

**x33** *iP* **Anti-Vandal**  
Speed Dome Camera

*User's Manual*

# Safety Information



## CAUTION

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.



### Warning

This symbol indicates that dangerous voltage consisting a risk of electric shock is present within this unit.



### Precaution

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 damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

## WARNING

2. Be sure to use only the standard adapter that is specified in the specification sheet. Using any other adapter could cause fire, electrical shock, or damage to the product.
3. Incorrectly connecting the power supply or replacing battery may cause explosion, fire, electric shock, or damage to the product.
4. Do not connect multiple cameras to a single adapter. Exceeding the capacity may cause abnormal heat generation or fire.
5. Securely plug the power cord into the power receptacle. Insecure connection may cause fire.
6. When installing the camera, fasten it securely and firmly. A falling camera may cause personal injury.
7. Do not place conductive objects (e.g. screw drivers, coins, metal things, etc.) or containers filled with water on top of the camera. Doing so may cause personal injury due to fire, electric shock, or falling objects.
8. Do not install the unit in humid, dusty, or sooty locations. Doing so may cause fire or electric shock.
9. If any unusual smells or smoke come from the unit, stop using the product. In such case, immediately disconnect the power source and contact the service center. Continued use in such a condition may cause fire or electric shock.
10. If this product fails to operate normally, contact the nearest service center. Never disassemble or modify this product in any way.
11. When cleaning, do not spray water directly onto parts of the product. Doing so may cause fire or electric shock.

## 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 Special 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.
- Care must be taken when you clean the clear dome cover. Especially, scratch and dust will ruin your quality of camera.

### Installation and Storage

- Do not install the camera in areas of extreme temperature, which exceed the allowable range.
- Avoid installing in humid or dusty places.
- Avoid installing in places where radiation is present.
- 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.

# Disposal of Your Appliance

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## Disposal of Your Old Appliance

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1. When this crossed-out wheel bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated by the government or the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

# Important Safety Instructions

1. **Read these instructions.** - All these safety and operating instructions should be read before the product is operated.
2. **Keep these instructions.** - The safety, operating and use instructions should be retained for future reference.
3. **Heed all warnings.** - All warnings on the product and in the operating instructions should be adhered to.
4. **Follow all instructions.** - All operating and use instructions should be followed.
5. **Do not use this apparatus near water.** - For example: near a bath tub, wash bowl, kitchen sink, laundry tub, in a wet basement; near a swimming pool; etc.
6. **Clean only with dry cloth.** - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners.
7. **Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.** - Slots and openings in the cabinet are provided for ventilation, to ensure reliable operation of the product, and to protect it from over-heating. The openings should never be blocked by placing the product on bed, sofa, rug or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and the manufacturer's instructions have been adhered to.
8. **Do not install near any heat sources such as radiators, heat registers, or other apparatus (including amplifiers) that produce heat.**
9. **Do not defeat the safety purpose of the polarized or grounding-type plug.** A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. **Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.**
11. **Only use attachments/accessories specified by the manufacturer.**
12. **Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.**
13. **Unplug this apparatus during lightning storms or when unused for long periods of time.**
14. **Refer all servicing to qualified service personnel.** Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



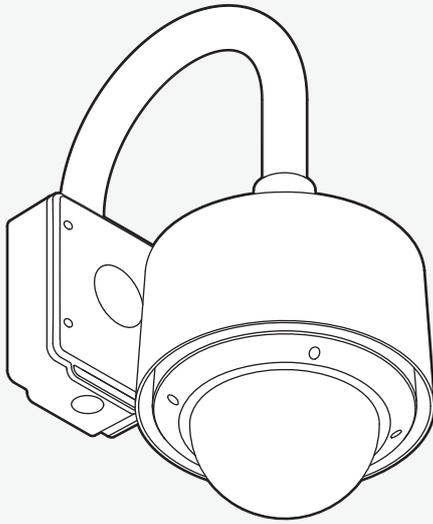
# Contents

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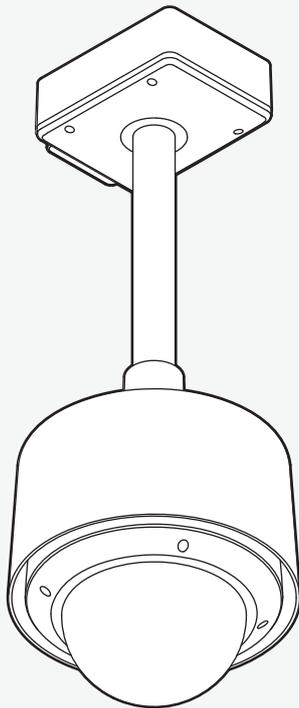
<b>1. Introduction</b>	6 Product & Accessories 7 Parts Name & Functions
<b>2. Installation</b>	8 DIP Switch Setup 10 Installation Using Wall Mount Bracket 15 Cabling 17 Cabling the Audio Cable
<b>3. Network Setup</b>	18 Quick Start of Network Connection 19 Initial Setup via a Crossover Cable 20 DDNS Registration 21 Guide to Network Environment 22 Setup Case A, B 23 Setup Case C, D 24 Port Forwarding 25 Starting IP Speed Dome
<b>4. Web Viewer Screen</b>	26 Basic Screen 27 PTZ Control & Aux Function Control 28 Backup Control & OSD Setup 29 Etc. Setup & Motion Detection Setup 30 Auto-map 31 Viewer Interface
<b>5. Setup</b>	32 Setup Screen 33 Video Setup 34 TCP/IP Setup 35 DDNS Setup 36 TCP/IP Status 37 Alarm Input Setup 38 Motion Detection Setup 39 Schedule Setup 40 Transfer Setup 41 FTP Setup 42 SMTP Setup 43 SD CARD Setup 44 Users Setup 45 Date/Time Setup 46 Firmware Update 47 Default Set 48 Reboot
<b>6. OSD</b>	49 Check Points before Operation 50 Aux Functions 51 OSD Information 52 General Rules of Menu Operation 53 ROOT MENU & SYSTEM INFORMATION 54 DISPLAY SETUP 55 MOTION SETUP 56 FUNCTION SETUP > PRESET SETUP 58 FUNCTION SETUP > SCAN SETUP 59 FUNCTION SETUP > PATTERN SETUP 60 FUNCTION SETUP > GROUP SETUP 62 FUNCTION SETUP > SCHEDULE SETUP 64 CAMERA SETUP > WB SETUP 65 CAMERA SETUP > AE SETUP 66 SYSTEM SETUP 68 SYSTEM INITIALIZE
<b>7. Appendix</b>	69 A : Current TCP/IP Settings 70 B : Changing IP address and subnet mask 71 C : Port Forwarding
<b>8. FAQ</b>	73 FAQ
<b>9. Specification</b>	74 Demension 75 Specifications

# 1 Introduction - Product & Accessories

## Product

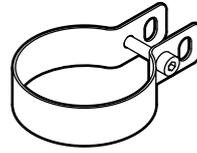


Wall Mount Type

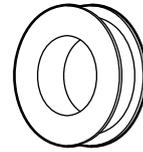


Ceiling Mount Type

## Accessories



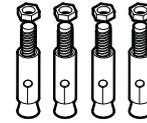
Housing Safety Cable Hanger



Water Proof Tape



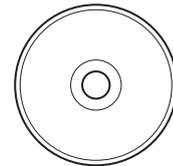
Hexagonal Wrench



Anchor Bolt(4pcs)



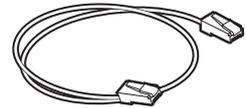
Hole Template



Installation CD  
User's Manual



Safety Wire

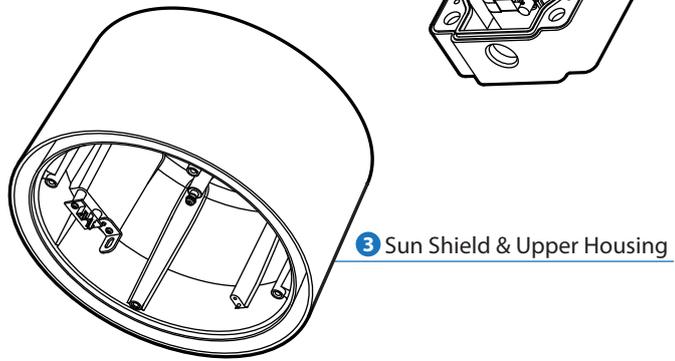
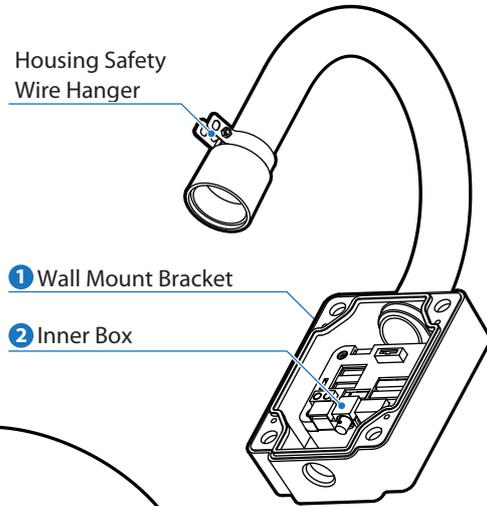
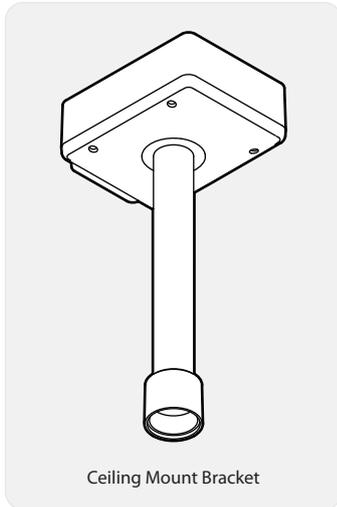


Crossover Cable

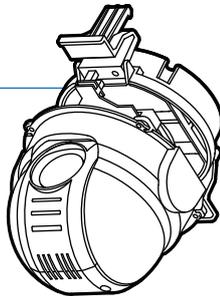
# 1 Introduction - Part Name & Functions

## 1 Wall/Ceiling Mount Bracket

These are used to install the camera on the wall or ceiling and have junction box. The junction box of the bracket accommodate inner box.



PTZ Mechanism



## 2 Inner Box

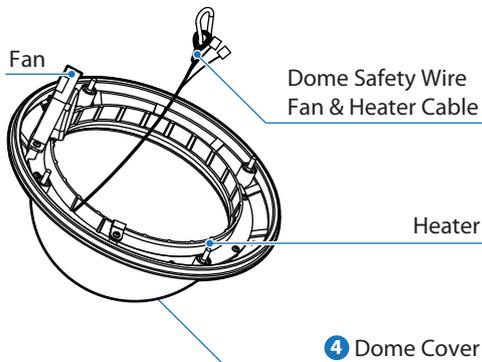
The inner has many important roles of connection box between camera and outside. Top of the box, there are dip switches and terminal locks for power supply, video, communication, alarm input/output.

## 3 Sunshield & Upper Housing

Sunshield protect bubble dome cover from the sun rays and rain fall. In the sunshield, there is the upper housing which will contain accommodate PTZ mechanism. Also, the upper housing will be connected to both mounting brackets and dome cover.

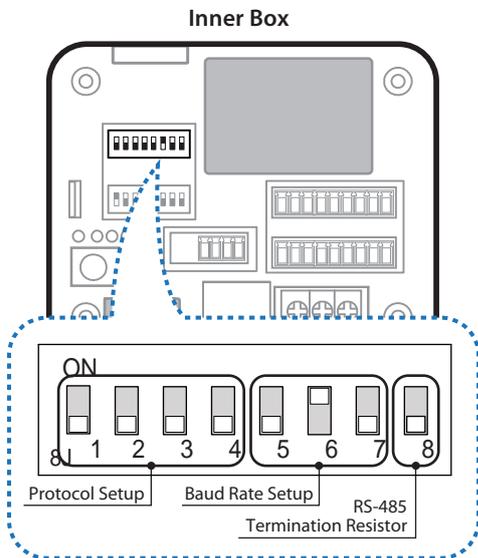
## 4 Dome Cover

Do not detach protection vinyl from dome cover before finishing all installation process to protect dome cover from scratches or dust. In the dome cover, there are fan and heater to remove moisture on the bubble dome.

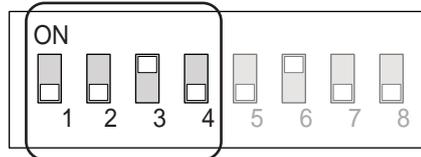


# 2 Installation - DIP Switch Setup

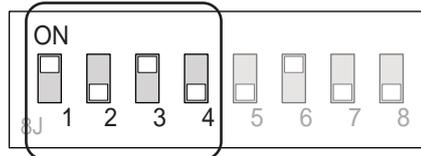
⚠ Before installing the camera, you should set the DIP switch to configure the camera ID, communication protocol.



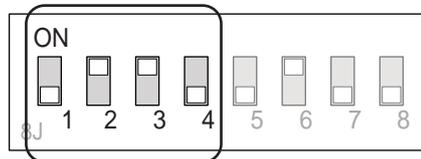
## 5 Panasonic



## 6 GE(Kalatel)



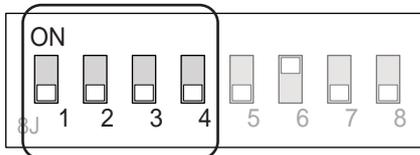
## 7 AD(American Dynamics)



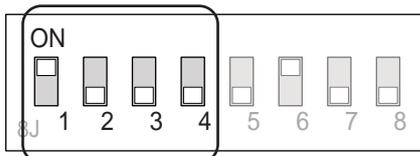
### 1. Communication Protocol Setup

Select the appropriate protocol with DIP switch combination.

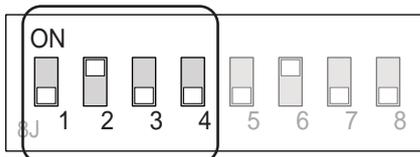
#### 1 Auto - Factory Default



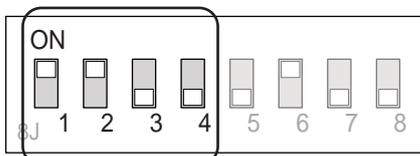
#### 2 PELCO-D



#### 3 PELCO-P



#### 4 SAMSUNG



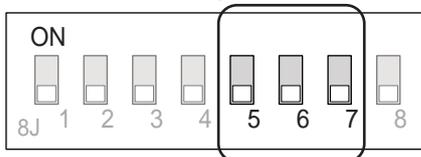
- If you set the protocol as 'Auto' protocol, camera will automatically recognize PELCO-D or PELCO-P protocol.
- If you want to control using DVR or system keyboard, their protocol must be identical to camera. Otherwise, you can not control the camera.
- If you change camera protocol by changing DIP switch, the change will be effective after you reboot the camera.

# 2 Installation - DIP Switch Setup

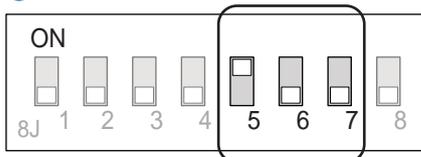
## 2. Communication Baud Rate Setup

Select the appropriate baud rate with DIP switch combination.

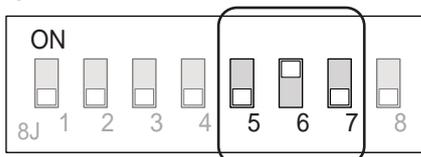
### 1 2400 BPS - Factory Default



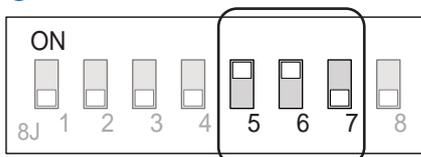
### 2 4800 BPS



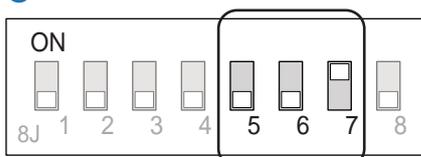
### 3 9600 BPS



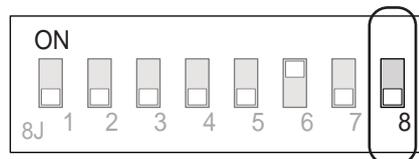
### 4 19200 BPS



### 5 38400 BPS



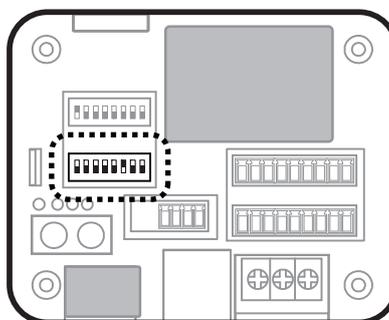
## 3. RS-485 Termination Resistor



- Pin 8 is used for on/off of RS-485 termination.
- Normally, it must be off state.
- Especially, when you have trouble with long daisy chain style connection, turn on this termination switch of the last camera.

## 4. Camera ID Setup

Inner Box

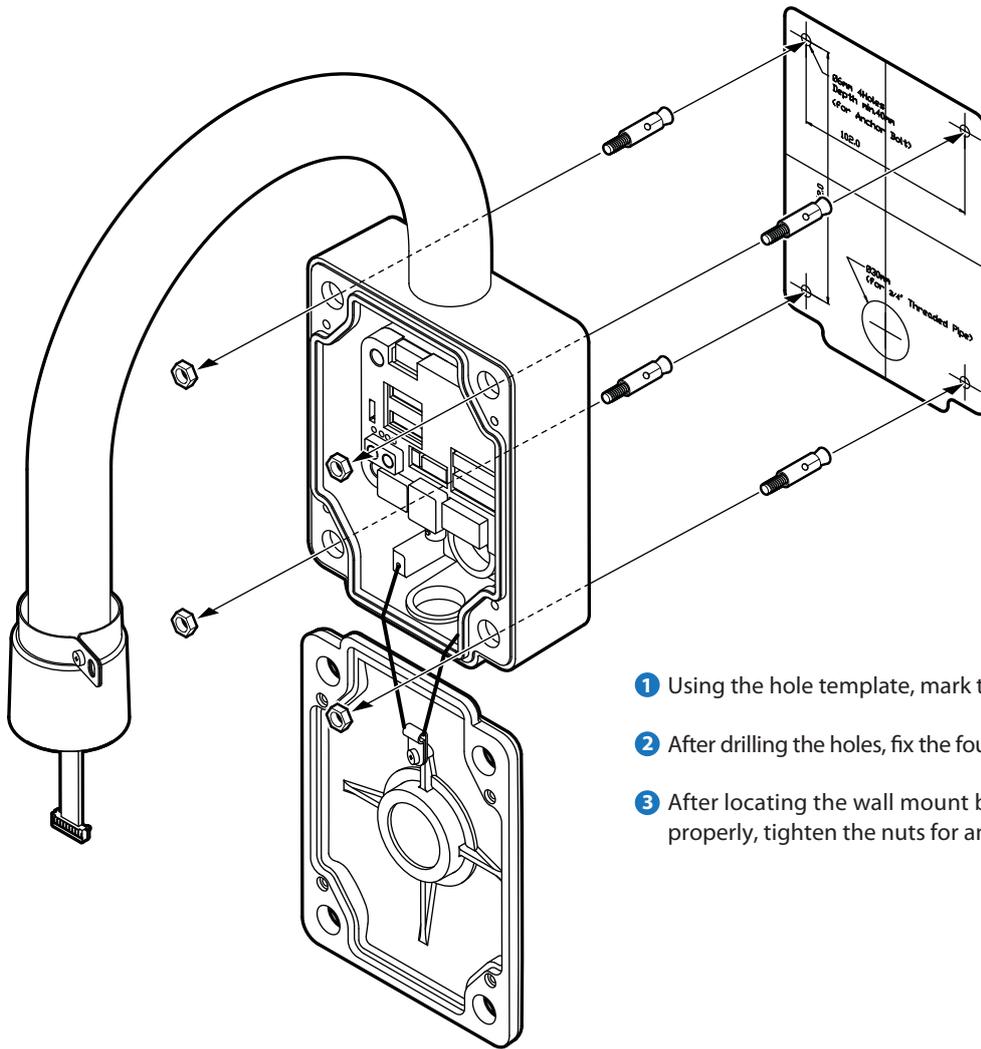


ID number of camera is set using binary number.  
The example is shown below.

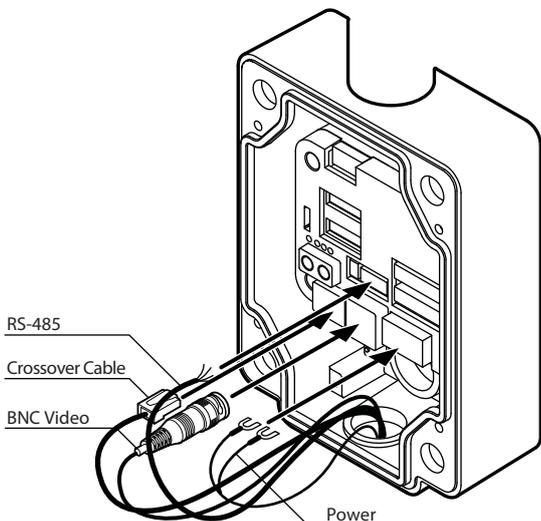
Pin	1	2	3	4	5	6	7	8
ID Value	1	2	4	8	16	32	64	128
ex) ID=5	on	off	on	off	off	off	off	off
ex) ID=10	off	on	off	on	off	off	off	off

- If you want to control a certain camera, you must match the camera ID with 'CAM ID', setting of DVR or keyboard controller.
- ID number of the camera is set using binary number.
- The range of ID is 0~255.
- Factory default of camera ID is 1.
- Camera ID will be effective without rebooting the camera.

# 2 Installation - Installation Using Wall Mount Bracket

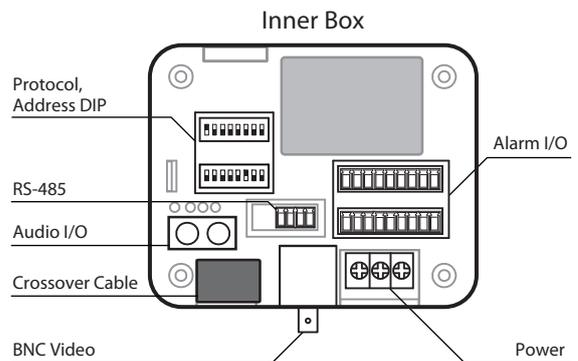


- 1 Using the hole template, mark the holes on the wall.
- 2 After drilling the holes, fix the four anchor bolts into the holes.
- 3 After locating the wall mount bracket on the anchor bolts properly, tighten the nuts for anchor bolts.



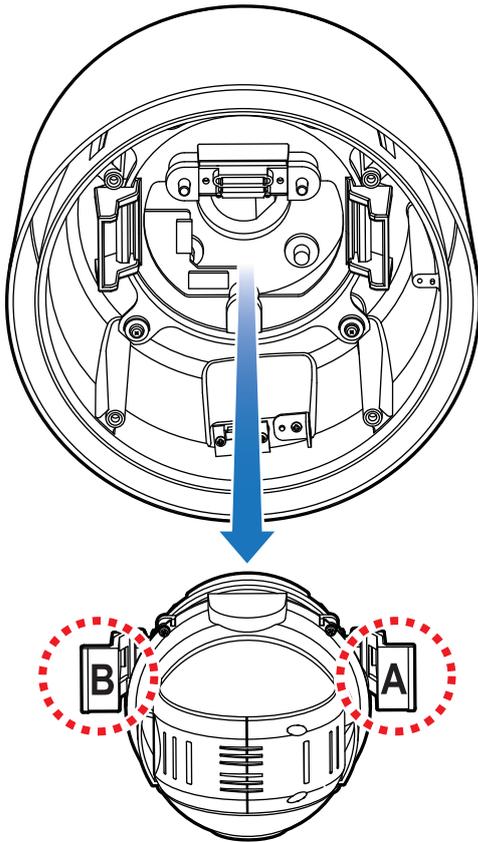
- 4 Connect cables to terminal blocks and BNC in the inner box of junction box.

⚠ See the cabling in the next section.

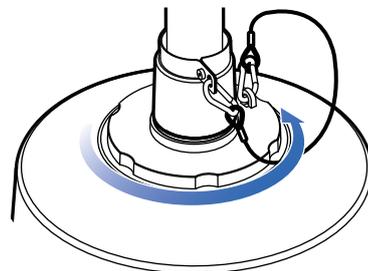
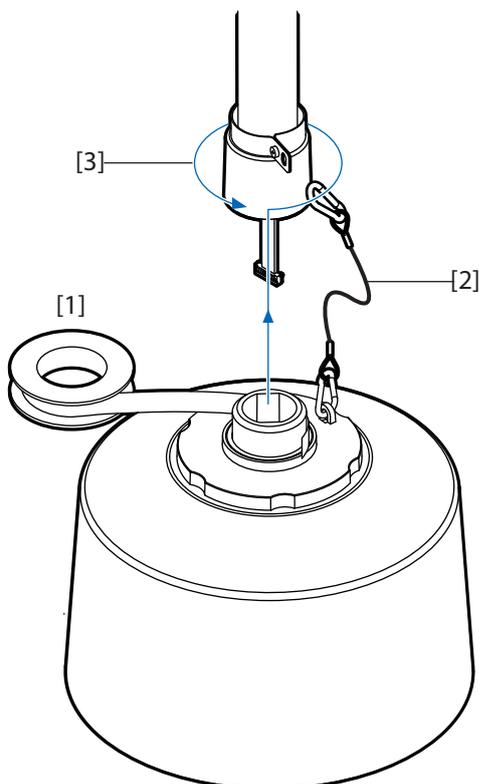


## 2 Installation - Installation Using Wall Mount Bracket

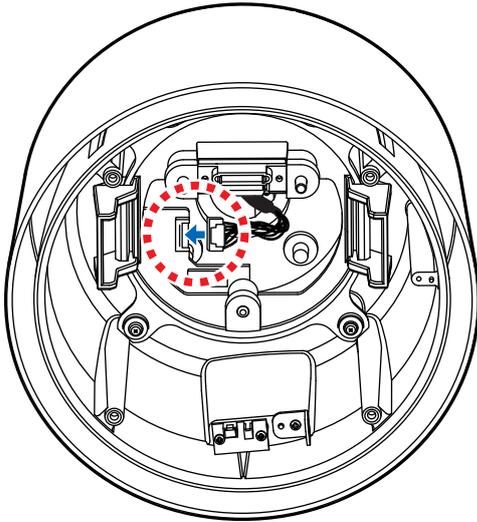
- 5 You have to detach the PTZ mechanism from the upper housing to plug the connector of cable. When detach PTZ mechanism, pressing down and holding up the black handles in both sides of PTZ mechanism.



