



**NEXCOM International Co., Ltd.**

# **Intelligent Digital Security**

## **IP Camera**

### **NCr-661-VHA and NCr-662-VHA**

#### **User Manual**

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# PREFACE

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## Disclaimer

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## Acknowledgements

NCr-661-VHA and NCr-662-VHA are trademarks of NEXCOM International Co., Ltd. All other product names mentioned herein are registered trademarks of their respective owners.

## Safety Information

Before installing and using the device, note the following precautions:

- Read all instructions carefully.
- Follow all warnings and cautions in this manual.
- Do not place the unit on an unstable surface, cart, or stand.
- Do not use the camera in extreme temperature conditions. Please use the camera within 0°C to 40°C. Air vent is required at high temperature.
- Do not use or store the camera in humid environment. It may cause poor image quality.
- Do not use the camera in unstable lighting conditions. Inconsistent lighting or flickering may cause poor image.
- Never use the camera close to gas or oil leak. It may not operate properly.
- Do not disassemble the camera. There is no user serviceable part inside.
- Do not drop the camera or apply force on it. It may cause a malfunction.
- Avoid using the system near water, in direct sunlight, or near a heating device.
- Never face the camera to strong light for long periods of time. It may damage the sensor.

## RoHS Compliance



### **NEXCOM RoHS Environmental Policy and Status Update**

NEXCOM is a global citizen for building the digital infrastructure. We are committed to providing green products and services, which are compliant with European Union RoHS (Restriction on Use of Hazardous Substance in Electronic Equipment) directive 2011/65/EU, to be your trusted green partner and to protect our environment.

RoHS restricts the use of Lead (Pb) < 0.1% or 1,000ppm, Mercury (Hg) < 0.1% or 1,000ppm, Cadmium (Cd) < 0.01% or 100ppm, Hexavalent Chromium (Cr6+) < 0.1% or 1,000ppm, Polybrominated biphenyls (PBB) < 0.1% or 1,000ppm, and Polybrominated diphenyl Ethers (PBDE) < 0.1% or 1,000ppm.

In order to meet the RoHS compliant directives, NEXCOM has established an engineering and manufacturing task force to implement the introduction of green products. The task force will ensure that we follow the standard NEXCOM development procedure and that all the new RoHS components and new manufacturing processes maintain the highest industry quality levels for which NEXCOM are renowned.

The model selection criteria will be based on market demand. Vendors and suppliers will ensure that all designed components will be RoHS compliant.

### **How to recognize NEXCOM RoHS Products?**

For existing products where there are non-RoHS and RoHS versions, the suffix "(LF)" will be added to the compliant product name.

All new product models launched after January 2013 will be RoHS compliant. They will use the usual NEXCOM naming convention.

## Installation Recommendations

Ensure you have a stable, clean working environment. Dust and dirt can get into components and cause a malfunction. Use containers to keep small components separated.

Adequate lighting and proper tools can prevent you from accidentally damaging the internal components. Most of the procedures that follow require only a few simple tools, including the following:

- A Philips screwdriver
- A flat-tipped screwdriver
- A grounding strap
- An anti-static pad

Using your fingers can disconnect most of the connections. It is recommended that you do not use needle-nose pliers to disconnect connections as these can damage the soft metal or plastic parts of the connectors.

## Technical Support and Assistance

1. For the most updated information of NEXCOM products, visit NEXCOM's website at [www.nexcom.com](http://www.nexcom.com).
2. For technical issues that require contacting our technical support team or sales representative, please have the following information ready before calling:
  - Product name and serial number
  - Detailed information of the peripheral devices
  - Detailed information of the installed software (operating system, version, application software, etc.)
  - A complete description of the problem
  - The exact wordings of the error messages

### Warning!

1. Handling the unit: carry the unit with both hands and handle it with care.
2. Maintenance: to keep the unit clean, use only approved cleaning products or clean with a dry cloth.

## Conventions Used in this Manual



**Warning:**  
Information about certain situations, which if not observed, can cause personal injury. This will prevent injury to yourself when performing a task.



**Caution:**  
Information to avoid damaging components or losing data.



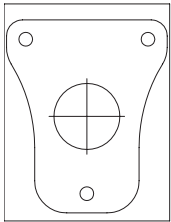
**Note:**  
Provides additional information to complete a task easily.



## Package Contents

The NCr-661-VHA and NCr-662-VHA package contain the following accessories:

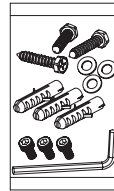
Name	Quantity
Placement sticker	1
Quick installation guide	1
Mounting accessory kit	1
Waterproof connector	1
3-axis cable concealed wall mount bracket	1
Dehumidifier packet	1
Wall mount base	1



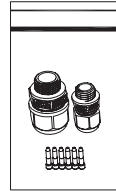
Placement sticker



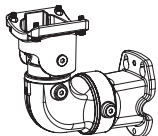
Quick installation  
guide



Mounting accessory  
kit



Waterproof  
connector



3-axis cable concealed  
wall mount bracket



Dehumidifier  
packet



Wall mount  
base

# CHAPTER 1: PRODUCT INTRODUCTION

## Overview



## Key Features

- 30fps@5MP
- Smart LPR Modes
- Capture Plate Distance 6M~10M
- Car Speed 50km/h max. (For NCr-661-VHA)
- Car Speed 100km/h max. (For NCr-662-VHA)
- Advanced P-Iris
- 110 dB True WDR

## Hardware Specifications

### Camera

- Image sensor: 1/1.8" 6MP True WDR progressive scan CMOS sensor
- Minimum Illumination: B/W 0 lux/Color 0.1 lux
- Lens: Motorized lens
  - 3.6-10mm, F1.5 for NCr-661-VHA
  - 12-40mm, F2.1 for NCr-662-VHA
- Field of View (NCr-661-VHA):
  - Horizontal: 11°~33°
  - Vertical: 8°~25°
  - Diagonal: 14°~43°
- Field of View (NCr-662-VHA):
  - Horizontal: 40°~96°
  - Vertical: 30°~75°
  - Diagonal: 52°~119°
- Iris type: P-iris
- Day and night: Yes (True D/N)
- IR distance:
  - up to 30m (20ft ~ 33ft) for NCr-661-VHA
  - up to 50m (33ft ~ 66ft) for NCr-662-VHA
- Capture distance:
  - 6m ~ 10m (20ft ~ 33ft) for NCr-661-VHA
  - 10m ~ 20m (33ft ~ 66ft) for NCr-662-VHA
- IR wavelength: 850nm
- ICR: Yes
- WDR: Yes (True WDR)
- Image Enhancement
  - Brightness, Contrast, Saturation, Sharpness, Hue, Rotation, Flip, Day/Night, Anti-flicker, AWB, BLC, Corridor

### Video

- Frame rate:
  - 2048 x 1536 @ 30fps
  - 1920 x 1080 @ 30fps
  - 1280 x 720 @ 30fps
  - 640 x 480 @ 30fps
  - 640 x 360 @ 30fps
  - 320 x 240 @ 30fps
- Video compression: H.264++/M-JPEG
- Video streaming: Triple streaming
- Video quality: VBR/CBR

### Audio

- Audio streaming: Two-way
- Audio compression: G.711 8KHz/ 16-bit
- Audio input: Line-in
- Audio output: Line-out

### Network

- Interface: 10/100/1000 Mbps Ethernet, RJ-45
- Supported protocols: HTTP, TCP/IP, UDP, RTP, RTSP, FTP, SMTP, DHCP, DNS, DDNS, NTP, uPnP, ONVIF, IPv4/v6, SNMP, HTTPS
- Browser: Internet Explorer, Chrome, Firefox, Safari
- Security: Multi-level passwords/ HTTP encryption

### I/O Connector

- Audio in/ out port: 3.5mm phone jack x1
- D I/O: DI x1, DO x1
- RS485: N/A
- Micro SD slot: Yes, SD card slot x1
- RJ45: Yes

## Event Management

- Event trigger: Alarm, Motion detection, DI, Sabotage
- Notifications: Trigger alarm output, email/FTP and record Snapshot/Video to Network storage or SD card
- Post-recording: Yes
- Pre-recording: Yes

## Power

- DC: DC 12V/AC 24V terminal block
- PoE: Yes/IEEE 802.3at (PoE+)

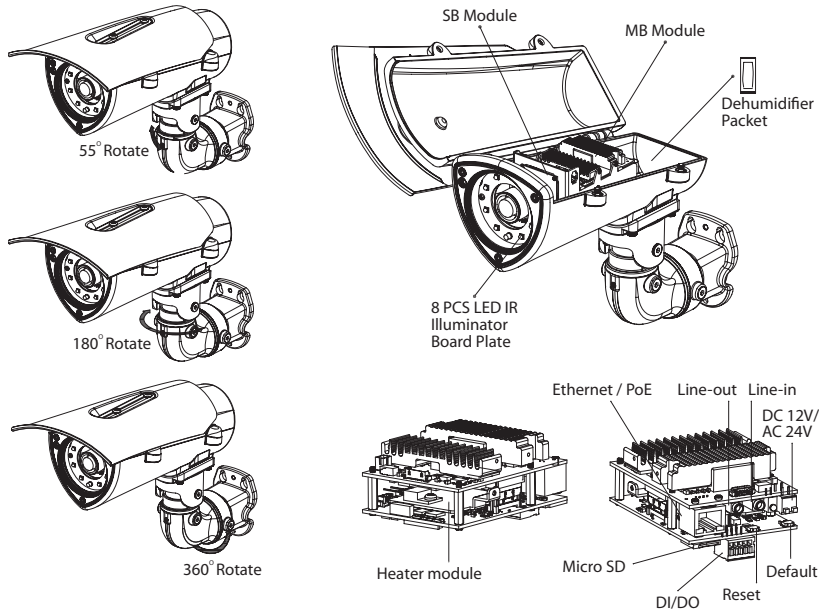
## General

- Power consumption: 18W max.
- Weight: 3kg
- Dimension: 406.2mm (D) x 161mm (W) x 263.3mm (H)
- Operating Temp.: -40°C~60°C / -40°F~140°F
- Humidity: 90% RH (no condensation)
- Certification: CE/FCC
- Vandal resistant: IK10
- Outdoor capable: IP66/IP67
- Application: SDK available for application development

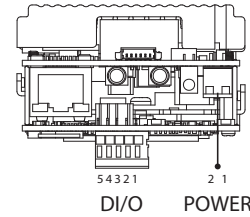
## Packaging Information

- NWT: 3kg
- GWT: 3.1kg
- Dimension: 311mm (D) x 286mm (W) x 178mm (H)

## DI/O & Function Description



## DI/O Pin Definition & Waterproof Connector Description

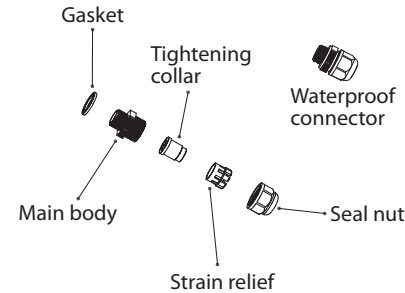


### DI/O

Pin	Description
1	ALM_IN (+)
2	ALM_IN (-)
3	ALM_out_NC
4	ALM_out_COM
5	ALM_out_NO

