



USER MAUAL

FISHEYE CAMERA

FISHEYE

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Statement

Thank you for using our IP camera series. This series products are integrated IP cameras developed for network video surveillance, including wired IP box cameras, Wi-Fi-enabled IP box cameras, IR-enabled IP dome cameras, IR-enabled waterproof IP cameras, PTZ cameras, etc. A powerful SoC (System on a Chip) is used as the media processor to automate audio and video acquisition, compression, and transmission. The standard H.264/H.265 coding algorithm guarantees a clearer and smoother video transmission. The embedded web server allows users to easily and instantaneously monitor and remotely control front-end cameras from the IE browser.

This series of IP cameras are suitable for large and medium-sized enterprises, government projects, shopping malls, chain supermarkets, intelligent buildings, hotels, hospitals, schools and other customer groups, and all kinds of places where remote network video transmission and monitoring will be applied. This product is easy to install and user friendly.

Introduction:

- In this manual, IP cameras refer to network cameras.
- Click indicates click on the left mouse button.
- Double click indicates double click on the left mouse button.
- The default factory IP address for IP camera is assigning IP addresses by DHCP.
- You must set the password as instructed when using the IP camera for the first time. You can log in with admin (in lowercase) as username and set the password as described, refer to the section 4.2.
- The web port number is 80 by default. The ONVIF port number is the same as the web port number. The media port number is 9000 by default.

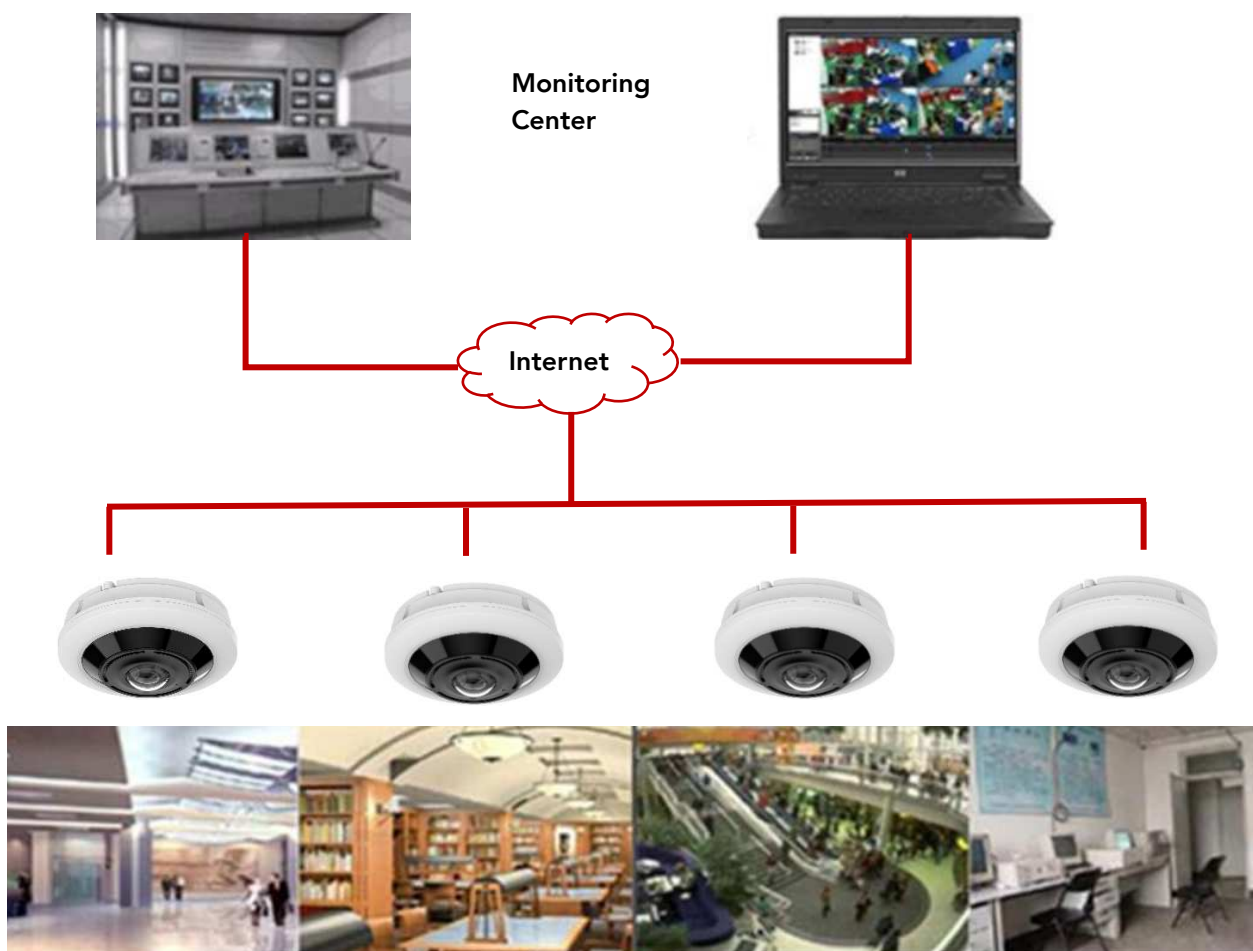
Notes:

Some information contained in this manual may differ from the actual product. For any problems that cannot be solved using this manual, please feel free to contact our technical support or authorized agent. This manual is subject to change without prior notice.

1. Overview

1.1. Scope of Application

IP cameras with powerful image processing capabilities can be applied in various public places such as shopping malls, supermarkets, schools, factories and workshops, as well as environments requiring high-definition video images such as banks and traffic control systems, as shown below:



1.2. Product Description

An IP camera is a digital network monitoring camera that can operate independently with a built-in web server, and can be used for real-time monitoring from all over the world by using a web browser or client software.

The IP camera, based on the state-of-the-art digital solution, is an integrated media processing platform for audio/video acquisition, compression and network transmission on a single board. It complies with H.264/H.265 High Profile coding standard. By typing the IP camera's IP address or domain name into a web browser, any remote user can perform real-time monitoring. The IP camera solution is suitable for residential or commercial environments, as well as a variety of places requiring remote network video surveillance and transmission. The product is easy to install and user friendly.

The IP camera allows you to set multiple users with different permissions for easy management.

The IP camera has the motion detection function, and will actively send E-mail, captured images or alarm video when an event occurs and store the alarm video in the TF card for easy retrieval.

1.3. Operating Environment

System: Windows XP/Windows 7/ Windows 8/ Windows 10/ Windows 11/MacOS 10 or later.

CPU: Intel I3 or later

Memory: 2 GB or higher

Video memory: 1 GB or higher

Display: 1024×768 or higher

Browsers: IE10 and later, Chrome 57 and later, Firefox 52 and later, Edge 41 and later, and Safari 12 and later

2. Device Connection

An IP camera can be connected in two ways:

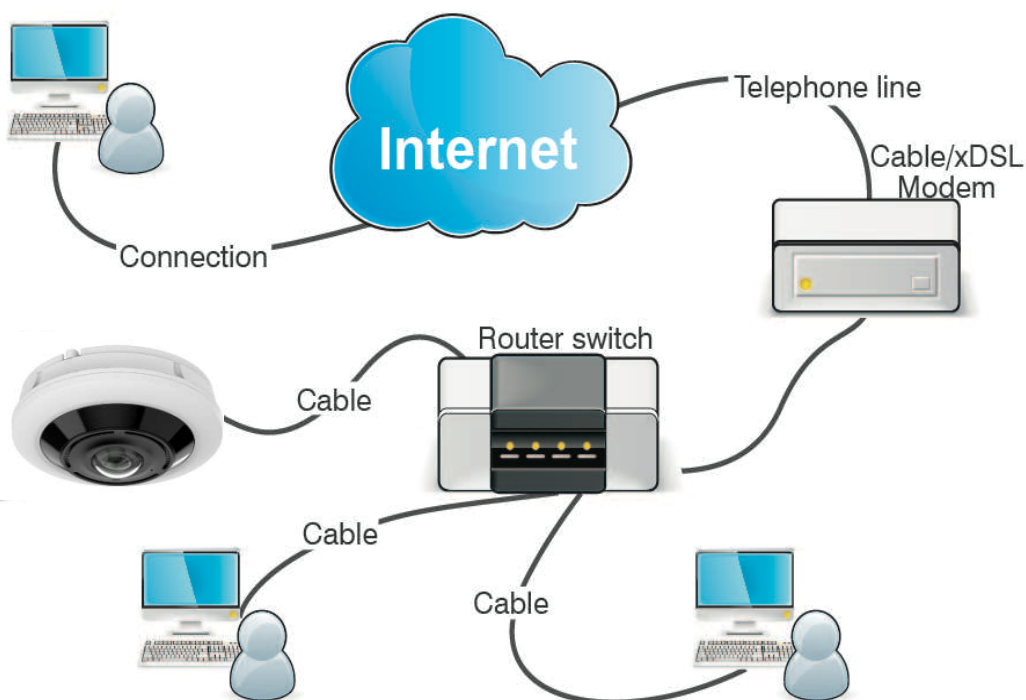
2.1. Connecting to a PC

Directly connect an IP camera to a PC through a network cable, connect the power input to the DC 12V adapter, and set the IP addresses of the PC and the IP camera on the same network segment. If the network is running properly, the IP camera will communicate with the PC within one minute after turned on.



2.2. Connecting Through a Router/Switch

This connection method is used when an IP camera is connected to the Internet where the IP camera and PC are connected to the LAN ports of a router/switch and the gateway of the camera is set to the IP address of the router.



3. Setting the IP Address of an IPC Using Device Config Tool

Step 1. Run Device Config Tool , click Search to get the information of the IPCs in this LAN as shown in the figure below, and select your desired IPC based the P2P、MAC address、Device Name、Device Type of the camera.



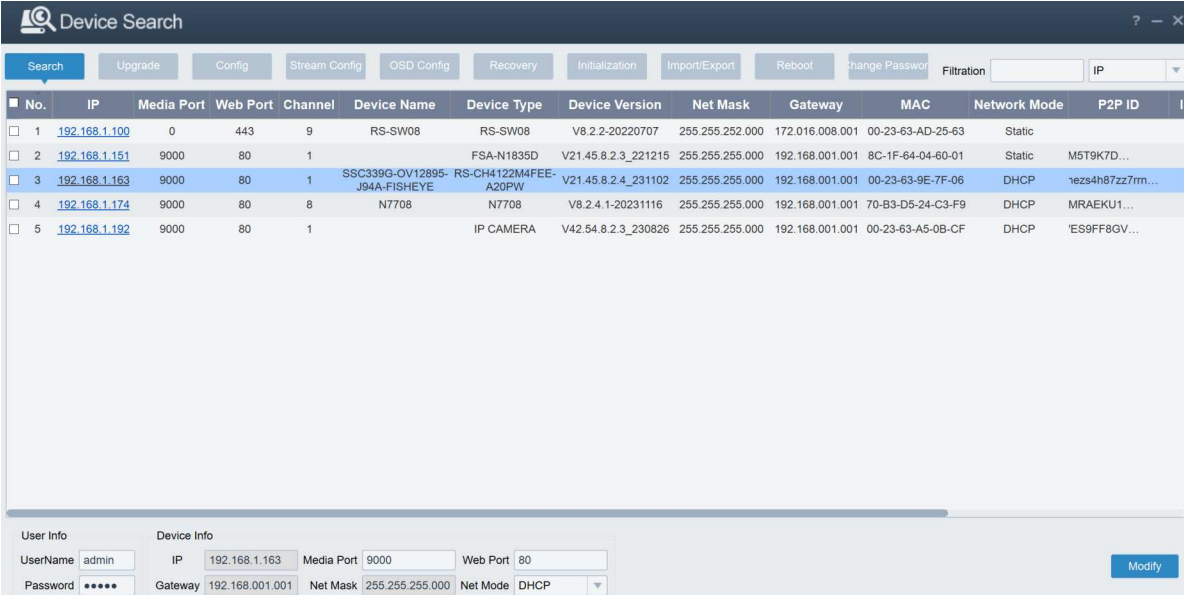
No.	IP	Media Port	Web Port	Channel	Device Name	Device Type	Device Version	Net Mask	Gateway	MAC	Network Mode	P2P ID
1	192.168.1.100	0	443	9	RS-SW08	RS-SW08	V8.2.2-20220707	255.255.252.000	172.016.008.001	00-23-63-AD-25-63	Static	
2	192.168.1.151	9000	80	1		FSA-N1835D	V21.45.8.2.3_221215	255.255.255.000	192.168.001.001	8C-1F-64-04-60-01	Static	M5T9K7D...
3	192.168.1.163	9000	80	1	SSC339G-OV12895-J94A-FISHEYE	RS-CH4122M4FEE-A20PW	V21.45.8.2.4_231102	255.255.255.000	192.168.001.001	00-23-63-9E-7F-06	DHCP	1e2s4h87zz7rm...
4	192.168.1.174	9000	80	8	N7708	N7708	V8.2.4.1-20231116	255.255.255.000	192.168.001.001	70-B3-D6-24-C3-F9	DHCP	MRAEKU1...
5	192.168.1.192	9000	80	1		IP CAMERA	V42.54.8.2.3_230826	255.255.255.000	192.168.001.001	00-23-63-A5-0B-CF	DHCP	'ES9FF8GV...

Step 2. Select the corresponding device, enter your username and password, edit the corresponding network information, and click Modify to save changes.

Note: Change the Net Mode to DHCP to get the IP address if the current network supports DHCP. Login from Web Client

3.1. Accessing Camera from Web Client

Use Device Config Tool to search the IPCs in the current network. As shown in the following figure, directly click an IP address and use your IE browser to log into the corresponding camera.



No.	IP	Media Port	Web Port	Channel	Device Name	Device Type	Device Version	Net Mask	Gateway	MAC	Network Mode	P2P ID
1	192.168.1.100	0	443	9	RS-SW08	RS-SW08	V8.2.2-20220707	255.255.252.000	172.016.008.001	00-23-63-AD-25-63	Static	
2	192.168.1.151	9000	80	1		FSA-N1835D	V21.45.8.2.3_221215	255.255.255.000	192.168.001.001	8C-1F-64-04-60-01	Static	M5T9K7D...
3	192.168.1.163	9000	80	1	SSC339G-OV12895-J94A-FISHEYE	RS-CH4122M4FEE-A20PW	V21.45.8.2.4_231102	255.255.255.000	192.168.001.001	00-23-63-9E-7F-06	DHCP	1e2s4h87zz7rm...
4	192.168.1.174	9000	80	8	N7708	N7708	V8.2.4.1-20231116	255.255.255.000	192.168.001.001	70-B3-D6-24-C3-F9	DHCP	MRAEKU1...
5	192.168.1.192	9000	80	1		IP CAMERA	V42.54.8.2.3_230826	255.255.255.000	192.168.001.001	00-23-63-A5-0B-CF	DHCP	'ES9FF8GV...

User Info: UserName: admin, Password: ****

Device Info: IP: 192.168.1.163, Media Port: 9000, Web Port: 80, Gateway: 192.168.001.001, Net Mask: 255.255.255.000, Net Mode: DHCP

As an alternative, you can open your IE browser and type the following information into the address bar: HTTP://ip:web port. As shown in the figure above, the IP address of the device to be accessed is 192.168.1.163, the web port No. is 80, and the combined URL is http://192.168.58.1163:80.

Note: In practical applications, the default HTTP access mode is port 80.

3.2. When You Log in for the First Time

Firstly, access the camera from a web client, the program will pop up the screen as shown in Figure 4.2.1, asking you to set a more complex password.

Click password field to check password setting requirements:

A password must be 8 to 15 characters long consisting of letters, digits or special characters.

1. A string of 8 to 9 characters containing at least three uppercase letters, lowercase letters, digits, or special characters.
2. A string of 10 to 15 characters containing at least two uppercase letters, lowercase letters, digits, or special characters.
3. Do not contain more than four consecutive or repeated characters.
4. Do not contain more than four consecutive key patterns.

Set a new password and click OK to save your change. The web client will display the screen as shown in Figure:

The screenshot shows a 'Recover Password' dialog box with the following elements:

- Security Question Configuration
- Security Question 1: Your father's name? (dropdown)
- Answer: (text input)
- Security Question 2: Your mother's name? (dropdown)
- Answer: (text input)
- Security Question 3: Your head teacher's name in senior high school? (dropdown)
- Answer: (text input)
- Certificate of authorization [?] (checkbox) [Export button]
- Super code(Not recommended) [?] (checkbox)
- [OK button] [Cancel button]

Users can open the corresponding password retrieval method by checking the box, or cancel the setting directly without checking the box, and do not enable the password retrieval function.

1) Security Question Configuration: To change the user password by question verification, check the Security Question Configuration, select three questions among 13 questions, and set the answers at a maximum length of 64 characters to retrieve your password.

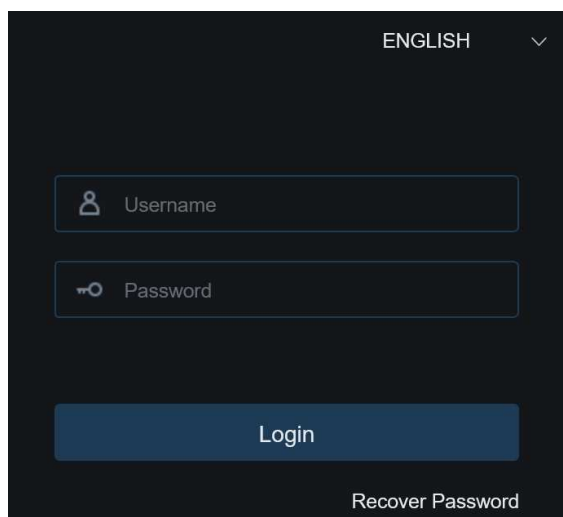
2) Certificate of authorization: To change the user password by using a certificate, check the Certificate of authorization, and click Export to download the certificate.txt file.

3) Super code (Not recommended): This method is to calculate a super code allowing to changing the user password by using the MAC address of the camera and camera time. You are not advised to enable this function as the MAC address of the camera is broadcast over the network, and the system time of the camera can be directly obtained when you log in from the web client and use Super code to change the user password.

Note: Keep your verification information properly when the password retrieval function is enabled.

3.3. Normal Login

After accessing the from web client, you will be directed to the login screen as shown in Figure. Then, input your username and password, and click Login to access the operation screen. At the same time, you can select your desired language upon login.



The screenshot shows a dark-themed login interface. At the top right, the word "ENGLISH" is displayed next to a downward-pointing chevron icon. Below this, there are two input fields: the first is labeled "Username" and contains a person icon; the second is labeled "Password" and contains a key icon. A large, dark blue button labeled "Login" is positioned below the password field. At the bottom right of the screen, the text "Recover Password" is visible.

3.4. Password Retrieval

When the password retrieval function is enabled, if you forget the login information, you can click Recover Password to enter the Recover Password screen. You can check security question configuration, certificate of authorization, or super code upon first login to retrieve your password.

3.4.1. Security Question Configuration

You can change the user password by setting security questions on the Recover Password screen, as shown in Figure, fill in the answers to security questions. You can directly change the user password.

