EHN Plus Series

Outdoor Vandal Proof IP Dome Camera

Quick Installation Guide

EverFocus®

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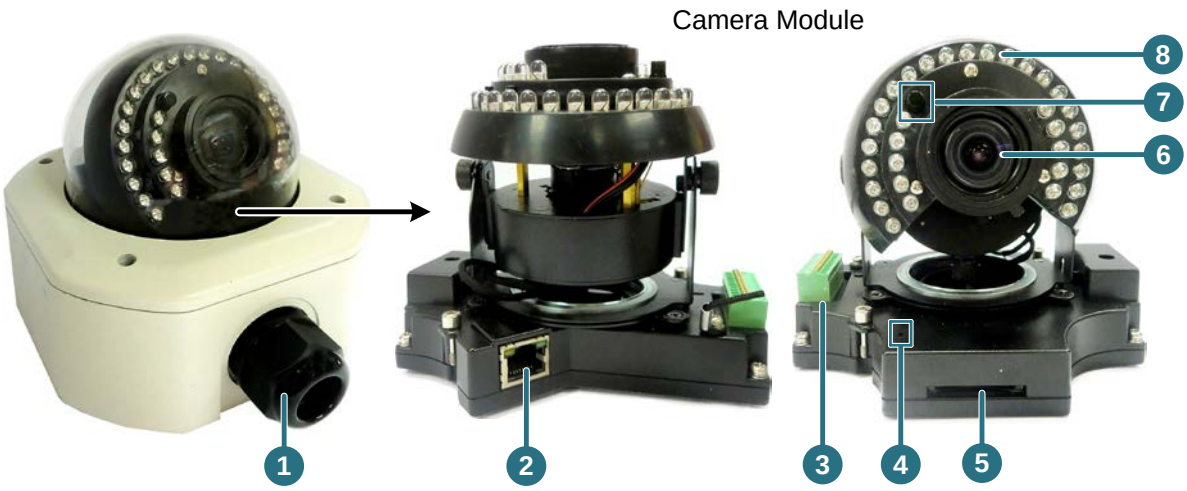
Release Date: October, 2012

1. Overview

The EHN Plus series vandal proof IP dome Camera is designed for outdoor use. The series comes in three models: **EHN3160 Plus / 3260 Plus / 3340 Plus**.

Model Name	Megapixel	P-Iris	WDR
EHN3160 Plus	1.3 MP	Yes	Yes
EHN3260 Plus	2 MP	Yes	Yes
EHN3340 Plus	3 MP	Yes	No



No.	Item Name	Descriptions
1	**Cable Gland**	Equipped with three plugs inserted in the cable conduits for waterproofing.
2	**LAN / PoE**	Connects to a 10/100 Ethernet or PoE.
3	**Terminal Block**	A 12-pin terminal block. See *Terminal Block* later in this Quick Installation guide.
4	**Reset Button**	Resets all configurations to the factory default settings.
5	**SD / SDHC Slot**	For inserting an SD / SDHC card
6	**Lens**	Varifocal lens with P-Iris control.
7	**Light Sensor**	Detects lights.
8	**IR LEDs**	33 IR LEDs for infrared illumination in night vision applications.

System Requirement

Before installing, please check that your computer meets this system requirement.

- Operating System: Microsoft Windows XP / Vista (32-bit) / 7 (32-bit)
- Microsoft Internet Explorer 7 or above

Packing List

- EHN Series Camera x 1
- Base Plate Screw x 4
- Screw Anchor x 4
- Hexagon Screwdriver x 1
- Desiccant Bag x 2
- Inner Paper x 1
- Software CD x 1
- Quick Installation Guide x 1

Note: Contact the shipper if any items appear to have been damaged in the shipping process. If any items are missing, notify your EverFocus Electronics Corp. Sales Representative or Customer Service Branch. Please also keep the shipping carton for possible future use.

Optional Accessories

You can use the optional accessories to expand the capabilities and versatility of the camera. Please contact your dealer for more information.

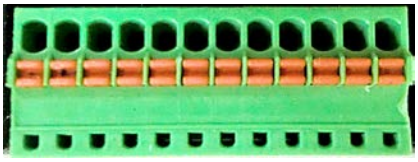
• One Adapter Plate with 4 Screws 	The Adapter Plate is designed for wiring the cables through the bottom of the camera case. For details on how to wire the cables through the bottom of the camera, please refer to the *User's Manual* in the CD.
• L-Shaped Mounting Bracket 	To prevent the camera from being damaged by direct sunlight, it is strongly recommended to use the L-Shaped Mounting Bracket to mount the camera to the wall. For details on mounting the camera to the wall using the L-Shaped Mounting Bracket, the *User's Manual* in the CD.

2. Terminal Block

The I/O terminal block, located on the camera module, can be used to develop applications for alarm input and output, two-way audio, TV-output or a variety of other functions.

Note:

1. You can unplug the terminal block from the camera module for easier wiring.
2. Microphones with external power supplies are required.



