



clareVISION™

User Manual

Safety Instructions

This manual is intended to ensure that user can use the product properly without danger or any property loss. Please read it carefully and do not discard for future reference. Precaution measures are divided into “**WARNINGS**” and “**CAUTIONS**” as below:

WARNING: Neglecting any of the warnings may cause serious injury.

CAUTIONS: Neglecting any of the CAUTIONS may cause injury or equipment damage.

| | |
|---|--|
|  <p>Warning Follow these safeguards to avoid death or serious injury</p> |  <p>Caution Follow these precautions to Prevent potential injury or Property loss</p> |
|---|--|



- Enclosure could be hot during operation in high ambient temperature environments
- NEC safety regulations must be followed during the installation of this product.
- Please use a power supply that meets the power requirements found in the data sheet.
- Do not connect multiple cameras with a single power adapter
- Shut down the power while connecting or dismounting the device.
- The device should be firmly fixed when installed onto the wall or beneath the ceiling.
- Shut down the power and unplug the power cable immediately when there is smoke, odor, or noise rising from the CAMERA.



- Make sure the power supply voltage is correct before using the camera.
- Do not drop objects onto the device or vibrate the device vigorously.
- keep the device away from locations where magnetic interference is present.
- Avoid installing the device where the surface is vibrating or subject to shock (ignoring this may damage the device).
- Do not aim the camera lens at a strong light source such as the sun or incandescent lamp. The strong light source can cause damage to the camera.
- Do not touch the heat sink in the product directly.
- When cleaning, wipe off the dirt on the casing with a soft cloth. When cleaning the dirt, it should be cleaned with a dry cloth. When the dirt is not easy to remove, it can be wiped clean with a neutral detergent. Do not use alkaline cleaner to wash. If there is dust on the lens, wipe the lens with a lens cloth.
- Properly configure all passwords and other related product security settings and keep your username and password in a safe place.

Contents

| | |
|--|----|
| Chapter 1: Product Introduction..... | 5 |
| 1.1 Product Manual..... | 5 |
| 1.2 Product Features..... | 5 |
| Chapter 2: Operating instructions | 6 |
| 2.1 Network Connections | 6 |
| 2.1.1 Wired network connection | 6 |
| 2.1.2 Wireless internet access | 6 |
| 2.2 Detecting and Changing the IP Address..... | 6 |
| 2.3 Setting the Camera over the Wireless Access Network (WAN)..... | 7 |
| 2.3.1 Static IP Connection | 8 |
| 2.3.2 Dynamic IP Connection | 8 |
| Chapter 3: Accessing ClareVision Cameras VIA Web Console | 10 |
| 3.1 Login and Exit..... | 10 |
| 3.1.1 Login..... | 10 |
| 3.1.2 Change password..... | 10 |
| 3.1.3 Forgot password | 11 |
| 3.1.4 Exiting Web Console | 13 |
| 3.2 Install the necessary browser plugins..... | 13 |
| 3.3 Main interface description..... | 15 |
| Chapter 4: Live View | 15 |
| 4.1 Live preview | 15 |
| 4.2 Camera Settings, PTZ, Zoom, Cruise | 16 |
| Chapter 5: Playback | 18 |
| Chapter 6: Configuration | 19 |
| 6.1 Local Configuration | 19 |
| 6.2 System..... | 20 |
| 6.2.1 System Configuration..... | 20 |
| 6.2.2 Scheduled Reboot..... | 22 |
| 6.2.3 Log Search..... | 23 |
| 6.2.4 Security | 23 |
| 6.3 Storage | 25 |
| 6.3.1 Plan configuration..... | 25 |

| | |
|---|----|
| 6.3.2 Storage management..... | 26 |
| 6.4 Network | 28 |
| 6.4.1 Basic Setup | 28 |
| 6.4.2 Advanced Setup | 29 |
| 6.5 Video | 32 |
| 6.5.1 Video | 32 |
| 6.5.2 Audio | 33 |
| 6.6 Image..... | 33 |
| 6.6.1 Image..... | 33 |
| 6.6.2 OSD..... | 38 |
| 6.7 Events..... | 39 |
| 6.7.1 Ordinary Events..... | 39 |
| 6.7.2 Smart Event..... | 47 |
| Chapter 7: Wi-Fi Cameras | 55 |
| 7.1 Setting Up Wi-Fi Cameras | 55 |
| 7.1.1 Connect the Camera to the Home LAN..... | 55 |
| 7.1.2 Connect to Wi-Fi | 56 |
| 7.2 Changing the WiFi Password on a WiFi Camera | 57 |
| 7.2.1 Connect the Camera to the Home LAN..... | 57 |
| 7.2.2 Change Wi-Fi Password..... | 58 |
| 7.3 Configure WiFi Settings..... | 59 |
| 7.3.1 Configure WiFi Settings..... | 59 |

Chapter 1: Product Introduction

1.1 Product Manual

ClareVision cameras video and audio recording capabilities, intelligent motion detection, notifications, alerts, and transmits video over your network.

You can use the ClareVision App for standalone camera viewing or using it with the ClareHome App and ClareOne Panel to view and manage live video feeds and recordings. For advanced configuration settings, you can use a web browser to set camera parameters such as system parameter settings, OSD display settings and other parameters. This manual provides instructions on all pertinent camera uses and settings.

1.2 Product Features

This section introduces the camera product features:

- **System functions**
- **Video and capture functions**

The cameras support video recording and capture. You can install a micro-SD card, configure a network storage disk, or connect the camera to a Network Video Recorder (NVR).

- **User management**

You can manage multiple different users through the system administrator "**admin**" user. There are multiple permission levels available to control access to certain camera features.

- **Video playback**

You can playback video from the local memory card, network storage, or an NVR.

- **Event detection function**

There are two camera series: Value Series and Performance Series. The Value Series supports basic event detection. The Performance Series supports advanced event detection.

- **Basic event**

Basic events include Motion Detection, Privacy Mask, Video Tampering, Exception, Alarm Input/Output, Flash alarm, Audible alarm output, and ROI.

- **Advanced event**

Advanced events include Human Body Detection, Intrusion Detection, Line Cross Detection, Loiter Detection, and People Gather Detection.

- **Internet protocols**

The camera supports TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, RTP, RTSP, NTP, SMTP, UDP, TCP, DNS, DDNS and other network communication protocols. Additional support includes ONVIF2.4, CGI, mainstream manufacturers agreement and other Internet protocols.

- **Cloud storage function**

All camera support cloud storage. Cloud storage allows the storage of recorded video and events to your choice of cloud storage providers. For now, the cameras support Google Drive and Dropbox for cloud storage.

Chapter 2: Operating instructions

2.1 Network Connections

2.1.1 Wired network connection

Connect the camera to the Local Area Network (LAN) via switch or a router as shown in Figure 2-1:



Figure 2-1

2.1.2 Wireless internet access

Some cameras support wireless network connectivity. Figure 2-2 shows a camera in a wireless network environment connected to a computer.



Figure 2-2

2.2 Detecting and Changing the IP Address

To access the IP address of a ClareVision camera, proceed as follows:

Step 1: Search for the cameras IP address.

Using the [IP Search Tool](#) which can be downloaded from the [Clare Help Center](#) by following the [link HERE](#) or from the resources tab on the SnapAV device page, you can search for the online cameras on the LAN and display the IP, MAC address, version, port, and other information of the cameras, as shown in Figure2-3:

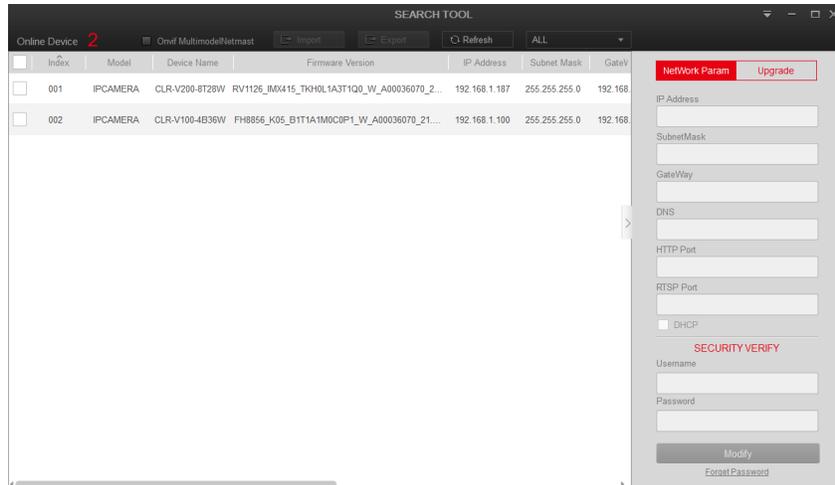


Figure 2-3

Use the IP Search Tool to discover all available online devices found on the network.

Step 2: Modify the IP address of the IP camera and connect the computer to the same network segment.

In the IP Search Tool, select the camera IP address you would like to modify. On the right-side window, modify the IP address and gateway as needed and enter the camera password (by default, this password is the first 6 characters of the UUID unless it was changed before). Tap "**Modify**" to confirm changes.

Step 3: Open the web browser and navigate to the IP address of the camera and enter the camera login information into the web console.



IMPORTANT NOTES:

When setting the IP address of the camera, please keep the device IP address and the computer IP address on the same LAN segment.

DHCP is enabled by default for the cameras.

The default administrator username is "admin".

The default password is the **first six characters of the UUID** found on the camera, packaging box, and Quick Start Guide. You will be prompted to change the password once the default login information is entered.

2.3 Setting the Camera over the Wireless Access Network (WAN)

This section explains how to connect the camera to the WAN with a static IP or a dynamic IP.

2.3.1 Static IP Connection

Before you start:

Please apply a static IP address from an ISP (Internet Service Provider). With the static IP address, you can connect the camera via a router or connect it to the WAN directly.

Ensure the router is connected to the camera as shown in Figure 2-5:

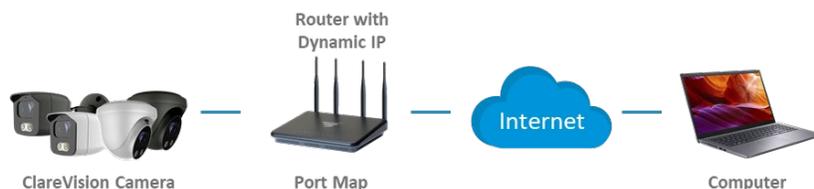


Figure 2-4

Specific steps are as follows:

1. Connect the camera to the router.
2. Assign a LAN IP address, the sub net mask, and the gateway. For details, please refer to 7.3.1.
3. Save the static IP in the router.
4. Set port mapping, e.g., 80, 8000, and 554 ports. The steps for port mapping vary according to different routers. Please call the router manufacturer for assistance with port mapping.
5. Access the camera through a web browser.

2.3.2 Dynamic IP Connection

Before you start:

Please apply a dynamic IP from the ISP. With the dynamic IP address, you can connect the camera to a modem or router.

The router is connected to the camera:

1. Connect the camera to the router.
2. Assign a LAN IP address, the subnet mask, and the gateway. For details, please refer to 7.3.1.
3. In the router, set the PPPOE username, password and confirm the password.
4. Set port mapping, e.g., 80, 8000, and 554 ports. The steps for port mapping vary with different routers. Please call the router manufacturer for assistance with port mapping.
5. Apply a domain name from a domain name provider.
6. Configure the DDNS settings in the setting interface of the router.
7. Visit the camera via the applied domain name.



IMPORTANT NOTE:

The obtained dynamic IP address is assigned via PPPOE. The IP address will always change 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). Please follow the steps below for normal domain name resolution and private domain name resolution to solve the problem.

Normal Domain Name Resolution as shown in Figure 2-5:

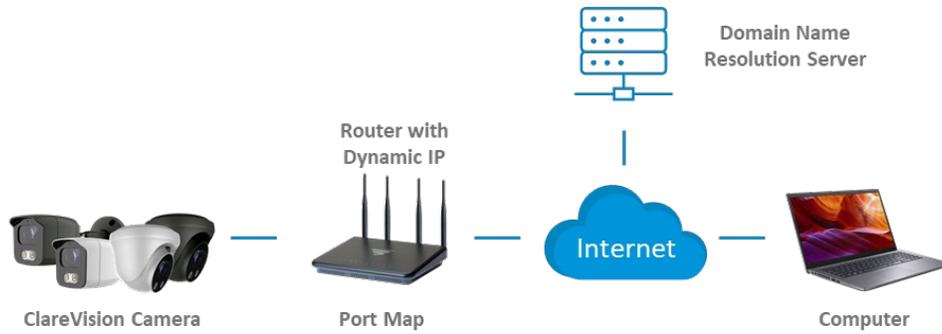


Figure 2-5

Specific steps are as follows:

1. Apply a domain name from a domain name provider.
2. Configure the DDNS settings in the DDNS Settings interface of the camera.
3. Visit the camera via the applied domain name.

Private Domain Name Resolution, as shown in Figure 2-6:

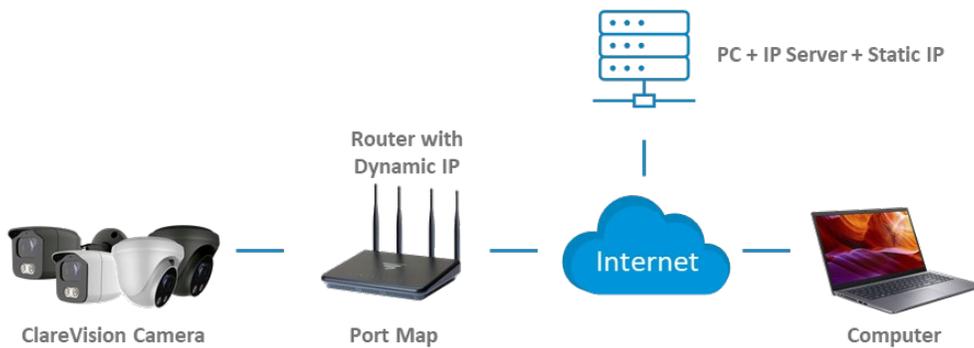


Figure 2-6

Specific steps are as follows:

1. Install and run the IP Server software in a computer with a static IP.
2. Access the camera through the LAN with a web browser or the client software.
3. Enable DDNS and select IP Server as the protocol type.

Chapter 3: Accessing ClareVision Cameras VIA Web Console

3.1 Login and Exit

3.1.1 Login

Open a browser (for optimal experience and to view video playbacks in the browser, Internet Explorer is recommended) on your computer and enter the camera IP address in the web address bar.

Enter “admin” for the username and the first six characters of the UUID for the password.

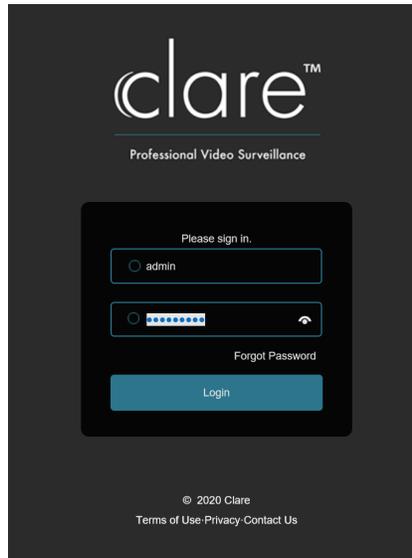


Figure 3-1



IMPORTANT NOTE:

If you have modified the IP address of the camera, please log in with the newly set IP address.

3.1.2 Change password

After a successful login, the interface will prompt you to change the password, as shown in Figure 3-2 and 3-3:

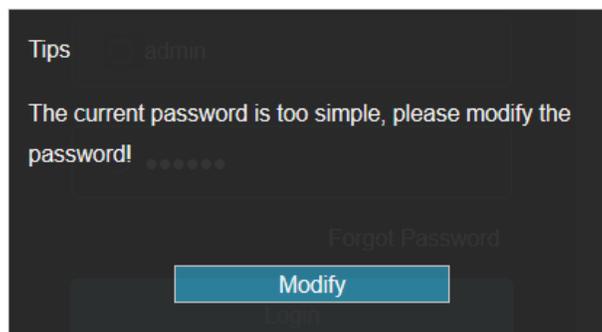


Figure 3-2

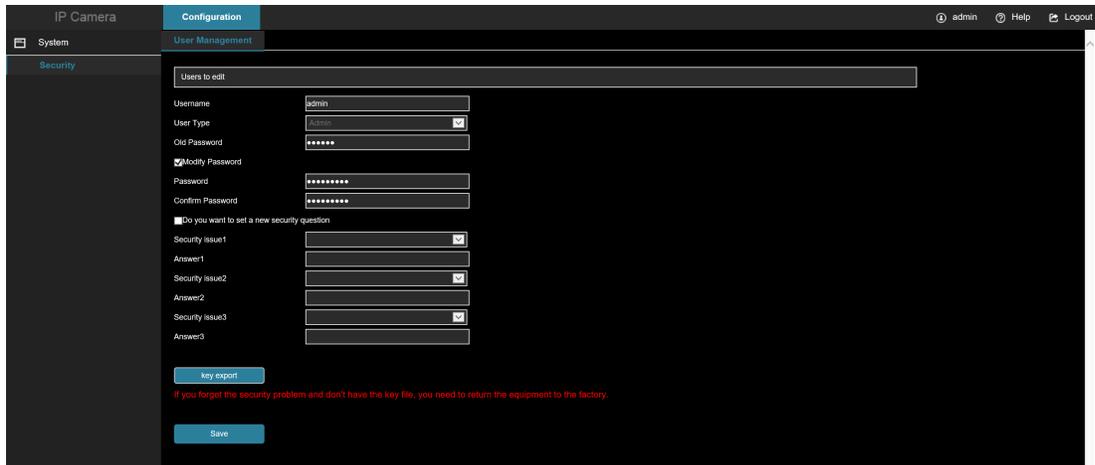


Figure 3-3

To change your password, follow these steps:

1. Enter the old password and enter the new password in the Password and Confirm Password fields.
2. Set security questions 1, 2, and 3, and enter the answers.
3. Click "**key export**" to save the key file to your computer. It is recommended to have the customer save this key file in their email or on their computer.
4. Click "**Save**" to complete the password modification.



