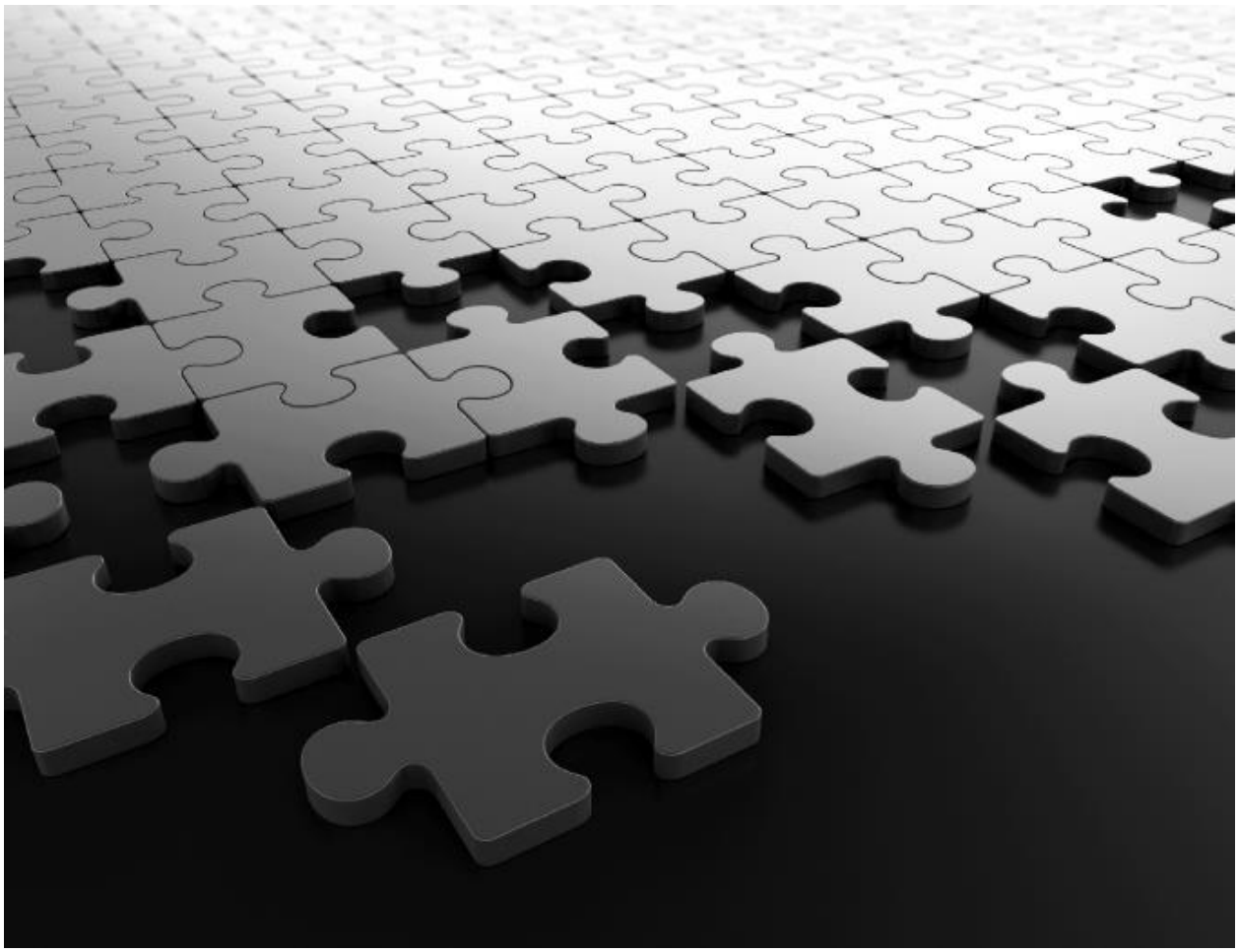
SATATYA PZCR50ML42CWP

System Manual



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Contents

Chapter 1. Introduction 5
1.1 Safety Instruction 5

Chapter 2. Product Description 6
2.1 Product Overview 6
2.2 Key Features 6
2.3 Hardware Overview 42X Speed Dome 8
2.4 How to Connect to Alarm Interface 9
2.5 How to Connect the Water-proof Connector 9
2.6 System Requirements 10

Chapter 3. Configuration Flow 11

Chapter 4. Network Connection 13
4.1 Setting the Camera over the LAN 13
4.2 Connect the Camera to the PC Directly 13
4.3 Connect via a Switch or a Router 13
4.4 Dynamic IP Connection 18

Chapter 5. Accessing the Network Camera 19
5.1 Assigning An IP Address 19
5.2 Access with Plugin 19
5.3 Accessing from the Web Browser 19
5.4 Forget Password 24

Chapter 6. Live View 26
6.1 Live Video 26
6.2 Face Detection Mode 28
6.3 PTZ Mode 30

Chapter 7. Playback 40

Chapter 8. Settings 48
8.1 Media 48
8.2 Network 66
8.3 Storage 85
8.4 Event 91

Chapter 9. PTZ 168
9.1 Basic 168
9.2 Auto Home 172
9.3 PTZ Limits 173
9.4 Initial Position 174
9.5 Privacy Mask 175
9.6 Schedule Tasks 177
9.7 Auto Tracking 178
9.8 Config Clear 179
9.9 RS485 180
9.10 Status 180

Chapter 10.System 181
10.1 System Setting 181
10.2 Security 183
10.3 Logs 190
10.4 Maintenance 192

After-sales Services 195

Appendix 195

Lightning Protection and Surge Protection 196

Disposal of Products/Components after End-Of-Life 198

E-Waste Management and Handling Rules 199

Chapter 1. Introduction

1.1 Safety Instruction

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss. The precaution measures are divided into “Warnings” and “Cautions”

Warnings: Serious injury or death may be caused if any of these warnings is neglected.

- This installation must be conducted by a qualified service person and should strictly comply with the electrical safety regulations of the local region
- To avoid risk of fire and electric shock, do keep the product away from rain and moisture before installed.
- Do not touch components such as heat sinks, power regulators, and processors, which may be hot
- Source with DC/AC 12V or PoE
- Please make sure the plug is firmly inserted into the power socket
- When the product is installed on a wall or ceiling, the device should be firmly fixed
- If the product does not work properly, please contact your dealer. Never attempt to disassemble the camera by yourself

Cautions: Injury or equipment damage may be caused if any of these cautions are neglected.

- Make sure that the power supply voltage is correct before using the camera
- Do not store or install the device in extremely hot or cold temperatures, dusty or damp locations, and do not expose it to high electromagnetic radiation
- Only use components and parts recommended by manufacturer
- Do not drop the camera or subject it to physical shock
- To prevent heat accumulation, do not block air circulation around the camera
- Laser beams may damage image sensors. The surface of image sensors should not be exposed to where a laser beam equipment is used
- Use a blower to remove dust from the lens cover
- Use a soft, dry cloth to clean the surface of the camera. Stubborn stains can be removed using a soft cloth dampened with a small quantity of detergent solution, then wipe dry
- Do not use volatile solvents such as alcohol, benzene or thinners as they may damage the surface finishes
- Save the package to ensure availability of shipping containers for future transportation

Chapter 2. Product Description

2.1 Product Overview

The camera support state-of-the-art H.265/ H.264/ MJPEG video compression algorithm and industry-leading HD dual-stream technology to achieve the highest level of video image quality under the limited network resources. It is fully functional, also supports flexible and comprehensive alarm linkage mechanism, day and night auto switch and privacy masking, etc.

In practical applications, the camera could either work independently in the LAN, or be networked to form a powerful safety monitoring system. It is widely used in fields such as finance, education, industrial production, civil defense, health care for security's sake.

2.2 Key Features

System

- Built-in WEB server, support IE/ Firefox/ Chrome/ Safari browser
- Based on Linux OS with high reliability
- Support Plugin-Free mode
- Support activation and set-up of the security questions for cameras
- Support ONVIF Profile G & Q & S & T
- Three-privilege levels of users for flexible management
- Micro SD/SDHC/SDXC card local storage support, expand the edge storage

Image

- 0.001Lux Ultra Low Light
- Smart IR II technology
- 4K Video Viewing Experience
- P-Iris Control
- 3 in 1 Super WDR Pro
- Support HLC
- Support BLC
- ICR filter with auto switch, true day/night
- Corridor Mode

Video

- H.265/ H.264/ MJPEG video compression capability
- 70% ~80% bandwidth saved by 10-level adjustable H.265+
- Support Primary Stream/ Secondary Stream/ Tertiary Stream
- Support Smart Stream
- Real-time video electronic amplification

Audio

- G.711/AAC audio compression capability
- Support Audio I/O

Network

- UPnP protocol for the easy management of camera
- Support DDNS
- FTP upload, SMTP upload, SD card record and SIP phone

Advanced Function

- Motion Detection, Privacy Masking, Network Fault Detection and ROI
- Support AI Video Content Analysis
- Support People Counting function
- Support Face Detection function

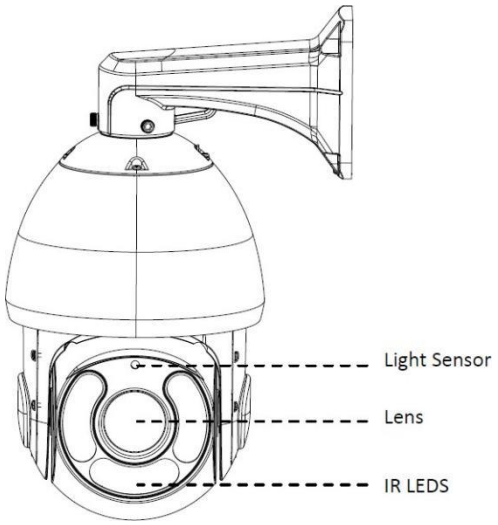
Hardware

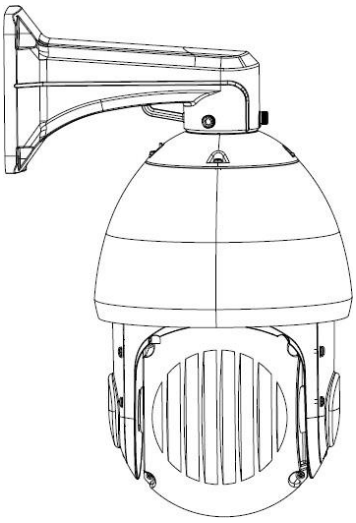
- Support PoE for power supply
- Support Alarm I/O
- Built-in Microphone
- IP67-rated weather-proof housing

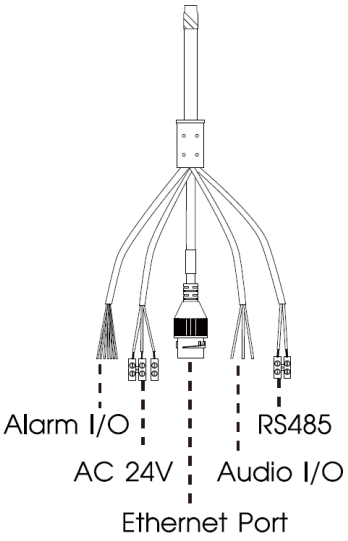
PTZ

- Up to 42X for Speed Dome
- 360° continuous pan and -5°~ 90° (Auto Flip) tilt for Speed Dome
- 300 Preset Points, 8 Patrols and 4 Patterns
- Auto Tracking, 3D Positioning, PTZ Motion, PTZ Limit, Scheduled Tasks and Auto Home function

2.3 Hardware Overview 42X Speed Dome





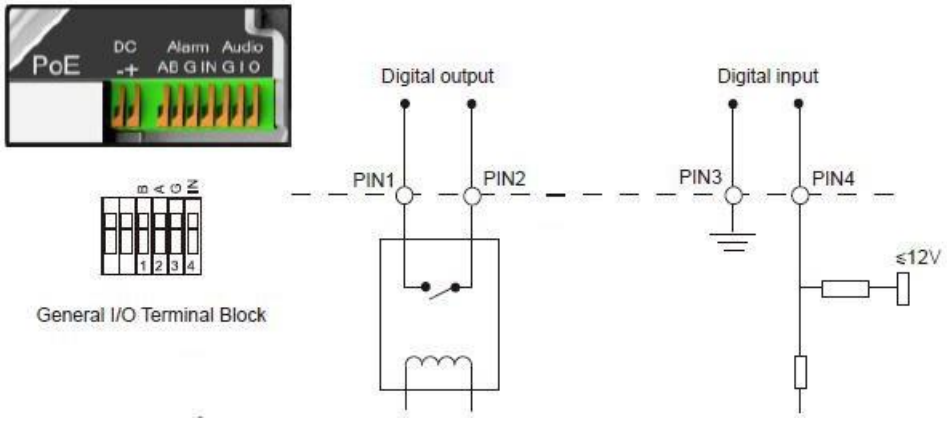


Note:

- Only AC 24V is available for Speed Dome power supply. AC 24V and PoE (802.3at) are available for PoE Speed Dome power supply.
- Reset Button: Press “Reset” button for 5 seconds, then the device will be restored to factory default.

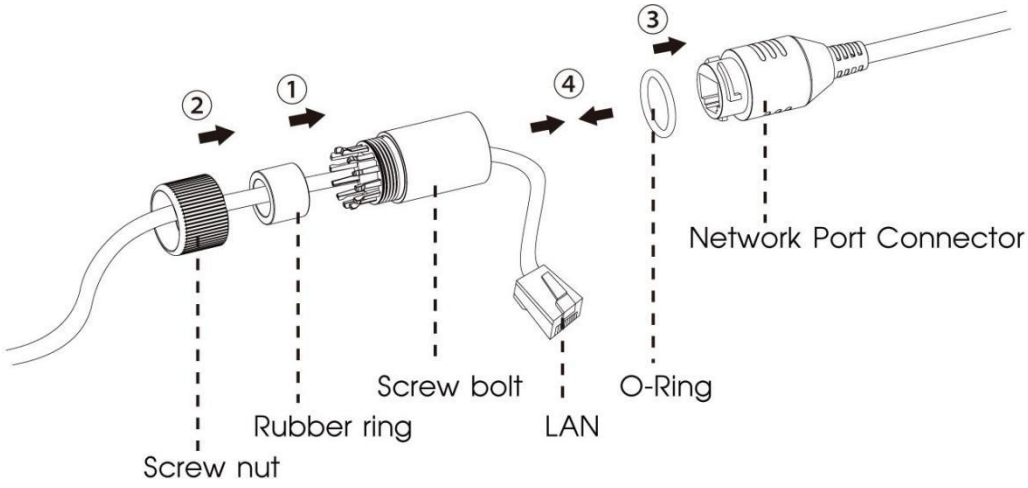
2.4 How to Connect to Alarm Interface

External interface of camera is as following, you can refer to the picture to install the external alarm device:



- PIN1: Alarm Output NC/NO 24V DC 1A
- PIN2: Alarm Output NC/NO 24V DC 1A
- PIN3: Alarm Input NC/NO ≤12V
- PIN4: Alarm Input NC/NO ≤12V

2.5 How to Connect the Water-proof Connector



Step1: Get the network cable through the screw nut, rubber ring and the screw

bolt. Step2: Insert the rubber ring into the screw bolt.

Step3: Connect the screw nut to the screw bolt.

Step4: Place the O-Ring on the network port connector.

Step5: Connect the RJ45 to the network port connector, and tighten the screw bolt and the connector.

2.6 System Requirements

Operating System: Windows XP/Vista/7/8/10/Server 2000/Server 2008

CPU: 1.66GHz or higher

RAM: 1G or higher

Graphic memory: 128MB or more

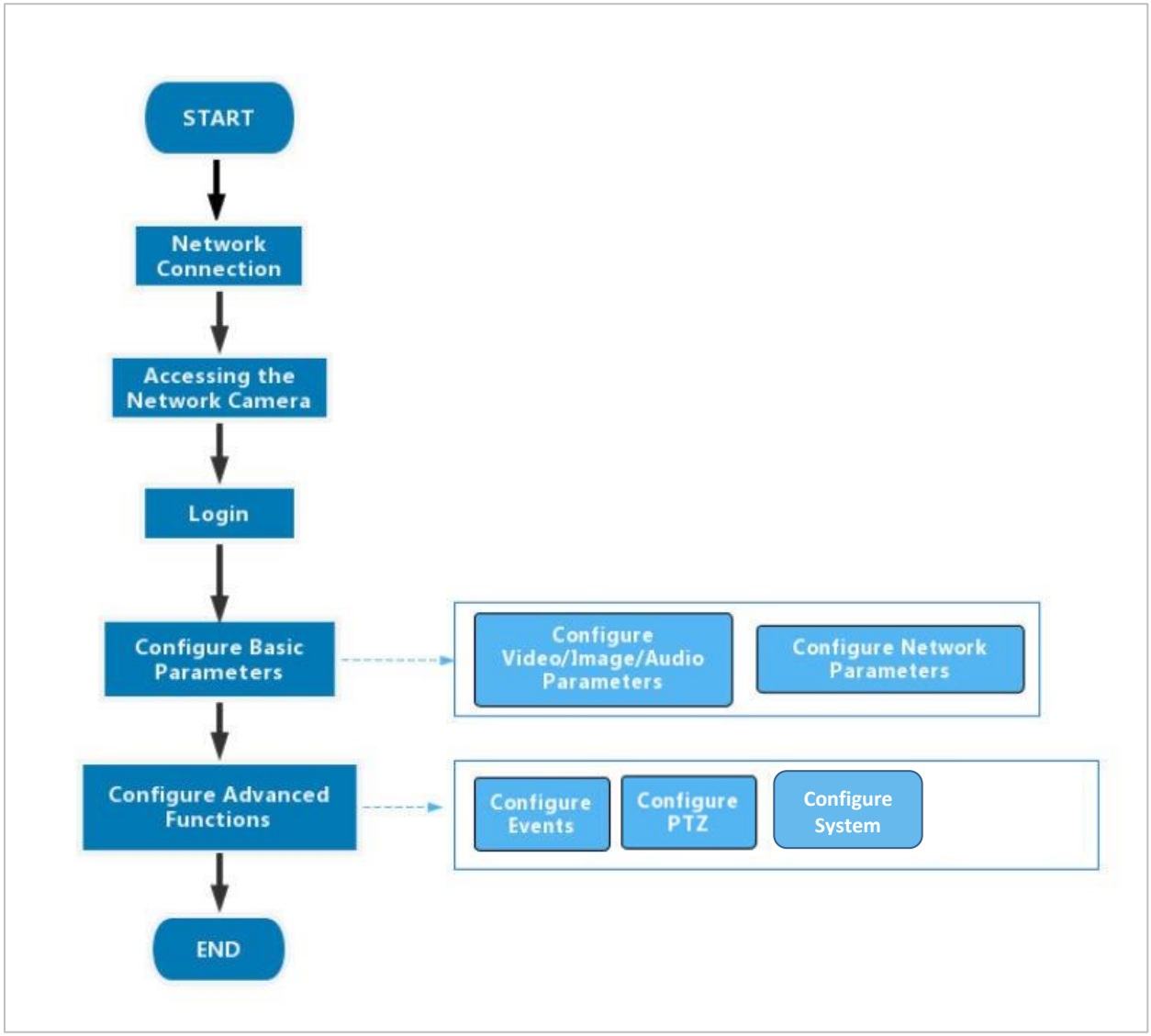
Internet protocol: TCP/IP (IPv4/IPv6)

Web Browsers: Internet Explorer 8.0 and above version, Mozilla Firefox, Google Chrome and Safari.

Chapter 3. Configuration Flow

The configuration flow of cameras is shown in the following figure.

Note: The configuration must be based on the actual situation of different models.



More configuration details are displayed in the following table.

Table 1. Description of flow

Configuration	Description	Reference
Network Connection	Connect the network camera. You can set the camera over the LAN or dynamic IP connection.	Chapter 4. Network Connection
Accessing the Network Camera	Accessing from IP address, web browser and the back-end software are available.	Chapter 5. Accessing the Network Camera
Configure Basic Parameters	After login the camera, you can adjust the video/image/audio/network parameters as needed.	Media Network
Configure Advanced Functions	Configure the advanced functions, such as VCA and people counting.	Event

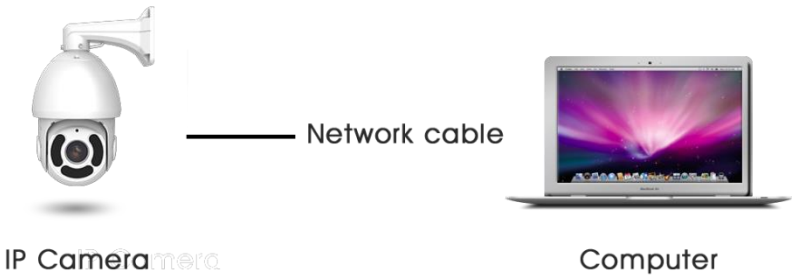
Chapter 4. Network Connection

4.1 Setting the Camera over the LAN

Connecting the camera to a switch or a router is the most common connection method. The camera must be assigned an IP address that is compatible with its LAN.

4.2 Connect the Camera to the PC Directly

In this method, only the computer connected to the camera will be able to view the camera. The camera must be assigned a compatible IP address to the computer. Details are shown in the following figure.



4.3 Connect via a Switch or a Router

Refer to the following figure to set network camera over the LAN via the switch or router.

4.4 Dynamic IP Connection

Connecting the network camera via a router

Step1: Connect the network camera to a router;

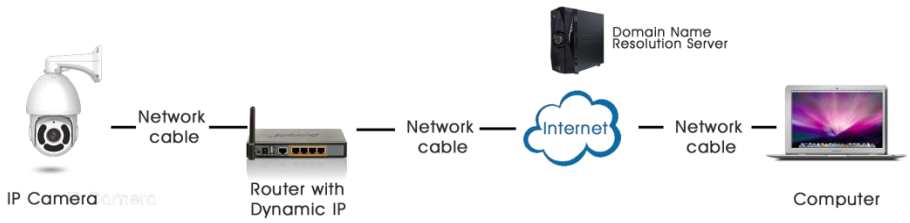
Step2: On the camera, assign a LAN IP address, the Subnet mask and the Gateway;

Step3: On the router, set port forwarding. E.g. 80, 8000 and 554 ports. The steps for port forwarding vary depending on different routers. Please look up the router's user manual for assistance with port forwarding;

Step4: Apply a domain name from a domain name provider;

Step5: Configure the DDNS settings in the setting interface of the router;

Step6: Visit the camera via the domain name.



Chapter 5. Accessing the Network Camera

5.1 Assigning An IP Address

The Network Camera must be assigned an IP address to be accessible. The default IP address of network cameras is **192.168.1.126**.

5.2 Access with Plugin

Currently you can only access the camera with plugin via Internet Explorer.

5.3 Accessing from the Web Browser

Access over IE Browser

Before using the browser to get access to your camera, you need to install the MsActiveX firstly. You can refer the steps as follows:

Step1: Launch the IE browser and enter the IP address of the camera;

Step2: Enter the User Name and Password and click "Login";

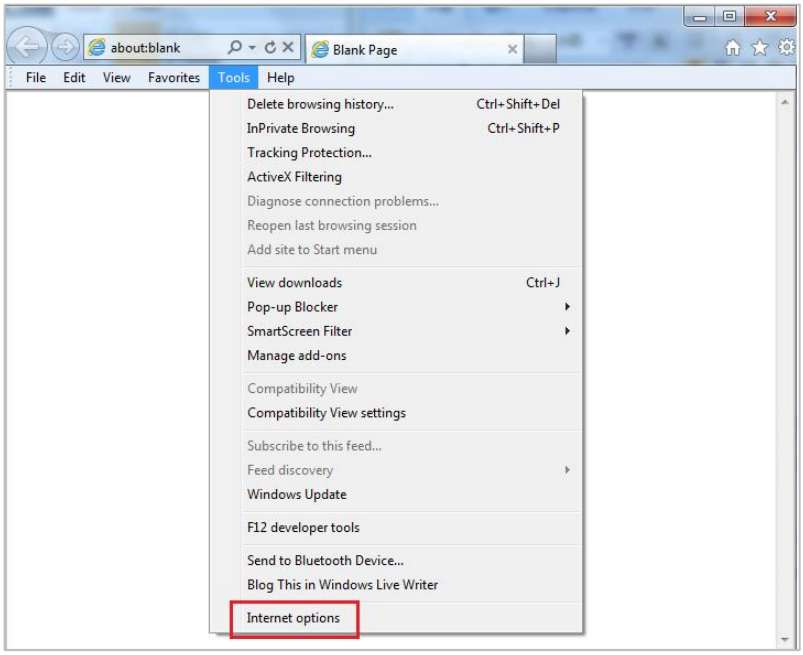
Step3: At the first time to log in the device, the browser will prompt to install Controls, please click "Click here to download and install controls manually" as shown in the figure below;

Note: During installing the controls, please keep the browsers close.

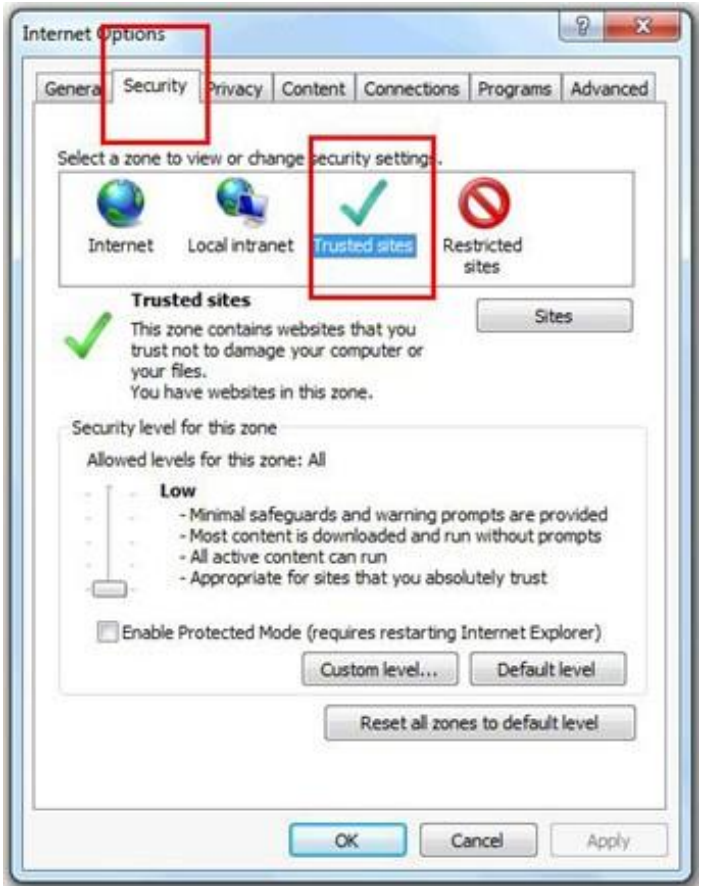
Step4: Follow the prompts to install the Controls, when it`s finished, it will pop out a window as shown in the figure below. Please click "Finish" and refresh the browser, then you will see the video.

If IE9 or higher version browser is used, it is suggested that the web link should be added as a trusted site. See the instructions as follows:

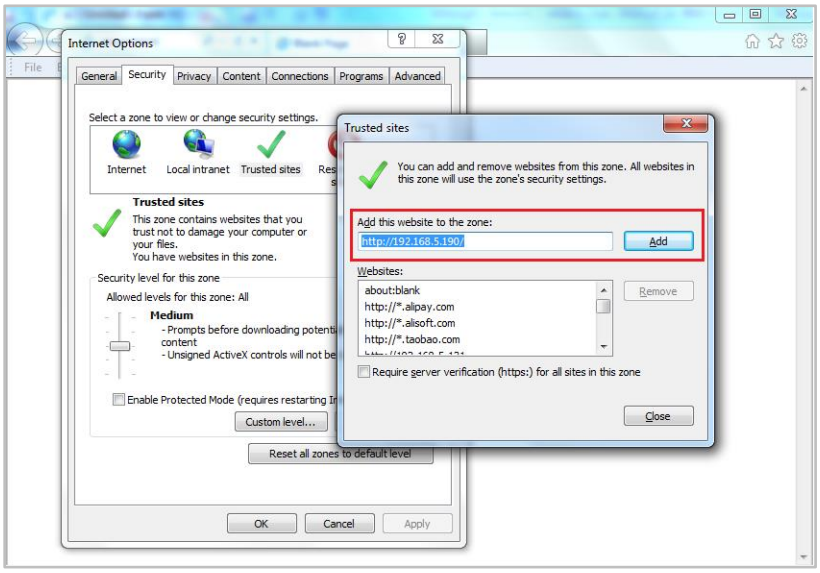
Step1: Start the IE9 or higher version browser, and select “Tools”→“Internet Options”;



Step2: Select “Security” to “Trusted”;



Step3: Enter the IP address of the camera in the blank and click “Add”;

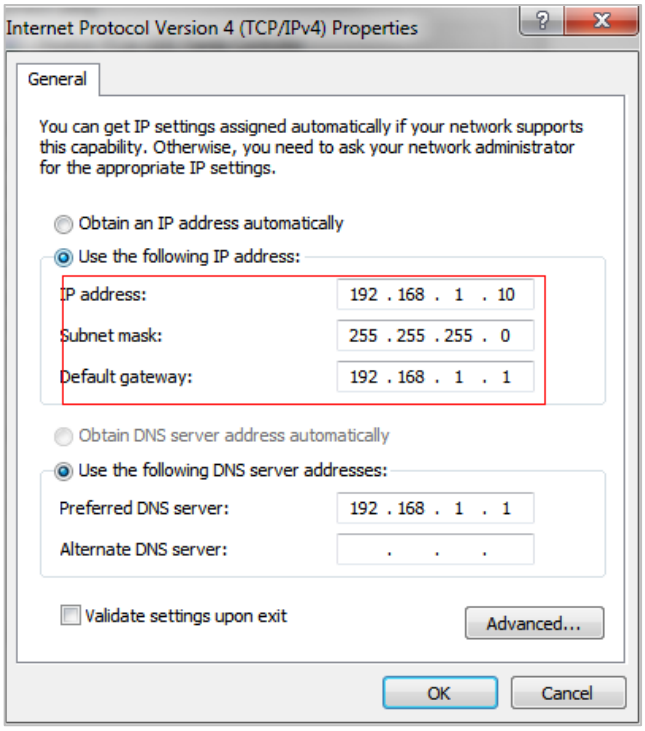


5.3.1 Assign an IP Address via Browser

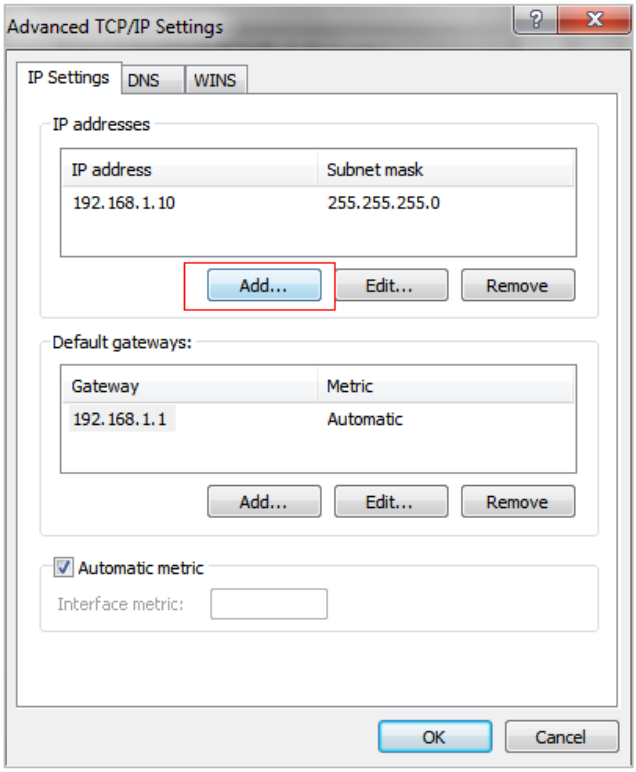
If the network segment of the computer and that of the camera are different, please follow the steps to change the IP address:

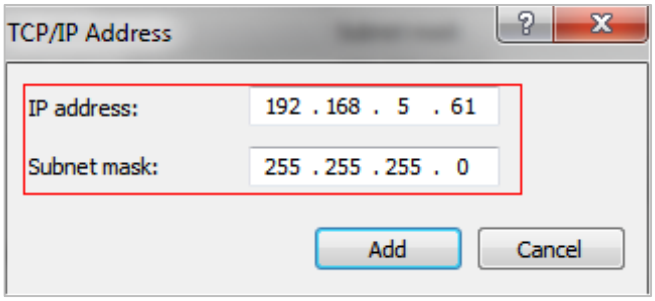
Step1: Change the IP address of computer to make sure it is in the same network as the camera. Here are two ways as below:

a. Start→Control Panel→Network and Internet Connection→Network Connection→Local Area Connection, and double click it;



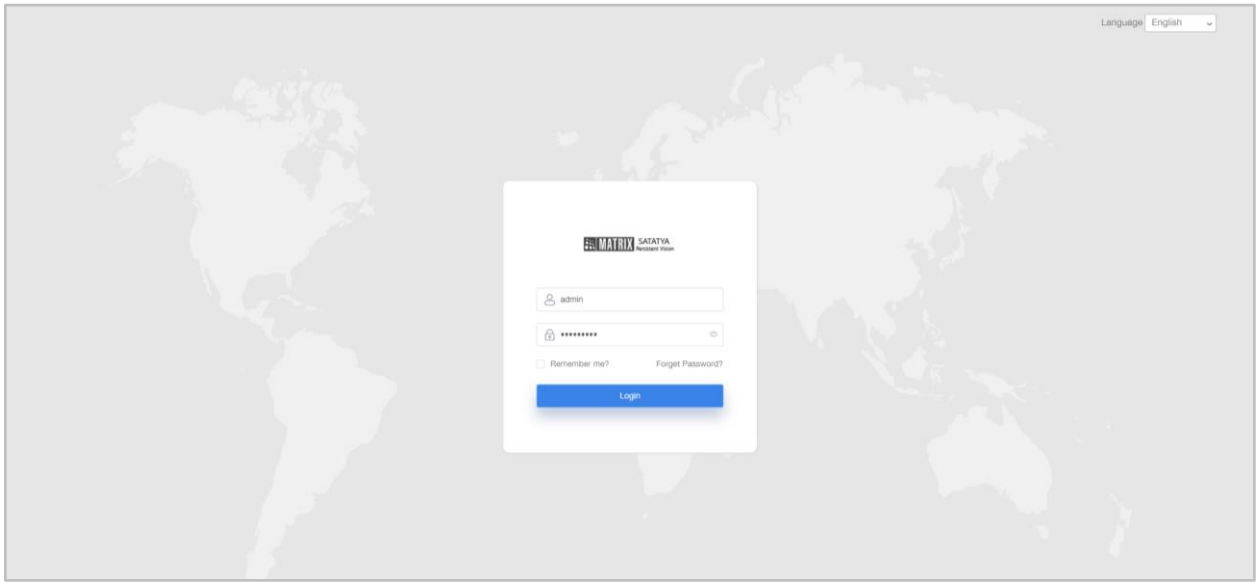
b. Click “Advanced” and then click “IP settings”--> “IP address”--> “Add”. In the pop-up window, enter an IP address that in the same segment with network camera (e.g. 192.168.1.112, but please note that this IP address shall not conflict with the IP address on the existing network);





Step2: Open the browser. In the address bar, enter the default IP address of the camera: http://192.168.1.126;

The **Login** page appears.



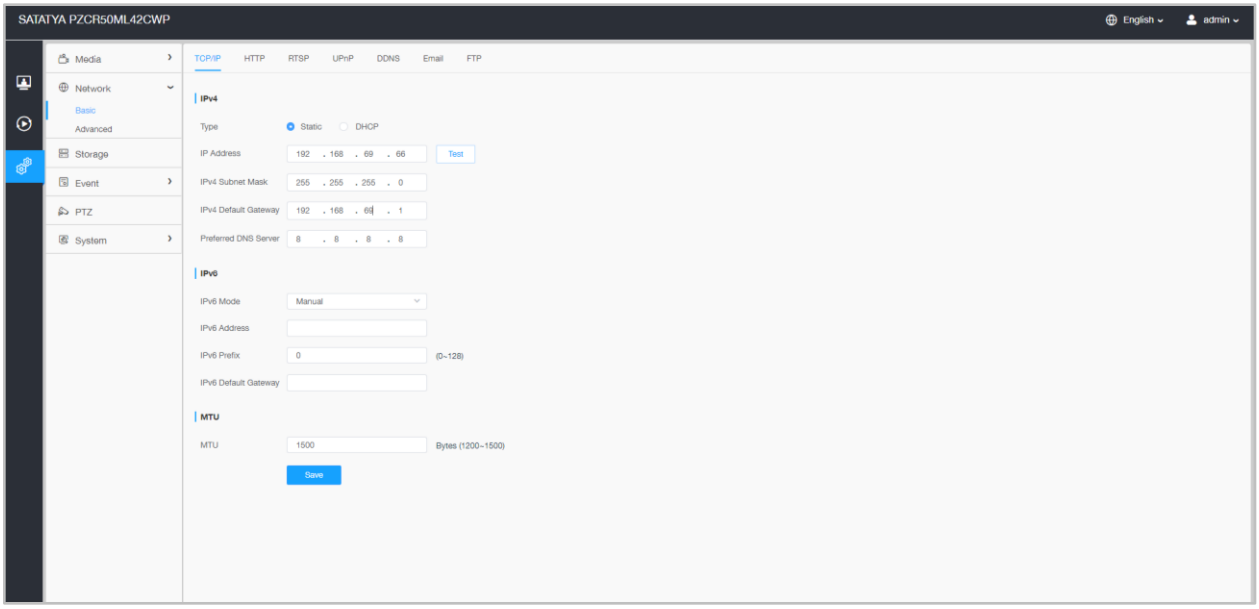
Enter the **User Name** as **admin** and **Password** as **Matrix@123**.

Click **Login**.

Note:

- Password must be 8 to 32 characters long, contain at least one number and one letter.
- You can click the "Forget Password" on login page to reset the password by answering three security questions when you forget the password, if you set the security questions in advance. For details refer to Forget Password.

Step3: After login, please select "Settings" → "Network" → "Basic" → "TCP/IP". The Network Settings page appears (Shown as below Figure);

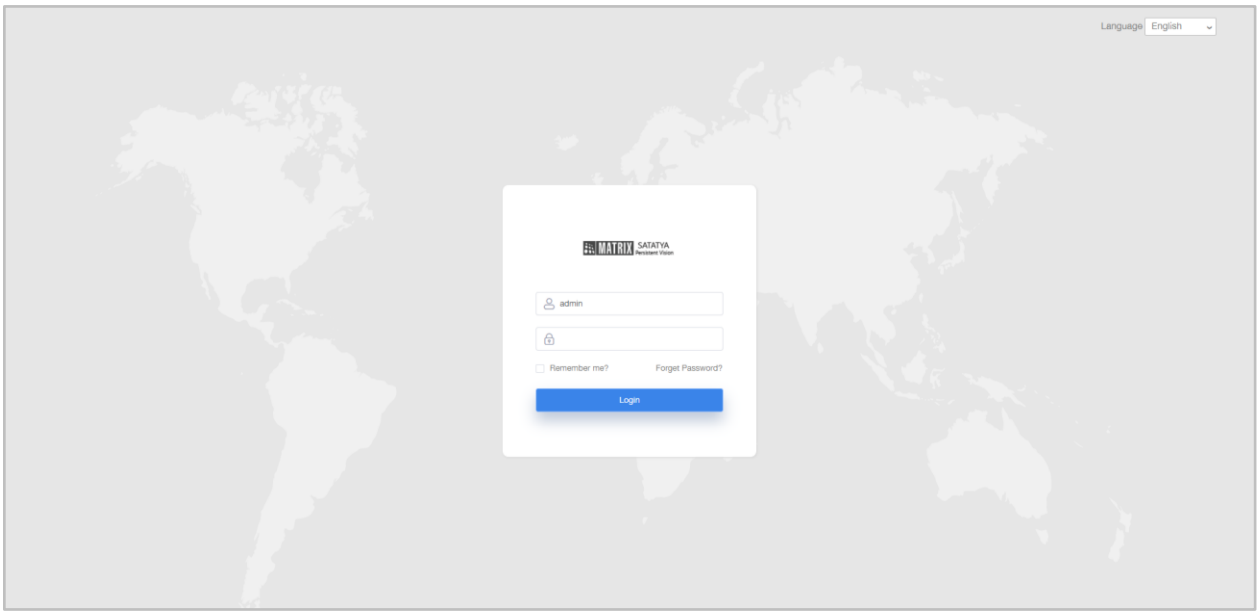


Step4: Change the IP address or other network values. Then click “Save” button;

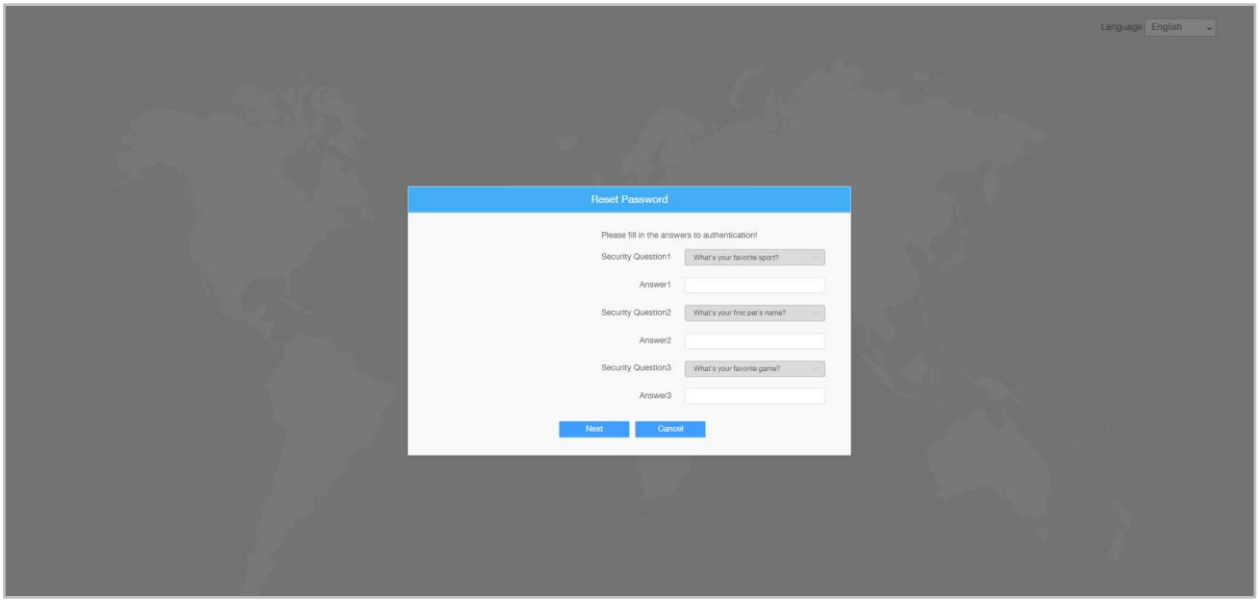
Step5: The change of default IP address is completed.

5.4 Forget Password

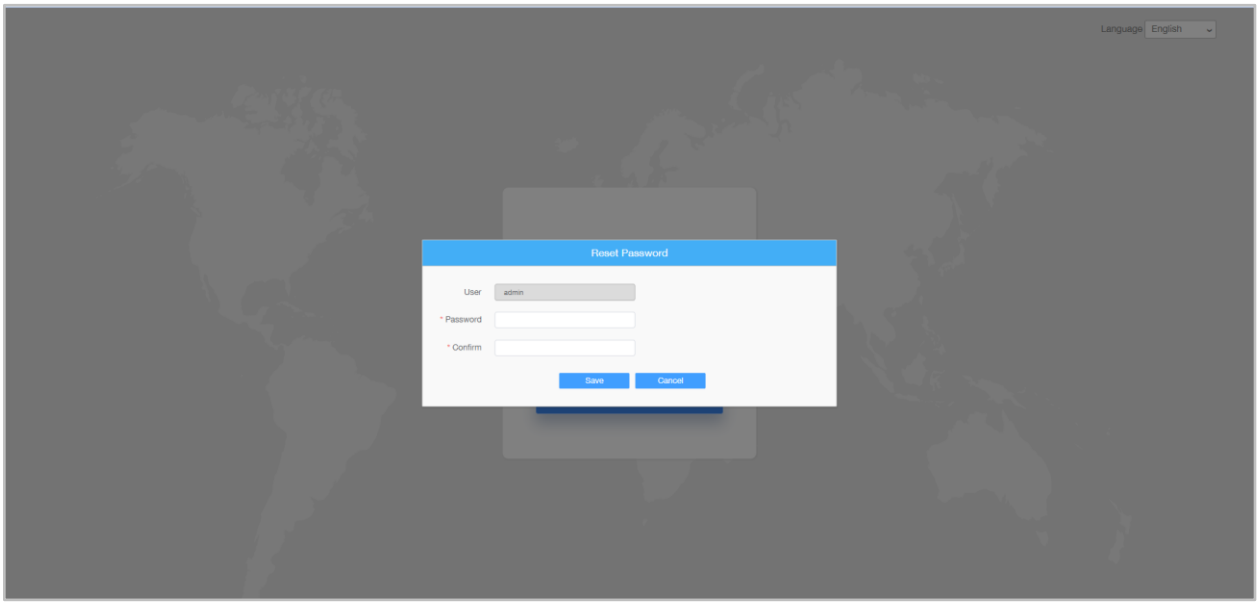
If you have forgotten you password click the **Forget Password** link on the Login page.



The Security Questions you set appear.



Answer the same correctly. Then **Reset Password** screen appears.



Now enter the new **Password** you wish to set and re-enter the same to C**onfirm**.

Chapter 6. Live View

6.1 Live Video

After logging in the network camera web GUI successfully, user is allowed to view live video as follows.

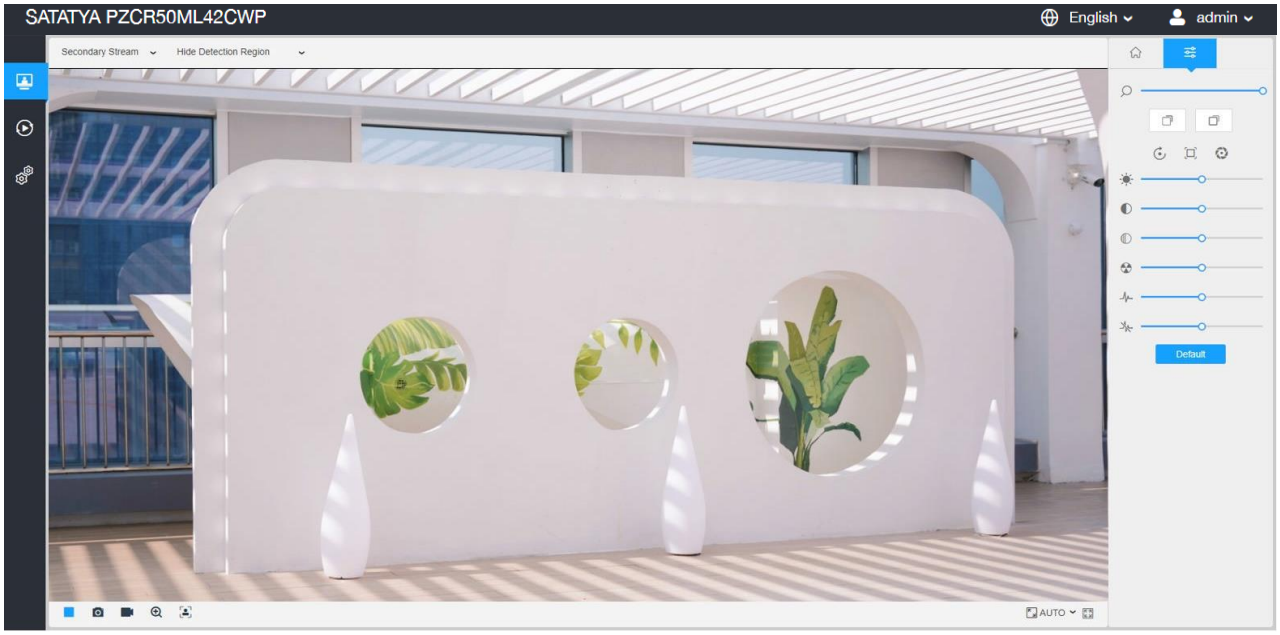
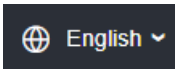
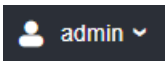
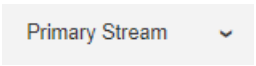
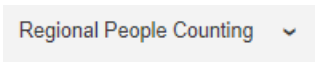
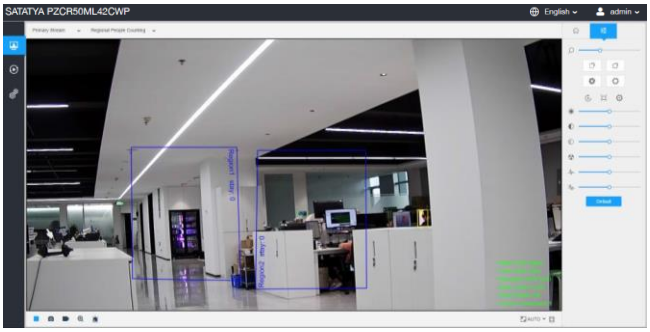
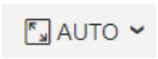
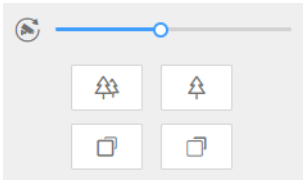
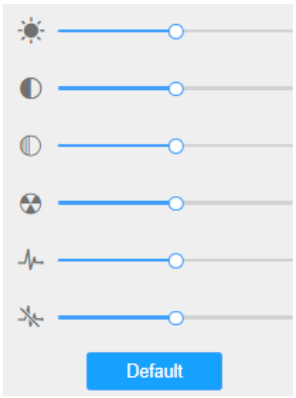


Table 2. Description of the buttons

No.	Parameter	Description
1	Live Video	Click to access the live view page.
2	Playback	Click to access the playback page.
3	Settings	Click to access the configuration page.

No.	Parameter	Description
4		Click to select system language.
5		Display the user name and click to logout.
6		Choose the stream (**Primary/Secondary/Tertiary**) to display on the current video window.
7		Choose the options (**Hide Detection Region/Region Entrance/ Region Exiting/Advanced Motion/Line Crossing/Loitering/ People Counting/Object Left/Object Remove/Regional People Counting**) to hide/display detection region on the current video window. 
8	 Recording	When recording, the icon appears.
9	 Alarm	When an alarm of VCA event is triggered, the icon appears.
10	 Alarm	When an alarm of people counting is triggered, the icon appears.
11	 Alarm	When an alarm of Motion Detection is triggered, the icon appears.
12	 Alarm	Except for the three kinds of alarms above, when any other alarms are triggered, the icon appears.

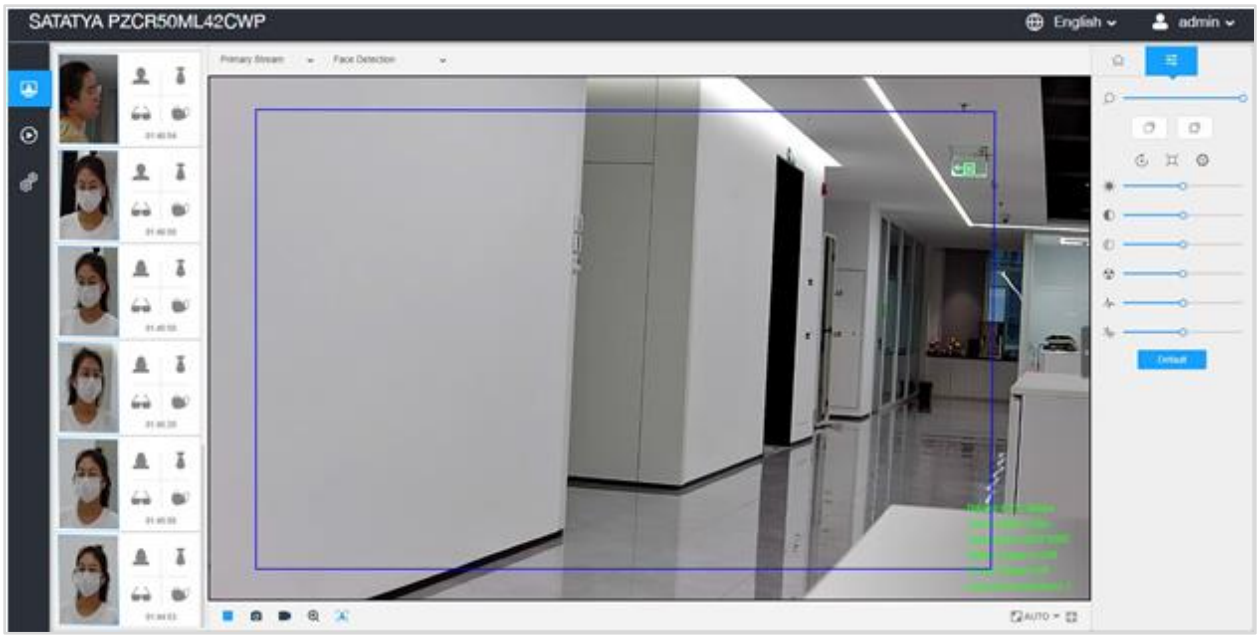
No.	Parameter	Description
13	Stop/Pl	**Stop/Play** live view.
14	Snapshot	Click to capture the current image and save to the configured path.
15	Start/Stop	Click to **Start Recording** video and save to the configured path. Click again to **Stop Recording**.
16	Digital Zoom	When enabled, you can zoom in a specific area of the video image with your mouse wheel.
17	Manual Output	Manually trigger Camera Alarm Output.
18	 Window Size	Click to display images at a window size.
19	Full Screen	Click to display images at full-screen.
20	Face Detection	Click to enable the Face Detection Mode.
		Navigation key is used to control the direction. Click on the desired arrow to move the camera in that direction.

No.	Parameter	Description
		**PTZ Speed:** To adjust the speed of pan/tilt movements, from 1 to 10
		Zoom-/Zoom+: Click to zoom in and zoom out.
		Focus-/Focus+: Click to focus near or far of the lens.
		Lens Initialization, Auxiliary Focus and Auto Iris. **Note:** • The Auto Iris is turned on by default when your camera is equipped with auto focus lens. • The Auto Iris support turn on/off when your camera is equipped with P-Iris.
		3D Positioning: Click to enable/ disable 3D positioning.
		One-touch Patrol: Click to carry out the patrol.
		Auto Home: Click to enable Auto Home.
		Manual Tracking: Click to track the moving objects.
		Dehumidifying: Click to enable the fan working mode.
		Enable to set 300 preset positions for each regional view
		Enable to set 8 patrol paths for each regional view channel.
		Display the pattern.
		**Brightness**: Adjust the Brightness of the scene.
		Contrast: Adjust the color and light contrast.
		Saturation: Adjust the Saturation of the image. Higher Saturation makes colors appear more "pure" while lower one appears more “wash-out”.
		Sharpness: Adjust the Sharpness of image. Higher Sharpness sharps the pixel boundary and makes the image looks “more clear”.
		2D DNR/3D DNR: Adjust the noise reduction level.
		Default: Restore brightness, contrast and saturation to default settings.

To know more about PTZ, refer to PTZ Mode.

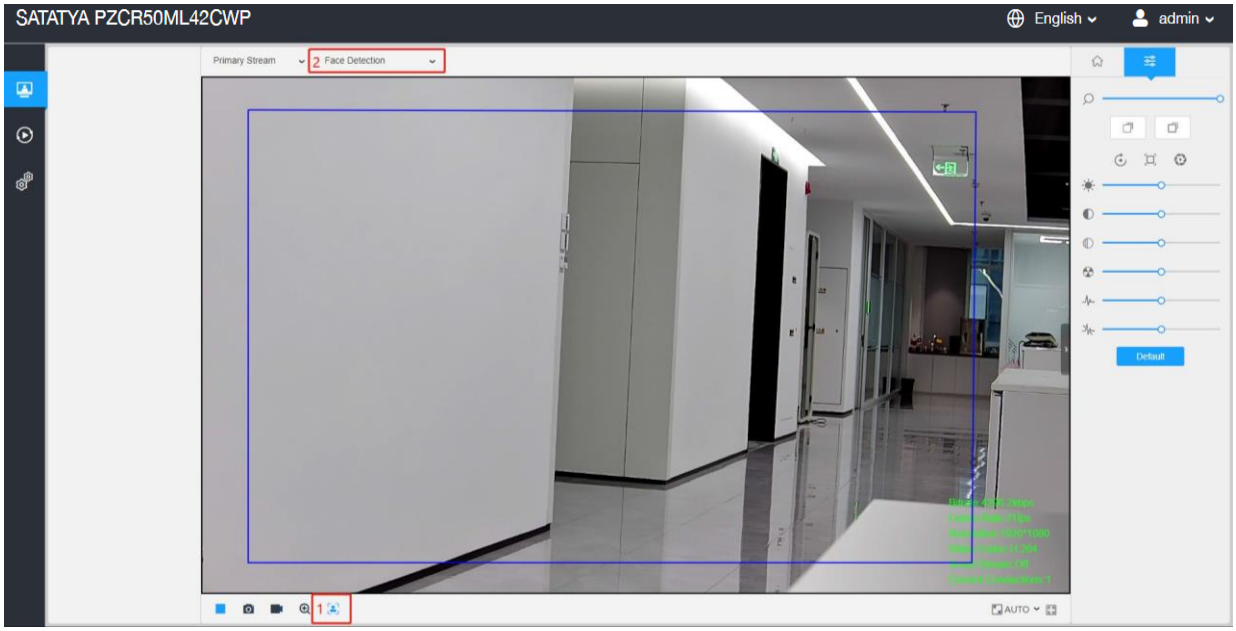
6.2 Face Detection Mode

The face detection function detects human faces in the monitoring scene and captures the snapshots, which greatly enhances the monitoring efficiency and benefits the large population related industries such as public security, access control and business management.

