

User's Manual

ICA-HM620

*2 Mega-Pixel PoE Plus
Speed Dome Internet Camera*



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Revision

User's Manual for PLANET 2 Mega-Pixel PoE Plus Speed Dome Internet Camera

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Chapter 1

Introduction



Overview

The PLANET ICA-HM620 is the outdoor speed dome Internet camera offering the offering **Full HD 1080p** resolution with superb image quality. The ICA-HM620 features a 20x8 zooming (**20x optical zoom, 8x digital zoom**) with auto focus and auto iris

It offers fast, accurate and continuous 360 panning operations. The unparalleled surveillance functions of the ICA-HM620 including 256 camera presets, 8 camera cruise configurations, and the motion detection function make it able to satisfy the demanding surveillance and remote monitoring applications.

The ICA-HM620 provides Multi-profile function which can generate H.264 and M-JPEG video streaming simultaneously . and offers extra smooth video quality with resolution up **to 60 fps @ 720p and 30 fps @ 1080p**. Boasting **WDR technology**, the ICA-HM620 can also cope with challenging lighting conditions and generate image quality close to the capabilities of a human eye. Moreover, the resolution can be different from one user to another. It is a perfect and effective surveillance solution for the bandwidth limited networks.

The ICA-HM620 supports **removable IR-cut filter**, maintaining clear images 24 hours a day. It takes surveillance using 2-Way audio so that the administrator can speak to anyone at ICA-HM620 remote site with a speaker connected. The ICA-HM620 can also be installed in most of bad outdoor environment and keep working properly with the IP-66 protecting cover. With other advanced features such as **Micro SD/SDHC** card slot, **802.3at compliant PoE Plus** and Full HD high quality video.

This state-of-the-art design is considerable to fit in various network environments like traffic centers, shopping malls, railway stations, warehouses, airports, and production facilities for the most demanding outdoor surveillance applications.

Product Features

Camera

- 2.8" Sony Progressive Scan CMOS sensor built-in
- 20 x 8 zooming (20X optical, 8X digital) adjustment
- Auto White Balance
- Auto Electronic Shutter Time(1/30 ~ 1/10k sec)
- Automatic gain control (AGC) for image-intensified

Video & Audio

- Multi-profile encoder supports H.264 and M-JPEG video compression simultaneously
- High resolution quality pictures for day and night surveillance
- Up to 30fps for 1080P resolution and up to 60fps for 720P resolutions
- D1 / CIF Real-time resolutions (30fps)
- 2D/3D de-interlaced video image
- Image Enhancement with Wide Dynamic Range (WDR) / IR Cut Filter (ICR)
- 2-Way audio with built-in microphone input and linear audio output
- Motion Detection feature can monitor any suspicious movement in specific area

Network and Configuration

- IPv4/v6 and UDP / TCP / HTTP / HTTPS protocols selectable
- DDNS and FTP uploading supports more alternatives in surveillance network
- 3GPP for 3G mobile remote applications
- Cam Viewer Three - Central management software supported
- Easy configuration and management via Windows-based utility or web interface

Operation

- Built-in 802.3at Compliant PoE Plus
- 360 degree continuous PAN, Tilt (-10 ~ 190 degree)
- Preset speed can get 5~400 Degree/ sec, and manual speed 0.5 ~ 90 Degree / sec
- 256 presets, tour is based on presets, speed & park time of presets can be set
- Cruise line: 8 groups programmable lines, each cruise with 32 presets

Environment

- 4 alarm in and 2 alarm out, and support alarm trigger.
- IP-66 outdoor classification with heater and fan for rigorous environment
- Fan and heater both belong to full-automatic intelligent control

Package Content

The contents of your product should contain the following items:

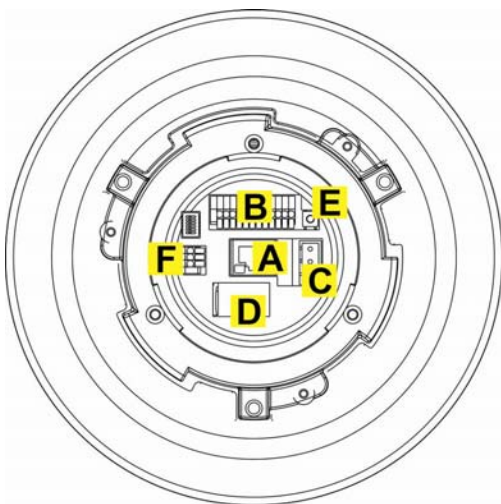
- Speed Dome Camera Unit x 1
- User's Manual CD-ROM x 1
- Quick Installation Guide x 1
- Terminal block x 1
- Optical Cover x 1
- M3/M5 Standard Screw x 4
- Water proof rubber x 1
- Lubricant x1
- Outdoor mount kit x 1
- Security Torx x 1
- Mini-pendant x 1

Physical Details

Camera Substance



Switch Identification



Item	Description
A	RJ-45 Connector
B	ALARM I/O
C	Power
D	Micro SD Card Slot
E	Factory Reset Button
F	Audio I/O



Note

DO NOT change the Speed Dome IP Camera's Communication Switch factory default settings.

Camera Setup and Cable Connections

Physical Installation Requirement

Before installing or connecting the dome camera, please refer to this section and complete preparations for dome setups and various switch settings.

2.1 System Requirements

To perform the IP Camera via web browser, please ensure your PC is in good network connection, and meet system requirements as described below for appropriate setup and well view quality.

Items	System Requirement
Personal Computer	1. Intel® Pentium® IV, 3 GHz or higher, Intel® Core2 Duo, 2 GHz or higher 2. 1 GB RAM or more 3. AGP graphics card 64 MB RAM, DirectDraw
Operating System	Windows VISTA/ Windows XP/ Windows 7
Web Browser	Internet Explorer 6.0 or later, Firefox, Chrome, Safari
Network Card	10Base-T (10 Mbps) or 100Base-TX (100 Mbps) operation
Viewer	ActiveX control plug-in for Microsoft IE

2.2 Verify the Contents inside Package Box

The package should contain the below items. If any item is missing or damaged, please contact the seller immediately.



**Dome Camera with Outdoor Mount
Kit**



Compact Pendant Mount



Data Cable



Waterproof Rubber



Security Tool

Dome Cover



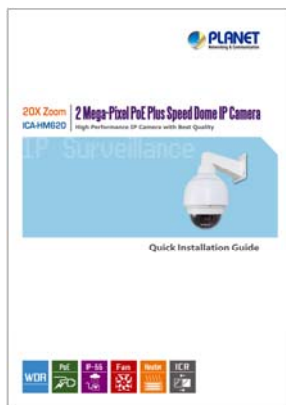
Lubricant

Bracket screws kit



M3/M5 Standard Screw

M3/M5 Security Screw



Quick Installation Guide



CD-ROM



AC Power Adapter



Power Cord

2.3 Physical Installation



Caution

1. During the installation, please take care and avoid crash. That may cause the device damage or cause injury of the installer.
2. Please make sure the hardware had been located on the wall properly. If the hardware drops down, it is possible make someone injury or hurt. Please check the hardware again after the installation.
3. Please according to the practical local power voltage to adjust the power switch. The wrong input voltage may cause the device damage.

STEP 1.

Unpack the Dome Camera's package and take out the Dome Camera unit.



STEP 2.

Tighten the knob to remove the cover dome and the lens protector



STEP 3.

Attach the dome cover to the camera body. Before doing that, apply some lubricant on the cover's water-proof rubber to make the installation process smoother.



Note

The tiny protrusion on the dome cover must align with one of the four holes on the dome body.

STEP 4.

Gently pressure the dome cover downward with two hands on the side of it. DO NOT press the cover, as

shown in the figure; this might cause damage to the camera body.



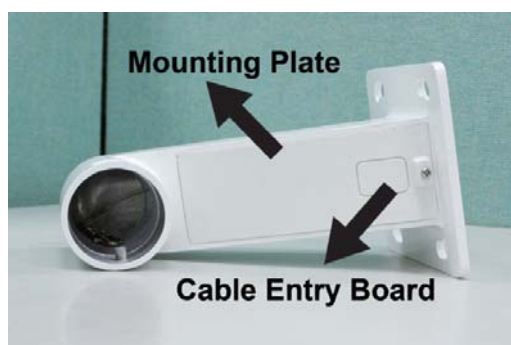
STEP 5.

Use the M3 screw to screw the dome cover and camera body together.



STEP 6.

Make a cable entry hole on the wall to recess the cables. Otherwise, users could push up the Cable Entry Board on the Compact Pendant Mount's Mounting Plate to place the cables, as shown in the photo below.



STEP 7.

Fix the Compact Pendant Mount on the wall with proper screws and screw anchors. After this step, attach the Waterproof Rubber to the Outdoor Wall Mount.



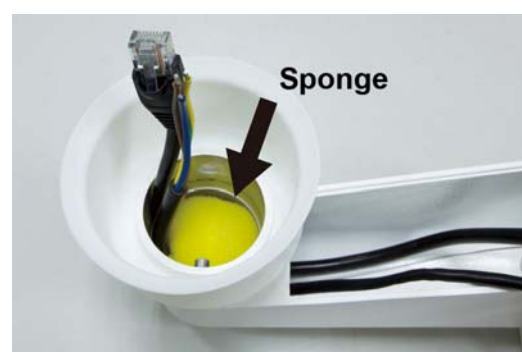
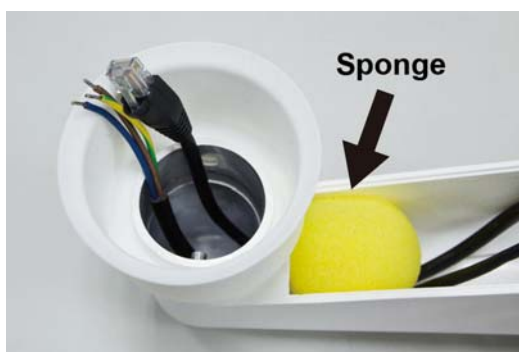
STEP 8.

PassRun the network and data cablespower cable through the Compact Pendant Mount



Note

1. The network cable doesn't attach in package.
2. Please block the cable entry hole with the supplied sponge to avoid insects entering the Pendant Mount. The sponge can be placed in two ways as shown in the illustrations below.



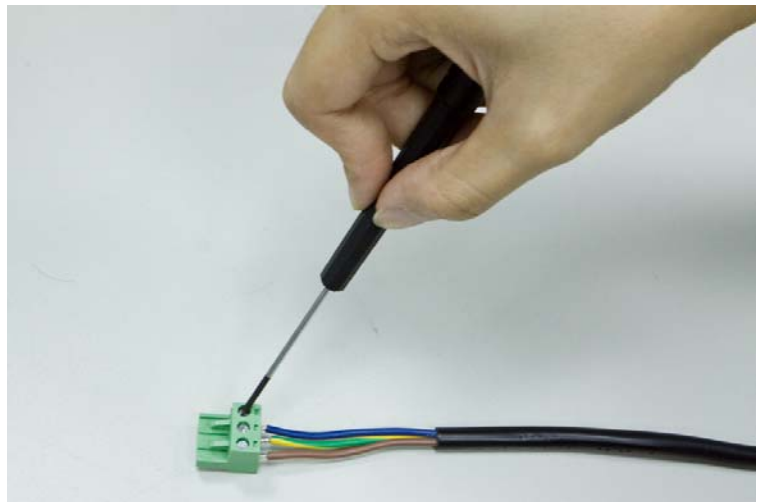
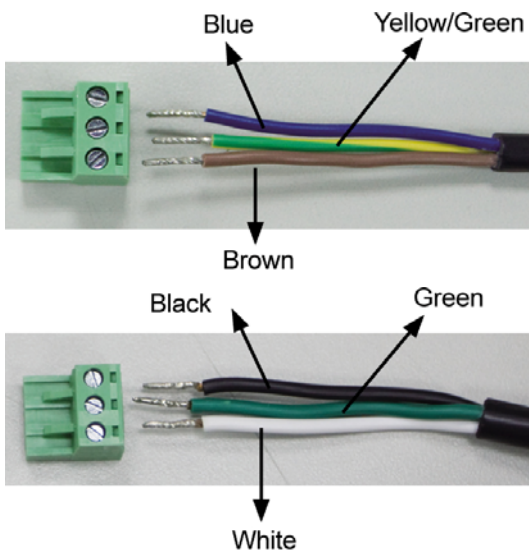
STEP 9.

Thread the cables through the Outdoor Mount Kit and join the Outdoor Mount Kit to the Compact Pendant Mount with the supplied screws and washers. Then adjust the Waterproof Rubber to the joint.



Step 10

Connecting power wires of AC adapter with Power Input connector of data cable. Please check the color of power wire carefully, and screwed that with connector properly.



Caution

Wrong wiring could cause the device permanently damage.

STEP 11.

Connect the Ethernet / Power cables to the Dome Camera



Step 12

Assemble the Dome Camera to the Outdoor Mount Kit with the supplied M5 screw and washers.



Note

Rotate the dome camera until the two screw holes which on the dome camera and the outdoor mount kit to be match.

Step 13

According to the practical local power voltage to adjust the power switch, and connect the power cord with adapter and power outlet.



Note

Use only the power adapter shipped with the unit to ensure correct functionality

STEP 14.

Connecting the network cable with switch. The ICA-HM620 can be configured without external power if connecting to IEEE 802.3at High Power over Ethernet (PoE plus) switch.



Note

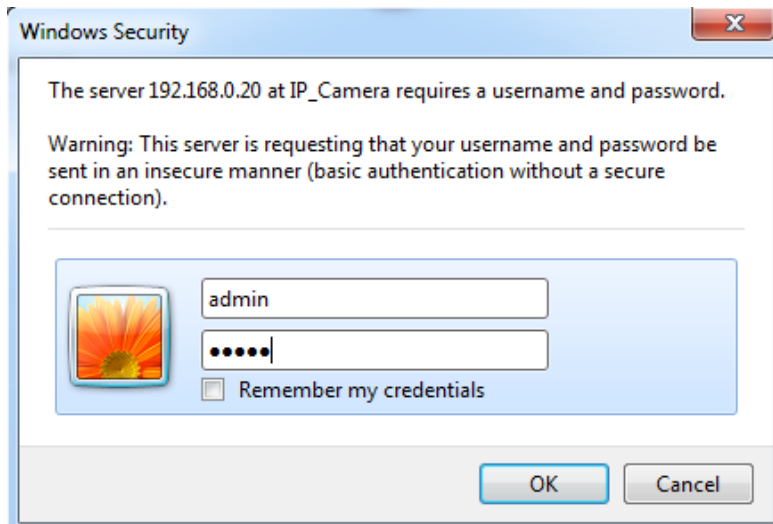
If there is a need to operate the Heater, please plug the AC 24V cable into the Camera's Power Connector to power up the Camera instead. Heater can only be powered by the 24VAC adapter.

STEP 16.

Set your computer's IP address to 192.168.0.x, where x is a number between 1 to 253 (except 20 where is being used for the camera by default). If you don't know how to do this, please ask your network administrator.

STEP 17.

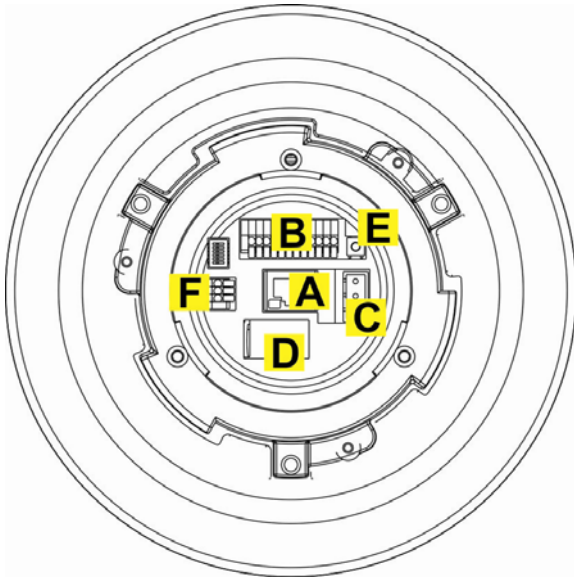
Use web browser (Internet Explorer 6.0 or above) to connect to 192.168.0.20 (type this address in the address bar of web browser). You'll be prompted to input user name and password: **admin / admin**



2.4 Dome Camera Setups

Before connecting the IP Camera to other devices of IP Surveillance system, please complete the IP Camera's ID and communication switch settings. These switches are located on the bottom of the IP Camera.

2.4.1 Switch/Connector Definition



Item	Description
A	RJ-45 Connector
B	ALARM I/O
C	Power
D	Micro SD Card Slot
E	Factory Reset Button
F	Audio I/O



Note

DO NOT change the Speed Dome IP Camera's Communication Switch factory default settings.

2.4.2 Communication Switch Setting

Communication Switch	SW	Description	Default
	SW 1	DSS (Digital slow shutter)	ON
	SW 2	Reserved	OFF
	SW 3	Reserved	OFF
	SW 4	Reserved	OFF
	SW 5	Default PTZ setting, not include IP card	OFF
	SW 6	Disable pan/tilt	OFF

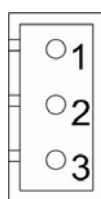
Please do not change the default setting without qualified specialist or supplier's notice.

2.5 Power & Audio Connector Definition

Please refer to the illustrations below to connect power core through the supplied power adaptor, and set up the audio according to the Audio pin definition.

2.5.1 Connect Power

Please refer to the illustrations below to connect power core through the supplied power adaptor.



Pin	Definition
1	AC 24_1
2	FG
3	AC 24_2

2.5.2 Connect Ethernet Cable

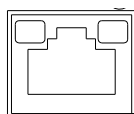
Use of Category 5 Ethernet cable is recommended for network connection; to have best transmission quality, cable length shall not exceed 100 meters. Connect one end of the Ethernet cable to the RJ-45 connector of the network Speed Dome Camera, and the other end of the cable to the network switch or PC.



Note

NOTE: In some cases, you may need use an Ethernet crossover cable when connecting the network Speed Dome Camera directly to the PC.

Check the status of the link indicator and activity indicator LEDs; if the LEDs are unlit, please check LAN connection.

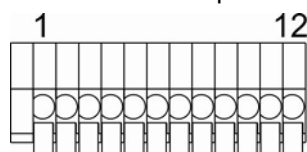


Green Link Light indicates good network connection.

Orange Activity Light flashes for network activity indication.

2.5.3 Apply Alarm I/O

The network Speed Dome Camera supports 4 digital alarm inputs and 2 digital alarm outputs. Please make sure the alarm connections are properly wired before starting to configure alarm related settings on this “Application” page. Please refer to the pin definition table below for alarm system wiring.

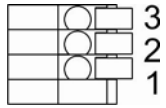


Pin	Definition
1	ALARM_OUT_NO_1
2	ALARM_OUT_NC_1
3	ALARM_OUT_COM_1
4	GND
5	ALARM_OUT_NO_2
6	ALARM_OUT_NC_2

Pin	Definition
7	ALARM_OUT_COM_2
8	GND
9	ALARM_IN_4
10	ALARM_IN_3
11	ALARM_IN_2
12	ALARM_IN_1

2.5.4 Apply Audio

Please refer to the illustrations below to set up the audio according to the Audio pin definition.



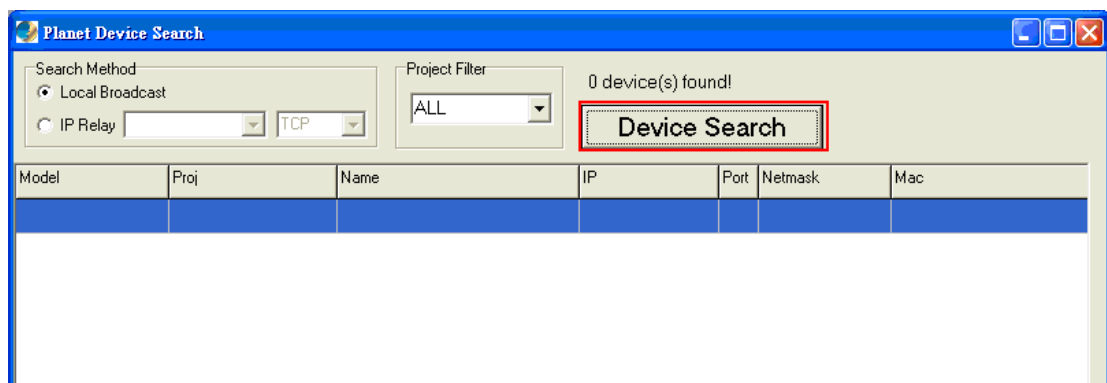
Pin	Definition
1	LINE_OUT
2	GND
3	LINE_IN

Accessing Camera

For initial access to the IP Camera, users can search the camera through the installer program: DeviceSearch.exe, which can be found in “DeviceSearch” folder in the supplied CD.

3.1 Device Search Software Setup

Step 1: Double click on the program **Planet Device Search.exe** (see the icon below); its window will appear as shown below. Then click the “Device Search” button.



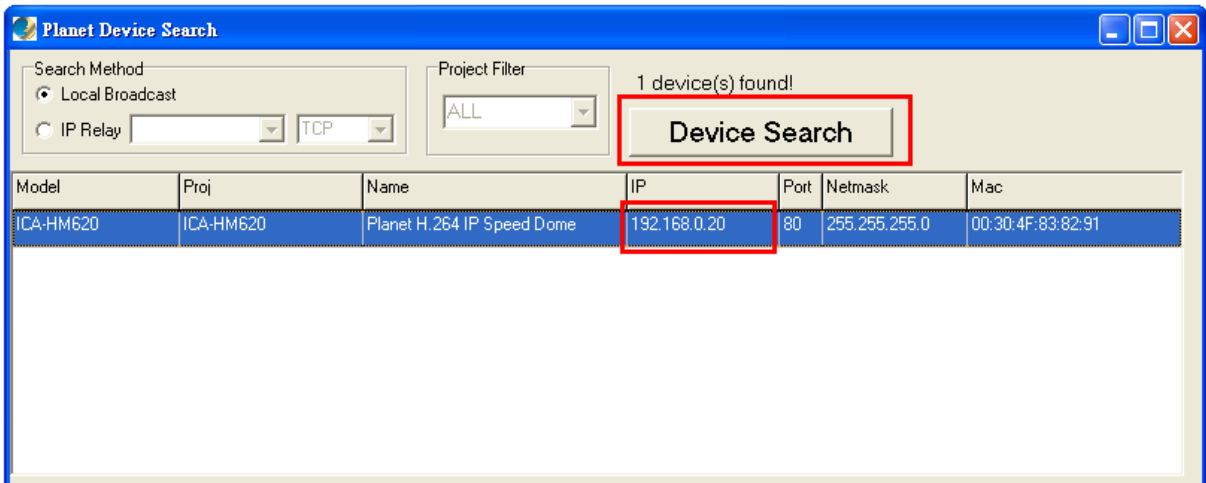
Step 2: The security alert window will pop up. Click “Run” to continue.



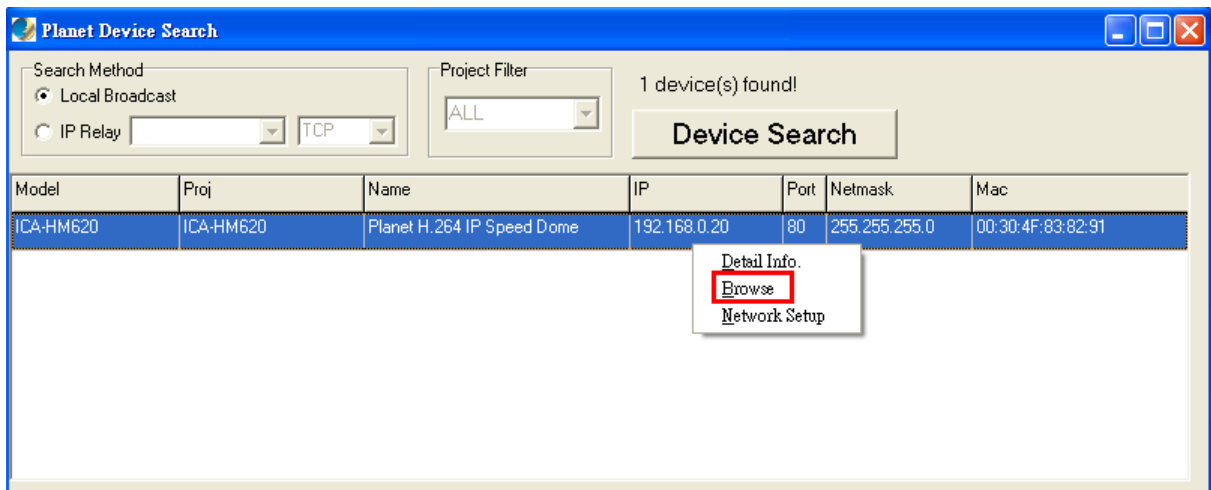
3.2 Device Search

Step 3: Click “Device Search” again, and all the finding IP devices will be listed in the page, as shown

in the figure below. The IP Camera's default IP address is: **192.168.0.20**.



Step 4: Double click or right click and select "Browse" to access the camera directly via web browser.



Step 5: Then the prompt window of request for entering default username and password (as shown below) will appear for logging in to the IP Camera.



The default login ID and password for the Administrator are:

Login ID	Password
admin	admin



ID and password are case sensitive.

Note



It is strongly advised that administrator's password be altered for the security concerns. Refer to section [Security](#) for further details.

