INSTRUCTION MANUAL Ver 1.4

ANTIVANDAL IP DOME CAMERA

Firmware Ver. 1.2.2a

	CAUTION	
⚡	**RISK OF ELECTRIC SHOCK DO NOT OPEN**	!

CAUTION : TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT OPEN COVERS.
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONAL.

⚡ This lightning flash with arrowhead symbol 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 to persons.

! This exclamation point symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING : TO PREVENT THE RISK OF FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS CAMERA TO RAIN OR MOISTURE.

Thank you purchasing a IP DOME CAMERA! Before using this camera, please read this operation manual carefully to obtain the best result and keep this manual for future reference.

CONTENTS ◯

Important Safeguard

1. **Read Instructions**

   Read all of the safety and operating instructions before using the product.

2. **Retain Instructions**

   Save these instructions for future reference.

3. **Cleaning**

   Warning - Disconnect this appliance's power before cleaning! Do not use liquid cleaners or aerosol cleaners. Use a soft cloth for cleaning.

4. **Attachments / Accessories**

   Do not use attachments or accessories unless recommended by the appliance manufacturer as they may cause hazards, damage product and void warranty.

5. **Water and Moisture**

   Do not use this product near water or moisture. (For example, near a bathtub, washbowl, kitchen sink, laundry tub, wet basement, near a swimming pool, etc.)

6. **Installation**

   Do not place or mount this product in or on an unstable or improperly supported location. Improperly installed product may fall, causing serious injury to a child or adult, and damage to the product. Use only with a cart or stand recommended by the manufacturer, or sold with the product. To insure proper mounting, follow the manufacturer's instructions and use only mounting accessories recommended by manufacturer.

7. **Moving**

   Product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

8. **Ventilation**

   Slots and openings in the cabinet and the back or bottom are provided for ventilation and to insure reliable operation of the product and to protect it from overheating. These openings should never be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in an enclosed area such as a bookcase unless proper ventilation is provided.

9. **Power source**

   This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.

Precautions

❑ Operating
- Before using, make sure power supply and others are properly connected.
- While operating, if any abnormal condition or malfunction is observed, stop using the camera immediately and then contact your local dealer.

❑ Handling
- Do not disassemble or tamper with parts inside the camera.
- Do not drop or subject the camera to shock and vibration as this can damage camera.
- When attaching or removing the lens, handle with care to prevent moisture and dust from entering the camera.
- Do not point camera at any source of bright light. If the object contains very bright areas, bright vertical or horizontal lines may appear on the screen. This is called "smear", a phenomenon, which often occurs with solid-state pickups, and is not a malfunction.

❑ Installation and Storage
- Do not point the camera at the sun. This could damage the camera whether it is operating or not.
- Do not install the camera in areas of extreme temperature, which exceed the allowable range.
- Be sure the ambient temperature is below 104°F(40°C), for long-term continuous operation.
- Avoid installing in humid or dusty places.
- Avoid installing in places where radiation is present. This could damage CCD and other components and cause malfunction.
- Avoid installing in places where there are strong magnetic fields and electric signals.
- Avoid installing in places where the camera would be subject to strong vibrations.
- Never expose the camera to rain and water.

❑ Cleaning
- Turn the power off and wipe off dirt with dry soft cloths. If it is extremely dirty, use furniture-cleaning wipes. Do not use alcohols, petroleum distillates, liquid cleaners or sprays.

Owner's Record

Please record the model No. and the serial No. in the spaces provided below. Keep this manual for future reference.

Model No. _____   Serial No. _____

Features

❑ **Network Video Interface**

- High frame rate using Hardware MPEG4 Compression.
- High speed : 30 fps at 720 x 480, 25 fps at 720 x 576
- Web Browser based Viewer & i-Pro Multi Viewer supported.
- Bidirectional Audio support
- Support with DDNS Service (www.net4c.net) for Dynamic IP
- Hardware based Motion Detection function

❑ **High Sensitivity**

- 1/3" 410,000 pixels CCD with on-chip micro lenses and low-noise, digital signal processing circuit provide high sensitivity down to 0.5 lux (F1.2).

❑ **High Quality Image**

- High quality image is obtained by digital signal processing with optimization of control program and image correction algorithm.

About Network Function

- This product is only compatible with current versions of the Microsoft Windows OS.

- This product operates with Microsoft's Internet Explorer only.

- You must have ActiveX controls enabled on your browser, found in the Options menu.

- Some pop-up blockers may block legitimate configuration screens, please disable these blockers when configuring the IP Dome Camera.

- Some hardware manufacturers include a cable/DSL modem, router/firewall, and Ethernet switch in one device.

- If you have no available ports on your router (with integrated switch) you can purchase a 10/100 Ethernet switch to "expand" your Local Area Network

- The crossover cable is not wired as a typical straight-through network cable. This cable (or any crossover) should be used for initial setup of the IP Dome Camera via a PC/laptop.

- Please temporarily disconnect any proxy servers associated with Internet Explorer while configuring the IP Dome Camera.

❑ **Modification and Development**

The Linux-based operating system and flash memory file system enable advanced users and application developers to customize the IP Dome Camera. An SDK developer kit is available for users to interface ActiveX controls and other applications.

Attempts to modify the IP Dome Camera will void all warranties and will not be supported by manufacturer or its seller. Further development tools and documentation for assistance may be accessible in future releases. We strongly recommend that inexperienced users DO NOT modify the firmware of IP Dome Camera.

The manufacturer or its seller will not be held accountable in a user's attempt to modify the IP Dome Camera that renders the unit inoperable or otherwise.

ⓘ   **This document is for Network firmware version 1.2.2a**

Product & Accessories

❑ Product & Accessories

● Main Body

● Dome Cover

DC12V
BNC(VIDEO)
NETWORK CROSS
AUDIO OUT
AUDIO IN
I/O TERMINAL
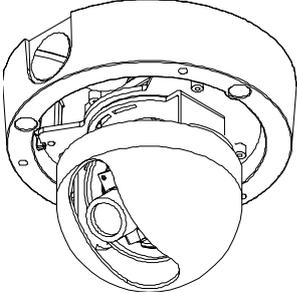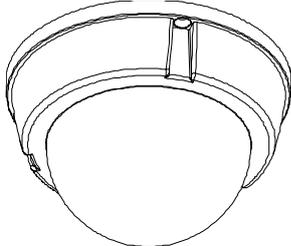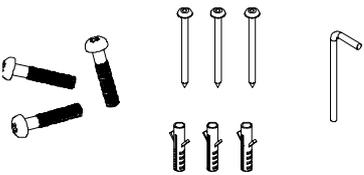
● Screw & Wrench
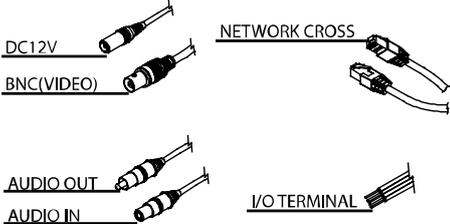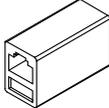
● Cable

● RJ45 Coupler

❑ Options
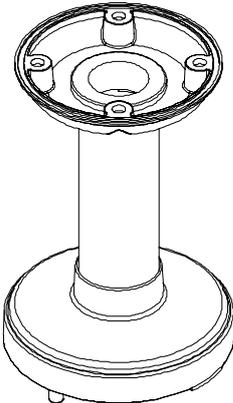
● Ceiling Mount Bracket
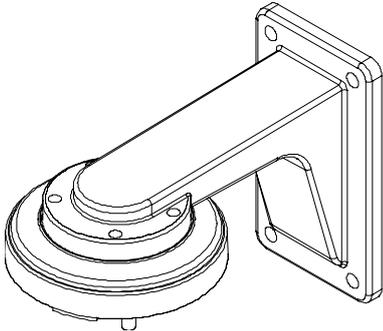
● Wall Mount Bracket

Cabling

When you install the camera, you should connect the cable to the PCB as shown in the picture bellow.
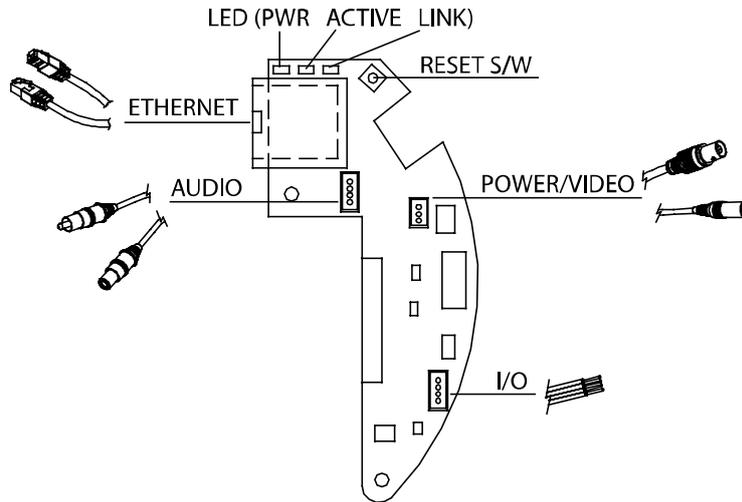
Camera Connection