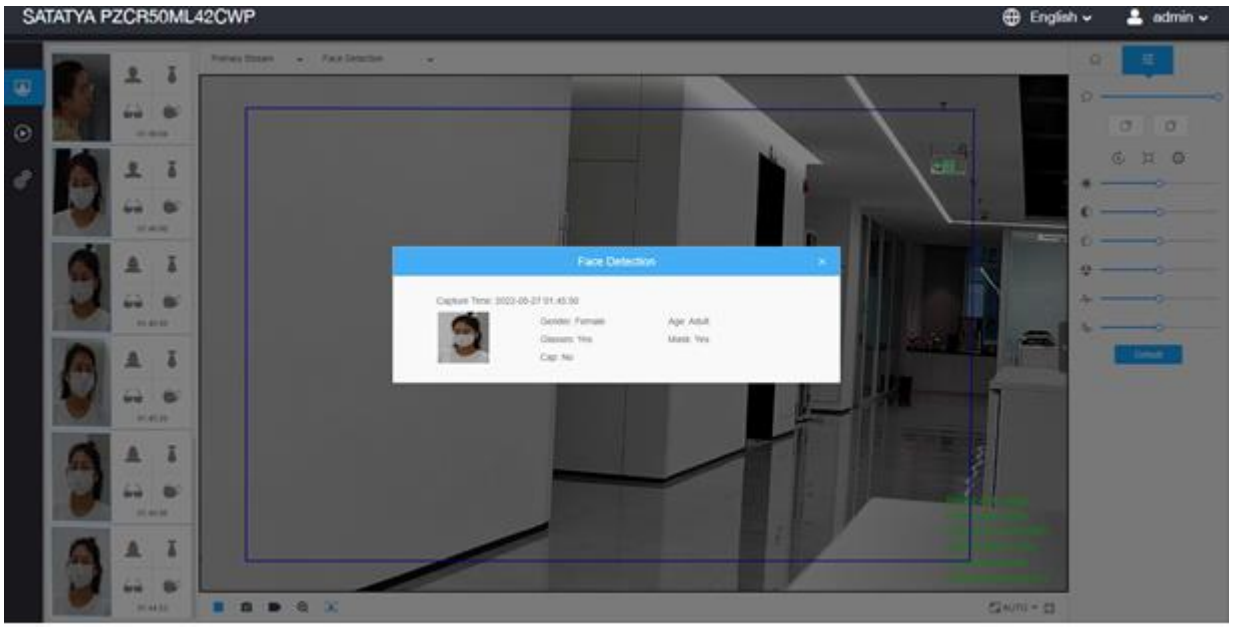


Step1: Click to enable the Face Detection Mode and the camera will detect faces in live view according to the region and conditions set by you.

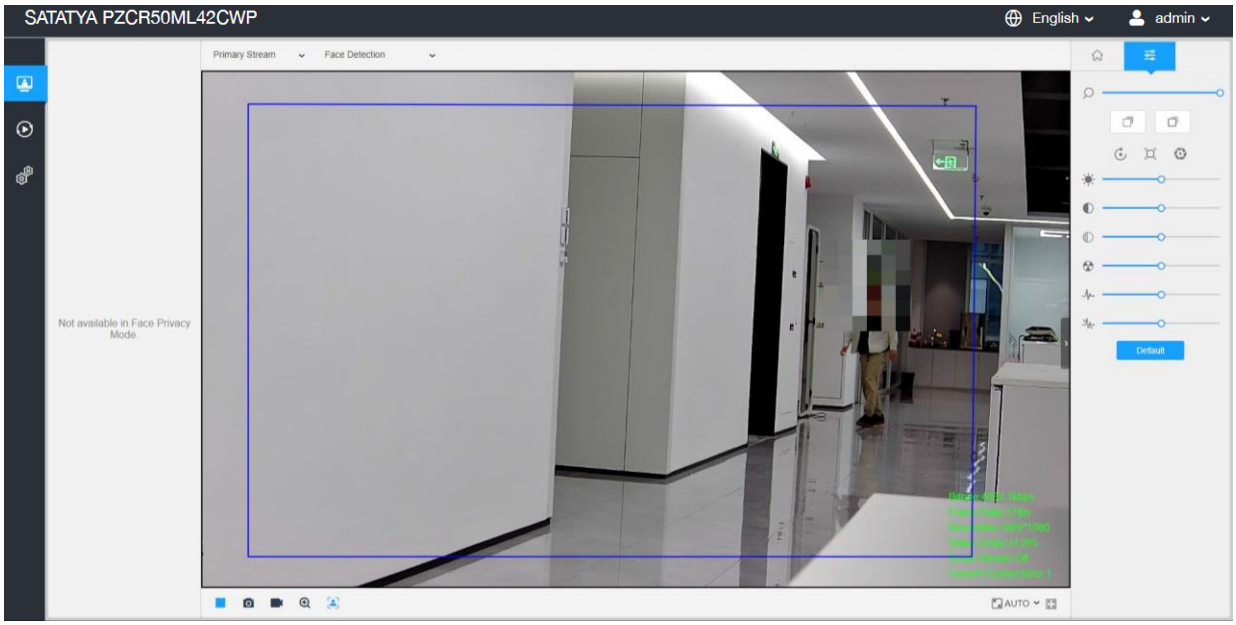
Note: Before enabling the face detection mode, ensure that the face detection function has been enabled and configured. For more details about how to configure the face detection, please refer to Face Detection.



Step2: When Attribute Recognition is enabled, the attributes of detected faces will be displayed on the left side of the Live View interface.



Step3: When Face Privacy Settings is enabled, the detected faces in the face detection area will appear in the mosaic automatically. The size of the mosaic is related to that of the detected faces, and users can customize the size of the detected faces as needed. The Face Privacy function meets the needs of users in some special scenarios, which greatly protects people's portrait rights.



Note: Face Capture/Face Detection Message Post/Attribute Recognition are not available in Face Privacy Mode.

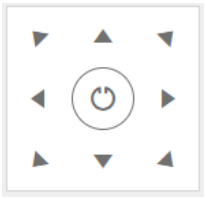
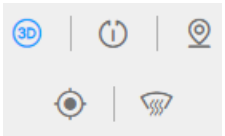
6.3 PTZ Mode

After logging in the PTZ network camera web GUI successfully, user is allowed to view live video as follows.

6.3.1 Operations on Live View Page

Note: For description of other buttons, you can refer to Chapter 6. Live View.

Table 3. Description of the buttons

No.	Parameter	Description
	 PTZ Control	Navigation key is used to control the direction. The rotation key is used for auto-rotation.
	PTZ Speed	To adjust the speed of pan/tilt movements, from 1 to 10.
	Zoom-/Zoom+	Click to zoom in and zoom out.
	Focus-/Focus+	Click to focus near or far of the lens.
		Lens Initialization, Auxiliary Focus and Auto Iris. **Note:** The Auto Iris is turned on by default.
		**3D Positioning:** Click to enable/ disable 3D positioning.
		One-touch Patrol: Click to carry out the patrol.
		Auto Home: Click to enable Auto Home.
		Manual Tracking: Click to track the moving objects.
		Dehumidifying: Click to enable the fan working mode.
		Enable to set 300 preset positions for each regional view channel.
		Enable to set 8 patrol paths for each regional view channel.
		Display the pattern.

6.3.2 3D Positioning

3D Positioning allows user to use mouse clicking and dragging to control the PTZ.

Steps:

1. Click on the toolbar of Live View interface.

2. Operate the 3D positioning function

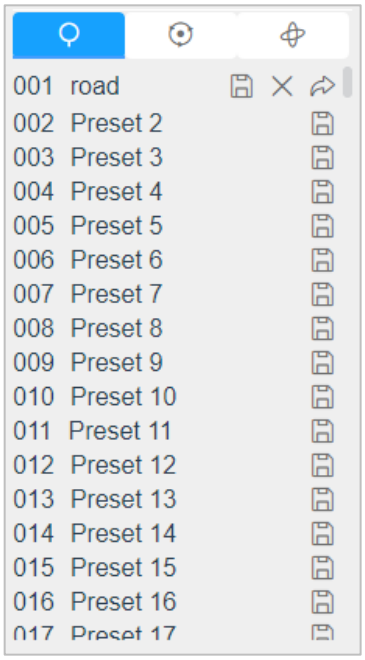
   - Left click a position of the Live View, and the corresponding position will be moved to the center of the Live View.
   - Hold down the left mouse button and drag the mouse to the lower right or upper right on the Live View, then you can see a blue rectangle. The corresponding position will be moved to the center of the Live View and Zoom in.
   - Hold down the left mouse button and drag the mouse to the lower left or upper left on the Live View, then you can see a blue rectangle. The corresponding position will be moved to the center of the Live View and Zoom out.
   - The Bigger the rectangle is, the smaller zoom in/out will be acted.

6.3.3 Set / Call a Preset / Patrol / Pattern

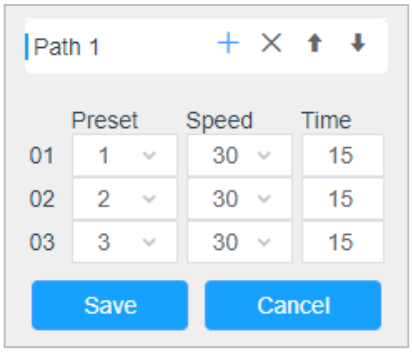
A preset is a predefined image position. You can click the call button from the preset list to quickly go to the desired image position.

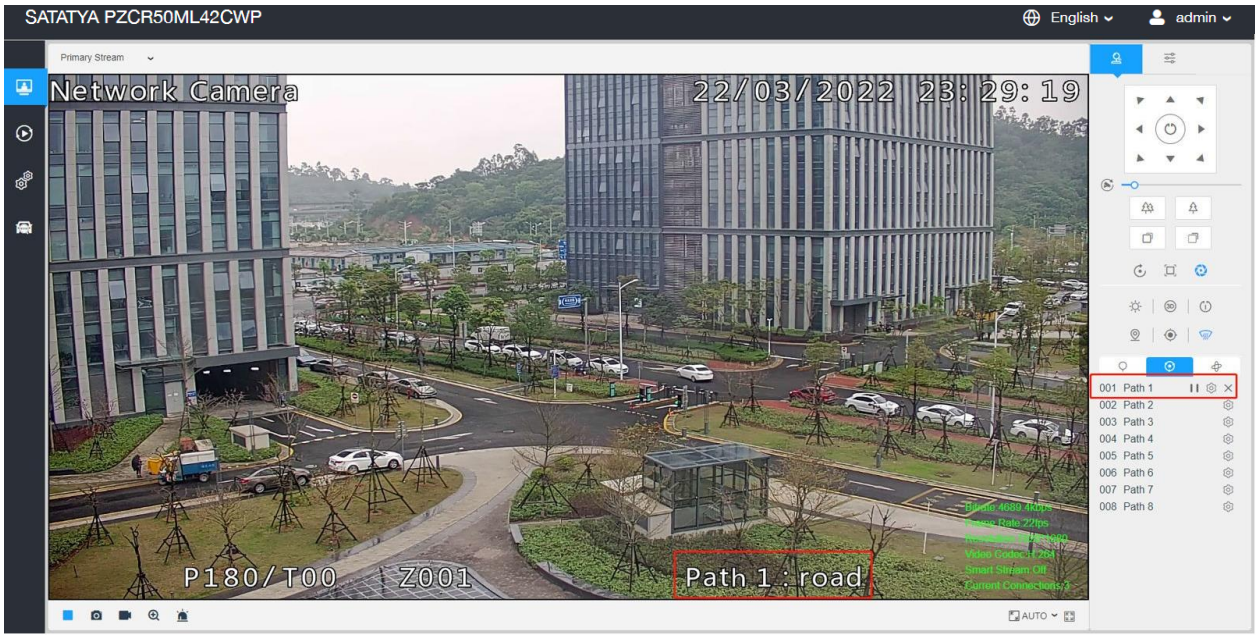
Set a preset:

Step1: In the PTZ control panel, select a preset number from the preset list. You can also customize the preset name displayed on the screen. The patrol name displayed on the screen will also be customized if you customize preset name and set a patrol as shown below;


001 road
002 Preset 2
003 Preset 3
004 Preset 4
005 Preset 5
006 Preset 6
007 Preset 7
008 Preset 8
009 Preset 9
010 Preset 10
011 Preset 11
012 Preset 12
013 Preset 13
014 Preset 14
015 Preset 15
016 Preset 16
017 Preset 17

SATATYA PZCR50ML42CWP
English
admin
Network Camera
22/03/2022 23:27:01
P180/T00
Z001
road





Step2: Use the PTZ control buttons to move the lens to the desired position;

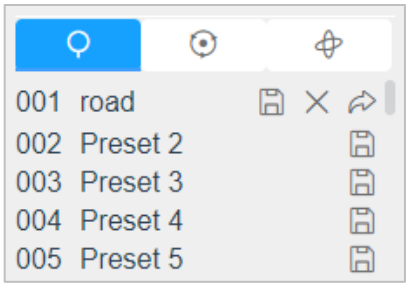
Step3: Click to save the setting of the current preset;

Step4: Click to delete the chosen preset.

Note: Up to 300 presets can be configured (18 presets are not modifiable). Up to 300 presets can be configured (for each regional view channel).

Calling a preset:

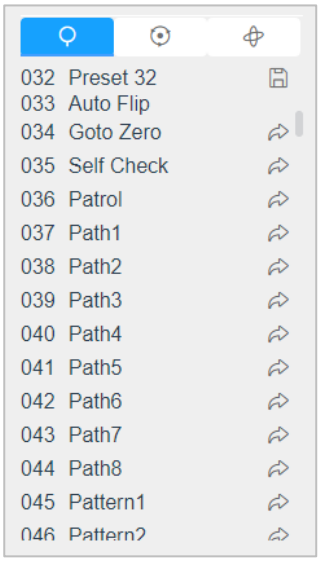
Select a defined preset from the preset list and click to call the preset.



Note: The following presets are predefined with special commands. You can only call them but can't configure them. For example, preset 037 is the "Self Check". If you call the preset number 037, the PTZ camera will start self check function at once.

Table 4. Special Presets

Special Preset	Function	Special Preset	Function
33	Auto Flip(Speed Dome only)	42	Path6
34	Go to Zero	43	Path7
35	Self Check	44	Path8
36	Patrol	45	Pattern1
37	Path1	46	Pattern2
38	Path2	47	Pattern3
39	Path3	48	Pattern4
40	Path4	49	Stop Scan
41	Path5	50	Auto Scan



Set / Call a patrol

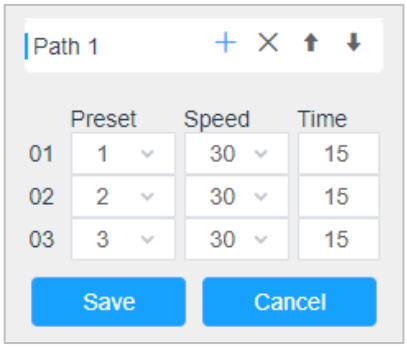
A patrol is a memorized series of preset function. It can be configured and called on the patrol setting list. You can customize up to 8 patrols and it can be configured with 48 presets. Before configuring the patrol, you should make sure that the presets you want to add to the patrol have been defined.

Set a patrol:

Step1: In the PTZ control panel, click to enter the patrol settings interface;

Step2: Select a patrol number, the setting icon will appear , click it;

Step3: Click to add presets to this patrol, as shown in Figure;



Step4: Configure the preset number, patrol speed and patrol time;

Table 5. Description of Patrol Settings

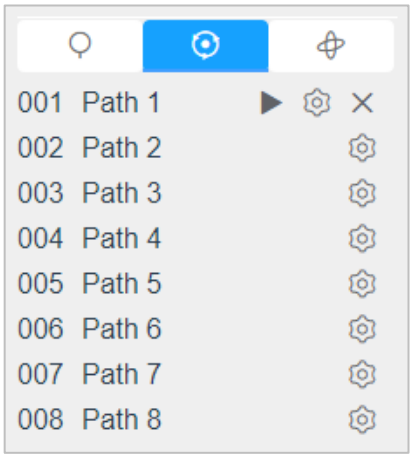
Name	Description
Patrol Speed	The speed of moving from one preset to another.
Patrol Time	The duration staying on one patrol point. The PTZ camera moves to another patrol point after the set patrol time.

Step5: Click Save to save the patrol settings.

Note:
- Patrol Speed only works in Patrol mode.
- Patrol Time should 0~120s for Speed Dome.

Call a patrol:

In the PTZ control panel, select a defined patrol from the patrol list, and click ▶ to call the patrol, as shown below.



The three buttons behind the Patrol list means: Play, Set and Delete.

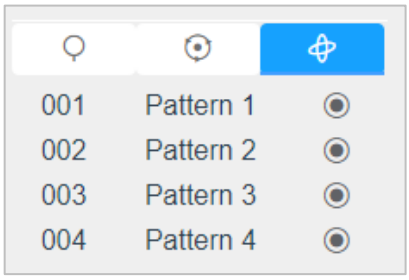
Set / Call a pattern

A pattern is a memorized series of pan, tilt, zoom and preset functions. It can be called on the pattern settings interface. There are up to 4 patterns can be set.

Set a pattern:

Step1: In the PTZ control panel, click to enter the pattern settings interface;

Step2: Select a pattern number from the pattern list as shown in the figure below;



Step3: Click to activate recording the panning, tilting and zooming actions;

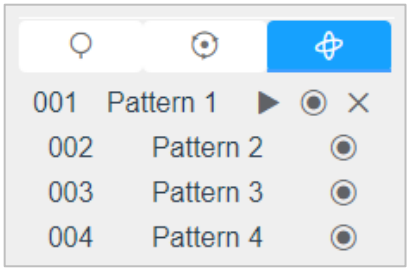
Step4: Use the PTZ controller buttons to move the lens to the interested position;

Step5: Click to save all the pattern settings.

Note: The percentage of number on the OSD is the remaining space of pattern. Start with 100% and run out of 0%.

Call a pattern:

In the PTZ control panel, select a defined pattern from the pattern list, click ▶ to call the pattern, as shown in the figure below.



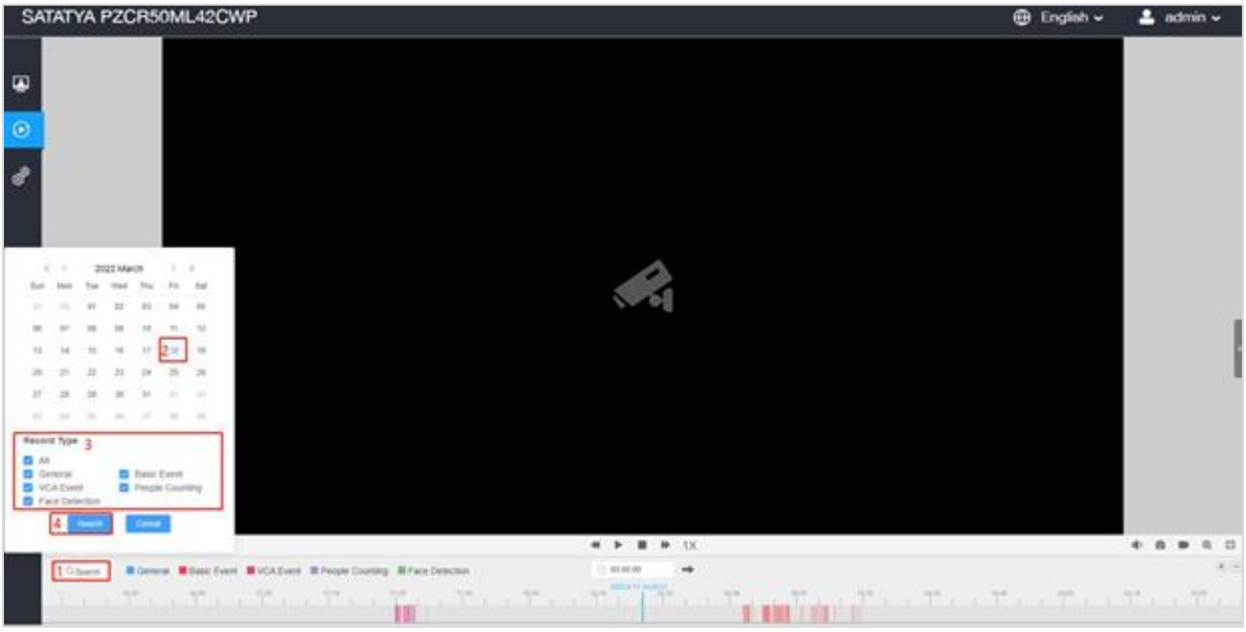
The three button behind the Pattern list means: Play, Record and Delete.

When configuring the pattern, pan and tilt are valid but the limit stops and auto flip will be invalid. Also, 3D Positioning operation is not supported.

Chapter 7. Playback

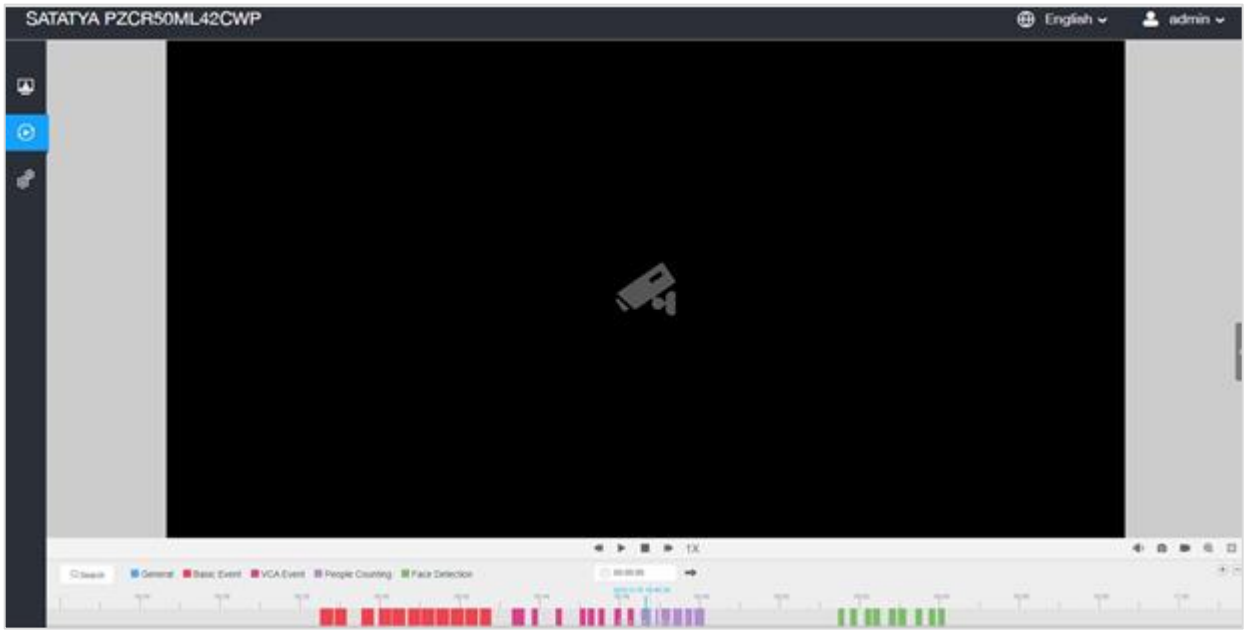
Click to enter playback interface. In this part, you can search and playback the recorded video files stored in SD cards or NAS. The Playback interface is as below:

Step1: Click the "**Search**" button, choose the data and record type when the window pops up.



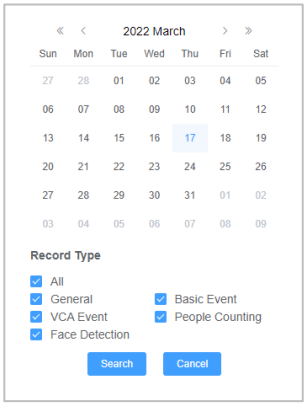
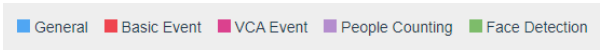
Step2: The timeline displays the video files for the day and show different colors according to selected record type. Drag the progress bar with the mouse to locate the exact playback point as needed.

Note: You can also input the time and click → to locate the playback point in 00:00:00 the file. You can also click ⊕ ⊖ to zoom out/in the progress bar.



Step3: Click ▶ to play the video files found on this date. The toolbar on the button of playback interface can be used to control playing progress.

Table 6. Description of the buttons

No.	Parameter	Description
Search		Choose date to search recorded videos.
		Search the recorded videos by record type (**All/General/ Basic Event/VCA Event/People Counting/Face Detection**). The timeline will show different colors according to selected record type as below: 

No.	Parameter	Description
1	Speed Down/Speed Up	Adjust the speed of video playback. **Speed Down:** Includes 0.5X and 0.25X for Play. **Speed Up:** Includes 2X and 4X for Play.
2	Play/Pause	Play/Pause the video.
3	Stop	Stop the video.
4	Search Time	Select the time that want to locate.
5	Jump	Go To.

Table 7. Description of the buttons

No.	Parameter	Description
1	Mute	Click to enable the audio.
2	Snapshot	Click to take a snapshot.
3	Start/Stop recording	Click to start/stop recording.
4	Digital Zoom	Click to zoom on/off .

5	 Full Screen	Full Screen.
6	 Time Expand/Narrow	Time narrow/expand.

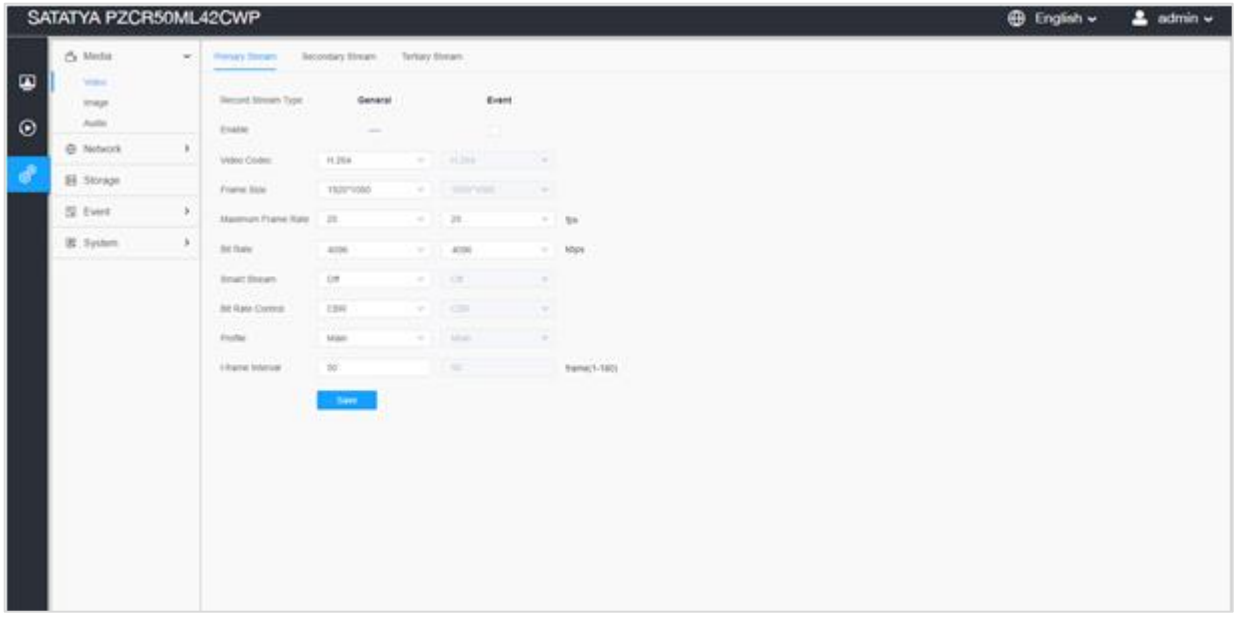
Chapter 8. Settings

8.1 Media

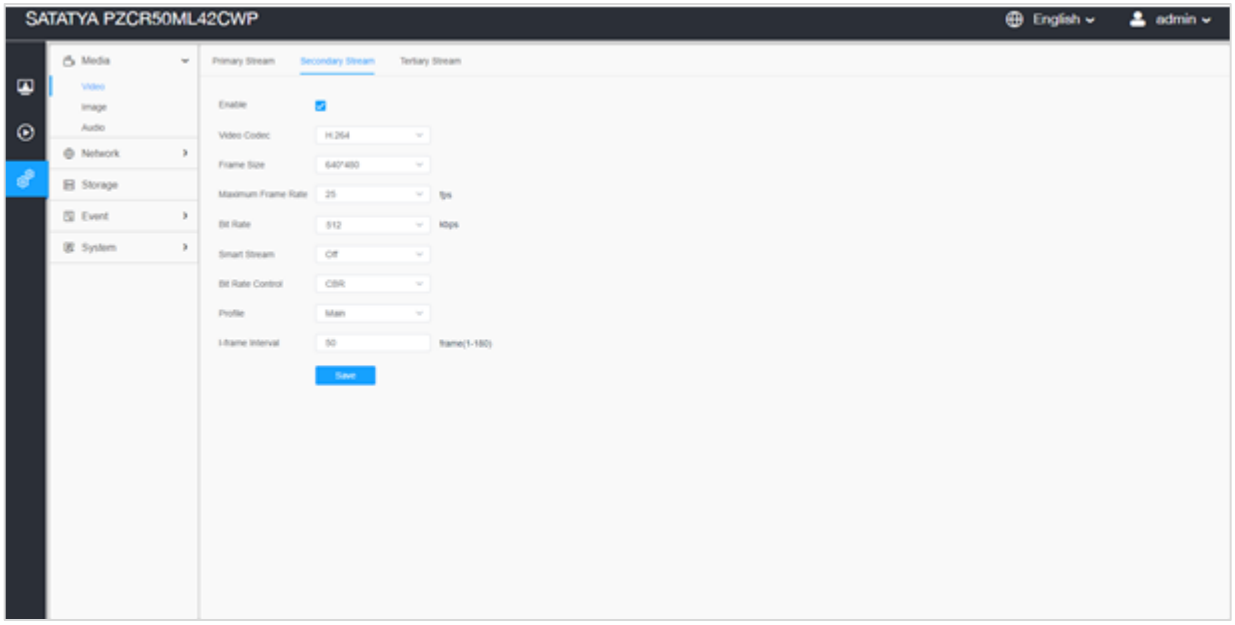
8.1.1 Video

Stream parameters can be set in this module, adapting to different network environments and demands.

Primary Stream Settings



Secondary Stream Settings



Tertiary Stream Settings

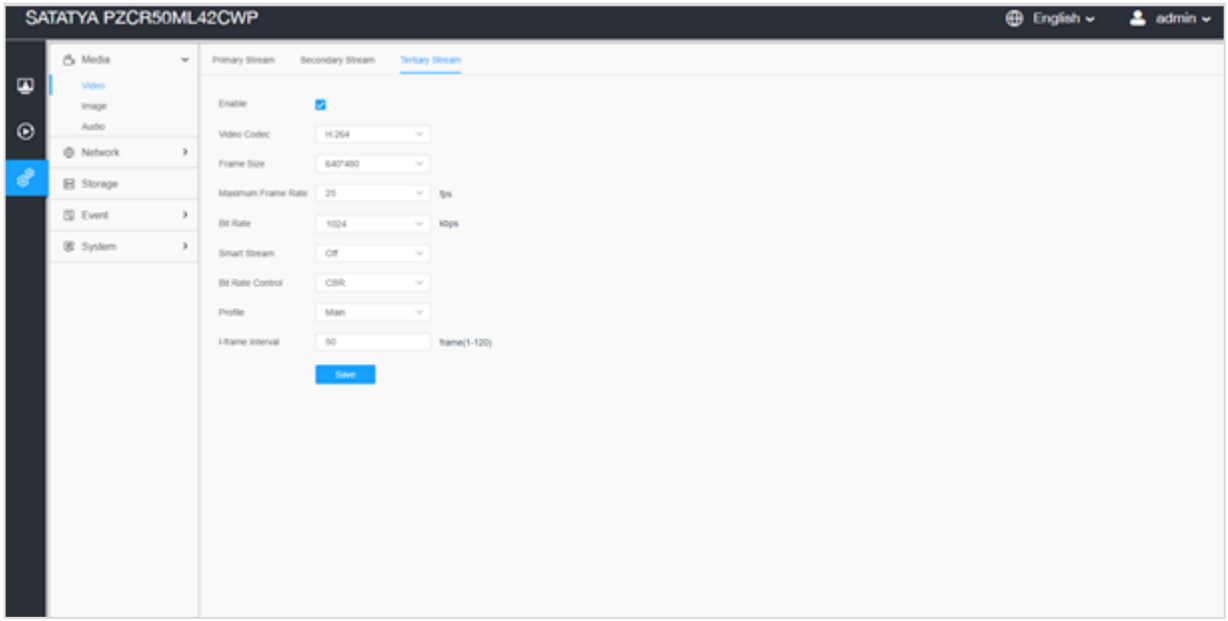


Table 8. Description of the buttons

Parameters	Function Introduction
Record Stream Type	**General** & **Event** are available only for **Primary Stream**. **General refers** to continuous record video, while **Event** includes events that can trigger alarms, such as Motion, Exception and so on. This item can separately set different bit rate and frame rate for different Recording Stream Types. If user chooses **Event**, video will be recorded according to the configuration of video stream type when an event happens, thereby greatly reducing the recording storage space.
Enable Event Stream	This item is optional only if you selected the Event.
Video Codec	H.265/H.264/MJPEG are available.
Frame Size	For **Primary Stream**, it include 5M(2592*1944), 4M(2592*1520), 3M(2304*1296), 3M(2048*1536), 1080P(1920*1080), 1.3M(1280*960), 720P(1280*720) For **Secondary Stream**, it includes 704*576, 640*480, 640*360, 352*288, 320*240. For **Tertiary Stream**, it include 1920*1080, 1280*720, 704*576, 640*480, 640*360, 352*288, 320*240.

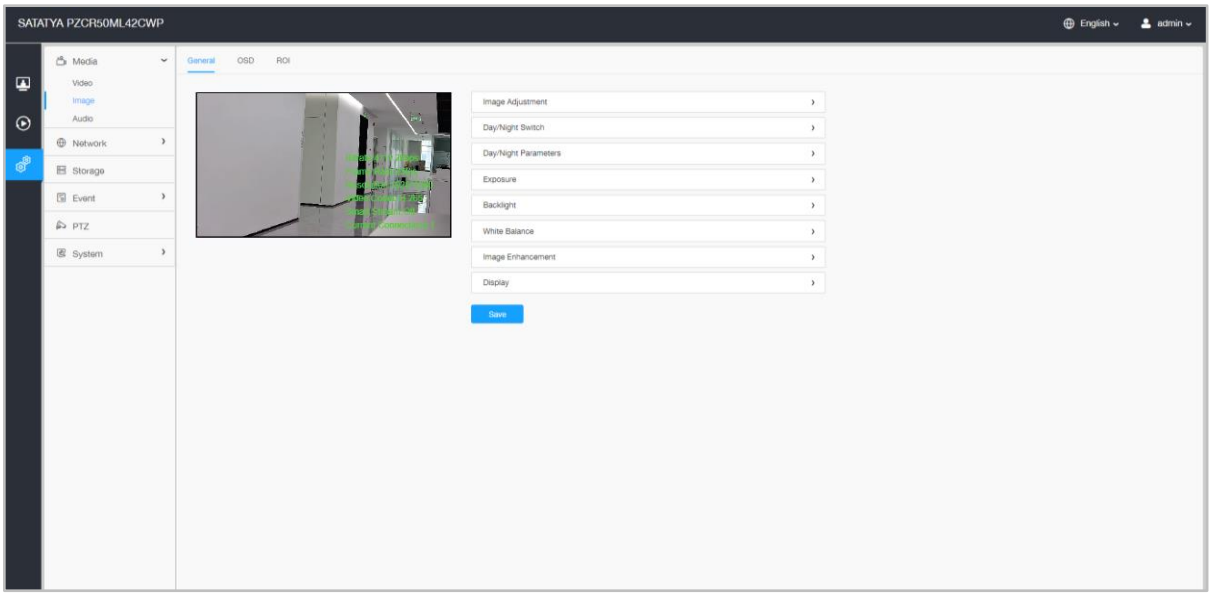
Maximum Frame Rate	Maximum refresh frame rate of per second and it is variable according to the mode.
Bit Rate	Transmitting bits of data per second, this item is optional only if you select the H.265/ H.264 Set the bitrate to 16~16384 Kbps. The higher value corresponds to the higher video quality, and the higher bandwidth is required as well.
Smart Stream	Optional to turn On/Off Smart Stream mode. Smart Stream mode remarkably reduces the bandwidth and the data storage requirements for network cameras while ensuring the high quality of images, and it is a 10-level adjustable codec.
Bit Rate Control	**CBR**: Constant Bitrate. The rate of CBR output is constant.
Bit Rate Control	**VBR**: Variable Bitrate. VBR files vary the amount of output data per time segment.
Image Quality	**Low**/**Medium**/**High** are available, this item is optional only if you select VBR.
Profile	The option is for H.264, Main/High/Base can be selected as needed.
I-frame Interval	Set the I-frame interval to 1~120, 50 for the default. This item is optional only if you select the H.265/H.264. The number must be a multiple of the number of frames.
Save	Save the configuration.

8.1.2 Image

General settings of image including the image adjustment, day/night setting and image enhancement can be set in this module. OSD (On Screen Display) content, privacy mask and video time can be displayed to enrich the image information.

8.1.2.1 General

General settings of image including the image adjustment, day/night switch, day/night parameters, exposure, backlight, white balance, image enhancement and Display can be set in this module.



[Image Adjustment]

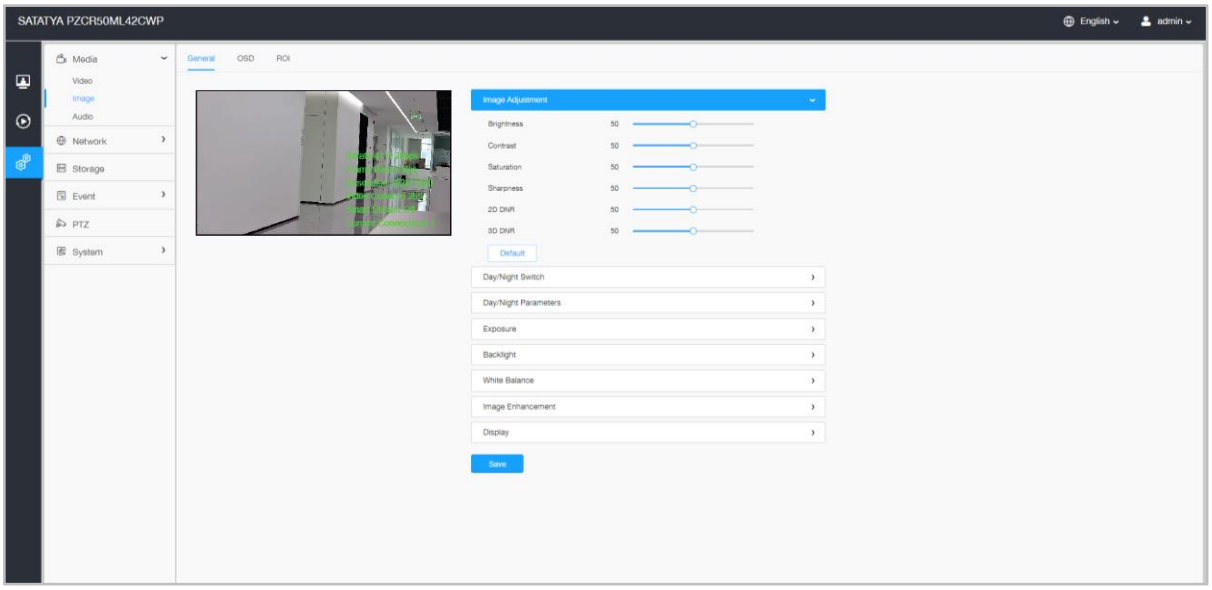


Table 9. Description of the buttons

Parameters	Function Introduction
Brightness	Adjust the Brightness of the scene.
Contrast	Adjust the color and light contrast.
Saturation	Adjust the Saturation of the image. Higher Saturation makes colors appear more "pure" while lower one appears more “wash-out”.
Sharpness	Adjust the Sharpness of image. Higher Sharpness sharps the pixel boundary and makes the image looks “more clear” while lower one “blurs out”.
2D DNR	Adjust the noise reduction level.

3D DNR	Restore brightness, contrast and saturation to default settings.
Default	Adjust the Brightness of the scene.
Save	Save the configuration.

[Day/Night Switch]

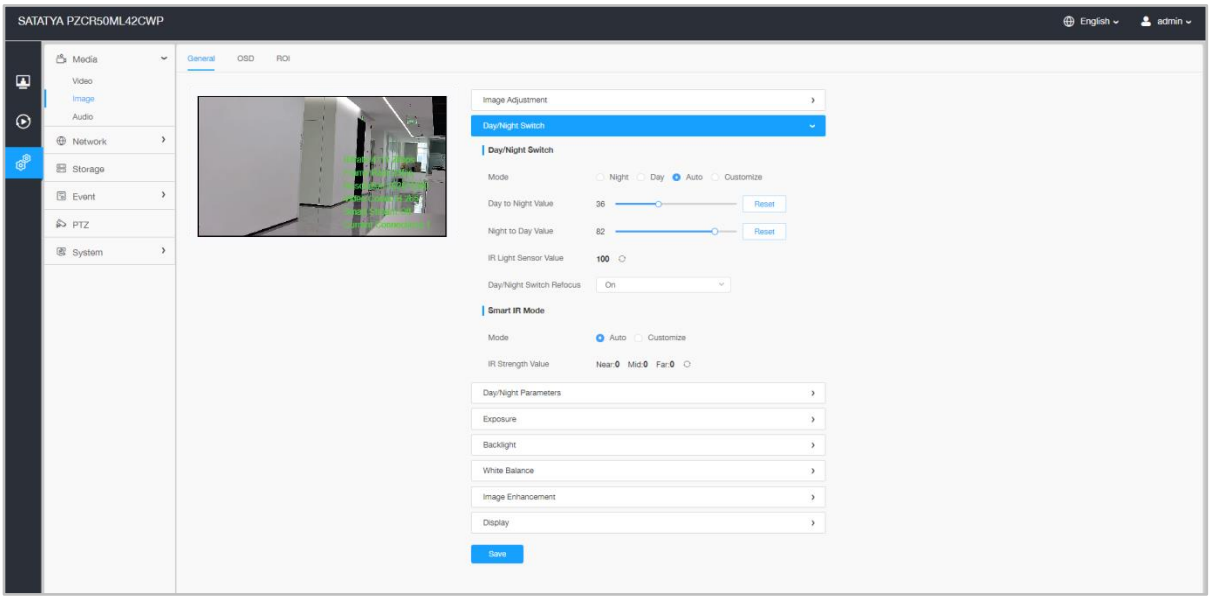


Table 10. Description of the buttons

Parameters	Function Introduction
Day/Night Switch	**Night Mode:** Shown in live view based on Night Mode settings. **Day Mode:** Shown in live view based on Day Mode settings. **Auto Mode:** Shown in live view based on environment, set the sensitivity for switching Day Mode to Night Mode, or Night Mode to Day Mode. **Customize:** Shown in live view based on your own settings' time to start/end Night Mode. **Note:** There are several parameters such as Exposure Level, Maximum Exposure Time and IR-CUT Interval, etc., associated with the modes.
Day/Night Switch	**Day/Night Switch Refocus:** With this option enabled, the camera will refocus when switching between day mode and night mode.

Day/Night Switch	**Day to Night Value:** You can set the sensitivity for switching Day Mode to Night Mode. When IR Light Sensor Current Value is lower than this value, it will switch Day Mode to Night Mode. You can click Reset to reset the value to 36. **Night to Day Value:** This is the sensitivity for switching Night Mode to Day Mode. When IR Light Sensor Current Value is higher than this value, it will switch Night Mode to Day Mode. You can click Reset to reset the value to 82. **IR Light Sensor Value:** The current value of the IR light sensor. **Note:** The three buttons are optional only if you select Auto Mode.
Day/Night Switch	**Start Time of Night:** You can set the time for start the Night Mode. **End Time of Night:** You can set the time for start the Day Mode. **Note:** Start/End Time of Night are optional only if you select Customize Mode.
Smart IR Mode	Support to set the strength of the IR to **Auto Mode** or **Customize** to achieve the best effect. With the combination of the High Beam and Low Beam, the IR LEDs technology has been upgraded to provide better image clarity and quality regardless of the object distance. Also, the Low Beam and High Beam's brightness can be adjusted manually or automatically on the basis of the Zoom ratio. Moreover, with the IR anti-reflection panel, the infrared light transmittance is highly increased.
	Near View IR Level: Adjust the light strength of Low-Beams LED light level from 0 to 100. **Far View IR Level:** Adjust the light strength of High-Beams LED light level from 0 to 100. **Note:** • Near/Far View IR Level are only available in NC9674-PA. • Near/Far View IR Level are optional only if you select Customize Mode of Smart IR. • Click Reset to reset the light strength to 50.
	IR Strength Value: The current value of Low-Beams LED and High-Beams LED light value.
Save	Save the configuration.

[Day/Night Parameters]

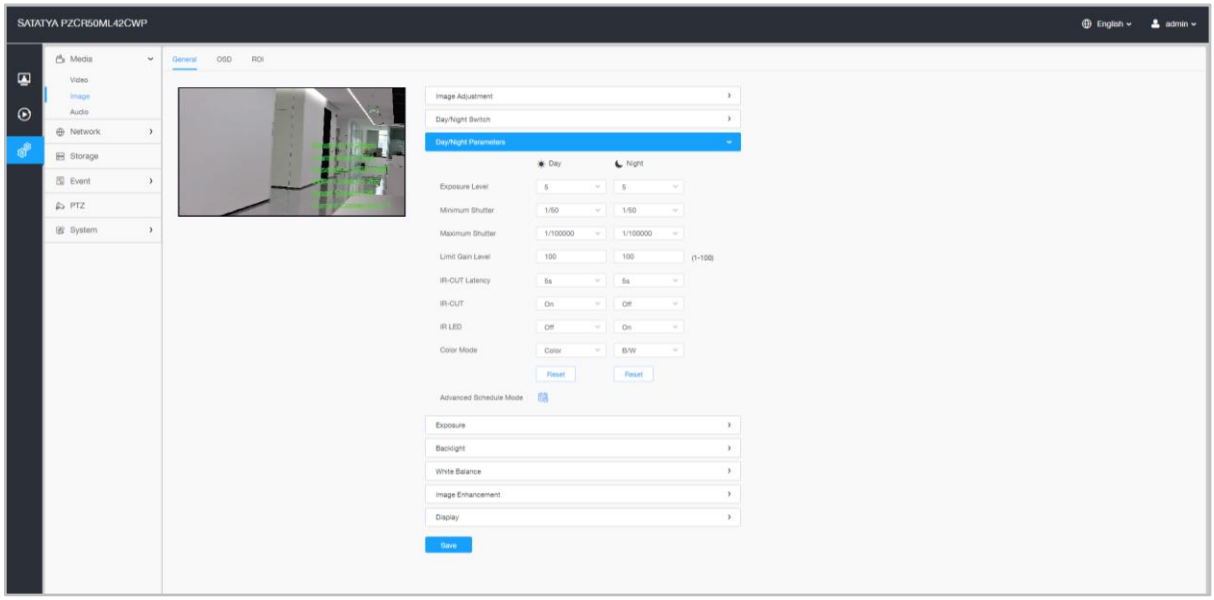
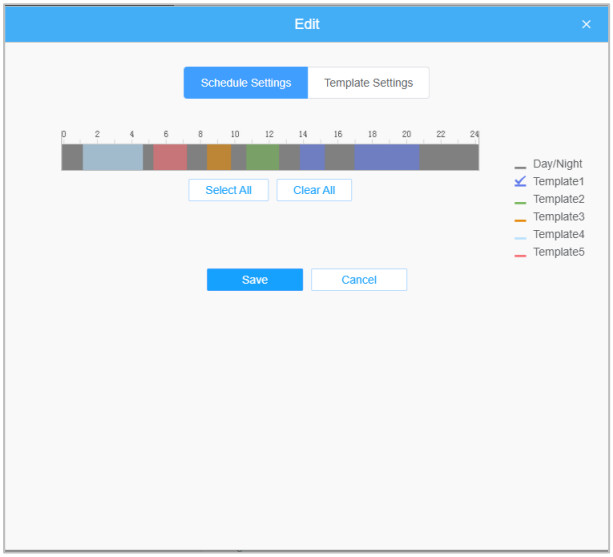


Table 11. Description of the buttons

Parameters	Function Introduction
Exposure Level	Level 0~10 are available to meet your need.
Minimum Shutter	Minimum Shutter is the same as Maximum Exposure Time. Set the minimum Shutter to 1~1/100000s.
Maximum Shutter	Maximum Shutter is the same as Minimum Exposure Time. Set the maximum Shutter to 1~1/100000s.
IR-CUT Latency	The interval time of switching one mode to another.
Limit Gain Level	Set the Limit Gain Level to 1~100.
IR-CUT	Turn on/off IR-CUT.
IR LED	Turn on/off IR-LED.
Color Mode	Select B/W or Color mode.

Advanced Schedule Mode	Here you can customize your special demands for different time, then the Day mode and Night mode will switch automatically according to your settings. 
Save	Save the configuration.

[Exposure]

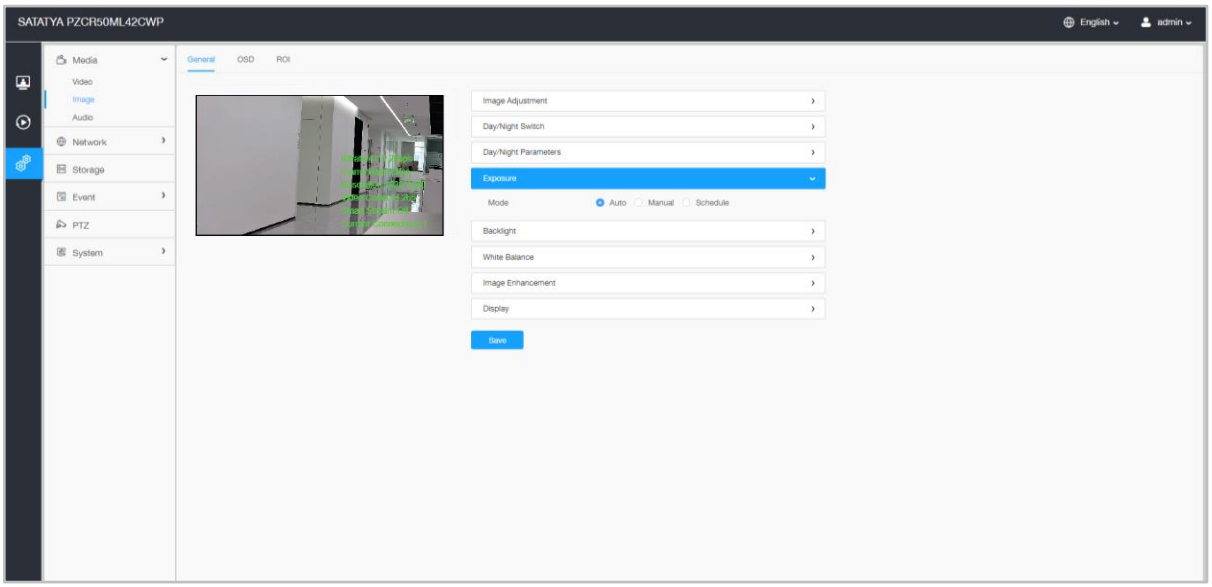
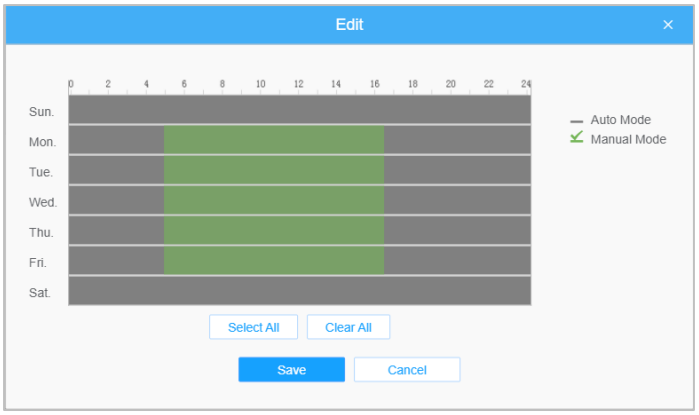


Table 12. Description of the buttons

Parameters	Function Introduction
Exposure Mode	Auto Mode, Manual Mode and Schedule Mode are available. **Auto Mode:** The camera will adjust the brightness according to the light environment automatically. **Manual Mode:** The camera will adjust the brightness according to the value you set, you can set the exposure time from 1~1/100000s, the higher the value is, the brighter the image is. **Schedule Mode:** You can customize the schedule to enable/disable Auto Mode and Manual Mode. 
Save	Save the configuration.

[Backlight]

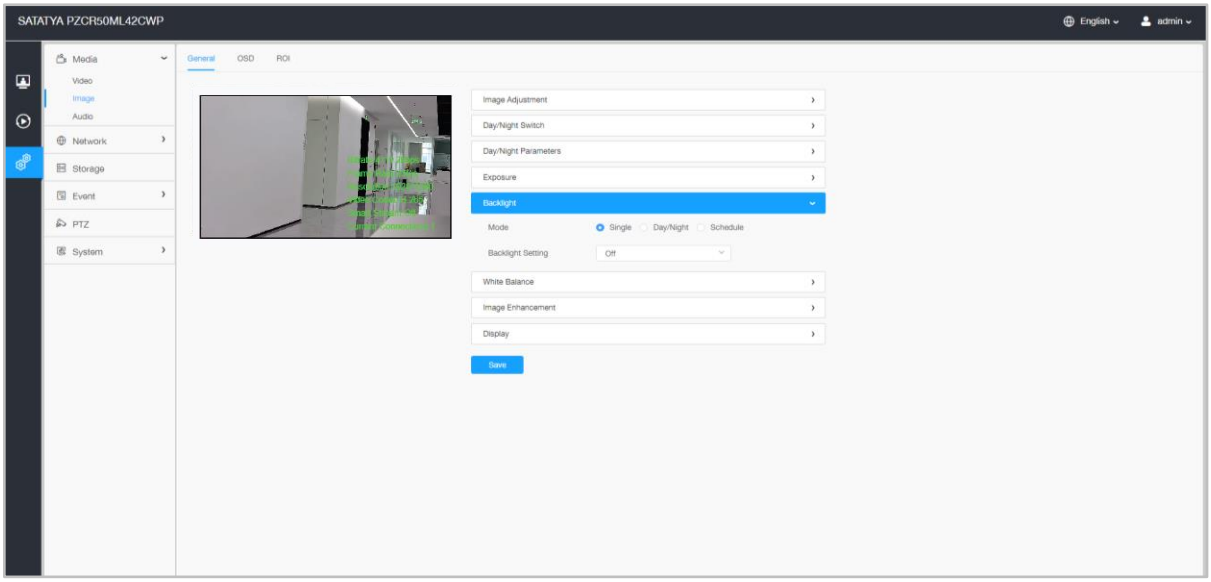
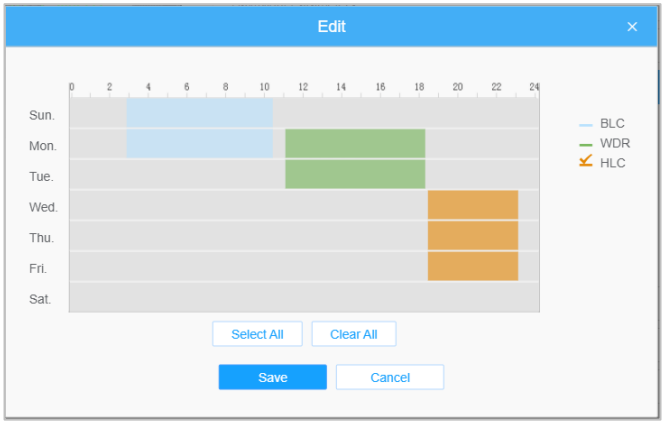


Table 13. Description of the buttons

Parameters	Function Introduction
Backlight Mode	**Single Mode:** Set single mode for BLC/WDR/HLC. **Note:** Do not support WDR and General HLC while High Frame Rate is enabled. **Day/Night Mode:** Support BLC/WDR/HLC on Day Enhancement Mode/Night Enhancement Mode separately. **Schedule Mode:** Set schedule mode for BLC/WDR/HLC. You can customize the schedule to enable/disable BLC/WDR/HLC mode. 
Save	Save the configuration.

[White Balance]

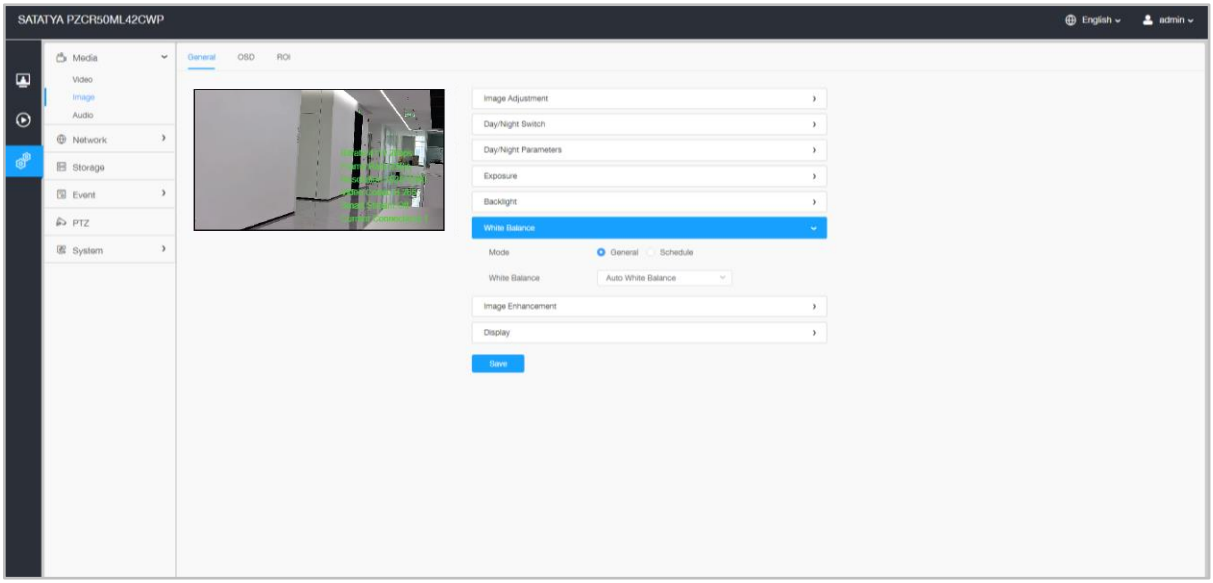
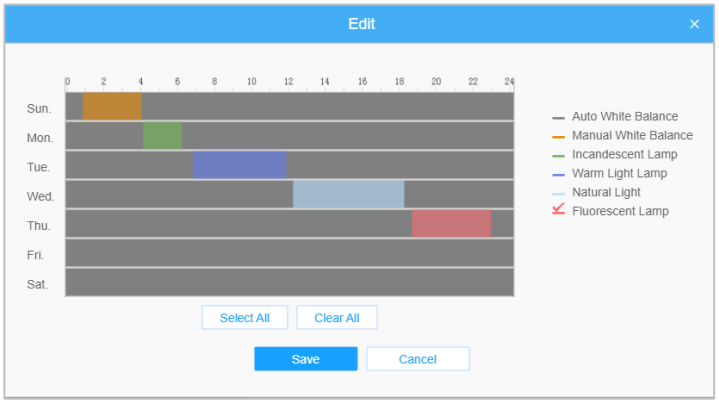


Table 14. Description of the buttons

Parameters	Function Introduction
White Balance	To restore white objects, removed color distortion caused by the light of the environment. **Auto White Balance:**This option will automatically enable the White Balance function. **Manual White Balance:** Set Red Gain Level and Blue Gain Level manually. **Incandescent Lamp:** Select this option when light is similar with incandescent lamp. **Warm Light Lamp:** Select this option when light is similar with warm light lamp. **Natural Light**: Select this option when there is no other light but natural light. **Fluorescent Lamp:** Select this option when light is similar with Fluorescent Lamp. **Schedule mode:** Select this option that you can customize the schedule to enable/ disable above modes. 
Save	Save the configuration.

