



Indoor Mini Dome Hardware Manual

A63, A95

Ver. 2018/11/27



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

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

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it 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 users will be required to correct the interference at their own expense.

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

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.

Installation

Install the camera and other devices (such as PoE injector, alarm, etc.) that will be used with the camera 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 inner parts of product have been directly exposed to rain or water.
- 4) If the product does not operate normally even by following the operating instructions in this manual. Adjust only those controls that are covered by the instruction manual, as 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




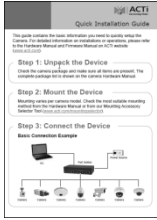
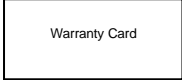
List of Models

This hardware manual contains the following models:

A63		2MP, Indoor Mini Zoom Dome, Day / Night, Adaptive IR, Advanced WDR, Superior Low Light Sensitivity, 2.85x optical
A95		2MP, Indoor Mini Dome, Day / Night, Adaptive IR, Basic WDR, Superior Low Light Sensitivity

Package Contents

Check if the camera package comes with the following items:

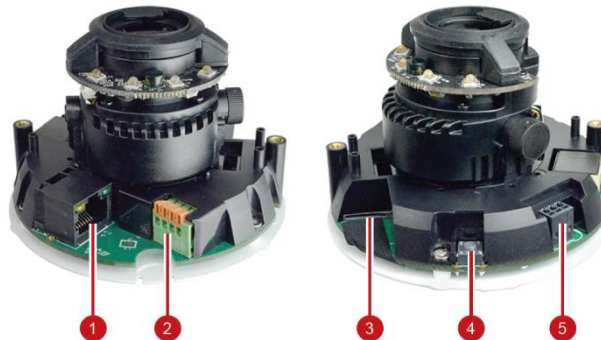
Camera	Screw Kit	Drill Template
		
Quick Installation Guide		Warranty Card
		

IMPORTANT: When the camera is taken out from the box, the lens cover is covered by a thin film. DO NOT remove this film. It is used to protect the lens cover from scratches or fingerprint marks which may happen during installation. Remove this film only after the camera is securely installed and all connections are complete.

NOTE: The pictures in this manual are for reference only. Actual items may slightly vary.

Physical Description

A63



	Item	Description
1	Ethernet Port	Connects to a network using an Ethernet cable.
2	Digital Input / Output	This connector 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. See Connecting Other Devices on page 17.
3	Memory Card Slot	Insert a memory card (not included) into the slot for local recording purposes. See How to Install / Remove the Memory Card on page 16 for more information. NOTE: Supports microSDHC and microSDXC cards
4	Reset Button	Restores the factory default settings of the camera. To reset the camera, do the following: 1. While the camera power is disconnected, press and hold the Reset Button then power up the camera. 2. The Green LED starts to blink, continue holding down the Reset Button until the Green LED goes off and the Yellow LED lights on.
5	Audio Input / Output	This connector connects to audio input and output devices, such as microphones and speakers. See Connecting Other Devices on page 17.

A95



	Item	Description
1	Ethernet Port	Connects to a network using an Ethernet cable.
2	Memory Card Slot	Insert a memory card (not included) into the slot for local recording purposes. See How to Install / Remove the Memory Card on page 16 for more information. NOTE: Supports microSDHC and microSDXC cards
3	Reset Button	Restores the factory default settings of the camera. To reset the camera, do the following: 1. While the camera power is disconnected, press and hold the Reset Button then power up the camera. 2. The Green LED starts to blink, continue holding down the Reset Button until the Green LED goes off and the Yellow LED lights on.

Mounting Options

Select the most suitable solution for your installation environment. The camera can be mounted by:

Mount Types	Accessories
Surface Mount	Suitable when mounting the camera directly on walls or ceilings without additional mounting accessories. See <i>Installation Procedures</i> on page 12 for more information.
Wall Mount	Suitable when mounting the camera on the wall with the camera lens facing down and floor.
Pendant Mount	Suitable when the camera is to be installed on a high ceiling. The pendant mount can lower down the camera installation.

NOTE:

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

Installation Procedures

This section describes procedures in mounting the camera on a flat surface.

NOTE: The camera images on this documentation are for reference only and may be different from the actual camera.

