

XNET Network Dome Camera
(IDP4000VR/IDP4000VD/IVP4000VR)
Installation Manual



About this Manual

A compatibility and durability test ensured this product's high performance.

This manual is for XNET Network Dome Camera users only, and it describes operations related to XNET Network Dome Camera.

Please read this manual thoroughly paying attention to cautions and warnings before using the product even if you have used similar products before.

Important Notices

Damages caused by use of parts not recommended and by misuse will not be applicable for support.

Contact the store or the manufacturer immediately if (you think) there is any problem with the product.

Contact the store or the manufacturer before disassembling the product for alteration or repair.

This product complies for CE (Europe) and FCC (USA) regulations for industrial/home use electrical device.

INFORMATION

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 user will be required to correct the interference at his own expense.

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1. About XNET

1.1. About XNET

XNET is an internet based security and surveillance system that is compatible with various network conditions through easy installation and user interface as well as multi-functional compressor Codec such as MJPEG, MPEG-4, and H.264. XNET provides stable real-time surveillance by real time video/ audio at VGA level, local storage for any network problems, and hybrid IP technology that can be used with existing analog CCTV devices.

1.2. Features of XNET

Most advanced Video/ Audio compression technology (MJPEG/MPEG-4/H.264, ADPCM/G.711/G.726)

Progressive technology - Progressive scan makes the image sharp and clear without ghost effect.

Hybrid IP Technology - CCTV analog video output can be used for existing analog CCTV devices.

Transmission of Multi-Codec stream - Live video signal can be compressed to MJPEG or MPEG-4 (or H.264) and sent to meet various applications of network or user.

2-way Audio Communication (Bi-directional voice communication between Client's PC and XNET)

Smart Event feature - On the top of motion detection and sensor/alarm feature, pre- and post- alarm feature allows automated surveillance without an attendant's monitoring.

Install/ Operation Wizard - Install/ Operation Wizard not only makes it easy for installers and users, but also offers a unified installation setup for massive scale installations.

Up to 3 motion detection areas

Motion Detection – Alarm output and Video/ Audio data transmission to FTP site or e-mail upon detecting a motion.

Supports Various resolutions - VGA(640x480), CIF(320x240)

Remote Control over the network for software upgrade

1.3. Applications

Surveillance (Building, store, factory, parking lot, financial institutions, government buildings, military facilities, etc.)

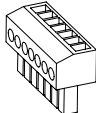
Remote video monitoring (Hospital, kindergarten, traffic monitoring, remote branch office, weather, environment preservation, and illegal disposal of trash, etc.)

Real time broadcasting over the internet (Resort facility, parties, festivals, etc), remote business meetings, and educational trainings, etc.

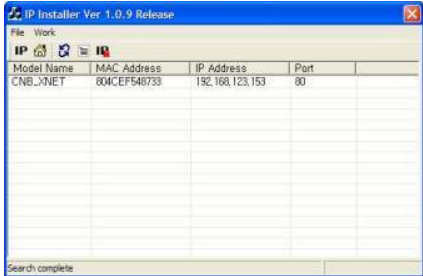
2. About the Product

2.1. Contents

Please make sure the following contents are included when you open the package.

Contents	Description	Additional info.
XNET	XNET Network Dome Camera	
AC Power Cable	2Jack Cable	
Terminal	Terminal for Alarm and Audio	
CD	Software and User's manual	