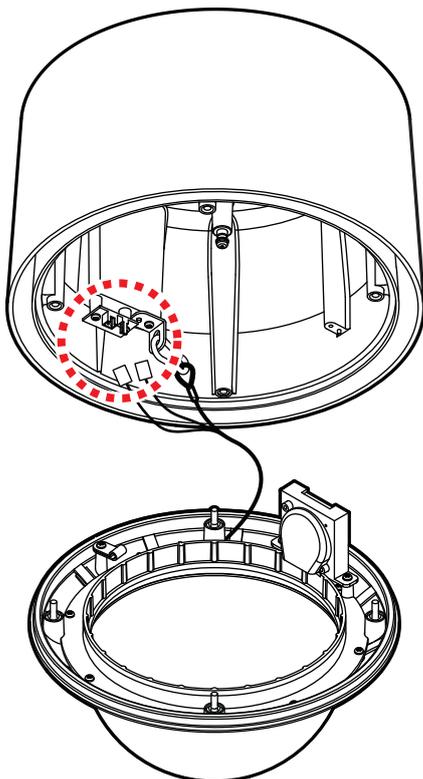
- 6 [1] Wind the water proof tape on the pipe of upper housing.  
[2] Hooking the safety wire on the hole of pipe.  
[3] Attach the upper housing to wall mount bracket by turning it at least seven turns.
- ※ To fix the upper body orientation, turn the handle of double nuts to clockwise tightly.



## 2 Installation - Installation Using Wall Mount Bracket

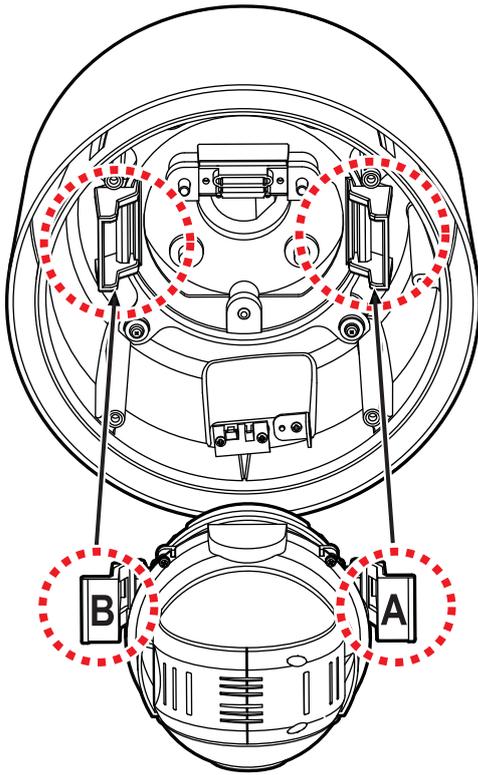


- 7 Plug the main cable into the main connector in the upper housing and press the main cable till it sounds snap to lock.

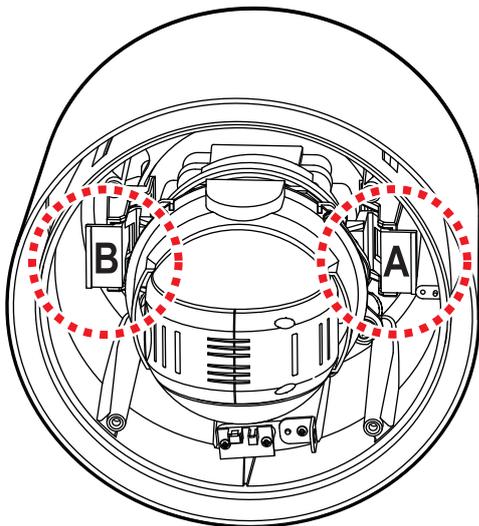


- 8 Plug fan/heater cables into the connectors in the upper housing.

## 2 Installation - Installation Using Wall Mount Bracket

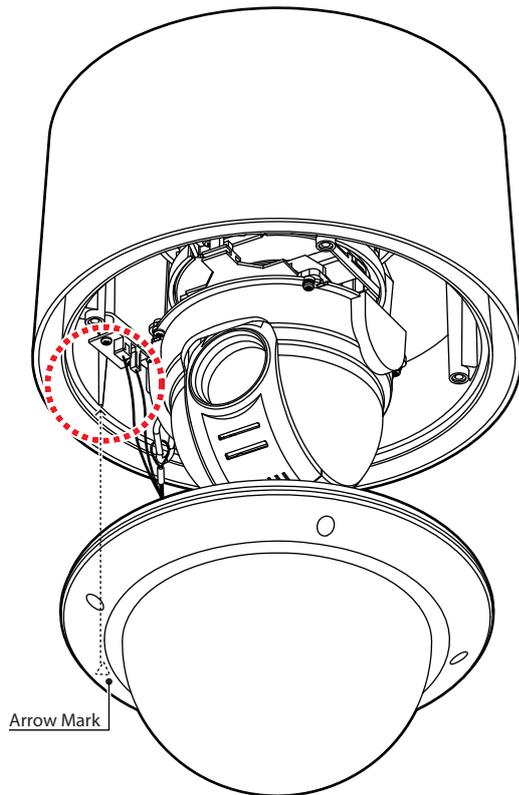


- 7 Plug the connector of cable from junction box into properly. After checking the orientation of one touch connector in the upper housing, press the PTZ mechanism into hook in the upper housing.

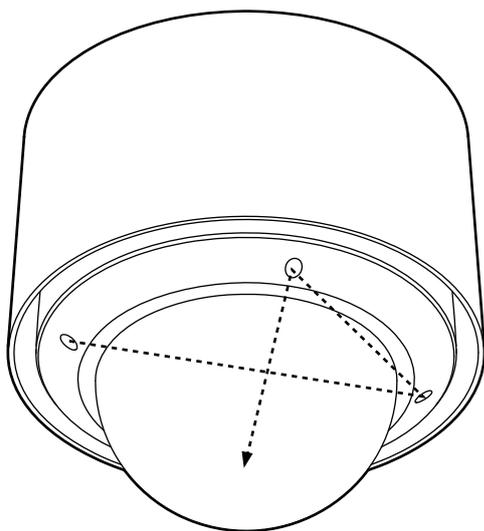
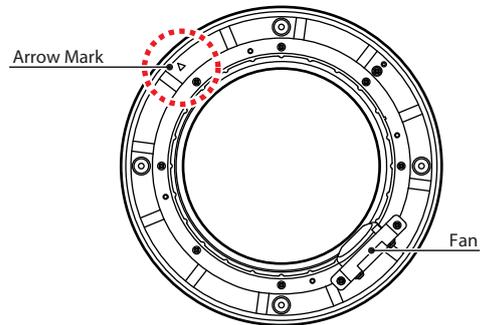


- 8 To lock the PTZ mechanism to the upper housing, press the two black handles till it sounds snap.

## 2 Installation - Installation Using Wall Mount Bracket



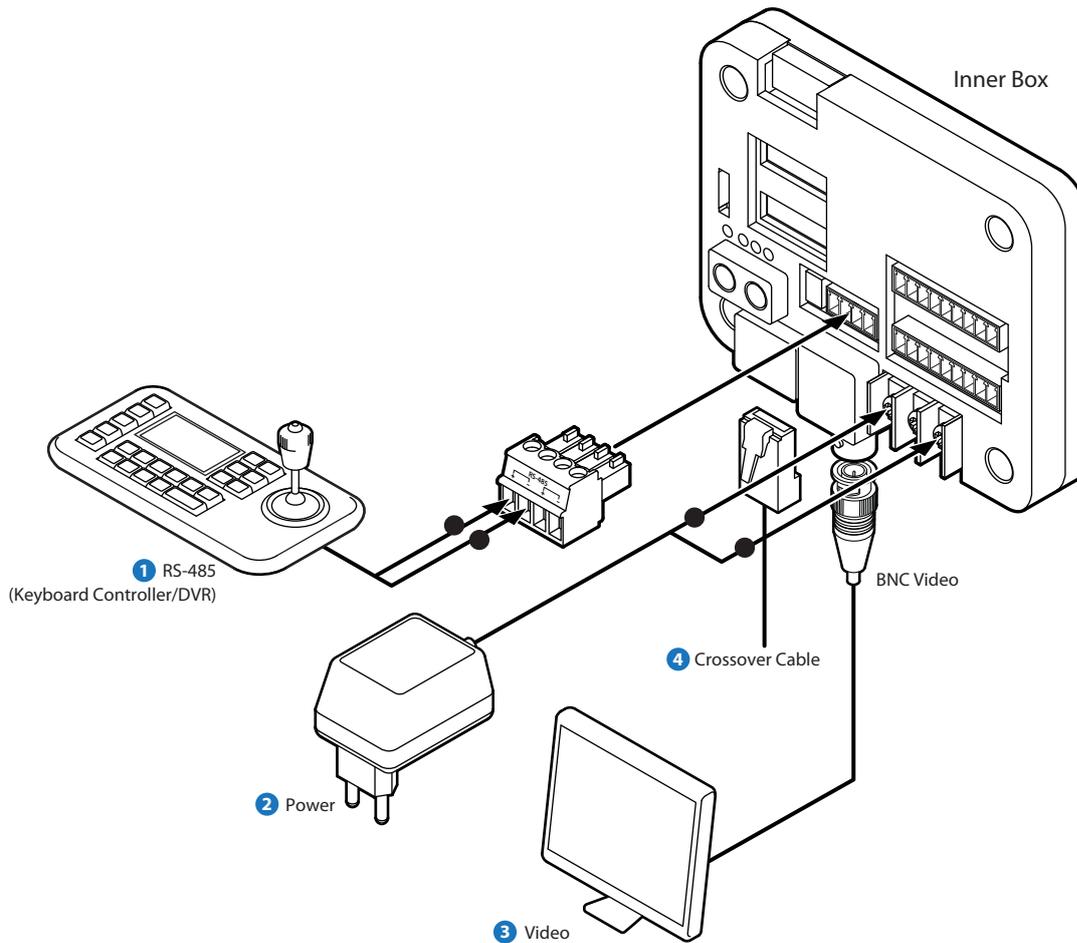
- 9 Close the dome cover. Care must be taken to locate dome cover by matching the 'Arrow Mark'.



- 10 Tighten four screws on the dome cover in sequence as shown in the picture.

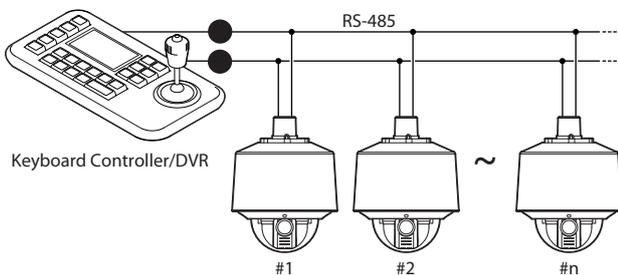
- ※ To maintain the best sealing, the torque of each screw must be in the range between 0.5 ~ 1.0 N·m (0.3 ~ 0.73 lbf·ft).

# 2 Installation - Cabling



## 1 RS-485 Communication (DVR/Keyboard)

For PTZ control, connect this line to keyboard and DVR. To control multiple cameras at the same time, RS-485 communication lines of them are connected in parallel as shown below.



## 2 Power Connection

Please, check the voltage and current capacity of rated power carefully.

Rate Power	Input Voltage Range	Current Consumption
AC 24V	AC 19V ~ 29V	2.5A

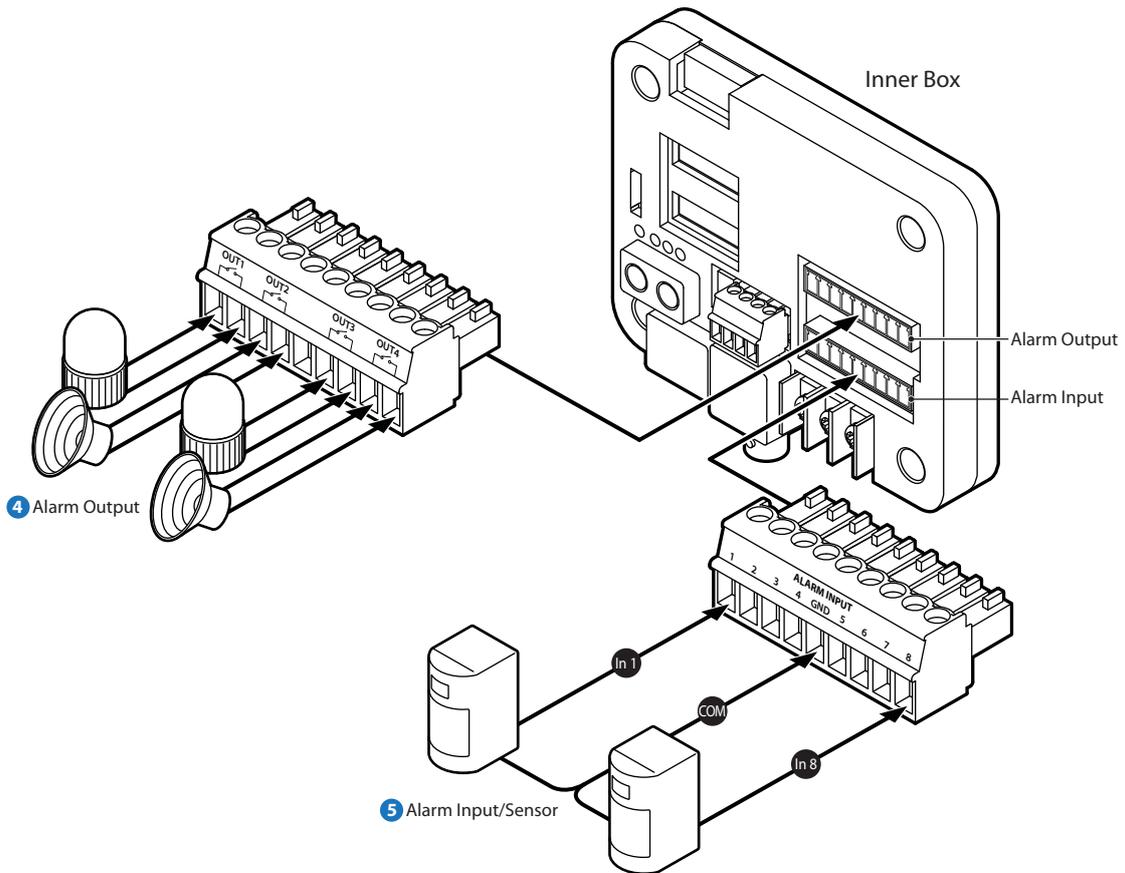
## 3 Video Connection

Connect with BNC coaxial cable.

## 4 Network Connection

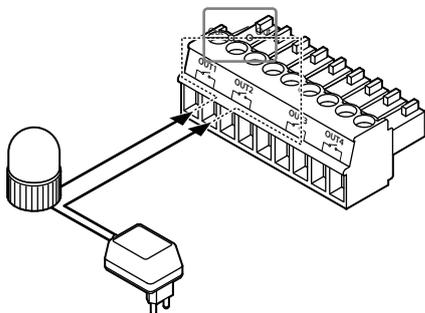
Connect the crossover cable into the RS-45.

# 2 Installation - Cabling



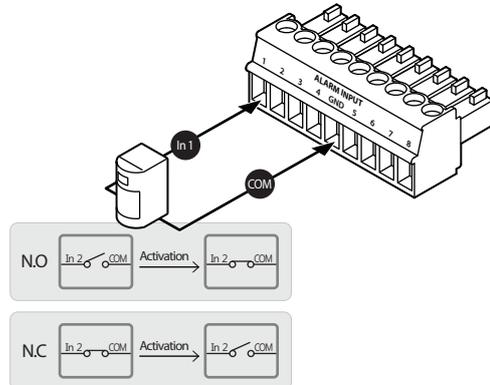
## 4 Alarm Output

There are 4 alarm outputs and all of them are relay contact type. Therefore, you do not have to care about polarity, AC/DC, and isolations between channels. Care must be taken for the power capacity of relay contact written above.



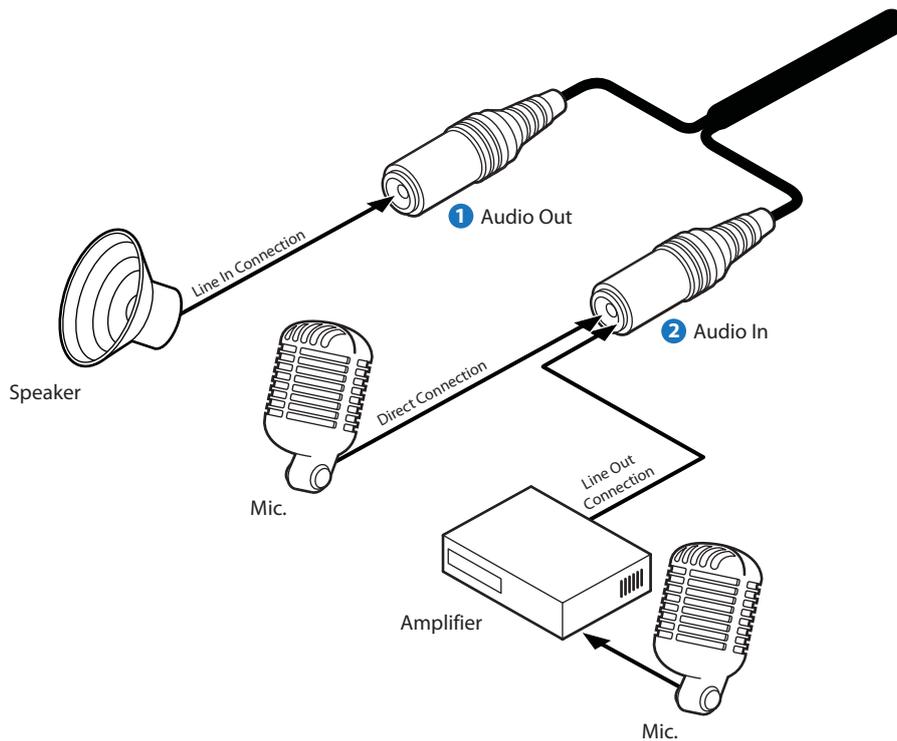
## 5 Sensor Input

If you want to use alarm input, the types of sensor must be selected in OSD menu. The sensor types are 'Normal Open' and 'Normal Close'. If sensor type is not selected properly, the alarm can be activated reversely.



⚠ It is noted that short circuit between GND and Input pin means alarm activation.

## 2 Installation - Cabling the Audio Cable



- 1 Connect the 'Audio Out' port of the camera to the 'Line In' port of the speaker.

⊗ In case the microphone connects directly to 'Audio Out' port, the speaker does not work. The 'Mic In' function is not supported.

- 2 Connect the 'Audio In' port of the camera to the microphone directly or 'Line Out' port of the amplifier connected with microphone.

# 3 Network Setup - 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 Speed Dome until instructed.
- Temporarily disable any proxy servers configured in Internet Explorer.
- If connecting the IP Speed Dome directly to a modem, power down and reset the modem. Leave the modem powered down until configurations are finalized with the IP Speed Dome and the IP Speed Dome 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 Speed Dome. Record the current TCP/IP properties of that PC. (IP address, subnet mask, gateway, DNS, etc)

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

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

- 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)
- Connect the IP Speed Dome to your PC's Ethernet port via the supplied crossover cable. (It does not matter what end is used for the PC)
- Power on the IP Speed Dome using the supplied power adapter.
- 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.
- Type - <http://192.168.1.80> (the default IP of the IP Speed Dome) into your address bar.
- Default ID/Password to access IP Speed Dome are both the word: **admin**.
- Familiarize yourself with the Viewer Interface Screen.
- Locate the TCP/IP configuration under Administration Tools. Supply the same ID and Password to enter Administration Tools. (**admin** : **admin**)
- Under 'Network Type' select STATIC. You will only select Dynamic if you are connecting the IP Speed Dome directly to your cable/DSL/Broadband modem and your Internet Service Provider is supplying you a dynamic address.

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

11. Configure the IP Speed Dome'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 and choose the proper settings.

12. The IP Speed Dome 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 Speed Dome 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 Speed Dome 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 Speed Dome 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 Speed Dome.

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

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 Speed Dome.

15. Access your IP Speed Dome via the Internet :

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

- Open Internet Explorer.
- Type the IP of the IP Speed Dome.
- If you use a router, type the routers' static IP and the web port number of the IP Speed Dome.

*If you have a dynamic address provided by your ISP*

- Open Internet Explorer and visit the DDNS website.
- Register the IP Speed Dome.
- Reboot the IP Speed Dome.
- Give the DDNS server 2 minutes to locate your IP Speed Dome's IP information.
- Click the refresh button in the Internet Explore.
- After your camera is connected, select your camera.

# 3 Network Setup - Initial Setup via a Crossover Cable

This section provides a guide on how to connect the IP Speed Dome 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 Speed Dome, until instructed.

In order to access the IP Speed Dome's firmware you will need to connect the Video Server directly to a PC or laptop computer via the supplied crossover cable.

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 Speed Dome. Jot down your entries below for quick reference.

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

**i** For information on how to determine your current settings, see Appendix A.

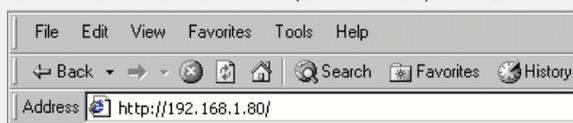
2. In order for the IP Speed Dome to communicate with your PC, you have to change your PC's IP address and subnet mask.

**i** 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.

**i** 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 Speed Dome to your PC via the supplied crossover cable. Plug-in either end of the crossover cable into the PC's network card and the other end into your IP Speed Dome.
4. After connecting the PC and IP Speed Dome using the crossover cable, power on the IP Speed Dome by plugging in the power supply shipped with the IP Speed Dome.
5. No longer than 1 minute after powering on the IP Speed Dome, 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 Speed Dome.

**i** Open Internet Explorer and type the IP address of 192.168.1.80 (default IP of the IP Speed Dome from the factory) into the Address Bar of the web browser (as seen below). Press Enter.



**i** 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 Speed Dome.

**i** 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.

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

# 3 Network Setup - DDNS Registration

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If you have DYNAMIC IP service from your Internet Service Provider (ISP), you can't tell what current IP address of IP Speed Dome Camera 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 Video Server on our DDNS website before you configure, setup, or install the IP Speed 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 Speed Dome Camera to DDNS, you should know the 'MAC Address' of your IP Speed Dome Camera. The MAC Address can be found in section 5 'Setup - STATUS' menu.
- ✘ 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>)

# 3 Network Setup - Guide to Network Environment

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

When configuring your IP Speed Dome, treat the IP Speed Dome 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 Speed Dome 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.

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

Static     Dynamic

- i** 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.
- i** 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.

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

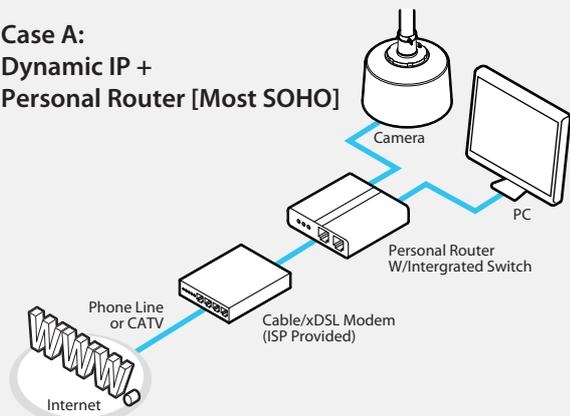
The default web port number is 80. If your ISP blocks port 80 you must use a value between 1025 ~ 60000. Please consult your ISP and determine if they block TCP port 80.

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 Speed Dome, please contact your network administrator, then call our Support Center.

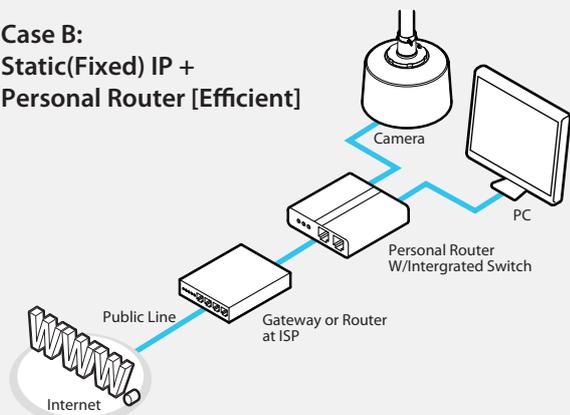
**i** Dash line box signifies areas of your network that you can't control. Only the ISP has access to these devices.

# 3 Network Setup - Setup Case A, B

## Case A: Dynamic IP + Personal Router [Most SOHO]



## Case B: Static(Fixed) IP + Personal Router [Efficient]



## Configure your IP Speed Dome's TCP/IP properties as follows :

1. **Network Type** : STATIC (even though you have Dynamic IP from your ISP, use STATIC on the IP Speed Dome)

2. **Internet Address** : A private IP address such as 192.168.0.200 (Example)

- ❗ You need to assign the IP Speed Dome 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 Speed Dome must be a private IP. For information on how to chose a private IP please read the FAQ.

3. **Subnet Mask** : 255.255.255.0 (Example)

- ❗ You must use the same subnet mask as the one you noted under 'Current TCP/IP Settings'.

4. **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'.

5. **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.

6. **DDNS Server** : Use the DDNS server.

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

7. **Web Server Port** : 8888

- ❗ Do NOT use the default port 80, you must change this number.
- ❗ You may select any number between 1025 ~ 60000.

8. **Control Server Port** : 7777

- ❗ You may select any number between 1025 ~ 60000.

9. **Video Server Port** : 7778

- ❗ You may select any number between 1025 ~ 60000.

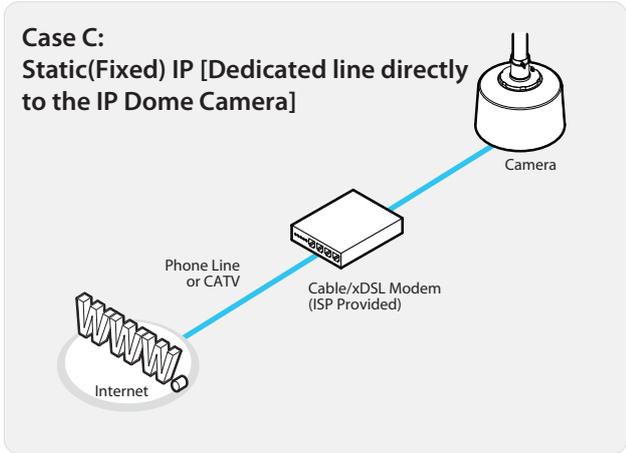
10. **Audio Transmit Server Port** : 7779

- ❗ You may select any number between 1025 ~ 60000.

11. **Audio Receive Server Port** : 7780

- ❗ You may select any number between 1025 ~ 60000.

