



# E53

**3MP Indoor Dome with D/N, IR, Basic WDR,  
Fixed lens  
Hardware User's Manual  
(PoE)**

Ver. 2012/12/12



**ACTi**  
Connecting Vision

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# 0. 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.

## **FCC/CE Regulation**

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 not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the users will be required to correct the interference at their own expense.

# 1. Introduction

## Package Contents

### E53



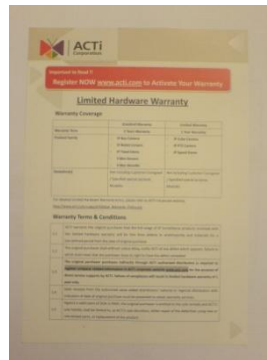
### Accessories



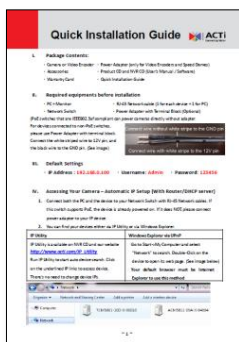
### Lens Focus Tuner



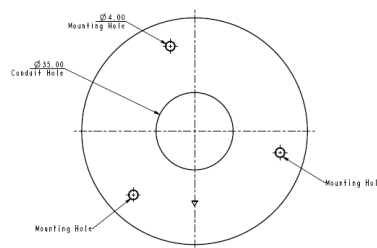
### Warranty Card



### QIG



### Drill Template



## Features and Benefits

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This is a cutting-edge digital video surveillance camera. It can compress and transmit real time images with outstanding image quality through a standard TCP/IP network. This camera is your best choice to build an intelligent IP surveillance system.

### **H.264 High Profile/MJPEG Multi-Codec Dual Streaming**

This device supports 2 compression formats, H.264 High Profile and MJPEG. It brings superior image quality at 15 frames per second up to resolution of 2048 x 1536 pixels. In Full HD 1080p (1920 x 1080), 720p (1280 x 720) and VGA resolution (640 x 480) the device reaches 30 frames per second.

### **Built-in Hardware Motion Detection**

No more external motion sensors are required. You may assign up to 3 video motion detection areas. By tuning the object size and sensitivity, it will reliably detect objects passing through its view. Hardware motion detection also offers better sensitivity and faster response time than software motion detection.

### **Powerful Bundled Surveillance Software**

To extend the capabilities of the IP Camera series, a powerful surveillance program is included in the package for free. Users can easily use an existing PC as a digital video recorder. Scheduled recording and manual recording keep every important video recorded in the local hard disk. Reliable and accurate motion detection with instant warning enables immediate response in every condition. Quick and simple search and playback function lets you easily find the images and video you want.

### **Software Development Kit Support**

This IP Camera can be integrated or controlled by applications from third party software developers. Software developers can save considerable efforts by using our Streaming Library or ActiveX control. Please contact us for details on integration support.

## Safety Instructions

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### **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.

## Physical description

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- 1 Power LED
- 2 Ethernet Port
- 3 Reset Button

### 1) Power LED

LED light will light up while the power is on. LED light will light off after the unit has successfully completed the boot process.

### 2) Ethernet Port

The IP device connects to the Ethernet via a standard RJ45 connector. Supporting NWAY, this IP device can auto detect the speed of local network segment (10Base-T/100Base-TX Ethernet).

### 3) Reset Button

**Step 1:** Press and continue to hold the Reset Button for 15 seconds (with a sharp tipped object, like a pen.) while the power of the unit is on.

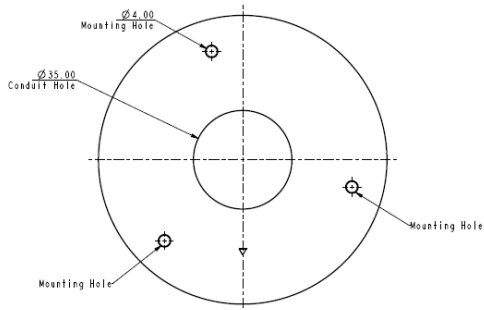
**Step 2:** The Ethernet LED light will turn off for about 1~2 seconds and flash on for another second. By this time the reset to default operation is already completed. You may then release the reset button. This length of time fluctuates slightly with the environment. The unit will come back on and stay on after a few more seconds. The unit will start up with factory default settings automatically.