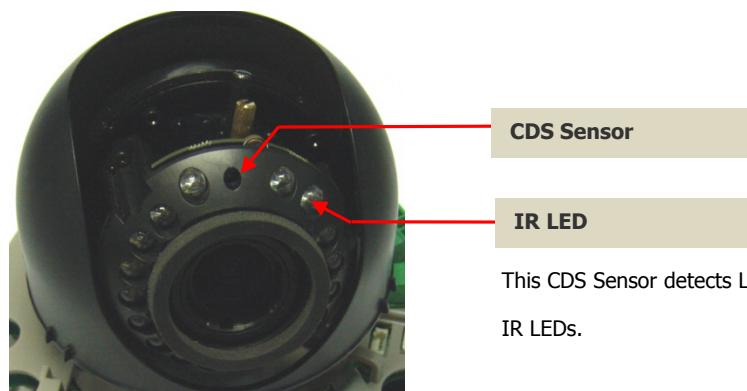
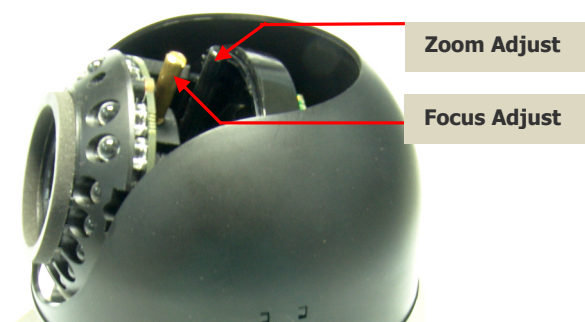
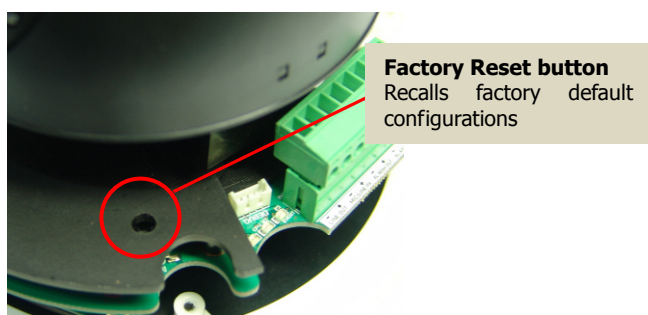
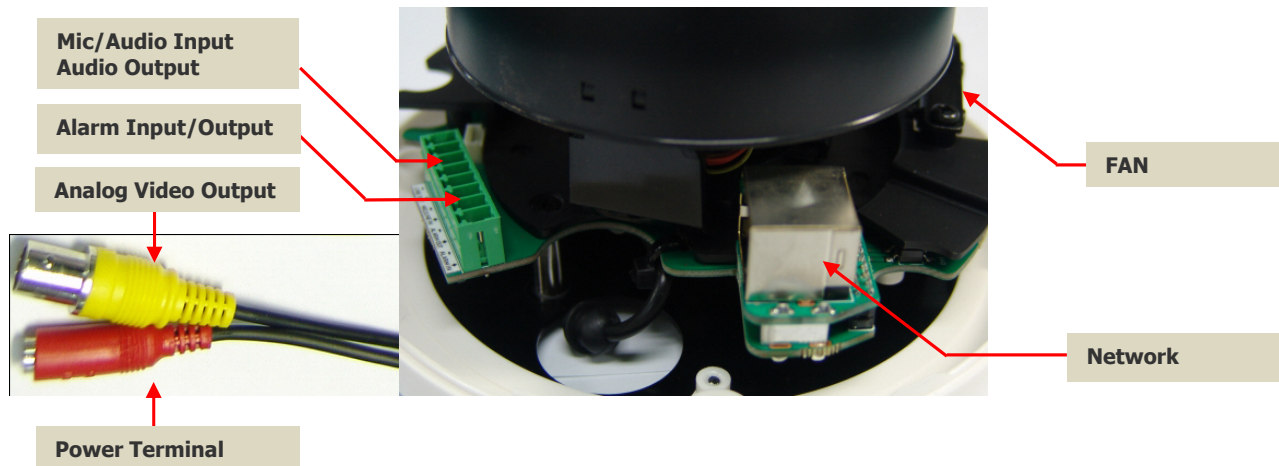
2.2. Product Information

XNET (IDP4000VR/IDP4000VD /IVP4000VR)	Install CD	
	IP-Installer	Viewer Program (XNET-NVR)
		
Network Dome Camera	A software that assigns an IP address to the product	A software that monitors and records Audio and Video signal from the device (supports up to 16 channels)

2.3. Hardware Designation

2.3.1. Switch and Controls

This shows Camera module inside the dome cover.



Factory Reset

Press and hold for more than 3 seconds while power is on to recall factory default settings

Adjusting Lens

Zoom Adjust: Adjust Zoom using the knob.

Focus Adjust: Adjust Focus using the knob.

2.3.2 Connecting Cables

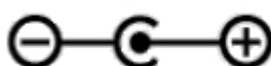
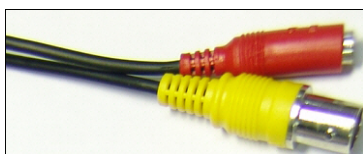
Power

Supplies Power to the Xnet product. Use 12V DC Adapter in the package.



Do not use this connector when powering up the product through LAN cable. (PoE)
The product is not covered under warranty when it is damaged by connecting both Ethernet power and 12V DC power to this terminal.

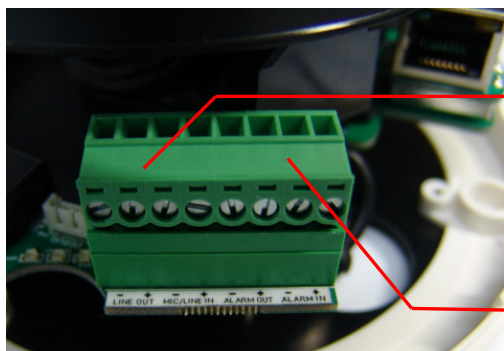
To 12VDC Power Adapter



Analog Video Output

Use this output to monitor the analog video signal while installing.