The screenshot shows a 'Recover Password' dialog box with a dark blue header and a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Verification Mode:** A dropdown menu set to 'Security Question Verification'.
- Security Question 1:** A dropdown menu with the text 'Your father's name?' and a downward arrow.
- Answer:** An empty text input field.
- Security Question 2:** A dropdown menu with the text 'Your mother's name?' and a downward arrow.
- Answer:** An empty text input field.
- Security Question 3:** A dropdown menu with the text 'Your head teacher's name in senior high school?' and a downward arrow.
- Answer:** An empty text input field.
- New Password:** A wide text input field.
- Password Strength:** A progress bar consisting of three segments, with the first two filled.
- Confirm Password:** A wide text input field.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

3.4.2. Certificate of Authorization

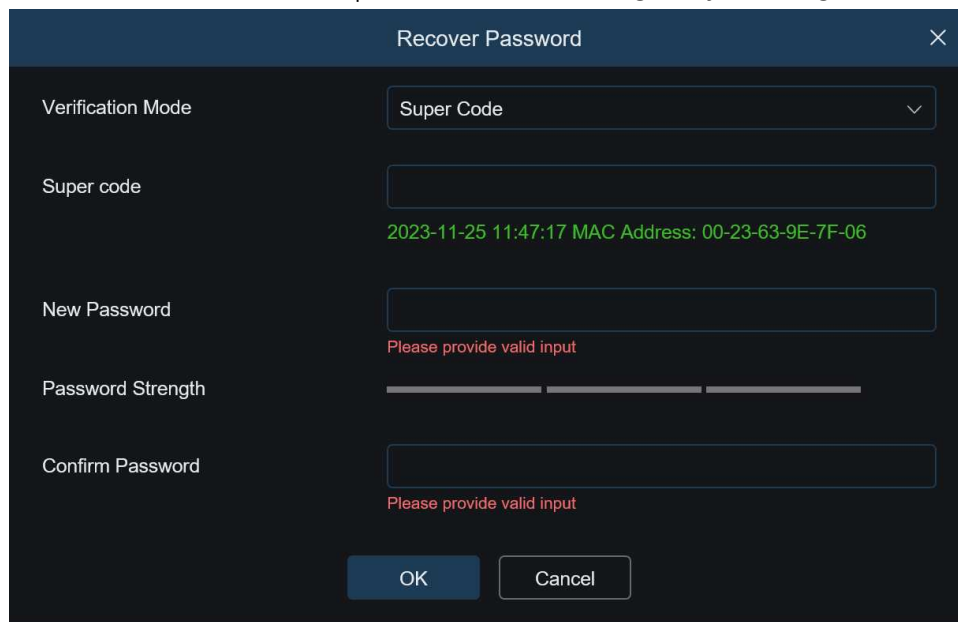
When you set security questions upon first login, you will be asked to download the certificate.txt when you choose to retrieve the user password by using Certificate of authorization. On the Recover Password screen, click the Recover Password and import the certificate.txt file to reset the password, as shown in Figure, click Import and select the certificate.txt file. Then, enter a new password to change the user password.

The screenshot shows the 'Recover Password' dialog box with the 'Verification Mode' set to 'Certificate of authorization'. The fields and controls are as follows:

- Verification Mode:** A dropdown menu set to 'Certificate of authorization'.
- Certificate of authorization:** A text input field with an 'Import' button to its right.
- New Password:** A text input field with a red error message below it: 'Please provide valid input'.
- Password Strength:** A progress bar consisting of three segments, with the first two filled.
- Confirm Password:** A text input field with a red error message below it: 'Please provide valid input'.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

3.4.3. Super Code

A super code is an insecure way to retrieve the password. The super code is calculated based on the MAC address of the camera and the time of the super verification code according to certain rules. Then the user password can be changed by entering the verification code.



Recover Password

Verification Mode: Super Code

Super code: 2023-11-25 11:47:17 MAC Address: 00-23-63-9E-7F-06

New Password: Please provide valid input

Password Strength: [Progress bar]

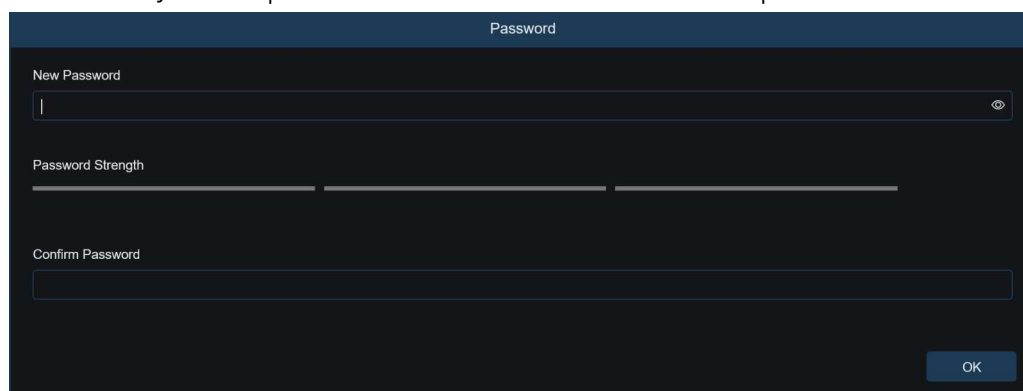
Confirm Password: Please provide valid input

OK Cancel

3.5. Password Aging

Security risks may arise if you use the same password for a long period of time. To this end, the program records the time when the password was changed last time. The system will ask you whether to change the password again if the current login time is 90 days later than the last password change time.

When you decide to change the password, the screen as shown in Figure. As instructed on the screen, use your old password for verification and set a new password.



Password

New Password: [Input field]

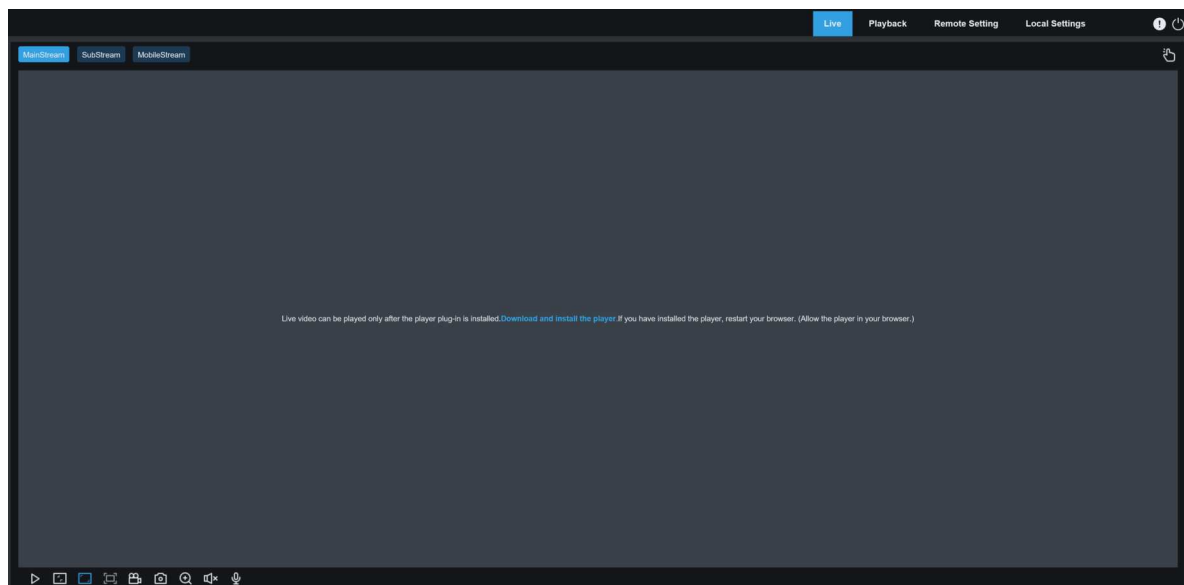
Password Strength: [Progress bar]

Confirm Password: [Input field]

OK

4. Installing Plug-in

An image can be normally previewed only when the plug-in is installed when you log in from your IE browser. Download and install the plug-in as instructed on the screen as shown in Figure.



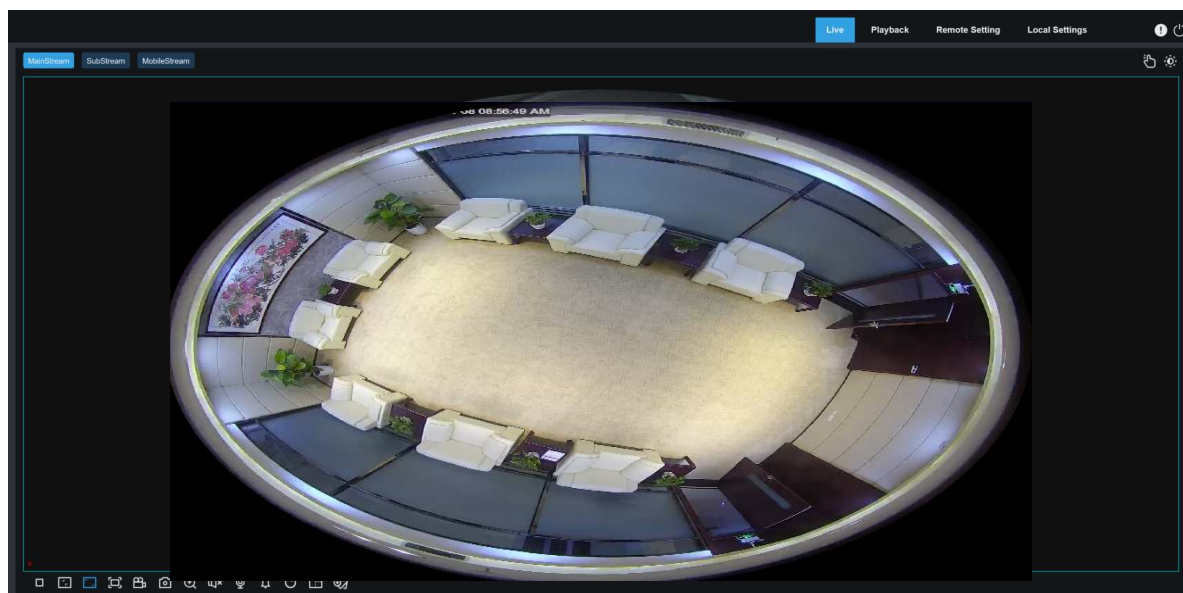
Note: You can skip the plugin installation when you access the web client from Safari 12 and later, Chrome 57 and later, Firefox 52 and later, and Edge 41.

5. Live View

5.1. Live View Menu

The web client enters the login live view upon login, as shown in the figure below.

Note: Features may differ depending on product models.



5.1.1. Stream Switching Menu

You can switch the picture quality of the current live view at the upper left corner:

Main stream: HD picture, but higher requirements on bandwidth and PC performance.

Sub stream: Moderate requirements on bandwidth and PC performance, but lower picture quality when compared with main stream.

Mobile stream: Lowest requirements on bandwidth and PC performance, and lowest picture quality.

5.1.2. Main Switching Bar

Switches web function screens. The web client provides four menus: Live, Playback, Remote Setting, Local Settings.



Info: Displays the information about the active user, web version and plugin version.



Exit: Log out.



Manual alarm: Used to open the alarm push bar on the right and push images during face alarming and human & vehicle detection.



Color: Used to adjust the current image settings, such as image saturation and sharpness.



Stop/Play: Used to play and stop the preview of the current stream.



Original Proportions: Displays the current live view in its original proportion.



Stretch: Displays the current live view in a way that stretches the display area.



Full Screen: Displays the live view in full screen. You can double-click the screen to enable or disable the function, and press Esc to exit the full screen mode.



Record: Used to manually record the stream in preview.



Capture: Used to manually capture the image of the current stream.



Digital Zoom: Used to zoom in a certain area of the display.



Audio: Used to turn on/off or adjust the audio in preview.



Voice Intercom: Used to communicate with the camera.



Siren: Used to manually turn on/off the siren.



Pixel Counter: Used to select an area to check its pixel size in the stream.




Fisheye Mode: Click the icon into the fisheye mode.

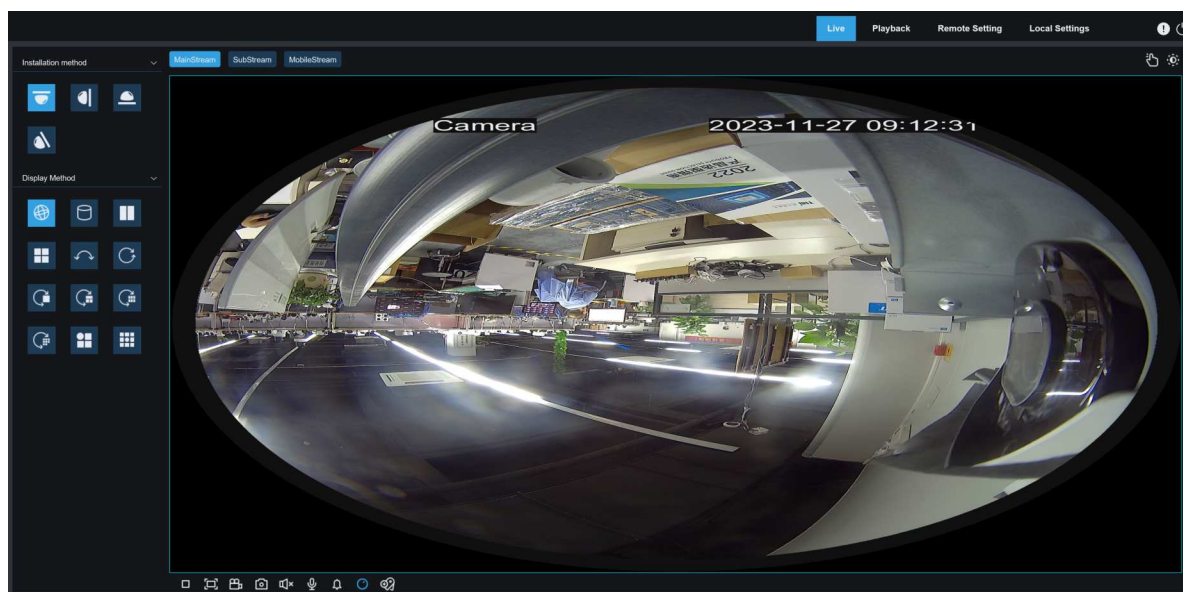


Add Tag: Used to add custom tags. Click this button to pop up a dialog box, in which you can specify the name of the tag.

5.1.3. Fisheye Mode

Click "  then you will into the page as following:

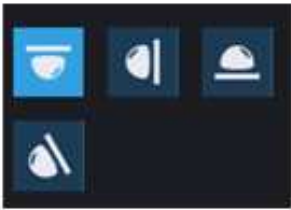












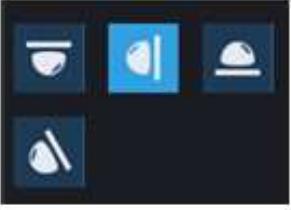







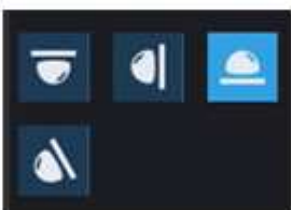











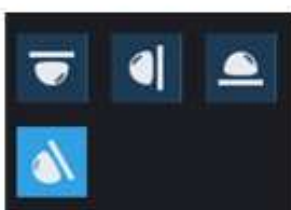











In different software decode mode, this display mode may be different, please follow the actual device interface

5.1.3.1. Installation method of fisheye

Different installation scenes choose different installation ways, default show fisheye image, while you switch the installation ways, display modes of the fisheye will be different when you choose different installation way, more details are as below:

Mount Type	Display Mode			
 <p data-bbox="357 526 491 555">Ceiling</p>				
				
				
 <p data-bbox="384 795 459 824">Wall</p>				
				
 <p data-bbox="357 1064 491 1093">Desktop</p>				
				
				
 <p data-bbox="384 1332 459 1361">Tilt</p>				
				

5.1.3.2. Display method of fisheye














The preview of the IP fisheye camera is combined by fisheye, panoramic and PTZ images.


Fisheye image: The panoramic or wide angle image viewed by the fisheye lens.

Panoramic image: corrected the fisheye image converted to the rectangle images.


PTZ image: The close-up image of a selected area from fisheye image or panoramic image, can support E-PTZ.

Various preview modes of network fisheye camera shown as below:


Icon	Info	Icon	Info
	Fisheye mode		Cylinder panoramic mode
	Two PTZ mode		4 PTZ mode
	180° panoramic mode		360° panoramic mode
	360° panoramic and 1 PTZ mode		360° panoramic and 3 PTZ mode
	1 fisheye mode and 3 PTZ mode		360° panoramic and 8 PTZ mode
	Corrected rectangular panoramic mode		Rectangular panoramic and 3 PTZ mode
	Rectangular panoramic and 8PTZ mode		

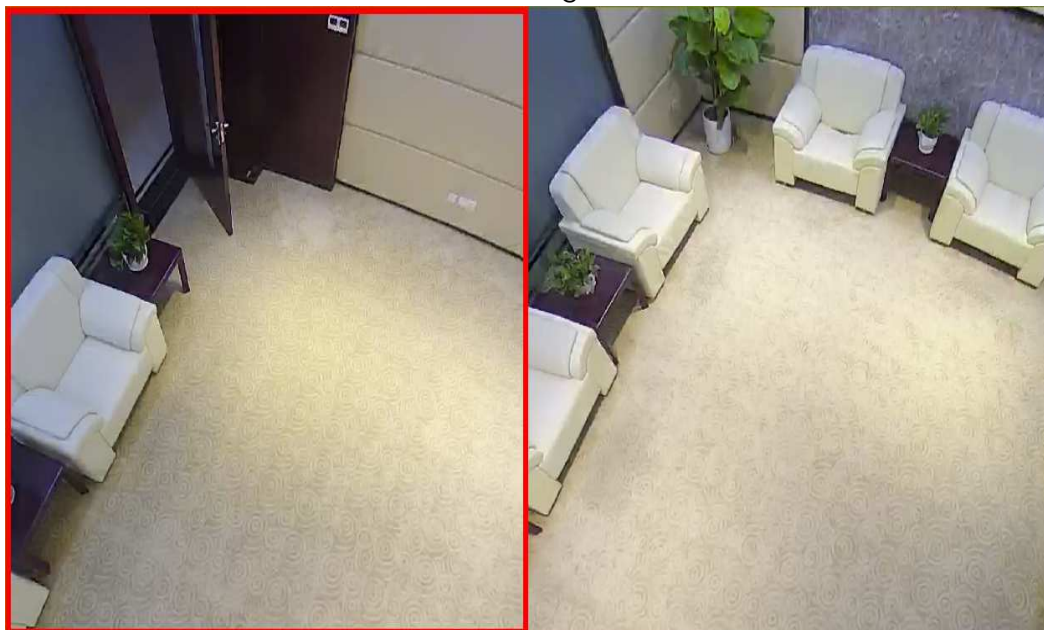
Click the icon  at the left side, it will show the image as below:



Click this icon  , it will display as the below:




Click this icon  , it will show two PTZ images as below:



Click  , it will be four PTZ images as below:



Click , it will be 180°panoramic images as below:




Click , it is a 360°panoramic image as below:




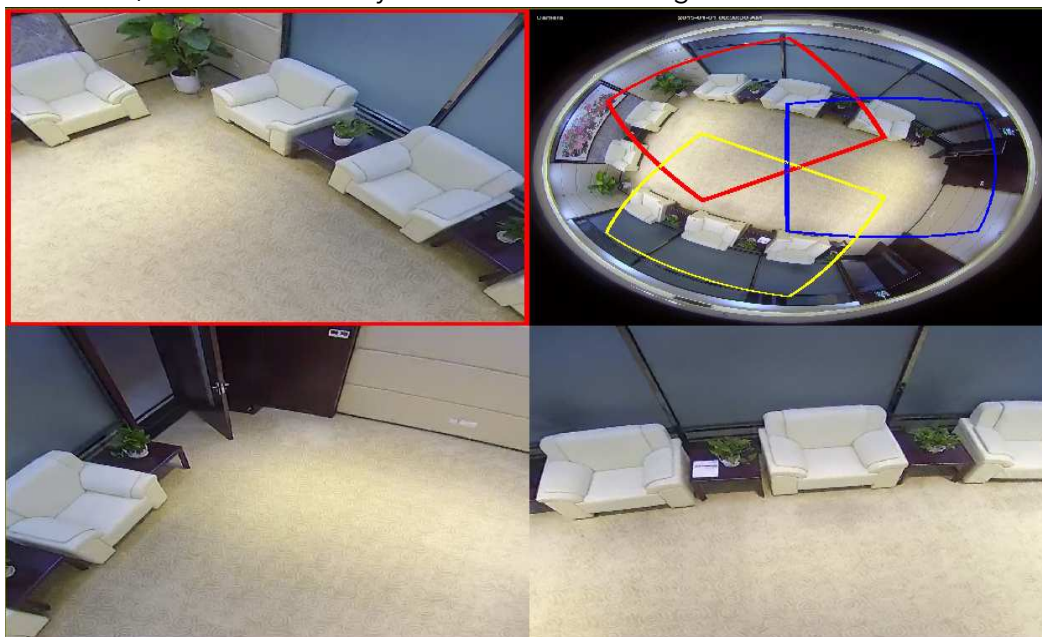
Click , it will show a 360°panoramic image and 1 PTZ image as below:



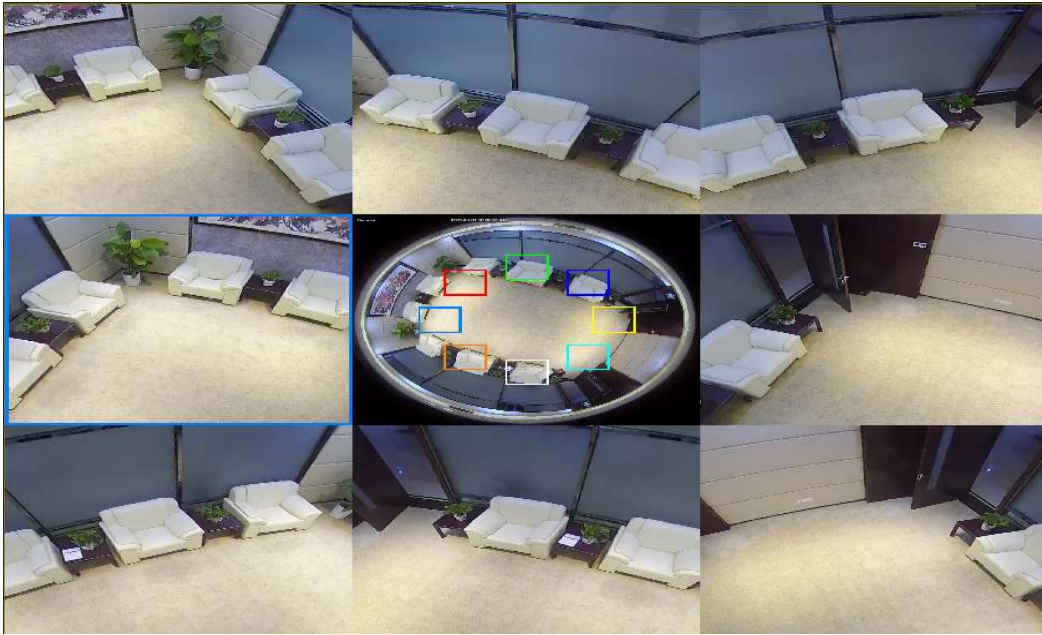
Click , it will be a 360°panoramic image and 8 PTZ images as below:



Click  , it will show a fisheye mode and 3 PTZ images as below:



Click  , it will be a fisheye mode and 8 PTZ images as below:



5.2. Recording Status

The recording status is a simple presentation of the current alarm at the web client and indicates whether the recording is normal. A variety of alarms can be stored at a time, as described below:

No icon: The memory card functions normally but no recording is executing.