IMPORTANT NOTE:

When setting a new password, you must set at least 8 characters and contain both letters and numbers.

3.1.3 Forgot password

If you forget your password, you can reset the password by using the security question verification or security key verification.

Security question verification

1. On the login interface, click "**Forgot Password**".
2. Select the verification method as "**Security question validation**" (as shown in Figure 3-4), enter the answers to security questions 1, 2, and 3, and click "**Next**".
3. Enter the new password and confirm the password (as shown in Figure 4-4) and click "**Next**".



Figure 3-4

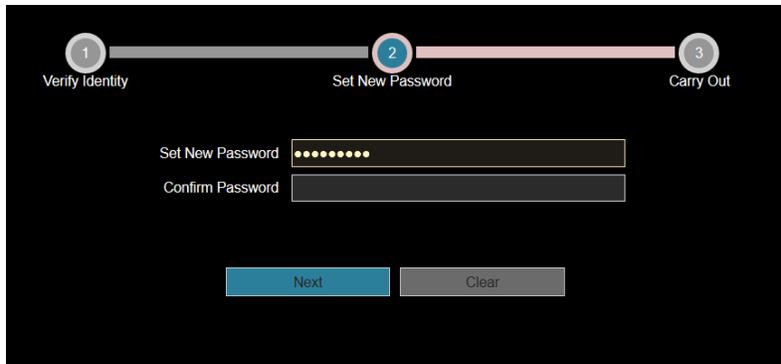


Figure 3-5

4. Click "**Re-login**" to return to the login interface (as shown in Figure 3-5).

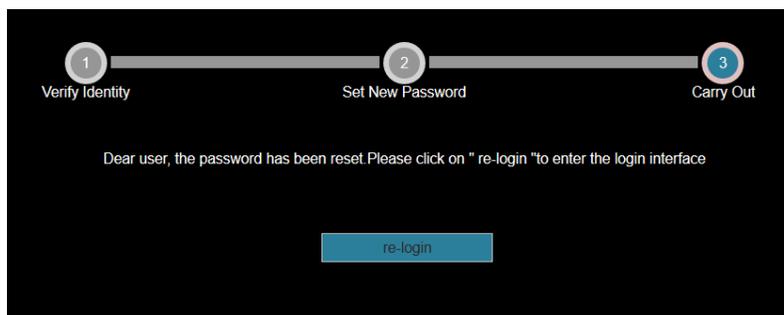


Figure 3-6

Security Key verification

1. On the login interface, click "**Forgot Password**".
2. Select the verification method as "**Security Key Verification**" (as shown in Figure 3-7) and click "**Import**" to import the key file exported when the password is modified.

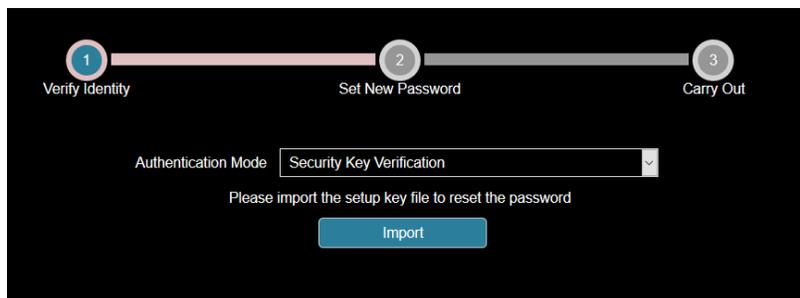


Figure 3-7

3. Enter the new password and confirm the password (as shown in Figure 3-8) and click "**Next**".

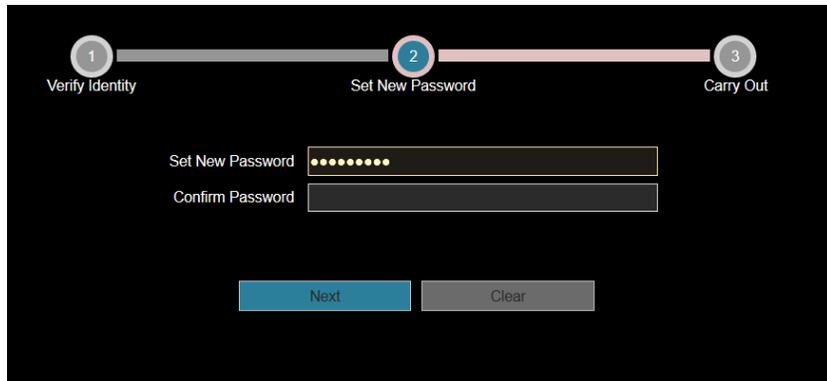


Figure 3-8

4. Click "**Re-login**" to return to the login interface (as shown in Figure 3-9).

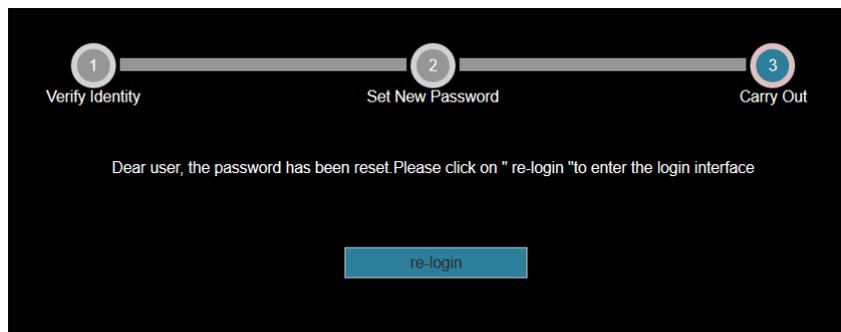


Figure 3-9



IMPORTANT NOTE:

When selecting "**Security question validation**", enter the correct answers to 2 questions to enter the "**Set New Password**" interface and proceed to the next step.

When setting a new password, you must set at least 8 digits and contain both letters and numbers to set it successfully.

A camera key file can be used multiple times to reset the password if you forget it.

3.1.4 Exiting Web Console

When you access the camera web console, you can quickly log out of the console by tapping on the "**Logout**" button in the top-right corner of the screen.

3.2 Install the necessary browser plugins



IMPORTANT NOTE:

When you use the IE browser, you need to download and install the prompted plugin.

The plugin of smart camera is "**HsIPCctl.exe**".

Open Internet Explorer and log into the camera to be prompted to download and install the web plugin, as shown in Figure 3-10.

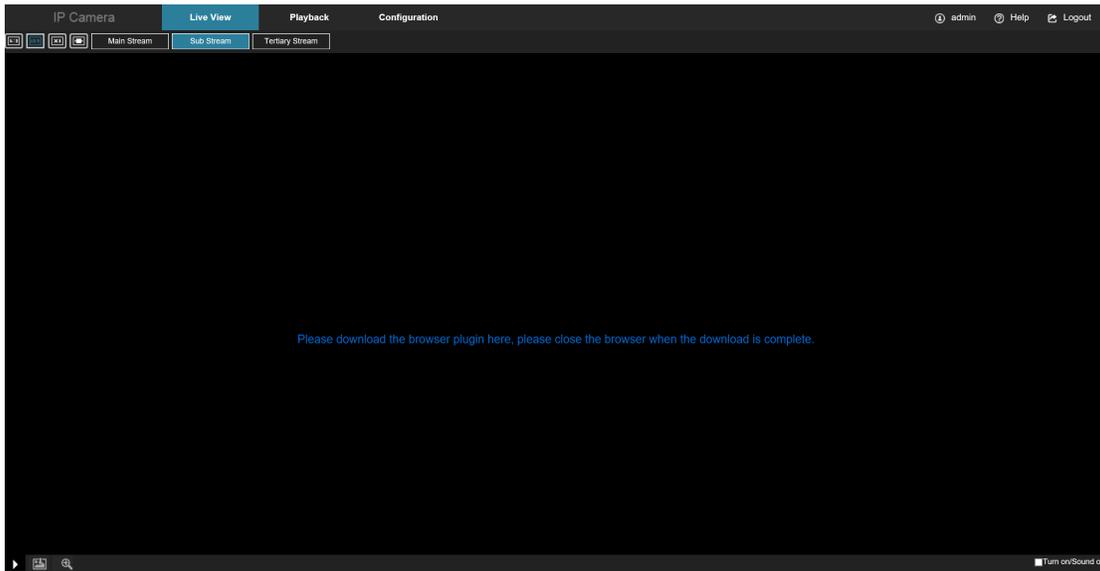


Figure 3-10

Click "Please download the browser plugin here, please close the browser when the download is complete."



Figure 3-11



IMPORTANT NOTE:

If the system prompts "Installation Failure", please uncheck the "Cancel Protection Mode" in the "Internet Options" security settings under Internet Options and enter the "Custom Level" ActiveX control Settings as show in Figure 3-12. Reinstall the plugin.

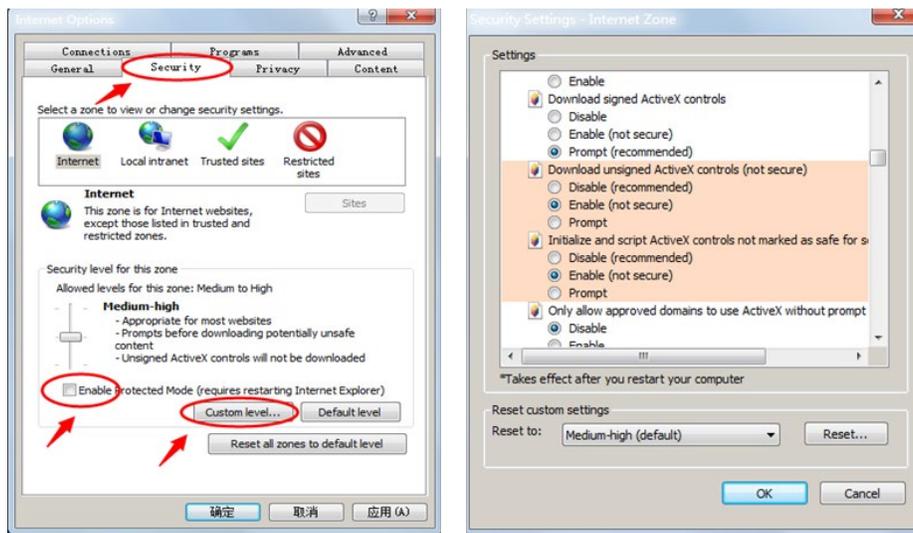


Figure 3-12

3.3 Main interface description

In the camera main interface, you can preview real-time video, playback, configure and use PTZ controls.

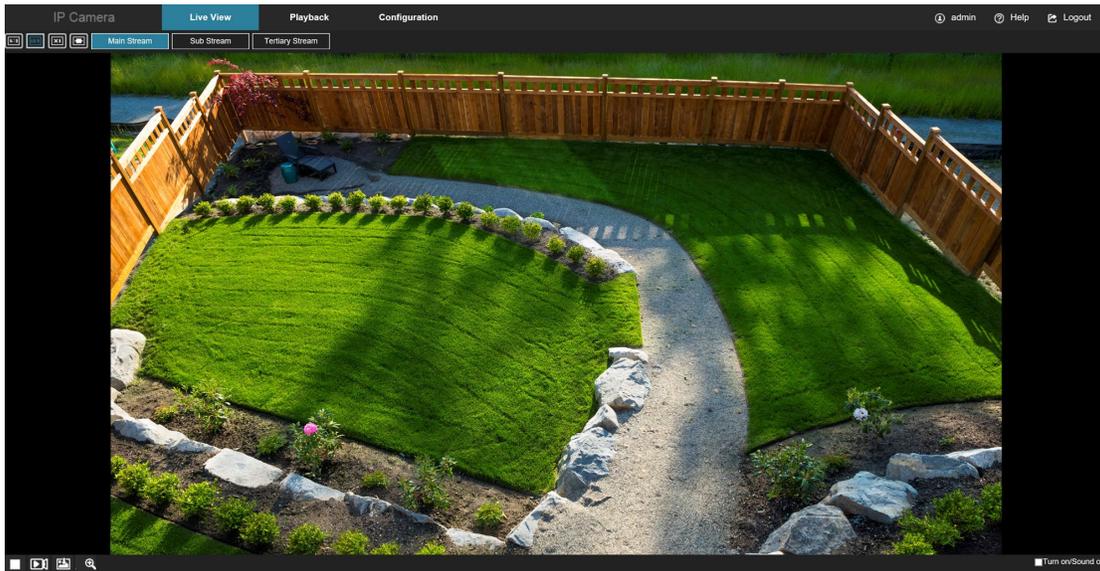


Figure 3-13

- **[Live View]** In the camera Live View, you can modify the aspect ratio, change the encoding (H.264, H.265 etc.), and capture video.
- **[Playback]** Playback live video or events stored on the camera memory card.
- **[Configuration]** All camera configuration parameters can be found under the Configuration tab.

Chapter 4: Live View

4.1 Live preview

Tap "**Live View**" to enter the camera live view interface, as shown in Figure 4-1:

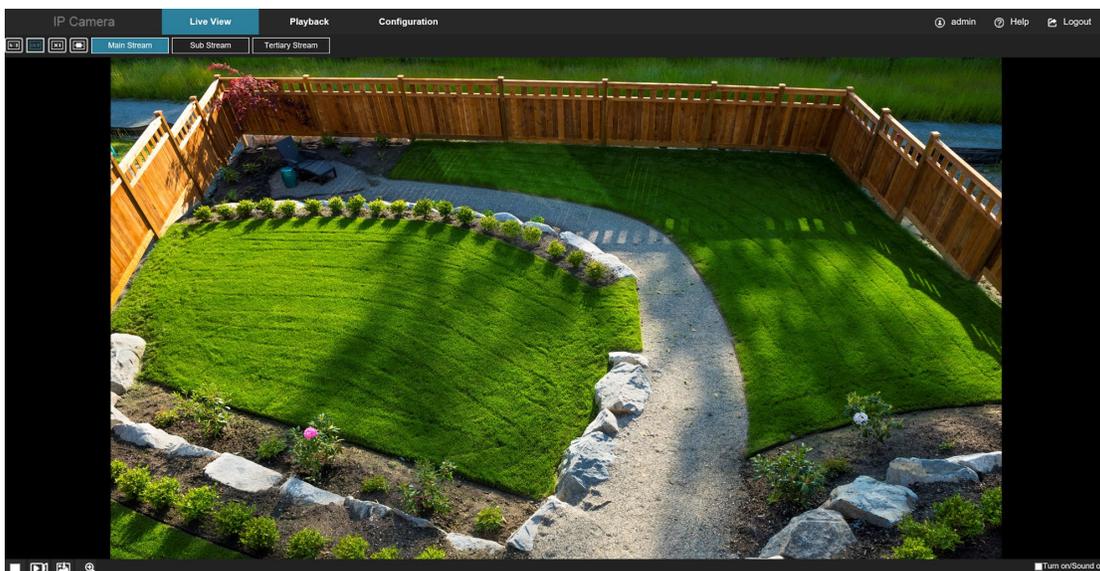


Figure 4-1

- **[Aspect Ratio Controls]** In the real-time preview interface on the top left of the preview ratio option, click "4: 3", "16: 9", "X1", "Full Screen" to change the aspect ratio.
- **[Stream Controls]** You can access any of the streams (two or three depending upon the model) by selecting "Main Stream", "Sub Stream", and "Tri Stream"

The preview interface operation buttons are shown in Table 5-1.

| Icon | Description |
|--|---|
|  | The window size is 4:3. |
|  | The preview screen is displayed in its original size. |
|  | The window size is 16:9. |
|  | Self-adaptive window size. |
| <div style="background-color: black; color: white; padding: 2px; margin-bottom: 2px;">Main Stream</div> <div style="background-color: black; color: white; padding: 2px; margin-bottom: 2px;">Sub Stream</div> <div style="background-color: black; color: white; padding: 2px;">Tertiary Stream</div> | To switch the real-time preview stream (the mainstream is a high-definition stream, and the sub-stream is a standard definition stream). |
|  | Start/Stop live view. |
|  | Manually start/stop recording. |
|  | Manually capture the picture. |
|  | Turn on / off the electronic zoom function. To use the electronic zoom function in the preview image, hold down the left mouse button to select the electronic zoom area. |
| <input type="checkbox"/> Open/Close Sound | Turn on/off Sound. |

Table 4-2

4.2 Camera Settings, PTZ, Zoom, Cruise

Tap " " on the right side of the window to display the PTZ control interface. Tap " " to hide the PTZ control interface, where you can set the direction of the PTZ rotation of the camera, zoom in / out, focus - / focus +, one-key focus, lens initialization, cruise, as shown in Figure 4-3:

