

XNET Network Weatherproof Camera (IXC2050IR)
Installation Guide

Ver. 1.0



About this Installation Guide

A compatibility and durability test ensured this product's high performance. This installation guide is for XNET Network Weatherproof Camera users only, and it describes operations related to XNET Network Weatherproof 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

The copyright of this manual is owned by CNB Technology Inc. It is illegal to copy and distribute this manual without permission. Damages caused by use of not suggested parts and 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. XNET is a trademark of CNB Technology Inc. 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 H.264, MJPEG. XNET provides stable real-time surveillance by real time video/ audio at 1080P 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

- Progressive technology
Progressive scan produces a sharp and clear image on moving objects, preventing a ghost effect.
- Hybrid IP Technology
Analog video output can be used for any previously established analog CCTV systems.
- Multi-CoDec streaming
Live video streaming can be done using MJPEG or MPEG-4(or H.264) to meet various network requirements.
- Smart Event feature
In addition to motion detection and sensor/alarm feature, pre- and post- alarm feature allows fully automated surveillance without an operator.
- Install/ Operation Wizard
Install/ Operation Wizard makes it easy to install and run the system, and it also offers a unified setup configuration for large and multiple installation projects.
- Up to 3 motion detection areas
- Motion Detection – Alarm output and Video/ Audio transmission to an FTP site by e-mail
- Various resolutions
 - 1080P(1920X1080),SXGA(1280X1024),SXGA(1280x960),720P(1280X720),D1(720X480),
VGA(640x480),CIF(352x240)
- Control over the network for firmware upgrade and menu settings

1.3. Applications

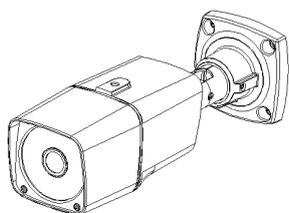
- Surveillance (Building, store, factory, parking lot, financial institutions, government buildings, military facilities, etc.)
- Remote video monitoring (Hospital, kindergarten, traffic monitoring, remote branch office, weather, environment preservation, and illegal disposal of trash, etc.)
- Real time broadcasting over the internet (Resort facility, parties, festivals, etc), business meetings,

educational trainings over the network, and much more.

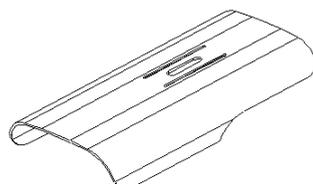
2. About the Product

2.1 Contents

Please make sure that no contents listed below are missing in the package.



IXC2050IR PRODUCT



SUNSHIELD 1 EA



SCREW 1 EA

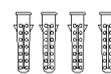
SUNSHIELD AND SCREW



L Wrench

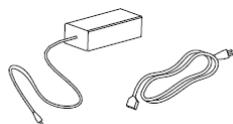


SCREW 4 EA



ANCHOR 4 EA

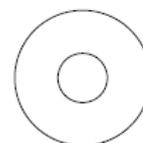
Screw and Anchor



Adaptor and Power Cable

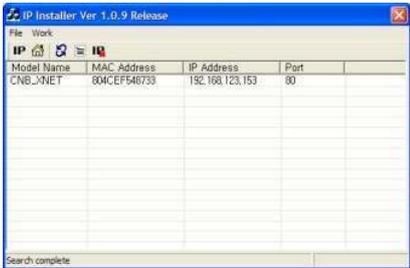


Video Cable



CD

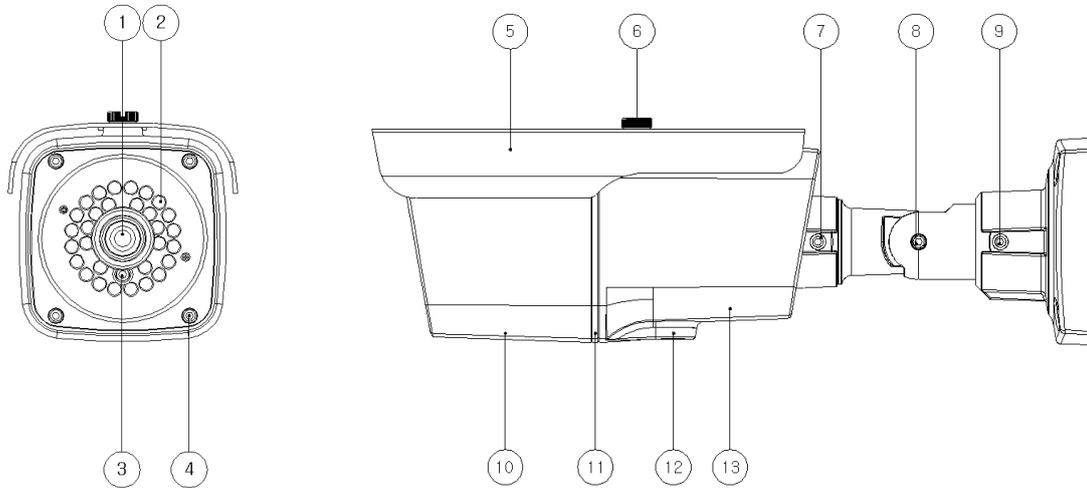
2.2 Product Information

XNET (IXC2050IR)	Install CD	
	IP-Installer	Viewer Program (XNET-NVR)
		
