DivioTec, Ltd.

Intelligent Digital Security

2MP/8MP Speed Dome 35X Optical Zoom, Support OIS, With IR and Sunshield NDS286PRO / NDS295PRO / NDS296

User Manual

www.diviotec.com.tw

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PREFACE

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Acknowledgements

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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 0ºC to 40ºC. 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.

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RoHS Compliance

DivioTec RoHS Environmental Policy and Status Update

DivioTec 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, DivioTec 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 DivioTec development procedure and that all the new RoHS components and new manufacturing processes maintain the highest industry quality levels for which DivioTec 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 DivioTec 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 DivioTec 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 DivioTec products, visit DivioTec's website at www.diviotec.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.

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Package Contents

The NDS286PRO/NDS295PRO/NDS296 package contain the following accessories:

Name	Quantity
IP camera	1
Stainless Steel Screw	3
Quick Installation Guide	1

The camera accessory bag doesn't include the safety rope. Please prepare a safety rope when installing for safety purpose. Refer to the illustration below for the location of the safety rope hole.

Safety Rope Hole

ix
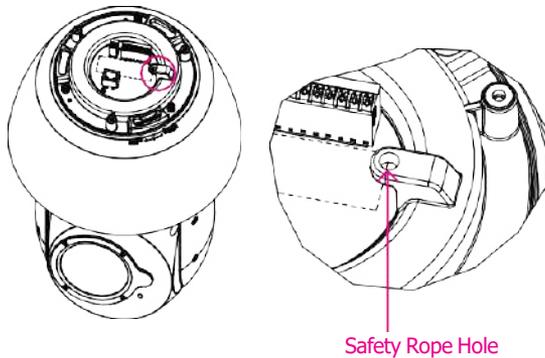
CHAPTER 1: PRODUCT INTRODUCTION

Overview

Hardware Specifications

Camera

- Image Sensor: 1/1.8 CMOS Progressive Sensor Sony IMX678
- Lens: 6.5-230 mm, F1.5-5.3, Support OIS
- Horizontal field of view: 60.4°–2.0°
- Vertical field of view: 35.9°–1.2°
- Diagonal field of view: 67.3°–2.3°
- Iris: Autofocus, P-iris
- Day & Night: Automatically removable IR-cut filter
- IR distance Up to 400 meters
- WDR 130dB
- Pan: 360° endless, 0.05°–720°/s; Tilt: -20° to +90°, 0.05°–540°/s
- Zoom: 35x optical, digital: 8x
- Preset positions: 256 preset positions ; 32 presets per tour
- Preset Accuracy: 0.005°
- Privacy Mask: 32 individual 3D privacy masks
- Image Stabilization: OIS
- Defog (Optical): Support
- Speed Dry: Support
- De-icing: Optional
- Analytics: Object Tracking; Optional by OEM/ODM request (Deep Learning Engine built-in)

Video and Audio

- Video Resolution: 3840(H) x 2160(V)
- Frame Rate: 4K@30fps
- Video Compression: H.265 / H.264 / M-JPEG
- Video Streaming: Multiple, individually configurable streams in H.265/H.264/MJPEG Bit Rate/frame rate/GOP Length/CBR in H.265/H.264
- Image settings: Contrast, color, brightness, sharpness, white balance, exposure control, noise reduction, rotation, manual shutter time, defogging, backlight compensation
- Audio Streaming: Two-way
- Audio Compression: G.711 8KHz/8 bits (A-Law/U-Law)

Network

- Interface: RJ-45, 10/100/1000 BASE-T
- Support Protocols: TCP/IP, UDP, ICMP, IPv4, IPv6, SNMP v2c/v3, QoS, HTTP, HTTPS, SSL, SMTP, FTP, RTSP, UPnP, DHCP, DNS, NTP, RTP, RTCP, DynDNS, 802.1x
- Notification: Trigger alarm output, e-mail / FTP and record Snapshot to Network storage or SD card (support for Micro SD / SDHC / SDXC of Storage)
- Browser: Chrome / Firefox / Safari /Microsoft Edge
- Onvif: Profile S, G, T

I/O Connector

- Audio in/out port: Line IN / Line OUT
- DI/DO: DI x 1, DO x 1
- Micro SD Card Slot: Support

Event Management

- Event Trigger: Motion detection, alarm handler, tampering alarm, object detection, audio detection, network loss detection, trigger scheduled
- Pre Recording: Support

Power

- AUX: 21.6 to 28 VAC / AC24V 90VA
- PoE: IEEE 802.3bt class8 (71W)

General

- Power Consumption: PoE 71W (Class 8)
- Operating temp.: -40°C to +65°C (+70°C at 4hrs per day, IR off)
- Waterproof: IP66
- Safety Hook: Support
- Vandal Resistant: IK10 (upper)
- Sunshield: Support
- Dimension: 250*362mm*(ø)190 mm
- NWT: 5kg
- Full Carton: 2 pcs
- Certification (compliant): CE/FCC, UL is optional request by OEM/ODM

Important Guidelines for Camera Power Adapter Usage

Cable Length

AC 24V Adaptor 90VA
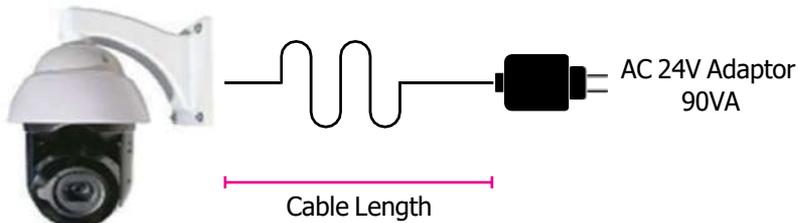
 The power adapter image shown above is for illustrative purposes; the actual power adapter may vary depending on the region of shipment.

Cable loss calculation

Base on the camera power consumption is 90VA (AC 24V , 3.3A)						
AWG No.	Resistance (mΩ/M)	Cable Length (m)	Total Resistance (mΩ)	Input Volt.	Volt. Drop	Camera Side Volt.
15	10.45	35	365.75	24	2.41	21.59
16	13.17	25	329.25	24	2.17	21.83
16	13.17	50	658.5	26	4.35	21.65
17	16.61	30	498.3	24	3.29	20.71
18	20.95	20	419	24	2.77	21.23

To address the issue of cable loss that may occur during camera usage, please follow the steps below to improve voltage drop caused by long-distance cables:

1. Suitable for long-distance applications: If the cable length exceeds 20 meters, we recommend using PoE BT (Class 8) power supply method.
2. Increase AC voltage: We suggest increasing the AC voltage from 24V to 26V to compensate for voltage drop caused by long-distance cables.
3. Use appropriate cables: Select AWG 16 cables to ensure sufficient conductivity and reduce resistance and loss.
4. Place the AC power adapter near the camera: Position the AC 24V power adapter near the camera to shorten the cable length, reduce resistance, and minimize voltage drop.

Please note that these methods can help resolve voltage drop issues caused by longdistance cables, ensuring proper camera operation.
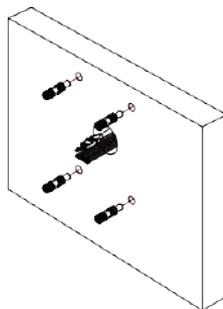
Dimensions
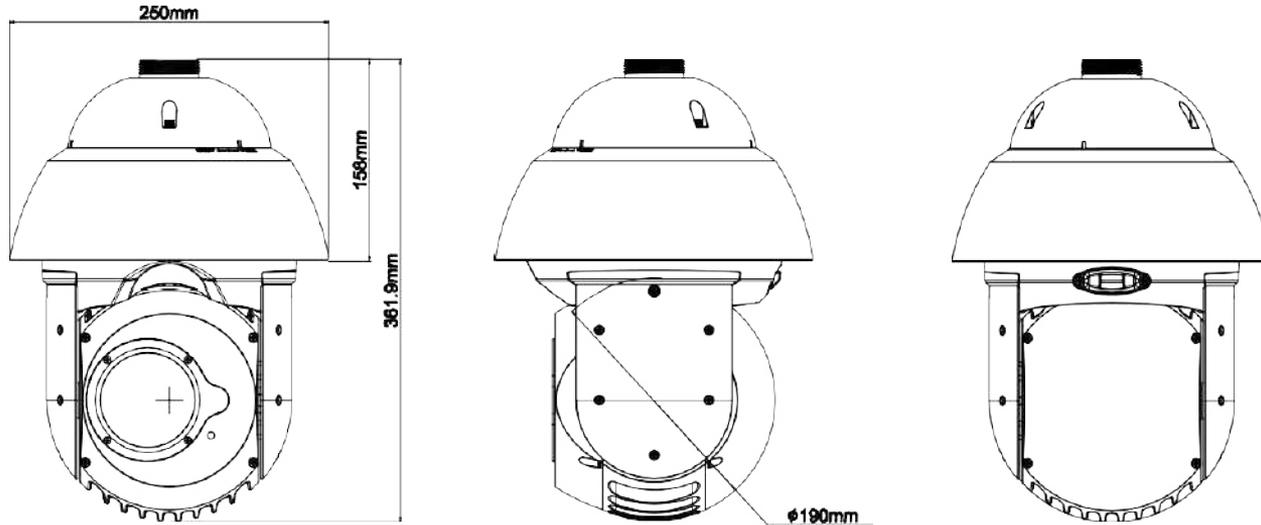
DI/O & Function Description
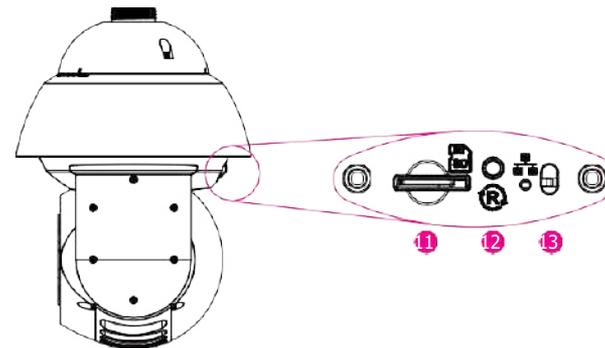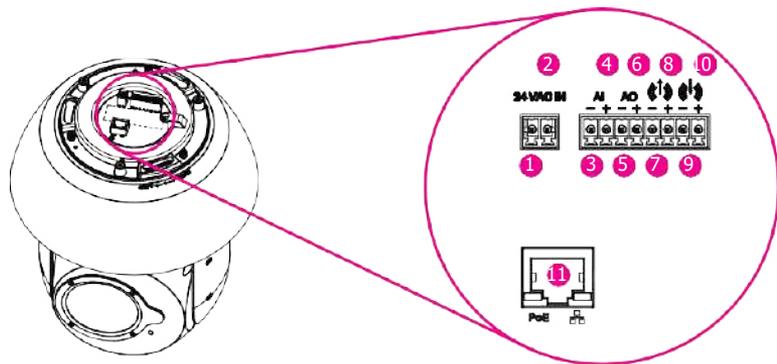
No.	Item	Description	No.	Item	Description
1	AC	AC 24V INPUT	7	-	LINE OUT-
2	AC	AC 24V INPUT	8	+	LINE OUT+
3	AI-	ALARM IN-	9	-	LINE IN-
4	AI+	ALARM IN+	10	+	LINE IN+
5	AO-	ALARM OUT-	11	RJ45	PoE LAN Port
6	AO+	ALARM OUT+			