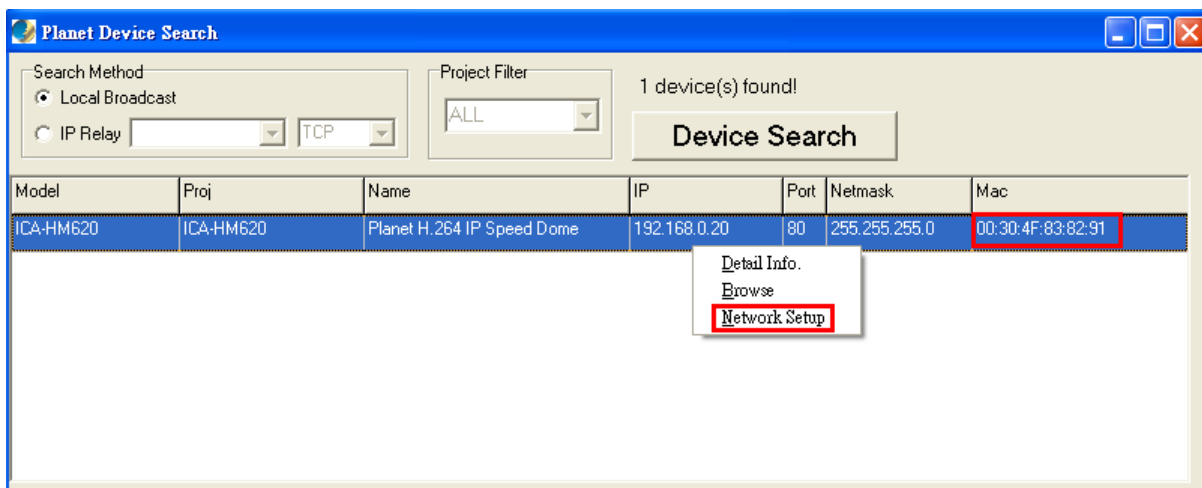
Note

Additionally, users can change the IP Camera's network property, either DHCP or Static IP, directly in the device finding list. Refer to the following section for changing the IP Camera's network property.

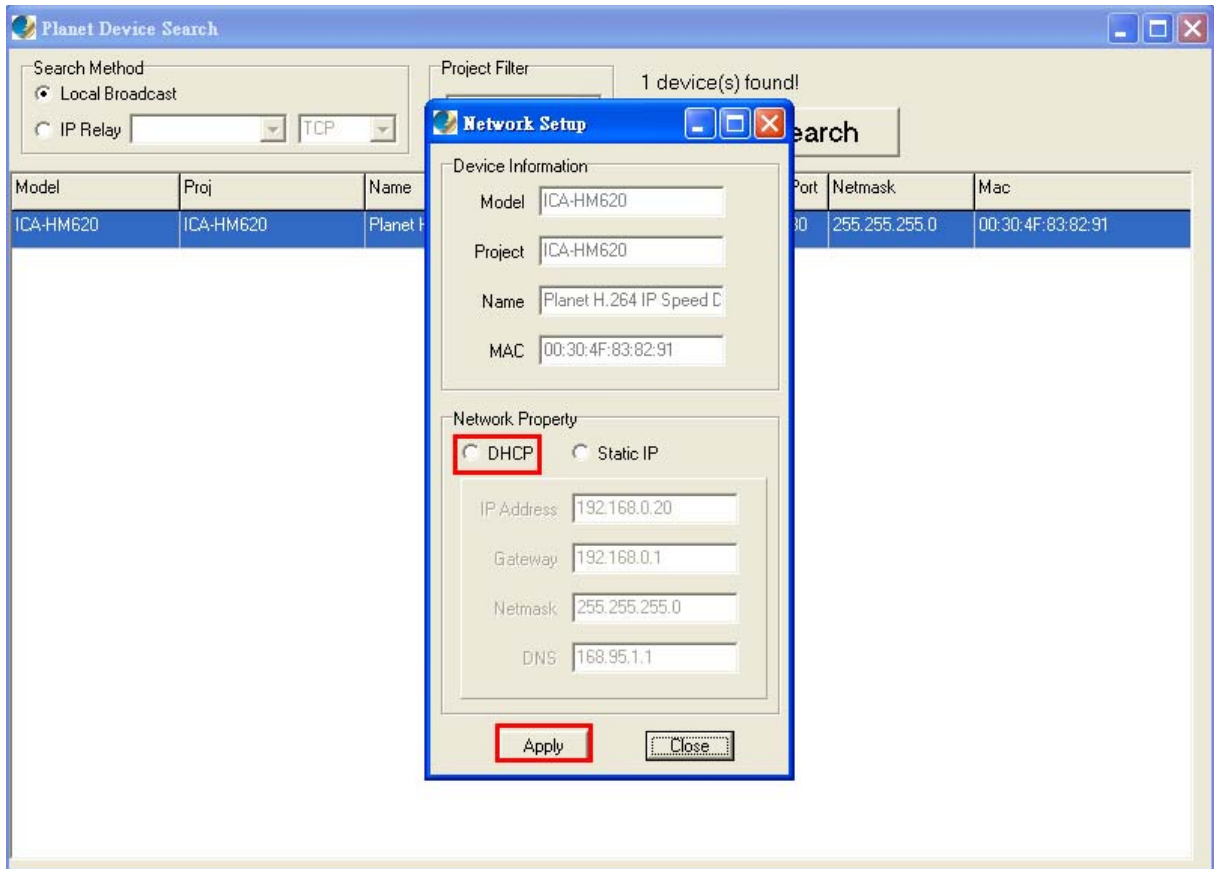
3.3 Example of Changing IP Camera's Network Property

Users can directly change an IP Camera's network property, ex. from static IP to DHCP, in the finding device list. The way to change the IP Camera's network property is specified below:

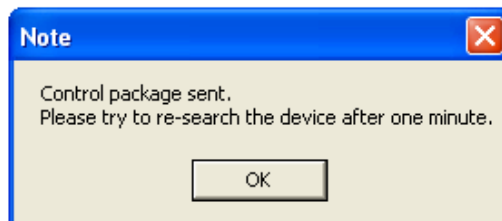
Step 1: In the finding device list, click on the IP Camera that you would like to change its network property. On the selected item, right click and select "Network Setup." Meanwhile, record the IP Camera's MAC address, for future identification.



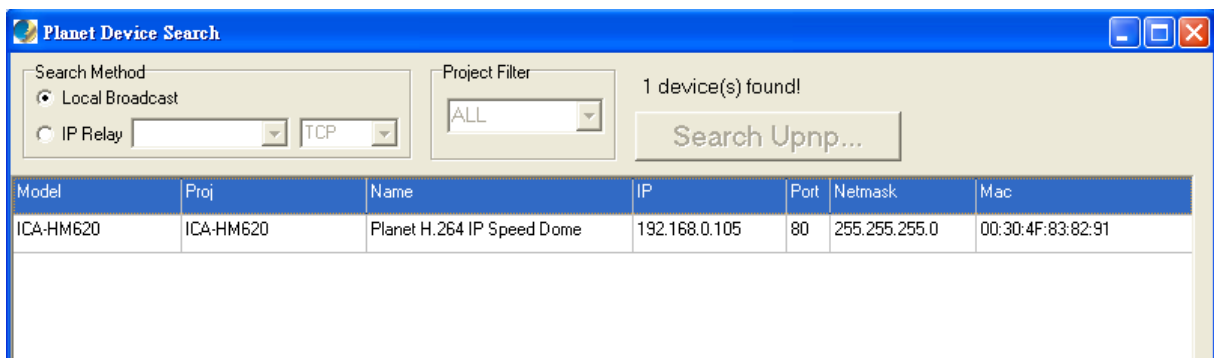
Step 2: The "Network Setup" page will come out. Select "DHCP," and press "Apply" button down the page.



Step 3: Click “OK” on the Note of setting change. Wait for one minute to re-search the IP Camera.



Step 4: Click the “Device Search” button to search all the devices. Then select the IP Camera with the correct MAC address. Double click on the IP Camera, and the login window will come out.



Step 5: Enter User name and Password to access the IP Camera.

3.4 Installing DC Viewer Software Online

For the initial access to the IP Camera, a client program, DC Viewer, will be automatically installed to your PC when connecting to the IP Camera.

If the Web browser doesn't allow DC Viewer installation, please check the Internet security settings or ActiveX controls and plug-ins settings (see [Appendix B: Internet Security Settings](#)) to continue the process.

The Information Bar (just below the URL bar) may come out and ask for permission to install the ActiveX Control for displaying video in browser (see the figure below). Right click on the Information Bar and select **"Install ActiveX Control..."** to allow the installation.



Then the security warning window will pop up. Click "Install" to carry on software installation.

Click "Finish" to close the DC Viewer window when download is finished.

Once login to the IP Camera, users will see the Home page as shown below:

PLANET
Networking & Communication

Home System Streaming PTZ Logout **H.264 IP Speed Dome**

Languages ▼

Continuous AF 2012/05/10 15:56

Video format MJPEG H.264

x1 x1/2 [Microphone] [Speaker] [Camera] [Red Dot] [Down Arrow]

Zoom Wide Tele [Slider] x4

Focus Auto Manual Near Far

MJPEG bitrate : low compression, high quality
H.264-1 bitrate : 8000 kbps, low compression, high quality
H.264-2 bitrate : 1024 kbps, high compression, low quality
H.264-3 bitrate : 1024 kbps, high compression, low quality
H.264-4 bitrate : 1024 kbps, high compression, low quality

3.5 Administrator / User Privileges

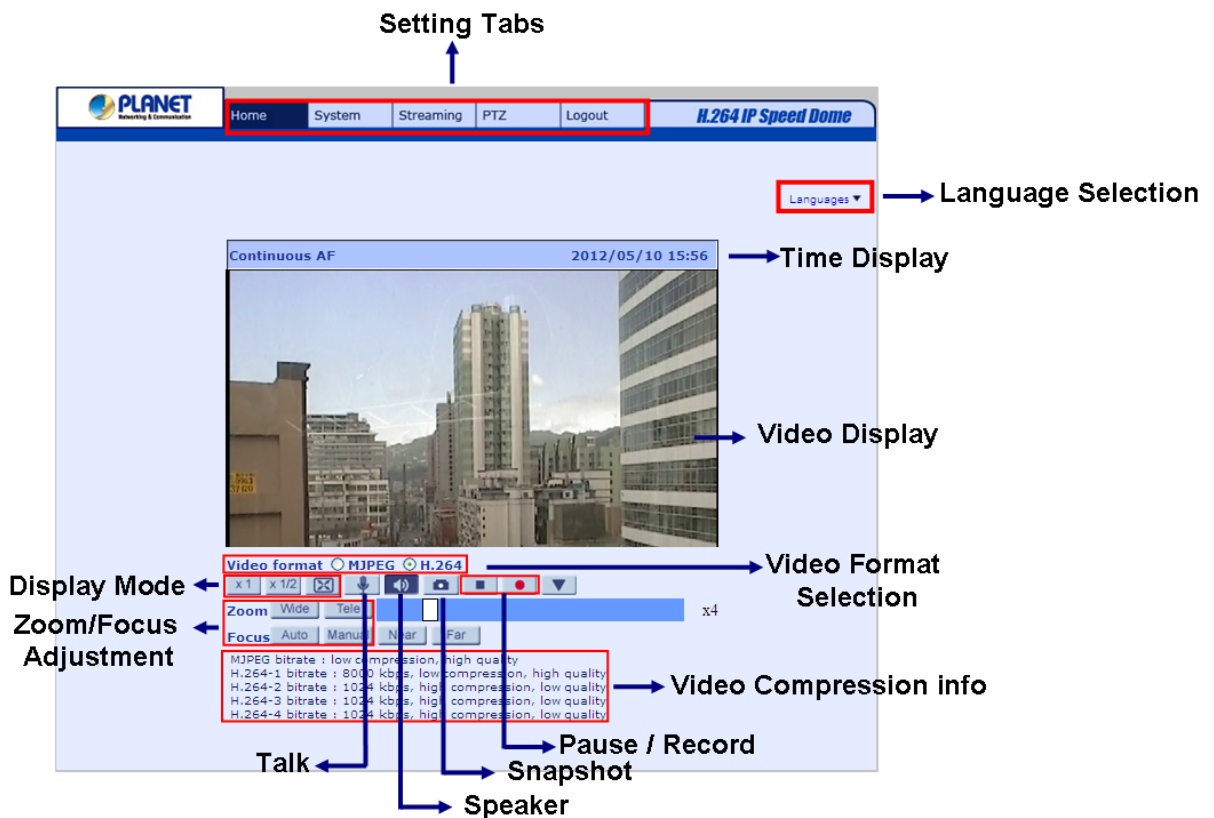
“Administrator” represents the person who can configure the IP Camera and authorize user’s access to the camera; “User” refers to whoever has access to the camera with limited authority, i.e. entering Home and Camera setting pages.

Configuration & Operation

The IP Camera is provided with a user-friendly browser-based configuration interface, and a free bundled CV3L (Cam Viewer Three Lite Management System) for record and playback video. In this chapter, information about main page introduction, system related settings and camera settings will be described in detail.

4.1 Browser-based Viewer Introduction

The figure below shows the Home page of the IP Camera's Viewer Window.



There are five tabs: Home, System, Streaming, PTZ and Logout on the top of the viewer window.

Home

Users can monitor live video of the targeted area.

System setting

The administrator can set host name, system time, root password, network related settings, etc. Further details will be interpreted in section [4.3 System Related Settings](#).

Streaming setting

The administrator can modify video resolution and rotate type and select audio compression

mode in this page.

PTZ setting

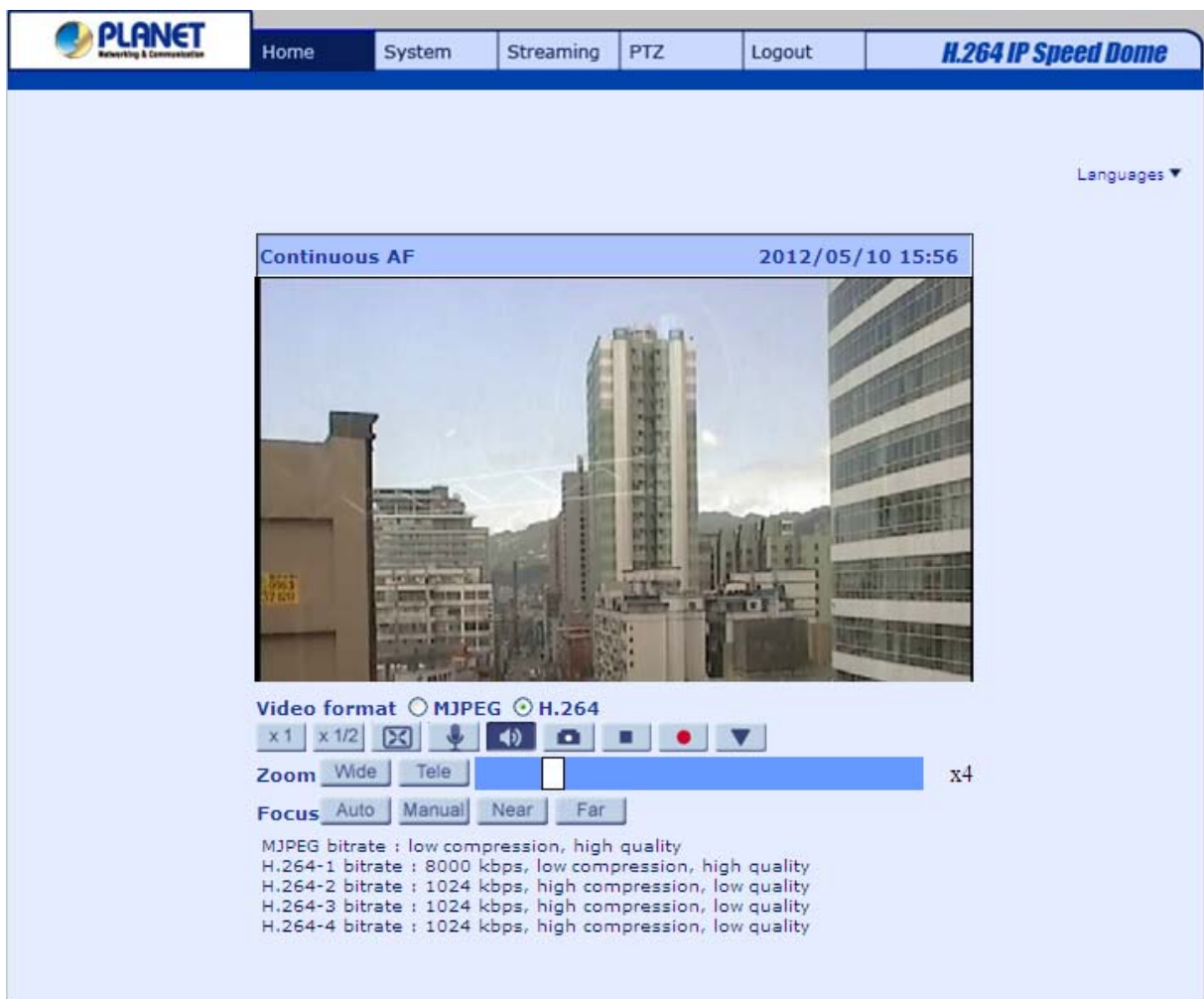
Users can adjust various camera parameters such as Exposure, White Balance, Backlight Compensation, etc., and program functions including Preset, Cruise, Auto Pan, Sequence, etc.

Logout

Click on the tab to re-login the IP Camera with another username and password.

4.2 Home Page

On the Home Page, users can view live video and operate Pan/Tilt/Zoom (PTZ) function. Additionally, users can select a video display format and image display size and adjust zoom ratio/focus length through related function buttons. All of these functions are described as follows:




Screen Size Adjustment

Image display size can be adjusted to x1/2 and full screen via the related buttons. To switch between the normal view mode and full screen view mode, users can also move the cursor to the live video pane and right-click; then the tab / will display over the video pane as

shown in the figure below. Left click on either the “Normal View” or “Full screen” tab for setting image display mode.

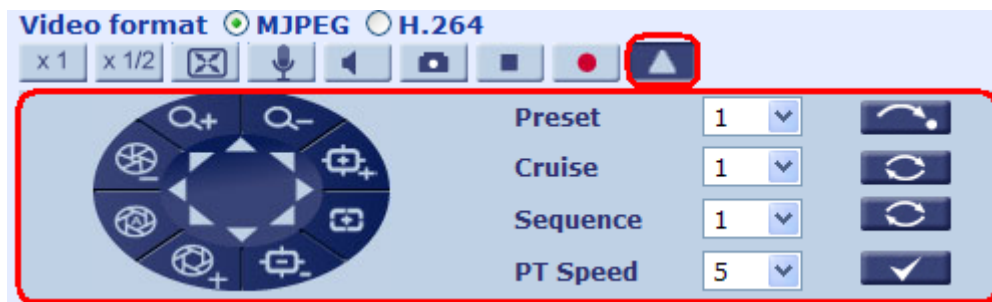
Pan/Tilt Control

Users can implement pan/tilt control by first moving the cursor to the live video pane; then left click and drag the pointer  in any direction.

Optical/Digital Zoom Control


In Normal View display mode, users can implement zoom in/out by first moving the cursor to the live video pane and then rotating the mouse wheel. As in Full Screen mode, users can directly rotate the mouse wheel to zoom in/out on the image. Digital zoom is only available when the function is activated and which is set in “Camera-Misc1” page under the “PTZ” tab; see section [4.5.10 Camera - Miscellaneous Setups Menu 1](#) for details. When the camera reaches the limit of its optical range, it will automatically switch to digital zoom.

Furthermore, after clicking the <Control Panel> Button, the Control Panel will be shown as the figure below.



Control Panel

- **Pan & Tilt Direction Control**

This button  on the Control Panel allows users to control the Camera with browser viewers other than IE.

- **Iris Control**

Click on the buttons  (Auto Iris/ Iris+/ Iris-) to adjust the Iris parameters.

- **Zoom**




Click on the buttons  (Zoom In/ Zoom Out) to zoom in or zoom out.

- **Focus**

Click on the buttons  (Auto Focus/ Focus Near/ Focus Far) to adjust the

focus near, far or automatically.


Run Preset/ Cruise/ Sequence

After setup the Preset/ Cruise/ Sequence lines according to PTZ Settings, select a Preset/ Cruise/ Sequence line and start it by clicking on the <Run> button (/ / ).

PT Speed (1~10)

Set a number between 1 and 10 as the PT Speed every time users pan or tilt the Camera via the Pan & Tilt Direction Control Panel. 1 is the slowest, 10 is the fastest.


Set Center Mode

Right click on the Live Video Pane and select <Set Center Mode>. Then users can position the interest area in the center of the Live Video Pane automatically by clicking on the point of interest. In <Set Center Mode>, right click on the Live Video Pane again and select <Set Emulated Joystick Mode> to return to control the Camera direction by left clicking and dragging the pointer  on the Live Video Pane.


Talk

Talk function allows the local site talks to the remote site. Please refer to section [4.3.2 Security](#): Add user > Talk/Listen for further details. This function is only open to “User” who has been granted this privilege by the Administrator.



Snapshot

Press the  button, and the JPEG snapshots will automatically be saved in the appointed place. The default place of saving snapshots is: C:\. To change the storage location, please refer to section [4.3.9 Snapshot](#) for further details.

Speaker

Press the  button to mute/activate the audio.

Video Pause / Restart

Press the  stop button to disable video streaming, the live video will be displayed as black. Press the restart button  show the live video again.

Recording

Press the  button to save video recordings from the Live View to the specified location.

Zoom Adjustment

Click on the buttons wide/tele to control zoom in/out. Move the cursor closely onto the zoom adjustment bar and click on the desired position to change the room ratio.



Focus Adjustment



- **Auto Focus (Continuous AF):**

Click on the “**auto**” button to enable AF mode. In this mode, the camera will keep in focus automatically and continuously regardless of zoom changes or any view changes. The Focus status will also be displayed above the live video pane as shown below.

PLANET
Networking & Communication

Home System Streaming PTZ Logout **H.264 IP Speed Dome**

Languages ▾

Continuous AF 2012/05/10 15:56

Video format ○ MJPEG ● H.264

x1 x1/2 x4

Zoom Wide Tele x4

Focus **Auto** Manual Near Far

MJPEG bitrate : low compression, high quality
H.264-1 bitrate : 8000 kbps, low compression, high quality
H.264-2 bitrate : 1024 kbps, high compression, low quality
H.264-3 bitrate : 1024 kbps, high compression, low quality
H.264-4 bitrate : 1024 kbps, high compression, low quality

- **Manual Focus:**

Click on the “**manual**” button, and users can adjust focus manually via “**near**” and “**far**” buttons. The status will also be displayed above the screen as shown below.

PLANET
Networking & Communication

Home System Streaming PTZ Logout **H.264 IP Speed Dome**

Languages ▾

Continuous AF 2012/05/10 15:56

Video format MJPEG H.264

x1 x1/2 [Microphone] [Speaker] [Camera] [Red Dot] [Down Arrow]

Zoom Wide Tele [Slider] x4

Focus Auto **Manual** Near Far

MJPEG bitrate : low compression, high quality
H.264-1 bitrate : 8000 kbps, low compression, high quality
H.264-2 bitrate : 1024 kbps, high compression, low quality
H.264-3 bitrate : 1024 kbps, high compression, low quality
H.264-4 bitrate : 1024 kbps, high compression, low quality

4.3 System Related Settings

The figure below shows all categories under the “**System**” tab. Each category in the left column will be explained in the following sections.



Note

The “System” configuration page is only accessible by the Administrator.

4.3.1 Host Name and System Time Setting

Press the first category: <System> in the left column; the page is shown as below.

The screenshot displays the 'System' configuration page for a Planet H.264 IP Speed Dome camera. The interface features a dark blue navigation sidebar on the left with the 'System' menu item highlighted. The main content area is light blue and contains the following settings:

- Host Name :** Planet H.264 IP Speed Dome
- Time zone :** GMT+00:00 Gambia, Liberia, Morocco, England
- Enable daylight saving time**
 - time offset: 01:00:00
 - Start date: Jan 1st Sun Start time: 00:00:00
 - End date: Jan 1st Sun End time: 00:00:00
- Sync with computer time**
 - PC date: 2012/05/11 [yyyy/mm/dd]
 - PC time: 10:10:33 [hh:mm:ss]
- Manual**
 - Date: 2010/04/01 [yyyy/mm/dd]
 - Time: 00:00:00 [hh:mm:ss]
- Sync with NTP server**
 - NTP server: time.stdtime.gov.tw [host name or IP address]
 - Update interval: Every hour
 - Save button

Host Name

The name is for camera identification. If Motion Detection function is enabled and is set to send alarm message by Mail/FTP, the host name entered here will display in the alarm message.

Time Zone

Select the time zone you are in from the drop-down menu.

Enable Daylight Saving Time

To enable DST, please check the item and then specify time offset and DST duration. The format for time offset is [hh:mm:ss]; for instance, if the amount of time offset is one hour, please enter "01:00:00" into the field.

Sync with Computer Time

Select the item, and video date and time display will synchronize with the PC's.

Manual

The Administrator can set video date, time and day manually. Entry format should be identical with that

shown next to the enter fields.

Sync with NTP server

Network Time Protocol (NTP) is an alternate way to synchronize your camera's clock with a NTP server. Please specify the server you wish to synchronize in the enter field. Then select an update interval from the drop-down menu. For further information about NTP, please see the web site: www.ntp.org.

4.3.2 Security

Click the category: <Security>, and the page is shown as the figure below.

4.3.2.1 User

The screenshot shows the PLANET web interface for an H.264 IP Speed Dome camera. The top navigation bar includes 'Home', 'System', 'Streaming', 'PTZ', and 'Logout'. The left sidebar menu is expanded to 'Security' > 'User'. The main content area is titled 'Security' and contains three sections: 'Admin Password' with two password input fields and a 'Save' button; 'Add User' with fields for 'User name' and 'User password', and checkboxes for 'I/O access', 'Camera control', 'Talk', and 'Listen', along with an 'Add' button; and 'Manage User' with a dropdown menu showing 'user' and 'Delete' and 'Edit' buttons.

Root password

Change the administrator's password by inputting the new password in both text boxes. The input characters/numbers will be displayed as dots for security purposes. After clicking <Save>, the web browser will ask the Administrator for the new password for access. The maximum length of the password is 14 digits.



Note

The following characters are valid: A-Z, a-z, 0-9, !#\$%&'-.@^_~.

Add user

Type the new user's name and password and click <Add> to add the new user. Both user name and password can be up to 16 characters. The new user will be displayed in the user name list. There is a

maximum of twenty user accounts. Each user can be assigned the privileges of “**Camera control**” and/or “**Listen**”.

- **I/O access**

This item supports fundamental functions that enable users to view video when accessing to the camera.

- **Camera control**

This item allows the appointed User to change camera parameters on the Camera Setting page.

- **Talk / Listen**

Talk and Listen functions allow the appointed user in the local site (PC site) communicating with, for instance, the administrator in the remote site.

Manage User

Delete user

To delete a user, pull down the user list, and select the user name you wish to delete. Then click <Delete> to remove it.

Edit user

Pull down the user list and select a user name. Click <Edit> to edit the user’s password and privilege.



Note

It is required to enter the User password as well as select the function open to the user. When finished, click <Save> to modify the account authority.

http://192.168.7.234/lang1/server_editaccount.html - Micr...

