



VK2

VK2-1080XPTZ



Installation Guide

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECT THROUGH THE VENTILATION GRILLS OR OTHER OPENINGS ON THE EQUIPMENT.

CAUTION



EXPLANATION OF GRAPHICAL SYMBOLS



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

PRECAUTIONS

Safety ----- Installation -----

Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by the qualified personnel before operating it any further.

Do not install the unit in an extremely hot or humid place or in a place subject to excessive dust, mechanical vibration.

Unplug the unit from the wall outlet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

The unit is not designed to be waterproof.

Exposure to rain or water may damage the unit.

Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.

Cleaning -----

Clean the unit with a slightly damp soft cloth.

Use a mild household detergent. Never use strong solvents such as thinner or benzene as they might damage the finish of the unit.

Retain the original carton and packing materials for safe transport of this unit in the future.

CAUTION: CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

CE COMPLIANCE STATEMENT

WARNING: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

DESCRIPTION

This manual applies to the VK2-1080XPTZ fully functional PTZ network camera.

These cameras are fully featured for security surveillance and remote monitoring needs. They are based on the DSP compression chip, allowing real-time, full frame rate Motion JPEG and H.264 (or MPEG-4) video streams.

Components

Quantity	Description
1	Camera
1	Bubble Ring
3	Assembly Screws for Attaching Network Dome Camera
1	Installation CD
3	Rawl plugs

NOTE

Adapter for DC12V / AC24V are not supplied.

INSTALLATION

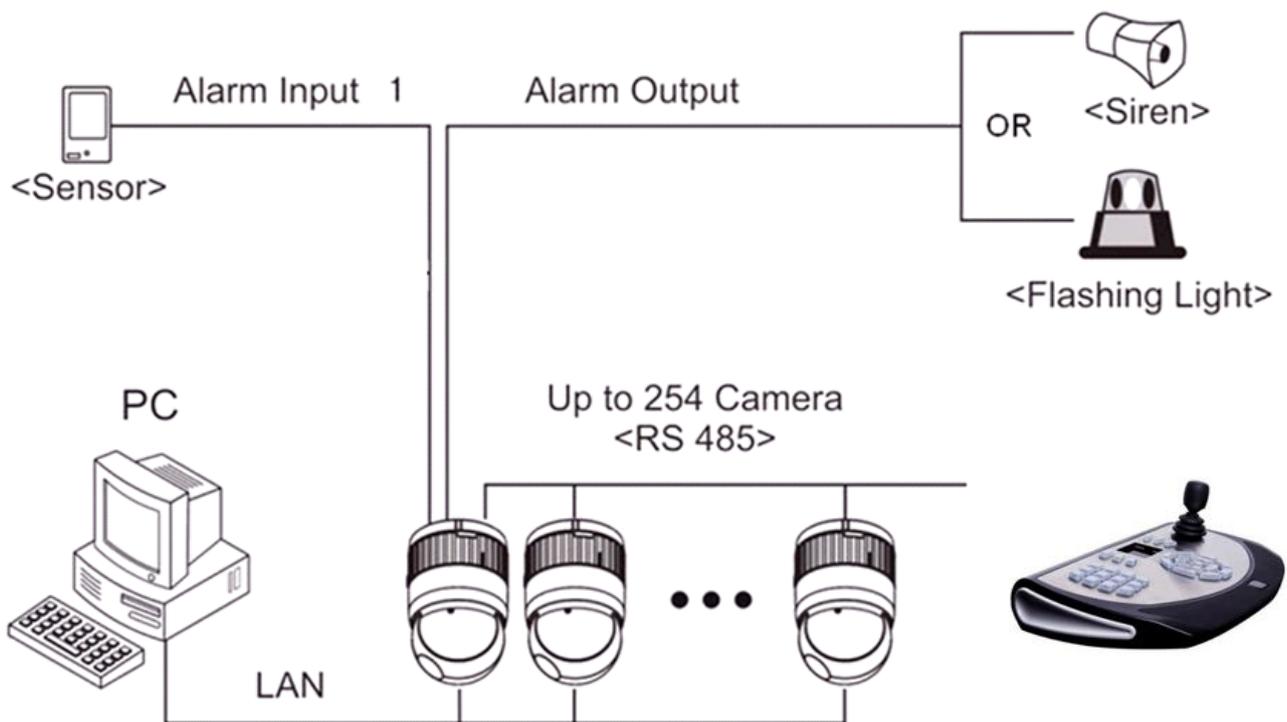
Before Installation

Before installing the camera, thoroughly familiarise yourself with the information in this section of the manual.

