Homaxi

Network Fisheye Camera

User Manual

Legal Information

©2023 Homaxi Technology Co., Ltd. All rights reserved.

About this Manual

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual on the Homaxi website (***https://www.Homaxi.com***).
Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

Trademarks

Homaxi and other Homaxi trademarks and logos are the properties of Homaxi in various jurisdictions.

Disclaimer

To The Maximum Extent Permitted By Applicable Law, This Manual And The Product Described, With Its Hardware, Software And Firmware, Are Provided 'As Is' And 'With All Faults And Errors'. Homaxi Makes No Warranties, Express Or Implied, Including Without Limitation, Merchantability, Satisfactory Quality, Or Fitness For a Particular Purpose. The Use Of The Product By You Is At Your Own Risk. In No Event Will Homaxi Be Liable To You For Any Special, Consequential, Incidental, Or Indirect Damages, Including, Among Others, Damages For Loss Of Business Profits, Business Interruption, Or Loss Of Data, Corruption Of Systems, Or Loss Of Documentation, Whether Based On Breach Of Contract, Tort (Including Negligence), Product Liability, Or Otherwise, In Connection With The Use Of The Product, Even If Homaxi Has Been Advised Of The Possibility Of Such Damages Or Loss.

You Acknowledge That The Nature Of The Internet Provides For Inherent Security Risks, And Homaxi Shall Not Take Any Responsibilities For Abnormal Operation, Privacy Leakage Or Other Damages Resulting From Cyber-Attack, Hacker Attack, Virus Infection, Or Other Internet Security Risks; However, Homaxi Will Provide Timely Technical Support If Required.

You Agree To Use This Product In Compliance With All Applicable Laws, And You Are Solely Responsible For Ensuring That Your Use Conforms To The Applicable Law. Especially, You Are Responsible, For Using This Product In a Manner That Does Not Infringe On The Rights Of Third Parties, Including Without Limitation, Rights Of Publicity, Intellectual Property Rights, or Data Protection and Other Privacy Rights. You Shall Not Use This Product For Any Prohibited End-Uses, Including The Development Or Production Of Weapons Of Mass Destruction, The Development Or Production Of Chemical Or Biological Weapons, Any Activities In The Context Related To Any Nuclear Explosive Or Unsafe Nuclear Fuel-Cycle, Or In Support Of Human Rights Abuses.

In The Event Of Any Conflicts Between This Manual And The Applicable Law, The Later Prevails.

Regulatory Information

FCC Information

Please take attention that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC compliance: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
Danger	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.
Caution	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
Warning	Remind the matters to be noted in the operation, improper operation may lead to data loss or equipment damage.
Note	Provides additional information to emphasize or supplement important points of the main text.

Safety Instruction

- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.
- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- Firmly connect the plug to the power socket. Do not connect several devices to one power adapter. Power off the device before connecting and disconnecting accessories and peripherals.
- Shock hazard! Disconnect all power sources before maintenance.
- The equipment must be connected to an earthed mains socket-outlet.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.
- Indicates hazardous live and the external wiring connected to the terminals requires installation by an instructed person.
- Never place the equipment in an unstable location. The equipment may fall, causing serious personal injury or death.
- Input voltage should meet the SELV (Safety Extra Low Voltage) and the LPS (Limited Power Source) according to the IEC62368.
- High touch current! Connect to earth before connecting to the power supply.
- If smoke, odor or noise rises from the device, turn off the power at once and unplug the power cable, and then please contact the service center.
- Use the device in conjunction with an UPS, and use factory-recommended HDD if possible.
- This product contains a coin/button cell battery. If the battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.
- This equipment is not suitable for use in locations where children are likely to be present.
- CAUTION: Risk of explosion if the battery is replaced by an incorrect type.
- Improper replacement of the battery with an incorrect type may defeat a safeguard (for example, in the case of some lithium battery types).
- Do not dispose of the battery into fire or a hot oven, or mechanically crush or cut the battery, which may result in an explosion.
- Do not leave the battery in an extremely high temperature surrounding environment, which may result in an explosion or the leakage of flammable liquid or gas.
- Do not subject the battery to extremely low air pressure, which may result in an explosion or the leakage of flammable liquid or gas.
- Dispose of used batteries according to the instructions.
- Keep body parts away from fan blades and motors. Disconnect the power source during servicing.
- Keep body parts away from motors. Disconnect the power source during servicing.

Preventive and Cautionary Tips

Before connecting and operating your device, please be advised of the following tips:

- The device is designed for indoor use only. Install it in a well-ventilated, dust-free environment without liquids.
- Ensure the recorder is properly secured to a rack or shelf. Major shocks or jolts to the recorder as a result of dropping it may cause damage to the sensitive electronics within the recorder.
- The equipment shall not be exposed to dripping or splashing and that no objects filled with liquids shall be placed on the equipment, such as vases.
- No naked flame sources, such as lighted candles, should be placed on the equipment.
- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths, curtains, etc. The openings shall never be blocked by placing the equipment on a bed, sofa, rug or other similar surfaces.
- For certain models, ensure correct wiring of the terminals for connection to an AC mains supply.
- For certain models, the equipment has been designed, when required, modified for connection to an IT power distribution system.
- identifies the battery holder itself and identifies the positioning of the cell(s) inside the battery holder.
- + identifies the positive terminal(s) of equipment that is used with, or generates direct current. + identifies the negative terminal(s) of equipment that is used with, or generates direct current.
- Keep a minimum 200 mm (7.87 inches) distance around the equipment for sufficient ventilation.
- For certain models, ensure correct wiring of the terminals for connection to an AC mains supply.
- Use only power supplies listed in the user manual or user instructions.
- The USB port of the equipment is used for connecting to a mouse, keyboard, USB flash drive, or Wi-Fi dongle only.
- Use only power supplies listed in the user manual or user instructions.
- Do not touch the sharp edges or corners.

Contents

Chapter 1 Overview 1

1.1 System Requirement 1

1.2 Network Connection 1

Chapter 2 Device Activation and Login 3

2.1 Activate Via a Web Browser 3

2.2 Login 4

2.3 Install Plug-ins 4

Chapter 3 Live View 8

3.1 Introduction of Live View 8

3.2 Start and Stop Live View 9

3.2.1 Select Installation Method 9

3.2.2 Select Display Mode 10

3.2.3 Operate PTZ Control 12

3.3 Full Screen Preview 13

3.4 Adjust Aspect Ratio 13

3.5 Preview Stream Type 14

3.6 Multicast View 14

3.7 Recording Videos Capturing Pictures Manually 14

3.8 Audio and Talk to the Device 15

Chapter 4 Configuring Parameters 16

4.1 Local Storage 16

4.2 System Parameters 16

4.2.1 Check Device Information 16

4.2.2 Set Device Language, Video Format & Host Name 17

4.2.3 Time and Date 18

4.2.4 User and Account Manage 19

4.3 Network Configuration 25

4.3.1 Configure Device TCP/IP Settings 25

4.3.2 Configure DDNS Settings 27

4.3.3 Configure NAT Settings 27

4.3.4 UPNP-TM 27

4.3.5 Cloud 28

4.3.6 FTP 29

4.3.7 Email 30

4.3.8 SNMP 30
4.3.9 HTTPS 32
4.3.10 Multicast 33
Chapter 5 Image Parameter Configuration 34
5.1 Schedule Image Modes 34
5.2 Image Adjust 34
5.3 Exposure 35
5.4 Backlight 35
5.5 White Balance 36
5.6 Day and Night Mode Switch 36
5.7 Video Adjust 36
5.8 Enhancement 37
5.9 Privacy Mask 37
Chapter 6 Video and Audio Configuration 39
6.1 Video Settings 39
6.1.1 Stream Type 39
6.1.2 Video Encode 39
6.1.3 Complexity level 40
6.1.4 Video/Audio Enable 40
6.1.5 Resolution 40
6.1.6 Frame rate (FPS) 40
6.1.7 Bit Rate Type 41
6.1.8 Quality 41
6.1.9 Bit Rate(Kb/S) 41
6.1.10 I Frame Interval 41
6.2 Audio Setting 42
6.3 ROI 42
6.4 Snapshot Settings 43
6.5 OSD Setting 43
Chapter 7 Event and Alarm Configuration 44
7.1 Motion Detection 44
7.2 Video Cover Detection 46
7.3 Alarm in/out 46
7.3.1 Alarm Input 47
7.3.2 Alarm Output 47

Chapter 8 Recording to Local Storage/NAS 48
8.1 Record and Snapshot 48
8.1.1 Record setting 48
8.1.2 Snapshot Setting 49
8.2 Storage Manager 49
8.2.1 Local Storage Manage (Micro-SD Card) 49
8.2.2 Connect to NAS 50
Chapter 9 Maintain 52
9.1 Reboot Device 52
9.2 Restore and Default Settings 52
9.3 Config Export/Import 52
9.4 Upgrade device 53
9.5 Search and Manage Log 53
Chapter 10 Playback and download video 54
10.1 Playback the Recording Video 54
10.2 Download the Video File 55

Chapter 1 Overview

1.1 System Requirement

Your computer should meet the requirements for visiting and operating the product.

Items	Recommended Specifications
Operating System	Microsoft Windows XP SP1 or later
CPU	2.0 GHz or faster
RAM	1GB
Display	1024×768 resolution or higher
Web Browser	● Apple Safari version 5.0.2 or later ● Mozilla Firefox version5.0 or later ● Google Chrome version 18 or later ● Microsoft Edge version 107 or later

Table 1-1-1 System Requirements

Note

The following contents are written based on using Microsoft Windows 10 and Microsoft Edge.

1.2 Network Connection

Before you start:

- Before accessing a network camera (also known as Fisheye Camera) from a PC, you need to connect the network camera to the PC directly with a network cable or via a switch or router.
- The network camera supports direct power supply and PoE power supply, please make sure the camera is properly powered up before using it.

The following figures show the two methods of cable connection between a network camera and a computer:

1. Connecting Directly

Connect the network camera to the PC with a network cable directly as shown in the following picture.

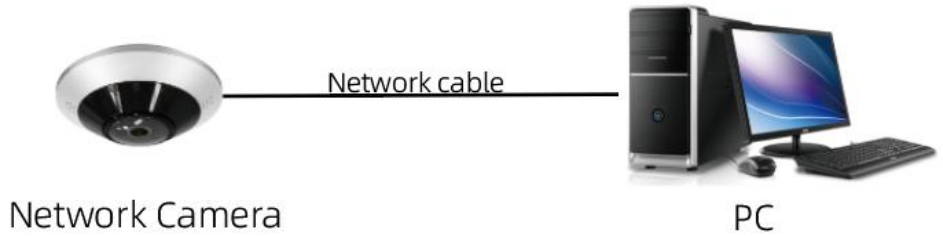


Figure 1-2-1 Connecting Directly

2. Connecting via a Switch or a Router

Figure 1-2-2 Connecting via a Switch or a Router

Chapter 2 Device Activation and Login

For the first-time access, you need to activate the camera by setting the admin password. No operation is allowed until the activation is done. You can activate the camera via a supported web browser, an NVR or the Homaxi Tool.

2.1 Activate Via a Web Browser

Before You Start

- The camera should be configured correctly and powered on.
- The network connection between the PC and the camera should be functioning normally.
- The IP address of the PC should be configured under the same network segment as the camera.
- The PC and web browser being used should meets the requirements.

Steps:

1. Open the web browser.
2. Enter the IP address of the camera in the address bar to open up the login page.

> **Note**
> The default IP address of the camera is 192.168.1.10, while the IP address of your PC should be 192.169.1.x.
> If you don't know the IP address of the camera, you can use the Device Manager to obtain it. Please refer to the Device Manager User Manual.

3. Input **Password** and **Confirm**.

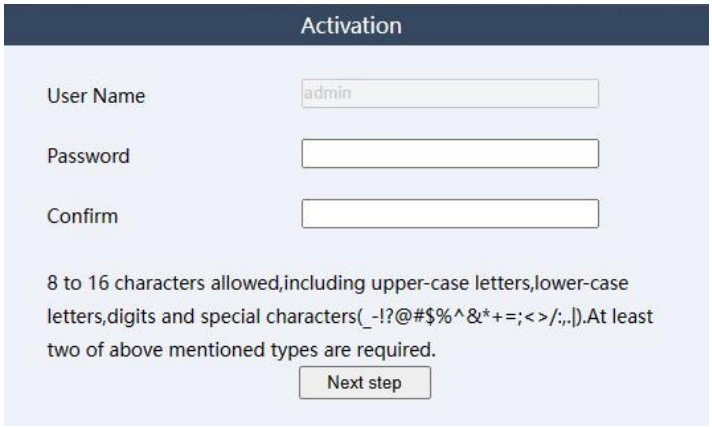


Figure 2-1-1 Activation

> **Warning**
> Strong Password is recommended - We highly recommend you create a strong password of your own choosing (8-16 characters allowed, including at least 2 of the following categories: upper case letters, lower case letters, digits, and special characters.) to increase the security of your product. And we recommend you reset your password regularly, especially in the high standard security system, resetting the password monthly or weekly can provide a better protection to your products.

4. Reset **Type Settings**. You can choose email or security questions at least one way or all.

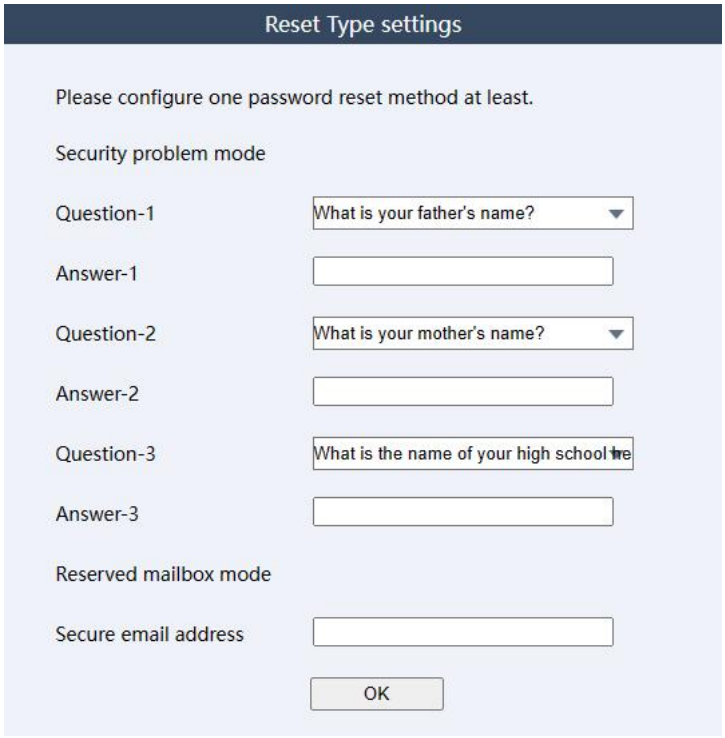


Figure 2-1-2 Reset Type settings

2.2 Login

The following login procedure is exemplified base on Microsoft Edge.

1. Open up the login page by entering the correct IP address of your camera in the address bar.

2. Enter your username and password, and then click **Login**.

3. If you log in with Save Password checked, you will not need to enter your password from the next login. To ensure security, we don't recommend using this feature.

After login, the camera live view will be displayed by default.

2.3 Install Plug-ins

If you are logging in for the first time, please click '**Download**' to download the browser plug-in (**vLocalServerSetup.exe)**.

1. Click in the following order: "**Downloads-Keep-Show more-Keep anyway**". The installer of the plug-in named vLocalServerSetup.exe will be downloaded. Double click on the installer to install the plug-in. You shall need to restart your browser to complete the installation.

