Network Video Recorders

User Manual

Version 26.9.1

Declaration

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Photographs, graphics, charts, and illustrations provided in the manual are for explanation and illustration purposes only, and may differ from specificproducts. Please prevail in kind.

Safety Precautions



CAUTION

- Please do not place and install equipment directly under the sunlight ornear heating device.
- Please do not install equipment at moist place or place with dust orsoot.
- Please keep equipment installed horizontally, or install equipment in astable place, avoid the equipment falling down.
- Please avoid liquid dropping on the equipment, make sure no objects filled (eg cups) with liquid on the equipment and prevent liquid fromleaking.
- Please install the device in a well-ventilated place, do not block thevents of the equipment.
- Please only use equipment within rated input/output.
- Please do not disassemble at liberty.
- Please transport, use and reserve the equipment within allowinghumidity(10%~90%) and temperature(-10℃~+55℃).
- When cleaning the device, unplug the power cord and completely shutoff the power.

  The dust on the circuit board inside the NVR may cause a short circuitafter being exposed to moisture. Regularly clean the circuit board, connectors, chassis, and chassis fan with a soft brush. If dirt is difficult to remove, wipe it off with a neutral detergent diluted in water andwipe it dry.

- Do not use volatile solvents such as alcohol, benzene, or thinner when cleaning the device. Do not use strong or abrasive cleaning agents. Thiscan damage the surface coating.
- Please purchase the NVR dedicated hard drive recommended by theequipment manufacturer from the formal channels to ensure the quality and usage requirements of the hard drive.
- Make sure that there is no threat due to uneven mechanical load.
- Make sure that the video and audio cables have enough controls to install the cable. The bend radius of the cable should not be less than 5times the cable diameter.
- Make sure that the alarm cable is firmly installed and the contact isgood.
- Make sure that the NVR is reliably grounded.



WARNING

- Please do use the battery as requested, or it may lead to a battery fire,explosion or risk of burning!
- Please use the same type of battery when changing it.
- Please do use recommended cord sets (power cords), do use within therated specifications.
- If you connect the product to the Internet at your own risk, including but not limited to products that may be subject to cyber-attacks, hacking attacks, virus infections, etc., the company will not be responsible for product abnormality, information leakage, etc., but thecompany will timely to provide you with product-related technical support.



NOTE

- After receiving the product, please open the packing box, take out the equipment, and confirm the packing product and accessories accordingto the packing list in the box.
- If you find any damage to the contents of the box or any missing parts,please contact your dealer promptly.

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1. About this Manual

1.1 Outline

This product is a new generation of high-performance NVR (Net Video Recorder) independently developed by the company. It adopts severalhigh-tech technologies, such as video and audio codec technology, embedded system technology, storage technology, network technology andintelligent technology. With local preview, video multi-screen split display, local real-time storage of video files, support for mouse shortcuts, remote management and control. This product supports two storage methods:front-end storage and client-side storage. The front-end monitoring point canbe located anywhere on the network, regardless of geographical location. It is combined with other front-end devices such as network cameras and network video servers to form a powerful security monitoring network with professional video surveillance system software. In the networked deployment system of this product, only one network cable can be used for the central point and monitoring point. Connection, center to monitoring point, no need to lay video lines, audio lines, etc., construction is simple, wiring costs, maintenance costs are low.
This product can be widely used in security, such as finance, telecommunications, transportation, electricity, education and other fields.

1.2 Descriptive content agreement

- In order to simplify the description in this manual, the following conventions are made:
- The "device" mentioned in this manual mainly refers to the NVR.
- The "IP device" mentioned in this manual mainly refers to IPC, IP DOME,or DVS.
- The "channel" mentioned in this manual refers to the NVR's IP channel.
- Click the "X" or "Cancel" button to return to the previous screen.
- Click All Interfaces Default to restore the current factory defaultsettings.
- Click "Apply", "Confirm" and "Save" on all screens to save the currentsettings.
- Click "Copy" on all interfaces to enter the copy channel interface. Selectthe channel to copy the current channel Configuration to the selected channel.
- The parameters that are grayed out on the local interface cannot be edited. The parameters and values displayed may vary with NVR model and version.

NOTE

- Please be aware that functions may vary with NVR model.
- The figures in this manual are for illustration purpose only and may vary with NVR model.

2. Indicator and Interface Description

2.1 Front Panel Indicator Description

The indicators at the front panel indicates different working status of your device.

Indicator	Description
Power	The indicator turns on when device is powered up.
HDD	The indicator flashes when data is being read from or written to HDD.
NET	The indicator flashes when data is being read from or written to HDD.
CLOUD	The indicator turns on when the device connects to the cloud server.

2.2 Interface Description

The panel interfaces vary with different models. Refer to the following table for common interface description.

The corresponding description of each interface in Figure 2-3 is shown in the following table:

Interface	Connection NOTE
LAN	RJ-45 self-adaptive Ethernet interface.
AUDIO OUTPUT	RCA connector for audio output.
AUDIO IN	RCA connector for audio input.
HD-OUT	HDMI interface for video output.
VGA	DB15 connector for local video output and menu display.
RS-485	RS-485 serial interface for pan/ tilt unit, speed dome, etc.
ALARM IN	The alarm input receives alarm input signal. The equipment positive terminal(+) should connect to a number, and the equipment negative terminal (-)should connect to “-“ or “G”.
ALARM OUT	The alarm output sends out alarm signal. When an equipment uses DC power supply, its positive terminal (+) should connect to a number with “A”, and its negative terminal (-) should both connect to the corresponding number with “B”, and then connect to “-“ or “G”.
eSATA	Storage and expansion interface for record or backup.

GND	Ground.
Power Switch	Switch for turning on/ off the device.
Power Supply	100 to 240 VAC, 48 VDC, or 12 VDC power supply.

Table 2-3

NOTE

- The panel diagram does not reflect the product size and ratio. Pleaserefer to the actual product for details.

2.3 Mouse Description

Operate NVR through mouse left button, right button & scroll wheel.

Mouse actions	Function
Click left mouse button	1. Select one of the options 2. Insertion cursor, enter or modify the value of aparameter 3. During playback, click the timeline to switch the playback progress.
Click right mouse button	1. When interface not locking, click right mouse button, system menu pops up 2. When interface locking, click right button on real-time preview interface, login interface pop up 3.Click the right mouse button on the submenu, return to the previous menu
Double-click the mouse left button	In the preview and playback state, switch between single screen and multiscreen.
Mouse drag	1. In the pan/tilt control state, the direction is rotated. 2. In the video occlusion alarm and motion detectionalarm area settings, set the area range. 3. Drag the area of the electronic zoom. 4. In the preview interface, select a channel and pressand drag to switch to other channel locations. 5. When playing back the video, drag the progress barto switch the video file to be played.
Slide mousescroll wheel	1. Time setting 2. Select the drop-down menu values 3. When previewing, you can switch the previewchannel. 4. When zooming in electronically, you can zoom in and out of the video image.

Table 2-4

3. Initial Configuration

3.1 Preparation

- Make sure that at least one monitor is correctly connected to the VGA or HDMI interface on the rear panel of the NVR, otherwise, you cannot view the local interface.
- Make sure that the hard disk(s) are correctly installed. For detailed installation steps, please refer to the quick guide shipped with the NVR.

3.2 System Initialization

The steps to turn on NVR are as follows:

1. Connect the device to the monitor and plug in the mouse and power cord.
2. Turn on the power switch to start the device.

CAUTION

- Please confirm that the voltage to be connected matches the NVR requirements and ensure that the NVR ground is well grounded.
- If the power supply is abnormal, the NVR may not work properly or even damage the NVR. It is recommended to use a regulated power supply for power supply.

NOTE

- After the device starts up, it can be simply Configurationured through the boot wizard, which is the normal operation of the device.

3.3 Activate via Local Menu

Before You Start

Ensure your device is connected with a monitor and mouse.

Steps:

1. Power on your device.
2. Select the system language and click "Next" .

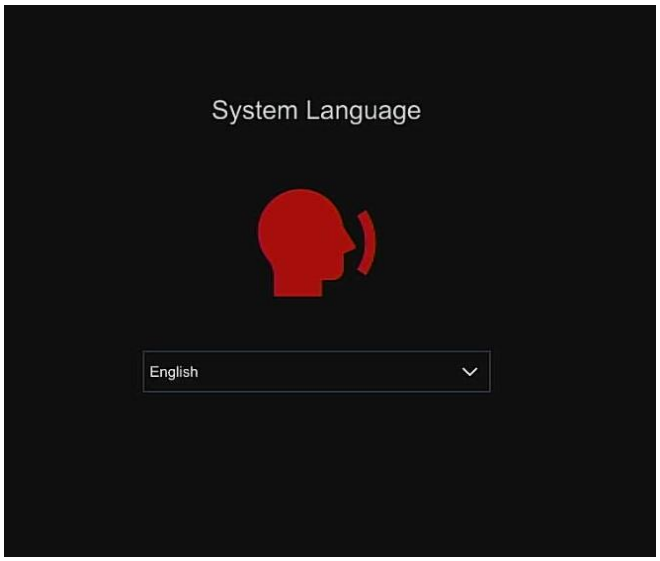


Figure 3-3-1

3. For the first-time access, you must set an administrator password to activate the device. No other operations are available until the device is activated. You can also activate the device through a web browser or client software.

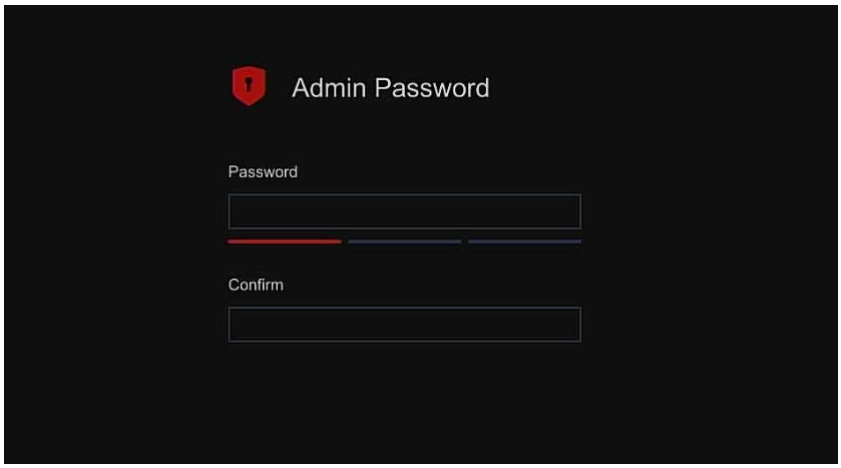


Figure 3-3-2

NOTE

To enhance device security, we strongly recommend creating a strong password of your choice. The password should contain at least **8 characters** and include at least **two of the following character types**: uppercase letters, lowercase letters, digits, and special characters.

We also recommend changing your password regularly. For systems with higher security requirements, changing the password more frequently can provide additional protection for your device.

4. Set an unlock pattern for local login.

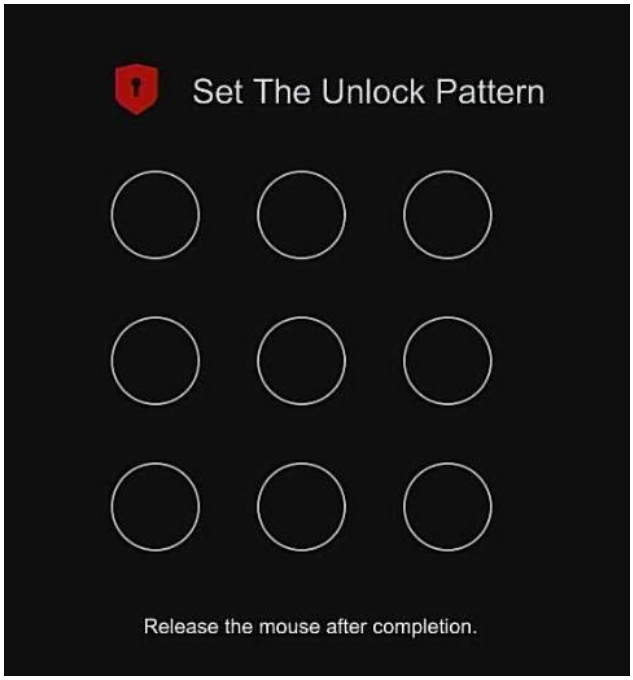


Figure 3-3-3

5. Set Password Protection

- After setting password protection, if you forget the administrator password, you can reset it using the linked email address or security questions. For details, see "5.13.3 Resetting Password".
- If you do not need password protection, disable Reserved Email and Security Question.

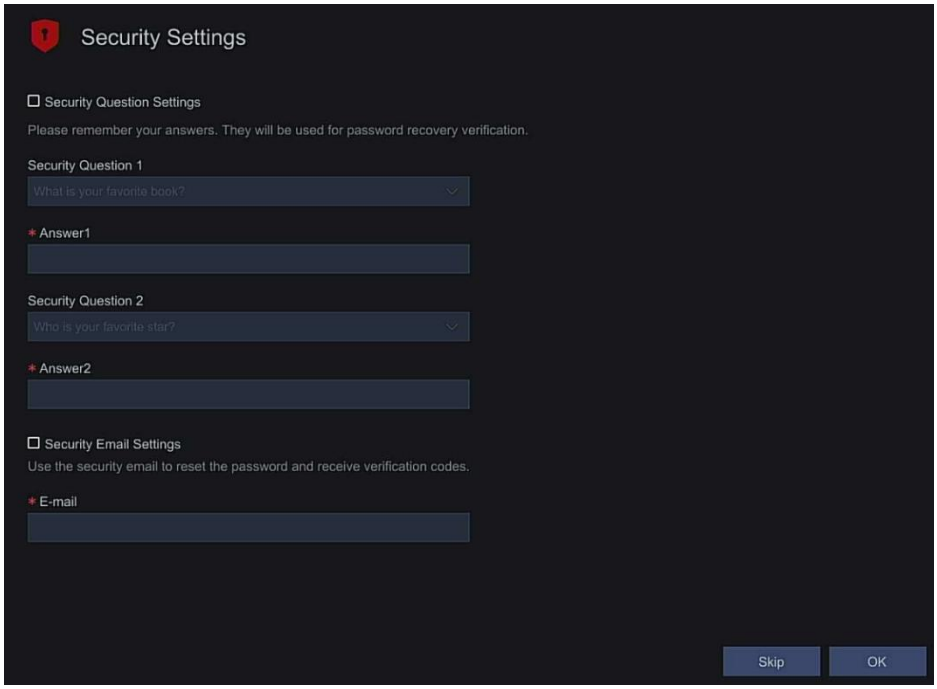


Figure 3-3-4

3.4 Startup Wizard

1. Go to the **"Time Setup"** interface and configure the device's time settings. Click **"Next"**.

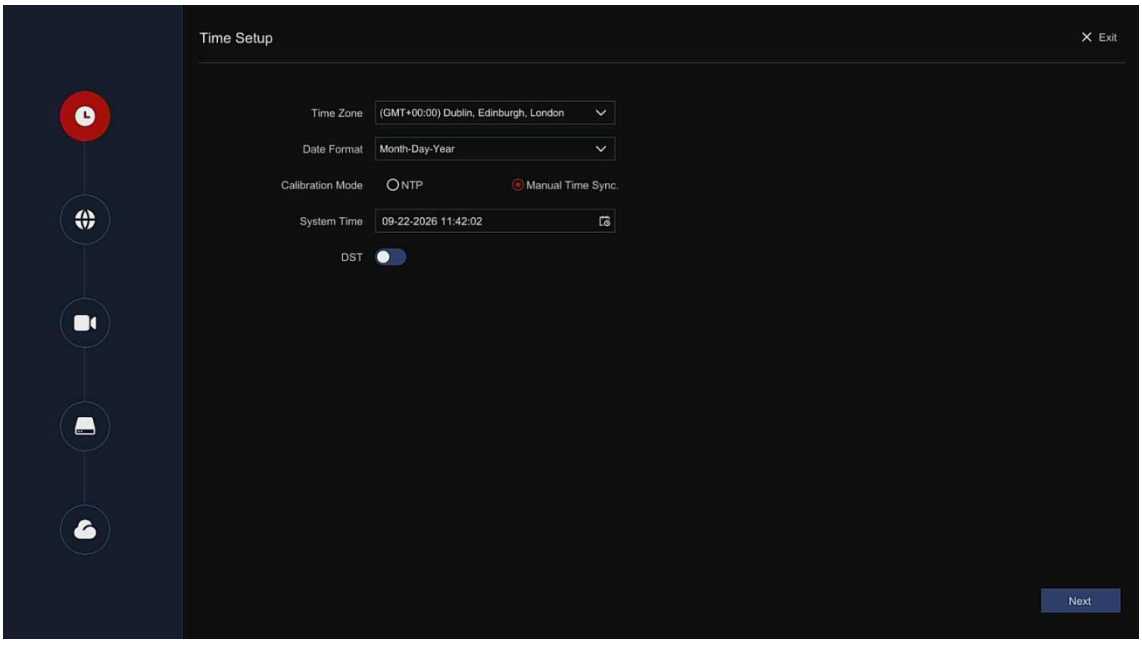


Figure 3-4-1

2. Go to the **"Network Settings"** interface and configure the device's network settings. Click **"Next"**.

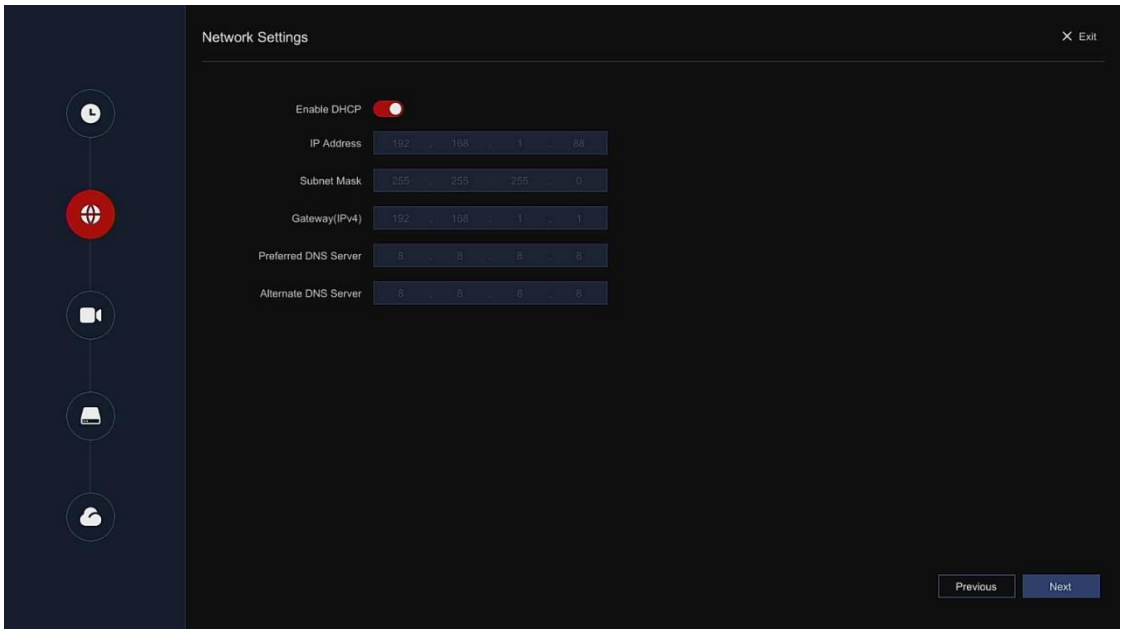


Figure 3-4-2

3. Go to the "**Channel Setup**" interface, where you can search for and add devices. Click "**Next**".

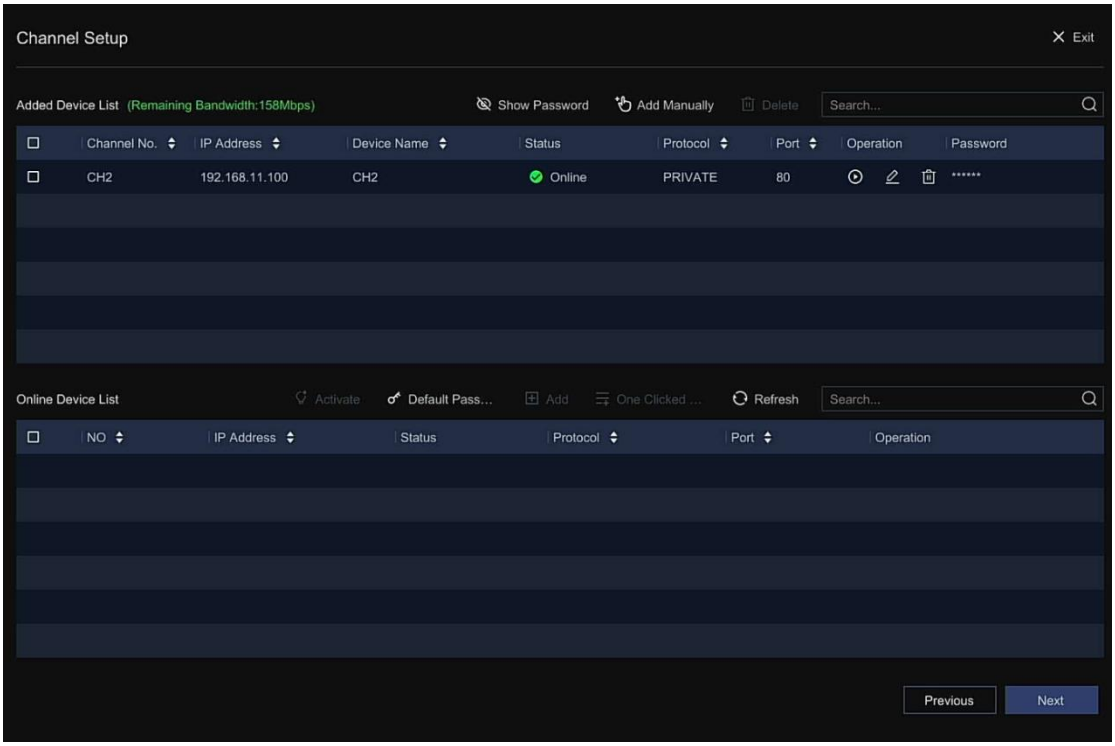


Figure 3-4-3

4. Go to the **"Hard Disk"** interface to check the hard disk status.

- If the status is **"In Use"**, click **"Next"**.
- If the status is **"Unformatted"**, select the hard disk, click **"Format"**, and then click **"Confirm"**. The device will format the hard disk.



Figure 3-4-3

5. Go to the "**P2P Settings**" interface to add the device to the mobile app. Scan the QR code to download the mobile app, and then scan the device's SN QR code to add and bind the device. After binding, you can remotely access and manage the device through the mobile app.

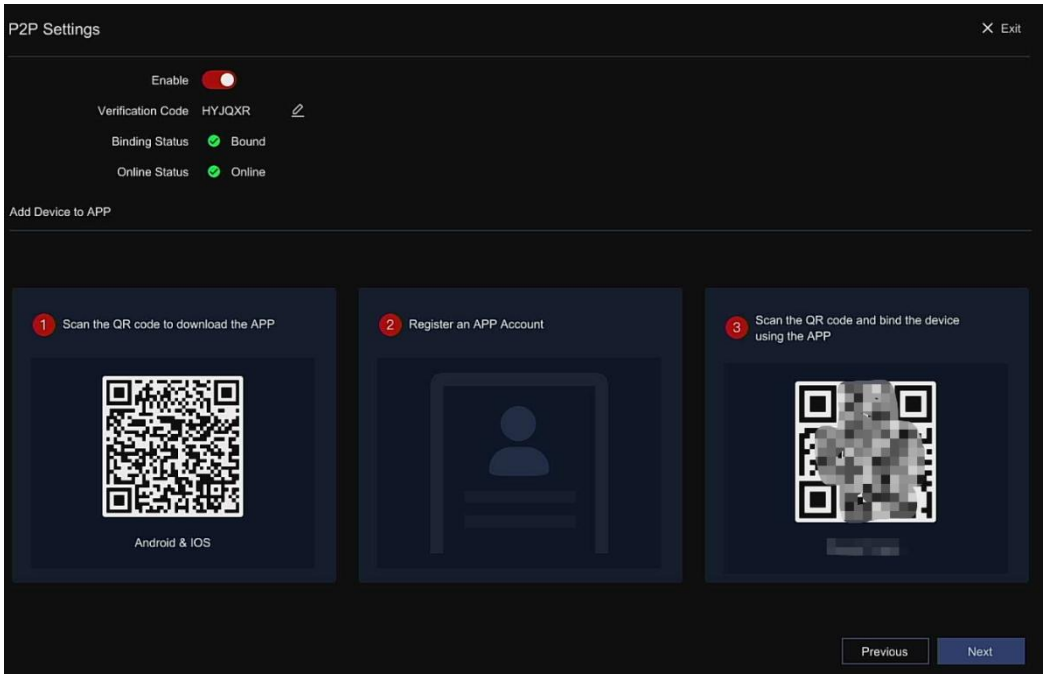


Figure 3-4-4

NOTE

- On the startup wizard screen, click **"Exit"** and then **"Confirm"** to exit the startup wizard.
- On any screen of the startup wizard, if you do not need to modify the settings, click **"Next"** to proceed directly to the next screen.
- Before configuring the network parameters, make sure that the NVR is properly connected to the network.
- The hard disk must be formatted when it is installed in the NVR for the first time.

3.5 Forget Password

If you forget your password, click **"Forgot Password"** on the login page to enter the **"Forgot Password"** interface and reset your password, as shown in **Figure 3-5-1**.

There are Three ways to reset the password:

- **"Email Verification"**
- **"Security Question Verification"**
- **“Security Code”**



Figure 3-5-1

1. **Security Question Verification**

Step 1: Click "**Forgot Password**" to enter the "**Email Verification**" interface.

Step 2: Download the mobile app and scan the QR code displayed on the interface using the app.

Step 3: Enter the verification code received at the registered email address in the "**Verification Code**" field.

Step 4: Click "**Next**". The page for setting a new password for the administrator account is displayed.

2. Security Question Verification

Select two security questions for password setting and enter the answers to those questions.



Figure 3-5-2

3. Security Code

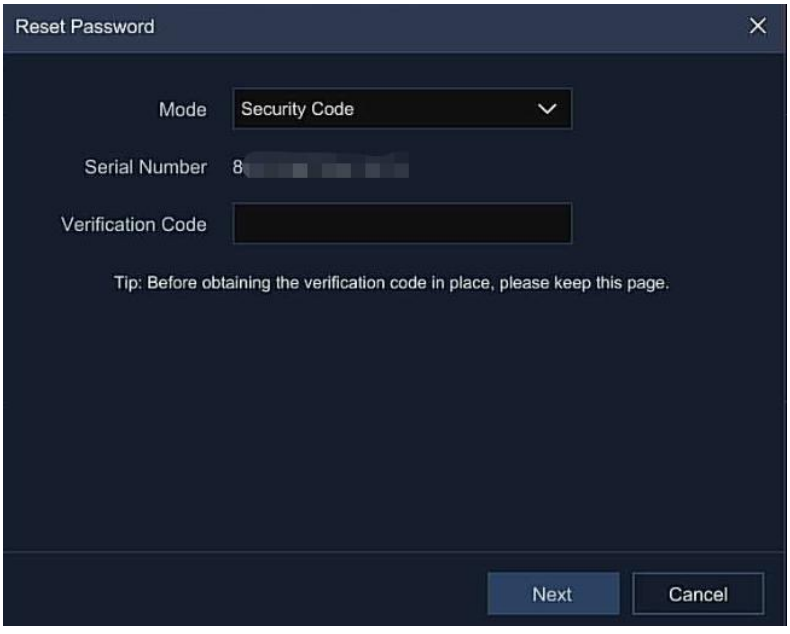


Figure 3-5-3

Step 1: Contact our customer service and provide the device's Serial Number.

Step 2: Customer service will provide you with a Verification Code for password reset.

Step 3: Enter the Verification Code provided by customer service and follow the on-screen instructions to reset the password.

NOTE: Please keep the current Password Reset page open while obtaining the Verification Code. Do not exit or refresh the page.

Click "**Next**" to enter the new password setting interface.as shown in Figure 3-5-4.

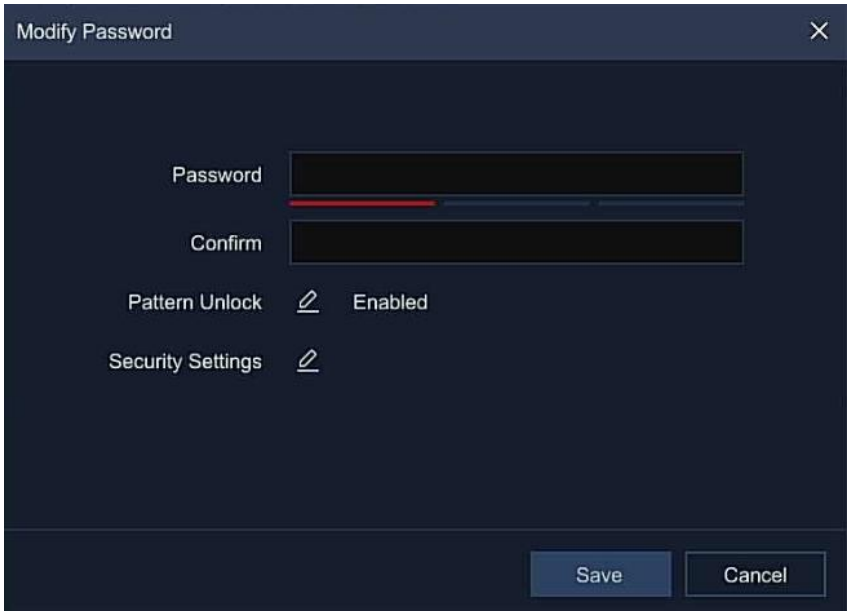


Figure 3-5-4

4. User Interface Introduce

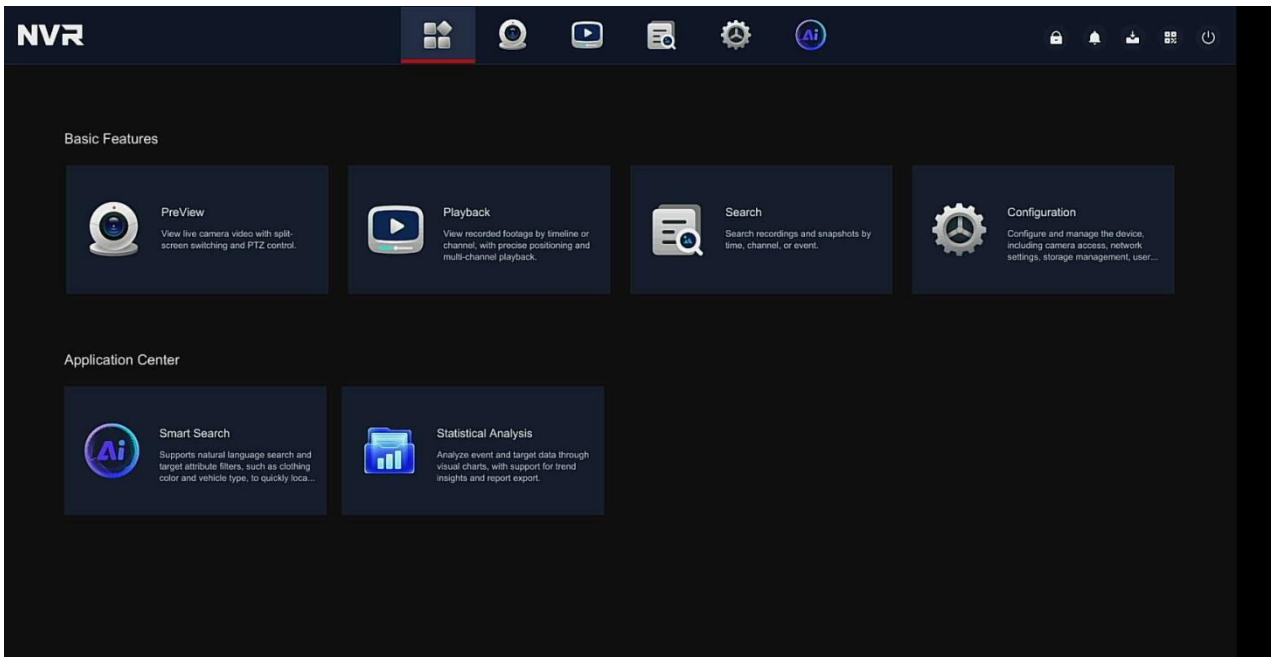


Figure 4-1-1

Icon	Description
	Click the **Home** icon on the top navigation bar to access the main system interface. The Home page consists of two major sections: **Basic Features** and **Application Center**.
	**PreView**: View live camera video with split-screen switching and PTZ control.
	**Playback**: View recorded footage by timeline or channel, with precise positioning and multi-channel playback.
	**Search**: Search recordings and snapshots by time, channel, or event.
	**Configuration**: Configure and manage the device, including camera access, network settings, storage management, user permissions, etc.
	**Smart Search**: Supports natural language search and target attribute filters, such as clothing color and vehicle type, to quickly locate targets.
	**Statistical Analysis**: Analyze event and target data through visual charts, with support for trend insights and report export.

Icon	Description
	Lock & unlock screen.
	**Message**,To view event alarm information, including abnormal alarms, normal event alarms, and intelligent event alarms.
	**Download**,View the download status of backup recordings.
	**QR Code**,View the device SN (UUID) for app device addition.
	**Power**,Shutdown, reboot & logout the system.

5. PreView

This chapter introduces the features available on the Live View page, including the window toolbar, screen toolbar, shortcut menu, digital zoom, and sequence operation.

NOTE

- The available operations may vary depending on the NVR model.

In the main menu, click "  " to enter the PreView interface, as shown in Figure 5-1:

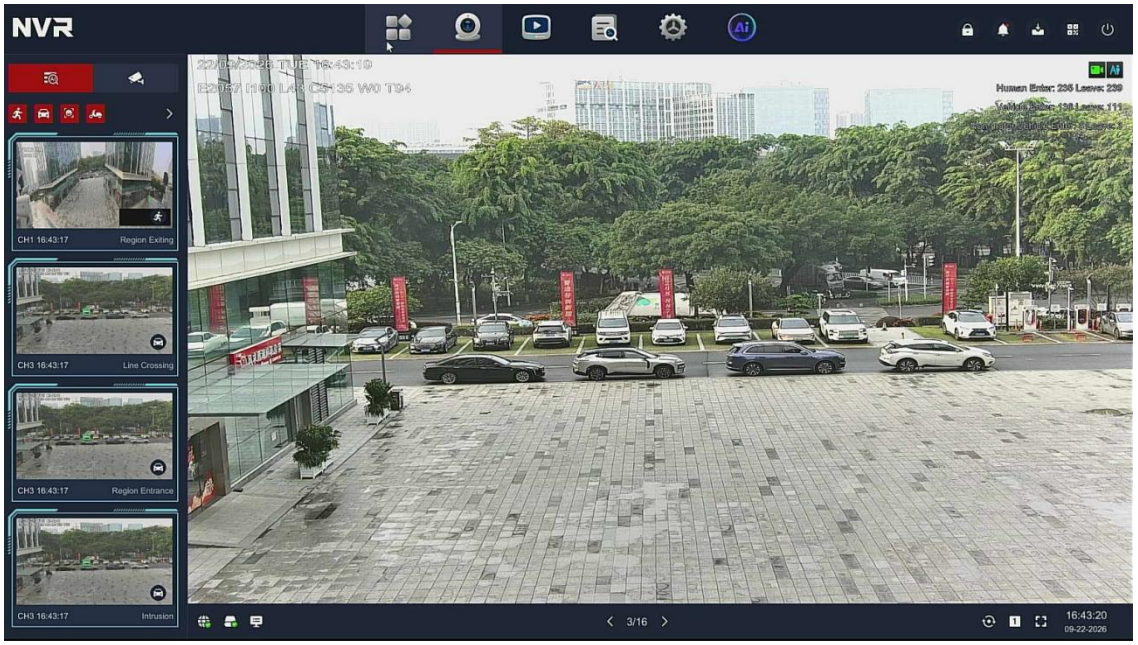


Figure 5-1

5.1 Live View Status

The following icons are used to indicate alarms, recording status, and audio status in a live view window.

Icon	Description
	Smart Event alarm
	Recording
	Motion detection alarm

Table 5-1

5.2 Window Toolbar

Click a window to display the window toolbar for quick Configuration.



Figure 5-2

Icon	Name	Description
	Capture	Manual capture, click the button to capture the current video pictures. Search, view and backup pictures can be carried out in "Picture".
	Instant Playback	Instant playback button, click the button, the channel playback 5 minutes before the video.
	PTZ	PTZ, click into the PTZ interface
	Audio	Audio output control button, click to set the channel output volume and mute.
	Digital Zoom	Electronic zoom button, click to enter the full-screen zoom mode, display the unmagnified image of the channel in the lower right corner of the screen, and drag the red frame of the unmagnified image by mouse to switch the position of the enlarged image. Click " " and " " or scroll the mouse wheel to adjust the zoom. multiple. Click the right mouse button to exit the electronic zoom and restore the live preview interface.
	Image Manage	Image color button, click into the image interface, you can set the channel brightness, contrast, saturation, sharpness, fill light, exposure setting, white balance, video adjustment of the parameter values.
S / M	Switch to sub /main	Switch between main stream and sub stream
	Preview Policy	Select the live view strategy to Real-time, Balance or Smooth.

	Target Tracking	Click to go to single channel target detection interface; the target includes faces, human bodies and vehicles.
	Alarm	If your camera has white light LEDs and built-in speaker, click this button to turn on or turn off .
	Self-Adaptive Resolution	Switch between Original Aspect Ratio and Adaptive Display.
	Image Search	Click the **Image Search** icon. The system automatically detects and captures the target object in the current view, then searches for related videos based on the captured image.
	Fisheye	You can set fisheye installation mode and display mode.

Table 5-2

5.3 Screen Toolbar

Icon	Name	Description
	Split Screen	Select the screen layout.
	Full Screen/Exit Full Screen	Click to Switch Full Screen/Exit Full Screen.
/	Sequence/Stop Sequence	Click to Switch Click to Switch Sequence/Stop Sequence.
/	Previous /Next	Previous or next screen.
	Network Status	Network is connected but offline. Network is well connected. Network is disconnected.
	HDD Status	Hard disk is connected and working properly. Hard disk connection error detected. No hard disk is installed.

	System	View system information, channel information and record information

Table 5-3

5.4 PTZ

Click " " on the channel connected to PTZ to enter the PTZ setting interface, where you can perform operations such as PTZ speed, direction and zoom,as shown in Figure 5-4

- **PTZ Control**

PTZ control interface is used to set the PTZ direction rotation (including upper, lower, left, right, upper left, lower left, upper right and lower right) of the gimbal equipment, focusing, zooming, aperture, rapid positioning and cruising, etc., use with the direction keys when setting, as shown in Figure 4-2

- Channel: The channel where the PTZ device is located.
- Zoom: Click " / " to adjust camera zoom in/out.
- Focus: Click " / " to adjust camera focusing.
-
- Iris: Click " / " to adjust camera brightness.
- **Speed:** To control the speed of the pan/tilt, for example, the rotation speed in steps of 7 is much greater than the rotation speed in steps of 1.
- **Direction:** Use " " to adjust the direction of the PTZ camera.

- **Cruise Control**

In the PTZ setting interface, click "Preset Point" to enter the preset position setting interface, which is used to set and call the preset point, click "Cruise" to select the cruise line, turn on/off the cruise, as shown in Figure 5-4:

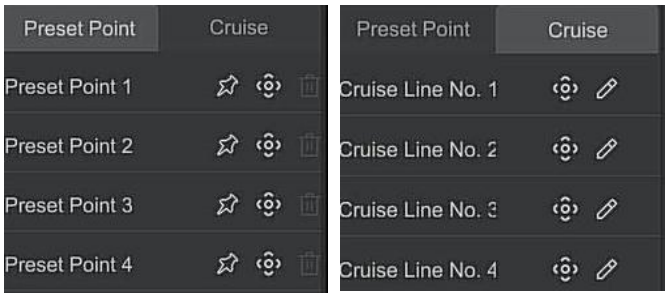


Figure 5-4

Preset: Used to set/recall/delete presets.

Cruise: Select the cruise line that has been set and click to turn on/off cruise.

5.5 Image Configuration

In the image Configuration interface, you can set the image parameters such as brightness, contrast, saturation, sharpness, etc.

The steps for image setup are as follows:

Step 1: Click " " from the IPC channel to enter the channel image color setting interface, as shown in Figure 5-5.

