in-ceiling bracket onto the ceiling and drill a proper-sized hole in the ceiling.



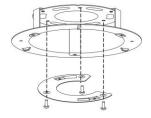
2. Mount the inside bracket to the ceiling.

Put the inside bracket through the hole of the ceiling and align the inner edge of the bracket with the edge of the hole.



3. Fix the ceiling bracket to the in-ceiling bracket.

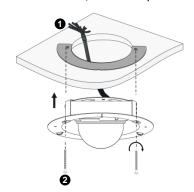
Lead three M4 screws through the ceiling bracket and the in-ceiling bracket, and fix them by using a cross screwdriver.



4. Refer to step <u>5</u> of <u>Ceiling Mount</u> to mount the camera to the ceiling bracket.

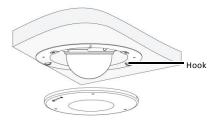


- 5. Mount the camera to the ceiling and fix the in-ceiling bracket.
 - a. Connect all cables between the ceiling and the tail cable
 of the camera, as shown by in the following figure.
 - b. Slowly push the in-ceiling bracket holding the camera towards the ceiling, align the screw holes of the inside bracket, and then use a screwdriver to fix the in-ceiling bracket, as shown by ② in the following figure.



6. Mount a plastic panel to protect the camera.

Attach the plastic panel to the in-ceiling bracket and make sure only the bubble is visible from outside.





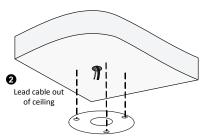
- Hold the camera to avoid drop of the camera when tightening the bolts of the in-ceiling bracket.
- Take cautions to avoid hurting fingers when attaching the plastic panel.

Plastic Camera

Ceiling Mount

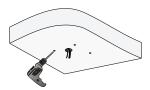
When mounting the camera on the wall or ceiling, ensure that the wall or ceiling can hold self-tapping screws and bear the weight of the camera.

1. Position holes on the ceiling.



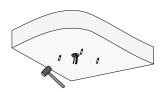
1 Attach drill template to ceiling

2. Drill holes according to drill template.



Use a drill bit (6 mm or 6.5 mm) to drill 30 mm-depth guide holes

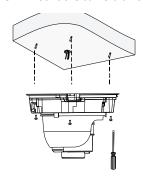
3. Knock in the plastic plugs and make sure they are tightened in place.



4. Remove the dome bubble.

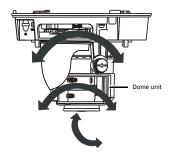


5. Mount the camera unit and connect the cables.

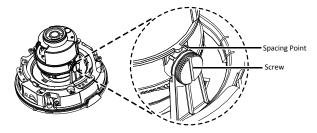


6. Adjust the monitoring direction.

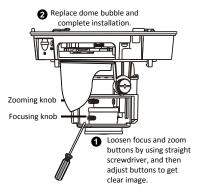
Rotate dome horizontally and vertically.



7. When you adjust the camera vertically, loosen the fixing screws on both sides lightly, rotate the camera to the desired monitoring direction and then fasten the screws. Please stop rotating the camera when the spacing point is blocked, otherwise the camera lens might be damaged.



8. Connect the power. For a manual lens, adjust the lens until you get a satisfying image.



9. Connect the power. For a motorized lens, adjust the lens through Web interface.

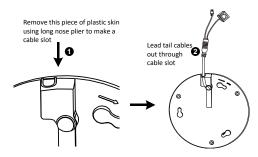


- The preceding installation process is concealed installation, during which holes are drilled in the ceiling and the tail cable is led out from the top of the camera.
 Cables are connected and frapped at the ceiling side to prevent messy cables from affecting camera mounting.
- If open installation is adopted, the tail cable is led out from one side of the camera (remove a piece of plastic skin from one side of camera by using a long nose plier to route the cable).

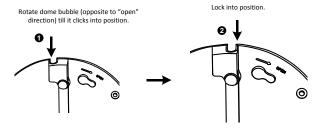
Open Installation

Route the tail cable for open installation and mount the dome bubble.