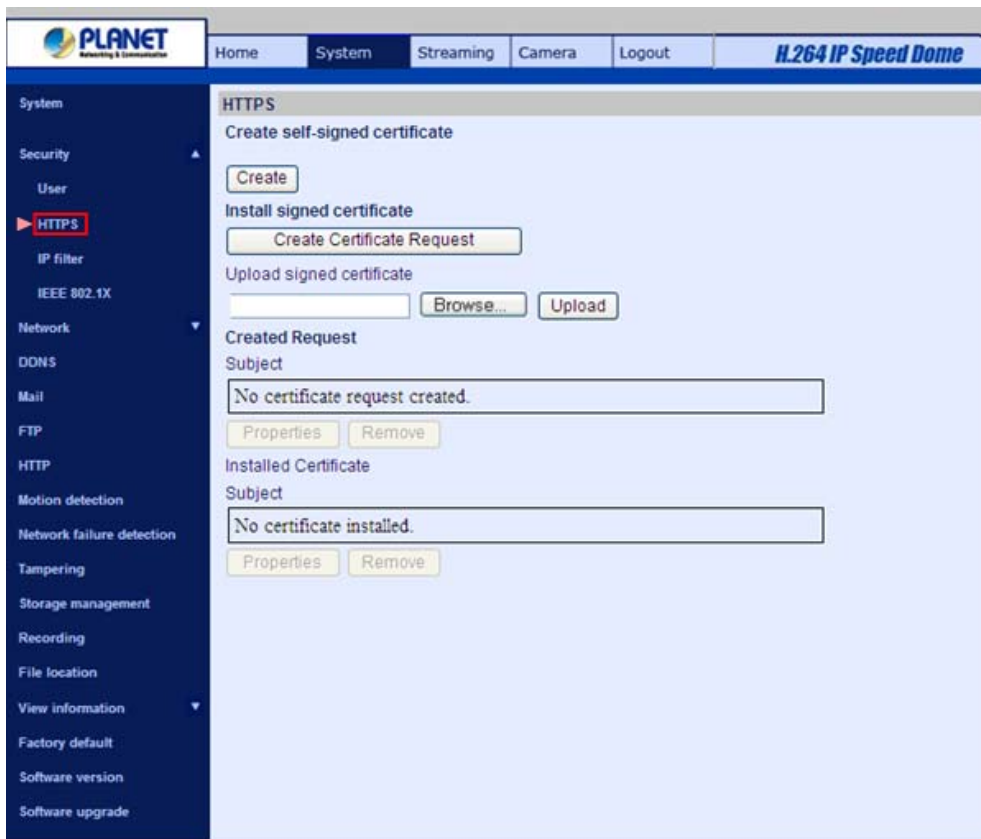
User name [User]
User password [Masked Password]

I/O access Camera control
 Talk Listen

Save Close

4.3.2.2 HTTPS

The HTTPS setting can be found under this path: System> Security> HTTPS.

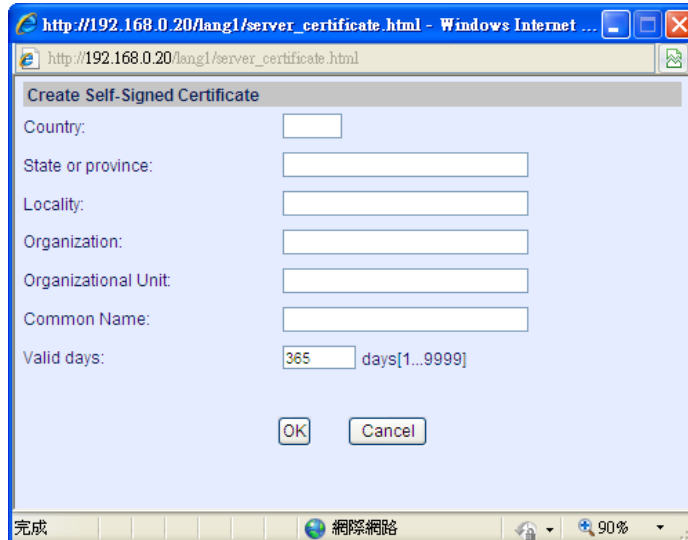


<HTTPS> allows secure connections between the IP Camera and web browser using <Secure Socket Layer (SSL)> or <Transport Layer Security (TLS)>, which ensure camera settings or Username/ Password info from snooping. It is required to install a self-signed certificate or a CA-signed certificate for implementing <HTTPS>.

To use HTTPS on the IP Camera, a HTTPS certificate must be installed. The HTTPS certificate can be obtained by either creating and sending a certificate request to a Certificate Authority (CA) or creating a self-signed HTTPS certificate, as described below.

Create Self-signed Certificate

Before a CA-issued certificate is obtained, users can create and install a self-signed certificate first.



Click on <Create> button under “Create self-signed certificate” and provide the requested information to install a self-signed certificate for the IP Camera. Please refer to the last part of this section: **Provide the Certificate Information** for more details.

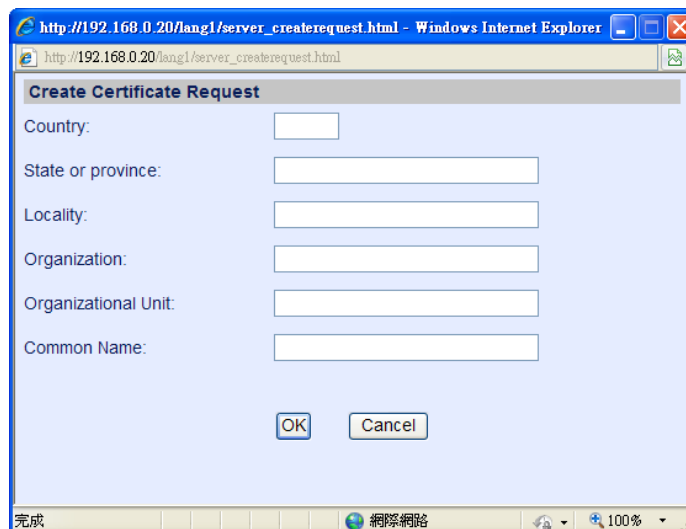


Note

The self-signed certificate does not provide the same high level of security as when using a CA-issued certificate.

Install Signed Certificate

Click on the <Create Certificate Request> button to create and submit a certificate request in order to obtain a signed certificate from CA.



Provide the request information in the create dialog. Please refer to the following **Provide the Certificate Information** for more details.

When the request is complete, the subject of the Created Request will be shown in the field. Click on <Properties> below the Subject field, copy the PEM-formatted request and send it to your selected CA.

When the signed certificate is returned, install it by uploading the signed certificate.

Provide the Certificate Information

To create a Self-signed HTTPS Certificate or a Certificate Request to CA, please enter the information as requested:

	Create Self Signed Certificate	Create Certificate Request
Country	√	√
State or Province	√	√
Locality	√	√
Organization	√	√
Organizational Unit	√	√
Common Name	√	√
Valid Day	√	-

- **Country**

Enter a two-letter combination code to indicate the country the certificate will be used in. For instance, type in "US" to indicate United States.

- **State or province**

Enter the local administrative region.

- **Locality**

Enter other geographical information.

- **Organization**

Enter the name of the organization to which the entity identified in "Common Name" belongs.

- **Organization Unit**

Enter the name of the organizational unit to which the entity identified in "Common Name" belongs.

- **Common Name**

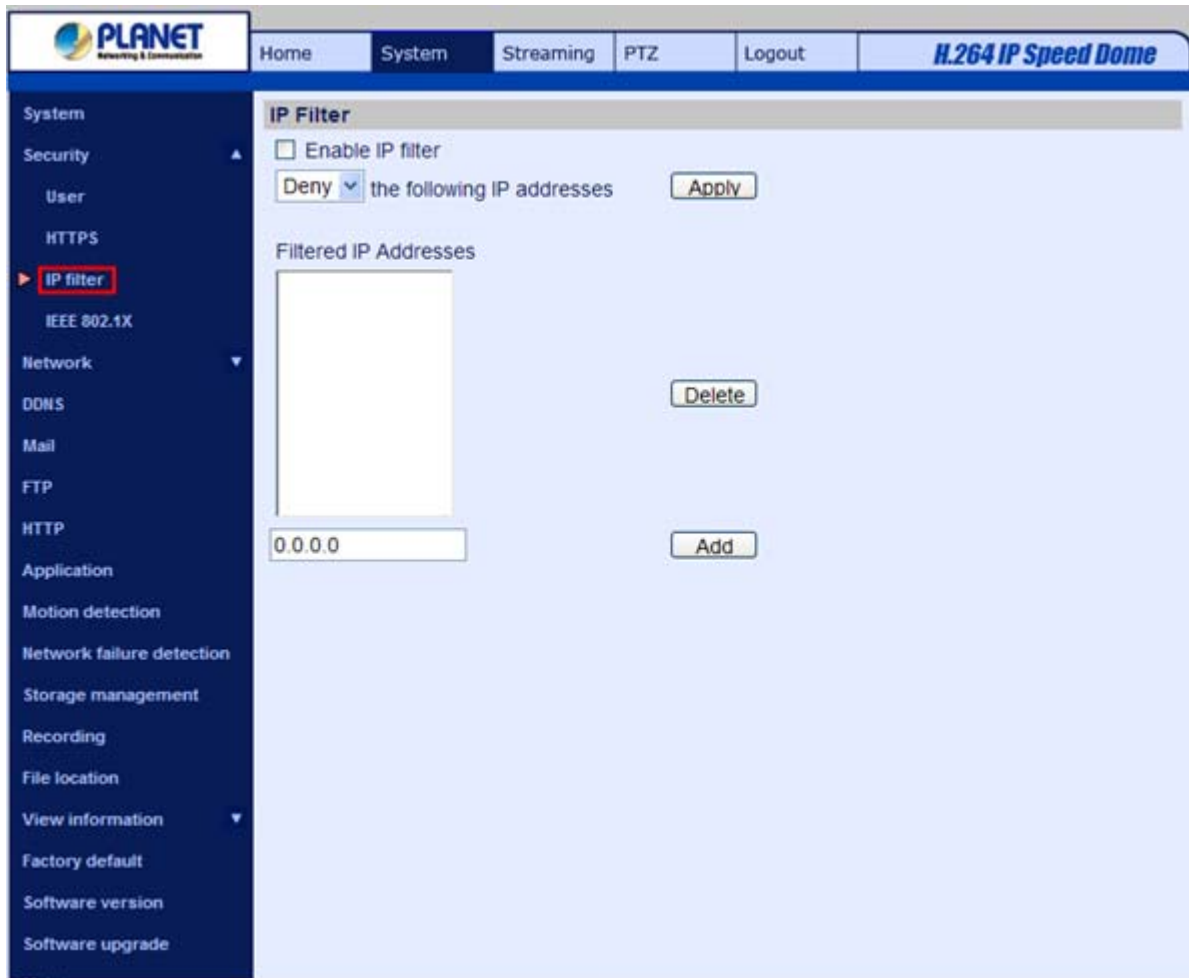
Indicate the name of the person or other entity that the certificate identifies (often used to identify the website).

- **Valid days**

Enter the period in days (1~9999) to indicate the valid period of certificate. Click on <OK> to save the Certificate Information after complete.

4.3.2.3 IP Filter

The IP Filter setting can be found under this path: **System> Security> IP Filter**.



Using the IP filter, access to the IP Camera can be restricted by denying/allowing specific IP addresses.

- **Enable IP Filter**

Check the box to enable the IP Filter function. Once enabled, the listed IP addresses (IPv4) will be allowed/ denied access to the IP Camera.

Select <Allow> or <Deny> from the drop-down list and click on the <Apply> button to determine the IP Filter behavior.

- **Add/ Delete IP Address**

Input the IP address and click on the <Add> button to add a new filtered address.

The Filtered IP Addresses list box shows the currently configured IP addresses. Up to 256 IP address entries may be specified.

To remove an IP address from the list, please select the IP and then click the <Delete> button.

4.3.2.4 IEEE 802.1X

The IEEE 802.1X setting can be found under this path: **System> Security> IEEE 802.1X**.

The screenshot shows the PLANET web interface for an H.264 IP Speed Dome camera. The navigation menu on the left includes System, Security, User, HTTPS, IP filter, IEEE 802.1X (highlighted), Network, DDNS, Mail, FTP, HTTP, Application, Motion detection, Network failure detection, Storage management, Recording, File location, View information, Factory default, Software version, and Software upgrade. The main content area is titled 'IEEE 802.1X/EAP-TLS' and contains the following configuration options:

- CA certificate:** A text input field, a 'Browse...' button, and an 'Upload' button. Below it is the instruction 'Upload CA certificate.'
- Client certificate:** A text input field, a 'Browse...' button, and an 'Upload' button. Below it is the instruction 'Upload Client certificate.'
- Private key:** A text input field, a 'Browse...' button, and an 'Upload' button. Below it is the instruction 'Upload Private key.'
- Settings:**
 - Identity:** A text input field containing 'admin'.
 - Private key password:** A text input field with masked characters (dots).
 - Enable IEEE 802.1X

A 'Save' button is located at the bottom right of the configuration area.

The IP Camera is allowed to access a network protected by 802.1X/EAPOL (Extensible Authentication Protocol over LAN).

Users need to contact with the network administrator for gaining certificates, user IDs and passwords

CA Certificate

The CA certificate is created by the Certification Authority for the purpose of validating itself. Upload the certificate for checking the server's identity.

Client Certificate/ Private Key

Upload the Client Certificate and Private Key for authenticating the IP Camera itself.

Settings

- Identity

Enter the user identity associated with the certificate. Up to 16 characters can be used.

- **Private Key Password**

Enter the password (maximum 16 characters) for your user identity.

Enable IEEE 802.1X

Check the box to enable IEEE 802.1X. Click on <Save> to save the IEEE 802.1X/EAP- TLS setting.

4.3.3 Network

Click <Network> in the left column, and the page will display as shown below.

4.3.3.1 Basic

The Basic setting can be found under this path: **System> Network> Basic**.

Network	
General	
<input type="radio"/> Get IP address automatically	
<input checked="" type="radio"/> Use fixed IP address	
IP address	192.168.0.20
Subnet mask	255.255.255.0
Default gateway	192.168.0.1
Primary DNS	168.95.1.1
Secondary DNS	
<input type="radio"/> Use PPPoE	
User name	
Password	
<input type="button" value="Save"/>	
Advanced	
Web Server port	80
RTSP port	554
MJPEG over HTTP port	8008
HTTPS port	443
<input type="button" value="Save"/>	
IPv6 Address Configuration	
<input type="checkbox"/> Enable IPv6	Address :
<input type="button" value="Save"/>	

Users can choose to connect to the IP Camera with fixed or dynamic (DHCP) IP address. The IP Camera also provides PPPoE support for users who connect to the network via PPP over Ethernet (PPPoE).

General

- **Get IP address automatically (DHCP)**

The camera's default setting is <Use fixed IP address>. Please refer to User's Manual for login with the default IP address.

If select <Get IP address automatically>, after the IP Camera restarts, users can search it through the installer program: DeviceSearch.exe, which can be found in "DeviceSearch" folder in the supplied CD.



Note

Please make the record of the IP Camera's MAC address, which can be found in the label of the camera, for identification in the future.

- **Use fixed IP address**

To setup static IP address, select <Use fixed IP address> and move the cursor to the IP address blank and insert the new IP address, ex. 192.168.7.123; then go to the Default gateway (explained later) blank and change the setting, ex. 192.168.7.254. Press <Save> to confirm the new setting.

When using static IP address to login to the IP Camera, users can access it either through “DeviceSearch” software (refer to User’s Manual) or input the IP address in the URL bar and click on <Enter>.

- **IP address**

This is necessary for network identification.

- **Subnet mask**

It is used to determine if the destination is in the same subnet. The default value is “255.255.255.0”.

- **Default gateway**

This is the gateway used to forward frames to destinations in different subnet. Invalid gateway setting will fail the transmission to destinations in different subnet.

- **Primary DNS**

Primary DNS is the primary domain name server that translates hostnames into IP addresses.

- **Secondary DNS**

Secondary DNS is a secondary domain name server that backups the primary DNS.

Use PPPoE

For the PPPoE users, enter the PPPoE Username and Password into the fields, and click on the <Save> button to complete the setting.

Advanced

- **Web Server port**

The default web server port is 80. Once the port is changed, the user must be notified the change for the connection to be successful. For instance, when the Administrator changes the HTTP port of the IP Camera whose IP address is 192.168.0.100 from 80 to 8080, the user must type in the web browser “<http://192.168.0.100:8080>” instead of “<http://192.168.0.100>”.

- **RTSP port**

The default setting of RTSP Port is 554; the setting range is from 1024 to 65535.

- **MJPEG over HTTP port**

The default setting of MJPEG over HTTP Port is 8008; the setting range is from 1024 to 65535.

- **HTTPS port**

The default setting of HTTPS Port is 443; the setting range is from 1024 to 65535.



Be aware to choose the different port from the one set for the web server port.

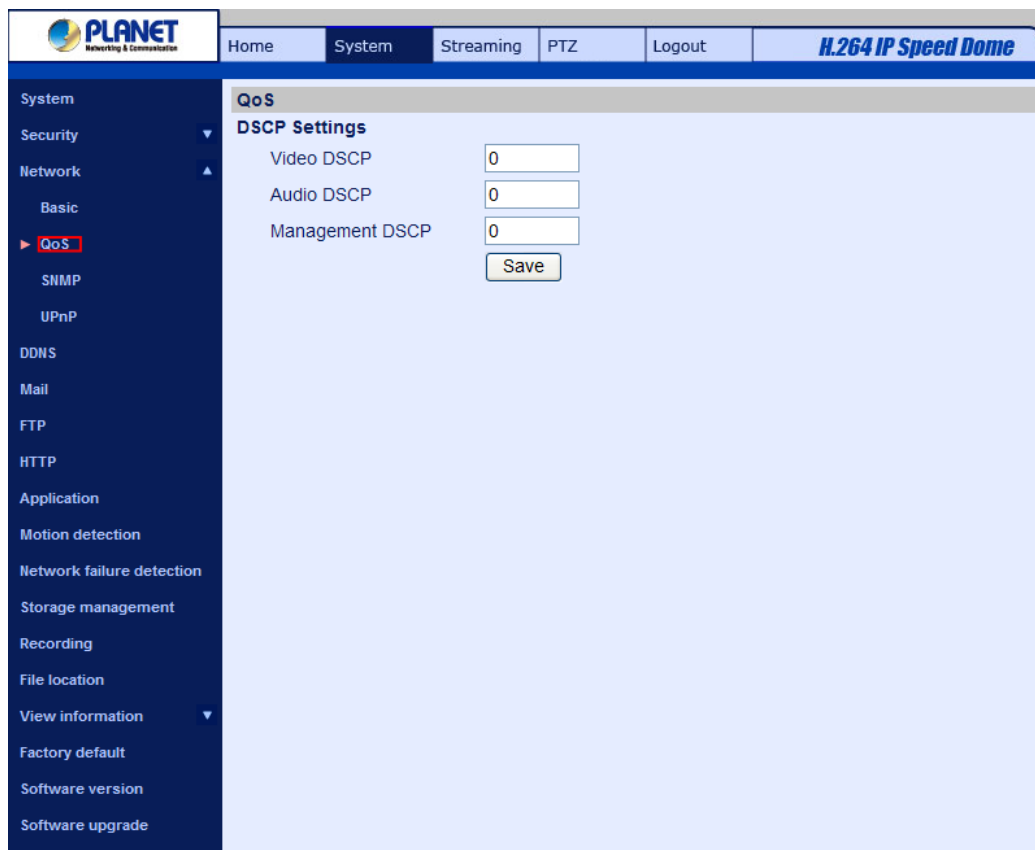
Note

IPv6 Address Configuration

With IPv6 support, users can use the corresponding IPv6 address for browsing. Enable IPv6 by checking the box and click on <Save> to complete the setting.

4.3.3.2 QoS

The QoS (Quality of Service) setting can be found under this path: **System> Network> QoS**.



QoS allows providing differentiated service levels for different types of traffic packets, which guarantees delivery of priority services especially when network congestion occurs. Adapting the Differentiated Services (DiffServ) model, traffic flows are

classified and marked with DSCP (DiffServ Codepoint) values, and thus receive the corresponding forwarding treatment from DiffServ capable routers.

DSCP Settings

The DSCP value range is from 0 to 63. The default DSCP value is 0, which means DSCP is disabled. The IP Camera uses the following QoS Classes: Video, Audio and Management.

- **Video DSCP**

The class consists of applications such as MJPEG over HTTP, RTP/RTSP and RTSP/HTTP.

- **Audio DSCP**

This setting is only available for the IP Cameras that support audio.

- **Management DSCP**

The class consists of HTTP traffic: Web browsing.

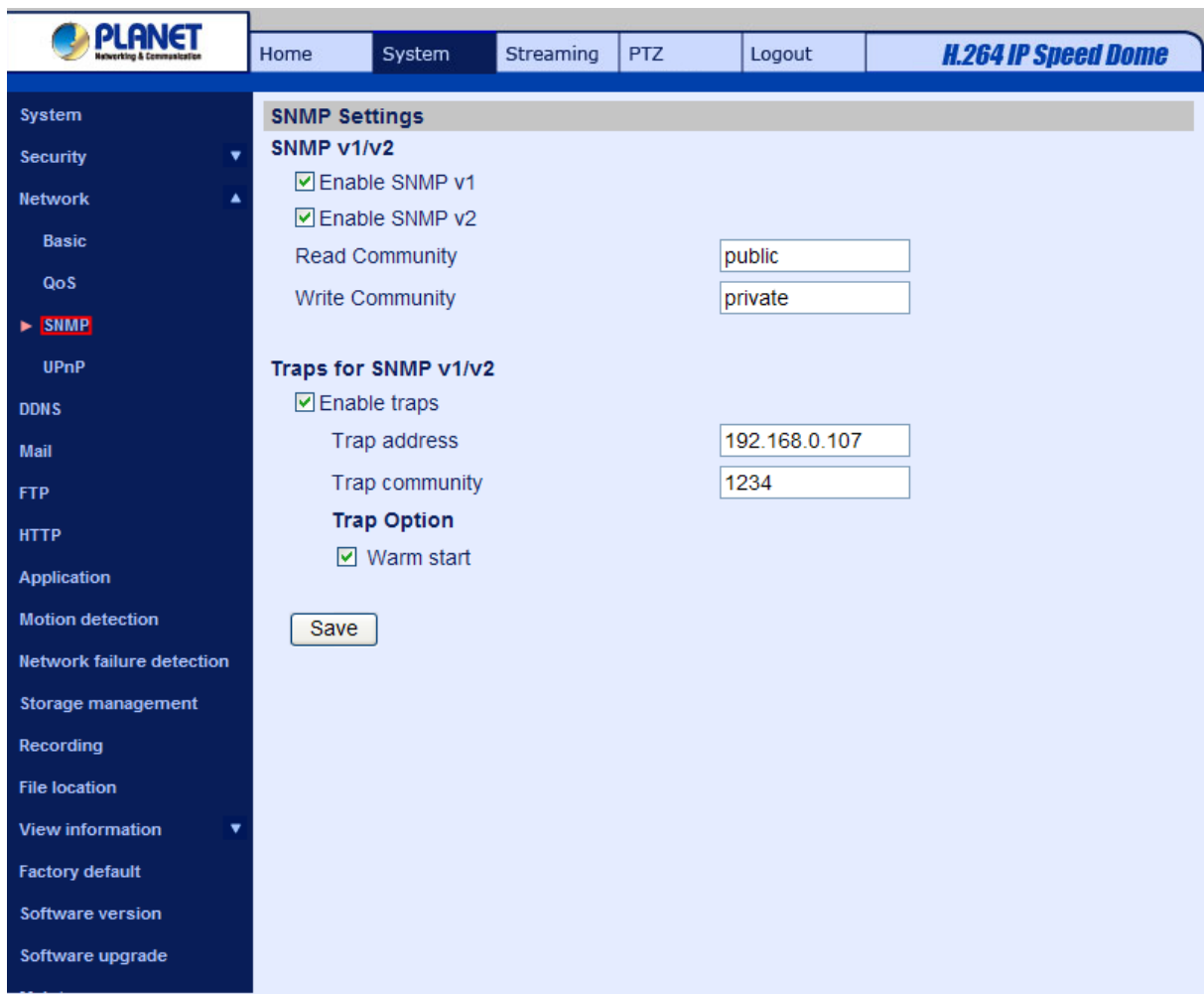


Note

To enable this function, please make sure the switches/ routers in the network support QoS.

4.3.3.3 SNMP

The SNMP (Simple Network Management Protocol) setting can be found under this path: **System> Network> SNMP**.



With Simple Network Management Protocol (SNMP) support, the IP Camera can be monitored and managed remotely by the network management system.

SNMP v1/ v2

- **Enable SNMP v1/ v2**

Select the version of SNMP to use by checking the box.

- **Read Community**

Specify the community name that has read-only access to all supported SNMP objects. The default value is “public”.

- **Write Community**

Specify the community name that has read/write access to all supported SNMP objects (except read-only objects). The default value is “write”.

Traps for SNMP v1/ v2

Traps are used by the IP Camera to send messages to a management system for important events or status changes.

- **Enable Traps**

Check the box to activate trap reporting.

- **Trap address**

Enter the IP address of the management server.

- **Trap community**

Enter the community to use when sending a trap message to the management system.

