

# User Manual



## IP Vandal Dome

**WARNINGS**

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

DO NOT INSERT ANY METALLIC & ELETRIC CONDUCTIVE OBJECT THROUGH VENTILATION GRILLS.

**CAUTION**

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		

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THE TRADEMARKS MENTIONED IN THE MANUAL ARE LEGALLY REGISTERED TO THEIR RESPECTIVE COMPANIES.

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# I. Preface

IP Vandal Dome is a professional CCD IP Vandal Dome. It has built-in web server which enables user to view real-time video via IE browser. It also supports simultaneously MPEG-4&JPEG video compression and dual streaming which provides smooth and high video quality. The video can be stored in the SD card, and can be playback remotely.

IP Vandal Dome is an easy-to-use IP Camera which is designed for security application.

# II. Product Specifications

- Support PoE (Power Over Ethernet) - Optional
- Support IP66 (Weatherproof)
- Support Dual streaming
- High Resolution (540 TV Lines)
- True Day/Night function, removable IR Cut Filter, ICR (Optional)
- Vandal Proof (Polycarbonate shell withstand impact up to 400 pounds)
- MPEG4/ JPEG compression
- Supports SD card for local recording
- 2-way audio
- Support Cell Phone/PDA
- Support 3GPP
- Online firmware upgrade
- Compatible with Microsoft Windows Media Player

### Specifications

Hardware		
Model	Model 1	Model 2
Picture Elements HxV	NTSC : 510x492, PAL : 500x582	NTSC : 768x494, PAL : 752x582
Horizontal Resolution	More than 420 TV Lines	More than 540 TV Lines
Image sensor	1/3" CCD	
Lens Changeable	3.7~12mm vari-focal lens,F1.6	
IR LED	IR LED Built-in (optional)	

CPU	ARM 9 ,32 bit RISC
SDRAM	64MB
Flash	8MB
Video Out	1 Vp-p, 75 Ohms
I/O	1 in/out Relay out (COM. & N.O.)
Audio in	1
Audio Out	1
Power Consumption	DC 12V, 490mA
Dimensions (WxHxD)	126 x 126 x 100 mm
Weatherproof	IP66
Vandal Proof	Polycarbonate shell can withstand impact up to 10 pounds
<b>Network</b>	
Ethernet	10/ 100 Base-T
Network Protocol	HTTP, TCP/ IP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP, UPnP
<b>System</b>	
Video Resolution	NTSC : 720x480, 704x480,352x240, 176x120 PAL : 720x576, 704x576, 352x288, 176x144
Video adjust	Brightness, Contrast, Saturation, Hue
Power Over Ethernet(PoE)	Optinal
Dual Streaming	Yes
CCD setting	BLC
Image snapshot	Yes
Full screen monitoring	Yes
Compression format	MPEG-4/ JPEG
Video bitrate adjust	CBR, VBR
Motion Detection	Yes, 3 different areas
Triggered action	Mail, FTP, Save to SD card
Pre/ Post alarm	Yes, configurable
Security	Password protection
Firmware upgrade	HTTP mode, can be upgraded remotely
Simultaneous connection	Up to 10
Audio	Yes, 2-way
<b>SD card management</b>	
Recording trigger	Motion Detection, IP check, Network break down (wire only)
Video format	AVI, JPEG

Video playback	Yes	
Delete files	Yes	
Web browsing requirement		
OS	Windows 2000, XP, 2003, Microsoft IE 6.0 or above	
Hardware	Suggested	Intel-C 2.0G, RAM : 512MB, Graphic card : 64MB
	Minimum	Intel-C 1.6G, RAM : 256MB, Graphic card : 32MB

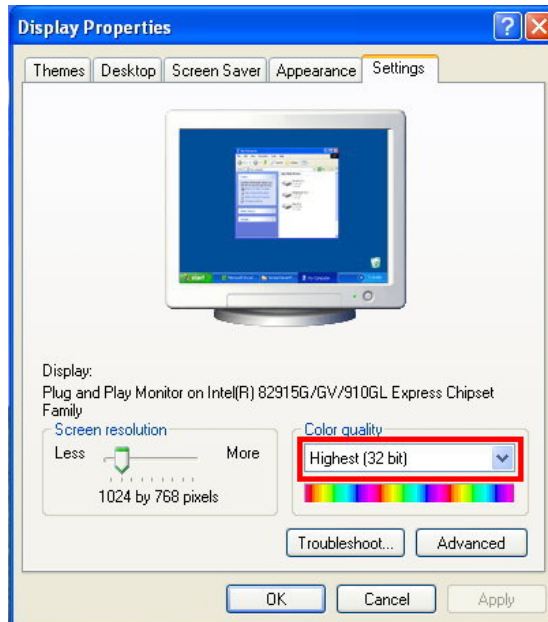
## III. Product Installation

### A. Monitor Setting

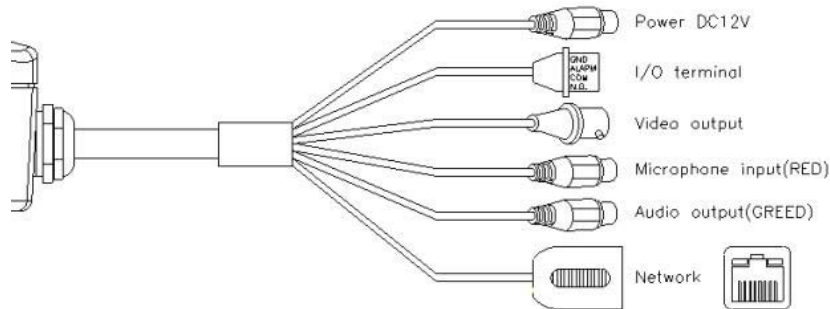
- i. Right-Click on the desktop. Select “ Properties”.



- ii. Change color quality to highest (32bit).



## B. Hardware Installation



- i. Connect power adaptor
- ii. Connect Ethernet cable to IP Camera
- iii. Connect IP Camera to a computer or Local network.

### B-1 I/O Control Instruction

I/O terminal connector – used in application, for e.g., motion detection, event triggering, alarm notifications. It provides the interface to:

1 Digital Input (GND+Alarm) – An alarm input for connecting devices that can toggle between an open and closed circuit, for example: PIRs, door/window contacts, glass break detectors, etc. When a signal is received the state changes and the input becomes active.

