Bullet with Integrated Bracket (B4x)

Mounting on a Dropped Ceiling using the Ceiling Bracket

Installation Guide

For Models:

B41, B44, B45, B47

2014/05/06

ACTi
Connecting Vision

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Installation Procedures

The camera comes with an integrated bracket used for wall installations. To mount the camera on the ceiling, replace the integrated bracket with the **Ceiling Bracket (PMAX-1300)**.

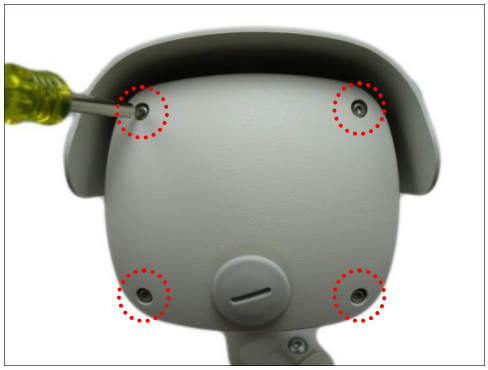
NOTE: Screws for ceiling installation are not supplied with the camera or the ceiling bracket package. Purchase applicable screws separately according to the material of the ceiling where the camera will be installed.

IMPORTANT! Before installation, make sure the ceiling can bear more than the weight of the camera and its bracket.

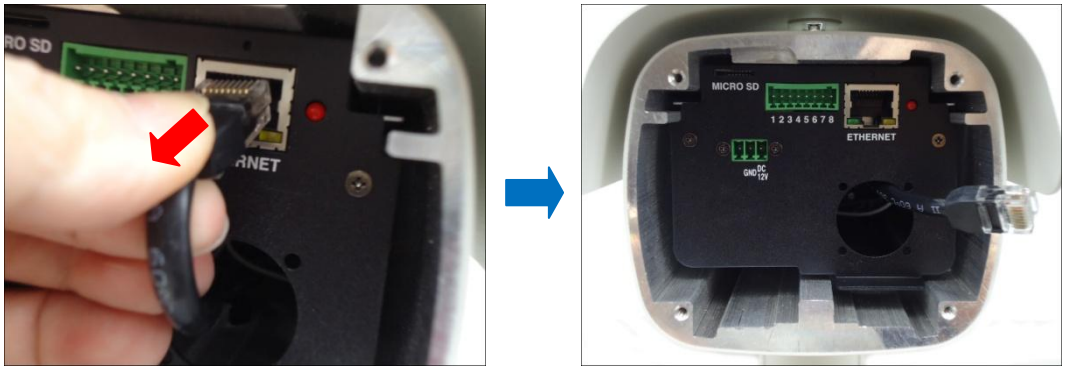
Step 1: Disconnect the Ethernet Cable

Before replacing the integrated bracket, the network cable or “pigtail” must be disconnected and removed from the camera first.

1. Loosen the four (4) screws to remove the back cover of the camera.



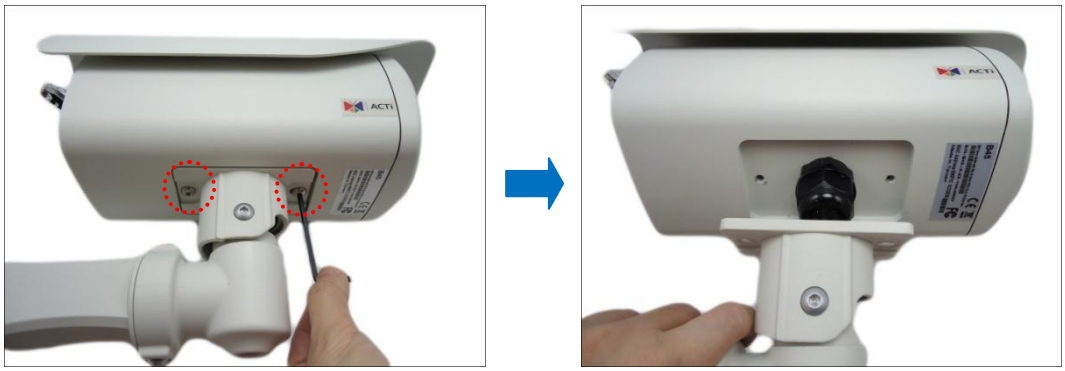
2. Disconnect the network cable from the Ethernet port and let it loose.



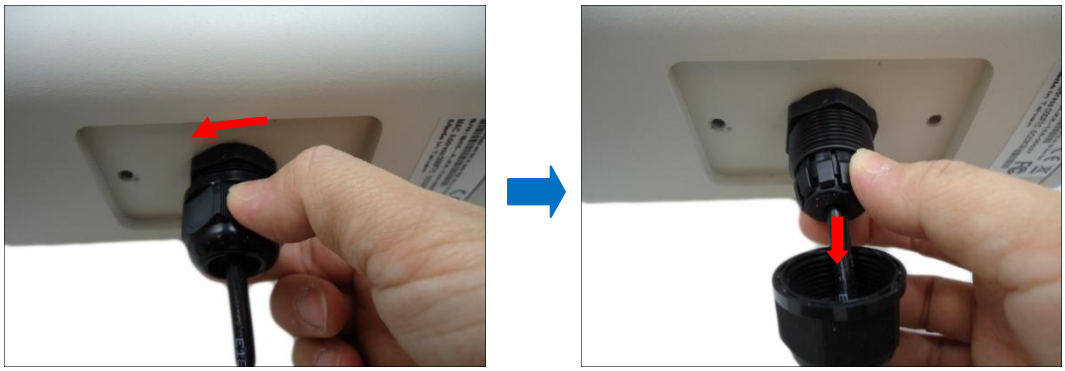
NOTE: This network cable is the other end of the “pigtail”.

Step 2: Remove the Integrated Bracket

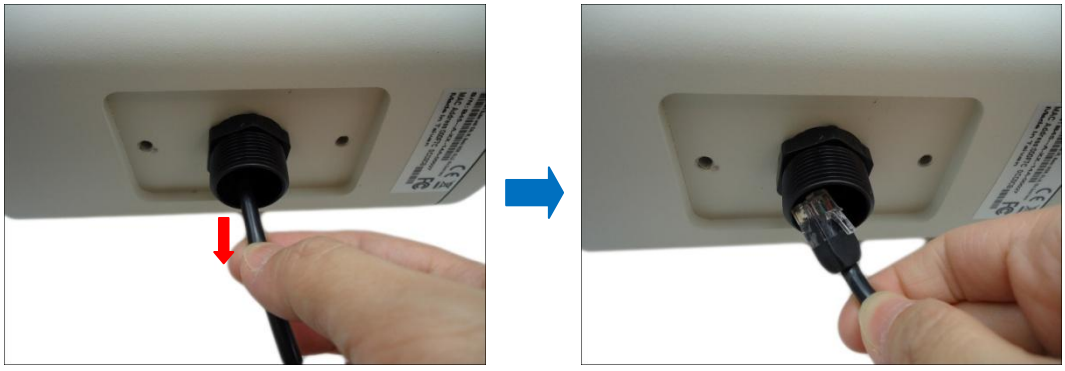
1. Using the bundled camera base wrench, detach the two (2) screws to remove the bracket.



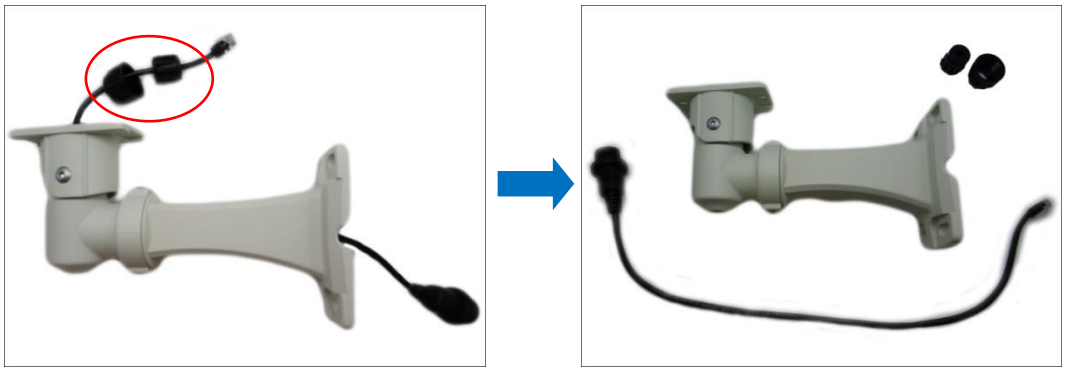
2. Remove the clamping nut and sealing insert.