R : The camera is normally recording.

Note: When the camera is recording an alarm, the icon disappears, but the normal recording process continues.

H : The memory card is normal. Check the memory card.

M : A motion alarm is in progress but the motion alarm recording is not turned on.

M : A motion alarm is in progress and the motion alarm recording is turned on.

I : An I/O alarm is in progress, but the I/O alarm recording is not turned on.

I : An I/O alarm is in progress, and the I/O alarm recording is turned on.

S : An intelligent alarm is in progress, but the intelligent alarm recording is not turned on.

S : An intelligent alarm is in progress, and the intelligent alarm recording is turned on.

6. Playback

The camera not only need to be able to show us images in real time, but also save the image information so that we can call it up when needed.

6.1. General Playback

The playback function mainly includes general video search and AI search, as shown in the

following figure.



Search Mode switching: Used to switch search functions, as shown in the figure above. General is selected by default to search for general recording files. You can switch to Picture and Tag search by referring to the following part in this section.

Date: Used to set the date to search for recording files. Click Search. You will be prompted with the dates with available recording files.

Search type: Displays the search types supported by the camera. You can search for only part of recording files as required.

Search: Display and search for recording files stored in the memory card according to search settings.



Pause/Play: Used to pause/play streams.



Stop: Used to stop streams.



Forward by One Frame: Used to play one frame with one click.



Record: Used to manually record the stream in preview.



Capture: Used to manually capture the image of the current stream.



Download: Download the searched recording file.



Speed: Supports playing at a speed of 1/8, 1/4, 1/2, 1, X2, X4, and X8.



Audio: Used to turn on/off or adjust stream sound.

Playback progress bar: The time bar on the bottom displays the current playback progress bar and playback progress in different colors based on the search results.



Add Default Tag: Used to add default tags. Click this button to mark the video playback start time at the current time in the current channel, and the tag is added.



Add Tag: Used to add custom tags. Click this button to pop up a dialog box, in which you can specify the name of the tag.



Digital Zoom: Used to zoom in a certain area of the stream.



Original Proportions: Displays the current live view in its original proportion.



Stretch: Displays the current live view in a way that stretches the display area.

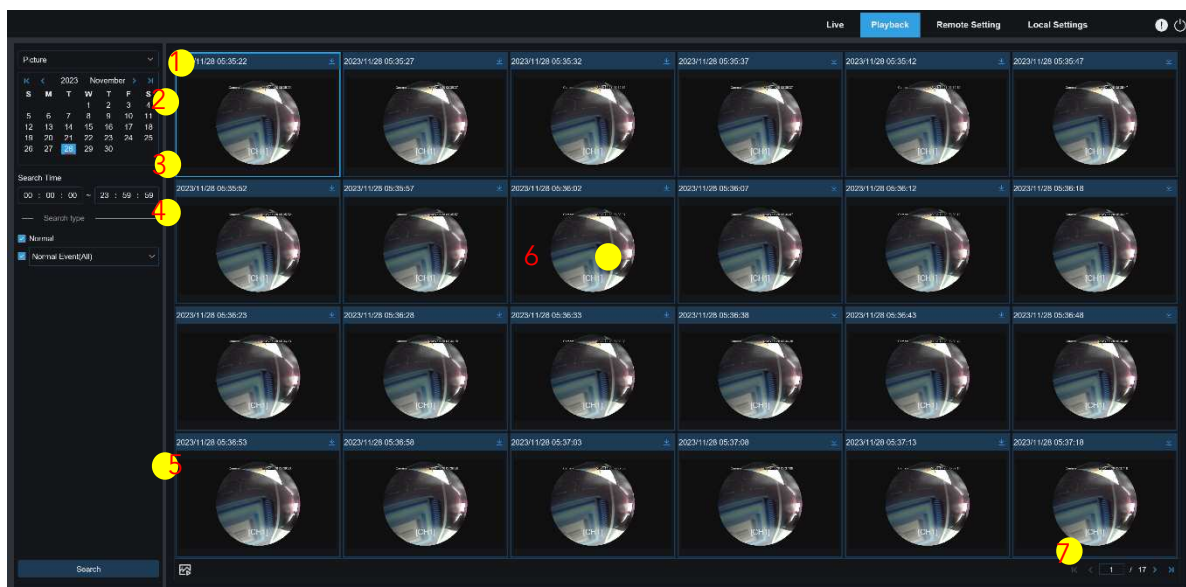


Full Screen: Displays the playback stream in full screen. You can double-click the screen to enable or disable the function, and press Esc to exit the full screen mode.

Zooming in/out playback progress bar: By default, the progress bar displays the progress within 24 hours. By zooming in and out the progress bar, you can jump to the corresponding playback position more accurately. You can also use the mouse wheel to zoom in/out the progress bar.

6.2. Picture Search

When the auto capture function is enabled, you can search and play pictures on this screen.

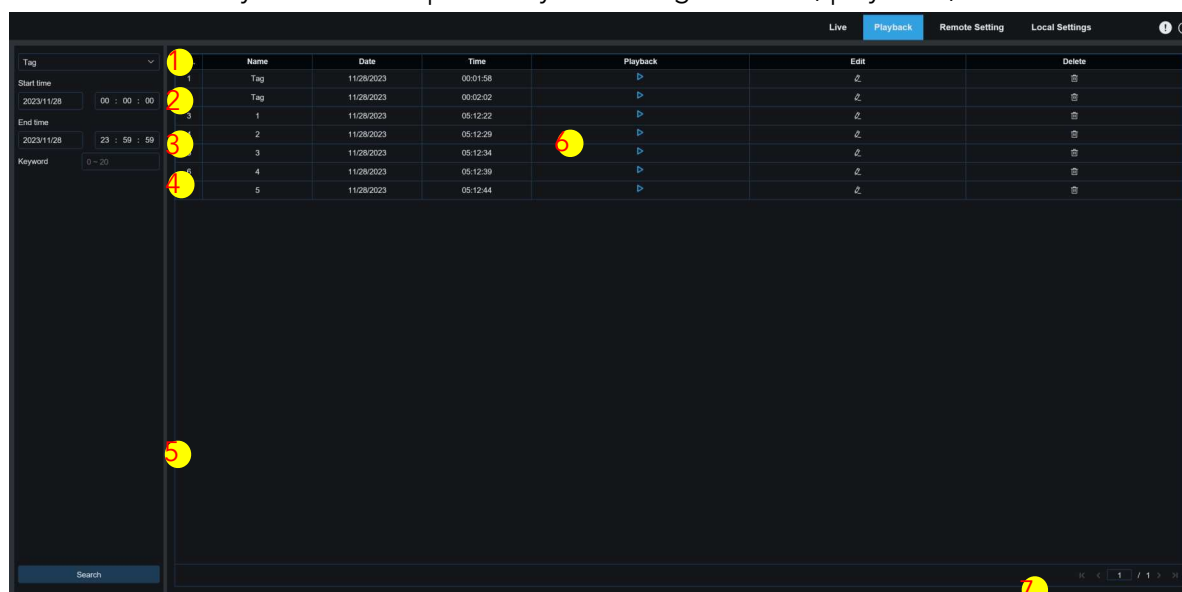





1. **Search Mode switching:** Used to switch the current search function. The current Search Mode is Picture.
2. **Date:** Used to set the date to search for pictures. By clicking Search, you will be prompted with the dates for which recording files are available.
3. **Search time:** Used to set the time to search for pictures, allowing users to search for pictures in a specific period of time.
4. **Search type:** Used to select the picture capture type you want to search for, or check "All Type" to select all pictures.

5. **Search:** Click Search to start searching images.
6. **Search Result Display Area:** Displays the desired search results. Double-click on a picture will play the video after and before the picture.
7. **Search Result Scrolling Through:** You can scroll through search results at the lower right corner.

6.3. Playback by Tag

This screen allows you to view all previously added tags and edit, play back, or delete them.

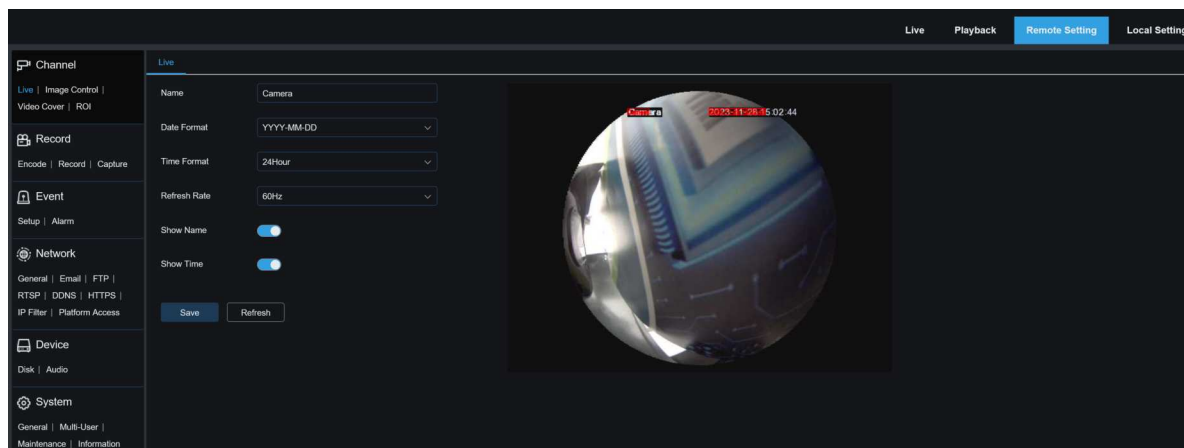


1. **Search Mode switching:** Used to switch the current search function. The current Search Mode is Tag.
2. **Start time:** Used to set the start time to search for tags.
3. **End time:** Used to set the end time to search for tags.
4. **Keyword:** You can search for tags with keywords.
5. **Search:** Click Search to start searching.
6. **Search Result Display Area:** Displays the desired search results. Click the  button to play back events, click the  button to change event name, click the Save button to display the Modify Success prompt dialog box, and click the  button to delete this event.
7. **Search Result Scrolling Through:** You can scroll through search results at the lower right corner.

7. Remote Setting

7.1. Live View

On the Live view, you can set channel name, device time, CC, as well as statistical data and image covering. The view is shown in the figure below.



Name: Here, you can set the channel name of the camera displayed on the OSD.

Date Format: Here, you can set the date format of the camera displayed on the OSD, including MM/DD/YYYY, YYYY-MM-DD, and DD/MM/YYYY.

Time Format: Here, you can set the hour format of the camera on the OSD, including 12-Hour and 24-Hour.

Refresh Rate: Here, you can set the image refresh rate, including 60 Hz and 50 Hz, corresponding to N and P respectively.

Show Name: Here, you can set whether to display channel name on images.

Show Time: Here, you can set where to display channel time on images.

Channel Name Display Location: Here, you can set the location where the channel name appears by dragging its location on the image.

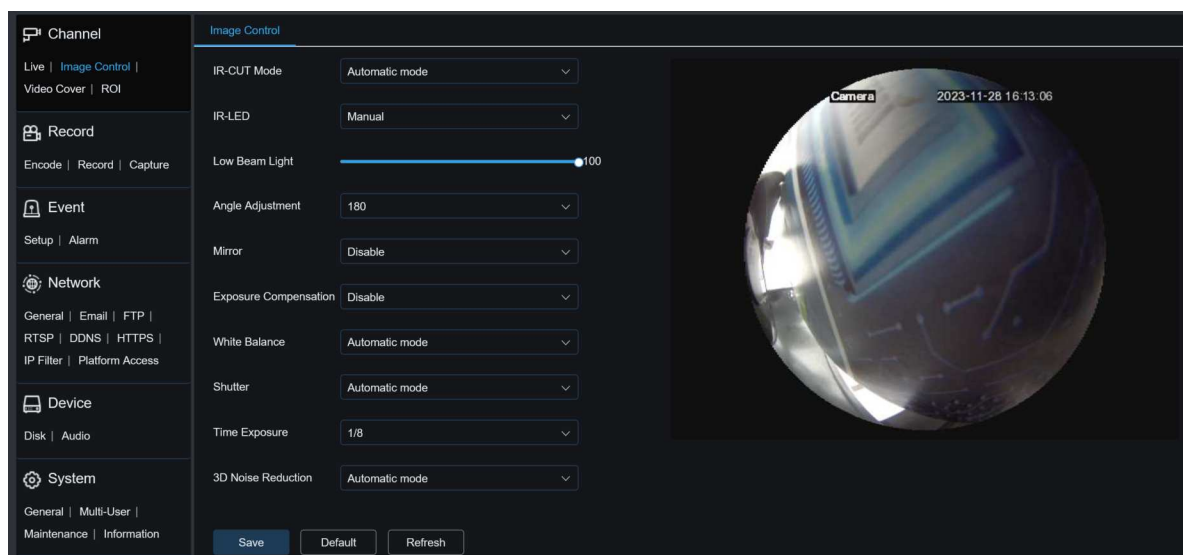
Time Display Location: Here, you can set the location where the channel time appears by dragging its location on the image.

Save: Used to save current changes.

Refresh: Used to refresh parameters on the current view.

7.2. Image Control

Image control is to directly control and modify graphic parameters, such as color to black mode, wide dynamic range, backlight compensation, etc. The view is shown in the figure below.



IR-CUT Mode: Used to set the day/night switching mode of the camera in Day/Night Mode. There are five mode options.

Automatic Mode: Used to automatically control mode switching. Whether color to black/white switching is performed depends on image judgment. Whether black/white to color switching is performed depends on photosensitivity judgment.

Color Mode: The camera works in Full Color Mode.

Black White Mode: The camera works in Day/Night Mode.

Image Mode: Similar to the Auto Mode, color to black and black to color are judged by images (for non-photosensitive models).

Schedule: Used to switch between black/white and color as scheduled. If this function is enabled, you need to set the start time and end time for night vision status.

IR-LED: Used to set the fill-in light effect of the IR light at night vision. There are three mode options.

Smart IR: Used to intelligently control the fill-in light intensity of the IR light according to focal length and overexposure condition.

Manual: Manual Mode in which the fill-in light is applied in the form of the set brightness of the IR light.

Low Beam Light: Here, you can manually adjust the brightness of the IR light (0 to 100, of which 0 indicates that the IR light is off and 100 indicates the highest brightness)

Angle Adjustment: Image rotation setting. The camera is reverse to the presetting in some usage scenarios. For example, the camera is designed to be hung upside down, but in practice it is used flatwise. You can set this value to adjust the image.

Mirror: You can set the mirror mode to adjust the picture effect. There are four mode options.

Disable: Used to disable the Mirror Mode.

Vertical: Used to set the Mirror Mode in the vertical direction to interact the image on the picture up and down.

Horizontal: Used to set the Mirror Mode in the horizontal direction to interact the image on the picture left and right.

All: Used to enable Vertical and Horizontal at the same time. The effect is similar to that of 180° rotation, but the implementation principle is different.

Exposure Compensation: Used to set the performance of the program when the backlight is turned on. There are four mode options.

DWDR: Wide dynamic range in which the picture is uniformly balanced based on the setting and both light and dark areas can be clearly distinguished.

HLC: Highlight compensation in which the objects in the highlighted area are clearer in the picture. (applicable for some models).

BLC: Backlight compensation in which the objects in the dark area are more clearer.

Disable: An image will not be optimized with backlight on.

White Balance: White balance is a measure of the accuracy of white produced by mixing red, green, and blue. There are two mode options.

Automatic mode: Allows you to adjust the white light using default parameters.

Manual: Allows you to actively set the synthetic gained white light of red, green, and blue.

Shutter: Used to set the shutter exposure time. There are two mode options.

Automatic mode: The program automatically selects a proper exposure time according to the Time Exposure setting.

Manual: Allows you to directly use the Time Exposure setting.

Note: Deselect the flickerless option of the exposure time in shutter manual mode, and select the option in shutter auto mode. If you switch the shutter to manual mode, the exposure time is switched automatically to 1/100 or 1/120.

Time Exposure: Used to set the exposure time of the camera and use this parameter in combination with Shutter. When the exposure time is too long, there may be overexposure. When the exposure time is too short, the picture may be dark.

3D Noise Reduction: You can reduce image noise by setting this parameter to obtain a clearer picture. There are three mode options.

Automatic mode: In this mode, the camera will automatically select the noise reduction effect according to algorithms.

OFF: Used to disable the noise reduction function.

Manual: Allows you to manually set the noise reduction coefficient to reduce image noise.

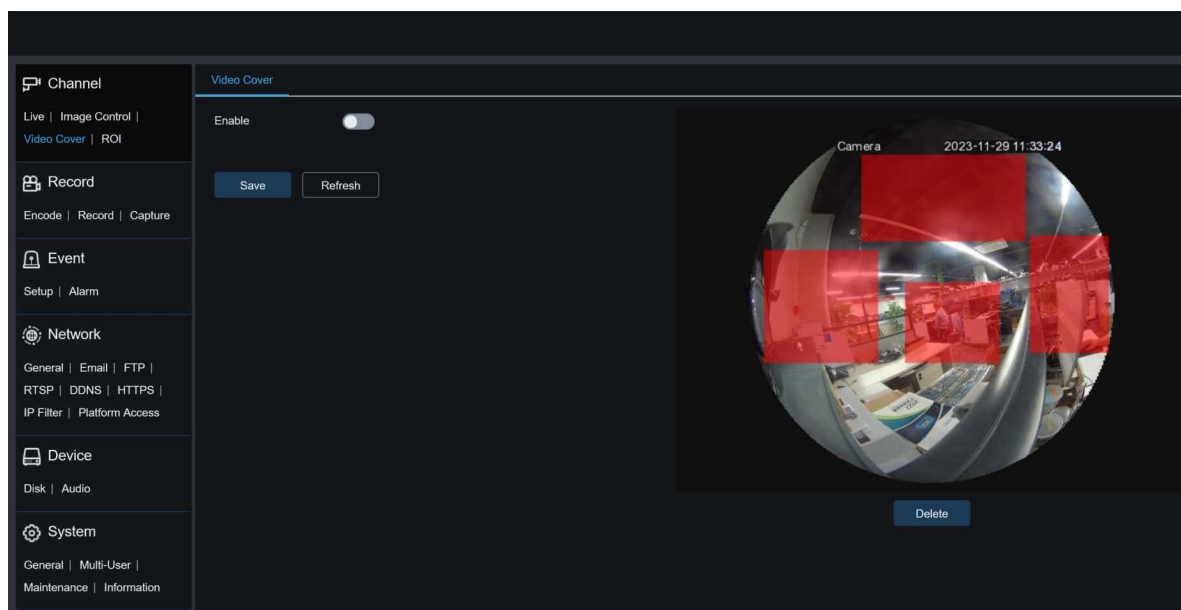
Save: Used to save parameter changes to an image.