Trap Option

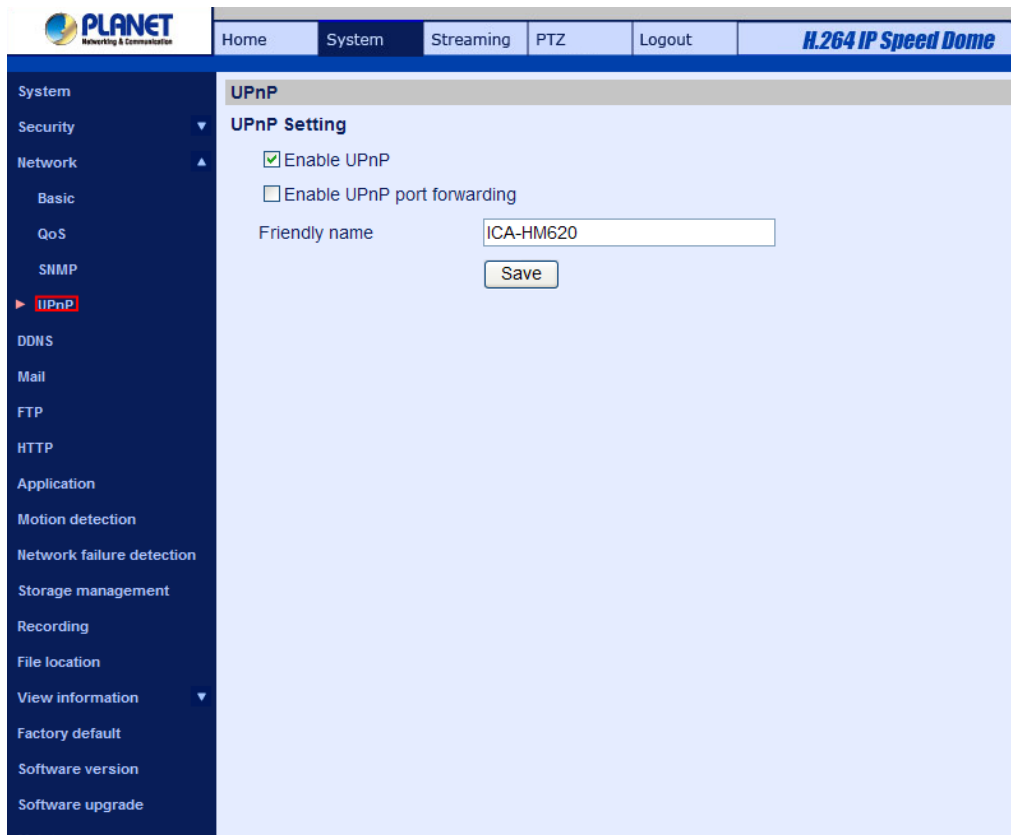
- **Warm Start**

A Warm Start SNMP trap signifies that the SNMP device, i.e. IP Camera, performs software reload.

Click on <Save> button when complete.

4.3.3.4 UPnP

The UPnP setting can be found under this path: **System> Network> UPnP**.



UPnP Setting

- **Enable UPnP**

When the UPnP is enabled, whenever the IP Camera is presented to the LAN, the icon of the connected IP Cameras will appear in My Network Places to allow for direct access.



Note

To enable this function, please make sure the UPnP component is installed on your computer. Please refer to [Install UPnP components for UPnP component installation procedure](#).

- **Enable UPnP port forwarding**

When the UPnP port forwarding is enabled, the IP Camera is allowed to open the web server port on the router automatically.



Note

To enable this function, please make sure that your router supports UPnP and it is activated.

- **Friendly name**

Set the name for the IP Camera for identity.

4.3.4 DDNS

Dynamic Domain Name System (DDNS) allows a host name to be constantly synchronized with a dynamic IP address. In other words, it allows those using a dynamic IP address to be associated to a static domain name so others can connect to it by name.

The screenshot shows the DDNS configuration page in the PLANET H.264 IP Speed Dome web interface. The page has a blue header with the PLANET logo and navigation tabs for Home, System, Streaming, PTZ, and Logout. A left sidebar contains a menu with options like System, Security, Network, and DDNS (which is highlighted). The main content area is titled 'DDNS' and contains the following configuration options:

- Dynamic DNS**
Use Dynamic DNS If You Want To Use Your DDNS Account.
- Enable DDNS
- Provider: Planetddns.com (dropdown menu)
- Host name: planettest01 .planetddns.com(1~16 Characters)
- Username: planettest01 (1~16 Characters)
- Password: ●●●●●● (1~16 Characters)
- Save button

Enable DDNS

Check the item to enable DDNS.

Provider

Select one DDNS host from the provider list.

Host name

Enter the registered domain name in the field.

Example : planetddnstest01

Username/

Enter the username required by the DDNS provider for authentication.

Example : planetddnstest01

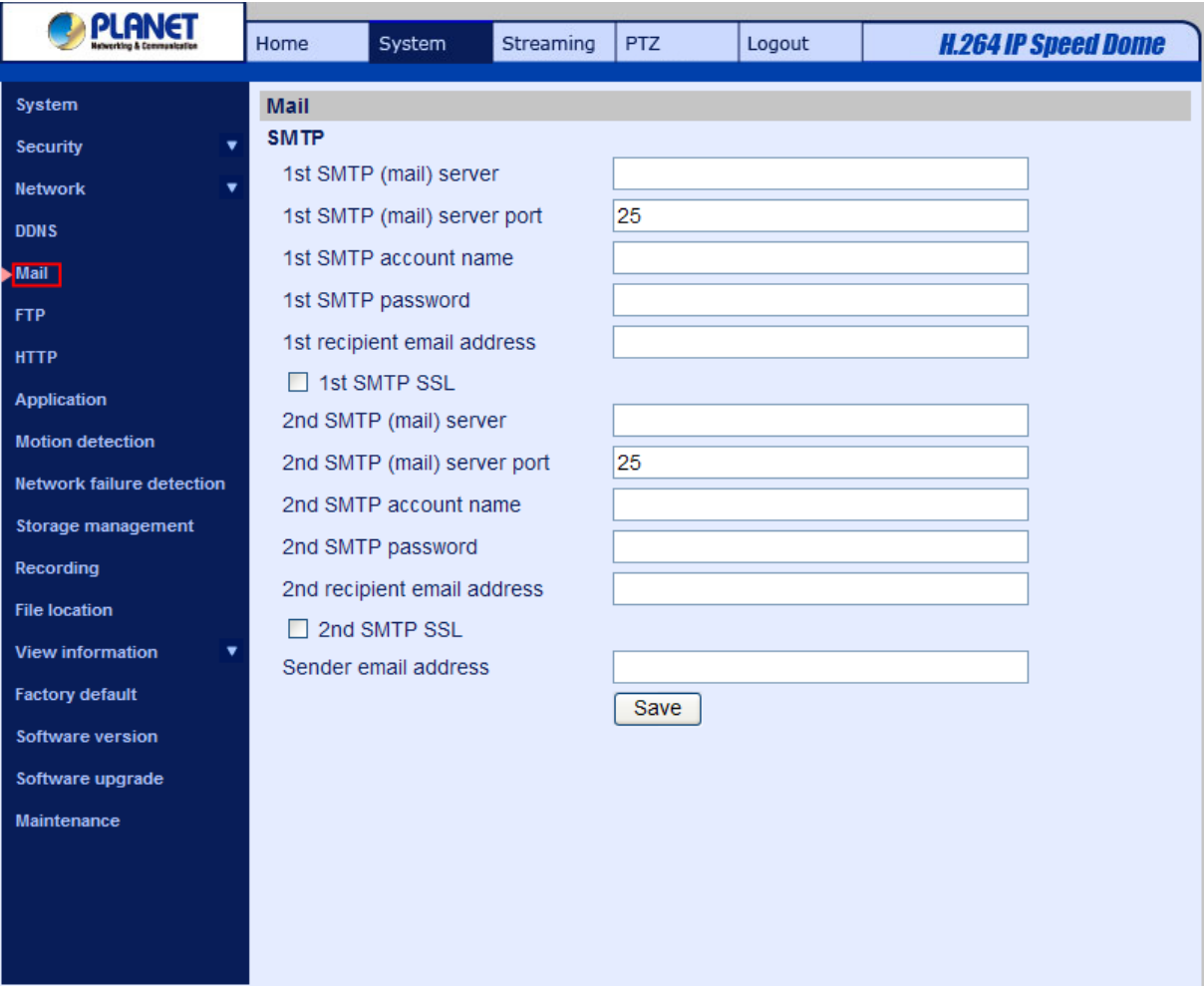
Password

Enter the password required by the DDNS provider for authentication.

Example : planetddnstest01

4.3.5 Mail

The Administrator can send an e-mail via Simple Mail Transfer Protocol (SMTP) when motion is detected. SMTP is a protocol for sending e-mail messages between servers. SMTP is a relatively simple, text-based protocol, where one or more recipients of a message are specified and the message text is transferred. The configuration page is shown as follows:



The screenshot shows the configuration page for SMTP settings in the Planet H.264 IP Speed Dome interface. The page has a dark blue header with the Planet logo and navigation tabs for Home, System, Streaming, PTZ, and Logout. A sidebar on the left lists various system settings, with 'Mail' highlighted in red. The main content area is titled 'Mail' and contains the following fields:

SMTP	
1st SMTP (mail) server	<input type="text"/>
1st SMTP (mail) server port	<input type="text" value="25"/>
1st SMTP account name	<input type="text"/>
1st SMTP password	<input type="text"/>
1st recipient email address	<input type="text"/>
<input type="checkbox"/> 1st SMTP SSL	
2nd SMTP (mail) server	<input type="text"/>
2nd SMTP (mail) server port	<input type="text" value="25"/>
2nd SMTP account name	<input type="text"/>
2nd SMTP password	<input type="text"/>
2nd recipient email address	<input type="text"/>
<input type="checkbox"/> 2nd SMTP SSL	
Sender email address	<input type="text"/>

A 'Save' button is located at the bottom right of the configuration area.

Two sets of SMTP can be configured. Each set includes SMTP Server, Account Name, Password and E-mail Address settings. For SMTP server, contact your network service provider for more specific information.

4.3.6 FTP

The Administrator can set as sending alarm message to a specific File Transfer Protocol (FTP) site when motion is detected. Users can assign alarm message to up to two FTP sites. The FTP setting page is shown below. Enter the FTP details, which include server, server port, user name, password and remote folder, in the fields. Press "Save" when finished.

The screenshot displays the PLANET web interface for an H.264 IP Speed Dome camera. The top navigation bar includes 'Home', 'System', 'Streaming', 'PTZ', and 'Logout'. The 'System' menu is expanded, and 'FTP' is selected. The left sidebar lists various system settings, with 'FTP' highlighted. The main content area is titled 'FTP' and contains configuration fields for two FTP servers. The first server fields are: '1st FTP server' (text input), '1st FTP server port' (text input with '21'), '1st FTP user name' (text input), '1st FTP password' (text input), and '1st FTP remote folder' (text input). Below these is a checkbox for '1st FTP passive mode'. The second server fields are: '2nd FTP server' (text input), '2nd FTP server port' (text input with '21'), '2nd FTP user name' (text input), '2nd FTP password' (text input), and '2nd FTP remote folder' (text input). Below these is a checkbox for '2nd FTP passive mode'. A 'Save' button is located at the bottom of the configuration area.

4.3.7 HTTP

The HTTP setting can be found under this path: **System**> **HTTP**.

A HTTP Notification server can listen for notification messages from IP Cameras by triggered events. Enter the HTTP details, which include server name (for instance, <http://192.168.0.1/admin.php>), user name, and password in the fields. <Alarm> triggered and <Motion Detection> notifications can be sent to the specified HTTP server.

Click on <Save> when finished.



Note

Please refer to: [Application> Send HTTP notification/ Motion Detection](#) for HTTP Notification settings.

4.3.8 Application (Alarm Settings)

The Application setting can be found under this path: **System> Application**.

PLANET Networking & Communication

Home System Streaming PTZ Logout **H.264 IP Speed Dome**

System

Security

Network

DDNS

Mail

FTP

HTTP

Application

Motion detection

Network failure detection

Storage management

Recording

File location

View information

Factory default

Software version

Software upgrade

Maintenance

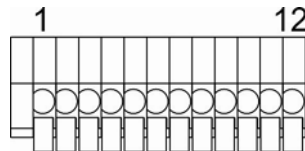
Application

Alarm pin selection

Alarm	Switch	Type
1.	Off	Normal open
2.	Off	Normal open
3.	Off	Normal open
4.	Off	Normal open

Edit

The Camera equips four alarm inputs and two relay outputs for cooperating with alarm system to catch events' images. Please refer the Alarm Pin Definition as below.



Pin	Definition
1	ALARM_OUT_NO_1
2	ALARM_OUT_NC_1
3	ALARM_OUT_COM_1
4	GND
5	ALARM_OUT_NO_2
6	ALARM_OUT_NC_2

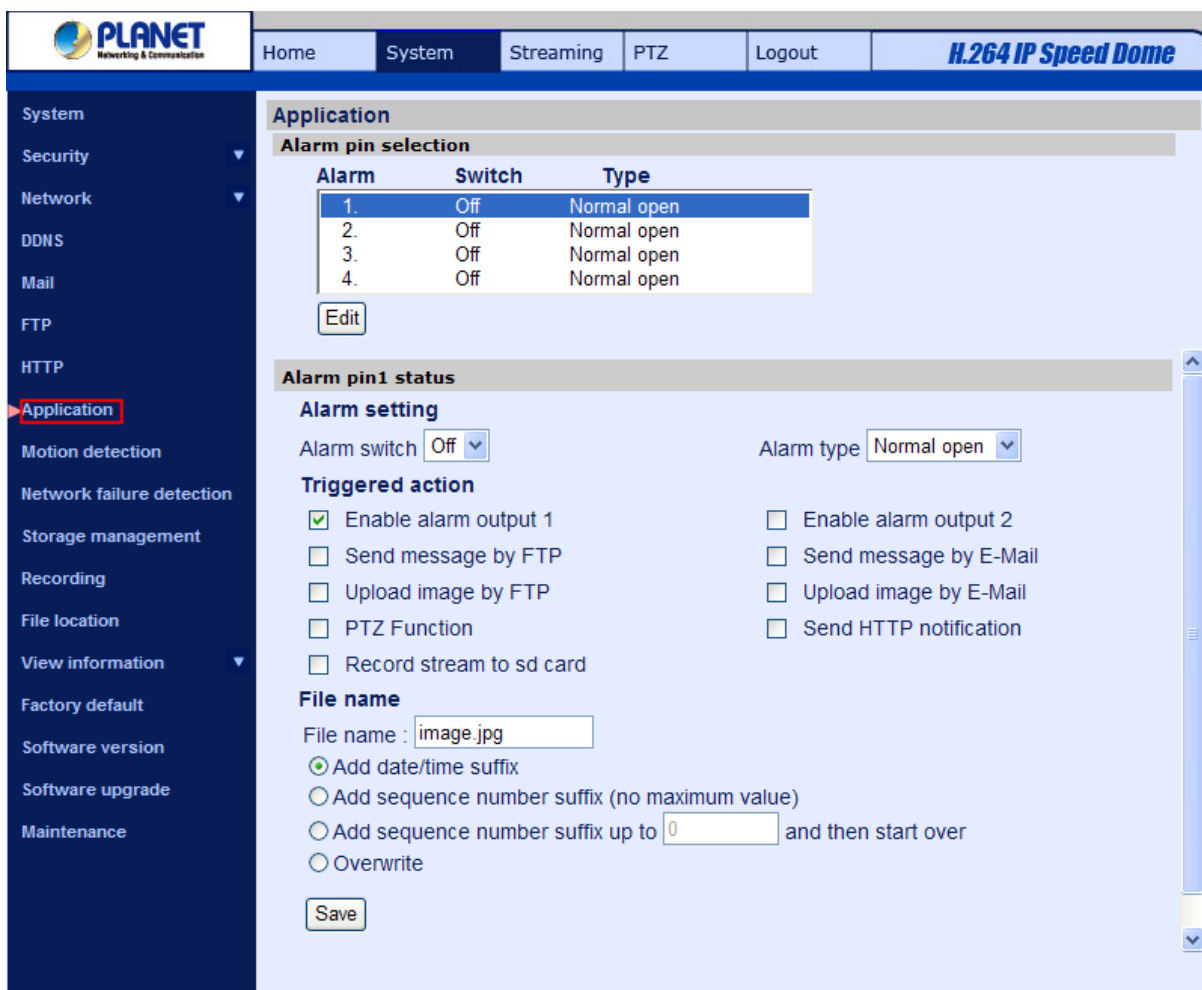
Pin	Definition
7	ALARM_OUT_COM_2
8	GND
9	ALARM_IN_4
10	ALARM_IN_3
11	ALARM_IN_2
12	ALARM_IN_1

Alarm Pin Selection

Select an alarm pin which is to be configured from the “Alarm Pin Selection” field. Then press the button “Edit” below the field to carry on alarm programming.

Alarm Status Settings

The specific alarm pin's property can be programmed in this section as shown below.



Alarm Switch

The Administrator can enable or disable the alarm function.

Alarm Type

Select an alarm type, “Normal close” or “Normal open,” that corresponds with the alarm application.

Triggered Action (Multi-option)

The Administrator can specify alarm actions that will take at an alarm occurrence. All options are listed as follows:

- **Enable Alarm Output 1/2**

Select the item to enable alarm relay output.

- **Send Alarm Message by FTP/E-Mail**

The Administrator can select whether to send an alarm message by FTP and/or E-Mail when an alarm is triggered.

- **Upload Image by FTP**

Select this item, and the Administrator can assign a FTP site and configure various parameters as shown in the figure below. When the alarm is triggered, event images will be uploaded to the appointed FTP site.

The screenshot shows the PLANET H.264 IP Speed Dome web interface. The left sidebar contains a menu with 'Application' highlighted in red. The main content area is titled 'Application' and contains two sections: 'Alarm pin selection' and 'Alarm pin1 status'.

Alarm pin selection

Alarm	Switch	Type
1.	Off	Normal open
2.	Off	Normal open
3.	Off	Normal open
4.	Off	Normal open

Alarm pin1 status

Alarm setting
 Alarm switch: Alarm type:

Triggered action

- Enable alarm output 1
- Send message by FTP
- Upload image by FTP
 - FTP address:
 - Pre-trigger buffer:
 - Post-trigger buffer:
 - Continue image upload
 - Upload for sec
 - Upload during trigger active
 - Image frequency: fps
- Enable alarm output 2
- Send message by E-Mail
- Upload image by E-Mail
- PTZ Function
- Record stream to sd card
- Send HTTP notification

- **Upload Image by E-Mail**

Select this item, and the Administrator can assign an e-mail address and configure various parameters as shown in the figure below. When the alarm is triggered, event images will be sent to the appointed e-mail address.

The screenshot shows the PLANET H.264 IP Speed Dome web interface. The left sidebar contains a navigation menu with 'Application' highlighted. The main content area is divided into two sections:

Alarm pin selection

Alarm	Switch	Type
1.	Off	Normal open
2.	Off	Normal open
3.	Off	Normal open
4.	Off	Normal open

Alarm pin1 status

Alarm setting
Alarm switch: Off

Triggered action

- Enable alarm output 1
- Send message by FTP
- Upload image by FTP

Alarm type: Normal open

- Enable alarm output 2
- Send message by E-Mail
- Upload image by E-Mail

E-Mail address: E-Mail 1

Pre-trigger buffer: 5 frames

Post-trigger buffer: 5 frames

- Continue image upload
- Upload for 1 sec
- Upload during trigger active

Image frequency: Max. fps

PTZ Function

Record stream to sd card

Send HTTP notification



Note

Make sure SMTP or FTP configuration has been completed. See section [Mail](#) and [FTP](#) for further details.

- **PTZ Function**

Assign a camera function: Preset, Sequence, Autopan or Cruise, and specify a Preset Point/Sequence Line/Autopan Path/Cruise Line for the camera to perform at an alarm occurrence.



Note

Please refer to the sections through [Preset Programming](#) to [Sequence Line Programming](#) for details of Preset Point / Sequence Line / Autopan Path / Cruise Line setups.

If the selected function is “Preset,” it is required to enter its dwell time (1 ~ 256 sec.) in the corresponding field as shown below. When the alarm is triggered, the camera will go to the selected Preset Point and stay there for a user-defined period of time. As for other function modes, the camera will keep executing the specified function; to stop the performance, simply change the camera’s status.

The screenshot shows the PLANET H.264 IP Speed Dome web interface. The left sidebar contains a menu with 'Application' highlighted. The main content area is titled 'Application' and 'Alarm pin1 status'. It includes a table for 'Alarm pin selection' with columns 'Alarm', 'Switch', and 'Type'. Below the table is an 'Edit' button. The 'Alarm setting' section includes 'Alarm switch' (set to Off) and 'Alarm type' (set to Normal open). The 'Triggered action' section has several checkboxes: 'Enable alarm output 1' (checked), 'Send message by FTP', 'Upload image by FTP', 'Enable alarm output 2', 'Send message by E-Mail', 'Upload image by E-Mail', and 'Send HTTP notification'. The 'PTZ Function' checkbox is checked, and its dropdown menu is open, showing 'Preset' (selected), 'Sequence', 'Autopan', and 'Cruise'. Below this is a 'File name' section with a text input field containing 'image.jpg' and three radio button options for adding date/time, sequence number, or sequence number up to a specified value.



Note

The dwell time is only adjustable when selecting **Preset** as the alarm action. When the dwell time is up, the Speed Dome IP Camera will go back to its trigger position and recheck alarm pin status.

- **Send HTTP notification**

Check this item, select the destination HTTP address, and specify the parameters for event notifications by <Alarm> triggered. When an alarm is triggered, the notification can be sent to the specified HTTP server.

The screenshot shows the PLANET H.264 IP Speed Dome web interface. The left sidebar contains a navigation menu with options like System, Security, Network, DDNS, Mail, FTP, HTTP, Application (highlighted), Motion detection, Network failure detection, Storage management, Recording, File location, View information, Factory default, Software version, Software upgrade, and Maintenance. The main content area is titled 'Application' and contains the following sections:

- Alarm pin selection:** A table with columns 'Alarm', 'Switch', and 'Type'.

Alarm	Switch	Type
1.	Off	Normal open
2.	Off	Normal open
3.	Off	Normal open
4.	Off	Normal open
- Alarm pin1 status:**
 - Alarm setting:** Alarm switch is set to 'Off' and Alarm type is 'Normal open'.
 - Triggered action:**
 - Enable alarm output 1
 - Send message by FTP
 - Upload image by FTP
 - PTZ Function
 - Enable alarm output 2
 - Send message by E-Mail
 - Upload image by E-Mail
 - Send HTTP notification (highlighted with a red box)
 - File name:**
 - File name: image.jpg
 - Add date/time suffix
 - Add sequence number suffix (no maximum value)
 - Add sequence number suffix up to 0 and then start over
 - Overwrite

For instance, if the custom parameter is set as "action=1&group=2", and the HTTP server name is "http://192.168.0.1/admin.php", the notification will be sent to HTTP server as "http://192.168.0.1/admin.php? action=1&group=2" when alarm is triggered.

- **Record Stream to SD Card**

Select the item and the alarm-triggered recording will be saved into your Micro SD card.

The screenshot shows the PLANET H.264 IP Speed Dome web interface. The left sidebar contains a navigation menu with 'Application' highlighted. The main content area is titled 'Application' and contains two sections: 'Alarm pin selection' and 'Alarm pin1 status'. The 'Alarm pin selection' section contains a table with the following data:

Alarm	Switch	Type
1.	Off	Normal open
2.	Off	Normal open
3.	Off	Normal open
4.	Off	Normal open

Below the table is an 'Edit' button. The 'Alarm pin1 status' section is expanded and contains 'Alarm setting' (Alarm switch: Off, Alarm type: Normal open) and 'Triggered action' options. The 'Record stream to sd card' option is checked, and the 'Pre-trigger buffer' is set to 1 second. The 'Upload for 1 sec' radio button is selected. The 'File name' field contains 'image.jpg'.

Pre-trigger buffer recording function allows users to check what happened to cause the trigger. The pre-trigger buffer time range is from 1 to 3 seconds.

Select <Upload for __ sec> to set the recording duration after alarm is triggered. The setting range is from 1 to 99999 seconds.

Select <Upload during the trigger active> to record the triggered video until the trigger is off.



Note

Please make sure the local recording (with Micro SD/ SDHC card) is activated so that this function can be implemented. Refer to Recording for further details.

File Name

Enter a file name in the blank, ex. image.jpg. The uploaded image's file name format can be set in this section. Please select the one that meets your requirements.

- **Add date/time suffix**

File name: imageYYMMDD_HHNNSS_XX.jpg

Y: Year, M: Month, D: Day

H: Hour, N: Minute, S: Second

X: Sequence Number

- **Add sequence number suffix (no maximum value)**

File name: imageXXXXXXXX.jpg

X: Sequence Number

- **Add sequence number suffix (limited value)**

File Name: imageXX.jpg

X: Sequence Number

The file name suffix will end at the number being set. For example, if the setting is up to “10,” the file name will start from 00, end at 10, and then start all over again.

- **Overwrite**

The original image in the FTP site will be overwritten by the new uploaded file with a static filename.

Save

After complete all the settings mentions above, please click on the Save button to save all the settings in this page.

4.3.9 Motion Detection

The Motion Detection setting can be found under this path: **System> Motion Detection**.

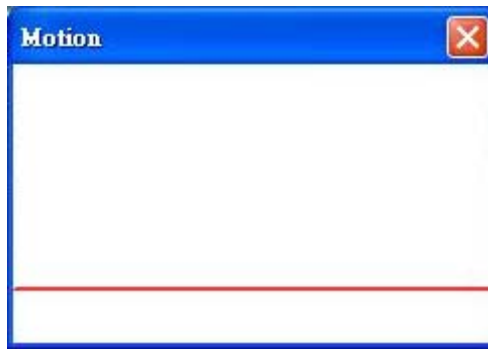
Motion Detection function allows detecting suspicious motion and triggering alarms when motion volume in the detected area reaches/exceeds the determined sensitivity threshold value.

In the Motion Detection setting page, there is a frame (**Motion Detection Window**) displayed on the Live View Pane. The Motion Detection Window is for defining the motion detection area. To change the size of the Motion Detection Window, move the mouse cursor to the edge of the frame and draw it outward/inward. Moving the mouse to the center of the frame can shift the frame to the intended location.

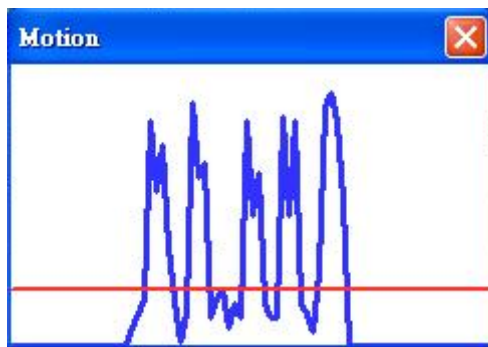


Up to **10** Motion Detection Windows can be set. Press the “add” button under the Live View Pane to add a Motion Detection Window. To cancel a Motion Detection Window, move the mouse cursor to the selected Window, and click on the “delete” button.

If Motion Detection function is activated, the pop-off window (Motion) with indication of motion will be shown.



When motion is detected, the signals will be displayed on the Motion window as shown below.