### Power

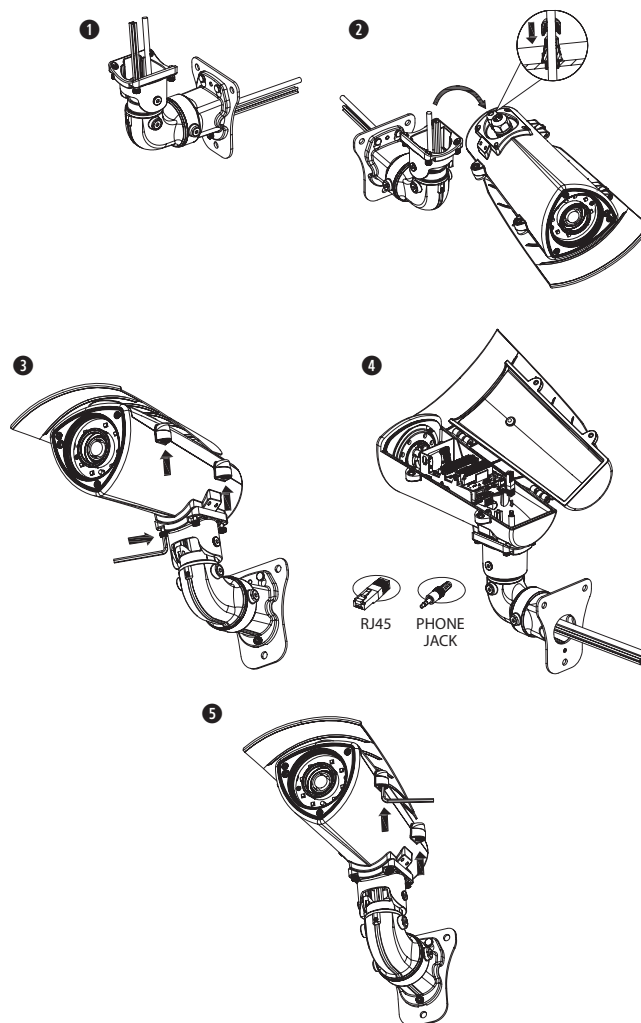
Pin	Description
1	AC24V/DC 12V (+)
2	AC24V/DC 12V (-)



## Cable Wiring Description

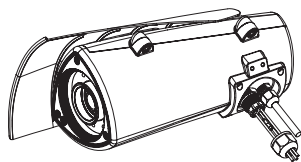
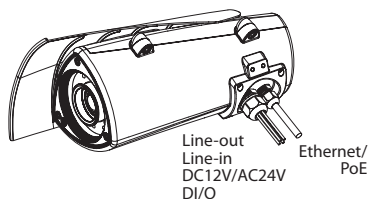
### Cable Installation Steps:

1. Run the cable inside the wall mount bracket and out through the cable opening at the front.
2. Wire the network cables to the waterproof connector on the right, and wire the line-in, line-out, DC 12V/AV 24V, DI/DO and other cables to the waterproof connector on the left. Tighten the waterproof connector after all the cables are secured in place.
3. Secure the camera onto the wall mount bracket using the four screws provided. Unscrew the 2 screws on the camera's top cover at the side in preparation for the next step.
4. Open the camera's top cover to access the wired cables. Install the RJ45 connector to the Ethernet cable and plug it into the corresponding port on the MB module.
5. Close the camera's top cover and secure it with the supplied hardware tool to complete.



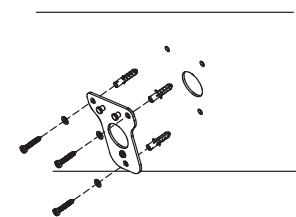
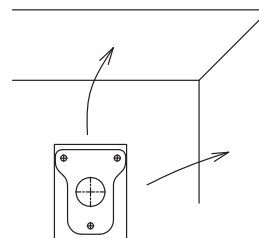
## Cable Outlet Description

1. The camera features two waterproof connectors, the right one in the diagram is for PoE connection, while the left one is for line-in, line-out, DC 12V/AC 24V and D/I/O connections.
2. The left one features four wire holes. Please cover unused holes with sealing plugs to prevent water from entering.
3. Applicable cable diameter:
  - \*  $\varnothing$  1.8~2.5mm (Left)
  - \*  $\varnothing$  4.7~6.9mm (Right)

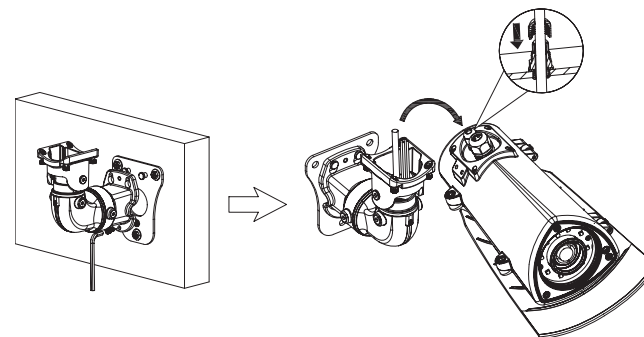


## Hardware Installation

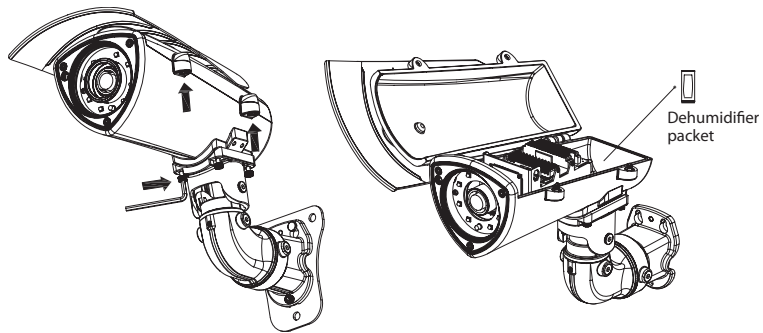
1. Position the placement sticker at the desired installation location and use a driller to drill the holes on the sticker.
2. Insert three screw anchors into the holes then place the wall mount base on top of them with the mounting holes aligned.



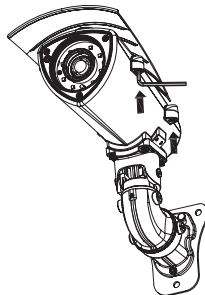
3. Wire the required cables through the cable opening on the front of the wall mount bracket. Then, attach and secure the wall mount bracket to the wall mount plate with two M5 screws. Next, install the waterproof connectors onto the cables on the front of the wall mount bracket.



- Secure the camera to the wall mount bracket with the four screws and hex wrench. Open the camera's cover and connect the cables to their corresponding ports on the MB module. Then, glue the dehumidifier packet onto the metal bracket using the adhesive sticker on its back, as depicted in the diagram below. Quickly close the camera's cover and ensure the clip is locked in position to prevent the dehumidifier packet from losing its effectiveness.

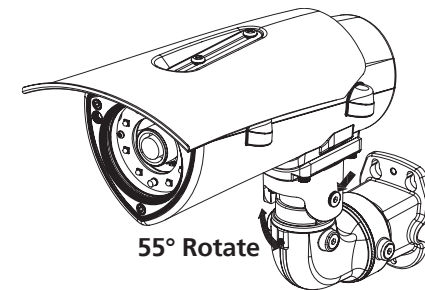


- Secure the top cover to finish the installation.

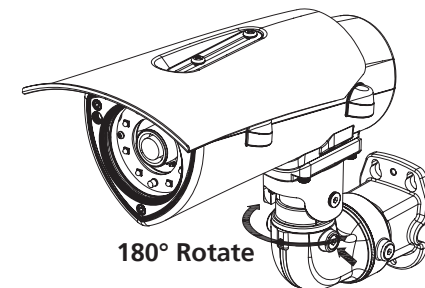


## 3-axis Angle Adjustment

- The vertical tilt angle of the camera can be adjusted up or down within an angle of 55°. Loosen the left and right screws depicted below to adjust the vertical tilt angle and then tighten the screws after finishing the adjustment.

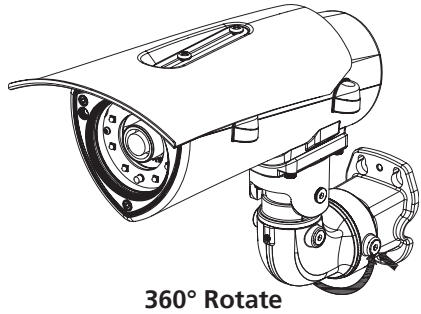


- The horizontal tilt angle of the camera can be adjusted left or right within an angle of 180°. Loosen the left and right screws depicted below to adjust the horizontal tilt angle and then tighten the screws after finishing the adjustment.





- The rotatable axis can be rotated in 360°. Loosen the left and right screws depicted below to adjust the 360-degree position and then tighten the screws after finishing the adjustment.



**360° Rotate**

## Recommended Installation Guideline For License Plate Capture

The ANPR/LPR camera series are specially designed to capture high-quality images of vehicle license plates. They are able to overcome varied light conditions and capture license plates clearly without overexposure. They are ideal for monitoring parking lots and public areas (city surveillance), and for controlling vehicle access in vehicle identification and license plate recognition applications.

The following recommended installation guideline would be helpful to attain an optimized image result.

### Angle

The maximum mounting angle of an ANPR/LPR camera to a vehicle is 40 degrees for both horizontal and vertical views.

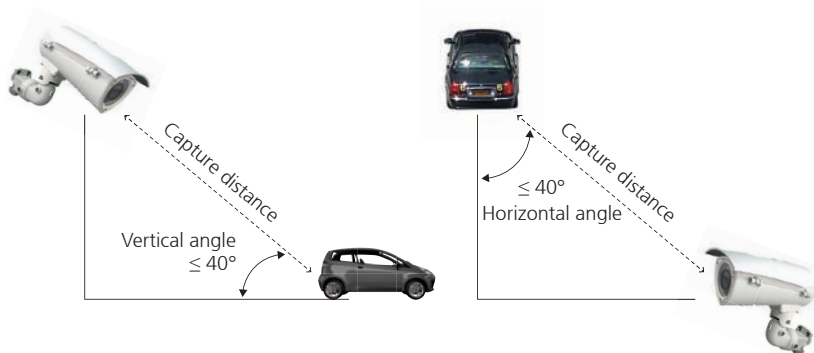


Figure 1. Recommended Vertical and Horizontal Mounting Angles

## License Plate Capture Distance and Vehicle Speed

Each model in the ANPR/LPR camera series has a recommended license plate capture distance and the relative vehicle speed as shown in the table below.

Range	License Plate Capture Distance	Vehicle Speed
Short Range	6m~10m (20ft ~ 33ft)	50km/h (31mph) max.
Mid Range	10m~20m (33ft ~ 66ft)	100km/h (62mph) max.



### Note:

If the actual installation distance is over 20m (66ft), please consider to add an external IR illuminator as an auxiliary tool to enhance IR light.

## CHAPTER 2: CAMERA CONFIGURATION

### Accessing the Camera's Configuration Menu (Graphical User Interface)

The camera's default IP address is 192.168.1.168, make sure the IP address of the computer accessing the camera is on the same network subnet before proceeding.

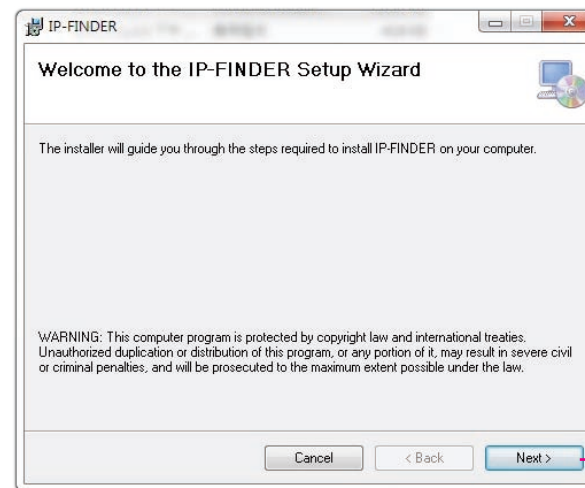
You can access the camera via a **web browser** or **IP-FINDER** software. The following information outlines the instructions for each method.

### Installing IP-FINDER Software



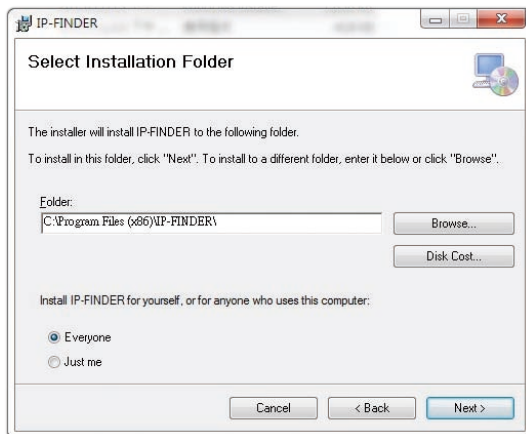
Note: If **IP-FINDER** is already installed, you can skip this section and continue to the next section **IP-FINDER** on page 12.