Camera Module

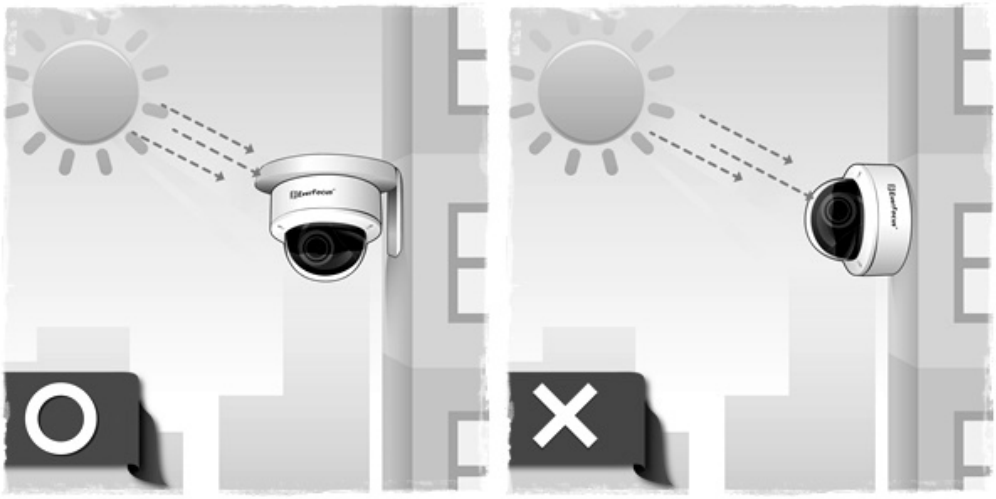
Pin Assignment

No.	Functions	No.	Functions
1	12V DC Input	7	Line Input C
2	Digital GND	8	Audio GND
3	Alarm Output C	9	Audio Output
4	Alarm COM C	10	Audio GND
5	Alarm Input C	11	CVBS Output
6	Digital GND	12	Digital GND

3. Installation

Important Notice for the Installation

If you want to mount the camera on the wall where direct sunlight may occur, it is strongly recommended to mount the camera using the L-Shaped Mounting Bracket to prevent the camera from being damaged by direct sunlight.



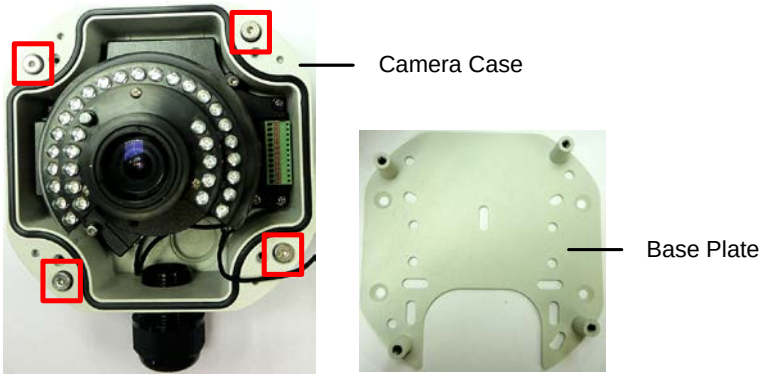
Basic Installation

This installation guide provides the basic instructions on installing an EHN Plus IP camera to the wall. For details, please refer to the *User's Manual* in the software CD.

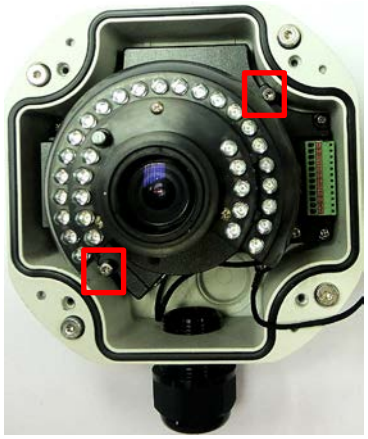
To mount the camera to the wall and connect the cables to the camera:

1. Unscrew the four screws and remove the cover from the camera.

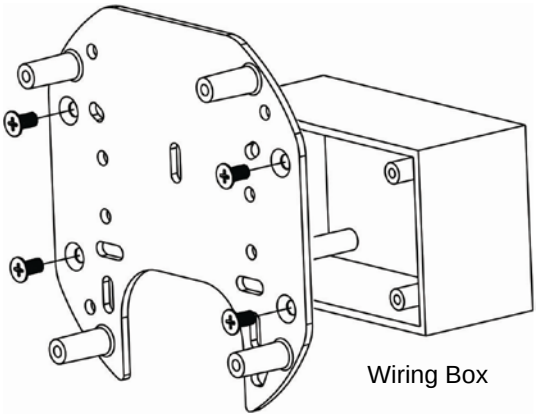
2. Unscrew the four screws and remove the Base Plate from the Camera Case.



3. Unscrew the two screws and take out the camera module.

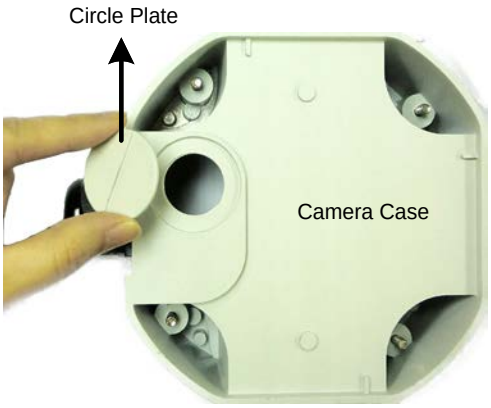


4. Screw the Base Plate to the Wiring Box using the supplied four screws.

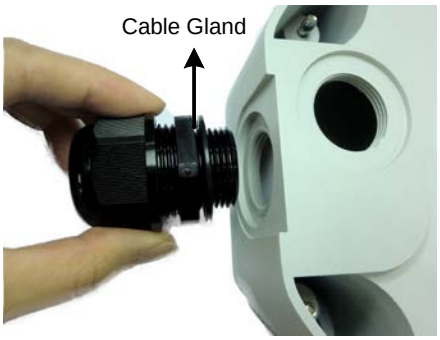


If you want to **wire the cables through the bottom of the Camera Case**, follow the steps below:

a. Remove the Circle Plate on the bottom of the Camera Case. You can simply loosen the Circle Plate using a coin.