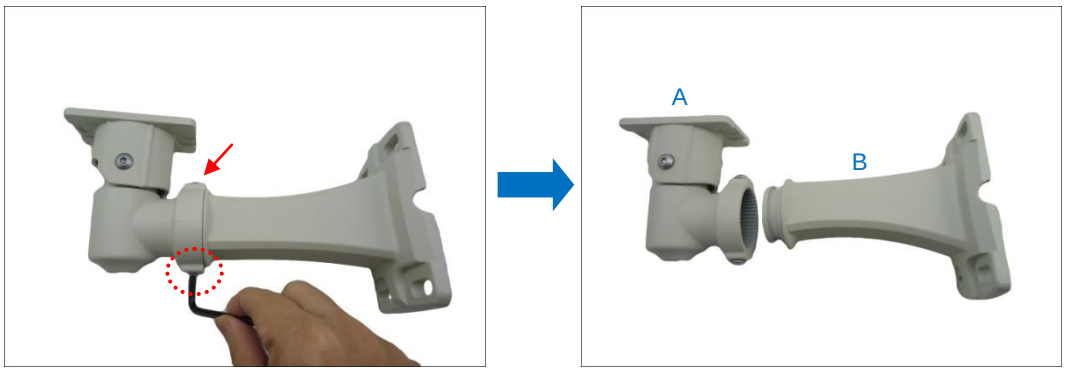
3. Pull the “pigtail” from the camera.



4. Remove the sealing insert and clamping nut from the cable, and then pull out the “pigtail” from the bracket.



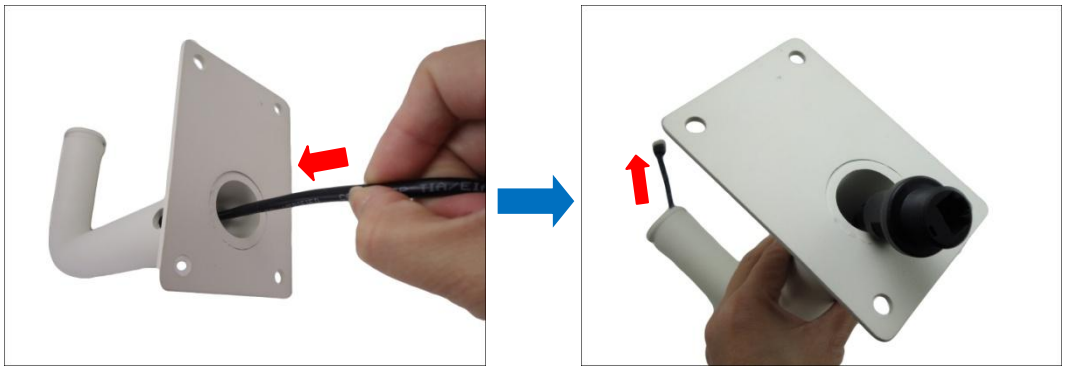
5. Loosen the two (2) screws using the bundled bracket wrench to detach the bracket (B) from the main bracket (A).



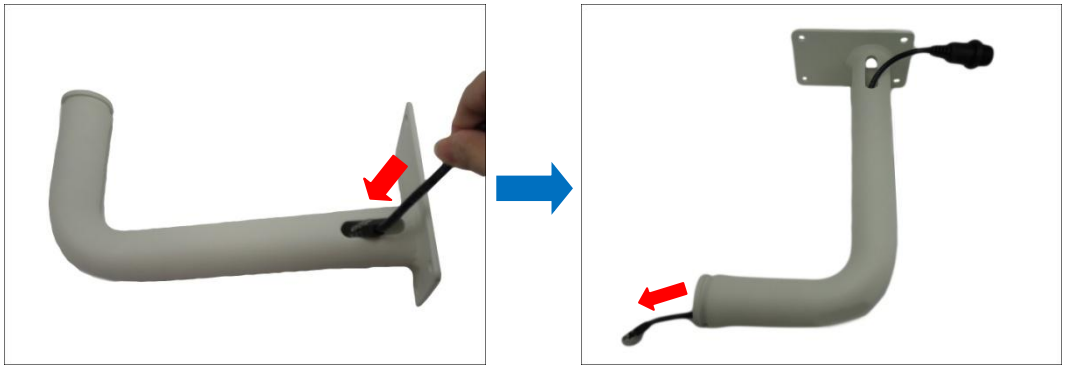
Step 3: Insert the Cable Through the Ceiling Bracket

1. Determine how the cable will be routed: ***pass through the ceiling*** or ***along the ceiling***.

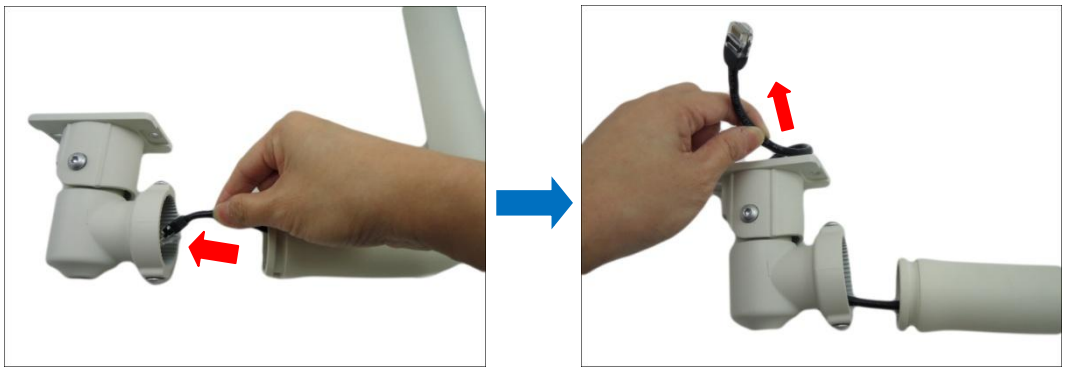
   - ***If the cable will pass through the ceiling***, insert the “pigtail” through the top hole of the ceiling bracket.



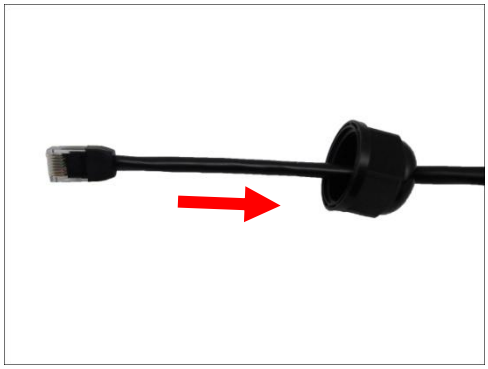
   - ***If the cable will be routed along the ceiling***, insert the “pigtail” through the side hole of the ceiling bracket.



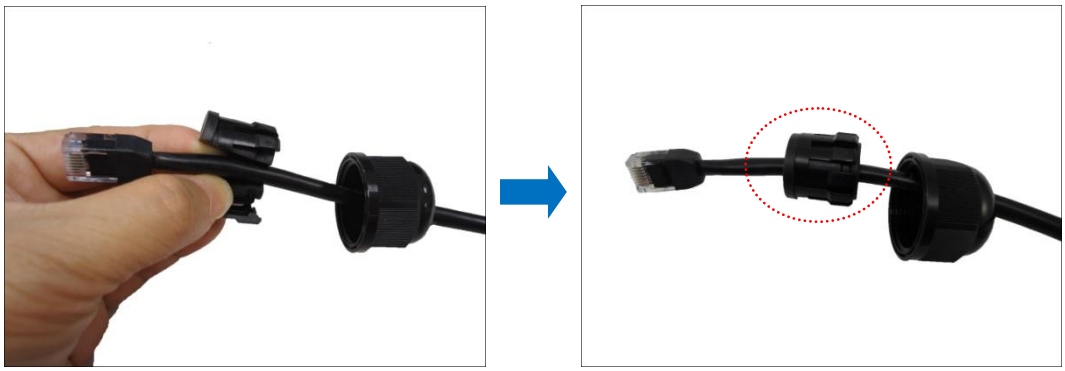
2. Insert the “pigtail” through the main bracket.



