Bullet Network Camera

N6074  Vari-Focal Lens
N6075  Fixed Lens
N6076  Vari-Focal Lens
N6077  Fixed Lens

Thank you for purchasing the 3Svision product. To receive more complete service, please register your product at www.3Svision.com.tw
# TABLE OF CONTENT

**INTRODUCTION** ........................................................................................................................................................................ 5

- FEATURES .................................................................................................................................................................................. 5
- PACKAGE CONTENTS .................................................................................................................................................................... 6

**SYSTEM REQUIREMENTS** ............................................................................................................................................................ 7

**VIEW OF BULLET NETWORK CAMERA** ..................................................................................................................................... 8

- OUTER VIEW .................................................................................................................................................................................. 8
  - N6074 Vari-Focal Lens ............................................................................................................................................................... 8
  - N6075 Fixed Lens ....................................................................................................................................................................... 8
  - N6076 Vari-Focal Lens ............................................................................................................................................................... 9
  - N6077 Fixed Lens ....................................................................................................................................................................... 9
- INNER VIEW ................................................................................................................................................................................... 10
  - Rear Panel .................................................................................................................................................................................. 10
  - Vari-Focal Lens ........................................................................................................................................................................ 10
  - Fixed Lens ................................................................................................................................................................................ 10

**START THE INSTALLATION** ............................................................................................................................................................ 11

**MAKING CONNECTIONS** .............................................................................................................................................................. 12

- POWER ...................................................................................................................................................................................... 12
- LAN ........................................................................................................................................................................................ 13
- EXTERNAL I/O ............................................................................................................................................................................. 14

**HARDWARE INSTALLATION** .......................................................................................................................................................... 15

- LENS ADJUSTMENT ....................................................................................................................................................................... 15
- MOUNTING .................................................................................................................................................................................. 17
- FACTORY RESET ......................................................................................................................................................................... 19
- SOFTWARE INSTALLATION ........................................................................................................................................................ 20

**READY TO USE** ............................................................................................................................................................................. 22

- ACCESS TO THE IP CAMERA ....................................................................................................................................................... 22

**VIEW OF CAMERA MAIN PAGE** .................................................................................................................................................... 24

- LIVE VIEW .................................................................................................................................................................................... 24
  - 3Svision Logo ........................................................................................................................................................................... 24
  - Product Name ........................................................................................................................................................................... 25
  - Mode ......................................................................................................................................................................................... 25
  - Language .................................................................................................................................................................................. 26
  - Video Format ........................................................................................................................................................................... 27
  - View Size ................................................................................................................................................................................ 28
  - Streaming ................................................................................................................................................................................ 29
  - Color ........................................................................................................................................................................................ 30
    - Brightness ............................................................................................................................................................................ 31
    - Contrast ............................................................................................................................................................................... 31
    - Saturation .......................................................................................................................................................................... 31
  - Set to default ......................................................................................................................................................................... 31
  - Alert ......................................................................................................................................................................................... 32
    - Alert Message ....................................................................................................................................................................... 33
    - Alert Message Text ............................................................................................................................................................. 33
    - Disable ............................................................................................................................................................................... 34
    - Alert Snapshot .................................................................................................................................................................... 34
    - Clear .................................................................................................................................................................................. 34
- PTZ Control Panel ............................................................................................................................................................................. 35
  - Camera Direction .................................................................................................................................................................... 36
Bullet Network Camera

<table>
<thead>
<tr>
<th>Setting</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortcut Bar</td>
<td>47</td>
</tr>
<tr>
<td>Application Setting</td>
<td>86</td>
</tr>
<tr>
<td>IP Filter</td>
<td>88</td>
</tr>
<tr>
<td>Date/Time</td>
<td>91</td>
</tr>
<tr>
<td>FULL SCREEN</td>
<td>92</td>
</tr>
<tr>
<td>Firmware upgrade</td>
<td>93</td>
</tr>
<tr>
<td>Privacy Mask</td>
<td>94</td>
</tr>
<tr>
<td>Blind Detection</td>
<td>95</td>
</tr>
<tr>
<td>Motion Detection</td>
<td>96</td>
</tr>
<tr>
<td>Factory Default</td>
<td>102</td>
</tr>
<tr>
<td>Reboot</td>
<td>105</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Setting</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Setting</td>
<td>53</td>
</tr>
<tr>
<td>System Log</td>
<td>54</td>
</tr>
<tr>
<td>Video/image Setting</td>
<td>55</td>
</tr>
<tr>
<td>PreProc/Overlay</td>
<td>57</td>
</tr>
<tr>
<td>Sensor</td>
<td>59</td>
</tr>
<tr>
<td>Audio</td>
<td>61</td>
</tr>
<tr>
<td>PTZ</td>
<td>62</td>
</tr>
<tr>
<td>User</td>
<td>65</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Setting</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Setting</td>
<td>66</td>
</tr>
<tr>
<td>Services</td>
<td>68</td>
</tr>
<tr>
<td>Stream Setting</td>
<td>69</td>
</tr>
<tr>
<td>PPPoE Setting (Dial-up Networking Setting)</td>
<td>70</td>
</tr>
<tr>
<td>DDNS (Dynamic Domain Name Server)</td>
<td>72</td>
</tr>
<tr>
<td>UPnP (Universal Plug and Play)</td>
<td>74</td>
</tr>
<tr>
<td>SMTP (Mail Server Setting)</td>
<td>77</td>
</tr>
<tr>
<td>Samba</td>
<td>78</td>
</tr>
<tr>
<td>Notification</td>
<td>80</td>
</tr>
<tr>
<td>Multicast</td>
<td>81</td>
</tr>
<tr>
<td>Date/Time</td>
<td>82</td>
</tr>
<tr>
<td>IP Filter</td>
<td>83</td>
</tr>
<tr>
<td>Storage</td>
<td>84</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Setting</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Setting</td>
<td>86</td>
</tr>
<tr>
<td>Event</td>
<td>86</td>
</tr>
<tr>
<td>Event Servers (Upload Server)</td>
<td>92</td>
</tr>
<tr>
<td>Recording List</td>
<td>94</td>
</tr>
<tr>
<td>Motion Detection</td>
<td>95</td>
</tr>
<tr>
<td>Blind Detection</td>
<td>96</td>
</tr>
<tr>
<td>Privacy Mask</td>
<td>97</td>
</tr>
<tr>
<td>Firmware upgrade</td>
<td>99</td>
</tr>
<tr>
<td>Factory Default</td>
<td>102</td>
</tr>
<tr>
<td>Reboot</td>
<td>105</td>
</tr>
</tbody>
</table>
APPENDIX ................................................................................................................................................................. 106

CHANGE THE INTERNET EXPLORER SETTINGS ........................................................................................................... 106

SET UP THE ROUTER SETTING WITH IP CAMERA ........................................................................................................ 107

DDNS APPLICATION.......................................................................................................................................................... 108
  How to apply and setup the DDNS service? .......................................................................................................................... 108
  How to check if the DDNS service is successful? .................................................................................................................... 113

MOBILE APPLICATION......................................................................................................................................................... 114
  Symbian System .................................................................................................................................................................... 118
  iPhone System ....................................................................................................................................................................... 122

SUPPORT THE CELLULAR / MOBILE PHONE LIST ............................................................................................................ 127

MULTICAST APPLICATION....................................................................................................................................................... 128
  H264 (Main) .......................................................................................................................................................................... 130
  H264 (Sub) ............................................................................................................................................................................. 131
  Motion JPEG ........................................................................................................................................................................ 132

TROUBLESHOOTING AND FAQS........................................................................................................................................... 135
Introduction

N6074/N6075/N6076/N6076 is a H.264 Bullet Network Camera. Unlike traditional CCTV, they are built in the Web Server and Camera to provide users with a mechanism for the security or remote monitoring applications, and it can deliver dual video streams simultaneously (Motion JPEG and H.264), allowing for optimization in image quality and bandwidth.

It offers the many application functions such as two-way audio, DDNS, samba, FTP, Mail, Multicast, motion detection, privacy mask, event management and multi-level passwords for meeting user variety level of security needs.

It is easy to install, convenient to operate, and provide the infrared LED application for Night environment.

Features

N6074/N6075/N6076/N6076 can operate smoothly without the need to install additional software or hardware. All you need is a PC that is equipped with IE browser (6.0 or above) and connect the Internet Camera to the network to monitor the pre-set places remotely. They can provide you with protection of your personal, home, and property security.

- 2 Megapixel 1/3” CMOS Sensor in High Resolution
- H.264/MJPEG Dual Codec & Streaming simultaneously
- Vari-Focal Lens 3.3mm-12mm F1.6 (*N6074/N6076)
- Up to UXGA (1600x1200@15fps) / WXGA (1280x720@30fps)
- Digital I/O for External Sensor and Alarm
- Mechanical ICR
- Built-in IR Illuminator
- 3D Noise Reduction
- 2 Way Audio Supported
- Intelligent Video Analytics
- 3GPP Supported
- Micro SD Card Supported (SDHC up to 32GB)
- IP 68 Water+Vandal Proof (*N6076/N6077)
- PoE Power Over Ethernet IEEE802.3af (Option)
Package Contents

After unpacking, check that if all the following items have been included:

- **Bullet Network Camera**

- **Installation Guide**

- **Installation CD (Manual & Software)**

- **Assembly Kit**

* As above assembly kit, it will be depended on the actual product spec of shipment.

Contact your dealer immediately if any items are missing, appear damaged, or if the unit does not work.
System Requirements

Before installing the N6074/N6075/N6076/N6076, please make sure your system has the following recommended minimum hardware requirements.

**Internet Environment**
- Ethernet: 10/100M Ethernet

**Monitor System Requirements**
- **OS support**: Microsoft Windows 2000, XP, Vista, Windows 7
- **Browser support**: Internet Explorer 6.x or later, Chrome, Firefox, Safari
- **Hardware**:
  - **CPU**: Pentium 4 2.4 GHz or later
  - **Memory**: 512 MB (1G MB recommended)
  - **VGA card resolution**: 1024x768 or higher
View of Bullet Network Camera

Outer View

*N6074 Vari-Focal Lens*

*N6075 Fixed Lens*
**N6076 Vari-Focal Lens**

- Vari-Focal Lens
- Sun Shield
- Cable Hole
- Wall Mount Bracket

**N6077 Fixed Lens**

- Fixed Lens
- Sun Shield
- Cable Hole
- Wall Mount Bracket
Inner View

Rear Panel

DC Power Inlet
LAN Socket
Power Indicator
Micro SD Card Slot
Reset Button
External I/O Connector

Vari-Focal Lens

Light Sensor
IR LED
Vari-Focal Lens
Focus Controller
Zoom Controller

Fixed Lens

Light Sensor
IR LED
Fixed Lens
Focus Controller
Start the Installation

Use the screwdriver to release the screws securing the cover.

Please plug in LAN cable and Twister-Pair into cable hole before installation.

* N6076/N6077

**NOTE:**
We would like to suggest that best cable range shall be φ7-12mm. Please cover the silicone on the surface of cable hole to reach the waterproof if you are using multi-cables or out of the range φ7-12mm.
Making Connections

Before connect your Bullet Network Camera, please make sure your PC has the LAN port available for connect to the network.

Follow these instructions to connect the Bullet Network Camera into your PC and LAN Port.

**Power**
- Connect to DC12V power.

**LAN**
- Connect to 10/100 RJ45 network.

Attention: Please be aware of connection of positive and negative electrode. Any wrong connection will damage the camera.
Lan

Connect to the Switch HUB.
An RJ-45 connector is provided for connection to the 10Base-T Ethernet cable or 100 Base-T High Speed Ethernet cable.

Use a network cable and plug it into the LAN port of the Bullet Network Camera. Plug the other end of the cable in the LAN port of the HUB.

Connect to the Switch HUB to PC.
Make sure your PC has a LAN port available for connect to the network.
External I/O

In addition to the motion detection executed by the internal software application, N6074/N6075/N6076/N6076 provides an extension I/O terminal block which is used to connect external infrared detectors, beepers and smoke detectors.

For more information about these external devices, please contact to your local retailer, dealer or installation service provider.

**Plug the external I/O connector**

Plug the supplied external I/O connector as shown.