1. Route the tail cable for open installation.



2. Mount the dome bubble.



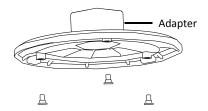
Wall Mount



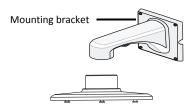
Take cautions not to drop the camera when replacing the dome bubble. Rotate to secure the camera to the adapter in the opposite direction after replacing the dome bubble.

Wall mount bracket and the adapter need to be purchased separately. For details about the bracket model, see the recommended list provided by your dealer.

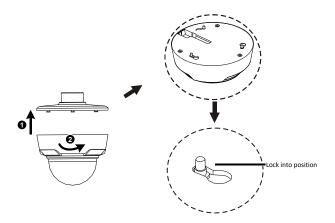
1. Secure screws to the adapter.



2. Attach the adapter to the mounting bracket.

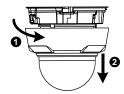


3. Secure the camera unit to the adapter and connect the cables.

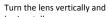


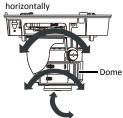
4. Remove the dome bubble.

Loosen dome bubble in "open" direction

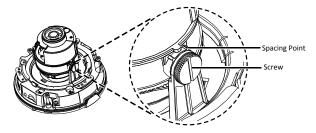


5. Adjust the monitoring direction.

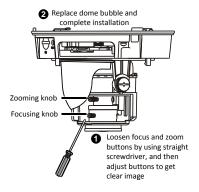




6. When you adjust the camera vertically, loosen the fixing screws on both sides lightly, rotate the camera to the desired monitoring direction and then fasten the screws. Please stop rotating the camera when the spacing point is blocked, otherwise the camera lens might be damaged.



7. For manual lens, power on the device, and then turn the rotate knob to get clear image. For more information about replacing the dome bubble, see Replace the dome bubble.



8. For automatic lens, you can adjust the image directly after power on the device.

In-ceiling Mount



Take cautions not to drop the camera when replacing the dome bubble. Rotate to secure the camera to the adapter in the opposite direction after replacing the dome bubble.

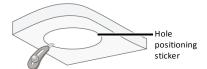
In-ceiling mount is usually adopted in indoors mounting for suspended ceiling structure. Mount bracket needs to be purchased separately. For details about the bracket model, see the recommended list provided by your dealer.

Check before installation:

- Ensure that the space beyond the suspended ceiling is at least 300 mm high, and the suspended ceiling is 10–40 mm thick. Otherwise, the in-ceiling bracket cannot be properly mounted to the ceiling.
- Ensure that the ceiling can bear the weight of the camera and the in-ceiling bracket. Otherwise, it is recommended to consolidate the ceiling by using a customized mounting kit.
 Steps:

1. Drill holes in the ceiling.

Paste the hole positioning sticker of the in-ceiling bracket onto the ceiling and drill a proper-sized hole in the ceiling.

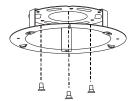


2. Mount the inside bracket to the ceiling.

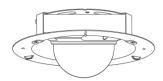
Put the inside bracket through the hole of the ceiling and align the inner edge of the bracket with the edge of the hole.



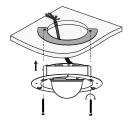
3. Fix the screws to the in-ceiling bracket.



4. Rotate to mount the camera to the ceiling bracket.

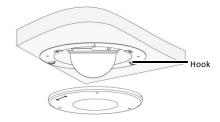


5. Mount the camera to the ceiling and fix the in-ceiling bracket.



6. Mount a plastic panel to protect the camera.

Turn to lock the hook in the plastic panel into the buckle.



Start the Camera

After verifying that the camera is properly mounted, connect one end of the power adapter to the mains and connect the other end to the power interface. At this time, the system status indicator lights (see <u>Camera Structure</u>). When the indicator turns green, the camera has been successfully started.

Reset the Camera to Default Settings

Remove the dome bubble first. For the detailed steps, see the first step in <u>Insert the Micro SD Card (Optional)</u>. Press and hold the Reset button in the bottom (as shown in <u>Figure 1</u>) for about 15 seconds till the system status indicator turns red. The Reset button only works within ten minutes after the camera is powered on. Then the camera is restored to the default settings after the startup.

Waterproof Measures

Waterproof Components for an RJ45 Plug

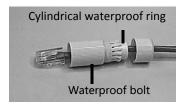
1. Attach the seal ring to the copper interface.