[Image Enhancement]

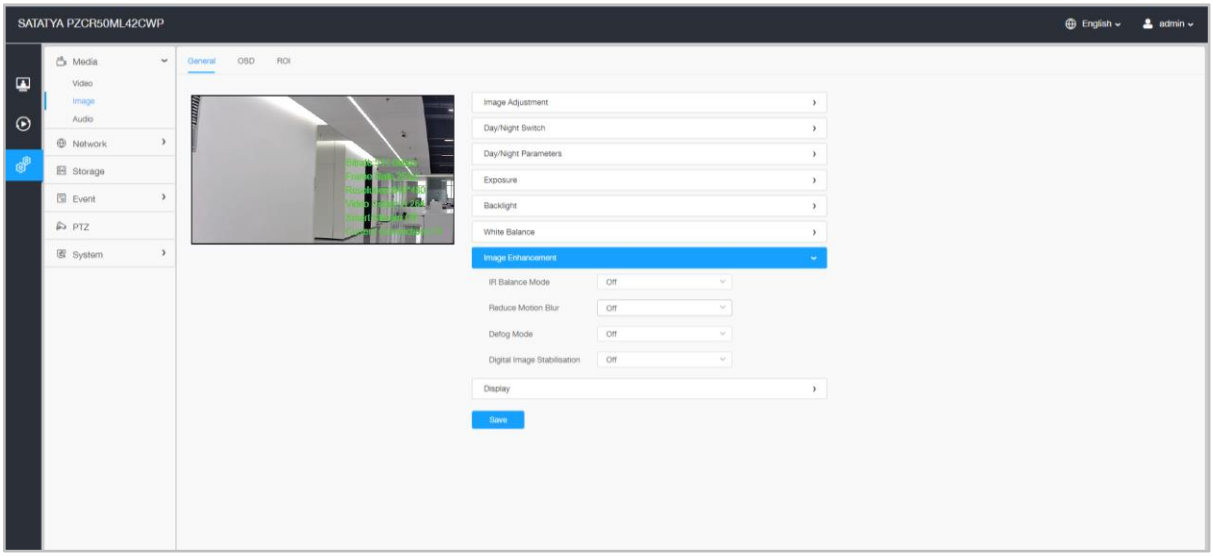


Table 15. Description of the button

Parameters	Function Introduction
IR Balance Mode	There is an option to turn On/Off the IR LED. IR Balance Mode would avoid the problem of overexposure and darkness, and the IR LED will change according to the actual illumination.
Reduce Motion Blur	Enable this function to reduce the motion blur of object effectively. You can adjust the deblur level from 1 to 100.
Defog Mode	Better image effect in foggy weather.
Digital Image Stabilization	Decrease the blur and shakiness of the image.
Save	Save the configuration.

[Display]

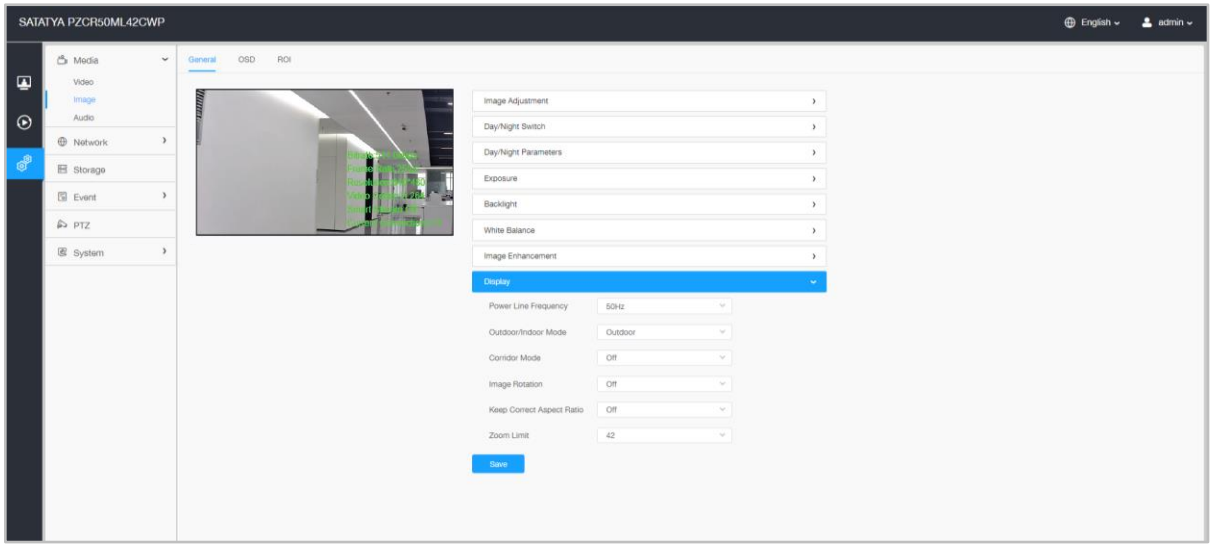


Table 16. Description of the buttons

Parameters	Function Introduction
Power Line Frequency	60Hz and 50Hz are available.
Outdoor/Indoor Mode	Select indoor or outdoor mode to meet your needs.
Corridor Mode	There are three options available; you can select one to meet your need. **Off:** Keep the image in normal direction. **Clockwise 90°:** Rotate the image by 90° clockwise. **Anticlockwise90°:** Rotate the image by 90° anticlockwise.
Image Rotation	There are four options available; you can select one to meet your need. **Off:** Keep the image in normal direction. **Rotating 180°:** Upside down the image. **Flip Horizontal:** Flip the image horizontally. **Flip vertical:** Flip the image vertically.
Keep Correct Aspect Ratio	With this option enabled, the camera will prevent the image from distortion when resolution ratio is changed.
Zoom Limit	Set the Zoom Limit.
Save	Save the configuration.

8.1.2.2 OSD

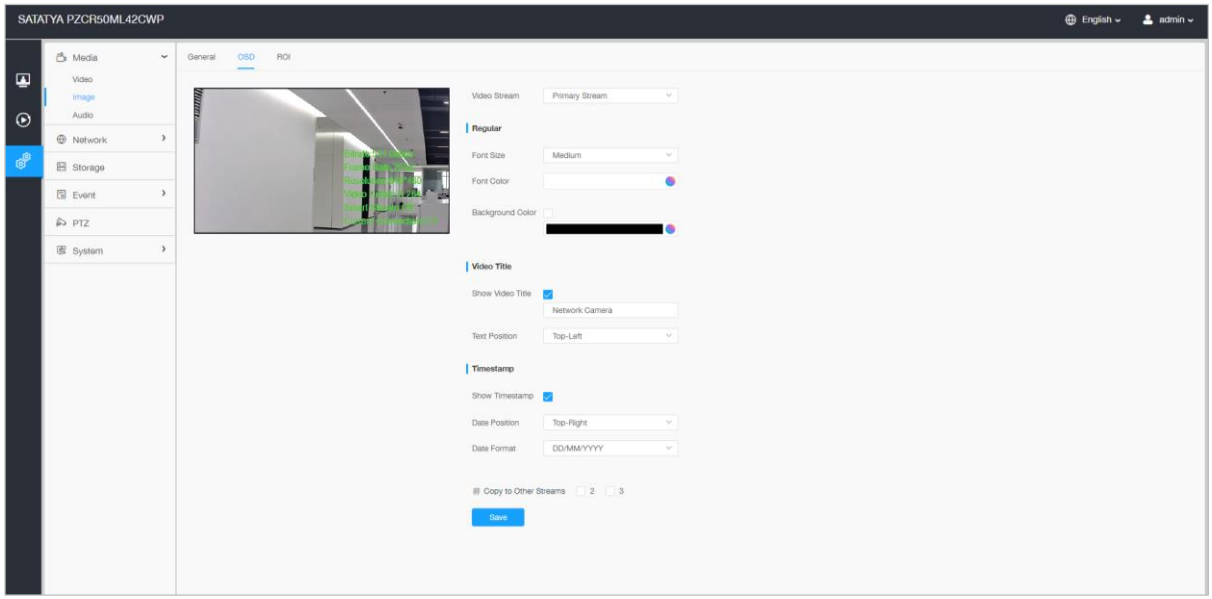
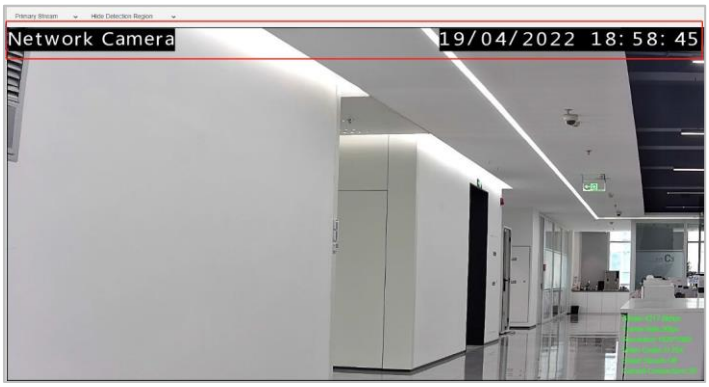


Table 17. Description of the buttons

Parameters	Function Introduction
Video Stream	Enable to set OSD for primary stream and secondary stream.
Font Size	Smallest/Small/Medium/Large/Largest/Auto are available for title and
Font Color	Enable to set different color for title and date.
Background Color	Enable to set different colors for display auto scan information background on screen. You can set different colors for font and background of image , then the image OSD will show as below: 
Show Video Title	Check the check box to show video title.
Video Title	Customize the OSD content.
Text Position	OSD display position on the image.
Show Timestamp	Check the checkbox to display date on the image.
Date Position	Date display position on the image.

Date Format	The format of date.
Copy to Other Streams	Copy the settings to other streams.
Save	Save the configuration.

8.1.2.3 ROI

Region of interest (often abbreviate ROI), is a selected subset of samples within a dataset identified for a particular purpose. Users can select up to 8 key regions of a scene to transmit through separate streams for targeted preview and recording.

By using ROI technology, more than 50% of bit rate can be saved and therefore less bandwidth demanded and the storage usage reduced. So according to this, you can set a small bit rate for high resolution.

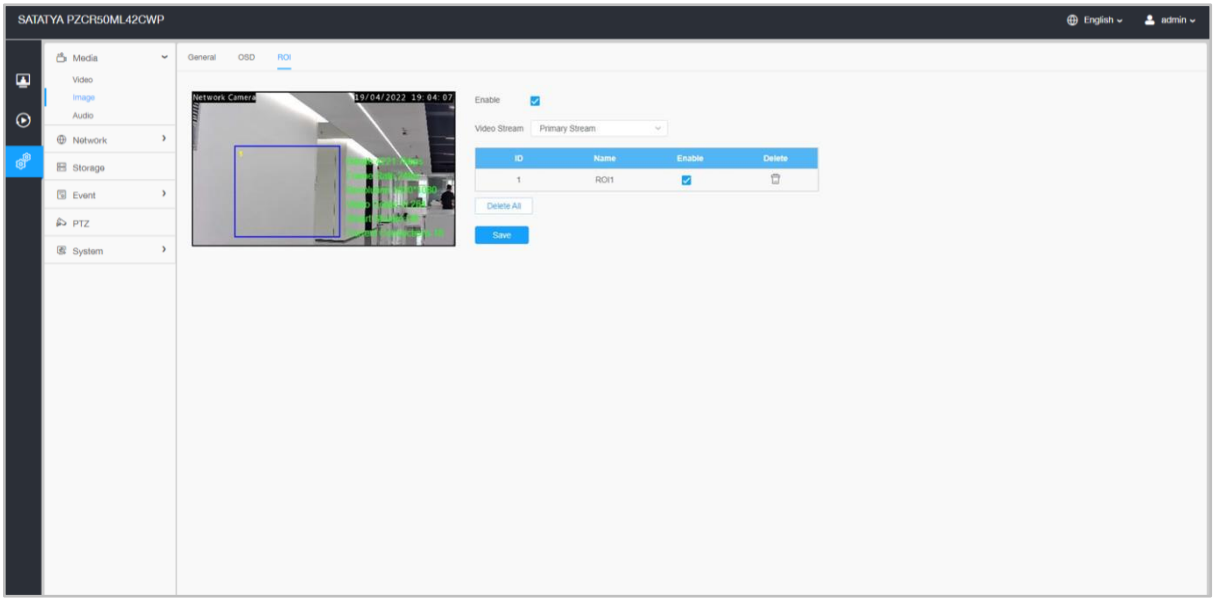


Table 18. Description of the buttons

Parameters	Function Introduction	
Enable	Check the checkbox to enable the ROI function.	
Video Stream	Choose the Video Stream.	
ROI		Enable/disable the selected ROI areas.
		Delete the selected ROI areas.
Delete All	Clear all areas you drew before.	
	Save the configuration.	

8.1.3 Audio

8.1.3.1 Audio

This audio function allows you to hear the sound from the camera or transmit your sound to the camera side. A two-way communication is also possible to be achieved with this feature. Alarm can be triggered when the audio input is above a certain alarm level you set, and configured audio can be played when an alarm occurs.

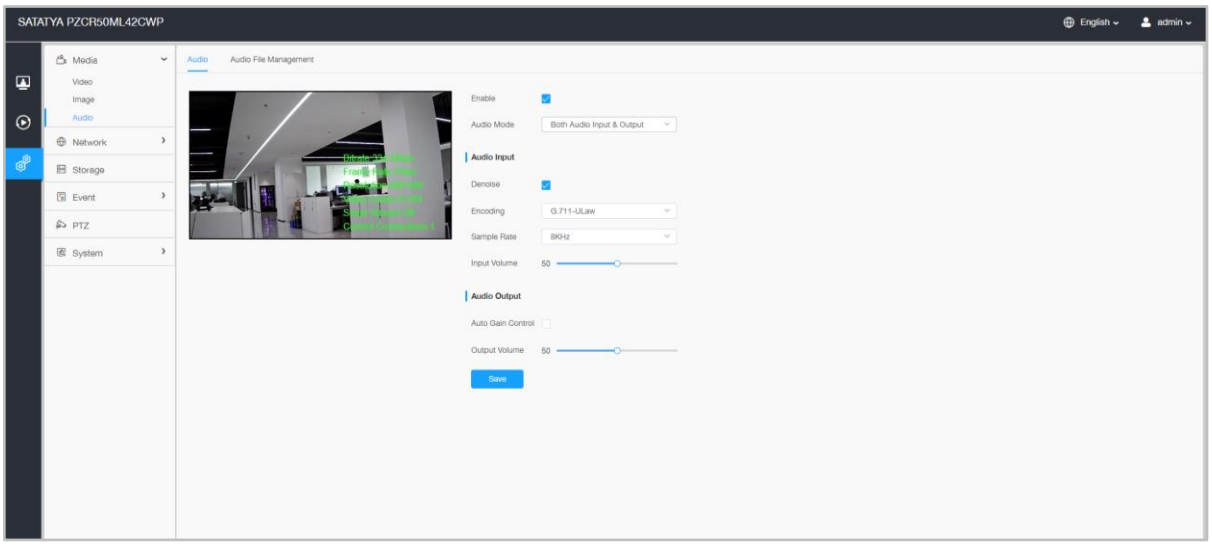
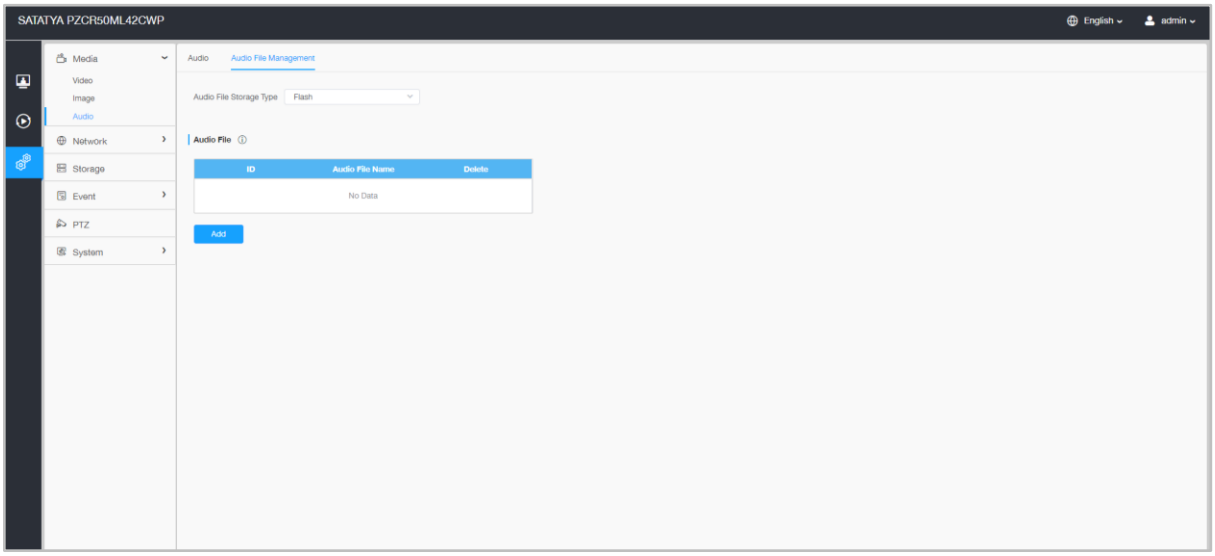


Table 19. Description of the buttons

Parameters	Function Introduction
Enable	Check on the checkbox to enable audio feature.
Audio Mode	**Audio Input/Audio Output/Both Audio Input & Output** are optional.
Audio Input	**Denoise:** Set it as On/Off. When you set the function on, the noise detected can be filtered. **Encoding:** G.711-ULaw, G.711-ALaw, AAC LC, G.722 and G.726 are available **Audio Bit Rate:** The function is available only for AAC LC, and supports up to 256kbps. **Sample Rate:** 8KHz, 16KHz, 32KHz, 44.1KHz, and 48KHz are available. **Input Gain:** Input audio gain level, 0-100.
Audio Output	**Auto Gain Control:** This function is only for H.265 series, improve the quality of audio
Save	Save the configuration.

8.1.3.2 Auto File Management

You can upload up to 5 audio files manually to Flash or SD Card on the Audio web page and you can also edit the audio file's name when upload.



Note: Only support ‘.wav’ audio files with codec type PCM/PCMU/PCMA, 64kbps or 128 kbps and no more than 500k.n

Note: Only support '.wav' audio files with codec type PCM/PCMU/PCMA, 64kbps or 128kbp bitrate and no more than 500k!

8.2 Network

8.2.1 Basic

8.2.1.1 TCP/IP

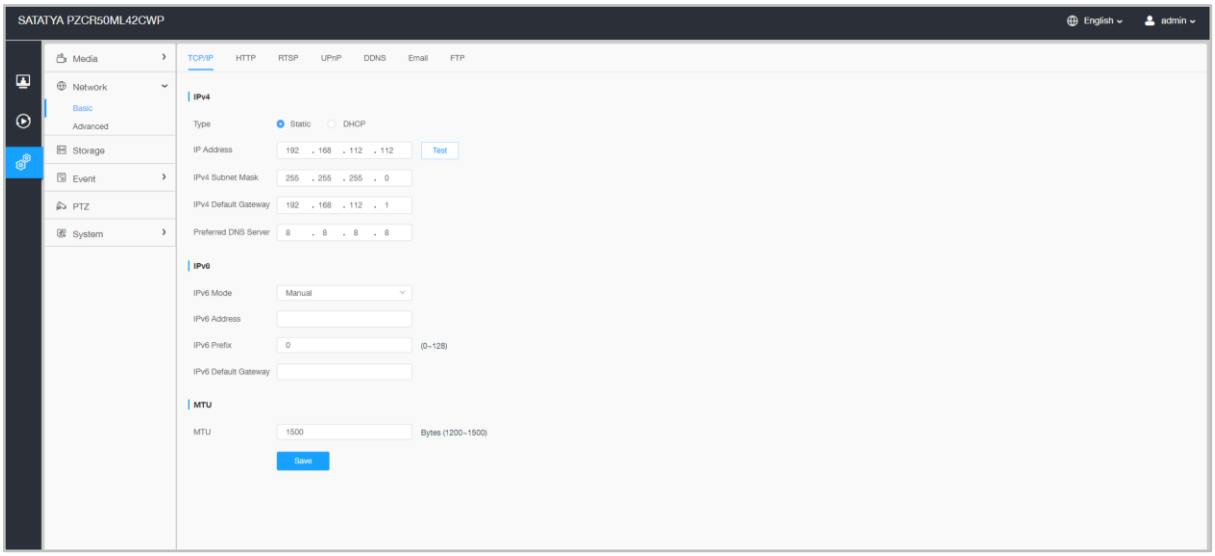


Table 20. Description of the buttons

Parameters	Function Introduction
IPv4	**Type:** Static Type and DHCP Type are optional for user to get IPv4 address automatically or use fixed IP address. **IPv4 Address:** An address that used to identify a network camera on the network. **Note:** The **Test** button is used to test if the IP is conflicting. **IPv4 Subnet Mask:** It is used to identify the subnet where the network camera is located. **IPv4 Default Gateway:** The default router address.
IPv6	**IPv6 Mode:** Choose different modes for IPv6: Manual/Route Advertisement/ DHCPv6 **IPv6 Address:** IPv6 Address used to identify a network camera on the network **IPv6 Prefix:** Define the prefix length of IPv6 address **IPv6 Default Gateway:** The default router IPv6 address
MTU	Maximum Transmission Unit. The default value is 1500. You can customize the value from 1200 to 1500 as needed.
Save	Save the configuration.

8.2.1.2 HTTP

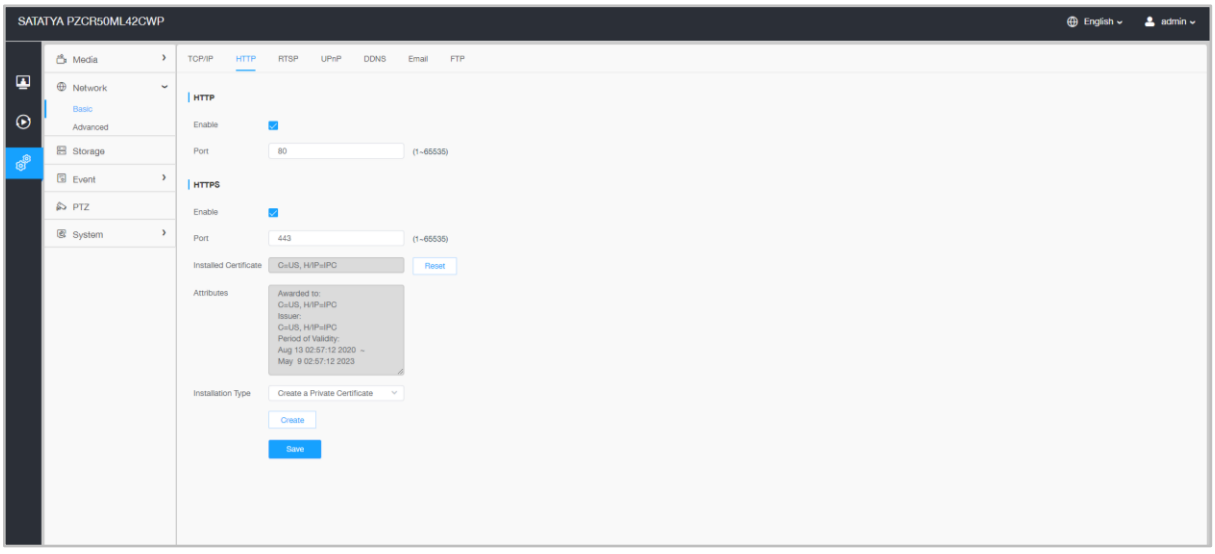


Table 21. Description of the buttons

Parameters	Function Introduction
HTTP	**Enable:** Start or stop using HTTP. **Port:** Web GUI login port, the default is 80, the same with ONVIF port.
HTTPs	**Enable:** Start or stop using HTTPs. **Port:** Web GUI login port via HTTPS, the default is 443.
Installed Certificate	Upload and set the SSL certificate.
Attributes	
Installation Type	
Create	In the Create pop-up enter the details to create the desired certificate.
Save	Save the configuration.

Table 22. HTTP URL are as below:

Stream	URL
Main Stream	http://username:password@IP:port/ipcam/mjpeg.cgi
Secondary Stream	http://username:password@IP:port/ipcam/mjpegcif.cgi
Tertiary Stream	http://username:password@IP:port/ipcam/mjpegthird.cgi

Note: You need to change the codec type of streams to MJPEG except the main stream of H.264 cameras whose models with “-A”.

8.2.1.3 RTSP

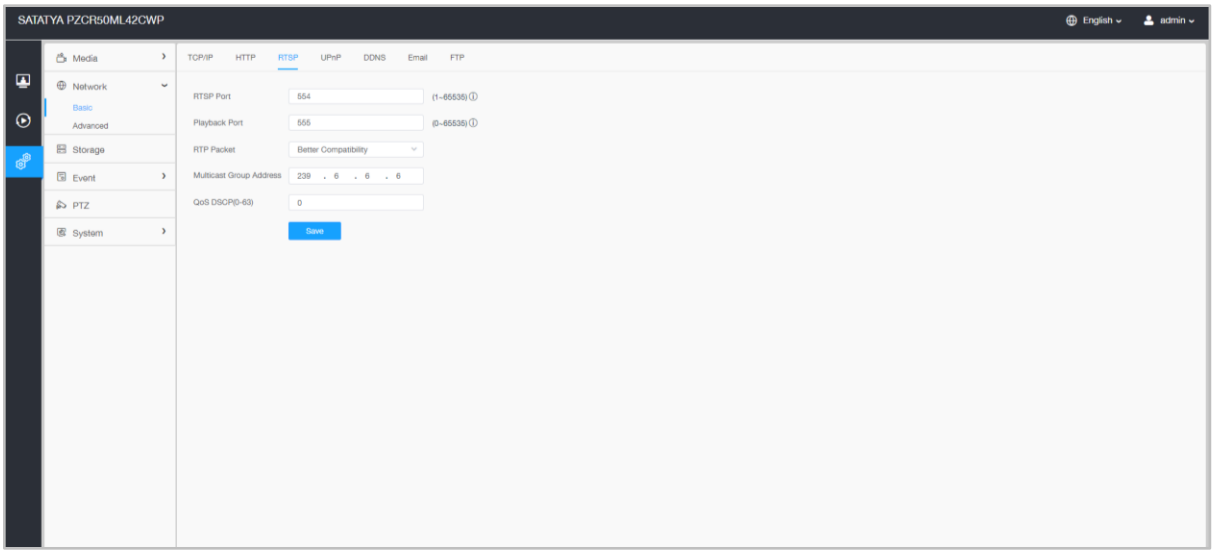


Table 23. Description of the buttons

Parameters	Function Introduction
RTSP Port	The port of RTSP, the default is 554.
Playback Port	The port for playback, the default is 555. **Note**: Port 0 means closing playback function.
RTP Packet	There are Better Compatibility and Better Performance two options, if your camera's image mess up, please switch this option.
Multicast Group Address	Support multicast function.
QoS DSCP	The valid value range of the DSCP is 0-63.
Save	Save the configuration.

Table 24. RTSP URL are as below: Not in the UI

Stream	URL
Primary Stream	rtsp://IP:RTSP Port/main
Secondary Stream	rtsp://IP:RTSP Port/sub
Tertiary Stream	rtsp://IP:RTSP Port/third

Note:

- DSCP refers to the Differentiated Service Code Point; and the DSCP value is used in the IP header to indicate the priority of the data.
- A reboot is required for the settings to take effect.

8.2.1.4 UPnP

Universal Plug and Play (UPnP) is a networking architecture that provides compatibility among networking equipment, software and other hardware devices. The UPnP protocol allows devices to connect seamlessly and to simplify the implementation of networks in the home and corporate environments. With the function enabled, you don't need to configure the port mapping for each port, and the camera is connected to the Wide Area Network via the router.

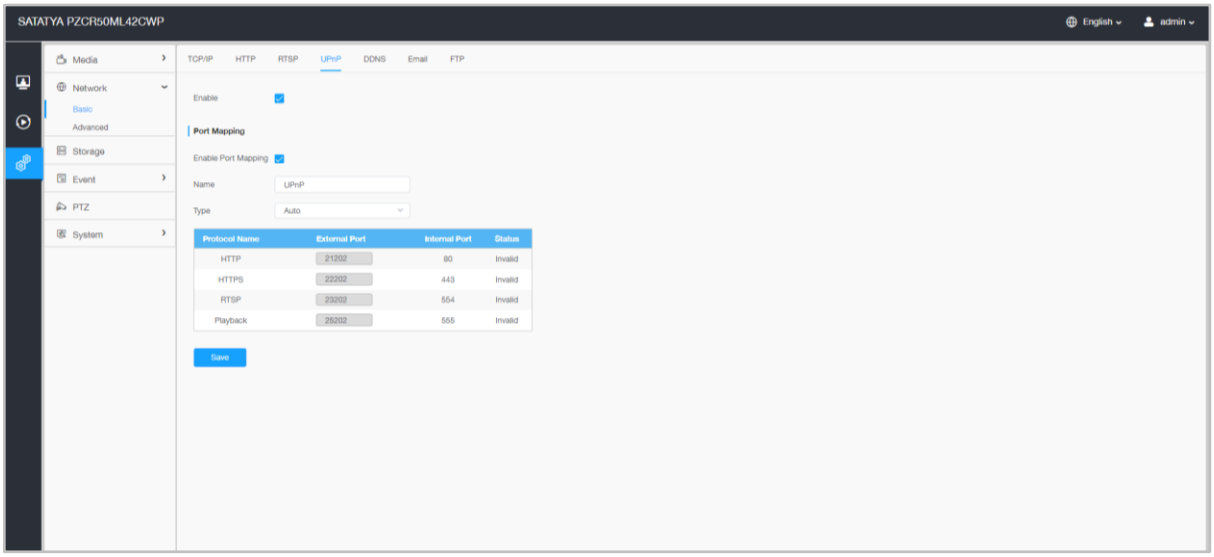


Table 25. Description of the buttons

Parameters	Function Introduction
Enable	Check the checkbox to enable the UPnP function.
Enable Port Mapping	Check the checkbox to enable the Port Mapping
Name	The name of the device detected online can be edited
Type	**Auto:** Automatically obtain the corresponding HTTP and RTSP port, without any settings **Manual:** Need to manually set the appropriate HTTP port and RTSP Port. When choose Manual, you can customize the value of the port number by yourself
Save	Save the configuration.

8.2.1.5 DDNS

DDNS allows you to access the camera via domain names instead of IP address. It manages to change IP address and update your domain information dynamically. You need to register an account from a provider.

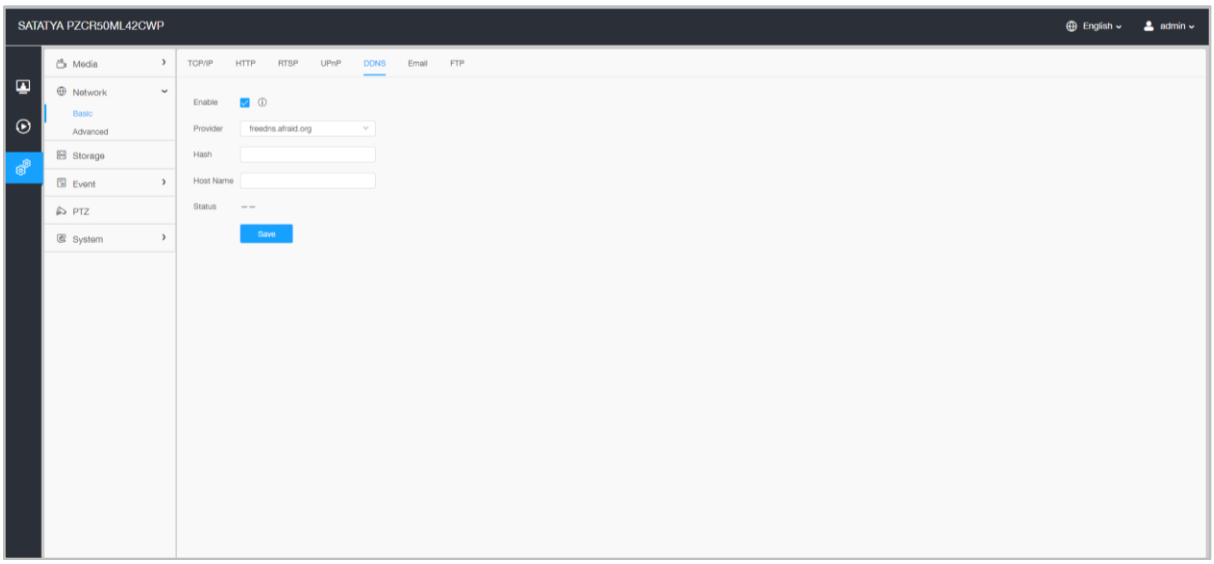


Table 26. Description of the buttons

Parameters	Function Introduction
Enable DDNS	Check the checkbox to enable DDNS service. **Note:** Recommend to enable and configure UPnP ports which can be used directly in DDNS.
Provider	Get support from DDNS provider: freedns.afraid.org, dyndns.org, www.no-ip.com, www.zoneedit.com. You can also customize the provider for DDNS.
Hash	A string used for verifying, only for "freedns.afraid.org".
User name	Account name from the DDNS provider, unavailable for "freedns.afraid.org".
Password	Account password, unavailable for "freedns.afraid.org".
Host name	DDNS name enabled in the account.
Status	Display DDNS running status.

Save	Save the configuration.

Notes:

- Please do the Port Forwarding of HTTP Port and RTSP Port before you use DDNS.
- Make sure that the internal and the external port number of RTSP are the same.

8.2.1.6 Email

Alarm video files can be sent to specific mail account through SMTP server. You must configure the email settings correctly before using it.

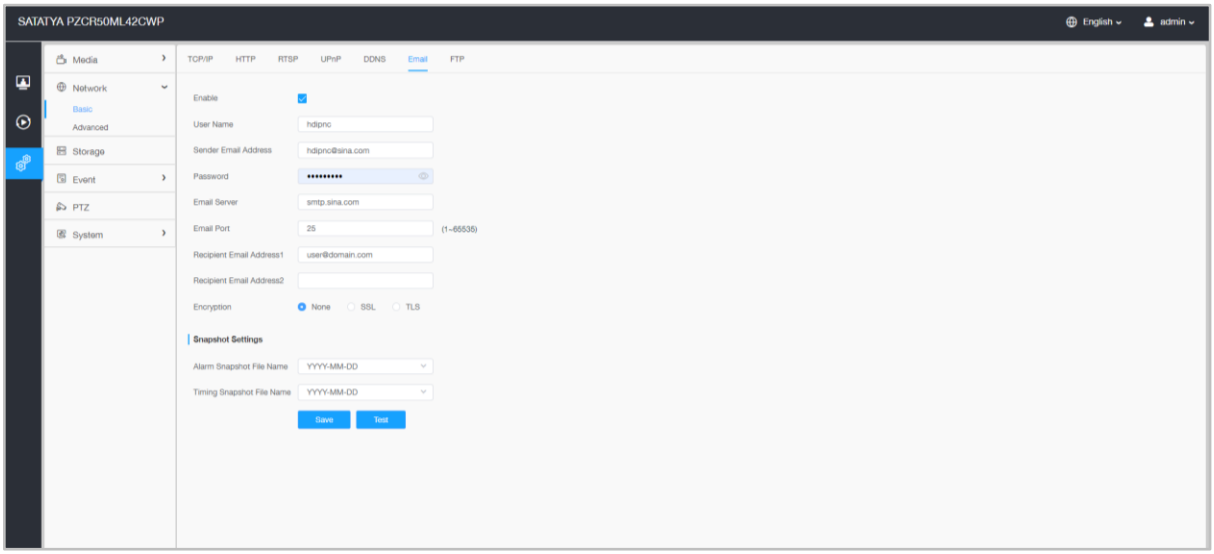
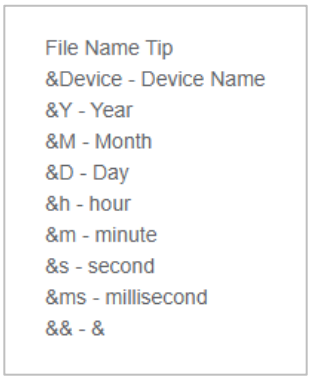


Table 27. Description of the buttons

Parameters	Function Introduction
Enable	Check the checkbox to enable Email function.
User Name	The sender's name. It is usually the same as the account name.
Sender Email Address	Email address to send video files attached emails.
Password	The password of the sender.
Email Server	The email server IP address or host name (e.g. smtp.gmail.com).
Email Port	The default TCP/IP port for SMTP is 25(not secured). For SSL/TLS port, it depends on the mail you use.
Recipient Email Address1	Email address to receive video files.

Recipient Email Address2	Email address to receive video files.
Encryption	Check the checkbox to enable SSL or TLS if it is required by the SMTP server.
Snapshot Settings	**Alarm Snapshot File Name:** Default (YYYY-MM-DD) /MM-DD-YYYY/ DD- MM-YYYY/ Add prefix/ Overwrite with the base file name/ Customize are available. **Timing Snapshot File Name:** Default (YYYY-MM-DD) /MM-DD-YYYY/ DD- MM-YYYY/ Add prefix/ Overwrite with the base file name/ Customize are available.
Save	Save the configuration.
Test	Test whether the configuration is successful.

Note: You can refer to the following file name tip to customize the file name.



8.2.1.7 FTP

Alarm video files can be sent to specific FTP server. You must configure the FTP settings correctly before using it.

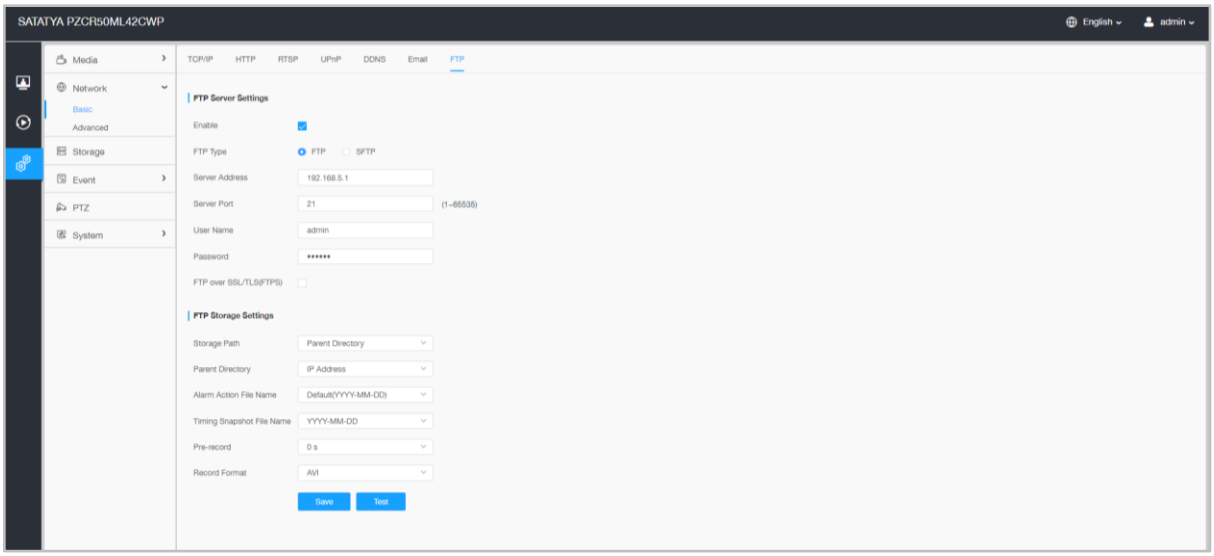


Table 28. Description of the buttons

Parameters		Function Introduction
FTP Server Settings	**FTP Type**	FTP and SFTP are optional.
	Server Address	FTP/SFTP server address.
	Server Port	The port of the FTP server. Generally it is 21. The port of the SFTP server. Generally it is 22.
	User Name	User name used to log in to the FTP/SFTP sever.
	Password	User password.
FTP Storage Settings	**Storage Path**	Storage Path where video and image will be uploaded to the FTP server. Four FTP storage path types are available, including Root Directory, Parent Directory, Child Directory and Customize.
	Parent Directory	Choose IP Address/ Device Name/ Date as the folder name of Parent Directory, or customize the folder name.
	Child Directory	Choose IP Address/ Device Name/ Date as the folder name of Child Directory, or customize the folder name.

	Alarm Action File Name	Choose the default (YYYY-MM-DD) or customize the alarm action file name.
	Video File Name	If you choose to customize the alarm action file name, YYYY-MM- DD/ MM-DD-YYYY/ DD-MM-YYYY/ Add prefix are available.
	Image File Name	If you choose to customize the alarm action file name, YYYY-MM- DD/ MM-DD-YYYY/ DD-MM-YYYY/ Add prefix are available.
	Timing Snapshot File Name	Default(YYYY-MM-DD) /MM-DD-YYYY/ DD-MM-YYYY/ Add prefix/ Overwrite with the base file name are available.
	Pre Second	Reserve the record time before alarm, 0~10 sec.
Save		Save the configuration, 0s ~ 10s are optional.
Test		Test whether the configuration is successful.

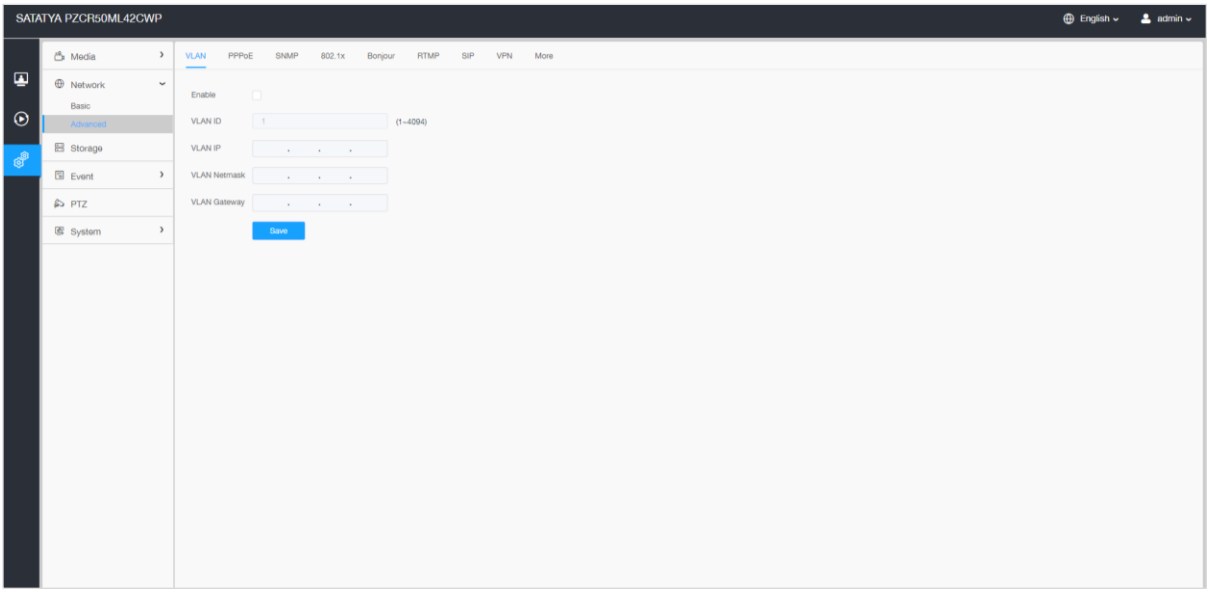
Note:

- Parent Directory will be under Root Directory, and Child Directory will be under Parent Directory.
- You can refer to the following file name tip to customize the file name.

8.2.2 Advanced

8.2.2.1 VLAN

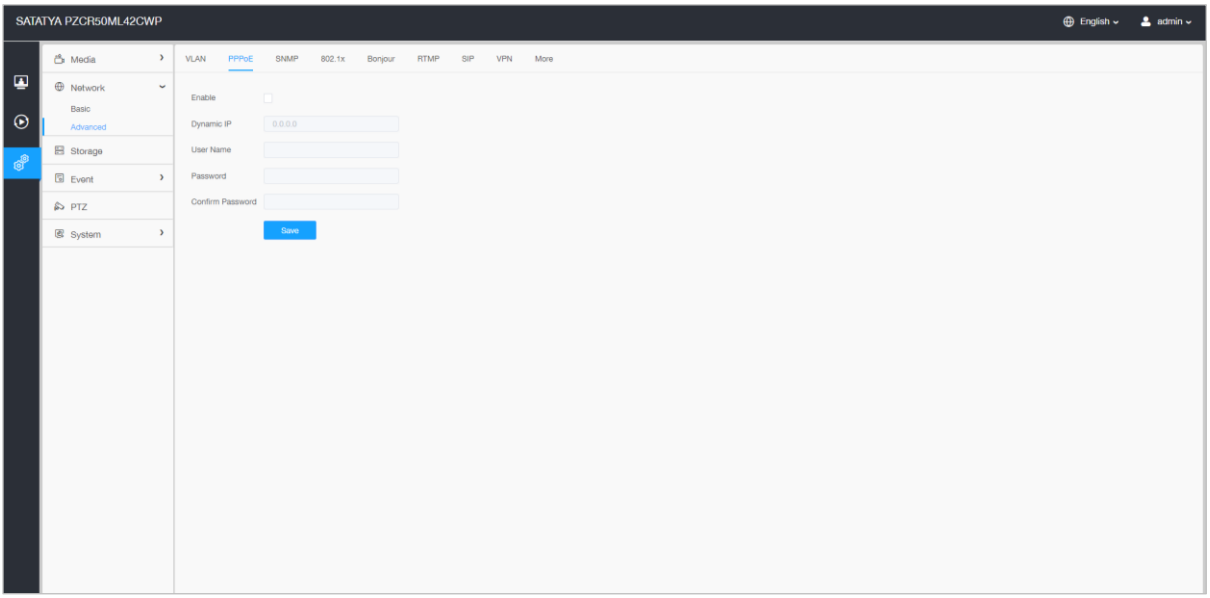
A virtual LAN (VLAN) is any broadcast domain that is partitioned and isolated in a computer network at the data link layer (OSI layer 2). LAN is an abbreviation of local area network. VLANs allow network administrators to group hosts together even if the hosts are not on the same network switch. This can greatly simplify network design and deployment, because VLAN membership can be configured through software. Without VLANs, grouping hosts according to their resource needs necessitates the labour of relocating nodes or rewiring data links.



Note: About how to set up VLAN in switches please refers to your switches user manual.

8.2.2.2 PPPoE

This camera supports the PPPoE auto dial-up function. The camera gets a public IP address by ADSL dial-up after the camera is connected to a modem. You need to configure the PPPoE parameters of the network camera.



Note:

- The obtained IP address is dynamically assigned via PPPoE, so the IP address always changes after rebooting the camera. To solve the inconvenience of the dynamic IP, you need to get a domain name from the DDNS provider (e.g. DynDns.com).
- The user name and password should be assigned by your ISP.

8.2.2.3 SNMP

You can set the SNMP function to get camera status, parameters and alarm related information and manage the camera remotely when it is connected to the network.

Before setting the SNMP, please download the SNMP software and manage to receive the camera information via SNMP port. By setting the Trap Address, the camera can send the alarm event and exception messages to the surveillance center.

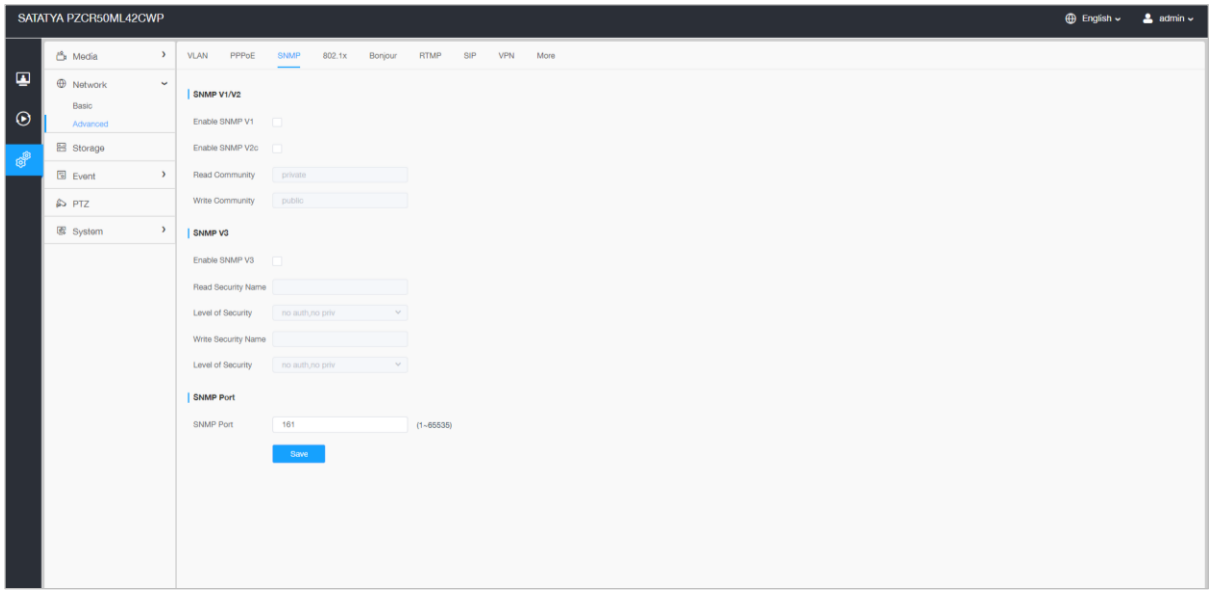


Table 29. Description of the buttons

Parameters	Function Introduction
SNMP v1/v2	The version of SNMP, please select the version of your SNMP software. **Enable SNMP v1:** Provide no security. **Enable SNMP v2:** Require password for access. **Write Community:** Input the name of Write Community. **Read Community:** Input the name of Read Community

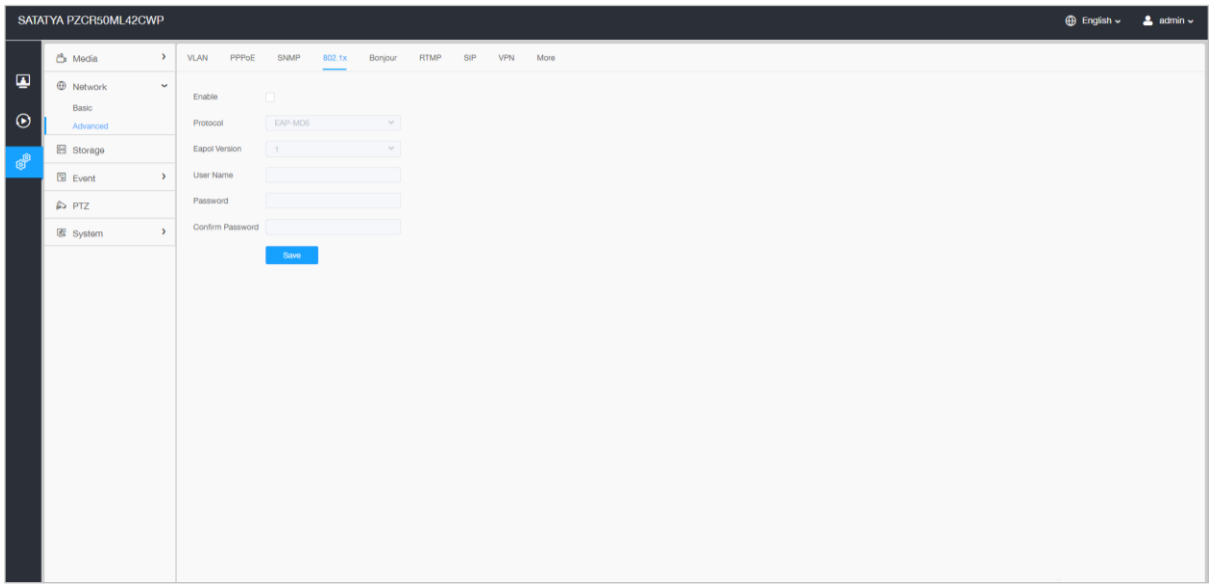
SNMP v3	**Enable SNMP v3:** Provide encryption and the HTTPS protocol must be enabled. **Read Security Name:** Input the name of Read Security Community. **Level of Security:** There are three levels available: (auth, priv), (auth, no priv) and (no auth, no priv). **Write Security Name:** Input the name of Write Security Community. **Level of Security:** There are three levels available: (auth, priv), (auth, no priv) and (no auth, no priv).
SNMP Port	The port of SNMP, the default is 161.
Save	Save the configuration.

Note:

- The settings of SNMP software should be the same as the settings you configure here;
- A reboot is required for the settings to take effect.

8.2.2.4 802.1x

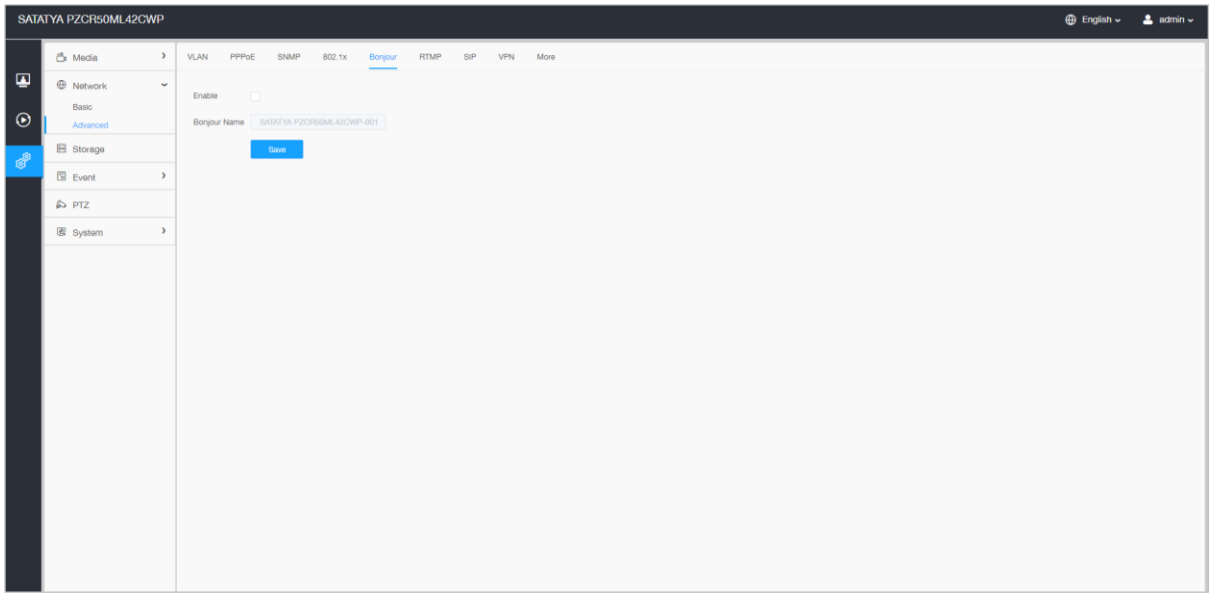
The IEEE 802.1X standard is supported by the network cameras, and when the feature is enabled, the camera data is secured and user authentication is needed when connecting the camera to the network protected by the IEEE 802.1X.



8.2.2.5 Bonjour

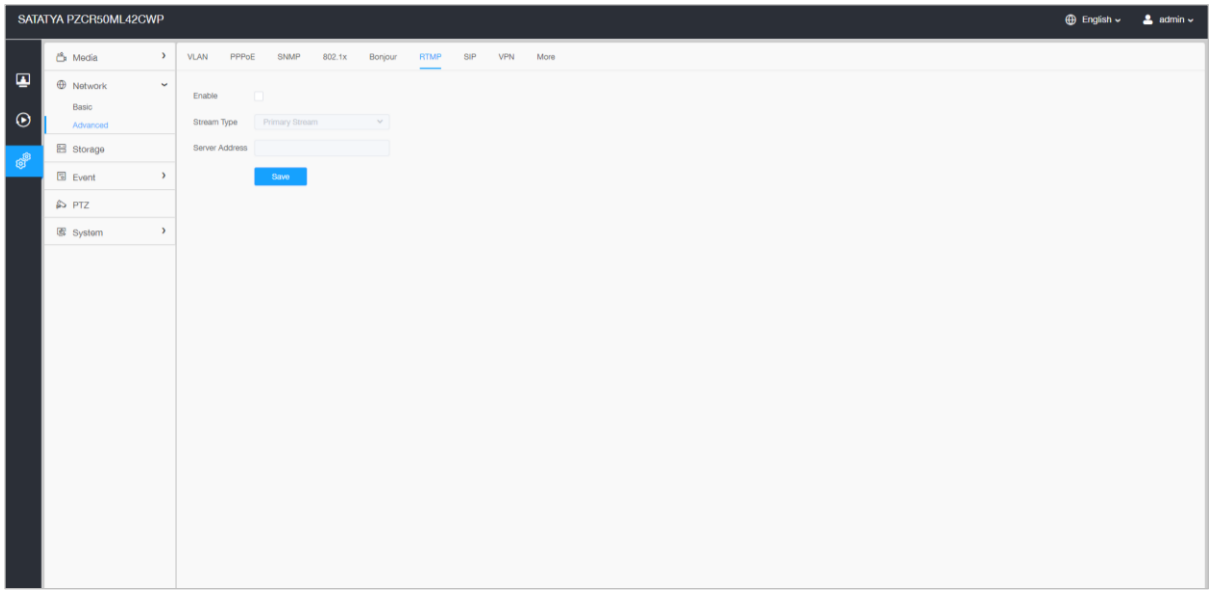
Bonjour is based on Apple's multicast DNS service. Bonjour devices can automatically broadcast their service information and listen to the service information of other devices.