<table>
<thead>
<tr>
<th>Pin</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>DC 12V out</td>
</tr>
<tr>
<td>2.</td>
<td>GND</td>
</tr>
<tr>
<td>3.</td>
<td>Audio in</td>
</tr>
<tr>
<td>4.</td>
<td>GND</td>
</tr>
<tr>
<td>5.</td>
<td>Audio out</td>
</tr>
<tr>
<td>6.</td>
<td>GND</td>
</tr>
<tr>
<td>7.</td>
<td>RS485-</td>
</tr>
<tr>
<td>8.</td>
<td>RS485+</td>
</tr>
<tr>
<td>9.</td>
<td>Alarm NO</td>
</tr>
<tr>
<td>10.</td>
<td>Alarm NC</td>
</tr>
<tr>
<td>11.</td>
<td>Alarm COM</td>
</tr>
<tr>
<td>12.</td>
<td>Alarm K</td>
</tr>
<tr>
<td>13.</td>
<td>Alarm A</td>
</tr>
</tbody>
</table>
Before getting to start the Bullet Network Camera, please adjust it in accordance with the following steps first.

Make sure that no steel bars or power cables exist behind the position where the product is to be fixed. Some walls or ceilings may not be strong enough to support it. Pay attention during installation to avoid injury that might be brought about due to falling of the product.

**Lens Adjustment**

1. **Open the lens by twisting the cover in clockwise direction.**
   Use the screw driver to relax the screws for lens angle adjustment.

2. **Vari-Focal Lens (N6074/N6076)**
   Use the screw driver to release the controller of Zoom or Focus clockwise to adjust them as you need by parallel move the controller.
Zoom in/out:
A camera with zoom capability is needed if you want to capture close-up images of an object at a distant.
The zoom time will determine how close you need.

Focus:
A vari-focal lens offers a small zoom capability, which is adjusted manually via a controller.
The focal length (field of view) can be manually adjusted. The most common vari-focal lens is 3.3~12 mm.

After release the controller of Zoom or Focus clockwise, you can adjust them as you need by parallel move the controller.

NOTE:
Tighten clockwise the controller after the lens had been adjusted.

3. Fixed Lens (*N6075/N6077)

The focus of fixed lens had been set by factory.
Release clockwise the controller of the focus and then twist the lens to adjust the focus if necessary.

NOTE:
Tighten clockwise the controller after the lens had been adjusted.
Mounting

1. **Smart cable management**
   After cables have been successfully installed, please turn the waterproof connector in clockwise direction, the rubber inside the connector will also be tighten as you tighten the connector.
   See the detailed diagram as below:

   ![Diagram of smart cable management](image)

2. **Tripod mounting**
   Connect the Bullet Network Camera into the tripod by turning the Network Camera in clockwise direction to tighten the connection between Network Camera and tripod.

   **Indoor (N6074/N6075)**

   ![Diagram of tripod mounting](image)
3. **Stabilize the Hardware**
   Use the screwdriver to lock the screws securing the cover. (*N6076/N6077)

4. **Complete the installation**
   Mount the Network Camera on the ceiling or wall.

**NOTE:**
You can install the Bullet Network Camera on the holder and hang it on the wall or ceiling. Please do not install it in locations of poor ventilation. This will result in poor operation.

⚠️ **Attention:** The horizontal angle is important when you hang the product from the ceiling. Excessive inclination may bring about abnormal rotation of the camera lens.
Factory Reset

N6074/N6075/N6076/N6076 provides a function for you to reset them to the factory default settings.

If there is still system problems remain after rebooting, factory reset can return the camera to normal operation after resetting.

The following diagram illustrates will show you how to reset the Bullet Network Camera.

Press and release the reset button with a paper clip or thin object for 5 seconds Wait for the Network Camera to reboot.
Software Installation

After the hardware has been installed, insert the installation CD into the CD-ROM driver and run the “Cam Finder.exe” following the steps below to search and change the IP address of the Bullet Network Camera.

NOTE:
If the network environment has the router, please make reference to the chapter of Appendix: Set up the Router Setting with IP Camera for different environment description.

1. **Start the Camera Setting.**
   Run the **Cam Finder.exe** from the installation CD.
2. **Set the IP address of the Network Camera.**

   ![Cam Finder Screenshot](image)
   Click **Search** to find the IP Camera on the LAN, the factory IP setting **192.168.0.20** appears on the screen.

3. **Change the IP address and related settings for the network environment.**

   ![Cam Finder Screenshot](image)
   When you find the camera, click it and the settings will appear on the right side. You can change the settings for the new network environment as you need.

   **NOTE:**
Enter new settings in the field of the **IP**, Netmask and Gateway fields and keep the settings in other fields unchanged.
4. Submit data

Click **Submit** to apply the new settings.

5. Confirmation

Click **Exit** to quit, after all changes have been confirmed.

**NOTE:**

The **Cam Finder** can only find the IP addresses of the cameras that share the same hub on the LAN. For more information about finding IP addresses on the Internet, refer to the “**DDNS Setting**”, or “**UPnP Setting**”.

All 3Svision camera/network server products can be found and changed using the **Cam Finder** software.

When the **Cam Finder** software cannot be executed, check your antivirus software or firewall to remove the block.

Field description: You can give a name to your camera (such as “IR_IP” or “IR-IP”). No spaces allowed (such as “PI IP”).

You can change the settings for IP, Gateway Address and Network Mask to meet the requirements of your network environment. The Bullet Network Camera uses HTTP Port1 and does not support Port2 settings.

Ready To Use

Access to the IP Camera

You can access the IP Camera through web browsers, follow the instructions to install the required plug-in on your computer.

1. Using Web Browsers
   Launch your web browser. (eg. Microsoft Internet Explorer, Mozilla Firefox or Netscape…) and enter the IP address of the IP Camera in the address field.

After fill in "root" in the User Name and Password fields, Click OK.

NOTE:
1. If the web browser cannot be display the Camera Main Page, please make reference to the chapter of Appendix: Change the Inter Explorer Setting for further detailed description.
2. You can access the camera as an administrator by default and set up for other users or privileges from the “Basic Settings” → “User”.
2. Installation of Internet Explorer ActiveX Controller

After the Username and Password are confirmed, a control setup screen pops up under the IE address bar. Click "Install ActiveX Control" to continue.

The security warning screen appears. Click "Install". The ActiveX Control is named "ActiveX Control". This software is owned by PocketNet and well certified. You can use it without any doubts about its validity.

When ActiveX Control is installed successfully, you can see the camera image and interface on your screen.
View of Camera Main Page

Once you have installed the software from the IE and you are ready to start the setup menu. The Camera utility enables you to change language, video settings. And you can also change the other setting by “Setting”.

Live View

3Svision Logo
Language
Video Format
View Size
Streaming
Color

Product Name

N6076

Alert
Alert Message
PTZ Control
Shortcut Bar
Shortcuts

3Svision Logo

Click here to visit the website of POCKETNET Tech. Inc.
Product Name

Display the product name.
The default name follows the product, and it not releases the permission of modification to customer.

Mode

Select the display mode between Live View and Setting.
Language

It supports 7 kinds of different languages in web browser and the default setting is English.

Click the pull-down menu to select the language for web browser from English, 简体中文 (Simplified Chinese), 繁體中文 (Traditional Chinese), Español (Spanish), Deutsch (German), Français (French) and Nederlandse (Dutch).

NOTE: The language selection is not suitable for Shortcuts, because the Shortcut follows the OS language.
**Video Format**

It provides the triplex streaming, but it can use one streaming on the live view. The default setting is the MPEG H.264 (Main).

Click the pull-down menu to select the video format from **H264 (Main Stream)**, **H264 (Sub Stream)** and **Motion JPEG**.
View Size

It can fix well the resolution when enlarge or reduce the live view image.

Click the pull-down menu to select the video format from 1/2X, 1X, 2X and 4X.

NOTE:
The quality of the image will become to poor, when you enlarge the view image size.
Streaming

It provides 3 kinds of different streaming protocols. Click the pull-down menu to select the video format from UDP, TCP, and HTTP to apply or integrate on different requirement and environment.

The following tables show the difference between UDP, TCP and HTTP.

<table>
<thead>
<tr>
<th>Protocol</th>
<th>Tunneling</th>
<th>Pocket Loss</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTTP</td>
<td>Easy</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>TCP</td>
<td>Fair</td>
<td>Lower</td>
<td>Fast</td>
</tr>
<tr>
<td>UDP</td>
<td>Hard</td>
<td>Lowest</td>
<td>Fastest</td>
</tr>
</tbody>
</table>

1. UDP
Provide the fastest but most unreliable transmission service. Video streams are transmitted through RTP 50000~60000 Port to ensure the fastest image transmission.

NOTE:
However, video fragment or mosaics may occur due to poor transmission quality.
2. **TCP**

Provide reliable data transmission, because the transmission will check the receiver first. Video streams are transmitted through RTSP 554 Port to avoid video fragment or mosaics, but this protocol will affect the FPS to reduce.

![TCP Diagram](image)

3. **HTTP**

Video streams are transmitted through HTTP 80 Port to ensure passing through firewalls.

![HTTP Diagram](image)

**NOTE**:

HTTP is recommended if your network is protected with firewalls.

**Color**

Adjust the value of the color settings for the live view image such as **Brightness**, **Hue**, **Contrast** and **Saturation** by click the ◀/▶ button.

![Color Adjustments](image)

You can also adjust the value by drag the slide bar to left or right.
**Brightness**
Adjust the brightness of image.

**Contrast**
Adjust the contrast of colors.

**Saturation**
Adjust the saturation of colors.

**Set to default**
Reset all of the color settings to default figures.

**NOTE:**
50 is the default figures of the value for color setting, the range is 0~100. After the value had change and the result will be shown on your screen.
Alert

The alert flash will be changed from green to red in order to warning users immediately when any event is triggered. This smart design can prevent the user omitting from any event.

**NOTE:**
The alert message will display the information at the same time.

The alert flash will keep in red till you disable it. Click the alert flash again to disable it.

**NOTE:**
The function of Alert needs to match and use with Event Setting, please confirmed the Event Device and Setting before you start this function.
Alert Message

It will display the event message when receiving the event. And some controls and applications will be available. Please see the detail illustration as below:

Alert Message Text

Display the message in the field of the Alert Message Text when the event is activated. The event message format as below:

<table>
<thead>
<tr>
<th>Event Type</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motion</td>
<td>MM/DD/YY</td>
<td>HH:MM:SS</td>
</tr>
<tr>
<td>Alarm</td>
<td>MM/DD/YY</td>
<td>HH:MM:SS</td>
</tr>
</tbody>
</table>

For the detail information, please double click the event message at the alert message text field and a pop-up window of the alert message will be shown.

NOTE:
The event type will be different based on the model.
**Disable**

Enable/Display the Alert Message

The function of displaying message in field of Alert Message Text can be hidden when Alert is triggered.

Alert Message Text field will keep previous values before Alert being triggered if there is a message already recorded.

**Alert Snapshot**

It will Snapshot the image when event is triggered. The saving name will follow the Alert Message Text.

**NOTE:**

The saving path will follow the path setting from Shortcut Bar.

**Clear**

Click *clear* button to remove all of the event messages from the Alert Message Text.
PTZ Control Panel

After enable the PTZ function the control panel of the PTZ will show on your screen. The detail function illustration as below:
**Camera Direction**

- Control the Pan/Tilt function

**PTZ Device**

- Device selected

**Speed**

- Adjust the Pan/Tilt movement speed

**Zoom**

- Control the Zoom IN/OUT function

**Focus**

- Use the manual Focus function

**Aux**

- Control the external device

**Preset**

- Set up/Enable the Preset

**Tour**

- Set up/Enable the Tour

---

**Camera Direction**

Adjust the lens of camera by press Up, Dow, Left, Right and Home)

---

**PTZ Device**

Select the device to control the RS485 device, the different device can setup the different protocol.
Camera Speed

Control the rotation speed of the camera from 1 (lowest) to 8 (highest).