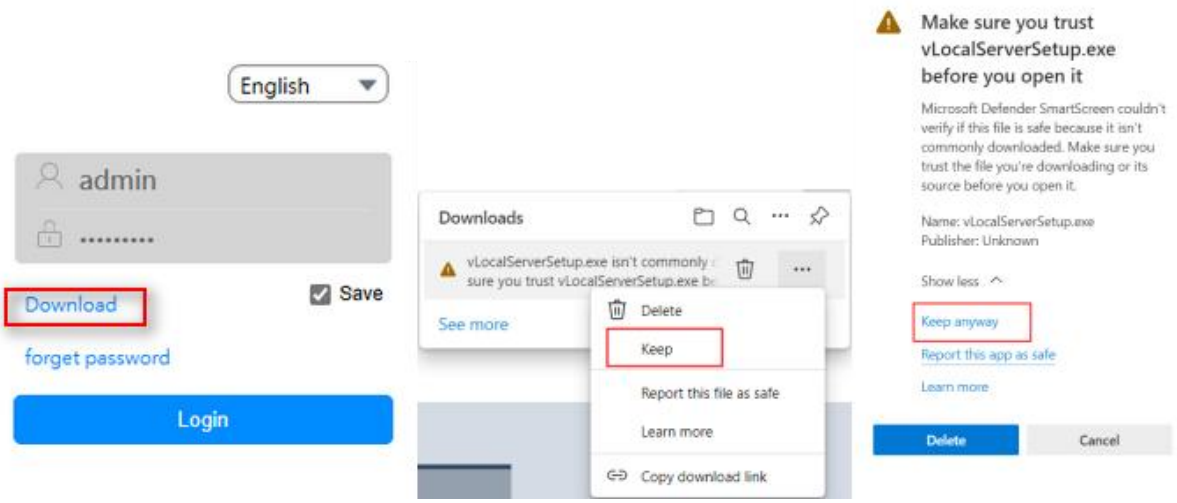


Figure 2-3-1 Download

Note

When installing the vLocalServerSetup.exe, a notification may pop up on your PC. Please click **More info** and **Run anyway** to install it.

1. Install **vLocalServerSetup.exe**.

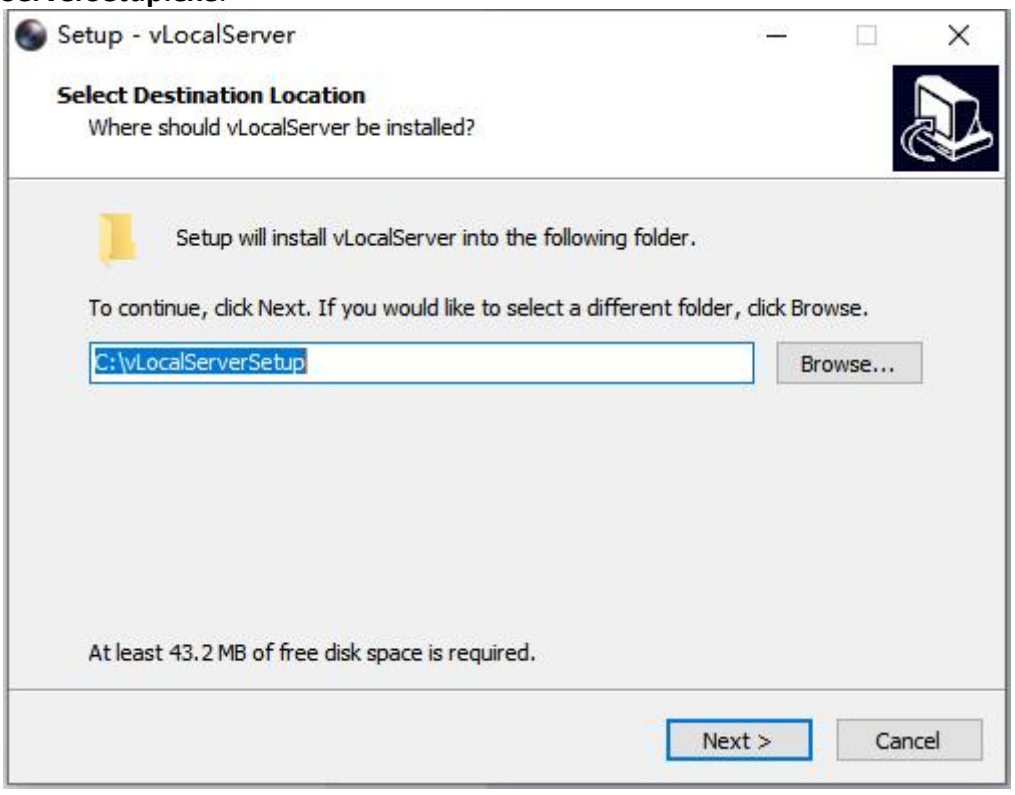


Figure 2-3-2 Select folder to install

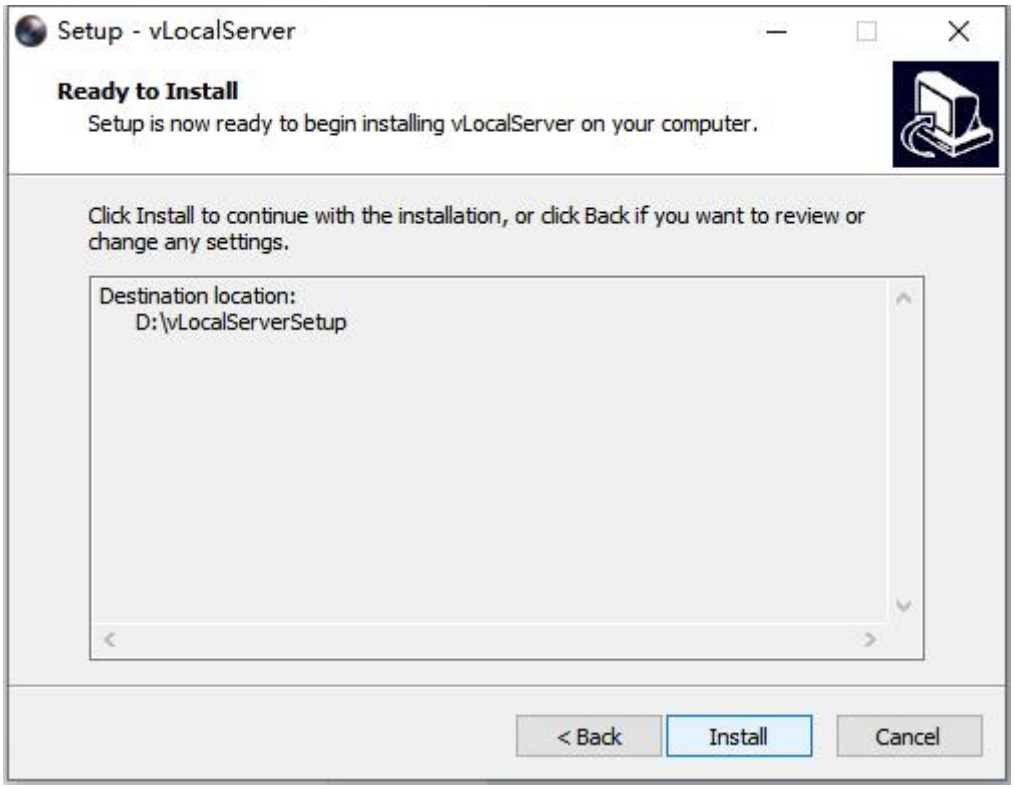


Figure 2-3-3 Install

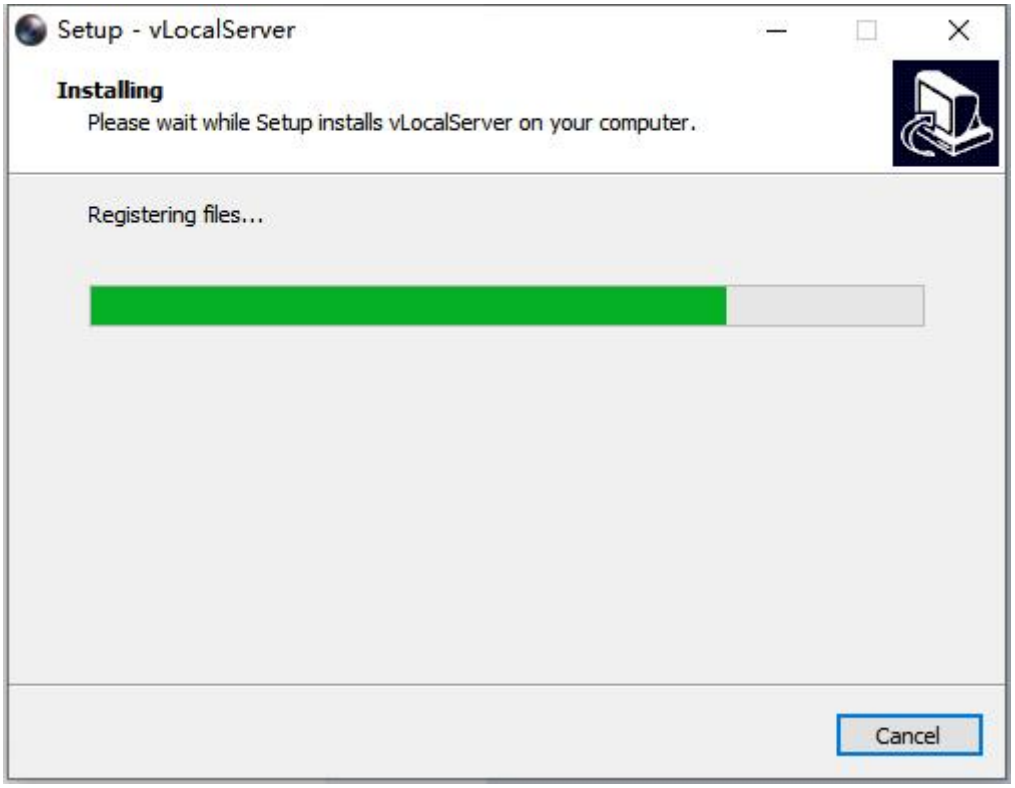


Figure 2-3-4 Installing

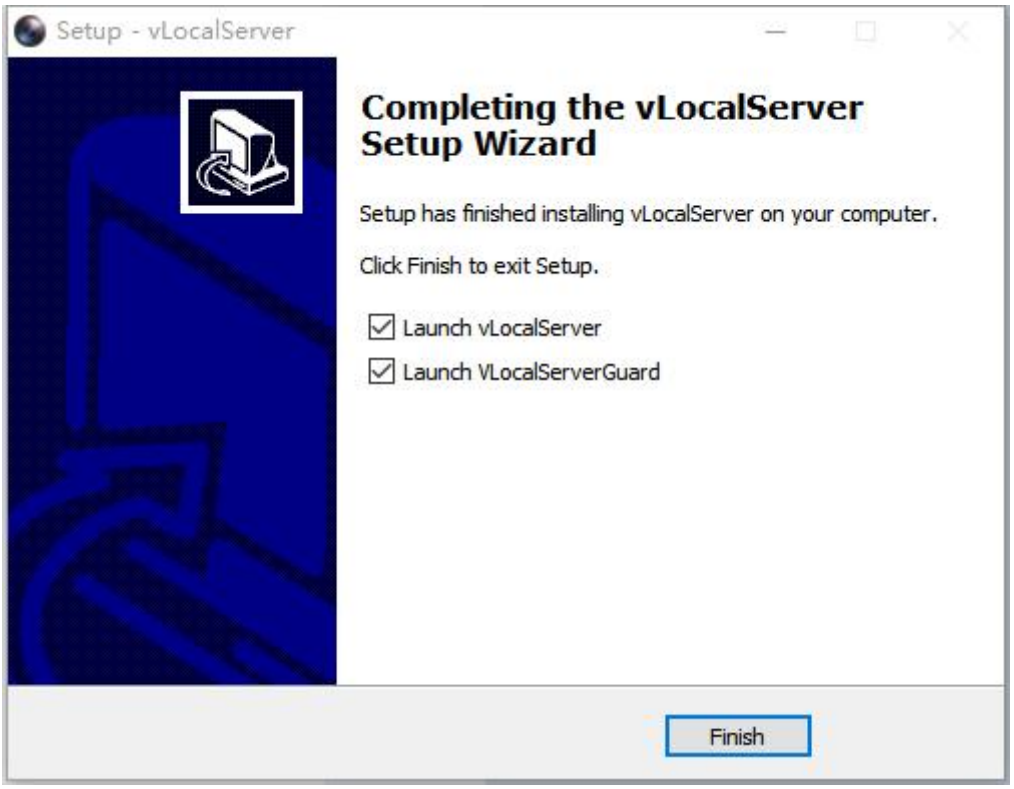


Figure 2-3-5 Finish

Chapter 3 Live View

This chapter mainly introduces the parameters of live view, corresponding function of each icons and PTZ settings.

3.1 Introduction of Live View

By default the live view window is displayed when you are logged in to the Web interface. , as shown in the following picture.

Figure 3-1-1 Live View

No.	Items	Description
1	Menu	You can navigate between Live View, Playback, Set and Account pages in this area.
2	Preview window	The Live video will be displayed in this area.
3	PTZ control area	You can perform panning, tilting, and zooming actions of the camera.
4	Display control area	You can Select the mount type of your device and set the display mode of live view.
5	Toolbar	You can adjust the size of the live view window, set stream type; You can also perform operations such as start/stop live view, capture, record, audio on/off, etc.

Table 3-1-1 Live View

Button	Description
	Live viewing the main stream

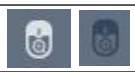
	Live viewing the sub stream
	Close all screens
	Full screen
	ScreenDiv, Preview in 1 screen/4 screens /9 screens according to your choice
	Self-adaptive screen size
	Set the aspect ratio of the live view screen to 4:3
	Set aspect ratio of the live view screen to 16:9
	Set the aspect ratio of the live view screen in accordance with the video source
	Electronic zoom on/off
	Talk
	Multicast (require supporting routers)
	Device Snapshot
	Local Snapshot
	Local Record
	Audio
	Start/Stop live view
	Focus/Zoom control
	Device IP address – Channel No.– Real-time Bitrate-Stream type(Main or Sub)

Table 3-1-2 Live View Button Description

Note

The buttons may vary depending on camera models.

3.2 Start and Stop Live View

Click **Live View**. Click to start live view. Click to stop live view.

3.2.1 Select Installation Method

Select ceiling mounting, wall mounting and table mounting according to the actual mount type you adopted for your camera.

Steps:

1. Click **Live View**.
2. Select mount type:

- refers to ceiling mounting.
- refers to wall mounting.

> **Note**
>
> Please click to select the original Fisheye view before switching mount type.

- refers to table mounting.

3.2.2 Select Display Mode

You can select a display mode for the layout of the Live view window.

Steps:

1. Click **Live View**.
2. Select display method:

- refers to **Fisheye View**, in this mode, the whole wide-angle view of the fisheye camera is displayed. This view mode is called Fisheye View because it approximates the vision of convex eyes of a fish. The lens produces curvilinear images of a large area, while distorting the perspective and angles of objects in the image.

> **Note**
>
> After switching the mode, you will be prompted "IPC will restarted". Please click **OK** and wait for the device to restart.

- refers to Panorama View, in this mode, the round fisheye image is transformed to rectangular image by certain calibration methods.
- A **PTZ View** is the close-up view of a certain defined area in the Fisheye View or Panorama View. It also supports the electronic PTZ function, which is also known as e-PTZ.

refers to live view with into 4 PTZ View screen.

refers to live view with a Panorama View and 3 PTZ view screens, as shown in the figure **3-2-1-1** below.

> **Note**
>
> You can drag the yellow boxes in the Fisheye View to adjust the angle of monitoring. This can also be done by using the arrow keys in the PTZ control area when the camera in PTZ View is selected.

Figure 3-2-1-1 Fisheye View + Panorama + 3 PTZ Views

refers to live view with 1 Fisheye View and 4 PTZ Views.