Connect the video output of the camera to the video input of a monitor or other equipment. When using a "loop through" connection of two or more monitors, set the 75Ω switch of only the final monitor to 'On'. Determine the type of cable according to the distance of the connected equipment.
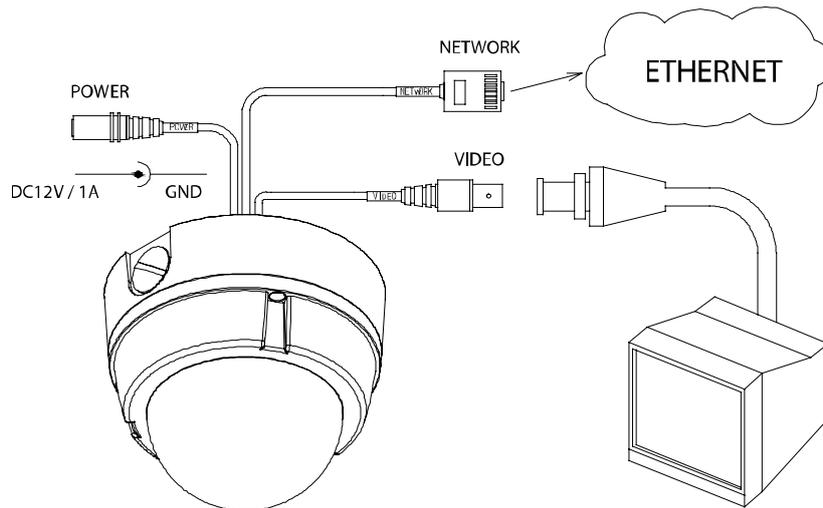
Switch Setup
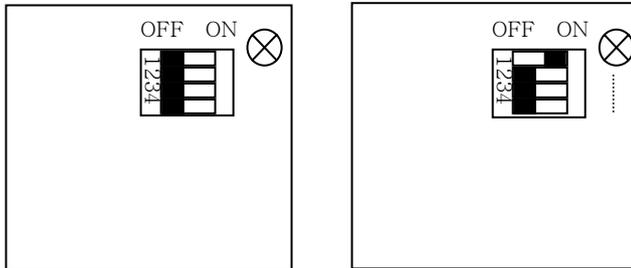
● **Confirming the iris setting 1**

ON	When DC auto-iris lens is installed
OFF	When fixed iris lens is installed

● **Correcting Flicker 2**

ON	Under 50 Hz fluorescent lights
OFF	Normal setting

● **Compensating for backlight 4**

ON	When back light is so bright
OFF	Normal setting

CAUTION : It will be correctly set by adjusting level volume 5.

● **Adjusting level volume 5**

If the entire image is too dark or bright, or the backlight compensation is not correct, you need to adjust the level volume.

CCW (Low)	Closes the lens iris, making the entire image darker
CW (High)	Opens the lens iris, making the entire image brighter

Lens Installation
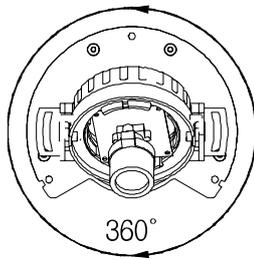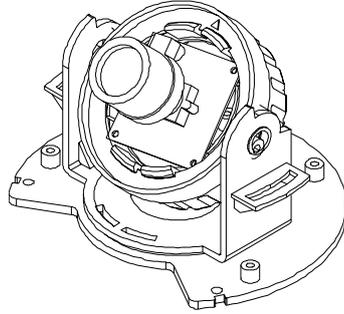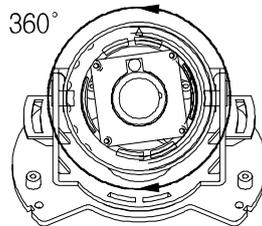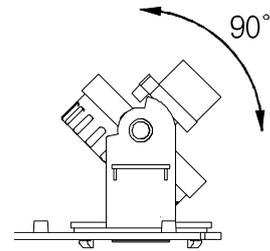
By turning the gimbals as shown in 1, 2 and 3, adjust the panning, twisting and tilting angles of the camera to cover your target view of interest.

Direct Installation on the Ceiling

① As shown bellow, make a φ40 mm hole on the ceiling panel to pass the cable and drill three φ3 mm hole at the position designated.

② After passing the cables through the φ40 hole in the ceiling panel, fix the main body to ceiling with 3 x M4 screws provided.
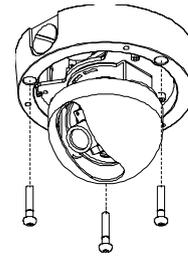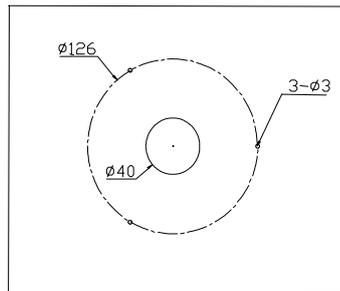
③ After adjusting Pan/Tilt/Twist angles, locate the dome cover on the main body of camera.

④ Fix the dome cover by screwing 3 screws provided.
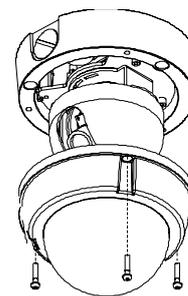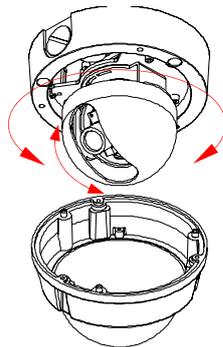
⑤ Remove protection vinyl from the clear dome cover.
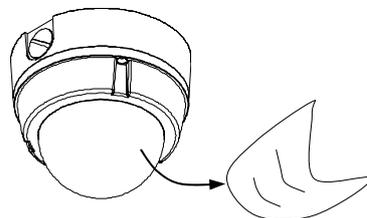
Installation using Ceiling Mount Bracket

① As shown bellow, make a φ40 mm hole on the ceiling panel to pass the cable and drill 4 holes for ceiling mount bracket. The diameter of these holes must be decided by considering your ceiling material and screws.
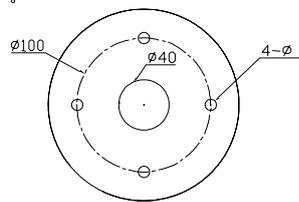
② After passing the cables through the pipe of Ceiling mount bracket, fix the Ceiling mount bracket to the ceiling with appropriate screws.
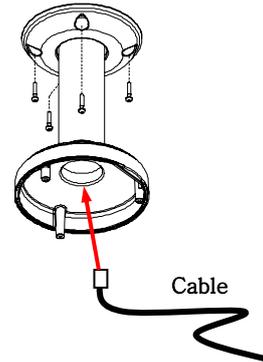
③ Fix the dome cover by screwing 3 screws provided.
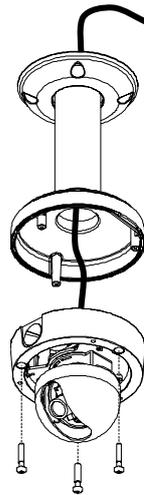
④ After adjusting Pan/Tilt/Twist angles, locate the dome cover on the main body of camera.
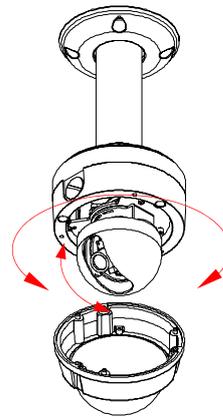
⑤ Fix the dome cover by screwing 3 screws provided.

⑥ Remove protection vinyl from the clear dome cover.
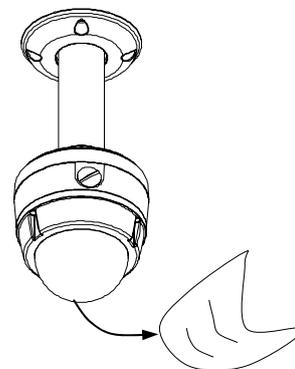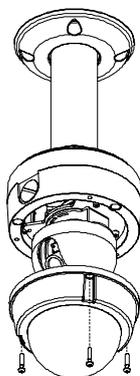
Installation using Wall Mount Bracket

① As shown bellow, make a φ60 mm hole on the wall to pass the cable and drill 4 holes for wall mount bracket screws. The diameter of these holes must be decided by considering your wall material and screws.

② After passing the cables through the wall mount bracket, fix the wll mount bracket on the wall with appropriate screws.
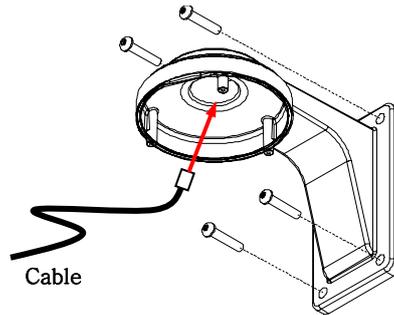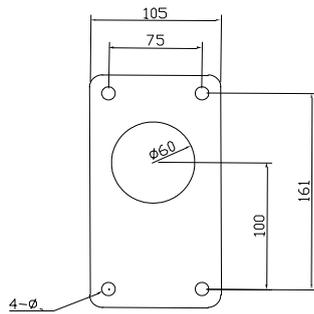
Cable

③ Fix the dome cover by screwing 3 screws provided.

④ After adjusting Pan/Tilt/Twist angles, locate the dome cover on the main body of camera.

⑤ Fix the dome cover by screwing 3 screws provided.

⑥ Detach protection vinyl from dome cove.
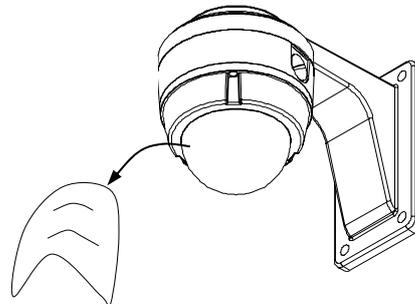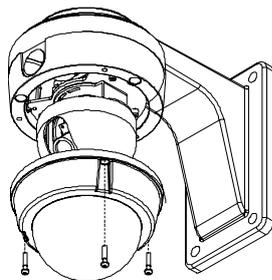
Quick Start of Network Connection

Please follow the steps below to complete the initial setup of the Network Function.

> ⓘ Please do not power on the IP Dome Camera until instructed.
>
> ⓘ Temporarily disable any proxy servers configured in Internet Explorer
>
> ⓘ If connecting the IP Dome Camera directly to a modem, power down and reset the modem. Leave the modem powered down until configurations are finalized with the IP Dome Camera and the IP Dome Camera has been correctly connected to the modem.