<table>
<thead>
<tr>
<th>Function</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>1 2 3 4 5 6 7 8</td>
</tr>
<tr>
<td>Angle/Sec.</td>
<td>3 20 40 60 80 100 120 140</td>
</tr>
</tbody>
</table>

Zoom

To enable the Zoom In/Out function by click the Zoom In or Zoom Out button. The Zoom distance will follow up the source device, select the speed from 1 (lowest) to 4 (highest).

Focus

Click the Near/Far to adjust the focus by manual control. Select the speed from 1 (lowest) to 4 (highest).

NOTE:
Please confirm whether the lens of your camera supports the application.

Aux

Control the external device through RS485. Enable or disable the device activity by click On/Off. Select the device from 1 to 8.

NOTE:
Please confirm whether the device supports the application.

Preset

Preset the rotation points from the camera. (16 points)

1. Click Set to enter the Preset Setting page.

2. Fill in the Location Name to continue the preset setting.
3. Click the Up, Down, Left, Right and Home to adjust the camera direction.

4. Exit the preset setting page by click **Update**.

5. After select the number for preset, click **Go**. The camera will move to the area automatically as setup by the select number.
Tour

Enable/Disable the tour mode of the camera. The rotation points of the camera must be setup in advance and provide five tour addresses to use it.

1. Click Set to enter the Tour Setting page.

2. Name the tour. You can set up 5 tour groups at maximum.

3. Dwelling time (sec.) at each tour point.

4. Select a preset location for the camera.

5. Click Update to Exit.

6. Select the number you need then click Start to activate the tour function.
Shortcuts

Click the *right-button* of your mouse in Live View mode to display the Shortcuts List. Choose the option directly depend on different system requirements. The detail function illustration as below:
Click the **right button** of your mouse and select **+ZOOM IN** to enlarge the image. The navigation screen indicates the part of the image being magnified. 8 Levels of zoom in/out are supported.
Click the right button of your mouse and select **+ZOOM out** to reduce the image. 8 Levels of zoom in/out are supported.

**NOTE:**
You can also Zoom In/Out the image by press the scroll wheel button of your mouse.

**Original Size**
No matter what the multiple of digital zoom is, you can reset the image size by click the right button of your mouse and select **Original Size**.
Full Screen

Click the right button of your mouse and select Full Screen to change the screen to full screen mode and release it by click the button again. You can also release it by click the “ESC” button on the keyboard.

NOTE:
You can also use the other shortcuts function when it is enable.
Click the right button of your mouse and select Jitter Time to set up the buffer time to make audio sync which can help the video and audio smoother. It is not a standard settings but according to your bandwidth to adjust the buffer time. 7 kinds of parameters are supported as below: N/A, 150ms, 300ms, 500ms, 1s, 3s and 5s. The delay time will appear probably in the image if the jitter time is highest. 150ms is the default parameter.
Record

Click the right button of your mouse and select Record to start to record the image and the file will saved at the default path. Stop the recording by click the button again. You can also start /stop recording by press and on the shortcut bar.

The record icon of Shortcut Bar will change the status and the Live View image will display with the red square signal in the left corner when it is recording.
Snapshot

Click the **right button** of your mouse and select **Snapshot** to Snapshot the image and the file will save at the default path.

You can also take snapshot by press **Snapshot** on the shortcut bar.

Version

Show the ActiveX Control version by click the **right button** of your mouse and you will see the version on the bottom.

**NOTE:**
The version will depend on the actual product spec of shipment.
**Shortcut Bar**

Enable/Disable the application function from Shortcut Bar.

Click the thumbnail of the **Microphone** on the shortcut bar to enable/disable it (one-way audio).

- Transmit the voice into the Bullet Network Camera by using the PC’s microphone.

Click the thumbnail of the **Buzzer** on the shortcut bar to enable/disable it (one-way audio).

- It can receive the voice of the microphone from the Tube Network Camera.
Enable the **Microphone** and **Buzzer** at the same time to achieve the two-way audio application if you like it.

**NOTE:**
Adjust the parameter of the audio according to the **Audio Setting**. It will hide the **Audio** icon from the Live View if the Audio Function is disabled.

**Path**
Click the thumbnail of the **Path Setting** on the shortcut bar to change the saving folder path. Please see the detail setting as below: **Path**, **Filename Prefix** and **Recording Limit**

**NOTE:**
Due to the path setting will saved the modification into ActiveX Control and the *.ini file. No matter what the type of the IP Camera is changing, the path will follow the same folder to save it.
1. Path
To assign a folder for saved the **Record** and **Snapshot**, and the file would be saving to the default folder. You can also change the other folder to save the files as you want.

<table>
<thead>
<tr>
<th>Function</th>
<th>Default Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record</td>
<td>C:\Video</td>
</tr>
<tr>
<td>Snapshot</td>
<td>C:\Snapshot</td>
</tr>
</tbody>
</table>

2. Filename Prefix
To set up a prefix of the filename which you are recorded or snapshotted, and it will follow up the format to save it.
Please see the detail information as below:

<table>
<thead>
<tr>
<th>Type</th>
<th>Prefix</th>
<th>Fixed Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record</td>
<td>Rec_</td>
<td>YY/MM/DD-HH:MM:SS.avi</td>
</tr>
<tr>
<td>Snapshot</td>
<td>Snapshot_</td>
<td>YY/MM/DD-HH:MM:SS.jpg</td>
</tr>
</tbody>
</table>

3. Record Limit
The **Record Path Setting** supported only and it has limit of file size.
The Bullet Network Camera will create the fixed recording file according to this setting.
It provides two kinds of setting for record file size as below:
- **Record File Size**
- **Record Duration**

**Record File Size**
50 MB is the default size of the record file and the limit is 2048MB.

**Record Duration**
50 Seconds is the default duration of the record file and the limit is 99999 Seconds. The default duration is the 50 Seconds, and the limit is the 99999 Seconds.

**NOTE:**
No matter what the type is, the value will keep the same figure.

**Snapshot**

Snapshot the Live View image

Click the thumbnail of the **Snapshot** on the shortcut bar to Snapshot the image in Live View and the file will save at the default path.

The icon of the Snapshot will flash the status when Snapshot.

**Record**

Record the streaming image.

Click the thumbnail of the Record on the shortcut bar to record the image in Live View and the file will save at the default path.

The icon of the Record will display with red square signal in the bottom of the left corner when record.

The Record can detect the status of web browser and it will keep the recording image file completely when the Network disconnection suddenly.
Shortcut Bar Message

Display the information of record or Snapshot in the Shortcut Bar Message.

All of the status for Shortcut Bar Message, please see the illustration as below:

- **Login**
  Record file path: [C:\Video]; Snapshot file path: [C:\Snapshot]

- **Record**
  Start recording to: C:\Video\REC__%Y%m%d-%H%M%S.avi
  Recording to C:\Video\REC__%Y%m%d-%H%M%S.avi is stopped
  Fail to record: C:\Video\REC__%Y%m%d-%H%M%S.avi

- **Snapshot**
  Snapshot: C:\Snapshot\Snapshot__20091102-181620-804.jpg has been saved.
  Fail to snapshot in path C:\Snapshot

**NOTE:**

The setting of the path and filename will follow the *Path Setting.*
Setting User Preferences

The Setting menu lets you change the following settings:

**Basic Setting**
- System
- Video/Image
- Audio
- PTZ
- User
- Network
- Date/Time
- IP Filtering
- Storage

**Application Setting**
- Event
- Recording List
- Motion Detection
- Blind Detection
- Privacy Mask
- Firmware Upgrade
- Factory Default
- Reboot

*After each setting, click **Save** to save and apply them.*
The Basic Setting menu lets you view the Basic Setting for the Bullet Network Camera and change the following setting:

**System**
- System
- System Log

**Video Image**
- Video
- PreProc/Overlay
- Sensor

**Audio**
- Audio

**PTZ**
- PTZ

**User**
- User

**Network**
- Network Setting
- Stream Setting
- PPPoE
- DDNS
- UPnP
- SMTP
- SAMBA
- Notification
- Multicast

**Date/Time**

**IP Filtering**

**Storage**

**System**

**System Setting**

**Device Name:** Give the name of your camera here. Complete the setting by Click Set.

**MAC Address, IP Address, Network Mask, and Gateway:** Network information

**Model:** Display the product model name.

**Hardware Version, Firmware Version and Firmware Build time:** Firmware information.

**Current Viewers:** The number of viewers who are currently accessing the video stream.
The Bullet Network Camera allows administrator to view all of the login information, including boot record, video streaming mode, login IP, changes, and the date/time information. You can save the entries to a Word document by manual. Notice all of the information is deleted when you turn off the Bullet Network Camera.

**System Log**

- **System Log**
  - *Max Size:* Set the Number allowed for the log file, 100000 is the default.
  - *Critical Log:* Click **Display** to show the most important log file.
  - *Warning Log:* Click **Display** to show the warning log file.
  - *Information Log:* Click **Display** to show the information log file.

- **Syslog Service**
  - *Syslogd Service:* Click **Start** to send the log file to server.
  - *Server:* Fill in the IP address that the Syslogd Service is.
  - *Port:* Set the port number.

Fill in the IP address of Syslogd Service.
• **Video Setting**
  Sensor Mode: Set the mode of the sensor from UXGA Mode (1600x1200) and WXGA Mode (1280x720).

• **H264**
  Resolution: Set the resolution of the image 1600x1200, 1280x720, 640x480, 640x352, 320x240 and 320x176.
  Frame Rate (FPS): Set the frame rate from 1, 3, 5, 10, 15, 20, 25 and 30.
  Quality:
    - Bitrate: 512, 640, 768, 1024, 1280, 1536, 2048, 2560 and 3072, 3584 and 4096.
    - Fix Quality: Best, Better, Normal, Fast and Fastest.
  GOP:
    Set the frames for GOP from 1, 5, 10, 15, 30, 60, 120 and 150.

• **H264 (Sub)**
  Resolution: Set the resolution of the image from 640x480, 640x352, 320x240, 320x176, 160x168 and 192x112.
  Frame Rate (FPS): Set the frame rate from 1, 3, 5, 10, 15, 20, 25 and 30.
  Quality:
    - Bitrate: 256, 384, 512, 640, 768, 1024, 1280, 1536, 2048, 2560 and 3072.
    - Fix Quality: Best, Better, Normal, Fast and Fastest.
  GOP:
    Set the frames for GOP from 1, 5, 10, 15, 30, 60, 120 and 150.

• **Motion JPG**
  Resolution: Set the resolution of the image from 1600x1200, 1280x720, 640x480, 640x352, 320x240 and 320x176.
  Frame Rate (FPS): Set the frame rate from 1, 3, 5, 10 and 15.
  Quality:
    Set the quality from 384, 512, 640, 768, 1024, 1280, 1536, 2048, 2560, 3072, 3584 and 4096.
### Bullet Network Camera

#### N6076

**Basic Setting**
- **System**
- **Video / Image**
- **Video**
- **ProPix / Overlay**
- **Sensor**
- **Audio**
- **PTZ**
- **User**
- **Network**
- **Date / Time**
- **IP Filtering**
- **Storage**

**Application Setting**
- **Event**
- **Recording List**
- **Motion Detection**
- **Blind Detection**
- **Privacy Mask**
- **Firmware Upgrade**
- **Factory Default**
- **Reboot**

### Video / Image Setting

**Video Setting**
- **Sensor Mode**
  - UXGA Mode (1600x1200)
  - WXGA Mode (1280x720)

**H.264**
- **Resolution**
- **FrameRate (FPS)**
- **Quality**
  - B bitrate 1024
  - C bitrate 1024
  - GOP 19 frames

**H.264 (Sub)**
- **Resolution**
- **FrameRate (FPS)**
- **Quality**
  - B bitrate 1024
  - GOP 19 frames

**Motion JPG**
- **Resolution**
- **FrameRate (FPS)**
- **Quality**
  - B bitrate 1024

**User**
- **Network**
- **Date / Time**
- **IP Filtering**
- **Storage**

**Event**
- **Recording List**
- **Motion Detection**
- **Blind Detection**
- **Privacy Mask**
- **Firmware Upgrade**
- **Factory Default**
- **Reboot**

**Save | Reset**
**PreProc/Overlay**

- **PreProc**
  - Camera Position: Set the position of the camera from Default, Flip, Mirror and Rotate 180.
• Overlay Setting

Language: Set the language for the overlay.
Display mode: Set the display mode from Date, Time and Text or not.
Foreground color: Selects the foreground color for Date, Time and Text to display. Click the color block in order to show the palette. Move the arrow point and click on the color you like.
Background color: Selects the background color for Date, Time and Text to display. Click the color block in order to show the palette. Move the arrow point and click on the color you like.
Display text: Fill in the text what you want to show on the screen, e.g. Lobby IP Cam.
Date/time position: Set the value of the X/Y-axis for the location that the Date/Time will show on the screen. (Anyone on the four corners is available.)
Text position: Set the value of the X/Y-axis for the location that the text will show on the screen. (Anyone on the four corners is available.)
Alpha Blending: Set the Alpha Blending for the transparency of the overlay from 0%, 50% and 90%.
Sensor

- Day/Night Setting: Set the mode for the Day and Night from Auto, Manual and External. You can also select Day/Night ambiguity suppression in Auto mode.
- Switching Delay: Set the time for switching delay from 0~15 Seconds.