1 Relay output (COM +N.O.) – An output to Relay switch, for example: LEDs, Sirens, etc

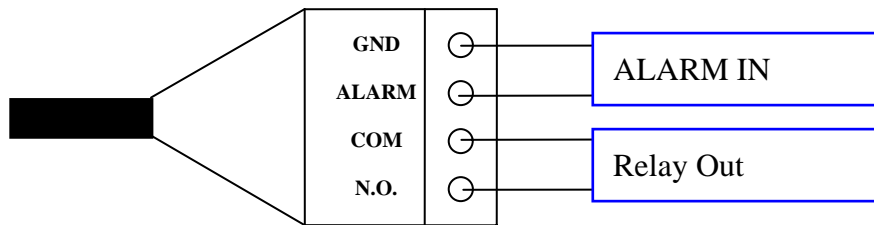
### Digital Input

#### Alarm Input

1. GND (Ground) : Initial state is LOW
2. Alarm : Max. 50mA, 12VDC

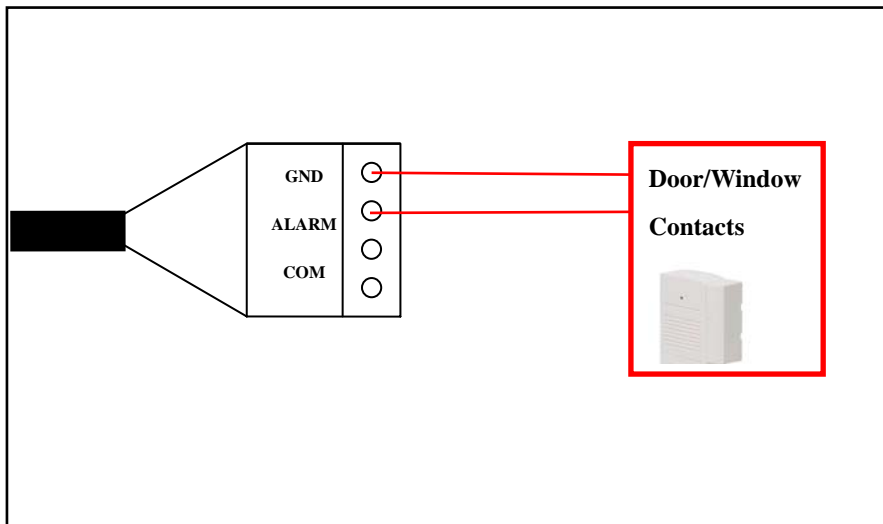
### Relay Output

1. COM: (Common)
2. N.O. (Normally Open): Max. 1A, 24VDC or 0.5A, 125VAC



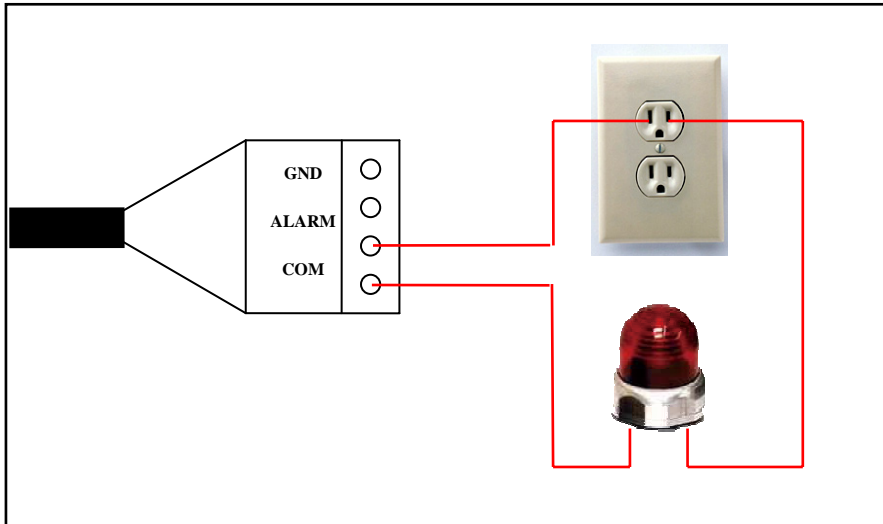
### B-2 Relay Connection:

#### Digital Input connection



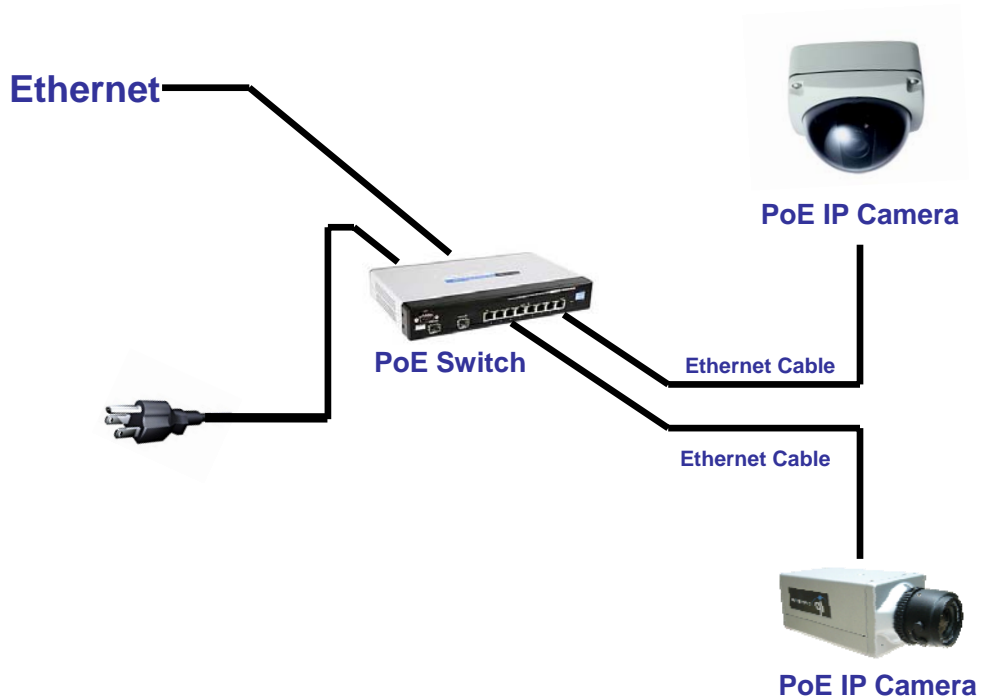
#### Relay Output Connection





B-3 PoE ( Power Over Ethernet)(Optional) **802.3af, 15.4W PoE Switch is recommended**

Power over Ethernet (PoE) is a technology that integrates power into a standard LAN infrastructure. It enables power to be provided to the network device, such as an IP phone or a network camera, using the same cable as that used for network connection. It eliminates the need for power outlets at the camera locations and enables easier application of uninterruptible power supplies (UPS) to ensure 24 hours a day, 7 days a week operation.

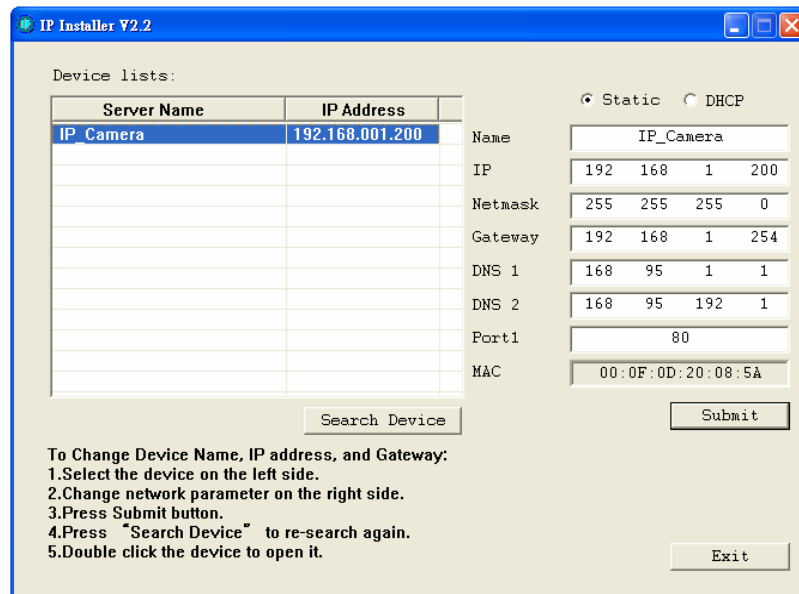


## C. IP Assignment

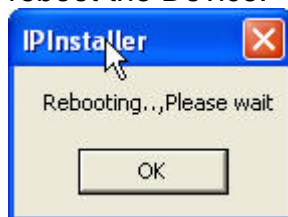
- i. Use the software, “IP Installer” to assign the IP address of IP Camera. The software is in the attached software CD.
- ii. There are two languages for the IP installer
  - a. IPInstallerCht.exe : Chinese version
  - b. IPInstallerEng.exe : English version
- iii. There are 3 kinds of IP configuration.
  - a. Fixed IP (Public IP or Virtual IP)
  - b. DHCP (Dynamic IP)
  - c. Dial-up (PPPoE)
- iv. Please execute IP Installer
- v. For Windows XP SP2 user, the following message box may appear. Please click “Unblock”.



- vi. IP Installer configuration:



- vii. IP Installer will search all IP Cameras connected on Lan. The user can click “Search Device” to search again.
- viii. Click one of the IP Camera listed on the left side. The network configuration of this IP camera will show on the right side. You may change the “name” of the IP Camera to your preference (eg: Office, warehouse). Change the parameter and click “Submit”. The following dialogue box will show. Just click “OK”. It will apply the change and reboot the Device.



- ix. Please make sure the subnet of PC IP address and IP CAM IP address are the same.