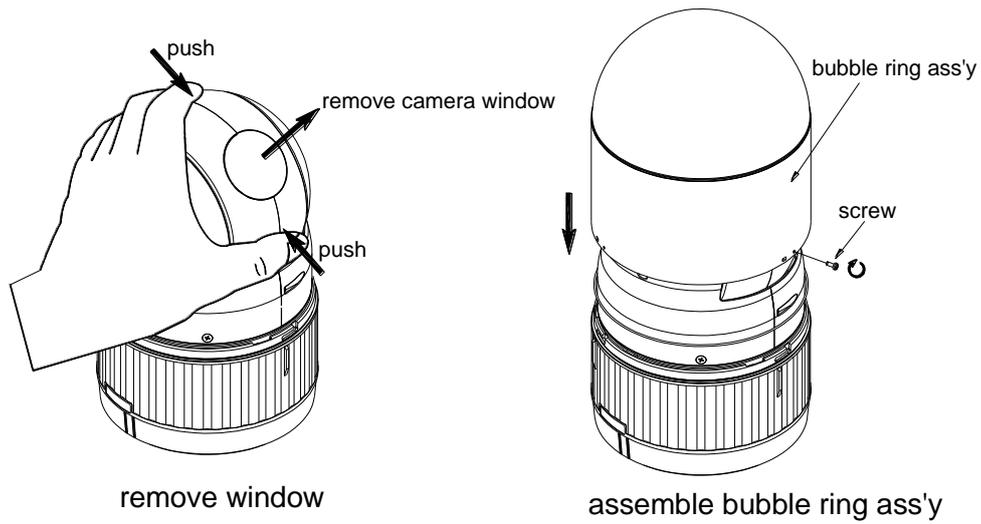
- Recommend connecting the camera to a network that uses a DHCP (Dynamic Host Configuration Protocol) server to address devices.
- To ensure secure access to the IP camera, place the camera behind a firewall when it is connected to a network.

Starting Installation

Basic Installation



. Typical System Configuration



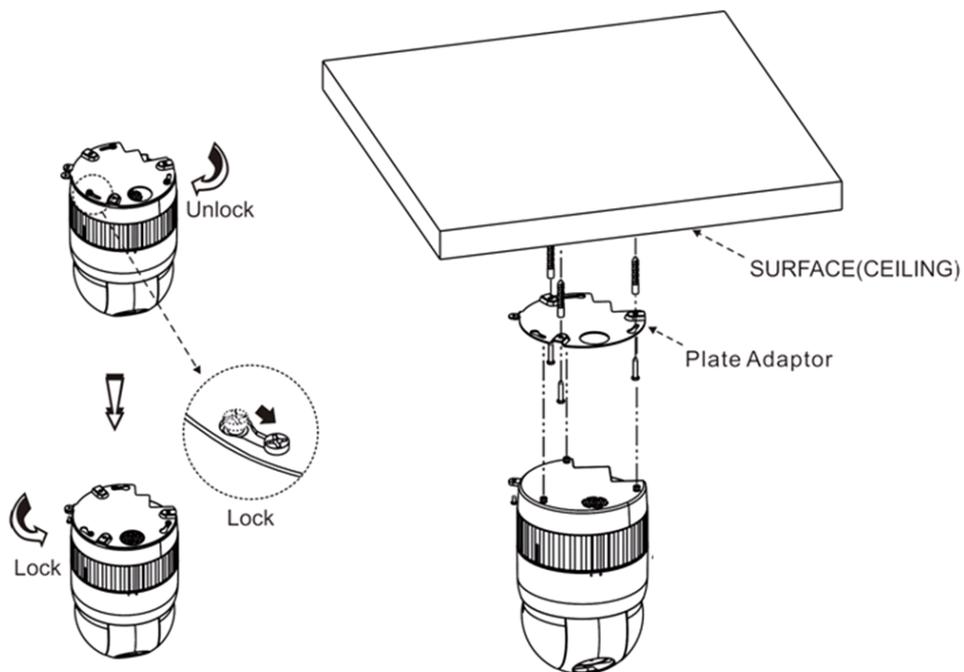
Assemble bubble ring ass'y(Optional)