- Sensitivity Level: Set the level for sensitivity level from Low, Mid and High.

- AE Setting
  - Backlight: Click Enable to set the backlight for the image.

  - Slow Shutter: Set the Slow Shutter from OFF, X2, X4, X8 and X16.

  - AGC: Set the AGC from Low, Mid and High.

  - Flicker Control: Set the Flicker Control from 50Hz, 60Hz and OFF.
Audio

Set the Audio mode from Full-Duplex, Half Duplex, Simplex-Speaker Only, Simplex-Microphone Only and Audio Off.

**Full duplex**: Microphone and Amplifier using allowed of at the same time, or turning them off.

**Half duplex**: Microphone or Amplifier using allowed of by manual switch.

**Simplex microphone only**: Microphone use only is allowed.

**Simplex amplifier only**: Speaker use only is allowed.

**Audio off**: Turn the audio off; i.e. both of the microphone and speaker will be off.

Audio in

**Codec**: Select the type of Codec for audio encryption from G726/32, G711a, G711u and AMR.

**Gain**: Set the Gain from 0, 25, 50, 75 and 100.

Audio out

**Codec**: Select the type of Codec for audio decryption from G726/32, G711a and G711u.

**Gain**: Set the Gain from 0, 25, 50, 75 and 100.

<table>
<thead>
<tr>
<th>Code</th>
<th>Compression Bitrates (Kbit/s)</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>G711a</td>
<td>64</td>
<td>PCM (For American System)</td>
</tr>
<tr>
<td>G711u</td>
<td>64</td>
<td>PCM (For European System)</td>
</tr>
<tr>
<td>G726/32K</td>
<td>32</td>
<td>ADPCM</td>
</tr>
<tr>
<td>AMR</td>
<td>4.75</td>
<td></td>
</tr>
</tbody>
</table>

---

![Image of N6076 Camera UI with audio settings]
PTZ

PTZ Camera Port Setting

Camera Driver: The Bullet Network Camera supports the PTZ control of those analog PTZ cameras use the drivers of Pelco-D, Pelco-P. Refer to the user manual of your PTZ cameras, and you will know which driver to select. Moreover, select the serial number (address) of the targeted PTZ camera for controlled setting. If the selection is none, please upload the PTZ driver first.

PTZ Driver Manager

In the Camera Driver column, list all the drivers that are installed in the video server. Select **Delete** to eliminate any selected driver.

PTZ Driver Upload

Upload the PTZ drivers from [www.3Svision.com](http://www.3Svision.com) for more camera drivers which are supported.

Serial Port Setting

<table>
<thead>
<tr>
<th>Port: COM0</th>
<th>Port Mode: RS485</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baud rate: Select the measure of the symbol rate from 2400, 4800 and 9600.</td>
<td></td>
</tr>
<tr>
<td>Data bits: Select the number of bits used to represent one character of data from 7 and 8.</td>
<td></td>
</tr>
<tr>
<td>Stop bits: Select the bit used in asynchronous communications to indicate the end of a piece of data from 1 and 2.</td>
<td></td>
</tr>
<tr>
<td>Parity: Select the parity from None, Even and Odd.</td>
<td></td>
</tr>
</tbody>
</table>

![PTZ Configuration](image)
User List

Use this menu to set the following setting:

**Add:** Add a new user and to define a different privilege.

**Update:** Change the privilege or password of a user.
User name changed is not allowed.

**Delete:** Delete a user here.

Fill in the username, password and privilege as required.
User Setting

- **Anonymous login**: Click *Enable* to allow anyone user to login. For the special demand, login to the browse without username and password is allowed. The selection of *Disable* is recommended for the security.

- **Maximum number of simultaneous viewers**: Depending on the bandwidth and requirements, a limit up to 20 viewers who are allowed to view the camera simultaneously can be defined.

!important: The default user name and password have been set as "root". The root user cannot be deleted but can be changed. For the safety consideration, it is recommended to change the root's password when the first time login. You can press the reset bottom to reset to factory default.
User

The Bullet Network Camera provides the administrator to set the privileges for administrator, operator and viewer that ensure the security and control of the camera. According to the requirements of the users, administrator owns the authority to define the privilege for each user.

The privileges of the administrator, operator, and viewer are listed as below:

<table>
<thead>
<tr>
<th></th>
<th>User</th>
<th>Administrator</th>
<th>Operator</th>
<th>Viewer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Live View</strong></td>
<td></td>
<td>v</td>
<td>v</td>
<td>v</td>
</tr>
<tr>
<td><strong>Setting</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Basic Setting</strong></td>
<td></td>
<td>v</td>
<td>v</td>
<td></td>
</tr>
<tr>
<td>System</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video / Image</td>
<td></td>
<td>v</td>
<td>v</td>
<td></td>
</tr>
<tr>
<td>Audio</td>
<td></td>
<td>v</td>
<td>v</td>
<td></td>
</tr>
<tr>
<td>PTZ</td>
<td></td>
<td>v</td>
<td>v</td>
<td></td>
</tr>
<tr>
<td>User</td>
<td></td>
<td></td>
<td>root</td>
<td></td>
</tr>
<tr>
<td>Network</td>
<td></td>
<td>v</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date / Time</td>
<td></td>
<td>v</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP Filtering</td>
<td></td>
<td>v</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Application Setting</strong></td>
<td></td>
<td>v</td>
<td>v</td>
<td></td>
</tr>
<tr>
<td>Event</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motion Detection</td>
<td></td>
<td>v</td>
<td>v</td>
<td></td>
</tr>
<tr>
<td>Privacy Mask</td>
<td></td>
<td>v</td>
<td>v</td>
<td></td>
</tr>
<tr>
<td>Firmware Upgrade</td>
<td></td>
<td></td>
<td>root</td>
<td></td>
</tr>
<tr>
<td>Factory Default</td>
<td></td>
<td>v</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reboot</td>
<td></td>
<td>v</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Network Setting

- **IP Assignment**

**DHCP**

DHCP (Dynamic Host Configuration Protocol) is a protocol that enables automatic assignment of TCP/IP information to the client. Each DHCP client connects to the DHCP server to access its network setting information, including IP address, gateway, and DNS server.

The IP address of the camera is 192.168.0.20 by default when DHCP is "OFF". When you select "DHCP ON" and access the DHCP network environment, the camera will automatically send a DHCP packet to request an IP address. This IP address is assigned automatically from the DHCP server on the network. No additional settings are required for this page unless you need to change the network configuration. The DHCP status of the camera is "OFF" by default.

**Other settings:**

For IP address, Subnet mask, Default gateway, DNS 1, and DNS 2, the DHCP server will assign these values automatically when DHCP is in "ON" status; otherwise, you need to key in the values manually.

<table>
<thead>
<tr>
<th>Basic Setting</th>
<th>Network Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>IP Assignment</td>
</tr>
<tr>
<td>Video/Image</td>
<td>DHCP</td>
</tr>
<tr>
<td>Audio</td>
<td>IP Address</td>
</tr>
<tr>
<td>PTZ</td>
<td>Subnet Mask</td>
</tr>
<tr>
<td>User</td>
<td>Default Gateway</td>
</tr>
<tr>
<td>Network</td>
<td>DNS 1</td>
</tr>
<tr>
<td>MAC Address</td>
<td>DNS 2</td>
</tr>
</tbody>
</table>

**NOTE:**

The system will be set the Link-Local Address by automatically when there is no any IP
address is assigned from the DHCP server.
Services

It can become the small FTP server to download the AVI or JPEG file from SAMBA or SD Card. The default status is enabling the function. Due to the function only provide the SAMBA and SD Card applications, not release to all FTP setting for user.

The default account and password is **ftp**, and you can only modify the password by yourself.
Stream Setting

Set the video streaming port here. (HTTP and factory default are recommended)

- **Streaming**
  
  **HTTP:** Port 80 can pass through most firewalls. Video streams are transmitted through HTTP Port (80 by default) to ensure passage through firewalls.
  
  **RTSP:** Port 554 uses a fixed port (i.e. TCP) or can be defined by users to ensure reliable data transmission. Video streams are transmitted through RTSP Port (554 by default) to avoid video fragment or mosaics due to poor transmission quality.
  
  **RTP:** Port 50000 to 60000 are UDP ports and can be defined by users. They provide the fastest but also most unreliable transmission service. Video streams are transmitted through UDP Port (50000~60000 by default) to ensure the fastest image transmission. However, video fragment or mosaics may occur due to poor transmission quality.

**NOTE:**
Please refer to the chapter of **Stream** for further detailed description.
PPPoE Setting (Dial-up Networking Setting)

Point-to-Point Protocol over Ethernet is a protocol that supports access to a high-speed wideband network using a PC and a wideband modem (such as xDSL, Cable, Wireless modem). The user need only to equip the PC with an Ethernet card and apply to an ISP and an ADSL provider (such as Chunghwa Telecom) for ADSL service to roam the Internet through ordinary twisted copper wires.

PPPoE setting must be executed in the LAN environment for your PC to connect to ADSL. Follow the steps below to complete the setting:

1. Dial: You can select whether or not to dial when you boot the machine.
2. Use DHCP or fixed IP for connection to the LAN environment.
3. Key in the IP address of the camera and enter "PPPoE Setting" following the route Setting → Basic Setting → Network→ PPPoE.
4. Key in the xDSL "Username" and "Password" acquired from your ISP. Click Save to confirm the setting.
5. Where the ADSL modem and the camera is connected via a switch-hub, you can press "Reboot" or restart the machine manually to try PPPoE dialing when the setting of the camera has been completed.
6. A different IP address is obtained after each dial-up network connection. You can get the new IP address from Setting → Basic Settings → System. If you want to know the new IP address anytime, you must enter Setting → Basic Settings → Notification to set some settings. There are three ways to get information: 1. SMTP 2. FTP 3. HTTP. For details, refer to the Notification Setup Menu.

NOTE:
You can use the DDNS function to access the camera. Refer to the DDNS Setting for more information

- **PPPoE**
  - **Dial:** You can select whether or not to dial when you boot the Camera. (On boot or Off).
  - **Username:** Enter the username provided by your ISP.
  - **Password:** Enter the password.