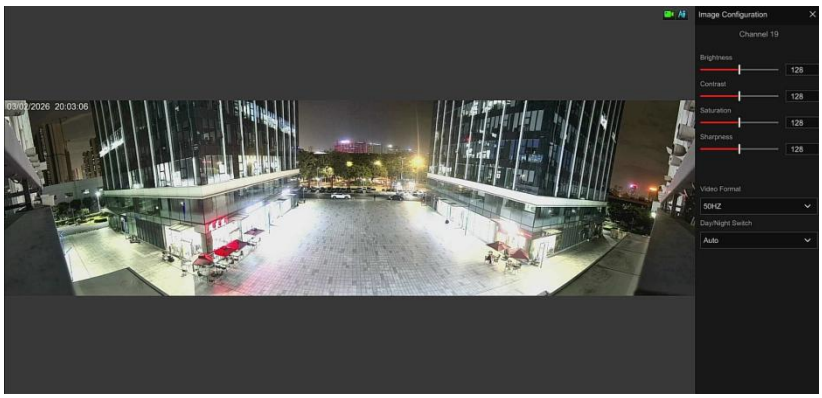


Figure 5-5

Steps 2: Select the Configuration channel.

Steps 3: Set image brightness, contrast, saturation, sharpness, wide dynamic, mirroring, corridor mode, video format, day and night switching and other parameters according to actual needs.

Steps 4: Click "Apply" to save the settings.

Image adjustment: According to the actual environment, you can adjust the brightness, contrast, saturation and sharpness of the preview screen by dragging the progress bar. You can also set the value behind the progress bar, "Brightness", "Contrast", "Saturation", "Sharpness". Valid values range from 0-255 and the default value is 128.

Wide Dynamic: The default is turn off,WDR intensity (low, medium, high) can be toggled in the drop-down menu.

Mirror: The default is turn off,Switch modes (horizontal, vertical, horizontal and vertical) as needed.

Corridor Mode: The default is turn off,Switch modes according to actual needs (rotate 90°, rotate 270°).

Video Fomat:The default is 50HZ(PAL),Switchable 60HZ(NTSC).

Day And Night: The default is auto, Modes can be switched according to actual needs (day, night, timing switching).

- ✓ **Day:**The fill light of the camera is turned off, and the picture remains in color mode.
- ✓ **Night:**The fill light of the camera is always on.
- ✓ **Timing:** The fill light of the camera is turned on or off according to the preset time.

NOTE

The camera image interface only displays the device support functions. The specific interface is subject to the

actual product.

5.6 Shortcut Menu

A shortcut menu as shown below appears when you right-click in a window.

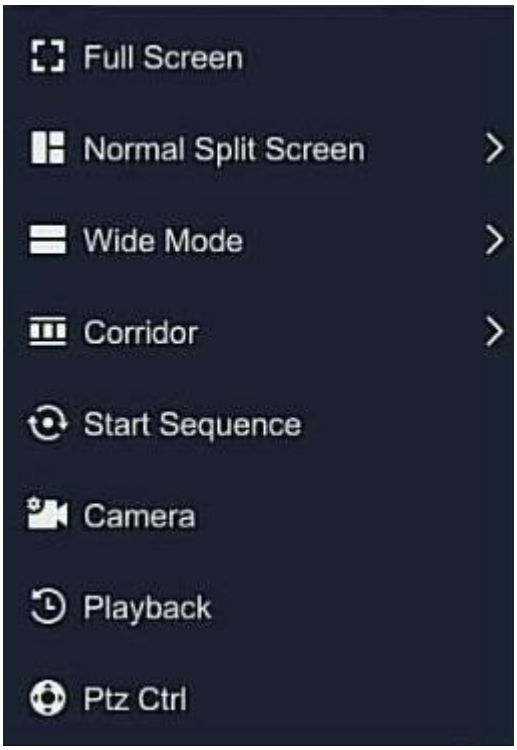


Figure 5-6

Name	Description
Full Screen	Click to Switch Full Screen.
Normal Split Screen	Select the screen layout.
Wide Mode	Display video images in Wide mode. You can set the number of windows from the Preview Windows. 
Corridor	Display video images in corridor mode. You can set the number of windows from the Preview Windows. 
Start Sequence	Click to Start Sequence.
Camera	Go to the Camera Page.
Playback	Go to the Playback Page.

Ptz Ctrl	PTZ, click into the PTZ interface

5.7 AI Live View Mode

When you select AI mode, the system displays information of human face, personnel, vehicle and non-motor vehicle on the left side of the live page, and it supports to play back records and display feature attributes.

NOTE

You need to enable face detection, body detection, vehicle detection and non-motor vehicle detection to support this function.



Figure 5-7

The Alarm Notification Panel displays thumbnails of alarm events that have occurred.



Figure 5-7-1



Figure 5-7-2

Users can filter alarm events by enabling the following options:

1. When enabled, alarm events related to **Human** detection will be displayed.
2. When enabled, alarm events related to **Vehicle** type detection will be displayed.
3. When enabled, alarm events related to **Face detection** will be displayed.
4. When enabled, alarm events related to **Non-Motor-vehicle** will be displayed.
5. Click to enter the Alarm List page to view more alarm events.



Figure 5-7-3

Click the thumbnail window to play the event recording for the corresponding channel in a pop-up window.

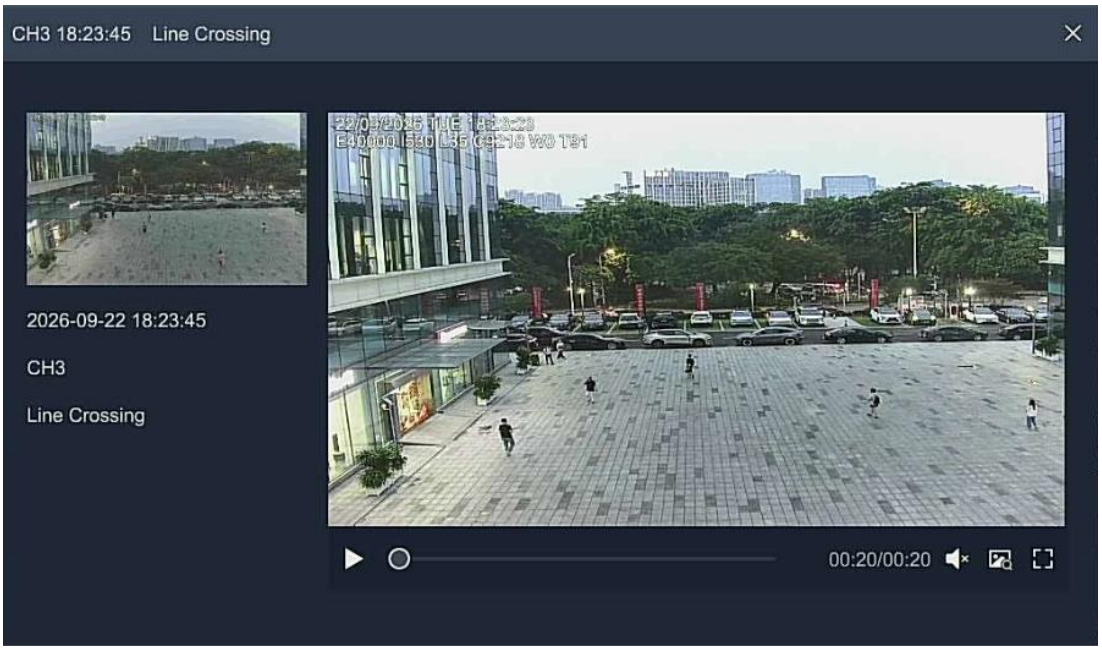


Figure 5-7-4

5.8 Instant Playback

You can play back the previous 5 minutes record of current channel.

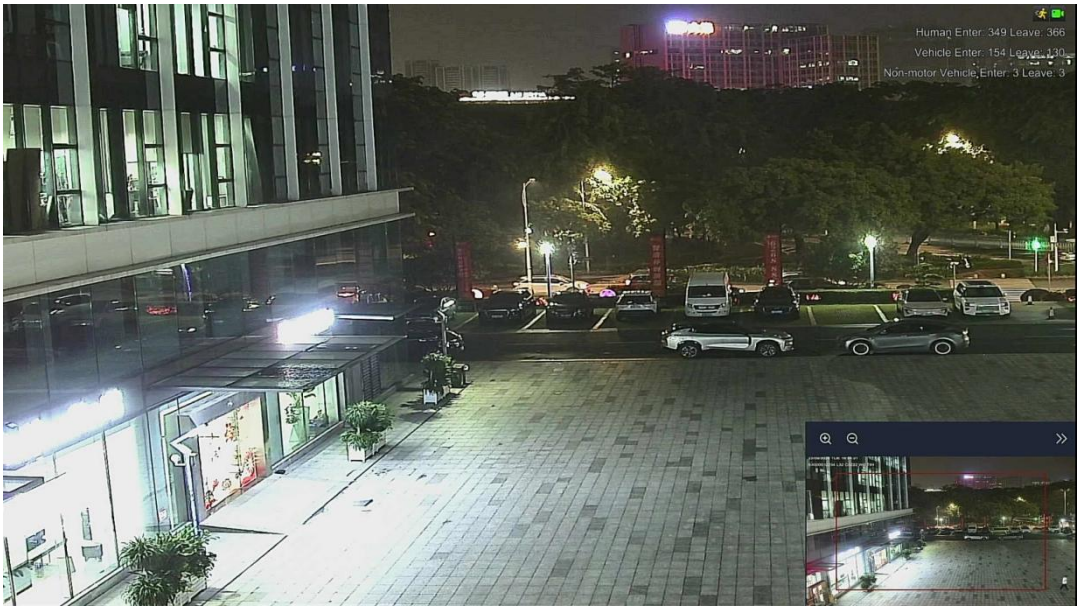


Figure 5-8-1

Move the slider to select the time you want to start playback.

- You can start, pause, or close playback.
- During playback, other operations are not available.

5.9 Digital Zoom



You can zoom in on a specific area of the current channel to view image details. Click the “ ” icon to enter single-channel preview mode. Digital zoom supports the following two methods:

1. Select the area you want to enlarge, and drag the red area in the small window. The selected area is enlarged.
2. Move the mouse pointer to the center of the area you want to enlarge, and then scroll the mouse wheel to zoom in on the area.

When the image is enlarged, you can drag the image in any direction to view other enlarged areas. Right-click to cancel digital zoom and return to the original video image.

5.10 Fisheye

This function is for some models only.

5.10.1 Fish eye De-warp on Live View Interface

Fisheye cameras (panoramic cameras) provide a wide field of view, but the image may have significant distortion. **Fisheye dewarping** corrects the distorted image to provide a normal view that better matches human visual perception.

On the **Live View** page, click the fisheye channel and select **"Fisheye"** to configure the installation mode and display mode.

Icon	Description
	360° panorama original view
	2 panorama stretching views
	1*360° panorama view+3 de-warp windows
	4 de-warp windows
	Ceiling mount
	Wall mount
	Desktop mount

Operation: Use mouse to zoom in, zoom out, move, and rotate the image (Not for wall mount mode.)

5.10.2 Fisheye De-warp During Playback

When playing back the fisheye record file, you can use de-warp function to adjust video.

Steps：

1. On the main menu, click **"Playback"**.
2. Select **1-window playback mode** and the corresponding fisheye channel, and then click **“ Fisheye ”** to start playback.
3. Click **"Fisheye"** to enter the **dewarping playback** page.

5.11 Image Search

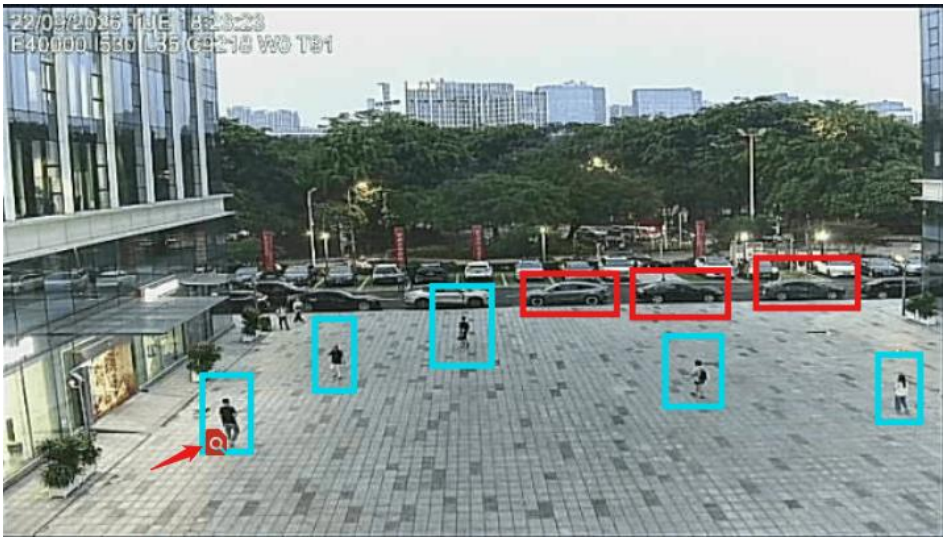
On the Live View page, select the target you want to search for (person, vehicle, or non-human object), and then click the "**Image Search**" icon. The system searches for related videos containing the selected target.

Steps：

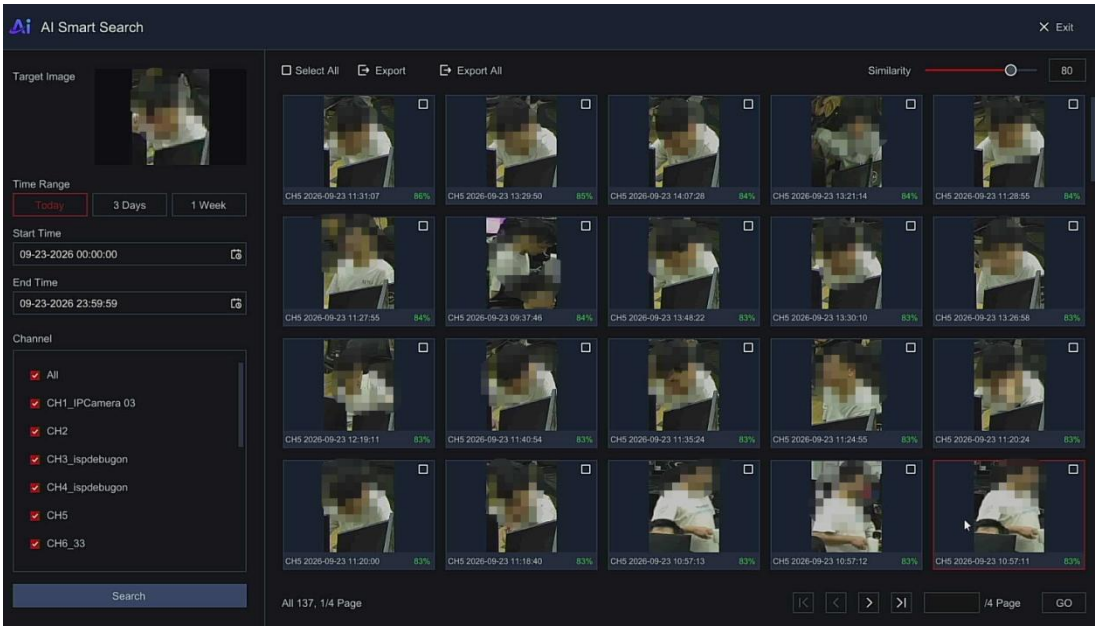
1. Click the "**Image Search**" icon. The live view is frozen.



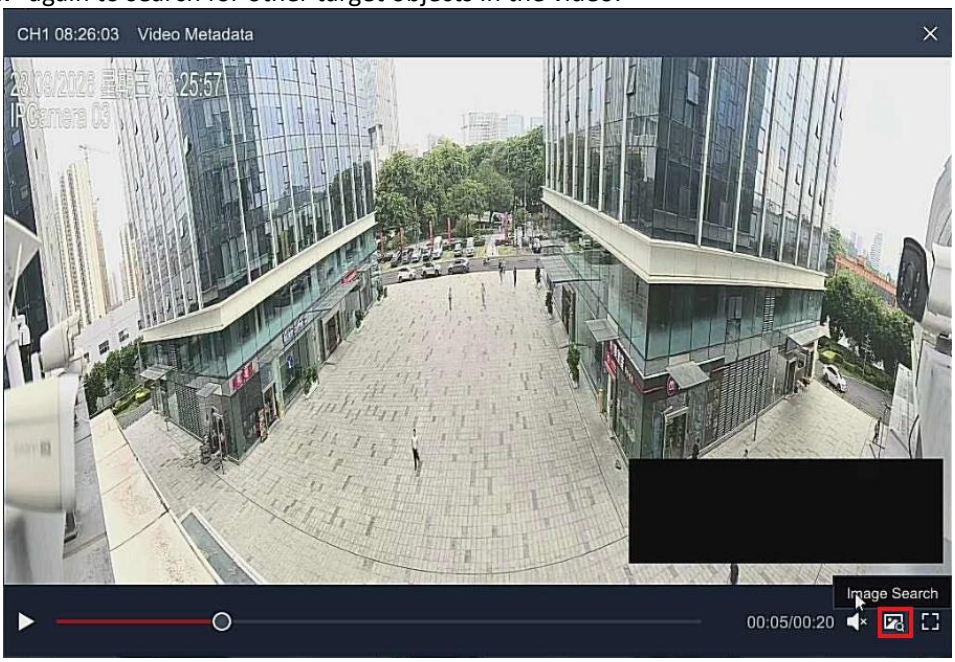
2. The system automatically detects and selects target objects in the image. You can also manually select the target you want to search for.
3. Select the target you want to search for, and then click the "**Image Search**" icon to start the search.



4. Click Search. The search results are displayed.



5. You can refine the search by setting the **time range, channel**, and **similarity**.
6. Click an image in the search results to play the recording at the corresponding time. During playback, you can use "**Image Search**" again to search for other target objects in the video.



6. Playback

6.1 GUI Introduction

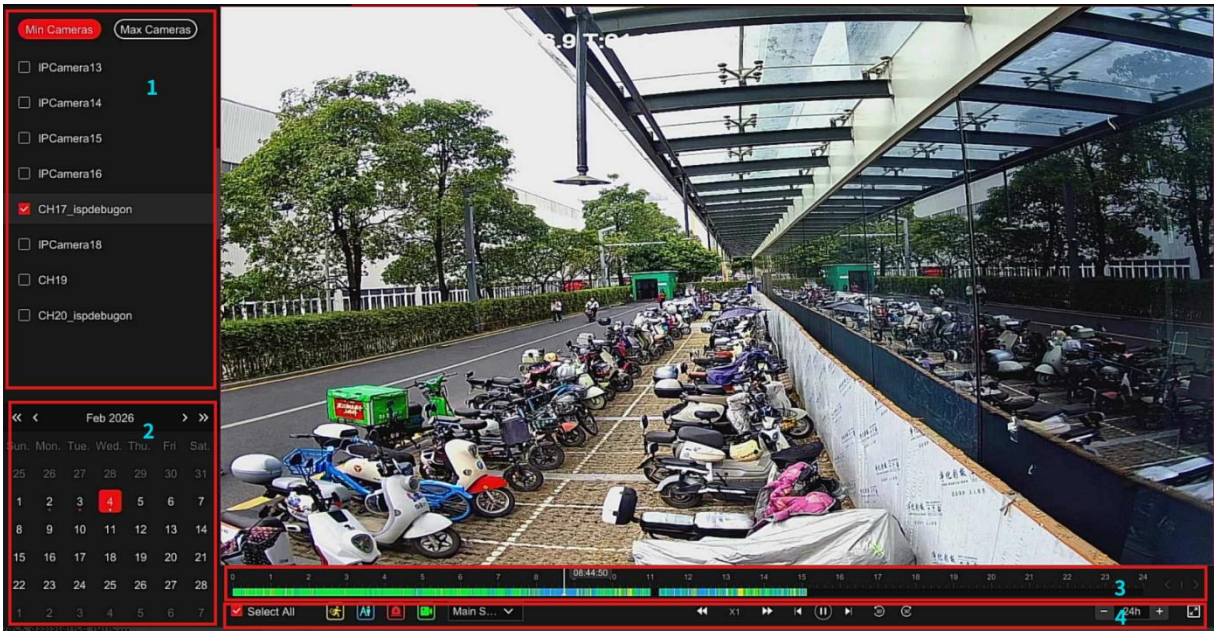


Figure 5-1

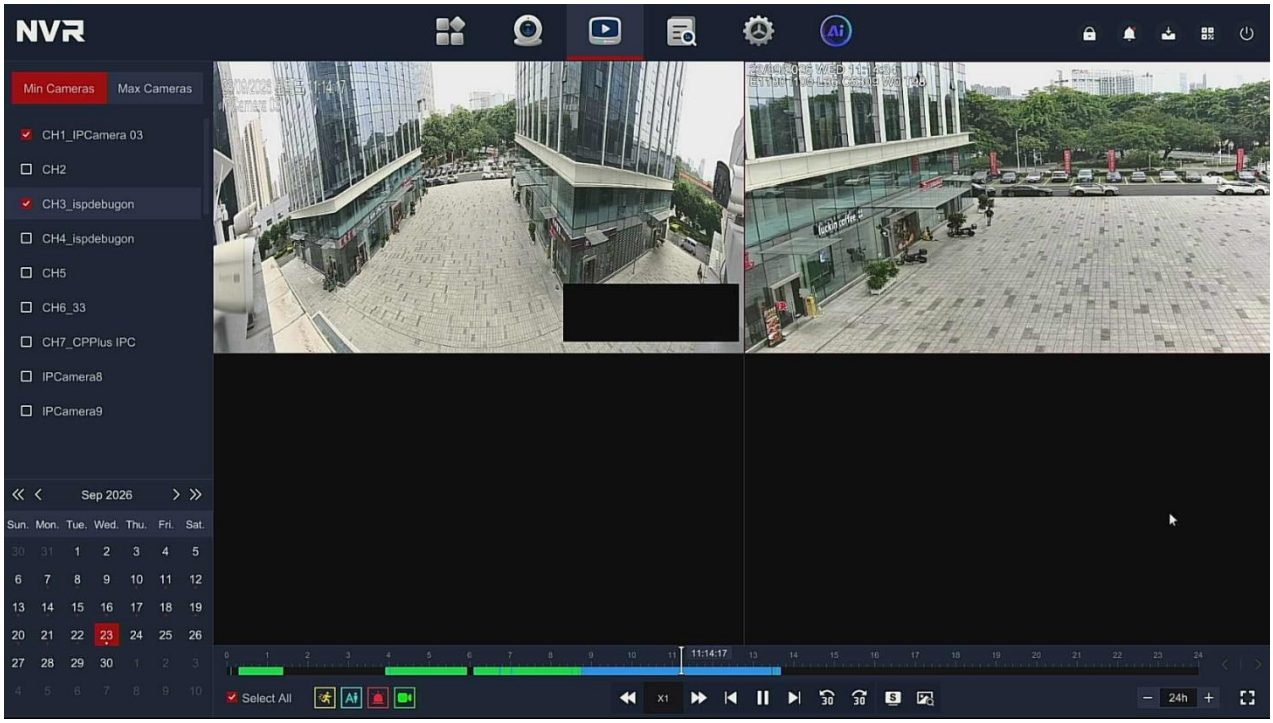
No.	Description
1	Channel list.
2	Calendar for time selection.

3	Playback timeline. ● Position the cursor on the timeline, drag the timeline to position to a certain time. ● Period marked with green bar contains video. Red /yellow / blue bar indicates the video in the period is event video. ● Scroll up/down to zoom out/in timeline.
4	Playback toolbar.

6.2 Nomal Playback

6.2.1 Playback channel video

In the main menu, click " " to enter the video playback interface. Normal playback plays all recordings of the selected camera(s).



Playback Toolbar

Button	Description
Min Cameras Max Cameras	**Max Cameras :** Click Max Cameras to select the maximum number of cameras allowed. The performance may vary with NVR model. **Min Cameras :** Select channel(s) to search. Multiple selection is supported depending on device capability. One channel is selected by default.
Calendar	Dates with colored dots on the calendar indicate that there is video recording, and dates without color dots indicate that there is no recording

	on that day. In any playback mode, select the recording type and channel, click the date you want to view, and the timeline will be updated to the recording track of the day.
Playback control area	 : Motion Detection  : Smart  : Alarm  : Normal  : Deceleration  : Acceleration  : Frame rewind  : Frame advance  : Play  : Pause  :Rewind 30 seconds  : Forward 30 seconds  : Full Screen  : Image Search
Play bar	Display the recording type and the time period under the current conditions.When the device is in multi-split screen, click the playback interface and select a channel. The first time axis is the recording time axis of the selected channel. Click a point in the colored area with the mouse to start playback from that point in time.
	 : Electronic zoom  : Turn volume on / off

Menu hide	: Add tags : Clip : Fisheye : Self-Adaptive Resolution

Retrieve the corresponding video files according to the channel, date and video type, and play the video files in sequence from the playback bar that meets the conditions.

The specific steps are as follows:

Step 1: In the main menu, click "**Playback**" (or in the preview page, right-click the desired window and select Playback) to enter the playback interface.

Step 2: Select the video playback channel, and the calendar will automatically display the current month's video recording.

- You can choose multiple cameras for synchronous playback.
- Click Max. Cameras or Min Cameras to select the maximum number of cameras allowed. The performance may vary with NVR model.

Step 3 : Select a date, then click the Play button" " or click a position on the timeline to start playback.By default, the system plays the video of the current day.

Step 4 : The NVR plays Main Streem videos by default. You can switch to Sub mode.

- Play bar

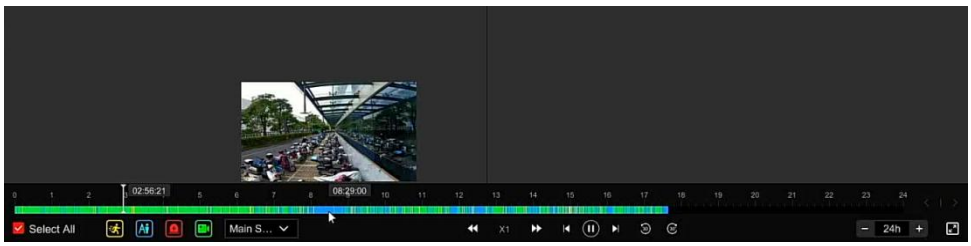


Figure 5-4

- In normal playback mode, hover over the timeline to view a thumbnail image to quickly pinpoint an event.
- Zoom in or out on the timeline. Alternatively, click on the timeline and use the scroll wheel to zoom in or out.

6.2.2 Playback assistance function

■ **Electronic zoom**

The specific operation steps are as follows:

Step 1: In the main menu, click "**Playback**"to enter the video playback interface.

Step 2: Select the channel for video playback and the date when the video is recorded, and the searched video will be displayed on the progress bar.

Step 3: Click ""to playback on the display interface.

Step 4: Click playback interface, popup hidden menu, click "" to enterElectronic zoom interface,as shown in Figure 5-5 below.

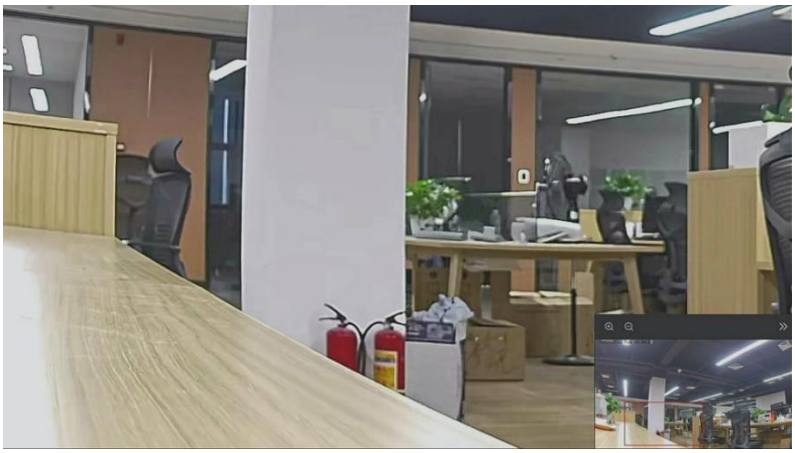


Figure 5-5

NOTE

- Enter the Electronic zoom interface, the default image is enlarged; the maximum magnification of the image is 16 times.
- When enlarging an image, the center of the image is enlarged by default.Hold down the left mouse button and drag the image to switch to the area to be enlarged.
- You can use the mouse wheel to zoom in and zoom out the image. The mouse wheel slides down to enlarge the image; slides up to reduce the image.

■ **Tag**

The tag function can help users record relevant information at a certain point in time when playing back videos, so that they can view these marked videos at any time.

Step 1: In the main menu, click "**Playback**"to enter the video playback interface.

Step 2: Select the channel for video playback and the date when the video is recorded, and the searched video will be displayed on the progress bar.

Step 3: When viewing the video, if there is an abnormal situation on the screen, you can click the playback interface window to pop up the hidden menu, click the label, and after adding a custom label, you can enter the label in the search interface to quickly view or export the corresponding video file,as shown in Figure 5-6 below.

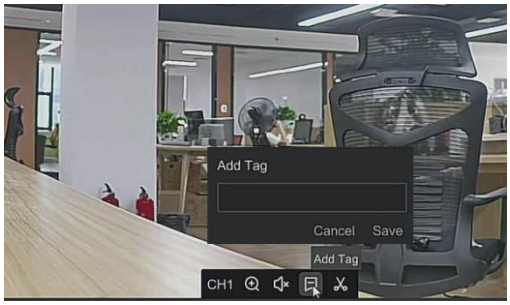


Figure 5-6

NOTE

After adding the tag, the system will automatically clip and save the 10 second video before and after the tagging time.

■ Clip

It supports clip video files during video playback.

The specific operation stepsare as follows:

Step 1: In the main menu, click "**Playback**" to enter the video playbackinterface.

Step 2: Select the channel for video playback and the date when the video isrecorded, and the searched video will be displayed on the progress bar.

Step 3: Click the playback window to pop up the hidden menu, click "", and enter the start time and end time in the pop-up box, as shown in Figure 5-7.

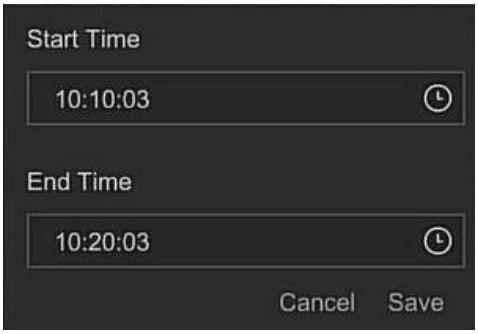


Figure 5-7

Step 4: Click "Save" to export clips to USB flash drive, as shown in Figure5-8 below.

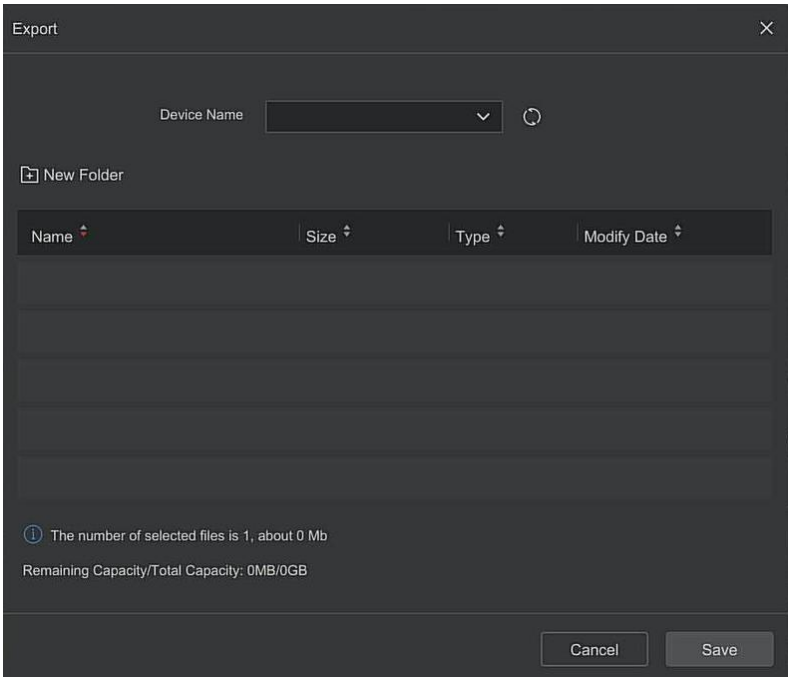


Figure 5-8

7. Search

You can search files according to different searching conditions, including file type, event type, time, tag, etc. The searching results can be exported to another device, such as a USB flash drive.

NOTE:

Before You Start , Ensure HDD is correctly installed and recording parameters are properly Configurationured.

7.1 Search GUI Introduction

Step:

1. Go to **Search**

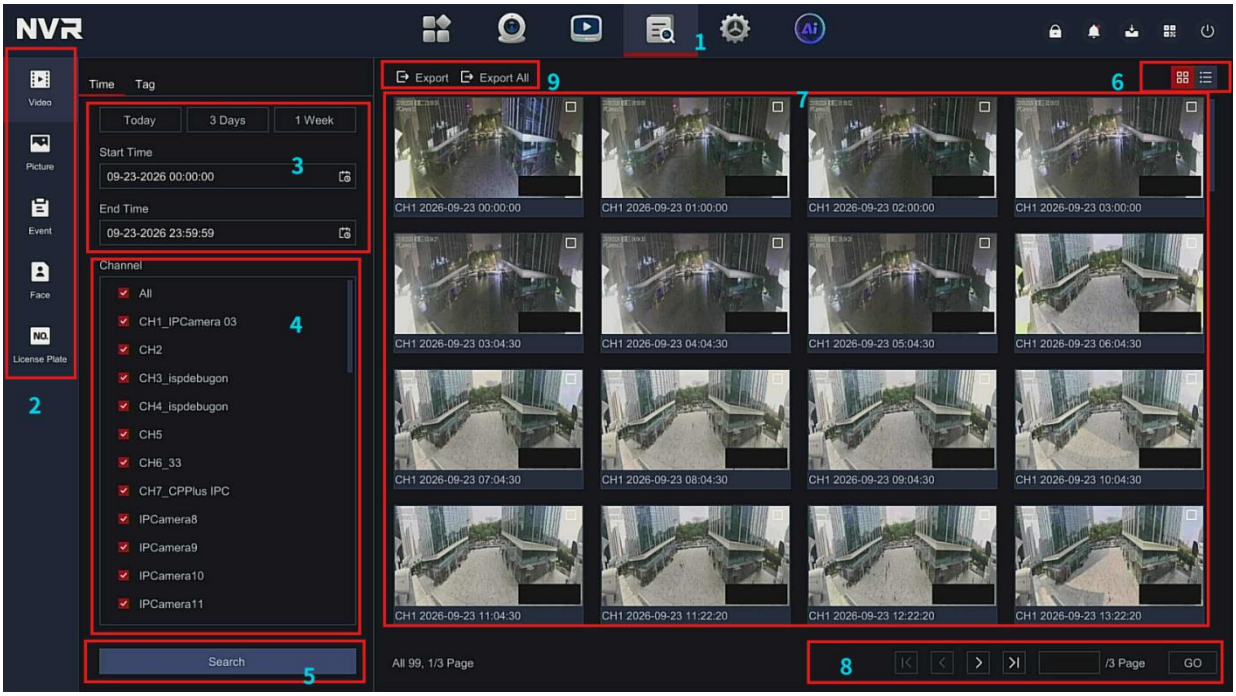


Figure 6-1

2. Choose a searching method from at the left side as your desire.

3. Set the searching conditions. Event type and Start/End Time.

4. Select the desired camera(s).

5. Click Search. the search results will be displayed in the panel below.Click the“ ”to play the video.

6. Use the toolbar to switch display effect.

7. Click to select file(s).

8. Go to different result pages.

9. Export files to the USB flash drive.

- Select files(s) in the result list and click Export.
- Click Export All to export all the files
- Insert a USB flash drive to the device for backup.

7.2 Recording Backup

Recording Backup refers to exporting video files stored on the NVR hard disk to a USB storage device.

The following conditions must be met before performing a backup:

- The USB storage device must be formatted as FAT32 or NTFS.
- The user must have backup permissions.
- The recordings to be backed up must be stored on the NVR’s internal hard disk.
- The USB storage device must be properly connected to the NVR.

Normal video

Normal video backup refers to backing up scheduled recording.

1. Go to Search > Video.

2. Select the desired camera(s). All cameras are selected by default.

3. Set search conditions, including the start time, end time, recording type, event.

4. Click Search. Search results are displayed. Click “ ” to play the video.

5. Choose a way to back up recording(s) as needed.Select the recording(s) you want to back up, and then click Export.Or click Export All to back up all the recordings in the list.

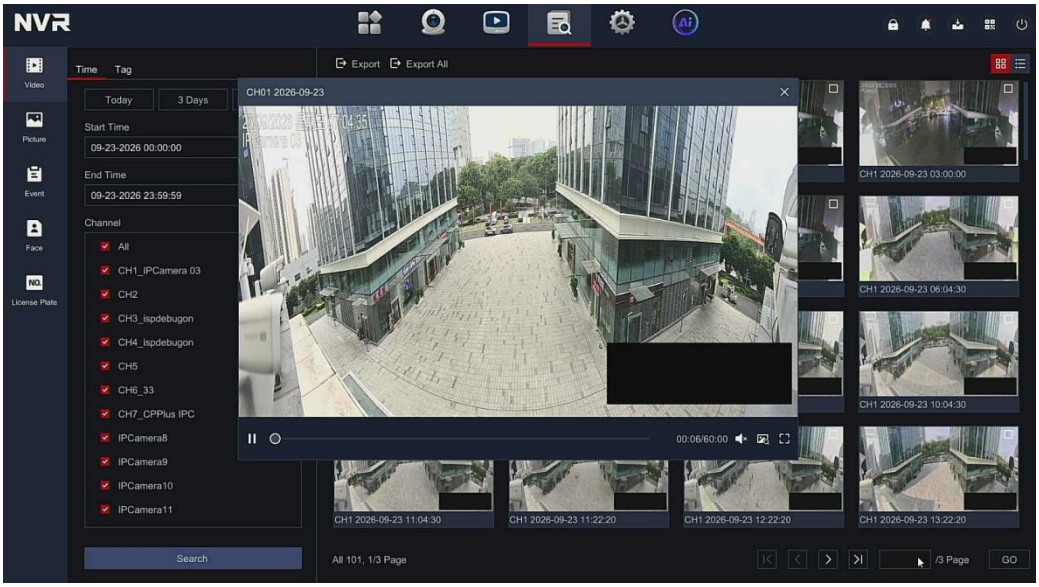


Figure 6-2

6. Select the partition and storage path, and then click Backup. You can also create a new folder for the recording(s) by clicking New Folder.

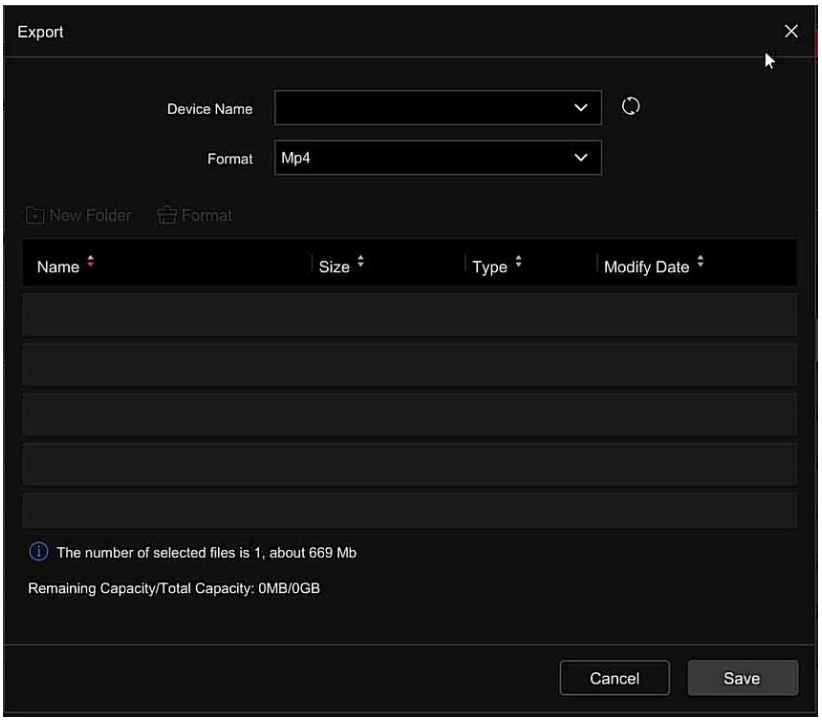


Figure 6-3

7.3 Picture Backup

Image backup refers to backing up images stored on the NVR's hard disk to a USB storage device.

Normal Snapshot Backup

Normal snapshot backup refers to backing up manual snapshot and event-triggered.

snapshot.

1. Go to Search > Picture.
2. Select the desired camera(s). All cameras are selected by default.
3. Set search conditions, including the image type, start time, and end time.
4. Click Search. the search results will be displayed in the panel below.
5. Choose a way to back up picture(s) as needed.Select the picture(s) you want to back up, and then click Export.Or click Export All to back up all the recordings in the list.
6. Select the partition and storage path, and then click Backup. You can also create a new folder for the recording(s) by clicking New Folder.