① You will need to access a PC/laptop and should configure that PC in order to communicate with the IP Dome Camera. Record the current TCP/IP properties of that PC (IP address, subnet mask, gateway, DNS, etc)

> ⓘ If your PC obtains its IP address automatically, then there is no need to record any information.

② Change the IP address of that host PC to 192.168.1.11 and subnet mask to 255.255.255.0 (leave all other entries blank)

③ Connect the IP Dome Camera to your PC's Ethernet port via the supplied crossover cable and RJ45 coupler (it does not matter what end is used for the PC)

④ Power on the IP Dome Camera.

⑤ After 50 seconds of power, verify a flashing ACTIVE indicator and a flashing or solid LINK indicator. After the corresponding indicator lights are properly displayed, open Internet Explorer.

⑥ Type - http://192.168.1.80 (the default IP of the IP Dome Camera) into your address bar.

⑦ Default ID/Password to access camera are both the word: admin

⑧ Familiarize yourself with the Viewer Interface Screen.

⑨ Locate the TCP/IP configuration under Administration Tools. Supply the same ID and Password to enter Administration Tools (admin:admin)

⑩ Under "Network Type" select STATIC. You will only select Dynamic or PPPoE if you are connecting the IP Dome Camera directly to your cable/DSL/Broadband modem and your Internet Service Provider is supplying you a dynamic or PPPoE address.

> ⓘ If you have a network with other devices (such as PC/laptop, etc.) or a router, you will NEVER select Dynamic or PPPoE.

⑪ Configure the IP Dome Camera's TCP/IP settings as you would any other PC on your network, providing a proper IP address, subnet mask, default gateway, and DNS server.

> ⓘ   If this is standalone unit with a direct connection to a cable/DSL/Broadband modem then input the addresses you have received from your ISP. If you received no IP address from your ISP, please select Dynamic or PPPoE and choose the proper settings.

⑫   The IP Dome Camera utilizes five TCP ports - a Web Server Port for utilizing Internet Explorer, a Video Server Port, a Control Server Port, Audio ports. A Web Server Port is for utilizing Internet Explorer, a Video Server port is to support the streaming video, and a Control Server Port is to transmit to control command. Also Audio Port are to transmit and to receive Audio data. If this IP Dome Camera will be directly attached to a cable/DSL/Broadband modem or has been assigned a static IP from your ISP, then leave the default port settings. If you are installing the IP Dome Camera on a network, you must define a Web Server Port other than 80. The other ports, a Video Server Port, a Control server Port, Audio Ports can remain unchanged.

⑬   If the IP Dome Camera is connected to a network which utilizes a router, you must have Port Forwarding configured on your personal router to forward all ports to the IP address you have assigned the IP Dome Camera.

⑭   After configuring Port Forwarding on your router (if necessary), you may then access your IP Dome Camera on your local network by opening Internet Explorer and specifying the IP address and Web Server Port that you have assigned to the IP Dome Camera.

> ⓘ   Examples: http://192.168.0.200:8888 or http://24.106.88.123
> ⓘ   If you left your Web Server Port set to 80, then you don't need to specify the port in the Address Bar when accessing your IP Dome Camera.

⑮   Access your IP Dome Camera via the Internet :

❑   If you used a static IP address assigned by your ISP

i)   Open Internet Explorer.
ii)   Type the IP of the IP Dome Camera.
iii)   If you use a router, type the routers' static IP and the web port number of the IP Dome Camera.

❑   If you have a dynamic address provided by your ISP

i)   Open Internet Explorer and visit the DDNS website.
ii)   Register the IP Dome Camera.
iii)   Reboot the IP Dome Camera.
iv)   Give the DDNS server 2 minutes to locate your IP Dome Camera's IP information.
v)   Click the refresh button in the Internet Explore.
vi)   After your camera is connected, select your camera.

Initial Setup via a Crossover Cable

This section provides a guide on how to connect the IP Dome Camera to your PC/laptop for initial setup.

Please follow the instructions in the order they appear, without skipping steps. Do not supply power to the IP Dome Camera, until instructed.

In order to access the IP Dome Camera's firmware you will need to connect the IP Dome Camera directly to a PC or laptop computer via the supplied crossover cable and RJ45 coupler.

① Before you begin, you must determine the current network/INTERNET (TCP/IP) settings on the PC or laptop you plan to setup the IP Dome Camera. Jot down your entries below for quick reference.

ⓘ For information on how to determine your currents settings, see Appendix A

Current TCP/IP Settings	
IP Address	
Subnet Mask	
Default Gateway	
Primary DNS Server	
Secondary DNS Server (Option)	

② In order for the IP Dome Camera to communicate with your PC, you have to change your PC's IP address and subnet mask

ⓘ We recommend that you change your IP address to 192.168.1.11 and change the subnet mask to 255.255.255.0
Leave all other entries (Default Gateway, DNS Servers, etc.) blank.

ⓘ For information on how to change your IP address and subnet mask, see Appendix B

③ After you have made the changes to your IP address and subnet mask, you may then attach the IP Dome Camera to your PC via the supplied crossover cable and RJ45 coupler. Plug-in either end of the crossover cable into the PC's network card and the other end into your IP Dome Camera.

④ After connecting the PC and IP Dome Camera using the crossover cable, power on the IP Dome Camera.

⑤ No longer than 5 minute after powering on the IP Dome Camera, verify that the ACTIVE indicator light is flashing, and the LINK indicator light is flickering or solid. If they are not, please read the FAQ.

⑥ Now you will be able to access the viewer software within the IP Dome Camera.

ⓘ Open Internet Explorer and type the IP address of 192.168.1.80 (default IP of the IP Dome Camera from the factory) into the Address Bar of the web browser (as seen below). Press Enter.
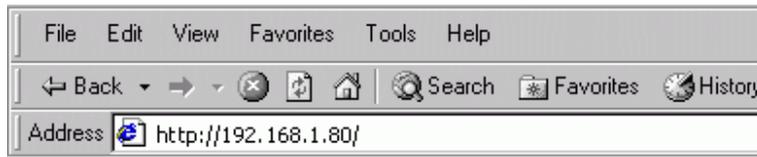
ⓘ If a message appears after pressing "Enter" similar to the image depicted below, choose "Try Again". This message will vary depending on the operating system.
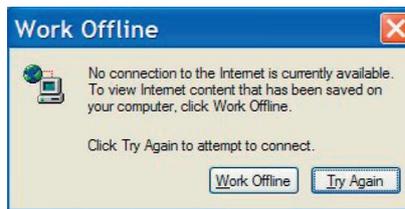
⑦ Now you will be able to see the login screen for the IP Dome Camera.
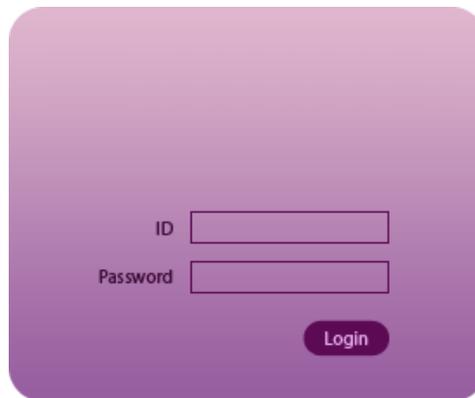
ⓘ The 3 authorities are available : Administrator, Operator and Viewer. The authority setup is available in Admin. Tools.

 • Viewer   Only monitoring is allowed.
 • Operator   Monitoring, PTZ Control and Digital In/Out Control are allowed.
 • Administrator All functions are allowed.

⑧ The default ID and Password are both the word "admin" (without the "")

⑨ If at any time you are prompted to download ActiveX controls, you must click 'Yes', all content is safe.

> ⓘ You will have to click "Yes" twice to two individual prompts. This allows your video to be displayed in Internet Explorer.

DDNS Registration

If you have DYNAMIC IP service from your Internet Service Provider (ISP), you can't tell what current IP address of video server is. To solve this problem, you have to register to our DDNS service.

At first, we recommend, you have to check if you are using dynamic addressing. If so, please, register your IP Dome Camera on our DDNS website before you configure, setup, or install the IP Dome Camera.

Even though your IP is not dynamic, you will get a benefit if you register to DDNS. In this case, you just remember "alex.net4c.net/gate1" instead of complicated series of number like http://201.23.4.76:8078.

For more detail information, please contact our Support Center.

※ To register IP Dome Camera to DDNS, you should know the Serial No of your IP Dome Camera. The Serial No can be found in "IP Status" menu of Admin Tool.

※ To use a public DDNS called DtDNS, you can find detail information on how to use this service. (Please, visit its web site : http://www.dtdns.com)

Guide to Network Environment

Please configure the IP Dome Camera at the location of its installation. You must determine your network scenario in order to configure the IP Dome Camera with the proper TCP/IP settings. This tutorial will guide you through the process. Before actually configuring the IP Dome Camera, determine what settings you will apply. Record those settings that you will use to configure your IP Dome Camera for reference.

When configuring your IP Dome Camera, treat the IP Dome Camera as another PC on your network. You will assign it several addresses and other TCP/IP properties to match your current network.

This step-by-step tutorial will teach what IP addresses and network configurations you should assign your IP Dome Camera based upon your network scenario.

① Before you begin, you will need to locate any information and settings that you have received from your Internet Service Provider (ISP). You may need to refer to these IP addresses at a later time during the configuration.

ⓘ If you were not given any IP addresses or the ISP was responsible for the setup and installation of your Internet connection on your PC or network, then please go to step ②

ⓘ If you are not using a router on your network, your "Current TCP/IP Settings" (from the previous section) and "Assigned IP Addresses from My ISP" will be exactly the same

Assigned IP Address	
IP Address	
Subnet Mask	
Default Gateway	
Primary DNS Server	
Secondary DNS Server (Option)	

Static   ☐
Dynamic ☐
PPPoE   ☐

② You must determine whether the IP address that you were assigned from the ISP is STATIC, DYNAMIC, or using PPPoE. At this moment, you are only concerned about the ISP. Did they provide you with a STATIC, DYNAMIC, or PPPoE address? If you are unsure, please contact your ISP.