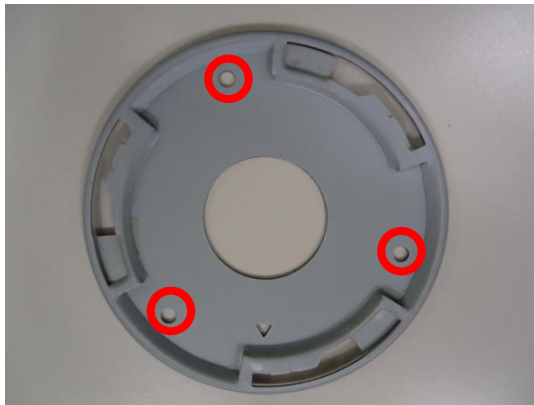
## Installation Procedure

### Ceiling Mount

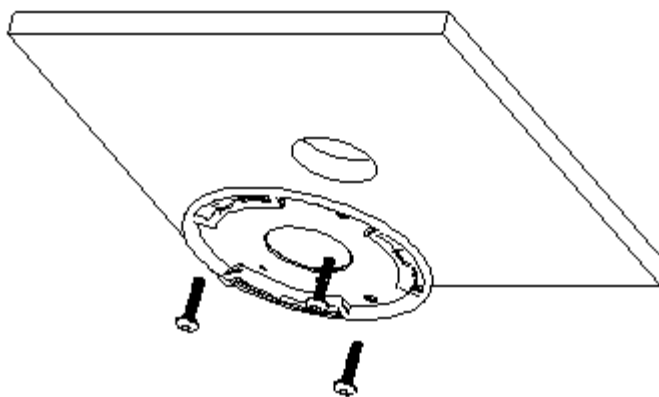
Use the drill template, and drill a hole with  $\phi 35$  on the ceiling



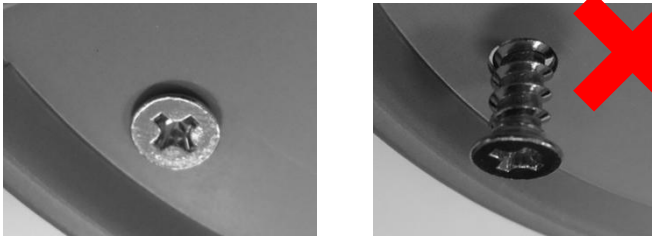
Use the mounting plate and choose the correct three screw holes.



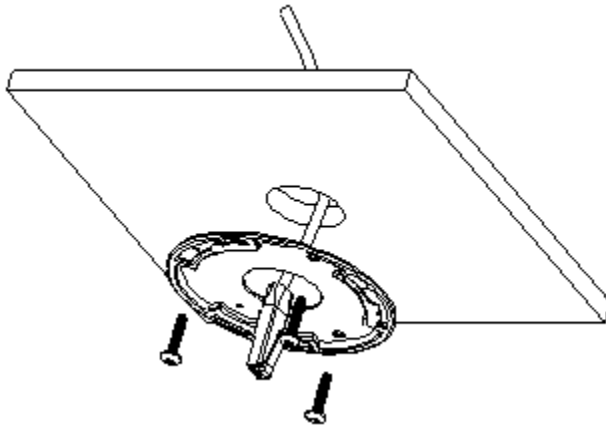
Tighten the plate to ceiling with **T4\*20** screws (not to use screws other than flat heads)