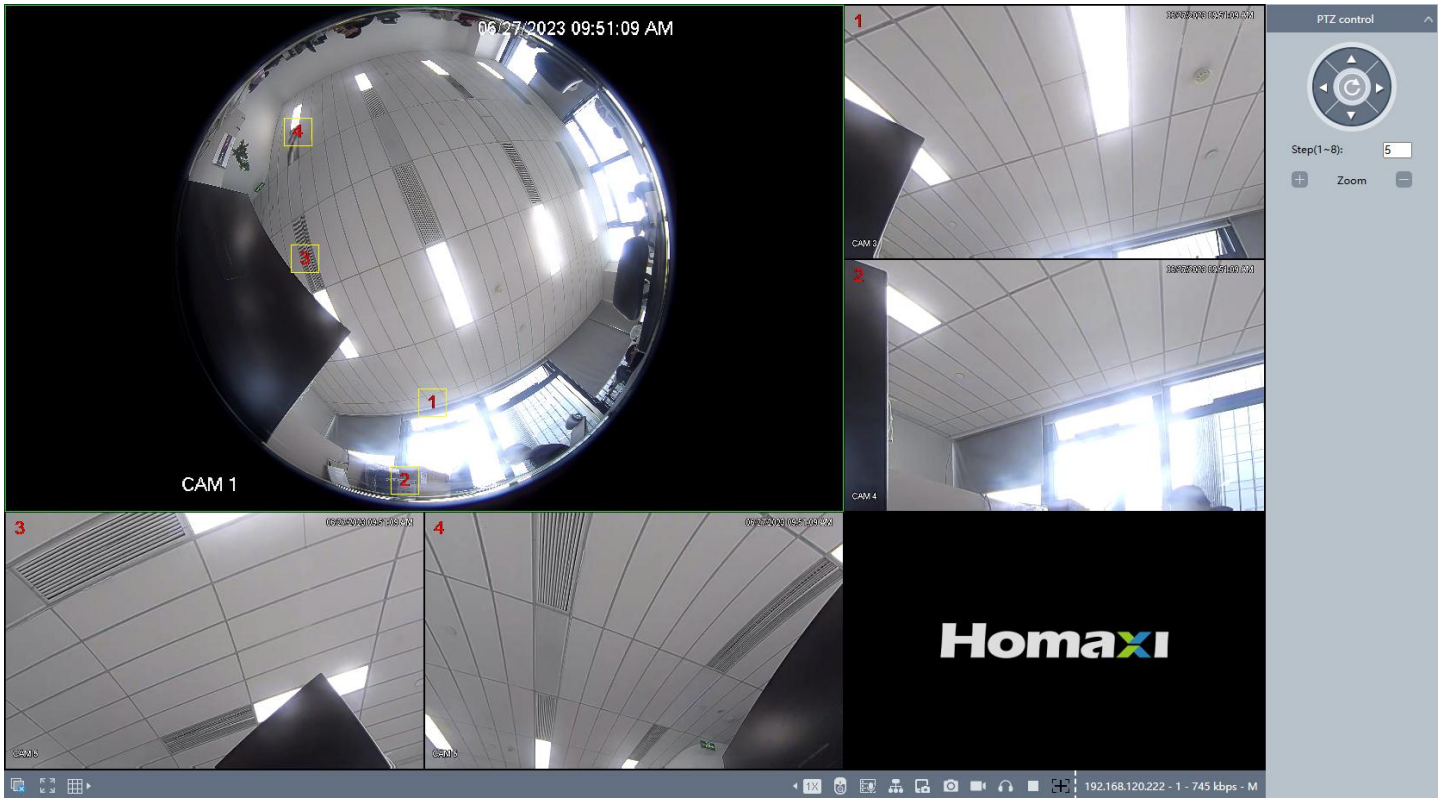


Figure 3-2-1-2 Fisheye View + 4 PTZ Views

Live view with a Panorama View and 3 PTZ Views, as shown in the figure **3-2-1-3** below.

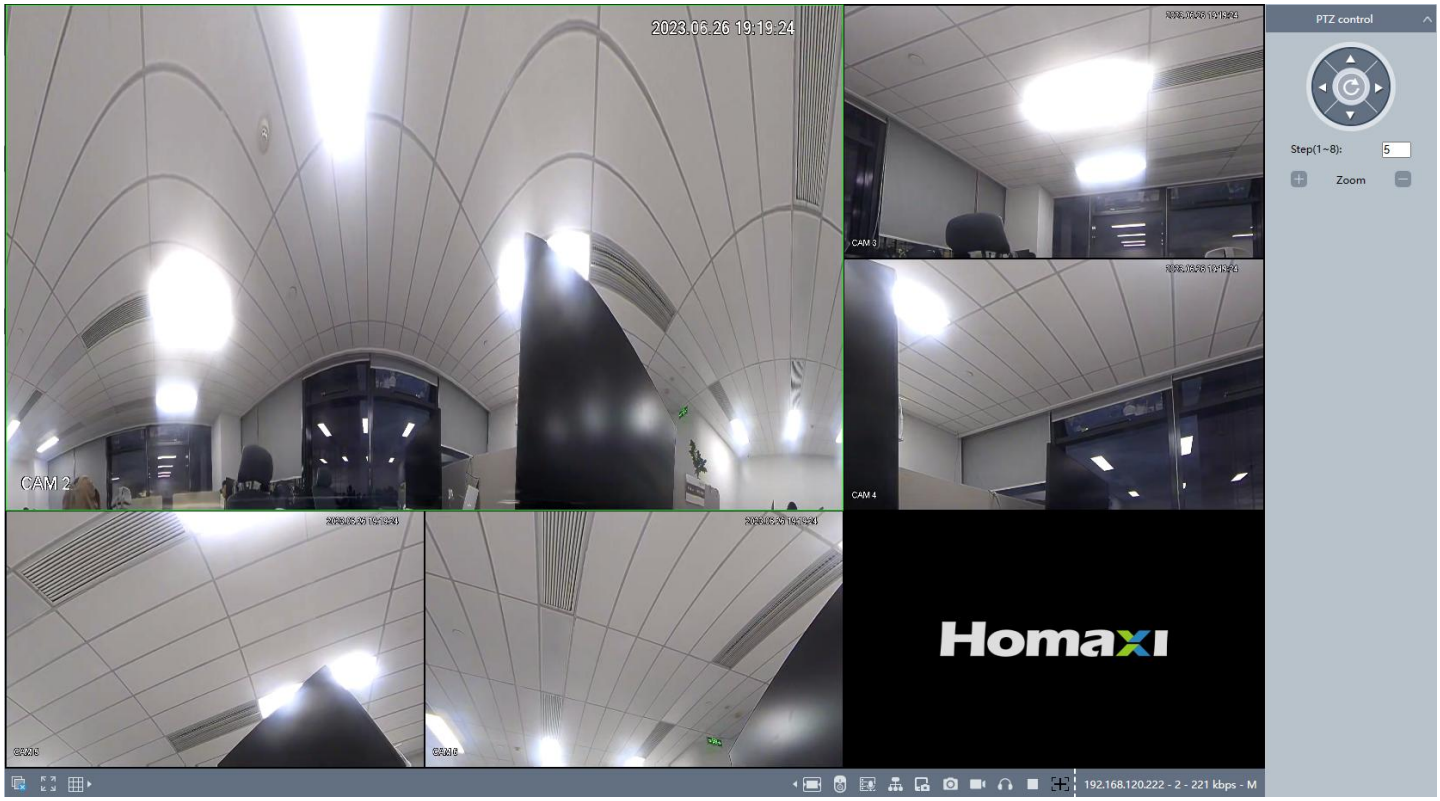


Figure 3-2-1-3 Panorama View + 3 PTZ Views

3.2.3 Operate PTZ Control

A PTZ View is the close-up view of a certain defined area on the fisheye view. Digital PTZ control is also supported.

Steps:

1. Click **Live View**.

2. Select a PTZ View screen on the display window, and then a yellow box would appear on the Fisheye View screen.

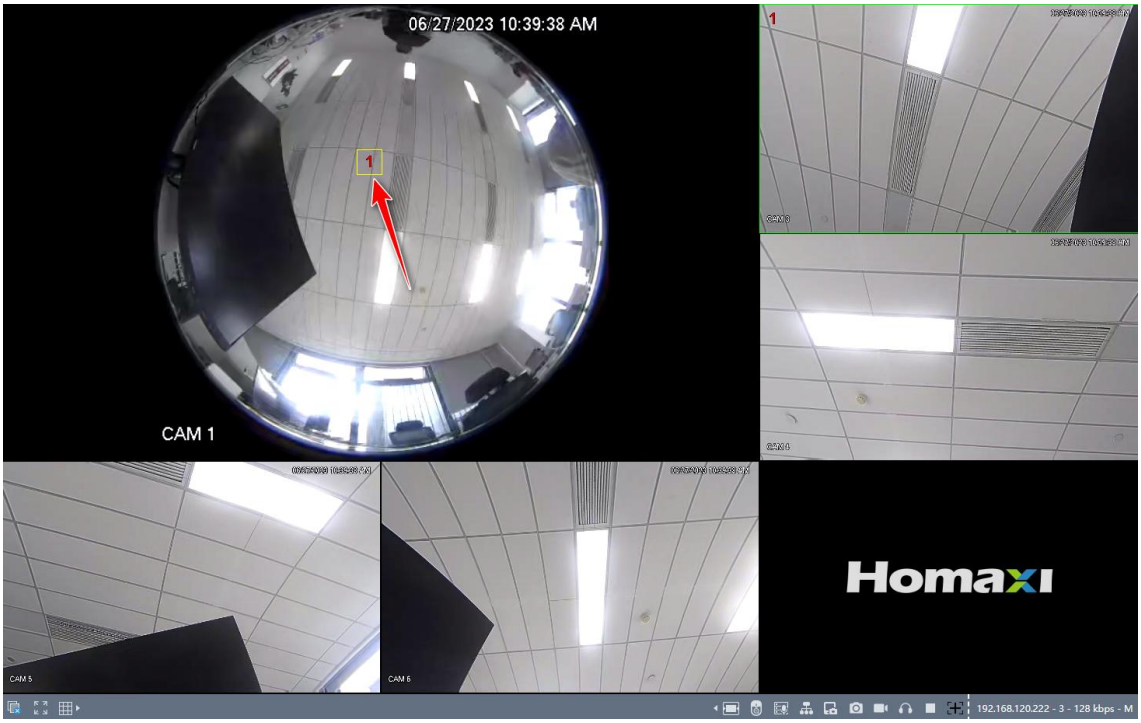


Figure 3-2-3-1 Illustration

3. Click the direction arrows on the PTZ control panel. The yellow box will move in the corresponding pan/tilt direction.

Figure 3-2-3-1 PTZ control panel

4. Adjust Zoom of the PTZ View screen, by clicking the + and – icons.

3.3 Full Screen Preview

This function is used to access full screen preview mode.

Steps:

1. Click **Live View**.
2. Go to toolbar click to access the full screen preview mode.
3. Use Esc button to quit the full screen preview mode.

3.4 Adjust Aspect Ratio

Steps:

1. Click **Live View**.
2. Click to select the aspect ratio.

- refers to 4:3 window size.
- refers to 16:9 window size.
- refers to original window size.
- refers to self-adaptive window size.

3.5 Preview Stream Type

This function is used to select the Preview stream type according to your needs. For the detailed information about the stream type information, please refer to Stream Type.

Steps

1. Click **Live View**.
2. Go to toolbar click

- refers to Main Stream.
- refers to Sub Stream.

3.6 Multicast View

This function is used to enable the multicast view. For the detail information about the Multicast, please refer to ***5.3.12 Multicast***.

Steps:

Click to open the multicast view.

3.7 Recording Videos Capturing Pictures Manually

This function is used to capture the picture and record videos from the Live View manually.

Steps:

1. Click to take a snapshot and save the picture to the device memory.
2. Click to take a snapshot and save the picture to the specified path on your PC.
3. Click to start a manual recording session and click to end the session.

Note

The video will be saved to the specified path on your PC. For path configuration, please refer to ***4.1 Local Storage***.

3.8 Audio and Talk to the Device

Steps:

1. Click to enable the audio. You can hear the sound from the microphone on the camera.

2. Click to talk to the device. The speaker on the camera will play the sound from the microphone on your end.

Note

This feature is only supported on the camera with the Mic or speaker.

Chapter 4 Configuring Parameters

4.1 Local Storage

You can specify the path for saving the record files, snapshot pictures on your PC by performing the following steps.

Go to **Set → Local Storage.**

- **Record video**

Record size: Set the maximum package size of the record file. Available opinions are **256MB**, **512 MB**, **1 GB.**

Record Path: Specify the path for saving the videos recorded manually from the Live View mode.

You can click **Browse** and select a folder as the storage path.

Remote Path: Specify the path for saving the videos recorded manually or downloaded from the Playback mode. You can click **Browse** and select a folder as the storage path.

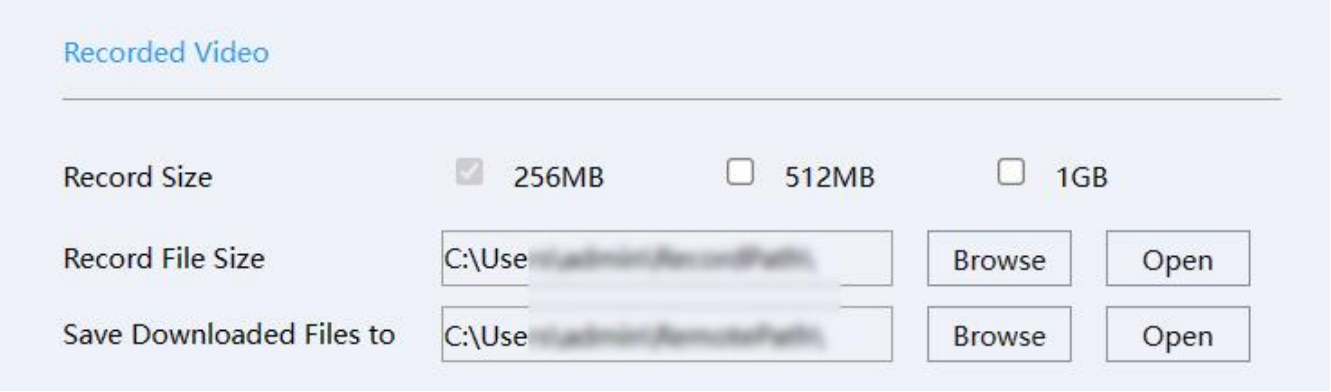


Figure 4-1-1 Recorded Video

- **Snapshot**

Picture Path: Specify the path for saving the snapshots taken manually from the Live View mode. You can click **Browse** to select a folder as the storage path.

Picture Path: Specify the path for saving the snapshots taken manually from the Playback mode. You can click **Browse** to select a folder as the storage path.

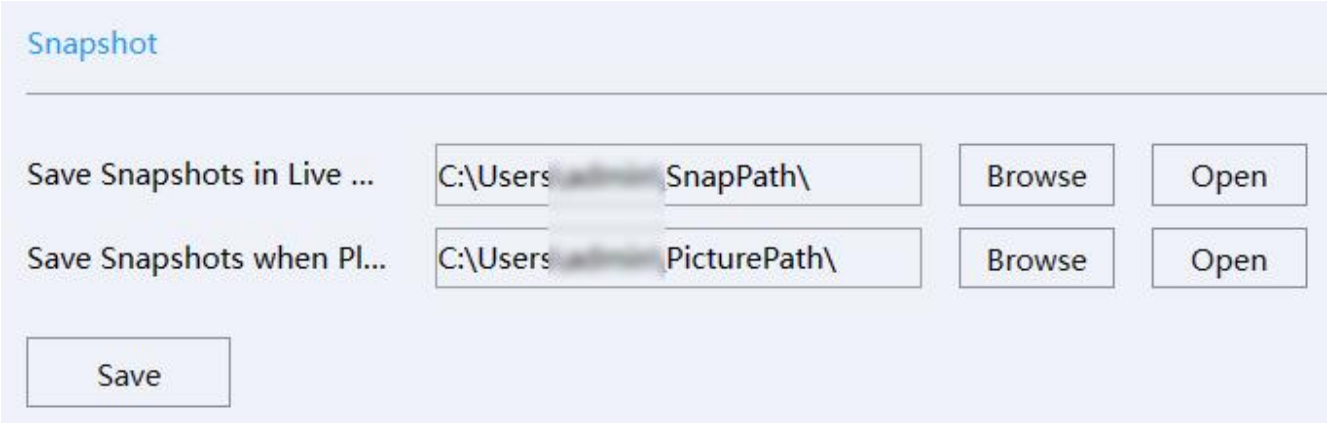


Figure 4-1-2 Snapshot

4.2 System Parameters

In this part, you can configure the device system parameters.