③ Configure your IP Dome Camera's TCP/IP settings for network connectivity by selecting Administration Tools from the main interface and selecting TCP/IP located on the left of the Administration Tools screen.

④ If prompted for an ID and Password, use "admin" for both entries.

The default web port number is 80. If your ISP blocks port 80 you must use a value between 1025-30000. Please consult your ISP and determine if they block TCP port 80.

⑤ Depicted below are several basic network scenarios. Determine which scenario describes your network. If your network does not match one of the scenarios below and are unsure how to setup your IP Dome Camera, please contact your network administrator, then call our Support Center.

ⓘ

> Dash line box signifies areas of tour network that you can't control. Only the ISP has access to these devices.

Case A : Dynamic IP or PPPoE + Personal Router [Most SOHO]
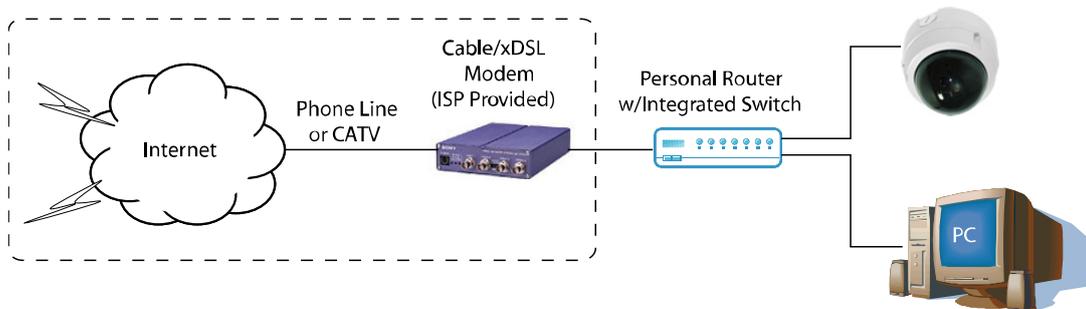
Configure your IP Dome Camera's TCP/IP properties as follows :

❑ Network Type   • STATIC (even though you have Dynamic IP, use STATIC on the IP Dome Camera)

❑ Internet Address   • A private IP address such as 192.168.0.200 [Example]

> ⓘ You need to assign the IP Dome Camera an IP address, just as you would assign a PC.
>
> ⓘ The IP address you assign must be unique to your network as well as match your network. For information how to choose a unique IP and match your network please read the FAQ.
>
> ⓘ The IP address you assign the IP Dome Camera must be a private IP. For information on how to choose a private IP please read the FAQ.

❑ Subnet Mask   • 255.255.255.0 [Example]

> ⓘ You must use the same subnet mask as the one you noted under "Current TCP/IP Settings"

❏ Default Gateway   • 192.168.0.1 [Example]

> ⓘ   This IP address must be the IP address of your router (private or LAN side)
>
> ⓘ   Use the same Default Gateway you noted under "Current TCP/IP Settings"

❏ Primary DNS Server   • Use the 1st DNS Server from "Assigned IP Address from My ISP"

> ⓘ   If you did not receive any IP addresses from your ISP, please contact them and acquire the IP address of their DNS server.

❏ DDNS Server   • Use the DDNS server

> ⓘ   This is the same site you will register with later to accommodate dynamic IP from your ISP.

❏ Web Server Port   • 8888

> ⓘ   Do NOT use the default port 80, you must change this number.
>
> ⓘ   You may select any number between 1025 ~ 30000.

❏ Control Server Port   • 7777

> ⓘ   You may select any number between 1025 ~ 30000.

❏ Video Server Port   • 7778

> ⓘ   You may select any number between 1025 ~ 30000.

❏ Audio Transmit Server Port   • 7779

> ⓘ   You may select any number between 1025 ~ 30000.

❏ Audio Receive Server Port   • 7780

> ⓘ   You may select any number between 1025 ~ 30000.

Case B : Static(Fixed) IP + Personal Router [Efficient]
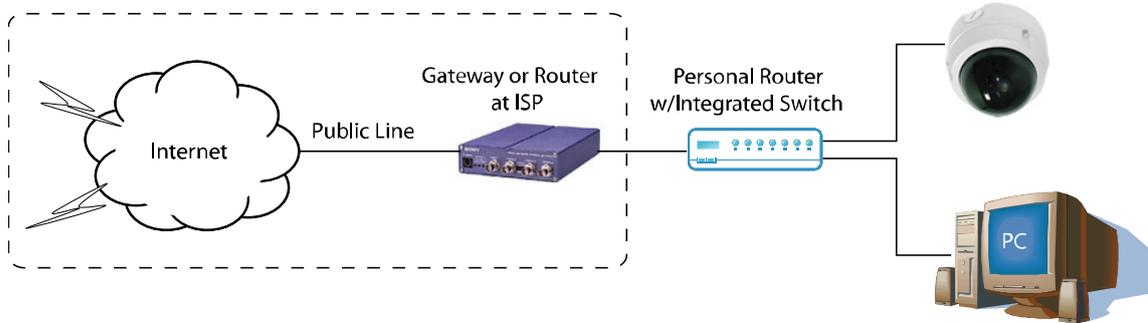
Configure your IP Dome Camera's TCP/IP properties as follows :

❑ Network Type   • STATIC

❑ Internet Address   • A private IP address such as 192.168.0.200 [Example]

> ⓘ   You need to assign the IP Dome Camera an IP address, just as you would assign a PC.
>
> ⓘ   The IP address you assign must be unique to your network as well as match your network. For information how to choose a unique IP and match your network please read the FAQ.
>
> ⓘ   The IP address you assign the IP Dome Camera must be a private IP. For information on how to chose a private IP please read the FAQ

❑ Subnet Mask   • 255.255.255.0 [Example]

> ⓘ   You must use the same subnet mask as the one you noted under "Current TCP/IP Settings"

❑ Default Gateway   • 192.168.0.1 [Example]

> ⓘ   This IP address must be the IP address of your router (private or LAN side)
>
> ⓘ   Use the same Default Gateway you noted under "Current TCP/IP Settings"

❑   Primary   DNS   • Use the 1st DNS Server from "Assigned IP Address from My ISP"
Server

> ⓘ   If you did not receive any IP addresses from your ISP, please contact them and acquire the IP address of their DNS server.

❑ DDNS Server   • Use the DDNS server

> ⓘ This is the same site you will register with later to accommodate dynamic IP from your ISP.

❑ Web Server Port   • 8888

> ⓘ Do NOT use the default port 80, you must change this number.
>
> ⓘ You may select any number between 1025 ~ 30000.

❑ Control Server Port   • 7777

> ⓘ You may select any number between 1025 ~ 30000.

❑ Video Server Port   • 7778

> ⓘ You may select any number between 1025 ~ 30000.

❑ Audio Transmit Server Port   • 7779

> ⓘ You may select any number between 1025 ~ 30000.

❑ Audio Receive Server Port   • 7780

> ⓘ You may select any number between 1025 ~ 30000.

**Case C : Static(Fixed) IP [Dedicated line directly to the IP Dome Camera]**
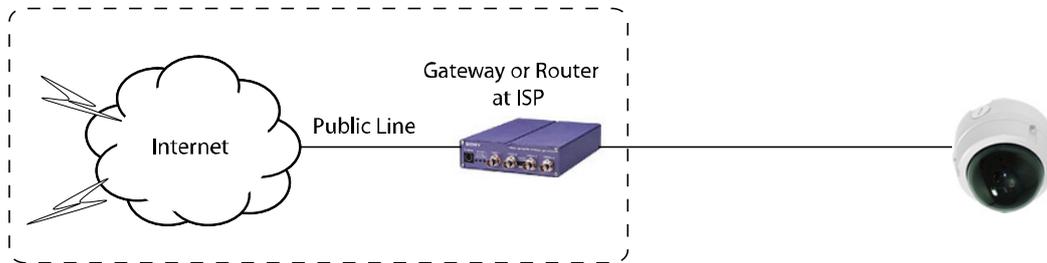
Configure your IP Dome Camera's TCP/IP properties as follows :

❑ Network Type   • STATIC

❑ Internet Address   • A static IP address received from your ISP, such as 24.107.88.125 [Example]

> ⓘ You need to assign the IP Dome Camera an IP address, just as you would assign a PC.

❑ Subnet Mask   • Subnet mask assigned from your ISP, such as 255.255.255.240 [Example]

❑ Default Gateway   • 24.107.88.113 [Example]

> ⓘ Use the assigned default gateway from your ISP

❑   Primary   DNS • Use the 1st DNS Server from "Assigned IP Addresses from My ISP"
Server

> ⓘ If you did not receive any IP addresses from your ISP, please contact them and acquire the IP address of their DNS server.

❑ DDNS Server   • Use the DDNS server

> ⓘ This is the same site you will register with later to utilize our DDNS service.

❑ Web Server Port   • 80 [default]

> ⓘ You may select any number between 1025 ~ 30000.

❑ Control Server Port   • 7777

> ⓘ You may select any number between 1025 ~ 30000.

❑ Video Server Port   • 7778

       ⓘ   You may select any number between 1025 ~ 30000.

❑ Audio Transmit Server Port   • 7779

       ⓘ   You may select any number between 1025 ~ 30000.

❑ Audio Receive Server Port   • 7780

       ⓘ   You may select any number between 1025 ~ 30000.

Case D : Dynamic IP + DSL/Cable Modem [Connected directly to the IP Dome Camera]
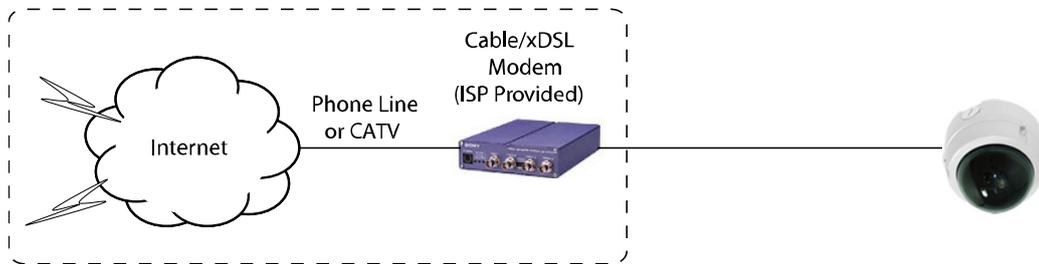
Configure your IP Dome Camera's TCP/IP properties as follows :

❑ Network Type   • DYNAMIC

❑ DDNS Server   • Use the DDNS server

> ⓘ This is the same site you will register with later to accommodate dynamic IP from your ISP.