NOTES

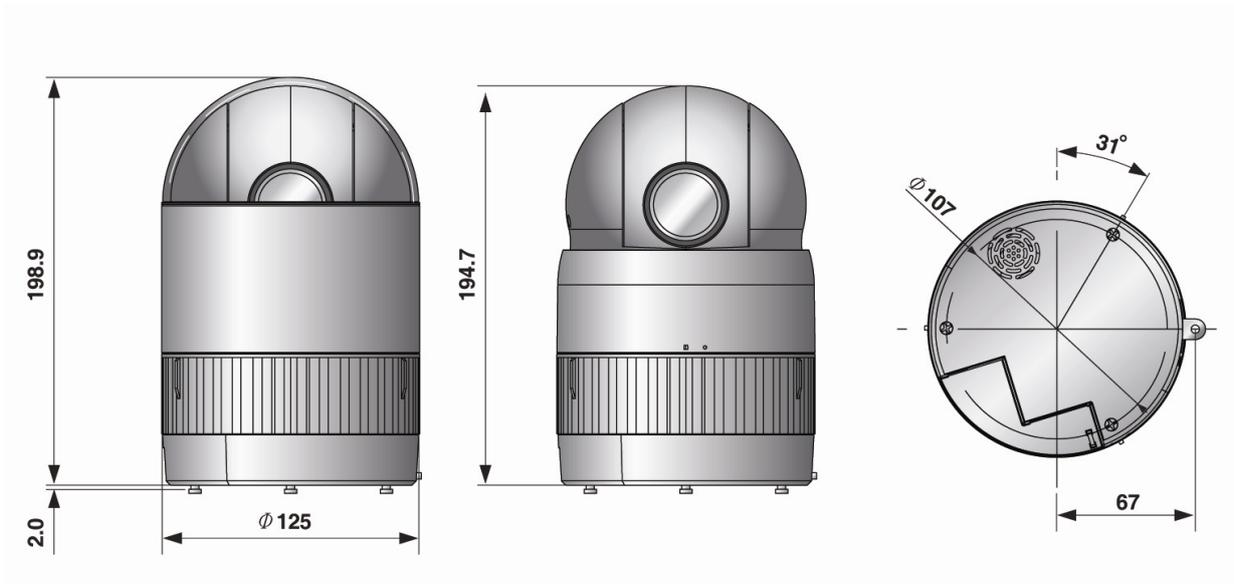
It is recommended that the camera window is removed when you use bubble ring assembly is used; this will improve the picture quality.

The Network Dome Camera is for use in surface mounting applications and the mounting surface should be capable of supporting loads up to 10lb (4.5kg).

The Network Dome Camera's base should be attached to a structural object, such as hard wood, wall stud or ceiling rafter that supports the weight of the Network Dome Camera.