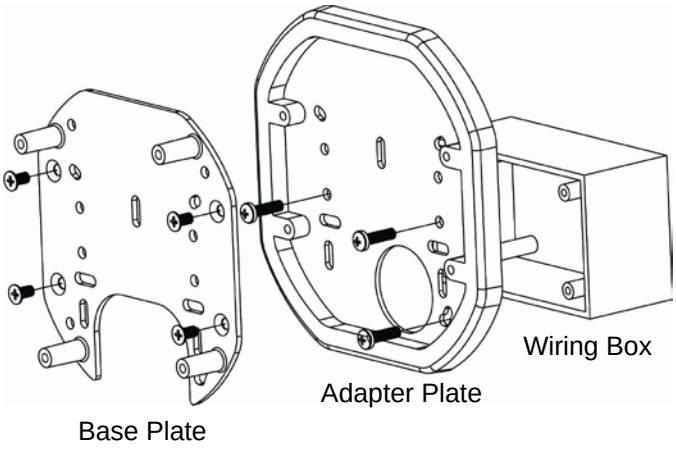


b. Loosen and remove the Cable Gland from the Camera Case. Screw the Cable Gland to the hole on the bottom of the Camera Case.

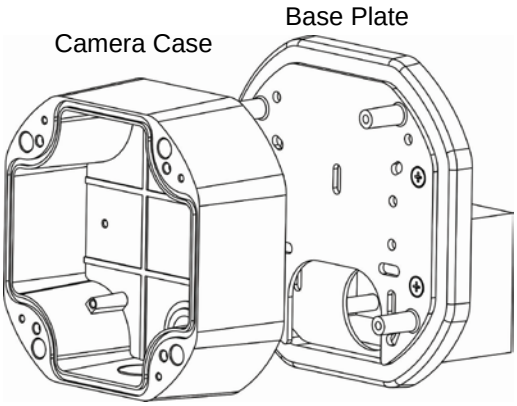


c. Screw the Circle Plate to the side hole on the camera Case.

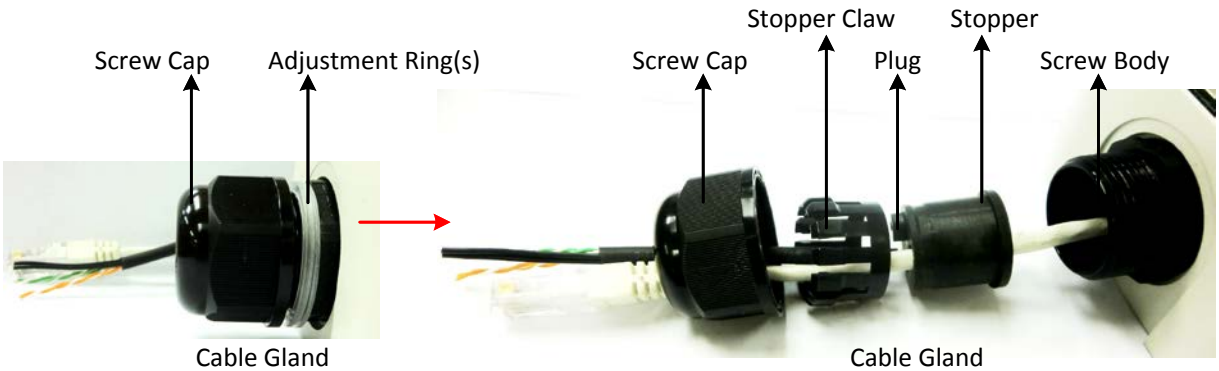
d. Screw Adapter Plate between the Base Plate and Wiring Box.



5. Screw the Camera Case back to the Base Plate.



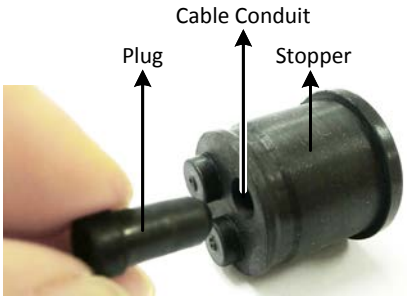
6. Insert the network / PoE cable or the additional cables through the Cable Gland. Up to three cables can be inserted. Note that except the network / PoE cable, additional wires have to be bundled into a cable with diameter ranging from 5.3mm to 6.4mm (see **Step d** below).