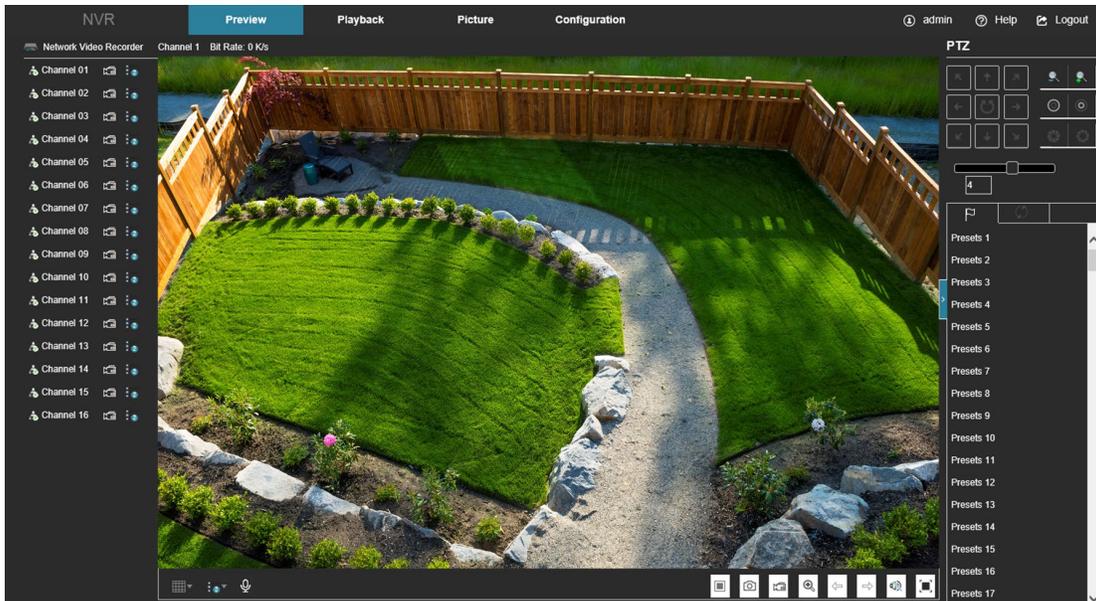


Figure 4-3

The PTZ control menu is shown in Figure 4-4 below:



Figure 4-4

The PTZ control interface operation buttons are shown in Table 4-5 below.

| | |
|---|---|
|  | <p>Long press the arrow keys to control the horizontal and vertical direction, such as vertical rotation.</p>  |
|  | <p>"Zoom-" and "Zoom +".</p>  |
|  | <p>"Focus-" and "Focus +".</p>  |
|  | <p>One Key Focus.</p> |

| | |
|---|---|
|  | Init Camera. |
|  | Adjust the speed of rotation of the pan / tilt. |

Table 4-5

Chapter 5: Playback

In the main interface, click “**Playback**” to enter the video playback interface. Playback video can be stored in the camera SD card for query, playback, and download operations as show in Figure 5-1:

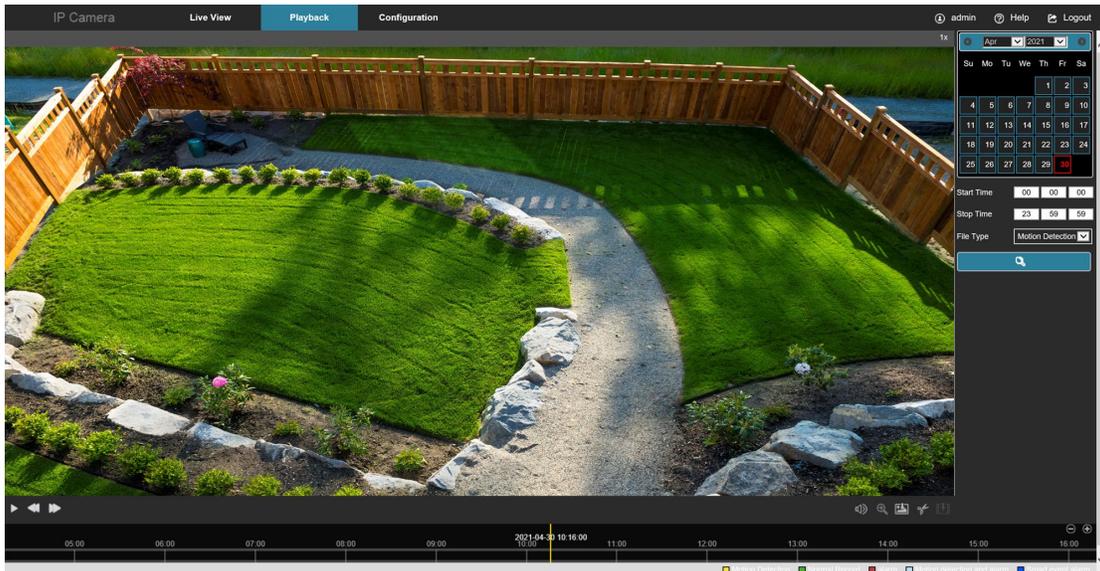
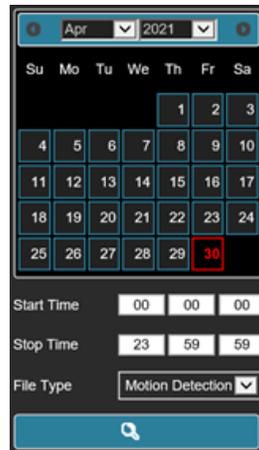


Figure 5-1

Here you can select the video type (ordinary video, event video) and time/date to retrieve the video or events of interest.

- **[Play/Stop]** After searching for the video, click " " to start playing the video. Use the stop button " " to stop playing the video.
- **[Slow Play/Fast Forward]** When playing a video, click " " to slow down the video playback speed, click " " to speed up the video playback speed. See the upper right corner of the interface for the specific playback speed.
- **[Drag and Drop]** Use the timeline at the bottom of the video to move the video to the desired time in the time window.





5-2

- **[Prev Page]** Click to switch to the previous page.
- **[Next Page]** Click to switch the next page.



IMPORTANT NOTE:

This interface works with SD card storage only

Chapter 6: Configuration

Click **"Configuration"** to enter the local configuration interface. Here you can configure the camera system settings, network parameters, video and images settings, events, and more.

6.1 Local Configuration

In the main interface, click **"Configuration → Local Configuration"** to enter the local configuration settings. Here you can set the **"Record File Settings"**, **"Picture and Clip Settings"**, **"Export Configuration"**, and **"Import Configuration"** storage path. Change the path by selecting **Browse**, as shown in Figure 6-1.

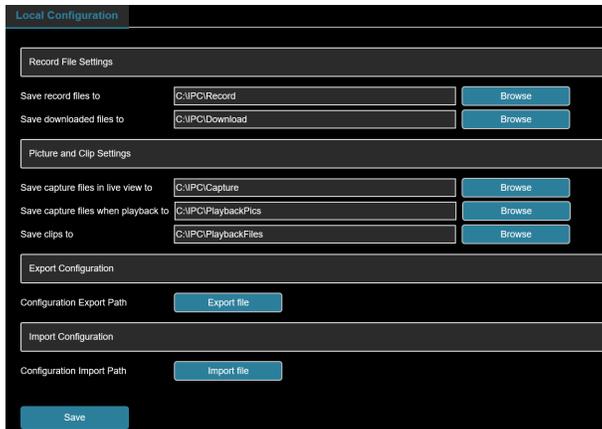


Figure 6-1

- **[Record File Settings]** Set the path for the recorded video files.
 - **[Save record files to]** Set the path for the manually recorded video files.
 - **[Save downloaded files to]** Set the path for the download files.
- **[Picture and Clip Settings]** Set the paths of the captured pictures and clipped video files. Valid for the pictures you captured with the web browser.
 - **[Save capture files in live view to]** Set the path of the manually captured pictures in live view mode.
 - **[Save capture files when playback to]** Set the path of the captured pictures in playback mode.
 - **[Save clips to]** Set the path of the clipped video files in playback mode.
- **[Configure Export Path]** Configure the storage path for camera export parameters.
- **[Configure Import Path]** Configure the storage path for the camera import parameters.

6.2 System

In the main interface, click "**Configuration** → **System**" to enter the system configuration interface. The system consists of System Configuration, Scheduled Reboot, Log Query, and Security.

6.2.1 System Configuration

In the main interface, click "**Configuration** → **System** → **System Configuration**" to enter the system configuration interface.

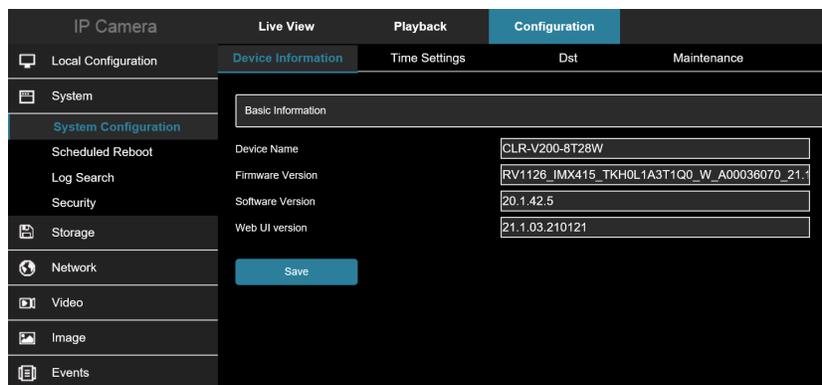


Figure 6-2

Device Information

In the System Configuration interface, click "**Device Information**" to enter the device information configuration settings. Here you can view the basic information of the current camera, as shown in Figure 6-3:

The screenshot shows the 'Device Information' tab in the System Configuration interface. The left sidebar contains a navigation menu with options: Local Configuration, System, System Configuration (selected), Scheduled Reboot, Log Search, Security, Storage, Network, Video, Image, and Events. The main content area is titled 'Basic Information' and contains the following fields:

| | |
|------------------|---|
| Device Name | CLR-V200-8T28W |
| Firmware Version | RV1126_IMX415_TKHOL1A3T1Q0_W_A00036070_21.1 |
| Software Version | 20.1.42.5 |
| Web UI version | 21.1.03.210121 |

A 'Save' button is located below the fields.

Figure 6-3

- **[Device Name]** The name of the current camera.
- **[Firmware Version]** The current camera firmware version.
- **[Software Version]** The current software control version for the camera.
- **[WEB UI Version]** The current page version of the camera.

Time Settings

In the System Configuration interface, click "**Time Settings**" to enter the time settings interface, where you can set the device time, as shown in Figure 6-4.

The screenshot shows the 'Time Settings' tab in the System Configuration interface. The left sidebar is the same as in Figure 6-3. The main content area is titled 'Time Settings' and contains the following fields:

- Time Zone:** A dropdown menu showing 'GMT-05 Eastern Time (US & Canada), Indiana(East), Bogota'.
- Time Sync:** A checkbox that is currently unchecked.
- Time in Camera:** A text field displaying '2021-04-30 10:47:53'.
- NTP:** A radio button that is selected.
- SNTP Server:** A dropdown menu showing 'time.nist.gov'.
- NTP auto-time:** A dropdown menu showing 'Off'.
- Time interval:** A text field with '0' and a 'mins' label.
- Set Manually:** A radio button that is currently unchecked.
- Time Settings:** A row of three dropdown menus showing '2021-04-30', '10', and '51'.
- Synchronize with computer time:** A radio button that is currently selected.
- Computer time:** A text field displaying '2021-04-30 10:47:53'.
- NVR prohibit modification IPC Time:** A checkbox that is currently unchecked.

A 'Save' button is located at the bottom of the page.

Figure 6-4

- **[Time Zone]** Displays the selected time zone.
- **[Time in Camera]** Displays the current device time.
- **[NTP]** Check to enable NTP synchronization.
- **[SNTP Sever]** Select the SNTP server address, including "time.windows.com", "time.nist.gov", "time-nw.nist.gov", "time-a.nist.gov", "time-b.nist.gov".

- **[NTP auto-time]** Select to synchronize the time with the network time server. If this is “OFF”, the camera will synchronize with the NTP server on bootup only.
- **[Time interval]** The time synchronization interval.
- **[Set Manually]** Manually overrides the camera time upon saving.
- **[Synchronize with computer time]** The camera will synchronize with the computer time and date.
- **[NVR prohibit modification CAMERA time]** Select this to block the NVR from updating the camera time.

DST

In the System Configuration interface, click "DST" to enter the daylight-saving time setting interface, where you can enable daylight saving time.



Figure 6-5

Maintenance

In the System Configuration interface, click "Maintenance" to enter the system maintenance settings interface, where you can restart the device, restore factory settings, manual upgrade, online upgrade, as shown in Figure 6-6.

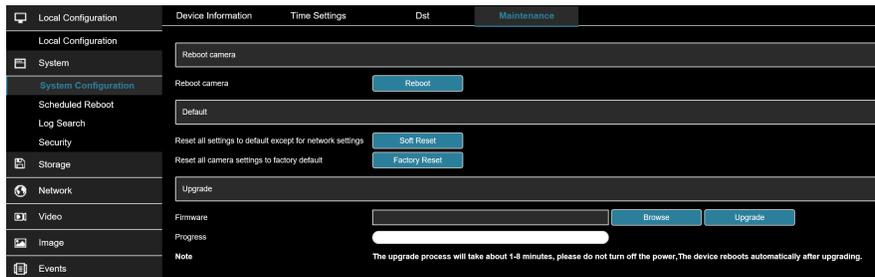


Figure 6-6

- **[Reboot System]** Reboot the camera.
- **[Default]** There are two options: Simple recovery and Full recovery.
 - **Simple recovery:** resets all parameters EXCEPT network parameters to factory default.
 - **Full recovery:** resets all parameters INCLUDING network parameters to factory default.
- **[Upgrade]** Upgrade the firmware from a file located on your computer.

6.2.2 Scheduled Reboot

In the main interface, click "Configuration → System → Schedule Reboot" to enter the scheduled reboot settings interface, where you can set the period and time for the device to restart.

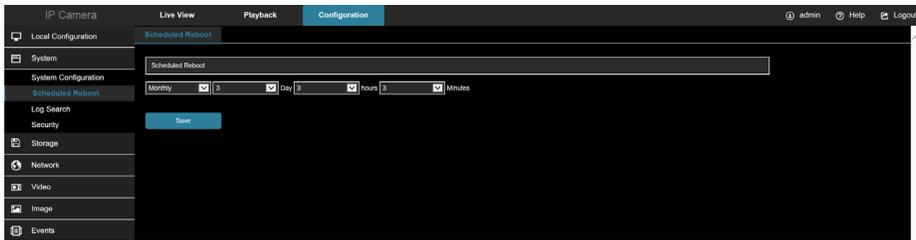


Figure 6-7

6.2.3 Log Search

In the main interface click on the "**Configuration** → **System** → **Log Search**" the log to search the camera log file.



Figure 6-8

- **[Search]** Set the date and start time of the log query, click "Search".
- **[Clear]** Clicking clear will clear the log search.
- **[Log Export]** Save the contents of the current log to the location you specified in txt format.

6.2.4 Security

In the main interface, click "**Configuration** → **System** → **Security**" to enter the user management settings interface, where you can add, edit, delete a user. You can also query the current user information. The admin user must be used to add users. You can add up to 10 users.

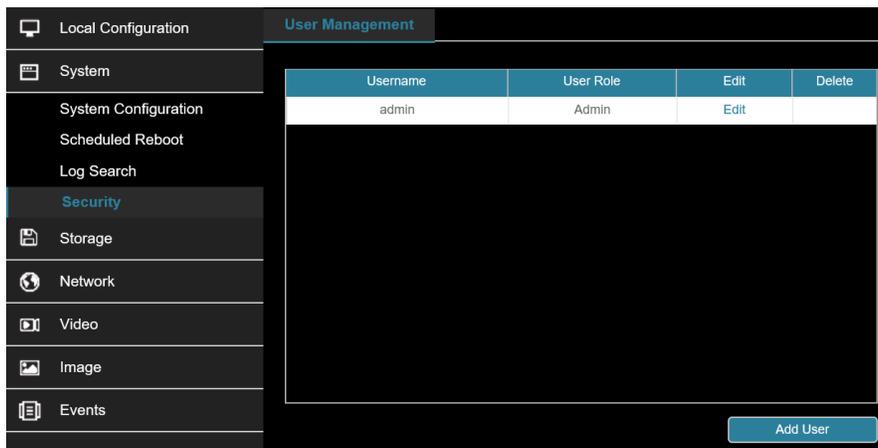


Figure 6-9

Adding a User

1. Click "Add User" to add a user.
2. Input the Username, select "User Type" and input Password.
3. Click "OK" to complete.

Add User as shown in Figure 6-10.

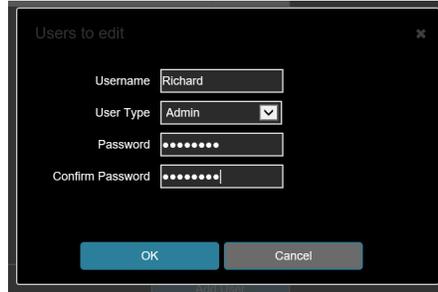


Figure 6-10



IMPORTANT NOTE:

The admin user cannot be deleted, and you can only change the admin password.

User permission descriptions:

Administrator: All permissions.

Operator: All permissions (cannot make system security parameter settings).

Viewer: Only preview permission.

When setting the camera password, the password length is 8-31 characters and must contain numbers and letters.



IMPORTANT NOTE:

When modifying the administrator password, after setting the security question, click "Browse" to select the path, and click "Export" to export the key file, so that the password can be reset if the password is forgotten.

After modifying the administrator password, when the PC and the camera are on the same LAN segment, click "Forget" to reset the password by answering the security question or importing the key.