Default: Used to restore image parameters to default settings.

Refresh: Used to refresh image parameters.

7.3. Video Cover

In practical applications, if areas that can be monitored by the camera are not suitable for monitoring and recording, you can use this function to occlude these areas. The screen is shown in the figure below.



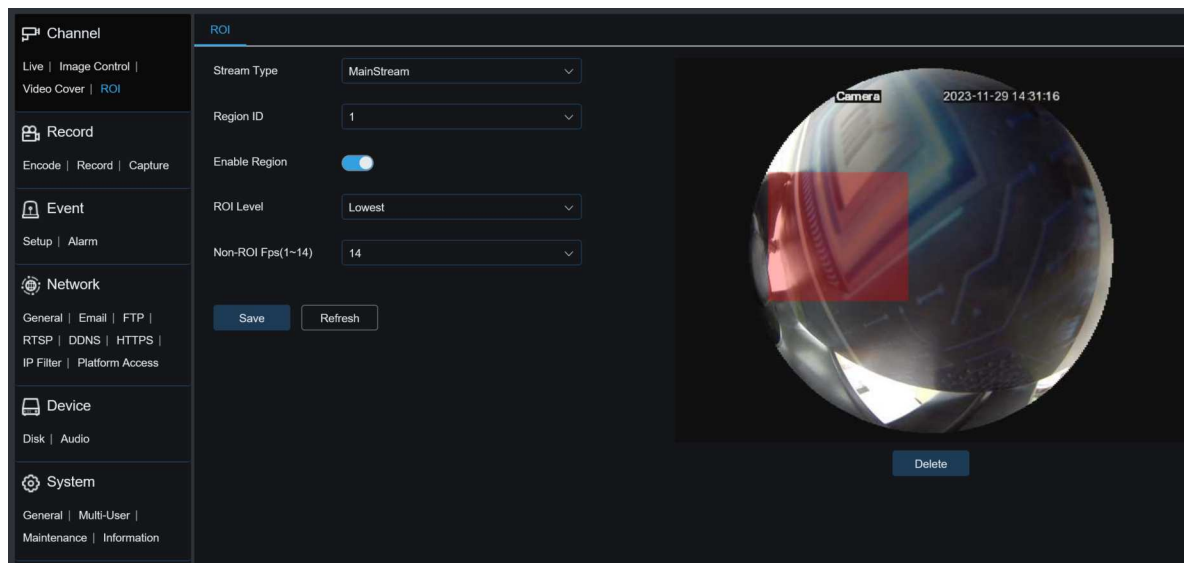
Enable: Used to enable the video tampering function.

Tampering Area Setting: Used to set the areas to be tampered in the monitoring screen. The tampered blocks are red while setting and will turn to black after they take effect. You can set four tampering blocks.

Delete: Used to delete selected tampering blocks.

7.4. ROI

ROI (sensitive area) is a region of interest selected from the video area. This area can be set to a different frame rate and sharpness than the unselected area.



Stream Type: Used to select the stream type to be set.

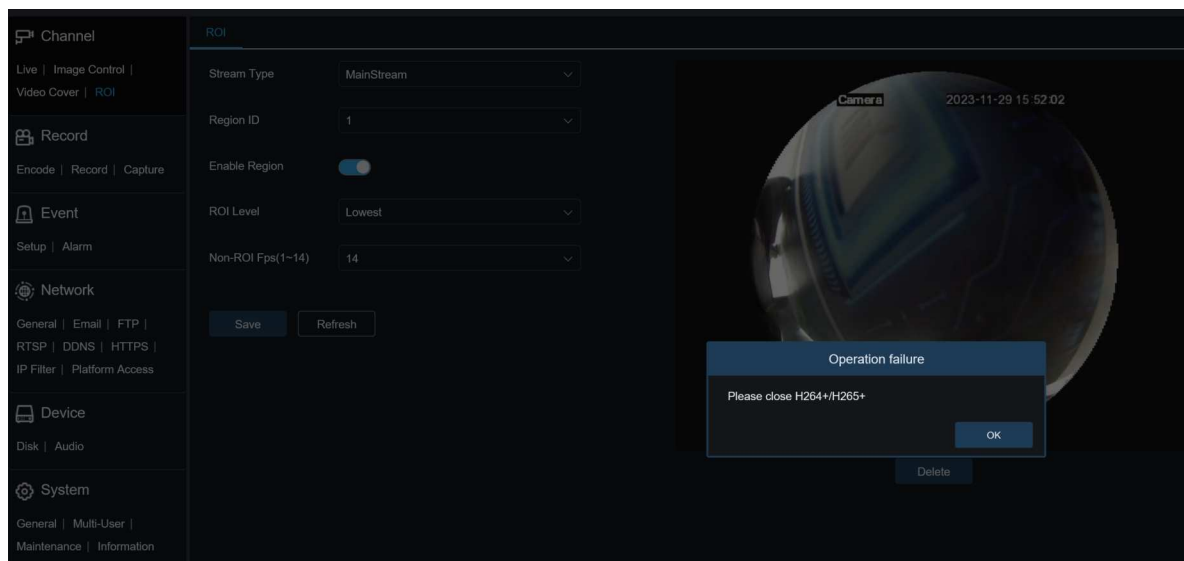
Region ID: Used to select region IDs. You can set up to eight regions.

Enable Region: Used to enable regions.

ROI Level: Used to set image quality in regions. The higher the quality, the higher the resolution and frame rate.

Non-ROI Fps: Used to set the frame rate of non-region of interest.

Note: If the video code type is H264+ or H265+, the ROI function and the type are mutually exclusive. Therefore, the ROI function cannot be enabled, as shown in the following figure:

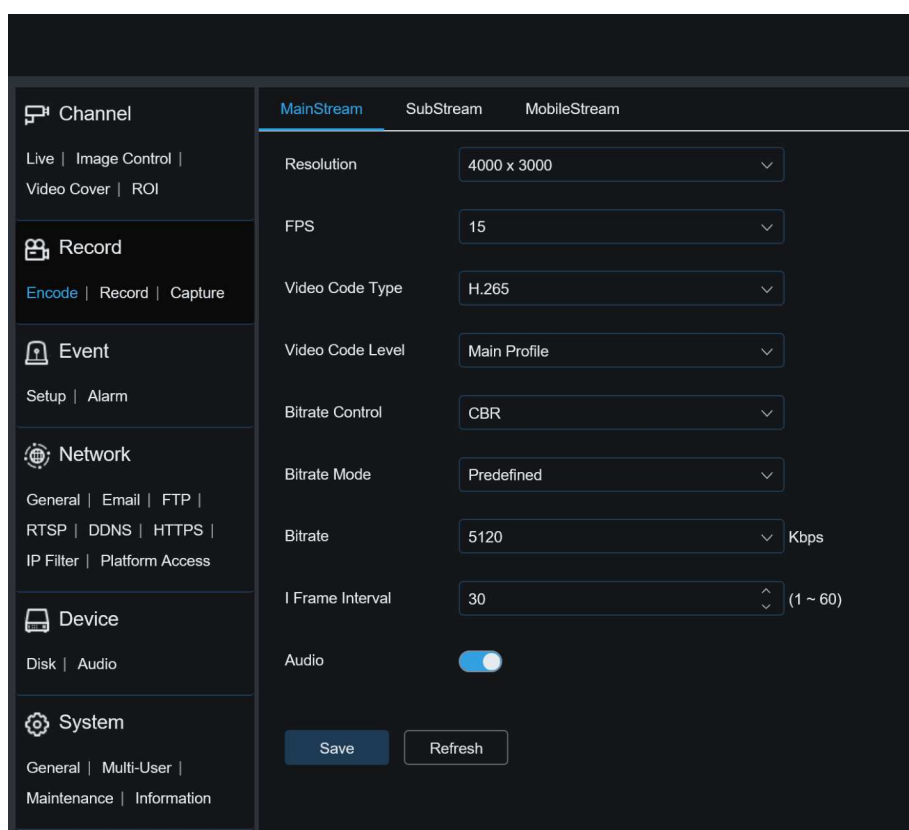


7.5. Recording Parameters

This menu allows you to configure preview parameters and recording parameters.

7.5.1. Encoding Parameters

This menu allows you to configure the image quality for video recording or network transmission. In general, "MainStream" defines the quality parameters of recorded videos that will be stored in the SD Card, "SubStream" defines the quality parameters of live videos that are remotely accessed from for example the web client and CMS, and "MobileStream" (can be turned off) defines the quality parameters of live views that are remotely accessed and viewed from mobile devices.



Resolution: This parameter defines the resolution of a recording image.

FPS: This parameter defines the frame rate of recording in your IPC.

Video Code Type: Channel decoding types. The options include H.264, H.265, H.264+, H.265+, and MJPEG (MJPEG only exists in substream mode).

Video Code Level: Video quality levels. The options only Main Profile.

Bitrate Control: Used to select a bit rate level. For a simple scenario such as a plastered wall, a constant bit rate is preferred. For a complicated scenario such as a busy street, a variable bit rate is preferred.

Bitrate Mode: To manually set a bit rate, select the "User-defined" Mode. To select a preset bit rate, select the "Predefined" Mode.

Bitrate: This parameter corresponds to the data transmission speed used by the IPC to record a video. Recording in a higher bit rate will gain better image quality.

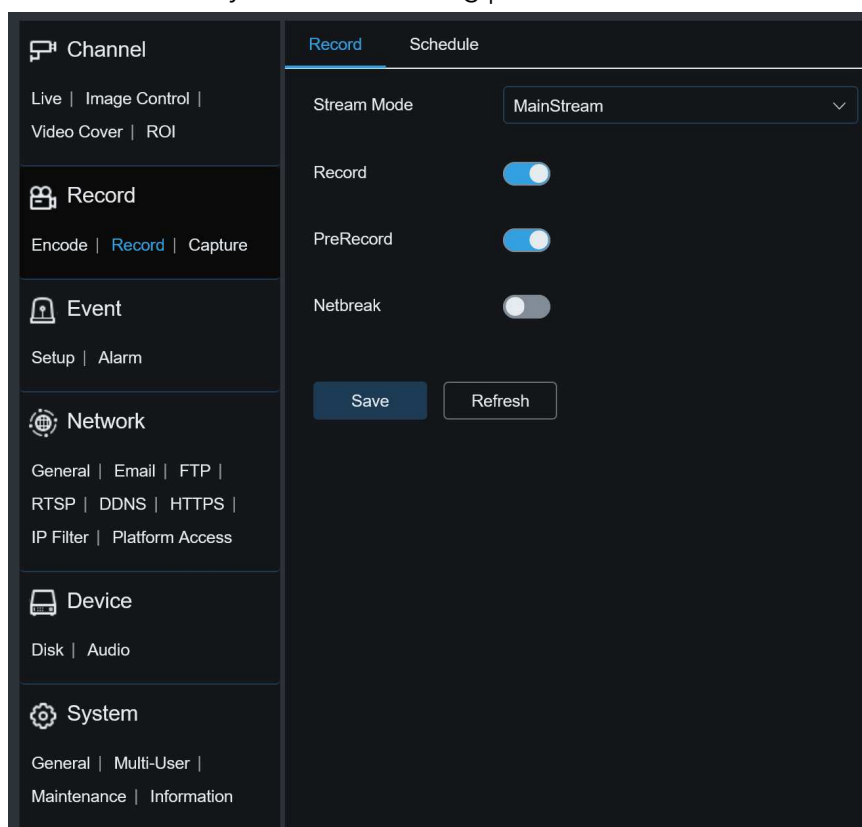
I Frame Interval: Used to set an I-frame interval. This option is only available in the IPC.

Audio: Select this option if you want to record both audio and video and connect your microphone to IPC or use a camera with audio capability.

7.5.2. Recording Parameters

7.5.2.1. Recording Parameters

This menu allows you to set recording parameters.



Stream Mode: Used to select a Recording Mode, that is, video stream to be saved in the memory card. The main stream is selected by default.

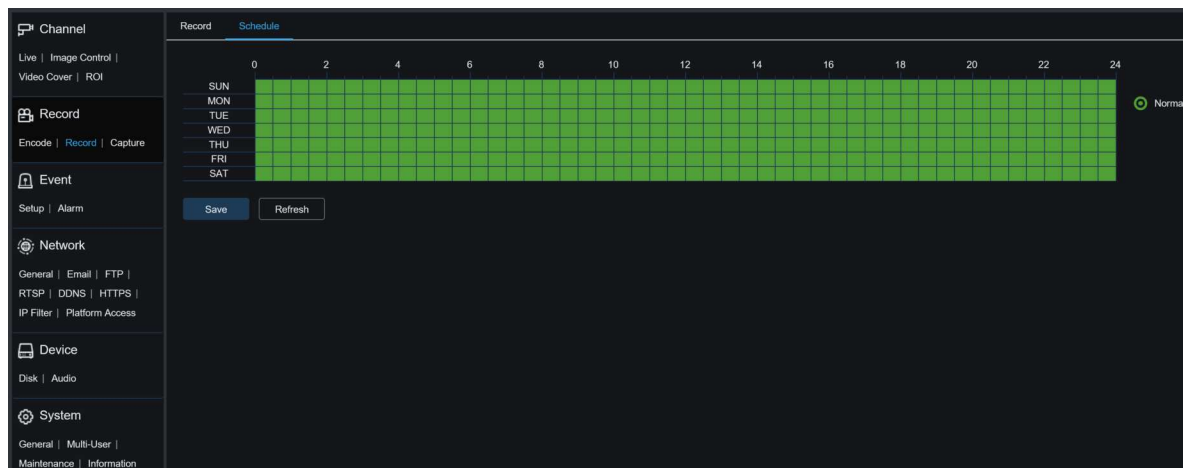
Record: Select this option to start recording.

PreRecord: If this option is enabled, the IPC will start recording a few seconds before an alarm event occurs. This option is recommended if your main recording type is based on motion detection or I/O alarm.

Netbreak: If this option is selected, recording continues even when the network is disconnected or network failure occurs.

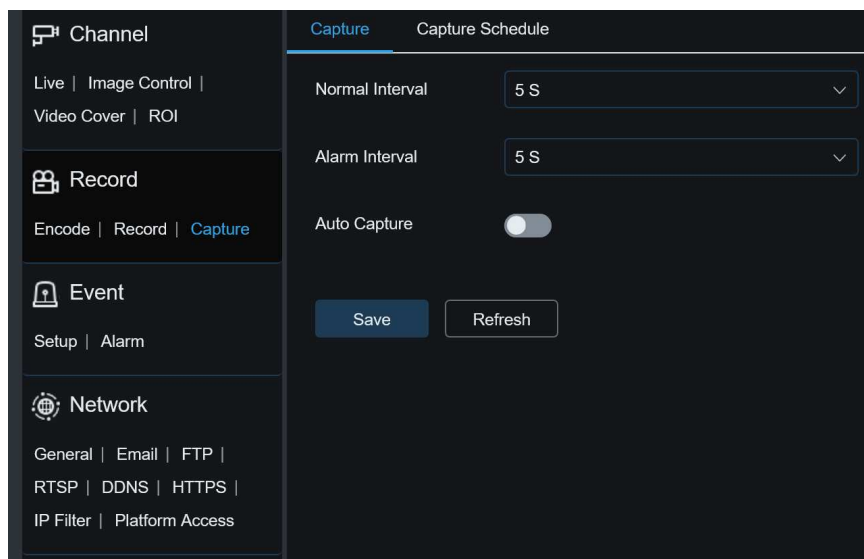
7.5.2.2. Recording Schedule

This menu allows you to specify when the IPC starting recording. You can set a recording plan in the recording schedule. The recording is performed only within the selected time period. You can drag your cursor to mark areas.



7.5.3. Capture

7.5.3.1. Capture Settings



Normal Interval: Normal capture interval, used to specify the capture interval in normal recording.

Alarm Interval: Alarm capture interval, used to specify the capture interval when motion detection, I/O alarm, or PIR is triggered.

Auto Capture: Automatic capture.

7.5.3.2. Capture Schedule

This menu allows you to specify when the IPC capture images. You can set a capture plan in the capture schedule. The capture is performed only within the selected time period. You can drag your cursor to mark areas.



Normal: When the area is marked green, the channel performs normal capture on the area in the corresponding time period.

Motion: When the area is marked yellow, the channel performs motion capture on the area in the corresponding time period.

IO: When the area is marked red, the channel performs I/O alarm capture on the area in the corresponding time period.

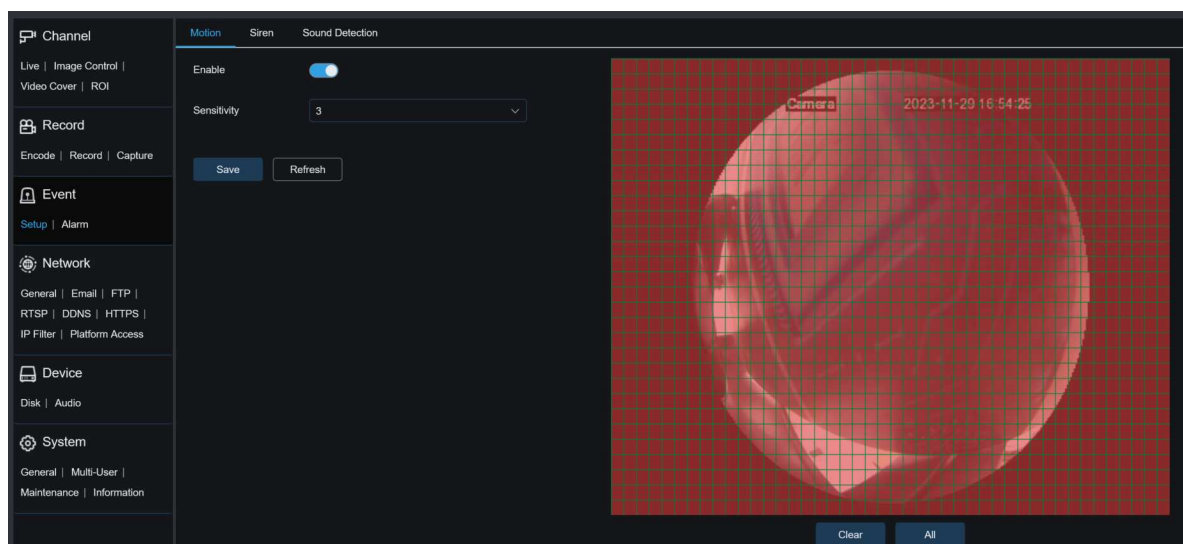
No Capture: When the area is marked black, the channel will not perform capture in this time period.

7.6. Event Setup

7.6.1. Parameter Setup

7.6.1.1. Motion Detection

This menu allows you to configure motion detection parameters. When motion is detected, a series of alarms will be triggered, such as sending an email alert with attached images from the camera (if this option is enabled) and a push notification via the Smart Guardian app.



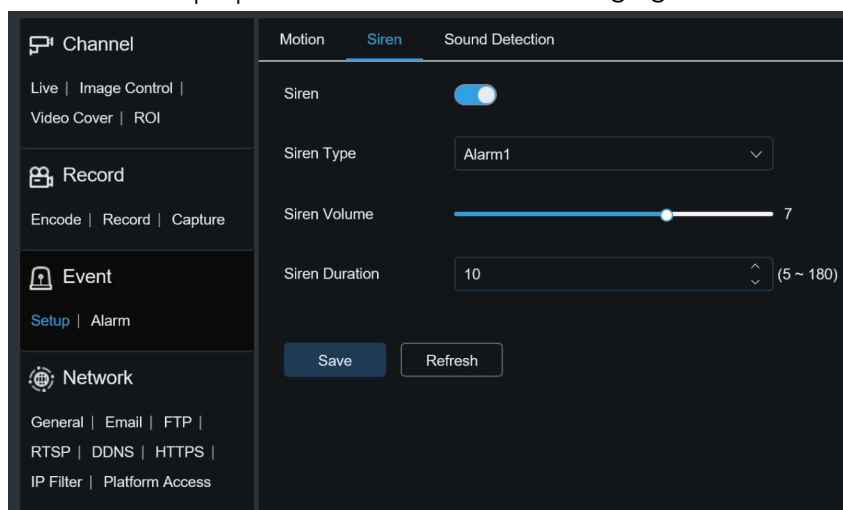
You can drag the left mouse button to delimit the detection area in the right window. An alarm will be triggered only when motion is detected in this area.

