



Indoor PTZ Camera

Hardware Manual

I91, I92, I912

Ver. 2015/05/28



ACTi
Connecting Vision

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Precautions

Read these instructions

Read all the safety and operating instructions before using this product.

Heed all warnings

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

Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Trademarks

ACTi and ACTi logos are registered trademarks of ACTi Corporation. All other names and products used in this manual are registered trademarks of their 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. ACTi will not be held responsible for any typographical or technical errors and reserves the right to make changes to the product and manuals without prior notice.

Federal Communications Commission Statement



This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning: Changes or modifications to the equipment that are not expressly approved by the responsible party for compliance could void the user's authority to operate the equipment.

European Community Compliance Statement



This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to European Standard EN 55022 and EN 55024. In a domestic environment, this product may cause radio interference in which cause the user may be required to take adequate measures.

Safety Instructions

Don't use the power supply with other voltages

This device is likely to be damaged or damage other equipments / personnel, if you use a power supply with different voltage than the one included with this device. All warranty of this product will be voided in the situations above.

Cleaning

Disconnect this product from the power supply before cleaning.

Accessories and Repair Parts

Use only the accessories and repair parts recommended by the manufacturer. Using other attachments not recommended by the manufacturer may cause hazards.

Water and Moisture

Do not use this product near water, for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool and the likes. Install this product as well as other devices (such as PoE injector, alarm, etc.) in a dry place protected from weather.

Servicing

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

Damage Requiring service

Disconnect this 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 product.
- 3) If the product has been directly exposed to rain or water.
- 4) If the 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 product to its normal operation.




Safety Check

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





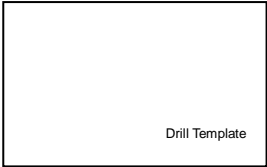
Introduction

List of Models

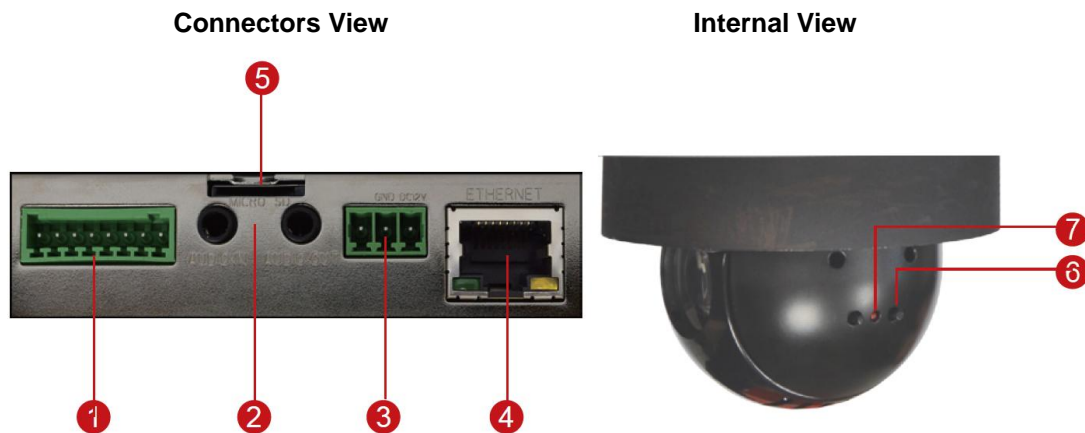
This hardware manual contains the following models:

I91		1MP Indoor PTZ with D/N, Extreme WDR, SLLS, 30x Zoom lens
I92		2MP Indoor PTZ with D/N, Extreme WDR, SLLS, 30x Zoom lens
I912		4MP Indoor PTZ with D/N, Advanced WDR, SLLS, 33x Zoom lens

Package Contents

<p>Camera</p> 	<p>Power Adapter</p> 	<p>Universal Plug Converter</p> 
<p>Surface Mount</p> 	<p>Mounting Screw Kit</p> 	<p>Fixing Bracket</p> 
<p>Drill Template</p> 	<p>Terminal Block (for Power)</p> 	<p>Terminal Block (for DIO/DO)</p> 
<p>Quick Installation Guide</p> 	<p>Warranty Card</p> 	

Physical Description



	Item	Description
1	Digital Input / Output (DI/DO)	Connects to digital input or output devices, such as an alarm trigger, panic button, etc. Digital Input (DI) and Digital Output (DO) devices are used in applications like motion detection, event triggering, alarm notifications, etc. Please refer to Preparing the DI/DO Connector on page 13 for information on how to connect DI/DO devices to your camera.
2	Audio IN / Audio OUT Jacks	The Audio IN jack connects to an audio input device, such as a microphone with built-in amplifier. The Audio OUT jack connects to an audio output device, such as a speaker. NOTE: Make sure that the connected audio input device has a built-in amplifier. Connecting an ordinary microphone will dwarf sounds and will result in inaudible recording.
3	DC 12V Power Input	In case the camera is connected to a non-PoE (Power over Ethernet) switch, use this connector to connect the camera to an external power adaptor. See Preparing the Power Adapter on page 11 for information.
4	Ethernet Port	Connects to a network using a standard Ethernet cable.
5	Memory Card Slot	For local recording, insert a memory card (not included) into the slot with the metallic contacts facing down the camera. NOTE: Supports only microSDHC and microSDXC cards.
6	Reset Button	The Reset Button is used to restore the factory default settings of the camera, including the administrator's password. Press and hold the Reset button for 5 seconds or until the Power LED goes off. See How to Reset the Camera on page 36.
7	Power LED	The Power LED lights red when the camera is powered up.

Before Installation

Unpacking the Camera

NOTE: To avoid scratches or leaving fingerprints on the dome cover, it is recommended to retain the plastic covering the dome cover until the camera is completely installed. However, the plastic has been removed on the pictures in this documentation to show clarity of the procedures being described.

1. Rotate the dome cover counter-clockwise to remove it.



2. Remove the Styrofoam.



3. Rotate the dome cover clockwise to attach it.



Preparing the Power Adapter

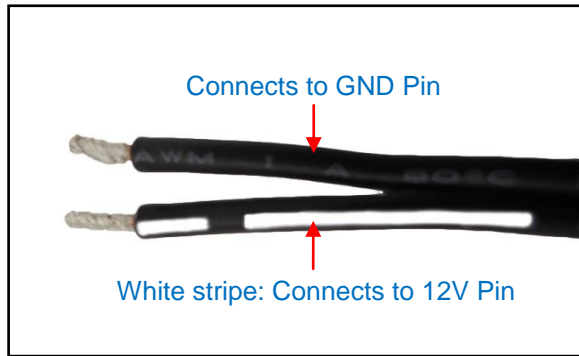
In case of using a non-PoE switch or your PoE switch has limited power supply, you can use the bundled power adapter and directly connect the camera to a power outlet. The power adapter must be connected to the supplied terminal block before use.