Step 1: Prepare for Installation

1. Depending on the material of the surface where the camera will be installed, it may be necessary to drill the two (2) screw holes and use the supplied screw ttox. Attach the bundled drill template on the surface and drill the screw holes.

2. Determine where the camera cable should go, either through the surface or be routed along the surface.

If the cable will go through the surface, drill the cable hole as indicated on the drill template.

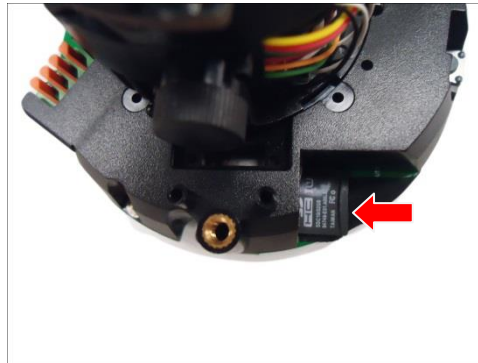
3. Loosen the two (2) screws using a screw driver.



4. Lift to remove the dome cover.

Step 2: Install the Camera

1. If necessary, insert a memory card into the memory card slot of the camera with the metallic contacts of the card facing down the camera. See [How to Insert the Memory Card](#) on page 16 for more information.



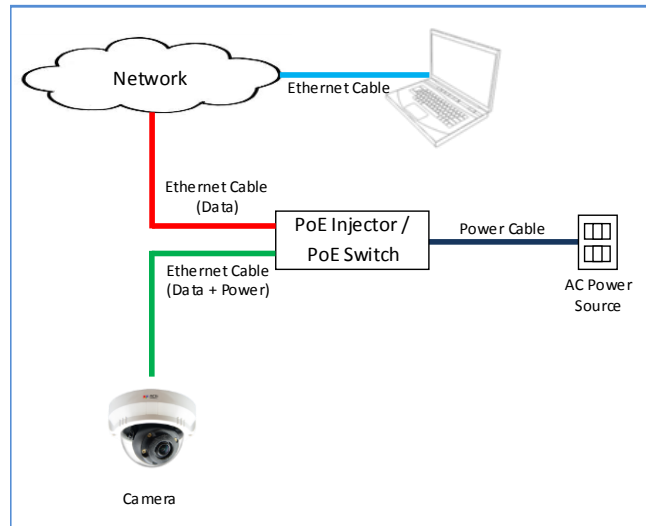
2. Install the camera to the surface using the two (2) bundled screws.



NOTE: Please make sure the screws are flat on the plate.

Step 3: Connect to Network

1. Connect a network cable to the Ethernet port of the camera.
2. 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.



NOTE: When installing the camera outdoors, make sure to waterproof the cable connection.

Step 4: Access the Camera Live View

See [Accessing the Camera](#) on page 19 for more information on how to access the Live View of the camera.

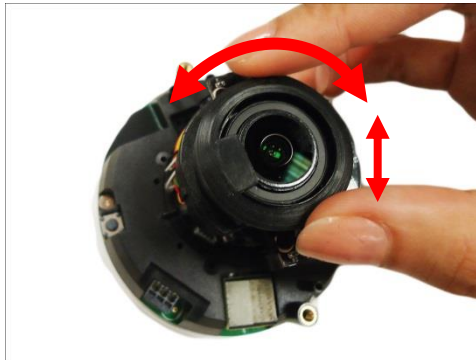
Step 5: Adjust the Viewing Angle

Adjust the camera lens orientation and tilt, as needed.

1. Loosen the tilt adjustment screw, and then tilt the lens module.



2. Rotate the lens module to change the viewing orientation.



3. Tighten the tilt adjustment screw to fix the lens position.

Step 6: Close the Dome Cover

1. Tighten the four (4) screws using the supplied hexagon wrench to attach the dome cover.



Other Connections and Accessories

How to Install / Remove the Memory Card

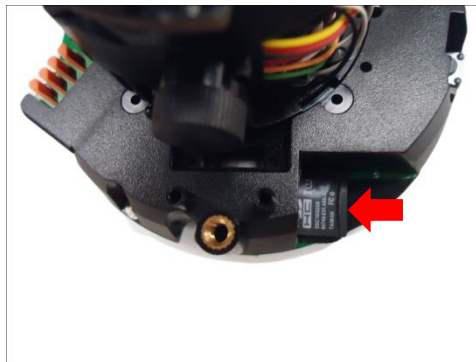
NOTE: Support microSDHC and microSDXC cards.