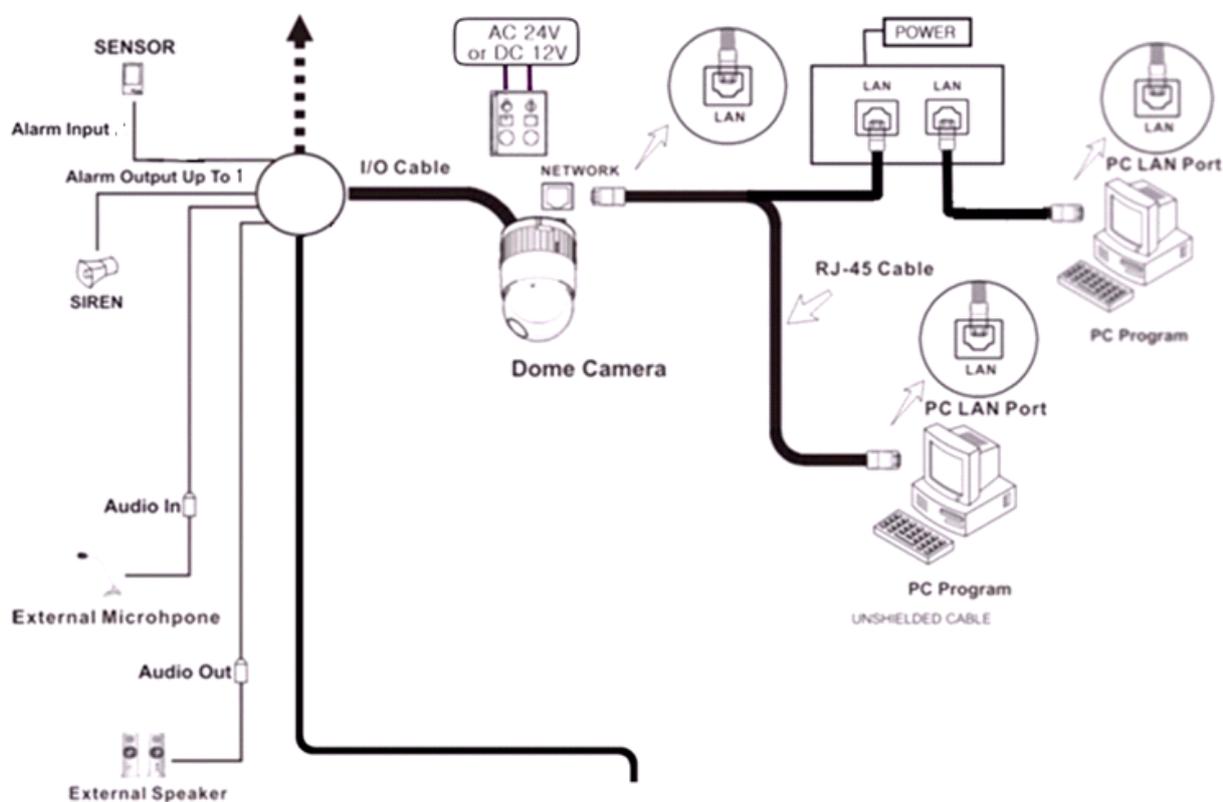
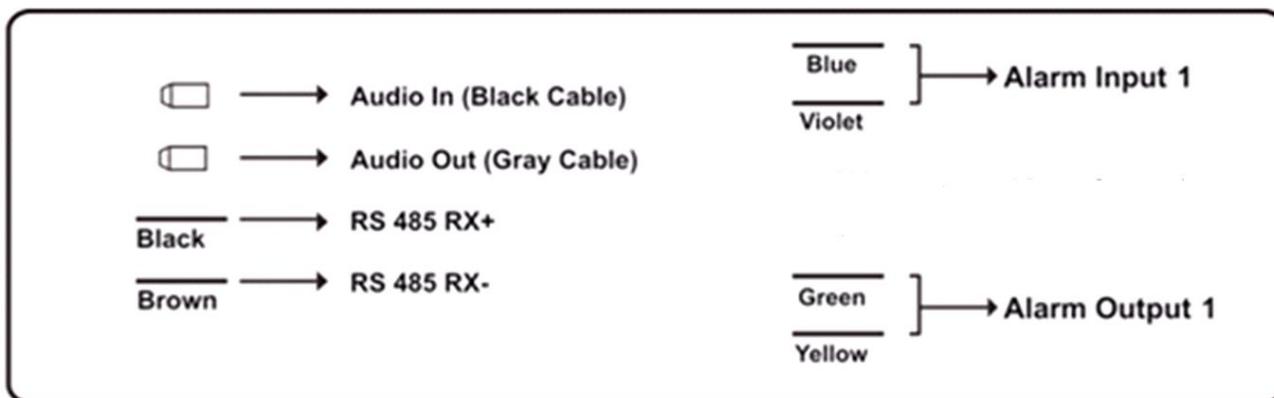