**The same Subnet:**

IP CAM IP address: 192.168.1.200

PC IP address: 192.168.1.100

**Different Subnets:**

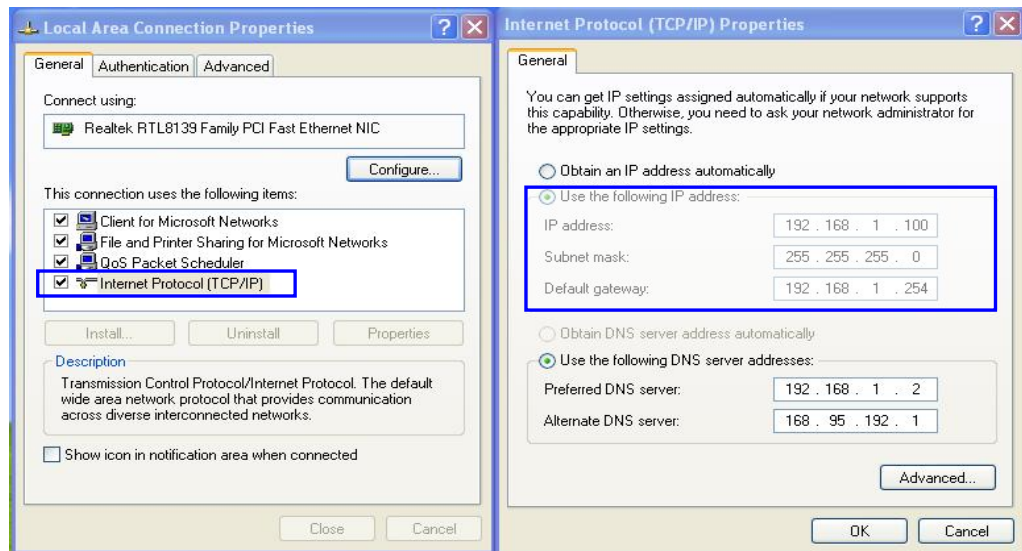
IP CAM IP address: 192.168.2.200

PC IP address: 192.168.1.100

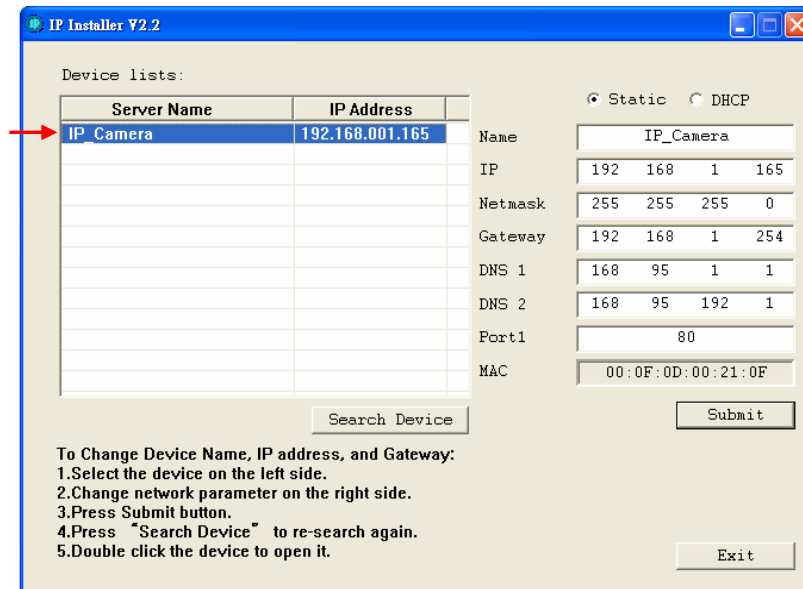
### To Change PC IP address:

Control Panel → Network Connections → Local Area Connection Properties → Internet Protocol (TCP/IP) → Properties

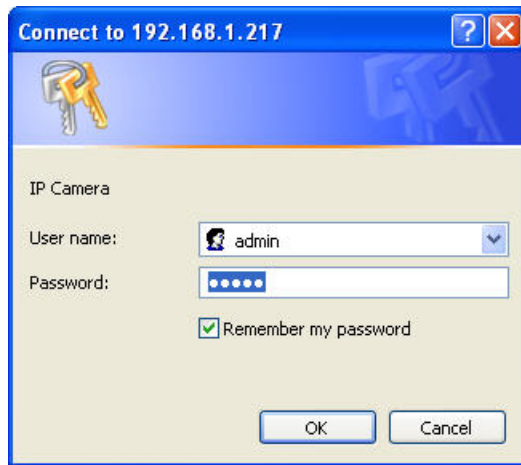
Please make sure your IP Camera and PC have the same Subnet. If not, please change IP Camera subnet or PC IP subnet accordingly.



- x. A quick way to access remote monitoring is to left-click the mouse twice on a selected IP Camera listed on "Device list" of IP Installer. An IE browser will be opened.

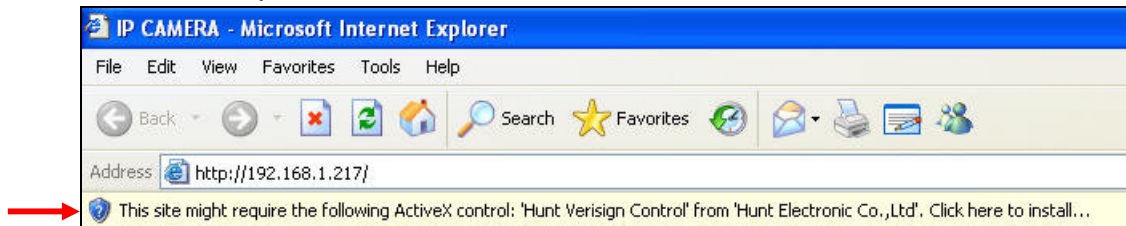


- xi. Then, please key in the default “user name: admin” and “password: admin”.



## D. Install ActiveX control:

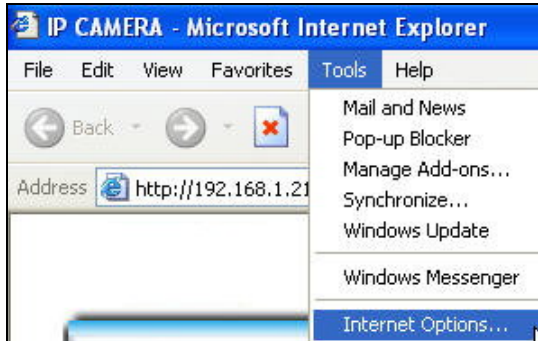
For the first time to view the camera video via IE, it will ask you to install the ActiveX component.



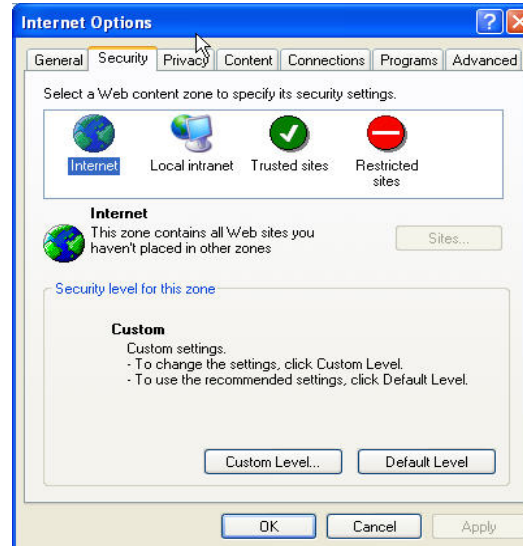
If the installation failed, please check the security setting for the IE browser.

- i. IE → Tools → Internet Options... → Security Tab → Custom Level... → Security Settings → Download unsigned ActiveX controls → Select “Enable” or Prompt.
- ii. IE → Tools → Internet Options... → Security Tab → Custom Level... → Initialize andscript ActiveX controls not marked as safe → Select “Enable” or Prompt.

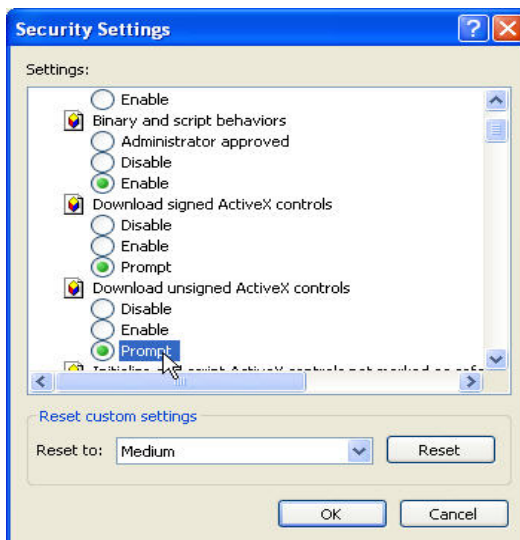
1



2



3

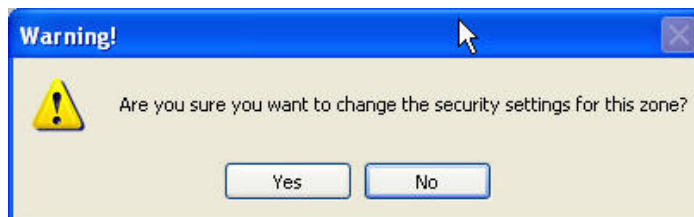


4



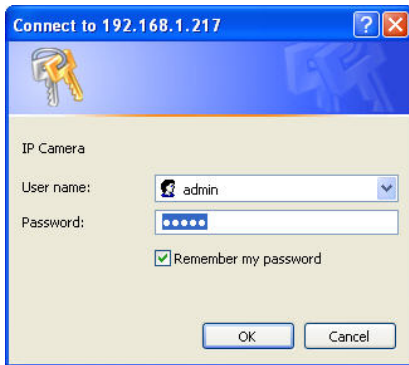
5

When popup the following dialogue box, click “Yes”.