To do this, follow the procedures below:

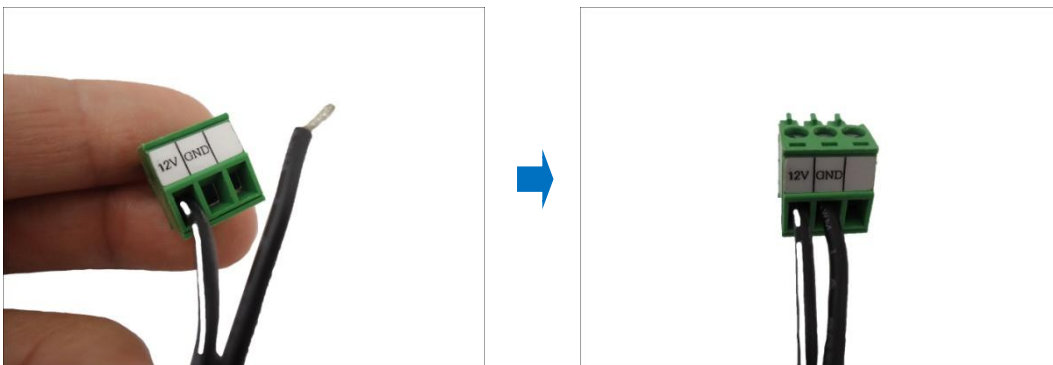
1. Loosen the screws of the **12V** and **GND** pins of the power terminal block.



- Take note that the power adapter cable has two (2) different wires:



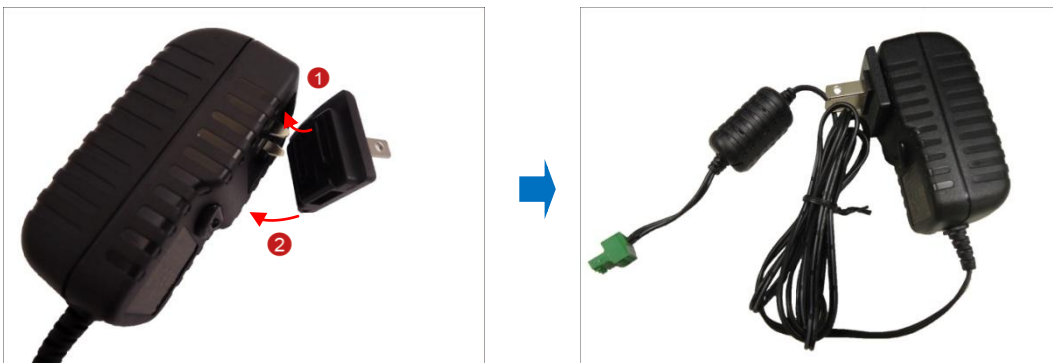
- Connect the wire with the white stripe to the **12V** pin and the other to the **GND** pin.



- Tighten the screws of the **12V** pin and the **GND** pins to secure the wire connection.



- Attach one of the bundled adapter plugs suitable in your location.



Preparing the DI/DO Connector

Depending on your surveillance needs, you may connect digital input or output devices to your camera to trigger events or notifications.

Digital Input (DI) devices can be used to notify the camera about an activity in the camera site. DI can be triggers of events. For example, you can connect a “panic button” to the camera; as such when the panic button is pressed, the alarm signal will be sent through the camera. Other common DI device applications are emergency button, smoke detector, passive infrared sensor, etc.

Digital Output (DO) devices are external devices that are activated by the camera upon an event inside the camera. For example, you can connect an “alarm horn” to the camera; as such when an event occurs inside the camera (e.g. detected intruder), the alarm horn will sound. Other common DO device applications are motion-triggered lights, electric fence, magnetic door locks, etc.

You can connect up to two DI and two DO devices to your camera.



To connect input devices (DI), map the pins to one of the pin combinations below:

Device	Mapping Instructions	
Digital Input 1 (DI1)	GND	Connect the wires of the first input device to GND and DI1 .
	DI1	
Digital Input 2 (DI2)	GND	Connect the wires of the second input device to GND and DI2 .
	DI2	

To connect output devices (DO), map the pins to one of the pin combinations below:

Device	Pin	Mapping Instructions
Digital Output 1 (DO1)	12V	Connect the wires of the first output device to 12V and DO1 .
	DO1	
Digital Output 2 (DO2)	12V	Connect the wires of the second output device to 12V and DO2 .
	DO2	

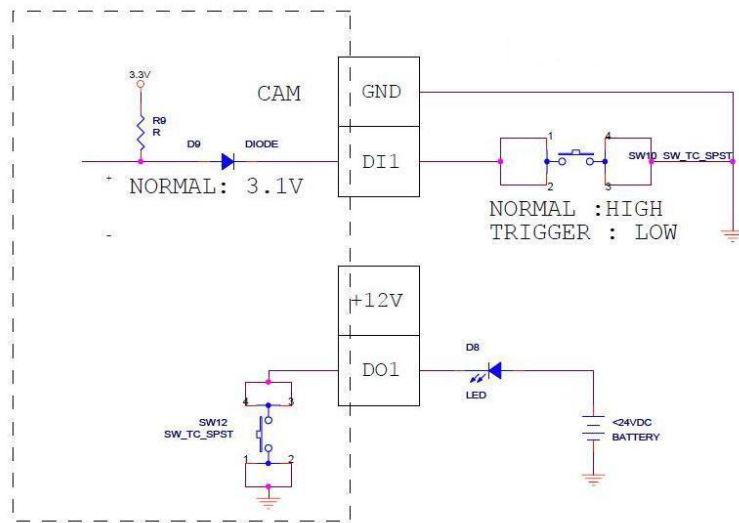
The table below shows the DI/DO connection specifications:

Device			
DI	Connection design		TTL - compatible logic levels
	Voltage	To trigger (low)	Logic level 0: 0V ~ 0.4V
		Normal (high)	Logic level 1: 3.1V ~ 30V
Current		10mA ~ 100mA	
DO	Connection design		Transistor (Open Collector)
	Voltage & Current		< 24V DC, < 50mA

Typical Connection

Based on these specifications, if the DI device has a voltage of 0V ~ 30V or the DO device has a voltage of < 24V (< 50mA), then the camera can supply internal power to these devices and there is no need to connect the DI/DO device to an external power source.

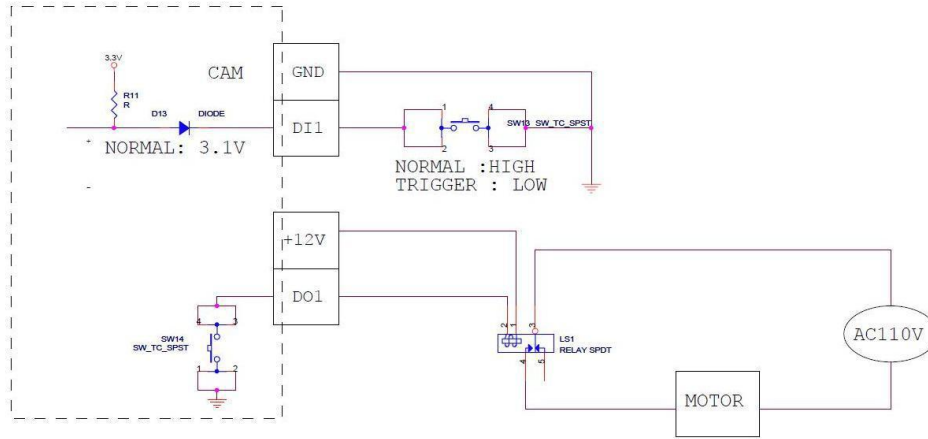
In this case, use the **GND** and **DI1** pins to connect a DI device and use the **12V** and **DO1** pins to connect a DO device. See wiring scheme below:



Consequently, to connect a second DI or DO device, use the GND and DI2 pins to connect a second DI device, and the 12V and DO2 to connect a second DO device.

