



Cube Camera Series Hardware Manual

E12A, E13A

E14, E15, E16

Ver. 2015/01/06



ACTi
Connecting Vision

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Precautions

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.

Servicing

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

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.

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 open the housing of the product

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.

Water and Moisture

Do not use this video 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 like.

Don't 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 as opening or removing covers may expose you to dangerous voltage or other hazards. 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 video product has 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.

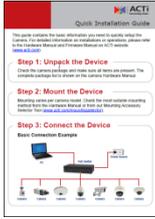
Introduction

List of Models

This hardware manual contains the following models:

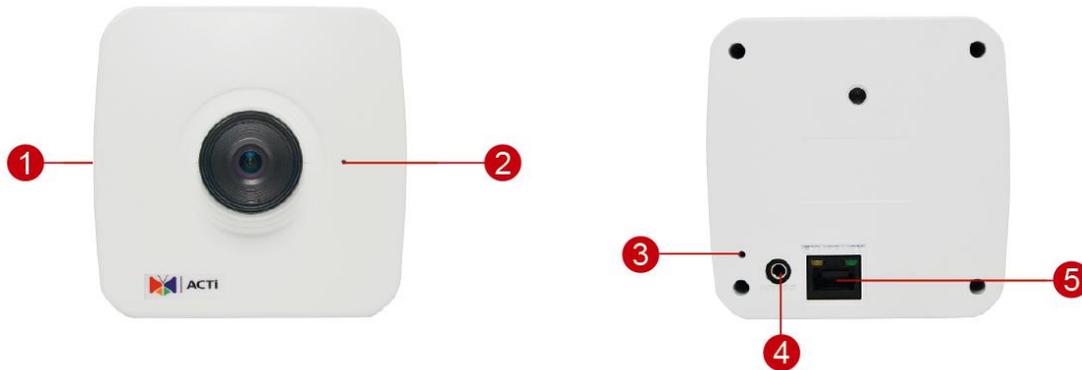
E12A		3MP Cube with Basic WDR, Fixed lens
E13A		5MP Cube with Basic WDR, Fixed lens
E14		10MP Cube with Basic WDR, Fixed lens
E15		5MP Fisheye Cube with Basic WDR, Fixed lens
E16		10MP Fisheye Cube with Basic WDR, Fixed lens

Package Contents

Camera (E12A, E13A, E14)	Camera (E15, E16)	Bracket
	<p style="text-align: center; color: white; background-color: red; padding: 5px;">or</p> 	
Mounting Screws	Quick Installation Guide	Warranty Card
		

Physical Description

E12A, E13A, E14



E15, E16



	Item	Description
1	Memory Card Slot	Insert a memory card into this slot for local recording purposes. NOTE: Supports microSDHC and microSDXC cards.
2	Built-in Microphone	Receives audio input.
3	Reset Button	<p>The purpose of reset button is to restore the factory default settings of the camera, including administrator's password.</p> <p>The reset button can be used for following purposes:</p> <ol style="list-style-type: none"> 1. The administrator's password has been forgotten and therefore the camera cannot be accessed. 2. In case of IP address, mask, or allow/deny filter related issues, resulting with inability to modify these settings. 3. In case of connectivity issues or abnormal video quality. <p>How to do the reset?</p> <p>Using a pointed object, such as a paper clip, press and hold the reset button for at least 5 seconds.</p>

Item		Description
4	Audio Output	Connects to audio output devices, such as a speaker, etc.
5	Ethernet Port	Connects to a network using a standard Ethernet cable.

Installation Procedures

NOTE: The camera images are used as a reference only. The lens may differ from the one you purchased.

Step 1: Mount the Bracket

Attach the bracket to the wall using the three (3) supplied screws.