Installation



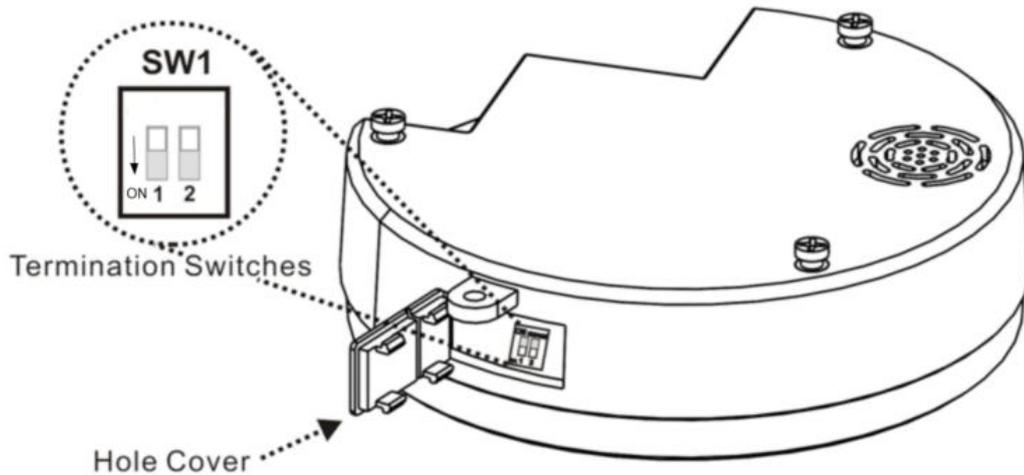
Dimensions

Basic Configuration of VK2-1080XPTZ



Basic installation diagram

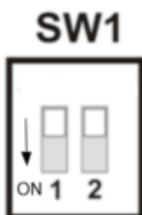
The Network Dome Camera must be installed by qualified service personnel in accordance with all local electrical and building codes.



Layout of Switches

Setting RS485 Termination

The device which is connected at end of line, whether it be a Network Dome Camera or keyboard controller, must have the cable for communication terminated by setting the appropriate DIP switch. Without proper termination, there is potential for control signal errors. Total length of the cable for communication should not exceed 1.2km (4000ft).



SW1	1	2
Terminated	ON	RESET
Not terminated	OFF	OFF

Setting Network Dome Camera Termination

Reset

To restore the camera's factory default settings. Turn on dip switch 2 for 15s and then turn off.

Please take steps as follows:

1. Power off
2. Move switch 2 to On
3. Power up the camera
4. wait for 15 seconds and move SW2 to off

Setting the RS485 Dome Camera Address (ID)

Each Dome Camera must have a unique address (ID). When installing multiple Network Dome Cameras and using the RS485 network to control, it is suggested that the Network Dome Camera address match the DVR port number.

If you want to set the address more than 999, you should contact the service provider.

Refer to 'Dome Configuration - RS485' section for detailed information.

Setting the RS485 Dome Protocol

Refer to 'Dome Configuration - RS485' section for detailed information.

Connections

- **Connecting to the RS485**

- The VK2-1080XPTZ can be controlled remotely by an external device or control system, such as a control keyboard, using RS485 half-duplex serial communications signals. Connect Marked Rx+, Rx- to Tx+ and Tx- of the RS485 control system.

- **Connecting Alarms**

- *AL1 (Alarm In)*

You can use external devices to signal the Network Dome Camera to react on events. Mechanical or electrical switches can be wired to the AL (Alarm In) and GND (Ground) connectors.

- *GND(Ground)*

Connect the ground side of the Alarm input and/or alarm output to the GND connector.

- *NC (NO) (Normal Close or Normal Open: Alarm Out)*

The Network Dome Camera can activate external devices such as buzzers or lights. Connect the device to the NC (NO) (Alarm Out) and COM (Common) connectors.

- **Connecting the Power**

Connect power of 12VDC or 24VAC 1.5A for the camera.

When using a 12VDC adapter, connect the positive (+) pole to the '+' position and the negative (-) pole to the '-' position.

Use satisfy clause 2.5 of IEC60950-1/UL60950-1 or Certified/Listed Class 2 power source only.

- Be careful not to reverse the polarity when you connect the power cable.
- You can also use a router featuring PoE (Power over Ethernet) to supply power to the camera.
- If PoE and 12VDC are both applied, this camera will get supplied with power from PoE.
- 24VAC is recommended to use for the camera power for stable operation with heater kit. If using PoE, the heater will not operate at all.