4.2.1 Check Device Information

In this page you can view the device information such as firmware version, MAC address, model, etc.

Steps:

Go to **Set → System-Settings**, you will see the device information.

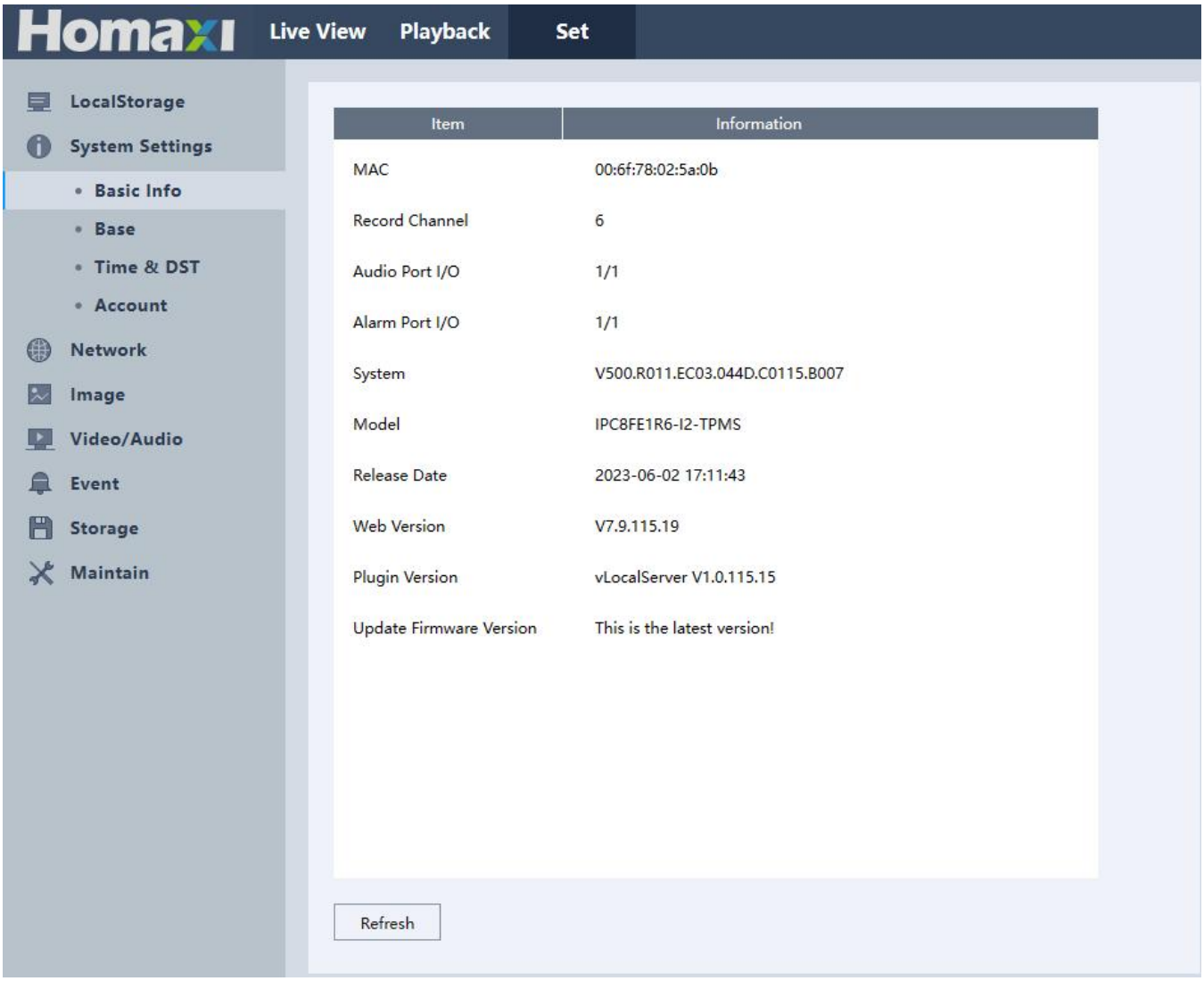


Figure 4-2-1 System Settings

Note

When you see “New version available!” on the interface, it is recommended you manually to download the new software and update it.

4.2.2 Set Device Language, Video Format & Host Name

You can perform the following steps to set Device Language, Video Format and Host Name.

Steps:

Go to **Set → System Settings → Base.**

- **Language**: Click , and select the language you want to set. Click **Save** to save the settings.
- **Video standard**: Click , and choose the video format (**PAL/NTSC**). Click **Save** to save the settings.
- **Host name**: You can edit the Host name as you want to set. Click **Save** to save the settings.

Note

The host name will show on Network and when using the Email function. For the detail Email function information about the Email, please refer to ***4.3.9 Email.***

4.2.3 Time and Date

You can perform the following steps the steps to set Device time, time format, DST, etc.

- **Set Manually or Sync with PC**

Steps:

1. Go to **Set → System Settings → Time & DST**.

Figure 4-2-3-1 Time

2. Set the correct time zone and system time.
3. Optional: Click **SyncPC** to synchronize the time settings of your camera with your PC.
4. Set the date and time format.
5. Click **Save**.

- **Set DST (Daylight Saving Time)**

Support to auto-change the device time.

Steps:

1. Go to **Set → System Settings → Time & DST**.

Figure 4-2-3-2 DST

2. Enable **DST**.
3. Choose the DST format **Day of Week** or **Date**.
4. Set the start date and end date.
5. Click **Save**.

- **Set NTP**

Device time will be synchronized with the NTP server.

Steps:

1. Go to **Set → System Settings → Time & DST**.

Figure 4-2-3-3 NTP

2. Enable **NTP**.
3. Set the Host IP (NTP Server).
4. Set the **Port** number.
5. Set the **Update Time**. The device will synchronize the time with the NTP server at this interval.
6. Click **Save**.

4.2.4 User and Account Manage

You can add/delete user, modify password, block IP in this section.

- **Create group and user account**

Steps:

1. Go to **Set → System Settings → Account.**

Figure 4-2-4-1 Account

2. Click **Add Group** to create a new group and set the group name and authority, click **OK**.
3. Click **Add User** to create a new user, set the username, password, group and authority, click **OK**.

- **Set/Change security mailbox**

Steps:

1. Go to **Set → System Settings → Account**.
2. Select the user you want to modify.
3. Click **Set/Change secure mailbox**.
4. Enter a New security email address and the user's password.

Note

After the forgotten password is used for the security mailbox, the password is retrieved. Please make sure that the mailbox is available and carefully write it in mind.

5. Click **change** and wait for the prompt "Modify successfully".

Figure 4-2-4-2 Set/Change security mailbox

- **Set/Change security issue**

Steps:

1. Go to **Set → System Settings → Account**.
2. Select the user you want to modify.
3. Click **Set/Change security Issue**.
4. Select the question and enter the answer, enter the user's password.
5. Click **change** and wait for the prompt "Modify successfully".

Figure 4-2-4-3 Set/Change security issue

- **Modify user password**

Steps:

1. Go to **Set → System Settings → Account.**
2. Select the user whose password you want to change.
3. Click **Modify Password** , input the Old Password, New password and Confirm password.

Figure 4-2-4-4 Modify Password

4. Click **Save** to save the modification to the password.

- **Modify username and authority**

Steps:

1. Go to **Set → System Settings → Account**.
2. Select the user whose information you want to modify.
3. Click . You can change the user name, select the authority you want to change.
4. Click **OK**.

- **Delete User**

Steps:

1. Go to **Set → System Settings → Account**.
2. Click after the user need to be deleted.
3. Enter the username into the popup dialog window to confirm.
4. Click **OK**.

- **IP Block**

You can add and delete the IP addresses from the blacklist. Blocked IP addresses will not be permitted to access the device.

Steps:

1. Go to **Set → System Settings → Account → Access Control**.

2. Under Restriction Type, select **Blocked Sites**.

3. Enter the IP address you would like to block in the input box and click **Add IP**. This IP address will be added to the blacklist.

Optional: If you need to remove an IP address from the blacklist, you can select the IP address and click **Delete IP**.

4. Click **Save.**

Figure 4-2-4-5 Access Control

- **IP Trust**

You can add IP addresses to the whitelist. IP addresses not included in the whitelist will not be permitted to access the device.

Steps:

1. Go to **Set → System Settings → Account → Access Control.**

2. Under Restricted Type, select **Trusted Sites.**

3. Enter the IP address you would like to add to the whitelist and click Add IP. This IP address will be added to the whitelist.

Optional: If you need to remove an IP address from the whitelist, you can select the IP address and click **Delete IP**.

4. Click **Save**.

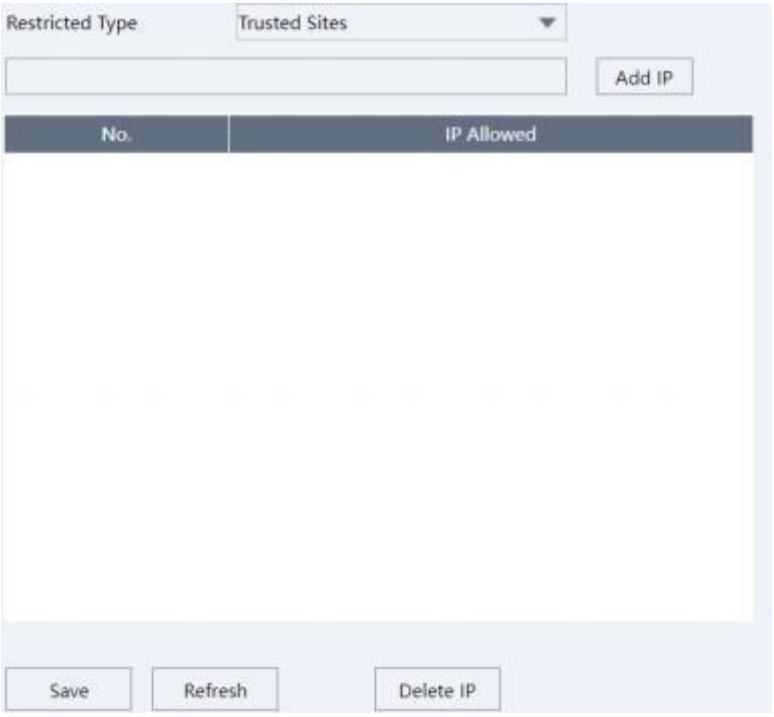


Figure 4-2-4-6 Access Control

- **View Online users**

You can view the list of current online users in this section.

Steps:

1. Go to **Set → System Settings → Account → Online Users**.

The information (Username, IP address, Login Way and Login Time) of the users online would be displayed as the following picture.

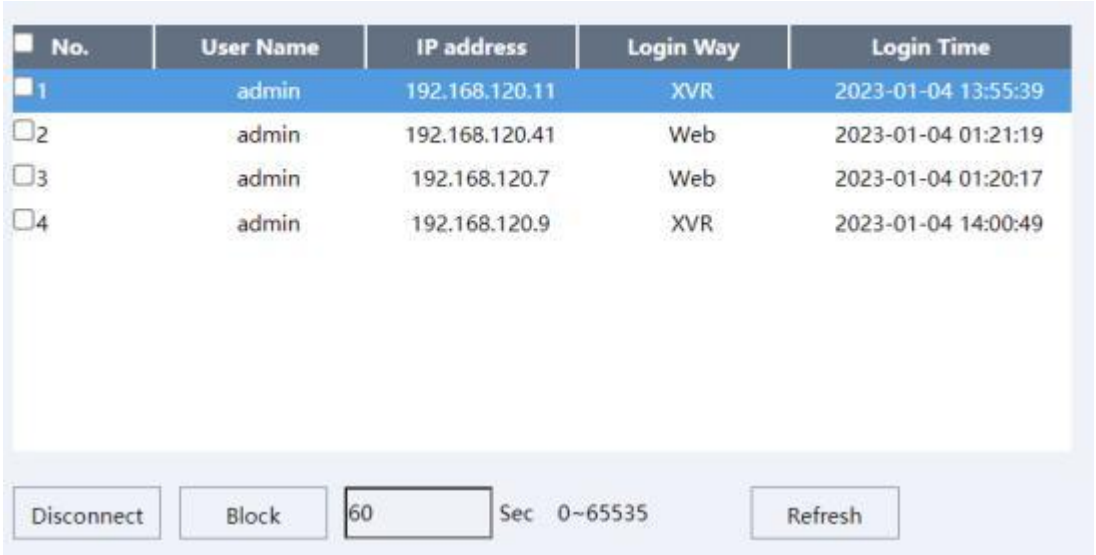


Figure 4-2-4-7 Online Users

Optional:

If you need to disconnect a user from the device, you can select the user and click the **Disconnect** button. The selected user will be disconnected from the device instantly.

If you need to block an IP address of an online user from logging in, you can select the user from the online users list, enter a block duration, and click the **Block** button. IP addresses blocked by this method will not have the access to the device for the set duration.

4.3 Network Configuration

Note

The Network Configuration page may vary depending on the model. Please be subject to the actual web interface.

4.3.1 Configure Device TCP/IP Settings

TCP/IP settings must be configured properly before you operate the device over a network.

- **NIC Type**

Setting **Adaptive** as default is recommended.

- **DHCP**

By enabling DHCP, the device will automatically obtain an IP address and other network configurations (subnet mask, default gateway) from the DHCP server. Please note that the IP address of the device might be changed by enabling this feature.

Steps:

1. Go to **Set → Network → General → TCP/IP**.
2. Enable **DHCP.**
3. Click **Save**.

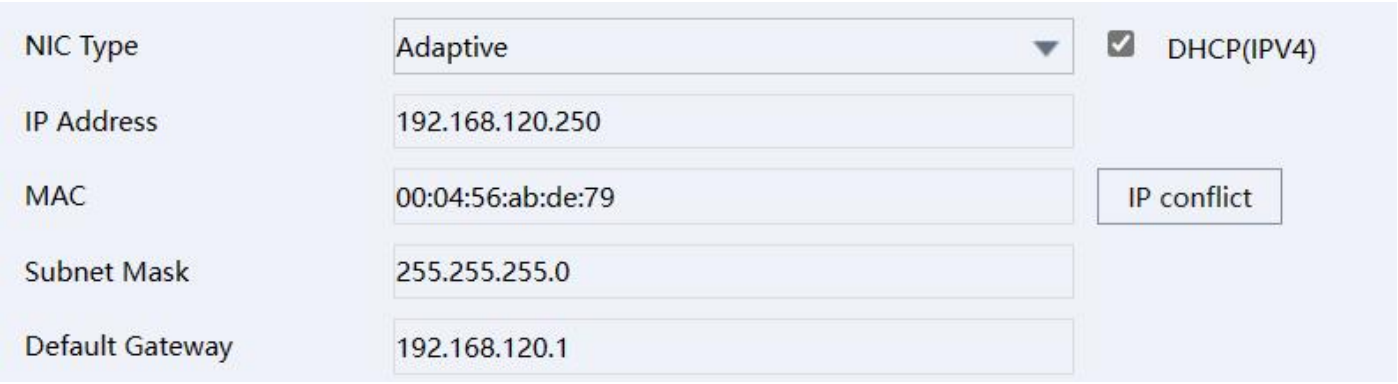


Figure 4-3-1-1 TCP/IP

- **Manual Configuration**

You can configure the network of the device manually. Input device IP Address, IP Subnet Mask, and Gateway, and click IP conflict to test check if the IP address is available.