Step 2: Insert the Memory Card (optional)

1. Pull to open the memory card slot cover.



2. Insert the memory card with the metal contacts facing the back of the camera.



3. Push the card until it clicks into place.
4. Close the memory card slot cover.

Step 3: Install the Camera

1. Attach the camera to the bracket.

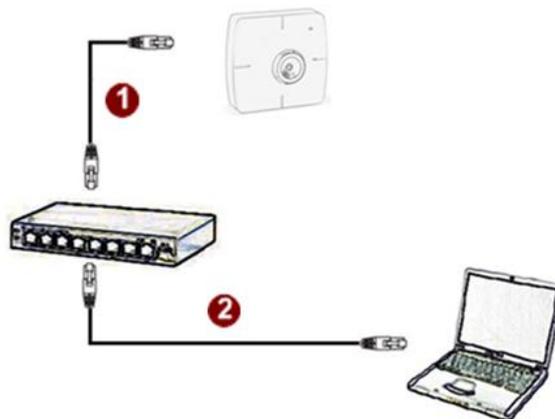


2. Tighten the knob to fix the camera.



Step 4: Connect to Network

Connect one end of the Ethernet cable to the Ethernet port of the camera and the other end to a Power-over-Ethernet switch or injector



Step 5: Access the Camera Live View

See [Accessing the Camera](#) on page 16 for more information on how to access the Live View of the camera.

Step 6: Adjust the Viewing Angle and Focus

Based on the live view, adjust the camera viewing angle and focus to get the target view.

NOTE: Focus adjustment is available only on E1xA and E14 models.

1. Loosen the knob.



2. Tilt the camera towards the target view.



3. Tighten the knob to fix the camera position.



Other Accessories

How to Replace the Lens (Optional for E1xA / E14 only)

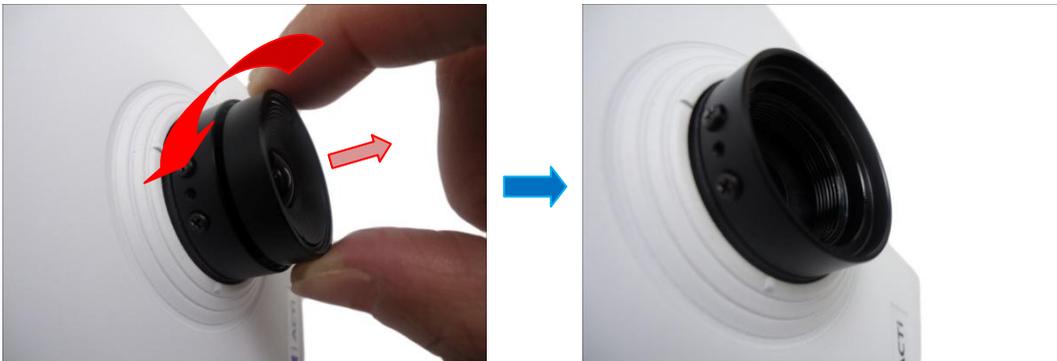
Aside from the bundled lens that came with the camera, optional lens with different focal and iris specifications are available for separate purchase. For more information about lens model and how to purchase, please visit our website (www.acti.com).

To replace the lens, perform the procedures below:

1. Loosen the two (2) screws holding the lens to the module.

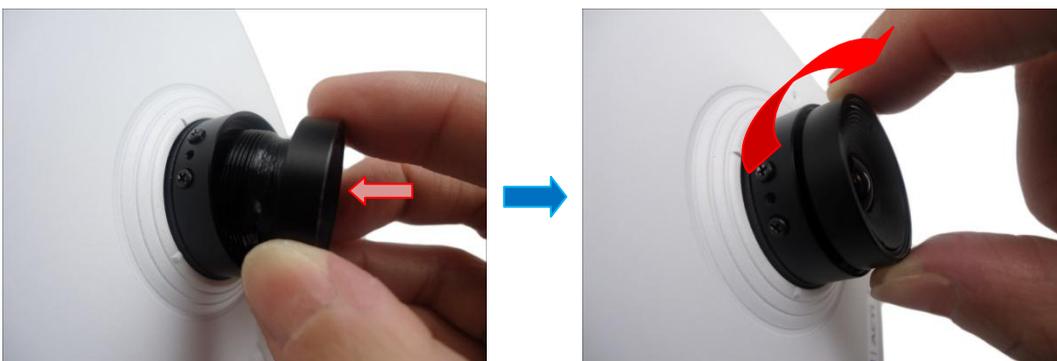


2. Turn the bundled lens counter-clockwise until the lens is detached from its module.



3. Attach the new lens by turning the lens clock-wise until it is secured on the module.

NOTE: The lens do not need to be screwed to its maximum since turning the lens also adjusts the focus.