If you don't know the camera information, you can use the Bonjour service on the same LAN to search for network camera devices and then to access the devices.



8.2.2.6 RTMP

Real-Time Messaging Protocol (RTMP) was initially a proprietary protocol for streaming audio, video and data over the Internet, between a Flash player and a server. RTMP is a TCP-based protocol which maintains persistent connections and allows low-latency communication. It can realize the function of live broadcast so that customers can log in to the camera wherever there is a network.

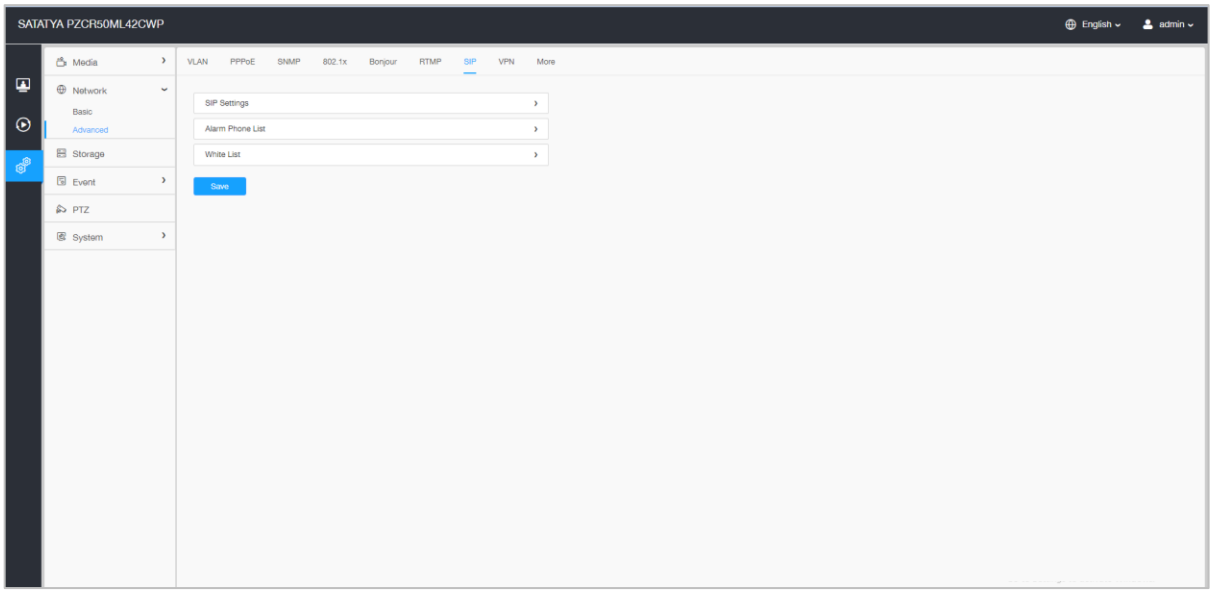


Note:

- For YouTube live broadcast, if you use a newly created account to live broadcast, you need to wait for 24hrs to activate the account for using live function.
- For RTMP, since G.711 is not available for YouTube, so you can only play video from Network Camera with H.264 video coding and AAC audio coding on YouTube.
- Server Address in Network Camera RTMP interface needs to be filled with the format: rtmp://< Server URL >/< Stream key >, remember it needs '/'to connect between < Server URL > and < Stream key >.

8.2.2.7 SIP

The Session Initiation Protocol(SIP) is a signaling communications protocol, widely used for controlling multimedia communication sessions such as voice and video calls over Internet Protocol (IP) networks. This page allows user to configure SIP related parameters. Network cameras can be configured as SIP endpoint to call out when alarm triggered; or allow permitted number to call in to check the video if the video IP phone is used.



To use this function, the settings in SIP page must be configured properly. There are two ways to get video through SIP, one is to dial the IP address directly, the other is account registration mode. the details are as follows:

Method 1: IP Direct mode

Dial on the camera's IP address directly through SIP phone, so you can see the video.

Note: SIP phone and the camera should in the same network segment.

Method 2: Account registration mode

- Before using the SIP, you need to register an account for the camera from the SIP server;
- Register another user account for the SIP device from the same SIP server;
- Call the camera User ID from the SIP device, you will get the video on the SIP device.

[SIP Settings]

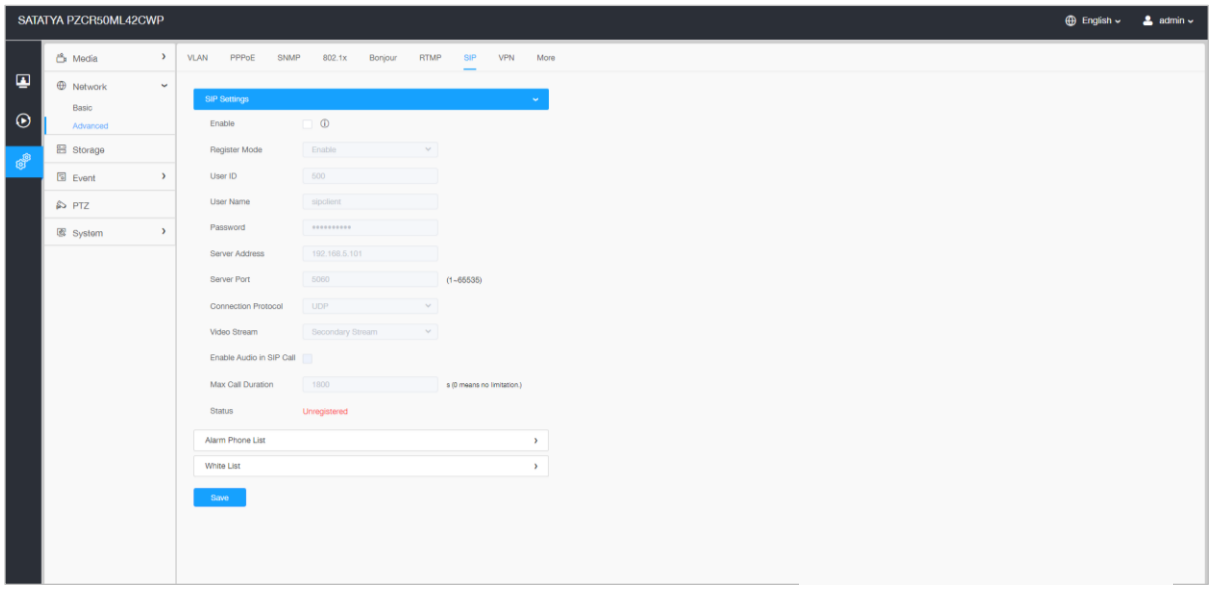


Table 30. Description of the buttons

Parameters	Function Introduction
Enable	Start or stop using SIP. **Note:** SIP supports Direct IP call.
Register Mode	Choose to use Enable mode or Disable mode. Enable mode means to use SIP with register account. Disable mode refers to use SIP without register account, just use the IP address to call.
User ID	SIP ID.
User Name	SIP account name.
Password	SIP account password.
Server Address	Server IP address.
Server Port	Server port.
Connection Protocol	UDP/TCP.
Video Stream	Choose the video stream.
Enable Audio in SIP Call	Enable/disable audio in SIP call.
Max Call Duration	The max call duration when use SIP.

Status	SIP registration status. Display “Unregistered” or “Registered” .
Save	Save the configuration.

[Alarm Phone List]

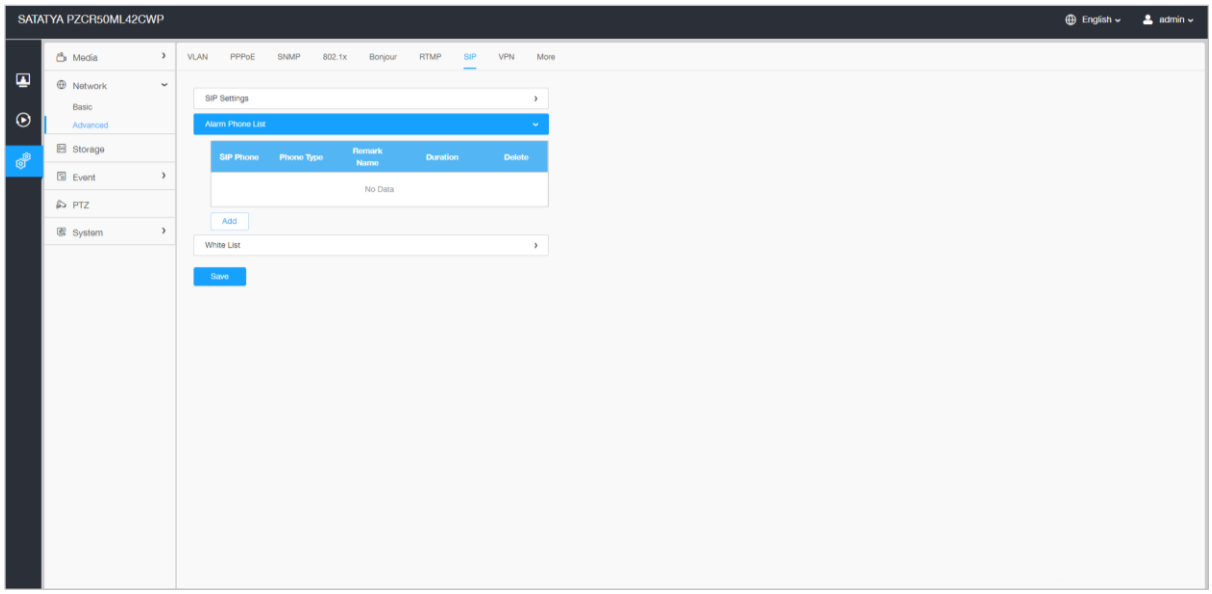


Table 31. Description of the buttons

Parameters	Function Introduction
Add	Add alarm phone to the camera. **Phone Type:** Phone Number(Call by phone number) & Direct IP Call(Check to accept peer to peer IP call). **To Phone Number/IP Address:** Call by phone number or IP address. **Remark Name:** Display name. **Duration:** The time schedule to use SIP.
	Delete the selected alarm phone.
Delete All	Delete all added alarm phone.
Save	Save the configuration.

[White List]

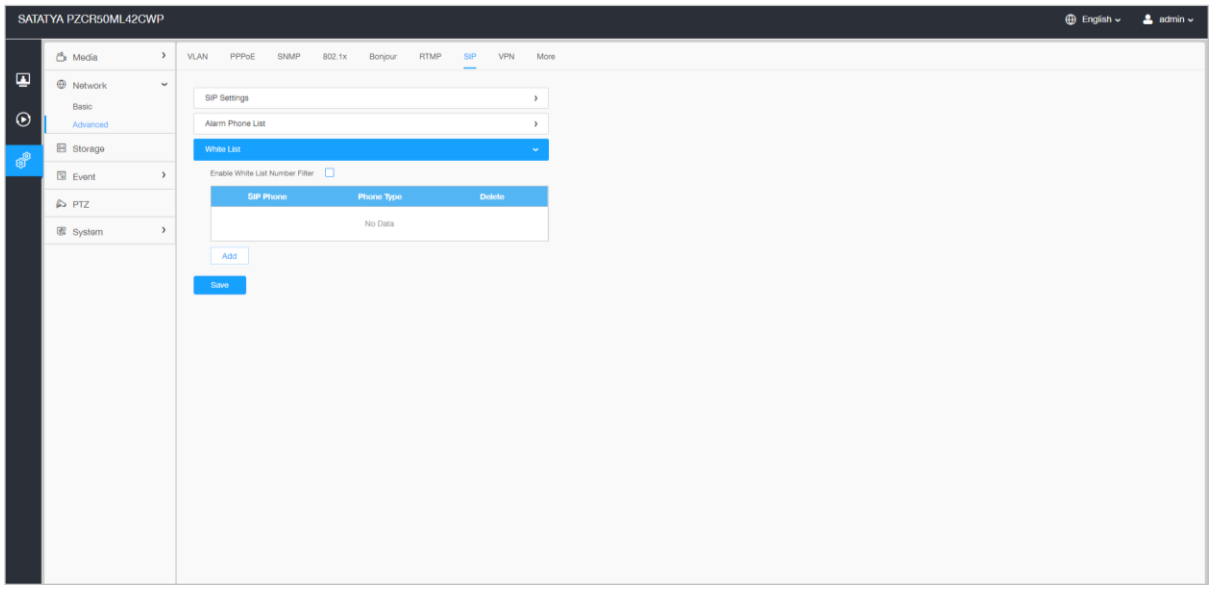
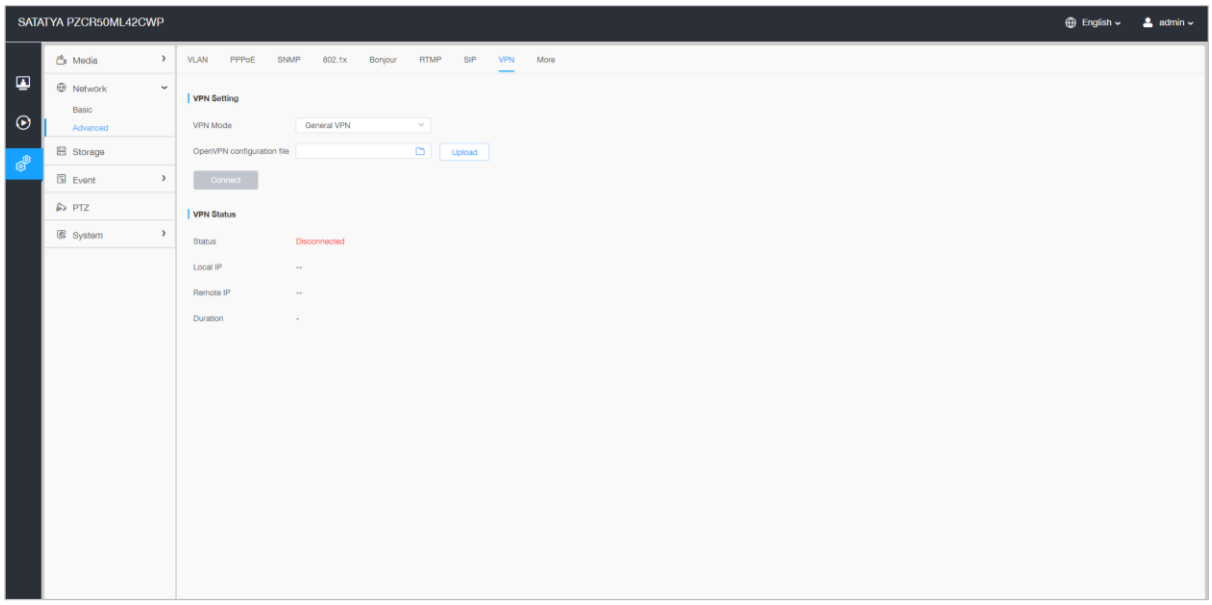


Table 32. Description of the buttons

Parameters	Function Introduction
Enable White List Number Filter	When enabled, only the designated phone number or IP address can visit
Add	**Phone Type:** Phone Number (Call by phone number) & Direct IP Call. **Phone Number/IP Address:** Including the phone number or IP address on the white list.
Save	Save the configuration.

8.2.2.8 VPN

Usually a VPN, or Virtual Private Network, is one of the most secure ways to remotely access your security camera system.
A VPN enables you to connect to your network from any location.
VPN creates secure connection to another private network, over a public network such as internet to ensure that sensitive data is safely transmitted..



8.2.2.9 More

Here you can set more functions, like Push Message Settings and ONVIF Settings.

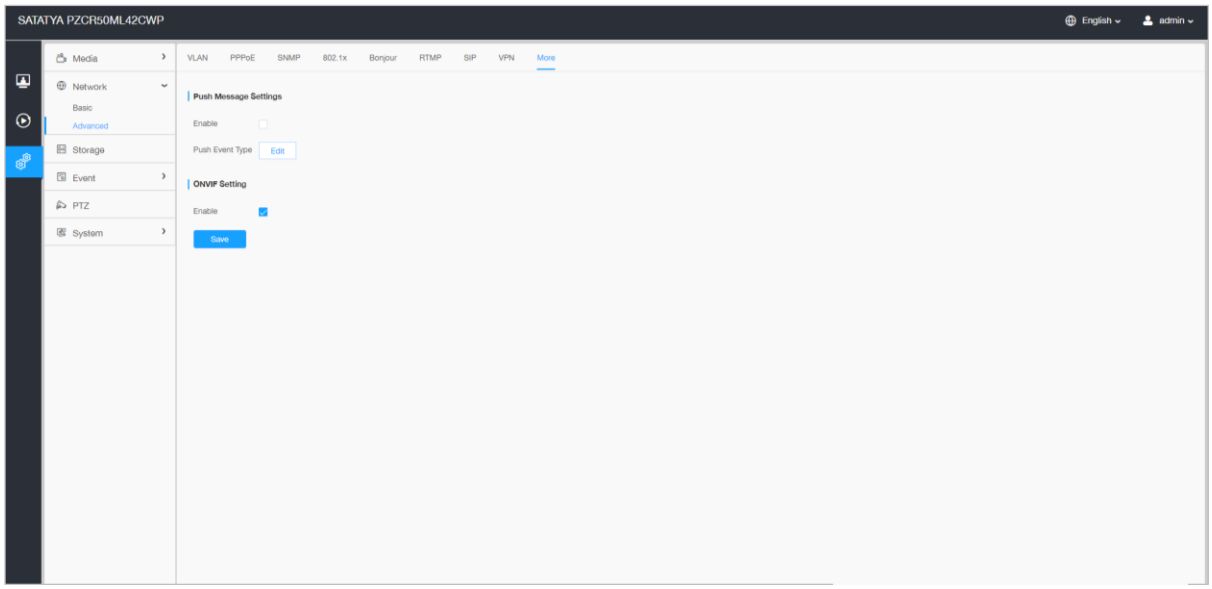
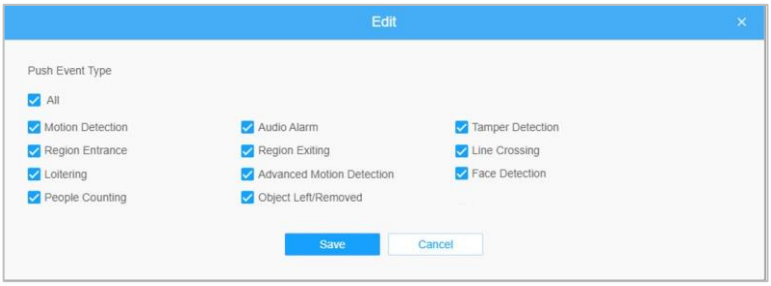


Table 33. Description of the buttons

Parameters	Function Introduction
Push Message Settings	**Enable:** Enable/disable the Push Message function **Push Event Type:** You can click Edit to choose the types of Events' message which will be pushed to i-Sight App as shown below: 
ONVIF Setting	Here you can choose whether to enable or disable camera ONVIF function. If camera ONVIF function is enabled, it can be searched out, added and connected by third-party software through ONVIF protocols. Generally, the default status of ONVIF function is enabled.
Save	Save the configuration.

8.3 Storage

8.3.1 Storage Management

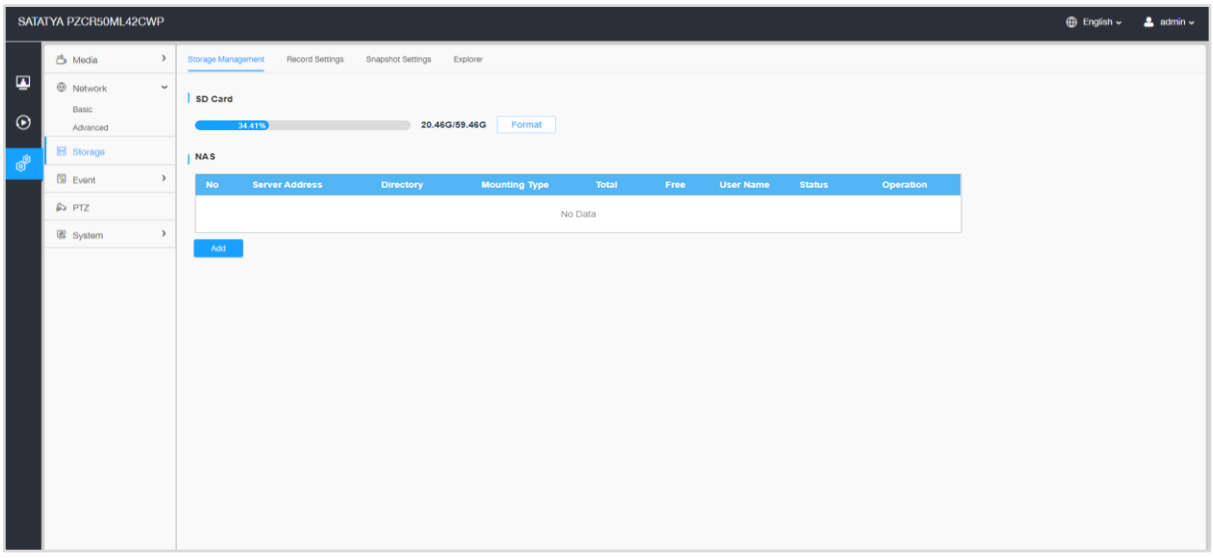
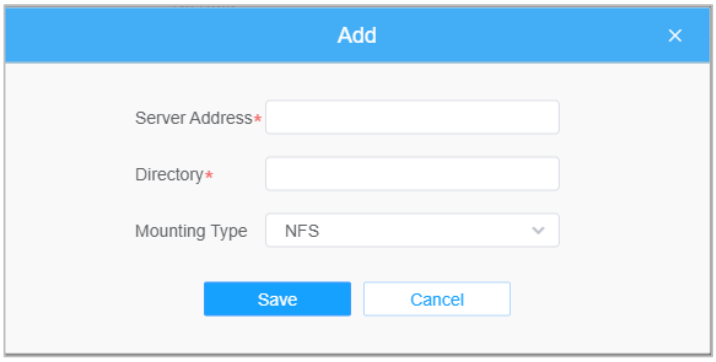


Table 34. Description of the buttons

Parameters	Function Introduction
SD Card	**Format:** Format SD card, the files in SD card will be removed. **Mount/UnMount:** Mount/Dismount SD card. **Delete:** Enable cyclic storage, when the free disk space reach at a certain value, it will automatically delete the files at certain percentage according to your settings.
NAS	The network disk should be available within the network and properly configured to store the recorded files, etc. NAS (Network-Attached Storage), connecting the storage devices to the existing network, provides data and files services.  **Server Address:** IP address of NAS server. **Directory:** Input the NAS directory, e.g. "\path". **Mounting Type:** NFS and SMB/CIFS are available. And you can set the user name and password to guarantee the security if SMB/CIFS is selected. **Note:** Up to 5 NAS disks can be connected to the camera.
Save	Save the configuration.

8.3.2 Record Settings

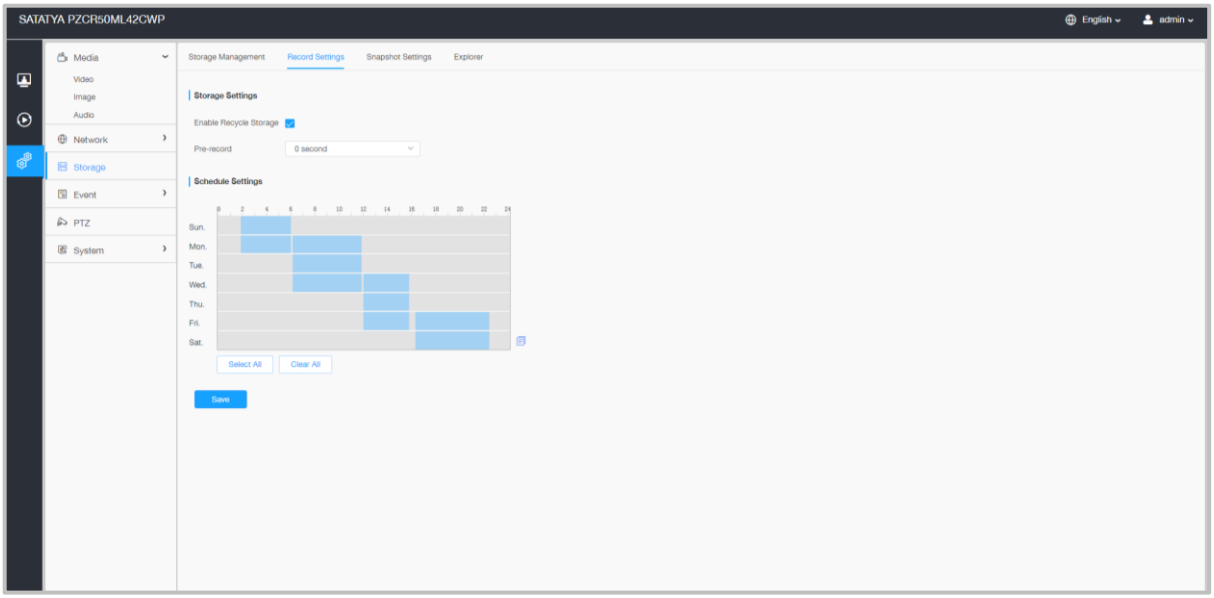
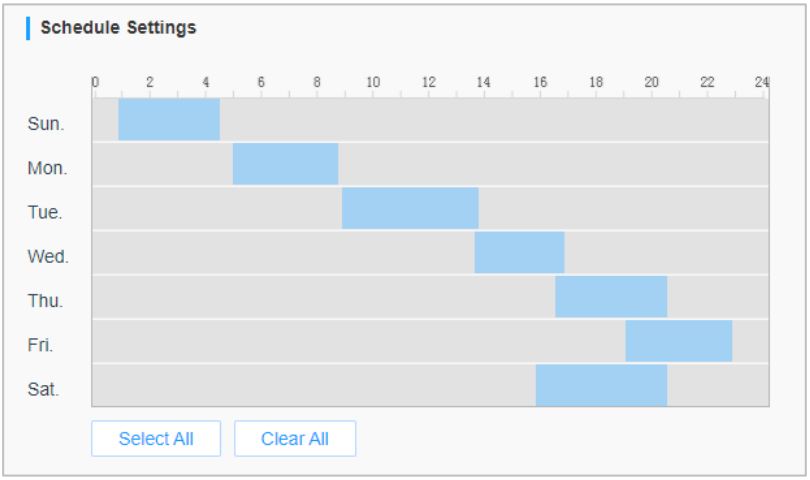
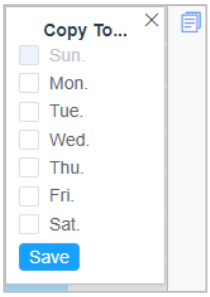


Table 35. Description of the buttons

Parameters	Function Introduction
Enable Recycle	Enable/Disable Recycle Storage, if you enable this option, it will delete the files when the free disk space reaches a certain value.
Pre Second	Reserve the record time before alarm, 0~10 sec.
Schedule Settings	Edit record schedule as needed. Intuitive scheduling by drawing the time bar directly. 

Schedule Settings		Copy the schedule area to another date.
	Select All	Select all schedule.
	Clear All	Clear all schedule.
Save	Save the configuration.	

Note: SD Card or NAS are available.

8.3.3 Snapshot Settings

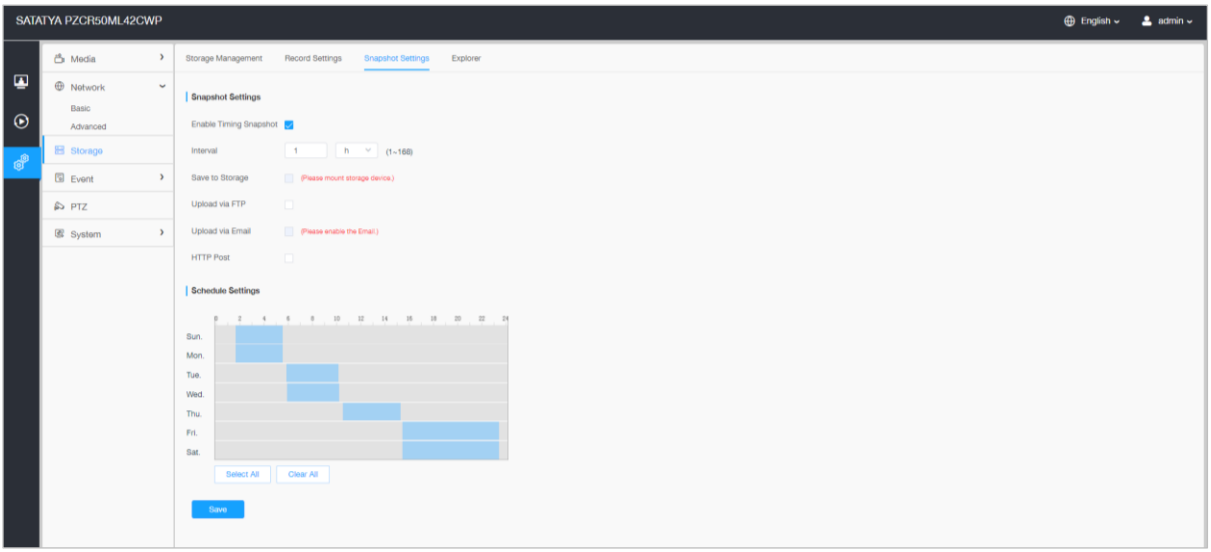
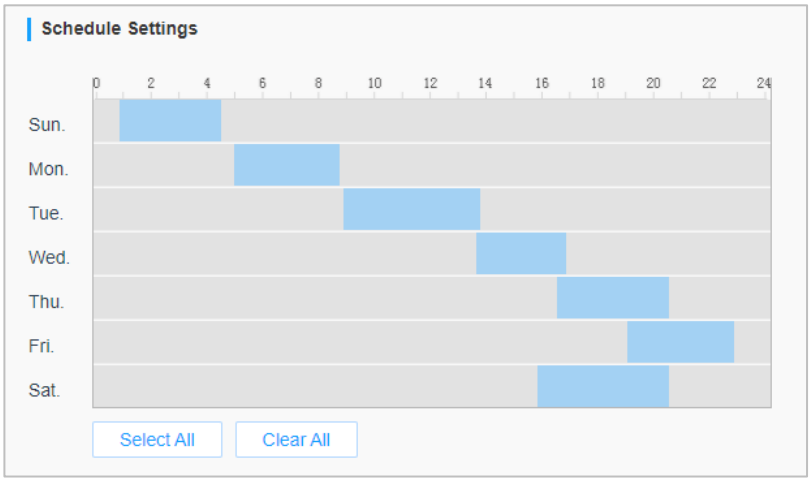
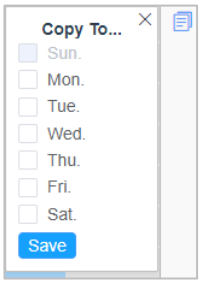
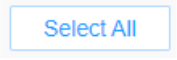
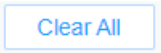
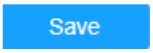


Table 36. Description of the buttons

Parameters	Function Introduction
Snapshot Settings	**Enable Timing Snapshot**: Check the checkbox to enable the Timing Snapshot function **Interval:** Set the snapshots interval, input the number and choose the unit (millisecond, second, minute, hour, day). **Save Into Storage:** Save the snapshots into SD card or NAS, and choose the file name to add time suffix or overwrite the base file name. **Save Into NAS:** Save the snapshots into NAS, and choose the file name to add time suffix or overwrite the base file name. **Upload Via FTP:** Upload the snapshots via FTP. **Upload Via Email:** Upload the snapshots via Email. **Note:** If you choose to add time suffix, every snapshot picture will be saved, but if you choose to overwrite the base file name, only one latest picture will be saved. When you choose add overwrite the base file name to SD Card or NAS, it will create a file named "Snapshot" to place the snapshot. **HTTP Post:** Upload the snapshots via HTTP Post. Support uploading the snapshots to specified HTTP URL.
Schedule Settings	Edit record schedule as needed. Intuitive scheduling by drawing the time bar directly. 

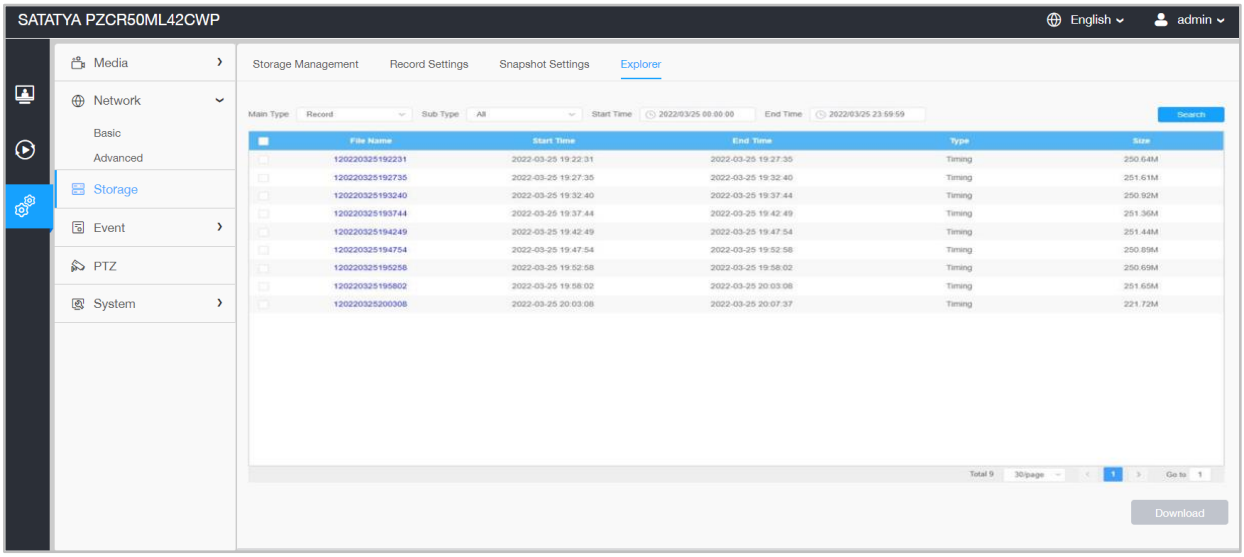
Schedule Settings		Copy the schedule area to another date.
		Select all schedule.
		Clear all schedule.
	Save the configuration.	

8.3.4 Explorer

Files will be seen on this page when they are configured to save into SD card or NAS. You can set time schedule every day for recording videos and save video files to your desired location.

Note: Files are visible once SD card is inserted. Don't insert or pull out SD card when power on

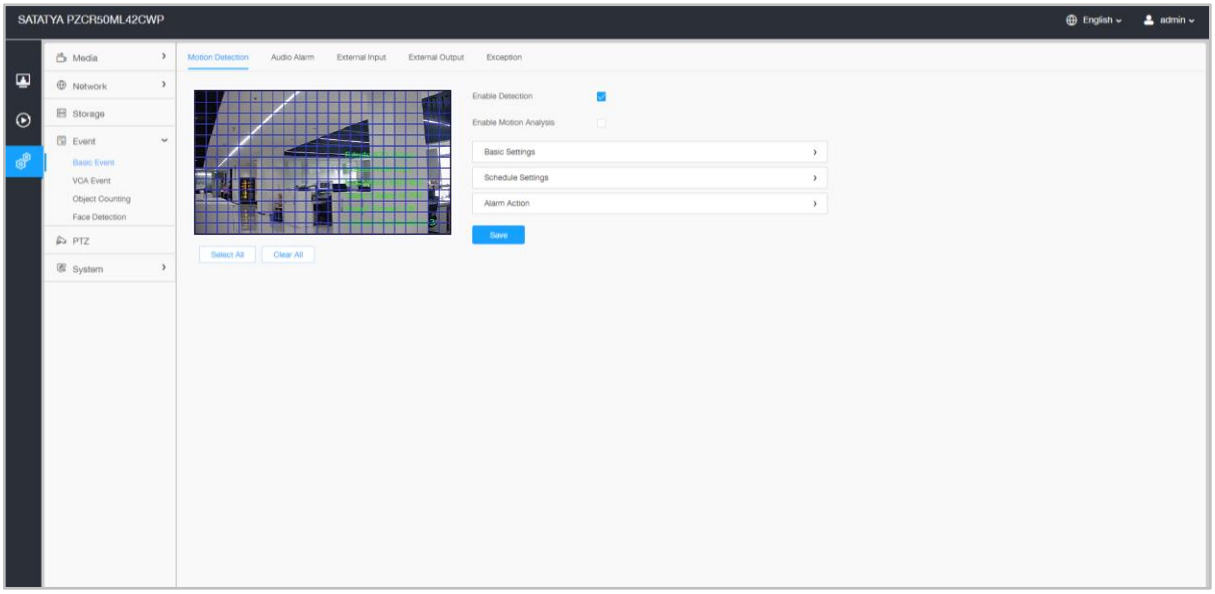
Video files are arranged by date. Set file type and start/end time to search out files. Each day files will be displayed under the corresponding date, from here you can copy and delete files etc. You can visit the files in SD card by ftp, for example, ftp://username: password@192.168.1.126 (user name and password are the same as the camera account and the IP followed is the IP of your device.).



8.4 Event

8.4.1 Basic Event

8.4.1.1 Motion Detection



Settings steps are shown as follows:

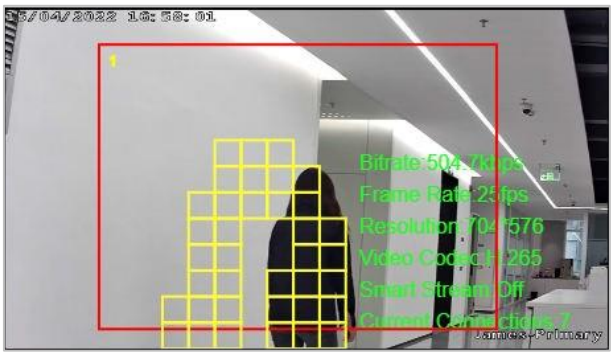
Step1: Check the checkbox to enable the motion detection.

Step2: Check the check box to enable the motion analysis.

Step3: Select the detection mode;

Step4: Set motion region;

Table 37. Description of the buttons

Parameters	Function Introduction
Enable Detection	Check the checkbox to enable Motion Detection function.
Enable Motion Analysis	When Motion Analysis is enabled, the moving region will turn yellow so that the user can know exactly where the motion occurred. **Note:** Only support when HTTP is selected in Live View. 
Select All	Click the button, the motion in the area will be detected.
Clear All	Click the button, the area drawn before will be removed.
Save	Save the configuration.

[Basic Settings]

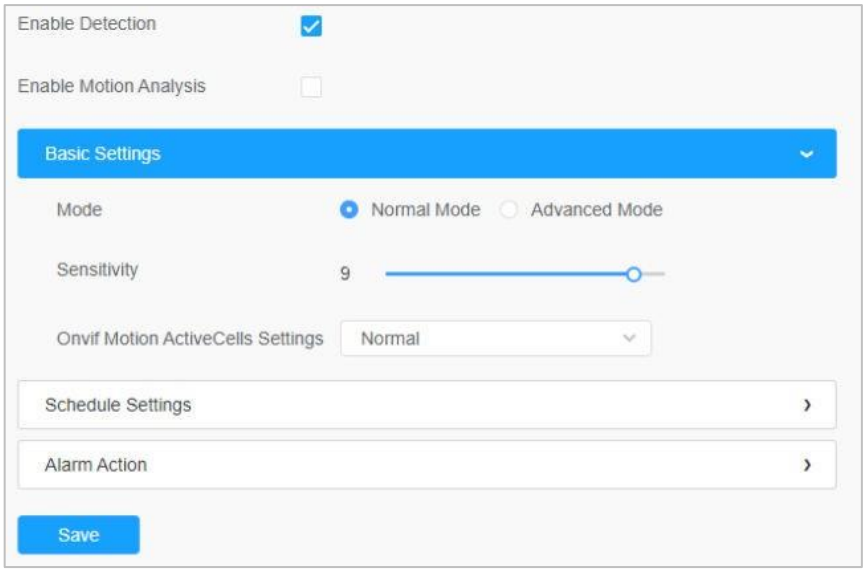


Table 38. Description of the buttons

Parameters	Function Introduction
Detection Mode	Normal Mode and Advanced Mode are available for the option. When Advanced Mode is selected, users can configure up to 4 detection regions and sensitivity for each detection region.
Sensitivity	Sensitivity level, 1~10
Onvif Motion Active Cells Settings	Normal and Compatible are available for the option. If the setting of motion region of the third-party software is different from ours, please set this option to Compatible
Save	Save the configuration.

[Schedule Settings]

Step5: Set motion detection schedule;

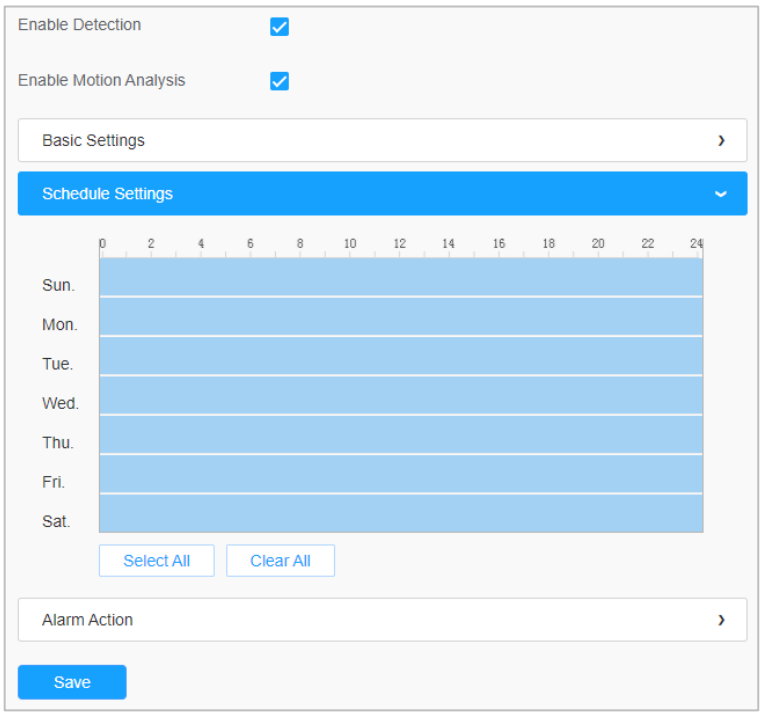
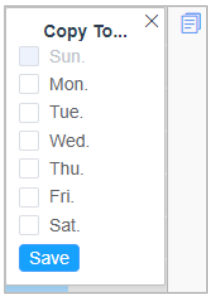
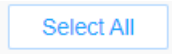
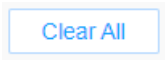


Table 39. Description of the buttons

Parameters	Function Introduction
	Copy the schedule area to another date.
	Select All schedule.
	Clear All schedule.
	Save the configuration.

[Alarm Action]

Step6: Set alarm action;

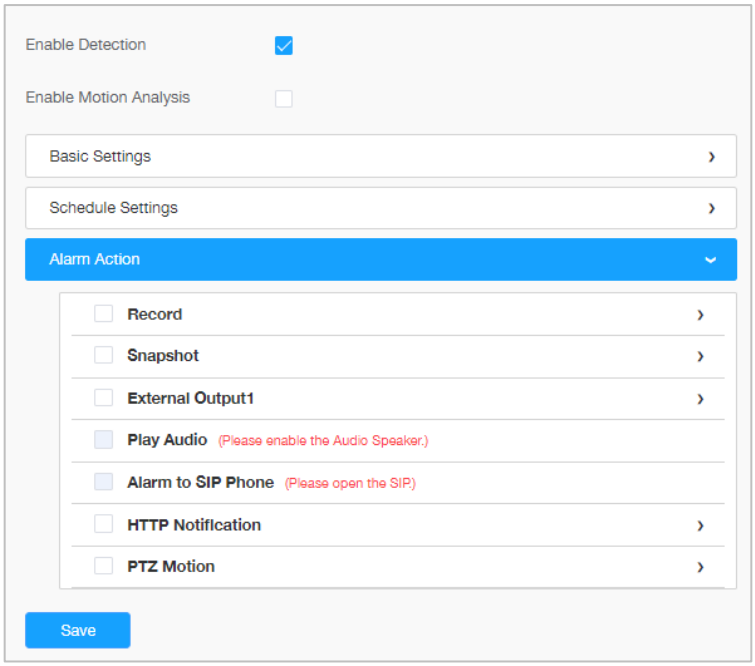


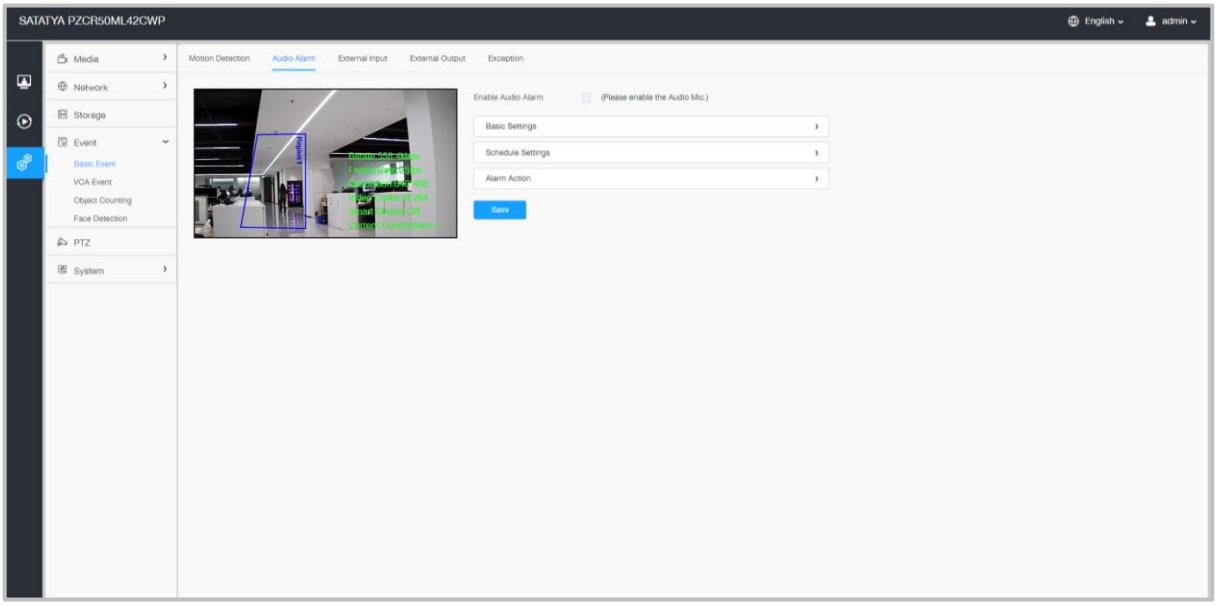
Table 40. Description of the buttons

Parameters	Function Introduction
Record	**Duration:** Selected the duration time of alarm. 5s/10s/15s/20s/25s/30s are available. **Linkage:** Save alarm recording files into SD Card or NAS or Upload the recording files via FTP.
Snapshot	**Number:** The number of snapshot, 1~5 are available. **Interval:** This cannot be edited unless you choose more than 1 to Snapshot. **Linkage:** Save alarm recording files into SD Card or NAS, Upload the recording files via FTP and send alarm email. Configure the Email Triggered Interval.
External Output	If the camera equips with External Output, you can enable the action after configuring the trigger duration.
Play Audio	Auto/10 seconds/30 seconds/1 minute/5 minutes/10 minutes are available. **Note:** Please enable the Audio Speaker.
Alarm to SIP Phone	Support to call the SIP phone after enable the SIP function.
HTTP Notification	Support to pop up the alarm news to specified HTTP URL. **Note:** • Three HTTP notifications at most can be added to the same event. • HTTP Notification supports Basic & Digest authentication.
PTZ Motion	When the motion alarm triggered, PTZ Motion allows the camera to move the lens to the motion triggered position and zoom in.
Call Preset/ Call Patrol/Call Pattern	When the motion alarm triggered, the specified preset/patrol/pattern can be called.
Save	Save the configuration.

8.4.1.2 Audio Alarm

Check the check box to enable the Audio Alarm function.

Note: Enable the Audio Mic before using Audio Alarm function.



[Basic Settings]

Table 41. Description of the buttons

Parameters	Function Introduction
Alarm Threshold	Audio Alarm will be triggered when the threshold reaches to a certain value from 0 to 100.
Audio Sample Value	The current value of the audio sample.
Save	Save the configuration.

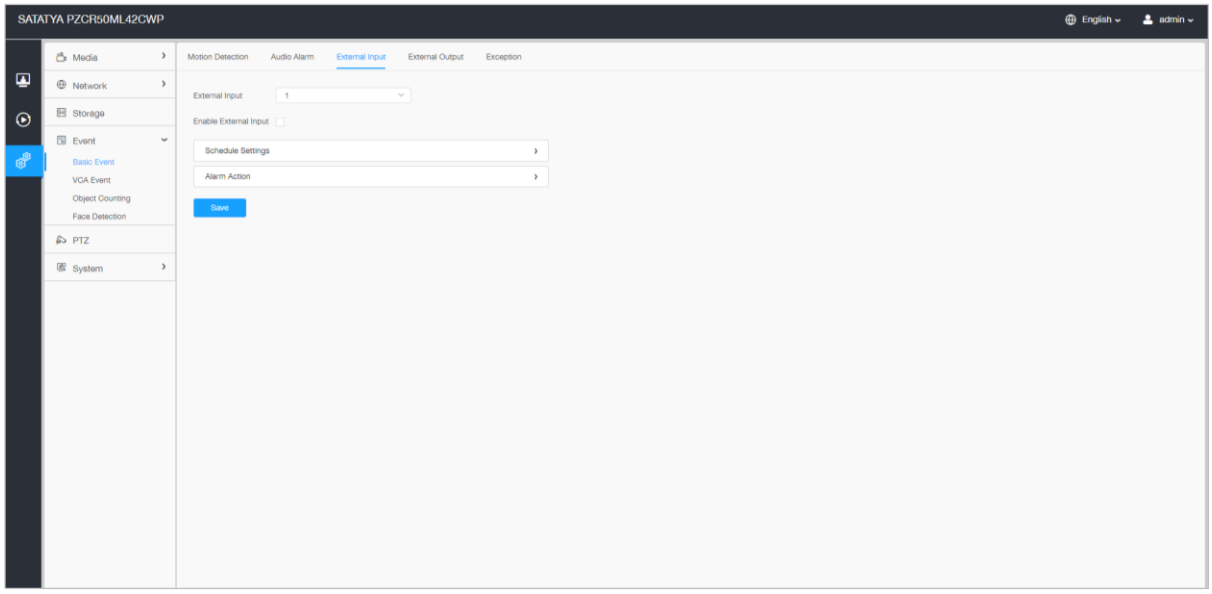
[Schedule Settings]

Refer to the table [Schedule Settings] for the meanings of the items.

[Alarm Action]

Refer to the table [Alarm Action] for the meanings of the items.

8.4.1.3 External Input



Select the desired **External Input** and check the **Enable External Input** check box.

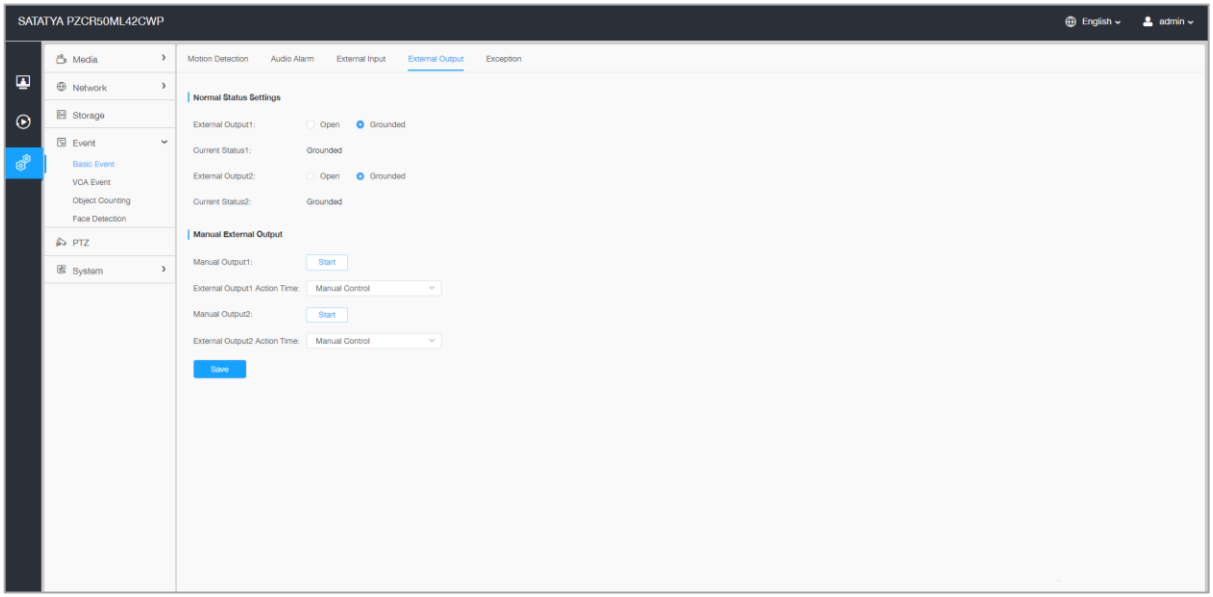
[Schedule Setting]

Refer to the table [Schedule Settings] of Basic Motion from events for the meaning of the items.

[Alarm Setting]

Refer to the table [Alarm Action] of Basic Motion from events for the meaning of the items.

8.4.1.4 External Output



[Normal Status Settings]

Please set the **Normal Status** firstly, when the **Current Status** is different with **Normal Status**, it will lead to the alarm.

[Manual External Output]

You can set the manual external output.

Table 42. Description of the buttons

Parameters	Function Introduction
Manual Output	Click to Start/Stop manual external output.
External Output Action Time	Manual Control/Customize/10 s/1 min./5 min./10 min. are available.
	If customizable option is selected, set the time accordingly in seconds with valid range of 1~999.
Save	Save the configuration.

8.4.1.5 **Exception**

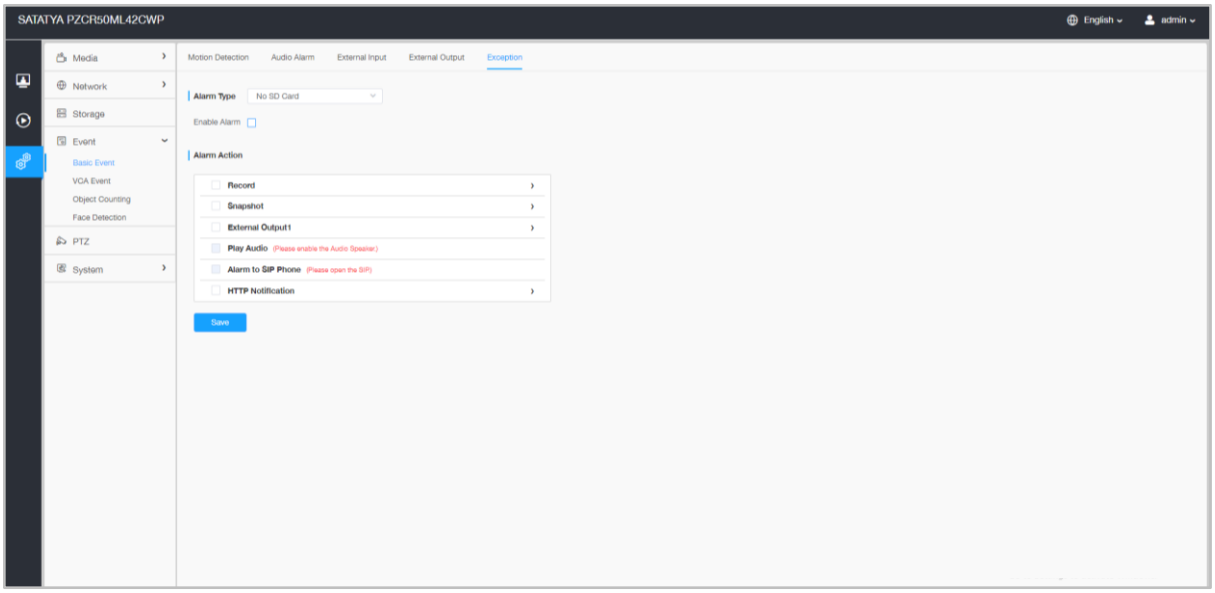


Table 43. Description of the buttons

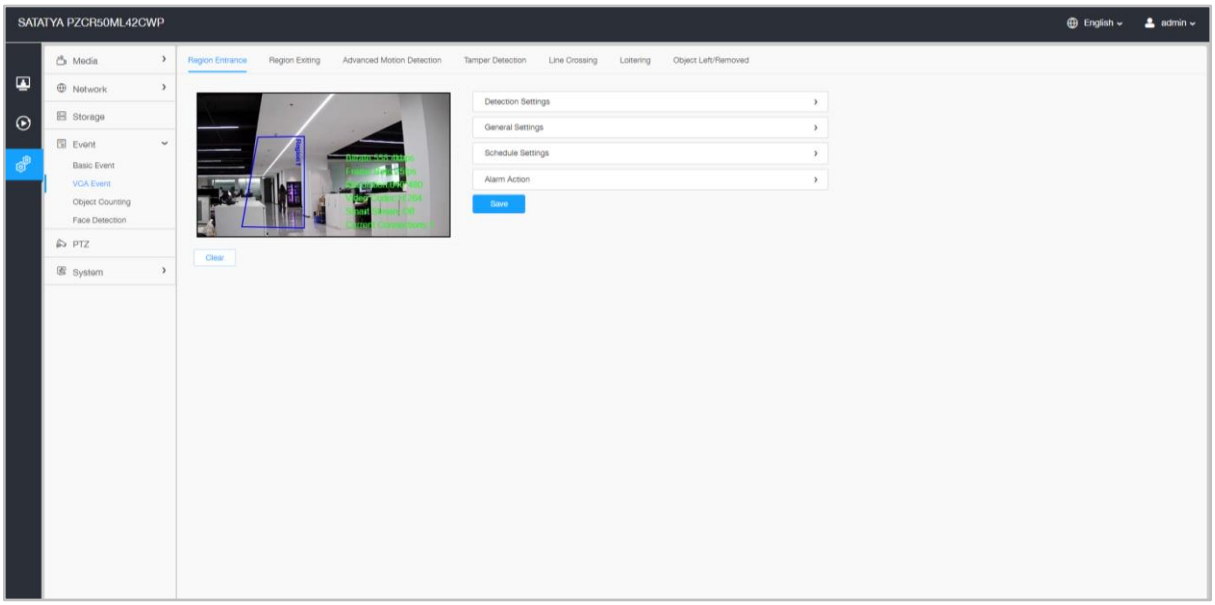
Parameters	Function Introduction
Alarm Type	**Network Disconnected**, **IP Address Conflict, Record Failed, SD Card Full, SD Card Uninitialized, SD Card Error** and **No SD Card** are available
Enable Alarm	Check the check box to enable the Alarm.
Alarm Action	Refer to the table [Alarm Action] for the meanings of the items.
Save	Save the configuration.