Network Connection

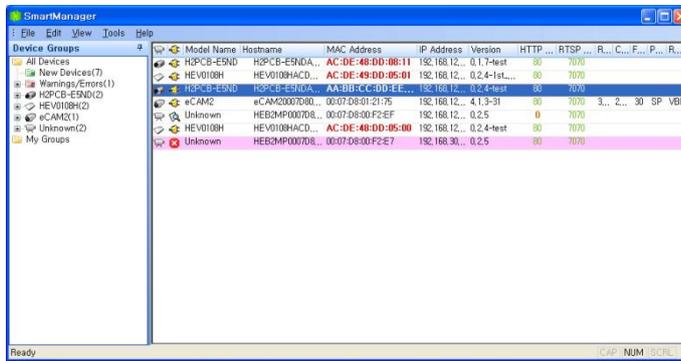
The Network Camera supports the operation through the network. Therefore, it is necessary to connect a standard RJ-45 cable to it. Generally a cross-over cable is used for directly connection to PC, while a direct cable is used for connection to a hub.

Setting IP address

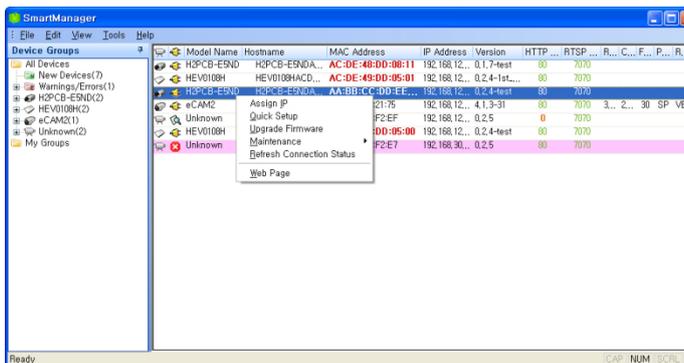
IP Assignment

When a camera is first connected to the network it has no IP address. So, it is necessary to allocate an IP address to the device with the “Smart Manager” utility on the CD.

1. Connect the Network Camera / device to the network and power up.
2. Start Smart Manager utility, the main window will be displayed, after a short while any network devices connected to the network will be displayed in the list.

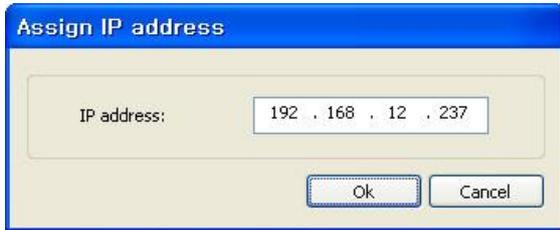


3. Select the camera on the list and click right button of the mouse. You will see the following menu as below:



4. Select Assign IP. You can see an Assign IP window.

Enter the required IP address.



The description of each field for the connection status follows.

-  : Available for connection to the camera
-  : Loading settings information of video after connecting the camera.
-  : Connectable to the camera but fixed security settings (password)
-  : Unavailable for connection to the camera (PC can not access relevant IP Address)

Note: For more information, refer to the Smart Manger User's Manual.

OPERATION

Before starting the camera, installation must be complete. The camera completes a configuration sequence within approximately 40 seconds when power is supplied. The amber LED of this megapixel camera flash one time per second indicating the configuration sequence is complete.

NOTES

- If the DHCP is enabled but the camera is not connected to a DHCP server, the camera will be set default IP 192.168.30.220 and try to get IP from DHCP server about every two seconds.
- Network and processor bandwidth limitations might cause the video stream to pause or appear pixilated when an increased number of Web-interface users connection to the camera. Decrease the images per second, resolution, compression, or bit rate settings of the Web-interface video streams to compensate for network or processor limitations.

Minimum conditions for using web browser

The minimum system requirements to use a Web browser with this IP camera are as follows:

- CPU: Pentium® 4 microprocessor, 2.0GHz
- Operational System: Windows XP® or Windows Vista® or Windows 7®
- System Memory: RAM 512 Mbyte
- Ethernet: 100 Mbit
- Video Resolution: 1024(Horizontal) x 768(Vertical) pixels or higher
- Internet Explorer® 7 or later
- ActiveX® 1.0.0.13 or later

Accessing the IP camera

1. Open Web browser
 - Double click Internet Explorer® icon.
2. Type IP address
 - Type the camera's IP address in the Internet Explorer® address bar.
 - The default IP address is **192.168.30.220**

NOTES

- If you do not know the camera's IP address, install the SmartManager® utility software available on the CD supplied with the product. The utility software will locate the assigned Model name, Host name, MAC address, IP address, Version and others.
- Refer to the SmartManager® utility software manual for more detail.