1. Download the **IP-Finder** installer file.
2. Unzip the IP-FINDER file to a location on the hard drive.
3. Once unzipped, double click on the setup file to start the installation program.
4. Click the **Next** button on the welcome screen to continue.

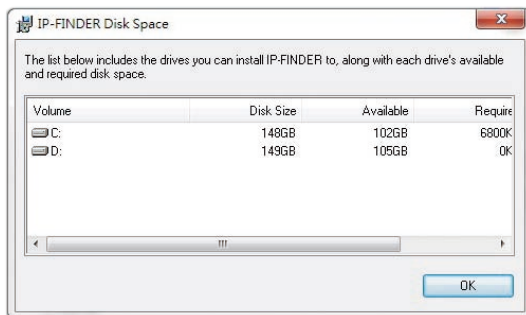


Next button

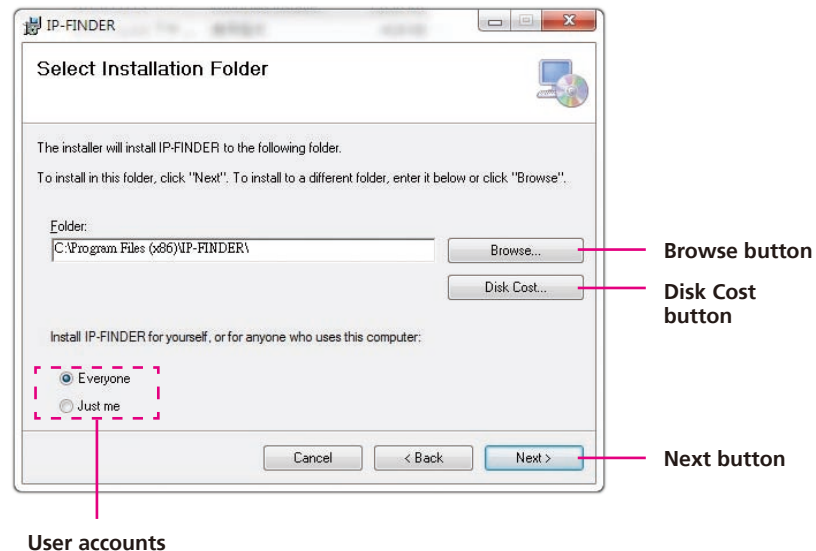
5. Confirm the directory that the program will be installed on. To specify a different folder, please click on the **Browse** button and locate the desired installation folder.



6. To check the available drives you can install the software to and their available and required disk space, please click on the **Disk Cost** button.

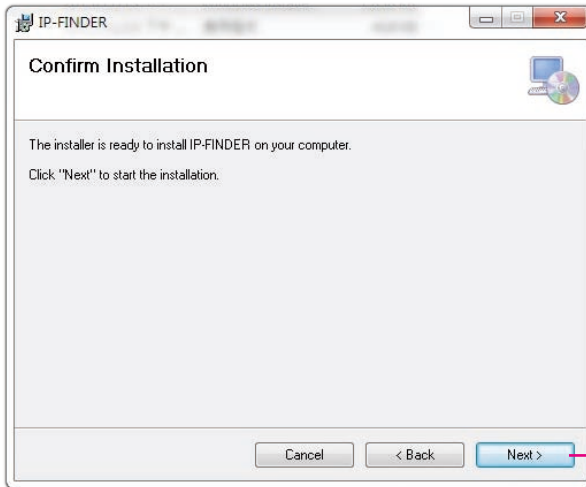


7. Specify which user accounts on the computer can access the program, the options are **Everyone** and **Just me**.



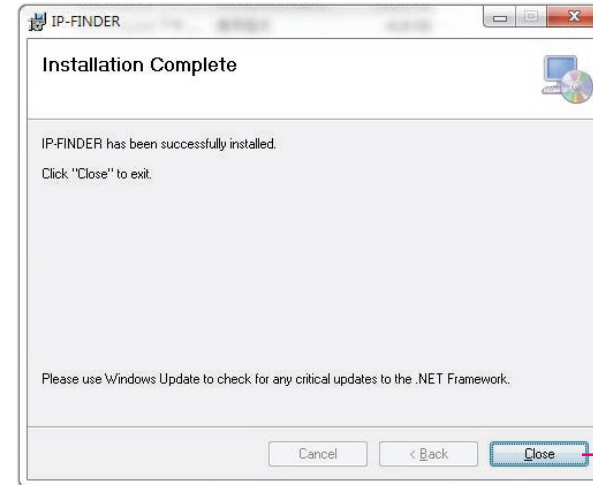
8. Click on the **Next** button to continue.

9. Click on the **Next** button to begin installation.



Next button

10. Once the installation process is complete, click on the **Close** button to finish. A shortcut will be created on the desktop.



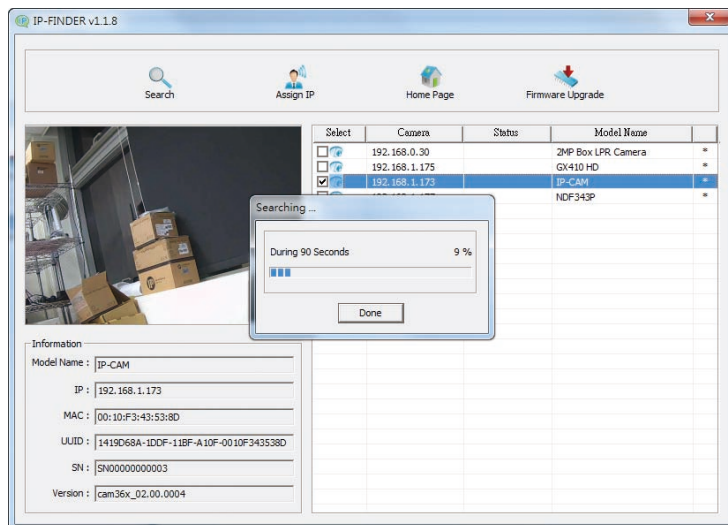
Close button

## IP-FINDER

1. Locate and open the **IP-FINDER** software shortcut on the desktop.



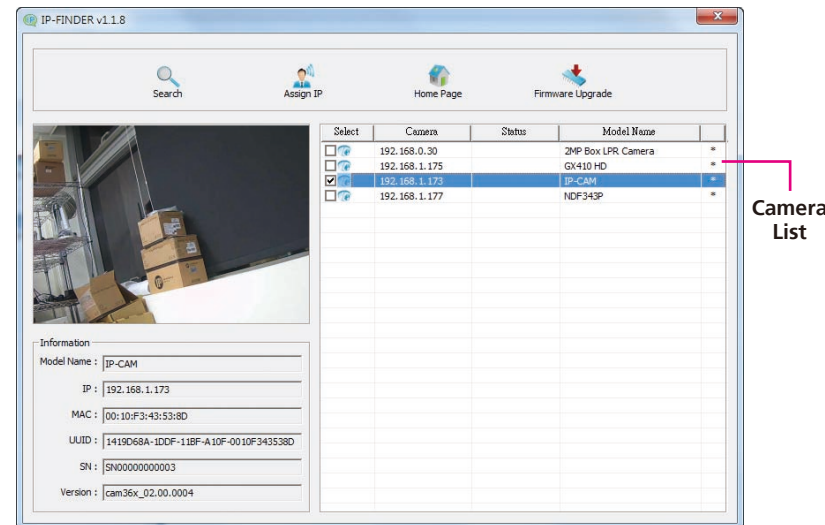
2. When the program is launched, it will begin searching the network for IP cameras automatically (the search will last for up to 90 seconds). You can also manually search cameras by clicking on the **Search** button.



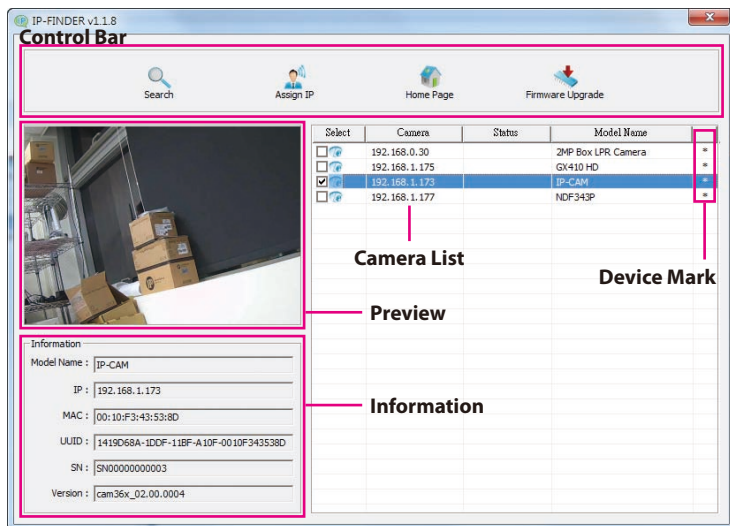
3. Once the camera is discovered, it will show the following information:

- Model Name
- IP address
- MAC address
- UUID
- Serial Number
- Version

4. You can access the menu by double clicking the camera's **IP address** under **Camera List**. The IE will be opened automatically.



## Introduction to the IP-FINDER User Interface



UI Block	Description
Control Bar	Contains <b>[Search]</b> , <b>[Assign IP]</b> , <b>[Home Page]</b> and <b>[Firmware Upgrade]</b> buttons.
Preview	Displays the selected camera image.
Information	Displays the selected camera information such as <b>Model Name</b> , <b>IP</b> , <b>MAC</b> , <b>UUID</b> , <b>SN</b> and <b>Version</b> .
Camera List	Lists the cameras discovered by the search function. Each camera shows the " <b>IP</b> ", " <b>Status</b> ", " <b>Model Name</b> " and " <b>Device Mark</b> ". Users can also click the column headers to sort the list.
Device Mark	Asterisk sign indicates that this device has " <b>Preview</b> ", " <b>Assign IP</b> " and " <b>Firmware Upgrade</b> " functions.

## Button Functions

Function	Button	Description
Search		Discovers IP cameras available on the network.
Assign IP		Changes the IP address of the camera.
Home Page		Opens the web browser to the home page of the camera.
Firmware Upgrade		Upgrades the camera firmware.

### Search

When the **[Search]** button is clicked, the application will start searching cameras on the network. To stop searching, click the **[Done]** button.

### Assign IP

When the **[Assign IP]** button is clicked, a pop-up window "IP Address Configuration" will appear, providing options to use DHCP or static IP address.

### Home Page

To view the home page of a particular camera, double click on the camera in the list, the web browser will open and redirect to the home page. To access the home page of two or more cameras, tick the box of the cameras you wish to view and click on the **[Home Page]** button.

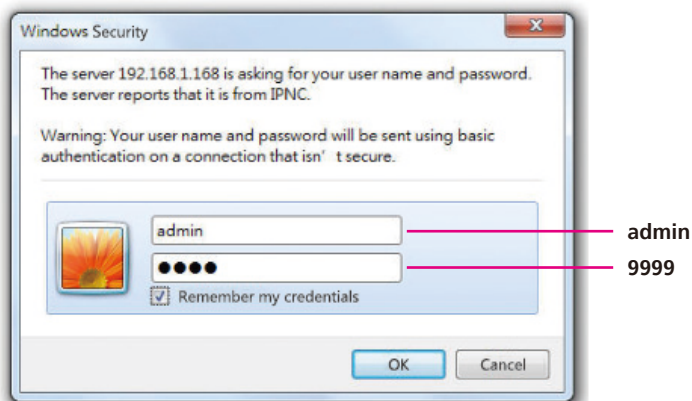
### Firmware Upgrade

To update the camera firmware, tick the box of the cameras you wish to update and click on the **[Firmware Upgrade]** button. Follow the on-screen prompts to complete the upgrade. If the camera does not support firmware upgrade, a pop-up window will be displayed.

