



**Model#: IN-MDRI1MF**

**1MP Indoor Mini Dome with Basic WDR,**

**Fixed lens**

**Hardware User Manual**

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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

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IN-MDRI1MF



Accessories



Lens Focus Tuner



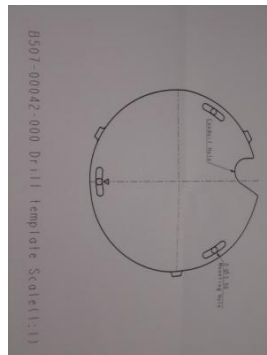
Warranty Card



Quick Installation Guide



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 30 frames per second up to resolution of 720p (1280 x 720 pixels) and VGA (640 x 480 pixels) resolution 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 Surveillance Software**

To extend the capabilities of the IP Camera series, a powerful surveillance program is available to download for free from our website. <http://www.inaxsys.com/en/support/downloads/software-downloads.html>

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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### **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 Reset Button
- 3 Ethernet Port

### 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

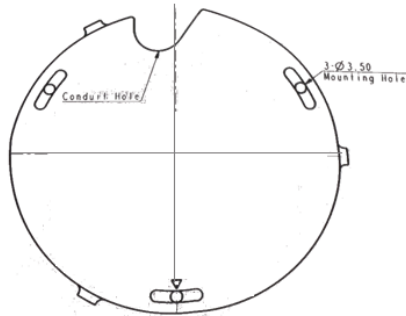
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Remove the cover of the camera by loosen the 3 screws holding it.



### Surface Mount

Drill three holes with  $\phi 3.5$  on the ceiling according to the marks provided on the template.



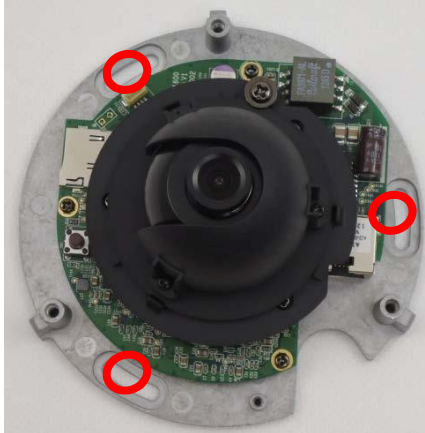
Route cables through the ceiling, taking as a reference the Conduit Hole on the drilling template. Or you may take off the removable part from the cable exit hole at the rear of the cover by sliding it out from the cover to route the cable from the camera.





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Use the camera body and locate the correct three screw holes.



Tighten the camera body to the ceiling using the 3 screws included.



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



Attach the cover back to the camera body and tighten the 3 screws.



## Gang Box Adapter Mount

This camera can also be mounted using the Gang Box Converter accessory IN-X0803 used for 3" and 4" indoor domes. However please note that if used in combination with this accessory, a part of the plate of IN-X0803 will remain visible after installation as shown in the picture below.



First, locate the three screw holes on the accessory that can be used to attach this camera model.



Connect cables through the hole on IN-X0803 accessory.



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Tighten the camera body to the IN-X0803 with the 3 screws included in the camera box.



Finally, put the cover back on, and tighten with the 3 screw holes on the camera body.

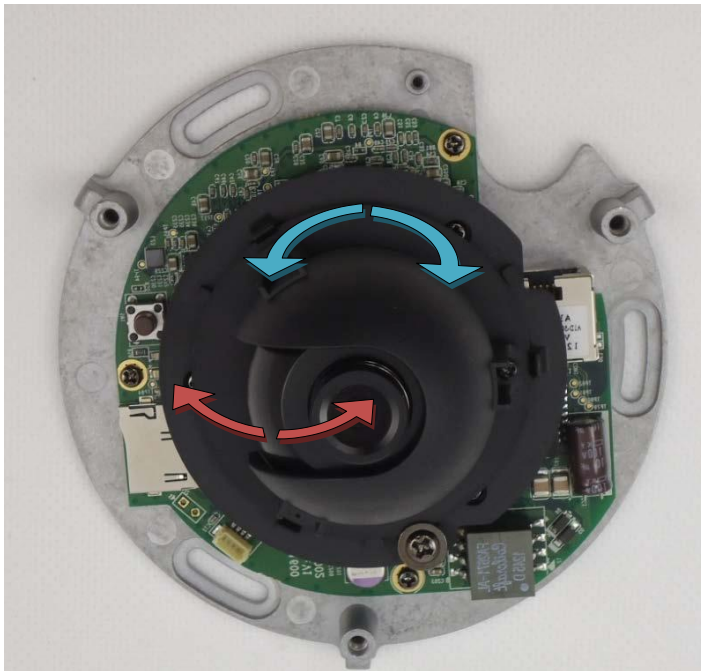


## Adjust Viewing Angle and Focus

Remove each screw to take away the front cover of the camera.