How to Insert the Memory Card

1. Loosen the two (2) screws to remove the dome cover.



2. Place the memory card on the camera surface with the metal contacts facing down the camera, then push the card into the slot until it clicks into place.



3. Attach the dome cover to the camera and tighten the two (2) screws.

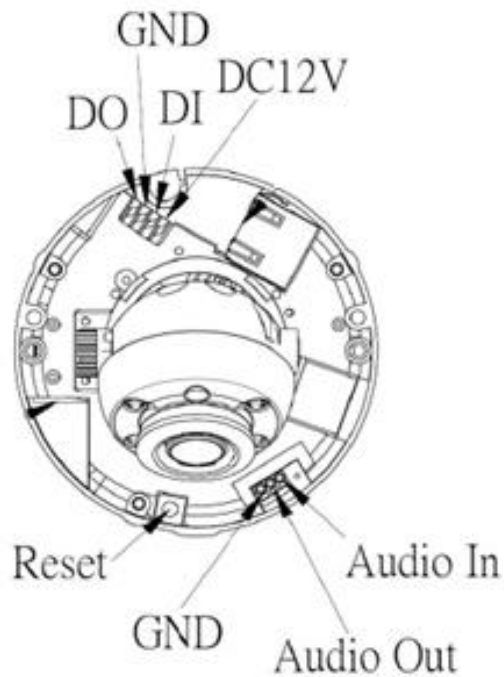
How to Remove the Memory Card

In case there is a need to remove the card, make sure to access the camera Web Configurator to safely “unmount” the card first (see the camera Firmware User’s Manual for more information).

Once unmounted from the firmware, push the card to eject it from the card slot.

Connecting Other Devices

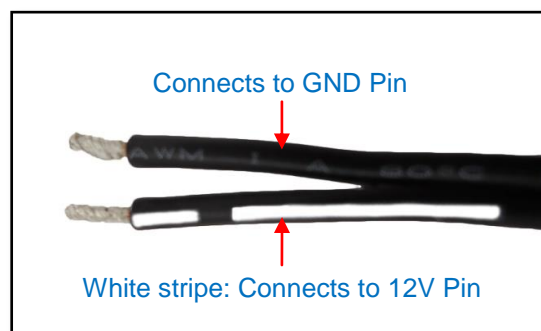
The image below illustrates how you can connect other devices such as power adapter, digital input/output and audio devices.



Connecting a Power Adapter (Optional)

In case of using a non-PoE switch or your PoE switch has limited power supply, you can purchase a power Adapter and directly connect the camera to a power outlet.

Connect the wires of the power adapter cable to the DC12V and GND pin of the camera. Take note that a standard power adapter cable has two (2) different wires:



Connect DI/DO Devices (Optional)

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.

To connect digital input / output devices, map the pins to one of the pin combinations below:

Device	Pin	Mapping Instructions
Digital Input (DI)	GND	Connect the wires of the input device to GND and DI .
	DI	
Digital Output (DO)	12V	Connect the wires of the output device to 12V and DO .
	DO	

Connect Audio In / Out Devices (Optional)

Depending on your surveillance needs, you may connect audio input or output device, such as a microphone or speaker, to your camera. In this case, you need to connect the audio input/output device to the corresponding pins on the camera.

Device	Pin	Mapping Instructions
Audio Output	GND	Connect the wires of the audio output device to GND and AUDIO OUT (AO) .
	AO	
Audio Input	GND	Connect the wires of the audio input device to GND and AUDIO IN (AI) .
	AI	