3. Insert the clamping nut into the Ethernet cable.

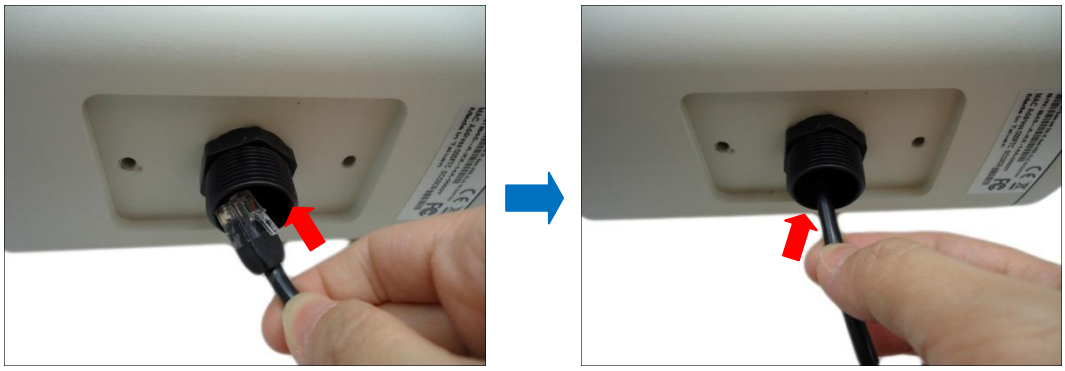


4. Insert the sealing insert with the claw.

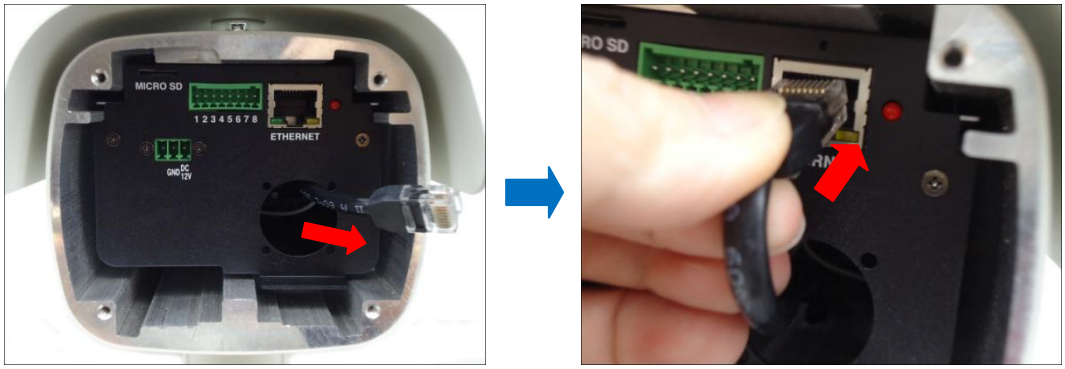


Step 4: Connect the Cable to the Camera

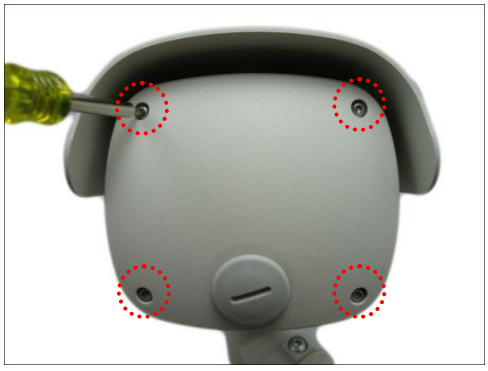
1. Insert the Ethernet cable through the bottom hole of the camera.



2. Pull the cable towards the back of the camera, and then connect the cable to the Ethernet port.

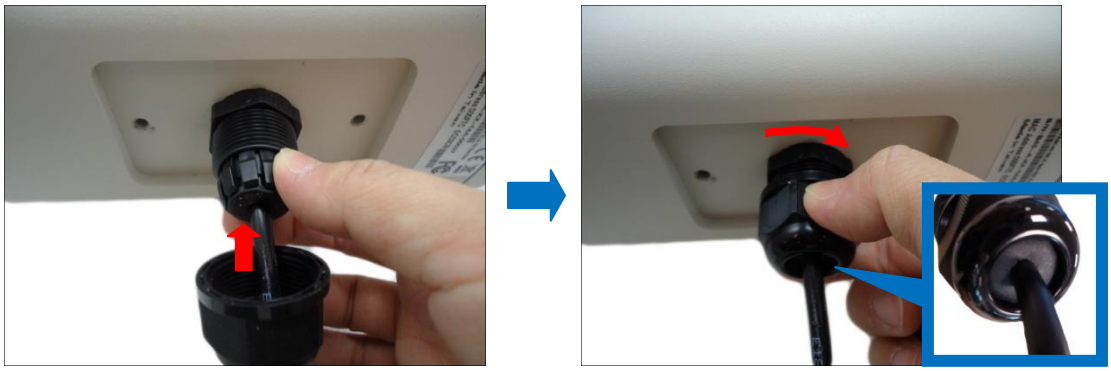


3. Tighten the four (4) screws to attach the back cover to the camera.



Step 5: Attach the Ceiling Bracket to the Camera

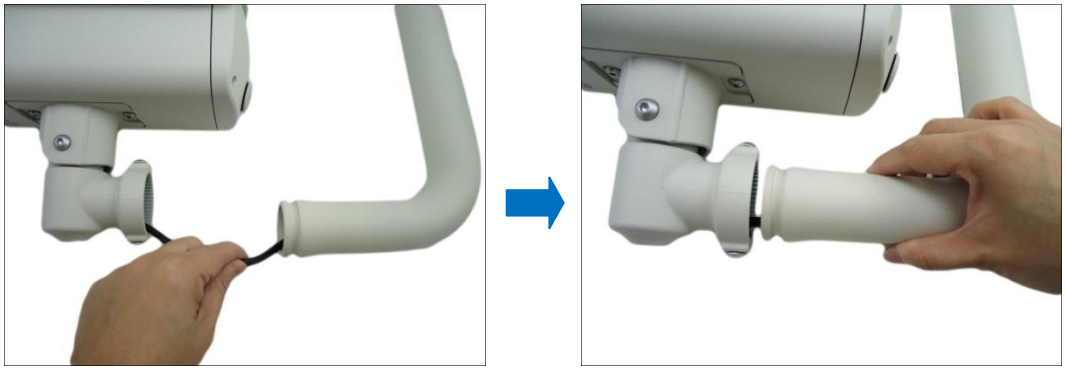
1. Insert the sealing insert through the gland body and attach the clamping nut.



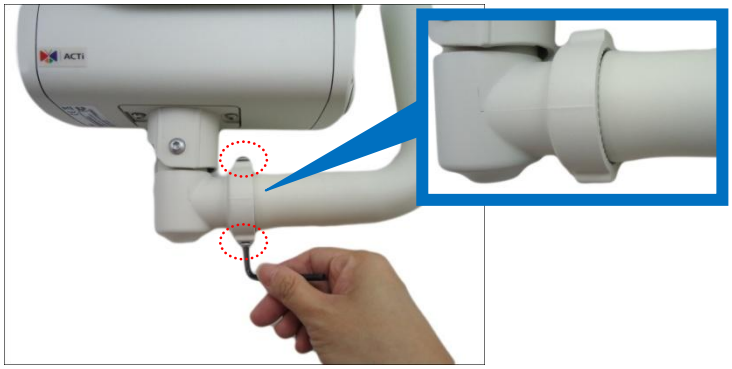
NOTE: Make sure the clamping nut is tightly attached to the gland body and the sealing insert is squeezed tightly.

2. Secure the two (2) screws using the bundled bracket wrench to attach the main bracket to the camera.

3. Push the excess length of cable through the ceiling bracket and align the ceiling bracket to the main bracket.



4. Tighten the two (2) screws to secure the ceiling bracket to the main bracket.



Step 6: Install the Camera to the Ceiling

If necessary, drill the screw holes using the supplied drill template. If the cable will pass through the ceiling, drill the cable hole and route the network end of the camera through that cable hole. Otherwise, simply attach the camera to the ceiling using four (4) screws.

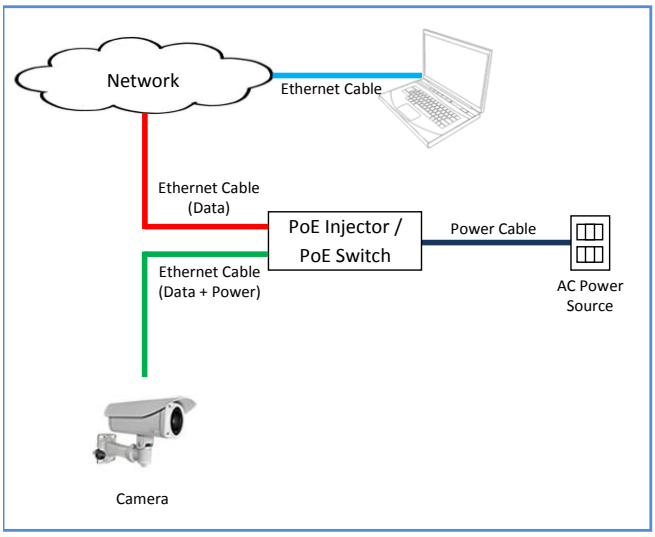
NOTE: Screws for ceiling installation are not supplied with the camera nor the ceiling bracket package. Purchase applicable screws separately according to the material of the ceiling where the camera will be installed.