## IV. Live Video



Start an IE browser, type the IP address of the IP Camera in the address field. It will show the following dialogue box. Key-in the user name and password. The default user name and password are “admin” and “admin”.



When connect to the IP Camera ,The following program interface shows.





1.  : Get into the administration page
2.  : Video Snapshot
3. Show system time, video resolution, and video refreshing rate
4. Select video streaming source **(When streaming 2 setting in 『Video Setting』 is closed, this function will not display)**
5. IP Camera supports 2-way audio. Click the “Chatting” check box. Then you can use microphone which connects to the PC to talk to server side, which is IP Camera side
6. Shows how many people connect to this IP camera
7. Control the relay which is connected to this camera.

Double-click the video, it will change to full screen mode. Press “Esc” or double-click the video again, it will change back to normal mode.


Right-Click the mouse on the video, it will show a pop-up menu.



1. Snapshot : Save a jpg picture
2. Record Start : Record video in the local PC. It will ask you where to save the video. To stop recording, right-click the mouse again. Select “Record Stop”. The video format is AVI. Use Microsoft Media Player to play the recorded file.
3. Mute : Turn of the audio. Click again to turn on it.
4. Full Screen : Full-screen mode.

# V. IP Vandal Dome Configuration



Click  to get into the administration page. Click



to back to the live video page.



The screenshot shows the administration page for an IP camera. On the left is a navigation menu with categories: System (System Information, User Management, System Update), Network (IP Setting, PPPoE, DDNS), A/V Setting (Image Setting, Video Setting, Audio), and Event List (Event Setting, I/O Setting, Mail & FTP, SD Card, Log List). The main content area is titled 'System Information' and contains the following settings:

- Server Information:**
  - Server Name:
  - MAC Address:
  - Language:  English  繁體中文  简体中文
- Overlay Setting:**
  - Enabled  Disabled
  - Position:  Top-Left  Top-Right  Bottom-Left  Bottom-Right
- Time Setting:**
  - Server Time: 2007/5/8 10:52:44 Time Zone: GMT+08:00
  - Date Format:  yy/mm/dd  mm/dd/yy  dd/mm/yy
  - Time zone:
  - NTP :
    - NTP Server :
  - Synchronize with PC's time
    - Date :
    - Time :
  - Manual
    - Date :
    - Time :
  - The date and time remain the same

An 'Apply' button is located at the bottom right of the settings area.

# A. System

## i. System Information

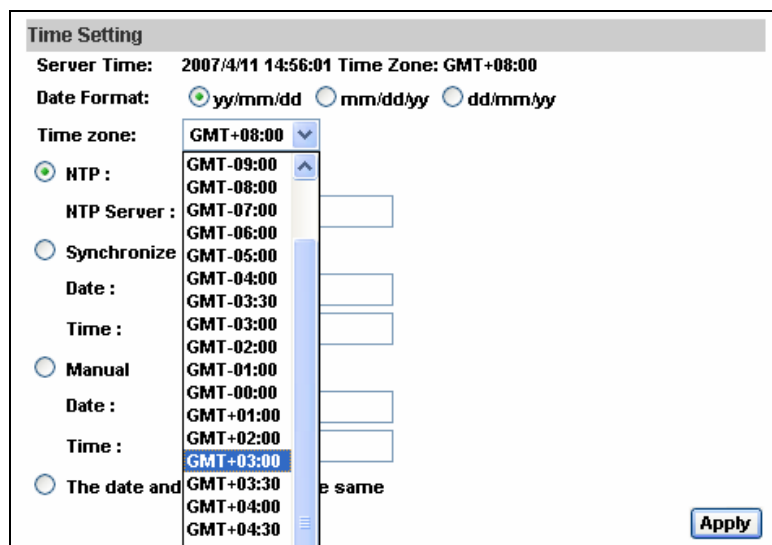
- a. Server Information : Set up the camera name, select language, and set up the camera time.
  1. Server Name : This is the Camera name. This name will show on the IP Installer.
  2. Select language : There are English, Traditional Chinese, and Simple Chinese to select. When changed, it will show the following dialogue box for the confirmation of changing language.



- b. Overlay Setting : select a position where date & time display on screen.

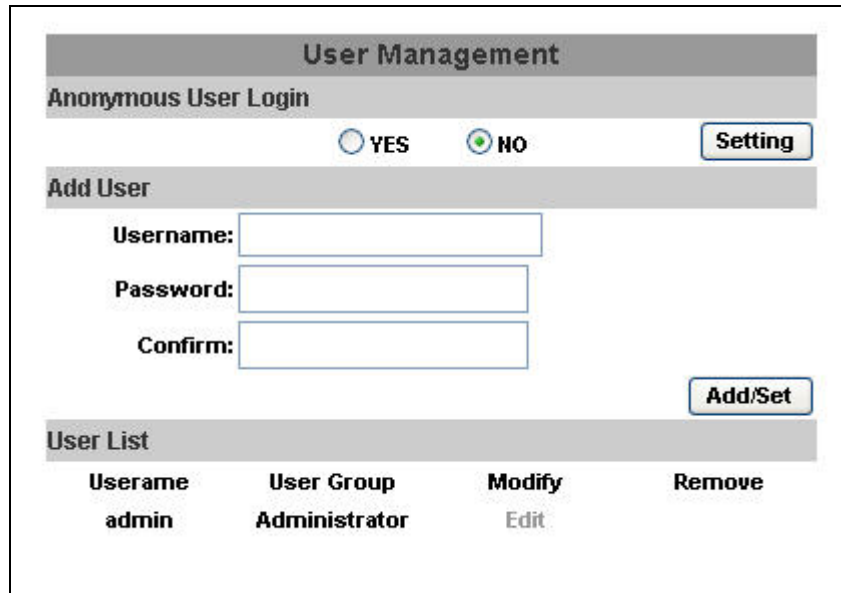


- c. Server time setting : Select options to set up time - "NTP", "Synchronize with PC's time", "Manual", "The date and time remain the same".



ii . User Management

IP Camera supports three different users, administrator, general user, and anonymous user.



The screenshot shows the 'User Management' web interface. It has a title bar 'User Management' and a section 'Anonymous User Login' with radio buttons for 'YES' and 'NO' (where 'NO' is selected) and a 'Setting' button. Below is the 'Add User' section with input fields for 'Username:', 'Password:', and 'Confirm:', and an 'Add/Set' button. At the bottom is the 'User List' section with a table:

Username	User Group	Modify	Remove
admin	Administrator	Edit	

- Anonymous User Login :  
Yes : Allow anonymous login  
No : Need user name & password to access this IP camera
- Add user :  
Type the user name and password, then click "Add/Set".
- Click "edit" or "delete" to modify the user.