7.4 Search Human by Face Picture

You can search human records by the provided face picture.

Before You Start

Ensure you have enabled face picture comparison.

Steps

1. Go to Search > Face

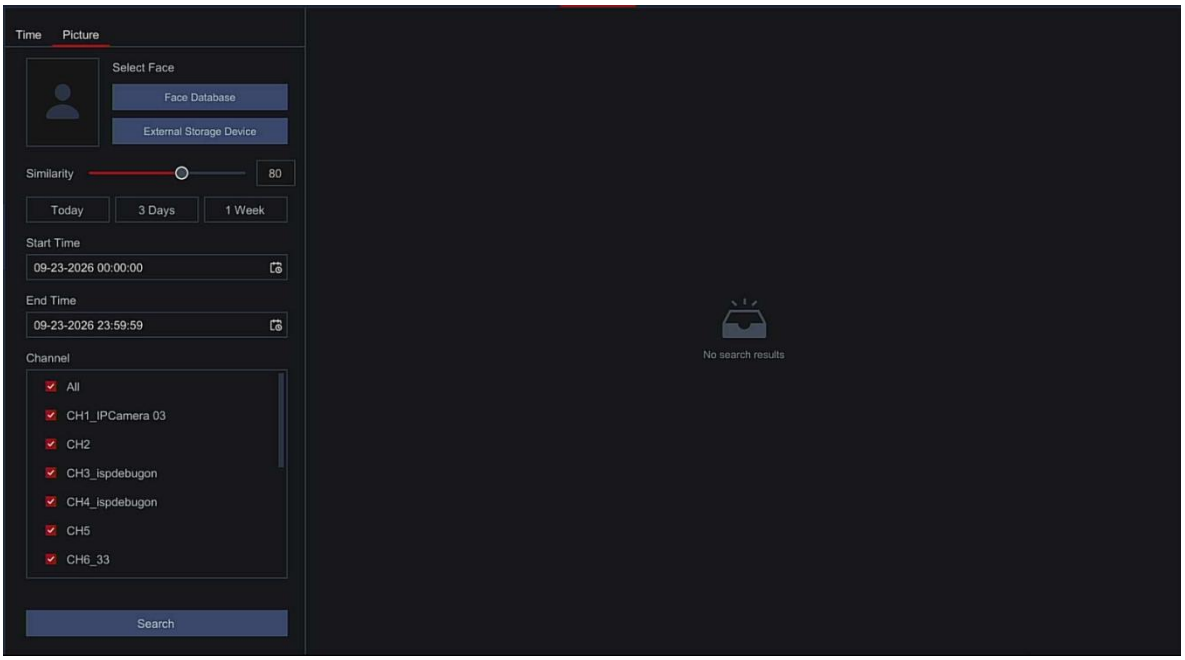


Figure 6-4

2. Set Search Method by By Picture.

3. Upload a face picture.

- Click Upload from Local to upload a face picture from a local storage device, such as USB flash drive.
- Click Upload from Face Picture Library to upload a face picture from a face picture library.

4. Set the start time and end time.

5. Select the desired camera(s).

6. Set Similarity.

Similarity

Set the similarity range. Device will analyze the similarity between the detected face picture and face pictures in the library. When the similarity reaches the threshold value, the face picture comparison succeeded, and the face picture is recognized.

7. Click Search. the search results will be displayed in the panel below.

8. Statistical Analysis

Your NVR can retrieve and present statistical data relating to the detection of objects when related AI detection is enabled on the camera.

8.1 Line Crossing Statistics

Your NVR can retrieve and present statistical data relating to the times an vehicle or person had crossed a counting line when cross counting detection is enabled on the camera.

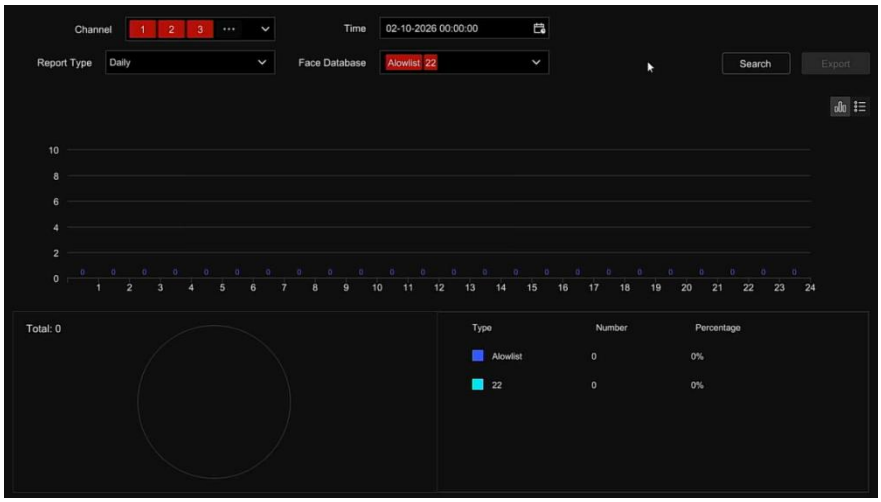


Steps：

1. Choose the Channel & Date you want to search.
2. Choose the Cross Type: Cross In or Cross Out.
3. Choose the Detection Type from Person / Vehicle / Non-motor Vehicle .
4. Click Search button, the result will be displayed in column chart as default. You can click Line Chart to change its display mode.
5. The statistical data is searched and displayed a daily report by default. You can change the Report Type to choose a Weekly, Monthly or Yearly report, and then click Search again.
6. Click Export button if you want to export the statistical data to USB flash drive. The file will be saved as a *.CSV file. You can open the file in Excel (or similar software) to further analyze the data.

8.2 Face Recognition Statistics

Your NVR can retrieve and present statistical data relating to the detection of faces when the Face Recognition is enabled on the camera. The bar chart displays the number of faces that were detected during a particular time period while the pie chart displays the percentage share and frequency of detected faces belonging to each group.

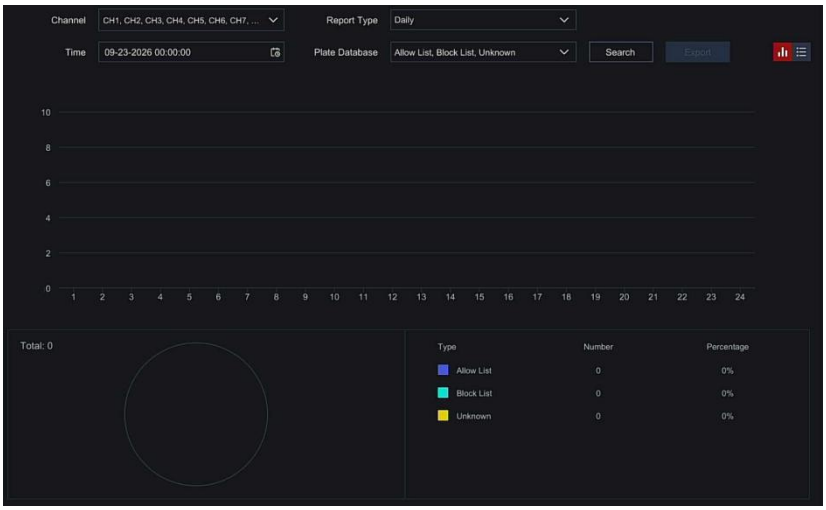


Steps：

7. Select the channels from which the face recognition data is obtained. By default, all channels have been selected.
8. Choose the Date you want to search.
9. Select the Report Type. Click the drop-down menu to select the time period from which the face recognition data is.
10. obtained.
11. Select the Face Database from which the face recognition data is obtained. By default, all groups have been selected.
12. Export the facial recognition data for the selected time period to a USB flash drive. The file will be saved as a *.CSV file. You can open the file in Excel (or similar software) to further analyze the data.

8.3 License Plate Recognition Statistics

Your NVR can retrieve and display statistical data for license plate detection when license plate detection is enabled on the camera. The bar chart displays the number of detected license plates during a specific time period, while the pie chart displays the percentage and count of detected license plates in each group.



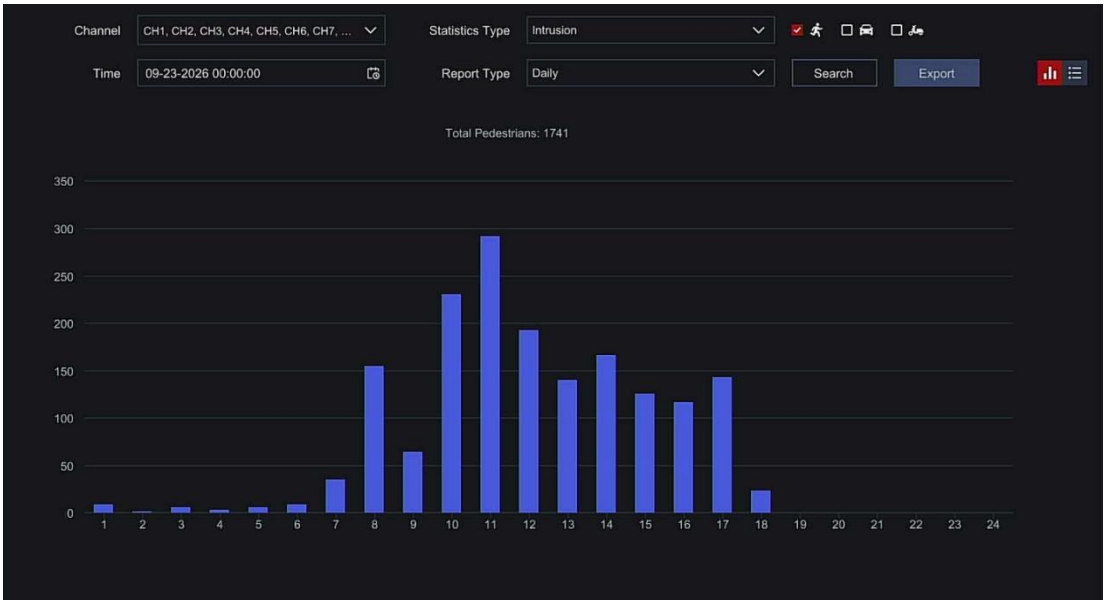
Steps:

1. Select the channels from which the license plate recognition data is obtained. By default, all channels are selected.
2. Select the Date you want to search.

3. Select the Report Type. Click the drop-down menu to select the time period for which the license plate recognition data is obtained.
4. Select the License Plate Database from which the license plate recognition data is obtained. By default, all groups are selected.
5. Export the license plate recognition data for the selected time period to a USB flash drive. The file is saved as a .CSV file. You can open the file in Excel or similar software for further analysis.

8.4 Human & Vehicle Statistics

Your NVR can retrieve and present statistical data relating to the detection of objects when the Human & Vehicle video analytic is enabled on the camera. The bar chart displays the number of humans and/or vehicles that were detected during a particular time.



Steps:

1. Select the channels from which the human & vehicle detection data is obtained. By default, all channels have been
2. selected.
3. Choose the Date you want to search.
4. Select the Report Type. Click the drop-down menu to select the time period from which the face recognition data is.
5. obtained.
6. Select the detection type(s) from which the human & vehicle detection data is obtained.
7. Export the data for the selected time period to a USB flash drive. The file will be saved as a *.CSV file. You can open the file in Excel (or similar software) to further analyze the data.

8.5 Heat Map Statistics

Your NVR can retrieve and present statistical data relating to the detection of objects when the Heat Map video analytic is enabled on the camera. The color map gives you a visual display showing the area and frequency of motion detected. Warm colors represent high frequency and cool colors represent low frequency.



9. System Configuration

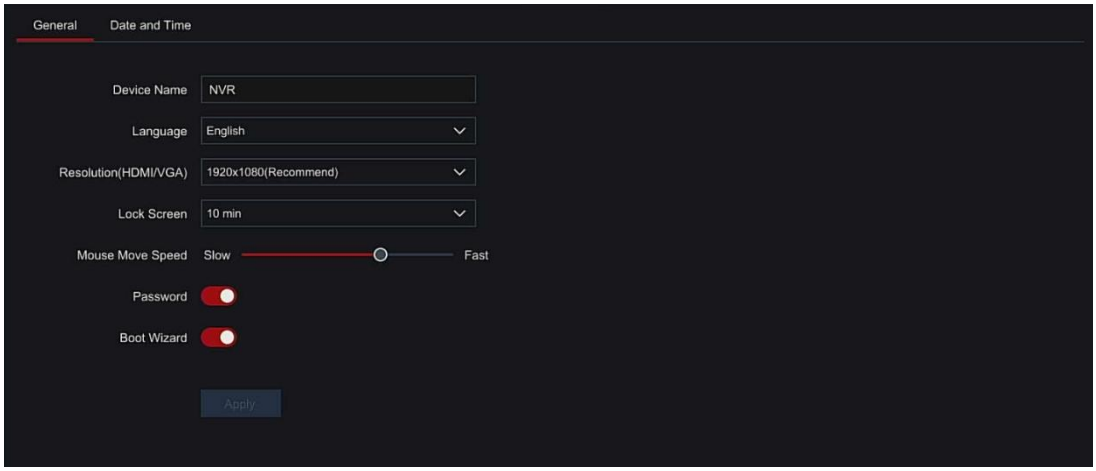
This chapter describes how to Configurationure the system parameters.

9.1 System

Configurationure the basic information of the system.

9.1.1 General

Go to System Configuration > System > General.



Device Name: To rename your NVR(if required). The name can include both letters and digital numbers.

Language : Select the system language.

Resolution(HDMI/VGA): Select the display resolution suitable for the secondary screen.

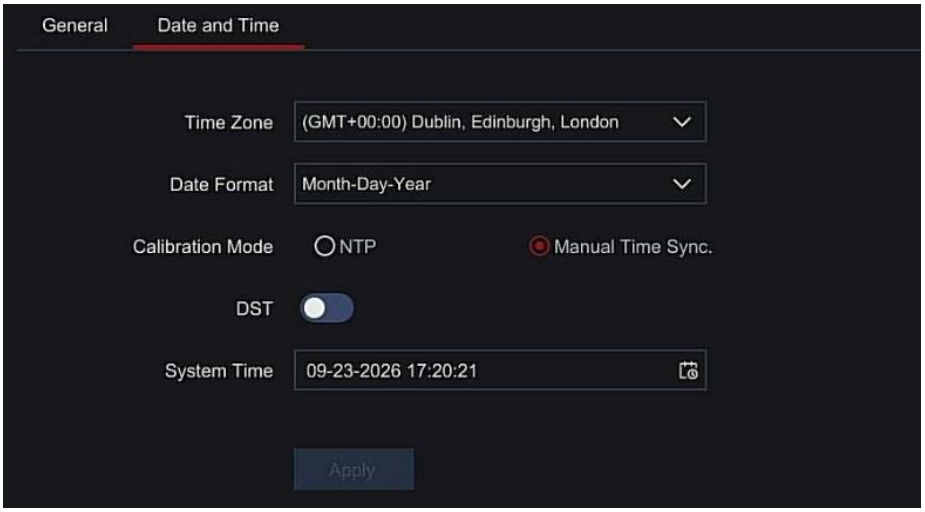
Lock Screen: If you are not on the live view page and don't perform any operation, you will logout automatically when the set time is over, and the live view page will bedisplayed.

Mouse Move Speed: Drag the slider to adjust the speed (left to right: slow to fast).

Password: When the auto logout time is over, the user needs to enter the login password in order to access the main menu.This feature is enabled by default.

Enable Boot Wizard: Startup wizard appears when the NVR starts up for the first time. If the checkbox is selected, the startup wizard appears every time the device starts up. You mayclick Wizard to set wizard on the Menu page.

9.1.2 Date and Time



Time Zone : Select a time zone relevant to your region or city.

Date Format: Select the preferred date format.

System time: Set the system time.

DST: The DST (Daylight Saving Time) function allows you to select the amount of time that Daylight Saving has increased by in your particular time zone or region.

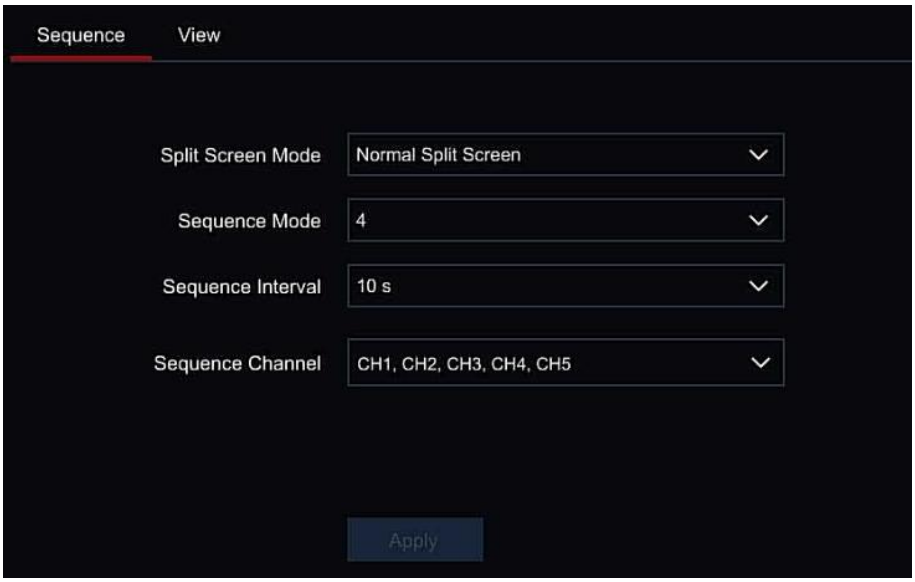
Step:

1. Enable DST. Tick to enable if Daylight Saving Time (DST) is observed in your region
2. Set the start time and end time for daylight saving.
3. Select the amount of time to offset for DST.

9.1.3 PreView

Configurationure the basic preview parameters and display mode.

9.1.3.1 Sequence



Split Screen Mode: Select split screen mode you would like to display at a time when your NVR is in sequence mode.

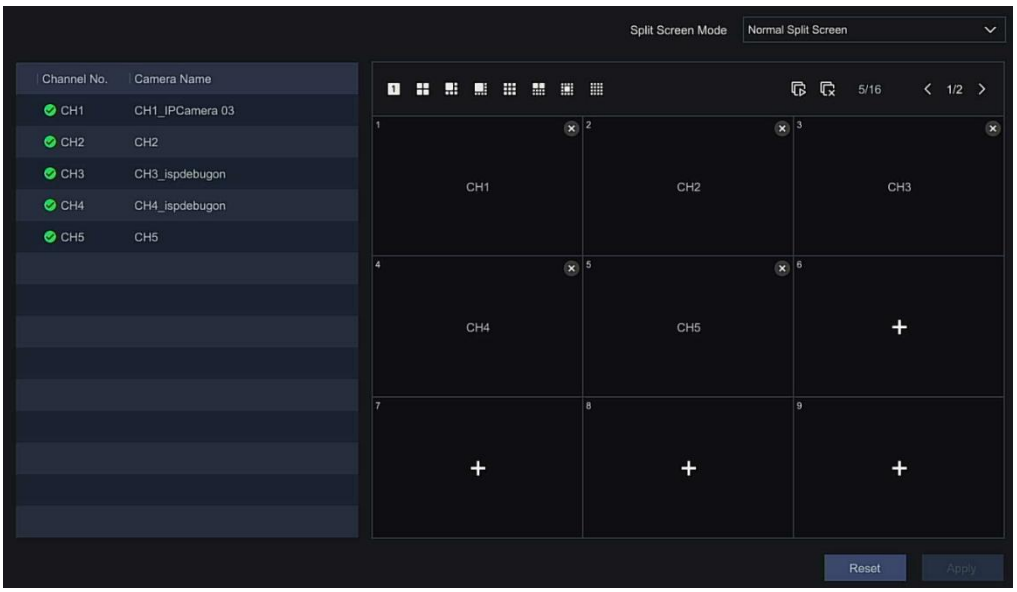
Sequence Mode: Select how many video channels you would like to display at a time when your NVR is in sequence mode.

Sequence Interval: Set the sequence interval time.

Sequence Channel: Select the channels you would like to display at a time when your NVR is in sequence mode.

9.1.3.2 View

Displays images in the desired window layout. Choose an option from the list, or click an icon to choose the layout.



By default, camera IDs correspond to live view windows: CH1 to window 1, CH2 to window 2, and so on. You can change the correspondence relationship as follows. The example below shows how to switch CH1 and CH20.

Steps：

1. Please select the window on the right side first.Click window 1 on the right side. Window 1 is selected.

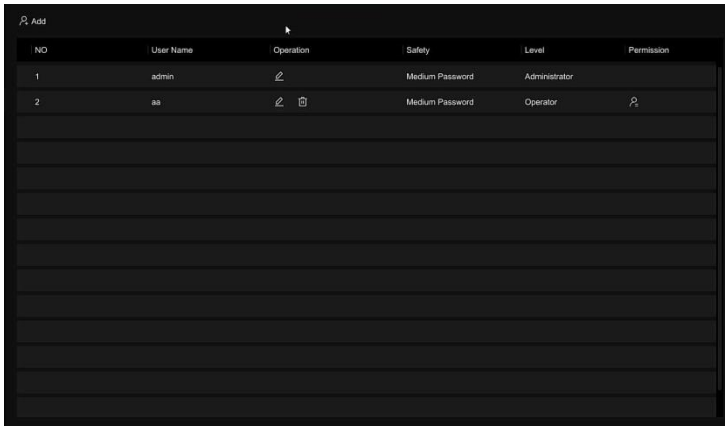
2. Click CH1 on the left-side channel list. Now window 1 shows CH1.
3. Click window 2 on the right side. Click CH20 on the left-side channel list. Now window 2 shows CH20.
4. Click window 2 on the right side. Window 2 is selected.
5. Click CH1 on the left-side channel list. Now window 2 shows CH1, which means CH1 and CH20 have switched windows with each other.
6. Click Apply.

NOTE

You may also drag an image on the live view page to swap windows, and then view the changed window-channel binding relationship on this page. But this method requires the Configurationure permission.

9.1.4 User

This menu allows you to Configurationure the user name, password and user permission.



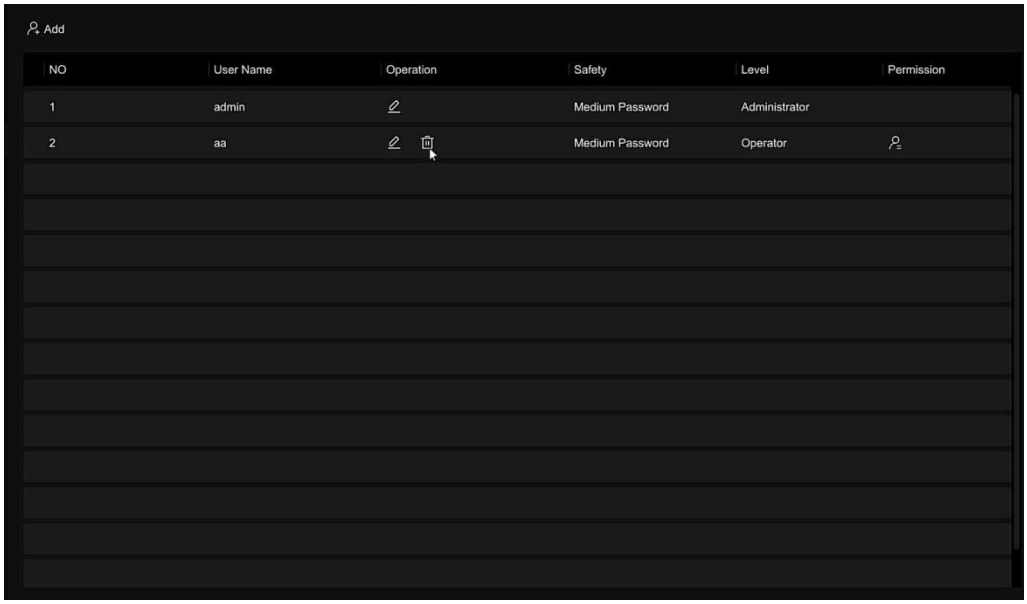
The system supports four user types:

User Type	Description
admin	The default super administrator, which has the maximum permissions. **Note:** Only admin can add or delete users and edit other users' permissions.
Operator	By default, an operator has basic permissions and camera permissions.
User	By default, a guest only has camera permissions.

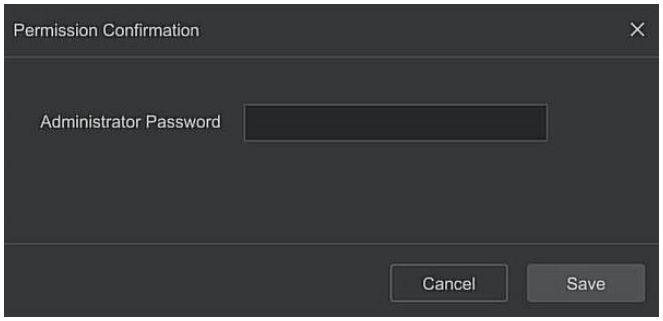
Add User

The specific operation steps are as follows:

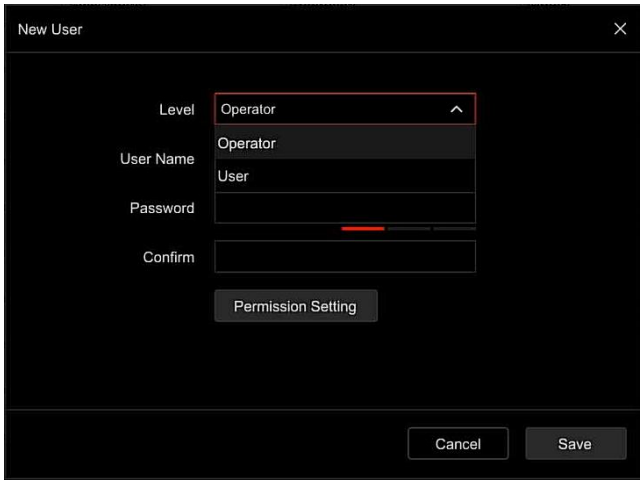
Step 1: Go to Menu > Configuration > System > User



Steps 2: Click "Add" to enter the permission confirmation interface, first confirm the password.

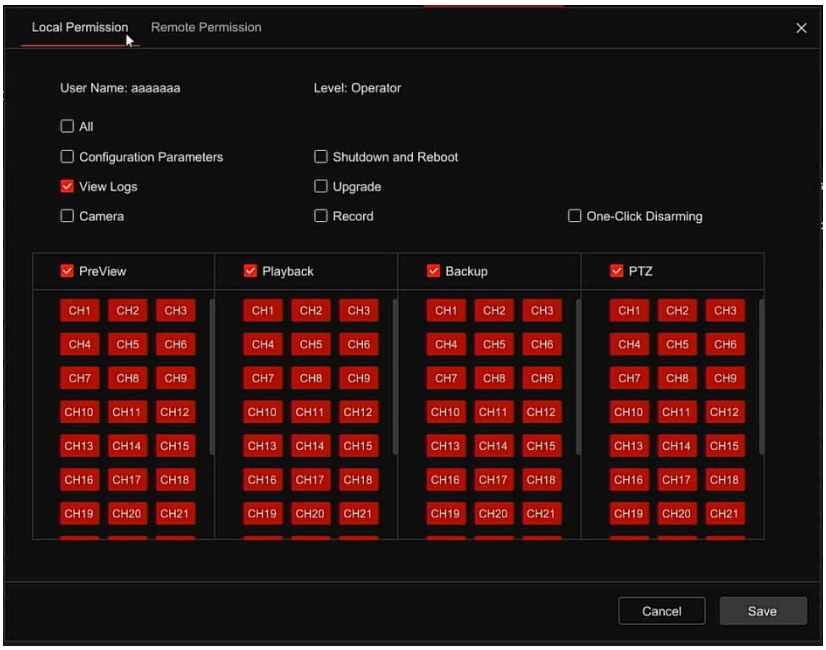


Steps 3: Enter the administrator password, click "Save", after the permission isconfirmed, you can enter the add user interface to add users.



Steps 4: Choose a level ,enter the new user information (user name, password, confirmpassword), select the level, click "Save".

Steps 5: Setting permissions. Click the "Permission Setting" button to enter the permission setting interface, and set the user permission.



Steps 5: Click Save.

Delete User

1. On the User page, select the user you want to delete.
2. Click . A confirmation message appears.
3. Click Confirm.

Edit User

1. On the User page, select the user you want to edit.
2. Click , enter the password.
3. Edit the user type, password, or permissions.
4. Click Save.

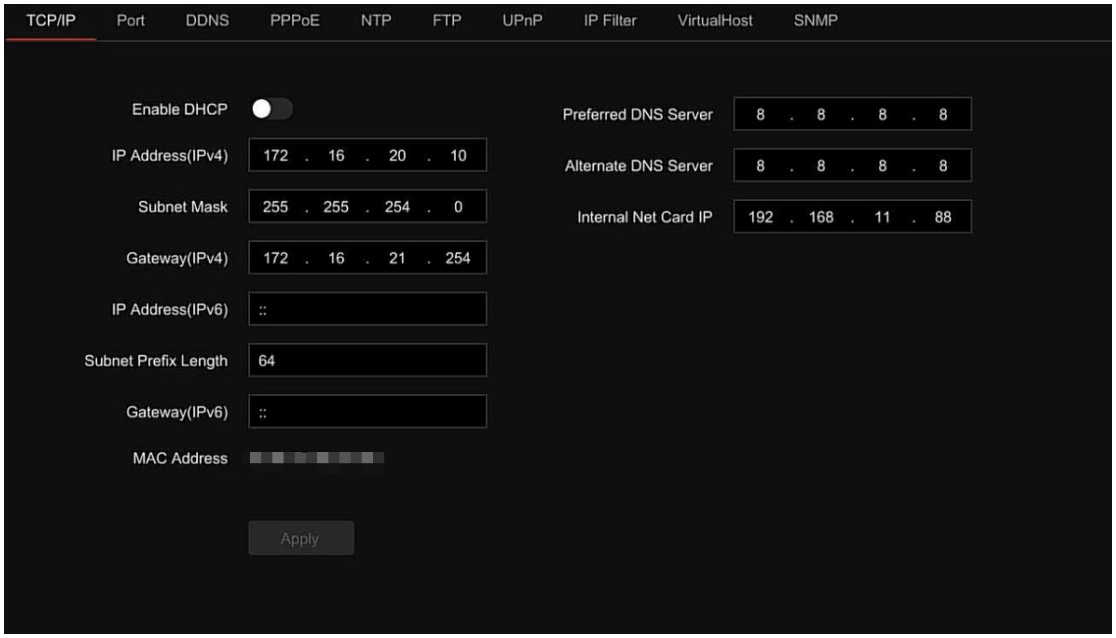
9.2 Network Configuration

This menu allows you to Configurationure network parameters.

9.2.1 Basic Setting

9.2.1.1 TCP/IP

To Configurationure the network connection parameters here.



If you connect to a router which allows to use DHCP (Dynamic Host Configuration Protocol), please tick the checkbox of DHCP. The router will assign automatically all the network parameters for your NVR.

When disabling DHCP, the following options can be changed.

IP Address(IPv4): The IP address identifies the NVR in the network. It consists of four groups of numbers between 0 to 255, separated by periods. For example, "192.168.1.88".

Subnet Mask: This allows the flow of network traffic between hosts to be segregated based on a network Configuration. A typical address might be "255.255.255.0" or something similar.

Gateway: This allows your NVR to connect to the internet and is typically the same IP address as your modem or router. The format of the Gateway address is the same as the IP Address. For example, "192.168.1.1".

IP Address(IPv6): Input the IPv6 IP address if your network service supports IPv6. It consists of eight groups of characters between 0 to FFFF, separated by periods. For exampl "ABCD:EF01:2345:6789:ABCD:EF01:2345:6789".

Preferred DNS/Alternale DNS: Input the DNS settings for your internet service provider. Usually, it should be enough just to enter the Preferred DNS server address.

MAC Address: Displays the physical address of the NVR.

Internal Net Card IP: If your NVR comes with PoE ports, you will see the Internal Interface as below:



Set the IP address for the internal PoE router. Leave this on the default setting.

After manually setting the IP address and subnet mask of the LAN port, you can add cameras of different network segments to the same device through the LAN port.

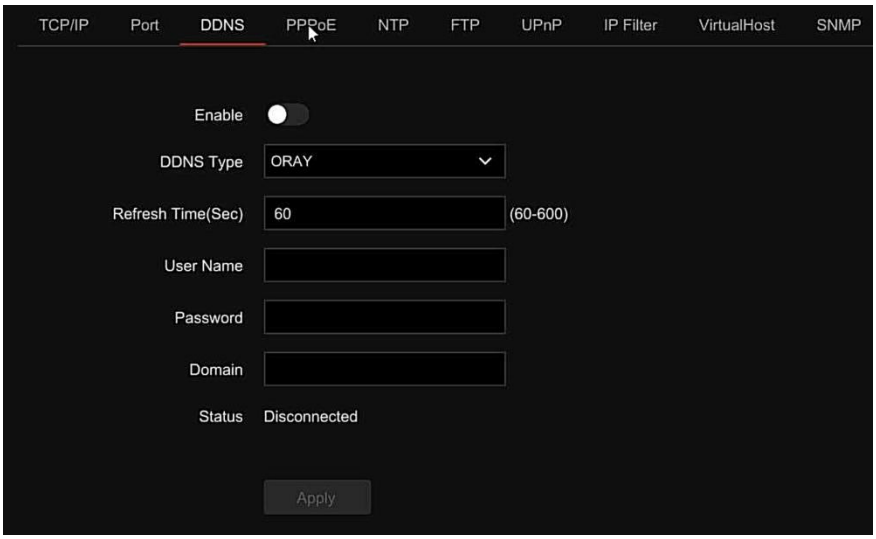
9.2.1.2 Port

Configurationure HTTP, HTTPS, RTSP, HTTP redirect port, and RTSP redirect port.

TCP Port: Default value is 5000, according to the actual needs of users to set the port.
HTTP Port: Default value is 80, according to the actual needs of users to set the port.
RTSP Port: Default value is 554, according to the actual needs of users to set the port.
Private Port: Default value is 6000, according to the actual needs of users to set the port.

9.2.1.3 DDNS

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



Prerequisites

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

Steps 1: Go to Menu > Configuration > System > Network > Basic Settings > DDNS
Steps 2: Enable DDNS, select the DDNS type, and enter the refresh time (Sec), username, and password.

Steps 3: Click "Apply" to save the DDNS setting.

Steps 4: Enter the domain name in the PC web browser and press "Enter". If you can display the web interface of the device, the Configuration is successful. If it is not displayed, the Configuration fails.

Enable DDNS: Enabling DDNS domain resolving function.

DDNS Type: Select the DDNS type by dynamic domain name resolution server. (At present, the device supports multiple DDNS, including ORAY, NO-IP, DYN, CHANGEIP, A-PRESS, MYQSEE, SKDDNS, SMART-EYES, ZEBEYE. These multiple DDNSs can coexist at the same time, and the user can select and set them as needed).

Refresh Time (Sec): Do not register frequently. The interval between two registrations shall be more than 60 seconds. Too many registration requests may result in server attack.

User Name: The account registered in the DNS service provider.

Password: The password to the account registered in the DNS service provider.

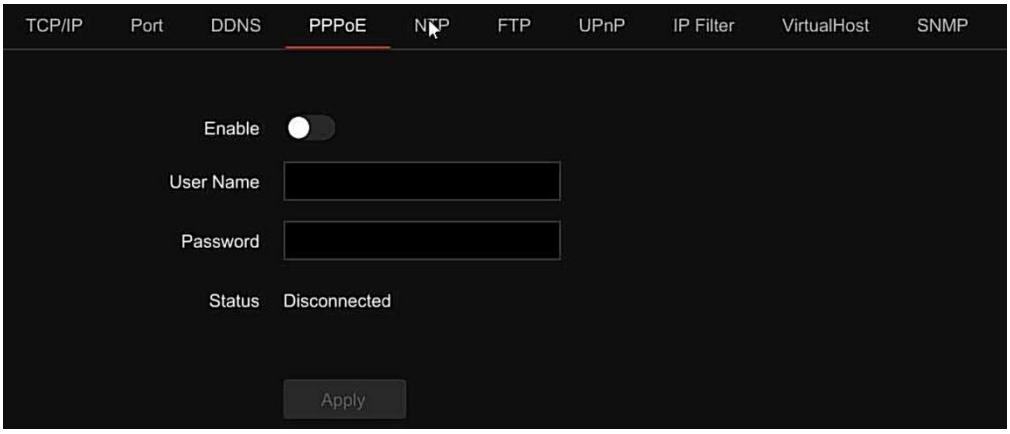
Domain: The domain name registered in the DNS service provider.

NOTE

After setting up DDNS, ensure that the NVR is connected to the WAN to access the device through the DDNS domain name.

9.2.1.4 PPPoE

PPPoE(Point-to-Point Protocol over Ethernet) is one of the ways in which NVR devices access the network. After obtaining the PPPoE user name and password provided by the Internet Service Provider, you can establish a network connection through PPPoE dialup. After the connection is successful, the NVR device automatically obtains a dynamic IP address of the WAN.



Step 1: Go to Menu > Configuration > System > Network > Basic Settings > PPPoE

Steps 2: Select "Enable", input the user name and password of the PPPoE.

Steps 3: Click "Apply" to save the Configuration.

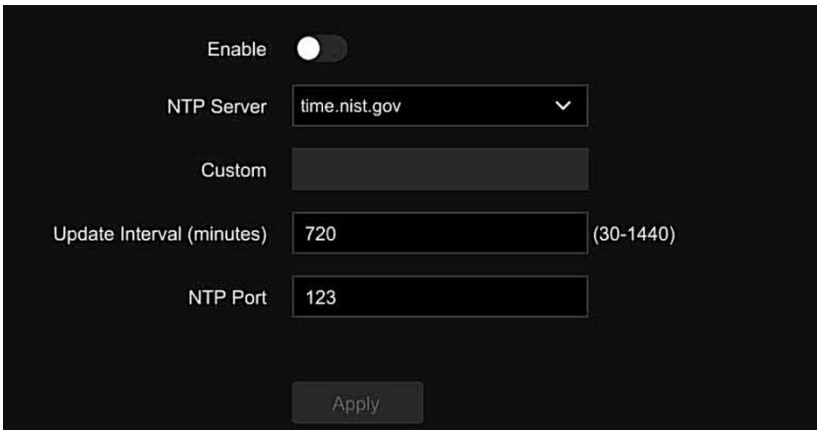
Enable: Turn on/off the device PPPoE function.

User Name: The PPPoE user name provided by the ISP (Internet Service Provider).

Password: The password corresponding to the user name.

9.2.1.5 NTP

After enable NTP (Network Time Protocol), the system can periodically adjust the device time through the NTP server to ensure the accuracy of the device system time.Therefore, the NVR needs to be connected to the Internet.



Step 1: Go to Menu > Configuration > System > Network > Basic Settings > NTP

Steps 2: Choose "Enable NTP" to set NTP related parameters.

NTP Sever: Select the domain name of the server where the NTP service is installed.

Customize: When the NTP server selects "Custom", enter the NTP server domain name manually.

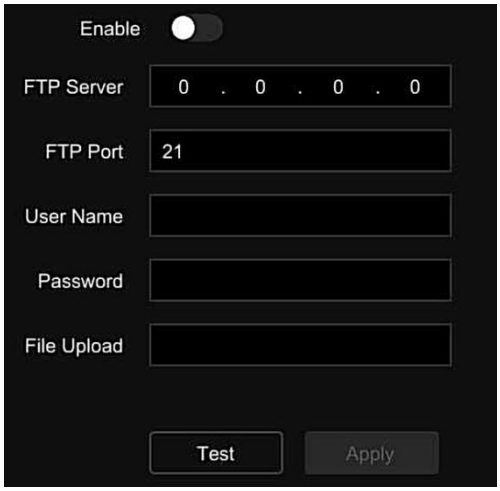
Push interval (Min): The interval of NTP time correction, the default is 720 minutes, and the settable range is 30-1440 minutes

NTP Port: Select the port corresponding to the NTP server.

Steps 3: Click "Apply" to save the setting.

9.2.1.6 FTP

With FTP (File Transfer Protocol) server, you can store alarm pictures on the FTP server.



1. Go to Menu > Configuration > System > Network > Basic Settings > FTP
2. Select Enable FTP.
3. Configurationure server parameters: FTP Server, FTP Port, User Name, Password, and the File Upload path.
4. Click "Apply" to save the Configuration.
5. Click "Test" to determine whether the network connection and FTP Configuration are correct.

NOTE

- You need to purchase or download the FTP service tool and install the software on your PC.
- To create an FTP user, you must set FTP folder write permission.Otherwise, the picture will not be uploaded successfully.
- If the test fails, recheck the network or FTP Configuration.

  Enable FTP: Turn on / off the device FTP function.

  FTP Server: Host IP address of the FTP server.