3. Log On to the camera
 - Click the Live View icon for default live image view or the Setup icon to change the configuration values.

Main Menu



Figure 1. Main Menu

The dialog box will be appears.

- Type User ID and Password in the dialog box. The default User ID and Password is ***admin***.

NOTE

For security purposes, be sure to change the password after you log on for the first time.

LIVE VIEW

The Live View page provides you to select the properties of video source. You can view the live image from this page and also access the Setup menu and operate the main functions.

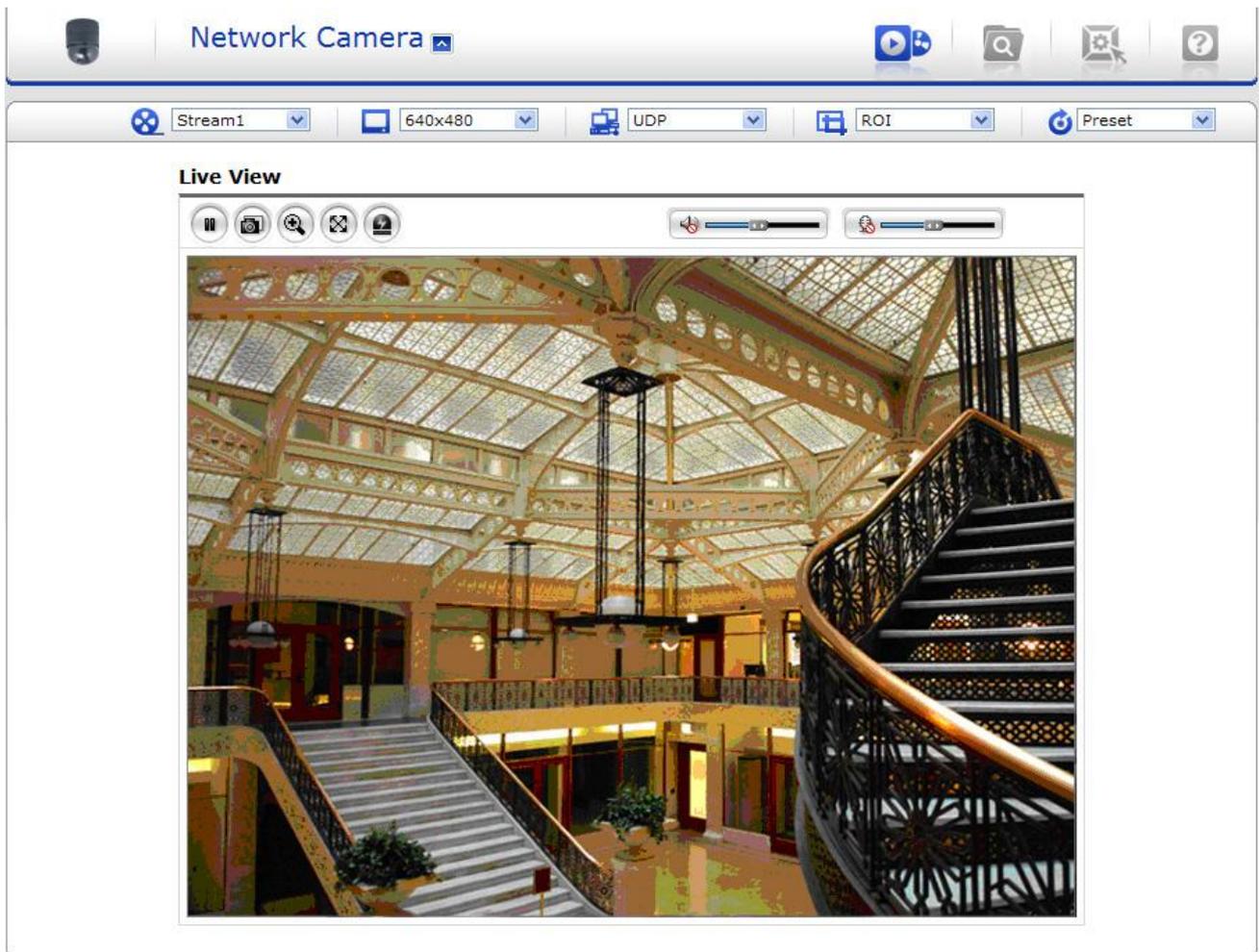


Figure 2. Main Live View Page

Live Video Page Icons

- Hide Main Icons: Hides main icons in the live view page.
- Show Main Icons: Shows main icons in the live view page.
-  Live view: Displays live video stream.
-  Playback View: Enters playback menu.