Steps:

1. Go to **Set → Network → General → TCP/IP**.
2. Confirm that **DHCP** is disabled.

3. Enter IP address, Subnet Mask, and default Gateway.
4. Click **IP conflict** to test the IP address whether conflict.
5. Click **Save**.

- **DNS Server**

DNS is the abbreviation for domain name server. A DNS server is requisite if you want to access a site from the device through a domain name. It is also required for some features (e.g., sending emails, cloud storage). You need to configure **Preferred DNS Server** and **Alternate DNS Server** properly if you need to utilize these features.

Steps:

1. Go to **Set → Network → General → TCP/IP**.
2. Enter in **Preferred DNS Server** and **Alternate DNS Server**.
3. Click **Save**.

- **Transfer Mode**

You can specify the Transfer Mode as self-adaptive, fluency preferred or quality preferred.

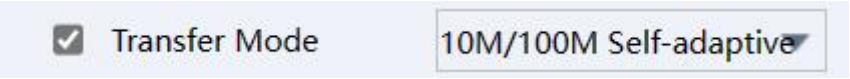


Figure 4-3-1-2 Transfer Mode

- **Max Users**

You can set the maximum number of IP addresses connected concurrently to the device.

- **Ports**

You can configure the ports of HTTP, HTTPS, Media, RTSP, RTMP in this section.

Figure 4-3-1-3 Ports

- **URL Templates**

This section provides templates for RTMP and RTSP URLs, you can use them after modifications according to your specific situation.

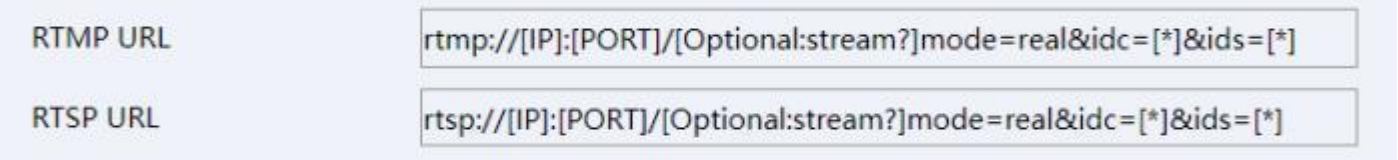


Figure 4-3-1-4 URL Templates

4.3.2 Configure DDNS Settings

Support use the Dynamic DNS (DDNS) for network access. DDNS is the abbreviation of Dynamic DNS, it maps the dynamically allocated IP address of the device to a static domain name that can be accessed by the external network.

Steps:

1. Go to **Set → Network → General → DDNS**.
2. Check the **Enable** checkbox.
3. Select your DDNS provider under **DDNS Type**, enter your **Domain Name**, **Username** and **Password**.
4. Click **Save** to save changes.

Note

Our devices support multiple DDNS providers, such as Oray DDNS, CN99 DDNS, DynDNS DDNS, and NO-IP DDNS. You need to register an account before using. The following table includes the websites of our supported DDNS providers for your reference.

DDNS type	Website
Oray	http://www.oray.com/
DynDNS	http://dyn.com/dns/
NOIP	https://www.noip.com/
CN99	http://www.pubyun.com/

Table 4-3-2 DDNS Provider Websites

4.3.3 Configure NAT Settings

NAT is the abbreviation for Network Address Translation, it maps addresses and ports between your internal network and external network. You can configure the UPnP™ settings in this section.

Universal Plug and Play (UPnP™) is a networking architecture that provides compatibility among networking equipment, software, and other hardware devices. The UPnP protocol allows devices to connect seamlessly and to simplify the implementation of networks in the home and in corporate environments.

By enabling this feature, you will not need to configure the port mapping for each port manually. The camera will be connected to the Wide Area Network via the router automatically.

Steps:

1. Go to **Set → Network → General → NAT**.
2. Click **Enable**.
3. Click **Save**.

Note

To ensure this feature can properly function, please make sure the UPnP feature on your router is enabled.

4.3.4 UPNP-TM

By enabling this feature, your network camera can be found as a network device on your network.
Steps:

1. Go to **Set → Network → General → UPNP-TM**.
2. Click **Enable** and enter the device name as you want.
3. Click **Save**.

> **Note**
> The default name of a device is its Cloud ID.

4.3.5 Cloud

By enabling Cloud features, users can access the information of the device (video, alarm, etc.) via APP and our IE Web platform.

Steps:

1. Go to **Set → Network → General → P2P.**
2. Click **Enable.**
3. Click **Save.**

Click the **Refresh** button to reload the page. Your device is connected to the Cloud when **Status** changed to **Connected**.

- **Access the device via APP**

Steps:

1. Ensure the device connected with Cloud.
2. Scan the iPhone/Android QR code to download the APP.
3. Scan the Cloud ID QR code to bind the device and access the device.

> **Note**
> You can download our Homaxi View App by scanning the QR code on the page corresponding to your platform. To bind your cameras for later access, scan the Cloud ID QR code on the right. Note that you will be required to register an account prior to using Homaxi View.

- **Access the device via web**

Steps:

1. Ensure the device connected with Cloud.
2. Open your browser, enter the URL displayed by **IE Web** in the URL bar.

Figure 4-3-5-1 IE Web

3. Switch to **By device**, input **Cloud ID**、**Device username** and **Device password.**

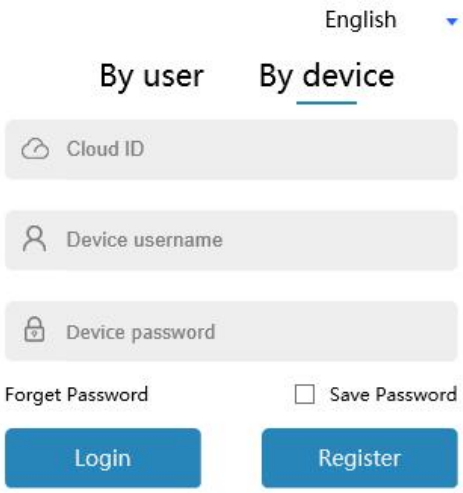


Figure 4-3-5-2 By device

4. Click **Login**.

4.3.6 FTP

FTP is the abbreviation for File Transfer Protocol, which is quintessentially designed for file transferring. In this section, you can configure FTP server related settings to enable the uploading of the captured pictures or recorded videos to the FTP server. The uploading process can be triggered by events or timed snapshot tasks.

Steps:

1. Go to **Set → Network → Advanced → FTP.**
2. Select **Type**: Record FTP/Picture FTP.
3. Check **Enable** checkbox**.**
4. Enter the IP address in the **Server** input box and **Port** to your FTP Server.
5. Configure the FTP settings: enter the username and password required for logging into the FTP server.
6. Specify the directory and the file length for uploading.

Directory: Device will create a new folder on your FTP if specified directory doesn't exist.

File length: Recorded videos will be segmented into files with size that is not larger than the specified file length (Max. 65535 MB).

7. Click **FTP Test** to test the connection to your FTP server.
8. Set the **FTP Schedule**.

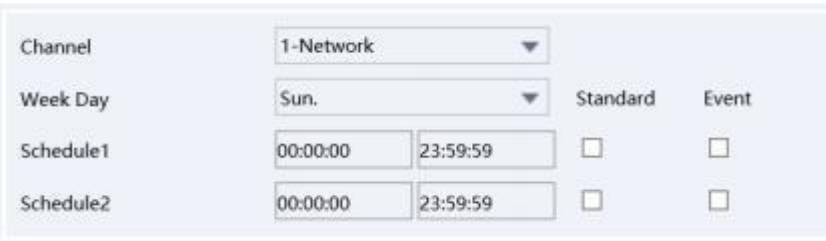


Figure 4-3-8 FTP Schedule

9. Click **Save** to save and finish the settings.

Note

To anonymously access (access without authentication) the FTP Server, check the **Anonymous** checkbox. Note that the anonymous access feature must be supported by the FTP server.

4.3.7 Email

The device can send Email notifications to all designated receivers when an alarm event (e.g., motion detection event, video loss, video tampering, etc.) is detected.

Before you start:

Please make sure the TCP/IP Settings has been configured properly.

Steps:

1. Go to **Set → Network → Advanced → Email**.
2. Configure the following settings:

   SMTP Server: The IP address or the domain name (e.g., smtp.263xmail.com) of the SMTP Server.

   Email Encryption: None or SSL. When SSL is selected, emails will be sent after SSL encryption.

   Port: The SMTP port. The default SMTP port is 25 (not secured) and the default SSL SMTP port is 465.

   Snap Interval time: The time interval of snapshots.

   Username: The email account of the sender.

   Password: The password to the email account.

   Sender: The name of the email sender.

   Subject: The subject of emails.

   Receiver 1/2/3: The email addresses of the receivers of the emails.

3. Click the **Mail Test** to test the settings whether correct.

Note

You can check with your email service provider for the SMTP settings.

4.3.8 SNMP

By enabling the SNMP feature, you can obtain the camera status, configurations, and alarm-related information. You can also manage the camera remotely when it is connected to the network.

Before you start:

Prior to configuring SNMP, please download the SNMP client and make sure you can receive information from camera via a SNMP port. Trap is the terminology in SNMP for a message sent from one device to another to notify a specific event. By setting the **Trap Address** (the IP address of the trap receiver), the camera can send alarm events and exception messages to the surveillance center.

Note

The SNMP version you select should be the same as that of the SNMP client. You need to select from different versions according to the security level you required: SNMP v1 provides no security; SNMP v2 requires authentication for the access; SNMP v3 provides encryption and prior to using SNMP v3, HTTPS protocol must be enabled.

Steps:

1. Go to **Set → Network → Advanced → SNMP.**

2. Check one or multiple checkboxes in Enable SNMP v1, Enable SNMP v2, Enable SNMP v3 to enable the feature depending on your need.

3. Configure the **SNMP settings**.

4. Click **Save** to save changes.

Note

For a lower risk of information leakage, SNMP v3 is highly recommended instead of SNMP v1 or v2.

Figure 4-3-10 SNMP Settings

4.3.9 HTTPS

HTTPS provides authentication of the web site and its associated web server, which protects against Man-in-the-middle attacks. Perform the following steps to set the port number of https. E.g., If you set the port number as 443 and the IP address is 192.168.1.64, you may access the device by inputting https://192.168.1.64 :443 via the web browser.

Steps:

1. Go to **Set → Network → Advanced → Https**.
2. Check the checkbox of **Enable** to enable the function.

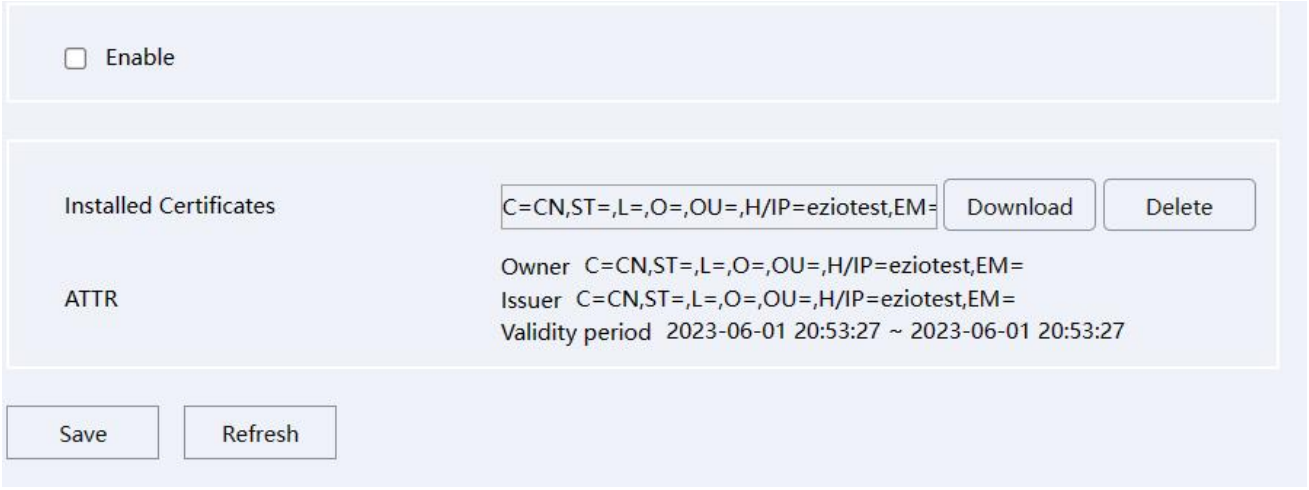


Figure 4-3-11 Https

3. You can **Download** the certificate and install to your PC, and visit the device via HTTPS.
4. Click **Enable**, click **Save** to save and finish the settings.
5. After enabled, device will reboot.

Note

If enabled the HTTPS, but the PC not install the certificate. When access the device webpage, it will show the notification about 'the site certificate has issue' will be displayed when accessing the device webpage.

4.3.10 Multicast

In computer networking, multicast (one-to-many or many-to-many distribution) is group communication where data transmission is addressed to a group of destination computers simultaneously.

When multiple servers ask for the same information, the source device only needs to send the information only once. Hence, the most important benefit of the multicast is saving transmission bandwidth when the device is accessed by multiple remote clients.

Before you start:

Please confirm the router to which the device is connected supports Multicast feature.

Steps:

1. Go to **Set → Network → Advanced →Multicast**.
2. Set the Multicast IP (224.0.0.0~239.255.255.255) and port (1025~65534).
3. Click **Save** to save changes.

Chapter 5 Image Parameter Configuration

Note

The Image Configuration page may vary depending on the model. Please be subject to the actual web interface.

5.1 Schedule Image Modes

You can select image mode amongst three options: **Auto Switch**, **Scheduled Switch** and **Universal Day And Night**.