  FTP Port: The default FTP port is 21, if your FTP server is different; you need to use the same port name with your FT server.

  User Name: Please input the user name to login the FTP server.

  Password: Please input the corresponding password here.

  File Upload: Create folders according to the rules in the FTP account directory.

  - ✓ When the remote directory is empty, the system will save the uploaded image in the root directory of the FTP server.
  - ✓ Enter the name of the remote directory, the system will create a folder with the corresponding name under the FTP root directory, and save the uploaded pictures in this folder.

  Channel: Select the channel to upload the capture file.

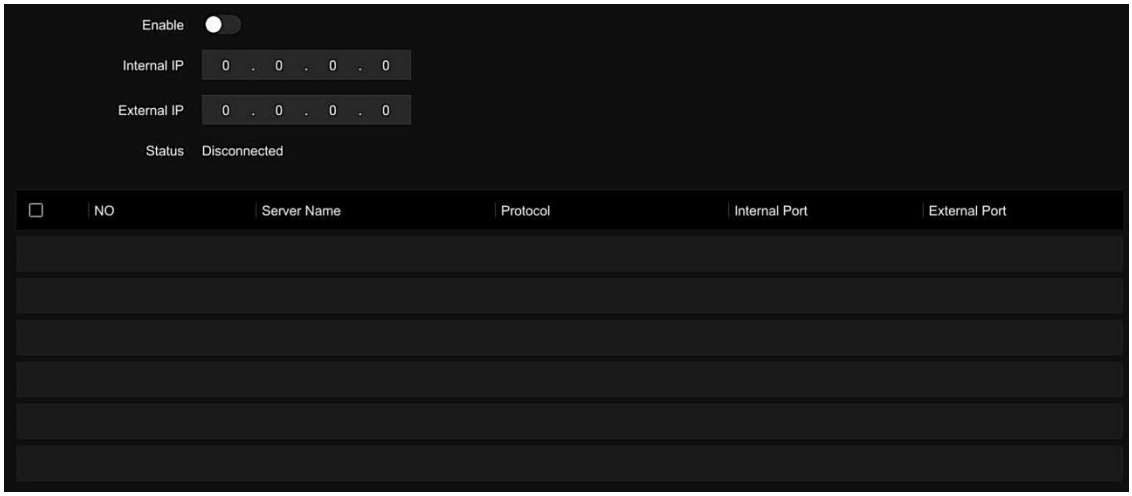
  Week: Select the time to upload the FTP file according to the week. You can set two time periods each week.

  Time period 1& 2: Set the time period for uploading FTP files in one day.

  Test: Click "Test", test NVR can successfully upload files to the FTP server.

9.2.1.7 UPNP

After the mapping between the internal network and the external network is established through the UPnP protocol, the external network user can use the external network IP address to directly access the NVR device on the intranet.



Prerequisites

1. Log in to the router and set the IP address of the router's WAN port to access the external network.
2. Make sure that the router is a first-level router (or virtual first-level router) and turn on the UPnP function.
3. Connect the device to the LAN port of the router and access the private network.
4. In the main menu, select "Configuration → Expert Mode → Network Configuration →Basic Configuration → TCP/IP", set "IP Address" as the router's private IP (for example: 192.168.1.101) or select "DHCP" to obtain the IP address automatically.

Steps:

1. Go to Menu > Configuration > System > Network > Basic Settings > UPNP

2. Enable the UPnP function and Configurationure related parameters such as Internal IP, External IP, and port mapping information of the UPnP route.

3. Click "Apply" to save the Configuration.

Enable: Turn on/off the device UPnP function.

Status: Displays the mapping status of UPnP.

Internal IP: Enter the router's LAN port address. After the mapping is successful, the IP address will be automatically obtained without setting.

External IP: Enter the router's WAN port address. After the mapping is successful, the IP address will be automatically obtained without setting.

Port Mapping Table: This corresponds to the UPnP mapping table information on the router.

Server Name: The web server name.

Protocol: The type of agreement.

Internal Port: The port that the local machine needs to map.

External Port: The port mapped on the router.

Add: Click "Add" to increase the mapping, enter the service name, internal port, and external port.

Server Name: Enter the service name and define it yourself.

Internal Port: You need to enter the corresponding HTTP port, RTSP port, TCP port.

External Port: Can be self-defined, and the internal port can be the same, but can not and NVR other ports repeat.

Delete: Select the mapping information in the port mapping table and delete the mapping relationship.

NOTE

- When setting the external port of the router mapping port, try to use the port between 1024 and 65535. Avoid using the well-known port 1~255 and the system port 256~1023 to avoid conflict.
- When deploying multiple devices in the same LAN, plan the port mapping to avoid mapping multiple devices to the same external port.
- When performing port mapping, ensure that the mapped port is not occupied or restricted.
- TCP internal and external ports must be consistent and cannot be modified.

9.2.1.8 IP Filter

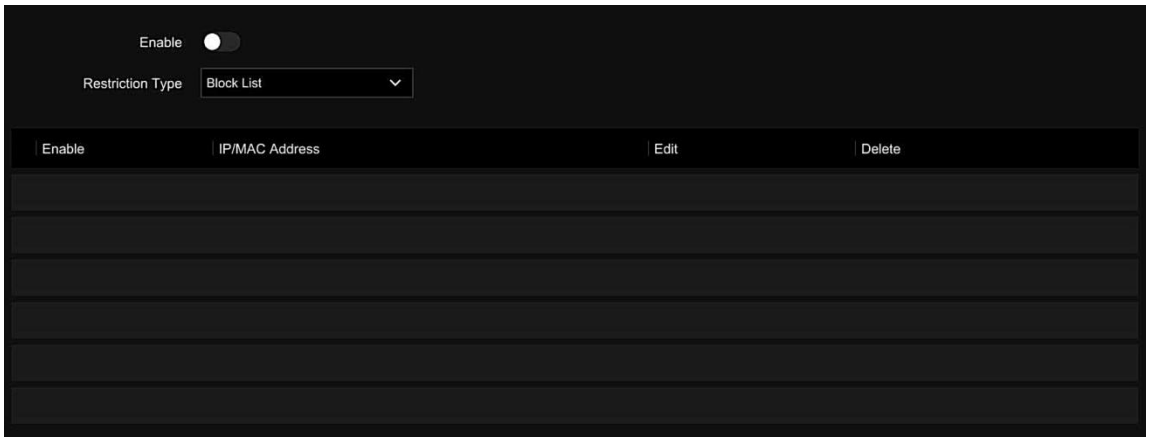
IP Filtering is a great way to limit access to your network devices for specific groups of IP addresses. For example, if you had a malicious user attacking your network, you could add a filter to prevent access to your devices from a single IP address or a block of IP addresses.

Blocklist:

The computer with the IP or MAC address in the blacklist will not be able to log in to the NVR web page.

Allowlist:

The computer with the IP or MAC address in the allowlist can log in to the NVR web page.



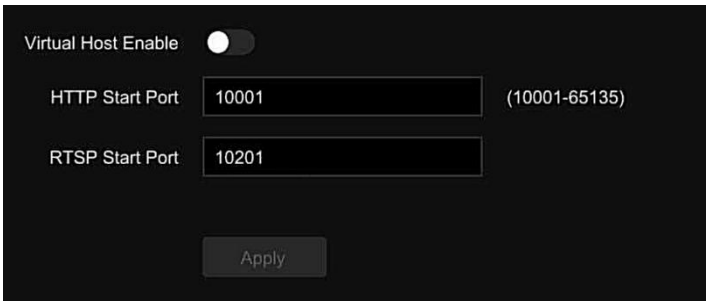
1. Go to Menu > Configuration > System > Network > Basic Settings > IP Filter
2. Choose "Restriction Type ", such as "Blocklist ".
3. Click "Add ", choose IP address(or MAC address), input IP address.
4. Click "Apply", the IP address or MAC address will be added to the Blacklist of the device.

CAUTION

- The device supports adding up to 128 whitelists and 128 Blacklists.
- Double-click a list in the filter list to enter the add interface, you can modify the IP address or MAC address.
- When you add the Blacklist / Whitelist, the letters in MAC address can
- be uppercase or lowercase, and are separated by ":", such as "00: bb: f2: 00: 15".
- When the IP Restriction Type is Blacklist / Whitelist, only one list is in effect at a time.

9.2.1.9 VirtualHost

Configurationure VirtualHost,http redirect port and rtsp redirect port are used to access an ip camera in a WAN.



1. Go to Menu > Configuration > System > Network > Basic Settings > VirtualHost
2. Enable the VirtualHost.

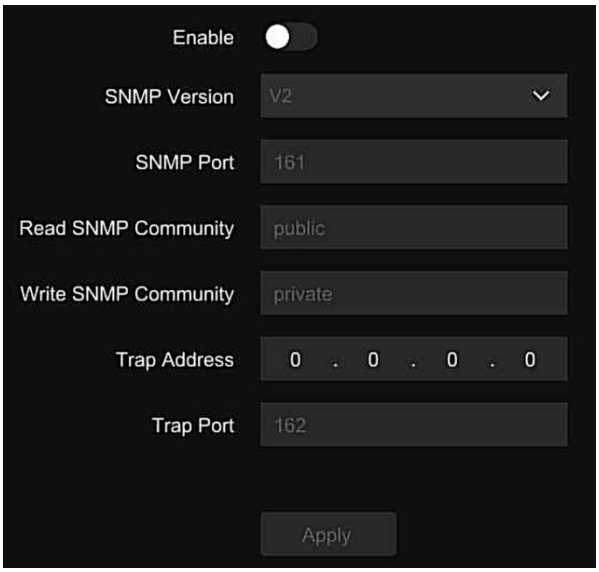
3. Configurationure the ports.

4. Click "Apply".

9.2.1.10 SNMP

SNMP (Simple Network Management Protocol) is an Internet Standard protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behaviour.

With the SNMP, you are allowed to connected the NVR with 3rd party network management platform and acquire the NVR information, such as firmware version number, device type, resolution, frame rate, and etc.



1. Go to Menu > Configuration > System > Network > Basic Settings > SNMP

2. Select Enable SNMP.

3. Choose an SNMP type and Configurationure the parameters.

- v2:

  Set the read community name and write community name for the platform to read NVR data.

- v3:

  Set authentication password and encryption password. The authentication password is used by the platform to access the NVR. The encryption password is used to encrypt data sent from the NVR to the platform.

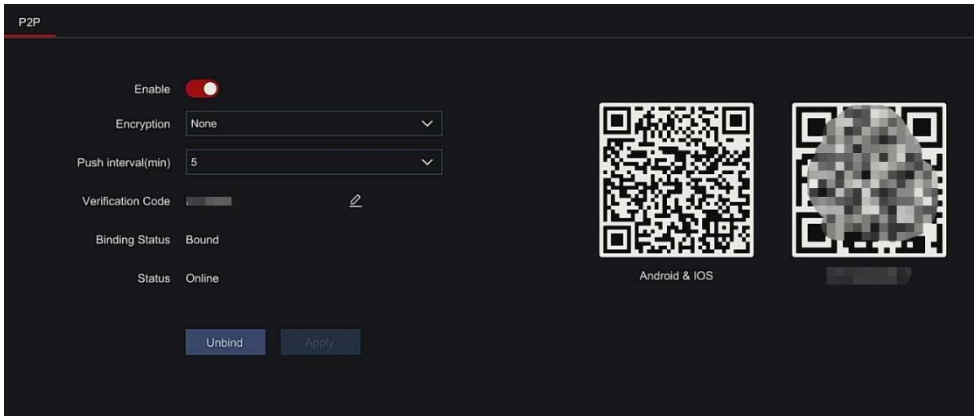
4. Click Apply.

9.2.2 P2P

P2P provides mobile phone application and platform service to access and manage your video recorder, which enables you to get a convenient remote access to the surveillance system.

Steps:

1. Go to Menu > Configuration > System > Network > P2P
2. Check Enable to activate the function.
3. Scan the QR code for the mobile phone system, download the App and register the account. For details, see the App User Manual on the website.
4. Log on to the P2P platform, register an account, and add the device via the serial number.
5. Select the encryption type. After the device is enabled, all signaling communication between the device and the server is encrypted.
6. Set the time interval for the device to snap the alarm picture to the mobile client, and you can also select "Turn off the push" to stop the device from pushing the picture to the mobile terminal.
7. Click "Apply" to save the Configuration.



Verification code : The system has a default verification code that users can modify. It must contain 6 letters or numbers and is case-sensitive.

Binding Status: If the device has already been added, the status here will show that it is already bound.

Unbind: If the device is already bound with an account, you can click Unbind to unbind with the current account.

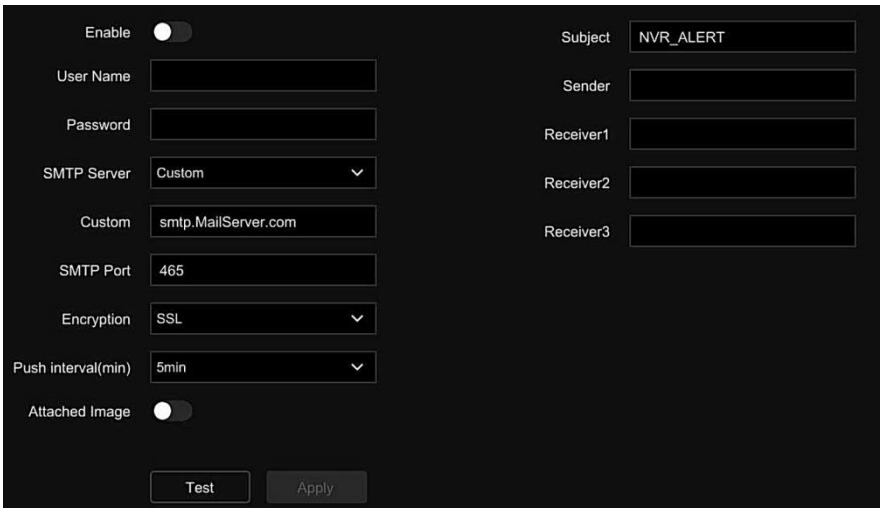
Status: Display device P2P online status.

Android &IOS: P2P client download link.

SN: Displays the serial number of the device P2P. This serial number is unique.

9.2.3 E-mail

Configurationure email so the NVR can send alarm information to specified users through email when an alarm occurs.



NOTE

Select the Send Email checkbox on the Trigger Actions page before you start Configuration.

1. Go to Menu > Configuration > System > Network > E-mail

2. Enable e-mail alarm notifications, Configurationure SMTP server, SMTP port, user name, password, sender, subject, message interval, and select encryption type, attach file and other parameters.

SMTP Server: Select the SMTP sever type.

SMTP Port: Please input corresponding port value here.

User Name: Please input the user name to login the sender email box.

Password: Please input the corresponding password here.

Sender: Please input sender email box here.

Recipient 1/2/3: Recipient e-mail address 1/2/3.

Subject: Please input email subject here. System support English character and Arabic number, default "XNVR_ALERT ".

Encryption: Select the Mailbox server encryption, including NONE, SSL, TLS, and default "SSL".

Attach File: Turn on/off the email attachment function. After the alarm is turned on, the system can send snap shots when the alarm is sent.

Test: Test email sending and receiving functions are normal. In the correct Configuration, the receiving email will receive a test email. When the test fails, check the parameters or network status.

3. Click "Test" and the message "Success. Check the inbox." is displayed. Then the mail Configuration is successful. If the message "E-mail can’t be delivered!" is displayed, the mail Configuration fails.

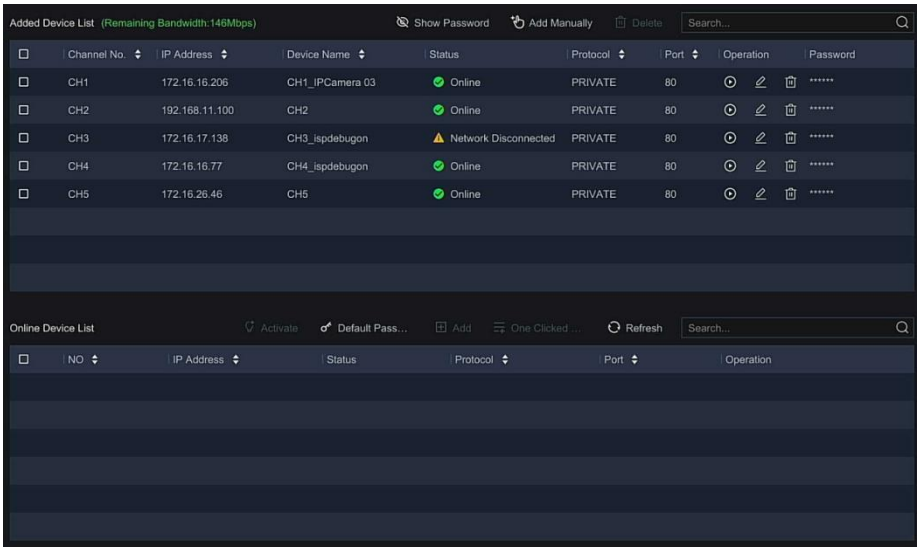
4. After the email is sent successfully, click "Apply" to save the email Configuration.

9.3 Camera

In this section, you are able to manage the camera connection, OSD, image, privacy mask, and more.

9.3.1 Camera

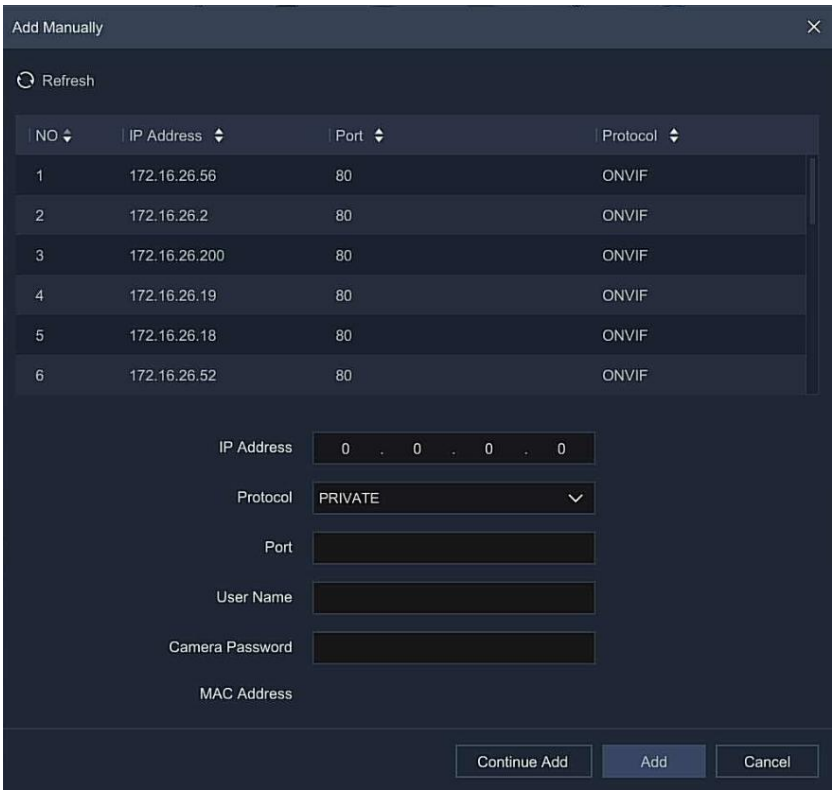
You're able to add and delete IP cameras in this menu. If your NVR comes with PoE ports, you're able to check the PoE power consumption here.



Add IPC

The system automatically searches for IP cameras and lists the discovered. Click Refresh, the system refreshes the list and IPC status. Choose a way to add IPCs.

- Option 1: Add Manually



1. Click Manually.
2. In the window displayed, enter the IPC's IP address and complete other settings, then click Add. If you want to

Add more , click Continue Add .

- Option 2: Search and Add

  1. Click Search, device will search all IP cameras in the LAN and display the search results.
  2. Choose the device you want to add, click "Add".

- Option 3: One Clicked Add

  1. Click Search, device will search all IP cameras in the LAN and display the search results.
  2. Choose the device you want to add, click "One Clicked Add".
  3. System will modify the selected IPC's IP address and connect them to NVR.

- Option 4: Connect via Cable

  1. Connect an IP camera to a PoE port or a switching port of the NVR with a network cable. The connected camera will be added to the NVR automatically.
  2. Check the camera status under Configuration > System > Camera > Camera.

NOTE

This option is only applicable to NVRs with PoE ports, and the added camera(Plug-and-Play) cannot be deleted.

- Option 5: Add From the Preview Window

  1. In the preview page, click  in a window to go to the Add IP Camera page.
  2. Select the desired IP camera and then click OK.

- Option 6: Add From Another Network

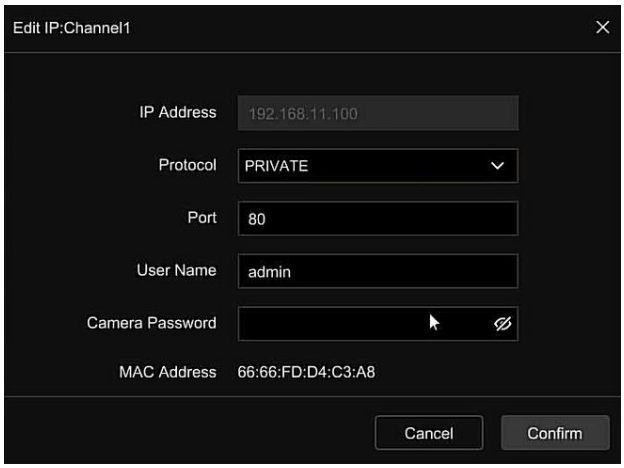
Use this option when the NVR and the IP camera are connected to different router. Make sure the NVR can access the camera via the camera's public IP address and mapped port number.

NOTE

Note: First you need to enable port mapping under Setup > Port > Port Mapping on the IP camera's Web interface.

Edit IP Camera

Select the target camera and click Edit the settings as needed, and then click Confirm.



NOTE

Note: To change the IP camera connected to the channel, you can edit the IP channel related parameters (except IP address), or directly click another camera in the list above.

Delete IP Camera

You can delete IP camera(s) one by one or in batches.

- Select a camera to be deleted, click , and click OK in the pop-up window.
- Select cameras to be deleted, click Delete, and click OK in the pop-up window.

NOTE

Note: Cameras corresponding to PoE ports or switching ports cannot be deleted.

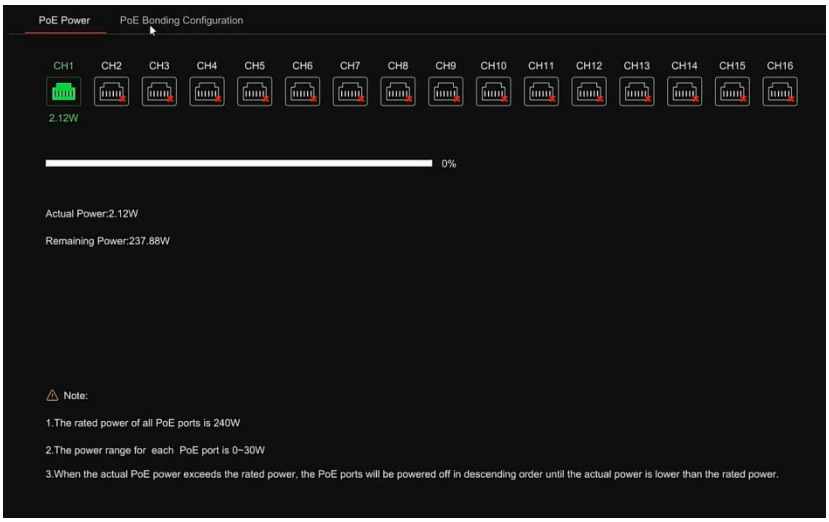
Default Password

- **Onvif Default Password：** To Configurationure the default user name and password of Onvif connection. Default password is "admin". Please note, if the user name and password of the camera you added is not same with the default values, you may need to input the user name and password each time after the NVR restarting.
- **IPC Activation Password：**
  - The IPC Activation Password is used to activate IPCs through the private protocol.
  - If an IPC Activation Password is set, the NVR uses this password to activate the IPC.
  - If no IPC Activation Password is set, the NVR uses the NVR administrator password by default to activate the IPC.

9.3.2 PoE

PoE Power

In this page, you will find the real-time power consumption of each PoE port, total actual power & rated power.



PoE Binding Configuration

- PoE Binding

You can disable a PoE channel to additionally increase a normal IP channel resource.

Go to Configuration → Camera → PoE → PoE Binding Configuration , and set the PoE channel as your desire.

- Long Distance

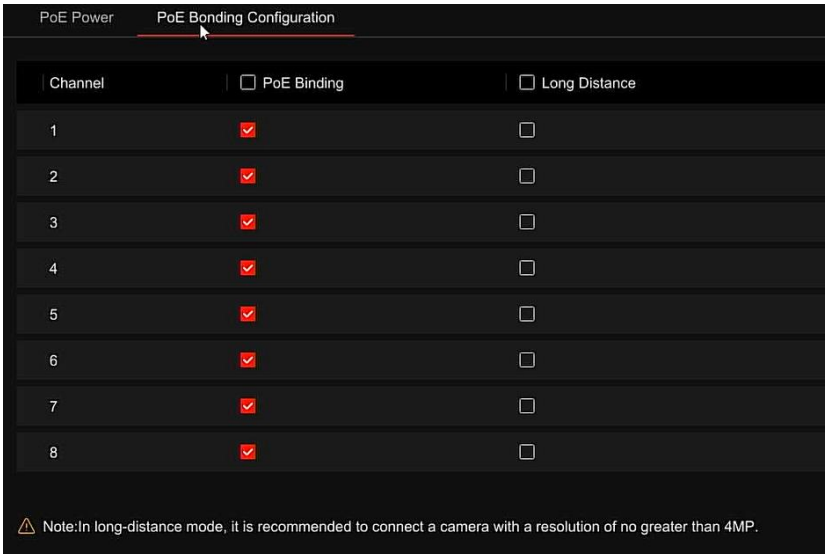
Enable or disable long network cable mode by selecting Long Distance or Short Distance.

Long Distance

Long-distance (100 to 250 meters) network transmissions via PoE interface.

Short Distance

Short-distance (< 100 meters) network transmission via PoE interface.



NOTE

The PoE ports are enabled with the short distance mode by default.

- The bandwidth of IP camera connected to the PoE via long network cable (100 to 250 meters) cannot exceed 4 Mbps.

● The allowed max. long network cable may be less than 250 meters depending on different IP camera models and cable materials.

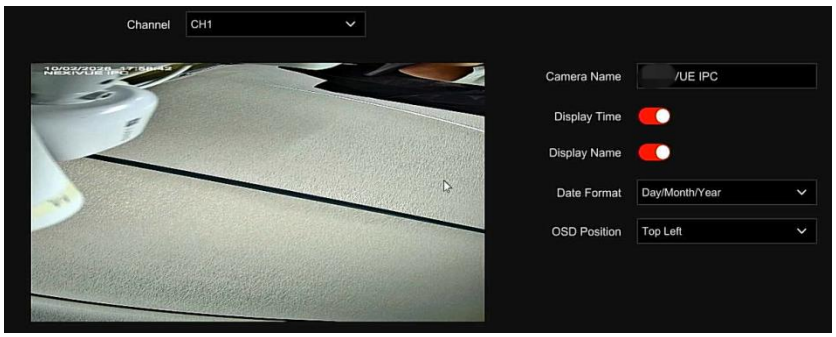
● When the transmission distance reaches 100 to 250 meters, you must use the CAT5e or CAT6 network cable to connect with the PoE interface.

9.3.3 OSD Settings

Configurationure OSD (On-Screen Display) settings for the camera, including date format, camera name, etc.

Steps

1. Go to Configuration → Camera → OSD Settings.
2. Select a camera.



3. Set parameters as your desire.
4. 4. Drag the text frames on the preview window to adjust the OSD position.
5. 5. Click Apply.

9.3.4 Image Settings

Adjust image settings to get optimal images.

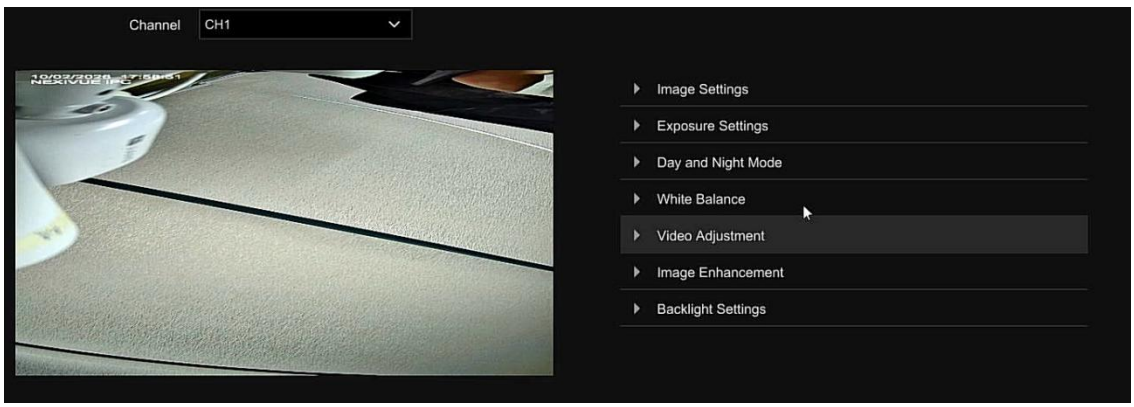


Image Settings

Customize the image parameters including the brightness, contrast, and saturation for the live view and recording effect.

Exposure Settings

Set the camera exposure time. A larger exposure value results in a brighter image.

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

- Auto: In this mode, a proper exposure time is automatically selected in accordance with the Configurationured Time Exposure value.
- Manual: In this mode, the Configurationured Time Exposure value is used.

Day&Night Mode

The camera can be set to day, night, or auto switch mode according to the surrounding illumination conditions.

Day&Night Switch

- Auto: The camera automatically switches between night mode and day mode according to the ambient lighting condition to output optimum images.
- Day：Day Mode will instruct the camera to operate in color mode only. In low light conditions, the color will be quite faint. Image clarity will also be reduced in low-light conditions.
- Night：Night Mode will instruct the camera to operate in black & white mode only.

Sensitivity: Light threshold for switching between day mode and night mode. A higher sensitivity level means that the camera is more sensitive to the change of light and is therefore more easily to switch between day mode and night mode.

White Balance

Used to set white balance. There are two mode options.

- Auto: In this mode, the white light is adjusted by the default parameters.
- Manual: In this mode, you can manually set the synthetic gained white light of red, green, and blue.

Video Adjust

- Mirror:Turn the image upside down and/or horizontally reverse the orientation of the image.
- Corridor:This allows you to make better use of the camera's vertical angle for an optimized view of long, narrow scenes. Enable this if your camera is viewing a narrow corridor.

Image Enhancement

- WDR: Images produced by wide dynamic range (WDR) function sensors can have proper exposure on both the darker and lighter parts of the image, giving more detail across a wider dynamic range between the shadows and highlights by brightening dark areas and darkening bright areas. If it is enabled, click and hold the slider left or right to change the WDR Level.
- Digital Noise Reduction: Used to reduce the noise in the image so as to make the image clearer. There are three mode options.
- Defog Mode: Used to set defog mode to optimize the display effect in foggy days.

- Back Light: Back Light Compensation (BLC) allows you to choose which areas of your scene should be properly exposed instead of letting the camera choose for you. By enabling BLC, the camera over-exposes the brighter parts of your image in order to properly expose the darker parts. If it is enabled, click and hold the slider left or right to change the BLC Level.

Reset: Click this button to restore the default image parameter setting.

9.3.5 Privacy Mask

Privacy Mask allows you to block specific areas of the video image to protect sensitive information. For example, it can be used to cover an ATM keypad or other confidential zones.



Steps:

1. Go to Configuration → Camera → Privacy Mask .
2. Select Camera.
3. Drag to draw an area on the window. The frames of the areas will be marked with different colors.

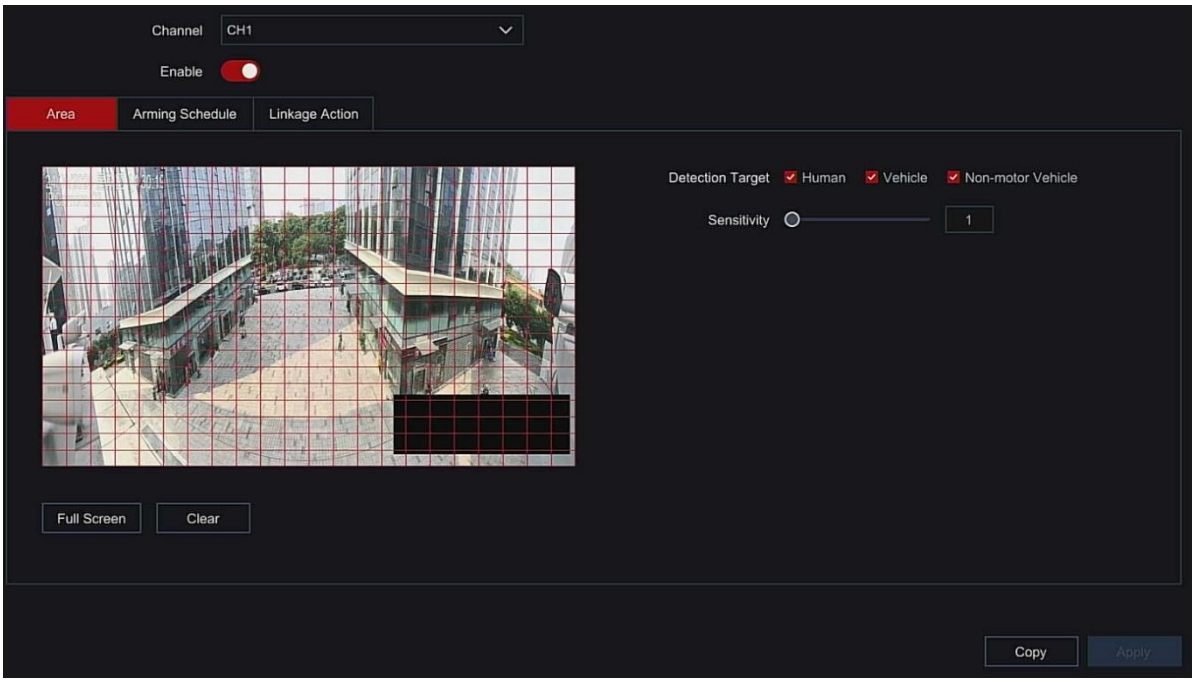
NOTE: Up to 3 privacy mask areas can be Configurationured. The size of each area can be adjusted.

9.4 Event

9.4.1 Normal Event

9.4.1.1 Motion Detection

Motion detection enables the video recorder to detect the moving objects in the monitored area and trigger alarms.



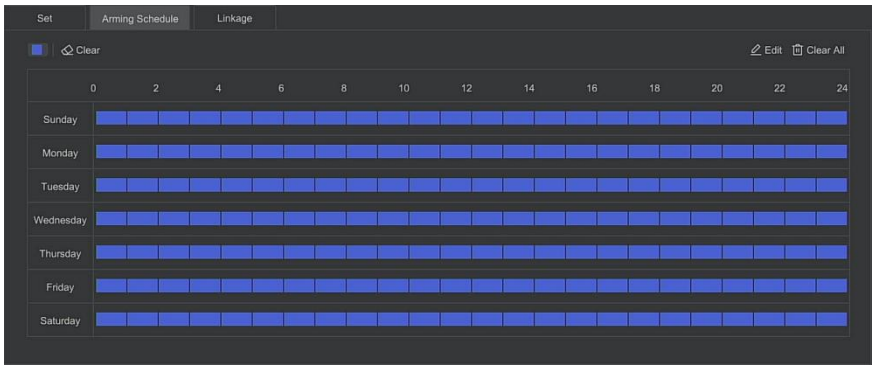
Steps

1. Go to Configuration → Event →Normal Event → Motion Detection
2. Select a camera.
3. Turn on Enable.
4. Set the motion detection area.
   - Click Draw Area or Clear to draw or clear areas. The first area is set as full screen by default.
   - Click Full Screen to set the motion detection area as full screen. You can drag on the preview window to draw motion detection areas.
5. Adjust Sensitivity. Sensitivity allows you to calibrate how easily movement could trigger the alarm. A higher value results in the more readily to triggers motion detection.
6. Optional: Set Target Detection as Human ,Vehicle , Non-Motor Vehicle to discard alarms which are not triggered by human body or vehicle. Only certain camera models support this function.
7. Set the arming schedule. Refer to Configurationure Arming Schedule for details.
8. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.
9. Click Apply.

Configurationure Arming Schedule

Click "Arming Schedule" to enter Arming Schedule interface. Draw the arming time in the drawing area, or click "Edit

Time" to set the day of the week and time period 1&8.

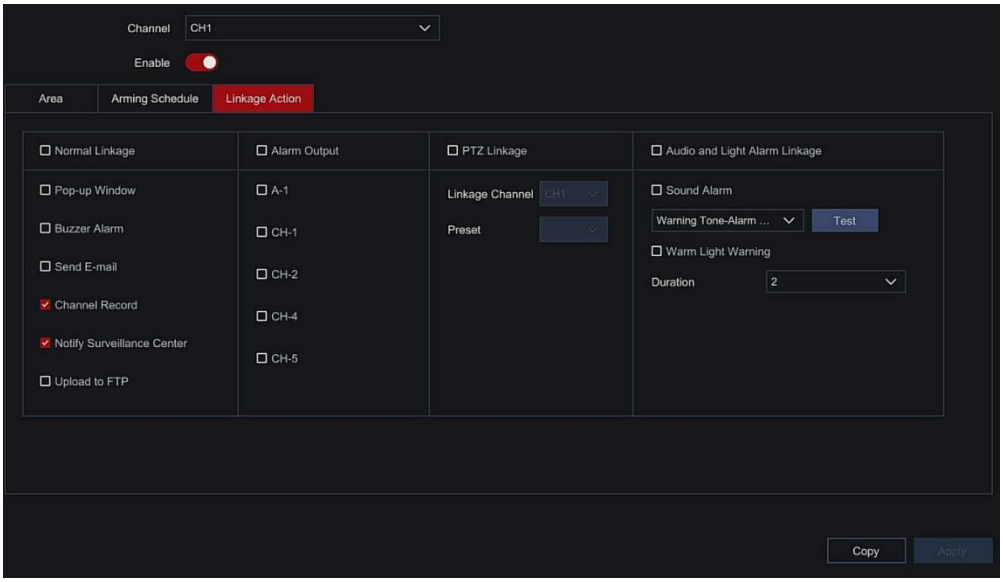


Steps

1. Select Arming Schedule.
2. Choose one day of a week and set the time segment. Up to eight time periods can be set within each day.
3. Click Apply.

Configurationure Alarm Linkage Action

Alarm linkage actions will be activated when an alarm or exception occurs.



Steps

1. Click Linkage Action.
2. Set normal linkage actions, alarm output linkage actions, trigger channel, etc.

Alarm Pop-up Window

The local monitor will pop up the alarming channel image when an alarm is triggered. It requires to select the alarming channel(s) in Trigger Channel.

Buzzer Alarm

It will trigger a buzzer beep when an alarm is triggered.

Notify Surveillance Center

The device will send an exception or alarm signal to the remote client software when an alarm is triggered.

Send Email

It will send an email with alarm information when an alarm is triggered.

Alarm Output

Select the alarm output port, it is connected to the alarm device, within the set alarm time range, when the device motion detection alarm, it will trigger an external alarm device to alarm.

PTZ Linkage

It will trigger PTZ actions (e.g., call preset/patrol/pattern) when smart events occur.

Audio and Light Alarm Linkage

For certain network cameras, you can set the alarm linkage action as audio alarm or light alarm.

NOTE

Ensure your camera supports audio and light alarm linkage.

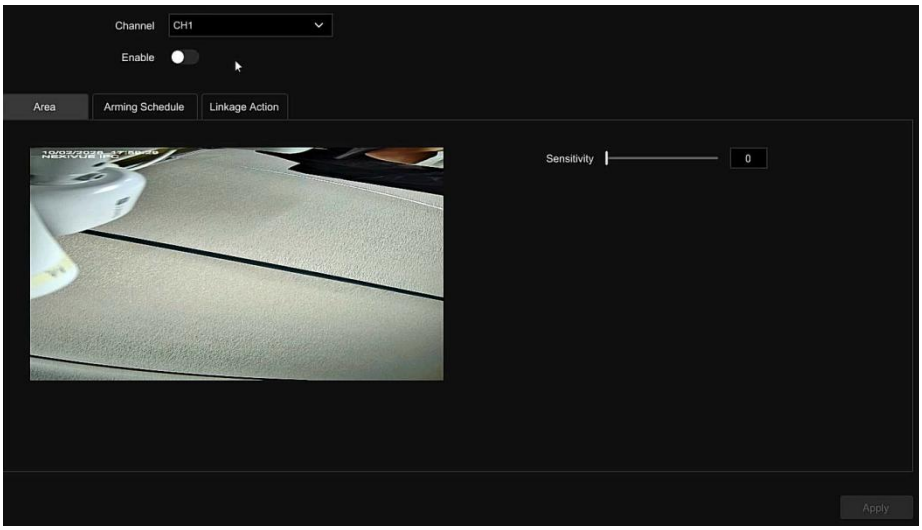
● Ensure the audio output and volume are properly Configurationured.