High Voltage DO Device Connection

Even though the camera provides 12V power, this may not be enough for some high voltage DO devices, such as a ceiling light or a motor that opens or closes a gate. In this case, there is a need to connect an external relay. See wiring scheme below:



Note that when choosing an appropriate relay, please refer to its specifications and make sure they match the above design. The triggering circuit voltage has to be around 12V DC and the switch-controlled circuit voltage has to match the external power supply (e.g. 110V AC or 220V AC).

The illustration below is a graphic example of connecting a relay to a high voltage DO device.











NOTE: For more information on DI/DO connections, please refer to the Knowledge Base article [All About Digital Input and Digital Output](http://Download.acti.com?id=516) downloadable from the link below (<http://Download.acti.com?id=516>).

Installation Procedures



There are several mounting options that you can use to install the camera. Select the most suitable solution for your installation environment.

Mounting Solutions

Mount Types	Accessories
Surface Mount	Suitable when mounting the camera on hard or dropped ceilings. The surface mount comes bundled with the camera package. See Using the Bundled Surface Mount on page 19 for mounting instructions.
Flush Mount	Suitable when mounting the camera discretely above dropped ceilings wherein only the dome cover will be visible underneath the ceiling. See Using the Flush Mount on page 22 for mounting instructions.
	PMAX-1010 
Pendant Mount	Suitable when mounting the camera on hard and high ceilings.
	PMAX-0110 PMAX-0103 (Straight Tube with Bracket) 
	PMAX-0110 PMAX-0102 (Straight Tube) 
Straight Wall Mount	Suitable when mounting the camera on straight walls.
	PMAX-0311 (L-Type Wall Mount) 

<p>Straight Wall Mount</p>	<p>PMAX-0110 PMAX-0303 (Gooseneck)</p> 
<p>Vertical Pole Mount</p>	<p>Suitable when mounting the camera on vertical poles.</p> <p>PMAX-0110 PMAX-0303 PMAX-0503</p> 
<p>Horizontal Pole Mount</p>	<p>Suitable when mounting the camera on horizontal poles.</p> <p>PMAX-0110 PMAX-0102 PMAX-0503</p> 
<p>Corner Mount</p>	<p>Suitable when mounting the camera on a corner wall.</p> <p>PMAX-0110 PMAX-0303 PMAX-0402</p> 

Other Mounting Accessories

Accessories	
PMAX-0702 (Junction Box) 	PMAX-0104 (Extension Tubes) 

NOTE:

- For more information about the mounting solutions and accessories, please check the *Mounting Accessory Selector* in our website (<http://www.acti.com/mountingselector>).
- Except for the Surface Mount, the above mounting accessories are not included in the package. Contact your sales agents to purchase.

Mounting on the Ceiling

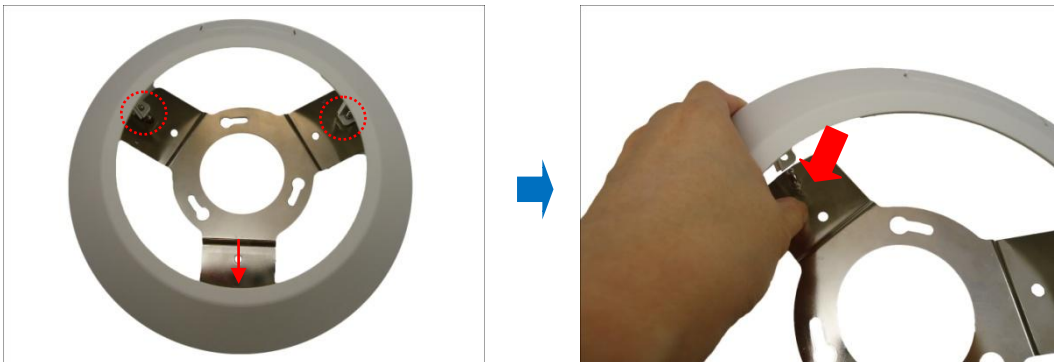
There are three mounting solutions that you can do to mount the camera on the ceiling:

- **Surface Mount:** To install the camera directly on the ceiling. Accessories come bundled with the camera package. See below for mounting instructions.
- **Flush Mount:** To install the camera above the ceiling wherein only the dome cover will be visible from view. See [Using the Flush Mount](#) on page 22 for mounting instructions.
- **Pendant Mount:** To install the camera on high ceilings and the camera will be lowered by the pendant mount. See [Using the Pendant Mount](#) on page 28 for mounting instructions.

Using the Bundled Surface Mount

The camera package comes with a surface mount kit which allows the camera to be directly installed onto a hard ceiling.

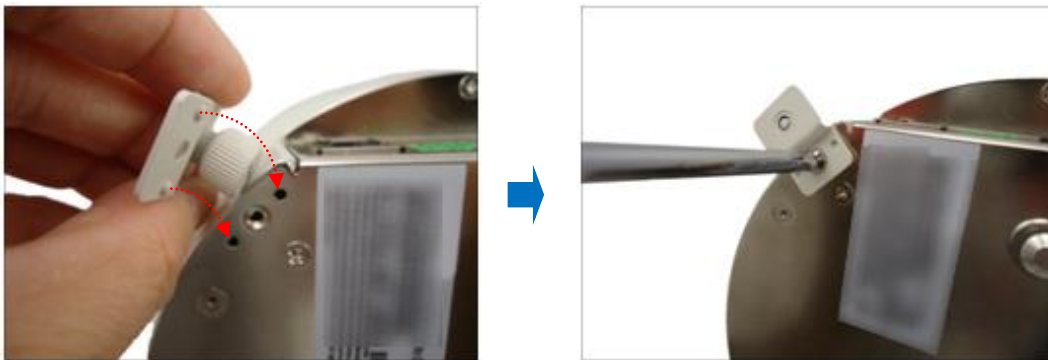
1. Using the mount drill template, mark the screw holes on the ceiling, then drill the holes and insert the supplied plastic plugs.
2. Push at the marked points below to detach the cover ring from the metal plate.



3. Attach the metal plate to the ceiling using the three (3) supplied screws.



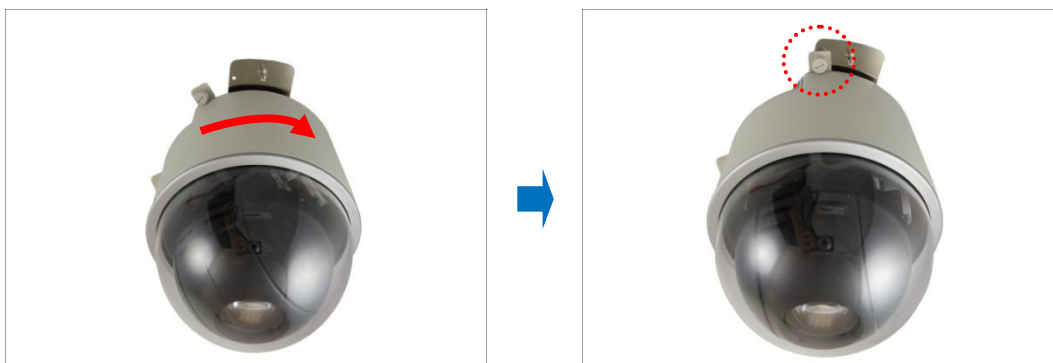
- Align and attach the fixing bracket to one of the holes on the camera using the supplied screw (holes marked below). The fixing bracket will fix the camera position when mounted later.