Network Weatherproof Camera	assigns an IP address to the XNET product	A PC software that monitors and records Video signal from the XNET device

2.3 Hardware

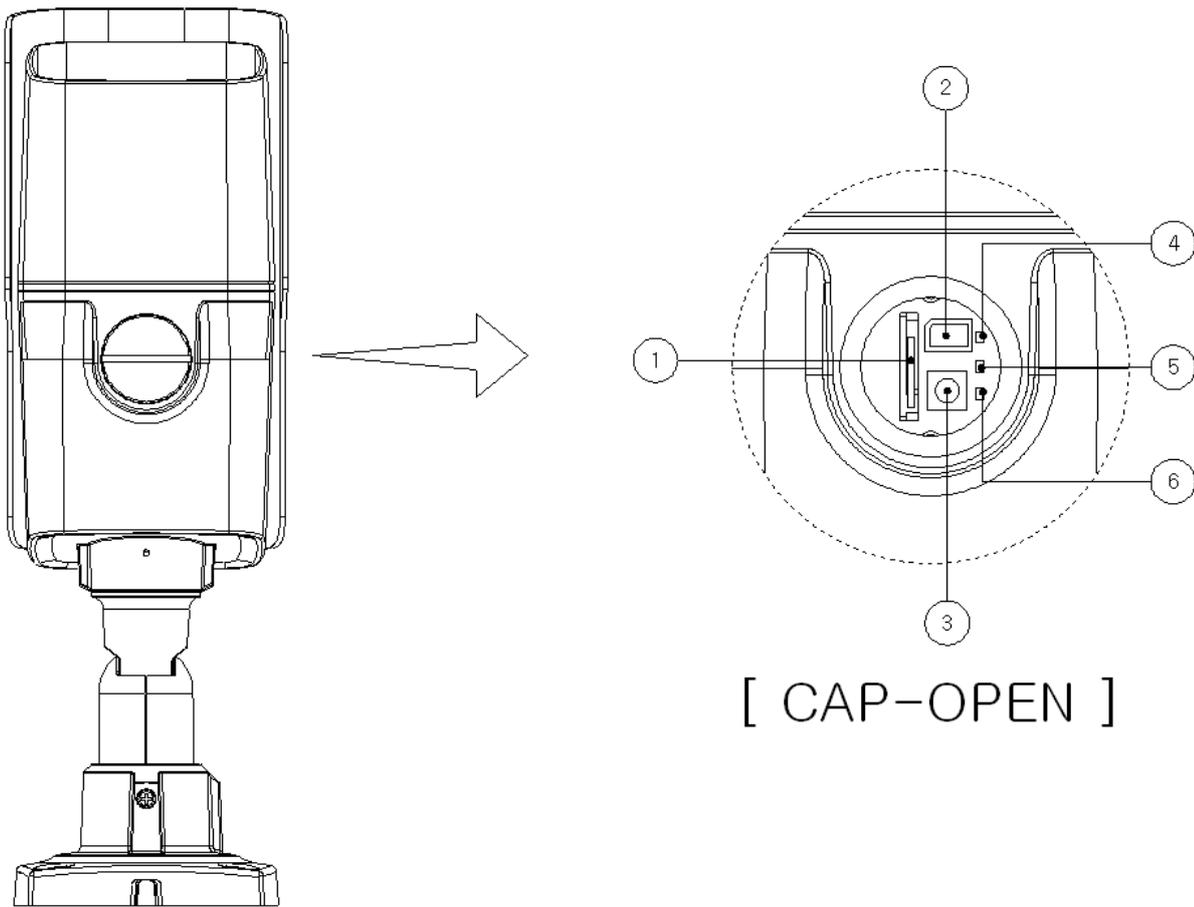
2.3.1 Hardware Designation

Complete System



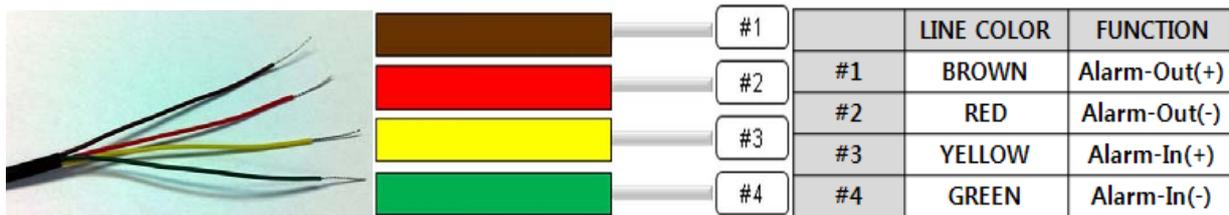
- ① **MegaPixel Fixed Lens**
- ② **IR Illuminator** : automatically illuminates depending on the light intensity
- ③ **CDS Sensor**
- ④ **Screws (front-4EA & rear-4EA)** : Sets the front and back cap
- ⑤ **Sunshield**
- ⑥ **Sunshield fixing Screw** : fixes the Sunshield of the camera
- ⑦ **Rotate adjusting Bolt** : fixes the rotate angle of the camera
- ⑧ **Tilt adjusting Screw** : fixes the tilt angle of the camera
- ⑨ **Pan adjusting Screw** : fixes the pan angle of the camera
- ⑩ **FRONT BODY**
- ⑪ **GASKET(Micro SD Card Slot, Video Out, Factory Reset Button)**
- ⑫ **CAMERA MODULE – BOTTOM**
- ⑬ **REAR-BODY**

2.3.2 Camera Module – Bottom



- ① **Micro SD Card Slot** : Enables recording of video data to an external memory device upon occurrence of an event. Please use less than 16 GB SD Memory.
- ② **Video Out** : Use this output to monitor the analog video signal while installing.
(Select Video Out at menu screen to enable this output)
- ③ **Factory Reset Button** : Press and hold for more than 3 seconds while power is on to recall factory default settings
- ④ **Power LED** : Lights up Red when 12V DC power is connected.