The screenshot shows a 'User Setup' dialog box within a Microsoft Internet Explorer window. The dialog has a title bar 'User\_Setting - Microsoft Internet Explorer'. It contains input fields for 'Username:' (with 'admin' entered), 'Password:', and 'Confirm:', and an 'OK' button.

iii、System update：

System Update	
<b>Firmware Upgrade</b>	
Firmware Version:	V3.2.11
New Firmware:	<input type="text"/> 瀏覽...
<input type="button" value="Upgrade"/>	
<b>Reboot System</b>	
<input type="button" value="Start"/>	
<b>Factory Default</b>	
<input type="button" value="Start"/>	
<b>Setting Management</b>	
Save As a File:	Right click the mouse button on <b>Setting Download</b> and then select <b>Save As...</b> to save current system's setting in the PC.
New Setting File:	<input type="text"/> 瀏覽...
<input type="button" value="Upgrade"/>	

- a. To update the firmware online, click “Browse...” to select the firmware. Then click “Upgrade” to the proceed.
- b. Reboot system：re-start the IP camera
- c. Factory default：delete all the settings and restore defaults system.
- d. Setting Management：User may download the current setting to PC, or upgrade from previous saved setting.
  1. Setting download:  
Right-click the mouse button on Setting Download → Select “Save AS...” to save current IP CAM setting in PC → Select saving directory → Save
  2. Upgrade from previous setting  
Browse → search previous setting → open → upgrade → Setting update confirm → click **index.html**. to return to main page

## B.Network

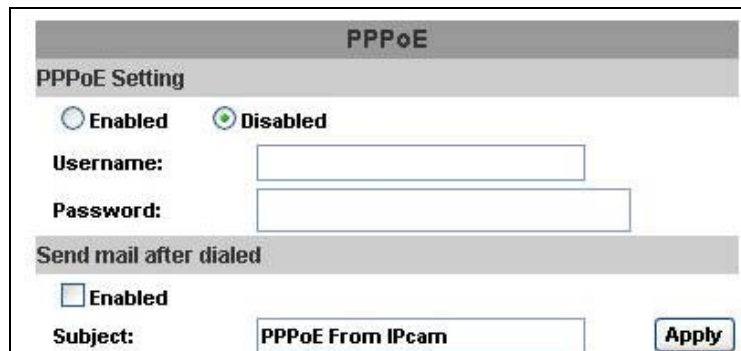
### i. IP Setting

IP Vandal Dome supports DHCP and static IP.

IP Setting	
<b>IP Assignment</b>	
<input type="radio"/> DHCP	
<input checked="" type="radio"/> Static	
IP Address:	<input type="text" value="192.168.1.200"/>
Subnet Mask:	<input type="text" value="255.255.255.0"/>
Gateway:	<input type="text" value="192.168.1.254"/>
DNS 0:	<input type="text" value="168.95.1.1"/>
DNS 1:	<input type="text" value="168.95.192.1"/>
<b>Port Assignment</b>	
Web Page Port:	<input type="text" value="80"/>
RTSP Port :	<input type="text" value="554"/>
RTP Start Port:	<input type="text" value="5000"/> [1024..10000]
RTP End port:	<input type="text" value="9000"/> [1025..10000]
<b>UPnP</b>	
UPnP:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
<input type="button" value="Apply"/>	

- a. DHCP : Using DHCP, IP Vandal Dome will get all the network parameters automatically.
- b. Static IP : Please type in IP address, subnet mask, gateway, and DNS manually.
- c. Port Assignment: user may need to assign different port to avoid conflict when setting up IP assignment.
  1. Web Page Port: setup web page connecting port and video transmitting port (Default: 80)
  2. RTSP Port: setup port for RTSP transmitting (Default: 554)
  3. RTP Start and End Port: in RTSP mode, you may use TCP and UDP for connecting. TCP connection uses RTSP Port (554). UDP connection uses RTP Start and End Port.
- d. UPnP (Universal Plug and play): Display UPnP device icon in 『 My Network Places 』 for hyper link.

ii 、 PPPoE :



The screenshot shows the PPPoE configuration page. At the top, there is a header 'PPPoE' and a sub-header 'PPPoE Setting'. Below this, there are two radio buttons: 'Enabled' (unselected) and 'Disabled' (selected). There are two text input fields for 'Username:' and 'Password:'. Below these is a section 'Send mail after dialed' with a checkbox for 'Enabled' (unselected) and a text input field for 'Subject:' containing 'PPPoE From IPcam'. An 'Apply' button is located at the bottom right of the form.

Select “Enabled” to use PPPoE.

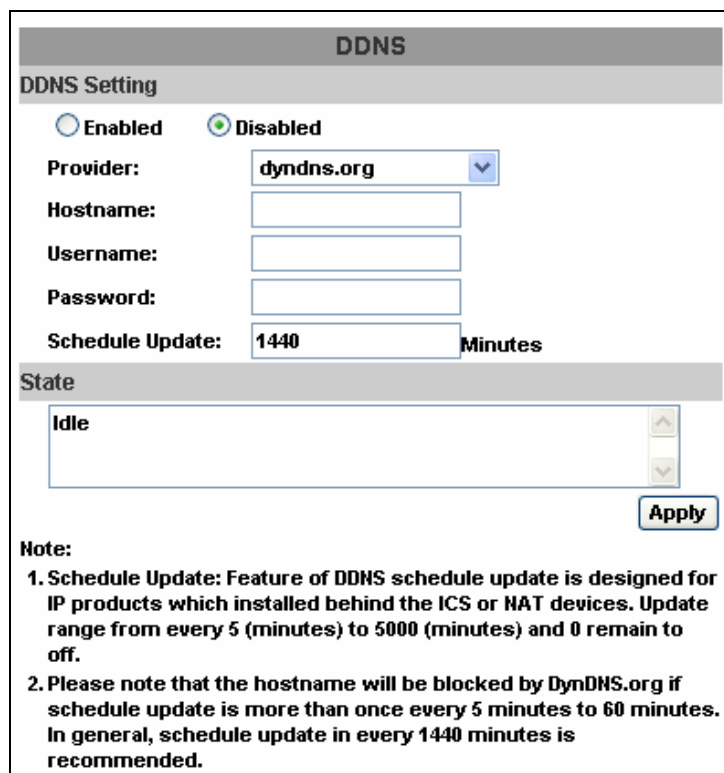
Key-in Username and password for the ADSL connection.

Send mail after dialed : When connect to the internet, it will send a mail to a specific mail account. For the mail setting, please refer to “Mail and FTP” settings.

iii 、 DDNS :

IP Vandal Dome supports DDNS (Dynamic DNS) service.

a. DynDNS :



The screenshot shows the DDNS configuration page. At the top, there is a header 'DDNS' and a sub-header 'DDNS Setting'. Below this, there are two radio buttons: 'Enabled' (unselected) and 'Disabled' (selected). There is a dropdown menu for 'Provider:' with 'dyndns.org' selected. There are three text input fields for 'Hostname:', 'Username:', and 'Password:'. There is a text input field for 'Schedule Update:' with '1440' and 'Minutes' next to it. Below these is a section 'State' with a dropdown menu showing 'Idle'. An 'Apply' button is located at the bottom right of the form. Below the form, there is a 'Note:' section with two numbered points.

**Note:**

1. Schedule Update: Feature of DDNS schedule update is designed for IP products which installed behind the ICS or NAT devices. Update range from every 5 (minutes) to 5000 (minutes) and 0 remain to off.
2. Please note that the hostname will be blocked by DynDNS.org if schedule update is more than once every 5 minutes to 60 minutes. In general, schedule update in every 1440 minutes is recommended.

1. Please enable this service
2. Key-in the DynDNS server name, user name, and password.
3. Set up the IP Schedule update refreshing rate.

4. Click “Apply”
  5. If setting up IP schedule update too frequently, the IP may be blocked. In general, schedule update every day (1440 minutes) is recommended.
- b. Camddns service :

**DDNS**

**DDNS Setting**

Enabled     Disabled

Provider:  ▼

Username:

Schedule Update:  Minutes

**State**

Idle

**Note:**

1. Schedule Update: Feature of DDNS schedule update is designed for IP products which installed behind the ICS or NAT devices. Update range from every 5 (minutes) to 5000 (minutes) and 0 remain to off.
2. Please note that the hostname will be blocked by DynDNS.org if schedule update is more than once every 5 minutes to 60 minutes. In general, schedule update in every 1440 minutes is recommended.

1. Please enable this service
  2. Key-in user name.
  3. IP Schedule update is default at 5 minutes
  4. Click “Apply”.
- c. DDNS Status
1. Updating : Information update
  2. Idle : Stop service
  3. DDNS registration successful, can now log by  
<http://<username>.ddns.camddns.com> : Register successfully.
  4. Update Failed, the name is already registered : The user name has already been used. Please change it.
  5. Update Failed, please check your internet connection : Network connection failed.
  6. Update Failed, please check the account information you provide : The server, user name, and password may be wrong.