Enable: Used to enable or disable motion detection.

Sensitivity: Used to set the sensitivity of motion detection. The higher the value, the higher the sensitivity.

7.6.1.2. Siren Detection

When the fisheye camera supports siren, you can set siren deterrence parameters on this screen. When an alarm linking to deterrence is triggered, the siren is automatically turned on for deterrence purpose, as shown in the following figure.



Siren: Used to turn on/off the siren.

Siren Type: Used to set the siren file type.

By default, only a files for users to configure.

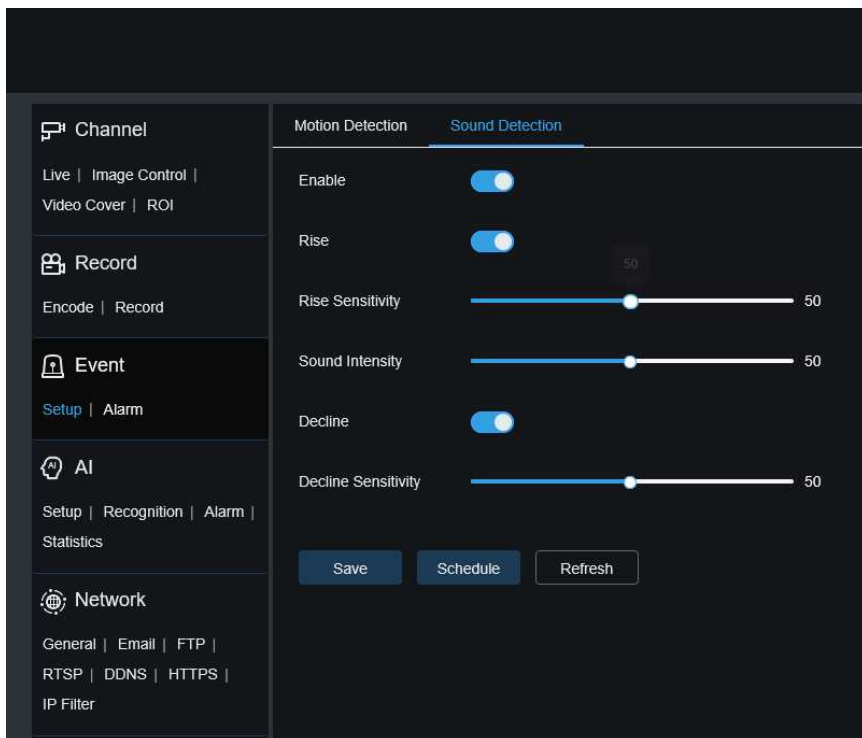
Siren Volume: Used to set the siren volume.

Siren Duration: Used to set the siren duration.

7.6.1.3. Sound Detection

Used to set the response to sound alarm. An alarm will be triggered when the camera detects

that the connected audio has changed and the requirement of alarm detection is met.



Enable: Used to enable or disable audio detection.

Rise: Volume rise switch. When this option is turned on, an alarm will be triggered only when the volume rises steeply.

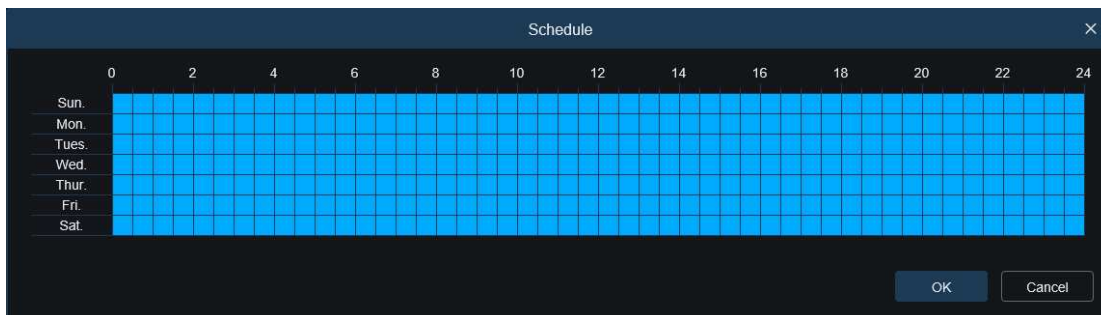
Rise Sensitivity: Rise sensitivity. The higher the value, the easier it is to trigger an alarm.

Sound Intensity: Used to send sound intensity. This setting is the sound threshold. The larger the threshold, the louder the sound is required to trigger a rise alarm, and vice versa.

Decline: Volume decline switch. When this option is turned on, an alarm will be triggered only when the volume declines steeply.

Decline Sensitivity: Decline sensitivity. The higher the value, the easier it is to trigger an alarm.

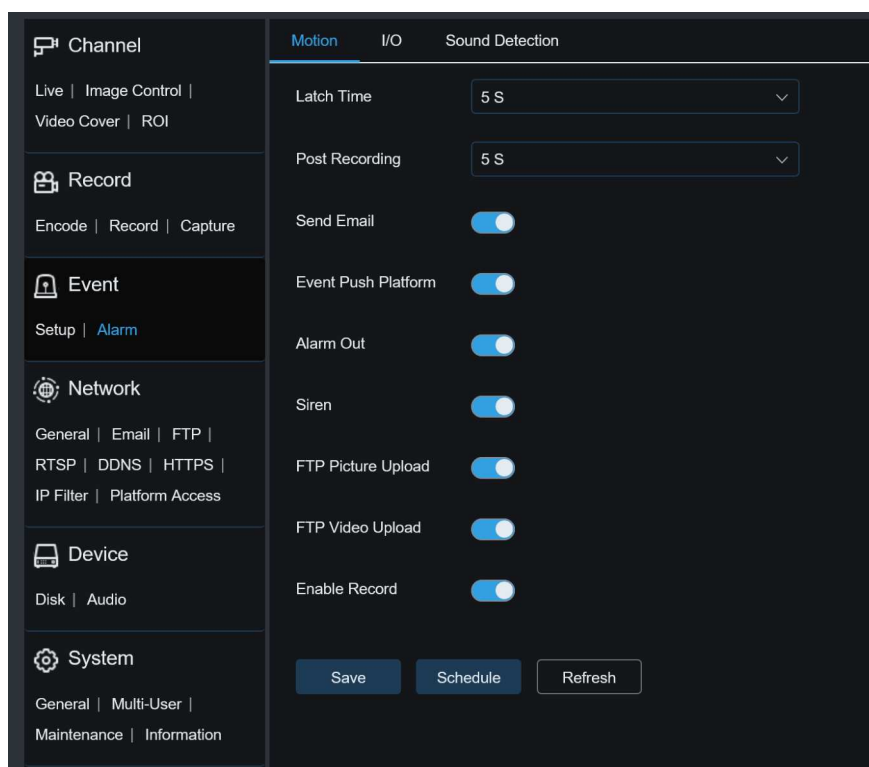
Schedule: Used to set a sound alarm schedule. A sound alarm will be triggered only within the planned time.



7.6.2. Alarm Setting

This menu allows you to set the actions to be performed when an alarm is triggered.

7.6.2.1. Motion Detection



Latch Time: Used to set the duration for triggering an external alarm when motion is detected.

Post Recording: You can set the duration of continuous recording after an event occurs. The options include 5s, 10s, 20s, and 30s. The default duration is 5s, but the maximum duration can be set to 30s.

Send Email: You can have the device automatically send you an email when it detects motion.

Event Push Platform: If this option is set to ON, this type of information will be pushed to the client when an alarm is triggered.

Alarm Out: Optional. If your device supports connection to an external alarm device, you can turn on this switch to activate the external alarm device.

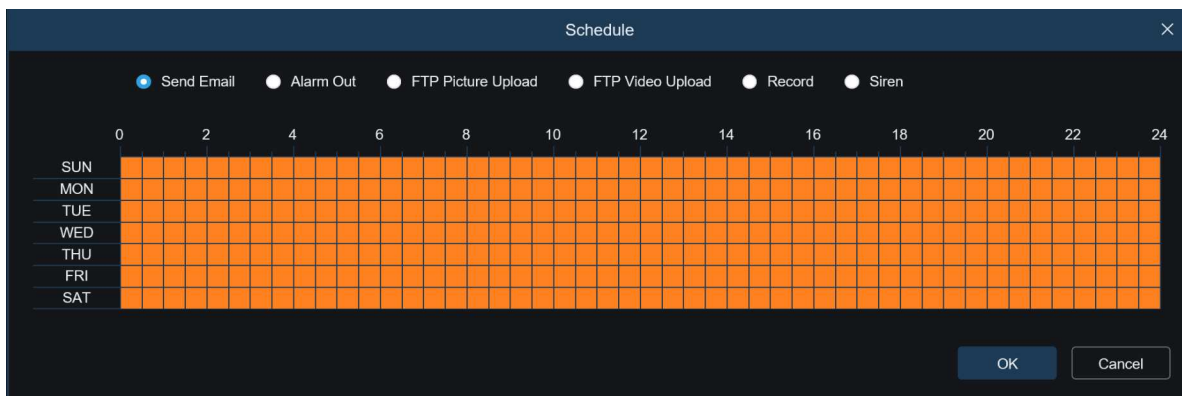
Siren: If this option is set to ON, the siren will be turned on for deterrence when an alarm is triggered.

FTP Picture Upload: Used to upload alarm pictures to the FTP server.

FTP Video Upload: Used to upload alarm videos to the FTP server.

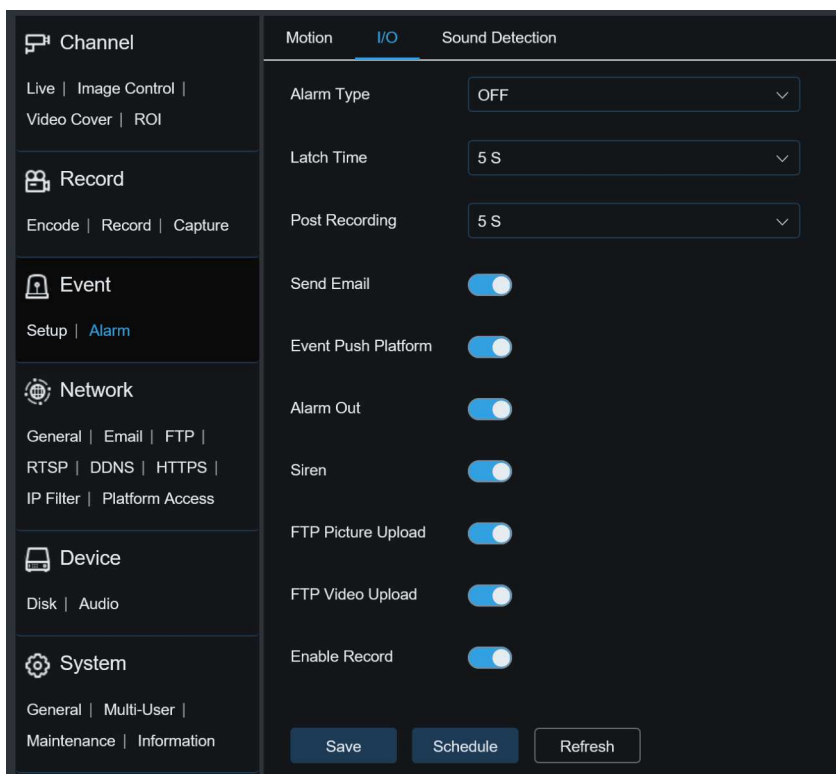
Enable Record: If this option is turned on, this kind of recording will be enabled when an alarm is triggered.

Schedule: Used to set the scheduled time when an alarm acts. A series of alarm actions are triggered only within the scheduled time.



7.6.2.2. I/O Alarm

This function is available only when your device supports I/O sensors and is connected to an external I/O alarm device.



Alarm Type: You can select three alarm types: OFF, Normally-Open, and Normally-Clos. You can select a type that matches your sensor type, or select "OFF" to turn off sensor triggering.

Latch Time: Used to set the duration for triggering an external alarm when an I/O alarm is triggered.

Post Recording: You can set the duration of continuous recording after an event occurs. The options include 5s, 10s, 20s, and 30s. The default duration is 5s, but the maximum duration can be set to 30s.

Send Email: You can have the device automatically send you an email when it detects an I/O alarm.

Event Push Platform: If this option is set to ON, this type of information will be pushed to the

client when an alarm is triggered.

Alarm Out: Optional. If your device supports connection to an external alarm device, you can turn on this switch to activate the external alarm device.

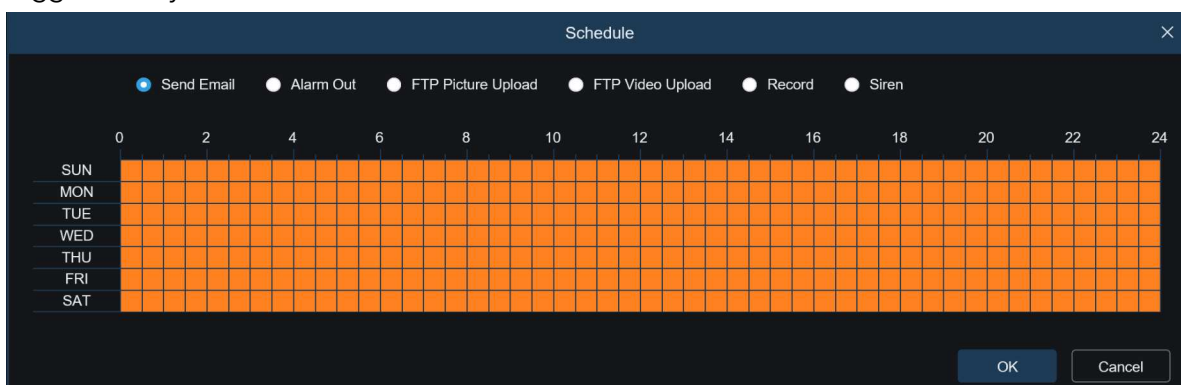
Siren: If this option is set to ON, the siren will be turned on for deterrence when an alarm is triggered.

FTP Picture Upload: Used to upload alarm pictures to the FTP server.

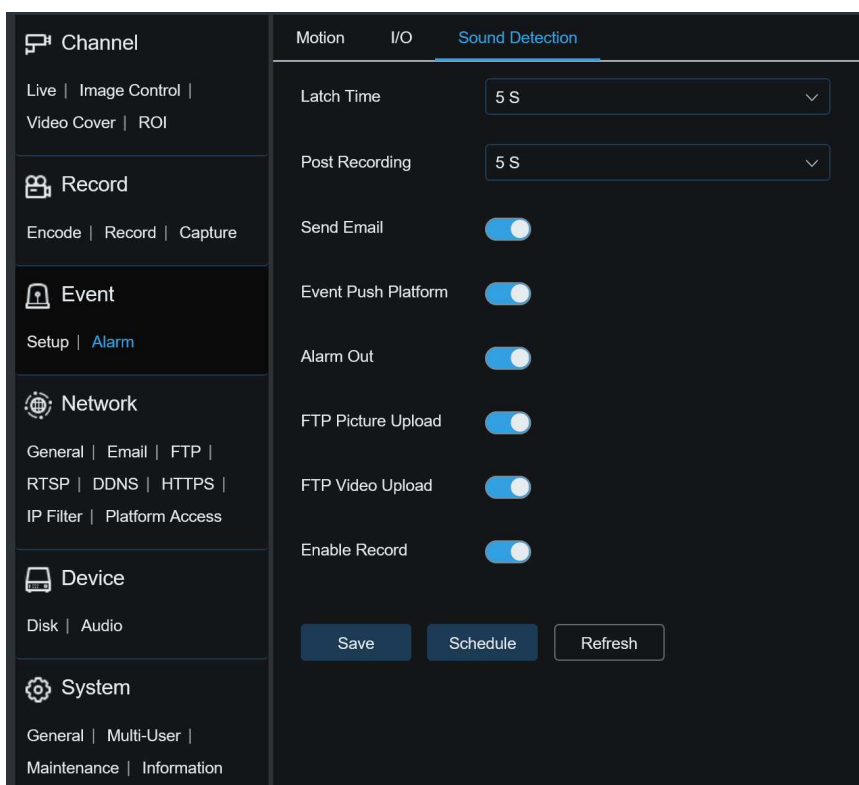
FTP Video Upload: Used to upload alarm videos to the FTP server.

Enable Record: If this option is turned on, this kind of recording will be enabled when an alarm is triggered.

Schedule: Used to set the scheduled time when an alarm acts. A series of alarm actions are triggered only within the scheduled time.



7.6.2.3. Sound Detection



Latch Time: Used to set the duration for triggering an external alarm when a sound alarm is triggered.

Post Recording: You can set the duration of continuous recording after an event occurs. The options include 5s, 10s, 20s, and 30s. The default duration is 5s, but the maximum duration can be set to 30s.

Send Email: You can have the device automatically send you an email when it detects a sound alarm.

Event Push Platform: If this option is set to ON, this type of information will be pushed to the client when an alarm is triggered.

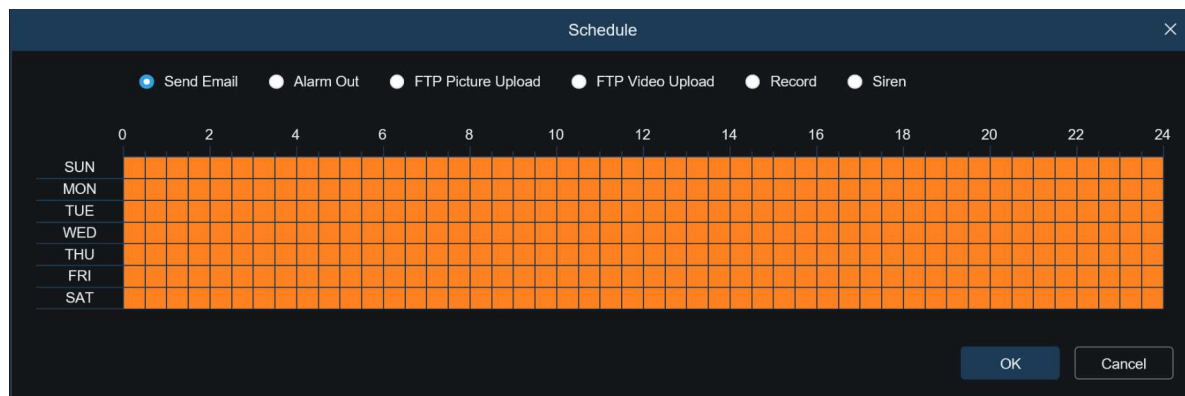
Alarm Out: Optional. If your device supports connection to an external alarm device, you can turn on this switch to activate the external alarm device.

FTP Picture Upload: Used to upload alarm pictures to the FTP server.

FTP Picture Video: Used to upload alarm videos to the FTP server.

Enable Record: If this option is turned on, this kind of recording will be enabled when an alarm is triggered.

Schedule: Used to set the scheduled time when an alarm acts. A series of alarm actions are triggered only within the scheduled time.



7.7. Network Settings

This menu allows you to configure network parameters, such as, PPPoE, SNMP, IEEE802.1X, In most cases, the network type is DHCP unless the static IP address is set manually. If you need an authenticated username and password to connect to the network, select PPPoE.