❑ Web Server Port   • 80 [default]

> ⓘ You may select any number between 1025 ~ 30000.

❑ Control Server Port   • 7777

> ⓘ You may select any number between 1025 ~ 30000.

❑ Video Server Port   • 7778

> ⓘ You may select any number between 1025 ~ 30000.

❑ Audio Transmit Server Port • 7779

> ⓘ You may select any number between 1025 ~ 30000.

❑ Audio Receive Server Port   • 7780

> ⓘ You may select any number between 1025 ~ 30000.

> ⓘ When connecting the IP Dome Camera directly to a modem, power down and reset the modem. Leave the modem powered down until configurations are finalized with the IP Dome Camera and the IP Dome Camera has been correctly connected to the modem. Then power on the modem, followed by the IP Dome Camera.

Case E : PPPoE + DSL Modem [Connected directly to the IP Dome Camera]
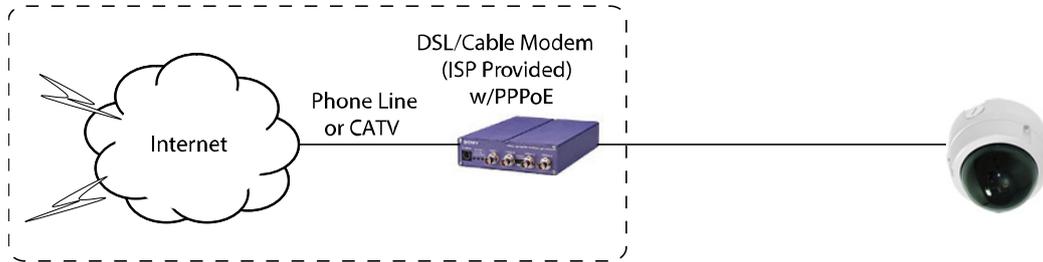
Configure your IP Dome Camera's TCP/IP properties as follows :

❑ Network Type   • PPPoE

❑ User ID   • Use the User ID or Username you received from your ISP for this direct connection

❑ User Password   • Use the Password you received from your ISP for this direct connection

❑ DDNS Server   • Use the DDNS server

      ⓘ   This is the same site you will register with later to utilize our DDNS service

❑ Web Server Port   • 80 [default]

      ⓘ   You may select any number between 1025 ~ 30000.

❑ Control Server Port   • 7777

      ⓘ   You may select any number between 1025 ~ 30000.

❑ Video Server Port   • 7778

      ⓘ   You may select any number between 1025 ~ 30000.

❑ Audio Transmit Server Port   • 7779

      ⓘ   You may select any number between 1025 ~ 30000.

❑ Audio Receive Server Port   • 7780

      ⓘ   You may select any number between 1025 ~ 30000.

Port Forwarding

After entering the correct TCP/IP settings you will be ready for "Port Forwarding" (Cases A, B).

❑ Please record the TCP/IP settings of your IP Dome Camera for future reference. You may need this information to access your IP Dome Camera and to configure "Port Forwarding".

IP Dome Camera TCP/IP Settings	
IP Address	
Subnet Mask	
Default Gateway	
Primary DNS Server	
DDNS Server	
Web Server Port	
Control Server Port	
Video Server Port	
Audio Transmit Server Port	
Audio Receive Server Port	

❑ **After clicking "Apply" the system will prompt for a reboot. Please allow the system 50 seconds to reboot and accept the changes. After 50 seconds, close the configuration screen. The view will display "Trying to Reconnect". If the ACTIVE light on the IP Dome Camera has gone off and is now back on again flashing, then the IP Dome Camera has rebooted. After the system reboots completely, remove the power supply from the unit and close Internet Explorer.**

❑ Return your PC/Laptop TCP/IP properties to their original settings.

❑ Before installing the IP Dome Camera, you must use "Port Forwarding" on your personal router (Cases A, B).   You will need to forward 5 ports:

- Web Server Port you assigned to the IP Dome Camera.
- Control Server Port you assigned to the IP Dome Camera.
- Video Server Port you assigned to the IP Dome Camera.
- Audio Transmit Server Port you assigned to the IP Dome Camera.
- Audio Receive Server Port you assigned to the IP Dome Camera

Both of these ports will be forwarded to the IP address you assigned to the IP Dome Camera. In the example above, you would forward:

- 8888 → 192.168.0.200   • 7777 → 192.168.0.200   • 7778 → 192.168.0.200
- 7779 → 192.168.0.200   • 7780 → 192.168.0.200

ⓘ For information on how to use "Port Forwarding" please read Appendix C

Starting Network Camera

After correctly forwarding the Web Server Port , Video Server Port, Control Server Port and two Audio Ports through your router (if applicable), you may then install the IP Dome Camera in a proper location.

① Locate the serial number located on the label attached to the bottom of the IP Dome Camera, you will need this for DDNS registration.

② Connect the IP Dome Camera to your router or cable/DSL modem (per your network scenario) via a Cat5/5e UTP Ethernet network cable.

③ Supply power to the IP Dome Camera.

④ After 50 seconds, verify the IP Dome Camera indicators

- ACTIVE   Flashing
- LINK   Flickering/Solid

⑤ After configuring Port Forwarding on your router (if necessary), you may then access your IP Dome Camera on your local network by opening Internet Explorer and specifying the IP address and Web Server Port that you have assigned to the IP Dome Camera.

> ① Examples: http://192.168.0.200:8888 or http://24.106.88.123
>
> ① if you left your Web Server Port set to 80, then you don't need to specify the port in the Address Bar when accessing the IP Dome Camera.

⑥ Access your IP Dome Camera via the Internet:

- ❑ If you use Case B or C

  i) Open Internet Explorer.

  ii) Type the IP of the IP Dome Camera.

- ❑ If you use Case A, D, E

  i) Open Internet Explorer.

  ii) Visit the DDNS website.

  iii) Register the IP Dome Camera.

  iv) Give the DDNS server 10 minutes (MAX) to locate your IP Dome Camera's IP information. You may reboot the server to send an immediate request to our DDNS server.

  v) After your camera is connected, select your camera.

Viewer Screen

This section is designed to familiarize you with the main interface of the IP Dome Camera. Displaying the OSD and Digital Zoom are only taking place on the local machine, not on the IP Dome Camera itself. To make global changes on the IP Dome Camera and its video, you must login as an administrator.

❑ **Normal Tab**
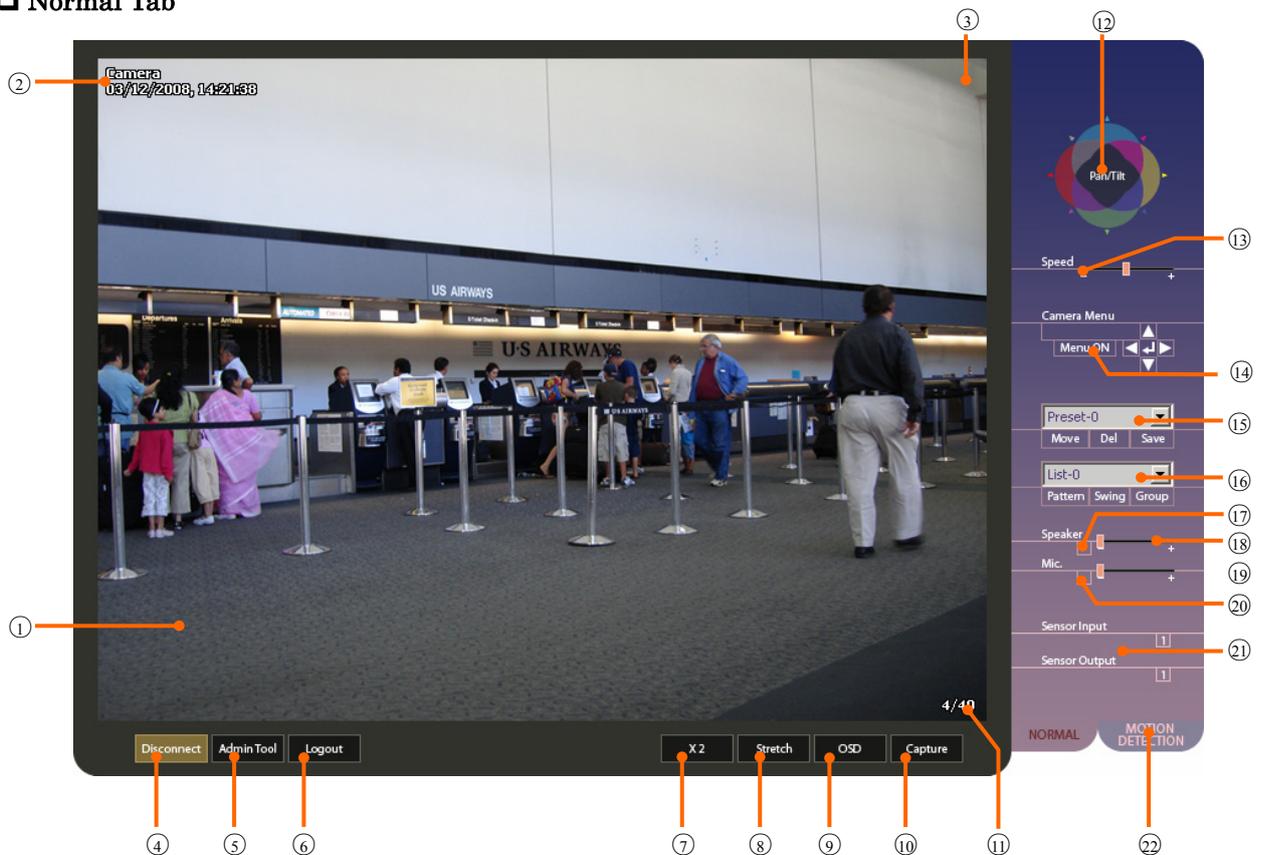
①   Main View

②   <OSD> (On Screen Display):   Camera Name / Date / Time

③   <OSD>:   This show status of login Account. "G" means guess account user who can not change any settings including PTZ control.