## C.A/V Setting

### i \ Image Setting



Adjust “Brightness”, “Contrast”, “Hue”, “Saturation” to get clear video. If needed, please select “Back Light Compensation” ON to compensate back light situation

- ii \ This is an Auto Iris IP Camera. If the video is over bright or over exposed, please adjust the Auto Iris Level to improve the video
  - a. Before adjust Auto Iris Level, please turn off the Back Light Compensation
  - b. Please refer to following diagram to make proper Auto Iris Level adjustment



**Auto Iris Level**

### iii \ Video Setting

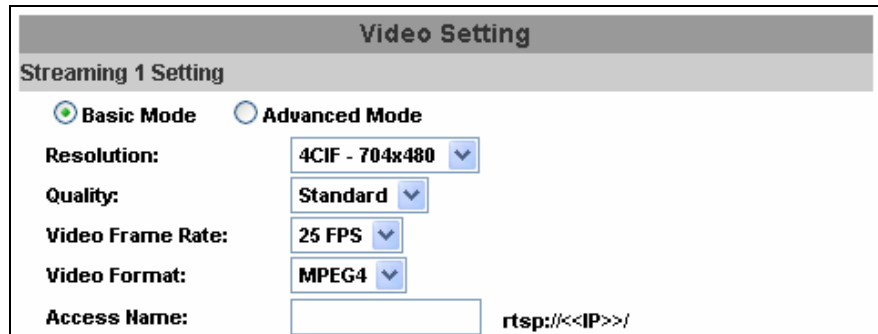
User may select 2 streaming output simultaneously:

Streaming 1 Setting: Basic mode and Advanced mode

Streaming 2 Setting: Basic mode, Advanced mode, and 3GPP mode

**(Max Video Frame Rate for both streaming combined is 30 FPS)**

a. Streaming 1 Basic Mode :



The screenshot shows the 'Video Setting' window for 'Streaming 1 Setting'. It is in 'Basic Mode'. The settings are as follows:

- Resolution:** 4CIF - 704x480
- Quality:** Standard
- Video Frame Rate:** 25 FPS
- Video Format:** MPEG4
- Access Name:** rtsp://<<IP>>/

1. Resolution :

There are 4 resolutions to choose.

	NTSC	/	PAL
D1	720x480	/	720x576
4CIF	704x480	/	704x576
CIF	352x240	/	352x288
QCIF	176x120	/	176x144

2. Quality :

There are 5 levels to adjust:

Best/ High/ Standard/ Medium/ Low

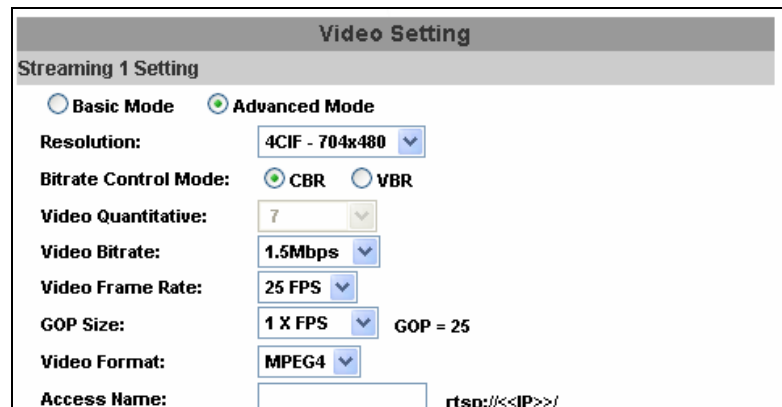
The higher the quality is, the bigger the file size is.

Also not good for internet transmitting

3. Video Format : MPEG4 or JPEG.

4. Access Name: RTSP output name

b. Streaming 1 Advanced Mode :



The screenshot shows the 'Video Setting' window for 'Streaming 1 Setting' in 'Advanced Mode'. The settings are as follows:

- Resolution:** 4CIF - 704x480
- Bitrate Control Mode:** CBR
- Video Quantitative:** 7
- Video Bitrate:** 1.5Mbps
- Video Frame Rate:** 25 FPS
- GOP Size:** 1 X FPS (GOP = 25)
- Video Format:** MPEG4
- Access Name:** rtsp://<<IP>>/

1. Resolution :

There are 4 resolutions to choose.

	NTSC	/	PAL
D1	– 720×480	/	720×576
4CIF	– 704×480	/	704×576
CIF	– 352×240	/	352×288
QCIF	– 176×120	/	176×144

2. Bitrate Control Mode

There are CBR [ Constant Bit Rate ] and VBR [ Variable Bit Rate ] to use.

CBR : 64Kbps~4Mbps – Increase CBR to increase the picture quality; vise versa

VBR : 1(Low)~10(High) – Compression rate, the higher the compression rate, the lower the picture quality is; vise versa. The balance between VBR and network bandwidth will affect picture quality. Please carefully select the VBR rate to avoid picture breaking up or lagging.

3. Video Frame Rate

Picture display frame per second

NTSC: Max 30 frames/second PAL: Max 25 frames/second

4. GOP Size

It means "Group of Pictures". The higher the GOP is, the better the quality is.

5. Video Format :

There are 2 Video Format to choose

MPEG4 or JPEG.

6. Access Name: RTSP output connecting route

c. Streaming 2 Basic Mode :

**Streaming 2 Setting**

Basic Mode  
  Advanced Mode  
  3GPP Mode  
  Close

Resolution:

Quality:

Video Frame Rate:

Video Format:

Access Name:      rtsp://<<IP>>/v2

3GPP:      rtsp://<<IP>>/3g

1. Resolution :

There are 4 resolutions to choose.

	NTSC	/	PAL
D1	– 720x480	/	720x576
4CIF	– 704x480	/	704x576
CIF	– 352x240	/	352x288
QCIF	– 176x120	/	176x144

2. Quality :

There are 5 levels to adjust:

Best/ High/ Standard/ Medium/ Low

The higher the quality is, the bigger the file size is. Also not good for internet transmitting

3. Video Format : MPEG4 or JPEG

4. Access Name: RTSP output connecting route

5. 3GPP: 3GPP output name

d. Streaming 2 Advanced Mode :

**Streaming 2 Setting**

Basic Mode  
  Advanced Mode  
  3GPP Mode  
  Close

Resolution:

Bitrate Control Mode:  CBR    VBR

Video Quantitative:

Video Bitrate:

Video Frame Rate:

GOP Size:      GOP = 5

Video Format:

Access Name:      rtsp://<<IP>>/v2

3GPP:      rtsp://<<IP>>/3g

1. Resolution :

There are 4 resolutions to choose.

	NTSC	/	PAL
D1	– 720x480	/	720x576
4CIF	– 704x480	/	704x576
CIF	– 352x240	/	352x288
QCIF	– 176x120	/	176x144

2. Bitrate Control Mode

There are CBR [ Constant Bit Rate ] and VBR [ Variable Bit Rate ] to use.

CBR : 64Kbps~4Mbps (the higher the CBR is, the better the video quality is)

VBR : 1~10 (Compression Rate)

3. Video Frame Rate

The video refreshing rate per second.

4. GOP Size

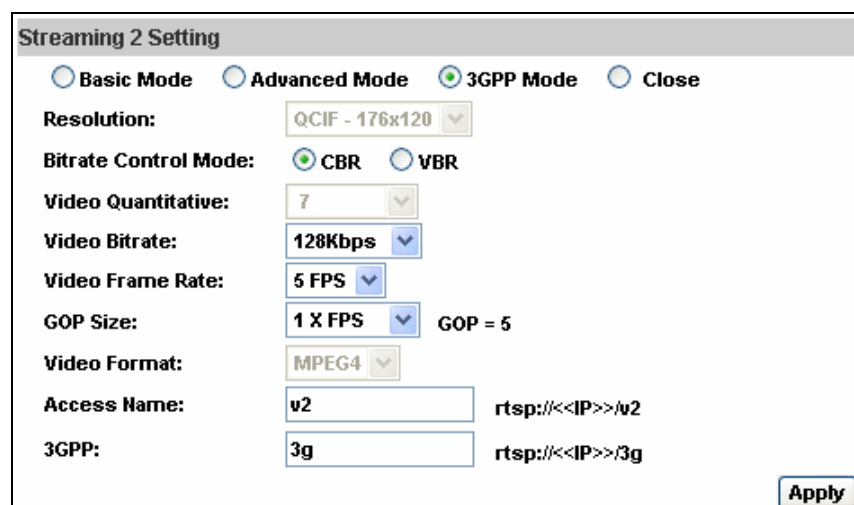
It means "Group of Pictures". The higher the GOP is, the better the quality is.