# 3 Network Setup - Setup Case C, D



## Configure your IP Speed Dome's TCP/IP properties as follows :

1. **Network Type :** STATIC
2. **Internet Address :** A static IP address received from your ISP, such as 24.107.88.125 (Example)

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

3. **Subnet Mask :** Subnet mask assigned from your ISP, such as 255.255.255.240 (Example)

4. **Default Gateway :** 24.107.88.113 (Example)

**i** Use the assigned default gateway from your ISP

5. **Primary DNS Server :** Use the 1st DNS Server from 'Assigned IP Address from My ISP'

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

6. **DDNS Server :** Use the DDNS server

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

7. **Web Server Port :** 8888 (default)

**i** You may select any number between 1025 ~ 60000.

8. **Control Server Port :** 7777

**i** You may select any number between 1025 ~ 60000.

9. **Video Server Port :** 7778

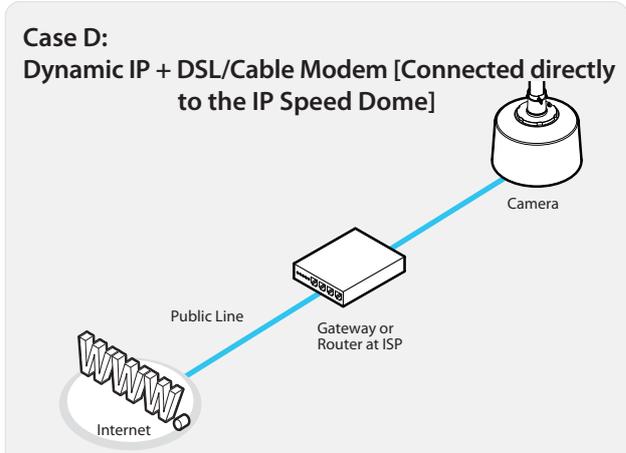
**i** You may select any number between 1025 ~ 60000.

10. **Audio Transmit Server Port :** 7779

**i** You may select any number between 1025 ~ 60000.

11. **Audio Receive Server Port :** 7780

**i** You may select any number between 1025 ~ 60000.



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

## Configure your IP Speed Dome's TCP/IP properties as follows :

1. **Network Type :** DYNAMIC
2. **DDNS Server :** Use the DDNS server

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

3. **Web Server Port :** 80 (default)

**i** You may select any number between 1025 ~ 60000.

4. **Control Server Port :** 7777

**i** You may select any number between 1025 ~ 60000.

5. **Video Server Port :** 7778

**i** You may select any number between 1025 ~ 60000.

6. **Audio Transmit Server Port :** 7779

**i** You may select any number between 1025 ~ 60000.

7. **Audio Receive Server Port :** 7780

**i** You may select any number between 1025 ~ 60000.

# 3 Network Setup - Port Forwarding

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

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

IP Speed Dome 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	

2. 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 Speed Dome has gone off and is now back on again flashing, then the IP Speed Dome has rebooted. After the system reboots completely, remove the power supply from the unit and close Internet Explorer.
3. Return your PC/Laptop TCP/IP properties to their original settings.
4. Before installing the IP Speed Dome, 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 Speed Dome.
- Control Server Port you assigned to the IP Speed Dome.
- Video Server Port you assigned to the IP Speed Dome.
- Audio Transmit Server Port you assigned to the IP Speed Dome.
- Audio Receive Server Port you assigned to the IP Speed Dome.

Both of these ports will be forwarded to the IP address you assigned to the IP Speed Dome.

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

**i** For information on how to use 'Port Forwarding' please read Appendix C.

# 3 Network Setup - Starting IP Speed Dome

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**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 Speed Dome in a proper location.**

1. Locate the serial number located on the label attached to the bottom of the IP Speed Dome, you will need this for DDNS registration.
2. Connect the IP Speed Dome 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 Speed Dome.
4. After 50 seconds, verify the IP Speed Dome indicators:
  - ACTIVE : Flashing
  - LINK : Flickering/Solid
5. After configuring Port Forwarding on your router (if necessary), you may then access your IP Speed Dome on your local network by opening Internet Explorer and specifying the IP address and Web Server Port that you have assigned to the IP Speed Dome.

- ❗ 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 the IP Speed Dome.

6. Access your IP Speed Dome via the Internet :

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***If you use Case B, C***

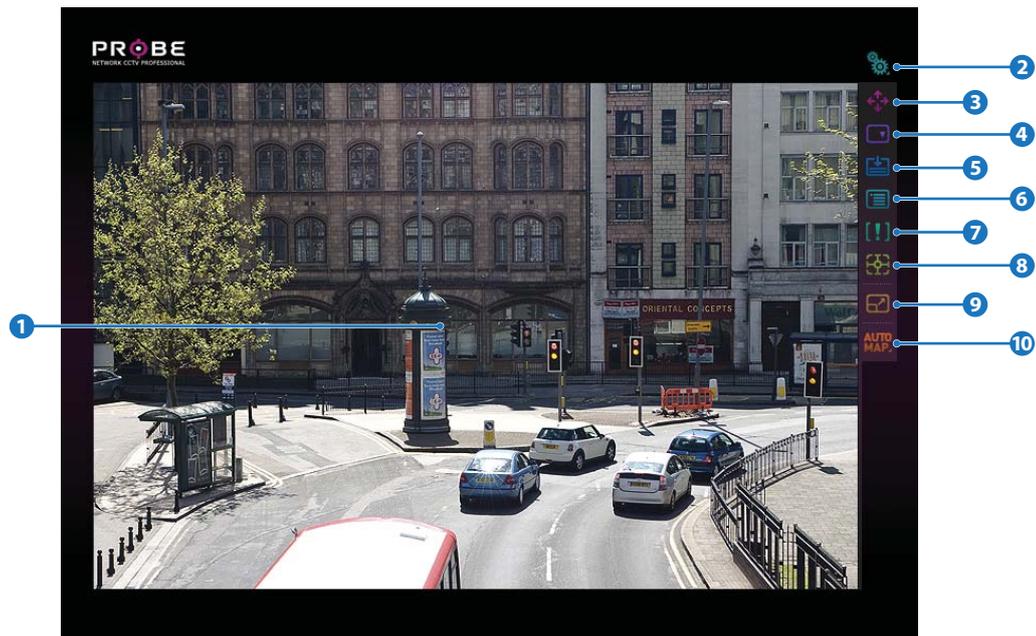
- 1) Open Internet Explorer.
- 2) Type the IP of the IP Speed Dome.

---

***If you use Case A, D***

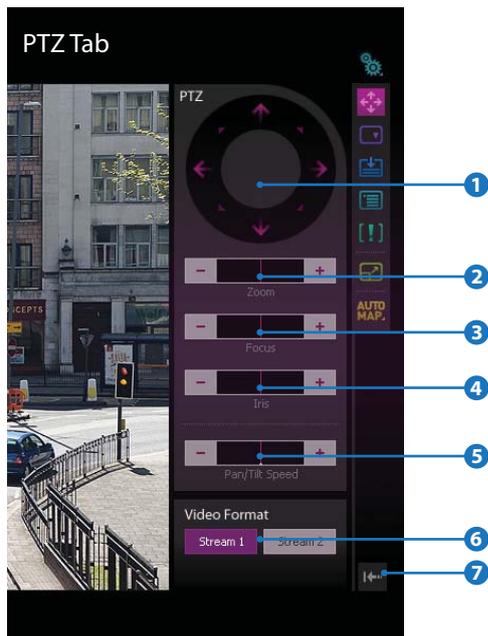
- 1) Open Internet Explorer.
  - 2) Visit the DDNS website.
  - 3) Register the IP Speed Dome.
  - 4) Give the DDNS server 10 minutes (MAX) to locate your IP Speed Dome's IP information. You may reboot the server to send an immediate request to our DDNS server.
  - 5) After your camera is connected, select your camera.
-

# 4 Web Viewer Screen - Basic Screen



- 1 Live video display. This is the region for live video stream from the camera.
- 2 Administrator popup button. Click it to open the Admin Tool page to setup details of IP camera like video, Network, Events, System and etc. See the section 5 'Setup'.
- 3 PTZ control tab button. Click it to extend the panel for Pan, Tilt, Zoom, Focus, IRIS, Video Format control. See the next section 4 'Web Viewer Screen - PTZ Control'.
- 4 Aux Function control tab button. Click it to extend the Aux Function Panel. Here, you can handle followings; 1) Preset, Pattern, Scan function, 2) Alarm input and Relay out, 3) OSD menu in Camera. See the section 4 'Web Viewer Screen - Aux Function Control'.
- 5 Backup control tab button. Click it to extend the panel for the Backup, and Audio Control. See the section 4 'Web Viewer Screen - Backup Control'.
- 6 OSD setup tab button. Click it to extend the panel to setup camera using OSD menu. See the section 4 'Web Viewer Screen - OSD Setup'.
- 7 Etc setup tab button. Click it to extend the panel to setup 1) Alarm Input and Relay Output, 2) Audio setup, 3) Video stream selection. See the section 4 'Web Viewer Screen - Etc. Setup'.
- 8 Motion Detection tab button. Click it to extend the panel to setup 1) Motion detection, 2) Auto Tracking setup. See the section 4 'Web Viewer Screen - Motion Detection Setup'.
- 9 Full screen button. Click in extend live video to full screen. To return to normal mode, press Esc key
- 10 Auto-map popup button. Click it to pop up the Auto Map window.

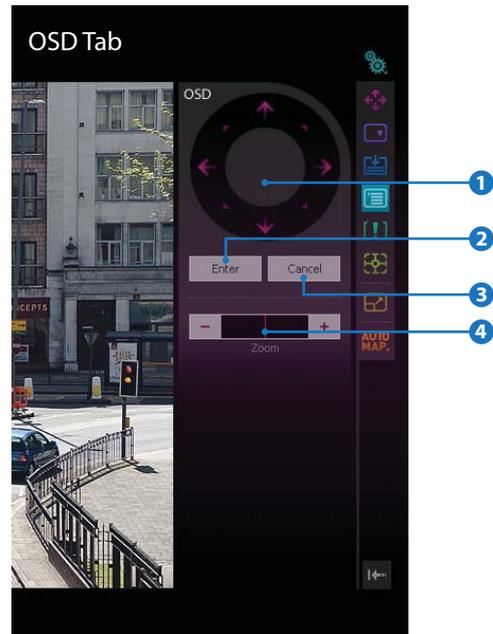
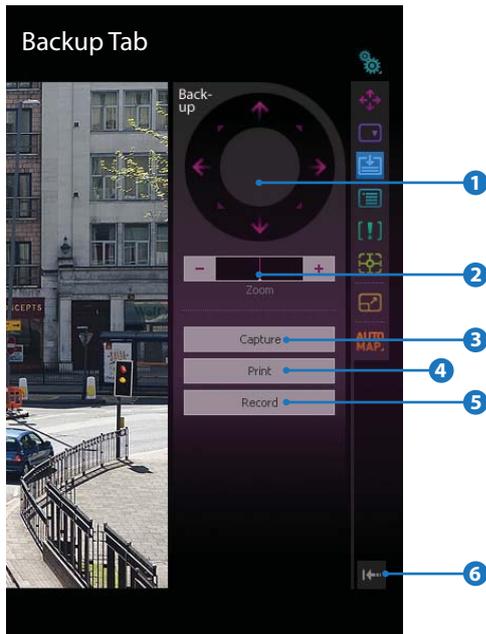
# 4 Web Viewer Screen - PTZ Control & Aux Function Control



- 1 Pan-Tilt Wheel Buttons. The Pan-tilt wheel enables to move the camera for 8 directions by pressing the corresponding arrow button. If you release the button pressed, the camera motion will stop immediately.
- 2 Zoom Slider. Zoom ratio of camera can be controlled by clicking '+' or '-' button. Also, you can adjust it by dragging the red-lined slider in the center.
  - ⊠ The speed of the zoom operation can be setup in the Camera Menu.
- 3 Focus Slider. Focus of camera can be controlled by clicking '+' or '-' button. Also, you can adjust it by dragging the red-lined slider in the center.
  - ⊠ If Focus mode in the Camera OSD Menu is 'Auto', the Focus cannot be changed.
- 4 Iris Slider. Iris of camera can be controlled by clicking '+' or '-' button. Also, you can adjust it by dragging the red-lined slider in the center.
  - ⊠ If Iris mode in the Camera OSD Menu is 'Auto', the Iris cannot be changed manually.
- 5 Pan-tilt Speed Slider. Pan/Tilt speed can be controlled by clicking '+' or '-' button. Also, you can adjust it by dragging the red-lined slider in the center.
- 6 Video Stream Button: Select a stream produced in camera from Stream 1 and Stream 2 to display in the live view screen.
- 7 Shrink Button. Shrink all control panel extended.

- 1 The Pan-tilt wheel button. Enables to move the camera for 8 directions to adjust live view.
- 2 Zoom Slider. Enables to control zoom ratio of camera to adjust live view.
- 3 Group Button. Shows Group numbers in the list. Range of numbers is 1 to 8.
- 4 Scan Button. Shows Scan numbers in the list. Range of numbers is 1 to 8.
- 5 Pattern Button. Shows Pattern numbers in the list. Range of numbers is 1 to 4.
- 6 Preset Button: Shows Preset numbers in the list. Range of numbers is 1 to 255.
- 7 Run Button. Run selected contents of Preset, Pattern, Scan or Group function.
- 8 Delete Button. Delete selected contents of Preset, Pattern, Scan or Group function.
- 9 Save Button. Save current view to the Preset as a selected number.
  - ⊠ Pattern, Scan, Group function can be created in OSD menu.
  - ⊠ If you run a Preset, Pattern, Scan or Group function number not defined before, the message 'undefined' will be shown for 3 sec. on the upper right side of the screen.

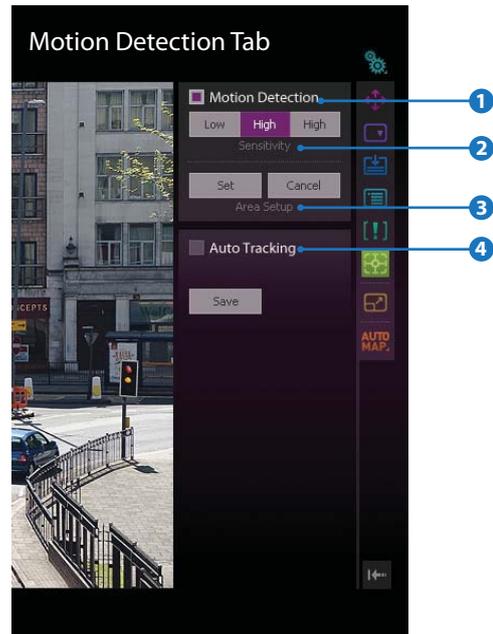
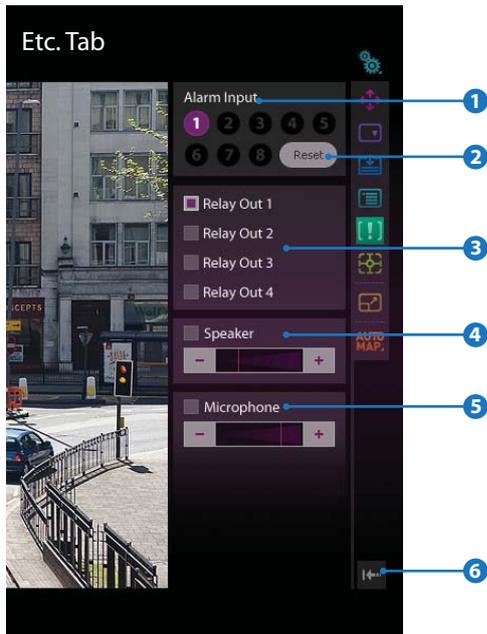
# 4 Web Viewer Screen - Backup Control & OSD Setup



- 1 The Pan-tilt wheel button. Enables to move the camera for 8 directions to adjust live view.
- 2 Zoom Slider. Enables to control zoom ratio of camera to adjust live view.
- 3 Capture Button. capture the live video in the form of BMP file. The location and file name of image can be decided after click this button.
- 4 Print Button. Print current live image to the printer connected to PC.
- 5 Record Button. If you press this button, the current live video will be stored as AVI format file in your PC. The folder for recorded files is located at 'My Document > PROBE'. During the recording, you cannot change Video Format. If you change Video Format, the recording will be stopped automatically.
  - ☒ If remained disk space of the HDD drive video is recorded is less than 1GByte, a message box warning disk space will be shown and the recording will be stopped automatically.
- 6 Shrink Button. Shrink all control panel extended.

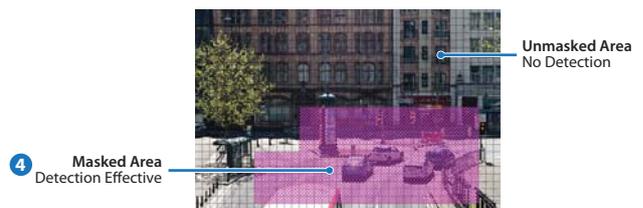
- 1 The Pan-tilt wheel button. Enables to move the camera for 8 directions to adjust live view. In OSD menu mode it is used to move the cursor up, down, left, right as well as to change the values of a parameter selected.
- 2 Enter button. Use to confirm selected item.
- 3 Cancel button. Use to cancel selected item or exit to upper menu.
- 4 Zoom Slider. Enables to control zoom ratio of camera to adjust live view.

# 4 Web Viewer Screen - Etc. Setup & Motion Detection Setup



- 1 Alarm Input Status. It shows the Alarm Input status. If an alarm is fired, the color of corresponding input number will be changed to bright purple from dark gray. Even though alarm is removed, the input status is maintained till the alarm is reset manually.
- 2 Alarm Action Clear. Reset all alarm actions such as Relay out actions and Aux Functions corresponding to Alarm inputs.
- 3 Relay Out Button: Using these buttons, you can read status of Relay Out and also set or reset it manually. If the status of Relay out becomes On state, the color of the button be changed to bright purple.
- 4 Speaker control. Enable/Disable Audio stream receiving from camera and Volume control of speaker in the computer.
- 5 Mic Control. Enable/Disable Audio stream to the camera and Volume control of MIC in the computer.
- 6 Shrink Button. Shrink all control panel extended.

- 1 Motion Detection Enable. Enable or Disable motion detection function. 'Detection Area setting' bellow must be done in advance.
- 2 Sensitivity. Define the sensitivity of motion detection. If High is selected, it will detect very small motion while it becomes relatively insensitive when Low is selected.
- 3 Area Setup. Setup the target area of motion detection.  
<How To Setup>  
1) If 'Set' button is pressed, Live screen shows grids to help area setup.  
2) By clicking or dragging mouse on the grids, create or erase the masks on the main view.  
3) Motion detection is effective in the masked Area.  
4) Save setting by pressing 'Save' button.

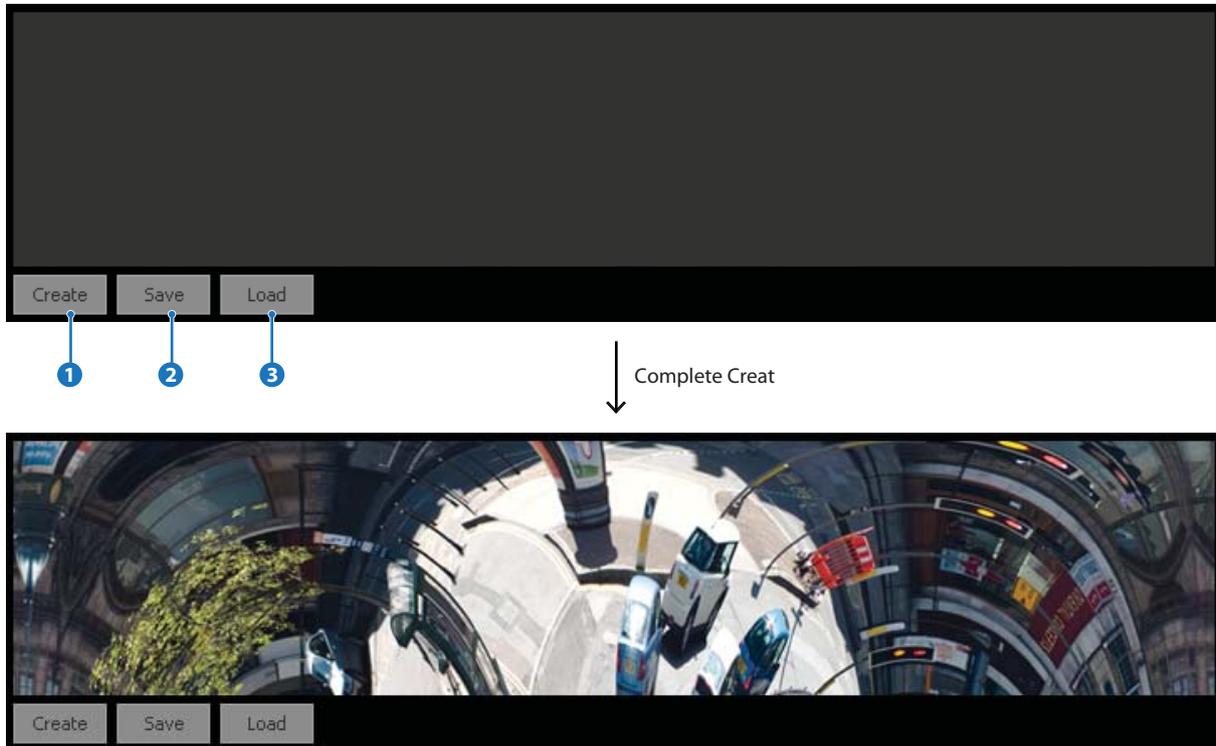


Auto Tracking Enable. Enable or Disable Auto Tracking function.

- ⊠ If Auto tracking is enabled, Motion detection is disabled temporarily.

# 4 Web Viewer Screen - Auto-map

The Auto Map is easiest way to control the PTZ in intuitive manner. If you click the Auto Map Tab in the viewer, the auto map window will appear as show bellow picture.



## 1 Create Map

To create an Auto Map, Pan Tilt angle of camera is changed step-by-step all over the PT range and several photos are taken in each step. The photos are mathematically transformed and stitched into a big rectangular picture so called Auto Map.

< How to Create Auto Map >

- 1) It is recommended to draw the map when moving objects in the coverage of camera are as small as possible
- 2) To locate most important object in the center of Map, move camera view to that object before create the map.
- 3) Press 'Create' button to start.
- 4) To cancel the map creating, press 'Create' button again.

## 2 Save Map

If you click 'Save' button, the current Map will be saved to the camera. The map data stored can be used in the future operation and shared it with other Clients.

## 3 Load Map

If you click 'Load' button, the Map data stored previously will be downloaded from the camera. If there is no map data stored in it, you will see only black map in the Auto Map window.

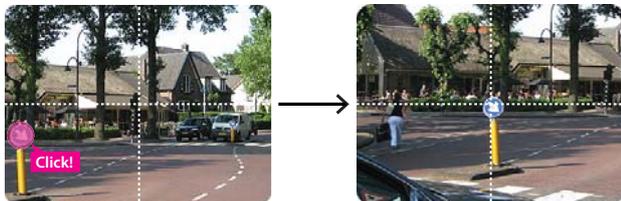
## Basic Map Operation.

<b>Left click</b>	If you click a point of interested on the map, camera will move to make that point be the center of screen while zoom ratio is maintained.
<b>Draw box</b>	If you draw the box by clicking and dragging the mouse, PTZ will move to match the live video in your box drawn to viewer screen.

# 4 Web Viewer Screen - Viewer Interface

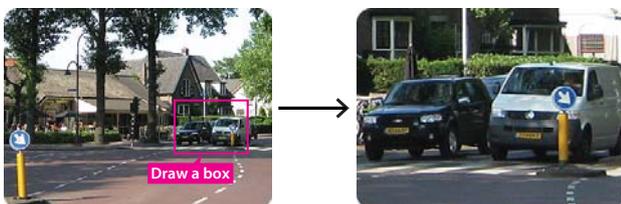
## 1. Click & Go

By clicking a target in main view, PTZ camera will move to locate the center of view to the target.



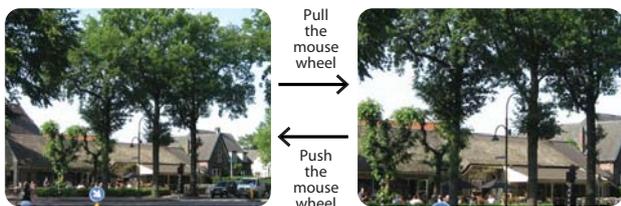
## 2. Box & Go

By drawing a box on the target in main view, PTZ camera will move the camera view to the center of the box and change zoom ratio to match the view size with that of the box surrounding the target.



## 3. Zoom In/Out by Wheel Mouse

After click the screen, if you turn mouse wheel toward the monitor, it result in Zoom out. When turn reversely, Zoom In.



Since in the full screen mod, all GUIs are hidden, you can control PTZ using powerful Virtual joy stick functions instead. This functions can be used simultaneously.

## 1. Right Click & Drag

When you want to move PT as smoothly as real joystick does, you can use virtual joystick function using mouse in the full screen mode.



If you right click a position on a screen, red line is displayed.

↓ Drag



If you drag the mouse to desired direction, the view will follow your direction by moving the camera while a red line from the center shows direction and speed.

↓ Drag further



If you drag further, the PT speed will be increased as red line becomes longer.

## 2. Zoom In/Out by Wheel Mouse

Same with left.

# 5 Setup - Setup Screen

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

All the changes on Setup 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.