- ⑤ **ACT LED** : Lights up Green when the XNET is connected to 100Mbps LAN. Will not light up at 10Mbps LAN. This will also blink green when there is a network collision.
- ⑥ **Link LED** : Lights up Yellow when the network is properly connected.

2.3.3 Cable Connection



● Power Input



Use the cable adapter in the package to connect power.
Please use the accessory power supply provided in the package. (DC12V/2A)



● Analog Video Output



Use this output for immediate monitoring of the video during installation.
Use the supplied cable adapter (Yellow for video and Black for Video Ground GND)
This adapter can be connected to a cable through a RCA termination.
(Select Video Out at menu screen to enable this output)

● Alarm Connection

These wires connect to Alarm input/output devices.

- Alarm Sensor Input: Connect to Alarm sensor devices such as IR Sensor or Heat sensor. These can be configured to normally close or normally open operation. (**#3, #4**)
- Alarm Output: Connect to Alarm devices such as Relay operated Siren Lamp or Alarm Light. These can be configured to normally close or normally open operation. (**#1, #2**)
- Please refer to "2.3.4 Connection to Alarm Devices" for detailed instruction on how to connect sensors and Relays.



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.

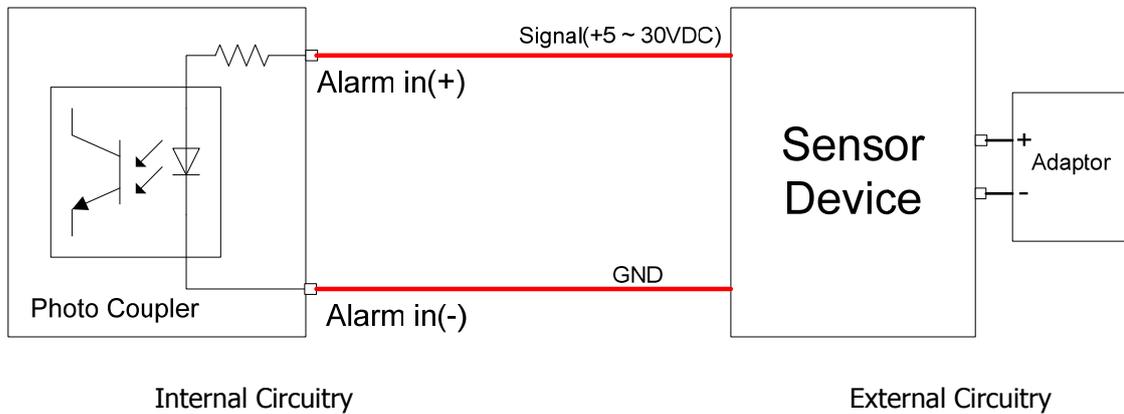
● Network Cable

This Ethernet terminal connects to 100Mbps LAN through an RJ-45 cable. When optional PoE is used, the power will be supplied from the Network Cable. Network cable of this product is not water proof