5. Video Format : MPEG4 or JPEG

6. Access Name: RTSP output name

7. 3GPP: 3GPP output name

e. Streaming 2, 3GPP mode:



The screenshot shows a dialog box titled "Streaming 2 Setting". It has four radio buttons at the top: "Basic Mode", "Advanced Mode", "3GPP Mode" (which is selected), and "Close". Below the radio buttons are several settings:

- Resolution:** A dropdown menu showing "QCIF - 176x120".
- Bitrate Control Mode:** Two radio buttons, "CBR" (selected) and "VBR".
- Video Quantitative:** A dropdown menu showing "7".
- Video Bitrate:** A dropdown menu showing "128Kbps".
- Video Frame Rate:** A dropdown menu showing "5 FPS".
- GOP Size:** A dropdown menu showing "1 X FPS", with "GOP = 5" displayed to its right.
- Video Format:** A dropdown menu showing "MPEG4".
- Access Name:** A text input field containing "v2", with the RTSP URL "rtsp://<<IP>>/v2" shown to its right.
- 3GPP:** A text input field containing "3g", with the RTSP URL "rtsp://<<IP>>/3g" shown to its right.

An "Apply" button is located at the bottom right of the dialog box.

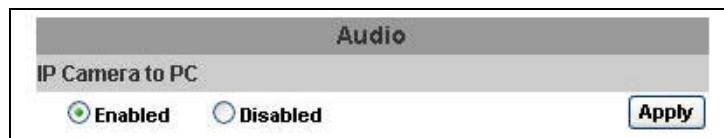
**3GPP mode suggest setting: QCIF, lower than 128kbps, 5FPS, GOP= 1x FPS or 2x FPS, MPEG4 format**

1. Fix Resolution :  
QCIF – 176x120 / 176x144
2. Bitrate Control Mode  
There are CBR [ Constant Bit Rate ] and VBR [ Variable Bit Rate ] to use.  
CBR : 64Kbps~4Mbps (the higher the CBR is, the better the video quality is)  
VBR : 1~10 (Compression Rate)
3. Video Frame Rate ( **5 FPS is recommended** )  
The video refreshing rate per second.
4. GOP Size  
It means "Group of Pictures". The higher the GOP is, the better the quality is.
5. Video Format : MPEG4 or JPEG
6. Access Name: RTSP output name
7. 3GPP: 3GPP output name

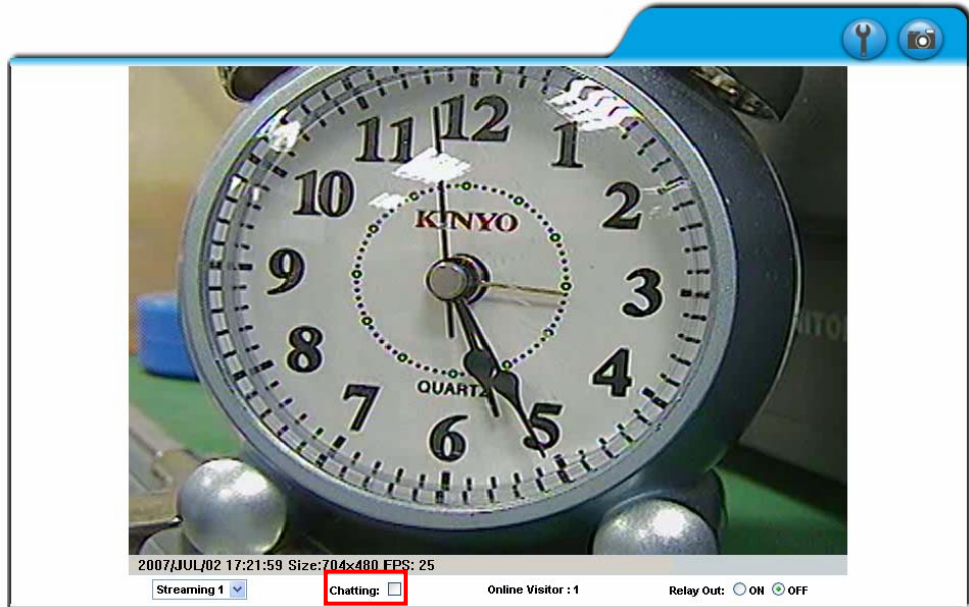
iv 、 Audio :

IP Vandal Dome supports 2-way audio.

- a. For IP camera to local PC, select "Enable" to start this function  
(When enabled, you can send audio via external mic in the IP Camera)



- b. For local PC to IP camera, check "chatting" in the browsing page  
(You will need a mic to send audio from local PC to IP Camera)



The Audio will not be smooth when enable SD card recording function simultaneously.

## D.Event List

IP Vandal Dome provides multiple event settings.

i、 Event Setting



a. Motion Detection

IP CAMERA allows 3 areas motion detection. When motion is triggered, it can send video to some specific mail addresses, transmit video to remote ftp server, trigger the relay, and save video to local SD card. To set up the motion area, click “Area Setting”. Using mouse to drag and set the area. The same operation for area 2 and 3.

b. Record Time Setting : Pre Alarm and Post Alarm setups for video start and end time when motion detected, I/O, or other devices got triggered.

c. Network Dis-connected

When the network is down, it will save the video to local SD card.

**This function is only enabled in wire connection.**



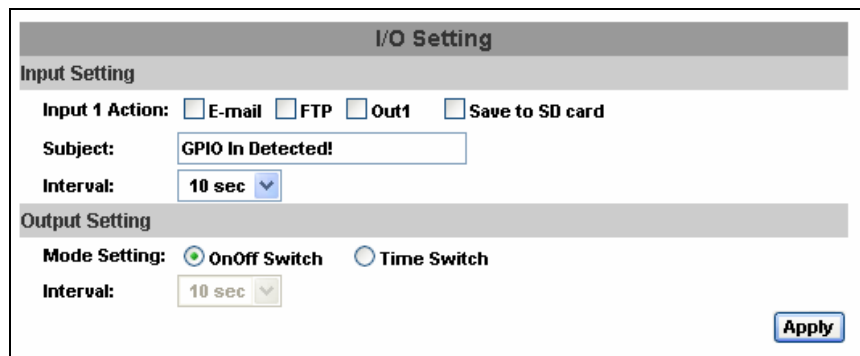
d. Network IP check

For the use of recording software, IP CAMERA supports the detection of network connection. Whenever the connection is down, it records the video to SD card. To use this function, key in the IP address of the PC which is installed in the recording software, and enable the function of “Save to SD card”, then click “Apply”.

**The interval of two video files on SD card is fixed with 30 seconds.**

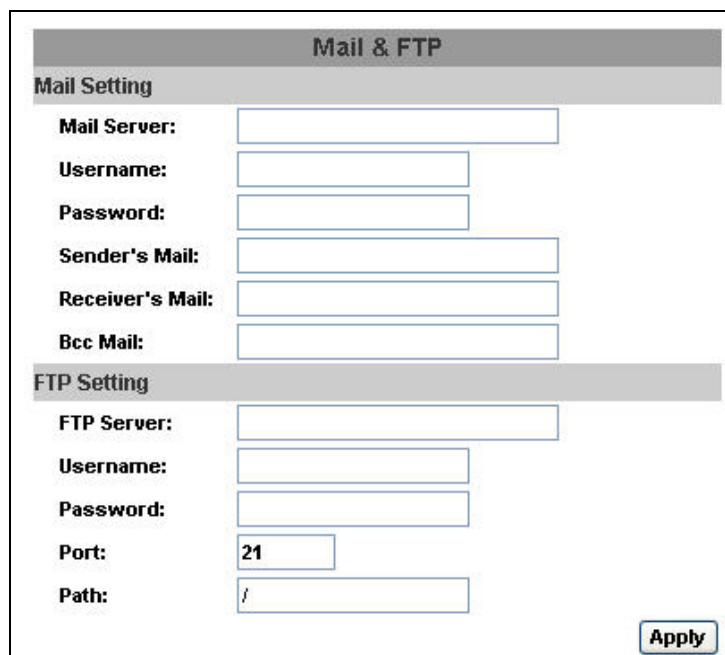
ii \ I/O Setting

IP Camera supports 1 input/ 1 output. When input is triggered, it can send the video to some specific mail addresses, transmit the video to remote ftp server, trigger the relay, and save video to local SD card.



iii \ Mail & FTP

To send out the video via mail of ftp, please set up the configuration first.



iv、SD card

Please Insert SD card before use it. Make sure pushing SD card into the slot completely.