No.	Item	Description
11	SD	SD Card Slot
12	R	Reset Button
13	⬚	Power Switch

Wall Mount Bracket Assembly

1. Fasten stainless steel anchors x4.

2. The safety wire has 2 hooks at both sides. Hook the safety wire(A) on the wall mount and pull the cable through the wall mount and fasten screws to secure the wall mount on the wall.
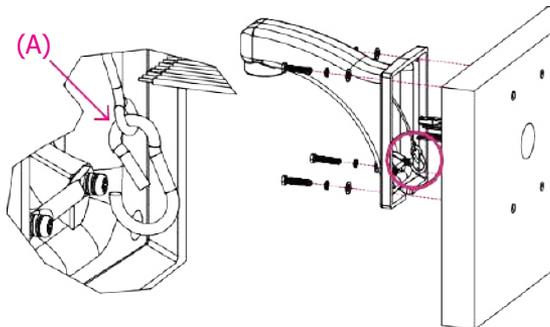
3. Pull the safety wire and cables through the CAP, then rotate the CAP. Please align the one of CAP's screw holes(B) with the hole of mount(C). Fasten screw on hexagonal screw(C) with proper tool.

■■■
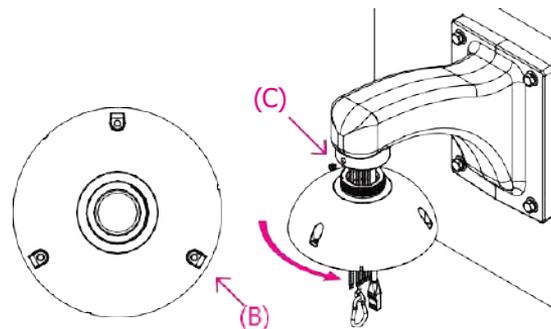
4. Hook the safety wire on (D). Please connect the cable with terminal block and plug-in the corresponded holes and RJ45 connector.
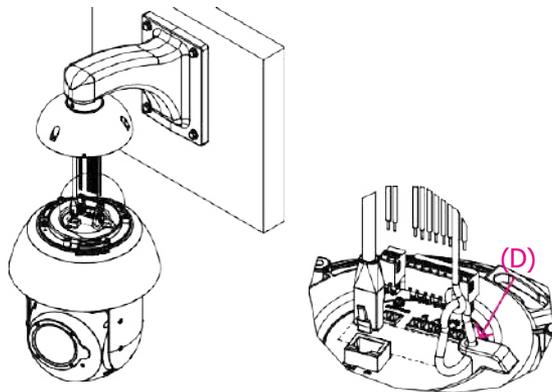
5. Combine camera and wall mount together (align (E) with (F)).
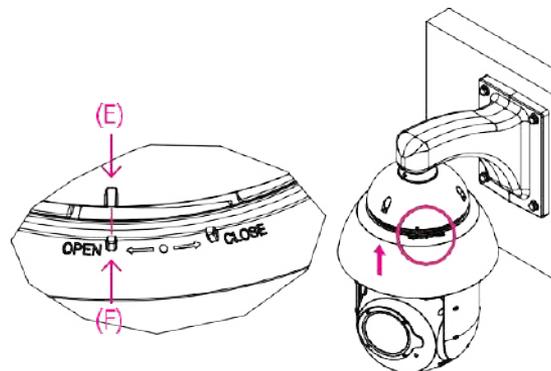
6. Follow the CLOSE direction to rotate tightly the camera and then tighten screws (3pcs) to fix the camera on the CAP.

Warning Note:

① After installing, please let the lens face down and start to do homing process.
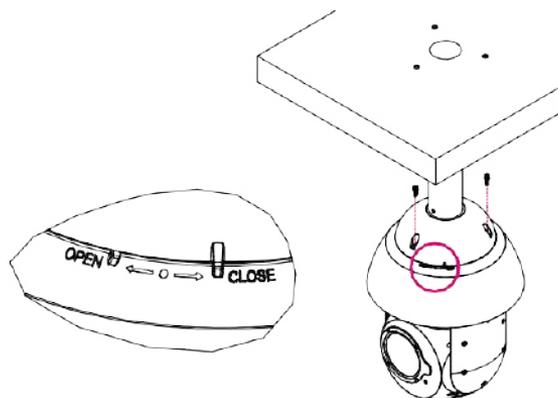② It is the wrong installation for reference. Please **DO NOT** let the lens face angle over the A line.

①   ②

(A)

SD Card

The lens should
face down
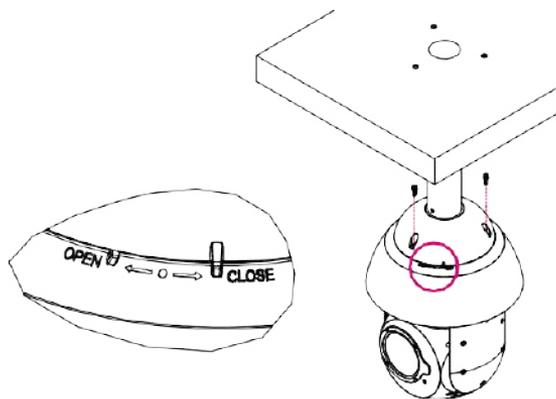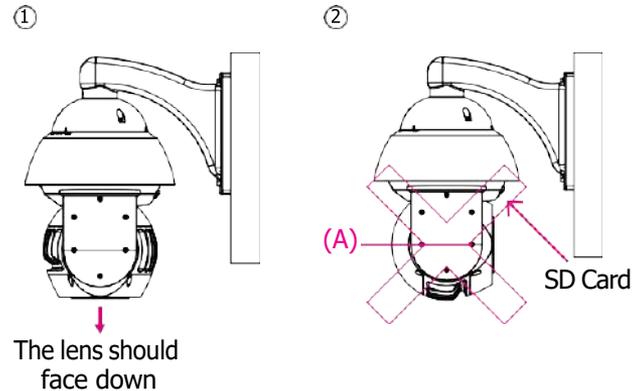
Pendant Mounting

1. Fasten stainless steel anchors x3.
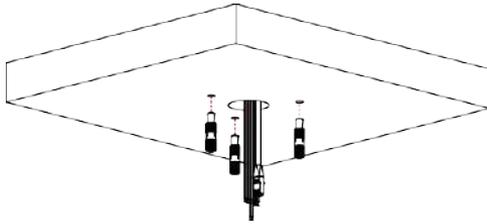
2. Pull the safety wire and cables through the bottom case of pendant mount and tighten the screws.
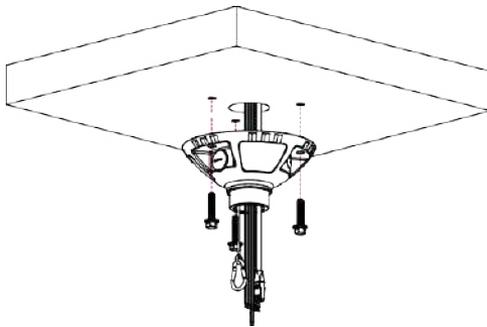
3. Fasten the tube and CAP, align B (the one of the holes of CAP) with A (the hole of tube). Tighten the hexagonal screw(A) with proper tool.
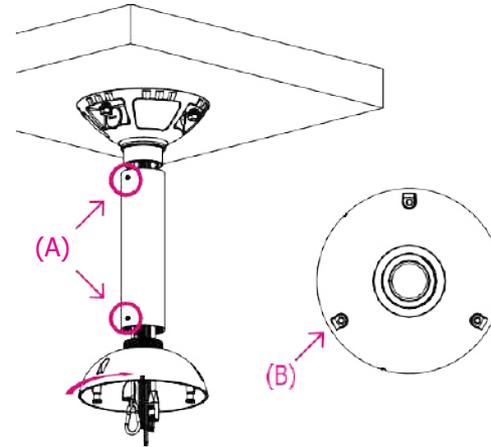
4. Hook the safety wire(C) on the camera. Please connect the cable with terminal block and plug-in the corresponded holes and RJ45 connector.
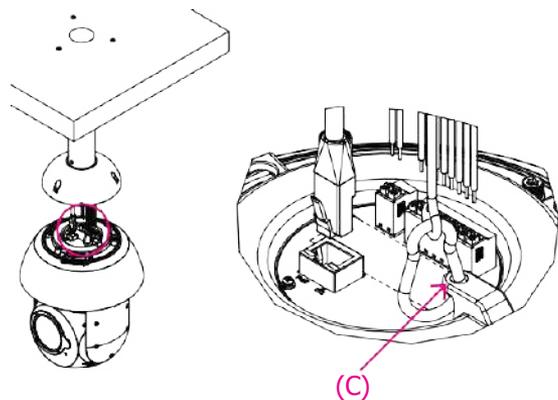
5. Combine the camera and wall mount together (align (D) with (E)).
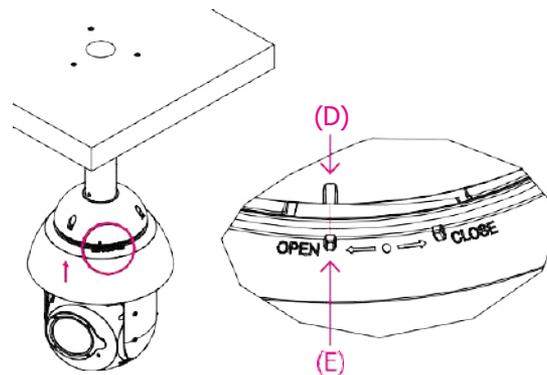
(C)

(D)

(E)

10

■■■

6. Follow the CLOSE direction to rotate tightly the camera and then tighten screws (3pcs) to fix the camera on the CAP.

Warning Note:

① After installing, please let the lens face down and start to do homing process.

② It is the wrong installation for reference. Please **DO NOT** let the lens face angle over the A line.