● If you require to set audio and light parameters, please log into the network camera via web browser to Configurationure them.

3. Click **Apply**.

9.4.1.2 Video Tampering

Trigger alarm when the lens is covered and take alarm response actions.



Steps

1. Go to Configuration → Event → Normal Event → Video Tampering .
2. Set Camera.
3. Turn on Enable.
4. Adjust Sensitivity as your desire. The higher the value is, the more easily the video tampering
5. can be triggered.
6. Set the arming schedule. Refer to **Configurationure Arming Schedule** for details.

7. Set the linkage actions. Refer to **Configurationure Alarm Linkage Action** for details.

8. Click Apply.

9.4.1.3 Video Loss

Detect video loss of a camera and take alarm response actions.



Steps

1. Go to Configuration → Event → Normal Event → Video Loss .

2. Set Camera.

3. Turn on Enable.

4. Set the arming schedule. Refer to Configurationure Arming Schedule for details.

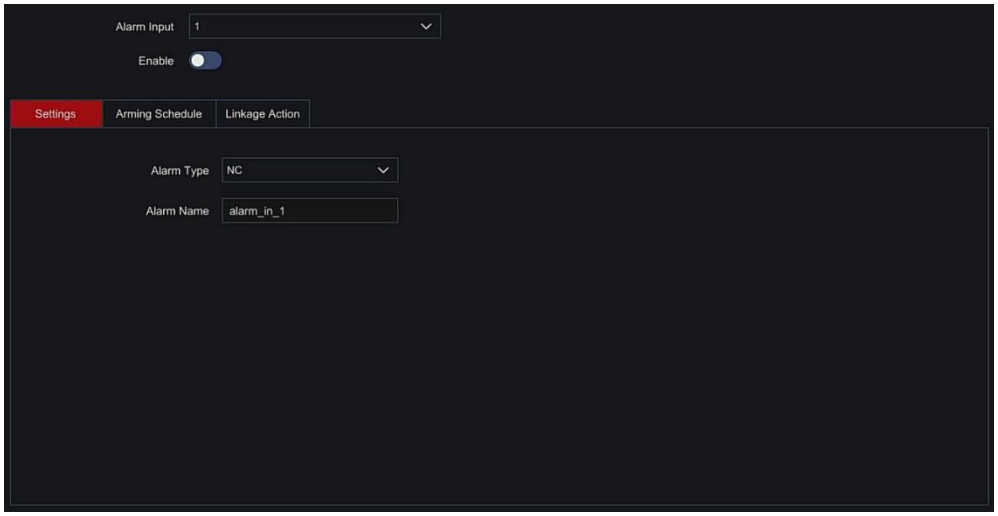
5. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.

6. Click Apply.

9.4.1.4 Alarm Input

Set linkage actions for an external sensor alarm. Local alarm input is triggered by the external device that connected to the

video recorder's terminal block.



Steps

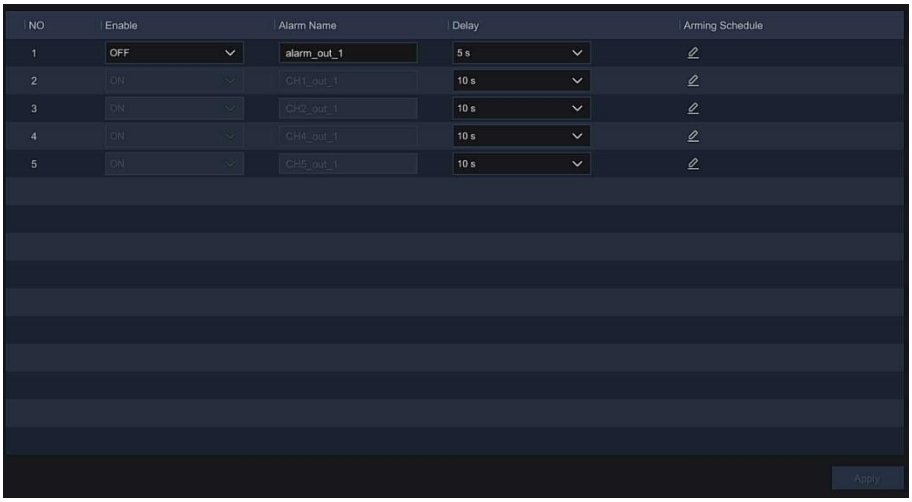
1. Go to Configuration → Event → Normal Event → Alarm Input .
2. Select a alarm input channel, click "Enable" ,Select alarm type and set alarm name.
3. Select the number, name and type of the alarm input, and enable it.
4. Set the arming schedule. Refer to Configurationure Arming Schedule for details.
5. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.
6. Click Apply.

9.4.1.5 Alarm Output

Trigger an alarm output when an alarm is triggered.

Steps

1. Go to Configuration → Event → Normal Event → Alarm Output .



2. Click of a desired alarm output.
3. Customize Alarm Name.
4. Select Dwell Time.

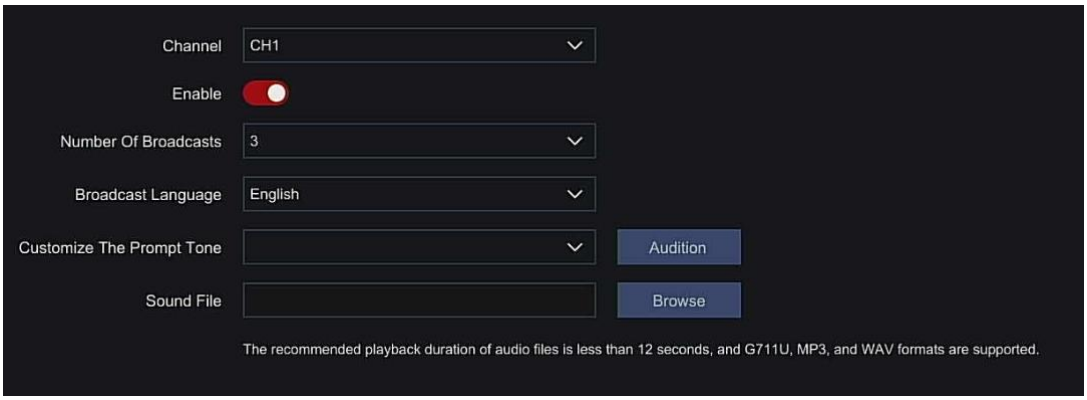
5. Set the arming schedule. Refer to Configurationure Arming Schedule for details.

6. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.

7. Click Apply.

9.4.1.6 Sound Alarm

For devices that support audio output, you can configure sound alarm parameters. When an event is detected, the device's audio output or speaker will sound an alarm.



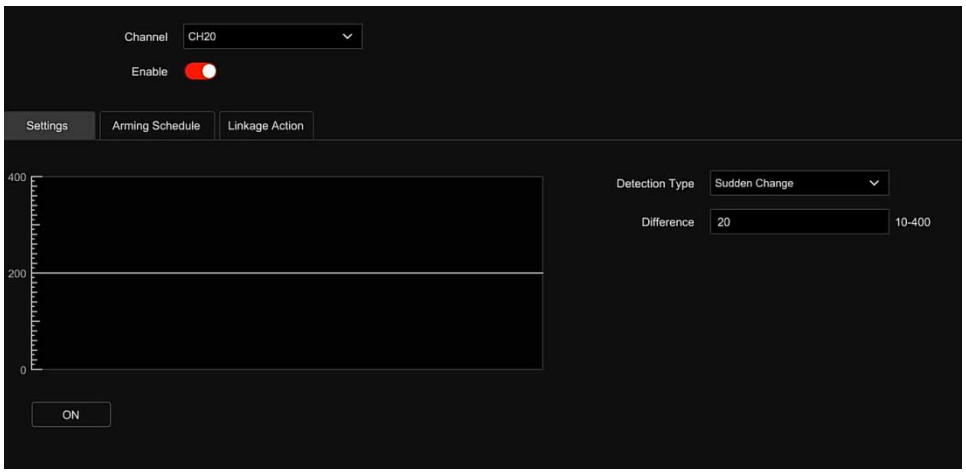
- Number of broadcasts: The warning sound or prompt sound will be broadcast cyclically according to the set times.
- Broadcast language: Supports English and Chinese languages for prompt sound broadcast.
- Customize the prompt tone: Supports users to upload custom files as required according to actual scene requirements to realize custom prompt sound broadcast.

9.4.1.7 Audio Detection

Audio detection detects input audio signals. An alarm is reported when an exception is detected.

Steps

1. Go to Configuration → Event → Normal Event → Audio Detection.



2. Set Camera.

3. Turn on Enable.

4. Select an audio detection type from the drop-down list.

- Sudden Rise: An alarm occurs when the rise of volume exceeds the set value.
- Sudden Fall: An alarm occurs when the fall of volume exceeds the set value.
- Sudden Change: An alarm occurs when the rise or fall of volume exceeds the set value.
- Threshold: An alarm occurs when the volume exceeds the set threshold.

5. Set the Difference,The difference between two sound volumes. An alarm occurs when the rise or fall of volume exceeds the difference (range: 10-400). This item is applicable when the detection type is Sudden Rise, Sudden Fall, or Sudden Change.

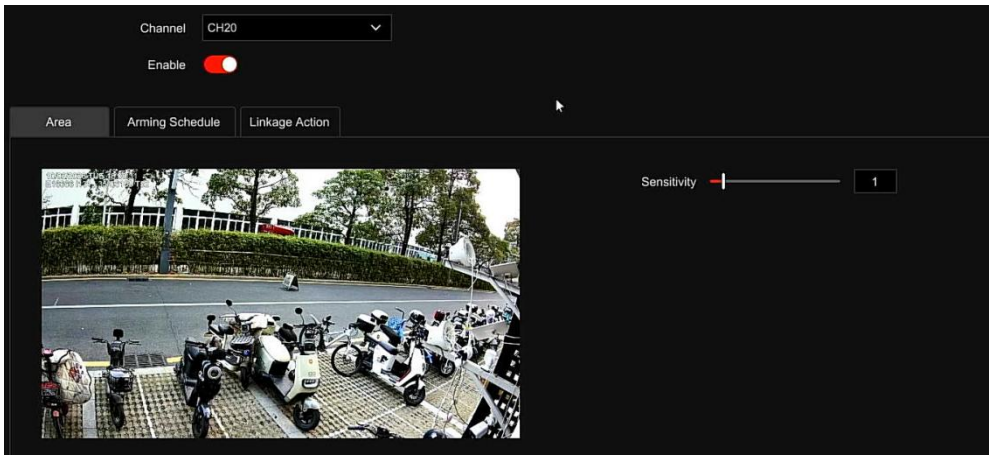
6. Set the arming schedule. Refer to Configurationure Arming Schedule for details.

7. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.

8. Click Apply.

9.4.1.8 Scene Change

Scene change detection detects the change of surveillance scene caused by external factors such as intentional camera movement.



Steps

1. Go to Configuration → Event → Normal Event → Scene Change.

2. Set Camera.

3. Turn on Enable.

4. Set the detection area.

5. Set the sensitivity by dragging the slider. The higher the sensitivity, the more likely scene change behaviors will be detected, but the false alarm rate will increase.

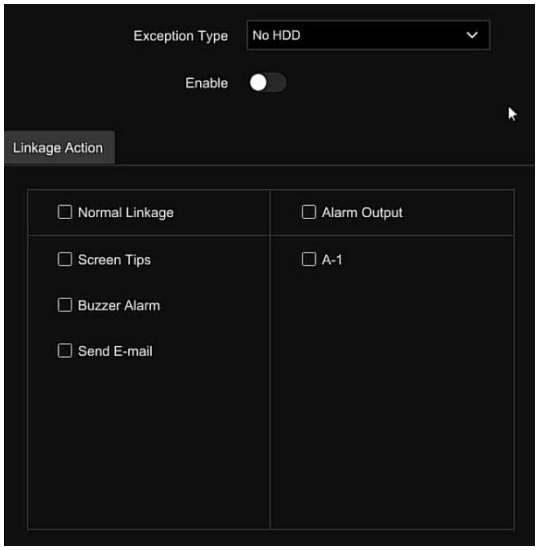
6. Set the arming schedule. Refer to Configurationure Arming Schedule for details.

7. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.

8. Click Apply.

9.4.1.9 Exception

The system allows to set the abnormal events that you want the NVR to inform you.



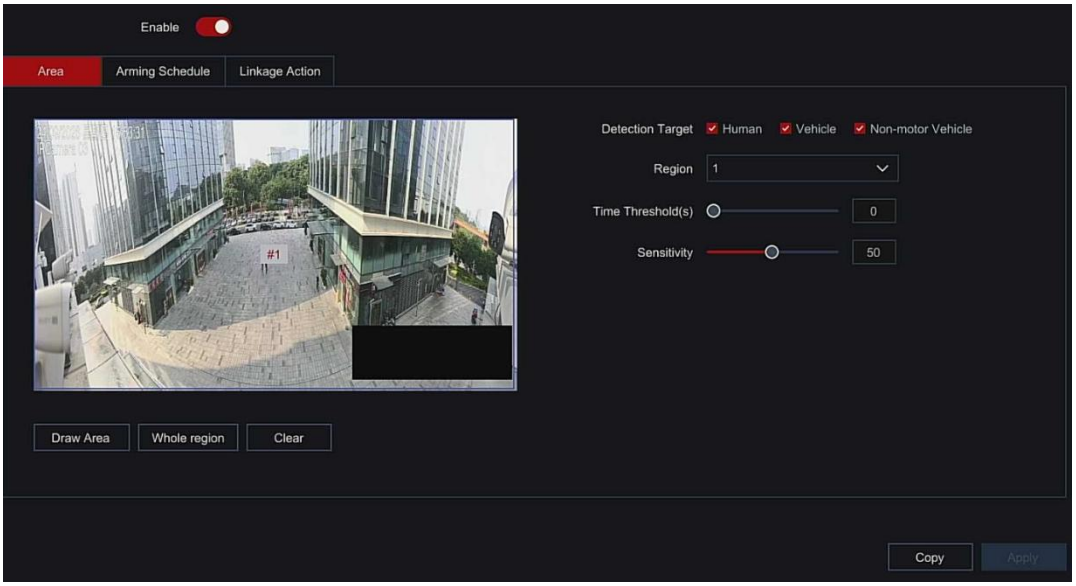
Steps

1. Go to Configuration → Event → Normal Event → Exception.
2. Optional: Configurationure event hint. When the set events occur, you will receive hints in alarm center.
   1) Turn on Enable.
   2) Click at the upper-right corner of local menu to enter alarm center.
   3) Select an event type.
   4) Click Set to select events to hint.
3. Set Exception Type
4. Select Normal Linkage and Trigger Alarm Output type for exception linkage actions.
5. Click Apply.

9.4.2 Smart Event

9.4.2.1 Intrusion

Intrusion detection detects objects entering a user-specified area and staying for a preset time. The NVR takes snapshots and reports an alarm when the detection rule is triggered.



Steps:

1. Go to Configuration → Event → Smart Event → Intrusion .
2. Set Camera.
3. Turn on Enable.
4. Set the detection rules and detection areas.
   1) Set Arming Area. Up to 4 arming areas are selectable.
   2) Adjust Time Threshold and Sensitivity.

      Time Threshold : Range [1s-10s], the threshold for the time of the object loitering in the region. When the duration of the object in the defined detection area is longer than the set time, the alarm will be triggered.

      Sensitivity :The size of the object that can trigger the alarm. The higher the value is, the more easily the detection alarm will be triggered. Its range is [1-100].
   3) Optional: Set Target Detection as Human , Vehicle or Non-motor Vehicle to discard alarms which are not triggered by Human , Vehicle or Non-motor Vehicle.
   4) Click Draw Area and draw a quadrilateral in the preview window by specifying four vertexes of the detection region.
5. Set the arming schedule. Refer to Configurationure Arming Schedule for details.
6. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.
7. Click Apply.

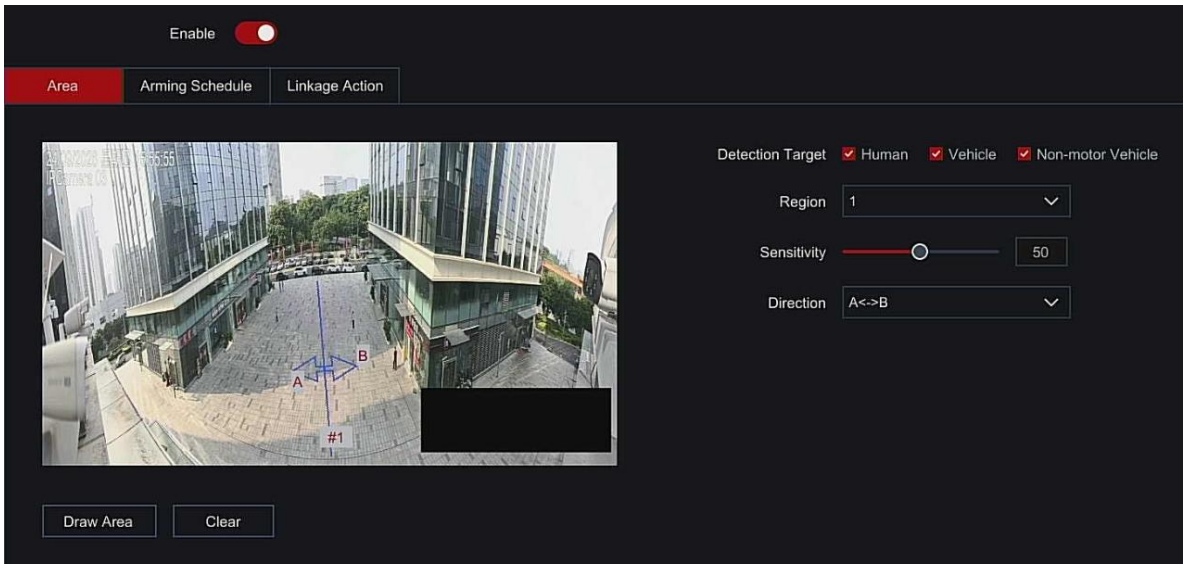
NOTE

This function is only available for certain models.

9.4.2.2 Line Crossing

Line crossing detection detects people, vehicles crossing a set virtual line. The detection direction can be set as

bidirectional, from left to right or from right to left.



Steps:

1. Go to Configuration → Event → Smart Event → Line Crossing .
2. Set Camera.
3. Turn on Enable.
4. Set the detection rules and detection areas.
   1) Set Arming Area. Up to 4 arming areas are selectable.
   2) Set Direction as A<->B, A->B, or A<-B.

   A<->B : An object crossing a Configurationured line in both directions can be detected and trigger alarms.

   A->B : Only an object crossing the Configurationured line from the A side to the B side can be detected.

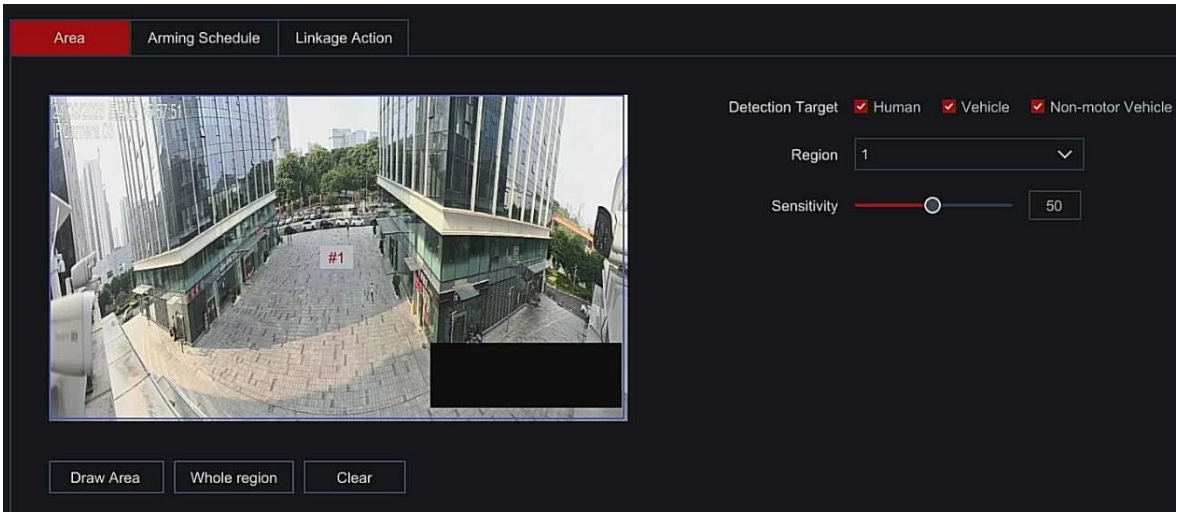
   B->A : Only an object crossing the Configurationured line from the B side to the A side can be detected.
   3) Optional: Set Target Detection as Human , Vehicle or Non-motor Vehicle to discard alarms which are not triggered by Human , Vehicle or Non-motor Vehicle.
   4) Click Draw Area and draw a quadrilateral in the preview window by specifying four vertexes of the detection region.
5. Set the arming schedule. Refer to Configurationure Arming Schedule for details.
6. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.
7. Click Apply.

NOTE

This function is only available for certain models.

9.4.2.3 Region Entrance

Region Entrance detection detects objects entering a user-specified area. The NVR takes snapshots and reports an alarm when the detection rule is triggered.



Steps:

1. Go to Configuration → Event → Smart Event → Region Entrance .
2. Set Camera.
3. Turn on Enable.
4. Set the detection rules and detection areas.
   1) Set Arming Area. Up to 4 arming areas are selectable.
   2) Adjust Sensitivity.
   3) **Sensitivity** :The size of the object that can trigger the alarm. The higher the value is, the more easily the detection alarm will be triggered. Its range is [1-100].
   4) Optional: Set Target Detection as Human , Vehicle or Non-motor Vehicle to discard alarms which are not triggered by Human , Vehicle or Non-motor Vehicle.
   5) Click Draw Area and draw a quadrilateral in the preview window by specifying four vertexes of the detection region.
5. Set the arming schedule. Refer to Configurationure Arming Schedule for details.
6. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.
7. Click Apply.

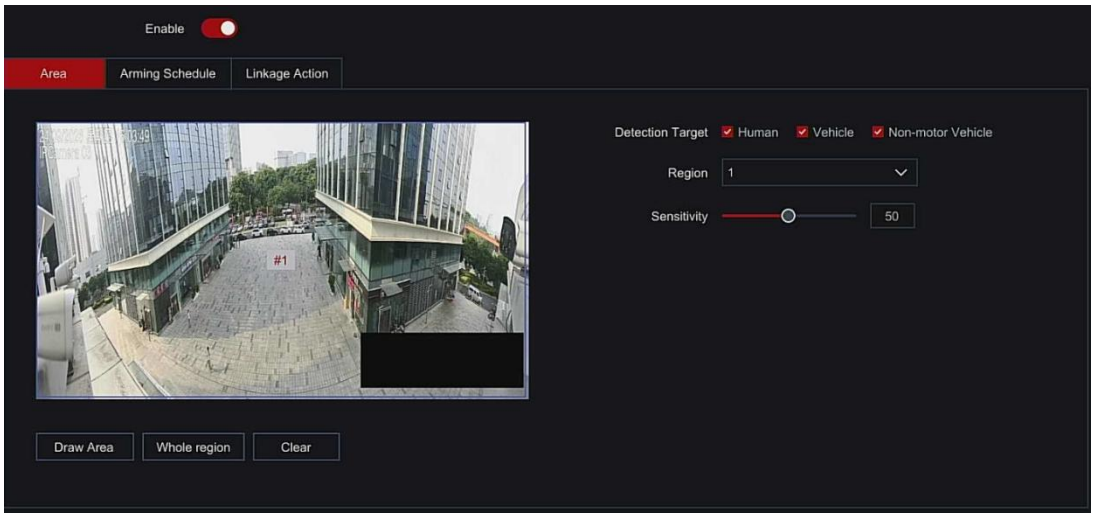
NOTE

This function is only available for certain models.

9.4.2.4 Region Exiting

Region exiting detection function detects people, vehicles or other objects which exit from a pre defined virtual region,

and some certain actions can be taken when the alarm is triggered.



Steps:

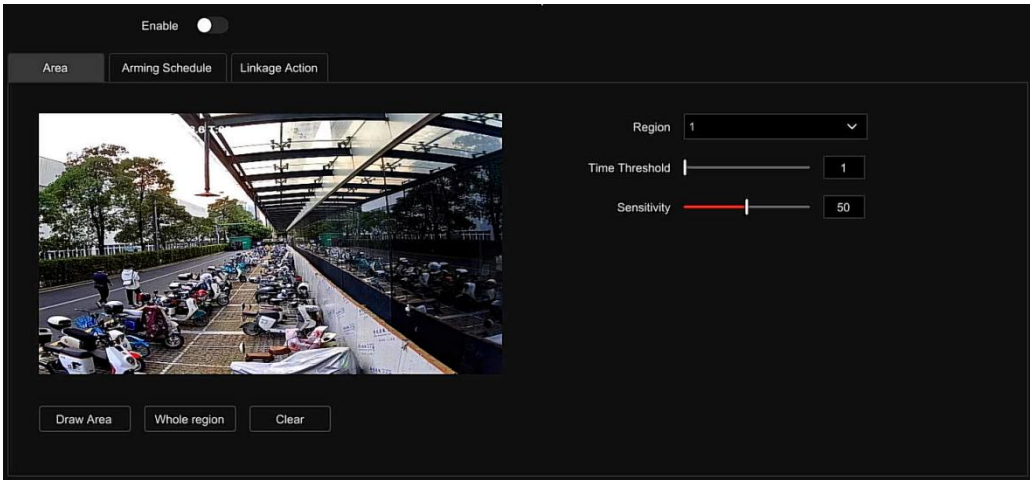
1. Go to Configuration → Event → Smart Event → Region Exiting .
2. Set Camera.
3. Turn on Enable.
4. Set the detection rules and detection areas.
   6) Set Arming Area. Up to 4 arming areas are selectable.
   7) Adjust Sensitivity.
   8) **Sensitivity** :The size of the object that can trigger the alarm. The higher the value is, the more easily the detection alarm will be triggered. Its range is [1-100].
   9) Optional: Set Target Detection as Human , Vehicle or Non-motor Vehicle to discard alarms which are not triggered by Human , Vehicle or Non-motor Vehicle.
   10) Click Draw Area and draw a quadrilateral in the preview window by specifying four vertexes of the detection region.
5. Set the arming schedule. Refer to Configurationure Arming Schedule for details.
6. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.
7. Click Apply.

NOTE

This function is only available for certain models.

9.4.2.5 Loitering

Loitering detection is used to detect the target staying in the set area for more than the set time threshold, and then linkage alarm according to the judgment result.



Steps:

1. Go to Configuration → Event → Smart Event → Loitering .
2. Set Camera.
3. Turn on Enable.
4. Set the detection rules and detection areas.
   1) Set Arming Area. Up to 4 arming areas are selectable.
   2) Adjust Time threshold.

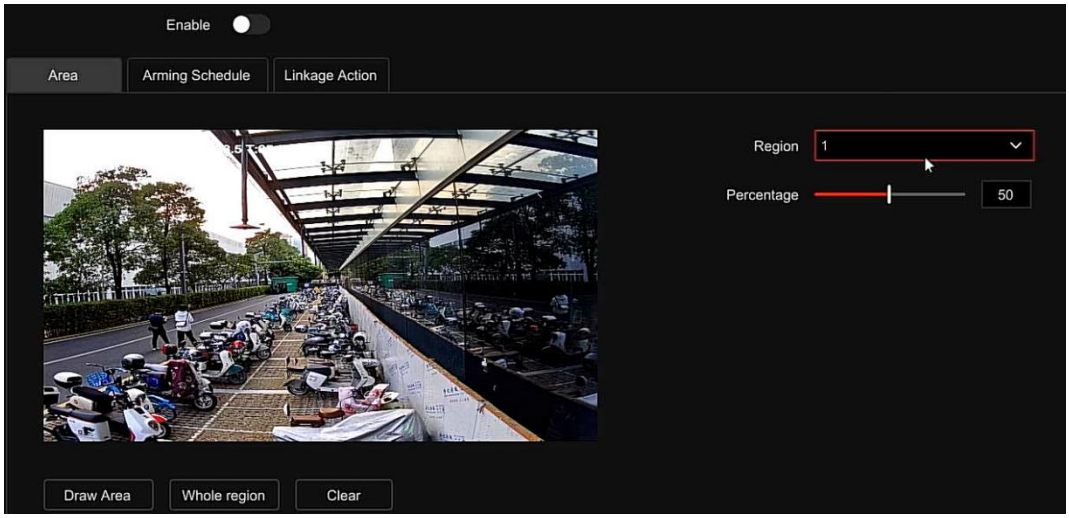
      Time Threshold : Set the time threshold range. the threshold for the time of the object loitering in the region. When the duration of the object in the defined detection area is longer than the set time, the alarm will be triggered.
   3) Click Draw Area and draw a quadrilateral in the preview window by specifying four vertexes of the detection region.
5. Set the arming schedule. Refer to Configurationure Arming Schedule for details.
6. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.
7. Click Apply.

NOTE

This function is only available for certain models.

9.4.2.6 People Gathering

People gathering detection is used to detect the density of people in the set area exceeds the set threshold value, and then linkage alarm according to the judgment result.



Steps:

1. Go to Configuration → Event → Smart Event → People Gathering .
2. Set Camera.
3. Turn on Enable.
4. Set the detection rules and detection areas.
   1) Set Arming Area. Up to 4 arming areas are selectable.
   2) Adjust Percentage.

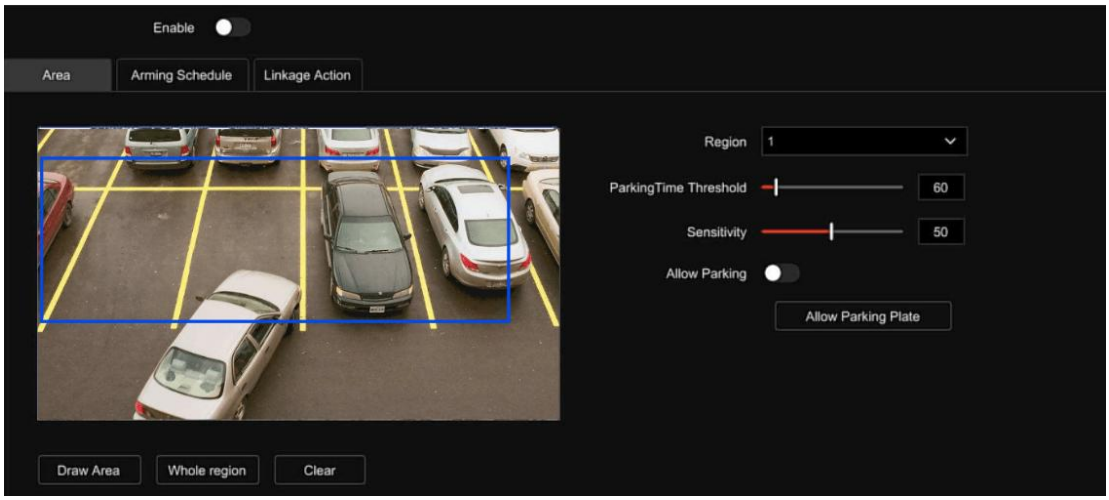
      [Occupancy Ratio] :It indicates the proportion of people in the whole warning area. When the occupancy ratio of people exceeds the set value, the system will generate an alarm. The default ratio is 50%. The larger the value, the more people can be accommodated in the warning area and the less likely to trigger an alarm.
   3) Click Draw Area and draw a quadrilateral in the preview window by specifying four vertexes of the detection region.
5. Set the arming schedule. Refer to Configurationure Arming Schedule for details.
6. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.
7. Click Apply.

NOTE

This function is only available for certain models.

9.4.2.7 Illegal Parking

Illegal parking detection is used to detect whether there is a vehicle entering the set area in the video setting area, and trigger an alarm based on the judgment result.



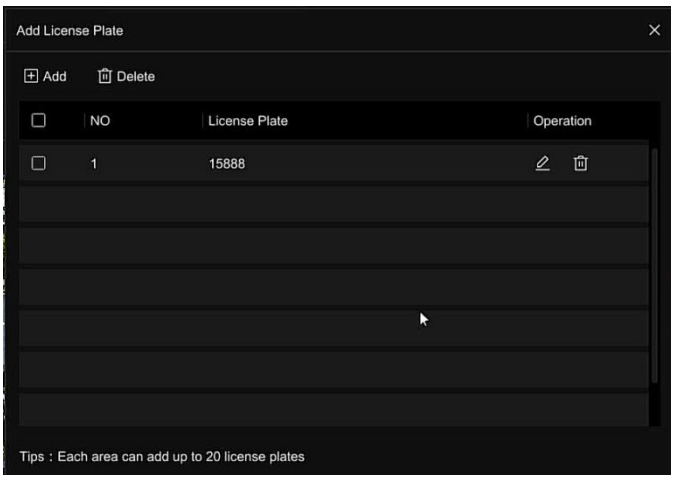
Steps:

1. Go to Configuration → Event → Smart Event → Illegal Parking.
2. Set Camera.
3. Turn on Enable.
4. Set the detection rules and detection areas.
   1) Set Arming Area. Up to 4 arming areas are selectable.
   2) Adjust Time Threshold and Sensitivity.

      Time Threshold : It indicates the time it takes for a vehicle to enter the warning area and remain there for a certain period of time before an alarm is triggered. For example, if it is set to 60s, the alarm will be triggered after the vehicle has been in the warning area for 60 seconds.

      Sensitivity : It is used to set the sensitivity for detecting illegal parking. The default value is 50. Drag the progress bar or enter a value in the value box to change the sensitivity. The greater the sensitivity, the easier it is to trigger an alarm.

      Allow Parking: Sets the license plate numbers allowed to stop. Vehicles not on the list will not be permitted to park.You can Click **Allow Parking Plates** to add the plate.



   3) Click Draw Area and draw a quadrilateral in the preview window by specifying four vertexes of the detection region.

5. Set the arming schedule. Refer to Configurationure Arming Schedule for details.

6. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.

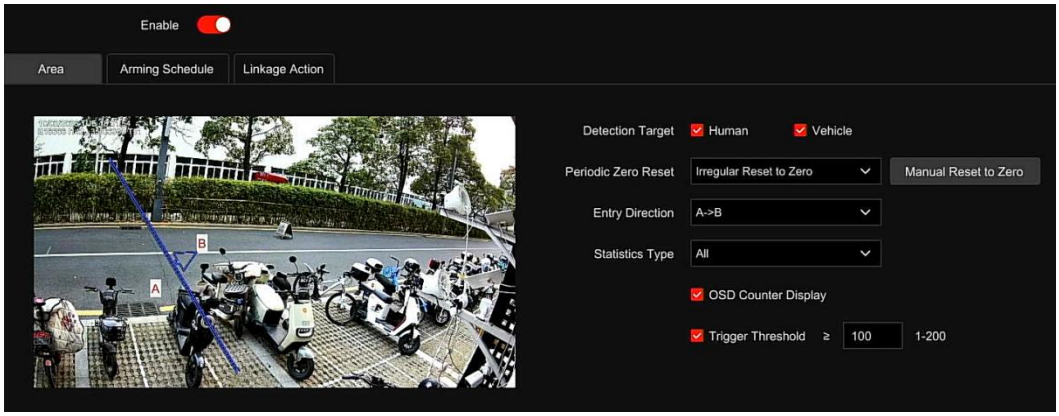
7. Click Apply.

NOTE

This function is only available for certain models.

9.4.2.8 Line Crossing Count

The line crossing count is used to count the number of people or vehicle crossing the line in the warning area according to the set direction, and to determine whether to trigger an alarm based on the set alarm number threshold.



Steps:

1. Go to Configuration → Event → Smart Event →Line Crossing Count.
2. Set Camera.
3. Turn on Enable.
4. Set the detection rules and detection areas.
   1) Set Target Detection as Human or Vehicle to discard alarms which are not triggered by human body or vehicle.
   2) Set Periodic Zero Reset, Supports manual reset and timed reset settings.
   3) Set Direction as A<->B, A->B, or A<-B.

   A<->B : An object crossing a Configurationured line in both directions can be detected and trigger alarms.

   A->B : Only an object crossing the Configurationured line from the A side to the B side can be detected.

   B->A : Only an object crossing the Configurationured line from the B side to the A side can be detected.
   4) Set Statistics Types,Supports total, entry (default), and exit.
   5) [OSD Counter Display] Supports turning on OSD display count.
   6) [Trigger Threshold] supports setting alarm thresholds. If the number exceeds this value, an alarm will be triggered.
5. Set the arming schedule. Refer to Configurationure Arming Schedule for details.
6. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.

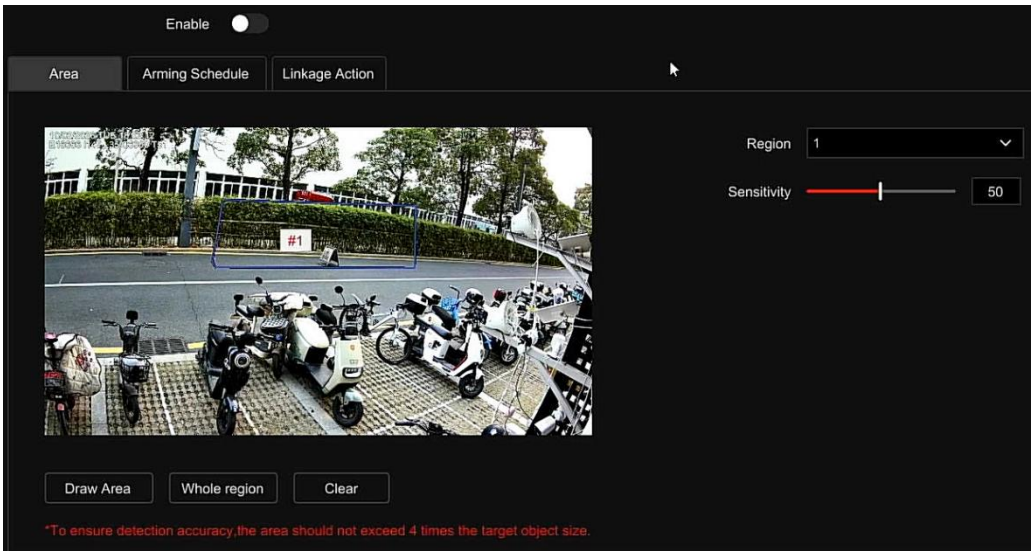
7. Click Apply.

NOTE

This function is only available for certain models.

9.4.2.9 Object Left Behind

Object Left Behind Detection monitors specified areas for left objects. If an object remains beyond the set time threshold, an alarm is triggered, with linked actions based on the result.



Steps:

1. Go to Configuration → Event → Smart Event → Object Left Behind .
2. Set Camera.
3. Turn on Enable.
4. Set the detection rules and detection areas.
   1) Set Arming Area. Up to 4 arming areas are selectable.
   2) Adjust the Sensitivity.

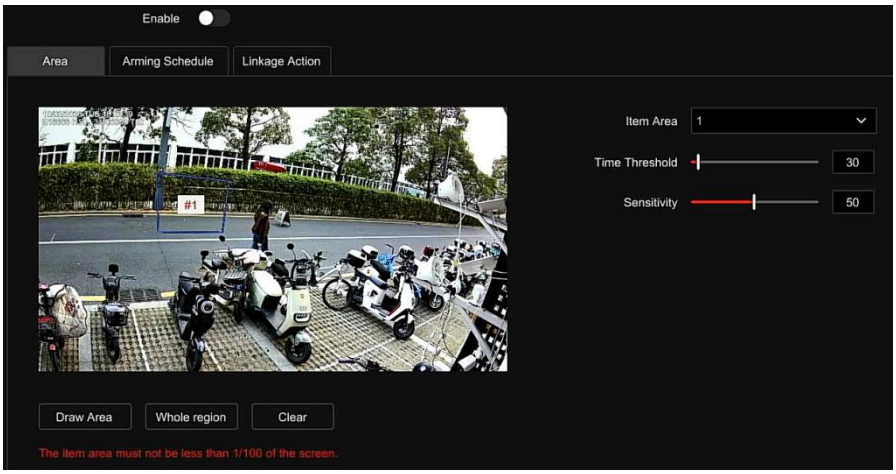
      Sensitivity :The size of the object that can trigger the alarm. The higher the value is, the more easily the detection alarm will be triggered. Its range is [1-100].
   3) Click Draw Area and draw a quadrilateral in the preview window by specifying four vertexes of the detection region.
5. Set the arming schedule. Refer to Configurationure Arming Schedule for details.
6. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.
7. Click Apply.