(Select Video Out at menu screen to enable this output)



Audio Connection Terminal

- | | |
|--------------------------|-------------------|
| ☐ | - GND |
| ☐ | - Line Output |
| ☐ | - GND |
| ☐ | - MIC/ Line Input |

Alarm Terminal

- | | |
|--------------------------|--------------------------|
| ☐ | - Alarm Output Common |
| ☐ | - Alarm Output |
| ☐ | - Alarm Sensor Input (-) |
| ☐ | - Alarm Sensor Input (+) |

Audio Connection

MIC/Line Input (Mono)

Connects to auxiliary Audio Device or microphone.

Line Output (Mono)

Audio signal output to a Power Amplified device or Speaker. This can be used to listen to the audio signal sent from a remote PC for Bi-directional Audio communication.

ALARM Input/Output

Connect to Alarm Input and Output

- Sensor Input : Wires from various sensor type (IR, heat, and magnetic) can be connected.
- Relay Output : Connect to an external Alarm device that operates by a relay such as Siren Lamp or Alarm Light.
- Please refer to "2.3.3 Connecting to Alarm devices" for Sensor and Relay connection.

Network Terminal

This Ethernet terminal connects to 100Mbps LAN through an RJ-45 connector. When optional PoE is used, the power will be supplied from the Network Cable.

■ Link LED

Yellow light indicates that the network is properly connected.

■ Act LED

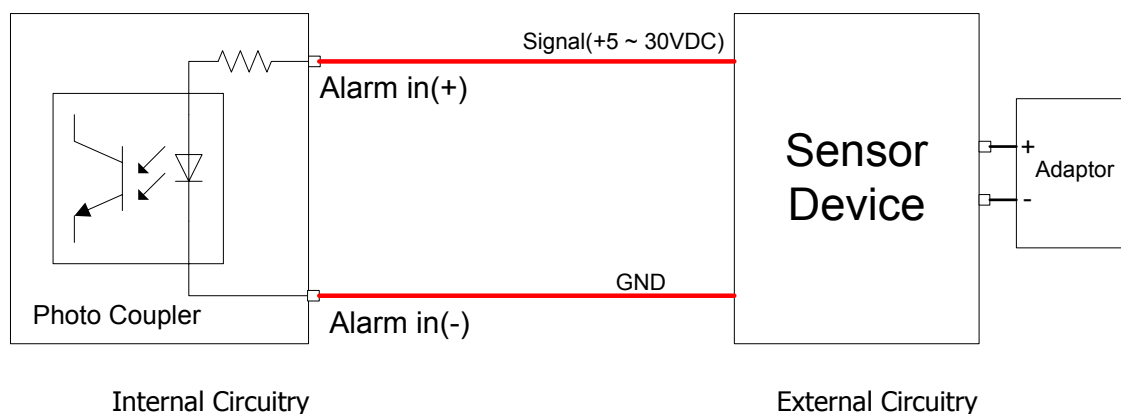
Green light indicates that the XNET system connected to 100Mbps LAN. This green lamp will blink if the system receives data.

2.3.3 Connecting to Alarm Devices

Alarm Input

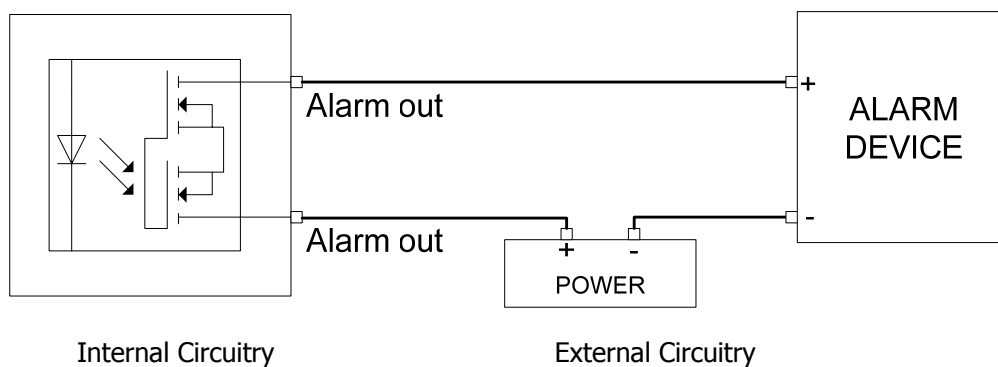
Wires from various sensor type (IR, heat, and magnetic) can be connected to Alarm in(+)/(-) terminal as shown in figure 2.5. (NC or NO of sensor input can be selected at Menu screen.)

Alarm Sensor device requires a separate power source.



Alarm Output

This terminal can only be connected up to AC 30V/400mA or DC 30V/400mA. An additional relay device has to be used to control higher voltage or current.