7.7.1. General Settings

7.7.1.1. General

The screenshot shows the 'General' settings page for a network device. The left sidebar contains navigation menus for Channel, Record, Event, Network, Device, and System. The main content area is titled 'General' and includes the following settings:

- DHCP:** A toggle switch that is currently turned on.
- IP Address:** A text input field containing '192.168.001.163' and a 'Test' button.
- Subnet Mask:** A text input field containing '255.255.255.000'.
- Gateway:** A text input field containing '192.168.001.001'.
- IPv6 DHCP:** A toggle switch that is currently turned off.
- IPv6 Address:** A text input field containing 'fe80::223:63ff:fe0a:901b' and a dropdown menu set to '64'.
- IPv6 Gateway:** A text input field containing 'fe80::223:63ff:fe0a:901b/64'.
- DNS 1:** A text input field containing '172.018.001.222'.
- DNS 2:** A text input field containing '008.008.008.008'.
- IPv6 DNS 1:** A text input field containing '2001:4860:4860::8888'.
- IPv6 DNS 2:** A text input field containing '2001:4860:4860::8844'.
- Multicast:** A section header.
- Main stream:** A toggle switch that is currently turned on.
- Multicast Address:** A text input field containing '239.255.255.255' with a range '(224.0.0.0~239.255.255.255)' shown next to it.
- Video Encryption Transmission:** A toggle switch that is currently turned on.

At the bottom of the page, there are 'Save' and 'Refresh' buttons.

To connect to a router that allows DHCP, check the DHCP box. The router will automatically assign all network parameters to the device. You can also choose to manually set the following parameters for the network:

IP Address: The IP address is the identifier of IPC on the network. It consists of four numbers between 0 and 255 separated by periods. for example, "192.168.001.100".

Subnet Mask: A subnet mask is a network parameter that defines the range of IP addresses that can be used in the network. If the IP address is likened to the street you live on, then the subnet mask is the community. A subnet address also consists of four numbers separated by periods, for example, "255.255.000.000".

Gateway: This address allows IPC to access the network. The format of a gateway address is the same as that of an IP address, for example, "192.168.001.001".

IPv6 Address: The IPv6 address is the identifier of IPC on the network. It consists of eight groups numbers between 0 and FFFF, separated by colons, for example, "ABCD:EF01:2345:6789:ABCD:EF01:2345:6789".

DNS1/DNS2: DNS1 is the active DNS server and DNS2 is the standby DNS server. Usually you just need to enter the DNS1 server address.

Main Stream: If this option is enabled, the main stream can be used for multicast.

Multicast Address: Specifies a multicast address. A third-party player can request the camera

to send a multicast media stream through the RTSP protocol.

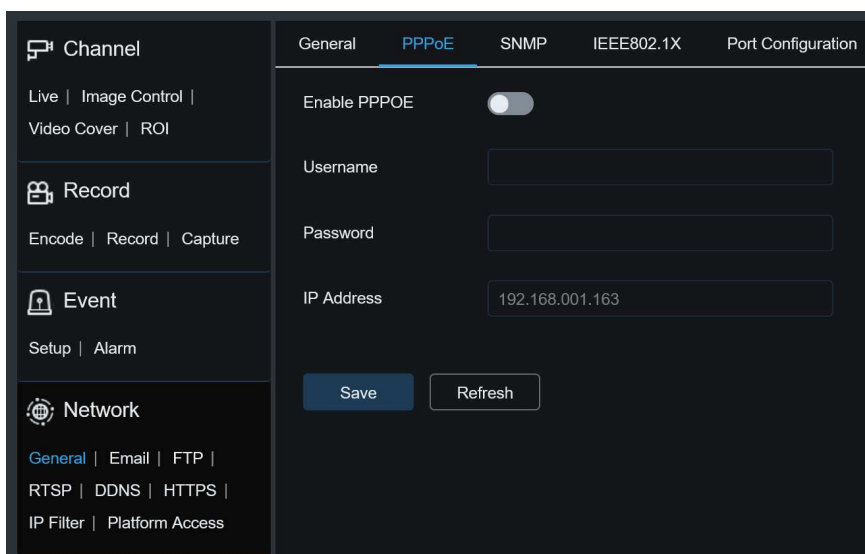
Video Encryption Transmission: Indicates audio/video encryption transmission.

If the IPC is capable of warning you of repeated IP addresses in the same network segment, when IP addresses are repeatedly used, the following message will pop up when you click the

Test Icon:



7.7.1.2. PPPoE

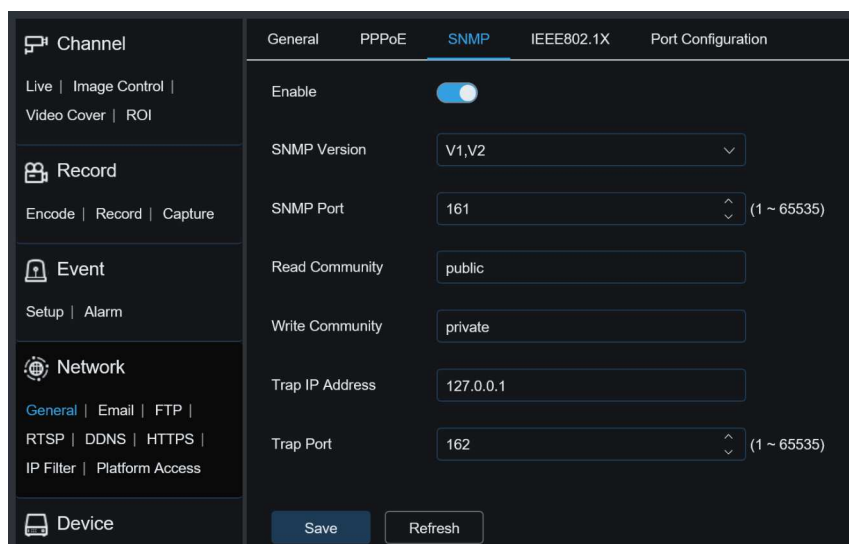


This is an advanced protocol that allows the IPC to connect to the network more easily via DSL modems.

Turn on the "Enable PPPoE" box and then enter the username and password of PPPoE. Click the "Apply" to save data. The system will restart to take PPPoE settings into effect.

7.7.1.3. SNMP

Simple Network Management Protocol (SNMP) is a standard application-layer protocol that is designed to manage nodes such as servers, workstations, routers, switches, and HUBS over IP networks.



Enable: Used to turn on or off SNMP.

SNMP Version: Specifies the version of the SNMP server. The options include V1, V2 and V1, V2, and V3.

SNMP Port: Specifies the port number of the SNMP server.

Read Community: Specifies the Read Community value of the SNMP server.

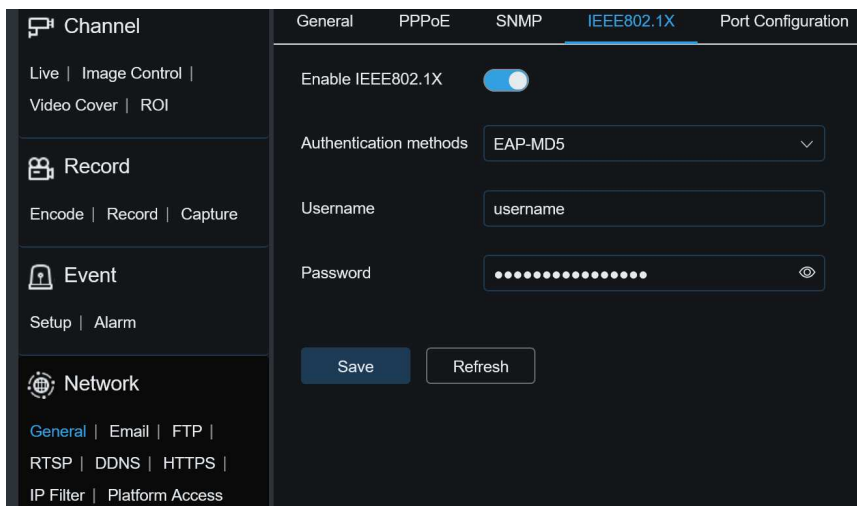
Write Community: Specifies the Write Community value of the SNMP server.

Trap IP Address: Specifies the Trap IP address of the SNMP server.

Trap Port: Specifies the Trap port number of the SNMP server.

7.7.1.4. Port Settings

802.1x protocol is widely used in Ethernet as an access control mechanism for LAN ports, mainly to solve the authentication and security problems in Ethernet. 802.1x is a port-based network access control protocol. Port-based network access control refers to the authentication and control of user devices connected to the LAN at the port level. If the user device connected to the port can be authenticated, it can access resources in the LAN. If you fail to pass the authentication, you cannot access resources on the LAN.



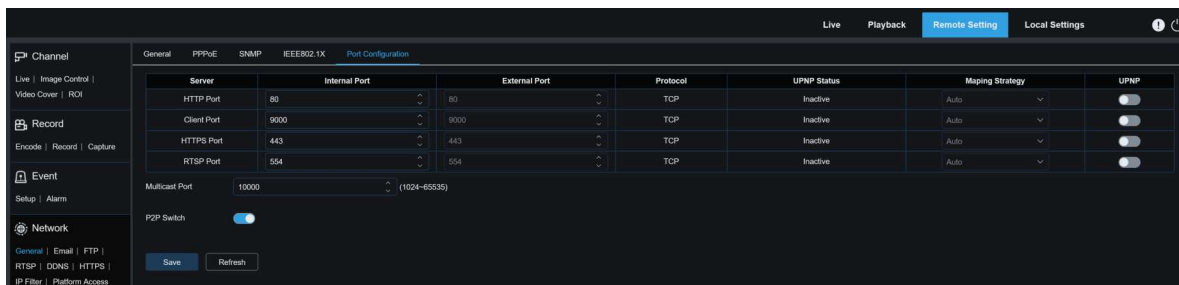
Enable IEEE802.1X: Enables or disables IEEE802.1X.

Authentication Methods: set the IEEE802.1 X Authentication mode.

Username: set IEEE802.1 X authentication user name.

Password: set IEEE802.1 X authentication Password

7.7.1.5. Port Settings



Web Port: This is the port you use to remotely log in to the IPC (for example, using a web client). If port 80 is already used by other applications, change the port number.

Client Port: This is the port through which the IPC will send messages (for example, using a mobile application). If default port 9000 is already used by other applications, change the port number.

RTSP Port: The default port number is 554. If it is already used by other applications, change the port number.

HTTPS: It is an HTTP channel aiming for security. On the basis of HTTP, transmission encryption and identity authentication are used to ensure the security of transmission.

UPnP: To remotely log in to the device from a web Client, perform port forwarding on the router. Enable this option if your router supports UPnP. In this case, you do not have to manually configure port forwarding on the router. If your router does not support UPnP, make sure that port forwarding is done manually on your router.

Multicast port: Specifies a multicast port.

P2P Switch: P2P is ineffective if this switch is turned off.

7.7.2. Email Setting

This menu allows you to configure email settings. Complete these settings if you want to receive system notifications via email when an alarm is triggered and your hard drive is full.

Email: Used to turn on or off email.

Encryption: Enable this option if your email server requires SSL or TLS authentication. Set it to Automatic if you are not sure.

SMTP Port: Specifies the SMTP port number of the email server.

SMTP Server: Specifies the SMTP server address.

Username: Specifies your email address.

Password: Specifies your email password.

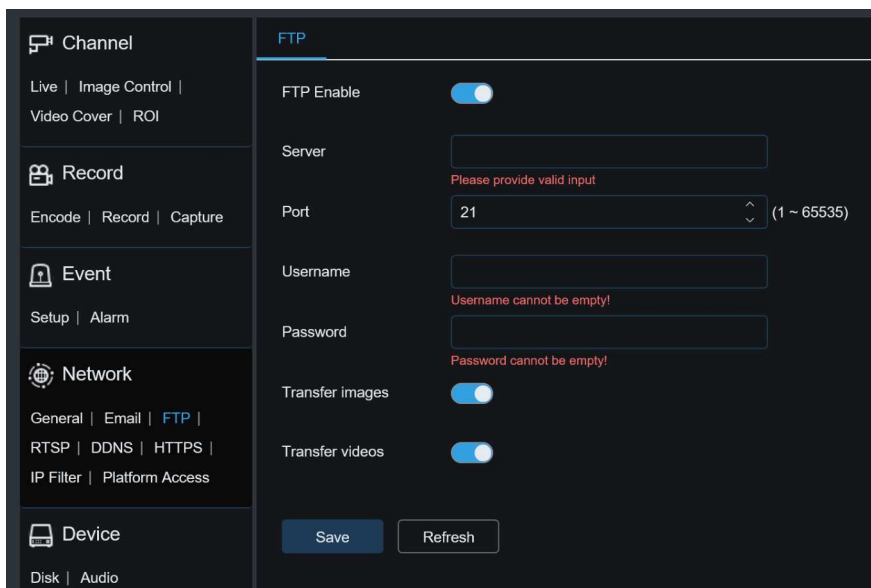
Receiver 1~3: Specifies the email address from which you want to receive event notifications from the IPC.

Interval: Specifies the interval between notification emails on the IPC.

To ensure that all settings are correct, click "**Test Email**". The system will send an email to your inbox. If you receive a test email, the configuration parameters are correct.

7.7.3. FTP Server Settings

This menu enables you to enable the FTP server, through which you can view pictures and videos uploaded from the IPC to your FTP server.



FTP Enable: You can click this icon to enable the FTP feature.

Server: Specifies the IP address or domain name of your FTP server.

Port: Specifies the port number of your FTP server.

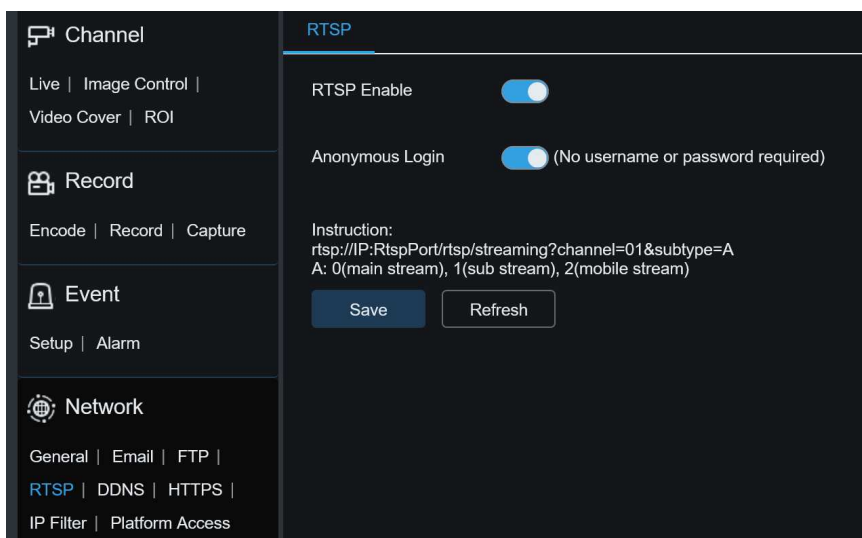
Username/ Password: Specifies the username and password of your FTP server.

Transfer images: When this option is turned on, alarm images will be uploaded to the FTP server. Otherwise, only alarm texts will be uploaded.

Transfer Videos: When this option is turned on, alarm videos will be uploaded to the FTP server.

7.7.4. RTSP Settings

Real Time Streaming Protocol (RTSP), RFC2326, is an application layer protocol in the TCP/IP protocol architecture. This protocol defines how one-to-many applications can efficiently transfer multimedia data over IP networks. You can view real-time images using a video player.



RTSP Enable: Used to turn on or off the RTSP. This protocol is available only when it is turned

on.

Anonymous Login: Allows you to log in as a anonymous user. Authentication is not required for using this protocol if this option is turned on.

7.7.5. Dynamic Domain Name Settings

This menu allows you to configure DDNS settings. DDNS provides a static address to simplify remote connection to the IPC. To use DDNS, you first need to sign up an account on the webpage of the DDNS service provider.

DDNS: Used to turn on or off DDNS.

Server: Specifies your preferred DDNS server (DYNDNS, NO_IP).

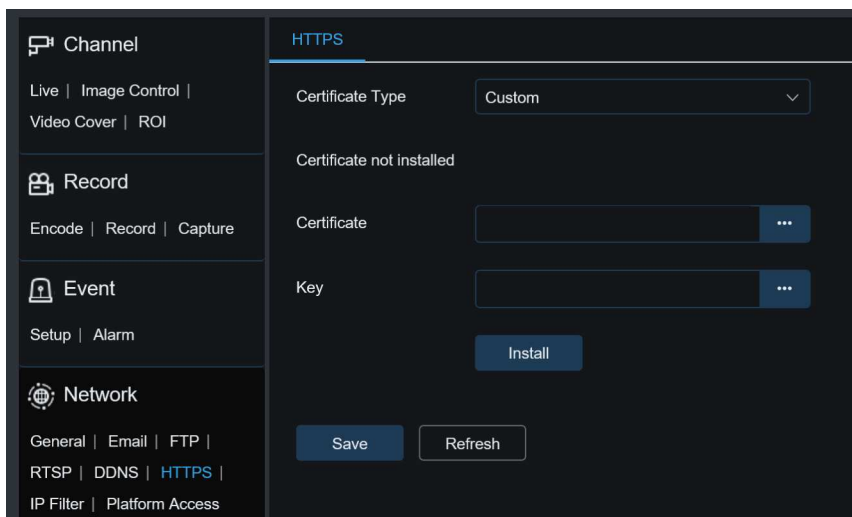
Hostname: Specifies the domain name you created on the webpage of the DDNS service provider. This is the address you type in the URL bar when you want to connect remotely to the IPC from your PC.

User/Password: Specifies the username and password obtained when you create an account on the webpage of the DDNS service provider.

Enter all parameters and then click "**Test**" to test DDNS settings. If the test result is "Unreachable or DNS error", check whether the network works normally or the DDNS information is correct.

7.7.6. HTTPS Settings

This menu allows you to set HTTPS. You can connect your device over HTTPS.



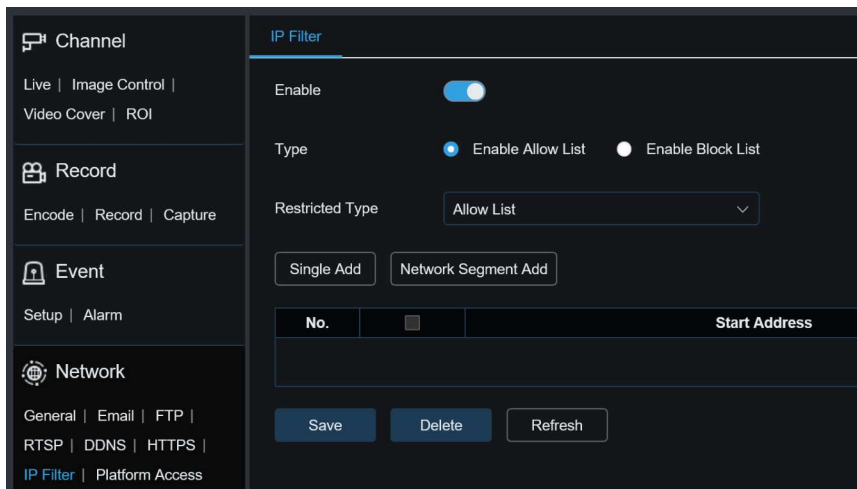
Certificate Type: There are two options, including default and custom. The Custom option allows you to connect devices using your own certificate.

Certificate: Select a custom certificate when the Custom option is selected.

Key: Select a custom key file when the Custom option is selected.

7.7.7. IP Filter

The IP filter can be used to set the allow list and block list of devices to be connected.



Enable: Used to turn on or off the IP filter. You can choose to enable the block list or allow list if this option is turned on.

Restricted Type: Used to select the list to be set (block list or allow list).

Start Address: Specifies the start address.

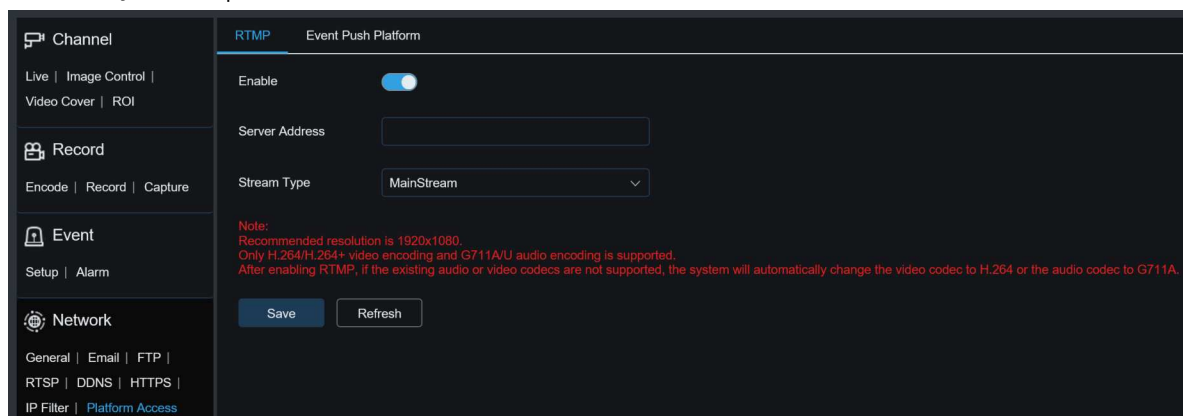
End Address: Specifies the end address.