Setup: Enters setup menu.



Help: Shows helpful information.



Source: Specify the viewable video stream source to display in live view page.



View Size: Specify the viewable video size to display in live view page.



Stream Type: Specify the internet protocol to display in live view page.



ROI View: Specify the specially selected area to transfer using different stream feature in the primary video image. ROI is an abbreviation for “Region of Interest”.



Pause: Pause the live video stream.



Snapshot: Take a picture of the video image currently on display. Supports the origin image size view, Print, and Save feature.



Digital Zoom: Supports a digital zoom in live video image.



Full Screen: Expands video image to the entire screen area.



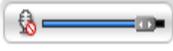
Manual Trigger: Activates the Alarm Out signaling manually.



PTZ Control: Activates PTZ Control Panel



Speaker: Adjusts the volume of Speaker and switch the sound on / off.



Microphone: Adjusts the volume of Microphone and switch the sound on / off.

Troubleshooting

If you suspect a problem is being caused by incorrect configuration or some other minor problem, consult the troubleshooting guide below.

Upgrading the Firmware

Firmware is software that determines the functionality of the network camera. One of your first actions when troubleshooting a problem should be to check the current firmware. The latest version may contain a correction that fixes your particular problem. The current firmware version in your camera is displayed on the Basic Configuration or About. For the latest firmware of the camera, please contact with your product administrator.

Detailed instructions on how to perform the upgrade process are provided with each new release. See also the Maintenance/ Upgrade for more information.

General Troubleshooting

The following list covers some of the problems that may be encountered and suggests how to remedy them:

Symptom → Possible Causes or Corrective Actions

1. The camera cannot be accessed by some clients.
→ If using a proxy server, try disabling the proxy setting in your browser. Check all cabling and connectors.
2. The camera works locally, but not externally.
→ Check if there are firewall settings that need to be adjusted. Check if there are router settings that need to be configured.
3. Poor or intermittent network connection.
→ If using a network switch, check that the port on that device uses the same setting for the network connection type (speed/duplex).
4. The camera cannot be accessed via a host name.
→ Check that the host name and DNS server settings are correct.
5. Not possible to log in.
→ When HTTPS is enabled, ensure that the correct protocol (HTTP or HTTPS) is used. When attempting to log in, you may need to manually type in http or https in the browser's address bar.
6. No image using Refresh and/or slow updating of images.
→ If images are very complex, try limiting the number of clients accessing the camera.
7. Images only shown in black & white.
→ Check the Video & Image setting.
8. Blurred images.
→ Refocus the camera.

9. Poor image quality.

→ Increased lighting can often improve image quality. Check that there is sufficient lighting at the monitored location. Check all image and lighting settings.

10. Rolling dark bands or flickering in image.

→ Try adjusting the Exposure Control setting under AE and AWB part.

11. H.264 not displayed in the client.

→ Check that the correct network interface is selected in the Video & Image/Stream.

12. Multicast H.264 not displayed in the client.

→ Check with your network administrator that the multicast addresses used by the camera are valid for your network. Check that the Enable multicast checkbox are enabled in the System/Network/RTP tab. Checks with your network administrator to see if there is a firewall preventing viewing.

13. Multicast H.264 only accessible by local clients.

→ Check if your router supports multicasting, or if the router settings between the client and the server need to be configured. The TTL value may need to be increased.

14. Color saturation is different in H.264 and Motion JPEG.

→ Modify the settings for your graphics adapter. Please see the adapter's documentation for more information.

15. Poor audio quality.

→ Too many users/clients connected to the camera may affect the sound quality adversely. Try limiting the number of clients allowed to connect.

16. Distorted audio.

→ Check that the correct Audio Input source is selected. Select Microphone for a connected external microphone. Select Line for a connected line in source.

NOTE

If you cannot find the help you require, please see the User's Manual, or contact with your network administrator.

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