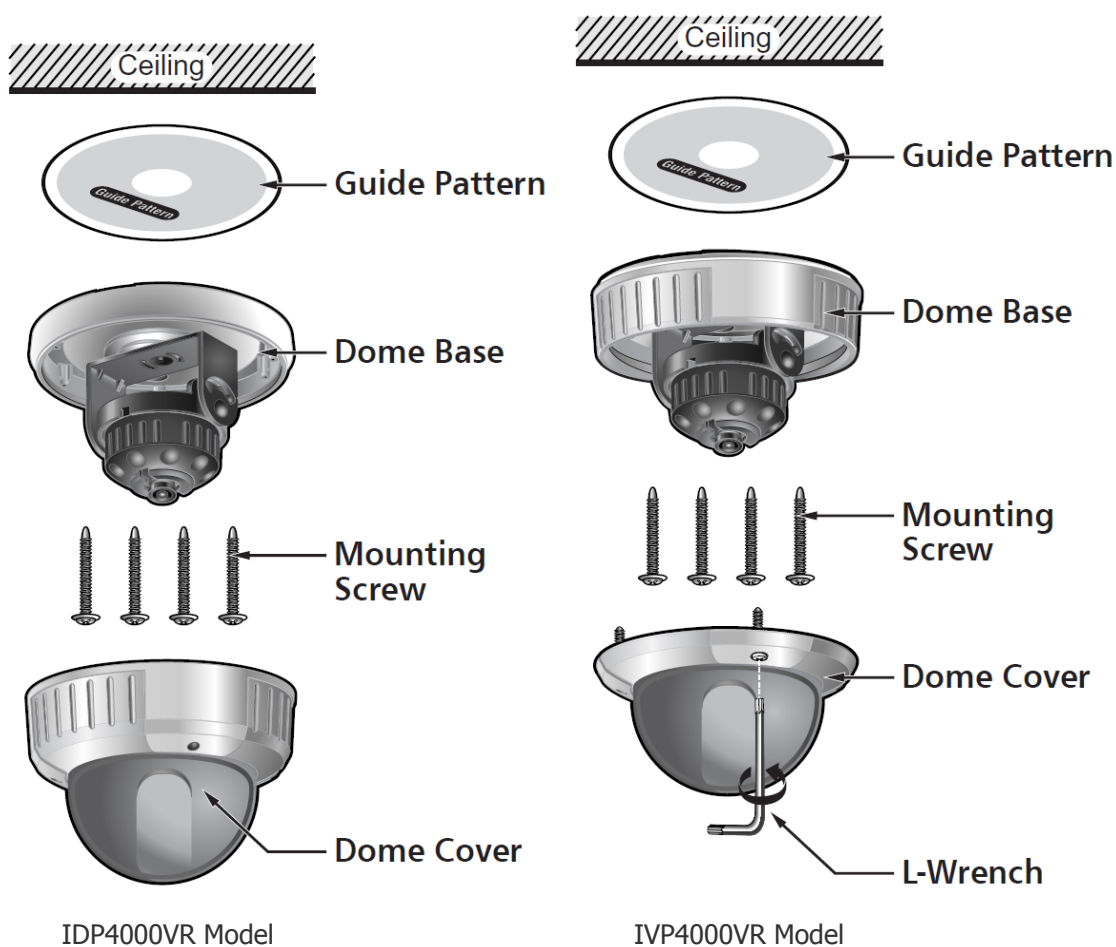
3. Software Installation

This section provides brief guidelines to install the XNET quickly and to monitor XNET's Video and Audio signals easily. If you have questions about details not explained in this section or if the product is not functioning as described, please refer to FAQ before contacting the store.

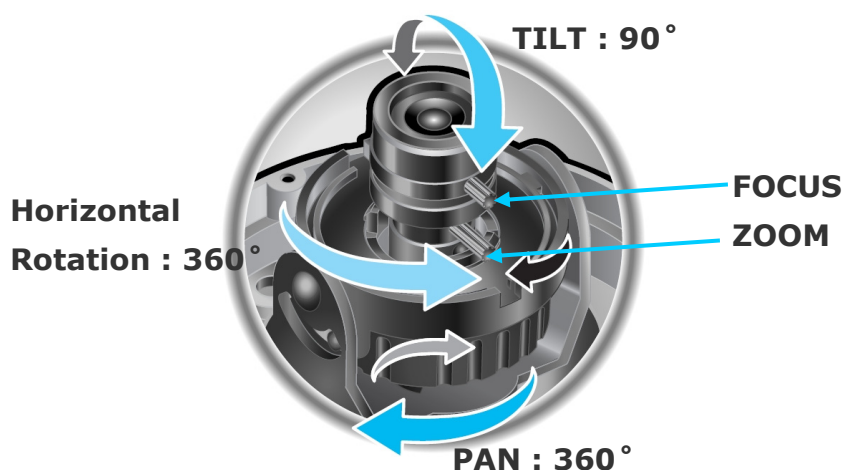
3.1. Installing XNET

3.1.1. Installation

Mount the Camera to a ceiling or a wall. Make sure the base is firm enough to hold the Camera.