2.3.4 Connecting to Alarm Devices

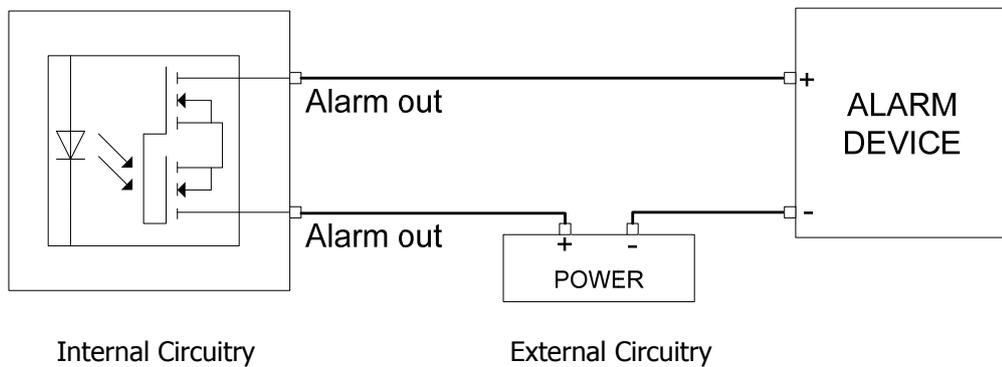
- Alarm Input

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 DC 30V/400mA. An additional relay device has to be used to control higher voltage or current.



3. Software Installation

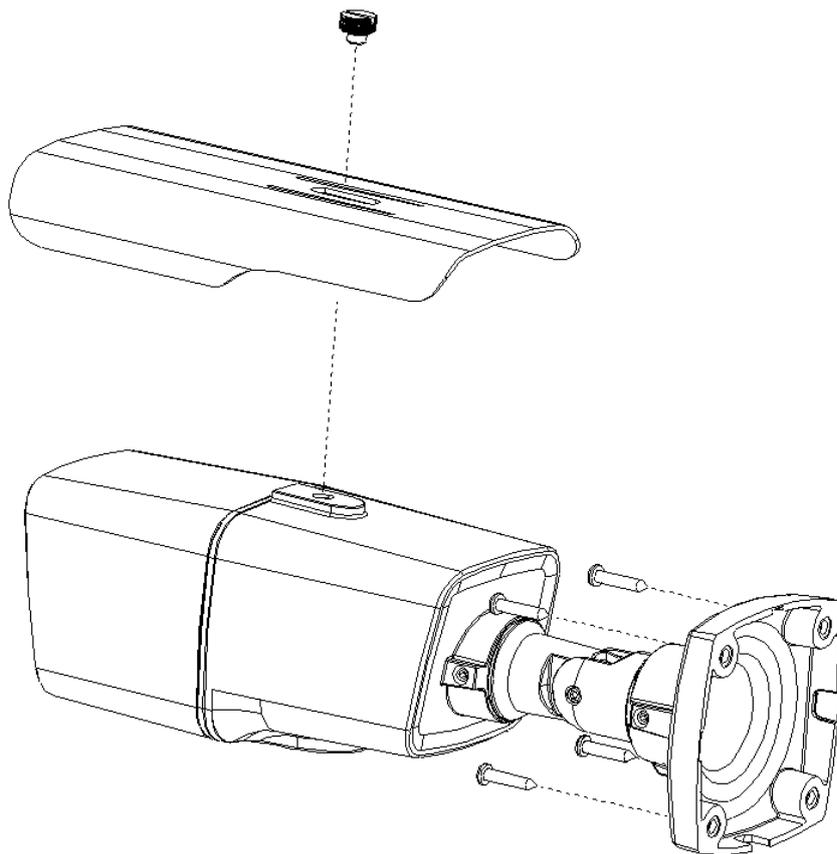
This section provides brief guidelines to install the XNET quickly and to monitor XNET's Video and Audio signals easily. If you have questions about details not explained in this section or if the product is not functioning as described, please refer to FAQ before contacting the store.

Our homepage is <http://www.cnbtec.com>.

3.1 Connecting XNET to network

3.1.1 Mounting the Camera

- A. Install Sunsheild to the Camera's MAIN BODY using Sunsheild blocks, washers, and screws.
- B. Mount Bracket Support on a wall using four 6mm screws.
- C. Mount Wall mount Bracket on Bracket Support using four 5/16" screws as shown in the figure below:

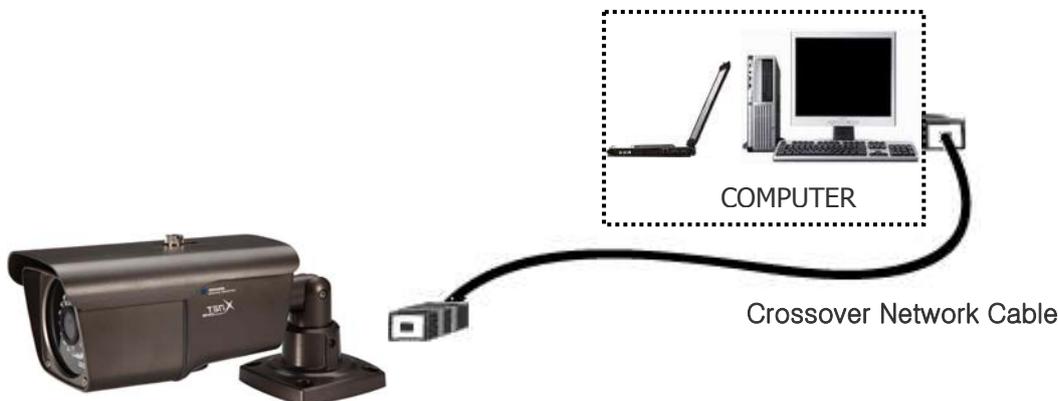


3.1.2 Installing XNET

- **Connect XNET to PC directly**

User can monitor and configure XNET camera by connecting it to your PC directly.

- A. Connect XNET camera to your PC directly using a LAN cable like below.

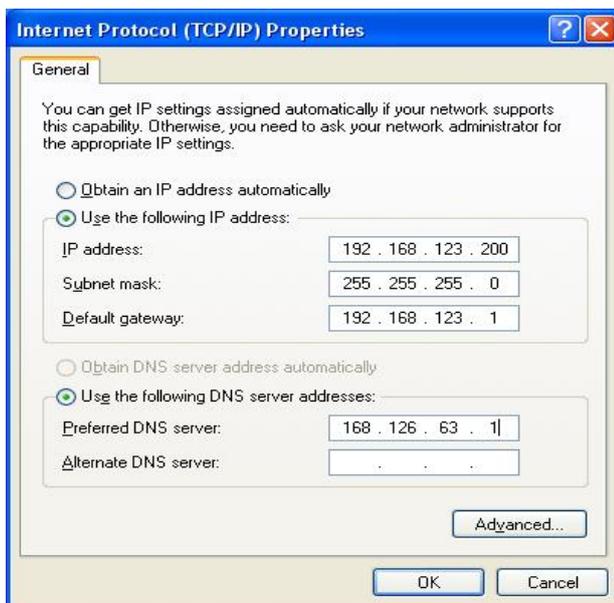


NOTE: XNET camera's IP address will be automatically set to the default value, 192.168.123.100, after connecting XNET camera to your PC directly. (This process approximately takes 20~30 seconds)

- B. Please follow the direction to modify PC's network configuration.

Windows Start → Control Panel → Network Connections → Right-clicks on the Local Area Connection icon → Double click on the Internet Protocol (TCP/IP) icon.

Please set PC's network configuration like below.



NOTE: IP address for PC can be set from 192.168.123.2 to 192.168.123.254. Since XNET camera's IP address is already set to 192.168.123.100, you cannot allocate this IP address to PC.

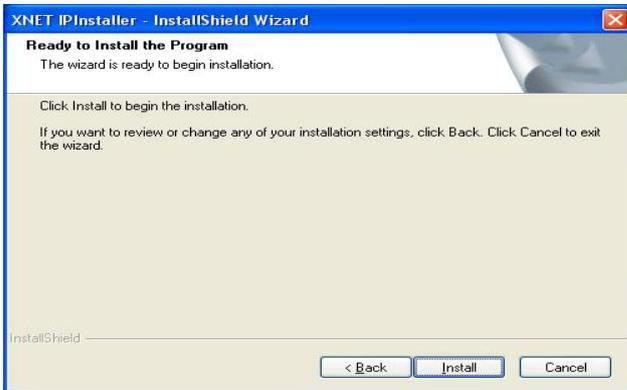
C. Please insert the Setup CD into your CD-ROM drive, and then please setup IPInstaller program



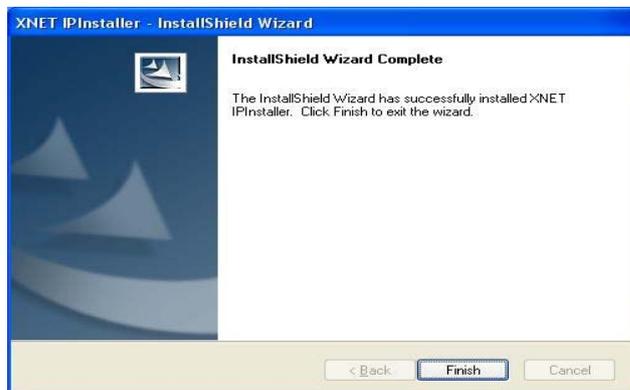
D. Please click 'Next' button when the Setup screen appear.