When you change your password again, you do not have to set a new security question. When you forget your password, you can reset it with the last security question you set.

Edit the User

1. In the user list, select the user to be modified, and click "Edit" to enter the user editing interface.
2. Edit the user type or password, enter the confirm password.
3. Click "OK" to finish editing the user.

Delete Users

1. Click to select the user you want to delete and click "Delete".

2. Click "OK" on the pop-up dialogue box to delete the user.

6.3 Storage

6.3.1 Plan configuration

Rec Setup

1. In the main interface, click "Configuration → Storage → Plan Configuration → Rec Setup" to enter the recording setting interface, as shown in Figure 6-11

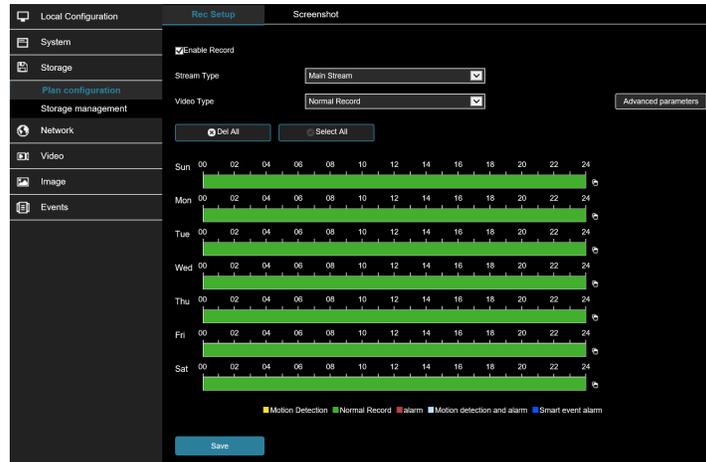


Figure 6-11

2. To enable record, select the stream type (Main Stream, Sub Stream, Tri-Stream), video type (Normal Record, Motion Detection, Alarm, Motion detection and alarm).
3. Set the recording time period.
 - **Method 1:** Click the arming time period, manually fill in the start time and end time, set up and click Save. If you need to delete the time period, click the "Delete" button and then reset the time period.
 - **Method 2:** Click the arming time period, two arrows will be displayed at both ends of the time period. Move the adjustment arrow left or right to adjust the arming time.
4. Repeat step 3 to set up a complete recording plan.
5. Click "Save" to complete the setting of the arming time.

IMPORTANT NOTE



You can set up more than one time period for up to 8 time periods.

"Select All" to enable 24/7 recording.

"Select all" to enable 24 hours of daily video recording throughout the week.

This feature requires an onboard SD card.

- **[Stream Type]** Select to set the stream type of recording, including Main Stream, Sub Stream, Tri-Stream.
- **[Video Type]** Including Normal Record, Motion Detection, Alarm, Motion Detection and Alarm.
- **[Advance parameters]** You can set the Pre-recorded time (Unlimited, 10s, 15s, 20s, 25s,30s) and Video delay (5s, 10s, 30s, 1 min, 2 min, 5 min, 10 min), as shown in Figure 6-12.

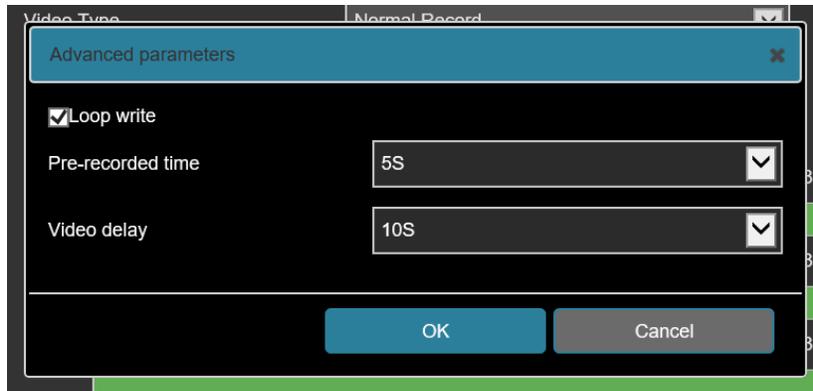


Figure 6-12



IMPORTANT NOTE

The pre-recording time and recording delay can be used for motion detection recording, alarm recording, motion detection and alarm recording.

Screenshot

The snapshot is used to set the relevant parameters such as the image format, resolution, and capture interval

1. In the main interface, click "**Configuration** → **Storage** → **Plan configuration** → **Screenshot**" to enter the screenshot parameter setting interface, as shown in Figure 6-13.

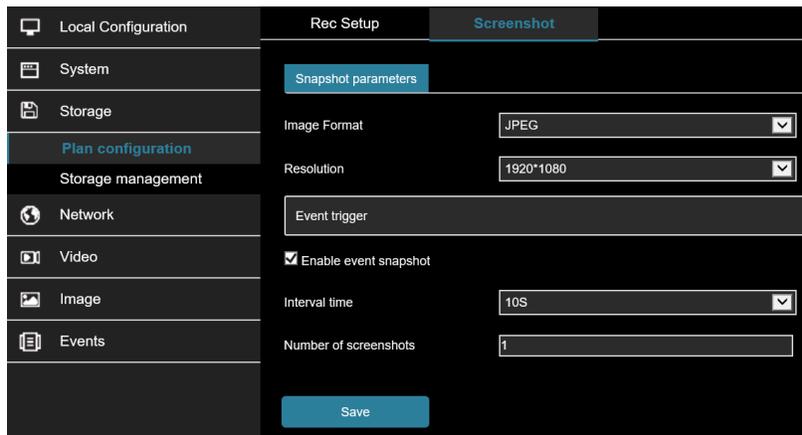


Figure 6-13

2. To enable event snapshot, select the image format, resolution, snapshot interval, and number of snapshots through the drop-down box.
3. Click "**Save**" to complete the configuration.

6.3.2 Storage management

Storage

In the main interface, click "**Configuration** → **Storage** → **Storage management** → **Storage**" to enter the SD Card management settings interface. Here you can view the SD card related information and format the SD card as shown in Figure 6-14:



Figure 6-14

SD card format steps are as follows :

1. Select the disk to be formatted, click "Format".
2. Click "OK".
3. Wait for the format to complete then verify Total Capacity = Residual Capacity

Cloud Storage

When the device triggers an alarm, you can store the alarm picture taken by the device on a cloud server.

Prerequisites:

- You need to have a Google or Dropbox cloud storage account.
- To use this function, the device must be connected to the external network.

1. In the main interface, click "Configuration → Storage → Storage Management → Cloud Storage" to enter the cloud storage configuration interface, as shown in Figure 6-15.

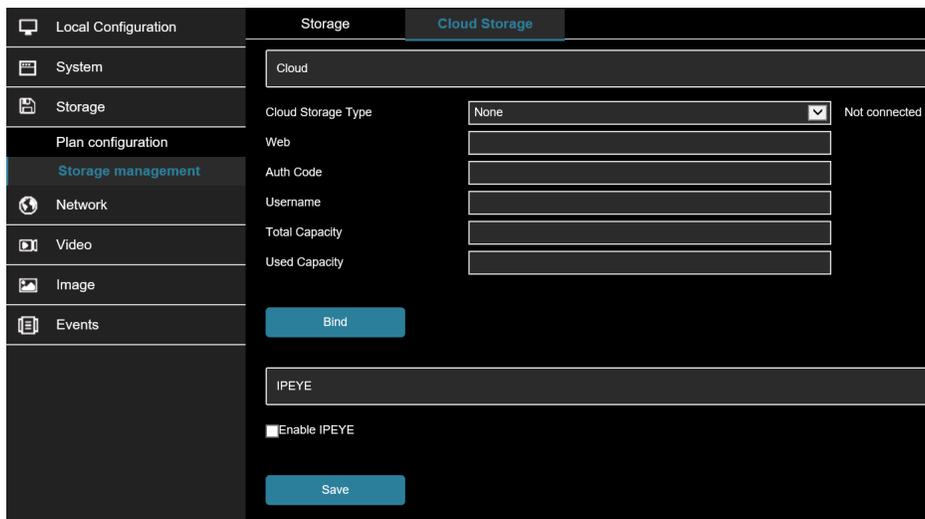


Figure 6-15

2. Select the cloud storage type, such as "Google Drive" or "Dropbox".

3. Follow the prompts to log into the website with a browser on the computer to obtain the "**Verification Code**".
4. Enter the verification code in the "**Auth code**" field of the cloud storage interface.
5. Click "**Bind**".

- **[Cloud Storage Type]** Select the cloud storage type: Dropbox or Google Drive in the drop-down menu.
- **[Auth Code]** Enter the authorization code provided by the web service.

Click on the "**Bind**" after the success. "**Username**", "**Total Capacity**" and "**Used Capacity**" that information will be automatically displayed.

6.4 Network

6.4.1 Basic Setup

TCP/IP

The TCP/IP interface is used to view and configure network parameters such as the camera's IP address. You can enable DHCP or manually modify the camera network parameters. DHCP is ENABLED by default.

Enable DHCP:

Connect the camera to a router with DHCP enabled. The camera will obtain the corresponding IP address, subnet mask, default gateway, and preferred DNS server information.

The specific steps for manually modifying network parameters are as follows:

1. In the main interface, click "**Configuration** → **Network** → **Basic Setup** → **TCP / IP**" to enter the TCP / IP interface, as shown in Figure 6-16.

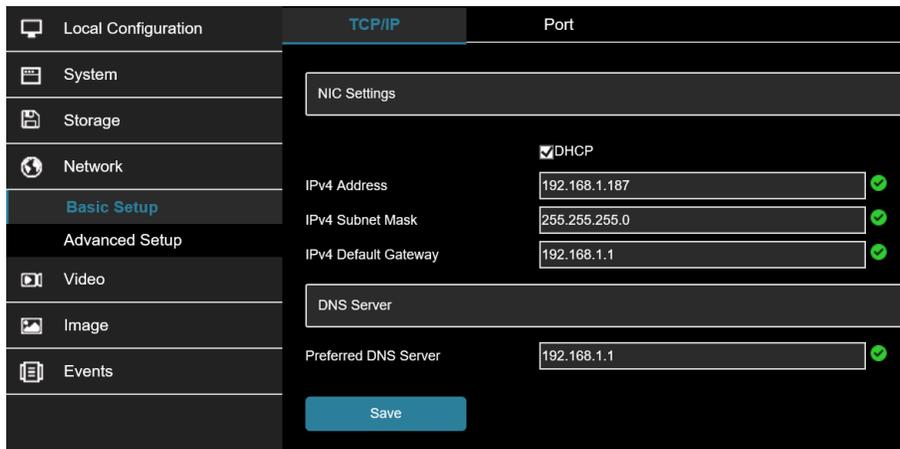


Figure 6-16

2. Set the IP address, subnet mask, gateway, and DNS.
3. Click "**Test**" to make sure the modified IP address is available in the LAN.
4. Click "**Save**" to save the configuration.

Port

In the main interface, click "**Configuration** → **Network** → **Basic Setup** → **Port**" to enter the port setting interface, where you can set the camera network port and protocol port. The network port has:

- HTTP port (default is 80)
- RTSP port (default is 554)
- HTTPS port (default is 443)

Protocol Ports include:

- ONVIF port (enabled default is 8999)
- HIK port (default is 8000)
- XM port (default is 34567)

See Figure 6-17.

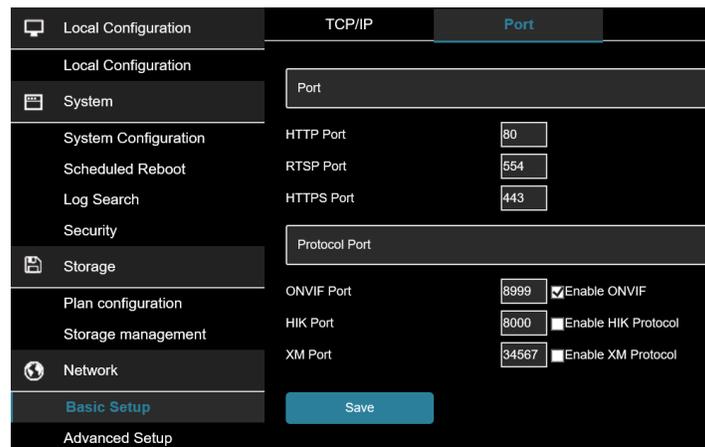


Figure 6-17

6.4.2 Advanced Setup

In the main interface click on the "**Configuration** → **Network** → **Advance Setup**" to enter the advanced configuration interface. Here, you can set the device DDNS, FTP, SMTP, P2P, PPPOE and other functions.

DDNS

After the DDNS (Dynamic Domain Name Server) parameter is set, when the IP address of the camera changes, the system can dynamically update the relationship between the domain name and the IP address on the DNS server. You can use the domain name to access the camera directly without recording the changing IP address.

Prerequisites:

Before configuring DDNS settings, make sure that the device supports the type of domain name resolution server, and log in to the DDNS service provider's website to register a username, password, domain name, and other information on the PC.

1. In the main interface, click "**Configuration** → **Network** → **Advance Setup** → **DDNS**" to enter the DDNS function settings screen, as shown in Figure 6-18:

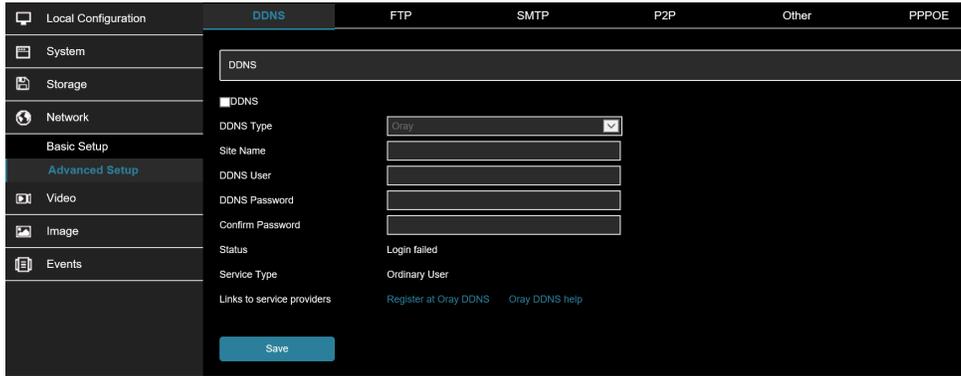


Figure 6-18

2. Enable DDNS, select the DDNS type, and enter the username, password, and site name.
3. Click "**Save**" to save the configuration.
4. Enter the domain name in the PC web browser and press "**Enter**". If you can display the web interface of the device, the configuration is successful. If it is not displayed, the configuration failed.



IMPORTANT NOTE

Access via DDNS domain requires internet access.

FTP

Use FTP service to store alarm pictures.

Prerequisites:

You need to purchase or download the FTP service tool and install the software on your PC.



IMPORTANT NOTE:

To create an FTP user, you need to set the FTP folder write permission, otherwise the image will not be uploaded successfully.

1. In the main interface, click "**Configuration** → **Network** → **Advance Setup** → **FTP**" to enter the FTP server settings interface, as shown in Figure 6-19.



Figure 6-19

2. Enter the server address, port, username, password, password, file upload path, check "Auto Cover", and select to upload the FTP server file format AVI or JPEG.
3. Click "Save" to save the configuration.
4. Click "Test" to confirm whether the network connection and FTP configuration are correct.



IMPORTANT NOTE:

If the test fails, please recheck the network or FTP configuration.

SMTP

Enabling SMTP allows the camera to send alarm information to an email address.

1. In the main interface, click "Configuration → Network → Advance Setup → SMTP" to enter the mail settings interface, as shown in Figure 6-20.

| Local Configuration | DDNS | FTP | SMTP | P2P | Other | PPPOE |
|---------------------|---|-----|------|-----|-------|-------|
| System | Sender | | | | | |
| Storage | Sender: user@domain.com | | | | | |
| Network | SMTP Server: smtp.domain.com | | | | | |
| Basic Setup | Port: 25 | | | | | |
| Advanced Setup | Upload Via SMTP: Message | | | | | |
| Video | Authentication required: <input type="checkbox"/> | | | | | |
| Image | Username: user@domain.com | | | | | |
| Events | Password: ***** | | | | | |
| | Confirm Password: ***** | | | | | |
| | Email recipient(s) | | | | | |
| | Email 1: user@domain.com | | | | | Test |
| | Email 2: | | | | | Test |
| | Email 3: | | | | | Test |
| | Save | | | | | |

Figure 6-20

2. Configure Sender, SMTP Server, Port, Username, Password, and Receiver.
3. Click "Test" to confirm whether the network connection and SMTP configuration are correct.
4. Click "Save" to save the configuration.