7.7.8. Platform Access

7.7.8.1. RTMP

On the RTMP function page, when you turn on the enable switch and fill in the correct server

address, you can push the audio and video stream of the device to the YouTube live server.



Enable: open or close the RTMP function.

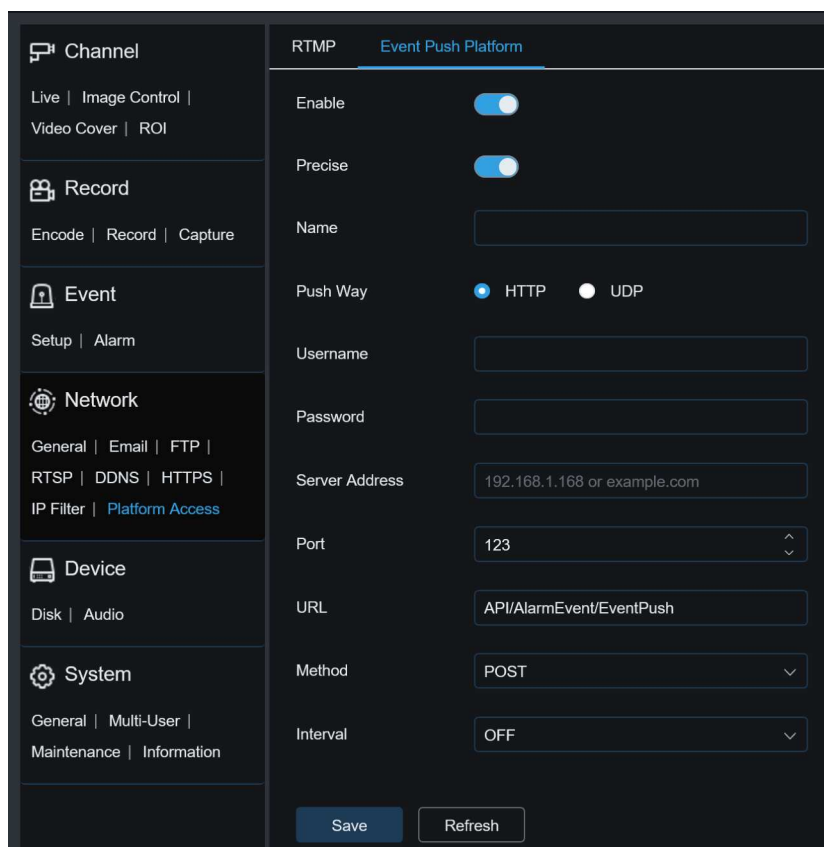
Server Address: the address of the server to be pushed.

Stream Type: select the audio and video streaming to push to the server.

7.7.8.2. Event Push Platform

Event push can be divided into HTTP push mode and UDP push mode. HTTP push mode includes POST method and GET method. UDP mode has three methods: unicast, multicast and broadcast.

7.7.8.2.1 HTTT Push Platform



Enable: enable or disable the event push function.

Precise: enable or disable precision push. After it is turned on, push once when the alarm is triggered, and push again when the alarm ends. When turned off, push only once when the alarm is triggered.

Name: name of the channel, does not support Chinese display.

Push Way: supported the HTTP push mode and UDP push mode. If you check the Http box, the HTTP push mode is displayed. If you check UDP box, the UDP push mode is displayed.

Username: Username, if there is no can be null.

Password: Password, if there is no can be null.

Server Address: the Address of the Server.

Port: the server Port.

URL (port range 1-65535): the server API interface, if there is no can be null.

Method: HTTP push type. Support the POST method and GET

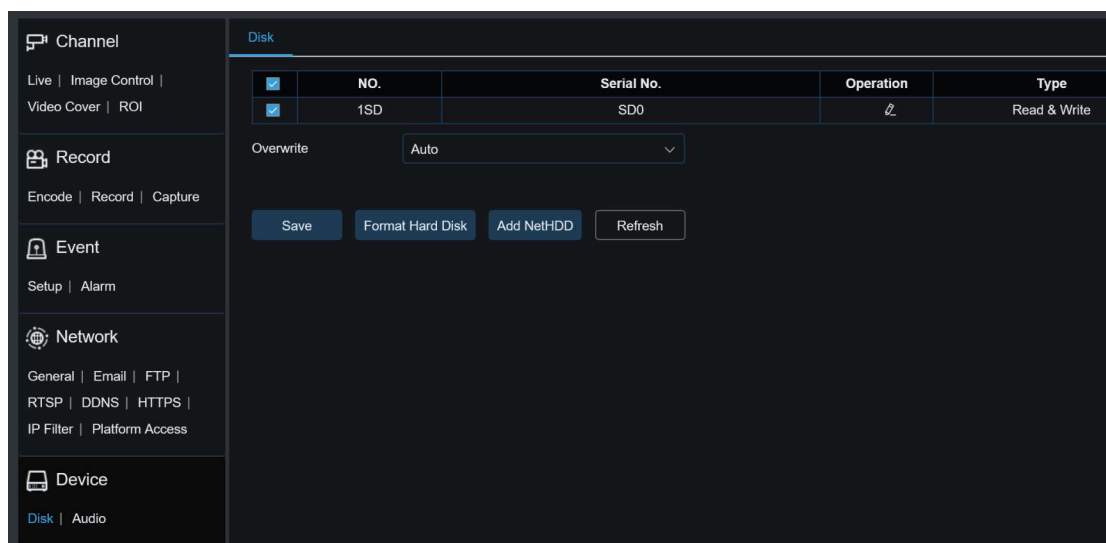
method: only the HTTP-POST mode supports push the information and images, the others are just push information without the images; The alarm type of the push information and images is the same as that of the preview alarm bar on the web side.

Interval: Interval time of the push. The keep alive mechanism pushes a message to the client at a specified time, which does not affect the normal alarm push. UDP does not have a keep alive mechanism.

7.8. Device Management

7.8.1. Disk Management

This menu allows you to check and configure the internal TF card. Formatting is required only for initial access and when a new TF card is used.



Overwrite: Use this option to overwrite old records in the TF card when the TF card is full. If **Auto** is selected, the oldest data will be automatically overwritten when the TF card is full.

Select **OFF** if you do not want to overwrite any old videos. If this function is disabled, check the status of the TF card periodically to ensure that the TF card is not full.

Format Hard Disk: Select the TF card to be formatted, and then click Format TF Card. To start formatting, enter your username and password and then click OK.

ADD NetHDD: This function allows you to add a network HDD. After a network HDD (NAS) is configured, you can connect the NAS to the Internet to record channel videos or capture images. The AI face database can only be stored in the HDD.

Mounting type: There are two options, including NFS and SMB/CIFS. Among them, NFS does not need username and password, but SMB/CIFS needs.

User Name: Specifies the username of NAS (unavailable in NFS mode).

Password: Specifies the password of NAS (unavailable in NFS mode).

Server IP: Specifies the IP address of NAS.

Directory Name: Specifies the folder where you want to store data in the NAS.

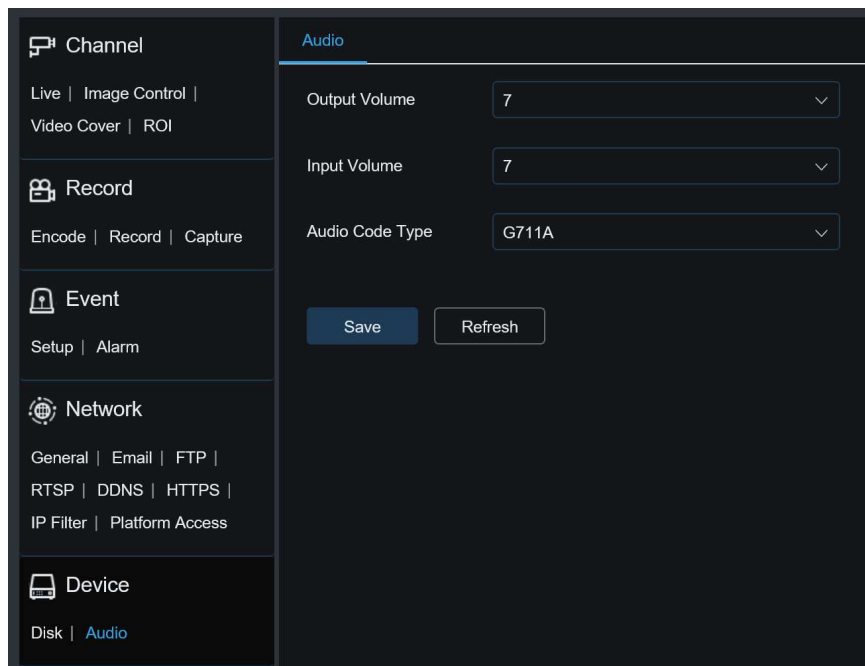
Disk Size: Specifies the size of the network HDD.

Test: Used to test the connectivity of NAS.

Add NetHDD: You can click this option to add NAS.

7.8.2. Audio Management

This menu is used to set the volume of your device.



Output Volume: Specifies the volume of output audio.

Input Volume: Specifies the volume of input audio.

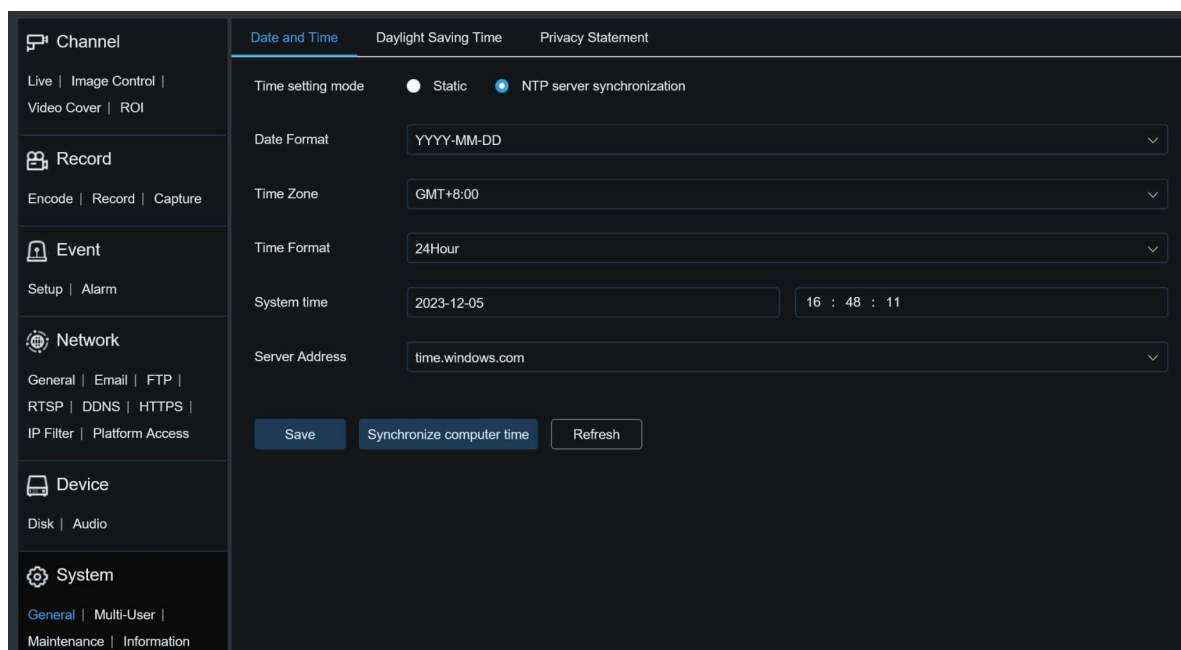
Audio Code Type: Specifies the audio decoding type. There are two options, including G711A and G711U.

7.9. System Settings

Here you can change system information such as date and time and regions, and change the password and permissions.

7.9.1. General

7.9.1.1. Date and Time



Time settings mode: There are two options including Static and NTP server synchronization. When Static is selected, you have to set the time manually. When NTP server synchronization is selected, the time will be synchronized to the network time.

Date Format: Specifies the date format.

Time Zone: Specifies the time zone associated with your region or city.

Time Format: Specifies your preferred time format.

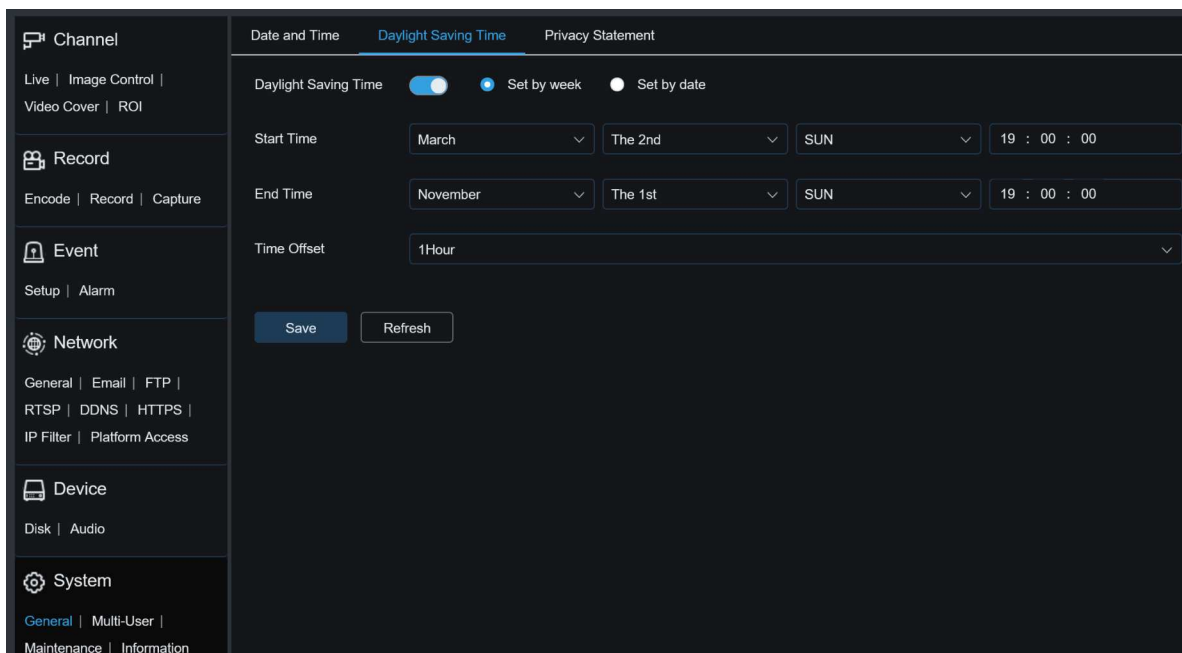
System Time: You can click the box to change the date and time.

Sever Address: Specifies the automatic time synchronization website.

Synchronize computer time: Here you can synchronize the time to the computer time. You cannot set the time manually if NTP server synchronization is selected.

7.9.1.2. Daylight Saving Time

The Daylight Saving Time (DST) function enables you to choose when to add daylight saving time to a specific time zone or region.



Daylight Saving Time: Turn on this option if DST is used in your time zone.

Set by week: Specifies the month, weekday, and time when daylight saving time begins and ends, for example, 2AM on the first Sunday of a month.

Set by date: Specifies the date and time when daylight saving time begins and ends.

Start Time / End Time: Specifies the start time and end time of daylight saving time.

Time Offset: Specifies the time that daylight saving time adds to your time zone. This is the difference between Universal Time Coordinated (UTC) and your local time.

7.9.2. Multi-user Management

This menu allows you to configure username, password, and permissions.

The system supports user types as follows:

The screenshot shows the 'Multi-User' management page. It features a table with the following data:


NO.	Username	Level	Status
1	admin	ADMIN	Enable
2	user1	USER	Disable
3	user2	USER	Disable
4	user3	USER	Disable
5	user4	USER	Disable
6	user5	USER	Disable
7	user6	USER	Disable

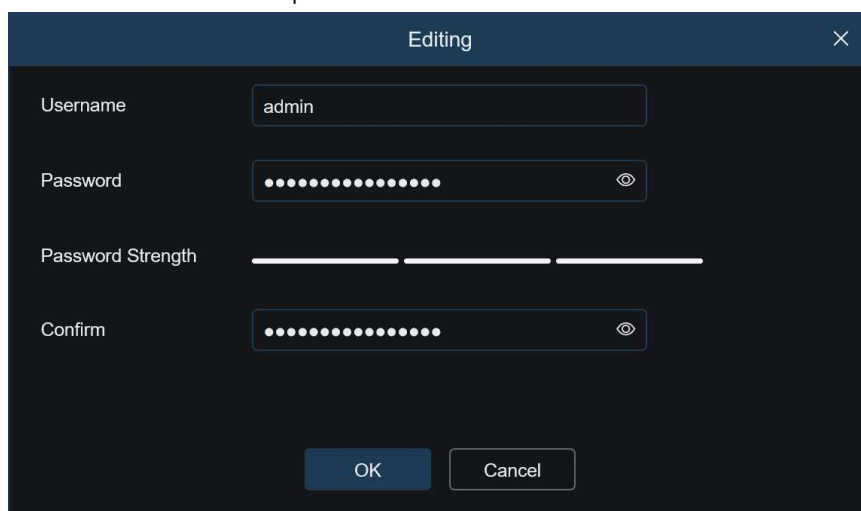
Below the table is a 'Refresh' button.


ADMIN - System Administrator: A system administrator can fully configure the system and

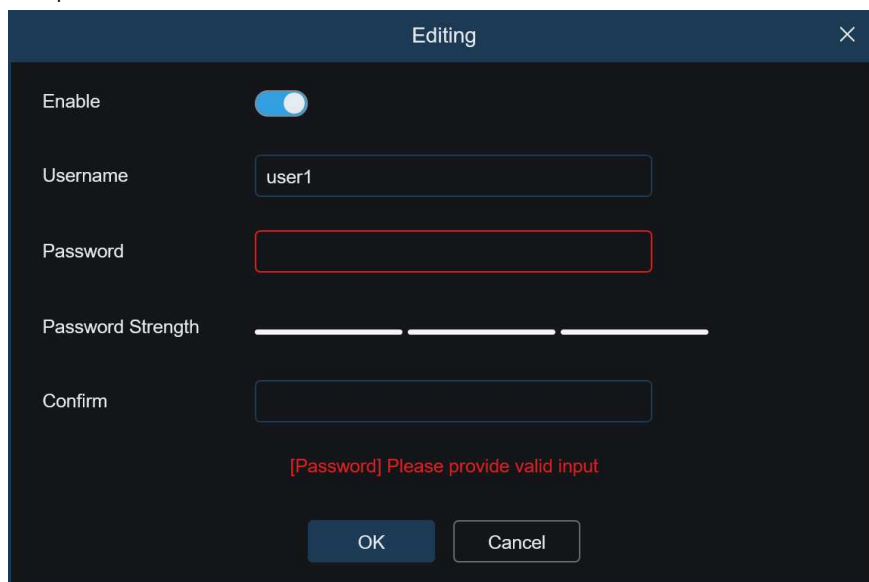
can change administrator and user passwords as well as enable/disable password protection.

USER - Normal User: A normal user can only access the preview, search, playback and other appropriate functions. You can set multiple users with different system access permissions.

Password: To change an administrator or user password, click the  icon to edit password. The password must be at least 8 characters long and a combination of numbers, letters, and symbols. Enter the new password again for confirmation. Save the new password. You will be asked to enter the old password for authentication.



To change a normal user or user password, click  icon of the user1~6. The password must be at least 8 characters long and a combination of numbers, letters, and symbols. Enter the new password again for confirmation. Save the new password. You will be asked to enter the old password for authentication.



1. Select one of inactive users and click the "Edit Password" icon.
2. Turn on "**Enable**" to enable users.
3. Click "**Username**" to edit the username.
4. Click the field next to **Password** to enter your password.