- **PPPoE Information**
  - **IP Address:** The IP address is acquired when the dialing has been executed successfully.
  - **Subnet Mask:** The subnet mask information is acquired when the dialing has been executed successfully.
  - **Default Gateway:** The gateway information is acquired when the dialing has been executed successfully.
  - **DNS:** The ISP domain name is acquired when the dialing has been executed successfully.
### Bullet Network Camera

#### N6076

<table>
<thead>
<tr>
<th>Basic Setting</th>
<th>PPPoE Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System</strong></td>
<td><strong>PPPoe</strong></td>
</tr>
<tr>
<td><strong>Video / Image</strong></td>
<td><strong>Dial On</strong></td>
</tr>
<tr>
<td><strong>Audio</strong></td>
<td><strong>Username</strong></td>
</tr>
<tr>
<td><strong>PTZ</strong></td>
<td><strong>Password</strong></td>
</tr>
<tr>
<td><strong>User</strong></td>
<td><strong>Save</strong></td>
</tr>
<tr>
<td><strong>Network</strong></td>
<td><strong>Reset</strong></td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td><strong>Dial</strong></td>
</tr>
<tr>
<td><strong>Streaming</strong></td>
<td><strong>Connection</strong></td>
</tr>
<tr>
<td><strong>PPPoE</strong></td>
<td><strong>IP Address</strong></td>
</tr>
<tr>
<td><strong>DDNS</strong></td>
<td><strong>Subnet Mask</strong></td>
</tr>
<tr>
<td><strong>UPnP</strong></td>
<td><strong>Default Gateway</strong></td>
</tr>
<tr>
<td><strong>SMTG</strong></td>
<td><strong>DNS</strong></td>
</tr>
<tr>
<td><strong>RTP</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Notification</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Ntpcast</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Date / Time</strong></td>
<td></td>
</tr>
<tr>
<td><strong>IP Filtering</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td></td>
</tr>
</tbody>
</table>

#### Application Setting

- Event
- Recording List
- Motion Detection
- Blind Detection
- Privacy Mask
- Firmware Upgrade
- Factory Default
- Reboot
DDNS (Dynamic Domain Name Server)

The IP address (Ex. 210.168.0.22) is like a telephone number, while the website address is like a name in an address book. The DDNS allows the user to access the website by entering the name of the website without memorizing a bunch of cold numbers.

When you apply for an Internet service, you will have at least one IP address from your ISP that is either fixed or dynamic. Most of the ADSL service providers will give you a dynamic IP for ADSL environments, which means your IP address will constantly change each time you connect to the Internet. As a result, users from WAN environments will have much difficulty finding the correct IP address. The DDNS (Dynamic DNS service) is created for exactly this kind of moment. By updating your WAN IP address each time you connect to the Internet, the DDNS helps you locate your website and access your website easily. You can find a lot of free DDNS service providers on the Internet, such as www.no-ip.com and www.DynDNS.org.

Some gateway-routers can directly communicate with DDNS. In this case, you may directly enter your DDNS account on the setting page in the Internet router, and then the router will update your WAN IP status whenever it is changed and report to the DDNS. If your router does not support direct communication with the DDNS, you can download a small application program on the DDNS service page to help you update your WAN IP.

- **DDNS**
  - **Active:** Enables/disables DDNS
  - **DDNS Server:** Currently we only support http://dyndns.org. This is a free domain name server provided by DynDNS. You may log on this website for relevant information and apply for free domain names.
  - **Username:** Your account for the domain name you applied for
  - **Password:** Your password for the domain name you applied for
  - **Domain Name:** The domain name you applied for.
If you connect your camera to a router, IP allocator, or wireless AP, your camera will possibly be blocked by the NAT and can’t be located on the Internet. To penetrate the firewall, activate the supportive item - UPnP. The Link URL shows the external IP address and the port of the router. Enter the IP address in the Internet Explorer to penetrate the NAT.

- **UPnP Device**
  - **Active:** yes (enable)/no (disable)
  - **Device Name:** the name of the UPnP device

- **UPnP Traversal**
  - **Active:** yes (enable)/no (disable)
  - **Port Range:** the range of the usable ports, from 32768 to 65535 as default
  - **Link URL:** After the network camera penetrates the firewall successfully, the actual external IP address and port will be shown.
To Activate the UPnP function in Windows OS

Windows XP

1. Windows component installation.

   Step 1 Select **Control Panel**.
   Step 2 Select **Add/Remove Programs**.
   Step 3 Select **Add/Remove Windows Components**.
   Step 4 Select **Networking Services**.
   Step 5 Click **Detail**.
   Step 6 Select **Universal Plug and Play**.
2. Open Windows firewall option

Step 1 Select **Windows Firewall** in the Control Panel.
Step 2 Select **Exceptions**.
Step 3 Select **UPnP Framework**.

3. View the connection device using “My Network Place”

Step 1 Open the folder of **My Network Place**.
Step 2 The LAN camera will appear on the screen
Double click it.
SMTP (Mail Server Setting)

The Bullet Network Camera provides you to transmit images to a particular email address when a motion detection event occurred or a sensor is triggered. A mail server setting for the camera is required, if you want to use this function.

- **SMTP Setting**

   Enter the following information sequential to complete the settings as below:

   - **SMTP server**: The SMTP server IP address.
   - **SMTP From**: The email of the sender, i.e., xxx@xxx.com
   - **SMTP Authentication**: Enables/disables
   - **User name**: The user name is from SMTP server.
   - **Password**: The password is from SMTP server.

![SMTP Setting Table]

---

**NOTE**: The Bullet Network Camera support the mail account of SSL (Secure Sockets Layer) cryptographic protocol only, and the normal free webmail service belong the TLS (Transport Layer Security) cryptographic protocol.
Samba

The Bullet Network Camera provides you to upload the snapshots to a specified shared folder when an event is triggered. A Samba setting is required, if you want to use this function.

- **Samba Setting**

  Enter the following information sequential to complete the settings as below:

  - **Active:** Enable/Disable
  - **Samba Authentication:** Enable/Disable
  - **Username:** The username
  - **Password:** The password
  - **Path:** To specify the IP address of the computer that you want to share with and the file name, i.e. 192.168.0.X/xxx
  - **Recycle Record:** Enable for the last record file to mantle the first record file.
  - **Remaining SAMBA Capacity:** The remaining capacity can be record.
  - **Shared Folder Size (MB):** The total capacity of the folder. Always remember to set the size of the folder to avoid exhaustion of disk capacity.
## Bullet Network Camera

### Basic Setting
- **System**
- **Video / Image**
- **Audio**
- **PTZ**
- **User**
- **Network**
  - Services
  - Streaming
  - FTP/ES
  - DNS
  - UPnP
  - SMTP
  - SAMBA
  - Notification
  - Pub/Feed
- **Date / Time**
- **IP Filtering**
- **Storage**

### Samba Setting
- **Samba**
  - **Active**
    - Enable
    - Disable
  - **Samba Authentication**
    - Enable
    - Disable
  - **User Name**
  - **Password**
  - **Path (ex: //a/b/folder)**
  - **Recycle Record**
    - Enable
    - Disable
  - **Remaining SAMBA Capacity**
    - MB
  - **Shared Folder Size**
    - 0%
    - Used Space: 0MB  Free Spaces: 0MB
    - Save
    - Reset

### Application Setting
- **Event**
- **Recording List**
- **Motion Detection**
- **Lamp Detection**
- **Privacy Mask**
- **Firmware Upgrade**
- **Factory Default**
- **Reboot**
Notification

For a dynamic IP, you need to update the IP address every time when you connect to the camera via internet. This setting allows you to update the IP address by automatic notification of IP address change.

Select one of the following three notice options to update the IP address:

- **SMTP Notification**
  - SMTP Notification: notification via SMTP mail server
  - SMTP SendTo: the recipient, i.e. xxx@xxx.com
  - SMTP Subject: mail subject

- **FTP Notification**
  - FTP Server: FTP Server name.
  - FTP Port: FTP port. The default setting is 21 (recommended).
  - FTP Upload path: The path to upload files.
  - FTP Login name: The name to log in the FTP.
  - FTP Login Password: The password to log in the FTP.

- **HTTP Notification**
  - Server: The address of the server, i.e. http://.
  - Port: The port to access HTTP. The default setting is 80 (recommended).
  - Parameter: The setting of the parameters, refer to the installation setting of your HTTP server.

Refer to the installation setting of your HTTP server for the setting of the parameters (such as Username, Password, and Proxy).
Multicast

This function allows multiple people to watch video streaming without limited in the number of users, but is only applicable to the LAN environment. Video streaming format (H.264) is depended on the selected image format setting in Basic Setting → Video/Image → Video Format.

- **H264 (Main Stream)**
  It allowed multiple users to view the H.264 video stream free from limited in the number of users. However, this is only effective within the LAN.

- **H264 (Sub Stream)**
  It allowed multiple users to view the H.264 video stream free from limited in the number of users. However, this is only effective within the LAN.

- **Motion JPEG**
  It allowed multiple users to view the Motion JPEG video stream free from limited in the number of users. However, this is only effective within the LAN.

**NOTE**: Please refer to the chapter of Appendix: Multicast Application for different environment.
Date/Time

- Server Time (the date/time of the server)
- PC Time (the date/time of your PC)
- Time Setting (date/time setting)

It provides 3 ways for you to synchronize the time as below:

1. To synchronize the time from PC’s time:
   - To preset time synchronized for the camera from your PC time.

2. Get the time from an NTP server:
   - To synchronize the time from the NTP (Network Time Protocol)
     - Click **NTP** in the Time Setting.
     - Enter the IP address in the NTP server. (1~3)
     - Press the **SAVE** to apply it.
   
   Once the NTP time obtained, the Bullet Network Camera will updated the time.

   NOTE:
   - The default NTP servers as below:
     - NTP Server 1: 198.123.30.132
     - NTP Server 2: 192.43.244.18
     - NTP Server 3: 133.100.9.2

3. Change the time by manually:
   - Click **User Input** in the Time Setting.
   - Select the format of date to display, i.e. “yyyy/mm/dd” format.
   - Select the format of date to display, “hh:mm:ss” by 24 hours format.
   - Select the time zone.
   - Select **Adjust** to adjust the time.
IP Filter

The Bullet Network Camera provides you to allowed or deny the visitors from particular/target address by IP Filter Setting.

- **General**
  - IP Filtering: Enable/disable
  - Policy: Allow/deny

- **Filter IP Address (Overview of the setting for IPs)**
  - Add: Enter the IP address that you allowed or denied it.
  - Remove: Remove the IP address existed.
  - Remove All: Remove all of the IP address existed.

**Attention:**

Setting rules as below:

1. Actions that may cause a limited connection are to be denied.
2. Improper use of this function may cause disconnection from Internet. You might need to use hardware reset to reset to the factory default. Please refer to the “Factory Default” for details.
Storage

It is used to identify and monitor the status of the SD card. It shows the size of the SD card and how much free space is available for storage. It is also used to format SD cards for local storage.

- Follow the instructions to add events on SD card.
**Event Setting**

**General**

- **Name**: NewC

**Response to event trigger**

- **Always**
  - **During time**: Sun, Mon, Tue, Wed, Thu, Fri, Sat
  - **Start Time**: 00:00
  - **End Time**: 23:59

- **Never**

**Trigger by**

- **Alarm input**
- **Motion Detection**: Area 1, Area 2, Area 3
- **On boot**
- **Blind Detection**: Area 1, Area 2, Area 3
- **Net Loss**

**Response process**

- **Active alarm out**

- **Upload video/image to server**
  - **Save file name**: Default
  - **File format**: [H.264, [H.264 [H.264 [H.264]
  - **Add date/time suffix**
  - **Add sequence number suffix up to**

**Uploaded Video/Still Image**

- **FTP**
- **SMTP**
  - **To mail address**: 
  - **Subject**
  - **Include pre-trigger buffer**: 10 seconds
  - **Include post-trigger buffer**: 30 seconds
  - **Continue video upload**: 60 seconds

**Recording Storage Device**

- **Samba**
  - **Include pre-trigger buffer**: 10 seconds
  - **Include post-trigger buffer**: 30 seconds
  - **Continue video upload**: 60 seconds

---

**Bullet Network Camera**
Application Setting

The Application Setting menu lets you view the Application Setting for the Bullet Network Camera and change the following setting:

- **Event**
  - Event
  - Trigger
  - Event Server

**Motion Detection**

**Blind Detection**

**Privacy Mask**

**Firmware Upgrade**

**Factory Default**

**Reboot**

**Event**

The Bullet Network Camera is the equipment with intelligent security management function.

It ensures the security monitoring by authorized users to define the **Trigger Events** which is based on the particular times and situations, and set the respond to the event for the Camera.

It is proposed to avoid exceed in five to preview in **Event Seeing**.
Event

- **Event List**
  Add Event: Click **Add Event** to enter the **Trigger Event Setting**.