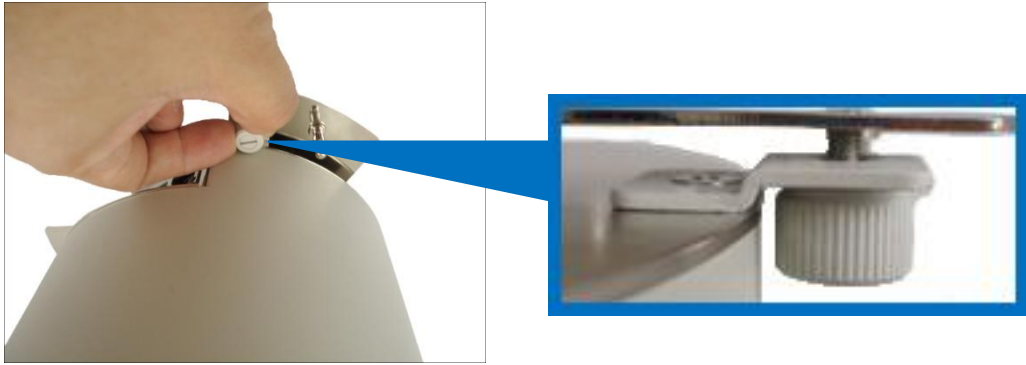
- Align and insert the camera base hooks to the mounting holes of the metal plate.



- Slide the camera clockwise to secure the hooks to the mount.



7. Tighten the screw on the fixing bracket to fix the camera position. This is to avoid accidental camera movement as the camera performs PTZ functions.



8. Connect the network cable, power adapter and any other cable connections (such as DI/DO, audio in, etc.) to the camera.



NOTE: The cables may be routed along the ceiling if the camera is installed on a hard ceiling. Or, the cables may pass through a hole on the ceiling if the camera is installed on a dropped ceiling.

9. Remove the pre-cut tab on the cover ring using pliers.
10. Note that the cables will pass through the cut, align the metal plate hooks onto the holes of the cover ring and then push to secure it in place.
Final installation would look similar to the picture below.



Using the Flush Mount

Use the Flush Mount when installing the camera on a dropped ceiling; there is space above the ceiling where the camera body can be hidden from view and only the dome cover can be seen underneath the ceiling.

NOTE: The Flush Mount is not included in the camera package. Contact your sales agents to purchase.

Before installation, prepare the following:

Flush Mount Kit	Other Tools (not supplied)
<ul style="list-style-type: none">• Flush Mount• Drill template• Screw (1)• Foam rubber pads (3)• Fixing bracket	<ul style="list-style-type: none">• Jig saw• Phillips screwdriver

To mount the camera, follow the procedures below:

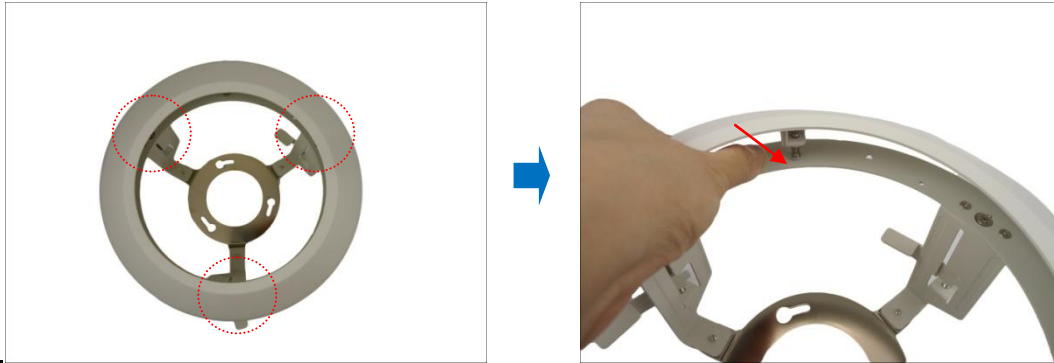
Step 1: Drill a Hole on the Ceiling

Drill a 184-mm diameter hole on the ceiling where you want to mount the camera, then route the network cable, power adapter, and other cables (e.g. DI/DO, audio cables, etc.) through the hole.

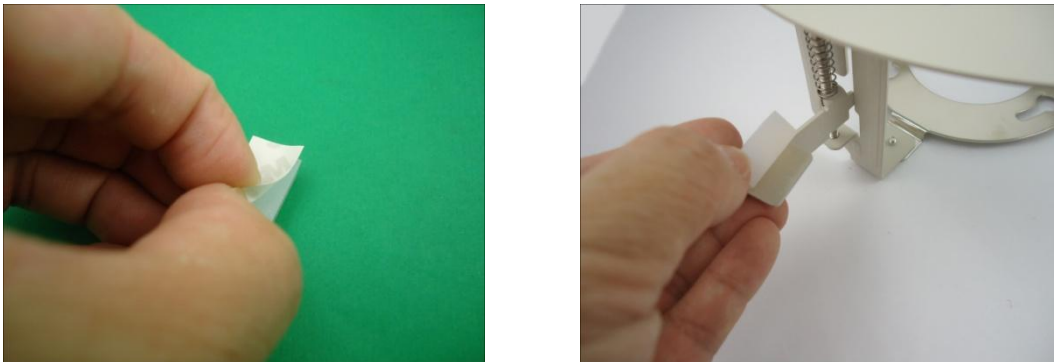


Step 2: Prepare the Flush Mount

1. Push to detach the cover ring from the mount as marked below. Then set the cover ring aside.



2. Peel off the lining of the three (3) foam rubber pads and attach a rubber pad to each retaining bracket.



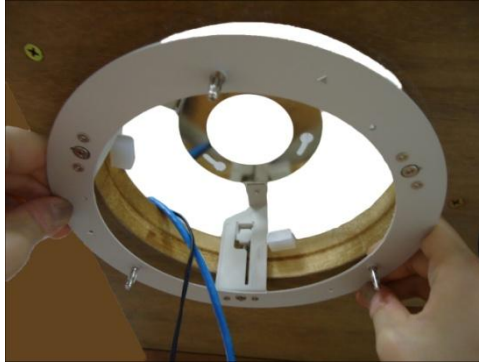
Step 3: Loosen the Retaining Brackets

Using a screwdriver, loosen the retaining brackets according to the thickness of the ceiling.



Step 4: Install the Mount

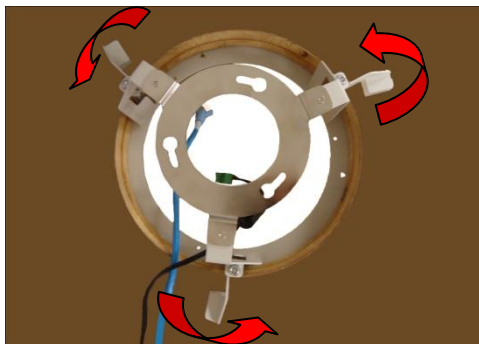
1. Insert the metal bracket through the hole until the ring edge is flat on the ceiling.