8.4.2 VCA Event

Smart Event uses VCA (Video Content Analysis) technology, which provides advanced, accurate smart video analysis for network cameras. Powered by AI chip, the new generation video analytics is capable of recognizing vast attributes of human, vehicle, and object pattern as recognition models. As vehicle and human related events are very important in security monitoring, the filtering is supported to better optimize the efficiency.

8.4.2.1 Region Entrance

Region entrance helps to protect a special area from potential threat of suspicious person's or object's entrance. An alarm will be triggered when person/object enters the selected regions by enabling region entrance.



Settings steps are shown as follows:

[Detection Settings]

Note: General Settings will take effect in all detection regions/lines!

Step1: Select detection region and enable region entrance detection

Note: If you choose **Normal Mode**, it supports configuring the detection region for the current area. If you choose **Advanced Mode** it supports configuring the detection region for different PTZ presets (Only support Preset 1~4 so far). And set object size limits.

Step2: Choose detection object. Check Human or Vehicle attribute, and the camera will alarm once detecting people or vehicle and triggering related events;

[General Settings]

Step3: Set detecting sensitivity and object size limits;

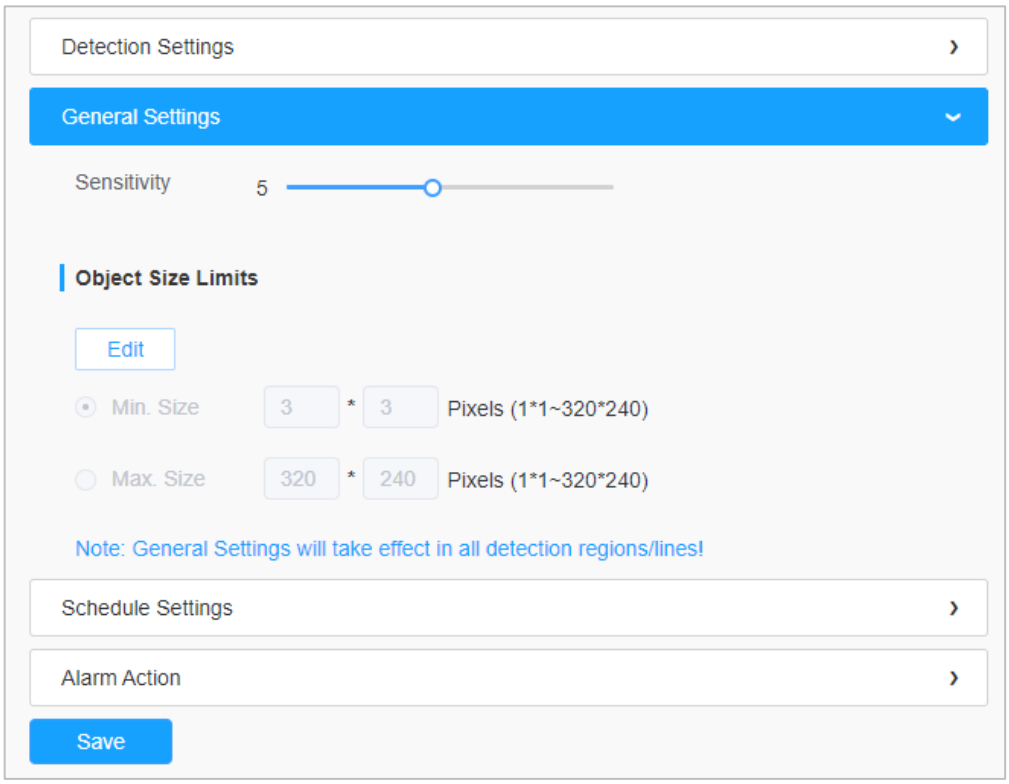


Table 44. Description of the buttons

Parameters	Function Introduction
Sensitivity	Level 1~10 are available, the default level is 5. The higher the sensitivity, the easier it is for moving objects to be recorded in the results.
Min. Size	Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected. The default minimum size is 3*3.
Max. Size	Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected. The default maximum size is 320*240.
Save	Save the configuration.

[Schedule Settings]

Step4: Set detection schedule;

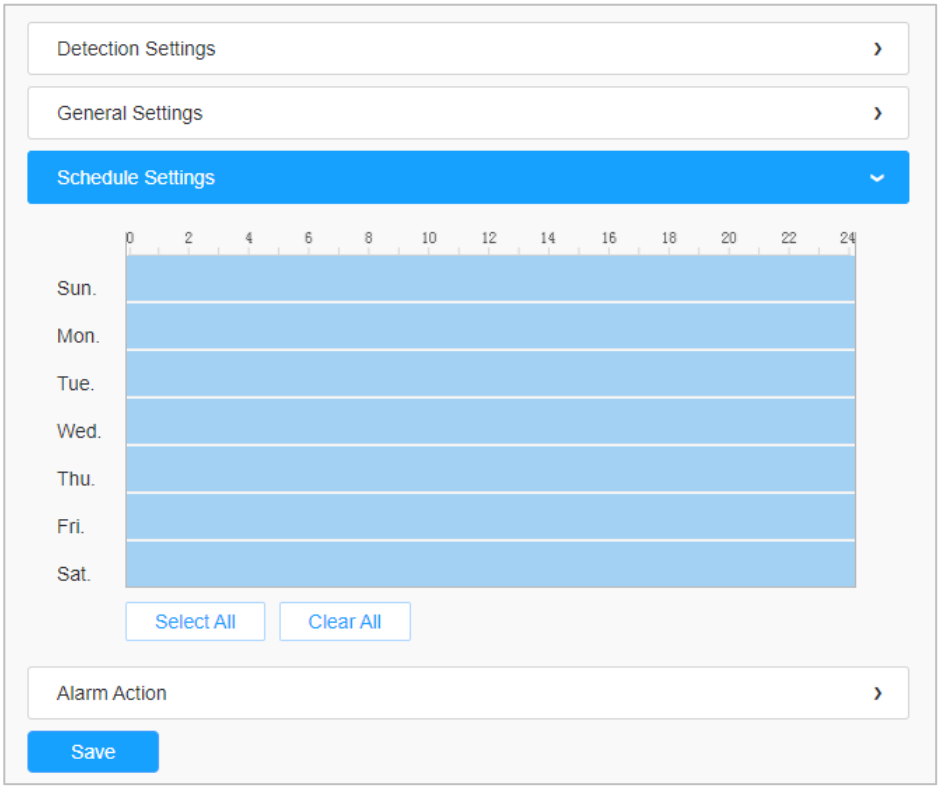
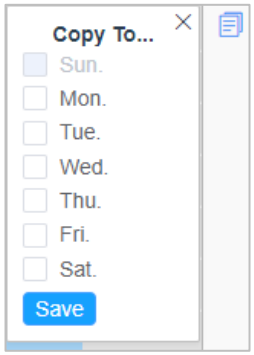
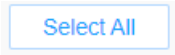
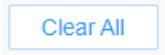
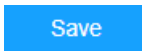


Table 45. Description of the buttons

Parameters	Function Introduction
	Copy the schedule area to another date.
	Select all schedules.
	Clear all schedules.
	Save the configuration.

[Alarm Action]

Step5: Set alarm action;

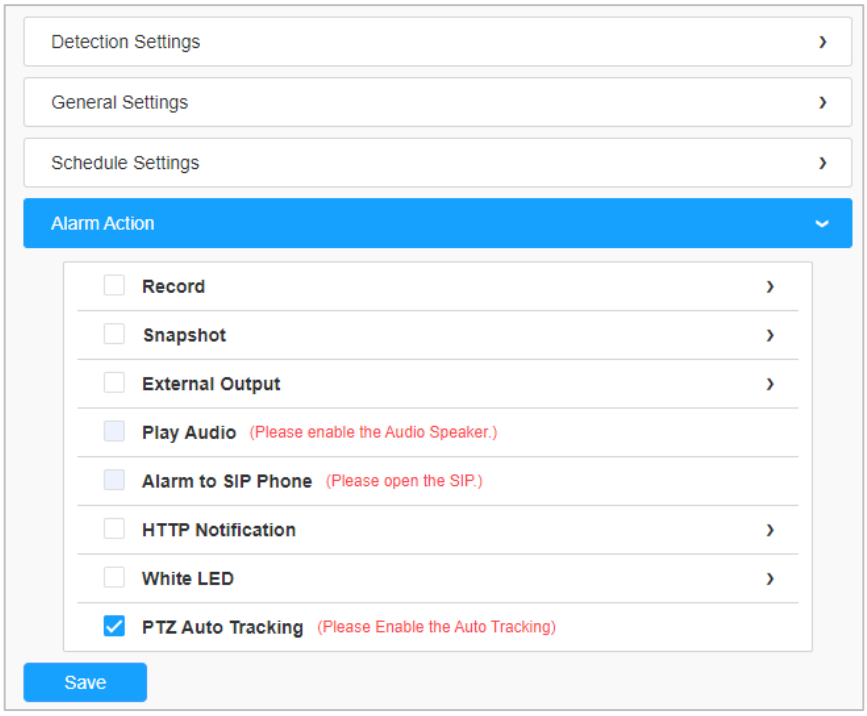
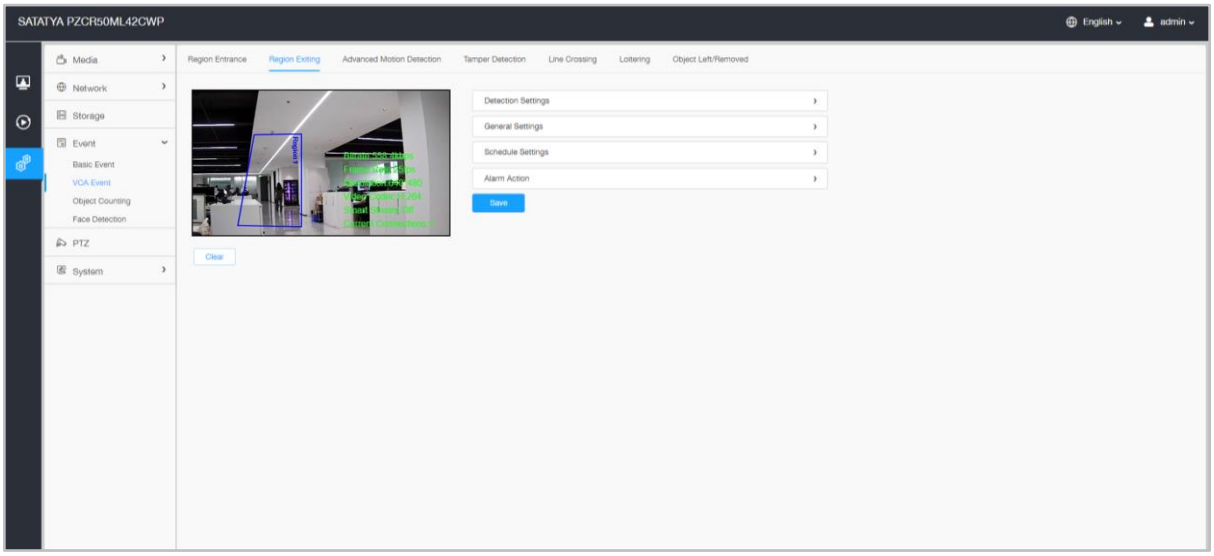


Table 46. Description of the buttons

Parameters	Function Introduction
Record	**Duration:** Selected the duration time of alarm. 5s/10s/15s/20s/25s/30s are available. **Linkage:** Save alarm recording files into SD Card or NAS or Upload the recording files via FTP.
Snapshot	**Number:** The number of snapshot, 1~5 are available. **Interval:** This cannot be edited unless you choose more than 1 to Snapshot. **Linkage:** Save alarm recording files into SD Card or NAS, Upload the recording files via FTP and send alarm email.
External Output	If the camera equips with External Output, you can enable the action after configuring the trigger duration.
Play Audio	Auto/10 seconds/30 seconds/1 minute/5 minutes/10 minutes are available. **Note:** Please enable the Audio Speaker.
Alarm to SIP Phone	Support to call the SIP phone after enabling the SIP function. **Note:** Please open the SIP.
HTTP Notification	Support to pop up the alarm news to specified HTTP URL.
PTZ Motion (Only for Advanced Motion Detection)	When the motion alarm triggered, PTZ Motion allows the camera to move the lens to the motion triggered position and zoom in.
PTZ Auto Tracking	Camera will automatically track objects and trigger an alarm if objects enter the selected regions. **Note:** • Please enable Auto Tracking on the PTZ interface first. • PTZ Auto Tracking is checked by default.
Save	Save the configuration.

8.4.2.2 Region Exiting

Region exiting is to make sure that any person or object won't exit the area that is being monitored. Any exit of people or objects will trigger an alarm.



Settings steps are shown as follows:

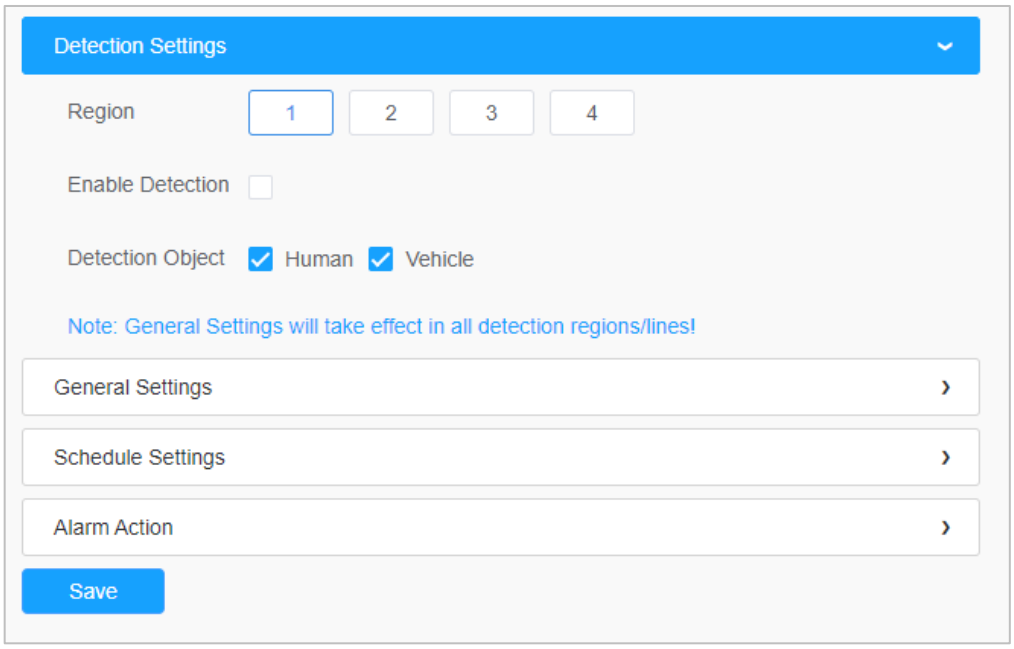
[Detection Settings]

Note: General Settings will take effect in all detection regions/lines!

Step1: Select detection region and enable region exiting detection;

Note: If you choose **Normal Mode**, it supports configuring the detection region for the current area. If you choose **Advanced Mode** it supports configuring the detection region for different PTZ presets (Only support Preset 1~4 so far). And set object size limits.

Step2: Choose detection object. Check Human or Vehicle attribute, and the camera will alarm once detecting people or vehicle and triggering related events;



[General Settings]

Step3: Set detecting sensitivity and object size limits;

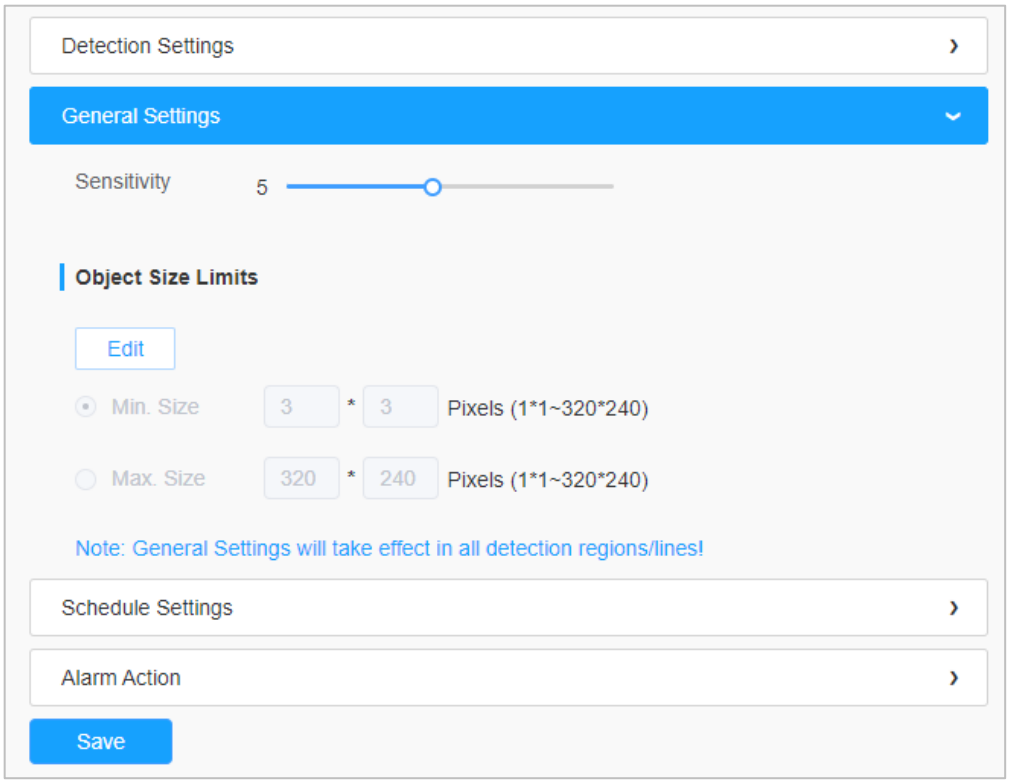


Table 47. Description of the buttons

Parameters	Function Introduction
Sensitivity	Level 1~10 are available, the default level is 5. The higher the sensitivity, the easier it is for moving objects to be recorded in the results.
Min. Size	Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected. The default minimum size is 3*3.
Max. Size	Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected. The default maximum size is 320*240.
Save	Save the configuration.

[Schedule Settings]

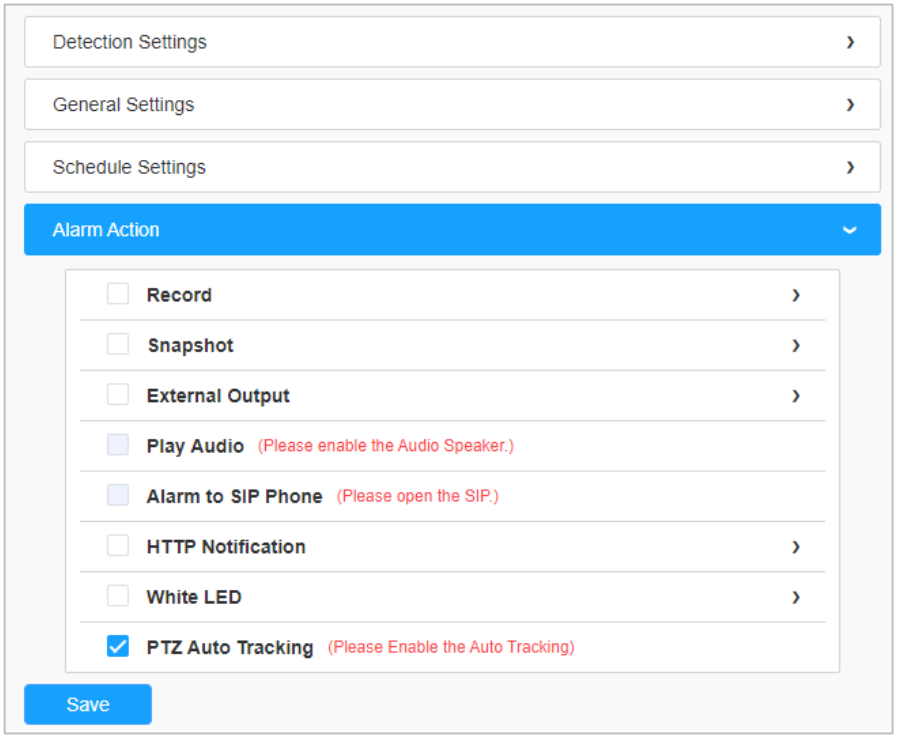
Step4: Set detection schedule;

Refer to the table [Schedule Settings] for the meanings of the items.

[Alarm Action]

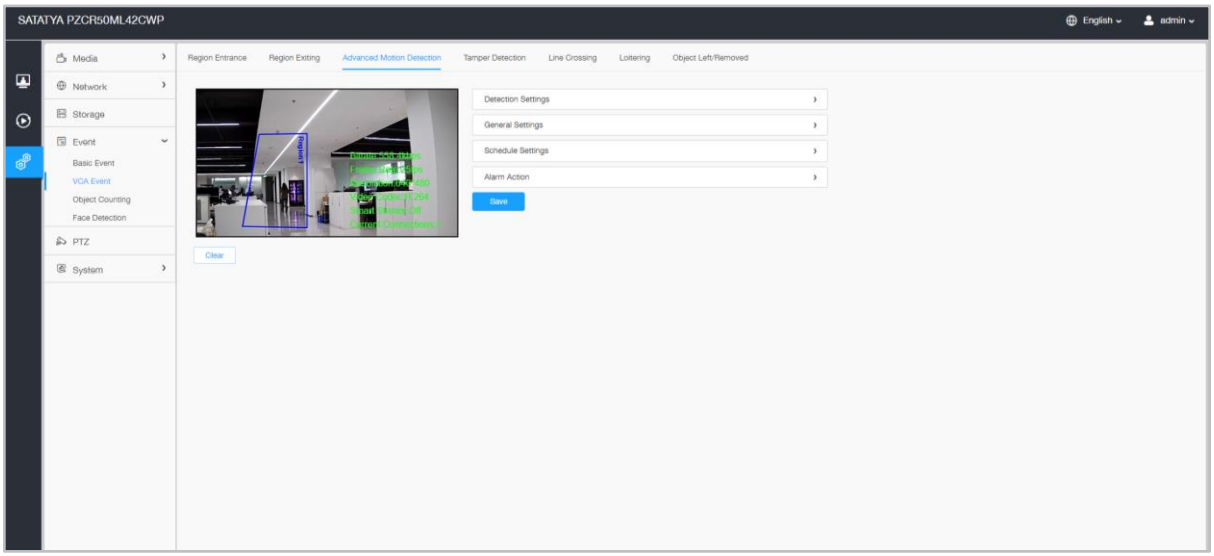
Step5: Set alarm action;

Refer to the table [Alarm Action] for the meanings of the items.



8.4.2.3 Advanced Motion Detection

Different from traditional motion detection, advanced motion detection can filter out “noise” such as lighting changes, natural tree movements, etc. When an object moves in the selected area, it will trigger alarm.

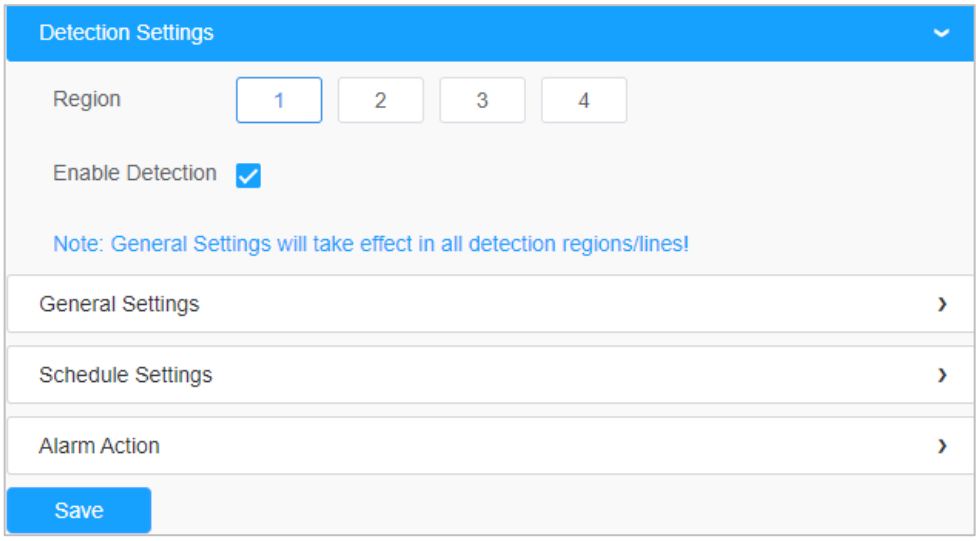


Settings steps are shown as follows:

Step1: Select Detection Region and enable advanced motion detection;

Note: If you choose **Normal Mode**, it supports configuring the detection region for the current area. If you choose **Advanced Mode**, it supports configuring the detection region for different PTZ presets (Only support Preset 1~4 so far). And set object size limits.

Step2: Choose detection object. Check Human or Vehicle attribute, and the camera will alarm once detecting people or vehicle and triggering related events;



[General Settings]

Step3: Set Ignore Short-Lived Motion time. If you set the time, when the moving duration of an object is within the setting time, the alarm will not be triggered;

Step4: Set detecting sensitivity and object size limits;

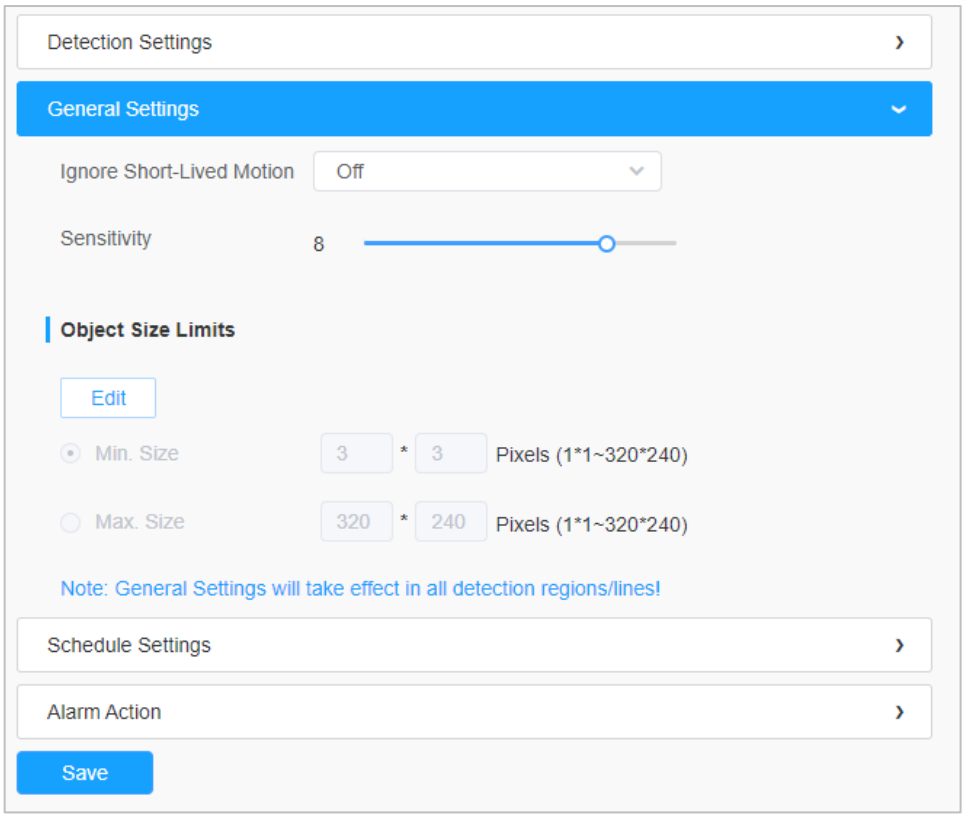


Table 48. Description of the buttons

Parameters	Function Introduction
Ignore Short-Lived Motion	The alarm will not be triggered when the moving duration of an object is within the setting time. Off/1s/2s/3s/4s/5s are available. **Note:** Ignore Short-Lived Motion time is to avoid false alarm caused by instant object movement within time setting.
Sensitivity	Level 1~10 are available, the default level is 5. The higher the sensitivity, the easier it is for moving objects to be recorded in the results. **Note:** The sensitivity can be configured to detect various movement according to different requirements. When the level of sensitivity is low, slight movement won't trigger the alarm.

Min. Size	Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected. The default minimum size is 3*3.
Max. Size	Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected. The default maximum size is 320*240.
Save	Save the configuration.

[Schedule Settings]

Step5: Set detection schedule;

Refer to the table [Schedule Settings] for the meanings of the items.

[Alarm Action]

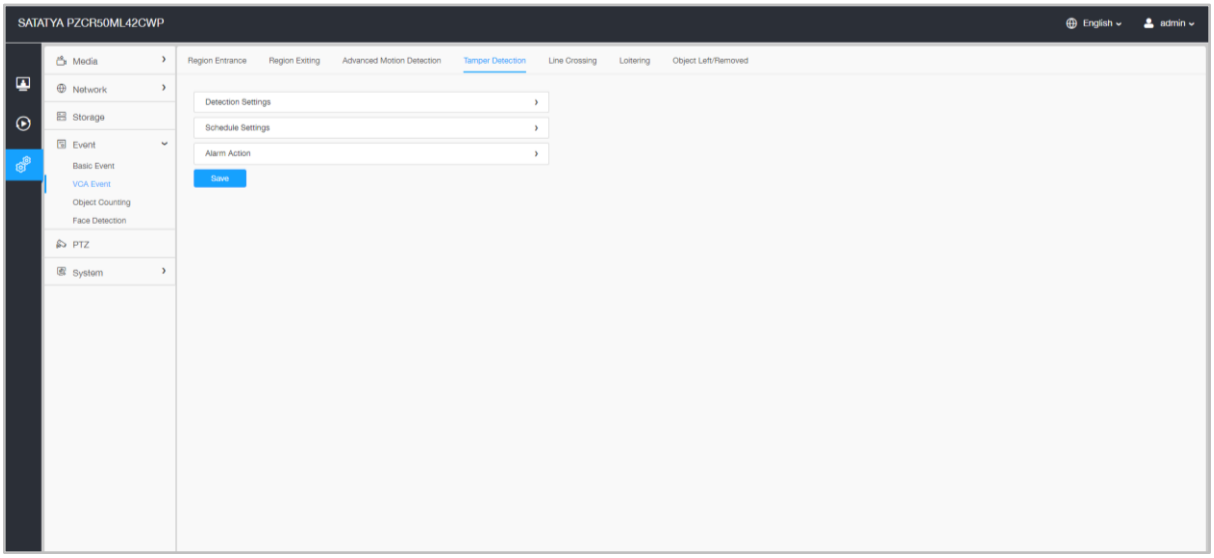
Step6: Set alarm action;

Refer to the table [Alarm Action] for the meanings of the items.

Note: If you enable External Output and choose Constant External Output Action Time, when object motion time is longer than the Ignore Short-Lived Motion time which you set in the selected regions, External Output Action alarm time will always be constant till the alarm is released.

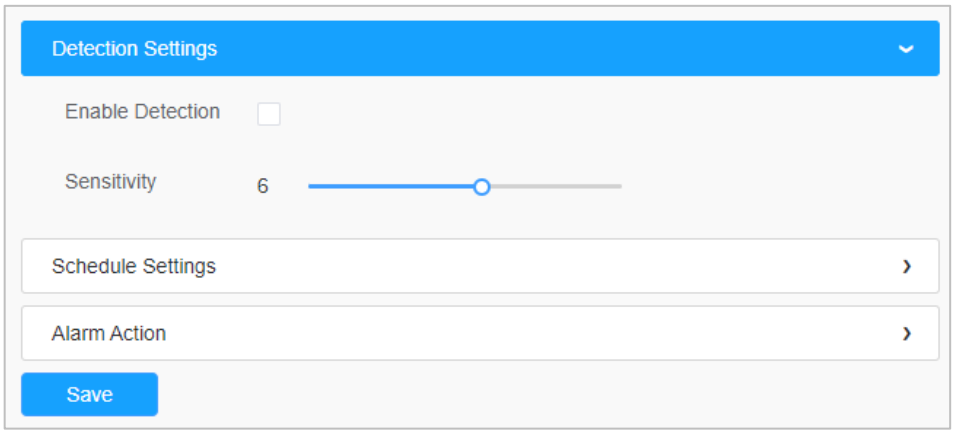
8.4.2.4 Tamper Detection

Tamper Detection is used to detect possible tampering like the camera being unfocused, obstructed or moved. This functionality alerts security staff immediately when any above-mentioned actions occur.



Settings steps are shown as follows:

Step1: Enable Tamper Detection and set detecting sensitivity;



[Schedule Settings]

Step2: Set detection schedule;

Refer to the table [Schedule Settings] for the meanings of the items.

[Alarm Action}

Step3: Set alarm action;

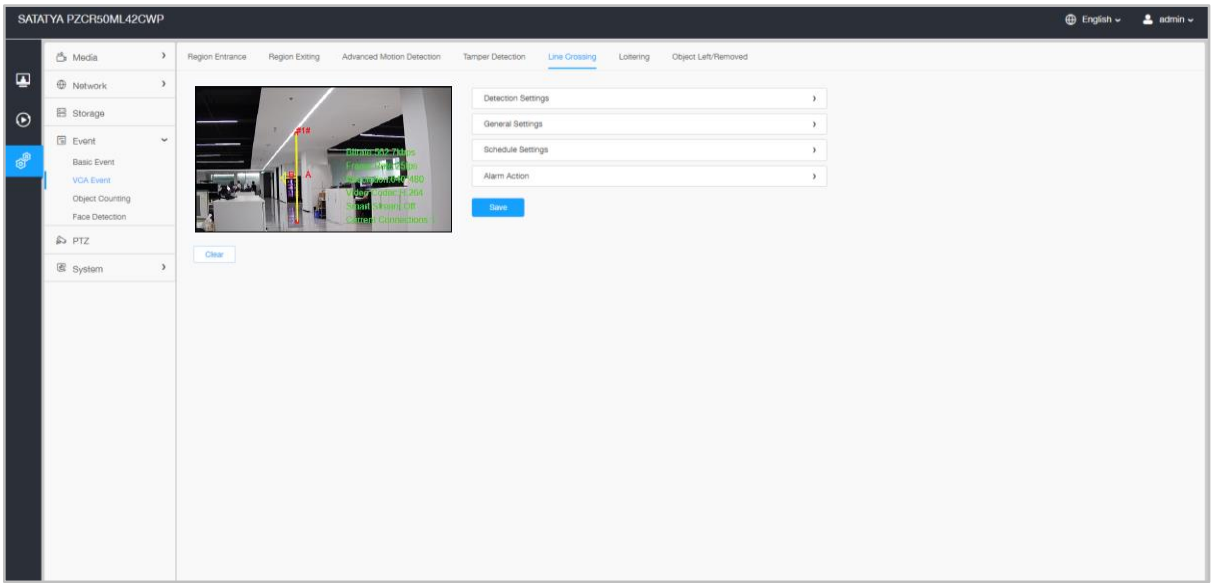
Refer to the table [Alarm Action] for the meanings of the items.

Note:

- If you enable External Output and choose Constant External Output Action Time, when possible tampering is detected, External Output Action alarm time will be always constant till the alarm is released.
- The algorithm supports defocus detection in Tamper Detection function.

8.4.2.5 Line Crossing

Line Crossing detection is designed to work in most indoor and outdoor environment. An event will be triggered every time when the camera detects objects crossing a defined virtual line.



Settings steps are shown as follows:

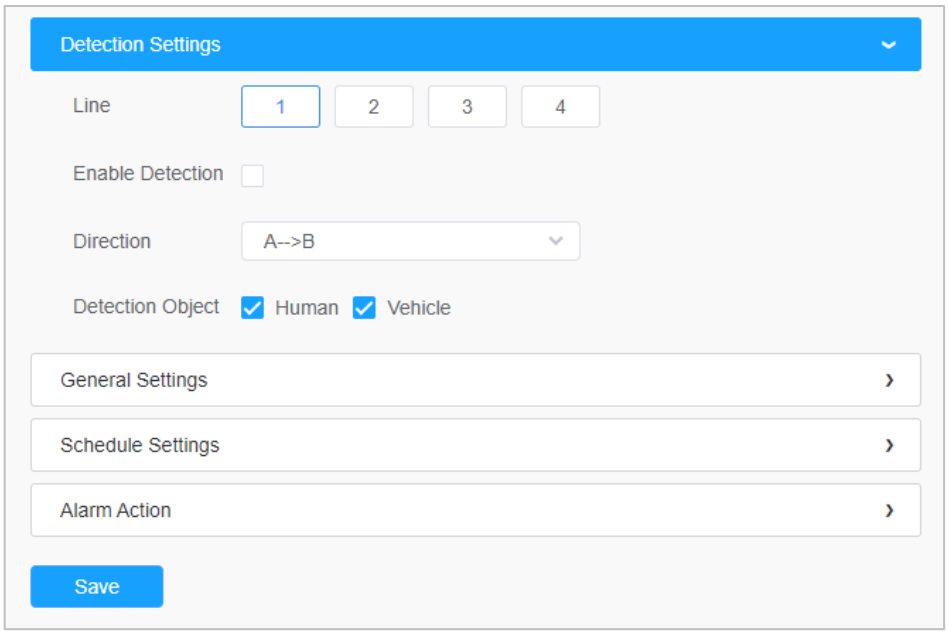
[Detection Settings]

Step1: Select detection line, enable line crossing detection and define its direction;

Note:

- If you choose **Normal Mode**, it supports configuring the detection region for the current area. If you choose **Advanced Mode**, it supports configuring the detection region for different PTZ presets (Only support Preset 1~4 so far). And set object size limits.
- Allows to set up to four lines at a time. There are three direction modes to choose for triggering alarm. “A→B” means when there is any object crossing the line from the “A” side to the “B” side, the alarm will be triggered. “B→A” vice versa. “A ↔ B” means that the alarm will be triggered when objects cross line from either side.

Step2: Choose detection object. Check Human or Vehicle attribute, and the camera will alarm once detecting people or vehicle and triggering related events



[General Settings]

Step3: Set detecting sensitivity and object size limits;

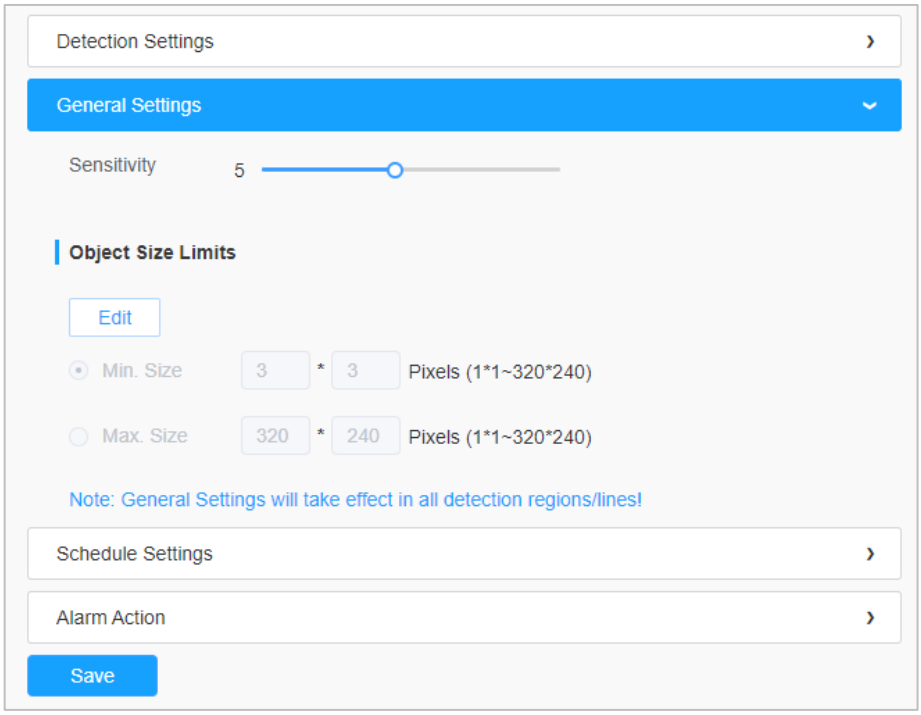


Table 49. Description of the buttons

Parameters	Function Introduction
Sensitivity	Level 1~10 are available, the default level is 5. The higher the sensitivity, the easier it is for moving objects to be recorded in the results.
Min. Size	Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected. The default minimum size is 3*3.
Max. Size	Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected. The default maximum size is 320*240.
Save	Save the configuration.

[Schedule Settings]

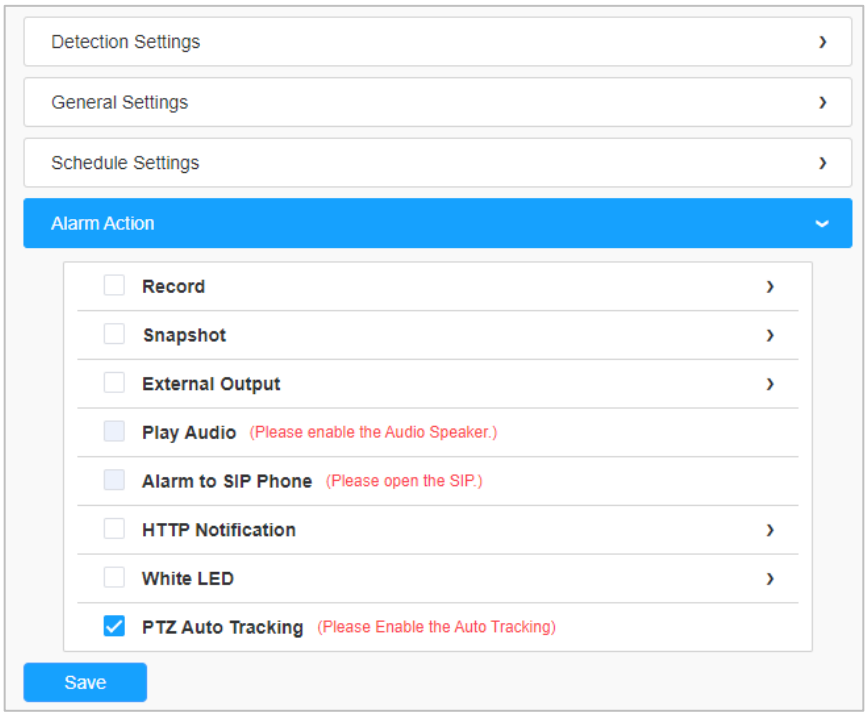
Step4: Set detection schedule;

Refer to the table [Schedule Settings] for the meanings of the items.

[Alarm Action]

Step5: Set alarm action;

Refer to the table [Alarm Action] for the meanings of the items.

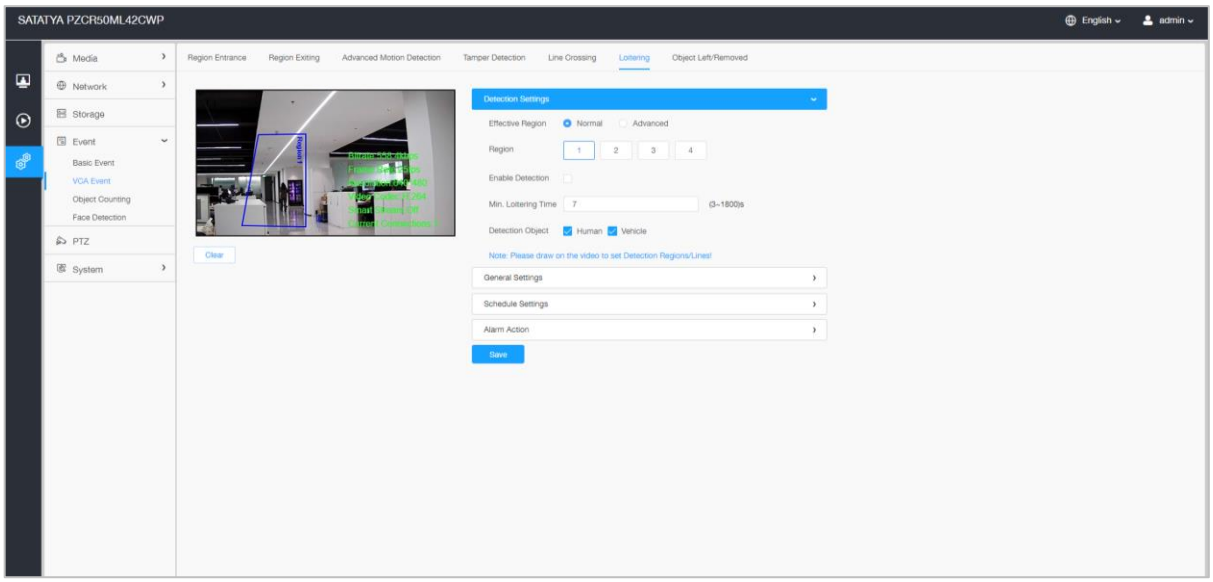


Note:

- When enabling PTZ Auto Tracking, camera will automatically track objects and trigger an alarm if detecting objects crossing a defined virtual line
- If you enable External Output and choose Constant External Output Action Time, when objects cross a defined virtual line, External Output Action alarm time will be always constant till the alarm is released

8.4.2.6 Loitering

When objects are loitering in a defined area for a specific period of time, it would trigger an alarm.



Settings steps are shown as follows:

[Detection Settings]

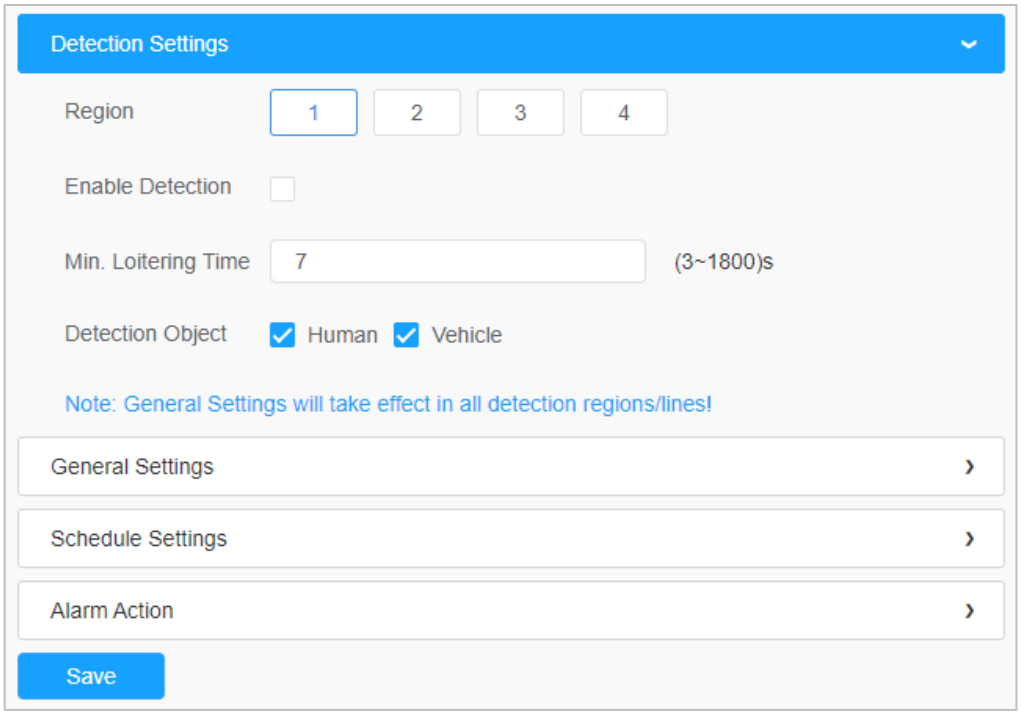
Note: General Settings will take effect in all detection regions/lines!

Step1: Select detection region and enable loitering detection;

Note: If you choose Normal Mode, it supports configuring the detection region for the current area. If you choose Advanced Mode it supports configuring the detection region for different PTZ presets (Only support Preset 1~4 so far). And set object size limits.

Step2: Set Min. Loitering Time. After setting minimum loitering time from 3s to 1800s, any objects loitering in the selected area over the minimum loitering time will trigger the alarm;

Step3: Choose detection object. Check Human or Vehicle attribute, and the camera will alarm once detecting people or vehicle and triggering related events;



[General Settings]

Step4: Set object size limits;

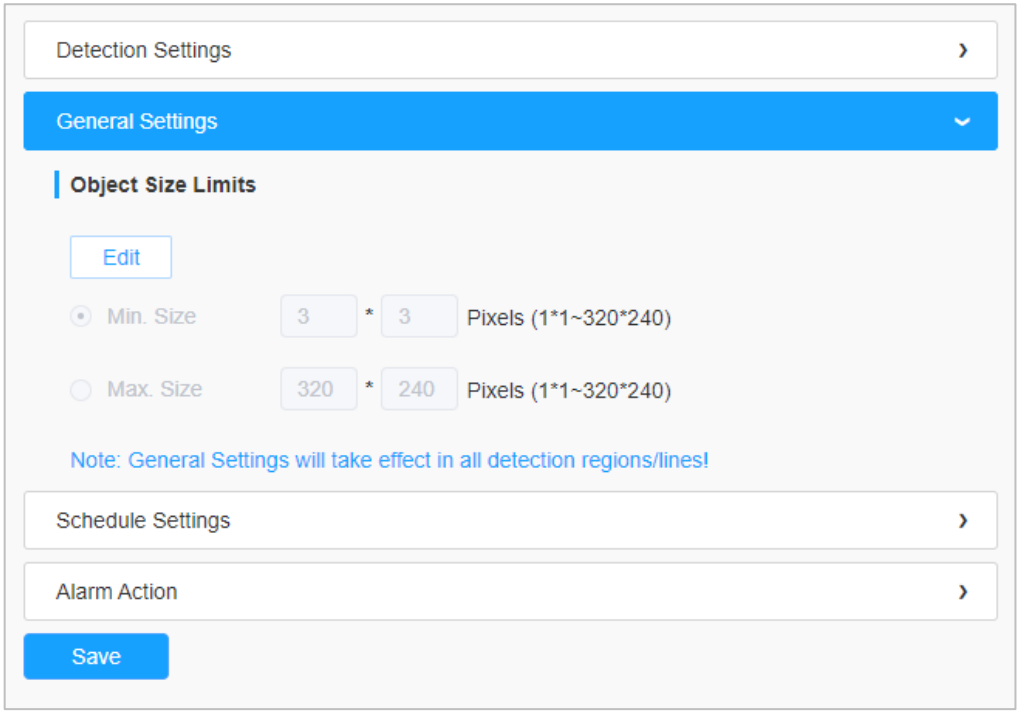


Table 50. Description of the buttons

Parameters	Function Introduction
Min. Size	Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected. The default minimum size is 3*3.
Max. Size	Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected. The default maximum size is 320*240.
Save	Save the configuration.

[Schedule Settings]

Step4: Set detection schedule;

Refer to the table [Schedule Settings] for the meanings of the items.

[Alarm Action]

Step5: Set alarm action;

Refer to the table [Alarm Action] for the meanings of the items.

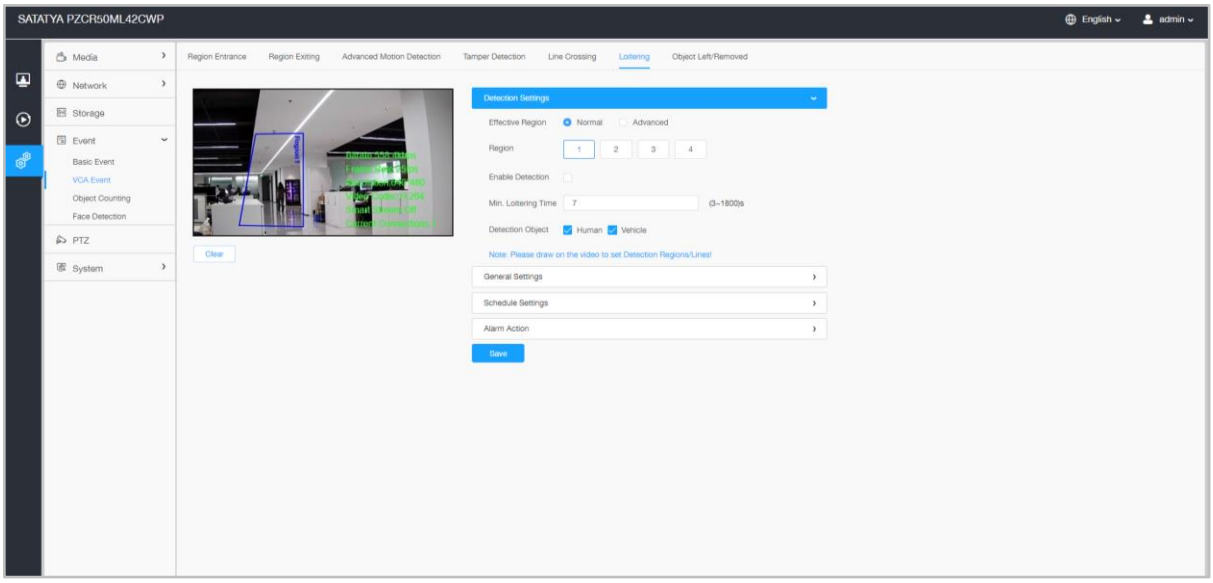
Note

- When enabling PTZ Auto Tracking and Loitering Detection, camera will automatically track objects and trigger an alarm if objects have been loitering in a defined area for more than the Min. Loitering Time.
- If you enable External Output and choose Constant External Output Action Time, when objects loiter in the selected regions, External Output Action alarm time will be always constant till the alarm is released.

Step6: Set alarm settings. If you enable External Output and choose Constant External Output Action Time, when objects loiter in the selected regions, External Output Action alarm time will be always constant till the alarm is released.

8.4.2.7 Object Left/Removed

Object Left can detect and prompt an alarm if an object is left in a pre-defined region. Object Removed can detect and prompt an alarm if an object is removed from a pre-defined region.



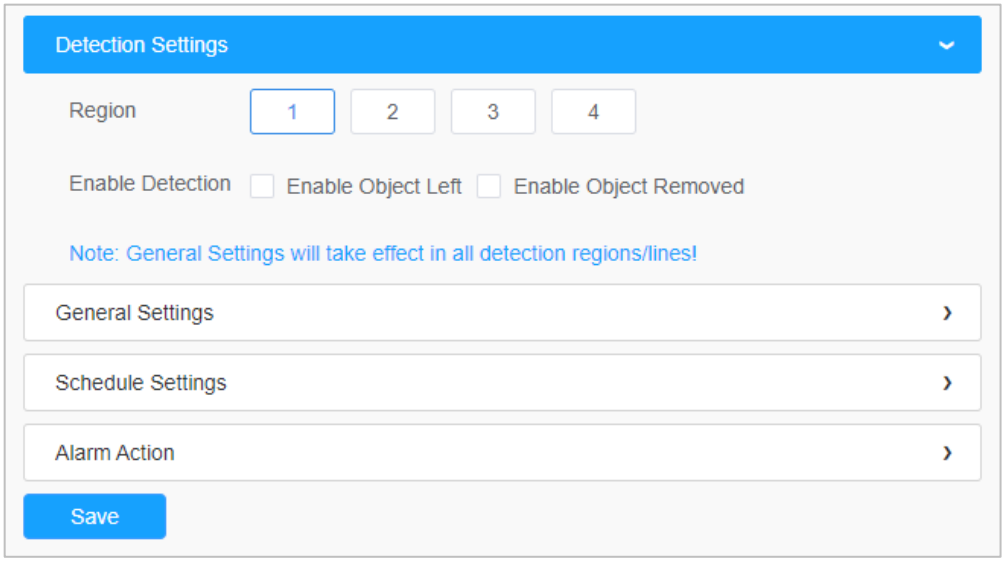
Settings steps are shown as follows:

[Detection Settings]

Note: General Settings will take effect in all detection regions/lines!

Step1: Select detection region and enable object left/removed detection (Or you can enable both features at the same time);

Note: If you choose Normal Mode, it supports configuring the detection region for the current area. If you choose Advanced Mode it supports configuring the detection region for different PTZ presets (Only support Preset 1~4 so far). And set object size limits.



[General Settings]

Step2: Set Min. time, detecting sensitivity and object size limits.

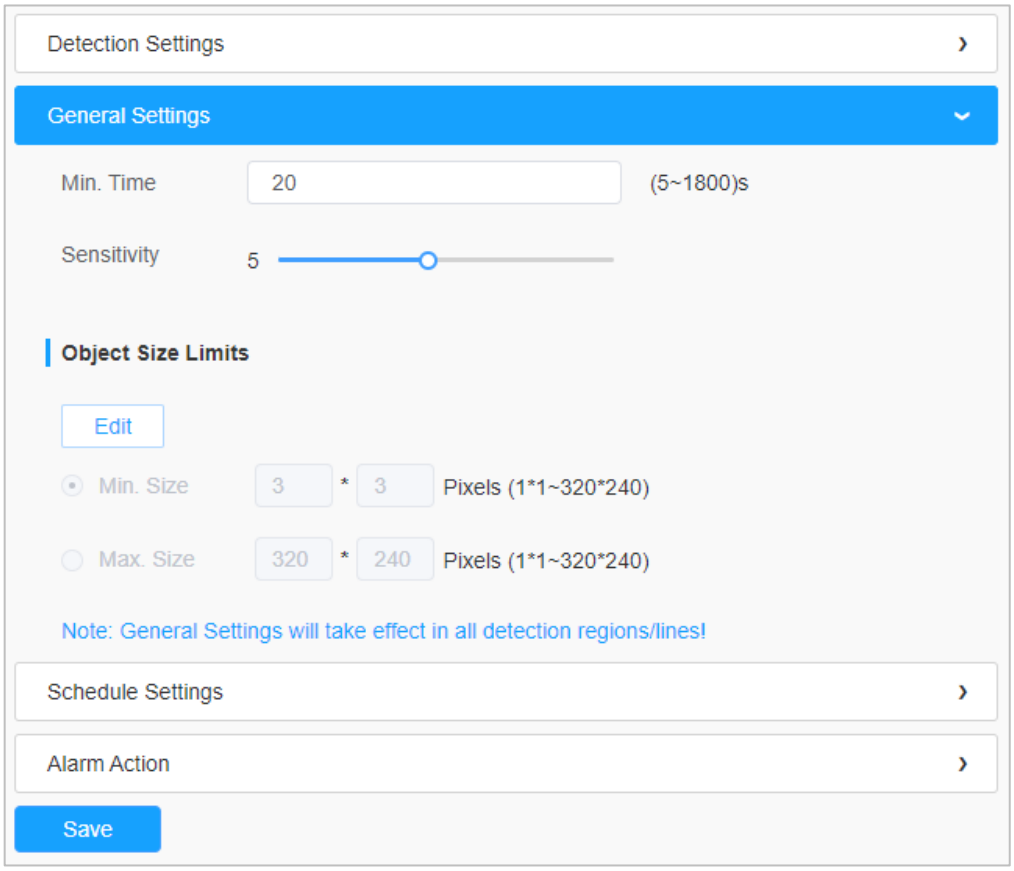


Table 51. Description of the buttons

Parameters	Function Introduction
Min. Time	After setting Min. time from 5s to 1800s, any objects are left in the selected area or removed from the selected area over the minimum time will trigger the alarm.
Sensitivity	Level 1~10 are available, the default level is 5. The higher the sensitivity, the easier it is for moving objects to be recorded in the results. **Note:** The sensitivity can be configured to detect various movement according to different requirements. When the level of sensitivity is low, slight movement won't trigger the alarm.
Min. Size	Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected. The default minimum size is 3*3.
Max. Size	Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected. The default maximum size is 320*240.