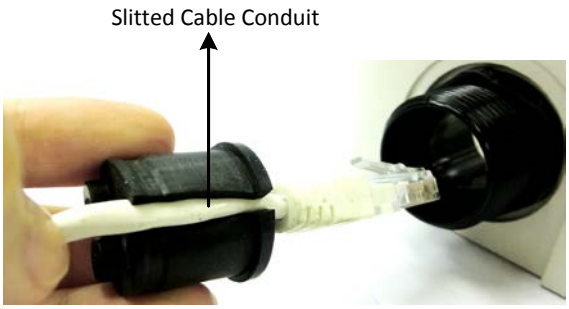
a. Remove the black Adjustment Ring if you are using a Cat 5 network cable. Note that the four Adjustment Rings, including one black and three transparent rings, are attached on the Cable Gland. **If you are using a Cat 6 network cable, you can ignore this step**. For details on the Adjustment Rings, please refer to *3.1 Adjustment Rings* in the *User's Manual*.

- Transparent x 3 (1 mm thickness)
- Black x 1 (0.5 mm thickness)

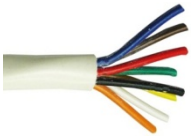
b. Remove the Plug(s) from the Stopper (depends on the number of cables inserted). One Cable Conduit can only be inserted with one cable.



c. Insert the network / PoE cable through the Cable Conduit, if your network / PoE cable already has a RJ-45 connector, then you can use the Slitted Cable Conduit.



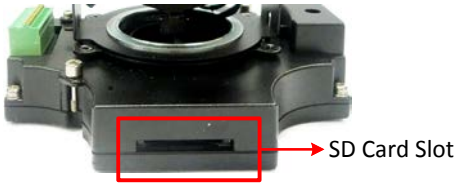
d. Optionally insert the additional wires, such as power (if you want to power the camera through a 12V DC power source), alarm and audio cables, through the other Cable Conduit. Note that one Cable Conduit can only be inserted with one cable. The Cable Conduit has been tested to support cable diameter between 5.3mm and 6.4mm. Please refer to the image below to bundle the lose wires before inserting to the Cable Conduit.



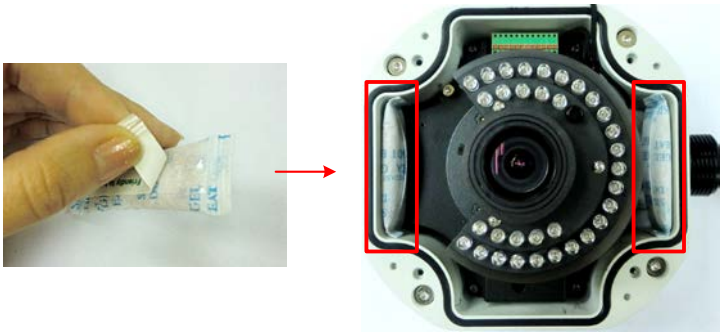
e. Tighten the Screw Cap all the way to the Adjustment Ring(s).

f. **Due to the variable cable diameters, for better waterproofing, it is strongly recommended that you apply silicon sealants to the inner Screw Cap.**

7. Connect the network / PoE cable to the LAN / PoE port on the camera module.
8. If you have inserted additional wires, connect the wires to the terminal block. Please refer to *2. Terminal Block* for pin assignment.
9. Optionally insert an SD / SDHC card to the card slot.



10. Stick the supplied 2 desiccant bags inside the camera case.



Note: It is highly recommended to replace the desiccant bags every time when you open the camera.

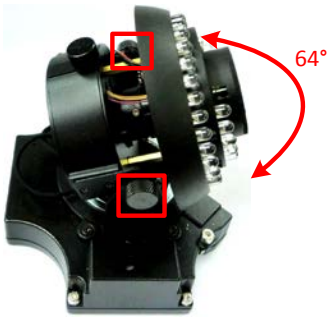
11. Place and screw the camera module back to the camera case.

12. Access the camera live view for adjusting camera lens and angles. For details on how to access the camera live view, see **Step 6** and **7** in *4. Accessing the Camera*.
    a. To adjust camera lens, use the Zoom / Focus screws.

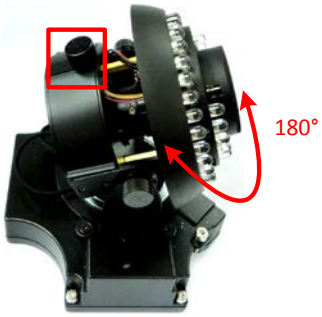
    b. To adjust the camera to a desired angle:

    Pan Adjustment: Simply turn left / right for the top camera module.

    Tilt Adjustment: Using the two tilt screws.



    Rotational Adjustment: Using the rotate screw.



13. Screw the cover back to the camera case.

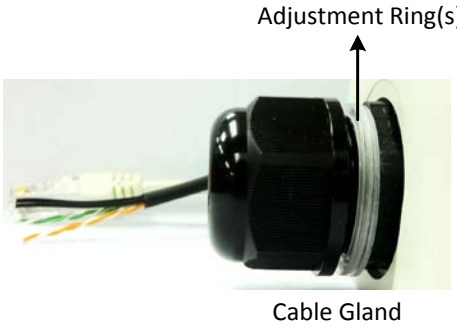
3.1 Adjustment Rings

The four Adjustment Rings, including one black and three transparent rings, attached on the Cable Gland are used to tighten the cable gland for better waterproofing. The Cable Gland is designed with three cable conduits for inserting the cables. You can insert a network cable (Cat 5 or Cat 6) through one of the three conduits. And use the spare two conduits for inserting additional cables. Please refer to the table below to verify the number of Adjustment Rings used.