Note : The use of the SD card will affect the operation of the IP Vandal Dome slightly, such as affecting the frame rate of the



a. Playback :



1. It will show the capacity of the SD card. Click the date listed on this page. It will show the list of the video.

2006/04/17			Del
Time	Video	Event Type	<input type="checkbox"/>
09:05:22	090522f.avi	Network Dis-connected	<input type="checkbox"/>
09:05:52	090552f.avi	Network Dis-connected	<input type="checkbox"/>
09:06:22	090622f.avi	Network Dis-connected	<input type="checkbox"/>
09:06:52	090652f.avi	Network Dis-connected	<input type="checkbox"/>
09:07:22	090722f.avi	Network Dis-connected	<input type="checkbox"/>
09:07:52	090752f.avi	Network Dis-connected	<input type="checkbox"/>
09:08:22	090822f.avi	Network Dis-connected	<input type="checkbox"/>
09:08:51	090851f.avi	Network Dis-connected	<input type="checkbox"/>
09:09:21	090921f.avi	Network Dis-connected	<input type="checkbox"/>
09:09:51	090951f.avi	Network Dis-connected	<input type="checkbox"/>

1 2 3 4 5

2. The video format is AVI. Click the video to start Microsoft Media Player to play it.
3. To delete the video, check it, then click **Del**. When the SD card is full, it will remove the oldest video automatically.

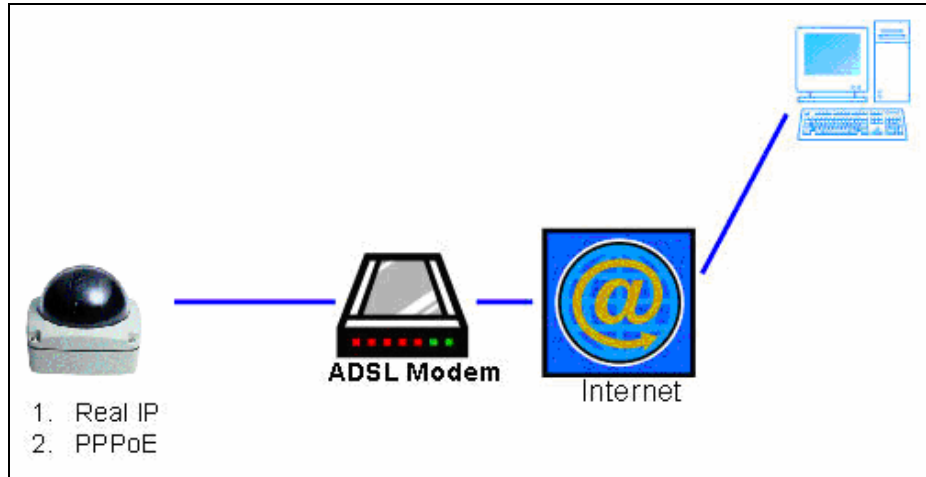
v、Log List

Log List	
System Logs	<a href="#">Logs</a>
Motion Detection Logs	<a href="#">Logs</a>
I/O Logs	<a href="#">Logs</a>
All Logs	<a href="#">Logs</a>

Sort by System Logs, Motion Detection Logs and I/O Logs. In addition, System Logs and I/O Logs won't lose data due to power failure.

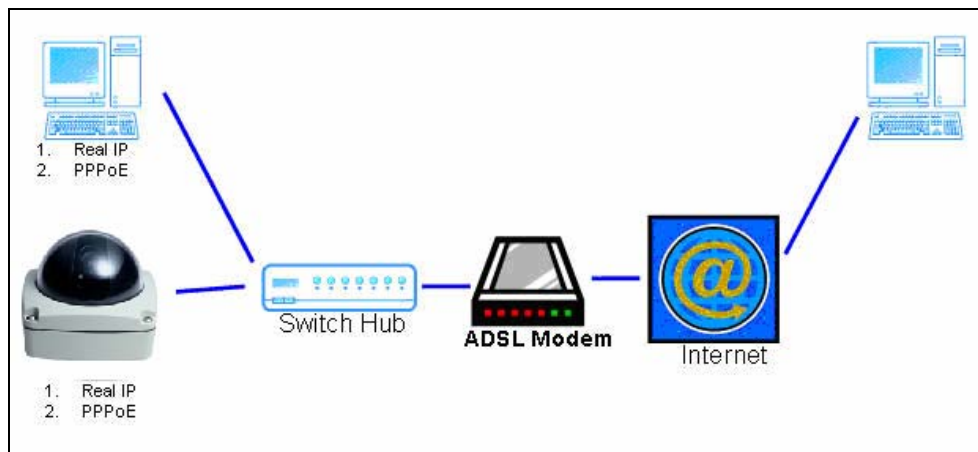
## VI. Network Configuration

i 、 Configuration 1 :



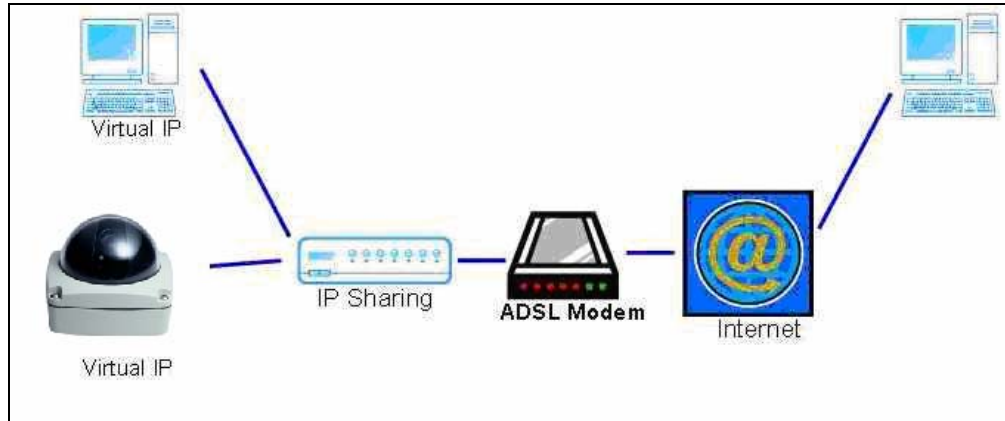
- a. Internet Access : ADSL or Cable Modem
- b. IP address : One real IP or one dynamic IP
- c. Only IP Vandal Dome connects to the internet
- d. For fixed real IP, set up the IP into IP Vandal Dome. For dynamic IP, start PPPoE.

ii 、 Configuration 2 :



- a. Internet Access : ADSL or Cable Modem
- b. IP address : More than one real IP or one dynamic IP
- c. IP Vandal Dome and PC connect to the internet
- d. Device needed : Switch Hub
- e. For fixed real IP, set up the IP into IP Vandal Dome and PC. For dynamic IP, start PPPoE.

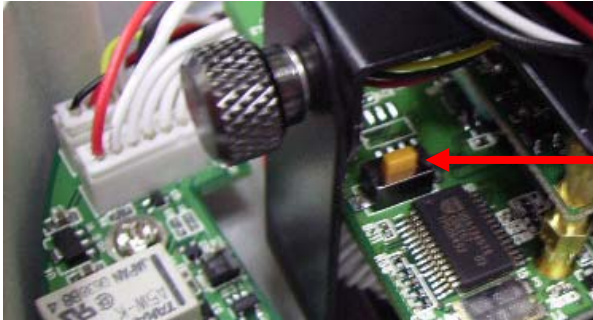
iii 、 Configuration 3 :



- a. Internet Access : ADSL or Cable Modem
- b. IP address : one real IP or one dynamic IP
- c. IP Vandal Dome and PC connect to the internet
- d. Device needed : IP sharing
- e. Use virtual IP, set up port forwarding in IP sharing.

## VII. Factory Default

- i \ To recover the default IP address and password, please follow the following steps.
- ii \ Press and hold the button in the back of IP Vandal Dome.



**Factory Default**

- iii \ Power on the camera. Don't release the button during the system booting.
- iv \ It will take around 30 seconds to boot the camera.
- v \ Release the button when camera finishes proceed.
- vi \ Re-login the camera using the default IP (<http://192.168.1.200>), and user name (admin), password (admin).

## VIII. Package contents

- i \ IP Vandal Dome Network Camera
- ii \ Adaptor
- iii \ Ethernet Cable
- iv \ CD title (User manual, IP installation Utility)

# Appendix I

SD Card Recommended :

SanDisk 128M	Transcend 128M 80X
SanDisk 256M	Transcend 256M 80X
SanDisk 512M	Transcend 512M 80X
SanDisk 1G	Transcend 1G 80X
SanDisk 2G	Transcend 2G 80X
SanDisk 4G	Transcend 4G 80X