NOTE

This function is only available for certain models.

9.4.2.10 Object Remove

Object removed detection detects objects removed from a user-specified area for a preset time.



Steps:

1. Go to Configuration → Event → Smart Event → Object Removed.
2. Set Camera.
3. Turn on Enable.
4. Set the detection rules and detection areas.
   1) Set Arming Area. Up to 4 arming areas are selectable.
   2) Adjust the Time Threshold and Sensitivity.

      Time Threshold indicates the required time for an object to be moved within the specified area. A higher value means the object must remain moved longer before triggering an alarm.

      Sensitivity sets the detection sensitivity for object removal, default is 50. Adjust the slider or enter a value directly. Higher sensitivity makes alarms more likely to trigger.
   3) Click Draw Area and draw a quadrilateral in the preview window by specifying four vertexes of the detection region.
5. Set the arming schedule. Refer to Configurationure Arming Schedule for details.
6. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.
7. Click Apply.

NOTE

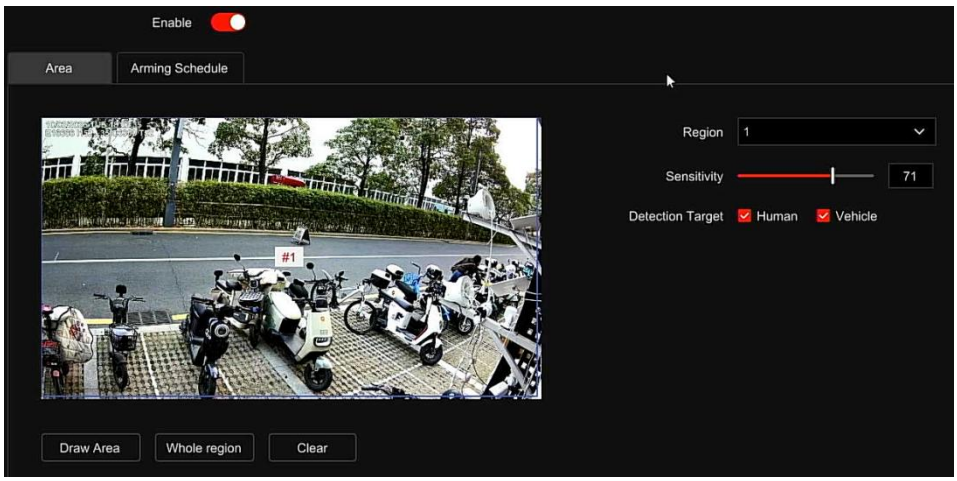
This function is only available for certain models.

9.4.2.11 Heat Map

Heat Map is a video analytics feature that visually displays the areas and frequency of detected motion using a color-

coded heat map overlay. Areas with more activity appear “hotter,” helping users quickly identify where movement occurs most often.

This feature is particularly useful for retail stores to analyze customer movement patterns and better understand consumer behavior. It can also be used in high-traffic environments, such as amusement parks or museums, to evaluate visitor flow and crowd distribution.



Steps:

1. Go to Configuration → Event → Smart Event → Heat Map.
2. Set Camera.
3. Turn on Enable.
4. Set the detection rules and detection areas.
   1) Set Arming Area. Up to 4 arming areas are selectable.
   2) Adjust the Sensitivity.

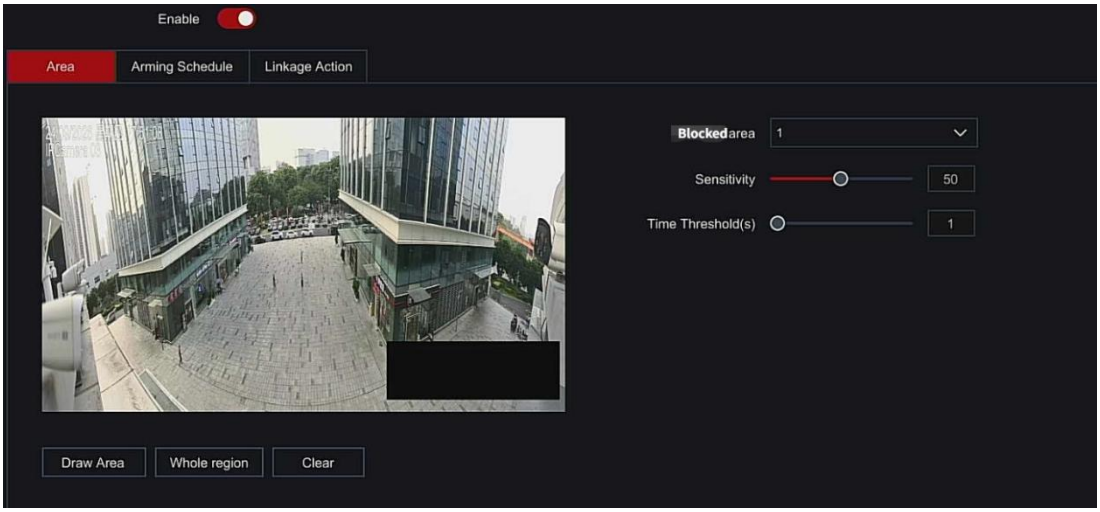
      Sensitivity sets the detection sensitivity for traffic heat. Default is 50. Adjust the slider or enter a value directly. Higher sensitivity increases the likelihood of triggering alerts.
   3) Click Draw Area and draw a quadrilateral in the preview window by specifying four vertexes of the detection region.
5. Set the arming schedule. Refer to Configurationure Arming Schedule for details.
6. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.
7. Click Apply.

NOTE

This function is only available for certain models.

9.4.2.12 Fire Detection

Fire detection is used to detect smoke (smoke or fire) in an area and automatically trigger an alarm.



Steps:

1. Check "Enable" to turn on the smoke detection function.

2. Select "Area Settings": The system supports setting up to 4 shielded areas. These shielded areas will not be used for smoke and fire detection. After selecting a shielded area, you need to make the following settings. Once finished, please click "Apply" below.

3. [Draw Area] Click “Draw Area”, hold down the left mouse button and drag to draw the masked area. You can also drag and move the area position; one-click selection of the entire area is also supported.

[Clear All] Used to clear the areas already drawn on the guard zone.

4. When other alert zones need to be set, repeat Step 3 to complete the setup.

5. Set a time threshold, indicating that the corresponding alarm event will only be triggered after the detected smoke and fire reaches the set time threshold. For example, setting it to 5 seconds means that the alarm will be triggered 5 seconds after smoke and fire are detected.

6. Set the sensitivity. This setting adjusts the sensitivity for detecting smoke and fire; the default value is 50. Drag the progress bar or directly enter a value in the value box to modify the sensitivity. A higher sensitivity makes it easier to trigger the alarm.

6. Set the arming time (for details, please refer to the Motion Detection Arming Time Setting). When setting the arming time, there cannot be any overlap between any two time periods.

7. Set up the linkage method.

8. Click Apply.

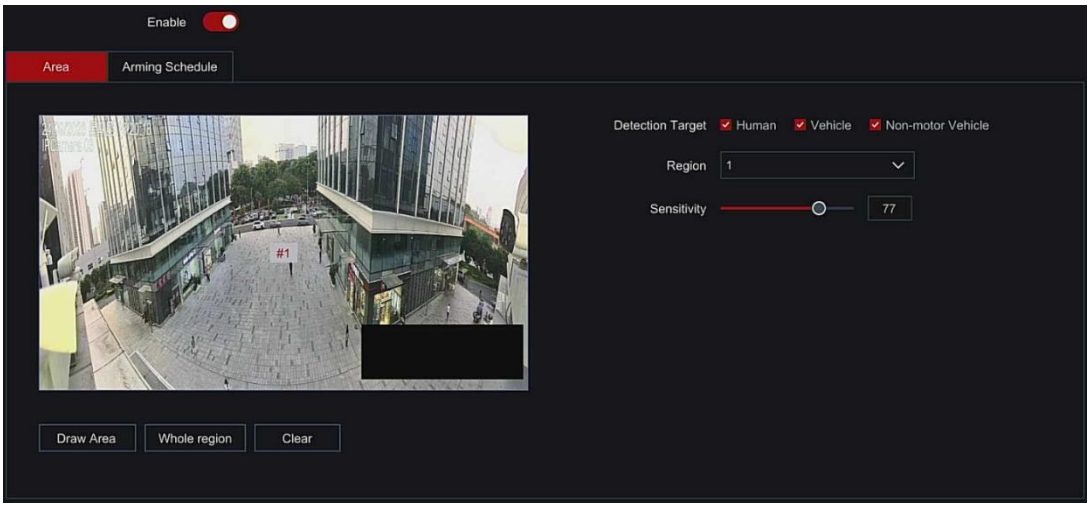
NOTE

This function is only available for certain models.

9.4.2.13 Video Metadata

The system analyzes the real-time video stream to detect person, motor vehicles, and non-motor vehicles. An alarm is

triggered when a target is detected.



Steps:

1. Select **Enable** to enable the video structured analytics function.
2. Select Area Settings. The system supports up to four detection areas. Select a detection area and configure the following settings. After completing the settings, click Apply.
3. Click Draw Area, move the mouse to the preview window, and click the left mouse button to draw a polygon with 4 to 8 vertices. Right-click to finish drawing the polygon, and then click anywhere in the preview window to complete the area setting. You can select all areas with one click, drag the vertices of the polygon to adjust the detection area, and drag the area to change its position.
4. Detection Target : Select the target types to be detected. The device detects the selected target types within the detection area.
5. Sensitivity: Adjusts the detection sensitivity. The default value is 50. Drag the slider or enter a value directly in the value box to adjust the sensitivity. A higher sensitivity makes the device more likely to detect a target.
6. Set the arming time (for details, please refer to the Motion Detection Arming Time Setting). When setting the arming time, there cannot be any overlap between any two time periods.
7. Click Apply.

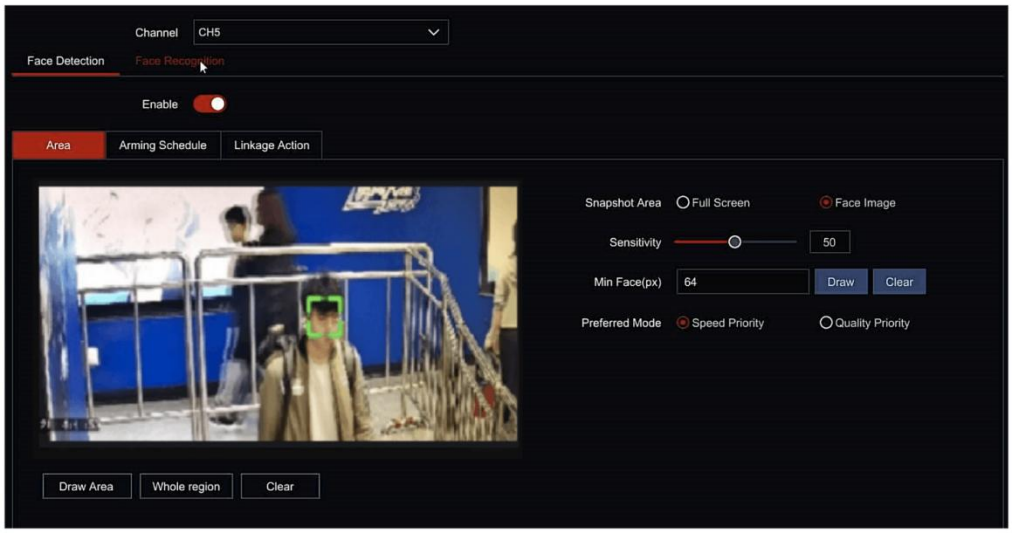
NOTE

This function is only available for certain models.

9.4.3 Face Recognition

9.4.3.1 Face Detection

Face detection is used to detect whether there is a face in the video, and take a snapshot or report a picture according to the settings.



Steps:

1. Go to Configuration → Event → Face Recognition →Face Detection.
2. Set Camera.
3. Turn on Enable.
4. Set the detection rules and detection areas.
   1) Adjust the Sensitivity and Min Face Size.

      Snapshot Area is used to set the snapshot image settings.

      Sensitivity is used to set the detection sensitivity, the default is 50. Drag the progress bar or directly enter a value in the value box to modify the sensitivity. The higher the sensitivity, the higher the success rate of detecting faces. The lower the sensitivity, the harder it is to detect side faces or unclear faces. The specific sensitivity should be confirmed after debugging according to the specific usage scenario.

      Minimum Face is used to set the minimum pixel for detecting faces in the warning area. It can be entered directly or set using the frame on the screen.

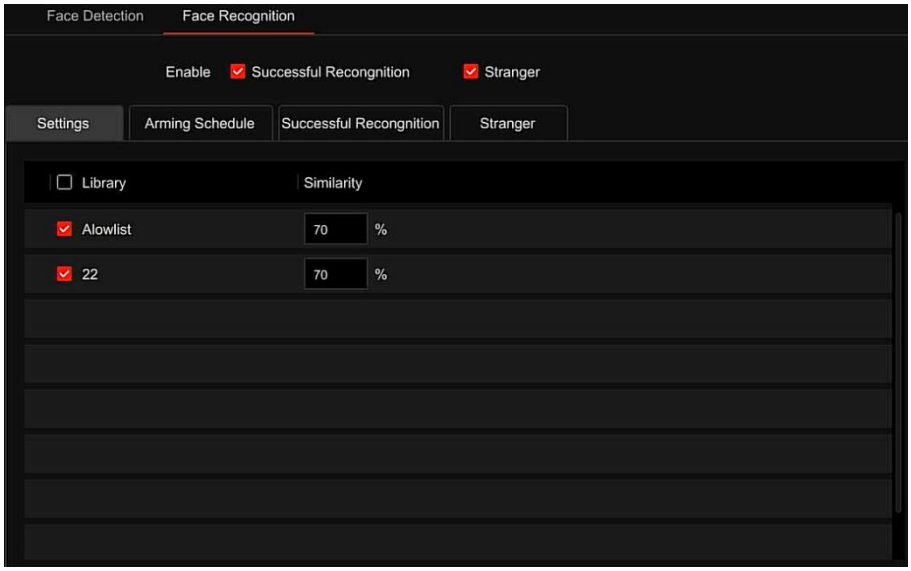
      Preferred Mode is used to configure the preferred mode for face detection (algorithm push mode). The default is “Speed Priority” (prioritizes detection speed). “Quality Priority” is optional (prioritizes face quality).
   2) Click Draw Area and draw a quadrilateral in the preview window by specifying four vertexes of the detection region.
5. Set the arming schedule. Refer to Configurationure Arming Schedule for details.
6. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.
7. Click Apply.

NOTE

This function is only available for certain models.

9.4.3.2 Face Recognition

To Configurationure alarm actions for different groups when faces detected. you need to enable face detection first.



Steps:

1. Go to Configuration → Event → Face Recognition → Face Recognition.
2. Set Camera.
3. Turn on Enable. Tick the checkbox for the group(s) you want to enable the alarm function. If a group is not enabled, the NVR will not trigger any Configurationured actions for that group, such as alarm notifications.It is strongly recommended to keep the “Stranger” group enabled. When enabled, the NVR will save images of all detected faces that do not match existing face profiles in the database.
4. Select the library to use as the comparison target.
5. Set the Similarity, Set how closely, in percentage terms, the detected face must match a face profile in the group to be considered a recognized match. The default threshold is 70%. A higher percentage of similarity will result in fewer false recognition results.
6. Set the arming schedule. Refer to Configurationure Arming Schedule for details.
7. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.
8. Click Apply.

NOTE

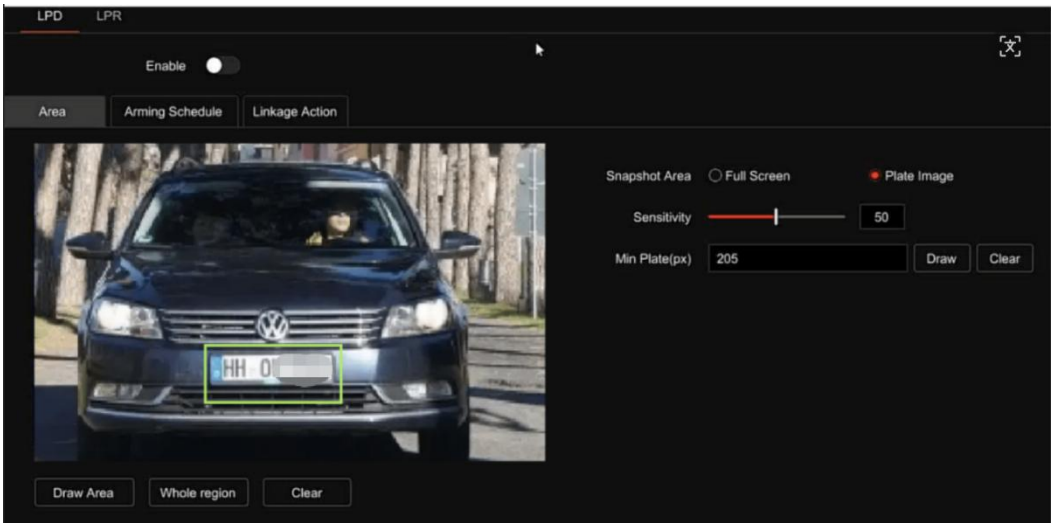
This function is only available for certain models.

9.4.4 LPR(License Plate Recognition)

9.4.4.1 LPD(License Plate Detection)

LPD(License Plate Detection) function, also known as “Automatic License/Number Plate Recognition (ANPR)”, automatically detects vehicles and recognizes their license plate numbers from video footage, allowing the system to

record and manage the identified plate information.



Steps:

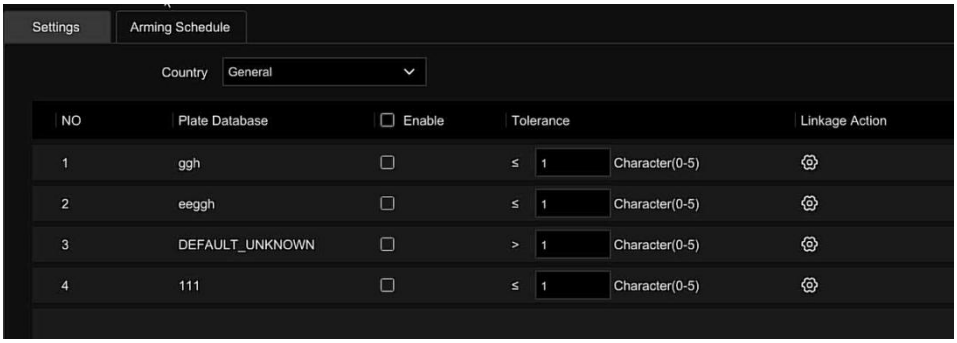
1. Go to Configuration → Event → LPR → LPD.
2. Set Camera.
3. Turn on Enable.
4. Set the detection rules and detection areas.
   1) **Capture Area** sets the area for captured images. The default is full screen; you can also select the license plate area.
   2) **Sensitivity** sets the detection sensitivity, default is 50. Adjust the slider or enter a value to change sensitivity. Higher sensitivity increases license plate detection success, while lower sensitivity may miss side or unclear plates. Adjust based on your specific scenario.
   3) **Minimum License Plate** sets the smallest pixel size for license plates detected in the alert area. You can enter a value directly or set it by drawing a box on the screen.
5. Set the arming schedule. Refer to Configurationure Arming Schedule for details.
6. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.
7. Click Apply.

NOTE

This function is only available for certain models.

9.4.4.2 LPR(License Plate Recognition)

To Configurationure alarm actions for different groups when vehicle license plates detected.



Steps:

1. Go to Configuration → Event → LPR → LPR.

2. Set Camera.

3. Set the license plate country. Selecting a specific country allows detection to follow its plate rules, improving accuracy.

4. Select the library to use as the comparison target.

5. Set the Tolerance, Due to variations in image resolution, lighting conditions, camera angles, vehicle speed, and other environmental factors, the system may occasionally misread certain characters in a license plate.The Fault Tolerance setting defines the maximum number of characters that are allowed to differ between the detected license plate and the license plate stored in the database group.If the number of mismatched characters is less than or equal to the Configurationured Fault Tolerance value, the system will treat the detected plate as a successful match. Otherwise, the recognition result will be considered not matched.

Recognized License Number	Number in License Profile	Fault Tolerance	Recognition Result
AB123D	AB-123-D	≤ 2 characters	Ture
A8123D	AB123D	≤ 2 characters	Ture
AB123D	AB-123-D	≤ 0 or 1 characters	FALSE
A8123D	AB123D	≤ 0 or 1 characters	FALSE
B369SB	B459SB	≤ 3 characters	Ture
B369SB	B459SB	≤ 2 characters	FALSE

6. Set the arming schedule. Refer to Configurationure Arming Schedule for details.

7. Set the linkage actions. Refer to Configurationure Alarm Linkage Action for details.

8. Click Apply.

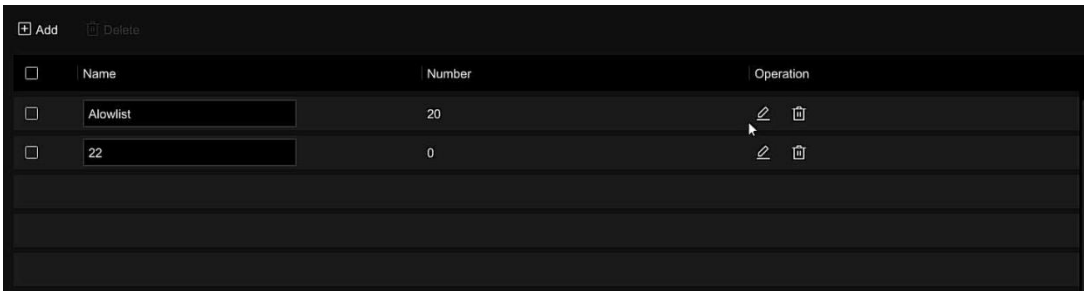
NOTE

This function is only available for certain models.

9.4.5 Face Database

This function allows you to create and manage face profiles (face database). Detected faces can be classified into different groups, making it easier to identify specific individuals.

When a face captured by the camera matches a profile in the database, the system can trigger corresponding intelligent alarms and help users quickly identify people remotely.



Click **Add** to create a new group, or click **Delete** to remove a customized group.

To back up the face database, use Backup Database to export it to a USB flash drive. The exported database can be imported to the same NVR or another NVR using the Import Database function.

Note:

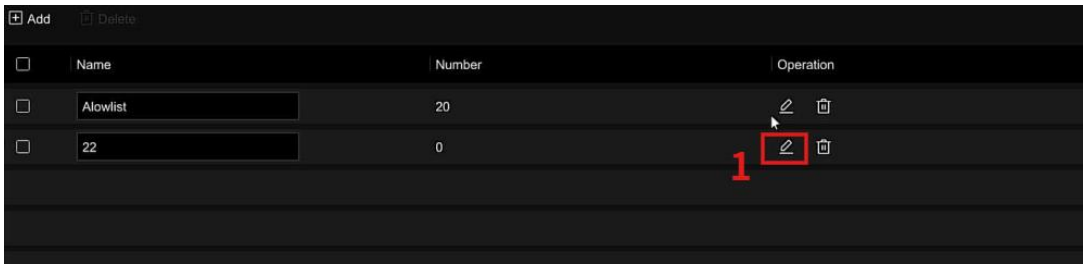
- Importing a database will overwrite the current settings and existing face profiles.
- Only users with **administrator privileges** are allowed to add, delete, or edit entries in the face database.

9.4.5.1 Import Face Images from Local Device

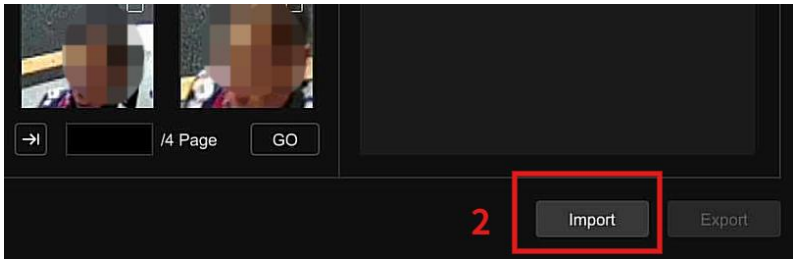
This section shows how to create face profiles by using face images captured and stored on the NVR.

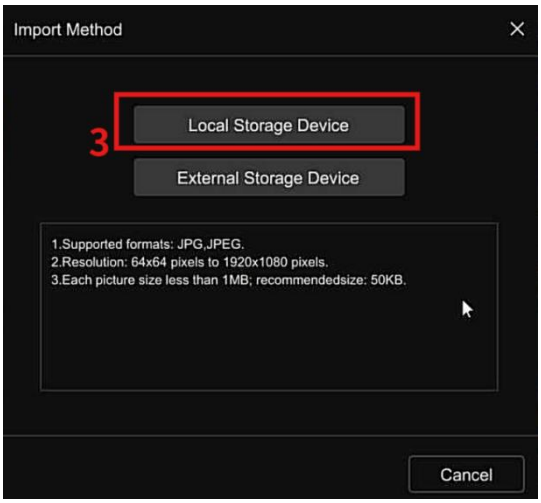
Steps:

1. Click Edit for the group in which you want to create face profiles.



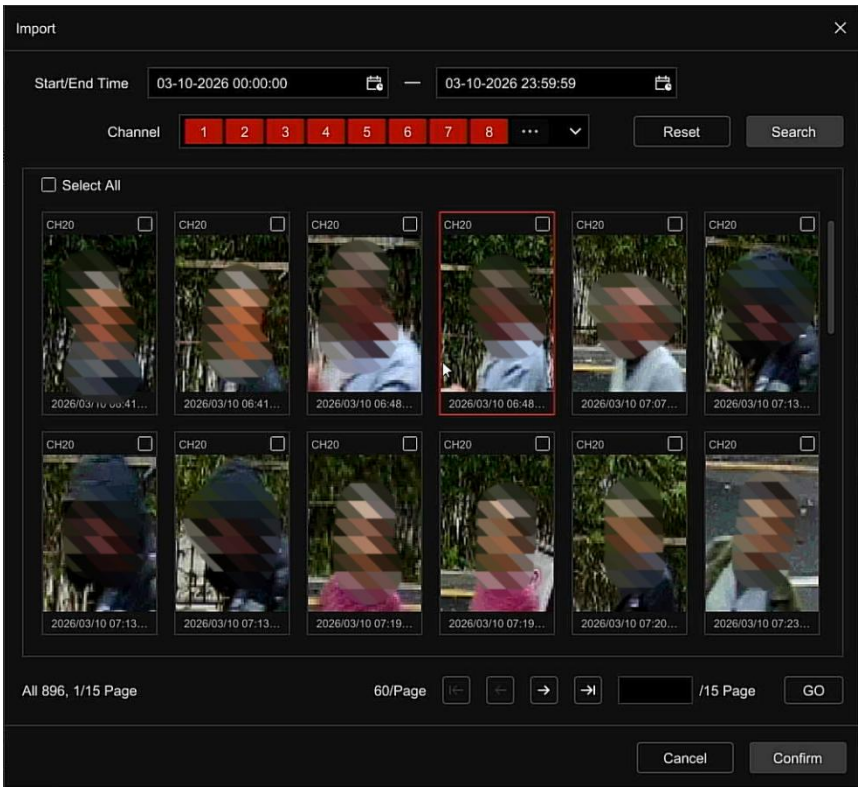
2. From the Group window, click the "Import" button, then click the "Local Storage Device" button.





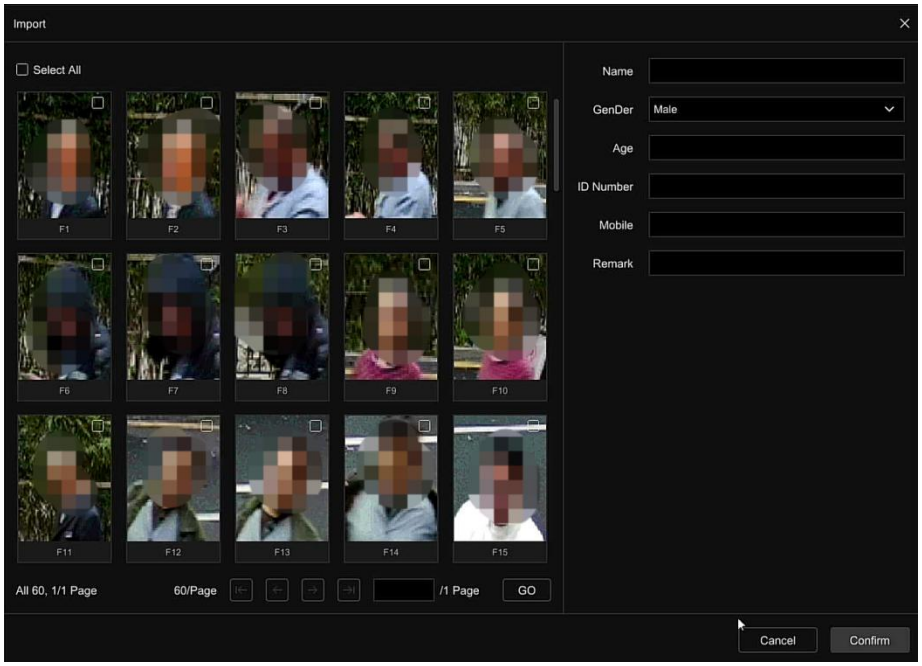
3. Use the calendar to specify the date range.

4. Channel: You can specify the cameras you want to search on.



5. Click the "Search" button and the system will search for faces that match your criteria. Click the "reset" button to reset the search criteria.

6. Select the checkbox to choose a face image, or select Select All to choose all face images on the current search results page.After selecting one or more face images, click OK to proceed to the Profile Edit page.



7. Click a face image and enter the identification information, such as the person's name and age.
8. After completing the information, click Confirm. The face profile will be created and assigned to the selected group.

9.4.5.2 Import Face Images from External Storage Device

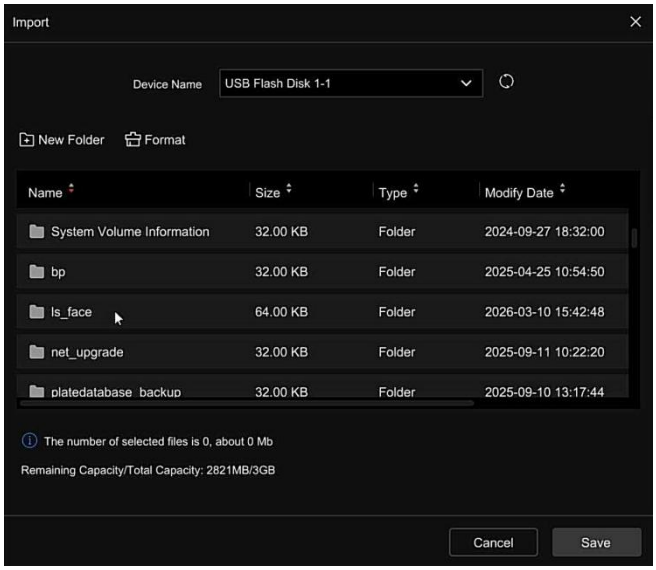
Steps：

1. Copy the face images to a USB flash drive, and then insert the USB device into the USB port of the NVR.

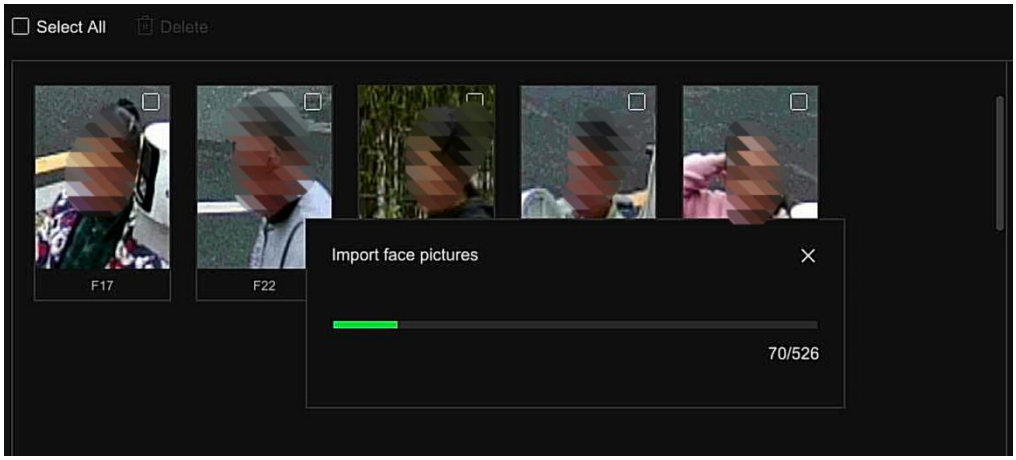
Note:

- Supported image formats: JPG, JPEG.
- Supported resolution: 64 × 64 pixels to 1920 × 1080 pixels.
- The size of each image must be less than 1 MB. The recommended image size is 50 KB.

2. Click the "Edit" button of the group that you would like to create face profiles for.
3. From the Group window, click the "Import" button, then click the "External Storage Device" button.



4. Click on the face image you want to import, and then click the "Save" button. If you want to create a batch of face profiles at once, You need to select the folder you want to import, click "SAVE," and then import. The device can only import a maximum of 2000 images at a time.



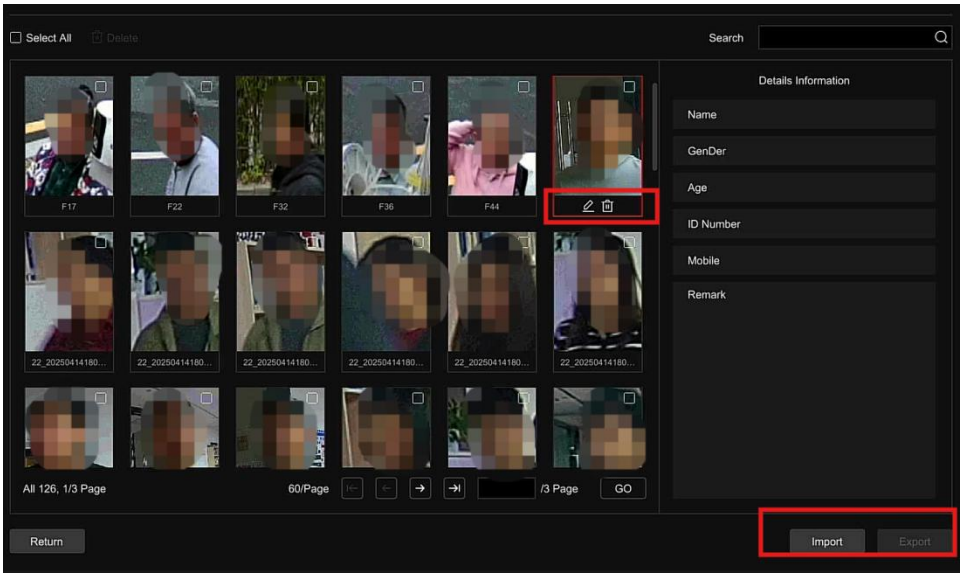
5. Edit the face profile of the people.

6. Click a face image and enter the identification information, such as the person's name and age.

7. After completing the information, click Confirm. The face profile will be created and assigned to the selected group.

9.4.5.3 Edit Face Profiles

Edit or delete a face profile.



Steps：

1. Click on the edit button of the group you want to edit.
2. In the group page, you're able to execute below operations:
   - **Import:** To import face images.
   - **Export:** To export face image(s) to external USB flash drive.
   - **Edit:** Move the mouse cursor over the image you want to edit, and a pop-up menu will appear.Click the edit button to edit the face profile.
   - **Delete:** To delete the select face profile.
   - **Move To:** Click to move the face to another group.

9.4.6 Plate Database

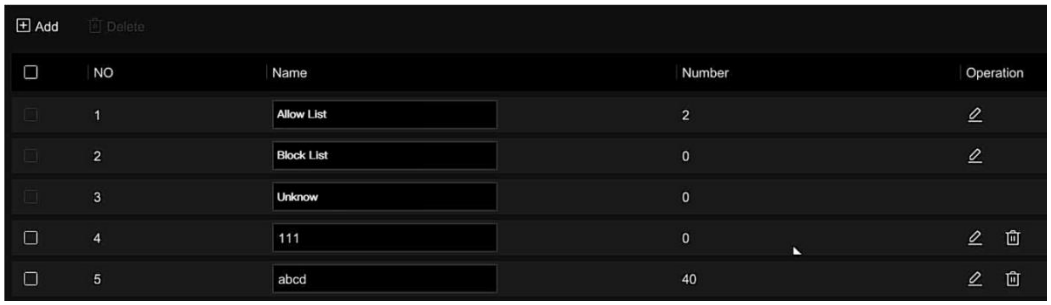
You're able to create and manage the vehicle license profile (database) to classify different vehicles into different groups in order to

quickly identify vehicles in remote and realize intelligent alarm beforehand.

There are 3 default groups:

- **Allow List:**This function is mainly used to define a list of vehicles that are considered acceptable or trusted.
- **Block List:** This function is mainly used to define a list of vehicles that are considered unacceptable or untrusted.
- **Unknown:** Vehicles that are not assigned to any group will be identified as unknown vehicles.

You can click **add** button to create or click delete button to delete customized group.



9.4.6.1 Import License Profiles from Local Device

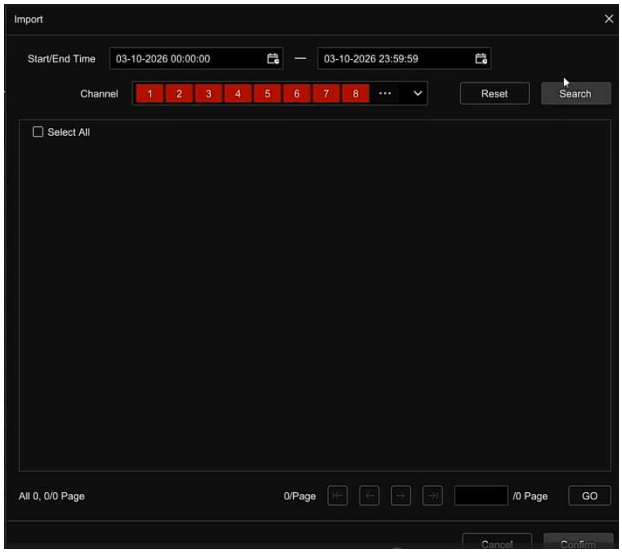
This section will show how to create vehicle profiles from license plate images that have been captured and stored on your NVR.

Steps:

1. Click Edit for the group in which you want to create face profiles.
2. From the Group window, click the "Import" button, then click the "Local Storage Device" button.



3. Use the calendar to specify the date range.
4. Channel: You can specify the cameras you want to search on.
5. Click the "Search" button and the system will search for Plates that match your criteria. Click the "reset" button to reset the search criteria.
6. Now you will see a list of license number. Click on one of the license numbers, the detailed information will be list on the right side. You're able to edit the information, including license number, color, brand, model of the vehicle, and the owner's profile. Click Import button after finishing the information input, the selected license numbers have been added.



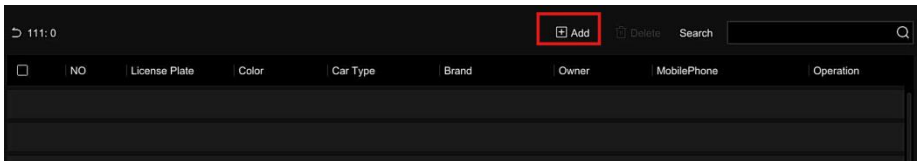
9.4.6.2 Create License Profiles by Manual

This section will show how to create vehicle by manual.

Steps:

1. Click Edit for the group in which you want to create face profiles.

2. Click the "Add" button.



3. Click “Confirm” button after finishing the information input。

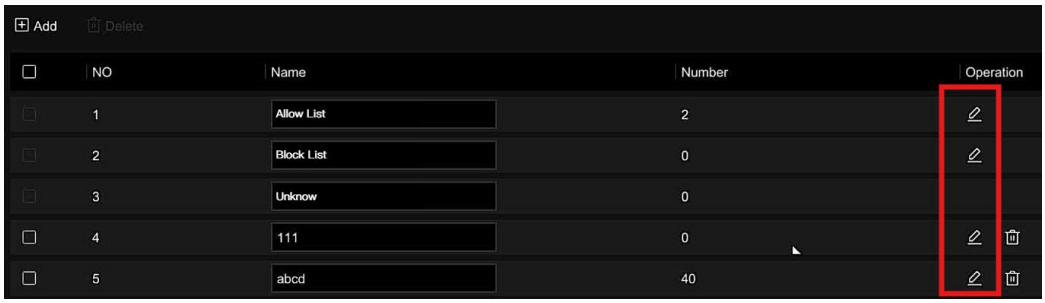
7.4.6.3 Create Bulk License Profiles.