Detailed settings of Motion Detection are described as follows:

Motion Detection

You will be able to turn on/off Motion Detection in System section. Default setting is Off.

Motion Detection Setting

Users could adjust various parameters of Motion Detection in this section.

- Sampling pixel interval [1-100]:

The default value is 10, which means system will take one sampling pixel for every 10 pixel.

- Detection level [1-100]:

The default level is 10. The item is to set detection level for each sampling pixel; the smaller the value, the more sensitive it is.

- Sensitivity level [1-100]:

The default level is 80, which means if 20% or more sampling pixels are detected differently, system will detect motion. The bigger the value, the more sensitive it is. Meanwhile, when the value is bigger, the red horizontal line in the motion indication window will be lower accordingly.

- Time interval (sec) [0-7200]:

The default interval is 10. The value is the interval between each detected motion.

Triggered Action (Multi-option)

The Administrator can specify alarm actions that will take when motion is detected. All options are listed as follows:

- **Enable Alarm Output 1/2**

Check the item and select the predefined type of alarm output to enable alarm relay output when motion is detected.

- **Send Alarm Message by FTP/E-Mail**

The Administrator can select whether to send an alarm message by FTP and/or E-Mail when motion is detected.

- **Upload Image by FTP**

Select this item, and the Administrator can assign a FTP site and configure various parameters as shown in the figure below. When motion is detected, event images will be uploaded to the appointed FTP site.

Upload Image by FTP
FTP address: FTP1
Pre-trigger buffer: 5 frames
Post-trigger buffer: 5 frames
 Continue image upload
 Upload for 1 sec
 Upload during the trigger active
Image frequency: Max. fps

- **Upload Image by E-Mail**

Select this item, and the Administrator can assign an e-mail address and configure various parameters as shown in the figure below. When motion is detected, event images will be sent to the appointed e-mail address.

Upload Image by E-Mail
E-Mail address: E-Mail 1
Pre-trigger buffer: 5 frames
Post-trigger buffer: 5 frames
 Continue image upload
 Upload for 1 sec
 Upload during the trigger active
Image frequency: Max. fps



Note

Make sure SMTP or FTP configuration has been completed. See section [Mail](#) and [FTP](#) for further details.

- **Send HTTP notification**

Check this item, select the destination HTTP address, and specify the parameters for event notifications by <Motion Detection> triggered. When an alarm is triggered, the notification can be sent to the specified HTTP server.

For instance, if the custom parameter is set as " [action=1&group=2](#)", and the HTTP server name is " [http://192.168.0.1/admin.php](#)", the notification will be sent to HTTP server as " [http://192.168.0.1/admin.php? action=1&group=2](#)" when alarm is triggered.

- **Record stream to SD Card**

Select this item and the Motion Detection recording will be stored in Micro SD/ SDHC card when motion is detected.



Note

Please make sure the local recording (with Micro SD/ SDHC card) is activated so that this function can be implemented. Refer to Recording for further details

File Name

The uploaded image's filename format can be set in this section. Please select the one that meets your requirements.

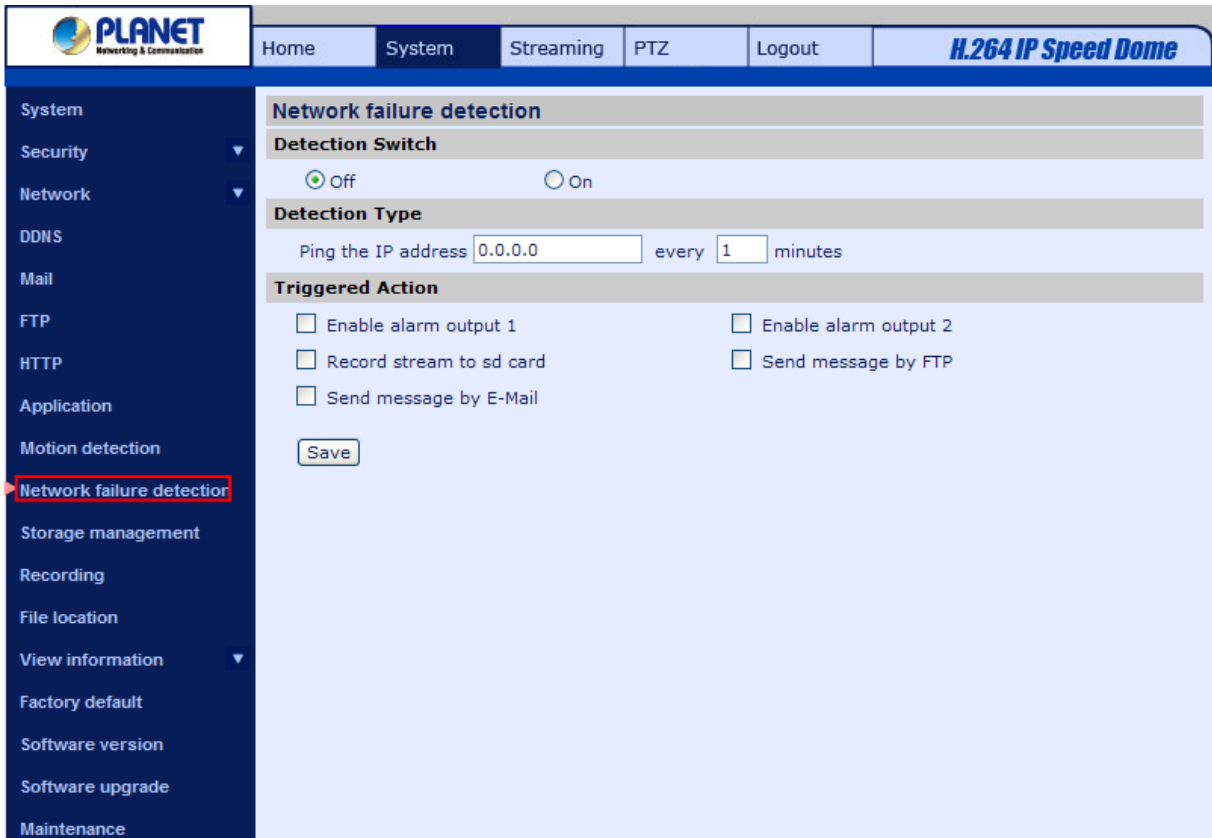
Save

Click the Save button to save all the Motion Detection settings mentioned above.

4.3.10 Network failure detection

Network Failure Detection allows the IP Camera to ping another IP device (e.g.NVR, VSS, Video Server, etc.) within the network periodically and generates some actions in case of network failure occurs, for instance, a Video Server is somehow disconnected

The Tampering setting can be found under this path: **System> Network failure detection**



Being capable of implementing local recording (through Micro SD card) when network failure happens, the IP Camera could be a backup recording device for the surveillance system.

Detection Switch

You will be able to turn on/off Network Failure Detection in System section.
Default setting is Off.

Detection Type

Input the IP device address and the period of ping time to ping. The ping time setting range is from 1 to 99 minutes.

Triggered Action (Multi-option)

The Administrator can specify alarm actions that will take when network failure is detected. All options are listed as follows:

- **Enable Alarm Output 1/2**

Check the items and select the predefined type of alarm output to enable alarm relay outputs when tampering is detected.

- **Record stream to SD Card**

Select this item and the Tampering Alarm recording will be stored in Micro SD/ SDHC card when tampering is detected.

Pre-trigger buffer recording function allows users to check what happened to cause the trigger. The pre-trigger buffer time range is from 1 to 3 seconds. Select <Upload for ___ sec> to set the recording duration after alarm is triggered. The setting range is from 1 to 99999 seconds. Select <Upload during the trigger active> to record the triggered video until the trigger is off.

Record stream to sd card
Pre-trigger buffer sec
 Upload for sec
 Upload during the trigger active



Note

Please make sure the local recording (with Micro SD/ SDHC card) is activated so that this function can be implemented. Refer to Recording for further details.

- **Send Alarm Message by FTP/E-Mail**

The Administrator can select whether to send an alarm message by FTP and/or E-Mail when tampering is detected.

- **Upload Image by FTP**

Select this item and the Administrator can assign a FTP site and configure various parameters. When tampering is detected, event images will be uploaded to the appointed FTP site.

- **Upload Image by E-Mail**

Select this item and the Administrator can assign an e-mail address and configure various parameters. When tampering is detected, event images will be sent to the appointed e-mail address.



Note

Make sure SMTP or FTP configuration has been completed. Refer to Mail and FTP for further details.

- **Send HTTP notification**

Check this item, select the destination HTTP address, and specify the parameters for HTTP notifications. When the Tampering Alarm is triggered, the HTTP notifications can be sent to the specified HTTP server.

For instance, if the custom parameter is set as "action=1&group=2", and the HTTP server name is "http://192.168.0.1/admin.php", the notification will be sent to HTTP server as "http://192.168.0.1/admin.php? action=1&group=2" when alarm is triggered.

4.3.11 Storage Management (Local Recording)

The Storage Management setting can be found under this path: **System> Storage Management**.

The screenshot shows the PLANET web interface for an H.264 IP Speed Dome camera. The top navigation bar includes Home, System, Streaming, PTZ, Logout, and the device name. The left sidebar lists various system settings, with 'Storage management' highlighted. The main content area is titled 'Storage Management' and contains the following sections:

- Device information:**

Device type:	SD card	Total size:	0 KB
Free space:	0 KB	Full:	No
Status:	No		
- Device setting:**

Format device :
- Disk cleanup setting:**

Enable automatic disk cleanup

Remove recordings older than: day(s)

Remove oldest recordings when disk is: % full
- Recording list:**

FileName	Size

Users can implement local recording to the Micro SD/SDHC card up to 32GB. This page shows the capacity information of the Micro SD card and a recording list with all the recording files saved on the memory card. Users can also format the SD card and implement automatic recording cleanup through the setting page.

To implement Micro SD card recording, please go to the <Recording> page (refer to the section [Recording](#)) for activation.



Note

Please format the Micro SD/SDHC card when using for the first time. Formatting will also be required when a memory card already being used on one camera and later transferred to another camera with different software platform.

Device information

When users insert the Micro SD/SDHC card, the card information such as the memory capacity and status will be shown at Device Information section.

When the memory card is successfully installed, the memory card status shall be shown at <Device information> section in the Storage Management page.

Device setting

Click on the <Format> button to format the memory card.

Disk cleanup setting

Users can enable automatic recordings cleanup by specifying the time and storage limits.

Recording List

Each video file on the Micro SD/SDHC card will be listed in the Recording list. The maximum file size is 60 MB/per file.

When the recording mode is set as <Always> (consecutive recording) and the Micro SD/ SDHC card recording is also allowed to be enabled by events triggered, once events occur, the system will immediately implement events recording to the memory card. Then the IP Camera will return to the regular recording mode after events recording.

- **Remove**

To remove a file, select the file first, and then click on the <Remove> button.

- **Sort**

Click on the <Sort> button, and the files in the Recording list will be listed in name and date order.



Note

The capital letter A/M/R appears in the very beginning of name denotes the sort of the recording: A stands for Alarm; M stands for Motion; R stands for regular recording.

- **Download**

To open/download a video clip, select the file first, and then click on the <download> button below the Recording list field. The selected file window will pop up. Click on the AVI file to directly play the video in the player or download it to a specified location.

4.3.12 Recording (Local Recording)

The Recording setting can be found under this path: **System> Recording**.

In the Recording setting page, users can specify the recording schedule that fits the present surveillance requirement.

The screenshot shows the 'Recording Schedule' configuration page. The 'Recording Schedule' section has three radio button options: 'Disable' (selected), 'Always', and 'Only during time frame'. Below this is a table with the following data:

	Weekday	Start time	Duration
1	- 0 - - - - -	11:45	00:10
2	- - - - - - -	----	----
3	- - - - - - -	----	----
4	- - - - - - -	----	----
5	- - - - - - -	----	----
6	- - - - - - -	----	----
7	- - - - - - -	----	----
8	- - - - - - -	----	----
9	- - - - - - -	----	----
10	- - - - - - -	----	----

Below the table, there are checkboxes for days of the week: Sun, Mon (checked), Tue, Wed, Thu, Fri, Sat. There are also input fields for 'Start time' (11:45) and 'Duration' (00:10), and a 'Save' button.

Activating Micro SD/SDHC Card Recording

Two types of schedule mode are offered: Always and Time Frame setting. Users can setup the time frame to fit the recording schedule or choose <Always> to activate Micro SD/SDHC Card Recording all the time.

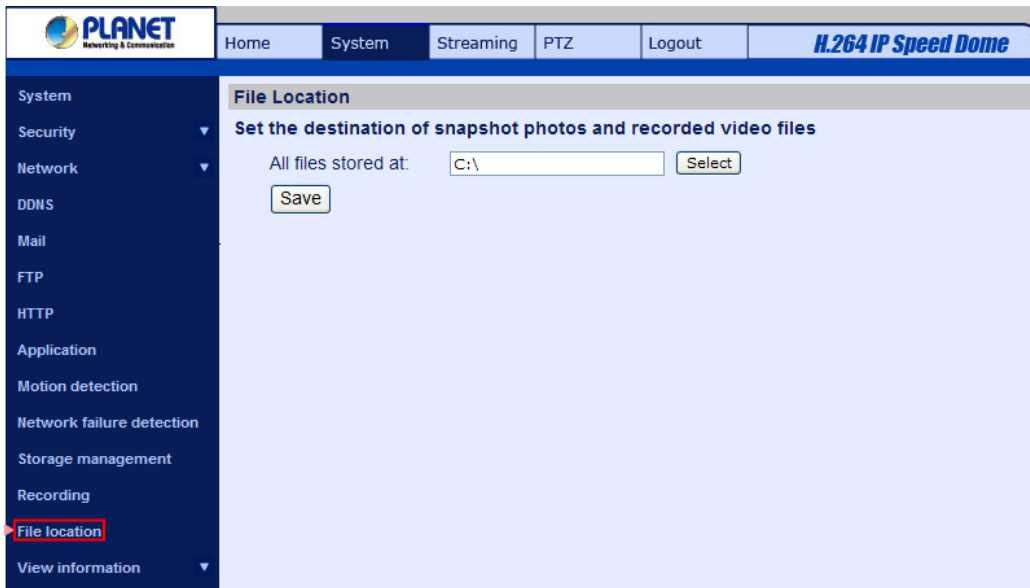
Please click on the <Save> button for confirming the schedule mode.

Terminating Micro SD/SDHC Card Recording

Select <Disable> to terminate the recording function.

4.3.13 File Location

Users can specify a storage location for the snapshots and live video recording. The default setting is: C:\. Once confirm the setting, press "Save," and all the snapshots and recording will be saved in the designate location.



Note

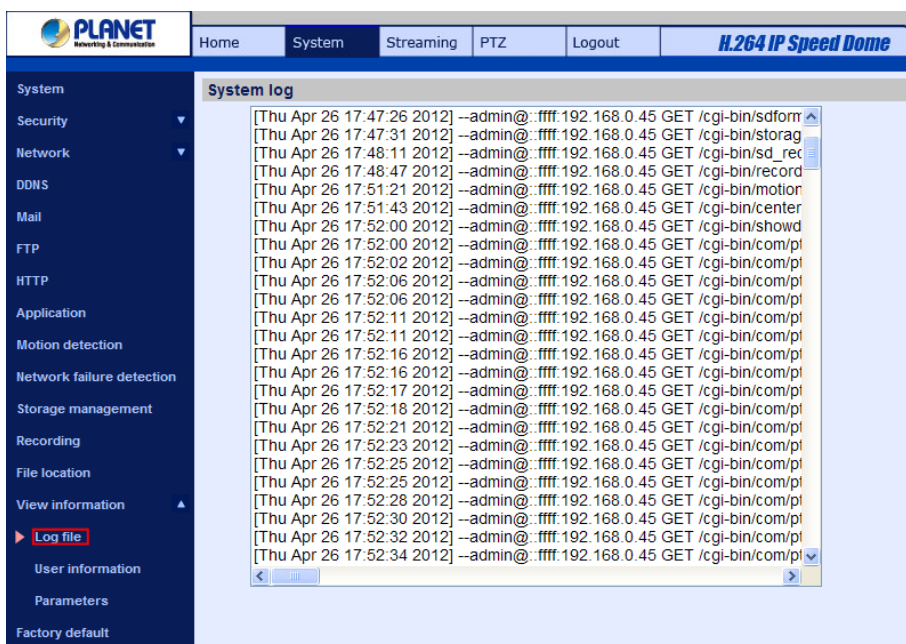
Please make sure the selected file path contains valid characters such as letters and numbers.

4.3.14 View Information

Click on the link to view the system log file. The content of the file provides useful information about configuration and connections after system boot-up.

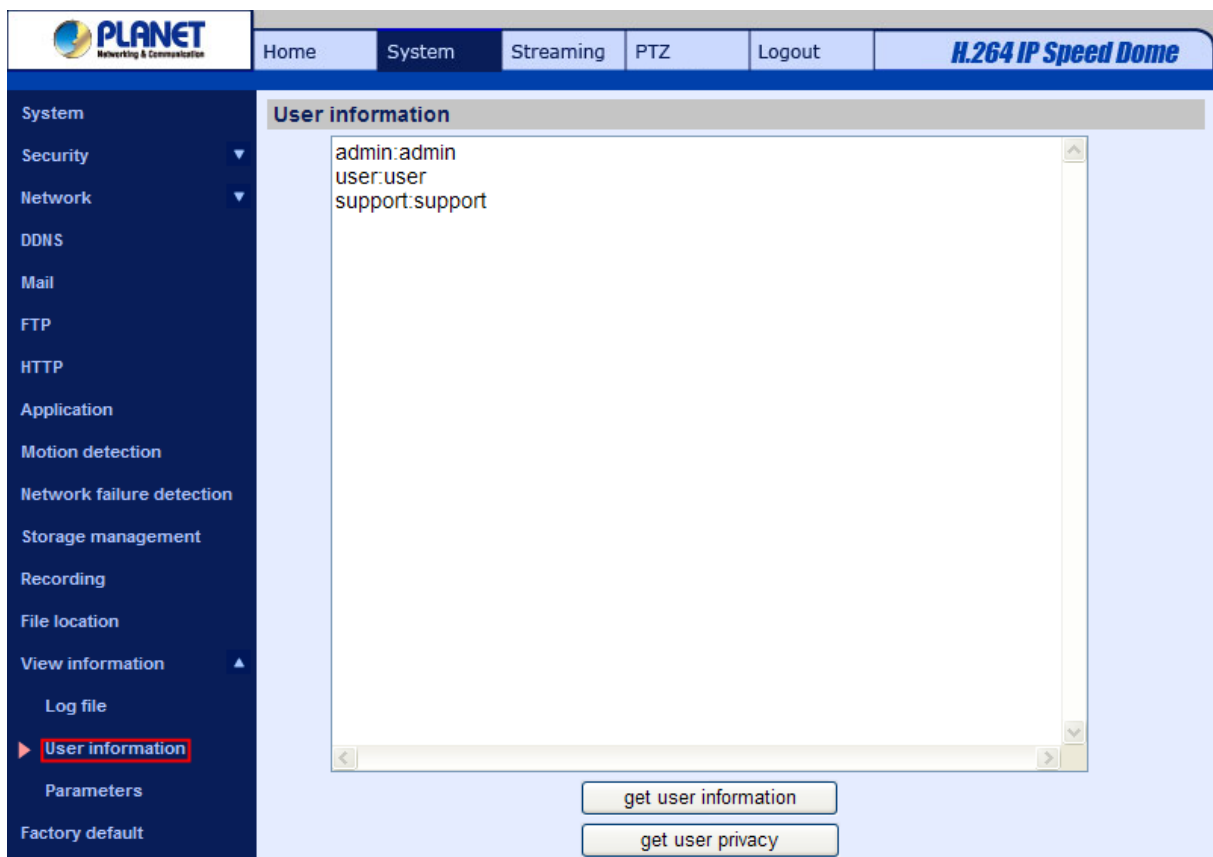
4.3.14.1 Log File

The View Log File function can be found under this path: **System> View Log File**.



4.3.14.2 View User Information

The View User Information function can be found under this path: **System> View User Information**.



The Administrator can view each added user's login information and privileges (refer to the section [Security](#)).

Get User Information

All the users in the network will be listed in the <User information> zone, as

"**User: 4321**." It indicates that one user's login username is "User", and password is "4321".

Get User Privacy

Click on <get user privacy> at the bottom of the page, and the Administrator can view each user's privileges as "**User: 1:1:0:1**."

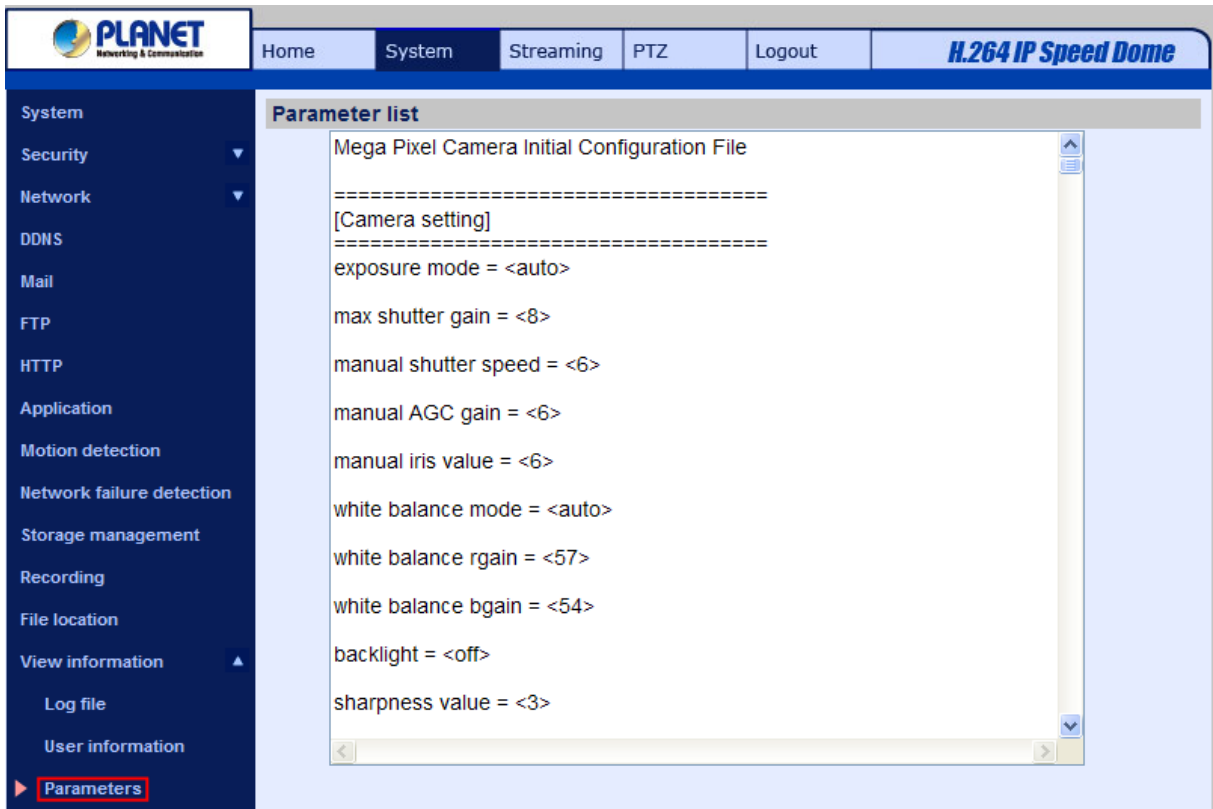
1:1:0:1= I/O access : Camera control : Talk : Listen (refer to the section [Security](#))

- | | |
|--|--|
| <input checked="" type="checkbox"/> I/O access | <input checked="" type="checkbox"/> Camera control |
| <input type="checkbox"/> Talk | <input checked="" type="checkbox"/> Listen |

Therefore, it denotes the user is granted privileges of I/O access, Camera control and Listen.

4.3.14.3 View Parameters

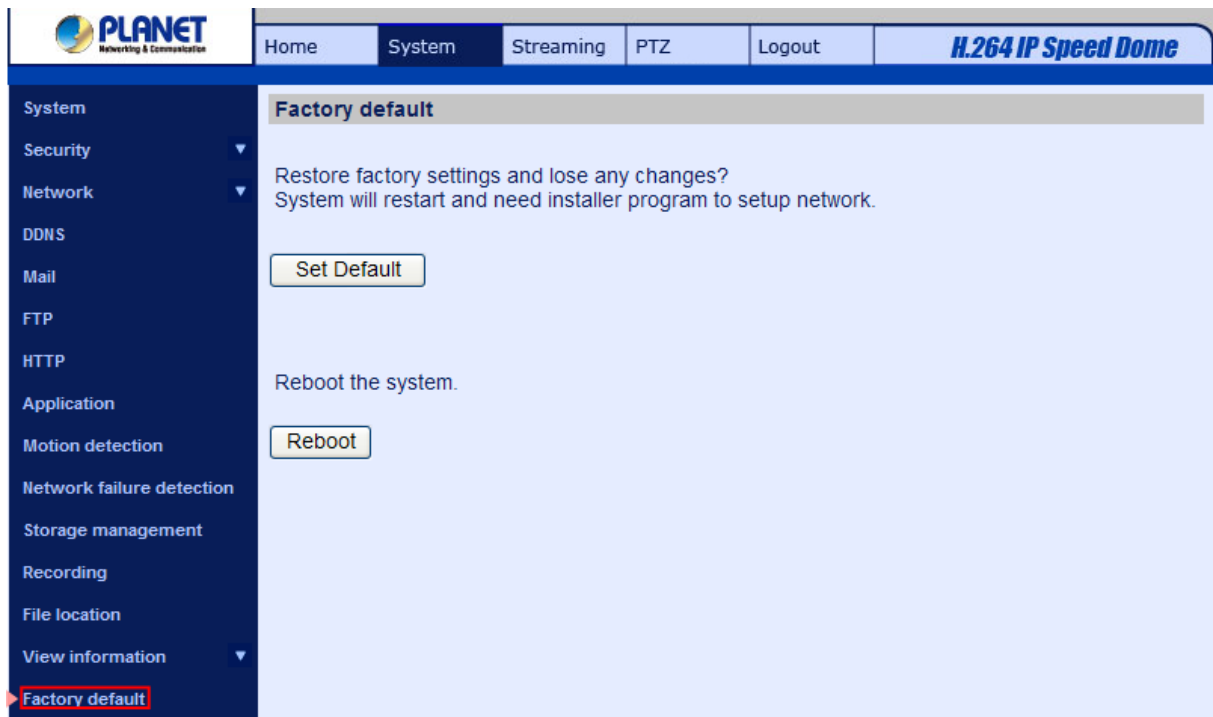
The View Parameters function can be found under this path: **System> View Parameter**.