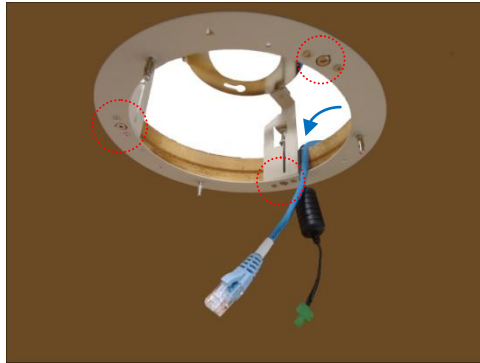
2. Position the retaining brackets to hold the mount on the ceiling.



NOTE: The following illustration shows how the flush mount will look like when viewed from inside the ceiling. In case you cannot access inside the ceiling, use your fingers to position the retaining brackets through the hole.



3. Tighten the screws to secure the mount and make sure the network cable, power adapter, and other cables (if necessary) are routed on the outer gap of the metal bracket.



4. Attach the fixing bracket to one of the holes on the camera using the supplied screw (holes marked below). The fixing bracket will fix the camera position when mounted later.



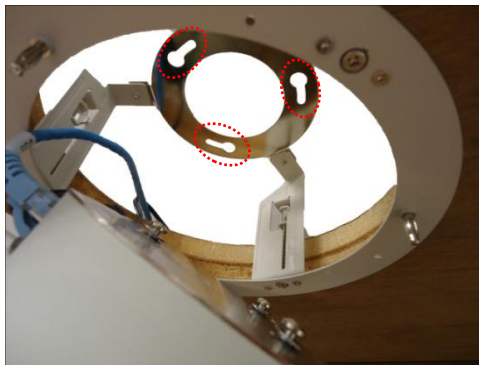
Step 5: Connect the Cables and Optional Accessories

- Insert a memory card into the camera card slot (if necessary).
- Connect the network cable, power adapter, and other cables, such as DI/DO, etc. (if any) to the camera.



Step 6: Install the Camera

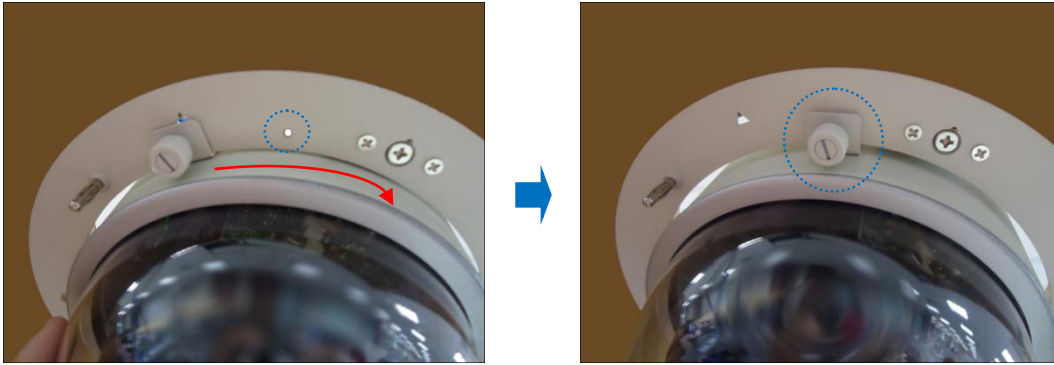
1. Align the camera base hooks to the holes on the bracket and then insert the camera through the bracket.



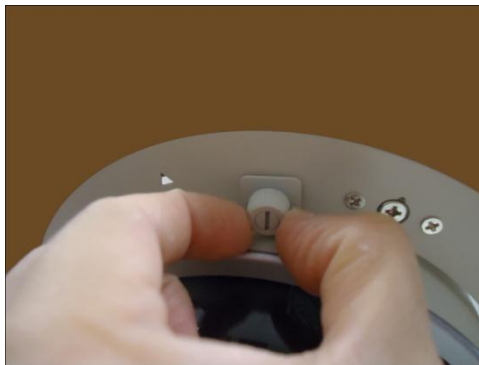
NOTE:

- Take note that the network cable must be bent to insert the camera into the mount. If the network cable you are using is not flexible or too rough to be bent, it is recommended to use the bundled network extension cable (included in the camera package). The bundled network extension cable is flexible enough to be bent and makes it easy to insert the camera through the mount.
- Or, if you can access the inside of the ceiling, you may mount the camera first and then connect the cables.

2. Slide the camera clockwise to secure the hooks to the mount. Notice that the fixing bracket screw becomes aligned with the hole on the metal bracket



3. Tighten the screw on the fixing bracket to fix the camera position. This is to avoid accidental camera movement as the camera performs PTZ functions.



Step 7: Attach the Cover Ring

1. Align the metal latches and the latches on the cover ring.



2. Push to firmly secure the cover ring latches.




Using the Pendant Mount

In case of high ceilings, the camera can be lowered by pendant mount.

NOTE: The Pendant Mount is not included in the camera package. Contact your sales agents to purchase.

Prepare the following:

- Pendant Mount Kits (**PMAX-0110** and either **PMAX-0103** or **PMAX-0102**)

PMAX-0110	PMAX-0103 (Straight Tube with Bracket)	PMAX-0102 (Straight Tube without Bracket)
	 <p>Use this configuration if the cable cannot directly enter the ceiling and must go along the ceiling.</p>	 <p>Use this configuration if the cable can directly enter the ceiling.</p>

- Mounting Screws (included in the mount kit package)
- Network Extension Cable (included in the PMAX-0110 kit)
- Screwdriver (not included)

Step 1: Install the Straight Tube

1. Use the drill template (included in the straight tube package) to mark and drill the mounting holes on the ceiling.
2. Insert the power adapter, network cable, and other necessary cables (if any) to pass through the straight tube. Note that you must insert the power adapter cable first to fit the tube.

NOTE:

- If using a straight tube without bracket, route the cables to pass through the hole on the ceiling.
- The following illustrations show the installation using a straight tube with bracket.



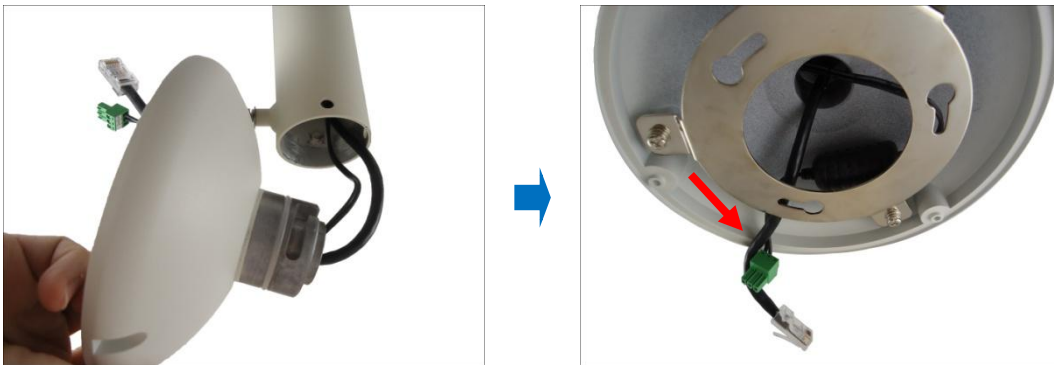
3. Install the straight tube on the ceiling.