If you want to create a batch of license profiles at once, please proceed as below:

Steps:

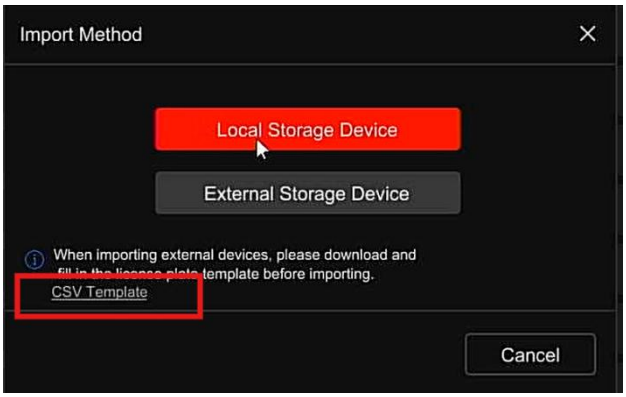
1. Insert your USB flash drive into the USB port of the NVR.

2. Click the "Edit" button of any one of groups where there is at least one vehicle license profile exists.



3. Click the "Edit" button of any one of groups where there is at least one vehicle license profile exists.

4. From the Group window, click the "Import" button, then click the "CSV Template" button.



5. A ".csv" file will be exported and saved to your USB flash drive.

6. Select the directory you want to save the file, and then Click SAVE button.

7. Double click on the exported ".csv" file to run it with excel in your PC. The content is shown as below:

A	B	C	D	E	F	G	H	I	J
License Plate	Color	Brand	Car Type	Owner	Mobile	Remark			

- Column A: License number of the vehicle
- Column B: Color of the vehicle
- Column C: Brand of the vehicle
- Column D: Type/model of the vehicle
- Column E: Name of the owner of the vehicle
- Column F: Phone number of the owner of the vehicle
- Column K: Remarks column

8. Edit the cells according to your actual conditions .

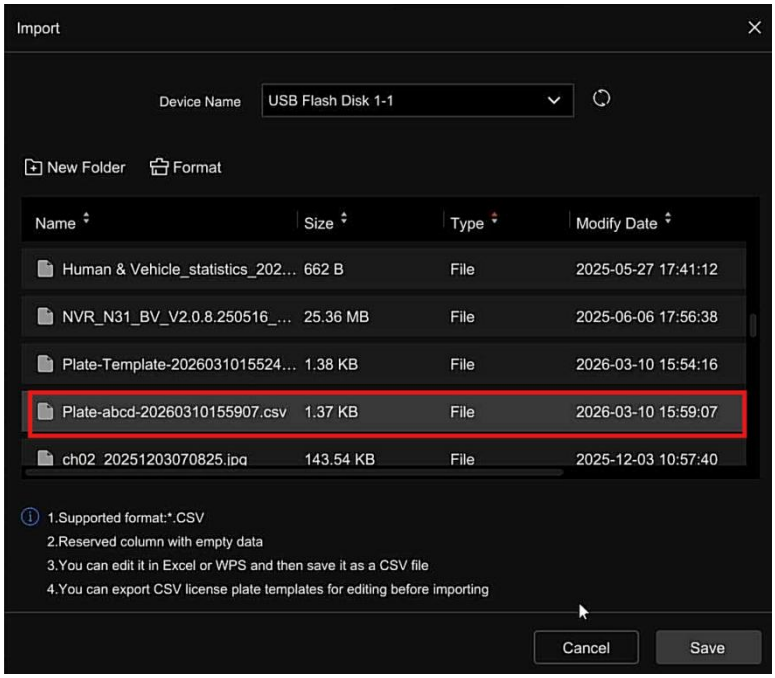
9. Save the ".csv" file. Make sure the file is saved as CSV UTF-8 type.

10. Copy and paste the ".csv" file to your USB flash drive.

11. Insert the USB flash drive into the USB port of your NVR.

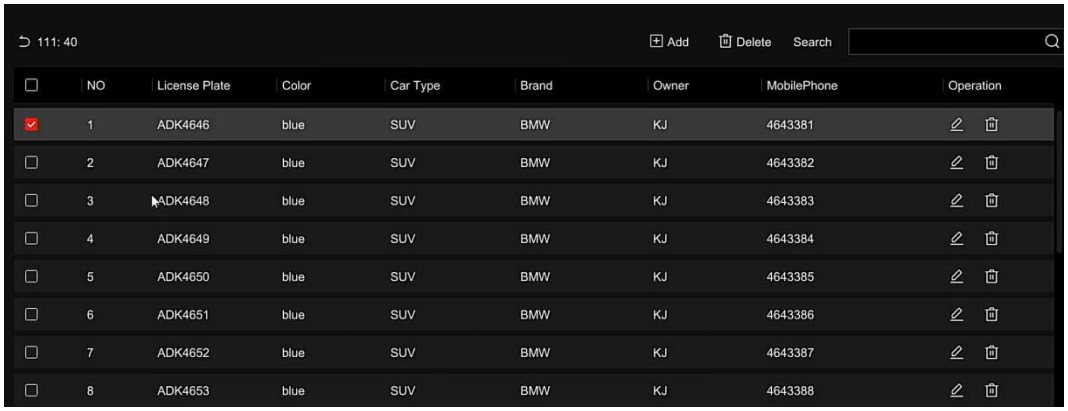
12. Click the "Edit" button of the group that you would like to import vehicle license profiles for.

13. Click "Import from CSV" button, and then choose the ".csv" file from USB flash drive and click Save.





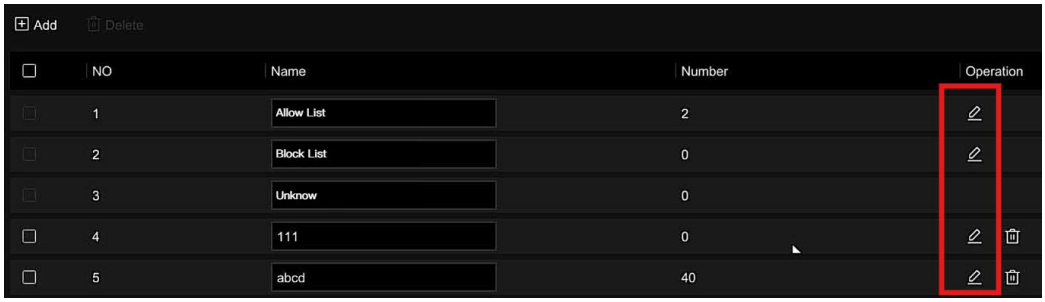
14. The system will import the license plate into the license plate database. Now you can see a list of license number as illustrated below.



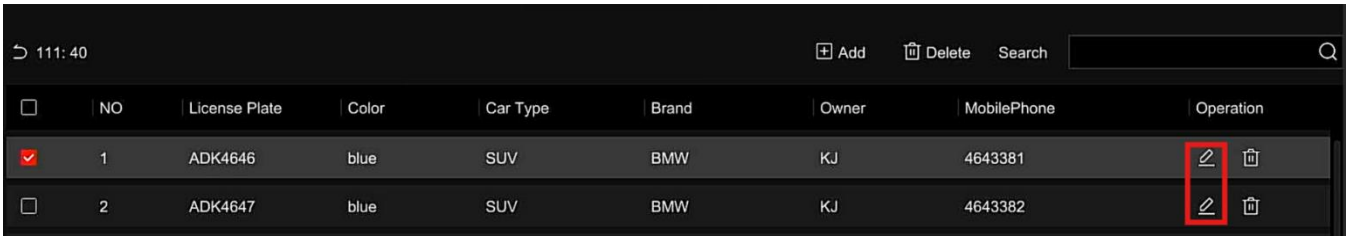
9.4.6.3 Edit Face Profiles

If you want to edit or delete a face profile, please proceed as below.

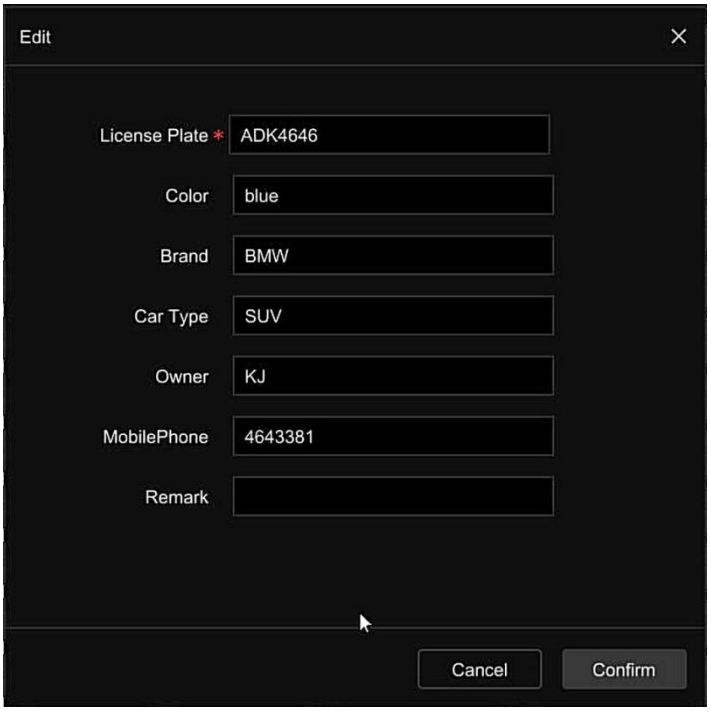
1. Click the "Edit" button of the group that you would like to edit the vehicle license profiles for.



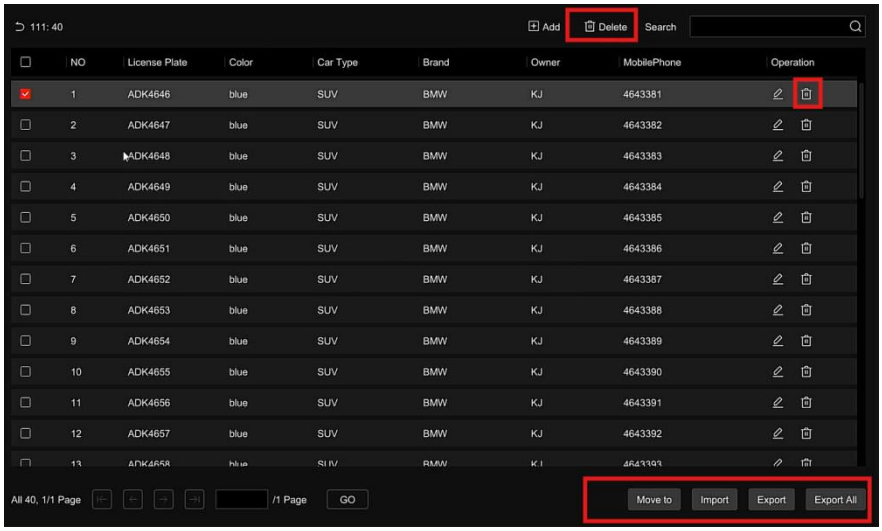
2. If you want to modify the information for a license profile, please click the edit button for that license number.



3. Modify the information on the Modify window accordingly, and then click Confirm button to apply.



4. If you want to delete, move or export license profile(s), please proceed as below:

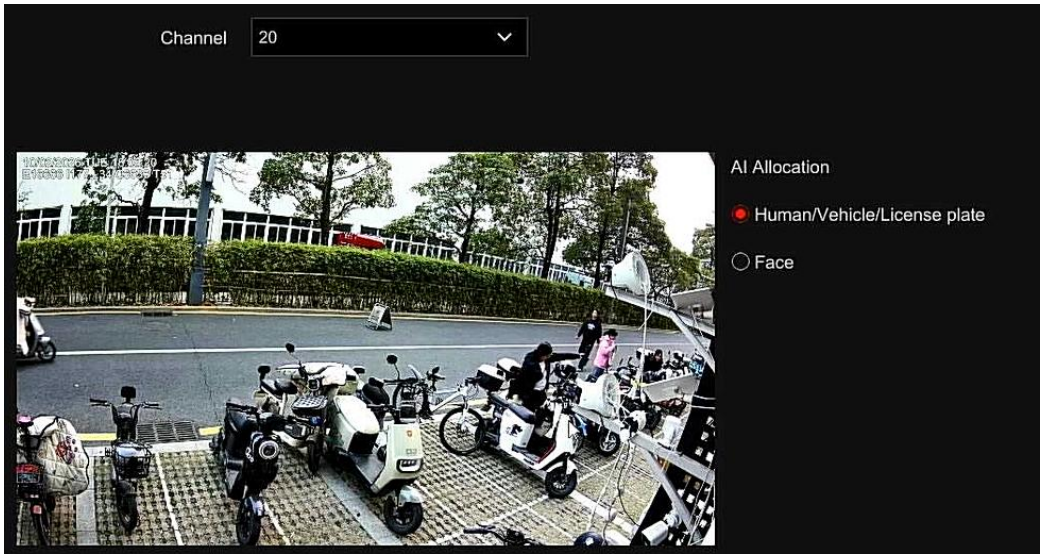


Tick the checkbox to select the license profile firstly:

- If you want to delete, click "Delete" button and confirm to delete the selected license profile(s).
- If you want to move the profiles to another group, click "Move To " button, and then select the targeted group.
- If you want to export the profiles to USB flash drive, click "Export" or "Export All" button to save a ".csv" file.

9.4.7 AI Allocation

When the camera supports intelligent functions based on multiple algorithms, you can enable the corresponding algorithm to support the corresponding intelligent function in the "Intelligent Resource Allocation" interface according to actual needs. After setting, please click "Apply". The corresponding intelligent function will take effect after the camera restarts.



Steps:

1. Slect the Camera.
2. Slect the intelligent function.

3. Click Apply.

NOTE

- This function is only available for certain models.
- The corresponding intelligent function will take effect after the camera restarts.

9.5 Record

9.5.1 Schedule

Video recorder will automatically start/stop recording according to the Configurationured schedule.

- **Configurationure Continuous Recording**

Steps

1. Go to Configuration → Record → Encode.
2. Set the continuous main stream/sub-stream recording parameters for the camera. Refer to Configurationure Recording Parameter for details.
3. Go to Configuration → Record → Schedule .
4. Select recording type as Continuous. Refer to Edit Schedule for details.

- **Configurationure Event Recording**

You can Configurationure the recording triggered by the motion detection, line crossing detection, and intrusion detection.

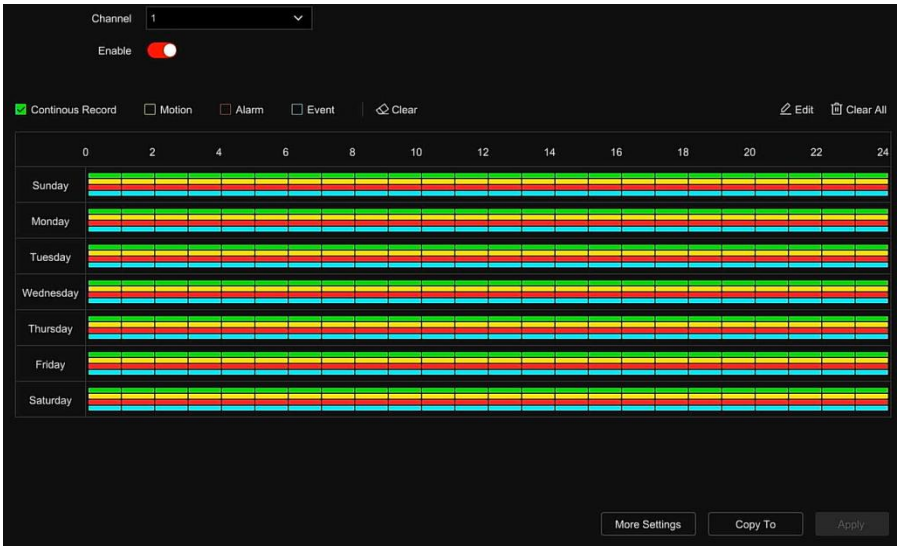
Steps

1. Go to Configuration → Event → Smart Event / Normal Event.
2. Configurationure the event detection and select the channels to trigger the recording when an event occurs.
3. Go to Configuration → Record → Encode .
4. Set the continuous main stream/sub-stream recording parameters for the camera. Refer to Configurationure Recording Parameter for details.
5. Go to Configuration → Record → Schedule .
6. Select recording type as Event. Refer to Edit Schedule for details.

- **Edie Schedule**

Steps

1. Go to Configuration → Record → Schedule.

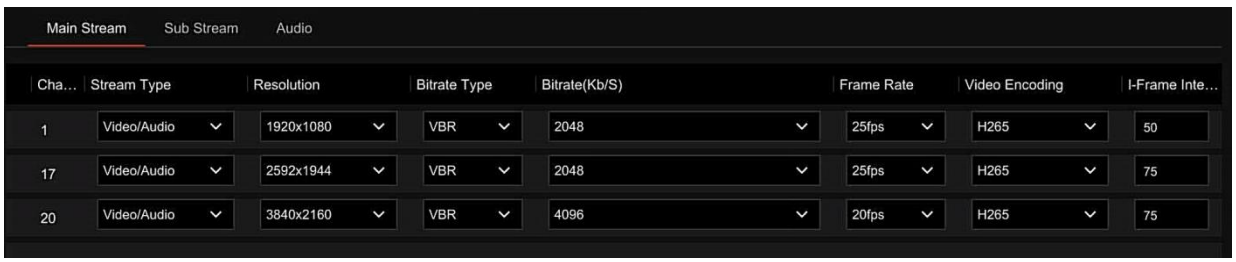


- **Continuous Record:** Your NVR will constantly record for a set period. Time slot will be marked green color for normal recording.
- **Motion:**Your NVR will only record when motion is detected. Time slot will be marked yellow color for motion detection recording.
- **Alarm:**Your NVR will only record when external sensor is triggered. Time slot will be marked red color for sensor triggered recording.
- **Event:**Your NVR will only record when Smart Event is detected. Time slot will be marked blue color for Event detection recording.

2. Select a camera in Camera No.
3. Turn on Enable.
4. Configurationure the recording schedule.
5. Click Apply.

9.5.2 Encode

This menu allows you to Configurationure the recording video or network transmission quality.



Steps

1. Go to Configuration → Record → Encode.
2. Configurationure recording parameters.

Main Stream

Main stream refers to the primary stream that affects data recorded to the hard disk drive and will directly determine your video quality and image size. Comparing with the substream, the main stream provides a higher quality video with higher resolution and frame rate.

Sub-Stream

Sub-stream is a second codec that runs alongside the mainstream. It allows you to reduce the outgoing internet bandwidth without sacrificing your direct recording quality. Sub-stream is often exclusively used by smartphone applications to view live video. Users with limited internet speeds may benefit most from this setting

Resolution

This parameter defines how large the recorded images will be. The higher the number, the greater the detail available.

FPS

This parameter defines the number of frames per second the NVR will record.

Video Encoding

It will list the codecs which are supported by the connected camera. The H.265 codec will compress the information more efficiently and provide the best video quality for a given bandwidth between each camera and your NVR, and H.265+ has more compression rate then H.265. The other codec is H.264 which will impact the reliability of the connection between each camera and your NVR due to the higher bandwidth required, and H.264+ has more compression rate then H.264.

Bitrate Type

Select the bitrate level. For a simple scene, such as a gray wall is suitable constant bitrate (CBR). For more complex scene, such as a busy street is suitable variable bitrate (VBR).

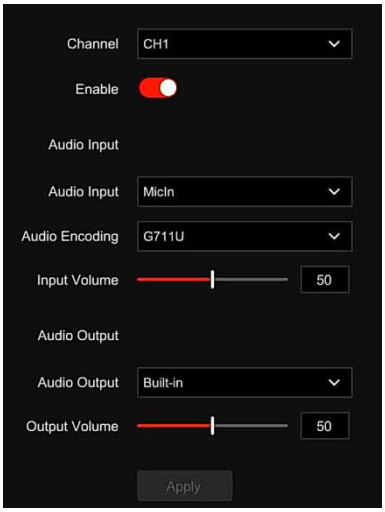
Bitrate

This parameter corresponds to the speed of data transfer that the NVR will use to record video. Recordings that are encoded at higher bitrates, will be of better quality. For cameras that monitor medium to high traffic areas, increase the bitrate to add more detail to the camera's image. Just be aware this will increase the bandwidth required. Increase the bitrate in small doses until you are satisfied with the image quality.

I Frame Interval

The number of frames between two adjacent I frames.

If your camera has built-in microphone or external audio input device, you're able to activate the audio stream, define the input/output volume, and select the audio encode type.



Audio Encording

To choose the audio encoding codec.

3. Click Apply.

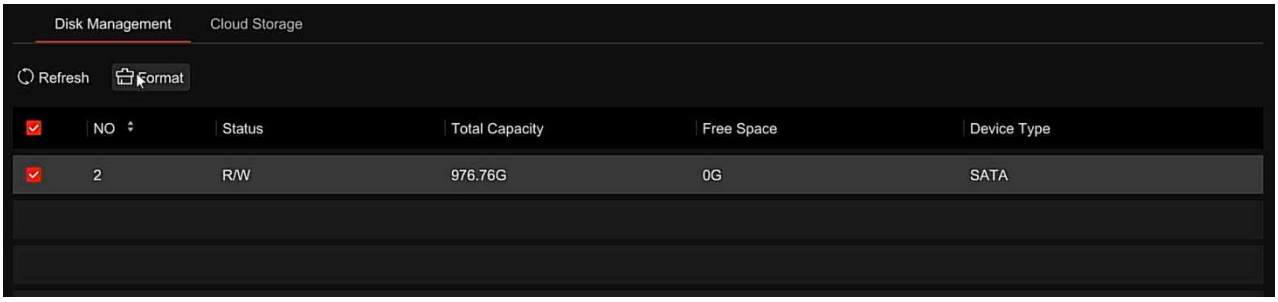
NOTE

Higher resolution, frame rate, and bitrate provide you better video quality, but it also requires more internet bandwidth and uses more storage space on the hard disk drive.

9.5.3 Storage

Disk Management

Configurationure disk usage and property, add external disks, and format disks.



NOTE

- Before you start, make sure all disks are installed properly.

- Only admin can format disks and Configurationure the disk property.

Go to Configuration → Record → Storage → Disk Management

R/W(Read/Write)

The disk supports recording storage, recording playback.

Read Only

The disk only supports recording playback , and does not support recording storage.

Cloud Storage

Set cloud storage. When the device triggers an alarm, it can store the captured alarm image of the device on the cloud server.

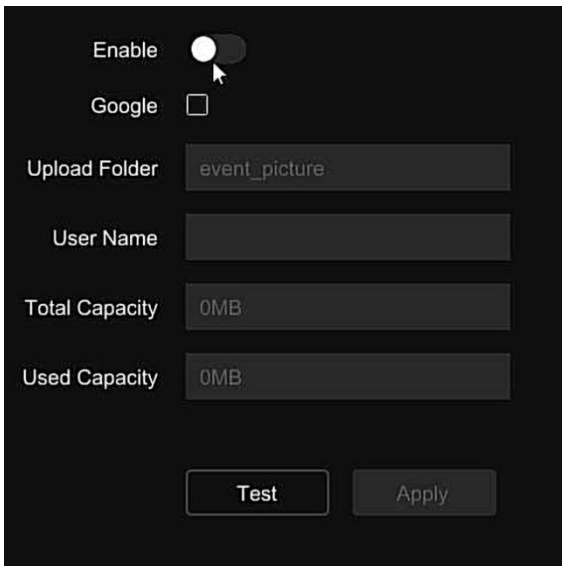
Prerequisites

You need to have a Google Cloud Storage account.Using this function, the device must be connected to an external network; otherwise it will not work properly.

Steps

1. Go to Configuration → Record → Storage → Cloud Storage

2. Select "Enable → Google" to obtain the "Authorization Code". Follow the prompts to log in to the website on the computer and enter the "Authorization Code" to bind the Google server cloud service.



3. Click "Apply".

4. Click "Test" to test whether the XVR can successfully upload files to the cloud server. After the binding is successful, the cloud storage interface displays the "Google" username, total capacity, and used space.

Enable: Turn on/off the device cloud storage function.

Google: Select a cloud storage type and enter the binding interface.

Upload Folder: Set the upload cloud space folder name.

Username: Displays the user name of the Google.

Total Capacity: After the cloud storage binding is successful, the total capacity of the cloud space is displayed.

Used Capacity: Cloud storage binding is successful; the display of cloud space has been used capacity.

Test: After binding, click "Test" to confirm whether the binding is successful. If the test fails, check whether the device is properly connected to the network and the cloud storage Configuration.

9.5.4 Advanced

Configuration

In the Configuration interface, you can view and set related information such as NVR disk full and automatic deletion of recordings.

Steps

1. Go to Configuration → Record → Advanced .
2. Configurationure the parameters as your desire.

Overwrite

When the HDD is full, video recorder will stop writing.

Do Not Overwrite

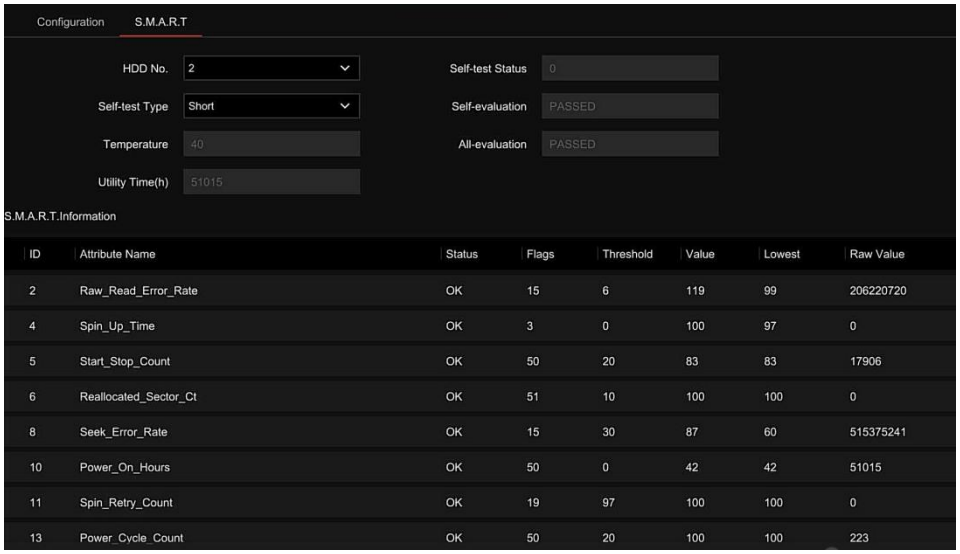
When hard drive is full, video record will continue to write new files by deleting the oldest files.

Auto Delete Recordings



S.M.A.R.T

S.M.A.R.T is used to monitor the temperature of the hard disk, the surface material of the disk, the motor and its drive system, and analyze and predict the possible problems of the hard disk.



steps

1. Go to Configuration → Record → Advanced → S.M.A.R.T

2. Select the hard disk to be tested and set "Test Type".
3. The device starts to detect the hard disk.
4. After the hard disk is detected, the hard disk details will be displayed in the S.M.A.R.T. information list.

S.M.A.R.T Configuration:

- ✓ Disk No: Pull down to select the drive number.
- ✓ Test condition: Shows whether the hard disk has been detected.
- ✓ Test type: Short and extended.
- ✓ Temperature: Display hard disk temperature.
- ✓ Utility time(h): Shows how long the hard disk is used (hours).
- ✓ Self-assessment: Show whether the hard disk is passed.
- ✓ Overall-assessment: Show whether the whole hard disk through.

S.M.A.R.T information: Display the hard disk information.

Self test: Click "Self test" to detect the hard disk information.

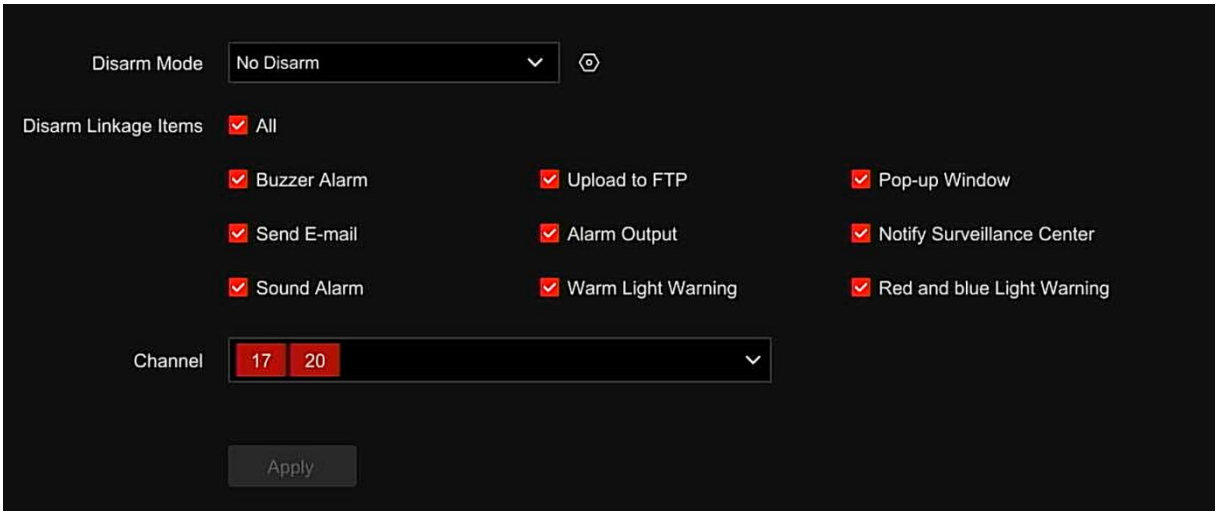
NOTE

- Only some devices support hard disk detection. Please refer to the actual situation.
- When the self-assessment or overall evaluation results are "not passed", the hard disk must be replaced to avoid data loss.
- Through the S.M.A.R.T self test function, the user can use the S.M.A.R.T command to perform a self-test on the hard disk to detect the overall status of the hard disk.

9.6 Alarm

9.6.1 One-Click Disarming

After the one-click disarming function is enabled, you can cancel the response of the device to various alarms. On this page you can set the relevant parameters including the disarming switcsh, channel, type, and schedule. Note: The Exception system alarms are not controlled by one-click disarming.

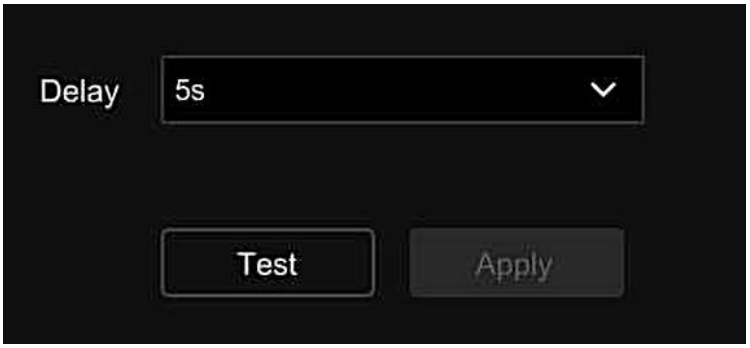


Steps:

1. Go to Configuration → Alarm → One-Click Disarming
2. Select a disarming mode and Configurationure parameters.
   - Off: Disarming is disabled on the NVR.
   - Disarm by Schedule: The NVR is disarmed during specific time periods per week.
   - Disarm Once: The NVR is disarmed during a specified time period.
   - Click the Setup button to open the schedule setting page. If a channel is selected in the schedule, it indicates that the channel is in disarming status within the corresponding period.
3. Set the diarm linkage items
4. Select the channels to be disarmed.
5. Click Apply.

9.6.2 Buzzer

This section mainly used to set the delay time of the buzzer.



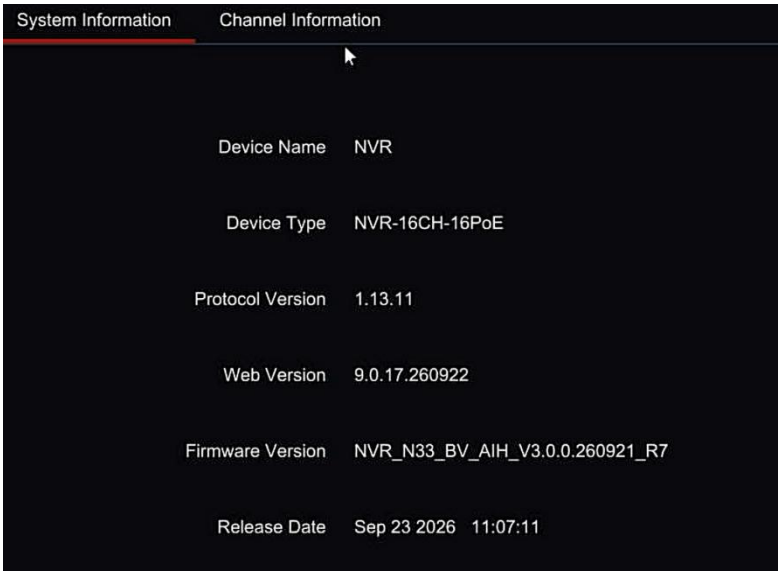
9.7 Maintenance

The maintenance interface includes system information, device upgrade, default restoration, automatic maintenance, import and export, and channel information.

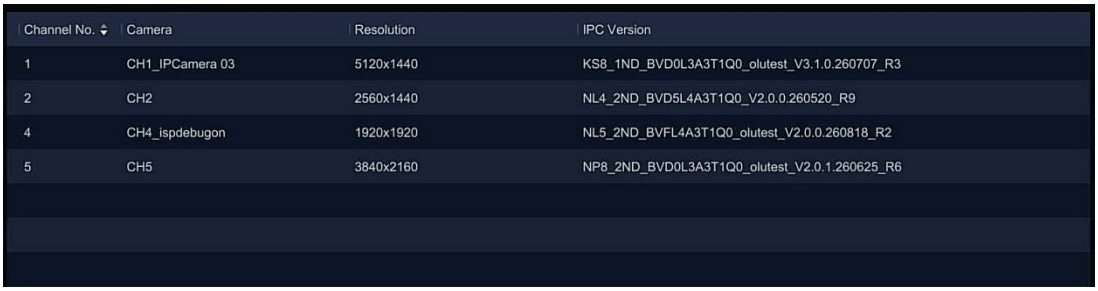
9.7.1 System Information

9.7.1.1 System Information

In the System Information menu, you can view the device name, device type, sofeware version.



9.7.1.2 Channel Information

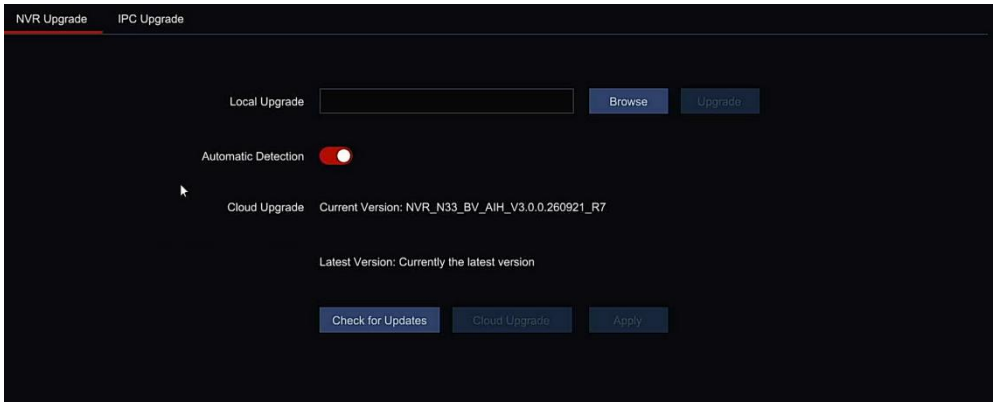


In the Channel Information menu, you can view the Camera's name, resolution, sofeware version.

9.7.2 Upgrade

9.7.2.1 NVR Upgrade

You can upgrade the firmware by USB flash drive or Cloud Upgrade.



Local Upgrade

Insert the USB device with the upgrade file into the NVR to upgrade the version of the NVR. If the device detects the upgrade file in the U disk, the information about the upgrade package (serial number, name, size, date) will be displayed in the list.

Steps

1. Insert the USB device with the upgrade file (named Nxx_xxNR_ALxxxx_V.x.x.x.x_R1.bin) into the NVR.
2. Go to Maintenance → Upgrade →Manual Upgrade
3. Click "Refresh", choose the upgrade file, click " Upgrade→Confirm", wait for the interface to finish the progress bar, and the device will automatically restart to complete the upgrade.

NOTE

- After several attempts to refresh, the device still cannot detect the upgrade package. Please check whether the USB disk is in good contact with the USB interface of the device, and the upgrade file name is correct.
- NVR During the upgrade process, do not disconnect the power supply or unplug the USB drive.The system will automatically restart after the upgrade is completed.This process takes about 1-6 minutes.It is recommended to restore the factory settings after the upgrade is completed before using the NVR.

Cloud Upgrade

Upgrade the device with the latest online firmware.

Steps

1. Click “Online Upgrade”.
2. Enable "Automatic Detection".
3. Click “Upgrade”
4. Go to Online Upgrade .

5. Download the latest firmware.

   Automatic Detection: The will automatically check and download the latest firmware.

   Check: Click Check to manually check and download the latest firmware.

6. Click "Apply", when there is a new version in the cloud, the system will automatically detect the version and upgrade the device at the set time.
7. Upgrade your device if a new firmware version is available. The device will reboot automatically.

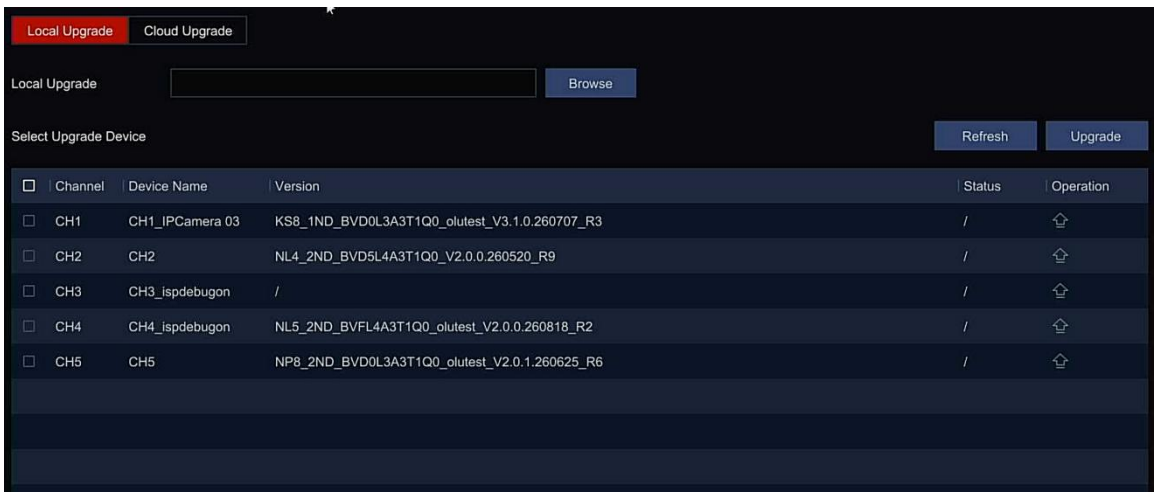
9.7.2.2 IPC Upgrade

You can upgrade the firmware of the connected IPCs by using a local upgrade file or the latest firmware available from the cloud.

The IPC Upgrade page provides two upgrade methods: **Local Upgrade** and **Cloud Upgrade**.

Local Upgrade

Upgrade the connected IPCs using a firmware file stored on a USB flash drive or on the local computer.



Steps

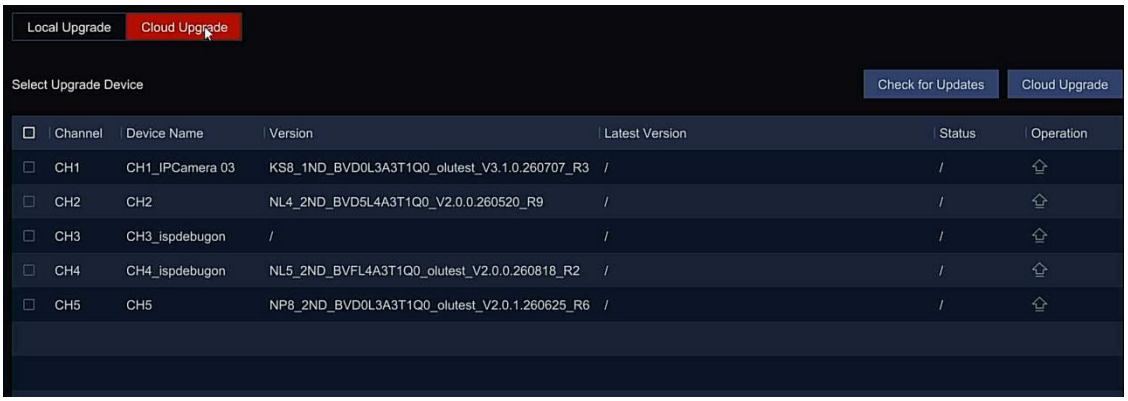
1. Prepare the firmware file for the IPC to be upgraded.
2. Go to **Maintenance → Upgrade → IPC Upgrade → Local Upgrade**.
3. Click **Browse** and select the corresponding IPC firmware file.
4. Select the IPCs to be upgraded from the device list.
5. Click **Upgrade** and confirm the operation.
6. Wait until the upgrade is completed. The upgrade status is displayed in the **Status** column.
7. After the upgrade is completed, the IPC may restart automatically.