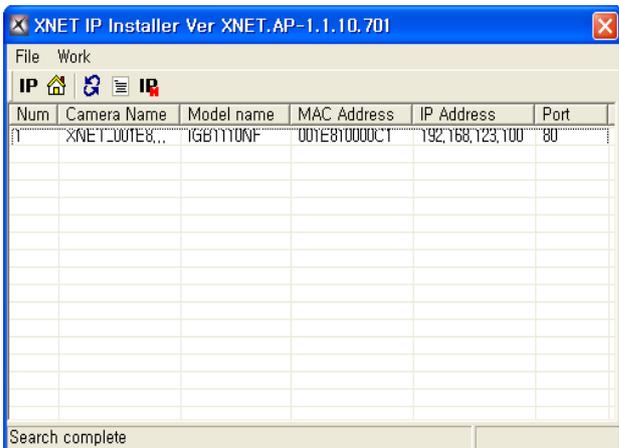
E. Please click 'Install' button to begin the Installation.



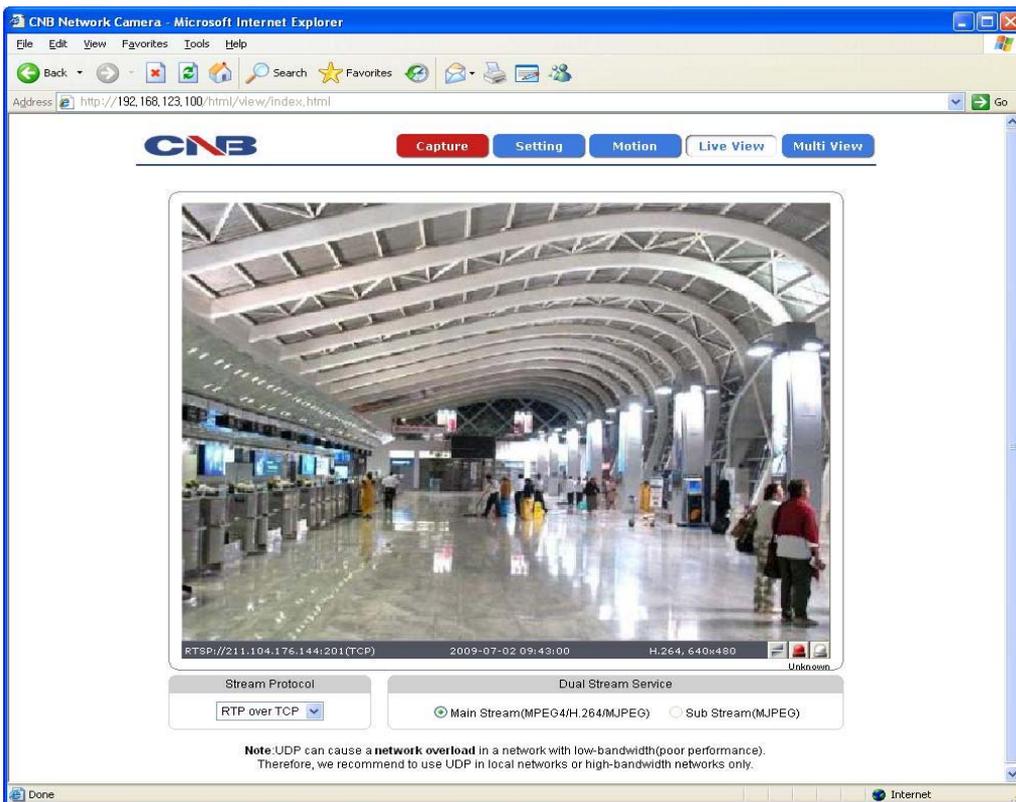
F. Please click 'Finish' button to complete the installation.



- G. XNET IP Installer program is automatically launched like below right after the program installation. Please double click XNET camera on the list.



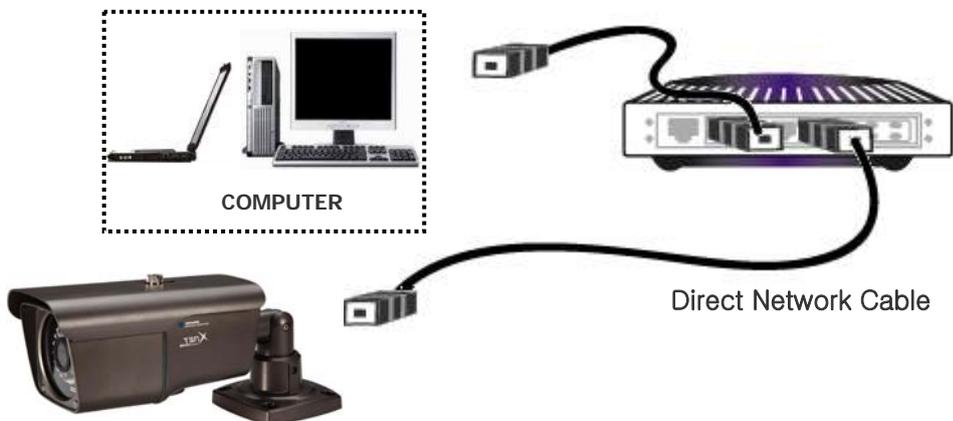
- H. XNET camera is successfully connected to your PC. (Internet Explorer will prompt you to install ActiveX. In order to view video, you must accept the ActiveX download.)