Step 7: Waterproof and Connect the Network Cable

See ***Waterproof Solution Using the "Pigtail"*** on page 13.

Step 8: Connect to Network

Connect the other end of the network cable to a switch or injector. Then, connect the switch or injector to a network or PC and a power source. See Power-over-Ethernet (PoE) example connection diagram below.



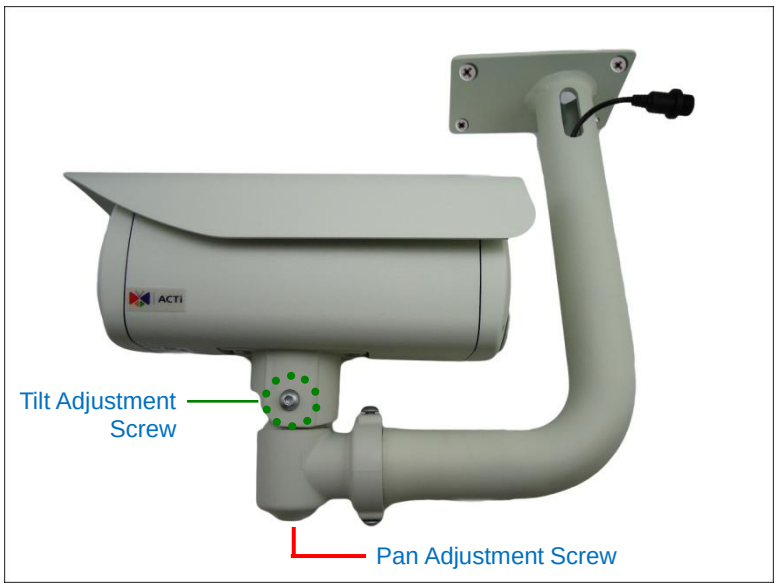
In case of using a non-PoE switch, power up the camera using a power adapter (not supplied). See the camera Hardware Manual, downloaded from our website (www.acti.com) for more information on connecting other devices.

Step 9: Access the Camera Live View

See ***How to Access the Camera Live View*** on page 21.

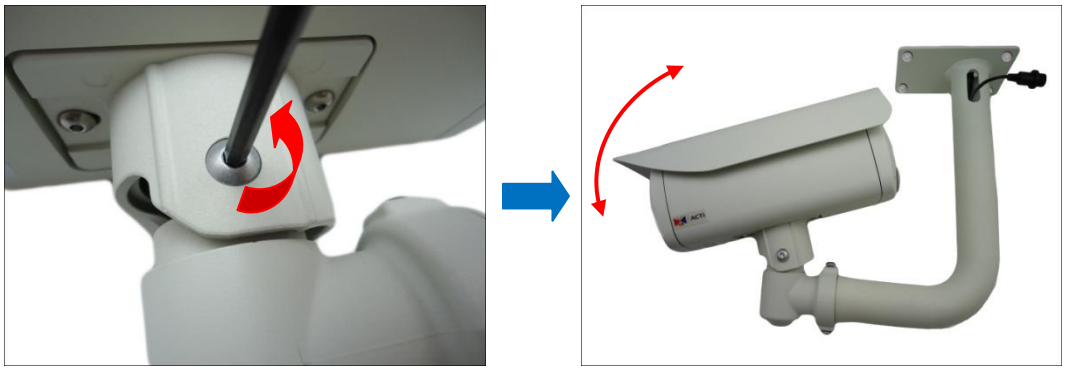
Step 10: Adjust the Viewing Angle and Focus

Based on the camera live view, adjust the camera viewing angle. Do the following:

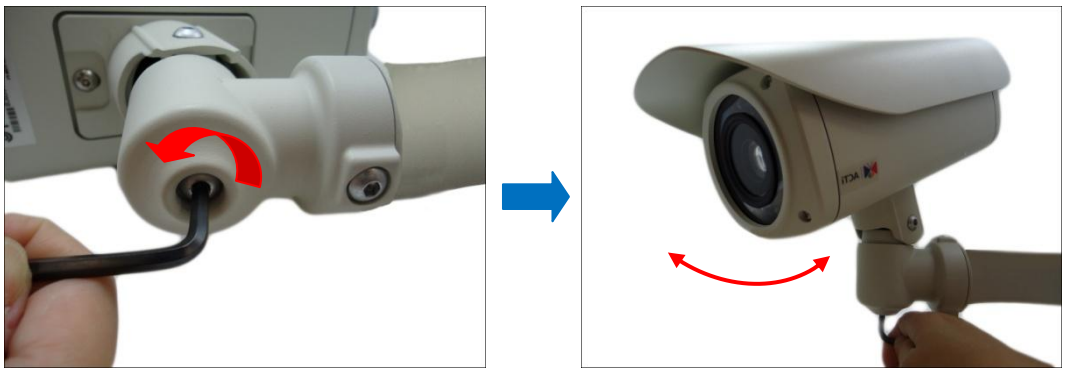


Using the bundled bracket wrench, do the following:

1. Loosen the tilt adjustment screws, adjust the camera tilt, and then tighten back the screws to fix the tilt position.



2. Loosen the pan adjustment screw, move the pan direction, and then tighten back the screw to fix the pan position.



Waterproof Solution Using the “Pigtail”

The camera and the pre-installed network cable, “pigtail”, are resistant to salt, water, weak acid, alcohol, oil, grease and other common solvents. However, users must ensure that the cable connection and the network side cable itself are also protected from different environmental factors.

When using a Power-over-Ethernet (PoE) switch or injector, connecting the network cable through the “pigtail” is recommended. In this case, there are two waterproofing methods.

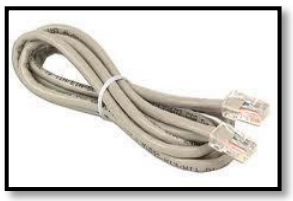
Bundled Accessory	Description
Female Cable Gland	Use this solution when connecting an Exterior-grade Ethernet cable between the camera and a Power-over-Ethernet (PoE) switch or injector. See ***How to Use the Female Cable Gland*** on page 14.
Female Conduit Gland	Use this solution when connecting a standard indoor Ethernet cable between the camera and a Power-over-Ethernet (PoE) switch / injector. A flexible conduit (trade size 1/2”) is required to house the Ethernet cable. See ***How to Use the Female Conduit Gland*** on page 17 . **NOTE:** The flex conduit is not included in the package and must be purchased separately.

If other devices, such as a power adapter, digital or audio input or output devices will be connected to the camera, or in some cases, users may require the use of specific cables with customized length, use the back connectors of the camera to connect the cables. See the camera Hardware Manual downloadable from our website (www.acti.com) for more cabling information.

How to Use the Female Cable Gland

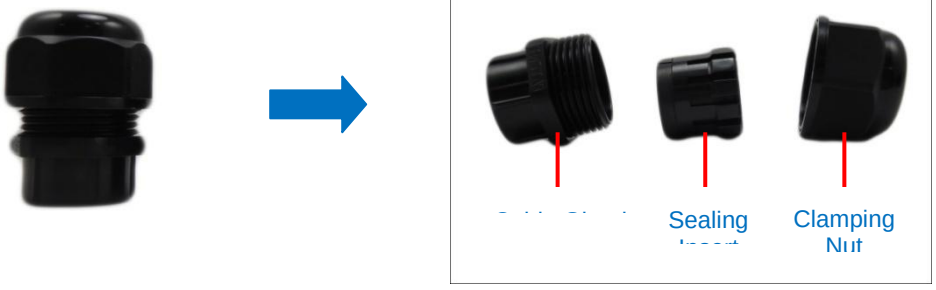
This section describes how to waterproof the cable-out or “pigtail” of the camera using the bundled ***female*** cable gland. An exterior-grade Ethernet cable is required. The camera may or may not have to be installed first before doing the cable connections (see related installation procedures for details).