Accessing the Camera

Configure the IP Addresses

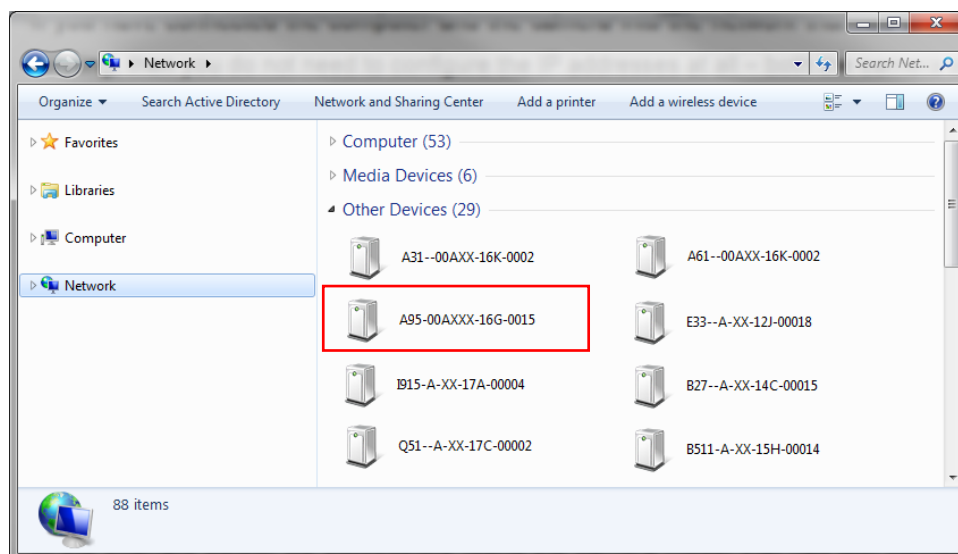
In order to be able to communicate with the camera from your PC, both the camera and the PC have to be within the same network segment. In most cases, it means that they both should have very similar IP addresses, where only the last number of the IP address is different from each other. There are 2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

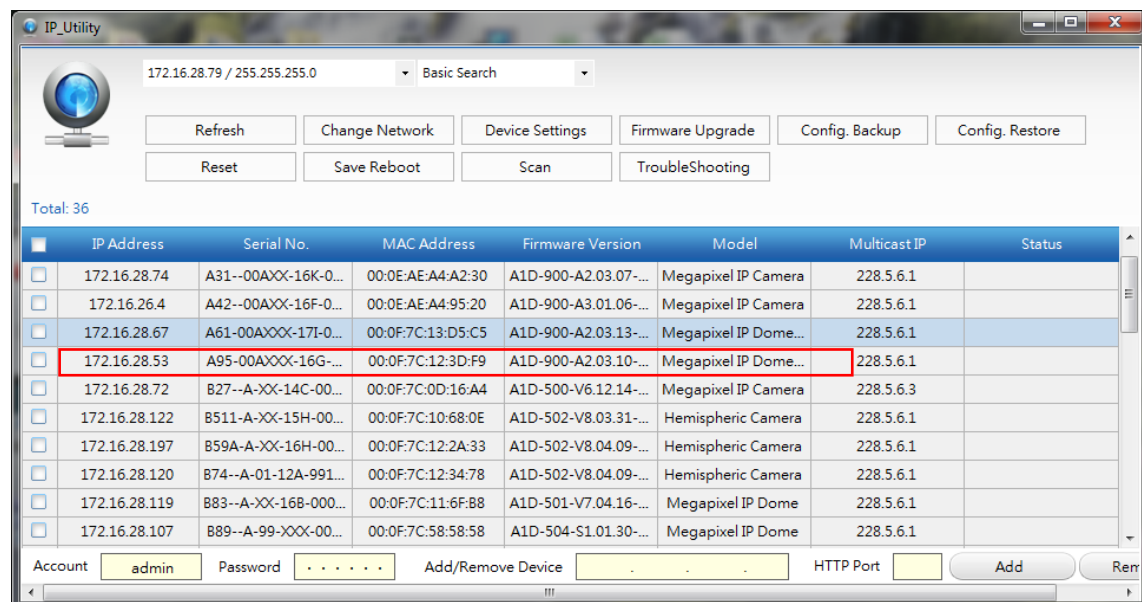


By double-clicking with the left mouse on the camera model, it is possible to automatically launch the default browser of the PC with the IP address of the target camera filled in the address bar of the browser already.

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 see 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.

Using the Default Camera IP Address

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.