Adjust the position, zoom, and focus as shown below:



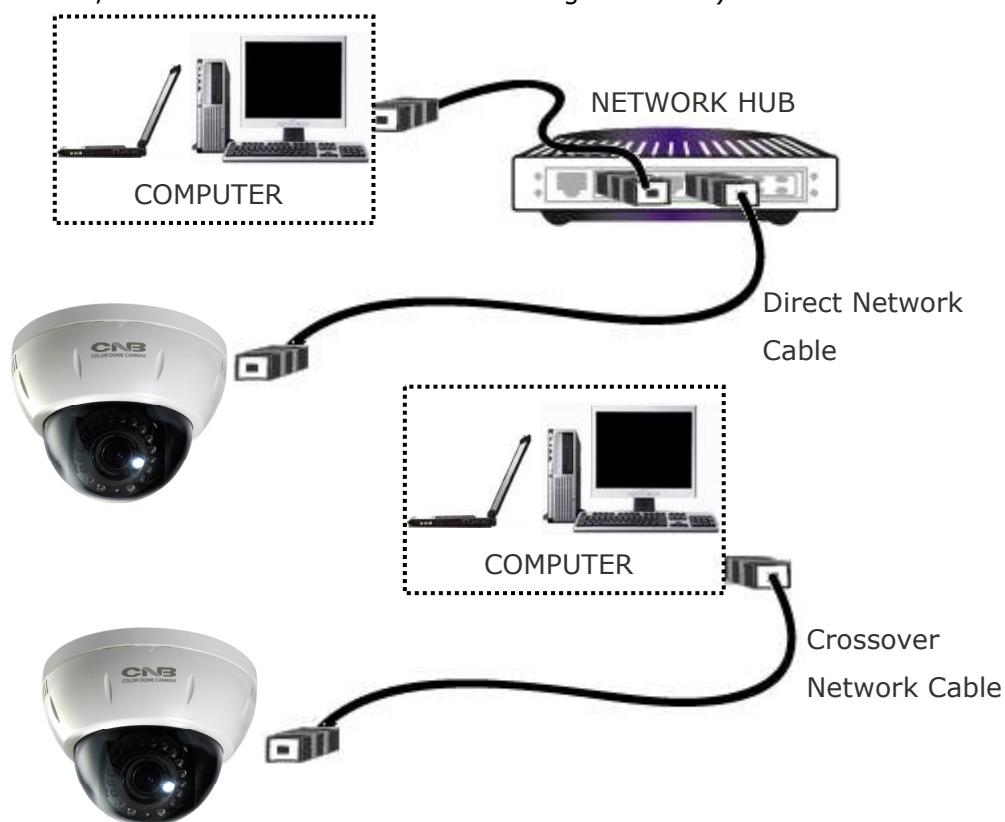
3.1.2. Cable Connection

1.A PC or a laptop computer is required to set up an IP address.

- Compatible operating system: Windows 2000/ Windows XP/ Windows Vista
- Since the default IP address of the device is 192.168.123.100, set up the IP address of the computer like the following:

IP Address : 192.168.123.101 Subnet Mask : 255.255.255.0

2.Connect LAN cable to the Network Terminal of the product.(Use a crossover cable when connecting it directly to a PC, and use a direct cable when connecting it to a HUB)



3.Connect the camera to the power.

4.Use the Alarm Sensor/ output and audio terminal if necessary.

3.2. Installing IP-Installer Software and Configuring IP address

3.2.1. About IP-Installer

A unique IP address has to be configured in order to connect IP camera and monitoring PC to a network. IP-Installer software provided in the Installation CD (included in the package) will configure IP address easily. If your network have a DHCP server that automatically assigns IP addresses to IP cameras. If your network does not have a DHCP server, the default IP address of the device is 192.168.123.100. Refer to IP Installer user's manual for detail.