Click on this item to view the entire system's parameter setting.

4.3.15 Factory Default

The factory default setting page is shown as below. Follow the instructions to reset the IP Camera to factory default setting if needed.



Set Default

Click on the "Set Default" button to recall the factory default settings. Then the system will restart in 30

seconds.



The IP address will be restored to default.

Note

Reboot

Click on the “Reboot” button, and the system will restart without changing current settings.

4.3.16 Software Version

The current software version is displayed in the software version page, which is shown as the figure below.

The screenshot shows the PLANET web interface. The top navigation bar includes Home, System, Streaming, PTZ, Logout, and H.264 IP Speed Dome. The left sidebar lists various system settings, with 'Software version' highlighted in red. The main content area displays the following software version information:

The software version is	pla20120412NSA
The switch version is	SI1D-5003
The main version is	M01D-3BA9
The module version is	CBA0E

4.3.17 Software Upgrade

Software upgrade can be carried out in the “Software Upgrade” page as shown below.

The screenshot shows the PLANET web interface for an H.264 IP Speed Dome camera. The top navigation bar includes 'Home', 'System', 'Streaming', 'PTZ', and 'Logout'. The 'System' menu is expanded, showing options like 'Security', 'Network', 'DDNS', 'Mail', 'FTP', 'HTTP', 'Application', 'Motion detection', 'Network failure detection', 'Storage management', 'Recording', 'File location', 'View information', 'Factory default', 'Software version', 'Software upgrade' (highlighted with a red box), and 'Maintenance'. The main content area is titled 'Upgrade' and contains the following steps:

- Step1:** Upload the binary file. There is an empty text input field followed by a 'Browse...' button.
- Step2:** Select binary file you want to upgrade. A dropdown menu shows 'userland.img'.
- Step3:** Click the upgrade button to start the upgrade process. An 'Upgrade' button is visible.



Note

Make sure the upgrade software file is available before carrying out software upgrade.

The procedure of software upgrade is like the following:

Step 1: Click "Browse" and select the binary file to be uploaded, ex. Userland.jffs2.

PLANET
Networking & Communication

Home System Streaming PTZ Logout **H.264 IP Speed Dome**

System
Security
Network
DDNS
Mail
FTP
HTTP
Application
Motion detection
Network failure detection
Storage management
Recording
File location
View information
Factory default
Software version
Software upgrade
Maintenance

Upgrade

Follow These Steps To Do The Software Upgrade

Step1:
Upload the binary file
C:\ICA-HM620\userland.jffs2 **Browse..**

Step2:
Select binary file you want to upgrade
userland.jffs2

Step3:
Click the upgrade button to start the upgrade process
Upgrade

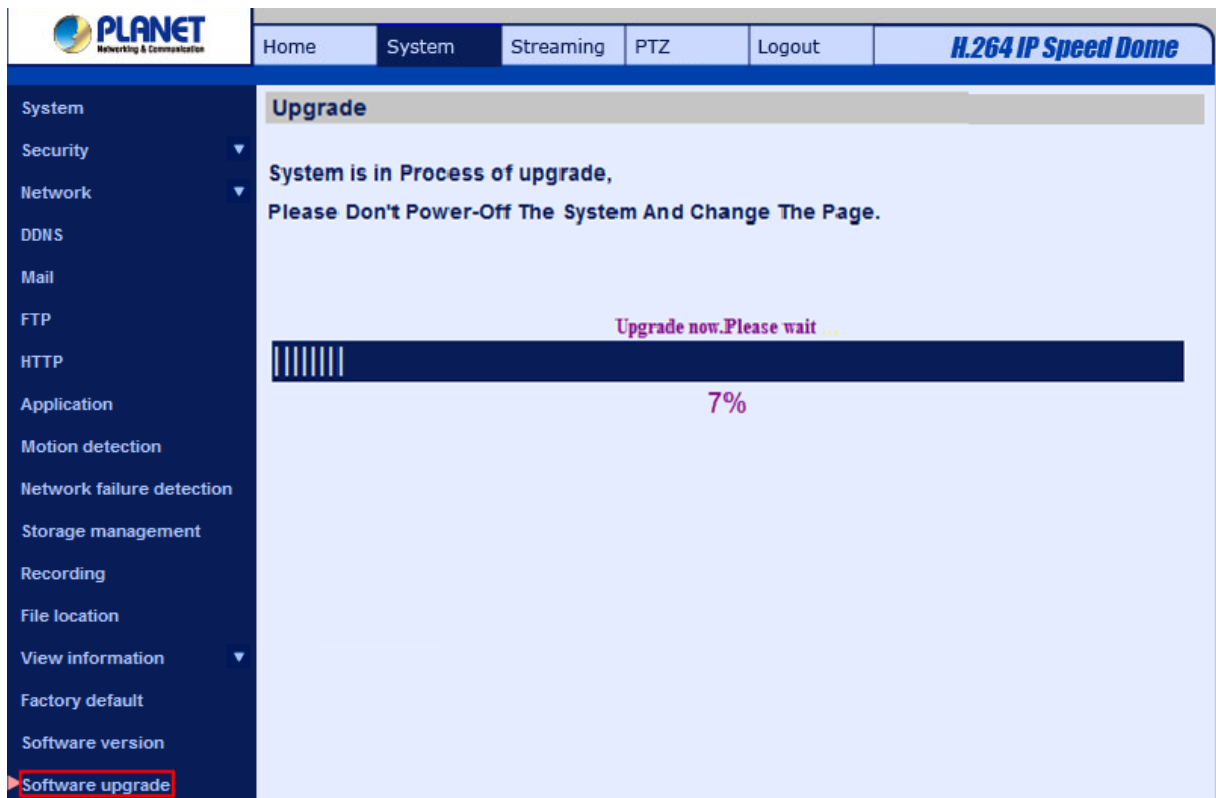


Note

Do not change the upgrade file name, or the system will fail to find the file.

Step 2: Pull down the upgrade binary file list and select the file you want to upgrade; in this case, select “userland.jffs2.”

Step 3: Press “Upgrade”. The system will first check whether the upgrade file exists or not, and then begin to upload the upgrade file. Subsequently, the upgrade status bar will display on the page. When it runs to 100%, the upgrade process is finished.



After the upgrade process is finished, the viewer will return to Home page.

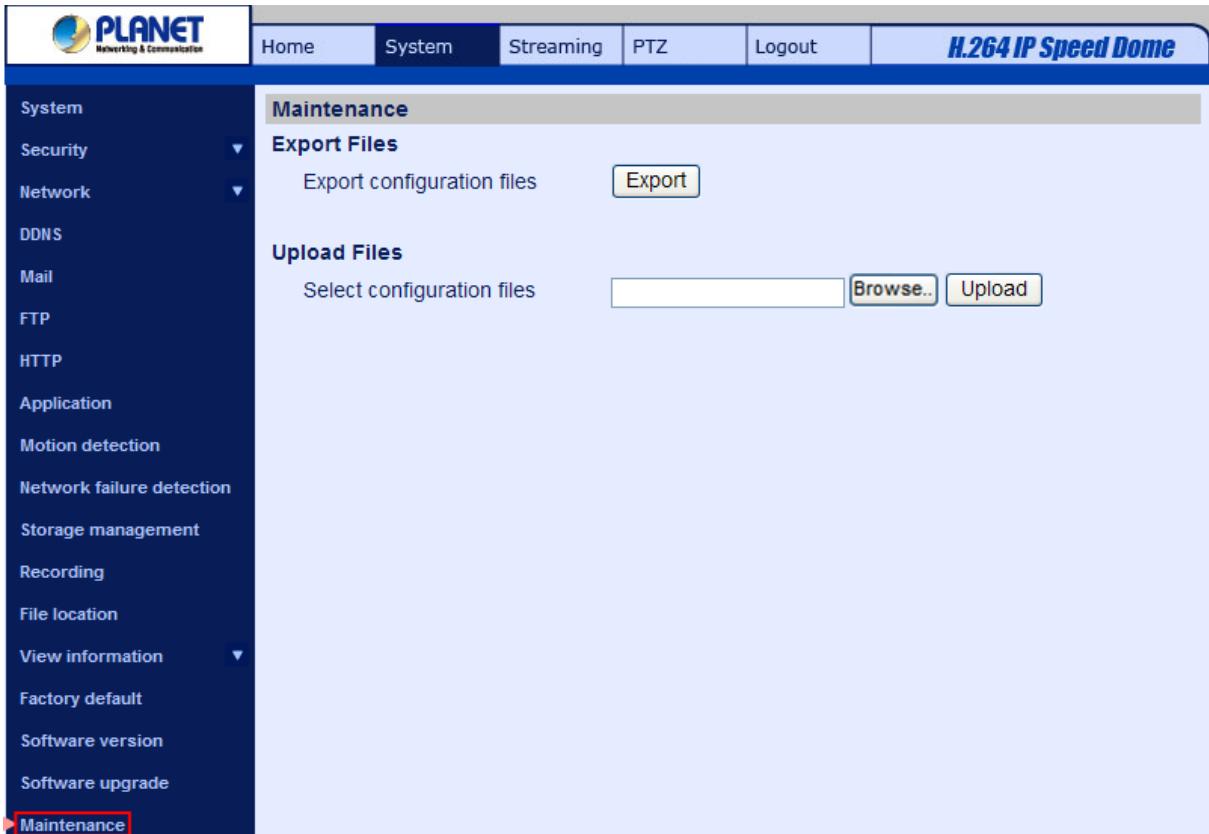
Step 4: Close the video browser.

Step 5: Click "Control Panel", and then double click "Add or Remove Programs." In the "Currently install programs" list, select "DCViewer" and click the button "Remove" to uninstall the existing DC Viewer.

Step 6: Open a new web browser, re-login the IP Camera, and then allow the automatic download of DC Viewer.

4.3.18 Maintenance

The Maintenance setting can be found under this path: **System > Maintenance**.



Users can export configuration files to a specified location and retrieve data by uploading an existing configuration file to the IP Camera.

Export

Users can save the system settings by exporting the configuration file (.bin) to a specified location for future use. Click on the <Export> button, and the popup File Download window will come out. Click on <Save> and specify a desired location for saving the configuration file.

Upload

To copy an existing configuration file to the IP Camera, please click on <Browse> to select the configuration file first, and then click on the <Upload> button for uploading.

4.4 Video and Audio Streaming Settings

Under the tab <Streaming>, there are categories including: <Video Format>, <Video Compression>, <Video OCX Protocol>, <Video Frame Rate>, and <Audio>.

In Streaming, the Administrator can configure specific video resolution, video compression mode, video protocol, audio transmission mode, etc. Further details of these settings will be specified in the following sections.

4.4.1 Video format (Video Resolution/ Video Deinterlace)

The Video Format setting can be found under this path: **Streaming> Video Format..**

The screenshot shows the PLANET H.264 IP Speed Dome web interface. The top navigation bar includes Home, System, Streaming (selected), PTZ, and Logout. The page title is H.264 IP Speed Dome. On the left, a sidebar menu lists Video Format (highlighted), Video Compression, Video OCX Protocol, Video Frame Rate, and Audio. The main content area is titled Video Format and contains the following sections:

- Video Resolution :** A dropdown menu is set to H.264 + MJPEG. Below it, H.264 format is set to 720 x 480 (30 fps) and MJPEG format is set to 352 x 240 (30 fps). BNC support is N/A. A Save button is present.
- Note :** Image attachment by FTP or E-mail will be available only while MJPEG streaming is selected.
- Text Overlay Settings :** Includes checkboxes for Include date, Include time, and Include text string (with an empty input field). A Save button is present.
- Video Rotate Type :** A dropdown menu is set to 180 degree rotate. A Save button is present.
- GOV Settings :** Includes input fields for H.264-1 GOV Length (8), H.264-2 GOV Length (8), H.264-3 GOV Length (30), and H.264-4 GOV Length (30). A Save button is present.
- H.264 Profile :** Includes dropdown menus for H.264-1, H.264-2, H.264-3, and H.264-4, all set to Main profile.

Video Format

Under Video Resolution section, the available video resolution formats are including MJPEG and H.264. Please refer to the [Appendix C: Video Format](#) for more combination details.

Click on <Save> to confirm the setting.

Text Overlay Settings

Users can select the items to display data including date/time/text on the live video pane. The maximum length of the string is 20 alphanumeric characters.

Click on <Save> to confirm the Text Overlay setting.

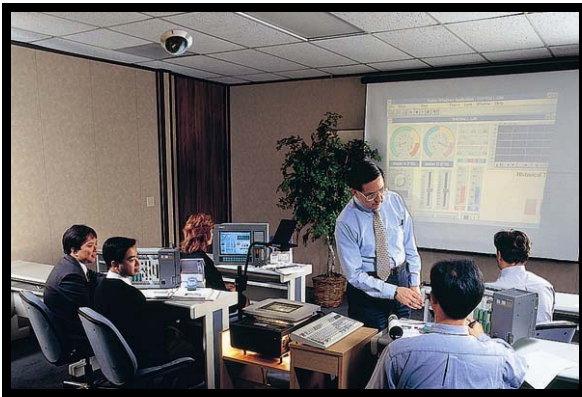
Video Rotate Type

Users can change video display type if necessary. Selectable video rotate types include Normal, Flip, Mirror, 90 degree clockwise, 180 degree rotate and 90 degree counterclockwise. Differences among these types are illustrated as below.

Suppose the displayed image of the IP Camera is shown as the figure below.



To rotate the image, users can select <Flip>, for instance. Then the displayed image will be reversed as shown below.



The following is descriptions for different video rotate type.

- **Flip**

If select <Flip>, the image will be rotated vertically.

- **Mirror**

If select <Mirror>, the image will be rotated horizontally.

- **90 Degree Counter-/clockwise**

Selecting <90 Degree Counter-/clockwise> will make the image 90° counter-/clockwise inversed.

- **180 Degree Rotate**

Selecting <180 Degree> will make the image 180° inversed.

Click on <Save> to confirm the setting.

GOV Settings

Users can set the GOV length to determine the frame structure (I-frames and P-frames) in a video stream for saving bandwidth. Longer GOV means decreasing the frequency of I-frames. Click <Save> to confirm the GOV setting.

H.264 Profile

Users can set each H.264 Profile to <Baseline Profile>, <Main Profile> or <High Profile> according to its compression needs. With the same bit rate, the higher the compression ratio, the better the image quality is. The default setting is <Main Profile>.

NOTE: Please make sure the higher compression ratio is supported by system before setup.

4.4.2 Video Compression

The Video Compression setting can be found under this path: **Streaming> Video Compression**.

The screenshot shows the PLANET web interface for the H.264 IP Speed Dome. The navigation menu includes Home, System, Streaming (selected), PTZ, and Logout. The left sidebar lists Video Format, Video Compression (highlighted), Video OCX Protocol, Video Frame Rate, and Audio. The main content area is titled 'Video Compression' and contains the following settings:

- MJPEG Compression setting :**
 - MJPEG Q factor :
 -
- H.264-1 Compression setting :**
 - H264-1 bit rate : kbit/s
 -
- H.264-2 Compression setting :**
 - H264-2 bit rate : kbit/s
 -
- H.264-3 Compression setting :**
 - H264-3 bit rate : kbit/s
 -
- H.264-4 Compression setting :**
 - H264-4 bit rate : kbit/s
 -
- Compression information setting :**
 - Display compression information in the home page
 -
- CBR mode setting :**
 - enable H.264-1 CBR mode
 - enable H.264-2 CBR mode
 - enable H.264-3 CBR mode
 - enable H.264-4 CBR mode

Users can select a proper MJPEG/H.264 compression mode on the video compression page, depending on the application.

MJPEG Q (Quality) factor

Higher value implies higher bit rates and higher visual quality. The default setting of MJPEG Q factor is 35; the setting range is from 1 to 70.

H.264-1/ H.264-2 bit rate

The default setting of H.264-1/ H.264-2 is 4096/1024 kbps; the setting range is from 64 to 8192 kbps.

Display Compression Information

Users can also decide whether to display compression information on the Home page.

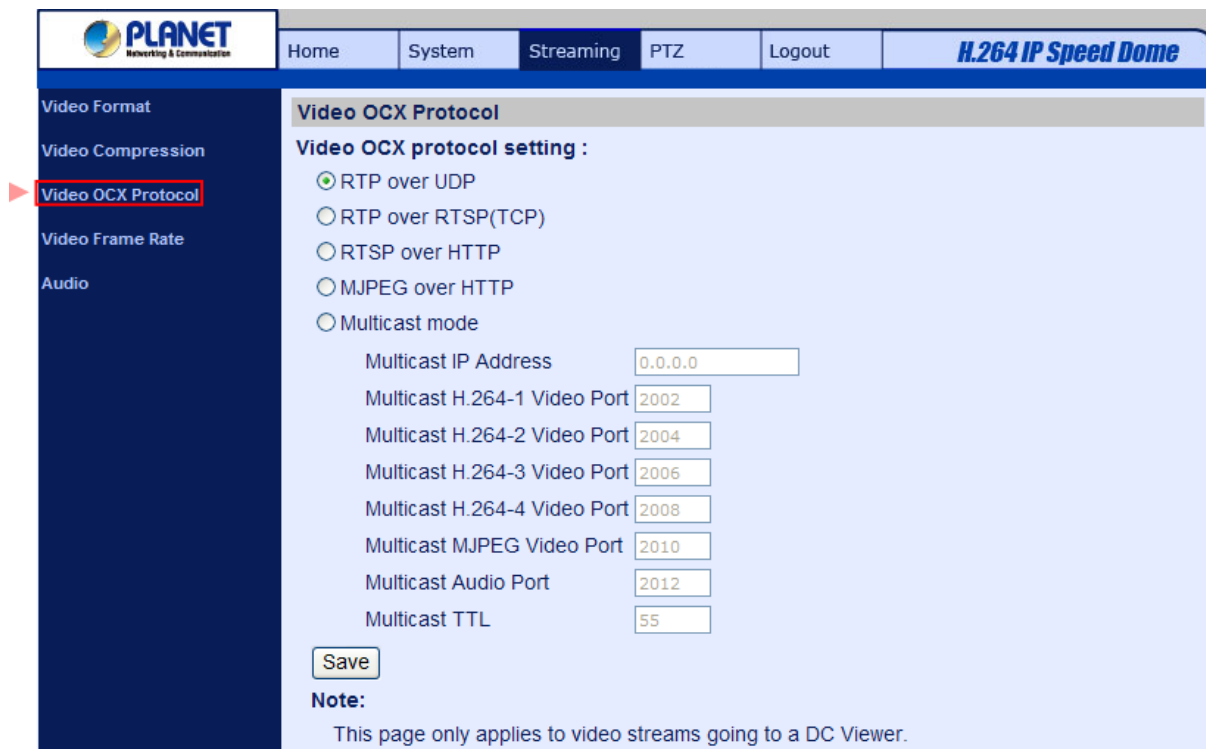
CBR Mode Setting

The CBR (Constant Bit Rate) mode could be the preferred bit rate mode if the bandwidth available is limited. It is important to take account of image quality while choosing to use CBR mode.

Click "Save" to confirm the setting.

4.4.3 Video OCX Protocol

The Video OCX Protocol setting can be found under this path: **Streaming> Video OCX Protocol**.



In the Video OCX protocol setting page, users can select RTP over UDP, RTP over TCP, RTSP over HTTP or MJPEG over HTTP, for streaming media over the network. In the case of multicast networking, users can select the Multicast mode.

Video OCX protocol setting options include:

- **RTP over UDP/ RTP over RTSP(TCP)/ RTSP over HTTP/ MJPEG over HTTP**

Select a mode according to your data delivery requirements.

- **Multicast Mode**

Enter all required data, including <multicast IP address>, <H.264 video port>, <MJPEG video port>, <Audio Port> and <TTL> into each blank.

Click on <Save> to confirm the setting.

4.4.4 Video Frame Rate

The Video Frame Rate setting can be found under this path: **Streaming> Video Frame Rate..**

The screenshot shows the PLANET web interface for an H.264 IP Speed Dome camera. The top navigation bar includes 'Home', 'System', 'Streaming', 'PTZ', and 'Logout'. The 'Streaming' tab is active. On the left sidebar, 'Video Frame Rate' is selected. The main content area is titled 'Video Frame Rate' and contains five settings sections, each with a text input field set to '30' and a 'Save' button below it:

- MJPEG Frame Rate Setting:** MJPEG frame rate : 30
- H264-1 Frame Rate Setting:** H264-1 frame rate : 30
- H264-2 Frame Rate Setting:** H264-2 frame rate : 30
- H264-3 Frame Rate Setting:** H264-3 frame rate : 30
- H264-4 Frame Rate Setting:** H264-4 frame rate : 30

Video frame rate is for setting the frames per second (fps) if necessary.

MJPEG/ H.264-1/ H.264-2/ H.264-3/ H.264-4 Frame Rate

The default setting of MJPEG/H.264-1/H.264-2/ H.264-3/ H.264-4 Frame Rate is 30 fps; the setting range is from 1 to 30.

Click on <Save> to confirm the setting.

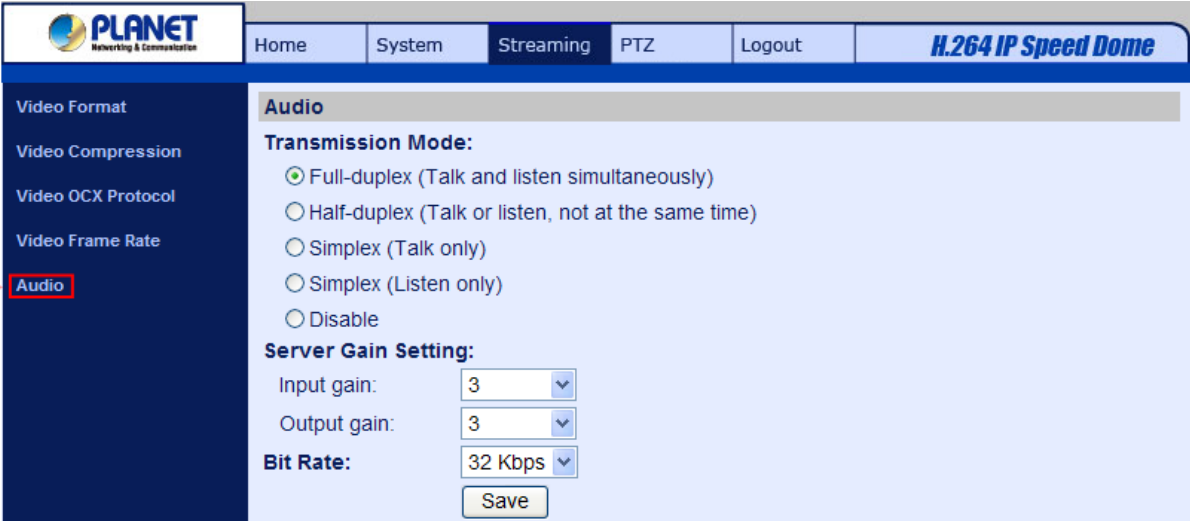


Lower frame rate will decrease video smoothness.

Note

4.4.5 Audio (Audio Mode and Bit Rate Settings)

The Audio Mode setting can be found under this path: **Streaming> Audio**



The screenshot shows the PLANET web interface for the 'H.264 IP Speed Dome'. The navigation menu on the left includes 'Video Format', 'Video Compression', 'Video OCX Protocol', 'Video Frame Rate', and 'Audio' (which is highlighted with a red box). The main content area is titled 'Audio' and contains the following settings:

- Transmission Mode:** Radio buttons for Full-duplex (Talk and listen simultaneously), Half-duplex (Talk or listen, not at the same time), Simplex (Talk only), Simplex (Listen only), and Disable.
- Server Gain Setting:** Input gain and Output gain dropdown menus, both set to 3.
- Bit Rate:** A dropdown menu set to 32 Kbps.
- A 'Save' button is located at the bottom of the settings area.

In the Audio page, the Administrator can select one transmission mode and audio bit rate.

Transmission Mode

- Full-duplex (Talk and Listen simultaneously)

In the Full-duplex mode, the local and remote sites can communicate with each other simultaneously, i.e. both sites can speak and be heard at the same time.

- Half-duplex (Talk or Listen, not at the same time)

In the Half-duplex mode, the local/remote site can only talk or listen to the other site at a time.

- Simplex (Talk only)

In the Talk only Simplex mode, the local/remote site can only talk to the other site.

- Simplex (Listen only)

In the Listen only Simplex mode, the local/remote site can only listen to the other site.

- Disable

Select the item to turn off the audio transmission function.

Server Gain Setting

Set the audio input/output gain levels for sound amplification. The audio gain values are adjustable from 1 to 6. The sound will be turned off if the audio gain is set to "Mute".

Bit Rate

Selectable audio transmission bit rate include 16 kbps (G.726), 24 kbps (G.726), 32 kbps (G.726), 40 kbps (G.726), uLAW (G.711) and ALAW (G.711). Both uLAW and ALAW signify 64 kbps but in different compression formats. Higher bit rate will let higher audio quality and require bigger bandwidth.

Click "Save" to confirm the setting.

4.5 PTZ Settings

Under the tab <PTZ>, there are categories including: <Preset>, <Cruise>, <Auto Pan>, <Sequence>, <Home>, <Tilt Range>, <Camera- Exposure>, <Camera- WB>, <Camera- Misc1>, <Camera- Misc2>, and <Camera- Default>.

4.5.1 Preset

The Preset Programming can be found under this path: PTZ> Preset.

Totally 256 Preset Points can be programmed for the Speed Dome IP Camera. Please refer to the instructions below to set a Preset Point.



Preset Setting

To setup a Preset Point, please first move the cursor to the live view pane. Then left click and drag the red pointer with PTZ controls to a desired position and adjust the fine zoom/ focus ratio. Subsequently, assign a number for the current position from the drop-down Number List, and enter its descriptive name. Click on the button <Set> to save the settings mentioned above.

Preset Go

To have the camera move to a specified Preset position, please select the Preset Point from the drop-down Presetlist. Then the camera shall readily move to the target position.

4.5.2 Cruise

The Cruise Programming can be found under this path: **PTZ> Cruise**.