④   **[Connect/Disconnect]**:   Click this button to disconnect or connect to the IP Camera.

⑤   **[Admin Tool]**: Click this button to lunch Administration Tool window.

⑥   **[Logout]:** Click this button to logout.

⑦   **[X2]**: Click this button to magnify video in the main view digitally two times.

⑧ **[Stretch]**: Fit the video size to the Main view area.

- 720×480 resolution   : no change
- 352×240 resolution   : 2× digital zoom effect

⑨ **[OSD]**: (On Screen Display): Click this button to turn on/off the captions on the view screen.

⑩ **[Capture]**: Click this button to save a Still picture.

⑪ Shows current number of users connected as:
[Current number of users connected / Maximum number of users connected].

⑫ **[Pan/Tilt JOG]**: Use sections of graphics to change the pan & Tilt angle of a PTZ device.

⑬ Set pan & Tilt angular speed of a PTZ device when we move PT using arrows in ⑫.

⑭ **[Menu ON]**: Activate **Camera Setup OSD** menu.
▲▼◄►(Up/Down/Left/Right): Move in the **Camera Setup OSD** Menu
↵ (Enter Mark): make selection in the menu be effective
* It is noted that some models do not supported OSD Menu.
* It is noted that these are not affected by OSD button in ⑨ since these keys are only for camera setup.

⑮ **[Preset]**: Run, save, delete presets stored in PTZ devices.

⑯ **[Pattern, Swing and Group]**: Run Pattern, Swing and Group functions provided in PTZ devices.

⑰ **[Speaker]** Enable the Audio stream from IP CAMERA.

⑱ Volume control for speaker of your computer.

⑲ Volume control for MIC in your computer.

⑳ **[MIC]**: Enable the Audio stream to the IP CAMERA from your MIC.

㉑ **[Alarm Sensor Input/Output]**: Input shows Alarm Inputs state. Also you can control Alarm Outputs control.
* It is noted that Input 1 and Output 1 are effective in this camera since it only supports 1 input and 1 output.

㉒ [Motion Detection]: Click this Tab to setup motion detection.

As explained before, there are three kinds of user authority level i.e. guest, operator and administrator and. It is noted that since the OSD display and Digital Zoom functions do not affect other users view but only affect the current view, these functions can be changed to all user levels. However, since all other functions affect to settings of the video server and accordingly video of all users connected, the user with administrator level can change those functions.

❑ **Motion Detection Tab**

①　**[Motion Detection]**:　Turn on/off the motion detection.

②　**[Start Area Setting]:** Start or Stop Area setting.
　　{ How to Setup}
　　　A.　By clicking or dragging of mouse in the main view,
　　　　you can create or erase the masks on the main view.
　　　B.　Motion detection is effective in the **Unmasked Area**.
　　　3) Stop setting by clicking **[Start Area setting]** button.
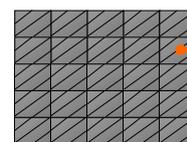
Masked Area
No detection
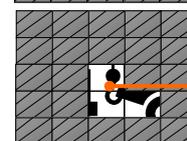
Unmasked Area
Effective detection

③　**[Detection Action/Sensor Output]**: Assign counter action of alarm sensor output if motion is detected. For example, if you assign [1] button and a buzzer is properly connected to corresponding output relay. Buzzer will be turned on for a period of time when motion is detected.

④　**[Detection Action/Alert Sound]**: Enable alert sound function if motion is detected. It will play back an wave file stored in the camera though the audio out whenever motion is detected.

⑤　**[Sensitivity]**: Set the sensitivity of motion detection. Obviously, + direction means more sensitive.

⑥　**[Normal]:** Exit Motion Detection setup to Return to Normal tab for regular operations.

This section is provided to familiarize the user with the administration tools. Intuitive options are not explained in detail.

All the changes on Administration Tools take effect immediately. These settings will be global, affecting the view of all users currently logged on. However, OSD items selections are effective only after you refresh the viewer windows or restart the internet Explorer.

All settings are always saved in the video server even when you close the viewer program or you turn off the Power of the video server. If you lost your password, you must press the reset button to return all setting to its factory defaults.

Video Tool

❑ Camera Name For easy identify the cameras, you can freely assign a name to the device or camera connected to the IP Dome Camera. This will change the camera name on OSD. (Maximum 7 characters available)

❑ OSD Select OSD items displayed on the screen. This will effect only after refresh site or restart your internet explorer.

❑ Resolution Select the resolution (or video size) of the viewer screen.

❑ Frame Rate Maximum frame rate of video to limit the traffic occupied.

❑ Camera Flip   Flip the video orientation. (i.e. Turn the video upside down.)

❑ P/T Direction   Define the direction of Pan/Tilt motion.

❑ Video Compression   Choose the video compression method form Motion JPEG and MPEG-4 formats.

❑ Simplified Setting and Advanced Setting   In fact, these two has same concepts. However, the **Simplified Setting** is described in terms of simple and easy expressions to help nonprofessional users. If you are professional and want to set delicately, choose **Advanced Setting**.

❑ Encoding Video Mode   In **Quality Basis mode**, you can select video encoding and streaming in the viewpoint of video quality rather than bandwidth occupied. In this case, Bandwidth can be traded off to meet your video quality requirement under some network environments. (This mode is same as VBR mode in Advanced setting)

In **Bandwidth Basis mode**, you can select video encoding and streaming in the viewpoint of Bandwidth rather than video quality displayed. In this case, quality can be traded off to meet your bandwidth requirement under some network environments. (This mode is same as CBR mode in Advanced setting)

❑ Quality   This setting is available only Quality Basis mode. The quality level can be selected from 5 grades **"A", "AA", "AAA", "AAAA", "AAAAA"**. It is noted that if you select Advanced Setting mode, you can define more grades (1 ~ 31).

❑ Bit Rate   This setting is available only Bandwidth Basis mode. The bandwidth can be select one of 10 values between 30Kbps to 5100Kbps. It is noted that you can select from more than 170 steps in Advanced Setting.

Control Tool

❑ Com1	For PTZ devices only. Select the PTZ control protocol.
❑ PTZ Camera ID	For PTZ Device Address Setup. 0 ~ 255 are available.
❑ Baudrate, Data Bit Stop Bit, Parity Bit	This setup is only for the non-standard protocols. Sometimes, PTZ protocol of some manufacturers requires communication settings different from those of the standard. To meet these special settings, click the check box of "**Use Advanced Communication Setting**" bellow.
❑ Use Advanced Communication Setting	Used to adjust Baud Rate, Data Bit, Stop Bit, Parity Bit of the selected protocol. Do not use if the select protocol is standard.

Motion Detection Tool

Detection Action

☐ Alert Sound
☐ Digital Output 1

❑ Detection Action   Set up the reaction of IP Dome Camera when motion detected.

Alert Sound：   Audio Out through the Audio out jack of IP Dome Camera.

Digital Output 1：   Select output relay numbers in the Sensor Alarm I/O module connected with IP Camera.

TCP/IP Tool

□ Network Type   Select a Static or Dynamic address scheme that is used by the Internet
                            Service Provider (not the addressing scheme used by a personal router).

□ Internet Address   Input a value to assign an IP address to the IP Dome Camera.

□ Subnet Mask   Input a value to assign a subnet mask to the IP Dome Camera.

□ Default Gateway   Input the IP address of the default gateway.

□ Primary DNS Server   Input the IP address of an ISP's DNS server.

□ Web Server Port   Assign a TCP port number to assign a Web Interface port number to the
                            IP Dome Camera. This port is used for transmitting ActiveX program to
                            web browser based viewer.

□ Video Server Port   Assign a TCP port number to assign a Video Server port number to the
                            IP Dome Camera.

□ Control Server Port   Assign a port number for control server. This port is used for camera
                            control.

□ Audio Transmit Server Port   Assign Audio data send server port number.

□ Audio Receive Server Port   Assign Audio data receive server port number.

DDNS Tool

❏ Use DDNS	If you check this box, **DDNS** updating is enabled. (primary and secondary)
❏ Primary DDNS Address	Assign DDNS address. (default. **www.net4c.net**)
❏ Secondary DDNS Provider	Select DDNS Provider. Currently, **DtDNS** is available.
❏ Host Name	Type the host name registered in DDNS service (i.e. Host name in **DtDNS**)
❏ User Name	Type user name used for DDNS service (i.e. User Name(ID) registered in **DtDNS**)
❏ User Password	Type the password used for DDNS service (i.e. Password registered in **DtDNS**)

This function is used to email the specified email recipient and notify that individual of the IP address / web port number used to access the IP Dome Camera. This email function is only activates on power-on reset time of IP Dome Camera.


❑ SMTP Server   Enter an SMTP server to send email.

❑ User Name   Input user name used for SMTP authentification to access the mail server.

❑ User Password   Input the password used for SMTP authentification to access the mail server.

❑ Send E-Mail box   If this check box is set to on, email function is enabled.

❑ SMTP requires auth. Check this box if the mail server requires SMTP authentification.

❑ From   Input the email address of sender. The email address should be admitted to the SMPT sever.

❑ To   Input the email address of receiver.

Date & Time Tool

❑ Current Date/Time   It shows the current Date/Time setting of IP Dome Camera.

❑ New Date/Time   Select the method of Date/Time setting. Date/Time can be set by local computer or time server or manual.