- Click the field next to **Confirm** to enter your confirm password.
Click **Save**. You will have to enter the administrator password for authentication.
POLICY: set user permissions.

Set user permissions and check the boxes corresponding to the functions. Click **All** to check all boxes. Click **Clear** to clear all boxes.

7.9.3. System Maintenance

This menu enables you to search for and view system logs, restore factory settings, upgrade the system, export and import system parameters, and configure automatic system restart.

7.9.3.1. Log Management

The system log displays important system events, such as motion alarms and system warnings. You can easily import backup files in the system log to your computer within a set time range.

No.	Time	Log Content	Log Info
1	12/05/2023 17:20:23	Motion End	Is there a video: has record
2	12/05/2023 17:20:12	Motion Start	Is there a video: has record
3	12/05/2023 17:20:06	Motion End	Is there a video: has record
4	12/05/2023 17:19:55	Motion Start	Is there a video: has record
5	12/05/2023 17:19:16	Motion End	Is there a video: has record
6	12/05/2023 17:19:02	Motion Start	Is there a video: has record
7	12/05/2023 17:17:37	Motion End	Is there a video: has record
8	12/05/2023 17:17:26	Motion Start	Is there a video: has record
9	12/05/2023 17:14:55	Motion End	Is there a video: has record
10	12/05/2023 17:14:39	Motion Start	Is there a video: has record

Log Search and Backup:

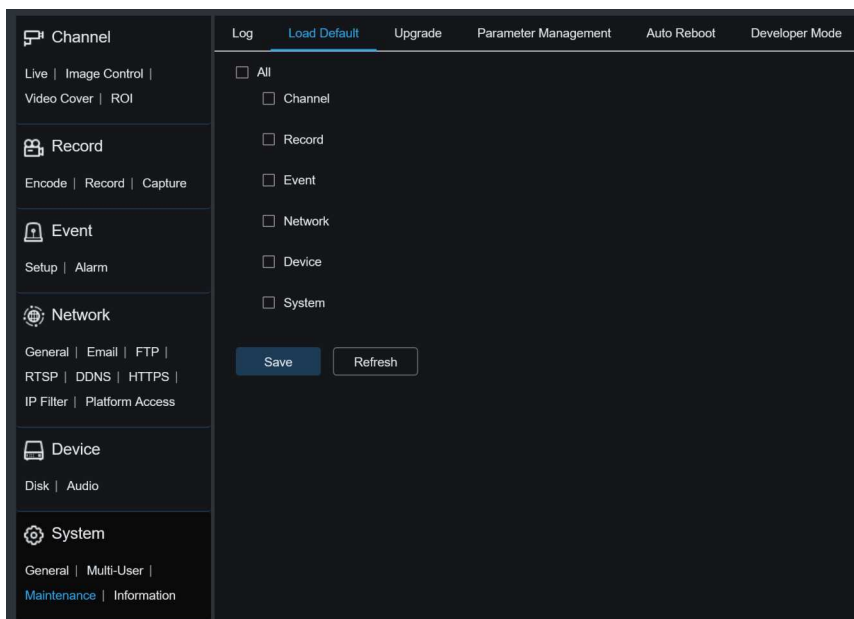
- Click the field next to **Start Time** and select the start date and time from the on-screen calendar.
- Click the field next to **End Time** and select the end date and time from the on-screen calendar.
- Select the event type you want to search for from the drop-down list next to **Log Type**, or select **All** to view the entire system log for the selected time range. The type options include: system log, configuration log, warning log, account log, recording log, storage log, and network log.

4. Select the event type you want to search for from the drop-down list next to **Minor Type** (this menu is unavailable if ALL is selected for Log Type), or select **All** to view the entire system log for the selected time range. The type options include:
 - **System:** System settings, restart, automatic restart, upgrade, time settings, and NTP.
 - **Configuration:** IPC live control, private area settings, recording mode settings, recording plan settings, main stream settings, network settings, substream settings, email settings, color settings, motion detection settings, hard disk settings, multi-user settings, NTP settings, image control, mobile stream settings, RTSP settings, IP filter settings, restore factory settings, audio settings, video tampering alarm settings, export settings, and import settings.
 - **Alarm:** Start of motion detection, end of motion detection, start of I/O alarm, end of I/O alarm, , start of sound alarm, and end of sound alarm.
 - **Account:** Log in, log out, and switch users.
 - **Recording:** Search, playback, and backup.
 - **Storage:** Formatting HDD, HDD full, and HDD error.
 - **Network:** Network disconnected, network online, network exception, and Network Mode changed.
5. Click **Search**.
6. Browse system logs from the selected time range:
7. Use the **◀ < / > ▶** button in the lower right corner of the menu to switch between pages of system log events.

Enter the name of the exported file in the field next to **Name**. Click **Export** to create the backup of system logs.

7.9.3.2. Load Default

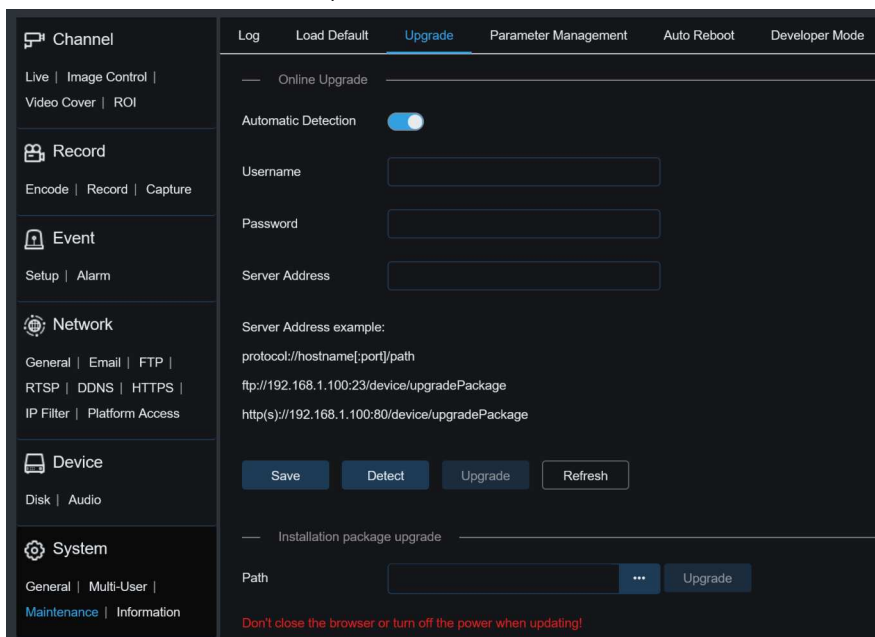
Reset the device to factory settings. You can choose to reset all the settings at a time, or the settings on a specific menu. Note: Restoring the default Settings will not delete videos and snapshots stored in the memory card.



Select the item to restore, or **All** to select all items. Click "Save" to load the default settings for the selected items.

7.9.3.3. System Upgrade

This menu allows you to upgrade firmware.



Automatic Detection: Used to enable automatic detection. You can enable this function to automatically detect available updates.

Username: Specifies the username of your FTP server.

Password: Specifies the password of your FTP server.

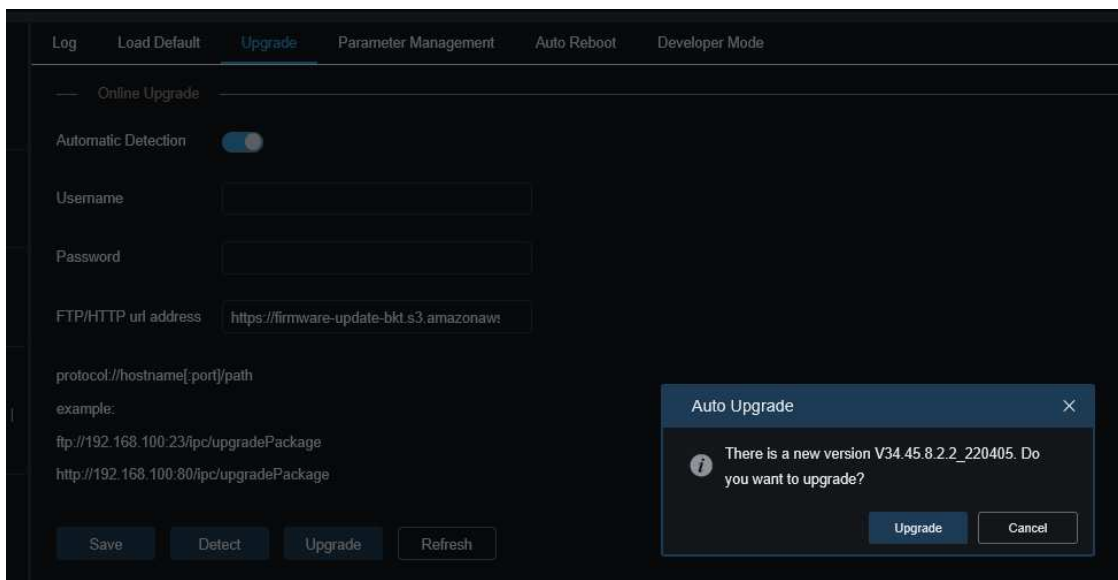
FTP/HTTP Server address: Specifies the over-the-air upgrade address (no username or password is required for upgrade over HTTP).

Note: The FTP address is in the format as below: ftp://{IP address of FTP server: port}/

Upgrade (the name of the folder containing the over-the-air upgrade path of the FTP server).

Save: You can click this button to save current settings.

Detect: After the upgrade file is uploaded and the upgrade path is set, you can click Detect to manually detect the over-the-air upgrade file. A message pops up when updates are available, as shown in the figure below:



Upgrade: Click this button to start system upgrade.

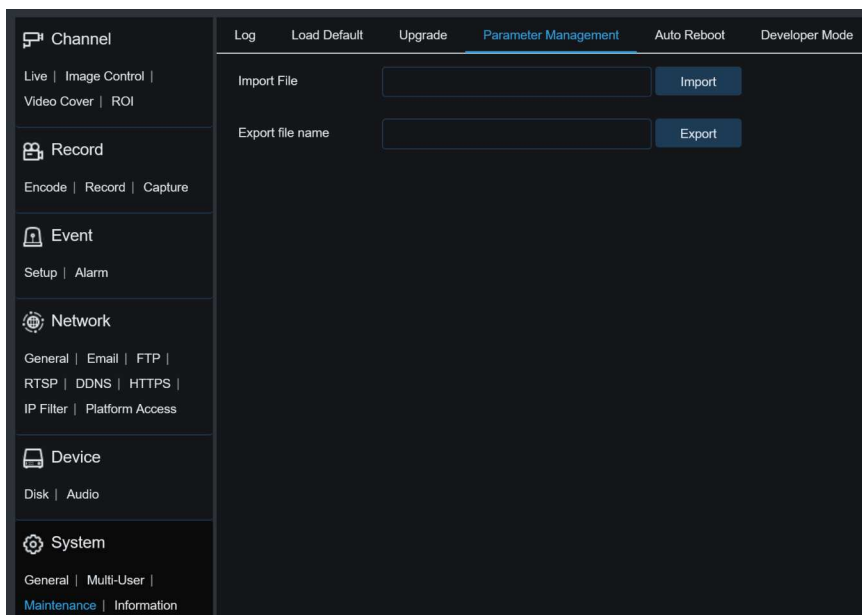
Place the firmware file (.sw) into the HDD of your PC.

Click "... " next to "**Path**" to select the firmware file from your PC.

Click the **Upgrade** button to start system upgrade. The system upgrade will take about 2 to 3 minutes. Do not power off the device or close your IE browser while system upgrade is in progress.

7.9.3.4. Parameter Management

You can export the configured parameters to your PC or import the exported configuration file from your PC to the device.

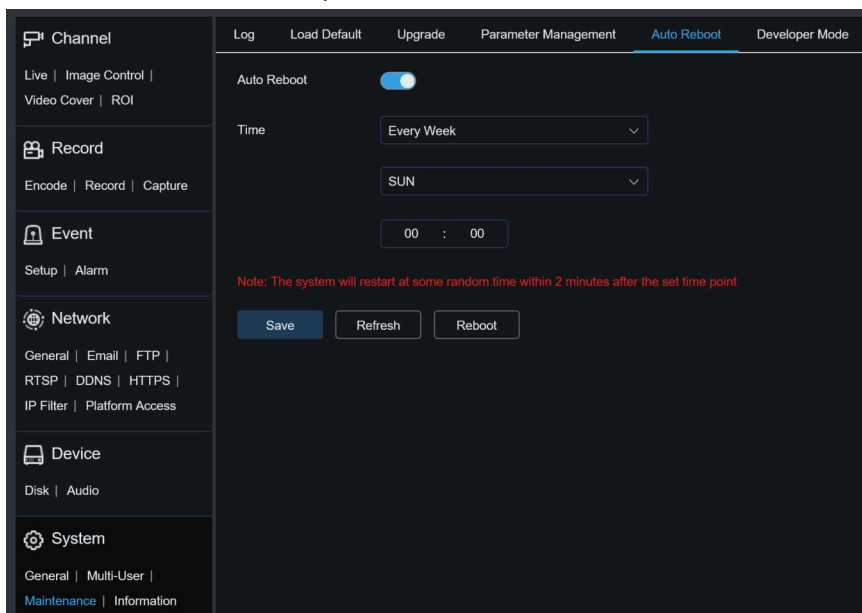


Import File: Click the field to display the path window. Select the parameter file and then click **Import** to start importing parameters.

Export File Name: Click the field to enter the name of the file to which parameters are exported. Click **Export** to export parameters.

7.9.3.5. Auto Reboot

This menu enables the system to automatically reboot. You are advised to enable this function to guarantee the stable operation of the device.



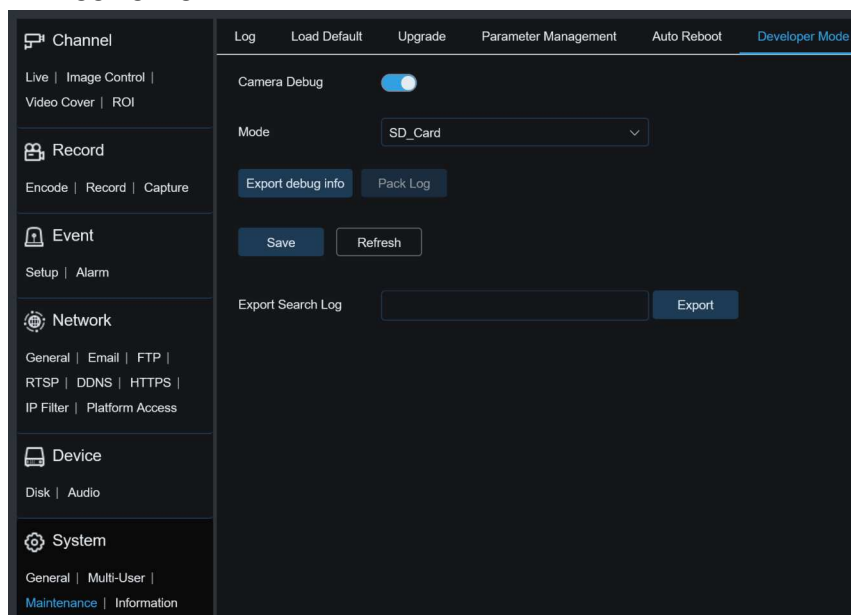
Auto Reboot: Used to turn on or off auto reboot.

Time: You can set IPC to reboot by day, week, or month.

7.9.3.6. Developer Mode

This menu enables the developer mode, enabling developers to collect and record device

debugging logs.



Camera Debug: To enable the Camera Debug.

Mode: the mode for collecting debugging information. There are three modes: NVR, SD_Card, and FTP.

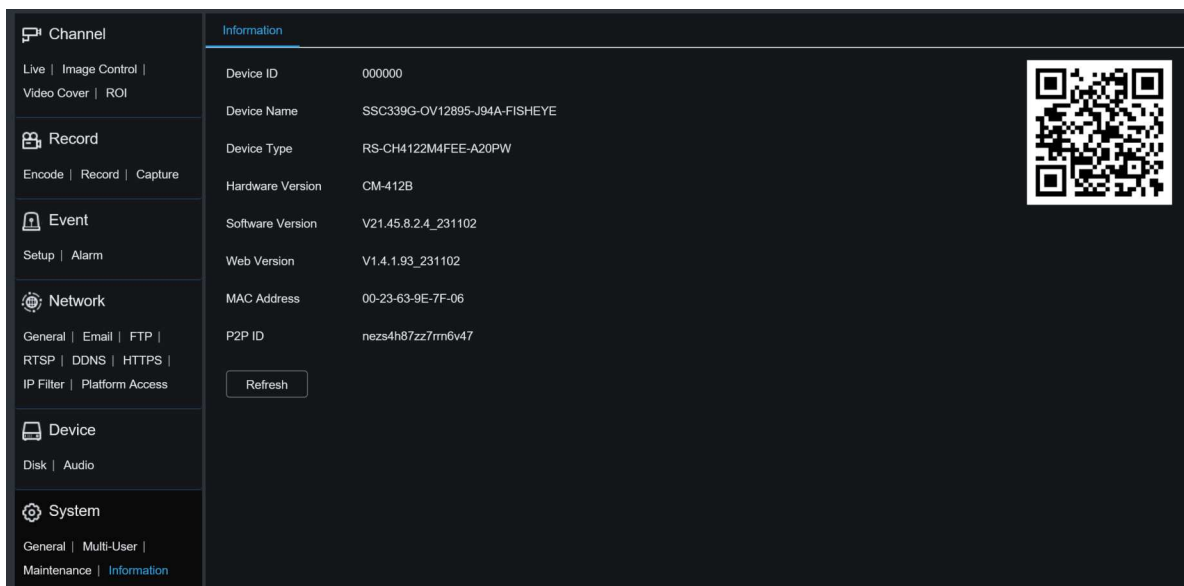
Export the debug info: Export debugging information. Select the SD_Card mode, click this button, and enter the correct password. The debugging information will be exported to the local PC.

Pack the Log: packaged Log. Select the NVR or FTP mode and click the button. The device uploads the package log information to the NVR or FTP server.

Export Search Log: Export Search Log. Enter the name of the log file to be exported and click the Export button to export all log files stored on the device to the local PC.

7.9.4. System Information

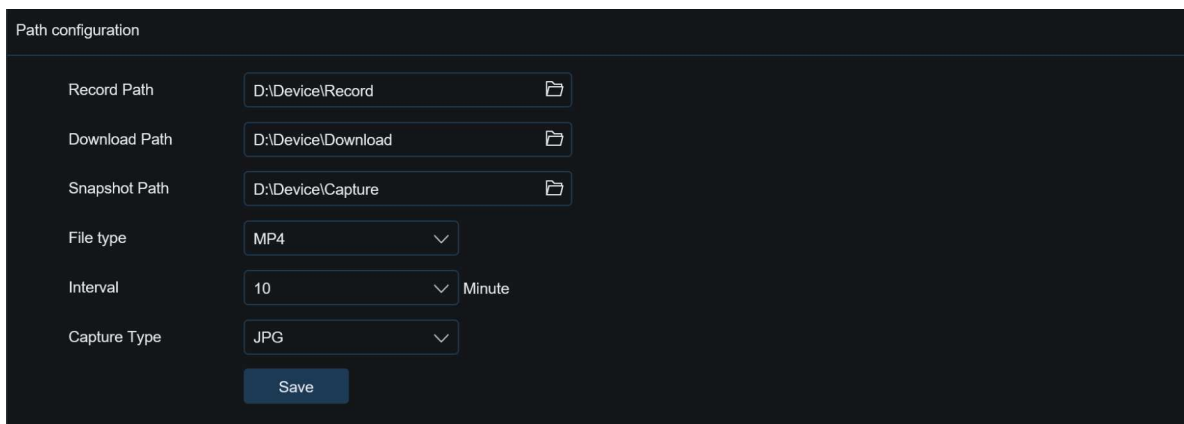
This menu allows you to view system information, such as device ID, device model, MAC address, firmware version, and so on.



8. Local Settings

This menu allows you to set the path for storing videos and downloaded and captured image files, as well as the format of videos and captured images.

Note: You can skip this page when you access the web client from Safari 12 and later, Chrome 57 and later, Firefox 52 and later, and Edge 41.





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