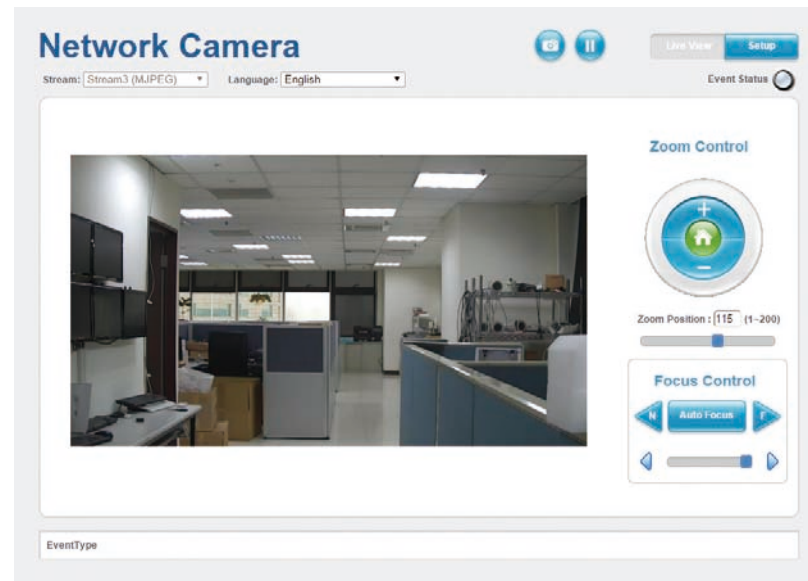
**NOTE:** Different IP camera models use different firmwares, **please do NOT update the firmware of different models using the same firmware.**

## Web Browser

1. Locate and open one of the web browsers (such as Internet Explorer, Chrome, Firefox, etc.) shortcut on the desktop.
2. In the address bar, type 192.168.1.168 (default IP address of the camera) and then press the **Enter** button.
3. You will be prompted with a pop-up window asking for login information, type in **“admin”** (default login name) and **“9999”** (default password)
4. Once logged in, you will see the main screen.

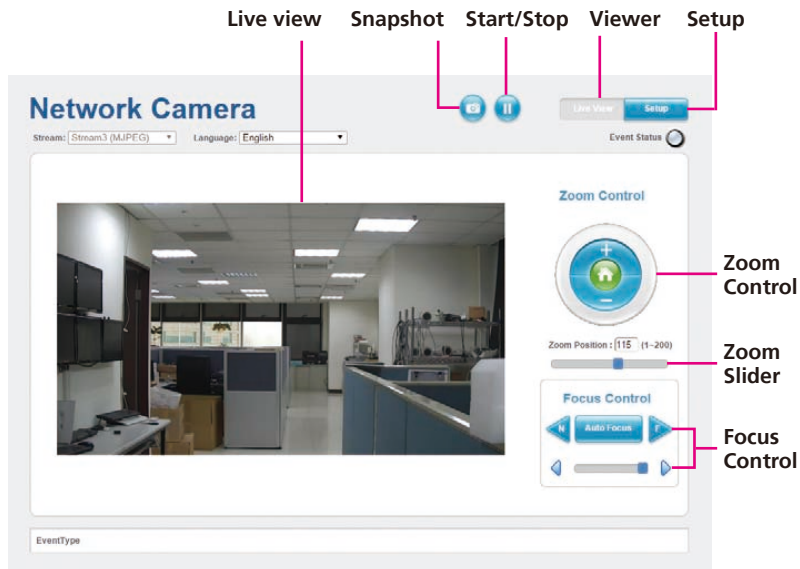


5. If no video is displayed on the screen, please make sure you have VLC Media Player installed on the computer. If not, please download and install it first, then you can see the video from the web browser.



Note: The recommended browsers to use are Internet Explorer, Safari, Firefox and Chrome. However, Chrome only supports the viewing of the web **Setup** menu; **Live View** of the video stream is not supported.





### Snapshot

Takes an image snapshot from the camera, you will be prompted to store the image file onto the computer's hard drive.

### Start/Stop

Press to stop the live video, press again to restart.

### Viewer

Views the live video of the camera.

### Setup

Options for configuring the IP camera.

## Motorized Lens

### Zoom Control

Buttons used to control zooming function.

Button	Description
	Returns the camera back to default position.
	Adjusts the camera to zoom in or out.

### Zoom Position

Adjusts the camera's zoom level. Move the zoom slider bar left or right to adjust the zoom level. The value of the zoom position will be reflected in the text field. However, the zoom position cannot be manually entered in the text field.

### Focus Control

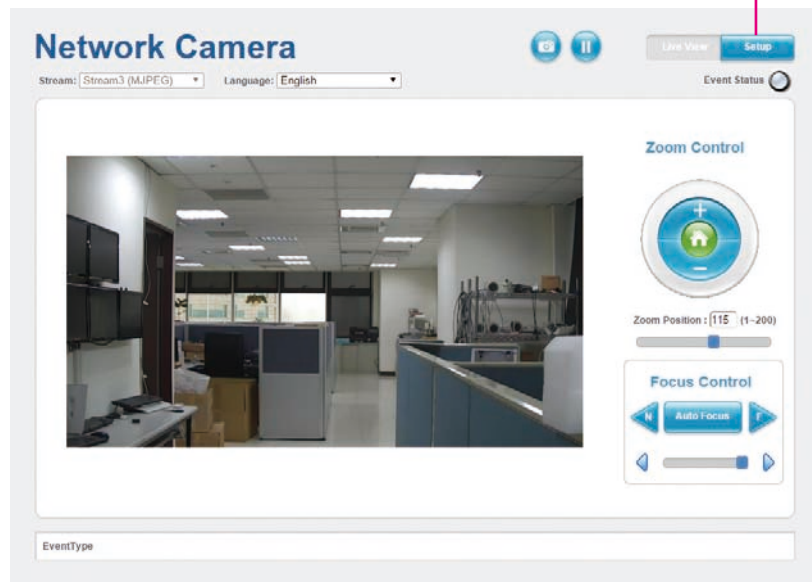
Adjusts the camera's focus. To adjust the focus automatically, press the **Auto Focus** button. To set the focus manually, press the to focus far objects, and to focus near objects. The focus can also be adjusted through the slider bar.

To fine tune the focus manually, drag the slider bar. For a finer level of adjustment, click on the directional arrows as many times as needed, till the image on the screen renders the needed result.

## Configuring the Camera's Setting

1. To configure the camera's setting, click on the **Setup** button on the main screen to enter the configuration menu.

Setup



## Browsing Through the Configuration Menu

The layout of the configuration menu is split into two sections. All the camera settings are located on the left hand side of the interface, clicking on them will open their corresponding sub-menu on the right.

The following are the camera settings available on the left hand side:

- Video
  - Video Configuration
  - Audio Configuration
  - Digital zoom
- Image
  - Exposure
  - Basic Settings
  - ROI
  - Privacy Zone
  - OSD
- Network
  - Basic
  - FTP
  - SSL
  - SSH
  - 802.1x
  - SNMP
  - Firewall
  - LDAP
  - DDNS
  - RTSP
  - GB28181
- System
  - Date/Time
  - Maintenance
  - User Management
- Event
  - Alarm Handler
  - Motion Detection
  - Tampering Alarm
  - Object Detection
  - FTP Upload
  - SMTP Notification
  - Network Storage
  - Relay Handler
  - SD Record Handler

## Video - Video Configuration

### Video Stream



### Configurations

<b>Primary Stream</b>	Codec :	<input type="text" value="H.264"/>
	Resolution :	<input type="text" value="1920x1080"/>
	Rate Control :	<input type="text" value="CVBR"/> <input type="checkbox"/> Smart ROI
	Frame Rate :	<input type="text" value="30"/> (0~30fps / Stream off = 0) <input type="checkbox"/> Smart FPS
	GOP Length :	<input type="text" value="30"/> (1~120) <input type="checkbox"/> Smart GOP <input type="range" value="30"/>
	Bit Rate :	<input type="text" value="4000"/> (64~8000kbit/s) <input type="range" value="4000"/>
<b>Secondary Stream</b>	Codec :	<input type="text" value="H.264"/>
	Resolution :	<input type="text" value="1280x720"/>
	Rate Control :	<input type="text" value="CBR"/>
	Frame Rate :	<input type="text" value="30"/> (0~30fps / Stream off = 0)
	GOP Length :	<input type="text" value="30"/> (1~120) <input type="range" value="30"/>
	Bit Rate :	<input type="text" value="4000"/> (64~8000kbit/s) <input type="range" value="4000"/>
<b>Third Stream</b>	Resolution :	<input type="text" value="640x360"/>
	Quality :	<input type="text" value="High"/>
	Frame Rate :	<input type="text" value="30"/> (0~30fps / Stream off = 0)

### Primary Stream 1

#### Codec

Configures the format of the video stream, the options are **H.265**, **H.264** and **MJPEG**.

#### Resolution

Configures the resolution of the video stream. The available options are **2592x1944**, **2048x1532**, **1920x1080** and **1280x720**.

#### Rate Control

Configures the Rate Control mode as **CBR** (constant bit rate) or **CVBR** (constrained variable bit rate) for the stream. Selecting **CVBR** will show the setting options for **Smart ROI**, **Smart FPS** and **Smart GOP**.

#### Smart ROI

Enables or disables Smart ROI feature. Enabling it will increase the bit rate of moving objects and make them clearer. Bit rate of images around the moving objects will not be modified.

#### Frame Rate

Adjusts the frame rate of the video stream, the range is 1~30FPS. The stream will be off if **0** is selected.

#### Smart FPS

Enables or disables Smart FPS feature. Enabling it will increase the FPS to 30FPS when a moving object is detected. If no moving object is detected, FPS will be reduced to save bandwidth.

#### GOP Length

Configures the GOP length of the stream, the range is 1~120. Users can enter the value or adjust it through the slider bar.

## Video Configuration Cont.

### Video Stream



### Configurations

<b>Primary Stream</b>	Codec :	<input type="text" value="H.264"/>
	Resolution :	<input type="text" value="1920x1080"/>
	Rate Control :	<input type="text" value="CBR"/>
	Frame Rate :	<input type="text" value="30"/> (0~30fps / Stream off = 0)
	GOP Length :	<input type="text" value="30"/> (1~120) <input type="range" value="30"/>
	Bit Rate :	<input type="text" value="4000"/> (64~8000kbit/s) <input type="range" value="4000"/>
<b>Secondary Stream</b>	Codec :	<input type="text" value="H.264"/>
	Resolution :	<input type="text" value="640x480"/>
	Rate Control :	<input type="text" value="CBR"/>
	Frame Rate :	<input type="text" value="30"/> (0~30fps / Stream off = 0)
	GOP Length :	<input type="text" value="30"/> (1~120) <input type="range" value="30"/>
	Bit Rate :	<input type="text" value="4000"/> (64~8000kbit/s) <input type="range" value="4000"/>
<b>Third Stream</b>	Resolution :	<input type="text" value="640x360"/>
	Quality :	<input type="text" value="High"/>
	Frame Rate :	<input type="text" value="30"/> (0~30fps / Stream off = 0)
<input type="button" value="Save"/>		

### Smart GOP

Enables or disables Smart GOP feature. Enabling it will allow GOP to automatically increase when no moving objects are detected to save bandwidth. When moving objects are detected, GOP will automatically decrease.

### Bit Rate

Configures the bit rate, the range is 64~8000. Users can enter the value or adjust it through the slider bar.

## Secondary Stream

### Codec

Configures the format of the video stream, the options are **H.265** and **H.264**.

### Resolution

Configures the resolution of the video stream. The available options are **640x480**, **640x360** and **320x240**.

### Rate Control

Configures the Rate Control mode as **CBR** (constant bit rate) or **CVBR** (constrained variable bit rate) for the stream.

### Frame Rate

Adjusts the frame rate of the video stream, the range is 0~30FPS. The stream will be off if **0** is selected.

### GOP Length

Configures the GOP length of the stream, the range is 1~120. Users can enter the value or adjust it through the slider bar.