Sender

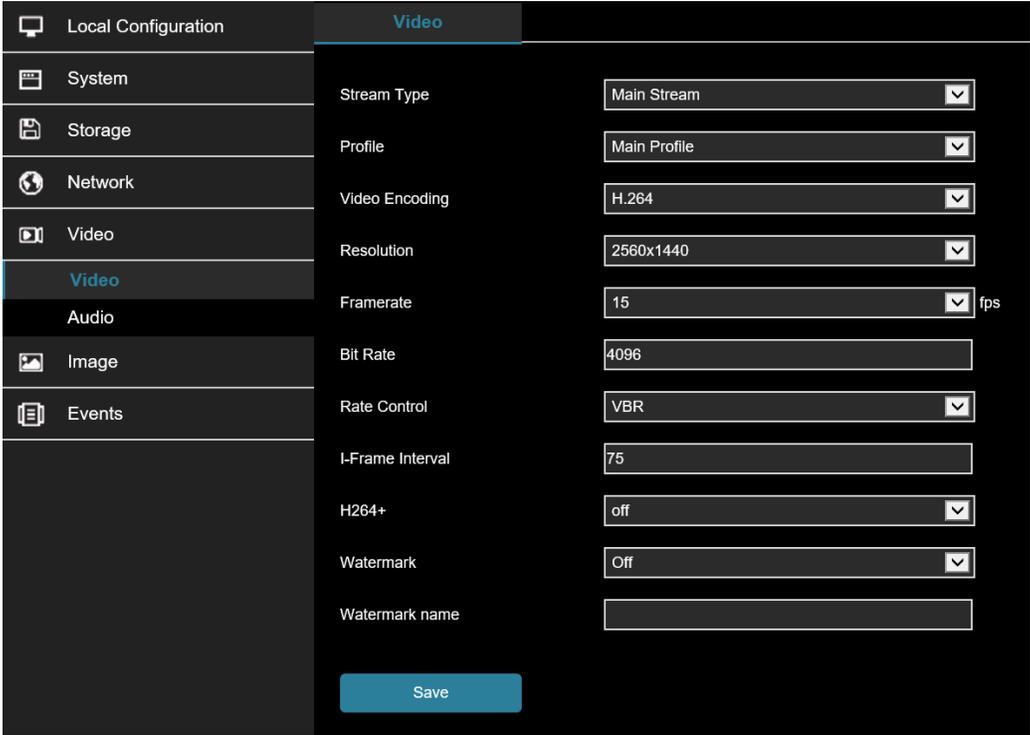
- **[Sender]** Enter the full address of the sender mailbox.
- **[SMTP Server]** Enter your email server address.
- **[Port]** Enter your email server port.
- **[Upload Via SMTP]** In the drop-down menu, select SMTP file format, JPEG image format, AVI video and message for selection.
- **[Alarm Duration]** Set the sending interval.
- **[My Server Requires Authentication]** When enabled, the server and user are authenticated to ensure that the data is sent to the correct client and server.
- **[User Name]** Enter the send mailbox user name.
- **[Password]** Enter the send mailbox password.
- **[Confirm Password]** Enter the send mailbox password.

6.5 Video

In the main interface, click "**Configuration** → **Video**" to enter the video and audio configuration interface, where you can set the device video, audio, and other functions.

6.5.1 Video

In the main interface click "**Configuration** → **Video** → **Video**" into the video configuration interface, where you can set the camera device name, stream type, encoding and other video parameters, as shown in Figure 6-21.



The screenshot displays the 'Video' configuration page within a 'Local Configuration' menu. The left sidebar lists various system settings, with 'Video' selected. The main area contains the following configuration options:

| Parameter | Value |
|------------------|--------------|
| Stream Type | Main Stream |
| Profile | Main Profile |
| Video Encoding | H.264 |
| Resolution | 2560x1440 |
| Framerate | 15 fps |
| Bit Rate | 4096 |
| Rate Control | VBR |
| I-Frame Interval | 75 |
| H264+ | off |
| Watermark | Off |
| Watermark name | |

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

Figure 6-21

- **[Stream Type]** Default is the Main Stream, you can select Sub Stream or Tri-Stream.
- **[Profile]** Default is the Main Profile; you can select Basic Profile or High Profile.
- **[Video Encoding]** Switch the encoding method in the drop-down menu.
- **[Resolution]** Switch the output resolution in the drop-down menu.
- **[Framerate]** Set the frame rate of the current output video of the device.
- **[Bit Rate]** Support 64-12000kbps. A higher the bit rate equates better video quality but consumes the greater network bandwidth.
- **[Rate Control]** Set to variable or fix bit rate.
- **[I-Frame Interval]** Camera acquisition key frame interval
- **[H265+/H264+]** Turn on/off the camera H265+/H264+.
- **[Watermark]** Turn on/off the watermark function. It can prevent the video from being tampered after it is turned on.
- **[Watermark name]** Enter a watermark name.

6.5.2 Audio

In the main interface, click "**Configuration** → **Video** → **Audio**" to enter the audio configuration interface where you can set the device audio input mode, select the audio code, and set the input volume as shown in Figure 6-22.

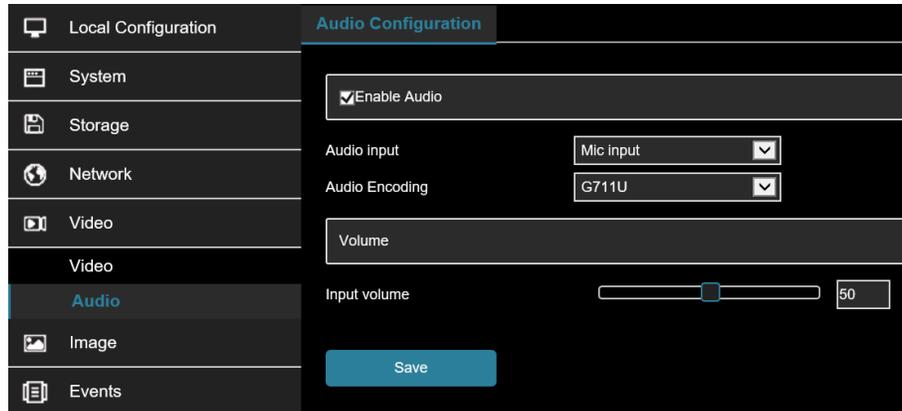


Figure 6-22

- **[Audio Enable]** Turn on / off device audio input.
- **[Audio Input]** Select the audio input method.
- **[Audio Output]** Select the audio output method.
- **[Audio Encode]** Choose audio encoding, G711U/ G711A /AAC.
- **[Input Volume]** Set the device input volume.
- **[Output Volume]** Set the device output volume.

6.6 Image

In the main interface, click "**Configuration** → **Image**" to enter the image configuration interface. Here you can control the device image settings and OSD text.

6.6.1 Image

In the main interface, click "**Configuration** → **Image** → **Image**" to enter the image configuration interface, where you can adjust the related image parameters such as Image Adjustment, Exposure Settings, Focus, Backlight Settings, Day and night switch, White Balance, Video Adjustment, Image Enhancement, Defog Mode, Distortion, and Image rotation as shown in Figure 6-23.

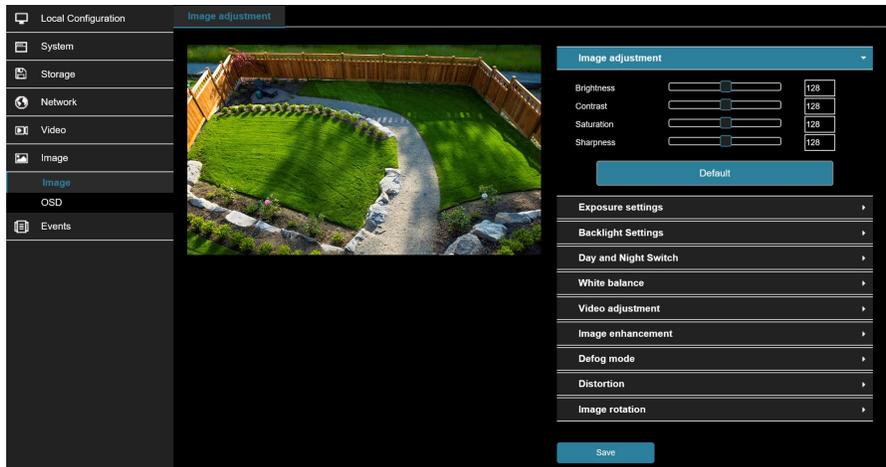


Figure 6-23

- **[Image adjustment]** You can manually set brightness, contrast, saturation, sharpness. The scope of valid values is from 0 to 255, you can drag the slider to set, and the default value is 128, as shown in Figure 6-24.

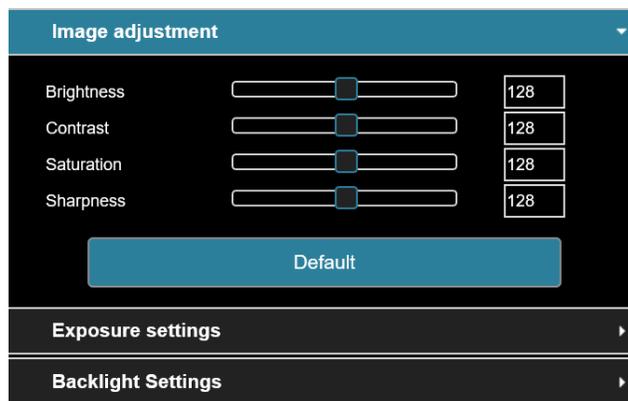


Figure 6-24

- **[Exposure settings]** The default is automatic exposure. To set specific exposure settings, select Manual, and the Exposure Time and Gain Control is activated, click "Save". As shown in Figure 6-25

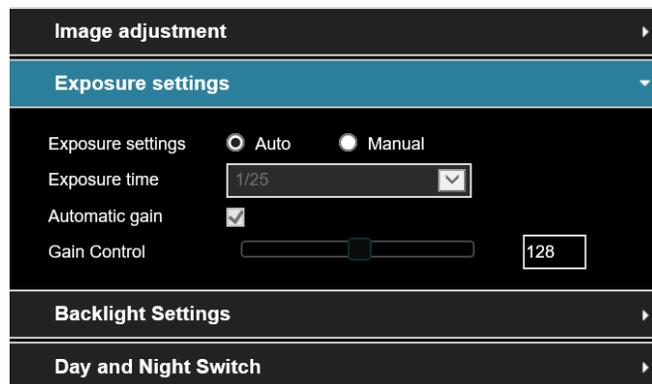


Figure 6-25

- **[Backlight Settings]** Used to set backlight compensation and strong light suppression. The default is OFF, it can be turned on manually, allowing backlight, strong light suppression intensity, and dark area boost strength settings to be configured, as shown in Figure 6-27.

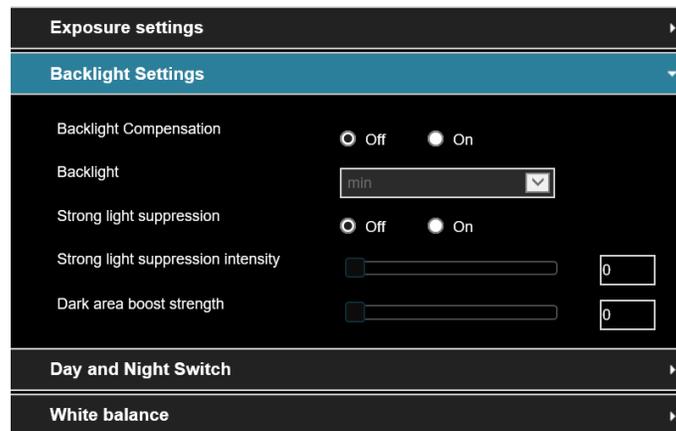


Figure 6-27

- **[Day and night switch]** The fill light mode defaults to automatic with sensitivity set to 3. Filter time is 3 seconds, light mode is manual, light brightness is 100, as shown in Figure 6-28. When the fill mode is "**Automatic**", the device will turn on the fill light according to the actual environment. The user can switch the fill mode to "**Daytime**", "**Night**" and "**Time**" according to the actual environment of the site and switch the sensitivity and filter time of the device according to the fill mode.

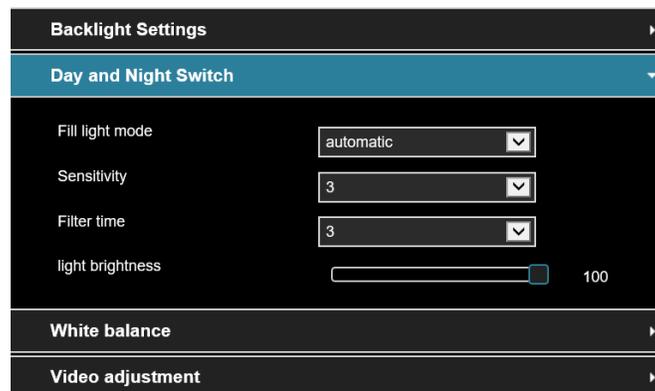


Figure 6-28

- **Time:** set the time the camera will switch into and out of night mode.
 - **Daytime:** camera will not enter night mode.
 - **Night:** camera will enter night mode.
 - **Filtering time:** sets the time period the camera will use to determine it needs to switch modes.
 - **Light brightness:** It is used to adjust the brightness of the fill light. The adjustable range is 0-100.
- **[White balance]** Default auto, switchable Manual, Fluorescent Lamp, Incandescent, Warm Light, Natural Light, as shown in Figure 6-29.

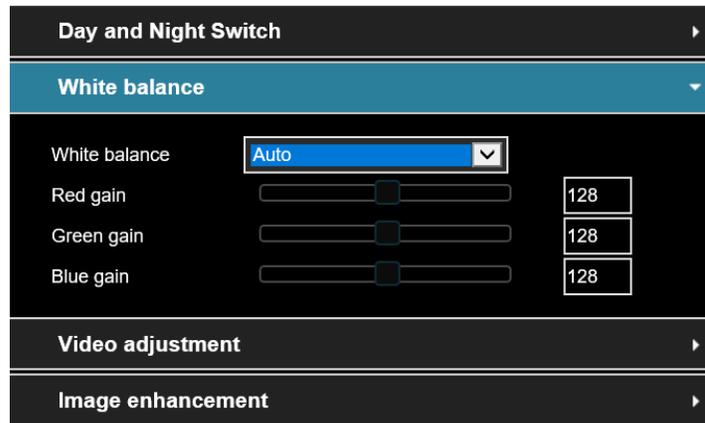


Figure 6-29

- **Manual White Balance:** Use manual adjustment to adjust Red, Green, Blue gain controls.
- **[Video adjustment]** Here you can turn on and set 2D or 3D digital noise reduction, as shown in Figure 6-30.

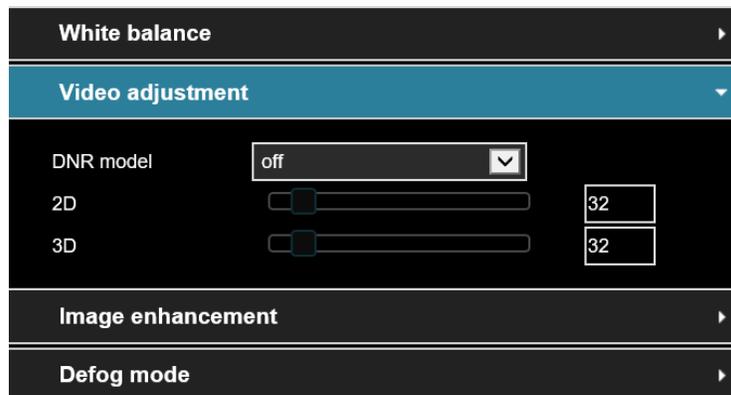


Figure 6-30

- **[Image enhancement]** Including flicker control, wide dynamic switch, HDR, as shown in Figure 6-31.

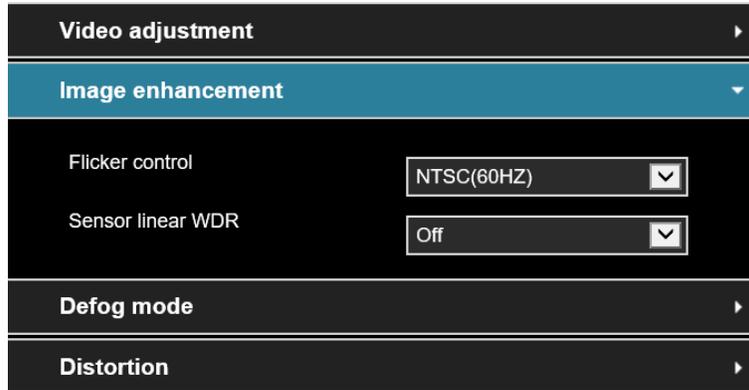


Figure 6-31

- **Flicker control:** The flash mode is selected according to the camera installation environment and the flicker standard. The default setting is NTSC (60HZ).
- **Sensor linear WDR:** The default is Shut Down (off). You can switch select: Automatic, Weak, Moderate, Strong, Super.

- **[Defog mode]** Used to set the defog mode and strength, as shown in Figure 6-32.

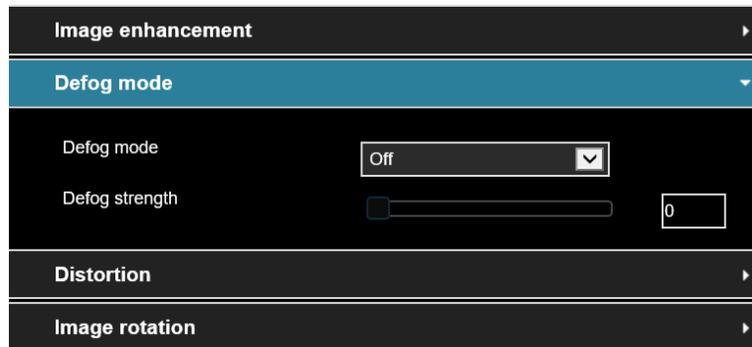


Figure 6-32

- **Defog Mode:** The default is off; you can choose from the drop-down menu to On or Auto.
- **Defog Strength:** The default is 0, when the fog mode is open, you can set the fog strength, can be set to a value range of 0-255.

- **[Distortion]** Used to set image distortion correction, as shown in Figure 6-33.