The Speed Dome IP Camera supports up to eight Cruise Paths. Please follow the instructions below for Cruise Path setup.



Cruise Setting

To setup a Cruise Path, please first select a path number from the drop-down list. Then move the cursor to the live view pane, and move the camera to a desired view (PTZ controls) as the start point of a Cruise Path. Press the “Set” button of “Record Start” and start programming the Cruise Path via PTZ controls. When finishing programming, press the “Set” button of “Record End” to quit. Then this Cruise Path will be automatically recorded.

Cruise Run

Select the specified Cruise Path from the drop-down list, press the “Run” button, and then the camera will start touring around as recorded.

To view the camera touring around in full screen mode, please move the cursor onto the live view pane, right-click and left-click to select “fullscreen”. Then users can view the camera navigation in full screen.

To stop running a Cruise Path, simply move the cursor to the live view pane and move the camera in any direction.

4.5.3 Auto Pan

The Auto Pan Programming can be found under this path: **PTZ> Auto Pan.**

The Speed Dome IP Camera supports four Auto Pan Paths. Please refer to the instructions below to set an Auto Pan Path.



Auto Pan Setting

To setup an Auto Pan Path, please first select a path number from the drop-down list. Then move the cursor to the live view pane, and move the camera to a desired view as the Start Point of an Auto Pan Path. Click the “Set” button of the “Start Point”, and the current view will be automatically saved as the start point of the Auto Pan Path.



Note

The room ratio of an Auto Pan’s Start Point will persist throughout the whole path.

Enter the speed ratio into the Speed field; the speed ratio ranges from 0 (low) to 3 (fast). Then choose to run the Auto Pan Path in right/left direction from the Direction drop-down list.

Move the camera to another desired position as the end point of the Auto Pan Path. Click the “Set” button of the “End Point” for saving the setting.

Auto Pan Run

Select the specified Auto Pan Path from the drop-down list, press the “Run” button, and then the camera will start moving horizontally as recorded.

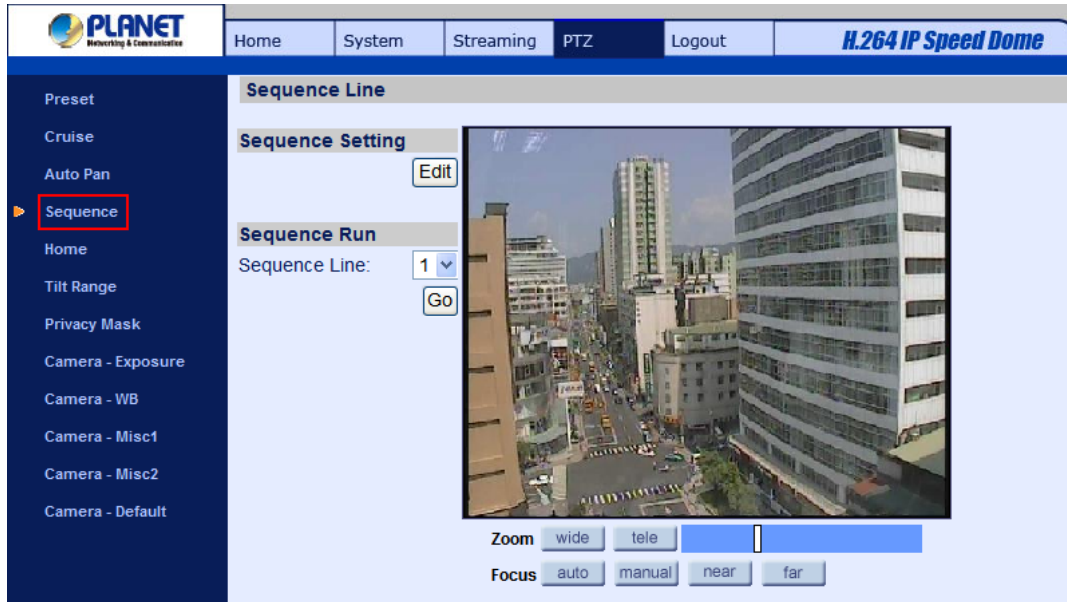
To view the camera panning in full screen mode, please move the cursor onto the live view pane, right-click and left-click to select “fullscreen”. Then users can view the camera navigation in full screen.

To stop running an Auto Pan Path, simply move the cursor to the live view pane and move the camera in any direction.

4.5.4 Sequence

The Sequence Line Programming can be found under this path: **PTZ> Sequence**.

The Speed Dome IP Camera supports totally eight Sequence Lines; each Sequence Line consists of up to 64 Preset Points. Please refer to the instructions below to program a Sequence Line.

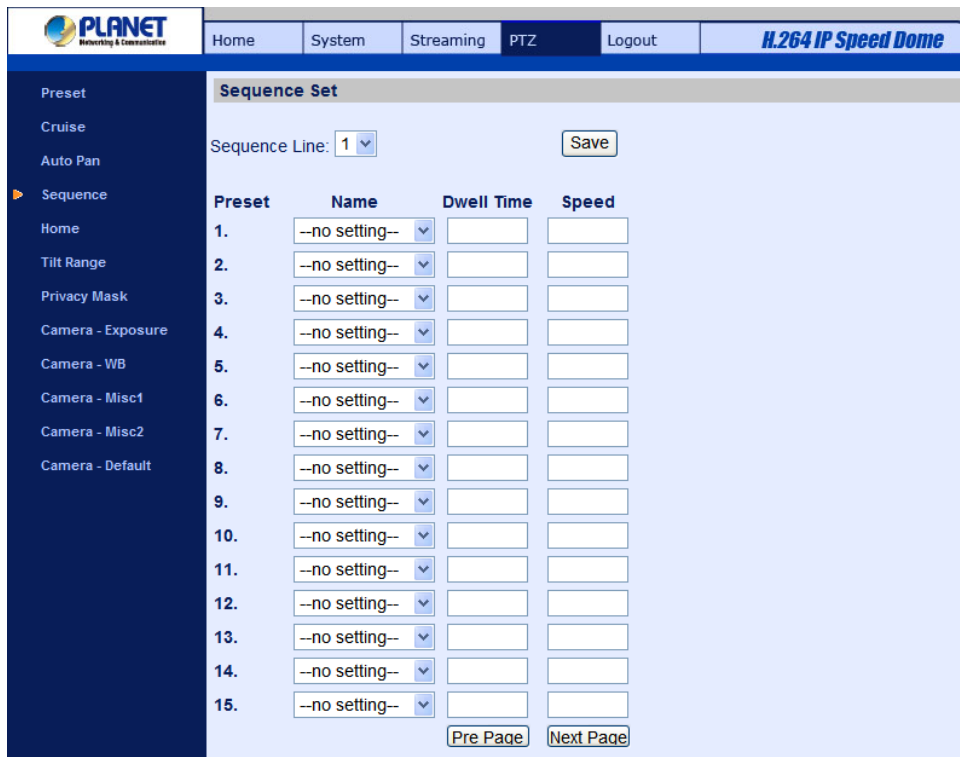


Note

Before setting this function, users must pre-define at least two Preset Points.

Sequence Setting

Please press the “Edit” button in “Sequence Setting” section to enter the Sequence setting menu as shown in the next page.



- Sequence Line

Please select the number of Sequence Line to be set from the drop-down list in the top of the Sequence setting menu.

- Sequential Preset Points Setting

Please setup each Preset Point of the programmed Sequence Line in order, assigning a Preset Point from the “Name” list for the specified number of Preset Point and entering both Dwell Time (0~225) and Speed (0~20) into the corresponding fields.

When finishing the sequential Preset Points setting, please click the button “Save” in the top of the Sequence setting menu.

Sequence Run

Select the specified Sequence Line from the drop-down list, press the “Go” button, and then the camera will start moving forward each scene sequentially as programmed.

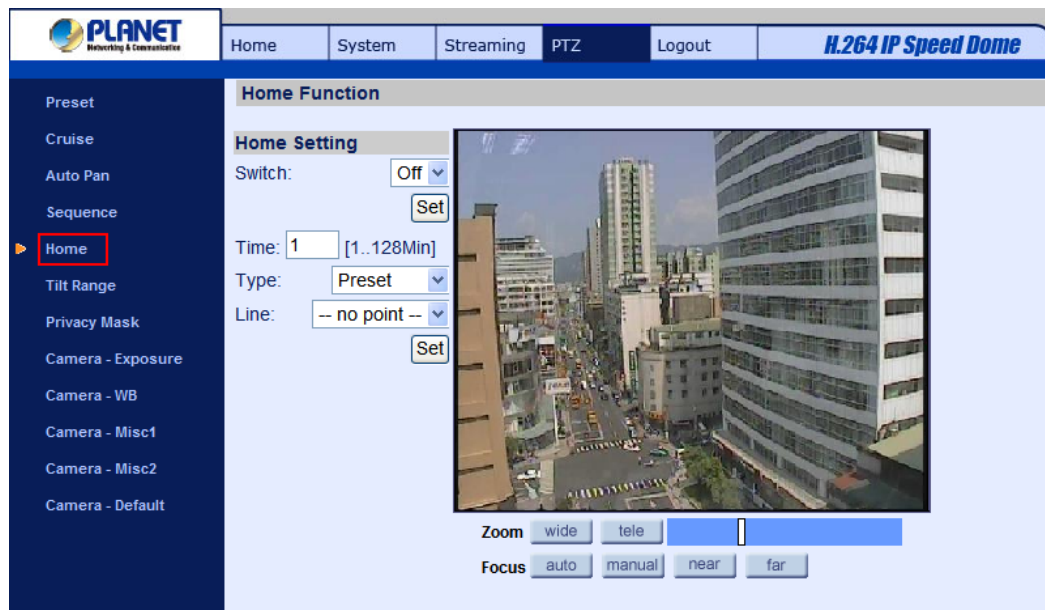
To view the camera executing a Sequence Line in full screen mode, please move the cursor onto the live view pane, right-click and left-click to select “fullscreen”. Then users can view the camera navigation in full screen.

To stop running the Sequence Line, simply move the cursor to the live view pane and move the camera in any direction.

4.5.5 Home

The Home Function can be found under this path: **PTZ> Home**.

Users are able to set an operation mode to ensure constant monitoring. If the Speed Dome IP Camera idles for a period of time, the selected function will be activated automatically; this is the HOME function. The HOME function allows constant and accurate monitoring to avoid the Dome Camera idling or missing events.



Home Setting

- Activate/Disable Home Function

Select “On” or “Off” to activate or disable the Home function. Then press the “Set” button to save the setting.

- Time

The time here represents the duration of camera idle time previous to running a Preset Point/Cruise Line/Auto Pan Path/Sequence Line. When the Home function is activated, the Dome Camera will start to count down when it idles, and then execute the predefined action as time expires. The time period ranges from 1 to 128 minutes; please specify it in the field.

- Action Type

Please select a Home action type (Preset Point/Cruise Line/Auto Pan Path/Sequence Line) and specify the number of Preset Point/Cruise Line/Auto Pan Path/Sequence Line from the drop-down “Type” and “Line” lists. Press the button “Set” to save the Home settings.

4.5.6 Tilt Angle

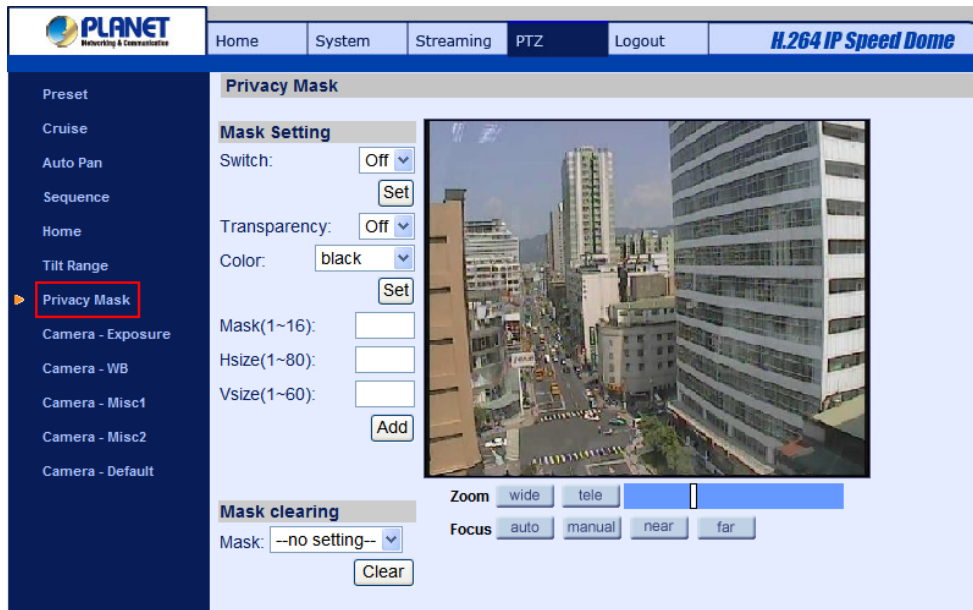
The Tilt Range Setting can be found under this path: **PTZ> Tilt Range**.

The Speed Dome IP Cameras tilt angle is adjustable from minimum -10° to maximum 100° . Please enter the desired min. and max. tilt angle into the corresponding fields respectively. Press the “Set” button to save the tilt angle settings.



4.5.7 Privacy Mask

The Privacy Mask function aims to avoid any intrusive monitoring. When setting a mask, it is suggested to set it at least twice bigger (height and width) than the masked object. The Speed Dome IP Camera will assume the center of the selected view as a starting point. Therefore, please keep the target object/region nearly positioned in the center of the scene. Refer to the following descriptions for setting a privacy mask.



The Image Flip function (see section 4.5.10 Camera—Miscellaneous Setups Menu 1) and the Image Inverse function (see section 4.5.11 Camera—Miscellaneous Setups Menu 2) will be disabled automatically while the Privacy Mask function is enabled.

Mask Setting

- Activate/Disable Privacy Mask Function

The Privacy Mask function can be activated or disabled. Press the button “Set” to save the setting.

- Activate/Disable Transparency Mask

The Privacy Mask can be set as transparency if necessary.

- Color Setting

Select a desired color from the “Color” drop-down list for the specified Privacy Mask.

Press the button “Set” to save the Privacy Mask’s color properties.

- Mask Number

Specify the number of the programmed Privacy Mask in the corresponding field. The numbers of Privacy Masks vary with camera models.

- Mask Size

The size of a Privacy Mask can be customized through specifying its horizontal and vertical size. The value of “Horizontal Size” ranges from 1 ~80, while that of “Vertical Size” ranges from 1 ~60.

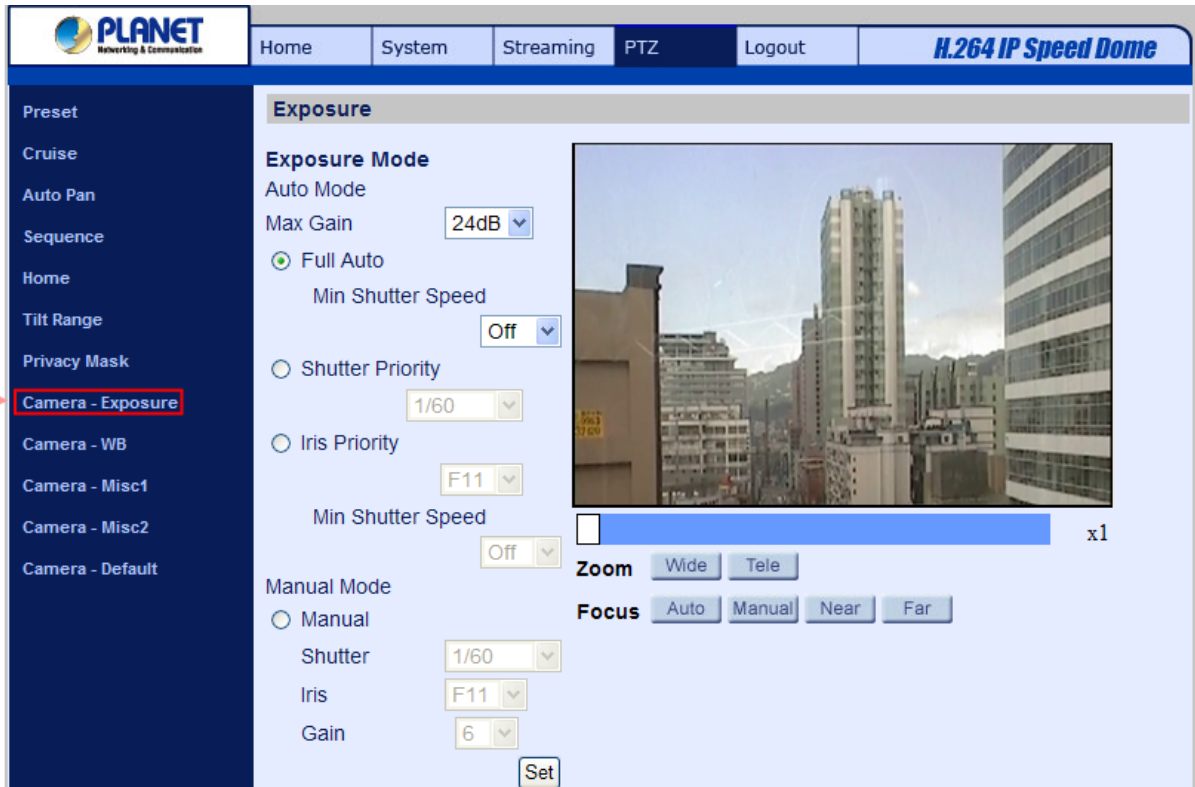
After finishing the setup of a Privacy Mask, press the button “Add” to save the programmed Privacy Mask.

Mask Clearing

In this section, users can delete an existing Privacy Mask. Please select the Privacy Mask to be removed from the drop-down list, and press the button “Clear”. Then the selected Privacy Mask will readily disappear.

4.5.8 Camera - Exposure

In the Exposure Mode setting page, users can select either the “Full Auto” mode or adjust the parameter of the Shutter/Iris/Bright Priority mode for optimized video output in accordance with the operating environment.



Shutter Priority Mode

In this mode, it is shutter speed that takes main control of exposure. The range of shutter speed is from 1/10000 to 1.

Iris Priority Mode

In this mode, it is iris that has premier priority in control of exposure. The value of iris is adjustable from F1.6 to F28.

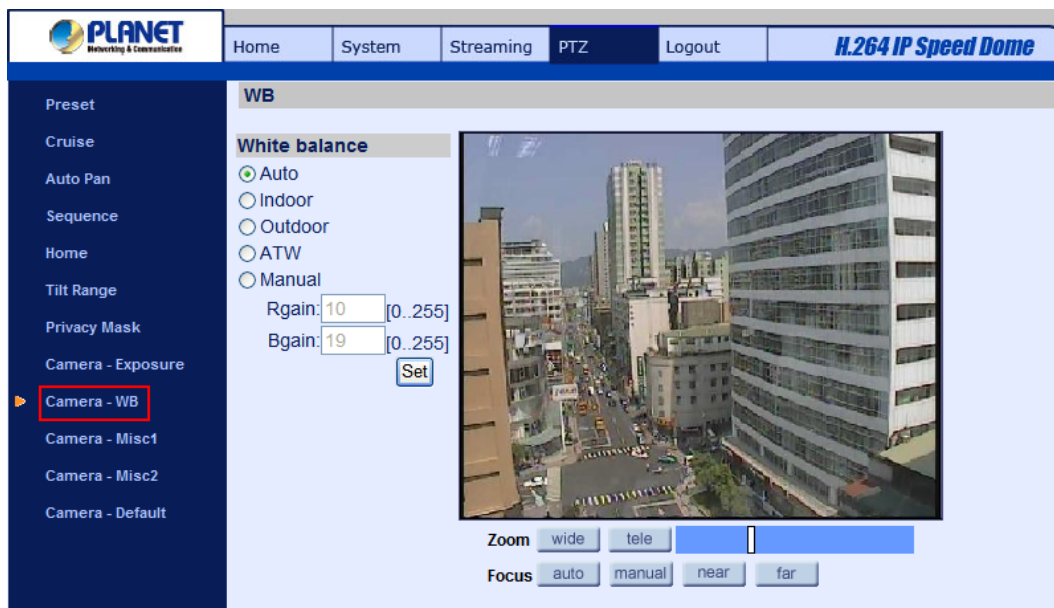
Manual Mode

In this mode, users can change the Shutter speed (1/10000 to 1), Iris (F1.6 to F28), and Gain (1 to 15) manually.

4.5.9 Camera - WB

A camera needs to find reference color temperature, which is a way of measuring the quality of a light

source, for calculating all the other colors. The unit for measuring this ratio is in degree Kelvin (K). Users can select one of the White Balance Control modes according to the operating environment. The following table shows the color temperature of some light sources for reference.



Light Sources	Color Temperature in K
Cloudy Sky	6,000 to 8,000
Noon Sun and Clear Sky	6,500
Household Lighting	2,500 to 3,000
75-watt Bulb	2,820
Candle Flame	1,200 to 1,500

Auto Mode

In this mode, white balance works within its color temperature range and calculates the best-fit white balance.

Indoor/outdoor Mode

Select for indoor or outdoor mode.

ATW Mode (Auto Tracing White Balance)

The Dome Camera takes out the signals in a screen in the range from 2000 K to 10000 K.

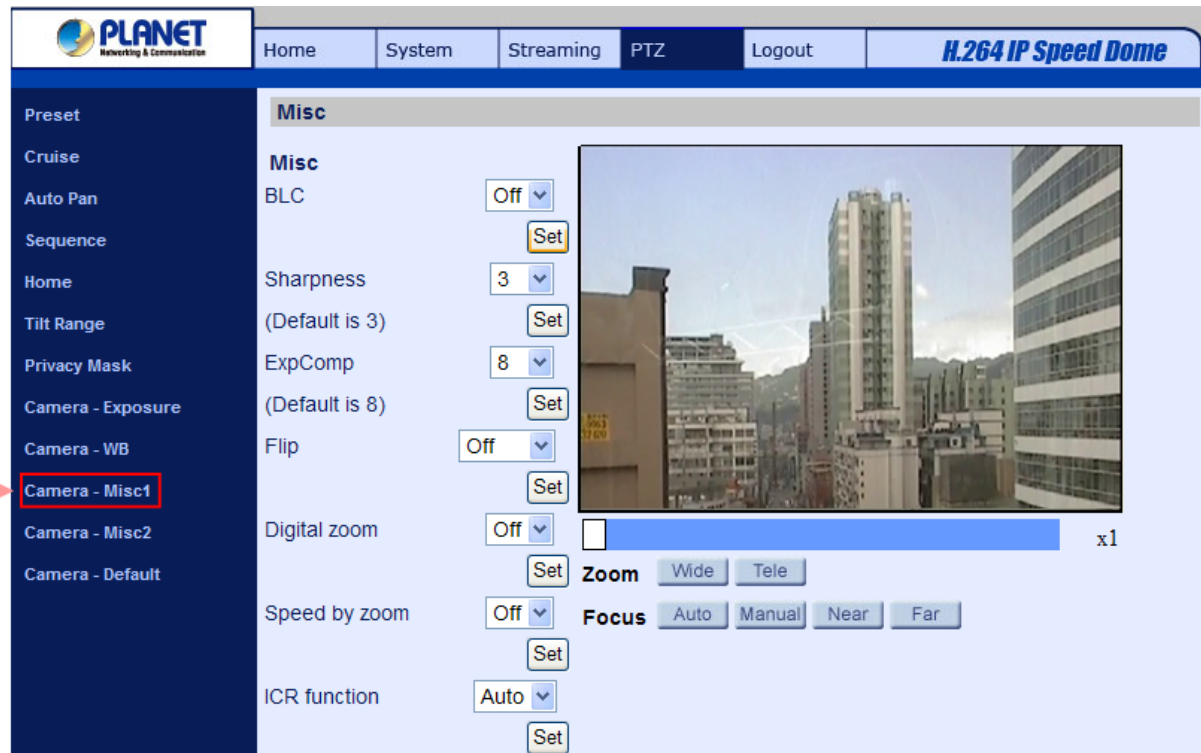
Manual Mode

In this mode, users can change the White Balance value manually via specifying R gain and B gain; the range of R/B gain is from 0 to 255.

4.5.10 Camera - Miscellaneous Setups Menu 1

The Miscellaneous Setting Menu 1 can be found under this path: **PTZ> Camera- Misc 1**.

In the Camera—Misc (Miscellaneous) Setups Menu 1, users can set various camera parameters including Backlight Compensation (BLC), Sharpness, Exposures Compensation (ExpComp), Image Flip, Speed by Zoom and ICR function. Each setting is specified as follows:



BLC

Users can choose to activate or disable the BLC function. Press the button “Set” to save the setting.

Sharpness

Increasing the sharpness level can make the image looked sharper; especially enhancing the object’s edge. The Sharpness value is adjustable from 1 to 15. Press the button <Set> to confirm the setting.

ExpComp

Users can define the value of Exposure Compensation; the value ranges from 1 to 15.

Flip

Users can track an object continuously when it passes through under the Dome Camera with setting Flip to Mechanical (M.E.) mode or Digital Flip (Image) mode.



Note

Flip setting is manual-controlled only. If a Preset Position or a point for other function (ex. Sequence) is set in the position that can only be reached through FLIP motion, when Flip function is turned off, the position cannot be reached anymore.



Note

To make the Dome Camera tilt between a specific range, such as -10° to $+100^{\circ}$ or $-10^{\circ} \sim +190^{\circ}$, please go to the Tilt Range setting page to set the tilt angle range. Otherwise, the Dome Camera will tilt 90° as the default setting.

- M.E. Mode

M.E. is a standard mechanical operation. As the Dome Camera tilts to the maximum angle, it will pan 180° , and then continue tilting to keep tracking objects.

Digital Zoom

The network Speed Dome Camera can supports up to 12× Digital Zoom. Press the button “Set” to save the setting.

Speed by Zoom

Enable this function to adjust the pan/tilt speed automatically by internal algorithm when zooming. The larger zoom ratio leads to the lower rotating speed. Click on <Set> button to save the setting.

ICR Function

With the IR cut filter, the camera can still catch clear image at night time or in low light conditions.

- Auto

In the Auto mode, the internal circuit will automatically decide the occasion to remove the IR cut filter according to the image brightness level.

- On

Select the item to remove the IR cut filter.