Users Tool

❑ System Manager   Specify an ID and Password for the System Administrator of the IP Dome Camera. The System Administrator will have all rights and privileges to manage the system.

❑ General Manager   Give access privileges up to 40 separate user accounts.

> ① Only 40 users may be logged on simultaneously, regardless of what user identities are logged on.

❑ To add a user   Input an ID and Password, verify Password, select Authority, click ADD.

❑ To edit a user   Select the user from the list of users, make necessary changes, click EDIT.

❑ To delete a user   Select the user from the list of users, click DELETE.

❑ Operator Authority   This privilege gives the user rights to operate the PTZ controls.

❑ Viewer Authority   This privilege gives the user rights to operate only the icons associated with digital 2× zoom, stretch, OSD, and video capture. These options only affect that current user. The changes made there will have no effect on the other users logged on.

❑ Auto Login   Only one user/administrator may have Auto Login enabled. When the video server is accessed, it will bypass the login screen and logon automatically.

Firmware Update Tool

Version
Firmware Version : SD-1.2.0-E

Notice
1. Closing browser or Clicking menu bars during update may cause critical problems.
2. Network Camera reboots automatically after update.

Update Status
Firmware Filename : [   ] [Browse...]

□ Version   Shows the current firmware version.

□ How to upgrade   Click [Browse…] button and select the latest version of the firmware. Its file name should be ***.bin.

Click [Update Start] button. It will start upgrading its firmware. IP Dome Camera will re-boot automatically as soon as it finish the upgrade process.

ⓘ After upgrade, its system configuration should be set to factory default.

ⓘ Connect IP Dome Camera to a computer directly with a crossover Ethernet cable.
Do not use internet to upgrade. There may be unexpected disconnection on internet during upgrade and it may cause fatal system damage.

ⓘ Do not close browser or click menu during update. It may cause fatal system damage.

Default Set Tool

Reset its system configuration to the factory defaults.

Note) After initializing, all information should be deleted. Please re-consider before initializing.


## Rebooting Tool

Re-boots IP Dome Camera.

A : Current TCP/IP Settings

❑ For Windows 98 / ME Users

Start
Setting
Control Panel
Network
Configuration Tab
Select the TCP/IP 10/100 protocol
Click Properties
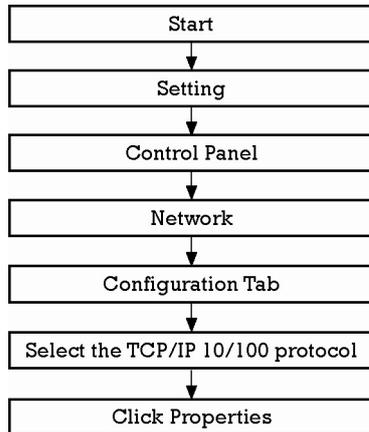
• Note the settings under the IP Address, DNS Configuration, and Gateway tabs

ⓘ If your IP settings are obtained automatically, you could use the MS-DOS prompt (or Command Prompt) to determine your IP address. For information on how to do this, please read the FAQ.

❑ For Windows 2000 or Windows XP

| Start |
| --- |
| Control Panel |
| Network and Dial-up Connection or Network Connection |
| Right-click Local Area Connection |
| Properties |
| Select TCP/IP in General tab |
| Click Properties |
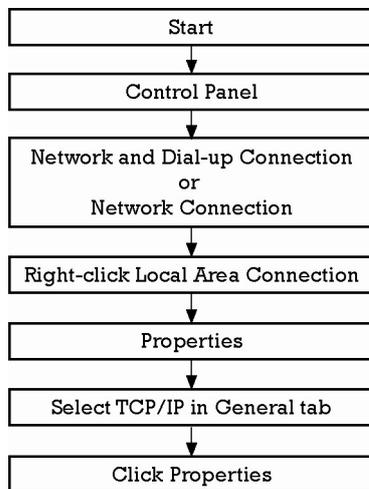
• Under the "General" tab of the TCP/IP Properties you will see your IP address information.

ⓘ If your IP settings are obtained automatically, you could use the MS-DOS prompt (or Command Prompt) to determine your IP address. For information on how to do this, please read the FAQ.

B : Changing your computer's IP address and subnet mask

❑ For Windows 98 / ME Users

| Start |
| Setting |
| Control Panel |
| Network |
| Configuration Tab |
| Select the TCP/IP 10/100 protocol |
| Click Properties |
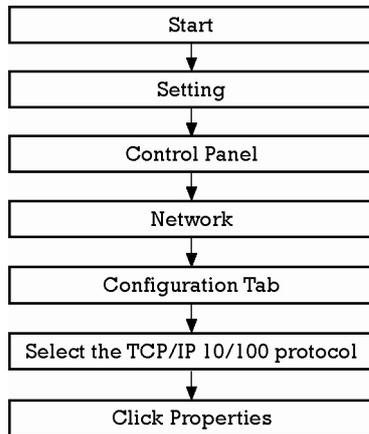
• Select 'Use the following IP address' and change the IP address and Subnet Mask.

❑ For Windows 2000 or Windows XP

| Start |
| Control Panel |
| Network and Dial-up Connection or Network Connection |
| Right-click Local Area Connection |
| Properties |
| Select TCP/IP in General tab |
| Click Properties |
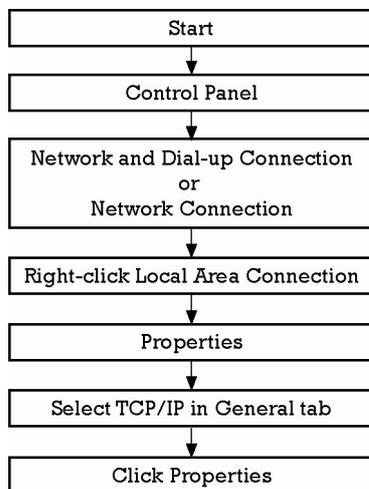
• Select 'Use the following IP address'

C : Port Forwarding

After assigning the IP Dome Camera a web server port and video server port you must use Port Forwarding (for cases A, B)

Please consult your router's user guide on how to correctly configure Port Forwarding.

For your convenience, we have provided two example configurations.

❑ **For D-Link DI-604 broadband routers:**

① Open a web browser and type http://192.168.0.1 into your Address bar. (the default IP address to access the router)

② You will have to supply your User Name and Password to log onto the router. Default from factory. (User Name: admin Password: [leave blank])

③ Select the advance tab and click "Virtual Server" menu.
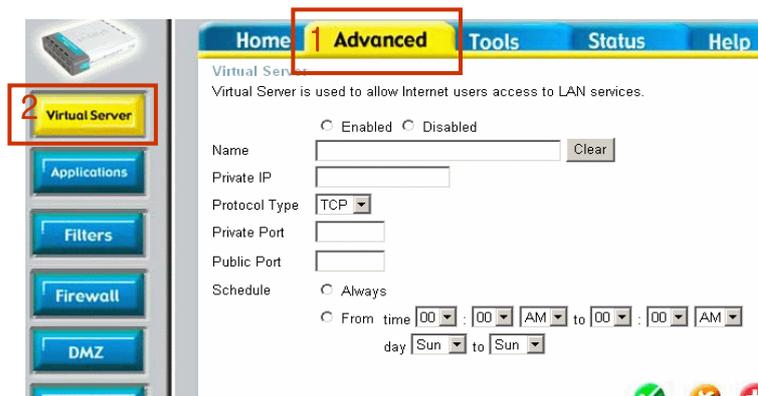
④ Click "Apply" button after inputting proper values. The example is as below

- Enabled / Disabled   Select "Enabled".

- Name   Input IP Dome Camera name.

- Private IP   Input IP Dome Camera address.

- Protocol Type   Select "TCP".

- Private Port / Public Port   Input IP Dome Camera Web Server Port.

- Schedule   Select "Always"

⑤   If 'Setting Saved' shows, click [Continue] button.

⑥   With the same method as above, add Video Server Port.

⑦   The Web Server Port, Video Server Port and 2 Audio Ports shows in "Virtual Server List" as below.

Virtual Servers List

	Name	Private IP	Protocol	Schedule	
☑	NVS_2	192.168.0.80	TCP 8080/8080	always	
☑	NVS_2	192.168.0.80	TCP 7777/7777	always	
☑	NVS_2	192.168.0.80	TCP 7778/7778	always	
☑	NVS_2	192.168.0.80	TCP 7779/7779	always	
☑	NVS_2	192.168.0.80	TCP 7780/7780	always	

❑ **For Linksys BEFSR41 Cable/DSL routers:**

① Open a web browser and type http://192.168.1.1 into your Address bar (the default IP address to access the router)

② You will have to supply your User Name and Password to log onto the router. Default from factory (User Name:[leave blank] Password: admin)

③ Select Applications & Gaming from the menu bar.
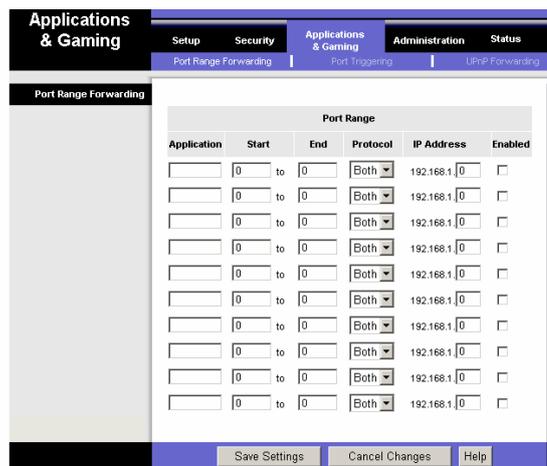
④ Input port numbers in "Port Range" as below and click [Save Setting] button. Both of Web Server Port and Video Server Port should be added. The example is as below.
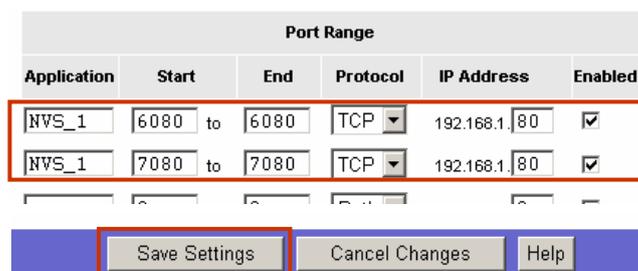
- Application   Input IP Dome Camera name.