[Schedule Settings]

Step5: Set detection schedule;

Refer to the table [Schedule Settings] for the meanings of the items.

[Alarm Action]

Step6: Set alarm action;

Refer to the table [Alarm Action] for the meaning of the items.

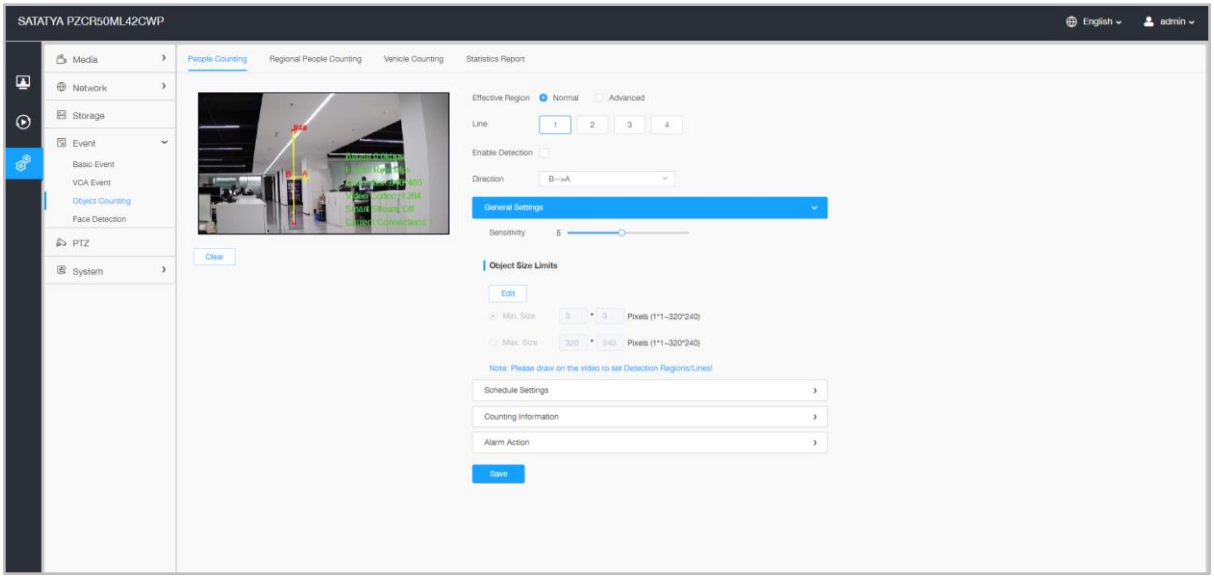
Note:

- When enabling PTZ Auto Tracking, camera will automatically track objects and trigger an alarm if an object is left or removed in a defined area.
- If you enable External Output and choose Constant External Output Action Time, when an object is left/removed from the selected regions, External Output Action alarm time will be always constant till the alarm is released.

8.4.3 Object Counting

8.4.3.1 People Counting

People Counting is able to count how many people enter or exit during the setting period.



Settings steps are as shown below:

Step1: Select the desired Effective Region and select the desired Line.

Step2: Enable the Detection line and configure the Direction.

Note:
- Crossing along the direction of the arrow will record as “In”, opposite is “Out”.
- Support up to 4 detection lines.

[General Settings]

Step3: Set sensitivity and object size limits.

Note: If you choose **Normal Mode**, it supports configuring the detection line for the current area. If you choose **Advanced Mode**, it supports configuring the detection line for different PTZ presets(Only support Preset 1~4 so far).

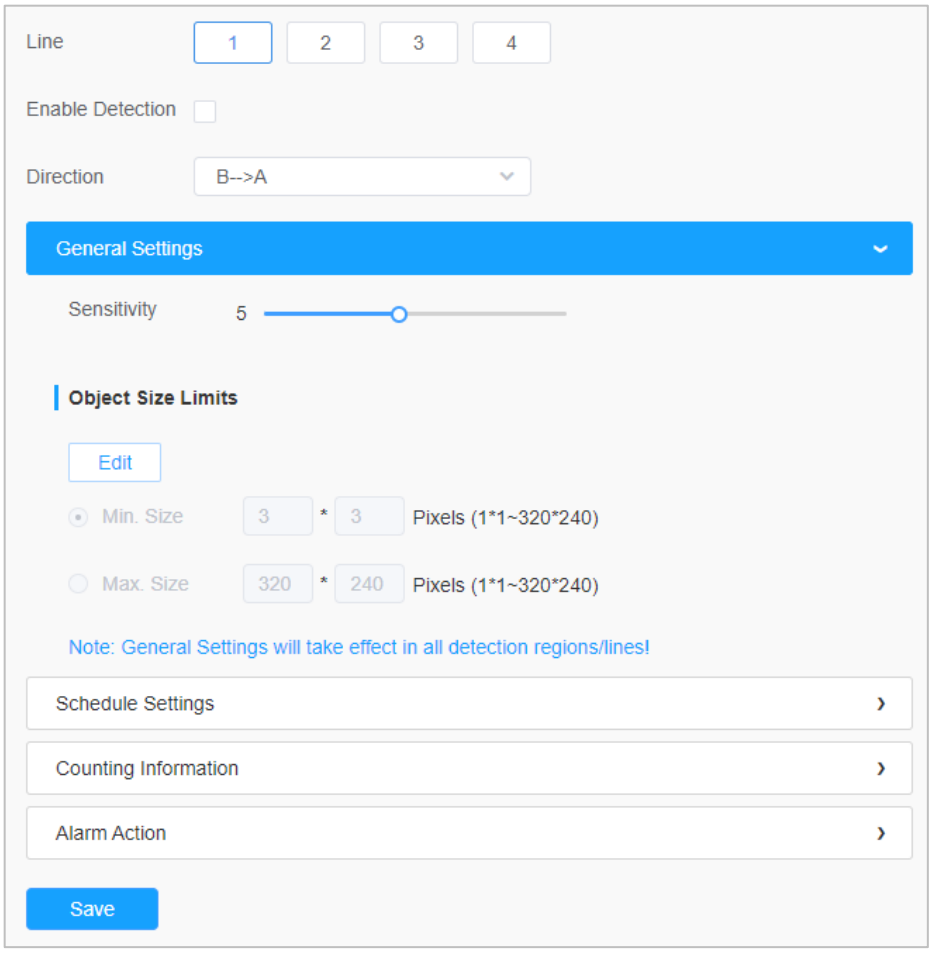


Table 52. Description of the buttons

Parameters	Function Introduction
Sensitivity	Level 1~10 are available, the default level is 5. The higher the sensitivity, theeasier it is for moving objects to be recorded in the results.
Min. Size	Draw the screen or input pixel number to set the minimum size of the detectedobject. When the object is smaller than this size, it will not be detected. The default minimum size is 3*3.
Max. Size	Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected. The defaultmaximum size is 320*240.
Save	Save the configuration.

[Schedule Settings]

Step4: Set detection schedule;

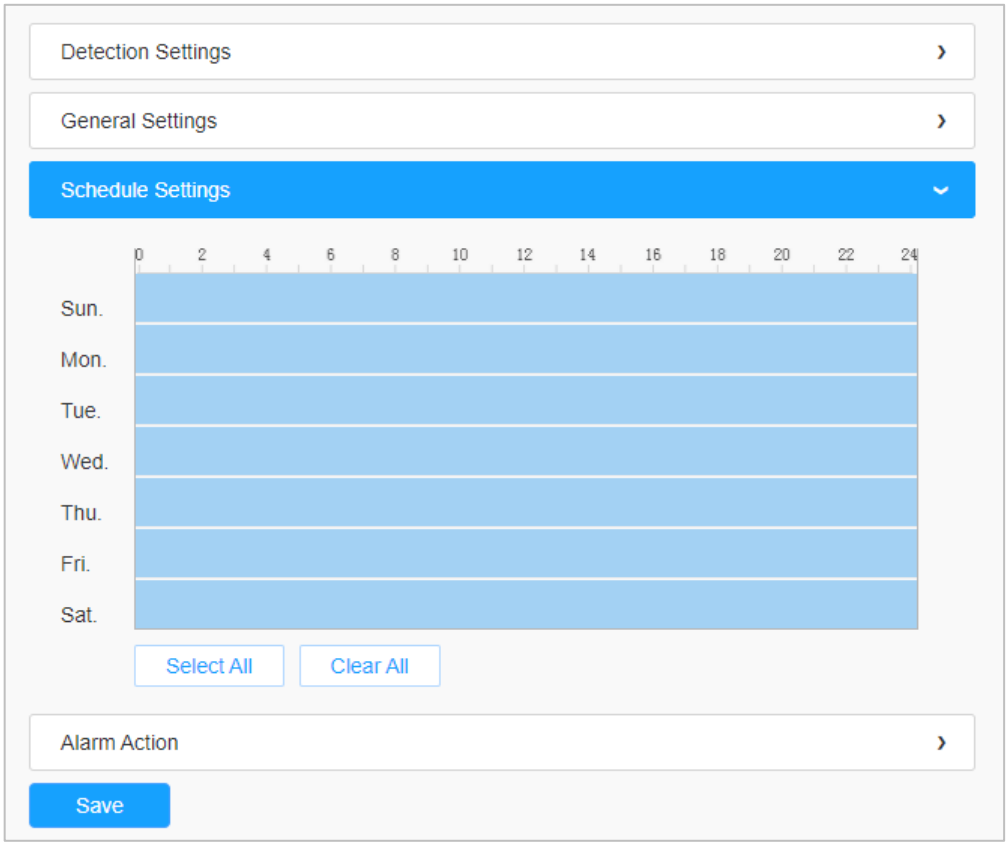
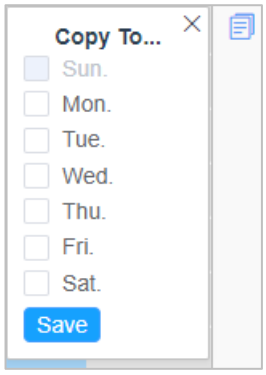
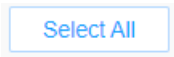
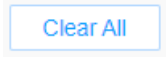


Table 53. Description of the buttons

Parameters	Function Introduction
	Copy the schedule area to another date.
	Select all schedule
	Clear all schedule.

Save	Save the configuration.

[Counting Information]

Step5: Set counting information;

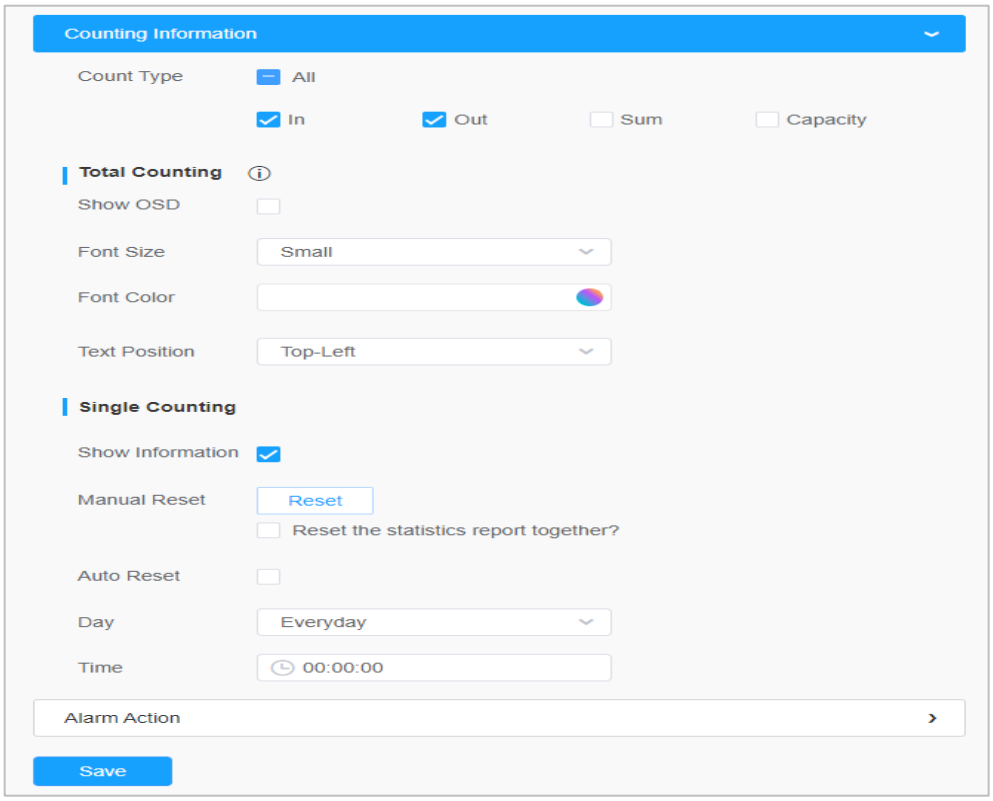


Table 54. Description of the buttons

Parameters	Function Introduction
Count Type	Users can choose the information they want to display in Live Video.
Total Counting	Set counting OSD. **Note:** The Total Counting OSD configuration is linked in all detection lines. **Show OSD:** Click to enable/disable the OSD shown. **Font Size:** The font size of the OSD display. **Font Color:** The font color of the OSD display. **Text Position:** The text position of the OSD display.

Single Counting	Set Single Counting. **Note:** The Total Counting OSD configuration is linked in all detection lines. **Show Information:** Click to show the information. **Manual Reset:** Reset the counting of each single line. You can choose to reset the statistics report together. **Auto Reset:** It is used to automatically clear the single counting information.
Save	Save the configuration.

[Alarm Action]

Step6: Set alarms trigger and alarm action

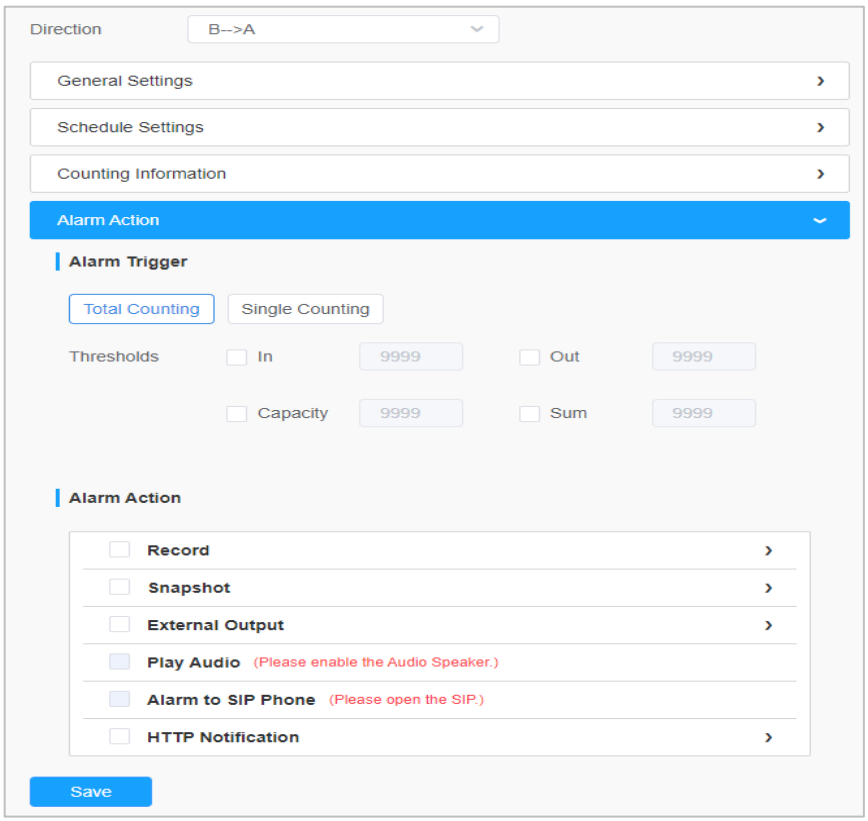


Table. 55 Description of the buttons

Parameters	Function Introduction
Alarm Trigger	Alarm will be triggered when the thresholds reaches to a certain value from 1 to 9999. Total Counting and Single Counting are available. You can set the Alarm Thresholds of In/Out/Capacity/Sum. **Note:** • For Total Counting, the thresholds are the sum of the total number of 4 detection lines. • For Single Counting, the threshold is for the selected detection line.
Record	**Duration:** Selected the duration time of alarm. 5s/10s/15s/20s/25s/30s are available. **Linkage:** Save alarm recording files into SD Card or NAS or Upload the recording files via FTP.
Snapshot	**Number:** The number of snapshot, 1~5 are available. **Interval:** This cannot be edited unless you choose more than 1 to Snapshot. **Linkage:** Save alarm recording files into SD Card or NAS, Upload the recording files via FTP and send alarm email.
External Output	If the camera equips with External Output, you can enable the action after configuring the trigger duration.
Play Audio	Auto/10 seconds/30 seconds/1 minute/5 minutes/10 minutes are available. **Note:** Please enable the Audio Speaker.
Alarm to SIP Phone	Support to call the SIP phone after enabling the SIP function. **Note:** Please open the SIP.
HTTP Notification	Support to pop up the alarm news to specified HTTP URL.
Save	Save the configuration.

Note:

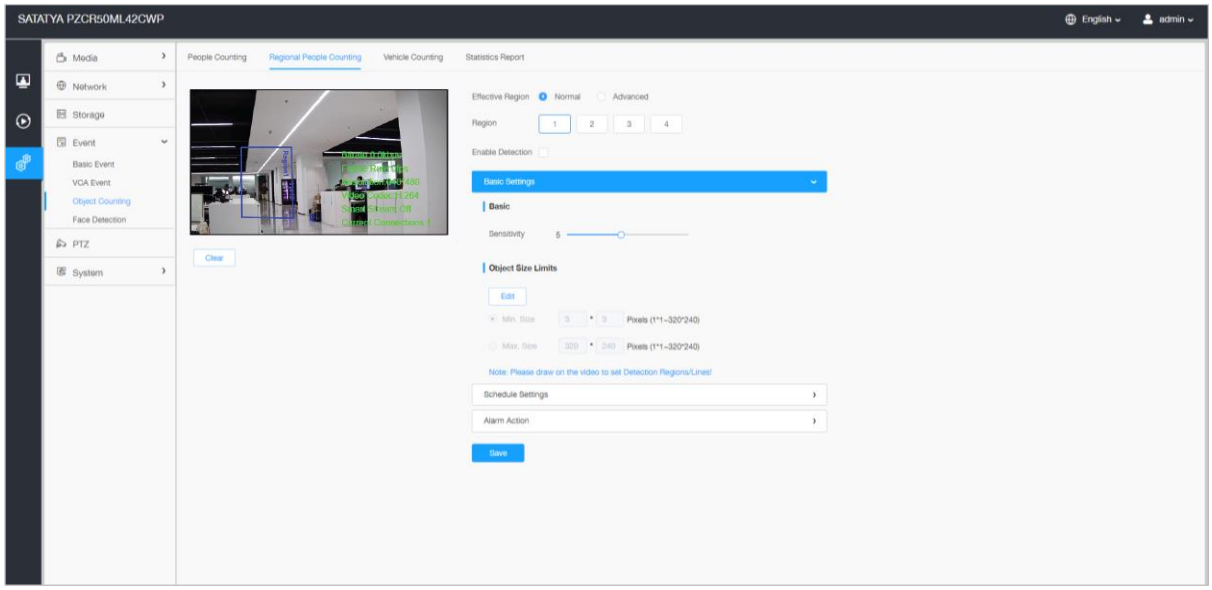
- The alarm action is effective on 4 detection lines simultaneously.
- If you enable External Output and choose Constant External Output Action Time, when the thresholds reach to a certain value you set, External Output Action alarm time will be always constant till the alarm is released.

8.4.3.2 Regional People Counting

When enabling Regional People Counting, users can check the real-time number of people and the time of each person's stay in the detection region.

Note:

- Support up to 4 detection regions for regional people counting.
- Users can check the real-time number of people and the time of each person's stay in the detection region on Live View interface.



Settings steps are as shown below:

Step1: Select the desired Effective Region and select the Region.

Check the Enable Detection check box;

Note: Support up to 4 detection regions.

[Basic Settings]

Step2: Set sensitivity and object size limits.

Note: If you choose **Normal Mode**, it supports configuring the detection line for the current area. If you choose **Advanced Mode** it supports configuring the detection line for different PTZ presets (Only support Preset 1~4 so far).

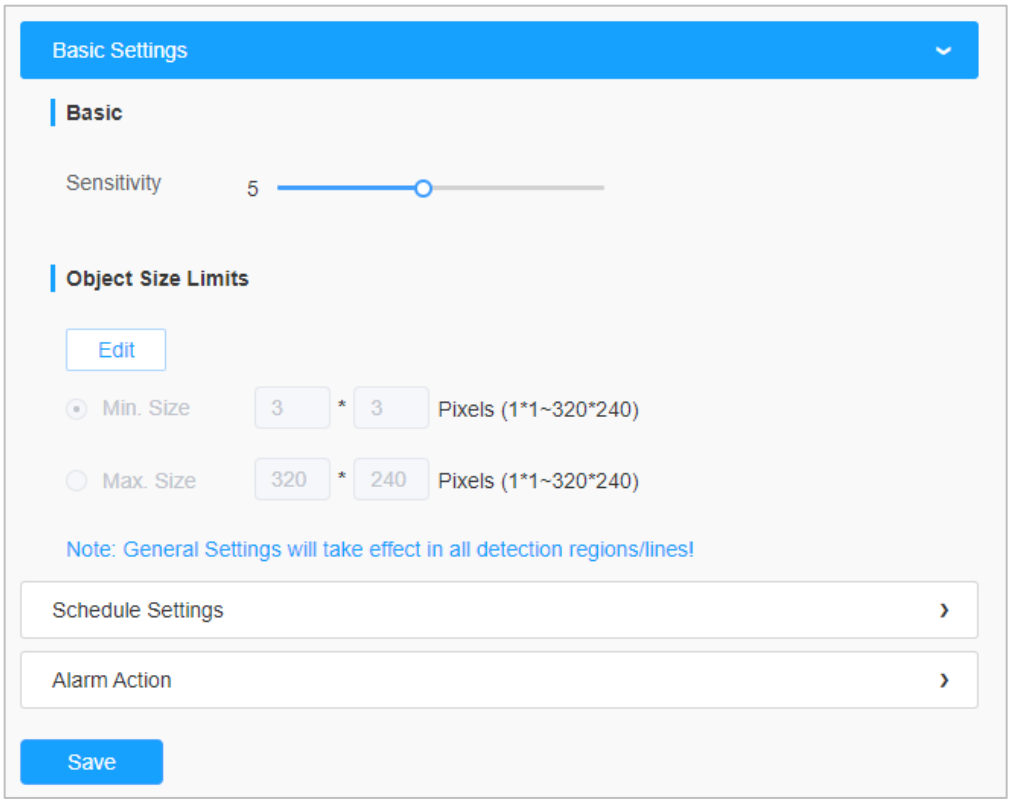


Table 56. Description of the buttons

Parameters	Function Introduction
Sensitivity	Level 1~10 are available, the default level is 5. The higher the sensitivity, the easier it is for moving objects to be recorded in the results.
Min. Size	Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected. The default minimum size is 3*3.
Max. Size	Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected. The default maximum size is 320*240.
Save	Save the configuration.

[Schedule Settings]

Step4: Set detection schedule;

Refer to the table [Schedule Settings] for the meaning of the items

[Alarm Action]

Step6: Set alarm triggers and alarm action;

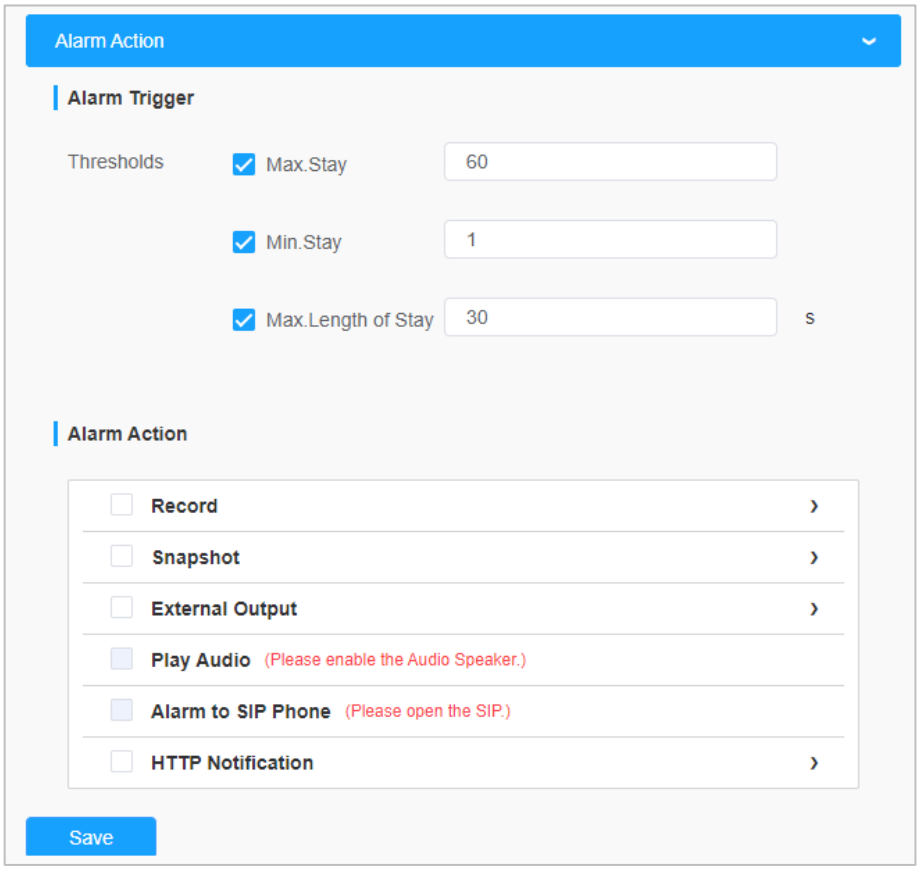


Table 57. Description of the button

Parameters	Function Introduction
Alarm Trigger	Alarm will be triggered when the Max./Min. Stay/Max. Length of Stay thresholds reaches to the value. **Note:** The value must be in the range of 1 to 60.
Alarm Action	This part is the same as the regular alarm settings. You can refer to table [Alarm Action]. **Note:** • The alarm action is effective on 4 detection regions simultaneously. • If you enable External Output and choose Constant External Output Action Time, when the thresholds reach to a certain value you set, External Output Action alarm time will be always constant till the alarm is released.

8.4.3.3 Vehicle Counting

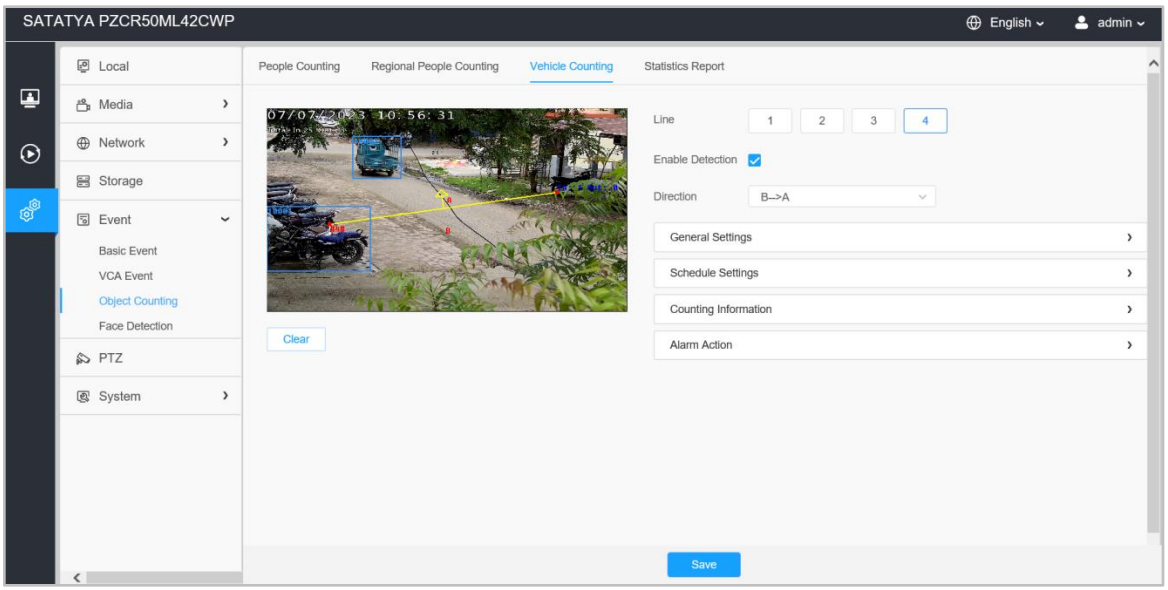
Vehicle Counting is able to count how many vehicles enter or exit during the setting period.

Settings steps are as shown below:

Step1: Set detection line.

Step2: Enable Detection and configure the Direction.

Note:
- Crossing along the direction of the arrow will record as “In”, opposite is “Out”.
- Support up to 4 detection lines.



[General Settings]

Step3: Set sensitivity and object size limits.

Note: If you choose **Normal Mode**, it supports configuring the detection line for the current area. If you choose **Advanced Mode**, it supports configuring the detection line for different PTZ presets (Only support Preset 1~4 so far).

Table 58. Description of the buttons

Parameters	Function Introduction
Sensitivity	Level 1~10 are available, the default level is 5. The higher the sensitivity, the easier it is for moving objects to be recorded in the results.
Min. Size	Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected. The default minimum size is 3*3.
Max. Size	Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected. The default maximum size is 320*240.
Save	Save the configuration.

[Schedule Settings]

Step4: Set detection schedule;

Refer to the table [Schedule Settings] for the meaning of the items.

[Counting Information]

Step5: Set counting information;

Table 59. Description of the buttons

Parameters	Function Introduction
Count Type	Users can choose the information they want to display in Live Video.
Total Counting	Set counting OSD. **Note:** The Total Counting OSD configuration is linked in all detection lines. **Show OSD:** Click to enable/disable the OSD shown. **Font Size:** The font size of the OSD display. **Font Color:** The font color of the OSD display. **Text Position:** The text position of the OSD display.

Single Counting	Set Single Counting. **Note:** The Total Counting OSD configuration is linked in all detection lines. **Show Information:** Click to show the information. **Manual Reset:** Reset the counting of each single line. You can choose to reset the statistics report together. **Auto Reset:** It is used to automatically clear the single counting information. **Day:** The day of Auto Reset.
Save	Save the configuration.

[Alarm Action]

Step6: Set alarms trigger and alarm action;

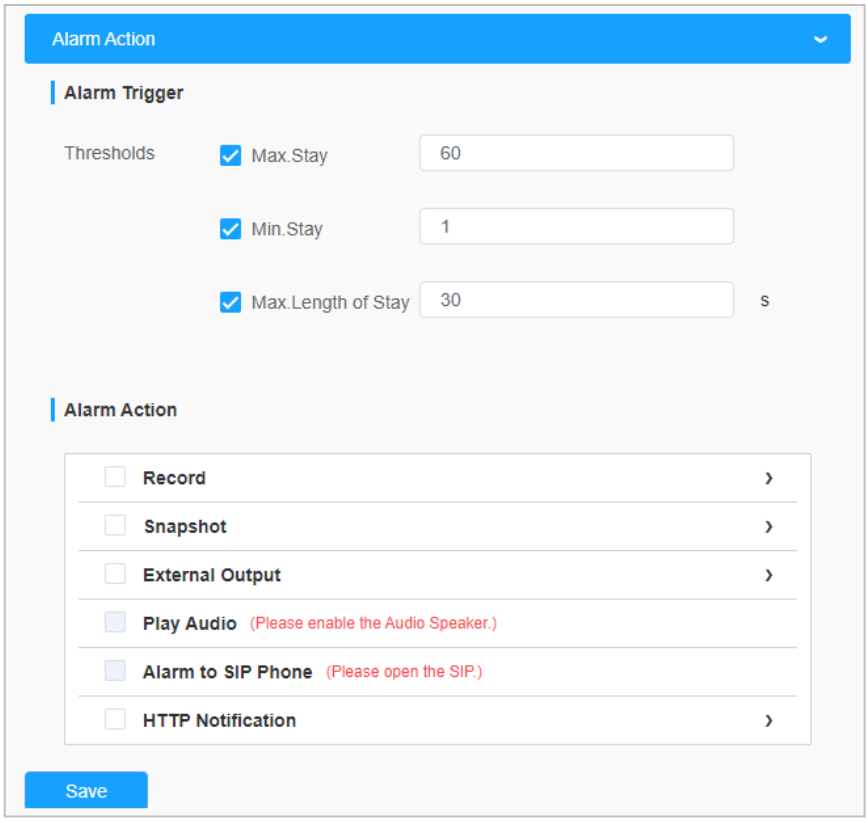
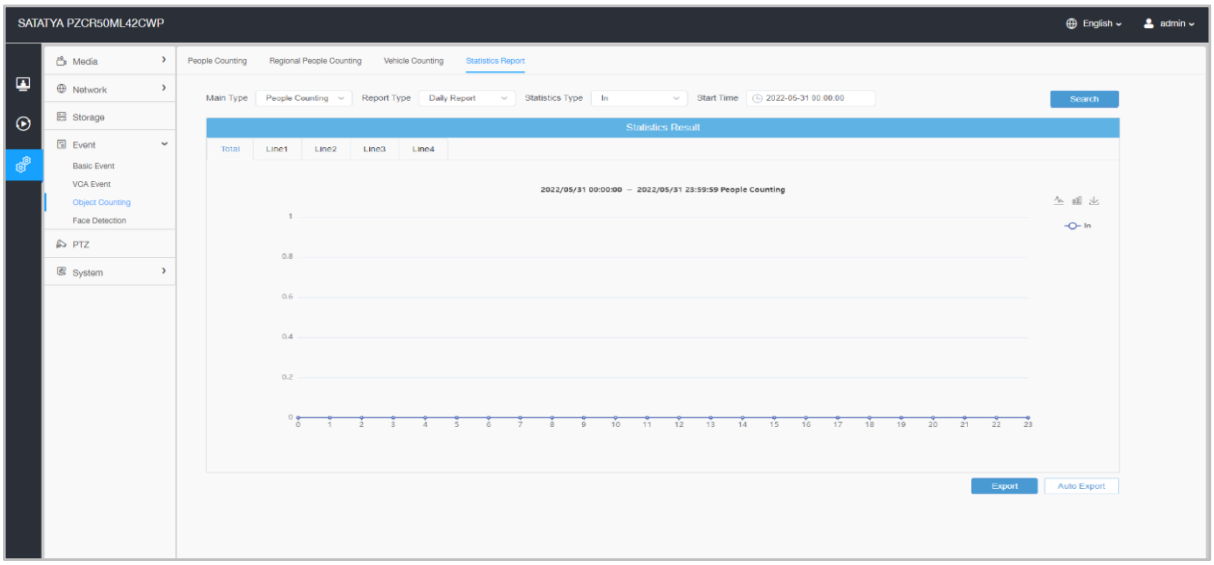


Table 60. Description of the buttons

Parameters	Function Introduction
Alarm Trigger	Alarm will be triggered when the Max./Min. Stay/Max. Length of Stay thresholds reaches to the value. **Note:** The value must be in the range of 1 to 60.
Alarm Action	This part is same as the regular alarm settings. You can refer to table [Alarm Action] **Note:** • The alarm action is effective on 4 detection regions simultaneously. • If you enable External Output and choose Constant External Output Action Time, when the thresholds reach to a certain value you set, External Output Action alarm time will be always constant till the alarm is released.
Save	Save the configuration.

8.4.3.4 Statistics Report

The results during the enabling period will be displayed on "**Statistics Report**" interface.



Step 1: Select Main Type;

Step2: Select Report Type including Daily Report, Weekly Report, Monthly Report and Annual Report;

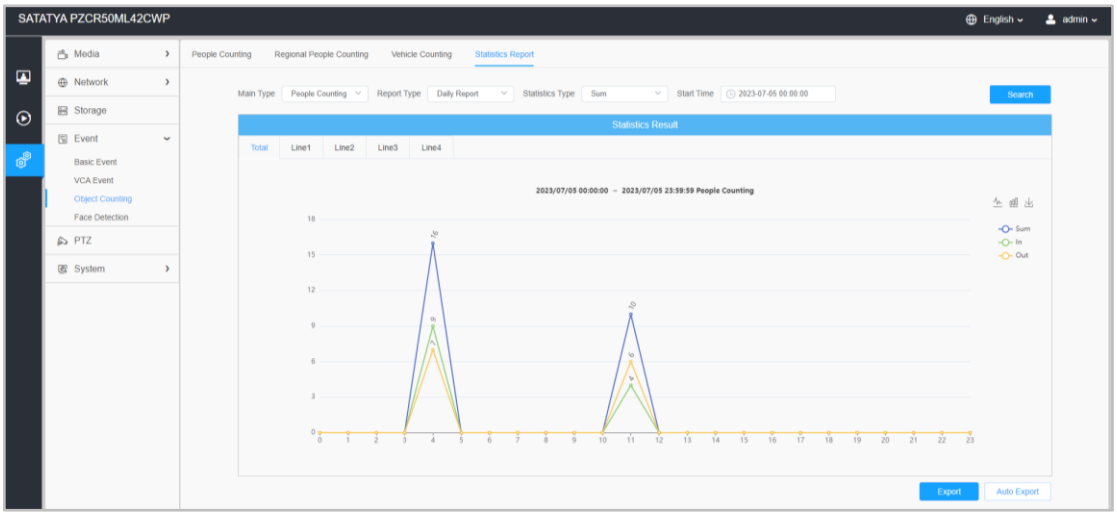
Step3: For people counting, select Statistics Type including In, Out and Sum. For regional people counting, select Length of Stay including All, More Then and Less Then and set the time of more then/less then.

Note: For regional people counting, check the check box to search the report of regions as needed.

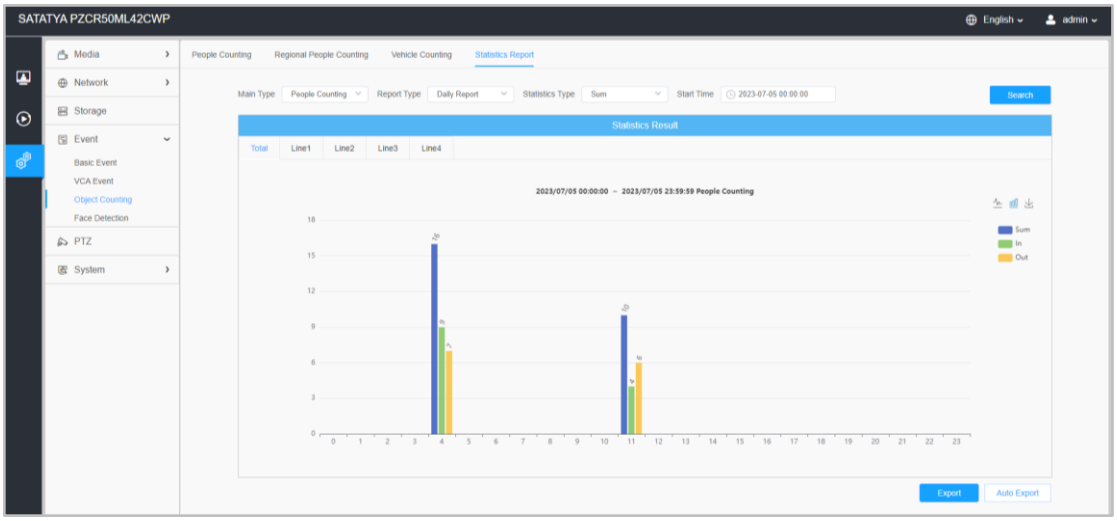
Step4: Select Start Time, then click "Search" button, the camera will automatically count the data for the day/ week/ month/ year (based on the report type selected by the user) from the start time and generate the corresponding report.

Step5: Moreover, you can also click "Line Chart" or "Bar Chart" to switch display mode of Statistics Report as shown below.

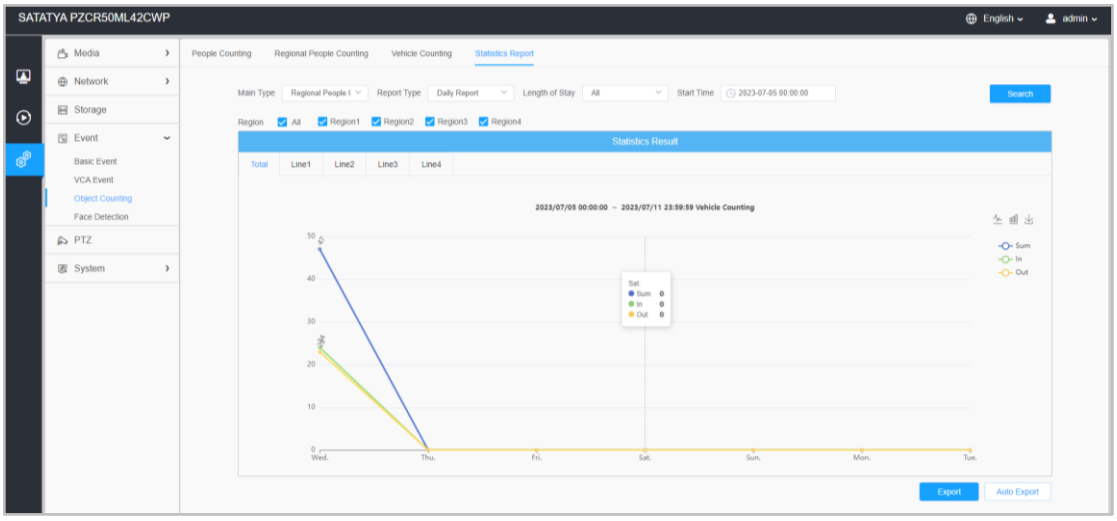
People Counting-Statistics Report (Line Chart)



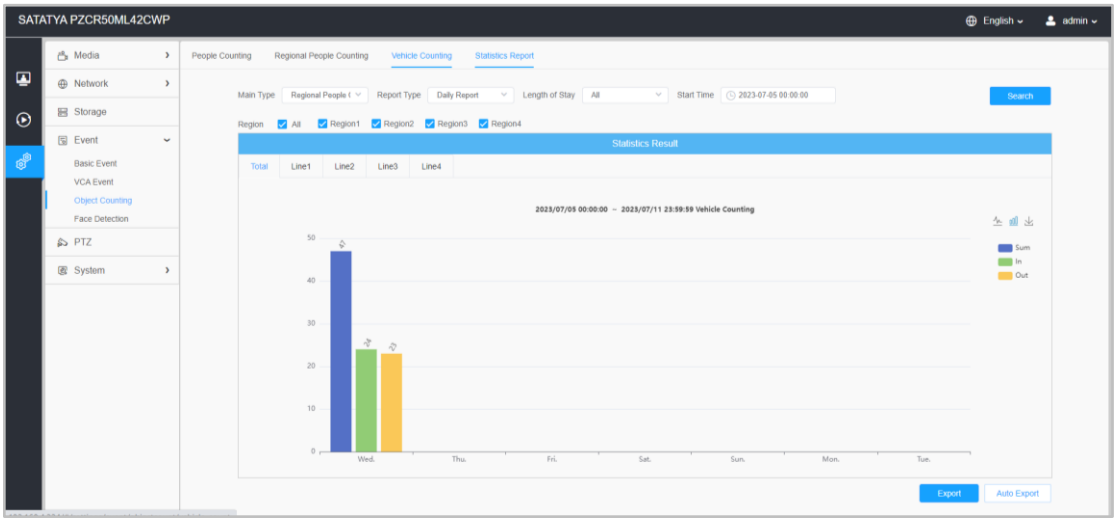
People Counting-Statistics Report (Bar Chart)



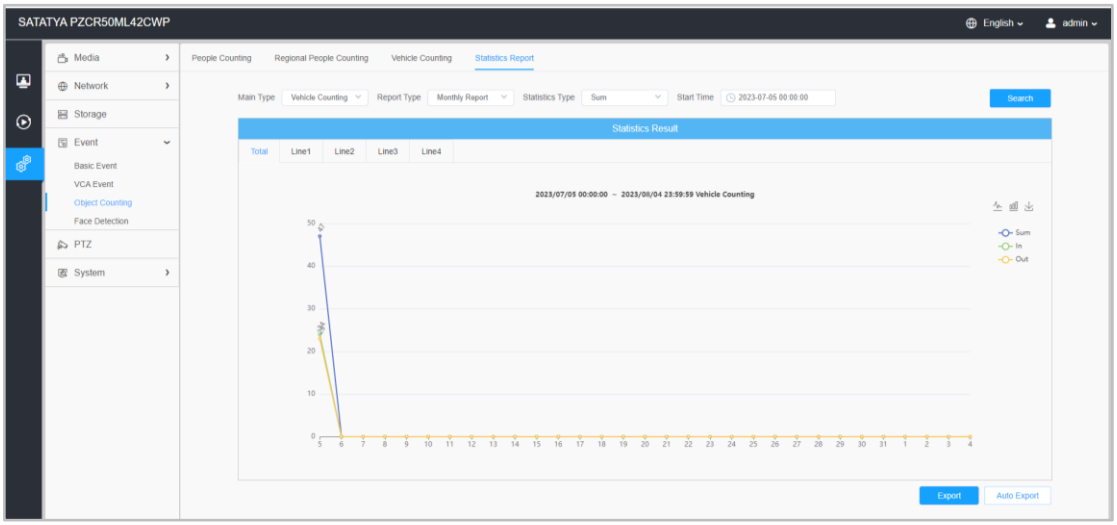
Regional People Counting-Statistics Report (Line Chart)



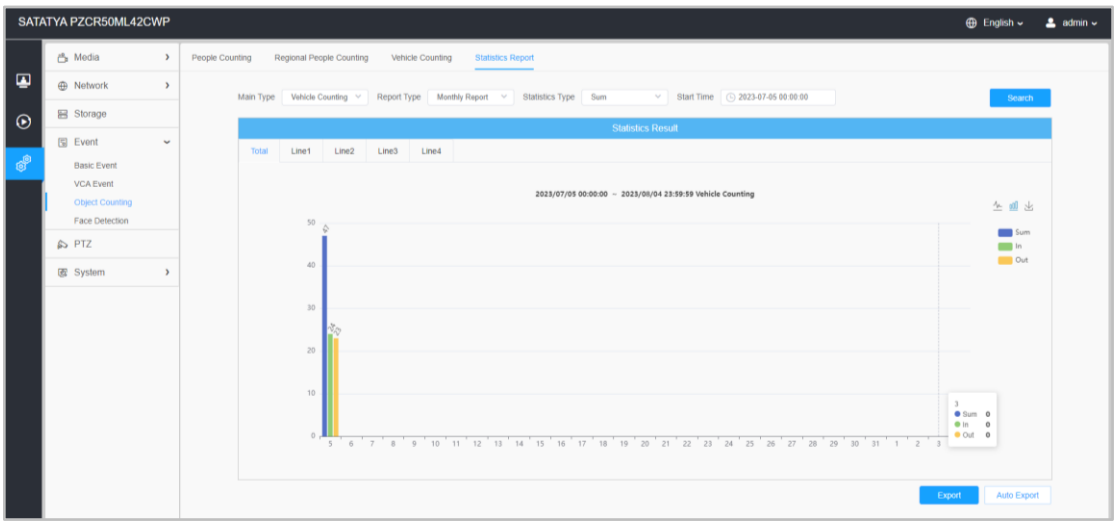
Regional People Counting-Statistics Report (Bar Chart)



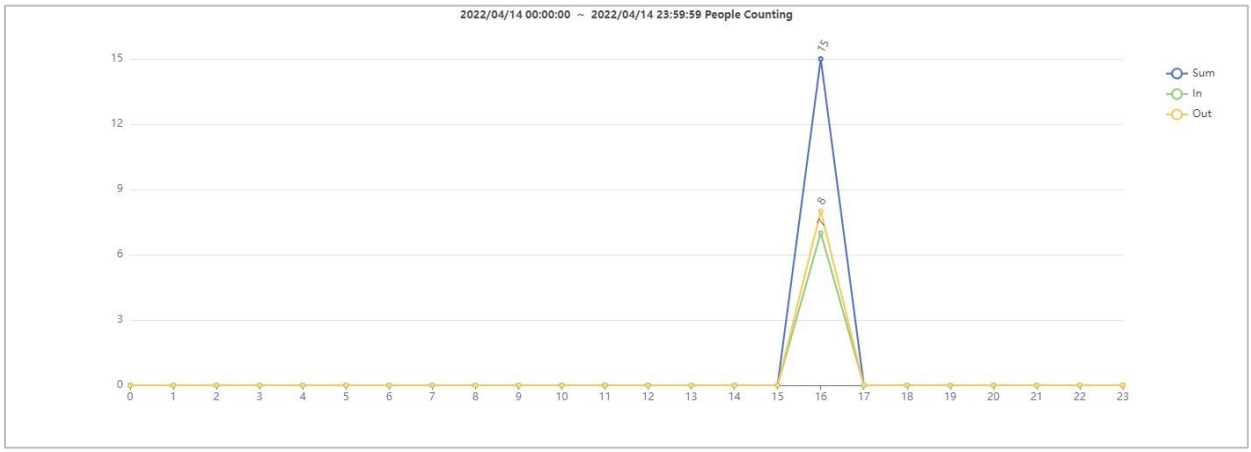
Vehicle Counting- Statistic Report (Line Chart)



Vehicle Counting- Statistic Report (Bar Chart)

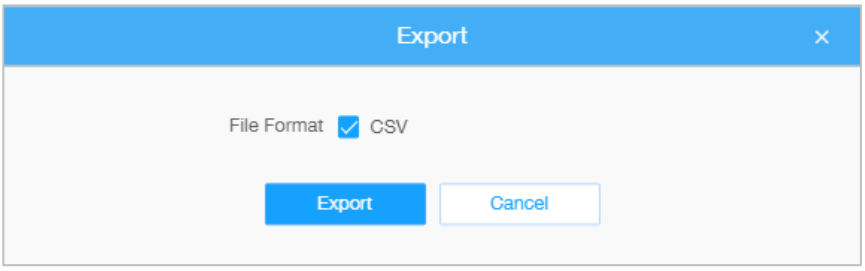


Step6: Click "Download" button to download the screenshot of the statistical report chart.

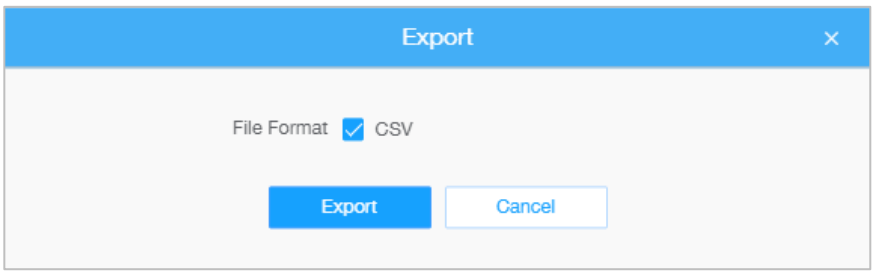


Step7: Click "Export" button to pop up the Export window as shown below, and you can choose File Format to export the report to local. For people counting Statistics Report, you can check the check box to export the report of different lines as needed.

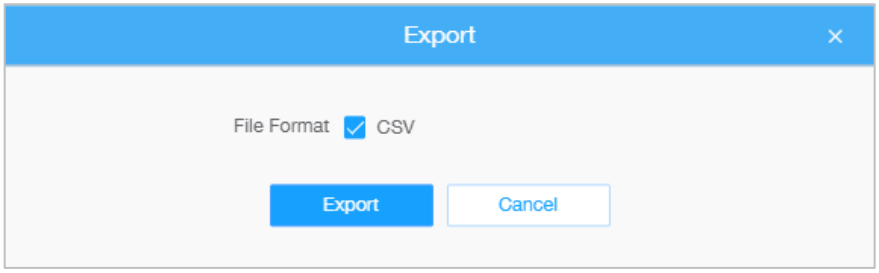
People Counting-Export



Regional People Counting-Export

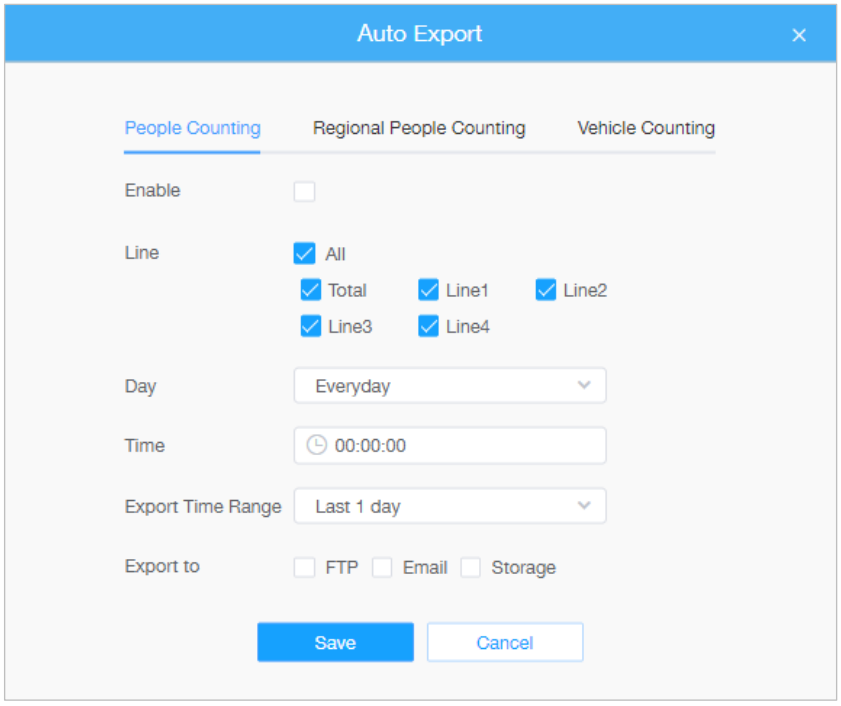


Vehicle Counting- Export



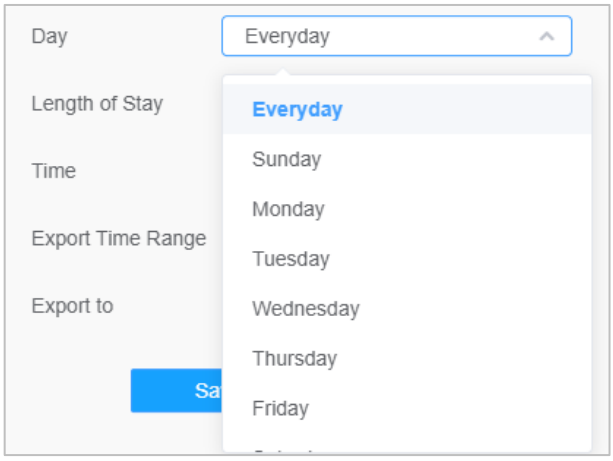
Step8: Click "Auto Export" button to pop up the Statistics Report Settings as shown below:

People Counting-Auto Export



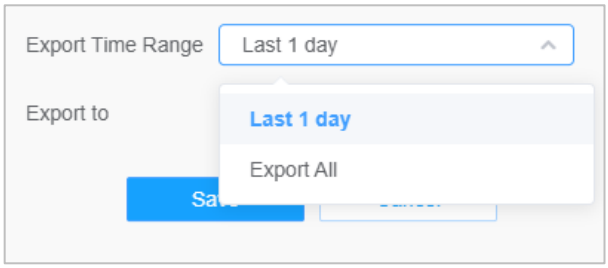
- Check the check box to enable the auto export of people counting, and then select the lines as needed.

- ***Day:*** User can choose Everyday to export daily reports, while choosing others to export reports on a specific day of the week-

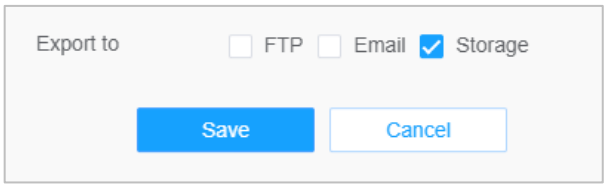


- ***Time:*** User can choose the time of day to export the Statistics Report automatically, click the calendar icon to pop up the following Quick Selection-

- ***Export Time Range:***

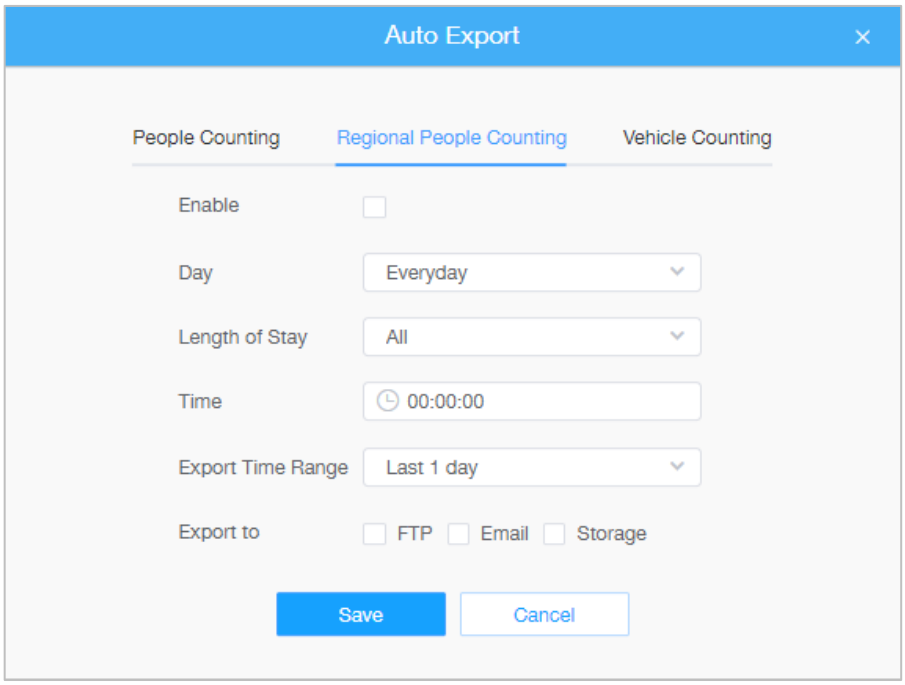


- ***Destination:*** Set the Destination path of the automatically exported report. The report can be exported to FTP/ Email/Storage automatically as the form of an Excel spreadsheet according to the day, time and export time range you set. Then click "Save".