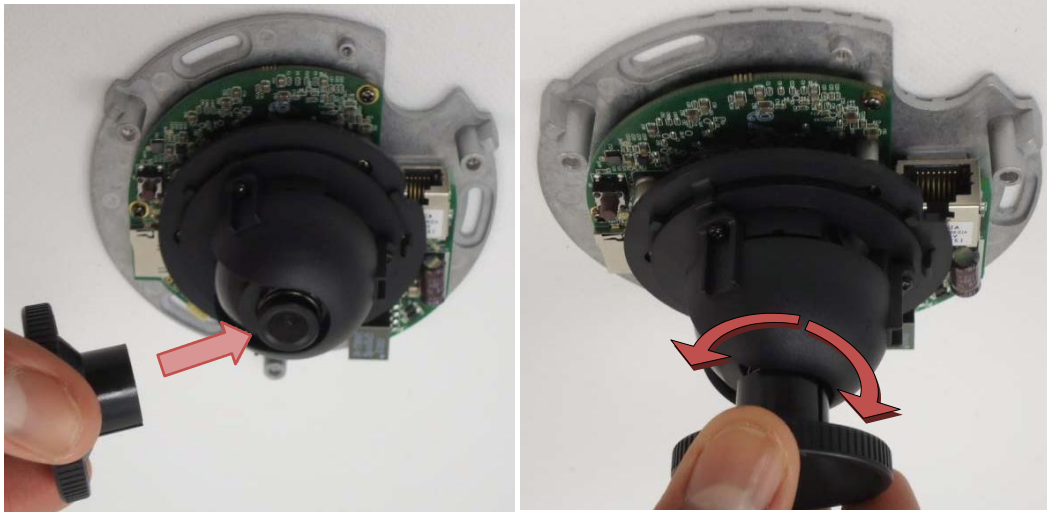


Based on the live view from the camera, adjust the viewing angle with pan and tilt direction.



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



Remove the lens focus tuner.

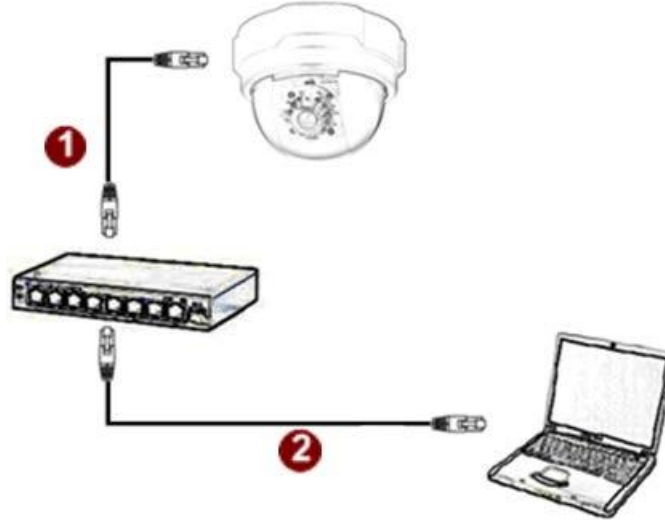
Attach the dome cover to the camera and tighten using the 3 screws.



## 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.

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## Product Specification

<b>• Device</b>	
Device Type	Fixed Indoor Dome Camera
Image Sensor	Progressive Scan CMOS
Day / Night	No
Minimum Illumination	Color: 0.1 lux at F2.0 (30 IRE, 2400°K)
Mechanical IR Cut Filter	No
IR Sensitivity Range	No
IR LED	No
Electronic Shutter	1/5 ~ 1/2,000 sec (manual mode); 1/5 ~ 1/10,000 sec (auto mode)
<b>• Lens</b>	
Focal Length / Aperture	Fixed focal, 12.93 mm / F2.0
Iris	Fixed iris
Focus	Fixed focus
Lens Mount	Board Mount
Horizontal Viewing Angle	87.6°
Viewing Angle Adjustment	Pan: ±90°; Tilt: 0°- 90°
<b>• Video</b>	
Compression	H.264 HP, MJPEG
Maximum Frame Rate vs. Resolution	30 fps at 1280 x 720; 30 fps at 640 x 480
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; Sharpness(auto); 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; Anonymous login; 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>• Interface</b>	
Local Storage	MicroSDHC memory card slot (card not included)
<b>• General</b>	
Power Source / Consumption	PoE Class 1 (IEEE802.3af) / 2.91W
Weight	202 g (0.445 lb)
Dimensions (Ø x H)	110 mm x 58 mm (4.3" x 2.3")
Mount Type	Surface
Operating Temperature	-10°C ~ 40°C (14°F ~ 104°F)
Operating Humidity	10% ~ 85% RH
Approvals	CE (EN 55022 Class B, EN 55024), FCC (Part15 Subpart B Class B)
<b>• Integration</b>	
Unified Solution	Fully compatible with iVTrision software
ISV Integration	Software Development Kit (SDK) available ; ONVIF compliant
Firmware Access Browser	Microsoft Internet Explorer 8.0 or newer (full functionality); Other browsers with VLC installed (partial functionality)