(A)   SD Card
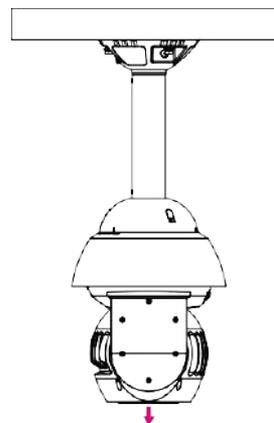
The lens should face down
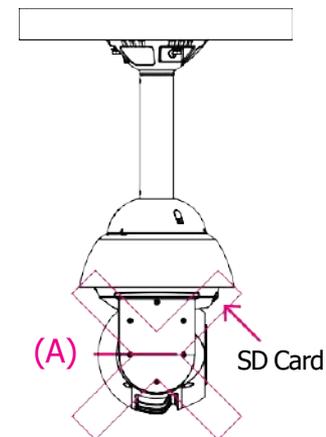
③ **DO NOT** install the product on unstable poles, brackets, surfaces or walls.
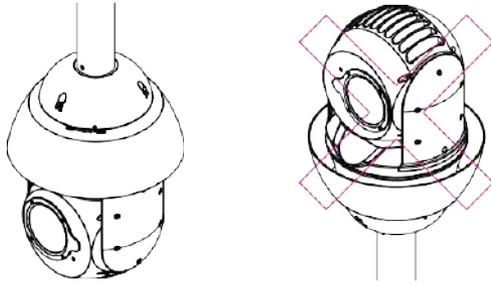
CHAPTER 2: CAMERA CONFIGURATION

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

If the IP-FINDER is already installed, you can skip this section and continue to the section of **IP-FINDER**.

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.
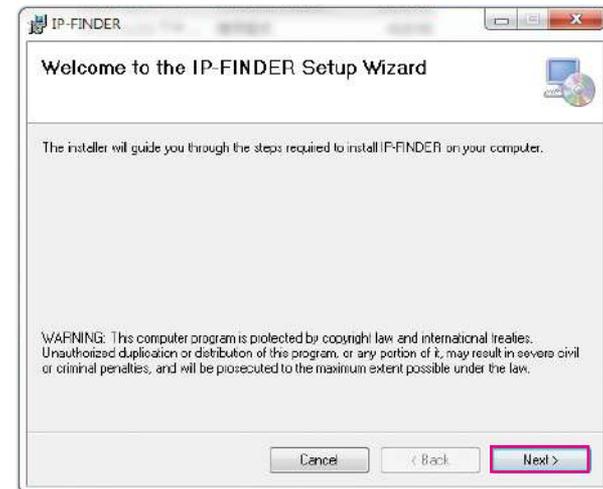
5. To continue the installation using the default directory of the drive, click **Next**.
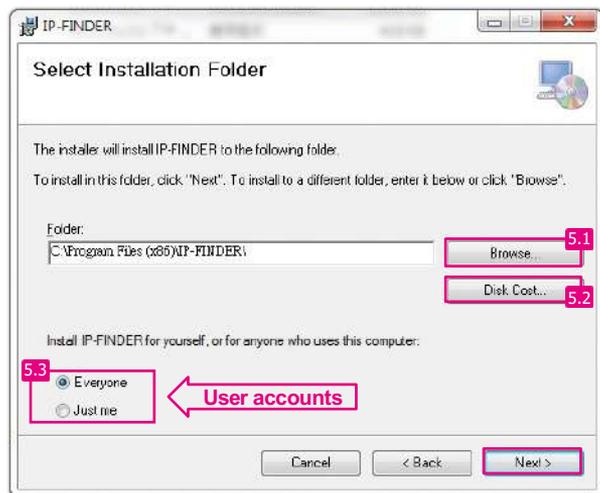

5.1 To specify a different folder, click **Browse** and locate the desired installation folder.

5.2 To check the available drives and their available and required disk space for installing the software, click **Disk Cost**. When clicking the **Disk Cost** button, a pop-up window will appear on the screen to show the disk information.
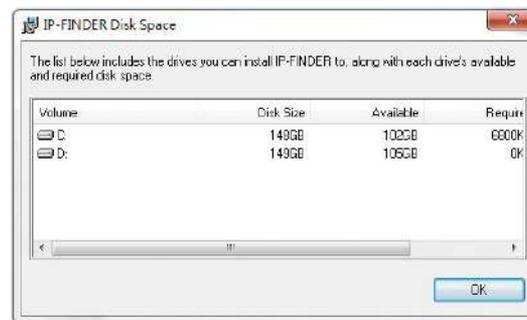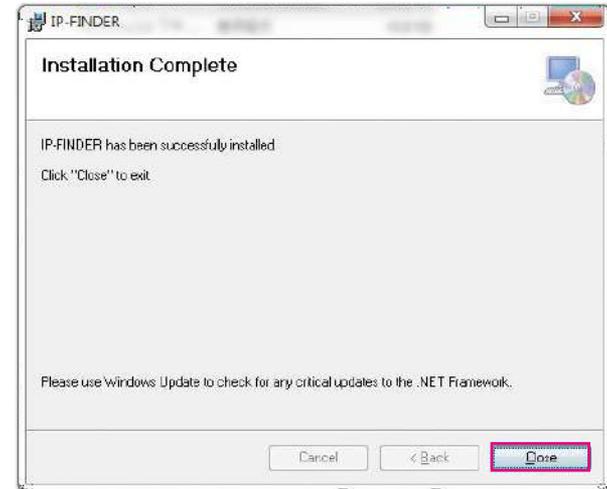

5.3 Specify which user accounts on the computer can access the program, the options are **Everyone** and **Just me**.

6. Click on **Next** button to begin installation.
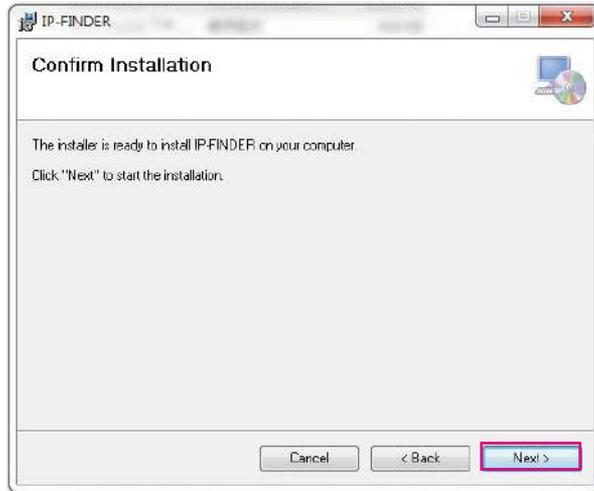
7. Once the installation process is completed, click on **Close** button to finish. A shortcut will be created on the desktop.
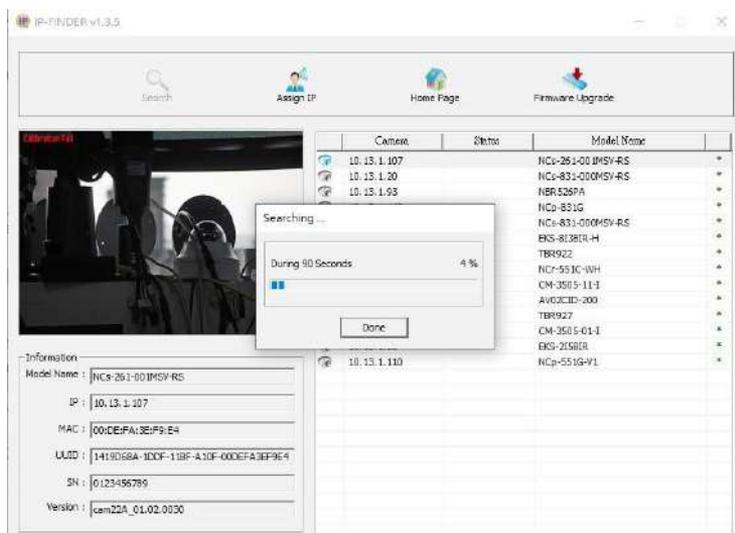
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IP-FINDER

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**. A browser will be opened automatically.
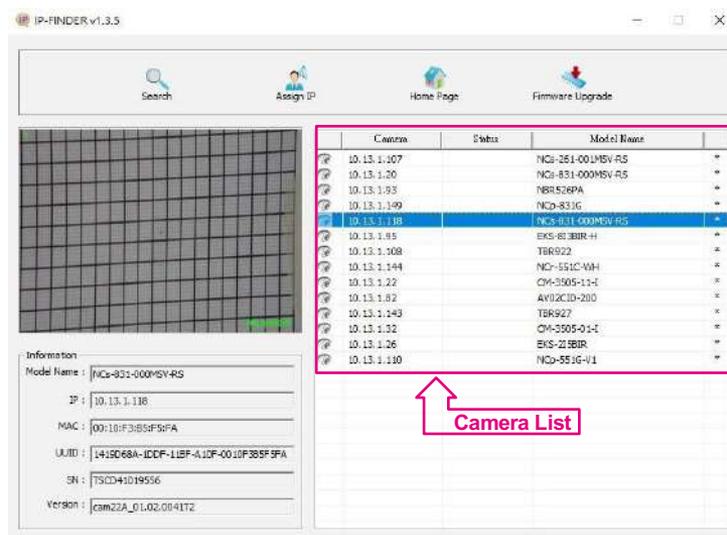
The cameras displayed in the Camera list are based on the camera that you have connected.

Introduction to the IP-FINDER User Interface
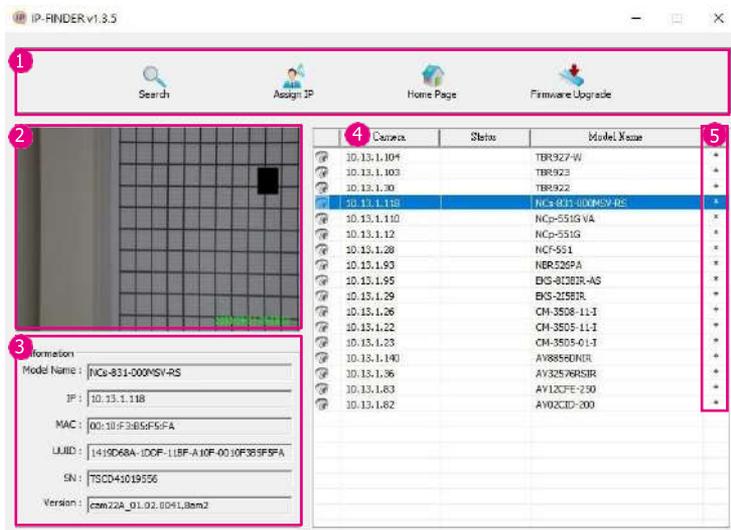
No.	UI Block	Description
1	Control Bar	Contain **[Search]**, **[Assign IP]**, **[Home Page]**, and **[Firmware Upgrade]** buttons.
2	Preview	Display the selected camera image.
3	Information	Display the selected camera information such as **Model Name**, **IP**, **MAC**, **UUID**, **SN**, and **Version**.
4	Camera List	List the cameras discovered by the search function. Each camera shows the "**IP**", "**Status**", "**Model Name**" and, "**Device Mark**". Users can also click the column headers to sort the list.
5	Device Mark	Asterisk sign indicates that this device has "**Preview**", "**Assign IP**" and, "**Firmware Upgrade**" functions.