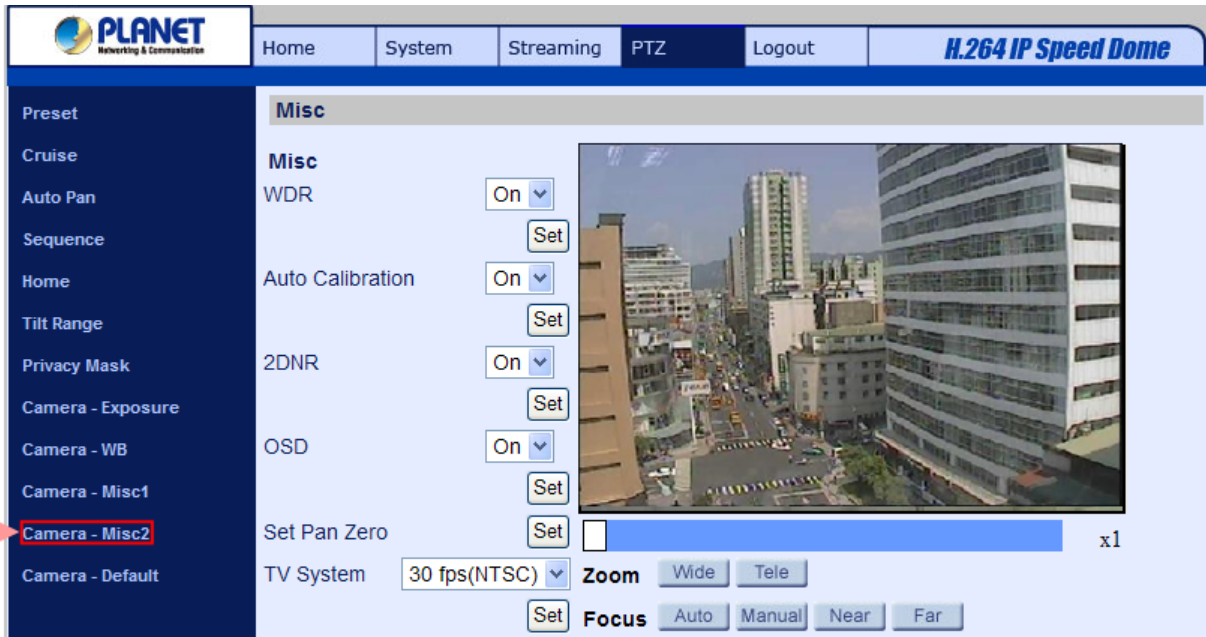
- Off

Select the item to disable IR function.

4.5.11 Camera - Miscellaneous Setups Menu 2

The Miscellaneous Setting Menu 2 can be found under this path: **PTZ> Camera- Misc 2.**

In the Camera—Misc (Miscellaneous) Setups Menu 2, users can setup various functions such Wide Dynamic Range (WDR), Auto Calibration, 2D Noise Reduction (2DNR), and TV System.



WDR

The WDR function is especially effective in environment with extreme contrast. Press the button “Set” when finishing the setting.

Auto Calibration

With the Auto Calibration function, the Speed Dome IP Camera calibrates when the deviation of dome pivot is detected. Press the button “Set” when finishing setting.

2DNR

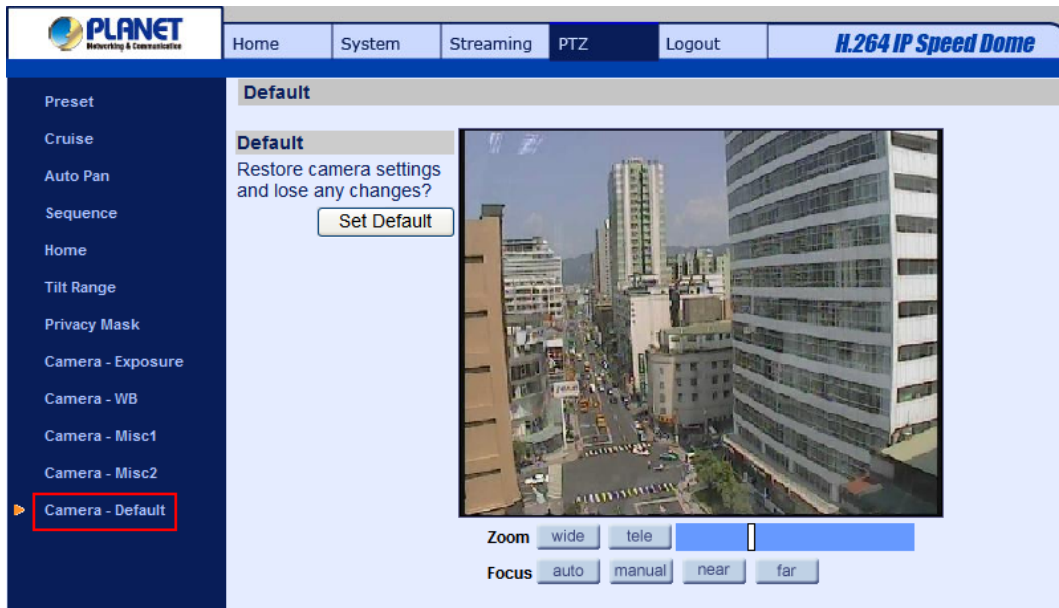
With the 2D Noise Reduction function, the processor analyzes pixel by pixel and frame by frame to eliminate environmental noise signal so that the highest quality image can be produced even in low light conditions. Click on <Set> button to save the setting.

TV System

Select the video format that matches the present TV system. Click on <Set> button to save the setting.

4.5.12 Camera - Default

In the Camera Default page, users can set the camera back to factory default settings simply by pressing the “Set Default” button.



4.6 Logout

Press the tab “Logout” in the top of the page, and the login window will pop up. This enables login with another user name.

Appendix A: IP Camera Specifications

Product	ICA-HM620
Camera	
Image Sensor	2.8" Sony Progressive Scan CMOS Sensor
Lens	f =4.7~84.6mm / F=1.6
Min Illumination	0.04 Lux (B/W) / 0.3 Lux (color)
Optical Zoom	20X
Digital Zoom	1~8x variable
Focal Length	4.7~94 mm
Focus Mode	Auto / Manual
View Angle	H: 5.2 ~ 55.2 Degree V: 2.4 ~ 42.1 Degree
White Balance	Auto/ Indoor/ Outdoor/ ATW
Iris Control	Auto / Manual
Electronic Shutter	1/30 ~ 1/10k sec
AGC control	Auto / Manual
Back Light	On / Off
Video	
Compression	H.264 Main Profile/ MJPEG
Streaming	Multiple Streams, H.264 + MJPEG/ H.264 + H.264
Resolution	1080P/ 720P/ VGA/ D1
Frame Rate	30/25 fps @ 1080P / 60/50 fps @ 720P
Motion Detection	On / Off
Wide Dynamic Range	On / Off
Audio	
Compression	G711/ G.726 ADPCM/AAC
Streaming	Two-way
Noise Reduction 2D / 3D	On / Off
Network and Configuration	
Interface	10/100Mbps Ethernet (RJ-45)
Protocol	IPv4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPoE, UPnP, IGMP, SNMP, QoS, IEEE 802.1x, ONVIF
Supported Web Browser	Internet Explorer (6.0+), Chrome, Firefox, Safari

Management	Web, CV3P, CV3L
Operation	
Pan Degree	0 ~ 360 Degree continuous panning
Tilt Degree	-10 ~ 190 Degree
Manual Speed	0.5 ~ 90 Degree / s
Preset Point	256
Preset Accuracy	0.225 Degree
Preset Speed	5~400 Degree / s
Sequence	8
Auto Pan	4
Camera Cruise	8
Privacy Mask	16
Proportional Pan & Tilt	On/Off (Pan and tilt speed proportional to zoom ratio)
Resume after Power loss	Yes
Zone Title	16
Home Function	Preset, Sequence, Auto pan, Cruise
Auto Flip	Digital / Mechanical / Off
Digital Slow Shutter	On / Off
Environment	
Audio in / Audio out	1 x MIC in / 1 x Line out
Video Output	1.0 Vp-p / 75ohm (BNC connector)
2-Way Audio	Full-duplex, Half-duplex, Simplex
DI / DO ports	DI x 4 / DO x 2 (dry contact)
Protection Class	IP-66 outdoor classification, Built-in Fan and Heater
Dimension	Φ191.97 x 282.11 mm
Weight	2.32 kg
Power Supply	AC 24V ± 10% (system & heater) IEEE 802.3at (system)
Operating Temperature	-45 ~ 50 Degree C (-49 ~ 122 Degree F)
Operating Humidity	10 ~ 90% (non-condensing)
IP Grade	IP-66
Power Consumption	30 W (without Heater)/65 W (with Heater)
Emission	CE, FCC

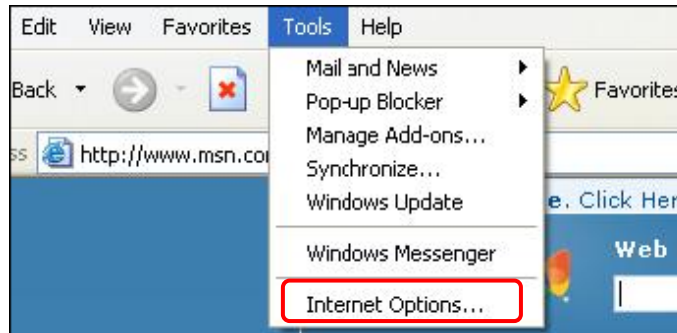
Appendix B: Internet Security Settings

If ActiveX control installation is blocked, please either set Internet security level to default or change ActiveX controls and plug-ins settings.

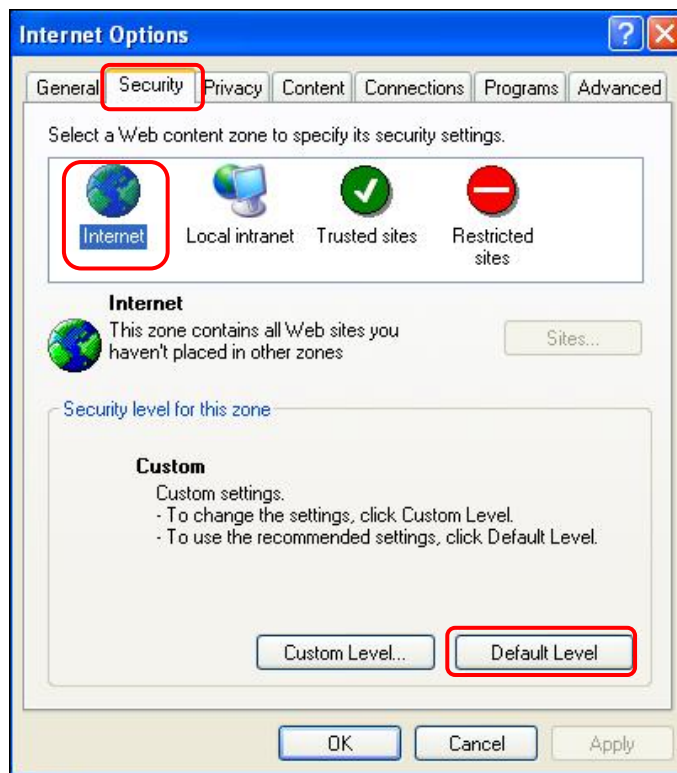
Internet Security Level: Default

Step 1: Start the Internet Explorer (IE).

Step 2: Select <Tools> from the main menu of the browser. Then Click <Internet Options>.



Step 3: Click the <Security> tab, and select <Internet>.

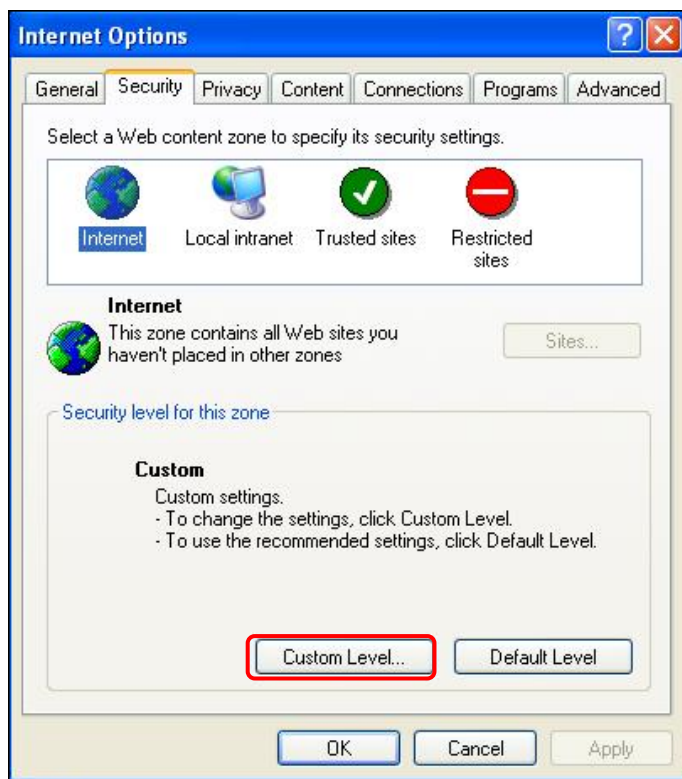


Step 4: Down the page, press “Default Level” (see the figure above) and click “OK” to confirm the setting. Close the browser window, and open a new one later when accessing the IP Camera.

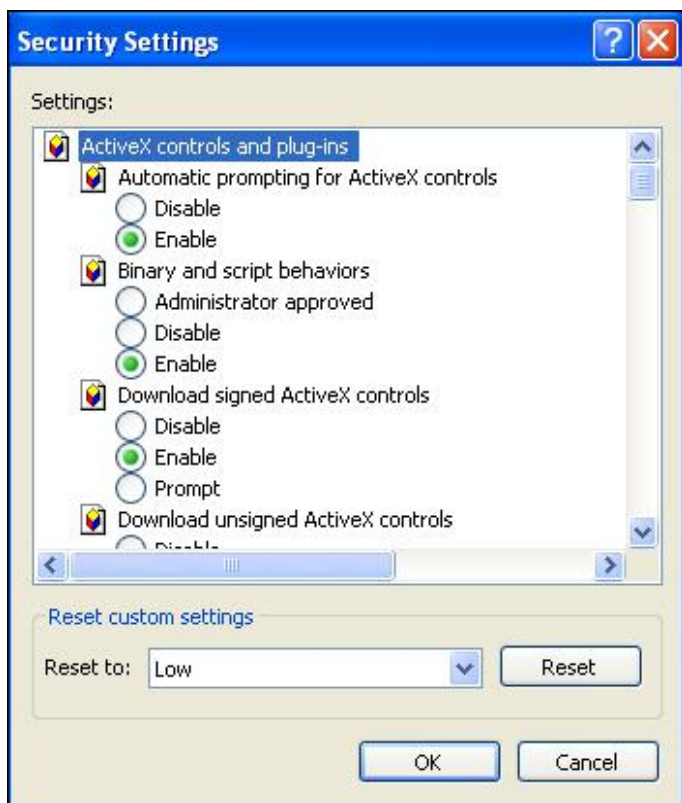
ActiveX Controls and Plug-ins Settings

Step 1~3: Refer to the previous section above.

Step 4: Down the page, press “Custom Level” (see the figure below) to change ActiveX controls and plug-ins settings.



The Security Settings screen is displayed as below:



Step 5: Under “ActiveX controls and plug-ins”, set ALL items (as listed below) to <Enable> or <Prompt>.

- | |
|--|
| <p>ActiveX controls and plug-ins settings:</p> <ol style="list-style-type: none">1. Automatic prompting for ActiveX controls2. Binary and scrip behaviors3. Download signed ActiveX controls4. Download using ActiveX controls5. Initialize and script ActiveX not marked as safe6. Run ActiveX controls and plug-ins7. Script ActiveX controls marked safe for scripting |
|--|

Step 6: Click <OK> to accept the settings and close the <Security> screen.

Step 7: Click <OK> to close the Internet Options screen.

Step 8: Close the browser window, and restart a new one later for accessing the IP Camera.

Appendix C: Video Format

Under Video Resolution section, select a preferred resolution setting. The available Video Resolution for MJPEG & H.264 format includes:

MJPEG+ H.264		
H.264	MJPEG	BNC SUPPORT
1920 x 1080 (30fps)	720 x 480 (30fps)*	√
	640 x 480 (30fps)	√
	352 x 240 (30fps)	√
1920 x 1080 (15fps)	1920 x 1080 (15fps)	√
	1280 x 1024 (30fps)	√
	1280 x 720 (30fps)	√
	1024 x 768 (30fps)	√
	800 x 600 (30fps)	-
1280 x 1024 (30fps)	1280 x 1024 (15fps)	√
	1280 x 720 (30fps)	-
	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	√
	640 x 480 (30fps)	√
	352 x 240 (30fps)	√
1280 x 720 (30fps)	1280 x 720 (30fps)	√
	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	√
	640 x 480 (30fps)	√
	352 x 240 (30fps)	√
1024 x 768 (30fps)	1024 x 768 (30fps)	√
	800 x 600 (30fps)	-
	720 x 480 (30fps)	√
	640 x 480 (30fps)	√
	352 x 240 (30fps)	√
800 x 600 (30fps)	800 x 600 (30fps)	√
	720 x 480 (30fps)	√
	640 x 480 (30fps)	√
	352 x 240 (30fps)	√
720 x 480 (30fps)	720 x 480 (30fps)	√
	640 x 480 (30fps)	√
	352 x 240 (30fps)	√

640 x 480 (30fps)	640 x 480 (30fps)	√
	352 x 240 (30fps)	√
H.264 + H.264		
H.264-1	H.264-2	BNC SUPPORT
1920 x 1080 (30fps)	720 x 480 (30fps)*	√
	640 x 480 (30fps)	√
	352 x 240 (30fps)	√
1920 x 1080 (15fps)	1920 x 1080 (15fps)	√
	1280 x 1024 (30fps)	√
	1280 x 720 (30fps)	√
	1024 x 768 (30fps)	√
	800 x 600 (30fps)	-
1280 x 1024 (30fps)	1280 x 1024 (15fps)	√
	1280 x 720 (30fps)	-
	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	√
	640 x 480 (30fps)	√
	352 x 240 (30fps)	√
1280 x 720 (30fps)	1280 x 720 (30fps)	√
	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	√
	640 x 480 (30fps)	√
	352 x 240 (30fps)	√
1024 x 768 (30fps)	1024 x 768 (30fps)	√
	800 x 600 (30fps)	-
	720 x 480 (30fps)	√
	640 x 480 (30fps)	√
	352 x 240 (30fps)	√
800 x 600 (30fps)	800 x 600 (30fps)	√
	720 x 480 (30fps)	√
	640 x 480 (30fps)	√
	352 x 240 (30fps)	√
720 x 480 (30fps)	720 x 480 (30fps)	√
	640 x 480 (30fps)	√
	352 x 240 (30fps)	√

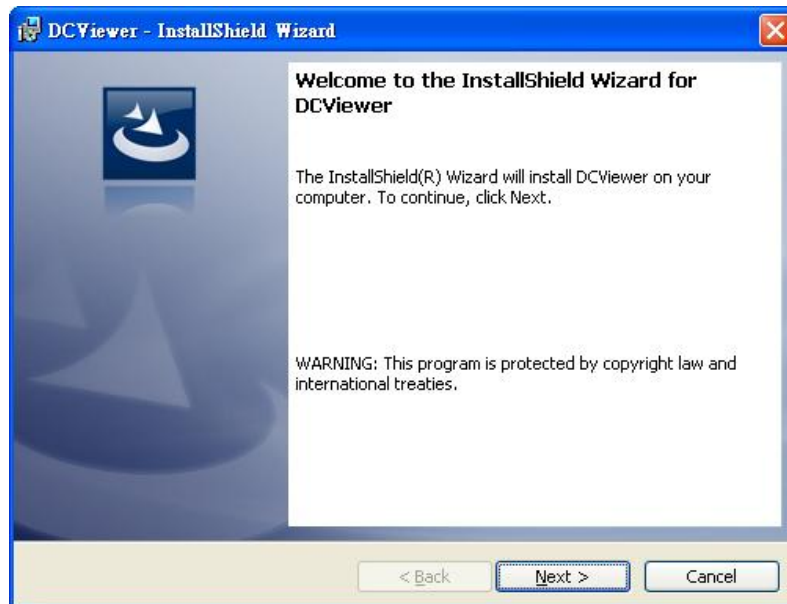
640 x 480 (30fps)	640 x 480 (30fps)	√
	352 x 240 (30fps)	√
MJPEG ONLY		
MJPEG		BNC SUPPORT
1920 x 1080 (30fps)		√
1280 x 1024 (30fps)		√
1280 x 720 (30fps)		√
1024 x 768 (30fps)		√
800 x 600 (30fps)		√
720 x 480 (30fps)		√
640 x 480 (30fps)		√
H.264 ONLY		
H.264		BNC SUPPORT
1920 x 1080 (30fps)		√
1280 x 1024 (30fps)		√
1280 x 720 (30fps)		√
1024 x 768 (30fps)		√
800 x 600 (30fps)		√
720 x 480 (30fps)		√
640 x 480 (30fps)		√

(*) Default

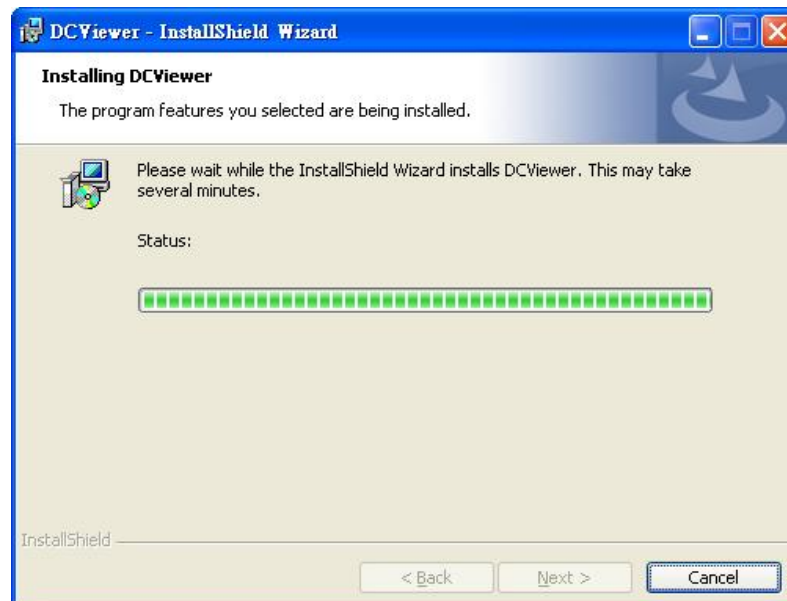
Appendix D: DC Viewer Download Procedure

The procedure of DC Viewer software download is specified as follows.

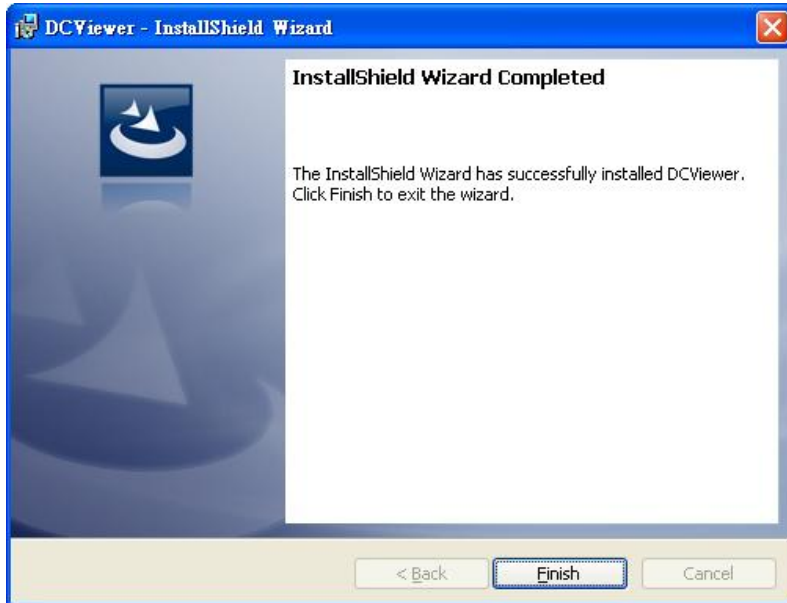
Step 1: In the DC Viewer installation page, click “Next” for starting installing.



Step 2: Setup starts. Please wait for a while until the loading bar runs out.



Step 3: Click “Finish” to close the DC Viewer installation page.



Then, the IP Camera's Home page will display as follows:



Appendix E: Frequently Asked Questions

Q1 [ICA-HM620] How can I know the IP address of IP camera?

Ans: The default IP address is 192.168.0.20, and you could use the **Device Search** utility on the bundled CD to obtain the current IP address of IP camera. Please refer to the user's manual for more detail information.

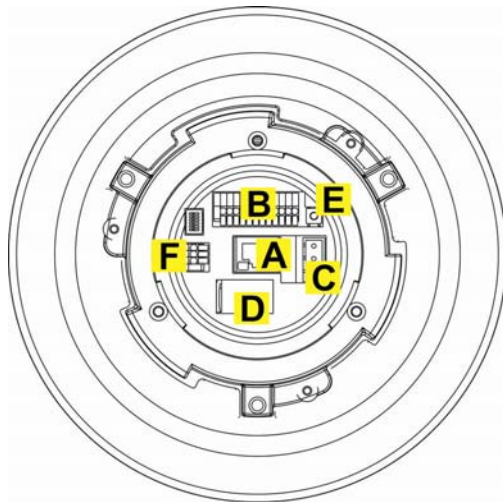
Q2 [ICA-HM620] How to supply power to IP Camera?

Ans: Connecting the AC power adapter with Power Input connector of data cable. Then according to the practical local power voltage to adjust the power switch, and connect the power cord with adapter and power outlet.

Q3 [ICA-HM620] How to reset IP camera to default setting?

To press the E button over 5 seconds at the camera body. Then all of setting include network parameters will back to factory defaults.

Ans:



Q4 [ICA-HM620] After upgraded firmware, why can't see the picture for MJPEG video format via web browser?

That because the system with the newer video formats, and the PC need to install the newer DC Viewer software to appear the video on PC properly.

Ans: Please go to "Control Panel -> Add or Remove Programs" to remove old DC Viewer software at first. Then connect to IP camera via web browser and it will prompt to install the new DC Viewer software in to PC.