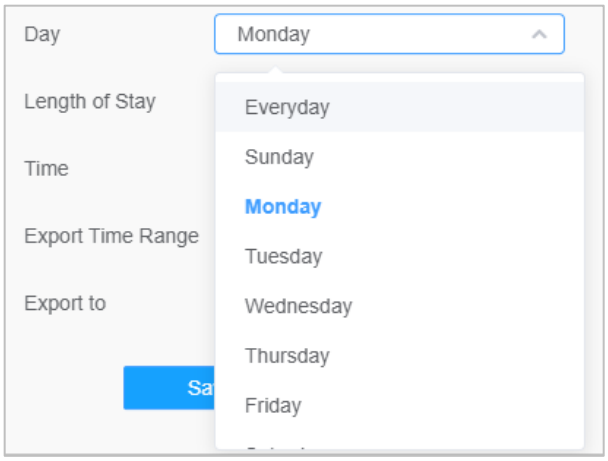
Note: If the current Statistics Report is generated, it will be saved as a CSV form.

Regional People Counting-Auto Export

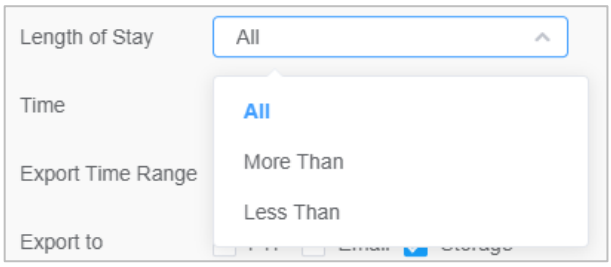


- Check the check box to enable the auto export of regional people counting.

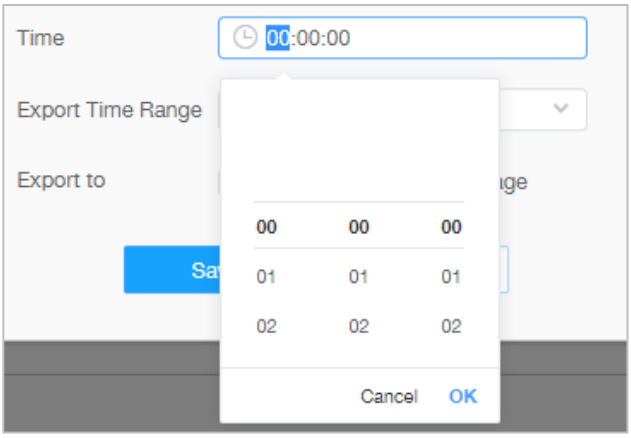
- ***Day:*** User can choose Everyday to export daily reports, while choosing others to export reports on a specific day of the week;



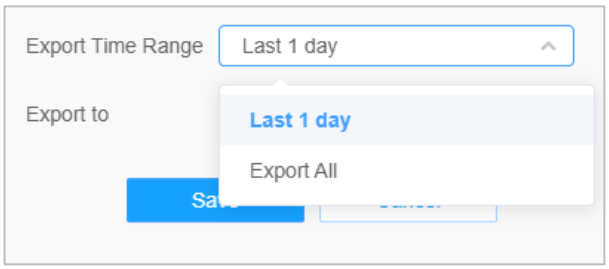
- ***Set Length of Stay***.



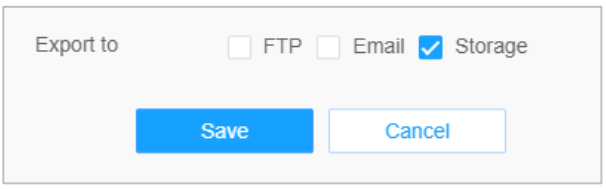
- ***Time:*** User can choose the time of day to export the Statistics Report automatically, click the calendar icon to pop up the following Quick Selection-



- ***Export Time Range:***



- ***Destination:*** Set the destination path of the automatically exported report. The report can be exported to FTP/Email/Storage automatically as the form of an Excel spreadsheet according to the day, time and export time range you set. Then click “Save”.

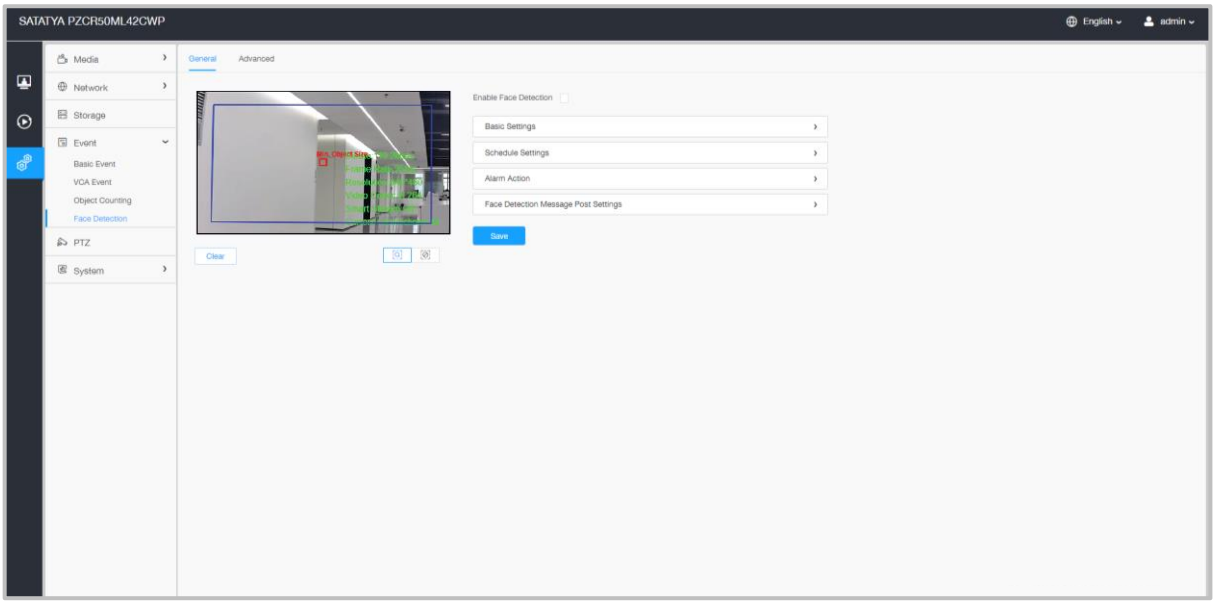


Note: If the current Statistics Report is generated, it will be saved as a .csv form.

8.4.4 Face Detection

The Face Detection function can detect the face appearing in the drawn area and support saving face snapshots into Storage, upload via FTP or Email, display in Live View.

8.4.4.1 General



Settings steps are as shown below:

Step1: Enable Face Detection;

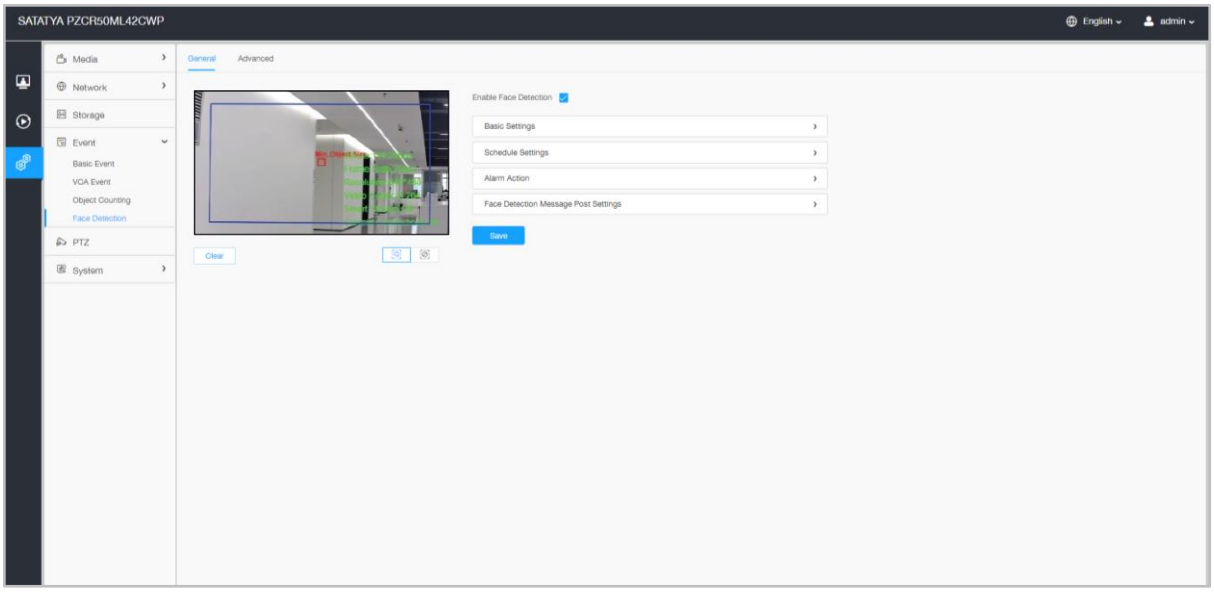
[Basic Settings]

Step2: Set Min. Object Size;

Step3: Set Detection Region, you can drag the detection region to adjust the size. Only faces in this region will be detected;

Step4: If required, you can set Shield Region within the Detection Region. Once set, all the faces in the shield region will not be detected.

You can draw a Shield Region in the preview interface firstly, then click Add button. Maximum four Shield Regions can be added.



[Schedule Settings]

Step5: Set detection schedule.

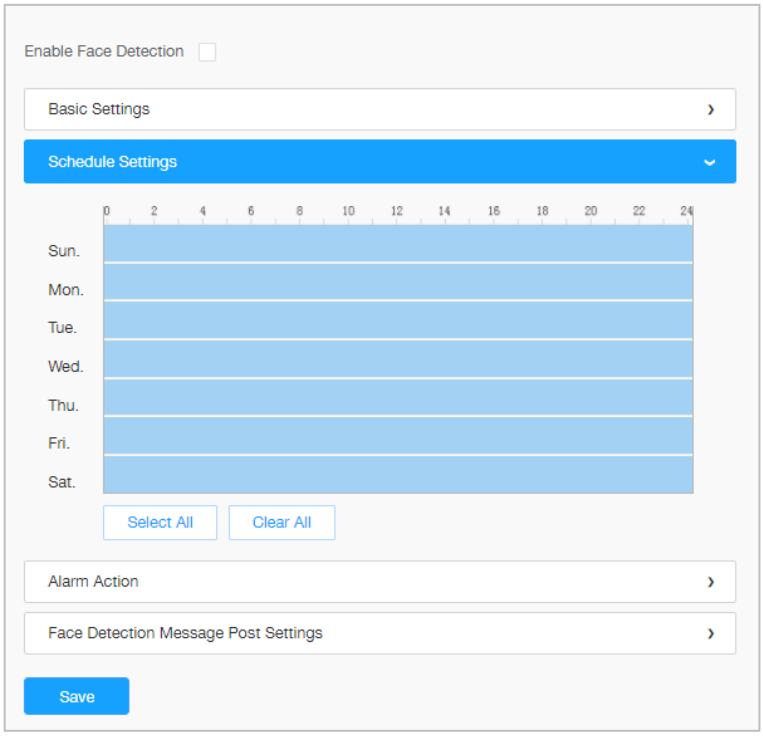
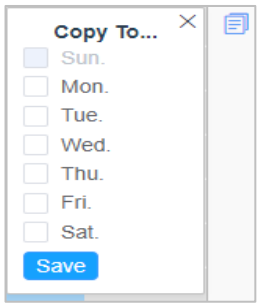
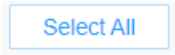
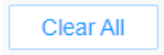
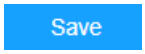


Table 61. Description of the buttons

Parameters	Function Introduction
	Copy the schedule area to another date.
	Select all schedule
	Clear all schedule.
	Save the configuration.

[Alarm Action]

Step6: Set alarm action

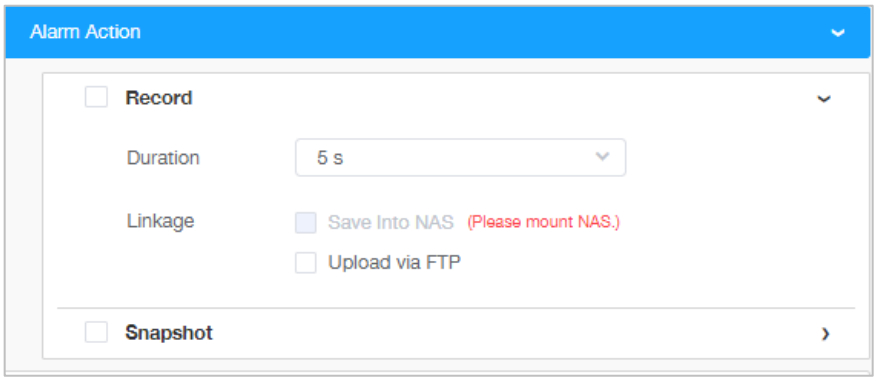


Table 62. Description of the buttons

Parameters	Function Introduction
Record	**Duration:** Select the duration time of alarm. 5s/10s/15s/20s/25s/30s areavailable. **Linkage:** Save alarm recording files into SD Card or NAS or Upload therecording files via FTP.
Snapshot	**Number:** The number of snapshot, 1~5 are available. **Interval:** This cannot be edited unless you choose more than 1 to Snapshot. **Linkage:** Save alarm recording files into SD Card or NAS, Upload therecording files via FTP and send alarm email.
Save	Save the configuration.

[Face Detection Message Post Settings]

Step7: Enable Faces Detection Message Post

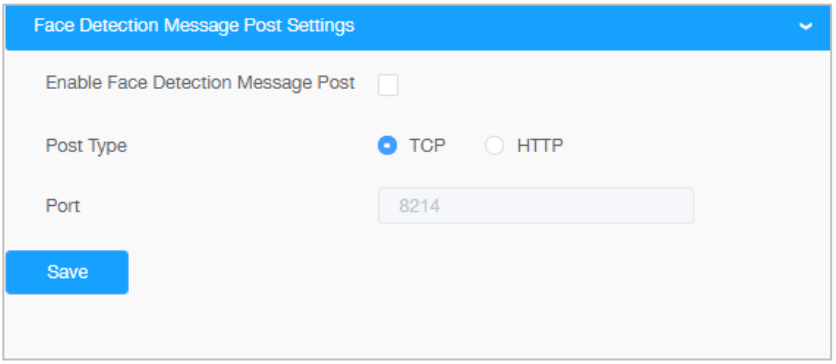
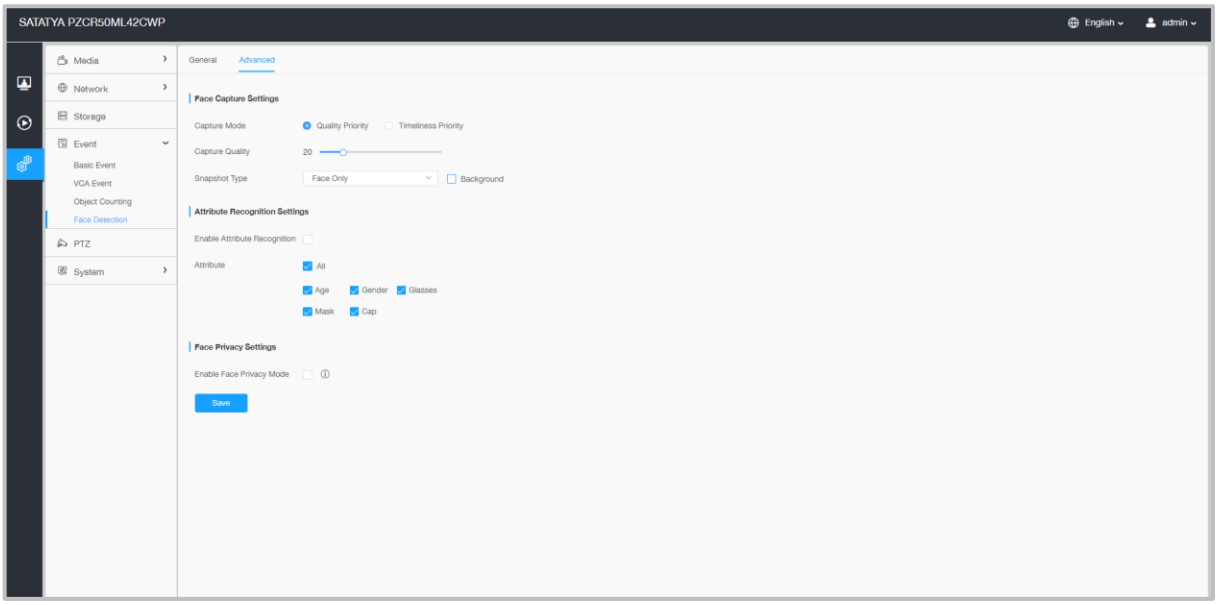


Table 63. Description of the buttons

Parameters	Function Introduction
Enable Face Detection Message Post	Check the check box to enable Face Detection Message Post. It will push information to some third-party devices or compatible software. Information canbe pushed by TCP or HTTP.
Port Type	Information can be pushed by **TCP** or **HTTP**.
Save	Save the configuration.

8.4.4.2 Advanced



8.4.4.3 **[Face Capture Settings]**

Here you can make configuration for face capture snapshot.

Table 64. Description of the buttons

Parameters	Function Introduction
Capture Mode	**Quality Priority, Timeliness Priority** are available. **Quality Priority:** In this mode, it will push a face screenshot of best quality whenthe face is detected. **Timeliness Priority:** In this mode, it will push a face screenshot in the shortesttime when the face is detected.
Capture Quality	Drag the slider to the right to increase and set the desired quality.
Snapshot Type	**Face Only, Upper Body, Whole Body** are available. **Face Only**: Capture the screenshot of face only. **Upper Body:** Capture the screenshot of upper body. **Whole Body**: Capture the screenshot of whole body. If you check the "Background" option, it will take another screenshot of the entire image.

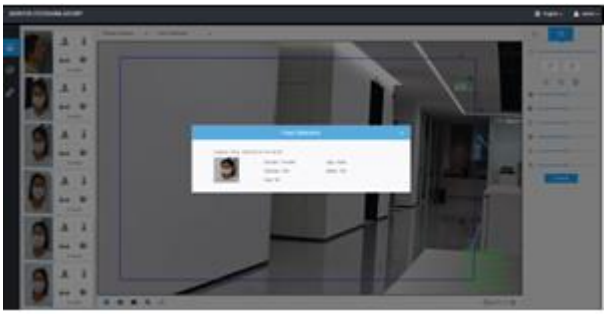
Save	Save the configuration.

Camera will detect faces in Live View according to the region and conditions you set. It will display the face screenshot with the ID on the left side of Live View.

8.4.4.4 [Attribute Recognition Settings]

Here you can enable Attribute Recognition and configure the attributes you want to detect.

Table 65. Description of the buttons

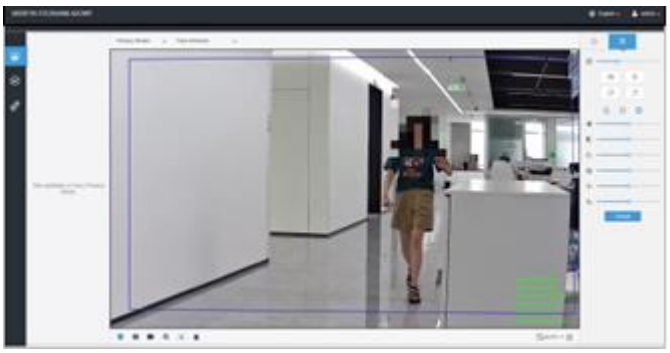
Parameters	Function Introduction
Enable Attribute Recognition	When Attribute Recognition is enabled, the attributes of detected faces will be displayed on the left side of the Live View interface. The attributes include Age, Gender, Glasses, Mask and Cap. Attribute Recognition meets the needs of usersin some special scenarios, which improves user experience.  **Note:** • Please make sure the face detection function is enabled. • Make sure the Capture Mode Option is set to Quality Priority. • Attribute Recognition function cannot be used together with Face Privacyfunction.

Attribute	Users can choose the attributes as needed. **All:** Select or deselect all attributes in one click. **Age:** Recognize the age according the face, the types including Child (Age 0-17),Adult (Age 18-59), Elderly (Age more than 59). **Gender:** Recognize the gender according to the face, the types including Maleand Female. **Glasses:** Recognize whether a person is wearing glasses or not. **Mask:** Recognize whether a person is wearing mask or not. **Cap:** Recognize whether a person is wearing cap or not. **Note:** Unrecognized or abnormally recognized attributes will be displayed as "-".
Save	Save the configuration.

8.4.4.5 [Face Privacy Settings]

Here you can enable the Face Privacy Mode for Face Detection.

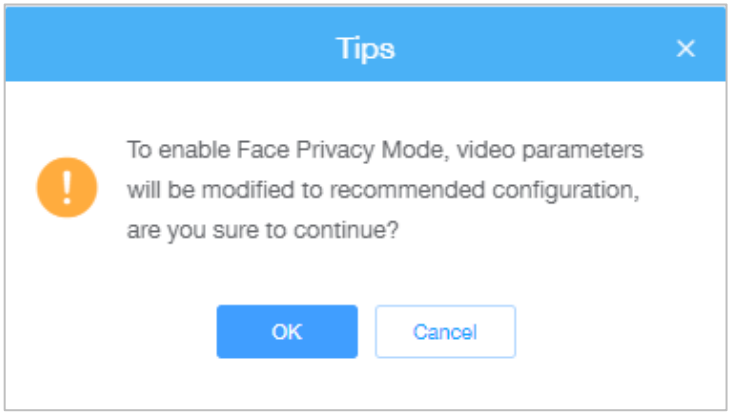
Table 66. Description of the buttons

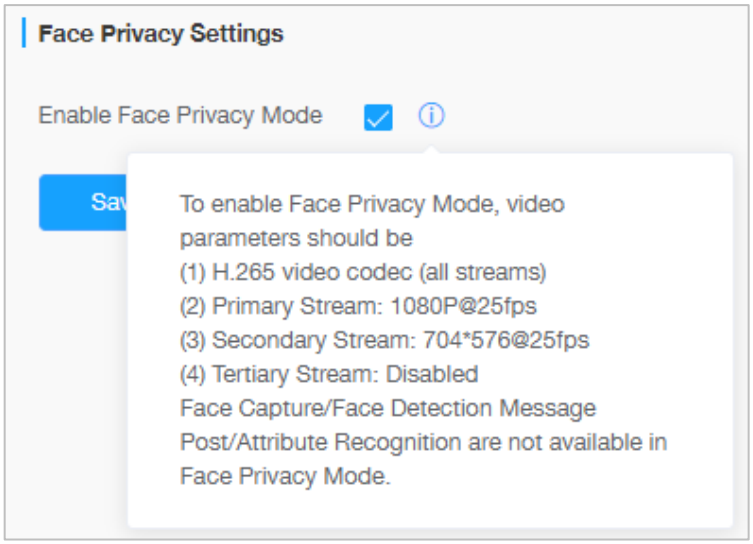
Parameters	Function Introduction
Enable Face Privacy Mode	When Face Privacy Mode is enabled, the detected faces in the face detectionarea will be mosaic automatically. The size of the mosaic is related to that of the detected faces, and users can customize the size of the detected faces as needed. The Face Privacy function meets the needs of users in some special scenarios, which greatly protects people's portrait rights. 

Note: To enable Face Privacy Mode, video parameters should be:

- H.265 video codec (all streams).
- Primary Stream: 1080P@25fps.
- Secondary Stream: 704*576@25fps.
- Tertiary Stream: Disabled.
- Face Capture/Face Detection Message Post/Attribute Recognition are not available in Face Privacy Mode.

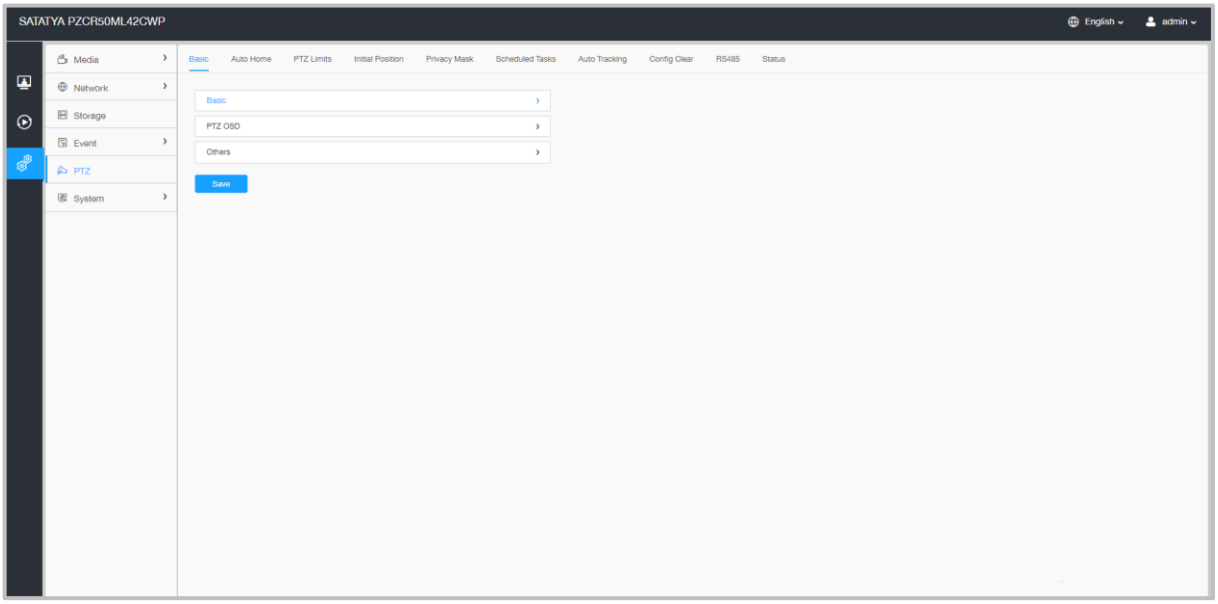
You can change video parameters to recommended configuration in the pop up window:





Chapter 9. PTZ

9.1 Basic



[Basic]

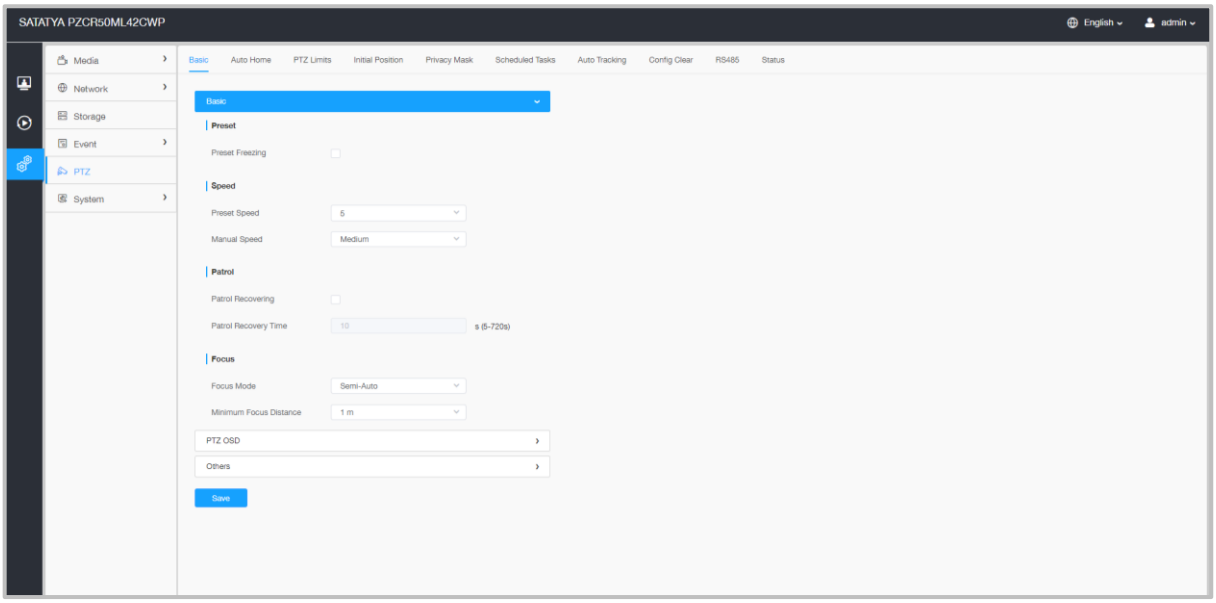


Table 67. Description of the buttons

Parameters	Function Introduction
Preset	If you enabled Preset Freezing, the live view of preset position will be showed directly instead of showing both the moving path to the position andthe live view. It can also reduce the use of bandwidth in the digital network system.
Speed	**Preset Speed:** It determines the speed of calling presets. Level 1~10 areavailable.
	Manual Speed: It determines the PTZ speed of Manually control. **Low**/**Medium**/ **High** are available.
Patrol	**Patrol Recovering**: Click to enable Patrol Recovering.
	Patrol Recovery Time: Set time for Patrol Recovering, which is between 5to 720 seconds.
Focus	**Focus Mode**: Three focus modes are available: Auto, Semi-Auto, and Manual.
	Minimum Focus Distance: Set the minimum focus distance to adjust the step length of each focus. 1 meter, 1.5 meters, 3 meters, 6 meters, 10 meters and 20 meters are available. The default minimum focus distance is1 meter.
Save	Save the configuration.

[PTZ OSD]

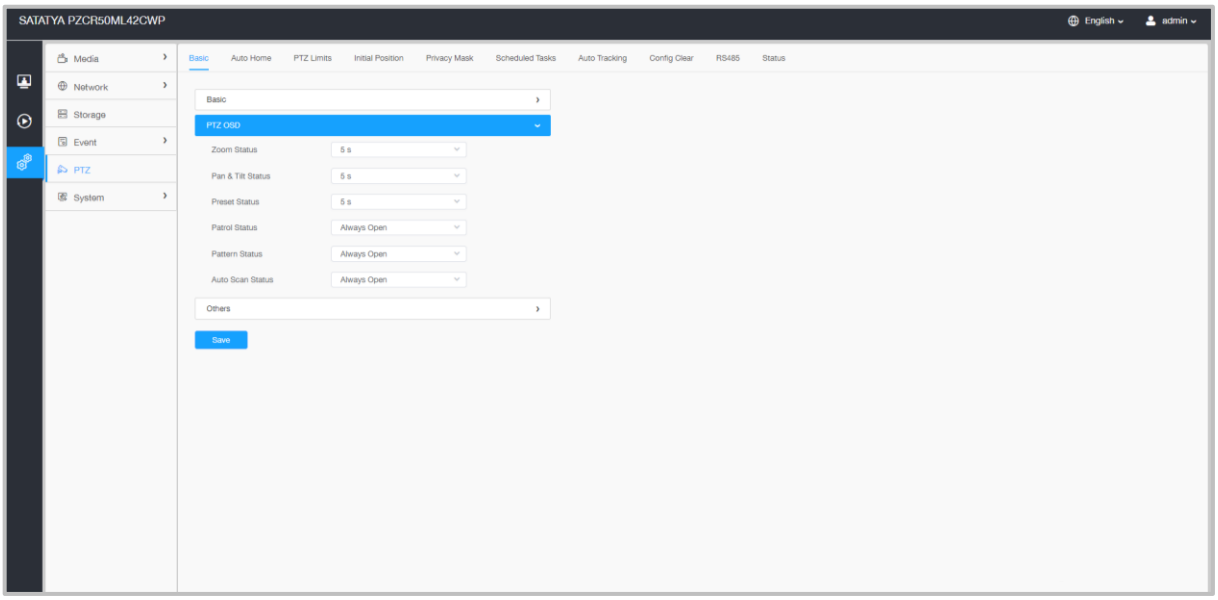


Table 68. Description of the buttons

Parameters	Function Introduction
Zoom Status	2s/ 5s/ 10s/Always Open/ Always Close are available.
Pan & Tilt Status	2s/ 5s/ 10s/Always Open/ Always Close are available.
Preset Status	2s/ 5s/ 10s/Always Open/ Always Close are available.
Patrol Status	Always Open/ Always Close are available.
Pattern Status	Always Open/ Always Close are available.
Auto Scan Status	Always Open/ Always Close are available.
Save	Save the configuration.

[Others]

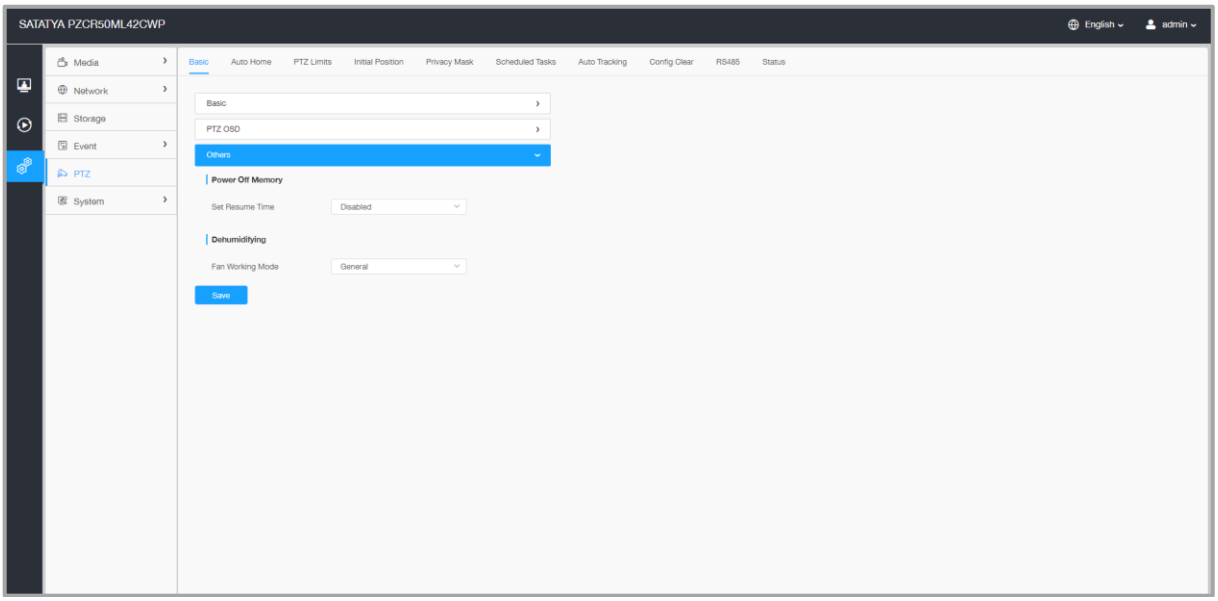
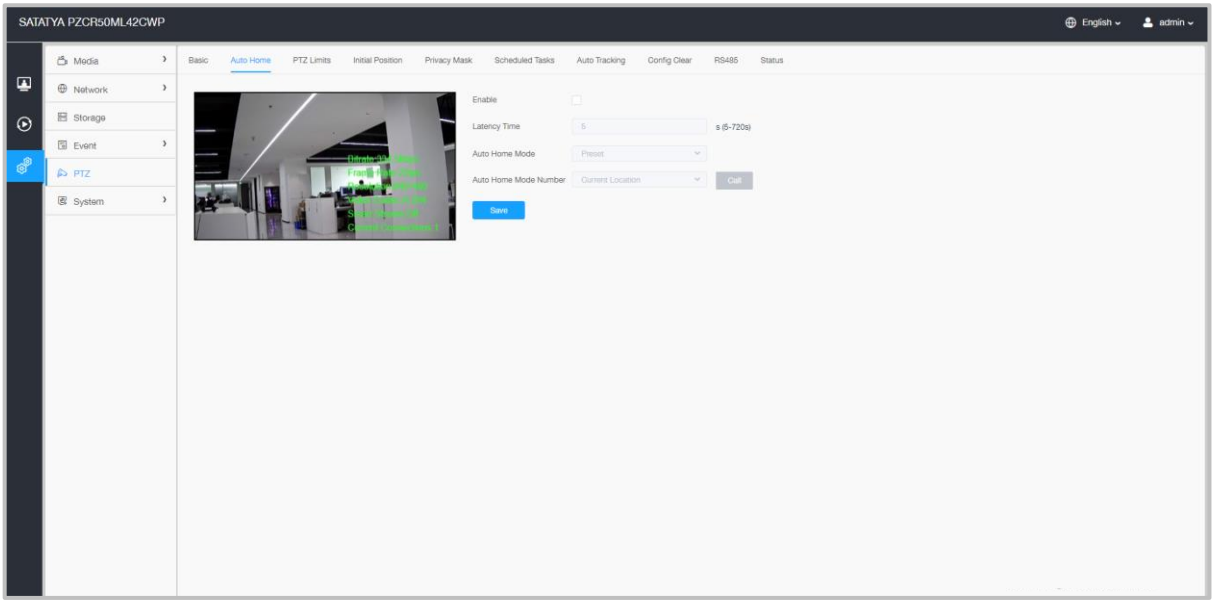


Table 69. Description of the buttons

Parameters	Function Introduction
Power Off Memory	If the camera stops working for a longer time than predefined, the position of it will be recorded. And it will resume to the position after going back to the normal work from power off. You can set the resume time to 30 seconds, 60 seconds, 300 seconds or 600seconds to record its position.
Dehumidifying	**Fan Working Mode:** Three fan working modes are available: General/Enhancement/ Constant. **General: The fans are** turned on from 4am to 7am and 5pm to 8pm every day. **Enhancement:** The fans are turned on from 5pm to 7am every day. **Constant:** The fans work 24 hours a day.
Save	Save the configuration.

9.2 Auto Home



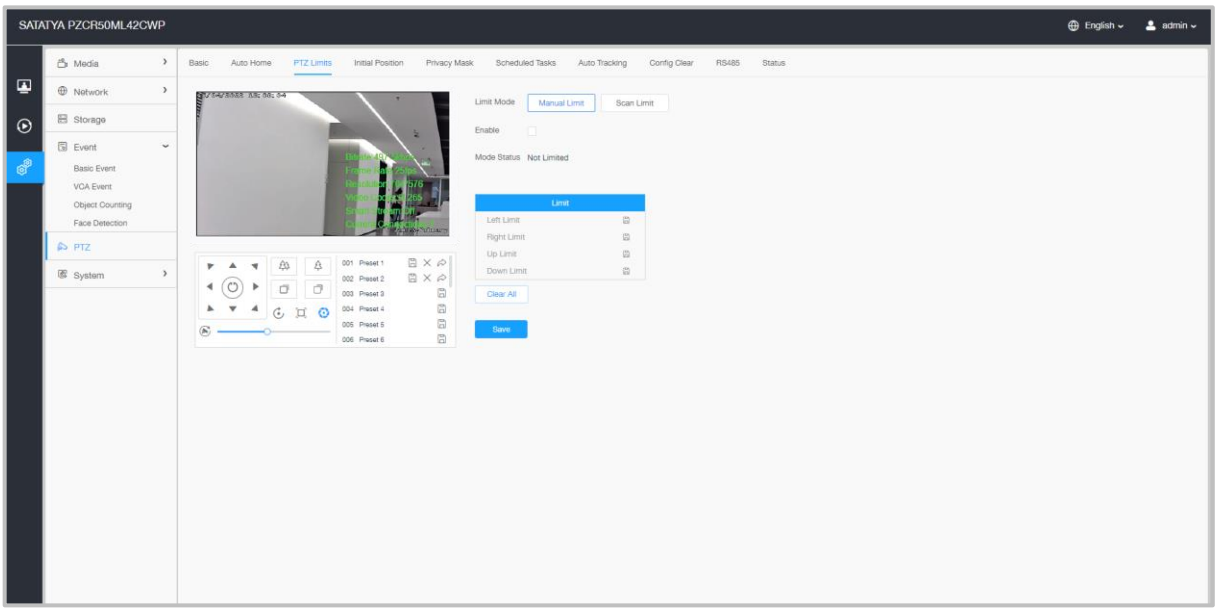
Auto Home allows the PTZ camera to return to a predefined Home Position automatically after a period of latency time. Check the checkbox to enable the Auto Home mode.

Table 70. Description of the buttons

Parameters	Function Introduction
Enable	Enable/disable the auto home function.
Latency Time	Set a latency time to trigger Auto Home mode, 5-720s.
Auto Home Mode	Preset: A preset point will take effect when triggering the Auto Home.
Auto Home Mode Number	Select a predefined preset in the list, press “Call” to check the location. Also support to select current location.
Save	Save the configuration.

9.3 PTZ Limits

The PTZ camera can be programmed to move within the configurable PTZ Limits (Left/Right).



Step1: Check the checkbox to enable the PTZ Limit function.

Step2: Choose the limit mode as Manual limit or Scanning limit.

- Manual Limit:

When Manual limit stops are set, you can operate the PTZ control panel manually only in the limited surveillance area.

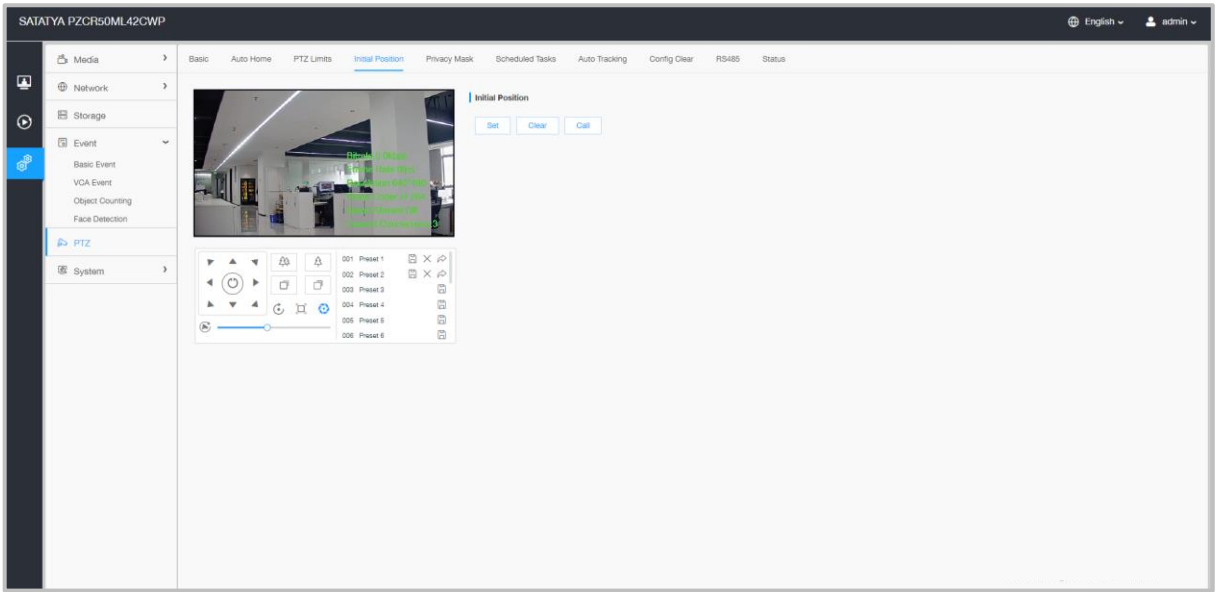
- Scan Limit:

When Scan limit stops are set, the auto scan is performed only in the limited surveillance area.

Step3: Click the PTZ controller buttons to set the left/right limit stops; you can also call the defined presets and set them as the limits of the PTZ camera.

Step4: Click **Set** to save the limits or **Clear** to clear the limits.

9.4 Initial Position



You can configure the Initial Position for PTZ cameras as a zero point.

Step1: Click the PTZ control buttons as the Initial Position of the PTZ bullet, you can also call a defined preset and set it as the Initial Position.

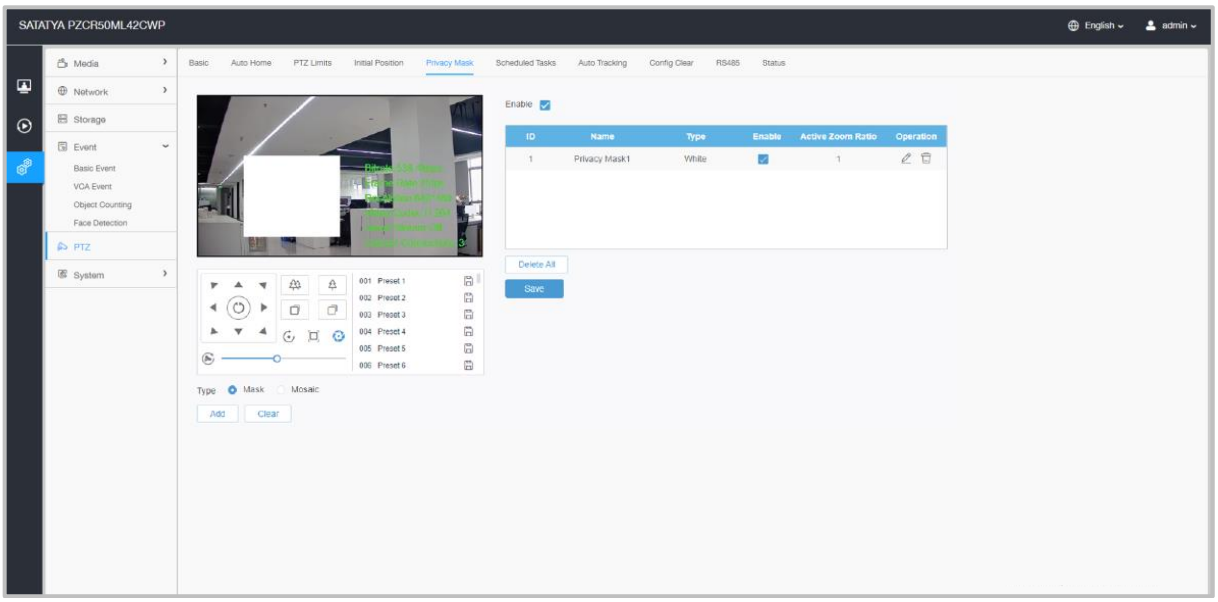
Step2: Click Set to save the position as the Initial Position.

Table 71. Description of the buttons

Parameters	Function Introduction
Set	Click to set the current position as a Initial Position
Clear	Clear the Initial Position to default settings.
Call	Click to call the Initial Position.
Save	Save the configuration.

9.5 Privacy Mask

Privacy mask enables to cover certain areas on the live video to prevent certain spots in the surveillance area from being viewed and recorded. The mask area does not move as the lens moves.



[Privacy Mask]

You can select the color to use for the cover certain areas on the live video.

Note: Up to 24 mask areas and 4 mosaic areas are supported.

Table 72. Description of the buttons

Parameters	Function Introduction
Enable	Check the checkbox to enable the Privacy Mask function
Add	Add the current drawing area as Privacy Mask
Clear	Clear the current drawing area
Delete All	Clear all areas you drew before
Name	Support to customize the name of Privacy Mask
Type	Select the color for the privacy areas, there are eight colors available: White,Black, Blue, Yellow, Green, Brown, Red, Violet

Active Zoom Ratio	Set the value of Active Zoom Ratio according to your need, and then the mask will only appear when the zoom ratio is greater than the predefined value
Save	Save the configuration.

[Mosaic type of Privacy Mask]

You can select the color type and mosaic type to cover certain areas on the live video. Themosaic type can maintain the continuity of the picture and improve the visual effect. Up to 28 mask areas are supported, which includes 24 mask areas and 4 mosaic areas.

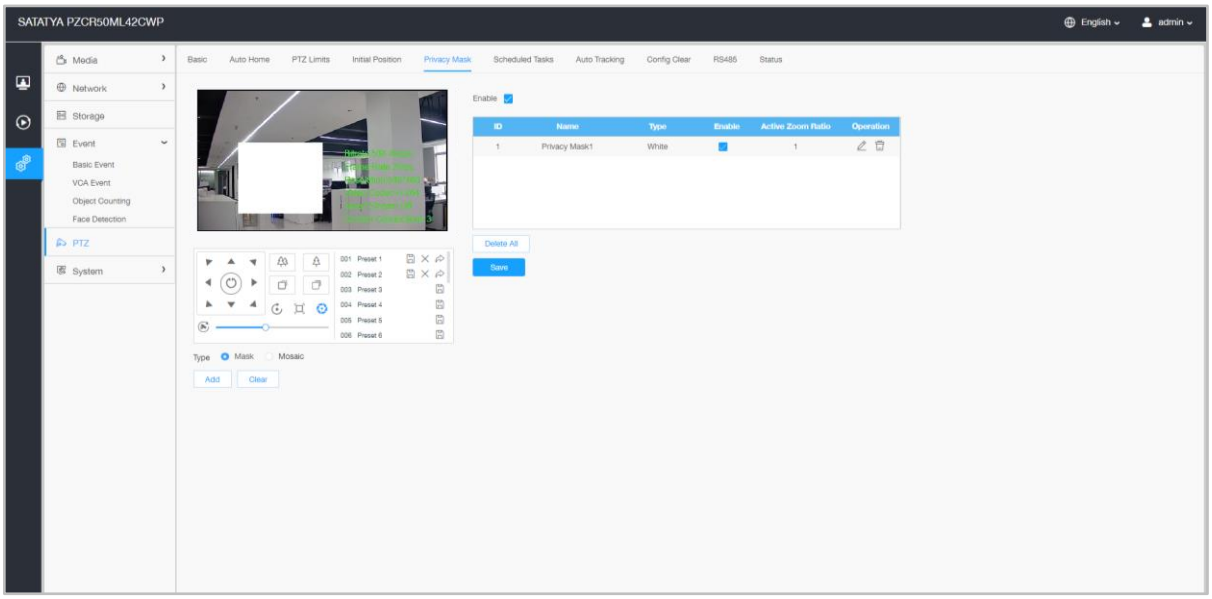


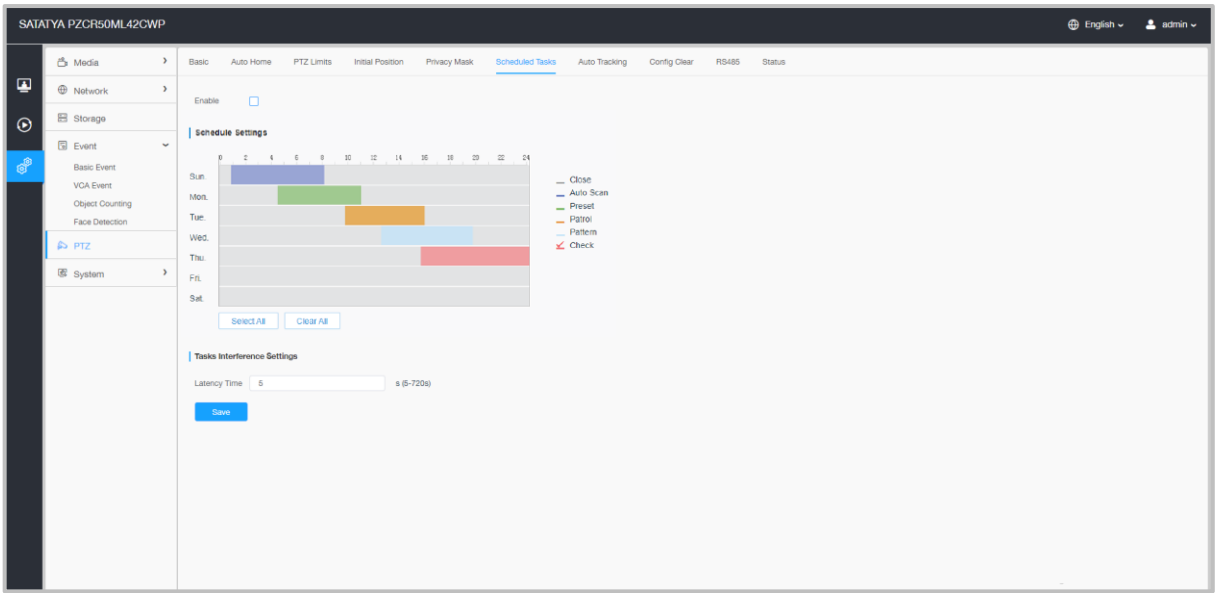
Table 73. Description of the buttons

Parameters	Function Introduction	
Enable	Check the check box to enable the Privacy Mask function.	
Type	Select the type to use for the privacy areas, there are two types available: Mask and Mosaic.	
Add	Drew a privacy area on the live video as needed.	
Clear	Clear the area you drew on the live video.	
	/	Enable/disable the selected ROI areas.

Operation		Change the color of Mask area, there are eight colors available: White,Black, Blue, Yellow, Green, Brown, Red and Violet
		Delete the privacy mask area
Save	Save the configuration.	

9.6 Schedule Tasks

You can configure the PTZ camera to perform a certain action automatically in a user-defined time period.



Step1: Enter the Scheduled Task Settings interface:

Step2: Check the check box to Enable Scheduled Task.

Step3: Set the schedule and task details.

Step4: Set the Task Recovery Time (from 5 to 720 seconds). You can set the time (a period of inactivity) before the PTZ camera starts the schedule and task details.

Step5: Click Save button to save all the configurations.

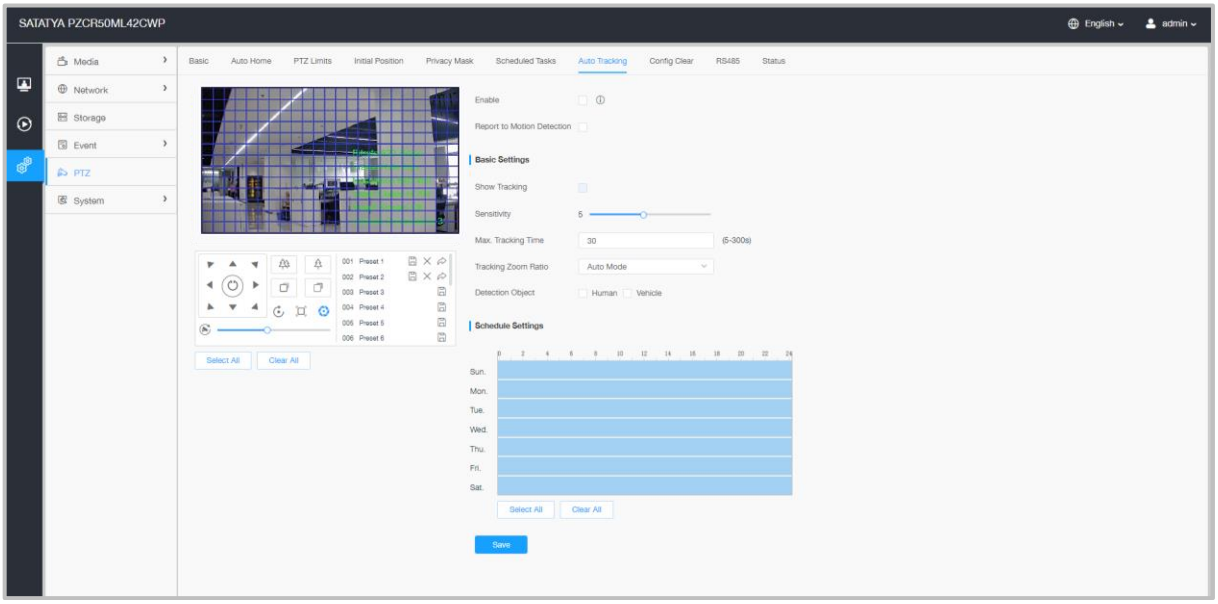
Note:

- The time of each task cannot be overlapped. Up to 10 tasks can be configured for each day.
- The Scheduled Tasks function is prior to Auto Home function. When these two functions are set at the same time, only the Scheduled Tasks function takes effect.
- You can click button to select or close all schedule of different kinds of tasks.

9.7 Auto Tracking

PTZ series cameras support to track the moving objects automatically after you configure this function.

Note: In non-associated conditions, the priority for Auto Tracking is: VCA Event > Auto Tracking > Motion Detection.



Settings steps are shown as follows:

Step1: Check the check box to enable Auto Tracking;

Step2: Check the check box to enable Report to Motion Detection. The motion detection alarm will be triggered during auto tracking.

Note: Please enable motion detection first.

[Basic Settings]

Step3: Enable “Show Tracking” to show tracking in Auto Tracking function.

Step4: Set detecting sensitivity;

Step5: Set Max. Tracking Time which must be between 5~300s. The camera will stop tracking when the tracking time is used up.

Step6: Set Tracking Zoom Ratio including Auto Mode and Customize. The camera will automatically adjust tracking zoom ratio when Auto Mode is chosen. When Customize is chosen, user needs to set the tracking zoom ratio first by adjusting zoom button, then camera will automatically track the moving objects according to customized tracking zoom ratio and the object'sproportion in the picture at the moment. At the same time, the object will always keep the same proportion in the picture during the tracking process.