Adjustment Rings

- Transparent x 3 (1mm thickness)

- Black x 1 (0.5mm thickness)



Number of Cable used	Cable Type & Diameter	Number of Adjustment Ring Used
One	One Cat 5 (Φ 5.3mm)	Three Transparent Rings
	One Cat 6 (Φ 6.4mm)	Three Transparent Rings + One Black Ring
Two	One Cat 5 (Φ 5.3mm) + One Additional Cable	Three Transparent Rings
	One Cat 6 (Φ 6.4mm) + One Additional Cable	Three Transparent Rings + One Black Ring
Three	One Cat 5 (Φ 5.3mm) + Two Additional Cable	Three Transparent Rings
	One Cat 6 (Φ 6.4mm) + Two Additional Cables	Three Transparent Rings + One Black Ring

** If you are using one / two / three cables (with Φ5.3mm), use three transparent rings.

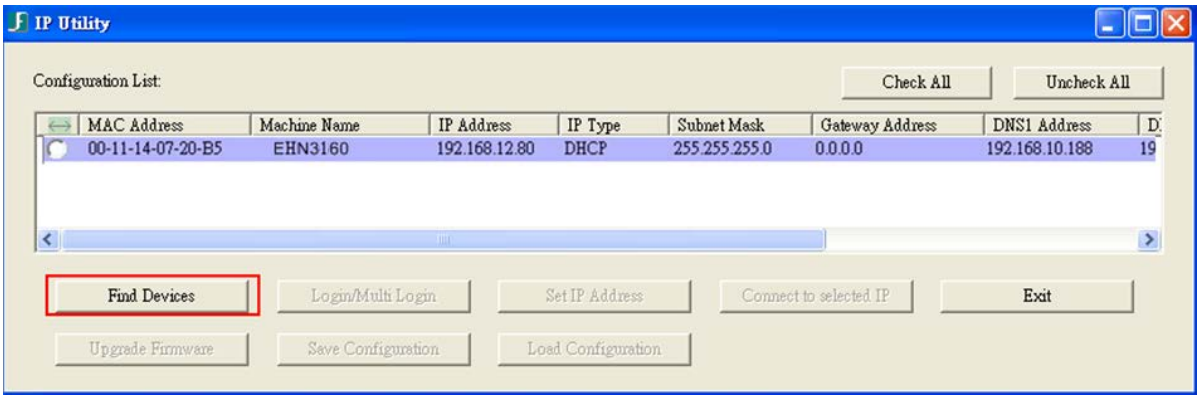
** If you are using one / two / three cables (with Φ6.4mm), use three transparent rings and one black ring.

4. Accessing the Camera

You have to assign an IP address for your camera to be accessible. To assign an IP address to the camera, use the **IP Utility (IPU)** software included in the software CD. Please connect the camera in the same LAN of your computer.

1. Install and then start the IPU program 

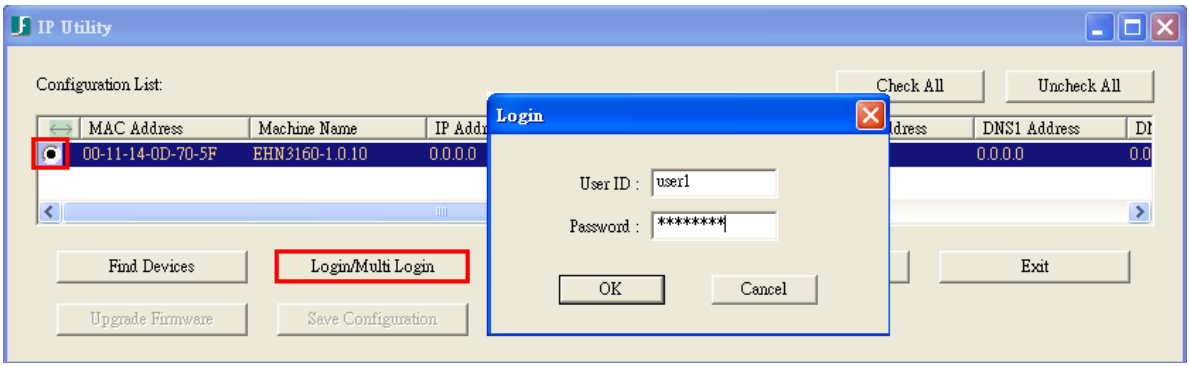
. The following dialog box appears.



2. Click **Find Devices** to search the cameras connected in the LAN. The default network values of the cameras will be displayed.

> **Note:** By default, the network protocol of the camera is **DHCP**.

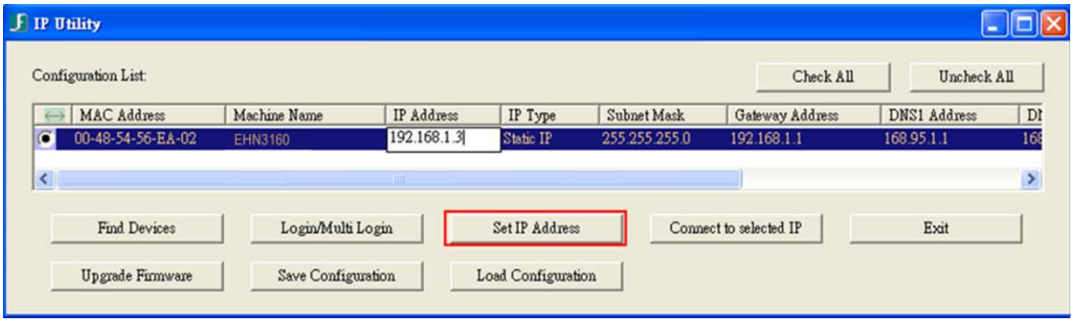
3. To configure the network settings, select a camera and then click **Login/Multi Login** to log in.