## 2. Accessing Camera

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

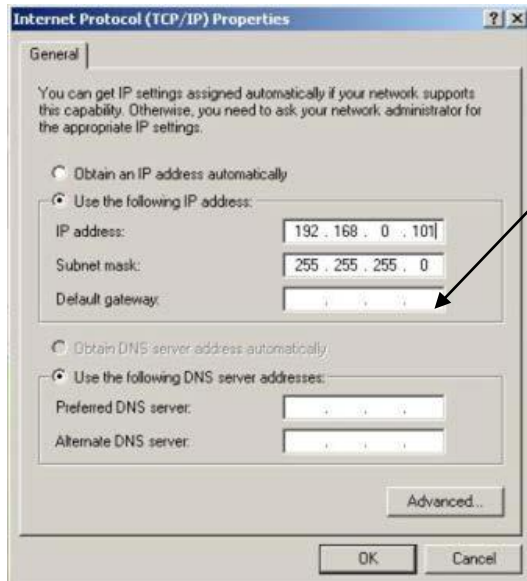
Many network server / routers are able to automatically provide IP addresses through DHCP. If you are using such a network, just plug in your computer and IP Camera into the network and your IP device will acquire network address by itself.

### 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.



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Please set the settings as below.

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

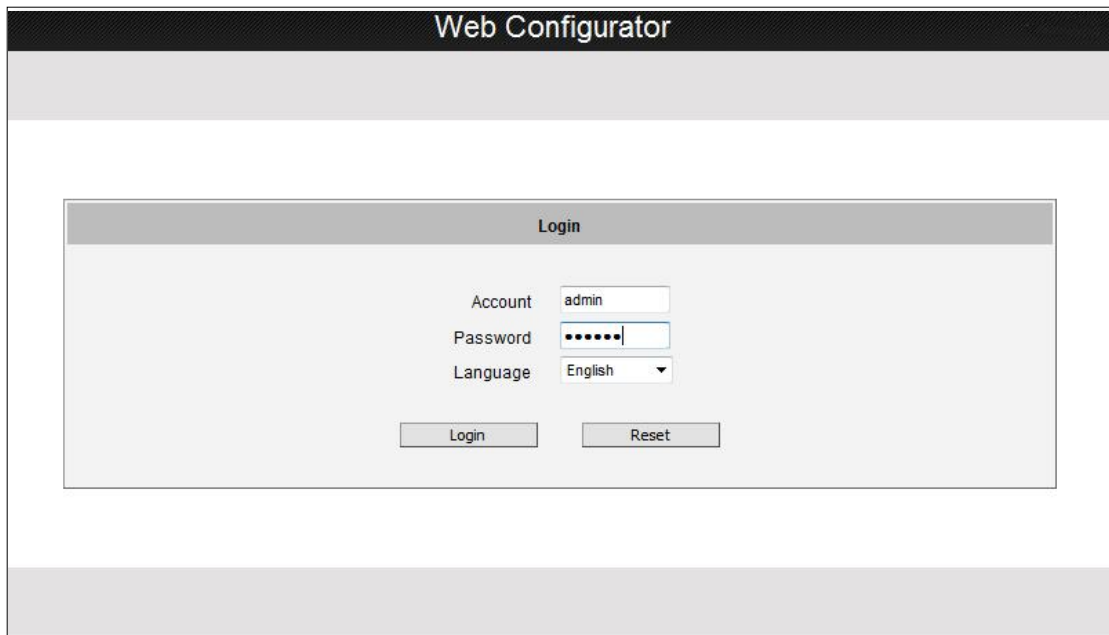
(NOTE: xxx should be a number from 1 to 254 except 100, which is used by the IP device. Please also make sure that no two equipments use the same IP address in the