Control Bar

Search

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

Assign IP

Change the IP address of the camera. 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

Open the web browser to the home page of the camera. 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

Upgrade the camera firmware. 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 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).
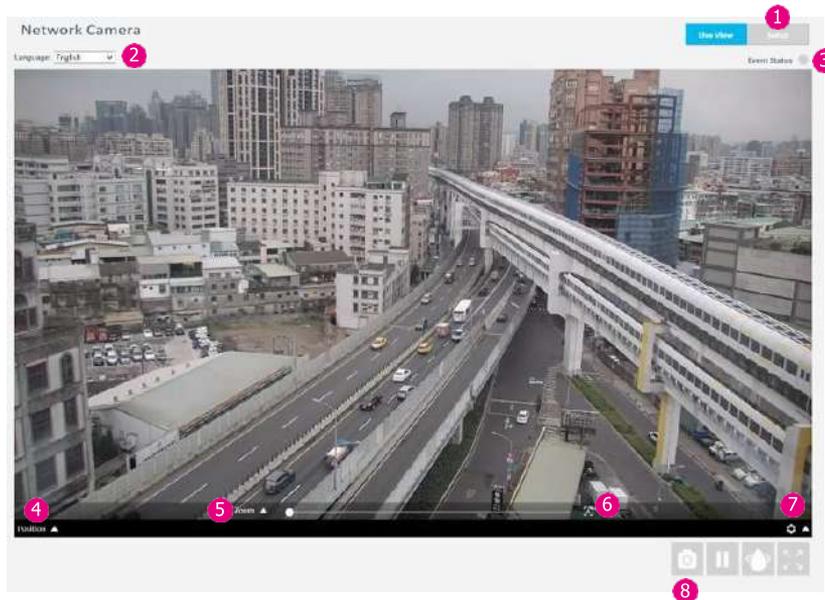

4. Once logged in, you will see the main screen.
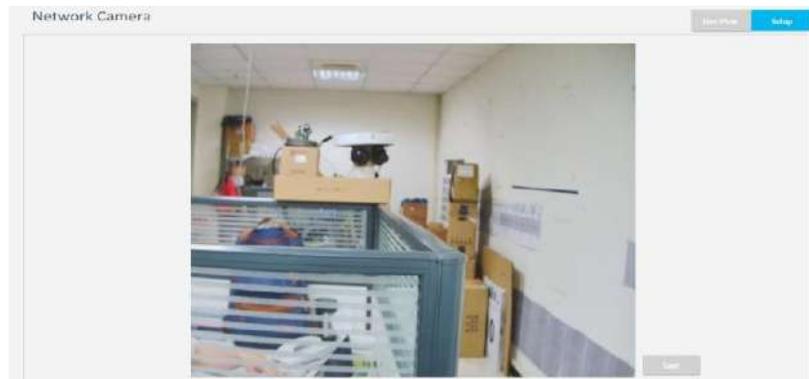
Main Screen Overview

The main screen will be shown after successfully logging into the IP camera. The main screen allows users to view the live video in the camera and provides options and status icons for configuring and monitoring the camera.

1 Setup
Enter the setup menu for configuring the IP camera.

2 Language
Available options are English, 繁體中文, 简体中文, ไทย, and Türkçe.

3 Event Status
When the event is triggered, the indicator will flash.

4 Position
Available options are Cruise, Preset, and Sequence. Configure these options in PTZ configuration.

5 Camera Adjustment
Click to enable the options menu.
  - Zoom: Set the zoom position
  - Focus: Set focus position.
  - Brightness: Click and hold to close the iris and darken the image.

6 Auto Focus
Click to focus automatically.

7 Option Menu
Click to enable the options menu.
  - Video Format: Set the video format, the available options are H.264 and MJPEG
  - PTZ Control: Select this option to manually control the PTZ.

8 Snapshot
 Capture the current image.
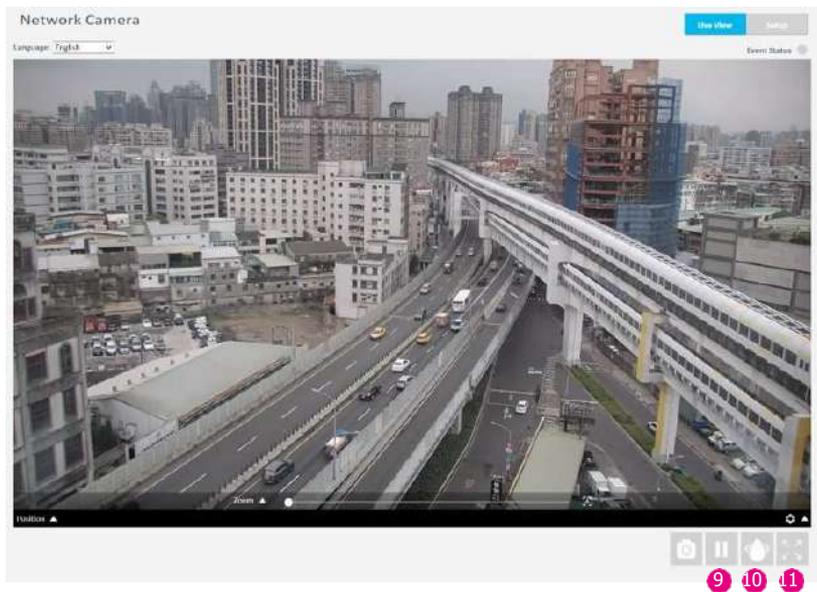
9 **Pause**
Pause the image.

10 **Speed Dry**
Activate the function of speed dry.

11 **Maximizing the Window**
Click to go full screen.

Configuring the Camera's Setting

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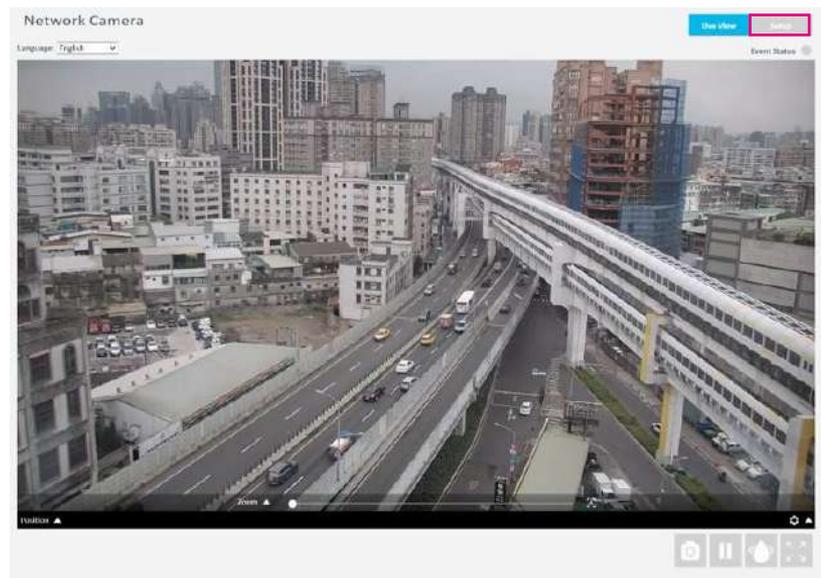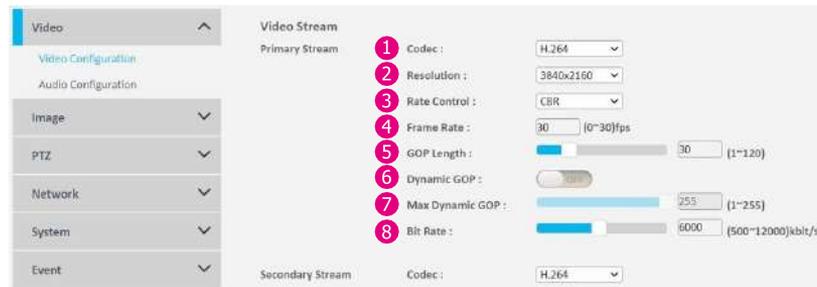

Browsing Through the Configuration Menu

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 each item to open the corresponding sub-menu on the right.

Video - Video Configuration

Primary Stream

1 Codec
Configure the format of the video stream, the available options are **H.265**, **H.264**, and **MJPEG**.

2 Resolution
Configure the resolution of the video stream, the available options are **3840x2160**, **2560x1440**, and **1920x1080**.

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

4 Frame Rate
Adjust the frame rate of the video stream, the range is 0~30FPS. The stream will be off if 0 is selected.

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

6 Dynamic GOP
Enable or disable Dynamic GOP. 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.

7 Max Dynamic GOP
The numeric values that can be entered from 1~255 to configure max dynamic GOP.

7 Bit Rate
Configure the bit rate, the range is 500~12000. Users can enter the value or adjust it through the slider bar.

Secondary Stream

① **Codec**
Configure the format of the video stream, the available options are **H.265** and **H.264**.

② **Resolution**
Configure the resolution of the video stream, the available options are **1920x1080**, **1280x960**, and **1280x720**.

③ **Rate Control**
Configure the Rate Control mode as **CBR** (constant bit rate) or **CVBR** (constrained variable bit rate) for the stream.

④ **Frame Rate**
Adjust the frame rate of the video stream, the range is 0~30FPS. The stream will be off if 0 is selected.

⑤ **GOP Length**
Configure the GOP length of the stream, the range is 1~120. Users can enter the value or adjust it through the slider bar.

⑥ **Dynamic GOP**
Enable or disable Dynamic GOP. 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.

⑦ **Max Dynamic GOP**
The numeric values that can be entered from 1~255 to configure max dynamic GOP.

⑧ **Bit Rate**
Configure the bit rate, the range is 64~4000. Users can enter a value or adjust it through the slider bar.

Third Stream

Third Stream	1 Resolution : [640x360 ▼]
	2 Quality : [Mid ▼]
	3 Frame Rate : [30] (0~30)fps

1 Resolution
Configure the resolution of the video stream, the available option is only **640x360**.

2 Quality
Configure the video quality of the stream, the available options are **High**, **Mid**, and **Low**.

3 Frame Rate
Adjust the frame rate of the video stream, the range is 0~30FPS. 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
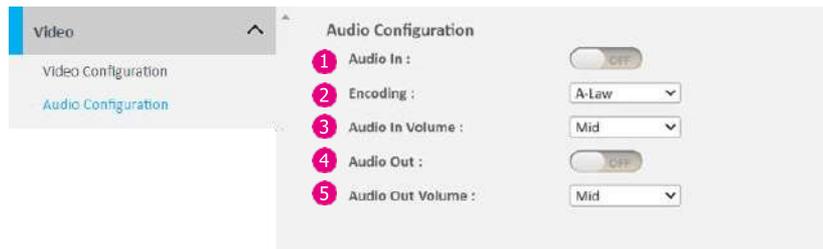
① Audio In
Enable or disable audio-in on the camera. The available options are **ON** and **OFF**.