4. Type the user ID and password. Click **OK**.

> **Note:**
> 1. The default user ID is **user1** and the default password is **11111111**.
> 2. If you select more than one camera that has the same user ID / password, you will be able to log in several cameras at once.

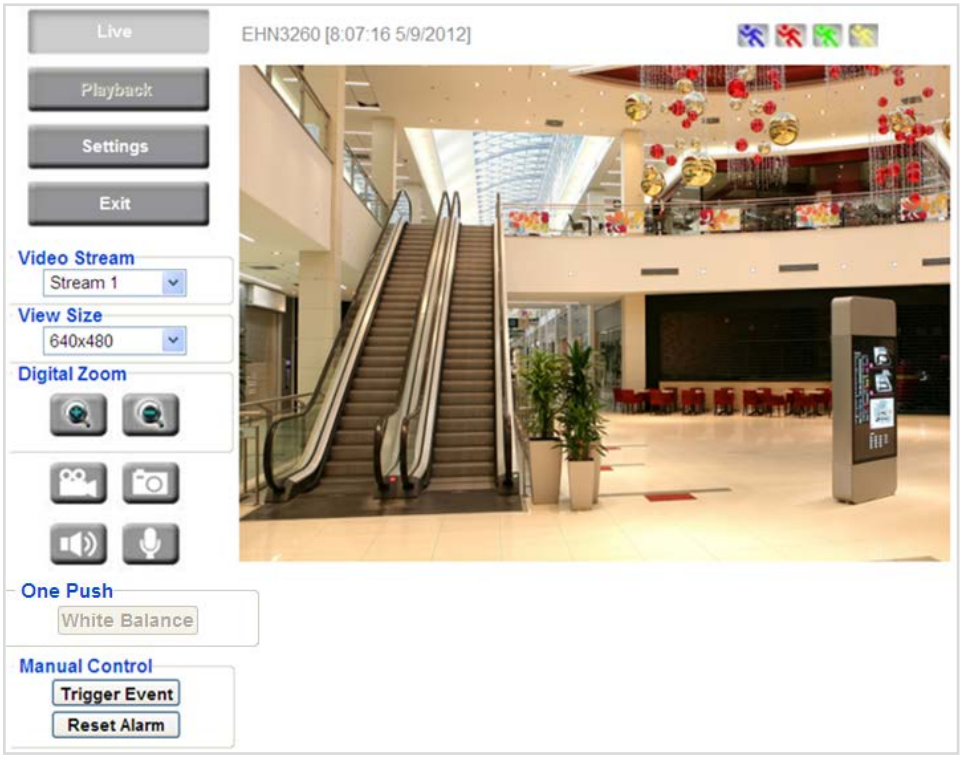
5. To change the IP address, double-click the IP Address of the camera. Type a new IP address and then click **Set IP Address** to save the settings.



You can also change the other settings by double-clicking the values. After configuring the values, click **Save Configuration**.

Note: Most networks uses DHCP to assign IP addresses, if you are unsure of your network settings, please consult your network administrators for configuration details.

6. To access the camera, highlight the camera and click **Connect to Selected IP**. The Internet Explorer window pops up.
7. Type the user ID and password to log in. The Live View window of the camera appears.



Note:

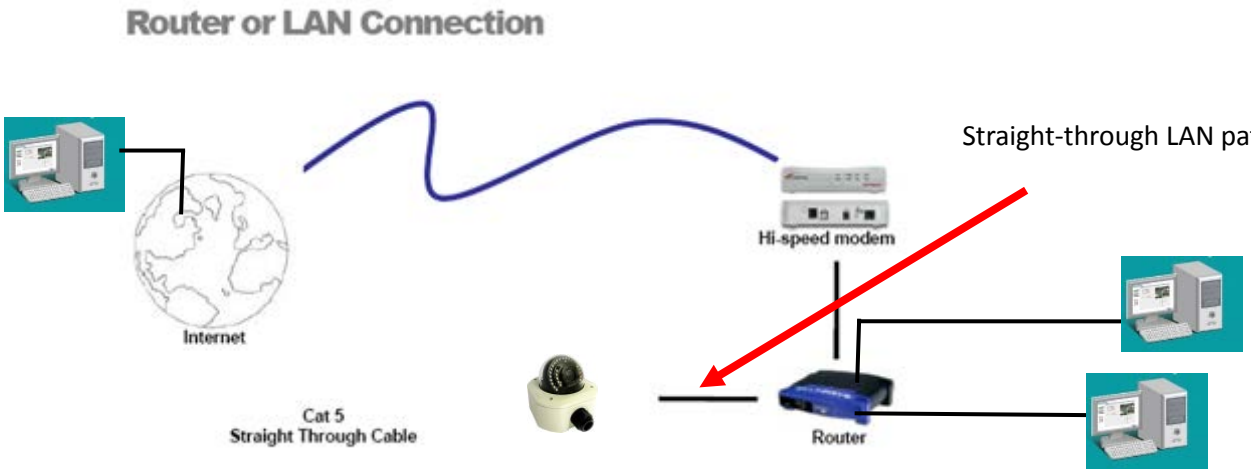
1. You might be required to download **ActiveX** for viewing the camera feed. If asked, click **Yes**.
2. To enable Remove Live View, Firmware Upgrade and ActiveX Prompt on Internet Explorer, some settings have to be complete. Please refer to *5.2 Settings for Microsoft Internet Explorer* in the *User's Manual*.