NOTE: If the straight tube is not long enough, you may use one or more extension tubes (purchased separately).

Step 2: Install the Mount Kit (PMAx-0110)

1. Insert the cables from the tube into the mount kit and route them to pass through the outer bracket.



2. Align the slot of the mount kit to the tab inside the straight tube and install the mount kit.



3. Twist the mount kit to align the screw holes and attach the two (2) mounting screws (included in the mount kit package).



Step 3: Install the Camera

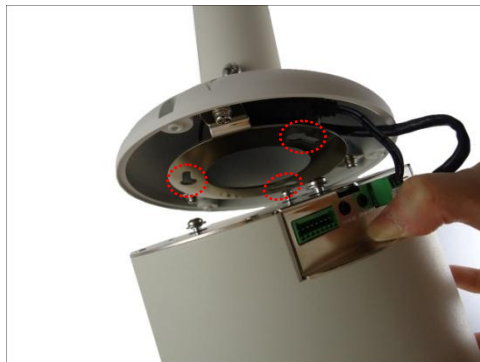
1. Connect the network cable to the Ethernet port of the camera. If necessary, connect the other cables (such as power adapter, DI/DO, etc.) to the corresponding connectors.



NOTE: Try to push the network cable further into the mount.

TIP: If the network cable texture is rough and not easily bent, use the bundled network extension cable (included in the mount kit package) to easily route the cables because of its flexibility.

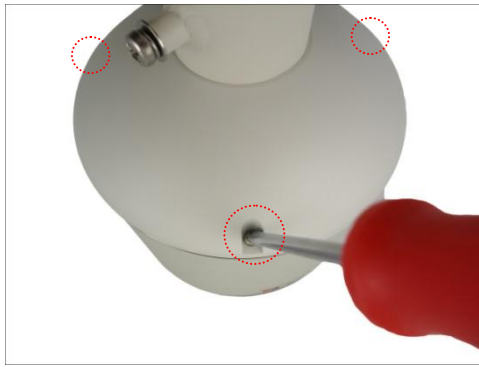
2. Align and insert the camera base hooks to the mounting holes.



3. Slide the camera counter-clockwise to secure the hooks to the mount.



4. On the top of the mount kit, attach three (3) screws (included in the mount kit package) to secure the camera to the mount.



The final installation would look similar to the one below:



Mounting on Straight Wall

There are four (4) mounting solutions that you can do to mount the camera on the straight wall. The **L-Type Wall Mount** is used to install the camera facing down as if it is installed on a ceiling (see below for mounting instructions). Other straight wall mounting solutions, such as the **Gooseneck** allow the camera to be installed further away from the wall. Cables may be routed through the wall or along the wall. Select the solution that is most applicable to your installation requirements.

Using the L-Type Wall Mount

To install the camera on a straight wall, use the L-Type Wall Mount. The camera will be facing down as if installed on a ceiling.

NOTE: The L-Type Wall Mount is not included in the camera package. Contact your sales agents to purchase.

Before installation, prepare the following:

L-Type Wall Mount Package	Other Tools (not supplied)
<ul style="list-style-type: none"> • L-Type Wall Mount • Drill template • Screws (3) 	<ul style="list-style-type: none"> • Phillips screwdriver

Step 1: Install the L-Type Wall Mount

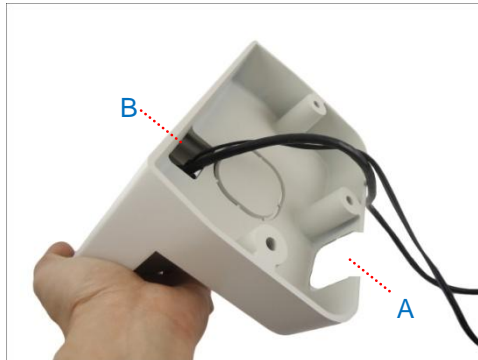
- Use the drill template (included in the L-type wall mount package) to mark and drill the mounting holes on the wall.

Route the cable(s).

- 2a. ***If the cable(s) will pass through the wall***, insert the cable(s) through the cable hole as marked below (A).



- 2b. ***If the cable will go along the wall***, remove the pre-cut tab on the L-type wall mount using pliers. Then route the cable through the cable holes (A to B) as marked below.



With the cable(s) dangling, attach three (3) screws (included in the camera package) to install the L-type wall mount onto the wall.



Step 2: Install the Camera

1. Connect the network cable to the Ethernet port of the camera. If necessary, connect the other cables (such as power adapter, DI/DO, etc.) to the corresponding connectors.



2. Align and insert the camera base hooks to the mounting holes.



3. Slide the camera clockwise to secure the hooks to the mount.



4. Attach three (3) screws (included in the L-type wall mount package) to secure the camera to the mount.



Other Accessories and Adjustments

How to Replace the Dome Cover

Depending on your surveillance needs, you may want to replace the bundled dome cover with a smoke dome cover available for purchase.

To replace the dome cover, do the following:

1. Rotate the dome cover counter-clockwise to remove it.



2. Rotate the replacement dome cover clockwise to attach it.



How to Reset the Camera

A reset may be necessary if the following instances happen:

- The administrator's password has been forgotten and therefore the camera cannot be accessed.
- In case of IP address, mask, or allow/deny filter related issues, resulting with inability to modify these settings.
- In case of connectivity issues or abnormal video quality.

With the camera powered on, use a pointed object, such as a pen, to press and hold the reset button for at least 5 seconds or until the Power LED goes off.

Accessing Camera

Configure the IP Addresses

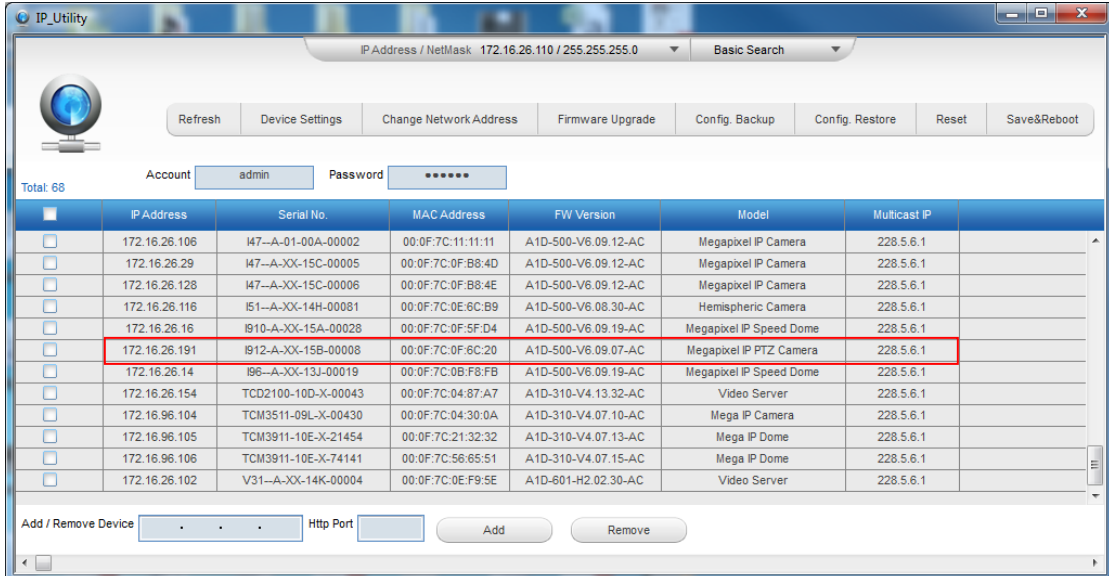
In order to be able to communicate with the camera from your PC, both the camera and the PC have to be within the same network segment. In most cases, it means that they both should have very similar IP addresses, where only the last number of the IP address is different from each other. There are 2 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 the 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 order to access it 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, the camera that has just been connected to the network is successfully found.