### Bit Rate

Configures the bit rate, the range is 64~8000. User can enter the value or adjust it through the slider bar.

## Video Configuration Cont.

### Video Stream



### Configurations

Primary Stream	Codec :	H.264
	Resolution :	1920x1080
	Rate Control :	CBR
	Frame Rate :	30 (0-30fps / Stream off = 0)
	GOP Length :	30 (1-120)
	Bit Rate :	4000 (64-8000kbit/s)
Secondary Stream	Codec :	H.264
	Resolution :	640x480
	Rate Control :	CBR
	Frame Rate :	30 (0-30fps / Stream off = 0)
	GOP Length :	30 (1-120)
	Bit Rate :	4000 (64-8000kbit/s)
Third Stream	Resolution :	640x360
	Quality :	High
	Frame Rate :	30 (0-30fps / Stream off = 0)

Save

### Third Stream

#### Resolution

Configures the resolution of the video stream. The available options are **640x480**, **640x360** and **320x240**.

#### Quality

Configures the video quality of the stream. The options are **High**, **Normal** and **Low**.

#### Frame Rate

Adjusts the frame rate of the video stream, the range is 1~30FPS. The stream will be off if **0** is selected.

#### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Video - Audio Configuration

### Audio Configuration

#### Configurations

**Audio In :**  OFF

**Audio In Volume :**

**Audio Out :**  OFF

**Audio Out Volume :**

---

**Encoding :**

### Audio Settings

#### Audio In

Enables or disables audio-in on the camera.

#### Audio In Volume

Volume adjustment for audio-in of the camera. The available options are **High, Mid** and **Low**.

#### Audio Out

Enables or disables audio-out on the camera. When enabled, specify the volume in the Volume textbox. The range is 1~100. The volume can also be adjusted by dragging the blue slider bar left or right.

#### Audio Out Volume

Volume adjustment for audio-out of the camera. The available options are **High, Mid** and **Low**.

#### Encoding

Adjustment of audio compression. The available options are **A-Law** and **U-Law**.

## Video - Digital Zoom

### Digital Zoom



Tip: Please drag mouse to locate digital zoom area

#### Configurations

Enable :  OFF

Ratio : 6.9x

### Configurations

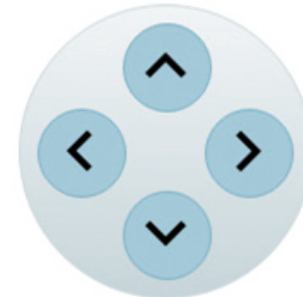
Enables or disables digital zoom feature. Drag the mouse to select the digital zoom area directly on the live screen. When enabled, a zoom controller panel will appear at the bottom of the screen to move the digital zoom area toward four different directions in steps, as shown below.

#### Configurations

Enable :  ON

Ratio : 9x

Move :





## Image - Exposure

### Exposure



#### Scenario

Mode :

#### Configurations

Profile :

AE Mode :

Adjustment :

(0~255)



Exposure Time Control :

Maximum Exposure Time :

(7~20000)

Minimum Exposure Time :

(7~20000)

Exposure Time :

(7~20000)

## Scenario

Assists users to switch between different modes according to the application scenario. The available options are **Normal** and **LPR**.

## Configurations - Normal Mode

### Profile

Selects which profile (Day or Night) to configure. Users can set up one Day profile and one Night profile.

### AE Mode

The available options are **Auto**, **50Hz**, **60Hz** and **Lock**.

If **Lock** is selected, then Exposure Time Control, Gain Control and BLC cannot be edited. Only Exposure Time can be edited (the range is 1/7~1/20000).

### Adjustment

Adjusts the weighting from 0~255. Users can enter the value or adjust it through the slider bar.

### Exposure Time Control

The available options are **OFF**, **30Hz**, **15Hz**, **7Hz** and **User Define**.

Select **User Define** to enter the values of Maximum Exposure Time (the range is 1/7~1/30) and Minimum Exposure Time (the range is 1/30~1/20000) manually.

### Exposure Time

The range is 1/7~1/20000. It can only be edited when **Lock** is selected as the AE Mode.

## Exposure Cont. (Normal Mode)

### Configurations

Profile :	Day
AE Mode :	Auto
Adjustment :	128 (0~255)
Exposure Time Control :	15Hz
Maximum Exposure Time :	1 / 15 (7~30)
Minimum Exposure Time :	1 / 10000 (30~20000)
Exposure Time :	1 / 30 (7~20000)
Gain Control :	Medium
Gain :	1 (1~512)
BLC :	Disable
WDR :	OFF
AWB Mode :	Auto
RG Gain :	1.00 (0.00~10.00)
BG Gain :	1.00 (0.00~10.00)
Defog :	OFF
Noise Reduction :	2

### Gain Control

The available options are **OFF**, **Low**, **Medium**, **High** and **User Define**.

Select **User Define** to enter the value of Maximum Gain (the range is 1~512) manually.

### Gain

The range is 1~512. It can only be edited when **Lock** is selected as the AE Mode.

### BLC

Enables or disables backlight compensation function, enable this option if an image in the camera is too dark.

### WDR

Enable this function if the camera is exposed to bright backlight, glare or high contrast lighting. The available options are **OFF**, **Low**, **Medium** and **High**.

### AWB Mode (Auto White Balance Mode)

White balance allows the camera to produce more accurate colors under different lighting conditions. The default setting is **Auto White Balance**, which automatically adjusts the white balance to suit the current lighting condition. You can also adjust the white balance manually through **RG Gain** or **BG Gain**. The range is 0.00~10.00.

### Defog

Enable this function to remove fog or moisture. The available options are **OFF**, **Low**, **Medium** and **High**.

### Noise Reduction

Enable this function to reduce noise. The available options are **OFF** and **1~11**.

## Exposure Cont. (Normal Mode)

**Day Night Setting**

**Image Profile :** Force Day ▾

**DayNight Control:** Auto ▾

**Wide IR Control :** Auto ▾

**Tele IR Control :** Auto ▾

**IR Cut Control:** Auto ▾

Save

### Day Night Setting

#### Image Profile

Select Day or Night profile to automatically set up parameters quickly. The available options are **AUTO**, **Force Day** and **Force Night**.

#### Day Night Control

Select the Day and Night control mode. The available options are **AUTO**, **Force Day**, **Force Night** and **Switch Schedule**.

#### Wide IR

The available options are **OFF**, **Auto**, **High**, **Medium** and **Low**.

#### Tele IR

The available options are **OFF**, **Auto**, **High**, **Medium** and **Low**.

#### IR Cut Control

Select the IR cut control mode to use. The available options are **Auto**, **Force Day** and **Force Night**.

#### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

**Note:** To make configuration simple and fast, please set the day or night profiles first, then go to "Day Night Setting" and select the profile to use.

## Exposure Cont. (LPR Mode)

**Scenario**

Mode : LPR

**Configurations**

Max Car Speed :  (0~100)

Max Sens Up Gain :  (1~512)

Auto Day/Night Switch :  OFF

External IR LED Control :  OFF

Two Value Converter :  OFF

Threshold :  (1~255)

Defog :  (1~255)

IR Max Power :  (0~100)

### Configurations - LPR Mode

#### Max Car Speed

Specify the car speed in the textbox or set it from 0 to 100 using the scrollbar. The speed unit is kilometers per hour.

#### Max Sens Up Gain

Specifies the maximum gain when operating in LPR mode, the range is 1 ~ 512, with 1 being the lowest gain.

#### Auto Day/Night Switch

Enables or disables automatic day and night switching.

#### External IR LED Switch

Enables or disables the external IR illuminator (if installed). If no external IR illuminator is installed, this function will not be activated.

#### Two Value Converter

Check this option to enhance the contrast of the numbers on license plates. Enter the value in the threshold textbox or adjust it from 1 to 255 using the scrollbar.

#### Defog

Enable this function to remove fog or moisture. The available options are **OFF**, **Low**, **Medium** and **High**.

#### IR Max Power

Configures the power of IR, the range is 0~100, with 0 being OFF and 100 being ON at full power.

## Image - Basic Settings

### Basic Settings



#### Orientation

**Mirror :**  Flip left-to-right  Flip top-to-bottom  
**Rotate :**  Corridor

#### Digital Processing

**Stabilize :**   
**Sharpness Adjust :**  (0~255)  
  
**Saturation Adjust :**  (0~100)  
  
**Contrast Adjust :**  (0~100)

## Orientation

### Mirror

Flips the image horizontally (flip left-to-right) or vertically (flip top-to-bottom). They can be selected at the same time.

### Rotate

Allows you to get a vertically oriented image from the camera. It is suitable for narrow corridors, hallways or aisles applications.

## Digital Processing

### Stabilize

Enables or disables video stabilization function. Enabling it will allow the camera to minimize the shakiness seen on the video stream (such as vibrations caused by strong winds or earthquakes).

### Sharpness Adjust

Configures the sharpness of the image, the range is 0 ~ 255, with 0 being the lowest sharpness. Enter the values or adjust the bar to increase or decrease the values. The default value is 127.

### Saturation Adjust

Configures the color saturation of the image, the range is 0 ~ 100, with 0 being the lowest saturation. Enter the values or adjust the bar to increase or decrease the values. The default value is 50.


### Contrast Adjust


Configures the contrast of the image, the range is 0 ~ 100, with 0 being the lowest contrast. Enter the values or adjust the bar to increase or decrease the values. The default value is 50.


## Basic Settings Cont.


### Digital Processing


Stabilize :

Sharpness Adjust :  (0~255)  


Saturation Adjust :  (0~100)  


Contrast Adjust :  (0~100)  


Brightness Adjust :  (0~100)  


Hue Adjust :  (0~100)  




### Brightness Adjust

Configures the brightness of the image, the range is 0 ~ 100, with 0 being the lowest brightness. Enter the values or adjust the bar to increase or decrease the values. The default value is 50.

### Hue Adjust

Configures the overall hue of the image, the range is 0 ~ 100. Increasing the value will adjust the image hue towards red. Decreasing the value will adjust the image hue towards blue. The default value is 50.

### Restore Settings to Defaults

Discards all the settings applied to the image and reset to the default settings.

### Default All Image Settings

Discards all the settings applied to the image and revert to the previous settings.

## Image - ROI

### ROI



### Configurations

ROI is used to select which areas will be monitored and recorded with higher image quality while using lower image quality for other non-ROI zones to save bandwidth and storage. The instructions below illustrate how to setup ROI.

1. Select Stream 1 or Stream 2 to set the ROI on.
2. There are 5 ROI zones that can be configured (zone 1 ~ zone 5). Switch to **ON** to enable ROI function. The default is **OFF**.
3. Set the image quality of the ROI in the **Level** drop-down menu, the options are **Low, Medium or High**.
4. Select the area to set the ROI by holding down the mouse button and drag to make a rectangular square, release the button once the desired area is covered.
5. Press the **Set Area** button for the setting to take effect. The ROI area will then be seen on the video stream.
6. Press the **Del Area** button or select **OFF** to delete the ROI area.

### Configurations

Stream :	Stream1 ▾			
ROI Zone 1 :	<input type="checkbox"/> OFF	High ▾	Set Area	Del Area
ROI Zone 2 :	<input type="checkbox"/> OFF	High ▾	Set Area	Del Area
ROI Zone 3 :	<input type="checkbox"/> OFF	High ▾	Set Area	Del Area
ROI Zone 4 :	<input type="checkbox"/> OFF	High ▾	Set Area	Del Area
ROI Zone 5 :	<input type="checkbox"/> OFF	High ▾	Set Area	Del Area

## Image - Privacy Zone

### Privacy Zone



## Configurations

Configures which area of the video stream will be masked for privacy. There are 5 privacy zones that can be configured.

1. Select **ON** to enable **Privacy Zone** function. The default is **OFF**.
2. Select the area to set the privacy zone by holding down the mouse button and drag to make a rectangular square, release the button once the desired area is covered.
3. Press the **Set Area** button for the setting to take effect. The masked area will be filled with black and the label **Mask** will be seen on the video stream.
4. Press the **Del Area** button or select **OFF** to delete the privacy zone.