NOTE: Please select Setting menu for XNET camera configuration.
 If the login prompt appears, please enter User name and Password.
 XNET camera's Default User name and Password
 User name : root Password : admin

- **Connect XNET with a router**

Please connect XNET camera and PC to a router using LAN cables like below.



NOTE : If DHCP server is enabled at your router, XNET camera automatically receives an IP address from your router. Otherwise, XNET camera's IP address will be automatically set to the default value, 192.168.123.100.

B. Select the camera you wish to configure and click **IP** (Set IP Address) button to open the box shown in Figure 3-2.



Figure 3-2. Set IP Address box

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



Figure 3-3. Select Network Adapter Box

D. 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:

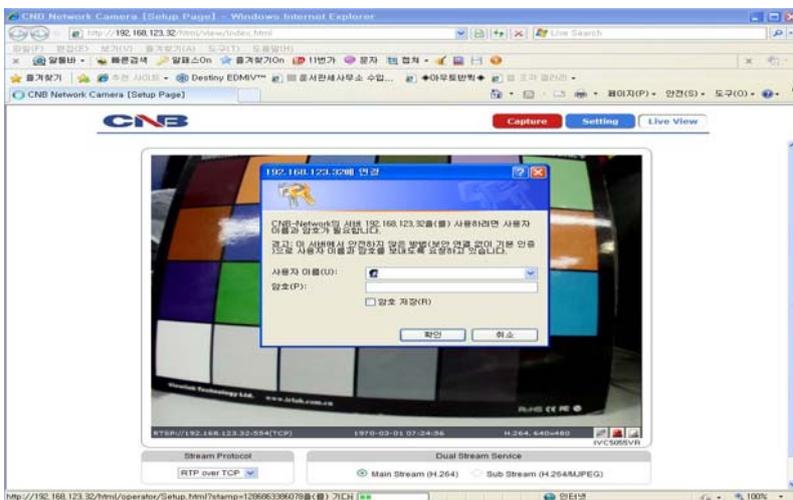


Figure 4-1. Log-in Box

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>

(When using default IP address and port number) **http://192.168.123.100**

(When IP address and port number changed) **http://IP address: new port number**

	<p>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.</p>
	<p>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.</p>