3.2.2. Configuring IP Address

1. The following box will appear when you start the IP-installer software.

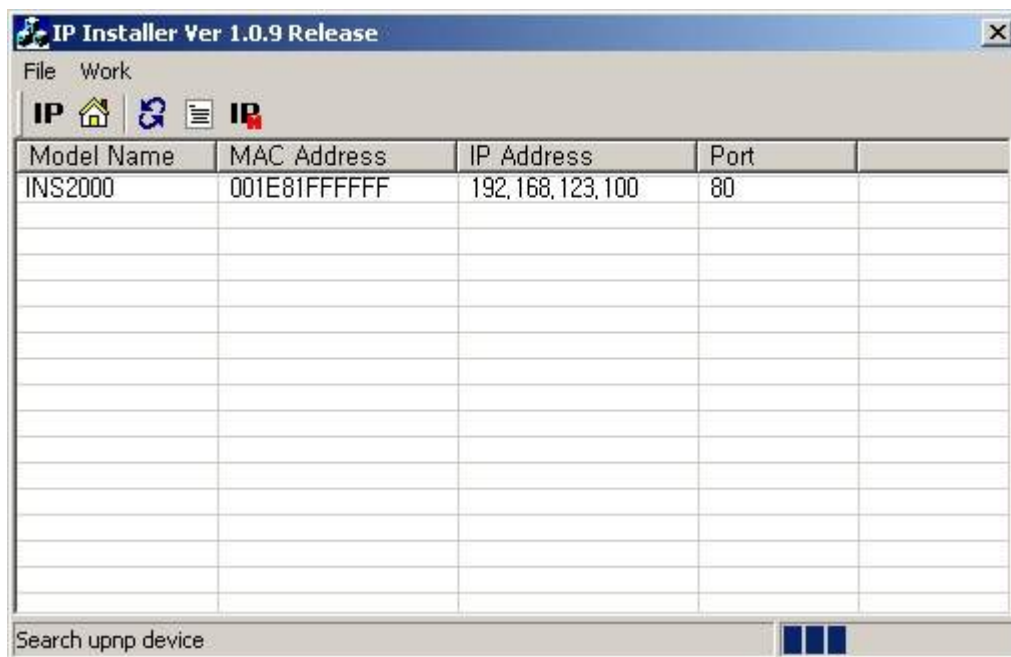


Figure 3-2. IP Installer Start box

2. Select the camera of which you wish to change the IP address and click **IP** (Set IP Address) button to bring up the following box in Figure 3-3.



Figure 3-3. IP Address box

3. When you enter the IP address and click Set button, the box shown in Figure 3-4 will appear.

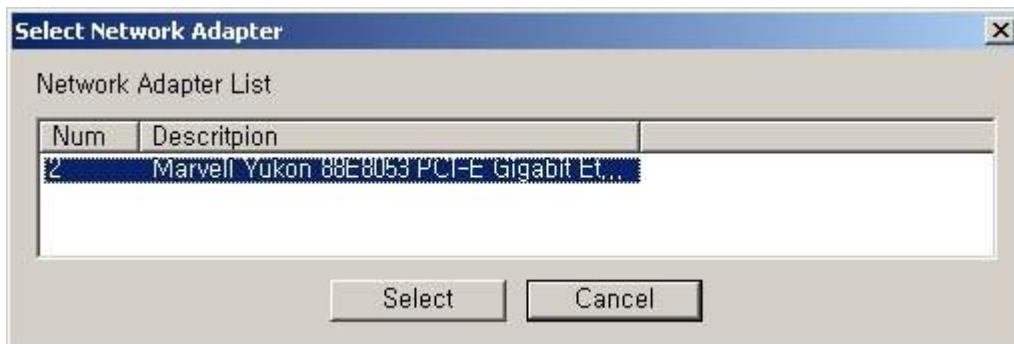


Figure 3-4. Select Network Adapter Box

4. Select the adapter and click select button to change the IP address of the camera.

4. Using Web Viewer

Connecting to network devices can be done using internet web browser or "XNET-CMS" software. This guide explains about using internet web browser only. For instructions on how to configure network connection using XNET-CMS software, please refer to XNET-CMS Manual, which can be found in the installation CD.

4.1. Logging In

Enter the IP address of the device on the address bar of your web browser and press enter key. Then the following webpage will appear:

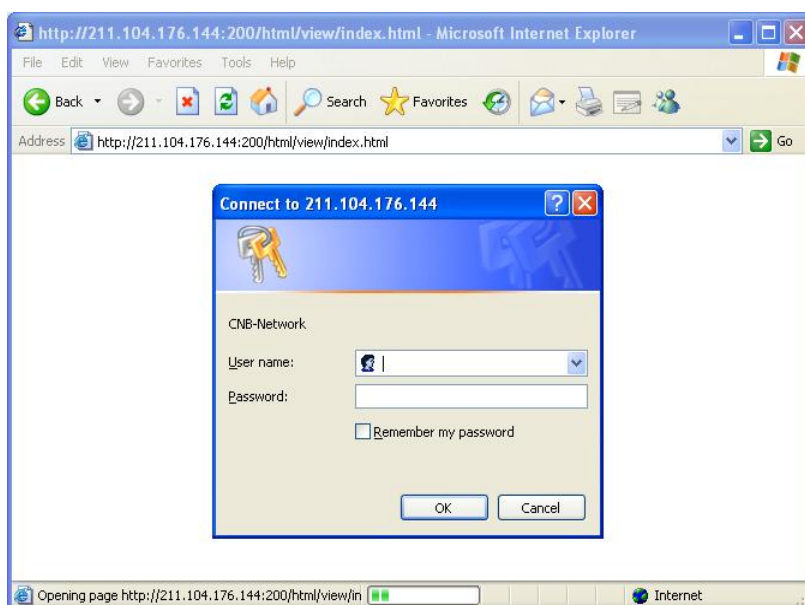


Figure 4-1 Log-in Box

Enter the user name and password to bring up the web viewer page. The default id and password is "root", "admin" respectively. If you want to use a different HTTP port number from the default value, simply put a colon and port number at the end of the IP address. (For example, enter the following address when changing the port to 8080: **http://192.168.123.100:8080**)

<Address format for accessing as an administrator>



For security purpose, it is recommended to change the administrator's id and password from their default values. Please be careful not to forget them or expose them to others. Please refer to **[Web Viewer Manual]** for detail.



If you forget the administrator's password, "Factory Reset" is the only way to regain access. However, since this will retrieve all default settings, you need to configure the network settings using IP installer software again.

4.2. Web Viewer Page

Web viewer page consists of Video monitor screen and menu option buttons.