② Encoding
The available options are **A-Law** and **U-Law**.

③ Audio In Volume
Volume adjustment for audio-in of the camera, the available options are **High**, **Mid**, and **Low**.

④ Audio Out
Enable or disable audio-out on the camera. The available options are **ON** and **OFF**.

⑤ Audio Out Volume
Volume adjustment for audio-out of the camera, the available options are **High**, **Mid**, and **Low.**

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

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Image - Exposure
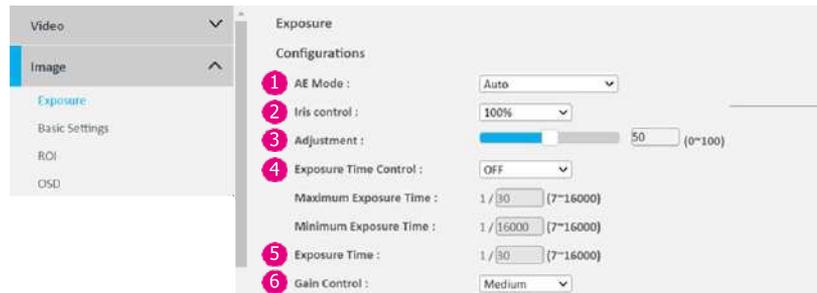
Configurations

❶ AE Mode
The available options are **Auto**, **Shutter Priority**, **50Hz**, **60Hz**, and **Lock**.

❷ Iris Control
Iris control regulates the amount of light entering. The available options are **Auto** or **0%~100%**.

❸ Adjustment
Adjust the weighting from 0~100. Users can enter a value or adjust it through the slider bar.

❹ Exposure Time Control
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 1/30~1/16000) manually.

❺ Exposure Time
The range is 1/7~1/16000. It is available for editing when **Lock** is selected in the AE Mode.

❻ Gain Control
The available options are **OFF**, **High**, **Medium**, and **Low**.

Image - Exposure
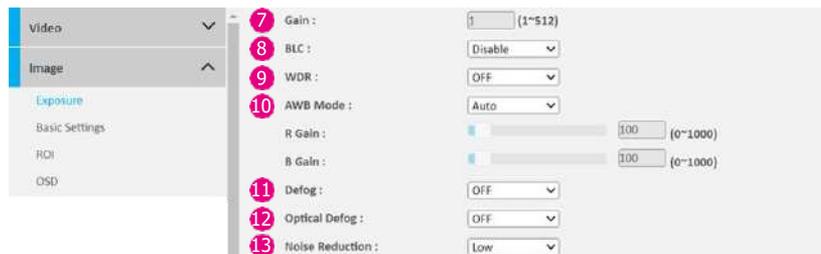
7 Gain
The numeric values that can be entered from 1~512. It can only be edited when **Lock** is selected in the AE Mode.

8 BLC
Enable or disable backlight compensation function, enable this option if the camera image is too dark.

9 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**.

10 AWB Mode (Auto White Balance Mode)
AWB Mode (Auto White Balance Mode)
The default setting is **Auto**. **OFF** means it won't automatically adjust the white balance. You can also adjust the white balance manually through **R Gain** or **B Gain**. The range is 0~1000.

11 Defog
Improve visibility by reducing the impact of fog, haze, or other atmospheric interference in the image. The available options are **OFF**, **High**, **Medium**, and **Low**.

12 Optical Defog
Enhance visibility by mitigating the effects of fog, haze, or interference using specialized optical techniques. The available options are **OFF** and **ON**.

13 Noise Reduction
Enable this function to reduce noise. The available options are **OFF**, **High**, **Medium**, and **Low**.

Image - Exposure

Day Night Setting

⑭ **Day Night Control**
The available options are **Schedule**, **Light Sensor**, **Event Triggers**, **Color Mode,** and **Gary Mode**.

⑮ **Day Night Mode**
The available options are **Auto**, **BW**, and **Color.**

⑯ **Wide IR Control**
The available options are **Auto**, **Manual,** and **OFF.**

⑰ **Wide IR Mode**
The available options are **Adaptive** and **Manual.**

⑱ **Tele IR Control**
The available options are **Auto**, **Manual**, and **OFF.**

⑲ **IR Cut ControlTele IR Mode**
The available options are **Adaptive** and **Manual.**

⑳ **IR Cut Control**
The available options are **Auto**, **Sync Day Night**, **Force Day**, and **Force Night.**

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Image - Basic Settings

Basic Settings

❶ Image Stabilizer
Click to **ON** or **OFF** the image stabilizer.

Orientation

❷ Mirror
Flip the image horizontally (**Flip left-to-right**) or vertically (**Flip top-to-bottom**).

Digital Processing

❸ Sharpness Adjust
Configure the sharpness of the image, the range is 0~255, with 0 being the lowest sharpness. Enter a value or adjust the bar to increase or decrease the value. The default value is 127.

❹ Saturation Adjust
Configure the color saturation of the image, the range is 0~100, with 0 being the lowest saturation. Enter a value or adjust the bar to increase or decrease the value. The default value is 50.

❺ Contrast Adjust
Configure the contrast of the image, the range is 0~100, with 0 being the lowest contrast. Enter a value or adjust the bar to increase or decrease the value. The default value is 50.

❻ 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.

❼ Hue Adjust
Configure the overall hue of the image, The numeric values that can be entered from 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.

❽ Restore Settings to Defaults
Discard all the settings applied to the image and reset to the default settings.

Image - ROI
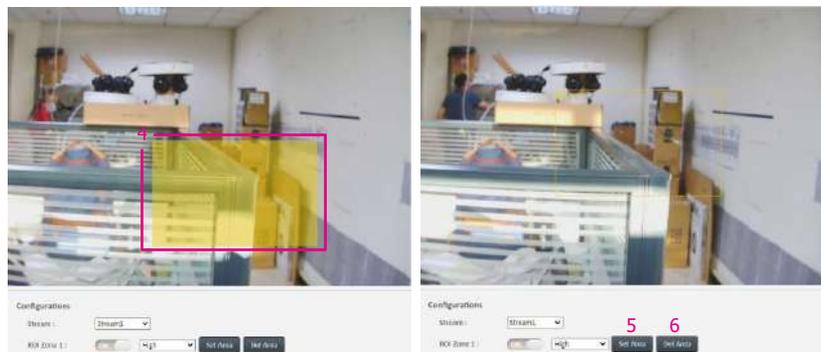
Configurations

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. Each channel can be edited individually.

2. There are 5 ROI zones that can be configured (zone 1~zone 5). Switch to **ON** to enable the 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 left button and drag to make a rectangular square, release the button once the desired area is covered.

5. Click the **Set Area** button for the setting to take effect. The ROI area will then be seen on the video stream.

6. Click the **Del Area** button or select **OFF** (step 1) to delete the ROI area.

Image - OSD
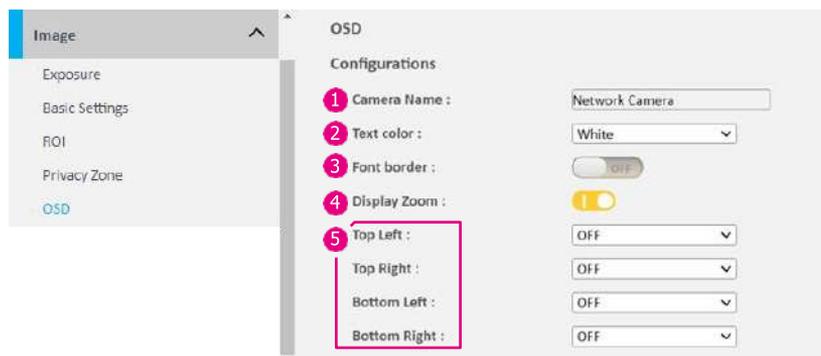
Configurations

① Camera Name
Specify a name for the device. The maximum length is 32 characters.

② Text Color
Configure the text color as **Black**, **White**, **Green**, **Yellow**, or **Red**.

③ Font border
Enable or disable the font border.

④ Display Zoom
To display or not to display the zoom times on the screen.

⑤ Top Left / Top Right / Bottom Left / Bottom Right
There are 4 content positions (Top Left, Top Right, Bottom Left and Bottom Right) to display the date/time, camera name, custom text, camera name + date/time, preset, or direction.

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

PTZ - Manual
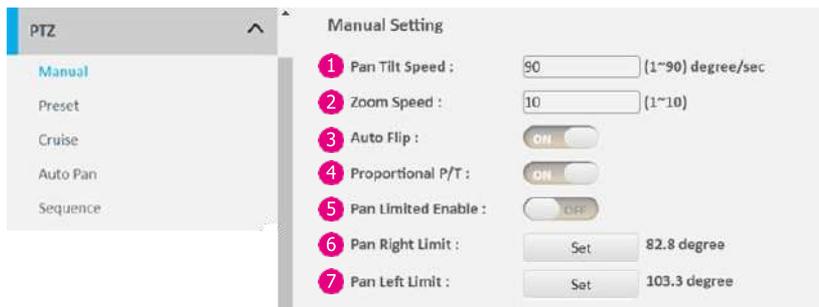
Manual Setting
In this function, you can manually pan and tilt the camera by clicking or dragging.

1 Pan Tilt Speed
The numeric values that can be entered from 1~90 to set pan and tilt speed per second.

2 Zoom Speed
The numeric values that can be entered from 1~10 to set zoom speed.

3 Auto Flip
Allows the camera to rotate 180 degrees when the tilt is pointing straight down.

4 Proportional P/T
Automatically adjusts the pan and tilt speeds in proportion to the camera's zoom level.

5 Pan Limited Enable
Turn on **Pan Limited Enable** to configure panning limits. When a limit is reached, the restricted area will bounce back in the opposite direction to initiate pan movement again.

6 Pan Right Limit
Click the **Set** button to configure pan right limit.

7 Pan Left Limit
Click the **Set** button to configure pan left limit.

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

PTZ - Preset


Preset Setting

A preset is a camera position that you can configure and call as a single command, allowing users to quickly move the camera to common positions.

1 **Number(1~256)**

Configure the preset points, it allows to set 256 preset points.

2 **Name**

Name the preset point.

3 **Focus Mode**

Configure the focus mode on **Auto** or **Lock**.

4 **Delete / Set**

Click the **Set** button when all the options are confirmed. Select preset number (1~256) then click **Delete** to remove the preset.

5 **Preset go(1~256)**

The preset will show in the drop-down menu, select preset and click **Run** to operate.