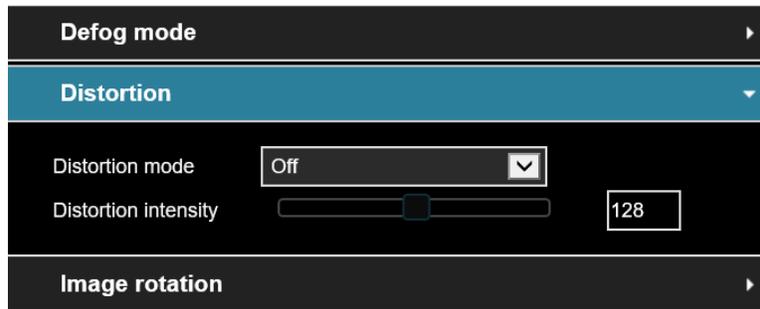


Figure 6-33

- **Distortion mode:** The default is OFF. You can select ON from the drop-down menu.
- **Distortion intensity:** The default is 128. When the distortion mode is on, the distortion correction strength can be set, and the value range can be set from 0-255.

- **[Image rotation]** Used to set image mirroring and corridor pattern, as shown in Figure 6-34.

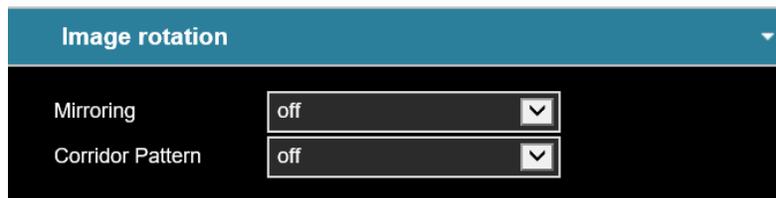


Figure 6-34

6.6.2 OSD

The OSD is information displayed on the real-time monitoring screen. The name, date, and day of the camera can be displayed on the monitor screen.

In the main interface, click "**Configuration** → **Image** → **OSD**" to enter the OSD configuration interface where you can set the preview interface to display time, OSD text and other information, as shown in Figure 6-35.

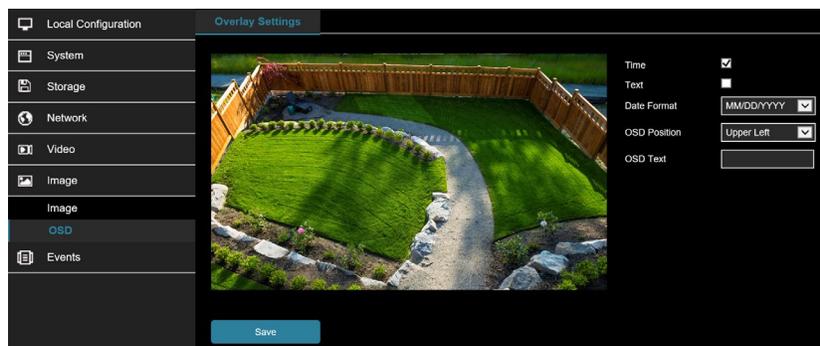


Figure 6-35

- **[Time]** Turn on / off the preview interface time display.
- **[Text]** Turn on / off the preview interface OSD text display.
- **[Date Format]** Set the preview interface to display the date format, default day / month / year, switchable month / day / year, and year / month / day options.
- **[OSD Position]** Set the preview interface to display the time or OSD text position, the default is the Top Left You can switch the Bottom Left.

- **[OSD Text]** Enter the preview interface to display text information

6.7 Events

In the main interface, click "**Configuration** → **Events**" to enter the event configuration interface including basic events and smart events.

6.7.1 Ordinary Events

In the Ordinary event interface, you can set the device's Motion Detection, Privacy Mask, Video Tampering, Alarm Input, Alarm Output, Exception, Flash alarm, Audible alarm output, ROI, and other events.

Motion Detection

The motion detection function is used to detect whether there is a moving object in a certain area within a certain period of time. When there is a moving object, the camera will alarm according to the setting.

1. In the main interface click on the "**Configuration** → **Events** → **Motion Detection**" to enter the motion detection settings interface, as shown in Figure 6-36.

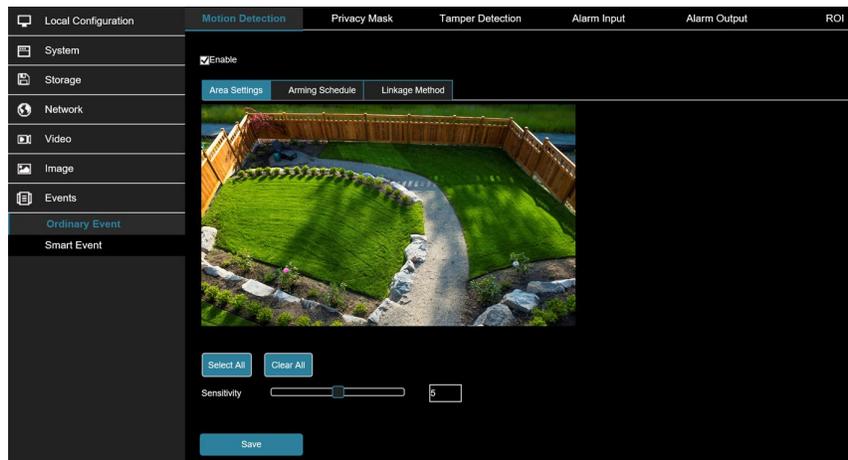


Figure 6-36

2. Click "**Enable**" to turn on the motion detection alarm.
3. Select the area to set the motion detection sensitivity, click "**Save**".
 - **[Select All]** Motion detection range to monitor all of the area, which consists of 396(22*18) squares.
 - **[Manually draw the alarm area]** Move the mouse to the preview screen, click the left mouse button to select the range of motion detection, release the left mouse button to complete the alarm area selection. A camera can select multiple motion detection zones at the same time.
 - **[Clear All]** Clears all the motion detecting area that selected currently.
 - **[Sensitivity]** The default is 5 with a range of 0-10. The larger the value, the more sensitive the camera will be to motion.
4. Set the arming schedule.

As shown in Figure 6-37, you can view, edit, and delete the arming time of motion detection. The default is to arm the alarm 24 hours a day. You can adjust the arming time as follows:

Method 1: Click the arming time period, manually fill in the start time and end time, set up and click "**Save**". If you need to delete the time period, click the "**Delete**" button and then reset the time period.

Method 2: Click the arming time period, two arrows will be displayed at both ends of the time period. Move the adjustment arrow left or right to adjust the arming time.

You can set up more than one time period for up to 8 time periods.

After the day of deployment time is set, the other time also need to set the same.



Figure 6-37

5. Set the linkage method.

Alarm linkage methods include general linkage (Upload Via SMTP, Upload Via FTP, Upload Via Cloud, Flash Warning) and linkage alarm output (IO Output), as shown in Figure 6-38.

- **[Upload Via SMTP]** Select and the system is configured with SMTP, the alarm information will be sent to the SMTP recipient mailbox.
- **[Upload Via FTP]** Select and the system is configured with the FTP server, will send the alarm information to the FTP server.
- **[Upload Via Cloud]** Select and the system is configured with the cloud server, will send the alarm information to the cloud account.
- **[Flash Warning]** After selection, the device will link the alarm light to flash when alarming.
- **[IO Output]** Select and the IO output port is connected to the alarm device. During the alarm, the device will link the device to alarm.

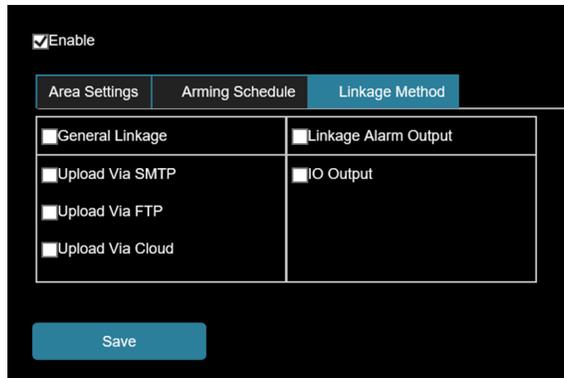


Figure 6-38

Privacy Mask

Privacy function is a privacy protection feature that blocks a portion of the camera view from being viewed and recorded.

In the main interface, click "**Configuration** → **Event** → **Privacy Mask**" to enter the privacy mask settings interface. As shown in Figure 6-39.

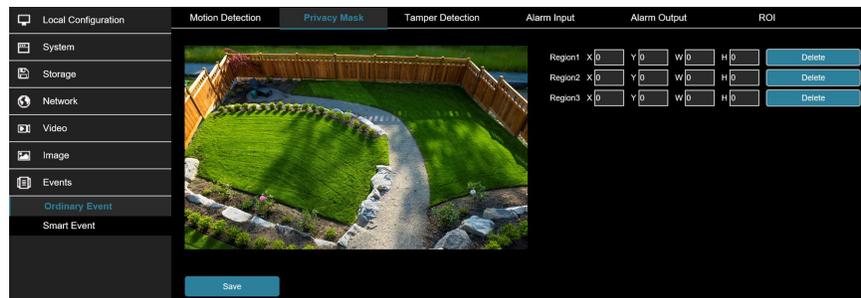


Figure 6-39

Here you can choose up to 3 privacy areas. Hold down the left mouse button and drag to select the area in the area. Region 1, Region 2, and Region 3 will show the corresponding coordinates, width, and height of the region. If you want to delete a region, click on the corresponding "**Delete**". Click on the "**Save**" after completing the setting.

Video Tampering

The occlusion alarm function is used to detect whether a monitoring area is blocked by human factors and other factors during a certain period of time. When the area of the device is blocked, the camera will alarm according to the settings. When the occlusion alarm is generated, the occlusion alarm cause can be quickly discharged, and the monitoring screen can be restored.

1. In the main interface click on the "**Configuration** → **Events** → **Video Tampering**" to enter the video tampering settings interface, as shown in Figure 6-40.

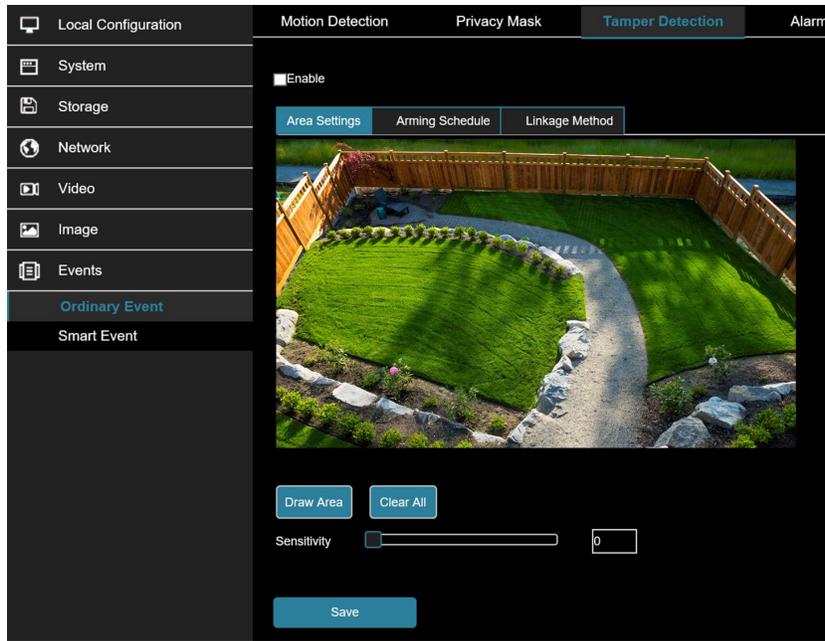


Figure 6-40

2. Click "**Enable**" to turn on the video tampering alarm.
3. Set the video tampering sensitivity, click "**Save**".
 - **[Drawing Area]** Move the mouse to the preview screen, click the left mouse button to select the range of motion detection, release the left mouse button, click "**Stop Drawing**" to complete the alarm area selection.
 - **[Clear All]** Clearing all the video tampering area currently selected.
 - **[Sensitivity]** The default is 0, can switch the range of 0-2, the greater the value of the more sensitive equipment alarm.
4. Set the arming schedule.

As shown in Figure 6-41, you can view, edit, and delete the arming time for video tampering. The default is 0 arming 24 hours a day. You can adjust the arming time as follows:

Method 1: Click the arming time period, manually fill in the start time and end time, set up and click "**Save**". If you need to delete the time period, click the "**Delete**" button and then reset the time period.

Method 2: Click the arming time period, two arrows will be displayed at both ends of the time period. Move the adjustment arrow left or right to adjust the arming time.

You can set up more than one time period for up to 8 time periods.

After the day of deployment time is set, the other time also need to set the same.



Figure 6-41

5. Set the linkage method.

Alarm linkage methods include general linkage (Upload Via SMTP, Upload Via FTP, Upload Via Cloud, Flash Warning) and linkage alarm output (IO Output), as shown in Figure 6-42.

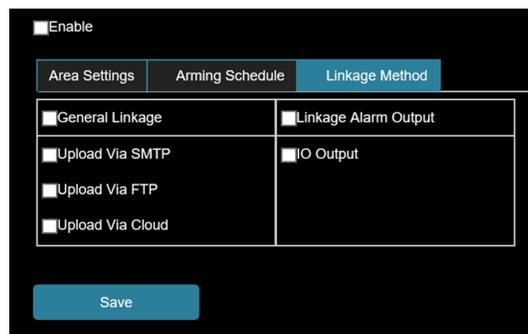


Figure 6-42

- **[Upload Via SMTP]** Select and the system is configured with SMTP, the alarm information will be sent to the SMTP recipient mailbox.
- **[Upload Via FTP]** Select and the system is configured with the FTP server, will send the alarm information to the FTP server.
- **[Upload Via Cloud]** Select and the system is configured with the cloud server, will send the alarm information to the cloud account.
- **[Flash Warning]** After selection, the device will link the alarm light to flash when alarming.
- **[IO Output]** Select and the IO output port is connected to the alarm device. During the alarm, the device will link the device to alarm.

Alarm Input

Prerequisites

Before configuration, the device needs to be connected to the alarm input device. By configuring the alarm input, the alarm signal received by the alarm input device can be passed to the camera for further processing.

1. In the main interface click on the "**Configuration** → **Events** → **Alarm Input**" to enter the Alarming Input settings interface.
2. Select the alarm input and alarm type (Normally open, Normally closed).
3. Set the arming schedule.

As shown in Figure 6-43, you can view, edit, and delete the arming time of the alarm input. The default is 0 arming 24 hours a day. You can adjust the arming time as follows:

Method 1: Click the arming time period, manually fill in the start time and end time, set up and click "**Save**". If you need to delete the time period, click the "**Delete**" button and then reset the time period.

Method 2: Click the arming time period, two arrows will be displayed at both ends of the time period. Move the adjustment arrow left or right to adjust the arming time.

You can set up more than one time period for up to 8 time periods.

After the day of deployment time is set, the other time also need to set the same.

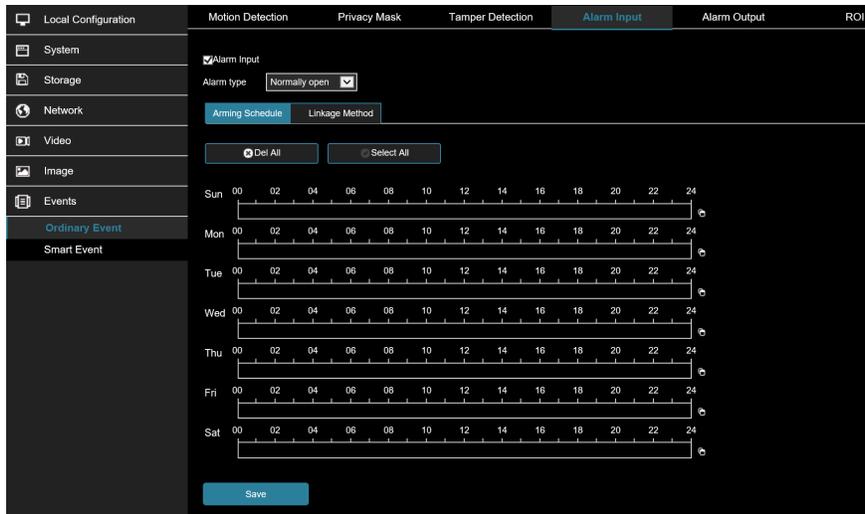


Figure 6-43

4. Set the linkage method.

Alarm linkage methods include general linkage (Upload Via SMTP, Upload Via FTP, Upload Via Cloud, Flash Warning) and linkage alarm output (IO Output), as shown in Figure 6-44.

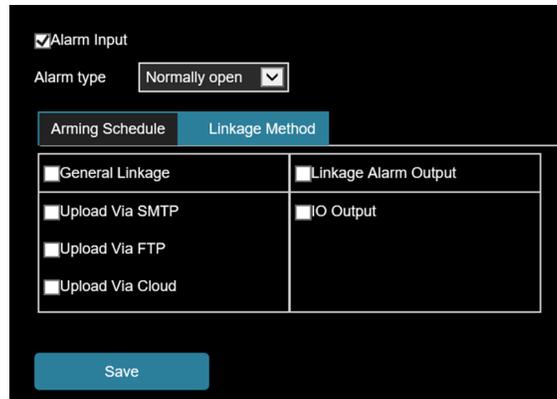


Figure 6-44

- **[Upload Via SMTP]** Select and the system is configured with SMTP, the alarm information will be sent to the SMTP recipient mailbox.
- **[Upload Via FTP]** Select and the system is configured with the FTP server, will send the alarm information to the FTP server.
- **[Upload Via Cloud]** Select and the system is configured with the cloud server, will send the alarm information to the cloud account.
- **[Flash Warning]** After selection, the device will link the alarm light to flash when alarming.
- **[IO Output]** Select and the IO output port is connected to the alarm device. During the alarm, the device will link the device to alarm.