**SETUP**

- BASIC
- VIDEO**
- NETWORK
  - TCP/IP
  - DDNS
  - STATUS
- EVENT
  - ALARM INPUT
  - MOTION DETECTION
  - SCHEDULE
- TRANSFER
  - TRANSFER SETUP
  - FTP
  - SMTP
  - SD CARD
- SYSTEM
  - USERS
  - DATE/TIME
  - FIRMWARE UPDATE
  - DEFAULT SET
  - REBOOT

**VIDEO CONFIGURATION**

**Monitor Channel**

- Codec: H.264
- Bitrate Control: CBR
- Resolution: 1280 X 720
- Frame Rate: 30 fps
- Target Bitrate: 4 Mbps

**Record Channel**

- Codec: NONE
- Bitrate Control: CBR
- Resolution: 1280 X 720
- Frame Rate: 1 fps
- Target Bitrate: 1 Mbps

**Mobile Channel**

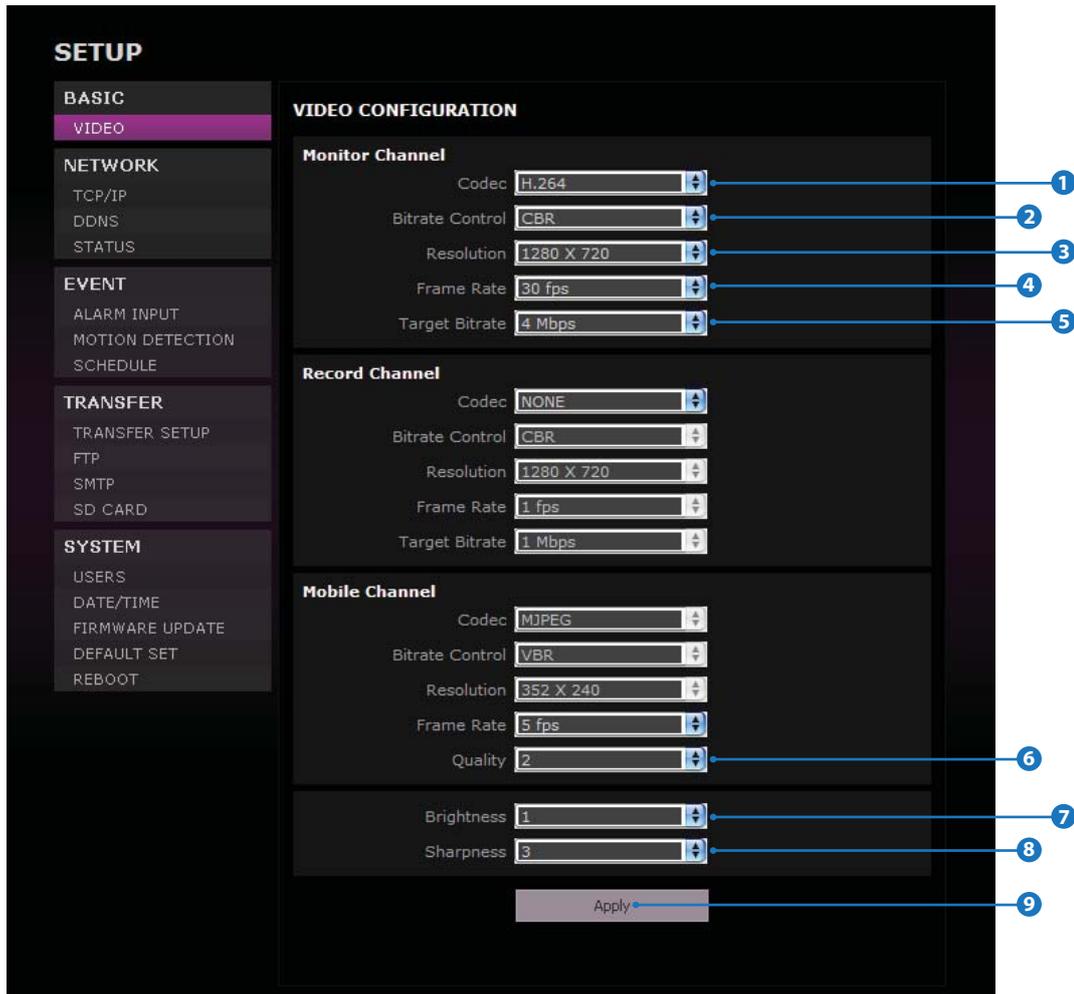
- Codec: MJPEG
- Bitrate Control: VBR
- Resolution: 352 X 240
- Frame Rate: 5 fps
- Quality: 2

Brightness: 1

Sharpness: 3

Apply

# 5 Setup - Video Setup



**1 Codec**  
Choose the video compression method preferred form H.264, MJPEG, NONE. According to the selected codec, the subcategories can be changed automatically.

**2 Bitrate Control**  
Select the bit rate control scheme of video compression form CBR (Constant Bit Rate) or VBR (Variable Bit Rate).

**CBR**  
To guarantee the designated constant bit rate, the quality of video and the frame rate are controlled in this mode. Therefore, the quality of video and the frame rate are likely to be varying when network traffic is changing.

**VBR**  
To guarantee the designated quality, the bit rate of video stream is changed in this mode. Therefore, the frame rate of video is likely to be varying when network traffic is changing

**3 Resolution**  
Select the resolution among D1, Half D1, CIF.

	NTSC	PAL
D1	704 x 480	704 x 576
Half D1	704 x 240	704 x 288
CIF	352 x 240	352 x 288

**4 Frame Rate**  
Select the maximum Frame Rate.

NTSC	PAL
30 / 25 / 20 / 15 / 10 / 5 / 1	25 / 20 / 15 / 10 / 5 / 1

**5 Target Bitrate**  
If Bitrate Control is set to be CBR, you can set the Target Bitrate by 8 steps from 1Mbps to 5Mbps.

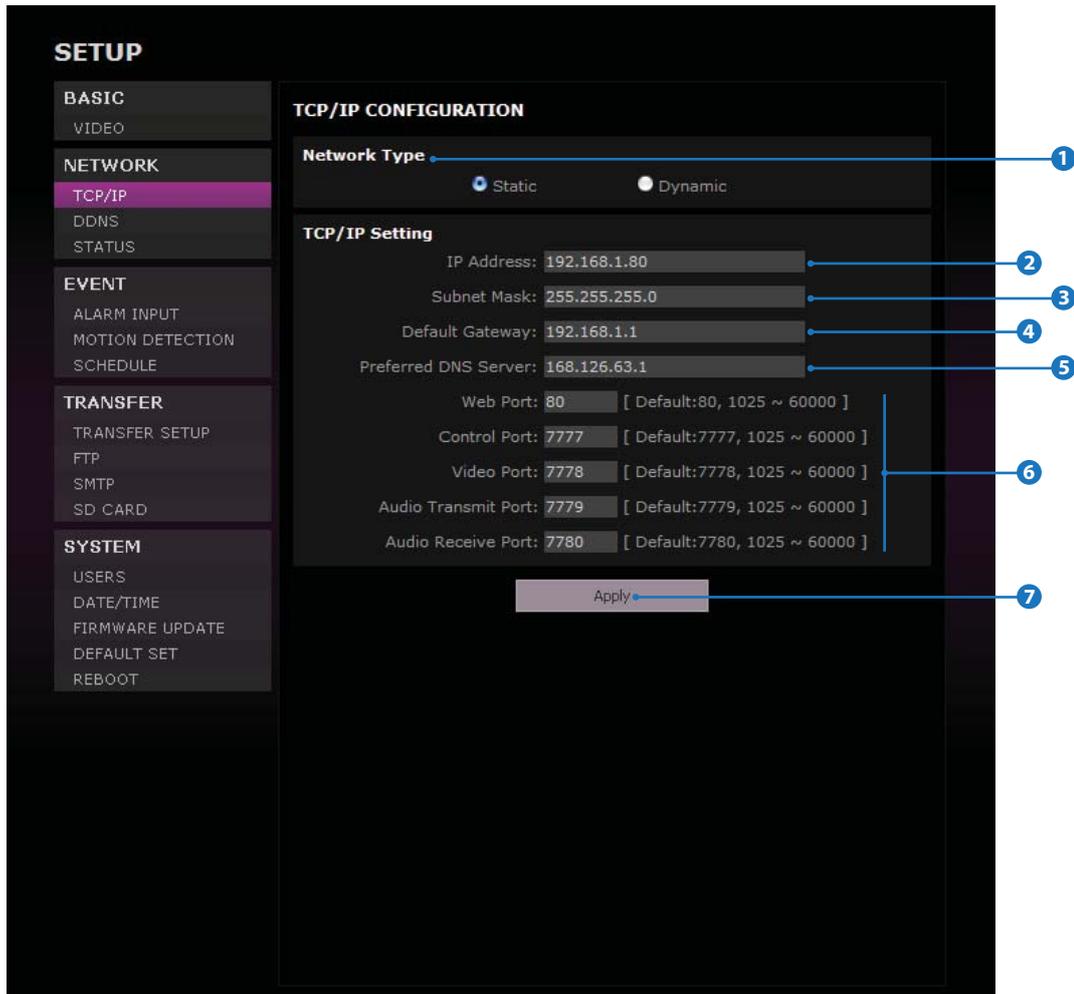
**6 Quality**  
For VBR control mode, Target Quality of video can be setup from 1~5. Value 1 is best quality while 5 is normal quality.

**7 Brightness**  
Using this control, brightness of image can be adjusted to meet your preference. Value 100 is most bright. (Range: 1 ~ 100, Default: 50)

**8 Sharpness**  
Using this control, sharpness of image can be adjusted to meet your preference. Value 100 is most sharp. (Range: 1 ~ 100, Default: 50)

**9** Press 'Apply' to make above setting effective.

# 5 Setup - TCP/IP Setup



## 1 Network Type

Define network IP address type from Static Mode for fixed IP or Dynamic Mode by dynamic IP. If you select Static Mode, you must fill in IP Address, Subnet Mask, Gateway, DNS Server and all ports. If you select Dynamic Mode, IP will be allocated automatically by DHCP equipment. If you press Apply button to update changes, system will be re-booted. In this case, you have to reconnect camera using new IP.

## 2 IP Address

Define IP address. The address is consisted of a four number separated by dot and the range of each number is from 0 to 255.

## 3 Subnet Mask

Define Subnet Mask. Format is same as IP address.

## 4 Default Gateway

Default Gateway IP Address. Format is same as IP address.

## 5 Preferred DNS Server

Define DNS server IP address. Format is same as IP address.

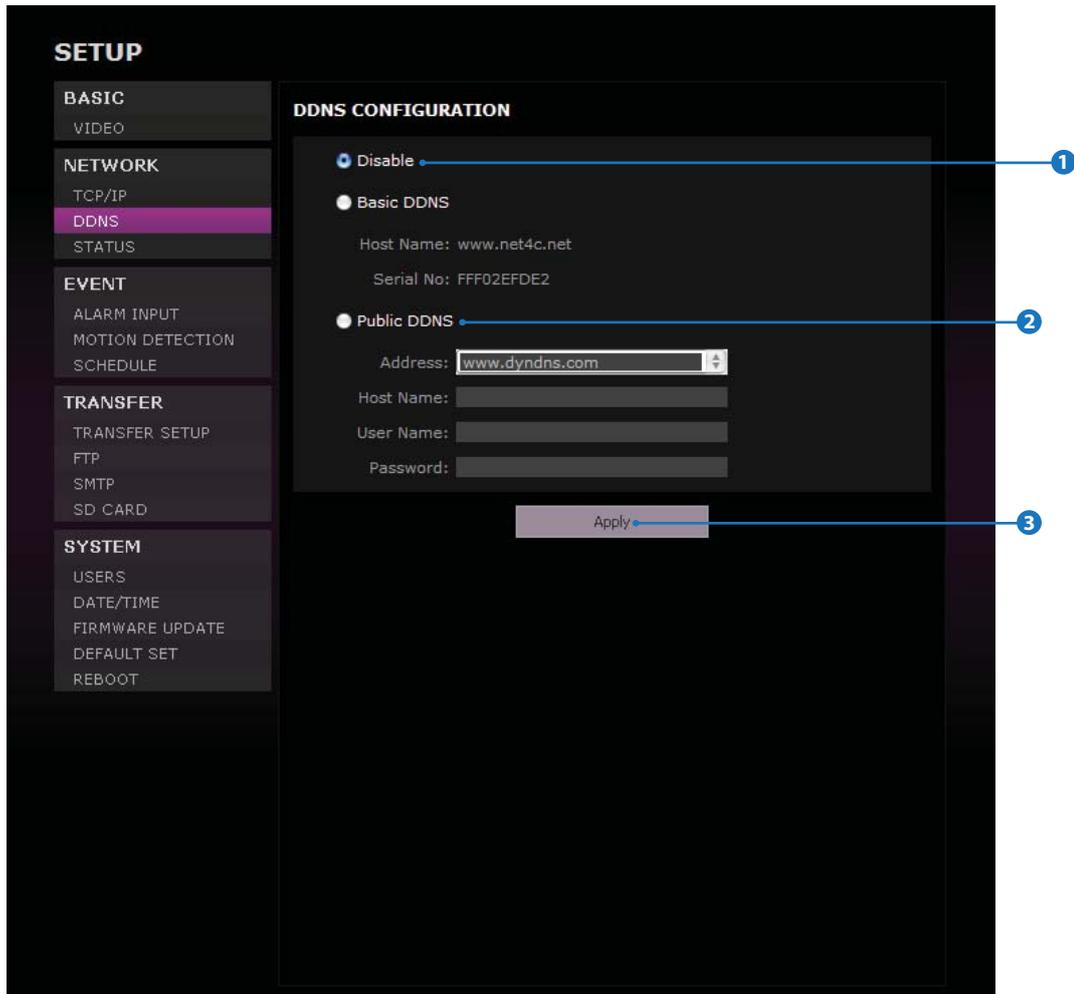
## 6 Port

There are five servers in the camera providing different services. To get those services from separately, unique port number must be assigned to each server.

Port Name	Description	Default	Range
Web Server Port	Define HTTP Web Server Port	80	1025 ~ 60000
Control Server Port	Define Control Server Port	7777	
Video Server Port	Define Video Server port	7778	
Audio Transmit Server Port	Define Audio Transmit Server port	7779	
Audio Receive Server Port	Define Audio Receive Server port	7780	

## 7 Press 'Apply' to make above setting effective.

# 5 Setup - DDNS Setup



## 1 DDNS Disable

If you selected, DDNS service is not work.

## 2 Public DDNS

To use public DDNS service, select a site address listed in the list. After filling in Host Name of the site, the setup is completed by enter User Name and Password registered in that DDNS site.

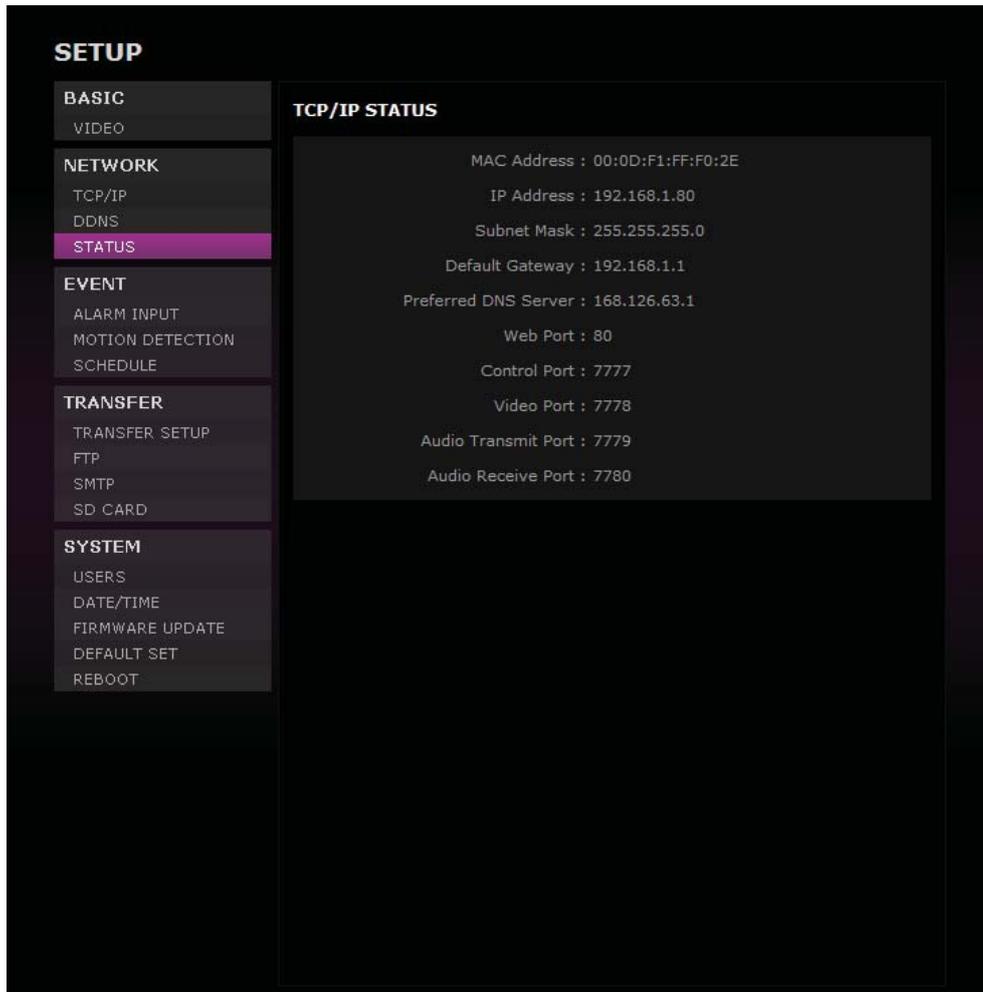
DDNS Provider	Site Address
DynDNS	www.dyndns.com
No-IP	www.no-ip.com
dtDNS	www.dtdns.com

⊗ If you setup DDNS properly, the IP address of your camera will be updated automatically whenever IP address is changed or system is rebooted.

⊗ If IP updating to DDNS site is failed, camera will keep retrying in 1min. interval. In this situation ACTIVE LED will be blinking. If DDNS is disabled, the ACTIVE LED will be lit always.

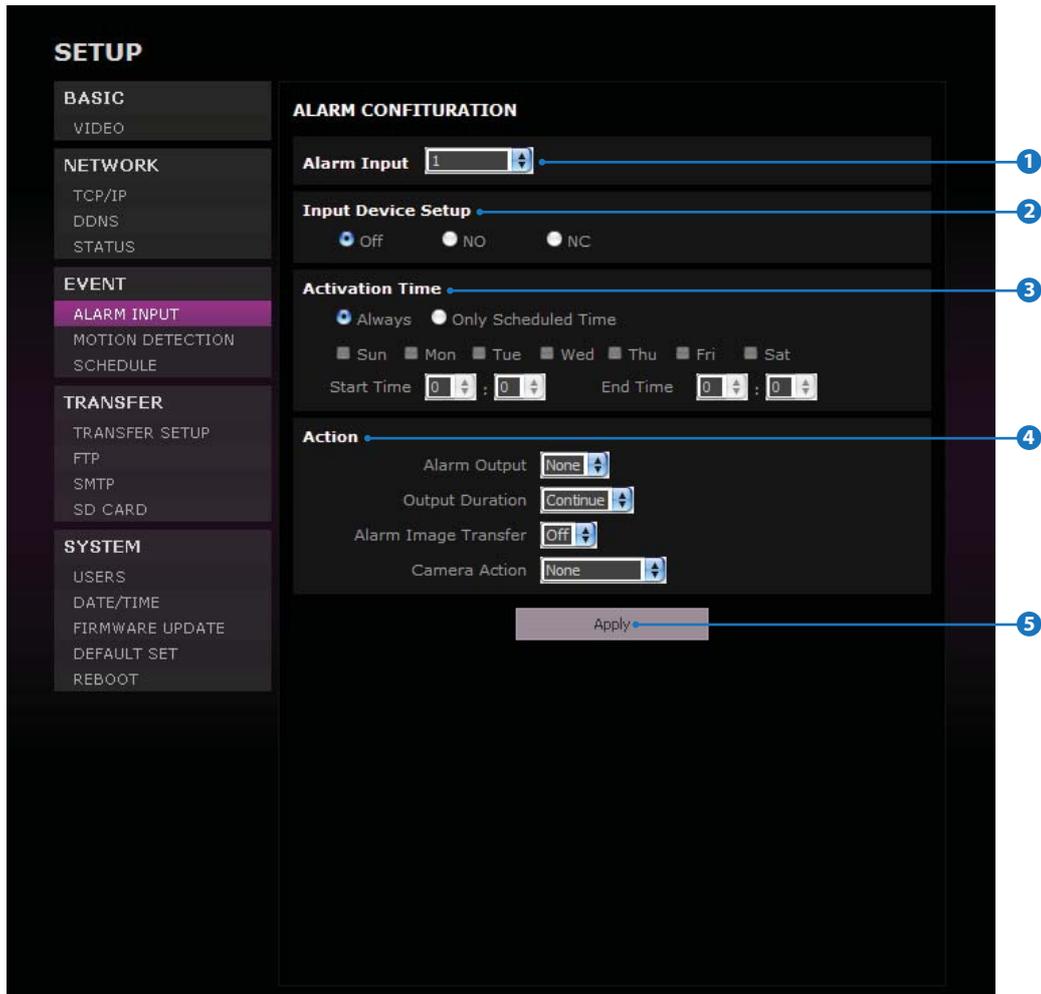
## 3 Press 'Apply' to make above setting effective.

# 5 Setup - TCP/IP Status



This menu will show you all the information of Network setting in the camera. However, you cannot change those here.

# 5 Setup - Alarm Input Setup



## 1 Alarm Input Port

Select an Alarm Input Port to be configured.

## 2 Input Device Setup

Select input device type from OFF / N.O. / N.C.

	Operation
Off	Ignore this Input sensor.
NO	The contact is normally open and closed when activated.
NC	The contact is normally closed and open when activated.

## 3 Activation Time

Select activation time from Always / Only Scheduled Time.

Always	Alarm event is activated whenever sensor Input is detected.
Only scheduled time	Alarm event is activated only when sensor input is detected during the schedule is effective.

※ To setup schedule, you need to define Start time and End time followed by selecting Days.

※ If End time is earlier than Start time, End time is regarded as next day.

Ex) Assume you select Tue. If you set Start time as 16:00 and End Time as 09:00, Alarm Input will work from 4:00pm Tue to 9:00am Wed.

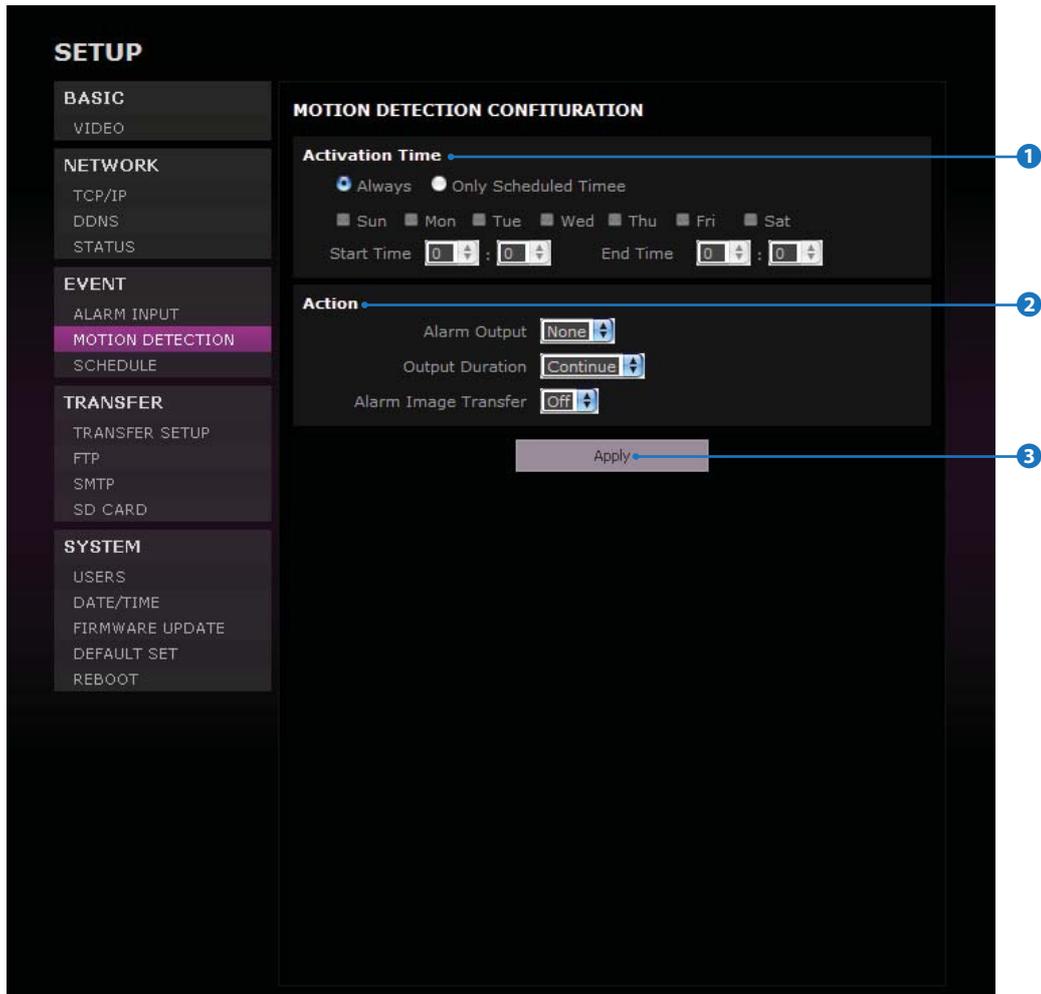
## 4 Action

Define a counter action from Alarm Output / Alarm Image transfer / Camera Action when Alarm Input is detected.

Action	Description
Alarm out	Activate alarm out (relay)
Output Duration	Select time duration to maintain output form 3 / 5 / 10 / 20 / 30 sec. or Continue
Alarm Image Transfer	Turn ON / OFF Image Transfer. Send image via E-mail or FTP server. (For more detail see Transfer Setup in this chapter)
Camera Action	Select proper PTZ camera action such as None / Preset / Scan / Pattern / Group / Home Position.

## 5 Press 'Apply' to make above setting effective.

# 5 Setup - Motion Detection Setup



## 1 Activation Time

Select activation time from Always / Only Scheduled Time.

<b>Always</b>	Alarm is activated whenever motion is detected
<b>Only scheduled time</b>	An Alarm event is activated only when motion is detected in the middle of schedule designated.

※ To setup schedule, you need to define Start time and End time followed by selecting Days.

※ If End time is earlier than Start time, End time is regarded as next day.

Ex) Assume you select Tue. If you set Start time as 16:00 and End Time as 09:00, Alarm Input will work from 4:00pm Tue to 9:00am Wed.

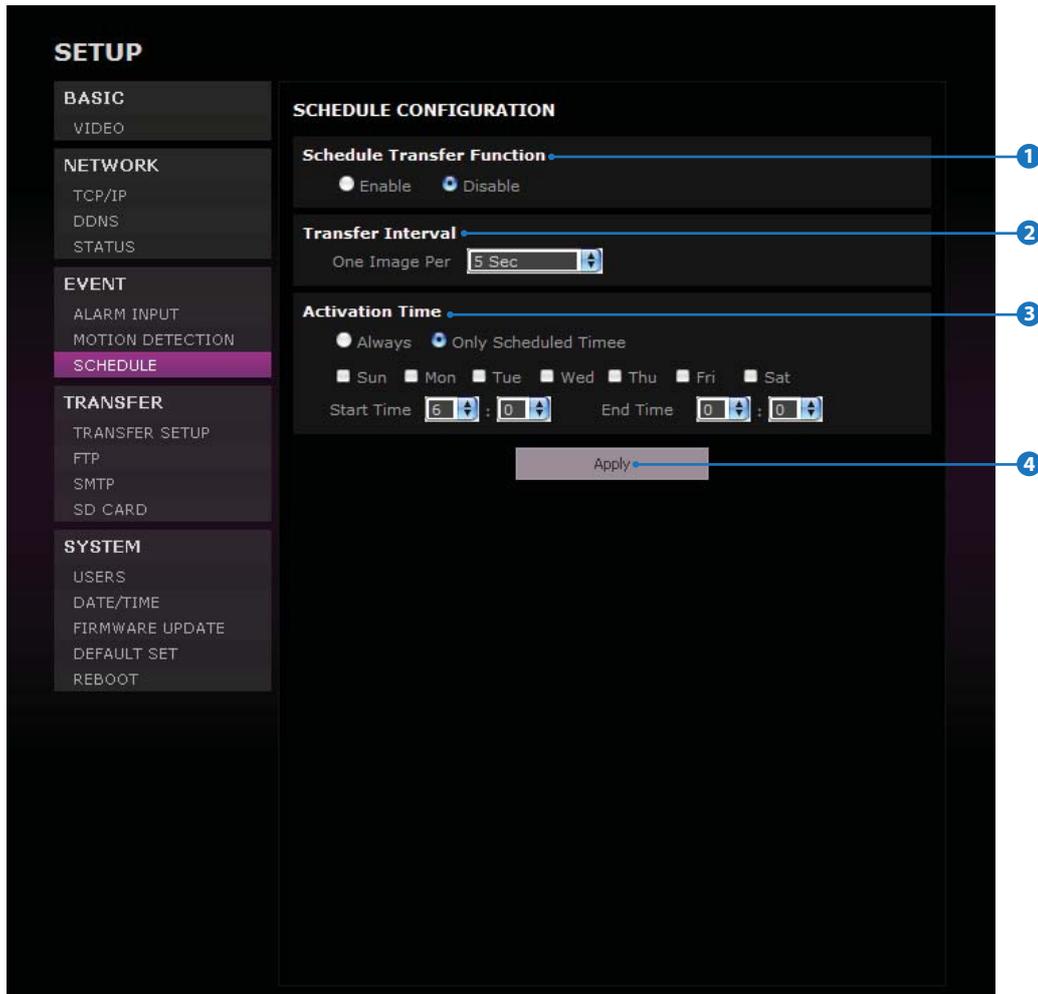
## 2 Action

Define a counter action from Alarm Output / Alarm Image transfer when motion is detected.