PTZ - Cruise
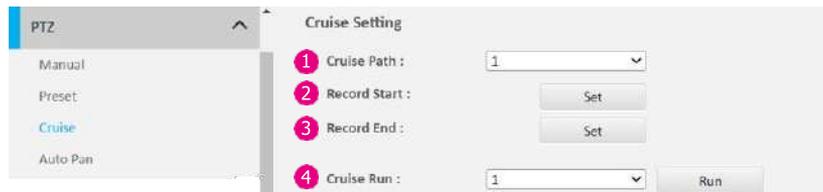
Cruise Setting
Click **Record Start** and **Record End** to record the history of manual operations (pan, tilt, and zoom) as a cruise path.

1 Cruise Path
There are 8 cruise paths that can be configured.

2 Record Start
Click the **Set** button to start record.

3 Record End
Click the **Set** button to end record.

4 Cruise Run
Select the cruise and click the **Run** to operate.

PTZ - Auto Pan

Auto Pan Setting
Allows the camera to automatically pan horizontally in a continuous back-and-forth motion.

❶ Auto Pan Path
There are 1 to 4 auto pan paths that can be configured.

❷ Speed
The numeric values that can be entered from 1~90 to set pan speed per second.

❸ Tilt Angle
The numeric values that can be entered from 1~90 to set tilt angle.

❹ Zoom Position
Click the **Get Zoom Position** button to determine the current zoom position.

❺ Direction
Select left or right to configure pan direction.

❻ Pan Limit Enable
Turn on **Pan Limited Enable** to configure panning limits. When a limit is reached, the restricted area will bounce back in the opposite direction, towards the other limit, to initiate the pan movement again.

❼ Auto Pan Path
Select the auto pan from 1~4, then click **Run** to operate.

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

PTZ – Sequence
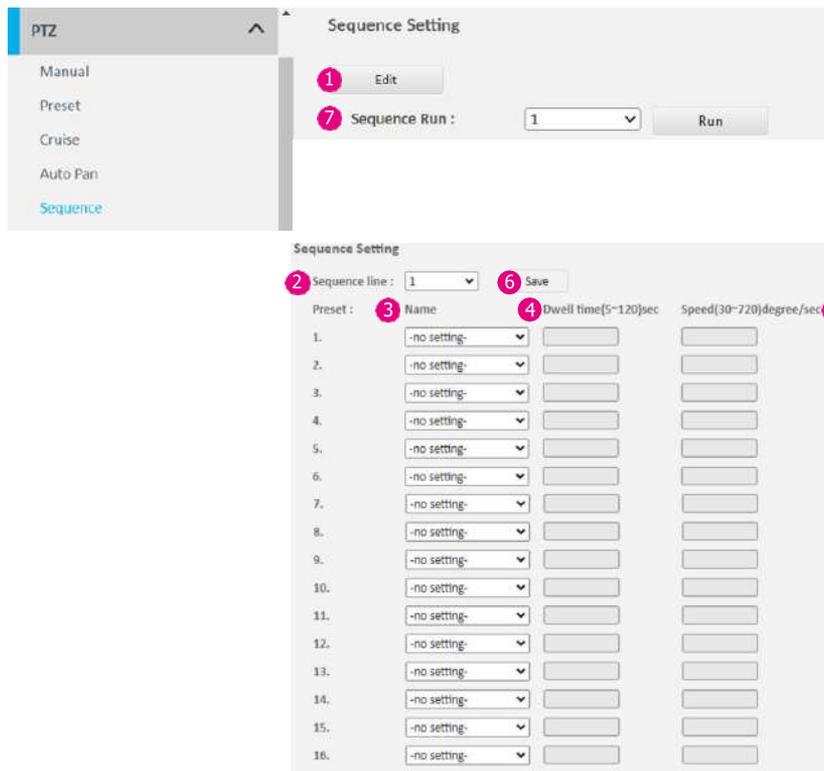
Sequence Setting

The camera will automatically transition between presets according to the programmed sequence. Allows to define the preset points, pan/tilt speed, and dwell time. Click on **Edit** (❶) button to configure each sequence run.

❷ **Sequence Line**
Select the sequence line from 1~8 to configure the name, dwell time, and speed.

❸ **Name**
Select the preset in the drop-down menu.

❹ **Dwell time(5~120)sec**
Set the dwell time for the preset. The dwell time refers to the duration (5~120 seconds) the camera will stay at a preset position before moving to the next preset in the tour.

❺ **Speed(30~720)degree/sec**
Set the pan / tilt speed in 30~720 degree per second.

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

❼ **Sequence Run**
Configure a sequence run from 1~8, then click the **Run** button to operate.

PTZ - Home Function

Home Function Setting
Configure the following action will be executed when it's not actively performing any operations in a specific time period.

1 **Time**
Available options are **OFF**, **1**, **2**, **3**, **5**, **10**, **20**, **30**, **60**, and **120** minutes.

2 **Type**
Available options are **Auto Pan**, **Sequence**, **Cruise**, **Preset**, and **Track**.

3 **Line**
Available options are 1~256.

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

PTZ - Tilt Range

Tilt Range Setting
Configure the minimum and maximum of tilt range.

❶ Min
Type a minimum tilt angle in -20~10 degree. The default is -20 degree.

❷ Max
Type a maximum tilt angle in 80~90 degree. The default is 90 degree.

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

PTZ - Privacy Zone
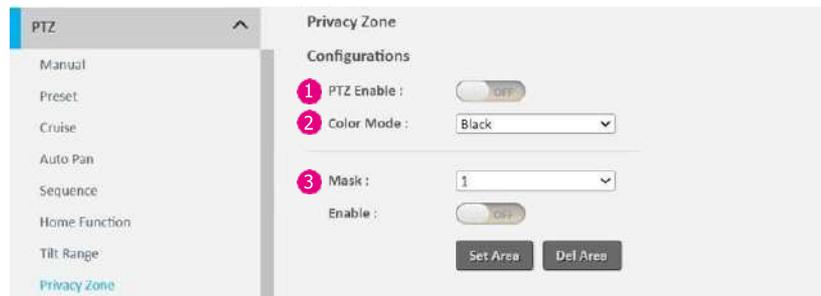
Privacy Zone Configurations

Click and drag to configure which area of the video stream will be masked for privacy. Up to 32 privacy zones can be configured.

1 **PTZ Enable**

Enable or disable the manual operation of pan and tilt.

2 **Color Mode**

A privacy area can be displayed on the screen in **Black**, **White**, **Blue**, **Yellow**, **Green**, or **Red**.

3 **Mask**

Select a **Mask** number, set **Enable** to **ON**, and click and drag to define the area to be masked. Click **Set Area** button when all options are confirmed. To remove the mask, choose the mask number and click **Del Area** button.

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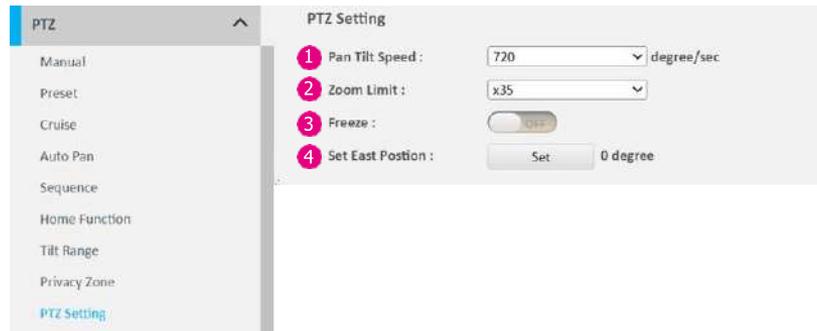
PTZ - PTZ Setting

PTZ Setting

1 Pan Tilt Speed
To configure the pan and tilt speed, the options can be chosen from
45,90, **135**, **180**, **360**, **450**, and **720** degree in the drop-down menu.

2 Zoom Limit
Available options are **x35**, **x70**, **x140**, and **x280**. Optical zoom is up to
35x.

3 Freeze
Turn freeze on will keep image at rest when camera is running from one
preset to another.

4 Set East Position
Click the **Set** button to position the East.

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

PTZ - Track
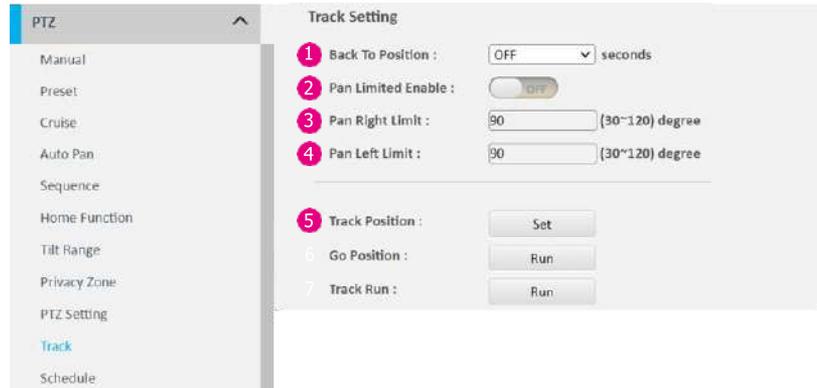
Track Setting

① Back To Position
Configure a specific time to return the track position. Available options are **OFF**, **5**, **10**, **20**, **30**, **60**, and **120** seconds.

② Pan Limited Enable
Turn on the Pan Limited Enable to configure panning limits. If a limit is reached, the restricted area will bounce back in the opposite direction, toward the other limit, to initiate the pan movement again.

③ Pan Right Limit
Type in a value (30~120) to configure pan right limit.

④ Pan Left Limit
Type in a value (30~120) to configure pan left limit.

⑤ Track Position
Click the **Set** button to configure current position as the track position.

⑥ Go Position
Click the **Run** button to track position.

⑦ Track Run
Click **Run** button to start tracking.

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

■■■

PTZ - Schedule

Schedule

Configurations

① Enable :　　　　　　OFF　　　　　② ☐ Schedule

⑤ Recover Time :　　5　▾　mins

Delete All

Configurations
Click and drag the Auto Pan, Preset, Cruise, Sequence, and Track into the row of Monday to Sunday to arrange the camera schedule.

① Enable
Based on the daily demand throughout the week, enable (①) to schedule (②) Auto Pan, Preset, Cruise, Sequence, and Track executions at specific times.
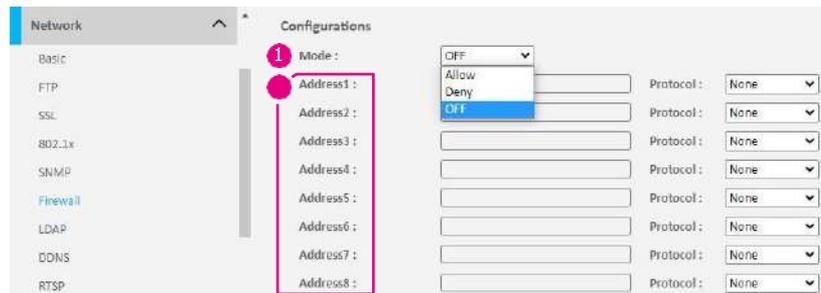
③ Save
Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

④ Cancel
Click the **Cancel** button to cancel the current configurations.