IP Address / NetMask: 172.16.26.110 / 255.255.255.0 Basic Search

Account: admin Password: *****

	IP Address	Serial No.	MAC Address	FW Version	Model	Multicast IP
<input type="checkbox"/>	172.16.26.106	I47--A-01-00A-00002	00:0F:7C:11:11:11	A1D-500-V6.09.12-AC	Megapixel IP Camera	228.5.6.1
<input type="checkbox"/>	172.16.26.29	I47--A-XX-15C-00005	00:0F:7C:0F:B8:4D	A1D-500-V6.09.12-AC	Megapixel IP Camera	228.5.6.1
<input type="checkbox"/>	172.16.26.128	I47--A-XX-15C-00006	00:0F:7C:0F:B8:4E	A1D-500-V6.09.12-AC	Megapixel IP Camera	228.5.6.1
<input type="checkbox"/>	172.16.26.116	I51--A-XX-14H-00081	00:0F:7C:0E:6C:B9	A1D-500-V6.08.30-AC	Hemispheric Camera	228.5.6.1
<input type="checkbox"/>	172.16.26.16	I910-A-XX-15A-00028	00:0F:7C:0F:5F:D4	A1D-500-V6.09.19-AC	Megapixel IP Speed Dome	228.5.6.1
<input type="checkbox"/>	172.16.26.191	I912-A-XX-15B-00008	00:0F:7C:0F:6C:20	A1D-500-V6.09.07-AC	Megapixel IP PTZ Camera	228.5.6.1
<input type="checkbox"/>	172.16.26.14	I96--A-XX-13J-00019	00:0F:7C:0B:F8:FB	A1D-500-V6.09.19-AC	Megapixel IP Speed Dome	228.5.6.1
<input type="checkbox"/>	172.16.26.154	TCDD100-10D-X-00043	00:0F:7C:04:87:A7	A1D-310-V4.13.32-AC	Video Server	228.5.6.1
<input type="checkbox"/>	172.16.96.104	TCM3511-09L-X-00430	00:0F:7C:04:30:0A	A1D-310-V4.07.10-AC	Mega IP Camera	228.5.6.1
<input type="checkbox"/>	172.16.96.105	TCM3911-10E-X-21454	00:0F:7C:21:32:32	A1D-310-V4.07.13-AC	Mega IP Dome	228.5.6.1
<input type="checkbox"/>	172.16.96.106	TCM3911-10E-X-74141	00:0F:7C:56:65:51	A1D-310-V4.07.15-AC	Mega IP Dome	228.5.6.1
<input type="checkbox"/>	172.16.26.102	V31--A-XX-14K-00004	00:0F:7C:0E:F9:5E	A1D-601-H2.02.30-AC	Video Server	228.5.6.1

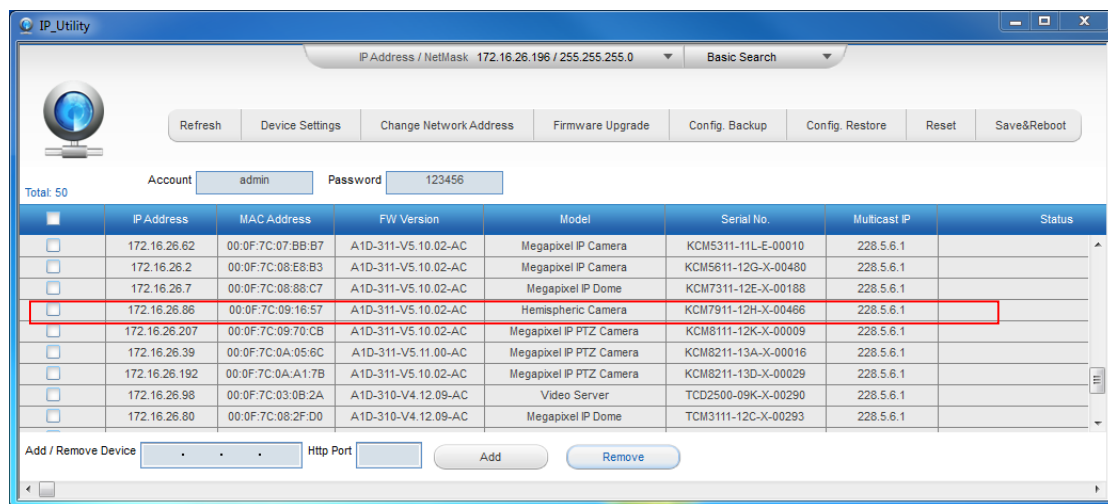
Add / Remove Device: . . . Http Port: Add Remove

When the left mouse is clicked on the camera model name, the default browser of the PC is automatically launched and the IP address of the target camera is already filled in the address bar of the browser.

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.

Download IP Utility for free from <http://www.acti.com/product/IP%20Utility%204>.

When you launch IP Utility, the list of connected cameras in the network will be shown. See sample illustration below:



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 already filled in the address bar of the browser.