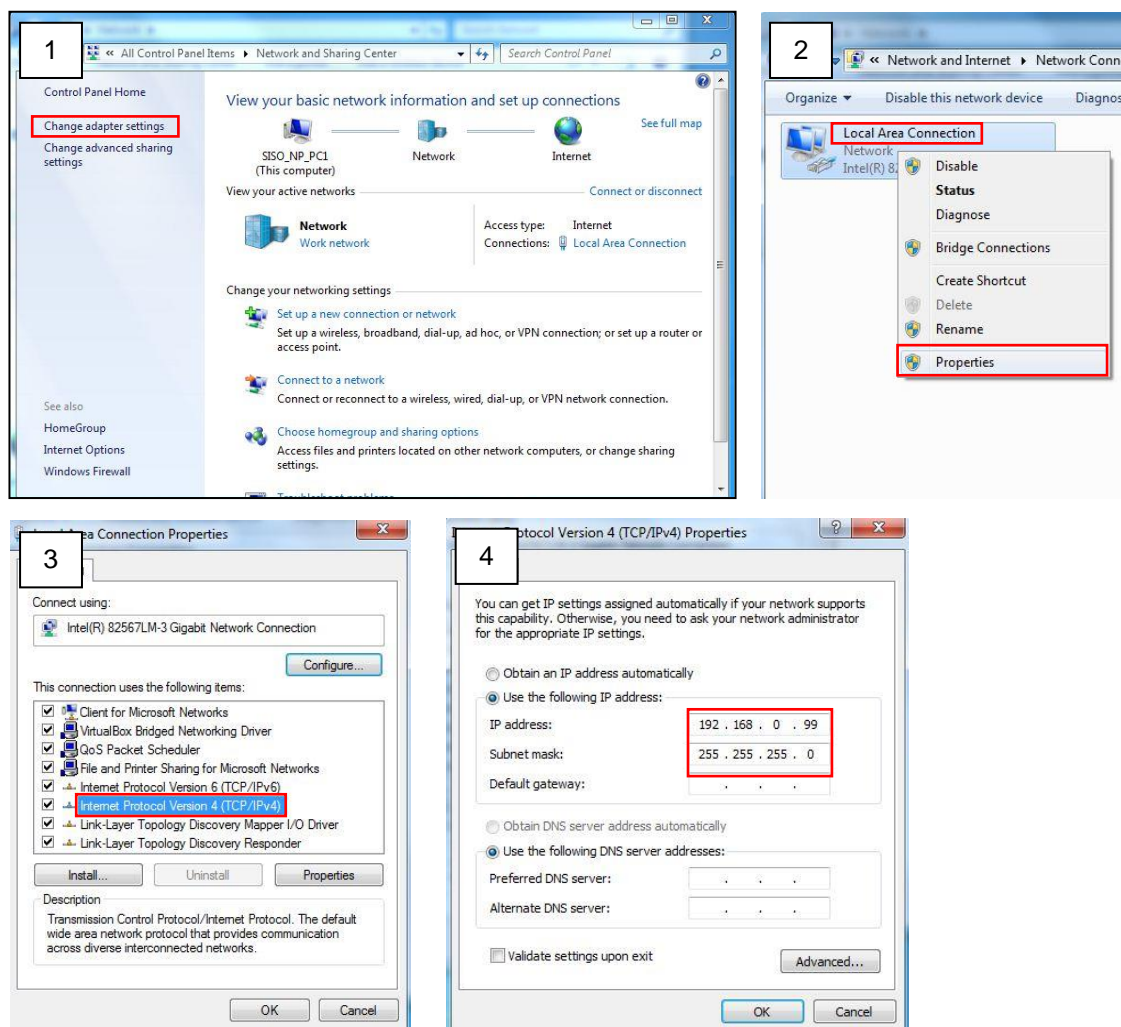
When the camera is plugged into network and it does not detect any DHCP services, it will automatically assign itself a default IP:

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.