Alarm Output

Prerequisites

Before configuration, the device needs to be connected to the alarm output device. By configuring the alarm output, the alarm signal received by the alarm input device can be passed to the camera for further processing.

1. In the main interface click on the "**Configuration** → **Events** → **Alarm Output**" to enter the Alarming Output settings interface.
2. Set the delay time.
3. Set the arming schedule.

As shown in Figure 6-45, you can view, edit, and delete the arming time of the alarm input. The default is 0 arming 24 hours a day. You can adjust the arming time as follows:

Method 1: Click the arming time period, manually fill in the start time and end time, set up and click "**Save**". If you need to delete the time period, click the "**Delete**" button and then reset the time period.

Method 2: Click the arming time period, two arrows will be displayed at both ends of the time period. Move the adjustment arrow left or right to adjust the arming time.

You can set up more than one time period for up to 8 time periods.

4. Click "**Save**" to complete the setting of the arming time.

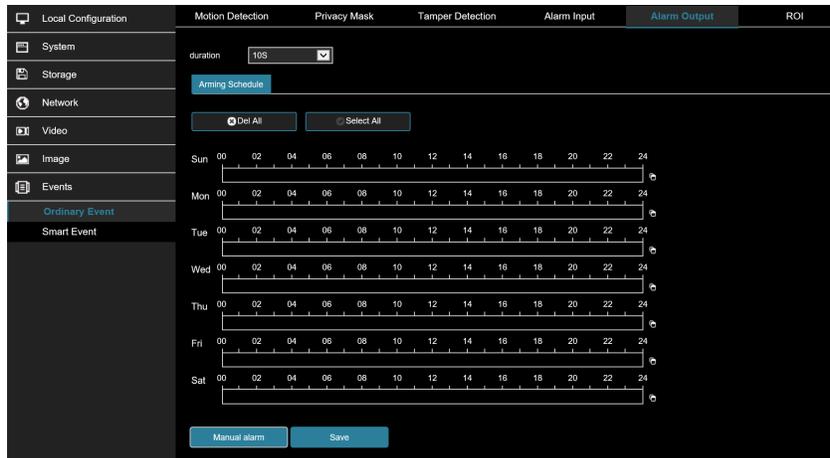


Figure 6-45

- **[Manual alarm]** Manually control the alarm output device on the alarm output interface to link the alarm.

ROI

ROI is the area of interest setting, users can set the most important area in the video screen through this function. When used the camera will improve the video image quality of the corresponding area when video encoding and reduce the encoding quality of other areas,

1. In the main interface, click "**Configuration** → **Events** → **ROI**" to enter the ROI setting interface, as shown in Figure 6-46.

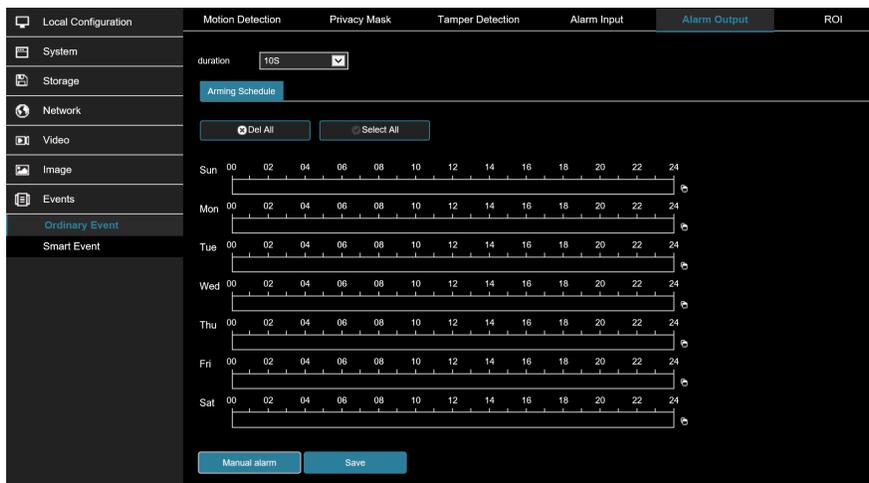


Figure 6-46

2. **[Region Settings]** Move the mouse to the preview screen, hold down the left mouse button to select the ROI area range, and release the left mouse button to complete the area drawing. You can also enter the X, Y, W, and H corresponding positions in the corresponding area to set the area.
3. **[Set "Relative QP value" or "Absolute QP value"]** Select "**Relative QP value**" or "**Absolute QP value**" in the corresponding area position and enter the corresponding value.
4. Slide the scroll bar to set the frame rate of the Non-ROI region.
5. Click "**Save**" to complete the ROI setting.



IMPORTANT NOTE:

The ROI configuration is more effective when using a lower non-ROI frame rate setting. Click "**Delete**" in the corresponding setting area to delete the corresponding ROI area.

6.7.2 Smart Event

Smart event interface, which can set face recognition, intrusion detection, line cross detection, loiter detection and people gather detection.

Intelligent Detection

The face recognition function is used to detect the face appearing in the face database in the monitoring screen, and to perform frame selection tracking on the monitoring interface. The specific operation steps are as follows:

1. In the main interface click on the "**Configuration** → **Events** → **Smart Event**" to enter the Face Recognition settings interface, as shown in Figure 6-47.

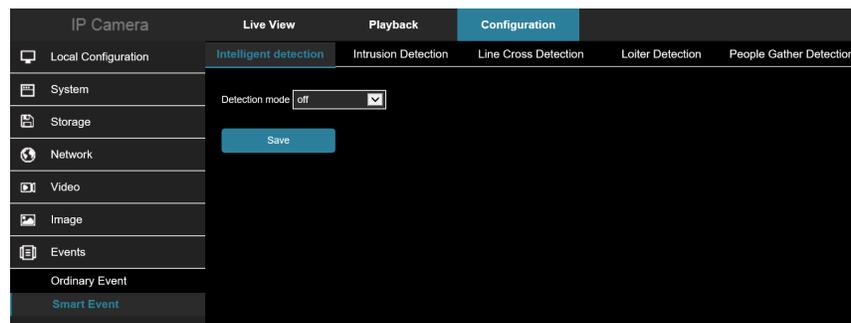


Figure 6-47

2. Check "**Enable**" to enable face recognition.
3. Set the arming area, move the mouse to the preview screen, hold down the left mouse button to select the area of the face recognition, and release the left mouse button to complete the area drawing.
 - **[Select all areas]** is used to set all areas under the monitor screen as the guard area.
 - **[Delete Selection Area]** is used to delete the selected alert area.

Intrusion Detection

The area intrusion detection is used to detect whether an object enters the set area in the video setting area, and the alarm is linked according to the judgment result.

1. In the main interface click on the "**Configuration** → **Events** → **Smart Event** → **Intrusion Detection**" to enter the Intrusion Detection settings interface, as shown in Figure 6-48.

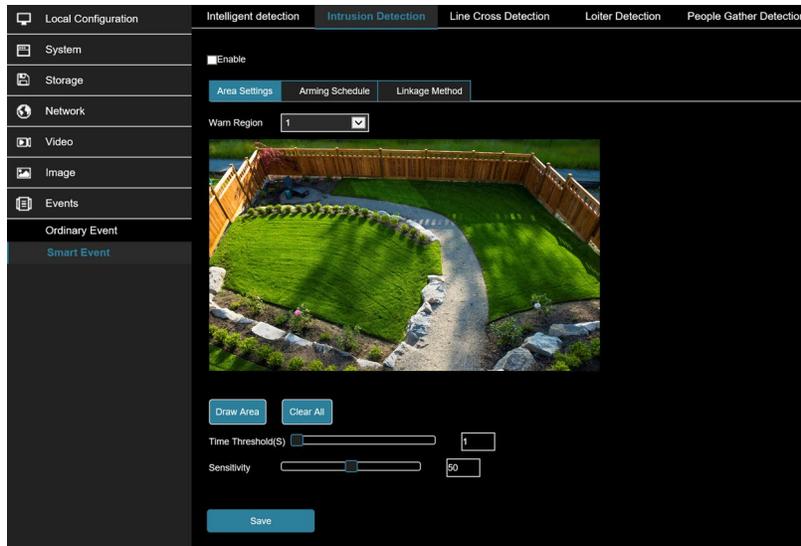


Figure 6-48

2. Check **"Enable"** to enable intrusion detection.
3. Select **"Warn Region"**: The system supports setting up to 4 warn region. After selecting a warn region, you need to make the following settings. After setting, please click **"Save"**.
 - **[Drawing Area]** Click **"Drawing Area"**, move the mouse to the preview screen, click the left mouse button and draw the endpoint of the quadrilateral guard area, then click the preview interface to complete the area drawing.
 - **[Clear All]** Used to delete the selected alert area.
 - **[Time threshold(s)]** Indicates that the target enters the alert zone and continues to stay for this time to generate an alarm. If set to 5s, the target intrusion area will trigger an alarm after 5s.
 - **[Sensitivity]** Used to set the sensitivity of detected area intrusion. The default is 50. Drag the progress bar or enter the value directly in the value box to modify the sensitivity. The greater the sensitivity, the easier it is to trigger an alarm.
4. When you need to set other Warn Region, repeat step 3 to complete the setup.
5. Set the arming schedule.

As shown in Figure 6-49. You can view, edit, and delete the arming time of the intrusion detection. The default is to arm the alarm 24 hours a day. You can adjust the arming time as follows:

Method 1: Click the arming time period, manually fill in the start time and end time, set up and click **"Save"**. If you need to delete the time period, click the **"Delete"** button and then reset the time period.

Method 2: Click the time of deployment, the time period will display two circles at both ends, the mouse moves to the circle, will show the left and right direction of the adjustment arrow, and move the adjustment arrow to adjust the arming time.

You can set up more than one time period for up to 8 time periods.



After setting, click **"Save"** to complete the setting of the arming time.

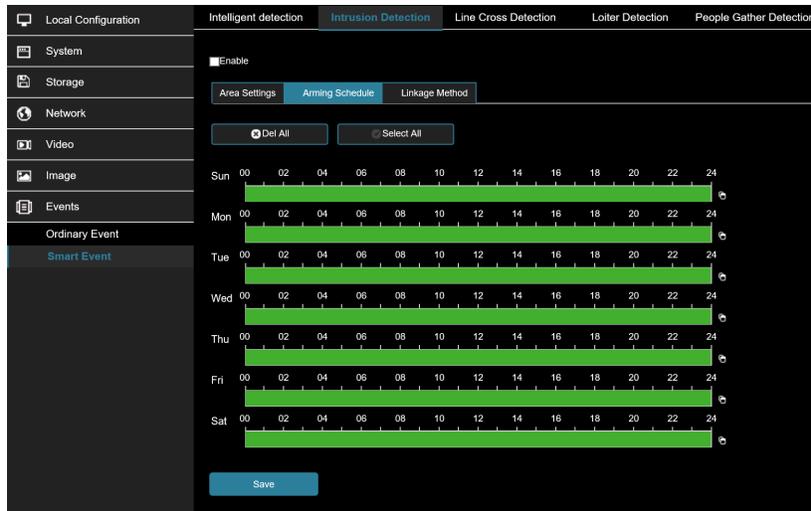


Figure 6-49



IMPORTANT NOTE

When the arming time is set, there can be no overlap between any two time periods.

Step 6: Set the linkage method as needed.

- **[Linkage Method]** refers to the response made by the device when an alarm event occurs. The linkage includes **"General Linkage"**, **"Upload Via SMTP"** and **"Upload Via FTP"**.

Line Cross Detection

The line cross detection function is used to detect whether there is an object in the video that crosses the set warning surface, and the alarm is linked according to the judgment result.

The specific operation steps are as follows:

1. In the main interface click on the **"Configuration → Events → Smart Event → Line Cross Detection"** to enter the Line Cross Detection settings interface, as shown in Figure 6-50.

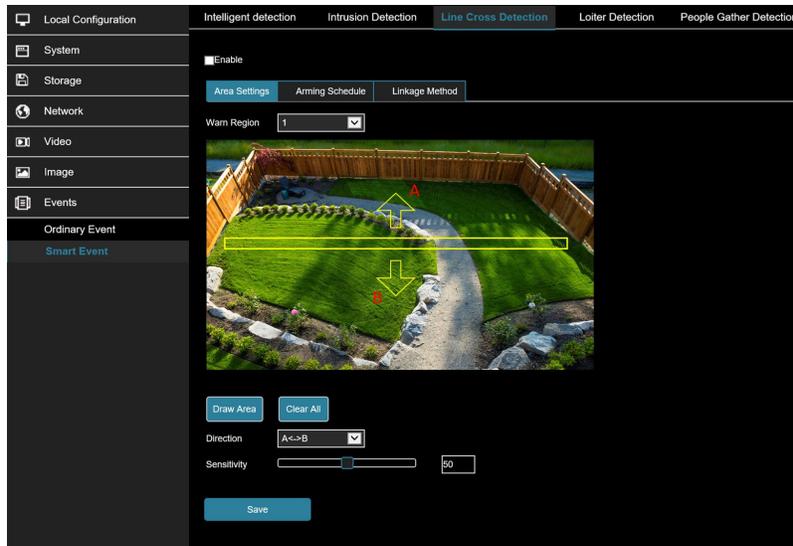


Figure 6-50

2. Check "Enable" to enable intrusion detection.
3. Select "Warn Line": The system supports setting up to 4 warn line. After selecting a warn line, you need to make the following settings. After setting, please click "Save" below.
 - **[Warn Line]** Click "Drawing Area" and a line segment with an arrow will appear on the screen. Click on the line segment, click and drag one of the endpoints to modify the length of the line segment; or click and drag the position of the line segment with the arrow in the picture to complete the drawing of a warning surface.
 - **[Clear All]** Used to delete the selected alert area.
 - **[Direction]** There are three options: "A->B", "A->B", and "B->A", indicating the direction in which the object crosses the interface to trigger an alarm. "A->B" means that the alarm will be triggered when the object crosses from A to B; "B->A" means that the alarm will be triggered when the object crosses from B to A; "A->B" means that the object crosses from A to B, or from B to B, the alarm is triggered, that is, the alarm is triggered in both directions.
 - **[Sensitivity]** Used to set the sensitivity of detected area intrusion. The default is 50. Drag the progress bar or enter the value directly in the value box to modify the sensitivity. The greater the sensitivity, the easier it is to trigger an alarm.
4. When you need to set other Warn Line, repeat step 3 to complete the setup.
5. Set the arming schedule.

As shown in Figure 6-51. You can view, edit, and delete the arming time of the Line Cross detection. The default is to arm the alarm 24 hours a day. You can adjust the arming time as follows:

Method 1: Click the arming time period, manually fill in the start time and end time, set up and click "Save". If you need to delete the time period, click the "Delete" button and then reset the time period.

Method 2: Click the time of deployment, the time period will display two circles at both ends, the mouse moves to the circle, will show the left and right direction of the adjustment arrow, and move the adjustment arrow to adjust the arming time.

You can set up more than one time period for up to 8 time periods.



After setting, click "Save" to complete the setting of the arming time.



Figure 6-51



IMPORTANT NOTE

When the arming time is set, there can be no overlap between any two time periods.

6. Set the linkage method as needed.
 - **[Linkage Method]** refers to the response made by the device when an alarm event occurs. The linkage includes "General Linkage", "Upload Via SMTP" and "Upload Via FTP".

Loiter Detection

The loiter detection function is used to detect that the target stays within the set area for more than the set time threshold, and then alarms according to the judgment result.

1. In the main interface click on the "Configuration → Events → Smart Event → Loiter Detection" to enter the Loiter Detection settings interface, as shown in Figure 6-52

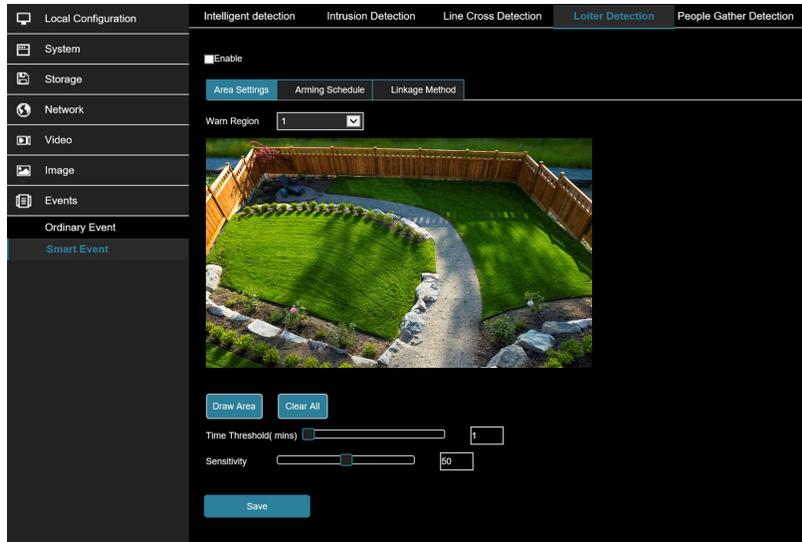


Figure 6-52

2. Check **"Enable"** to enable intrusion detection.
3. Select **"Warn Region"**: The system supports setting up to 4 warn region. After selecting a warn region, you need to make the following settings. After setting, please click **"Save"** below.
 - **[Drawing Area]** Click **"Drawing Area"**, move the mouse to the preview screen, click the left mouse button and draw the endpoint of the quadrilateral guard area, then click the preview interface to complete the area drawing.
 - **[Clear All]** Used to delete the selected alert area.
 - **[Time threshold(min)]** Indicates that the target generates an alarm after continuous movement in the detection area. The larger the time threshold, the longer the target continues to move in the detection area to trigger an alarm.
 - **[Sensitivity]** Used to set the sensitivity of detected area intrusion. The default is 50. Drag the progress bar or enter the value directly in the value box to modify the sensitivity. The greater the sensitivity, the easier it is to trigger an alarm.
4. When you need to set other Warn Region, repeat step 3 to complete the setup.
5. Set the arming schedule.