Action	Description
<b>Alarm out</b>	Activate alarm out (relay)
<b>Output Duration</b>	Select time duration to maintain output form 3 / 5 / 10 / 20 / 30 sec. or Continue
<b>Alarm Image Transfer</b>	Send image to E-mail or FTP server Select from ON / OFF ( see 'Transfer Setup' Menu)

## 3 Press 'Apply' to make above setting effective.

# 5 Setup - Schedule Setup



Schedule function enables to transfer series of still images in a time interval specified via E-mail or FTP. (For more detail see Transfer Setup in this chapter)

## 1 Enable / Disable

Set Schedule function to be enabled or disabled. Schedule function enables to transfer series of still images in a time interval specified.

## 2 Transfer Interval

Define time interval of image transfer from 5 / 15 / 30 / 45 / 60 sec. and 5 / 15 / 30 / 45 / 60 min.

## 3 Activation Time

Select activation time from Always / Only Scheduled Time.

Always	Transfer imager always.
Only scheduled time	Transfer image when specified in the schedule.

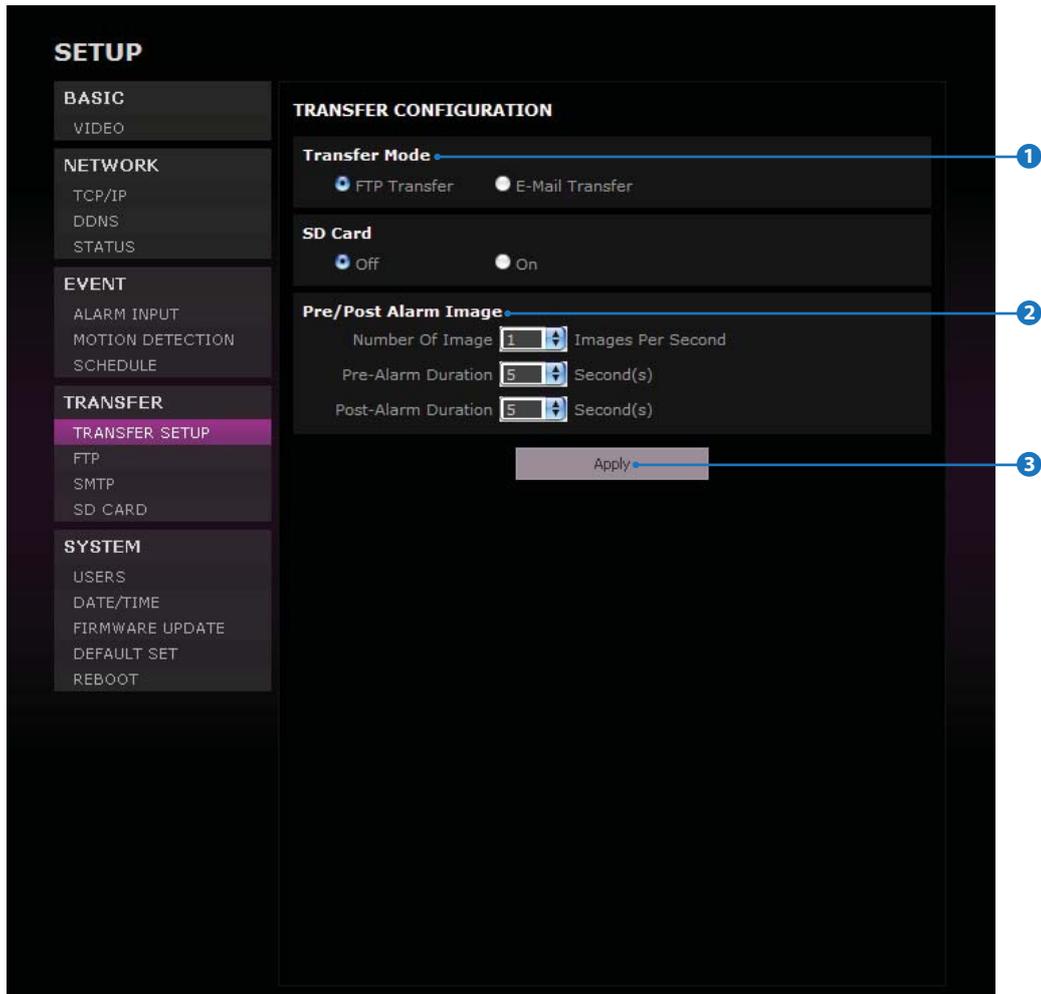
⊠ To setup schedule, you need to define Start time and End time followed by selecting Days.

⊠ If End time is earlier than Start time, End time is regarded as next day.

Ex) Assume you select Tue. If you set Start time as 16:00 and End Time as 09:00, Alarm Input will work from 4:00pm Tue to 9:00am Wed.

## 4 Press 'Apply' to make above setting effective.

# 5 Setup - Ttransfer Setup



## 1 Transfer Mode

Image Transfer method is selected from FTP and E-Mail (SMTP).

※ To use image transfer, FTP and SMTP in the next sections must be configured properly.

## 2 Pre/Post Alarm Image

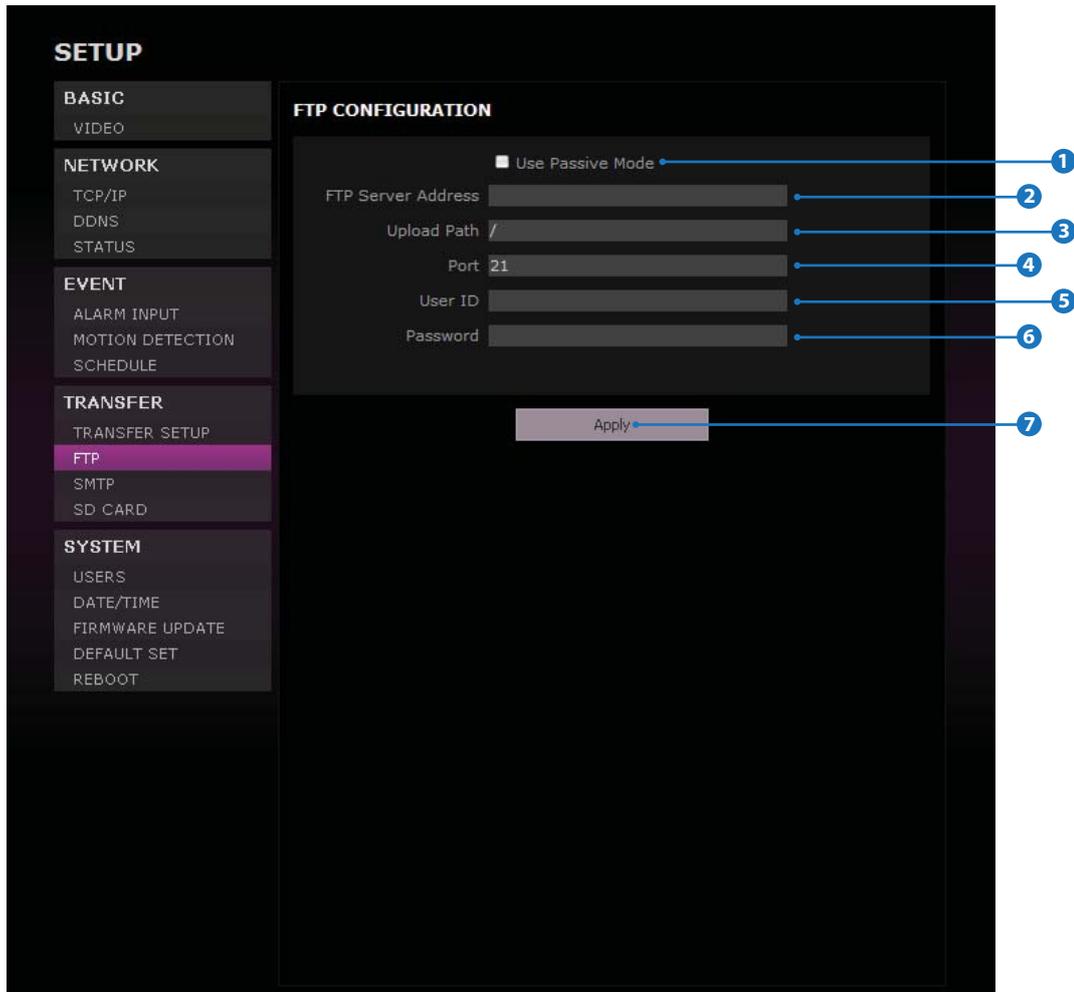
Image Transfer due to event is configured by setting Image transfer rate and Pre/Post alarm duration.

	Descriptions	Range
<b>Number of Image</b>	Define Number of image transferred per second.	1 ~ 5
<b>Pre-alarm Duration</b>	Define duration of image transfer before an event.	1 / 10 / 15 / 30
<b>Post-alarm Duration</b>	Define duration of image transfer after an event.	1 / 10 / 15 / 30

※ Range of Pre/Post alarm duration can be changed according to Number of image setting.

## 3 Press 'Apply' to make above setting effective.

# 5 Setup - FTP Setup



## 1 Use Passive Mode

Check it to use Passive mode for FTP transfer. If not check it, transfer becomes Active Mode. However, if you select active mode, it is possible problems due to firewall become issues. Consult with your network manager.

## 2 FTP Server Address

Define FTP Server IP Address. If IP Address form is incorrect, a Message box will be shown to try again.

## 3 Upload Path

Define a path in FTP server to store video. For the path name, English Alphabets, numbers and special characters ( - \_ ) can be used.

## 4 Port

Define FTP Server Port. If Port is not appropriate, it is impossible to access to FTP Server.

## 5 User ID

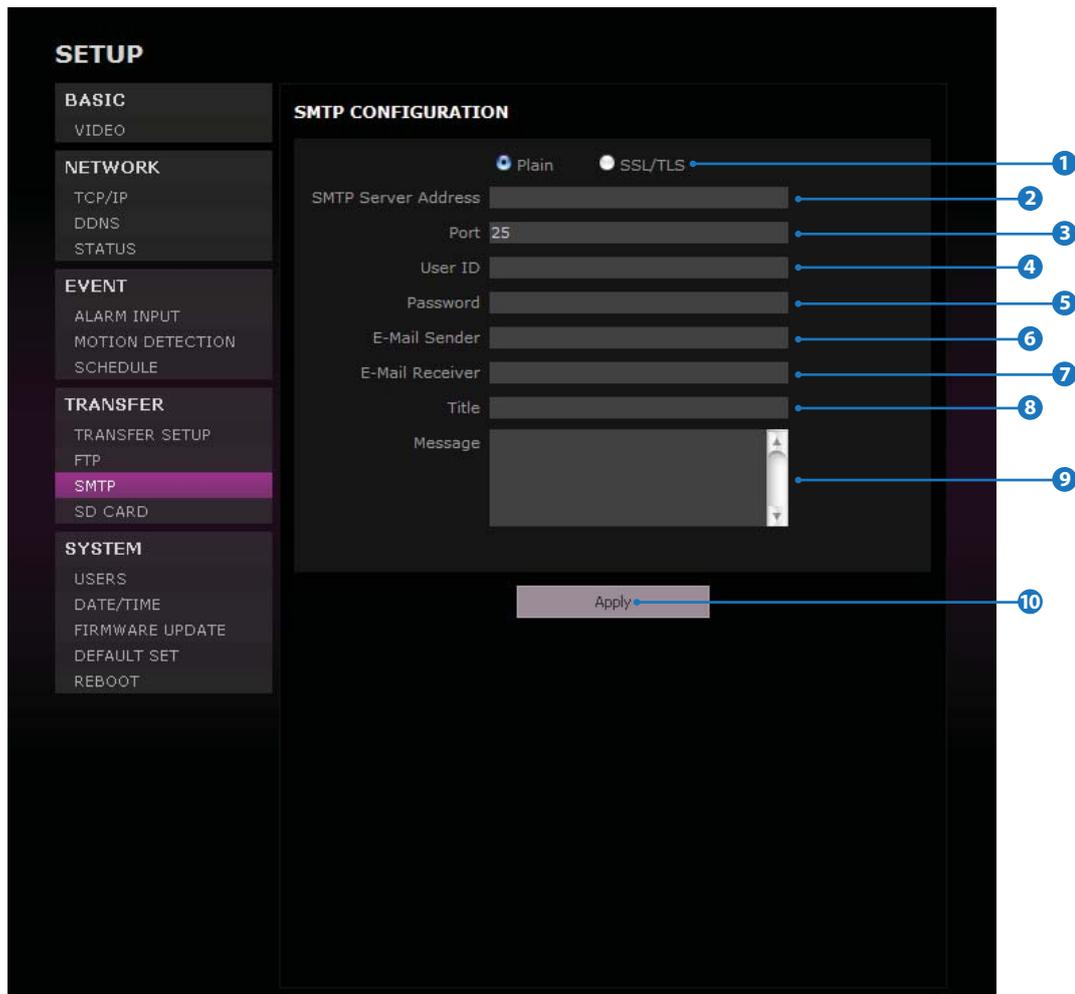
Define User ID to access to FTP Server. Fill in the correct User ID registered in the FTP Server.

## 6 Password

Define Password to access to FTP Server. Fill in the correct Password registered in the FTP Server.

## 7 Press 'Apply' to make above setting effective.

# 5 Setup - SMTP Setup



## 1 Plain, SSL/TLS

Select Security mode of SMTP from Plain or SSL/TLS. After checking account set-up of your SMTP Server, you may select one.

## 2 SMTP Server Address

Define SMTP Server Address. If IP Address form is incorrect, a Message box will be shown to try again.

## 3 Port

Define the Port used in the Plain or SSL/TLS security mode in the above.

## 4 User ID

Define User ID to access to SMTP Server. Fill in the correct User ID registered in the SMTP Server.

## 5 Password

Define Password to access to SMTP Server. Fill in the correct Password registered in the SMTP Server.

## 6 E-Mail Sender

Define e-mail address of E-Mail Sender. It will be displayed as sender when camera sends an E-mail.

## 7 E-Mail Receiver

Define e-mail address of E-Mail Receiver. It will be displayed as Receiver when camera sends an E-mail.

## 8 Title

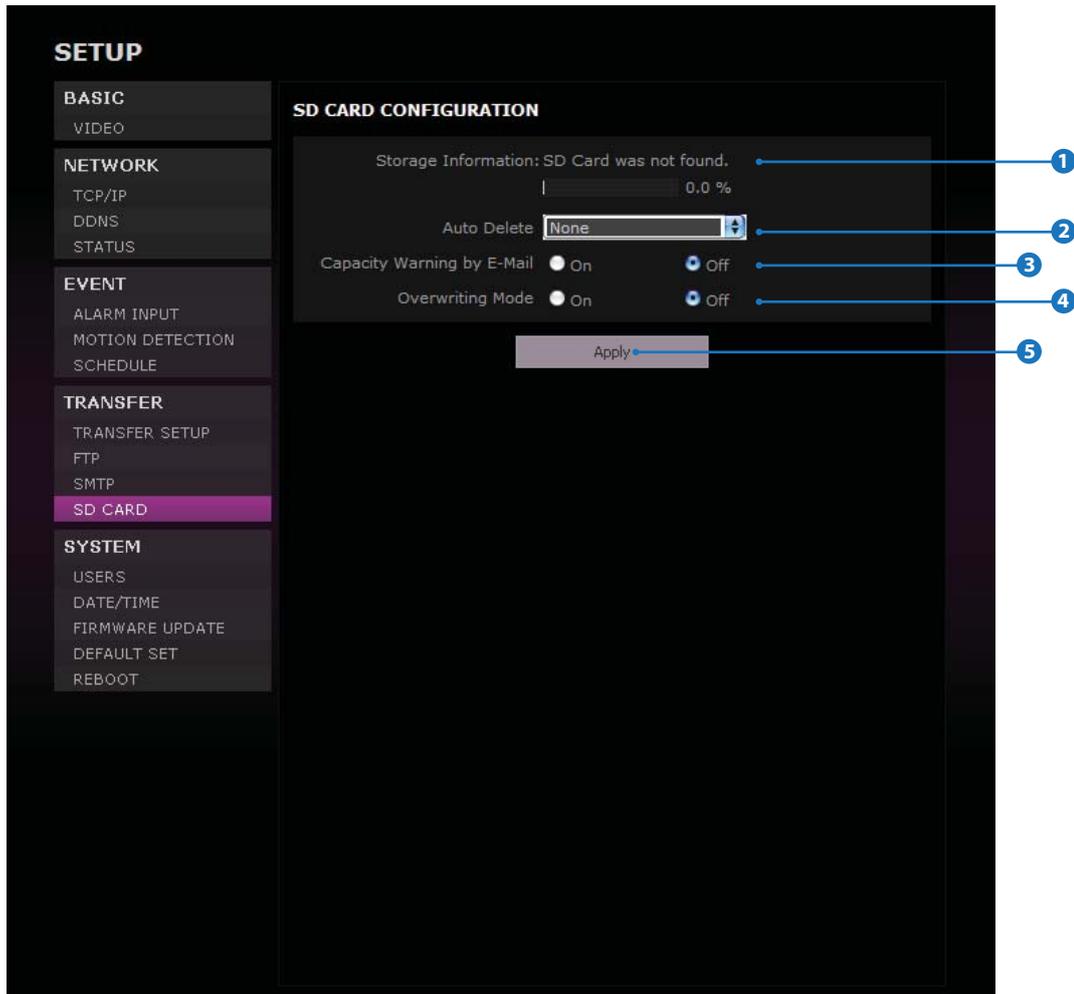
Define title of E-Mail when camera sends an E-mail.

## 9 Message

Define contents of E-Mail when camera sends an E-mail.

## 10 Press 'Apply' to make above setting effective.

# 5 Setup - SD CARD Setup



## 1 Storage Information

It indicates the usage of SD Card memory. If SD is not exist, a message 'SD Card was not found' is displayed.

## 2 Auto Delete

Select the period for Auto delete. The image data stored before this will be deleted automatically.

NONE	Do not use 'Auto Delete'.
1 Week	Delete all stored image older than 1 week from 00:00 today.
1 Month	Delete all stored image older than 1 Month from 00:00 today.
1 Year	Delete all stored image older than 1 Year from 00:00 today.

※ It is noted that this function will be executed everyday to delete data before designated period.

## 3 Capacity Warning E-mail

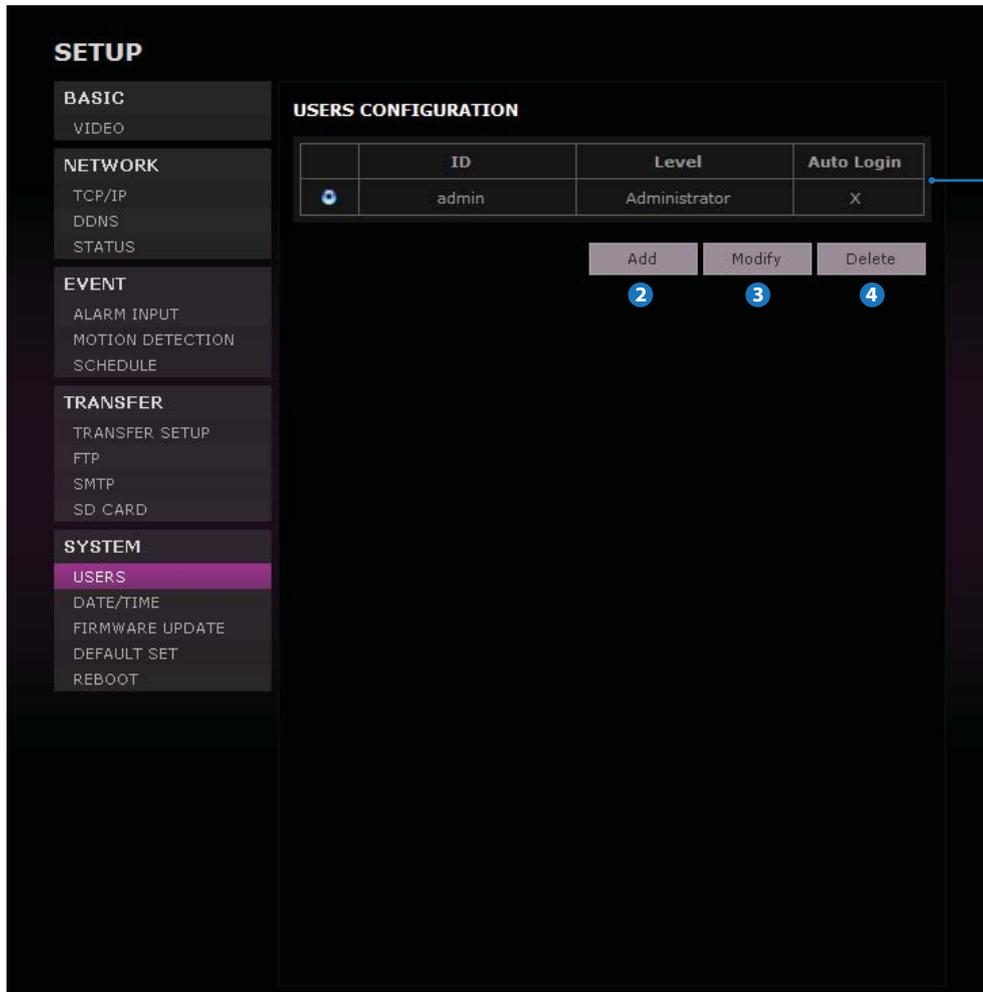
If it is set ON and remained space of SD card reach to less than 8MB, a warning e-mail will be sent to the e-mail account set in SMTP menu.

## 4 Overwriting Mode

If it is set ON and remained space of SD card reach to less than 8MB, new data will start to be overwritten on the oldest data. However, if it is set OFF and remained space of SD card reach to less than 8MB, image recording will be stopped.

## 5 Press 'Apply' to make above setting effective.

# 5 Setup - Users Setup



## 1 Users

List user accounts for authentication.

## 2 Add

Register new user

The 'User' dialog box contains the following fields: ID (text input), Password (text input), Verify (text input), User Level (dropdown menu with 'Operator' selected), and an 'Auto Login' checkbox. 'OK' and 'Cancel' buttons are at the bottom.

## 3 Modify

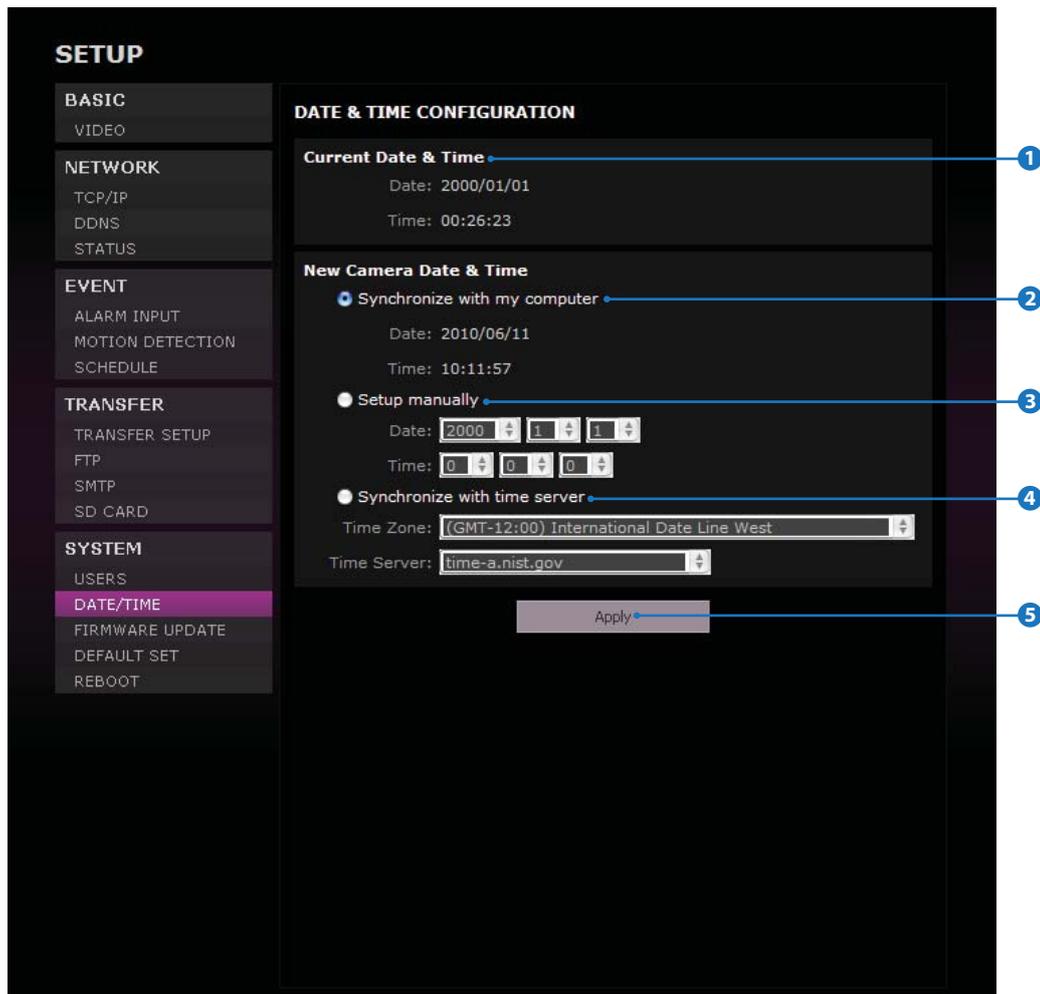
Modify information of user accounts registered. For admin account, only Password and Auto Login function can be modified.

## 4 Delete

Delete selected user account. Admin account cannot be deleted.