2. Mount the waterproof components.



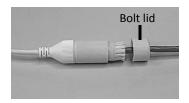
3. Insert the cylindrical waterproof ring into bolt.



4. Insert the cable into the Ethernet copper interface and screw the waterproof bolt in.



5. Screw in the waterproof bolt lid.



6. Finish the waterproof installation.





You can crimp the inner wires of the cable with the RJ45 plug first and then cover the waterproof components or cover the waterproof components first.

Waterproof Tail Cable

Connect the tail cables and then take the following steps to protect the tail cables from water using waterproof tapes. The following figures are for your reference only.

1. Connect the tail cables.



2. Protect the connected cables using insulating tapes.



3. Protect other cables using insulating tapes.



4. Wrap all the tail cables together using insulating tapes.



5. Choose a start point for waterproof tapes.



6. Protect the tail cables using waterproof tapes.





- Avoid short circuit when insulating the cables.
- Use self adhesive waterproof tapes that will stick together with the twisted cables.
- Tighten waterproof tapes when wrapping the cables and make sure the cable connections are fully covered.
- You are recommended to put the waterproof cables in a waterproof junction box which needs to be purchased separately.

3 Set Your Camera over the LAN

To view and configure your camera via the LAN (Local Area Network), you need to install the EZStation to find your camera and change its IP address.



- Please contact your dealer to get the EZStation software.
- Please refer to the user manual of EZStation for detailed information.
- Connect your camera and your PC as shown in the figure below to ensure the routing is available.



- 2. Use EZStation to search online cameras automatically.
- Modify your camera settings if necessary, including its IP address and subnet mask.



- The default IP address is "192.168.0.13". The default username is "admin" and the default password is "123456".
- To access your camera from a different subnet, set the gateway for your camera after you log in.

Access Your Camera

System Requirements for Your PC

Item	Requirements
Operating system	Microsoft Windows8/Windows7/Windows XP (32-bit or 64-bit). Microsoft Windows7 is recommended.
СРИ	2.0GHz or higher, dual-core. Intel i3 CPU or above is recommended.
Memory	At least 1GB. 2GB (or higher) is recommended.
Graphic card	At least 128MB display memory. Mainstream discrete graphics with more than 1GB display memory are recommended. The hardware should support DirectX9.0c. Note: Make sure that the latest driver is installed on graphic card.
Sound card	Required. Note: Two-way audio and voice broadcast require the latest driver on sound card.
Network card	Megabit Ethernet network cards (or higher) are recommended.

Access Your Camera

Before you begin, check that:

- Your camera is operating properly and connected to the network.
- The PC you are using is installed with Internet Explorer 7.0 or later. IF 8.0 is recommended.

Follow these steps to access your camera through the Web interface:

- Open your browser, input the IP address of your camera (default IP is 192.168.0.13) in the address bar and then press Enter to open the login page.
- Enter the username (default is "admin") and password (default is "123456") and then click Login.



Install the ActiveX at your first login. For the detailed steps, see <u>Install the ActiveX</u>. When the installation of the ActiveX is completed, open your IE to log in.

Install the ActiveX

The following takes the IE browser as an example to describe the installation steps.

1. Click Download.



Click Run to install the downloaded ActiveX. You may also clickSave to download the file to your computer first.



- For your first login with Windows 7, if the system does not prompt you to install ActiveX, follow these steps to turn off UAC: click the Start button, and then click Control Panel. In the search box, type uac, and then click Change User Account Control Settings. Move the slider to the Never Notify position, and then click OK. After UAC is turned off, log in again.
- If the installation failed, open Internet Option in IE before login. Click the Security tab, click Trusted sites, and then click Sites to add the website. If you use Windows 7, you need to save the setup.exe to your PC first, and then right-click the file, select Run as administrator, and then install it according to instructions.

Adjust the Display

For manual lens, uncover the dome bubble, and then turn the lens to adjust the zoom and focus. For motorized zoom lens, click the **Zoom** and **Focus** buttons on the Web page.



You can also connect the local video output interface on your camera to your monitor. When video is displayed on your monitor, adjust the zoom and focus of your camera while watching the display till you get a satisfying display.

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