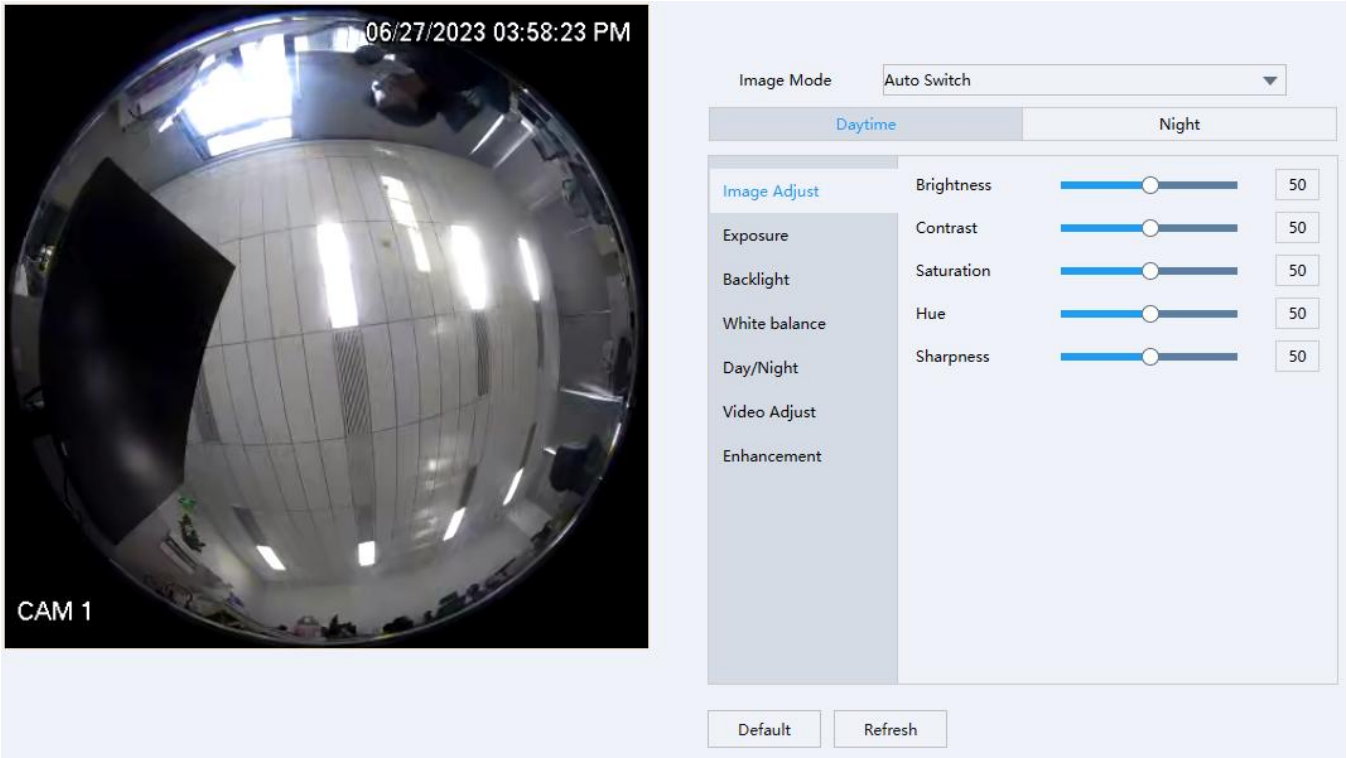


Figure 5-1-1 Image Configuration

- **Universal Day And Night**: The same configurations of the image will be applied to both day and night modes.
- **Schedule Switch**: You can configure image parameters for Daytime and Night modes individually. You need to set up a schedule for shifting between Daytime and Night modes if you select this option.
- **Auto Switch**: You can configure image parameters for Daytime and Night modes individually, and the device will switch the Daytime Night image parameters synchronize with the day/night mode.

Steps:

1. Go to **Set → Image → Image Configuration**.
2. Click the **Image Mode** drop-down box to select a mode.

5.2 Image Adjust

- **Brightness:** Specifies the brightness/luminance of the image. The parameter ranges from 0 to 100 with a default value of 50.

- **Contrast**: Specifies the ratio of tones or the ratio between the light and dark areas of an image. The parameter ranges from 0 to 100 with a default value of 50.
- **Saturation**: Specifies the colorfulness of the image. The parameter ranges from 0 to 100 with a default value of 50.
- **Hue**: Defines the quality of the color by its dominant wavelength. The parameter ranges from 0 to 100 with a default value is 50.
- **Sharpnes**s: Specifies the contrast of edges in the image. The parameter ranges from 0 to 100 with a default value of 50.

Steps:

1. Go to **Set → Image → Image Configuration**.
2. Click **Image Configuration** and set the parameters by sliding on the seek bars for each parameter.

5.3 Exposure

You can select the correct exposure mode to achieve the desired exposure effect.

- **Anti-Flicker**: Outdoor/50Hz/60Hz anti-flickering modes are supported. You can select depending on the environment.

  Note: 50Hz/60Hz: Reduces stripes by limiting shutter frequency.

- **Exposure mode**: Auto/Manual.

  Auto: the camera will auto-adjust the exposure time according to the environment.

  Exposure time: Refers to the shutter time of the electronic shutter. 1/3, 1/4, 1/5, 1/6, 1/8, 1/10, 1/12, 1/15, 1/25, 1/30, 1/50, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 are selectable. You can adjust according to the actual luminance condition.

  Note: Exposure time is used to control the light that comes into the lens. A fast shutter speed is ideal for scenes in quick motion. A slow shutter speed is ideal for scenes that change slowly.

- **Gain**: Control image signals so that the camera outputs standard video signals according to the light condition. To compensate the sensitivity of the sensor, the default value is 50. The bigger the value is, the brighter would the image be, and the noise would also be amplified to a larger extent.

  Note: You can configure **Gain** parameter only when **Exposure Mode** is set to Auto.

Steps:

1. Go to **Set → Image → Image Configuration**.
2. Click **Exposure**, and set the parameters.

5.4 Backlight

Note

Only one of the features can be enabled at the same time.

- **Highlight Compensation**: This feature should be enabled when there is a bright light in the view.

  You can adjust Highlight Compensation parameter only when it's enabled. The parameter ranges from 0 to 100. Bigger the number is stronger the effect takes.

- **Backlight**: This feature of compensates light to an object in the front to make it clearer. You can select amongst Close, Default and Custom.

- **WDR/DWDR:** (Digital) Wide Dynamic Range can be enabled when there is a sharp contrast between the bright area and the dark area of the scene. You can configure the parameter (limit) of WDR/DWDR feature only when it's enabled. Bigger the parameter is, wider the dynamic range is.

Steps:

1. Go to **Set → Image → Image Configuration**.
2. Click **Backlight** and configure the parameters.

5.5 White Balance

White balance is the white rendition function of the camera, and it's used to adjust the color temperature according to the environment.
Auto Mode: Camera will adjust the color temperature according to the environment automatically.
Manual Mode: User can set the R (red) gain and the B(blue) gain manually.

Steps:

1. Go to **Set → Image → Image Configuration**.
2. Click **White balance** and set the parameters.

5.6 Day and Night Mode Switch

- **Day/Night Switch**: You can select the Day/Night Switch mode according to different surveillance demand. Daytime, Night, Auto are selectable for day/night switch.
  Daytime: The camera will stay in the day (color) mode.
  Night: The camera will stay in the night (black and white) mode.
  Auto: The camera outputs the optimum images according to the luminance condition. In this mode, the camera can switch between night mode and day mode automatically.
- **Filter time**: Refers to the interval time between the day/night switch range from 5-120s.
- **Illuminator**: Specifies a method as the supplementary lighting, the options may vary depending on the model.

Steps:

1. Go to **Set → Image → Image Configuration**.
2. Click **Day/Night** and set the parameters.

5.7 Video Adjust

You can adjust the video image to the correct position as you want.

- **Image**: This feature allows you to view the image in different flipped directions. Left Right, Up Down, Centre and Close are the selectable options.

Steps:

1. Go to **Set → Image → Image Configuration**.
2. Click **Video Adjust** and set the parameters.

5.8 Enhancement

The device supports Noise Reduction and Defog features to enhance the camera image quality. You can adjust the NR Level to configure the intensity of Noise Reduction. Note that this feature may result in a blurry image.

You can enable the Defog feature to adjust the clarity of images captured in foggy or hazy conditions.

- **NR Level**: Noise Reduction Level, ranges from 0 to 6, the higher the value, the less noisy the video.
- **Defog**: You can enable the Defog feature when the environment is foggy and the image is misty. It enhances subtle details so that the image appears more clearly.

Steps:

1. Go to **Set → Image → Image Configuration**.
2. Click **Enhancement** and set the parameters.

5.9 Privacy Mask

On certain occasions, you may need to set a masked area on the camera image to protect privacy. For example, the keyboard of an ATM machine. When a PTZ camera changes its position or zooms, you should make manual adjustment to the Privacy Mask accordingly to protect the area all along.

Steps:

1. Go to **Set → Image → Privacy Mask**.
2. Check the **Enable** checkbox.
3. Left click the mouse on the preview on the left and drag to draw a masked area (up to 4 areas for Fisheye Cameras).

   Optional:

   Move a mask area: Left click the mouse on a masked area and then drag it to the destination position.

   Delete a mask area: Left click the mouse on a masked area and then click Delete. You can also click Clear id you want to delete all masked areas.

4. Click **Save** to save changes.

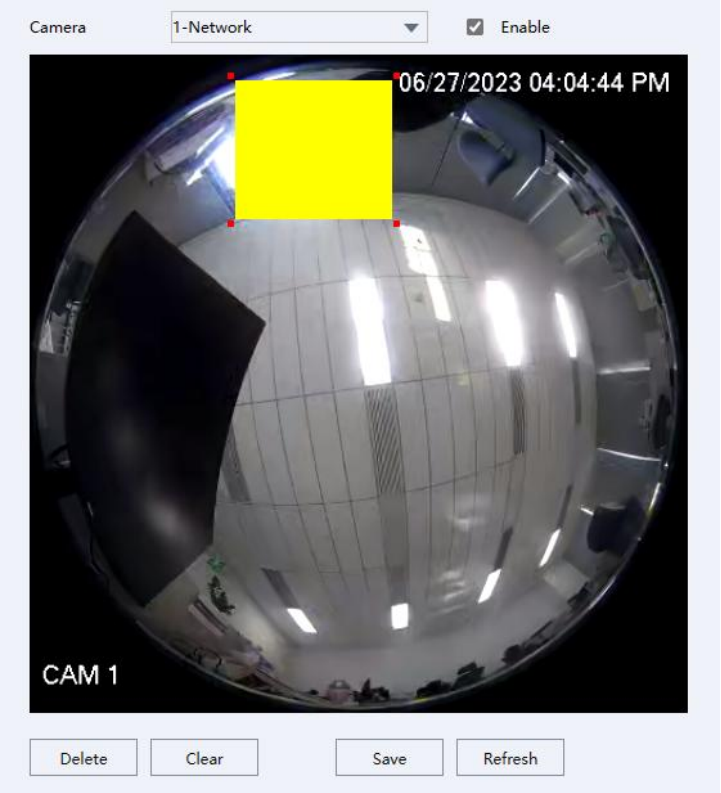


Figure 5-9-1 Privacy Mask

Chapter 6 Video and Audio Configuration

This part introduces the configuration of video and audio related parameters.

Note

The Video/Audio configurations may vary depending on the model. Please be subject to the actual web interface.

6.1 Video Settings

6.1.1 Stream Type

For devices that supports more than one stream, you can specify the type for each stream.

- **Main Stream**

This stream type stands for the stream of the best quality that the device supports. It usually provides the best resolution and the highest frame rate that the device supports. But high resolution and frame rate usually requires a larger storage space and a higher transmission bandwidth.

- **Sub Stream**

The stream usually offers comparatively low-resolution images, which consumes less bandwidth and storage space.

Steps:

1. Go to **Set → Video/Audio**.
2. Click **Video Settings**, Stream type and select the Stream you want to configure.

6.1.2 Video Encode

It stands for the compression standard the device adopts for video encoding.

- **H.264**

H.264, also known as MPEG-4 Part 10 and Advanced Video Coding (AVC), is a compression standard. Without losing too much image quality, it increases compression ratio and reduces the size of video file (in comparison to MJPEG or MPEG-4 Part 2 standards).

- **H.264+**

H.264+ is an improved compression coding technology based on H.264. By enabling H.264+, you can estimate the HDD consumption by its maximum average bitrate. Compared to H.264, H.264+ reduces storage by up to 50% with the same maximum bitrate in most scenes.

- **H.265**

H.265, also known as High Efficiency Video Coding (HEVC) and MPEG-H Part 2, is a compression standard. In comparison to H.264, it offers better video compression at the same resolution frame rate and image quality.

- **H.265+**

H.265+ is an improved compression coding technology based on H.265. By enabling H.265+, you can estimate the HDD consumption by its maximum average bitrate. Compared to H.265, H.265+ reduces storage by up to 50% with the same maximum bitrate in most scenes.

Steps:

1. Go to **Set → Video/Audio → Video Settings**.
2. Go to **Compression** to select the H.264/H.265.
3. Check the **Encode Enable** checkbox to enable H.264+/H.265+.
4. Click **Save** to save changes.

6.1.3 Complexity level

You can select the encode complexity level for your device: Baseline/Main Profile/High Profile. The higher complexity level, the smaller video stream code. (Selectable options may vary depending on the model).
Steps:

1. Go to **Set → Video/Audio → Video Settings → Complexity level**.
2. Select amongst Baseline/Main Profile/High Profile.
3. Click **Save** to save changes.

6.1.4 Video/Audio Enable

Configure the stream the Video and Audio support for a specific stream.
Steps:

1. Go to **Set → Video/Audio → Video Settings → Enable**.
2. Select the **Video/Audio**.
3. Click **Save** to save changes.

Note
Disabling the Main Stream video is not supported.

6.1.5 Resolution

You can select video resolution according to actual needs on Main/Sub/Mobile Stream. Higher resolution requires a higher bandwidth and takes up a larger storage space.
Steps:

1. Go to **Set → Video/Audio → Video Settings → Resolution**.
2. Select the **Resolution** you want to set.
3. Click **Save** to save changes.

6.1.6 Frame rate (FPS)

Frame rate is used to describe the frequency at which the video stream is updated, and it is measured by frames per second (fps). A higher frame rate is advantageous when there is movement in the video stream, as it

maintains image quality throughout. Note that a higher frame rate requires a higher bandwidth and takes up a larger storage space.
Steps:

1. Go to **Set → Video/Audio → Video Settings → Frame rate (FPS)**.
2. Select the **Resolution** you want to set.
3. Click **Save** to save changes.

6.1.7 Bit Rate Type

CBR: Abbreviation for Constant Bit Rate. It means that the stream is compressed and transmitted at a comparatively fixed bit rate. The compression speed is fast, but mosaic may occur on the image.
VBR: Abbreviation for Variable Bit Rate. It means that the device automatically adjusts the bit rate under the set Bit Rate. The compression speed is slower than that of the constant bit rate. But it guarantees the image quality of complex scenes.
Steps:

1. Go to **Set → Video/Audio → Video Settings → Bit Rate Type**.
2. Select a Bit Rate Type according to the needs.
3. Click **Save** to save changes.

6.1.8 Quality

When Bitrate Type is set as VBR, video quality would be configurable. You can select a video quality according to your actual needs. Note that higher video quality often requires higher bandwidth.
Steps:

1. Go to **Set → Video/Audio → Video Settings → Video Quality**.
2. Select a Image quality.
3. Click **Save**.

6.1.9 Bit Rate (Kb/S)

The value of the bitrate is related on the video quality, higher video quality results in higher bitrate and requires a higher bandwidth. The limit of the bitrate value varies according to different resolution and image quality.
Steps:

1. Go to **Set → Video/Audio → Video Settings → Bit Rate (Kb/S)**.
2. Select the **Bit Rate** you want to set.
3. Click **Save**.

6.1.10 I Frame Interval

Iframe interval defines the number of frames between 2 I-frames. In H.264 and H.265, an I-frame, or intra frame, is a self-contained frame that can be independently decoded without any reference to other images. An I-frame consumes more bits than other frames.
Thus, video with more I-frames, in other words, smaller I-frame interval, generates more steady and reliable data bits while requiring more storage space.
Steps:

1. Go to **Set → Video/Audio → Video Settings → I Frame Interval.**
2. Enter **I-Frame Interval** (from 10 to 100 ms) in the input box.
3. Click **Save** to save changes.

6.2 Audio Setting

You can set audio parameters such as audio encoding, environment noise filtering in this section.

- **Audio coding type**: 2 coding methods are supported: G.711A/G.711U.
- **Volume input**: Ranges from 0-100 with a default value of 50.
- **Noise reduction**: By enabling, the audio noise will be reduced.

Steps:

1. Go to **Set → Video/Audio → Audio Settings**.
2. Configure the parameters.
3. Click **Save** to save changes.

6.3 ROI

ROI (Region of Interest) encoding helps to assign more encoding resource to the region of interest. This feature can increase the quality of the ROI while the background information is less focused.
Steps:

1. Go to **Set → Video/Audio → ROI**.
2. Check the **Enable** checkbox**.**
3. Select a **Stream Type.**
4. Select a **Region No** and draw an ROI region.
5. Select an option under **Level Up** and input the Regional Name.
6. Click **Save** to save changes.
7. Optional: You can select unused region No. and repeat the steps above if you need to draw multiple ROI regions.