**NOTE:**
It can provide up to 10 event settings.
Add Schedule: Click **Add Schedule** to add a new schedule.

**NOTE:**
It can provide up to 10 schedule settings.
General:
Name: Name the trigger event.

Response to event trigger: Time setting for the trigger event
Always: Always monitoring
During time: Check the date you want to monitor (Sun.~Sat.) and the duration of monitoring. For example, if you want to set the camera to monitor from 7 pm after work to 7 am next morning from Monday to Friday, check the boxes from Monday to Friday, enter “19:00” in the “Start From” field, and enter “12:00” in the “Duration” field.
Never: Do not set the time.

Trigger by: Sources of trigger events (Note: You can set only one trigger event once.)
Alarm input: The alarm is triggered by the security equipment connected from the DI terminals behind the machine, such as door/window detectors, infrared sensors.
Motion Detection: The alarm is triggered when motion is detected. The camera will send an alarm when any objects appear in the set detection area.
On boot: The alarm is triggered by reboot. The camera will send an alarm when the system is rebooted due to power shortage, sabotage, or other reasons.
Blind Detection The alarm is triggered when blind area is detected. The camera will send an alarm when any objects appear in the set detection area.
Net Loss The alarm is triggered when the network is disconnected. The camera response process by the selection which you have set.

Response process: trigger event response (Note: Multiple selections are available)
Active alarm out: An event is detected by the security equipment connected from the DI terminal behind the machine, such as high-decibel alarms, light projectors. You can set the alarm duration in the “Duration” field.
Upload video/image to server: The camera will save the Motion JPEG of the event to the Upload Server (FTP/SMTP) or the Recording Storage Device (Samba).
  Include pre-trigger buffer: When an event is detected, the camera will record the previous video image up to 10 seconds.
  Include post-trigger buffer: When an event is detected, the camera will record the post video image up to 10 seconds.
  Continue video upload: When the event is continue, the camera will record the video image up to 10 seconds.
  For example: If the pre-trigger 5 seconds, post-trigger 5 seconds and continue video upload 5 seconds have been selected, the total file size will be 15 seconds.
The camera will save the capture photo of the event to the Upload Server (FTP/SMTP) or the Recording Storage Device (Samba).
Send HTTP notification: The alarm will be sent to the HTTP server you specified. To use this function, set the coordinative HTTP server in the Event Server setting page in advance.
Send TCP notification: The alarm will be sent to the TCP Server you specified. To use this function, set the coordinative TCP server in the Event Server setting page in advance.
Send NAP notification: The alarm will be sent to the NAP Server you specified. To use this function, set the coordinative NAP server in the Event Server setting page in advance.
Day Night Force the camera turn into Day/Night Mode when the trigger is detected.

NOTE:
The setting pages of Add Event and Add Schedule are the same. There is only one difference between them is the Add Schedule setting without the setting for Trigger by.
Delete: Delete the event cluster setting.
Modify: Modify the event cluster setting.
Trigger

Whenever the camera detected abnormal events during the scheduled time, it will respond by active trigger automatically.

There are 2 types for the trigger response: Alarm messages sending and emailing.

Recorded the image to the specify server.

Once you had completed this setting, you may requested to test by manually in this section to ensure all of the functions are working properly.

Normal Open has been set to the default status of the digital input pin, but you can change it to Normal Ground by setting in Setting > Application > Event > Trigger.

1. It will be Open status of the alarm input pin which is connected to external device when the alarm input has been set to Normal Open. Therefore, when the external device is triggered to close status, the alarm input pin will be triggered.

2. On the contrary, It will be Close status of the alarm input in which is connected to external device when the alarm input pin has been set to Normal Grounded. Therefore, when the external device is triggered to open status, the alarm input pin will be triggered.

NOTE:

Before you install the hardware for alarm I/O, please set up the Trigger Setting at first.

(Setting > Application Setting > Event > Trigger)
• **Alarm Input Setting**
  Set the alarm input type between N.O. (Normal Open) and N.G. (Normal Ground).
  The N.G. means N.C.

• **Trigger Alarm output:**
  Click **Trigger** to start the alarm.
  Click **Clear** to stop the alarm.
  (Please make sure before you click **Clear** for close the alarm testing when the trigger testing is done).

• **Trigger mail**
  After you enter the email address and subject in the field, click the **Set** to test the mail sending completely.

• **Trigger FTP**
  Click the **Set** to upload AVI files to FTP server to test completely.

• **HTTP Server**
  After you enter the message in the **Message** field, click the **Set** to upload the message to HTTP server to test completely.
  You can make custom parameters settings completely through **Application Setting > Event > Event Server**.

• **TCP Server**
  After you enter the message in the **Message** field, click the **Set** to upload the message to TCP server to test completely.

• **Trigger SAMBA**
  After you enter the Path in the field and click the **Set** to share the folder from your PC.
Event Servers (Upload Server)

You can make a setting to upload files to the server completely. Please make a setting for servers in the **Event Server Setting** by following setting:
- Event Server List -

**Add FTP** Enter the information of the FTP server you specified.
- **Name:** The name of the FTP
- **Network Address:** IP address of the FTP
- **Login:** Log-in name
- **Password:** Log-in password
- **Upload Path:** Uploading path
- **Port:** Port
- **Passive:** Check to set the FTP status as passive

**Add HTTP** Enter the information of the HTTP server you specified.
- **Name:** HTTP name
- **Network Address:** HTTP IP address
- **Login:** Log-in name
- **Password:** Log-in password
- **Proxy:** Proxy server name
- **Proxy Port:** Proxy server port
- **Proxy Login:** Proxy server log-in name
- **Proxy Password:** Proxy server log-in password

**Add TCP** Enter the information of the TCP server you specified.
- **Name:** TCP server name
- **Network Address:** TCP IP address
- **Port:** TCP port

**Add UDP** Enter the information of the UDP server you specified.
- **Name:** UDP server name
- **Network Address:** UDP IP address
- **Port:** UDP port

**Modify** Modifies the setting value

**Delete** Removes the setting value
Recording List

Use this setting to management the recording list.
Motion Detection

Click the **Area** to open the setting frame and the setting frame will show on your screen. You can adjust the frame size by move and drag the edge of the frame on the arrow of your mouse, after adjusted click the left button of your mouse.

- **Area:**
  There are 3 frames available for setting: Area 1, Area 2 and Area 3.
  Click **Area** to open the detectable area then click the signal checkbox to enable the function.

- **Detect Level:**
  There are 5 levels for you to adjust the area: Lower, Low, Mid, High and Highest.
Blind Detection

Blind Detection means that you can set the inside/outside area for detect. Blind Detection triggered if any object activity in the area that you have set.

Click the **Area** to open the setting frame and the setting frame will show on your screen. You can adjust the frame size by move and drag the edge of the frame on the arrow of your mouse, after adjusted click the left button of your mouse.

- **Area:**
  There are 3 frames available for setting: Area 1, Area 2 and Area 3.
  Click **Area** to open the detectable area then click the signal checkbox to enable the function.

- **Sensitive:**
  Adjust the Sensitive of the area by entering the degrees in the field of **Sensitive**. The setting range is **0~100**. 0 is the least sensitive and 100 is extremely sensitive.

- **Time threshold:**
  Adjust the stay time to detect the object in the area.
  The setting range is **0~100** seconds.
Privacy Mask

To ensure the confidential, the Bullet Network Camera provides the Privacy Mask for you to mask the image in the masked zone.

The following diagram illustrates how to set the Privacy Mask.

1. Click the **Area** to set the mask zone for you to open the setting frame and the setting frame will show on your screen.
   (There are 3 frames available for setting: Area 1, Area 2 and Area 3.)

2. Adjust the frame size by move and drag the edge of the frame on the arrow of your mouse, after adjusted click the left button of your mouse.

3. Selects the color for Privacy Mask by click the **Color block** in order to show the palette, move the arrow point and click on the color what you like.

4. After the setting is completed, click Save to apply it and the screen will refresh within a few second automatically.

   - **Color:**
     Click the black color to select the color from color-cord table, or input the color-cord to change the color.

   - **Area:**
     There are 3 frames available for setting: Area 1, Area 2 and Area 3.
     Click **Area** to open the detectable area then click the signal checkbox to enable the function.
Firmware upgrade

Contact with your dealer for more information about firmware upgrade. Please follow the steps below to upgrade the firmware.

⚠️ Attention: Important! Read Carefully!!

1. Please close all of the application that you are using on your PC.
2. Select **Firmware Upgrade** and the Firmware Upgrade Setting page will show on your screen.
3. Click **Browse** to select the location where the firmware file is.
4. Click **Submit** to upgrade the firmware immediately.

Select the location where the firmware file is.
5. The progressing status of the firmware upgrade will show on your screen.

6. The Bullet Network Camera reboots automatically after the firmware has been upgrade completed. Reconnect to the server after 60 seconds.
NOTE:
Please be careful and make sure there is no any interrupted during the process of the firmware upgrade because of the firmware is burned into the Flash Rom then.

System will probably damage seriously and need to rest to the factory default for repair it if the power cable has been removed or becomes loose during the upgrade.

It is not recommend you to upgrade the firmware in a wireless network environment because of the unstable packet transmission may conduce to data loss.

It is not necessary for you to restart the camera by manual after the firmware upgrade completed. The camera will reboot automatically after 60 seconds (Reboot OK), and it will open the IE Browser and filled in the IP address (The original IP address remains undeleted).
Factory Default

You can use this setting to reset the Bullet Network Camera to the factory default value without any changes. Including the IP address all of you have set will be invalid.

- Factory Default

**Resets all parameters, except the IP parameters:**
Use this setting to reset the Bullet Network Camera to the factory default value and all of the changes you have set will be invalid except the IP address and all of the settings which is relation to network will remain the valid. (Cable and wireless network setting are included)
Click the **Set** to start the factory reset and a warning pop-up window will appear to ask whether you really want to reset to the factory default value or not. Click **OK** to complete the reset.

**Resets all parameters:**
Use this setting to reset the Bullet Network Camera to the factory default value. All of the changes will be invalid. (IP address is included)
Click the **Set** to start the factory reset and a warning pop-up window will appear to ask whether you really want to reset to the factory default value or not. Click **OK** to complete the reset.
**Backup**

Use this setting to backup all of the changes you have set. Click **Backup** and a file download inquiry window will pop up. Back up the file named **param.bin**.

⚠️ **Attention:** Don't change the file name; otherwise, the backup may fail.
Restore backup parameters:

Use this setting to restore the changes that you have set. Click **Browse** to select a backup file and click **Submit** to confirm it.

Select a backup file to restore.
Reboot

Use the setting to reboot the camera automatically by click **Reboot**.
Appendix

Change the Internet Explorer Settings

Change the security setting of IE browser to allow the ActiveX Control be plug-in to the IE browser.

Please follow the steps as below:
1. Open the **IE browser** from Desktop or State Menu.

2. Select the **Tools → Internet Options → Security → Custom Level**

3. Select the bookmark of **Security** and click **Customer Level** to check the Security Level.

4. Make sure the security setting is **Medium**, and the commonly used default security level.

5. Click **OK** to save the parameter then quit the window. Please restart the IE Browser again.
Set up the Router setting with IP Camera

Use DHCP if you want to use the Bullet Network Camera via the Internet (LAN). However, the IP must be set to fixed when you want to use the camera on a WAN. For this application, it is required to set up the function of the virtual server on the ADSL router.

Please follow the steps as below to complete the setting:

1. Enter the camera setting page to set a fixed IP.
   (Refer to the **Network Setting**) Ex.: 192.168.0.49

2. Enter the ADSL router main setting page. Ex.: Zonet ADSL router

3. Enter the Virtual Server setting page.
   a. Set “mapping of **HTTP Port (80)** and **Definition Port (554)** to 192.168.0.49”.
   b. Restart ADSL router.

When the setting is completed, you can operate the camera from the WAN IP Address via the ADSL router.

**NOTE:**
The setting screen of the virtual server is not the same for all of the ADSL routers. Please refer to the manual of the ADSL router that you purchased for more information about the setting.
DDNS Application

How to apply and setup the DDNS service?

The DDNS (Dynamic DNS) is an application for network service. It can help you to solve the problem of dynamic IP change in network device. You can assign a name for favorable website to correspond with device IP address through DDNS. (e.g.: www.IP Camera.com and www.VideoServer.com).

After the setting is completed, you can connect the IP device through you have assigned the name.