### Configurations

Mask 1 :	<input type="checkbox"/> OFF	Set Area	Del Area
Mask 2 :	<input type="checkbox"/> OFF	Set Area	Del Area
Mask 3 :	<input type="checkbox"/> OFF	Set Area	Del Area
Mask 4 :	<input type="checkbox"/> OFF	Set Area	Del Area
Mask 5 :	<input type="checkbox"/> OFF	Set Area	Del Area



## Image - OSD

### OSD



### General Settings

**Camera Name :**   
**Background**     **Translucent**     **Transparent**  
**Text color :**   

### Text Overlay

Top Left	<input type="button" value="OFF"/>
Top Right	<input type="button" value="OFF"/>
Bottom Left	<input type="button" value="OFF"/>
Bottom Right	<input type="button" value="OFF"/>

## General Settings

### Camera Name

Specifies a name for the device. The maximum length is 32 characters.

### Background

Configures the background color of the text overlay, the options are **Translucent** (light grey) or **Transparent**.

### Text Color

Configures the text colour as **Black**, **White**, **Green** or **Yellow**.

## Text Overlay

There are 4 content positions (Top Left, Top Right, Bottom Left and Bottom Right) to display the camera name, current date/time and text overlay.

## Content

**OFF:** The default setting is OFF.

**Date/Time:** Displays the current date/time.

**Camera Name:** Displays the device name.

**Camera Name + Date/Time:** Displays the device name and date/time.

**Custom Text:** A customized text can be specified here.

## Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Network - Basic

### Network Basic

**IPv4 Settings**

DHCP	<input type="checkbox"/>				
IP Address :	<input type="text" value="192.168.1.171"/>				
Subnet Mask :	<input type="text" value="255.255.255.0"/>				
Gateway :	<input type="text" value="192.168.1.254"/>				
Primary DNS :	<input type="text" value="192.168.1.1"/>				
Secondary DNS :	<input type="text" value="192.168.1.2"/>				

**System Settings**

HTTP Port :	<input type="text" value="80"/>				
HTTPS Port :	<input type="text" value="443"/>				
Hardware Address :	<input type="text" value="00:10:f3:43:55:74"/>				

**IPv6 Settings**

IPv6	<input type="checkbox"/>				
Link-Local :	<input type="text" value="fe80::210:f3ff:fe43:5574/64"/>				
IPv6 Address :	<input type="text"/>				
Address Prefix :	<input type="text" value="64"/> (0~127)				
Default Route :	<input type="text"/>				
Router Advertisement :	<input type="checkbox"/>				
DNS :	<input type="text"/>				

### IPv4 Settings

#### DHCP

Enables or disables DHCP, use this feature if the camera is connected to a network with DHCP server.

To manually configure an IP address, disable DHCP and input the IP address, subnet mask, default gateway, primary and secondary DNS server address.

### System Settings

#### HTTP Port

Configures the HTTP port number of the web configuration menu.

#### HTTPS Port

Configures the HTTPS port number of the web configuration menu.

#### Hardware Address

Unique MAC address for each camera device.

### IPv6 Settings

Enables or disables IPv6 function.

To manually input an IP address, enable IPv6 and input the address prefix, default route, enable/disable router advertisement and DNS server address.

## Basic Cont.

### System Settings

HTTP Port :  (80, 1024~65535)  
 HTTPS Port :  (443, 1024~65535)  
 Hardware Address : 00:10:f3:43:55:74

### IPv6 Settings

IPv6  ON  
 Link-Local : fe80::210:f3ff:fe43:5574/64  
 IPv6 Address :   
 Address Prefix :  (0~127)  
 Default Route :   
 Router Advertisement :  ON  
 DNS :

### RTMP Settings

RTMP  OFF  
 Uri :

## RTMP Settings

### RTMP

Enables or disables RTMP function.

### URL

Configures the web URL address.

### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Network - FTP

### FTP

#### Configurations

This page will enable or disable FTP access to this camera.

**Enable :**  OFF

**Username :** adminftp

**Password :**

**Re-type Password :**

**Max Connection :**  (1~10)

Save

## Configurations

### Enable

Enables or disables FTP access to this camera. This function is only available when an SD card is inserted. You can access files in the SD card attached to the IP camera.

### Password

Specifies the FTP login password to access the IP camera.

### Max Connection

Specifies the maximum number of FTP connections the IP camera can support.

### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Network - SSL

### SSL

#### Configurations

Mode :  Disabled  Optional  Required

#### Certificate

Action :

No certificate has been installed.

## SSL Configurations

### Mode

**Disabled:** Support for http only.

**Optional:** Support for http & https.

**Required:** Support for https only.

### Certificate

#### Install New Certificate

Provides options to install a new CA certification.

### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Network - SSH

### SSH

#### Configurations

This page will enable or disable SSH access to this camera.

Enable :

 OFF

Username :

sshuser

Password :

Re-type Password :

Save

## SSH Configurations

### Enable

Enables or disables SSH access to this camera.

### Password

Specifies the SSH login password to access the IP camera.

### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Network - 802.1x

### 802.1x

**802.1x Port Security**

Protocol :

- None
- None
- EAP-MD5
- EAP-TLS
- EAP-TTLS
- EAP-PEAP

Save

### 802.1x Configurations

#### Protocol

The default is **None** to disable 802.1x function. Select the protocols to enable 802.1x function. The available protocols are **EAP-MD5**, **EAP-TLS**, **EAP-TTLS** or **EAP-PEAP**.

After the protocol has been selected, manually configure the username, password and other required information.

#### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Network - SNMP

### SNMP

Configurations

**No SNMP Server**  
 **SNMP V2c**  
 Community String:

**Trap Configuration**  
 Address:   
 Community String:

**SNMP V3**  
 User:

Authentication:  Password:

Privacy:

**Trap Configuration**  
 Address:

Download MIB

### SNMP Configurations

#### No SNMP Server

Disables SNMP function.

#### SNMP V2c

Enables or disables SNMPv2c support.

#### Community String

Configures the community string.

#### Trap Configuration

Specifies the destination IP address to send SNMP trap messages.

#### SNMP V3

Enables or disables SNMPv3 support.

#### User

Configures the SNMPv3 username.

#### Authentication Mode

Configures the Authentication mode. The options are **None**, **MD5** and **SHA**.

#### Privacy

Configures encryption for SNMPv3. The options are **DES** and **AES**.

#### Trap Configuration

Specifies the destination IP address to send SNMP trap messages.

#### Download MIB

Download MIB file for SNMP

#### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.



## Network - Firewall

### Firewall

#### Configurations

Mode:

Address1:  Protocol:

Address2:  Protocol:

Address3:  Protocol:

Address4:  Protocol:

Address5:  Protocol:

Address6:  Protocol:

Address7:  Protocol:

Address8:  Protocol:

## Firewall Configurations

### Mode

Select **OFF** to disable the filtering of the specified IP address. Select **Allow** or **Deny** in the drop-down menu to specify the type of filtering rule applied to the IP address entered.

### Address1 to Address8

The IP address and associated protocol (**TCP**, **UDP** or **None**) to filter can be entered here. A total of 8 IP addresses can be added to the list.

### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Network - LDAP

### LDAP

**Configurations**

Enable :	<input type="checkbox"/> OFF
Server :	<input type="text"/>
Port :	<input type="text" value="389"/> (389, 1025-65535)
Base dn :	<input type="text" value="dc=ipcamera,dc=com"/>
Bind dn template :	<input type="text" value="cn=%u,ou=people,dc=ipcamera,dc=com"/>
Search dn template :	<input type="text" value="cn=%u"/>
Administrator :	<input type="text" value="cn=admin,ou=groups,dc=ipcamera,dc=com"/>
Operator :	<input type="text" value="cn=operator,ou=groups,dc=ipcamera,dc=com"/>
Viewer :	<input type="text" value="cn=user,ou=groups,dc=ipcamera,dc=com"/>

### LDAP Configurations

Enables or disables LDAP, use this feature if the camera is connected to a network with LDAP server.

After enabling LDAP, manually configure the LDAP server and other required information.

#### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Network - DDNS

### DDNS

**Configurations**

**Enable :**  OFF

**Host Name :**

**DDNS Server :**

**User Name :**

**Password :**

**Re-type Password :**

### DDNS Configurations

#### Enable

Enables or disables DDNS service.

#### Hostname

Hostname of the DDNS account.

#### DDNS Server

Select the DDNS service provider from the drop-down menu, the available providers are **DynDNS**, **NO-IP**, and **Two-DNS**. The default option is **DynDNS**.

#### Username

Username of the DDNS account.

#### Password

Password of the DDNS account.

#### Re-type Password

Type the same password again for confirmation.

#### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Network - RTSP

### RTSP

#### Configurations

<b>Authentication :</b>	<input checked="" type="checkbox"/>
<b>Port :</b>	<input type="text" value="554"/> (554, 1025~65535)
<b>Stream1 :</b>	<input checked="" type="checkbox"/> Enable RTSP unicast stream <input type="checkbox"/> Enable RTSP stream metadata Path : <input type="text" value="stream1"/> DSCP : <input type="text" value="32"/> (0~63)
<b>Stream2 :</b>	<input checked="" type="checkbox"/> Enable RTSP unicast stream <input type="checkbox"/> Enable RTSP stream metadata Path : <input type="text" value="stream2"/> DSCP : <input type="text" value="32"/> (0~63)
<b>Stream3 :</b>	<input checked="" type="checkbox"/> Enable RTSP unicast stream <input type="checkbox"/> Enable RTSP stream metadata Path : <input type="text" value="stream3"/> DSCP : <input type="text" value="32"/> (0~63)

## RTSP Configurations

### Authentication

Enables or disables verification of the account and password. The account and password are same as the camera's login account and password.

### Port

Configures the port number for stream 1 to stream 3. The range is 554/1025~65535.

### Stream 1 to Stream 3

Enables or disables RTSP unicast for stream 1 to stream 3. The RTSP port number and pathname for each stream can be configured here.

### Default URL Path of Stream 1 to Stream 3

Stream 1: rtsp://cameraIP/stream1

Stream 2: rtsp://cameraIP/stream2

Stream 3: rtsp://cameraIP/stream3

## RTSP Cont.

**Multicast**

**Stream1 :**  Enable RTSP multicast stream  
 Always multicast

Video IP :

Video Port :  (1025~65535)

Audio IP :

Audio Port :  (1025~65535)

Meta IP :

Mata Port :  (1025~65535)

Path :

TTL :  (1~255)

**Stream2 :**  Enable RTSP multicast stream  
 Always multicast

Video IP :

Video Port :  (1025~65535)

Audio IP :

Audio Port :  (1025~65535)

Meta IP :

Mata Port :  (1025~65535)

Path :

TTL :  (1~255)

### Multicast (Stream 1 to Stream 3)

#### Enable RTSP Multicast

Enables or disables RTSP multicast streaming.

#### Always Multicast

Check this option to enable the video stream to start multicast streaming without using RTCP.

#### Video IP

Configures the multicast address to stream video.

#### Video Port

Configures the port number of the video stream.

#### Audio IP

Configures the multicast address to stream audio.

#### Audio Port

Configures the port number of the audio stream.

#### Meta IP

Configures the multicast address for the html meta.

#### Meta Port

Configures the port number of the html meta.

## RTSP Cont.

**Stream3:**  Enable RTSP multicast stream  
 Always multicast

Video IP :

Video Port :  (1025~65535)

Audio IP :

Audio Port :  (1025~65535)

Meta IP :

Mata Port :  (1025~65535)

Path :

TTL :  (1~255)

### Path

Configures the URL address of the video stream.

### TTL

Configures the time-to-live threshold of the multicast datagram before it is discarded by the router.

### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Network - GB28181

### GB28181

#### Configurations

Enable :	<input type="checkbox"/> OFF
SIP Server IP :	<input type="text"/>
SIP Server ID :	<input type="text" value="34020000002000000001"/>
Domain :	<input type="text" value="3401000"/>
SIP Server Port :	<input type="text" value="5060"/> (1025~65535)
Device ID :	<input type="text" value="34020000001320000001"/>
Civil Code :	<input type="text" value="650102"/>
Alarm ID :	<input type="text" value="34020000001340000010"/>
Password :	<input type="password" value="*****"/>
Register Expire Time :	<input type="text" value="3600"/> (1~65535)
Heart Beat Interval :	<input type="text" value="60"/> (1~65535)
Heart Beat Max Timeout Count :	<input type="text" value="3"/> (1~65535)

Save

## GB28181 Configurations

### Enable

Enables or disables GB28181 settings.

After enabling GB28181, manually configure the related information for GB28181 settings.

### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## System - Date/Time

### Date/Time

#### Display Format Setting

Display Format : 2017/01/27 20:32:55 ▾

#### Time Settings

Time Server :

None

DHCP

Manual

Manually setting

/  /   :  :

Synchronize with computer time

#### Time Zone Setting

Time zone :

Asia ▾

Taipei ▾

Save

## Date/Time Configurations

### Display Format

Displays the current date and time. There are various formats to select from the drop-down menu.

### Time Setting

#### Time Server

**None:** Disables synchronization of the current date/time through the internet.

**DHCP:** If your DHCP server provides NTP server information, select this setting to enable NTP information retrieval.

**Manual:** Select this option to configure the NTP server address manually for date and time synchronization.

#### Manually setting

Manually define the date and time. The format is **yyyy/mm/dd** or **hh:mm:ss**.

#### Sync with computer time

Manually synchronize with the current computer date and time.

### Time Zone Setting

#### Time Zone

Select the time zone relevant to your location in the drop-down menu.

#### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.



## System - Maintenance

### Maintenance

#### System Information

Firmware Version :	cam16D_01.00.0006
Model Name :	210DOAM1
Serial Number :	161200009
Mac Address :	00:10:f3:43:55:74

#### Firmware Update

Choose a bin file to upgrade camera.

File Name :  未選擇任何檔案



During reboot camera connection will be lost.

Reset all the camera parameters to the default settings except IP address.

Reset all of the camera parameters to default.

## System Information

### Firmware Version

Displays the current firmware version.

### Model Name

Displays the IP camera model number.

### Serial Number

Displays the IP camera serial number.

### MAC Address

Displays the IP camera MAC number.

## Firmware Update

To update the camera's firmware, click on the **Browse** button and locate the firmware image file, once the file is selected, press the **Upload** button to begin.



During update, please do not disconnect the network cable, reset or power off the IP camera, as you may damage the device.

### Reboot Camera

Click this button to reboot the camera.

### Reset to Default

Click this button to restore all the camera's setting back to factory default except IP address (keeps all the settings on the **Network Basic** setting page).

## Maintenance Cont.

Reset to Default

Reset all the camera parameters to the default settings except IP address.

Reset to Factory Default

Reset all of the camera parameters to default.

Download Log File

### Backup

Download a full backup file of camera settings

Download Now

### Restore

Choose a backup file to restore camera settings

選擇檔案 未選擇任何檔案

Upload and Restore

NOTE: Restoring will cause the camera to restart.

### Video System

Video System:  NTSC  PAL

Swtich Video System

NOTE: Switch video system will cause the camera to restart and reset default

### Reset to Factory Default

Click this button to restore all the camera's setting back to factory default, including IP address (default is 192.168.1.168).

### Download Log File

Records all the status information of the camera in list format when the camera is connecting to the PC. Downloads the log file to the computer as a text file.

### Backup

#### Download Now

Downloads the current camera settings to a backup file.

### Restore

#### Update and Restore

Click on the **Browse** button and locate the backup file, once the file is selected, press the **Update and Restore** button to restore camera settings.

### Video System

Options to switch between NTSC or PAL video system. The camera will restart and reset to default after switching the video system.

## System - User Management

### User Management

Admin Setting

Admin :

Password :

Re-type Password :

User List

User Information

Access Level :  Admins  Views

Username :

Password :

Re-type Password :

### Admin Setting

#### Admin

The default username is **admin**. Users cannot change it.

#### Password

Set up the password for administrator's authorization.

#### Re-type Password

Retype the same password to confirm.

### User List

Displays user accounts available on the camera.

Press **New User** to add a new account and set up the authorization level of this user from the following **User Information**. Press **Give Up** to delete the new user if you do not want to set up continually.

To delete an account, press the **Delete User** button.

## User Management Cont.

**User Management**

**Admin Setting**

Admin :

Password :

Re-type Password :

**User List**

**User Information**

Access Level :  Admins  Views

Username :

Password :

Re-type Password :

### User Information

This section allows users to set up each new user's authorization level. A total of ten accounts can be created for **Admins/Views**.

### Access Level

**Admins:** Has full control (read/write) over every configuration menu item.

**Views:** Only has access (read) to the live view of the camera (main screen).

### User Name

Username must be at least 1 and up to 16 characters.

### Password

Password must be at least 1 and up to 16 characters.

### Re-type Password

Retype the same password to confirm.

### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Event - Alarm Handler

### Alarm Handler

#### Configurations

Enable :



Alarm Schedule

**Network Camera**
[Close](#)

**Alarm Schedule Settings**

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Sun																									
Mon																									
Tue																									
Wed																									
Thu																									
Fri																									
Sat																									

Sunday : Start:  :  End:  :

Monday : Start:  :  End:  :

Tuesday : Start:  :  End:  :

Wednesday : Start:  :  End:  :

Thursday : Start:  :  End:  :

Friday : Start:  :  End:  :

Saturday : Start:  :  End:  :

S	D
S	D
S	D
S	D
S	D
S	D
S	D

## Alarm Handler Configurations

### Enable

Enables or disables the alarm schedule setup.

## Alarm Schedule Settings

### S

Press **S** for a particular weekday to set up a 24-hour schedule automatically.

### D

Press **D** for a particular weekday to clear all the previous scheduled settings automatically.

Configure the scheduled time by holding down the mouse button and clicking the time block to enable the schedule settings on the selected time. A light blue color on the time block indicates that the alarm schedule is enabled, while a light grey color indicates that the alarm schedule is disabled.

Alternatively, you can manually enter numbers to configure the hours and minutes from start to end for all weekdays.

### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

### Close

Press to leave this schedule setting page.

## Event - Motion Detection

### Motion Detection



### Configurations

**Enable :**  OFF Motion Schedule

**Sensitivity :**  (0-100)

**Zone1 :**

**Zone2 :**

**Zone3 :**

**Zone4 :**

**Zone5 :**

### Motion Configurations

This section configures which area of the live video will be monitored for detecting motion.

#### Enable

Enables or disables motion detection function.

#### Sensitivity

Configures the sensitivity of motion detection, the range is 0 to 100.

### Zone1 to Zone5 Setup

Configures the type of area layout to use for motion detection. You can configure up to 5 zones. The instructions below illustrate how to set up 5 zones.

1. To create zone 1, on the live video screen, select the area to set the zone by holding down the mouse button and drag to make a rectangular square, release the button once the desired area is covered.
2. Press the **Set Area** button in zone 1 to set this area as motion zone 1.
3. Repeat the above steps to create motion areas for zones 2 to 5.

To delete an area, find the motion zone number you would like to remove, and press the **Del Area** button.

## Motion Detection Cont.

**Network Camera**
[Close](#)

Motion Schedule Settings

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Sun																									
Mon																									
Tue																									
Wed																									
Thu																									
Fri																									
Sat																									

Sunday : Start :  :  End :  :

Monday : Start :  :  End :  :

Tuesday : Start :  :  End :  :

Wednesday : Start :  :  End :  :

Thursday : Start :  :  End :  :

Friday : Start :  :  End :  :

Saturday : Start :  :  End :  :

S	D
S	D
S	D
S	D
S	D
S	D
S	D

## Motion Schedule Settings

### S

Press **S** for a particular weekday to set up a 24-hour schedule automatically.

### D

Press **D** for a particular weekday to clear all the previous scheduled settings automatically.

Configure the scheduled time by holding down the mouse button and clicking the time block to enable the schedule settings on the selected time. A light blue color on the time block indicates that the alarm schedule is enabled, while a light grey color indicates that the alarm schedule is disabled.

Alternatively, you can manually enter numbers to configure the hours and minutes from start to end for all weekdays.

### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

### Close

Press to leave this schedule setting page.

## Event - Sabotage Detection

### Sabotage Detection

Configurations

Enable :  OFF Sabotage Schedule

Sensitivity : Medium

Save

Network Camera
[Close](#)

Sabotage Schedule Settings

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Sun																									
Mon																									
Tue																									
Wed																									
Thu																									
Fri																									
Sat																									

Sunday : Start:  :  End:  :

Monday : Start:  :  End:  :

Tuesday : Start:  :  End:  :

Wednesday : Start:  :  End:  :

Thursday : Start:  :  End:  :

Friday : Start:  :  End:  :

Saturday : Start:  :  End:  :

Save

## Sabotage Detection Configurations

### Enable

Enables or disables sabotage detection function.

### Sabotage Sensitivity

Configures the sensitivity level of sabotage detection, the options are **High**, **Medium** and **Low**.

## Sabotage Schedule Settings

### S

Press **S** for a particular weekday to set up a 24-hour schedule automatically.

### D

Press **D** for a particular weekday to clear all the previous scheduled settings automatically.

Configure the scheduled time by holding down the mouse button and clicking the time block to enable the schedule settings on the selected time. A light blue color on the time block indicates that the alarm schedule is enabled, while a light grey color indicates that the alarm schedule is disabled.

Alternatively, you can manually enter numbers to configure the hours and minutes from start to end for all weekdays.

### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

### Close

Press to leave this schedule setting page.



## Event - Object Detection

### Object Detection



### Configurations

Enable :



Object Schedule

Detect mode :

Line counting ▾

Direction :

Two way ▾

Count :

Right:0 Left:0

Count Reset

Save

## Object Detection Configurations

### Enable

Enables or disables object detection function.

### Detect mode

Configures the methods of object detection, the options are **Line counting**, **Line crossing**, **Zone counting** and **Zone intrusion**.

**Line counting:** To create a **Line counting** area for calculation (no event trigger), on the live video screen, select the area by holding down the mouse button and draw the **Line counting** lines, release the button once the desired area is covered. Then select the **Two way** or **One way** option (calculation method) from the **Direction** drop-down menu.

**Line crossing:** To create a **Line crossing** area for triggering events, on the live video screen, select the area by holding down the mouse button and draw the **Line crossing** lines, release the button once the desired area is covered. Then select the **Two way** or **One way** option (trigger method) from the **Direction** drop-down menu. (Note: Object detection function must be enabled in the **Network Storage** menu to enable event triggers.)

**Zone counting:** To create a **Zone counting** area for calculation (no event trigger), on the live video screen, select the area by clicking the mouse button to specify the first anchor point, then draw a line to place the second anchor point. Continue to draw lines for the third and fourth anchor points, then finish off the selection by clicking the first anchor point. A total of 4 anchor points can be created. Select the **Inside** or **Outside** option (calculation method) from the **Direction** drop-down menu.

## Object Detection Cont.

### Object Detection



#### Configurations

Enable :



Object Schedule

Detect mode :

Line counting ▾

Direction :

Two way ▾

Count :

Right:0 Left:0

Count Reset

Save

**Zone intrusion:** To create a **Zone intrusion** area for triggering events, on the live video screen, select the area by clicking the mouse button to specify the first anchor point, then draw a line to place the second anchor point. Continue to draw lines for the third and fourth anchor points, then finish off the selection by clicking the first anchor point. A total of 4 anchor points can be created. Select the **Inside** or **Outside** option (trigger method) from the **Direction** drop-down menu. (Note: Object detection function must be enabled in the **Network Storage** menu to enable event triggers.)

#### Direction

Configures the direction of counting method.

#### Count

Displays the counting result.

**One way for Line Counting:** There will be two parallel lines (red and green). Only objects passing the green line first will be calculated and counted. If the green line is on the right, it will be counted as **Right in Count**; if the green line is on the left, it will be counted as **Left in Count**.