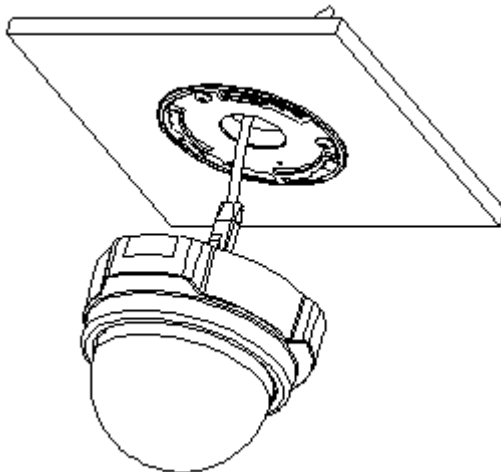
Please make sure the screw is flat on the plate, protruding is incorrect.



Connect cables through the hole on the ceiling and plate, or on the side of casing



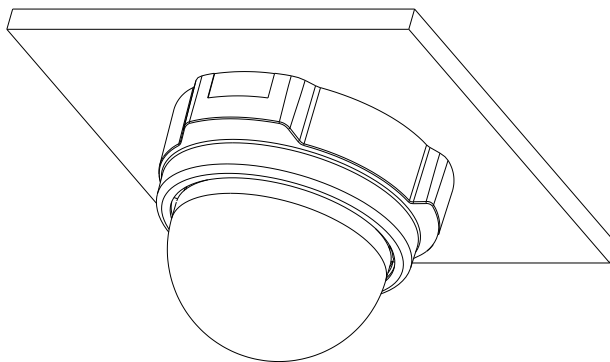
Fasten the camera to ceiling by turning clockwise direction



Insert the cables (Network) through the mounting plate and connect to the camera. Then use the little strap in bundled accessory to fasten the network cable.

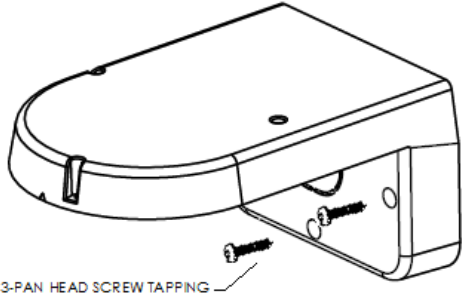


Done

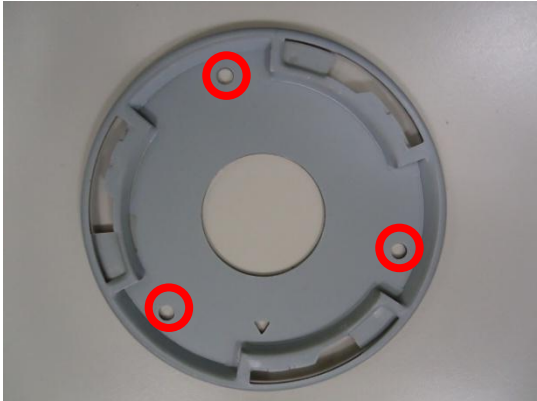


**Wall Mount**

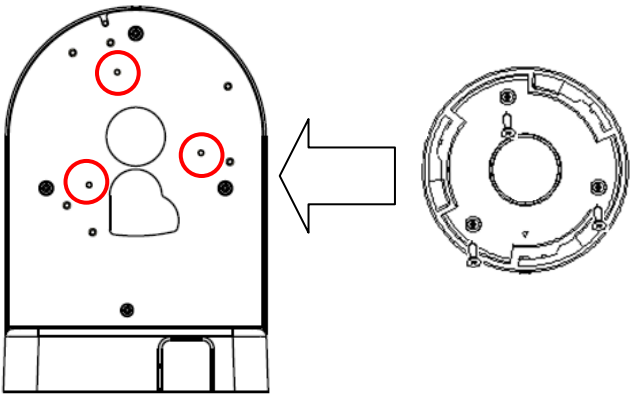
Tighten wall mount bracket to the wall by 3 PAN Head Tapping screws

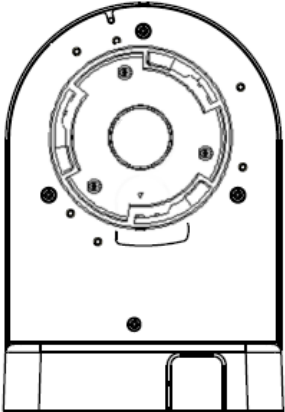


Use the mounting plate and choose the correct three screw holes.