Before connection, prepare the following materials:

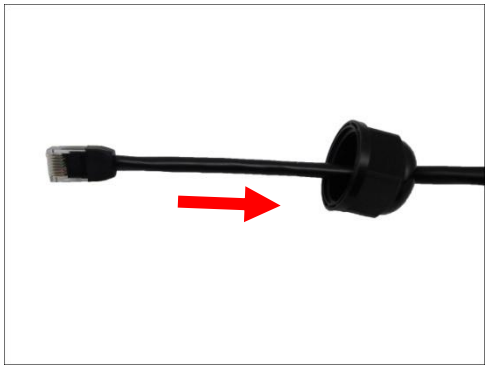
Female Cable Gland (included in the camera package)	**Exterior-Grade Ethernet Cable** (not included in the package)
	 **NOTE:** Exterior-grade cables are already waterproof. *Not included in the package.*
Washer (included in the camera package)	

Perform the following to waterproof the “pigtail” using the ***female*** cable gland:

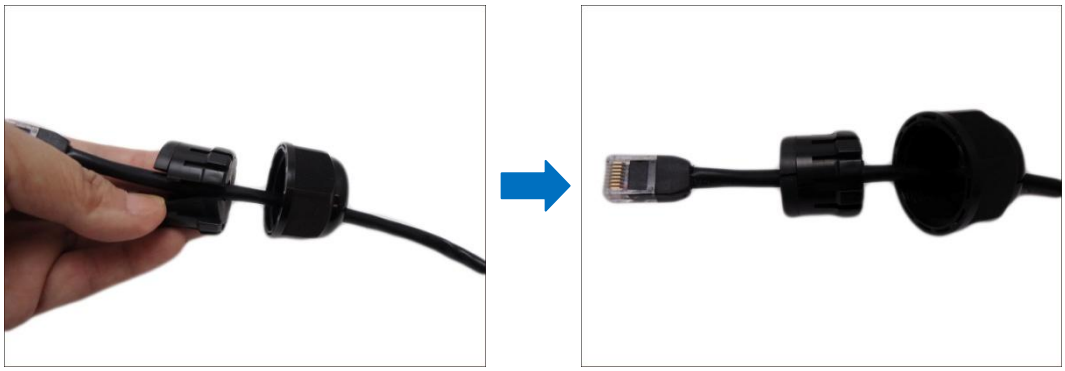
1. Disassemble the female cable gland as shown below:



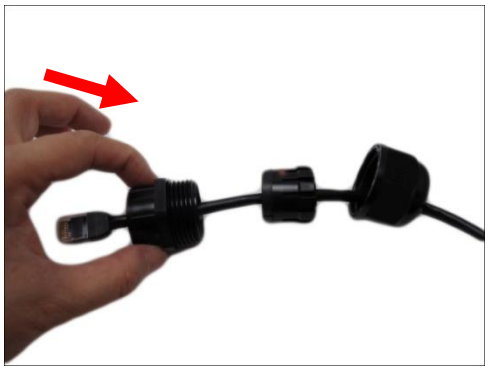
2. Insert the clamping nut into the Ethernet cable.



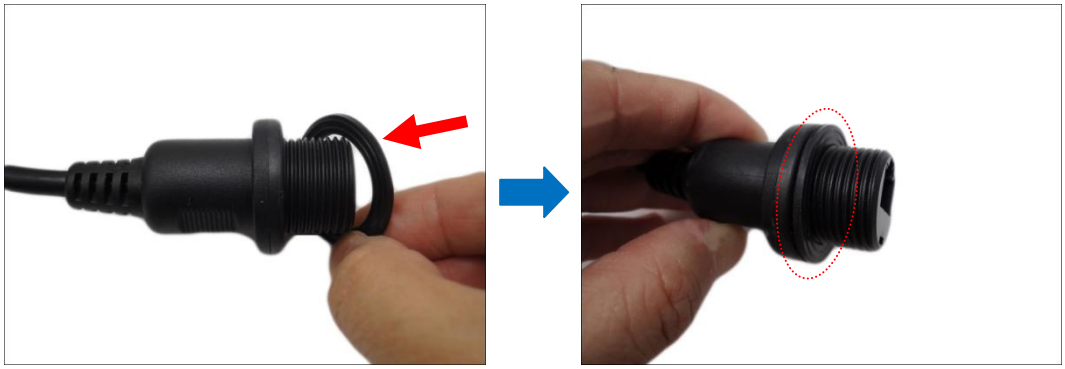
3. Insert the sealing insert with claw.



4. Insert the gland body into the Ethernet cable.

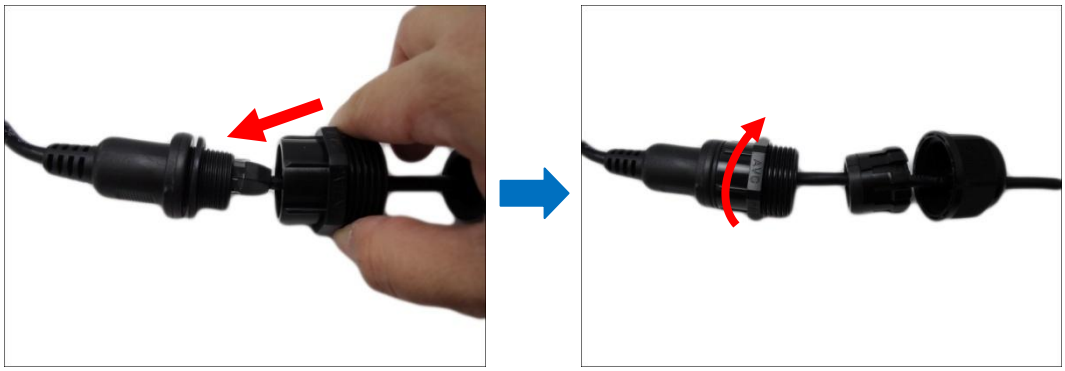


5. On the “pigtail” side, insert the washer into the “pigtail”.



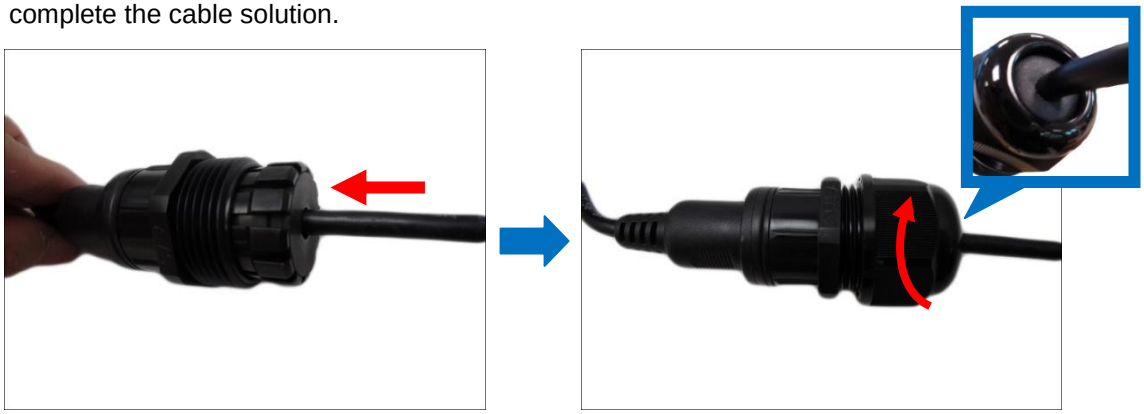
6. Connect the Ethernet cable connector to the “pigtail” connector.

7. Attach the gland body to the “pigtail”.



NOTE: Make sure the gland body is tightly attached to the “pigtail” and the washer is secured between them.

8. Insert the sealing insert into the cable gland body and then attach the clamping nut to complete the cable solution.



NOTE: Make sure the clamping nut is tightly attached to the cable gland body and the sealing insert is squeezed tightly.

How to Use the Female Conduit Gland

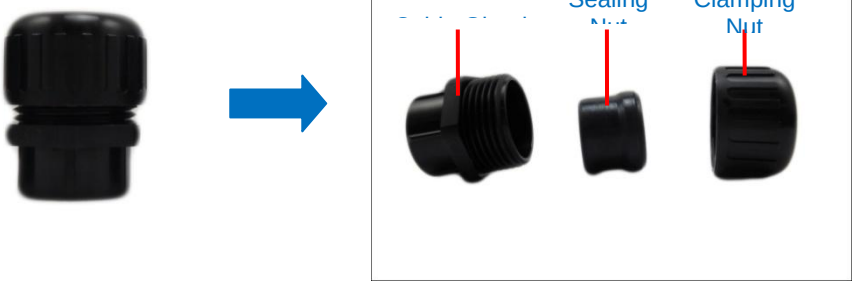
This section describes how to waterproof the cable-out or “pigtail” of the camera using the bundled ***female*** conduit gland and flexible conduit. This is the recommended solution if an exterior-grade Ethernet cable is not available. The camera may or may not have to be installed first before doing the cable connections (see related installation procedures for details).