Step7: Choose detection object. Check Human or Vehicle attribute, and the camera will alarm once detecting people or vehicle and triggering related events;

[Schedule Settings]

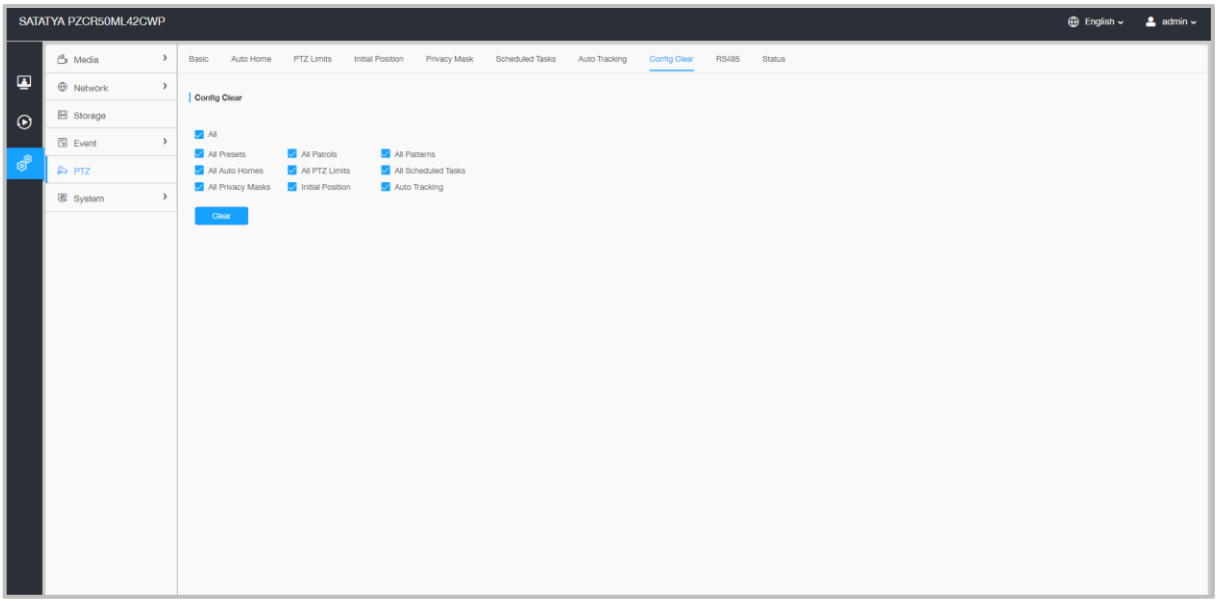
Step8: Set Auto Tracking schedule.

Step9: Draw the screen to set the detection region.

Step10: Click Save to save the configuration.

Note: Please turn off Auto Home before using Auto Tracking.

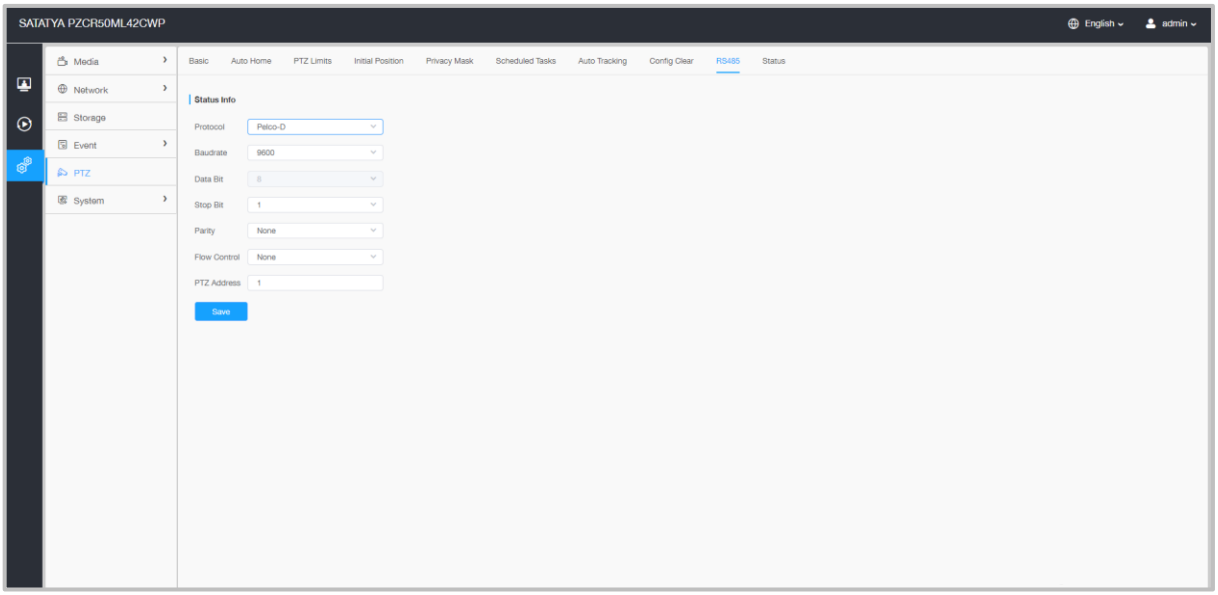
9.8 Config Clear



Here you can clear PTZ configurations, including all PTZ configurations, Presets, Patrols, Patterns, Auto Homes, PTZ Limits, Initial Position (PTZ Bullet), Privacy Masks and Scheduled Tasks.

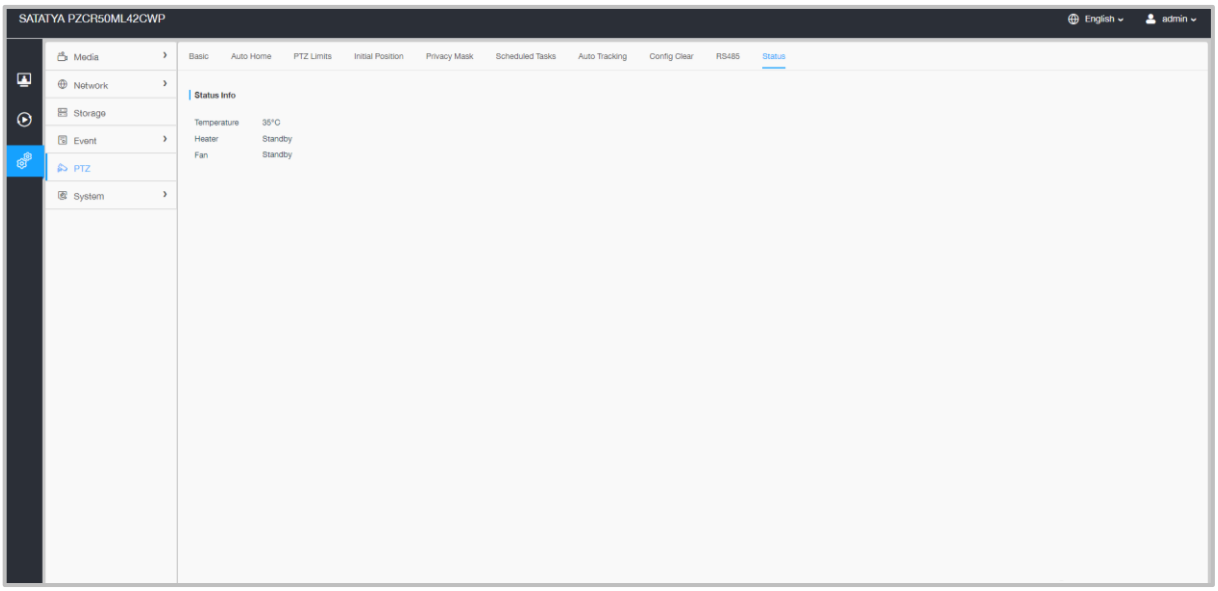
9.9 RS485

Here you can clear configure RS485 serial port to control the PTZ of Speed Dome. Protocol, Baudrate, Data Bit, Stop Bit, Parity, Flow Control, PTZ Address should be exactly the same as those of the control device.



9.10 Status

Here you can see the status information for PTZ camera, including temperature and fan status.



Chapter 10.System

Here you can configure System Setting, Security, Logs and Maintenance.

10.1 System Setting

Here you can check System information and Date & Time.

10.1.1 System Info

All information about the hardware and software of the camera can be checked on this page.

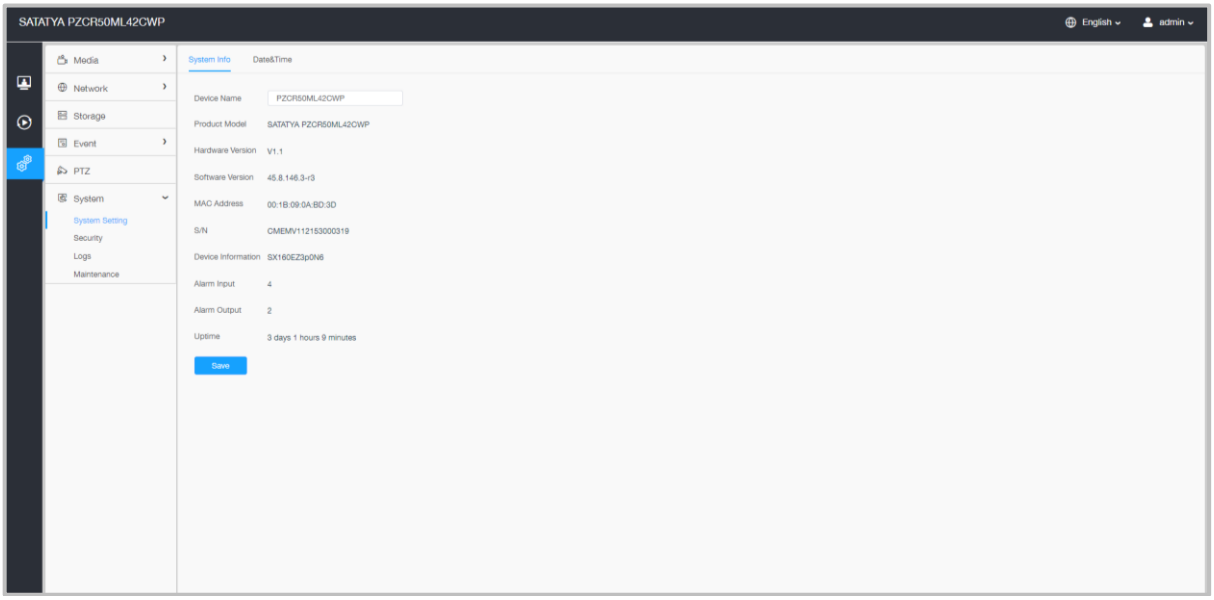


Table 74. Description of the buttons

Parameters	Function Introduction
Device Name	The device name can be customized.
Product Model	The product model of the camera.
Hardware Version	The hardware version of the camera.
Software Version	The software version of the camera can be upgraded.
MAC Address	Media Access Control address.
S/N	Stock Number.
Device Information	The device information, including information about alarm I/O and clipper chip.

Alarm Input	The number of Alarm Input interface.
Alarm Output	The number of Alarm Output interface.
Uptime	The elapsed time since the last restarted of the device.
Save	Save the configuration.

10.1.2 Date and Time

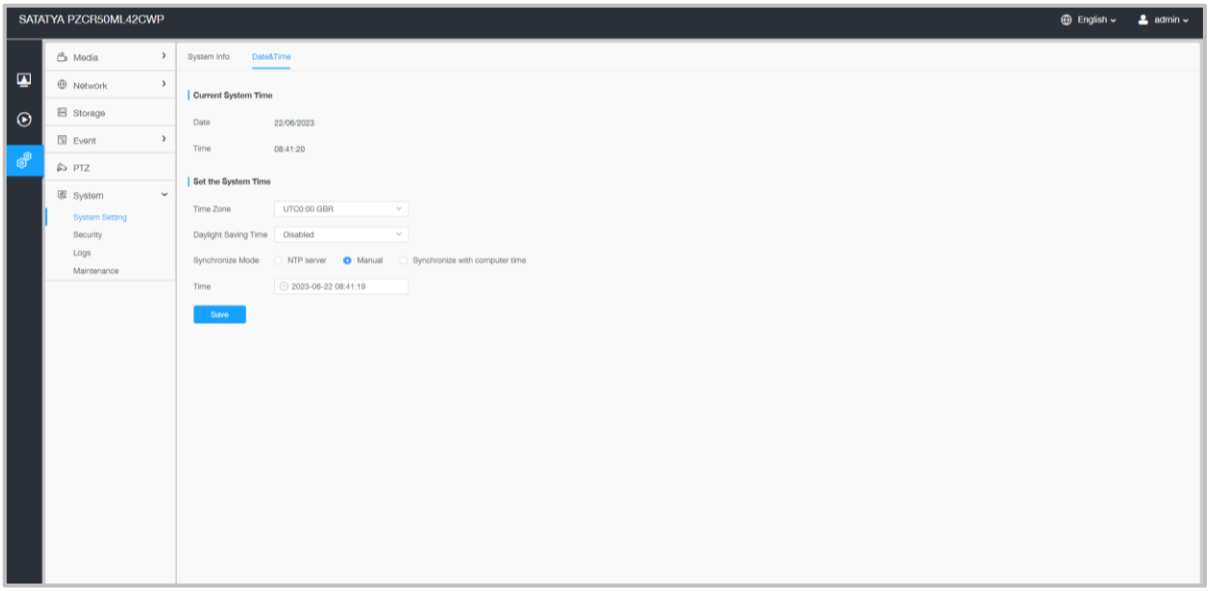


Table 75. Description of the buttons

Parameters	Function Introduction
Current System Time	Current date & time of the system.
Save	Save the configuration.
	Daylight Saving time: Enable the daylight saving time.
	Function Introduction

	Synchronize Mode: NTP server, Manual and Synchronize with computer time are optional. **NTP server:** Input the address of NTP server**.** **NTP Sync:** Regularly update your time according to the interval time. **Manual:** Set the system time manually. **Synchronize with computer time:** Synchronize the time with your computer.

10.2 Security

Here you can configure User, Access List, Security Service, Watermark, etc.

10.2.1 User

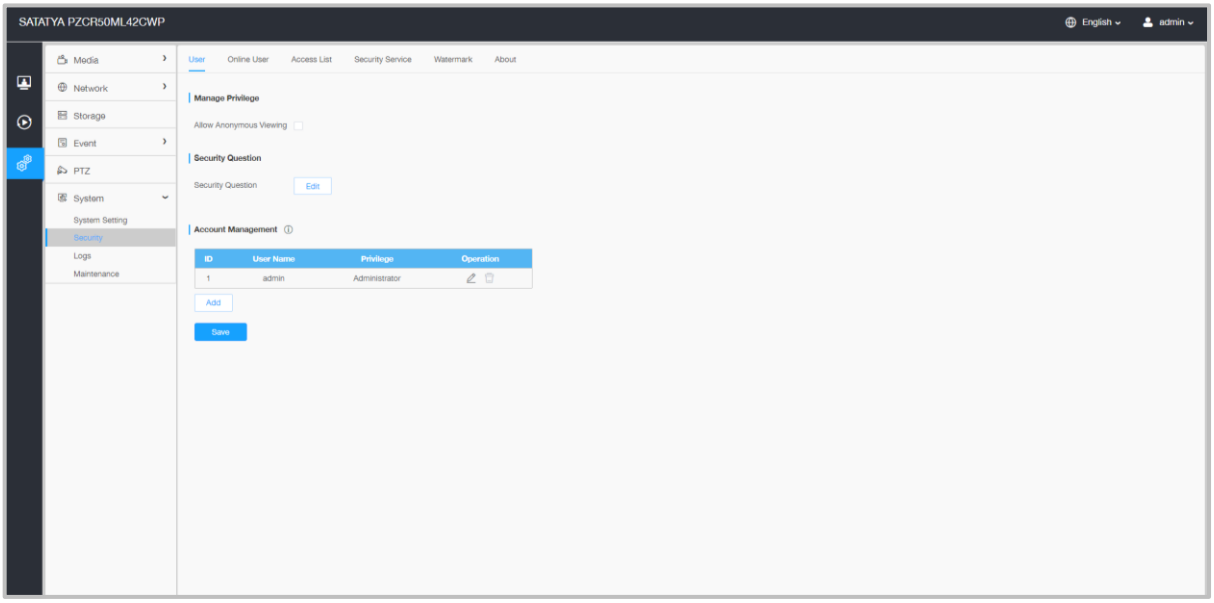
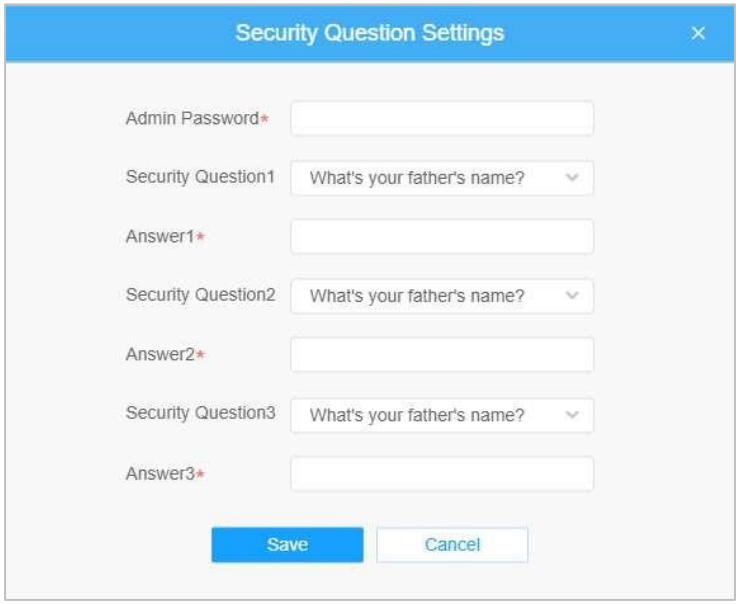
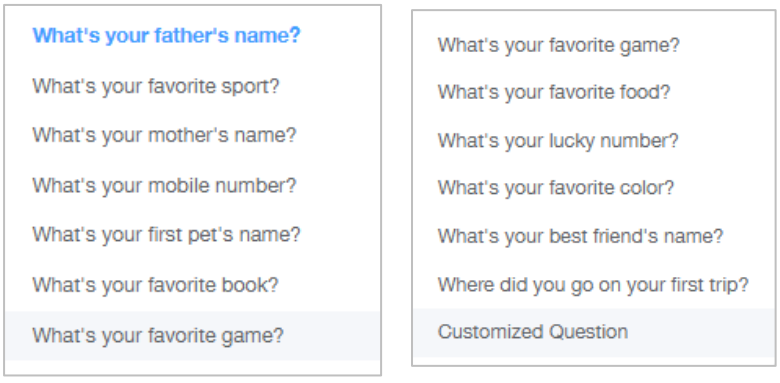


Table 76. Description of the buttons

Parameters	Function Introduction
Manage Privilege	**Allow anonymous viewing:** Click on the check box to allow anonymous access to any visitor, who does not have an account.
Security Question	Click “Edit” button to set three security questions for your camera. In case that you forget the password, you can click “Forget Password” button on login page to reset thepassword by answering three security questions correctly.  There are twelve default questions below, you can also customize the securityquestions. 
Save	Save the configuration.

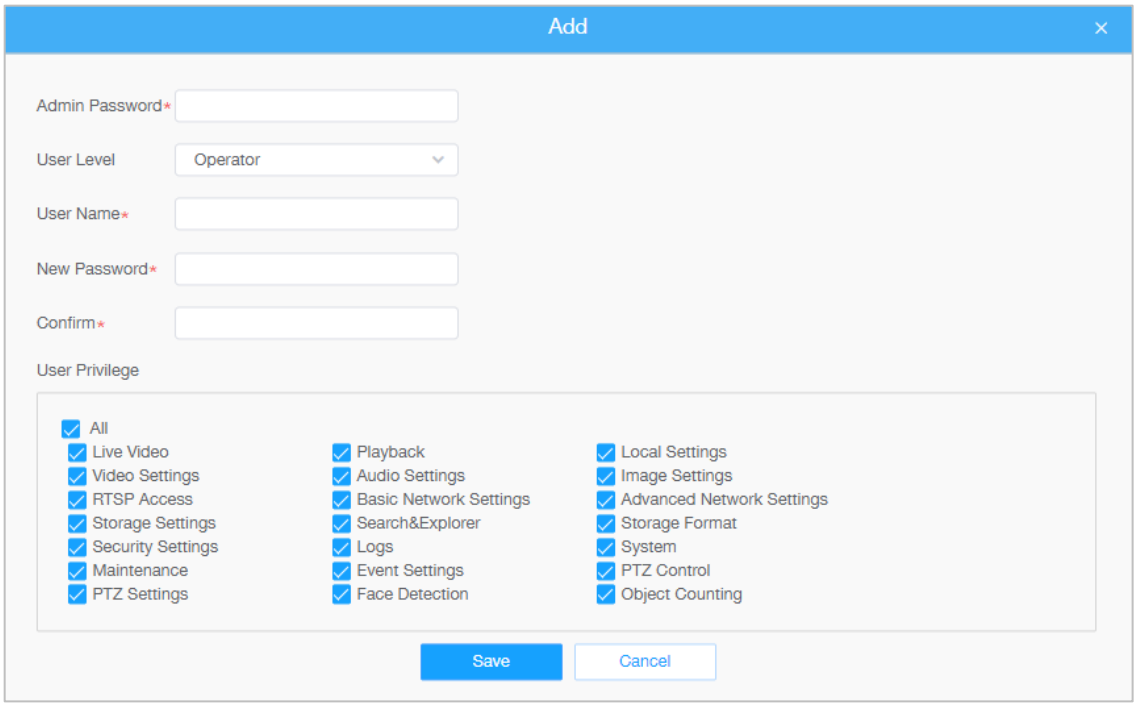


Table 77. Description of the buttons

Parameters	Function Introduction
Account Management	Click "**Add**" button, it will display Account Management page. You can add an account to the camera by entering Admin Password, User Level, User Name, New Password, Confirm, and edit user privilege by clicking on the desired check boxes. The added account will be displayed in the account list. **Admin Password:** You can add an account only after you enter the correct adminpassword. **User Level:** Set the privilege for the account. **User Name:** Input user name for creating an account. **New Password:** Input password for the account. **Confirm:** Confirm the password. You can edit and delete the account in the account list under the admin account. For the default admin account, you can only change the password, and it cannot bedeleted. **Note:** • Support up to 20 users, including a default user and 19 custom added users. • The operator privilege is all checked by default.

Save	Save the configuration.

10.2.2 Online User

Here real-time status of user logging in camera will be shown.

Table 78. Description of the buttons

Parameters	Function Introduction
Refresh	Click to get latest status of user accessing to camera.
ID	Record serial number of user logging in camera. **Note:** • There are at most 30 records shown at the list. • There is only one record if the same user logging on camera by the same IPaddress.
User Name	Name of user logging in camera.
User Level	Level of user logging in camera.
IP Address	Device IP address where user logging in camera web located.
Login Time	Camera system time of user logging in camera.
Save	Save the configuration.

10.2.3 Access List

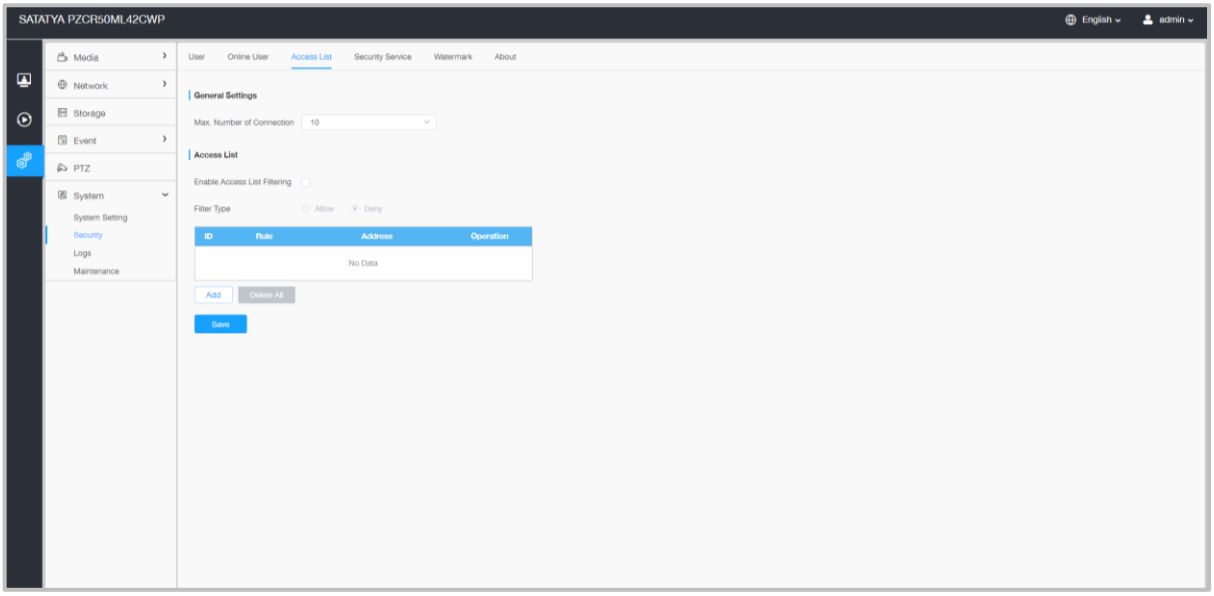


Table 79. Description of the buttons

Parameters	Function Introduction	
General Settings	**Max. Number of Connection:** Select the maximum number of concurrent streaming. Options include Number Limit- 1~10.	
Access List	**Enable Access List Filtering:** Able to access or restrict access for some IP address.	
Access List	**Filter type:** Allow or deny access.	
	Add	**Rule: Single, Network and Range** are available. **IP address:** Input the address to get the access to the device.
	Delete All	Delete the entire access list.
		Edit the selected IP on access list.
		Delete the selected IP on access list.
Save	Save the configuration.	

10.2.4 *Security Service*

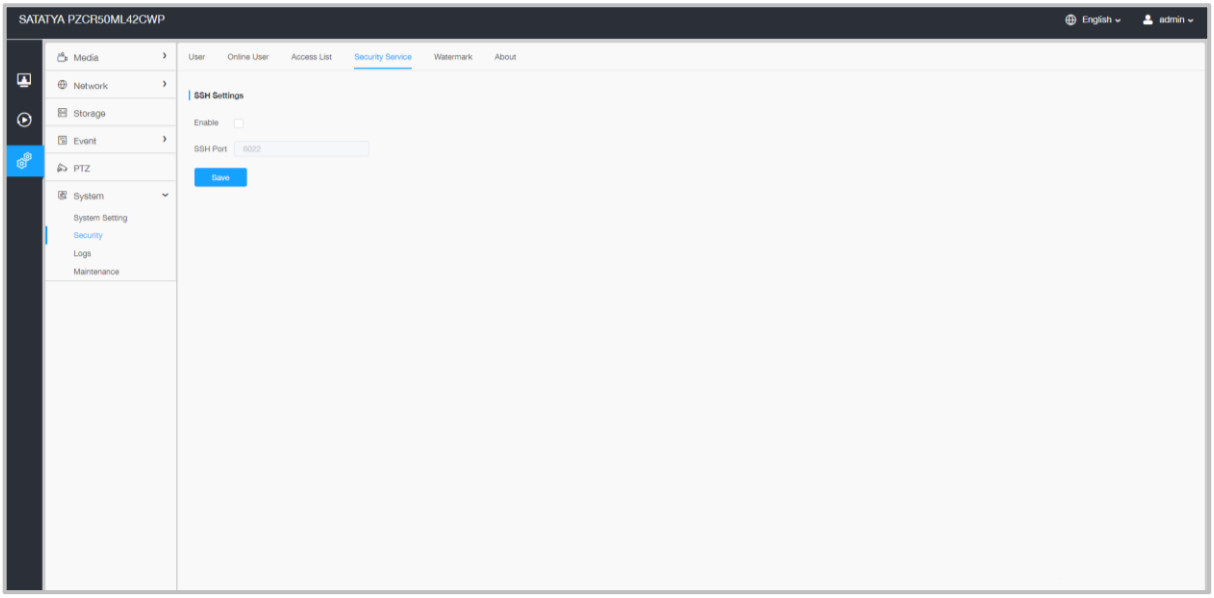
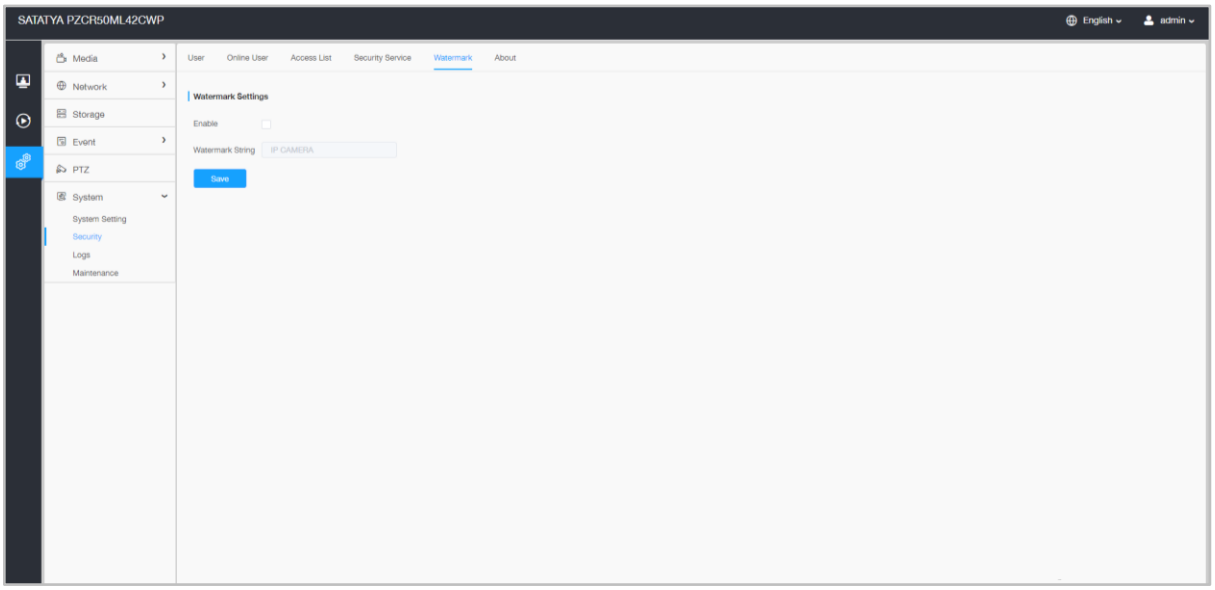


Table 80. Description of the buttons

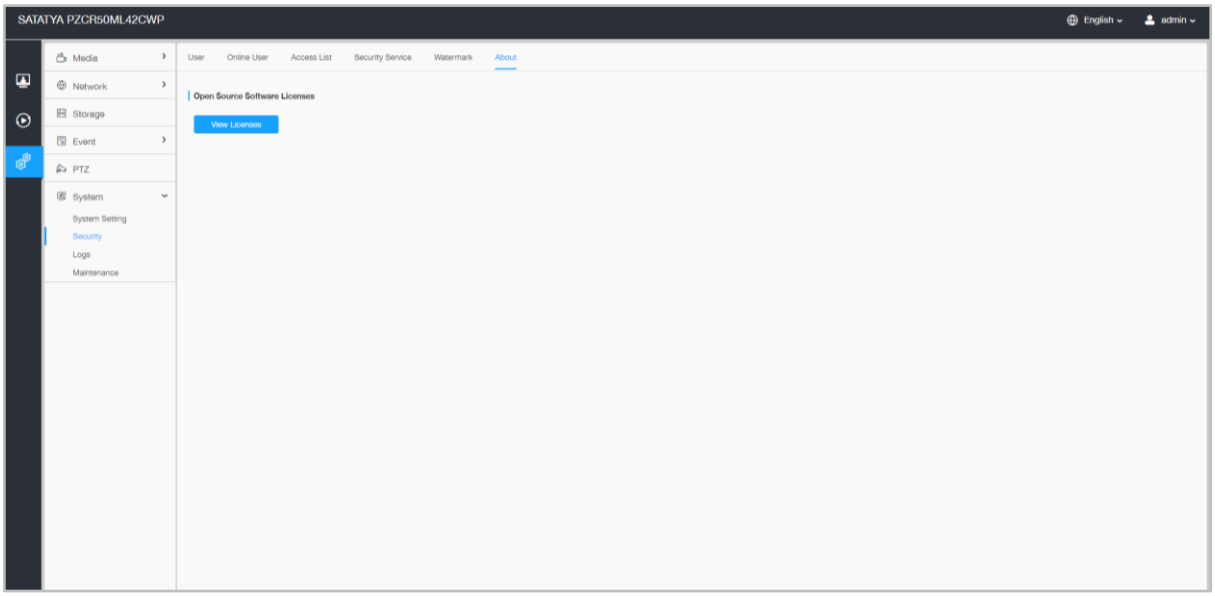
Parameters	Function Introduction
SSH Settings	Secure Shell (SSH) has many functions: it can replace Telnet and alsoprovides a secure channel for FTP, POP, even for PPP.
Save	Save the configuration.

10.2.5 Watermark



Watermarking is an effective method to protect information security, realizing anti-counterfeiting traceability and copyright protection. The Network camera supports Watermark function to ensure information security.

10.2.6 About



User can view some open source software licenses about the camera by clicking the View Licenses button.

10.3 Logs

10.3.1 Logs

The logs contain the information about the time and IP that has accessed the camera through web.

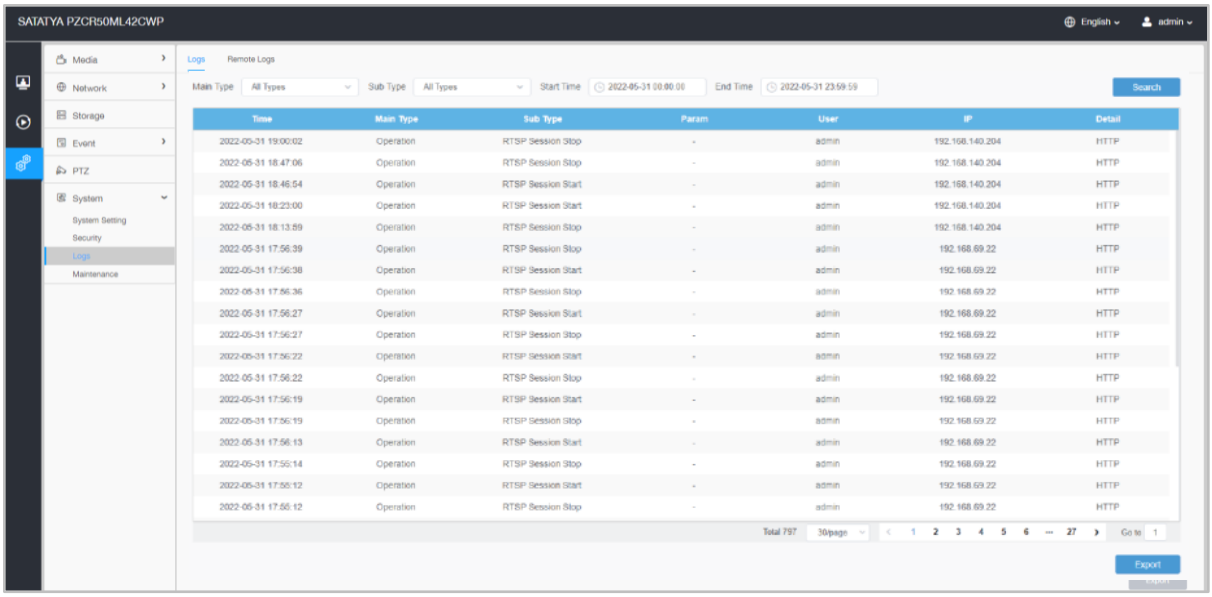
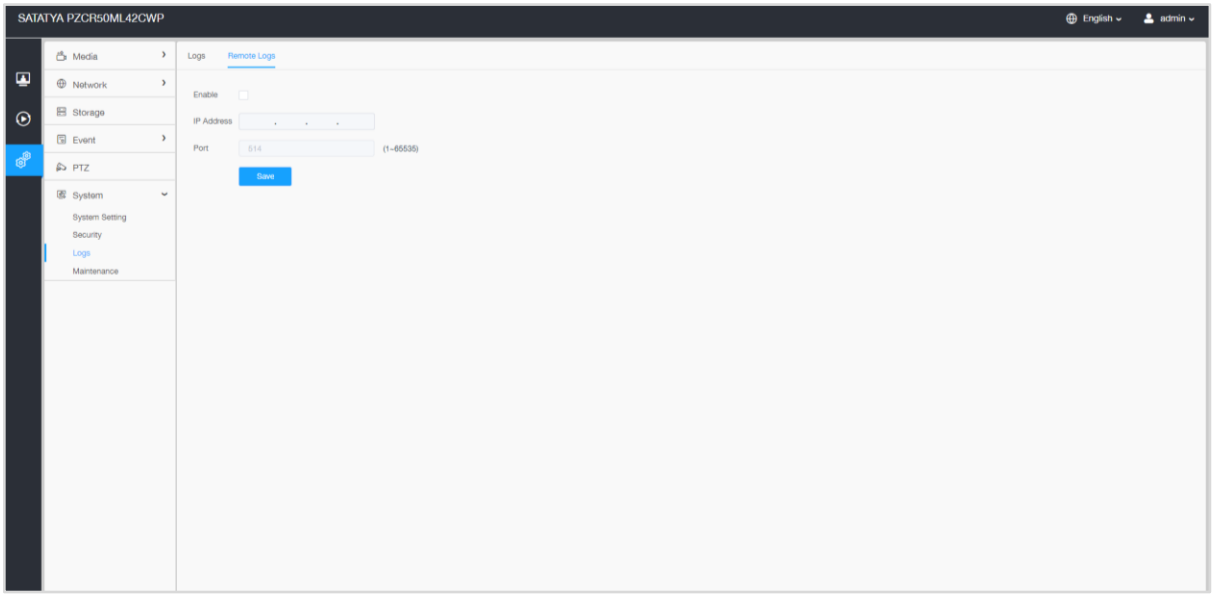


Table 81. Description of the buttons

Parameters	Function Introduction
Main Type	There are five main log types: **All Type, Event, Operation, Information,Exception** and **Smart.**
Sub Type	On the premise that main type has been selected, select the sub type tonarrow the range of logs.
Start Time	The time log starts.
End Time	The time log ends.
Search	Search the logs.
Export	Export the logs.
Go to	Input the number of logs' page.

Save	Save the configuration.

10.3.2 Remote Logs



10.4 Maintenance

Here you can configure System Maintenance and Auto Reboot.

10.4.1 System Maintenance

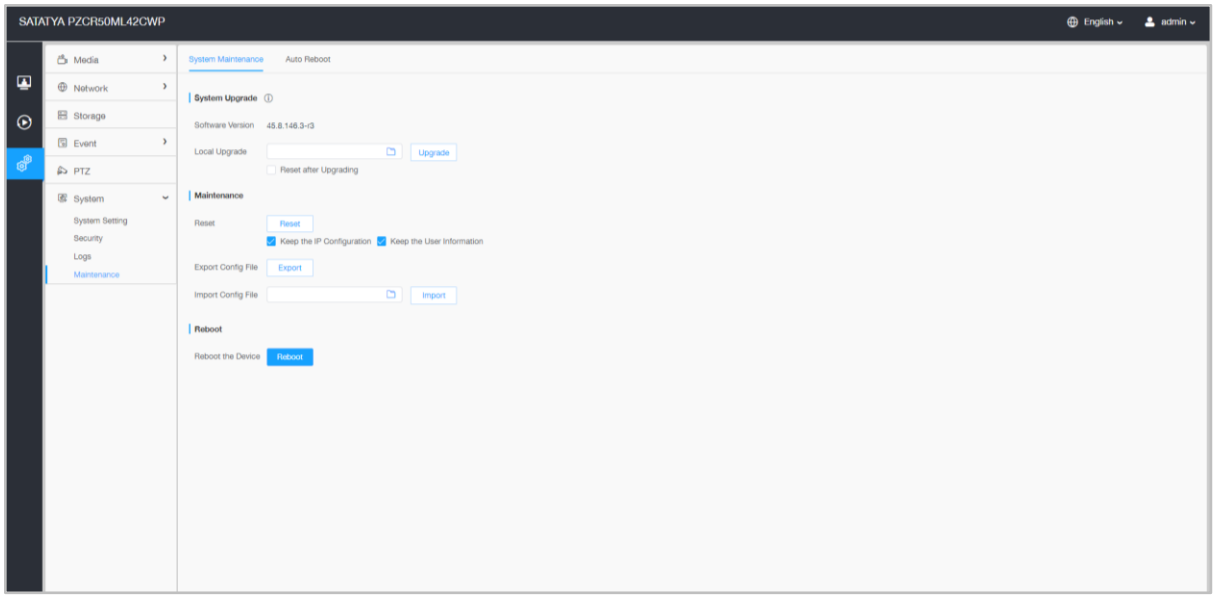
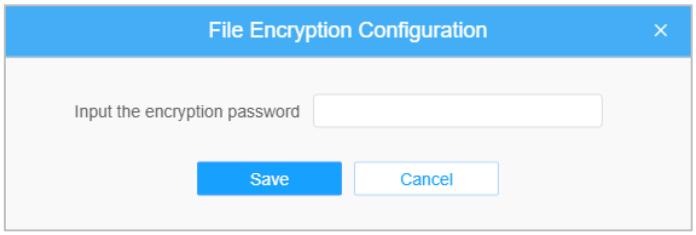
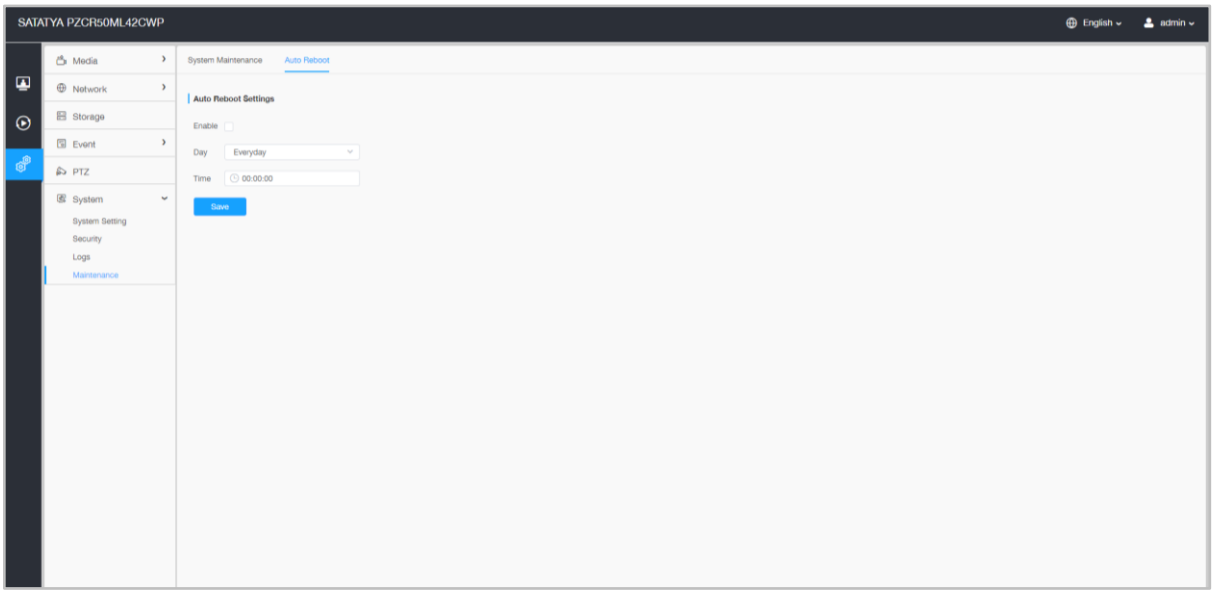


Table 82. Description of the buttons

Parameters	Function Introduction
System Upgrade	**Software Version:** The software version of the camera. **Local Upgrade:** Click the "Browse" button and select the upgrading file, then click the "Upgrade" button to upgrade. After the system reboots successfully, the update is done. You can check "**Reset after Upgrading**" to reset the camera after upgrading it. **Note:** Do not disconnect the power of the device during the update. Thedevice will be restarted to complete the upgrading.

Maintenance	**Reset:** Click “Reset” button to reset the camera to factory default settings. **Keep the IP Configuration:** Check this option to keep the IP configuration whenresetting the camera. **Keep the User information:** Check this option to keep the user informationwhen resetting the camera. **Export Config File:** Click this button and a window will pop up as shown below: You need to enter and confirm password again, then click save button to exportconfiguration file. **Import Config File:** Click this button, then a window will pop up and you can click "OK" to update the configuration. It will pop up a window to prompt "Input the password of config file", then enterpassword and click save button to import configuration file.  **Note:** If you, Export or import the same configuration file. Password must be the same.
Reboot	Click “Reboot” button to restart the device immediately.

10.4.2 *Auto Reboot*



Set the date and time to enable Auto Reboot function, the camera will reboot automatically according to the customized time in case that camera overload after running a long time.

Appendix

After-sales Services

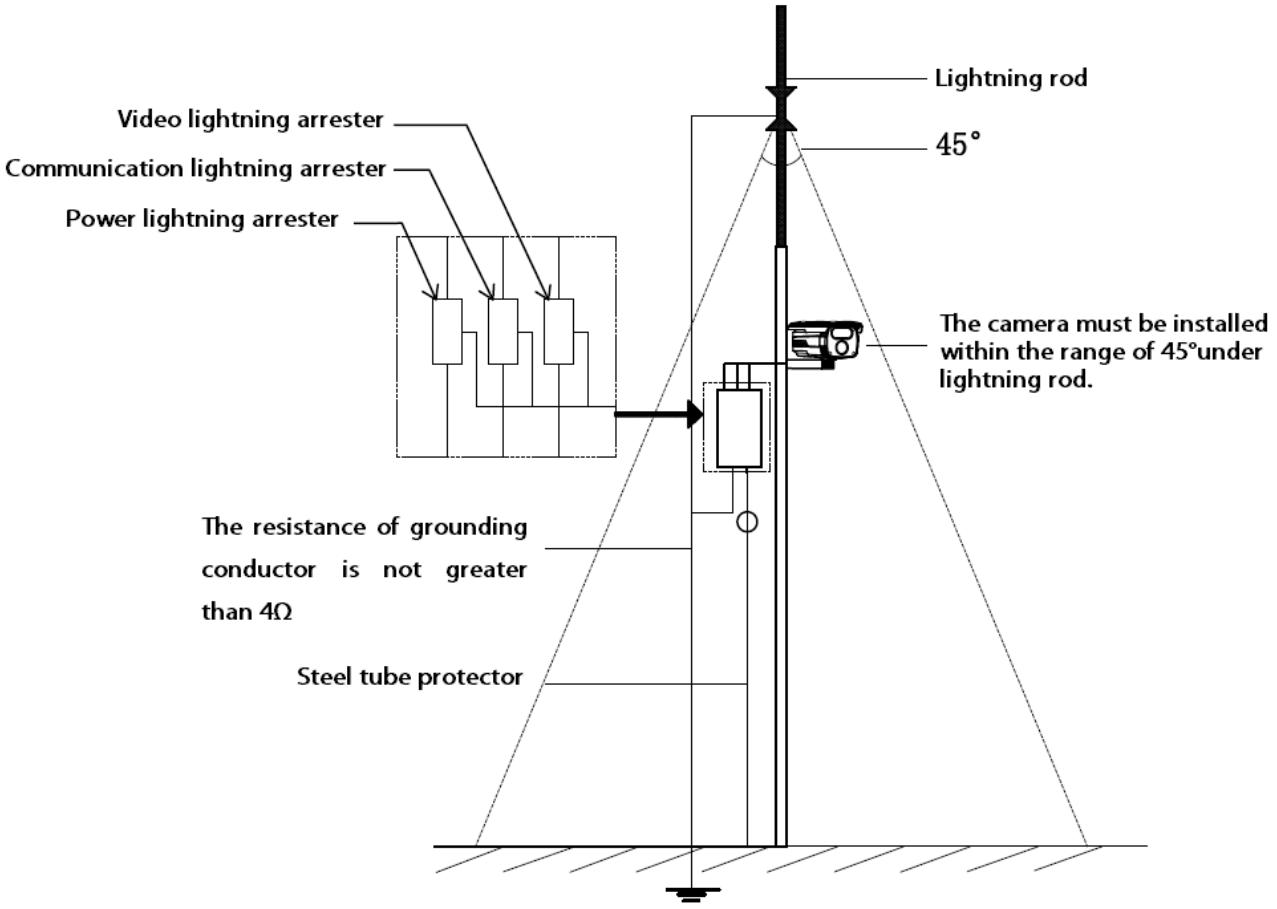
For the high-definition network series camera produced in our company, we promise one-year warranty. During the product warranty period, the company provides free maintenance services, but in case of the following circumstances, the material cost and labor cost shall be charged as appropriate:

1. The camera is damaged due to the operation not in accordance with the user manual;
2. Lightning, fire and irresistible natural disasters;
3. Damage caused by matching problems due to poor product design of other manufacturers;
4. Due to our continuous adoption of new technology, product parameters are subject to change without notice.

Lightning Protection and Surge Protection

Lightning and surge protection shall be considered for outdoor cameras. On the premise of ensuring electrical safety, the following lightning protection measures can be taken:

1. The signal transmission line must be kept at least 50 meters away from the high-voltage equipment or high-voltage cable;
2. Outdoor wiring shall be routed under the eaves as much as possible;
3. For the open area, the sealed steel pipe must be buried for wiring, and the steel pipe shall be grounded at one point, and the overhead wiring is absolutely prohibited;
4. In strong thunderstorm area or high induced voltage area (such as high-voltage substation), additional high-power lightning protection equipment and lightning rod must be installed;
5. The lightning protection and grounding design of outdoor devices and lines must be considered in combination with the lightning protection requirements of buildings, and meet the requirements of relevant national standards and industry standards;
6. The system must be equipotential grounded. The grounding device must meet the double requirements of system anti-interference and electrical safety, and shall not be short circuited or mixed connected with the zero line of the strong current network. When the system is grounded separately, the grounding impedance shall not be greater than 4 Ω, and the cross-sectional area of the grounding conductor shall not be less than 25mm2.


Lightning rod
Video lightning arrester
45°
Communication lightning arrester
Power lightning arrester
The camera must be installed within the range of 45°under lightning rod.
The resistance of grounding conductor is not greater than 4Ω
Steel tube protector

Disposal of Products/Components after End-Of-Life

Main components of Matrix products are given below:

- **Soldered Boards:** At the end-of-life of the product, the soldered boards must be disposed through e-waste recyclers. If there is any legal obligation for disposal, you must check with the local authorities to locate approved e-waste recyclers in your area. It is recommended not to dispose-off soldered boards along with other waste or municipal solid waste.

- **Batteries:** At the end-of-life of the product, batteries must be disposed through battery recyclers. If there is any legal obligation for disposal, you may check with local authorities to locate approved batteries recyclers in your area. It is recommended not to dispose off batteries along with other waste or municipal solid waste.

- **Metal Components:** At the end-of-life of the product, Metal Components like Aluminum or MS enclosures and copper cables may be retained for some other suitable use or it may be given away as scrap to metal industries.

- **Plastic Components:** At the end-of-life of the product, plastic components must be disposed through plastic recyclers. If there is any legal obligation for disposal, you may check with local authorities to locate approved plastic recyclers in your area.

After end-of-life of the Matrix products, if you are unable to dispose-off the products or unable to locate e-waste recyclers, you may return the products to Matrix Return Material Authorization (RMA) department.

Make sure these are returned with:
- proper documentation and RMA number
- proper packing
- pre-payment of the freight and logistic costs.

Such products will be disposed-off by Matrix.

"SAVE ENVIRONMENT SAVE EARTH"

E-Waste Management and Handling Rules

E-waste is a popular, informal name for electronic products nearing the end of their useful life. E-wastes are considered dangerous, as certain components of some electronic products contain materials that are hazardous, depending on their condition and density. The hazardous content of these materials pose a threat to human health and environment. Discarded electronics products such as circuit boards, batteries, wires and other electronic accessories if improperly disposed can leach lead and other substances into soil and groundwater. Many of electronic products can be reused, refurbished or recycled in an environmentally sound manner so that they are less harmful to the ecosystem.

Benefits of E-waste Recycling leach

Electronics Recycling Conserves Natural Resources

There are many materials that can be recovered from old electronic products. These materials can be used to make new products, thus reducing the need for the new raw materials. For instance, various metals can be recovered from circuit boards and other electronics can be recycled.

Electronics Recycling Supports the Community

Donating your old electronics plays an important role in the provision of refurbished products which can be of great help to certain industries, small organizations and non-profitable organizations. It also helps individuals gain access to technology that they could not have otherwise afforded.

Electronics Recycling Creates Employment Locally

Considering that around 90 percent of electronic equipment is recyclable, electronics recycling can play a significant role in creating employment. This is because new firms dealing with electronics recycling will form and existing firms will look to employ more people to recover recyclable materials. This can be triggered by the increase in the demand for electronics recycling.

Electronics Recycling Helps Protect Public Health and the Environment

Many electronics have toxic or hazardous materials such as mercury and lead, which can be harmful to the environment if disposed in trashcans. Reusing and recycling electronics safely helps in keeping the hazardous materials from harming humans or the environment. For example, certain electronic components and batteries are hazardous since they have lead in them. Printed circuit boards contain harmful materials such as cadmium, lead, mercury and chromium.

Instead of keeping old electronics or dumping them in landfills, recycling or reusing them is an appropriate option that should be supported by individuals and organizations. Considering the benefits of electronics recycling, it is very important that people in various parts around the world embrace this concept.

Creates Jobs

E-waste recycling creates new jobs for professional recyclers and creates a second market for the recycled materials.

Do's & Don'ts

Do's:

- Always look for information on the catalogue with your product for end-of-life equipment handling.
- Ensure that only Authorized Recyclers/Dismantler handle your electronic products.
- Always call at our toll-free No's to Dispose products that have reached end-of life.
- Always drop your used electronic products, batteries or any accessories, when they reach the end of their life at your nearest Authorized E-Waste Collection Points.
- Always disconnect the battery from product and ensure any glass surface is protected against breakage.

Don'ts:

- Do not dismantle your electronic Products on your own.
- Do not throw electronics in bins having "Do not Dispose" sign.
- Do not give e-waste to informal and unorganized sectors like Local Scrap Dealer/ Rag Pickers.
- Do not dispose your product in garbage bins along with municipal waste that ultimately reaches landfills.

E-Waste Management Plan

M/s. MATRIX COMSEC PVT LTD has partnered with **E-Waste Recyclers India (EWRI)** to comply with the new India E-Waste management and handling rules in providing drop-of centers and environmentally sound management of end of life electronics.

EWRI has obtained authorizations from the appropriate governmental agency for their processing facilities. EWRI will receive and recycle customer returned equipment, including all the e-waste. Customers can drop their e-waste in the drop-box provided at various collection centers of EWRI.

A list of collection centers along with the address is mentioned below.

The customers can also call on the following toll free number (1800-102-5679) from Monday to Friday between 10:00 AM to 5:30 PM to get details about the collection centers.

Collection Centers:

State/ City	Location	Logistic	Address	Toll-Free Number
Delhi	Rangpuri	Professional Logistics	Rangpuri, Milakpur Kohi Rangpuri, Rangpuri, New Delhi - 110037	1800-102-5679
Gurugram	Gurugram	Professional Logistics	295, LIG Colony, Sector 31, Gurugram, Haryana - 122022	1800-102-5679
Jharkhand	Dhanbad	Professional Logistics	Sardar Patel Nagar, Dhanbad, Jharkhand - 826004	1800-102-5679
Noida	Salarpur Khadar	Professional Logistics	2, Gejha Rd, Goyal Colony, Salarpur Khadar, Sector 102, Noida, Uttar Pradesh - 201304	1800-102-5679
Mumbai	Vashi	Professional Logistics	Plot-92,gala no 01,Sector 19C Vashi Navi Mumbai - 400705	1800-102-5679
Pune	Vallabh Nagar	Professional Logistics	No.3/20,Near Ashok Sah Bank, Vallabh Nagar, S.T.Stand Road, Pimpri, Pune - 302021	1800-102-5679
Odisha	Cuttack	Professional Logistics	Cuttack, Odisha	1800-102-5679
Hyderabad	Secunderabad	Professional Logistics	4,Block-3,4th Shatter at 179, MPR Estates Near Old Check Post Old Bowaenpally Secunderabad, Hyderabad - 500011	1800-102-5679
Bangalore	Yeshwanthpur	Professional Logistics	No.44 1st floor 2nd main D.D.U.T.T.L. Yeshwanthpur, Bangalore - 560022	1800-102-5679
Mangalore	Bhathery Road Boloor	Professional Logistics	Opp. Hindustan Lever Ltd, Sulthan, Bhathery Road Boloor, Mangalore (KA) - 575003	1800-102-5679
Jharkhand	Ranchi	Professional Logistics	Ranchi, Jharkhand	1800-102-5679

Chennai	Sennerkuppa m	Profession al Logistics	27,Sakthi Nagar Phase-II, Sennerkuppam, Near Bisleri Water Plant, Chennai - 600056	1800-102-5679
Rajasthan	Jaipur	Profession al Logistics	A-81, 200 ft. By Pass, Heerapura, Jaipur, Rajasthan - 302021	1800-102-5679
Bokaro	Odisha	Profession al Logistics	Cuttack, Odisha, India	1800-102-5679
Guwahati	Kundil	Profession al Logistics	HN-34, Kundil Nagar Basistha Chariali, Near Parbhat Apartment, Guwahati - 781029	1800-102-5679
Lucknow	Kanpur Road	Profession al Logistics	S-175,Ist Floor Transport Nagar Near RTO Kanpur Road Lucknow - 226004	1800-102-5679
Madhya Pradesh	Indore	Profession al Logistics	284 AS-3 Scheme No.-78,Vijay Nagar, Indore, Madhya Pradesh	1800-102-5679
Ahmedabad	Pushp Penament	Profession al Logistics	Shop No D-18, Pushp Penament, Behind Mony Hotel, Isanpur, Ahmedabad	1800-102-5679
Patna	Malyanil buddha	Profession al Logistics	Dr. A.K Pandey (IPS) Malyanil buddha Colony, Patna (Bihar) - 800001	1800-102-5679
Andhra Pradesh	Vishakapatna m	Profession al Logistics	Shop No.8, New Gajuwaka, Opp. High School Road, Vishakapatnam, Andhra Pradesh - 530026	1800-102-5679
Chandigarh	Pharbhat Road	Profession al Logistics	Shop no:-19, Pharbhat Road, Opp:- Tennis Academy, Zirakpur, Chandigarh, Punjab	1800-102-5679
Kolkata	B.T. ROAD DUNLOP	Profession al Logistics	156A/73, Northern Park, B.T. Road Dunlop, Kolkata -700108	1800-102-5679
Odisha	Bhubaneswar	Profession al Logistics	Acharya Vihar - jaydev Vihar Rd, Bhubaneswar, Odisha	1800-102-5679

MATRIX COMSEC
Head Office:
394-GIDC, Makarpura,
Vadodara – 390010, India.
Phone:(+91)18002587747
E-mail:Tech.Support@MatrixComsec.com

www.matrixvideosurveillance.com