**Two way for Line Counting:** There will be two parallel lines (both green). Only objects passing the green line first will be calculated and counted. If the object passes the right green line first, it will be counted as **Right in Count**; if the object passes the left green line first, it will be counted as **Left in Count**.

**Inside for Zone Counting:** Objects leaving from inside the zone area to the outside will be calculated as Inside. Objects entering from outside the zone area to the inside will not be counted as **Inside** or **Outside**.

## Object Detection Cont.

### Object Detection



### Configurations

Enable :



Object Schedule

Detect mode :

Line counting ▾

Direction :

Two way ▾

Count :

Right:0 Left:0

Count Reset

Save

**Outside for Zone Counting:** Objects entering from outside the zone area to the inside will be counted as Outside. Objects leaving from inside the zone area to the outside will not be counted as **Inside** or **Outside**.

### Count Reset

Resets all the counting results of Line Counting or Zone Counting to zero.

### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Object Detection Cont.

**Network Camera**
[Close](#)

Object Schedule Settings

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sun																								
Mon																								
Tue																								
Wed																								
Thu																								
Fri																								
Sat																								

Sunday :	Start :	0	:	0	End :	23	:	59
Monday :	Start :	0	:	0	End :	23	:	59
Tuesday :	Start :	0	:	0	End :	23	:	59
Wednesday :	Start :	0	:	0	End :	23	:	59
Thursday :	Start :	0	:	0	End :	23	:	59
Friday :	Start :	0	:	0	End :	23	:	59
Saturday :	Start :	0	:	0	End :	23	:	59

## Object Schedule Settings

### S

Press **S** for a particular weekday to set up a 24-hour schedule automatically.

### D

Press **D** for a particular weekday to clear all the previous scheduled settings automatically.

Configure the scheduled time by holding down the mouse button and clicking the time block to enable the schedule settings on the selected time. A light blue color on the time block indicates that the alarm schedule is enabled, while a light grey color indicates that the alarm schedule is disabled.

Alternatively, you can manually enter numbers to configure the hours and minutes from start to end for all weekdays.

### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

### Close

Press to leave this schedule setting page.

## Event - FTP Upload

### FTP Upload

**FTP Upload Handler**

**Trigger Alarm Detection :**  OFF

**Trigger Motion Detection :**  OFF

**Trigger Sabotage Detection :**  OFF

**Trigger Object Detection :**  OFF

**Trigger Scheduled :**  OFF

**Remote Server**

**Host Address :**

**Port :**  (21, 1025-65535)

**Username :**

**Password :**

### FTP Upload Handler Configurations

Configures which type of event trigger to enable and the FTP server address that the camera will connect to. The options are:

- Trigger Alarm Detection
- Trigger Motion Detection
- Trigger Sabotage Detection
- Trigger Object Detection
- Trigger Scheduled

### Remote Server

#### Host Address

Specifies the host name or IP address of the FTP server.

#### Port

Specifies the port number of the FTP server.

#### Username

Specifies the login username for the FTP server.

#### Password

Specifies the login password for the FTP server.

#### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Event - SMTP Notification

### SMTP Notification

**SMTP Notification Handler**

From :

Trigger Alarm Detection :  OFF

Trigger Motion Detection :  OFF

Trigger Sabotage Detection :  OFF

Trigger Object Detection :  OFF

**SMTP Server**

Host Address :

Port :  (1~65535)

Username :

Password :

Authentication :

**Recipient List**

Enable	No	Email	Alarm	Motion	Sabotage	Object
<input type="checkbox"/>	1	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	2	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	3	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	4	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	5	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### SMTP Notification Handler Configurations

This section configures the SMTP mail server address that the camera will use for sending emails.

#### From

Specifies the email address of the sender.

#### Trigger Event

Configures which type of event trigger to enable and the SMTP server address that the camera will connect to. The options are:

- Trigger Alarm Detection
- Trigger Motion Detection
- Trigger Sabotage Detection
- Trigger Object Detection

#### Message

Specifies the message content.

#### Subject

Specifies the subject of the message.

#### Attach JPEG Snapshot

Enables or disables email delivery of trigger event snapshots.

## SMTP Notification Cont.

**SMTP Server**

Host Address :

Port :  (1~65535)

Username :

Password :

Authentication : NO\_AUTH ▼

**Recipient List**

Enable	No	Email	Alarm	Motion	Sabotage	Object
<input type="checkbox"/>	1	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	2	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	3	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	4	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	5	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	6	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	7	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	8	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	9	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	10	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Save

### SMTP Server

#### Host Address

Specifies the host name or IP address of the SMTP mail server.

#### Port Number

Specifies the port number of the SMTP mail server.

#### Username

Specifies the login username for the SMTP mail server.

#### Password

Specifies the login password for the SMTP mail server.

#### Authentication Mode

Specifies the SMTP server authentication mode, the options are **NO\_AUTH**, **SMTP\_PLAIN**, **LOGIN** and **TLS\_TLS**.

#### Recipient List

Specifies the email address to send the email when an event is triggered by **Alarm**, **Motion**, **Sabotage** or **Object**. A maximum of 10 email addresses can be configured.

#### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Event - Network Storage

### Network Storage

#### Network Storage Handler

Trigger Alarm Detection :  OFF

Trigger Motion Detection :  OFF

Trigger Sabotage Detection :  OFF

Object Detection :  OFF

Trigger Scheduled :  OFF

#### Recipient Setup

Network Storage Status : not\_mounted

Network address :

Share :

Record Type : Video

#### Login Certificate

Username :

Password :

#### Mount And Remove Network Storage

Mount
Remove

Save

## Network Storage Configurations

### Network Storage

This section configures the network storage server address that the camera will use when an event trigger is detected.

### Trigger Event

Configures which type of event trigger to enable and the network storage server that the camera will connect to. The options are:

- Enable Trigger Alarm Detection
- Enable Trigger Motion Detection
- Enable Trigger Sabotage Detection
- Enable Object Detection
- Enable Trigger Scheduled

### Recipient Setup

#### Network Storage Status

Displays the current connection status with the network storage server. (**not\_mounted** or **ok**)

#### Network Address

Specifies the IP address of the network storage server.

#### Share

Specifies the shared folder name on the network storage server.

#### Record Type

Specifies the event trigger action. The options are **Snapshot** and **Video**.



## Network Storage Cont.

**Recipient Setup**

**Network Storage Status :** not\_mounted

**Network address :**

**Share :**

**Record Type :** Video ▼

**Login Certificate**

**Username :**

**Password :**

**Mount And Remove Network Storage**

Mount

Remove

Save

### Login Certificate

#### Username and Password

Specifies the login username and password for the network storage server.

### Mount and Remove Network Storage

#### Mount

Set up a network connection with the network storage server. All the video recordings or snapshots from event triggers will be uploaded to the network storage server. After the setting is complete, the **Network Storage Status** field will display **ok**.

#### Remove

Delete the previous setting or set up a new one. After the setting is removed, the **Network Storage Status** field will display **not\_mounted**.

#### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Event - Relay Handler

### Relay Handler

**Configurations**

**Trigger Alarm :**  OFF

**Trigger Motion Detection :**  OFF

**Trigger Sabotage Detection :**  OFF

**Trigger Object Detection :**  OFF

**Type :** N.O.

**Off Time :**  (0~30s)

Save

### Relay Handler Configurations

This section configures the event trigger options for devices connected to the DI/DO of the camera.

**Trigger Alarm:** When a signal is detected from **Alarm in**, the **Alarm out** will be triggered.

**Trigger Motion Detection:** When a motion detection event is detected, the **Alarm out** will be triggered.

**Trigger Sabotage Detection:** When a sabotage detection event is detected, the **Alarm out** will be triggered.

**Trigger Object Detection:** When an object detection event is detected, the **Alarm out** will be triggered.

#### Types

The options are **N.O.** and **N.C.**

#### Off Time

Configure the seconds from 0 to 30 seconds.

#### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## Event - SD Record Handler

### SD Record Handler

#### Configurations

Trigger Alarm Detection :  OFF

Trigger Motion Detection :  OFF

Trigger Sabotage Detection :  OFF

Trigger Object Detection :  OFF

Trigger Scheduled :  OFF

#### SD Information

Available : 0 MBytes

Usage : 0% (0 / 0 MBytes)

Status : not\_mounted

Overwrite :  ON

Record Type : Video

### SD Record Handler Configurations

Configures which type of event trigger to enable the SD recording and scheduling function. The following options are available:

- Enable Trigger Alarm Detection
- Enable Trigger Motion Detection
- Enable Trigger Sabotage Detection
- Enable Trigger Object Detection
- Enable Trigger Scheduled

### SD Information

#### Available

If an SD card is installed, this section will display information on the availability of the SD card.

#### Usage

If an SD card is installed, this section will display the percentage of the total storage used.

#### Format SD Card

Formats the SD card, all data stored on the SD card will be erased if this option is used.

#### Status

Displays whether an SD card is installed or not. If an SD card is detected, **ok** will be displayed; if an SD card is not detected (or a faulty SD card is used), **not\_mounted** will be displayed.

#### Overwrite

Enables or disables SD card overwrite.

#### Record Type

Configures the recording method to record the stream on to the SD card. The options are **Video** or **Snapshot**.

## SD Record Handler Cont.

**Alarm Detection Settings**

Pre-event Snapshots :

Post-event Snapshots :

Pre-event Snapshot Interval :  Seconds

Post-event Snapshot Interval :  Seconds

FileName Prefix :

Server Path :

---

**Sabotage Detection Settings**

Pre-event Snapshots :

Post-event Snapshots :

Pre-event Snapshot Interval :  Seconds

Post-event Snapshot Interval :  Seconds

FileName Prefix :

Server Path :

## Alarm/Motion/Sabotage/Object Detection Settings Record Type Selected: Snapshot

### Pre-event Snapshots

Configures the number of pre-event snapshots to upload to SD card. The options are **0, 1, 3, 5** and **10**.

### Post-event Snapshots

Configures the number of post-event snapshots to upload to SD card. The options are **0, 1, 3, 5, 10, 30** and **60**.

### Pre-event Snapshot Interval

Configures the interval of pre-event snapshots. The options are **1, 3, 5** and **10**.

### Post-event Snapshot Interval

Configures the interval of post-event snapshots. The options are **1, 3, 5** and **10**.

### FileName Prefix

Configures a prefix to append to the filename. The default prefixes for Alarm, Motion, Sabotage and Object Detection are **Alarm, Motion, Sabotage** and **Object** respectively.

The format of the filenames:

**Alarm\_yyyymmddhhmmss**

**Motion\_yyyymmddhhmmss**

**Sabotage\_yyyymmddhhmmss**

**Object\_yyyymmddhhmmss**

### Server Path

Configures a folder name on the SD card. The default folder names for Alarm, Motion, Sabotage and Object Detection are **Alarm, Motion, Sabotage** and **Object** respectively.

### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

## SD Record Handler Cont.

**Alarm Detection Settings**

Pre-event Record :  (1-5)

FileName Prefix :

Post-event Record :  (5-100)

Server Path :

**Sabotage Detection Settings**

Pre-event Record :  (1-5)

FileName Prefix :

Post-event Record :  (5-100)

Server Path :

### Alarm/Motion/Sabotage/Object Detection Settings Record Type Selected: Video

#### Pre-event Record

Configures the length of the pre-event recording. The range is 1~5 seconds.

#### FileName Prefix

Configures a prefix to append to the filename. The default prefixes for Alarm, Motion, Sabotage and Object Detection are **Alarm**, **Motion**, **Sabotage** and **Object** respectively.

The format of the filenames:

**Alarm\_yyyymmddhhmmss**

**Motion\_yyyymmddhhmmss**

**Sabotage\_yyyymmddhhmmss**

**Object\_yyyymmddhhmmss**

#### Post-event Record

Configures the length of the post-event recording. The range is 5~100 seconds.

#### Server Path

Configures a folder name on the SD card. The default folder names for Alarm, Motion, Sabotage and Object Detection are **Alarm**, **Motion**, **Sabotage** and **Object** respectively.

#### Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.