- Start / End   Input IP Dome Camera Web Server Port and Video Server Port.
                        Start should be same as End.
                        Both of Web Server Port and Video Server Port should be added.

- Protocol   Select "TCP" in Protocol option.

- IP Address   Input IP Dome Camera IP Address.

- Enabled   Check the square.

❑ **For Netgear RP614 routers**

① Input http://192.168.0.1 in address bar of web browser. http://192.168.0.1 is the default IP address.

② If it asks ID and password, input admin as ID and password as password.

③ Click "Port Forwarding" in "Advanced".

④ Click "Add Custom Service" button in Port Forwarding page.

⑤ Input proper values in "Ports - Custom Services" page as below.

• Enable		Check it.
• Service Name		Input IP Dome Camera name.
• Starting/Ending Port		Input IP Dome Camera Web Server port. Starting Port should be same as Ending Port.
• Server IP Address		Input IP Dome Camera IP Address.

⑥ Click "Add" button.

⑦ With the same method as above, add Video Server Port.

⑧ Click "Apply" button to finish Port Forwarding.

❑ **I can't connect!!**

In the case of a connection failure.

Modem Reboot > Modem Reboot Finished > Router Reboot > Router Reboot Finished > IP Dome Camera Reboot > IP Dome Camera Reboot Finish > Verify DDNS and IP Dome Camera connection, if applicable.

❑ **How do I choose a unique IP address that matches my network?**

For your home or small office, ensure that all devices on your network are running. PING an IP address that you plan to assign to the IP Dome Camera. If you receive a "Request timed out", then you may use that IP address. To ensure the IP address that you will assign the IP Dome Camera matches your network, review your "Current TCP/IP Settings" that you had recorded earlier. See some examples below:

- If your "IP Address" entry in "Current TCP/IP Settings" was 192.168.0.y, and your "Subnet Mask" was 255.255.255.0 then use 192.168.0.x for your IP Dome Camera's IP Address ("x" meaning any number between 2-254 that you wish, as long as it passes the "PING" test).

- If your "IP Address" entry is not a 192.168.z.y address with a "Subnet Mask" of 255.255.255.0 then please contact our Support Center.

- If your "IP Address" entry is not a 192.168.z.y address, please contact our Support Center.

❑ **How do I open an MS-DOS or Command Prompt?**

- Windows 98 / ME Users   : Start → Programs → Accessories → MS-DOS prompt
- Windows 2000 / XP Users : Start → (All) Programs → Accessories → Command Prompt

❑ **How do I "PING" an IP address?**

① Open an MS-DOS (or Command) prompt

② At the prompt type - "ping xxx.xxx.xxx.xxx" (without the quotes and replace the "x"s with an IP address)

③ Press Enter

❑ **How do I enable or check ActiveX on my browser**

Open Internet Explorer → Tools on the menu bar → Internet Options → Security Tab → Custom Level → Scroll down and verify that you are prompted or have enabled ActiveX controls and plug-ins to be downloaded and executed. → click OK → restart browser

❑   **How do I find out my IP address information if my settings were automatically detected?**

- Windows 98 / ME Users

  ① Open an MS-DOS Prompt

  ② At the prompt type: "winipcfg" (without the quotation marks)

  ③ Use the drop down list to select your 10/100 Ethernet Adapter (not a PPP adapter)

  ④ Now you will see your IP Address, Subnet Mask, and Default Gateway information

  ⑤ For DNS information contact your Internet Service Provider

- Windows 2000 / XP Users

  ① Open a Command Prompt

  ② At the prompt type - "ipconfig /all" (without the quotes)

  ③ Near the end of the information supplied, should be your current IP address, subnet mask, default gateway and DNS servers

❑   **How do I choose a private IP address:**

Assign your IP Dome Camera a private IP address that matches your current network. Below lists the ranges for private addresses:

- Private Class A address space   : 192.168.0.0 - 192.168.255.255
- Private Class B address space   : 172.16.0.0 - 172.31.255.255
- Private Class C address space   : 10.0.0.0 - 10.255.255.255

❑   **My POWER light is not on?**

Power is not being supplied to the unit. Please use the power supply shipped with the unit and verify that a power source is active from the attached power outlet used to connect the adapter. You can test this by plugging in any other electrical device and verify its operation. After using the power supply shipped with the product, checking the power source, and reinserting the power connector into the IP Dome Camera, please call our Support Center. The power supply may be defective.

❑   **My ACTIVE light is not flashing?**

Verify the power supply to the unit. Power off the unit and back on again, wait 1 minute, if the ACTIVE light still does not begin to flash, you will have to set the unit to its factory default (THIS WILL DELETE ANY CONFIGURATION AND SET THE UNIT TO THE FACTORY DEFAULTS). Power on the unit and insert the end of a paper clip into the small recessed opening on the back of the unit. Use the clip to press the button located within that opening.

❑ **My LINK light is not flashing or solid?**

Verify the cable connection. 99% of the time the cable's connection to the unit is causing this problem. Try using a different network cable or crossover cable (for PC connection only). Try reinserting the cable, if this still doesn't solve the problem call our Support Center.

❑ **I want to prevent users from viewing my camera.**

① Go into Administration Tools of the IP Dome Camera.

② Click on Users

③ Delete the user or all users by deleting the ID and password associated with that user.

❑ **Can I record the video?**

Yes you can record, but you will need to purchase a separate software program to allow PC-based recording. This software is available by contacting your distributor or our Customer Service Center. The software named "I-PRO" will connect up to 16 separate 1-channel video servers for remote viewing, remote controlling, and remote recording without the loss of quality or size (up to 640×480 resolution).

❑ **I can access the video server on my LAN, but not from the Internet.**

Verify that your router (if applicable) has port forwarding properly configured. If accessing from our DDNS service, verify correct serial number. Firewall issues may prevent user access.

❑ **How do I reset the unit to factory defaults?**

Inside of the unit you will find a recessed opening located on the top of the PCB board. Power ON the unit and use a paper clip to push the reset button within that opening. YOU WILL LOSE ALL DATA THAT HAD BEEN ENTERED PREVIOUSLY AND THE IP DOME CAMERA WILL BE SET TO ITS FACTORY RESETS.

❑ **Can I use the Network Video Server on my dial-up Internet connection?**

No, we recommend a high-speed broadband connection of at least 128Kb/sec.

❑ **I'm accessing my IP Dome Camera remotely over the Internet and the video stream is choppy, is this normal?**

Yes. The frames per second received remotely are determined by your bandwidth capabilities both at your site where the IP Dome Camera is installed and your remote location. The lower of the two sites will determine how fast your video stream is received. It is recommended to have at least a 256Kb/sec upstream connection from the site where the IP Dome Camera is installed. Lower speeds will operate properly, but provide poor remote performance. The Faster the Internet connection at both ends, the faster the video stream.

Specifications

Model		PID Series
Hardware	CPU	32Bit RISC Processor
	OS	Embedded Linux
Viewer		Web Browser based Monitoring
Network	Protocol	TCP/IP
	Interface	10/100 base-T Ethernet (RJ-45)
Compression	Algorithm	MPEG-4
	Rate	NTSC : 720 x 480 @ 30 Hz PAL : 720 x 576 @ 25 Hz
Camera	Image Device	1/3" Super HAD CCD
	TV System	NTSC/PAL
	Effective Pixel	771(H)×492(V)
	Auto-Iris	1/60~1/100,000 sec Auto (NTSC) 1/50 ~ 1/100,000 sec Auto (PAL)
	Gamma	0.45
	Video Output signal	1.0 V[p-p] composite 75 Ohms / BNC connector Light sensitivity - 30 IRE 0.5Lux x at F1.2 Color reproduction down to 2.0 Lux
Video	Size	720 x 480, 352 x 240
	Frame Rate	30 frame/sec (720 x 480)
Audio	Input / Output	Bidirectional
	Compression	ADPCM
Sensor I/O (option)	Communication	RS-485
	I/O	8 Inputs / 4 Outputs
Power		DC12V /1A
Operating Temperature		-10°C ~ 40°C
Dimension		140(Ø)× 132.5(H) mm including bracket
Weight		Approx. 750g

* Specification & design are subject to change without notice
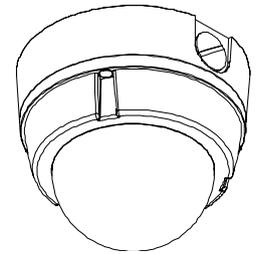
● Main Unit
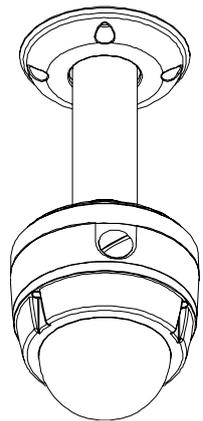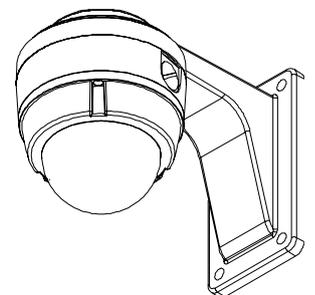
● Ceiling Mount

● Web Viewer

● Multi Viewer

● Wall Mount

ANTIVANDAL IP DOME CAMERA

Dimension

● Main Unit & Surface Mount Bracket

φ 126
3-φ5
3/4"TAP

φ 145
3/4"TAP
45
30
125
50
φ 100

● Ceiling Mount Bracket

φ 101.5
φ8.5

φ 130
311
290

● Wall Mount Bracket

264
12
130
190
191
30
50

105
75
57
161
6-φ2.5
4-φ10

Unit (mm)