Tighten the plate to wall mount bracket with **M4\*6** screws (not to use screws other than flat heads), and connect all necessary cables through the hole on the plate and wall mount kit

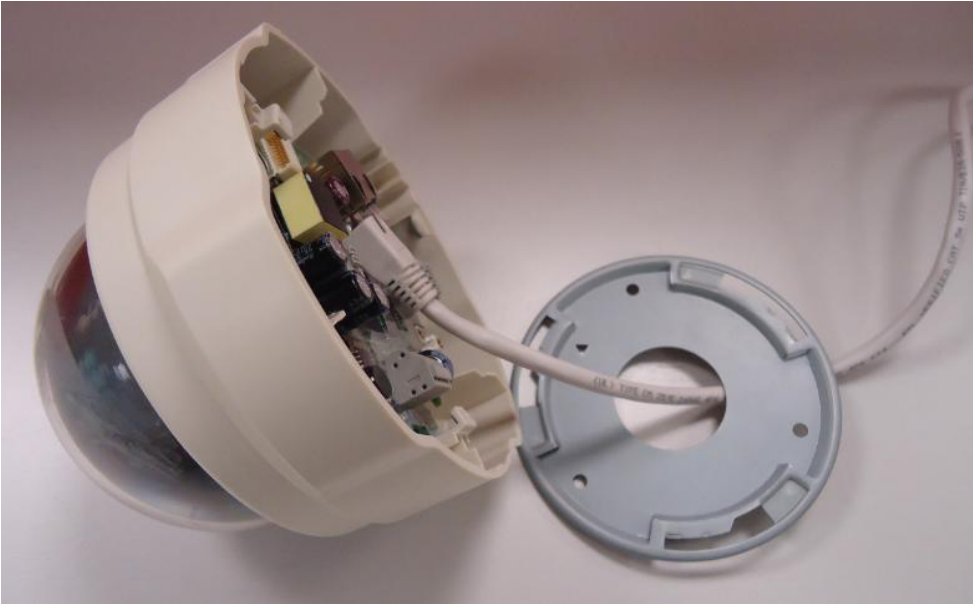




Please make sure the screw is flat on the plate, protruding is incorrect.



Insert the cables (power/Network/audio) through the mounting plate and connect to the camera. Then use the little strap in bundled accessory to fasten the network cable.



Fasten the camera to wall mount kit by turning clockwise direction and done



## Adjust Viewing Angle and Focus

Remove the front cover with counterclockwise direction.



Based on the live view from the camera, adjust the viewing angle with pan and tilt direction.



Attach the focus tuner on lens to adjust the focus of lens.



Remove the lens focus tuner.

Attach the dome cover to the camera and push it into the groove until it clicks.

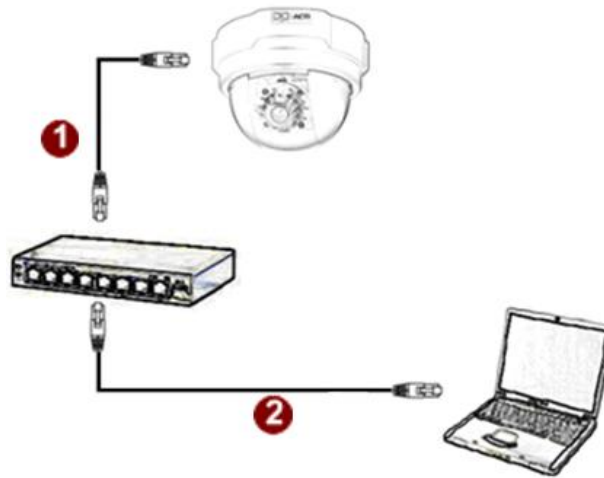




## Basic Connections

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Follow the procedures below to connect the IP device to the respective apparatuses.