Use the default IP address of the camera

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

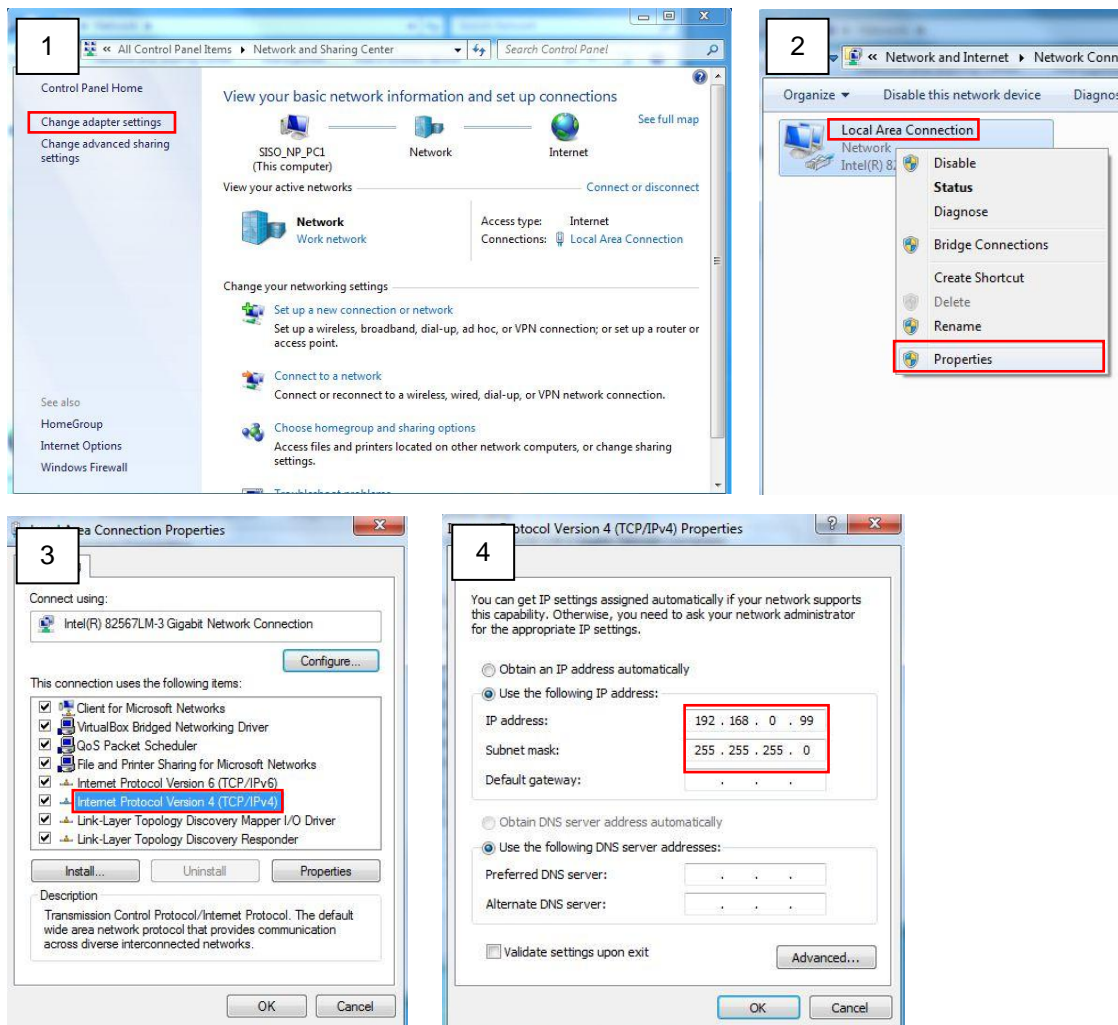
When the camera is plugged into the network and it does not detect any DHCP services, it will automatically assign itself a default IP:

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.

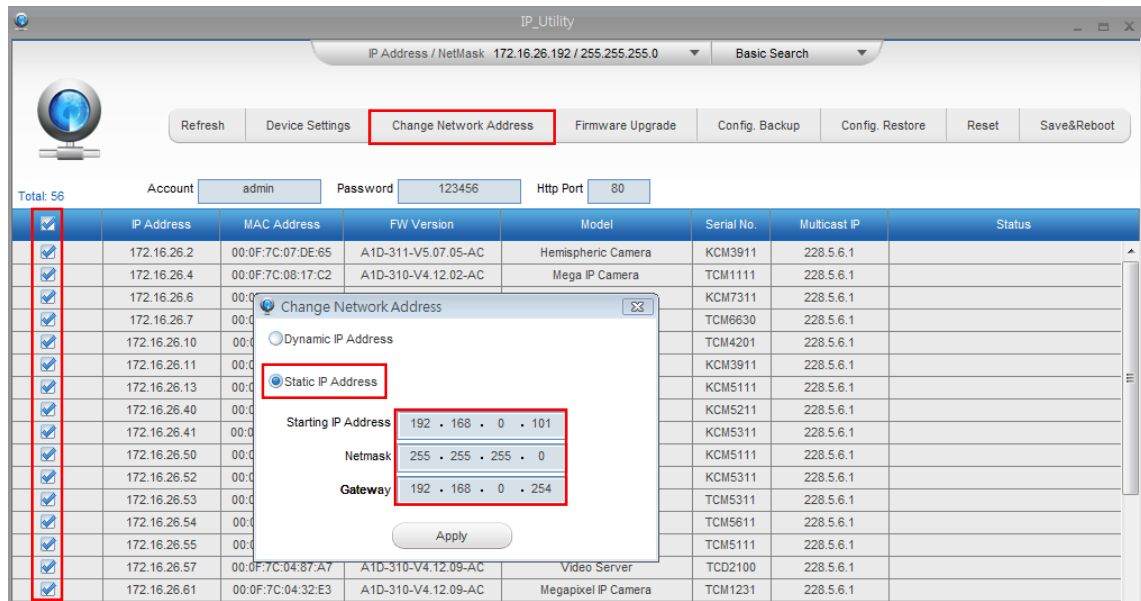
Manually adjust the IP address of the PC

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 one 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 both have their unique IP addresses and are under the same network segment, you can use **Microsoft Internet Explorer** on 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

* When using non-Internet Explorer browsers, free third-party software plug-ins must be installed to the PC first to be able to get the live video feed from the camera:

Browser	Required Plug-In
Safari	QuickTime (http://www.apple.com/quicktime/download/)
Other non-Internet Explorer browsers	Basic VLC Media Player (http://www.videolan.org)

Disclaimer Notice: *The camera manufacturer does not guarantee the compatibility of its cameras with VLC player or QuickTime – since these are third party softwares. 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.*

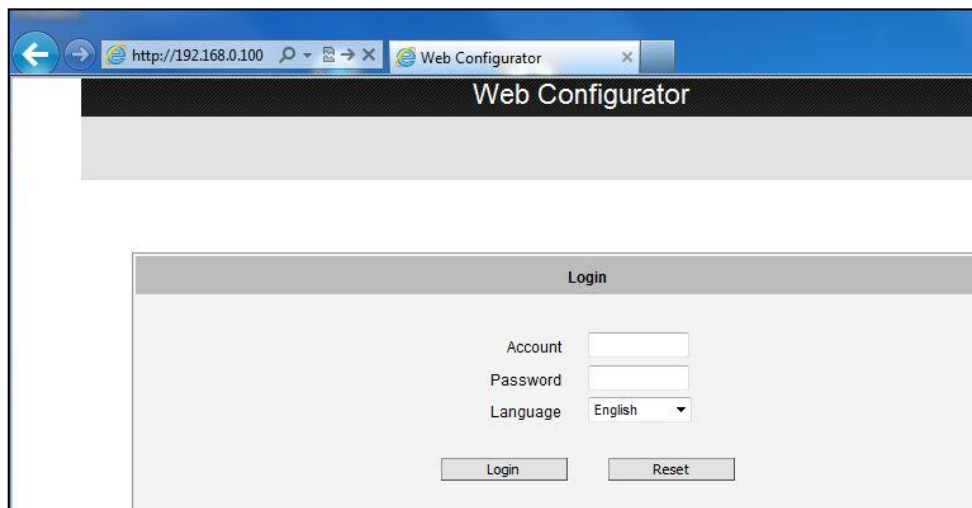
When using Internet Explorer browser, the ActiveX control for video stream management will be downloaded from the camera directly – the user just has to accept the use of such control when prompted so. No other third party utilities are required to be installed in such case.

The 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**

For further operations, please refer to the **Firmware User's Manual**.



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