Before connection, prepare the following materials:

Female Conduit Gland (included in the camera package)	**Flexible Conduit** 1/2" Trade size (not included in the package)
	 NOTE: Not included in the package.
Washer (included in the camera package)	**Ethernet Cable** CAT 5 or CAT 6 (not included in the package)

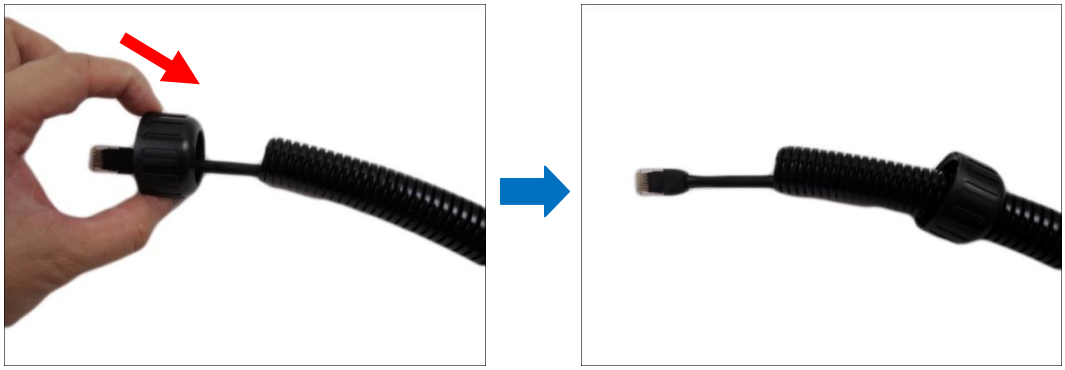
Perform the following to waterproof the “pigtail” using the ***female*** conduit gland:

1. Disassemble the female conduit gland as shown below:

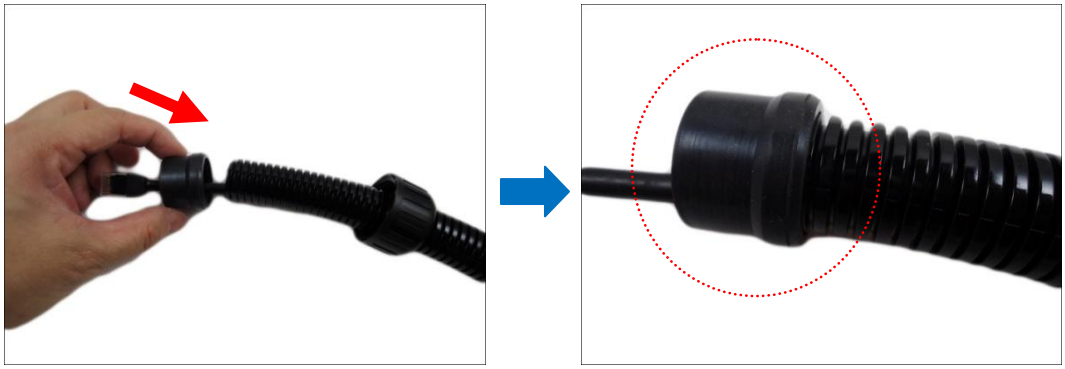


2. Pull the Ethernet cable through the flex conduit. Leave enough length of the cable outside the flex conduit.

3. Insert the clamping nut into through the flex conduit.

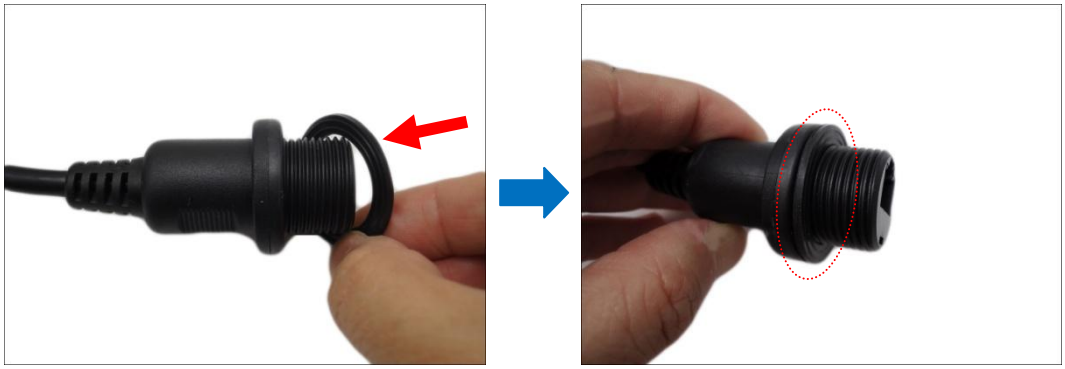


4. Insert the sealing nut and fix it at the end of the flex conduit.



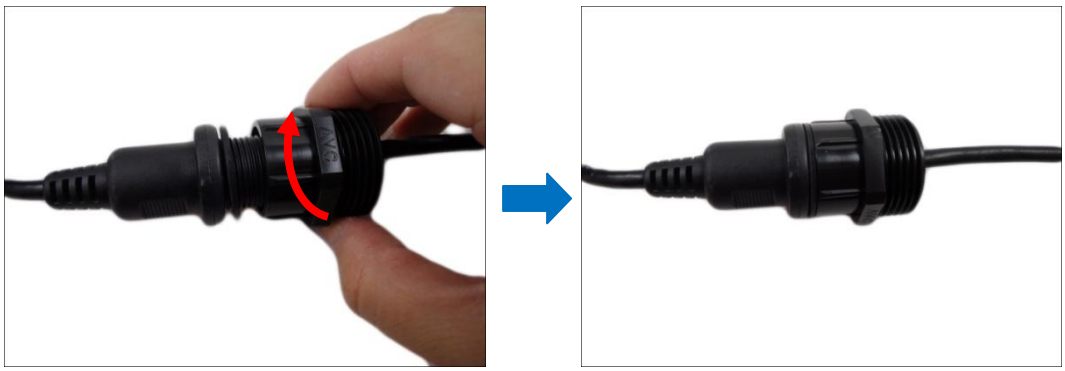
5. Insert the gland body into the Ethernet cable.

6. On the “pigtail” side, insert the washer into the “pigtail”.



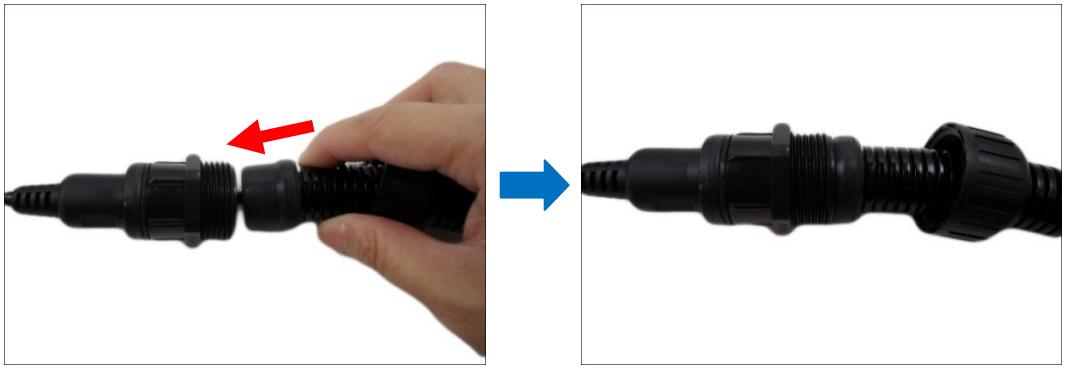
7. Connect the Ethernet cable connector to the “pigtail” connector.

8. Attach the gland body to the “pigtail”.



NOTE: Make sure the gland body is tightly attached to the “pigtail” and the washer is secured between them.

9. Push the flex conduit and insert the sealing nut into the gland body.



NOTE: Make sure the clamping nut is tightly attached to the cable gland body and the sealing insert is squeezed tightly.

10. Attach the clamping nut to complete the cable solution.

Appendices

How to Access the Camera Live View

Connect the Equipment

To be able to connect to the camera firmware from your PC, both the camera and the PC have to be connected to each other via Ethernet cable. At the same time, the camera has to have its own power supply. In case of PoE cameras, you can use a PoE Injector or a PoE Switch between the camera and the PC. The cameras that have the DC power connectors may be powered on by using a power adapter.