⑤ Recover time
Available options are **1**, **2**, **3**, **5**, **10**, **20**, **30**, **60**, and **120** mins. If the camera is executing a schedule and there is an intervention, it will resume the sequence according to the configured idle time once the interruption is completed.

Network - Basic

IPv4 Settings

❶ DHCP
Enable or disable 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

❷ HTTP Port
Configure the HTTP port number of the web configuration menu.

❸ HTTPS Port
Configure the HTTPS port number of the web configuration menu.

❹ Hardware Address
Unique MAC address for each camera device.

IPv6 Settings

❺ IPv6
Enable or disable 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.

❻ IPv6 Auto
There are 3 modes to be selected: **Stateless**, **Stateless DHCP**, and **Stateful DHCP**, enable IPv6 Auto then the address prefix won't be able to be inputted.

Network - Basic

RTMP Settings

Turn on RTMP and paste the Url to stream video and audio in real-time over the internet.

⑥ RTMP
Enable or disable RTMP function.

⑦ URL
Configure 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

Configurations

❶ **Enable**
Enable or disable 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.

❷ **Password**
Specify the FTP login password to access the IP camera.

❸ **Max Connection**
Specify the maximum number of FTP connections the IP camera can support, range from 1~10.

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
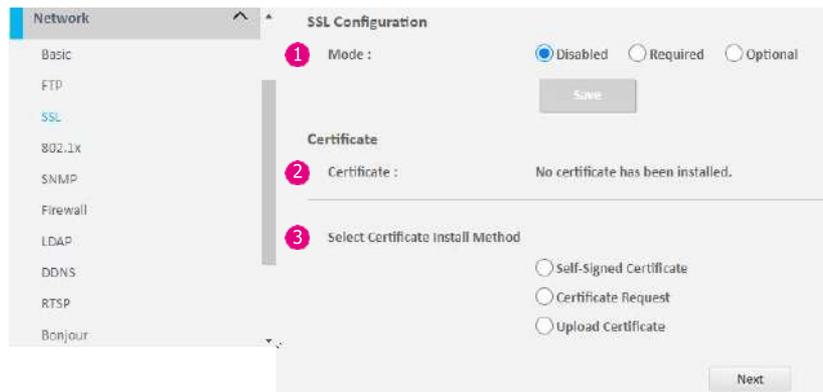
SSL Configurations

1 Mode
Disabled: Support for http only.
Optional: Support for http & https.
Required: Support for https only.

Certificate

2 Certificate
Display the certificate that you installed (see **3**).

3 Select Certificate install Method
Selects the certificate installation method. The available options are **Self-Signed Certificate**, **Certificate Request**, and **Upload Certificate**. Press Next after selecting the installation method.

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
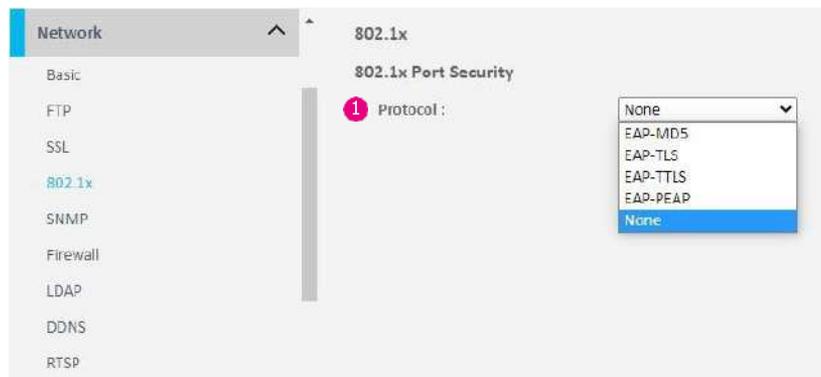
802.1 x Configurations

① **Protocol**
The default is **None** to disable 802.1x function.

Select a protocol to activate the 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.
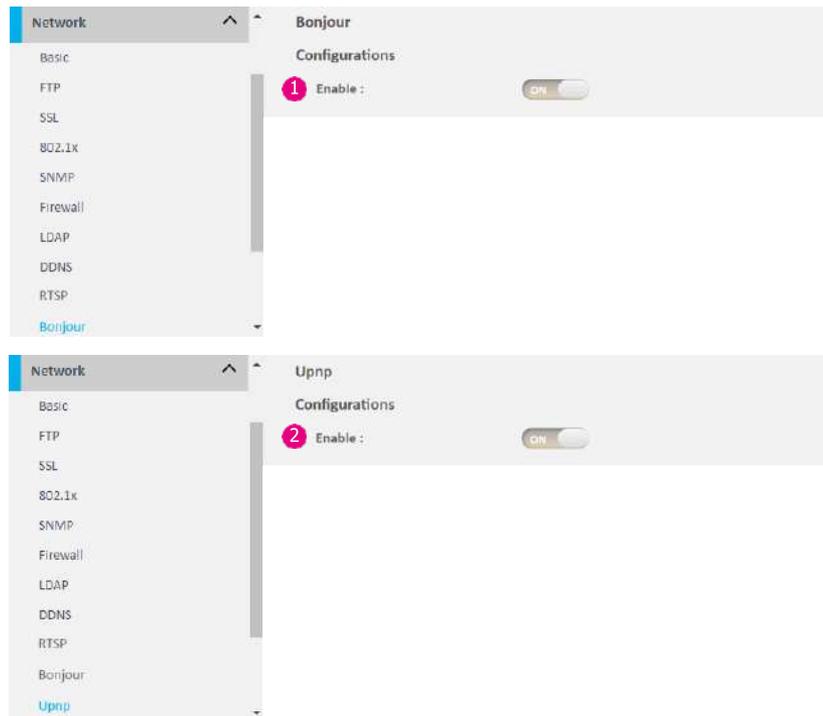
Network - SNMP

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

SNMP Configurations

1 No SNMP Server
Disable SNMP function.

2 SNMP V2c
Enable or disable SNMPv2c support.

3 Public / Private Community String
Configure the community string.

4 Trap Configuration
Specify the destination IP address to send the SNMP trap messages.

5 SNMP V3
Enable or disable SNMPv3 support.

6 User
Configure the SNMPv3 username.

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

8 Privacy
Configure encryption for SNMPv3. The options are **DES** and **AES**.

9 Trap Configuration
Specify the destination IP address to send the SNMP trap messages.

10 Download MIB
Download MIB file for SNMP.

Network - Firewall

Firewall Configurations

① **Mode**

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

② **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

1 Enable

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

2 CA Certificate

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

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

1 Enable
Enable or disable DDNS service.

2 Hostname
Hostname of the DDNS account.

3 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**.

4 Username
Username of the DDNS account.

5 Password
Password of the DDNS account.

6 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

❶ Authentication

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

❷ Port

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

❸ Stream 1 to Stream 3

Enable or disable 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

Network - RTSP

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

Multicast (Stream 1 to Stream 3)

④ Enable RTSP Multicast
Enable or disable RTSP multicast streaming.

⑤ Always Multicast
Check to enable the video stream to start the multicast streaming without using RTCP.

⑥ Video IP
Configure the multicast address to stream video.

⑦ Video Port
Configure the port number of the video stream.

⑧ Audio IP
Configure the multicast address to stream audio.

⑨ Audio Port
Configure the port number of the audio stream.

⑩ Meta IP
Configure the multicast address for the html meta.

⑪ Meta Port
Configure the port number of the html meta.

⑫ Path
Configure the URL address of the video stream.

⑬ TTL
Configure the time-to-live threshold of the multicast datagram before it is discarded by the router.

Network - Bonjour / Upnp

Bonjour / Upnp Configurations

❶ Bonjour

Turn on the bonjour and open the bookmark of Safari to search the camera on the list.

❷ Upnp

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

Save

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

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System - Date / Time

Display Format Setting

① **Display Format**
Display the current date and time. The drop-down menu offers a choice of formats. The available options are **MM/DD/YY, MM/DD/YYYY, YY/MM/DD, YYYY-MM-DD, DD/MM/YY, DD/MM/YYYY, or YYYY/MM/DD**.

Time Settings

② **DHCP**
If your DHCP server provides NTP server information, select this setting to enable NTP information retrieval.

③ **Manual**
Select this option to configure the NTP server address manually for date and time synchronization.

④ **Sync with computer time**
Manually synchronize with the current computer date and time.

⑤ **Manual setting**
Manually define the date and time. The format is **yyyy/mm/dd** or **hh:mm:ss**.

Time Zone Setting

⑥ **Time Zone**
Select the time zone relevant to your location in the drop-down menu.

⑦ **ONVIF Time Zone**
Configure it to the time zone of the ONVIF device date and time.

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

System Information

① **Firmware Version**
Display the current firmware version.

② **Model Name**
Display the IP camera model number.

③ **Serial Number**
Display the IP camera serial number.

④ **MAC Address**
Display the IP camera MAC number.

Firmware Update

⑤ **Firmware Update**
To update the camera's firmware, click on the **Choose File** button and locate the firmware image file, once the file is selected, press the **Upload** button to begin.

> During the update, **Do NOT** disconnect the network cable, reset, or power off the IP camera, as you may damage the device.

⑥ **Reboot Camera**
Click this button to reboot the camera.

⑦ **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).

System - Maintenance

8 **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).

9 **Download Log File**
Record 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

10 **Download Now**
Download the current camera settings to a backup file.

Restore

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

Video System

12 **Switch Video System**
Click **Switch Video System** button to select a desired video system type.

Switching the video system type will cause the camera to restart and reset to default.

Focus

13 **D/N Auto Focus Calibration**
Enable Day & Night focus calibration.

System - User Management
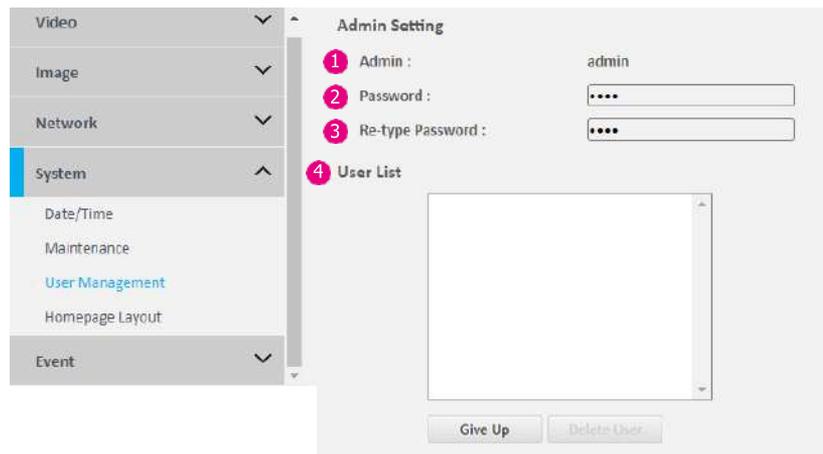
Admin Setting

❶ **Admin**
The default username is **admin** and cannot be changed.