**Please use a PoE (Power over Ethernet) supported switch or injector:**

- 1) Connect your IP Camera to the PoE Switch / Injector by CAT5 or CAT6 cables with RJ45 connector.
- 2) Connect your PoE Switch / Injector to PC with another CAT5 / CAT6 network cable.

## Product Specification

<b>E53</b>	
<b>• Device</b>	
Device Type	Fixed Indoor Dome Camera
Image Sensor	Progressive Scan CMOS
Day / Night	Yes
Minimum Illumination	Color: 0.1 lux at F1.8 (30 IRE, 2400°K); B/W: 0 lux (IR LED on)
Color to B/W switch	ISP based switch, configurable
Mechanical IR Cut Filter	Yes
IR Sensitivity Range	700~1100nm
IR LED	IR LED x 16 (850nm)
IR Working Distance	15 m (0 lux, 30 IRE, Max exposure gain)
Electronic Shutter	1/5 - 1/2,000 sec (Manual / Auto mode)
<b>• Lens</b>	
Focal Length / Aperture	Fixed focal, f3.6 mm / F1.8
Iris	Fixed iris
Focus	Fixed focus
Mount Type	Board Mount
Horizontal Viewing Angle	72°
Viewing Angle Adjustment	Pan: 0° - 330°; Tilt: 20° - 90°
<b>• Video</b>	
Compression	H.264 HP, MJPEG
Maximum Frame Rate vs. Resolution	15 fps at 2048x1536; 30 fps at 1920 x 1080 (Full HD 1080p); 30 fps at 1280 x 720 (HD 720p); 30 fps at 640 x 480 (VGA)
Multi-Streaming	Simultaneous dual streams based on two configurations
Bit Rate	28 Kbps - 6 Mbps (per stream)
Bit Rate Mode	Constant, Variable
Image Enhancement	Basic WDR; White balance: automatic, hold, and manual; Brightness; Contrast; Auto gain control; Digital noise reduction; Flickerless
Privacy Mask	4 configurable regions
Text Overlay	User defined text on video
Image Orientation	Image flip and mirror
<b>• Network</b>	
Protocol & Service	TCP, UDP, HTTP, HTTPS, DHCP, PPPoE, RTP, RTSP, IPv6, DNS, DDNS, NTP, ICMP, ARP, IGMP, SMTP, FTP, UPnP, SNMP, Bonjour
Ethernet Port	1, Ethernet (10/100 Base-T), RJ-45 connector
Security	IP address filtering; HTTPS encryption; Password protected user levels; IEEE 802.1X network access control
<b>• Alarm</b>	
Alarm Trigger	Video motion detection (3 regions)
Alarm Response	Notify control center; Change camera settings; Command other devices; E-mail notification with snapshots; Upload video, snapshot to FTP server
<b>• General</b>	
Power Source / Consumption	PoE Class 2 (IEEE802.3af) / 6.02 W (IR on)
Weight	292 g (0.64 lb)
Dimensions (Φ x H)	128 mm x 99 mm (5.12" x 3.90")
Mount Type	Surface, Pendant, Wall, Corner, Pole, Flush
Operating Temperature	-10 °C ~ 50 °C (14 °F ~ 122 °F)
Operating Humidity	10% ~ 85% RH
Approvals	CE, FCC
<b>• Integration</b>	
Unified Solution	Fully compatible with ACTi software
ISV Integration	Software Development Kit (SDK) available; ONVIF compliant
Firmware Access Browser	Microsoft Internet Explorer 6.0 or newer