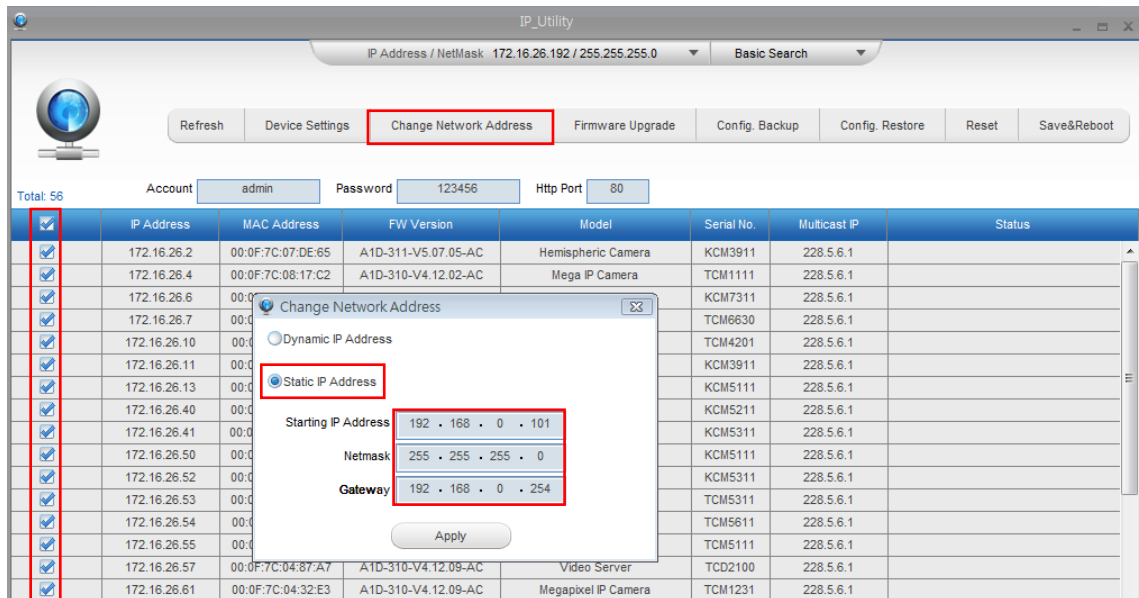
Manually adjust the IP address of the PC:

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:



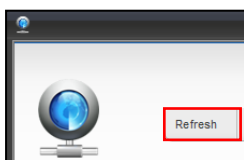
Manually adjust the IP addresses of multiple cameras:

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 **Microsoft Internet Explorer** to access the camera.

The browser functionality:

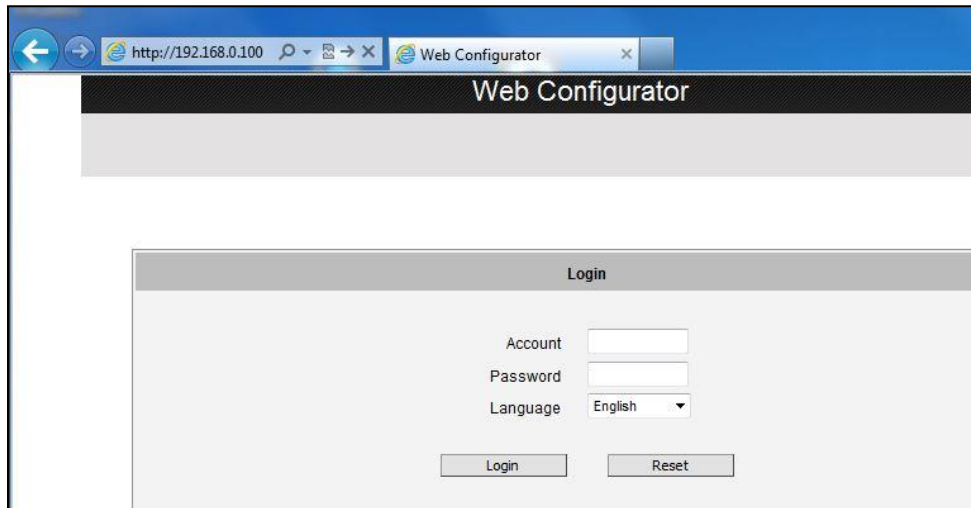
Functionality	Internet Explorer
Live Video	Yes
Live Video Area Resizable	Yes
PTZ Control	Yes
Capture the snapshot	Yes
Video overlay based configuration (Motion Detection regions, Privacy Mask regions)	Yes
All the other configurations	Yes

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**



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