Configure the IP Addresses

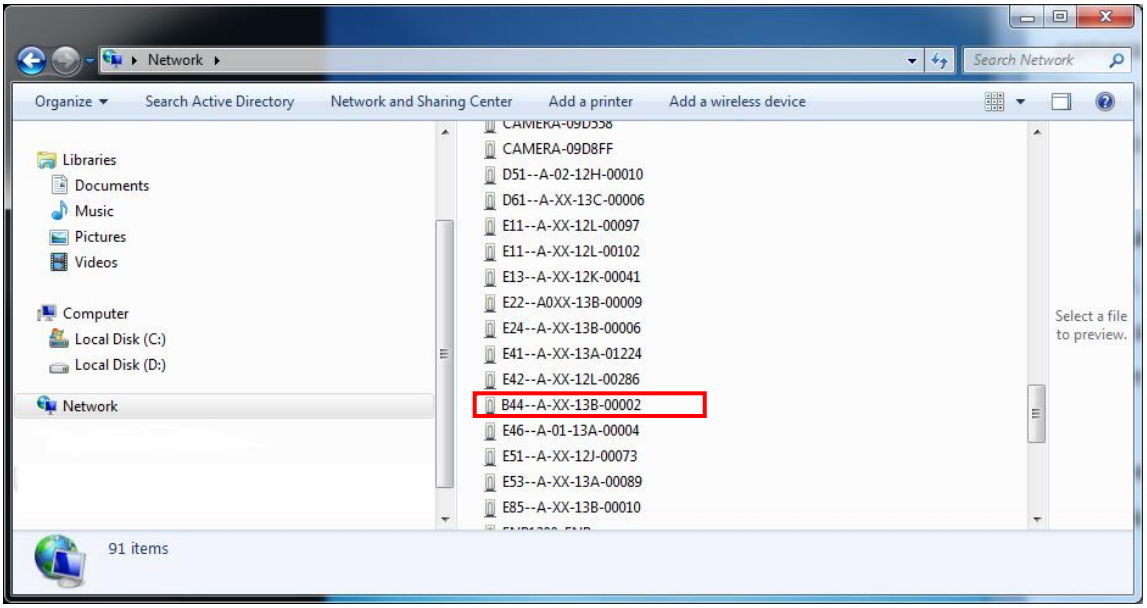
In order to be able to communicate with the camera from your PC, both the camera and the PC have to be within the same network segment. In most cases, it means that they both should have very similar IP addresses, where only the last number of the IP address is different from each other. There are 2 different approaches to IP Address management in Local Area Networks – by DHCP Server or Manually.

Using DHCP server to assign IP addresses:

If you have connected the computer and the camera into the network that has a DHCP server running, then you do not need to configure the IP addresses at all – both the camera and the PC would request a unique IP address from DHCP server automatically. In such case, the camera will immediately be ready for the access from the PC. The user, however, might not know the IP address of the camera yet. It is necessary to know the IP address of the camera in other to be able to access it by using a Web browser.

The quickest way to discover the cameras in the network is to use the simplest network search, built in the Windows system – just by pressing the “Network” icon, all the cameras of the local area network will be discovered by Windows thanks to the UPnP function support of our cameras.

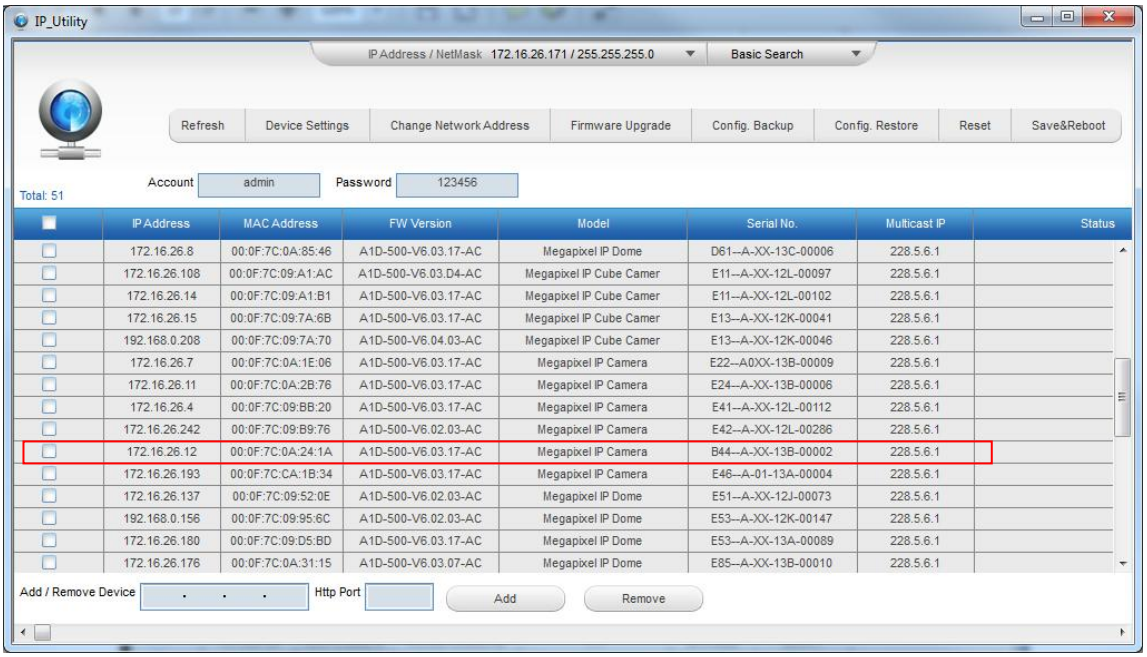
In the example below, we successfully found the camera model that we had just connected to the network.



By double-clicking the mouse button on the camera model it is possible to automatically launch the default browser of the PC with the IP address of the target camera filled in the address bar of the browser already.

If you work with our cameras regularly, then **there is even a better way to discover the cameras in the network** – by using **IP Utility**. The IP Utility is a light software tool that can not only discover the cameras, but also list lots of valuable information, such as IP and MAC addresses, serial numbers, firmware versions, etc, and allows quick configuration of multiple devices at the same time.

The IP Utility can be downloaded for free from **http://www.acti.com/IP_Utility**
With just one click, you can launch the IP Utility and there will be an instant report as follows:



You can quickly notice the camera model in the list. Click on the IP address to automatically launch the default browser of the PC with the IP address of the target camera filled in the address bar of the browser already.

Use the default IP address of a camera:

If there is no DHCP server in the given network, the user may have to assign the IP addresses to both PC and camera manually to make sure they are in the same network segment.

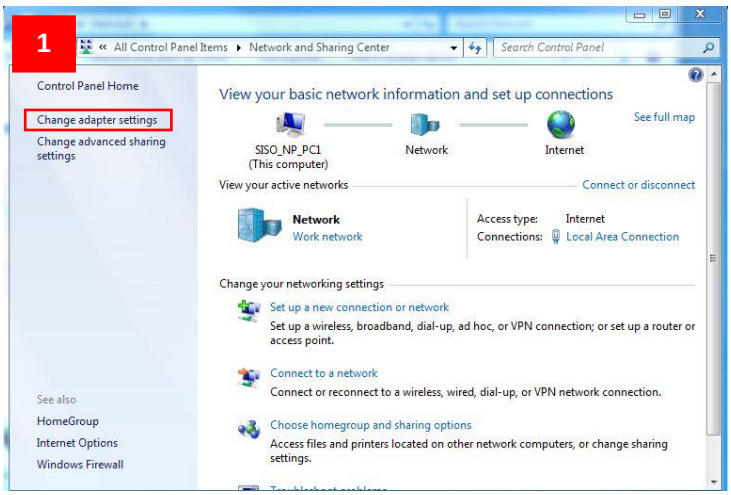
When the camera is plugged into network and it does not detect any DHCP services, it will automatically assign itself a default IP:

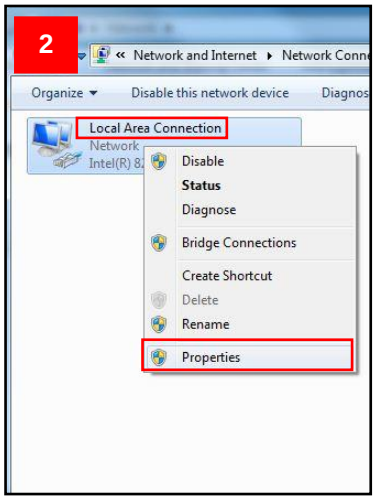
192.168.0.100

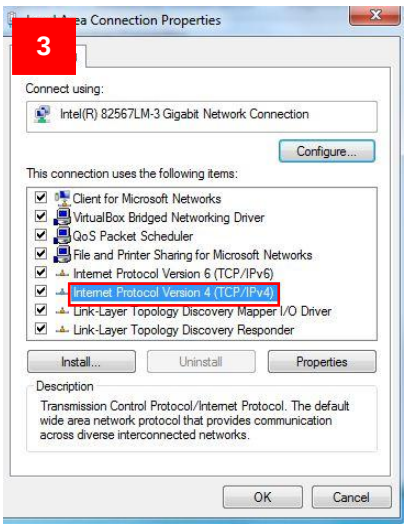
Whereas the default port number would be **80**. In order to access that camera, the IP address of the PC has to be configured to match the network segment of the camera.