## 2. Accessing Camera

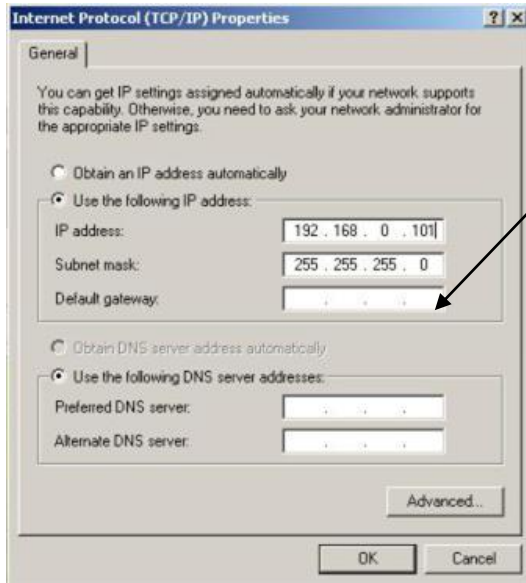
### If you have DHCP server / router in your network:

Many network server / routers are able to automatically provide IP addresses through DHCP. If you are using such a network, just plug in your computer and IP Camera into the network and your IP device will acquire network address by itself. Find and access the device with our IP Utility program. You may download it at:

***[http://www.acti.com/product/detail/Software/ACTi\\_Utility\\_Suite](http://www.acti.com/product/detail/Software/ACTi_Utility_Suite)***

### If you do ***NOT*** have DHCP server / router in your network:

1. Configure your PC to use the same subnet by changing your PC's IP address to the subnet with prefix 192.168.0.XXX. The last number should be anything from 1 to 254 except 100 and other occupied IP addresses. Subnet mask should be 255.255.255.0.
2. **The default IP used by this device is 192.168.0.100. Please make sure your PC is NOT using this address and that no two equipments use the same IP address in the network.**
3. Change your IP address by going to Control Panel ->Manage Network Connections -> Right click on the connection to change -> Option -> TCP/IP IPv4 Properties.



Please set the settings as below.

- 
- IP address: 192.168.0.xxx
- Subnet mask: 255.255.255.0

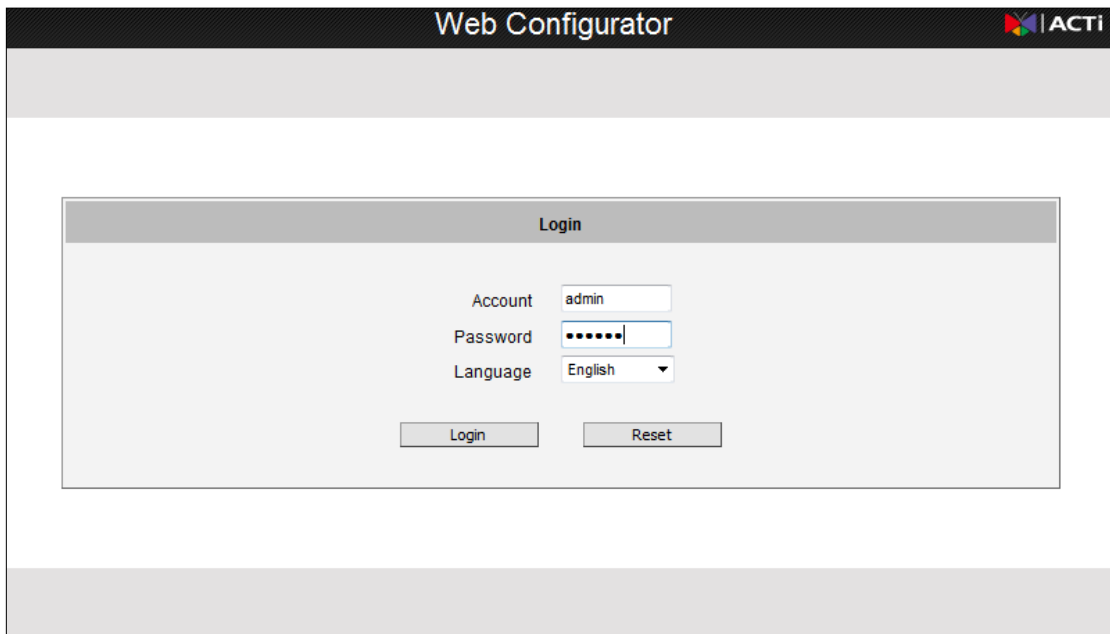
(NOTE: xxx should be a number from 1 to 254 except 100, which is used by the IP device. Please also make sure that no two equipments use the same IP address in the