4. Tighten the two (2) screws to secure the lens to the module.



5. Proceed to adjust the camera viewing angle and focus (see [Step 6: Adjust the Viewing Angle and Focus](#) on page 12 for more information).

Accessing the Camera

How to Configure IP Addresses

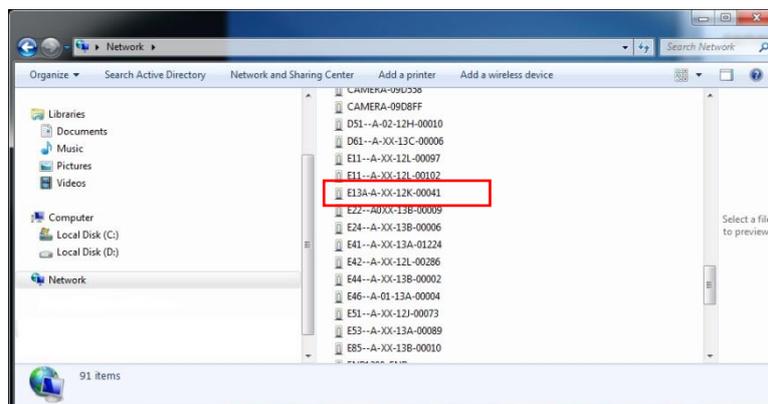
In order to be able to communicate with the camera from your PC, both the camera and the PC have to be within the same network segment. In most cases, it means that they both should have very similar IP addresses, where only the last number of the IP address is different from each other. There are 2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

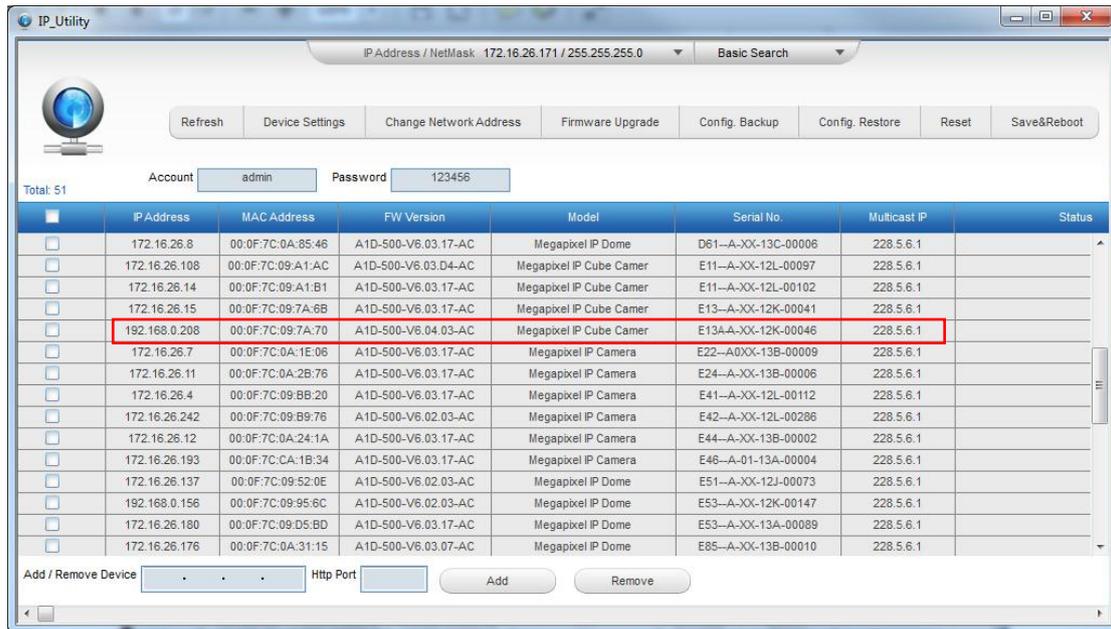


By double-clicking with the left mouse on the camera model, it is possible to automatically launch the default browser of the PC with the IP address of the target camera filled in the address bar of the browser already.