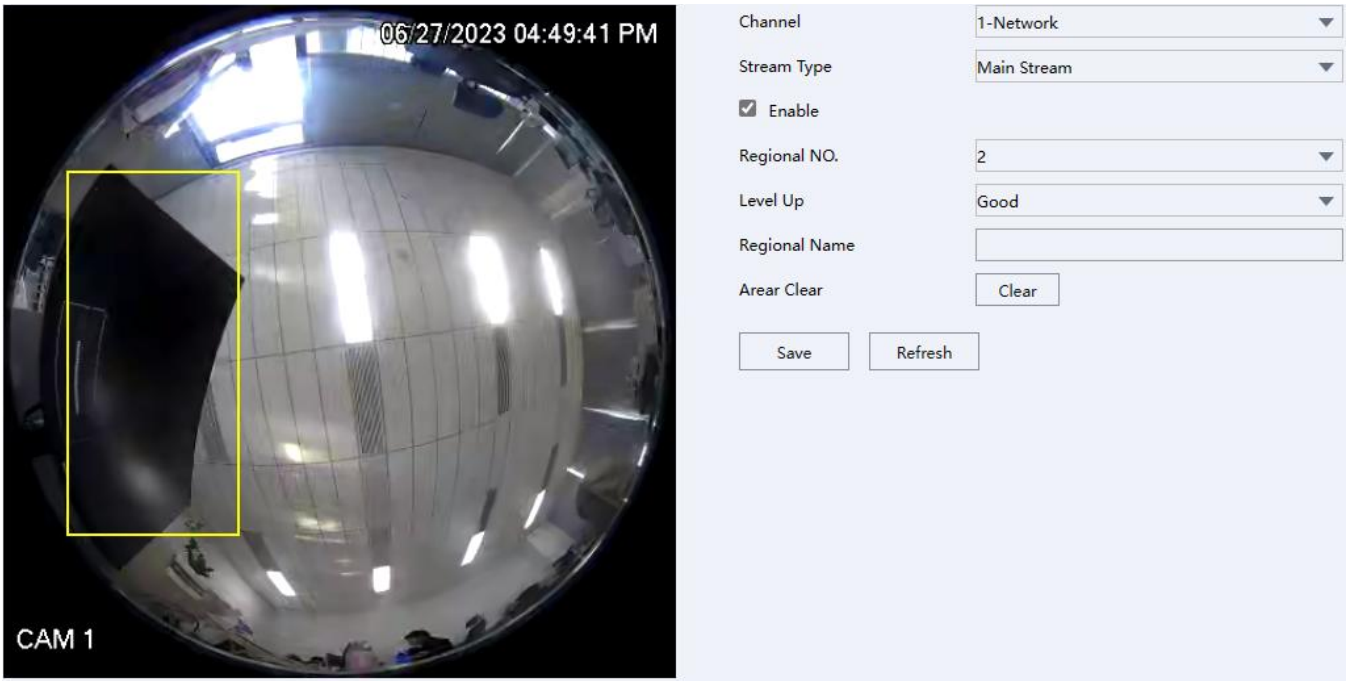


Figure 6-3-1 ROI

6.4 Snapshot Settings

You can configure the snapshot settings in this section. The snapshots will be taken when events trigger snapshot.

Steps:

1. Go to **Set → Video/Audio → Snapshot Settings**.
2. Select the **Resolution** and **Quality**.
3. Click **Save**.

6.5 OSD Setting

In this section, you can customize OSD (On-screen Display) information such as device name, time/date, font, color, and text overlay displayed on video stream.

Steps:

1. Go to **Set → Video/Audio → OSD**.
2. Enter in the **Channel Name** to be set.
3. Check and uncheck the **Channel title**, **Time title** checkboxes to specify whether they are displayed on screen.
4. Optional: Left click the OSD information on live video and drag it to the ideal position.
5. Click **Save** to save changes.

Chapter 7 Event and Alarm Configuration

This part introduces the configuration of events and how the device responds to a triggered alarm.

Note

The Event and Alarm configuration may vary depending on the model. Please be subject to the actual Web interface.

7.1 Motion Detection

This feature detects moving objects in the detection area and trigger actions set for this event.

Steps:

1. Go to **Set → Event → Basic Event → Motion detection**.

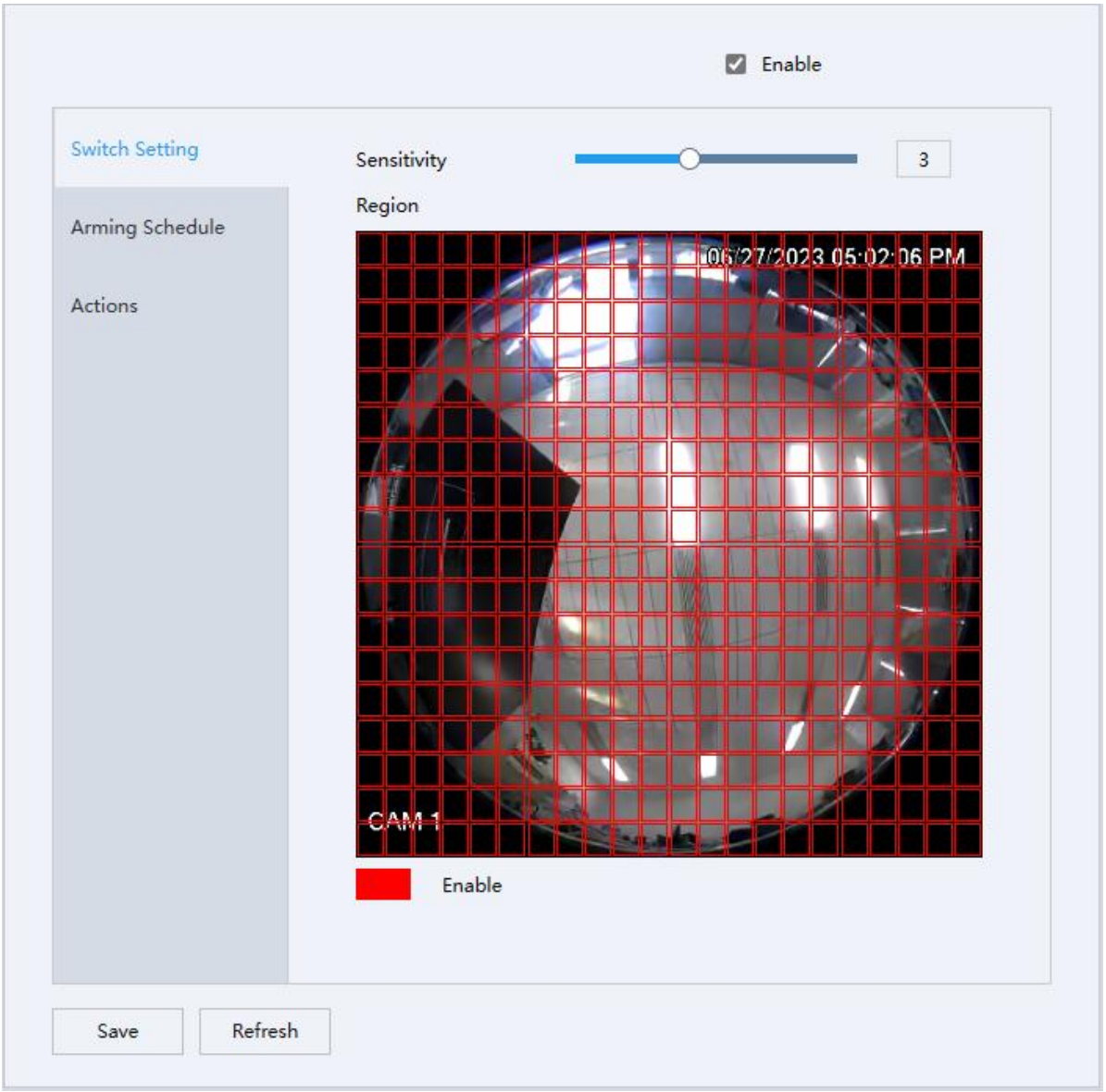


Figure 7-1-1 Switch Setting

2. Check the **Enable** checkbox.

3. Set the **Sensitivity**: Motion detection alarm event is more prone to be triggered with a higher sensitivity.

4. Set the **Detect Region**: Drag the mouse in the preview area to specify the detection area (Red marked areas are selected).

5. Set the **Arming Schedule** for Motion Detection.

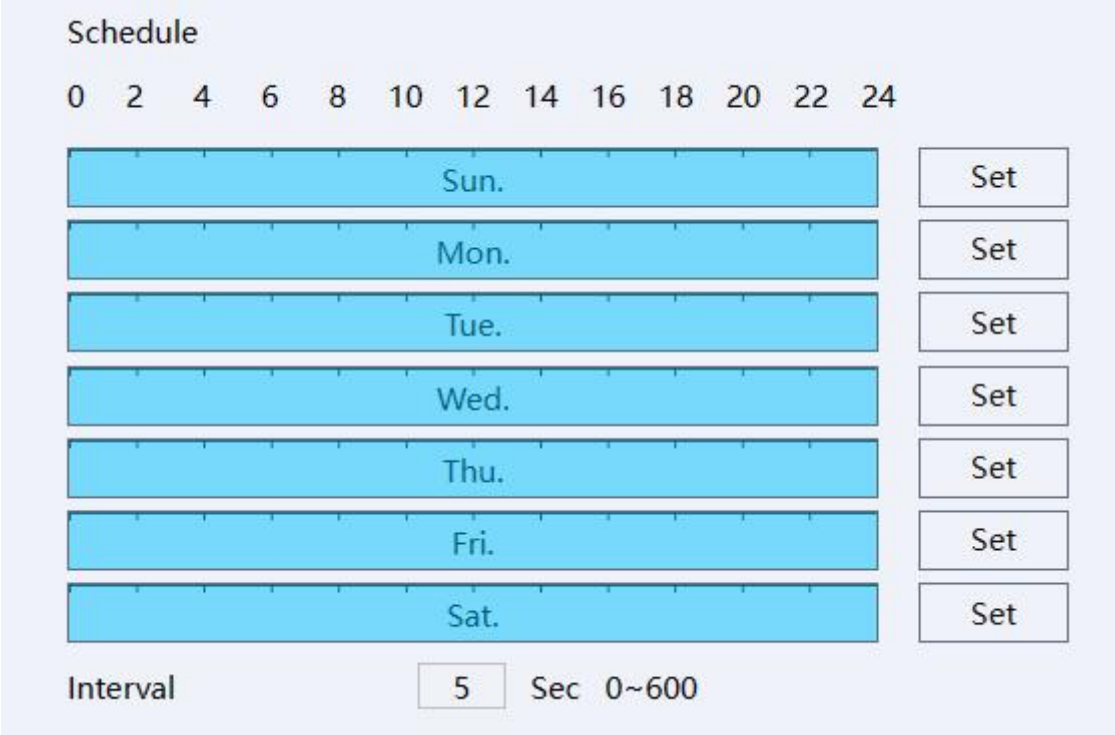


Figure 7-1-2 Schedule

1) Click **Set** to set the detect time for each day.

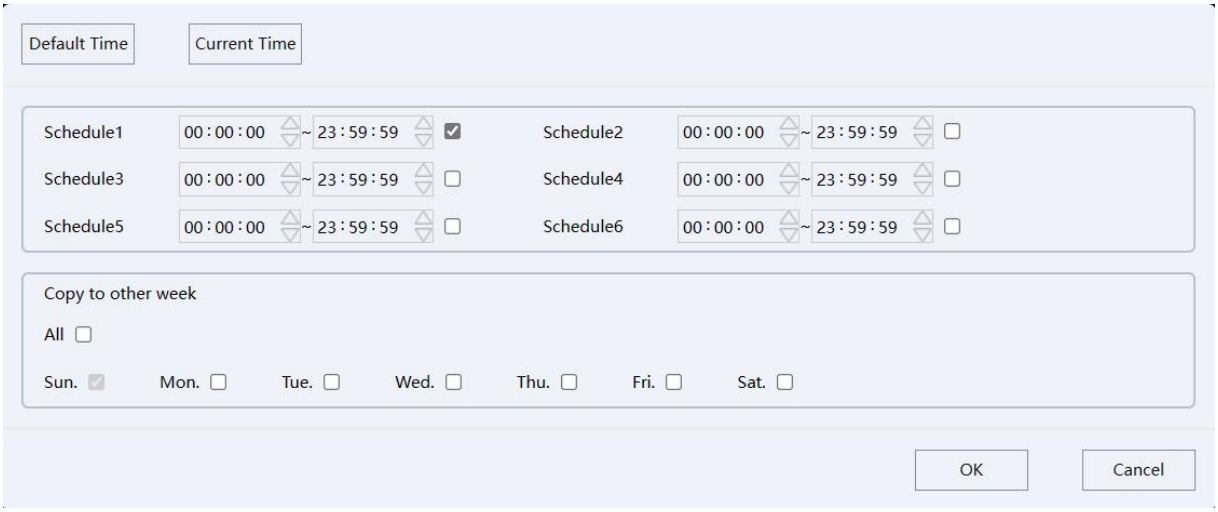


Figure 7-1-3 Set

2) Set the **Interval** time (During the interval time, device will detect/alarm).

6. To set the **actions** performed after being triggered, click **Actions.**

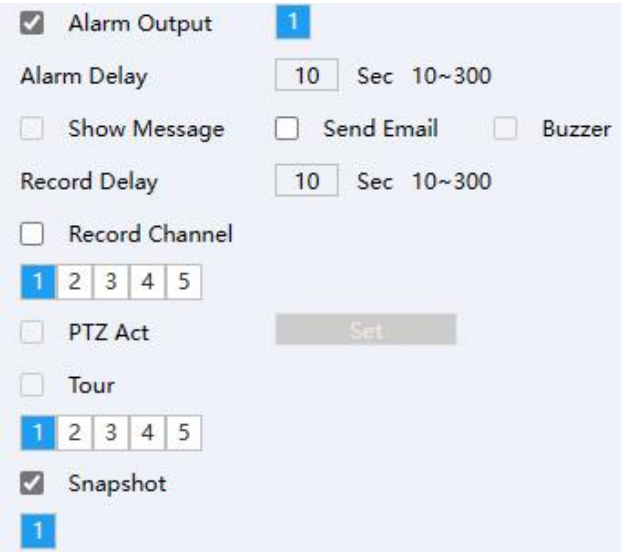


Figure 7-1-4 Actions

Alarm Delay: Duration of the alarms.

Send Email: When motion detection is triggered, the device will send emails to configured email addresses. For Email Setting please refer to ***4.3.7 Email***.

Record Channel: When motion detection is triggered, the device will start to record with this channel.
Record delay time: The device will keep recording for this period after the motion detect event ends.
Set Snapshot: When motion detection is triggered, the device will take snapshots of the video.

7. Click **Save** to save changes.

7.2 Video Cover Detection

When the configured area is covered and cannot be surveilled normally, the alarm will be triggered and the device will make certain alarm response.
Steps:

1. Go to **Set → Event → Basic Event → Video Cover Detection**.
2. Check the **Enable** checkbox**.**
3. Set the **Sensitivity**: The cover detection alarm event is more prone to be triggered with a higher sensitivity.
4. Set the **Arming Schedule** for Motion Detection. Click **Set** to set the detect time for each day.
5. To set the actions performed after being triggered. Click **Actions.**
   1) Set the **Alarm output**, **Alarm delay**, **send email.**
      Alarm delay time: Duration of the alarms.
      Send email: When cover detection is triggered, the device will send emails to configured email addresses. For Email Setting please refer to ***4.3.7 Email*.**
   2) Set **Record delay time, record channel**.
      Record Channel: When cover detection is triggered, the device will start to record with this channel.
      Record delay time: The device will keep recording for this period after the cover detect event ends.
   3) Set **Snapshot**. When cover detection is triggered, device will take snapshots of the video.
6. Click **Save**.