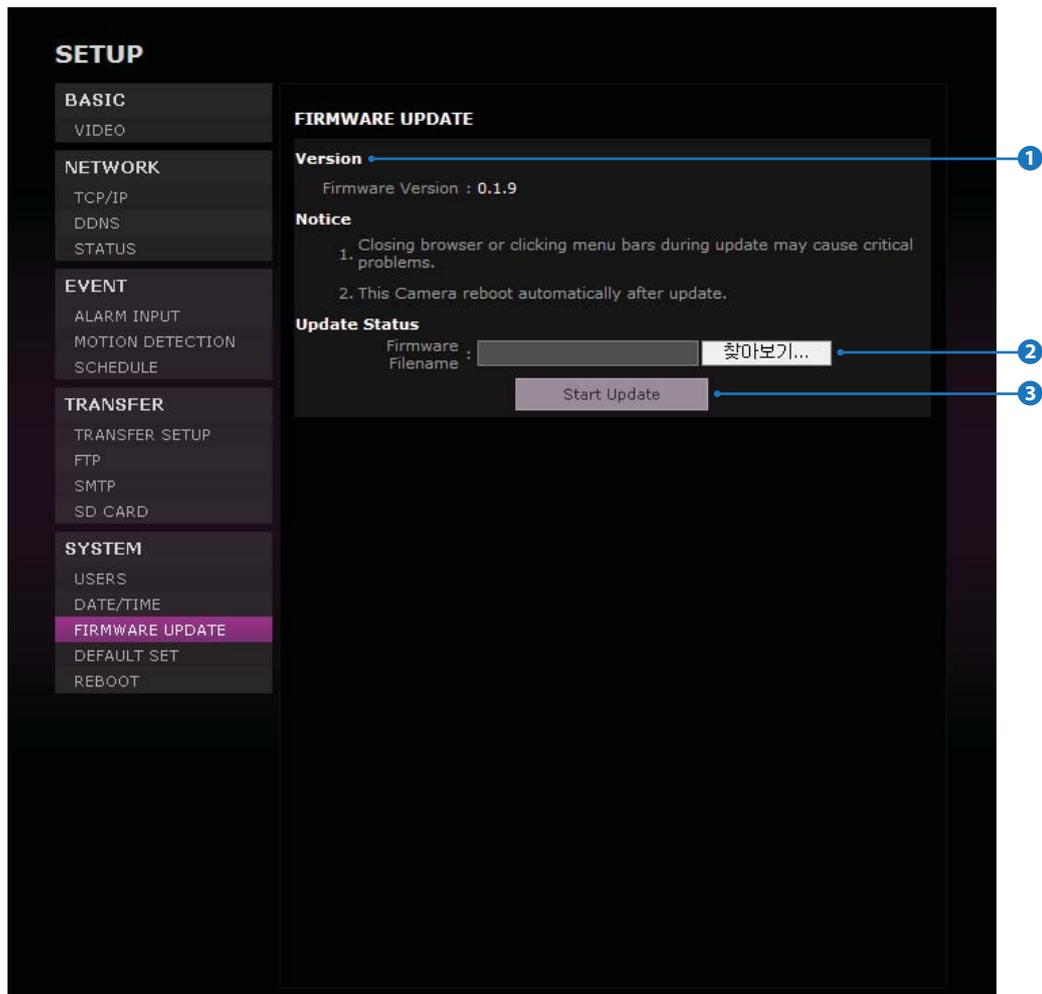
<b>ID</b>	Enter new user ID except Admin since it exists.
<b>Password</b>	Enter user Password.
<b>Verify</b>	Enter user Password again for verification.
<b>User Level</b>	Select Operator or Viewer. <ul style="list-style-type: none"> <li>• Viewer : Only monitoring is allowed.</li> <li>• Operator : Monitoring, PTZ Control and Digital In/Out Control are allowed.</li> <li>• Administrator: All functions are allowed.</li> </ul>
<b>Auto Login</b>	If you checking Auto login in an account, this account becomes public account. From next login, everybody can access the camera using this account without authentication. Only one account can have Auto Login.

# 5 Setup - Date/Time Setup



- 1 Current Date & Time**  
Shows current date and time setting in the Camera.
- 2 Synchronize with my computer**  
Set date/time using those of PC currently connected.
- 3 Setup manually**  
date/time by typing manually.
- 4 Synchronize with time server**  
In this mode, date/time is automatically updated using Time Server selected. After selecting Time Zone properly, Time Server must be selected. However, if you want to assign a time server not in the list, select Manual. Once synchronization is configured successfully, time and date will be updated at every 1 hour automatically.
- 5 Press 'Apply' to make above setting effective.**

# 5 Setup - Firmware Update



### 1 Firmware Version

It Shows current Firmware Version reside in the system.

### 2 Firmware Filename

Designate Firmware file name in your computer by clicking [Browse...] button.

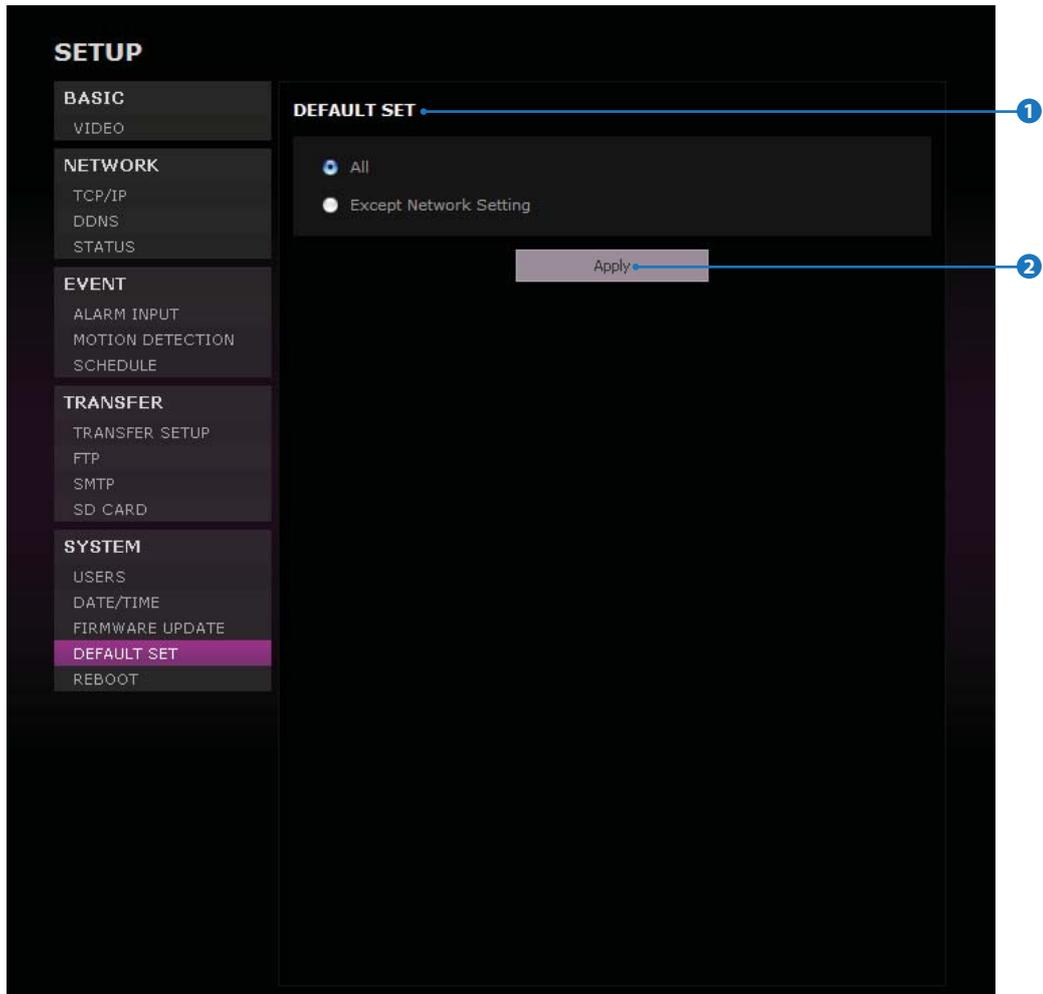
### 3 Start Update

Press this button to start update. Progress of uploading will be displayed using Progress Bar. If you assign wrong file name, an error message will be shown.

### ⚠ Warning:

Do not turn off the power of camera during Firmware update is proceeded. Otherwise, the system can be stuck to be unstable. If updating is finished, the system will be rebooted automatically.

# 5 Setup - Default Set



## 1 Reset to the Factory Defaults

Return the setup to the Factory Default.

All	Reset all Settings to the Factory Defaults.
Except Network Settings	Except Network related settings, reset all others to the Factory Defaults.

### ⚠ Warning:

If you press 'Apply', you will lose all setting data. If needed, please, make a note for further installation.

## 2 Press 'Apply' to make above setting effective.

# 5 Setup - Reboot

---



If you press the Reboot menu, a message box will be shown to confirm. Press 'Ok' to reboot.

# 6 OSD - Check Points before Operation

---

## Check Points before Operation

1. Before power is applied, please check the cables carefully.
2. The camera ID of the controller must be identical to that of the camera to be controlled. The camera ID can be check in the system information of OSD menu.
3. If your controller supports multi-protocols, the protocol must be changed to match to that of the camera.
4. If you changed camera protocol by changing DIP switch, the change will be effective after you reboot the camera.
5. Since the operation method can be different for each controller available, refer to the manual for your controller if camera cannot be controlled properly.

### 1 Preset and Pattern Function Pre-check

- Check how to operate preset, pattern, scan and group function with keyboard controller/DVR in advance to operate camera function using them.  
(Refer to your system keyboard manual)

### 2 Auto Calibration

- If the camera is continuously subjected to very high temperature (over 50°C or 122°F) environment for a long time, it is possible for the camera to lose focus. As a result, you will get blurry image. In this case, it is recommended to turn on 'AUTO CALIBRATION'.
- If you execute 'AUTO CALIBRATION', camera will calibrate its focus at every 6 hours.

### 3 Start OSD Menu

- Using the OSD menu, preset, pattern, scan, group and alarm input function can be configured for each application.  
Enter 'Preset key + 0' or 'Pattern + 30'.

# 6 OSD - Aux Functions

## 1 Preset

- Max. 255 positions can be stored as preset positions. The preset number can be assigned from 1 to 255.
- See the section 'ROOT MENU>FUNCTION SETUP>PRESET SETUP' for more detailed information.

### 1. Set Preset

Method 1) Use keyboard controller:  
☒ Refer to keyboard controller manual.

Method 2) Use OSD menu.

### 2. Run Preset

Method 1) Use keyboard controller:  
Preset key + Number key(1~255)

### 3. Delete Preset

To delete preset, use OSD menu.

## 2 Scan

- By using scan function, you can make camera to move between 2 preset positions repeatedly.
- See the section 'ROOT MENU>FUNCTION SETUP>SCAN SETUP' for more detailed information.

### 1. Set Scan

To set scan, use OSD menu.

### 2. Run Scan

Method) Pattern key + Scan number(1~8) + 10  
Ex) Run scan 2 = Pattern key + [12] + Enter key

### 3. Delete Scan

To delete scan, use OSD menu.

## 3 Pattern

- Pattern function is that a camera memorizes the path (mostly curve path) by joystick of controller for assigned time and revives the path exactly as it memorized.
- See the section 'ROOT MENU>FUNCTION SETUP>PATTERN SETUP' for more detailed information.

### 1. Set Pattern

To set pattern, use OSD menu.

### 2. Run Pattern

Method 1) Pattern key + Pattern number(1~4) + Enter key  
Ex) Run pattern 2 = Pattern key + [2] + Enter key

### 3. Delete Pattern

To delete pattern, use OSD menu.

- ☒ When the pattern is saved/executed, the pan/tilt is operated with 'AUTO FLIP-OFF'.

## 4 Group

- The group function allows running sequence of presets, pattern and/or scans.
- See the section 'ROOT MENU>FUNCTION SETUP>GROUP SETUP' for more detailed information.

### 1. Set Group

To set group, use OSD menu.

### 2. Run Group

Method) Pattern key + [Group number(1~8) + 20]  
Ex) Run group 2 = Pattern key + [22] + Enter key

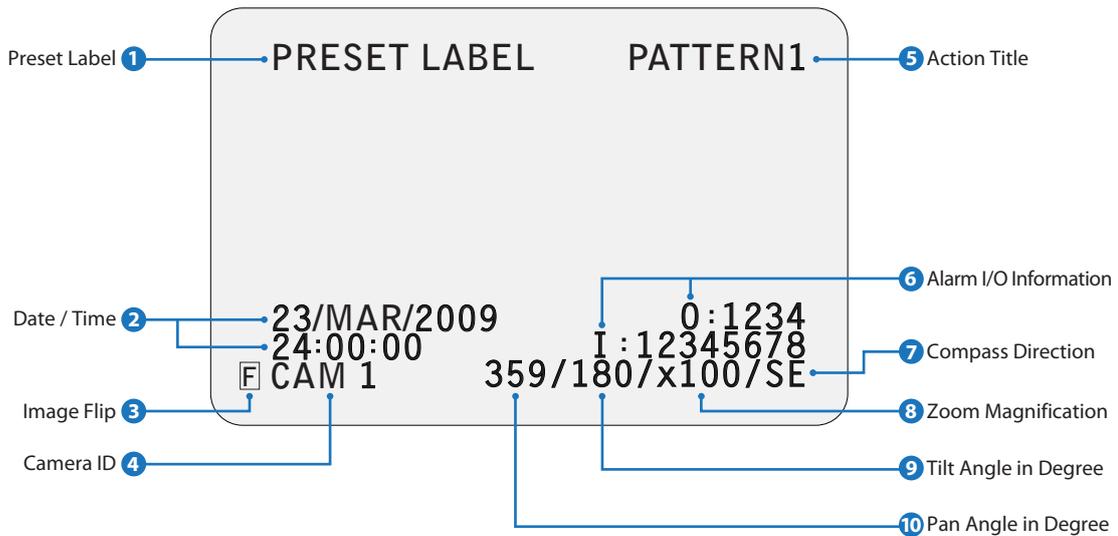
### 3. Delete Group

To delete group, use OSD menu.

## 5 Schedule

- The schedule function allows running an appropriate function like preset, scan, group, pattern, home move at the designated day and time.
- See the section 'ROOT MENU>FUNCTION SETUP>SCHEDULE SETUP' for more detailed information.

# 6 OSD - OSD Information



## 1 Preset Label

- The label stored for specific preset.
- See the section 'ROOT MENU>FUNCTION SETUP>PRESET SETUP>LABEL'.

## 2 Date / Time

- Shows the current date/time.
- See the section 'ROOT MENU>SYSTEM SETUP>DATE/TIME SETUP'.

## 3 Image Flip

- Shows that images are currently reversed by auto flip function.
- See the section 'ROOM MENU>CAMERA SETUP>IMAGE FLIP'.

## 4 Camera ID

- The current camera ID(Address).
- See the section 'ROOT MENU>SYSTEM INFORMATION'.

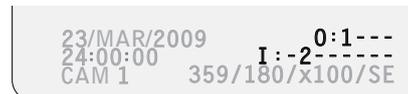
## 5 Action Title

Followings are possible action titles and their meaning.

Action Title	Means
SET PRESET 123	Means to store preset 123.
PRESET 123	Means it reached preset 123.
PATTERN 1	Means the camera is running pattern 1.
SCN 1/PRESET 123	Means the camera is running scan 1.
RANGE OVER	Means the action received is not within the range supported.
UNDEFINED	Means the action received is not defined.

## 6 Alarm I/O Information

- This information shows current state of alarm input and output.
- The 'I' means input and 'O' means output.
- If an input is on state it will show the number of input. If an input is off state, '-' will be displayed. In the same way 'O:1 ---' means output 1 is on and other output is off.
- Ex) When point 2 of inputs are on, and output 1 is on, OSD will show as below.



## 7 Compass Direction

- Shows the current compass direction of the camera.
- The direction is shown as N(North), S(South), E(East), W(West), NE(Northeast), NW(Northwest), SE(Southeast), SW(Southwest).
- See the section 'ROOT MENU>SYSTEM SETUP>SET NORTH DIRECTION'.

## 8 Zoom Magnification

Shows the current zoom magnification.

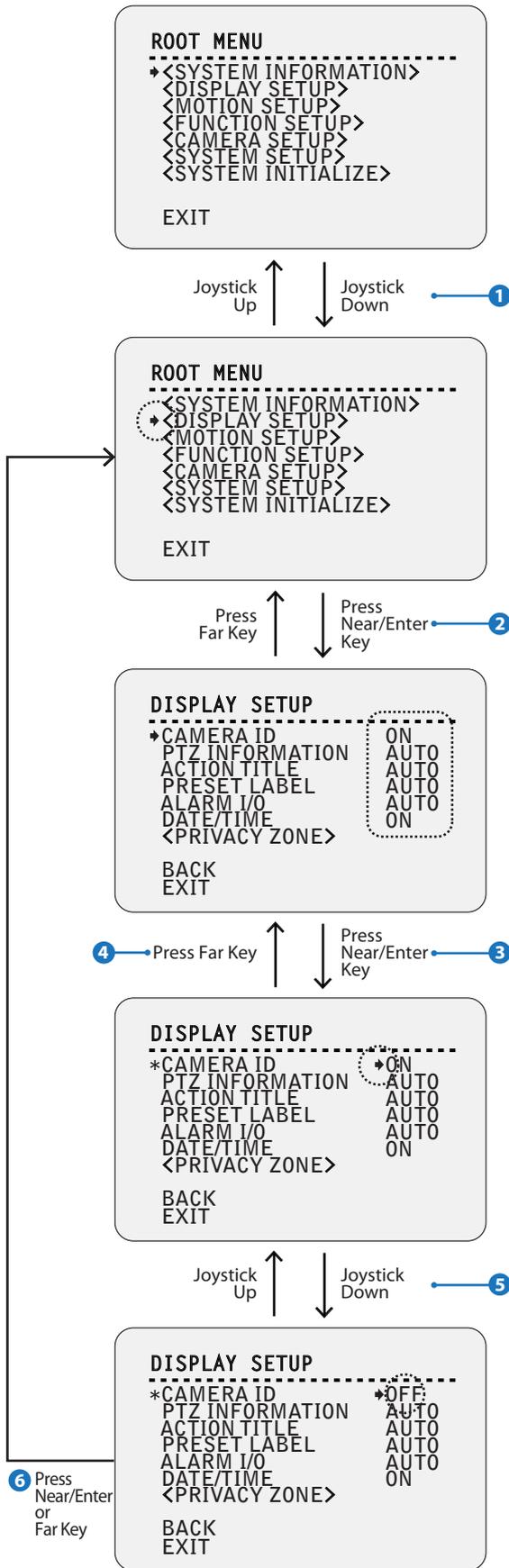
## 9 Tilt Angle in Degree

Shows the current tilt(0 ~ 180) angle.

## 10 Pan Angle in Degree

Shows the current pan(0 ~ 359) angle.

# 6 OSD - General Rules of Menu Operation



- 1 The menu items surrounded with < > always has its sub menu.
- 2 To move from items to item in the menu, use joystick in the up/down or left/right.
- 3 For all menu level, to go into sub menu, press near or enter key.
- 4 To go to up-one-level menu, press far key.
- 5 To change a value of an item, use up/down of the joystick in the controller.
- 6 Press near or enter key to save values and press far key to cancel values.

# 6 OSD - ROOT MENU & SYSTEM INFORMATION

1

```
ROOT MENU
-----
-><SYSTEM INFORMATION>
<DISPLAY SETUP>
<MOTION SETUP>
<FUNCTION SETUP>
<CAMERA SETUP>
<SYSTEM SETUP>
<SYSTEM INITIALIZE>

EXIT
```

1 ROOT MENU

---

## <SYSTEM INFORMATION>

Shows information and current configuration.

---

## <DISPLAY SETUP>

Enable/Disable of OSD display on main screen.

---

## <MOTION SETUP>

Setup for motion related settings.

---

## <FUNCTION SETUP>

Setup for various functions such as preset, scan, pattern, group and schedule.

---

## <CAMERA SETUP>

Configure camera related functions and data.

---

## <SYSTEM SETUP>

Configure for basic system setup.

---

## <SYSTEM INITIALIZE>

Initializes system configuration and sets all data to factory default configuration.

---

## EXIT

To escape from the OSD setting, go to exit.

---

1

```
SYSTEM INFORMATION
-----
FIRMWARE VER 1.0
COLOR SYSTEM NTSC
PROTOCOL AUTO
BAUD RATE 2400
ADDRESS 1

BACK
EXIT
```

1 SYSTEM INFORMATION

---

## FIRMWARE VER

Shows the current firmware version.

---

## COLOR SYSTEM

Shows the current analog video system.

---

## PROTOCOL

Shows the current PTZ control protocol.

---

## BAUD RATE

Shows the current baud rate of the PTZ control.

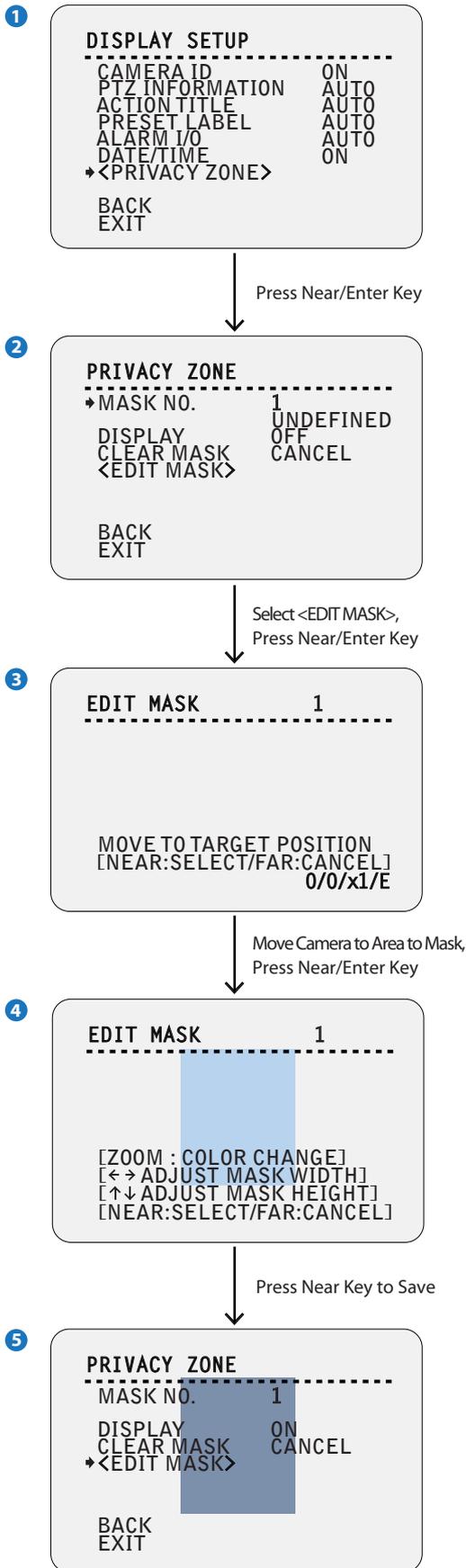
---

## ADDRESS

Shows the current camera ID of the PTZ control.

---

# 6 OSD - DISPLAY SETUP



## 1 DISPLAY SETUP

This menu defines enable/disable of OSD display on main screen. If an item is set to be 'AUTO', the item is displayed only when the value of it is changed.

CAMERA ID	ON / OFF
PTZ INFORMATION	ON / OFF / AUTO
ACTION TITLE	ON / OFF / AUTO
PRESET LABEL	ON / OFF / AUTO
ALARM I/O	ON / OFF / AUTO
DATE/TIME	ON / OFF

<PRIVACY ZONE>  
Start Privacy Zone Mask setup Menu.

## 2 PRIVACY ZONE

- Selects area in image to mask.

**MASK NO.** 1 ~ 8  
Select mask number. If the selected mask has data already, camera moves as it was set. Otherwise, 'UNDEFINED' will be displayed under 'MASK NO.'

**DISPLAY** ON / OFF  
Sets if the camera makes mask shows or not on images.

**CLEAR MASK** CANCEL / OK  
Deletes data in the selected mask no.

<EDIT MASK>  
Moves to setup the mask no.

## 3 EDIT MASK - Move to Target Position

Move camera to area to mask. Then the menu to adjust mask size will be displayed.

⊗ If the tilt angle is located in the range between 90° to 90°, you can not set up privacy zone mask.

⊗ If tilt angle over 90° (image flipped region) is designated, camera will automatically move to identical position by changing tilt angle less than 90° and moving pan angle 180° relatively.

## 4 EDIT MASK - Color Change & Adjust Mask Size

Adjust mask size. Use joystick or arrow buttons to adjust mask size.

- Zoom In/Out: Change Color of Mask.

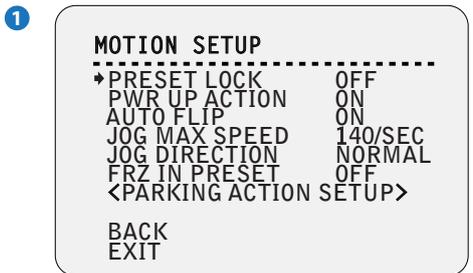
- Move Joystick Left/Right(◀▶): Adjust Mask Width.

- Move Joystick Up/Down(▲▼): Adjust Mask Height.

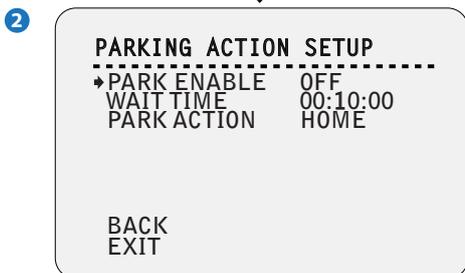
⊗ To hide a certain zone completely regardless of high speed pan/tilt motions, it is recommended that the size of mask must be 20% bigger than original target size.

⊗ It is noted that during pan/tilt control like jog action, the object behind the privacy mask can be disclosed in a short period of time.

# 6 OSD - MOTION SETUP



Press Near/Enter Key



## 1 MOTION SETUP

Setup the general functions of pan/tilt motions.

**PRESET LOCK** ON / OFF

If motion lock is set to on, it is impossible to set up and delete preset, scan, pattern and group. It is possible only to run those functions. To set up and delete those functions, enter into OSD menu.

**PWR UP ACTION** ON / OFF

This function enables to resume the last action executed before power down. Most of actions such as preset, pattern, scan and group are available for this function but jog actions are not available to resume.

**AUTO FLIP** ON / OFF

In case that tilt angle arrives at the top of tilt orbit (90°), zoom module camera keep moving to opposite tilt direction (180°) to keep tracing targets. As soon as zoom module camera passes through the top of tilt direction(90°), images should be reversed automatically and [F] appears in screen. If this function is set to 'OFF', tilt movement range is 0° ~ 90°.

**JOG MAX SPEED** 2/SEC ~ 200/SEC

Sets maximum jog speed. Jog speed is inversely proportional to zoom magnification. As zoom magnification goes up, pan/tilt speed goes down.

**JOG DIRECTION** INVERSE / NORMAL

If you set this to 'NORMAL', the view in the screen is moving same direction with jog tilting. If 'INVERSE' is selected, the view in the screen is moving reversely.

**FRZ IN PRESET** ON / OFF

At start point of preset movement, camera starts freezing the image of start point. Camera keeps displaying the image of start point during preset movement and does not display the images which camera gets during preset movement. As soon as camera stops at preset end point, camera starts displaying live images which it gets at preset end point. This function availability should be different by models.