Firstly, please apply for an account from a DDNS supplier. These DDNS suppliers provide some free services for the users on the world. This chapter will demonstrate a step by step method of how to set up a DDNS account, for the example we illustrate here is DynDNS. Please follow the illustration as below:

NOTE:
You can find some free DDNS suppliers on Internet. For example: DynDNS, No-IP and Oray.
1. Please enter the website address of “DynDNS” (http://www.dyndns.com/) through Browser.

2. Please click Create Account.
(Skip step 2~9 if you have an account with DynDns.org already.)

3. Please fill in all the required information in the table such as: Username, Password, Email and Security Image Number etc. When you have finished, please select Agree Box then click Create Account.
4. A confirmation letter will send to your mailbox after you click **Create Account**. Please acknowledge the confirmation letter by clicking on the link provided in the mail to continue with the steps.

5. You can login to DynDns.org, please input the username and password on main webpage. And click “Service” button to set up the DDNS function.
6. Please click Dynamic DNS then select Dynamic DNS Free service.

7. Click Get Started button to add the new Hostname.

8. Set up the Hostname and IP Address by yourself. You can enter your favorite domain name as your Hostname, and input correct IP address (e.g. the IP address need to input the real IP address from IP Camera, please see the NOTE illustration below). Finally, click Add Host to finish with the setting.
NOTE:
The IP almost appear after IP setting.
(PPPoE/DHCP/Fix IP). Click Setting > System > IP Address

9. After add new hostname, click **Next** to enter the next step.
(Note: as you are using **Dynamic DNS Free** service; so you can ignore the information of **Shopping Cart**.)

10. Please click Activate Services button to enable DDNS service.

11. The completion of the registration page is shown below. You can now use the DDNS service to your devices.
**How to check if the DDNS service is successful?**

1. If you can not connect the IP devices through the domain name, which you have set up, you can test the DDNS service on your PC.

2. Please open the “command mode” from “Start Menu”.
   - Start Menu > Program > Accessories > Command mode

3. Input the command: `c:\>ping (Your domain name e.g. www.IP Camera.com) [ENTER]`. If the command mode displays “Reply from ……….” On the screen, then your DDNS is working correctly.

4. If the command mode displays “timed out”. Then your DDNS is not working. Please double check your account information is entered correctly.

5. If the command mode displays “Ping request could not find host…”. Then you need to re-visit DDNS website to confirm all the required information is correctly filled in. Alternatively, you can set up another account with start
Mobile Application

Our Video server can support the 3GPP (RTSP) connection through the mobile phone. Please check your ISP to provide the mobile networking service which working on your mobile phone first. And modify the setting of Video server to enable the application. Please see the detail illustration as below:

NOTE:
The 3GPP, which meaning the compression format, is not the same 3G. You can use the 2.5G/3G to connect to Internet through ISP.

Step 1: Make sure the Video server is alive on Internet (WAN Environment)
Try to remote connect Video server via public IP. If you use the Router, please check the Port Setting of your camera and the Virtual Server Setting of Router.

Step 2: Check your Video server setting
Open the web browser then input the IP address from the video server. Input the user name & password to Login
Click the “Setting” on right-upper to enter the setting mode.

**Step3: Check the RTSP streaming setting H.264 Type**
Click “Video/Image” of Basic Setting → “Video” → Set up the sub streaming resolution (e.g. Please see the suggestion parameter as below picture) → Click **Save** to finish the setting.
Step 4: View limit Setting

According to the requirement, you can pass the live view limit. Please see the illustration as below.

- **With password**
  Don’t need to enable the “anonymous login” function, but you need to input the account information every login. The application can keep the video server privacy.
  e.g. Input rtsp://xxx.xxx.xxx.xxx:554/cam1/3gpp?user=root&pwd=root in mobile phone. The “-2” mean the sub stream.

- **Without password:**
  Enable anonymous login.
  Click the “**User**” of Basic Setting ➔
  Click the “**Enable**” from anonymous login of User Setting ➔
  Click the **Save** to finish the setting.

  e.g. Input rtsp://xxx.xxx.xxx.xxx:554/cam1/3gpp in mobile phone.
NOTE:
The video server can support 4 channels streaming to use it. Modify the cam number of URI link to change the channel. E.g. Channel 2: rtsp://xxx.xxx.xxx.xxx:554/cam2/h264-1

Step5: Try to connect Video server through the mobile phone
Check the mobile phone can support the streaming media player and internet service, and then see the example operation as below:

NOTE:
Suggest using the wireless solution. It can provide the highest network speed and save the mobile network cost.
**Symbain System**

**Example:** Nokia N71. Follow these steps to set up the viewing function

1. Enter multimedia data from the main screen.

2. Select a streaming link

3. Add a new link.
4. Enter the link name.

5. Enter the IP address of the camera
   e.g. (Without Password)
   rtsp://xxx.xxx.xxx.xxx:554/cam1/3gpp
   e.g. (With Password)

6. Select **OK** to save the setting.

   **NOTE:**
   Some mobile phone can only support the without password application

7. Select this stream name of bookmark to proceed with linking
8. Select “Yes” to connect.


10. Loading the image

11. Show the video stream on the mobile screen.

**NOTE:**
If the software cannot receive the stream from the video server, please try to check the Internet setting of software is correctly.
### iPhone System

**Example:** iPhone 3GS. Follow these steps to set up the viewing function

1. Download and install the free video streaming software through iPhone(App Store) or iTune. (e.g. iPhone(App Store))
2. Tap “App Store” icon to open the software

3. Tap “Search” icon then input the “Streamer” to search the software.
4. Tap “Streamer” to enter the download page.

5. Tap **FREE** button to change the selection.

6. Tap **INSTALL** to install the software.
7. Go back to the main screen then select Steamer icon to open the software.

8. Tap “Bookmarks” icon.

9. Tap “+” signal to add the bookmark.
10. **Input your URI link of the video server (e.g. rtsp://xxx.xxx.xxx.xxx/cam1/mpeg), and tap Save button to save the link.**

**NOTE:**

The software can only support the Without Password mode. The video server needs to set more in QVGA (320 x 240) resolution.

11. **Tap the link to connect to the video server.**
12. Show the video stream on the mobile screen

13. Tap the screen to display the detail information, and the APP can support the audio application.

**NOTE:**
If the software cannot receive the stream from the video server, please try to check the setting is correctly.
Support the Cellular / Mobile Phone List

Please suggest the list to buy the applicable cellular / Mobile Phone which to use.

<table>
<thead>
<tr>
<th>Brand</th>
<th>Type</th>
<th>Brand</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nokia</td>
<td>6630</td>
<td>Vibo</td>
<td>Win II</td>
</tr>
<tr>
<td></td>
<td>E61</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N70</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N73</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N82</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HTC</td>
<td>Touch Diamond2</td>
<td>iPhone</td>
<td>3G</td>
</tr>
<tr>
<td></td>
<td>Touch Viva</td>
<td></td>
<td>3GS</td>
</tr>
<tr>
<td></td>
<td>Touch Cruise</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Touch HD</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Touch 3G</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Magic</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hero</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:**
The application almost supports all cellular / mobile phone on the market. The list is the reference data for user.
Multicast Application

The Multicast function is a technique for one-to-many communication over an IP infrastructure in a network. The PC can be given the network package after login the account, so the function can use one network package to copy many packages to PCs. It allows multiple people to watch video streaming without limitation on the number of users, but is only applicable in the LAN environment. The function must need to combine with the application of IGMP service (e.g. Layer 3 Switch.).

The Regular Mode: (Through TCP/UDP/HTTP)

The Multicast Mode: (Through Multicast)

NOTE:
The function is not limit with the Layer 3 Switch, and you can also select the IGMP Server to use the application.
The function will display the different streaming mode from IP device. No matter how many modes to display, the content is the same setting to the user. There are three kinds of package type for User: Video, Audio and Event. Please see the detail setting as below:

**NOTE:**
The function can only enable one streaming to use the application.
**H264 (Main)**

The function has some limit parameter, so please follow our limit parameter to set up it. All restrictions exist in the rear of each option.

<table>
<thead>
<tr>
<th>Enable</th>
<th></th>
<th>On</th>
<th>Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video Address</td>
<td>224.1.1.1</td>
<td>(224.1.1.1 ~ 239.255.255.255)</td>
<td></td>
</tr>
<tr>
<td>Video Port</td>
<td>1234</td>
<td>(2~65534, Even)</td>
<td></td>
</tr>
<tr>
<td>Video TTL</td>
<td>5</td>
<td>(1~255)</td>
<td></td>
</tr>
<tr>
<td>Audio Address</td>
<td>224.1.1.1</td>
<td>(224.1.1.1 ~ 239.255.255.255)</td>
<td></td>
</tr>
<tr>
<td>Audio Port</td>
<td>1236</td>
<td>(2~65534, Even)</td>
<td></td>
</tr>
<tr>
<td>Audio TTL</td>
<td>5</td>
<td>(1~255)</td>
<td></td>
</tr>
<tr>
<td>Event Address</td>
<td>224.1.1.1</td>
<td>(224.1.1.1 ~ 239.255.255.255)</td>
<td></td>
</tr>
<tr>
<td>Event Port</td>
<td>1238</td>
<td>(2~65534, Even)</td>
<td></td>
</tr>
<tr>
<td>Event TTL</td>
<td>5</td>
<td>(1~255)</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE :**
Suggest using the default parameter to use the multicast function. Please make reference to the chapter of Basic Setting > Network > Multicast for further detailed description.

**Enable**
Click On or Off selection to enable or disable the function.

**Video Address**
Set up the IP address to transfer the Video package. The default setting is 224.1.1.1.

**Video Port**
Set up the Port to transfer the Video package. The default setting is 1234.

**Video TTL**
Set up the TTL time to transfer the Video package. The default setting is 5

**Audio Address**
Set up the IP address to transfer the Audio package. The default setting is 224.1.1.1

**Audio Port**
Set up the Port to transfer the Audio package. The default setting is 1236.

**Audio TTL**
Set up the TTL time to transfer the Audio package. The default setting is 5

**Event Address**
Set up the IP address to transfer the Event package. The default setting is 224.1.1.1

**Event Port**
Set up the Port to transfer the Event package. The default setting is 1238.

**Event TTL**
Set up the TTL time to transfer the Event package. The default setting is 5
H264 (Sub)

The setting is the same with the H264 (Sub).

---

<table>
<thead>
<tr>
<th>Enable</th>
<th>Off</th>
<th>On</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video Address</td>
<td>224.1.1.1</td>
<td>(224.1.1.1 - 239.255.255.255)</td>
</tr>
<tr>
<td>Video Port</td>
<td>1234</td>
<td>(2 - 65534, Even)</td>
</tr>
<tr>
<td>Video TTL</td>
<td>5</td>
<td>(1 - 255)</td>
</tr>
<tr>
<td>Audio Address</td>
<td>224.1.1.1</td>
<td>(224.1.1.1 - 239.255.255.255)</td>
</tr>
<tr>
<td>Audio Port</td>
<td>1236</td>
<td>(2 - 65534, Even)</td>
</tr>
<tr>
<td>Audio TTL</td>
<td>5</td>
<td>(1 - 255)</td>
</tr>
<tr>
<td>Event Address</td>
<td>224.1.1.1</td>
<td>(224.1.1.1 - 239.255.255.255)</td>
</tr>
<tr>
<td>Event Port</td>
<td>1238</td>
<td>(2 - 65534, Even)</td>
</tr>
<tr>
<td>Event TTL</td>
<td>5</td>
<td>(1 - 255)</td>
</tr>
</tbody>
</table>

**NOTE:**
Suggest using the default parameter to use the multicast function.
Please make reference to the chapter of Basic Setting > Network > Multicast for further detailed description.

- **Enable**
  Click On or Off selection to enable or disable the function.

- **Video Address**
  Set up the IP address to transfer the Video package. The default setting is 224.1.1.2.

- **Video Port**
  Set up the Port to transfer the Video package. The default setting is 1234.

- **Video TTL**
  Set up the TTL time to transfer the Video package. The default setting is 5.

- **Audio Address**
  Set up the IP address to transfer the Audio package. The default setting is 224.1.1.2.

- **Audio Port**
  Set up the Port to transfer the Audio package. The default setting is 1236.