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

**192.168.0.100**

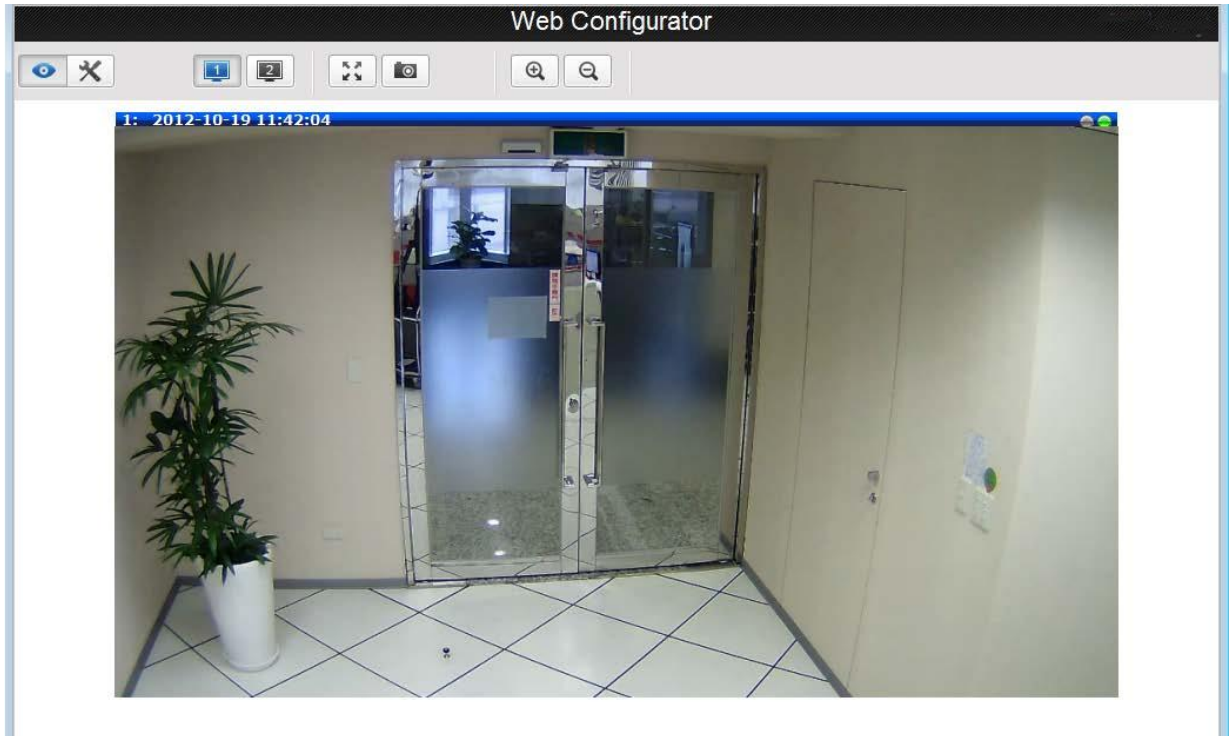
5. When you see the login window, please input default user and password:

**Default User: admin Password: 123456**



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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.

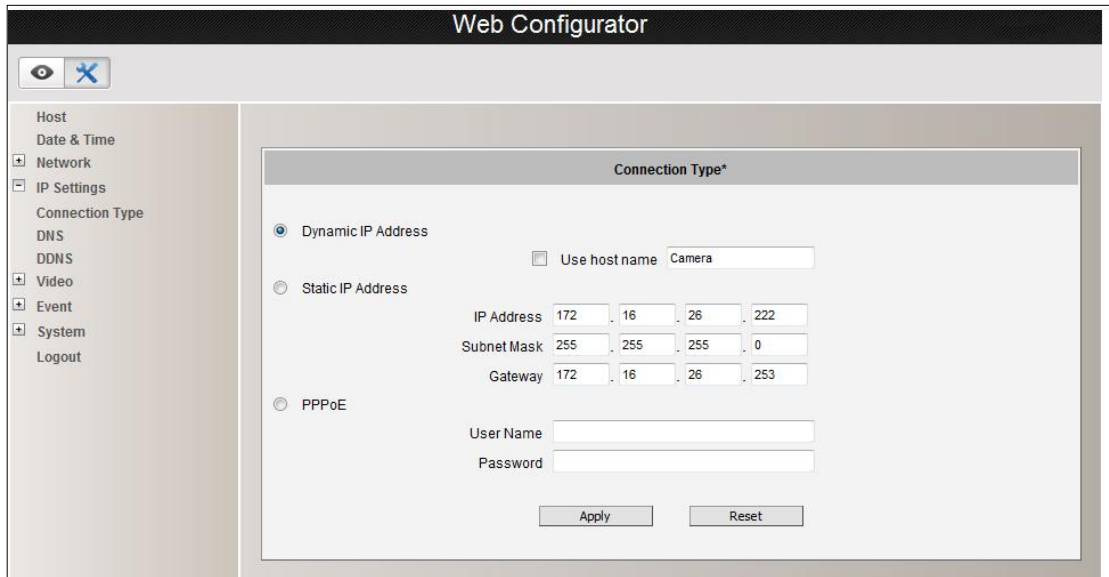


If you are using a single camera, this is enough to access the device.

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.

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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.