7.3 Alarm in/out

7.3.1 Alarm Input

Alarm signal from the external device triggers the corresponding actions of the current device.

Steps:

1. Go to **Set → Event → Camera I/O → Alarm Input**.
2. Check the **Enable** checkbox.
3. Set the Type: Normal Close/Normal Open.
4. Set the **Arming Schedule** for Motion Detection.
   1) Click **Set** to set the detect time for each day.
   2) Set the **Interval time** (During the interval time, device will alarm).
5. To set the actions performed after being triggered. Click **Actions**.
   1) Set the **Alarm out**, **Alarm delay**, **send email.**
      Alarm delay time: Duration of the alarms.
      Send email: When alarm input event is triggered, the device will send emails to configured email addresses. For Email Setting please refer to ***4.3.7 Email*.**
   2) Set **Record delay time, record channel**.
      Record Channel: When alarm input event is triggered, it will start to record with this channel.
      Note: Record delay time: The device will keep recording for this period after the alarm input event ends.
   3) Set **Snapshot.** When motion detection is triggered, the device will take snapshots of the video.
6. Click **Save** to save changes.

7.3.2 Alarm Output

If the device is connected to an alarm output device, and the alarm output No. is configured properly, the device will send alarm information to the connected alarm output device when an alarm is triggered.

Steps:

1. Go to **Set → Event → Camera I/O → Alarm Output**.
2. Set the Type: **Schedule**, **Manual**, **Stop.**
   1) **Schedule**: Alarm output will be on when an alarm is triggered in the configured schedule.
   2) **Manua**l: Alarm out will always be on.
   3) **Stop**: Alarm out will always be off.

Note: You can check the Alarm Out status via the status: white - no alarm out; red - **alarm out** is on.

3. Click **Save** to save changes.

Chapter 8 Recording to Local Storage/NAS

This chapter introduces the functions for recording management and configuration.

Note

Only certain device models which support the Local Storage (Micro-SD card) or the NAS features support these features.

8.1 Record and Snapshot

You can configure the record and snapshot behaviors in this section.

8.1.1 Record setting

Steps:

1. Go to **Set → Storage → Record → Record Schedule.**
2. You can enable the checkbox to choose recording the videos with **Main stream** or **Sub stream**.
3. Set the **Pack Duration** and **Pre-Record**.

- **Pack duration**: The length of time that cameras will segment the video file into.
- **Pre-Record:** The length of camera's pre-record time for the event recordings (0-30s).

4. Set the Record type at Record Control: **Schedule, Manual, Stop.**

- **Schedule**: Camera will follow the Record Plan to record.
- **Manual**: Camera will always be recording (7*24h).
- **Stop**: Camera will stop recording.

5. Set the **Record Plan**.

1) Select the Record type **Normal**, **MD** and **Alarm.**
2) And click **Set** to set each day's record Plan, click **OK**.

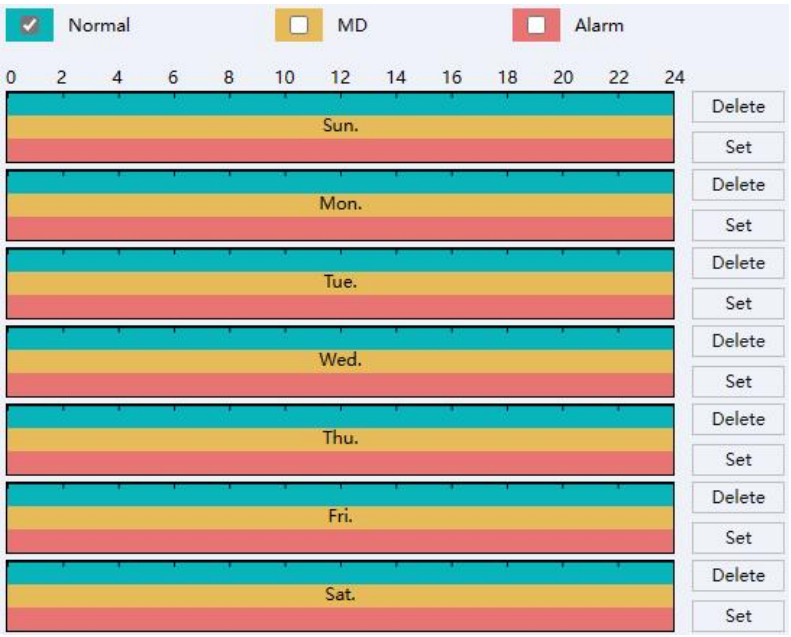


Figure 9-1-1 Set Record Plan

6. Set the Record type at Record Control section: Schedule, Manual, Stop.

- **Schedule**: Camera will follow the Record Plan to record.
- **Manual**: Camera will always in record (7*24h).
- **Stop**: Camera will stop recording.

7. Click **Save** to save and finish the settings.

8.1.2 Snapshot Setting

This section involves settings of the snapshot features.

- **Set Parameter of interval snapshot**

Camera will take snapshots at the configured time interval.
Steps:

1. Go to **Set → Storage → Record → Snapshot Setting→Time Picture**.
2. Check the **Enable** checkbox to enable snapshot by interval time.
3. Set the **Interval** time you want to set.
4. Set the **Schedule**.
5. Click **Save** to save and finish the settings.

- **Set Parameter of Alarm Snapshot**

Camera will snapshot when the alarm in has the signal input.
Steps:

1. Go to **Set → Storage → Record → Snapshot Setting→Alarm Snapshot**.
2. Check the checkbox to enable snapshot by Alarm.
3. Set the **Interval** time you want to set.
4. Set the Snap Count.
5. Click **Save** to save and finish the settings.

- **Event-Triggered Snapshot**

Camera will snapshot when the Event-Triggered.
Steps:

1. Go to **Set → Storage → Record → Snapshot Setting→Event-Triggered Snapshot**.
2. Check the checkbox to enable snapshot by Event-Triggered.
3. Set the **Interval** time you want to set.
4. Set the **Snap Count**.
5. Click **Save** to save and finish the settings.

8.2 Storage Manager

8.2.1 Local Storage Manage (Micro-SD Card)

After inserting the Micro-SD Card properly, you can access its information as a local storage device, and our devices support to manage it. Go to **Set → Storage → Storage Management.**

- **Format/Delete the Micro-SD Card**

The function is used to Format/Delete the Micro-SD Card.

Steps:

1. Select the device you want to manage.
2. Click **Format**/Delete.

Set the storage rule when HDD full

Steps:

1. Click the **HDD Full** Overwrite/Stop from the drop down menu.
   Overwrite: When storage is full, camera will overwrite the oldest file.
   Stop: When storage is full, camera will stop recording.
2. Click **Save** to save and finish the settings.

- **Quota Storage for record and picture**

Steps:

1. Click the **Record Quota (%)** / **Picture Quota (%)** to set the parameters. Camera will quota the capacity for record and picture storage as you set.
2. Click **Save** to save and finish the settings.

8.2.2 Connect to NAS

The function used to save the recording/picture file to the NAS.

Before you start:

Valid NAS service is needed within the same network section.

Steps:

1. Go to **Set → Storage → Storage Management → NAS**.

Figure 8-2-2-1 NAS

2. Double click one of the option to access its **Config**.
3. Input the NAS **Server Address**, **File Path**, **Mount Type**, **Space (GB)**.
4. Click **Test** if success click OK; if failed please check the parameters again.
5. Click **Save** to save and finish the settings.

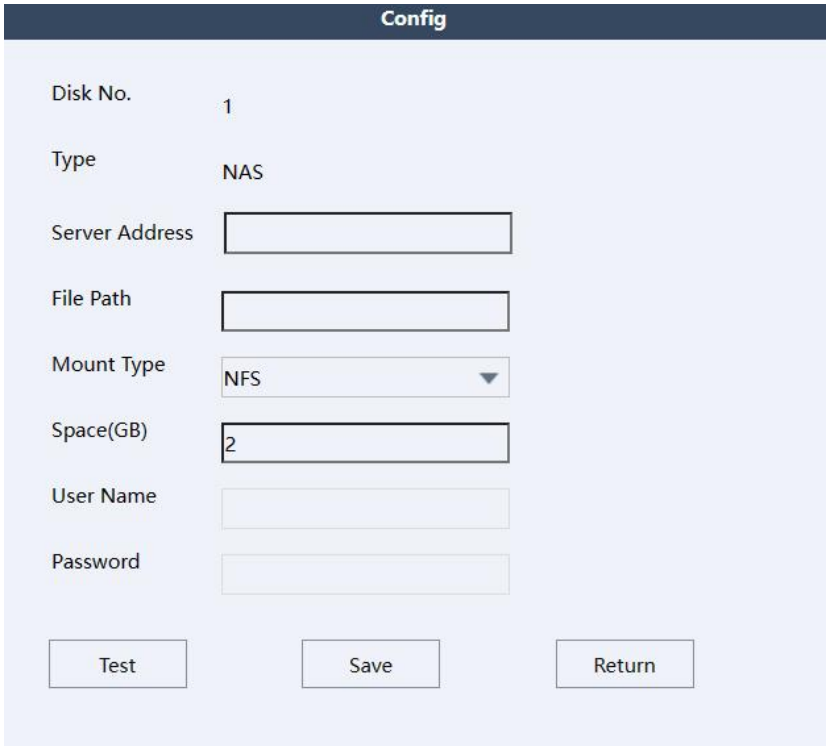


Figure 8-2-2-2 Config

Chapter 9 Maintain

This chapter introduces the maintenance details.

9.1 Reboot Device

You can the reboot the device via web access. The devices also support Auto-reboot with configured schedules.

- **Reboot device manually via browser**

Steps:

1. Go to **Set → Maintain → Auto Reboot**.
2. Click the **Reboot**, and click **OK** to confirm the operation.
3. Device will reboot, and re-route your web page back to the login page.

- **Auto-reboot the device at the certain time**

Steps:

1. Go to **Set → Maintain → Auto Reboot.**
2. Set the time you want to reboot.
3. Click **Save** to save changes.

9.2 Restore and Default Settings

Restore and Default helps restore the device parameters to the default values.

- **Restore default setting**

Steps:

1. Go to **Set → Maintain → Default Settings.**
2. Select the type of settings you want to restore.
3. Click **Execute** to perform the operation.

- **Restore factory setting**

Steps:

1. Go to **Set → Maintain → Default Settings.**
2. Click Restore factory and **Execute** to restore everything to default.

Note

Be careful when using this function. After resetting to the factory default, all the parameters are reset to the default settings.

9.3 Config Export/Import

It helps speed up batch configuration on other devices that need to have the same parameters.

Steps:

1. Go to **Set → Maintain → Import/Export.**
2. Click Export Config **Execute**, select the folder you want to save the config file.
3. Click Import Config **Execute**, select the config file you want to Import.

9.4 Upgrade device

Before You Start
You need to obtain the correct upgrade package.

Caution
DO NOT disconnect power during the process, the device reboots automatically after the upgrade.

Steps:

1. Go to **Set → Maintain → Upgrade.**
2. Click **Select upgrade file**.
3. Click **Upgrade**.

9.5 Search and Manage Log

Log will record the device operations, it helps to locate and analyze problems.
Steps:

1. Go to **Set → Maintain → Log.**
2. Set the **Type**, **Start time**, **End time**.
3. Click **Search**.
   The matched log will be displayed on the log list.
4. Additionally, click **Backup** to save the log files in your computer.

Chapter 10 Playback and download video

This chapter introduces how to use the playback functions and download video from the local storage.

Before you start

Insert the Micro-SD card and configure a valid recording schedule for device.

10.1 Playback the Recording Video

Steps:

1. Go to **Playback.**
2. Click the date you want to search for the recordings. Black marked date means it has the record video.

   Device will search the record file on this date.
3. Select the type of video you want to play,

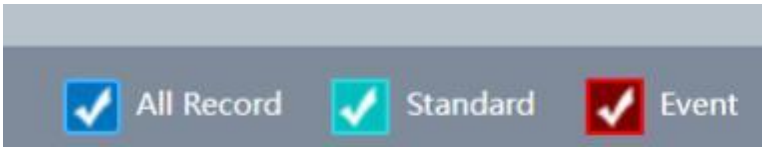


Figure 10-1 Select the video

4. Click to play the video or left click on the video timeline you want to play.
5. Additionally, click to switch to video list page, Click the operation button.

Click to stop video	Click to Play the video with slow speed (x1/2,x1/4,x1/8)
Click to Pause the video	Click to play the video with fast Speed (x2,x4, x8, x16)
Click to Play the video by frame	Click to snapshot current picture
Click to Enable/Disable the audio	Click to Switch to the video file list page
Click to Control and switch the time bar	
Click to access the record file download list	

Table 10-1 Description of the items

10.2 Download the Video File

Steps:

1. Go to **Playback.**
2. Click to enter the download page.
3. Select the **Type (**Record/Picture) you want to download.
4. Set the Start time, End time, click **Search.** It will show the video/picture list.
5. Select the file you want to download.
6. Select the video file format (DAV/AVI).
7. Click **Download**.

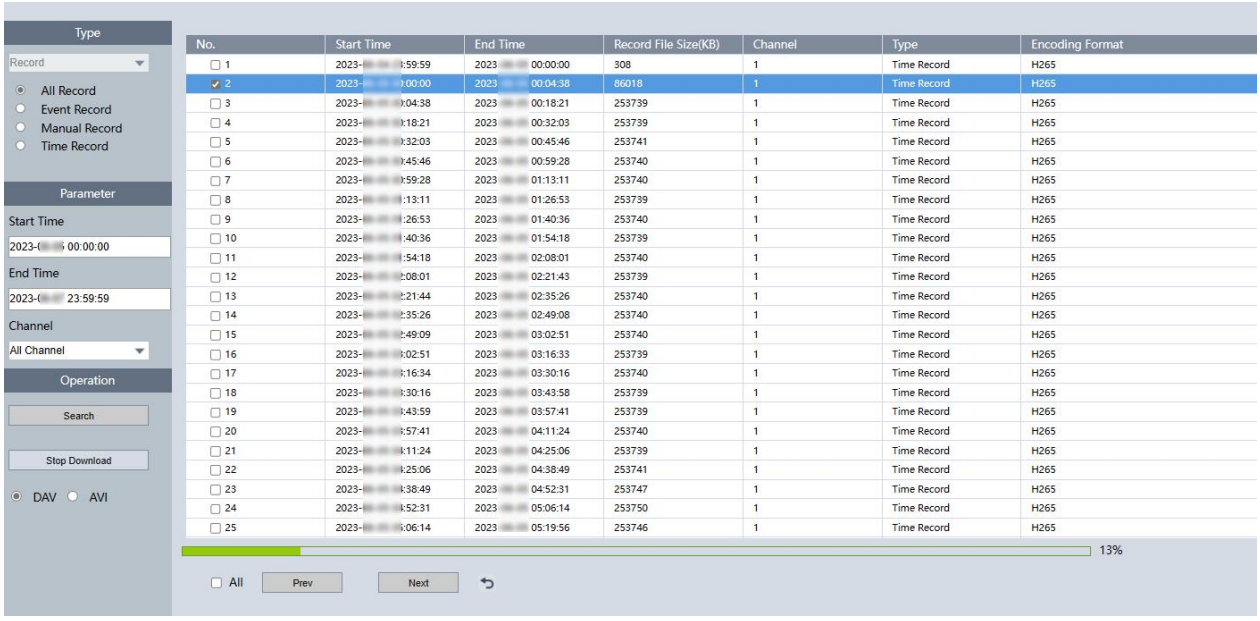


Figure 10-2 Download

The video file will start to download, and save to the PC folder.
To find the file, check the configured saving path from ***4.1 Local Storage***.