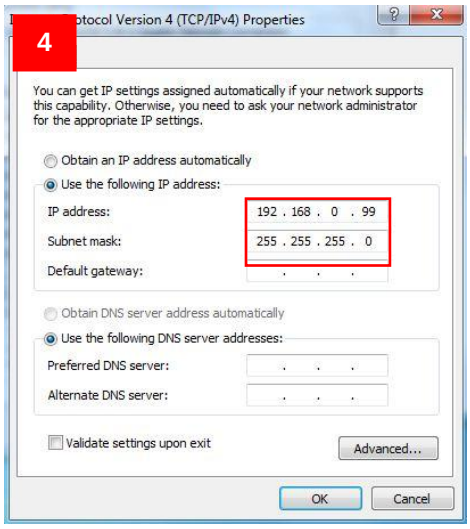
Manually adjust the IP address of the PC:

In the following example, based on Windows 7, we will configure the IP address to **192.168.0.99** and set Subnet Mask to **255.255.255.0** by using the steps below:



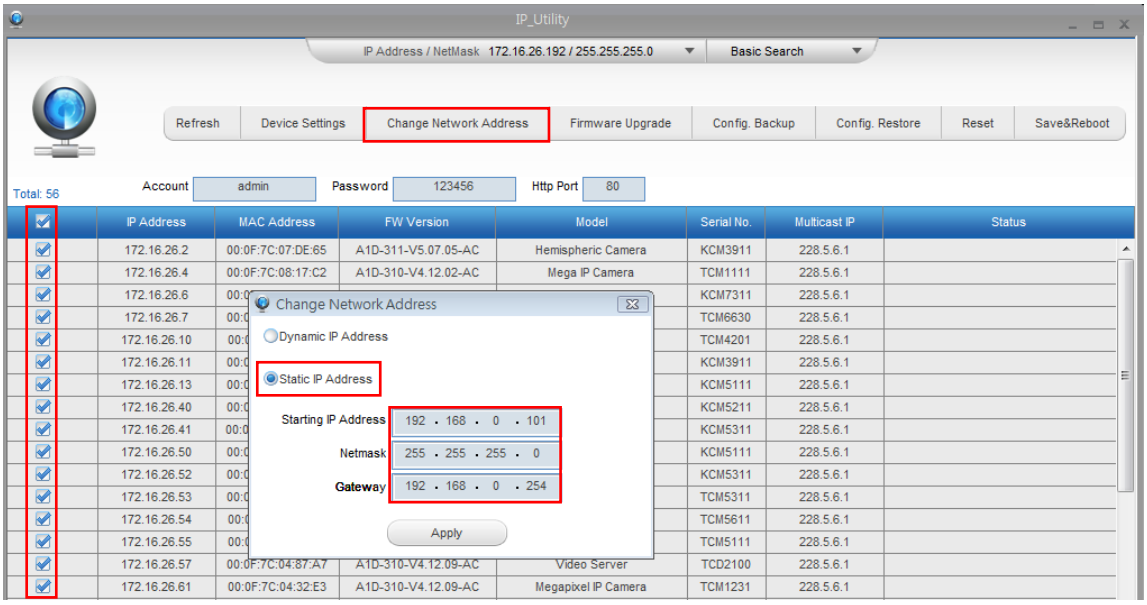






Manually adjust the IP addresses of multiple cameras:

If there are more than 1 camera to be used in the same local area network and there is no DHCP server to assign unique IP addresses to each of them, all of the cameras would then have the initial IP address of **192.168.0.100**, which is not a proper situation for network devices – all the IP addresses have to be different from each other. The easiest way to assign cameras the IP addresses is by using **IP Utility**:



With the procedure shown above, all the cameras will have unique IP addresses, starting from 192.168.0.101. In case there are 20 cameras selected, the last one of the cameras would have the IP 192.168.0.120.

Later, by pressing the “Refresh” button of the IP Utility, you will be able to see the list of cameras with their new IP addresses.

Please note that it is also possible to change the IP addresses manually by using the Web browser. In such case, please plug in only one camera at a time, and change its IP address by using the Web browser before plugging in the next one. This way, the Web browser will not be confused about two devices having the same IP address at the same time.

Access the Camera

Now that the camera and the PC are both having their unique IP addresses and are under the same network segment, it is possible to use the Web browser of the PC to access the camera.

You can use **any of the browsers** to access the camera, however, the full functionality is provided only for **Microsoft Internet Explorer**.

The browser functionality comparison:

Functionality	Internet Explorer	Other browsers
Live Video	Yes	Yes*
Live Video Area Resizable	Yes	No
PTZ Control	Yes	Yes
Capture the snapshot	Yes	Yes
Video overlay based configuration (Motion Detection regions, Privacy Mask regions)	Yes	No
All the other configurations	Yes	Yes

* **QuickTime** (http://www.apple.com/quicktime/download/) has to be installed in PC first before using any non-Internet Explorer browsers to be able to get live video feed from the camera with those browsers. It is a free and open source cross-platform multimedia player.

Disclaimer Notice: The camera manufacturer does not guarantee the compatibility of its cameras with QuickTime – since it is a third party software, the third party has the right to modify their utility any time which might affect the compatibility. In such cases, please use Internet Explorer browser instead.

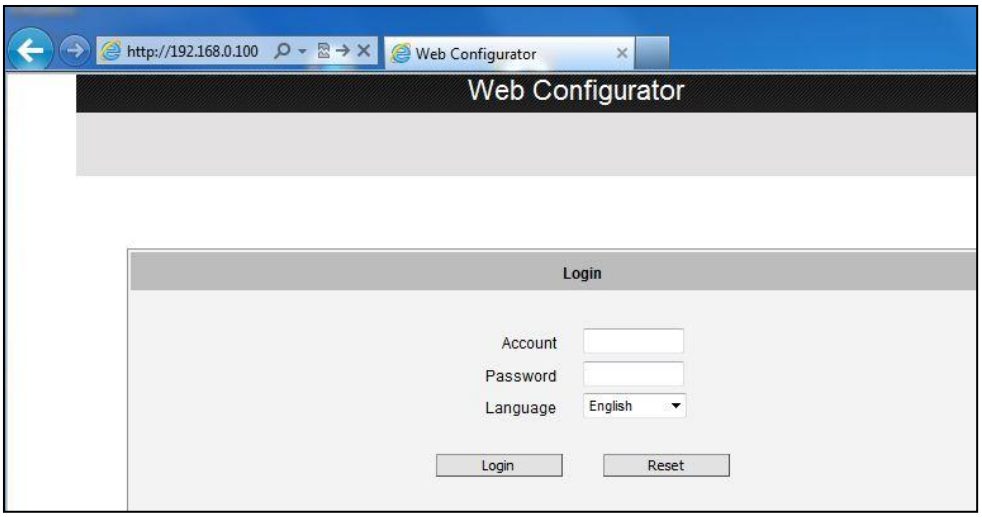
When using Internet Explorer browser, the ActiveX control for video stream management will be downloaded from the camera directly – the user just has to accept the use of such control when prompted so. No other third party utilities are required to be installed in such case.

The following examples in this manual are based on Internet Explorer browser in order to cover all functions of the camera.

Assuming that the camera's IP address is **192.168.0.100**, you can access it by opening the Web browser and typing the following address into Web browser's address bar:

http://192.168.0.100

Upon successful connection to the camera, the user interface called **Web Configurator** would appear together with the login page. The HTTP port number was not added behind the IP address since the default HTTP port of the camera is 80, which can be omitted from the address for convenience.



Before logging in, you need to know the factory default Account and Password of the camera.

Account: **Admin**

Password: **123456**

Safety Information

Read these instructions

You should read all the safety and operating instructions before using this product.

Heed all warnings

You must adhere to all the warnings on the product and in the instruction manual. Failure to follow the safety instruction given may directly endanger people, cause damage to the system or to other equipment.

Trademarks

All names used in this manual are probably registered trademarks of respective companies.

Liability

Every reasonable care has been taken during the writing of this manual. Please inform your local office if you find any inaccuracies or omissions. We cannot be held responsible for any typographical or technical errors and reserve the right to make changes to the product and manuals without prior notice.

Cleaning

Disconnect this video product from the power supply before cleaning.

Attachments

Do not use attachments not recommended by the video product manufacturer as they may cause hazards.

Do not use accessories not recommended by the manufacturer

Only install this device in a dry place protected from weather

Servicing

Do not attempt to service this video product yourself. Refer all servicing to qualified service personnel.

Damage Requiring service

Disconnect this video product from the power supply immediately and refer servicing to qualified service personnel under the following conditions.

1) When the power-supply cord or plug is damaged
2) If liquid has been spilled, or objects have fallen into the video product.
3) If the inner parts of video product have been directly exposed to rain or water.
4) If the video product does not operate normally by following the operating Instructions in this manual. Adjust only those controls that are covered by the instruction manual, as an improper adjustment of other controls may result in damage, and will often require extensive work by a qualified technician to restore the video product to its normal operation.

Safety Check

Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine if the video product is in proper operating condition.

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