4. Open Internet Explorer (Version 6.0 or above) , and type in the Default IP:

**192.168.0.100**

5. When you see the login window, please input default user and password:

**Default User: Admin Password: 123456**



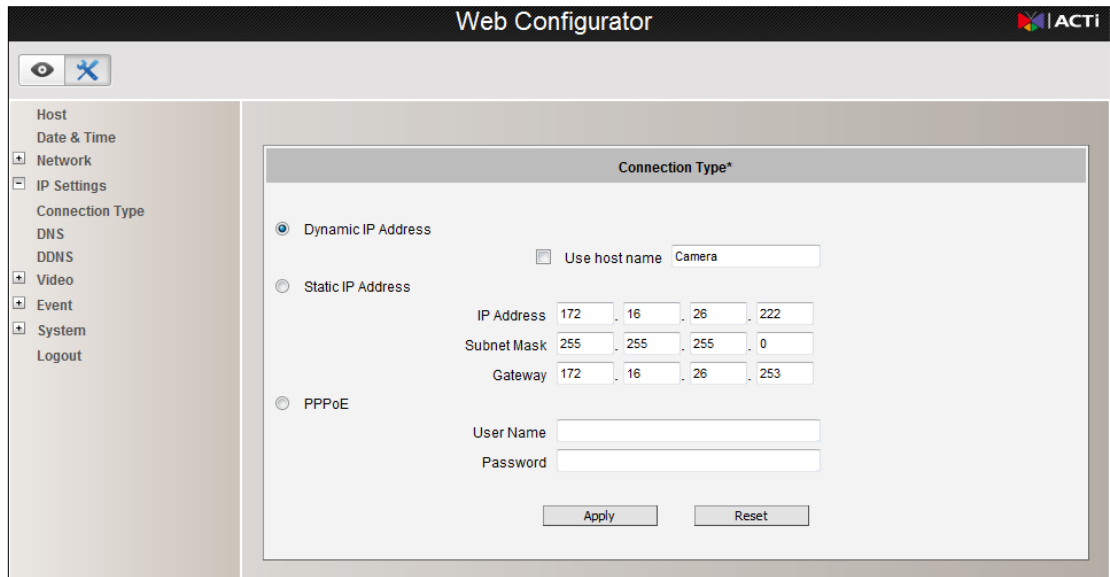
6. After logging in, you will see the video from camera. To go to the main menu, click the "Setup" button on the top left.



If you are using a single camera, this is enough to access the device.

If you are using multiple devices, you need to change the current device to another unused IP address, so that when the next device is connected to the network, no two devices use the same IP. Please perform the following steps.

7. Go to IP Settings -> Connection Type
8. Change the IP mode to Static.
9. Change the IP to 192.168.0.101 or any other unused IPs. Do NOT use the PC's IP address or 192.168.0.100.). If this is not the first device you add to the network, please also avoid other devices' IPs.



10. Click "Apply"

11. Please go to System -> Save & Reboot, and click "Apply". Internet Explorer will close after a few seconds. This is normal.



12. Wait for 30 seconds, and open IE again to connect to the **new IP**. (In this example, 192.168.0.101). For the second device or more you add into the network, please type the correct IP.

13. Adjust the default Video setting by going to Video -> Video  
 Please refer the firmware manual for the detail information.