5. Connecting to the Network

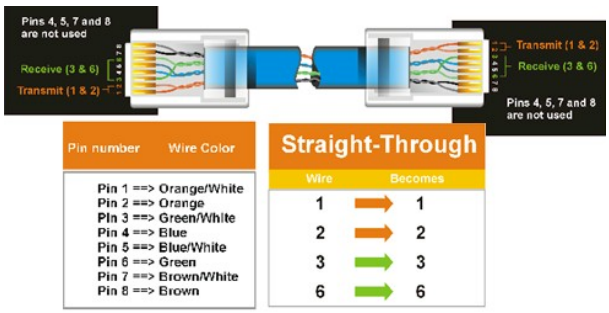
You can use one of the methods below to connect the camera to the network.

Router or LAN Connection

This is the **most common connection** in which the IP camera is connected to a router and allows multiple users on and off site to see the IP camera on a LAN/WAN (Internet). The camera must be assigned an IP address that is compatible with its LAN. By setting up port forwarding on the router, you can remotely access the cameras from outside of the LAN via the Internet. To remotely access the Web interface of the IP camera, please refer to *7.3.2 DDNS* in the User's Manual. To set up port forwarding, please consult the manual of the router.

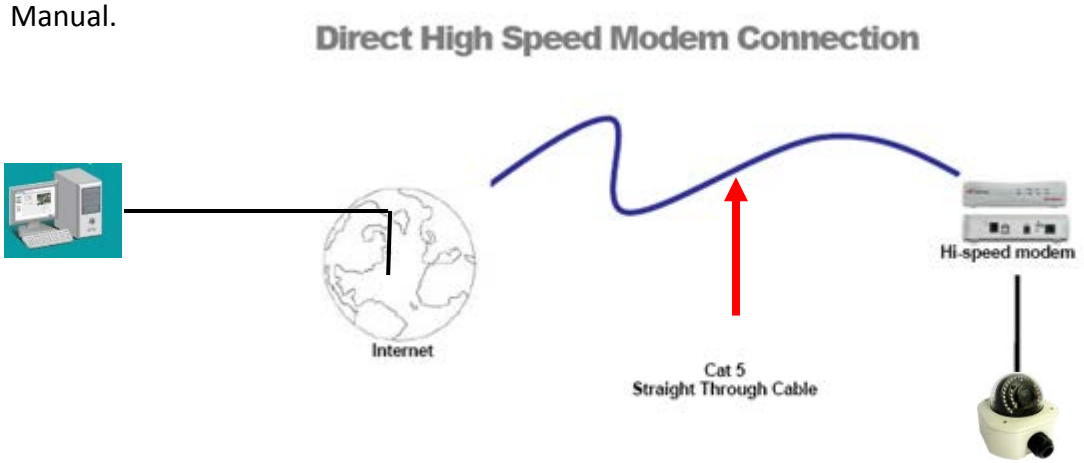


Right: Pinout of a straight-through cable.



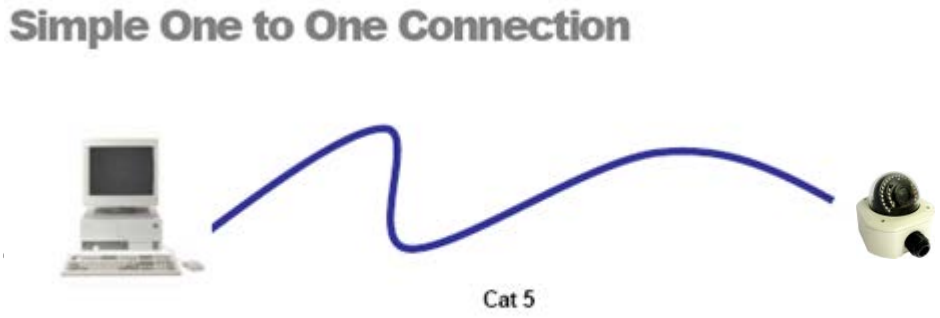
Direct High-Speed Connection

In a Direct High-Speed Connection, the camera connects directly to a modem without the need for a router. You need to set the static or dynamic WAN IP address assigned by your ISP (Internet Service Provider) in the camera's configuration web pages. To access the camera, just type "http://xxx", where xxx is the IP address given by your ISP. If you have a dynamic IP address, this connection may require that you use DDNS for a reliable connection. Please refer to *7.3.2 DDNS* in the User's Manual.