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.

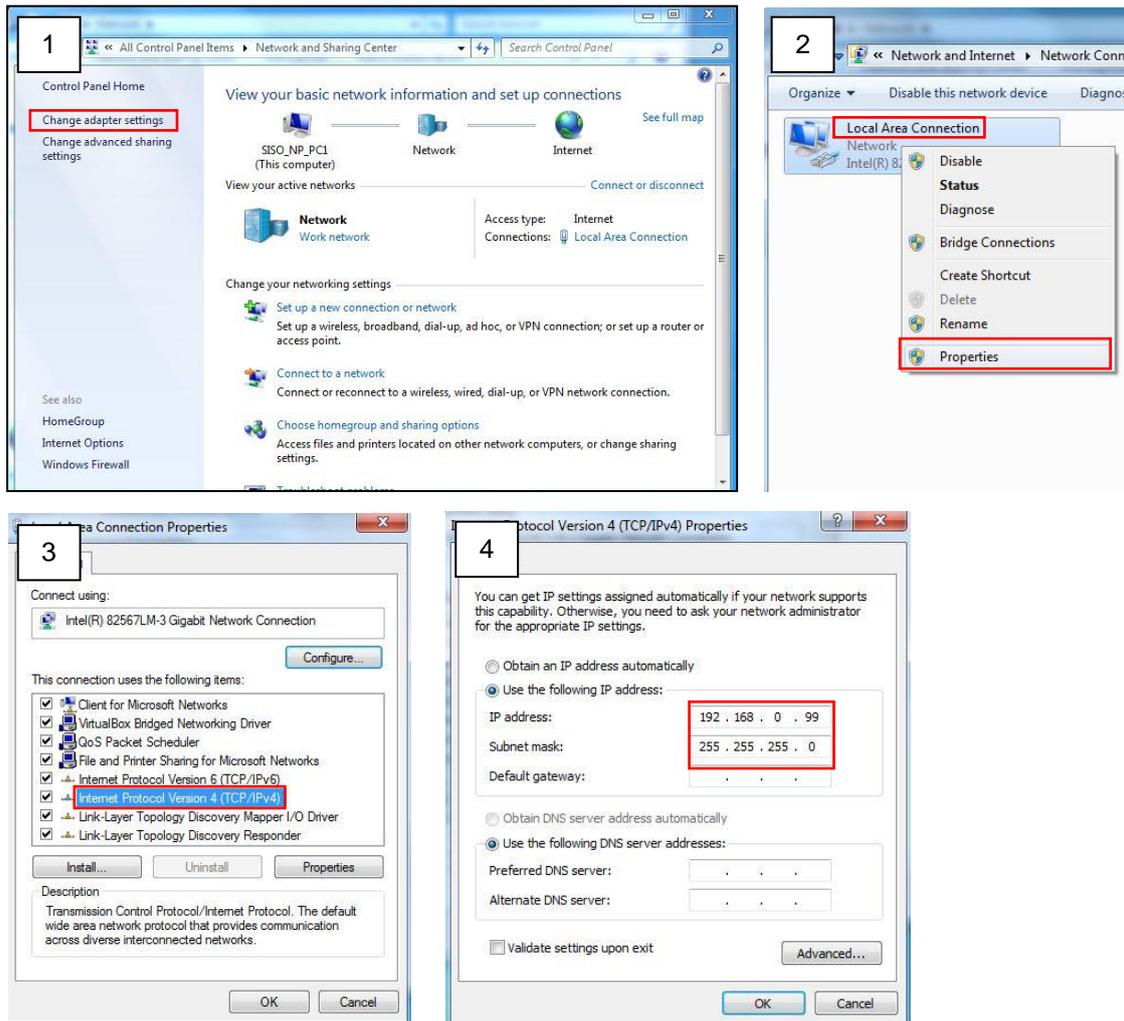
When the camera is plugged into network and it does not detect any DHCP services, it will automatically assign itself a default IP:

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.