Note:

Make sure that the selected firmware file matches the IPC model. Do not disconnect the IPC or power off the NVR during the upgrade.

Cloud Upgrade

Upgrade the connected IPCs using the latest firmware available from the cloud server.

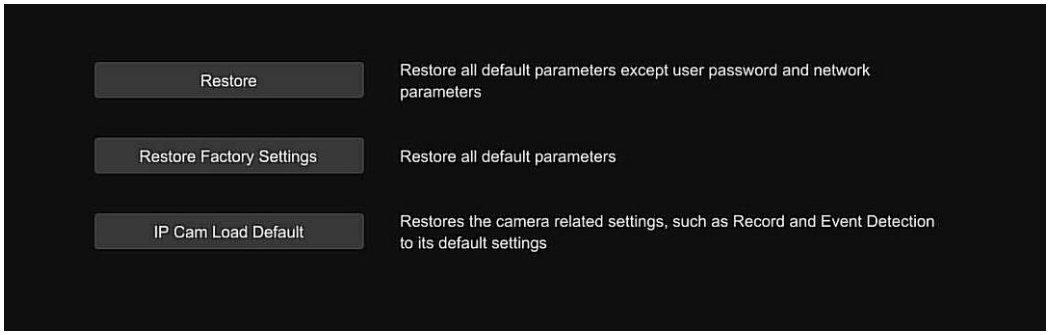


Steps

1. Go to **Maintenance → Upgrade → IPC Upgrade → Cloud Upgrade**.
2. Click **Check for Updates** to check whether a newer firmware version is available.
3. Select the IPCs to be upgraded.
4. Check the **Latest Version** column to view the latest firmware version available for each IPC.
5. Click **Cloud Upgrade** and confirm the operation.
6. Wait until the upgrade is completed. The upgrade status is displayed in the **Status** column.
7. After the upgrade is completed, the IPC may restart automatically.

9.7.3 Restore

Reset the NVR settings to its out-of-box state. You can choose to reset all settings at once, or just settings on specific menus. Restoring default settings will not delete recordings and snapshots saved to the hard drive.



Steps

1. Go to Maintenance → Restore
2. Select the restoring type.

Simple Restore

Restore all parameters, except the network and user account parameters.

Restore factory settings

Factory Defaults , Restore all parameters to the factory default settings.

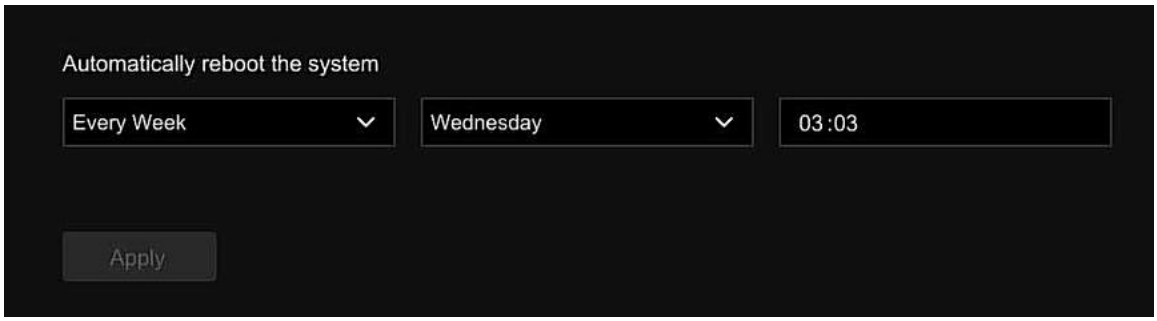
IP Cam Load Default

Choose the IP camera(s) you want to restore.

3. Click Yes. The device will reboot automatically.

9.7.4 Device Auto Maintenance

This menu allows the system to auto reboot the NVR regularly. It is recommended to leave this function enabled, as it maintains the operational integrity of your NVR.



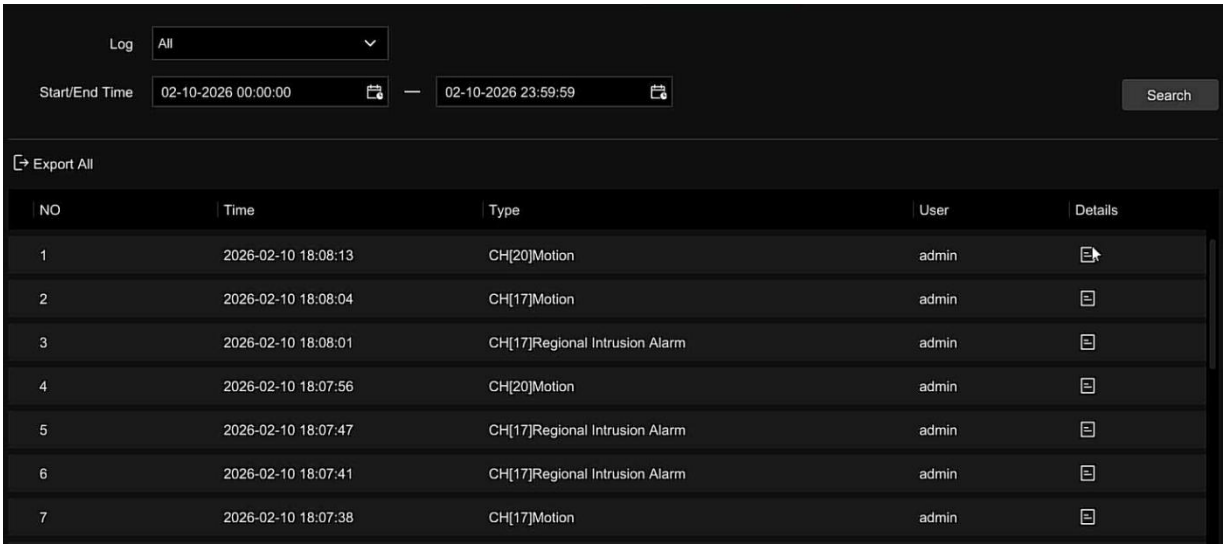
9.7.5 Import And Export

If multiple devices need to adopt the same Configuration, one device can be Configurationured first, and the Configuration file of the device can be "exported" and backed up, and then through the "import" operation, the Configuration can be applied to other devices to save more Configurationure the time.

Export: Insert U disk into NVR, click "Export" and wait for the export progress to complete, click "Save".
Import: Insert the U disk that stores the Configuration file into the NVR, click "Import", after selecting the file, click "Open" to wait for the import process to complete and the device to restart and the Configuration file to be imported.

9.7.6 Log

The operation, alarm, exception and information of video recorder can be stored in logs, which can be viewed and exported at any time.

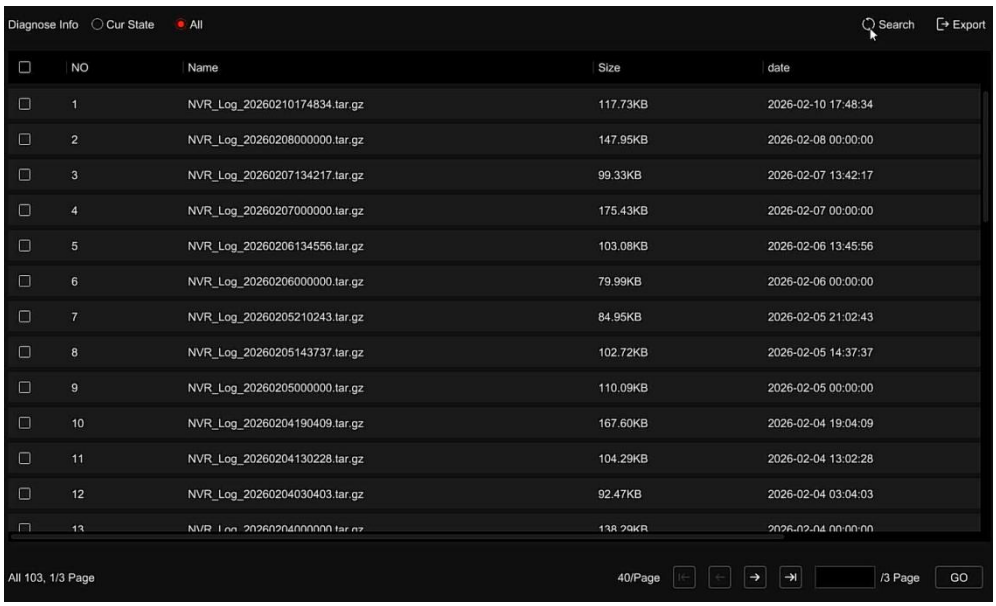


Steps

1. Go to Maintenance → Log
2. Set the search conditions.
3. Click Search.

9.7.7 Diagnose info

View and back up diagnosis information of the NVR and the connected cameras. The NVR keeps 14 days of diagnosis information and overwrites the earliest when the storage is full.



Steps

1. Go to Maintenance → diagnose info

2. Set the search conditions.

   Current Diagnosis Info: Diagnosis information since the latest startup. Click Export to export diagnosis information to the external storage device.

   All Diagnosis Info: All the history diagnosis information in the list.

3. Select the desired item(s), click Export. On the Backup page, choose the destination path, click Save.

10. WEB Operation

You can use the web client on a PC to access the device remotely at any time. Before using the web client, you need to ensure that the device network is normal.

10.1 Preparation

Check the following before you begin:

- Access will be authenticated during login, and operation permissions will be required.
- The NVR is operating properly and has a network connection to the PC.
- A Web browser is installed on the PC. Chrome 60 or later is recommended. Firefox 60 or later, Microsoft
- Internet Explorer 10.0 or later, Edge 79 or later,safari are also supported.
- The PC uses an operating system of Windows 7 or later.
- A 32-bit or 64-bit Web browser is required if you are using a 64-bit operating system.

NOTE

- The parameters that are grayed out on the Web interface cannot be edited. The parameters and values displayed may vary with NVR model.
- The figures below are for illustration purpose only and may vary with NVR model.

10.2 Login

To make sure NVR connects to Internet successfully, open Browser, input required IP address, and enter the login interface.



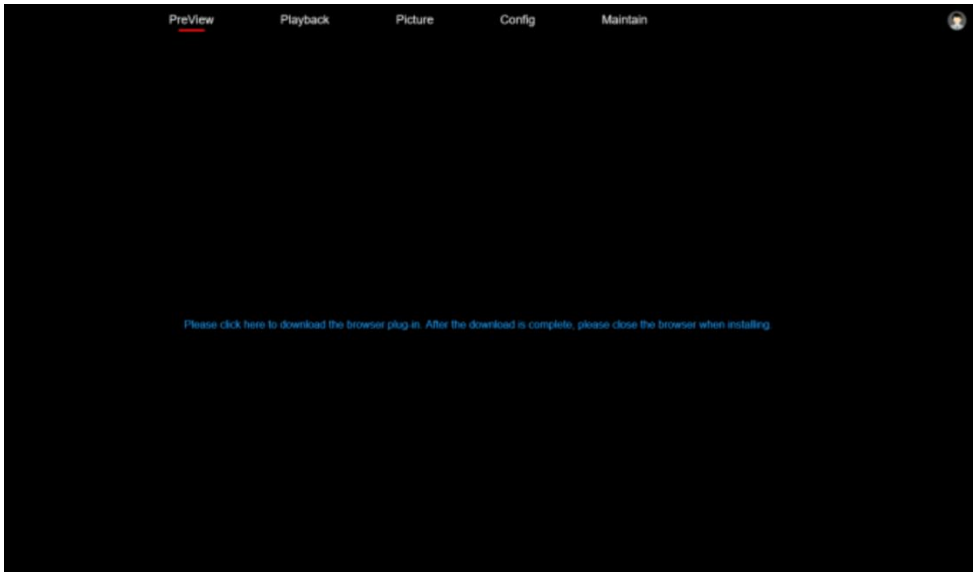
Select the system language in the upper right corner of the interface (currently supports Chinese Simplified, Chinese Traditional, English, Polish, Czech, Thai, Hebrew, Arabic, Bulgarian, German, French, Portuguese, Turkish, Spanish, Italian, Hungarian, Romance, Korean, Dutch, Greek, Vietnamese, and Japanese,Bengali, Ukrainian,Lithuanian,the default is English), enter the user name and password click "Login" Remote login.

NOTE

- Forgot Password: On the WEB login interface, click "Forgot Password", select a verification method such as "Answer the question", select the question set when changing the password, enter the corresponding answer, and
- Click "Next" to reset the new password as prompted. Click "Re-login" to return to the login interface.
- If the HTTP port is set to a port other than 80, enter "http: // IP address
- + :(colon) + port number" in the address bar of your browser, such as "http://192.168.1.88:96".

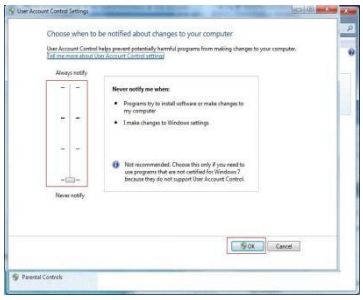
10.3 Active X installation

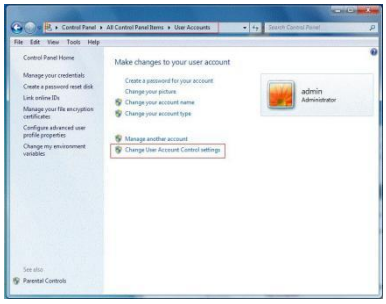
The browser plug-in needs to be downloaded and installed when logging in to the device for the first time, click "Please click here to download the browser plug-in, please close the browser when the download is finished" and install it, and follow the prompts to complete the installation.



NOTE

- After the NVR upgrades to a new version, you need to delete the original control and download and install the control again.
- For WIN 7 could have problems for backup and recording, if so, please check the Admin setting, procedure as follows:



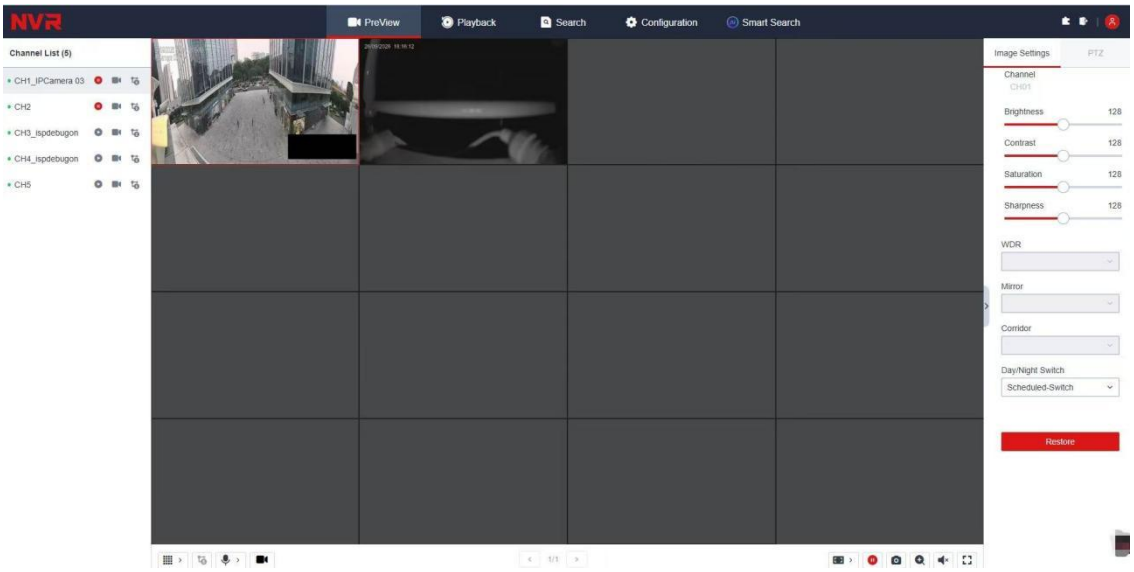


- The Active X can't be loaded. Please adjust the security level and firewall setting to the lowest, and make some adjustment to IE as well: Tool-Internet Option- Custom level-ActiveX- enables all the options below ActiveX and click "OK", the Active X will be downloaded and installed automatically.



10.4 PreView

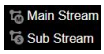
After login the client successfully, entering live preview interface.



1. System Menu. Including Live View, Playback, Picture, Configuration, Logout, and show login user name.

2. Real-time Monitoring Channel. Open/Close Preview, record and stream switching.

Mark	Specification
CH1	Display the list of monitoring channels.
	Open / close corresponding preview channel.
	Start/stop recording, save video on local computer hard drive.

	Main and sub bit stream switching
	For voice calls, click to automatically connect to the device to make a real-time call. Prerequisites for local device calls: There are audio input/audio output interfaces on the local device, and both mic and speakers have been connected. Note: App and web can't talk to the local device at the same time.

Preview channel shortcut button

Mark	Specification
	Preview window toggle. From left to right are: 1 split screen, 4 split screen, 9 split screen. According to the number of channels supported by the device, the preview window will be different. Please refer to the actual situation.
	Switch all preview channel master, sub streams, and open preview
	Open / Close all preview channels.
	Click this icon to take a picture. The default storage path of the picture is C:\NVR\Record. You can enter the Configuration → Local Configuration interface to modify it.
	Click this icon to start recording on all channels; click the icon again to stop recording. The default storage path of the recording is C:\NVR\Record. You can enter the Configuration → Local Configuration interface to modify it.
	Local electronic zoom, click this icon to open the electronic zoom function, select to enlarge the channel, hold down the left mouse button to select the area to be zoomed in, release the left button, and select the area to be enlarged; in the zoom channel, click the right mouse button to restore the original status.
	1 Split screen preview, click to switch channels
	Turn on / off the speaker. If the audio is not turned on,there is no sound when listening.

	Full-screen playback, press the keyboard Esc to exit the full screen.

Image Configuration: You can select the corresponding channel, set brightness, contrast, saturation, sharpness, enable wide dynamic, mirror, corridor mode, set day and night switching mode and restore default values.

PTZ setting operation window

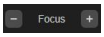
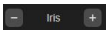
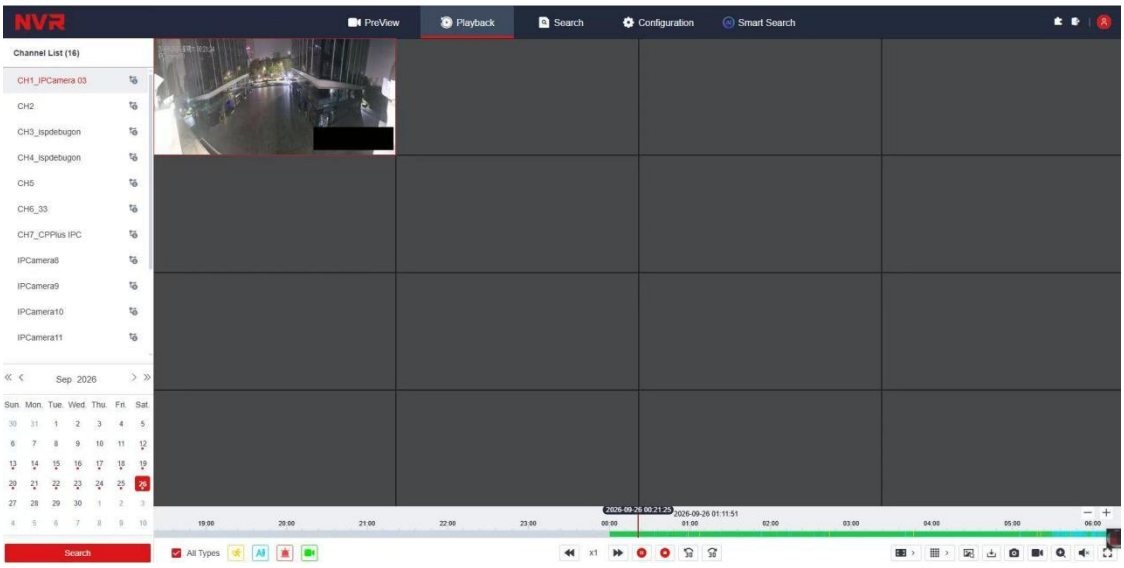
Mark	Specification
	PTZ control direction button
	Zoom button
	Focus button
	Iris control button
	The step size is mainly used for speed control. The larger the value, the faster the rotation speed. For example, the rotational speed of step 7 is much larger than the rotational speed of step 1.
	Preset point setting
	Call presets
	Delete settings

Table 6-3

10.5 Playback

In the main interface, click "Playback" to enter the playback interface. Here you can view the equipment video, capture, download and other actions, the settings and NVR settings consistent.



Timeline: Displays the type of recording under the current conditions and the time period in which it is located. In the four-picture playback mode, four playback time axes corresponding to the selected four channels can be displayed. In the other single-screen playback modes, only one time axis is displayed. Use the mouse to click a point in the blue area and drag to the yellow line position, that is, playback from that point in time.

Layout: Click "" to toggle the video playback window.

Play/Pause: After querying the video file, click "/" to start / pause playback of the searched video.

Stop: When the video is played, press "" to stop playing the video.

Slow Forward: When the video is played, click "" video will play slowly, the specific speed of choice 1/2, 1/4, 1/8. After switching, you can check the current playback speed in the current status of the upper right corner of the preview interface.

Fast Forward: When the video is played, click "" video will be slow to play, the specific speed of choice 2, 4, 8. After switching, you can check the current playback speed in the current status of the upper right corner of the preview interface.

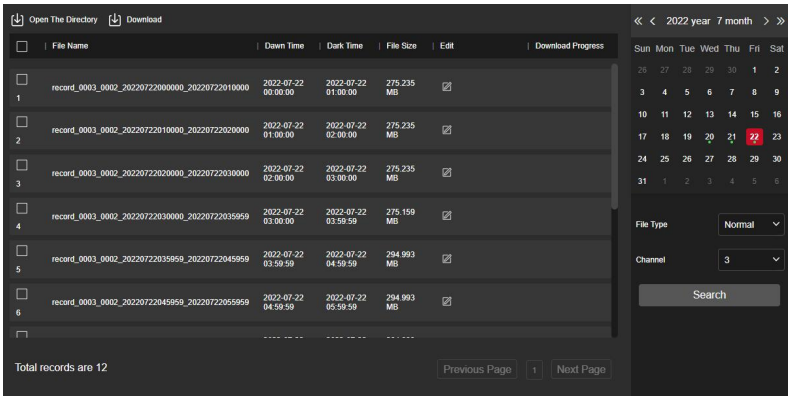
Mute/Open the Sound: When the video is played, click "/" to turn on / off the sound of the recorded video.

Enable Electronic Zoom: When the video is played, click "/ " to turn on / off the electronic zoom function of the recorded video. Turn on the electronic zoom function, hold down the left mouse button, select the position to zoom in on the playback screen, release the mouse, select the location screen is placed, click "", the magnification screen is restored.

Snapshot: When the video is played, click "" to capture the settings to the local Configuration settings.

clip: When the video is played, click "" to start recording, and then click Save Clip File again, which is stored in the local Configuration settings.

Download: After querying the video file, click "" to enter the video file list, select the download file, click "Download", the video file starts to download in order, stored in the local Configuration settings location. The "First Page", "Prev Page", "Next Page" and "Last Page" are used to scroll through all video files. You can use "Edit" under "Set date / time manually" to intercept and download the video file.



Full Screen: When the video is played, click "" the full-screen playback video. Press "Esc" on the keyboard to exit the full-screen playback interface.

Drag and drop: the video playback, the left mouse button click on the time axis to play the position, drag left and right, drag it to the middle of the yellow time point position, playback channel to play the point in time recording.

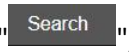
10.6 Search

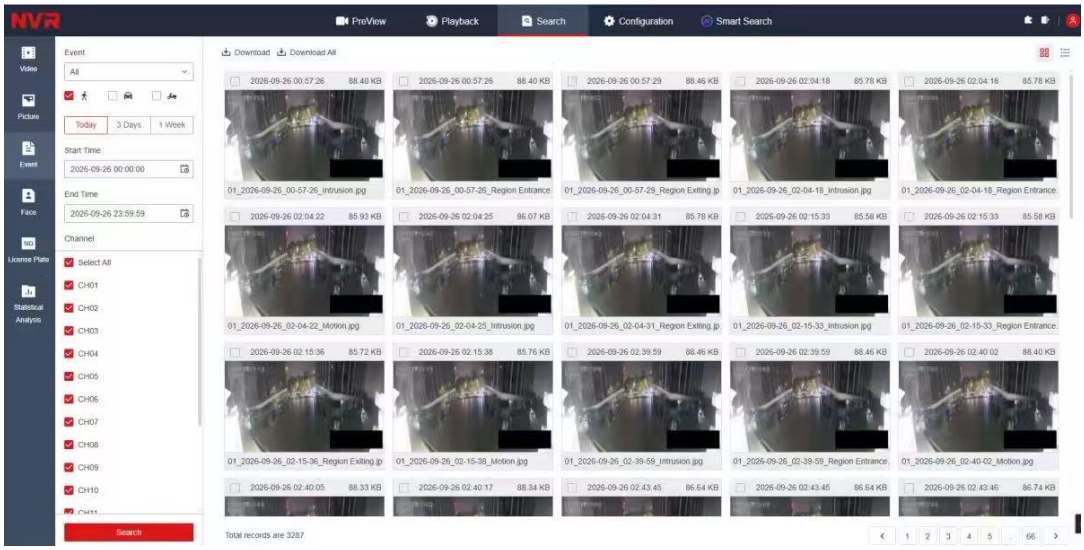
In the picture interface, you can view and download all the pictures captured or videos on the device side. The steps are as follows:

Steps:

1. In the main interface, click "Search" to enter the picture interface.

2. Select the channel, select the event type, and set the search time range.

3. Click "", the searched image is displayed on the right side of the interface.



4. Select the picture, click "Download" to select the storage path, click "OK", select the image to download to the

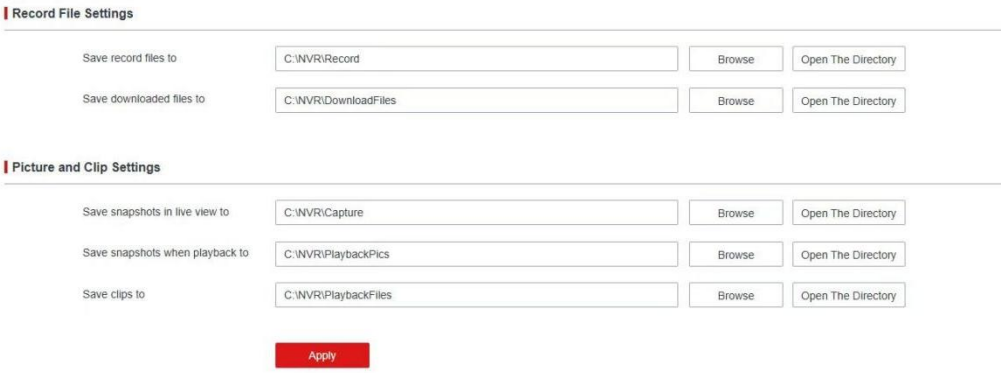
specified folder. Click on the " " corresponding to the preview position to view the image or video.

10.7 Configuration

10.7.1 System Configuration

Local Configuration

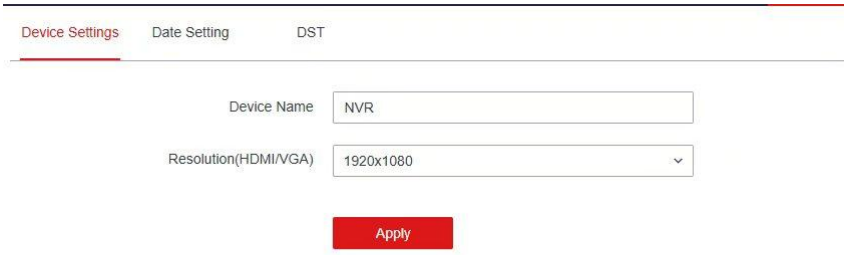
In the main interface, click "Configuration → System →Local Config" to enter the local Configuration interface. Here you can set the device video file, capture and clip corresponding to the local computer's save path, click "Browse" to select the path to save, click "Apply" to complete the path settings.



Common Configuration

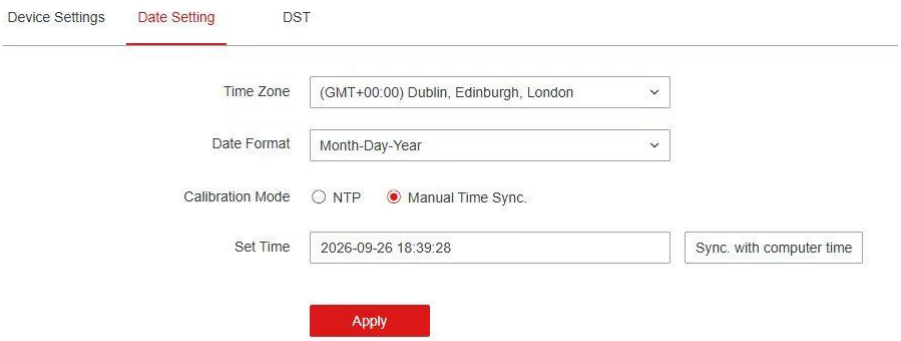
- **Device Settings**

In the main interface, click "Configuration →System Configuration→Common Configuration→Device Settings" to enter the device setting interface. Here you can set the device language, auto logout time, device name, click "Apply" to complete the setting.



- **Date Setting**

In the main interface, click "Configuration →System Configuration→Common Configuration→Date Setting" to enter the date setting interface, where you can set the device time.



【Time Zone】Displays the current device selection time zone.

【Date Format】Select the date format,such as YYYY/MM/DD .

【NTP Calibration Time】The NVR time will synchronization with network, and you can change the different time zones. (This feature requires that NVR network environment can connect to the Internet.) Click on the "Apply" after completing the settings.

【NTP Server Address】SNTP server address, including "time.windows.com", "time.nist, gov", "time-nw.nist.gov", "time-a.nist.gov", “pool.ntp.org”,"time-b.nist.gov" Optionally.

【Custom】“Custom” enter the NTP server address.

【NTP server port】Enter the custom NTP server port.

【Update interval】The time interval between the NVR and the NTP server is 720 minutes by default. You can set "30~1440".

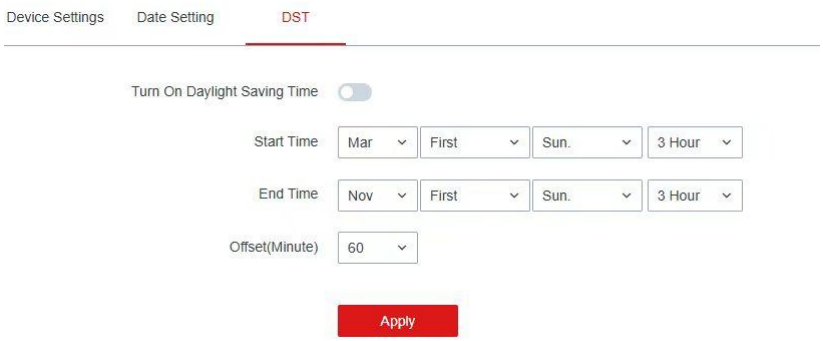
【Manual Timing】After opening, you can manually set the date and time of the NVR.

【Set Time】Manually set the date and time of the device, click "Apply" after the setting is complete.

【Synchronize with computer time】After selecting, click Apply, the NVR time is synchronized with the time on the currently connected local computer.

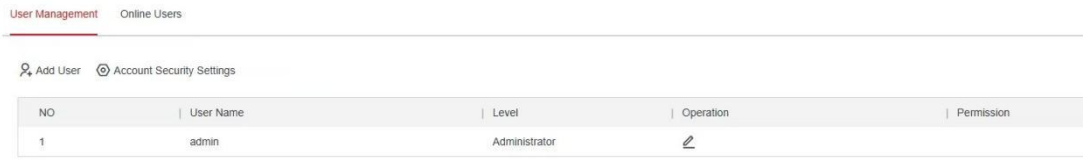
■ Summer Time

Daylight saving time(DST) refers to the system of artificially stipulating local time for energy conservation. The unified time used during the implementation of this system is called “DST”. In the System Configuration interface, click "DST" to enter the daylight saving time setting interface, where you can enable daylight saving time, set daylight saving time, end time and end time.



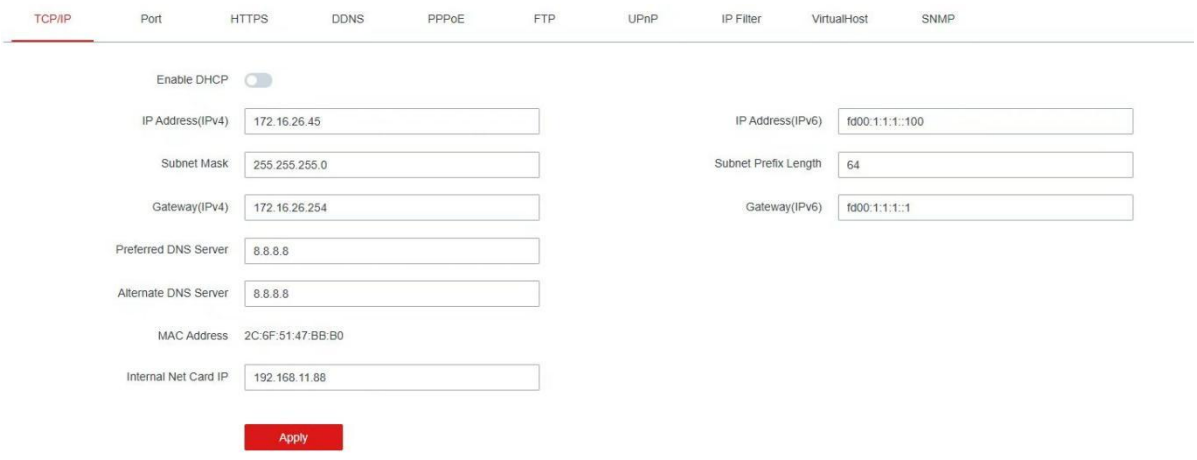
User Configuration

In the main interface, click "Configuration →System Configuration→User Configuration" to enter the User management interface.Here you can add, delete, edit users, user settings are consistent with the local settings of NVR.



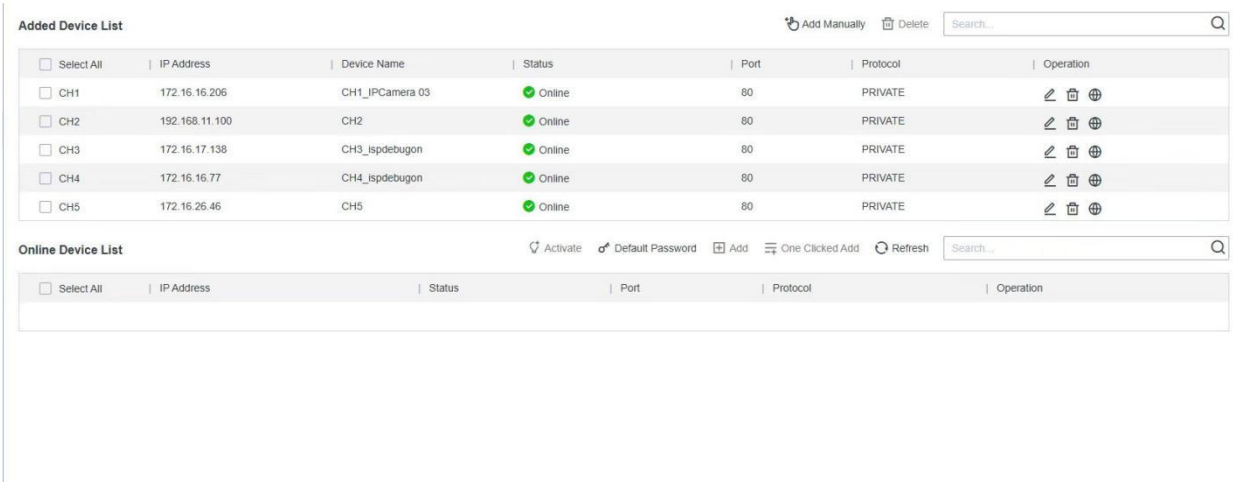
10.7.2 NetWork Configuration

This menu allows you to Configurationure network parameters.



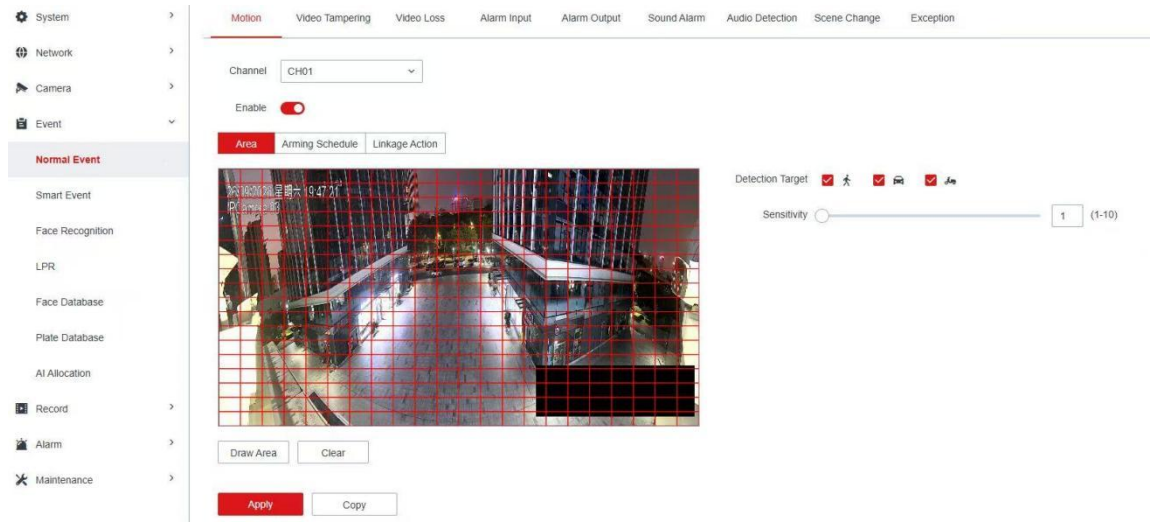
10.7.3 Channel Configuration

In this section, you are able to manage the camera connection, OSD, image, privacy mask, and more.



10.7.4 Event

Click Event Configuration , and set the relevant parameters.



11. Appendix FAQ

11.1 Q&A

1. Q: What should I do if I cannot detect the hard disk?

A: If no hard disk is detected, you need to verify the following:

(1) The data cable and power cable of the hard disk are well connected.

(2) The ports of the hard disk on the main board are in good condition.

(3) The hard disk is supported as described in the specifications.

2. Q: What should I do if I forget the password after I change it?

A: Click Forgot Password in the login page as admin, then follow the on-screen instructions to retrieve password.

3. Q:Whether can use if i install the hard disk drive of computer to NVR?

A: If the hard disk you use can be supported by the system of NVR, it can work, but you need note, if the NVR begins to work, all data in your hard disk will loss.

4. Q: What is the effect of heat dissipation on the device itself during operation?

A: Because a certain amount of heat is generated during the device operation, you need to place the device in a safe and well-ventilated environment to prevent the device from having long-term high temperature, which may affect the stability and service life of the system.

5. Q: Can I play back videos while recording videos?

A: Yes. This device supports that you record videos and play back videos simultaneously.

6. Q: Can I clean up some video records on the hard disk?

A: Considering file security, you cannot clean up some video records. If you really need to delete all the video records, you may format the hard disk.

7. Q: Why doesn't dynamic detection work?

A: Verify that the motion detection time and motion detection area settings are correct, and verify that the sensitivity setting is not too low.

8. Q: The NVR displays live video for some cameras and No Resource for others.

A:

- Set the camera to encode the sub stream, and decrease its resolution to D1.
- Set the NVR to use the sub stream first for live view.

9. Q: Live view is normal, but the recording cannot be found.

A:

- Check if a recording schedule is properly configured.
- Check if the time and time zone configured in the NVR are correct.
- Check if the hard disk storing the recording is damaged.
- Check if the desired recording has been overwritten.

11.2 Maintenance

1. When NVR shutdowns, kindly please don’t turn off the power switch directly, should use the shutdown button of system to avoid data loss or damage of the hard disk.
2. Ensure NVR away from high temperature heat source and place.
3. Remove the dust deposited in the body timing, keep the good ventilation around chassis, it is good for radiating.
4. About the audio/video signal line and RS-485 interfaces, kindly please don’t hot swap, or these port will be damaged easily.
5. Check the HDD power cable and data cable of the NVR regularly and look whether they are aging.
6. Avoid the audio/video signal affected by other circuits and devices as much as possible, prevent the hard disk damaged by electrostatic or induced voltage.