<PARKING ACTION SETUP>

Moves to 'PARKING ACTION SETUP' screen.

## 2 PARKING ACTION SETUP

If 'PARK ENABLE' is set to 'ON', camera runs assigned function automatically if there is no PTZ command during assigned 'WAIT TIME'.

**PARK ENABLE** ON / OFF

**WAIT TIME** 00:00:05 ~ 04:00:00

The time is displayed with "hh:mm:ss" format and you can change this by 1 sec. unit.

1. To place the cursor on the time marked as below, press near key.

**00:10:00**

2. Move joystick Left/Right to adjust hours, minutes and seconds.

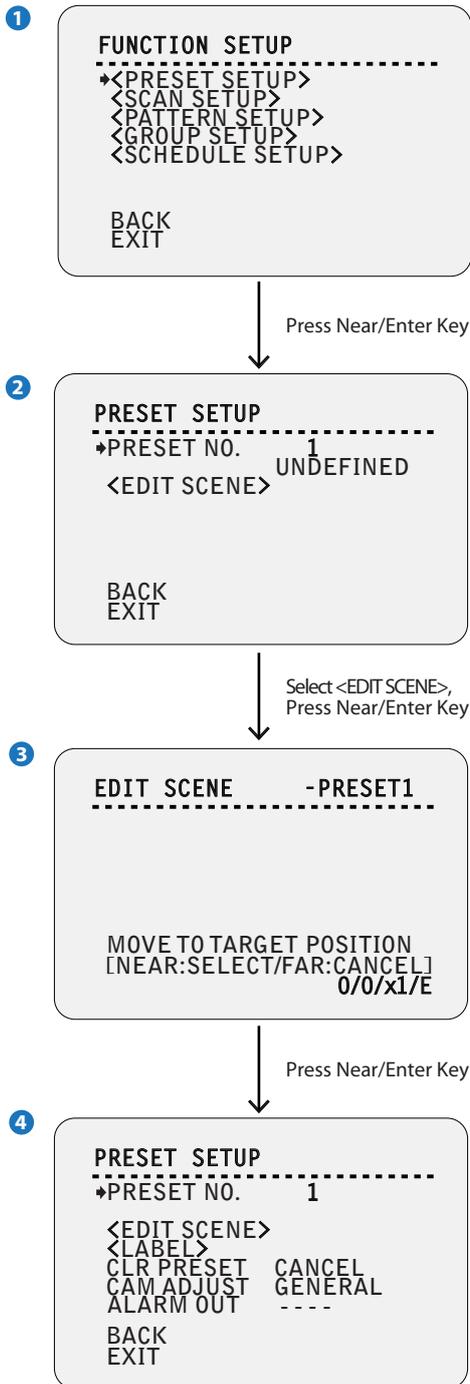
3. Move joystick Up/Down to select the digit.

4. By pressing near key, save current setting.

**PARKING ACTION** HOME / PRESET 1~128 / SCAN 1~8 / PATTERN 1~4 / GROUP 1~8

Ex) If 'HOME' is selected for park action, camera will move to home position when there is no PTZ command during the assigned 'WAIT TIME.'

# 6 OSD - FUNCTION SETUP > PRESET SETUP



## 1 FUNCTION SETUP

Configure 5 special functions with this menu.

## 2 PRESET SETUP - Undefined

255 presets from the number 1 to 255 can be assigned excluding preset 95 reserved for menu.

**PRESET NO.** 1 ~ 255

If a selected preset is already defined, camera moves to pre-defined position and preset characteristics such as label and relay outputs show on monitor. (Refer screen 4) If a selected preset is not defined, 'UNDEFINED' shows on monitor.

**<EDIT SCENE>**

Redefine the current preset scene position(i.e. PTZ).

## 3 EDIT SCENE

1. Using joystick, move camera to the desired position.
2. By pressing near key, save the current PTZ data.
3. Press far key to cancel.

## 4 PRESET SETUP

If the preset is defined, the information will be shown on the OSD menu with the setting, and the alarm device (if defined) will be activated.

**PRESET NO.** 1 ~ 255

**<EDIT SCENE>**

**<LABEL>**

Edits Label to show on monitor when preset runs. Max. 10 alphabets are allowed.

**CAM ADJUST** GENERAL / SPECIAL

- WB(White Balance) and AE(Auto Exposure) can be set up independently for each preset.

- **GENERAL:** WB or AE can be set up totally and simultaneously for all presets in 'ROOT MENU>CAMERA SETUP' menu.

- **SPECIAL:** WB or AE can be set up independently or separately for each preset in each preset setup menu.

- Each special WB/AE value should be activated correspondingly when camera arrives at each preset location. During jog operation, general WB/AE value should be applied.

- All special WB/AE value should not be changed although general WB/AE value is changed. If 'SPECIAL' is selected, the menu to set WB/AE is shown on monitor.

**ALARM OUT** ---- ~ 1 2 3 4

State of four alarm outputs can be freely controlled in conjunction with preset run. The character '-' means off state and the number representing each bit means on.

Ex) If it is set to be '- 2 3 -', output relay 2, 3 will be on and 1, 4 will be off, when you run this preset.

# 6 OSD - FUNCTION SETUP > PRESET SETUP

**1**

```

PRESET SETUP
-----
PRESET NO.    1
<EDIT SCENE>
*<LABEL>
CLR PRESET   CANCEL
CAM ADJUST   GENERAL
ALARM OUT    -----
BACK
EXIT
    
```

Press Near/Enter Key

**2**

```

LABEL          PRESET1
-----
[ ]
1 2 3 4 5 6 7 8 9 0 OK CANCEL
A B C D E F G H I J
K L M N O P Q R S T
U V W X Y Z a b c d
e f g h i j k l m n
o p q r s t u v w x
y z < > - / : . <
    
```

Press Near/Enter Key

**3**

```

LABEL          PRESET1
-----
[SKY]
1 2 3 4 5 6 7 8 9 0 *OK CANCEL
A B C D E F G H I J
K L M N O P Q R S T
U V W X Y Z a b c d
e f g h i j k l m n
o p q r s t u v w x
y z < > - / : . <
    
```

## 2 LABEL

- Edits label to show on monitor when camera arrives at preset.

```

LABEL          PRESET1
-----
[ ]
1 2 3 4 5 6 7 8 9 0 OK CANCEL
A B C D E F G H I J
K L M N O P Q R S T
U V W X Y Z a b c d
e f g h i j k l m n
o p q r s t u v w x
y z < > - / : . <
    
```

**a Current Cursor Position:** In edit label menu, a reverse rectangular is cursor. As soon as finishing selecting alphabet, cursor moves to the next digit.

**b Selecting Alphabet:** Using left/right/up/down of joystick, move to an appropriate character from the character set. To choose the character, press the near or enter key.

**c Space:** If you want to use blank, choose space character (' ').

**d Back-Space:** If you want to delete a character in front, use back space character ('←').

## 3 LABEL – Complete Editing

If you complete the label editing, move cursor to 'OK' and press near key to save completed label. To abort current change, move cursor to 'CANCEL' and press near key.

**1**

```

PRESET SETUP
-----
PRESET NO.    1
<EDIT SCENE>
<LABEL>
CLR PRESET   CANCEL
*<CAM ADJUST> *<SPECIAL>
ALARM OUT    -----
BACK
EXIT
    
```

Press Near/Enter Key

**2**

```

CAM ADJUST    -PRESET1
-----
*<WHITE BALANCE SETUP>
<AUTO EXPOSURE SETUP>
BACK
EXIT
    
```

## 2 CAM ADJUST

Edits label to show on monitor when the camera arrives at presets.

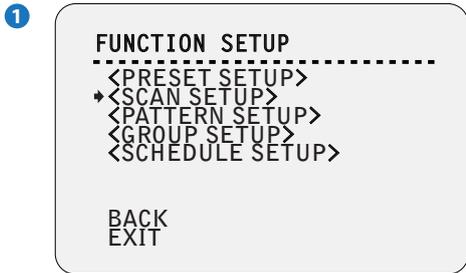
### <WHITE BALANCE SETUP>

See the section 'ROOT MENU>CAMERA SETUP>WB SETUP'.

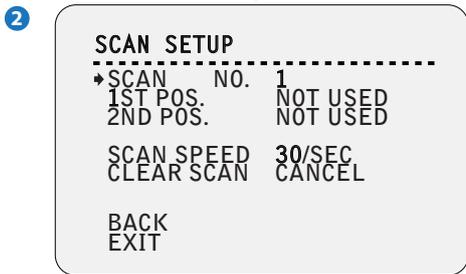
### <AUTO EXPOSURE SETUP>

See the section 'ROOT MENU>CAMERA SETUP>AE SETUP'.

# 6 OSD - FUNCTION SETUP > SCAN SETUP



Press Near/Enter Key

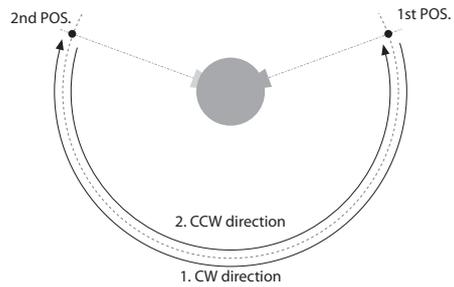


## 2 SCAN SETUP

By using the scan function, you can make the camera to move between 2 preset positions repeatedly.

When the scan function runs, the camera moves from the preset assigned as the 1st point to the preset assigned as the 2nd point in CW(Clockwise) direction. Then the camera moves from the preset assigned as the 2nd point to the preset assigned as the 1st point in CCW(Counterclockwise) direction.

In case that the preset assigned as the 1st point is same as the preset assigned as the 2nd point, the camera turns on its axis by 360° in CW direction and then it turns on its axis by 360° in CCW direction.

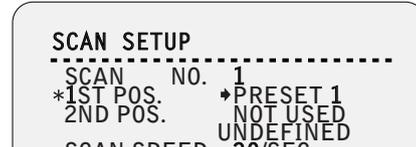


**SCAN NO.** 1 ~ 8

Selects the scan number to edit. If a selected scan has not defined, 'NOT USED' is displayed in 1st position and 2nd position.

**1ST POS. / 2ND POS.** PRESET 1 ~ 255 / NOT USED

Set up the 2 position for scan function. If a selected preset is not defined, 'UNDEFINED' will be displayed as shown below.



**SCAN SPEED** 1/SEC ~ 180/SEC

Sets the scan speed.

**CLEAR SCAN** CANCEL / OK

Deletes the current scan data.



# 6 OSD - FUNCTION SETUP > GROUP SETUP

1

```

FUNCTION SETUP
-----
<PRESET SETUP>
<SCAN SETUP>
<PATTERN SETUP>
* <GROUP SETUP>
<SCHEDULE SETUP>

BACK
EXIT
    
```

Press Near/Enter Key

2

```

GROUP SETUP
-----
* GROUP NO.      1
CLEAR GROUP    UNDEFINED
<EDIT GROUP>   CANCEL

BACK
EXIT
    
```

Select <EDIT GROUP>, Press Near/Enter Key

3

```

EDIT GROUP      1
-----
* NO. ACTION NO. DWELL OPT
1 NONE
2 NONE
3 NONE
4 NONE
5 NONE
-----
SAVE
CANCEL [NEAR:EDIT]
    
```

Press Near/Enter Key

4

```

EDIT GROUP      1
-----
NO. ACTION NO. DWELL OPT
* 1 NONE
2 NONE
3 NONE
4 NONE
5 NONE
-----
SAVE [NEAR:EDIT ACT]
CANCEL [FAR :EDIT END]
    
```

Press Near/Enter Key

5

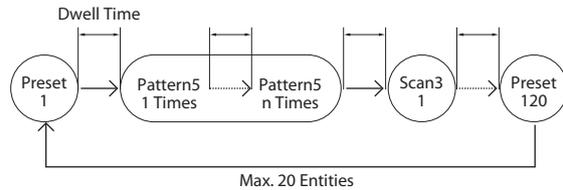
```

EDIT GROUP      1
-----
NO. ACTION NO. DWELL OPT
* 1 NONE
2 NONE
3 NONE
4 NONE
5 NONE
-----
SAVE [←→:MOVE CURSOR]
CANCEL [↑↓:CHANGE VAL.]
    
```

## 2 GROUP SETUP SCREEN

The group function allows running sequence of presets, pattern and/or scans. Max. 8 group can be stored. Each group can have max. 20 action entities which can be preset, pattern or scan.

Preset speed can be set up and the repeat number of pattern & scan can be set up in group setup. Dwell time between actions can be set up also.



**GROUP NO.** 1 ~ 8

Selects group number to edit. If a selected group number is not defined, 'UNDEFINED' will be displayed under the selected group number.

**CLEAR GROUP** CANCEL / OK

Deletes data in the current group.

**<EDIT GROUP>**

Starts editing group.

## 3 EDIT GROUP - Initial Screen

Press near or enter key in 'NO' list to start group setup.

**ACTION NO.** NONE / PRESET 1~255 / PATTERN 1~4 / SCAN 1~8

**DWELL TIME** 00:03 ~ 04:00 (min:sec)

Sets dwell time between function by moving joystick up/down.

**OPT** PRESET: 2~360 / PATTERN & SCAN: 1~255

It represents preset speed (2~360) when preset is selected. It should be the number of repetition (1~255) when pattern or scan is selected for 'ACTION'.

## 4 EDIT GROUP - Select Function Sequence

Note that max. 20 functions are allowed in a group.

Move cursor up/down and press near or enter key to set up.

## 5 6 EDIT GROUP - Assign Function

Set up 'ACTION', 'DWELL' and 'OPT'. Note that selected item is displayed in reverse. Move cursor left/right to select items and move cursor up/down to change each value.

# 6 OSD - FUNCTION SETUP > GROUP SETUP

6

```

EDIT GROUP                1
-----
NO. ACTION NO. DWELL OPT
→ 1 PATTERN 1  00:03  1
   2 NONE
   3 NONE
   4 NONE
   5 NONE
-----
SAVE  [←→:MOVE CURSOR]
CANCEL [↑↓:CHANGE VAL.]
    
```

↓ Press Near/Enter Key

7

```

EDIT GROUP                1
-----
NO. ACTION NO. DWELL OPT
→ 1 PATTERN 1  00:03  1
   2 NONE
   3 NONE
   4 NONE
   5 NONE
-----
SAVE  [NEAR:EDIT ACT]
CANCEL [FAR :EDIT END]
    
```

↓ Press Far Key

8

```

EDIT GROUP                1
-----
NO. ACTION NO. DWELL OPT
   1 PATTERN 1  00:03  1
   2 NONE
   3 NONE
   4 NONE
   5 NONE
-----
→SAVE
CANCEL
    
```

7

## EDIT GROUP - Selects Function Sequence

After finishing setting up an 'ACTION', press near or enter key to one-upper-level menu. Move cursor up/down to select 'ACTION NO.' and repeat to step 4 ~ step 6 to edit the selected group.

8

## EDIT GROUP - Saves the Setting

After finishing setting up all actions, press far key to exit. Then cursor should be moved to 'SAVE'. Press near or enter key to save the data.

# 6 OSD - FUNCTION SETUP > SCHEDULE SETUP

1

```

FUNCTION SETUP
-----
<PRESET SETUP>
<SCAN SETUP>
<PATTERN SETUP>
<GROUP SETUP>
<SCHEDULE SETUP>

BACK
EXIT
    
```

Press Near/Enter Key

2

```

SCHEDULE SETUP
-----
▶ MASTER ENABLE      OFF
  DAY TIME  ACT NO  ON
1  UNDEFINED
2  UNDEFINED
3  UNDEFINED
4  UNDEFINED
5  UNDEFINED
6  UNDEFINED
7  UNDEFINED
BACK
    
```

Joystick Down,  
Press Near Key

3

```

SCHEDULE SETUP
-----
MASTER ENABLE      OFF
  DAY TIME  ACT NO  ON
1  UNDEFINED
2  UNDEFINED
3  UNDEFINED
4  UNDEFINED
5  UNDEFINED
6  UNDEFINED
7  UNDEFINED
BACK
    
```

Joystick Down

4

```

SCHEDULE SETUP
-----
MASTER ENABLE      OFF
  DAY TIME  ACT NO  ON
1  ALL 00:00 HOM  OFF
2  UNDEFINED
3  UNDEFINED
4  UNDEFINED
5  UNDEFINED
6  UNDEFINED
7  UNDEFINED
BACK
    
```

Assign Value

5

```

SCHEDULE SETUP
-----
MASTER ENABLE      OFF
  DAY TIME  ACT NO  ON
1  ALL 12:00 PRS 128 ON
2  UNDEFINED
3  UNDEFINED
4  UNDEFINED
5  UNDEFINED
6  UNDEFINED
7  UNDEFINED
BACK
    
```

## 2 SCHEDULE SETUP SCREEN

The schedule function allows running an appropriate function like preset, scan, pattern, group, home move at designated day and time.

EX) If you setup a rule 'Tuesday at 9:00AM' and 'Preset 1(say main gate)', the camera will move to main gate every Tuesday at 9:00 AM. If you choose weekday, camera will move to main gate everyday except weekend.

It is noted that due to the real time clock(ROOT MENU> SYSTEM SETUP>DATA/TIME SETUP), the time data will be kept regardless of blackout. The initial time and day setup is essential to proper schedule function.

---

**MASTER ENABLE**      ON / OFF

Decide whether schedule function is active or not.

---

**DAY**                      UNDEFINED / ALL / WKD / SUN ~ MON

Set the day for scheduling.

- **Undefined:** Inactivate

- **All:** Applies to every day

- **WKD:** Applies to every day except Saturday and Sunday

- **SUN-MON:** Applies to designated day only

---

**TIME**                      00:00 ~ 23:59 (hour:min)

Set the time.

---

**ACT NO**                    HOM(HOME) / PRS(Preset) 1~255  
/ SCN(Scan) 1~8 / PTN(Pattern) 1~4  
/ GRO(Group) 1~8

Set the function and no.

---

**ON**                          ON /OFF

Decide to make this rule effective or not.

## 4 5 SCHEDULE SETUP - Assign Value

Each field (DAY, TIME, ACT, NO., ON) can be selected by Left/Right keys and the values in the field are changed using Up/Down keys.

# 6 OSD - FUNCTION SETUP > SCHEDULE SETUP

6

## SCHEDULE SETUP

```
-----  
MASTER ENABLE          ON  
DAY TIME ACT NO ON  
1 MON 01:20 HOM 12 ON  
2 WED 07:00 PRS 12 ON  
3 THU 11:40 SCN 3 ON  
4 ALL 12:00 SCN 1 ON  
5 UNDEFINED  
6 UNDEFINED  
7 UNDEFINED  
BACK
```

### EX)

The second rule means camera will move to preset 12 position at 7:00 on every wednesday.

- ⊗ If there are rules conflicts to each other, the higher number is the higher priority has.
- ⊗ If you assign undefined function, there will be no action.
- ⊗ Using reserved preset, you can make various schedules.  
For example, PRS179 and PRS178 are 'DAY' and 'NIGHT' mode respectively.  
(Refer to Reserved Preset(page 18) list in this manual.)

# 6 OSD - CAMERA SETUP > WB SETUP

1

```

ZOOM CAMERA SETUP
-----
FOCUS MODE      SEMIAUTO
DIGITAL ZOOM    OFF
IMAGE FLIP      OFF
FLICKERLESS     OFF
* <WHITE BALANCE SETUP>
<AUTO EXPOSURE SETUP>

BACK
EXIT
    
```

Press Near/Enter Key

2

```

WB SETUP
-----
*WB MODE        AUTO
- RED ADJUST    ---
- BLUE ADJUST   ---

BACK
EXIT
    
```

Press Near Key,  
Joystick Down

3

```

WB SETUP
-----
*WB MODE        *MANUAL
- RED ADJUST    3 0
- BLUE ADJUST   4 0

BACK
EXIT
    
```

Press Near/Enter Key

4

```

WB SETUP
-----
*WB MODE        MANUAL
- RED ADJUST    3 0
- BLUE ADJUST   4 0

BACK
EXIT
    
```

Joystick Down

5

```

WB SETUP
-----
WB MODE        MANUAL
* - RED ADJUST  3 0
- BLUE ADJUST   4 0

BACK
EXIT
    
```

## 1 ZOOM CAMERA SETUP

Setup the general functions of zoom camera module.

**FOCUS MODE** AUTO / MANUAL / SEMIAUTO

Sets the camera focus mode.

- **SEMIAUTO:** This mode exchanges the focus mode automatically between manual focus mode and auto focus mode. Manual focus mode activates in preset operation and auto focus mode activates when jog operation starts.

- **MANUAL:** With manual mode at presets, focus data is memorized in each preset in advance and camera calls focus data in correspondence with presets as soon as camera arrives at a preset.

**DIGITAL ZOOM** ON / OFF

Sets digital zoom function to 'ON' or 'OFF'. If this is set to 'OFF', optical zoom function runs but zoom function stops at the end of optical zoom magnification.

**IMAGE FLIP** ON / OFF

Sets if the image should be reversed or not.

**FLICKERLESS** ON / OFF

Turns on or off the flickerless function. In this function, AE mode becomes shutter priority mode and shutter speed value will be fixed to 1/100 sec.

<WHITE BALANCE SETUP>

Starts 'WHITE BALANCE SETUP' setup screen.

<AUTO EXPOSURE SETUP>

Starts 'AUTO EXPOSURE SETUP' setup screen.

## 2 WB SETUP

**WB MODE** AUTO / MANUAL / ATW / AWC / OUTDOOR / INDOOR

- **AUTO:** Camera perform white balance automatically.

- **Manual:** R/B gain level can be set up manually.

- **ATW:** Auto White Balance is performed in the wider range of color temperature than that of the 'AUTO' mode.

- **AWC:** When right direction key is clicked, one time white balance is performed for current illumination condition and the value is kept.

- **INDOOR:** WB will be done under assumption of Indoor illumination.

- **OUTDOOR:** WB will be done under assumption of Sun light.

**RED ADJUST** 0 ~ 255

**BLUE ADJUST** 0 ~ 255

# 6 OSD - CAMERA SETUP > AE SETUP

1

```
ZOOM CAMERA SETUP
-----
FOCUS MODE      SEMIAUTO
DIGITAL ZOOM    ON
IMAGE FLIP      OFF
FLICKERLESS     OFF
<WHITE BALANCE SETUP>
* <AUTO EXPOSURE SETUP>
BACK
EXIT
```

Press Near/Enter Key

2

```
AE SETUP
-----
* BACKLIGHT      OFF
DAY/NIGHT        AUTO
BRIGHTNESS       25
IRIS              AUTO
SHUTTER          ESC
AGC               OFF
SSNR              OFF
SENS-UP          OFF
BACK
EXIT
```

3

```
MANUAL IRIS
-----
* IRIS LEVEL     F 1.6
BACK
EXIT
```

4

```
MANUAL SHUTTER
-----
* SHUTTER SPD    x2
BACK
EXIT
```

5

```
MANUAL SENS-UP
-----
* SENS-UP LIMIT  x2
BACK
EXIT
```

2 AE SETUP

**BACKLIGHT** OFF / BLC ON / HLC  
Sets the backlight compensation.

**DAY/NIGHT** AUTO / DAY / NIGHT  
'AUTO' exchanges day/night.

**BRIGHTNESS** 0~100 (101 steps)  
Adjusts brightness of images. Iris, shutter speed and gain are adjusted automatically in correspondence with this value.

**IRIS** AUTO / MANUAL  
- **AUTO**: Iris should have highest priority in adjusting AE and shutter speed should be fixed.  
- **MANUAL**: Iris should be fixed and iris has lower priority in adjusting AE, in comparison with others.

**SHUTTER** ESC / A.FLICKER / MANUAL  
- If iris is set to 'MANUAL' and shutter speed is set to 'ESC', shutter speed should have highest priority.  
- Shutter speed is set to 'A. FLICKER', to remove flicker, shutter speed should be set to 1/100 for NTSC and 1/120 for PAL.

**AGC** OFF / LOW / MIDDLE / HIGH  
Enhances the image brightness automatically in case that luminance level of image signal is too low.

**SSNR** OFF / LOW / MIDDLE / HIGH  
Enhances the images by deducting noises when gain level of images is too high.

**SENS-UP** OFF / AUTO  
Activates the slow shutter function when luminance of image(signal) is too dark. It is possible to set up the maximum number of frames piled up one on another by Slow Shutter function.

3 MANUAL IRIS SCREEN

**IRIS LEVEL** 0 ~ 100

4 MANUAL SHUTTER SCREEN

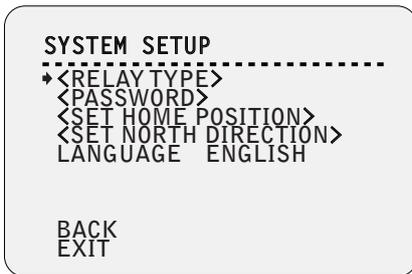
**SHUTTER SPD** x256 / x128 / x64 / x32 / x24 / x16 / x14 / x12 / x10 / x8 / x6 / x4 / x2 / 1/60 / 1/120 / 1/250 / 1/500 / 1/700 / 1/1000 / 1/1600 / 1/2500 / 1/5000 / 1/7000 / 1/10000 / 1/30000 / 1/60000 / 1/120000 (27 steps)

5 AUTO SENS-UP SCREEN

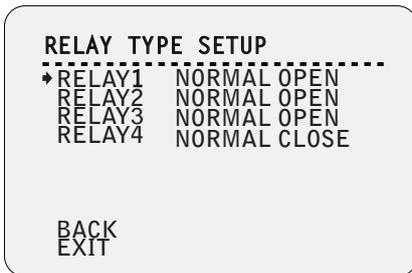
**SENS-UP LIMIT** x2 / x4 / x6 / x8 / x10 / x12 / x14 / x16 / x24 / x32 / x64 / x128 / x256 (13 steps)

# 6 OSD - SYSTEM SETUP

1



2



3



1 SYSTEM SETUP

<RELAY TYPE>  
Start 'RELAY TYPE' setup.

<PASSWORD>  
Start 'PASSWORD' setup.

<SET HOME POSITION>  
Starts 'SET HOME POSITION' setup.

<SET NORTH DIRECTION>  
Starts 'SET NORTH DIRECTION' setup.

LANGUAGE ENGLISH / ESPAÑOL / FRANÇAIS / DEUTSCH  
/ ITALIANO / РУССКИЙ / PORTUGUÊS

You can select a preferred Language of OSD display from 7 choices.  
After selecting a language, press near or enter key.

2 RELAY TYPE SETUP

RELAY1, 2, 3, 4 NORMAL OPEN(N.O) / NORMAL CLOSE(N.C)  
Contacts type of of 4ch. Relay out are defined.

3 EDIT PASSWORD

Sets the 4 characters long password. If this function is set to 'ENABLE', the password is required whenever you enter OSD menu.

⊠ The default password is '4321' and the master password is '- - > g'.