❷ **Password**
Set up the password for administrator's authorization.

❸ **Re-type Password**
Retype the same password to confirm.

User List

❹ **User List**
Display 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.

System - User Management

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.

5 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).

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

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

8 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.

System - Homepage Layout
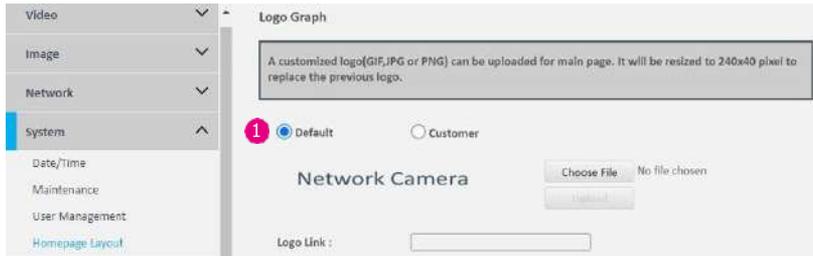
Logo Graph

① Default / Customer

Customize the logo for the homepage. You can either upload a new logo or use the default image. To upload your custom logo, select **Customer**, click on the **Choose File** button to locate and select the image file, then press the **Upload** button. The image file format should be GIF, JPG, or PNG, it will be resized to 240x40 pixel to replace the previous logo.

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

1 Enable
Enable or disable the alarm function.

2 Type
Configure for handling alarm signals or events. Available options are **Level Low**, **Level High**, **Edge Low**, and **Edge High**.

3 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.

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

5 Close
Press to exit the schedule setting page.

Event - Motion Detection

Motion Configurations

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

1 Enable

Enable or disable motion detection function.

2 Sensitivity

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

Zone1 to Zone5 Setup

Configure 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. Repeat the above steps to create motion areas for zones 2 to 5 if necessary.

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

Event - Motion Detection

Motion Schedule Settings

Motion Schedule Settings

③ 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 left 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.

④ **Save**
Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

⑤ **Close**
Press to exit the schedule setting page.

Event - Tampering Alarm

Tampering Alarm Configurations

1 Enable
Enable or disable the tampering alarm function.

2 Sensitivity
Configure the sensitivity level of sabotage detection, the options are **High**, **Medium**, and **Low**.

3 Tampering Alarm 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.

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

4 Close
Press to exit the schedule setting page.

Event - Network Loss Detection

Network Loss Detection Configurations

1 **Enable**
Enable or disable the network loss detection function.

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 - FTP Upload

FTP Upload Handler Configurations

1 Enable

Configure 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 Tamper Detection
- Trigger Scheduled

Remote Server

2 Host Address

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

3 Port

Specify the port number of the FTP server.

4 Username

Enter the username.

5 Password

Enter the password

6 Image Destination

Select **Sub Folder** or **Single Folder**.

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

SMTP Notification Handler

In this section, you can configure the SMTP mail server address that the camera will use to send e-mails.

1 Trigger Event

Configure 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 Tampering Detection

After enabling the desired option, additional settings will become available for configuration.

2 Subject

Specify the subject of the message.

3 Message

Specify the message content.

4 Attach JPEG Snapshot

Enable or disable e-mail delivery of trigger event snapshots.

Event - SMTP

SMTP Server

⑤ From

Specify the email address of the sender.

⑥ Host Address

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

⑦ Port

Specify the port number of the SMTP mail server.

⑧ Username

Specify the login username for the SMTP mail server.

⑨ Password

Specify the login password for the SMTP mail server.

⑩ Authentication Mode

Specifies the SMTP server authentication mode, the options are **NO_AUTH**, **SMTP_PLAIN**, **LOGIN**, and **TLS_TLS**.

⑪ Recipient List

Specify an e-mail address to send the e-mail when an event is triggered by **Alarm**, **Motion**, or **Tampering**. A maximum of 10 e-mail 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 Handler

In this section, you can configure the network storage server address that the camera will use when an event trigger is detected.

❶ Enable

Configure 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 Tampering Detection
- Enable Trigger Scheduled

Recipient Setup

❷ Network Storage Status

Display the current connection status with the network storage server. (**not_mounted** or **ok**)

❸ Network Address

Specify the IP address of the network storage server.

❹ Share

Specify the shared folder name on the network storage server.

❺ Record Type

Specify the event trigger action. The options are Snapshot and Video.

Event - Network Storage

Login Certificate

6 Username and Password

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

Mount and Remove Network Storage

7 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** will display **ok**.
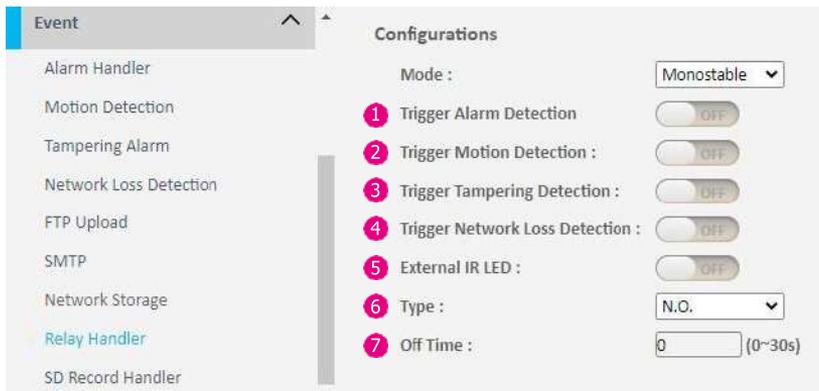
8 Remove

Delete the previous setting or set up a new one. After the setting is removed, the **Network Storage Status** 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

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

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

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

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

❸ Trigger Tampering Detection
When a tampering detection event is detected, the **Alarm out** will be triggered.

❹ Trigger Network Loss Detection
When a Network Loss detection event is detected, the **Alarm out** will be triggered.

❺ External IR LED
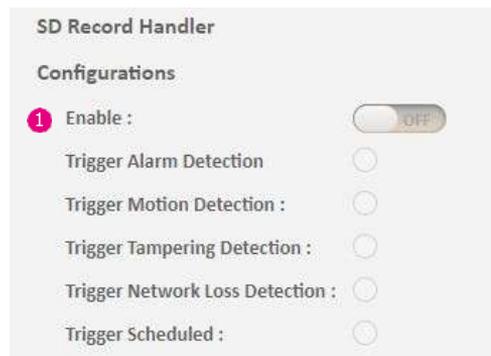When the night mode is detected, external IR LED will be triggered.

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

❼ Off Time
Configure the seconds from 0 to 30 seconds.

Event - SD Record Handler

SD Record Handler

Configurations

① Enable : OFF

Trigger Alarm Detection

Trigger Motion Detection :

Trigger Tampering Detection :

Trigger Network Loss Detection :

Trigger Scheduled :

SD Record Handler Configurations

① Enable

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 Tampering Detection
· Enable Trigger Network Loss Detection
· Enable Trigger Scheduled

Event - SD Record Handler

SD Information

2 Available

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

3 Usage

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

4 Format SD Card

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

5 Status

Display 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.

6 Overwrite

Enable or disable SD card overwrite.

7 Record Type

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

Event - SD Record Handler

Alarm Detection Settings

(8) Pre-event Record : `3` (1~5)

(9) Post-event Record : `5` (5~100)

(10) FileName Prefix : `Alarm_Rec`

(11) Server Path : `videoAlarm`

Motion Detection Settings

(8) Pre-event Record : `3` (1~5)

(9) Post-event Record : `5` (5~100)

(10) FileName Prefix : `Alarm_Rec`

(11) Server Path : `videoAlarm`

Tampering Alarm Settings

(8) Pre-event Record : `3` (1~5)

(9) Post-event Record : `5` (5~100)

(10) FileName Prefix : `Tamper_Rec`

(11) Server Path : `videoTampering`

Network Loss Settings

(8) Pre-event Record : `3` (1~5)

(9) Post-event Record : `5` (5~100)

(10) FileName Prefix : `Network_Rec`

(11) Server Path : `videoNetwork`

Alarm / Motion / Tampering / Network Loss Settings

The following options are available when selecting the **Video** in the **Record Type** item.

(8) **Pre-event Record**

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

(9) **Post-event Record**

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

(10) **FileName Prefix**

The default of the filenames are **Alarm_Rec**, **Motion_Rec**, **Tampering_ Rec**, **Network_Rec**, and **ScheduledSD** respectively.

(11) **Server Path**

Configure a folder name on the SD card. The default folder names are **videoAlarm**, **videoMotion**, **videoTampering**, **videoNetwork**, and **videoSchedule** respectively.

Event - SD Record Handler

Schedule Settings

The following options are available when selecting the **Video** in the **Record Type** item.

12 Schedule 1 / Schedule 2
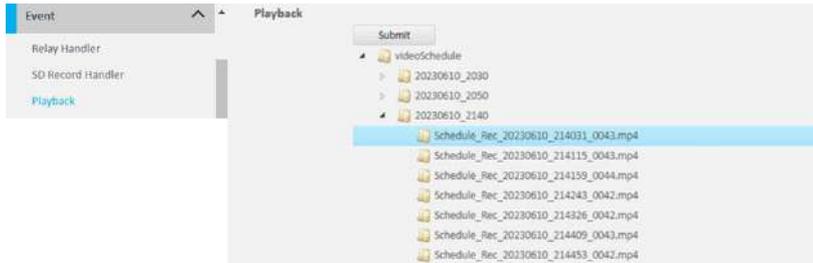
Type in the length of Schedule 1/ Schedule 2.

13 Day / Time Inclusion Filter

Available options are None, AllDay, Schedule1, and Schedule2.

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 - Playback

Playback

Allows users to access and review the recorded video content directly from the camera.

Event - TCP Notify

TCP Notify

Send notifications or alerts when trigger events are detected. The available options are:

- Trigger Alarm Detection
- Trigger Motion Detection
- Trigger Zone1 Motion Detection
- Trigger Zone2 Motion Detection
- Trigger Zone3 Motion Detection
- Trigger Zone4 Motion Detection
- Trigger Zone5 Motion Detection
- Trigger Tempering Detection

Activate the desired option above to configure the corresponding settings.

1 IP Address

Configure the number of address

2 Port

Configure the port number. The range is 1025~65535.

3 Message

Input messages for the detection.

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