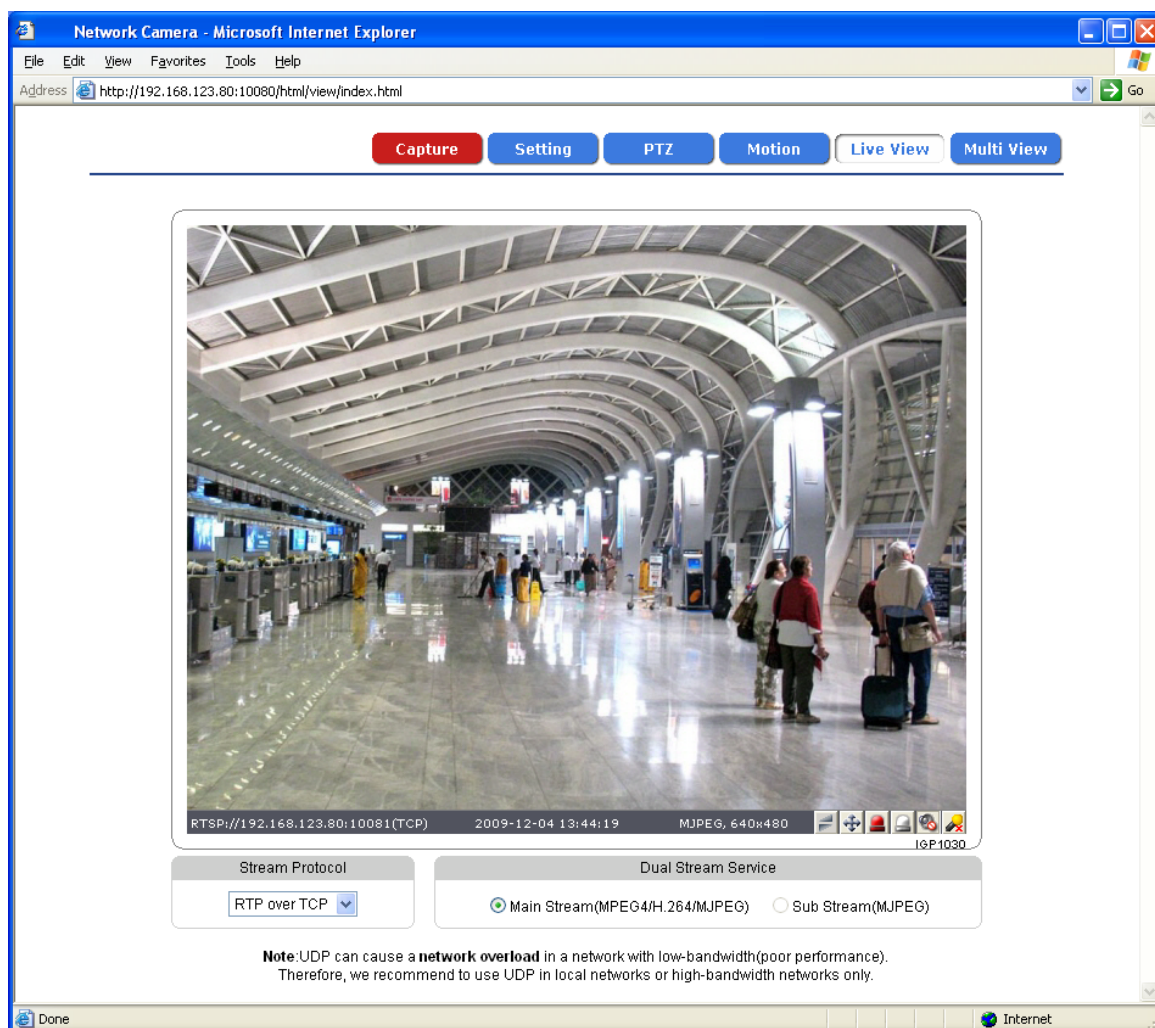


Figure 4-2 Web Viewer Page

Item	Sub Item	Description
Capture	-	Captures and saves the current image as a still picture. The image is saved as jpeg file in the following folder: C:\WxNetCapture
Setting	-	Brings up Menu screen. Setup page for each XNET feature can be opened from this Menu screen. Please refer to [XNET Owner's Manual] for detail.
Motion	-	Opens up Motion Detection page. You can add or delete areas for detecting motion in this page. Please refer to [XNET Owner's Manual] for detail.
Multi View	-	Opens up Multi View page. You can view videos from cameras that are programmed in Multi Video Player setup page. Please refer to [XNET Owner's Manual] for detail.
Live View	Main Stream	When this box is checked, Main Stream Video is displayed.
	Sub Stream	When this box is checked, Sub Stream Video is displayed. Dual-Codec needs to be enabled in Video Setup Page in order for Sub Stream to be displayed. Please refer to [XNET Owner's Manual] for detail.

Specification

IxP4000		Specifications
Camera	Signal System	Progressive image processing
	Scanning System	4:3 Progressive
	Image Sensor	Progressive CCD Sensor
	Sync. System	Internal
	Effective Pixels Number	659 (H) x 494(V) 330K
	Video Output Level	Select NTSC/PAL 1.0Vp-p (BNC 75Ω, composite)
	Lens	Built-in DC Iris Vari-focal Lens, f=3.8~9.5mm, F1.2
	Back Light Compensation	On/Off
	Flickerless	On/Off
	White Balance	Auto/Manual
	Exposure	Auto/Manual
	Functions	B/W
	Electronic Shutter Speed	NTSC : 1/10 ~ 1/600 (8 Step) PAL : 1/9 ~ 1/500 (8 Step)
	Min. Illumination	1 Lux (IR off, DSS on), 0 Lux (IR on)
	IR LED and Sensor	850nm / 30° IR LED 18EA, Sensor 1EA
	IR LED Lighting Distance	Max. 15m
System	Main Processors	32bit Embedded CPU with Linux
	System Memory	NAND Flash Memory : 64MByte, 128MB DDR Memory
Video / Audio	Compression	MJPEG / MPEG4 / H.264
	Frame rate	Single Mode : Main(H.264@30fps) *VGA Dual Mode : Main(H.264/MPEG4, 30fps), Second(MPJEG) *VGA
	Resolution	VGA (640 x 480), QVGA (320 x 240)
	Video streaming	MJPEG / MPEG4(or H.264) Dual mode Constant and variable bit rate in MPEG4 (128kbps ~ 3M bps) Controllable frame rate and bandwidth
	Image settings	Compression level setting Configurable Brightness, Sharpness, White Balance
	Audio	Two-way (Full duplex / ADPCM, G.711 or G.726)
Network	Protocol	Ipv4, HTTP, HTTPs, UDP, TCP, RTSP, RTP, SMTP, FTP, ICMP, DHCP, UPnP, Bonjour, ARP, DNS, DynDNS, NTP, IGMP(Multicast) *) OnVif
	Supported DDNS	1. DDNS 2. DynDNS.org 3. Reference code with SDK
	Video access from Web browser	Camera live view for up to 10 clients
	LAN Interface	Ethernet 10/100 Base-T (RJ-45 Type)
	Support PoE	Standard IEEE 802.3af supported
Security	Access level setup	Multiple user access levels with password protection
	Network Security	IP Filtering
Alarm and Event Management	Image detection	Motion detection (Select 3 Regions - each area)
	Sensor detection	Sensor In, Scheduling, Alarm out
	After Event process	JPEG Image upload over FTP server / SMTP (E-mail server)
	Local storage	JPEG Image write to Internal memory - Internal memory : Max 32MByte
	Pre / Post alarm	Detail time-set : Max Pre alarm 5 sec / Post alarm 8 sec Local storage (Internal memory : JPEG image)
Applications	Browser	Internet Explorer 6.0 or later

XNET Network Dome Camera Installation Manual

	Monitoring Application	Web Viewer (Window Web Browser Base) Live view for up to 10 user clients Video Snapshot to file (JPEG) NVR, CMS and Utility (IP-Installer, etc)
Maintenance	System Upgrade	Firmware upgrade over HTTP
	PTZ control (RS-485)	PTZ Protocol Service (User define update)
Mechanical	Operating Temperature	0℃ ~ 40℃
	Power	DC 12V Max. 7 W
	Dimensions	92(Ø) mm