# 6 OSD - SYSTEM SETUP

5

## SET HOME POSITION

MOVE TO TARGET POSITION  
[NEAR:SELECT/FAR:CANCEL]  
0/0/x1/E

6

## SET NORTH DIRECTION

MOVE TO TARGET POSITION  
[NEAR:SELECT/FAR:CANCEL]  
0/0/x1/N

### 5 SET HOME POSITION

Home position means the origin of pan angle calculation. The value of pan angle displayed on the screen is based on this home position.

By using joystick, move the camera to the desired position and press near key.

Home is not effective to tilt angle.

If you change the location of the home position, all horizontal location of functions such as preset, scan, pattern, group and privacy zone mask will be shifted based on the changed home position.

If there are no setup for those functions like preset, pattern, scan, group camera will automatically move to home position after rebooting.

If power up action is set to be on, camera will continue the function which is executed lastly after rebooting.

#### ⊠ Set Home Position?

When you replace the camera block or the orientation of camera is changed due to maintenance operations, it is very difficult to maintain the same pan orientation. Therefore, all function data maintain on pan orientation such as preset, scan, pattern, group and privacy zone mask are not useful any more accordingly.

However, even in this case, you can reuse the data if you redefine set home position on the previous home position.

### 6 SET NORTH DIRECTION

By using joystick, move the camera to the desired north position and press enter (near/save).

The direction will be displayed in the screen



Direction will be displayed from:

N(North) / S(South) / E(East) / W(West) / NE(Northeast) / NW(Northwest) / SE(Southeast) / SW(Southwest).

# 6 OSD - SYSTEM INITIALIZE

SYSTEM INITIALIZE	
◆ CLEAR ALL DATA	NO
■ CLR DISPLAY SET	NO
■ CLR CAMERA SET	NO
■ CLR MOTIOM SET	NO
■ CLR FUNCTION SET	NO
REBOOT CAMERA	NO
REBOOT SYSTEM	NO
BACK	
EXIT	

## SYSTEM INITIALIZE

<b>CLEAR ALL DATA</b>	YES / NO	
Deletes all configuration data such as display, camera, motion setup and so on.		
<b>CLR DISPLAY SET</b>	YES / NO	
Initializes display configuration.		
<b>CLR CAMERA SET</b>	YES / NO	
Initializes camera configuration.		
<b>CLR MOTION SET</b>	YES / NO	
Initializes motion configuration.		
<b>CLR FUNCTION SET</b>	YES / NO	
Deletes preset data, scan data, pattern data, group data and schedule data.		
<b>REBOOT CAMERA</b>	YES / NO	
Reboots zoom camera module.		
<b>REBOOT SYSTEM</b>	YES / NO	
Reboots speed dome camera.		

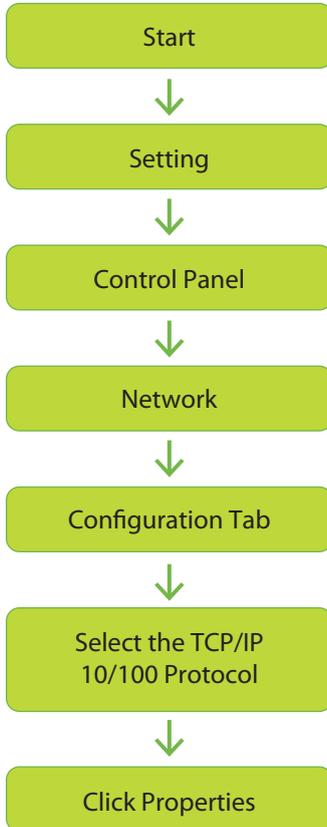
## ※ Initial Configuration Table

<b>Camera ID</b>	ON	
<b>PTZ Information</b>	AUTO	
<b>Action Title</b>	AUTO	
<b>Preset Label</b>	AUTO	Display
<b>Alarm I/O</b>	AUTO	
<b>Date/Time</b>	ON	
<b>Privacy Zone</b>	Undefined	
<b>Preset Lock</b>	OFF	
<b>Power Up Action</b>	ON	
<b>Auto Flip</b>	ON	
<b>Jog Max Speed</b>	140°/sec	Motion
<b>Jog Direction</b>	NORMAL	
<b>Freeze In Preset</b>	OFF	
<b>Park Action</b>	OFF	
<b>Alarm I/O Action</b>	OFF	
<b>Preset 1~128</b>	Undefined	
<b>Auto Pan 1~8</b>	Undefined	
<b>Pattern 1~4</b>	Undefined	Function
<b>Scan 1~8</b>	Undefined	
<b>Schedule 1~7</b>	Undefined	
<b>Focus Mode</b>	SEMIAUTO	
<b>Digital Zoom</b>	ON	
<b>Image Flip</b>	OFF	
<b>DIS Mode</b>	OFF	
<b>WB Mode</b>	AUTO	
<b>Backlight</b>	OFF	
<b>Day/Night</b>	AUTO	Camera
<b>Brightness</b>	25	
<b>Iris</b>	AUTO	
<b>Shutter</b>	ESC	
<b>AGC</b>	MIDDLE	
<b>SSNR</b>	MIDDLE	
<b>Sens-up</b>	OFF	
<b>Protocol</b>	AUTO	Communication
<b>Baud Rate</b>	2400	

# 7 Appendix A : Current TCP/IP Settings

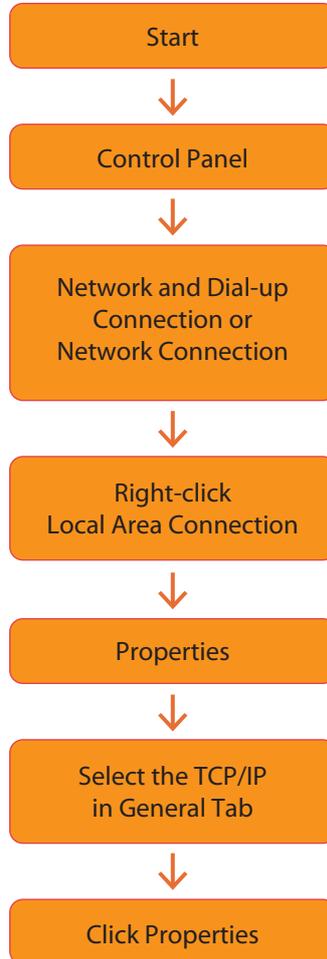
**i** If your IP settings are obtained automatically, you could use the MS-DOS prompt (or Command Prompt) to determine your IP address. For information on how to do this, please read the FAQ.

## 1. Windows 98 / ME Users



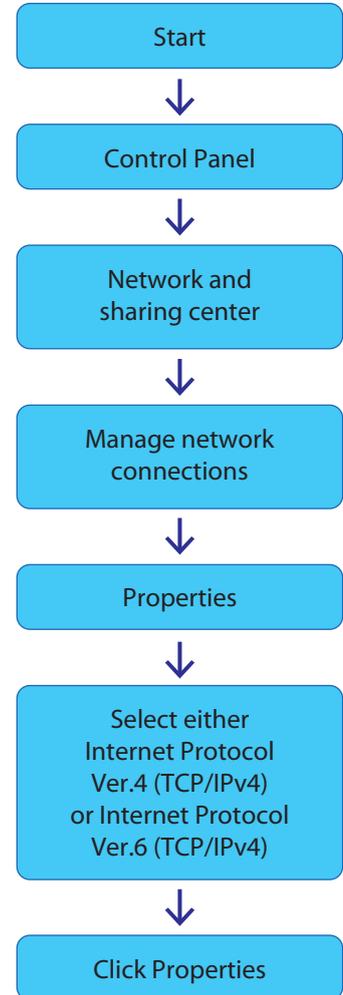
Note the settings under the IP Address, DNS Configuration, and Gateway tabs

## 2. Windows 2000 or Windows XP



Under the 'General' tab of the TCP/IP Properties you will see your IP address information.

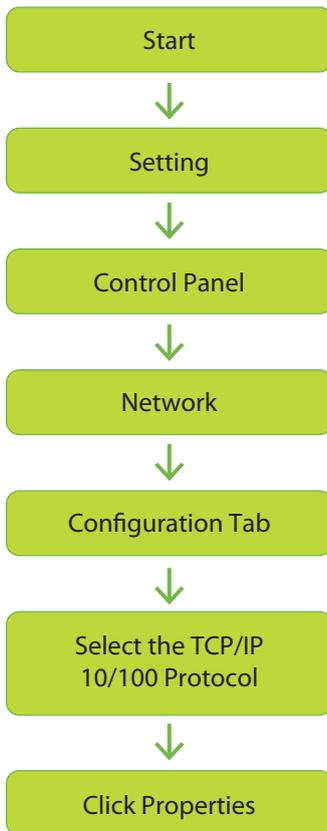
## 3. Windows Vistar Users



Under the 'General' tab of the TCP/IP Properties you will see your IP address information.

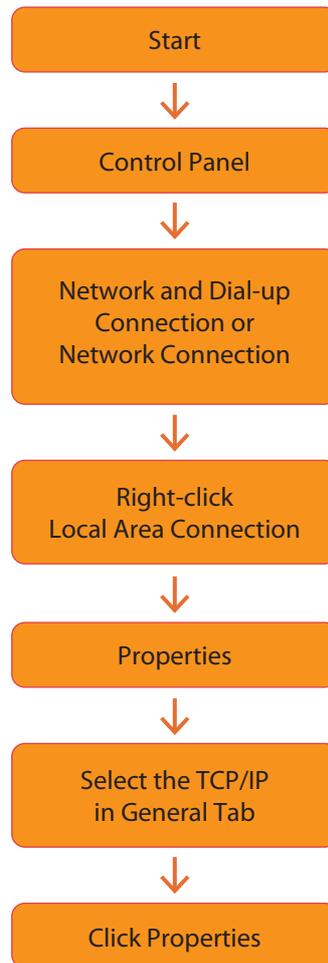
# 7 Appendix - B : Changing IP address and subnet mask

## 1. Windows 98 / ME Users



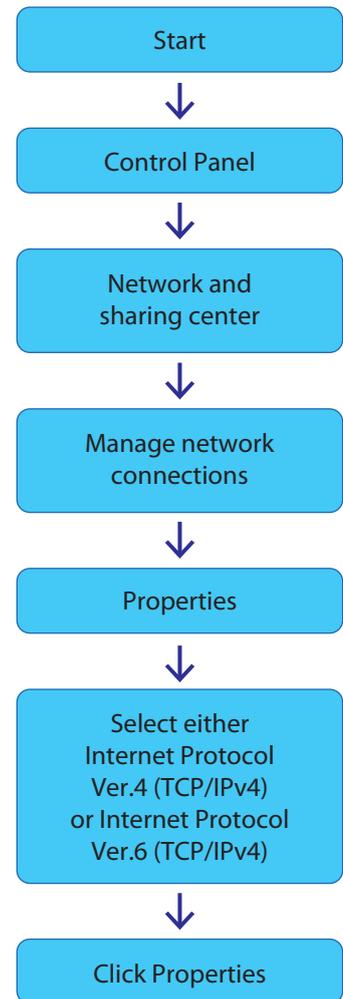
Select 'Use the following IP address' and change the IP address and Subnet Mask.

## 2. Windows 2000 or Windows XP



Select 'Use the following IP address'

## 3. Windows Vistar Users



Select 'Use the following IP address'

# 7 Appendix - C : Port Forwarding

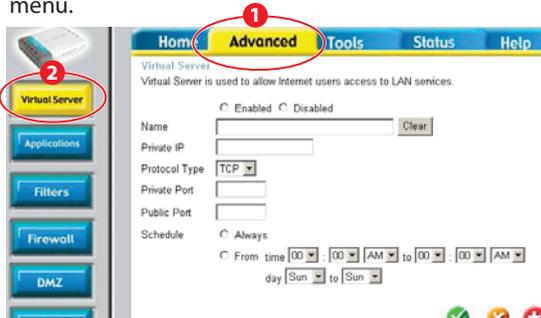
After assigning the IP Speed Dome a web server port and video server port you must use Port Forwarding (for cases A, B)

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

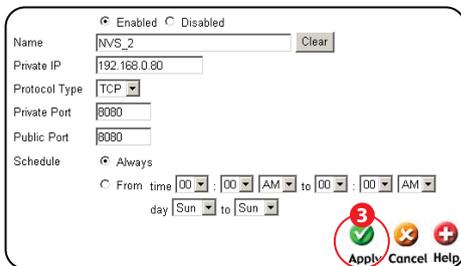
For your convenience, we have provided two example configurations.

## 1. 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 "1 Advanced" tab and click "2 Virtual Server" menu.



- 4) Click "3 Apply" button after inputting proper values. The example is as below



Enabled / Disabled	Select "Enabled".
Name	Input IVS name.
Private IP	Input IVS address.
Protocol Type	Select "TCP".
Private Port / Public Port	Input IVS Web Server Port.
Schedule	Select "Always"

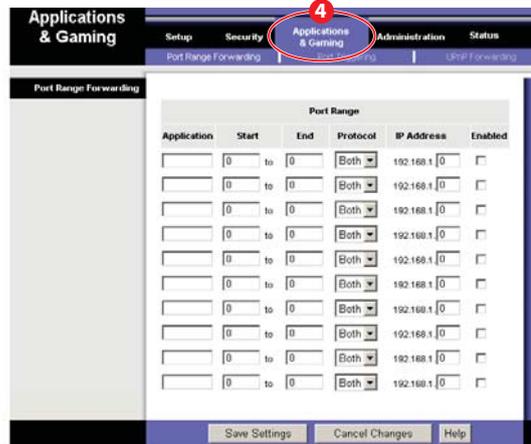
- 5) If 'Setting Saved' shows, click [Continue] button.
- 6) With the same method as above, add Video Server Port.
- 7) The Web Server Port, Video Server Port and 2 Audio Ports shows in "Virtual Server List" as below.

Virtual Servers List

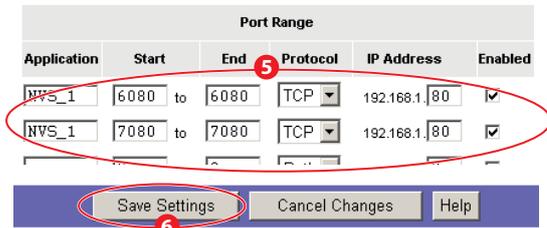
Name	Private IP	Protocol	Schedule
✓ NVS_2	192.168.0.80	TCP 8080/8080	always
✓ NVS_2	192.168.0.80	TCP 7777/7777	always
✓ NVS_2	192.168.0.80	TCP 7778/7778	always
✓ NVS_2	192.168.0.80	TCP 7779/7779	always
✓ NVS_2	192.168.0.80	TCP 7780/7780	always

## 2. For Linksys BEFSR41 Cable/DSL routers:

- 1) Open a web browser and type http://192.168.1.1 into you 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 "4 Applications & Gaming" from the menu bar.



- 4) Input port numbers in "5 Port Range" as below and click "6 Save Setting" button. Both of Web Server Port and Video Server Port should be added. The example is as below.



Application	Input IP Speed Dome name.
Start / End	Input IP Speed Dome 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 Speed Dome IP Address.
Enabled	Check the square.

# 7 Appendix - C : Port Forwarding

### 3. 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 "➊ Add Custom Service" button in Port Forwarding page.

#### Port Forwarding

Service Name: SERVICES | Server IP Address: 192.168.0.1 | Add

#	Enabled	Service Name	Start Port	End Port	Server IP Address

Buttons: Add Custom Service (circled with 1), Edit Service, Delete Service

Buttons: Apply, Cancel

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

#### Ports - Custom Services

Enable

Service Name: [ ]

Starting Port: [ ] (1~65535)

Ending Port: [ ] (1~65535)

Server IP Address: 192.168.0.1

Buttons: Add (circled with 2), Cancel

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

- 6) Click "➋ Add" button.
- 7) With the same method as above, add Video Server Port.
- 8) Click "Apply" button to finish Port Forwarding.

## 1. 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 Speed Dome, please call our Support Center. The power supply may be defective.

## 2. 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.

## 3. 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.

## 4. 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.

## 5. 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

## 6. 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

## 7. I can't connect!!

In the case of a connection failure.

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

## 8. 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

## 9. I'm accessing my video server 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 Speed Dome 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 Speed Dome 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.

## 10. How do I enable or check ActiveX on my browser

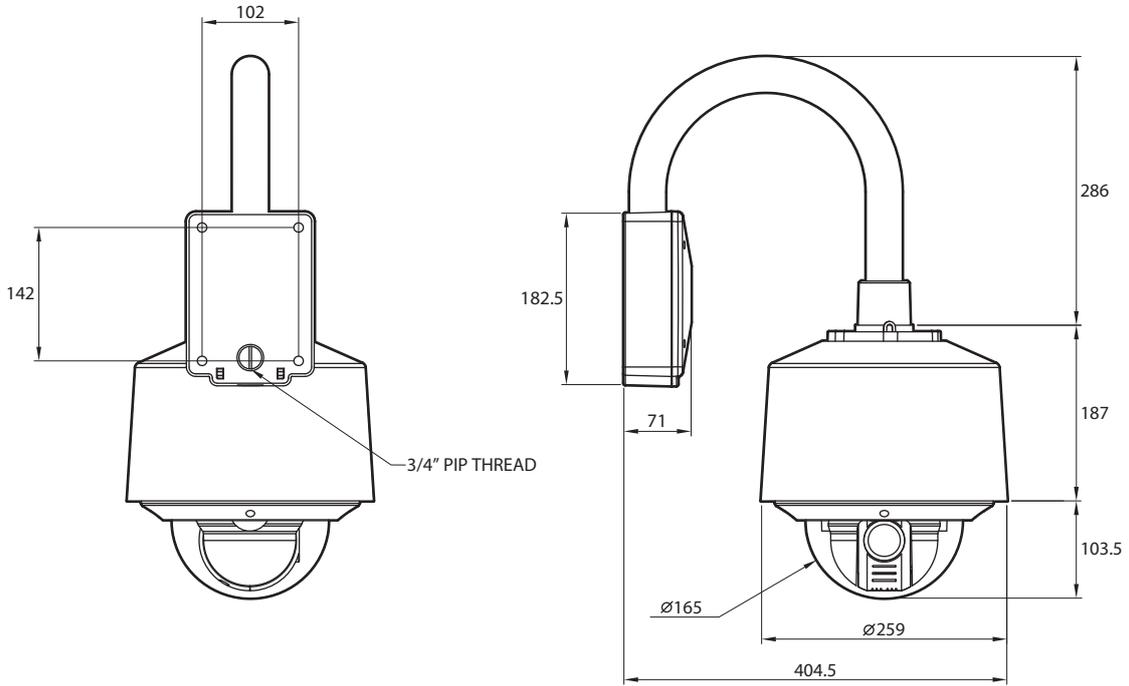
Open Internet Explorer > Tools on the menu bar > Internet Options > Security Tab > Custom Level > Scroll down and verify that you are prompted or have enabled ActiveX controls and plug-ins to be downloaded and executed. > click OK > restart browser.

## 11. How do I reset the unit to factory defaults?

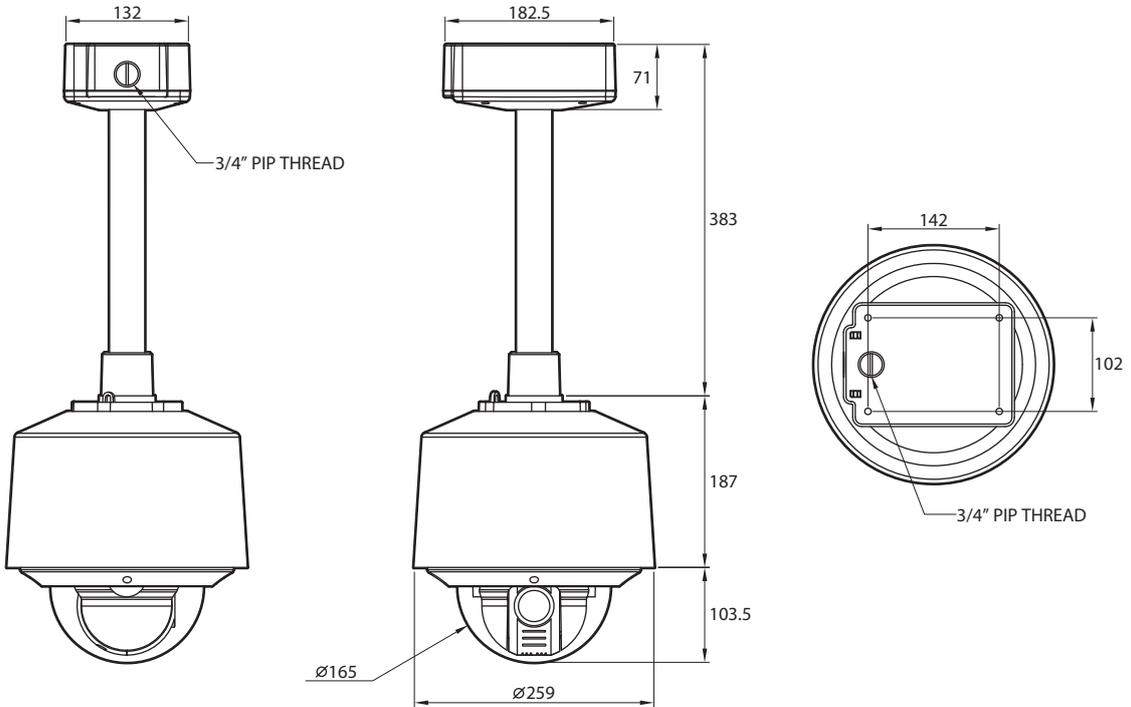
On the underside of the unit you will find a recessed opening located near the top-left side of the label. Power ON the unit and use a paper clip to push the reset button within that opening. You should then see the ACTIVE light turn off and after a few seconds the ACTIVE light will begin to flash, signifying a successful reboot. If the ACTIVE light does not turn off after depressing the reset button, please try holding the button in for a few seconds and releasing. YOU WILL LOSE ALL DATA THAT HAD BEEN ENTERED PREVIOUSLY AND THE IP SPEED DOME WILL BE SET TO ITS FACTORY RESETS.

# 9 Specification - Dimension

Unit: mm



Wall Mount Bracket



Ceiling Mount Bracket

# 9 Specification - Specifications

## Camera

Image Device	1/4" Double Density Interline Transfer CCD
Total Pixel	<b>NTSC</b> : 811 (H) × 508 (V) 410K Pixels • <b>PAL</b> : 795 (H) × 596 (V) 470K Pixels
Effective Pixel	<b>NTSC</b> : 768 (H) × 494 (V) 380K Pixels • <b>PAL</b> : 752 (H) × 582 (V) 440K Pixels
H. Resolution	Color: 550 TV Lines • B/W: 680 TV Lines
S/N Ratio	50 dB (AGC Off)
Zoom	x33 Optical Zoom & x12 Digital Zoom (Total x396)
Focal Length	f = 3.5 (W) ~ 115.5 (T) mm, F1.6 (W) ~ 3.6 (T)
Angle of View	H: 55.5° (W) ~ 1.77° (T) • V: 42.5° (W) ~ 1.33° (T)
Min. Illuminance	Color: 0.4 Lux @ 50 IRE, F1.6 B/W: 0.02 Lux @ 50 IRE, F1.6
Shutter Speed	<b>NTSC</b> : x256, 1/60 ~ 1/120,000 sec. • <b>PAL</b> : x256, 1/50 ~ 1/120,000 sec.
Day & Night	Auto / Day / Night (IR Cut Filter)
Focus	Auto / Manual / Semi-Auto
Iris	Auto / Manual
White Balance	ATW / AWC / Manual / Indoor / Outdoor(1800K ~ 10500K)
AGC	Low / Middle / High / Manual / Off
DNR	Low / Middle / High / Off
DIS	On / Off
WDR/BLC	WDR / BLC / All Off
Other Functions	Frame Freeze Function, System Image Flip by Installation Type

## Pan/Tilt

Pan Range	360° (Endless)
Tilt Range	0° ~ 180° (Auto-Flip On) • 0° ~ 90° (Auto-Flip Off)
Pan/Tilt Speed	Preset: 360° Scan: 1° ~ 180°/sec. Manual: 0.05° ~ 360°/sec. (Zoom Proportional)
Preset	255 Presets with Labels / Independent Camera Setup
Pattern	4 Patterns
Scan	8 Scans
Group	8 Groups (Max. 20 Entities per Group)
Schedule	7 Rules (Condition: Day, Time → Action: Preset, Scan, Group, Pattern)
Other Functions	Image Auto Flip, Auto Parking, Power-up Action & etc.

## General

Video Out	BNC (VBS 1.0 V <sub>p-p</sub> )
Communication	RS-485
Protocol	Auto, Pelco-D/P, Samsung, Panasonic, GE(Kalatel), AD Selectable
Privacy Zone	8 Zones
Sensor In/Out	Built-in 8 Input / 4 Relay Output
OSD	Menu, PTZ Information, etc., Support 7 Languages: ENGLISH / ESPAÑOL / FRANÇAIS / DEUTSCH / ITALIANO / РУССКИЙ / PORTUGUÊS
Power	AC 24 V, 24 W (Heater Off) / 55 W (Heater On) PoE 802.3 at class 4 (PTI-501 Only)
Approvals	FCC, CE, IP66, RoHS
Outdoor Housing	Weather Proof, Vandal Proof Structure, White Pearl Color
Material	Body: Aluminum Die-casting • Clear Bubble: Polycarbonate
Weight	Net: 6 Kg • Package: 11 Kg
Operating Temp.	AC: -45° ~ 50° C (-49° ~ 122° F) PoE: -10° ~ 50° C (14° ~ 122° F)

# 9 Specification - Network Specifications

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<b>OS</b>	Embedded Linux
<b>Video Compression</b>	H.264 / MPEG4 / MJPEG
<b>Video Streaming</b>	VBR / CBR (Controllable Frame Rate and Bandwidth)
<b>Resolution</b>	<b>NTSC</b> : D1 (720 × 480) / VGA / CIF (352 × 240) <b>PAL</b> : D1 (720 × 576) / VGA / CIF (352 × 288)
<b>Frame Rate</b>	<b>NTSC</b> : Max. 30 fps for all Resolutions. 30, 15, 7, 5, 1 Selectable <b>PAL</b> : Max. 25 fps for all Resolutions. 25, 15, 7, 5, 1 Selectable
<b>Image Settings</b>	Quality, Brightness, Sharpness
<b>Audio Streaming</b>	Two-way, G.711 PCM, 8 kHz
<b>Local Storage</b>	SDHC Memory Card (Card Not Included)
<b>Motion Detection</b>	Notification: FTP, E-mail, Alarm out, JPEG Recording on SD
<b>Alarm</b>	Pre-Post Alarm
<b>Number of Clients</b>	Max. 10
<b>IPv4 Protocol</b>	TCP/IP, UDP/IP, RTP/RTSP, NTP, HTTP, HTTPS, SSL, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3 (MIB-2), ARP, DNS, DDNS, DynDNS, (OnViF)
<b>IPv6 Protocol</b>	TCP/IP, HTTP, HTTPS, SSL, DHCP
<b>Security Protocol</b>	HTTPS(SSL), Digest Authentication (ID/PW)
<b>OS Supported</b>	Windows 7, Vista, XP, 2000