As shown in Figure 6-53. You can view, edit, and delete the arming time of the Loiter detection. The default is to arm the alarm 24 hours a day. You can adjust the arming time as follows:

Method 1: Click the arming time period, manually fill in the start time and end time, set up and click **"Save"**. If you need to delete the time period, click the **"Delete"** button and then reset the time period.

Method 2: Click the time of deployment, the time period will display two circles at both ends, the mouse moves to the circle, will show the left and right direction of the adjustment arrow, and move the adjustment arrow to adjust the arming time.

You can set up more than one time period for up to 8 time periods.



After setting, click **"Save"** to complete the setting of the arming time.



Figure 6-53



IMPORTANT NOTE

When the arming time is set, there can be no overlap between any two time periods.

6. Set the linkage method as needed.
 - **[Linkage Method]** refers to the response made by the device when an alarm event occurs. The linkage includes "General Linkage", "Upload Via SMTP" and "Upload Via FTP".

People Gather Detection

The people gather detection function is used to detect that the density of the personnel in the set area exceeds the set threshold, and the alarm is linked according to the judgment result.

1. In the main interface click on the "Configuration → Events → Smart Event → People Gather Detection" to enter the People Gather Detection settings interface, as shown in Figure 6-54.

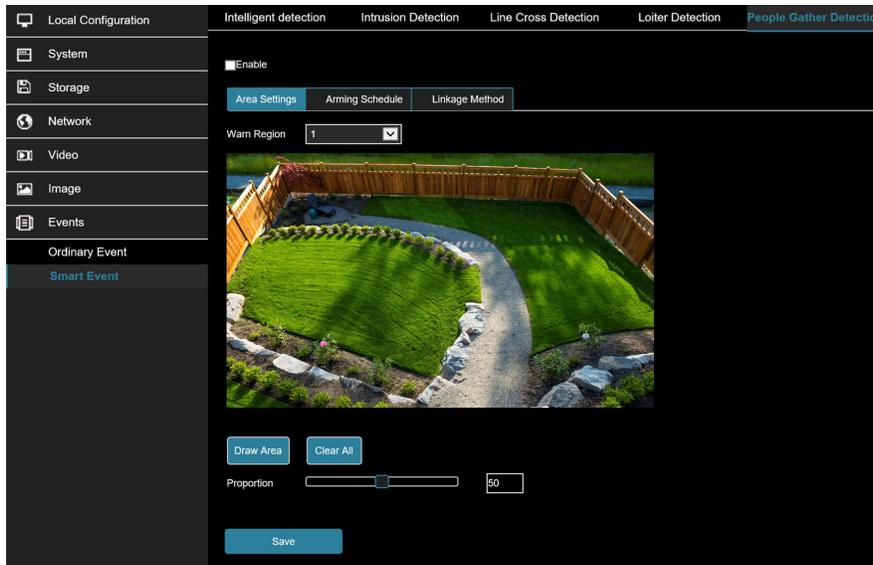


Figure 6-54

2. Check "**Enable**" to enable intrusion detection.
3. Select "**Warn Region**": The system supports setting up to 4 warn region. After selecting a warn region, you need to make the following settings. After setting, please click "**Save**" below.
 - **[Drawing Area]** Click "**Drawing Area**", move the mouse to the preview screen, click the left mouse button and draw the endpoint of the quadrilateral guard area, then click the preview interface to complete the area drawing.
 - **[Clear All]** Used to delete the selected alert area.
 - **[Proportion]** Indicates the proportion of personnel in the entire alert area. When the proportion of personnel exceeds the set percentage, the system will generate an alarm. The percentage is 50% by default. The larger the value, the more people can be accommodated in the alert area, and the less likely it is to trigger an alarm.
4. When you need to set other Warn Region, repeat step 3 to complete the setup.
5. Set the arming schedule.

As shown in Figure 6-55. You can view, edit, and delete the arming time of the People gather detection. The default is to arm the alarm 24 hours a day. You can adjust the arming time as follows:

Method 1: Click the arming time period, manually fill in the start time and end time, set up and click "**Save**". If you need to delete the time period, click the "**Delete**" button and then reset the time period.

Method 2: Click the time of deployment, the time period will display two circles at both ends, the mouse moves to the circle, will show the left and right direction of the adjustment arrow, and move the adjustment arrow to adjust the arming time.

You can set up more than one time period for up to 8 time periods.



After setting, click "**Save**" to complete the setting of the arming time.



Figure 6-55



IMPORTANT NOTE

When the arming time is set, there can be no overlap between any two time periods.

6. Set the linkage method as needed.
 - **[Linkage Method]** refers to the response made by the device when an alarm event occurs. The linkage includes "General Linkage", "Upload Via SMTP" and "Upload Via FTP".

Chapter 7: Wi-Fi Cameras



IMPORTANT NOTE

WiFi cameras do not currently support AP mode. This will be made available at a later date.

WiFi cameras must be plugged into the local area network to add or change WiFi settings.

7.1 Setting Up Wi-Fi Cameras

7.1.1 Connect the Camera to the Home LAN

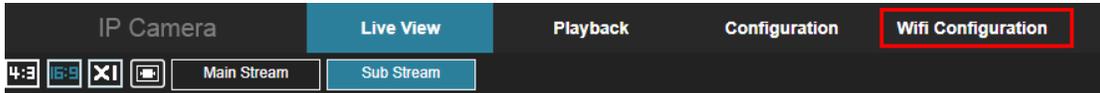
The camera must be hooked up to a switch, router, or modem on the LAN to configure Wi-Fi settings.

1. Using an Ethernet cable, connect the Wi-Fi camera to a router, switch, or modem that is on the network the camera should be connected to. Power up the camera using the included power supply.

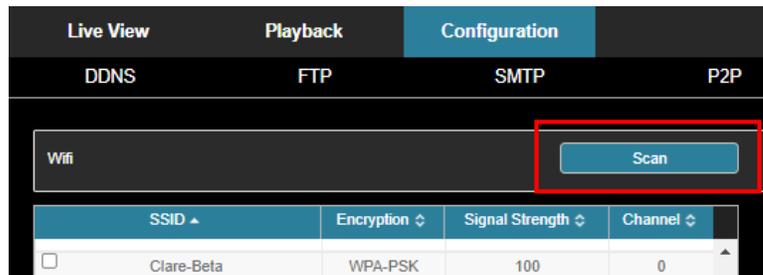
- Once the camera is connected to the network, use the IP Search Tool to discover the Camera IP Address (Please reference Chapter 2).
- Using Edge or Chrome, connect to the camera Web Console and finish camera setup (Please reference Chapter 3).

7.1.2 Connect to Wi-Fi

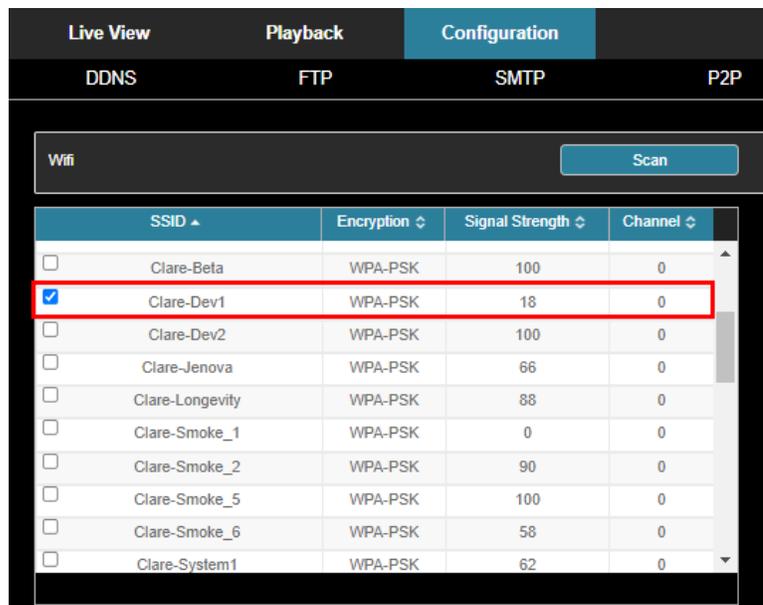
Connect to the desired WiFi network from the WiFi Configuration tab on the home page.



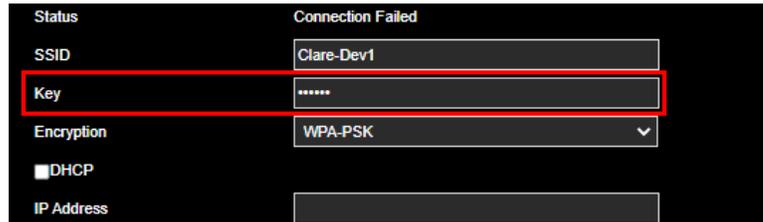
- Select **WiFi Configuration** or navigate to **Configuration > Network > Advanced Setup > WiFi**.
- Tap **Scan** to discover available WiFi networks.



- Select the desired 2.4GHz WiFi network.



4. Input the WiFi password in the **Key Field**.



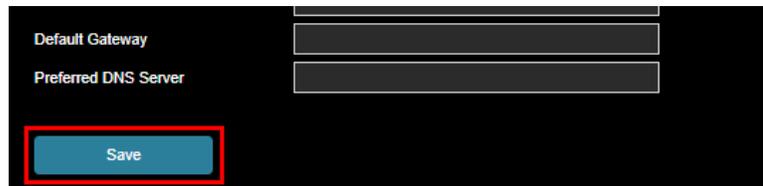
A screenshot of a WiFi configuration interface. The status is 'Connection Failed'. The SSID is 'Clare-Dev1'. The Key field is highlighted with a red box and contains six asterisks. The Encryption is set to 'WPA-PSK'. The DHCP checkbox is unchecked. The IP Address field is empty.

5. Check **DHCP** if you would like the network to assign the network parameters automatically. Leave this unchecked if you would like to configure settings such as **IP Address, Netmask, Default Gateway, Preferred DNS Server**.



A screenshot of the same WiFi configuration interface. The Key field is now filled with six asterisks. The DHCP checkbox is checked and highlighted with a red box. The IP Address field is empty.

6. Tap **Save**.



A screenshot of the bottom portion of the WiFi configuration interface. It shows fields for 'Default Gateway' and 'Preferred DNS Server', both of which are empty. Below these fields is a blue 'Save' button, which is highlighted with a red box.

7.2 Changing the WiFi Password on a WiFi Camera

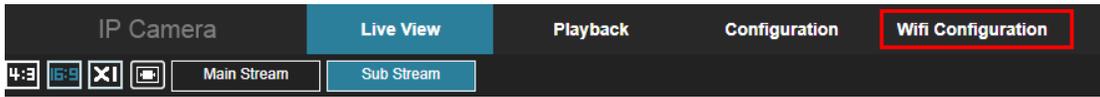
7.2.1 Connect the Camera to the Home LAN

The camera must be hooked up to a switch, router, or modem on the LAN to configure Wi-Fi settings.

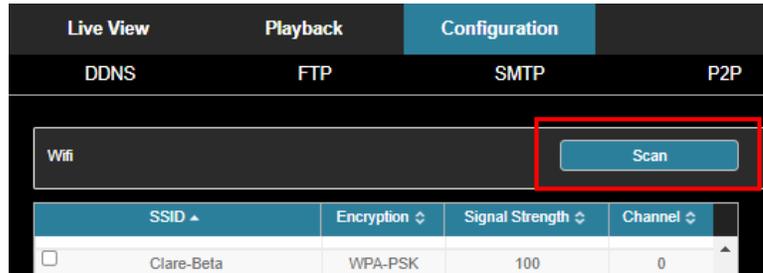
4. Using an Ethernet cable, connect the Wi-Fi camera to a router, switch, or modem that is on the network the camera should be connected to. Power up the camera using the included power supply.
5. Once the camera is connected to the network, use the IP Search Tool to discover the Camera IP Address (Please reference Chapter 2).
6. Using Edge or Chrome, connect to the camera Web Console and finish camera setup (Please reference Chapter 3).

7.2.2 Change Wi-Fi Password

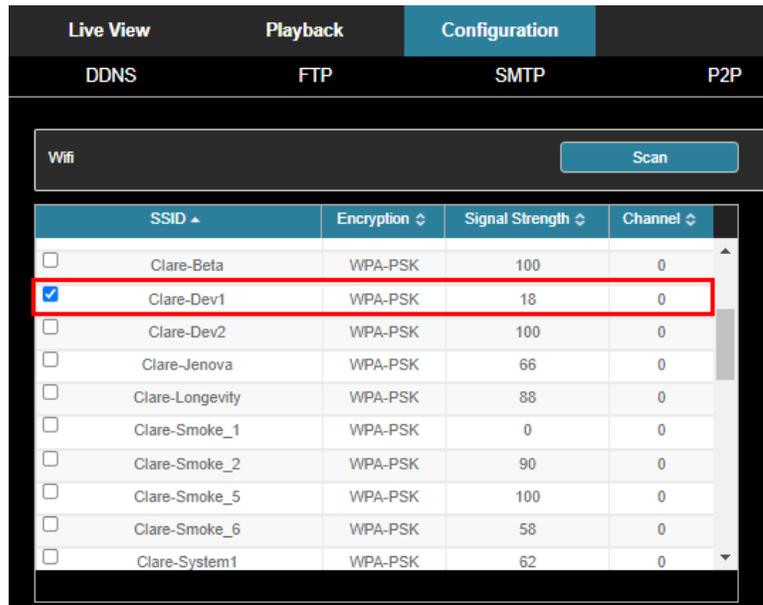
Connect to the desired WiFi network from the WiFi Configuration tab on the home page.



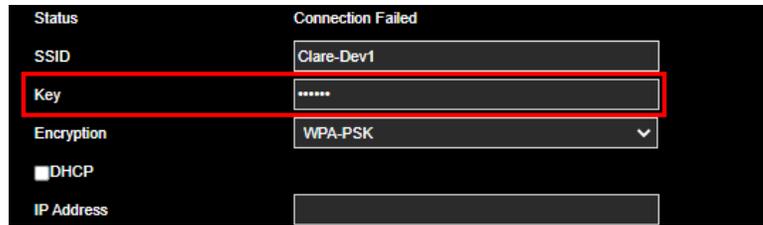
7. Select **WiFi Configuration** or navigate to **Configuration > Network > Advanced Setup > WiFi**.
8. Tap **Scan** to discover available WiFi networks.



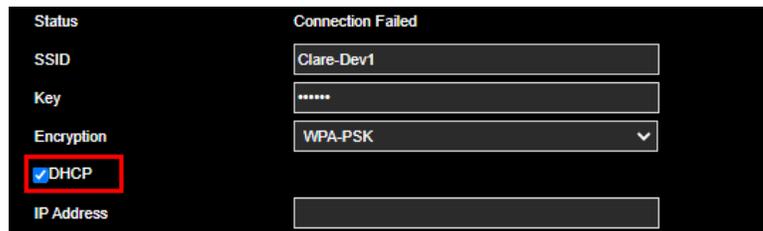
9. Select the existing WiFi network or a new network to connect to.



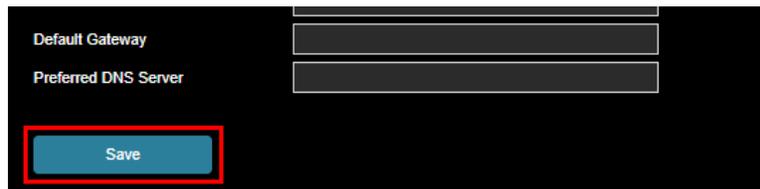
10. Change the WiFi password in the **Key Field**.



11. Check **DHCP** if you would like the network to assign the network parameters automatically. Leave this unchecked if you would like to configure settings such as **IP Address**, **Netmask**, **Default Gateway**, **Preferred DNS Server**.



12. Tap **Save**.



7.3 Configure WiFi Settings

7.3.1 Configure WiFi Settings

Several settings can be configured for WiFi cameras. The can be found under **Configuration > Network > Advanced Setup > WiFi**.

- **[Scan Button]** Scans all available WiFi networks
- **[WiFi Window]** Displays all available WiFi networks
- **[Wireless WiFi Management Button]** Displays a window that shows all programmed networks
- **[Status]** Displays the current connected or disconnected status of the WiFi network
- **[SSID]** Displays the currently selected WiFi network name
- **[Key]** Input the password for the selected WiFi network
- **[Encryption]** Change the encryption settings for the WiFi network
- **[DHCP]** When checked (**Enabled**), it allows the network to manage the configuration settings for the camera
- **[IP Address]** Input the desired IP address for the camera (**disabled when DHCP is checked**)

- **[Netmask]** Input the desired Netmask settings for the camera (**disabled when DHCP is checked**)
- **[Default Gateway]** Input the desired Gateway settings for the camera (**disabled when DHCP is checked**)
- **[Preferred DNS Server]** Input the desired DNS settings for the camera (**disabled when DHCP is checked**)