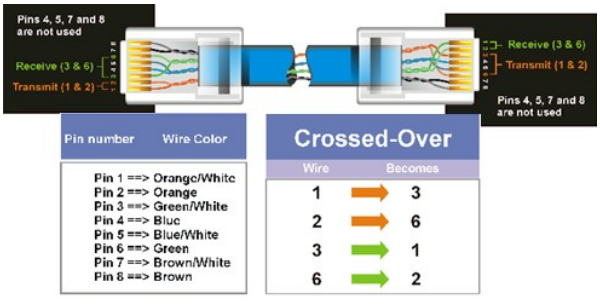


One-to-One Connection (Directly from PC to IP camera)

You can connect directly without using a switch, router or modem. However, only the PC connected to the camera will be able to view the IP camera. You will also have to manually assign a compatible IP address to both the computer and the IP camera. Unless the PC has another network connection, the IP camera will be the only network device visible to the PC. See the diagram below:



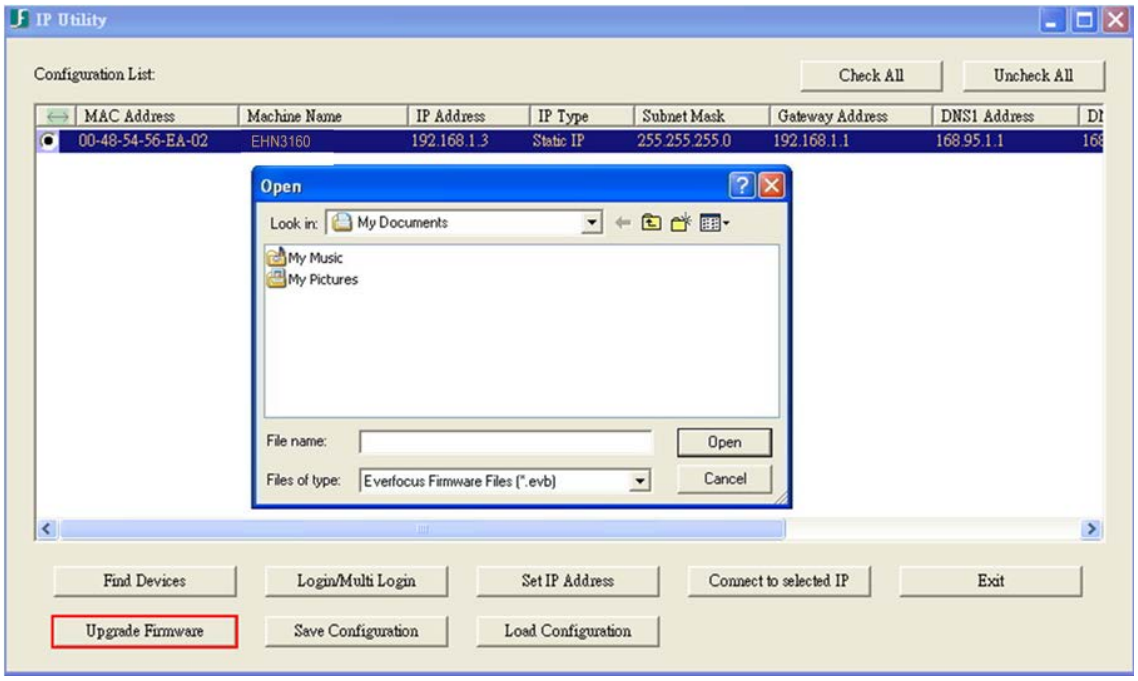
Right: Pinout of a crossed-over cable.



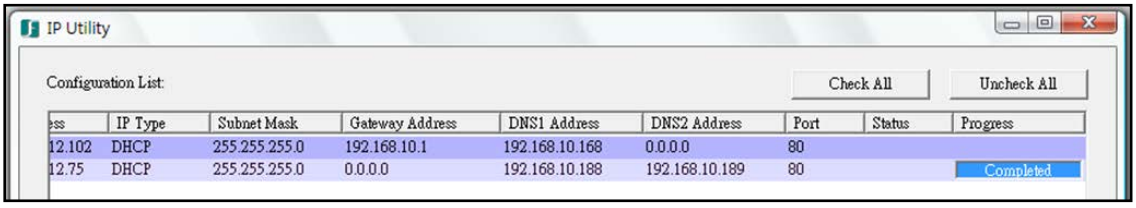
6. Upgrading Firmware

You can upgrade camera's firmware using the **IP Utility** software, which is included in the software CD.

1. Follow **Step 1** to **Step 4** in 4. *Assigning an IP Address* to log in the camera.
2. Highlight the camera and then click **Upgrade Firmware**. A browsing window appears.



3. Select the **firmware file (.evb)** and then click **Open**. The IP Utility will automatically upgrade the firmware.



The camera will reboot once the update is complete. Click **Find Devices**, the new firmware version should be displayed in the last part of the Machine Name.

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This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste.
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In the European Union there are separate collection systems for used electrical and electronic product.
Please, help us to conserve the environment we live in!

Ihr EverFocus Produkt wurde entwickelt und hergestellt mit qualitativ hochwertigen Materialien und Komponenten, die recycelt und wieder verwendet werden können.
Dieses Symbol bedeutet, dass elektrische und elektronische Geräte am Ende ihrer Nutzungsdauer vom Hausmüll getrennt entsorgt werden sollen.
Bitte entsorgen Sie dieses Gerät bei Ihrer örtlichen kommunalen Sammelstelle oder im Re Centre.
Helfen Sie uns bitte, die Umwelt zu erhalten, in der wir leben!

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