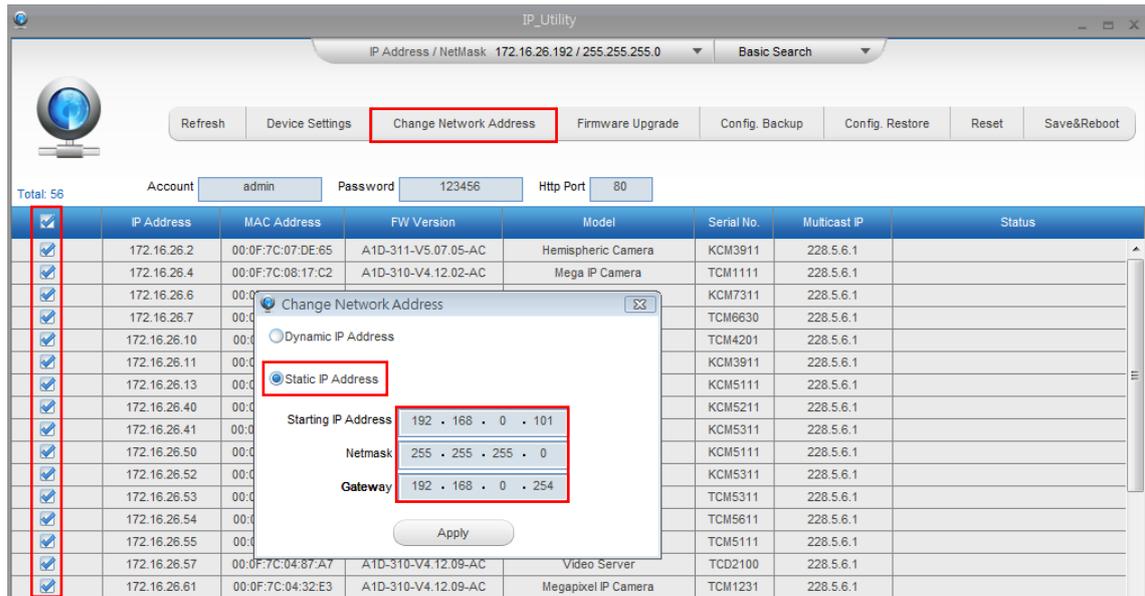
Manually adjust the IP address of the PC:

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.

How to 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

* 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 QuickTime or VLC Player – since these are third party softwares. The third parties have the right to modify their utility any time which might affect the compatibility. In such cases, please use Internet Explorer browser instead.*

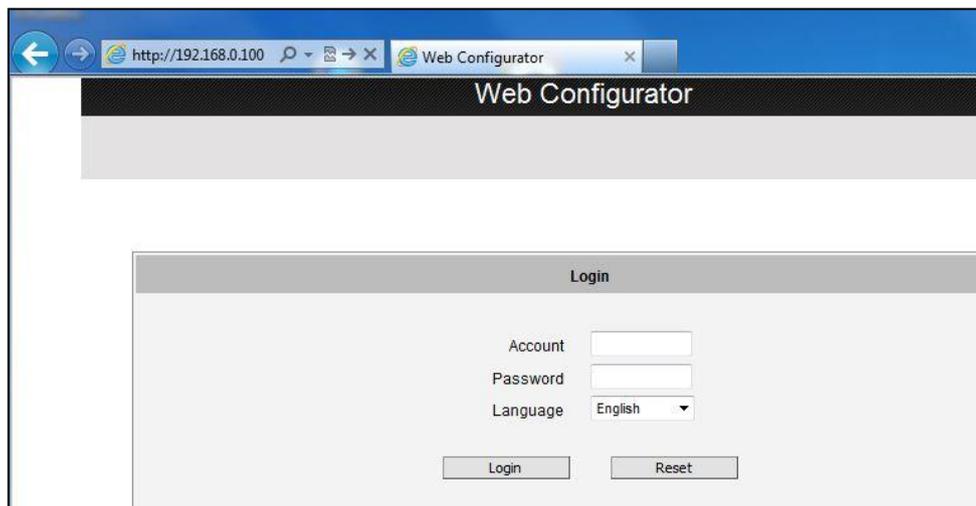
When using Internet Explorer browser, the ActiveX control for video stream management will be downloaded from the camera directly – the user just has to accept the use of such control when prompted so. No other third party utilities are required to be installed in such case.

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**



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