4.2. Web Viewer Page

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

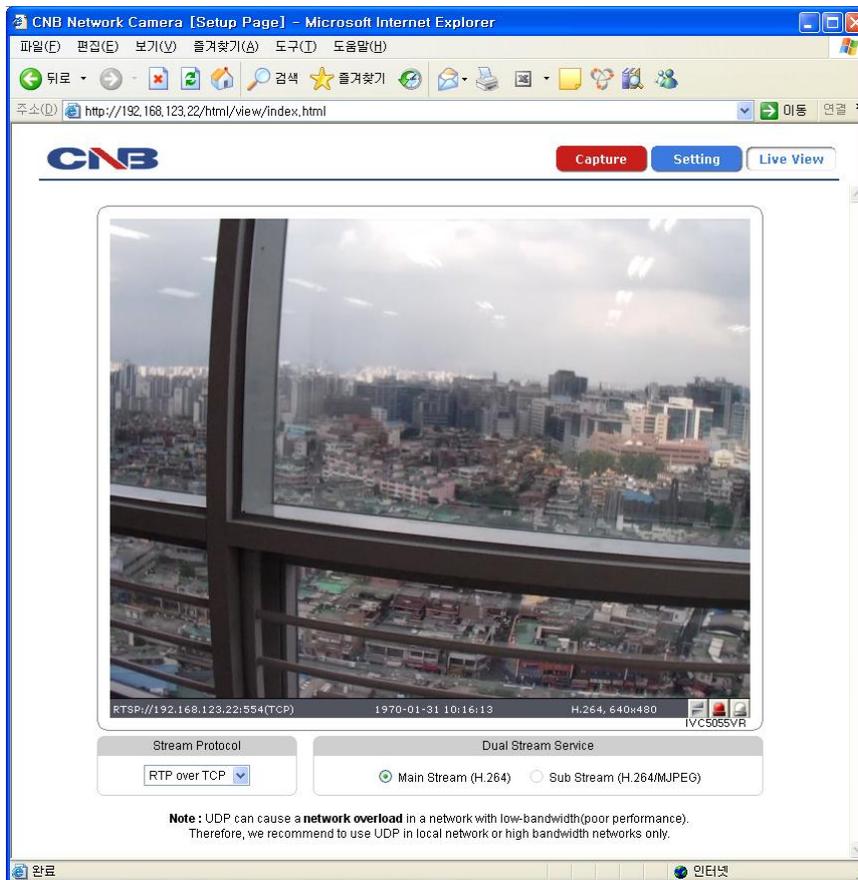


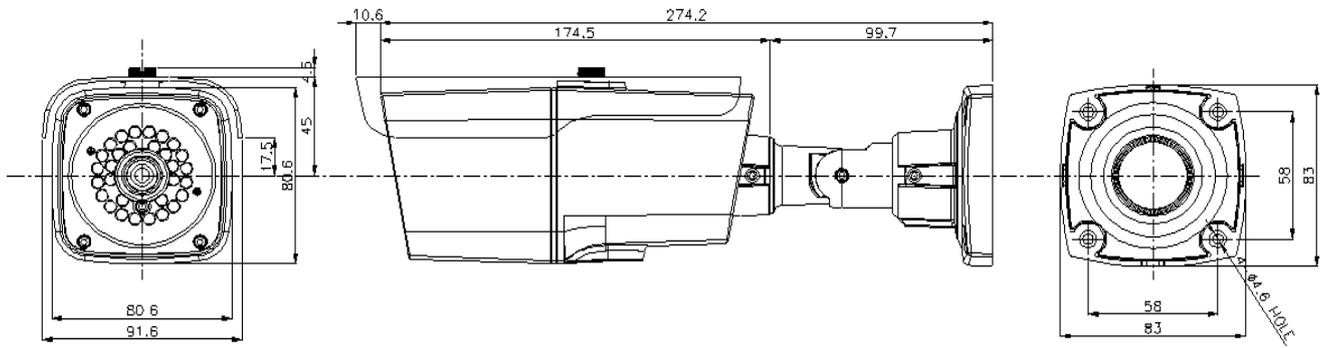
Figure 4-2 Web Viewer page

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.
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.

5. Specifications

IXC2050IR		Specifications
Camera	Signal System	Progressive image processing
	Scanning System	16:9 Progressive
	Pixel Clock	80MHz
	Image Sensor	1/3" Progressive CMOS Sensor
	Sync. System	Internal
	Effective Pixels Number	1920 (H) x 1080(V) 2.0 Mega
	Horizontal Resolution	1100 TV Lines
	Video Output Level	Select NTSC/PAL 1.0Vp-p (RCA 75Ω, composite)
	Lens	Built-in Fixed Mega pixel Lens, f=4.0mm, F 2.0
	Min. Illumination	1.00Lux (Color, DSS On), 0.00Lux (IR LED On)
	IR LED and Sensor	850nm / 45° IR LED 30EA, Sensor 1EA
	IR LED Lighting Distance	MAX 25m
	Day & Night System	ICR(CDS Type)
	Back Light Compensation	On/Off
	Flickerless	On/Off
	White Balance	Auto/Manual
	Exposure	Auto/Manual
	Functions	B/W
Electronic Shutter Speed	NTSC : 1/7.5 ~ 1/8000 (21 Step) PAL : 1/7.5 ~ 1/8000 (21 Step)	
Video / Audio	Compression	H.264 / MJPEG
	Frame rate	Single Mode : Main(H.264@30fps) *1080p Mode : Main(H.264@30fps) Second(H.264@30fps/MJPEG) *Main(720p)/Second(D1)
	Resolution	Full HD(1920 x 1080), SXGA(1280 x 1024, 1280 x 960) 720P(1280x720), D1(720 x 480 / 720 x 576), VGA(640x480), CIF(352 x 240 / 352 x 288)
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. CNB DDNS 2. DynDNS.org 3. Reference code with SDK
	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
	Local storage	Micro SD card memory : Support size Max 16GByte
	After Event process	JPEG Image upload over FTP server / SMTP (E-mail server)
Applications	Browser	Internet Explorer 6.0 or later
	Monitoring Application	CNB NVR, CNB CMS and Utility (IP-Installer, etc)
Maintenance	System Upgrade	Firmware upgrade over HTTP
Mechanical	Operating Temperature	-20℃~40℃ with Fan & Heater (Night mode - IR LED ON)
	Power	DC 12V (11~15V)
		DC 12V (Night mode-IR on) 5.4W
		DC 12V Fan ON (Night mode-IR on) 6W
		DC 12V Heater ON (Night mode-IR on) 7.2W
Dimensions / Weight (Net)	91.6(W) x 89.8(H) x 284.8(L) / Approx. 1kg	

Dimensions(mm)



The casing, parts, and specifications of this product are subject to change without prior notice for improvements.