- **Audio TTL**
  Set up the TTL time to transfer the Audio package. The default setting is 5.

- **Event Address**
  Set up the IP address to transfer the Event package. The default setting is 224.1.1.2.

- **Event Port**
  Set up the Port to transfer the Event package. The default setting is 1238.

- **Event TTL**
  Set up the TTL time to transfer the Event package. The default setting is 5.
**Motion JPEG**

The setting is the same with the MJPEG.

<table>
<thead>
<tr>
<th>Enable</th>
<th>On</th>
<th>Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video Address</td>
<td>224.1.1.1</td>
<td>224.1.1.1 - 239.255.255.255</td>
</tr>
<tr>
<td>Video Port</td>
<td>1234</td>
<td>2 - 65534, Even</td>
</tr>
<tr>
<td>Video TTL</td>
<td>5</td>
<td>1 - 255</td>
</tr>
<tr>
<td>Audio Address</td>
<td>224.1.1.1</td>
<td>224.1.1.1 - 239.255.255.255</td>
</tr>
<tr>
<td>Audio Port</td>
<td>1236</td>
<td>2 - 65534, Even</td>
</tr>
<tr>
<td>Audio TTL</td>
<td>5</td>
<td>1 - 255</td>
</tr>
<tr>
<td>Event Address</td>
<td>224.1.1.1</td>
<td>224.1.1.1 - 239.255.255.255</td>
</tr>
<tr>
<td>Event Port</td>
<td>1238</td>
<td>2 - 65534, Even</td>
</tr>
<tr>
<td>Event TTL</td>
<td>5</td>
<td>1 - 255</td>
</tr>
</tbody>
</table>

**NOTE**:
Suggest using the default parameter to use the multicast function. Please make reference to the chapter of Basic Setting > Network > Multicast for further detailed description.

**Enable**
Click On or Off selection to enable or disable the function.

**Video Address**
Set up the IP address to transfer the Video package. The default setting is 224.1.1.3

**Video Port**
Set up the Port to transfer the Video package. The default setting is 1234.

**Video TTL**
Set up the TTL time to transfer the Video package. The default setting is 5

**Audio Address**
Set up the IP address to transfer the Audio package. The default setting is 224.1.1.3

**Audio Port**
Set up the Port to transfer the Audio package. The default setting is 1236.

**Audio TTL**
Set up the TTL time to transfer the Audio package. The default setting is 5

**Event Address**
Set up the IP address to transfer the Event package. The default setting is 224.1.1.3

**Event Port**
Set up the Port to transfer the Event package. The default setting is 1238.

**Event TTL**
Set up the TTL time to transfer the Event package. The default setting is 5
Please see the detailed steps to **Set up the Multicast function** as below:

1. First, check the LAN environment has the device of IGMP service.

2. Enter the device then enable the service.

3. Login the video server then enter the Setting mode.

4. Click **Multicast** button from Network.

5. According to the requirement, select the streaming type to enable the function.
6. Click On button from Enable Selection to enable the Multicast function.

7. Go back the Live View Mode then click the pull-down menu of Streaming to select the Multicast

8. Wait a 5~10 sec to re-display the live image via Multicast

**NOTE:**
Please check the firewall and antivirus setting about IGMP to avoid the function fail.
## Troubleshooting and FAQs

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer and Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>What encoder and decoder are used by the camera for sounds and images?</td>
<td>The camera uses MJPEG or H264 compression technology to provide quality images. MJPEG is a standard image compression technology applicable to different browsers without the need to install additional software. H264 is a next-generation image compression standard and can provide high image quality at low bandwidth. The sound decoder uses PCM (Stereo, 16bit, 8kHz) compression technology.</td>
</tr>
<tr>
<td>How many users are allowed to view the camera simultaneously?</td>
<td>The maximum number of viewers depends on the bandwidth of the client accessing the camera. About 5~6Mbps are used to process data of the camera, so the maximum number of viewers changes in proportion to FPS and the resolution of the image. Obviously, the higher the number of viewers, the lower the performances at each client end.</td>
</tr>
<tr>
<td>Is it possible to catch the image from the camera in a real-time manner?</td>
<td>Yes, you can use the snapshot function from the main control page.</td>
</tr>
<tr>
<td>Can the camera be used outdoors?</td>
<td>The camera is not waterproof, so a special waterproof cover must be available for outdoor use. Please note that the waterproof cover may affect the built-in pickup function of the camera.</td>
</tr>
</tbody>
</table>
| Link LED does not light up.                                             | • Check that the attached standard transformer is not damaged. Plug the power cable and reboot the machine.  
• If the problem remains, contact your dealer for help.                                                                                                                                     |
| What network cable is used for the camera?                              | The camera uses a 10 or 100 Base-T Category 5 UTP network cable.                                                                                                                                                                                                                                                                                       |
| How to install and operate the camera behind a firewall?                | If you have a firewall in your network environment, please select HTTP mode (Port80). Generally the port 80 is always open for the browser to access the Internet.                                                                                                                                                                                                 |
| What are the username and password for the first use and after reset to factory default? | Username = root  
Password= root  
Please change your password immediately after entering the system to ensure information security.                                                                                                                                                                                                                                                  |
| I forgot the username and password I used for the setting. What should I do? | Please proceed as follows:  
1. Hold the Reset button for 4 seconds after booting to reset the password to preset.  
2. Change the username and the password.                                                                                                                                                                                                                                                  |
| I forgot the IP address of the camera. What should I do?               | Use IP Finder to locate the IP address of the camera. Please connect the camera and the PC on which the IP finder is executed to the same hub.                                                                                                                                                                                                               |
### IP Finder cannot find the camera.

- When the camera still can't be located over 1 minute, re-activate the camera.
- Do not connect the camera to more than one router. The IP Finder will not be able to detect the camera.
- If the IP of PC on which the IP Finder is executed is not correctly set, the IP Finder will not be able to locate the camera. Please confirm that the IP address has been properly set.
- The anti-virus applications on the PC or the firewall might block the IP Finder from execution. If you cannot execute the IP Finder, please disable your anti-virus applications or firewall.

### Internet Explorer does not display the camera screen correctly.

Please be sure that the version of your Internet Explorer is 6.0 or later. Should you have any difficulties, please log on the Microsoft website to update your browser.

### IP Finder cannot store network parameters.

- Do not use spaces. Use underline “_” or dash “-”.
- Your connection might have problems. Please ensure that the network parameters and the camera connection are correctly set.

### Access to Camera

- The IP address of the camera is possibly being used by another PC or device. Please disconnect the network cable from the camera and execute PING to confirm if the IP address has been used.
- It is possibly due to the network cable. Please use the cross-line network cable to connect the PC and the camera, and see if the log-in screen appears.
- Be sure that the network connection and the settings are properly configured.
- Be sure to enter correct IP address in the Internet Explorer. If you use dynamic IP address, the address might have been changed after your last check.
- Internet traffic might slow down the webpage access. Please wait.
- Be sure that you are using http port. The default setting is Port 80. It will be converted to the private camera IP address.
- The port assigned for your camera might not able to access the Internet. Contact your ISP to acquire a usable port.
- The proxy server might be blocking you from connecting to the camera. Do not set the proxy server.
- Please be sure that the default gateway address is correct.
- Your router might need Port conversion. Refer to the user manual of your router for details.
- The package filtering function of the router might have blocked the access to the external Internet. Refer to the user manual of your router for details.
- If you are using DDNS, please remember to set the default gateway and server address.
- If none of the procedures above is working, please reset to the factory default values and re-install.
- If the problem still persists, there might be some problems with the product. Contact the dealer who sold you the product for more help.

---

**N6074 Indoor / Var-Focal Lens**
**N6075 Indoor / Fixed Lens**
**N6076 Outdoor / Var-Focal Lens**
**N6077 Outdoor / Fixed Lens**
### No image appears on the main control screen.

- When using PC to connect to the camera for the first time, a security warning window will tell you that you need to download the ActiveX control. When you are using Windows 2000 or Windows XP, you might need a properly authorized user account to install the application.
- Network traffic might slow down the video streams. If the video is extremely slow, select a lower resolution for a lower bandwidth requirement.

### Check whether the Active X control of the camera has been installed in your computer.

Select C:\Windows\Downloaded Program Files to check if the file "Media Viewer Class" is registered. The status bar should indicate the file has been installed. If you do not see this file, be sure that your Internet Explorer security is properly set (the default value is moderate). Re-connect to the camera main page and download the file again. Incomplete download or installation of the camera ActiveX control is the major reason for this problem. Check the security setting of your Internet Explorer. Close and re-open Internet Explorer, and enter the main page to see if you can log in.

### Internet Explorer displays the following message:

Downloading the ActiveX control is prohibited under the current security setting.

Change the IE security setting to allow downloading unsigned ActiveX control.

- IE→Tools→Internet Options→Security→Custom Level. Change "Inactive" to "Tips" for the ActiveX control if required.

### The camera can operate only in the LAN rather than in the Internet environment.

- A firewall mechanism might have been activated. Check the setting of your system or ask your network administrator. To access the camera from the Internet, you may need to change the setting of the firewall.
- Make sure that your camera does not conflict with other servers on the same LAN.
- Check the router and make sure that its setting allows it to access your camera from the Internet.

### The number of frames transmitted is less than the defined value.

- Congestion of the network or objects of the image may affect the number of frames transmitted. The number of frames may be less than the defined value when they are transmitted via a congested network.
- The number of frames transmitted may become less when multiple users are viewing the video stream.
- The network hub might be another reason for this problem, especially when multiple camera video streams are viewed simultaneously.

### When the audit function is activated, the video streaming area becomes black or the transmission becomes slower.

- When you connect your PC to the camera, no sufficient bandwidth is available to support more frames with the current resolution of video streams. Reduce the resolution to QCIF(176x144) or CIF (320x240) and deactivate the audio function.
- The audio signal needs 32 to 64 kbps of your bandwidth. You can deactivate the audio function to improve the image quality. Your Internet service may have not sufficient bandwidth to support audio transmission.

### Images cannot be transmitted via e-mail or FTP.

- Make sure the IP address of the gateway and domain server (DNS) had been defined correctly.
- Where FTP still fails, contact your ISP or network administrator to check the FTP server.

### I can't control the camera to move up, down, right, left or to the center or preset point.

- When communication to the camera stops, click "Refresh" on your IE browser to refresh the transmission.
- It might be that other users are controlling the movement of the camera.
- The horizontal/vertical movement of the camera has reached its limit.
- The horizontal/vertical remote control option of the camera might have been deselected.
<table>
<thead>
<tr>
<th>Issue</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can't control the camera to move up, down, right, or left smoothly.</td>
<td>Delay might occur when you are accessing a video stream and remotely moving the camera horizontally. Where significant delay is identified when you move the camera horizontally or vertically deactivate the audio streams and/or reduce the size of the video stream...</td>
</tr>
</tbody>
</table>
| Camera has a problem focusing.                                       | • The lens might be contaminated with dust, fingerprints, or other dirt. Use a special cleaning cloth to clean the lens or adjust the focus manually.  
  • Focusing might be impossible in some cases. If the object is too close to the lens, move it away from your camera. |
| Color of the video stream is too deep or light.                      | • Please confirm that the image you are watching has the best quality. Adjust the setting of your display card (color quality) to at least 16 bits (24 bits or more are recommended).  
  • Incorrect camera video setting. You may need to adjust some parameters, such as brightness, contrast, color, and saturation. |
| Video stream flashes.                                                | • Incorrect power cord frequency may cause flashing of the image. Confirm that your camera uses NTSC or PAL system.  
  • The image flashes if the objects are black. In this case, adjust the illumination brighter around your camera. |
| This is noise problem during transmission of the image.             | Noise may be produced if you install your camera at a very dark place. Adjust the illumination around your camera. |
| Others                                                               |                                                                                                                                 |
| How to reboot my camera?                                             | If you only need to re-boot the system and don’t want to change any setting, enter the Setting page and select the Reboot option at the bottom of the screen. The system will reboot automatically. |
| I can't replay recorded files.                                      | Confirm that you have installed Microsoft®’s DirectX 9.0 or above and use Windows Media Player 9 or above. |